

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

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

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

U.N.E.S.C.O. Subvention 1966 AVS/414/22

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 1

JANUARY 1 16.H 38.M 23.S EPICENTRE -18.31-178.13 DEPTH= 551.KM

A=-0.94949 B=-0.03097 C=-0.31228 D=-0.0326 E= 0.9995
G= 0.3121 H= 0.0102 K=-0.9500 HT= 5.1

DEPTH OF FOCUS= 0.082R

SE= 1.59

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
AFIAMALU	7.51	55.3	1	55	1	3	26	1				
APIA	7.58	54.6	1	53	-2	3	24	-2			2	40
ONERAHI	18.62	199.4	3	49	5							
KARAPIRO	20.32	194.5	4	1	1						4	25
CHATEAU	21.53	193.5	4	7	-4							
BRISBANE	28.23	246.0	5	10	-1							
RABAUL	32.25	292.2									7	16
CHARTERS TS.	33.64	261.1	5	57	0							
CAMBERRA	33.67	233.2	5	57A	0							
PORT MORESBY	34.80	280.0	6	8	2							
BYRD STATION	66.81	170.7	9	58	-1							
MATUSIRO	68.38	323.3	10	8K	0							
SOUTH POLE	71.80	180.0	10	28	-1						10	40 PKP
LEMBANG	72.96	268.3	10	35A	0							
BERKELEY	76.65	42.3	10	56K	0							
LICK	76.74	43.1	10	57K	1							
PASADENA	77.30	47.4	10	59	0							
HONG KONG	77.52	298.7	11	5	5							
FRESNO	77.62	44.4	11	1	0							
SHASTA	78.24	39.9	11	4K	0							
MINERAL	78.52	40.6	11	7A	1							
RENO	79.18	42.1	11	10	1							
CORVALLIS	80.06	36.4	11	14	0							
EUREKA	81.63	43.8	11	21	-1							
TUCSON	81.68	52.2	11	23	1							
TUCSON TELE.	81.80	52.2	11	24	1							
VICTORIA	82.44	33.2	11	25	-1							
ARGENTINE I.	83.02	157.2	11	28	-1							
GLEN CANYON	83.35	47.7	11	32	2							
PENTICTON	84.92	34.1	11	38K	0							
COLLEGE	86.11	12.5	11	42	-2						12	19
BUTTE	87.14	39.4	11	49	0							
HUNGRY HORSE	87.47	36.9	11	49	-1						15	27 PP
BOZEMAN	87.89	40.3	11	52	0							
WICHITA MTS.	92.01	54.1	12	11	0							
RAPID CITY	92.21	44.1	12	12	0							
QUETTA	120.18	294.7	17	50	1							
SODANKYLA	128.45	348.1	18	4	-1						20	34 SKP
KIRUNA	129.10	351.0	18	5	-1							
SHIRAZ	132.69	293.7	18	13	0							
NURMIJARVI	134.81	344.3	18	11	-6						20	55 SKP
HELSINKI	135.02	343.9	18	19	2							
UPPSALA	136.98	348.4	18	6	-14							
DURHAM	143.51	3.4	18	32K	-1							
KRAKOW	145.18	339.5	18	36	1							
WITTEVEEN	145.36	354.9	18	37	1							
NIEDZIKA	145.59	338.5	18	33	-3						19	7
RACIBORZ	145.71	341.2	18	36	0							
COLLMBERG	145.92	347.5	18	37K	0				21	8		
MUNSTER	146.11	353.6	18	39	2							
KASTAMONU	146.26	319.1	18	33	-4				21	21		
JENA	146.55	348.8	18	38	1						20	2
PRUHONICE	146.81	345.0	18	41K	3						20	46
BENSBERG	147.15	353.8	18	43	5							
KASPERSKE H.	147.83	345.5	18	44	5							
HEIDELBERG	148.50	351.4	18	45	5							
STUTTGART	149.03	350.5	18	47	6							
STRASBOURG	149.43	352.3	18	48	6							
FOLINIERE	149.56	3.1	18	48	6							
PARIS	149.57	359.2	18	49	7						18	56 PKP2
LJUBLJANA	150.42	342.0	18	50K	7						18	59 PKP2
BASLE	150.49	352.1	18	50	7						23	5
HELWAN	150.83	298.8	18	52	8							
GARCHY	151.09	358.3	19	1	17						19	13 PKP2
ATHENS	152.65	320.2	18	54K	8							
TAMANRASSET	174.39	323.0	19	7	1						20	44 PKP2

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 2

JANUARY 2 10.H 11.M 55.S EPICENTRE -12.50 166.54 DEPTH= 106.KM

A=-0.94978 B= 0.22730 C=-0.21508 D= 0.2327 E= 0.9725
G= 0.2092 H=-0.0501 K=-0.9766 HT= 6.2

DEPTH OF FOCUS= 0.012R

SE= 1.88

	DELTA DEG.	AZ. DEG.	P		O-C S	S		O-C S	*PP		SUPP.	
			M	S		M	S		M	S	M	S
HONIARA	7.16	294.6	1	42	-1						2	57
NOUMEA	9.74	180.5	2	17	-1	4	48	42				
SUVA	12.77	117.6	3	5	7	5	48	30				
RABAUL	16.43	298.9	3	42	-3							
PORT MORESBY	19.28	277.3	4	18	0	7	53	7				
BRISBANE	19.64	219.0	4	22	0	7	48	-5				
CHARTERS TS.	20.86	246.2	4	34	-1	8	24	8				
APIA	21.15	95.9	4	39	1	8	52	31				
AFIAMALU	21.15	96.2	4	41	3	8	54	33				
ONERAHI	24.22	164.3	5	9	2	9	23	8				
RIVERVIEW	25.45	210.9	5	19A	0	9	43	7	5	35	6	2 PP
KARAPIRO	26.57	163.9	5	28A	-1				6	2	12	23 SCP
CANBERRA	27.71	212.0	5	40A	0	10	17	4	6	2	6	28 PP
TONGARIRO	27.76	164.9	5	39	-1						12	26 SCP
CHATEAU	27.76	164.9	5	39	-1						12	26 SCP
COBB RIVER	28.98	170.3	5	50	-1	10	37	4			12	31 SCP
WELLINGTON	29.56	167.4	5	54A	-2	10	41	-1			7	12 PP
KAIMATA	30.21	172.8	6	0	-2				6	35		
GEBBIES PASS	31.53	171.5	6	12	-2							
MELBOURNE	31.73	213.6	6	15	-1							
ROXBURGH	32.95	176.4	6	25A	-1	11	28	-7			7	59 PP
GUAM	33.65	319.3	6	32A	0				6	48	7	0 *SP
ADELAIDE	33.69	223.7	6	33	1	11	49	2			13	51 SS
MOORLANDS	34.24	205.8	6	38K	1				6	54		
TARRALEAH	34.44	206.8	6	41	2						12	52 SCP
FORT NELSON	34.57	205.2	6	41K	1	12	10	10				
HONOLULU	48.31	46.3	9	36K	64	15	29	6				
KIPAPA	48.45	46.2	8	52	19							
HAWAII V.OB.	49.21	50.4	8	38	-1	15	40	5				
MUNDARING	49.97	238.7	8	45A	0	15	49	3				
PERTH	50.28	238.8	8	49	2	15	57	7			9	15 PP
MANILA	52.50	299.6	9	6	2	16	23	3				
BAGUIO CITY	53.76	301.2	9	14	1	16	44	7				
TUKUBASAN	54.51	333.8	9	17A	-2	16	47	0	9	59	11	32 PP
ABUYAMA	55.52	329.1	9	25A	-1							
MATUSIRO	55.61	332.4	9	25A	-2	17	3	1			12	34 PPP
LEMBANG	58.26	269.7	9	45A	0	17	42	5	10	23	12	0 PP
DJAKARTA	59.15	270.2	9	46A	-5	17	32	-17	10	26	10	30 PCP
CAPE HALLETT	59.82	178.7	9	56K	0	18	0	3			12	11 PP
ZO-SE	61.44	316.0	10	7A	0	18	21	3	10	24	10	35 *SP
HONG KONG	61.90	303.7	10	11	1	18	27	3			10	30 PP
CANTON	62.95	304.1	10	19A	2	18	44	7	10	37	10	47 *SP
Y.-SAKHLINSK	62.97	341.9	10	16	-1				10	46		
NANKING	63.65	315.5	10	22A	0	18	49	3	10	39	10	49 *SP
VLADIVOSTOK	63.78	332.4	10	23	0	18	53	6			13	3 PCP
SCOTT BASE	65.35	180.0	10	33K	0	19	14	8			13	17 PP
PETROPAVLOVK	65.61	354.8				19	10	0			10	57 PCP
CHANGCHUN	67.47	328.9	10	47A	1	19	38	6	11	5		
PEKING	70.09	321.0	11	3A	1	20	8	5	11	20	11	32 *SP
SIAN	71.78	312.6	11	16A	4							
MIRNY	72.07	203.8	11	13	-1							
KUNMING	72.54	301.5	11	19A	2	20	40	9	11	36	11	47 *SP
MAGADAN	72.92	351.7	11	18	-1						21	12 SCS
CHENG TU	73.80	307.2	11	25A	1	20	50	5	11	42	11	54 *SP
BYRD STATION	74.99	170.0	11	30	-1							
LANCHOW	76.30	312.2	11	32A	-6						11	59 *SP
PORT BLAIR	77.09	285.2	11	43	0	21	29	8			13	16
SOUTH POLE	77.58	180.0	11	45	0	21	3	-24				
YAKUTSK	79.69	343.3				21	39	-10				
TOCKLAI	79.81	300.4	12	2	4	22	2	12				
CHITTAGONG	80.97	295.3	12	5	1	22	9	7	12	49	17	18 PPP
SHILLONG	81.90	298.4	12	4A	-5	22	11	-1			12	24 PP
UKIAH	83.01	47.5	12	17A	3						15	51
ARCATA	83.07	45.6	12	15A	0							
BRANNER	83.14	49.4	12	15A	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 3									
BERKELEY	83.25	49.0	12 15A	-1	22 31	6			15 25	PP	
CONCORD	83.42	48.9	12 16A	0							
VINEYARD	83.50	50.3	12 17	0							
LICK	83.51	49.7	12 17A	0							
MAWSON	83.67	202.0	12 18	0	22 32	2	12 57				
IRKUTSK	83.68	326.8	12 17A	-1	22 29	-1	12 53	23 40	PS		
LHASA	83.86	302.0	12 21A	2			12 41	12 50	*SP		
CALCUTTA	84.08	294.5	12 23A	3	22 40	6					
SHASTA	84.19	46.3	12 21A	1							
COLLEGE	84.43	17.9	12 19K	-2	22 36	-1		16 9	PP		
MINERAL	84.62	46.8	12 22A	0							
FRESNO	84.70	50.7	12 23	0							
CORVALLIS	85.04	42.4	12 24A	0							
PASADENA	85.10	53.6	12 24A	-1	23 23	39		15 40	PP		
RENO	85.63	48.1	12 27A	0							
ALBERNI	85.96	37.7	12 46	17							
CHATRA	86.31	298.3	12 33	2	22 46	-9		13 46			
VICTORIA	86.50	38.8	12 30	-2							
BOKARO	86.70	295.1	12 34	1	22 52	-7					
TIKSI	87.64	348.8	12 35	-2	23 9	1		22 54	SKS		
COLOMBO	88.24	277.4	12 41	1							
EUREKA	88.42	49.1	12 40A	-1				16 29	PP		
RUTH	89.08	49.6	12 45A	1							
PENTICTON	89.13	38.9	12 42	-2							
MADRAS	89.29	283.4	12 48A	3	23 8	-15		16 26	PP		
TUCSON	90.46	57.2	12 51A	1	23 13	-21	13 29	38 27	PKPPKP		
TUCSON TELE.	90.57	57.1	12 51A	0				16 32	PP		
GLEN CANYON	91.04	52.5	12 53	0				16 23	PP		
KODAIKANAL	91.28	280.1	13 7	13							
SALT LAKE C.	91.81	48.7	12 55A	-2	23 21	-25	13 43	17 1	PP		
HYDERABAD	91.89	287.3	12 58A	1	23 25	-21		16 7	PP		
BANFF	92.20	38.0	12 57	-2							
HUNGRY HORSE	92.33	41.0	12 58A	-1			13 30	16 46	PP		
BUTTE	92.67	43.5	13 0	-1							
BOZEMAN	93.61	44.1	13 3A	-2				38 13	PKPPKP		
CHIHUAHUA	93.63	61.6						17 41			
FLAMING GRGE	93.66	49.0	13 4A	-1			13 43	17 29	PP		
ARGENTINE I.	93.71	160.9	13 5	0							
DEHRA DUN	94.92	299.8	14 13	62	24 40	27		19 7	PPP		
POONA	96.40	287.5	13 18A	0	23 46	3					
LARAMIE	96.56	49.3						17 13	PP		
SEMI PALATNSK	97.17	319.9	13 20	-1				17 33			
BOMBAY	97.43	287.7	13 24	2	23 54	6		24 29			
TACUBAYA	98.02	71.9						17 21	PP		
ALMATA	98.15	312.4	13 27	1				15 41			
LAHORE	98.29	300.4	13 34A	8	24 7	14		24 55	S		
RAPID CITY	98.76	46.8	13 33	5			14 19	17 48	PP		
FRUNSE	99.77	311.7	13 31	-2	24 7	7	14 1				
VERA CRUZ	100.84	72.6						19 13			
WICHITA MTS.	100.97	56.7	13 36	-2	23 50	-16	14 6	17 53	PP		
WARSAK DAM	100.97	302.5	13 39A	1							
ANDIJAN	101.18	309.4	13 39A	0				17 50	PP		
KHOROG	101.43	306.0	13 39	-1	24 13	5		17 49	PP		
TASHKENT	103.56	309.8	13 50	0	24 26	8		18 6	PP		
DUZHANBE	103.71	306.9	13 49	-1	24 27	8		17 27			
LAWRENCE	104.09	52.7						17 37			
RESOLUTE	104.24	15.7	13 55	2							
QUETTA	104.39	298.2	13 54A	1	24 32	10		20 45	PPP		
FAYETTEVILLE	104.69	55.7	14 22	27				18 25	PP		
KHEYS	105.25	350.7	13 56	777	24 31	5					
SVERDLOVSK	109.08	326.0	14 14	777				33 59	SS		
NORD	110.86	0.5	18 19	-1							
ASHKABAD	111.88	306.0						20 2			
TANANARIVE	112.26	243.5						19 9	PP		
HUANCAYO	113.94	109.3	18 30	4			19 50				
SHIRAZ	116.87	297.0	18 31K	-1	25 11	-2		26 25	PS		
APATITY	117.06	341.6	18 32A	0	25 18	4		19 46	PP		
TEHERAN	117.56	303.8	18 35	2				20 9	PP		
CHINCHINA	118.22	91.0	18 34	0				29 42	PS		
OTTAWA	118.22	45.0	18 34K	0							
SODANKYLA	119.17	343.4	18 36	0							
BREBEUF	119.65	44.6	18 37K	0							
BOGOTA	119.66	91.8						20 4	PP		
SHAWINIGAN	119.98	43.2	18 38	0							
FUQUENE	120.16	90.9						20 6	PP		
PALISADES	120.34	49.7	18 39	1				20 3	PP		
KIRUNA	120.44	345.8	18 38A	-1	25 20	-5		29 51	PS		
PLEIERMZBURG	120.49	224.4	18 39K	0							
GÖRİŞ	121.10	308.7	18 41	1				20 16	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961				PAGE 4			
SEVEN FALLS	121.11	42.2	18 43A	3			
MOSCOW	121.63	328.9	18 41	0	25 37	8	27 6 SKKS
TIFLIS	121.82	311.5	18 44	3	25 29	-1	20 19 PP
SCORESBY SD.	121.82	3.3	18 41K	0			
PULKOVO	122.84	335.4	18 44	1			20 22 PP
HERMANUS	123.95	212.6					20 30 PP
PRETORIA	124.42	226.6	18 47	1			
NURMIJARVI	124.55	338.2	18 46	-1	25 44	6	
HELSINKI	124.66	337.8	18 47	0			
KIMBERLEY	124.79	221.4	18 59	12			
SKALSTUGAN	125.87	346.1	18 49A	0			
HALIFAX	126.69	43.1	18 51K	0			
UPPSALA	127.43	340.8	18 52A	0	25 53	6	20 46 PP
CARACAS	127.64	86.3	18 55	3			20 55 PP
SIMFEROPOL	128.26	318.1	18 54	0		19 17	27 48 SKKS
ADDIS ABABA	128.64	271.6	18 58	4			
SAN JUAN	129.04	76.4	18 54	-1		19 30	21 23 PP
KSARA	130.46	303.9	18 59A	1	25 44	-11	19 21
BROKEN HILL	130.58	238.5	18 59	1			21 17 PP
GOTEBORG	130.92	342.2	18 59A	0			22 18 PKS
IASI	131.28	323.4					22 33 PKS
JERUSALEM	131.44	301.4	19 3	3			21 40 PP
WARSAW	131.66	332.2	18 59	-1			21 22 PP
LWOW	131.74	328.1	19 1	1			21 23 PP
KASTAMONU	131.94	315.1	18 56K	-5			22 15
BACAU	132.00	323.0					22 17 PKS
COPENHAGEN	132.44	340.4	19 4A	2			22 25 PKS
ISTANBUL UN.	133.30	315.5	19 4A	1		19 25	
BUCHAREST	133.59	320.9	19 5A	1		19 25	21 34 PP
KRAKOW	133.64	330.6	19 5	1			21 51 PP
CAMPULUNG	133.80	322.5					22 41 PKS
NIEDZIKA	133.87	329.8					21 33 PP
CHORZOW	133.92	331.5	19 5	1			21 38 PP
WI NDHOEK	134.05	220.8	18 53	-12			19 8
RACIBORZ	134.43	331.7	19 7	2			21 58 PP
HELWAN	135.12	299.9	19 8	1			22 5 PP
LWIRO	135.55	253.6	18 56	-11			
TIMI SOARA	135.72	325.2	19 12	4			22 18
COLLMBERG	135.75	336.4	19 9A	1		19 52	21 49 PP
BUDAPEST	135.80	328.5	19 9	1			21 49 PP
HURBANOVO	135.95	329.5					22 33 PP
PRAGUE	136.11	334.2					22 37 PP
PRUHONICE	136.13	334.1	19 10A	2			21 41 PP
SOFIA	136.21	320.4	19 10	1			21 53 PP
BRATISLAVA	136.28	330.5	19 11K	2			22 11 PP
VIENNA-H.	136.57	331.1	19 8A	-1			22 39 PKS
JENA	136.59	337.1	19 10	1		19 50	21 52 PP
WITTEVEEN	136.67	342.3	19 12K	3			22 41 PKS
BELGRADE	136.71	324.6	19 10K	1			22 40 PP
DURHAM	136.81	350.0	19 12K	2		19 34	22 50 PP
MUNSTER	137.12	340.9	19 8	-2			22 50
KASPERSKE H.	137.18	333.9	19 12A	2		19 54	21 57 PP
DE BILT	137.74	343.0	19 15	4			22 1 PP
BENSBERG	138.13	340.5	19 13	1		19 35	22 3 PP
ATHENS	138.31	314.1	19 4A	-8		19 45	22 42
HEIDELBERG	138.91	338.0	19 7	-7			22 46 *PPP
LJUBLJANA	139.03	330.1	19 15	1		19 36	22 7 PP
STUTTGART	139.22	337.0	19 7	-7			22 12 PP
TUBINGEN	139.49	336.9	19 8	-7			22 29 PP
TRIESTE	139.69	330.3	19 17	2			22 53 PKS
KEW	139.70	347.3	19 15	0			22 47 SKP
EBINGEN	139.82	336.7	19 9	-6			19 38
RAVENSBURG	139.89	335.8	19 11	-4			22 49 *PPP
STRASBOURG	139.94	338.1	19 16	1		19 44	22 14 PP
CHUR	140.67	335.0	19 11	-6			
PADOVA	140.76	331.6					22 51 PKS
BASLE	140.88	337.3	19 13	-4			22 20
PARIS	141.46	343.1	19 16	-2			22 22 PP
NEUCHATEL	141.56	337.4	19 15	-3			
BESANCON	141.71	338.5	19 16	-3			
PAVIA	142.15	333.7	18 35	-44			34 25 PPS
PRATO	142.27	330.6	19 21	1			22 51 PP
FLORENCE X.	142.27	330.3	19 16	-4			26 25
GARCHY	142.65	341.4	19 19K	-1		20 11	22 55 PP
ROME	143.01	327.1	19 19A	-2	26 19	1	19 55
REGGIO CALA.	143.64	319.7	19 19A	-3			22 41 PKS
							22 33
MESSINA	143.65	319.9	19 20A	-2	26 10	-9	19 58
MONACO	144.06	333.9	19 22	-1			19 49

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 6

COLLEGE	93.12	25.1	12 57	-2		13 15
KHEYS	93.85	351.0	15 2	119		
SODANKYLA	101.37	337.4	13 34	-3		
NURMI JARVI	103.36	330.6	13 35	-10		16 38
KIRUNA	103.59	338.4	13 45	-1		
RESOLUTE	107.72	11.3	14 5	777		
COLLMBERG	111.87	322.8	18 28	10		
HUNGRY HORSE	112.59	40.3	18 21	1		
EUREKA	113.22	50.1	18 24	3		
STUTTART	114.94	321.0				19 31 PP
TUCSON	118.65	57.1	18 34	3		
TUCSON TELE.	118.72	57.0	18 35	3		
RAPID CITY	121.09	42.1	18 39	3		
TAMANRASSET	124.02	292.7	18 44	2		
WICHITA MTS.	127.86	51.0	18 51	2		20 53 PP
FAYETTEVILLE	130.64	47.6				22 12
SEVEN FALLS	136.34	20.2	19 6A	1		22 28
MBOUR	146.34	285.4	19 26	3		
HUANCAYO	148.85	127.2	19 33	6	19 49	20 29 SPKS
LA PAZ	150.84	143.2	19 35	5		
SAN JUAN	160.96	52.0	20 30	47		

JANUARY 3 19.H 27.M 5.S EPICENTRE -6.47 130.37 DEPTH= 116.KM

A=-0.64360 B= 0.75713 C=-0.11200 D= 0.7619 E= 0.6477
G= 0.0725 H=-0.0853 K=-0.9937 HT= 6.9

DEPTH OF FOCUS= 0.013R

SE= 1.82

	DELTA DEG.	AZ. DEG.	P			S			*PP		SUPP.	
			M	S	O-C	M	S	O-C	M	S	M	S
PORT MORESBY	16.87	101.0	3	49	-1	7	2	9				
CHARTERS TS.	20.52	132.8	4	29K	-2	8	11	2				
RABAU	21.83	85.2	4	42	-2							
LEMBANG	22.60	267.8	4	50K	-1	8	50	4	5	12	9 6	
MANILA	22.94	336.4	5	0	5	9	2	10			5 34 PP	
DJAKARTA	23.39	269.4									5 19	
GUAM	24.41	35.8	5	10	1				5	39		
NHATRANG	28.06	311.4	5	42	0							
MUNDARING	28.60	205.7	5	45	-2						11 20	
ADELAIDE	29.39	165.9	5	53A	-1						11 25	
HONIARA	29.44	97.7	5	53	-2							
BRISBANE	29.77	136.9	6	12	14						10 46	
HONG KONG	32.70	331.4				11	16	-14				
RIVERVIEW	33.34	147.5	6	27	-2	11	45	5				
CANBERRA	33.44	151.7	6	29A	-1	11	46	5				
MELBOURNE	33.92	159.0	6	34	0							
TARRALEAH	38.42	160.7	7	13	1							
FORT NELSON	39.28	160.2	7	19	0							
MATUSIRO	43.41	9.2	7	52K	-1				8	20	17 31	
SHILLONG	49.13	312.0	8	32A	-6							
KARAPIRO	51.50	134.2	8	55	-1						9 42	
CHATEAU	52.06	135.7	8	59	-1						9 34	
CHATRA	53.34	310.3	9	9	0							
RAOUL ISLAND	53.67	121.6									12 36	
APIA	57.30	102.2									11 22	
ULAN-BATOR	57.98	341.6	9	43	0							
YAKUTSK	68.29	359.7									11 48	
WARSAK DAM	68.59	310.2	10	53	1							
CAPE HALLETT	70.13	168.0	11	1	-1							
QUETTA	70.79	304.9	11	7A	1	20	13	3	11	31	13 44 PP	
SCOTT BASE	73.80	172.5	11	23	0							
TIKSI	77.95	359.5	11	45	-2							
TANANARIVE	81.16	251.9	12	7A	3						12 33	
SHIRAZ	82.70	300.9	12	13K	1	22	16	-2			14 30	
SOUTH POLE	83.57	180.0	12	17	1							
BYRD STATION	87.10	170.6	12	34	0	23	6	5				
COLLEGE	92.34	25.0	12	57	-1				13	28	16 45 PP	
KHEYS	93.50	351.0	13	3	-1							
SODANKYLA	101.22	337.5	13	37	-2							
WOODY	110.61	54.4	17	44	-35							
HUNGRY HORSE	111.71	40.4	18	23	2							
EUREKA	112.31	50.0	18	18	-4							
SETIF	121.77	308.8	18	44	4							
TAMANRASSET	124.55	293.1	18	49	3				19	24		

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 7

WICHITA MTS.	126.94	51.0	18 53	3	32 9	SKKP
SEVEN FALLS	135.61	20.7	19 10	3	22 30	
HUANCAYO	148.51	125.7	19 35	6	19 39	PKS
AREQUIPA	148.59	136.7	19 38	8		
LA PAZ	150.74	141.5	19 37	4		
SAN JUAN	160.04	52.1	19 38	-7	21 0	

JANUARY 3 20.H 5.M 48.S EPICENTRE -8.73 122.11 DEPTH= 192.KM

A=-0.52552 B= 0.83732 C=-0.15073 D= 0.8470 E= 0.5316
G= 0.0801 H=-0.1277 K=-0.9886 HT= 6.7

DEPTH OF FOCUS= 0.025R

SE= 4.62

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S S	O-C S	*PP M S	SUPP. M S
LEMBANG	14.48	276.5	3 1	-16				6 7
DJAKARTA	15.36	278.4						4 14
MUNDARING	23.77	192.5	4 51	-5				
PERTH	23.83	193.3	5 2	6	9 27	32		5 32
NHATRANG	24.44	328.2	4 55	-7				5 14
PORT MORESBY	24.73	93.5	5 8	3	9 50	40		
CHARTERS TS.	25.93	118.4	5 12	-4				11 41
ADELAIDE	30.23	152.2	5 52K	-2				
HONG KONG	31.80	345.9			11 7	4		
BRISBANE	34.41	126.6	6 31	1				12 4
MELBOURNE	35.57	148.1	6 40	0				
CANBERRA	36.12	141.1	6 44	-1				
SHILLONG	45.04	320.0	7 45K	-13				
MATUSIRO	47.50	17.6	8 10K	-7				18 49 SS
CHATRA	48.97	317.3	8 20	-8				
KARAPIRO	56.08	130.1	9 21	0				13 5
CHATEAU	56.46	131.5	9 22	-1				
ULAN-BATOR	57.99	348.0	9 28	-6				
LAHORE	60.75	313.6	9 45	-8				
WARSAK DAM	64.04	314.5	10 8	-7				
QUETTA	65.57	308.7	10 17	-8				
CAPE HALLETT	69.80	166.0	10 51	0				
YAKUTSK	70.78	3.8						11 49
TANANARIVE	72.68	252.9	11 7	-1				11 21
SCOTT BASE	72.76	171.0	11 9	0				
SHIRAZ	76.95	303.1	11 26	-6				
TIKSI	80.31	2.2	11 44	-6				
SOUTH POLE	81.33	180.0	11 59	3				
BYRD STATION	86.19	171.2	12 21	1				15 45
TIFLIS	86.41	313.0	12 19	-2				
BULAWAYO	90.30	249.7	12 43	3				
BROKEN HILL	91.35	255.3	12 39A	-5				
KHEYS	94.46	351.5	12 54	-5				
COLLEGE	97.86	25.5	13 10	-4				
EUREKA	120.00	49.3	18 28	1				
WICHITA MTS.	134.65	49.0	18 57	2				
LA PAZ	152.96	158.0	19 21	-5				
HUANCAYO	153.04	139.7	19 39	13				

JANUARY 4 13.H 25.M 37.S EPICENTRE -17.74-178.76 DEPTH= 547.KM

A=-0.95282 B=-0.02057 C=-0.30285 D=-0.0216 E= 0.9998
G= 0.3028 H= 0.0065 K=-0.9530 HT= 5.2

DEPTH OF FOCUS= 0.081R

SE= 2.44

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S S	O-C S	*PP M S	SUPP. M S
AFIAMALU	7.72	61.4	1 55	0	3 30	3		
APIA	7.78	60.7	1 56	0	3 30	2		
NOUMEA	14.62	249.5	3 4	-1				3 34
ONERAHI	18.96	197.4	3 51	4				
KARAPIRO	20.72	192.8	4 3	0				
CHATEAU	21.95	191.9	4 11	-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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961							PAGE 10
RESOLUTE	38.60	24.9	7 20A	0	13 11	-3	8 50 PP
KOBE	38.70	263.2	7 19	-2	13 16	2	
HUNGRY HORSE	38.82	69.8	7 22A	0	13 11	-4	8 55 PP
SUMOTO	39.09	263.1	7 24A	0	13 20	1	
SIOMISAKI	39.16	261.3	7 25	1	13 24	3	
CHANGCHUN	39.28	282.2	7 24A	-1	13 20	-2	8 58 PP
BERKELEY	39.62	88.9	7 28	0	13 33	5	9 25 PCP
TAKAMATU	39.63	263.8	7 29	1	13 35	7	
RENO	40.12	85.1	7 34A	2			
LICK	40.34	89.1	7 34A	0			
KOTI	40.47	263.4	7 37	2	13 45	5	
HAMADA	40.47	266.2	7 37A	2	13 44	4	
HIROSIMA	40.60	265.2	7 37A	1	13 29	-13	
MATUYAMA	40.74	264.3	7 45A	8	13 43	-1	
BUTTE	40.86	72.2	7 38A	-1	13 51	5	
VINEYARD	40.87	89.6	7 39	0			
SIMIDU	41.33	263.0	7 41	-1	13 51	-2	
SIMONOSEKI	41.81	266.0	7 47	1			
FRESNO	41.84	88.4	7 49	2			
OOTA	41.86	264.7	7 48A	1	13 59	-2	
BOZEMAN	41.95	71.8	7 48A	1	14 1	-1	9 31 PP
HUKUOKA	42.39	266.1	7 53	2	14 14	5	
EUREKA	42.53	82.4	7 53A	1			
SAGA	42.67	265.8	7 56	3			
KUMAMOTO	42.71	265.0	7 55	1	14 21	8	
MIYAZAKI	42.88	263.4	7 54	-1	14 21	5	
NAGASAKI	43.28	265.6	7 59A	1	14 24	3	
KAGOSIMA	43.65	263.8	7 54	-7	14 31	4	
THULE	44.15	18.9	8 6K	1			9 47 PCP
SALT LAKE C.	44.27	78.1	8 6A	0	13 44	-52	8 35
YAKUSIMA	44.46	262.7	8 6	-2	13 40	-59	
KHEYS	44.47	349.1	8 8	0	14 40	1	10 4 PP
PASADENA	44.55	90.0	8 6A	-3	14 42	2	18 1 SCS
FLAMING GRGE	45.66	76.4	8 17	0	14 58	2	12 32
NORD	46.35	4.1	8 23	0	15 28	22	19 1 SS
IRKUTSK	46.64	303.7	8 25A	0			10 13 PP
GLEN CANYON	46.79	82.1	8 26A	0			9 5
PEKING	47.02	283.5	8 28A	0	15 13	-2	10 23 PP
RAPID CITY	47.44	69.1	8 31A	0			9 44 PP
ULAN-BATOR	47.70	297.5	8 32	-1	15 24	-1	
LARAMIE	47.71	73.5	8 33	-1			13 54
GUAM	49.58	234.1	8 42K	-6			
ZO-SE	49.78	270.9	8 50A	0	15 58	4	10 45 PP
TUCSON	50.38	86.3	8 53A	-1	16 8	6	19 48 SS
TUCSON TELE.	50.38	86.1	8 54A	0			10 15 PP
NANKING	50.61	273.7	8 56A	0	16 5	0	10 46 PP
SIAN	55.17	282.7	9 31A	1			
LAWRENCE	55.29	69.4	9 29	-2	17 7	-2	
CHIHUAHUA	55.83	86.0	9 44	10	17 20	4	
WICHITA MTS.	56.18	75.3	9 36A	-1	17 23	2	21 28 SS
SCORESBY SD.	56.56	10.2	9 39A	-1	17 37	11	21 36 SS
LANCHOW	56.99	287.8	9 43A	0	17 32	0	
FAYETTEVILLE	57.86	71.2	9 47A	-2			11 38 PP
TROMSOE	58.37	353.9	9 51	-1			
DALLAS	58.56	75.7	9 52	-2			
APATITY	58.92	347.3	9 55A	-1	17 59	2	12 7 PP
SEMIPALATNSK	59.49	313.8	9 58	-2	18 0	-4	13 32 PPP
TERRE HAUTE	59.51	64.1	10 58	58			18 58 SCS
SODANKYLA	59.91	350.1	10 2	-1			39 23 PKPPKP
KIRUNA	60.03	352.9	10 2A	-2	18 11	0	12 11 PP
CANTON	60.37	270.2	10 5A	-1	18 17	2	12 24 PP
HONG KONG	60.43	269.0	10 7A	0	18 22	6	
CHENG TU	60.64	283.1	10 7A	-1	18 19	0	12 26 PP
BAGUIO CITY	60.91	259.3	10 9	-1	18 28	6	
CLEVELAND	61.21	58.7	10 12A	0			
OTTAWA	61.39	52.2	10 11A	-2			
MANILA	61.95	257.7	10 18	1	18 26	-10	
SHAWINIGAN	61.97	49.6	10 15A	-2			
RABAU	62.07	216.6	10 15	-3			12 47
SVERDLOVSK	62.15	328.7	10 18	0	18 38	0	14 16 PPP
BREBEUF	62.33	50.9	10 17A	-2			
ROCHESTER	62.34	54.8	10 19	-1			
SEVEN FALLS	62.46	48.0	10 18A	-2			
MORGANTOWN	63.37	59.2	10 25	-1	20 10	77	
PENNSYLVANIA	63.62	57.0	10 26K	-2	18 57	1	
HONIARA	64.45	206.5	10 32	-1			
SKALSTUGAN	64.75	355.9	10 34A	-1			39 16 PKPPKP
KUNMING	65.42	279.8	10 40A	0	19 21	2	13 5 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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961								PAGE 11	
WASHINGTON	65.43	58.0	10 39A	-1			10 56		
PALISADES	65.50	54.4	10 40A	0	19 18	-2		13 2	PP
AFIAMALU	65.56	175.6	10 44K	3	19 21	1		19 50	SCS
FORDHAM	65.63	54.5	10 41	0	19 20	-1			
WESTON	65.76	51.8	10 40A	-2	19 36	13			
ALMATA	66.28	310.3	10 45	0	19 25	-4		13 9	PP
CHAPEL HILL	66.57	61.4	10 47	0					
PULKOVO	66.75	345.9	10 47	-1	19 34	-1		20 23	SCS
NURMI JARVI	66.79	349.1	10 47	-1	19 43	8		11 16	PCP
TACUBAYA	66.84	87.8	10 52K	3	19 33	-3		13 17	PP
COLUMBIA	66.90	64.1	10 48A	-1	19 38	1			
HELSINKI	67.09	348.8	10 50	0				15 1	
HALIFAX	67.64	45.6	10 53K	-1					
FRUNSE	67.72	311.4	10 54	0	19 49	3		13 23	PP
UPPSALA	68.14	352.7	10 56A	-1	19 49	-2		13 27	PP
PORT MORESBY	68.75	219.5	10 59	-2	19 59	0		11 16	PCP
VERA CRUZ	68.89	85.6						21 28	SCS
TOCKLAI	69.03	286.8	11 7	5				11 32	
LHASA	69.06	291.4	11 4A	2					
MOSCOW	69.26	340.5	11 3	-1	20 4	-1		11 23	PCP
GOTEBORG	70.64	355.5	11 11	-1				11 33	PCP
NHATRANG	71.13	265.8	11 14	-1	20 26	-1			
ABERDEEN	71.25	3.5	11 13K	-3	20 36	8		14 1	PP
TASHKENT	71.35	313.8	11 18	2	20 31	2		13 54	PP
MERIDA	71.58	79.5			20 36	4			
SHILLONG	71.63	288.0	11 10A	-8	20 26	-6			
COPENHAGEN	72.63	355.0	11 25A	1				21 9	PS
KHOROG	73.38	309.9	11 29	1					
CHATRA	73.41	292.2	11 28	-1	20 52	-1		14 13	PP
DURHAM	73.67	3.4	11 32A	2					
DUZHANBE	73.80	312.4	11 31	0	20 54	-3			
CHITTAGONG	74.09	285.9	11 35	3	21 4	4	11 47	14 23	PP
WARSAW	75.33	349.3	11 39	-1	21 21	7		14 28	PP
NOUMEA	75.41	196.8	11 39	-1					
WITTEVEEN	75.70	358.4	11 42	0					
DEHRA DUN	75.77	301.0	12 41	59				15 32	PP
CALCUTTA	76.01	288.5	11 47	4					
WARSAK DAM	76.17	307.8	11 43A	-1					
DE BILT	76.44	359.3	11 47	1	21 33	7			
BOKARO	76.50	291.3	11 50A	4	21 33	6		14 38	PP
MUNSTER	76.53	357.7	11 47	1				12 48	
LAHORE	76.74	304.3	11 48A	0	21 32	3			
COLLMBERG	76.97	354.3	11 48A	-1	21 34	2		14 44	PP
KEW	77.01	2.8	11 50	1	21 35	3		14 55	PP
LWOW	77.31	346.9	11 50	-1	21 51	15		14 45	PP
JENA	77.42	355.1	11 51	0	21 40	3		14 42	PP
BENSBERG	77.55	358.0	11 52A	0				14 45	PP
KRAKOW	77.60	349.6	11 51	-1	21 44	5		14 25	
RACIBORZ	77.76	350.7	11 52	-1	21 48	8		22 58	PPS
PRAGUE	78.10	353.2	11 53	-2					
PRUHONICE	78.18	353.1	11 55A	-1	21 38	-7		14 49	PP
CHEB	78.22	354.5			21 50	5		26 58	SS
ASHKABAD	78.82	319.1	12 2	3	21 57	5		16 58	PPP
CHARTERS TS.	78.87	216.0	11 58	-1					
HEIDELBERG	79.07	356.9	12 0	0					
JERSEY	79.23	4.1	11 43	-18	20 57	-59			
IASI	79.31	343.9	12 1	-1					
STUTTGART	79.68	356.5	12 4A	0	21 52	-9		15 18	PP
FOLINIERE	79.70	3.1	12 5	1					
PARIS	79.73	1.1	12 5	1					
VIENNA-H.	79.74	351.7	12 5	1	22 3	2			
BRATISLAVA	79.76	351.2	12 3K	-1	22 6	4		15 9	PP
STRASBOURG	79.92	357.5	12 6A	1	22 8	5		14 58	PP
TUBINGEN	79.93	356.6	12 5	0					
HURBANOVO	79.94	350.4	12 0	-5	22 8	4		15 8	PP
SIMFEROPOL	80.17	338.8	12 6A	0	22 10	4		15 12	PP
BUDAPEST	80.24	349.8			21 34	-33		13 34	
EBINGEN	80.28	356.7	12 7	0					
TIFLIS	80.34	330.3	12 9	2	22 15	7		15 15	PP
RAVENSBURG	80.66	356.2	12 8	-1					
BASLE	80.97	357.6	12 11	0				20 3	
GARCHY	81.27	0.7	12 11	-1					
BESANCON	81.29	358.7	12 14	2					
NEUCHATEL	81.52	358.0	12 14	0					
QUETTA	81.53	308.8	12 14A	0	22 18	-2	12 24	15 21	PP
TIMI SOARA	81.68	348.0	12 16	2				22 30	
PORT BLAIR	81.76	278.3	12 13	-2	22 33	11		15 20	PP
GORIS	81.87	328.3	12 17	2	22 32	9		15 30	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961										PAGE 12	
LJUBLJANA	82.08	352.7	12 16	0						15 22	PP
BUCHAREST	82.26	344.3	12 16A	-1	22 22	-5				15 25	PP
TRIESTE	82.54	353.2	12 18	-1	22 35	5				28 20	SS
BELGRADE	82.69	348.3	12 20A	0	22 49	17				17 30	PP
CLERMONT-FD.	82.78	0.7	12 21	1	22 48	15					
PADOVA	82.91	354.5	12 11	-10	22 56	22				23 46	PS
PAVIA	83.27	356.4	12 26	4	22 48	10				28 50	SS
BRISBANE	83.53	207.7	12 23	-1	22 43	3					
KASTAMONU	84.32	340.1	12 24K	-4			12 33				
ISOLA	84.34	357.8	12 33	5						14 51	
SOFIA	84.38	345.9	12 28	0						14 50	
PRATO	84.48	354.9	12 38	9	22 47	-3					
FLORENCE X.	84.57	354.8	12 29	0	23 3	13					
MONACO	84.78	357.5	12 32	2							
ISTANBUL UN.	85.00	341.3	12 30A	-1	23 1	6					
BAGNERES	85.42	2.9	12 31	-2							
HYDERABAD	85.76	292.8	12 34	-1	22 51	-11				15 22	PP
KARACHI	85.91	305.8	12 38A	2	23 12	8					
ROME	86.36	353.7	12 38A	0	23 1	-7				15 59	PP
SERRA PILAR	86.76	9.5	12 36K	-4			12 45			16 1	PP
DJAKARTA	86.99	256.2	12 37A	-4	23 12	-2				15 58	PP
LEMBANG	87.03	255.2	12 39A	-2	23 15	1				15 28	PP
PONTA DELGDA	87.10	23.2	12 43K	2			13 0				
SAN JUAN	87.37	63.4	12 44A	1	23 21	4					
POONA	87.46	297.0	13 44A	61	24 19	61				17 9	PP
COIMBRA	87.70	9.5	12 46K	2							
BOMBAY	87.73	298.0	12 47	3	23 24	3				14 24	PP
GALERAZAMBA	88.12	75.0								23 33	SKKS
MADRAS	88.27	288.8	12 48A	1	23 26	0				16 16	PP
TOLEDO	88.39	6.2	12 50	2	23 32	5				29 33	SS
SHIRAZ	88.41	319.3	12 48K	0	23 12	-15				16 18	PP
KARAPIRO	89.70	186.7	12 51	-3			13 6				
MESSINA	89.78	351.0	12 49	-5	23 37	-3				16 24	PP
REGGIO CALA.	89.87	350.9								16 5	
RIVERVIEW	90.05	206.9	12 54A	-1	23 46	4	13 4			24 56	PS
ST. KITTS	90.07	61.4	12 57	1							
ALICANTE	90.11	3.6	12 57	1	23 27	-16				23 36	SKKS
KSARA	90.26	334.0	12 56A	0	24 0	16				16 33	PP
CHATEAU	90.96	186.6	12 56	-4			13 10			38 32	PKPPKP
TONGARIRO	90.96	186.6	12 58	-2						38 31	PKPPKP
GRANADA	91.11	6.1	12 57K	-3	23 45	-7				16 27	PP
ALGIERS UNI.	91.77	0.8	13 0	-3	23 47	-11				16 36	PP
CANBERRA	92.06	208.0	13 4A	-1	24 6	6	13 19			23 34	SKS
KODAIKANAL	92.07	289.3	13 11	6							
SETIF	92.33	358.9	13 8	2							
JERUSALEM	92.37	333.8	13 7	1	24 16	13					
CHINCHINA	92.48	78.8	13 8	1	23 29	-35				24 12	SKKS
COBB RIVER	93.06	188.6	13 9	0			13 25				
WELLINGTON	93.08	187.0	12 58	-12	24 11	2	13 18			23 36	SKS
FUQUENE	93.23	77.0	13 11A	1						24 46	
CARACAS	93.26	68.6	13 12A	2						16 54	PP
COLOMBO	93.29	285.4	13 9	-1						24 37	
BOGOTA	93.70	77.8	13 14	2	23 40	-34				24 19	SKKS
ST. VINCENT	94.29	62.6	13 15	0							
ADELAIDE	95.12	215.9	13 18	-1	24 28	39					
HELWAN	95.20	336.4	13 20	1						17 13	PP
MELBOURNE	95.60	210.1	13 19	-2	24 38	47					
TRINIDAD	96.28	64.1	13 24	0							
ROXBURGH	97.76	190.4			24 6	3				19 28	PPP
TARRALEAH	99.27	207.3	13 41	3							
FORT NELSON	99.60	206.4	13 55	16	25 19	67					
MUNDARING	102.38	233.7	13 39	-13							
TAMANRASSET	105.70	358.6	14 6	777	24 46	5				18 24	PP
HUANCAYO	105.93	89.3			24 44	2				18 44	PP
MBOUR	111.58	22.0	14 31	-238	25 28	22					
ADDIS ABABA	112.43	322.5	18 35	5							
LA PAZ	113.79	86.6	14 52	-221						19 42	
BANGUI	122.64	342.7	18 54	4						32 40	
CAPE HALLETT	124.22	185.1	18 53	0	25 49	-1				20 45	PP
SANTA LUCIA	124.50	24.9			25 54	4				20 40	PP
LWIRO	126.42	328.7	19 0A	3							
SCOTT BASE	129.86	184.7	19 5K	1	25 40	-26				21 20	PP
TANANARIVE	132.76	297.5	19 13	3						21 44	PP
BYRD STATION	135.42	168.1	19 3	-11							
MIRNY	136.32	215.4	19 15	-1							
LUANDA	136.49	346.8	19 17K	1						22 51	PKS
BROKEN HILL	137.89	323.3	19 13	-6							
SOUTH POLE	141.64	180.0	19 20	-6							
BULAWAYO	143.01	319.5	19 26A	-2							

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 13

ARGENTINE I.	143.88	138.4	19 27	-3
LCO. MARQUES	146.33	309.1	19 36K	2
MAWSON	147.93	218.1	19 39	2
PRETORIA	148.17	315.7	19 41	4
WINDHOEK	149.10	336.0	19 40	2
PIETERMZBURG	150.44	308.5	19 47K	7
KIMBERLEY	152.24	318.2	19 54	11
GRAHAMSTOWN	155.33	309.8	19 37A	-10
HERMANUS	159.45	322.0	19 57	4

24 19 PP

JANUARY 5 15.H 9.M 51.S EPICENTRE 45.58 149.84 DEPTH= 119.KM

A=-0.60726 B= 0.35287 C= 0.71184 D= 0.5024 E= 0.8646
G=-0.6155 H= 0.3576 K=-0.7023 HT= -3.8

DEPTH OF FOCUS= 0.014R

SE= 2.03

	DELTA DEG.	AZ. DEG.	P		D-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
KURILSK	1.43	256.6	0	27	-1	0	46	-3				
Y.-SAKHLINSK	5.14	288.8	1	19	2						2	19
MI ZUSAWA	9.11	228.1	2	29	19	3	40	-12				
OKHA	9.15	333.2	2	12	1						3	31
PETROPAVLOVK	9.41	34.5	2	14	0						3	47
TUKUBASAN	11.89	221.6	2	42	-5						4	26
MATUSIRO	12.58	228.2	2	53	-3	5	8	-6			5	28
VLADIVOSTOK	13.07	265.6	3	3	0							
MAGADAN	14.01	2.0	3	14	-1							
ABUYAMA	15.25	230.4	3	31A	1							
YAKUTSK	20.16	331.9	4	26	-1							
TIKSI	27.99	346.0	5	39	-3						6	29
ULAN-BATOR	29.24	290.3	5	53	0							
COLLEGE	38.47	37.4	7	13	1						13	1 SCP
KHEYS	45.69	346.8	8	9	-2						8	38
SHILLONG	50.06	267.0	8	38	-7							
FRUNSE	52.12	295.7	9	2	1							
RESOLUTE	52.66	17.6	9	3A	-2							
NORD	52.87	357.5	9	4	-2							
SVERDLOVSK	53.13	316.6	9	7	-1							
THULE	55.87	10.2	9	26	-2							
TASHKENT	56.29	296.7	9	32	1							
DEHRA DUN	56.82	281.1									10	35
APATITY	57.50	335.9	9	37A	-2							
PENTICTON	57.73	50.7	9	39	-2							
DUZHANBE	58.17	294.3	9	45	1							
LAHORE	58.62	284.5	9	47A	0							
WARSAK DAM	59.03	288.4	9	51A	1							
SODANKYLA	59.50	337.9	9	51	-2							
TROMSOE	59.62	342.1	9	52	-2							
KIRUNA	60.70	340.4	9	59A	-3							
SHASTA	61.11	60.2	10	5	1							
HUNGRY HORSE	61.30	49.1	10	6	0						10	31
MINERAL	61.80	60.1	10	8K	-1							
BERKELEY	62.90	62.7	10	25K	9							
RENO	63.38	59.9	10	20	1							
LICK	63.62	62.8	10	21A	0							
MOSCOW	64.10	324.4	10	22	-2							
SCORESBY SD.	64.10	356.9	10	23K	-1							
VINEYARD	64.15	63.2	10	4	-20							
LEMBANG	64.38	227.7	9	24A	-62							
QUETTA	64.45	287.7	10	27A	1	18	58	4				
BOZEMAN	64.56	50.1	10	28	1						10	51
NURMIJARVI	65.27	333.6	10	29	-3							
CHARTERS TS.	65.43	183.7	10	31	-2							
HELSINKI	65.43	333.2	10	32	-1							
EUREKA	65.73	57.9	10	34	-1						10	59
SKALSTUGAN	66.12	340.7	10	35A	-2							
SALT LAKE C.	67.30	54.6	10	45	1							
PASADENA	67.82	63.5	10	47	-1						11	13
UPPSALA	67.90	336.2	10	46A	-2						11	14 PCP.
FLAMING GRGE	68.59	53.1	10	52	0						11	17
AFIAMALU	68.62	139.6	10	52	-1							
RAPID CITY	69.77	47.3	11	1	1						11	24
TIFLIS	70.40	309.9	11	6	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 15									
HWALIEN	34.97	324.0	6 33	-9							
LEMBANG	35.54	264.1	7 13A	27	13 7	55				8 49	PP
TAIPEI	35.85	325.0	6 49	0	12 17	1					
DJAKARTA	36.31	265.2	6 50	-3	12 23	0				8 15	PP
YAKUSIMA	36.47	341.3	6 55	1	12 30	4					
KAGOSIMA	37.50	342.1	7 4	1	12 46	5					
NHATRANG	37.51	296.1	7 0	-3					7 32		
MUNDARING	37.54	219.3	7 1	-2							
MIYAZAKI	37.57	343.4	7 8	5	12 51	9					
SIMIDU	37.97	345.9	7 6	-1	12 51	2					
SIOMISAKI	38.03	349.9	7 8	1	12 50	1					
TARRALEAH	38.12	176.1	7 9K	1					7 43		
MOORLANDS	38.31	175.3	7 10K	0					7 43		
OWASE	38.57	350.6	7 12	0							
KOTI	38.58	347.0	7 13	1	13 1	3					
KUMAMOTO	38.62	343.0	7 13	1	13 0	2					
HONG KONG	38.70	314.0	7 13A	0	12 47	-12				9 21	PCP
OOTA	38.75	344.4	7 13	0	12 56	-4					
NAGASAKI	38.78	341.9	7 13A	0	13 2	1					
OMAESAKI	38.81	353.4	7 15	1							
FORT NELSON	38.81	175.2	7 15K	1	13 3	2					
OSIMA	38.86	354.9	7 15	1	13 0	-2					
MERA	38.97	355.6	7 13	-2							
MATUYAMA	39.03	346.1	7 17	1						9 17	
SUMOTO	39.06	349.0	7 14A	-2	13 4	-1					
SAGA	39.14	342.7	7 17	1						9 2	
SHIZUOKA	39.15	353.7	7 19	2							
TAKAMATU	39.21	347.9	7 18	1	13 10	3					
NARA	39.22	350.3	7 15	-2	13 10	3					
MISIMA	39.24	354.5	7 16	-1							
OSAKA	39.25	349.9	7 19	2						9 22	
KAMEYAMA	39.29	351.2	7 18	0						9 11	
KOBE	39.34	349.5	7 18	0						16 14	
HUKUOKA	39.42	343.0	7 19	0	13 17	7					
ABUYAMA	39.45	350.1	7 18K	-1							
YOKOHAMA	39.49	355.4	7 19A	0	13 13	2					
NAGOYA	39.53	351.9	7 19	-1						8 46	
KYOTO	39.57	350.3	7 19	-1	13 11	-2					
HIROSIMA	39.62	345.9	7 20	0	13 16	3					
HUNATU	39.64	354.3	7 21	0	13 12	-2					
TYOSI	39.70	357.0	7 2	-19							
TOKYO C.M.O.	39.73	355.6	7 20A	-1	13 14	-1					
HIKONE	39.73	351.1	7 23	2	13 16	1					
GIHU	39.78	351.7	7 21	-1						9 30	
CANTON	39.79	314.2	7 21A	-1	13 17	1	7 54			8 7	*SP
KOHU	39.83	354.1	7 22	0	13 16	0					
TITIBU	40.08	354.8	7 23	-1							
TSURUGA	40.13	350.9	7 25	0						7 52	
HAMADA	40.21	345.7	7 26A	1	13 23	1					
KUMAGAYA	40.23	355.2	7 28	3						8 50	
TOYOOKA	40.23	349.4	7 25	0						17 15	
TUKUBASAN	40.24	356.1	7 23	-3	13 22	-1				8 7	*SP
KAKIOKA	40.25	356.2	7 25	-1							
MITO	40.38	356.6	7 27	0	13 27	2					
OIWAKE	40.48	354.2	7 27	0						9 47	
HUKUI	40.50	351.3	7 27	-1							
MAEBASI	40.50	354.8	7 28	0							
UTUNOMIYA	40.59	355.8	7 28	0	13 24	-4					
MATUSIRO	40.73	353.8	7 28A	-1	13 20	-10				9 25	PCP
NAGANO	40.86	353.8	7 30	-1	13 30	-2					
ZO-SE	40.86	330.5	7 31A	0	13 35	3	8 5			8 17	*SP
ONAHAMA	40.92	357.2	7 30	-1							
SHIRAKAWA	41.13	356.3	7 32	-1	13 34	-2					
HUKUSIMA	41.74	356.7	7 37K	-1	13 32	-13					
SENDAI	42.24	357.3	7 41	-1	14 10	18					
YAMAGATA	42.25	356.6	7 40	-2	13 48	-4					
ISINOMAKI	42.38	357.8	7 42	-1							
ONERAHI	42.62	141.6	8 51	66	14 3	5					
NANKING	42.84	328.9	7 48A	1	14 4	3	8 20			8 30	*SP
MIZUSAWA	43.08	357.6	7 49	0	14 2	-2					
MORIOKA	43.65	357.7	7 52	-1	14 7	-6					
RAOUL ISLAND	44.47	128.5	7 58	-2							
KARAPIRO	44.73	143.1	8 2	0					8 32	9 42	PCP
AOMORI	44.78	357.4	8 15	13							
COBB RIVER	45.33	148.4	8 7	0	14 42	5				10 19	
AFIAMALU	45.41	105.4	8 11	4	14 45	7				8 58	
TONGARIRO	45.56	144.4	8 10	1	14 47	7				13 28	PCS
CHATEAU	45.57	144.4	8 9	0	14 47	7				8 42	SP

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 16									
KAIMATA	45.73	150.8	8 16	6							
HAKODATE	45.77	357.4	8 10	0							
URAKAWA	46.06	359.5	8 15	3							
MORI	46.07	357.3	8 14	1							
HIROO	46.19	0.1	8 13	0							
TUAI	46.26	142.9	8 16	2	14 50	0			8 52		
WELLINGTON	46.55	147.1	8 16	0	14 53	-1	8 47		18 50	SS	
TOMAKOMAI	46.56	358.3	8 19	3							
OBHIRO	46.83	360.0	8 18	-1							
KUSIRO	46.90	1.2	8 18	-1							
SAPPORO	47.01	358.1	8 20	0							
ROXBURGH	47.07	155.0	8 52	32	15 3	2			20 3	SSS	
ASAHIGAWA	47.69	359.2	8 25	0							
VLADIVOSTOK	48.13	348.9	8 29	0	15 21	5	9 4		10 19	PP	
KUNMING	48.89	308.6	8 36A	1	15 32	5	9 10		10 31	PP	
SIAN	50.03	322.5	8 45A	2							
CHANGCHUN	50.39	343.2	8 45A	-1	15 52	4	9 19		10 45	PP	
PEKING	50.49	333.1	8 45	-2	15 51	2	9 19		9 33	*SP	
CHENG TU	50.98	315.5	8 50A	0	15 58	2	9 23		10 34	PP	
PORT BLAIR	52.63	288.0	9 10	7							
LANCHOW	54.36	320.7	9 16A	1							
TOCKLAI	55.98	306.1	9 34	7							
CHI TTAGONG	56.71	300.0	9 33A	1	17 17	4			11 42	PP	
SHILLONG	57.87	303.6	9 32A	-8	17 20	-8			12 59	PPP	
PETROPAVLOVK	58.40	10.9	9 43	-1			10 19		13 30	PPP	
CALCUTTA	59.76	298.9	9 56	-2					18 1		
LHASA	60.19	307.6	9 57A	1	17 58	0	10 31		10 44	*SP	
ULAN-BATOR	60.82	332.8	9 59	-2	17 57	-9					
CHATRA	62.26	303.1	10 11	1	18 31	7	10 40		12 35	PP	
BOKARO	62.42	299.5	10 17A	6	18 32	6			12 32	PP	
HONOLULU	62.75	63.6	10 16	2							
KIPAPA	62.86	63.5	10 14	0							
MAGADAN	63.76	4.3	10 18	-2					19 18	PS	
COLOMBO	64.18	279.6	10 29	6					18 54		
HAWAII V.OB.	64.82	66.4	10 27	0							
MADRAS	64.87	286.3	10 26	-2	19 4	7			12 49	PP	
IRKUTSK	65.13	334.8	10 28A	-1			11 10		12 52	PP	
YAKUTSK	66.77	353.1	10 38	-2	19 24	4					
HYDERABAD	67.39	290.7	10 44A	1	19 32	5			12 56	PP	
CAPE HALLETT	70.14	171.5	11 OK	0	20 3	4			13 34	PP	
DEHRA DUN	70.97	303.9							12 5		
MIRNY	71.28	199.0	11 5	-2							
POONA	71.90	290.9	12 8	57							
BOMBAY	72.93	291.1	11 18	1	20 36	5					
LAHORE	74.37	304.2	11 24A	-1							
SCOTT BASE	74.72	175.0	11 28K	1	20 51	0	12 1		11 40	PCP	
ALMATA	75.86	316.4	11 34	0					14 34	PP	
KERGUELEN I.	75.93	220.2	11 34	0	21 10	5					
SEMI PALATNSK	76.40	324.1	11 35	-2			12 9				
WARSAK DAM	77.25	306.0	11 41A	0							
FRUNSE	77.34	315.4	11 42	0					14 43	PP	
KARACHI	79.25	296.1	11 53A	1					22 40	PS	
QUETTA	80.26	301.4	11 57A	-1	21 51	0			15 2	PP	
TASHKENT	80.75	312.8	12 0	0			12 36		15 11	PP	
MAWSON	82.52	202.4	12 8	-2	22 12	-2			12 54		
COLLEGE	84.93	23.6	12 20K	-2	22 37	-1	12 40		15 39	PP	
SOUTH POLE	85.90	180.0	12 26	0					22 35	PP	
BYRD STATION	87.22	170.0	12 32	-1					16 12		
SVERDLOVSK	89.38	327.0	12 41	-2							
SHIRAZ	92.63	299.4	12 56K	-2	22 34	-74			16 44	PP	
KHEYS	93.25	350.6	13 0	-1	23 44	-10	13 37		16 50	PP	
TEHERAN	93.88	305.4	13 5	1	25 10	71					
TANANARIVE	94.04	250.8	13 5	0					16 54	PP	
VICTORIA	95.29	41.8	13 16	6							
SHASTA	95.99	49.7	13 11	-2							
BERKELEY	96.07	52.5	13 14K	0							
LICK	96.56	53.0	13 16K	0							
MINERAL	96.59	50.0	13 16	0							
VINEYARD	96.77	53.6	13 18	1							
PENTICTON	97.78	40.9	13 24	2							
GORIS	97.93	309.1	13 21	-1					17 29	PP	
RENO	97.98	50.8	13 23A	1							
TIFLIS	99.02	311.4	13 26	-1					17 38	PP	
PASADENA	99.42	56.2	13 28	-1					17 35	PP	
EUREKA	100.95	50.7	13 35A	-1					29 48	PKKP	
APATI TY	101.29	338.4	13 34	-3					17 47	PP	
HUNGRY HORSE	101.54	41.6	13 38K	-1					17 48	PP	
NORD	102.03	357.0	13 41	0							
RESOLUTE	102.06	13.3	13 39K	-2					25 6		

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 17											
MOSCOW	102.16	326.1	13	39	-2	25	6	59	14	16	17	55	PP
SODANKYLA	103.81	339.1	13	47	-2						29	36	PKKP
BOZEMAN	103.91	44.1	13	50	1								
SALT LAKE C.	103.98	49.1									17	12	
ADDIS ABABA	104.90	278.2									16	18	
PULKOVO	104.96	331.2	13	52	-2	24	30	10			18	17	PP
TROMSOE	105.29	342.5	13	53	777								
TUCSON	105.67	57.8	18	20	777								
KIRUNA	105.74	340.6	13	55	777						18	21	PP
TUCSON TELE.	105.75	57.7	12	58	777								
FLAMING GRGE	105.81	48.7	13	57K	777						18	9	PP
SIMFEROPOL	106.39	315.6	14	1	777						18	23	PP
KSARA	106.69	303.9	18	25	777						14	5	P
NURMIJARVI	107.35	332.9	18	18	777								
JERUSALEM	107.46	301.9	18	43	777	24	42	11					
ARGENTINE I.	107.92	168.2	14	25	777								
KASTAMONU	109.50	312.4	14	2	777						18	35	
RAPID CITY	109.69	44.6	18	28	777								
PRETORIA	110.49	240.7	18	19	2								
UPPSALA	110.78	334.0	18	14	-3						18	58	PP
ISTANBUL K.A.	110.82	312.4	14	17	-240						18	58	PP
SKALSTUGAN	110.88	338.8	18	17	-1						18	43	PP
ISTANBUL UN.	110.89	312.4									19	0	PP
HELWAN	111.01	300.3	14	24	-234						29	29	
BULAWAYO	111.47	246.6	18	19	0								
LWOW	111.69	322.5									19	13	PP
KIMBERLEY	112.52	236.7	18	19	-2								
WARSAW	112.54	325.7									19	6	PP
BROKEN HILL	112.77	252.6	18	24	3								
SCORESBY SD.	113.05	354.6									19	2	PP
KRAKOW	114.06	323.8									29	0	PS
LWIRO	114.17	265.7	18	27	3						19	22	
GOTEBORG	114.42	333.7	18	4	-20						19	17	PP
RACIBORZ	115.06	324.4									19	23	PP
WICHITA MTS.	115.38	53.5	18	27	1						19	35	PP
VIENNA-H.	116.94	323.1	18	49	20						19	38	PP
PRUHONICE	117.20	325.5	18	31K	1						20	13	PP
COLLMBERG	117.39	327.3									19	48	PP
KASPERSKE H.	118.16	325.0	18	32K	0						20	25	PP
JENA	118.35	327.5	18	28	-4						19	47	PP
FAYETTEVILLE	118.49	50.9	18	32	0						19	49	PP
LJUBLJANA	119.06	321.6	18	34A	1				20	20	20	4	PP
TRIESTE	119.72	321.4	18	38	3				20	25	20	3	PP
MUNSTER	119.81	330.1	18	36	1						20	4	
ABERDEEN	120.45	338.9									20	54	
BENSBERG	120.64	329.3	18	37K	0						20	9	PP
STUTTGART	120.77	326.3	18	37	0						20	13	PP
DE BILT	120.92	331.3									20	57	PP
PADOVA	121.00	321.9									20	17	PP
WINDHOEK	121.09	240.7	18	40	3								
REGGIO CALA.	121.59	312.8									20	16	
MESSINA	121.63	312.9									18	49	
STRASBOURG	121.71	326.8	18	20	-19						20	12	
DURHAM	122.05	336.8	18	26	-13								
FLORENCE X.	122.18	320.5	18	7	-33								
ROME	122.25	318.0									20	7	PP
BASLE	122.41	325.9	19	50	70								
BESANCON	123.46	326.3									20	18	PP
KEW	123.89	333.4									30	30	PS
PARIS	124.35	329.6									20	34	PP
ISOLA	124.57	322.8	18	49	5						21	1	
BANGUI	124.77	272.5	18	42	-3						19	30	PP
GARCHY	125.02	327.8	18	45	0				19	13	20	42	PP
OTTAWA	126.67	33.5	18	47K	-1								
MORGANTOWN	127.38	41.7	18	50A	0								
SHAWINIGAN	127.49	30.7	18	49K	-1								
BREBEUF	127.75	32.2	18	51K	1				19	28			
SEVEN FALLS	128.06	29.1	18	50K	-1								
LUANDA	128.51	255.4									19	35	
COLUMBIA	129.29	48.5	18	52	-1						22	3	
SETIF	129.79	315.0	18	55	1						21	4	PP
PALISADES	130.43	36.9	18	55	0				19	34	22	6	PKS
FORDHAM	130.54	37.0	18	55	-1						22	8	
WESTON	131.05	33.9	18	36	-21						22	9	
ALGIERS UNI.	131.13	316.9	18	55	-2						21	20	PP
RELIZANE	133.38	317.3	19	2	1						21	33	PP
TOLEDO	133.74	324.8	19	2	0				19	24	21	20	PP
ALMERIA	134.72	320.5	19	7	4						21	42	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961					PAGE 18		
TAMANRASSET	135.11	298.4	19 7	3	19 34	21 40	PP
GRANADA	135.22	321.7	19 7A	3		21 50	PP
SERRA PILAR	135.32	329.5	19 7K	2		21 46	PP
HUANCAYO	138.43	113.2	19 8	-2			
CHINCHINA	141.27	87.2	19 12	-4		23 30	
BOGOTA	142.81	87.8	19 16	-2		23 35	
LA PAZ	142.84	124.3	19 18	0	19 47		
FUQUENE	143.15	86.4	19 16A	-3			
PONTA DELGDA	145.05	344.6	19 24K	2	19 37		
SAN JUAN	148.00	61.4	19 27A	0	20 8		
CARACAS	149.44	76.4	19 14	-15			
ST. KITTS	151.37	60.8	19 38	6			
ST. VINCENT	154.19	68.1	19 37	1			
TRINIDAD	154.74	73.8	19 38	1		20 37	
MBOUR	157.99	298.9	19 38	-3		23 53	PP

JANUARY 5 17.H 57.M 52.S EPICENTRE -21.12 169.49 DEPTH= 32.KM

A=-0.91798 B= 0.17029 C=-0.35820 D= 0.1824 E= 0.9832
G= 0.3522 H=-0.0653 K=-0.9336 HT= 4.4

SE= 2.62

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
NOLMEA	3.06	246.9	0	44	-3							
HONIARA	14.82	320.2	3	30	2						6	30
ONERAHI	15.21	164.7	3	39	5							
BRISBANE	16.46	244.5	3	46	-4	7	6	15				
KARAPIRO	17.55	164.0	4	2	-1							
TONGARIRO	18.75	165.3	4	18	0							
CHATEAU	18.75	165.2	4	18	0							
TUAI	18.81	161.2	4	20	1	7	56	12				
AFIAMALU	19.24	71.2	4	24	0	8	8	14				
COBB RIVER	20.09	172.9	4	35	2	8	24	12				
RIVERVIEW	20.58	228.2	4	34K	-4				4	42	4	56 PP
WELLINGTON	20.59	168.6	4	38A	0	8	30	8				
KAIMATA	21.40	176.1	4	48	1	8	47	10				
CHARTERS TS.	21.77	268.5	4	51	1							
GEBBIES PASS	22.67	174.0	5	2	3	9	13	12				
CANBERRA	22.87	227.4	5	2K	1	9	2	-2				
RABAUL	23.79	312.6	5	11	1						9	30
ROXBURGH	24.30	180.3	5	16	1	9	30	1				
PORT MORESBY	24.46	295.1	5	18	1	9	41	9				
MELBOURNE	26.95	226.5	5	40	0				5	50		
FORT NELSON	28.57	215.4	5	56	1	10	24	-15				
TARRALEAH	28.64	217.3	5	56	1						10	47
ADELAIDE	30.32	236.3	6	12	2	11	6	-1				
GUAM	42.09	322.6	7	52A	2	14	11	4				
MUNDARING	48.46	245.5	8	43	2							
CAPE HALLETT	51.21	179.7	9	0A	-2	16	15	-2			11	6 PP
HONOLULU	52.72	38.9	9	12	-1	17	0	22				
KIPAPA	52.86	38.9	9	13	-1							
HAWAII V.OB.	53.04	43.0	9	14	-2	17	1	19				
SCOTT BASE	56.80	180.7	9	42K	-1	17	41	9			22	20 SS
MANILA	59.36	302.7	10	21	20	18	13	7				
BAGUIO CITY	60.77	304.0	10	11	0	18	29	5				
LEMBANG	61.35	273.8	10	13A	-2	18	36	5	10	44		
DJAKARTA	62.31	274.1	10	21	0	18	48	4			11	15
TUKUBASAN	63.44	333.7	10	27	-2	19	0	2			19	40
ABUYAMA	64.33	329.4	10	34	0							
MATUSIRO	64.52	332.4	10	34A	-1	19	13	2			23	55 SS
HWALIEN	64.65	311.3	10	33	-3							
TAIPEI	65.40	312.2									19	28
MIRNY	65.45	205.3	10	39	-3	19	22	0				
MI ZUSAWA	65.55	336.1	10	44	2	19	30	6				
BYRD STATION	66.06	169.6	10	42	-3	19	10	-20				
NHATRANG	67.84	293.5	10	57	0	19	59	8				
SOUTH POLE	69.01	180.0	11	2	-2							
HONG KONG	69.09	305.4	11	6K	2	20	11	5			11	15 PCP
ZO-SE	69.60	316.9	11	6	-2	20	15	3				
CANTON	70.17	305.6	11	11	0	20	25	6				
NANKING	71.77	316.2	11	20A	-1	20	44	7				
Y.-SAKHLINSK	72.00	341.1	11	24	2	20	45	5				
VLADIVOSTOK	72.68	332.1	11	26	0	20	52	4			14	9 PP
PETROPAVLOVK	74.42	353.2	11	36	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961										PAGE 19	
CHANGCHUN	76.27	328.7	11 46A	-1	21 33	5					
MAWSON	76.79	202.2	11 43	-7	21 36	3					
PEKING	78.54	321.1	11 59A	0	21 59	7					
KUNMING	79.46	302.1	12 6A	2	22 11	9					
SIAN	79.67	312.8	12 8A	2							
KERGUELEN I.	80.15	220.9	12 13	5	22 17	8					
CHENG TU	81.25	307.5	12 14A	0	22 28	7					
PORT BLAIR	82.11	285.7	12 21	3	22 31	2			15 28	PP	
LANCHOW	84.15	312.1	12 31A	2							
ARGENTINE I.	84.69	160.1	12 32	1							
TOCKLAI	86.58	300.2	12 48	7					28 32		
SAN FRANCISCO	86.68	47.4	12 40	-1							
UKIAH	86.83	45.9	12 53	11							
BERKELEY	86.86	47.4	12 42A	0							
VINEYARD	86.92	48.7	12 44	2							
LICK	87.02	48.1	12 43A	0							
ARCATA	87.16	44.1	12 46K	2							
CHITTAGONG	87.19	295.1	12 45	1	23 28	9	13 15		16 27	PP	
PASADENA	88.01	52.3	12 46A	-2	23 33	6			16 15	PP	
FRESNO	88.04	49.3	12 46	-2							
SHASTA	88.17	44.9	12 48	0							
SHILLONG	88.45	298.1	12 42A	-8	23 12	-19			16 4	PP	
MINERAL	88.52	45.5	12 49K	-1							
ULAN-BATOR	88.62	323.3	12 50	-1	23 38	5					
YAKUTSK	88.71	342.4	12 50	-1							
RENO	89.34	46.9	12 54	0							
CALCUTTA	90.18	294.0	11 42	-76					24 7		
SITKA	90.50	26.7	12 58	-1							
LHASA	90.77	301.5	13 2	1							
ALBERNI	91.08	36.7	13 4	2							
VICTORIA	91.48	37.8	13 4	0							
COLLEGE	91.77	16.8	13 2A	-3					16 6		
EUREKA	91.96	48.3	13 6A	0							
COLOMBO	92.10	276.5	13 11	4	23 43	-21					
IRKUTSK	92.39	326.1	13 1A	-7							
TUCSON	92.78	56.6	13 12	2							
CHATRA	92.83	297.5	13 24	14	24 17	6			17 11	PP	
BOKARO	92.86	294.3	13 12K	2	23 46	-25			25 36	PS	
MADRAS	93.96	282.3	13 17	2	23 54	-26			16 57	PP	
GLEN CANYON	94.06	52.0	13 18	2	24 0	-21			17 5	PP	
PENTICTON	94.06	38.3	13 15	-1							
SALT LAKE C.	95.37	48.4	13 22	0	23 56	2					
KODAIKANAL	95.49	278.8							24 9		
TIKSI	96.60	348.0	13 26	-1							
BUTTE	96.95	43.4	13 29	0							
HUNGRY HORSE	96.96	40.8	13 29A	0					17 27	PP	
HYDERABAD	97.06	285.9	13 29A	-1	24 6	3			24 53		
FLAMING GRGE	97.16	49.0	13 30A	0	24 3	0			17 27	PP	
BOZEMAN	97.79	44.1	13 34	1							
SANTA LUCIA	101.03	132.3	13 44	-4	24 12	-11			17 50	PP	
POONA	101.55	285.5	14 51A	61							
DEHRA DUN	101.55	298.1							28 32		
RAPID CITY	102.52	47.5	18 7	253							
BOMBAY	102.59	285.5	14 1	7	24 37	7			17 12	PP	
WICHITA MTS.	103.23	57.7	13 58	1	24 36	3			18 11	PP	
SEMI PALATNSK	105.51	318.4	18 25	777	26 3	79			36 7		
ALMATA	105.95	310.6	18 34	777							
FAYETTEVILLE	107.06	57.4	18 41	777					35 27		
FRUNSE	107.51	309.8	18 36	777					26 19		
HUANCAYO	108.32	111.2	18 33	777					28 14	PS	
QUETTA	110.78	295.3	18 20	-9					19 13	PP	
TASHKENT	111.12	307.4							19 15	PP	
RESOLUTE	111.69	16.5	18 29	-2					29 24	PKKP	
LA PAZ	112.24	118.9			25 15	3			19 14	PP	
KHEYS	114.16	350.4	18 37	1					19 35	PP	
CHINCHINA	114.98	94.4	18 37	0					29 33	PS	
BOGOTA	116.30	95.4							19 48	PP	
FUQUENE	116.92	94.6							19 52	PP	
THULE	117.75	13.1	18 41	-2							
ASHKABAD	119.05	302.5	18 49	4							
KIMBERLEY	119.85	215.8	19 7	20							
PRETORIA	120.16	220.7	19 8	21							
OTTAWA	122.01	49.0	18 48A	-3							
SHIRAZ	123.02	292.3	18 53K	0	27 12	81			20 33	PP	
PALISADES	123.40	54.2	18 52	-2	25 53	1			20 37	PP	
BREBEUF	123.48	48.8	18 52K	-2							
BULAWAYO	123.92	225.6	18 56	1							
SHAWINIGAN	124.00	47.5	18 51	-4							
TEHERAN	124.48	299.5	18 57	1					20 38	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961					PAGE 20
CARACAS	124.94	91.8	19 1A	4	
SEVEN FALLS	125.27	46.6	18 55A	-2	
WESTON	125.31	52.4	18 57	0	
APATITY	126.08	340.7	18 57	-2	22 12 PPP
SAN JUAN	127.81	82.7	19 1K	-1	
BROKEN HILL	127.90	230.6	19 3	1	
SODANKYLA	128.19	342.7	19 1	-2	22 24 SKP
TROMSOE	128.33	347.3	19 1	-2	
GORIS	128.47	304.2	19 5	2	21 15 PP
WINDHOEK	128.90	213.4	19 8	4	
TIFLIS	129.44	307.1	19 9	4	22 33 SKP
KIRUNA	129.44	345.4	19 3	-2	21 13 PP
TRINIDAD	130.14	93.8	19 7	0	
SCORESBY SD.	130.16	5.0	19 9K	2	22 28 PKS
MOSCOW	130.38	326.4	19 7	0	21 13 PP
HALIFAX	130.63	48.8	19 7A	-1	
ST. KITTS	130.72	84.9	19 10	2	
ADDIS ABABA	131.11	263.5	19 13	5	
PULKOVO	131.79	333.7	19 10	0	21 30 PP
NURMIJARVI	133.54	336.8	19 11	-2	22 40 SKP
HELSINKI	133.66	336.4	19 14	1	22 44 SKP
SKALSTUGAN	134.86	345.8	19 12	-4	22 44 PKS
LWIRO	135.06	243.7	19 14A	-2	
SIMFEROPOL	136.39	313.7	19 21	3	22 0 PP
UPPSALA	136.45	339.8	19 19	1	22 0 PP
KSARA	137.27	297.3	19 23	3	26 33 8
JERUSALEM	137.97	294.4	19 25	4	22 3 PP
KASTAMONU	139.81	309.7	19 13	-12	22 17 PP
GOTEBORG	139.94	341.4	19 20	-5	22 30 PP
LWOW	140.45	324.8	19 22	-4	23 1 PKS
WARSAW	140.53	329.6	19 28	2	22 23 PP
ISTANBUL KA.	141.12	309.9	19 23K	-4	22 27 PP
ISTANBUL UN.	141.19	309.8	19 13	-14	22 30 PP
HELWAN	141.41	291.7	19 24K	-3	23 33
COPENHAGEN	141.46	339.2	19 22	-6	22 33 PP
BUCHAREST	141.90	316.2	19 26K	-2	22 36 PP
LUANDA	142.17	220.4	19 29K	0	
KRAKOW	142.44	327.6	19 30	1	22 39 PP
RACIBORZ	143.28	328.8	19 29	-2	22 47 PP
ABERDEEN	143.47	352.3			32 51 PSKS
TIMI SOARA	144.27	320.9	19 36	4	20 0
SOFIA	144.46	315.1	19 33	0	20 11 *SPKP
KECSKEMET	144.48	323.6	19 36	3	22 44 PP
BUDAPEST	144.51	324.8	19 36	3	24 26 PKS
HURBANOVO	144.71	326.0	19 34	1	
COLLMBERG	144.72	334.3	19 32A	-1	23 14 PP
PRAGUE	145.03	331.7	19 34	0	
PRUHONICE	145.04	331.5	19 33A	-1	22 56 PP
BRATISLAVA	145.08	327.2	19 34	0	23 7 PKS
BELGRADE	145.23	320.1	19 36A	2	23 0
VIENNA-H.	145.39	327.9			23 15 PKS
JENA	145.57	335.1	19 35	0	20 19
WITTEVEEN	145.69	341.5	19 36	1	22 50 PP
DURHAM	145.73	350.8	19 34K	-1	
CHEB	145.90	333.4	19 37	2	20 16 PKP2
ATHENS	146.05	307.2	19 36A	1	
KASPERSKE H.	146.09	331.3	19 35	-1	
MUNSTER	146.14	339.8			20 43
DE BILT	146.76	342.3	19 38	1	23 8 PP
BENSBERG	147.14	339.3	19 39A	2	20 49
BANGUI	147.18	243.6	19 31	-6	23 19 *PPP
LJUBLJANA	147.80	326.4	19 38K	0	20 15
HEIDELBERG	147.90	336.1	19 38	0	23 18 PP
STUTTART	148.19	334.9	19 39	0	23 13 PP
TUBINGEN	148.47	334.8	19 39	0	
TRIESTE	148.47	326.6	19 39	0	20 16
KEW	148.68	347.7	19 41	1	23 39 *PPP
EBINGEN	148.79	334.5	19 36	-4	
RAVENSBERG	148.84	333.3	19 39	-1	
STRASBOURG	148.93	336.2	19 42A	2	26 45 2 20 21
PADOVA	149.59	328.0	19 42	1	25 5
CHUR	149.60	332.3	19 46K	5	
BASLE	149.87	335.2	19 37	-5	
PARIS	150.48	342.4	19 46	4	23 21 PP
NEUCHATEL	150.55	335.3	19 45	2	
BESANCON	150.71	336.7	19 45	2	
PAVIA	151.04	330.5	19 50	7	21 48
FLORENCE X.	151.05	326.3	19 42A	-1	23 33 PKS

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 21									
PRATO	151.06	326.6	19 52	9					20	2	
FOLINIÈRE	151.27	346.1	19 47	3							
ROME	151.64	322.1	19 46A	2				20	15	23 34	PP
GARCHY	151.68	340.3	19 52	8						20 3	PKP2
REGGIO CALA.	151.79	312.6	19 45	1							
MESSINA	151.81	312.9	19 45	1	26 37	-10		20	8	23 33	PP
ISOLA	152.78	331.7	19 54	8							
MONACO	152.96	330.6	19 49	3							
CLERMONT-FD.	152.99	338.7	19 47	1	26 41	-7					
BAGNERES	156.36	340.2	19 52	1							
TORTOSA	158.25	337.0								20 27	PKP2
SETIF	159.53	320.6	19 57	2						24 8	PP
SERRA PILAR	159.99	355.8	19 58	3	26 48	-7				24 18	PP
ALGIERS UNI.	160.44	325.8	19 53	-3				21	8	24 20	PP
TOLEDO	160.50	345.0	20 0	4						24 26	PP
ALICANTE	160.77	335.4	19 30	-26	25 44	-72				23 28	PP
COIMBRA	160.90	355.1	19 58A	2						24 24	PP
LOME	161.25	219.0	19 59	3						20 49	PKP2
LISBON	162.42	356.5	19 57	-1							
RELIZANE	162.50	328.7	20 0	2						20 57	PKP2
ALMERIA	162.83	337.7	20 0A	2						24 34	PP
GRANADA	162.91	340.9	20 1K	3						24 35	PP
TAMANRASSET	165.03	279.3	20 2	2						24 48	PP
BENI ABBES	168.31	321.7								26 4	PP
MBOUR	170.90	136.4	20 6	2						25 14	PP

JANUARY 5 18.H 14.M 37.S EPICENTRE -21.10 169.37 DEPTH= 31.KM

A=-0.91776 B= 0.17222 C=-0.35785 D= 0.1844 E= 0.9828
G= 0.3517 H=-0.0660 K=-0.9338 HT= 4.4

SE= 2.77

	DELTA DEG.	AZ. DEG.	P		D-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
NOUMEA	2.97	245.7	0	46	0							
HONIARA	14.73	320.6	3	30	2						6	37
ONERAHI	15.26	164.4	3	34	-1							
BRI SBANE	16.37	244.3	3	46	-3	7	2	12				
KARAPIRO	17.60	163.7	4	3	-2							
TONGARIRO	18.80	165.0	4	18	-2	7	49	4				
CHATEAU	18.80	165.0	4	18	-2							
TUAI	18.87	160.9	4	23	2	7	53	7				
AFTAMALU	19.33	71.4	4	27K	1	8	23	26				
COBB RIVER	20.12	172.6	4	37	3	8	23	9				
RIVERVIEW	20.51	228.0	4	38K	0	8	57	36			5	0 PP
WELLINGTON	20.63	168.4	4	41	1	8	37	13				
KAIMATA	21.43	175.9	4	53	5	8	54	15				
GEBBIES PASS	22.70	173.8	5	1	0	9	12	10				
CANBERRA	22.81	227.3	5	3K	1	9	13	9				
RABAUL	23.70	312.8	5	11	1						9	30
ROXBURGH	24.32	180.1				9	43	12				
PORT MORESBY	24.35	295.2	5	19	2							
FORT NELSON	28.52	215.2	5	57	2	10	44	5				
TARRALEAH	28.59	217.1	5	56	0							
ADELAIDE	30.24	236.2	6	10	-1							
GUAM	42.01	322.7	7	53K	3	14	9	2				
CAPE HALLETT	51.23	179.7	9	1	-2	16	15	-3				
SCOTT BASE	56.82	180.7	9	44	0	17	36	2			21	17 SS
MANILA	59.25	302.8	10	4	3	18	14	9				
LEMBANG	61.24	273.8	10	15A	0	18	35	4	10	39	12	33 PP
DJAKARTA	62.20	274.2	10	21	0	18	44	1	10	51	12	39 PP
TUKUBASAN	63.37	333.7	10	28	-1				10	51	12	56 PP
ABUYAMA	64.26	329.5	10	36A	1							
MATUSIRO	64.44	332.5	10	45A	9	19	15	4			23	56 SS
MIRNY	65.42	205.3	10	46	4							
MIZUSAWA	65.49	336.1	10	38	-5	19	24	0				
BYRD STATION	66.10	169.6	10	42	-5	19	31	0				
NHATRANG	67.73	293.6	11	18	21	19	28	-23				
HONG KONG	68.99	305.4	10	58	-7	19	47	-19			20	26 SCS
ZO-SE	69.51	317.0	11	8A	0	20	17	5				
CANTON	70.07	305.7	11	12A	1	20	25	6				
NANKING	71.68	316.3	11	22A	1	20	44	7				
Y.-SAKHLINSK	71.94	341.2	11	23	0							
VLADIVOSTOK	72.61	332.2	11	27	0	20	53	5				
CHANGCHUN	76.19	328.8	11	48A	1	21	34	6				

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 22									
MAWSON	76.77	202.2	11 48	-3	21 35	1					
PEKING	78.45	321.1	12 0A	0	22 0	8					
KUNMING	79.36	302.1	12 7A	2	22 11	9					
KERGUELEN I.	80.09	220.9	12 18	9	22 15	5					
CHENG TU	81.15	307.6	12 14A	0	22 26	5					
LANCHOW	84.05	312.1	12 32A	3	22 58	8					
ARGENTINE I.	84.75	160.1	12 34	1							
BERKELEY	86.92	47.5	12 43A	0							
VINEYARD	86.99	48.8	12 44	0							
CHITTAGONG	87.08	295.2	12 48	4	23 29	10	13 25	16 28	PP		
LICK	87.09	48.2	12 45A	1							
ARCATA	87.22	44.1	12 49	4							
PASADENA	88.08	52.3	12 47A	-2				16 16	PP		
FRESNO	88.11	49.4	12 47	-2							
SHASTA	88.24	44.9	12 49	-1							
SHILLONG	88.34	298.1	12 43A	-7	23 10	-21		29 7	SS		
ULAN-BATOR	88.54	323.4	12 51	0	23 38	5					
MINERAL	88.59	45.5	12 51A	0							
YAKUTSK	88.65	342.5	12 51	-1				23 25	SCS		
RENO	89.41	46.9	12 55A	0							
ALBERNI	91.13	36.7	13 3	0							
VICTORIA	91.54	37.8	13 5	0							
COLLEGE	91.78	16.9	13 2K	-4	23 34	-28		25 27	PS		
EUREKA	92.03	48.3	13 8A	0				31 14	PKKP		
IRKUTSK	92.31	326.1	13 8A	-1				24 10	SCS		
TUCSON	92.86	56.6	13 11A	0							
PENTICTON	94.11	38.3	13 19	2							
GLEN CANYON	94.13	52.0	13 17	0				16 20			
CHIHUAHUA	95.31	61.5			23 50	-5		20 44			
SALT LAKE C.	95.44	48.4	13 22A	-1	23 57	2		26 5			
HUNGRY HORSE	97.02	40.8	13 27K	-3							
FLAMING GRGE	97.22	49.0	13 26	-5							
BOZEMAN	97.86	44.1	13 33	-1							
TACUBAYA	98.05	72.4						16 13			
VERA CRUZ	100.73	73.5			24 3	-19		24 35	SKKS		
SANTA LUCIA	101.14	132.4	13 49	1	24 23	-1		17 51	PP		
RAPID CITY	102.58	47.5	18 7A	252							
WICHITA MTS.	103.31	57.8	13 59	0	24 37	2		29 54	PKKP		
MERIDA	107.09	73.7						16 20			
WARSAK DAM	107.74	300.2	12 54	777							
QUETTA	110.67	295.3	18 27	-3							
RESOLUTE	111.70	16.5	18 31	-1				29 23			
LA PAZ	112.35	119.0	19 15	42				19 35	PP		
KHEYS	114.12	350.4	18 36	-1				19 28	PP		
THULE	117.76	13.0	18 42	-2							
HERMANUS	117.91	207.8						10 13			
NORD	119.37	1.0	18 45	-2							
PRETORIA	120.11	220.8	19 24	36							
OTTAWA	122.08	48.9	18 50K	-2							
SHIRAZ	122.91	292.3	18 54	1				20 23	PP		
PALISADES	123.48	54.1	18 54	-1	24 58	-55		35 40	SS		
BREBEUF	123.55	48.8	18 54K	-1							
BULAWAYO	123.85	225.7	18 56A	0							
SHAWINIGAN	124.06	47.4	18 54A	-2							
SEVEN FALLS	125.33	46.6	18 56	-2							
WESTON	125.38	52.4	18 58	0							
APATITY	126.02	340.7	18 59	-1				20 54			
SAN JUAN	127.92	82.7	19 2K	-1							
SODANKYLA	128.14	342.7	19 3	-1							
WINDHOEK	128.86	213.5	19 7	2							
TIFLIS	129.34	307.2	19 8	2				21 24	PP		
SCORESBY SD.	130.15	5.0	19 8K	0				22 32	PKS		
TRINIDAD	130.26	93.8	19 8	0							
MOSCOW	130.30	326.4	19 8	0				21 20	PP		
HALIFAX	130.70	48.8	19 9K	0							
ST. KITTS	130.83	84.9	19 9	0							
ADDIS ABABA	131.00	263.6	19 13	4							
PULKOVO	131.72	333.6	19 11	0				21 38	PP		
NURMIJARVI	133.48	336.8	19 13	-1				22 42	SXP		
HELSINKI	133.59	336.3	19 16	2				22 45	SKP		
LWIRO	134.97	243.8	19 20K	3							
SIMFEROPOL	136.29	313.7	19 19	0				22 3	PP		
KSARA	137.16	297.3	19 23	2	26 29	3		22 7	PP		
JERUSALEM	137.86	294.4	19 25	3				22 14	PP		
KASTAMONU	139.71	309.7	19 14	-11							
LWOW	140.37	324.7	19 25	-2				22 27	PP		
ISTANBUL KA.	141.03	309.8	19 28	0				22 31	PP		
ISTANBUL UN.	141.09	309.8	19 24	-4				22 31	PP		
HELWAN	141.30	291.7	19 25K	-3				22 33	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 23

COPENHAGEN	141.40	339.2	19 23	-5						
BUCHAREST	141.80	316.1	19 25K	-4				22 27	PP	
RACIBORZ	143.20	328.8	19 29	-2				22 42	PP	
TIMI SOARA	144.18	320.8	19 35	2				19 56		
SOFIA	144.37	315.0	19 35	2				22 51	PP	
BUDAPEST	144.43	324.8	19 34	0				22 42	PP	
HURBANOVO	144.62	325.9	19 33	-1				22 53	PKS	
COLLMBERG	144.65	334.2	19 33A	-1				22 49	PP	
PRAGUE	144.96	331.6	19 35	0						
PRUHONICE	144.97	331.4	19 34A	-1				22 56	PP	
BRATISLAVA	145.00	327.1	19 36K	1				23 10	PKS	
BELGRADE	145.14	320.0	19 30A	-5				23 23	PKS	
VIENNA-H.	145.31	327.8	19 35	0				23 5	PP	
JENA	145.50	335.0	19 35	0	26 32	-7	21 14	23 2	PP	
WI TTEVEEN	145.64	341.4	19 37	1						
DURHAM	145.69	350.7	19 36K	0				20 51		20 13 PKP2
CHEB	145.84	333.4	19 36	0						
ATHENS	145.95	307.2	19 37A	1				23 16	PKS	
KASPERSKE H.	146.02	331.2	19 35A	-1				22 59	PP	
MUNSTER	146.08	339.7	19 37	1				23 1		
DE BILT	146.71	342.2	19 41	3				23 5	PP	
BENSBERG	147.09	339.2	19 38	0				23 14	PP	
BANGUI	147.09	243.7	19 33	-5				26 42	*PPPP	
ZAGREB	147.10	324.8	19 38	0						
LJUBLJANA	147.72	326.3	19 39A	0			20 18	23 18	PP	
HE IDELBERG	147.83	336.0	19 39	0						
STUTTGART	148.12	334.7	19 41	1						
TRIESTE	148.39	326.5	19 41	1				23 12	PP	
TUBINGEN	148.40	334.7	19 40	0						
KEW	148.63	347.6	19 42	1				23 18	SKP	
EBINGEN	148.72	334.4	19 40	-1						
RAVENSBURG	148.77	333.2	19 39	-2						
STRASBOURG	148.87	336.1	19 41	0				23 20	PP	
PADOVA	149.51	327.9	19 48	6				23 31	PP	
CHUR	149.53	332.2	19 47	5						
BASLE	149.80	335.1	19 38A	-4				28 51		
PARIS	150.42	342.3	19 36	-7				23 25	PP	
NEUCHATEL	150.48	335.2	19 44	1						
FLORENCE X.	150.97	326.2	19 42	-2				23 29	PKS	
PAVIA	150.97	330.4	19 49	5				38 43		
PRATO	150.98	326.5	19 53	9						
FOLINIERE	151.22	346.0	19 47	2						
ROME	151.55	322.0	19 50K	5			20 13	23 33	PKS	
GARCHY	151.62	340.2	19 52	7			20 12	23 43	PP	
REGGIO CALA.	151.70	312.5	19 48	3				23 32	PKS	
MESSINA	151.72	312.8	19 46	1	25 39	-69	20 6	23 34	PP	
ISOLA	152.70	331.5	19 56	9						
MONACO	152.88	330.5	19 54	7				20 4	PKP2	
CLERMONT-FD.	152.93	338.6	19 49	2	26 44	-5				
BAGNERES	156.31	340.1	19 52	0						
SETIF	159.45	320.5	19 53	-3				20 36	PP	
SERRA PILAR	159.96	355.5	19 53A	-3				20 32	PKP2	
ALGIERS UNI.	160.36	325.6	19 56	0	26 49	-8	20 27	24 13	PP	
TOLEDO	160.45	344.7	19 59	2				24 23	PP	
ALICANTE	160.70	335.2	19 32	-25	26 16	-41		24 0	PP	
COIMBRA	160.87	354.9	20 38A	41						
LOME	161.20	219.3	19 59	2						
LISBON	162.39	356.2	19 59A	0				20 47	PKP2	
RELIZANE	162.42	328.5	19 58	-1	27 38	40	20 32	24 28	PP	
ALMERIA	162.77	337.4	20 0	1				24 36	PP	
GRANADA	162.85	340.6	20 5K	6				24 35	PP	
TAMANRASSET	164.92	279.3	20 3A	2				24 50	PP	
BENI ABBES	168.22	321.4	20 3	0				25 4	PP	
MBOUR	170.99	136.9	20 12	7				25 14	PP	

JANUARY 5 23.H 57.M 21.S EPICENTRE -32.71-178.45 DEPTH= 57.KM

A=-0.84272 B=-0.02286 C=-0.53786 D=-0.0271 E= 0.9996
G= 0.5377 H= 0.0146 K=-0.8430 HT= 0.9

DEPTH OF FOCUS= 0.004R

SE= 3.49

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

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 24

RAOUL ISLAND	3.48	7.6	0 45	-8				
NOUMEA	16.93	304.0	3 57	2				
AFIAMALU	19.68	19.6	4 29K	2	7 47	-14		
BRISBANE	25.42	274.5	5 24	0	10 12	28		
CANBERRA	27.04	255.4	5 41	2				
MOORLANDS	28.75	240.3	5 55	1				
TARRALEAH	29.26	240.8	5 54	-5				
ADELAIDE	35.45	254.3	6 53K	0				
PORT MORESBY	39.32	298.4	7 26	1				
CAPE HALLETT	40.11	185.4	7 40	8				
BYRD STATION	52.73	169.2	9 10	-1				
MUNDARING	54.39	251.8	9 20	-4				
SOUTH POLE	57.46	180.0	9 45	-1			9 55	
MIRNY	59.91	207.5			18 10	2		
SHASTA	89.51	39.1	12 52	0				
MINERAL	89.69	39.8	12 53K	0				
RENO	90.10	41.3					13 42	
TUCSON	90.78	51.6	12 59	1				
EUREKA	92.24	43.4	13 1	-4				
FLAMING GRGE	97.05	45.5	13 34	7				
HUNGRY HORSE	99.08	37.5	13 36	0				
COLLEGE	100.17	12.8	13 42	1				
QUETTA	124.96	286.1	18 45	-9				
KHEYS	127.37	350.1	18 58	-1				
SVERDLOVSK	133.43	319.5	19 12	2				
SHIRAZ	136.63	280.1	19 17	1			19 59	
SODANKYLA	142.32	344.4	19 24	-2				
KIRUNA	143.17	348.2	19 24	-4				
TIFLIS	144.72	297.4	19 29	-2				
MOSCOW	145.99	323.4	19 34	1				
NURMI JARVI	148.33	338.3	19 40	3				
SKALSTUGAN	148.38	350.9	19 41K	4				
HELSINKI	148.49	337.7	19 43	6				
UPPSALA	150.84	343.3	19 46	6				
JERUSALEM	151.58	277.3	19 50	9				
GOTEBORG	154.02	347.2	19 54	9				
HELWAN	154.44	271.6	19 56K	11				
KASTAMONU	155.22	298.8	19 53	6				
COLLMBERG	159.62	339.0			20 32		20 51	PKP2
JENA	160.36	340.9	20 34	41				
STUTT GART	162.94	342.4	20 47	52				
TAMARRASSET	169.50	200.5	20 4	3			25 4	

JANUARY 6 1.H 20.M 38.S EPICENTRE 42.44 143.50 DEPTH= 68.KM

A=-0.59504 B= 0.44033 C= 0.67234 D= 0.5948 E= 0.8038
G=-0.5405 H= 0.3999 K=-0.7402 HT= -2.6

DEPTH OF FOCUS= 0.006R

SE= 3.45

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
HIROO	0.21	219.6	0	8K	-4	0	13	-7				
OB IHIRO	0.53	335.4	0	14	-1	0	25	-1				
URAKAWA	0.61	241.7	0	13K	-2	0	26	-1				
KUSIRO	0.86	50.6	0	16K	-2	0	27	-4				
TOMAKOMAI	1.43	278.3	0	27	2	0	46	3				
ASAHI GAWA	1.57	328.7	0	27	0	0	49	2				
ABASHIRI	1.68	19.6	0	28	0	0	50	1				
SAPPORO	1.70	292.4	0	29K	1	0	52	2				
NEMURO	1.77	59.1	0	27	-2	0	46	-5				
MURORAN	1.87	267.2	0	32K	1	0	54	1				
RUMOE	2.04	318.3	0	34	1	0	55	-2				
HAKODATE	2.13	253.7	0	33K	-1	0	59	-1				
MORI	2.20	262.1	0	35K	0	1	2	1				
HATI NOHE	2.41	218.4	0	33A	-5	0	59	-8				
SUTTSU	2.44	279.6	0	38	0	1	10	3				
AOMORI	2.60	232.4	0	38	-3	1	13	2				
MI YAKO	3.02	203.0	0	41	-6	1	13	-9				
MORI OKA	3.25	213.5	0	45A	-5	1	19	-9				
WAKKANAI	3.26	336.8	0	57	7	1	39	11				
AKITA	3.74	224.5	1	0	3	1	36	-4				
MI ZUSAWA	3.76	209.3	0	53	-4	1	36	-4				
KURI LSK	4.22	47.1	1	4A	1	1	51	-1				
ISINOMAKI	4.34	203.3	1	1	-4	1	47	-8				

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 25

SENDAI	4.61	206.3	1	4	-5	1	54	-8	
YAMAGATA	4.83	210.9	1	8A	-4	2	2	-5	
HUKUSIMA	5.23	207.4	1	13	-4	2	9	-8	
ONAHAMA	5.84	200.9	1	19	-7	1	24	-68	
SHIRAKAWA	5.88	206.5	1	22	-4	2	24	-9	
AIKAWA	5.97	224.0	1	28	1	2	37	2	
MITO	6.49	202.2	1	30	-5	2	39	-9	
UTUNOMIYA	6.52	206.7	1	30	-5	2	38	-11	
KAKIOKA	6.71	203.6	1	31	-7	2	43	-11	
TUKUBASAN	6.75	204.1	1	32	-6				
TYOSI	7.02	197.9	1	34	-8	2	46	-15	
KUMAGAYA	7.05	208.3	1	42	-1	2	56	-6	
NAGANO	7.07	217.1	1	40	-3	3	37	35	
MATUSIRO	7.17	216.5	1	40K	-4	3	2	-3	
OIWAKE	7.20	213.7	1	45	0				
TITIBU	7.31	209.4	1	56	10				
TOKYO C.M.O.	7.35	204.6	1	56	9	2	59	-10	
TOYAMA	7.52	222.4	2	3	14				
MATUMOTO	7.52	216.5	1	48	-1				
YOKOHAMA	7.61	204.4	2	7	17	3	7	-9	
KOHU	7.77	211.2	1	52	-1	3	19	-1	
HUNATU	7.85	209.5	2	2	8	3	16	-6	
MERA	8.04	202.1	1	58	2				
MISIMA	8.13	207.4	2	5	8	3	19	-10	
AJIRO	8.14	206.4				3	17	-12	3 11
OSIMA	8.31	204.2				3	20	-13	
SHIZUOKA	8.45	209.8				4	13	36	
GIHU	8.77	218.9	2	4	-2				
OMAESAKI	8.85	209.6	2	42	35				
NAGOYA	8.87	217.2	2	22	15				4 22
HIKONE	9.12	220.6	2	10	-1				
KAMEYAMA	9.36	218.2							2 35
KYOTO	9.57	221.8	2	15	-2	4	4	0	
ABUYAMA	9.77	221.9	2	18K	-2				
NARA	9.80	220.3	2	16	-4				
SUMOTO	10.52	222.6							3 42
CHANGCHUN	13.36	282.1	3	7	-1				
PEKING	20.66	272.5	4	32	-4				
ZO-SE	21.10	244.8	4	43	3	8	41	15	
YAKUTSK	21.26	342.0	4	46	4	8	28	-1	
NANKING	22.16	250.2	4	48	-3				
LANCHOW	31.16	271.6	6	15	1				
HONG KONG	31.64	239.8	6	20	1	11	2	-20	
CHENGTU	33.55	262.6	6	34	-1				
KUNMING	37.61	255.9	7	10K	0				
NHATRANG	42.33	234.9	7	49K	1				
LHASA	43.66	270.6	8	1	2				
COLLEGE	43.71	35.1	7	59	-1				
SHILLONG	45.28	265.2	8	5	-7				
CHITTAGONG	47.22	261.7	8	15	-13				
KHEYS	47.71	347.2	8	30	-1				
ANDIJAN	51.75	293.7	9	3	1				
SVERDLOVSK	52.25	316.4	9	6	0				
LAHORE	54.91	282.8	9	24	-2				
WARSAK DAM	55.61	286.8	9	30	-1				
NORD	55.76	356.5	9	29	-3				
RESOLUTE	56.97	15.7	9	38A	-3				
APATITY	58.45	335.0	9	51	0				
LEMBANG	58.92	222.8	9	51K	-3				
THULE	59.69	8.3	9	57	-2				
SODANKYLA	60.63	336.7	10	4	-2				
QUETTA	60.96	285.6	10	7K	-1	18	22	3	12 22 PP
KIRUNA	62.05	338.9	10	14	-1	18	34	1	
PENTICTON	63.23	46.7	10	22	-1				
MOSCOW	63.90	322.7	10	28	0				
NURMIJARVI	65.95	331.7	10	39	-2				11 22
HELSINKI	66.08	331.3	10	42	0				
SHASTA	66.65	55.7	10	45	0				
HUNGRY HORSE	66.78	45.1	10	45	-1				
SCORESBY SD.	66.90	354.7	10	47A	0				
MINERAL	67.34	55.6	10	50A	0				
SKALSTUGAN	67.47	338.6	10	49	-1				
BERKELEY	68.43	58.1	11	11	15				
TIFLIS	68.78	307.5	10	59	0				
UPPSALA	68.81	334.0	10	57	-2				11 21 PCP
RENO	68.92	55.4	11	15	16				
BUTTE	69.02	46.4	10	56	-4				
LICK	69.14	58.2	11	2A	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 26

BOZEMAN	70.06	46.0	11 11	5				
FRESNO	70.65	57.7	11 25	15				
EUREKA	71.27	53.5	11 14	0				
SHIRAZ	71.34	293.3	11 13A	-1	20 24	-1	21 11	PS
GOTEBORG	72.32	335.0	11 20	0				
SALT LAKE C.	72.83	50.3	11 22	-1				
PASADENA	73.34	58.9	11 25	-1				
FLAMING GRGE	74.11	48.8	11 30	0				
RAPID CITY	75.22	43.2	11 40	3				
GLEN CANYON	75.52	53.1	11 38	0				
LARAMIE	75.94	46.5	11 46	5				
KASTAMONU	76.86	314.5	11 37	-9				
COLLMBERG	77.20	330.7	11 59	11			12 38	
CANBERRA	77.55	175.4	11 50A	0				
JENA	78.02	331.2	11 52	0			12 8	
KASPERSKE H.	78.76	329.1	11 57	0				
TUCSON	79.19	56.2	12 0	1				
STUTTGART	80.64	331.3	12 6	-1				
JERUSALEM	81.10	305.1	12 11	2				
TARRALEAH	84.40	177.8	12 27K	1				
WICHITA MTS.	84.50	47.0	12 27	1	12 40			
MOORLANDS	84.56	177.3	12 27K	0				
HELWAN	84.81	306.1	12 29	1			13 55	
KARAPIRO	85.15	155.1	12 30	0				
ISOLA	85.36	330.2	12 31	0				
OTTAWA	85.81	26.5	12 32A	-1				
BREBEUF	86.40	25.2	12 36	0				
WESTON	89.93	25.0	12 55A	2				
TAMANRASSET	104.40	320.4	18 14	256				
SOUTH POLE	132.25	180.0	19 7	1				
BYRD STATION	132.67	166.4	19 8	1				

JANUARY 6 6.H 21.M 45.S EPICENTRE 51.88-176.16 DEPTH= 91.KM

A=-0.61850 B=-0.04149 C= 0.78469 D=-0.0669 E= 0.9978
G=-0.7829 H=-0.0525 K=-0.6199 HT= -6.1

DEPTH OF FOCUS= 0.009R

SE= 1.54

	DELTA DEG.	AZ. DEG.	P		O-C S	S O-C			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
COLLEGE	19.52	37.4	4	21	-1	8	0	7				
VICTORIA	33.32	74.5	6	32	1							
PENTICTON	35.21	71.2	6	47	0							
MATUSIRO	35.48	262.6	6	49A	-1							
SHASTA	37.98	85.3	7	12	2							
RESOLUTE	38.60	24.9	7	17	1						9 27	
MINERAL	38.67	85.2	7	17K	1							
HUNGRY HORSE	38.93	69.8	7	19	1				7 36		9 29	PCP
CHANGCHUN	39.13	282.0	7	19	-1							
BERKELEY	39.76	88.8	7	27	2							
RENO	40.26	85.0	7	46A	17							
LICK	40.48	89.0	7	32K	1							
BUTTE	40.98	72.1	7	31	-4							
VINEYARD	41.01	89.5	7	37	1							
BOZEMAN	42.07	71.7	7	44	0							
EUREKA	42.66	82.3	7	50	1						9 41	PCP
THULE	44.15	18.8	8	2	1							
XHEYS	44.39	349.0	8	4	1							
SALT LAKE C.	44.40	78.0	8	3	0							
PASADENA	44.69	89.9	8	5	0						9 46	
FLAMING GRGE	45.79	76.3	8	14	0						11 11	
NORD	46.31	4.1	8	17	-1							
PEKING	46.88	283.3	8	23	0							
GLEN CANYON	46.92	82.0	8	23	0							
RAPID CITY	47.56	69.0	8	28	0				8 44			
LARAMIE	47.83	73.5	8	30	0							
ZO-SE	49.64	270.7	8	44	0							
NANKING	50.47	273.5	8	50	-1							
TUCSON	50.51	86.2	8	50	-1							
LAWRENCE	55.40	69.2	9	26	-1							
WICHITA MTS.	56.30	75.2	9	33	-1				9 48		10 28	PCP
LANCHOW	56.84	287.6	9	38	1							
FAYETTEVILLE	57.97	71.1	9	45A	0				9 55		10 36	
TROMSOE	58.30	353.8	9	49	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 27

SODANKYLA	59.84	350.0	9 57	-1		
KIRUNA	59.97	352.8	10 0	1		
CHENG TU	60.50	283.0	10 3	0		
OTTAWA	61.47	52.1	10 7	-2		
SVERDLOVSK	62.04	328.6	10 13	0		
SHAWI NIGAN	62.05	49.5	10 12	-1		
SEVEN FALLS	62.53	47.9	10 15	-1		
MORGANTOWN	63.47	59.1	10 23K	0		
KUNMING	65.28	279.6	10 35A	1		
WESTON	65.84	51.7	10 37	-1		
CHAPEL HILL	66.67	61.3	10 43	0		
NURMI JARVI	66.72	349.0	10 45	2		
COLUMBIA	67.00	64.0	10 45	0		
UPPSALA	68.07	352.5	10 51	-1		
SHILLONG	71.48	287.8	11 5K	-8		
CHATRA	73.26	292.1	11 24	1		
CHITTAGONG	73.94	285.7	11 28A	1		
WARSAK DAM	76.03	307.6	11 38	-1		
WARSAK DAM	76.03	307.6	11 38	-1		
LAHORE	76.59	304.2	11 42	0		
STUTT GART	79.62	356.3	12 37	38		
TIFLIS	80.22	330.1			17	7
QUETTA	81.39	308.6	12 10A	2		
SAN JUAN	87.47	63.3	12 40	2		
KARAPIRO	89.73	186.6	12 47	-2	13	3
CANBERRA	92.04	207.9	13 1	1		
LWIRO	126.31	328.4	18 55	3		
SCOTT BASE	129.89	184.7	19 1	2	22	19 PKS
BYRD STATION	135.50	168.0	18 59	-11	22	36 SKP
BROKEN HILL	137.77	323.1	19 5	-9		
SOUTH POLE	141.69	180.0	19 16	-5	22	53 SKP
BULAWAYO	142.89	319.3	19 22	-1		
ARGENTINE I.	144.00	138.3	19 22	-3		
MAWSON	147.88	218.2	19 35	4		
PRETORIA	148.04	315.4	20 7	35		
WINDHOEK	149.00	335.7	19 40K	7		
PIETERMZBURG	150.30	308.2	19 43K	8		
KIMBERLEY	152.11	317.9	19 50A	12		

JANUARY 7 10.H 30.M 53.S EPICENTRE 35.45 26.17 DEPTH= 75.KM

A= 0.73278 B= 0.36003 C= 0.57742 D= 0.4410 E=-0.8975
G= 0.5182 H= 0.2546 K=-0.8165 HT= -0.0

DEPTH OF FOCUS= 0.007R

SE= 2.66

	DELTA DEG.	AZ. DEG.	P		O-C S	S O-C			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
ATHENS	3.19	322.7	0	51K	1	1	30	3				
ISTANBUL UN.	6.01	20.9	1	29	1							
ISTANBUL KA.	6.06	21.3	1	28	-1	2	38	0				
KASTAMONU	6.93	30.1	2	2A	21							
HELWAN	7.07	140.5	1	40K	-3	2	54	-9				
SOFIA	7.57	343.9	1	52	2	2	15	-60				
KSARA	8.17	98.7	1	55	-3	3	22	-8			1	30 PG
JERUSALEM	8.39	113.3	1	58	-3	3	28	-7				
REGGIO CALA.	8.84	290.5				3	38	-8				
MESSINA	8.94	291.0	2	7	-2	3	35	-14				
SIMFEROPOL	11.26	30.2	2	39	-1	4	41	-4				
ROME	12.48	305.2									4	43
LJUBLJANA	13.77	323.8	3	14	1	5	44	-1				
FLORENCE X.	14.17	310.4									4	28
BRATISLAVA	14.38	334.9	3	27	6							
LWOW	14.44	354.4	3	24	2						6	16
NIEDZIKA	14.60	344.7	3	25	1							
VIENNA-H.	14.71	333.4	3	30	5							
RACIBORZ	15.73	340.8	3	38	-1						4	4 PP
TIFLIS	15.85	61.2	3	43	3							
KASPERSKE H.	16.51	329.8	3	49	1							
PRUHONICE	16.81	333.3	3	52	0	6	59	4				
SETIF	16.86	278.6	3	55	2	6	51	-5			4	8 PP
ISOLA	17.05	306.5	3	55	0						4	13 PP
RAVENSBERG	17.41	320.1	3	59	-1						4	32
EBINGEN	18.00	320.2	3	58	-9						4	29

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961					PAGE 28				
MAKHACH-KALA	18.13	59.1	4 11	3					
TUBINGEN	18.17	321.2	4 8	-1				7 24	
STUTTGART	18.22	322.1	4 9	0	7 25	-2		4 32	PP
BASLE	18.37	316.7	4 21	10					
NEUCHATEL	18.44	314.6	4 11	-1					
COLLMBERG	18.46	333.2	4 11	-1				4 49	PP
JENA	18.72	330.2	4 14	-1	7 52	14		4 24	PP
ALGIERS UNI.	18.72	280.8	4 12	-3				4 27	PP
STRASBOURG	18.88	319.6	4 18	1				5 7	
HEIDELBERG	18.91	322.8	4 16	-1				7 46	
BESANCON	19.14	314.2	4 19	-1					
TEHERAN	20.50	81.8	4 36	2	8 21	7			
BENSBERG	20.69	324.4	4 24	-12				4 48	
RELI ZANE	20.82	278.3	4 37	-1					
GARCHY	20.89	311.5	4 38	0				5 59	PP
MUNSTER	21.17	327.0	4 41	0					
BAGNERES	21.48	298.6	4 48	4				5 27	
MOSCOW	21.75	17.7	4 46	-1	8 38	0			
TAMARRASSET	21.96	240.5	4 50K	1	8 43	1	5 9	5 24	PP
COPENHAGEN	22.31	339.3	4 50	-2					
SHIRAZ	22.92	97.2	5 1K	3	9 4	5		5 20	PCP
ALMERIA	23.13	281.9	4 59	-1			5 17		
FOLINIERE	23.68	312.4	5 6	0					
GRANADA	24.00	282.9	6 3K	54					
GOTEBORG	24.20	341.3	5 1	-10					
TOLEDO	24.26	289.5	5 12	1			5 31		
BENI ABBES	24.37	265.5	5 13	1	9 26	2			
HELSINKI	24.75	358.6	5 15	-1					
NURMI JARVI	25.09	358.2	5 19	0	9 37	1			
ADDIS ABABA	28.71	153.3	5 57	5					
SKALSTUGAN	29.43	347.4	5 56	-3					
SVERDLOVSK	31.53	36.5	6 17	0					
BANGUI	31.70	194.4						8 44	
SODANKYLA	31.96	0.3	6 19	-2	11 23	-3		9 9	PCP
APATITY	32.41	5.2	6 24K	-1					
KIRUNA	32.59	356.0	6 24A	-3	11 33	-3			
QUETTA	34.50	87.0	6 44	1	12 7	2	7 12	8 1	PP
NAMANGAN	35.86	67.2	6 57A	2	12 29	3			
ANDI JAN	36.41	67.5	7 1A	2					
WARSAK DAM	37.08	78.8	7 5	0					
LWIRO	37.58	175.7	7 11	2					
FRUNSE	37.86	63.8	7 14A	3					
LAHORE	40.04	81.4	7 31	1					
SCORESBY SD.	43.36	338.6	7 56	-1					
KHEYS	46.90	6.8	8 24K	-1					
NORD	48.76	352.4	8 37A	-2					
CHATRA	52.20	81.5	9 5A	-1					
BULAWAYO	55.33	177.2	9 29	0					
SHILLONG	56.55	80.6	9 30A	-7					
THULE	56.90	343.7	9 37	-3					
WINDHOEK	58.34	189.9	9 47	-3					
ULAN-BATOR	58.96	50.8	9 55	1					
RESOLUTE	63.60	345.3	10 24A	-1					
SEVEN FALLS	69.27	313.6	11 2A	1					
SHAWINIGAN	70.71	313.8	11 11A	1					
BREBEUF	71.77	313.1	11 17A	1					
OTTAWA	73.06	313.9	11 25A	1					
MORGANTOWN	78.94	310.9	11 59K	2					
COLLEGE	79.90	357.4	12 1	-1			12 22		
SAN JUAN	81.37	286.3	12 29	19					
MATUSIRO	84.52	48.6	12 27A	1					
LEMBANG	87.00	100.5	12 37A	-1					
RAPID CITY	88.45	326.1	12 46	1					
HUNGRY HORSE	89.33	334.7	12 50	1			13 19		
BOZEMAN	90.49	331.6	12 56	1					
LARAMIE	91.71	325.8	13 1	0					
WICHITA MTS.	93.21	317.3	13 9	2				14 43	
FLAMING GRGE	93.72	327.9	13 10	0					
EUREKA	97.65	331.4	13 29	1					
SOUTH POLE	125.27	180.0	18 53	1					
BYRD STATION	133.33	187.8	19 9	1				22 24	

JANUARY 7 15.H 53.M 1.S EPICENTRE 37.78 21.10 DEPTH= 88.KM

A= 0.73920 B= 0.28522 C= 0.61012 D= 0.3600 E=-0.9330
 G= 0.5692 H= 0.2196 K=-0.7923 HT= -0.9

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 29

DEPTH OF FOCUS= 0.009R

SE= 3.95

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
ATHENS	2.08	84.1	0	32K	-2	1	3	4			1	11 SG
REGGIO CALA.	4.32	275.8	0	56	-9	1	44	-11				
MESSINA	4.40	277.1	0	58	-8	1	40	-17				
SOFIA	5.20	18.5	1	16	-1	2	20	4				
ISTANBUL UN.	6.92	59.5	1	39	-2							
ISTANBUL KA.	6.99	59.5	1	46	4	3	20	20				
BELGRADE	7.05	356.2	1	43K	0	3	12	10			2	15 PG
BUCHAREST	7.63	28.1	1	47	-4						2	32
ROME	7.80	304.5									4	8 S*
TIMI SOARA	7.96	0.6	2	17	22	3	48	24			4	42 SG
KASTAMONU	8.28	61.4	2	30	30						5	38
KECSKEMET	9.19	354.0									3	43 PG
FLORENCE X.	9.57	311.8	2	5	-12	5	1	57			5	10 SGSGSG
TRIESTE	9.58	327.4				3	55	-9			2	20 PP
LJUBLJANA	9.60	331.4	2	12	-5	3	57	-7				
BUDAPEST	9.81	351.7				4	14	5			4	25 SS
PADOVA	10.28	320.7									4	1
BRATISLAVA	10.78	345.5	2	27	-6	4	28	-5				
VIENNA-H.	11.01	343.2	2	36	0	4	28	-10				
HELWAN	11.60	129.9	2	37	-7	4	40	-12				
SIMFEROPOL	12.11	49.7	2	49	-2							
LWOW	12.21	9.0	2	51	-1						6	24
KRAKOW	12.29	356.5	3	5	12							
ISOLA	12.38	305.5	2	52	-3						3	30
CHUR	12.45	320.3	2	58K	2						5	2
RACIBORZ	12.47	351.3	2	55	-1							
KASPERSKE H.	12.58	336.8	2	52	-5							
KSARA	12.63	103.8	3	11	13	5	59	42				
SETIF	12.65	267.6	2	54K	-4						3	4 PP
RAVENSBURG	13.06	323.5	3	11	7						5	27
JERUSALEM	13.06	113.1	3	3	-1	5	17	-10				
PRUHONICE	13.07	341.0	2	59	-5	5	28	1			8	37 PCP
PRAGUE	13.18	340.8									7	54
EBINGEN	13.65	323.4	3	8	-3						5	47
TUBINGEN	13.85	324.6	3	13	-1						5	45
BASLE	13.90	318.7	3	17	3						5	30
NEUCHATEL	13.91	315.9	3	15	0						5	34
STUTTGART	13.93	325.8	3	13	-2	6	4	16			4	21
ALGIERS UNI.	14.41	271.5	3	21	0							
STRASBOURG	14.50	322.3	3	20	-2	6	7	6			6	21 SS
BESANCON	14.60	315.2	3	28	5							
HEIDELBERG	14.65	326.4	3	21	-3						5	55
COLLMBERG	14.68	339.6	3	25	0						3	35 PP
JENA	14.78	335.8	3	24	-2	6	14	6			3	32 PP
GARCHY	16.30	311.3	3	57	12	6	43	1				
BENSBERG	16.47	327.5	3	39	-8						4	13
BAGNERES	16.79	294.9	3	47	-4							
MUNSTER	17.06	330.6	4	7	13							
PARIS	17.41	315.2	3	59	0							
TIFLIS	18.63	70.4	4	13	0							
COPENHAGEN	18.83	344.7	4	15	-1						12	20 PCS
FOLINIERE	19.10	312.0	4	17	-2							
TAMANRASSET	20.07	226.2	4	26	-3	8	12	7			4	55 PPP
KEW	20.38	319.0	4	43	11	8	20	10				
MAKHACH-KALA	20.73	67.2	4	43	7							
GOTEBORG	20.81	346.1	4	36	0							
MOSCOW	21.13	26.5	4	39	-1	8	45	21				
UPPSALA	22.20	355.4	4	49A	-1	8	51	7				
HELSINKI	22.54	5.1	4	55	1	8	56	6				
NURMIJARVI	22.86	4.5	4	55	-2	9	3	7			5	22 PP
SERRA PILAR	23.12	287.6	4	58A	-1	9	5	5			5	29 PP
TEHERAN	24.31	85.5	5	11	0							
SKALSTUGAN	26.37	351.1	5	30	0							
SHIRAZ	27.27	97.9	5	38K	0	10	16	7			6	42 PP
SODANKYLA	29.80	4.3	6	1	0							
KIRUNA	30.10	359.5	6	3	-1							
APATITY	30.61	9.3	6	8K	0							
SVERDLOVSK	32.26	41.0	6	23	0							
ADDIS ABABA	32.77	146.4	6	29	2							
BANGUI	33.32	184.5									8	56
QUETTA	38.46	87.4	7	15	0							
SCORESBY SD.	39.71	339.0	7	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961					PAGE 30		
LWIRO	40.47	168.1	7 32A	0			
WARSAK DAM	40.65	79.5	7 32	-1			
KHEYS	45.11	8.0	8 11K	1			
NORD	45.93	352.8	8 16A	0			
THULE	53.50	342.9	9 13	-1			
CHATRA	55.87	80.6	9 30	-1			
BULAWAYO	58.05	171.7	9 47	0			
SHILLONG	60.16	79.5	9 53K	-8			
RESOLUTE	60.28	344.0	10 2A	0			
SEVEN FALLS	64.69	311.0	10 32	1			
SAN JUAN	76.84	283.1	11 50	6			
COLLEGE	77.31	355.2	11 48	1			
FAYETTEVILLE	85.20	312.7					12 34
HUNGRY HORSE	85.41	331.8	12 31	2			
LARAMIE	87.44	322.8	12 41	2			
WICHITA MTS.	88.70	314.3	12 47	2	12 57		13 43
LEMBANG	91.39	97.5					15 30

JANUARY 7 18.H 16.M 57.S EPICENTRE -57.46 -25.89 DEPTH= 48.KM

A= 0.48625 B=-0.23598 C=-0.84135 D=-0.4366 E=-0.8997
G=-0.7569 H= 0.3673 K=-0.5405 HT= -8.1

DEPTH OF FOCUS= 0.002R

SE= 1.84

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
ARGENTINE I.	19.69	230.9	4 28	0				
SOUTH POLE	32.72	180.0	6 30	0				8 54 PCP
BYRD STATION	34.67	197.8	6 47	0	11 58	-14		
HERMANUS	37.94	72.3			12 54	-8		
MAWSON	38.60	142.1	7 24	4				
SCOTT BASE	44.72	183.8	8 11A	1	14 47	4		9 35 PP
WINDHOEK	46.65	60.1	8 24	-1				
PIETERMZBURG	47.55	79.0	8 33	0				
MIRNY	48.20	152.0	8 35	-3				
PRETORIA	49.49	73.8	8 45	-3				
CAPE HALLETT	50.04	186.4	8 51	-1	15 16	-42		10 53 PP
LA PAZ	51.59	304.6	9 5	2	16 21	2		16 33 PS
WILKES	52.28	159.4						
AREQUIPA	53.15	301.0	9 14	-1				
BULAWAYO	54.35	70.3	9 22A	-2				
HUANCAYO	58.78	299.6	9 57	1				
BROKEN HILL	59.09	66.6	9 56	-2				
TANANARIVE	65.35	86.7	10 43K	4				11 31
LWIRO	69.82	60.3	11 8A	1	20 19	7		13 42 PP
BANGUI	71.31	47.6						
MBOUR	71.95	9.1	11 19	-1	20 39	2		
TRINIDAD	73.86	323.5	11 31	0				
CARACAS	75.61	318.2	11 42	1	21 16	-2		
ST. VINCENT	76.19	324.5	11 45	0				
FORT NELSON	79.82	175.0	12 4	-1			12 20	
TARRALEAH	80.40	174.2	12 8	0			12 24	
ST. KITTS	80.57	324.5	12 9	0				
CHATEAU	82.03	196.7	12 18	2				
SAN JUAN	82.64	321.8	12 18	-2				
KARAPIRO	83.27	196.9	12 21A	-2				
TAMANRASSET	84.16	28.9	12 28	1			12 52	
ADDIS ABABA	84.41	63.8	12 35	6				
MUNDARING	85.36	148.4	12 32	-1				
ADELAIDE	87.01	167.4	12 41K	0				13 50
CANBERRA	87.48	175.8	12 43	-1			13 7	
RIVERVIEW	89.03	177.5						23 37
BENI ABBES	89.50	20.4	12 52	-1				13 9
BRISBANE	95.48	178.8			24 53	62		
KSARA	104.67	49.3						18 35 PP
PALISADES	106.04	324.2						18 40 PP
WICHITA MTS.	110.16	303.1	18 26	0				19 11 PP
TUCSON	113.98	292.5	18 35	1				
TUCSON TELE.	114.00	292.7	18 29	-5				13 55
QUETTA	116.36	74.8	18 41A	3				
GLEN CANYON	118.12	295.1	18 43	1				
LARAMIE	118.71	302.3	18 43	0				
PASADENA	119.21	288.3	18 45K	1				31 18
RAPID CITY	119.85	305.8	18 46	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 31

FLAMING GRGE	120.18	299.4	18 46	0	
SALT LAKE C.	121.22	297.6	18 48	0	
LAHORE	121.33	79.6	18 48	0	
WARSAK DAM	121.76	75.7	18 49	0	
UPPSALA	121.90	24.2	18 47	-2	28 46 PKKP
FRESNO	122.08	289.0	18 51	2	
EUREKA	122.23	293.8	18 50	0	
VINEYARD	122.87	287.8	18 53	2	
LICK	123.46	288.1	18 54K	2	
HELSINKI	123.92	27.9	18 52	-1	19 10
NURMIJARVI	124.14	27.5	18 51	-2	19 9
BERKELEY	124.18	288.1	18 54	1	
RENO	124.20	291.1	18 56K	2	
SKALSTUGAN	124.22	19.5	18 52	-2	
CHATRA	124.53	93.6	18 53K	-1	
BOZEMAN	124.60	301.9	18 55	1	
MINERAL	125.71	290.5	18 57K	1	
SHILLONG	126.05	98.7	18 50K	-7	
SHASTA	126.37	290.2	18 59	1	
SCORESBY SD.	127.67	1.7	18 59K	-1	
HUNGRY HORSE	127.96	302.3	19 0	-1	22 15 SKP
KIRUNA	129.55	20.9	19 2	-2	
SODANKYLA	130.43	23.8	19 4	-1	22 29 PKS
PENTICTON	131.24	299.7	19 7	0	
KUNMING	131.38	109.3	19 9	2	22 28
APATITY	132.14	26.5	19 8	-1	
VICTORIA	132.50	296.6	19 11	2	
SVERDLOVSK	133.22	48.8	19 6	-5	
THULE	136.32	346.7	19 17	1	
RESOLUTE	139.43	337.6	19 12	-10	
LANCHOW	140.61	100.8	19 16	-8	
NANKING	144.97	121.2	19 31	-1	
KHEYS	145.14	16.6	19 32	0	
ZO-SE	145.24	125.1	19 32	0	
PEKING	150.03	109.1	19 45	5	
ULAN-BATOR	150.40	88.2	19 47	6	
COLLEGE	151.99	309.5	19 39	-4	14 28 P
CHANGCHUN	157.43	114.7	19 50	0	

JANUARY 8 1.H 15.M 31.S EPICENTRE 4.03 128.35 DEPTH= 121.KM

A=-0.61892 B= 0.78234 C= 0.06989 D= 0.7843 E= 0.6204
G=-0.0434 H= 0.0548 K=-0.9976 HT= 7.1

DEPTH OF FOCUS= 0.014R

SE= 2.92

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
MANILA	12.77	326.4	2	59	1	5	23	6				
BAGUIO CITY	14.48	328.8	3	24	4						9	8
HONG KONG	22.77	324.1	4	51A	-1	9	1	13	5	23		
PORT MORESBY	23.01	125.5	4	48	-6	8	58	6			6	8
LEMBANG	23.34	242.5	4	57K	-1	9	9	11	5	25	6	25
BANDUNG	23.34	242.3	4	56	-2	9	10	12				
DJAKARTA	23.76	244.8	4	55	-7	9	7	2				
CANTON	23.86	323.9	5	3K	0							
ZO-SE	27.76	346.7	5	40	1							
NANKING	29.29	343.2	5	54	1							
KUNMING	32.33	312.9	6	21	2							
MATUSIRO	33.60	14.4	6	27K	-3						14	48
CHENG TU	35.05	321.8	6	42	-1	12	14	9				
PEKING	37.49	344.6	7	2	-1							
LANCHOW	39.06	327.7	7	19K	3	13	18	12				
BRISBANE	39.14	144.4	6	55	-22						16	13
CHANGCHUN	39.72	356.6	7	21	-1							
ADELAIDE	40.00	166.7	8	19K	55						13	5
SHILLONG	41.02	305.1	7	25A	-7	13	39	4				
LHASA	43.52	310.0	7	55	2	14	24	12				
CHATRA	45.39	304.3	8	7	-1							
ULAN-BATOR	47.45	340.5	8	22	-2							
POONA	55.13	289.7	9	19	-3							
LAHORE	57.54	305.0	9	37K	-2	17	31	6				
YAKUTSK	57.86	0.8	9	37	-4							
KARAPIRO	60.44	138.2	9	55	-4							

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 32

WARSAK DAM	60.48	307.0	9 58	-1					
FRUNSE	61.22	317.4	10 4K	0					
ANDIJAN	62.00	314.5	10 11	2	18 38	16			
KARACHI	62.33	295.8	10 10	-1					
NAMANGAN	62.58	314.5	10 13	0	18 43	14			
QUETTA	63.35	301.7	10 18K	0	18 51	12	10 45	12 38	PP
TIKSI	67.51	0.2	10 42K	-3					
SVERDLOVSK	74.56	328.1	11 32	5					
SHIRAZ	75.70	299.4	11 32A	-1	21 12	9	12 12	14 22	PP
CAPE HALLETT	80.76	168.1	11 59	-2				24 52	
TIFLIS	82.52	311.4	12 11	1					
TANANARIVE	82.62	250.4	12 13	2					
XHEYS	82.87	351.0	12 12	0					
COLLEGE	83.74	25.3	12 15	-1				15 33	PP
SCOTT BASE	84.42	172.4	12 33	13					
MOSCOW	87.10	325.5	12 32	-1					
JERUSALEM	90.56	301.7	12 57	8					
SODANKYLA	90.80	337.7	12 49	-1					
XIRUNA	92.97	338.8	12 59	-1					
RESOLUTE	97.23	10.6	13 19	-1					
TAMANRASSET	118.18	298.4	18 29	-3				19 53	
WICHITA MTS.	121.43	44.9						20 10	PP
AREQUIPA	156.94	123.8	20 15	35					

JANUARY 8 2.H 56.M 43.S EPICENTRE 3.94 128.66 DEPTH= 170.KM

A=-0.62318 B= 0.77910 C= 0.06823 D= 0.7809 E= 0.6246
G=-0.0426 H= 0.0533 K=-0.9977 HT= 7.1

DEPTH OF FOCUS= 0.022R

SE= 3.79

	DELTA DEG.	AZ. DEG.	P			S			*PP		SUPP.	
			M	S	O-C S	M	S	O-C S	M	S	M	S
MANILA	13.02	325.5	3 3		3	5 45		24				
BAGUIO CITY	14.72	328.0	3 24		3	6 42		42				
PORT MORESBY	22.70	125.8	4 43		-5	8 52		12				
HONG KONG	23.03	323.7	4 23		-28	8 49		3	4 48			
LEMBANG	23.57	243.1	4 54K		-2	9 6		11			7 10	
BANDUNG	23.57	242.9	4 52		-4	9 8		13				
DJAKARTA	24.00	245.3	4 55		-6	9 7		5				
CANTON	24.12	323.5	5 1K		-1	9 16		12				
ZO-SE	27.92	346.2	5 38K		1	10 22		16				
NANKING	29.47	342.8	5 51		1	10 45		14				
KUNMING	32.62	312.7	6 18		0	11 34		14				
MATUSIRO	33.61	14.0	6 23K		-4	11 45		9				
CHENG TU	35.31	321.6	6 40		-1	12 13		11			8 5 PP	
PEKING	37.66	344.2	7 0		-1	12 50		13				
BRISBANE	38.89	144.6	8 44		93	13 8		12				
VLADIVOSTOK	39.12	3.8	7 12		-1						15 47 SS	
LANCHOW	39.31	327.5	7 13		-1	13 12		10				
CHANGCHUN	39.83	356.2	7 20		1	13 21		11				
ADELAIDE	39.84	167.1	7 14		-5							
CHITTAGONG	40.09	300.5	7 22		1	13 27		13	7 55		9 8 PP	
SHILLONG	41.33	305.0	7 20A		-11	13 36		4				
CALCUTTA	43.14	299.0									9 1	
RIVERVIEW	43.16	152.2				14 10		11			8 43	
CANBERRA	43.47	155.6	7 39		-9						9 36 PCP	
LHASA	43.82	309.9	7 50		-1	14 18		10				
NOUMEA	45.22	126.9	8 2		0							
CHATRA	45.70	304.2	8 0		-6							
ULAN-BATOR	47.64	340.3	8 19		-2							
COLOMBO	48.64	275.7	8 31		2							
MADRAS	48.71	283.8	8 29		0	15 27		10			10 25 PP	
FORT NELSON	49.62	162.0				15 43		13			19 26 SS	
HYDERABAD	50.96	289.2	8 48		2	15 58		9			10 47 PP	
KODAIKANAL	51.13	279.9	8 54		6							
IRKUTSK	52.23	341.3	8 56		0				9 25		10 57 PP	
DEHRA DUN	54.42	304.8	9 22		10	16 47		12				
POONA	55.45	289.7									9 57	
BOMBAY	56.47	290.0	9 27		0	17 4		1				
LAHORE	57.84	305.0	9 35		-1	17 33		12				
YAKUTSK	57.95	0.6	9 33		-4							
KARAPIRO	60.17	138.3	9 50		-2							
WARSAK DAM	60.78	306.9	9 53		-4							
CHATEAU	60.86	139.5	9 56		-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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 33

FRUNSE	61.49	317.3	9	58	-3				
SEMIPALATNSK	61.56	327.0	9	50	-12				
KHOROG	61.83	310.7	10	7	3	18	26	14	
KARACHI	62.65	295.8	10	9	0				
QUETTA	63.66	301.7	10	13	-3	18	47	13	12 38 PP
DUZHANBE	64.23	311.2	10	22	3	18	56	15	
TASHKENT	64.68	314.2	10	24	2	19	1	14	19 31 PS
TIKSI	67.60	0.1	10	37	-4				20 10 PS
WILKES	71.32	187.6							20 19
ASHKABAD	72.09	308.5	11	11	3	20	32	18	21 13 SCS
SVERDLOVSK	74.80	328.1	11	22	-2				
MIRNY	74.82	194.0	11	19	-5				
SHIRAZ	76.01	299.4	11	30	0	21	8	10	11 47 14 22 PP
CAPE HALLETT	80.60	168.1	11	57	2	21	51	4	27 29 SS
TANANARIVE	82.87	250.5	12	7	0				12 26
KHEYS	83.01	351.0	12	6	-2				12 10 PCP
COLLEGE	83.70	25.3	12	12	1	22	21	3	
SCOTT BASE	84.28	172.5	12	28	14				20 57
MOSCOW	87.35	325.5	12	29	0				22 56 SKKS
APATITY	88.39	337.5	12	39	5				
KSARA	90.14	303.7	12	43	1				16 20 PP
SIMFEROPOL	90.46	314.9				23	14	-7	24 16 *SS
JERUSALEM	90.87	301.8	12	48	2				
SODANKYLA	91.00	337.8	12	44	-2				
KIRUNA	93.17	338.8	12	54	-2				
KASTAMONU	93.33	311.7							14 58
SOUTH POLE	93.91	180.0	12	58	-2				
RESOLUTE	97.26	10.6	13	14	-1				
BYRD STATION	97.58	170.6	13	16	0				
PASADENA	106.71	52.8	18	20	777	27	46	207	33 59 SS
TAMANRASSET	118.49	298.4	18	32	4				
WICHITA MTS.	121.28	45.0							20 3 PP
HUANCAYO	154.94	110.2	19	38	6				
AREQUIPA	156.63	123.6	20	6	31				

JANUARY 8 10.H 1.M 4.S EPICENTRE -25.79 179.58 DEPTH= 470.KM

A=-0.90153 B= 0.00655 C=-0.43267 D= 0.0073 E= 1.0000
G= 0.4327 H=-0.0031 K=-0.9016 HT= 3.1

DEPTH OF FOCUS= 0.069R

SE= 1.55

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
RAOUL ISLAND	4.10	147.8	1	19	1						2	18
KARAPIRO	12.58	194.8	2	45	-2						4	57
TUAI	13.14	188.4				5	8	-3				
CHATEAU	13.80	193.3	2	57	-2	5	25	1				
AFIAMALU	14.33	36.1	3	3	-2	5	26	-8				
WELLINGTON	15.96	193.3				5	57	-7				
COBB RIVER	16.28	198.8				6	8	-2				
KAIMATA	17.99	199.9	3	43	1	6	35	-5				
GEBBIES PASS	18.74	195.8	4	48	59	7	49	55				
BRISBANE	24.01	260.2	4	38	0							
CANBERRA	27.91	242.8	5	14	1						11	8 SCP
FORT NELSON	31.38	228.8	5	43A	0							
TARRALEAH	31.76	230.4	5	46A	0						11	21 SCP
PORT MORESBY	34.81	292.0	6	13	1							
ADELAIDE	36.21	245.4	6	23K	0						11	37
MUNDARING	55.15	247.8	8	47	-2							
BYRD STATION	59.83	169.8	9	18	-3							
SOUTH POLE	64.36	180.0	9	50	-1							
LEMBANG	70.83	271.6	10	29K	-1							
MATUSIRO	73.24	326.2	10	44K	0							
BERKELEY	83.57	42.6	11	40	1							
LICK	83.62	43.3	11	40K	1							
PASADENA	83.89	47.6	11	41	0							
MINERAL	85.54	41.0	11	50A	1							
TUCSON	87.90	52.6	12	1	1				13	52		
TUCSON TELE.	88.02	52.6	12	2	2				13	53		
EUREKA	88.45	44.3	12	3	1							
GLEN CANYON	89.90	48.3	12	11	2							
COLLEGE	93.84	13.3	12	26	-1				14	18		
WICHITA MTS.	98.03	55.4	12	45	-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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 34

BROKEN HILL	131.11	218.4				20 57 SKP
SODANKYLA	135.21	345.5				21 11 SKP
KIRUNA	136.06	348.8				21 14 SKP
NURMI JARVI	141.26	340.4	18 31	-7		21 27 SKP
SKALSTUGAN	141.30	351.0	18 31	-7		
UPPSALA	143.73	344.7	18 39K	-2		
GOTEBORG	146.91	347.8	18 48	2		
KASTAMONU	149.93	308.9	18 52A	1		
COLLMBERG	152.54	341.6	19 3K	8		21 3
PRUHONICE	153.22	338.3				19 20 PKP2
STUTTGART	155.84	344.2	19 29	30		
TAMANRASSET	173.81	242.3	19 16	2		20 50 PKP2

JANUARY 9 3.H 8.M 42.S EPICENTRE 31.41 -41.04 DEPTH= 60.KM

A= 0.64491 B=-0.56137 C= 0.51261 D=-0.6566 E=-0.7543
G= 0.3912 H=-0.3405 K=-0.8550 HT= 1.4

DEPTH OF FOCUS= 0.004R

SE= 2.65

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
HALIFAX	22.04	313.1	4 52	1				
SAN JUAN	26.12	246.1	5 31	1				
MBOUR	27.81	122.1	5 24	-21				
SHAWINIGAN	28.70	310.9	6 5	12				
MORGANTOWN	32.51	295.5	6 26	-1				
SETIF	38.60	70.0	7 15	-3				
ISOLA	39.55	57.2	7 30	4				
SCORESBY SD.	40.53	9.7	7 35	0				
STUTTGART	41.40	50.3	7 42	0				
TAMANRASSET	42.08	90.0	7 47	0				
FLORENCE X.	42.58	57.9	7 33	-18				
JENA	43.11	47.4	7 57	1				8 35
FAYETTEVILLE	43.99	291.1	8 2	-1		8 18		8 51
COLLMBERG	44.04	47.0	8 1	-2				
KASPERSCHE H.	44.26	50.1	8 6	1				
TRIESTE	44.32	55.1	8 7	2				
LAWRENCE	44.39	295.3	8 7	1				
LJUBLJANA	44.85	54.5	8 9	-1				
PRUHONICE	44.93	49.0	8 10	0				
THULE	46.88	351.5	8 25	-1				
WICHITA MTS.	47.78	290.2	8 32	-1				10 44 PP
RAPID CITY	49.66	303.3	8 49	2				
RESOLUTE	50.65	343.9	8 54	-1				
NORD	51.13	4.5	8 50	-9				
SODANKYLA	52.85	26.7	9 13	2				
LA PAZ	54.28	212.6	9 22A	0	17 7 14			
HUANCAYO	54.31	222.7	9 20	-2				
FLAMING GRGE	54.73	300.4	9 25	0				
BOZEMAN	54.92	306.4	9 25	-2				11 28 PP
BUTTE	55.90	307.0	9 33	-1				
HUNGRY HORSE	56.41	310.0	9 37	0				
SALT LAKE C.	56.58	300.7	9 38	-1				
KASTAMONU	57.16	58.3	9 56	13				
GLEN CANYON	57.42	296.3	9 46	2				
TUCSON TELE.	58.17	290.9	9 29	-21				
TUCSON	58.29	290.8	9 51	0				
EUREKA	59.97	300.3	10 2	0				
BANGUI	61.96	102.9						12 45
RENO	62.77	301.5	10 37	16				
PASADENA	63.40	295.3	10 24	-1				11 11
FRESNO	63.71	298.5	10 28	1				
MINERAL	63.79	302.8	10 28K	0				
SHASTA	64.24	303.4	10 31	0				
LICK	64.88	299.7	10 38K	3				
COLLEGE	68.68	334.0	10 58	-1				
LWIRO	74.08	102.7	11 32K	1				
SHIRAZ	77.93	62.7	11 53	0				17 29
QUETTA	88.24	55.5	12 47	1				

JANUARY 10

14.H 22.M 26.S EPICENTRE 50.07 156.15 DEPTH= 79.KM

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 35

A=-0.58933 B= 0.26052 C= 0.76474 D= 0.4043 E= 0.9146
G=-0.6994 H= 0.3092 K=-0.6443 HT= -5.4

DEPTH OF FOCUS= 0.007R

SE= 2.28

	DELTA DEG.	AZ. DEG.	P		O-C S	S		O-C S	*PP		SUPP.	
			M	S		M	S		M	S	M	S
SEVERO-KUR, PETROPAVLOVK KLYUCHI KURILSK OKHA	0.60 3.34 6.87 7.40 8.90	356.8 26.9 22.5 232.2 298.1	0 0 1 1 2	14 50 39 45 8	-2 -1 -1 -2 1	0 1 2 3 3	26 27 57 8 53	-2 -3 0 -2 6			1	12 *SP
Y.-SAKHLINSK NEMURO MAGADAN ABASHIRI KUSIRO	9.42 9.90 9.98 10.11 10.76	256.2 231.1 344.1 237.7 233.2	2 2 2 2 2	15 17 24 28 29	1 -4 2 4 -4	4 3 4 4 4	6 57 25 36 21	6 -14 12 20 -11				
WAKKANAI ASAHI GAWA OB IHIRO RUMOE HIROO	10.80 11.32 11.43 11.65 11.81	250.0 241.5 236.2 243.8 233.6	2 2 2 2 2	36 43 40 46 45	3 3 -2 2 -2	4 5 5 4 4	43 1 13 10 10					
URAKAWA SAPPORO TOMAKOMAI MURORAN MORI	12.19 12.35 12.51 13.04 13.42	234.5 241.1 239.0 239.3 239.5	2 2 2 3 3	52 51 58 6 8	0 -3 2 3 0	4 5 5 5 5	59 6 31 56 21	-7 -4 4 4 21				
HAKODATE HATINOHE AOMORI MIYAKO MORIOKA	13.51 14.01 14.19 14.46 14.81	238.2 232.6 235.2 229.3 231.3	3 3 3 3 3	7 10 19 24 21	-2 -5 1 3 -5	5 5 5 6 5	50 36 49 12 51	12 -13 -5 12 -17				
MIZUSAWA AKITA I SINOMAKI SENDAI SAKATA	15.27 15.35 15.73 16.05 16.10	229.9 233.7 227.9 228.5 232.3	3 3 3 3 3	33 30 32 40 43	1 -3 -6 -2 1	5 6 6 6 6	59 17 38 46 57	-20 -4 9 9 19				
YAMAGATA HUKUSIMA ONAHAMA NIIGATA SHIRAKAWA	16.34 16.67 17.11 17.24 17.30	229.7 228.3 225.7 231.7 227.6	3 3 3 3 3	41 50 54 49 57	-4 1 -1 -7 0	6 7 7 7 7	32 0 8 13 2	-11 9 7 9 -3				
AIKAWA MI TO UTUNOMIYA VLADIVOSTOK KAKIOKA	17.57 17.78 17.92 18.01 18.04	233.5 225.6 227.2 256.6 225.9	3 4 4 4 3	59 1A 4 4 56	-2 -2 -1 -2 -10	7 7 7 7 7	13 23 23 18 21	2 7 4 -3 0				
TUKUBASAN TYOSI TAKADA MAEBASI KUMAGAYA	18.08 18.15 18.28 18.42 18.48	226.1 223.6 231.6 228.6 227.5	4 4 4 4 4	1K 7 10 11K 12	-6 -1 1 0 1	7 7 7 7 7	26 13 31 36 34	4 -11 4 6 3			4	7 *SP
NAGANO HONGO TOKYO C.M.O. OIWAKE MATUSIRO	18.64 18.65 18.69 18.73 18.73	230.8 225.9 225.9 229.5 230.6	4 4 4 4 4	14K 12 13A 15 11A	1 -1 -1 1 -3	7 7 7 7 7	35 0 43 41 30	0 7 7 4 -7			7	41
TITIBU WAZIMA YAKUTSK YOKOHAMA MATUMOTO	18.76 18.76 18.83 18.94 19.08	227.8 234.8 319.4 225.6 230.5	4 4 4 4 4	14 15 14 18K 18	-1 0 -1 1 0	7 7 7 7 7	39 46 47 48 48	1 7 6 3 3			9	42
TOYAMA KOHU HUNATU AJIRO MISIMA	19.12 19.25 19.29 19.50 19.52	232.8 228.3 227.5 226.1 226.5	4 4 4 4 4	15A 20 18 21 21K	-4 0 -2 -2 -2	7 7 7 7 7	49 51 54 55 55	4 3 5 1 1				
TAKAYAMA KANAZAWA OSIMA IIDA SHIZUOKA	19.52 19.53 19.61 19.73 19.90	231.7 233.5 225.1 229.4 227.4	4 4 3 3 4	17 23A 49 27	-6 -1 -36 0	7 8 8 8	58 14 14 16 16	3 16 15 15 15			8	23
HUKUI OMAESAKI GIHU HAMAMATU NAGOYA	20.12 20.29 20.35 20.43 20.43	233.4 227.1 231.2 228.3 230.5	4 4 4 4 4	27 30 30A 32 30K	-2 -1 -2 0 -3	8 8 8 8 8	8 8 13 27 14	-1 3 15 15 2				

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 36

TSURUGA	20.51	233.0	4 33	0	8 16	3	
HI KONE	20.71	232.0	4 35	0	8 22	5	
KAMEYAMA	20.93	230.8	4 37	-1	8 32	11	
KYOTO	21.17	232.5	4 40	0	8 36	10	
TOYOOKA	21.25	234.9	4 39	-2	8 30	3	
ABUYAMA	21.37	232.5	4 41A	-1			
NARA	21.39	231.7	4 45	3	8 39	9	
SAIGO	21.56	238.6	4 48	4	8 46	13	
OSAKA	21.57	232.2	4 43	-1	8 30	-3	
OWASE	21.69	230.0	4 45	0	8 38	3	
KOBE	21.72	232.8	4 47	2	8 40	4	
CHANGCHUN	21.86	265.3	4 44A	-3	8 34	-4	
WAKAYAMA	22.08	232.1	4 52	3	8 49	7	
SUMOTO	22.13	232.7	4 47	-2	8 45	2	
MATSUE	22.25	237.7					8 54
SIOMISAKI	22.40	229.8	4 52	0	8 55	7	
TOKUSIMA	22.51	232.9	4 56	3	8 59	9	
TAKAMATU	22.59	234.2	4 53	-1	8 55	4	
HAMADA	23.21	238.3	5 1A	1	9 9	7	
MUROTO	23.36	232.3	5 5	4	9 13	8	
HIROSIMA	23.41	236.9	5 2A	0	9 11	5	
KOTI	23.46	233.8	5 3A	1	9 12	5	
MATUYAMA	23.63	235.5	5 6	2	9 19	10	
UWAZIMA	24.22	234.9	5 9	-1	9 27	7	
SIMI DU	24.35	233.5	5 11A	0	9 28	6	
SIMONOSEKI	24.54	238.5	5 13A	0			
OOITA	24.71	236.3	5 16A	1	9 32	4	
TIKSI	24.93	339.8	5 16	-1	9 31	-1	5 42 PP
HUKUOKA	25.12	238.8	5 19A	1	9 40	5	
ASOSAN	25.26	236.7	5 22	2			
SAGA	25.41	238.4	5 26	5	10 8	28	
KUMAMOTO	25.52	237.1	5 25	3	9 52	11	
MIYAZAKI	25.83	234.7	5 31	6	9 53	6	
NAGASAKI	26.04	238.2	5 27A	0	9 36	-14	
KAGOSIMA	26.57	235.6	5 36	4	10 4	5	
YAKUSIMA	27.48	234.1	5 40	0	10 18	5	
PEKING	29.65	265.7	5 58A	-2	10 45	-3	
ULAN-BATOR	31.92	285.5	6 20	0			
IRKUTSK	32.01	294.3	6 20A	0	11 28	3	
ZO-SE	32.22	247.2	6 21A	-1	11 33	5	
COLLEGE	32.30	41.5	6 22K	-1	11 15	-15	9 15 PCP
NANKING	32.99	251.2	6 28A	-1	11 41	1	
TAWU	39.08	237.9	7 31	11			
SITKA	39.71	52.8	7 26	0			
LANCHOW	39.90	269.9	7 28A	1			
KHEYS	42.31	346.0	7 46	-1			9 40 PCP
CANTON	42.82	247.0	7 52A	1	14 12	3	9 37 PP
HONG KONG	42.94	245.4	7 52A	0			9 34 PP
CHENG TU	43.22	263.5	7 53A	-1	14 13	-2	
BAGUIO CITY	44.12	233.3	8 1	-1	14 30	2	
MANILA	45.35	231.4	8 13	2	14 52	6	
KIPAPA	45.89	111.4	8 6	-10			
HONOLULU	45.94	111.6	8 19	3	15 2	8	
SEMPALATNSK	46.52	301.2	8 19	-2			
RESOLUTE	47.03	20.1	8 25A	0	15 15	5	19 2
KUNMING	47.85	259.0	8 31	0	15 20	-1	10 24 PP
NORD	48.52	358.6	8 35A	-1	15 34	4	10 2 PP
ALBERNI	48.84	58.7	8 39	0			
HAWAII V.OB.	49.07	110.5	8 40	-1	15 58	20	
VICTORIA	50.02	58.8	9 14	26			
THULE	50.63	12.4	8 52K	0			10 12 PP
PENTICTON	51.63	56.1	8 59A	-1			
LHASA	52.24	272.7	9 6K	1	16 24	2	11 7 PP
ALMATA	52.38	295.1	9 6	0			10 18 PCP
SVERDLOVSK	52.79	316.6	9 7	-2			11 9 PP
NHATRANG	53.78	242.3	9 16A	0	16 48	5	
FRUNSE	54.00	295.9	9 18	0			11 24 PP
RBAUL	54.17	184.9	9 17	-2			
ARCATA	54.17	67.0	9 20K	1			
SHILLONG	54.49	268.4	9 14A	-7	16 40	-12	17 8 *SS
APATITY	55.09	336.8	9 23	-3	16 56	-4	11 30 PP
HUNGRY HORSE	55.17	54.4	9 26A	0	16 23	-38	10 33 PCP
SHASTA	55.28	66.2	9 27	0			
UKIAH	55.79	68.1	9 30	-1			
MINERAL	55.97	66.0	9 31A	-1			
TROMSOE	56.58	343.4	9 34	-2			
CHATRA	56.65	273.0	9 36A	-1	17 21	0	11 42 PP
CHITTAGONG	56.80	265.7	9 41A	3	17 28	5	9 51 11 47 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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961										PAGE 37
SODANKYLA	56.88	339.1	9 36	-2						10 32 PCP
BERKELEY	57.18	68.7	9 39A	-2	17 17	-11				21 22 SS
BUTTE	57.42	55.8	9 42	0	17 43	12				
RENO	57.54	65.7	9 43A	0						
KIRUNA	57.83	341.8	9 43A	-2	17 33	-4				13 18
LICK	57.89	68.8	9 45A	-1						
TASHKENT	58.03	297.6	9 45	-1	17 40	1				10 40 PCP
VINEYARD	58.44	69.1	9 50	1						
BOZEMAN	58.45	55.3	9 48A	-1	18 3	18				39 34 PKPPKP
CALCUTTA	58.89	268.5	9 53A	1	17 58	8				12 3 PP
FRESNO	59.37	68.1	9 55	-1						
BOKARO	59.63	271.6	9 57A	-1	18 3	3				12 6 PP
PORT MORESBY	59.74	190.3	9 57	-1	18 4	3	10 17			18 38 PS
SCORESBY SD.	59.75	359.3	9 58A	0	18 6	5				13 44 PPP
EUREKA	59.82	63.5	9 59A	0						38 31 PKPPKP
DEHRA DUN	60.07	282.5	10 3	2	18 7	1				13 44 PPP
DUZHANBE	60.14	295.5	10 1	0	18 9	3				
RUTH	60.56	63.1	10 6	2						
SALT LAKE C.	61.29	59.9	10 8A	-1	18 27	6				39 28 PKPPKP
UMEA	61.31	339.4	10 5	-4						
LAHORE	61.55	286.0	10 7	-4						
WARSAK DAM	61.57	289.9	10 9A	-2						
PULKOVO	62.05	332.3	10 12	-2	18 30	-1				12 27 PP
PASADENA	62.12	69.3	10 13A	-1	18 37	5	10 29			12 54 PP
FLAMING GRGE	62.54	58.4	10 17A	0	18 44	7				14 15 PP
MOSCOW	62.83	326.0	10 18	-1						10 57 PCP
NURMIJARVI	63.04	335.4	10 18	-3	19 7	24				12 35 PP
SKALSTUGAN	63.18	342.8	10 19	-3						
HELSINKI	63.24	335.1	10 20	-2						10 59 PCP
RAPID CITY	63.62	52.2	10 24A	0	19 0	10				13 3 PP
GLEN CANYON	64.05	62.9	10 26	-1						12 38 PP
PORT BLAIR	64.15	256.8	10 28	0	19 6	9				
LARAMIE	64.34	55.8	10 30	1						
UPPSALA	65.39	338.4	10 34A	-2	19 5	-7				14 46
REYKJAVIK	66.13	359.1	10 41A	0						
SIDA	66.40	357.2	10 40	-2						
ASHKABAD	66.47	301.3	10 38	-5						19 58 SCS
QUETTA	67.03	289.9	10 46A	0	19 36	4				13 9 PP
BERGEN	67.39	344.8	10 49	1	19 16	-20				
TUCSON	67.83	66.0	10 51A	0	19 53	11				13 48 PP
GOTEBORG	68.61	340.3	10 55	-1						
HYDERABAD	68.98	272.2	10 57A	-1	19 57	2				13 17 PP
AFIAMALU	69.66	146.6	11 0	-2	20 6	3				24 34 SS
COPENHAGEN	70.36	339.1	11 6	-1	20 8	-3				15 27 PPP
DJAKARTA	70.38	233.2	11 6A	-1	20 18	6				15 26 PPP
CHARTERS TS.	70.40	189.9	11 5	-2	20 14	2				
LEMBANG	70.53	232.1	11 6A	-2	20 18	5				20 40 PS
BANDUNG	70.57	232.0	11 1	-7	20 26	12				
TIFLIS	70.65	312.4	11 9	1						11 39 PCP
SUVA	70.72	157.5			20 23	7				
KARACHI	70.83	285.9	11 11A	1						
POONA	71.13	276.5	11 12A	1	20 23	3				13 42 PP
MADRAS	71.15	267.8	11 14A	3	20 27	6				13 43 PP
WARSAW	71.21	332.7	11 10	-2	20 28	7				15 35 PPP
LAWRENCE	71.41	51.2	11 12	-1						
BOMBAY	71.52	277.5	11 14	0	20 30	5				20 59 PS
GORIS	71.61	309.9	11 16	2						13 56 PP
ABERDEEN	71.62	347.7			20 31	5				15 22 PPP
TEHERAN	71.87	304.1	11 17	1	20 31	2				
LUBBOCK	71.99	59.2	11 15	-1						
LWOW	72.38	329.7	11 19	0	20 37	2				14 11 PP
NOUMEA	72.63	170.0	11 22	2						11 49
SIMFEROPOL	72.80	320.9	11 20A	-1						14 8 PP
WICHITA MTS.	72.91	56.2	11 22A	0	20 46	5				14 4 PP
CHIHUAHUA	73.26	65.4								28 25 SSS
KRAKOW	73.46	332.3	11 25	0	20 47	0				11 57
CHORZOW	73.52	332.9	11 27	2						11 41 PCP
DURHAM	73.87	346.8	11 28A	0	20 57	6				14 12 PP
NIEDZIKA	73.90	331.7	11 9	-19						
RACIBORZ	73.94	333.3	11 28	0	21 5	13				11 49 PCP
FAYETTEVILLE	74.16	52.5	11 29A	0	20 58	3				
COLLMBERG	74.24	337.0	11 29A	-1	21 3	7				14 21 PP
WITTEVEEN	74.28	341.3	11 36	6						
OTTAWA	74.79	35.1	11 31A	-2						
SHAWINIGAN	74.86	32.6	11 33A	0						
MUNSTER	74.88	340.5	11 34	1						11 59
JENA	74.94	337.7	11 32	-2	20 44	-19				14 44 PP
KODAIKANAL	74.97	268.0	11 36	2	21 28	24				14 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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961										PAGE 38	
PRAGUE	75.00	335.6	11 32	-2	21 7	3				21 38	PS
PRUHONICE	75.05	335.5	11 35A	1	21 7	3				14 21	PP
DE BILT	75.26	342.0	11 34	-1	21 12	5				14 28	PP
DALLAS	75.31	56.3	11 36	0	21 12	5					
BREBEUF	75.47	33.7	11 36	-1							
CHEB	75.52	336.8			21 4	-6				21 40	PS
CLEVELAND	75.77	40.9	11 39A	1	21 15	3					
SHIRAZ	75.87	299.3	11 38K	-1	21 15	2				14 47	PP
HURBANOVO	75.92	332.3	11 42	3						12 0	PCP
BENSBERG	75.93	340.4	11 40A	1						14 22	PP
COLOMBO	75.94	263.9	11 39	0	21 19	5					
BRATISLAVA	75.98	333.1	11 40K	0	21 18	3				11 49	PCP
BUDAPEST	76.02	331.6	11 43	3	21 19	4				14 19	PP
KASPERSCHE H.	76.08	335.7	11 40A	0							
VIENNA-H.	76.12	333.6	11 40	0						14 37	PP
BUCHAREST	76.33	325.6	11 41A	-1						14 37	PP
TIMI SOARA	76.86	329.4	11 52	7							
KEW	76.87	345.1	11 45A	0	21 25	1				26 37	SS
HEIDELBERG	77.04	338.8	11 46A	0							
BRISBANE	77.17	183.1	11 46	0	21 20	-8					
STUTTGART	77.50	338.3	11 48A	0	21 37	6				14 44	PP
TUBINGEN	77.77	338.3	11 50A	0							
PENNSYLVANIA	77.86	38.9	11 48	-2	21 37	2				22 3	
BELGRADE	77.94	329.5	11 50A	0	22 5	29				17 34	PPP
MORGANTOWN	77.98	40.9	11 51A	0	22 5	29					
STRASBOURG	78.03	339.2	11 51A	0	21 43	6				14 52	PP
ISTANBUL KA.	78.07	321.9	11 51	0	21 40	3					
EBINGEN	78.12	338.2	11 52A	0							
ISTANBUL UN.	78.13	322.0	11 52A	0							
RAVENSBURG	78.34	337.7	11 54A	1							
ZAGREB	78.43	332.8	11 50	-3							
LJUBLJANA	78.64	333.8	11 55A	1						14 57	PP
PARIS	78.93	342.6	11 56	0							
WESTON	79.00	33.8	11 57A	1	21 54	7				27 5	SS
BASLE	79.06	338.9	11 58A	1						19 8	
TRIESTE	79.23	334.2	11 58	0	21 54	4				26 52	SS
CHUR	79.23	337.4	11 57	-1						18 15	
PALISADES	79.23	36.2	11 58A	0	21 53	3	12 11			14 59	PP
FORDHAM	79.38	36.3	11 58	0	21 48	-3					
FOLINIÈRE	79.51	344.5	12 0	1							
HALIFAX	79.54	27.7	11 59A	0							
BESANCON	79.69	339.9	12 0A	0							
NEUCHÂTEL	79.71	339.1	12 1	1							
WASHINGTON	79.79	39.4	12 0K	-1	22 8	12				15 4	PP
PADOVA	79.96	335.3	12 3	1	22 3	6				26 32	SS
PAVIA	80.88	337.0								32 24	
KSARA	81.19	313.3	12 8A	0	22 24	14				15 16	PP
CHAPEL HILL	81.48	42.4	12 11	1							
PRATO	81.59	335.2	12 13	3	22 18	4					
FLORENCE X.	81.64	335.1	12 11A	1	22 40	25					
CLERMONT-FD.	81.71	341.3	12 14A	3	22 24	9					
COLUMBIA	82.21	44.8	12 14	1	22 26	5					
ISOLA	82.34	338.1	12 15A	1	22 30	8					
ATHENS	82.82	324.0	12 16A	0							
ROME	83.03	333.5	12 21A	4	22 31	2	12 40			15 38	PP
JERUSALEM	83.18	312.6	12 19	1	22 59	29					
RIVERVIEW	83.65	184.2	12 21A	0	22 44	9				15 30	PP
TACUBAYA	84.34	66.6	12 29K	5	22 37	-5				15 36	PP
BAGNERES	84.90	342.6	12 27	0							
CANBERRA	85.26	185.9	12 28A	-1	22 55	4				15 45	PP
MESSINA	85.49	329.9	12 24	-6	22 50	-3	12 34			15 46	PP
REGGIO CALA.	85.55	329.8	12 26	-4							
ADELAIDE	86.07	194.3	12 32A	-1	23 4	5				13 4	
HELWAN	86.60	314.4	12 36A	1	22 59	-5					
MELBOURNE	88.08	188.8	12 42	0			12 58				
AUCKLAND	88.12	165.1			22 59	-19				29 9	SS
SERRA PILAR	88.20	348.5	12 42A	-1						16 11	PP
TOLEDO	88.75	344.9	12 46A	1	23 16	-8				29 44	SS
MUNDARING	89.03	213.1	12 46	-1							
PERTH	89.15	213.4	12 49	2	23 29	1				16 27	PP
KARAPIRO	89.28	164.8	12 47	-1						33 0	SKKP
ALICANTE	89.57	341.8	12 53	4	23 41	10				16 25	PP
SETIF	90.29	336.7	12 54	1	23 32	-6				16 22	PP
ALGIERS UNI.	90.31	338.7	12 42	-9						16 20	PP
CHATEAU	90.52	165.1	12 51	-3							
COMITAN	90.94	63.2								16 53	
GRANADA	91.30	343.9	12 58K	1	23 36	-11				30 36	SS
ALMERIA	91.41	343.0	12 55	-3	23 53	5					
RELIZANE	91.86	340.4	13 4	4							

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 39																		
TARRALEAH	92.38	187.2	13	4	2															
WELLINGTON	92.43	166.1	13	4	1	24	4	7												30 4 SS
FORT NELSON	92.94	186.5	13	7	2															
ROXBURGH	95.86	170.7				23	50	4												24 39 S
ADDIS ABABA	99.99	297.1	13	39	2															
SAN JUAN	102.30	40.8																		18 3 PP
TAMANRASSET	102.94	332.3	13	51A	1	24	30	9												18 2 PP
GALERAZAMBA	104.64	52.6				24	43	14												
CARACAS	108.93	45.2	18	32	777	24	54	6												
CHINCHINA	109.36	56.0				25	0	10												18 53 PP
FUQUENE	109.93	54.1																		18 58 PP
BOGOTA	110.47	54.9				24	58	4												19 11 PP
BANGUI	114.58	312.2	18	31	1															19 30 PP
LWIRO	114.86	298.9	14	46A	-225															
MBOUR	115.54	352.6	14	40	-232	25	24	10												
CAPE HALLETT	122.48	174.9	18	46	0	25	50	12												20 25 PP
HUANCAYO	123.45	66.5	18	52	4															21 16 PP
BROKEN HILL	124.83	290.9	18	52A	2															
MIRNY	125.76	206.1	18	51	-1															
SCOTT BASE	127.82	177.2	18	56	0	26	8	14												20 44 PP
BULAWAYO	129.10	286.3	18	53	-6															
AREQUIPA	129.19	66.2	19	2	3															
LA PAZ	131.18	62.9	18	57	-6	26	15	12												
PRETORIA	133.47	281.6	18	45	-22															22 9
WINDHOEK	137.87	295.4	19	8	-7															
BYRD STATION	137.89	165.0	19	4	-11															22 53 PP
GRAHAMSTOWN	139.63	274.9	19	13	-5															
SOUTH POLE	139.88	180.0	19	10	-9															
SANTA LUCIA	142.03	82.1	19	17A	-5															22 22 PP
HERMANUS	145.02	280.0	19	29	1															22 50 PKS
ARGENTINE I.	154.18	141.2	19	50	8															

JANUARY 11 11.H 59.M 52.S EPICENTRE 51.98-170.87 DEPTH= 0.KM

A=-0.61071 B=-0.09810 C= 0.78576 D=-0.1586 E= 0.9873
G=-0.7758 H=-0.1246 K=-0.6185 HT= -6.1

SE= 2.93

	DELTA DEG.	AZ. DEG.	P			O-C			*PP		SUPP.	
			M	S	S	M	S	S	M	S		
KLYUCHI	17.05	295.9	4	6	5						4 25 PPP	
COLLEGE	17.53	33.7	4	6	-1	7	20	-1				
PETROPAVLOVK	18.52	285.3	4	19	0							
SITKA	21.09	62.0	4	34	-14							
MAGADAN	22.58	304.7	5	4	1							
OKHA	27.62	291.7	5	50	-1							
KURILSK	27.80	272.5	5	53A	1							
VICTORIA	30.12	77.5	6	14	1							
Y.-SAKHLINSK	30.13	279.2	6	13	0	11	9	-3			7 9 PP	
PENTICTON	32.06	74.0	6	30	0							
KIPAPA	32.09	157.0	6	28	-3							
HONOLULU	32.19	157.2	6	29	-2	11	40	-4			7 48 PP	
TIKSI	32.59	329.3	6	31	-4							
SHASTA	34.70	89.4										
HAWAII V.OB.	34.71	153.5	6	51	-2							
UKIAH	35.12	92.3	6	55	-2							
MINERAL	35.40	89.3	6	59K	0						7 31	
HUNGRY HORSE	35.80	72.7	7	3	0						9 20 PCP	
BERKELEY	36.49	93.2	7	9	1	12	42	-9				
CONCORD	36.55	92.9	7	9	0							
RENO	36.98	89.0	7	13K	0							
RESOLUTE	37.12	25.3	7	12A	-2	13	6	5			8 39 PP	
LICK	37.21	93.4	7	14K	0							
VINEYARD	37.74	93.9	7	20	1							
TUKUBASAN	37.79	265.1	7	20	1	13	12	1			15 48 SS	
BUTTE	37.81	75.3	7	21	2						9 35	
VLADIVOSTOK	38.71	280.1	7	28	1						8 52 PP	
MATUSIRO	38.75	267.0	7	26A	-1	13	23	-2				
BOZEMAN	38.90	74.9	7	29	0	13	25	-3			16 22	
EUREKA	39.39	86.2	7	32	-1						11 34 PP	
RUTH	40.15	85.8	7	52	13							
SALT LAKE C.	41.16	81.7	7	46	-1	14	3	2				
PASADENA	41.42	94.3	7	48	-1	14	5	0			8 15	
ABUYAMA	41.47	267.2	7	50K	0							
CHANGCHUN	42.29	285.2	7	55A	-2	13	16	-62				

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961					PAGE 40				
FLAMING GRGE	42.56	79.8	7 58	-1					8 37
THULE	42.97	19.8	8 1	-1					8 39
LARAMIE	44.64	76.9	8 16	0					
NORD	45.95	5.1	8 25	-1					
TUCSON	47.24	90.3	8 35	-1	15 34	5			10 18 PP
TUCSON TELE.	47.24	90.1	8 35	-1					
IRKUTSK	49.13	306.0	8 49A	-2	15 53	-3			10 46 PP
PEKING	50.01	286.6	8 56	-2	16 9	1			
LUBBOCK	51.87	82.3	9 13	1					
LAWRENCE	52.28	72.7	9 24	9					
GUAM	52.28	239.4	9 10	-5					
CHI HUAHUA	52.69	90.0	9 29	11	16 50	5			17 50
ZO-SE	52.91	274.7	9 19	-1	16 48	0			
WICHITA MTS.	53.09	78.9	9 19	-2	16 50	-1			11 33 PP
FAYETTEVILLE	54.82	74.7	9 31	-3			9 46		11 45 PP
DALLAS	55.47	79.3	9 37	-1					
SCORESBY SD.	55.81	12.1	9 42K	1					
SIAM	58.17	286.1	9 56A	-2					
CLEVELAND	58.41	61.9	9 57K	-2	17 53	-9			
TROMSOE	58.49	356.0	9 58	-2					
OTTAWA	58.77	55.1	10 0	-2					
APATITY	59.40	349.4	10 5	-1					12 20 PP
SHAVINIGAN	59.44	52.5	9 55	-11					
BREBEUF	59.76	53.9	10 9K	0					
LANCHOW	59.90	291.0	10 10A	0	18 26	5			
KIRUNA	60.21	355.1	10 11K	-1	18 19	-6			
SODANKYLA	60.25	352.3	10 12	0					39 34 PKPPKP
MORGANTOWN	60.56	62.5	10 13K	-1	19 58	89			
PENNSYLVANIA	60.87	60.2	10 16	0	18 32	-1			
SEMI PALATNSK	61.59	316.5	10 19	-2					20 10
WASHINGTON	62.65	61.2	10 20	0	19 54	58			
PALISADES	62.82	57.6	10 29	0	18 56	-2	10 42		11 28 PCP
WESTON	63.15	55.0	10 31	-1					13 28 PP
CANTON	63.50	274.1	10 33A	-1	19 10	3			
HONG KONG	63.57	272.8	10 35	1	19 24	17			
SVERDLOVSK	63.59	331.3	10 33	-1					23 2 SS
CHENG TU	63.64	286.6	10 34A	-1	19 8	0			
TACUBAYA	63.70	91.9	10 41	6	19 6	-3			
COLUMBIA	63.98	67.6	10 36	-1	19 8	-5			
RABAUL	64.16	221.8	10 33	-5					
UMEA	64.22	354.6	10 37	-2					39 16 PKPPKP
SKALSTUGAN	64.76	358.4	10 40	-2					
HALIFAX	65.24	48.7	10 45A	0					
NURMI JARVI	67.17	351.7	10 56	-2	19 49	-3			
PULKOVO	67.30	348.6	10 58	0					13 30 PP
HELSINKI	67.48	351.5	11 0	1					
UPPSALA	68.32	355.4	11 4	-1					20 48 SCS
KUMING	68.46	283.4	11 5A	-1	20 10	3			13 36 PP
FRUNSE	69.91	314.5	11 14	0					15 31 PPP
MOSCOW	70.09	343.3	11 14	-2					11 38 PCP
GOTEBORG	70.66	358.4	11 19K	0					
PORT MORESBY	70.96	224.3	11 19	-2	20 34	-2			11 47
LHASA	71.89	294.9	11 28A	2	20 49	2			14 11 PP
COPENHAGEN	72.67	358.0	11 31	0	21 8	12			21 37 PS
DURHAM	73.25	6.5	11 57K	23					14 41 PP
TASHKENT	73.44	317.0	11 35	-1					14 19 PP
SHILLONG	74.53	291.6	11 33A	-9	21 10	-7			
WITTEVEEN	75.56	1.5	11 50	2					
WARSAW	75.68	352.5	11 50	1	21 31	1			21 47 SKS
DUZHANBE	75.95	315.8	11 51	1					21 40
CHATRA	76.22	295.8	11 51A	-1	21 36	0			14 35 PP
DE BILT	76.24	2.5	11 53	1	21 53	17			27 20 SS
MUNSTER	76.42	1.0	11 54	1					
KEW	76.62	6.1			21 41	1			
CHITTAGONG	77.03	289.6	11 57A	1	21 45	0	12 14		14 56 PP
COLLMBERG	77.05	357.5	11 57K	1					14 30
BENSBERG	77.43	1.3	12 0K	2					
JENA	77.45	358.4	11 58	0	21 50	1			15 5 PP
CHORZOW	77.77	353.5	12 1	1					12 38
LWOW	77.79	350.2	11 59	-1	22 6	13			14 53 PP
KRAKOW	77.94	352.9	12 6	5					21 22
RACIBORZ	78.03	354.0	12 1	-1					
PRAGUE	78.23	356.5	12 6	3					
PRUHONICE	78.32	356.4	12 3A	0	22 13	15			15 13 PP
DEHRA DUN	78.33	304.5	12 6	3	21 59	1			
WARSAK DAM	78.49	311.3	12 2	-2					
NIEDZIKA	78.53	352.6	12 4	0					
CALCUTTA	78.89	292.2	12 7	1	22 4	-1			
HEIDELBERG	79.00	0.3	12 7	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961										PAGE 41	
LAHORE	79.18	307.9	12	5A	-3	22	8	0			22 54 PS
KASPERSKE H.	79.20	357.0	12	8A	0						
FOLINIÈRE	79.30	6.5	12	9	0						
BOKARO	79.33	294.9	12	8A	-1	24	20	131			
PARIS	79.43	4.5	12	22	13						
STUTT GART	79.63	359.9	12	10	0	22	13	1			27 38 SS
STRASBOURG	79.81	0.9	12	13	2	22	22	8			17 2 PPP
TUBINGEN	79.87	0.0	12	13	1						
VIENNA-H.	79.96	355.1	12	10	-2						
BRATI SLAVA	80.00	354.6	12	12	0	22	19	3			12 18 PCP
EBINGEN	80.22	0.1	12	14	0						
HURBANOVO	80.23	353.8	12	26	12	22	32	13			12 48 PCP
RAVENSBU RG	80.62	359.7	12	16	0						
ASHKABAD	80.69	322.7	12	17A	1						22 38 SCS
BASLE	80.86	1.1	12	14	-3						
CHARTERS TS.	80.92	220.4	12	17	0						
GARCHY	80.99	4.2	12	18	0						
SIMFEROPOL	81.07	342.3	12	18A	0	22	30	3			
BESANCON	81.12	2.2	12	19	1						
NEUCHATEL	81.38	1.5	12	20K	0						
TIFLIS	81.68	333.8	12	22	1						22 40 SCS
LJUBLJANA	82.24	356.2	12	25	1						12 33 PCP
CLERMONT-FD.	82.50	4.2	12	28	3						
TRIESTE	82.67	356.7				22	46	2			
BUCHAREST	82.87	347.8	12	26	-1	23	5	19			
PADOVA	82.96	358.1	13	14	46						
BELGRADE	83.09	351.9	12	30K	2	22	50	2			15 32 PP
GORIS	83.30	331.9	12	30	0						22 53 SCS
QUETTA	83.81	312.5	12	32A	0	22	57	2	12	46	15 44 PP
ISOLA	84.21	1.5	12	35	1	23	2	3			
SAN JUAN	84.45	67.3	12	35	0						13 0
FLORENCE X.	84.60	358.5	12	47	11	23	12	9			
MONACO	84.66	1.2	12	38	2						22 47 PP
PORT BLAIR	84.82	282.2				23	4	-1			
BAGNERES	85.01	6.6	12	38	0						
KASTAMONU	85.15	343.8	12	37	-2						
TEHERAN	85.15	326.7	12	40	1	23	7	-1			
BRISBANE	85.21	211.9	12	46	7	23	4	-5			
ISTANBUL KA.	85.72	345.0	12	42	0	23	21	7			
ISTANBUL UN.	85.76	345.1	12	45	3						
ROME	86.46	357.5	12	48A	3	23	8	-13			16 12 PP
TOLEDO	87.80	10.1	12	53	1	23	51	17			28 44 SS
HYDERABAD	88.54	296.7	12	52	-3	23	21	-20			24 22 PS
CHINCHINA	89.36	82.8	12	59	0						23 48 SKKS
ATHENS	89.52	348.5	13	OK	0						
ALICANTE	89.66	7.5	13	3	2	23	52	1			16 36 PP
MESSINA	90.02	354.9	12	6	-56						25 14
LEMBANG	90.12	259.1	13	9	6						16 25
FUQUENE	90.12	81.0	13	0	-3						
POONA	90.14	300.9	13	2	-1	23	56	1			
BANDUNG	90.16	259.1	13	14	11						16 38
CARACAS	90.25	72.6	13	4	1	23	52	-4			
SHIRAZ	90.26	323.3	13	2K	-2	23	32	-24			16 39 PP
KARAPIRO	90.32	190.7	13	2	-2						
BOMBAY	90.37	301.9	13	20	16	24	5	8			23 50 SKS
GRANADA	90.52	10.1	13	10K	5						15 46
BOGOTA	90.58	81.8	13	15	10	23	22	-37			23 57 SKKS
KSARA	91.40	338.0	13	7A	-2	24	7	0			16 54 PP
ALGIERS UNI.	91.46	4.9	13	7	-2						16 41 PP
RIVERVIEW	91.69	210.8	13	14	4	24	7	-2			25 22 PS
SETIF	92.13	3.0	13	4	-8						
CANBERRA	93.75	211.9	13	27	7						
HELWAN	96.20	340.7	13	32	1						17 26 PP
COLOMBO	96.24	289.5									27 37
TAMANRASSET	105.50	3.5	14	15	777	24	55	3			18 31 PP
MBOUR	110.14	27.0									19 12 PP
SANTA LUCIA	121.52	105.1									36 58 PP
BANGUI	123.28	348.7	19	0	1						
CAPE HALLETT	124.70	186.9	18	54	-7	26	3	-2			20 49 PP
LWIRO	127.78	334.8	19	9K	2						
SCOTT BASE	130.30	186.1	19	11	-1						22 32 SKP
BYRD STATION	134.94	168.9	19	11	-10						22 47 PP
TANANARIVE	135.40	303.1	19	26	4						23 21 PKS
BROKEN HILL	139.48	330.4	19	37	8						
SOUTH POLE	141.98	180.0	19	24	-10						20 37
BULAWAYO	144.77	327.1	19	24	-14						
WINDHOEK	150.00	345.1	19	54	7						
PRETORIA	150.08	323.8	19	55	8						

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 42

PIETERMZBURG	152.66	316.5	20	0	9
KIMBERLEY	154.02	327.3	19	52	-1
GRAHAMSTOWN	157.47	319.1	20	2	5

JANUARY 12 14.H 13.M 31.S EPICENTRE 57.79-155.56 DEPTH= 42.KM

A=-0.48759 B=-0.22155 C= 0.84450 D=-0.4137 E= 0.9104
G=-0.7688 H=-0.3493 K=-0.5356 HT= -8.2

DEPTH OF FOCUS= 0.001R

SE= 2.10

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.		
			M	S		M	S	S	M	S	M	S	
COLLEGE	8.01	24.4	1	58	2	3	25	-2			11	53	SCP
VICTORIA	21.20	102.0	4	44	0								
PENTICTON	22.73	96.3	5	0	1								
PETROPAVLOVK	26.03	279.3	5	33	2								
HUNGRY HORSE	26.29	92.9	5	32	-1						12	30	SCP
SHASTA	27.20	114.5	5	42K	1								
MINERAL	27.86	114.0	5	47K	0								
RESOLUTE	27.89	29.7	5	48A	0								
RENO	29.36	112.8	6	1A	0								
BERKELEY	29.49	118.0	6	1	-1								
CONCORD	29.50	117.6	6	1	-1								
BOZEMAN	29.55	94.7	6	2	-1								
LICK	30.20	117.9	6	6A	-2								
EUREKA	31.33	108.4	6	18	0				6	37	12	45	SCP
FRESNO	31.54	116.2	6	21	1								
SALT LAKE C.	32.50	102.4	6	28	-1								
TIKSI	32.52	325.2	6	29	0								
THULE	34.25	24.8	6	44	0								
PASADENA	34.44	117.0	6	45	0				7	3			
LARAMIE	35.45	95.4	6	53	4								
YAKUTSK	35.78	308.9	6	47A	-10								
TUCSON TELE.	39.55	110.4	7	31	3								
TUCSON	39.57	110.6	7	28	0								
KHEYS	40.55	352.0	7	33	-3								
WICHITA MTS.	44.01	96.2	8	3	-2						13	51	SCP
MATUSIRO	47.59	273.4	8	35A	2						10	2	PCP
BREBEUF	49.22	66.9	8	5	-41								
ABUYAMA	50.25	274.1	8	55A	1								
MORGANTOWN	50.26	76.6	8	53	-1								
KIRUNA	54.65	1.9	9	26	-1								
APATITY	54.79	355.8	9	27	-1								
SODANKYLA	55.14	359.0	9	30	0						10	31	PCP
SKALSTUGAN	58.60	6.3	9	54	-1								
NURMIJARVI	62.04	359.9	10	17	-1						10	55	PCP
HELSINKI	62.38	359.7	10	20	0								
UPPSALA	62.58	3.9	10	21	-1								
SEMI PALATNSK	62.85	323.5	10	22	-2								
DURHAM	65.83	16.2	11	18	35								
KEW	69.23	16.3	11	5A	1								
MUNSTER	69.74	11.0	11	8	1								
COLLMBERG	70.87	7.6	11	14A	0						14	2	PP
JENA	71.13	8.6	11	16	0						11	36	
FRUNSE	71.35	323.4	11	19A	2								
FOLINIERE	71.83	17.1	11	20	0								
PRUHONICE	72.28	6.7	11	24A	1								
RACIBORZ	72.37	4.2	11	23	0								
HEIDELBERG	72.39	10.7	11	23	0								
LWOW	72.75	0.3	11	26K	1								
KASPERSKE H.	73.07	7.4	11	28A	1								
STUTTGART	73.07	10.4	11	27	0								
NIEDZIKA	73.10	2.8	11	29	2								
STRASBOURG	73.10	11.5	11	29	2						11	59	
TUBINGEN	73.28	10.6	11	29	1								
EBINGEN	73.62	10.7	11	31	1								
GARCHY	73.80	15.0	11	31	0								
RAVENSBURG	74.08	10.3	11	35	2								
BASLE	74.12	11.8	11	35A	2								
BESANCON	74.21	13.0	11	34	0								
CLERMONT-FD.	75.29	15.3	11	41	1								
LJUBLJANA	76.20	7.1	11	46	1								
ISOLA	77.36	12.7	11	53	1						12	53	

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 43

BAGNERES	77.47	18.0	11 52	0				
TIFLIS	79.40	344.6	12 4	1				
SHILLONG	79.81	302.1	12 12A	7				
WARSAK DAM	80.37	321.9	12 7	-1				
KASTAMONU	81.06	355.2	12 3A	-9				
LAHORE	81.65	318.7	12 15A	0				
CHITTAGONG	82.60	300.5	12 34	14				
TEHERAN	84.10	338.2	12 30	3				
ATHENS	84.60	0.6	12 30K	0				
SETIF	85.00	15.4	12 32	0				
QUETTA	85.38	324.1	12 35A	1				
SHIRAZ	89.75	335.8	12 56K	1				
CHARTERS TS.	91.31	233.0	13 3	1				
TAMANRASSET	98.19	17.6	17 40	247				
LWIRO	124.51	354.7	18 57	2				
SCOTT BASE	137.35	191.0	19 12	-7	26 46	23		22 17 PKS
BYRD STATION	139.11	171.0	19 22	0				
BULAWAYO	142.27	353.6	19 25K	-3				
SOUTH POLE	147.62	180.0	19 40	3				
KIMBERLEY	150.97	359.4	19 49K	7				

JANUARY 13 19.H 18.M 40.S EPICENTRE -46.61 33.23 DEPTH= 0.KM

A= 0.57663 B= 0.37781 C=-0.72440 D= 0.5480 E=-0.8364
G=-0.6059 H=-0.3970 K=-0.6894 HT= -4.2

SE= 2.70

	DELTA DEG.	AZ. DEG.	P		O-C S	S O-C			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
HERMANUS	16.15	314.0	3	48	-2	6	41	-8			12	8 PCS
KIMBERLEY	19.02	336.7	4	24A	-1							
LCO. MARQUES	20.61	358.4	4	44K	1				3	52		
PRETORIA	21.21	347.3	4	48	-1							
BULAWAYO	26.67	350.3	5	40K	-2							
TANANARIVE	30.03	27.9	6	14A	2						7	15 PP
BROKEN HILL	32.31	351.3	6	32K	0							
LUANDA	41.33	329.2	7	50A	1							
SOUTH POLE	43.58	180.0	8	5	-2				8	27		
LWIRD	44.35	353.7	8	15A	2							
SCOTT BASE	52.60	168.9	9	13A	-4	16	34	-10	9	45	13	46 SCP
ADDIS ABABA	55.61	6.6	9	40	1							
CAPE HALLETT	57.61	165.7	9	53	-1	17	52	1				
MUNDARING	63.04	108.8	10	26	-5							
TAMANRASSET	73.48	333.4	11	35	-1						14	21 PP
LEMBANG	74.35	83.3	11	41A	0						12	15
MBOUR	75.59	309.8				20	1	-88			26	56 SS
HELWAN	76.14	358.3	11	52A	1							
SHIRAZ	77.88	17.1	11	59K	-2	21	55	1	12	11	15	0 PP
JERUSALEM	78.05	1.7	12	3	1							
KSARA	80.10	2.2	12	17	4							
CANBERRA	80.10	131.6	12	11	-2							
QUETTA	82.29	29.0	12	25A	1							
RIVERVIEW	82.37	132.1									13	2
TEHERAN	83.59	14.8	12	31	0							
ATHENS	84.63	352.5	12	37A	1							
LA PAZ	85.75	250.6	12	45	3	23	28	14				
LAHORE	86.20	34.2	12	44	0							
KASTAMONU	87.63	358.1	12	50	-1							
BRISBANE	88.33	129.3	12	53	-1	23	43	4				
SHILLONG	89.25	50.5	12	49	-10							
CHARTERS TS.	90.35	120.1	13	10	6							
TOLEDO	92.32	332.2	13	14	1				13	27		
HUANCAYO	93.69	248.3	13	19	0							
BAGNERES	93.99	336.4	13	21	0						17	5
STUTTGART	97.26	344.3	13	35	-1						17	32 PP
BOGOTA	105.21	260.5									33	43 SS
KYAKHTA	115.40	42.7									2	5 SG
IRKUTSK	115.73	40.2									0	29 PG
WICHITA MTS.	142.13	269.3	19	31	-3						22	40 PP
RESOLUTE	144.24	339.0	19	34	-4							
TUCSON TELE.	149.04	255.5	19	47	1							
LARAMIE	150.14	274.9	19	58	11							
GLEN CANYON	152.26	262.4	20	0	10							
FLAMING GRGE	152.60	271.7	21	0	69							
SALT LAKE C.	154.23	269.6	20	10	17							

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 45

CHARTERS TS. 139.69 247.0 19 2 -7
SHILLONG 144.62 24.0 19 11A -7

JANUARY 14 16.H 38.M 54.S EPICENTRE 54.08-163.58 DEPTH= 0.KM

A=-0.56519 B=-0.16661 C= 0.80796 D=-0.2828 E= 0.9592
G=-0.7750 H=-0.2285 K=-0.5892 HT= -6.9

SE= 2.93

	DELTA DEG.	AZ. DEG.	P		O-C S	S O-C			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
COLLEGE	13.40	30.0	3	11	-3	5	54	10				
KLYUCHI	20.28	290.8	4	41	2							
PETROPAVLOVK	22.30	282.8	5	2	2	9	0	-1				
MAGADAN	25.15	301.1	5	29	1						11	12 SSS
PENTICTON	27.31	81.9	5	47	-1							
SHASTA	30.46	99.0	6	14	-2							
OKHA	30.96	291.2	6	20	0							
HUNGRY HORSE	31.02	80.0	6	18	-3						9	13 PCP
MINERAL	31.15	98.8	6	19K	-3						9	14
BERKELEY	32.42	102.9	6	40	7	11	52	4				
CONCORD	32.46	102.6	6	41	7							
RENO	32.72	98.3	6	43	7							
KIPAPA	32.88	170.4	7	31	54							
HONOLULU	32.99	170.6	7	32	54						15	0
TIKSI	33.11	327.6	6	38	-1							
LICK	33.14	103.0	6	39K	-1							
RESOLUTE	33.30	26.8	6	40	-1	12	1	0			7	45 PP
Y.-SAKHLINSK	34.12	280.5	6	47	-1						8	5 PP
BOZEMAN	34.16	82.3	6	46	-2							
FRESNO	34.59	101.9	7	0	8							
YAKUTSK	34.68	310.4	6	52	-1						8	6 PP
EUREKA	35.00	94.8	6	52	-4							
RUTH	35.75	94.3	7	21	19							
SALT LAKE C.	36.60	89.7	7	6	-3	15	31	159				
PASADENA	37.39	103.4	7	19	3						7	44
GLEN CANYON	39.24	94.1	7	28	-3						9	19
THULE	39.44	21.7	7	33	0							
RAPID CITY	39.64	79.1	7	32	-3							
TUKUBASAN	42.31	268.7	7	55	-2	14	17	-1			9	21 PP
TUCSON TELE.	43.00	98.4	7	58	-4							
TUCSON	43.00	98.6	8	0	-2							
MATUSIRO	43.20	270.5	8	3A	-1	14	29	-2			9	39 PP
NORD	43.40	6.7	8	7K	2							
ABUYAMA	45.91	270.9	8	26A	0							
CHANGCHUN	45.93	287.6	8	26A	0	15	12	1			10	14 PP
LAWRENCE	47.49	79.3	8	33	-5							
WICHITA MTS.	48.45	86.0	8	41	-5	15	43	-3			9	58 PCP
FAYETTEVILLE	50.07	81.4	8	53	-5							
IRKUTSK	51.38	308.2	9	8A	0						16	38 PS
SCORESBY SD.	52.72	15.2	9	18	0							
ULAN-BATOR	53.05	302.7	9	20	-1	16	37	-13				
OTTAWA	53.92	60.6	9	24	-3							
SHAWINIGAN	54.62	57.8	9	29	-3							
BREBEUF	54.92	59.2	9	31A	-3				9	40		
MORGANTOWN	55.68	68.3	9	36K	-4							
PENNSYLVANIA	55.99	66.0	9	39	-3	17	24	-6				
ZO-SE	57.04	278.7	9	49	-1	17	44	1				
NANKING	57.73	281.2	9	52A	-2							
PAL ISADES	57.94	63.2	9	53	-3	17	53	-2			18	9 PS
APATITY	58.02	352.4	9	57K	1							
FORDHAM	58.07	63.4	9	55	-2	17	53	-4				
WESTON	58.30	60.5	9	56K	-2							
KIRUNA	58.37	358.2	9	59	0							
SODANKYLA	58.63	355.4	10	1	0							
SIAN	61.71	290.0	10	22A	0							
UMEA	62.40	358.1	10	12K	-14							
SKALSTUGAN	62.63	2.1	10	28	0							
SEMI PALATNSK	62.97	319.9	10	29	-1							
LANCHOW	63.14	294.8	10	31A	0							
SVERDLOVSK	63.72	334.7	10	35	0						19	22 PS
NURMI JARVI	65.57	355.5	10	47	0							
HELSINKI	65.89	355.3	10	50	1							
PULKOVO	65.95	352.4	10	49	-1						19	53 PS
UPPSALA	66.42	359.3	10	52K	-1							
CHENG TU	67.13	290.9	10	57A	0	19	54	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961										PAGE 46	
CANTON	67.64	278.7	11	0	0	20	0	3			
HONG KONG	67.77	277.5	10	56	-5	20	3	4			
GOTEBORG	68.52	2.6	11	6	0						
MOSCOW	69.18	347.4	11	10	0					21	4 SKS
DURHAM	70.50	11.0	11	17	-1					13	40 PP
COPENHAGEN	70.55	2.4	11	19	1						
FRUNSE	71.41	318.7	11	24	1						
KUNMING	72.14	288.1	11	27A	-1	20	52	2		14	7 PP
WITTEVEEN	73.16	6.2	11	39K	5						
DE BILT	73.77	7.2	11	36	-1	21	30	22			
KEW	73.89	10.8	11	37	-1	21	27	17			
WARSAW	73.99	357.1	11	34	-5						
MUNSTER	74.06	5.7	11	40	1						
TASHKENT	74.73	321.5	11	43	0					11	52 PCP
LHASA	74.84	299.6	11	45	1	21	23	3			
COLLMBERG	74.95	2.2	11	45	1					14	37 PP
BENSBERG	75.04	6.0	11	46K	1						
JENA	75.28	3.2	11	46	0	21	26	1		26	31 SS
PORT MORESBY	75.63	230.5	11	44	-4	21	24	-5			
CHEB	76.16	2.7	11	51	0						
RACIBORZ	76.20	358.8	11	52	1					12	12 PCP
LWOW	76.28	354.9	11	52	0						
PRUHONICE	76.30	1.2	11	52A	0					14	47 PP
FOLINIERE	76.53	11.4	11	54	1						
HEIDELBERG	76.69	5.2	11	53	-1						
KASPERSKE H.	77.14	1.9	11	57A	0						
DUZHANBE	77.32	320.5				21	35	-12		14	59
STUTTGART	77.35	4.8	11	58	0						
STRASBOURG	77.45	5.9	12	0	2	21	54	5		16	48 PPP
TUBINGEN	77.58	5.0	11	59	0						
SHILLONG	77.70	296.5	11	50A	-10	21	44	-8			
EBINGEN	77.92	5.1	12	1	0						
BRATISLAVA	78.12	359.5	12	3	1					12	9 PCP
RAVENSBURG	78.35	4.7	12	4	1						
GARCHY	78.38	9.2	12	5	2					13	19
BASLE	78.49	6.1	12	5	1					17	53
BESANCON	78.66	7.2	12	15	10						
NEUCHATEL	78.97	6.6	12	7	0						
CHATRA	79.10	300.8	12	8	1	22	6	-1		15	12 PP
SAN JUAN	79.59	73.2	12	7	-3				12	21	
SIMFEROPOL	80.20	347.3	12	14	1					22	34 SCS
WARSAK DAM	80.22	316.2	12	13	0						
LJUBLJANA	80.23	1.3	12	14	1					12	25 PCP
CHITTAGONG	80.32	294.7	12	14	0	22	18	-1		15	27 PP
DEHRA DUN	80.58	309.5	12	15	0	22	23	1			
LAHORE	81.18	313.0	12	21A	3						
BELGRADE	81.42	357.1	12	22K	2	22	36	5			
ASHKABAD	81.48	327.7	12	22A	2						
TIFLIS	81.52	338.9	12	22	2					12	31 PCP
ISOLA	81.79	6.8	12	24	2						
CALCUTTA	82.01	297.4								13	59
BAGNERES	82.23	12.0	12	25	1						
BOKARO	82.27	300.1								22	42
FLORENCE X.	82.42	3.8	12	27	2	22	35	-6			
SERRA PILAR	82.76	18.8	12	27A	0				12	39	
GORIS	83.30	337.1	12	31	2	22	53	3		15	53 PP
KASTAMONU	84.13	349.2	12	34	0						
ROME	84.33	3.0	12	38	3						
ISTANBUL KA.	84.60	350.4	12	36	0						
TOLEDO	84.77	15.7	12	37	0				12	49	
QUETTA	85.43	317.9	12	40A	0	23	19	8		15	57 PP
CARACAS	85.46	78.5	12	51	11	23	42	31			
CHARTERS TS.	85.48	226.4	12	37	-3						
TEHERAN	85.58	332.1	12	42	1	23	9	-3			
MESSINA	88.09	0.7								22	54
BRISBANE	89.46	217.9	12	58	-2						
KSARA	90.86	343.9	13	5	-1					16	45 PP
SHIRAZ	90.96	329.1	13	4	0	23	36	-27		16	44
HYDERABAD	91.34	302.5								24	5
POONA	92.62	306.8	13	13	-1					24	36
BOMBAY	92.79	307.9	13	25	10	24	34	15		24	18 SKS
JERUSALEM	92.96	344.1	13	17	1					16	4 PP
LEMBANG	94.78	265.0								17	9 PP
BANDUNG	94.81	265.0								17	18 PP
TAMANRASSET	102.88	10.3	14	9	8	24	33	-7		18	10 PP
MBOUR	106.10	33.7				26	18	83		18	39 PP
SANTA LUCIA	117.93	109.1								27	56
BANGUI	121.72	357.4	18	58	2					20	22 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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 47

LWIRO	127.34	344.4	19 10	4
SCOTT BASE	132.94	188.2	19 19	2
BYRD STATION	136.20	169.9	19 10	-13
SOUTH POLE	143.90	180.0	19 30	-7
BULAWAYO	144.86	339.8	19 37A	-1

JANUARY 15 11.H 53.M 9.S EPICENTRE 39.56 143.30 DEPTH= 60.KM

A=-0.61984 B= 0.46195 C= 0.63435 D= 0.5976 E= 0.8018
G=-0.5086 H= 0.3791 K=-0.7730 HT= -1.5

DEPTH OF FOCUS= 0.004R

SE= 2.18

	DELTA DEG.	AZ. DEG.	P			S			*PP		SUPP.	
			M	S	S	M	S	S	M	S	M	S
MIYAKO	1.03	275.3	0	17K	-2	0	30	-3				
MORIOKA	1.65	275.5	0	31	4	0	47	-1				
HATINOHE	1.67	305.9	0	27K	-1	0	45	-3				
MIZUSAWA	1.74	256.3	0	31	2	0	47	-3				
ISINOMAKI	1.91	234.5	0	30A	-1	0	52	-2				
SENDAI	2.28	236.2	0	37A	1	1	2	-1				
AOMORI	2.31	303.8	1	35	59	1	1	-3				
AKITA	2.48	274.7	0	39	0	1	4	-4				
URAKAWA	2.62	351.4	0	42	1	1	9	-3				
YAMAGATA	2.65	241.3	0	41A	0	1	9	-4				
HIROO	2.72	0.3	0	42	0	1	13	-1				
SAKATA	2.78	257.3	0	44	1	1	17	1				
HUKUSIMA	2.86	231.7	0	44A	0	1	14	-4				
HAKODATE	2.96	320.1	0	44K	-2	1	16	-4				
ONAHAMA	3.22	216.7	0	48A	-1	1	21	-6				
MURORAN	3.27	328.2	0	49	-1	1	22	-6				
TOMAKOMAI	3.33	337.5	0	52	1	1	26	-4				
OBHIRO	3.36	358.7	0	51	0	1	30	0				
SHIRAKAWA	3.44	225.8	0	54	2	1	31	-1				
KUSIRO	3.51	13.2	0	52A	-1	1	30	-4				
NIIGATA	3.71	245.1	0	52	-4	1	33	-6				
SAPPORO	3.80	337.9	0	57A	0	1	35	-6				
MITO	3.89	216.1	0	59A	0	1	45	1				
SUTTSU	3.98	325.4	1	4	4	2	42	56				
UTUNOMIYA	4.05	223.1	1	1	0	1	45	-3				
NEMURO	4.14	23.7	1	1A	-1	1	45	-5				
KAKIOKA	4.14	217.6	1	2A	0	1	46	-4				
TUKUBASAN	4.19	218.2	1	1	-2	1	47	-4			2 32	
AIKAWA	4.24	250.3	1	3K	-1	1	48	-4				
ASAHIKAWA	4.27	350.9	1	4	0	1	50	-3				
TYOSI	4.30	207.7	1	4A	0	1	55	1				
ABASHIRI	4.51	9.0	1	2	-5	1	51	-8				
MAEBASI	4.60	228.0	1	9A	0	2	1	0				
KUMAGAYA	4.61	223.6	1	7	-2	2	4	2				
TAKADA	4.67	239.8	1	10	0	2	2	-1				
HONGO	4.76	217.2	1	11	0	2	2	-3				
TOKYO C.M.O.	4.79	217.2	1	11	0	2	4	-2				
TITIBU	4.90	224.4	1	12	-1	2	7	-2				
OI WAKE	4.95	230.8	1	12	-1							
NAGANO	4.95	235.9	1	17	3							
MATUSIRO	5.03	234.7	1	14A	-1	2	9	-3				
YOKOHAMA	5.04	216.3	1	15A	0	2	11	-2				
MATUMOTO	5.36	233.6	1	20	1	2	21	1				
MERA	5.40	212.0	1	20	0							
KOHU	5.41	225.6	1	22	2	2	21	-1				
HUNATU	5.42	223.0	1	21	1	2	22	0				
WAZIMA	5.48	248.6	1	22A	1	2	19	-4				
TOYAMA	5.60	241.2	1	25	3	2	38	12				
AJIRO	5.61	218.0	1	23	0	2	23	-4				
OSIMA	5.72	214.4	1	24	0	2	26	-3				
TAKAYAMA	5.88	236.5	1	26	0							
IIDA	5.93	228.9	1	30	3	2	51	16				
SHIZUOKA	6.02	222.0	1	28K	0	2	35	-2				
OMAE SAKI	6.41	220.9	1	37	3							
HAMAMATU	6.57	224.4	1	37	1	2	47	-4				
KURILSK	6.59	29.3	1	35	-1	2	47	-4				
HUKUI	6.61	240.2	1	37	1							
GIHU	6.65	233.4	1	38	1	2	47	-5				
NAGOYA	6.68	231.0	1	39	1	2	57	4				
HIKONE	7.06	234.8	1	44K	1	2	59	-4				

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961								PAGE 48	
TU	7.27	230.3	1 47	1					
KYOTO	7.55	235.4	1 49	-1	3 11	-4			3 49
NARA	7.70	233.1	1 52	0					
ABUYAMA	7.74	235.2	1 51A	-1					
TOYOOKA	7.85	241.8	1 55	1					
OWASE	7.90	228.3	0 54	-60					
SUMOTO	8.50	234.8	2 2	-1	4 8	30			
SIOMISAKI	8.60	227.2							4 8
TAKAMATU	9.07	237.6	2 9	-1					
TORISIMA	9.39	196.1	2 10	-5					3 50
MUROTO	9.68	232.2	2 17	-2					
KOTI	9.89	235.7	2 21	-1					
OOITA	11.33	239.7	2 40A	-1					
KUMAMOTO	12.20	240.4	2 52	-1					
SAGA	12.22	243.0	2 54	1					
CHANGCHUN	14.10	293.4	3 21	3					
PETROPVLOVK	17.08	33.0	3 55	-1	7 12	10			
ZO-SE	19.89	251.7	4 26	-3	8 16	12			
MAGADAN	20.56	10.9	4 37	1	8 25	8			
PEKING	20.83	280.0	4 35	-4					
NANKING	21.21	257.0	4 39	-3	8 38	8			
YAKUTSK	23.97	344.2	5 2A	-7	9 10	-9			
GUAM	26.03	176.8	5 24	-5					
HONG KONG	30.16	243.8			11 19	19			
LANCHOW	31.21	276.2	6 15	-1					
TIKSI	32.97	351.6	6 28	-3					
SEMIPALATNSK	44.63	305.7	8 8	0					
SHILLONG	44.96	267.9	8 4A	-7					
COLLEGE	46.17	33.5	8 21	1			8 34		8 39 *SP
CHATRA	47.96	272.4	8 34	0					
KHEYS	50.49	347.8	8 52	-2					
SVERDLOVSK	54.26	317.8	9 22	0					
CHARTERS TS.	59.40	176.8	9 59	1					
RESOLUTE	59.79	15.2	10 0	-1					
APATITY	61.00	335.6	10 29	20					
THULE	62.56	8.0	10 18	-2					
SODANKYLA	63.22	337.2	10 23	-1					
KIRUNA	64.68	339.4	10 35	1					
MOSCOW	66.11	323.4	10 45	2					
BRISBANE	67.19	170.9	10 46	-4					11 9
NURMIJARVI	68.41	332.2	11 14	17					
HUNGRY HORSE	68.93	44.2	11 1	1					
MINERAL	69.11	54.6	11 3A	2					
BERKELEY	70.10	57.1	11 9A	1					
RENO	70.70	54.4	11 14	3					
LICK	70.80	57.2	11 13A	1					
SHIRAZ	72.36	294.0	11 20	-1					
EUREKA	73.12	52.6	11 27	1					
ADELAIDE	74.28	183.9	11 34A	2					
CANBERRA	74.70	175.2	11 35	0					11 43 PCP
FLAMING GRGE	76.13	48.2	11 44	1					
GLEN CANYON	77.38	52.4	11 51	1					12 44
RAPID CITY	77.43	42.6	11 50	0					
COLLMBERG	79.64	330.9	12 0	-2					12 24
PRUHONICE	80.09	329.3	12 4	-1			12 27		
TUCSON	80.92	55.6	12 11	2					
TUCSON TELE.	80.93	55.5	12 11	2					
KASPERSKE H.	81.15	329.2	12 31	21					
KARAPIRO	82.60	154.8	12 20	2					
HEIDELBERG	82.78	332.0					12 41		
STUTTGART	83.09	331.4	12 20	0			12 43		13 9
TUBINGEN	83.37	331.3					12 44		
EBINGEN	83.70	331.2	12 33	10			12 45		
RAVENSBERG	83.79	330.6					12 46		
BASLE	84.76	331.6	12 27	-2					
WICHITA MTS.	86.58	46.7	12 39	1					
FAYETTEVILLE	87.96	43.1	12 45A	1					
BENI ABBES	103.60	329.7							18 27 PP
BYRD STATION	129.90	167.0	19 4	1					
HUANCAYO	136.25	62.0	19 19	4					

JANUARY 15 16.H 44.M 44.S EPICENTRE -20.54 169.68 DEPTH= 138.KM

A=-0.92205 B= 0.16793 C=-0.34876 D= 0.1792 E= 0.9838
G= 0.3431 H=-0.0625 K=-0.9372 HT= 4.5

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 49

DEPTH OF FOCUS= 0.017R

SE= 2.56

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	O-C S	M	S	M	S
NOUMEA	3.48	239.2	0	53	-1	1	42	7				
HONIARA	14.49	318.2	3	19	0							
BRISBANE	16.88	242.9	3	50	1	6	55	4				
KARAPIRO	18.06	164.9	4	3	0							
AFIAMALU	18.89	72.5	4	12	0						6	52
APIA	18.93	72.2	4	12	0	6	52	-43				
COBB RIVER	20.64	173.4	4	32	2							
RIVERVIEW	21.10	227.3	4	37A	2	8	26	10	5	2	5	20 PPP
WELLINGTON	21.12	169.3	4	35	0	8	23	7				
KAIMATA	21.97	176.6	4	45	2							
CHARTERS TS.	21.97	267.1	4	45A	2	8	37	5				
GEBBIES PASS	23.23	174.5	4	55	0							
CANBERRA	23.40	226.7	4	58A	1	9	3	7	5	26	5	40 PP
PORT MORESBY	24.38	293.7	5	2	-4	9	15	2	5	46	10	23 *SS
ROXBURGH	24.88	180.6	5	10	-1	9	21	0				
MELBOURNE	27.48	225.8	5	35	0				6	2		
FORT NELSON	29.14	215.0	5	53A	3				6	19		
ADELAIDE	30.79	235.6	6	4K	-1	11	0	4			7	8 PP
MUNDARING	48.86	245.1	8	32	-1							
PERTH	49.18	245.1				15	32	3			11	48
CAPE HALLETT	51.79	179.8	8	54A	-1	16	8	3	9	26	18	32 SCS
SCOTT BASE	57.38	180.7	9	35A	-1	17	26	6	10	12	11	25 PCP
WILKES	59.14	203.8	9	41A	-7	17	37	-6	10	10		
MANILA	59.20	302.3									10	21
BANDUNG	61.44	273.3	10	2	-2	18	14	2				
LEMBANG	61.49	273.4	10	5K	1	18	17	4	10	33	12	27 PP
DJAKARTA	62.45	273.8				18	10	-15			10	39
MATUSIRO	64.08	332.1	10	19K	-2	18	43	-2			10	46 PCP
BYRD STATION	66.60	169.7	10	35	-2							
HONG KONG	68.90	305.1	10	49	-3	19	48	5	11	20	14	8 *PPP
ZO-SE	69.30	316.6	10	53	-1	19	49	1			11	23 *SP
CANTON	69.98	305.3	10	59	1	19	59	3			11	26 *SP
NANKING	71.48	316.0	11	7	0	20	15	2			11	37 *SP
Y.-SAKHLINSK	71.51	340.9	11	9	2	-20	16	3	11	37		
VLADIVOSTOK	72.25	331.9	11	14	2				11	44		
PETROPAVLOVK	73.87	353.1	11	20	-1							
CHANGCHUN	75.86	328.5	11	31K	-2	21	5	3			12	1 *SP
MAWSON	77.39	202.1	11	40	-1							
PEKING	78.20	320.9	11	45K	0	21	30	3			14	15 *SP
KUNMING	79.31	301.9	11	52K	1	21	45	6			12	23 *SP
SIAN	79.41	312.7	11	43A	-9							
CHENG TU	81.04	307.4	12	2	1	22	1	4			12	32 *SP
MAGADAN	81.28	350.4									12	14 PCP
PORT BLAIR	82.12	285.5									13	27
LANCHOW	83.89	312.0	12	17K	2	22	27	1			12	49 *SP
ARGENTINE I.	85.17	160.0	12	21	-1							
BERKELEY	86.34	47.4	12	28K	1	23	52	63	13	1	24	46 *SS
VINEYARD	86.40	48.7	11	29	-59							
LICK	86.51	48.1	12	30K	2				13	3		
CONCORD	86.52	47.3	12	30	2							
PASADENA	87.52	52.2	12	33	0						16	0 PP
FRESNO	87.53	49.3	12	44	11				13	6		
SHASTA	87.64	44.8	12	34	0							
MINERAL	87.99	45.4	12	35K	0				13	8		
YAKUTSK	88.21	342.4	12	37	1							
ULAN-BATOR	88.26	323.2	12	36	-1							
SHILLONG	88.33	298.0	12	31K	-6	22	45	-23				
RENO	88.82	46.8	12	41A	2							
LHASA	90.62	301.4	12	49	1							
COLLEGE	91.16	16.8	12	46	-4				13	20	16	27 PP
EUREKA	91.44	48.2	12	51	0				13	25	16	33 PP
IRKUTSK	92.01	326.0	12	53	-1				13	24	16	36 PP
RUTH	92.03	48.8	12	54K	0							
TUCSON	92.31	56.5	12	57	2				13	29		
TUCSON TELE.	92.43	56.4	12	57	1				13	28		
CHATRA	92.72	297.5	12	58	1	23	17	-30			13	31
BOKARO	92.78	294.3									23	19
PENTICTON	93.50	38.2	13	1	0							
GLEN CANYON	93.56	51.9	13	3	2				13	35	16	48 PP
SALT LAKE C.	94.85	48.3	13	6	-1							
TIKSI	96.08	348.0	13	11	-2							
BUTTE	96.41	43.3	13	15	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961					PAGE 50
HUNGRY HORSE	96.41	40.7	13 14	0	
FLAMING GRGE	96.64	48.9	13 14	-1	16 55 PP
HYDERABAD	97.07	285.9			23 41
BOZEMAN	97.26	44.0	13 31	13	
LARAMIE	99.48	49.5	13 30	2	17 20
DEHRA DUN	101.43	298.1			17 55
RAPID CITY	102.00	47.4	13 35	-4	
BOMBAY	102.61	285.6			17 58
WICHITA MTS.	102.77	57.6	13 44	1	14 16 17 53 PP
DUZHANBE	110.83	304.6			28 21 PS
RESOLUTE	111.08	16.5	18 16	-1	29 16
KHEYS	113.62	350.4	18 21	-1	
CHINCHINA	114.85	94.1			19 26 PP
BOGOTA	116.18	95.0			19 36 PP
FUQUENE	116.79	94.3			19 38 PP
THULE	117.15	13.0	18 28	0	
SVERDLOVSK	117.35	324.2	18 29	0	
OTTAWA	121.49	48.7	18 36	-1	
PALISADES	122.92	53.8			28 19 PKKP
SHIRAZ	122.96	292.6	18 40	0	20 25
BULAWAYO	124.45	225.7	18 45A	2	
CARACAS	124.78	91.3	18 45	2	20 32 PP
APATITY	125.59	340.9	18 44	-1	
SAN JUAN	127.56	82.2	18 49	0	20 37 PP
SODANKYLA	127.69	342.9	18 48	-1	
GORIS	128.29	304.6	18 51	1	
BROKEN HILL	128.40	230.8	18 53	3	
KIRUNA	128.93	345.6	18 50	-1	
TIFLIS	129.23	307.5	18 53	1	19 26 30 43 SKSP
WINDHOEK	129.48	213.5	18 55	3	
TRINIDAD	130.00	93.2	18 55	2	
ST. KITTS	130.49	84.4	18 51	-3	
FORT FRANCE	131.37	88.2	18 57	1	
UMEA	132.11	342.3	18 57	0	22 9 SKP
NURMIJARVI	133.08	337.1	18 54	-5	22 14 SKP
HELSINKI	133.20	336.7	18 53	-6	
LWIRO	135.47	244.0	19 7	3	
UPPSALA	135.97	340.1	19 5	1	
KSARA	137.16	297.9	19 8	1	20 5 22 29 PP
KASTAMONU	139.58	310.3	19 8	-3	22 29
ISTANBUL KA.	140.89	310.5	19 12	-2	22 34 PP
NIEDZIKA	142.25	327.1	19 17	1	
RACIBORZ	142.87	329.4	19 14	-3	
COLLMBERG	144.27	334.8	19 17	-2	22 47 PP
PRUHONICE	144.62	332.0	19 20	0	22 44 PP
BRATISLAVA	144.68	327.8	19 22	2	19 54
BELGRADE	144.90	320.7	19 21A	0	19 46
VIENNA-H.	144.99	328.4	19 21K	0	
JENA	145.12	335.6	19 21	0	20 23 22 49 PP
DURHAM	145.19	351.1	19 20A	-1	20 13
WI TTEVEEN	145.20	341.9	19 21	0	
CHEB	145.46	334.0	19 22	0	
MUNSTER	145.65	340.3	19 19	-3	19 55
KASPERSKE H.	145.67	331.8	19 23	1	
DE BILT	146.26	342.7	19 25	2	
BENSBERG	146.66	339.8	19 26	2	19 58 20 14 *SPKP
LJUBLJANA	147.42	327.1	19 28	3	20 0
HEIDELBERG	147.44	336.7	19 26	1	19 59
BANGUI	147.59	244.2	19 16	-9	
STUTTGART	147.74	335.4	19 26	1	20 18 30 57 *SSKKS
TUBINGEN	148.02	335.4	19 29	3	20 2
KEW	148.15	348.1	19 27	1	20 2 PKP2
EBINGEN	148.34	335.1	19 29	3	
RAVENSBURG	148.40	334.0	19 26	0	20 3
BASLE	149.41	335.8	19 32	4	20 6
PARIS	149.98	343.0	19 26	-3	20 24 *SPKP
NEUCHATEL	150.10	336.0	19 35	15	
FOLINIERE	150.74	346.6	19 31	1	
BAGNERES	155.88	341.0	19 38	1	
SETIF	159.19	321.9	20 21	40	20 50
TAMANRASSET	165.10	281.5	19 48K	1	25 3 PP
BENI ABBES	167.95	324.0	20 1	12	24 59 PP
MBOUR	171.18	132.9	19 49	-2	24 58 PP

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 51

A=-0.33938 B= 0.93607 C=-0.09271 D= 0.9401 E= 0.3408
G= 0.0316 H=-0.0872 K=-0.9957 HT= 7.0

DEPTH OF FOCUS= 0.081R

SE= 2.28

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.		
			M	S		M	S	S	M	S	M	S	
LEMBANG	2.72	237.3	1	14K	1	2	11	0			13	38	SCS
BANDUNG	2.74	235.8	1	12	-1	1	53	-19					
DJAKARTA	3.19	255.0	1	17K	1								
MUNDARING	27.12	168.2	4	58	-3						6	15	
SHILLONG	35.39	331.1	6	7	-4								
PORT MORESBY	37.12	98.5	6	26	1						11	27	
CHARTERS TS.	38.23	115.8	6	34K	0	11	44	-7					
CHATRA	38.85	326.6	6	42	3						8	37	
ADELAIDE	39.69	141.7	6	45K	-1				6	59			
BRISBANE	46.25	123.2	7	39	1						9	21	
CANBERRA	46.72	134.9	7	41	0						9	3	PCP
DEHRA DUN	46.80	321.2									13	53	
MATUSIRO	49.37	30.2	8	0K	-1						9	13	PCP
FORT NELSON	49.93	144.3	8	8	3								
LAHORE	49.99	319.5	8	3	-3	14	29	-7					
ULAN-BATOR	53.11	357.5	8	29	1								
WARSAK DAM	53.35	320.0	8	31	1								
FRUNSE	57.66	329.8	9	1	1								
NAMANGAN	57.90	326.4	9	2	0								
SEMPALATNSK	61.16	338.8	9	24	1								
SHIRAZ	65.09	306.0	9	48A	0				11	41	15	45	
KARAPIRO	67.55	128.8	10	3	0								
TEHERAN	68.35	311.7	10	9	1	18	26	-1					
YAKUTSK	68.89	9.9	10	13K	1								
PETROPAVLOVK	71.16	28.7	10	25	0								
SVERDLOVSK	73.77	334.3	10	41	1								
TIFLIS	75.40	315.4	10	51	2								
SCOTT BASE	78.11	169.6	11	3	-1	20	15	2			13	20	
BULAWAYO	80.04	250.6	11	15K	1								
BROKEN HILL	80.43	256.3	11	16K	0								
MOSCOW	84.56	327.2	11	38	2								
KASTAMONU	85.42	312.1	11	30A	-11								
ISTANBUL KA.	86.62	311.6	11	46	0								
KHEYS	89.46	352.6	12	0	0								
APATITY	89.79	338.1	11	40	-21								
BYRD STATION	91.24	172.4	12	8	0				14	8			
BANGUI	91.70	274.2	12	12	2				13	50			
NURMIJARVI	92.29	330.4	12	13	0								
SODANKYLA	92.32	337.4	12	11	-2								
UMEA	94.63	333.6	12	20K	-3								
KIRUNA	94.73	337.6	12	24	0								
UPPSALA	95.75	329.5	12	29	1								
COLLEGE	100.02	25.1	12	45	-3						16	4	
RESOLUTE	109.25	6.8	17	28	777								
BENI ABBES	111.78	300.2	17	47	15						18	58	
SHASTA	121.53	44.9	17	54	3								
MINERAL	122.22	45.0	17	55A	2								
BERKELEY	122.67	48.0	17	56A	2								
HUNGRY HORSE	123.17	33.6	17	56	1								
LICK	123.32	48.3	17	58A	3								
RENO	123.81	45.2	17	59A	3								
BOZEMAN	126.38	34.8	18	3	2						20	13	PP
EUREKA	126.51	43.7	17	49	-12						20	6	PP
PASADENA	127.11	50.7	18	4	2								
SALT LAKE C.	128.63	40.4	18	7	2						20	17	PP
FLAMING GRGE	130.10	38.9	18	10	2						20	20	PP
GLEN CANYON	130.74	44.5	18	11	2						20	44	PP
RAPID CITY	131.70	31.8	18	4	-7						20	37	PP
TUCSON	133.50	49.7	18	18	4						20	54	
TUCSON TELE.	133.54	49.5	18	0	-14								
SHAWINIGAN	138.90	2.8	18	22	-2								
BREBEUF	139.89	3.9	18	24	-2								
WICHITA MTS.	140.65	38.3	18	23	-5						21	13	SKP
FAYETTEVILLE	142.23	32.7	18	28K	-3								
DALLAS	143.01	39.0	18	32	0				21	17			

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 52

JANUARY 16 3.H 58.M 59.S EPICENTRE 18.76-102.25 DEPTH= 137.KM

A=-0.20101 B=-0.92596 C= 0.31968 D=-0.9772 E= 0.2121
G=-0.0678 H=-0.3124 K=-0.9475 HT= 5.0

DEPTH OF FOCUS= 0.016R

SF= 3.27

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
MANZANILLO	1.99	278.6	0	35	0	1	3	2				
GUADALAJARA	2.16	332.3	0	37	0							
LEON	2.41	13.0	0	41	1							
TACUBAYA	2.95	77.1	0	41A	-6	1	15	-8				
PUEBLA	3.84	85.4	1	1	2							
OAXACA	5.50	107.5	1	18	-3						2	22
VERA CRUZ	5.81	84.7	1	24	-1						2	20
MAZATLAN	5.86	319.3	1	37	11						2	9
COMITAN	9.97	102.9									4	34
CHIHUAHUA	10.43	341.1	2	32	5							
MERIDA	12.08	77.5									5	34 SS
SAN SALVADOR	13.51	110.0									6	4 SS
SANTIAGO MA.	14.23	109.6									7	26
LUBBOCK	14.76	1.3	3	26	3							
TUCSON	15.49	331.8	3	30	-2	7	7	47	4	1		
TUCSON TELE.	15.52	332.2	3	31	-1							
WICHITA MTS.	16.22	10.8	3	37	-4						6	54
FAYETTEVILLE	18.67	20.8	4	8	-2						10	25
GLEN CANYON	19.91	337.6	4	22	-1						5	15
PASADENA	20.89	320.3	4	30	-3							
LAWRENCE	21.03	15.3	4	32	-2							
FLAMING GRGE	22.93	346.0	4	52	-1							
SALT LAKE C.	23.43	341.4	4	57	0							
FRESNO	23.66	322.9	4	58	-2							
EUREKA	23.82	333.0	5	1	0						5	23
COLUMBIA	24.25	47.1	5	33	28							
VINEYARD	24.57	320.7	5	9	1							
LICK	25.12	321.4	5	13A	-1							
RAPID CITY	25.26	358.4	5	35	20						6	28
RENO	25.68	327.4	5	20	1							
BERKELEY	25.84	321.6	5	18	-2	10	7	29				
MINERAL	27.20	326.4	5	32K	-1							
BOZEMAN	27.81	346.7	5	38	0							
BUTTE	28.49	344.8	5	48	4						8	59
HUNGRY HORSE	31.03	344.7	6	5	-2							
PALISADES	32.85	41.5				11	44	15				
PENTICTON	33.54	339.3	6	27	-2							
SAN JUAN	34.21	84.7	6	30	-4						6	52
CARACAS	35.09	98.5	6	56	14							
SHAWINIGAN	36.81	34.5	7	11	15						9	26 PCP
HUANCAYO	40.52	137.0	7	23	-4						7	26 *PPP
LA PAZ	48.52	134.1	8	25	-6							
COLLEGE	55.09	338.2	9	18	-2						10	30 PCP
RESOLUTE	56.08	2.3	9	28	1							
KEW	82.71	38.1	12	10	0							
FOLINIERE	83.58	40.7	12	15	1							
KIRUNA	84.17	18.7	12	17	0							
TOLEDO	84.25	50.0	12	19	2							
PARIS	85.38	39.9	12	25	2							
GRANADA	85.49	52.4	12	26A	3							
BAGNERES	86.08	45.8	12	27	1							
SODANKYLA	86.30	17.6	12	26	-1							
GARCHY	86.35	41.1	12	28	0							
UMEA	86.52	22.0	12	28	0						12	43
STUTTGART	89.45	38.0	12	43	1							
COLLMBERG	90.28	34.6	12	58	12							
PRUHONICE	91.81	35.2	12	55	2							
TAMANRASSET	98.27	62.6	13	33	10							
RBAUL	106.09	271.0									21	20
SCOTT BASE	108.42	192.9	18	34	777							
SHIRAZ	126.07	27.3	18	46	0							
LEMBANG	148.61	288.3	19	28	1							
TANANARIVE	151.43	95.3	19	41	10							

JANUARY 16

7.H 20.M 12.S EPICENTRE 36.16 141.71 DEPTH= 36.KM

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 53

A=-0.63521 B= 0.50140 C= 0.58746 D= 0.6196 E= 0.7849
G=-0.4611 H= 0.3640 K=-0.8093 HT= -0.3

DEPTH OF FOCUS= 0.000R

SE= 2.57

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
TYOSI	0.83	238.2	0	15	-1	0	28	0				
ONAHAMA	1.02	320.5	0	19K	1	0	34	2				
MI TO	1.03	282.6	0	18K	0							
KAKIOKA	1.24	273.6	0	21K	0	0	27	-10				
TUKUBASAN	1.31	273.1	0	20	-2							
SHIRAKAWA	1.54	309.0	0	27K	1	0	46	1				
UTUNOMIYA	1.54	285.2	0	25K	-1	0	45	0				
HONGO	1.64	254.7	0	28	1	0	56	9				
TOKYO C.M.O.	1.67	253.8	0	26K	-1	0	32	-16				
YOKOHAMA	1.83	247.1	0	31A	1	0	55	3				
HUKUSIMA	1.87	328.2	0	30A	0							
KUMAGAYA	1.89	270.4	0	31K	0	0	48	-6				
MERA	1.97	231.7	0	33A	1	0	48	-8				
TITIBU	2.14	265.9	0	33	-1	0	59	-1				
MAEBASI	2.15	277.2	0	34K	0	1	7	7				
SENDAI	2.20	343.1	0	35A	0	1	6	5				
ISINOMAKI	2.29	352.2	0	35A	-1							
YAMAGATA	2.35	332.8	0	38A	1	1	12	7				
OSIMA	2.36	234.6	0	36	-1	1	5	0				
AJIRO	2.40	243.3	0	37	-1	1	11	5				
MISIMA	2.48	246.0	0	39A	0	1	9	1				
HUNATU	2.48	255.5	0	39	0	1	25	16				
OI WAKE	2.56	274.7	0	41	1							
KOHU	2.61	260.1	0	42A	1	1	31	19				
NIIGATA	2.76	310.3	0	49	6	1	32	16				
MATUSIRO	2.85	278.7	0	45K	1	1	25	7				
NAGANO	2.88	281.2	0	47A	2	1	22	3				
TAKADA	2.94	289.6	0	46A	0	1	24	4				
SHIZUOKA	2.95	247.2	1	47A	61	2	27	67				
MIZUSAWA	3.00	351.3	0	48	2	1	19	-3				
MATUMOTO	3.03	272.8	0	48	1	1	27	5				
SAKATA	3.12	331.9	0	54	6	1	39	14				
IIDA	3.22	259.7	0	54	4	1	50	23				
OMAESAKI	3.25	242.4	0	50A	0	1	28	0				
AIKAWA	3.33	304.8	0	51	0	1	41	11				
HATIDYOZIMA	3.44	208.0	0	53	0	1	31	-2				
MIYAKO	3.49	3.2	0	44	-9	1	30	-4				
MORIOKA	3.56	353.2	0	56A	2	1	45	9				
HAMAMATU	3.56	247.4	0	54A	0	1	45	9				
TAKAYAMA	3.61	271.1	0	56	1	1	26	-11				
TOYAMA	3.68	279.7	0	59A	3	1	58	19				
AKITA	3.78	340.7	0	58A	1	1	46	5				
NAGOYA	3.99	257.0	1	1A	1	1	50	3				
WAZIMA	4.05	288.9	1	2A	1	1	58	10				
GIHU	4.09	260.8	1	3A	1	2	3	14				
KANAZAWA	4.10	276.6	1	5	3	2	40	50				
HATINOHE	4.36	358.2	1	6	0	1	59	3				
HUKUI	4.44	270.2	1	10K	3	2	7	9				
TU	4.48	252.6	1	9	1	2	18	19				
HIKONE	4.53	260.3	1	11A	3							
TSURUGA	4.61	265.3	1	11	2	2	12	10				
AOMORI	4.71	351.3	1	11A	0	2	10	5				
OWASE	4.98	246.8	1	13	-2	2	34	22				
KYOTO	5.01	258.6	1	15	0	2	19	7				
NARA	5.03	254.6	1	15	0	2	19	6				
ABUYAMA	5.17	257.4	1	16A	-1							
MAIZURU	5.19	264.2	1	18	1	2	32	15				
OSAKA	5.27	255.2	1	19A	0	2	43	24				
KOBE	5.54	256.4	1	24	2	2	40	14				
SIOMISAKI	5.59	242.8	1	22A	-1	2	38	11				
TOYOOKA	5.64	265.6	1	24	0	2	39	11				
HAKODATE	5.69	352.8	1	24A	0	2	37	7				
WAKAYAMA	5.69	252.1	1	27A	2	2	47	17				
TORISIMA	5.79	192.2	1	23	-3	2	21	-11				
SUMOTO	5.86	253.9	1	26A	-1	2	50	16				
MORI	6.00	351.8	1	28A	-1	2	55	18				
URAKAWA	6.04	7.6	1	29	0	2	37	-1				
TOTTORI	6.15	266.2	1	34	3	3	10	29				
MURORAN	6.18	354.9	1	29	-2	2	50	8				
HIMEJI	6.20	256.6	1	26	-6	2	45	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 54

TOKUSIMA	6.21	252.4	1 32K	0	2 52	10	
HIROO	6.24	11.0	1 29	-3	2 41	-2	
TOMAKOMAI	6.46	359.1	1 41	6	2 54	5	
OKAYAMA	6.53	259.2	1 37	1	2 59	8	
TAKAMATU	6.53	255.9	1 37	1	3 18	27	
SUTTSU	6.73	350.6	1 38	-1	3 5	10	
SAIGO	6.78	272.8	1 41	1	3 41	44	
YONAGO	6.84	266.3	1 39A	-2	3 9	11	
OB IHIRO	6.85	9.2	1 40	-1	3 0	2	
MURTO	6.85	247.1	1 39K	-2	3 2	4	
SAPPORO	6.91	357.8	1 38K	-4	2 54	-6	
KUSIRO	7.12	16.1	1 39K	-6	2 58	-7	
KOTI	7.21	251.2	1 45	-1	3 21	14	
ASAHI GAWA	7.63	3.6	1 52	0	3 20	2	
MATUYAMA	7.69	255.1	1 52A	0	3 24	5	
NEMURO	7.75	21.4	1 48	-5	3 12	-9	
HIROSIMA	7.80	259.5	1 54K	0	3 24	2	
HAMADA	7.96	263.7	1 57A	1	3 29	3	
SIMIDU	7.97	247.5	1 55A	-1	4 16	50	
ABASHIRI	8.09	13.3	1 56	-2	3 29	0	
UWAZIMA	8.09	251.5	1 56	-2	3 42	13	
DOITA	8.81	253.5	2 8A	0	3 54	7	
SIMONOSEKI	9.11	259.1	2 13A	1	3 59	4	
WAKKANAI	9.25	359.8	2 12	-2			
ASOSAN	9.36	252.8	2 17	1	4 20	19	
HUKUOKA	9.66	257.8	2 39A	19	4 12	4	
KUMAMOTO	9.68	253.1	2 20A	0	4 31	22	
SAGA	9.84	256.1	2 25K	3	4 41	28	
KURILSK	10.19	25.4	2 21	-6			
VLADIVOSTOK	10.27	315.6	2 28	0	4 25	2	
KAGOSIMA	10.35	246.9	2 28A	-1	5 32	67	
NAGASAKI	10.35	254.1	2 28A	-1	4 37	12	
Y. -SAKHLINSK	10.88	3.6	2 32	-4	4 28	-10	
YAKUSIMA	10.97	241.9	2 36A	-2	4 55	15	
TOMIE	11.26	255.5	2 59	17	5 26	39	
CHANGCHUN	14.71	306.4	3 26A	-1	6 12	2	
DAIREN	16.17	285.8	3 46	0			
OKHA	17.41	2.4	3 57	-5	7 9	-3	
ZO-SE	17.82	259.5	4 5A	-2			
NANKING	19.41	264.5	4 22A	-4			
PEKING	20.45	288.6	4 33A	-4	8 18	-1	
ILAN	20.57	242.0	4 29	-9	8 36	15	
TAIPEI	20.58	243.0	4 37	-1	8 51	29	
PETROPVLOVK	20.64	30.0	4 36	-3			5 2 PP
HS INCHU	21.12	243.3	4 46	2	9 46	74	
HWAL IEN	21.17	240.5	4 55	11	8 18	-15	
TAICHUNG	21.72	242.4	5 13	23			
ALISHAN	22.03	240.9	4 50	-3	8 48	-1	
TAITUNG	22.28	238.8	4 38	-18	8 52	-2	
TAWU	22.72	238.4	5 0	0	9 0	-1	
GUAM	22.77	172.4	4 59A	-1	9 10	8	
TAINAN	22.77	240.7	4 48	-12	9 1	-1	
KAOHSIUNG	22.98	239.9	4 58	-4			
HENGCHUN	23.06	238.0	4 54	-9	9 8	1	
KLYUCHI	23.97	26.7	5 12	0			9 34
MAGADAN	24.14	11.3	5 15	1	9 30	4	
SIAN	26.80	275.6	5 37A	-2			
YAKUTSK	26.96	347.5	5 39	-1	10 14	1	
BAGUIO CITY	27.19	229.2	5 37	-5			
HONG KONG	27.61	247.5	5 45A	-1			6 12 6 43 PP
CANTON	27.78	249.9	5 46A	-2	10 25	-1	6 40 PP
ULAN-BATOR	28.16	305.5	5 50	-1			
MANILA	28.26	226.1	5 50	-2			
LANCHOW	30.48	281.2	6 10A	-2			
IRKUTSK	30.85	313.3	6 14A	-1	11 14	-1	
CHENG TU	31.81	271.1	6 20A	-4	11 30	0	7 30 PP
KUNMING	35.08	262.8	6 50A	-2	12 22	i	8 10 PP
TOCKLAI	40.80	270.3					8 38
RABAU	41.33	164.1	7 43	-1			13 54
LHASA	42.65	276.3	7 57	2			
SHILLONG	43.66	270.4	7 55	-8	14 40	10	9 35 PP
CHITTAGONG	45.19	266.4	8 15	0	14 50	-2	8 51 10 8 PP
PORT MORESBY	45.60	172.5	8 19	0	14 59	1	
SEMI PALATNSK	45.67	308.2	8 18	-1			15 3 PS
CHATRA	46.91	274.6	8 30A	1	15 18	2	10 12 PP
CALCUTTA	47.89	268.8	8 39	2	15 50	20	9 41
HONIARA	48.49	155.7	8 42	1			
BOKARO	49.36	271.8	8 49A	1	16 8	17	
COLLEGE	49.70	31.8	8 51K	0	16 0	4	10 6 PCP

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961										PAGE 55	
PORT BLAIR	50.34	253.8	8 58	2	16 9	4					
FRUNSE	50.98	299.3	9 0	0						16 23	PS
DEHRA DUN	52.73	283.2	9 17	3	16 59	22				11 15	PP
DJAKARTA	53.33	225.2	9 16A	-2	16 44	-2	9 46				
LEMBANG	53.41	223.9	9 18A	-1	16 46	-1				10 28	PP
BANDUNG	53.45	223.8	9 18	-1	16 47	0					
KHEYS	53.55	348.3	9 19	-1	16 49	0				10 27	PCP
HONOLULU	54.03	88.6	9 24	1	16 48	-7					
KIPAPA	54.04	88.4	9 25A	2							
VIZIANAGRAM	54.10	266.9	9 47A	23	17 22	26					
LAHORE	55.14	286.2	9 29A	-2	17 9	-1				11 33	PP
TASHKENT	55.22	299.0	9 32	0						17 23	PS
SVERDLOVSK	55.97	319.1	9 36	-1	17 24	3				11 43	PP
WARSAK DAM	56.28	290.0	9 38A	-1							
DUZHANBE	56.58	296.1	9 43	1						17 45	PS
SEHORE	56.71	275.8	9 34A	-9							
HAWAII V.OB.	57.26	88.9	9 48	2	17 45	7					
HYDERABAD	58.50	269.2	9 56A	1	17 59	5				11 3	PP
MADRAS	59.52	263.9	10 2A	0	18 18	10				12 16	PP
QUETTA	61.45	288.0	10 11A	-4	18 27	-5				12 29	PP
POONA	61.65	273.0	10 15A	-2	18 53	18				12 45	PP
NORD	61.94	356.5	10 17A	-2	18 43	5					
BOMBAY	62.29	273.9	10 21	0	19 1	18				12 35	PP
NOUMEA	62.67	154.1	10 24	0						11 51	
COLOMBO	63.31	258.5	10 34	6	19 1	5					
RESOLUTE	63.39	14.4	10 27A	-1	18 59	2					
APATITY	63.58	336.0	10 29A	-1	19 4	5				12 48	PP
KARACHI	63.92	282.7	10 30A	-2	19 5	2					
BRISBANE	64.06	169.1	10 34	1	19 9	4					
ASHKABAD	64.30	299.4	10 35K	1							
SODANKYLA	65.86	337.4	10 43	-1	19 33	6				13 2	PP
VICTORIA	66.85	46.1	10 50	0							
KIRUNA	67.42	339.4	10 53A	-1	19 43	-3				13 17	PP
MOSCOW	68.10	323.7	10 58	0	19 57	3				11 27	PCP
PENTICTON	68.63	44.0	11 1	-1							
PULKOVO	69.06	329.7	11 3	-1	20 7	1				13 34	PP
UMEA	70.18	336.3	11 8	-3						39 37	PKPPKP
RIVERVIEW	70.18	171.7	11 14K	3	20 23	4				21 23	*SS
TEHERAN	70.25	300.2	11 12	0						13 55	PP
ADELAIDE	70.82	182.6	11 16	1	20 25	-1				24 55	SS
NURMI JARVI	70.83	332.2	11 15	0	20 31	5				13 52	PP
HELSINKI	70.93	331.8	11 16	0	20 29	2				20 46	PS
SHASTA	71.43	52.9	11 20	1							
CANBERRA	71.44	173.7	11 18	-1	20 36	3				14 8	PP
TIFLIS	71.55	308.4	11 20	1						11 33	PCP
GORIS	71.74	305.8	11 21	1	20 44	7				14 5	PP
MUNDARING	71.87	202.6	11 19	-2	20 58	20					
PERTH	71.97	203.0	11 22	0	20 48	9				17 45	
MINERAL	72.13	52.9	11 23A	0							
HUNGRY HORSE	72.26	42.8	11 24A	0	20 46	3				14 5	PP
SHIRAZ	72.60	294.2	11 25K	-1	20 49	2	11 39			14 10	PP
SKALSTUGAN	72.82	338.8	11 27	0						13 59	PP
SAN FRANCISCO	72.96	55.5	11 32	4							
SCORESBY SD.	73.01	354.3	11 28	0	20 57	6				21 23	PS
BERKELEY	73.03	55.4	11 30A	2	20 51	0				25 36	SS
CONCORD	73.10	55.2	11 31A	2							
MELBOURNE	73.68	177.3	11 32	0	21 2	3					
RENO	73.72	52.8	11 34A	2							
LICK	73.73	55.6	11 34A	2							
UPPSALA	73.85	334.2	11 32A	-1	21 0	-1				14 15	PP
VINEYARD	74.23	56.0	11 38	3							
BUTTE	74.42	44.1	11 37A	1	20 50	-17					
FRESNO	75.27	55.2	11 38A	-3							
BOZEMAN	75.48	43.8	11 43A	1	21 24	5					
SIMFEROPOL	76.12	315.8	11 45A	-1	21 27	1				14 39	PP
EUREKA	76.21	51.1	11 47A	1	21 34	7				28 54	PKKP
RUTH	76.98	50.9	12 6	15	21 41	6					
BERGEN	77.35	339.5	11 56	3						21 40	
GOTEBORG	77.42	335.0	11 52A	-1						15 1	PP
PASADENA	77.86	56.6	11 56	0	21 51	6				14 57	PP
SALT LAKE C.	77.98	48.1	11 57A	1	21 51	5				12 43	
LWOW	78.23	324.1	11 58	0	21 51	2				14 55	PP
IASI	78.23	320.5	12 1	3	22 9	20					
COPENHAGEN	78.81	333.4	12 1	0	21 56	1				14 57	PP
FORT NELSON	78.88	175.8	12 2	1	21 57	1					
AUCKLAND	78.88	153.5			22 3	7				27 8	SS
SIDA	79.11	351.0	12 9K	6							
REYKJAVIK	79.21	352.8	11 48	-15							

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961										PAGE 56	
FLAMING GRGE	79.35	46.8	12	4K	0					14	56 PP
KRAKOW	79.96	326.2	12	8	1					15	6 PP
KARAPIRO	80.09	153.5	12	8	0					15	15 PP
NIEDZIKA	80.24	325.6	12	11	2					15	16 PP
GLEN CANYON	80.47	51.1	12	10	0					13	3
RACIBORZ	80.71	327.0	12	11	0	22	21	6		15	20 PP
RAPID CITY	80.79	41.4	12	12	0	22	21	5		15	23 PP
BUCHAREST	80.85	319.1	12	11A	-1	22	33	17		15	13 PP
TONGARIRO	81.22	154.1	12	12	-2					15	21 PP
LARAMIE	81.32	44.7	12	15	1	22	26	5			
ISTANBUL KA.	81.44	315.1	12	15	0					15	23 PP
ISTANBUL UN.	81.50	315.1	12	12	-3	22	38	15			
KSARA	81.86	306.0	12	17A	0	22	34	7		15	26 PP
COBB RIVER	81.97	156.8	12	18	0						
COLLMBERG	81.98	330.3	12	18A	0	22	34	6	12	41	15 28 PP
ABERDEEN	82.13	341.1	12	22K	3	22	45	16		14	35 PP
BUDAPEST	82.23	324.8	12	21	2	22	35	5		15	16 PP
KECSKEMET	82.32	324.1	12	23	3	22	31	0		15	16 PP
HURBANOVO	82.33	325.5	12	20	0					15	26 PP
PRAGUE	82.34	328.8	12	20A	0	22	30	-1		15	30 PP
PRUMONICE	82.36	328.7	12	20A	0	22	36	4		14	33 PP
TIMI SOARA	82.42	322.5	12	19	-1	22	41	9		13	11 *SP
BRATISLAVA	82.61	326.3	12	21K	0	22	39	5		15	33 PP
WELLINGTON	82.81	155.5	12	23	1	22	40	4		15	33 PP
JENA	82.83	330.8	12	22	0	22	40	4	13	11	15 33 PP
VIENNA-H.	82.87	326.7	12	24A	2	22	48	11		15	35 PP
CHEB	83.18	329.9	12	25	1	22	44	4			
KASPERSKE H.	83.41	328.7	12	25A	0					13	38 PP
BELGRADE	83.47	322.2	12	27K	2	22	50	7		15	42 PP
SOFIA	83.49	319.2	12	36	10	22	48	5			
MUNSTER	83.50	333.4	12	28	2						
JERUSALEM	83.56	304.7	12	26	0					15	40 PP
TUCSON	83.90	54.4	12	27K	-1					15	49 PP
TUCSON TELE.	83.92	54.3	12	28K	0					12	53
DURHAM	84.10	339.6	12	32A	3	23	16	27		15	47 PP
DE BILT	84.26	334.8	12	32	3					15	48
BENSBERG	84.49	333.1	12	31A	0	22	52	-1		15	38 PP
ZAGREB	84.87	325.3	12	31A	-1						
ROXBURGH	85.00	160.9				22	52	-6		28	48 SS
HEIDELBERG	85.17	331.3	12	34	0						
LJUBLJANA	85.36	326.2	12	37	2	23	0	-2	13	10	15 59 PP
STUTTGART	85.45	330.7	12	34	-1	22	45	-17	13	4	15 57 PP
TUBINGEN	85.73	330.6	12	37	0						
TRIESTE	86.02	326.3	12	38	0	23	6	-	13	10	16 1 PP
EBINGEN	86.05	330.5	12	38	0						
RAVENSBURG	86.11	329.9	12	38	-1						
STRASBOURG	86.20	331.4	12	38	-1	23	0	-10		16	0 PP
KEW	86.60	337.3	12	42A	1	22	52	-21		15	56 PP
CHUR	86.89	329.4	12	42A	0	23	8	-8			
PADOVA	87.04	327.2	12	46	3	23	9	-9		16	12 PP
BASLE	87.13	330.9	12	45A	1	23	13	-6			
HELWAN	87.35	305.4	12	44A	-1	23	8	-13			
NEUCHATEL	87.81	330.9	12	49	2	23	16	-9			
PARIS	87.96	334.4	12	48	1					16	19 PP
BESANCON	87.98	331.6	12	48	0						
BOLOGNA	87.99	326.9	13	9	21	23	18	-9		16	24 PP
PAVIA	88.38	328.6	12	49K	-1					16	18 PP
PRATO	88.58	326.7	13	0	10	24	10	38			
FLORENCE X.	88.59	326.5	13	0	9	23	40	8			
LAWRENCE	88.62	40.8	12	51	0						
LUBBOCK	88.70	48.4	12	54	3						
FOLINIERE	89.00	336.1	12	53	1						
GARCHY	89.05	333.3	12	52	-1	23	16	-20		16	27 PP
CHIHUAHUA	89.36	54.5				23	33	-6			
ROME	89.50	324.7	12	55A	0	23	35	-6		16	29 PP
WICHITA MTS.	89.84	45.7	12	57	1	23	28	-16		16	35 PP
ISOLA	90.08	329.2	12	57	-1					16	28 PP
CLERMONT-FD.	90.30	332.4	13	1A	2	23	53	5			
MESSINA	90.83	320.5	12	53	-8					16	44 PP
REGGIO CALA.	90.85	320.4	12	54	-7						
FAYETTEVILLE	91.31	42.1	13	3K	0	23	9	-48	13	43	
SHAWINIGAN	92.02	23.0	13	10	3						
OTTAWA	92.05	25.4	13	7	0						
BREBEUF	92.68	24.0	13	13A	3	24	8	-1			
CLEVELAND	93.17	31.0				23	48	-25			
BAGNERES	93.72	332.8	13	17	3						
ADDIS ABABA	95.02	284.9	13	24	4	24	3	11			
PENNSYLVANIA	95.23	29.1				23	53	0		24	33 S

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 57

MORGANTOWN	95.38	31.0	13	26	4						
PALISADES	96.54	26.3	13	25	-2	24	43	43		17	25 PP
SETIF	97.35	325.7	13	29	-2				14	13	17 28 PP
ALGIERS UNI.	97.92	327.6	13	30	-3						17 30 PP
TOLEDO	98.03	334.1	13	37	3	25	11	63	13	53	17 34 PP
ALICANTE	98.03	330.9	13	20	-14	24	28	20			17 22 PP
SERRA PILAR	98.40	337.8	13	28K	-8	23	50	-19	14	9	17 35 PP
COIMBRA	99.20	337.3									17 46 PP
ALMERIA	100.11	331.5				24	38	20			17 50 PP
TACUBAYA	100.22	56.9							14	20	18 12 PP
GRANADA	100.25	332.5				24	33	14			18 3 PP
LISBON	100.78	337.2				24	42	21			17 59 PP
VERA CRUZ	102.42	55.0									26 11 PS
TANANARIVE	104.18	256.9	14	7	6						18 23 PP
ANGRA DO HO.	104.86	351.1				26	30	110			
WILKES	104.96	192.5				24	44	3			18 24 PP
BENI ABBES	105.85	327.9	14	15	777						18 31 PP
COMITAN	107.17	54.3									25 17 SKKS
TAMANRASSET	108.23	317.7	14	22K	777	24	57	2			18 36 PP
LWIRO	109.74	282.1	14	28	777						
CAPE HALLETT	109.99	171.1	14	30	777	24	45	-18			19 8 PP
BANGUI	113.33	294.5	18	26	-8				18	56	
SCOTT BASE	114.76	174.3	18	36	-1	25	29	8			19 41 PP
MAWSON	118.85	205.4	18	48	3						
LCO. MARQUES	119.63	258.1									20 10 PP
SAN JUAN	119.70	30.7	18	47	0						20 8 PP
BALBOA HTS.	120.66	49.3									20 26 PP
GALERAZAMBA	121.74	44.0									31 29 PS
PRETORIA	123.04	260.5	18	48	-5						
MBOUR	125.85	334.2	19	0	2	25	18	-41			
SOUTH POLE	125.98	180.0	18	59	0						20 40
LUANDA	125.98	287.1	19	3K	4						20 55 PP
CHINCHINA	126.19	48.5	19	1	2	26	7	7			31 37 PS
CARACAS	126.31	35.8	19	4	5	25	57	-3			
FUQUENE	126.92	46.2	19	4	4						21 16 PP
BOGOTA	127.40	47.2	19	9	8						21 22 PP
WINDHOEK	130.47	270.0	19	12	5						
HERMANUS	133.62	254.4									21 44 PP
HUANCAYO	138.91	63.7	19	19	-4						29 0 SKKS
AREQUIPA	144.60	65.1	19	35	2						
ARGENTINE I.	147.05	160.2	19	41	4						
LA PAZ	147.06	61.4	19	42	5						19 54 PKP2
ANTOFAGASTA	149.65	74.8	19	48	7						
PORT STANLEY	159.12	144.2	20	45	51						

JANUARY 16 8.H 48.M 17.S EPICENTRE 36.24 141.39 DEPTH= 96.KM

A=-0.63173 B= 0.50441 C= 0.58864 D= 0.6240 E= 0.7815
G=-0.4600 H= 0.3673 K=-0.8084 HT= -0.3

DEPTH OF FOCUS= 0.010R

SE= 4.54

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
TYOSI	0.68	220.3	0	5K	-13	0	17	-15				
MI TO	0.76	280.5	0	11K	-8	0	26	-7				
KAKIOKA	0.98	269.5	0	14A	-6	0	23	-13				
TUKUBASAN	1.05	269.0	0	14	-7							
UTUNOMIYA	1.27	284.4	0	18	-6	0	40	-2				
SHIRAKAWA	1.29	313.1	0	20	-4	0	40	-2				
HONGO	1.42	248.4	0	20	-6						0	52
TOKYO C.M.O.	1.45	247.6	0	20	-6	0	44	-2				
KUMAGAYA	1.63	267.3	0	22	-6	0	59	10				
YOKOHAMA	1.63	240.7	0	24A	-5	0	48	-2				
HUKUSIMA	1.67	334.1	0	25A	-4	1	0	10				
MERA	1.84	224.4	0	24	-7							
MAEBASI	1.88	275.4	0	28A	-4	0	58	3				
TITIBU	1.89	262.7	0	27	-5							
SENDAI	2.06	349.1	0	29A	-5	0	59	0				
YAMAGATA	2.17	337.7	0	31K	-4	1	4	2				
ISINOMAKI	2.18	358.5	0	31	-5	1	3	1				
OSIMA	2.21	228.8	0	27	-9	0	55	-7				
AJIRO	2.22	238.1	0	30	-6	1	5	2				
HUNATU	2.26	251.6	0	32	-5	1	12	8				
MISIMA	2.28	241.3	0	29	-8							

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 58

OI WAKE	2.30	273.0	0 36	-1			
KOHU	2.37	256.8	0 35	-3	1 23	17	
NI I GATA	2.51	312.4	0 34	-6	1 13	3	
MATUSIRO	2.59	277.5	0 38K	-3	1 16	4	
NAGANO	2.61	280.3	0 40	-2			
TAKADA	2.67	289.6	0 41	-1			
SHIZUOKA	2.75	243.3	0 38	-5	1 25	9	
MATUMOTO	2.77	271.1	0 40	-4	1 19	3	
MI ZUSAWA	2.89	355.9	0 44	-1	1 20	1	
SAKATA	2.93	335.4	0 48	2			
I I DA	2.98	257.0	0 45	-2	1 31	9	
OMAE SAKI	3.07	238.6	0 47	-1	1 26	2	
AI KAWA	3.07	306.1	0 48	0	1 37	13	
TAKAYAMA	3.35	269.6	0 49	-3			
HAMAMATU	3.36	244.2	0 47	-5	1 38	7	
HATIDYOZIMA	3.40	203.3	0 56	4			1 20
TOYAMA	3.41	278.9	0 53	0	1 48	16	
MIYAKO	3.43	7.5	0 52	-1			
MORIOKA	3.45	357.1	0 53	0	1 40	7	
AKITA	3.62	344.0	0 51	-4			
NAGOYA	3.76	254.7	0 55	-2	1 46	5	
WAZIMA	3.78	288.8	1 10	12	2 8	27	
GIHU	3.85	258.7	0 53	-6	1 56	13	
KAMEYAMA	4.25	252.3	1 8	4	2 7	14	
TU	4.27	250.2	1 12	8			
HATINOHE	4.28	1.4	1 9	5	2 1	7	
HI KONE	4.29	258.4	1 3	-2	2 8	14	
TSURUGA	4.36	263.7	1 1	-5			
AOMORI	4.59	354.2	1 16	7	2 21	20	
KYOTO	4.77	256.8	1 17	6	2 26	20	
OWASE	4.78	244.5	1 11	0			
NARA	4.80	252.7	1 20	8			
ABUYAMA	4.94	255.6	1 9A	-5			
OSAKA	5.04	253.3			2 34	22	
TOYOOKA	5.38	264.3					1 17
SIOMISAKI	5.40	240.5			3 0	39	
WAKAYAMA	5.48	250.3			2 32	9	
HAKODATE	5.58	355.1	1 28	6	2 40	14	
SUMOTO	5.63	252.2	1 28	5	2 54	27	
TORISIMA	5.82	189.4	1 11	-14			2 8
MORI	5.88	354.0	1 34	8	2 43	10	
TOTTORI	5.90	265.0					2 13
URAKAWA	5.99	9.9	1 24	-4			
MURORAN	6.08	357.1	1 35	6	3 7	29	
HIROO	6.21	13.3	1 32	1			2 33
TAKAMATU	6.31	254.4	1 49	17	3 13	30	
TOMAKOMAI	6.38	1.2					1 55
SUTTSU	6.61	352.5	1 41	5	3 0	9	
MUROTO	6.65	245.4	1 55	18	3 19	27	
OBIHIRO	6.81	11.3	1 41	2			
SAPPORO	6.82	359.7	1 49	10			
KOTI	7.00	249.7			3 18	18	
KUSIRO	7.12	18.1	1 32	-11	2 51	-12	
MATUYAMA	7.46	253.8	2 0	12	3 32	20	
HIROSIMA	7.56	258.3			3 33	19	
ASAHI GAWA	7.56	5.4	1 55	6			
HAMADA	7.72	262.7	2 28	36	3 58	40	
NEMURO	7.77	23.2	1 41	-11			
ABASHIRI	8.07	15.0	1 57	1			
HUKUOKA	9.43	256.8					4 58
PETROPAVLOVK	20.70	30.5	4 32	-2			
TIKSI	36.05	353.3	6 53	-1			
SHILLONG	43.40	270.2	7 47	-8			
CHITTAGONG	44.93	266.1	8 6A	-1			
COLLEGE	49.77	31.9	8 44	-1	9 13	9 53 PCP	
FRUNSE	50.71	299.1	8 53A	1			
LEMBANG	53.29	223.5	9 9K	-2			
BANDUNG	53.33	223.4	9 11	-1			
NAMANGAN	53.37	297.8	9 13A	1			
KHEYS	53.41	348.3	9 13	1			
QUETTA	61.17	287.8	10 6A	-1			
RESOLUTE	63.37	14.3	10 20A	-2			
APATITY	63.40	335.9	10 22	0			
SODANKYLA	65.69	337.3	10 37	0			
KIRUNA	67.25	339.3	10 46	0			
MOSCOW	67.88	323.6	10 52	2			
PENTICTON	68.75	43.9	10 54	-2			
TEHERAN	69.99	300.0	11 5	2			
UMEA	70.00	336.2	11 3	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 59

NURMIJARVI	70.63	332.1	11 8	1		
TIFLIS	71.29	308.3	11 13	2		
CANBERRA	71.55	173.4	11 11	-2		
SHASTA	71.59	52.8	11 13	0		
SHIRAZ	72.33	294.0	11 18	1	13 57	
HUNGRY HORSE	72.37	42.6	11 17	-1		
SCORESBY SD.	72.90	354.2	11 22K	1		
UPPSALA	73.66	334.1	11 26	1		
RENO	73.88	52.7	11 35	9		
BUTTE	74.54	44.0	11 30	0		
BOZEMAN	75.60	43.6	11 36	0		
EUREKA	76.36	51.0	11 40	0		
WOODY	76.67	55.5	11 40	-2		
GOTEBORG	77.23	334.8	11 56	11		
SALT LAKE C.	78.12	48.0	11 50	0		
FLAMING GRGE	79.48	46.7	11 57	-1		
KASTAMONU	80.02	314.3	11 52	-9		
GLEN CANYON	80.62	50.9	12 4	0		
RAPID CITY	80.90	41.2	12 5	0		
LARAMIE	81.44	44.5	12 7	-1		
COLLMBERG	81.78	330.2	12 11K	1	12 48	15 29 PP
PRUHONICE	82.15	328.6	12 13A	1		
JENA	82.63	330.7	12 13	-1		
TUCSON	84.06	54.2	12 22	1		
TUCSON TELE.	84.08	54.1	12 20	-1		
STUTTGART	85.25	330.5	12 27	0		
WICHITA MTS.	89.96	45.5	12 50	0	13 28	
FAYETTEVILLE	91.43	41.9	12 56K	-1		
TAMANRASSET	108.00	317.5	14 30	777		18 41 PP
SOUTH POLE	126.06	180.0	18 51	0		
LA PAZ	147.24	60.9	19 34	4		

JANUARY 16 11.H 19.M 40.S EPICENTRE 36.19 141.46 DEPTH= 50.KM

A=-0.63276 B= 0.50402 C= 0.58786 D= 0.6230 E= 0.7822
G=-0.4598 H= 0.3663 K=-0.8090 HT= -0.3

DEPTH OF FOCUS= 0.003R

SE= 3.18

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
TYOSI	0.68	226.8	0	11K	-4	0	22	-5				
MITO	0.82	283.7	0	15K	-2	0	29	0				
ONAHAMA	0.88	329.4	0	17K	-1	0	32	2				
KAKIOKA	1.04	272.6	0	19K	0	0	27	-6				
TUKUBASAN	1.10	272.0	0	18K	-2							
UTUNOMIYA	1.33	286.1	0	23	-1	0	41	0				
SHIRAKAWA	1.36	313.3	0	25K	1							
HONGO	1.45	251.3	0	24	-1						1	1
TOKYO C.M.O.	1.48	250.4	0	24K	-2	0	48	4				
YOKOHAMA	1.66	243.3	0	28A	0	0	51	2				
KUMAGAYA	1.68	269.3	0	27K	-1	1	1	12				
HUKUSIMA	1.75	333.3	0	30A	1	0	55	4				
NERA	1.84	226.9	0	28A	-2	0	53	0				
TITIBU	1.94	264.5	0	31	-1	1	2	7				
MAEBASI	1.94	276.9	0	32K	0	0	58	3				
SENDAI	2.12	348.0	0	34A	0	1	2	2				
OSIMA	2.21	230.8	0	31	-5	1	10	8				
AJIRO	2.23	240.1	0	35	-1	1	7	4				
ISINOMAKI	2.24	357.2	0	35	-1							
YAMAGATA	2.24	337.0	0	36A	0	1	14	11				
HUNATU	2.29	253.3	0	35	-2	1	14	10				
MISIMA	2.31	243.2	0	36A	-1	1	6	1				
OIWAKE	2.36	274.3	0	37	-1							
KOHU	2.41	258.4	0	39A	0	1	27	20				
NIIGATA	2.59	312.6	0	48	7	1	30	18				
MATUSIRO	2.65	278.6	0	42K	0							
NAGANO	2.67	281.3	0	43A	1	1	17	3				
TAKADA	2.74	290.3	0	45A	2	1	21	6				
SHIZUOKA	2.78	244.9	0	44	0	1	22	6				
MATUMOTO	2.82	272.3	0	45	1	1	27	9				
MIZUSAWA	2.95	355.0	0	44	-2	1	18	-3				
SAKATA	3.00	334.9	0	51	4	1	29	7				
IIDA	3.02	258.3	0	53	6	1	41	18				

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 60					
OMAE SAKI	3.09	240.0	0 47A	-1	1 23	-1	
HATIDYOZIMA	3.38	204.6	0 53	1	1 25	-7	
HAMAMATU	3.39	245.5	0 54	2	1 44	12	
TAKAYAMA	3.41	270.6	0 54	1	1 24	-8	
TOYAMA	3.47	279.7	0 56A	2	1 54	20	
MIYAKO	3.48	6.5	0 49	-5	1 36	2	
MORIOKA	3.51	356.3	0 52A	-2	1 35	0	
AKITA	3.69	343.4	0 58A	1			
NAGOYA	3.79	255.8	0 57	-1	1 54	12	
WAZIMA	3.85	289.3	1 0	1	1 56	13	
GIHU	3.89	259.7	0 59A	0	1 54	9	
KANAZAWA	3.90	276.4					1 20
HUKUI	4.24	269.7	1 5	1	2 4	11	
TU	4.30	251.2	1 14	9	2 22	27	
HATINOHE	4.33	0.7	1 3	-3	1 55	-1	
HIKONE	4.34	259.3	1 6	0	2 8	12	
TSURUGA	4.41	264.6	1 7	0	2 10	13	
AOMORI	4.65	353.6	1 9A	-1	2 8	4	
OWASE	4.80	245.4	1 10	-2	2 34	27	
KYOTO	4.81	257.6	1 11	-1	2 14	6	
NARA	4.84	253.5	1 17	4	2 20	12	
ABUYAMA	4.98	256.4	1 11K	-4			
MAIZURU	4.98	263.5	1 18	3	2 29	17	
OSAKA	5.08	254.1	1 36	20	2 39	25	
KOBE	5.34	255.5	1 24	4	2 41	20	
SIOMISAKI	5.42	241.4	1 25	4	2 34	11	
TOYOOKA	5.43	265.0	1 31	10	2 30	7	
WAKAYAMA	5.51	251.0	1 23	1	2 48	23	
HAKODATE	5.64	354.7	1 26	2	2 37	9	
SUMOTO	5.67	252.9	1 22A	-2	2 47	18	
TORISIMA	5.78	190.0	1 20	-6			
MORI	5.94	353.6	1 29K	1	2 49	13	
TOTTORI	5.95	265.6	1 40	12	3 0	24	
HIMEJI	6.01	255.8	1 21	-8	2 25	-13	
TOKUSIMA	6.02	251.4	1 29	0	2 46	8	
URAKAWA	6.04	9.4	1 30	1			
MURORAN	6.13	356.7	1 31	0	2 55	14	
HIROO	6.25	12.8	1 30	-2	2 42	-2	
OKAYAMA	6.34	258.5	1 35	1	2 55	9	
TAKAMATU	6.34	255.1	1 27	-7	3 9	23	
TOMAKOMAI	6.43	0.8	1 44	9			
SAIGO	6.58	272.5	1 41	4	3 36	44	
YONAGO	6.63	265.8	1 37	-1	3 6	13	
SUTTSU	6.67	352.2	1 37	-1	3 2	8	
MUROTO	6.67	246.0	1 38	0	3 2	8	
OBHIRO	6.85	10.8	1 40	-1	3 15	17	
MATSUE	6.86	266.3	1 42	1	3 45	46	
SAPPORO	6.87	359.3	1 46	5			
KOTI	7.03	250.3	1 42	-1	3 20	17	
KUSIRO	7.15	17.6	1 40	-5	2 59	-7	
MATUYAMA	7.50	254.3	1 50	0	3 15	1	
HIROSIMA	7.61	258.8	1 51A	0	3 19	2	
ASAHIGAWA	7.61	5.0	1 51	0			
HAMADA	7.76	263.2	1 53K	-1	3 43	22	
SIMIDU	7.79	246.6	1 53	-1	4 21	59	
NEMURO	7.80	22.7	1 49	-5			
UWAZIMA	7.91	250.7	2 14	18	3 50	25	
ABASHIRI	8.11	14.6	2 4	6			
OOITA	8.62	252.8	2 4A	-1	3 52	10	
SIMONOSEKI	8.92	258.6	2 7A	-2	4 4	14	
ASOSAN	9.18	252.1	2 12	-1	4 4	8	
WAKKANAI	9.22	1.0	2 24	10			
HUKUOKA	9.47	257.3	2 17	0	4 5	2	
KUMAMOTO	9.49	252.4	2 15	-2	4 43	39	
SAGA	9.64	255.5	2 34	15	5 11	64	
VLADIVOSTOK	10.11	316.1	2 27	1			4 35
NAGASAKI	10.16	253.5	2 24A	-3	4 50	30	
KAGOSIMA	10.17	246.2	2 8A	-19	5 40	80	
YAKUSIMA	10.81	241.1	2 33	-2	4 49	13	
Y.-SAKHLINSK	10.86	4.6	2 31	-5			4 25
TOMIE	11.07	254.9	2 42	3	5 42	60	
CHANGCHUN	14.53	306.6	3 23A	-2	6 8	3	
ZO-SE	17.63	259.1	4 1A	-3			
NANKING	19.21	264.2	4 20	-3			4 37 PP
PEKING	20.24	288.6	4 30A	-4	8 15	2	4 53 PP
PETROPAVLOVK	20.72	30.3	4 37	-2			5 10 PPP
GUAM	22.82	171.8	5 0	0	9 9	8	
MAGADAN	24.15	11.7	5 14	1	9 32	7	

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961				PAGE 61			
SIAM	26.59	275.5	5 34A	-2			
YAKUTSK	26.88	347.7	5 38	-1	10 11	1	
HONG KONG	27.43	247.2	5 40	-4	10 24	5	
CANTON	27.60	249.5	5 43A	-2	10 21	0	6 34 PP
ULAN-BATOR	27.98	305.6	5 48	-1			
MANILA	28.13	225.6	5 54	4			6 42
LANCHOW	30.28	281.1	6 8A	-1	11 8	4	
IRKUTSK	30.68	313.3	6 12A	-1	11 19	9	
CHENG TU	31.60	270.9	6 18A	-3	11 26	1	7 24 PP
KUNMING	34.88	262.5	6 47A	-2	12 18	2	8 5 PP
TIKSI	36.11	353.3	6 59	-1	12 39	4	8 28 PP
RABAU	41.41	163.7	7 49	5			
LHASA	42.44	276.1	7 54	2			
SHILLONG	43.45	270.3	7 53A	-7			
CHITTAGONG	44.98	266.2	8 14A	1	14 50	3	8 54 10 6 PP
SEMPALATNSK	45.49	308.1	8 16	-1			15 4 PS
PORT MORESBY	45.66	172.1	8 16	-2	14 54	-3	
CHATRA	46.70	274.5	8 26	0	15 14	3	
CALCUTTA	47.69	268.6	8 35	1	15 45	20	
BOKARO	49.15	271.6	8 45	0	16 2	16	
COLLEGE	49.79	31.9	8 50	0	16 0	5	11 7 PP
PORT BLAIR	50.15	253.6					9 12
FRUNSE	50.78	299.2	8 58	0			16 24 PS
DEHRA DUN	52.53	283.0	9 18	7	16 52	20	12 12 PPP
DJAKARTA	53.20	224.9	9 14	-2	16 40	-2	
LEMBANG	53.29	223.6	9 13A	-4	16 39	-4	
BANDUNG	53.33	223.5	9 15A	-2	16 43	0	
KHEYS	53.48	348.3	9 18	0	16 50	5	11 27 PP
LAHORE	54.94	286.0	9 28A	-1	17 6	1	
TASHKENT	55.03	298.9	9 30	1			17 17 PS
SVERDLOVSK	55.81	319.0	9 35	0			
WARSAK DAM	56.08	289.9	9 37A	0			
HYDERABAD	58.30	269.1	9 53A	0	17 56	7	
MADRAS	59.32	263.7	10 0A	0	18 14	11	18 38 PPS
QUETTA	61.24	287.8	10 12A	-1	18 31	4	12 27 PP
POONA	61.44	272.8	10 13A	-1			
NORD	61.90	356.4	10 16A	-1			
BOMBAY	62.08	273.7	10 16	-2	18 43	5	19 2 PS
COLOMBO	63.11	258.3	10 12	-13			18 56
RESOLUTE	63.41	14.3	10 26A	-1	18 57	2	
KARACHI	63.71	282.5	10 29A	0			
BRISBANE	64.13	168.8	10 42	10	19 2	-2	
SODANKYLA	65.76	337.3	10 42	0			
VICTORIA	66.98	46.0	10 51	1			
KIRUNA	67.32	339.4	10 52	0	19 47	5	
MOSCOW	67.95	323.7	10 57	1	19 54	4	11 27 PCP
PENTICTON	68.75	43.9	11 0	-1			
PULKOVO	68.94	329.6	11 1	-1	20 5	3	13 24 PP
TEHERAN	70.06	300.1	11 10	1	20 23	8	
UMEA	70.07	336.2	11 8A	-1			
RIVERVIEW	70.24	171.4			20 22	5	21 18
NURMIJARVI	70.71	332.1	11 13	0	20 27	5	13 50 PP
HELSINKI	70.81	331.7	11 14	0			
ADELAIDE	70.84	182.4	11 17	3			
TIFLIS	71.37	308.3	11 18	1			13 57 PP
CANBERRA	71.49	173.5	11 18	0			
GORIS	71.55	305.7	11 20	2	20 43	11	
SHASTA	71.58	52.8	11 19	1			
MINERAL	72.28	52.8	11 24A	2			
HUNGRY HORSE	72.38	42.7	11 23	0			
SHIRAZ	72.40	294.1	11 23K	0	20 45	3	14 6 PP
SKALSTUGAN	72.72	338.7	11 25A	0			14 6 PP
SCORESBY SD.	72.96	354.2	11 27	0			
BERKELEY	73.18	55.3	11 29	1	20 57	6	
MELBOURNE	73.72	177.1	11 44	13			
UPPSALA	73.73	334.1	11 30A	-1			
RENO	73.87	52.7	11 34	2			
LICK	73.88	55.4	11 32K	0			
VINEYARD	74.38	55.8	10 39	-56			
BUTTE	74.54	44.0	11 35	-1			
FRESNO	75.42	55.1	11 39	-2			
BOZEMAN	75.60	43.7	11 42	0			
SIMFEROPOL	75.95	315.7	11 43A	-1	21 25	3	11 54 PCP
EUREKA	76.35	51.0	11 46	0			
BERGEN	77.26	339.4	12 0	9			
GOTEBORG	77.31	334.9	11 50	-1			
WARSAW	77.79	327.1	11 54	0	21 29	-13	12 4 PCP
PASADENA	78.01	56.5	11 57	2			
LWOW	78.08	324.0	11 56	0	21 50	5	14 53 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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961					PAGE 62				
SALT LAKE C.	78.11	48.0	11 56	0					
COPENHAGEN	78.69	333.3	11 59	0	20 35	-76		14 53	PP
FORT NELSON	78.93	175.6	12 3	3					
FLAMING GRGE	79.48	46.7	12 3	0				14 10	
KRAKOW	79.82	326.1	11 56	-9				15 3	PP
CHORZOW	80.07	326.7	12 7	0				15 9	PP
KASTAMONU	80.10	314.4	11 57A	-10					
RACIBORZ	80.58	326.9	12 10	1			12 35	12 44	*SP
GLEN CANYON	80.61	50.9	12 9	0				12 28	
BUCHAREST	80.69	319.0	12 8	-2					
RAPID CITY	80.91	41.3	12 10	-1				14 30	
ISTANBUL KA.	81.27	315.0	12 13	0	22 15	-3			
ISTANBUL UN.	81.34	315.0	12 11A	-2				15 16	PP
LARAMIE	81.44	44.5	12 14	0					
KSARA	81.68	305.9	12 20	5	22 37	15			
COLLMBERG	81.85	330.2	12 16A	0	22 23	-1	12 57	15 33	PP
BUDAPEST	82.09	324.7	12 32	15	23 2	36			
HURBANOVO	82.19	325.4			23 0	33		12 42	
PRAGUE	82.21	328.7	12 20	2				15 34	PP
PRUHONICE	82.23	328.6	12 19A	1			14 57	15 36	PP
BRATISLAVA	82.47	326.1	12 19K	0			15 34		
JENA	82.71	330.7	12 18	-2	22 35	2		15 28	PP
VIENNA-H.	82.74	326.5	12 22A	2				15 37	PP
WITTEVEEN	83.03	334.3	12 25	3					
KASPERSCHE H.	83.28	328.5	12 24A	1				15 35	PP
BELGRADE	83.32	322.1	12 24K	1	22 47	8		15 27	PP
JERUSALEM	83.37	304.6	12 24	0				15 37	PP
MUNSTER	83.38	333.3	12 24	0				13 24	
DURHAM	84.00	339.5	12 1A	-26			13 3		
TUCSON	84.05	54.2	12 28	1			13 9		
DE BILT	84.14	334.6	12 26	-2	22 50	3		15 50	PP
BENSBERG	84.37	332.9	12 28A	-1				13 5	
HEIDELBERG	85.04	331.2	12 32	0					
LJUBLJANA	85.22	326.0	12 34	1			13 18		
STUTTGART	85.33	330.5	12 34	1	22 53	-6		15 46	PP
TUBINGEN	85.60	330.5	12 35	0					
TRIESTE	85.88	326.2			23 2	-2			
EBINGEN	85.93	330.3	12 36	0					
RAVENSBERG	85.98	329.8	12 36	-1					
STRASBOURG	86.08	331.2	12 37	0	23 50	44	13 20	28 50	SS
KEW	86.50	337.2	12 39	0	23 12	2			
BASLE	87.00	330.7	12 40	-2				23 49	
HELWAN	87.17	305.3	12 43A	1				16 9	PP
PARIS	87.84	334.3	12 48	2					
FLORENCE X.	88.45	326.4	12 46	-3	22 45	-43			
LAWRENCE	88.73	40.7	12 51	1					
GARCHY	88.93	333.1	12 51	0				14 36	
ROME	89.36	324.5	12 51	-2				16 26	PP
ISOLA	89.95	329.1	12 50	-6				16 29	PP
WICHITA MTS.	89.96	45.5	12 56	0	23 48	6		15 0	
FAYETTEVILLE	91.43	42.0	13 2K	-1					
SHAWINIGAN	92.07	22.9	13 32	26					
BREBEUF	92.73	23.9	13 20	11					
BAGNERES	93.60	332.7	13 24	12				17 13	PP
ADDIS ABABA	94.81	284.7	13 21	3	23 59	-26			
PALISADES	96.60	26.2						24 53	SKKS
SETIF	97.21	325.5	13 31	2			14 17	17 24	PP
TOLEDO	97.91	333.9	13 32	0				16 42	
TANANARIVE	103.99	256.7						18 20	PP
BENI ABBES	105.72	327.7						18 36	PP
TAMANRASSET	108.07	317.5	14 27	777	24 59	7		18 42	PP
LWIRO	109.53	281.9	18 58	777				28 28	
CAPE HALLETT	110.05	171.0						28 41	PS
BANGUI	113.13	294.4	18 32	0				19 15	PP
SCOTT BASE	114.81	174.3			24 41	-38		20 0	PP
BROKEN HILL	116.86	271.4	18 41	1					
BULAWAYO	119.76	265.9	18 46	1					
MBOUR	125.73	334.0						20 49	PP
SOUTH POLE	126.01	180.0	18 56	-1					
HERMANUS	133.43	254.3						22 54	PKS
HUANCAYO	139.09	63.5	19 21	-1					
LA PAZ	147.22	61.0	19 39	3				19 49	PKP2

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 63

A=-0.62548 B= 0.50729 C= 0.59282 D= 0.6299 E= 0.7767
G=-0.4604 H= 0.3734 K=-0.8053 HT= -0.4

DEPTH OF FOCUS= 0.009R

SE= 4.56

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
ONAHAMA	0.41	353.7	0	7K	-9	0	19	-9				
MITO	0.42	247.7	0	7K	-9	0	21	-7				
KAKIOKA	0.70	243.8	0	10K	-8	0	17	-14				
TUKUBASAN	0.76	245.3	0	10	-8							
SHIRAKAWA	0.83	314.5	0	15K	-4	0	34	1				
UTUNOMIYA	0.87	270.9	0	15	-4	0	34	0				
HUKUSIMA	1.27	342.3	0	19K	-5	0	42	1				
HONGO	1.27	229.5	0	17	-7						0	52
TOKYO C.M.O.	1.30	229.0	0	17A	-7	0	39	-3				
KUMAGAYA	1.33	253.4	0	26	2	0	59	16				
MAEBASI	1.53	265.2	0	24K	-3	0	51	4				
YOKOHAMA	1.53	224.1	0	22A	-5	0	45	-2				
TITIBU	1.62	250.3	0	23	-5	0	49	0				
SENDAI	1.73	358.5	0	25A	-4	0	50	-1				
YAMAGATA	1.77	344.4	0	27	-3	1	2	10				
NERA	1.86	209.8	1	24	53							
ISINOMAKI	1.91	8.6	0	25A	-7	0	54	-1				
OIWAKE	1.95	264.5	0	29	-3							
NIIGATA	2.05	312.7	0	31	-3	1	10	12				
HUNATU	2.05	240.2	0	32	-2	1	9	11				
AJIRO	2.12	225.9	0	30	-4	1	3	3				
KOHU	2.13	246.6	0	31	-4	1	6	6				
MISIMA	2.16	229.6	0	33	-2							
OSIMA	2.18	216.4	0	26	-9							
MATUSIRO	2.21	270.8	0	34A	-2	1	11	9				
TAKADA	2.24	285.2	0	36	0							
MATUMOTO	2.43	264.0	0	37	-2	1	15	7				
SAKATA	2.52	339.6	0	42	2							
MIZUSAWA	2.59	3.0	0	38	-3	1	9	-3				
SHIZUOKA	2.60	233.7	0	38	-3							
IIDA	2.73	249.0	0	43	0							
OMAESAKI	2.95	229.8	0	49	3	1	27	6				
TAKAYAMA	3.02	263.7	0	44	-3							
TOYAMA	3.03	274.1	0	51	4	1	41	19				
MORIOKA	3.16	3.0	0	45	-4	1	27	1				
HAMAMATU	3.20	236.4	0	51	2	1	41	14				
MIYAKO	3.20	14.1	0	44	-5							
AKITA	3.24	348.2	0	48	-2	1	38	10				
NAGOYA	3.52	248.3	0	51	-3	1	48	13				
HATIDYOZIMA	3.57	195.9									1	19
GIHU	3.58	252.7	0	54	-1	1	47	11				
HUKUJ	3.85	264.1	1	10	12	2	1	18				
HATINOHE	4.01	6.3	0	58	-3	1	48	1				
KAMEYAMA	4.02	246.5	1	7	6	2	7	20				
HIKONE	4.03	253.0	1	4	3							
TU	4.05	244.3	1	11	10							
TSURUGA	4.06	258.8	0	59	-2							
AOMORI	4.27	358.2	1	4	0	1	56	3				
NARA	4.57	247.5	1	11	3	2	11	10				
OWASE	4.61	239.0	1	10	1	2	30	29				
MAIZURU	4.64	258.3									1	58
ABUYAMA	4.69	250.7	1	7A	-3						2	5
OSAKA	4.81	248.5										
TOYOOKA	5.07	260.3	1	24	9							
SIOMISAKI	5.26	235.6	1	38	20	2	53	35				
HAKODATE	5.26	358.4	1	18	0	2	26	8				
SUMOTO	5.40	247.8	1	3	-17	2	37	16				
MORI	5.56	357.0	1	19	-3	2	32	7				
TOTTORI	5.59	261.4									1	58
TOKUSIMA	5.77	246.6	1	20	-5							
MURORAN	5.77	0.2	1	29	4							
URAKAWA	5.78	13.6	1	24	-1							
HIROO	6.02	17.0									2	25
TAKAMATU	6.06	250.6	1	41	12	3	10	33				
TOMAKOMAI	6.10	4.3	1	44	15							
SUITSU	6.28	355.1	1	39	7	2	52	9				
SAPPORO	6.53	2.5				2	56	7				
OBIIHRO	6.60	14.5	1	39	3	2	56	5				
KOTI	6.78	246.1				2	56	1				
KUSIRO	6.95	21.3	1	33	-8	2	47	-12				

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 64									
MATUYAMA	7.22	250.5	2	2	17	3	52	46			
HIROSIMA	7.29	255.2									3 48
ASAHIGAWA	7.31	8.1	1	54	8						
HAMADA	7.41	259.8	2	32	45	4	0	49			
NEMURO	7.65	26.2									2 58
ABASHIRI	7.89	17.7	2	0	6						
MAGADAN	23.89	12.4	5	5	-1						
TIKSI	35.72	353.5	6	38	-14						
SHILLONG	43.04	269.6	7	45K	-7						
CHITTAGONG	44.60	265.6	8	3	-2						
CHATRA	46.27	273.9	8	19K	1						
COLLEGE	49.70	32.0	8	42	-3						9 12
KHEYS	53.05	348.2	9	10A	0						
LEMBANG	53.27	222.9	9	8K	-4						
LAHORE	54.45	285.6	9	20	0						
SVERDLOVSK	55.28	318.8	9	26	0						
WARSAK DAM	55.58	289.5	9	28A	0						
QUETTA	60.75	287.4	10	4A	0						
APATITY	62.99	335.7	10	19	-1						
RESOLUTE	63.17	14.3	10	17A	-4						
SODANKYLA	65.28	337.2	10	34	0						
KIRUNA	66.85	339.2	10	43	-1						
MOSCOW	67.43	323.4	10	49	1						
UMEA	69.58	336.0	11	0A	-1						
NURMI JARVI	70.21	331.9	11	4	-1						
CANBERRA	71.89	173.1	11	21	6						
SHIRAZ	71.89	293.7	11	14K	-1						
SKALSTUGAN	72.24	338.5									11 28 PCP
HUNGRY HORSE	72.39	42.5	11	17	-1						
UPPSALA	73.24	333.9	11	22	-1						
EUREKA	76.44	50.8	11	40	-1						
WOODY	76.79	55.4	11	41	-2						
GOTEBORG	76.81	334.6	11	51	7						
WARSAW	77.28	326.9				21	13	-14			21 33 SKS
KASTAMONU	79.56	314.1	11	49	-10						
GLEN CANYON	80.70	50.7	12	6	1						
RAPID CITY	80.91	41.1	12	0	-6						
COLLMBERG	81.35	330.0	12	8A	0						
PRUHONICE	81.71	328.3	12	10	0						15 34 PP
KASPERSKE H.	82.77	328.3	12	15	0						
TUCSON	84.17	54.0	12	19	-3						
STUTTGART	84.82	330.3	12	26	0						
HELWAN	86.63	305.0	12	46A	11	23	31	29	13	4	
WICHITA MTS.	90.01	45.2	12	49	-2						
FAYETTEVILLE	91.44	41.7	12	55K	-2						
BENI ABBES	105.21	327.4									18 31 PP
TAMANRASSET	107.54	317.2	14	21	777						18 38 PP
SOUTH POLE	126.36	180.0	19	5	13						

JANUARY 16 12.H 12.M 30.S EPICENTRE 36.41 141.79 DEPTH= 39.KM

A=-0.63391 B= 0.49895 C= 0.59093 D= 0.6185 E= 0.7858
G=-0.4644 H= 0.3655 K=-0.8067 HT=-0.4

DEPTH OF FOCUS= 0.001R

SE= 3.02

	DELTA DEG.	AZ. DEG.	P			S			*PP		SUPP.	
			M	S	O-C	M	S	O-C	M	S	M	S
ONAHAMA	0.90	307.2	0	16K	-1	0	30	1				
TYOSI	1.03	228.4	0	14K	-4	0	27	-5				
MITO	1.07	268.9	0	16K	-3	0	34	1				
KAKIOKA	1.32	262.7	0	19K	-3	0	25	-14				
TUXUBASAN	1.38	262.7	0	19K	-4							
SHIRAKAWA	1.45	299.8	0	22K	-2	0	40	-2				
UTUNOMIYA	1.56	275.8	0	23	-3	0	43	-2				
HUKUSIMA	1.71	322.1	0	27A	-1	0	56	7				
HONGO	1.78	247.6	0	28	-1							
TOKYO C.M.O.	1.81	246.9	0	26	-3	0	54	3			0 53	
KUMAGAYA	1.97	263.2	0	30	-2	1	3	8				
SENDAI	1.99	339.3	0	32A	0	1	0	4				
YOKOHAMA	1.99	241.4	0	30A	-2	1	0	4				
ISINOMAKI	2.05	349.6	0	32	-1							
YAMAGATA	2.17	328.4	0	35A	1	1	8	8				
NERA	2.18	227.7	0	30K	-5	1	2	1				
MAEBASI	2.20	270.6	0	32K	-3	1	1	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 65				
TITIBU	2.24	259.8	0 32	-3	1 3	1
OSIMA	2.56	231.0	0 35A	-5	1 5	-5
AJIRO	2.58	239.1	0 36	-4	1 9	-2
HUNATU	2.62	250.6	0 37	-4	1 21	9
OI WAKE	2.62	269.3	1 41	60		
MI SIMA	2.65	241.8	0 39A	-2	1 10	-3
NI IGATA	2.66	305.4	0 47	6	1 27	14
KOHU	2.72	255.3	0 40A	-2	1 18	4
MI ZUSAWA	2.77	349.2	0 41	-2	1 22	6
MATUSIRO	2.89	273.7	0 42A	-3	1 21	2
NAGANO	2.91	276.2	0 45A	0	1 20	1
TAKADA	2.93	284.7	0 44K	-1	1 19	-1
SAKATA	2.94	328.5	0 49	4		
MATUMOTO	3.09	268.2	0 46	-2	1 25	1
SHIZUOKA	3.11	243.6	0 44	-4	1 26	2
MIYAKO	3.24	2.4	0 47	-3	1 26	-2
AI KAWA	3.25	300.7	0 50	0	1 42	14
MORIOKA	3.32	351.7	0 53A	2	1 34	4
I I DA	3.34	255.8	0 55	4	1 33	3
OMAE SAK I	3.43	239.3	0 51	-1	1 37	5
AKITA	3.57	338.5	0 57A	3	1 43	7
TAKAYAMA	3.68	267.3	1 5	9	1 38	-1
HATIDYOZIMA	3.69	207.1	0 55	-1	1 34	-5
TOYAMA	3.71	275.9	0 56	0	1 53	14
HAMAMATU	3.72	244.3	0 56	-1	1 46	6
WAZIMA	4.04	285.3	1 1A	0	1 59	11
NAGOYA	4.11	253.9	1 0	-2	2 3	13
HATINOHE	4.12	357.2	0 59	-3	1 53	3
KANAZAWA	4.15	273.2	1 7	4		
GIHU	4.20	257.6	1 1A	-2	1 59	7
AOMORI	4.48	350.1	1 5	-2	2 2	3
HUKUI	4.51	267.1	1 8	0	2 6	6
KAMEYAMA	4.61	251.8	1 8A	-1	2 13	11
TU	4.62	249.9	1 12	3		
HI KONE	4.64	257.5	1 10	0	2 17	14
TSURUGA	4.70	262.4	1 10	0	2 10	6
KYOTO	5.12	256.1	1 15	-1	2 27	12
OWASE	5.14	244.6	1 14	-3	2 39	24
NARA	5.16	252.2	1 16	-1	2 18	2
MAI ZURU	5.28	261.7	1 20	1	2 33	14
ABUYAMA	5.30	255.0	1 15A	-4		
OSAKA	5.40	252.9	1 19	-1	2 27	5
HAKODATE	5.45	351.8	1 22	1	2 31	8
KOBE	5.66	254.2	1 22	-2	2 39	10
TOYOOKA	5.72	263.3	1 24	-1	2 36	6
SIOMISAKI	5.76	240.9	1 21	-4	2 37	6
MORI	5.76	350.9	1 26K	1	2 39	8
URAKAWA	5.79	7.3	1 28	2	2 33	1
WAKAYAMA	5.83	250.1	1 23	-3	2 49	16
MURORAN	5.94	354.2	1 30	2	2 47	12
HI ROO	5.98	10.9	1 29	1	2 38	1
SUMOTO	5.99	251.9	1 24A	-4	2 49	12
TORI SIMA	6.04	192.3	1 24	-5	2 27	-11
TOTTORI	6.24	264.0	1 32	0		
HIMEJI	6.33	254.7	1 30	-3	2 51	6
TOKUSIMA	6.35	250.5	1 31	-2	2 51	5
SUTTSU	6.50	349.8	1 37	1	3 1	12
OB IHIRO	6.59	9.0	1 36	-1	2 53	1
OKAYAMA	6.65	257.3	1 18	-20	2 38	-15
TAKAMATU	6.66	254.0	1 39	1	3 27	34
SAPPORO	6.66	357.2	1 36A	-2	2 50	-4
SAIGO	6.84	270.8	1 41	1	3 45	47
KUSIRO	6.86	16.2	1 36	-5	2 53	-6
YONAGO	6.92	264.4	1 40	-2	3 10	10
MUROTO	7.01	245.5	1 41	-2	3 3	1
MATSUE	7.14	264.9	1 47	2	3 48	43
KOTI	7.36	249.6	1 47A	-1	3 7	-4
ASAHI GAWA	7.38	3.3	1 51	3	3 15	4
NEMURO	7.50	21.7	1 45	-5		
MATUYAMA	7.82	253.5	1 56	2	3 36	14
ABASHIRI	7.84	13.3	1 54	0	3 23	0
HI ROSIMA	7.91	257.9	1 54K	-1	3 42	17
HAMADA	8.06	262.1	2 0K	3	3 51	23
SIMIDU	8.12	246.1	1 47	-11	4 0	30
UWAZ IMA	8.24	250.1	1 58	-2	4 10	37
OO I TA	8.95	252.2	2 8	-2	3 56	6
WAKKANAI	9.00	359.5	2 11	1		
SIMONOSEKI	9.23	257.8	2 11	-2	4 14	17

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 66

ASOSAN	9.50	251.5	2 17	0	4 21	17	
HUKUOKA	9.78	256.6	2 19	-2	3 47	-24	
KUMAMOTO	9.82	251.8	2 21	-1	4 39	27	
SAGA	9.96	254.9	2 24	0	5 2	47	
VLADIVOSTOK	10.14	314.4	2 26	0	4 24	4	
NAGASAKI	10.48	253.0	2 26A	-5	4 35	7	
KAGOSIMA	10.51	245.9	2 18	-13	5 39	70	
Y. -SAKHLINSK	10.63	3.4	2 31	-2	4 23	-9	
YAKUSIMA	11.15	241.0	2 37	-3	5 5	21	
TOMIE	11.39	254.4	2 57	14	5 29	39	
CHANGCHUN	14.61	305.5	3 25A	-1	6 9	2	
ZO-SE	17.93	258.8	4 4	-4			
NANKING	19.50	263.9	4 21	-6			
PETROPAVLOVK	20.39	30.2	4 35	-1	8 25	8	4 55
PEKING	20.43	288.0	4 33A	-3	8 16	-2	
TAIPEI	20.75	242.5	4 48	8			
HSINCHU	21.28	242.9					11 0
HWALIEN	21.34	240.1			8 31	-6	
TAICHUNG	21.89	241.9			8 59	12	
ALISHAN	22.21	240.5	4 53	-1	9 18	27	
TAITUNG	22.47	238.4	4 53	-4	8 35	-21	
TAWU	22.91	238.0	4 59	-2	9 2	-2	
TAINAN	22.95	240.3			9 12	-6	
GUAM	23.00	172.6	5 3	1	9 13	7	
KAOHSIUNG	23.16	239.5					14 20
MAGADAN	23.88	11.4	5 12	1	9 31	10	
YAKUTSK	26.73	347.3	5 37	-1	10 11	2	
SIAN	26.84	275.2	5 35A	-4			
HONG KONG	27.76	247.2	5 45A	-2	10 22	-3	
CANTON	27.93	249.5	5 44A	-5	10 23	-5	
ULAN-BATOR	28.07	305.1	5 49	-1			
MANILA	28.48	225.9	5 49	-5			
IRKUTSK	30.73	313.0	6 11A	-3			7 22 PP
CHENG TU	31.87	270.7	6 21	-3	11 30	-1	
KUNMING	35.18	262.5			12 22	0	
TIKSI	35.93	353.1	6 56	-3			
YOKLAI	40.86	270.1	7 57	17			
RBAUL	41.54	164.3	7 42	-3			
LHASA	42.69	276.1			14 7	-8	
SHILLONG	43.72	270.2	7 53A	-10	11 23	-187	
CHITTAGONG	45.27	266.2	8 15	0	14 44	-8	10 3 PP
SEMPALATNSK	45.57	308.0	8 16	-2			
PORT MORESBY	45.84	172.6	8 18	-2	14 57	-4	
CHATRA	46.95	274.4	8 26	-3	15 17	1	10 17 PP
CALCUTTA	47.96	268.6	8 36	-1	15 46	15	
HONIARA	48.69	155.8	8 42	0			
BOKARO	49.41	271.6	8 46	-2	15 52	1	
COLLEGE	49.46	32.0	8 48	0	15 56	4	18 41 SCS
PORT BLAIR	50.47	253.7	8 56	0	16 10	4	19 0 SCS
FRUNSE	50.91	299.1	8 58	-1			
DEHRA DUN	52.74	283.0	9 16	3	16 58	21	11 17 PP
KHEYS	53.32	348.3	9 17	0	16 47	2	11 27 PP
LEMBANG	53.63	223.8	9 15A	-5	16 41	-8	10 37
BANDUNG	53.67	223.8	9 18K	-2	16 55	5	
HONOLULU	53.96	88.8	9 23	1	17 10	17	
KIPAPA	53.97	88.6	9 22	0			
VIZIANAGRAM	54.17	266.8	9 46A	22	20 22	206	
LAHORE	55.13	286.0	9 28	-3	17 8	-1	
TASHKENT	55.16	298.9	9 31	0			11 41 PP
WARSAK DAM	56.26	289.9	9 37	-2			
SEHORE	56.75	275.7	9 35	-7			
HAWAII V. OB.	57.19	89.1	9 47	2	17 35	-1	
HYDERABAD	58.57	269.1	9 57A	2	18 15	20	11 56 PP
MADRAS	59.61	263.8	10 2A	0	18 18	10	12 14 PP
QUETTA	61.43	287.9	10 13A	-2	18 40	9	12 35 PP
NORD	61.70	356.5	10 15A	-1	18 39	4	
POONA	61.70	272.9	10 14A	-3	18 56	21	12 45 PP
BOMBAY	62.34	273.8	10 19	-2	19 4	21	12 56 PP
NOUMEA	62.87	154.3	10 23	-1			11 21
RESOLUTE	63.14	14.4	10 25A	-1	18 55	2	
KODAIKANAL	63.36	263.0	10 31K	3	20 28	92	15 31 PPP
APATITY	63.39	335.9	10 27A	-1	19 0	4	12 46 PP
COLOMBO	63.42	258.4	10 32	4			19 2
KARACHI	63.93	282.6	10 30	-1	18 54	-9	
BRISBANE	64.29	169.2	10 34	0	19 10	3	
SODANKYLA	65.66	337.4	10 40	-2	19 29	5	13 10 PP
VICTORIA	66.63	46.2	10 49	0			
KIRUNA	67.21	339.4	10 51A	-1	19 46	3	
MOSCOW	67.94	323.7	10 55	-2	19 55	4	11 15 PCP

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961					PAGE 67				
PENTICTON	68.41	44.1	10 59	-1					
PULKOVO	68.88	329.7	11 2	-1	20 5	2		13 22	PP
UMEA	69.98	336.3	11 8A	-1					
TEHERAN	70.18	300.1	11 10	-1					
RIVERVIEW	70.42	171.7	11 13A	1	20 25	4		21 23	*SS
NURMIJARVI	70.64	332.2	11 12	-1	20 26	3		20 46	PS
HELSINKI	70.74	331.8	11 15	1	20 29	5		20 46	PS
ADELAIDE	71.07	182.7	11 14	-2	20 22	-6		11 24	PCP
SHASTA	71.23	53.0	11 18	1					
TIFLIS	71.44	308.4	11 19	1				13 57	PP
GORIS	71.64	305.8	11 20	1	20 43	8			
CANBERRA	71.68	173.8	11 17	-3	20 36	1		11 36	PCP
MINERAL	71.93	53.0	11 20K	-1					
HUNGRY HORSE	72.03	42.8	11 22	0	20 43	4	11 49		
MUNDARING	72.12	202.7	11 23	1					
PERTH	72.22	203.0	11 26	3				29 5	SSS
SHIRAZ	72.56	294.2	11 23K	-2	20 48	3	11 39	14 7	PP
SKAL STUGAN	72.61	338.8	11 23A	-2				14 10	PP
SCORESBY SD.	72.77	354.3	11 26	0	20 55	7		21 17	PS
BERKELEY	72.84	55.5	11 17A	-10	20 57	8		13 45	PP
RENO	73.52	52.9	11 31K	0					
LICK	73.54	55.7	11 28K	-3					
UPPSALA	73.65	334.2	11 30A	-1	20 59	1			
MELBOURNE	73.92	177.4	11 32	-1					
VINEYARD	74.04	56.0	11 34	0					
BUTTE	74.20	44.2	11 35	1					
FRESNO	75.08	55.3	11 46	6					
BOZEMAN	75.26	43.9	11 41	0	21 22	6			
SIMFEROPOL	75.99	315.8	11 44A	-1	21 26	2		14 38	PP
EUREKA	76.00	51.2	11 45	0					
BERGEN	77.15	339.5	11 50	-1					
GOTEBORG	77.22	335.0	11 50	-2					
PASADENA	77.67	56.7	11 54	0	21 49	7			
WARSAW	77.76	327.3	11 56	1	21 50	7		15 3	PP
SALT LAKE C.	77.77	48.2	11 55	0	21 45	2			
LWOW	78.06	324.1	11 56	0	21 52	6		14 56	PP
IASI	78.08	320.5	11 56	0					
COPENHAGEN	78.62	333.5	11 59A	0	21 58	6		15 0	PP
AUCKLAND	79.08	153.6			22 9	12		27 10	SS
FORT NELSON	79.12	175.8	12 OK	-2	22 4	7			
FLAMING GRGE	79.13	46.9	12 1	-1			12 36	15 6	PP
KRAKOW	79.79	326.2	12 7	1	22 8	4		15 8	PP
CHORZOW	80.04	326.8	12 7	0	22 13	6		12 23	PCP
NIEDZIKA	80.07	325.6	12 6	-1					
KASTAMONU	80.14	314.5	11 58	-10					
GLEN CANYON	80.26	51.1	12 8	0				13 9	
KARAPIRO	80.29	153.5	12 7	-1					
RACIBORZ	80.54	327.0	12 9	-1	22 17	5		15 15	PP
RAPID CITY	80.57	41.5	13 10	60					
BUCHAREST	80.70	319.1	12 10A	-1	22 52	38		14 59	PP
LARAMIE	81.09	44.7	12 13	0					
ISTANBUL KA.	81.31	315.1	12 13	-1	22 23	3			
TONGARIRO	81.41	154.1	12 22	8				15 30	PP
KSARA	81.77	306.0	12 18	2	22 33	8		15 26	PP
COLLMBERG	81.80	330.4	12 15A	-1	22 23	-2	12 40	15 23	PP
ABERDEEN	81.92	341.1	12 32A	15	22 47	21		39 37	SSS
BUDAPEST	82.07	324.8	12 21	3	22 28	0		15 28	PP
PRAGUE	82.16	328.9	12 20	2	22 33	4		15 30	PP
HURBANOVO	82.16	325.5	12 18	0	22 34	5		15 36	PP
PRUHONICE	82.18	328.8	12 17	-1	22 33	4		15 31	PP
TIMI SOARA	82.27	322.5	12 36	17	22 39	9			
BRATISLAVA	82.44	326.3	12 20K	0	22 38	6		15 32	PP
JENA	82.65	330.8	12 19	-2	22 36	2		15 30	PP
VIENNA-H.	82.70	326.7	12 21	0	22 42	8		28 18	SS
WITTEVEEN	82.95	334.4	12 25	3					
CHEB	82.99	329.9	12 20	-2	22 39	2			
KASPERSKE H.	83.24	328.7	12 24A	0				15 37	PP
MUNSTER	83.31	333.5	12 24	0				23 48	
BELGRADE	83.31	322.3	12 25A	1	22 42	2		15 40	PP
SOFIA	83.35	319.3	12 29	5	22 50	9			
JERUSALEM	83.47	304.8	12 24	-1				15 40	PP
TUCSON	83.70	54.4	12 26	0	22 56	12	12 54		
TUCSON TELE.	83.72	54.3	12 26	0			13 0	14 36	PP
DURHAM	83.89	339.7	12 17A	-10					
DE BILT	84.06	334.8	12 31	3	22 54	6		15 39	PP
BENSBERG	84.30	333.1	12 29K	0	22 42	-8		15 45	PP
ZAGREB	84.71	325.3	12 34K	3					
HEIDELBERG	84.98	331.4	12 32	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961										PAGE 68			
LJUBLJANA	85.19	326.2	12	34	0						17	55	PPP
ROXBURGH	85.22	161.0				22	58	-1					
STUTTGART	85.27	330.7	12	33	-1	22	54	-6			18	2	PPP
TUBINGEN	85.55	330.7	12	36	1								
TRIESTE	85.85	326.4				23	3	-2			17	57	PPP
EBINGEN	85.87	330.5	12	36	-1								
STRASBOURG	86.01	331.4	12	38	0	23	0	-7			28	54	SS
KEW	86.40	337.4	12	41	2	23	6	-5			24	18	PS
CHUR	86.71	329.4	12	48	7	23	19	5					
PADOVA	86.86	327.2				23	25	10			24	41	PS
BASLE	86.94	330.9	12	41	-1	23	4	-12					
HELWAN	87.26	305.4	12	46	2						16	9	PP
NEUCHATEL	87.62	330.9	12	46	1	23	45	23					
PARIS	87.76	334.4	12	47	1	23	25	1			16	31	PP
BESANCON	87.79	331.6	12	46	0								
PAVIA	88.20	328.6									23	0	
LAWRENCE	88.39	40.9	12	49	0								
PRATO	88.41	326.7	13	0	11	23	3	-27					
FLORENCE X.	88.42	326.6	12	40	-9	23	38	8					
LUBBOCK	88.49	48.4	12	55	5								
FOLINIERE	88.80	336.1	12	51	0								
GARCHY	88.85	333.3	12	56	5	23	40	6			16	32	PP
ROME	89.34	324.7	12	45	-9	23	39	1			16	27	PP
WICHITA MTS.	89.62	45.7	12	54	-1	23	25	-16	13	6	15	50	PP
ISOLA	89.90	329.3	12	58	2								
MONACO	90.11	328.8	13	0	3								
CLERMONT-FD.	90.11	332.5	13	2	5	23	41	-4					
MESSINA	90.68	320.5									16	48	
FAYETTEVILLE	91.09	42.2	13	1K	-1	23	55	1	13	26			
SHAWINIGAN	91.77	23.1	13	17	12								
OTTAWA	91.80	25.4	13	7	2								
BREBEUF	92.43	24.1	13	12	4	24	10	4					
CLEVELAND	92.93	31.1				24	19	9					
BAGNERES	93.53	332.9	13	18	5								
PENNSYLVANIA	94.98	29.1				24	15	-13					
ADDIS ABABA	95.02	285.0	13	22	2	24	2	11					
PALISADES	96.29	26.4				24	45	47			26	11	PS
SETIF	97.18	325.8	13	31	1				14	2	17	33	PP
ALGIERS UNI.	97.75	327.7									17	27	PP
TOLEDO	97.83	334.1	13	33	0	24	31	25			17	39	PP
ALICANTE	97.85	330.9	13	18	-15	24	26	20			19	29	PPP
ALMERIA	99.93	331.6				24	34	18			17	49	PP
GRANADA	100.06	332.6	14	3A	20						17	55	PP
LISBON	100.58	337.3									17	58	PP
TANANARIVE	104.30	257.0	14	8	7				14	57	18	20	PP
BENI ABBES	105.68	328.0	14	17	777						18	43	PP
TAMANRASSET	108.09	317.8	14	23	777						18	48	PP
LWIRO	109.75	282.2									19	0	PP
CAPE HALLETT	110.23	171.1				26	48	105			19	3	PP
BANGUI	113.29	294.7	18	33	-1						19	24	PP
SCOTT BASE	115.00	174.3	18	52	15						19	40	PP
BROKEN HILL	117.13	271.7	18	42	1								
BULAWAYO	120.04	266.2	18	46K	-1								
PRETORIA	123.14	260.7									19	54	
MBOUR	125.65	334.4									20	49	PP
LUANDA	125.97	287.3									20	55	PP
CARACAS	126.07	35.8	19	11	13						21	8	PP
SOUTH POLE	126.22	180.0	18	58	-1				19	9			
KIMBERLEY	127.19	259.1	18	50	-10								
WINDHOEK	130.54	270.2	19	8	1								
HERMANUS	133.74	254.7									21	45	PP
HUANCAYO	138.75	63.6	19	21	-1				19	33			
LA PAZ	146.88	61.2	19	40	4						19	50	PKP2
ANTOFAGASTA	149.52	74.5	19	47	6								

JANUARY 16 13.H 9.M 21.S EPICENTRE 36.74 141.51 DEPTH= 90.KM

A=-0.62881 B= 0.49994 C= 0.59553 D= 0.6223 E= 0.7828
G=-0.4662 H= 0.3706 K=-0.8033 HT= -0.5

DEPTH OF FOCUS= 0.009R

SE= 4.96

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

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 69	
ONAHAMA	0.54 293.7	0 10A -6	0 27 -2
MI TO	0.91 247.4	0 8K -11	0 22 -12
SHIRAKAWA	1.11 290.7	0 16 -5	0 37 0
TYOSI	1.15 208.1	0 3K -19	0 14 -24
TUKUBASAN	1.25 246.1	0 10 -13	
HUKUSIMA	1.31 320.9	0 21A -3	
UTUNOMIYA	1.33 262.5	0 18 -6	0 39 -3
SENDAI	1.61 342.5	0 28A 1	0 58 10
ISINOMAKI	1.70 354.9	0 25 -4	0 54 4
HONGO	1.74 234.5	0 18 -11	0 42
YAMAGATA	1.77 328.9	0 28A -2	1 0 8
TOKYO C.M.O.	1.77 234.1	0 17 -13	
KUMAGAYA	1.82 251.9	0 22 -8	0 46 -7
YOKOHAMA	1.99 229.7	0 18A -14	0 42 -15
MAEBASI	2.00 261.1	0 25 -7	0 51 -6
TITIBU	2.10 249.7	0 24 -10	
NERA	2.27 217.5	0 20 -16	
NIIGATA	2.29 301.8	0 15 -21	0 54
MIZUSAWA	2.41 352.9	0 39 1	1 15 8
OIWAKE	2.42 261.2	0 31 -7	
SAKATA	2.54 328.8	0 42 2	
HUNATU	2.54 241.8	0 28 -12	1 7 -3
AJIRO	2.58 230.1	0 28 -12	1 4 -7
KOHU	2.61 246.9	0 32 -9	1 10 -2
OSIMA	2.62 222.1	0 25A -16	
MISIMA	2.63 233.0	0 28A -13	
TAKADA	2.64 278.9	0 37 -4	
NAGANO	2.66 269.6	0 36 -6	1 13 0
MATUSIRO	2.66 266.8	0 33 -9	1 12 -1
MATUMOTO	2.90 261.4	0 39 -6	1 19 0
AIKAWA	2.90 297.2	0 43 -2	1 30 11
MIYAKO	2.93 6.9	0 43 -2	
MORIOKA	2.97 354.9	0 46 0	1 28 7
SHIZUOKA	3.08 236.1	0 34 -13	1 14 -9
AKITA	3.18 339.9	0 48 -1	
IIDA	3.22 248.9	0 42 -7	
OMAESAKI	3.43 232.5	0 41A -11	1 17 -15
TAKAYAMA	3.49 261.6	0 46 -7	
HAMAMATU	3.68 238.0	0 46 -10	1 40 2
WAZIMA	3.75 281.3	0 57 0	
HATINOHE	3.79 0.2	0 54 -3	
KANAZAWA	3.92 268.4		1 54 10
NAGOYA	4.00 248.4	0 48 -12	1 34 -12
GIHU	4.07 252.3	0 54 -7	1 50 2
AOMORI	4.12 352.2	1 3 1	1 58 9
KAMEYAMA	4.51 246.8	1 5 -2	2 9 10
HIKONE	4.51 252.6	0 59 -8	2 5 6
TSURUGA	4.53 257.8	2 11 64	
TU	4.54 244.9	1 7 0	
KYOTO	5.00 251.7	1 19 5	2 18 7
NARA	5.06 247.8	1 12 -3	
OWASE	5.09 240.1	1 15 0	2 34 21
HAKODATE	5.10 353.7	1 21 6	
ABUYAMA	5.18 250.7	1 6 -10	
OSAKA	5.30 248.6		2 39 21
MORI	5.41 352.5	1 31 12	2 39 18
URAKAWA	5.50 9.9	1 22 1	
KOBE	5.55 250.2		2 19
TOYOOKA	5.55 259.5	1 31 10	2 43
MURORAN	5.59 355.9	1 26 4	
HIROO	5.71 13.6	1 31 8	
SIOMISAKI	5.74 236.8	1 39 15	3 6 37
WAKAYAMA	5.75 246.1		
TOMAKOMAI	5.89 0.5		1 50
SUMOTO	5.89 248.0	1 7 -19	1 52
TOTTORI	6.06 260.5	1 43 15	3 7 30
SUTTSU	6.14 351.1	1 28 -1	3 1 22
TOKUSIMA	6.26 246.9	1 22 -9	
OBIHIRO	6.31 11.3	1 36 4	2 54 11
TORISIMA	6.32 189.6	1 12 -20	
SAPPORO	6.33 358.9	1 34 2	
TAKAMATU	6.55 250.6	1 20 -15	2 50 1
KUSIRO	6.62 18.7	1 31 -5	2 50 -1
YONAGO	6.74 261.3	2 4 26	
MUROTO	6.95 242.1	1 58 17	3 20 21
ASAHIGAWA	7.07 5.0	1 47 5	
KOTI	7.27 246.4	1 37 -8	3 14 7
NEMURO	7.29 24.1	1 43 -2	
ABASHIRI	7.58 15.3	1 50 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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 70					
MATUYAMA	7.70	250.5	1 49	-2	3 25	8	
HIROSIMA	7.77	255.0	2 8	16	3 42	23	
HAMADA	7.89	259.4	2 30	37	3 55	33	
OOITA	8.84	249.6					4 4
HUKUOKA	9.64	254.2					4 42
KUMAMOTO	9.71	249.4	2 14	-4			
SAGA	9.83	252.6					5 12
PETROPAVLOVK	20.23	31.0	4 29	-1	7 15	-51	
GUAM	23.36	172.1	4 57	-4			
MAGADAN	23.61	11.8	5 5	2			
TIKSI	35.58	353.1	6 49	-1			
SHILLONG	43.49	269.7	7 43	-13			
CHITTAGONG	45.07	265.7	8 4	-4			
SEMIPALATNSK	45.19	307.7	8 7	-2			
PORT MORESBY	46.19	172.3	8 18	1			
COLLEGE	49.30	32.1	8 41	0			9 42
FRUNSE	50.56	298.8	8 50A	-1			
KHEYS	52.95	348.2	9 10	1			
NAMANGAN	53.23	297.5	9 11A	0			
LEMBANG	53.72	223.4	9 6K	-9			
BANDUNG	53.76	223.3	9 7A	-8	16 38	-2	
SVERDLOVSK	55.43	318.8	9 26	-1			
WARSAK DAM	55.93	289.6	9 28	-3			
QUETTA	61.12	287.6	10 4A	-3			12 23 PP
NORD	61.35	356.4	10 8K	0			
RESOLUTE	62.87	14.4	10 18	0			
APATITY	62.99	335.8	10 19	0			
SODANKYLA	65.27	337.3	10 34	0			
KIRUNA	66.82	339.3	10 44	0			
MOSCOW	67.54	323.5	10 48	0	19 47	11	
PENTICTON	68.33	44.1	10 52	-1			
UMEA	69.59	336.1	11 0	-1			
TEHERAN	69.82	299.9	11 2	0			
NURMI JARVI	70.25	332.0	11 5	0			
HELSINKI	70.35	331.6	11 7	1			
TIFLIS	71.06	308.2	11 10	0			
SHASTA	71.22	53.0	11 10	-1			
HUNGRY HORSE	71.95	42.8	11 15	0			
CANBERRA	72.03	173.6	11 8	-8			
SHIRAZ	72.22	293.9	11 15	-2	21 9	38	20 19
SKALSTUGAN	72.22	338.7	11 14	-3			
SCORESBY SD.	72.42	354.2	11 19	1			
UPPSALA	73.26	334.0	11 22	-1			
RENO	73.51	52.9	11 35	11			
BUTTE	74.12	44.2	11 30	2			
BOZEMAN	75.18	43.8	11 33	-1			
EUREKA	75.97	51.1	11 38	0			
GOTEBORG	76.83	334.8	11 43	0			
PASADENA	77.68	56.6	11 52	4			
SALT LAKE C.	77.72	48.1	11 47	-1			
FLAMING GRGE	79.08	46.8	11 55	-1			
KASTAMONU	79.75	314.3	11 51	-8			
GLEN CANYON	80.23	51.0	12 0	-2			
RAPID CITY	80.47	41.4	12 2	-1			
LARAMIE	81.02	44.6	12 5	-1			
COLLMBERG	81.40	330.2	12 9K	1			15 16 PP
PRUHONICE	81.78	328.6	12 11	1			15 19 PP
JENA	82.25	330.7	12 9	-3			12 30
TUCSON	83.70	54.3	12 20	0			
TUCSON TELE.	83.71	54.2	12 16	-4			
STUTT GART	84.87	330.5	12 26	0			
GARCHY	88.46	333.1	12 50	7			
WICHITA MTS.	89.55	45.6	12 47	-1	12 58		
FAYETTEVILLE	91.00	42.0	12 54K	-1			
TAMANRASSET	107.70	317.7	18 28	777			18 39 PP
LA PAZ	146.92	60.4	19 32	2			19 43 PKP2

JANUARY 16 14.H 4.M 2.S EPICENTRE 36.47 141.80 DEPTH= 67.KM

A=-0.63343 B= 0.49852 C= 0.59181 D= 0.6185 E= 0.7858
G=-0.4651 H= 0.3660 K=-0.8061 HT= -0.4

DEPTH OF FOCUS= 0.005R

SE= 3.85

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
ONAHAMA	0.86	303.9	0	14A	-4	0	31	0				
TYOSI	1.07	226.0	0	14A	-6	0	28	-7				
MITO	1.07	265.6	0	15A	-5	0	30	-5				
TUKUBASAN	1.39	260.2	0	18	-6							
SHIRAKAWA	1.42	297.6	0	22A	-3	0	44	1				
UTUNOMIYA	1.55	273.5	0	22A	-5	0	44	-2				
HONGO	1.81	245.8	0	20	-10						1	55
TOKYO C.M.O.	1.84	245.2	0	25A	-5	0	51	-2				
SENDAI	1.93	338.6	0	30A	-2	0	57	2				
KUMAGAYA	1.98	261.4	0	36K	4	0	59	3				
ISINDMAKI	1.99	349.2	0	29	-3	0	57	0				
YOKOHAMA	2.03	239.8	0	28A	-5	1	1	4				
YAMAGATA	2.12	327.5	0	33A	-1	1	7	7				
MAEBASI	2.20	269.0	0	32A	-3	1	14	12				
MERA	2.23	226.6	0	28A	-8	0	54	-8				
TITIBU	2.25	258.2	0	31	-5	0	58	-5				
OSIMA	2.60	230.0	0	33A	-8	0	57	-15				
AJIRO	2.61	237.9	0	34	-7	1	8	-4				
NIIGATA	2.63	304.2	0	36	-5	1	14	2				
HUNATU	2.64	249.4	0	36	-6	1	17	4				
MISIMA	2.68	240.6	0	36A	-6							
MIZUSAWA	2.71	349.0	0	41	-1	1	14	0				
KOHU	2.74	254.0	0	38A	-5	1	18	3				
SAKATA	2.88	327.8	0	46	1							
MATUSIRO	2.89	272.4	0	41A	-4	1	21	2				
NAGANO	2.90	275.0	1	15A	30	1	55	36				
TAKADA	2.92	283.5	0	44K	-1	1	20	0				
MATUMOTO	3.10	267.1	0	45	-3	1	24	0				
SHIZUOKA	3.14	242.6	0	45A	-4	1	24	-1				
MIYAKO	3.18	2.4	0	46	-3							
AIKAWA	3.22	299.7	0	51	1	1	55	28				
MORIOKA	3.26	351.5	0	48	-2	1	30	2				
IIDA	3.35	254.7	0	50	-2							
OMAESAKI	3.46	238.4	0	47A	-6	1	26	-7				
AKITA	3.51	338.1	0	53	-1							
TAKAYAMA	3.69	266.4	0	54	-2	1	19	-20				
TOYAMA	3.71	274.9	0	55	-1	2	3	24				
HAMAMATU	3.75	243.5	0	52	-5	1	46	5				
HATIDYOZIMA	3.92	220.8	0	54	-5	1	27	-17				
WAZIMA	4.03	284.5	0	59A	-2							
HATINOHE	4.06	357.1	0	58	-3	1	48	0				
NAGOYA	4.13	253.1	0	58A	-4	1	55	5				
KANAZAWA	4.15	272.3									2	14
GIHU	4.22	256.8	0	57A	-7	1	57	5				
AOMORI	4.42	349.9	1	5	-1	2	0	3				
HUKUI	4.52	266.3	1	8	0	2	0	1				
KAMEYAMA	4.63	251.1	1	4A	-5	2	6	4				
TU	4.65	249.2	1	12	2							
HIKONE	4.66	256.7	1	7	-3	2	13	10				
TSURUGA	4.71	261.7	1	7	-3							
KYOTO	5.14	255.4	1	12	-4	2	18	3				
OWASE	5.17	244.0	1	11	-6	2	49	33				
NARA	5.18	251.6	1	13	-4	2	16	0				
MAIZURU	5.29	261.0	1	26	8	2	53	34				
ABUYAMA	5.31	254.3	1	14A	-5							
HAKODATE	5.39	351.7	1	26	6	2	43	22				
OSAKA	5.42	252.3	1	16	-4							
KOBE	5.68	253.6	1	20	-4	2	38	9				
MORI	5.70	350.8	1	33	9	2	42	13				
URAKAWA	5.72	7.4	1	26	2							
TOYOOKA	5.73	262.6	1	20	-5						1	37
SIOMISAKI	5.79	240.4	1	20	-5	2	46	15				
WAKAYAMA	5.86	249.5	1	24	-2							
MURORAN	5.88	354.1	1	37	10							
HIROO	5.92	11.0	1	39	12						2	34
SUMOTO	6.01	251.3	1	22A	-6	3	2	25				
TORISIMA	6.10	192.2	1	21	-9	2	22	-17				
TOTTORI	6.25	263.4	1	32	0	3	2	19				
HIMEJI	6.35	254.1	1	35	2	2	59	14				
TOKUSIMA	6.37	250.0	1	30	-3	2	50	4				
SUTTSU	6.44	349.7	1	32	-2	3	2	15				
OBHIRO	6.53	9.1	1	35	-1	2	53	3				
SAPPORO	6.60	357.2	1	31	-6							
OKAYAMA	6.66	256.8	1	33	-5	2	54	1				
TAKAMATU	6.68	253.5	1	34	-4	3	22	29				
KUSIRO	6.80	16.3	1	36	-3	2	50	-6				

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961										PAGE 72	
SAIGO	6.84	270.2	1 44	4	3 42	45					
YONAGO	6.93	263.9	1 34	-7							
MUROTO	7.04	245.1	1 47	4	3 7	5					
MATSUE	7.15	264.4	1 57	13	3 53	48					
ASAHIGAWA	7.31	3.3	1 45	-2							
KOTI	7.38	249.2	1 41	-6	3 1	-10					
NEMURO	7.44	21.8	1 47	-1							
ABASHIRI	7.78	13.4	1 55	2							
MATUYAMA	7.84	253.1	1 22	-32	3 23	1					
HIROSIMA	7.93	257.4	1 50A	-5	3 24	0					
HAMADA	8.07	261.7	1 55K	-2	3 55	27					
UWAZIMA	8.26	249.7	1 54	-6					4 11		
WAKKANAI	8.94	359.5	2 13	4							
OOITA	8.97	251.8	2 2	-7	3 52	2					
SIMONOSEKI	9.24	257.4	2 9	-4							
ASOSAN	9.52	251.2	2 13	-4					4 15		
HUKUOKA	9.80	256.2	2 16	-5	4 19	9					
KUMAMOTO	9.84	251.5	2 17	-4	4 52	41					
SAGA	9.98	254.6	2 36	13	5 39	85					
VLADIVOSTOK	10.10	314.1	2 24	-1	4 22	5					
NAGASAKI	10.51	252.7	2 24A	-6	4 46	19					
KAGOSIMA	10.53	245.6	2 24	-7	5 43	75					
Y.-SAKHLINSK	10.56	3.4	2 24	-7	4 19	-9					
YAKUSIMA	11.18	240.8	2 34	-5	5 3	20					
TOMIE	11.41	254.1	2 35	-7	5 27	38					
CHANGCHUN	14.58	305.3	3 22A	-2	6 9	5					
ZO-SE	17.95	258.6	4 0A	-6	7 19	-2					
NANKING	19.51	263.7	4 18	-6							
PETROPAVLOV	20.34	30.3	4 32	-1	8 21	9			4 58 PP		
PEKING	20.41	287.8	4 29A	-5							
TAIPEI	20.78	242.4							9 25		
TAINAN	22.98	240.2							15 15		
GUAM	23.06	172.7	5 0	0	9 7	5					
MAGADAN	23.82	11.4	5 14	6							
YAKUTSK	26.67	347.3	5 34	-1	10 15	12					
SIAN	26.83	275.1	5 33A	-3							
HONG KONG	27.79	247.1	5 30	-15							
CANTON	27.95	249.4	5 45	-1							
ULAN-BATOR	28.04	305.0	5 45	-2							
LANCHOW	30.49	280.7	6 8A	-1							
IRKUTSK	30.68	312.9	6 10	-1	11 17	10					
CHENG TU	31.87	270.6	6 18A	-3							
KUNMING	35.19	262.4	6 46A	-4	12 20	3					
TIKSI	35.87	353.0	6 52	-3	12 36	8			8 25 PP		
RABAU	41.60	164.3	7 34	-9							
LHASA	42.68	276.0	7 52	0	14 24	14					
SHILLONG	43.72	270.2	7 52A	-8							
CHITTAGONG	45.27	266.2	8 11A	-2							
SEMPALATNSK	45.53	308.0	8 12	-3	14 58	7					
PORT MORESBY	45.90	172.6	8 14	-4	14 54	-2					
CHATRA	46.95	274.4	8 25	-1	15 19	8					
CALCUTTA	47.97	268.5	8 31	-3	15 43	17					
COLLEGE	49.41	32.0	8 44	-1	15 52	6			9 56 PCP		
BOKARO	49.42	271.6	8 43	-2	16 4	18					
PORT BLAIR	50.49	253.6	9 10	17							
DEHRA DUN	52.73	283.0	9 10	0	16 49	18			11 9 PP		
KHEYS	53.26	348.3	9 14	0	16 45	6			10 22 PCP		
DJAKARTA	53.59	225.1	9 12K	-5	16 31	-12					
LEMBANG	53.68	223.8	9 13A	-4	16 39	-5			17 49		
BANDUNG	53.72	223.7	9 13A	-4	15 44	-61					
LAHORE	55.12	286.0	9 27	-1					11 31 PP		
TASHKENT	55.13	298.9	9 28	0					17 24 PS		
WARSAK DAM	56.24	289.9	9 35	-1							
DUZHANBE	56.50	296.0	9 35	-3					17 40 PS		
HYDERABAD	58.57	269.1	9 49A	-3	18 1	12			11 58 PP		
MADRAS	59.62	263.7	9 58A	-1	18 22	19			13 49 PPP		
QUETTA	61.41	287.9	10 11A	-1	18 16	-10	10 43		12 29 PP		
NORD	61.63	356.5	10 12K	-1							
POONA	61.70	272.9	10 10A	-3							
BOMBAY	62.33	273.8	10 15	-3	18 41	4			18 56 PS		
RESOLUTE	63.07	14.4	10 22	-1	18 54	7					
APATITY	63.33	335.9	10 23	-1					10 52 PCP		
COLOMBO	63.43	258.4			19 6	15					
KARACHI	63.91	282.6	10 26	-2							
BRISBANE	64.36	169.2	10 37	6					19 37 SS		
SODANKYLA	65.60	337.4	10 39	0							
KIRUNA	67.15	339.4	10 48	-1	19 47	11					
MOSCOW	67.89	323.7	10 54	1	19 53	8			13 22 PP		
PULKOVO	68.83	329.7	10 58	-1	20 3	6			20 18 PS		

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961					PAGE 73				
UMEA	69.92	336.3	11 6	0					
TEHERAN	70.15	300.1	11 8	1					
RIVERVIEW	70.48	171.7	11 9	0	20 21	5		21 17	
NURMIJARVI	70.59	332.2	11 10	0	20 22	5		13 44	PP
HELSINKI	70.69	331.8	11 12	1					
ADELAIDE	71.13	182.7	11 10	-3					
SHASTA	71.20	53.0	11 14	0					
TIFLIS	71.41	308.4	11 16	1	20 35	8		13 57	PP
GORIS	71.61	305.7	11 16	0	20 39	10			
CANBERRA	71.74	173.8	11 14	-3					
MINERAL	71.89	53.0	11 18K	0					
HUNGRY HORSE	71.99	42.9	11 19	1					
SHIRAZ	72.53	294.1	11 21K	-1	20 58	19	11 34		
SKALSTUGAN	72.55	338.8	11 22	0					
SCORESBY SD.	72.71	354.3	11 23	0	20 55	14		25 30	SS
BERKELEY	72.80	55.5	11 28	5					
RENO	73.49	52.9	11 28	1					
LICK	73.50	55.7	11 26K	-1					
UPPSALA	73.60	334.2	11 27	-1					
BUTTE	74.15	44.2	11 32	1					
FRESNO	75.04	55.3	11 38	2					
BOZEMAN	75.21	43.9	11 37	0					
EUREKA	75.96	51.2	11 42	1				15 10	PP
GOTEBORG	77.17	335.0	11 49K	1					
PASADENA	77.63	56.7	11 50	-1					
SALT LAKE C.	77.73	48.2	11 52	1					
LWOW	78.02	324.1	11 53	0	21 47	7		14 51	PP
COPENHAGEN	78.56	333.5	11 56	0	21 17	-29		22 7	*PS
FLAMING GRGE	79.09	46.9	11 59	0				14 0	
FORT NELSON	79.19	175.9	11 57	-2				12 8	PCP
KRAKOW	79.74	326.2	12 3	1				14 52	
CHORZOW	79.99	326.8	12 5	1				15 7	PP
NIEDZIKA	80.02	325.6	12 4	0				15 7	PP
KASTAMONU	80.10	314.5	11 54	-10			12 21		
GLEN CANYON	80.22	51.1	12 5	0					
RACIBORZ	80.49	327.0	12 7	1				12 18	PCP
RAPID CITY	80.52	41.5	12 7	1					
LARAMIE	81.05	44.7	12 9	0					
ISTANBUL KA.	81.27	315.1	12 11	1	22 23	9			
ISTANBUL UN.	81.33	315.1	12 2	-9					
KSARA	81.73	306.0	12 12	-1				15 27	PP
COLLMBERG	81.75	330.4	12 13K	0	22 12	-7		15 41	PP
BUDAPEST	82.02	324.8						16 4	
PRAGUE	82.11	328.9	12 17	2	22 32	9			
PRUHONICE	82.13	328.7	12 15A	0	22 31	8		15 26	PP
JENA	82.60	330.8	12 18	1				15 25	PP
VIENNA-H.	82.65	326.7	12 19	1				15 20	
KASPERSKE H.	83.18	328.7	12 20A	0				15 34	PP
MUNSTER	83.25	333.5	12 22	1					
BELGRADE	83.26	322.3	12 22K	1	22 54	20		18 8	PPP
JERUSALEM	83.44	304.7	12 22	1				16 36	PP
TUCSON	83.67	54.5	12 22	-1					
TUCSON TELE.	83.68	54.3	12 23	0					
BENSBERG	84.24	333.1	12 25	-1					
HEIDELBERG	84.93	331.4	12 29	0					
STUTTGART	85.22	330.7	12 30	0	23 3	9		13 18	*SP
TUBINGEN	85.49	330.7	12 32	0					
EBINGEN	85.81	330.5	12 34	1					
STRASBOURG	85.96	331.4	12 34	0	22 58	-3			
KEW	86.34	337.4	12 37	1	23 12	8		28 46	SS
BASLE	86.89	330.9	12 39	0					
HELWAN	87.22	305.4	12 41	1				16 7	PP
FLORENCE X.	88.37	326.6			24 27	64		13 29	
LUBBOCK	88.45	48.4	12 44	-2					
GARCHY	88.80	333.3	12 48	0				16 20	PP
ROME	89.29	324.7						16 21	PP
WICHITA MTS.	89.57	45.7	12 52	1					
FAYETTEVILLE	91.04	42.2	12 58K	0			13 28		
ADDIS ABABA	95.00	285.0	13 19	3					
ALICANTE	97.80	331.0	13 17	-12	24 25	26		19 28	PPP
TACUBAYA	99.99	57.0						26 3	
TANANARIVE	104.31	257.0						18 24	PP
TAMANRASSET	108.05	317.9						18 41	PP
LWIRO	109.74	282.2						19 6	PP
BANGUI	113.26	294.7						19 16	PP
SOUTH POLE	126.29	180.0	18 54	-1					
HUANCAYO	138.72	63.5	19 17	-2					
LA PAZ	146.85	61.1	19 37	4				42 5	SS

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 74

ANTOFAGASTA 149.50 74.4 19 43 6

JANUARY 16 14.H 44.M 15.S EPICENTRE 36.41 141.67 DEPTH= 90.KM

A=-0.63280 B= 0.50032 C= 0.59096 D= 0.6202 E= 0.7844
G=-0.4636 H= 0.3665 K=-0.8067 HT= -0.4

DEPTH OF FOCUS= 0.009R

SE= 5.43

	DELTA DEG.	AZ. DEG.	P		O-C S	S		O-C S	*PP		SUPP.	
			M	S		M	S		M	S	M	S
ONAHAMA	0.82	311.3	0	11A	-8	0	27	-6				
TYOSI	0.96	224.2	0	12A	-8	0	26	-9				
MITO	0.97	268.6	0	12A	-8	0	28	-7				
KAKIOKA	1.22	262.0	0	16A	-7	0	23	-17				
TUKUBASAN	1.28	262.0	0	15	-9							
SHIRAKAWA	1.36	301.8	0	19	-6	0	38	-5				
UTUNOMIYA	1.46	276.1	0	20A	-6	0	44	-1				
HUKUSIMA	1.65	324.7	0	22A	-7	0	47	-3				
HONGO	1.69	246.1	0	23	-6						0	50
TOKYO C.M.O.	1.72	245.5	0	23	-6	0	48	-3				
KUMAGAYA	1.87	262.7	0	26	-5	0	55	1				
YOKOHAMA	1.91	239.8	0	28A	-4	0	53	-2				
SENDAI	1.96	342.0	0	27A	-5	0	55	-1				
ISINOMAKI	2.04	352.3	0	26	-8							
MAEBASI	2.10	270.5	0	29A	-5	0	58	-2				
MERA	2.11	225.7	0	31	-4							
YAMAGATA	2.12	330.6	0	30A	-5							
TITIBU	2.14	259.2	0	28	-7	0	56	-5				
OSIMA	2.48	229.4	0	33	-7							
AJIRO	2.49	237.8	0	34	-6	1	5	-4				
HUNATU	2.52	249.7	0	36	-4	1	14	4				
MISIMA	2.56	240.6	0	34	-7							
NIIGATA	2.58	306.6	0	48	7							
KOHU	2.63	254.6	0	37	-5	1	18	5				
MIZUSAWA	2.75	351.2	0	42	-1	1	12	-4				
MATUIRO	2.79	273.7	0	39A	-5	1	18	1				
NAGANO	2.81	276.3	0	40	-4	1	10	-7				
TAKADA	2.83	285.1	0	40	-5							
SAKATA	2.88	330.1	0	49	4							
MATUMOTO	2.99	268.0	0	43	-4	1	21	-1				
SHIZUOKA	3.02	242.6	0	43	-4	1	32	9				
AIKAWA	3.17	301.5	0	49	0							
IIDA	3.24	255.2	0	59	9							
MIYAKO	3.24	4.1	0	48	-2							
MORIOKA	3.31	353.3	0	42	-9	1	26	-4				
OMAESAKI	3.34	238.3	0	51	-1	1	32	2				
AKITA	3.53	339.9	0	58	4	1	42	7				
TAKAYAMA	3.58	267.2	0	51	-4							
TOYAMA	3.61	275.9	0	55A	0	1	53	16				
HAMAMATU	3.63	243.5	1	3	7	1	51	13				
HATIDYOZIMA	3.65	205.6	0	47	-9	1	32	-6				
WAZIMA	3.94	285.6	1	5	5							
NAGOYA	4.01	253.4	0	57	-4	1	51	4				
KANAZAWA	4.05	273.2									2	14
GIHU	4.10	257.2	0	59	-3	1	53	4				
HATINOHE	4.12	358.5	0	59	-3	1	54	4				
HUKUI	4.41	266.9									1	26
AOMORI	4.46	351.3	1	15	8	2	7	9				
KAMEYAMA	4.51	251.3	1	10	2	2	17	18				
TU	4.53	249.4									1	34
HIKONE	4.55	257.1	1	1	-7	2	7	7				
TSURUGA	4.60	262.2	1	8	-1							
KYOTO	5.03	255.7	1	19	4	2	31	19				
OWASE	5.05	244.1	1	28	13	2	40	27				
NARA	5.06	251.8	1	21	6	2	26	13				
MAIZURU	5.18	261.4	1	21	4	2	46	30				
ABUYAMA	5.20	254.6	1	10	-7							
OSAKA	5.30	252.5				2	23	4			2	57
HAKODATE	5.44	352.8	1	28	8	2	32	10				
TOYOOKA	5.62	263.0				2	37	11			1	46
SIOMISAKI	5.67	240.4	2	23	59	3	32	64				
WAKAYAMA	5.74	249.6									2	28
MORI	5.75	351.8	1	32	7	2	46	16				
URAKAWA	5.80	8.2	1	20	-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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 75

SUMOTO	5.89	251.5	1 3	-24	2 43	10	
MURORAN	5.93	355.0	1 37	10			
HIROO	6.00	11.8					1 56
TOTTORI	6.14	263.8					1 46
TOMAKOMAI	6.21	359.4					2 0
TOKUSIMA	6.25	250.1	1 38	6	2 56	14	
SUTTSU	6.48	350.6	1 42	7	2 55	7	
TAKAMATU	6.56	253.7	1 40	4	3 25	35	
OB IHIRO	6.61	9.8	1 35	-1	2 53	2	
SAPORO	6.66	358.0	1 26	-11			
YONAGO	6.82	264.2	2 6	27	3 35	39	
KUSIRO	6.89	16.9	1 35	-5	2 48	-10	
MUROTO	6.92	245.1	2 27	46	3 49	50	
ASAHI GAWA	7.38	4.0	1 57	10			
NEMURO	7.54	22.3	1 53	4			
MATUYAMA	7.72	253.2	2 10	18	3 58	40	
HIROSIMA	7.81	257.6			3 33	12	
ABASHIRI	7.86	13.9	2 2	8			
HAMADA	7.96	261.9	2 39	44	4 19	55	
OOITA	8.85	251.9			4 35	49	
HUKUOKA	9.68	256.3			4 0	-6	
TIKSI	35.91	353.1	6 51	-2			
SHILLONG	43.62	270.1	7 49	-8			
CHITTAGONG	45.17	266.1	8 8	-2			
SEMIPALATNSK	45.49	308.0	8 10	-2			
CHATRA	46.85	274.4	8 22A	-1			
COLLEGE	49.51	32.0	8 42	-1			9 30
FRUNSE	50.82	299.1	8 53	-1			
KHEYS	53.30	348.3	9 11	-1			
LEMBANG	53.57	223.7	9 10	-4			13 47
LAHORE	55.04	286.0	9 23	-2			
SVERDLOVSK	55.75	318.9	9 29	-1			
WARSAK DAM	56.16	289.9	9 32	-1			
QUETTA	61.33	287.8	10 8A	-1			
RESOLUTE	63.16	14.4	10 18	-3			
APATITY	63.34	335.9	10 20	-2			
SODANKYLA	65.62	337.4	10 36	-1			
KIRUNA	67.17	339.4	10 58	11			
UMEA	69.94	336.2	11 3	-1			
NURMIJARVI	70.59	332.1	11 7	-1			
HUNGRY HORSE	72.10	42.8	11 15	-2			
SHIRAZ	72.46	294.1	11 18	-1			11 50
SKALSTUGAN	72.57	338.8	11 19	0			
UPPSALA	73.61	334.1	11 24	-1			
EUREKA	76.08	51.2	11 39	-1			
WOODY	76.39	55.7	11 41	0			
GOTEBORG	77.18	334.9	11 45	-1			
FLAMING GRGE	79.21	46.9	11 26	-31			
KASTAMONU	80.07	314.5	11 51	-10			
COLLMBERG	81.75	330.3	12 11K	1			17 21 PPP
PRUHONICE	82.12	328.7	12 13	1			
DURHAM	83.85	339.6	12 33K	12			
STUTTGART	85.22	330.6					27 2
EBINGEN	85.82	330.4					27 8
WICHITA MTS.	89.69	45.7	12 59	10			
FAYETTEVILLE	91.15	42.1	12 55	-1			
ALMERIA	99.88	331.5					18 17
TAMANRASSET	108.02	317.7					18 39 PP
CARACAS	126.13	35.6	19 15	23			
KIMBERLEY	127.09	259.1					14 56

JANUARY 16 15.H 41.M 17.S EPICENTRE 36.61 141.53 DEPTH= 52.KM

A=-0.62997 B= 0.50065 C= 0.59371 D= 0.6222 E= 0.7829
G=-0.4648 H= 0.3694 K=-0.8047 HT= -0.4

DEPTH OF FOCUS= 0.003R

SE= 3.18

	DELTA DEG.	AZ. DEG.	P		O-C S	S		*PP		SUPP.	
			M	S		M	S	M	S	M	S
ONAHAMA	0.61	304.6	0	13K	-1	0	31	6			
MI TO	0.88	255.5	0	13A	-4	0	29	-1			
TYOSI	1.04	211.9	0	11K	-8	0	24	-9			
KAKI OKA	1.15	251.3	0	16K	-4	0	26	-9			
SHIRAKAWA	1.17	296.5	0	21K	1	0	39	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 76

TUKUBASAN	1.21	251.9	0 16K	-5			0 47
UTUNOMIYA	1.33	268.1	0 20A	-3	0 40	0	
HUKUSIMA	1.42	323.9	0 25A	1	0 49	7	
HONGO	1.68	238.3	0 21	-6			0 44
TOKYO C.M.O.	1.71	237.8	0 23A	-5	0 46	-3	
SENDAI	1.73	343.5	0 28A	0	0 52	2	
KUMAGAYA	1.79	255.9	0 29K	0	0 55	4	
ISINOMAKI	1.83	354.9	0 29A	0			
YAMAGATA	1.89	330.7	1 32A	62	2 4	71	
YOKOHAMA	1.92	232.9	0 28A	-3	0 52	-2	
MAEBASI	1.99	264.8	0 29A	-3	1 5	9	
TITIBU	2.07	253.2	0 30	-3	0 56	-2	
NERA	2.17	219.8	0 27A	-7	0 59	-1	
OIWAKE	2.41	264.3	0 43	5			
HUNATU	2.49	244.5	0 35	-4	1 14	6	
AJIRO	2.51	232.5	0 33	-6	1 6	-3	
OSIMA	2.53	224.3	0 32A	-7	1 2	-7	
MIZUSAWA	2.54	353.0	0 42	3	1 10	0	
MISIMA	2.56	235.4	0 35	-5			
KOHU	2.58	249.6	0 37A	-3	1 12	2	
SAKATA	2.66	330.1	0 46	5			
MATUSIRO	2.67	269.6	0 39A	-2	1 10	-3	
TAKADA	2.67	281.6	0 42K	1	1 21	8	
NAGANO	2.68	272.4	0 41A	0	1 17	4	
MATUMOTO	2.89	264.0	0 45	1	1 20	2	
AIKAWA	2.97	299.4	0 47A	1	1 36	16	
SHIZUOKA	3.02	238.2	0 43	-3	1 4	-18	
MIYAKO	3.06	6.4	0 45	-2			
MORIOKA	3.10	354.9	0 48A	1	1 31	7	
IIDA	3.18	251.2	0 47	-2	1 41	15	
AKITA	3.31	340.6	0 53A	3	1 38	9	
OMAESAKI	3.36	234.4	0 46A	-5	1 26	-4	
TAKAYAMA	3.48	263.8	0 52	-1	1 17	-16	
HAMAMATU	3.62	239.9	0 49	-6	1 40	3	
WAZIMA	3.78	283.2	0 56A	-1			
HATIDYOZIMA	3.92	206.4	0 53	-6	1 26	18	
HATINOHE	3.92	0.1	0 56	-3	1 49	5	
KANAZAWA	3.93	270.3	1 3	4			
NAGOYA	3.97	250.2	0 56A	-4	1 53	8	
GIHU	4.04	254.1	0 59A	-2	1 57	10	
AOMORI	4.25	352.3	1 4A	1	1 56	4	
HUKUJ	4.31	264.2	1 3	-1	2 6	12	
KAMEYAMA	4.47	248.4	1 4A	-3	2 10	12	
HIKONE	4.48	254.3	1 5	-2			
TSURUGA	4.52	259.4	1 5	-2	2 8	9	
KYOTO	4.97	253.1	1 9	-5	2 25	14	
NARA	5.02	249.2	1 16	2	2 20	8	
MAIZURU	5.10	259.0	1 15	0	2 28	14	
ABUYAMA	5.14	252.1	1 13A	-3			
HAKODATE	5.23	353.7	1 18	1	2 29	12	
OSAKA	5.26	250.0	0 58	-20	1 51	-27	
KOBE	5.51	251.5	1 21	0	2 37	13	
TOYOOKA	5.54	260.8	1 20K	-1	2 27	2	
MORI	5.54	352.6	1 23K	2	2 34	9	
URAKAWA	5.62	9.6	1 26	3	2 31	4	
SIOMISAKI	5.67	238.0	1 16	-7	2 38	10	
WAKAYAMA	5.70	247.3	0 50	-34	2 10	-19	
MURORAN	5.72	355.9	1 26	2	2 45	16	
HIROO	5.83	13.2	1 24	-2	2 34	2	
SUMOTO	5.85	249.2	1 19A	-7	2 42	9	
TOMAKOMAI	6.02	0.4	1 44	16	3 7	30	
TOTTORI	6.05	261.8	1 30	1	2 48	10	
HIMEJI	6.18	252.2	1 22	-8	2 23	-18	
TORISIMA	6.19	189.9	1 23	-8	2 23	-18	
TOKUSIMA	6.21	248.0	1 29	-2	2 49	7	
SUTTSU	6.27	351.2	1 34	2	2 56	13	
OBIHIRO	6.44	11.0	1 33	-1	2 53	6	
SAPPORO	6.46	358.9	1 33	-1			
OKAYAMA	6.48	255.0	1 31	-4	2 53	5	
TAKAMATU	6.51	251.7	1 32	-3	3 15	26	
SAIGO	6.62	268.9	1 35	-2	3 37	45	
YONAGO	6.73	262.4	1 35	-3	3 5	11	
KUSIRO	6.74	18.3	1 34	-4	2 52	-3	
MUROTO	6.90	243.1	1 35	-6	2 58	-1	
MATSUE	6.95	262.9	1 41	0	3 45	45	
ASAHIKAWA	7.20	4.9	1 41	-4	3 9	3	
KOTI	7.23	247.4	1 41A	-4	3 11	4	
NEMURO	7.40	23.6	1 43	-5	3 4	-7	

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961										PAGE 77	
MATUYAMA	7.67	251.5	1 50	-1	3 30	12					
ABASHIRI	7.70	15.0	1 50	-2	3 27	9					
HIROSIWA	7.75	255.9	1 49A	-3	3 25	5					
HAMADA	7.87	260.3	1 52A	-2	3 42	19					
UWAZIMA	8.10	248.1	1 52	-5	3 29	1					
OOITA	8.80	250.4	2 2A	-5	3 53	7					
WAKKANAI	8.81	0.7	2 5	-2							
SIMONSEKI	9.06	256.1	2 7K	-3	4 7	15					
ASOSAN	9.36	249.8	2 11	-4	4 16	17					
HUKUOKA	9.62	255.0	2 15	-3	4 3	-3					
KUMAMOTO	9.68	250.2	2 17	-2	4 38	31					
VLADIVOSTOK	9.85	314.3	2 23	2					4 21		
NAGASAKI	10.34	251.4	2 23A	-5	4 21	-2					
KAGOSIMA	10.39	244.3	2 24	-5	5 31	66					
Y.-SAKHLINSK	10.44	4.5	2 25	-4	4 18	-8					
YAKUSIMA	11.06	239.4	2 32	-6	5 0	19					
TOMIE	11.24	253.0	2 32	-8	5 22	37					
CHANGCHUN	14.32	305.2	3 20A	-1	6 6	7					
ZO-SE	17.76	257.9	3 59A	-6	7 15	-3					
NANKING	19.31	263.1	4 18	-5							
PEKING	20.17	287.5	4 28A	-4	8 13	2					
PETROPAVLOVK	20.33	30.8	4 33	-1	8 22	8			8 43	SS	
TAIPEI	20.65	241.6			8 47	26			13 9		
HWALIEN	21.26	239.2			8 48	16					
TAICHING	21.80	241.1			9 11	29					
TAWU	22.83	237.2			9 2	1					
TAINAN	22.86	239.5			9 6	4					
GUAM	23.23	172.0	5 1	-2	9 8	1					
YAKUTSK	26.49	347.5	5 34	0	10 9	7					
SIAN	26.61	274.7	5 33	-2							
HONG KONG	27.64	246.5	5 39A	-5	10 17	-4					
ULAN-BATOR	27.78	304.9	5 44	-2							
CANTON	27.79	248.9	5 42A	-4	10 23	0			6 36	PP	
MANILA	28.46	225.2	5 49	-3							
LANCHOW	30.25	280.4	6 5A	-3							
IRKUTSK	30.43	312.8	6 8A	-1	11 10	5			7 15	PP	
CHENG TU	31.65	270.3	6 16A	-4	11 26	2			7 26	PP	
KUNMING	34.99	262.0	6 45A	-4	12 18	2			8 5	PP	
TIKSI	35.71	353.2	6 54	-1	12 45	18			8 10	PP	
TOCKLAI	40.65	269.7	7 42	6							
RABAUL	41.79	164.0	7 48	2							
LHASA	42.45	275.7	7 52	1	14 11	2					
SHILLONG	43.50	269.9	7 50K	-9	14 17	-7					
CHITTAGONG	45.07	265.9	8 10	-2	14 47	0			8 36	10 2	PP
SEMI PALATNSK	45.28	307.8	8 12	-2	14 56	6			9 33		
PORT MORESBY	46.06	172.3	8 15	-5	14 55	-6					
CHATRA	46.72	274.1	8 24	-1	15 13	3			10 12	PP	
CALCUTTA	47.75	268.2	8 36	3	15 46	21					
BOKARO	49.19	271.3	8 41	-3	16 7	22			15 42		
COLLEGE	49.41	32.0	8 46	0	15 54	6			9 19	9 50	PCP
PORT BLAIR	50.32	253.3	8 50	-3	15 58	-3			10 32	PP	
FRUNSE	50.63	298.9	8 55	0	16 12	7					
DEHRA DUN	52.49	282.7	9 11	2	16 36	6			11 12	PP	
KHEYS	53.08	348.2	9 14	0	16 45	7			11 12	PP	
DJAKARTA	53.54	224.7	9 11A	-6	16 41	-4					
LEMBANG	53.63	223.5	9 13A	-5	16 41	-5					
BANDUNG	53.67	223.4	9 15A	-3	16 43	-3					
VIZIANAGRAM	53.97	266.5	9 41	21							
KIPAPA	54.18	88.6	9 19	-3							
LAHORE	54.87	285.8	9 25	-2	17 17	14			17 29	PS	
TASHKENT	54.88	298.7	9 27	0					12 51	PPP	
SVERDLOVSK	55.53	318.8	9 31	-1	17 18	7			21 13	SS	
WARSAK DAM	55.99	289.7	9 33	-2							
DUZHANBE	56.25	295.8	9 37	0					17 45	PS	
HAWAII V. OB.	57.41	89.1	9 50	5							
HYDERABAD	58.36	268.8	9 49A	-3	17 49	0			11 55	PP	
MADRAS	59.42	263.5	9 57A	-2	18 11	9			12 15	PP	
QUETTA	61.16	287.7	10 10A	-1	18 39	14			10 44	12 28	PP
POONA	61.47	272.6	10 11A	-2	18 49	20			22 58		
NORD	61.48	356.4	10 12A	-1	18 33	4			18 55		
BOMBAY	62.11	273.6	10 15	-2	18 40	3			18 57	PS	
RESOLUTE	63.00	14.4	10 22A	-1	18 52	4					
APATITY	63.12	335.8	10 23	-1	18 55	6			19 13	PS	
NOUMEA	63.14	154.1	10 20	-4					11 6		
COLOMBO	63.25	258.1	10 20	-5	19 3	12					
KARACHI	63.67	282.4	10 25A	-3							
BRISBANE	64.53	168.9	10 35	2	19 7	0					
SODANKYLA	65.40	337.3	10 38	-1	19 24	6			13 6	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 78

VICTORIA	66.65	46.2	10 48	1				
KIRUNA	66.95	339.3	10 48A	-1	19 42	6	13 24	PP
MOSCOW	67.65	323.6	10 53	0	19 51	6	13 21	PP
PENTICTON	68.41	44.1	10 58	0				
PULKOVO	68.60	329.6	10 58	-1	20 1	5	13 36	PP
UMEA	69.71	336.2	11 5A	-1				
TEHERAN	69.90	300.0	11 7A	0	19 24	-47		
NURMIJARVI	70.37	332.1	11 9	-1	20 21	4	20 39	PS
HELSINKI	70.47	331.7	11 11	1	20 24	6		
RIVERVIEW	70.65	171.5	11 18	7	20 21	1	21 18	*SS
TIFLIS	71.15	308.2	11 15	0			13 52	PP
ADELAIDE	71.26	182.4	11 15	0	20 23	-4		
SHASTA	71.29	53.0	11 16	1				
GORIS	71.35	305.6	11 16	0	20 39	11	13 58	PP
CANBERRA	71.90	173.6	11 15	-4	20 31	-4	21 33	*SS
MINERAL	71.98	52.9	11 19A	0				
HUNGRY HORSE	72.04	42.8	11 20	0	20 40	4		
MUNDARING	72.22	202.4	11 26	5				
SHIRAZ	72.28	294.0	11 20K	-1	20 44	5	14 5	PP
PERTH	72.32	202.8	11 24	3	20 48	9	28 50	
SKAL STUGAN	72.35	338.7	11 20A	-2			13 56	PP
SCORESBY SD.	72.55	354.2	11 24K	1	20 50	8	21 13	PS
BERKELEY	72.90	55.4	11 26	1	20 43	-3		
CONCORD	72.97	55.2	11 25	0				
UPPSALA	73.38	334.1	11 27A	-1	20 55	4	14 14	PP
RENO	73.58	52.8	11 30K	1				
LICK	73.61	55.6	11 30K	1				
MELBOURNE	74.13	177.2	11 32	0	21 1	1		
BUTTE	74.21	44.1	11 32	-1				
FRESNO	75.14	55.2	11 39	1				
BOZEMAN	75.27	43.8	11 39	0	21 15	3		
SIMFEROPOL	75.69	315.6	11 40A	-1	21 21	4	14 29	PP
BERGEN	76.88	339.3	11 54	6				
GOTEBORG	76.95	334.8	11 47	-1			12 1	
WARSAW	77.47	327.1	11 52	1	21 41	4	14 57	PP
PASADENA	77.74	56.6	11 53	0	21 42	3	26 55	SS
LWOW	77.78	324.0	11 53	0	21 46	6	14 51	PP
JASI	77.79	320.4	11 54	1	22 4	24		
SALT LAKE C.	77.80	48.1	11 54	1	21 46	6		
COPENHAGEN	78.35	333.3	11 55A	-1	21 51	5	14 55	PP
SIDA	78.64	350.9	12 1A	3				
FLAMING GRGE	79.16	46.8	11 0	-60			12 51	
FORT NELSON	79.34	175.7	11 59	-2				
KRAKOW	79.51	326.1	12 3	1	22 13	15	15 3	PP
CHORZOW	79.75	326.7	12 3	-1	22 22	21	15 14	PP
NIEDZIKA	79.78	325.4					15 3	PP
KASTAMONU	79.85	314.4	11 54A	-10				
RACIBORZ	80.26	326.9	12 6	0	21 59	-7	12 55	*SPCP
GLEN CANYON	80.31	51.0	12 5	-2			12 39	
BUCHAREST	80.41	319.0	12 5	-2	22 30	22		
RAPID CITY	80.56	41.4	12 9	1				
ISTANBUL KA.	81.02	315.0	12 10	0	22 21	7		
ISTANBUL UN.	81.08	315.0	12 9	-2			15 13	PP
LARAMIE	81.11	44.6	12 10	-1				
KSARA	81.47	305.8	12 14	1	22 29	10	15 22	PP
COLLMBERG	81.52	330.2	12 13A	0	22 33	14	12 47	15 20
ABERDEEN	81.66	340.9			22 47	26		22 25
BUDAPEST	81.78	324.7	12 15	1	22 27	5	15 21	PP
HURBANOVO	81.88	325.4	12 11	-4	22 27	4	15 23	PP
PRAGUE	81.88	328.7	12 16	1	22 32	9	15 23	PP
PRUHONICE	81.90	328.6	12 15	0	22 29	6	15 25	PP
TIMI SOARA	81.98	322.4	12 25	10	22 49	25		
BRATI SLAVA	82.15	326.1	12 15K	-1	22 33	7	15 15	PP
JENA	82.37	330.7	12 17	0	22 22	-6	15 23	PP
VIENNA-H.	82.42	326.5	12 18	0	22 32	4	15 36	PP
WITTEVEEN	82.68	334.3	12 22	3				
CHEB	82.72	329.8	12 17	-2	22 36	5		
KASPERSKE H.	82.96	328.5	12 15	-5			15 33	PP
BELGRADE	83.02	322.1	12 22K	1	22 43	9	15 36	PP
MUNSTER	83.04	333.3	12 23	2				
JERUSALEM	83.18	304.6	12 21	0			15 34	PP
DURHAM	83.63	339.5	12 25K	1				
TUCSON	83.76	54.3	12 25	1			12 54	
DE BILT	83.79	334.6	12 29	5	22 55	13	15 43	PP
BENSBERG	84.02	333.0	12 25	-1	23 3	19	12 37	15 29
ZAGREB	84.42	325.1	12 30K	2				
HEIDELBERG	84.71	331.2	12 29	0				
LJUBLJANA	84.91	326.1	12 31	1			13 9	16 1
STUTTGART	84.99	330.6	12 30	-1	22 56	2	15 48	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 79

TUBINGEN	85.27	330.5	12 33	1						
ROXBURGH	85.47	160.8			22 51	-8			29 13	SS
TRIESTE	85.56	326.2	12 33	0	22 56	-3	13 13		16 7	PP
EBINGEN	85.59	330.4	12 34	1					13 8	
RAVENSBURG	85.65	329.8	12 34	0						
STRASBOURG	85.74	331.2	12 35	1	22 56	-5			15 57	PP
KEW	86.13	337.2	12 36	0	23 11	6			15 42	PP
ATHENS	86.15	315.5	12 45	9						
CHUR	86.43	329.3	12 37	-1	23 31	23				
PADOVA	86.58	327.1	12 24	-14	22 41	-28			15 44	PP
BASLE	86.67	330.7	12 39A	0	23 17	7				
HELWAN	86.97	305.3	12 40	0					16 15	PP
NEUCHATEL	87.35	330.8	12 55	13					23 27	
PARIS	87.49	334.3	12 51	8						
BESANCON	87.52	331.5	12 43	0						
BOLOGNA	87.53	326.8	12 41	-2					23 43	
PAVIA	87.92	328.5	12 45K	0					16 5	PP
PRATO	88.12	326.6	12 43	-3	23 48	24				
FLORENCE X.	88.13	326.4	12 46	0	23 49	25				
LAWRENCE	88.39	40.7	12 48	1						
LUBBOCK	88.52	48.3	12 49	1						
GARCHY	88.58	333.1	12 48	0	23 40	12			16 20	PP
JERSEY	88.69	337.1	12 46	-2	23 37	8				
ROME	89.05	324.6	12 51	1	23 49	17			16 23	PP
ISOLA	89.62	329.1	12 52	-1					16 28	PP
WICHITA MTS.	89.64	45.6	12 53	0	23 29	-9			16 55	
MONACO	89.83	328.6	12 54	0						
CLERMONT-FD.	89.84	332.3	12 56	2	23 46	6				
REGGIO CALA.	90.41	320.3							16 31	PP
FAYETTEVILLE	91.09	42.0	12 59K	-1	23 55	4				
SHAWINIGAN	91.67	22.9	13 4	2						
BREBEUF	92.33	23.9	13 12	7						
BAGNERES	93.25	332.7	13 13	3						
MORGANTOWN	95.07	30.9	13 19K	1						
PALISADES	96.20	26.2			24 38	44			26 4	PS
SETIF	96.90	325.6	14 40	74						
ALGIERS UNI.	97.46	327.5							17 30	PP
TOLEDO	97.56	334.0	13 29	0	24 33	32	13 43		17 26	PP
ALICANTE	97.57	330.8	13 20	-9	24 28	27			19 31	PPP
SERRA PILAR	97.94	337.7	13 32A	1					17 28	PP
GRANADA	99.79	332.4	14 54A	75					17 43	PP
LISBON	100.31	337.1							17 53	PP
TANANARIVE	104.13	256.9							18 23	PP
BENI ABBES	105.40	327.9							17 58	PP
TAMANRASSET	107.80	317.7	14 18	777	24 56	7			18 31	PP
LWIRO	109.50	282.1							18 56	PP
CAPE HALLETT	110.46	171.0							28 31	PS
BANGUI	113.01	294.6	18 34	3					20 0	*PPP
SCOTT BASE	115.22	174.3	18 28	-7						
BROKEN HILL	116.90	271.7	18 38	0						
LCO. MARQUES	119.57	258.3							20 11	PP
BULAWAYO	119.84	266.2	18 44	0						
MBOUR	125.38	334.2			25 55	2			20 45	PP
LUANDA	125.70	287.2							20 50	PP
CARACAS	126.04	35.4	19 7	11					21 7	PP
SOUTH POLE	126.42	180.0	18 56	-1						
KIMBERLEY	127.02	259.1	18 58	0						
WINDHOEK	130.32	270.2	19 7	3						
HERMANUS	133.59	254.7							22 41	PKS
HUANCAYO	138.85	63.1	19 18	-2						
AREQUIPA	144.55	64.3	19 28	-2						
LA PAZ	146.97	60.6	19 39	5					42 4	SS
ANTOFAGASTA	149.68	73.9	19 42	3						

JANUARY 17 6.H 41.M 39.S EPICENTRE 36.60 141.59 DEPTH= 68.KM

A=-0.63051 B= 0.49999 C= 0.59369 D= 0.6213 E= 0.7835
G=-0.4652 H= 0.3689 K=-0.8047 HT= -0.4

DEPTH OF FOCUS= 0.006R

SE= 4.53

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

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 80					
ONAHAMA	0.65	302.3	0 10	-5	0 24	-3	
MI TO	0.93	256.3	0 12K	-6	0 26	-6	
TYOSI	1.06	214.2	0 4A	-16	0 16	-19	
KAKI OKA	1.19	252.2	0 14A	-7	0 22	-16	
SHIRAKAWA	1.21	295.6	0 18	-4	0 39	1	
TUKUBASAN	1.26	252.7	0 14	-8			
UTUNOMIYA	1.38	268.3	0 17	-7	0 34	-8	
HUKUSIMA	1.45	322.4	0 23A	-2	0 48	5	
HONGO	1.72	239.3	0 22	-6			0 47
TOKYO C.M.O.	1.75	238.7	0 23K	-6	0 48	-2	
SENDAI	1.75	342.0	0 28K	-1	0 54	4	
I SINOMAKI	1.83	353.5	0 28K	-2	0 55	3	
KUMAGAYA	1.84	256.4	0 26	-4	0 48	-4	
YAMAGATA	1.91	329.5	0 31	0			0 39
YOKOHAMA	1.96	233.8	0 28	-3	0 48	-7	
MAEBASI	2.04	265.0	0 28A	-5	0 54	-3	
TITIBU	2.12	253.6	0 21	-13			
HERA	2.21	220.9	0 31	-4			
NIIGATA	2.41	303.7	0 36	-2	1 16	9	
OI WAKE	2.46	264.5	0 36	-3			
HUNATU	2.53	245.0	0 39	-1	1 11	1	
AJIRO	2.55	233.2	0 37	-3	1 7	-3	
MI ZUSAWA	2.55	352.0	0 41	1	1 11	1	
OSIMA	2.56	225.1	0 33	-7	1 0	-10	
KOHU	2.62	250.1	0 35	-6	1 9	-3	
SAKATA	2.68	329.3	0 55	13			
MATUJIRO	2.72	269.6	0 38A	-4	1 13	-1	
TAKADA	2.72	281.5	0 42	0	1 16	2	
NAGANO	2.72	272.4	0 39	-3	1 11	-3	
MATUMOTO	2.94	264.2	0 42	-3	1 16	-4	
AI KAWA	3.01	299.0	0 48	2			
MI YAKO	3.06	5.6	0 46	-1			
SHIZUOKA	3.06	238.7	0 47	0	1 29	6	
MORI OKA	3.11	354.1	0 48	0			
IIDA	3.23	251.5	0 48	-1	1 31	4	
AKITA	3.32	339.8	0 57	6			
OMAESAKI	3.39	234.9	0 53	1			
TAKAYAMA	3.53	263.9	0 52	-1			
HAMAMATU	3.67	240.3	0 57	2	1 52	14	
HATIDYOZIMA	3.80	203.4	0 50	-7	1 23	-18	
HATINOHE	3.92	359.4	1 1	2			
NAGOYA	4.01	250.5	1 0	0	1 47	1	
GIHU	4.09	254.3	1 1	0			
AOMORI	4.26	351.7	1 13	9	2 10	17	
HUKUI	4.36	264.3					1 25
KAMEYAMA	4.51	248.7	1 20	13	2 20	21	
HIKONE	4.53	254.5	1 19	12			
KYOTO	5.01	253.3	1 10	-4	2 18	7	
NARA	5.07	249.4	1 14	-1	2 17	4	
OWASE	5.08	241.7	1 26	11	2 41	28	
ABUYAMA	5.19	252.3	1 15A	-2			
HAKODATE	5.24	353.2	1 23	6	2 31	14	
TOYOOKA	5.58	260.9					2 51
URAKAWA	5.61	9.1	1 13	-9			
SIOMISAKI	5.72	238.3					2 58
HIROO	5.82	12.8	1 21	-4	2 31	-1	
SUMOTO	5.90	249.4	1 37	11	2 59	26	
TOMAKOMAI	6.02	360.0					1 55
TOTTORI	6.10	261.9					1 48
SUTTSU	6.28	350.8					2 21
OBHIRO	6.43	10.6	1 40	6	3 1	15	
SAPPORO	6.46	358.5	1 44	10			
KUSIRO	6.73	17.9	1 29	-9	2 48	-6	
ASAHIGAWA	7.19	4.5	1 54	10			
NEMURO	7.38	23.3			2 59	-11	
ABASHIRI	7.69	14.7			3 5	-13	
MATUYAMA	7.72	251.6	1 58	7	3 26	8	
SHILLONG	43.55	269.9	7 54	-4			
CHATRA	46.77	274.1	8 22	-2			
COLLEGE	49.38	32.0	8 44	0			9 20 9 52 PCP
WARSAK DAM	56.03	289.7	9 32	-2			
QUETTA	61.21	287.7	10 8	-2			
RESOLUTE	62.99	14.4	10 21K	0			
SODANKYLA	65.41	337.3	10 37	0			
KIRUNA	66.97	339.3	10 47	0			
PENTICTON	68.38	44.1	10 55	-1			
UMEA	69.73	336.2	11 4	0			
NURMI JARVI	70.39	332.1	11 8	0			
SHASTA	71.25	53.0	11 14K	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 81

CANBERRA	71.89	173.6	11 13A	-4	
MINERAL	71.95	53.0	11 16K	-1	
HUNGRY HORSE	72.00	42.8	11 18	0	
SKALSTUGAN	72.37	338.7	11 18	-2	
UPPSALA	73.40	334.1	11 25	-1	
RENO	73.54	52.9	11 28A	1	
LICK	73.57	55.6	11 27A	0	
GOTEBORG	76.97	334.9	11 45	-1	
PASADENA	77.70	56.6	11 50	0	
SALT LAKE C.	77.76	48.2	11 51	0	
GLEN CANYON	80.27	51.1	11 57	-7	
RAPID CITY	80.53	41.4	11 10	-56	
LARAMIE	81.07	44.7	12 8	-1	
COLLMBERG	81.55	330.3	12 11	0	12 58
TUCSON	83.73	54.4	12 23	1	
TUCSON TELE.	83.74	54.2	12 23	1	
STUTTGART	85.02	330.6	12 29	0	
WICHITA MTS.	89.60	45.6	12 51	0	
FAYETTEVILLE	91.05	42.1	12 57K	-1	
TAMANRASSET	107.83	317.7			18 35 PP
BYRD STATION	127.32	167.5	18 54	-3	
HUANCAYO	138.81	63.2	19 13	-5	
LA PAZ	146.93	60.6	19 37	5	

JANUARY 17 23.H 5.M 28.S EPICENTRE -21.36 169.26 DEPTH= 20.KM

A=-0.91584 B= 0.17369 C=-0.36203 D= 0.1863 E= 0.9825
G= 0.3557 H=-0.0675 K=-0.9322 HT= 4.3

SE= 3.37

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
NOLMEA	2.78	249.7	0	40	-5	1	11	-7				
BRISBANE	16.17	245.0	3	45	-3	6	58	11				
KARAPIRO	17.39	163.2	4	4	0							
TONGARIRO	18.58	164.6	4	21	3							
CHATEAU	18.58	164.5	4	20	2							
AFIAMALU	19.51	70.8	4	29	0	8	9	6			5	8 PP
RIVERVIEW	20.26	228.4	4	37K	0	8	22	3			5	43
WELLINGTON	20.40	168.0	4	51	12	8	35	13			5	32 PP
CANBERRA	22.56	227.6	5	0	-1				5	11	9	17 *SS
RABAUL	23.80	313.4	5	15	2							
ROXBURGH	24.06	179.9				9	42	13			10	2
PORT MORESBY	24.37	295.8	5	22	4	9	49	15				
MELBOURNE	26.64	226.6	5	44	4							
FORT NELSON	28.25	215.4	5	52	-2	10	49	11				
MUNDARING	48.16	245.7	8	41	0							
PERTH	48.49	245.8	8	53	9						19	22 SS
CAPE HALLETT	50.98	179.6	8	59	-4	16	23	5			10	58 PP
SCOTT BASE	56.56	180.6	9	42K	-2	17	55	22				
LEMBANG	61.16	274.0	10	25K	9						12	13
MATUSIRO	64.62	332.6	10	39	0	19	13	-3			20	38 SCS
BYRD STATION	65.87	169.6	10	43	-4							
SOUTH POLE	68.78	180.0	11	3	-2							
HONG KONG	69.06	305.6	11	26	19	20	18	8				
ZO-SE	69.63	317.1				20	19	3				
CANTON	70.14	305.8				20	27	5				
NANKING	71.80	316.4	11	26	2	20	49	7				
CHANGCHUN	76.36	328.9				22	29	56				
PEKING	78.59	321.2	12	5K	3	22	3	6				
KUNMING	79.41	302.2	12	10	3	22	12	7				
SIAN	79.67	313.0	12	10	2	22	15	7				
CHENG TU	81.22	307.6	11	51	-26	21	39	-45				
LANCHOW	84.15	312.2	12	33	1							
CHI TTAGONG	87.09	295.2	12	44	-2	23	30	7				
BERKELEY	87.17	47.5	12	43	-3							
LICK	87.34	48.2	12	48K	1							
PASADENA	88.32	52.3	12	50	-2						23	56
FRESNO	88.36	49.4	13	2	10							
SHILLONG	88.37	298.1	12	51	-1	23	17	-18				
SHASTA	88.49	45.0	12	53	0							
MINERAL	88.84	45.6	12	54	0							
RENO	89.66	47.0	12	59	1							
LHASA	90.71	301.5	13	7	4							
COLLEGE	92.05	16.9	13	7	-2							

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961					PAGE 82				
EUREKA	92.28	48.4	13 10	0					
CHATRA	92.75	297.6	13 12	-1					
TUCSON TELE.	93.21	56.6	13 15	0					
FLAMING GRGE	97.47	49.1	13 33	-1					
BOMBAY	102.45	285.5					15	3	
WICHITA MTS.	103.54	57.9	14 2	1					
HUANCAYO	108.43	111.3					16	44	
LA PAZ	112.32	119.1	18 28	-7	25 11	-6			
BOGOTA	116.49	95.6					29	46	PS
SHIRAZ	122.91	292.2	18 55	-1	25 59	5	29	6	
PALISADES	123.71	54.3					20	50	PP
LWIRO	134.77	243.6	19 24	6					
KSARA	137.19	297.1	19 22	-1			22	13	PP
HELWAN	141.30	291.4	19 47	17			22	57	PP
PRUHONICE	145.15	331.1	19 36	-1		19 56			
BRATISLAVA	145.16	326.8	19 24	-13					
BELGRADE	145.27	319.7	19 38K	1			30	30	SKKS
VIENNA-H.	145.48	327.5	19 39	2					
JENA	145.69	334.8	19 38	0		19 56	22	0	
ATHENS	146.02	306.9	19 31	-7					
KASPERSKE H.	146.20	330.9	19 40	2					
MUNSTER	146.28	339.5	19 47	8					
BANGUI	146.88	243.5	19 45	5					
DE BILT	146.92	341.9	19 13	-27					
BENSBURG	147.29	338.9	19 47	7			20	18	
LJUBLJANA	147.88	326.0	19 44	3			20	27	
HEIDELBERG	148.03	335.7	19 47	6					
STUTTGART	148.31	334.5	19 45	3			20 14	21 10	
BASLE	149.99	334.8	20 0A	15					
FLORENCE X.	151.13	325.8	20 40	54					
ROME	151.69	321.6	20 35	48	26 47	-4	43	12	SS
MESSINA	151.81	312.4	20 13	26			23	19	
SETIF	159.58	319.9	20 37	39					
ALGIERS UNI.	160.51	325.0	20 3	5			20	41	PKP2
TAMANRASSET	164.86	278.4	20 3	0			25	0	PP
MBOUR	170.87	138.5	20 50	43					

JANUARY 18 16.H 48.M 35.S EPICENTRE 36.25 141.43 DEPTH= 84.KM

A=-0.63200 B= 0.50391 C= 0.58878 D= 0.6234 E= 0.7819
G=-0.4604 H= 0.3671 K=-0.8083 HT= -0.3

DEPTH OF FOCUS= 0.008R

SE= 4.60

	DELTA DEG.	AZ. DEG.	P			S			*PP		SUPP.	
			M	S	O-C	M	S	S	M	S	M	S
TYOSI	0.71	221.8	0	9A	-9	0	21	-10				
MI TO	0.79	279.4	0	12A	-7	0	28	-4				
ONAHAMA	0.82	328.4	0	12A	-7	0	29	-4				
KAKIOKA	1.01	269.0	0	15A	-6	0	26	-10				
TUKUBASAN	1.08	268.6	0	15	-6							
UTUNOMIYA	1.30	283.6	0	20A	-4	0	40	-2				
SHIRAKAWA	1.30	311.9	0	19	-5	0	41	-1				
HONGO	1.45	248.6	0	25	-1	0	47	2				
TOKYO C.M.O.	1.48	247.7	0	23	-4	0	45	-1				
KUMAGAYA	1.66	267.0	0	25	-4	0	58	8				
YOKOHAMA	1.67	240.9	0	25	-4	0	47	-3				
HUKUSIMA	1.68	333.0	0	24A	-5							
MERA	1.87	224.9	0	31	0							
MAEBASI	1.91	275.1	0	28A	-4	0	56	0				
TITIBU	1.93	262.5	0	28	-4	0	55	-1				
SENDAI	2.06	348.2	0	27A	-7	0	59	0				
YAMAGATA	2.17	336.9	0	30	-6							
ISINOMAKI	2.17	357.6	0	28A	-8	1	3	1				
OSIMA	2.24	229.1	0	29	-7	0	59	-4				
AJIRO	2.25	238.4	0	38	1	1	2	-2				
HUNATU	2.29	251.6	0	39	2	1	20	15				
MISIMA	2.32	241.5	0	33	-5							
OI WAKE	2.33	272.7	0	34	-4							
KOHU	2.40	256.8	0	35	-4	1	14	7				
NIIGATA	2.53	311.8	0	47	6	1	24	13				
MATUSIRO	2.62	277.2	0	38A	-4	1	14	1				
NAGANO	2.64	280.0	0	41K	-1	1	32	19				
SHIZUOKA	2.78	243.5	0	45	1	1	22	5				
MATUMOTO	2.80	270.9	0	41	-3	1	25	8				

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 83

MI ZUSAWA	2.88	355.3	0 42	-3	1 10	-9	
SAKATA	2.93	334.7	0 50	4			
IIDA	3.02	257.0	0 50	3	1 51	28	
AIKAWA	3.09	305.7	0 52	4			
OMAESAKI	3.10	238.8	0 55	7			
HAMAMATU	3.40	244.3	1 15	22			
MIYAKO	3.42	7.0	0 44	-9	1 21	-12	
TOYAMA	3.44	278.7	0 57	4			
MORIOKA	3.45	356.6	0 51	-2	1 38	5	
AKITA	3.62	343.5	0 55	-1	1 43	6	
NAGOYA	3.79	254.7	1 3	5	1 56	14	
GIHU	3.88	258.7	1 7	8	2 8	24	
HUKUI	4.22	268.8	1 5	1			
HATINOHE	4.27	1.0	1 6	1			
KAMEYAMA	4.28	252.4	1 23	18	2 22	28	
HIKONE	4.33	258.4	0 57	-8	2 14	19	
TSURUGA	4.39	263.7	1 12	6			
AOMORI	4.59	353.8	1 11	2	1 56	-6	
KYOTO	4.81	256.8	1 29	17	2 33	26	
OWASE	4.81	244.6	1 34	22			
NARA	4.84	252.7	1 11	-1			
ABUYAMA	4.98	255.6	1 8	-6			
SIOMISAKI	5.43	240.6			2 50	29	
HAKODATE	5.57	354.8	1 26	3			2 45
MORI	5.88	353.7	1 32	5	2 47	14	
URAKAWA	5.98	9.7	1 24	-4			
TOKUSIMA	6.02	250.8	1 41	12			
MURORAN	6.07	356.8	1 33	4			
HIROO	6.19	13.1			2 25	-16	
TOMAKOMAI	6.37	1.0					1 54
OBIHIRO	6.80	11.0	1 47	8			
SAPPORO	6.81	359.5			2 42	-13	
KUSIRO	7.10	17.9	1 30	-14	2 48	-15	
NEMURO	7.75	23.0			3 3	-16	
TIKSI	36.05	353.3					8 52
SHILLONG	43.43	270.2	7 49	-8			
CHITTAGONG	44.97	266.2	8 4	-5			
SEMIPALATNSK	45.43	308.1	8 11	-2			
COLLEGE	49.74	31.9	8 43	-3			
ANDIJAN	52.97	297.3	9 12	1			
LEMBANG	53.32	223.6	9 14	1			
NAMANGAN	53.39	297.8	9 14	0			
LAHORE	54.90	286.0	9 22	-3			
SVERDLOVSK	55.75	319.0	9 29	-2			
QUETTA	61.20	287.8	10 8	-1			
RESOLUTE	63.36	14.3	10 19	-4			
SODANKYLA	65.69	337.3	10 28	-10			
THULE	66.03	7.4	10 36	-4			
UMEA	70.00	336.2	10 59	-6			
NURMIJARVI	70.64	332.1	11 7	-2			
HUNGRY HORSE	72.34	42.7	11 17	-2			
SHIRAZ	72.35	294.0	11 18K	-1			11 44
SCORESBY SD.	72.89	354.2	11 21	-1			
EUREKA	76.32	51.0	11 40	-2			
COLLMBERG	81.79	330.2	12 11	0			12 44
STUTTGART	85.26	330.5	12 28	-1			
FAYETTEVILLE	91.40	42.0	12 56K	-2			
TAMANRASSET	108.01	317.5					18 39 PP
SCOTT BASE	114.87	174.3			24 55	-16	19 36 PP

JANUARY 19 4.H 21.M 15.S EPICENTRE -14.40 166.88 DEPTH= 0.KM

A=-0.94370 B= 0.21989 C=-0.24713 D= 0.2269 E= 0.9739
G= 0.2407 H=-0.0561 K=-0.9690 HT= 5.9

SE= 3.51

	DELTA DEG.	AZ. DEG.	P		O-C S	S		*PP		SUPP.	
			M	S		M	S	M	S	M	S
PORT VILA	3.59	157.6	1	0	2	1	41	-1			
NOUMEA	7.87	182.9	1	55	-4	3	18	-12			
HONIARA	8.39	305.3	2	2	-4	4	25	42			
BRISBANE	18.43	223.3	4	19	0	7	11	-31			
PORT MORESBY	19.93	282.2	4	32	-5	8	18	2			
AFIAMALU	20.70	91.3	4	43	-2	8	54	22			
AUCKLAND	23.47	163.9				9	27	4			

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961										PAGE 84
RIVERVIEW	24.03	213.7	5	25K	7	9	26	-7		9 39 *SS
KARAPIRO	24.66	163.4	5	23	-1					12 42 SCP
TONGARIRO	25.85	164.5	5	35	0					
CANBERRA	26.32	214.5				10	7	-4		
WELLINGTON	27.65	167.1								11 29
MELBOURNE	30.37	215.8				11	36	20		
ROXBURGH	31.05	176.7				11	30	3		
ADELAIDE	32.59	226.0	6	37	1					
MUNDARING	49.30	240.1	8	50	-3					
PERTH	49.61	240.2	9	4	9	16	16	12		10 58 PP
MATUSIRO	57.44	332.7	9	51	-2	17	49	-1		
CAPE HALLETT	57.92	178.8	9	41	-16	17	57	1		
LEMBANG	58.60	270.7								20 0
ZO-SE	63.03	316.5	10	30	-1	19	1	0		
HONG KONG	63.23	304.4	10	37	4	19	4	0		
SCOTT BASE	63.46	180.0	10	34	0					20 32 SCS
CANTON	64.29	304.7	10	43	3	19	20	3		
NANKING	65.24	315.9	10	46	0	19	29	0		
UGLEGORSK	66.91	342.5	11	0	3	19	54	5		
PETROPAVLOVK	67.52	354.6	11	1	1	19	55	-1		
CHANGCHUN	69.26	329.1	11	15	4	20	17	0		
PEKING	71.77	321.3	11	26K	0	20	47	1		
BYRD STATION	73.08	169.9	11	29	-5					
KUNMING	73.81	301.8	11	39K	1	21	11	1		
CHENG TU	75.21	307.5	1	44	-2	21	24	-1		
SOUTH POLE	75.69	180.0	11	47	-2					
LANCHOW	77.82	312.3	12	1	0					
PORT BLAIR	77.91	285.5								22 3
YAKUTSK	81.59	343.3	12	20	-1					
ULAN-BATOR	81.77	323.9	12	20	-2					
SHILLONG	83.09	298.5	12	21	-8					
LICK	84.49	49.4	12	35K	-1					
LHASA	85.14	302.1	12	41	1					
SHASTA	85.26	46.1	12	41	1					
IRKUTSK	85.45	326.8	12	36	-5					
MINERAL	85.68	46.6	12	52	10					
PASADENA	85.95	53.4	12	42	-2	23	24	7		24 39
COLLEGE	86.12	17.7	12	43	-1					13 26
EUREKA	89.41	49.0	13	1	1					
TIKSI	89.56	348.7	14	10	69	24	2	11		16 35 PP
TUCSON	91.20	57.1	13	9	0					
TUCSON TELE.	91.32	57.1	13	10	1					
DEHRA DUN	96.15	299.6								23 5
RESOLUTE	105.96	15.9	18	25	777					
OTTAWA	119.31	45.8	18	51	-1					
SODANKYLA	121.08	343.2	19	3	8					
PALISADES	121.29	50.6								30 15 PS
UMEA	125.49	342.6	19	4	0					
NURMIJARVI	126.42	337.9	19	5	0					
SKALSTUGAN	127.78	346.0	19	7	-1					
SAN JUAN	129.14	77.9	19	10	-1					
UPPSALA	129.32	340.5	19	11	0					22 45 PKS
KSARA	131.77	302.6	19	18	2					21 43 PP
KASTAMONU	133.50	314.0	19	57	38					
LWIRO	135.30	251.6	19	30	8					
RACIBORZ	136.25	331.0								23 11
HELWAN	136.33	298.3	19	29	5					23 0 PKS
COLLMBERG	137.61	335.8	19	27	1					23 4 PKS
PRUHONICE	137.97	333.4	19	36	9					23 17
KASPERSKE H.	139.02	333.3	19	31	2					
LJUBLJANA	140.82	329.2	19	37	5					23 15
STUTTGART	141.08	336.3	19	35	2					23 13 SKP
PARIS	143.36	342.7	19	17	-20					
FOLINIERE	144.18	345.7	19	39	1					
GARCHY	144.55	340.9	19	39	0					
ISOLA	145.70	333.9	19	43K	2				19 50	
MONACO	145.89	333.0	19	37	-4					
BANGUI	147.19	255.5	19	44	1					20 2 SPKP
SETIF	152.69	326.0	19	53	1					
ALGIERS UNI.	153.46	330.0	19	49	-4					
TAMANRASSET	160.48	298.0	20	3	1					24 33 PP
MBOUR	176.27	89.8	20	15	3					25 40 PP

JANUARY 19 17.H 22.M 25.S EPICENTRE 49.92 156.17 DEPTH= 76.KM

A=-0.59136 B= 0.26113 C= 0.76296 D= 0.4039 E= 0.9148

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 85

G=-0.6979 H= 0.3082 K=-0.6464 HT= -5.4

DEPTH OF FOCUS= 0.007R

SE= 1.96

	DELTA DEG.	AZ. DEG.	P		O-C S	S		O-C S	*PP		SUPP.	
			M	S		M	S		M	S	M	S
SEVERO-KUR.	0.76	356.4	0	16	-1	0	28	-2				
PETROPAVLOVK	3.47	25.5	0	52	-1	1	33	0			1	11 *SP
KLYUCHI	7.01	21.9	1	42	0	3	6	5			2	4 *SP
KURILSK	7.31	233.3	1	44K	-2	3	8	0				
OKHA	8.99	298.9	2	11	2	3	58	8				
UGLEGORSK	9.22	270.2	2	5	-7	4	5	10				
Y.-SAKHLINSK	9.40	257.2	2	16	1	4	12	13				
MAGADAN	10.14	344.3	2	26	1	4	28	11				
MIZUSAWA	15.18	230.4				6	20	3			6	3
TUKUBASAN	17.98	226.5	4	0A	-6	7	24	3				
VLADIVOSTOK	17.99	257.1	4	3	-3	7	28	7				
MATUSIRO	18.65	231.0	4	11K	-3	7	27	-9				
ABUYAMA	21.29	232.8	4	41A	-1							
CHANGCHUN	21.86	265.7	4	44	-4							
TIKSI	25.08	339.9	5	18	-1							
PEKING	29.66	266.0	5	58	-2	10	45	-4				
ULAN-BATOR	31.98	285.7	6	18	-3							
IRKUTSK	32.08	294.5	6	20A	-2						7	33 PP
ZO-SE	32.18	247.5	6	22A	-1	11	29	0				
COLLEGE	32.41	41.3	6	25	0						8	38 PCP
NANKING	32.95	251.4	6	29A	0	11	43	2				
LANCHOW	39.91	270.1	7	34A	6							
KHEYS	42.47	346.1	7	48	-1						9	42 PCP
HONG KONG	42.89	245.6	7	53A	1	14	12	1				
CHENGTU	43.21	263.7	7	55	0	14	16	0				
MANILA	45.26	231.6	8	15	4							
SEMIPALATNSK	46.62	301.3	8	21	-1						9	55 PCP
RESOLUTE	47.18	20.1	8	27A	0	15	18	5				
KUNMING	47.84	259.2	8	32A	0	15	24	2				
NORD	48.67	358.6	8	36	-2							
THULE	50.78	12.3	8	54	0							
PENTICTON	51.71	56.0	9	1	0							
LHASA	52.26	272.8	9	7	1							
SVERDLOVSK	52.91	316.7	9	10	0						16	59 PS
RBAUL	54.01	184.9	9	17	-1							
FRUNSE	54.08	296.0	9	19	0						16	52 PS
ARCATA	54.22	66.9	9	23	3							
SHILLONG	54.50	268.5	9	15A	-7							
APATITY	55.24	336.8	9	26	-1						17	33
HUNGRY HORSE	55.25	54.3	9	27	-1						10	29 PCP
SHASTA	55.33	66.1	9	29	1							
MINERAL	56.02	65.9	9	27A	-6							
CHATRA	56.67	273.2	9	37	-1							
CHI TTAGONG	56.80	265.8	9	43A	4	17	38	14	9	53	11	53 PP
SODANKYLA	57.03	339.2	9	38	-2							
BERKELEY	57.22	68.6	9	47	5							
BUTTE	57.50	55.7	9	44	1							
RENO	57.60	65.6	9	45	1							
LICK	57.94	68.7	9	45K	-2							
KIRUNA	57.99	341.8	9	45	-2							
TASHKENT	58.12	297.7	9	48	0						13	23 PPP
VINEYARD	58.48	69.1	9	49	-1							
BOZEMAN	58.53	55.2	9	52	1							
CALCUTTA	58.91	268.6									30	44
FRESNO	59.42	68.1	9	56	-1							
PORT MORESBY	59.59	190.3	9	57	-1	18	3	3				
BOKARO	59.65	271.7	9	59	1							
SCORESBY SD.	59.91	359.3	9	59	-1							
DEHRA DUN	60.12	282.6	9	59	-3	18	3	-4				
DUZHANBE	60.22	295.5	10	2	0	18	11	2				
SALT LAKE C.	61.36	59.9	10	10	0							
UMEA	61.46	339.4	10	11	0							
LAHORE	61.60	286.1	10	10	-2						10	52 PCP
WARSAK DAM	61.64	290.0	10	10	-2							
PASADENA	62.16	69.3	10	14	-1	19	2	29			22	59 SS
PULKOVO	62.19	332.4	10	14	-2						12	24 PP
FLAMING GRGE	62.61	58.3	10	18	0						11	36
MOSCOW	62.97	326.1	10	18	-3	18	40	-3				
NURMI JARVI	63.19	335.5	10	19	-3						10	58 PCP
SKALSTUGAN	63.34	342.8	10	22A	-1							
HELSINKI	63.39	335.1	10	24	0						11	0 PCP

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961					PAGE 86				
GLEN CANYON	64.11	62.8	10 27	-1					
LARAMIE	64.41	55.8	10 31	1				10 45	
UPPSALA	65.54	338.5	10 36	-2					
REYKJAVIK	66.29	359.1	10 43A	1					
SIDA	66.56	357.2	10 46A	2					
ASHKABAD	66.57	301.4	10 45	1	19 27	-1			
QUETTA	67.10	290.0	10 47A	0	19 43	9		13 18	PP
BERGEN	67.55	344.8	10 50	0					
TUCSON	67.88	66.0	10 52	0					
TUCSON TELE.	67.88	65.8	10 52	0					
GOTEBORG	68.77	340.3	10 57A	-1				11 40	
AFIAMALU	69.52	146.6	11 1	-1					
LEMBANG	70.44	232.2	11 7A	-1				14 43	
TIFLIS	70.76	312.4	11 10	0				11 23	PCP
POONA	71.16	276.5	11 13A	1				21 39	
BOMBAY	71.55	277.5	11 15	0				20 57	
GORIS	71.73	310.0	11 17	1	20 40	12			
TEHERAN	71.97	304.2	11 18	1	20 34	3			
LWOW	72.52	329.8	11 20	0					
SIMFEROPOL	72.93	321.0	11 25	2					
WICHITA MTS.	72.98	56.2	11 23	0	20 40	-3		21 13	SCS
KRAKOW	73.61	332.3	11 28	1					
DURHAM	74.03	346.8	11 32A	3					
NIEDZIKA	74.05	331.8	11 30	1					
FAYETTEVILLE	74.25	52.4	11 30A	0					
COLLMBERG	74.40	337.0	11 31A	0				14 28	PP
OTTAWA	74.91	35.0	11 33A	-1					
SHAWINIGAN	74.98	32.6	11 30A	-5					
MUNSTER	75.03	340.5	11 36	1					
JENA	75.09	337.7	11 35	0				12 40	
PRUHONICE	75.20	335.5	11 37	1				14 24	PP
BREBEUF	75.59	33.7	11 38	0					
CLEVELAND	75.88	40.9	11 41	1					
SHIRAZ	75.96	299.3	11 41K	1	21 23	7	12 16	14 43	PP
BENSBERG	76.08	340.4	11 41	0					
BRATISLAVA	76.12	333.1	11 41K	0					
KASPERSKA H.	76.23	335.7	11 42A	0					
VIENNA-H.	76.26	333.6	11 43	1					
BRISBANE	77.02	183.1	11 46	0	21 39	12			
KEW	77.03	345.2	11 47A	1					
HEIDELBERG	77.20	338.9	11 47	0					
KASTAMONU	77.26	321.0	11 43K	-5					
STUTTGART	77.65	338.3	11 50	0	21 35	1		12 55	
TUBINGEN	77.93	338.3	11 51	0					
BELGRADE	78.08	329.5	11 52K	0					
MORGANTOWN	78.09	40.9	11 53K	1					
STRASBOURG	78.18	339.2	11 54	1	22 35	55		28 35	SS
EBINGEN	78.28	338.3	11 54	1					
RAVENSBURG	78.49	337.7	11 55	1					
LJUBLJANA	78.79	333.9	11 56A	0					
WESTON	79.12	33.8	11 58A	0					
BASLE	79.21	338.9	11 59A	1					
PALISADES	79.35	36.2	11 57	-2	21 51	-1		22 17	PS
TRIESTE	79.37	334.2	11 56	-3				15 12	PP
FOLINIERE	79.66	344.5	12 1	0					
HALIFAX	79.67	27.7	12 2K	1					
BESANCON	79.84	339.9	11 42	-20					
NEUCHATEL	79.86	339.2	12 2	0					
GARCHY	80.43	341.8	13 6	61				13 25	
KSARA	81.30	313.3	12 9	0					
CHAPEL HILL	81.59	42.4	12 12	1					
FLORENCE X.	81.79	335.1	12 13	1	22 43	26			
CLERMONT-FD.	81.86	341.3	12 14	2					
COLUMBIA	82.31	44.8	12 15	0					
ISOLA	82.49	338.1	12 17A	2				12 23	
MONACO	82.82	337.7	12 17	0					
ATHENS	82.96	324.0	12 17A	-1					
ROME	83.18	333.6	12 20	1	22 44	13		23 51	PS
JERUSALEM	83.30	312.7	12 21	1					
RIVERVIEW	83.50	184.2	12 21A	0					
BAGNERES	85.05	342.6	12 30	2					
CANBERRA	85.10	185.9	12 30	1			12 42	12 51	*SP
MESSINA	85.63	329.9	12 30	-1				22 29	
ADELAIDE	85.92	194.3	12 33K	0					
HELWAN	86.72	314.4	12 37	0					
TORTOSA	87.15	341.8						13 6	
MELBOURNE	87.93	188.9	12 39	-3					
TOLEDO	88.90	344.9	12 48	1					
KARAPIRO	89.13	164.8	12 48	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 87

SETIF	90.44	336.7	12 55	1					
TAMANRASSET	103.08	332.3	13 53	1	24 36	13		17 11	
LWIRO	114.95	298.9						29 50	PP
MBOUR	115.70	352.6						29 35	PS
HUANCAYO	123.50	66.7	18 52	3					
BROKEN HILL	124.90	290.8	18 55A	4					
SCOTT BASE	127.66	177.2	18 57	0	26 15	20		20 47	PP
LA PAZ	131.24	63.0	19 7	4					
BYRD STATION	137.74	165.0	19 5	-10				19 15	PCP
KIMBERLEY	137.77	281.5	18 47	-29					
SOUTH POLE	139.73	180.0	19 14	-5					

JANUARY 20 17.H 9.M 12.S EPICENTRE 56.60-152.35 DEPTH= 0.KM

A=-0.48989 B=-0.25665 C= 0.83315 D=-0.4641 E= 0.8858
G=-0.7380 H=-0.3866 K=-0.5531 HT= -7.8

SE= 2.31

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
COLLEGE	8.59	13.1	2	6	-3	4	21	34				
SITKA	9.35	80.1	2	18	-1							
ALBERNI	18.05	102.3	4	14	0							
VICTORIA	19.24	102.6	3	27	-61							
ARCATA	24.15	118.6	5	20A	1							
HUNGRY HORSE	24.48	93.3	5	22	0	9	55	15			9	3 PCP
SHASTA	25.11	116.5	5	28K	0							
KLYUCHI	25.46	289.2	5	32	1							
MINERAL	25.77	116.0	5	32K	-2							
UKIAH	25.92	120.0	5	37	1							
BUTTE	26.65	96.3	5	41	-1	10	31	14				
RENO	27.28	114.8	5	48K	0							
BERKELEY	27.38	120.4	5	48K	-1	10	32	4			12	0
BOZEMAN	27.71	95.5	5	51	-1							
PETROPAVLOVK	27.98	283.6	5	54	0	10	34	-4				
RESOLUTE	28.08	28.4	5	56	1	10	41	1				
LICK	28.10	120.2	5	54K	-2							
EUREKA	29.28	110.2	6	5	-1	11	4	5			9	17 PCP
MAGADAN	29.42	299.8	6	8	1						12	30 SS
FRESNO	29.44	118.5	6	7K	-1							
RUTH	29.98	109.4	6	13	0							
SALT LAKE C.	30.53	103.8	6	17	0							
FLAMING GRGE	31.75	101.1	6	26	-2						9	24 PCP
PASADENA	32.33	119.4	6	32	-1	11	51	4			6	57
RAPID CITY	33.04	91.0	6	42	3							
GLEN CANYON	33.45	108.4	6	43	0							
LARAMIE	33.56	96.9	6	44	0							
OKHA	35.95	293.2	7	5	1	12	46	3			8	31 PP
TUCSON TELE.	37.49	112.5	7	17	0							
TUCSON	37.50	112.7	7	18	1	13	22	15				
YAKUTSK	37.89	311.3	7	20	-1	13	11	-2			8	48 PP
Y.-SAKHLINSK	39.83	284.6	7	38	1	13	37	-5			9	7 PP
NORD	40.01	9.2	7	37	-1							
LAWRENCE	40.89	90.6	7	46	0							
KHEYS	41.96	352.9	7	56	2						9	50 PCP
WICHITA MTS.	42.12	97.9	7	55	-1	14	20	4			17	39 SCS
CHIHUAHUA	42.84	110.9									22	18
FAYETTEVILLE	43.54	92.6	8	6	-1				8	12		
OTTAWA	47.05	69.5	8	33	-2							
SHAWINIGAN	47.78	66.4	8	40	-1							
BREBEUF	48.07	68.0	8	42K	-1							
VLADIVOSTOK	48.16	287.7	8	43	-1	15	43	0				
SCORESBY SD.	48.38	20.0	8	45A	-1	15	51	5			10	49 PP
TUKUBASAN	48.63	275.2	8	46A	-2						15	51
MATUSIRO	49.44	277.0	8	53A	-1	16	3	2			19	49 SS
PALISADES	51.06	72.4	9	18	12	16	26	3			20	22 SS
CHANGCHUN	51.08	292.8	9	5A	-1	16	24	0				
ABUYAMA	52.11	277.6	9	14A	0							
IRKUTSK	54.63	312.8	9	32A	-1	17	15	3				
KIRUNA	55.77	3.3	9	40K	-1							
APATI TY	56.09	357.3	9	43	0	17	30	-2			17	46 PS
SODANKYLA	56.34	0.5	9	44	-1							
PEKING	58.48	295.8	10	0A	0	18	5	2				
SKALSTUGAN	59.56	7.9	10	7A	-1							
UMEA	59.77	3.8	10	6A	-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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 88

BERGEN	62.01	12.3	10 24	-1				
ZO-SE	62.78	285.7	10 30A	0	19	1	3	
NURMI JARVI	63.21	1.7	10 31	-1				
NANKING	63.30	288.1	10 32A	-1	19	6	1	
HELSINKI	63.55	1.5	10 34	-1				
UPPSALA	63.62	5.6	10 34A	-1	19	9	0	
PULKOVO	63.96	358.5	10 38	1	19	14	1	23 18 SS
ABERDEEN	64.08	17.5			19	16	2	27 6
SEMIPALATNSK	64.84	325.8	10 41	-2				12 59 PP
GOTEBORG	65.36	9.2	10 46	0				
DURHAM	66.46	18.0	10 57K	3	19	43	-1	11 26 PCP
SIAN	66.60	296.9	10 54A	0				
COPENHAGEN	67.40	9.3	10 58K	-1	19	58	3	24 28 SS
MOSCOW	67.73	353.9	11 1	-1	20	1	2	
WITTEVEEN	69.59	13.4	11 16	3				
KEW	69.85	18.2	11 15	0	20	26	2	25 2 SS
DE BILT	70.09	14.5	11 17	1	20	26	-1	25 6 SS
MUNSTER	70.54	13.0	11 19	0				
WARSAW	71.40	4.3	11 25	1				20 43
BENSBERG	71.48	13.5	11 24A	-1				11 44 PCP
COLLMBERG	71.79	9.6	11 26A	0	21	3	17	26 0 SS
CHENG TU	71.92	298.2	11 27A	0	20	49	1	
JENA	72.01	10.6	11 27	-1	20	36	-13	14 3 PP
AFIAMALU	72.10	199.8	11 32	4				
FOLINIERE	72.42	19.1	11 29	-1				
SAN JUAN	72.80	82.7	11 30	-2				
CHEB	72.93	10.2	11 31	-2	21	15	15	
PRAGUE	73.13	8.9	11 38	4	21	8	6	
HEIDELBERG	73.20	12.8	11 35	0				
PRUHONICE	73.23	8.8	11 34A	-1	21	8	5	14 41 PP
CHORZOW	73.23	5.8	11 35	0				12 6
FRUNSE	73.34	325.9	11 36	0	21	9	5	16 7 PPP
CANTON	73.35	286.6	11 36	0	21	8	4	
RACIBORZ	73.40	6.3	11 36	0				11 58
KRAKOW	73.52	5.2	11 38	1				12 21
HONG KONG	73.55	285.4	11 37	0	21	11	5	14 12 PP
STRASBOURG	73.89	13.6	11 40	1				25 58 SS
STUTTGART	73.89	12.5	11 38	-1	21	17	7	
LWOW	73.90	2.4	11 40	1	21	13	3	21 45 SCS
KASPERSKE H.	73.99	9.6	11 40	1				
TUBINGEN	74.10	12.7	11 41	1				
NIEDZIKA	74.17	5.0	11 41	1				
EBINGEN	74.43	12.9	11 42	0				
GARCHY	74.47	17.1	11 43	1				
RAVENSBURG	74.90	12.5	11 45	0				
BESANCON	74.94	15.1	11 45	0				
VIENNA-H.	75.10	7.8	11 46A	0				
BRATISLAVA	75.23	7.3	11 48K	2				
RABAU	75.41	238.1	11 45	-2				
HURBANOVO	75.60	6.6						13 4 PP
CLERMONT-FD.	75.94	17.4	11 53	2	21	56	23	
TASHKENT	76.31	329.0	11 53	0	21	40	3	14 44 PP
LJUBLJANA	77.13	9.3	11 57	0				
KUNMING	77.13	296.0	11 57A	0	21	46	0	
PAVIA	77.41	13.3						47 26
TRIESTE	77.45	9.9	12 0	1	21	48	-2	
PADOVA	77.50	11.3	12 5	6	21	51	1	
SERRA PILAR	77.94	27.2	12 4K	2				17 20 PPP
BAGNERES	78.03	20.2	12 3	1				
CHINCHINA	78.57	98.4	12 5	0	21	57	-5	
MONACO	78.60	14.8	12 6	1				12 20 PCP
SIMFEROPOL	78.67	355.3	12 6	0	22	4	1	15 3 PP
BELGRADE	78.77	5.2	12 7A	1	22	7	3	12 15 PCP
LHASA	78.80	307.5	12 8	2	22	6	2	
CARACAS	78.80	88.0	12 7	1	21	59	-5	
COIMBRA	78.86	27.4	12 7A	0				12 22 PCP
DUZHANBE	79.01	328.3	12 8	1	22	9	3	
FLORENCE X.	79.04	12.0	12 9K	1	22	22	15	
FUQUENE	79.19	96.5	12 13	5				
BUCHAREST	79.34	1.1	12 9	0				
BOGOTA	79.71	97.3	12 1	-10	22	7	-7	
ST. VINCENT	79.72	81.8	12 15	4				
LISBON	80.06	28.4	12 14A	1	23	23	66	
TOLEDO	80.21	24.2	12 15	1	22	23	4	27 26 SS
TORTOSA	80.27	20.6	11 55	-19				
TIFLIS	80.98	347.1	12 20	2	22	30	3	15 25 PP
ROME	81.04	11.4	12 18A	0	22	30	3	16 25 PP
TRINIDAD	81.72	83.3	12 19	-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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 89

SHILLONG	81.93	304.8	12 21A	-2					
ASHKABAD	82.28	336.0	12 26	1	22 44	4			
PORT MORESBY	82.33	240.1	12 25	0	22 39	-2		12 43 *SP	
KASTAMONU	82.36	357.6	11 59	-26				12 25	
WARSAK DAM	82.38	324.5	12 23	-2					
ALICANTE	82.45	22.0	12 27	1	22 44	2		15 43 PP	
GRANADA	82.89	24.7	12 32A	4	22 55	9		16 37	
CHATRA	82.91	309.1	12 27	-1	22 48	1		15 36 PP	
GORIS	82.97	345.5	12 30	2				22 52 SCS	
ALMERIA	83.47	23.9	12 30	-1	22 58	6		15 45 PP	
LAHORE	83.69	321.3	12 32	0	22 48	-6			
ALGIERS UNI.	84.68	19.6	12 38	1	23 0	-4		15 53 PP	
CHITTAGONG	84.72	303.2	12 45	8	23 9	4		15 58 PP	
MESSINA	85.01	9.5	12 33	-6	22 53	-15		23 57 PS	
RELI ZANE	85.17	21.8	12 35	-5					
SETIF	85.65	17.9	12 42	0				16 7 PP	
ATHENS	85.73	3.1	12 43K	1					
TEHERAN	85.83	340.8	12 44	1	23 11	-5			
BOKARO	86.13	308.8			23 9	-9			
QUETTA	87.36	326.7	12 51	1	23 34	4	13 4	16 16 PP	
BENI ABBES	89.98	25.5	13 13	10			13 28	17 0 PP	
HUANCAYO	92.94	107.3	13 20	4					
HELWAN	93.82	356.8	13 21	1				17 4 PP	
BOMBAY	95.79	317.6	13 29	0				17 21	
TAMANRASSET	98.75	20.6	13 42	-1				17 46 PP	
LA PAZ	100.47	103.9	14 13	22	26 29	120			
RIVERVIEW	101.98	225.2						24 42	
COLOMBO	103.71	306.1						24 52	
ADDIS ABABA	113.96	348.0	19 37	56					
CAPE HALLETT	131.22	194.3						22 40 PP	
SCOTT BASE	136.53	191.6	19 32	8	26 21	-13		21 39 PP	
BYRD STATION	137.67	171.9	19 16	-10					
BROKEN HILL	137.93	358.8	19 21	-6					
BULAWAYO	143.58	358.5	19 36K	-1					
WINDHOEK	145.13	17.2	19 40	0					
SOUTH POLE	146.42	180.0	19 42	0				20 2 PCP	
KIMBERLEY	152.09	5.4	19 49	-2					

JANUARY 20 22.H 34.M 49.S EPICENTRE 37.13 141.49 DEPTH= 61.KM

A=-0.62540 B= 0.49760 C= 0.60105 D= 0.6226 E= 0.7825
G=-0.4703 H= 0.3742 K=-0.7992 HT= -0.6

DEPTH OF FOCUS= 0.004R

SE= 2.59

	DELTA DEG.	AZ. DEG.	P			O-C			*PP		SUPP.	
			M	S	S	M	S	S	M	S		
ONAHAMA	0.51	249.3	0	10K	-4	0	17	-7				
SHIRAKAWA	1.02	269.7	0	17K	-2	0	30	-3				
HUKUSIMA	1.02	307.5	0	17K	-2	0	31	-3				
MI TO	1.11	227.9	0	18K	-2	0	32	-4				
SENDAI	1.23	337.7	0	20K	-2	0	35	-3				
ISINOMAKI	1.30	354.0	0	22K	-1	0	37	-3				
KAKIOKA	1.39	229.9	0	21K	-3	0	36	-6				
UTUNOMIYA	1.42	246.5	0	23	-2	0	41	-2				
YAMAGATA	1.44	321.3	0	24	-1	0	41	-2				
TUKUBASAN	1.44	231.3	0	22	-3					0 42		
TYOSI	1.50	200.4	0	24	-2	0	42	-3				
KUMAGAYA	1.96	240.7	0	29K	-3	0	52	-4				
HONGO	1.99	224.9	0	31	-1	0	54	-2				
MI ZUSAWA	2.02	352.0	0	31	-2	0	54	-3				
TOKYO C.M.O.	2.02	224.7	0	31K	-2	0	54	-3				
MAEBASI	2.08	250.2	0	33K	-1	1	2	3				
NIIGATA	2.10	292.8	0	33	-1	0	56	-3				
SAKATA	2.20	323.9	0	35	0	0	56	-6				
TITIBU	2.26	240.1	0	33	-3	0	59	-4				
YOKOHAMA	2.26	221.8	0	35K	-1	1	1	-2				
OI WAKE	2.50	252.2	0	40	1	1	16	7				
MIYAKO	2.54	8.3	0	38	-2	1	8	-2				
MORIOKA	2.58	354.5	0	37	-4	1	7	-4				
MERA	2.59	211.9	0	41	0	1	10	-1				
TAKADA	2.59	270.3	0	42	1	1	15	4				
NAGANO	2.68	261.1	0	43	1	1	20	6				
MATUSIRO	2.70	258.4	0	42K	0	1	19	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961							PAGE 90
AIKAWA	2.72	290.0	0 44	1			
HUNATU	2.74	234.3	0 44	1	1 16	1	0 47
KOHU	2.78	239.2	0 42K	-1	1 15	-1	
AKITA	2.81	337.5	0 49	5			
AJIRO	2.84	223.7	0 44	0	1 15	-3	
MISIMA	2.87	226.5	0 45	0	1 15	-4	
OSIMA	2.91	216.7	0 45K	0	1 19	0	
MATUMOTO	2.96	253.8	0 46	0	1 24	3	
SHIZUOKA	3.31	230.2	0 51	0	1 32	3	
IIDA	3.37	242.6	0 52	0	2 16	45	
HATINOHE	3.39	0.5	0 49	-3	1 26	-6	
TOYAMA	3.47	264.2	0 56	3	1 41	8	
TAKAYAMA	3.55	255.3	0 54	0			6 15
OMAESAKI	3.67	227.4	0 57	1	0 57	-41	
WAZIMA	3.67	275.3	1 0	4			
AOMORI	3.72	351.7	0 58	1	1 41	1	
HAMAMATU	3.89	233.0	0 58	-1	1 45	1	
KANAZAWA	3.93	262.7	1 5	5			
NAGOYA	4.15	243.2	1 3	0	1 52	2	
GIHU	4.19	247.0	1 3K	0	1 53	2	
HATIDYOZIMA	4.26	199.6	1 8	4	1 51	-2	
HUKUI	4.37	257.3	1 6	0			
TSURUGA	4.62	252.9	1 8	-1	2 9	7	
HIKONE	4.63	247.9	1 10	1	2 14	12	
KAMEYAMA	4.66	242.3	1 14	4	2 5	2	
HAKODATE	4.71	353.3	1 12	2	2 10	6	
TU	4.71	240.5	1 15	5			
MORI	5.01	352.1	1 19	4	2 20	8	
URAKAWA	5.11	10.8	1 17	1	2 15	1	
KYOTO	5.12	247.4	1 16	0	2 17	2	
MURORAN	5.20	355.8	1 18	1			
MAIZURU	5.20	253.2	1 17	0	2 19	2	
OWASE	5.28	236.2	1 18	0	2 38	19	
ABUYAMA	5.30	246.6	1 17K	-2			
HIROO	5.33	14.8	1 7	-12	2 12	-8	
OSAKA	5.44	244.7	1 27	7	2 40	17	
TOMAKOMAI	5.49	0.7	1 38	17			
TOYOOKA	5.62	255.5	0 24A	-59			1 27
SUTTSU	5.74	350.7	1 29	4	2 37	7	
WAKAYAMA	5.90	242.5	1 27	0			
OBIHIRO	5.93	12.2	1 28	1	2 49	14	
SAPPORO	5.93	359.0	1 32	5			
SIOMISAKI	5.95	233.6	1 27	-1	2 54	19	
SUMOTO	6.03	244.5	1 29K	0	2 53	16	
TOTTORI	6.12	256.9	1 28	-2	3 12	32	
KUSIRO	6.25	20.0	1 20	-12	2 33	-10	
HIMEJI	6.33	247.6	1 20	-13	2 36	-9	
TOKUSIMA	6.41	243.6	1 35	1	2 54	7	
TAKAMATU	6.67	247.3	1 40	2	3 24	31	
ASAHIGAWA	6.68	5.5	1 39	1			
NEMURO	6.94	25.5					2 46
KOTI	7.42	243.6	1 52	4	3 14	2	
MATUYAMA	7.83	247.8	1 57	3	3 38	16	
HAMADA	7.95	256.5	2 4	9	3 34	9	
SIMIDU	8.23	240.7	1 59	0	3 41	9	
OOITA	8.97	247.2	2 19	10			4 36
SIMONOSEKI	9.17	252.9					2 41
KUMAMOTO	9.84	247.3					2 41
SAGA	9.94	250.4	2 25	2	5 26	72	
CHANGCHUN	14.01	303.6	3 13	-4	5 55	4	
ZO-SE	17.85	256.3	4 5	-1	7 32	12	
NANKING	19.36	261.6	4 19	-4			
PEKING	19.99	286.1	4 26	-4	8 8	2	
YAKUTSK	25.97	347.3	5 28	-1	9 55	3	
HONG KONG	27.83	245.6	5 47	1			6 13
CANTON	27.96	247.9	5 48	1			
CHENG TU	31.63	269.4	6 14A	-5			
KUNMING	35.04	261.2	6 48A	-1			
TIKSI	35.18	353.1	6 48	-2			
SHILLONG	43.48	269.3	7 53A	-6			
SEMIPALATNSK	44.93	307.4	8 10	-1			
CHITTAGONG	45.08	265.3	8 10	-2			
CHATRA	46.66	273.6	8 24A	0			9 57
COLLEGE	48.98	32.3					
FRUNSE	50.35	298.5	8 42	0			8 55
KHEYS	52.56	348.2	8 53A	0			
LEMBANG	53.99	223.2	9 9	0			
LAHORE	54.71	285.4	9 19A	-1			
			9 23	-2			

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 91

SVERDLOVSK	55.12	318.6	9 27A	-1	
WARSAK DAM	55.79	289.3	9 32A	-1	
NORD	60.96	356.4	10 8	-1	
QUETTA	60.98	287.4	10 9A	0	
POONA	61.43	272.3	9 36A	-36	
RESOLUTE	62.50	14.5	10 18	-1	
APATITY	62.63	335.7	10 19	-1	
KARACHI	63.54	282.1	10 26	0	
SODANKYLA	64.90	337.2	10 34	-1	
KIRUNA	66.45	339.2	10 44	-1	10 55
MOSCOW	67.21	323.4	10 49	-1	
UMEA	69.22	336.1	11 2A	0	11 14
TEHERAN	69.61	299.8	11 5	0	
NURMIJARVI	69.89	332.0	11 5	-1	
HELSINKI	69.99	331.6	11 7	0	
SHASTA	70.99	53.1	11 15	2	
HUNGRY HORSE	71.67	42.9	11 18	1	
ADELAIDE	71.78	182.4	11 19	1	
SKALSTUGAN	71.85	338.6	11 17A	-1	11 29
CANBERRA	72.42	173.6	11 22	0	
UPPSALA	72.90	334.0	11 24	0	11 36
RENO	73.28	53.0	11 39	12	
EUREKA	75.74	51.2	11 43	2	
BERGEN	76.38	339.3	11 45	1	
GOTEBORG	76.46	334.8	11 45	0	11 57
LWOW	77.34	323.9	11 52	2	
PASADENA	77.47	56.7	12 4	13	
FLAMING GRGE	78.82	46.9	11 57	-1	
KRAKOW	79.06	326.0	12 1	2	12 18 PCP
NIEDZIKA	79.34	325.3	12 1	0	12 15 PCP
KASTAMONU	79.46	314.3	11 53	-8	
RACIBORZ	79.80	326.8	12 4	1	12 17 PCP
RAPID CITY	80.19	41.4	12 7	2	
KARAPIRO	81.04	153.4	12 12	2	
PRUHONICE	81.44	328.5	12 13	1	15 15 PP
JENA	81.90	330.6	12 14	0	13 20
VIENNA-H.	81.97	326.5	12 15A	0	
WITTEVEEN	82.20	334.2	12 16	0	
KASPERSKE H.	82.49	328.5	12 18	1	
MUNSTER	82.56	333.3	12 19	1	
TUCSON TELE.	83.49	54.2	12 23	1	
BENSBERG	83.54	332.9	12 23K	0	
HEIDELBERG	84.23	331.2	12 27	1	
LJUBLJANA	84.46	326.0	12 27A	0	
STUTT GART	84.52	330.5	12 29	1	
TUBINGEN	84.80	330.5	12 29	0	
EBINGEN	85.12	330.3	12 31	0	
RAVENSBURG	85.18	329.7	12 32	1	
KEW	85.64	337.2	12 34A	1	
BASLE	86.20	330.7	12 37A	1	
PARIS	87.01	334.3	12 42	2	
FOLINIERE	88.04	335.9	12 46	1	
WICHITA MTS.	89.29	45.6	12 53	2	13 25
TAMANRASSET	107.39	317.8			18 38 PP
BYRD STATION	127.85	167.4	19 0	1	
HUANCAYO	138.64	62.5	19 24	5	
LA PAZ	146.74	59.8	19 40	7	

JANUARY 22 3.H 24.M 7.S EPICENTRE -12.29 165.87 DEPTH= 0.KM

A=-0.94783 B= 0.23855 C=-0.21147 D= 0.2441 E= 0.9698
G= 0.2051 H=-0.0516 K=-0.9774 HT= 6.2

SE= 4.96

	DELTA DEG.	AZ. DEG.	P			S			*PP		SUPP.	
			M	S	O-C	M	S	O-C	M	S	M	S
HONIARA	6.47	295.4	1	33	-5	1	40	-74				
NOUMEA	9.97	176.9	2	24	-3	4	55	34				
RABAU	15.75	299.5	3	45	1						10 39	
PORT MORESBY	18.61	277.0	4	17	-3	8	5	19				
BRISBANE	19.40	217.3	4	27	-3	7	57	-6				
APIA	21.82	96.4	5	6	11	9	23	31			7 9	
AFIAMALU	21.82	96.7	5	6	11	9	23	31				
ONERAHI	24.61	163.2	5	38	15	9	53	11				
RIVERVIEW	25.30	209.7	5	19A	-10	10	7	13			5 43 *SP	
AUCKLAND	25.76	163.4	5	28	-5	10	18	17			6 18 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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 92

KARAPIRO	26.96	163.0	5 44	-1					
CANBERRA	27.55	210.9	5 50	0	10 25	-6	5 59	6 52	PP
TONGARIRO	28.14	164.0	5 53	-2					
WELLINGTON	29.91	166.5	6 11	0	11 17	9		8 36	
KAIMATA	30.50	171.9	6 29	13					
MELBOURNE	31.55	212.7	6 26	0	11 51	17			
GEBBIES PASS	31.84	170.7	6 24	-4					
GUAM	33.07	320.0	6 43	4	12 3	5			
ROXBURGH	33.21	175.6	6 37	-3	12 15	15		7 27	
ADELAIDE	33.40	222.9	6 39	-3	12 13	10		9 8	
FORT NELSON	34.49	204.3	6 57A	6	12 31	11			
KIPAPA	48.78	46.9	8 44	-4					
MUNDARING	49.52	238.4	8 51	-3					
HAWAII V.OB.	49.58	51.1	8 54	0	16 7	5			
MANILA	51.82	299.8	9 14	3				15 49	
TUKUBASAN	54.03	334.3	9 20	-8	16 54	-9		11 29	PP
ABUYAMA	55.00	329.6	9 36A	1					
MATUSIRO	55.12	332.9	9 28K	-8	17 16	-2		13 3	PPP
TAWU	55.93	307.8			17 33	4			
TAITUNG	55.96	308.4	9 53	11				12 21	
MIZUSAWA	56.12	336.9	10 0	17	17 24	-7			
HWALIEN	56.29	309.9	10 0	16					
TAIPEI	56.97	310.9	9 51	2					
LEMBANG	57.61	269.7	9 50A	-4	17 58	7		10 28	PCP
DJAKARTA	58.50	270.2	9 55	-5				19 21	
ZO-SE	60.84	316.3	10 14	-2	18 34	1			
HONG KONG	61.24	304.0	10 23A	4	18 37	-1		11 2	PCP
CANTON	62.29	304.4	10 29	3	18 58	7			
Y.-SAKHLINSK	62.57	342.4	10 21	-7				18 59	PS
NANKING	63.04	315.8	10 29	-2	19 4	3			
VLADIVOSTOK	63.29	332.7	10 29	-3	19 2	-2			
WILKES	65.31	201.4	10 47	1	19 30	1	11 0	13 18	PP
SCOTT BASE	65.56	179.8	10 44K	-3	19 36	4		13 20	PP
CHANGCHUN	66.96	329.2	10 52	-4	19 47	-2			
MEDAN	68.59	278.8	10 54	-12	20 3	-5			
PEKING	69.52	321.3	11 7	-5	20 17	-2			
SIAN	71.15	312.8	11 21	-1					
KUNMING	71.87	301.7	11 26K	0	20 53	6			
MIRNY	72.00	203.7	11 26	-1					
MAGADAN	72.62	352.0	11 31	0	20 55	0		11 39	PCP
CHENGTU	73.15	307.4	11 33K	-1	21 8	7			
BYRD STATION	75.32	170.0	11 41	-5					
LANCHOW	75.67	312.4	11 49	1	21 35	5			
PORT BLAIR	76.41	285.3	11 59	6					
YAKUTSK	79.30	343.6	12 3	-5	22 6	-3			
ULAN-BATOR	79.49	324.1	12 6	-4					
CHITTAGONG	80.29	295.4	12 15	1	22 27	8		15 24	PP
SHILLONG	81.23	298.5	12 11K	-8	22 18	-11		15 17	PP
IRKUTSK	83.15	327.0	12 25A	-4				12 30	PCP
LHASA	83.19	302.2	12 30	1					
BERKELEY	83.60	49.2	12 25	-6	22 49	-4		23 53	PPS
MAWSON	83.62	202.1	12 30	-1	22 53	0			
VINEYARD	83.87	50.5	12 42	10					
LICK	83.87	49.9	12 32	0					
COLLEGE	84.43	18.1	12 26	-9	23 9	8		28 21	SS
SHASTA	84.52	46.5	12 31	-5					
MINERAL	84.96	47.0	12 40A	2					
FRESNO	85.07	50.9	12 28	-10					
PASADENA	85.50	53.8	12 31	-10	23 18	6		16 0	PP
CHATRA	85.63	298.5	12 37	-4	23 9	-4		13 32	PP
RENO	85.97	48.3	12 44A	1					
BOKARO	86.02	295.3	12 42	-1	23 12	-5			
VICTORIA	86.75	38.9	12 48	1					
TIKSI	87.31	349.0	12 44	-5				18 12	PPP
COLOMBO	87.57	277.6	13 0	9	23 23	-9		29 23	
MADRAS	88.61	283.5	12 58	2	23 27	-14		16 22	PP
EUREKA	88.78	49.3	12 49	-7				30 49	PKKP
PENTICTON	89.37	39.1	13 3	4					
RUTH	89.44	49.7	12 55	-5					
KODAIKANAL	90.60	280.3	13 37	32	23 48	-11		24 54	
TUCSON	90.90	57.3	13 10	4	23 59	-3		16 43	PP
TUCSON TELE.	91.01	57.3	13 1	-6				20 10	
HYDERABAD	91.20	287.5	13 7	-1	23 38	-27		16 13	PP
GLEN CANYON	91.43	52.6	13 14	5					
HUNGRY HORSE	92.60	41.1	13 10	-4	23 57	-20			
FLAMING GRGE	94.02	49.1	13 22	1				30 21	PKKP
DEHRA DUN	94.25	300.0	13 36	14	23 59	-32		16 41	PP
POONA	95.71	287.6	13 26K	-3				26 20	

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 93

SEMIPALATNSK	96.59	320.0	13 25	-8				15 20
BOMBAY	96.74	287.8	13 43	10	24 16	6		16 53 PP
LAHORE	97.62	300.6	13 38	1	24 6	-9		
TACUBAYA	98.57	72.0	13 17	-24	23 48	-31		17 16 PP
RAPID CITY	99.09	46.9						14 14
FRUNSE	99.15	311.8	13 45	1	24 25	3		25 22 SKKKS
WARSAK DAM	100.31	302.6	13 48	-1				
WICHITA MTS.	101.40	56.8	13 49	-5	25 28	55	14 9	18 5 PP
VERA CRUZ	101.40	72.7						24 57 SKKS
TASHKENT	102.92	309.9	14 2	1				18 19 PP
KARACHI	102.98	292.9	14 3	2	24 45	4		
QUETTA	103.71	298.3	14 5	1	24 46	2		18 35 PP
RESOLUTE	104.21	15.7	14 9	2				
SVERDLOVSK	108.54	326.0	14 26	777	25 1	-5		18 58 PP
SANTA LUCIA	109.57	132.3	14 28	777	25 5	-5		18 59 PP
NORD	110.66	0.4						28 33 PS
ASHKABAD	111.23	306.0						19 24 PP
TANANARIVE	111.77	243.8	18 51	15				19 47 PP
CLEVELAND	114.94	49.9						29 25 PS
BALBOA HTS.	115.73	85.9						22 51
SHIRAZ	116.19	297.1	18 44K	-1	25 39	3		20 5 PCP
APATITY	116.65	341.5	18 46	0				19 59 PP
SODANKYLA	118.78	343.2	18 45	-5				19 6
CHINCHINA	118.88	91.1			25 58	12		21 55 SKP
LA PAZ	119.43	117.0						20 13 PP
KIRUNA	120.08	345.6	18 46	-6				
BOGOTA	120.32	91.8						20 24 PP
GORIS	120.45	308.7	18 51	-2				
PALISADES	120.70	49.5			25 59	7		20 11 PP
FUQUENE	120.82	90.9						20 20 PP
MOSCOW	121.11	328.7	18 55	1				20 31 PP
TIFLIS	121.19	311.4	18 57	2				30 17 PS
SCORESBY SD.	121.64	3.1	18 56	1				30 42 PS
WESTON	122.30	47.5						37 23 SS
PULKOVO	122.38	335.2	18 55	-2				20 35 PP
UMEA	123.19	342.6	18 51	-7				19 13
HERMANUS	123.77	213.2			26 9	7		20 48 PP
NURMI JARVI	124.11	338.0	18 54	-6				
HELSINKI	124.22	337.6	19 0	0				
KIMBERLEY	124.52	222.0	18 56	-5				
SKALSTUGAN	125.50	345.9	18 57	-6				21 9
HALI FAX	126.98	42.8	19 5K	-1				
UPPSALA	127.02	340.6	19 6	0				21 11 PP
BULAWAYO	127.02	233.0	19 4	-2				
SIMFEROPOL	127.67	318.0	19 10	3				21 12 PP
CARACAS	128.27	86.3	19 23	15				21 13 PP
SAN JUAN	129.63	76.3	19 10	-1				21 38 PP
BERGEN	129.88	347.6	19 11	0				
BROKEN HILL	130.13	239.1	19 12	0				
GOTEBORG	130.51	341.9	19 8	-5				
JERUSALEM	130.78	301.4	19 8	-5				21 39 PP
WARSAW	131.17	331.9	19 11	-3				21 34
KASTAMONU	131.33	315.0	19 12A	-2				
COPENHAGEN	132.02	340.1	19 19	4	26 15	-10		21 33 PP
ISTANBUL KA.	132.62	315.3	19 14	-3	26 19	-7		
ISTANBUL UN.	132.69	315.3	19 16	-1				
BUCHAREST	133.02	320.7	19 18	1	26 27	0		21 42 PP
KRAKOW	133.13	330.4	19 30	13				21 42
CHORZOW	133.42	331.2	19 16	-2				21 34
TRINIDAD	133.69	87.0						22 47
RACIBORZ	133.93	331.4	19 15	-4				
ABERDEEN	134.27	350.9						22 6 PP
HELWAN	134.45	299.9	19 35	15				31 58
LWIRO	134.98	254.2	19 21	0				
TIMISOARA	135.17	324.9	19 41	20				22 38
BUDAPEST	135.27	328.2	19 32	11	26 37	6		21 52 PP
COLLMBERG	135.29	336.0	19 18	-3	26 18	-13		21 58 PP
HURBANOVO	135.43	329.1	19 23	1				21 57 PP
PRAGUE	135.64	333.9	19 26	4				22 4 PP
PRUHONICE	135.65	333.7	19 19	-3				22 3 PP
BRATISLAVA	135.77	330.2	19 22	0				21 59 PP
VIENNA-H.	136.07	330.7	19 14	-9				22 5 PP
JENA	136.14	336.7	19 24	1	26 47	15		22 18 PP
BELGRADE	136.16	324.3	19 23K	0				22 1 PP
WITTEVEEN	136.27	341.8	19 29	6				
DURHAM	136.48	349.5	19 25A	1				25 33
CHEB	136.49	335.3	19 26	2				23 5 PKS
MUNSTER	136.70	340.5	19 23	-1				22 2

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961				PAGE 94			
KASPERSKE H.	136.71	333.6	19 21	-3			22 6 PP
DE BILT	137.34	342.5	19 31	6			22 16 PP
ATHENS	137.69	313.9	19 28	2			22 19 PP
BENSBERG	137.71	340.0	19 27K	1			22 11 PP
HEIDELBERG	138.46	337.5	19 25	-2			
LJUBLJANA	138.51	329.7	19 25	-2		19 33	22 21 PP
STUTTGART	138.76	336.5	19 23	-5	26 56	19	22 28 PP
TRIESTE	139.18	329.9	19 26	-3		19 35	22 23 PP
KEW	139.35	346.8	19 31	2			22 7 PP
EBINGEN	139.36	336.2	19 22	-7			
STRASBOURG	139.49	337.6	19 27	-2			22 28 PP
PADOVA	140.26	331.1	19 35	4			22 55 PP
PARIS	141.06	342.5	19 38	6	27 2	22	22 38 PP
NEUCHATEL	141.11	336.9	19 29	-3			22 38
PAVIA	141.67	333.2	19 32K	-1			22 44 PP
PRATO	141.76	330.1	19 39	6			41 18 PP
FLORENCE X.	141.76	329.9	19 24	-9			28 41 SKKS
JERSEY	141.89	347.2					22 22
ROME	142.47	326.7	19 30K	-4	26 34	-9	22 18 PP
REGGIO CALA.	143.06	319.3	19 26	-9			22 19
MESSINA	143.06	319.5	19 29	-6	26 37	-7	22 46 PP
ISOLA	143.38	334.2	19 30	-6			22 51 PP
LUANDA	145.64	233.6	19 43A	3			23 6 PP
BANGUI	146.69	259.2	19 51	9			30 4 SKKS
TORTOSA	148.81	338.3	19 21	-24			
SETIF	150.39	326.8	19 43	-5			23 26 PP
SERRA PILAR	150.86	351.4	19 42A	-6	26 45	-9	19 57 PKP2
TOLEDO	151.11	343.8	19 51	2	26 41	-14	23 36 PP
ALGIERS UNI.	151.15	330.6	19 44	-5			23 35 PP
ALICANTE	151.34	337.2	19 46	-3	26 52	-3	23 33 PP
COIMBRA	151.75	350.8	19 48A	-2			
RELIZANE	153.14	332.9	19 45	-7	26 31	-26	23 43 PP
ALMERIA	153.39	338.8	19 48	-4	26 49	-8	23 57 PP
GRANADA	153.48	340.9	20 48K	56	27 7	9	23 52 PP
TAMANRASSET	158.58	301.8	19 57A	-2			24 17 PP
LOME	163.66	249.3	21 9	65			
MBOUR	176.54	52.8	20 11	0	27 5	-8	

JANUARY 22 16.H 9.M 30.S EPICENTRE -28.63-174.71 DEPTH= 0.KM

A=-0.87532 B=-0.08112 C=-0.47668 D=-0.0923 E= 0.9957
G= 0.4746 H= 0.0440 K=-0.8791 HT= 2.3

SE= 1.83

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
RAOUL ISLAND	2.88	256.9	0	48	0							
KARAPIRO	12.34	218.8	2	57	-3							
AFIAMALU	14.90	11.1	3	32	-2	6	1	-19				
APIA	15.01	11.0	3	32	-3	6	1	-22				
WELLINGTON	15.27	211.5	3	35	-3	6	10	-19				
COBB RIVER	16.12	216.3				6	33	-16				
KAIMATA	17.84	215.4	4	15	4	7	16	-13				
GEBBIES PASS	18.14	210.7	4	13	-2	7	16	-19				
ROXBURGH	21.04	212.6				8	48	10				
BRISBANE	28.69	264.6	5	58	-3	10	44	-5				
RIVERVIEW	29.57	251.2	6	13A	4	11	10	7				
CANBERRA	31.38	248.4	6	25A	0							
MELBOURNE	34.73	244.1	6	54	0				7	5		
RABAUL	39.74	301.5	7	36	0						12	37
ADELAIDE	39.80	248.7	7	36	0							
PORT MORESBY	40.58	290.5	7	46	3	13	46	-7				
SCOTT BASE	50.03	185.0	9	0K	2						10	26 PP
BYRD STATION	56.16	170.1	9	42	-2							
MUNDARING	58.81	248.1	10	1	-1							
SOUTH POLE	61.53	180.0	10	23	2				10	40	10	46 *SP
MIRNY	64.99	206.2	10	39	-5							
MAWSON	74.95	199.6	11	44	-1						20	32
LEMBANG	75.96	269.8	11	49K	-1	21	29	-4	12	14	13	23
MATUSIRO	78.49	323.0	12	3	-1	22	0	0				
PASADENA	82.20	44.3	12	24	0							
LICK	82.35	40.0	12	25K	0							
BERKELEY	82.38	39.3	12	24K	-1							
FRESNO	83.01	41.4	12	29K	1							
SHASTA	84.32	37.2	12	35	0							
MINERAL	84.50	37.9	12	35A	-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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 95

Y.-SAKHLINSK	84.53	332.3	12 35	-1	23	9	6	
PETROPAVLOVK	84.56	344.2	12 34	-2				
RENO	84.91	39.4	12 38A	0				
ZO-SE	85.17	309.2	12 40	1				
BOULDER CITY	85.47	44.7	12 41	0				
TUCSON	85.71	49.7	12 42	0				
TUCSON TELE.	85.84	49.7	12 43	0				
CANTON	86.28	298.7	12 46	1				
EUREKA	87.06	41.5	12 50	1				
NANKING	87.38	308.8	12 51	1				
GLEN CANYON	88.11	45.6	12 55	1				
CHANGCHUN	90.61	321.2	13 6	1	24	10	10	
FLAMING GRGE	91.89	43.5	13 10	-1				
BUTTE	93.19	38.1	13 16	-1				
PEKING	93.72	314.0	13 20	0	24	36	9	23 57 SKS
HUNGRY HORSE	93.89	35.7	13 18	-3				
COLLEGE	95.52	11.2	13 27	-1				
WICHITA MTS.	95.54	53.5	13 26	-2				14 20
LA PAZ	96.09	112.4	13 32	1	24	40	33	
CHENG TU	97.30	300.8	13 38	2	25	9	56	
RESOLUTE	114.72	16.7	18 34	-8				
KHEYS	123.88	350.9	19 0	0				
QUETTA	126.86	287.7	19 8K	2				
SVERDLOVSK	132.30	322.3	19 28	12	26	41	15	
SHIRAZ	138.96	283.3	19 28	-1	26	41	4	22 59
UMEA	143.51	348.9	19 33A	-3				
MOSCOW	144.41	328.7	19 37	-1				
PULKOVO	144.51	338.4	19 37	-1				
SKALSTUGAN	144.75	354.6	19 37K	-2				
TIFLIS	145.47	302.8	19 42K	2				
NURMIJARVI	145.55	343.1	19 40	0				
HELSINKI	145.76	342.6	19 41	1				
UPPSALA	147.67	348.4	19 45K	1				
BERGEN	148.24	360.0	19 38	-6				
KASTAMONU	155.67	308.2	20 1	6				
RACIBORZ	156.44	338.9	20 18	22				20 50
COLLMBERG	156.63	347.7	19 58	1				20 27 PKP2
JENA	157.23	349.7	19 58	1				20 34
PRUHONICE	157.54	344.2	19 58	0				20 42 PKP2
BENSBERG	157.65	356.9	20 32A	34				
KASPERSKE H.	158.56	345.0	19 59	0				20 46
VIENNA-H.	158.62	339.4	20 35	36				
STUTTGART	159.66	352.4	20 1	1				
PARIS	159.74	5.4	20 40	40				
SETIF	172.45	359.3	20 10	-1				21 20 PKP2
TAMANRASSET	174.17	182.0	20 12	1				25 32 PP

JANUARY 22 19.H 22.M 45.S EPICENTRE 11.33 125.48 DEPTH= 98.KM

A=-0.56927 B= 0.79865 C= 0.19517 D= 0.8143 E= 0.5804
G=-0.1133 H= 0.1589 K=-0.9808 HT= 6.4

DEPTH OF FOCUS= 0.010R

SE= 2.43

	DELTA DEG.	AZ. DEG.	P		O-C S	S O-C			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
MANILA	5.42	308.2	1	21	1	2	31	10				
HONG KONG	15.36	316.7	3	17	-15							
ZO-SE	20.07	349.2	4	28	0							
NANKING	21.54	344.3	4	43	1							
LEMBANG	25.32	225.4	5	18	-1							
MATUSIRO	27.61	22.5	5	39K	-1							
CHENG TU	27.68	317.2	5	41	0							
PEKING	29.75	345.5	5	59	0							
RABAU	30.71	118.7									11	51
LANCHOW	31.45	325.0	6	16	2							
SHILLONG	34.77	298.7	6	36A	-7							
CHATRA	39.17	298.7	7	20A	0							
BRISBANE	46.72	145.9	8	20	-1							
ADELAIDE	47.72	165.3	8	29K	0							
DEHRA DUN	47.80	300.7	8	30	1							
PETROPAVLOVK	49.35	25.8	8	43	2							
YAKUTSK	50.70	2.6	8	51	0							
CANBERRA	51.46	155.3	8	59	2							
MAGADAN	51.72	16.1	8	56	-3							
MELBOURNE	52.20	160.5	9	4	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 96

SEMIPALATNSK	53.70	325.7	9 15	1	
WARSAK DAM	53.96	303.9	9 18	2	
NAMANGAN	55.53	312.2	9 28	1	
QUETTA	57.25	298.6	9 39	0	
TIKSI	60.30	1.2	9 57K	-3	
SVERDLOVSK	66.91	327.3	10 43	-1	
SHIRAZ	69.74	297.5	11 0K	-1	13 33 PP
KHEYS	75.27	351.0	11 35	1	
COLLEGE	78.43	25.8	11 52	1	
MOSCOW	79.53	324.9	11 57	0	
APATITY	80.40	337.1	12 2	0	
MIRNY	81.24	192.6			24 15 PS
TANANARIVE	82.46	249.0	12 15A	2	
PULKOVO	82.89	329.5	12 16	1	
SODANKYLA	83.02	337.3	12 17	1	
KIRUNA	85.19	338.4	12 26	0	
HELSINKI	85.44	330.5	12 29	1	
NURMI JARVI	85.50	330.8	12 28	0	
KASTAMONU	86.11	311.2	12 20	-11	
UMEA	86.53	334.6	12 34	1	
UPPSALA	89.04	331.3	12 45	0	
RESOLUTE	90.60	9.9	12 54A	2	
TAMANRASSET	112.14	300.3			19 4 PP
SAN JUAN	148.34	21.3	19 38	7	
HUANCAYO	159.61	94.1	19 53	6	20 33 PKP2

JANUARY 23 4.H 48.M 27.S EPICENTRE 43.20 145.68 DEPTH= 65.KM

A=-0.60393 B= 0.41231 C= 0.68211 D= 0.5638 E= 0.8259
G=-0.5633 H= 0.3846 K=-0.7312 HT= -2.9

DEPTH OF FOCUS= 0.005R

SE= 2.72

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
NEMURO	0.15	330.9	0	8K	-3	0	15	-4				
KUSIRO	0.96	257.1	0	19K	0	0	31	-2				
ABASHIRI	1.30	309.3	0	24	1	0	40	-1				
OB IHIRO	1.84	262.0	0	31K	1	0	53	0				
HIROO	1.97	242.9	0	32A	0	0	55	-1				
URAKAWA	2.38	244.8	0	38	0	1	12	6				
ASAHI GAWA	2.48	284.6	0	41	2	1	14	5				
KURILSK	2.57	37.1	0	41	0	1	9	-2				
RUMOE	3.04	285.6	0	52	5							
TOMAKOMAI	3.06	260.6	0	50	3	1	26	3				
SAPPORO	3.17	269.1	0	49	0	1	26	0				
MURORAN	3.57	257.3	0	55	0	1	35	-1				
WAKKANAI	3.63	309.1	0	57	2	1	48	11				
HAKODATE	3.89	250.7	1	0K	1	1	45	1				
MORI	3.93	255.4	1	2	3	1	45	0				
SUTTSU	4.02	266.1	1	2	1	1	49	2				
HATINOHE	4.09	230.6	0	59K	-3	1	43	-6				
Y.-SAKHLINSK	4.35	332.3	1	6	1	2	3	7				
AOMORI	4.36	238.5	1	5A	-1	1	53	-3				
MIYAKO	4.51	219.4	1	5	-3	1	53	-7				
MORIOKA	4.87	225.6	1	14K	1	2	5	-3				
MI ZUSAWA	5.32	221.7	1	18	-1	2	13	-7				
AKITA	5.45	232.2	1	23	2	2	23	0				
ISINOMAKI	5.80	216.2	1	23K	-3	2	25	-7				
SENDAI	6.12	218.0	1	28	-2	2	30	-9				
SAKATA	6.16	227.8	1	32	1	2	39	-2				
YAMAGATA	6.39	221.1	1	31	-3	2	41	-5				
HUKUSIMA	6.74	217.8	1	35	-4	2	50	-5				
ONAHAMA	7.24	212.0	1	57	11	2	58	-9				
NI IGATA	7.30	225.9				3	6	-3				
SHIRAKAWA	7.37	216.3	1	45	-2	2	59	-11				
MI TO	7.90	212.2	1	49A	-6	3	14	-10				
UTUNOMIYA	8.00	215.8	1	53	-3	2	18	-68				
KAKIOKA	8.15	213.1	1	54	-4	3	19	-11				
TUKUBASAN	8.19	213.5	1	54A	-5						3 19	
TAKADA	8.33	225.5	2	7	6							
TYOSI	8.35	208.1				3	24	-11				
MAEBASI	8.48	219.0	2	2	-1	3	34	-4				
KUMAGAYA	8.55	216.7	2	1	-3							
NAGANO	8.69	223.8	2	7	2	3	56	13				

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961										PAGE 97	
HONGO	8.76	213.4								3	37
OI WAKE	8.78	221.0	2	14	7						
MATUSIRO	8.78	223.3	2	2K	-5	3	40	-5			
TOKYO C.M.O.	8.80	213.4	2	13	6	3	36	-10			
YOKOHAMA	9.06	213.0	2	23	13	3	46	-6			
MATUMOTO	9.13	223.1	2	13	1						
KOHU	9.32	218.5	2	15	1	3	53	-5			
HUNATU	9.36	217.1	2	30	15	3	48	-11			
MERA	9.43	210.7	3	48	92						
TAKAYAMA	9.58	225.5	2	16	-2					6	57
AJIRO	9.61	214.3	2	22	4	3	55	-10			
MI SIMA	9.61	215.1	2	30	12	3	57	-8			
OSIMA	9.74	212.3	2	16	-4	3	57	-12			
IIDA	9.78	221.0	2	35	15						
SHIZUOKA	9.97	216.9				4	7	-7			
VLADIVOSTOK	10.07	274.2	2	25	1	4	19	2		2	47
OMAESAKI	10.37	216.5	2	24	-4						
GIHU	10.40	224.5	2	28	-1						
NAGOYA	10.48	223.0	2	28	-2	4	29	2			
HAMAMATU	10.49	218.8								3	3
TSURUGA	10.58	227.8	2	29	-2						
HIKONE	10.77	225.8	2	33	-1	4	32	-2			
KAMEYAMA	10.99	223.7								3	5
HATIDYOZIMA	11.09	206.6								4	28
KYOTO	11.24	226.7	2	39	-1	4	48	3			
ABUYAMA	11.44	226.7	2	41A	-2						
NARA	11.45	225.3	2	40	-3						
SUMOTO	12.19	227.1	1	54	-59						
TOKUSIMA	12.57	227.2	2	57	-1						
TAKAMATU	12.68	229.5	2	57	-2						
PETROPAVLOVK	13.08	36.8	3	5	0	5	31	2			
MATUYAMA	13.74	231.4	3	27	14	5	39	-6			
CHANGCHUN	14.79	279.4	3	24	-3	6	4	-6			
KUMAMOTO	15.68	233.6	3	42	4						
MIYAZAKI	15.93	229.7	3	48	7	5	57	-39			
MAGADAN	16.67	9.1	3	51	0	6	57	4			
KAGOSIMA	16.68	230.9	3	46	-5	6	13	-40			
YAKUTSK	21.08	338.9	4	40	-1						
PEKING	22.24	271.9	4	52	0	8	49	1			
ZO-SE	22.87	246.2	5	0	1	9	3	4			
NANKING	23.93	251.3	5	13	4	9	24	6			
ULAN-BATOR	27.35	293.5	5	41	0						
IRKUTSK	28.91	302.9								16	34 SCS
SIAN	29.84	265.0	6	3	0						
LANCHOW	32.75	271.8	6	30	1	11	42	2			
CANTON	33.39	243.5	6	36	2	11	53	3			
HONG KONG	33.41	241.5	6	48	13	11	53	3		9	9 PCP
CHENG TU	35.23	263.2	6	50	0	12	17	-1			
KUNMING	39.35	256.9	7	26	1	13	22	1			
COLLEGE	42.16	35.7	7	48	0				8	10	8 20 *SP
SEMIPALATNSK	44.05	303.2	8	3	0	14	29	-1			
NHATRANG	44.08	236.6	8	7	4						
LHASA	45.25	271.3	8	14	1						
SHILLONG	46.94	266.1	8	22K	-4						
KHEYS	47.33	347.1	8	28	-1					10	14 PP
RABAUL	47.54	171.2	8	32K	1						
CHITTAGONG	48.91	262.7	8	42	1						
CHATRA	49.64	270.7	8	47	0						
FRUNSE	50.46	295.5				16	4	3			
PORT MORESBY	52.36	178.2	9	8	0						
DEHRA DUN	54.32	280.1								16	53
TASHKENT	54.68	296.2	9	26	1	17	1	3		17	19 PS
NORD	55.09	356.9	9	25	-3						
RESOLUTE	55.80	16.3	9	31	-2						
LAHORE	56.30	283.5	9	34	-2	17	12	-8			
DUZHANBE	56.40	293.6	9	36	-1	17	19	-2			
WARSAK DAM	56.92	287.5	9	40	-1						
APATITY	58.44	335.3	9	50	-1						
SODANKYLA	60.56	337.1	10	5	-1						
KIRUNA	61.91	339.4	10	13	-2						
QUETTA	62.29	286.4	10	18	0	18	39	2		12	28 PP
ASHKABAD	63.60	298.2	10	28	2					20	25 SCS
MOSCOW	64.26	323.3	10	30	-1						
POONA	64.42	271.9	10	31K	-1					14	20
PULKOVO	64.54	329.6	10	32	0						
SHASTA	64.89	57.1	10	38K	3						
UMEA	64.96	336.5	10	31	-4						
HUNGRY HORSE	65.10	46.4	10	36	0					11	10

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961					PAGE 98				
KARACHI	65.43	281.6	10 37	-1					
MINERAL	65.58	57.0	10 39K	0					
NURMIJARVI	66.03	332.3	10 39	-3					
HELSINKI	66.17	332.0	10 42	-1					
BERKELEY	66.66	59.5	10 46A	0					
RENO	67.17	56.8	10 50	1					
BUTTE	67.33	47.7	10 50	0					
SKALSTUGAN	67.34	339.4	10 49	-1					
LICK	67.38	59.6	10 51K	1					
BOZEMAN	68.37	47.2	10 57	0					
APIA	68.79	135.2	11 1	2					
UPPSALA	68.82	334.8	10 58	-1					
FRESNO	68.88	59.1	10 56	-4					
AFIAMALU	68.89	135.3	11 1	1					
EUREKA	69.53	54.8	11 4	0					
TIFLIS	69.58	308.3	10 56	-8	20 10	4			
PASADENA	71.57	60.4	11 16	0					
BERGEN	71.79	340.5	11 18	1					
BOULDER CITY	72.47	57.0	11 22	1					
SHIRAZ	72.50	294.3	11 22	0	20 39	-1		14 15	PP
RAPID CITY	73.56	44.5	11 29	1					
GLEN CANYON	73.78	54.4	11 30	1				12 37	
LARAMIE	74.24	47.8	11 33	1					
KRAKOW	75.76	327.3	11 41	0					
SKALNATE PL.	76.32	326.6	11 43	-1					
RIVERVIEW	76.82	175.3	11 48	1					
COLLMBERG	77.31	331.8	11 50	1				13 22	
TUCSON	77.43	57.6	11 50	0					
TUCSON TELE.	77.43	57.5	11 51	1					
KASTAMONU	77.45	315.6	11 42	-8					
PRUHONICE	77.85	330.2	11 54A	2				42 51	
ADELAIDE	78.06	185.8	11 54K	1					
JENA	78.10	332.3	11 54	0				13 25	
CAMBERRA	78.21	177.2	11 55K	1			12 11		
MUNSTER	78.50	335.0	11 57	1					
VIENNA-H.	78.59	328.2	11 58A	2					
KASPERSCHE H.	78.91	330.2	11 58	0					
BENSBERG	79.52	334.8	12 2	1					
MUNDARING	79.53	205.2	12 2	1					
KSARA	80.11	307.3	12 8	3				21 10	
MELBOURNE	80.65	180.6	12 8	1					
STUTTGART	80.73	332.5	12 8	0				12 33	
WICHITA MTS.	82.81	48.4	12 19	0			12 33	13 5	
PARIS	82.83	336.5	12 17	-2					
FOLINIERE	83.70	338.2	12 24	1					
FAYETTEVILLE	84.11	44.8	12 25K	0			12 41		
SHAWINIGAN	84.36	25.5	12 26K	0					
OTTAWA	84.40	27.9	12 26	-1					
BREBEUF	85.01	26.6	12 30	0					
HELWAN	85.63	307.5	12 35	2				13 10	
MORGANTOWN	87.80	33.5	12 45A	2					
WESTON	88.55	26.5	12 48A	1				15 58	PP
PALISADES	88.89	28.8			23 15	-14		24 43	PS
TAMANRASSET	104.81	322.3						18 5	PP
SOUTH POLE	133.01	180.0	19 11	3					
BYRD STATION	133.03	166.2	19 13	5					
LA PAZ	140.84	57.7	19 27	4					

JANUARY 24 7.H 25.M 1.S EPICENTRE -15.68 167.65 DEPTH= 146.KM

A=-0.94100 B= 0.20598 C=-0.26850 D= 0.2138 E= 0.9769
G= 0.2623 H=-0.0574 K=-0.9633 HT= 5.6

DEPTH OF FOCUS= 0.018R

SE= 2.56

	DELTA DEG.	AZ. DEG.	P		O-C S	S O-C			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
NOUMEA	6.69	189.6	1	35	-2	2	41	-11				
HONIARA	9.75	308.6	2	18	0	4	16	11				
BRISBANE	18.07	227.4	4	2	-1						7 24	
RABAUL	19.02	305.2	4	15	2						4 47	
AFIAMALU	19.96	87.6	4	23K	0	8	14	20			10 39	SS
ONERAHI	20.89	164.5	4	37	5	8	29	18	5 13			
PORT MORESBY	20.95	284.9	4	34	1	8	23	11			4 58	PP

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961				PAGE 99			
AUCKLAND	22.04	164.6					5 41
KARAPIRO	23.24	164.0	4 56	1			
RIVERVIEW	23.42	216.5	4 57K	0	9 3	7 5 38	5 37 PP
CHATEAU	24.44	165.1	5 8	2			
TUAI	24.50	161.9	5 9	2			5 30
CANBERRA	25.72	217.1	5 19K	1	9 41	7	6 3 PP
WELLINGTON	26.25	167.8	6 8	45			
KAIMATA	26.95	173.8	5 36	6			
GEBBIES PASS	28.25	172.3	5 41	0			6 13
ROXBURGH	29.74	177.6	6 59	64	10 45	6	
MELBOURNE	29.80	217.9	5 55	0	10 44	4	
MOORLANDS	31.94	209.3	6 13	-1			6 43
ADELAIDE	32.27	228.1	6 17	0			
MUNDARING	49.32	241.2	8 35	-1			9 4
HAWAII V.OB.	50.47	47.5	8 44	-1			
MANILA	55.02	300.9	9 19	1			10 5
CAPE HALLETT	56.64	179.1			17 14	5	21 20 SS
MATUSIRO	58.91	332.5	9 44A	-2	17 36	-2	13 28 PPP
BANDUNG	59.32	271.2	9 37K	-12			
SCOTT BASE	62.20	180.2	10 9K	1			
NHATRANG	64.13	292.2	10 20A	-1			11 8
ZO-SE	64.46	316.4	10 24	1			
HONG KONG	64.56	304.5	10 23	-1	18 55	5	10 55 11 2 PCP
CANTON	65.62	304.8	10 30A	0	19 8	5	11 3 19 59 *SS
Y.-SAKHLINSK	66.31	341.6	10 34A	-1	19 22	11	
NANKING	66.66	315.8	10 37A	0	19 22	7	20 10 *SS
UGLEGORSK	68.35	342.2	10 47A	0			
MIRNY	69.63	204.3	10 55	0			
CHANGCHUN	70.73	328.9	11 2A	0	20 9	6	11 33 21 0 *SS
MEDAN	70.83	279.5	11 1K	-2			
BYRD STATION	71.70	169.9	11 6	-2			11 39
PEKING	73.23	321.1	11 17A	0	20 36	5	11 47
SOUTH POLE	74.42	180.0	11 25	1			11 58 PCP
SIAN	74.71	312.8	11 26A	1			
KUNMING	75.11	301.8	11 29A	1	20 59	7	12 1 21 51 *PP
MAGADAN	76.20	351.3	11 32	-2			
CHENG TU	76.57	307.5	11 36A	0	21 12	4	12 7 22 6 *SS
LANCHOW	79.22	312.2	11 53A	3	21 54	18	
YAKUTSK	83.02	343.0	12 9	-1	22 16	1	
ULAN-BATOR	83.23	323.8	12 12	1	22 23	5	
CHITTAGONG	83.30	295.3	12 13A	1	22 24	6	13 7 15 38 PP
SHILLONG	84.35	298.4	12 11A	-6	22 29	0	
BERKELEY	84.52	48.4	12 18K	0			12 50 15 34 PP
CONCORD	84.70	48.3	12 18	-1			
VINEYARD	84.70	49.7	12 4	-15			12 52
LICK	84.75	49.1	12 19K	0			12 51
SHASTA	85.61	45.8	12 23	0			12 56
MINERAL	86.01	46.3	12 24A	-1			12 58
PASADENA	86.11	53.1	12 26	1	23 42	56	15 43 PP
LHASA	86.44	301.9	12 29	2			
IRKUTSK	86.91	326.6	12 29A	0			
RENO	86.95	47.6	12 31K	1			13 3
COLLEGE	87.11	17.4	12 27	-3	23 36	41	13 8 13 25 *SP
CHATRA	88.75	298.2	12 39A	1	22 53	-17	
BOULDER CITY	89.32	52.4	12 42	1			13 14 16 14 PP
EUREKA	89.68	48.8	12 42	0			13 16 16 15 PP
RUTH	90.31	49.3	12 47	2			
PENTICTON	90.91	38.7	12 43	-5			
TIKSI	90.95	348.5	12 46A	-2	23 35	5	
TUCSON	91.27	57.0	12 51	1			13 23 16 30 PP
TUCSON TELE.	91.39	56.9	12 51	1			13 41 16 29 PP
GLEN CANYON	92.11	52.3	13 3	9			13 34 16 34 PP
HUNGRY HORSE	94.01	40.9	13 4	2			13 42 30 5 PKKP
FLAMING GRGE	94.92	49.0	13 7	0			13 40 30 2 PKKP
DEHRA DUN	97.42	299.3					23 44
LARAMIE	97.80	49.4	13 53	33			17 11
SEMIPALATNSK	100.28	319.5	13 29	-2			
WICHITA MTS.	101.78	57.1	13 36	-2			14 18 27 49 PP
RESOLUTE	106.98	16.0	18 32	777			
SVERDLOVSK	112.29	325.4	18 19	1			
LA PAZ	116.35	117.7	18 39	13			20 2
SHIRAZ	119.23	295.4	18 32K	0			21 46 PP
OTTAWA	119.65	46.4	18 32K	-1			
TEHERAN	120.19	302.4	18 36	2			
APATITY	120.39	341.4	18 34	0			
BREBEUF	121.10	46.1	18 35	0			
SHAWINIGAN	121.50	44.7	18 36	0			
PALISADES	121.51	51.3					30 11 PS

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 100

SODANKYLA	122.51	343.2	18 37	-1		
KIMBERLEY	123.09	219.2	18 34	-5		
KIRUNA	123.77	345.7	18 40A	0		
TIFLIS	124.70	310.1	18 44	2		
MOSCOW	124.88	328.1	18 43	0		
SCORESBY SD.	124.90	3.9	18 43	0	19 19	
PULKOVO	126.16	334.9	18 46	1		15 27 P
BULAWAYO	126.27	229.8	18 48	3		
UMEA	126.92	342.6	18 39	-8		
NURMI JARVI	127.88	337.8	18 49	1		19 28
HELSINKI	127.99	337.4	18 50	1		
SAN JUAN	128.66	78.8	18 50	0		
SKALSTUGAN	129.19	346.1	18 500	-1		22 2 SKP
BROKEN HILL	129.77	235.5	18 54	2		
UPPSALA	130.77	340.5	18 54	0		22 7 SKP
KSARA	133.08	301.8	18 58	0		21 30 PP
GOTEBOG	134.25	342.0	19 0	0		22 21 SKP
KASTAMONU	134.91	313.4	18 59	-3	19 37	
LWIRO	135.59	250.0	19 6K	3		
ISTANBUL KA.	136.21	313.7	19 5	1		
HELWAN	137.58	297.2	19 8	1		22 28 PP
RACIBORZ	137.72	330.9	19 8	1		19 40
COLLMBERG	139.07	335.8	19 1	-8		22 2 PP
PRUHONICE	139.43	333.3	19 14	4		22 38 SKP
JENA	139.92	336.5	19 8	-3		19 35
MUNSTER	140.45	340.6	19 14	2		
KASPERSKE H.	140.49	333.2	19 7	-5		22 40 SKP
ATHENS	141.25	312.0	19 16	3		
BENSBERG	141.46	340.2	19 14	0	19 48	
HEIDELBERG	142.24	337.5	19 12	-3		19 53
LJUBLJANA	142.29	329.0	19 12K	-3	20 8	
STUTTGART	142.54	336.4	19 13	-3	19 52	20 31
TUBINGEN	142.82	336.3	19 15	-1		20 8
EBINGEN	143.14	336.1	19 17	0		
RAVENSBURG	143.20	335.1	19 15	-2		19 46
STRASBOURG	143.27	337.5			20 13	
CHUR	143.98	334.2	19 19K	1		
BASLE	144.21	336.7	19 21	2		29 44
PARIS	144.79	342.9	19 20	0		
NEUCHATEL	144.89	336.8	19 20	0		
BESANCON	145.04	338.0	19 21	1		
FOLINIERE	145.59	346.1	19 22	1		
GARCHY	145.99	341.1	19 33	11		20 39
REGGIO CALA.	146.72	317.5	19 25	2		
MESSINA	146.73	317.8	19 25	2		20 6
ISOLA	147.16	333.9	19 27	3		22 43 PP
BANGUI	147.56	253.0	19 25	1		21 19
BAGNERES	150.68	341.1	19 29	0		
SETIF	154.15	325.6	19 35	1	20 28	23 35 PP
ALGIERS UNI.	154.93	329.8	20 1	26		
TAMANRASSET	161.72	295.5	19 45A	2		24 16 PP
BENI ABBES	162.86	328.7	19 44	0		24 20 PP
MBOUR	175.35	105.5				25 23 PP

JANUARY 25 O.H 54.M 2.S EPICENTRE -4.94 102.84 DEPTH= 36.KM

A=-0.22147 B= 0.97140 C=-0.08559 D= 0.9750 E= 0.2223
G= 0.0190 H=-0.0834 K=-0.9963 HT= 7.0

DEPTH OF FOCUS= 0.000R

SE= 1.94

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
DJAKARTA	4.15	107.4									1	8 PG
LEMBANG	5.11	111.8	1	15	-1	2	25	11				
MEDAN	9.43	333.8	2	18	2						4	48
MANILA	26.58	42.6	5	37	1							
HONG KONG	29.26	21.9	5	55	-5	10	26	-23			13	4 PCS
MUNDARING	29.66	156.6	6	0	-4							
CHATRA	35.04	335.1	6	52A	1							
ADELAIDE	44.61	136.7	8	9K	-1							
LAHORE	45.34	325.0	8	13	-3	14	48	-6				
WARSAK DAM	48.72	325.0	8	44A	1							
QUETTA	49.00	317.7	8	45A	0						10	36 PP
MELBOURNE	50.40	136.4	9	17	22							

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961										PAGE 102	
CAPE HALLETT	58.47	178.4	9	49	-3	17	58	9			
ZO-SE	61.88	317.0	10	14	-1	18	43	10			21 39 SS
HONG KONG	62.00	304.8	10	16	0	18	46	12			
CANTON	63.06	305.1	10	24	1	19	1	14			10 47 PCP
WILKES	63.78	201.7	10	24	-4	18	58	2			
SCOTT BASE	63.99	179.8	10	27	-2						11 5 PCP
Y.-SAKHLINSK	64.03	342.7	10	30	0	19	12	13			
NANKING	64.07	316.4	10	30	0	19	16	16			
UGLEGORSK	66.08	343.2	10	43	0						
CHANGCHUN	68.23	329.7	10	54	-2	19	59	9			
MEDAN	68.69	279.5	11	4	5						
PEKING	70.66	321.7	11	11	0	20	31	12			
SIAN	72.12	313.3	11	20	0						
KUNMING	72.58	302.2	11	24	2	20	54	13			
BYRD STATION	73.79	169.9	11	25	-5						
CHENG TU	73.99	307.9	11	31	0	21	8	11			
ULAN-BATOR	80.68	324.3	12	9	1	22	19	10			
YAKUTSK	80.77	343.7	12	9	1						
CHITTAGONG	80.83	295.7	12	12	3						
SHILLONG	81.85	298.8	12	13K	-1						
LHASA	83.90	302.4	12	26	1						
IRKUTSK	84.39	327.2	12	26	-1	22	50	4			
BERKELEY	84.75	49.1	12	27	-2	22	58	8			
LICK	85.01	49.8	12	31K	1						
SHASTA	85.72	46.4	12	33	-1						
COLLEGE	85.98	18.1	12	33	-2	23	4	2			
MINERAL	86.15	47.0	12	36A	0						
FRESNO	86.18	50.8	11	38	-58						
CHATRA	86.25	298.6	12	36	0	22	28	-37			
PASADENA	86.55	53.8	12	39	1	23	3	-5			22 47 SKS
RENO	87.14	48.2	12	42K	2						
VICTORIA	88.07	38.9	12	45	0						
TIKSI	88.83	349.0	12	44	-5						
EUREKA	89.92	49.3	12	51	-3						15 12
PENTICTON	90.70	39.1	12	57	0						
TUCSON	91.88	57.4	13	3	0						
TUCSON TELE.	91.99	57.3	13	3	0						
GLEN CANYON	92.51	52.7	13	6	0						
HUNGRY HORSE	93.89	41.2	13	13	1						
FLAMING GRGE	95.17	49.3	13	15	-3						
BOMBAY	97.07	287.7									24 5
LA PAZ	118.84	117.8	18	45	3	25	43	13			
OTTAWA	119.76	45.5	18	43	0						
BOGOTA	120.42	92.8				25	50	14			30 29 PS
SHAWINIGAN	121.52	43.6	18	47	0						
PALISADES	121.83	50.2									30 22 PS
UMEA	124.65	342.2	18	53	0						
NURMI JARVI	125.51	337.5	18	55	1						
SAN JUAN	130.13	77.6	19	5	2						
ISOLA	144.72	333.0	19	31	1						19 37 PKP2
MONACO	144.91	332.2	19	31	1						
BANGUI	146.21	256.9	19	33	1						24 6
SETIF	151.61	325.0	19	50	9						20 17 PKP2
TAMANRASSET	159.24	298.1	19	55	4						24 16 PP
MBOUR	177.35	78.8				25	50	-68			22 10 PKP2

JANUARY 25 19.H 4.M 25.S EPICENTRE 49.91 155.79 DEPTH= 89.KM

A=-0.58971 B= 0.26510 C= 0.76286 D= 0.4100 E= 0.9121
G=-0.6958 H= 0.3128 K=-0.6466 HT= -5.4

DEPTH OF FOCUS= 0.009R

SE= 2.24

	DELTA DEG.	AZ. DEG.	P		O-C S	S		O-C S	*PP		SUPP.	
			M	S		M	S		M	S	M	S
PETROPAVLOVK	3.59	28.7	0	51	-4	1	33	-3				
KLYUCHI	7.11	23.5	1	40	-3	3	3	0				
KURILSK	7.11	231.9	1	41	-2	3	5	2				
OKHA	8.78	299.5	2	7	1						3 54	
UGLEGORSK	8.97	269.9	2	11	3	4	1	12				
Y.-SAKHLINSK	9.16	256.6	2	13	2	4	5	12				
MAGADAN	10.08	345.3	2	23	0	4	25	10				
MATUSIRO	18.45	230.2	4	8A	-3							
YAKUTSK	18.81	320.0	4	15	0							
ABUYAMA	21.09	232.2	4	38A	-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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961					PAGE 103				
CHANGCHUN	21.61	265.4	5 1	17	9 1	28			
TIKSI	25.00	340.1	5 15	-2					
ULAN-BATOR	31.74	285.6						6 25	
COLLEGE	32.58	41.3	6 23	-2			6 49	7 57	
LANCHOW	39.66	269.8	7 26	1					
KHEYS	42.42	346.1	7 46	-1				9 40	PCP
CANTON	42.54	246.8	7 50	2					
HONG KONG	42.66	245.2	7 51	2					
CHENG TU	42.97	263.4	7 52	0					
MANILA	45.06	231.1	8 6	-3				12 59	
SEMIPALATNSK	46.41	301.2	8 19	0				9 53	PCP
RESOLUTE	47.27	20.0	8 25A	-1					
KUNMING	47.60	258.9	8 29	0					
VICTORIA	50.31	58.5	8 47	-2					
THULE	50.84	12.2	8 52	-1					
PENTICTON	51.92	55.9	9 0	-2					
SVERDLOVSK	52.75	316.5	9 7	-1					
FRUNSE	53.86	295.8	9 17	1					
RABAU	53.98	184.5	9 15	-2					
SHILLONG	54.26	268.2	9 17A	-2					
APATITY	55.15	336.7	9 24	-1					
HUNGRY HORSE	55.46	54.1	9 26	-2				10 26	PCP
SHASTA	55.56	65.9	9 27	-1					
MINERAL	56.25	65.7	9 31	-2					
CHATRA	56.42	272.9	9 36	2				10 31	
SODANKYLA	56.95	339.0	9 36	-2					
RENO	57.82	65.4	9 52	8					
TASHKENT	57.90	297.4	9 44	-1					
KIRUNA	57.92	341.7	9 42	-3					
BOZEMAN	58.74	55.0	9 50	-1					
PORT MORESBY	59.54	189.9	9 55	-1					
SCORESBY SD.	59.91	359.1	9 58A	-1					
DUZHANBE	60.00	295.3	10 1	2					
EUREKA	60.10	63.2	9 59	-1					
LAHORE	61.37	285.9	10 9	0					
UMEA	61.38	339.3	10 7	-2					
WARSAK DAM	61.41	289.7	10 8	-1					
SALT LAKE C.	61.57	59.6	10 9	-1					
PULKOVO	62.09	332.2	10 12	-1				25 53	SSS
PASADENA	62.40	69.0	10 14	-2	18 46	12		10 56	PCP
FLAMING GRGE	62.82	58.1	10 17	-1				10 56	
MOSCOW	62.84	325.9	10 17	-2					
NURMI JARVI	63.10	335.3	10 19	-1				10 56	PCP
SKALSTUGAN	63.27	342.7	10 19	-2					
HELSINKI	63.30	334.9	10 21	-1				10 58	PCP
RAPID CITY	63.90	52.0	10 24	-1					
GLEN CANYON	64.33	62.6	10 27	-1					
LARAMIE	64.62	55.5	10 29	-1				10 45	
UPPSALA	65.46	338.3	10 34	-2				11 5	PCP
QUETTA	66.87	289.7	10 45	1					
BERGEN	67.49	344.7	10 49	1					
TUCSON	68.11	65.7	10 50	-2			11 4		
TUCSON TELE.	68.11	65.6	10 52	0					
GOTEBORG	68.69	340.1	10 55	-1					
CHARTERS TS.	70.19	189.5	11 4	-1					
LEMBANG	70.24	231.8	11 5K	0				11 49	
TIFLIS	70.59	312.2	11 8	1					
TEHERAN	71.77	303.9	11 16	2					
WICHITA MTS.	73.19	56.0	11 22	-1	20 48	6	11 48	13 59	PP
COLLMBERG	74.31	336.8	11 29	0				14 8	
MUNSTER	74.96	340.3	11 34	1					
JENA	75.00	337.5	11 33	0				11 52	
OTTAWA	75.06	34.8	11 32	-2					
PRUHONICE	75.10	335.3	11 35	1					
SHAWINIGAN	75.12	32.4	11 33	-1					
BREBEUF	75.73	33.4	11 37	0				11 49	PCP
SHIRAZ	75.74	299.1	11 38	1	21 28	18		12 5	
BENSBERG	76.01	340.2	11 39A	0					
BRATISLAVA	76.02	332.9	11 40	1					
VIENNA-H.	76.16	333.4	11 40A	0					
KEW	76.97	344.9	11 44	0					
HEIDELBERG	77.11	338.6	11 44	-1					
KASTAMONU	77.12	320.8	11 39	-6					
STUTTGART	77.57	338.1	11 47	-1					
TUBINGEN	77.84	338.1	11 50	1					
BELGRADE	77.96	329.2	11 51K	1				16 17	
ISTANBUL KA.	78.06	321.7	12 0	10					
STRASBOURG	78.10	338.9	11 51	0				12 13	

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 104

EBINGEN	78.19	338.0	11 51	0					
MORGANTOWN	78.25	40.7	11 51K	0					
RAVENSBURG	78.40	337.5	11 53	1					
LJUBLJANA	78.69	333.6	11 54A	0				12 41	
PARIS	79.02	342.4	11 57	1			12 33		
BASLE	79.13	338.7	11 58	2					
WESTON	79.26	33.5	11 57A	0					
TRIESTE	79.27	334.0	11 58	1					12 59
CHUR	79.29	337.2	11 59	2					
PALISADES	79.50	35.9	11 57	-1	22 8	17			
FOLINIÈRE	79.60	344.3	12 0	1					
BESANCON	79.76	339.6	11 55	-5					
NEUCHÂTEL	79.78	338.9	12 0	0					
GARCHY	80.36	341.5	12 14	11					
ISOLA	82.41	337.9	12 15	1					12 24 PCP
MONACO	82.74	337.5	12 16	1					
ATHENS	82.82	323.8	12 15	-1					
JERUSALEM	83.12	312.4	12 19	2					
CANBERRA	85.07	185.6	12 27A	0					
ADELAIDE	85.85	194.0	12 31A	0					
KARAPIRO	89.18	164.5	12 47	0					
SETIF	90.35	336.4	12 53	1					
TAMANRASSET	102.97	332.0	13 50	1					
BULAWAYO	128.92	285.8	19 0	3					
LA PAZ	131.46	62.6	19 6	4					
KIMBERLEY	137.53	281.1	18 52	-21					
BYRD STATION	137.79	165.0	19 3	-11					
SOUTH POLE	139.72	180.0	19 10	-7					

JANUARY 26 16.H 13.M 14.S EPICENTRE -21.47 169.61 DEPTH= 0.KM

A=-0.91614 B= 0.16805 C=-0.36394 D= 0.1804 E= 0.9836
G= 0.3580 H=-0.0657 K=-0.9314 HT= 4.3

SE= 3.53

	DELTA DEG.	AZ. DEG.	P			O-C			*PP		SUPP.	
			M	S	S	M	S	S	M	S	M	S
NOUMEA	3.04	253.7	0	46	-5							
SUVA	8.94	69.8	2	21	7	4	16	20				
ONERAHI	14.84	164.7	3	49	16							
AUCKLAND	15.99	164.7	3	41	-7	6	49	2				
BRISBANE	16.41	245.7	3	47	-7	7	3	7				
KARAPIRO	17.18	163.9	4	2	-1							
TONGARIRO	18.38	165.3	4	18	0							
CHATEAU	18.39	165.2	4	19	1							
TUAI	18.45	161.1	4	24	5	7	51	8				
AFIAMALU	19.25	70.1	4	26	-3	7	56	-5				
COBB RIVER	19.72	173.0	4	46	12	9	19	68				
WELLINGTON	20.22	168.7	4	40	0	8	35	13			8 44	PCP
RIVERVIEW	20.42	229.0	4	40K	-2	8	55	29			8 33	
KAIMATA	21.04	176.3	4	51	3	8	45	6				
CHARTERS TS.	21.87	269.4	4	55	-2	8	59	5				
GEBBIES PASS	22.31	174.2	4	59	-2	9	5	3				
CANBERRA	22.72	228.2	5	4K	-1	9	14	4				
ROXBURGH	23.95	180.5	5	14	-3	9	30	-1			11 4	
RABAUL	24.11	313.0	5	20	1						10 31	
PORT MORESBY	24.71	295.6	5	24	0	9	35	-9				
MELBOURNE	26.79	227.1	5	42	-2				6 11			
MOORLANDS	28.11	216.8	5	55	-1				6 19			
FORT NELSON	28.34	215.9	6	1A	3	10	34	-10				
ADELAIDE	30.22	236.9	6	16K	1	11	12	-2				
GUAM	42.44	322.7	8	1	2	14	23	2				
MUNDARING	48.41	245.8	8	48	2							
PERTH	48.73	245.8	8	54	5	15	56	5			19 29	SS
HONOLULU	52.93	38.6	9	18	-3	17	10	21				
HAWAII V.OB.	53.23	42.7	9	26	3	17	21	28				
SCOTT BASE	56.44	180.7	9	50A	4	17	38	1			19 43	SCS
WILKES	58.26	204.0	10	0	1	17	54	-6			14 43	SCP
MANILA	59.64	302.8	10	13	4						18 55	
BAGUIO CITY	61.06	304.1	10	25	7							
LEMBANG	61.48	273.9	10	20K	-1	18	36	-6	10 39		12 8	
DJAKARTA	62.45	274.3	10	26	-2	18	42	-12			12 50	
TUKUBASAN	63.81	333.7	10	36	-1	19	9	-2				
MATUSIRO	64.88	332.4	10	41A	-3	19	21	-3				
MIRNY	65.17	205.4	10	45	-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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 105									
BYRD STATION	65.70	169.6	10	44	-5						
SOUTH POLE	68.66	180.0	11	5	-3						11 53 PCP
HONG KONG	69.39	305.4	11	14	2	20	12	-7	11	40	24 32 SS
ZO-SE	69.93	316.9	11	14A	-1	20	24	-1	11	46	
CANTON	70.46	305.7	11	21A	2	20	34	3			
NANKING	72.10	316.2	11	29	0	20	51	1	12	2	
Y.-SAKHLINSK	72.36	341.1	11	23	-7	20	56	3			25 10 SS
VLADIVOSTOK	73.04	332.1	11	32	-2						14 16 PP
CHANGCHUN	76.62	328.7	11	52A	-3	21	41	0			
PEKING	78.88	321.1	12	8	1	22	7	2			
KUNMING	79.74	302.1	12	14K	2	22	17	3	12	48	
SIAN	79.99	312.8	12	13	0						
CHENG TU	81.55	307.5	12	22K	1	22	32	-1	12	55	
MAGADAN	82.19	350.5	12	22	-3						
PORT BLAIR	82.31	285.7	12	34	9	22	37	-4			
LANCHOW	84.46	312.1	12	37	1						
BERKELEY	87.02	47.3	12	48A	-1	23	22	-5			16 34 PP
LICK	87.18	48.1	12	52K	2						
CONCORD	87.20	47.3	12	51	1						
CHITTAGONG	87.43	295.1	12	57	6	23	41	10			
PASADENA	88.14	52.2	12	55	1	23	28	-10			16 25 PP
FRESNO	88.19	49.3	12	54	-1						
SHASTA	88.35	44.9	12	54	-1						
MINERAL	88.69	45.5	12	56A	-1						
SHILLONG	88.71	298.0	12	54A	-3	23	24	-19			
ULAN-BATOR	88.97	323.3	12	57	-1						
RENO	89.50	46.8	13	7	6						
CALCUTTA	90.43	294.0									22 40
LHASA	91.05	301.4	13	9	1						
VICTORIA	91.70	37.7	13	5	-6						
COLLEGE	92.07	16.8	13	8	-5	23	45	-28	13	34	
EUREKA	92.11	48.2	13	10	-3						
COLOMBO	92.24	276.5	13	21	8	23	50	-25			
RUTH	92.70	48.8	13	17A	1	23	55	-24			
IRKUTSK	92.74	326.0	13	13A	-3	24	14	-5			23 33 SKS
TUCSON	92.88	56.6	13	13	-3	23	36	-44			29 43 SS
CHATRA	93.08	297.5	13	16	-1						
BOKARO	93.11	294.3	13	19	2	23	53	-29			
MADRAS	94.14	282.3	13	24	2	23	55	-36			19 5 PPP
GLEN CANYON	94.19	52.0	13	21	-1						
PENTICTON	94.27	38.3	13	22	-1						
SALT LAKE C.	95.52	48.4	13	29	0	24	15	11			
KODAIKANAL	95.65	278.7									15 40
TIKSI	96.97	348.0	13	34	-1						17 31 PP
HUNGRY HORSE	97.16	40.8	13	33	-3						14 41
HYDERABAD	97.25	285.8				24	15	1			
FLAMING GRGE	97.31	49.0	13	35	-2						
SANTA LUCIA	100.77	132.4	13	52	0	24	34	3			17 54 PP
POONA	101.75	285.4	18	11	254						
DEHRA DUN	101.81	298.0				24	38	2			16 27
BOMBAY	102.79	285.4	14	05	4	24	42	1			20 30 PPP
WICHITA MTS.	103.33	57.8	13	56	-8	24	39	-4			18 26 PP
SEMIPALATNSK	105.84	318.3									18 43 PP
FRUNSE	107.82	309.7									18 49 PP
QUETTA	111.02	295.2	18	33	-3						
TASHKENT	111.42	307.3	18	26	-10						21 39 PPP
LA PAZ	111.98	119.0	18	22	-16	25	10	-11			
RESOLUTE	112.00	16.6	18	21	-17						
CHINCHINA	114.85	94.5									19 41 PP
BOGOTA	116.16	95.5									19 54 PP
FUQUENE	116.78	94.8									19 59 PP
HERMANUS	117.68	207.5									27 6
CLEVELAND	117.80	53.5				25	52	9			29 50 PS
SVERDLOVSK	118.07	323.9	18	50	1						20 3 PP
ASHKABAD	119.33	302.3									20 17 PP
SHIRAZ	123.25	292.1	18	58	-1						21 18 PP
PALISADES	123.52	54.3				26	7	5			20 37 PP
BREBEUF	123.63	48.9	19	1	1						
BULAWAYO	123.75	225.3	19	0	0						
SHAWINIGAN	124.15	47.6	19	3	2						
CARACAS	124.82	92.0	19	46	43	26	46	40			
WESTON	125.43	52.6									20 57 PP
APATITY	126.45	340.7	19	13	7						21 3 PP
SAN JUAN	127.75	82.9	19	13	5						
BROKEN HILL	127.76	230.3	19	0	-8						
TIFLIS	129.74	306.9	19	14	2						22 39 SKP
KIRUNA	129.81	345.3	19	8	-4						
MOSCOW	130.73	326.3	19	26	12						19 35 PSP

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961										PAGE 106
HALIFAX	130.78	49.0								22 17
ADDIS ABABA	131.17	263.1	19 19	4						
PULKOVO	132.16	333.6	19 21	4						21 38 PP
UMEA	132.97	342.0	19 19	1						22 43 PKS
NURMIJARVI	133.91	336.8	19 20	0						22 55 SKP
LWIRO	135.00	243.3	19 21	-1						
SIMFEROPOL	136.71	313.4	19 28	3						22 12 PP
UPPSALA	136.82	339.7								22 43 SKP
KSARA	137.53	297.0	19 28K	2			20 5			22 48 PP
JERUSALEM	138.21	294.0	19 31	3						
ISTANBUL KA.	141.43	309.6	19 27	-6	26 30 -12					
HELWAN	141.64	291.3								18 58 PP
COPENHAGEN	141.82	339.2	19 22	-12						22 39 PP
BUCHAREST	142.22	315.9	19 31	-4						
SKALNATE PL.	143.17	326.1	19 37	1			19 46			
SOFIA	144.78	314.8	19 38	-1						23 6 PP
HURBANOVO	145.06	325.8	19 28	-12						
COLLMBERG	145.08	334.2	19 37K	-3						23 18 PKS
PRAGUE	145.39	331.6								20 16
PRUHONICE	145.40	331.3	19 39	-1			20 14			23 3 PP
BRATISLAVA	145.43	327.0	19 39K	-1						
BELGRADE	145.57	319.8	19 43K	2						23 7
VIENNA-H.	145.75	327.7	19 40	-1						19 52 PKP2
JENA	145.94	335.0	19 40	-1			20 13			23 1 PP
WITTEVEEN	146.06	341.4	19 45	4						
DURHAM	146.09	350.8	19 43K	1			20 16			
ATHENS	146.35	306.9	19 37	-5						19 43 PKP2
MUNSTER	146.50	339.7	19 44	2						
BANGUI	147.12	243.0	19 44	1						23 40
DE BILT	147.13	342.2	19 50	7						
BENSBERG	147.51	339.2	19 48	4						20 58
ZAGREB	147.53	324.6	19 49	5						
LJUBLJANA	148.16	326.2	19 50	5						
HEIDELBERG	148.26	336.0	19 49	4						
STUTTGART	148.56	334.7	19 47	1						23 25 PP
TRIESTE	148.82	326.3								48 4 SSS
TUBINGEN	148.83	334.7	19 49	3						
KEW	149.04	347.7								42 34 SS
EBINGEN	149.15	334.4	19 49	2						
RAVENSBURG	149.20	333.2	19 52	5						
STRASBOURG	149.30	336.1	19 54	7						23 26 PP
BESANCON	151.07	336.6	19 55	6						
FLORENCE X.	151.40	326.1	19 56	6						43 16 SS
PAVIA	151.40	330.3	19 37	-13						32 56
FOLINIERE	151.63	346.1	19 55	5						
ROME	151.98	321.8	19 52K	1	26 9 -48					23 36 PP
GARCHY	152.04	340.2	19 57	6			20 29			20 20 PKP2
MESSINA	152.13	312.5								43 5
ISOLA	153.14	331.5	20 1	9						
SETIF	159.87	320.2	20 49	48						
ALGIERS UNI.	160.79	325.4	20 5	3						
TOLEDO	160.87	345.0	20 42	40						24 28 PP
ALICANTE	161.13	335.2	19 53	-9	26 37 -29					32 21 SKKS
GRANADA	163.27	340.8								45 16 SS
TAMARRASSET	165.19	278.0	20 9	3						24 56 PP
BENI ABBES	168.65	321.0	20 18	9			20 42			25 20 PP
MBOUR	170.57	137.4	20 8	-2						25 17 PP

JANUARY 26 18.H 48.M 56.S EPICENTRE -20.53 169.37 DEPTH= 62.KM

A=-0.92117 B= 0.17293 C=-0.34862 D= 0.1845 E= 0.9828
G= 0.3426 H=-0.0643 K=-0.9373 HT= 4.5

DEPTH OF FOCUS= 0.005R

SE= 2.15

	DELTA DEG.	AZ. DEG.	P		O-C S	S O-C			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
NOLMEA	3.24	236.5	0	46	-4							
SUVA	8.88	76.1	2	10	2						4	34
ONERAHI	15.81	164.9	3	45	5							
BRISBANE	16.62	242.6	3	48	-3	7	1	9				
KARAPIRO	18.15	164.2	4	9	0							
AFIAMALU	19.16	72.9	4	20K	-1	7	55	6				
TONGARIRO	19.35	165.4	4	24	1							

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 107									
CHATEAU	19.35	165.4	4	23	0						
TUAI	19.41	161.4	4	24	0						
COBB RIVER	20.68	172.8	4	38	1						
RIVERVIEW	20.89	226.9	4	42	2	8	37	13			
WELLINGTON	21.19	168.7	4	44	1	8	39	10			
CHARTERS TS.	21.68	267.1	4	48	1	8	40	2			
KAIMATA	21.99	175.9	4	52	1						
CANBERRA	23.19	226.3	5	4	2	9	14	8			
GEBBIES PASS	23.27	174.0	5	3	0						
RABAUL	23.31	311.8	5	9	6				9	14	
PORT MORESBY	24.11	294.0	5	12	1	9	29	7			
ROXBURGH	24.88	180.1	5	17	-2	9	52	17			
MELBOURNE	27.28	225.5	5	40	-1				6	2	
MOORLANDS	28.73	215.5	5	56	2						
ADELAIDE	30.56	235.4	6	10A	0	11	9	3			
MUNDARING	48.60	245.1	8	39	-1						
SCOTT BASE	57.38	180.7	9	44K	-1						12 34
LEMBANG	61.20	273.5	10	9A	-2	18	29	5			11 27
DJAKARTA	62.16	273.9									12 24
ABUYAMA	63.77	329.3	10	27A	-1						
MATUSIRO	63.94	332.4	10	27A	-2						11 3
BYRD STATION	66.66	169.6	10	44	-3						
ZO-SE	69.09	316.8	11	0	-2						
SOUTH POLE	69.60	180.0	11	4	-1						
CANTON	69.74	305.5	11	7	1						
NANKING	71.27	316.2	11	15A	0						
CHANGCHUN	75.71	328.7	11	40A	-1	21	21	5			
MAWSON	77.29	202.1	11	47	-3						
PEKING	78.01	321.1	11	53	-1	21	44	3			
KUNMING	79.05	302.1	12	1A	2	21	59	7			
SIAN	79.19	312.8	12	1A	1						
CHENG TU	80.80	307.5	12	8	-1	22	14	4			
LANCHOW	83.67	312.1	12	25	1						
ARGENTINE I.	85.28	160.1	12	30	-2						
BERKELEY	86.54	47.5	12	38	0						
LICK	86.72	48.2	12	40A	1						
CONCORD	86.72	47.5	12	40K	1						
CHITTAGONG	86.83	295.1	12	45	6						
FRESNO	87.75	49.4	12	44	0						
SHASTA	87.84	45.0	12	44	0						
SHILLONG	88.07	298.1	12	45A	0						
MINERAL	88.20	45.6	12	45A	-1						
ISABELLA	88.20	50.9	12	45	-1						
VICTORIA	91.09	37.8	12	59	0						
COLLEGE	91.24	16.9	12	57	-3						
EUREKA	91.66	48.3	13	1	-1						
CHATRA	92.45	297.6	13	5	-1						
TUCSON	92.55	56.6	13	6	0				13	34	
TUCSON TELE.	92.67	56.5	13	6	-1						
PENTICTON	93.67	38.3	13	20	9						
GLEN CANYON	93.79	52.0	13	12	0						
HUNGRY HORSE	96.59	40.8	13	26	2						17 20 PP
FLAMING GRGE	96.86	49.0	13	25	-1						
QUETTA	110.42	295.5	18	26	1						
RESOLUTE	111.16	16.5	18	25	-2						29 24
KIMBERLEY	120.26	216.1	18	32	-12						
SHIRAZ	122.69	292.7	18	49K	0						19 48
BREBEUF	123.18	48.5	18	49	-1						
SHAWINIGAN	123.68	47.2	18	50	-1						
BULAWAYO	124.24	226.0	18	54A	2						
APATITY	125.49	340.8	18	54	-1						
SODANKYLA	127.60	342.8	18	58	-1						
SAN JUAN	127.85	82.3	18	58	-1						
BROKEN HILL	128.18	231.0	19	1A	1						
KIRUNA	128.85	345.4	19	1	0						
TRINIDAD	130.29	93.4	19	5	1						
UMEA	132.01	342.2	19	5	-2						22 26 SKP
NURMI JARVI	132.96	337.0	19	0	-9						22 32 SKP
HELSINKI	133.07	336.5	19	9	0						
SKALSTUGAN	134.27	345.9	19	9	-2						
LWIRO	135.22	244.3	19	9	-4						
UPPSALA	135.86	339.9	19	13	-1						
GOTEBORG	139.35	341.5	19	10	-11						
COPENHAGEN	140.87	339.4	19	16	-7						
SKALNATE PL.	142.27	326.6	19	25	-1						
SOFIA	143.96	315.6	19	29	0						
COLLMBERG	144.14	334.6	19	28A	-1						23 4 PP
PRAGUE	144.46	332.0	19	34	4						

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 108

PRUHONICE	144.47	331.8	19 28A	-2		23 2 PP
BRATISLAVA	144.52	327.5	19 27	-3	19 59	
BELGRADE	144.70	320.5	19 28K	-2		25 12
VIENNA-H.	144.83	328.2	19 31A	1		19 43 PKP2
JENA	144.99	335.4	19 30	-1		23 4 PP
WITTEVEEN	145.10	341.6	19 31	0		
DURHAM	145.13	350.8	19 31K	0	20 10	
CHEB	145.33	333.7	19 29	-2		
MUNSTER	145.54	340.0	19 33	1		
ATHENS	145.60	307.9	19 32A	0		
BENSBERG	146.55	339.5	19 36A	3		20 0
ZAGREB	146.64	325.3	19 37	4		
LJUBLJANA	147.25	326.8	19 37A	3	20 11	
HEIDELBERG	147.32	336.4	19 37	2		
BANGUI	147.33	244.5	19 34	-1		20 17 SP
STUTTGART	147.61	335.1	19 34	-1		
TUBINGEN	147.89	335.1	19 39	4		
KEW	148.08	347.8	19 39	3		
EBINGEN	148.21	334.8	19 40	4		
RAVENSBURG	148.26	333.7	19 38	2		
STRASBOURG	148.35	336.5	19 41	5		19 56
CHUR	149.03	332.6	19 42	5		
BASLE	149.28	335.5	19 44A	6		
PARIS	149.88	342.6	19 45	7		
NEUCHATEL	149.96	335.6	19 44	5		
BESANCON	150.12	337.0	19 44	5		
FLORENCE X.	150.50	326.8	19 42	3		
FOLINIERE	150.67	346.2	19 46	6		
GARCHY	151.08	340.5	19 54	14		20 7 PKP2
ISOLA	152.20	332.1	19 49A	7		
TORTOSA	157.66	337.3	18 13	-96		
SETIF	159.01	321.4	19 51	0	20 11	20 29 PKP2
TAMARRASSET	164.82	281.4	19 58A	1		24 47 PP
BENI ABBES	167.77	323.0	20 0	1	20 11	24 56 PP

JANUARY 28 3.H 24.M 50.S EPICENTRE -13.68 -75.84 DEPTH= 120.KM

A= 0.23777 B=-0.94248 C=-0.23496 D=-0.9696 E=-0.2446
G=-0.0575 H= 0.2278 K=-0.9720 HT= 6.0

DEPTH OF FOCUS= 0.014R

SE= 2.12

	DELTA DEG.	AZ. DEG.	P			S			*PP		SUPP.	
			M	S	O-C	M	S	O-C	M	S	M	S
LA PAZ	7.96	111.6	1	54	-1	3	26	2				
BOGOTA	18.26	5.6	4	9	2	7	33	10			4 29 PP	
FUQUENE	19.14	6.4	4	17	1	7	51	9				
SANTA LUCIA	20.24	167.3	4	27A	-1	8	14	11			4 46 PP	
BALBOA HTS.	22.79	350.5	4	54	1	9	2	13				
GALERAZAMBA	24.30	1.4				9	48	33			5 38 PP	
CARACAS	25.60	20.6	5	21	1	10	4	27				
TRINIDAD	28.10	31.4	5	44	1							
GRENADA	29.14	29.3	5	51	-1							
SANTIAGO MA.	29.75	334.6	4	27	-91						4 46 PP	
BARBADOS	31.11	31.8	6	11	2							
FORT FRANCE	31.75	27.8	6	12	-3							
SAN JUAN	33.26	17.0	6	28	0							
TACUBAYA	40.12	324.5									7 48	
PORT STANLEY	40.60	162.8	7	30	0							
COLUMBIA	47.67	354.2	8	25	-1							
FAYETTEVILLE	52.45	341.2	9	0A	-3						9 46	
WICHITA MTS.	52.76	336.4	9	3	-2				9 17		16 29 PS	
LUBBOCK	53.14	332.8	9	10	2							
PALISADES	54.44	1.8	9	16	-1	16 53	8		9 32		17 13 PS	
LAWRENCE	55.42	341.7	9	22	-2							
WESTON	55.93	4.0	9	28K	0	16 45	-20				11 16 PP	
ROCHESTER	56.51	358.9	9	30	-2							
TUCSON	56.63	324.4	9	31	-2				9 47		11 32 PP	
TUCSON TELE.	56.64	324.6	9	32	-1						10 26	
OTTAWA	58.80	0.1	9	46	-2							
BREBEUF	58.93	1.8	9	48A	-1							
HALIFAX	59.08	10.2	9	48	-2							
GLEN CANYON	60.59	327.5	10	1	1						10 23	
LARAMIE	61.23	334.8	10	4	-1							
PASADENA	62.31	320.9	10	13	1	18 39	12					

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 109

FLAMING GRGE	62.58	331.9	10 13	-1			10 26	
RAPID CITY	62.66	338.1	10 13	-1				12 18 PP
SALT LAKE C.	63.62	330.1	10 19	-2				
RUTH	64.05	327.0	10 36K	13	18 58	9		
MBOUR	64.60	66.7	10 30	3	19 14	19		
EUREKA	64.76	326.5	10 28	0				
FRESNO	65.05	322.1	10 45	15				
VINEYARD	65.99	321.1						11 52
LICK	66.53	321.5	10 39A	0				
RENO	66.92	324.3	10 43	1				
BOZEMAN	67.09	334.0	10 44	1				
BERKELEY	67.25	321.6	10 54	10	19 33	5		24 10
BUTTE	68.02	333.3	10 48	-1				11 21
MINERAL	68.48	323.9	10 51A	-1				
SHASTA	69.17	323.8	11 56	60				
BYRD STATION	69.27	187.4	10 57	1				11 12 PCP
ARCATA	70.26	323.1						11 18
HUNGRY HORSE	70.45	334.0	11 3	-1			11 19	11 59
CORVALLIS	72.22	326.4	11 14	0				
PENTICTON	73.65	331.8	11 23	1				
VICTORIA	74.90	329.4	11 28	-2				
SOUTH POLE	76.41	180.0	11 38	0				11 54 PCP
GRANADA	84.52	49.8	13 13A	52				
TOLEDO	85.20	47.2	12 26	2				13 16
RELIZANE	87.17	52.3	12 48	14				
TAMANRASSET	87.46	66.0	12 38A	3	23 13	9		15 59 PP
RESOLUTE	88.98	355.0	12 42A	-1				
BAGNERES	89.28	45.3	12 45	1				
SCORESBY SD.	91.65	15.8	12 56	1				
KIMBERLEY	92.57	120.2	12 54	-5				
ISOLA	94.39	45.7	12 18	-50				13 40
COLLEGE	94.82	336.0	13 9	-1			13 23	
BANGUI	95.35	86.8	13 14	2				17 8 PP
KARAPIRO	95.83	228.9	13 32	18				
STUTTGART	96.98	41.6	13 22	3				
BULAWAYO	98.48	113.1	13 40	14				
RIVERVIEW	114.94	222.2	18 39	12				19 34 PP
CHARTERS TS.	126.70	231.8	18 52	2				
SHIRAZ	129.85	62.8	18 59	3				22 23
PORT MORESBY	131.56	244.1			26 21	26		19 6 PP
QUETTA	141.99	58.2	19 18	0				22 32 PP
MATUSIRO	141.99	312.9	19 15A	-3				19 40 PKP2
WARSAK DAM	144.19	49.9	19 23	1				
ABUYAMA	144.67	312.2	18 23A	-60				
LAHORE	147.38	52.0	19 53	26				
POONA	150.50	76.5	19 38K	6				
LEMBANG	159.34	189.8	19 49	5				
SHILLONG	163.46	42.5	19 52K	4				

JANUARY 28 14.H 6.M 40.S EPICENTRE -45.43-105.90 DEPTH= 277.KM

A=-0.19295 B=-0.67725 C=-0.71001 D=-0.9617 E= 0.2740
G= 0.1945 H= 0.6828 K=-0.7042 HT= -3.7

DEPTH OF FOCUS= 0.038R

SE= 1.23

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
SANTA LUCIA	29.52	78.5	5	40	-1	10	36	22			6	50 PPP
PORT STANLEY	31.92	118.9	6	3	2							
BYRD STATION	35.06	184.1	6	28	0							
AREQUIPA	40.77	56.1	7	15	0							
HUANCAYO	42.24	47.8	7	29	2						8	13 SP
LA PAZ	42.74	60.0	7	32	1	14	3	29				
SOUTH POLE	44.76	180.0	7	48	1							
CHATEAU	56.26	246.3	9	12	-1							
KARAPIRO	56.97	247.6	9	16	-2							
BOGOTA	57.35	38.6	9	21	0	17	24	30			11	52 PP
FUQUENE	58.25	38.6	9	25	-2							
AFIAMALU	63.32	277.3	10	0	-1							
CARACAS	65.80	42.7	10	16K	-1	19	9	29				
SUVA	67.32	266.8									20	58 SS
TRINIDAD	68.69	47.7	10	36	1							
SAN JUAN	73.06	39.4	10	58	-3							
RIVERVIEW	74.81	237.2				20	32	11			25	50

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961					PAGE 110
CANBERRA	75.01	234.8	11 13	1	
MELBOURNE	75.47	230.6	11 16	1	
TUCSON	77.44	355.7	11 25	-1	12 0
TUCSON TELE.	77.52	355.8	11 26	0	
BRISBANE	78.34	242.9	11 30	-1	
LUBBOCK	78.72	3.4	11 31	-2	
PASADENA	79.98	349.7	11 40	1	
WICHITA MTS.	80.05	6.1	11 39A	-1	12 29 14 41 PP
FAYETTEVILLE	81.83	9.6	11 49A	0	
COLUMBIA	82.21	20.7	11 50	-1	
FRESNO	82.78	348.8	11 55	1	
VINEYARD	82.99	347.5	11 56	1	
LICK	83.60	347.4	11 58A	0	
BERKELEY	84.22	347.1	12 2A	1	
CONCORD	84.29	347.2	12 2A	1	
EUREKA	85.01	352.2	12 6	1	
RENO	85.50	349.3	12 8A	1	
SALT LAKE C.	85.98	355.5	12 9	-1	
FLAMING GRGE	86.03	357.4	12 10	0	12 59
LARAMIE	86.35	0.2	12 12	0	
MINERAL	86.55	348.0	12 12K	-1	
SHASTA	87.01	347.5	12 15	0	
CHARTERS TS.	87.73	243.6	12 19A	1	
RAPID CITY	89.15	1.9	12 25	0	
BOZEMAN	90.83	356.4	12 35	2	
CORVALLIS	90.94	347.7	12 35	2	
BUTTE	91.25	355.4	12 36	1	
KIMBERLEY	93.63	138.1	12 43	-3	
HUNGRY HORSE	93.66	354.6	12 46	0	
MUNDARING	94.01	214.8	12 49	2	
VICTORIA	94.81	348.4	12 49	-2	
PENTICTON	95.12	351.0	12 54	2	28 16
COLLEGE	114.72	341.7	18 9	2	
RESOLUTE	120.04	3.4	18 20	3	
TAMANRASSET	120.71	87.9	18 23	4	
SETIF	128.64	74.8	18 41	7	19 7
TUKUBASAN	130.49	283.7			33 6 PPS
MATUSIRO	131.95	283.0	18 57A	17	39 3 SS
ISOLA	133.68	66.4			21 22
STUTTGART	136.94	61.3	18 58	9	
COLLMBERG	140.02	58.8	18 52	-3	
PRUHONICE	140.59	61.2	19 1	5	
NANKING	143.15	264.6	19 1	0	
HELWAN	143.21	100.0	19 4	3	
TIKSI	143.34	334.3	18 59	-2	
KRAKOW	143.95	62.6	19 5	3	
UPPSALA	144.02	45.8	19 2	0	
KHEYS	144.23	4.5	19 4	1	
KIRUNA	144.61	31.9	19 5	2	
UMEA	145.14	38.8	19 3A	-1	
SODANKYLA	147.03	31.6	19 10	3	
JERUSALEM	147.03	100.8			19 15 PP
ISTANBUL KA.	147.24	81.3	19 14	6	
NURMI JARVI	147.52	44.4	19 5	-3	
HELSINKI	147.70	45.0	19 14	6	
KASTAMONU	148.54	81.7	19 22K	13	
KSARA	148.64	98.2	19 19	9	
PEKING	148.90	275.2	19 18	8	
KUNMING	149.32	238.4	19 18	7	27 25 96
APATITY	149.40	29.4	19 17	6	
SIAN	151.24	259.4	19 24	10	
CHENG TU	152.40	248.1	19 27	12	
POONA	153.18	179.5	19 21A	5	
MOSCOW	154.94	52.5	19 25	6	
SHILLONG	155.57	221.8	19 23K	3	
SHIRAZ	156.85	125.5	19 28	7	
TIFLIS	158.51	89.5	19 30	7	
CHATRA	158.70	213.8	19 28	4	
QUETTA	163.77	157.3	19 36A	7	24 11 PP
SEMI PALATNSK	173.53	322.5	19 37	2	
NAMANGAN	175.21	157.4	19 43	7	

JANUARY 28 19.H 42.M 58.S EPICENTRE -21.22 169.47 DEPTH= 0.KM

A=-0.91728 B= 0.17051 C=-0.35989 D= 0.1828 E= 0.9832
G= 0.3538 H=-0.0658 K=-0.9330 HT= 4.4

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 111

SE= 3.40

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
NOUMEA	3.00	248.6	0	46	-4						1	17
PORT VILA	3.64	342.5	0	54	-5	1	46	2				
SUVA	8.98	71.6	2	22	8	5	2	65				
ONERAHI	15.12	164.5	3	50	13							
AUCKLAND	16.27	164.6	3	52	0							
BRISBANE	16.40	244.8	3	49	-4	6	46	-10				
KARAPIRO	17.46	163.8	4	9	2							
CHATEAU	18.66	165.1	4	24	2							
TUAI	18.72	161.0	4	20	-2	8	13	24				
AFIAMALU	19.29	70.9	4	28	-1							
WELLINGTON	20.49	168.5	4	48	5	8	42	15			8	54 PCP
RIVERVIEW	20.49	228.4	4	42K	-1	9	4	36			5	2 PP
CHARTERS TS.	21.75	268.8	4	52	-3	8	52	0				
GEBBIES PASS	22.57	174.0	5	4	0	9	25	18				
CANBERRA	22.79	227.6	5	6	0	9	14	3				
RABAUL	23.85	312.8	5	11	-5						5	58
ROXBURGH	24.19	180.3	5	22	3	9	40	4			10	16
PORT MORESBY	24.49	295.3	5	18	-4	9	39	-2				
MELBOURNE	26.87	226.6	5	46	1							
FORT NELSON	28.47	215.5				10	41	-5				
ADELAIDE	30.25	236.5	6	16	1	11	14	-1				
MUNDARING	48.40	245.6	8	42	-4							
PERTH	48.72	245.6	8	48	-1	15	48	-3			10	43 PP
CAPE HALLETT	51.11	179.7	9	2	-5	16	30	6			11	9 PP
SCOTT BASE	56.69	180.7	10	51K	63						17	56
WILKES	58.43	203.9				17	58	-5			19	46 SCS
MANILA	59.40	302.8	10	8	1							
BAGUIO CITY	60.81	304.1	10	19	2	18	35	2				
LEMBANG	61.34	273.8	10	14	-6	18	29	-11			11	33
TUKUBASAN	63.52	333.7	10	38	5	19	2	-3			20	27 SCS
ABUYAMA	64.41	329.4	10	44A	3							
MATUSIRO	64.60	332.4	10	40A	-2	19	17	-4			12	54 PP
MIRNY	65.34	205.3	10	43	-4	19	28	-2				
BYRD STATION	65.96	169.6	10	47	-2							
SOUTH POLE	68.91	180.0	11	8	-1							
HONG KONG	69.14	305.4	11	12	1	20	12	-4			21	12 SCS
ZO-SE	69.66	316.9	11	18A	4	20	18	-4				
CANTON	70.22	305.7	11	23A	6	20	29	0				
NANKING	71.83	316.3	11	31A	4	20	43	-4				
Y.-SAKHLINSK	72.09	341.1	11	28K	0	20	48	-2				
UGLEGORSK	74.13	341.7	11	43A	3	21	15	2				
PETROPAVLOVK	74.52	353.2	11	43	0	21	16	-2				
CHANGCHUN	76.35	328.7	11	58A	5	21	36	-2				
PEKING	78.60	321.1	12	11A	5	21	59	-3				
KUNMING	79.50	302.1	12	17A	7	22	11	-1				
CHENG TU	81.30	307.5	12	26	6	22	28	-2				
MAGADAN	81.92	350.5	12	28	5							
PORT BLAIR	82.12	285.7	12	47	23							
LANCHOW	84.20	312.1	12	36	1	22	55	-5				
BERKELEY	86.94	47.4	12	48	-1						23	20
VINEYARD	87.00	48.7	12	42	-7							
LICK	87.11	48.1	12	48K	-1							
PASADENA	88.09	52.3	12	54	0	23	45	8			23	31 SKS
FRESNO	88.12	49.3	12	54	0							
SHASTA	88.26	44.9	12	54	-1							
SHILLONG	88.48	298.1	12	53A	-3	23	17	-24				
MINERAL	88.61	45.5	12	54A	-3							
ULAN-BATOR	88.69	323.3	13	1	4							
YAKUTSK	88.80	342.4	12	55	-2							
RENO	89.43	46.9	13	2	2							
CORVALLIS	89.64	41.2	13	17	16							
LHASA	90.81	301.5	13	8	1							
COLLEGE	91.87	16.8	13	7	-5	24	10	-2				
EUREKA	92.04	48.3	13	11	-1						14	40
IRKUTSK	92.46	326.1	13	12	-2	24	10	-7				
RUTH	92.63	48.8	13	14	-1	24	20	2				
TUCSON	92.85	56.6	13	15	-1	24	31	11			13	49
CHATRA	92.86	297.5	13	14	-2	23	47	-33				
BOKARO	92.89	294.3				23	49	-31				
TUCSON TELE.	92.97	56.5	13	16	-1							
MADRAS	93.97	282.3				23	56	-34			24	35
GLEN CANYON	94.14	52.0	12	44	-38						13	24
KODAIKANAL	95.48	278.8									23	34
TIKSI	96.70	348.0	13	30	-4							

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 112									
HYDERABAD	97.06	285.9			24	9	-4				
FLAMING GRGE	97.24	49.0	13	38	2						
TACUBAYA	98.01	72.4	13	53	13	24	12	-5			
SANTA LUCIA	101.03	132.4				24	30	-2	18	0	PP
DEHRA DUN	101.58	298.1				24	36	1			
BOMBAY	102.60	285.5				24	38	-2	32	48	SS
WICHITA MTS.	103.30	57.8	13	59	-5	24	45	2	27	32	PS
QUETTA	110.80	295.3	19	6	31	25	13	-3			
LA PAZ	112.21	119.0	18	35	-3				29	4	PS
BOGOTA	116.31	95.5							29	53	PS
SHIRAZ	123.04	292.2	18	57	-2				21	32	SKP
PALISADES	123.48	54.2				26	10	8	20	38	PP
CARACAS	124.96	91.9	19	33	30				26	17	SKP
WESTON	125.38	52.5							43	7	SSS
SAN JUAN	127.84	82.8	19	6	-2						
TIFLIS	129.49	307.1	19	11	0						
LWIRO	135.00	243.6	19	26	4						
KSARA	137.30	297.2	19	32	6				22	45	PP
JERUSALEM	137.99	294.3	19	23	-4				22	11	PP
ISTANBUL KA.	141.18	309.8	19	28	-5				21	31	PP
COLLMBERG	144.80	334.2	19	38	-1				23	20	PKS
PRUHONICE	145.12	331.4	19	39	-1				22	32	PP
BRATISLAVA	145.15	327.1	19	38	-2						
BELGRADE	145.30	320.0	19	40K	0	19	50		21	41	
VIENNA-H.	145.47	327.8	19	41	1				19	52	PKP2
JENA	145.66	335.0	19	39	-2				22	30	PP
DURHAM	145.83	350.8	19	43K	2				20	2	PKP2
CHEB	145.99	333.4	19	40	-1						
ATHENS	146.10	307.1	19	35K	-6						
MUNSTER	146.23	339.7	19	43	1						
BANGUI	147.12	243.5	19	45	2				20	9	SKKP
BENSBERG	147.23	339.2	19	44	1				20	14	
ZAGREB	147.26	324.8	19	43K	0						
LJUBLJANA	147.88	326.3	19	47	3				19	54	PKP2
STUTTGART	148.28	334.8	19	17	-28				20	29	
TRIESTE	148.55	326.4	19	49	4						
STRASBOURG	149.02	336.1	19	51	5				20	49	
BASLE	149.95	335.1	18	37	-71						
PARIS	150.57	342.4	19	50	1						
NEUCHATEL	150.63	335.2	19	54	5						
BESANCON	150.79	336.6	19	58	9						
FLORENCE X.	151.13	326.2	19	46	-3						
FOLINIERE	151.36	346.1	19	47	-3						
ROME	151.71	322.0							38	45	
GARCHY	151.77	340.2	20	4	14				20	25	
ISOLA	152.86	331.6	19	59	7				22	7	
SETIF	159.60	320.4	20	7	6				20	47	PKP2
RELIZANE	162.58	328.5	20	13	9						
GRANADA	163.00	340.8							45	18	SS
TAMANRASSET	165.03	278.9	20	6	0				24	52	PP
BENI ABBES	168.38	321.3	20	14	5				25	11	PP
MBOUR	170.84	136.9	19	58	-12	27	6	-6			

JANUARY 29 13.H 24.M 9.S EPICENTRE 52.20-176.33 DEPTH= 140.KM

A=-0.61423 B=-0.03942 C= 0.78814 D=-0.0640 E= 0.9979
G=-0.7865 H=-0.0505 K=-0.6155 HT= -6.2

DEPTH OF FOCUS= 0.017R

SE= 3.38

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
PETROPAVLOVK	15.20	283.0	3	28	0							
COLLEGE	19.33	38.0	4	13	-4	7	15	-28				
MAGADAN	19.69	304.9	4	22	2	8	13	24				
Y.-SAKHLINSK	26.77	275.3	5	28	-1							
YAKUTSK	30.03	310.4	6	11	13							
TIKSI	30.69	329.5	6	2	-2							
ALBERNI	32.17	74.3	6	5	-12							
VICTORIA	33.33	74.8	6	23	-3							
PENTICTON	35.21	71.6	6	40	-2							
CORVALLIS	35.33	80.9	6	42	-1							
MATUSIRO	35.43	262.0	6	43A	-1	12	16	8			9	11
SHASTA	38.05	85.6	7	4K	-2							

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961					PAGE 113				
RESOLUTE	38.36	25.1	7 8	-1					
MINERAL	38.75	85.5	7 9A	-3					
HUNGRY HORSE	38.92	70.1	7 11	-3				9 21	PCP
BERKELEY	39.86	89.1	7 31A	10					
CONCORD	39.91	88.8	7 31	9					
RENO	40.33	85.2	7 23	-2					
LICK	40.57	89.2	7 24K	-3				9 26	
BUTTE	40.98	72.4	7 27	-3				9 21	PCP
VINEYARD	41.11	89.7	7 29	-3				7 44	
BOZEMAN	42.06	71.9	7 38	-1					
FRESNO	42.07	88.5	7 35	-4					
EUREKA	42.72	82.5	7 42	-3	14 9	12			
SALT LAKE C.	44.43	78.3	7 56	-2			8 9	13 19	SCP
PASADENA	44.79	90.1	7 58	-3	14 39	12			
FLAMING GRGE	45.81	76.5	8 6	-3			8 18	18 3	SS
NORD	46.00	4.1	8 8	-3				9 43	
PEKING	46.70	282.9	8 15	-1					
GLEN CANYON	46.98	82.2	8 16	-3			8 29		
RAPID CITY	47.54	69.2	8 19	-4				10 3	PP
LARAMIE	47.84	73.6	8 23	-2					
ZO-SE	49.54	270.3	8 39	1					
NANKING	50.35	273.1	8 43	-2	16 0	15			
TUCSON	50.59	86.3	8 43	-3			8 57	10 40	PP
TUCSON TELE.	50.60	86.1	8 43	-3					
LAWRENCE	55.38	69.4	9 17	-5					
WICHITA MTS.	56.32	75.3	9 25	-3	17 12	6			
FAYETTEVILLE	57.97	71.2	9 36A	-4					
TROMSOE	57.97	353.8	9 40	0					
DALLAS	58.70	75.6	9 42	-3					
KIRUNA	59.64	352.7	9 54	2					
CANTON	60.11	269.8	9 54	0					
HONG KONG	60.20	268.5	9 54	-1					
CHENG TU	60.32	282.7	9 55	-1					
SVERDLOVSK	61.71	328.4	10 4	-2					
SHAWINIGAN	61.92	49.5	10 9	2					
BREBEUF	62.29	50.8	10 6	-3					
KUNMING	65.12	279.3	10 28	0					
COLUMBIA	66.95	64.0	10 36	-4					
UPPSALA	67.74	352.4	10 46	2					
SHILLONG	71.29	287.6	11 4	-2					
CHATRA	73.05	291.9	11 17	1					
CHITTAGONG	73.76	285.5	11 23	2					
CHARTERS TS.	79.03	215.6	11 47	-3					
TIFLIS	79.90	330.0						12 8	PCP
QUETTA	81.11	308.5	12 2	1					
BRISBANE	83.74	207.3	12 14	-1					
SAN JUAN	87.41	63.1	12 32	-1					
SHIRAZ	87.98	319.0	12 37	2					
KARAPIRO	90.04	186.4	12 43	-2			12 58		
TRINIDAD	96.33	63.8	13 13	-1					
LWIRO	125.98	328.4	18 48K	2				22 28	PP
SCOTT BASE	130.20	184.6	18 57K	3				22 36	PKS
BYRD STATION	135.83	167.9	18 58	-6				22 28	PP
BULAWAYO	142.58	319.3	19 16	0					
PRETORIA	147.74	315.5	18 31	-54					
WINDHOEK	148.66	335.6	19 22	-5					
KIMBERLEY	151.80	318.0	19 39	8					

JANUARY 30 12.H 12.M 36.S EPICENTRE 65.22-150.32 DEPTH= 0.KM

A=-0.36616 B=-0.20866 C= 0.90686 D=-0.4951 E= 0.8688
G=-0.7879 H=-0.4490 K=-0.4214 HT=-10.5

SE= 1.99

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
COLLEGE	1.12	107.3	0	22	-1	0	30	-9				
SITKA	10.91	131.6	2	38	-2							
RESOLUTE	20.31	39.1	4	37	-3	8	30	7			8	19
ALBERNI	20.87	127.7	4	52	6							
VICTORIA	21.99	126.5	4	58	1							
PENTICTON	22.65	119.8	5	5	1							
CORVALLIS	25.49	131.0	5	35A	4							
HUNGRY HORSE	25.55	113.7	5	32	0							
MAGADAN	26.95	285.9	5	45	0	10	25	4				
BUTTE	28.04	114.8	5	55	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961					PAGE 114				
TIKSI	28.19	318.5	5 53	-3					6 46 PP
BOZEMAN	28.92	113.4	6 3	1					
SHASTA	29.29	133.3	6 6	0					
MINERAL	29.85	132.5	6 11K	0					
RENO	31.16	130.6	6 24	2					
NORD	31.33	11.8	6 23	-1					
BERKELEY	31.93	135.3	6 30	1					
EUREKA	32.48	125.6	6 35	1					6 59
LICK	32.61	134.8	6 37A	2					
SALT LAKE C.	32.81	119.3	6 38	1					
VINEYARD	33.23	134.8	6 42	1					
RAPID CITY	33.35	106.1	6 41	-1					
YAKUTSK	33.45	302.6	6 44	2	12 4	0			
KHEYS	33.52	351.9	6 44	1					7 50 PP
FLAMING GRGE	33.59	116.2	6 44	0					10 3
FRESNO	33.69	132.7	6 49	4					
LARAMIE	34.73	111.4	6 53	0					
GLEN CANYON	36.26	122.1	7 7	1					10 24
PASADENA	36.62	132.3	7 10	1	12 55	2			7 32
SCORESBY SD.	39.99	24.2	7 41	3					8 6
TUCSON TELE.	40.74	124.2	7 45	1					
TUCSON	40.79	124.4	7 45	1	13 36	-20			
LAWRENCE	40.88	102.4	7 45	0					
WICHTA MTS.	43.18	109.1	8 4	0					13 59 PCS
OTTAWA	43.75	79.2	8 7K	-1					
TERRE HAUTE	43.83	94.4							18 54
TERRE HAUTE	43.83	94.4	4 44	-205	18 54	253			
SHAWINIGAN	44.03	75.8	8 10	-1					
BREBEUF	44.53	77.4	8 13A	-2					
DALLAS	45.54	108.5	8 23	0					
KIRUNA	47.07	4.8	8 37	2					
APATITY	47.49	358.0	8 37	-1					
SODANKYLA	47.68	1.6	8 39	-1					
WESTON	48.04	78.0	8 42A	-1	14 58	-43			
PALISADES	48.11	81.2			15 44	2			19 16 SS
HALIFAX	49.31	70.1	8 51	-1					
MATUSIRO	49.80	271.3	8 56A	0	16 0	-6			
SKALSTUGAN	50.87	9.9	9 3	-1					
UMEA	51.07	5.4	9 7A	1					
NURMIJARVI	54.53	3.0	9 34	2					
PULKOVO	55.32	359.6	9 39	2					
SVERDLOVSK	56.02	340.1	9 39	-3					
BENSBERG	62.86	15.8	10 36A	6					
COLLMBERG	63.10	11.7	10 34	3					12 27
PRUHONICE	64.54	10.8	10 41	0					11 10 PCP
RACIBORZ	64.69	8.2							18 19
STUTTGART	65.25	14.7	10 48	3					11 35
BRATISLAVA	66.53	9.1	10 52	-1					
FRUNSE	66.75	325.6	10 55	0					
LJUBLJANA	68.44	11.3	11 6	0					
TASHKENT	69.40	329.1	11 11	0					
ISOLA	69.52	17.2	11 16	4					
SAN JUAN	71.06	87.3	11 24	2					
DUZHANBE	72.14	328.7	11 27	-1					18 40
TIFLIS	72.74	348.2	11 26	-6					11 50 PCP
KASTAMONU	73.74	359.1	11 36	-1					
ISTANBUL KA.	74.05	0.5	11 39	0					
GRANADA	74.68	27.0	12 10A	27					
WARSAK DAM	75.87	325.1	11 48	-2					
CARACAS	77.77	91.5	11 47	-13	21 49	-3			
SHILLONG	77.78	305.2	12 1A	1					
TEHERAN	77.95	342.1	12 2	1	21 35	-19			
CHATRA	78.19	309.7	12 3	0					
QUETTA	80.61	327.9	12 16	0	22 23	0			
RABUL	80.80	238.4	12 15	-2					
SHIRAZ	83.79	340.1	12 33	1					
PORT MORESBY	87.44	241.2	12 50	0					
TAMARASSET	90.33	22.2	13 4	0					
CHARTERS TS.	97.61	238.0	13 35	-2					
KIMBERLEY	143.38	7.2	19 34	-2					
SCOTT BASE	145.18	194.6	19 38A	-1					
BYRD STATION	146.08	170.8	19 40	-1					
SOUTH POLE	155.07	180.0	19 56	2					

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 115

A=-0.50379 B=-0.24735 C= 0.82765 D=-0.4407 E= 0.8976
G=-0.7429 H=-0.3648 K=-0.5612 HT= -7.6

SE= 2.94

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
COLLEGE	9.34	16.0	2	13	-6	4	46	40			2	37
SITKA	10.28	76.7	2	24	-8						2	52
ALBERNI	18.77	98.9	4	25	2							
VICTORIA	19.95	99.3	4	38	2							
PENTICTON	21.64	93.6	4	50	-4							
CORVALLIS	22.43	107.8	4	59A	-3							
HUNGRY HORSE	25.29	90.8	5	28	-1	10	3	9			9	2 PCP
SHASTA	25.63	113.5	5	33K	0							
MINERAL	26.30	113.0	5	38K	-1							
BUTTE	27.44	93.8	5	49	0	10	19	-10				
RENO	27.82	112.0	5	52K	-1							
BERKELEY	27.84	117.4	5	44K	-9	10	38	3				
BOZEMAN	28.50	93.1	5	57	-2							
RESOLUTE	28.98	28.0	6	2A	-1	10	53	-1				
EUREKA	29.89	107.5	6	10	-1						10	10
SALT LAKE C.	31.22	101.4	6	15	-8							
FLAMING GRGE	32.47	98.7	6	31	-3	12	2	13			7	43
PASADENA	32.80	116.8	6	35	-2	11	56	2			7	40 PP
RAPID CITY	33.88	88.9	6	45	-1							
GLEN CANYON	34.08	106.0	6	47	-1							
LARAMIE	34.34	94.7	6	48	-2							
TIKSI	34.50	326.9	6	50	-2	12	19	-1			8	9 PP
THULE	35.46	24.0	6	58	-2							
YAKUTSK	37.63	311.3	7	17	-1						8	44 PP
TUCSON TELE.	38.06	110.2	7	21	-1							
TUCSON	38.07	110.4	7	21	-1	12	55	-20			8	39 PP
Y.-SAKHLINSK	39.16	284.3				13	27	-5				
NORD	40.70	8.8	7	43A	-1	13	56	1				
KHEYS	42.42	352.6	7	57	-1	14	20	0			9	39 PP
WICHITA MTS.	42.89	95.9	8	0	-2	14	29	2			9	30 PP
CHIHUAHUA	43.44	108.8									17	25 SS
FAYETTEVILLE	44.36	90.8	8	11K	-3	14	39	-9			10	4 PP
DALLAS	45.28	96.1	8	21	0							
VLADIVOSTOK	47.53	287.2	8	38	-1	15	37	3			10	35 PP
CLEVELAND	47.61	75.8	8	46	7	15	32	-3				
TUKUBASAN	47.85	274.5	8	39A	-2	15	35	-3	8	50	19	19 SS
OTTAWA	48.03	68.0	8	44	1							
MATUSIRO	48.67	276.3	8	47A	-1	15	53	3				
SHAWINIGAN	48.78	65.0	8	47	-1							
ROCHESTER	48.86	71.2	8	49	0							
BREBEUF	49.05	66.6	8	49	-2	15	49	-6				
SCORESBY SD.	49.19	19.3	8	53	1	16	13	16			18	47 SCS
PENNSYLVANIA	50.06	73.9	8	58	0	16	5	-4			18	45 SCS
CHANGCHUN	50.52	292.2	9	1A	-1	16	18	2				
GUADALAJARA	51.35	112.2									11	9
WASHINGTON	51.85	75.0	9	11	-1	16	28	-6				
PALISADES	52.03	70.9	9	15	2	16	33	-4			11	19 PP
FORDHAM	52.16	71.1	9	14	0	16	37	-1				
WESTON	52.42	68.0	9	14A	-2	16	38	-4			20	30 SS
COLUMBIA	53.25	82.2	9	25	3							
IRKUTSK	54.39	312.3	9	30A	-1	17	14	5			11	27 PP
TACUBAYA	54.57	109.1	9	30	-2	17	49	38			12	24 PPP
HALI FAX	54.72	61.0	9	31	-2							
KIRUNA	56.37	2.6	9	43A	-2	17	29	-6				
APATITY	56.61	356.7	9	46A	-1	17	39	1			11	51 PP
SODANKYLA	56.91	359.8	9	47	-2	17	43	1				
PEKING	57.97	295.1	9	55A	-1	17	59	3				
MERIDA	58.52	99.2				18	1	-2				
SKALSTUGAN	60.23	7.1	10	11	-1							
UMEA	60.39	3.0	10	13	0							
ZO-SE	62.12	284.8	10	25A	0	18	53	3				
NURMI JARVI	63.79	0.8	10	35	-1	19	15	5				
SVERDLOVSK	64.08	339.8	10	37	-1	19	11	-3			23	25 SS
HELSINKI	64.13	0.7	10	37	-1							
UPPSALA	64.26	4.8	10	37A	-2	19	15	-1				
PULKOVO	64.49	357.7	10	38	-3	19	19	0			19	32 PS
SEMIPALATNSK	64.83	325.1	10	40	-3	19	13	-10			12	56 PP
GOTEBORG	66.04	8.3	10	49A	-2							
SIAN	66.10	296.0	10	50A	-1	19	34	-5				
LANCHOW	67.18	300.8	10	58A	0	19	55	3				
DURHAM	67.25	17.0	11	8	10							

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961										PAGE 116	
COPENHAGEN	68.08	8.3	11	0	-4	20	11	8			24 42 SS
MOSCOW	68.20	353.0	11	2	-2						24 49 SS
WITTEVEEN	70.33	12.4	11	23	6						
KEW	70.64	17.2	11	28	9	20	34	1			21 14 PS
DE BILT	70.84	13.5				20	55	20			
MUNSTER	71.27	12.0	11	21	-2						
CHENG TU	71.44	297.3	11	24A	0	20	43	1			
WARSAW	72.02	3.3				20	51	2			21 50
BENSBERG	72.21	12.5	11	27	-2						14 15 PP
COLLMBERG	72.48	8.6	11	29	-1	20	59	5			14 23 PP
JENA	72.72	9.6	11	31	-1	20	58	1			14 19 PP
HONG KONG	72.88	284.4	11	33A	0	20	59	0			25 31 SS
FOLINIÈRE	73.22	18.0	11	34	-1						
FRUNSE	73.33	324.9	11	35	0	21	5	1			15 59 PPP
CHEB	73.63	9.2	11	38	1						
PARIS	73.67	16.0	11	37	0						12 21
SAN JUAN	73.71	81.3	11	37	0						
PRAGUE	73.81	7.8	11	51	13						
CHORZOW	73.87	4.8	11	37	-1						
PRUHONICE	73.91	7.8	11	38A	-1	21	14	4			25 53 SS
HEIDELBERG	73.93	11.8	11	37	-2						
RACIBORZ	74.04	5.3	11	38	-1						12 7
KRAKOW	74.15	4.2	11	38	-2						
STUTT GART	74.62	11.5	11	41	-2	21	18	0			14 24 PP
STRASBOURG	74.63	12.5	11	42	-1	21	19	1			14 27 PP
TUBINGEN	74.83	11.7	11	43	-1						
SKALNATE PL.	75.04	4.0	11	45	0						11 55 PCP
EBINGEN	75.16	11.8	11	45	-1						
MANILA	75.23	274.3	11	45	-1						
GARCHY	75.25	16.0	12	4	18						
BASLE	75.64	12.9	11	52	3						
BESANCON	75.70	14.0	12	1	12						12 14 PCP
VIENNA-H.	75.76	6.7	11	48K	-1						11 59 PCP
BRATISLAVA	75.89	6.2	11	50	0						14 33 PP
NEUCHATEL	76.08	13.4	11	51	0						
TASHKENT	76.36	328.0	11	52	-1	21	40	3			14 42 PP
KUNMING	76.62	295.0	11	53A	-1	21	40	0			
CLERMONT-FD.	76.73	16.3	12	4	9						
LJUBLJANA	77.81	8.3	12	0	-1						14 58 PP
PAVIA	78.14	12.2									17 2
TRIESTE	78.15	8.9	12	4	2	21	55	-2	12	13	
ZAGREB	78.15	7.2	11	49	-14						
PADOVA	78.21	10.2	12	5	2	22	1	4			
LHASA	78.47	306.4	12	6	2	22	3	3			
BAGNERES	78.84	19.1	12	14	8						
ISOLA	78.86	13.9	12	6	0				12	14	
DUZHANBE	79.04	327.3	12	9	2	22	9	3			
SIMFEROPOL	79.16	354.2	12	7A	-1	22	6	-2			15 12 PP
CHINCHINA	79.32	97.0	12	10	1						22 7 PS
MONACO	79.35	13.7									16 10
BELGRADE	79.40	4.1	12	10K	1	22	14	4			12 21 PCP
CARACAS	79.66	86.6	12	11	0						23 9 PS
COIMBRA	79.74	26.2				22	3	-11			22 14 SKS
FLORENCE X.	79.76	10.9	12	12	1	21	55	-19			
BUCHAREST	79.91	0.0									22 30
FUQUENE	79.97	95.1	12	21	9						15 34 PP
BOGOTA	80.48	95.9	12	20	5						15 31 PP
LISBON	80.95	27.2	12	17A	-1	21	37	-49			
TOLEDO	81.07	23.1	12	15	-3	22	30	3			27 54 SS
PORT MORESBY	81.32	238.8	12	18	-2	22	28	-2			
TIFLIS	81.34	346.0	12	20	0	22	32	2			12 31 PCP
SHILLONG	81.56	303.7	12	21	0	22	33	0			
SOFIA	81.60	2.1	12	20	-1	22	33	0			
ROME	81.75	10.3	12	20A	-2	22	44	10	12	31	15 27 PP
WARSAK DAM	82.34	323.4	12	24A	-1						
ASHKABAD	82.45	334.9	12	26	1	22	47	5			15 36 PP
CHATRA	82.61	308.0	12	26A	0	22	43	0			
TRINIDAD	82.62	82.0	12	25	-1						
KASTAMONU	82.88	356.5	12	26	-2						15 41 PP
ISTANBUL KA.	83.23	357.8	12	28	-1	22	56	6			
ALICANTE	83.29	20.8	12	32	2	22	54	4			17 40 PPP
GORIS	83.30	344.4	12	30	0						15 43 PP
DEHRA DUN	83.32	316.8	12	33	3	22	52	1			15 42 PP
LAHORE	83.60	320.2	12	29	-2	22	48	-5			15 39 PP
GRANADA	83.75	23.5	12	37							
998 22 59 4		16 1 PP									
ALMERIA	84.32	22.7	12	36	1	23	10	10			16 0 PP
CHITTAGONG	84.32	302.0	12	34	-1	22	58	-2	12	44	15 51 PP
ALGIERS UNI.	85.48	18.4	12	41	0	23	4	-8			15 57 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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961										PAGE 117	
MESSINA	85.70	8.4	12 44	2	23 16	2				16 6	PP
BOKARO	85.82	307.6	12 53	10							
RELIZANE	86.00	20.6	12 39	-4	23 19	2				16 6	PP
TEHERAN	86.08	339.7	12 45	1	23 13	-5					
ATHENS	86.34	1.9	12 54	9							
SETIF	86.44	16.7	12 48	2						16 8	PP
QUETTA	87.36	325.5	12 50A	0	23 32	2				16 15	PP
KSARA	90.11	351.9	13 2A	-1	23 52	-3				16 37	PP
CHARTERS TS.	91.03	234.4	13 7	0	24 2	-2					
SHIRAZ	91.74	337.2	13 10K	-1	23 40	-30	13 21			16 52	PP
JERUSALEM	92.19	352.3	13 13	0	24 18	4					
PORT BLAIR	93.00	295.8	13 16	0	23 52	-29					
HUANCAYO	93.58	106.1	13 24	5							
HELWAN	94.32	355.5	13 20	-2						17 7	PP
BRISBANE	94.65	225.7	14 15	51	24 42	7					
HYDERABAD	94.66	310.7	13 22	-2	23 56	-39				24 35	PS
BOMBAY	95.63	316.2	13 30	2	24 4	0				17 18	PP
MADRAS	97.83	307.2			24 17	1				17 1	
TAMANRASSET	99.56	19.3	13 54	8	24 24	-1				17 50	PP
RIVERVIEW	100.99	224.0	14 9	16	24 31	-1				25 34	S
LA PAZ	101.15	102.8	13 48	-5	24 33	0					
KODAIKANAL	101.49	308.4			24 6	-28					
CANBERRA	103.14	224.9			25 41	59					
ROXBURGH	105.79	206.0			24 49	-5					
LWIRO	126.33	356.7	19 4	-1							
CAPE HALLETT	130.47	193.6								22 32	PKS
BROKEN HILL	138.46	356.6	19 34	6							
BULAWAYO	144.11	356.1	19 36	-1							
SOUTH POLE	145.86	180.0	19 40	-1							
WINDHOEK	145.90	14.8	19 42K	1							
MIRNY	147.86	223.8	19 54	10							
PRETORIA	149.70	356.4	19 52	5							
KIMBERLEY	152.71	2.6	19 57	6							

FEBRUARY 3 13.H 31.M 44.S EPICENTRE 36.41 141.08 DEPTH= 63.KM

A=-0.62763 B= 0.50674 C= 0.59101 D= 0.6282 E= 0.7781
G=-0.4598 H= 0.3713 K=-0.8067 HT= -0.4

DEPTH OF FOCUS= 0.005R

SE= 3.28

	DELTA DEG.	AZ. DEG.	P		O-C S	S O-C			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
MITO	0.50	266.3	0	9K	-5	0	18	-7				
ONAHAMA	0.56	344.7	0	10K	-5	0	18	-8				
TYOSI	0.72	195.3	0	11K	-5	0	21	-8				
KAKIOKA	0.75	256.2	0	13K	-4	0	22	-7				
TUKUBASAN	0.82	256.6	0	14A	-3							
UTUNOMIYA	0.99	278.3	0	17K	-2	0	31	-2				
SHIRAKAWA	0.99	315.8	0	16K	-3	0	29	-4				
HONGO	1.27	237.0	0	21A	-2	0	39	-1				
TOKYO C.M.O.	1.30	236.3	0	21K	-2	0	39	-1				
KUMAGAYA	1.40	259.7	0	23K	-2	0	41	-2				
HUKUSIMA	1.42	340.0	0	22K	-3	0	39	-4				
YOKOHAMA	1.52	230.3	0	27	1							
MAEBASI	1.62	270.1	0	26K	-2	0	46	-2				
TITIBU	1.68	255.6	0	27	-1	0	48	-1				
NERA	1.81	214.8	0	31	1	0	55	3				
SENDAI	1.86	355.5	0	27K	-4	0	49	-4				
YAMAGATA	1.92	342.5	0	29	-3	0	54	-1				
ISINOMAKI	2.02	5.3	0	30K	-3	0	51	-6				
OI WAKE	2.05	268.4	0	32	-1							
HUNATU	2.09	244.8	0	35	1	1	0	1				
AJIRO	2.11	230.4	0	34	0	1	2	2				
OSIMA	2.15	220.7	0	35A	0	1	2	2				
MISIMA	2.16	234.0	0	35K	0	1	2	1				
KOHU	2.18	250.8	0	34K	-1	1	11	10				
NIIGATA	2.21	313.4	0	39	3	1	9	7				
MATUSIRO	2.32	274.0	0	36K	-1	1	7	2				
NAGANO	2.34	277.1	0	38K	1	1	9	4				
TAKADA	2.38	287.6	0	37	-1	1	11	5				
MATUMOTO	2.52	267.2	0	39	-1	1	0	-10				
SHIZUOKA	2.62	237.4	0	42	1	1	14	2				
SAKATA	2.67	338.5	0	46	4	1	20	6				

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 118					
AIKAWA	2.77	306.2	0 44	1	1 28	12	
IIDA	2.79	252.3	0 46	2	1 25	9	
OMAESAKI	2.95	233.1	0 47	1	1 25	4	
TAKAYAMA	3.11	266.3	0 51	3	1 4	-20	
TOYAMA	3.14	276.4	0 50	1	1 12	-13	
HAMAMATU	3.22	239.3	0 53	3	1 36	9	
MORIOKA	3.28	1.2	0 49	-2	1 26	-3	
MIYAKO	3.31	12.0	0 48	-3	1 24	-5	
AKITA	3.39	347.1	0 52	0	1 32	0	
WAZIMA	3.49	287.3	0 58	5			
NAGOYA	3.57	250.9	0 55	0	1 43	7	
KANAZAWA	3.58	273.2	0 46	-9			
GIHU	3.64	255.2	0 56A	0	1 48	10	
HUKUI	3.94	266.2	0 59	-1	1 58	13	
KAMEYAMA	4.07	248.8	1 4	2	1 57	8	
HIKONE	4.09	255.2	1 2	0	1 58	9	
HATINOHE	4.13	4.7	1 9	7	1 52	2	
TSURUGA	4.13	260.9	1 3	1	1 55	5	
AOMORI	4.41	357.0	1 13	7	2 3	6	
KYOTO	4.57	253.9	1 9	0	2 7	6	
NARA	4.62	249.6	1 9	0	2 9	7	
OWASE	4.63	241.1	1 9	0	2 26	23	
MAIZURU	4.71	260.2	1 15	4	2 16	11	
ABUYAMA	4.75	252.7	1 10K	-1			
OSAKA	4.86	250.4	1 25	12	2 34	26	
KOBE	5.11	252.0			2 41	26	1 44
TOYOOKA	5.16	262.0	1 18	1	2 24	8	
WAKAYAMA	5.30	247.5	1 22	3	2 35	16	
HAKODATE	5.40	357.4	1 26	6			
SUMOTO	5.45	249.5	1 25A	4	2 34	11	
TOTTORI	5.67	262.9	1 29	5	2 41	13	
MORI	5.69	356.1	1 33	9	2 36	7	
TOKUSIMA	5.81	248.2	1 29	3	2 43	11	
URAKAWA	5.88	12.4	1 24	-3	2 29	-5	
MURORAN	5.90	359.3	1 30	3			
HIRDO	6.11	15.8	1 27	-3			
TAKAMATU	6.11	252.1	1 32	2	3 5	26	
TOMAKOMAI	6.22	3.4					1 53
SAIGO	6.26	270.3	1 35	3			
YONAGO	6.35	263.4	1 33	0			
SUTTSU	6.41	354.4	1 39	5			
MUROTO	6.49	242.9	0 55	-40	2 0	-49	
SAPPORO	6.65	1.7					2 2
OBHIRO	6.70	13.4	1 37	-1			
KOTI	6.83	247.5	1 51	11	3 3	6	
KUSIRO	7.04	20.3	1 38	-5	2 58	-4	
MATUYAMA	7.27	251.7	1 48	2	3 26	18	
HIROSIMA	7.36	256.4	1 41	-6	3 12	2	
HAMADA	7.49	261.0	2 25K	36	3 49	36	
RUMOE	7.54	3.0					2 8
NEMURO	7.72	25.2	1 50	-2			
ABASHIRI	7.98	16.8			3 17	-9	
OOITA	8.40	250.6					4 15
HUKUOKA	9.22	255.3					4 29
KUMAMOTO	9.28	250.3					3 16
VLADIVOSTOK	9.73	316.3	2 21	1			
Y.-SAKHLINSK	10.67	6.1	2 30	-3	4 20	-11	
CHANGCHUN	14.15	306.4	3 17	-2			
ZO-SE	17.37	258.0	3 49	-11			
NANKING	18.93	263.2	4 15	-3			
PEKING	19.88	288.0	4 25	-4			
MAGADAN	24.00	12.2	5 9	-1			
YAKUTSK	26.60	348.0	5 31	-3			
ULAN-BATOR	27.60	305.3	5 52	9			
LANCHOW	29.93	280.6	6 3	-1			
CHENG TU	31.30	270.3	6 14	-2			
KUNMING	34.61	261.9	6 44	-1			
SHILLONG	43.15	269.8	7 56K	0			
SEMIPALATNSK	45.11	307.9	8 11	-1			
CHATRA	46.38	274.0	8 21K	-1			
COLLEGE	49.76	32.0	8 48	0			9 14
NAMANGAN	53.07	297.5	9 13	0			
KHEYS	53.20	348.3	9 13	-1			
LEMBANG	53.24	223.1	9 13A	-1			
SVERDLOVSK	55.44	318.8	9 29	-1			
CHARTERS TS.	56.41	174.2	9 34	-3			
QUETTA	60.88	287.6	10 8A	0			10 33 12 24 PP
NORD	61.65	356.4	10 12	-2			
APATI TY	63.15	335.8	10 20	-4			

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 119

RESOLUTE	63.27	14.3	10 22A	-2					
SODANKYLA	65.43	337.2	10 36A	-2					
KIRUNA	67.00	339.2	10 47	-1					
KAJAANI	67.03	334.0	10 48A	-1					
MOSCOW	67.59	323.5	10 47	-5					
UMEA	69.74	336.0	11 4K	-1					
NURMI JARVI	70.37	331.9	11 8	-1					
SHASTA	71.69	52.7	11 18	1					
CANBERRA	71.75	173.2	11 18	1					
SHIRAZ	72.03	293.8	11 19K	0	21	2	27		
MINERAL	72.38	52.7	11 21	0					
SKALSTUGAN	72.40	338.5	11 7	-14					
HUNGRY HORSE	72.42	42.6	11 22	1					
SCORESBY SD.	72.71	354.1	11 23	0					
UPPSALA	73.40	333.9	11 26	-1					
RENO	73.98	52.6	11 43	12					
LICK	74.01	55.3	11 42K	11					
EUREKA	76.44	50.9	11 45	0					
WOODY	76.78	55.4	11 47	0					
GOTEBORG	76.97	334.7	11 47	-1					
KRAKOW	79.47	325.9	12 1	0					
FLAMING GRGE	79.55	46.6	12 2	0					
NIEDZIKA	79.74	325.2	12 2	-1				12	46
RACIBORZ	80.22	326.7	12 5	0					
RAPID CITY	80.94	41.1	12 11	2					
PRUHONICE	81.88	328.4	12 8A	-6				12	46 *SP
TUCSON	84.17	54.1	12 26	0	12	55			
TUCSON TELE.	84.18	53.9	12 26	0					
HEIDELBERG	84.70	331.0	12 28	0					
STUTTGART	84.98	330.3	12 30	0				13	6
WICHITA MTS.	90.02	45.3	12 54	0					
FAYETTEVILLE	91.47	41.8	13 0K	-1					
TAMANRASSET	107.70	317.3						18	31 PP
SOUTH POLE	126.23	180.0	18 56	0					
BYRD STATION	127.22	167.5	18 59	1					

FEBRUARY 4 8.H 51.M 50.S EPICENTRE 24.86 95.34 DEPTH= 141.KM

A=-0.08447 B= 0.90450 C= 0.41801 D= 0.9957 E= 0.0930
G=-0.0389 H= 0.4162 K=-0.9084 HT= 3.4

DEPTH OF FOCUS= 0.017R

SE= 2.00

	DELTA DEG.	AZ. DEG.	P			O-C			*PP		SUPP.	
			M	S	S	M	S	S	M	S	M	S
TOCKLAI	1.95	345.0	0	32	-3							
SHILLONG	3.22	283.5	0	48K	-3	1	24	-6			0	57 PP
CHITTAGONG	4.07	233.1	1	1K	-1							
LHASA	6.11	322.2	1	31K	2	2	33	-5				
KUNMING	6.72	86.2	1	41K	4	2	53	0				
CALCUTTA	6.79	251.5	1	38K	0	2	47	-8				
CHATRA	7.61	286.7	1	47K	-2	3	6	-9			1	53 PP
BOKARO	8.76	265.3	2	1K	-4							
CHENG TU	9.61	51.1	2	15K	-1							
VIZIANAGRAM	12.93	241.1	2	35	-24							
LANCHOW	13.34	31.3	3	4K	-1							
PORT BLAIR	13.35	191.2	3	3	-2	5	30	0				
SIAN	15.07	48.5	3	26K	-1							
DEHRA DUN	16.26	293.4	3	44	3	6	32	-5			3	54 PP
CANTON	16.55	92.4	3	46A	1	6	50	7	4	12	4	26 *SP
HYDERABAD	17.39	248.1	3	56K	1						4	11 PP
HONG KONG	17.45	94.5	3	56A	0	7	10	7	4	32	4	56 *SP
NHATRANG	18.17	131.3	4	11	7				4	36		
MADRAS	18.54	233.3	4	10K	2	7	33	6			4	25 PP
LAHORE	19.66	294.6	4	19	-1	7	47	-2				
POONA	20.92	256.7	4	33K	0	8	11	-2			8	58 SS
MEDAN	21.40	170.8	4	39A	2	8	20	-1	5	10	5	20 PP
SOMBAY	21.71	258.6	4	43	3						5	27 SP
NANKING	21.80	65.5	4	42A	1	8	33	5			5	27 *SP
KODAIKANAL	22.36	232.5	4	50A	3	8	35	-3				
WARSAK DAM	22.59	299.3	4	53A	4							
PEKING	23.11	44.1	4	55	1	8	57	6	5	23	5	40 *SP
COLOMBO	23.19	222.2	4	56	1	9	5	12			5	42
ZO-SE	23.63	68.9	4	59	0	9	3	3	5	28	5	43 *SP

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 120											
ALMATA	23.77	325.1	5	3	3	9	11	9	5	31	6	14	
KHOROG	23.87	307.5	5	4	3	9	10	6	5	32			
FRUNSE	24.74	321.5	5	12	2	9	24	5	5	40			
ULAN-BATOR	24.77	18.8	5	11	1								
ANDIJAN	24.87	315.2	5	13A	2	9	27	6	5	41	10	28	SS
QUETTA	25.69	288.3	5	19A	0	9	42	7			6	1	PP
MANILA	26.22	107.9	5	26	3						6	0	
DUZHANBE	26.30	307.7	5	26	2						10	30	
TASHKENT	27.17	313.6	5	33	1	10	1	2	6	1	6	23	PP
SEMI PALATNSK	28.05	339.3	5	41	1	10	10	-3					
IRKUTSK	28.22	11.7	5	43	1	10	21	6					
CHANGCHUN	30.91	44.7	6	6	1	10	57	-1					
DJAKARTA	32.82	158.6	6	18	-4						11	18	
LEMBANG	33.69	157.6	6	27A	-3	11	37	-4	6	59	7	53	PP
ASHKABAD	33.94	301.6	6	36	4	11	52	7	7	3	14	4	SS
VLADIVOSTOK	35.02	49.5	6	41	0						7	19	*SP
ABUYAMA	36.09	64.4	6	50K	0								
SHIRAZ	38.20	286.9	7	8K	0	12	49	-1	7	38	7	52	*SP
MATUSIRO	38.38	62.0	7	8A	-1	12	44	-9	7	50	9	21	PCP
TEHERAN	39.18	296.7	7	16	0	12	55	-10					
SVERDLOVSK	40.56	331.2	7	28	1	13	27	2					
GORIS	43.46	301.9	7	51	0	14	11	3	8	21	15	2	*SS
Y. -SAKHLINSK	43.47	47.0	7	52	1	14	8	0					
UGLEGORSK	43.59	44.0	7	51	-1	14	9	-1					
YAKUTSK	43.76	22.6	7	54	1	14	12	0					
TIFLIS	44.81	304.9	8	3	2	14	32	5	8	32			
TIKSI	50.47	13.1	8	41	-4	15	43	-4	9	11	10	43	PP
MAGADAN	51.53	32.4	8	52	-1	16	3	2					
MOSCOW	51.74	322.5	8	55	0	16	4	0	9	24	17	3	*SS
KSARA	51.98	294.5	8	57	0	16	13	6	9	29	9	50	*SP
SIMFEROPOL	52.78	308.6	9	1A	-2	16	18	0	9	32	17	16	*SS
JERUSALEM	52.80	292.0	9	3A	0								
PETROPAVLOVK	54.58	41.5	9	14	-2	16	46	4			10	20	PCP
ADDIS ABABA	55.97	264.1	9	27	1						10	8	
PULKOVO	56.31	326.5	9	28	0	17	7	2	9	59	11	35	PP
HELWAN	56.43	290.4	9	29A	0				9	56			
APATITY	56.61	336.1	9	30A	0	17	13	4	10	1			
ISTANBUL KA.	56.63	304.0	9	29A	-2				10	0	10	30	*SP
ISTANBUL UN.	56.69	304.0	9	29A	-2				10	0			
KAJAANI	58.17	331.4	9	40A	-1				10	10			
HELSINKI	59.03	326.7	9	47	0								
SODANKYLA	59.13	335.2	9	47A	-1	17	44	2	10	18			
NURMIJARVI	59.20	327.1	9	46A	-3	17	43	0	10	16			
LWOW	59.53	314.6	9	50	-1	17	48	1	10	21			
MUNDARING	59.92	159.5	9	51A	-2						10	24	
PORT MORESBY	60.90	117.4	10	0	0						10	36	
ATHENS	61.15	301.1	10	OK	-2						10	55	
UMEA	61.43	330.8	10	4A	0	18	15	3	10	35			
KIRUNA	61.54	335.4	10	4A	0	18	8	-5	10	35			
SKALNATE PL.	62.04	314.1	10	8	0				10	38			
RABAU	62.27	109.4	10	9	0						10	47	
BELGRADE	62.47	309.2	10	10K	-1						10	37	
UPPSALA	62.71	326.3	10	11A	-1	18	24	-4			18	55	
CHORZOW	62.73	315.5	10	12	0						10	54	PCP
RACIBORZ	63.26	315.3	10	16A	0				10	46	11	35	
TANANARIVE	63.70	231.5	9	59A	-20						10	39	
BRATISLAVA	64.24	313.3	10	21K	-1						10	50	
VIENNA-H.	64.71	313.5	10	25A	0						13	38	
SKALSTUGAN	64.98	330.7	10	26A	-1				10	57			
PRUHONICE	65.60	315.6	10	31A	0						12	54	PP
PRAGUE	65.66	315.7	10	32	1						12	54	PP
GOTEBORG	65.85	324.2	10	31A	-2				11	3			
COPENHAGEN	65.91	322.0	10	31	-2				11	5			
LJUBLJANA	66.36	311.4	10	35A	-1						11	6	PCP
KASPERSKE H.	66.37	314.8	10	37A	1						12	42	
CHARTERS TS.	66.70	127.4	10	36	-2						11	13	
TRIESTE	66.97	311.1	10	39	-1				11	11			
JENA	67.28	317.0	10	41	-1	19	25	1	11	13	13	24	PP
PADOVA	68.31	311.1	11	16	28						12	33	
NORD	68.69	351.6	10	49A	-1				11	21			
BERGEN	68.74	327.8	10	54	3						11	31	
FLORENCE X.	69.14	309.6	10	30	-23								
STUTTGART	69.22	315.1	10	53	0				11	26			
RAVENSBURG	69.24	314.0	10	53	-1				11	24			
TUBINGEN	69.41	314.9	10	54	-1				11	26			
HEIDELBERG	69.42	315.8	10	54	-1				11	26			
MUNSTER	69.46	318.7	10	32	-23						11	16	
CHUR	69.54	313.1	10	54	-1				11	26			

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 121

EBINGEN	69.57	314.5	10 55	-1					
BENSBERG	69.99	317.7	10 58A	0		11 27			
STRASBOURG	70.24	315.2	10 59A	-1				11 29 PCP	
								11 21 PCP	
BASLE	70.64	314.1	12 2A	60				14 1 PP	
NEUCHATEL	71.20	313.7	11 5	0					
HONIARA	71.57	110.0	11 7	-1					
BESANCON	71.76	314.2	11 9	0				11 40	
MONACO	71.82	310.3	11 10	1				11 43	
ISOLA	71.95	310.9	11 10K	0				11 41	
ADELAIDE	72.32	143.7	11 12A	0		11 48			
CLERMONT-FD.	74.10	313.3	11 23	1				12 34	
SCORESBY SD.	75.30	342.0	11 30K	1		12 5			
FOLINIERE	75.37	317.1	11 30	0					
SETIF	75.72	303.4	11 31	-1		12 5			
BRISBANE	75.91	129.4	11 34	1				21 9	
BROKEN HILL	75.99	246.7	11 37A	4					
BANGUI	76.12	268.4	11 33	-1				12 5	
BAGNERES	77.04	311.5	11 39	0					
ALGIERS UNI.	77.29	304.7	11 39	-1		12 11			
SIDA	77.63	335.3	11 43A	1		12 17			
COLLEGE	78.30	22.9	11 45	-1		12 18		14 54 PP	
CANBERRA	78.49	137.8	11 46A	-1				12 24	
BULAWAYO	78.80	241.6	11 50	1				12 23	
RIVERVIEW	78.86	135.4	11 48A	-1					
RESOLUTE	80.49	2.7	11 56A	-2	21 50 -1			12 30	
TAMANRASSET	80.58	290.7	11 58A	0		12 31		15 10 PP	
TOLEDO	81.20	309.8	12 11A	10		12 38			
ALMERIA	81.34	306.5	12 1A	-1	22 5 5	12 36		16 50 PPP	
TARRALEAH	81.80	144.3	12 4K	-1					
PRETORIA	82.10	237.0	12 6	0					
MOORLANDS	82.28	144.0	12 7K	0					
PIETERMZBURG	82.56	232.7	12 9	1					
GRAHAMSTOWN	87.31	231.4	12 32	0					
WINDHOEK	89.33	244.8	12 32	-10					
MAWSON	95.30	191.9	13 9	0					
KARAPIRO	97.68	128.2	13 19	-1		13 57			
PENTICTON	99.85	22.4	14 4	34					
HUNGRY HORSE	102.52	19.6	14 15	33				29 40 PKKP	
BUTTE	105.05	19.7	18 35	777					
SHASTA	105.95	28.9						18 36	
MINERAL	106.58	28.6						18 14 PP	
RENO	108.02	27.9						18 37 PP	
RAPID CITY	109.33	14.1	18 43	777					
EUREKA	109.63	25.3	18 38	777				19 19 PP	
RUTH	110.23	24.7						28 14	
FLAMING GRGE	110.64	19.8	18 55	39				14 52 P	
CHINA LAKE	112.09	28.5	19 45	87					
GLEN CANYON	113.48	23.3	18 21	0				18 57 PP	
SOUTH POLE	114.71	180.0	18 23	-1				19 0	
TUCSON TELE.	117.92	24.9	19 11	41				28 51 PKKP	
TUCSON	117.96	25.0						20 20 PP	
FAYETTEVILLE	118.72	8.8	19 9A	38				28 47	
WICHITA MTS.	119.30	13.1	18 32	-1				19 7	
SAN JUAN	133.38	335.4	19 38	38					
TRINIDAD	138.04	324.5	19 14	6				19 47	
FUQUENE	148.03	339.1	19 28	2					
BOGOTA	148.94	339.2	19 36	9	29 42 203				
CHINCHINA	149.08	342.3	19 32	5					
LA PAZ	162.45	295.1	19 47	3					
HUANCAYO	164.50	323.6						20 47 PKP2	

FEBRUARY 4 12.H 49.M 28.S EPICENTRE 49.77 156.26 DEPTH= 92.KM

A=-0.59355 B= 0.26100 C= 0.76130 D= 0.4025 E= 0.9154
G=-0.6969 H= 0.3064 K=-0.6484 HT= -5.3

DEPTH OF FOCUS= 0.009R

SE= 1.24

	DELTA DEG.	AZ. DEG.	P		O-C S	S		O-C S	*PP		SUPP.	
			M	S		M	S		M	S	M	S
SEVERO-KUR.	0.91	353.4	0	19	-1	0	32	-3				
PETROPAVLOVK	3.58	23.7	0	54	-1	1	35	-1				
KURILSK	7.27	234.6	1	46	0						3 2	
OKHA	9.11	299.6	2	13	2						4 9	
UGLEGORSK	9.28	271.1	2	15	2	1	4	8				

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 122									
Y.-SAKHLINSK	9.42	258.2	2	16	1	4	6	6			
MAGADAN	10.29	344.3	2	28	1	4	31	10		6	4
VLADIVOSTOK	18.01	257.6	4	3	-3					7	32
MATUSIRO	18.60	231.5	4	12A	-1	7	42	9			
YAKUTSK	19.11	319.9	4	17	-1	7	48	4			
ABUYAMA	21.25	233.3	4	39K	-1						
CHANGCHUN	21.91	266.1	4	44	-3	8	43	5			
TIKSI	25.24	340.0	5	17	-2				5	44	10 21 *SS
PEKING	29.71	266.3	5	59	-1						
ULAN-BATOR	32.07	286.0	6	19	-2						
ZO-SE	32.17	247.8	6	22	1						
COLLEGE	32.48	41.2	6	24	0					6	58
NANKING	32.96	251.7	6	28	0						
LANCHOW	39.97	270.3	7	29A	2						
KHEYS	42.63	346.1	7	49	0						
CHENG TU	43.25	263.9	7	54	0						
SEMIPALATNSK	46.74	301.5	8	22	0						
RESOLUTE	47.29	20.0	8	26	0						
KUNMING	47.87	259.4	8	32A	1						
NORD	48.82	358.6	8	37	-1						
PENTICTON	51.74	56.0	9	0	0						
SVERDLOVSK	53.06	316.8	9	8	-2						
RABAU	53.87	185.1	9	16	0					9	36
FRUNSE	54.20	296.2	9	18	-1						
SHILLONG	54.56	268.7	9	19K	-2						
HUNGRY HORSE	55.29	54.2	9	26	-1					10	28
SHASTA	55.34	66.0	9	27K	0						
APATITY	55.40	336.9	9	9	-18						
MINERAL	56.03	65.9	9	31K	-1				9	54	
CHATRA	56.73	273.3	9	37	0						
CHITTAGONG	56.85	266.0	9	40	2						
SODANKYLA	57.19	339.2	9	38	-2						
BERKELEY	57.22	68.6	9	40K	0						
CONCORD	57.27	68.4	9	41	0						
BUTTE	57.53	55.7	9	42	0						
RENO	57.60	65.6	9	43K	0						
LICK	57.94	68.7	9	45K	0					10	36
KIRUNA	58.14	341.9	9	44	-3						
TASHKENT	58.23	297.8	9	47	0						
VINEYARD	58.48	69.0	9	49	0						
BOZEMAN	58.57	55.2	9	51	1						
FRESNO	59.42	68.0	9	56K	0						
KHOROG	59.43	293.1	9	56	0						
PORT MORESBY	59.46	190.5	9	55	-1						
EUREKA	59.89	63.4	9	59	0				10	33	12 9
SCORESBY SD.	60.06	359.3	10	0	0						
DUZHANBE	60.34	295.7	10	2	0						
SALT LAKE C.	61.38	59.9	10	9	0						
UMEA	61.62	339.5	10	8	-2						
LAHORE	61.70	286.3	10	11	0						
WARSAK DAM	61.75	290.1	10	10	-1						
PASADENA	62.16	69.2	10	13	-1						
FLAMING GRGE	62.64	58.3	10	17	0				10	51	
NURMI JARVI	63.35	335.5	10	20K	-2						
SKALSTUGAN	63.50	342.9	10	21	-2						
RAPID CITY	63.75	52.2	10	26	1						
GLEN CANYON	64.12	62.8	10	27	0						
UPPSALA	65.70	338.5	10	35	-2						
ASHKABAD	66.69	301.5	10	45	2						
QUETTA	67.20	290.1	10	46A	-1				11	24	
TUCSON	67.89	66.0	10	51	0				11	31	
TUCSON TELE.	67.89	65.8	10	51	0						
GOTEBORG	68.93	340.4	10	58	1						
CHARTERS TS.	70.11	190.0	11	3	-2						
TIFLIS	70.91	312.5	11	10	1						
TEHERAN	72.10	304.3	11	18	1						
WICHITA MTS.	73.02	56.2	11	22	0					13	59 PP
KRAKOW	73.76	332.4	11	24	-2						
RACIBORZ	74.25	333.4	11	30	1						
FAYETTEVILLE	74.29	52.5	11	30K	1						
SKALNATE PL.	74.44	331.8	11	31A	1						
COLLUMBERG	74.55	337.1	11	32K	1					12	33 *SP
SHAWINIGAN	75.08	32.6	11	34	0						
PRUHONICE	75.36	335.6	11	36K	1						
SHIRAZ	76.08	299.4	11	41K	2	22	13	59	12	3	
BRATISLAVA	76.28	333.2	11	42A	1						
KASPERSKE H.	76.39	335.8	11	42	1						
HEIDELBERG	77.35	338.9	11	47	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 123

STUTT GART	77.81	338.4	11 49	0	
TUBINGEN	78.08	338.4	11 51	0	
STRASBOURG	78.34	339.2	11 53	1	
ISTANBUL KA.	78.35	322.1	11 52K	0	
ISTANBUL UN.	78.41	322.1	11 52K	0	
EBINGEN	78.43	338.3	11 54	1	
RAVENSBURG	78.65	337.8	11 55	1	
PARIS	79.24	342.7	11 58	1	
FOLINIERE	79.82	344.6	12 1	1	
BESANCON	80.00	339.9	12 2	1	
NEUCHATEL	80.02	339.2	12 2	1	
ISOLA	82.65	338.2	12 17K	2	13 8
ATHENS	83.11	324.1	12 16	-1	
JERUSALEM	83.44	312.7	12 19	0	
HELWAN	86.86	314.5	12 38	2	
MELBOURNE	87.79	188.9	12 42	2	
KARAPIRO	88.97	164.9	12 46	0	
SOUTH POLE	139.58	180.0	19 11	-6	

FEBRUARY 4 19.H 9.M 32.S EPICENTRE 23.82 121.81 DEPTH= 144.KM

A=-0.48279 B= 0.77823 C= 0.40158 D= 0.8498 E= 0.5272
G=-0.2117 H= 0.3412 K=-0.9158 HT= 3.7

DEPTH OF FOCUS= 0.017R

SE= 4.54

	DELTA DEG.	AZ. DEG.	P O-C			S O-C			*PP		SUPP.	
			M	S	S	M	S	S	M	S	M	S
HWALIEN	0.23	310.2	0	4A	-16	0	16	-20				
YUSHAN	0.86	247.1	0	11	-13	0	26	-16				
ILAN	0.95	356.5	0	7A	-17	0	22	-21				
ALISHAN	0.98	252.4	0	25	1	0	35	-8				
TAICHUNG	1.09	287.8	0	20A	-5	0	39	-6				
TAITUNG	1.23	210.0	0	17	-10	0	40	-7				
TAIPEI	1.23	347.5	0	12K	-15	0	31	-17				
HSINCHU	1.24	321.9	0	6	-21	0	36	-12				
TAINAN	1.68	241.2	0	30	-2	1	3	7				
TAWU	1.69	210.1	0	24	-8	0	44	-12				
KAOHSIUNG	1.86	230.3	0	39	5	1	12	13				
HENGCHUN	2.06	208.7	0	30	-6	0	55	-8				
MAWASHI	5.90	64.1	1	6	-20	2	21	-11				
HONG KONG	7.20	259.4	1	37	-7	2	29	-35				
ZO-SE	7.27	355.7	1	30A	-15	2	58	-8				
BAGUIO CITY	7.45	189.2	1	38	-9	4	20	69				
NANKING	8.64	342.6	1	49	-14	3	30	-9				
MANILA	9.13	184.5	2	4	-5	4	1	10				
YAKUSIMA	10.17	47.6	2	11	-12	4	1	-14				
KAGOSIMA	10.93	43.1	2	20	-13						2	48
NAGASAKI	11.37	36.9	2	24	-15	4	39	-5				
MIYAZAKI	11.71	44.3	2	32	-11	4	42	-10				
KUMAMOTO	11.90	39.1	2	33	-13	4	48	-8				
SAGA	11.99	36.5	2	34	-13						6	45
ITUHARA	12.23	30.6	2	36	-14							
HUKUOKA	12.29	35.8	2	37K	-14	4	59	-6				
OOITA	12.73	40.4	2	41K	-16	4	54	-21				
SIMIDU	13.27	45.2	2	57	-7	5	39	11				
MATUYAMA	13.85	41.4	3	2	-9	5	35	-6				
HIROSIMA	14.01	39.0	2	57	-16	5	36	-9				
KOTI	14.12	44.0	3	15	1	5	55	7				
TAKAMATU	14.95	42.8	3	1	-24							
SIAN	15.32	315.6	3	26A	-4							
SUMOTO	15.51	44.5	3	27A	-5	6	46	27				
KOBE	15.89	44.1	3	41	4							
OSAKA	16.10	44.8	3	11	-28	7	8	35				
TOYOOKA	16.23	41.1									6	28
ABUYAMA	16.26	44.3	3	34	-7							
NHATRANG	16.62	228.2	3	55	9							
KAMEYAMA	16.83	45.9	3	38	-10	6	44	-5				
PEKING	16.85	344.9	3	42A	-6	6	55	5				
HIKONE	16.95	44.4	3	41	-9							
CHENG TU	17.23	297.2	3	52A	-1	7	14	16				
NAGOYA	17.35	45.9	3	40	-14	6	50	-11				
GIHU	17.36	45.0	3	50	-5							
KUNMING	17.41	278.2	3	58A	3	7	25	23				

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961			PAGE 124					
TOYAMA	18.45	42.4						4 31
MISIMA	18.66	49.0	4 8	-1				
KOHU	18.70	47.0	4 8	-2	7 34	4		
HUNATU	18.75	47.8	4 27	17				7 35
MATUSIRO	18.98	44.3	3 57	-16	7 20	-15		5 28
NAGANO	19.05	44.0	3 55	-18				
TITIBU	19.22	47.0	4 27	12				
TOKYO C.M.O.	19.51	48.6			7 40	-4		
KUMAGAYA	19.52	47.0	4 24	6				5 44
LANCHOW	19.75	312.2	4 21A	1				
TUKUBASAN	20.04	47.8	4 8	-16	7 47	-9		4 29 PP
UTUNOMIYA	20.07	46.7			7 15	-41		3 32
KAKIOKA	20.10	47.8	4 10	-14				
CHANGCHUN	20.17	7.4	4 14A	-11	7 56	-2		
MI TO	20.38	47.8			8 11	-10		
SHIRAKAWA	20.63	45.8	4 23	-6				
VLADIVOSTOK	20.98	21.0	4 21	-12				8 16
ONAHAMA	20.98	47.0			8 9	-2		
HUKUSIMA	21.15	44.6	4 32	-3				
SENDAI	21.73	44.0			8 10	-2		
ISINOMAKI	22.09	44.2			8 26	-7		
MIZUSAWA	22.39	42.5	4 46	-1	8 36	-2		
MIYAKO	23.22	42.4						8 44
MORI	23.99	36.1	4 33	-29				
GUAM	24.01	111.3	4 54	-8	9 6	0		
SAPPORO	25.08	35.3	5 7	-5	10 35	71		
ULAN-BATOR	26.82	337.4	5 23	-6				
WAKKANAI	26.91	31.9	5 36	7				
SHILLONG	27.24	279.9	5 34A	2	10 17	18		6 26 PP
CHITTAGONG	27.61	273.0	5 41A	5	10 25	20		6 30 PP
LHASA	28.04	288.6	5 42	2				
MEDAN	30.06	231.5	6 1K	3				11 5
PORT BLAIR	30.16	251.5						6 32
CALCUTTA	30.73	274.4	6 7	3				12 7
IRKUTSK	31.40	339.2	6 4A	-5				
CHATRA	31.40	282.9	6 11A	2				
BOKARO	32.89	277.5	6 24A	2	12 7	39		
DJAKARTA	33.21	208.0	7 20	55	11 41	8		7 56
LEMBANG	33.47	206.2	6 29A	2	11 51	14	6 42	12 37
DEHRA DUN	39.32	289.3	7 18	2	13 25	19		9 3 PP
PETROPAVLOVK	40.29	34.1	7 12	-12				
RBAUL	40.63	129.3	7 21	-6				7 52
MADRAS	40.81	262.3	7 34A	5	13 51	23		9 12 PP
HYDERABAD	40.96	269.5	7 36A	6				17 36
MAGADAN	41.10	22.1	7 23	-8				
PORT MORESBY	41.27	140.2	7 27	-5	13 38	3		
SEMPALATNSK	41.66	320.3	7 34	-2				9 13
LAHORE	42.48	291.3	7 43A	1	14 9	16		
FRUNSE	43.13	307.9	7 49	2				13 25
COLOMBO	43.59	254.2	7 48	-3	14 31	22		
ANDI JAN	44.48	304.5	8 0A	2				9 48 PP
WARSAK DAM	44.77	294.9	8 3A	2				
KHOROG	44.86	299.8	8 4	3	14 45	18		
POONA	44.87	272.8	8 4A	3	14 43	16		9 54 PP
TASHKENT	46.86	305.0	8 19	2	15 14	18		10 13 PP
TIKSI	48.01	3.0	8 17	-9	15 10	-2		13 43 PCS
QUETTA	48.91	290.0	8 36A	3	15 39	15	8 46	10 25 PP
SVERDLOVSK	54.68	323.8	9 13	-3	16 51	8		18 55 SCS
MUNDARING	55.73	185.8	9 23	-1				
BRISBANE	59.04	147.8	9 42	-5	17 45	5		
ADELAIDE	60.63	164.1	9 54A	-4	18 21	20	10 6	10 40 PCP
TEHERAN	61.11	298.9	10 2	1				
SHIRAZ	61.35	291.9	10 4K	1	18 26	16	10 17	13 26 PP
KHEYS	62.45	350.4	10 4	-6	18 28	4		10 39 PCP
RIVERVIEW	63.76	153.0	10 17A	-2	18 53	13		
CANBERRA	64.21	155.5	10 20A	-1	18 54	8		16 39
GORIS	64.40	303.8	10 24	1	19 6	18		
MELBOURNE	65.07	159.9	10 35	8				
TIFLIS	65.15	306.5	10 28	0				12 54 PP
MOSCOW	67.44	322.5	10 39	-3	19 31	6		11 7 PCP
APATITY	67.62	335.5	10 40A	-3	19 39	12		20 9 SCS
COLLEGE	68.86	27.2	10 43	-8				
TARRALEAH	69.62	160.7	10 53	-2				
MOORLANDS	69.97	160.3	11 4	6				
SODANKYLA	70.23	335.8	10 56A	-3				
PULKOVO	70.47	327.5	10 58	-3	20 9	9		15 20 PPP
KAJAANI	70.62	332.3	10 59A	-2				
SIMFEROPOL	72.01	311.8	11 8	-2				
KIRUNA	72.37	337.0	11 8A	-4				

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 125

NORD	72.76	354.1	11	8	-6			
HELSINKI	72.95	328.7	11	14	-1			
NURMIJARVI	72.99	329.1	11	11	-4	20	39	10
UMEA	73.84	333.1	11	18	-2			21 13 SCS
KSARA	73.95	300.2	11	22A	1	21	5	25
								14 13 PP
AFIAMALU	74.93	112.8	11	27	0			
UPPSALA	76.50	329.8	11	33	-3	21	37	29
ISTANBUL K.A.	76.76	309.1	11	36A	-1			30 29
ISTANBUL UN.	76.79	309.1	11	36	-1			14 34 PP
LWOW	76.96	318.8	11	38A	0			14 34 PP
SKALSTUGAN	77.16	334.4	11	36A	-3			
BUCHAREST	77.60	313.1	11	43	1	21	55	35
HELWAN	78.91	297.7	11	51A	2			21 31 SKS
RESOLUTE	78.93	9.3	11	43A	-6	21	33	-1
KRAKOW	79.31	320.1	11	50	-1			12 18
								12 3 PCP
KARAPIRO	79.48	139.6	11	48	-4			
ADDIS ABABA	80.09	275.5	11	59	4			
GOTEBORG	80.10	329.2	11	56A	1			
SOFIA	80.11	312.3	11	57	2			
RACIBORZ	80.31	320.6	11	56	0			12 4 PCP
COPENHAGEN	80.85	327.2	11	59	0	22	18	24
BELGRADE	81.16	315.1	12	2K	1			20 36
ROXBURGH	81.38	148.4				22	16	17
GEBBIES PASS	81.78	145.4	12	6	2			12 52
BRATISLAVA	81.80	319.1	12	3K	-1			27 44 SS
VIENNA-H.	82.20	319.4	12	6A	0			12 39
PRUHONICE	82.46	321.5	12	7A	0			
SCORESBY SD.	82.54	348.4	12	5	-3			
COLLMBERG	82.69	323.2	12	8A	-1	22	11	-2
KASPERSCHE H.	83.42	321.1	12	12	0			15 13 PP
								12 40
JENA	83.66	323.3	12	10	-3	22	53	31
TANANARIVE	83.93	246.4	12	20A	5			12 45
LJUBLJANA	84.34	318.1	12	17A	0			12 49
TRIESTE	85.01	318.0	12	20	0			
MUNSTER	85.22	325.5	12	21	0			
BENSBERG	86.01	324.8	12	24A	-1			
HEIDELBERG	86.02	323.0	12	24	-1			
STUTTGART	86.05	322.2	12	24	-1			15 46
ALBERNI	86.24	37.1	13	22	56			
STRASBOURG	86.99	322.6	12	30	0			
MESSINA	87.41	310.8						19 52
VICTORIA	87.43	37.2	12	30	-2			
ROME	87.66	315.2				23	5	4
BESANCON	88.73	322.2	12	37	-1			
PENTICTON	89.02	35.1	12	35	-5			
CORVALLIS	89.69	40.4	12	39A	-4			
PARIS	89.72	324.8	12	42	-1			
ISOLA	89.84	319.2	12	43	0			
CLERMONT-FD.	91.20	322.1	12	50	0			
SHASTA	92.42	43.2	12	52	-3			
HUNGRY HORSE	92.51	33.5	12	53	-3			
MINERAL	93.11	43.2	12	54A	-5			
LWIRO	93.66	269.2	13	4	3			
RENO	94.70	43.1	13	10	4			
LICK	94.80	45.7	13	9K	3			
EUREKA	97.10	41.3	13	13	-4			16 59 PP
CHINA LAKE	98.32	45.0	13	25	3			
TOLEDO	99.00	320.8	13	24	-1			17 21
FLAMING GRGE	99.94	36.8	13	25	-5			
CAPE HALLETT	101.33	166.5						17 51 PP
TAMANRASSET	102.70	302.0	13	40	-2			17 54 PP
TUCSON	104.93	44.2	18	3	251			
WICHITA MTS.	110.29	34.7	15	32	-162			18 57 PP
SOUTH POLE	113.68	180.0	18	20	-1			
PALISADES	113.87	13.0						28 56 PS
BYRD STATION	118.17	170.0	18	29	-1			
CARACAS	144.84	15.0	19	19K	-1	27	14	62
TRINIDAD	145.60	5.6	19	26	5			
CHINCHINA	146.72	33.0	19	24A	1			
FUQUENE	147.18	29.5	19	25A	1			
BOGOTA	147.77	30.8	19	28	3			
PORT STANLEY	152.16	180.4	19	48	17			
HUANCAYO	159.95	57.3	19	45	4			20 31

FEBRUARY 5

15.H 38.M 36.S EPICENTRE 8.21 -82.62 DEPTH= 39.KM

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 127

DE BILT	82.24	38.5	12 24	5	23 30	60	
BESANCON	83.09	43.3	12 31	8			
WITTEVEEN	83.10	37.7	12 23	0			12 52
BENSBERG	83.56	39.5	12 26K	0			12 51
SETIF	83.62	54.4	12 26	0			15 1
MUNSTER	83.75	38.5	12 27	0			
ISOLA	84.11	46.3	11 56	-32			13 16
STRASBOURG	84.17	41.9	12 29	0	22 54	5	23 54 PS
HEIDELBERG	84.71	41.0	12 31	0			
SKALSTUGAN	84.89	26.6	12 33K	1			
EBINGEN	85.01	42.2	12 33	0			
TUBINGEN	85.03	41.8	12 33	0			
STUTTGART	85.14	41.6	12 34	1	23 1	2	15 51 PP
TAMANRASSET	85.16	67.8	12 34A	0	23 5	6	15 47 PP
RAVENSBURG	85.49	42.5	12 33	-2			
GOTEBORG	85.58	32.5	12 38K	2			
COPENHAGEN	86.14	34.4	12 38	0	23 27	19	
JENA	86.33	39.2	12 38	-1	23 9	-1	15 58 PP
COLLMBERG	87.16	38.7	12 44K	1			13 24
FLORENCE X.	87.17	46.3	12 40	-3			
KIRUNA	87.34	21.7	12 43	-1	23 15	-5	
KASPERSKE H.	87.89	40.8	12 47A	0			16 23 PP
UPPSALA	88.08	29.8	12 47K	-1	23 32	5	24 24 PS
UMEA	88.32	25.6	12 48K	-1			
ROME	88.36	48.1			23 21	-8	29 41 SS
PRUHONICE	88.36	39.9	12 49A	0	23 34	4	16 26 PP
TRIESTE	88.62	44.2	12 44	-6			
LJUBLJANA	89.08	43.7	12 52	-1			13 20
SODANKYLA	89.74	21.4	12 54K	-2			
BYRD STATION	90.09	186.0	12 55	-2			
RACIBORZ	90.64	39.3	13 1	1			
NURMIJARVI	91.27	28.2	13 OK	-3			
KAJAANI	91.36	24.3	13 3K	0			
PULKOVO	94.18	27.9	13 16	0			
LWOW	94.34	38.5	13 17	0			
TIKSI	97.65	350.4	13 31	-1			
SOUTH POLE	98.15	180.0	13 34	0			
SIMFEROPOL	102.50	40.5					18 4
CAPE HALLETT	102.96	197.4					27 14 PS
KSARA	108.34	50.4	14 26	777	25 5	10	18 53 PP
LWIRO	111.51	89.2					19 11 PP
BULAWAYO	112.66	108.4					21 2
IRKUTSK	119.47	355.1					20 5
MATUSIRO	121.28	322.0	18 51A	2			20 16 PP
SHIRAZ	122.75	46.9	18 53	1			20 2 PP
RABAU	125.42	270.7	18 48	-9			
PEKING	128.96	341.5	19 4	0			
CHARTERS TS.	131.33	250.5	19 10	1			22 40
WARSAK DAM	131.40	28.9	19 8	-1			
QUETTA	131.92	36.1	19 12	2			19 45 21 48 PP
CHENGTU	140.84	350.9	19 23	-3			
CHATRA	143.79	15.6	19 28K	-3			
POONA	144.72	41.0	19 33K	0			
HONG KONG	145.51	331.8	19 35A	1			
SHILLONG	146.00	8.9	19 35A	0			
KUNMING	146.47	351.2	19 37	1			
MANILA	147.31	313.9	19 43	6			
CHITTAGONG	149.14	10.1	19 47	7			
MUNDARING	150.58	213.9	19 46	4			

FEBRUARY 5 17.H 51.M 0.S EPICENTRE -38.39 78.37 DEPTH= 70.KM

A= 0.15843 B= 0.76969 C=-0.61845 D= 0.9795 E=-0.2016
G=-0.1247 H=-0.6057 K=-0.7858 HT= -1.1

DEPTH OF FOCUS= 0.006R

SE= 4.32

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
PERTH	31.14	89.6	6	15	1							11 23
MUNDARING	31.43	89.9	6	14	-3	11	30	12				
TANANARIVE	33.05	297.2	6	31	0							7 41 PP
WILKES	33.45	157.1	6	48A	14	11	56	6				7 16
LEMBANG	41.07	47.6	7	40K	2	13	54	6				9 56

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 128									
COLOMBO	45.08	2.1									14 53
BULAWAYO	46.48	278.4	8	21	-1						
HERMANUS	47.06	255.8									15 20 PPS
ADELAIDE	47.77	105.4	8	33	1	15	36	14			10 22 PP
BROKEN HILL	49.93	284.5	8	46	-3						
MADRAS	51.15	2.3	9	8	10	16	26	17			12 21 PPP
FORT NELSON	51.19	118.4				16	27	17			
SOUTH POLE	51.80	180.0	8	59	-4						
SCOTT BASE	52.47	164.5	9	12	4						
CANBERRA	55.31	110.2	9	28	-1	17	30	24			
HYDERABAD	55.52	0.1	9	39	9	17	22	14			21 16 SS
POONA	56.78	354.9	9	39K	0	17	34	9			17 43 PS
BOMBAY	57.22	353.7	9	47	5	17	45	14			
RIVERVIEW	57.56	109.6	9	49	4	17	48	13			
CHARTERS TS.	60.71	93.3	10	4	-2						
CALCUTTA	61.32	10.5									18 30
BYRD STATION	61.41	176.5	10	9	-2						
CHITTAGONG	61.73	14.2	10	15	2	18	46	17			12 35 PP
BRISBANE	61.92	103.9	10	15	1	18	42	11			
BOKARO	62.28	7.7									19 0
ROXBURGH	64.51	128.8				19	0	-4			23 50 SS
SHILLONG	64.87	13.5	10	33K	-1						
CHATRA	65.40	8.6	10	36A	-1						
KUNMING	67.18	23.9	10	51	2						
DEHRA DUN	68.36	359.7	11	22	26	20	1	11			24 35 SS
LHASA	68.71	11.8	11	1	3						
QUETTA	69.04	349.4	11	1	1	20	12	14			20 51 PPS
HONG KONG	69.09	35.4				20	13	14			
LAHORE	69.68	356.3	11	4	0						
SHIRAZ	71.87	336.5	11	16	-1						21 28
WARSAK DAM	72.30	354.1	11	21	1						
KARAPIRO	72.48	124.6	11	21	0						
CHENG TU	72.74	23.0	11	23	1						
RABAUL	74.71	83.2	11	33	-1						
LANCHOW	77.72	20.9	11	52	1						
TEHERAN	77.87	337.8	11	53	1	21	58	20			
NAMANGAN	79.23	354.8	12	1	2						
JERUSALEM	80.55	323.8	12	8	2						
HELWAN	80.87	319.9	12	9	1						16 56
KSARA	81.96	325.4	12	25	11	22	41	21			15 30 PP
PEKING	85.38	28.2	12	22	-9						
TIFLIS	85.40	335.5	12	41	10						
SEMIPALATNSK	88.43	1.2	12	47	2						
SOTCHI	88.79	333.0	12	49	2						
ULAN-BATOR	89.61	18.7									16 27
TAMANRASSET	91.39	298.1	13	2	3	24	1	11			
SIMFEROPOL	92.05	330.3	13	14	12						
MATUSIRO	92.79	44.2	13	8	2	23	38	-24			30 37 SS
SANTA LUCIA	102.95	206.2				24	40	16			27 12 PS
ANTOFAGASTA	111.65	210.7									20 51
LA PAZ	117.01	216.5									22 38
BOGOTA	138.06	223.6									40 16 SS
CARACAS	138.36	237.4	19	22	5						23 0 PP
FUQUENE	138.58	224.8									22 15 PP
RESOLUTE	143.48	357.0	19	26	-1						
PALISADES	158.54	285.8									44 24 SS
HUNGRY HORSE	166.59	38.1	21	5	68						
CHINA LAKE	167.00	96.5	21	4	67						
EUREKA	168.78	80.0	20	5	7						21 12
TUCSON TELE.	170.44	126.4	20	6	7						
RAPID CITY	174.19	11.2	20	7	6						
WICHITA MTS.	175.59	214.7	20	5	3						25 44 PP

FEBRUARY 6 10.H 30.M 3.S EPICENTRE -19.32 -68.97 DEPTH= 108.KM
 A= 0.33891 B=-0.88145 C=-0.32891 D=-0.9334 E=-0.3589
 G=-0.1180 H= 0.3070 K=-0.9444 HT= 4.8

DEPTH OF FOCUS= 0.012R
 SE= 2.25

	DELTA DEG.	AZ. DEG.	P M	O-C S	S M	O-C S	*PP M S	SUPP. M S
LA PAZ	2.92	16.0	0	51A	6	1	25	5
AREQUIPA	3.72	319.5	0	54	-2			
ANTOFAGASTA	4.56	197.0	1	6	-2			

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 129

HUANCAYO	9.48	318.8	2 14	0	4 20	20		
SANTA LUCIA	14.14	185.7	3 14	-2	5 53	3		
BOGOTA	24.32	347.6	5 9	1	9 18	2		
CHINCHINA	25.01	344.2	5 18K	3	9 31	3		
FUQUENE	25.08	348.8	5 17K	2	9 31	2		
CARACAS	29.70	4.0	5 56K	-1	10 43	-1		
TRINIDAD	30.70	14.7	6 6	0				
GRENADA	31.98	13.5	6 16	-1				
ST. VINCENT	33.17	13.8	6 25	-3				
PORT STANLEY	33.47	167.5	6 30	0				
FORT FRANCE	34.70	13.4	6 38	-3				
SAN JUAN	37.57	4.4	7 1	-4			8 31	PP
ARGENTINE I.	46.01	177.3	8 15	1				
TACUBAYA	48.58	320.7	8 39	5	15 33	7		
CHAPEL HILL	55.76	350.1	9 27	0				
DALLAS	58.30	332.5	9 43	-2				
MORGANTOWN	59.53	350.2	9 53A	-1				
FAYETTEVILLE	60.06	336.5	9 56K	-1			10 26	10 42 *SP
PALISADES	60.20	355.7	9 55	-3	18 1	-1	10 25	10 38 PCP
WICHITA MTS.	60.68	332.2	9 59	-3	18 6	-2	10 30	10 43 PCP
MBOUR	61.17	60.7	10 5	0	18 12	-2		
LAWRENCE	63.00	337.2	10 15	-2				
HALIFAX	63.82	4.3	10 21K	-1				
BYRD STATION	64.63	188.6	10 28	0	18 55	-2		10 58
OTTAWA	64.70	354.7	10 27K	-1				
TUCSON TELE.	65.08	321.6	10 30	-1				
TUCSON	65.08	321.4	10 31	0			11 1	
SHAWINIGAN	65.65	357.1	10 33	-1				
LARAMIE	69.22	331.3	10 57	0				11 27
BOULDER CITY	70.06	321.7	11 0	-2				
RAPID CITY	70.45	334.5	11 4	0	20 20	13		11 57
FLAMING GRGE	70.73	328.6	11 5	-1	20 12	2	11 35	13 36 PP
SOUTH POLE	70.80	180.0	11 7	1				
PASADENA	70.86	318.4	11 7	1				11 37
SALT LAKE C.	71.84	327.0	11 13	1				
EUREKA	73.13	323.7	11 21	1			11 52	12 13
FRESNO	73.57	319.5					11 53	
VINEYARD	74.53	318.7					12 0	
LICK	75.06	319.0	11 32K	1				
BOZEMAN	75.11	330.9	11 32	1				
RENO	75.37	321.7	11 34A	1				
BERKELEY	75.78	319.1					12 7	
BUTTE	76.08	330.3	11 36	-1			12 8	
MINERAL	76.94	321.4	11 41A	-1			12 12	
SHASTA	77.63	321.3	11 45	0				
HUNGRY HORSE	78.47	331.2	11 50	0			12 19	
WINDHOEK	79.32	110.2	11 55	0				
PENTICTON	81.77	329.3	12 18	10				
VICTORIA	83.15	327.0	12 16	1				
TAMANRASSET	83.89	63.4	12 19	1			12 52	
ALMERIA	83.93	47.7	12 18	-1			12 49	14 5
TOLEDO	84.38	44.5	12 22	1			12 53	13 31
ALGIERS UNI.	87.82	49.8	12 38	0				
SETIF	89.29	51.2	12 45	0				
BULAWAYO	90.25	111.3	12 51	2				
RESOLUTE	95.24	353.3	13 12	0				
KARAPIRO	96.90	226.0	13 21	1				
COLLMBERG	99.97	39.1	17 36	243				
PRUHONICE	100.51	40.7	17 41	245			18 13	
COLLEGE	102.68	334.6	13 46	1				
SHIRAZ	126.25	67.0	18 52A	3			19 25	
CHARTERS TS.	127.79	223.3	18 54	2			19 26	
RABAU	133.27	244.3	19 38	35				
QUETTA	138.76	66.0	19 17	4			22 1	
LAHORE	144.85	62.4	19 26	2				
GUAM	147.18	264.9	19 32	4			20 5	
MATUSIRO	150.64	311.4	19 40K	7			20 13	PKP2
LEMBANG	153.80	172.3	19 40	2			23 34	

FEBRUARY 6 12.H 12.M 29.S EPICENTRE 51.83-174.66 DEPTH= 72.KM

A=-0.61782 B=-0.05775 C= 0.78420 D=-0.0931 E= 0.9957
G=-0.7808 H=-0.0730 K=-0.6205 HT= -6.1

DEPTH OF FOCUS= 0.006R

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 130

SE= 2.40

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	O-C S	M	S	M	S
PETROPAVLOVK	16.29	284.7	3	46	0							
COLLEGE	19.00	36.3	4	17	-2						8	6 PCP
MAGADAN	20.74	305.4	4	38	1							
Y. -SAKHLINSK	27.83	277.1	5	46K	1							
YAKUTSK	31.05	311.0	6	15	1							
TIKSI	31.53	329.6	6	17	-1							
VICTORIA	32.43	75.2	6	27	1							
PENTICTON	34.34	71.9	6	52	10							
CORVALLIS	34.37	81.4	6	44	2							
MATUSIRO	36.40	264.0	6	58A	-2	12	36	1			8	21 PP
VLADIVOSTOK	36.42	277.8	6	59	-1	12	40	5				
SHASTA	37.05	86.4	7	5	0							
MINERAL	37.74	86.3	7	11A	0							
HUNGRY HORSE	38.07	70.5	7	13	-1						9	28 PCP
RESOLUTE	38.25	25.0	7	15	0							
BERKELEY	38.83	89.9	7	20	0							
RENO	39.33	86.0	7	25	1							
LICK	39.55	90.1	7	26K	0							
CHANGCHUN	40.05	283.0	7	28A	-2	13	36	6				
VINEYARD	40.08	90.6	7	31	1				7	43		
BUTTE	40.11	72.9	7	31	1							
FRESNO	41.05	89.4	7	39	1							
BOZEMAN	41.19	72.5	7	40	1							
EUREKA	41.74	83.3	7	44	0						8	13
SALT LAKE C.	43.49	79.0	7	58	0							
PASADENA	43.76	91.0	8	1	1	14	32	7			17	49 SS
THULE	43.89	19.1	8	3	2							
KHEYS	44.61	349.3	8	9	2							
BOULDER CITY	44.63	86.5	8	19	12							
FLAMING GRGE	44.89	77.2	8	8	-1						13	38 SCP
RAPID CITY	46.70	69.9	8	24	0							
LARAMIE	46.95	74.4	8	27	1							
PEKING	47.79	284.3	8	32A	0	15	30	8				
ULAN-BATOR	48.40	298.2									10	3
TUCSON	49.58	87.3	8	44	-2						9	3
TUCSON TELE.	49.59	87.1	8	46	0							
WICHITA MTS.	55.41	76.2	9	27	-3						9	41
FAYETTEVILLE	57.10	72.1	9	40A	-2				9	54	10	12 *SP
DALLAS	57.79	76.6	9	45	-1							
SODANKYLA	60.04	350.7	10	2	0						10	48 PCP
SEMIPALATNSK	60.05	314.5	10	0	-2							
KIRUNA	60.12	353.5	10	2	-1							
OTTAWA	60.75	52.9	10	5A	-2							
HONG KONG	61.23	270.0	10	1	-9	18	41	18				
SHAWINIGAN	61.36	50.3	10	10	-1							
CHENG TU	61.41	284.0	10	11A	0							
SVERDLOVSK	62.56	329.4	10	19	0							
MORGANTOWN	62.69	60.0	10	20K	0							
KAJAANI	63.11	349.2	10	23K	0							
UMEA	64.10	352.7	10	29	0							
SKALSTUGAN	64.80	356.6	10	30	-4							
PALISADES	64.85	55.2	10	32	-2	19	11	3			19	35 PS
WESTON	65.13	52.6	10	35K	-1							
KUNMING	66.20	280.7	10	42	-1	19	30	6				
NURMIJARVI	66.94	349.8	10	46K	-1							
HALIFAX	67.06	46.4	10	47K	-1							
HELSINKI	67.23	349.5	10	49	0							
UPPSALA	68.23	353.4	10	55	0							
GOTEBORG	70.69	356.2	11	11	1							
ANDIJAN	70.98	312.3	11	13	1	20	31	10				
NAMANGAN	71.11	312.9	11	15	2							
NHATRANG	71.92	266.8	11	19	1							
SHILLONG	72.38	288.9	11	19A	-1							
CHATRA	74.14	293.1	11	31K	0							
CHITTAGONG	74.85	286.8	11	34	-1	21	7	2				
COLLMBERG	77.04	355.1	11	48A	1				12	6		
LAHORE	77.39	305.2	11	50	1							
JENA	77.48	356.0	11	50	0						13	7
PRUHONICE	78.26	353.9	11	55A	1						12	26 *SP
KASPERSKE H.	79.17	354.5	12	0	1							
CHARTERS TS.	79.34	217.1	11	56	-4						12	19
STUTTGART	79.72	357.4	12	3	1							
TIFLIS	80.72	331.2	12	9	2							
GARCHY	81.25	1.6	12	9	-1							
QUETTA	82.14	309.7	12	16	1	22	34	12				

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 131

ISOLA	84.36	358.8	13 28K	62					
SAN JUAN	86.65	64.4	12 39	2			12 50		
SHIRAZ	88.92	320.3	12 48K	0	23 32	4		23 13	SKS
KARAPIRO	89.80	187.7	12 49	-3			13 6		
JERUSALEM	92.71	334.9	13 31	25			13 56		
BYRD STATION	135.26	168.3	19 9	-3				22 41	SKP
BROKEN HILL	138.35	325.1	19 6	-12					
SOUTH POLE	141.65	180.0	19 18	-6					
BULAWAYO	143.52	321.4	19 26A	-1					
PRETORIA	148.71	317.6						20 12	PKP2
WINDHOEK	149.40	338.3	19 43K	6					

FEBRUARY 6 18.H 15.M 27.S EPICENTRE 44.90 149.37 DEPTH= 48.KM

A=-0.61161 B= 0.36210 C= 0.70343 D= 0.5095 E= 0.8605
G=-0.6053 H= 0.3584 K=-0.7108 HT= -3.5

DEPTH OF FOCUS= 0.002R

SE= 2.86

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
KURILSK	1.12	287.9				0	33	-1				
NEMURO	3.15	241.5	0	47K	-1	1	22	-3				
ABASHIRI	3.75	258.3	0	56	-1	1	58	18				
KUSIRO	4.07	243.7	1	1	0	1	47	-1				
OBIIHRO	4.88	248.3	1	13	1	2	9	1				
Y.-SAKHLINSK	5.10	297.0	1	17	1	2	21	7				
HIROO	5.11	241.4	1	20	4	2	12	-2				
ASAHIGAWA	5.15	259.9	1	21	5							
WAKKANAI	5.47	278.2	1	24	3	3	1	38				
URAKAWA	5.52	242.5	1	21	0	2	24	-1				
RUMOE	5.63	263.1	1	24	1							
SAPORO	6.07	255.3	1	31	2	2	43	5				
TOMAKOMAI	6.08	250.9	1	33	4							
MURORAN	6.61	250.0	1	37	0	2	51	-1				
SUTTSU	6.93	255.6	1	46	5	3	7	7				
MORI	6.98	249.5	1	43	1	3	8	7				
HAKODATE	6.99	246.8	1	41	-1	3	11	10				
HATI NOHE	7.24	235.7	1	41	-4	2	59	-8				
SEVERO-KUR.	7.34	35.7	1	47	0	3	15	5				
AOMORI	7.51	240.2	1	53	4	3	33	19				
MIYAKO	7.59	228.9	1	49	-1	3	5	-11				
MORI OKA	7.99	232.3	1	53	-3	3	16	-10				
MI ZUSAWA	8.41	229.6	1	58	-4	3	26	-10				
AKITA	8.60	236.2									3	37
ISINOMAKI	8.83	225.8	2	2	-5	3	35	-12				
SENDAI	9.17	226.7	2	7	-5	3	43	-12				
SAKATA	9.30	233.2	2	12	-2							
YAMAGATA	9.47	228.6	2	11	-5	3	52	-10				
OKHA	9.63	336.4	2	18	0						4	24
HUKUSIMA	9.78	226.2	2	15	-6							
PETROPAVLOVK	10.16	33.5	2	23	-3	4	15	-4			2	46
ONAHAMA	10.20	221.8									4	7
SHIRAKAWA	10.39	224.8	2	25	-4	4	12	-13				
NIIGATA	10.42	231.6				4	4	-21				
AIKAWA	10.80	234.4	2	33	-1							
MITO	10.86	221.5	2	36	1	4	23	-13				
UTUNOMIYA	11.01	224.1	2	37	0	4	31	-9				
KAKIOKA	11.12	222.0	2	31	-8	4	26	-17				
TUKUBASAN	11.17	222.3	2	33A	-6	4	30	-14			3	7
TAKADA	11.45	231.0	2	31	-12							
KUMAGAYA	11.57	224.4	2	41	-4	4	44	-10				
TOKYO C.M.O.	11.77	221.9	2	46	-1	4	46	-12				
NAGANO	11.79	229.7	2	45	-3							
OIWAKE	11.86	227.6	3	16	27							
MATUSIRO	11.88	229.2	1	45	-64						4	39
WAZIMA	12.02	235.7	2	48	-3							
MATUMOTO	12.23	229.0	2	54	0							
KOHU	12.36	225.5	3	10	15	5	15	2				
HUNATU	12.39	224.4									5	5
VLADIVOSTOK	12.71	268.1	3	0	0	5	23	2				
GIHU	13.51	229.7	3	8	-3							
HIKONE	13.89	230.7	3	14	-2							
KYOTO	14.36	231.3	3	18	-4							

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 132									
NARA	14.56	230.2	3	23	-1						
ABUYAMA	14.56	231.3	3	21	-3						
MAGADAN	14.70	2.9	3	29	3	6	15	7			
CHANGCHUN	17.23	275.0	4	0A	2	7	13	6			
YAKUTSK	20.61	333.2	4	37	0						
PEKING	24.87	270.5	5	20A	1						
ZO-SE	25.98	247.7	5	31	1	9	58	3			
NANKING	26.99	252.2	5	38	-1						
TIKSI	28.57	346.6	5	50	-3					9	0 PCP
ULAN-BATOR	29.17	291.3	5	58	0						
IRKUTSK	30.29	300.4	6	3	-5						
SIAN	32.64	265.2	6	29A	0						
CANTON	36.53	245.5	7	3A	1						
HONG KONG	36.56	243.7	7	3	0	12	39	-2			
CHENG TU	38.07	263.9	7	15A	0	13	4	0			
MANILA	38.49	227.5	7	19	0						
COLLEGE	39.22	36.9	7	25	0					7	43
KUNMING	42.32	258.2	7	50A	0	14	9	1			
SEMIPALATNSK	45.36	302.8	8	15	0						
KHEYS	46.27	346.9	8	20	-2						
NHATRANG	47.24	239.2	8	31	1					8	41
LHASA	47.86	272.2	8	37	2	15	34	7			
RABAU	48.94	176.3	8	42K	-1					13	3
SHILLONG	49.70	267.3	8	48A	-1						
ALMATA	50.42	295.4	8	54	0						
CHITTAGONG	51.75	264.1	9	5	1						
FRUNSE	52.12	295.9	9	7	0						
CHATRA	52.27	271.9	9	8A	0						
SVERDLOVSK	53.40	316.8	9	16	-1						
RESOLUTE	53.41	17.4	9	15A	-2						
NORD	53.53	357.5	9	14	-4						
TASHKENT	56.30	296.9	9	37	-1	17	28	5		10	23 PCP
THULE	56.59	10.0	9	36	-4					9	47
VICTORIA	56.74	52.6	9	40	-1						
APATITY	57.99	336.0	9	47	-3						
DUZHANBE	58.15	294.4	9	50	-1	17	51	4			
PENTICTON	58.42	50.2	9	51	-2						
LAHORE	58.47	284.6	9	53A	0	17	50	-1			
WARSAK DAM	58.93	288.5	9	56A	0						
CORVALLIS	58.95	56.4	9	56	0						
SODANKYLA	60.01	337.9	10	2	-2						
KIRUNA	61.23	340.3	10	9	-3					10	48 PCP
SHASTA	61.74	59.6	10	15	0						
HUNGRY HORSE	61.99	48.6	10	16	-1						
KAJAANI	62.10	335.0	10	16	-2						
MINERAL	62.43	59.5	10	19A	-1						
BERKELEY	63.51	62.1	10	34	7						
LEMBANG	63.68	227.5	10	26A	-2						
RENO	64.01	59.3	10	36	6						
BUTTE	64.21	50.0	10	30	-2						
LICK	64.22	62.2	10	36A	4						
QUETTA	64.34	287.8	10	33A	0	19	7	2	10	42	11 7 PCP
PULKOVO	64.40	330.6	10	33	0						
UMEA	64.44	337.6	10	33	0					23	15 SS
MOSCOW	64.46	324.4	10	32	-1					11	9 PCP
CHARTERS TS.	64.73	183.2	10	32	-3						
SCORESBY SD.	64.77	356.8	10	35A	0						
ASHKABAD	65.12	299.4	10	40A	2	19	17	2			
BOZEMAN	65.25	49.6	10	38	0						
NURMI JARVI	65.73	333.5	10	38	-4						
FRESNO	65.73	61.7	10	52	10					11	9 PCP
HELSINKI	65.89	333.1	10	42	-1						
MADRAS	66.21	264.7	10	45	0						
EUREKA	66.37	57.3	10	45	-1				10	56	11 13 *SP
SKALSTUGAN	66.66	340.6	10	46	-1					11	15
SALT LAKE C.	67.96	54.1	10	54	-2						
AFIAMALU	68.31	139.0	11	9	11						
UPPSALA	68.39	336.1	10	56K	-2						
PASADENA	68.42	63.0	11	10	12					11	22 PCP
FLAMING GRGE	69.26	52.6	11	2	-2					24	39
BOULDER CITY	69.32	59.6	11	2	-2					11	26
RAPID CITY	70.47	46.9	11	11	0						
TIFLIS	70.58	309.8	11	13	1	20	24	4			
TEHERAN	70.81	301.5	11	15A	2						
GORIS	71.24	307.2	11	13	-3	20	30	2			
BRISBANE	72.00	176.8	11	30	10	20	39	2			
SIMFEROPOL	73.74	318.0	11	31	1						
SHIRAZ	74.19	296.1	11	37	4	21	2	1	11	50	14 22 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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 133

TUCSON	74.27	60.2	11 33	0					
TUCSON TELE.	74.28	60.0	11 34	1					
LWOW	74.36	326.7	11 35	1					
IASI	74.98	323.1	11 38A	0					
KRAKOW	75.72	329.1	11 43	1				11 53	PCP
RACIBORZ	76.32	330.1	11 46A	1				11 56	PCP
SKALNATE PL.	76.32	328.4	11 46A	1					
COLLMBERG	77.02	333.6	11 49A	0				13 6	
WITTEVEEN	77.53	337.9	11 54	2					
PRUHONICE	77.66	332.0	11 53A	0				12 43	
JENA	77.79	334.2	11 52	-1				14 0	
LAWRENCE	78.28	46.0	11 54	-2					
CHEB	78.28	333.3	11 54	-2				13 10	
BRATISLAVA	78.32	329.6	12 7K	11					
VIENNA-H.	78.51	330.1	11 57A	0				13 15	
KASPERSKE H.	78.71	332.2	11 58A	0					
BENSBERG	79.06	336.7	12 0	0					
WICHITA MTS.	79.68	50.9	12 3	-1				30 50	PKKP
CAMBERRA	79.84	180.3	12 5	0					
BELGRADE	79.84	325.8	12 5K	0				13 4	
HEIDELBERG	80.01	335.1	12 5	0					
ADELAIDE	80.08	188.9	12 6K	0	22 11	6	12 20		
SOFIA	80.39	322.8	12 9	2					
STUTTGART	80.40	334.5	12 8	0					
KEW	80.50	341.3	12 8	0					
TUBINGEN	80.68	334.5	12 9	0					
FAYETTEVILLE	81.01	47.2	12 11A	0					
EBINGEN	81.02	334.4	12 11	0					
STRASBOURG	81.03	335.3	12 12	1				12 42	
LJUBLJANA	81.05	330.0	12 11	0					
KSARA	81.15	309.4	12 12	0					
RAVENSBERG	81.17	333.8	12 13	1					
OTTAWA	81.62	30.3	12 12	-2					
SHAWINIGAN	81.64	27.9	12 14	0					
TRIESTE	81.66	330.3	12 14	0					
MUNDARING	82.24	208.0	12 14	-3					
PARIS	82.28	338.6	12 18	1				12 48	
NEUCHATEL	82.69	335.1	12 20	1					
BESANCON	82.75	335.8	12 21	1					
JERUSALEM	83.05	308.5	12 24	3					
GARCHY	83.54	337.7	12 24	0				13 21	
MORGANTOWN	84.89	36.0	12 31K	0					
CLERMONT-FD.	84.91	337.0	12 32	1				12 54	
ISOLA	85.19	333.8	12 33	1					
ROME	85.38	329.2			22 47	-12		28 37	SS
MONACO	85.48	333.4	12 34	1					
KARAPIRO	85.76	159.5	12 36	1					
WESTON	85.81	29.0	12 35A	0					
PALISADES	86.09	31.3	12 34	-2	23 13	8			
HALIFAX	86.18	22.9	12 36K	-1					
FORDHAM	86.24	31.4	12 37	0					
BAGNERES	88.22	338.0	12 49	2				13 15	
COLUMBIA	89.13	39.8	12 52	1					
ROXBURGH	91.71	166.1			24 11	14			
SETIF	92.94	331.6	13 9	0					
TAMANRASSET	105.01	325.7	14 4	777					
BROKEN HILL	121.87	281.8	18 50K	1					
BULAWAYO	125.62	276.7	18 57K	1					
HUANCAYO	129.80	63.6	19 7	3				22 25	PP
BYRD STATION	134.03	166.0	19 2	-10				22 37	SKP
SOUTH POLE	134.70	180.0	19 12	-1				22 4	PP
WINDHOEK	135.26	283.7	19 6	-8					

FEBRUARY 6 19.H 29.M 31.S EPICENTRE -4.75 154.14 DEPTH= 400.KM

A=-0.89679 B= 0.43475 C=-0.08229 D= 0.4362 E= 0.8998
G= 0.0741 H=-0.0359 K=-0.9966 HT= 7.0

DEPTH OF FOCUS= 0.058R

SE= 1.60

	DELTA DEG.	AZ. DEG.	P M	O-C S	S M	O-C S	*PP M	S S	SUPP. M	S S
RABUL	2.04	285.6	0	57K	0					
HONIARA	7.41	129.2	1	48	-1					
PORT MORESBY	8.33	236.0	2	1	1	3	39	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 134									
CHARTERS TS.	17.07	206.0	3	36	0	6	35	5			
BRISBANE	22.55	183.1	4	29	0	8	8	3			
RIVERVIEW	29.06	185.1				9	49	0	12	17	
CANBERRA	30.79	188.2	5	41	-1	10	17	1	6	15	
ADELAIDE	33.28	203.4	6	3A	-1	10	55	0			
AFIAMALU	34.80	107.5	6	16	0				8	38	PCP
ONERAHI	36.06	151.5	6	30	3						
MANILA	38.03	301.0	6	46	3				8	22	
KARAPIRO	38.36	152.3	6	46	0				8	49	
CHATEAU	39.40	153.5	6	54	0				8	52	
TUAI	39.81	151.5	6	58	0				12	31	
COBB RIVER	39.83	157.9	6	58	0						
KAIMATA	40.63	160.3	7	7	3						
WELLINGTON	40.80	156.0	7	5	-1				12	45	
GEBBIES PASS	42.09	159.9	7	15	-1						
ROXBURGH	42.68	164.2							17	7	
MATUSIRO	43.69	341.3	7	27A	-2				9	7	
MUNDARING	44.64	228.0	7	35	-1						
LEMBANG	46.31	265.1	7	47A	-2	14	1	-5	9	19	9 9 PCP
HONG KONG	47.44	306.1	8	22	24	14	25	4			
ZO-SE	47.54	320.8				14	22	-1			
NHATRANG	47.74	291.1	8	1	1						
CANTON	48.50	306.5				14	41	5			
NANKING	49.71	319.9	8	16	1	14	56	3			
VLADIVOSTOK	51.73	339.3	8	30K	0						
CHANGCHUN	54.89	334.8	8	52K	-1	16	2	0			
PEKING	56.59	325.5				16	23	-1			
PETROPAVLOVK	57.68	3.2	9	11K	-1						
KUNMING	58.07	303.4	9	15	0	16	47	4			
CHENG TU	59.42	309.8	9	23	-1	17	0	-1			
MAGADAN	64.16	358.1	9	55	0						
ULAN-BATOR	66.78	327.5	10	11	-1	18	32	1			
SHILLONG	67.45	300.0	10	15A	-1	18	39	0			
YAKUTSK	69.18	348.0	10	26	0						
LHASA	69.38	304.0	10	30	2						
COLLEGE	81.32	21.5	11	31	-3				14	34	PP
SEMIPALATNSK	83.47	321.8	11	44	-1						
LAHORE	83.82	302.3	11	47A	0						
SOUTH POLE	85.28	180.0	11	53	-1						
WARSAK DAM	86.50	304.4	12	0	0						
ANDI JAN	86.85	311.1							13	17	
NAMANGAN	87.41	311.3							13	52	
BERKELEY	87.85	51.9	12	7A	1						
SHASTA	88.13	49.1	12	7	-1						
LICK	88.27	52.5	12	15A	7						
MINERAL	88.68	49.5	12	9K	-1						
FRESNO	89.66	53.2	12	14	-1						
QUETTA	89.93	300.1	12	15A	-1	22	26	-6	22	9	SKKS
RENO	89.95	50.5	12	17A	1						
PASADENA	90.73	56.0	12	20	0						
EUREKA	92.90	50.8	12	30	0				14	4	16 16 PP
HUNGRY HORSE	94.74	42.0	12	37	-1						
KHEYS	95.65	350.6	12	41	-1						
TUCSON TELE.	96.86	58.1	12	49	1						
FLAMING GRGE	97.98	49.5	12	58	5						
RESOLUTE	100.03	14.6	13	0	-2						
SHIRAZ	102.43	299.2	13	11	-2	23	11	-1	23	48	PS
WICHITA MTS.	106.88	55.3	13	26	777				18	1	PP
COLLMBERG	123.45	331.8	18	11	0						
PRUHONICE	123.55	329.9	18	11	0						
VIENNA-H.	123.67	327.3	18	12K	1						
KASPERSKE H.	124.58	329.5	18	13	0						
LJUBLJANA	126.00	326.1	18	16K	1						
HEIDELBERG	126.75	332.4	18	18	1						
STUTTGART	126.93	331.5	18	17	0						
HUANCAYO	128.06	109.2	18	23	4						
WINDHOEK	129.99	235.3							21	11	
ISOLA	131.23	328.7	19	27A	62				21	14	PP
LA PAZ	133.18	117.8	18	29	0						
BANGUI	135.66	271.4	17	35	-59				21	29	
SETIF	137.51	321.6	18	33	-4				21	34	PP
SAN JUAN	138.42	67.6	18	40	1				21	38	PP
GRENADA	143.82	76.1	18	44	-5						
FORT FRANCE	143.89	71.5	18	46	-3						
ST. VINCENT	144.08	74.1	18	48	-1						
TRINIDAD	144.32	78.4	18	48	-2						
TAMARRASSET	144.78	303.6	18	51	1				20	28	21 52 PP
BARBADOS	145.69	73.7	18	56	4						

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 135

FEBRUARY 6 21.H 45.M 15.S EPICENTRE -6.83 155.54 DEPTH= 56.KM

A=-0.90387 B= 0.41116 C=-0.11815 D= 0.4141 E= 0.9103
G= 0.1075 H=-0.0489 K=-0.9930 HT= 6.9

DEPTH OF FOCUS= 0.004R

SE= 2.18

	DELTA DEG.	AZ. DEG.	P			S			*PP		SUPP.	
			M	S	O-C S	M	S	O-C S	M	S	M	S
RABAU	4.25	307.8	1	5	1							
HONIARA	5.07	120.9	1	16	0							
PORT MORESBY	8.69	252.4	2	7	1	3	42	-2				
CHARTERS TS.	15.96	213.4	3	44K	1	6	45	7				
NOUMEA	18.64	146.7	4	13	-3	7	48	10				
BRISBANE	20.61	187.0	4	38A	1	8	27	7				
GUAM	22.83	332.0	5	1	1	9	5	4			17 29 SCS	
SUVA	24.98	118.9	5	32	12	10	14	36			7 50	
RIVERVIEW	27.17	188.0	5	40A	-1	10	14	0			6 25 PP	
CANBERRA	28.98	191.1	5	57A	0	10	39	-4			6 49	
ADELAIDE	32.00	206.6	6	23	-1	11	32	2			7 26 PP	
MELBOURNE	32.32	195.8	6	27	1							
AFIAMALU	32.88	105.0	6	33	2	11	48	4	6	45	10 1 PCP	
RAOUL ISLAND	33.51	135.0	6	34	-3							
ONERAHI	33.58	151.7	6	41	4							
AUCKLAND	34.68	152.3	6	42	-5	12	13	1			8 15 PP	
KARAPIRO	35.88	152.5	6	57A	0	13	4	34	7	12	9 22 PCP	
FORT NELSON	36.67	190.1	7	4A	0	12	47	5				
CHATEAU	36.92	153.7	7	7A	1						9 26 PCP	
TUAI	37.33	151.7	7	8	-1	12	51	-1			9 30 PCP	
COBB RIVER	37.39	158.4	7	10	0	12	57	4			17 13 SCS	
KAIMATA	38.22	160.9	7	16	-1	13	9	3			17 20 SCS	
WELLINGTON	38.34	156.4	7	17A	-1	13	8	0			16 15 SS	
GEBBIES PASS	39.68	160.5	7	28	-1	13	33	5			9 39 PCP	
MANILA	40.30	302.1	7	36	2						13 36	
ROXBURGH	40.32	165.0	7	33	-1	13	34	-3			9 29 PCP	
BAGUIO CITY	41.60	304.1	7	44	0							
MUNDARING	44.35	230.4	8	6A	-1	14	34	-3				
PERTH	44.63	230.6	8	10	1	14	50	9			18 3 SS	
TUKUBASAN	45.21	342.3	8	12A	-2	14	45	-4			10 49 PPP	
ABUYAMA	45.56	336.8	8	18A	1							
TAIPEI	45.82	314.9									14 57	
MATUSIRO	46.10	340.6	8	19A	-2	14	59	-3			9 58 PP	
LEMBANG	47.56	267.0	8	31A	-1	15	19	-3			10 3 PCP	
MACQUARIE I.	47.61	177.3	8	32	-1							
MIZUSAWA	47.64	344.8	8	36	3	13	47	-97				
DJAKARTA	48.38	267.8	8	35	-4	15	3	-31				
HONG KONG	49.79	306.7	8	51A	1	15	55	1	9	2	18 13 SCS	
NHATRANG	49.80	292.2	8	50	0	15	54	0				
ZO-SE	50.03	320.8	8	50A	-1	16	0	3				
CANTON	50.85	307.1	8	59A	1	16	11	3				
NANKING	52.19	320.0	9	7A	-1	16	29	2				
KURILSK	52.28	353.2	9	9	1						16 37	
HONOLULU	53.39	57.2	9	17A	0	16	51	8				
KIPAPA	53.51	57.1	9	17A	-1							
VLADIVOSTOK	54.15	338.8	9	22	0	16	56	3			11 26 PP	
Y.-SAKHLINSK	54.81	349.3	9	26	-1							
HAWAII V.OB.	55.01	60.7	9	27	-2	17	10	5				
CHANGCHUN	57.36	334.4	9	44A	-1	17	34	-2				
MEDAN	57.69	278.6	9	50	2	17	38	-2			11 26	
PEKING	59.09	325.4	9	55A	-2	18	0	2				
PETROPAVLOVK	59.79	2.1	10	1	-1							
SIAN	60.08	316.0	10	2A	-2	18	7	-4				
KUNMING	60.37	303.8	10	5A	-1	18	16	1				
CHENGTU	61.81	310.1	10	15A	-1	18	34	1				
KLYUCHI	63.08	3.3	10	23	-1	18	56	7				
PORT BLAIR	65.13	286.2	10	38	0	19	14	-1			15 19 PCS	
CAPE HALLETT	66.04	175.1	10	42	-1	19	29	3			13 22 PP	
MAGADAN	66.27	357.4	10	44	-1	19	32	3				
WILKES	66.96	198.1	10	48K	-1	19	35	-2			14 40 PPP	
TOCKLAI	67.62	302.4	11	1K	8							
CHITTAGONG	68.76	297.1	11	0	-1	20	2	4	11	23	13 34 PP	
ULAN-BATOR	69.27	327.3	11	3	-1	20	3	-1				
SHILLONG	69.69	300.3	11	4A	-2	20	6	-3			13 43 PP	
SCOTT BASE	71.23	177.5	11	17A	1	20	22	-5			25 21 SS	

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961										PAGE 136
YAKUTSK	71.49	347.5	11 16	-1	20 33	3				20 59 PS
LHASA	71.70	304.1	11 20	2	20 36	3				
MIRNY	73.05	201.8	11 26	0	20 48	0				
IRKUTSK	73.20	330.0	11 26A	-1	20 48	-2				
CHATRA	74.10	300.3	11 32A	0	20 55	-5				14 6 PP
BOKARO	74.49	296.9	11 35A	0	21 7	3				14 27 PP
COLOMBO	76.71	278.7	11 48	1	21 27	-2				
MADRAS	77.40	284.9	11 52A	1	21 37	1				14 51 PP
KODAIKANAL	79.56	281.7	12 8A	5	21 53	-6				26 53 SS
HYDERABAD	79.83	289.0	12 4A	0	22 0	-2				15 11 PP
TIKSI	80.25	351.7	12 4	-3	22 7	1				
KERGUELEN I.	81.91	221.2	12 19	4	22 29	6				
BYRD STATION	82.44	169.9	12 18	0	22 32	3				29 7
COLLEGE	82.74	21.1	12 18K	-2			12 31			30 28 PKKP
SOUTH POLE	83.21	180.0	12 22	0	22 38	1				30 38 PKKP
POONA	84.33	289.4	12 27A	-1	22 45	-3				23 39 PS
SITKA	84.59	30.9	12 32	3						
MAWSON	84.75	202.6	12 34	4	22 58	6				
BOMBAY	85.35	289.6	12 32	-1	23 1	3				16 0 PP
SEMIPALATNSK	85.95	321.6	12 34	-2	22 55	-8				
LAHORE	86.10	302.3	12 35A	-1	22 50	-15				
UKIAH	87.51	50.3	12 43	0						
FRUNSE	87.98	313.4	12 45	-1	23 21	-2				12 50 PCP
BERKELEY	88.03	51.7	12 46A	0	23 27	4				24 31 PS
CONCORD	88.19	51.6	12 49A	2						
LICK	88.42	52.3	12 49A	1			13 16			16 29 PP
SHASTA	88.43	48.9	12 48A	0						
CORVALLIS	88.49	44.9	12 49	1						
WARSAK DAM	88.82	304.3	12 48	-2						
MINERAL	88.96	49.3	12 50A	0						
VICTORIA	89.17	41.1	12 53	2						
KHOROG	89.38	307.7	12 51	-1						
FRESNO	89.78	53.1	12 52K	-2						
RENO	90.19	50.3	12 57A	1						
PASADENA	90.73	55.9	12 59A	0	23 21	-27	13 14			16 36 PP
TASHKENT	91.66	311.2	13 1	-2						18 31 PPP
DUZHANBE	91.69	308.5	13 3	0	23 29	-27				
PENTICTON	91.77	40.7	13 3	0						
QUETTA	92.17	300.0	13 4A	-1	23 58	-3	13 18			17 45 PP
EUREKA	93.13	50.8	13 11A	1						17 21 PP
BOULDER CITY	93.66	54.4	13 18	6						
RUTH	93.87	51.1	13 14A	1	23 44	-31				
HUNGRY HORSE	95.34	42.1	13 18A	-2						17 18 PP
BUTTE	96.18	44.5	13 25	2						16 58 PP
GLEN CANYON	96.35	53.6	13 31	7						17 24 PP
SALT LAKE C.	96.38	49.8	13 23	-1						
TUCSON	96.66	58.4	13 30	4	22 40	-76				38 26 PKPPKP
TUCSON TELE.	96.76	58.3	13 28A	2						28 16 PKKP
BOZEMAN	97.22	44.9	13 28A	0						
KHEYS	97.92	350.5	13 29	-2	24 4	1				
FLAMING GRGE	98.26	49.7	13 32A	-1	24 41	36				29 52 PKKP
SVERDLOVSK	98.36	326.4	13 31	-2	24 3	-2				17 36 PP
ASHKABAD	99.82	307.2	13 42	2						17 42 PP
LARAMIE	101.14	49.3	13 46	0						
RESOLUTE	101.67	14.8	13 47A	-1						
ARGENTINE I.	102.35	164.0	13 51	0						
RAPID CITY	102.81	46.5	13 54	1						18 23 PP
LUBBOCK	104.24	57.2	18 41	281						
TANANARIVE	104.61	248.5	14 1	0						18 20 PP
SHIRAZ	104.65	298.8	13 59K	-2	24 27	-8				24 39 S
NORD	105.16	358.8	14 2A	777	24 38	0				27 42 PS
TEHERAN	105.44	305.1	14 8	777	24 44	5				
THULE	106.50	9.8	14 8	777						18 56 PP
WICHITA MTS.	106.90	55.9	14 14	777						18 45 PP
APATITY	108.17	340.0			24 52	1				18 47 PP
TIFLIS	109.97	311.8	14 28	777	25 0	2				
FAYETTEVILLE	110.36	54.1	18 29	3						28 29
SODANKYLA	110.51	341.2	18 22	-4						29 27 PKKP
MOSCOW	111.12	327.6	14 28	-240						19 10 PP
KAJAANI	111.95	338.0	18 29	0						29 18 PKKP
KIRUNA	112.11	343.2	18 30	0						19 20 PP
PULKOVO	113.06	333.3	18 32	1	25 11	0				19 25 PP
UMEA	114.77	339.9	18 36	1						29 20 PKKP
NURMIJARVI	115.10	335.6	18 35	0						29 11 PKKP
HELSINKI	115.16	335.2	18 36	0						29 14 PKKP
SCORESBY SD.	116.41	359.1	18 39A	1						19 44 PP
SIMFEROPOL	116.79	317.2	18 42	3	25 30	5				19 50 PP
GRAHAMSTOWN	117.28	227.1	18 41A	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961					PAGE 137					
ADDIS ABABA	117.40	276.6	18 44	4						
SKALSTUGAN	117.49	342.4	18 40A	0				29 3	PKKP	
UPPSALA	118.29	337.4	18 41A	-1				29 0	PKKP	
KSARA	118.33	304.7	18 47	5	26	2	32	20 3	PP	
CLEVELAND	118.92	46.1	18 43A	0						
JERUSALEM	119.27	302.6	18 46	2				20 50	PP	
PRETORIA	119.50	235.4	18 46	2						
IASI	120.20	321.5	18 46A	1						
MDRGANTOWN	120.63	47.7	18 46	0				20 37	PP	
SANTA LUCIA	120.67	135.5						20 15	PKS	
LWOW	121.08	325.5	18 48	1				29 55	SKSP	
BULAWAYO	121.34	241.6	18 49A	1						
COLUMBIA	121.35	54.3	19 1	13				28 55	PKKP	
WARSAW	121.43	329.1						20 23	PP	
OTTAWA	121.44	40.1	18 47	-1						
ISTANBUL KA.	121.57	314.5	19 24	36						
ISTANBUL UN.	121.64	314.5	19 24	36						
PENNSYLVANIA	121.75	45.8						20 23	PP	
HERMANUS	121.81	222.2						20 24	PP	
GOTEBORG	121.91	337.9	18 58	9						
BUCHAREST	122.31	319.1	18 48	-1						
SHAWINIGAN	122.77	37.8	18 50A	0						
REYKJAVIK	122.78	358.7	18 52A	2						
HELWAN	122.92	301.2	18 51	0				20 33	PP	
SIDA	122.97	356.6	18 52A	1						
WASHINGTON	122.98	47.7	18 49	-2				20 0		
COPENHAGEN	123.17	336.0	18 48	-3				20 33	PP	
KRAKOW	123.21	327.4	18 53K	2						
BROKEN HILL	123.41	247.8	18 53A	1						
SKALNATE PL.	123.52	326.4	18 53K	1						
RACIBORZ	124.11	328.2	18 54	1				20 9		
PALISADES	124.46	44.2	18 52	-2	25	57	7	19 6	20 37	PP
FORDHAM	124.54	44.4	18 55	1						
SOFIA	124.87	318.3	18 55	1						
BUDAPEST	125.14	325.2	19 3	8				28 10		
WESTON	125.62	41.7	18 56A	0				24 7	PPP	
BELGRADE	125.70	321.8	18 57K	1				21 49		
BRATISLAVA	125.81	326.8	18 58	2						
COLLMBERG	125.93	331.9	18 57A	1	26	4	9	20 54	PP	
PRUHONICE	126.04	329.8	18 57	0				20 57	PP	
PRAGUE	126.04	330.0	18 57	0				30 53	PS	
HUANCAYO	126.05	110.2	19 0	3				21 8	PP	
VIENNA-H.	126.16	327.2	18 57A	0				20 55	PP	
ATHENS	126.56	312.8	19 12K	14						
JENA	126.84	332.3	18 57	-1				20 57	PP	
CHEB	127.04	331.1	18 56	-2				21 7	PP	
KASPERSKE H.	127.07	329.5	18 59	0				21 3	PP	
WITTEVEEN	127.57	336.7	18 59K	-1						
ZAGREB	127.81	325.0	18 59	-1						
MUNSTER	127.83	335.4	19 7	7						
AREQUIPA	128.04	116.9	19 2	2						
LJUBLJANA	128.49	326.0	19 1	0				19 15	21 12	PP
BENSBERG	128.77	334.8	19 3A	1						
DURHAM	128.79	343.2	19 3A	1				19 17	21 25	PP
CHINCHINA	129.10	89.1	19 4A	2						
TRIESTE	129.16	326.0	19 3	0				19 17	22 27	SKP
HEIDELBERG	129.23	332.5	19 3	0				22 24	SKP	
								21 15		
HALIFAX	129.25	35.6	19 2K	-1						
STUTTGART	129.41	331.6	19 3A	0				21 26	PP	
GALERAZAMBA	129.68	81.7						22 33	SKP	
TUBINGEN	129.68	331.5	19 4	0				19 17		
WINDHOEK	129.92	233.1	19 6	2						
RAVENSBERG	129.94	330.5	19 7	3						
EBINGEN	129.97	331.2	19 5	1						
STRASBOURG	130.25	332.4	19 5	0				21 13	PP	
PADOVA	130.34	326.8	19 6	1				22 40	PKS	
BOGOTA	130.60	89.8	19 7	2				22 29	SKP	
CHUR	130.62	329.6	19 2	-3				22 29		
LA PAZ	130.97	118.7	19 8A	2				21 25	PP	
FUQUENE	131.01	88.7	19 6	0						
BASLE	131.10	331.5	18 54A	-12				22 20		
KEW	131.22	340.1	19 7	0				19 20	22 31	PKS
FLORENCE X.	131.72	325.5	19 7A	0				22 43	PP	
PRATO	131.74	325.7	19 15	7				22 33	PP	
NEUCHATEL	131.77	331.4	19 8	0				22 30	PKS	
BESANCON	132.05	332.3	19 9	1						
ROME	132.15	322.8	19 9A	1				21 24	PP	
REGGIO CALA.	132.20	316.7	19 6	-2						

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 139

NIEDZIKA	88.73	319.6	12 51	-1	
SODANKYLA	89.00	337.9	12 51A	-2	
UMEA	90.90	333.9	13 2	0	
KIRUNA	91.42	337.9	13 3A	-1	
UPPSALA	91.62	329.8	13 3	-2	
LJUBLJANA	92.25	315.8	13 8K	0	
PRUHONICE	92.52	319.8	13 8	-1	16 50 PP
BYRD STATION	92.88	173.2	13 8	-3	
KASPERSKE H.	93.09	318.9	13 10	-2	
SKALSTUGAN	94.41	333.3	13 16A	-2	
NORD	98.68	352.6	14 34A	57	
COLLEGE	102.16	24.4	18 2	249	
RESOLUTE	109.16	5.0	18 25	777	
SHASTA	125.65	41.8	18 59	0	
HUNGRY HORSE	126.10	29.9	18 58	-1	
MINERAL	126.34	41.9	19 0K	0	
RENO	127.94	41.9	19 4	1	
EUREKA	130.48	39.9	19 7	-1	22 27 PP
CHINA LAKE	131.33	44.9	19 11	1	19 28
FLAMING GRGE	133.53	34.1	18 57	-17	22 36 PP
RAPID CITY	134.34	26.5			22 40 PP
TUCSON TELE.	138.01	44.8	19 14	-8	22 52 PP
WICHITA MTS.	143.89	31.1	19 29	-3	21 0
FAYETTEVILLE	144.82	24.7	19 32A	-2	19 49 20 5 *SPKP
MORGANTOWN	144.98	4.1	19 34A	0	
HUANCAYO	163.42	185.4	20 2	3	

FEBRUARY 7 21.H 1.M 52.S EPICENTRE 44.45 147.09 DEPTH= 131.KM

A=-0.60132 B= 0.38910 C= 0.69787 D= 0.5433 E= 0.8396
G=-0.5859 H= 0.3791 K=-0.7162 HT= -3.3

DEPTH OF FOCUS= 0.015R

SE= 4.35

	DELTA DEG.	AZ. DEG.	P			S			*PP		SUPP.	
			M	S	S	M	S	S	M	S	M	S
KURILSK	0.96	35.0	0	19	-4	0	37	-4				
NEMURO	1.57	224.9	0	18K	-12	0	36	-16				
KUSIRO	2.44	234.0	0	30K	-10	0	55	-16				
OBIIHRO	3.21	242.9	0	42K	-9	1	16	-13				
ASAHI GAWA	3.47	260.5	0	51	-3	1	9	-26				
HIROO	3.50	233.1	0	45K	-9	1	21	-15				
URAKAWA	3.90	235.4	0	51	-9	1	30	-15				
WAKKANAI	3.97	286.1	1	2	1	1	48	1				
RUMOE	3.97	264.7	0	57	-4							
Y.-SAKHLINSK	4.00	311.6	1	0	-1	1	48	0				
SAPPORO	4.38	253.7	1	1	-5	1	49	-8				
TOMAKOMAI	4.40	247.5	1	2	-4	1	48	-9				
MURORAN	4.94	246.6	1	6	-8	1	59	-11				
SUTTSU	5.25	254.1								1	52	
MORI	5.31	246.0	1	12	-7	2	6	-13				
HAKODATE	5.33	242.6	1	10K	-9	2	5	-15				
HATINOHE	5.68	228.3	1	14	-9	2	7	-21				
UGLEGORSK	5.78	325.1	1	26	1	2	39	9				
AOMORI	5.90	234.3	1	19	-7	2	18	-15				
MIYAKO	6.13	220.3	1	24	-5	2	25	-14				
MORIOKA	6.48	224.9	1	21	-13	2	25	-22				
MIZUSAWA	6.93	222.0	1	32	-8	2	34	-24				
AKITA	7.03	230.2								2	20	
ISINOMAKI	7.41	217.8	1	34	-13	2	47	-23				
SENDAI	7.73	219.1	1	39	-12							
YAMAGATA	8.00	221.6	1	43	-12	3	2	-22				
HUKUSIMA	8.35	219.0	1	52	-8	3	11	-22				
SEVERO-KUR.	8.70	41.2	2	13	9							
ONAHAMA	8.84	214.2				3	16	-19				
SHIRAKAWA	8.98	217.8	2	1	-7	3	24	-24				
AIKAWA	9.25	229.1	2	2	-9	3	38	-16				
MI TO	9.51	214.3	2	1	-14	3	40	-20				
OKHA	9.51	344.8	2	17	2					4	41	
UTUNOMIYA	9.61	217.3	2	27	11	3	40	-23				
KAKIOKA	9.76	215.1	2	9	-9	3	43	-23				
TUKUBASAN	9.80	215.4	2	5A	-14	3	44	-23				
TYOSI	9.94	210.8				3	46	-25				
MAEBASI	10.10	220.0	2	20	-3	3	46	-28		3	9	

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 140									
KUMAGAYA	10.16	218.0	3	24	60	4	55	39			
NAGANO	10.30	224.1	2	27	2	4	37	18			
MATUSIRO	10.39	223.6	2	16A	-11	4	4	-17			
OIWAKE	10.40	221.7	3	29	62						
TOKYO C.M.O.	10.41	215.2							3	41	
TITIBU	10.44	218.6				4	0	-22			
YOKOHAMA	10.66	214.9	4	3	93						
MATUMOTO	10.74	223.4				4	21	1			
KOHU	10.93	219.6	2	33	-1	4	17	-17			
HUNATU	10.98	218.3				4	17	-19			
MERA	11.03	212.9							4	12	
VLADIVOSTOK	11.07	268.4	2	31	-5	4	35	-2	5	27	
AJIRO	11.22	215.9	2	42	4	4	17	-24			
MISIMA	11.22	216.6							3	22	
OSIMA	11.34	214.2				4	20	-24			
PETROPAVLOVK	11.47	37.5	2	41	0	4	45	-2			
NAGOYA	12.09	223.4				4	47	-15			
ABUYAMA	13.04	226.7	2	51A	-10						
NARA*	13.05	225.5				5	10	-14			
MAGADAN	15.29	7.2	3	31	1	6	34	18			
CHANGCHUN	15.65	275.4	3	30	-5	6	20	-4			
YAKUTSK	20.32	336.1	4	25	-3	6	33	-90			
PEKING	23.24	269.9	4	54	-2	8	56	1			
ZO-SE	24.32	245.6	5	4	-3						
NANKING	25.31	250.4	5	13	-3						
ULAN-BATOR	27.82	291.5	5	38	-1	10	12	1			
IRKUTSK	29.12	300.9	5	49	-2						
CANTON	34.87	243.5	6	38	-3						
CHENG TU	36.40	262.7	6	51	-3	12	24	-1			
COLLEGE	40.55	36.6	7	30	2				7	39	9 30 PCP
KUNMING	40.64	256.7	7	27	-2	13	28	0			
KHEYS	46.34	346.9	8	13	-2						
SHILLONG	48.05	266.0	8	25A	-3						
RABAU	48.64	173.2	8	26	-7						
ALMATA	49.13	294.7	8	37	1						
CHATRA	50.65	270.7	8	46	-2						
FRUNSE	50.85	295.2	8	50	1						
NORD	53.90	357.1	9	10	-2						
RESOLUTE	54.31	16.8	9	14	-1						
TASHKENT	55.05	296.1	9	20	0						
LAHORE	57.01	283.5	9	36A	2						
THULE	57.31	9.4	9	34	-2						
WARSAK DAM	57.52	287.5	9	36A	-2						
APATITY	57.73	335.4	9	39	0						
SODANKYLA	59.80	337.3	9	53K	-1						
PENTICTON	59.94	49.0	10	4	9						
KIRUNA	61.10	339.6	10	2A	-1						
KAJAANI	61.81	334.2	10	8	1						
QUETTA	62.92	286.6	10	14A	-1	18	38	6	10	21	10 51 12 31 PP
SHASTA	63.36	58.3	10	17K	-1						
HUNGRY HORSE	63.50	47.4	10	19	0				10	32	
MOSCOW	63.87	323.6	10	20	-1						
PULKOVO	63.98	329.8	10	22	0						
MINERAL	64.05	58.2	10	22K	0						
UMEA	64.22	336.8	10	23	0						
CHARTERS TS.	64.23	180.9	10	17	-6						10 38
SCORESBY SD.	65.11	356.0	10	30	1						
NURMI JARVI	65.39	332.7	10	31K	0						11 2 PCP
HELSINKI	65.55	332.3	10	33	1						
RENO	65.63	58.0	10	33	1						
SKALSTUGAN	66.53	339.8	10	37	-1						
EUREKA	67.98	56.0	10	47	0						
UPPSALA	68.12	335.2	10	48	0						11 13 PCP
CHINA LAKE	69.34	59.9	10	54	-1						
TIFLIS	69.60	308.7	10	59	2						
TEHERAN	69.64	300.3	10	58	1						
FLAMING GRGE	70.82	51.3	11	3	-1						11 23
GOTEBORG	71.56	336.5	11	4	-5						
RAPID CITY	71.96	45.5	11	11	0						
SHIRAZ	72.92	294.8	11	16K	-1	20	34	3			13 59 PP
COPENHAGEN	73.14	335.1	11	20K	2						
IASI	74.35	322.0	11	25A	0						
KRAKOW	75.25	327.9	11	27	-3						
SKALNATE PL.	75.83	327.2	11	35	2						
RACIBORZ	75.88	328.9	11	35	1						11 44 PCP
TUCSON TELE.	75.90	58.6	11	34	0						
COLLMBERG	76.68	332.4	11	39A	1						12 29
PRUHONI CE	77.27	330.8	11	43A	1						14 35 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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 141

JENA	77.47	333.0	11 43	0	12 33
BRATISLAVA	77.86	328.4	11 42	-3	12 6 PCP
KASPERSKE H. BENSBERG	78.33	330.9	11 48A	1	
	78.81	335.5	11 52A	2	
CANBERRA	79.41	178.4	11 51	-2	
HEIDELBERG	79.71	333.8	11 56	1	
STUTTGART	80.08	333.2	11 58	1	12 47
TUBINGEN	80.36	333.2	12 0	2	
KEW	80.39	340.0	11 59	1	
EBINGEN	80.70	333.1	12 1	1	
STRASBOURG	80.73	334.0	12 2	2	
RAVENSBURG	80.84	332.5	12 2	1	
WICHITA MTS. JERUSALEM	81.21	49.4	12 3	0	12 13
	82.04	307.1	12 9	2	
PARIS	82.09	337.3	12 9	2	
BESANCON	82.47	334.4	12 12	3	
FAYETTEVILLE	82.50	45.8	12 9A	0	
OTTAWA	82.81	28.9	12 11	0	
FOLINIERE	82.92	339.1	12 13	1	
GARCHY	83.31	336.3	12 15	1	13 14
MONACO	85.13	331.9	12 23	0	
KARAPIRO	85.94	157.8	12 24	-3	12 58
TAMANRASSET	104.43	323.7			17 50 PP
BYRD STATION	133.99	166.0	19 1	-1	
SOUTH POLE	134.26	180.0	19 0	-2	

FEBRUARY 8 2.H 36.M 41.S EPICENTRE -15.32 167.43 DEPTH= 131.KM

A=-0.94180 B= 0.20994 C=-0.26257 D= 0.2176 E= 0.9760
G= 0.2563 H=-0.0571 K=-0.9649 HT= 5.7

DEPTH OF FOCUS= 0.015R

SE= 1.12

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
HONIARA	9.36	307.8	2	12	-1	3	59	3				
SUVA	10.90	106.5	2	33	0	4	46	13				
BRISBANE	18.16	226.2	4	4	0	7	25	6				
RABAUL	18.65	304.8	4	9	-1						8	6
PORT MORESBY	20.66	284.2	4	33	2	8	19	10				
CHARTERS TS.	20.72	253.7	4	32	1	8	14	4				
ONERAHI	21.29	164.3	4	40	3						5	27
RIVERVIEW	23.58	215.7	5	0A	1						5	41 PP
KARAPIRO	23.63	163.9	5	0A	0						8	41
TUAI	24.90	161.7	5	12	0	9	23	0				
CANBERRA	25.88	216.3	5	21	0				5	51	8	47 PCP
COBB RIVER	26.07	170.9	5	24	1							
WELLINGTON	26.64	167.6	5	26	-2							
KAIMATA	27.32	173.6	5	33	-1							
GEBBIES PASS	28.63	172.1	5	44	-2							
MELBOURNE	29.95	217.3	5	56	-2						8	54
MOORLANDS	32.15	208.8	6	17K	0						9	4 PCP
ADELAIDE	32.35	227.5	6	18	-1						9	3 PCP
TARRALEAH	32.38	209.7	6	19K	0						9	4 PCP
FORT NELSON	32.46	208.0	6	19	0						9	4 PCP
MACQUARIE I.	39.65	187.8	7	20	0							
MUNDARING	49.31	240.9	8	36A	-1							
CAPE HALLETT	57.00	179.0	9	47K	13							
MATUSIRO	58.50	332.5	9	43A	-1				10	11	10	33 PCP
LEMBANG	59.15	271.1	9	49A	0						10	18
NANKING	66.26	315.9	10	35	-1							
PETROPAVLOVK	68.48	354.3	10	48	-2	19	25	-14				
CHANGCHUN	70.32	329.0	11	0A	-1							
BYRD STATION	72.08	169.9	11	10	-1							
KUNMING	74.75	301.8	11	28A	1	20	58	7				
SOUTH POLE	74.78	180.0	11	26	-1							
CHENGTU	76.19	307.5	11	36A	1	21	10	3				
YAKUTSK	82.62	343.1	12	10	0	22	6	-8				
SHILLONG	84.00	298.4	12	17A	1							
BERKELEY	84.44	48.5	12	19A	0							
CONCORD	84.62	48.4	12	20	0							
LICK	84.68	49.2	12	20A	0							
SHASTA	85.51	45.8	12	24A	0							
MINERAL	85.92	46.4	12	26A	0							
PASADENA	86.07	53.2	12	27	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961					PAGE 142		
LHASA	86.08	302.0	12 29	2			
COLLEGE	86.83	17.5	12 28	-2	30 21	PKKP	
RENO	86.86	47.7	12 32	1			
CHATRA	88.40	298.2	12 38A	0			
BOULDER CITY	89.27	52.4	12 43	1			
EUREKA	89.61	48.8	12 44	0	13 20	16 16	PP
TIKSI	90.56	348.6	12 47K	-1			
PENTICTON	90.77	38.7	12 49	0			
TUCSON	91.26	57.0	12 52	1	13 30	16 25	PP
TUCSON TELE.	91.37	57.0	12 52	0		16 32	PP
HUNGRY HORSE	93.88	40.9	13 4	1		30 6	PKKP
FLAMING GRGE	94.85	49.0	13 6	-2		30 2	PKKP
WICHITA MTS.	101.77	57.1	13 37	-2		17 49	PP
QUETTA	106.46	297.4	18 11	777			
RESOLUTE	106.70	16.0	18 9	777		29 44	
SVERDLOVSK	111.88	325.5	18 19	0			
OTTAWA	119.56	46.3	18 33	-1			
APATITY	119.99	341.4	18 34A	-1			
SHAWINIGAN	121.39	44.6	18 37	0			
PALISADES	121.45	51.1			30 44	PS	
SODANKYLA	122.11	343.2	18 39	0			
PRETORIA	123.08	224.6	18 42	1			
KIMBERLEY	123.23	219.6	18 42K	1			
KIRUNA	123.37	345.7	18 41A	0			
KAJAANI	124.01	340.0	18 37	-6			
TIFLIS	124.31	310.3	18 45	2			
SCORESBY SD.	124.56	3.8	18 45K	1			
PULKOVO	125.75	334.9	18 46	0			
BULAWAYO	126.34	230.2	18 48A	1			
UMEA	126.52	342.6	18 46	-1			
NURMI JARVI	127.47	337.8	18 48	-1			
HELSINKI	127.59	337.4	18 51	2			
SKALSTUGAN	128.80	346.0	18 52	0			
SAN JUAN	128.80	78.6	18 25	-27			
BROKEN HILL	129.79	235.9	18 40	-14			
UPPSALA	130.37	340.5	18 55	0	22 8	SKP	
GOTEBORG	133.85	342.0	18 57	-4			
NIEDZIKA	136.72	328.9	19 9	3	21 53		
RACIBORZ	137.31	330.9	19 8	0			
COLLMBERG	138.66	335.8	19 2	-8	21 46	PP	
PRUHONICE	139.02	333.3	19 4	-7	22 36	PP	
JENA	139.51	336.5	20 13	61			
DURHAM	139.72	350.2	19 17	5			
KASPERSCHE H.	140.08	333.2	19 6	-7			
BENSBERG	141.06	340.1	19 13	-2			
HEIDELBERG	141.83	337.4	19 12	-4			
LJUBLJANA	141.88	329.1	19 16	0			
STUTTGART	142.13	336.4	19 13	-3	22 44	PP	
TUBINGEN	142.41	336.3	19 13	-4			
EBINGEN	142.73	336.1	19 16	-1			
RAVENSBERG	142.79	335.1	19 16	-2			
STRASBOURG	142.86	337.5	19 16	-2			
CHUR	143.57	334.2	19 18K	-1			
PARIS	144.39	342.8	19 21	1			
NEUCHATEL	144.48	336.8	19 21	0			
BESANCON	144.63	338.0	19 20	-1			
FOLINIERE	145.20	346.0	19 23	1			
GARCHY	145.59	341.1	19 24	2	20 6		
ISOLA	146.75	333.9	19 26K	2		19 33	PKP2
CLERMONT-FD.	146.90	339.7	19 30	5			
BAGNERES	150.28	341.0	19 29	-1			
SERRA PILAR	154.05	353.1	19 36K	1	26 23	-4	23 34
TOLEDO	154.42	344.7	19 38	2	20 31		20 2
ALGIERS UNI.	154.51	329.8	19 38	2			21 2
ALMERIA	156.74	338.9	19 31K	-8			20 1
TAMANRASSET	161.37	296.2	19 47A	3			21 4

FEBRUARY 8 8.H 4.M 18.S EPICENTRE -10.40 -70.90 DEPTH= 650.KM

A= 0.32198 B=-0.92961 C=-0.17932 D=-0.9449 E=-0.3273
G=-0.0587 H= 0.1694 K=-0.9838 HT= 6.5

DEPTH OF FOCUS= 0.097R

SE= 1.89

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 143

	DELTA	AZ.	P			O-C			*PP		SUPP.	
	DEG.	DEG.	M	S	S	M	S	S	M	S	M	S
LA PAZ	6.63	156.4	1	44	-5	3	7	-9				
ANTOFAGASTA	13.24	178.1	2	47	-3	5	7	0				
BOGOTA	15.25	347.9	3	11A	2	5	48	6			5	22
CHINCHINA	15.98	342.7	3	15A	-1	5	57	3				
FUQUENE	16.01	349.7	3	17K	0	5	53	-1			5	27
BALBOA HTS.	21.08	335.6	4	5	2	6	32	-46				
CARACAS	21.13	10.9	4	2K	-1	7	19	0				
GALERAZAMBA	21.48	348.2									7	30
SANTA LUCIA	22.93	179.5									6	58
TRINIDAD	22.94	24.6	4	20	1							
GRENADA	24.09	22.4	4	29	-1						6	4
ST. VINCENT	25.29	22.4	4	39	-1							
BARBADOS	25.92	25.9	4	49	3	8	36	2				
FORT FRANCE	26.77	21.3	4	52	-1							
SAN JUAN	28.98	9.4	5	10	-2	9	19	-2			8	2 PCP
SANTIAGO MA.	29.45	323.3	5	46	30							
SAN SALVADOR	30.03	322.4									6	9
COMITAN	33.80	321.3				10	30	-5				
VERA CRUZ	38.52	319.7				11	51	7				
TACUBAYA	40.68	316.6	6	48K	0	12	17	2	8	33		
PORT STANLEY	42.53	168.0	6	59	-4	12	37	-4				
MORGANTOWN	50.48	350.9	8	2K	0							
FAYETTEVILLE	51.19	335.7	8	5K	-2	14	38	-2			9	11 PCP
PALISADES	51.22	357.1	8	6	-2	14	31	-9	9	59	13	7 PP
PENNSYLVANIA	51.35	353.2	8	9	0	14	40	-2				
WICHITA MTS.	51.98	330.9	8	11	-2	14	50	0	10	6	12	59 PCS
WESTON	52.52	359.6	8	16K	-1							
CLEVELAND	52.54	349.9	8	16K	-1	14	56	-2				
ARGENTINE I.	54.97	176.6	8	33	-1							
HALIFAX	55.15	6.3	8	35K	0							
OTTAWA	55.71	355.9	8	38A	-1							
SHAWINIGAN	56.71	358.5	8	45	-1							
TUCSON TELE.	57.03	319.7	8	47	-1	15	57	1	10	46	38	8 PKPPKP
TUCSON	57.05	319.6	8	47K	-1	16	1	5	10	46	9	34 PCP
MBOUR	58.86	66.2	9	1	1	16	24	5				
GLEN CANYON	60.66	323.2	9	14	2	16	48	7	11	15		
RAPID CITY	61.64	334.0	9	19	1	16	57	4	11	18	11	41 PP
FLAMING GRGE	62.20	327.8	9	20	-2	17	2	2	11	21	38	7 PKPPKP
PASADENA	63.04	316.9	9	27K	0	17	15	5	11	28	9	58 PCP
SALT LAKE C.	63.41	326.2	9	30	0				11	30	10	16 PCP
RUTH	64.16	323.1	9	36K	2	17	28	5				
EUREKA	64.90	322.8	9	39	0	17	37	5	11	38	10	6 PCP
FRESNO	65.65	318.4	9	44	0							
BOZEMAN	66.46	330.4	9	49	0				11	50		
VINEYARD	66.67	317.6	9	51K	1				11	54		
LICK	67.18	318.0	9	54K	1				11	54		
RENO	67.28	320.8	9	55A	1				11	59		
BUTTE	67.45	329.9	9	55	0				11	57	10	43
BRANNER	67.58	317.8	9	56A	1							
CONCORD	67.81	318.3	9	57K	0				11	59		
BERKELEY	67.88	318.1	9	58K	1	18	8	1	12	0		
MINERAL	68.87	320.6	10	4A	1				12	7		
UKIAH	69.21	318.8	10	7	2							
SHASTA	69.56	320.6	10	5	-2				12	6		
HUNGRY HORSE	69.80	330.9	10	9	0	18	31	2	12	10	37	55 PKPPKP
ARCATA	70.72	320.0	10	16K	2							
BYRD STATION	73.14	187.9	10	26	-2				12	38		
SERRA PILAR	76.82	43.4	10	48A	0				13	0	14	3 PP
GRANADA	78.73	48.7	11	9A	11	20	12	7			13	12 PPP
TOLEDO	79.45	46.0	11	3K	1	20	17	5	13	12		
ALMERIA	79.45	49.4	10	59A	-3	20	11	-1	13	9		
SOUTH POLE	79.67	180.0	11	2	-1	20	12	-2	13	11	11	20 PCP
TAMANRASSET	81.71	65.0	11	15K	1	20	38	4	13	24	14	10 PP
BAGNERES	83.56	44.2	11	22	-1							
ALGIERS UNI.	83.59	50.9	11	24	1	20	57	5	13	34		
RESOLUTE	86.21	353.8	11	35K	0	21	18	1				
KEW	86.29	36.2	11	36	0							
SCOTT BASE	86.35	190.3	11	36K	0							
THULE	86.68	0.6	11	38	0							
SCORESBY SD.	87.23	14.7	11	41K	1							
ISOLA	88.67	44.7	11	47	0						14	7
KIMBERLEY	89.98	119.1	11	52A	-1							
BANGUI	90.30	85.6	11	54	0						14	6 *SP
BENSBERG	90.59	38.2	11	56	0							
EBINGEN	91.00	41.2	11	58	0							
HEIDELBERG	91.14	40.0	11	59	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 144

TUBINGEN	91.15	40.9	11 59	1			
STUTTGART	91.34	40.7	11 58	-1	14 12		
COLLEGE	93.85	335.4	12 9	-2	14 21	16 5	PP
KASPERSKE H.	94.19	41.0	12 12	0			
COLLMBERG	94.24	38.8	12 13K	0	14 36		
LJUBLJANA	94.24	44.1	12 13	0			
BULAWAYO	95.24	111.5	12 16K	-1			
NORD	95.32	6.9	12 16K	-1	14 28		
SKALSTUGAN	96.20	26.5	12 22A	1	14 34		
RACIBORZ	97.30	40.5	12 29	3			
KIRUNA	100.05	22.7	12 39	0			
CHATEAU	101.11	226.5	12 44	1			
KARAPIRO	101.61	227.7	12 46	0			
CANBERRA	120.93	217.7	17 41	1			
SHIRAZ	124.05	61.3	17 47A	1		25 34	
ADELAIDE	126.88	210.5	17 52K	0			
CHARTERS TS.	132.51	230.4	17 46	-16		23 52	
RABAUL	134.73	253.5	17 57	-10		26 43	
QUETTA	136.16	57.0	18 12	3	20 47	23 49	*PPP
LAHORE	141.56	51.6	18 15	-5			
ULAN-BATOR	142.56	2.4	18 31	9			
MATUSIRO	142.99	319.4	18 21K	-1	20 38		
CHANGCHUN	143.85	340.0	18 22K	-2			
BOMBAY	143.95	72.2	18 26	2			
DEHRA DUN	144.97	51.0	18 28	3			
POONA	144.97	72.6	18 27A	2			
GUAM	145.02	278.6	18 26	1	20 44		
ABUYAMA	145.71	319.4	18 29A	3			
CHATRA	153.63	48.7	18 39	1			
SIAN	156.26	0.4	18 45K	4			
ZO-SE	156.55	333.2	18 44K	2		22 57	PP
NANKING	156.66	338.9	18 43K	1		22 56	PP
SHILLONG	157.76	45.0	18 44K	1			
CHENG TU	159.29	12.5	18 48K	3		23 12	PP
CHITTAGONG	159.62	52.2	18 51	6			
LEMBANG	162.82	175.0	18 51A	2		23 25	PP
KUNMING	164.16	21.6	18 52	2		23 31	PP
CANTON	166.75	342.7	18 55K	3			
HONG KONG	167.21	338.3	18 54	1			

FEBRUARY 8 17.H 50.M 46.S EPICENTRE -20.45-178.15 DEPTH= 507.KM

A=-0.93724 B=-0.03033 C=-0.34736 D=-0.0323 E= 0.9995
G= 0.3472 H= 0.0112 K=-0.9377 HT= 4.6

DEPTH OF FOCUS= 0.075R

SE= 1.28

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
SUVA	3.96	304.7	1	24	5	2	30	8				
AFIAMALU	8.91	44.1	2	4A	-3	3	43	-5				
PORT VILA	13.08	279.7	2	31	-19	4	58	-10				
ONERAHI	16.62	201.7	3	30	4	6	23	10				
KARAPIRO	18.26	196.1	3	44	2	6	51	10			5	4
TUAI	18.73	191.5	3	46	-1	6	56	6				
CHATEAU	19.46	194.9	3	52	-2	7	13	11			6	19
WELLINGTON	21.62	194.6	4	13	-1	7	34	-4			14	24
COBB RIVER	21.98	198.7	4	15	-2	7	39	-5				
KAIMATA	23.69	199.5	4	31	-1	8	6	-5			14	27
HONIARA	23.80	294.2	4	33	0							
GEBBIES PASS	24.42	196.3	4	37	-2	8	19	-4				
ROXBURGH	27.02	199.6									14	52
BRISBANE	27.42	249.8	5	4A	-2	9	6	-4				
RIVERVIEW	30.27	237.5				9	55	0			15	5
CANBERRA	32.42	235.8	5	49A	0				7	21	11	16
RABAUL	33.09	295.2	5	52	-2						15	19
CHARTERS TS.	33.35	264.3	5	57K	1	10	39	-3				
PORT MORESBY	35.21	283.0	7	12	60						11	24
FORT NELSON	36.55	224.3	6	23A	0							
TARRALEAH	36.87	225.7	6	27A	1							
ADELAIDE	40.52	239.8	6	54	-1						11	47
HONOLULU	45.89	26.4	7	38	0							
GUAM	49.67	309.6	8	5	-1						9	18
SCOTT BASE	57.91	183.7	9	5K	0				10	53	13	2

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961					PAGE 145				
MUNDARING	59.22	244.3	9 13	0					
BYRD STATION	64.71	170.5	9 48	-1					
MANILA	69.16	295.3	10 18	2					
SOUTH POLE	69.67	180.0	10 19	0	18 46	-1	12 10		
MATUSIRO	70.09	323.8	10 21K	-1					
LEMBANG	72.90	269.0	10 38K	0	19 18	-5	12 32	10 58	PCP
ZO-SE	77.56	310.0	11 4K	0					
BERKELEY	78.24	42.0	11 8K	0					
LICK	78.31	42.7	11 8A	0					
CONCORD	78.42	42.0	11 9K	0					
HONG KONG	78.54	299.1	11 10K	1	20 22	-2			
PASADENA	78.75	47.1	11 10K	0					
FRESNO	79.16	44.1	11 13K	1					
CANTON	79.58	299.4	11 16K	1	20 36	2			
NANKING	79.80	309.7	11 16K	0	20 41	4			
SHASTA	79.89	39.7	11 17	1					
MINERAL	80.15	40.3	11 18A	0					
RENO	80.77	41.8	11 22A	1					
ARGENTINE I.	81.07	157.1	11 22	0					
CHANGCHUN	82.27	322.5	11 28K	0					
TUCSON	82.99	52.0	11 33	1			13 30	14 24	
TUCSON TELE.	83.12	51.9	11 34	1			13 45		
EUREKA	83.18	43.6	11 33	0				12 16	
GLEN CANYON	84.79	47.5	11 44	3					
SALT LAKE C.	86.54	44.2	11 49	0					
PENTICTON	86.69	34.0	11 49	-1					
SIAN	88.09	307.6	11 58K	1					
COLLEGE	88.19	12.5	11 55	-2			13 54		
FLAMING GRGE	88.24	45.0	11 56	-1	22 1	3	14 0		
BUTTE	88.79	39.4	11 59	-1					
HUNGRY HORSE	89.18	36.9	12 1	-1					
KUNMING	89.20	297.1	12 3K	1	22 10	4		21 42	SKS
BOZEMAN	89.53	40.2	12 3	0					
CHENG TU	90.35	302.6	12 8K	1	22 21	4		21 46	SKS
WICHITA MTS.	93.26	54.2	12 20	-1	22 47	5	14 22	23 17	
LHASA	100.52	297.7	14 43	110					
RESOLUTE	107.79	16.1	17 25	777					
SEMIPALATNSK	112.81	317.2	17 36	-2					
LAHORE	114.96	296.1	17 42	0					
KHEYS	115.36	351.3	17 42	-1					
NAMANGAN	118.16	306.3						19 8	
QUETTA	121.04	293.6	17 55	1				19 25	PP
SCORESBY SD.	127.99	9.9	8 37	-571					
APATITY	128.87	345.0						21 31	
SODANKYLA	130.53	347.7						20 45	SKP
KIRUNA	131.20	350.8	18 12	-2				20 49	SKP
BULAWAYO	131.90	214.6						20 52	
KAJAANI	133.07	344.8	18 2	-15				20 55	SKP
SHIRAZ	133.50	291.8	18 18K	0			20 57		
UMEA	134.91	348.6	18 11	-10				20 59	SKP
PULKOVO	135.79	339.8	18 22	0					
MOSCOW	135.79	331.7	18 22	0					
SKALSTUGAN	136.32	353.3	18 22	-1				21 5	SKP
BROKEN HILL	136.56	219.1	18 23A	-1				19 8	
NURMI JARVI	136.85	343.7	18 14	-10				21 7	SKP
HELSINKI	137.06	343.3	18 16	-9				21 9	SKP
UPPSALA	139.06	347.9	18 18	-10				21 13	SKP
GOTEBORG	142.06	351.2	18 31	-4				21 24	SKP
SIMFEROPOL	143.86	320.0	18 36	-1					
COPENHAGEN	143.93	349.8	18 35K	-2				21 27	SKP
KISHINEV	145.60	326.7	18 41	1					
DURHAM	145.64	3.5	18 42K	2					
LWOW	145.80	334.2	18 41	1				21 27	
KRAKOW	147.16	338.4	18 45	3					
CHORZOW	147.28	339.5	18 46	4					
RACIBORZ	147.71	340.2	18 43	0				19 35	
COLLMBERG	147.99	346.8	18 43K	0				21 58	PP
MUNSTER	148.22	353.2	18 48	4					
JENA	148.63	348.1	18 45	1			21 0	22 19	PP
PRUHONICE	148.86	344.1	18 44	-1				22 21	PP
KEW	149.00	2.6	18 48	3					
ISTANBUL UN.	149.14	317.7	18 49	4				20 56	
BENSBERG	149.27	353.4	18 50K	5			21 4		
KASPERSKE H.	149.88	344.6	18 46	0				20 33	
VIENNA-H.	149.90	340.5	18 47	1					
HEIDELBERG	150.60	350.8	19 2	15					
STUTTGART	151.12	349.8	18 48	0					
TUBINGEN	151.39	350.0	18 55	6					
STRASBOURG	151.54	351.7	18 56	7				19 28	

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961					PAGE 146		
FOLINIERE	151.69	3.3	18 49	0			
PARIS	151.70	359.1	19 6	17			
EBINGEN	151.75	349.9	18 56	7			
HELWAN	151.79	295.3	18 57	8			
RAVENSBURG	152.02	348.8	18 50	1			
LJUBLJANA	152.43	340.7	18 50	0			19 10 PKP2
TRIESTE	153.03	341.4	18 58	7			
BESANCON	153.06	353.8	18 59	8			
GARCHY	153.22	358.2	19 0	9	21 2		22 51 PP
ISOLA	155.95	350.8	19 26	31			
BAGNERES	157.40	3.2	19 29	32			
GRANADA	162.67	14.8	20 2K	60			23 38 PP
ALGIERS UNI.	163.71	356.6	19 39	36			23 46 PP
TAMARRASSET	175.88	304.8	19 12	2	21 31		24 48 PP

FEBRUARY 9 2.H 8.M 18.S EPICENTRE -28.56-177.57 DEPTH= 50.KM

A=-0.87885 B=-0.03725 C=-0.47564 D=-0.0423 E= 0.9991
G= 0.4752 H= 0.0201 K=-0.8796 HT= 2.3

DEPTH OF FOCUS= 0.003R

SE= 2.11

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
RAOUL ISLAND	0.75	203.9	0	18	2							
ONERAHI	9.91	221.5	2	22	-1						4	43
KARAPIRO	10.97	209.9	2	34	-3						6	34
SUVA	10.99	339.7	2	42	4	5	47	67				
TUAI	11.11	201.9	2	42	3	4	35	-8				
CHATEAU	12.05	206.5	2	53	1						5	35
WELLINGTON	14.15	204.3	3	16	-3	5	43	-13				
COBB RIVER	14.80	209.9	3	27	-1	6	0	-11				
AFIAMALU	15.54	21.5	3	31K	-7	6	17	-11				
KAIMATA	16.54	209.7	3	52	2	6	38	-13				
PORT VILA	16.85	306.7	3	46	-8							
GEBBIES PASS	17.02	204.9	3	52	-4	6	46	-17				
ROXBURGH	19.82	208.1	4	29	0						6	30
BRISBANE	26.18	265.5	5	33	1	10	16	18				
RIVERVIEW	27.20	251.0	5	44A	3				5	59	12	0 SSS
CANBERRA	29.06	248.0	6	0A	2	10	49	4			12	46 PCS
MOORLANDS	31.61	234.6	6	22	1						9	13 PCP
FORT NELSON	31.62	233.6	6	21A	0						9	12 PCP
TARRALEAH	32.10	235.1	6	26A	1						9	14 PCP
MELBOURNE	32.50	243.7	6	30	2	12	19	40				
CHARTERS TS.	33.92	276.2	6	43A	2	12	30	29				
ADELAIDE	37.48	248.9	7	12A	1	13	10	15			8	57 PP
RABAUL	37.59	304.5	7	10	-2						17	51
PORT MORESBY	38.21	292.9	7	22	5						9	14
CAPE HALLETT	44.30	185.3	8	10K	3	14	40	3			11	20
SCOTT BASE	49.89	184.3	8	53A	2	16	8	12	9	6	10	22 PP
HONOLULU	53.02	22.9	9	14A	0							
KIPAPA	53.15	22.9	9	16A	1							
GUAM	55.44	313.8	9	33	1							
MUNDARING	56.49	248.9	9	39A	-1	17	17	-8				
BYRD STATION	56.66	169.8	9	40	-1	17	34	6			10	36 PCP
WILKES	56.95	207.2	9	41K	-2	17	24	-7	9	54	17	56 PS
SOUTH POLE	61.60	180.0	10	15	0	18	41	9			15	32
MANILA	73.23	297.5	11	28	0						20	52
LEMBANG	73.43	271.2	11	28A	-1	21	10	17			14	18 PP
ARGENTINE I.	73.44	156.2	11	28	-1						11	45 *SP
MAWSON	74.15	200.3	11	34	1							
DJAKARTA	74.43	271.4	11	33A	-2	21	5	1			22	12
BAGUIO CITY	74.65	298.7	11	36	0							
TUKUBASAN	75.75	325.8	11	42A	0	21	17	-2			22	30 PPS
MATUSIRO	76.95	324.8	11	49A	0	21	33	1			22	28 SCS
ABUYAMA	77.06	322.0	11	50A	0							
NHATRANG	81.47	288.8	12	18	4						15	25 PP
KERGUELEN I.	81.89	217.7	12	16	0	22	28	4				
HONG KONG	82.97	299.9	12	22	1							
ZO-SE	83.19	310.8	12	24	1						15	29 PP
Y.-SAKHLINSK	83.33	333.9	12	25	2						22	22
VINEYARD	83.70	42.2	12	26	1							
PETROPAVLOVK	83.84	345.8	12	26	0							
PASADENA	83.94	45.9	12	27A	1	22	49	4			15	56 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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961										PAGE 147	
LICK	83.95	41.6	12 28A	2						12 45	
BERKELEY	83.95	40.9	12 28A	2	22 49	4				15 42 PP	
CANTON	84.05	300.1	12 29A	2						15 40 PP	
CONCORD	84.13	40.9	12 29A	2				12 45		15 57 PP	
PORT STANLEY	84.20	147.1	12 27	-1							
UKIAH	84.27	39.4	12 30	2							
FRESNO	84.65	43.0	12 30	0						13 34	
ARCATA	85.03	37.7	12 34K	2							
VLADIVOSTOK	85.09	325.4	12 33	1	22 52	-4					
NANKING	85.39	310.2	12 36A	2	22 54	-5				15 54 PP	
SHASTA	85.82	38.7	12 37A	1							
MINERAL	86.02	39.4	12 37A	0							
MEDAN	86.21	276.1	12 41K	3	23 27	20				16 25	
RENO	86.49	40.9	12 40A	1							
SANTA LUCIA	87.33	126.8	12 42A	-1	23 21	3				29 24 SS	
TUCSON	87.61	51.2	12 46A	2	23 11	-9				16 7 PP	
TUCSON TELE.	87.74	51.2	12 46A	1	23 24	3				38 39 PKPPKP	
EUREKA	88.71	42.9	12 50A	0	23 10	-20	13 8			16 35 PP	
CHIHUAHUA	88.93	56.5	13 42	51							
CHANGCHUN	89.00	322.6	12 52A	1							
RUTH	89.15	43.6	12 52A	0	23 23	-12					
TACUBAYA	89.41	67.6	12 53	0	23 46	9				16 28 PP	
GLEN CANYON	89.89	47.0	12 59A	4	23 56	15				17 26 PP	
VICTORIA	90.73	32.6	12 59	0							
MAGADAN	91.60	344.5	13 3	0							
VERA CRUZ	91.82	69.2	13 28	24	23 45	-14					
PEKING	91.88	315.3	13 5A	1	23 31	-28				13 31 *SP	
SALT LAKE C.	91.99	43.8	13 5	0							
PENTICTON	93.11	33.7	13 10	0							
KUNMING	93.33	296.7	13 14A	3	23 41	-31					
SIAN	93.42	307.3	13 14A	3							
FLAMING GRGE	93.60	44.8	13 12A	0	23 46	-28	13 30			16 44 PP	
LUBBOCK	94.63	54.3	13 18	1							
BUTTE	94.71	39.3	13 17A	0							
HUANCAYO	94.81	106.4	13 21	3						17 19 PP	
CHENGTU	95.11	302.1	13 22A	3	24 19	30				17 10 PP	
PORT BLAIR	95.23	280.4								23 56	
HUNGRY HORSE	95.33	36.9	13 19A	-1			13 37			17 2 PP	
BOZEMAN	95.36	40.2	13 21A	1						17 11 PP	
AREQUIPA	95.73	112.1	13 23	1							
COLLEGE	95.97	12.3	13 22K	-1						29 59 PKKP	
LARAMIE	96.20	46.1	13 25	1	23 16	-39					
WICHITA MTS.	97.54	54.6	13 30	0	24 5	3				17 40 PP	
RAPID CITY	99.15	44.7	14 37A	60						18 56 PP	
YAKUTSK	99.67	337.6	13 38	-2						17 42 PP	
ULAN-BATOR	101.78	318.3								16 42 PP	
SHILLONG	102.23	292.5	13 53K	2	24 27	2				17 57 PP	
CHINCHINA	102.85	91.3	13 56	2	24 31	3				27 17 PS	
CALCUTTA	103.81	288.2								20 46	
BOGOTA	104.05	92.4			24 37	3				18 35 PP	
LHASA	104.63	295.9	14 5	3							
FUQUENE	104.75	91.8								18 39 PP	
CHATRA	106.59	291.8	17 33	777	25 12	27					
MADRAS	106.75	275.9	18 33	777						28 8	
CLEVELAND	112.55	54.0								19 34 PP	
POONA	114.59	278.5	18 36	1							
DEHRA DUN	115.33	292.1			25 26	5				19 37	
HERMANUS	115.37	195.3								19 43 PP	
RESOLUTE	115.39	17.0	18 36	-1						29 14 PKKP	
BOMBAY	115.63	278.4								22 12	
TANANARIVE	115.74	228.1	18 42K	5						29 19 PS	
SAN JUAN	117.04	82.9	18 41	1							
OTTAWA	117.70	51.1	18 41	0							
PALISADES	117.91	56.3	18 48	7	25 24	-6				19 56 PP	
LAHORE	118.75	292.2	18 45	2							
SEMIPALATNSK	118.96	314.4	18 44	1						29 48 PS	
KIMBERLEY	119.13	202.5	18 41K	-3							
SHAWINIGAN	119.95	50.4	18 46A	1						28 59 PKKP	
WESTON	120.12	55.3								20 21	
PRETORIA	120.60	207.1	18 53	6							
FRUNSE	121.34	304.9	18 50	2							
WARSAK DAM	121.68	294.2	18 50A	1							
THULE	122.06	15.3	19 49	60							
QUETTA	124.44	288.6	18 56A	2	25 51	0				20 43 PP	
DUZHANBE	124.89	298.9	18 56	1	25 44	-9					
TASHKENT	124.98	302.3	18 57	2						20 43 PP	
BULAWAYO	125.37	210.6	18 58A	2							
HALIFAX	126.03	53.8	18 51A	-6							
NORD	126.35	3.4	18 56A	-2							

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961					PAGE 148				
BROKEN HILL	130.37	213.9	19 8A	3					
SVERDLOVSK	130.70	322.0	19 7	1			22 28	SKP	
ASHKABAD	132.92	296.6	19 16	6			22 44	SKP	
SCORESBY SD.	135.83	11.5	19 22A	6					
SHIRAZ	136.50	284.1	19 18	1			22 1	PP	
APATITY	136.78	343.2	19 12	-5					
SODANKYLA	138.51	346.1	19 19	-2			22 55	SKP	
KIRUNA	139.25	349.6	19 14	-8			22 14	PP	
KAJAANI	140.97	342.7	19 18	-7					
UMEA	142.92	347.0	19 26K	-2					
MOSCOW	143.02	327.2	19 26	-3			22 36	PP	
TIFLIS	143.31	302.4	19 28	-1					
PULKOVO	143.48	336.6	19 27	-2			23 9		
SKALSTUGAN	144.40	352.4	19 29A	-2					
NURMI JARVI	144.71	341.1	19 30	-2			23 40	SKP	
HELSINKI	144.90	340.5	19 33A	1					
UPPSALA	147.04	345.9	19 35A	-1					
SIMFEROPOL	150.04	311.7	19 41	1			23 14	PP	
GOTEBORG	150.11	349.7	19 39A	-1			22 35	PP	
KSARA	150.99	288.9	19 43	1			23 35	PP	
BANGUI	151.45	215.6	19 46	4			23 23	SKKP	
JERUSALEM	151.53	284.6	19 45	3			23 12	PP	
COPENHAGEN	151.96	347.9	19 45	2			23 39	PP	
WARSAW	152.60	334.8	19 45	1			23 34	PP	
IASI	152.99	320.4	19 57A	12					
LWOW	153.14	328.1	19 46	1					
DURHAM	153.65	5.2	19 56K	11	20 7		23 55	PP	
KRAKOW	154.75	333.0	19 49	2			20 19		
HELWAN	154.77	280.0	19 49	2			23 50	PP	
CHORZOW	154.92	334.4	19 49	2			23 40	PP	
ISTANBUL KA.	154.93	306.9	19 45	-2			24 3	PP	
ISTANBUL UN.	154.99	306.9	19 45	-2			20 9	PKP2	
SKALNATE PL.	155.29	331.3	19 42	-6			20 22	PKP2	
BUCHAREST	155.37	316.3	19 48	0					
RACIBORZ	155.39	335.1	19 49	1			23 47	PP	
WITTEVEEN	155.56	353.8	19 49	1			20 17	PKP2	
COLLMBERG	155.94	343.6	19 50A	2			23 54	PP	
MUNSTER	156.30	352.0	19 50	1			20 19		
JENA	156.62	345.3	19 50	1			23 56	PP	
PRAGUE	156.66	340.2					20 22	PKP2	
PRUHONICE	156.70	340.0	19 51A	1			24 0	PP	
KEW	157.03	4.4	20 21	31			20 36	PKP2	
MBOUR	157.14	124.1	19 54	4			23 55	PP	
HURBANOVO	157.17	331.9	19 52	2			20 26	PKP2	
CHEB	157.21	343.3	20 5	15			24 19	PP	
BENSBERG	157.35	352.2	19 52	2			24 0	PP	
BRATISLAVA	157.37	333.9	19 50K	0					
VIENNA-H.	157.58	335.0	19 52A	1			24 9	PP	
KASPERSKE H.	157.75	340.4	19 51	0			24 4	PP	
SOFIA	158.00	315.4	19 51	0			25 12		
BELGRADE	158.35	323.4	19 53K	1			24 13		
HEIDELBERG	158.64	348.7	19 52	0			20 28	PKP2	
STUTTGART	159.14	347.2	19 53	0			24 4	PP	
TUBINGEN	159.41	347.4	19 54	1			20 33	PKP2	
STRASBOURG	159.59	349.8	19 52	-1	20 11		24 11	PP	
FOLINIERE	159.70	5.5	19 55	2					
EBINGEN	159.77	347.3	19 54	1			20 33	PKP2	
PARIS	159.78	359.9	20 12	19			24 13	PP	
ATHENS	159.91	303.3					20 36	PKP2	
RAVENSBURG	160.02	345.7	19 54	0			20 36	PKP2	
LJUBLJANA	160.11	334.6	19 55	1	20 12		24 17	PP	
BASLE	160.64	349.4	19 45A	-9			20 28	*SPKP	
TRIESTE	160.74	335.3	19 56	2	20 10		24 20	PP	
CHUR	160.91	345.0	19 56A	2			20 39	*SPKP	
BESANCON	161.14	352.5	19 55	0			20 41	PKP2	
NEUCHATEL	161.26	350.3	19 56	1			20 40	*SPKP	
GARCHY	161.31	358.6	20 11	16			24 14	PP	
PADOVA	161.59	338.5					20 43	PKP2	
CLERMONT-FD.	162.82	358.4	19 59A	3					
PRATO	163.21	337.8	20 1	4			24 42	PP	
FLORENCE X.	163.24	337.3	19 56A	-1			24 36	PP	
ISOLA	163.98	347.9	19 59	1			24 37	PP	
MONACO	164.34	346.5	19 59	1			20 54	PKP2	
ROME	164.38	331.1	20 48	50			24 49	PP	
SERRA PILAR	164.56	32.9	20 1K	3	26 58 3	20 9	24 41	PP	
COIMBRA	165.35	34.8	20 2A	3			24 48	PP	
BAGNERES	165.41	6.6	20 0	1		20 19	24 36	PP	
LISBON	166.03	40.6	20 2A	3			24 49	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 149

TOLEDO	167.51	23.7	20	3A	3				20	21	24	50	PP
TORTOSA	167.67	6.9	20	6	5								
ALICANTE	169.94	13.2	20	3	1	27	9	10			25	17	PP
GRANADA	170.03	29.0	20	4K	2	27	36	37			25	12	PP
ALMERIA	170.77	25.3	20	4A	2	27	17	18	20	21	25	9	PP
ALGIERS UNI.	171.80	356.5	20	3A	0	27	38	39			25	18	PP
RELI ZANE	172.66	12.0	20	8A	5						25	24	PP
TAMANRASSET	173.60	206.5	20	7A	3						25	25	PP

FEBRUARY 11 6.H 12.M 34.S EPICENTRE 28.95 139.46 DEPTH= 448.KM

A=-0.66606 B= 0.56964 C= 0.48153 D= 0.6500 E= 0.7600
G=-0.3660 H= 0.3130 K=-0.8764 HT= 2.2

DEPTH OF FOCUS= 0.066R

SE= 1.75

	DELTA DEG.	AZ. DEG.	P		O-C S	S		O-C S	*PP		SUPP.	
			M	S		M	S		M	S	M	S
TORISIMA	1.69	25.4	0	58	-2	1	41	-6				
HATIDYOZIMA	4.15	3.8				2	13	-6				
OMAESAKI	5.73	349.7	1	20	-13	2	45	-1				
OSIMA	5.80	359.3	1	33	-1	2	43	-4				
OWASE	5.81	332.2	1	47	13							
NERA	5.96	2.9	1	35	0	2	45	-5				
SHIZUOKA	6.07	351.7				2	47	-4				
MISIMA	6.17	356.1	1	37	0	2	47	-7				
MURTO	6.24	314.8	1	40	2	2	58	3				
KAMEYAMA	6.41	337.4	1	41	1	2	37	-21				
YOKOHAMA	6.46	1.4				2	53	-6			2	23
NARA	6.50	332.5	1	41	0							
NAGOYA	6.55	341.8	1	41A	0	3	1	0				
HUNATU	6.56	355.1	1	40	-1	3	0	-1				
TOKUSIMA	6.59	322.0	1	43	1	3	0	-2				
OSAKA	6.59	330.5	1	48	6	3	5	3				
SUMOTO	6.63	325.3	1	42K	0	3	2	-1				
TOKYO C.M.O.	6.72	2.0	1	44	1	2	59	-5				
KOHU	6.74	353.7	1	42	-1	3	5	0				
SIMIDU	6.76	306.0				3	4	-1				
ABUYAMA	6.77	331.7	1	44K	0							
GIHU	6.82	341.2	1	45	1	3	6	0				
KYOTO	6.83	333.3	1	40	-4	3	2	-4				
KOTI	6.84	313.6	1	47	3	3	9	2				
TYOSI	6.85	9.5	1	44	-1	3	2	-5				
HIKONE	6.87	337.5	1	46	1	3	9	2				
TAKAMATU	7.07	320.6	1	49	2	3	11	0				
TUKUBASAN	7.27	4.1	1	45K	-4	3	9	-6				
KAKI OKA	7.29	4.6	1	46	-3	3	10	-5				
UWAZIMA	7.30	307.5	1	48	-1	3	19	3				
MATUMOTO	7.39	350.6	1	51	1	3	18	1				
OI WAKE	7.40	354.3	1	50	0	3	13	-5				
MAEBASI	7.44	357.6	1	51	0	3	16	-2				
MI TO	7.46	6.3	1	49	-2	3	14	-5				
MATUYAMA	7.51	312.2	1	52K	0	3	25	5				
MIYAZAKI	7.55	295.1	1	54	2	3	27	7				
UTUNOMIYA	7.59	2.5	1	51	-1	2	17	-64				
MATUSIRO	7.64	352.4	1	50A	-3	3	20	-2				
YAKUSIMA	7.94	283.1	1	56	0	3	30	2				
TOYAMA	7.96	346.8	2	2	5	3	27	-2				
OOITA	7.96	304.4	1	58K	1	3	23	-6				
HIROSIMA	8.07	313.8	1	58	0	3	32	1				
ONAHAMA	8.07	8.2	1	55	-3	3	25	-6				
KAGOSIMA	8.14	290.9	1	59	0	3	35	3				
SHIRAKAWA	8.17	4.3	1	57	-2	3	29	-4				
KUMAMOTO	8.46	299.3	2	4	2	3	43	5				
HAMADA	8.64	315.2	2	5K	1	3	46	4				
HUKUSIMA	8.82	5.2	2	5	-1	3	43	-3				
SAIGO	8.89	326.0				3	48	0				
SAGA	8.95	300.9	2	10	3	3	58	10				
HUKUOKA	9.04	303.0	2	9	1	3	53	3				
NAGASAKI	9.06	297.0	2	9K	0	3	54	4				
AIKAWA	9.10	353.9									3	45
YAMAGATA	9.31	4.3	2	11	0	3	52	-3				
SENDAI	9.37	7.0	2	11	-1	3	53	-4				
SAKATA	9.93	1.7	2	23	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961							PAGE 150
MI ZUSAWA	10.25	7.3	2 21	-1	4 13	-1	
AKITA	10.76	2.6	2 27	-1	4 26	1	
MORIOKA	10.82	7.0	2 28	0	4 24	-2	
MI YAKO	10.87	10.3					4 27
AOMORI	11.89	4.9					4 50
HAKODATE	12.88	4.4	2 50	-1	5 10	3	
MORI	13.15	3.6	2 54	0	5 11	-1	
URAKAWA	13.44	10.7	2 57	0	5 29	11	
SAPPORO	14.17	5.7	3 4	0			
OB IHIRO	14.26	11.2	3 6	1			
KUSIRO	14.56	14.6	3 8	0	5 55	16	
NEMURO	15.17	17.3	3 12	-2	5 44	-7	
VLADIVOSTOK	15.40	338.7	3 17	0	5 56	1	14 27 SCS
ZO-SE	15.98	282.2	3 19	-4	6 1	-5	
NANKING	18.09	285.0	3 42K	-2	6 43	-1	5 42 *SP
CHANGCHUN	18.68	326.5	3 50K	1	6 58	3	
BAGUIO CITY	21.39	238.4	4 12	-3	7 37	-4	
PEKING	22.09	306.2	4 21K	-1	7 53	1	6 21 *SP
MANILA	22.16	234.0	4 22	-1			6 24
HONG KONG	23.72	259.6	4 35K	-2	8 20	1	6 37 *SP
CANTON	24.16	262.1	4 41K	0			
SIAN	26.49	289.3	5 1K	-1			
PETROPVLOVK	27.90	25.1	5 10	-4			
CHENG TU	30.73	282.0	5 38K	-1	10 6	-3	
ULAN-BATOR	31.44	316.0	5 43	-2			
KUNMING	32.85	272.1	5 56K	-1	10 41	-1	
YAKUTSK	33.69	351.7	6 2	-2	10 51	-4	15 31 SCS
IRKUTSK	34.89	321.8	6 14	0	11 14	1	
RABAUL	35.15	157.6	6 15	-1			
PORT MORESBY	38.84	167.8	6 46	0			
LHASA	41.99	283.2	7 13K	1			
SHILLONG	42.22	277.1	7 13K	-1			8 58
TIKSI	43.13	355.1	7 19	-2			16 26 SS
CHITTAGONG	43.22	272.6	7 22K	0			
CHATRA	45.96	280.4	7 33	-10			9 11
MEDAN	46.19	244.6	7 45K	0			9 45
LEMBANG	46.97	225.8	7 48K	-3			9 10
SEMI PALATNSK	48.92	313.2	8 5	-1	14 33	-2	9 19 PCP
CHARTERS TS.	49.19	171.5	8 7	-1			
DEHRA DUN	52.81	287.6	8 34	0			15 29
FRUNSE	53.11	303.6	8 36K	0			
LAHORE	55.57	290.1	8 52K	-2			
KHOROG	56.38	297.7	9 0	0	16 17	3	
COLLEGE	56.87	29.1	9 1	-2			9 47 PCP
WARSAK DAM	57.19	293.7	9 4K	-1			
TASHKENT	57.28	302.6	9 5	-1	16 27	1	
DUZHANBE	58.25	299.5	9 14	2			
KHEYS	60.23	349.2	9 27	1	17 7	3	
SVERDLOVSK	60.29	321.6	9 25	-1			
POONA	60.30	275.8	8 27	-59			
QUETTA	62.04	290.8	9 37K	0	17 27	1	10 49 18 45 SCS
ADELAIDE	63.58	180.7	9 48K	1			
MUNDARING	64.49	201.8	9 52	-1			10 22
CANBERRA	64.55	171.4	9 54A	0			
ASHKABAD	66.30	301.5	10 6	1			
NORD	69.00	356.3	10 20	-1			
APATITY	69.41	336.8	10 23K	0	18 54	0	
RESOLUTE	70.83	13.2	10 32	0			
SODANKYLA	71.80	337.9	10 38K	0			
TEHERAN	72.30	301.4	10 41K	0			
MOSCOW	72.82	324.6	10 43	-1			
KAJAANI	73.15	334.8	10 46K	1			
THULE	73.46	6.6	10 46	-1			
KIRUNA	73.50	339.8	10 47K	0			15 2
SHIRAZ	73.88	295.2	10 49A	-1	19 38	-6	11 15 13 34 PP
GORIS	74.45	306.7	10 54	1	19 51	1	11 31
TIFLIS	74.58	309.3	10 54K	0			
KARAPIRO	74.61	151.1	10 55	1			11 17
PENTICTON	75.20	41.6	10 57	0			
CHATEAU	75.68	151.8	11 0	0			11 26
UMEA	76.01	336.5	11 2	1			14 48
NURMIJARVI	76.32	332.5	11 2K	-1	20 8	-2	21 16
HELSINKI	76.39	332.1	11 2	-2			
SHASTA	77.39	50.5	11 10A	1			
MINERAL	78.08	50.5	11 13A	0			
BERKELEY	78.79	53.0	11 18A	2			
SKALSTUGAN	78.83	338.7	11 16	-1			14 31 PP
CONCORD	78.87	52.8	11 18A	1			
HUNGRY HORSE	78.90	40.7	11 19	2			

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 151

LICK	79.47	53.2	11 21A	1					
UPPSALA	79.49	334.1	11 19	-1				14 28	PP
RENO	79.68	50.6	11 23A	2					
SIMFEROPOL	79.96	315.9	11 22	-1					
SCORESBY SD.	79.96	353.8	11 24A	1					
BUTTE	80.97	42.2	11 29	1					
FRESNO	81.03	53.0	11 30	2					
KISHINEV	81.96	319.7	11 32	-1	21	7	-2		
BOZEMAN	82.05	41.9	11 35	2					
EUREKA	82.28	49.1	11 36	1					
LWOW	82.93	323.9	11 38A	0				13	57
GOTEBORG	83.11	334.6	11 37	-2					
PASADENA	83.49	54.6	11 41A	0				21	16
SALT LAKE C.	84.26	46.3	11 46	2					
COPENHAGEN	84.38	333.0	11 45A	0					
KSARA	84.52	305.6	11 45	-1	22	18	44	14	7 *SP
KRAKOW	84.86	325.7	11 47	0				13	36
RACIBORZ	85.68	326.5	11 51	0				13	31
FLAMING GRGE	85.72	45.1	11 52	0	21	50	5	13	28
GLEN CANYON	86.54	49.4	11 59	4				16	20 PP
PRUHONICE	87.48	328.0	12 OK	0				13	19
RAPID CITY	87.49	39.9	12 1	1				14	2 *SP
BRATISLAVA	87.50	325.5	13 18	78				16	35 PP
VIENNA-HI	87.80	325.9						13	14
LARAMIE	87.82	43.1	12 3	1				16	38
JENA	88.15	330.0	12 2	-1				14	54
KASPERSKE H.	88.53	327.8	12 5K	0				13	24
TUCSON	89.70	52.9	12 12	2				15	50 PP
TUCSON TELE.	89.72	52.8	12 13	3				15	50 PP
HELWAN	89.90	304.4	12 11	0				14	34
BENSBERG	90.00	332.1	13 10K	58					
LJUBLJANA	90.23	325.2	12 12K	-1					
HEIDELBERG	90.52	330.3	12 14	0					
STUTTGART	90.75	329.6	12 14	-1				20	38
TRIESTE	90.90	325.3	12 49	33				33	14 SSS
EBINGEN	91.32	329.4	12 17	-1					
STRASBOURG	91.55	330.3	12 51	32				13	28
KEW	92.46	336.2						15	10
PAVIA	93.46	327.3						33	9
FLORENCE X.	93.48	325.2	12 48	20					
PARIS	93.57	333.1	12 28	0					
ROME	94.20	323.3	12 30	-1	19	44-196		14	21 PP
GARCHY	94.55	331.9	12 32	-1					
FOLINIERE	94.74	334.7	12 33	0					
ADDIS ABABA	94.91	283.0	12 37	3				13	9
MESSINA	95.09	319.0						19	26
ISOLA	95.21	327.8	12 25	-11				14	34
MONACO	95.38	327.3	12 23	-13					
CLERMONT-FD.	95.73	330.9	12 13	-25				13	0
WICHITA MTS.	96.26	44.7	12 41	1				14	20
OTTAWA	99.38	24.3							
TANANARIVE	100.54	254.2	13 0	0				14	48
PALISADES	103.84	25.4			23	20	11	14	9
SOUTH POLE	118.79	180.0	17 57	1				23	38 PS
BYRD STATION	120.22	168.6	17 59	0				20	52
SAN JUAN	126.85	30.8	19 32	80					
HERMANUS	129.47	247.7						18	42
HUANCAYO	143.51	69.8	18 45	2					
LA PAZ	151.77	70.0	19 6	10					
SANTA LUCIA	153.91	107.5						22	6

FEBRUARY 11 16.H 46.M 30.S EPICENTRE -19.98-176.38 DEPTH= 278.KM

A=-0.93870 B=-0.05942 C=-0.33959 D=-0.0632 E= 0.9980
G= 0.3389 H= 0.0215 K=-0.9406 HT= 4.7

DEPTH OF FOCUS= 0.039R

SE= 1.10

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
SUVA	5.24	289.4	1	20	0	2	26	4				
AFIAMALU	7.47	36.8				2	48	-23				
RAOUL ISLAND	9.34	188.3				3	45	-8				
ONERAHI	17.72	205.4	3	50	1	7	13	19				

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 152

KARAPIRO	19.22	199.7	4	3	-2	7	33	10		
TUAI	19.58	195.2				7	29	0		
CHATEAU	20.39	198.3	4	14	-2	7	53	9		
WELLINGTON	22.53	197.6	4	37	0	8	27	6		
COBB RIVER	22.99	201.4	4	44	3	8	34	6		
KAIMATA	24.72	201.9	4	58	1	9	12	15		
GEBBIES PASS	25.38	198.8	5	4	1	9	8	0		
BRISBANE	29.14	249.4	5	35	-2	10	8	0		
RIVERVIEW	31.93	237.7	6	2A	1	10	51	0	16	9 SCS
CANBERRA	34.06	236.0	6	19K	-1					
RABAUL	34.42	293.0	6	20	-3				12	16
CHARTERS TS.	35.05	263.3	6	28K	0	11	44	5		
PORT MORESBY	36.73	281.3	6	43	1	12	10	5		
MELBOURNE	37.90	233.6	6	52	0					
FORT NELSON	38.06	224.8	6	53K	0				7	22
ADELAIDE	42.19	239.7	7	27A	0					
GUAM	50.67	307.9	8	33	0					
BYRD STATION	64.91	170.7	10	10	-1				11	39
SOUTH POLE	70.15	180.0	10	44	0					
MATUSIRO	70.70	322.6	10	47K	0				20	38
LEMBANG	74.57	268.2	11	11K	1				12	6
PASADENA	77.22	46.3	11	25	1				12	12
HONG KONG	79.77	298.2	11	40A	2	21	22	6		
TUCSON	81.40	51.3	11	47	0				12	45
TUCSON TELE.	81.52	51.2	11	48	1					11 56 PCP
EUREKA	81.70	42.9	11	48	0				12	46
GLEN CANYON	83.25	46.9	11	57	1				13	0
PENTICTON	85.38	33.3	12	6	-1					12 35
FLAMING GRGE	86.73	44.3	12	13	0				13	11
COLLEGE	87.38	11.8	12	15	-1				13	11
HUNGRY HORSE	87.81	36.3	12	18	0				13	18
WICHITA MTS.	91.64	53.7	12	36A	0	23	21	12	13	34
QUETTA	122.37	293.6	18	24	2				19	31
KIRUNA	130.99	351.6	18	39	1					19 54 *SPKP
UMEA	134.76	349.7	18	45	0					
SHIRAZ	134.86	292.3	18	48	3					21 58
ADDIS ABABA	144.35	257.4	19	7	4					
NIEDZIKA	147.73	339.4	19	14	6					
RACIBORZ	147.80	342.3	19	13	5					
SKALNATE PL.	147.96	339.3	19	14	6					
JENA	148.48	350.4	19	13	4				20	10
PRUHONICE	148.82	346.3	19	16	6				20	14
BENSBERG	148.95	355.6	19	19	9				20	14
JERUSALEM	149.35	298.9	19	19	9					
BRATISLAVA	149.83	341.9	19	20	9					
KASPERSKE H.	149.83	346.9	19	18	7					20 24
STUTTGART	150.91	352.3	19	21	8				20	20
FOLINIÈRE	151.08	5.6	19	20	7					
LJUBLJANA	152.49	343.4	19	18	3					20 23
TRIESTE	153.06	344.2							19	39 PKP2
HELWAN	153.07	296.9	19	27K	11				19	40
TAMANRASSET	176.70	328.0	19	30	-6					21 23 PKP2

FEBRUARY 11 21.H 1.M 13.S EPICENTRE -28.28-177.57 DEPTH= 78.KM

A=-0.88121 B=-0.03735 C=-0.47125 D=-0.0423 E= 0.9991
G= 0.4708 H= 0.0200 K=-0.8820 HT= 2.4

DEPTH OF FOCUS= 0.007R

SE= 3.05

	DELTA DEG.	AZ. DEG.	P			S			*PP		SUPP.	
			M	S	O-C	M	S	O-C	M	S	M	S
RAOUL ISLAND	1.02	197.4	0	15	-5							
ONERAHI	10.12	220.4	2	21	-4						2	43
AUCKLAND	10.71	214.9	2	28	-5	4	42	10				
SUVA	10.73	339.1	2	33	0						5	23
KARAPIRO	11.22	209.2	2	31	-9							
TUAI	11.38	201.4	2	33	-9	4	30	-18				
CHATEAU	12.30	205.9	2	50	-4	5	13	3				
WELLINGTON	14.41	203.8	2	55	-26	5	38	-22			12	2 SCP
COBB RIVER	15.04	209.4	3	40	10	5	56	-19				
AFIAMALU	15.28	21.8	3	26K	-7	6	16	-4				
PORT VILA	16.68	306.0	3	47	-3						4	7
KAIMATA	16.78	209.3	3	49	-3	6	34	-20				

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 153											
GEBBIES PASS	17.28	204.5	3	50	-8	6	44	-22			12	11	SCP
ROXBURGH	20.07	207.7	4	21	-9						8	33	
BRISBANE	26.21	264.9	5	28	-1						6	25	
RIVERVIEW	27.30	250.4	5	40A	1				5	54	6	47	
CANBERRA	29.17	247.6	5	55A	-1				6	13	6	54	PP
MACQUARIE I.	31.28	206.6	6	10	-5						9	6	PCP
MOORLANDS	31.78	234.2	6	17K	-2						7	28	PP
FORT NELSON	31.79	233.2	6	16K	-3						9	7	PCP
MELBOURNE	32.63	243.3	6	25	-2								
CHARTERS TS.	33.89	275.8	6	38	1	11	58	3					
RABAUL	37.43	304.2	7	6	-1						9	26	
ADELAIDE	37.58	248.5	7	8A	-1				7	19	8	38	PP
PORT MORESBY	38.10	292.5	7	12	-1						9	10	
CAPE HALLETT	44.58	185.3	8	4K	-2	14	25	-11	8	25	13	12	PCS
SCOTT BASE	50.18	184.3	8	47K	-3	15	59	5	8	58	11	5	PP
HAWAII V.OB.	52.10	27.0	9	4	0	16	30	9					
HONOLULU	52.75	23.0	9	10	1								
KIPAPA	52.89	23.0	9	9A	-1								
GUAM	55.25	313.6	9	27K	-1				9	42	10	27	PCP
MUNDARING	56.59	248.7	9	34A	-3	17	9	-12					
PERTH	56.91	248.6	9	37	-2								
BYRD STATION	56.95	169.8	9	35	-5						10	32	PCP
WILKES	57.20	207.2	9	37K	-5	17	21	-8	9	53	10	28	PCP
SOUTH POLE	61.88	180.0	10	10	-4	18	35	5			13	38	
MIRNY	64.19	206.4	10	25	-4	18	51	-7	10	48	20	14	SCS
MANILA	73.10	297.4	11	25	1						14	7	
LEMBANG	73.43	271.1	11	25A	-1	20	48	1			14	13	PP
ARGENTINE I.	73.71	156.2	11	23	-4								
MAWSON	74.42	200.3	11	29	-3								
DJAKARTA	74.42	271.3	11	30A	-2	20	58	0			15	18	
BAGUIO CITY	74.51	298.6	11	32	0								
TUKUBASAN	75.52	325.8	11	37A	-1	21	12	1			22	31	
MATUSIRO	76.72	324.8	11	44A	-1	21	16	-8			14	33	PP
ABUYAMA	76.84	322.0	11	45A	0								
KERGUELEN I.	82.12	217.6	12	14	0	22	26	5					
HONG KONG	82.83	299.9	12	18A	1	22	27	-1	12	35	22	55	SCS
ZO-SE	83.01	310.7	12	18A	0				12	35	15	27	PP
Y.-SAKHLINSK	83.07	333.9	12	20A	1	22	36	6					
VINEYARD	83.49	42.2	12	22	1								
PETROPAVLOVK	83.56	345.8	12	21A	0	22	33	-2					
BERKELEY	83.73	40.9	12	22A	0	22	41	4			15	35	PP
LICK	83.73	41.6	12	23A	1								
PASADENA	83.74	45.9	12	22A	0	22	44	7			15	36	PP
CONCORD	83.91	40.9	12	24A	1								
PORT STANLEY	84.44	147.1	12	24	-1								
FRESNO	84.44	43.0	12	25A	0								
NANKING	85.21	310.2	12	30A	1				12	45	15	47	PP
SHASTA	85.60	38.8	12	32A	1								
MINERAL	85.80	39.4	12	32A	0								
MEDAN	86.18	276.1	12	33	-1						15	51	PP
KLYUCHI	86.23	348.2	12	35	1								
RENO	86.27	41.0	12	35A	1								
TUCSON	87.43	51.2	12	41A	1	23	15	2	12	48	16	10	PP
SANTA LUCIA	87.50	126.8	12	39A	-1	23	15	2			23	1	SKS
TUCSON TELE.	87.56	51.2	12	41A	0						30	29	PKKP
EUREKA	88.50	42.9	12	45A	0	23	13	-10	13	6	30	32	PKKP
CHANGCHUN	88.78	322.6	12	47A	1				14	3	16	13	*SP
RUTH	88.94	43.6	12	48A	1								
TACUBAYA	89.30	67.6	12	53K	4	23	41	11			16	37	PP
GLEN CANYON	89.70	47.0	12	52	1	23	47	13			14	32	
MAGADAN	91.32	344.5	12	59	1	23	28	-20					
PEKING	91.67	315.3	13	1A	1	23	29	-22	13	18	13	27	*SP
VERA CRUZ	91.72	69.2				24	7	15			23	39	SKS
SALT LAKE C.	91.78	43.8	13	0	-1								
PENTICTON	92.87	33.7	13	5	-1								
KUNMING	93.20	296.7	13	9A	2	24	1	-3	13	26	13	34	*SP
SIAN	93.24	307.3	13	8A	1								
FLAMING GRGE	93.39	44.8	13	7	-1	23	34	-32			16	52	PP
LUBBOCK	94.46	54.2	13	12	-1								
BUTTE	94.49	39.3	13	12A	-1								
HUANCAYO	94.89	106.4	13	16	1	23	52	-27					
CHENG TU	94.96	302.1	13	16A	1	24	13	-7	13	33	13	42	*SP
HUNGRY HORSE	95.10	36.8	13	14A	-2						16	51	PP
BOZEMAN	95.14	40.2	13	16A	0						17	6	PP
COLLEGE	95.69	12.3	13	17K	-1				13	36	17	3	PP
AREQUIPA	95.84	112.1	13	19	0								
LARAMIE	96.00	46.1	13	19	-1								
WICHITA MTS.	97.37	54.6	13	25A	-1	23	59	4			17	24	PP

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961										PAGE 154
LA PAZ	98.55	113.8	13 31	0	24 37	36				
RAPID CITY	98.94	44.6	13 33A	0						29 51 PKKP
YAKUTSK	99.41	337.6	13 34	-1	24 4	-1				
FAYETTEVILLE	101.19	55.1	13 45	2	24 17	3				17 51 PP
ULAN-BATOR	101.56	318.3	13 44	-1						
SHILLONG	102.12	292.5	13 48	1	24 52	34				17 55 PP
CHINCHINA	102.86	91.3			24 26	4				18 13 PP
CALCUTTA	103.72	288.3	18 13	259						
BOGOTA	104.06	92.3			24 31	4				18 31 PP
LHASA	104.50	296.0	14 0	2						
FUQUENE	104.76	91.7	13 58	-1						18 32 PP
BOKARO	106.41	288.5	18 31	777						28 18
CHATRA	106.49	291.9	14 7K	777						
MADRAS	106.72	276.0	17 30	777						24 43
COLUMBIA	110.23	61.6								29 24
CARACAS	113.02	90.2	18 22	-6						22 6 PPP
GRAHAMSTOWN	114.60	202.1	18 32K	1						
RESOLUTE	115.11	16.9	18 30	-2						29 8 PKKP
DEHRA DUN	115.22	292.2	18 33	0						29 22
BOMBAY	115.59	278.6								19 36
HERMANUS	115.65	195.4								29 25 SCSP
PIETERMZBURG	116.52	207.2	18 12A	-23						
SAN JUAN	117.00	82.7	18 36	0						29 2 PKKP
OTTAWA	117.52	51.0	18 36K	-1						28 58 PKKP
PALISADES	117.76	56.2	18 36	-1	25 25	2				19 49 PP
LAHORE	118.64	292.4	18 40A	1						
SEMI PALATNSK	118.76	314.5	18 38	-1						
BREBEUF	118.98	51.3	18 39	-1						
KIMBERLEY	119.39	202.5	18 36K	-5						
SHAWINIGAN	119.77	50.2	18 41	0						28 54 PKKP
PRETORIA	120.85	207.2	18 45	1						
FRUNSE	121.17	305.1	18 44	0						
WARSAK DAM	121.56	294.4	18 44A	-1						
THULE	121.78	15.2	18 43	-2						20 13
KHOROG	122.40	298.3	18 49	2						
QUETTA	124.35	288.8	18 52A	2	25 48	3				20 43 PP
DUZHANBE	124.75	299.1	18 52	1						
TASHKENT	124.83	302.5	18 52	1						
BULAWAYO	125.62	210.7	18 53A	0						
HALIFAX	125.86	53.6	18 53K	0						
NORD	126.06	3.4	18 52A	-2						19 11
WINDHOEK	127.51	197.2	18 58A	2						
SVERDLOVSK	130.48	322.1	19 2	0						
BROKEN HILL	130.61	214.1	18 51	-11						
ASHKABAD	132.79	296.8	19 8	2						21 38 PP
SCORESBY SD.	135.55	11.4	19 6	-6						
APATITY	136.51	343.3	19 12A	-1						22 45 PKS
TEHERAN	138.17	293.1	19 12	-4						22 49 PP
SODANKYLA	138.23	346.2	19 5	-11						22 24 PP
KIRUNA	138.97	349.7	19 8	-10						22 48 PKS
KAJAANI	140.70	342.8	19 14A	-7						
ADDIS ABABA	140.83	247.9	19 19	-2						
UMEA	142.64	347.1	19 17	-7						
MOSCOW	142.78	327.4	19 22	-3						22 33 PP
TIFLIS	143.15	302.7	19 23	-2						25 57 PPP
PULKOVO	143.22	336.7								23 2 PKS
SKALSTUGAN	144.12	352.5	19 24	-3						
NURMI JARVI	144.44	341.2	19 24A	-4						23 5 PKS
HELSINKI	144.63	340.7	19 27	-1						23 6 PKS
UPPSALA	146.77	346.0	19 30	-2						23 11 PKS
BERGEN	147.82	357.3	19 37	4						
GOTEBORG	149.83	349.8	19 36	0						
SIMFEROPOL	149.85	312.0	19 35	-1						
KSARA	150.89	289.4	19 37	-1						23 30 PP
JERUSALEM	151.45	285.1	19 40A	1						23 19 PP
BANGUI	151.68	215.9	19 41	2						30 30 PP
COPENHAGEN	151.68	348.0	19 39	0	19 56					19 47 PKP2
WARSAW	152.34	335.0	19 39A	-1						23 50
IASI	152.77	320.7	19 50	9						
DURHAM	153.37	5.2	19 50A	9						23 31 PP
BACAU	153.50	320.2	20 7	25						
KRAKOW	154.49	333.2	19 43	0						22 39
CHORZOW	154.66	334.7	19 43K	0						20 8 PKP2
HELWAN	154.71	280.6	19 44	1						23 41 PP
ISTANBUL KA.	154.75	307.3	19 44	1						20 5 PKP2
ISTANBUL UN.	154.82	307.3	19 44	1						20 8 PKP2
SKALNATE PL.	155.04	331.6	19 45	1						20 18 PKP2
RACIBORZ	155.13	335.4	19 43A	-1						20 11 PKP2
BUCHAREST	155.17	316.8	19 43A	-1						23 42 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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 156

GEBBIES PASS	30.32	197.9	5 50	0					
BRISBANE	32.30	242.6	6 4	-3				13 32	
RABAU	34.11	285.3	6 21	-2				8 48	
RIVERVIEW	35.75	232.6	6 36	0					
CHARTERS TS.	37.20	256.7	6 46	-3					4
PORT MORESBY	37.41	274.3	6 52	2	12 25	6			
CANBERRA	37.96	231.4	6 54K	-1					
MELBOURNE	41.91	229.7	7 27	0					
MOORLANDS	42.31	222.4	7 30	0					
FORT NELSON	42.44	221.7	7 31	0					
MACQUARIE I.	44.17	201.6	7 46	1					
ADELAIDE	45.87	235.8	7 59K	0					
MUNDARING	64.29	241.6	10 10	0					
MATUSIRO	67.80	320.7	10 32K	-1					
BYRD STATION	69.40	171.2	10 42	0				11 45	
LICK	72.41	42.1	10 59A	-1					
PASADENA	72.97	46.5	11 5	2					
SHASTA	73.92	38.9	11 10	1					
MINERAL	74.20	39.6	11 12A	1					
SOUTH POLE	74.91	180.0	11 16	1					
LEMBANG	76.12	266.6	11 23K	2					
EUREKA	77.29	42.9	11 29	1				12 33	14 25 PP
TUCSON	77.38	51.4	11 29	1				12 34	
PENTICTON	80.66	33.1	11 46	0					
FLAMING GRGE	82.39	44.1	11 55	0					
COLLEGE	82.44	11.3	11 54	-1				12 54	
HUNGRY HORSE	83.17	36.0	11 59	0					
MAWSON	87.51	199.0	12 22	2					
WICHITA MTS.	87.73	53.2	12 21	0	22 44	4		13 30	30 9 PKKP
LA PAZ	101.25	110.6	13 9	-14					
QUETTA	121.57	296.3	18 26	3					
SODANKYLA	125.97	349.9	18 31	-1					
KAJAANI	128.70	347.5	18 35	-2					
UMEA	130.28	351.2	18 40	0					
NURMI JARVI	132.54	347.0	18 43K	-1					
SHIRAZ	134.10	296.7	18 49	2					
BROKEN HILL	142.52	219.3	19 1	-2					
COLLMBERG	143.41	351.6	19 3	-1					
NIEDZIKA	143.64	343.1	19 4	-1					
JENA	143.95	352.9	19 5	0					
BENSBERG	144.27	357.7	19 6	0					
PRUHONICE	144.44	349.4	19 6	0				20 16	
KASPERSKE H.	145.43	350.1	19 9	1				20 15	
HEIDELBERG	145.74	355.7	19 10	2					
FOLINIÈRE	146.20	6.5	19 11	2					
STUTT GART	146.32	354.9	19 10	1					
ADDIS ABABA	146.47	263.4	19 16	6					
STRASBOURG	146.62	356.7	19 13	3					19 51
ISTANBUL KA.	146.82	325.7	19 13	3					
ISTANBUL UN.	146.89	325.8	19 13	3					
GARCHY	147.96	2.5	19 14	2				20 27	
BESANCON	148.02	358.8	19 17	5					
LJUBLJANA	148.21	347.4	19 13	1					19 17 PKP2
TRIESTE	148.75	348.2	19 18	5					
ISOLA	151.05	357.0	19 25	9					
HELWAN	151.73	305.6	19 27	10					
BENI ABBES	163.73	22.8	19 37	5					
TAMANRASSET	172.43	356.5	19 40K	2					21 6 PKP2

FEBRUARY 12 12.H 57.M 19.S EPICENTRE -13.12 171.45 DEPTH= 593.KM

A=-0.96341 B= 0.14491 C=-0.22546 D= 0.1487 E= 0.9889
G= 0.2230 H=-0.0335 K=-0.9743 HT= 6.1

DEPTH OF FOCUS= 0.088R

SE= 1.51

	DELTA DEG.	AZ. DEG.	P		O-C S	S		O-C S	*PP		SUPP.	
			M	S		M	S		M	S	M	S
PORT VILA	5.49	212.9	1	32	-5	2	52	-2				
SUVA	8.38	127.5	2	6	3	3	48	7				
HONIARA	11.85	286.8	2	40	3							
AFIAMALU	16.33	94.7	3	21K	1							
RABAU	21.00	293.2	4	0	-4						10 25	
BRISBANE	22.50	228.0	4	18	1	7	41	-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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 157

ONERAHI	22.71	173.8	4 22	3	7 50	2	
PORT MORESBY	24.11	276.3	4 33	1	8 10	0	
KARAPIRO	24.98	172.3	4 40A	1			5 55
CHARTERS TS.	25.09	250.6	4 42A	2	8 23	-2	10 35 SCP
TUAI	26.08	169.8	4 47	-2	8 30	-11	
RIVERVIEW	27.68	218.4	5 3A	0	9 4	-2	
COBB RIVER	27.88	177.9	5 5	0	9 4	-5	
WELLINGTON	28.21	174.7	5 6	-2	9 1	-13	5 30
KAIMATA	29.30	180.0	5 16	-1	9 28	-3	
CANBERRA	29.99	218.7	5 23A	0			10 51 SCP
GEBBIES PASS	30.49	178.3	5 25	-2	9 44	-5	
ROXBURGH	32.31	182.8			10 5	-12	
MELBOURNE	34.08	219.0	5 58	1			14 12
MOORLANDS	35.99	211.2	6 15A	2			7 7
FORT NELSON	36.27	210.5	6 16A	1			
ADELAIDE	36.70	228.0	6 20A	1			11 14
MACQUARIE I.	42.44	190.8	7 2	-3			
MUNDARING	53.78	239.9	8 28A	-1			
MATUSIRO	58.49	328.8	9 1A	-1			
LEMBANG	63.04	268.9	9 32A	1	17 18	1	11 30
SCOTT BASE	64.78	181.1	9 44	2			
BYRD STATION	73.57	170.2	10 33	-1			12 39
SOUTH POLE	76.97	180.0	10 53	0	19 53	-1	
BERKELEY	80.09	47.4	11 10K	0			11 20 PCP
VINEYARD	80.26	48.7	11 11K	1			
CONCORD	80.26	47.3	11 11K	0			11 21 PCP
LICK	80.31	48.1	11 11K	0			11 22 PCP
SHASTA	81.21	44.7	11 15K	0			
FRESNO	81.43	49.2	11 17K	1			
MINERAL	81.60	45.3	11 17A	0			11 28 PCP
PASADENA	81.65	52.1	11 18K	0			
RENO	82.52	46.6	11 23	1			11 33 PCP
COLLEGE	83.61	16.3	11 25	-2			13 35
VICTORIA	84.03	37.3	11 29	0			14 12 PP
BOULDER CITY	84.86	51.4	11 33	0			
MAWSON	84.87	201.4	11 34A	0			
EUREKA	85.24	47.8	11 35	0			14 30 PP
SHILLONG	86.42	297.1	11 42A	1			
PENTICTON	86.64	37.7	11 41	-1			
TUCSON	86.80	56.0	11 43	0			13 45
GLEN CANYON	87.65	51.3	11 48	1			11 54 PCP
SALT LAKE C.	88.65	47.7	11 51	0			13 14
HUNGRY HORSE	89.69	40.0	11 55	-1			
BUTTE	89.84	42.5	11 56	-1			12 6 PCP
FLAMING GRGE	90.48	48.1	12 0	0	21 33	-30	14 12
BOZEMAN	90.74	43.2	12 1	0			
LARAMIE	93.35	48.5	12 13	0			
RAPID CITY	95.71	46.2	12 23	-1			
WICHITA MTS.	97.32	56.1	12 30	-1	22 11	0	16 36 PP
FAYETTEVILLE	101.09	55.4	12 52	4			17 9
LA PAZ	114.18	114.9	18 36	64			
OTTAWA	115.24	45.9	17 33	-1			20 12
SHAWINIGAN	117.11	44.3	17 37	-1			20 16
KAJAANI	123.21	341.9	17 49	-1			
SAN JUAN	124.53	76.6	17 52	0			
UMEA	125.51	344.8	17 53	-1			20 33 SKP
NURMIJARVI	126.81	340.2	17 55	-2			20 13 PP
KIMBERLEY	127.36	217.4					20 7 PP
ST. KITTS	127.69	78.1					20 20
FORT FRANCE	129.02	81.6					20 27
UPPSALA	129.49	343.2					20 28 SKP
BULAWAYO	130.72	228.5					20 33 PP
GOTEBORG	132.85	345.1					20 37 SKP
BROKEN HILL	134.24	234.5					20 45 PP
WINDHOEK	136.53	215.6					20 53 PP
COLLMBERG	138.10	339.8	18 18	0			
PRUHONICE	138.65	337.5	18 24	5			21 8 PP
STUTTGART	141.50	341.0	18 27	2			20 19
FOLINIERE	143.83	350.9	18 28	0			21 10 PP
GARCHY	144.57	346.3	18 31	1			21 12
ISOLA	146.28	339.6	18 46	14			18 41 PKP2
BANGUI	151.80	254.5	18 49	9			21 37
BENI ABBES	162.08	341.8	19 6	13			21 9
TAMANRASSET	163.53	307.7	18 55	0			19 52 PKP2

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 158

FEBRUARY 12 21.H 53.M 43.S EPICENTRE 43.84 147.69 DEPTH= 26.KM

A=-0.61154 B= 0.38679 C= 0.69022 D= 0.5345 E= 0.8451
G=-0.5833 H= 0.3690 K=-0.7236 HT= -3.1

SE= 3.15

	DELTA DEG.	AZ. DEG.	P			O-C			*PP		SUPP.	
			M	S	S	M	S	S	M	S	M	S
KURILSK	1.40	5.3	0	27A	3	0	45	3				
NEMURO	1.61	252.3	0	27K	-1	0	46	-2				
ABASHIRI	2.47	275.3	0	45K	5	1	14	5				
KUSIRO	2.55	251.4	0	42A	1	1	11	0				
OBHIRO	3.40	255.8	0	55	2	1	34	1				
HIROO	3.56	245.5	0	56	1	1	40	3				
ASAHIGAWA	3.85	270.9	1	4K	5	1	49	4				
URAKAWA	3.98	246.5	1	2A	1	1	51	3				
RUMOE	4.39	273.5	1	12A	5	2	6	8				
WAKKANAI	4.57	292.3	1	14	4							
TOMAKOMAI	4.62	256.9	1	15	5	2	21	17				
SAPPORO	4.68	262.7	1	15A	4	2	9	4				
Y.-SAKHLINSK	4.73	314.0	1	14	2							
MURORAN	5.14	255.1	1	19A	1	2	18	1				
HAKODATE	5.48	250.7	1	23A	0	2	25	-1				
MORI	5.50	254.0	1	25	2	2	28	2				
SUTTSU	5.54	261.7	1	23	0	2	32	5				
HATINOHE	5.64	236.2	1	22	-3	2	22	-8				
AOMORI	5.94	241.8	1	29	0	2	39	2				
MIYAKO	5.98	227.5	1	27	-3	2	30	-8				
MORIOKA	6.39	231.9	1	33A	-2	2	40	-8				
UGLEGORSK	6.52	325.5	1	42	5							
MIZUSAWA	6.81	228.5	1	40	-1	2	50	-9				
AKITA	7.01	236.6	1	50	6	2	58	-6				
ISINOMAKI	7.23	223.8	1	44A	-3	3	0	-9				
SENDAI	7.57	225.0	1	52	0	3	6	-12				
SAKATA	7.70	232.8	1	58	4	3	28	7				
YAMAGATA	7.87	227.3	1	53A	-3	3	16	-9				
HUKUSIMA	8.18	224.4	1	58	-2	3	25	-8				
ONAHAMA	8.61	219.2	1	59	-7						2	29
SHIRAKAWA	8.80	222.8	2	9	0	3	35	-13				
NIIGATA	8.82	230.8	2	3	-6	3	50	1				
AIKAWA	9.21	234.0	2	15	0	3	51	-8				
MI TO	9.27	219.0	2	13	-3	3	49	-11				
UTUNOMIYA	9.42	222.0	2	16	-1	3	55	-9				
KAKIOKA	9.53	219.6	2	17	-2	3	57	-10				
TUKUBASAN	9.58	219.9	2	13	-7	3	51	-17			2	43
TYOSI	9.66	215.2	2	12	-9	4	0	-10				
TAKADA	9.85	230.1	2	20	-3	4	11	-3				
MAEBASI	9.93	224.5	2	21A	-4	4	13	-3				
KUMAGAYA	9.98	222.5	2	22	-3	4	12	-6				
HONGO	10.15	219.5	2	25	-3	4	13	-9				
TOKYO C.M.O.	10.18	219.5	2	26	-2	4	5	-18				
NAGANO	10.19	228.5	2	17	-11	4	27	4			4	35
OKHA	10.21	343.8	2	31	3							
OI WAKE	10.25	226.1	2	26	-3						5	1
TITIBU	10.26	223.0	2	28	-1	4	14	-10				
MATUSIRO	10.28	228.0	2	26A	-3	4	19	-6				
WAZIMA	10.43	235.4	2	30	-1	4	24	-5				
YOKOHAMA	10.43	219.1	2	31K	0	4	21	-8				
MATUMOTO	10.62	227.7	2	38	4	4	33	0				
TOYAMA	10.72	231.9	2	34	-1	4	42	6				
KOHU	10.76	223.8	2	36	0	4	36	-1				
MERA	10.78	216.9	2	39	3							
HUNATU	10.79	222.5	2	47	11	4	33	-4				
MISIMA	11.01	220.7	2	40	1	4	28	-15				
OSIMA	11.10	218.1	2	45	4	4	33	-12				
KANAZAWA	11.15	232.9	2	40	-1							
IIDA	11.25	225.7	1	52	-51	4	8	-41				
SHIZUOKA	11.40	222.1				4	43	-9				
VLADIVOSTOK	11.50	271.9	2	46A	0	4	55	0				
PETROPAVLOVK	11.71	34.5	2	47A	-2						5	9
OMAESAKI	11.78	221.6	2	53	3	4	58	-4				
GIHU	11.90	228.6	2	52K	1	5	7	2				
HAMAMATU	11.93	223.6	2	51	-1	5	5	0				
NAGOYA	11.97	227.3	2	51	-1	5	15	9				
HIKONE	12.28	229.7	2	54A	-3	5	20	6			15	41 SCS
HATIDYOZIMA	12.37	212.6									4	59
KAMEYAMA	12.48	227.8	2	59	0	4	37	-41				
MAIZURU	12.63	232.7	3	2	1	5	48	26				

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961										PAGE 159	
KYOTO	12.76	230.4	3	3	0	5	36	11			
NARA	12.95	229.1	3	2	-4	5	30	0			
ABUYAMA	12.96	230.3	3	2A	-4						
OSAKA	13.14	229.8	3	9	1	6	18	44			
OWASE	13.22	226.3	3	19	10	6	1	25			
TOTTORI	13.31	235.9	3	10	0						
KOBE	13.31	230.8	3	9	-1	5	45	7			
SAIGO	13.38	240.1	3	22	11	6	17	37			
WAKAYAMA	13.65	229.5	3	13	-2				4	37	
SUMOTO	13.71	230.5	3	13K	-2	5	58	10			
YONAGO	13.86	237.6	3	17	0	5	41	-11			
HIMEJI	13.89	232.3	3	13	-5	5	30	-22			
SIOMISAKI	13.93	225.8	3	15	-3	6	9	16			
MATSUE	14.02	238.3	3	20	0	5	46	-9			
TAKAMATU	14.22	232.6	3	21	-1	6	18	18			
MUROTO	14.93	229.4	3	31	0	6	34	17			
HAMADA	15.00	238.8	3	31A	-1	6	28	9			
KLYUCHI	15.05	29.3	3	33	0				3	47	PP
KOTI	15.07	231.8	3	30	-3	6	12	-8			
HIROSIMA	15.14	236.5	3	31	-3	6	17	-5			
MATUYAMA	15.30	234.3	3	35K	-1	6	48	23			
MAGADAN	15.85	5.8	3	45	2						
UWAZIMA	15.86	233.2	3	41	-3	6	51	12	15	55	SCS
SIMIDU	15.95	231.1	3	41	-4	6	47	6			
CHANGCHUN	16.14	277.7	3	46A	-1	6	46	1			
SIMONOSEKI	16.33	238.4	3	40	-9						
ODITA	16.41	235.2	3	50K	0	7	4	13			
HUKUOKA	16.92	238.6	3	55A	-2	7	14	11			
ASOSAN	16.97	235.5	4	5	7						
SAGA	17.19	237.9	4	8	8				8	27	
KUMAMOTO	17.25	236.1	4	4	3	7	19	8			
MIYAZAKI	17.47	232.5	4	5	1	7	30	14			
UNZENDAKE	17.58	236.7	3	19	-46				6	43	
NAGASAKI	17.81	237.4	4	6A	-2	7	30	7			
KAGOSIMA	18.23	233.5	4	13K	0	7	37	4			
TOMIE	18.57	239.2	4	17A	0	7	47	7			
YAKUSIMA	19.09	231.3	4	21	-3	7	59	7			
YAKUTSK	21.05	336.1	4	42	-3						
PEKING	23.68	271.7	5	10A	-1	9	20	-1			
MAWASHI	23.91	229.3	5	13	1	9	28	5			
ZO-SE	24.47	247.6	5	20A	2	9	37	3			
NANKING	25.52	252.3	5	28A	0	9	49	-3			
TAIPEI	28.41	237.2	6	15	20	11	4	25			
ULAN-BATOR	28.45	292.7	5	55	0	10	39	0			
ILAN	28.46	236.5	6	4	9	10	31	-9			
HWALIEN	29.14	235.6	6	20	19						
TIKSI	29.33	348.0	5	58K	-5						
TAICHUNG	29.57	237.2	6	43	38						
IRKUTSK	29.80	301.9	6	5A	-2				7	6	PP
ALISHAN	29.97	236.2	7	13	64						
TAITUNG	30.35	234.7	6	15	3	11	1	-9			
TAINAN	30.71	236.3	6	23	8						
TAWU	30.80	234.6	6	31	15	11	45	28			
KAOSIUNG	30.97	235.8	7	2	44						
HENGCHUN	31.16	234.3	6	27	8						
SIAN	31.35	265.5	6	20A	-1						
HONG KONG	35.01	243.1	6	53A	0	11	58	-24	7	53	PP
CHENG TU	36.76	264.0	7	8	0	12	47	-2			
MANILA	36.88	226.2	7	12	3	12	25	-26			
COLLEGE	40.78	36.2	7	41K	0	13	49	-1			
KUNMING	40.92	257.9	7	43A	1	13	50	-2			
SEMIPALATNSK	44.92	303.2	8	13	-2	14	51	0	13	48	PCS
TOCKLAI	45.64	266.1	8	27	7						
LHASA	46.69	272.0	8	31	2						
KHEYS	47.03	347.0	8	29	-2				10	17	PP
RABAUL	47.99	174.0	8	39	0				12	33	
SITKA	48.16	45.6	8	43K	3	15	24	-13	16	1	
SHILLONG	48.44	267.0	8	42A	0	15	40	-1	10	37	PP
KIPAPA	49.90	98.5	8	57	3						
HONOLULU	49.92	98.6	8	55	1	16	9	8	22	27	
CHITTAGONG	50.44	263.7	8	59A	1	16	12	4	9	10	10 53 PP
CHATRA	51.09	271.6	9	2A	-1	16	16	-1	10	55	PP
FRUNSE	51.50	295.9	9	6A	0	16	22	-1			
CALCUTTA	52.82	266.4	9	17A	1	16	42	1			
PORT MORESBY	52.99	180.7	9	17	0	16	42	-1	9	30	10 15 PCP
BOKARO	53.88	269.5	9	24A	0	16	55	0	11	34	PP
HONIARA	54.18	165.0	9	25	-1						
NORD	54.53	357.2	9	24A	-4	16	56	-8	19	12	SCS
RESOLUTE	54.77	16.8	9	27	-3	17	6	-2			

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961										PAGE 160
DEHRA DUN	55.64	280.9	9 37	1	17 19	0				11 43 PP
TASHKENT	55.70	296.7	9 37	0	17 21	1				12 57 PPP
PORT BLAIR	56.93	253.2	9 46	0	17 56	20				12 0 PP
DUZHANBE	57.48	294.2	9 49	-1						11 59 PP
LAHORE	57.57	284.3	9 48A	-2	17 45	0	9 5			
THULE	57.84	9.4	9 49	-3						
WARSAK DAM	58.12	288.2	9 53A	-1	17 53	1				
VICTORIA	58.34	51.3	9 56	0						
APATI TY	58.46	335.7	9 54K	-2	17 51	-5				13 28 PPP
MEDAN	58.90	241.6	9 59	0	18 2	0				10 35
PENTICTON	60.02	49.0	9 56	-11						
SODANKYLA	60.53	337.6	10 8	-3	18 20	-3				
SEHORE	60.58	274.8	10 10	-1	18 24	0				
KIRUNA	61.82	340.0	10 17A	-2	18 35	-4				18 55 PS
DJAKARTA	61.94	227.5	10 16A	-4	18 37	-4				12 32 PP
LEMBANG	62.07	226.3	10 19A	-2	18 43	0	10 29			
ARCATA	62.17	59.0	10 24A	2						
KAJAANI	62.54	334.6	10 23	-1						
HYDERABAD	63.23	268.8	10 28A	-1	18 56	-1				12 54 PP
SHASTA	63.31	58.3	10 31	2						
QUETTA	63.51	287.3	10 31A	0	19 4	3	10 41			12 55 PP
HUNGRY HORSE	63.60	47.5	10 31A	0	19 3	1				39 28 PKPPKP
CHARTERS TS.	63.63	181.5	10 29	-2	19 0	-2				
UKIAH	63.72	60.1	10 33A	1						
MINERAL	64.01	58.2	10 35A	1						
PORT VILA	64.12	158.1	10 49	14	19 21	13				
ASHKABAD	64.58	298.9	10 39	1						11 50
MOSCOW	64.61	324.0	10 37	-1	19 15	1				
PULKOVO	64.72	330.2	10 37	-2	19 12	-4				13 0 PP
MADRAS	64.91	263.9	10 41A	1	19 22	4				13 9 PP
UMEA	64.95	337.1	10 38	-2						
BERKELEY	65.08	60.8	10 41A	0	19 17	-3				12 58 PP
BRANNER	65.40	61.1	10 43K	0						
RENO	65.59	58.0	10 45A	1			11 18			
SCORESBY SD.	65.75	356.2	10 44A	-1	19 31	3				14 57 PPP
LICK	65.79	60.9	10 46K	1						
BUTTE	65.81	48.8	10 45	-1	19 34	5				
POONA	65.85	272.9	10 44	-2	19 34	5				
NURMI JARVI	66.13	333.0	10 46A	-2	19 23	-10				19 35 PS
HELSINKI	66.28	332.6	10 48	0						19 31
VINEYARD	66.31	61.3	10 48	-1						
BOMBAY	66.35	273.9	10 49	0	19 35	-1				13 12 PP
KARACHI	66.73	282.6	10 53A	2	19 46	6				
BOZEMAN	66.86	48.4	10 52A	0						39 24 PKPPKP
SKALSTUGAN	67.25	340.1	10 52	-3						
FRESNO	67.30	60.4	10 55	0			11 25			
SUVA	67.81	148.3	11 22	24	19 57	4				24 29 SS
EUREKA	67.96	56.1	10 59A	0						39 18 PKPPKP
AFIAMALU	68.34	137.2	10 54K	-7	19 54	-5				23 57
RUTH	68.71	55.8	11 5A	1	20 6	2				
KODAIKANAL	68.72	263.7	11 10A	6	20 19	15				25 4 SS
UPPSALA	68.85	335.5	11 3A	-2	20 2	-4				39 16 PKPPKP
COLOMBO	69.29	259.4	11 7	0	20 4	-7				
SALT LAKE C.	69.56	52.8	11 10K	1	20 19	5				39 15 PKPPKP
PASADENA	69.98	61.7	11 10	-2	20 20	1				24 35 SS
TEHERAN	70.32	300.8	11 15A	1	20 22	-1				
TIFLIS	70.32	309.2	11 15A	1	20 26	3				13 42 PP
FLAMING GRGE	70.86	51.4	11 17	0	20 29	0				15 31
BOULDER CITY	70.90	58.3	11 17A	0						
GORIS	70.91	306.6	11 19	2	20 29	-1				13 59 PP
BRISBANE	71.03	175.2	11 18	0	20 33	2				
BERGEN	71.66	341.4	11 21	-1						
REYKJAVIK	72.06	355.2	11 26A	2						
RAPID CITY	72.08	45.7	11 23A	-1	20 31	-12				13 49
SIDA	72.13	353.4	11 28	4						
GLEN CANYON	72.21	55.7	11 25A	0	20 45	0				16 15
GOTEBORG	72.29	336.8	11 20A	-5						
SHIRAZ	73.56	295.3	11 33K	0	20 43	-17	11 51			39 7 PKPPKP
SIMFEROPOL	73.71	317.3	11 34A	0	21 2	0				11 51 PCP
WARSAW	73.83	329.1	11 35A	1	21 1	-2				14 25 PP
COPENHAGEN	73.87	335.5	11 34A	-1	21 0	-3	11 47			14 16 PP
LWOW	74.57	326.0	11 39	0	21 10	-1				14 21 PP
IASI	75.09	322.4	11 41A	-1	21 19	2				
TUCSON	75.85	58.9	11 47A	1	21 32	7				14 41 PP
TUCSON TELE.	75.86	58.8	11 47A	1	21 22	-4				14 34 PP
BACAU	75.87	322.3	11 48	2	21 26	0				
KRAKOW	75.99	328.3	11 47	0	21 27	0				12 30
CHORZOW	76.15	329.0	11 48	0	21 25	-4				11 58 PCP

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 161									
ABERDEEN	76.22	343.6	11 46A	-2	21 26	-4	12 8	14 31	PP		
SKALNATE PL.	76.57	327.6	11 51	1	21 32	-1		21 47	SKS		
RACIBORZ	76.62	329.3	11 51A	1	21 34	0		12 3	PCP		
RIVERVIEW	77.36	177.0	11 56A	1	21 46	4		22 8	SCS		
COLLMBERG	77.42	332.8	11 55A	0	21 41	-2		14 50	PP		
CAMPULUNG	77.70	322.5	11 59	3	21 49	3	12 27				
BUCHAREST	77.89	321.4	11 58A	1	21 49	1	12 20	15 45	PP		
PRAGUE	77.98	331.3	11 59A	1	21 49	0		14 53	PP		
PRUHONICE	78.01	331.2	11 58A	0				14 55	PP		
WITTEVEEN	78.04	337.0	11 58A	0							
JENA	78.20	333.4	11 59	0	21 47	-4		14 49	PP		
DURHAM	78.34	342.4	12 OK	0	21 52	0	12 24	22 12	SP		
HURBANOVO	78.43	328.0	12 1	1	21 55	2		15 7	PP		
BUDAPEST	78.43	327.3	12 4	3	21 24	-29		14 38	PP		
MUNSTER	78.52	336.1	12 2	1							
BRATISLAVA	78.60	328.8	12 2	1	21 56	1		22 8	SKS		
KECSKEMET	78.62	326.6	12 4	2	21 58	3		22 32	PS		
CHEB	78.67	332.5	11 59	-3	21 53	-3		22 31	PS		
CANBERRA	78.79	178.9	12 4K	2	22 0	3	12 27				
VIENNA-H.	78.81	329.2	12 4A	1	22 0	3		15 8	PP		
ADELAIDE	78.86	187.5	12 4	1	21 58	0					
TIMISOARA	78.95	325.0	12 6	3	22 0	1		14 48	PP		
ISTANBUL KA.	79.07	317.5	12 5A	1	22 4	4	12 18	15 6	PP		
KASPERSKE H.	79.07	331.3	12 3	-1	22 3	3					
DE BILT	79.10	337.5	12 6	2	22 0	0	12 26	27 47	SS		
ISTANBUL UN.	79.13	317.5	12 5A	1	22 4	3					
BENSBERG	79.54	335.9	12 7A	0	22 2	-3		15 13	PP		
BELGRADE	80.02	324.9	12 9K	0	22 12	2		15 53	PP		
HEIDELBERG	80.45	334.2	12 11A	0	22 13	-2					
SOFIA	80.48	321.9	12 11	-1	22 17	2					
MUNDARING	80.75	206.7	12 10	-3	22 17	-1					
STUTTGART	80.82	333.6	12 14A	1	22 17	-1		15 36	PP		
PERTH	80.85	207.0	12 14	0	22 27	8		15 32	PP		
KSARA	80.87	308.5	12 14A	0	22 11	-8		15 14	PP		
KARLSRUHE	80.89	334.2	12 14	0	22 25	6					
ZAGREB	80.98	328.1	12 15A	1							
TUBINGEN	81.10	333.6	12 15A	0	22 17	-4					
KEW	81.10	340.4	12 15A	0	22 21	0	12 32	27 31	SS		
WICHITA MTS.	81.28	49.7	12 15	-1	22 22	-1		27 51	SS		
CHIHUAHUA	81.30	58.6	12 23	7	22 19	-4		27 42	SS		
LJUBLJANA	81.34	329.1	12 16A	0	22 17	-7	12 44	15 33	PP		
EBINGEN	81.44	333.5	12 17A	0	22 25	0					
STRASBOURG	81.47	334.4	12 17A	0	22 27	2	12 41	15 33	PP		
RAVENSBURG	81.57	332.9	12 23A	6	22 32	6					
TRIESTE	81.97	329.3	12 19A	0	22 30	0		15 33	PP		
CHUR	82.42	332.5	12 22A	0				21 34			
FLORISSANT	82.44	42.0	12 31	9	22 57	22					
FAYETTEVILLE	82.62	46.1	12 23A	0	22 36	-1		15 30	PP		
JERUSALEM	82.75	307.5	12 25A	2				18 0	PP		
PARIS	82.81	337.6	12 24	0	22 33	-6		15 37	PP		
PADOVA	82.86	330.3	12 26	2	22 47	8		15 57	PP		
NEUCHATEL	83.12	334.1	12 25	0	22 41	-1					
SHAWINIGAN	83.14	26.8	12 25	0							
OTTAWA	83.14	29.2	12 25	0							
BESANCON	83.20	334.8	12 26	0							
FOLINIERE	83.64	339.4	12 18	-10	22 47	0					
JERSEY	83.66	340.6	12 32A	4	22 49	2					
BOLOGNA	83.83	330.2	12 40	11	22 57	8					
PAVIA	84.00	331.9	12 30	0	23 10	19		30 1	SSS		
GARCHY	84.04	336.6	12 30	0	22 47	-4		29 5	SS		
ATHENS	84.07	318.8	12 29	-1	23 50	59					
CLEVELAND	84.24	34.9	12 32A	1	22 49	-4					
PRATO	84.45	330.0	12 30	-2	22 53	-2					
MAZATLAN	84.98	62.7						21 25			
KARAPIRO	85.22	158.2	12 38	2							
CLERMONT-FD.	85.40	336.0	12 39A	2	23 24	20					
ISOLA	85.59	332.8	12 38	0	23 5	-1					
ROME	85.65	328.2	12 38A	0	23 5	-2	12 48	16 16	PP		
TARRALEAH	85.76	180.9	12 42	4							
MONACO	85.87	332.3	12 38	-1			22 51				
MOORLANDS	85.90	180.4	12 43	4							
PENNSYLVANIA	86.29	32.9	12 42	1	23 13	0		23 3	SKS		
FORT NELSON	86.39	180.2	12 45	3	23 16	2					
HELWAN	86.39	308.8	12 43A	1	23 5	-9					
MORGANTOWN	86.45	34.9	12 43A	1	22 56	-19					
WESTON	87.31	27.8	12 47A	1	23 10	-13		16 35	PP		
MESSINA	87.56	324.2	12 45A	-2	23 21	-4		16 5	PP		
REGGIO CALA.	87.60	324.1	12 46	-1	23 22	-4					

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 162									
PALISADES	87.61	30.2	12 47A	0	23 15	-11	13 1	16 7	PP		
HALIFAX	87.62	21.8	12 49K	1							
FORDHAM	87.76	30.2	12 45	-3	23 20	-7					
WELLINGTON	88.17	159.9	12 54	4	23 32	1					
WASHINGTON	88.24	33.3	12 49	-2	23 12	-20				16 17	PP
GEORGETOWN	88.24	33.3	12 51	0						16 13	
CUGLIERI	88.60	329.9								24 47	
BAGNERES	88.73	336.8	12 53	0							
GUADALAJARA	88.75	62.3			23 45	9				15 21	
TORTOSA	90.69	335.7	13 4	2						23 53	
COLUMBIA	90.71	38.6	13 3	1	23 27	-27				30 1	
ROXBURGH	90.99	165.0	13 12	9	24 6	9				23 29	SKS
TACUBAYA	92.31	60.3	13 17	7	24 4	-4				16 46	PP
SERRA PILAR	92.76	342.3	13 12K	0	23 48	-24	13 22			16 57	PP
TOLEDO	92.85	338.6	13 12A	0	24 7	-6				16 53	PP
ALICANTE	93.26	335.5	13 12	-2	24 18	1				16 59	PP
COIMBRA	93.61	341.9	13 15A	-1	24 15	-5				30 50	SS
VERA CRUZ	94.36	58.3			23 57	-29				19 20	PPP
LISBON	95.19	342.0			26 7	132					
ALMERIA	95.24	336.4	13 22A	-1	24 33	37				17 0	PP
GRANADA	95.25	337.3	13 26K	3	25 5	69				17 20	PP
RELIZANE	95.33	333.7	13 23	0							
MERIDA	96.89	52.4			25 5	1				31 42	SS
BENI ABBES	101.40	333.7	13 50	-1			14 3			17 52	PP
TAMANRASSET	105.17	324.1	14 7	777			14 17			18 29	PP
TANANARIVE	110.06	262.8	18 35	6						19 7	PP
SAN JUAN	110.77	34.4	19 4	33							
BANGUI	113.73	302.3	18 39	2						31 8	
FORT FRANCE	116.03	31.3								19 3	PP
CAPE HALLETT	116.93	172.4	15 3	-220	25 31	-1				19 57	PP
CARACAS	117.43	39.0	18 43	-1						19 56	PP
CHINCHINA	117.72	50.5	18 49	5						20 2	PP
FUQUENE	118.35	48.4								20 5	PP
BOGOTA	118.87	49.3								20 5	PP
MBOUR	120.39	342.7	14 24	-266	25 53	9					
BROKEN HILL	120.89	279.9	18 50	-1							
BULAWAYO	124.52	274.7	19 0A	2							
LUANDA	127.32	297.5	19 3A	0						21 4	PP
MAWSON	127.76	208.9	19 7	3							
PRETORIA	128.29	269.6	19 9	4							
PIETERMZBURG	128.92	264.1	18 32A	-34							
HUANCAYO	131.35	62.8	19 15	4						21 57	PP
KIMBERLEY	132.49	268.7	19 15	2							
BYRD STATION	133.30	166.1	19 2	-12						21 58	SKP
SOUTH POLE	133.65	180.0	19 2	-13						21 39	SKP
WINDHOEK	134.31	281.2	19 19	3							
LA PAZ	139.26	59.3	19 23	-2						22 30	PP
HERMANUS	139.50	265.4								22 23	PP
SANTA LUCIA	148.56	83.8	19 43	2						23 37	PKS
ARGENTINE I.	152.19	151.5	19 55	8							
PORT STANLEY	161.18	123.7	20 31	33							

FEBRUARY 12 23.H 26.M 36.S EPICENTRE 43.92 147.94 DEPTH= 28.KM

A=-0.61238 B= 0.38356 C= 0.69128 D= 0.5308 E= 0.8475
G=-0.5859 H= 0.3669 K=-0.7226 HT= -3.1

SE= 3.05

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
KURILSK	1.31	357.8	0	14	-8							
NEMURO	1.81	251.7	0	29K	-1	0	53	1				
ABASHIRI	2.64	273.3	0	43	1	1	19	6				
KUSIRO	2.75	251.1	0	42A	-1	1	16	0				
OBIHIRO	3.60	255.4	0	56	1	1	38	1				
HIRDO	3.76	245.7	0	57	0	1	40	-1				
ASAHI GAWA	4.03	269.9	1	5	4	1	55	7				
URAKAWA	4.18	246.6	1	4	1	1	51	-1				
RUMOE	4.56	272.5	1	11	2	2	12	10				
WAKKANAI	4.71	290.7	1	4	-7							
Y.-SAKHLINSK	4.80	312.0	1	14K	2	2	15	7				
TOMAKOMAI	4.82	256.6	1	17	4	2	20	12				
SAPPORO	4.87	262.2	1	15A	2	2	9	0				
HAKODATE	5.68	250.6	1	24K	-1	2	25	-5				
MORI	5.70	253.9	1	25A	0	2	31	1				

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 163

SUTTSU	5.73	261.3	1 31	6	2 34	3	
HATINOHE	5.84	236.7	1 23	-4	2 24	-10	
ADMORI	6.14	242.1	1 32	1	2 38	-3	
MIYAKO	6.18	228.3	1 28	-4	2 30	-12	
UGLEGORSK	6.56	323.9	1 39	2	3 4	12	1 57 *SP
MORIOKA	6.59	232.5	1 33	-4	2 40	-12	
MIZUSAWA	7.00	229.2	1 41	-2	2 53	-10	
AKITA	7.21	237.0	1 42	-4	2 41	-27	
ISINOMAKI	7.42	224.5	1 45A	-4	3 1	-12	
SENDAI	7.75	225.6	1 53	-1	3 7	-15	
SAKATA	7.89	233.3	1 55	-1	3 22	-3	
YAMAGATA	8.06	227.9	1 53	-5	3 18	-11	
HUKUSIMA	8.37	225.1	1 58	-4	3 24	-13	
ONAHAMA	8.79	220.0	2 11	3	3 35	-12	
SHIRAKAWA	8.98	223.4	2 11	0	3 38	-14	
NIIGATA	9.01	231.3	1 31	-40	3 17	-36	
AIKAWA	9.40	234.5	2 16	-1	3 51	-12	
MITO	9.46	219.7	2 13	-4	3 58	-6	
UTUNOMIYA	9.60	222.7	2 16	-3	3 56	-11	
KAKI OKA	9.71	220.3	2 16	-5	3 58	-12	
TUKUBASAN	9.76	220.6	2 16K	-5			3 56
TYOSI	9.84	216.0	2 18	-5	4 0	-13	
TAKADA	10.04	230.5	2 22	-3	4 11	-7	
MAEBASI	10.12	225.1	2 24	-2	4 12	-8	
KUMAGAYA	10.16	223.1	2 23	-4	4 4	-17	
OKHA	10.18	342.9	2 30	3			4 34
HONGO	10.33	220.2	2 27	-2			4 12
TOKYO C.M.O.	10.36	220.1	2 24	-6	4 13	-13	
NAGANO	10.38	229.0	2 33	3	4 53	26	
TITIBU	10.44	223.6	2 28	-3	4 14	-14	
OI WAKE	10.44	226.6	2 43	12			3 56
MATUJIRO	10.47	228.5	2 28K	-3	4 20	-9	
YOKOHAMA	10.61	219.7	2 44	11	4 22	-10	
WAZIMA	10.63	235.8	2 31	-2			
MATUMOTO	10.81	228.2	2 37	1	4 30	-7	
TOYAMA	10.92	232.3	2 34	-3	4 14	-26	
KOHU	10.95	224.3	2 37	-1	4 29	-11	
MERA	10.96	217.6	2 54	16			
HUNATU	10.98	223.1	2 52	14	4 30	-11	
MISIMA	11.20	221.3	2 47	6	4 28	-18	
TAKAYAMA	11.28	230.1	2 40	-2			
OSIMA	11.28	218.8	2 49	7	4 34	-15	
KANAZAWA	11.35	233.2	2 56	13			
PETROPAVLOVK	11.54	34.2	2 43	-3			4 53
SHIZUOKA	11.58	222.7	2 46	0	3 42	-74	
VLADIVOSTOK	11.68	271.6	2 48A	0	4 58	0	
HUKUI	11.93	232.7	2 50	-1			3 47
OMAE SAKI	11.97	222.2	3 3	11	5 3	-2	
GIHU	12.10	229.0	2 49	-4	4 55	-13	
HAMAMATU	12.12	224.1	2 47	-7	5 4	-5	
NAGOYA	12.16	227.7	2 50	-4	4 56	-14	
HIKONE	12.48	230.1	2 54K	-4	5 17	-1	
HATIDYOZIMA	12.54	213.2					5 2
KAMEYAMA	12.67	228.2	2 57	-4	4 22	-60	
TU	12.76	227.6	3 9	7			
MAIZURU	12.82	233.1	3 1	-2	5 33	7	
KYOTO	12.95	230.8	3 2	-3	6 5	36	
NARA	13.15	229.5	2 34	-33			
ABUYAMA	13.15	230.7	3 2	-5			
OSAKA	13.33	230.2					4 4
OWASE	13.41	226.7	3 19	8	6 18	38	
TOTTORI	13.51	236.2	3 10	-2	5 45	3	
KOBE	13.51	231.2			6 18	36	3 34
SAIGO	13.58	240.3	3 30	17	6 14	30	
SUMOTO	13.91	230.9	3 12	-5	6 0	8	
YONAGO	14.06	237.8	3 18	-1			
HIMEJI	14.08	232.6	3 7	-13	5 43	-13	
SIOMISAKI	14.12	226.3	3 21	1	6 15	18	
MATSUE	14.22	238.5	3 13	-8			
TAKAMATU	14.41	233.0	3 21	-3	6 40	36	
KLYUCHI	14.89	29.0	3 28	-2			
MUROTO	15.12	229.8	3 38	5	6 28	7	
HAMADA	15.20	239.0	3 32A	-2	6 28	6	
KOTI	15.27	232.1	3 31	-4	6 24	0	
HIROSIMA	15.33	236.8	3 38	2	6 33	8	
MATUYAMA	15.49	234.6	3 45K	7	6 46	17	
MAGADAN	15.75	5.4	3 43	2			4 1 *SP
UWAZIMA	16.06	233.5	3 36	-9	6 51	9	
SIMIDU	16.15	231.5	3 43	-3	6 57	13	

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961										PAGE 164	
CHANGCHUN	16.31	277.5	3 47A	-1	6 46	-2					
SIMONOSEKI	16.53	238.7	3 56	5							
OOITA	16.61	235.5	3 49A	-3	7 6	11					
HUKUOKA	17.12	238.8	3 54	-5	7 10	3					
SAGA	17.39	238.2	4 6	4	7 42	29					
KUMAMOTO	17.45	236.3	4 7	4	7 44	30					
MIYAZAKI	17.67	232.8	4 7A	2	7 31	12					
UNZENDAKE	17.78	237.0							6 14		
NAGASAKI	18.01	237.7	4 7A	-3	7 39	12					
KAGOSIMA	18.43	233.8	4 16	1	7 50	14					
TOMIE	18.76	239.5	4 18	-1	8 2	18					
YAKUSIMA	19.28	231.6	4 26	1	7 59	3					
YAKUTSK	21.05	335.8	4 42	-2	8 30	-2					
PEKING	23.86	271.7	5 11A	-1	9 24	1					
MAWASHI	24.10	229.6	5 15	2	9 45	19					
ZO-SE	24.67	247.7	5 20A	1	9 44	7					
NANKING	25.72	252.4	5 28A	-1							
ULAN-BATOR	28.58	292.6	5 54	-2							
TAIPEI	28.61	237.5	5 44	-12	11 22	41					
TIKSI	29.29	347.8	5 59	-3					6 56	PP	
TAICHUNG	29.77	237.4			10 43	-17					
IRKUTSK	29.91	301.8	6 7	0					7 4	PP	
TAINAN	30.91	236.6							12 36		
SIAN	31.54	265.6	6 21A	-1							
HONG KONG	35.21	243.2	6 51	-3	12 13	-11					
CHENG TU	36.95	264.0	7 7	-1	12 47	-4					
MANILA	37.07	226.5	7 12	3	12 55	2					
COLLEGE	40.61	36.2	7 39	0							
KUNMING	41.11	258.0	7 43A	0	13 53	-1					
SEMI PALATNSK	45.03	303.2	8 13	-2							
LHASA	46.87	272.1	8 32A	3	15 18	1					
SITKA	47.97	45.7	8 41	3							
RABAU	48.05	174.3	8 39A	0							
SHILLONG	48.62	267.1	8 41A	-2	15 41	-1			10 36	PP	
CHITTAGONG	50.63	263.8	8 59	1	16 11	1	9 8		10 57	PP	
CHATRA	51.27	271.7	9 2A	-1	16 19	0					
FRUNSE	51.62	296.0	9 6A	0							
PORT MORESBY	53.07	181.0	9 17	0					10 7		
NORD	54.46	357.3	9 24A	-3							
RESOLUTE	54.64	16.9	9 26	-2							
DEHRA DUN	55.80	281.0	9 34	-3	17 19	-1			11 29	PP	
TASHKENT	55.83	296.8	9 36	-1							
PORT BLAIR	57.13	253.3	9 45	-1							
LAHORE	57.72	284.4	9 47A	-3	17 46	0	9 54		18 4	PS	
THULE	57.72	9.5	9 47	-3							
VICTORIA	58.15	51.5	9 53	0							
WARSAK DAM	58.26	288.3	9 53A	-1							
APATIY	58.46	335.8	9 53	-3							
MEDAN	59.10	241.8	10 0K	0	18 24	20			10 48		
PENTICTON	59.83	49.1	10 2	-3							
SODANKYLA	60.52	337.7	10 8A	-2							
SEHORE	60.76	274.9	10 11A	0							
KIRUNA	61.80	340.0	10 16A	-2							
ARCATA	61.97	59.2	10 23K	3							
DJAKARTA	62.14	227.7	10 19	-2					18 27		
LEMBANG	62.26	226.5	10 21K	-1							
KAJAANI	62.55	334.7	10 22	-1							
SHASTA	63.12	58.5	10 28	1							
HUNGRY HORSE	63.41	47.6	10 29	0							
QUETTA	63.66	287.4	10 29A	-2	19 3	1	10 39		39 28	PKPPKP	
CHARTERS TS.	63.72	181.8	10 28	-3	18 59	-3			12 48	PP	
MINERAL	63.81	58.4	10 32K	0							
MOSCOW	64.65	324.1	10 37	0	19 13	-1					
PULKOVO	64.74	330.3	10 36	-2							
BERKELEY	64.88	60.9	10 38K	-1					11 55		
UMEA	64.94	337.2	10 38	-1							
MADRAS	65.10	264.1	10 39	-1	19 20	1			12 50	PP	
RENO	65.39	58.2	10 42	0							
LICK	65.59	61.1	10 44A	1			10 58				
BUTTE	65.62	49.0	10 43	0							
SCORESBY SD.	65.67	356.3	10 44K	0					39 38	PKPPKP	
POONA	66.03	273.0	10 41	-5							
VI NEYARD	66.11	61.4	10 47	0							
NURMI JARVI	66.14	333.1	10 46	-1	19 32	0			11 27		
HELSINKI	66.29	332.7	10 46	-2							
BOMBAY	66.53	274.0	10 47	-2	19 35	-2			20 0	PS	
BOZEMAN	66.67	48.6	10 51	1							
KARACHI	66.89	282.7	10 51	-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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961					PAGE 165				
FRESNO	67.10	60.6	10 54	1					
SKALSTUGAN	67.23	340.2	10 53	-1					
EUREKA	67.76	56.2	10 57	0				38 53	PKPPKP
AFIAMALU	68.27	137.5	11 2	2	20	5	7	24	0 SS
UPPSALA	68.85	335.6	11 3K	-1					
SALT LAKE C.	69.37	53.0	11 7	0					
PASADENA	69.78	61.9	11 9	0					
TIFLIS	70.41	309.3	11 13	0				11	36 PCP
TEHERAN	70.43	300.9	11 15A	2					
FLAMING GRGE	70.67	51.6	11 15	0				14	22 PP
BOULDER CITY	70.70	58.5	11 15	0					
GORIS	71.01	306.7	11 7	-10				11	33
BRISBANE	71.10	175.5	11 17	-1	20	32	1		
BERGEN	71.64	341.5	11 21	0					
RAPID CITY	71.89	45.9	11 21	-1				14	0 PP
GLEN CANYON	72.01	55.9	11 22	-1				12	0
SIDA	72.07	353.5	11 27	4					
GOTEBORG	72.28	336.9	11 24A	-1					
SHIRAZ	73.69	295.5	11 32K	-1	20	57	-3	11	46
SIMFEROPOL	73.77	317.4	11 33A	0				21	33 SKS
WARSAW	73.85	329.2	11 34	0	21	3	1	14	1
COPENHAGEN	73.87	335.6	11 32	-2				11	50 PCP
LWOW	74.60	326.1	11 38A	0				11	57 PCP
IASI	75.14	322.5	11 42	1	21	18	1		
TUCSON	75.65	59.1	11 44	0	21	20	-2	14	38 PP
TUCSON TELE.	75.66	58.9	11 44	0				14	39 PP
BACAU	75.91	322.5	12 5	19	21	27	2		
KRAKOW	76.02	328.4	11 44	-2				12	20
CHORZOW	76.18	329.1	11 46	-1				11	57 PCP
ABERDEEN	76.19	343.7						16	14 PPP
SKALNATE PL.	76.60	327.7	11 50A	0	21	32	-1		
RACIBORZ	76.64	329.4	11 50	0	21	37	4	12	3 PCP
COLLMBERG	77.43	332.9	11 53A	-1	21	40	-2	16	37 PPP
RIVERVIEW	77.44	177.3	11 55A	1	21	46	4	26	48 SS
CAMPULUNG	77.75	322.7	12 4	8	22	12	27		
BUCHAREST	77.94	321.5	11 56A	-1					
PRAGUE	77.99	331.5	12 0	3					
PRUHONICE	78.03	331.3	11 57A	0	21	51	3		
WITTEVEEN	78.04	337.2	11 58	0					
JENA	78.21	333.5	11 58	0	21	45	-5	14	51 PP
DURHAM	78.31	342.5	12 0	1	21	49	-2		
HURBANOVO	78.46	328.1	11 58	-2	21	54	1	12	8 PCP
BUDAPEST	78.46	327.4	12 2	2	21	52	-1	22	14 SCS
MUNSTER	78.52	336.2	12 1	1					
CHEB	78.68	332.6	12 0	-1					
VIENNA-H.	78.83	329.4	12 3	1	22	0	3		
CANBERRA	78.88	179.1	12 3	1				12	14 PCP
ADELAIDE	78.97	187.7	12 2K	-1				12	10 PCP
TIMISOARA	78.99	325.1	12 0	-3	22	5	7		
KASPERSKE H.	79.08	331.4	12 3A	0				13	22
BENSBERG	79.54	336.0	12 5A	-1	21	58	-6	15	15 PP
BELGRADE	80.06	325.0	12 10K	1	22	12	2		
HEIDELBERG	80.45	334.4	12 10	-1					
STUTTGART	80.83	333.7	12 12	-1				12	58
MUNDARING	80.90	206.9	12 11	-2					
ZAGREB	81.01	328.2	12 14	0					
KEW	81.08	340.5	12 15	1					
WICHITA MTS.	81.09	49.9	12 13	-1				30	50 PKKP
TUBINGEN	81.10	333.7	12 14	0					
LJUBLJANA	81.36	329.2	12 15A	0				12	24 PCP
EBINGEN	81.44	333.6	12 15	-1					
RAVENSBURG	81.58	333.0	12 21	4					
TRIESTE	81.99	329.5	12 19	0	22	29	-1	12	29
FAYETTEVILLE	82.43	46.2	12 20A	-1	22	31	-3		
PARIS	82.80	337.8	12 24	1				12	36
JERUSALEM	82.84	307.7	12 23A	0					
PADOVA	82.87	330.5	12 25	2	22	44	6	13	54
OTTAWA	82.98	29.3	12 22	-2					
SHAWINIGAN	82.98	27.0	12 23	-1					
NEUCHATEL	83.13	334.3	12 25	1					
FOLINIERE	83.62	339.6	12 27	0					
GARCHY	84.04	336.8	12 30	1				12	42
CLEVELAND	84.07	35.0	12 29A	0	22	47	-3		
PRATO	84.47	330.2	12 38	7	23	7	13		
FLORENCE X.	84.50	330.1	12 31	0	22	56	1		
KARAPIRO	85.23	158.4	12 35	0					
CLERMONT-FD.	85.39	336.1	12 38	2					
ISOLA	85.60	332.9	12 37	0				12	47 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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961										PAGE 166
ROME	85.67	328.3	12 35A	-2	23 15	9				29 25 SS
TARRALEAH	85.85	181.1	12 40	2						
MONACO	85.88	332.5	12 39	1						
PENNSYLVANIA	86.13	33.1	12 41	2						
MORGANTOWN	86.28	35.0	12 40K	0						16 9 PP
FORT NELSON	86.47	180.4	12 43	2						
HELWAN	86.48	308.9	12 42A	1	23 10	-4				
WESTON	87.15	28.0	12 44A	0						
PALISADES	87.45	30.4	12 46	0	23 16	-7			12 59	
HALIFAX	87.47	22.0	12 47A	1						
FORDHAM	87.60	30.4	12 44	-3						
WASHINGTON	88.07	33.5	12 48	-1						
GEORGETOWN	88.07	33.5	12 50	1						
TORTOSA	90.69	335.9	13 6	5						
TOLEDO	92.83	338.8	13 12	1						
ALICANTE	93.26	335.6	13 13	0	24 16	0				16 57 PP
ALGIERS UNI.	93.59	332.4	13 14	-1						
ALMERIA	95.23	336.6	13 19	-3				13 30		
RELIZANE	95.34	333.9	13 22	-1						
BENI ABBES	101.40	333.9	13 50	0				14 0		18 10 PP
TAMANRASSET	105.21	324.3	14 8	777						18 19 PP
TANANARIVE	110.25	263.0	19 4	35						
BANGUI	113.83	302.5	18 37	1						19 30
BROKEN HILL	121.05	280.1	18 52	2						
BULAWAYO	124.69	274.9	18 59	2						
HUANCAYO	131.15	62.9	19 13	4						
KIMBERLEY	132.67	268.9	19 19	7						
BYRD STATION	133.34	166.1	19 7	-7						22 40 SKP
SOUTH POLE	133.73	180.0	19 14	0						21 58 SKP
LA PAZ	139.06	59.5	19 28	4						
ARGENTINE I.	152.18	151.3	19 54	8						

FEBRUARY 13 6.H 45.M 25.S EPICENTRE -15.49-174.97 DEPTH= 0.KM

A=-0.96043 B=-0.08454 C=-0.26538 D=-0.0877 E= 0.9961
G= 0.2644 H= 0.0233 K=-0.9641 HT= 5.7

SE= 3.34

	DELTA DEG.	AZ. DEG.	P		O-C S	S O-C			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
AFIAMALU	3.46	63.5	0	45K	-11	1	24	-15				
SUVA	6.85	246.4	1	44	0							
PORT VILA	16.17	259.7	3	47	-3							
ONERAHI	22.34	203.3	5	6	5						7 49	
KARAPIRO	23.88	198.8	5	15	-1						7 37	
BRISBANE	32.17	243.0	6	27	-5	11	42	-2				
RABAUL	34.20	285.7	7	7	18							
RIVERVIEW	35.57	232.9	6	58	-3	12	31	-6			8 35	PPP
CHARTERS TS.	37.14	257.1	7	10	-4	13	5	4				
PORT MORESBY	37.44	274.7	7	16	-1	13	9	3			7 39	
CANBERRA	37.78	231.7	7	17	-3							
KIPAPA	40.27	24.8	7	40	0							
ADELAIDE	45.70	236.1	8	25	1							
CAPE HALLETT	57.48	185.3	9	55	2	17	57	7			11 26	PP
MUNDARING	64.16	241.7	10	46	7							
PERTH	64.48	241.7	10	55	14							
TUKUBASAN	66.68	321.5	10	55A	0	19	48	2			27 12	SSS
MATUSIRO	68.04	320.7	11	2	-1	20	2	0			20 26	
BYRD STATION	69.10	171.2	11	8	-2							
BAGUIO CITY	71.06	293.7	11	50	28						17 24	
VINEYARD	72.45	42.7	11	29	-1							
BERKELEY	72.54	41.3	11	30	-1	20	59	4				
LICK	72.62	42.1	11	29A	-2						14 29	PP
Y.-SAKHLINSK	72.88	331.2	11	30A	-3							
PASADENA	73.17	46.5	11	35	1	21	10	8			21 47	
FRESNO	73.50	43.4	11	35	-1							
SHASTA	74.15	38.9	11	44	4							
MINERAL	74.43	39.5	11	41A	-1							
UGLEGORSK	74.69	332.3	11	42	-1							
RENO	75.07	41.1	11	46A	1							
VLADIVOSTOK	75.95	322.9	12	0	10							
LEMBANG	76.11	266.7	11	52	1						20 8	
ZO-SE	76.82	307.7	11	53	-2							
EUREKA	77.51	42.8	12	0	1						14 52	PP
TUCSON	77.56	51.3	11	59	0				12 7		15 5	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 167

TUCSON TELE.	77.68	51.3	12	0	0					
RUTH	78.03	43.4	12	4	2	22	3	7		
HONG KONG	78.89	296.9	12	7	0	22	6	1		
NANKING	79.08	307.7	12	17	9				13	0 *SP
GLEN CANYON	79.22	46.8	12	9	1				15	7 PP
MAGADAN	79.77	343.1	12	9	-2					
CHANGCHUN	80.29	320.6	12	14	0	22	24	5	13	0 *SP
SALT LAKE C.	80.88	43.3	12	17	0					
TACUBAYA	82.18	67.5	12	40	16				15	13 PP
FLAMING GRGE	82.60	44.1	12	25	-1				16	14 PP
COLLEGE	82.74	11.3	12	25	-2				15	34 PP
BUTTE	83.05	38.5	12	28	-1					
HUNGRY HORSE	83.41	35.9	12	28	-3				15	45 PP
BOZEMAN	83.80	39.3	12	31	-1					
PEKING	84.43	314.0	12	35	-1	23	3	1	13	18 *SP
LARAMIE	85.34	45.0	12	44	4					
SIAN	87.53	306.4	12	49	-2					
WICHITA MTS.	87.90	53.2	12	50	-3	23	29	-6	13	8 29 44 SS
RAPID CITY	88.09	43.2	12	58	4					
YAKUTSK	88.58	337.2	12	56	0					
KUNMING	89.70	296.1	13	4	3	24	0	8		
SANTA LUCIA	93.09	125.8				24	27	5	30	47 SS
ULAN-BATOR	93.61	318.7	13	45	26					
BOGOTA	101.71	88.4							27	21 PPS
RESOLUTE	102.22	15.5	14	2	4					
CLEVELAND	102.63	50.2							33	13 SS
MADRAS	107.47	279.0	18	9	777				26	17
PALISADES	108.27	51.5				25	13	8	19	11 PP
CARACAS	109.98	84.3	17	53	777				25	48 SKKS
QUETTA	121.72	296.1	18	57	1					
MOSCOW	132.71	335.5	19	16	-1					
NURMI JARVI	132.84	346.9	19	24	7				22	50 PKS
SHIRAZ	134.25	296.4	19	15	-5				23	0 PKS
TI FLIS	136.95	315.5	19	44	19					
DURHAM	140.47	6.0	19	52	21					
BROKEN HILL	142.29	219.1	19	35	0					
COLLMBERG	143.71	351.5	19	33	-4				22	57 PP
SKALNATE PL.	144.17	342.9	19	40	2					
JENA	144.26	352.9	19	38	0				20	14
BENSBERG	144.58	357.7	19	37K	-1				20	23
PRUHONICE	144.74	349.3	19	38	-1					
KASPERSKE H.	145.73	350.0	19	41K	1				20	11
BRATISLAVA	145.92	345.5	19	42	1					
HURBANOVO	145.92	344.1	19	40	-1					
VIENNA-H.	146.02	346.4	19	43K	2				19	55 PKP2
HEIDELBERG	146.05	355.7	19	42	1					
BUCHAREST	146.08	332.5	20	2A	21					
FOLINIERE	146.50	6.6	19	44	2					
STUTTART	146.63	354.9	19	43	1				42	50 SS
PARIS	146.71	3.1	19	50	8					
KSARA	146.73	308.9	19	44	2	26	58	9	23	13 PP
TUBINGEN	146.88	355.1	19	44	2					
STRASBOURG	146.92	356.7	19	46	4				19	59 PKP2
EBINGEN	147.24	355.1	19	45	2					
RAVENSBURG	147.58	354.2	19	59	15					
BASLE	147.98	356.7	19	41A	-3					
BELGRADE	147.98	339.1	19	49A	5				21	18
JERUSALEM	148.09	305.9	19	51	7					
GARCHY	148.26	2.5	19	47	2					
ZAGREB	148.39	345.3	20	4K	19					
LJUBLJANA	148.51	347.3	19	50	5				20	3 PKP2
NEUCHATEL	148.54	357.5	19	48	3					
PADOVA	149.62	350.5							20	35
CLERMONT-FD.	149.77	2.7	19	58	11					
PRATO	151.23	350.9	20	3	14				24	28 PP
FLORENCE X.	151.31	350.6	19	50	1				20	9 PKP2
ISOLA	151.35	357.0	20	5	16				20	26 PKP2
MONACO	151.78	356.3							20	5 PKP2
SERRA PILAR	151.85	22.2	19	56A	6				20	5 PKP2
HELWAN	151.92	305.2	19	55	5				23	47 PP
BAGNERES	152.20	7.7	20	9	18				21	11
ROME	152.91	347.7	20	16K	24				24	36 PP
TOLEDO	154.44	16.3	20	9	15					
BANGUI	162.67	231.8	20	6	3					
TAMANRASSET	172.73	356.4	20	15	4			20 16	25	26 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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 168

FEBRUARY 13 16.H 17.M 44.S EPICENTRE -5.31 129.00 DEPTH= 267.KM

A=-0.62663 B= 0.77388 C=-0.09191 D= 0.7772 E= 0.6293
G= 0.0578 H=-0.0714 K=-0.9958 HT= 7.0

DEPTH OF FOCUS= 0.037R

SE= 1.23

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
PORT MORESBY	18.45	103.8	3	58	0	7	18	8				
LEMBANG	21.31	264.8	4	26K	0						5	8
MANILA	21.35	338.5	4	29	3	8	5	3				
CHARTERS TS.	22.31	132.7	4	36	0	8	21	3				
RABAU	23.12	88.3	4	42	-1						11	38
GUAM	24.33	39.8	4	55	0							
MUNDARING	29.10	202.8	5	35	-3						6	25
ADELAIDE	30.85	164.3	5	52A	-1						8	43 PCP
HONIARA	30.96	99.4	5	53	-1							
BRISBANE	31.54	136.7	5	59	0	10	47	0				
RIVERVIEW	35.05	146.9	6	29A	0	11	50	9				
CANBERRA	35.11	150.9	6	30A	1						7	24
TARRALEAH	39.97	159.7	7	11A	1						9	10 PCP
MOORLANDS	40.35	159.1	7	14	1							
MATUSIRO	42.51	11.0	7	29A	-1						8	19
SHILLONG	47.34	312.2	8	7K	-2							
CHATRA	51.55	310.5	8	40	0							
KAIMATA	52.75	141.2	8	52	3							
COBB RIVER	52.84	139.0	8	50	0							
KARAPIRO	53.28	134.3	8	53A	0						10	2
CHATEAU	53.84	135.7	8	57	0						9	17
GEBBIES PASS	54.14	141.8	8	59	0							
WELLINGTON	54.28	138.3	8	59	-1							
MACQUARIE I.	54.70	159.1	9	3	0							
AFIAMALU	58.89	103.0	9	34A	1							
LAHORE	63.65	309.0	10	4	0							
WARSAK DAM	66.80	310.4	10	25A	1							
QUETTA	69.01	305.0	10	38A	0							
TANANARIVE	80.22	251.8	11	44	2						12	43
SHIRAZ	80.94	301.0	11	46K	0							
SOUTH POLE	84.73	180.0	12	3	-2							
BYRD STATION	88.46	170.7	12	23	0							
COLLEGE	91.87	25.1	12	37	-2							
SITKA	97.52	33.3	18	22	318							
SODANKYLA	99.63	337.5	13	13	-1							
KAJAANI	99.68	334.1	13	13	-1							
NURMI JARVI	101.65	330.7	13	21	-2							
KIRUNA	101.85	338.4	13	23K	-1							
UMEA	102.97	334.5	13	30	1							
UPPSALA	105.22	330.8	13	37	777							
RESOLUTE	106.22	11.1	13	43	777						17	53
HUNGRY HORSE	111.70	39.8	18	4	2							
CHINA LAKE	112.04	53.6	18	5	2							
EUREKA	112.60	49.4	18	6	2						18	55
FLAMING GRGE	117.09	46.5	18	15	2							
TUCSON TELE.	118.29	56.1	18	18	3							
TAMANRASSET	122.84	293.6	18	27	3						19	32
WICHITA MTS.	127.25	49.8	18	34	2						20	35 PP
BENI ABBES	127.87	304.3	18	30	-4						21	30 PP
FAYETTEVILLE	129.94	46.3	18	39K	1							
MBOUR	145.32	287.6	19	9	3							
HUANCAYO	150.29	125.6	19	19	6						20	31 PKP2
LA PAZ	152.49	142.3	19	27	10							
SAN JUAN	160.34	47.4	20	10	43							

FEBRUARY 13 16.H 27.M 23.S EPICENTRE 43.80 148.04 DEPTH= 26.KM

A=-0.61427 B= 0.38331 C= 0.68974 D= 0.5294 E= 0.8484
G=-0.5852 H= 0.3651 K=-0.7241 HT= -3.1

SE= 2.93

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
NEMURO	1.85	256.0	0	29A	-1	0	48	-5				
ABASHIRI	2.72	275.9	0	44	1	1	17	2				

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961										PAGE 169
KUSIRO	2.77	254.0	0 44K	1	1 16	-1				
OBHIRO	3.63	257.6	0 54	-2					2 27	
HIRDO	3.78	247.9	1 0	2	1 43	1				
ASAHI GAWA	4.10	271.6	1 6	4	1 55	5				
URAKAWA	4.19	248.6	1 5	1	1 54	1				
RUMDE	4.64	274.0	1 15	5	2 19	15				
WAKKANAI	4.82	291.8	1 16	4						
TOMAKOMAI	4.86	258.3	1 13	0	2 11	2				
SAPPORO	4.92	263.7	1 16A	2	2 8	-3				
Y. -SAKHL INSK	4.93	312.5	1 15	1					2 10	
MURORAN	5.38	256.4	1 21	1	2 19	-3				
HAKODATE	5.71	252.1	1 24	-1	2 32	1				
MORI	5.74	255.3	1 30	5	2 39	8				
HATINOHE	5.84	238.1	1 8	-19	2 21	-13				
MIYAKO	6.15	229.6	1 32	1	2 30	-12				
AOMORI	6.15	243.5	1 33	2	2 38	-4				
MORIOKA	6.57	233.7	1 35K	-2	2 42	-10				
UGLEGORSK	6.70	324.1	1 43	4					3 7	
MI ZUSAWA	6.98	230.3	1 40	-3	2 44	-18				
AKITA	7.20	238.2	1 53	7	3 2	-6				
ISINOMAKI	7.38	225.6	1 45A	-3	3 0	-12				
SENDAI	7.72	226.7	1 49	-4	3 8	-13				
SAKATA	7.88	234.3			3 21	-4			2 40	
YAMAGATA	8.03	228.9	1 54	-4	3 18	-11				
HUKUSIMA	8.33	226.1	1 57	-5	3 25	-11				
ONAHAMA	8.74	220.9	2 2	-5	3 33	-13				
SHIRAKAWA	8.94	224.4	2 9	-1	3 36	-15				
NIIGATA	8.99	232.2	2 18	7	4 3	11				
AIKAWA	9.39	235.4	2 11	-5	3 49	-13				
MITO	9.41	220.5	2 12	-5	3 49	-14				
UTUNOMIYA	9.56	223.5	2 14	-5	3 57	-10				
KAKIOKA	9.67	221.2	2 14	-6	3 55	-14				
TUKUBASAN	9.71	221.4	2 13K	-8	4 9	-1			5 14	
TYOSI	9.78	216.8	2 16	-6	3 57	-15				
TAKADA	10.02	231.4	2 33	8	4 18	0				
MAEBASI	10.09	225.9	2 24A	-2	4 11	-9				
KUMAGAYA	10.12	223.9	2 19	-7	4 8	-12				
HONGO	10.28	221.0	2 31	2	4 11	-13				
TOKYO C.M.O.	10.31	220.9	2 26	-3	4 10	-15				
OKHA	10.32	342.8	2 33	4	4 38	13				
NAGANO	10.35	229.8	2 29	-1						
TITIBU	10.40	224.4	2 28	-2	4 13	-14				
OI WAKE	10.41	227.4	2 36	6	4 33	6				
MATUSIRO	10.44	229.3	2 27K	-4	4 19	-9				
YOKOHAMA	10.57	220.5	2 39	6	4 22	-9				
WAZIMA	10.62	236.6	2 37	4						
MATUMOTO	10.78	229.0	2 42	6						
MATUMOTO	10.80	229.0	2 42	5						
TOYAMA	10.90	233.1	2 37	0						
MERA	10.90	218.3	2 54	17						
KOHU	10.91	225.1	2 37	0	4 29	-11				
HUNATU	10.94	223.8	2 40	2	4 30	-10				
MISIMA	11.15	222.0	2 40	-1	4 30	-16				
OSIMA	11.23	219.5	3 4	22	4 32	-16				
IIDA	11.41	227.0	1 48	-56						
SHIZUOKA	11.54	223.4	2 54	8	4 45	-10				
PETROPAVLOVK	11.60	33.6	2 46	-1					3 11	
VLADIVOSTOK	11.75	272.2	2 46	-3					4 35	
HUKUI	11.91	233.4	2 52	1						
OMAE SAKI	11.92	222.9	3 5	14	4 58	-6				
GIHU	12.07	229.8	2 51A	-2	4 55	-13				
HAMAMATU	12.08	224.8	2 56	3	5 2	-6				
NAGOYA	12.13	228.4	2 50	-4	5 6	-3				
HIKONE	12.45	230.8	2 57	-1	5 10	-7				
KAMEYAMA	12.64	228.9	3 12	11	5 33	11				
TU	12.73	228.3	3 28	26						
KYOTO	12.93	231.4	3 1	-3	5 17	-12				
NARA	13.12	230.1	3 1	-6						
ABUYAMA	13.13	231.4	3 3K	-4						
OSAKA	13.31	230.8							4 18	
OWASE	13.38	227.4	3 18	8	6 0	21				
KOBE	13.49	231.8							6 19	
SUMOTO	13.89	231.5	3 31	14	7 4	73				
SIOMI SAKI	14.08	226.9	3 21	1	6 14	18				
TAKAMATU	14.39	233.6	3 21	-3	6 21	18				
KLYUCHI	14.96	28.6	3 28	-3					3 49	
MUROTO	15.10	230.4	3 42	9	6 34	14				
HAMADA	15.20	239.6	3 41A	7	6 39	17				

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961										PAGE 170	
KOTI	15.25	232.7	3 38	3	6 30	6					
HIROSIMA	15.33	237.3	3 40	4	6 39	14					
MATUYAMA	15.48	235.1	3 45K	7	6 46	17					
MAGADAN	15.86	5.2	3 44	1					6 53		
SIMIDU	16.13	232.0	3 48	2	6 54	10					
CHANGCHUN	16.40	278.0	3 47A	-3	6 47	-3					
SIMONOSEKI	16.53	239.2	3 52	1							
OOITA	16.60	236.0	3 56K	4	7 8	13					
HUKUOKA	17.12	239.3	4 0	1	7 14	7					
SAGA	17.39	238.7	4 8	6	7 58	45					
KUMAMOTO	17.44	236.9	4 8	5	7 48	34					
MIYAZAKI	17.65	233.3	4 13	8	7 29	10					
NAGASAKI	18.00	238.2	4 10	0	7 53	26					
KAGOSIMA	18.41	234.3	4 19A	4	7 43	7					
YAKUSIMA	19.26	232.1	4 27	2	7 59	4					
YAKUTSK	21.19	335.8	4 43	-2	8 32	-3					
PEKING	23.93	272.0	5 12A	0	9 26	2					
ZO-SE	24.68	248.1	5 21A	1	9 41	4					
NANKING	25.75	252.8	5 30	0	9 57	2					
ULAN-BATOR	28.69	292.8	5 56	-1	10 40	-3					
TIKSI	29.42	347.8	5 59	-4					6 51 PP		
IRKUTSK	30.03	301.9	6 7	-2	11 42	38			7 10 PP		
SIAN	31.60	265.9	6 22A	0							
HONG KONG	35.21	243.5	6 52	-2	12 27	2					
CHENG TU	37.00	264.3	7 8	-1	12 49	-3					
MANILA	37.04	226.7	7 11	2	12 56	3					
COLLEGE	40.67	36.1	7 41	2	13 50	2					
KUNMING	41.16	258.2	7 43A	0	13 54	-1					
SEMI PALATNSK	45.16	303.3	8 15	-1	14 52	-1					
LHASA	46.94	272.3	8 32A	2	15 21	2					
KHEYS	47.12	347.1	8 28	-3					10 4 PCP		
RABAUL	47.93	174.4	8 38	0							
SHILLONG	48.69	267.2	8 43A	-1	15 41	-2			10 37 PP		
CHITTAGONG	50.68	264.0	8 59	0	16 14	3	9 7		10 56 PP		
CHATRA	51.34	271.8	9 3	-1	16 21	1					
FRUNSE	51.74	296.1	9 7A	0	16 21	-5			16 28 PS		
PORT MORESBY	52.95	181.1	9 17	1	16 6	-36					
SVERDLOVSK	53.54	316.9	9 20	0	16 51	1					
HONIARA	54.07	165.4	9 23	-1							
BOKARO	54.13	269.8	9 28	3	16 57	-1					
NORD	54.58	357.3	9 25	-3							
RESOLUTE	54.74	16.9	9 29A	0	16 55	-11					
DEHRA DUN	55.89	281.1	9 40	2	17 23	1			21 8 SS		
TASHKENT	55.94	296.9	9 38	0	17 23	0			10 33 PCP		
PORT BLAIR	57.16	253.5	9 59	12	17 40	1					
DUZHANBE	57.73	294.4	9 51	0	17 49	3					
LAHORE	57.82	284.5	9 51A	0	17 45	-2	10 2		17 58 *SS		
THULE	57.83	9.5	9 50	-1			10 2				
WARSAK DAM	58.37	288.4	9 55A	0							
APATITY	58.60	335.8	9 56K	-1	17 55	-2					
MEDAN	59.10	242.0	9 59	-1					12 21		
SODANKYLA	60.66	337.7	10 13	2							
KIRUNA	61.94	340.1	10 18A	-1					12 25 PP		
LEMBANG	62.23	226.7	10 20A	-1			10 31		17 42		
KAJAANI	62.69	334.7	10 25A	1							
SHASTA	63.12	58.5	10 29A	2							
HUNGRY HORSE	63.44	47.6	10 30	1					39 27 PKPPKP		
HYDERABAD	63.48	269.1	10 34	4	18 56	-4					
CHARTERS TS.	63.60	181.9	10 29	-1							
QUETTA	63.76	287.5	10 31A	-1	19 3	0	10 41		12 49 PP		
MINERAL	63.81	58.4	10 33A	1							
MOSCOW	64.79	324.1	10 38	0	19 15	-1					
ASHKABAD	64.82	299.1	10 40	2	19 21	5					
BERKELEY	64.88	60.9	10 41K	2	19 49	32					
PULKOVO	64.88	330.3	10 39	0					11 11 PCP		
CONCORD	64.94	60.8	10 42K	3							
UMEA	65.08	337.3	10 40	0							
MADRAS	65.15	264.2	10 41	0	19 22	2			13 9 PP		
RENO	65.40	58.2	10 44A	2							
LICK	65.59	61.1	10 45A	2							
BUTTE	65.65	49.0	11 45	61							
SCORESBY SD.	65.80	356.3	10 46K	1					39 37 PKPPKP		
VINEYARD	66.11	61.4	10 47	0							
NURMI JARVI	66.28	333.2	10 46A	-2	19 33	-1					
HELSINKI	66.43	332.8	10 49	0							
BOMBAY	66.61	274.2	10 50	0	19 37	-1			19 57 PS		
BOZEMAN	66.69	48.6	10 52	2							
KARACHI	66.98	282.8	10 51	-1							
FRESNO	67.10	60.6	10 53A	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961					PAGE 171				
SKALSTUGAN	67.37	340.2	10 54	-1					
EUREKA	67.77	56.3	10 59	2			11 11	13 31	PP
AFIAMALU	68.14	137.5	11 12	13					
RUTH	68.53	55.9	11 5	3				20 32	
UPPSALA	68.99	335.7	11 4A	-1					
SALT LAKE C.	69.38	53.0	11 9	2					
PASADENA	69.78	61.9	11 11A	1	20 32	16		21 14	SCS
TIFLIS	70.54	309.4	11 16	2	20 28	3		13 32	PP
TEHERAN	70.55	301.0	11 16A	2	20 26	1			
FLAMING GRGE	70.69	51.6	11 16	1				21 9	SCS
BOULDER CITY	70.70	58.5	11 16	1					
BRISBANE	70.98	175.5	11 17	0				25 10	
GORIS	71.14	306.8	11 21	3	20 36	4		14 8	PP
RAPID CITY	71.92	45.9	11 24	1			11 37		
GLEN CANYON	72.03	55.9	11 25	2			11 37	13 21	
SIDA	72.20	353.6	11 27	3					
SHIRAZ	73.81	295.5	11 34K	0	20 56	-6	11 45	16 6	PP
SIMFEROPOL	73.91	317.5	11 34A	0	21 4	1		11 44	PCP
WARSAW	73.99	329.3	11 35	0	21 7	3		11 51	PCP
COPENHAGEN	74.01	335.6	11 35A	0					
LWOW	74.74	326.2	11 40A	1	21 12	-1		11 58	PCP
IASI	75.28	322.6	11 43	1	21 20	2			
TUCSON	75.65	59.1	11 46	2				14 52	PP
TUCSON TELE.	75.66	59.0	11 46	2				14 24	
BACAU	76.05	322.5	11 49	2	21 26	-1			
KRAKOW	76.16	328.5	12 20	33	21 28	0		12 44	
CHORZOW	76.32	329.2	11 48K	0				11 59	PCP
SKALNATE PL.	76.74	327.8	11 54K	4				12 8	PCP
RACIBORZ	76.78	329.5	11 52A	1				12 0	PCP
RIVERVIEW	77.31	177.3	11 55K	1	21 43	2	12 7	22 5	*SS
COLLMBERG	77.57	333.0	11 56A	1	21 44	0		14 53	PP
BUCHAREST	78.07	321.6	11 59A	1					
PRAGUE	78.13	331.5	12 0	2	21 52	2			
PRUHONICE	78.17	331.4	12 0A	2	21 53	3		28 7	SS
WITTEVEEN	78.17	337.2	12 5A	7					
JENA	78.35	333.6	11 59	0	21 49	-3		14 39	PP
DURHAM	78.45	342.6	12 1A	1				12 12	PCP
HURBANOVO	78.60	328.2	11 57	-4					
BUDAPEST	78.60	327.5	12 2	1	22 0	5		12 10	PCP
MUNSTER	78.66	336.3	12 3	2					
CANBERRA	78.75	179.2	12 3A	1				12 11	PCP
BRATISLAVA	78.77	329.0	12 2K	0					
CHEB	78.82	332.7	12 0	-2					
ADELAIDE	78.86	187.8	11 57	-5				12 14	PCP
VIENNA-H.	78.97	329.4	12 4A	1				12 15	PCP
KASPERSCHE H.	79.22	331.5	12 7A	3				14 5	
DE BILT	79.23	337.7	12 7	3					
ISTANBUL KA.	79.26	317.7	12 4A	0	22 2	0		22 44	PS
ISTANBUL UN.	79.33	317.7	12 4	-1	22 2	0			
BENSBERG	79.68	336.1	12 7	0	22 7	1		12 19	PCP
BELGRADE	80.20	325.1	12 10K	1	22 17	6			
HEIDELBERG	80.59	334.4	12 13	2				12 24	PCP
SOFIA	80.67	322.1	12 13	1	22 21	5			
MUNDARING	80.83	207.0	12 12	-1					
STUTTGART	80.97	333.8	12 14	1	22 19	0		12 25	PCP
KARLSRUHE	81.03	334.4	12 15	1					
KSARA	81.10	308.7	12 16	2	22 4	-17	12 33	22 29	SCS
WICHITA MTS.	81.12	49.9	12 16	2	22 40	19	12 28	15 0	PP
KEW	81.22	340.6	12 15A	0	22 23	1		27 55	SS
TUBINGEN	81.24	333.8	12 16	1				12 27	PCP
LJUBLJANA	81.50	329.3	12 16A	0				12 27	PCP
EBINGEN	81.58	333.7	12 18	1				12 28	PCP
STRASBOURG	81.61	334.6	12 19A	2	22 27	1		12 26	PCP
RAVENSBURG	81.72	333.1	12 19	2				12 29	PCP
TRIESTE	82.13	329.5	12 21	2					
FAYETTEVILLE	82.46	46.3	12 23A	2	22 35	0			
CHUR	82.57	332.7	12 23	1					
BASLE	82.60	334.2	12 25	3				22 29	
PARIS	82.94	337.9	12 25	1					
JERUSALEM	82.97	307.7	12 25	1					
PADOVA	83.01	330.6	12 37	13				13 52	
OTTAWA	83.05	29.4	12 24A	0					
SHAWINIGAN	83.06	27.0	12 26	2					
NEUCHATEL	83.27	334.3	12 27	2					
BESANCON	83.34	335.1	12 27A	1					
DALLAS	83.51	50.1	12 28	1					
FOLINIERE	83.76	339.7	12 29	1					
CLEVELAND	84.13	35.1	12 32A	2					

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 173

DUZHANBE	57.57	294.2	9 45	0				
LAHORE	57.70	284.3	9 46	0				
APATITY	58.37	335.8	9 49	-2				
SODANKYLA	60.43	337.7	10 2	-3				
KIRUNA	61.71	340.0	10 9	-4				
LEMBANG	62.33	226.5	10 15A	-3				
KAJAANI	62.46	334.6	10 18K	0				
SHASTA	63.06	58.5	10 22	0				
HUNGRY HORSE	63.34	47.7	10 23	-1				
QUETTA	63.63	287.3	10 27	1	18 58	5		
MINERAL	63.75	58.4	10 26A	-1				
CHARTERS TS.	63.82	181.8	10 24	-3				
MOSCOW	64.57	324.0	10 29	-3				
ASHKABAD	64.65	299.0	10 35	2				
BERKELEY	64.83	61.0	10 34	0				
UMEA	64.85	337.2	10 29	-5				
RENO	65.34	58.2	10 38K	1				
LICK	65.54	61.1	10 38A	0				
SCORESBY SD.	65.57	356.3	10 40	1				
NURMI JARVI	66.05	333.1	10 40	-2				
HELSINKI	66.20	332.7	10 44	1				
BOZEMAN	66.60	48.6	10 45	0				
EUREKA	67.71	56.3	10 52	0				
UPPSALA	68.76	335.6	10 58	-1				
PASADENA	69.73	61.9	11 6	1				
TIFLIS	70.34	309.3	11 9	1	20 24	10		11 20 PCP
BOULDER CITY	70.64	58.5	11 11	1				
RAPID CITY	71.82	45.9	11 17	0				
GLEN CANYON	71.96	55.9	10 40	-38				11 18
SHIRAZ	73.65	295.4	11 28A	0	20 52	0		14 24 PP
TUCSON TELE.	75.60	59.0	11 38	-1				
NIEDZIKA	76.30	327.8	11 45	2				12 17
RACIBORZ	76.55	329.4	11 46	1				
COLLMBERG	77.34	332.9	11 49K	0				12 21
PRUHONICE	77.94	331.3	11 53	1				13 26
PRUHONICE	77.94	331.3	11 53	1				13 26
WITTEVEEN	77.94	337.2	11 55	3				
JENA	78.12	333.5	11 55	2				
CANBERRA	78.98	179.1	11 57A	-1				
KASPERSKE H.	79.00	331.4	11 59	1				
BENSBERG	79.45	336.0	12 2	1				12 14 PCP
STUTTGART	80.74	333.7	12 8	1				
MUNDARING	80.99	206.9	12 6	-3				
WICHITA MTS.	81.03	49.9	12 8	-1				
FAYETTEVILLE	82.36	46.3	12 16A	0				
PARIS	82.71	337.8	12 20	2				
OTTAWA	82.89	29.4	12 18	-1				
SHAWINIGAN	82.89	27.0	12 19	0				
FOLINIÈRE	83.53	339.6	12 23	1				
GARCHY	83.94	336.8	12 52	28				
KARAPIRO	85.32	158.4	12 31	0				
ISOLA	85.51	332.9	13 33	61				
MORGANTOWN	86.19	35.0	12 36A	1				
WESTON	87.06	28.0	12 40	1				
BYRD STATION	133.43	166.1	19 7	-2				

FEBRUARY 14 O.H 15.M 42.S EPICENTRE 44.06 147.71 DEPTH= 77.KM

A=-0.60947 B= 0.38518 C= 0.69295 D= 0.5342 E= 0.8453
G=-0.5858 H= 0.3702 K=-0.7210 HT= -3.2

DEPTH OF FOCUS= 0.007R

SE= 2.59

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
KURILSK	1.18	5.6	0	21A	-1	0	38	0				
Y.-SAKHL INSK	4.59	312.0	1	6	-3	2	7	6				
UGLEGORSK	6.35	324.3	1	34	1						2	58
MI ZUSAWA	6.97	227.3	1	33	-9	2	38	-22				
TUKUBASAN	9.75	219.2	2	19K	-1						3	47
OKHA	10.01	343.4	2	26	3							
MATUSIRO	10.43	227.2	2	19	-10	4	9	-16				
VLADIVOSTOK	11.51	270.8	3	6	23						5	26
PETROPVLOVK	11.52	35.0	2	36	-7						4	53
MAGADAN	15.63	5.9	3	38	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 174

YAKUTSK	20.86	335.9	4 36	-2	8 23	2		
TIKSI	29.13	347.9	5 51	-5			9 0 PCP	
COLLEGE	40.60	36.3	7 35	1			8 17	
SEMIPALATNSK	44.82	303.0	8 8	0				
SHILLONG	48.46	266.8	8 34	-3				
CHATRA	51.10	271.4	8 56	-1				
FRUNSE	51.42	295.8	9 0	1				
SVERDLOVSK	53.20	316.7	9 12	-1				
TASHKENT	55.62	296.6	9 25	-5				
DUZHANBE	57.41	294.1	9 42	-1				
LAHORE	57.53	284.1	9 43A	-1				
THULE	57.62	9.5	9 43	-1				
SODANKYLA	60.33	337.6	10 1	-2				
KIRUNA	61.62	339.9	10 11	-1				
KAJAANI	62.35	334.6	10 17	0				
SHASTA	63.19	58.4	10 23A	1				
HUNGRY HORSE	63.44	47.6	10 24	0			10 38	
QUETTA	63.46	287.2	10 23A	-1				
CHARTERS TS.	63.84	181.5	10 22	-5				
MINERAL	63.88	58.3	10 27A	0				
MOSCOW	64.44	323.9	10 31	1				
UMEA	64.75	337.1	10 27	-5				
RENO	65.47	58.1	10 38K	1				
SCORESBY SD.	65.53	356.2	10 38	1				
LICK	65.67	61.0	10 34A	-4				
NURMI JARVI	65.94	333.0	10 39A	-1				
BOZEMAN	66.70	48.5	10 44	-1				
FRESNO	67.18	60.5	10 48	0				
EUREKA	67.83	56.2	10 52	0			11 4	
UPPSALA	68.66	335.5	10 57	0				
CHINA LAKE	69.16	60.1	11 0	0				
TIFLIS	70.19	309.1	11 8	2				
FLAMING GRGE	70.72	51.5	11 10	0			11 46	
BOULDER CITY	70.77	58.4	11 11	1				
RAPID CITY	71.92	45.8	11 17	0				
SHIRAZ	73.48	295.3	11 26K	0	20 48	0	11 36	14 12 PP
COPENHAGEN	73.68	335.5	11 28K	1				
TUCSON	75.72	59.0	11 40	1				12 6
TUCSON TELE.	75.73	58.8	11 39	0				
KRAKOW	75.82	328.3	11 42	3				11 52 PCP
RACIBORZ	76.44	329.2	11 44	1				
COLLMBERG	77.24	332.8	11 48A	1				12 45
PRUHONICE	77.83	331.2	11 52A	1				12 41
WITTEVEEN	77.85	337.0	11 23	-28				
JENA	78.02	333.4	11 52	0				
KASPERSKE H.	78.89	331.3	11 58	2				
CANBERRA	79.01	178.9	11 56K	-1				
BENSBERG	79.35	335.9	12 0	1				12 10 PCP
STUTTGART	80.63	333.6	12 7	1				
KEW	80.90	340.4	12 8	1				
WICHITA MTS.	81.13	49.8	12 9	0				
FOLINIERE	83.44	339.4	12 21	1				
BREBEUF	83.58	27.9	12 21	0				
GARCHY	83.85	336.7	12 24	2				
ISOLA	85.41	332.8	12 31	1				
MORGANTOWN	86.26	34.9	12 36K	2				
WESTON	87.11	27.9	12 42	4				
TAMARASSET	105.01	324.1						17 47 PP
HUANCAYO	131.24	62.6	19 7	4				

FEBRUARY 14 2.H 51.M 17.S EPICENTRE 44.38 147.89 DEPTH= 96.KM

A=-0.60737 B= 0.38115 C= 0.69701 D= 0.5315 E= 0.8470
G=-0.5904 H= 0.3705 K=-0.7171 HT= -3.3

DEPTH OF FOCUS= 0.010R

SE= 2.89

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
KURILSK	0.85	359.0	0	17	-3	0	36	2				
Y.-SAKHLINSK	4.48	307.9	1	5	-2	2	3	4				
UGLEGORSK	6.17	321.7	1	31A	1							
MI ZUSAWA	7.28	226.2	1	52	6	2	42	-25				
OKHA	9.74	342.2	2	21	2							

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 175	
MATUSIRO	10.75 226.5	2 17A -16	4 8 -24
PETROPAVLOVK	11.18 35.6	2 41 3	3 8
VLADIVOSTOK	11.64 269.4	2 57 13	
MAGADAN	15.30 5.6	3 33 1	
TIKSI	28.84 347.6	5 47 -5	
COLLEGE	40.26 36.5	7 29 0	8 52 PP
SHILLONG	48.61 266.6	8 34A -2	
CHITTAGONG	50.64 263.4	8 59 7	
CHATRA	51.22 271.3	8 53 -3	
FRUNSE	51.39 295.6	8 56A -1	
SVERDLOVSK	53.05 316.6	9 9 -1	
RESOLUTE	54.21 16.9	9 18 0	
TASHKENT	55.59 296.5	9 28 0	
THULE	57.28 9.5	9 39 -1	
DUZHANBE	57.39 294.0	9 40 -1	
APATITY	58.03 335.7	9 45 0	
PENTICTON	59.56 49.3	9 53 -3	
SODANKYLA	60.09 337.6	9 58 -2	
KIRUNA	61.36 339.9	10 8 0	
KAJAANI	62.12 334.5	10 13 0	
SHASTA	62.91 58.6	10 19 0	
HUNGRY HORSE	63.13 47.8	10 20 0	
QUETTA	63.49 287.1	10 20 -2	
MINERAL	63.60 58.6	10 23A 0	
CHARTERS TS.	64.17 181.7	10 19 -8	
MOSCOW	64.26 323.9	10 26 -1	
ASHKABAD	64.44 298.8	10 28 -1	
UMEA	64.51 337.1	10 26 -3	
RENO	65.18 58.3	10 46K 13	
SCORESBY SD.	65.22 356.3	10 34K 0	
LICK	65.40 61.2	10 45A 10	
NURMIJARVI	65.71 333.0	10 35 -2	
HELSINKI	65.87 332.6	10 37 -1	
EUREKA	67.54 56.4	10 43 -5	11 1
UPPSALA	68.42 335.5	10 54 0	
CHINA LAKE	68.88 60.3	10 56 -1	
TIFLIS	70.09 309.1	11 5 1	
TEHERAN	70.17 300.8	11 5 1	
FLAMING GRGE	70.41 51.7	11 6 0	11 18
BOULDER CITY	70.49 58.6	11 17 11	
COPENHAGEN	73.44 335.5	11 24 0	
SHIRAZ	73.46 295.3	11 24 0	20 49 5
LWOW	74.20 326.0	11 30 2	
TUCSON	75.45 59.2	11 36 1	12 11
KRAKOW	75.61 328.3	11 39 3	11 54 PCP
RACIBORZ	76.23 329.3	11 40 0	11 56 PCP
COLLMBERG	77.01 332.8	11 45A 1	
PRUHONICE	77.61 331.3	11 49A 1	
JENA	77.79 333.4	11 49 1	12 54
MUNSTER	78.09 336.2	11 52 2	
KASPERSKE H.	78.67 331.4	11 54A 1	
BENSBERG	79.11 335.9	11 57 1	12 10 PCP
CANBERRA	79.33 179.1	11 53A -4	
HEIDELBERG	80.02 334.3	12 1 0	
STUTTGART	80.40 333.7	12 3 0	
LJUBLJANA	80.95 329.2	12 6 0	
STRASBOURG	81.04 334.5	12 7 1	
FAYETTEVILLE	82.14 46.3	12 12A 0	12 25
PARIS	82.37 337.7	12 15 2	
FOLINIERE	83.18 339.5	12 18 1	
BREBEUF	83.23 28.0	12 17 0	
GARCHY	83.60 336.7	12 21 2	
ISOLA	85.18 332.9	12 28 1	
TAMANRASSET	104.82 324.3		17 46 PP
BYRD STATION	133.79 166.0	19 4 -2	22 30 SRP

FEBRUARY 14 3.H 22.M 9.S EPICENTRE 43.86 147.99 DEPTH= 0.006R

A=-0.61337 B= 0.38337 C= 0.69051 D= 0.5300 E= 0.8100
G=-0.5855 H= 0.3660 K=-0.7233 HT= -3.1

DEPTH OF FOCUS= 0.006R

SE= 2.51

DELTA	AZ.	P	O-C	S	O-C	APP	SAMP.
DEG.	DEG.	M S	S	N S	S	M S	11 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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961												PAGE 176	
KURILSK	1.37	356.3	0 23	-1	0 42	-1							
Y.-SAKHLINSK	4.87	312.2	1 11	-2	2 10	1							
UGLEGORSK	6.63	324.0	1 35A	-2	2 53	1							
MI ZUSAWA	6.99	229.8	1 46	4	2 49	-12							
TUKUBASAN	9.74	221.0	2 23	3	4 37	29						3 51	
OKHA	10.25	342.8	2 26	-1									4 33
MATUSIRO	10.46	228.9	2 23	-7	4 11	-15							
PETROPVLOVK	11.56	33.9	2 37	-7	4 43	-10							
VLADIVOSTOK	11.72	271.9	2 59	12									
KLYUCHI	14.92	28.8	3 29	0									6 47
MAGADAN	15.80	5.3	3 41	1									6 45
CHANGCHUN	16.36	277.8	3 45	-2	6 49	4							
PEKING	23.90	271.8	5 7	-1	9 21	5							
ZO-SE	24.68	247.9	5 16	0	9 36	6							
NANKING	25.74	252.6	5 27	1	9 55	8							
ULAN-BATOR	28.64	292.7	5 50	-2	10 35	1							
TIKSI	29.36	347.8	5 53K	-6	10 57	11							6 40 PP
IRKUTSK	29.97	301.9	6 0	-4									7 4 PP
SIAN	31.57	265.7	6 17	-1									
HONG KONG	35.21	243.4	6 45	-5	12 22	5							
BAGUIO CITY	35.88	228.9	6 55	0	12 27	0							
CHENG TU	36.98	264.2	7 3	-2	12 44	0							
MANILA	37.06	226.6	7 5	0									
COLLEGE	40.63	36.2	7 35	0									
KUNMING	41.14	258.1	7 38	-1	13 49	2							
SEMIPALATNSK	45.10	303.3	8 9	-2	14 45	1							8 29
LHASA	46.91	272.2	8 27K	1									
SITKA	47.99	45.7	8 37	3									
RABAUL	47.99	174.4	8 28	-6									
SHILLONG	48.66	267.2	8 41A	2									
CHITTAGONG	50.66	263.9	8 51	-3	16 6	3	8 58						10 50 PP
CHATRA	51.31	271.8	8 58	-1	16 14	2							
FRUNSE	51.69	296.1	9 2	0	16 23	6							
HAWAII V.OB.	52.93	98.5	9 11	-1									
PORT MORESBY	53.01	181.0	9 11	-1	16 43	8							17 7
SVERDLOVSK	53.48	316.9	9 15	-1									
NORD	54.52	357.3	9 19A	-4									
RESOLUTE	54.69	16.9	9 23A	-1	16 53	-4							
DEHRA DUN	55.85	281.0	9 37	4	17 18	5							
TASHKENT	55.89	296.9	9 34	1	17 18	5							17 33 PS
DUZHANBE	57.67	294.3	9 48	2	17 43	6							
THULE	57.78	9.5	9 43	-3									10 25
WARSAK DAM	58.32	288.4	9 49A	-1									
APATITY	58.53	335.8	9 49	-3									
PENTICTON	59.84	49.1	10 0	-1									
SODANKYLA	60.59	337.7	10 3K	-3									
KIRUNA	61.87	340.1	10 12	-3									
KAJAANI	62.62	334.7	10 18A	-2									
SHASTA	63.11	58.5	10 23	0									
HUNGRY HORSE	63.42	47.6	10 25	0									39 22 PKPPKP
HYDERABAD	63.45	269.0											18 54
CHARTERS TS.	63.66	181.8	10 24	-2									
QUETTA	63.71	287.4	10 26A	-1	18 56	2							12 46 PP
MINERAL	63.81	58.4	10 27K	0									14 35 PPP
MOSCOW	64.72	324.1	10 33	0	19 8	1							13 59 PP
ASHKABAD	64.76	299.1	10 35	1	19 16	9							
PULKOVO	64.81	330.3			19 13	5							23 39 SS
BERKELEY	64.87	60.9	10 35	1									
UMEA	65.01	337.2	10 31	-4									
RENO	65.39	58.2	10 39A	1									
LICK	65.58	61.1	10 38K	-1									14 9
BUTTE	65.63	49.0	10 39	0									
SCORESBY SD.	65.74	356.3	10 40A	0									
VINEYARD	66.11	61.5	10 40K	-2									
NURMIJARVI	66.21	333.1	10 39A	-4	19 28	3							
HELSINKI	66.36	332.8	10 43	-1									
BOMBAY	66.57	274.1											19 36
KARACHI	66.94	282.8	10 47	0									
FRESNO	67.10	60.6	10 48	0									
SKALSTUGAN	67.30	340.2	10 48	-2									
EUREKA	67.77	56.3	10 53	0									13 10 PP
AFIAMALU	68.20	137.5	10 52	-3									
RUTH	68.52	55.9	10 58	1	20 0	8							
UPPSALA	68.92	335.7	10 58	-2									
SALT LAKE C.	69.37	53.0	11 14	12									
PASADENA	69.78	61.9	11 5A	0	20 14	7							
TIFLIS	70.48	309.3	11 10	1	20 22	7							11 27 PCP
TEHERAN	70.50	301.0	11 10	1	20 21	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961										PAGE 178
BAGNERES	88.79	337.0	12 48	0						14 41
COLUMBIA	90.56	38.8	12 57	1						
TORTOSA	90.76	335.9	12 54	-3						
ROXBURGH	90.95	165.2			23 55	8				29 51 SS
TACUBAYA	92.10	60.5	12 55	-8						13 16
TOLEDO	92.90	338.8	13 7	0						
PUEBLA	93.00	60.1								14 23
VERA CRUZ	94.16	58.5								13 53
GRANADA	95.32	337.6	13 27A	9	24 42	56				
TAMANRASSET	105.28	324.4								11 2 PP
BANGUI	113.90	302.5	19 21	50						19 45
CARACAS	117.27	39.3	18 59	21						31 5 PS
BOGOTA	118.69	49.6	18 36	-4						20 1 PP
BULAWAYO	124.74	274.9	18 54	2						
HUANCAYO	131.15	63.0	19 9	5						
BYRD STATION	133.27	166.2	19 10	2						22 32 SKP
SOUTH POLE	133.67	180.0	19 9	0						21 39 PP
LA PAZ	139.06	59.7	19 24	5						

FEBRUARY 15 10.H 45.M 19.S EPICENTRE 44.05 147.74 DEPTH= 57.KM

A=-0.60978 B= 0.38488 C= 0.69284 D= 0.5338 E= 0.8456
G=-0.5859 H= 0.3698 K=-0.7211 HT= -3.2

DEPTH OF FOCUS= 0.004R

SE= 3.98

	DELTA DEG.	AZ. DEG.	P			S			*PP		SUPP.	
			M	S	O-C	M	S	O-C	M	S	M	S
KURILSK	1.18	4.4	0 21A	0							0 49	
NEMURO	1.72	246.1	0 22	-6	0 43	-7						
ABASHIRI	2.50	270.5	0 39K	0	1 10	1						
KUSIRO	2.65	247.4	0 37	-4	1 7	-6						
OB IHIRO	3.49	252.7	0 51	-2	1 30	-4						
HIROO	3.69	242.9	0 50	-6	1 30	-9						
ASAHIGAWA	3.89	267.9	1 2	3	1 44	0						
URAKAWA	4.10	244.1	0 58	-4	1 48	-1						
RUMOE	4.42	270.8	1 8	2	2 4	7						
WAKKANAI	4.53	289.7	1 9	1								
Y. -SAKHLINSK	4.61	311.9	1 9K	0							2 13	
TOMAKOMAI	4.71	254.6	1 14	4								
SAPPORO	4.75	260.3	1 9	-2	2 1	-4						
MURORAN	5.24	253.1	1 14	-4	2 13	-4						
HAKODATE	5.59	248.8	1 17	-5	2 22	-4						
MORI	5.60	252.1	1 20	-3	2 23	-4						
SUTTSU	5.61	259.7	1 30	7	2 24	-3						
HATI NOHE	5.79	234.8	1 18	-7	2 16	-15						
ADMORI	6.08	240.3	1 26	-3	2 42	4						
MIYAKO	6.15	226.4	1 23	-7	2 23	-17						
UGLEGORSK	6.37	324.2	1 35	2							3 5	
MORIOKA	6.55	230.7	1 27	-9	2 31	-19						
MI ZUSAWA	6.98	227.5	1 34	-8	2 46	-15						
AKITA	7.15	235.4	1 40	-4	2 56	-9						
ISINOMAKI	7.41	222.9	1 37	-11	2 53	-18						
SENDAI	7.74	224.1	1 44	-8	3 1	-19						
YAMAGATA	8.04	226.4	1 46	-10	3 7	-20						
ONAHAMA	8.80	218.6	2 0	-7	3 28	-18						
SHIRAKAWA	8.98	222.1	2 2	-7	3 29	-21						
NIIGATA	8.98	230.0	1 58	-11	3 42	-8						
AIKAWA	9.36	233.2	2 5K	-10	4 40	41						
MI TO	9.46	218.4	2 7A	-9	3 45	-17						
UTUNOMIYA	9.60	221.4	2 8	-10	3 46	-19						
KAKIOKA	9.72	219.1	2 9	-10	3 51	-17						
TUKUBASAN	9.76	219.4	2 7A	-13	3 44	-25					2 20 *SP	
TYOSI	9.86	214.8	2 13	-8	3 52	-20						
TAKADA	10.01	229.3	2 18	-6	4 16	1						
OKHA	10.02	343.3	2 26	2							4 31	
MAEBASI	10.11	223.9	2 17	-8	3 24	-54						
KUMAGAYA	10.16	221.9	2 17	-8	4 8	-11						
HONGO	10.33	219.0	2 20	-8							4 24	
NAGANO	10.35	227.9	2 23	-5	4 34	10						
TOKYO C.M.O.	10.37	219.0	2 17	-11	4 5	-19						
OIWAKE	10.43	225.4	2 30	1	4 25	0						
TITIBU	10.44	222.4	2 24	-5	4 8	-18						
MATUSIRO	10.45	227.4	2 20K	-9	4 13	-13					4 34	
WAZIMA	10.58	234.7	2 25	-6	4 34	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 179					
YOKOHAMA	10.62	218.6	2 22	-10	4 13	-17	
MATUMOTO	10.79	227.1	2 29	-5	4 24	-12	
TOYAMA	10.88	231.2	2 30	-5	4 24	-12	
KOHU	10.94	223.2	2 33	-3	4 25	-13	
MERA	10.97	216.5	2 36	-1	4 22	-17	
HUNATU	10.97	222.0	3 37	60	4 24	-20	
MISIMA	11.20	220.2	2 33	-7	4 24	-20	
TAKAYAMA	11.25	229.0	2 34	-6			
PETROPAVLOVK	11.51	34.9	2 42	-2	4 52	0	3 4
VLADIVOSTOK	11.53	270.9	2 41	-3			
SHIZUOKA	11.58	221.6	2 40	-5	4 35	-18	
HUKUI	11.89	231.7	2 49	0			
OMAESAKI	11.96	221.2	2 46	-4	4 46	-17	
GIHU	12.07	228.0	2 46A	-5			
NAGOYA	12.14	226.7	2 45	-7	5 4	-3	
TSURUGA	12.27	230.8	2 48	-6	5 0	-10	
HIKONE	12.45	229.1	2 52	-4	5 23	9	
KAMEYAMA	12.65	227.2	3 4	5	3 44	-95	
TU	12.74	226.7	3 7	7			
KYOTO	12.92	229.8	2 54	-9	5 32	6	
TOYOOKA	13.07	233.8	2 58	-7	5 36	7	
ABUYAMA	13.12	229.8	2 57A	-8			
NARA	13.12	228.5	3 3	-2			
OWASE	13.39	225.8	3 16	7	6 1	24	
KOBE	13.47	230.3	3 18	8	6 22	43	
SAIGO	13.52	239.5	3 12	2	5 11	-29	
SUMOTO	13.88	230.0	3 16A	1	5 54	6	
SIOMISAKI	14.10	225.4	3 21	3	5 57	3	
TOKUSIMA	14.26	230.1	3 20	0			
TAKAMATU	14.37	232.1	3 14	-8	6 6	6	
TORISIMA	14.77	206.0					5 30
MUROTO	15.09	229.0	3 33	2	6 28	11	
HAMADA	15.14	238.2	3 35K	3	6 26	8	
KOTI	15.23	231.3	3 31	-2	6 14	-6	
HIROSIMA	15.28	236.0	3 36	3	6 24	3	16 5 SCS
MATUYAMA	15.45	233.8	3 39K	4	6 40	15	
UWAZIMA	16.02	232.7	3 36	-7	6 48	10	
SIMIDU	16.11	230.7	3 36	-8	6 47	6	
CHANGCHUN	16.16	277.0	3 41K	-3			
SIMONOSEKI	16.48	238.0	3 51A	2	6 47	-2	
OOITA	16.56	234.7	3 47A	-3	6 47	-4	
HUKUOKA	17.06	238.1	3 44	-12	6 45	-17	
SAGA	17.34	237.4	3 58	-1	7 28	20	
KUMAMOTO	17.40	235.6	4 2	2	7 43	33	
MIYAZAKI	17.63	232.1	4 6	3	7 24	9	
NAGASAKI	17.95	237.0	4 2	-5	7 31	9	
KAGOSIMA	18.38	233.1	4 10	-2	7 38	6	
TOMIE	18.71	238.8	4 25	9	8 2	23	
YAKUSIMA	19.25	230.9	4 19	-3	7 55	4	
YAKUTSK	20.88	335.8	4 37	-2	8 27	3	
PEKING	23.71	271.2	5 4A	-3	9 18	3	
ZO-SE	24.58	247.2	5 14A	-2	9 32	2	
NANKING	25.62	252.0	5 22A	-4	9 53	6	
ULAN-BATOR	28.40	292.4	5 50	-1			
TAIPEI	28.56	237.0	6 45K	53	11 0	25	
TIKSI	29.14	347.8	5 53	-5			6 48 PP
TAICHUNG	29.72	237.0			11 5	-6	
IRKUTSK	29.72	301.6	6 0A	-3			6 46 PP
TAINAN	30.86	236.1					13 3
SIAN	31.40	265.2	6 19	1			
HONG KONG	35.13	242.9	6 47	-3	12 17	-1	
BAGUIO CITY	35.87	228.4	6 53	-3	12 46	17	
CHENGDU	36.82	263.7	7 1	-3	12 41	-3	
MANILA	37.06	226.1	7 6	0	12 49	2	
COLLEGE	40.59	36.3	7 36	1	13 46	5	14 36 SCP
KUNMING	41.00	257.7	7 37A	-2	13 45	-2	
SEMIPALATNSK	44.84	303.0	8 9	-1	14 45	2	9 13
LHASA	46.72	271.9	8 24	-1	15 11	1	
KHEYS	46.84	347.0	8 24	-2			9 59 PCP
SITKA	47.99	45.8	8 38	3			
SHILLONG	48.49	266.8	8 34A	-5	15 34	0	10 30 PP
KIPAPA	49.89	98.7	8 51	1			
HONOLULU	49.91	98.9	9 13	23	16 15	21	
CHITTAGONG	50.50	263.6	8 54	0	16 3	1	10 57 PP
CHATRA	51.12	271.4	8 57A	-2	16 12	1	
FRUNSE	51.44	295.8	9 1A	0	16 14	-1	
CALCUTTA	52.87	266.3	9 14	2	16 43	8	
PORT MORESBY	53.20	180.7	9 11	-3	16 37	-2	10 12 PCP

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961										PAGE 180	
SVERDLOVSK	53.22	316.7	9 12	-3	16 41	1					
BOKARO	53.92	269.4	9 19A	-1	16 50	1					
NORD	54.33	357.2	9 18	-5	16 58	3					
HONIARA	54.37	165.1	9 20	-3							
RESOLUTE	54.56	16.8	9 23A	-1	17 1	3					
DEHRA DUN	55.64	280.8	9 34	2	17 15	3			12 45	PPP	
TASHKENT	55.64	296.6	9 31	-1					11 43	PP	
PORT BLAIR	57.03	253.1	9 45	3	17 50	19					
DUZHANBE	57.43	294.1	9 43	-2	17 38	2					
LAHORE	57.55	284.2	9 45A	-1	17 43	6	9 56		17 57	PS	
THULE	57.63	9.5	8 43	-63			8 51				
WARSAK DAM	58.09	288.1	9 48A	-2							
VICTORIA	58.18	51.5	9 50	0							
APATITY	58.29	335.7	9 49A	-2	17 45	-2			22 6	SS	
MEDAN	59.03	241.6	9 56	0							
SODANKYLA	60.35	337.6	10 3K	-2					10 49	PCP	
KIRUNA	61.63	339.9	10 12	-2							
LEMBANG	62.24	226.3	10 16A	-2	18 22	-16			11 9		
KAJAANI	62.37	334.6	10 17	-2							
SHASTA	63.17	58.4	10 24	0							
HYDERABAD	63.28	268.8	10 22A	-3	18 49	-2			12 45	PP	
HUNGRY HORSE	63.43	47.6	10 25	-1					39 14	PKPPKP	
QUETTA	63.48	287.2	10 24A	-2	18 47	-6	10 35		12 44	PP	
MINERAL	63.87	58.3	10 29K	0							
MOSCOW	64.46	323.9	10 31	-2	19 8	3					
ASHKABAD	64.51	298.9	10 33	0					13 2	PP	
PULKOVO	64.56	330.2	10 34	1	19 11	4			14 41	PPP	
UMEA	64.77	337.1	10 32	-3							
BERKELEY	64.94	60.9	10 35	-1	19 19	8			23 47	SS	
MADRAS	64.97	263.9	10 34	-2	19 11	-1			13 0	PP	
CONCORD	65.00	60.7	10 36	0							
BRANNER	65.27	61.2	10 38K	0							
RENO	65.45	58.1	10 40K	1							
SCORESBY SD.	65.54	356.2	10 39	-1	19 28	9			11 0	PCP	
BUTTE	65.65	48.9	10 40	0							
LICK	65.65	61.0	10 39A	-1							
POONA	65.88	272.8	10 41	-1							
VINEYARD	66.18	61.4	10 43	-1							
BOMBAY	66.38	273.8	10 45	0	19 28	-1			19 54	PS	
BOZEMAN	66.69	48.5	10 49	2							
KARACHI	66.72	282.5	10 45	-2	19 41	8					
SKALSTUGAN	67.06	340.1	10 48	-1							
FRESNO	67.16	60.5	10 49	-1							
EUREKA	67.81	56.2	10 54	0					11 27	PCP	
SUVA	67.97	148.4			19 41	-7					
NOUMEA	68.21	161.3	10 54	-2							
RUTH	68.57	55.9	10 58A	-1							
UPPSALA	68.68	335.5	10 58A	-1	19 58	2					
KODAIKANAL	68.79	263.7			20 4	6					
COLOMBO	69.37	259.3	11 2	-1	20 5	0					
SALT LAKE C.	69.41	52.9	11 5	1							
PASADENA	69.85	61.8	11 6	0	20 16	6			20 41	PS	
TIFLIS	70.22	309.2	11 9	0	20 21	6			21 5	SCS	
TEHERAN	70.24	300.8	11 9	0	20 22	7					
FLAMING GRGE	70.70	51.5	11 12	0	20 50	30			13 39	PP	
BOULDER CITY	70.75	58.4	11 11	-1							
GORIS	70.82	306.6	11 15	3	20 31	9			13 56	PP	
BRISBANE	71.24	175.3	11 12	-3	20 23	-3					
BERGEN	71.48	341.4	11 15	-1							
GLEN CANYON	72.06	55.8	11 20	0					14 4	PP	
LARAMIE	72.56	49.2	11 22	-1	20 37	-5					
SHIRAZ	73.51	295.3	11 27K	-1	20 53	1			11 44	PCP	
SIMFEROPOL	73.58	317.3	11 28A	-1	20 58	5			21 18	SCS	
WARSAW	73.67	329.1	11 32	3	20 1	-53					
COPENHAGEN	73.70	335.5	11 29	0	20 56	2			28 41	SSS	
LWOW	74.42	326.0	11 35K	2	21 7	5			11 57	PCP	
IASI	74.95	322.4	11 40	3	21 16	8	12 32				
TUCSON	75.71	59.0	11 42	1	21 15	-2			14 45	PP	
TUCSON TELE.	75.72	58.9	11 42	1							
BACAU	75.73	322.3	11 47	6	21 23	6					
KRAKOW	75.84	328.3	11 38K	-4					12 35		
ABERDEEN	76.03	343.6			21 27	7			26 20	SS	
SKALNATE PL.	76.42	327.6	11 47A	2	21 26	2			14 50	PP	
RACIBORZ	76.46	329.3	11 46	1					12 3	PCP	
COLLMBERG	77.25	332.8	11 49A	-1	21 39	6			14 44	PP	
RIVERVIEW	77.57	177.1	11 51A	0	21 40	3	12 2		26 47	SS	
BUCHAREST	77.75	321.4	11 54A	2	22 24	45			22 6	SKS	
PRAGUE	77.81	331.3	11 55	2	21 55	15					
PRUHONICE	77.85	331.2	11 53A	0	21 43	3			14 59	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 181									
WITTEVEEN	77.87	337.0	11 56	3							
JENA	78.03	333.4	11 53	-1	21 45	3			22 11	PS	
DURHAM	78.15	342.4	11 57A	2	22 1	18	12 21		14 54	PP	
HURBANOVO	78.28	328.0	11 55	0							
BUDAPEST	78.28	327.3	11 59	4	21 50	6					
MUNSTER	78.35	336.1	11 55	-1							
BRATISLAVA	78.44	328.8	11 58K	2					15 0	PP	
CHEB	78.50	332.5	11 56	0							
VIENNA-H.	78.65	329.2	11 57	0	21 57	9					
TIMISOARA	78.80	325.0	12 3	5	21 57	7					
KASPERSKE H.	78.91	331.3	11 58A	-1					15 5	PP	
DE BILT	78.92	337.5	12 0	1	22 0	9			27 11	SS	
ISTANBUL KA.	78.94	317.5	11 56	-3	22 0	9	12 9		22 34		
ISTANBUL UN.	79.00	317.5	11 56	-3	22 0	8					
CANBERRA	79.00	179.0	11 58	-1	21 57	5			12 9	PCP	
ADELAIDE	79.07	187.5	11 57	-3			12 15				
BENSBERG	79.37	335.9	12 1A	0	22 1	5	12 12		14 56	PP	
LAWRENCE	79.71	44.9	12 1	-2							
LUBBOCK	80.13	52.6	12 6	1							
HEIDELBERG	80.28	334.2	12 6	0							
SOFIA	80.34	321.9	12 7	1	22 14	8					
STUTTGART	80.65	333.6	12 7	-1	22 12	3			28 8	SS	
KARLSRUHE	80.72	334.2	12 13	5	22 31	21					
KSARA	80.78	308.5	12 9A	0	22 20	9			15 13	PP	
KEW	80.92	340.4	12 10A	1	22 16	4			27 26	SS	
TUBINGEN	80.93	333.6	12 9	-1							
MUNDARING	80.95	206.7	12 8	-2							
PERTH	81.05	207.1	12 11	1	22 22	8					
WICHITA MTS.	81.12	49.8	12 10	-1	22 18	4			15 28	PP	
LJUBLJANA	81.18	329.1	12 11	0			12 33		12 45	*SP	
EBINGEN	81.27	333.5	12 11	0							
STRASBOURG	81.30	334.4	12 12	1	22 18	2	12 32		15 26	PP	
RAVENSBURG	81.41	332.9	12 13	1							
TRIESTE	81.81	329.3	12 14	0	22 26	5					
BASLE	82.28	334.0	12 10	-7					21 39		
FAYETTEVILLE	82.44	46.1	12 17A	0	22 50	22	12 38		13 6		
PARIS	82.64	337.7	12 21	3	22 33	3			28 11	SS	
JERUSALEM	82.65	307.5	12 18	0							
PADOVA	82.69	330.4	12 24	5	22 34	4			16 44		
SHAWINIGAN	82.93	26.9	12 21	1							
OTTAWA	82.94	29.2	12 19	-1							
NEUCHATEL	82.95	334.2	12 21	1							
FOLINIERE	83.45	339.5	12 22	-1							
BREBEUF	83.58	27.9	12 23	0							
PAVIA	83.83	331.9							21 43		
GARCHY	83.86	336.7	12 26	1	22 47	5			28 53	SS	
ATHENS	83.94	318.8	12 17K	-8							
CLEVELAND	84.05	34.9	12 28K	2	22 49	5					
PRATO	84.29	330.1	12 33	6	23 9	23					
FLORENCE X.	84.33	329.9	12 27	0	22 56	9					
CLERMONT-FD.	85.22	336.0	12 33	2							
KARAPIRO	85.39	158.3	12 33	1							
ISOLA	85.43	332.8	12 31	-1	23 2	5					
ROME	85.49	328.2	12 32A	-1	23 0	2			16 24	PP	
MONACO	85.70	332.3	12 33	-1							
PENNSYLVANIA	86.10	32.9	12 37	1	23 10	6	12 55		23 35	*SS	
MOORLANDS	86.10	180.4	12 36K	0			12 46				
MORGANTOWN	86.26	34.9	12 37K	1	23 12	7					
HELWAN	86.29	308.8	12 38	1	23 16	10					
WESTON	87.11	27.9	12 41A	0	23 24	10			29 56	SS	
HALIFAX	87.41	21.8	12 42	0							
PALISADES	87.41	30.2	12 43	1	23 21	5	12 53		16 19	PP	
MESSINA	87.41	324.2	12 41	-1	23 14	-2	12 53		24 19	PS	
FORDHAM	87.56	30.3	12 43	0	23 22	4					
WASHINGTON	88.04	33.4	12 46	1					16 0	PP	
GEORGETOWN	88.04	33.4	12 46	1					16 9		
BAGNERES	88.55	336.9	13 47	60							
KAIMATA	88.76	162.7	12 42	-6							
GEBBIES PASS	90.15	162.2	13 8	13							
TORTOSA	90.52	335.8	13 9	12	23 56	11					
COLUMBIA	90.53	38.7	12 58	1					16 41	PP	
ROXBURGH	91.18	165.0			23 29	-22			24 4	S	
TACUBAYA	92.17	60.4	13 21	17	23 26	-34			16 34		
TOLEDO	92.67	338.6	13 8	1	23 59	-5	13 19		25 38	PS	
ALICANTE	93.09	335.5	13 12	3	24 15	7					
ALGIERS UNI.	93.41	332.3	13 10	0			13 20				
COIMBRA	93.43	341.9	13 11	1					13 20	PCP	
ALMERIA	95.06	336.4	13 16	-2							

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 182

GRANADA	95.08	337.4								14	41	
BENI ABBES	101.23	333.7								13	47	
TAMANRASSET	105.03	324.2	14	3	777	24	51	15	14	24	18	23 PP
BROKEN HILL	120.89	280.0	18	48K	2							
SCOTT BASE	122.19	175.3	18	56	8							
BULAWAYO	124.54	274.9	19	3	10							
PRETORIA	128.33	269.8	19	3	3							
PIETERMZBURG	128.98	264.3	19	4	3							
HUANCAYO	131.23	62.6	19	9	3				19	26		
KIMBERLEY	132.53	268.9	19	8	0							
BYRD STATION	133.49	166.1	18	57	-13				19	22		
SOUTH POLE	133.86	180.0	18	59	-12				19	23	21	45 PP
LA PAZ	139.12	59.2	19	21	1						22	22 PP
HERMANUS	139.55	265.7									22	17 PP
SANTA LUCIA	148.50	83.6	19	39	2						42	21 SS
PORT STANLEY	161.26	123.1	20	40	47							

FEBRUARY 15 11.H 28.M 53.S EPICENTRE 30.83 84.35 DEPTH= 41.KM

A= 0.08465 B= 0.85604 C= 0.50993 D= 0.9951 E=-0.0984
G= 0.0502 H= 0.5075 K=-0.8602 HT= 1.5

DEPTH OF FOCUS= 0.001R

SE= 2.51

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
CHATRA	4.69	147.5	1	12	1						1	31
DEHRA DUN	5.46	266.3	1	28	7	3	13	49			3	24 SS
LHASA	5.91	99.9	1	30	2							
SHILLONG	8.45	126.5	2	0	-3	3	25	-13			2	8 PP
LAHORE	8.62	277.4	2	6	0	3	44	2				
CALCUTTA	9.01	155.6	1	57	-14	4	0	8			4	25
TOCKLAI	10.00	111.4				4	0	-17				
SEHORE	10.01	222.1	2	39	14	4	13	-4			4	30 SS
CHITTAGONG	10.76	139.9	2	33	-2	4	31	-4			2	47 PP
WARSAK DAM	11.27	289.6	2	41	-1							
VIZIANAGRAM	12.63	183.9	2	48	-13						5	49
FRUNSE	14.28	329.7	3	20	-2							
HYDERABAD	14.38	203.3	3	27	4						7	18
NAMANGAN	14.41	318.1	3	24	0							
QUETTA	15.02	272.0	3	29	-2	6	8	-9			3	43 PP
BOMBAY	15.81	224.0	3	39	-3	6	31	-5			8	2
KARACHI	16.43	252.9	3	45	-5							
CHENG TU	16.90	85.5	3	57K	2	7	6	5				
KUNMING	17.20	104.8	4	1A	2	7	16	8				
MADRAS	18.16	193.2				7	24	-5			7	44 SS
SEMIPALATNSK	19.79	352.2	4	28	-2							
PEKING	27.38	61.7	5	45	1							
SHIRAZ	27.48	275.8	5	46	1	10	21	0			8	27
TIFLIS	33.42	300.1	6	42	5							
MOSCOW	41.05	321.2	7	43	1							
KAJAANI	48.25	330.5	8	38	-1							
NURMIJARVI	48.86	325.4	8	44	0							
SODANKYLA	49.61	334.6	8	49K	-1							
UMEA	51.42	329.3	9	3	0							
KIRUNA	52.03	334.4	9	8	0							
UPPSALA	52.28	324.1	9	10	0							
PRUHONICE	54.47	311.9	9	27	1				9	47		
SKALSTUGAN	54.93	328.7	9	29	0							
COPENHAGEN	55.14	319.0	9	32	1							
COLLMBERG	55.28	313.6	9	34	2						10	16
JENA	56.22	313.3	9	28	-11							
STUTT GART	58.06	311.1	9	52	0							
ISOLA	60.65	306.4	10	9	-1							
NORD	61.30	350.5	10	12	-2							
GARCHY	62.47	310.6	10	21	-1							
KEW	63.40	315.9	10	27	-1							
FOLINIERE	64.30	313.0	10	33	-1							
SCORESBY SD.	66.48	339.4	10	49K	1							
TAMANRASSET	69.51	284.8	11	7	0						13	45 PP
BROKEN HILL	70.06	238.6	11	12A	2							
THULE	71.64	353.4	11	19	-1							
BENI ABBES	72.56	295.0	11	25	0						11	44 PCP
BULAWAYO	73.71	234.0	11	33A	1							
RESOLUTE	74.76	359.8	11	37	-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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 183

COLLEGE	76.36	20.3	11 46	-1
CHARTERS TS.	78.08	122.1	11 57	0
PIETERMZBURG	79.05	225.8	11 34	-28
ADELAIDE	83.07	137.7	12 24A	1
CANBERRA	89.56	132.4	12 57A	2
HUNGRY HORSE	99.48	12.3	13 12	-28
EUREKA	107.54	16.4	13 40	777
WICHITA MTS.	114.74	2.7		
SOUTH POLE	120.66	180.0	18 48	0
BYRD STATION	129.74	174.7	19 6	0
PORT STANLEY	145.31	222.1	19 34	0
LA PAZ	151.14	293.3	19 57	14

19 35 PP

FEBRUARY 16 3.H 44.M 52.S EPICENTRE 40.40 19.90 DEPTH= 88.KM

A= 0.71807 B= 0.25987 C= 0.64563 D= 0.3403 E=-0.9403
G= 0.6071 H= 0.2197 K=-0.7636 HT= -1.8

DEPTH OF FOCUS= 0.009R

SE= 5.01

	DELTA DEG.	AZ. DEG.	P		O-C S	S O-C			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
SOFIA	3.45	47.2	0	49	-4	1	45	12				
ATHENS	3.84	128.1	1	14K	16	2	7	25				
REGGIO CALA.	4.02	236.4	0	48	-12	1	34	-13	1	17		
MESSINA	4.03	238.3	0	52A	-9	1	36	-11			2	4
BELGRADE	4.43	5.1	1	1A	-5						1	21 PG
TIMISOARA	5.43	9.8	1	40	20						3	11
ROME	5.79	287.4	1	19	-6	2	21	-10	1	47	2	49
BUCHAREST	6.10	46.8	1	31	2	3	0	22				
ZAGREB	6.12	333.4	2	2	33						3	4
LJUBLJANA	6.87	327.0	1	32	-8	2	34	-23			3	22 SG
TRIESTE	6.91	321.4	1	32	-8	2	32	-26			3	11 SG
ISTANBUL UN.	6.94	81.8	1	36	-5						5	24
ISTANBUL KA.	7.00	81.6	1	36	-6						5	24
FLORENCE X.	7.26	300.5	1	39	-6	3	1	-6				
PRATO	7.40	300.9	2	0	13	3	21	11				
PADOVA	7.73	313.0									2	41
BRATISLAVA	8.02	346.5	1	51	-4	3	18	-7				
VIENNA-H.	8.24	343.3	1	53	-5							
SKALNATE PL.	8.78	1.5	1	28	-38							
NIEDZIKA	9.02	1.8	2	6	-3						2	36
PAVIA	9.21	304.7									5	38
KRAKOW	9.65	0.1	2	43	26						4	30
RACIBORZ	9.80	352.5	2	15	-5						4	29
KASPERSKE H.	9.81	334.9	2	13	-7							
MONACO	9.85	293.8	2	13	-7							
LWOW	9.86	15.8	2	19	-1						5	8
CHUR	9.89	314.1									4	6
ISOLA	10.24	295.8	2	21	-4						4	15
PRUHONICE	10.29	340.3	2	21	-5						3	13 PG
PRAGUE	10.40	340.1									4	41
RAVENSBURG	10.43	318.4	2	36	8						4	33
CHEB	11.02	333.9	2	26	-10	4	33	-5				
EBINGEN	11.03	318.4	2	28	-8						4	47
TUBINGEN	11.21	320.0	2	32	-6							
STUTTGART	11.27	321.4	2	32	-7	4	34	-10			3	42
BASLE	11.37	312.9	2	18	-23						5	19
SIMFEROPOL	11.41	61.9	2	19	-22						5	20
NEUCHATEL	11.45	309.4									4	33
STRASBOURG	11.90	317.4	2	42	-6						5	34
COLLMBERG	11.90	338.6	2	44	-4						2	57 PP
HEIDELBERG	11.97	322.4	3	3	14						4	50
JENA	12.02	333.9	2	45	-4	4	58	-4			6	11 SG
SETIF	12.13	254.4	2	57	6							
CLERMONT-FD.	13.38	299.2									6	1
BENSBERG	13.78	324.2	3	10	-2	5	34	-10			6	23
GARCHY	13.94	305.1	3	18	4	5	36	-11				
HELWAN	14.06	134.8	3	19	3						5	54
MUNSTER	14.33	327.9									7	40
PARIS	14.95	310.0	3	30	2							
BAGNERES	14.98	286.7	3	32	4							
TOLEDO	18.31	276.1	4	5	-4							
TIFLIS	18.81	77.8	4	12	-3	7	54	16				

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 184

MOSCOW	19.29	31.4	4 18	-2	8 14	26
UPPSALA	19.52	356.6	4 19	-4		
NURMI JARVI	20.35	6.8	4 27K	-4		
PULKOVO	20.46	15.2	4 28	-4	8 28	17
TAMANRASSET	21.36	219.0	4 34	-7		
UMEA	23.45	0.4	4 55	-7		
SKALSTUGAN	23.65	351.5	5 2	-2		
KAJAANI	24.15	8.4	5 8	-1		
SODANKYLA	27.28	5.7	5 39	1		
SHIRAZ	28.64	101.7	6 4	14		
SCORESBY SD.	36.94	338.1	7 2	0		
NORD	43.21	352.6	7 50	-4		
RESOLUTE	57.50	343.4	9 40	-2		
COLLEGE	74.62	354.6	11 30	-1		
HUNGRY HORSE	82.67	331.0	12 15	0		
WICHITA MTS.	86.21	313.5	12 33	0		
EUREKA	90.88	327.4	12 56	1		

8 51 PP

FEBRUARY 16 8.H 55.M 10.S EPICENTRE 33.93 137.51 DEPTH= 335.KM

A=-0.61310 B= 0.56163 C= 0.55558 D= 0.6755 E= 0.7374
G=-0.4097 H= 0.3753 K=-0.8315 HT= 0.5

DEPTH OF FOCUS= 0.048R

SE= 1.48

	DELTA DEG.	AZ. DEG.	P		O-C S	S		O-C S	*PP		SUPP.	
			M	S		M	S		M	S	M	S
OMAESAKI	0.89	41.2	0	45	1	1	19	1				
OWASE	1.10	277.7	0	44A	0	1	19	-1				
TU	1.12	313.5	0	45	0							
KAMEYAMA	1.26	317.2	0	46A	1	1	20	-1				
SHIZUOKA	1.27	35.1	0	45	-1	1	24	2				
NAGOYA	1.31	340.4	0	46A	0	1	23	1				
SIOMISAKI	1.53	252.2	0	46	-1	1	22	-2				
NARA	1.58	298.8	0	47A	0	1	25	0				
GIHU	1.59	337.7	0	48A	1	1	25	0				
MISIMA	1.68	44.7	0	47K	-1	1	25	-1				
HIKONE	1.69	322.5	0	49	1	1	27	1				
OSIMA	1.76	61.0	0	48	0	1	27	0				
OSAKA	1.79	294.2	0	48A	-1	1	24	-3				
KYOTO	1.83	307.0	0	49	0	1	28	1				
ABUYAMA	1.86	300.9	0	48A	-1							
HUNATU	1.88	33.2	0	53	4	1	31	3				
KOHU	1.94	26.2	0	51	2	1	30	1				
WAKAYAMA	1.96	279.4	0	49	-1							
TSURUGA	2.08	325.8	0	51	0	1	31	1				
MERA	2.16	62.1	0	50	-1	1	29	-3				
SUMOTO	2.19	281.5	0	51A	0	1	31	-1				
TAKAYAMA	2.23	354.6	0	52	0							
YOKOHAMA	2.31	49.1	0	51	-1	1	31	-3				
MAIZURU	2.33	312.0	0	53	0							
MATUMOTO	2.35	9.2	0	54	1	1	35	1				
HUKUI	2.36	334.0	0	53A	0	1	36	1				
TITIBU	2.42	31.8	0	54	1	1	34	-1				
TOKUSIMA	2.44	274.1	0	54	1	1	34	-2				
TOKYO C.M.O.	2.54	45.9	0	54	0	1	35	-2				
OIWAKE	2.54	19.3	0	56	2							
HIMEJI	2.64	283.3	0	51	-4							
MATUSIRO	2.67	12.2	0	55K	0	1	38	-1				
KUMAGAYA	2.70	34.2	0	55	-1	1	37	-3				
TOYAMA	2.78	354.9	0	56	0	1	43	2				
MAEBASI	2.78	27.0	0	56	0	1	47	6				
NAGANO	2.79	11.5	0	57	1	1	41	0				
MUROTO	2.86	257.2	0	56	-1	1	42	0				
TAKAMATU	2.90	278.7	0	58	1	1	44	1				
TUKUBASAN	3.12	42.2	0	57	-2							
TOTTORI	3.16	300.8	1	0	0							
KAKIOKA	3.17	42.9	0	59	-1	1	43	-4				
UTUNOMIYA	3.25	35.8	1	0K	-1	1	45	-4				
TYOSI	3.28	56.0	1	0A	-1	1	47	-2				
KOTI	3.34	264.6	1	1A	-1	1	50	0				
MITO	3.44	43.9	1	1K	-2	1	48	-4				
YONAGO	3.74	294.8	1	5A	-1	1	58	1				
SHIRAKAWA	3.88	34.0	1	7	0	1	57	-3				
ONAHAMA	4.09	41.6	1	7	-2	2	0	-4				

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 185

AIKAWA	4.13	8.2	2	1	51					
NIIGATA	4.17	17.0	2	6	56	3	4	59		
HUKUSIMA	4.51	31.4	1	12A	-2	2	9	-3		
HAMADA	4.60	283.7				2	17	3		
YAMAGATA	4.89	27.3	1	17	-1					
OOI TA	4.96	263.5	1	19	0	2	19	-2		
SENDAI	5.13	31.4	1	19	-2	2	20	-4		
ISINOMAKI	5.45	33.4	1	22K	-2	2	26	-5		
MIYAZAKI	5.50	250.3	1	24	-1	2	33	1		
KUMAMOTO	5.80	260.9							1	59
HUKUOKA	5.95	268.6				2	44	3		
MIZUSAWA	5.95	28.3				2	39	-2		
MORIOKA	6.46	26.0	1	35	-1	2	49	-3		
MIYAKO	6.74	30.8				2	53	-5		
HATINOHE	7.33	24.8	1	45	-1	3	5	-5		
URAKAWA	9.20	25.3							2	47
HIROO	9.51	27.1							3	51
KUSIRO	10.52	28.8							3	52
NEMURO	11.30	31.5							4	32
CHANGCHUN	13.70	319.8	3	3	0	5	35	7		
ZO-SE	14.07	262.9	3	5	-2					
PEKING	18.09	295.8	3	47	-2	6	56	1		
GUAM	21.41	160.4	4	21	-1					
HONG KONG	23.56	246.6	4	2	-40				4	23
KUNMING	31.38	263.1							5	50
COLLEGE	53.40	30.9	8	48	1				9	50
QUETTA	58.83	287.4	9	25	-1				10	35
RESOLUTE	66.38	13.3	10	14	-1					
KAJAANI	67.96	333.5	10	24	0					
SHIRAZ	70.33	292.9	10	41	2				11	23
NURMI JARVI	71.15	331.2	10	40	-4					11 29 *SP
HUNGRY HORSE	76.22	40.7	11	14	1					13 2
KARAPIRO	79.76	150.3	11	32	0					
EUREKA	80.28	48.8	11	36	1					13 8
PASADENA	81.96	54.2	11	50	6					
COLLMBERG	82.14	328.5	11	45	1					
PRUHONICE	82.40	326.9	11	46	0					
BOULDER CITY	83.09	51.1	11	50	1					
HEIDELBERG	85.39	329.3							20	7
WICHITA MTS.	93.84	43.3	12	40	0					
SOUTH POLE	123.75	180.0	18	17	-1					
BYRD STATION	125.42	168.0	18	21	0					

FEBRUARY 16 13.H 54.M 55.S EPICENTRE 44.03 147.74 DEPTH= 56.KM

A=-0.60995 B= 0.38500 C= 0.69263 D= 0.5338 E= 0.8456
G=-0.5857 H= 0.3697 K=-0.7213 HT= -3.2

DEPTH OF FOCUS= 0.004R

SE= 3.46

	DELTA DEG.	AZ. DEG.	P			S			O-C		*PP		SUPP.	
			M	S	O-C	M	S	O-C	M	S	M	S		
KURILSK	1.20	4.4	0	23K	1	0	40	2						
NEMURO	1.72	246.6	0	23K	-6	0	46	-4						
ABASHIRI	2.50	270.9	0	39	-1	1	9	0						
KUSIRO	2.65	247.8	0	37	-5	1	7	-6						
OBHIRO	3.49	253.0	0	50	-4	1	29	-5						
HIROO	3.68	243.1	0	52	-4	1	32	-7						
URAKAWA	4.09	244.3	0	59	-3									
RUMOE	4.42	271.1	1	7	0	2	7	10						
WAKKANAI	4.54	289.9	1	14	6									
Y.-SAKHLINSK	4.62	312.0	1	10K	1	2	10	7						
TOMAKOMAI	4.71	254.8	1	16	5									
SAPPORO	4.74	260.5	1	8A	-3									
MURORAN	5.23	253.2	1	15	-3									
HAKODATE	5.59	249.0	1	18	-5									
MORI	5.60	252.3	1	23	0	2	27	0						
SUTTSU	5.61	259.9	1	35	12	2	34	7						
HATINOHE	5.78	234.9	1	19	-7	2	17	-15						
AOMORI	6.07	240.5	1	25	-5	2	36	-3						
MIYAKO	6.14	226.5	1	31	0									
UGLEGORSK	6.38	324.3	1	38A	4	2	54	8						
MORIOKA	6.54	230.8	1	29	-7	2	34	-16						
MIZUSAWA	6.97	227.6	1	34	-8	2	45	-16						

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961										PAGE 186	
ISINOMAKI	7.40	223.0	1 38	-10	2 53	-18					
SENDAI	7.73	224.2	1 55	2	3 1	-19					
YAMAGATA	8.03	226.5	1 48	-9	3 9	-18					
HUKUSIMA	8.35	223.7	1 56	-5	3 14	-21					
ONAHAMA	8.78	218.5								2 29	
SHIRAKAWA	8.96	222.2	2 1	-9	3 27	-23					
NIIGATA	8.97	230.1	2 35	25	4 22	32					
AIKAWA	9.35	233.3	2 8	-7							
MITO	9.45	218.5	2 6	-10	3 45	-17					
UTUNOMIYA	9.59	221.5	2 15	-3						2 47	
KAKI OKA	9.70	219.1	2 9	-11	3 47	-21					
TUKUBASAN	9.75	219.4	2 9A	-11	3 48	-21				2 36	
OKHA	10.04	343.3	2 28	4	4 36	19					
MAEBASI	10.10	223.9	2 19	-6	4 1	-17					
KUMAGAYA	10.14	221.9	2 19	-7	4 2	-17					
NAGANO	10.34	227.9	2 32	3							
TOKYO C.M.O.	10.35	219.0	2 23	-6	4 4	-20					
OI WAKE	10.42	225.5	2 39	9							
TITIBU	10.42	222.5	2 28	-2	4 8	-18					
MATUSIRO	10.43	227.4	2 20A	-10	4 17	-9					
WAZIMA	10.57	234.8	2 24	-8							
YOKOHAMA	10.61	218.6	2 38	6	4 12	-18					
MATUMOTO	10.78	227.2	2 35	1							
TOYAMA	10.87	231.2	2 34	-2							
KOHU	10.93	223.3	2 39	3	4 21	-17					
NERA	10.96	216.5			4 22	-17					
HUNATU	10.96	222.0	2 37	0	4 22	-17					
MISIMA	11.18	220.2	2 40	0	4 23	-21					
OSIMA	11.28	217.7			4 26	-20					
IIDA	11.41	225.2	1 50	-53							
PETROPAVLOVK	11.53	34.9	2 40	-5	4 58	5					
VLADIVOSTOK	11.53	271.0	2 43	-2						4 23	
SHIZUOKA	11.57	221.7			4 56	2				4 38	
OMASAKI	11.95	221.2	3 54	64							
GIHU	12.06	228.1	2 54	2							
NAGOYA	12.13	226.8	2 53	0	5 11	4					
HIKONE	12.44	229.2	3 1	4							
KYOTO	12.91	229.9	3 6	3							
ABUYAMA	13.11	229.9	3 6K	0							
KOBE	13.46	230.3								7 53	
TOKUSIMA	14.25	230.2	3 25	5							
KLYUCHI	14.87	29.6	3 25	-4							
HAMADA	15.13	238.3	3 36	4	6 35	17					
KOTI	15.22	231.3	3 40	7	6 32	12					
MAGADAN	15.65	5.8	3 40	1	6 44	14					
SIMIDU	16.10	230.7	3 44	0	6 51	10					
CHANGCHUN	16.16	277.1	3 42	-3	6 41	-1					
OOTA	16.55	234.8	3 50A	0	7 3	12					
HUKUOKA	17.05	238.1	3 56	0	7 15	12					
KUMAMOTO	17.39	235.7	4 3	3							
MIYAZAKI	17.62	232.1	4 2	-1	7 21	6					
KAGOSIMA	18.37	233.2	3 39	-33						4 21	
YAKUTSK	20.89	335.8	4 37	-3	8 25	0					
PEKING	23.71	271.3	5 5	-3	9 17	1					
ZO-SE	24.57	247.3	5 14	-2	9 32	2					
ULAN-BATOR	28.41	292.4	5 50	-2							
IRKUTSK	29.73	301.6	6 3	0						7 4 PP	
LANCHOW	34.22	271.9	6 41	-2							
CANTON	35.10	244.8	6 48	-2	12 19	1					
HONG KONG	35.13	242.9	6 48	-2	12 22	4					
CHENG TU	36.82	263.7	7 2	-3	12 42	-2					
MANILA	37.04	226.1	7 6	-1						10 52	
COLLEGE	40.61	36.3	7 38	2	13 50	9				8 49 PP	
KUNMING	41.00	257.7	7 38A	-1	13 48	1				9 20 PP	
SEMIPALATNSK	44.85	303.0	8 9	-2							
LHASA	46.72	271.9	8 25	0	15 13	3				10 18 PP	
SHILLONG	48.48	266.8	8 37A	-2	15 37	2				10 31 PP	
CHITTAGONG	50.50	263.6	8 54	-1						10 54 PP	
CHATRA	51.12	271.4	8 57	-2							
FRUNSE	51.45	295.8	9 2A	0	16 21	5					
PORT MORESBY	53.18	180.7			16 39	-1					
SVERDLOVSK	53.23	316.7	9 15	0							
RESOLUTE	54.58	16.8	9 24A	-1							
DEHRA DUN	55.64	280.8	9 38	5	17 18	5					
TASHKENT	55.65	296.6	9 32	-1	17 18	5				10 32 PCP	
DUZHANBE	57.44	294.1	9 44	-2	17 40	3					
LAHORE	57.56	284.2	9 46A	0	17 42	4				9 54	
THULE	57.64	9.5	9 44	-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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 187

VICTORIA	58.19	51.5	9 50	-1					
APATITY	58.30	335.7	9 49	-3	17 44	-4			
PENTICTON	59.87	49.1	10 1	-2					
KIRUNA	61.65	339.9	10 12	-3					
LEMBANG	62.23	226.3	10 14A	-4					
KAJAANI	62.39	334.6	10 18	-2					
SHASTA	63.18	58.4	10 23	-2					
HYDERABAD	63.27	268.8			19 11	20			
HUNGRY HORSE	63.44	47.6	10 26	0					39 24 PKPPKP
QUETTA	63.49	287.2	10 25A	-2	18 57	3	10 34		10 17 SCS
MINERAL	63.87	58.3	10 29A	0			10 44		
MOSCOW	64.48	323.9	10 32	-1	19 12	6			
ASHKABAD	64.52	298.9	10 34	1	19 12	5			23 41 SS
PULKOVO	64.57	330.2	10 33	-1	19 14	6			
UMEA	64.79	337.1	10 33	-2					
BERKELEY	64.95	60.9	10 36K	0					
RENO	65.46	58.1	10 40A	0					
SCORESBY SD.	65.56	356.2	10 40A	0					
BUTTE	65.66	48.9	10 41	0					
LICK	65.66	61.0	10 40A	-1			10 50		
POONA	65.88	272.9	10 39A	-3	19 25	2			
NURMIJARVI	65.98	333.0	10 41K	-2					
HELSINKI	66.13	332.6	10 43	-1					
BOMBAY	66.38	273.9	10 45	0	19 32	2			20 8 PS
BOZEMAN	66.70	48.5	10 48	1					
KARACHI	66.72	282.5	10 46	-2					
SKALSTUGAN	67.08	340.1	10 49	-1					
FRESNO	67.17	60.5	10 50	0					
EUREKA	67.82	56.2	10 55	1			11 10		
RUTH	68.58	55.9	11 6K	7					
UPPSALA	68.70	335.5	10 58	-2					
SALT LAKE C.	69.42	52.9	11 5	1					
PASADENA	69.86	61.8	11 6A	-1	20 16	5			
TIFLIS	70.23	309.2	11 10A	1	20 24	9			11 31 PCP
BOULDER CITY	70.76	58.4	11 12	-1					
BERGEN	71.50	341.4	11 17	0					
SIDA	71.95	353.4	11 22A	2					
GLEN CANYON	72.07	55.8	11 20	0					14 14 SCP
GOTEBORG	72.13	336.8	11 20A	-1					
LARAMIE	72.57	49.1	11 23	0					
SHIRAZ	73.51	295.3	11 28	-1	20 53	0	11 38		
SIMFEROPOL	73.59	317.3	11 29A	0	20 59	5			11 44 PCP
WARSAW	73.69	329.1	11 34	4					
COPENHAGEN	73.71	335.5	11 30A	0					
LWOW	74.43	326.0	11 35	1	21 11	8			11 55 PCP
IASI	74.96	322.4	11 38	1	21 14	5			
TUCSON	75.72	59.0	11 42	0			11 54		14 39 PP
TUCSON TELE.	75.72	58.9	11 42	0					
BACAU	75.74	322.3	11 46	4			12 15		
KRAKOW	75.85	328.3	11 42	0					13 40 PP
SKALNATE PL.	76.43	327.6	11 47K	1					
RACIBORZ	76.47	329.3	11 46	0					13 13
COLLMBERG	77.27	332.8	11 51A	1					13 17
BUCHAREST	77.76	321.4	11 53A	0			12 15		
PRAGUE	77.83	331.3	11 56	3					
PRUHONICE	77.86	331.2	11 54A	0	21 46	5			
WITTEVEEN	77.88	337.0	11 55A	1					
JENA	78.05	333.4	11 54	-1					14 54 PP
DURHAM	78.17	342.4	11 56K	1	21 28	-16			14 31 PP
HURBANOVO	78.29	328.0	11 59	3					
MUNSTER	78.36	336.1	11 57	1					12 37
BRATISLAVA	78.46	328.8	11 57K	0					
CHEB	78.52	332.5	11 57	0					
VIENNA-H.	78.66	329.2	11 59A	1					12 9 PCP
KASPERSKE H.	78.92	331.3	12 0A	1			12 20		
ISTANBUL KA.	78.95	317.5	11 59A	-1	21 48	-4	12 10		14 50 PP
CANBERRA	78.99	179.0	11 57	-3					12 11 PCP
ISTANBUL UN.	79.01	317.5	12 4	4					12 39
ADELAIDE	79.06	187.5	11 57	-3					
BENSBERG	79.39	335.9	12 2	0					12 10 PCP
BELGRADE	79.89	324.9	12 5	0	22 10	8			
LUBBOCK	80.14	52.6	12 7	1					
HEIDELBERG	80.29	334.2	12 7	0					
SOFIA	80.36	321.9	12 8	1					
STUTTGART	80.67	333.6	12 9A	0					13 1
KSARA	80.79	308.5	12 8	-1					
KEW	80.93	340.4	12 11A	1					
TUBINGEN	80.94	333.6	12 11	1					
WICHITA MTS.	81.13	49.8	12 11A	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961					PAGE 188	
LJUBLJANA	81.20	329.1	12 11A	-1		12 20 PCP
EBINGEN	81.28	333.5	12 12	0		
STRASBOURG	81.31	334.4	11 13	-59		14 18 PP
RAVENSBURG	81.42	332.9	12 14	1		
TRIESTE	81.82	329.3	12 14	-1		
FAYETTEVILLE	82.46	46.1	12 18A	0	12 33	
PARIS	82.65	337.7	12 21	2		
PADOVA	82.71	330.4	12 18	-1		
SHAWINIGAN	82.95	26.9	12 21A	0		
OTTAWA	82.95	29.2	12 20A	-1		
NEUCHATEL	82.97	334.2	12 21	0		
FOLINIÈRE	83.47	339.5	12 24	1		
GARCHY	83.88	336.7	12 26	1		12 52
FLORENCE X.	84.34	329.9	12 11	-17	22 37 -10	
CLERMONT-FD.	85.24	336.0	12 34	2		
KARAPIRO	85.38	158.3	12 42	9		
ISOLA	85.44	332.8	12 34	1		12 36 PCP
ROME	85.51	328.2	12 33A	0	23 1 2	27 40 SS
MONACO	85.71	332.3	12 35	1		
MORGANTOWN	86.27	34.9	12 39	2		
HELWAN	86.30	308.8	12 38	1		13 2
WESTON	87.12	27.9	12 42A	1		
HALIFAX	87.43	21.8	12 43	0		
PALISADES	87.43	30.2	12 41	-2		24 31 PS
BAGNERES	88.56	336.9	12 50	2		
TORTOSA	90.53	335.8	13 20	23		
TOLEDO	92.68	338.6	13 8	1		13 18
SETIF	93.13	330.3	13 9	0		
GRANADA	95.09	337.4			23 23 -25	
TAMANRASSET	105.04	324.2	14 3	777		14 23 18 15 PP
BROKEN HILL	120.89	280.0				18 48
BULAWAYO	124.54	274.9				18 53
BYRD STATION	133.47	166.1	19 21	10		22 19 SKP
SOUTH POLE	133.84	180.0	19 11	0		

FEBRUARY 18 1.H 4.M 4.S EPICENTRE 43.73 147.68 DEPTH= 49.KM

A=-0.61257 B= 0.38756 C= 0.68888 D= 0.5347 E= 0.8451
G=-0.5822 H= 0.3683 K=-0.7249 HT= -3.1

DEPTH OF FOCUS= 0.002R

SE= 2.78

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
KURILSK	1.50	5.2	0	26	0	0	45	0				
Y.-SAKHLINSK	4.80	315.0	1	13A	1	2	9	2				
UGLEGORSK	6.60	326.0	1	39A	2						3	7
MIZUSAWA	6.74	229.1	1	43	4	2	44	-11				
TUKUBASAN	9.49	220.3	2	12K	-5						3	52
MATUSIRO	10.20	228.4	2	23A	-4	4	19	-2			2	42
OKHA	10.31	344.0	2	29	1						4	38
VLADIVOSTOK	11.50	272.4	2	47	3	4	59	7			4	47
PETROPAVLOVK	11.80	34.2	2	49	0	4	55	-5				
MAGADAN	15.95	5.8	3	42	-1							
CHANGCHUN	16.15	278.1	3	45	0							
YAKUTSK	21.15	336.2	4	40	-3							
PEKING	23.67	271.9	5	7	-1	9	28	12				
ZO-SE	24.42	247.8	5	17	2	9	48	19				
NANKING	25.48	252.5	5	26	0	10	4	17				
CHENG TU	36.74	264.1	7	4	-1							
MANILA	36.81	226.3	7	7	2							
COLLEGE	40.87	36.1	7	39	0				7	49		
KUNMING	40.89	258.0	7	40	1							
SEMIPALATNSK	44.98	303.3	8	12	-1							
CHITTAGONG	50.42	263.8	8	56	1							
FRUNSE	51.54	296.0	9	4A	1							
SVERDLOVSK	53.42	316.9	9	17	0							
NORD	54.64	357.2	9	21	-5							
RESOLUTE	54.88	16.8	9	26	-2							
TASHKENT	55.74	296.8	9	35	1							
DUZHANBE	57.52	294.2	9	50	3							
LAHORE	57.59	284.3	9	45A	-3				9	54		
THULE	57.94	9.4	9	47	-3							
SODANKYLA	60.63	337.6	10	6	-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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 189

KIRUNA	61.91	340.0	10 15	-2					
LEMBANG	62.00	226.4	10 26K	8					
KAJAANI	62.64	334.6	10 21A	-1					
SHASTA	63.38	58.3	10 27	0					
CHARTERS TS.	63.52	181.5	9 40	-48					
QUETTA	63.53	287.3	10 28A	0		10 38		12 47	PP
HUNGRY HORSE	63.67	47.4	10 29	0		10 41			
MINERAL	64.07	58.2	10 32K	1					
ASHKABAD	64.62	299.0	10 35	0					
MOSCOW	64.69	324.0	10 35	-1					
UMEA	65.04	337.1	10 37	-1					
RENO	65.65	58.0	10 55	13					
LICK	65.85	60.9	10 55A	12					
SCORESBY SD.	65.85	356.2	10 43	0					
NURMI JARVI	66.22	333.0	10 44	-1					
EUREKA	68.03	56.0	10 58	1		11 14		11 54	
UPPSALA	68.95	335.5	11 1	-1					
PASADENA	70.04	61.6	11 21	12					
TIFLIS	70.38	309.2	11 13	2					
FLAMING GRGE	70.93	51.4	10 38	-36				11 15	
BOULDER CITY	70.96	58.3	11 16	1					
RAPID CITY	72.16	45.7	11 22	0					
GOTEBORG	72.39	336.8	11 26	3					
LARAMIE	72.80	49.0	11 27	1					
SHIRAZ	73.60	295.3	11 31K	1	21 22 27	11 41		11 52	*SP
TUCSON	75.91	58.9	11 55	11		12 13			
TUCSON TELE.	75.92	58.8	11 44	0					
KRAKOW	76.08	328.3	11 46	1				11 55	PCP
RACIBORZ	76.71	329.3	11 48	0				12 24	
COLLMBERG	77.51	332.8	11 52A	-1				12 3	PCP
PRUHONICE	78.10	331.2	11 57A	1					
WITTEVEEN	78.14	337.0	11 56	0					
MUNSTER	78.61	336.1	11 59	0					
BRATISLAVA	78.69	328.8	12 0	1					
KASPERSCHE H.	79.16	331.3	12 1	-1					
BENSBERG	79.64	335.9	12 4	0				12 15	PCP
HEIDELBERG	80.54	334.2	12 10	1					
STUTTGART	80.91	333.6	12 11	0					
KEW	81.20	340.4	12 13	1					
WICHITA MTS.	81.36	49.7	12 8	-5					
FAYETTEVILLE	82.69	46.1	12 20A	0					
JERUSALEM	82.81	307.5	12 22A	1					
PARIS	82.91	337.6	12 23	2					
OTTAWA	83.24	29.2	12 22K	-1					
FOLINIERE	83.73	339.4	12 26	1					
GARCHY	84.14	336.6	12 28	1					
ISOLA	85.69	332.8	12 35	0					
MORGANTOWN	86.54	34.9	12 41K	2					
PALISADES	87.71	30.2			23 33 12			31 23	SS

FEBRUARY 18 12.H 5.M 33.S EPICENTRE -22.75 171.29 DEPTH= 0.KM

A=-0.91249 B= 0.13977 C=-0.38448 D= 0.1514 E= 0.9885
G= 0.3800 H=-0.0582 K=-0.9231 HT= 4.0

SE= 2.11

	DELTA DEG.	AZ. DEG.	P			O-C			*PP		SUPP.	
			M	S	S	M	S	S	M	S	M	S
NOUMEA	4.50	274.8	1	10	-1	1	51	-14				
ONERAHI	13.25	169.0	3	11	-1	6	28	47				
KARAPIRO	15.57	167.4	3	40	-2							
TUAI	16.77	163.9	3	45	-13							
BRISBANE	17.39	250.8	4	5	-1	7	9	-10				
COBB RIVER	18.32	176.5	4	19	2							
WELLINGTON	18.71	171.8	4	20	-2						8	35
KAIMATA	19.72	179.7	4	37	3							
RIVERVIEW	20.85	233.6	4	47K	1	8	41	6			5	8 PP
GEBBIES PASS	20.93	177.2	4	50	3							
ROXBURGH	22.73	183.6	5	3	-2	9	22	12				
CANBERRA	23.11	232.2	5	9K	0	9	23	7				
CHARTERS TS.	23.45	271.8	5	14	2	9	27	5				
RABAUL	26.12	312.1	5	35	-2							
PORT MORESBY	26.67	296.0	5	43	1	10	26	9	5	58	7	4 PP
MELBOURNE	27.13	230.4	5	46	-1							
MOORLANDS	28.08	220.0	5	55	0						6	13 *SP
FORT NELSON	28.28	219.0	5	56	-1	9	52	-51				

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961					PAGE 190				
ADELAIDE	30.88	239.5	6 15K	-5					11 51
MUNDARING	49.33	246.8	8 52	-1					
MANILA	61.64	302.3	10 24	2					11 14
LEMBANG	63.13	273.9	10 33K	1					
MATUSIRO	66.73	331.4	10 54	-1	19 37	-10			20 57 SCS
SOUTH POLE	67.39	180.0	11 4	5					
HONG KONG	71.39	304.8	11 24	0	20 50	8			
ZO-SE	71.93	316.2	11 27	0	20 53	5			
CHANGCHUN	78.53	327.9	12 4	-1					
PEKING	80.85	320.4	12 17	0	22 30	5			
KUNMING	81.74	301.5	12 25	3					
CHENG TU	83.56	306.9	12 33	2					
BERKELEY	86.74	46.6	12 48	1					
VINEYARD	86.75	47.9	12 41	-6					
LICK	86.88	47.3	12 49A	1					
PASADENA	87.69	51.5	12 51	-1	23 45	12			
FRESNO	87.85	48.6	12 54	1					
SHASTA	88.16	44.2	12 52	-2					
MINERAL	88.48	44.8	12 56A	0					
RENO	89.24	46.2	13 1	2					
SHILLONG	90.69	297.4	13 8A	2					
BOULDER CITY	90.97	51.2	13 7	0					
EUREKA	91.80	47.7	13 12	1					14 25
TUCSON	92.29	56.0	13 14	1	13 26				13 49
TUCSON TELE.	92.41	56.0	13 15	1					
COLLEGE	92.85	16.3	13 13	-3	13 25				17 42
FLAMING GRGE	96.97	48.6	13 21	-14	13 36				
QUETTA	112.97	294.3	18 43	4					
KIMBERLEY	119.48	213.8	18 58	6					
PALISADES	122.98	55.0							32 34 PKKS
SHIRAZ	125.17	291.0	19 4	1					
UMEA	134.66	342.4	19 20	-1					
NURMI JARVI	135.69	337.1	19 24	1					
KSARA	139.49	295.9	19 34	4					22 31 PP
HELWAN	143.55	289.9	19 37	0					20 27
NIEDZIKA	144.91	326.5	19 45	6					20 14
CHORZOW	145.01	328.7	19 40	1					
RACIBORZ	145.53	329.0	19 42	2					
COLLMBERG	146.90	334.8	19 46A	3					22 2
PRAGUE	147.25	332.1	19 49	6					
PRUHONICE	147.26	331.9	19 47A	4					
BRATISLAVA	147.35	327.3	19 45	2					
BELGRADE	147.55	319.7	19 48K	4					20 9
VIENNA-H.	147.65	328.0	19 45	1					
JENA	147.74	335.7	19 45	1					22 37 PP
WITTEVEEN	147.75	342.4	19 49	5					
MUNSTER	148.23	340.7	19 49	4					
KASPERSKE H.	148.32	331.7	19 49A	4					
ATHENS	148.36	306.1	19 51K	6					20 3 PKP2
BENSBERG	149.24	340.2	19 51A	5					21 6
HEIDELBERG	150.05	336.9	19 53	5					
LJUBLJANA	150.08	326.6	19 49	1					20 44
STUTTGART	150.36	335.6	19 49	1					20 29
TUBINGEN	150.64	335.5	19 55	7					
TRIESTE	150.74	326.7	19 56	7					
EBINGEN	150.97	335.2	19 55	6					
RAVENSBURG	151.03	334.0	19 54	5					
PADOVA	151.85	328.3							20 59
BASLE	152.03	336.1	19 30	-21					
PARIS	152.51	343.8	20 0	9					
GARCHY	153.75	341.7	19 53	0					20 27
ISOLA	154.99	332.5	19 56	1					20 20 PKP2
SETIF	161.85	320.7	20 5	2					20 53 PKP2
TAMANRASSET	166.87	272.9	20 8	1					24 52 PP

FEBRUARY 18 17.H 2.M 23.S EPICENTRE -1.38 -15.77 DEPTH= 106.KM

A= 0.96210 B=-0.27165 C=-0.02396 D=-0.2717 E=-0.9624
G=-0.0231 H= 0.0065 K=-0.9997 HT= 7.2

DEPTH OF FOCUS= 0.012R

SE= 2.76

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

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961				PAGE 191			
MBOUR	15.71	355.7	3 33 -3	6 34 7			
TAMANRASSET	31.74	39.6	6 13K -2	11 28 12			7 16 PP
BANGUI	34.83	80.4	6 41 -1		6 55		
WINDHOEK	38.25	125.9	7 10 -1				
RELIZANE	39.96	20.8	7 25 0				
GRANADA	39.99	15.2		16 25 183			9 2
ALGIERS UNI.	41.79	22.9	7 37 -3	13 37 -12			9 13 PP
SETIF	42.27	25.7	7 43 -1				9 20 PP
TOLEDO	42.44	13.4	7 44 -1	14 10 11			9 23 PP
LWIRO	44.55	91.8	8 2A 0	14 43 14			
HERMANUS	46.33	139.0		14 48 -7			15 7 PPS
BAGNERES	46.51	16.1	8 16 -2				
BULAWAYO	47.19	116.4	8 21K -2				
KIMBERLEY	47.27	129.0	8 23 -1				
REGGIO CALA.	48.82	33.1	8 36A 0				
MESSINA	48.84	33.0	8 35 -1	15 42 12			10 31 PP
ISOLA	49.73	21.4	8 42 -1				10 50 PP
CLERMONT-FD.	49.84	17.2	8 43 -1	16 0 16			
ROME	50.10	27.4	8 44A -2	15 59 12			19 32 SS
FLORENCE X.	51.05	25.0	8 51 -2	16 8 7			
GARCHY	51.19	16.4	8 52 -2				
PAVIA	51.38	22.4					20 19
BESANCON	52.04	18.7	8 57 -3				
CARACAS	52.25	284.3		16 23 6			19 57 SS
PADOVA	52.64	24.3					10 0
BASLE	52.81	19.7	8 35K -31				
SAN JUAN	53.26	294.1					9 41
ATHENS	53.48	38.7	9 10A -1				
TRIESTE	53.62	25.4	9 11 -1				10 21 PCP
LA PAZ	53.67	250.6	9 9 -3	16 43 7			
RAVENSBURG	53.74	21.0	9 7 -6				
STRASBOURG	53.79	19.2	9 9 -4	16 55 17			11 13 PP
EBINGEN	53.85	20.3	9 8 -6				
KEW	54.27	11.8		16 51 7			
LJUBLJANA	54.27	25.6	9 16 -1				10 19 PCP
STUTTGART	54.46	20.1	9 15 -3	16 52 5			11 18 PP
HELWAN	54.60	51.3	9 19 0				17 7
HEIDELBERG	54.81	19.3	9 18 -3				
BENSBERG	55.69	17.4	9 25A -2				10 28 PCP
DE BILT	56.15	15.4	9 30 0	17 25 16			
SOFIA	56.24	34.0	9 30 -1				
KASPERSKE H.	56.33	22.8	9 28 -4				11 36 PP
MUNSTER	56.71	17.1	9 14 -20				
VIENNA-H.	56.77	25.2	9 34 -1				
BRATISLAVA	57.02	25.7	9 34 -3				
JENA	57.09	20.3	9 34 -3	17 31 9			11 44 PP
DURHAM	57.17	9.7	9 30K -8	17 35 12			
COLLMBERG	57.89	20.9	9 41 -2				11 26
FUQUENE	58.29	277.2	9 44A -1	17 56 19			
JERUSALEM	58.44	51.0	9 45 -1				
BOGOTA	58.56	276.2	9 47 0	17 54 13			
RACIBORZ	58.95	24.8	9 48 -2				
KRAKOW	59.66	25.8	9 49A -6				13 6
KSARA	59.79	49.1	9 53 -3	18 12 15			12 6 PP
HUANCAYO	59.97	257.0		18 20 21			
CHINCHINA	60.12	276.5	9 55A -3	18 8 7			
SANTA LUCIA	60.39	231.9		18 15 11			
TANANARIVE	64.36	110.2	10 22A -4				
UPPSALA	66.38	17.7	10 27 -12				
PALISADES	67.44	315.9	10 56 10	19 44 12			20 14 PS
SKALSTUGAN	68.08	13.1	10 47 -3				
NURMI JARVI	69.16	20.1	10 53 -3				
TIFLIS	69.40	44.2	10 57 -1				
UMEA	70.29	16.1	11 1A -2				
PULKOVO	70.72	22.7	11 4 -2				
SHIRAZ	71.93	58.3	11 12A -1	20 38 14			14 2 PP
KAJAANI	72.70	18.5	11 15 -3				
KIRUNA	73.50	13.5	11 21 -1				
SODANKYLA	74.72	15.7	11 28 -1				
FAYETTEVILLE	81.46	306.6	12 5 -1				
NORD	82.92	359.9	12 12K -2				
QUETTA	84.39	59.7	12 22K 1	22 47 10	12 30		22 55 SCS
WICHITA MTS.	84.88	304.9	12 22 -2				13 34
RESOLUTE	88.45	344.9	12 40 -1				
WARSAK DAM	88.54	56.1	12 41K 0				
SOUTH POLE	88.63	180.0	12 37 -5				14 41
NAMANGAN	88.96	49.2					13 35
LAHORE	90.80	58.6	12 51 -1		12 59		
FRUNSE	91.21	47.4	12 55 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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 192

FLAMING GRGE	93.64	310.7	13	4	-1
TUCSON TELE.	94.92	302.2	13	11	0
CHARTERS TS.	152.32	141.4	19	46	10

FEBRUARY 20 18.H 25.M 46.S EPICENTRE -31.77 -67.97 DEPTH= 113.KM

A= 0.31954 B=-0.78954 C=-0.52395 D=-0.9270 E=-0.3752
G=-0.1966 H= 0.4857 K=-0.8518 HT= 1.2

DEPTH OF FOCUS= 0.013R

SE= 2.21

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
SANTA LUCIA	2.80	232.9	0	41A	-3	1	7	-11				
CONCEPCION	6.07	212.7	1	32	4							
ANTOFAGASTA	8.33	344.3	1	57	-2							
LA PAZ	15.20	359.4	3	34K	5							
PORT STANLEY	21.25	162.5	4	34	-4	8	16	-6	4	58		
BOGOTA	36.65	349.8	7	0	3	12	35	4				
CHINCHINA	37.26	347.3	7	3K	1	12	43	3				
FUQUENE	37.44	350.5	7	4K	1							
CARACAS	42.04	1.5	7	43	2							
TRINIDAD	42.64	9.6	7	47	1							
ST. VINCENT	45.14	9.2	8	7	1							
FORT FRANCE	46.69	9.1	8	18	-1							
SAN JUAN	49.89	2.3	8	42	-1				9	22	9	36 PCP
BYRD STATION	52.53	189.9	9	0	-3				9	26	9	39 *SP
COLUMBIA	66.57	348.2	10	39	-1							
FAYETTEVILLE	71.84	337.9	11	11K	-1				11	41	11	54 *SP
MORGANTOWN	71.90	350.3	11	12K	0							
WICHI TA MTS.	72.14	333.8	11	12K	-2	20	25	0			13	47 PP
PALISADES	72.62	355.3	11	21	5	20	37	6			21	31 SCS
WESTON	73.85	357.4	11	24K	0						11	54
WINDHOEK	74.48	107.1	11	27	0							
TUCSON	75.48	323.5	11	32	-1						12	5
TUCSON TELE.	75.49	323.6	11	33	0							
HALIFAX	76.13	3.2	11	35K	-2							
OTTAWA	77.13	354.4	11	41K	-1							
KIMBERLEY	77.59	116.1	11	44	-1							
SHAWINIGAN	78.08	356.6	11	47K	0							
GLEN CANYON	79.63	325.8	11	27	-29						12	29
BOULDER CITY	80.45	323.1	12	1	1							
PASADENA	80.83	319.8	12	2K	0	22	5	6			27	38 SS
PRETORIA	81.71	115.0	12	6	-1	22	8	0				
FLAMING GRGE	81.84	329.6	12	7	0						15	54 PP
SALT LAKE C.	82.79	327.9	12	12	0				12	55		
RUTH	83.05	325.1	12	15K	1							
FRESNO	83.66	320.6	12	16	-1							
EUREKA	83.73	324.6	12	18	1				13	1	30	7 PKKP
VINEYARD	84.51	319.6	12	22K	1				12	54		
BULAWAYO	84.97	110.4	12	22K	-1						12	52
LICK	85.08	319.9	12	24K	0				12	57		
RENO	85.72	322.4	12	28	1							
CONCORD	85.77	320.1	12	28K	1				13	0	13	11 SP
BERKELEY	85.81	319.9	12	28K	1				12	59		
BOZEMAN	86.41	331.3	12	31	1							
GEBBIES PASS	86.70	219.3									13	2
MINERAL	87.24	322.0	12	34K	0							
TUAI	87.31	225.2									13	46
BUTTE	87.32	330.7	12	35	0							
BROKEN HILL	87.86	105.6	12	38K	1						13	9
SHASTA	87.91	321.8	12	36K	-2				13	6		
CHATEAU	88.02	224.1	12	37	-1						13	8
TONGARIRO	88.03	224.1	12	38K	0						13	9
KAIMATA	88.16	219.5	12	45	6						13	13
COBB RIVER	88.41	221.3	12	40	0						13	12
TAMANRASSET	88.75	62.3	12	43K	1	23	13	-4	13	12	13	24 *SP
KARAPIRO	88.84	225.1	12	40K	-2						13	12
ARCATA	88.94	321.0	12	43A	1							
BANGUI	89.38	84.5	12	56	12						13	15
HUNGRY HORSE	89.78	331.3	12	46	0						30	17 PKKP
CORVALLIS	91.16	324.0	12	53A	0							
TOLEDO	92.66	43.8	13	0	0							
RELIZANE	92.92	49.3	13	1	0				13	30		

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 193

ALGIERS UNI.	95.15	49.7	13 12	1	13 42
BAGNERES	97.11	43.3	13 20	0	
CLERMONT-FD.	100.42	42.3	13 36	1	
ISOLA	101.85	45.2	13 42	1	
COLLMBERG	108.90	40.9	18 17	777	20 1
PRUHONICE	109.18	42.7	18 52	777	19 25
NIEDZIKA	112.34	44.9	18 24	2	19 8
UMEA	117.24	29.9	18 30A	-1	19 1
NURMIJARVI	118.33	34.2	18 32	-2	19 4
CHARTERS TS.	118.88	217.1	18 35	0	19 5
KAJAANI	120.51	30.5	18 38	0	19 9
SODANKYLA	120.63	26.6	18 38A	0	19 9
PULKOVO	120.93	35.7	18 39	0	
APATITY	123.26	26.8	18 43	0	19 14
TIFLIS	126.45	59.1	18 50	1	
KHEYS	126.80	9.5	18 50	0	
PORT MORESBY	127.05	225.3	18 50	0	19 24
RABAUL	127.69	234.3	18 51	-1	19 27
SHIRAZ	129.35	75.9	18 56A	1	22 18
TEHERAN	130.12	68.0	18 57	1	
SVERDLOVSK	136.87	38.9	19 11	2	
TIKSI	139.06	351.9	19 2	-11	
LEMBANG	141.39	173.0	18 59A	-18	19 47
QUETTA	141.52	80.2	19 12	-6	
POONA	143.20	101.7	19 17	-3	
TASHKENT	144.66	62.1	19 23	0	
GUAM	144.93	246.2	19 24	1	19 56
MADRAS	145.31	115.3	19 27	3	25 22
WARSAK DAM	146.08	75.1	19 28	3	
YAKUTSK	147.64	344.5	19 26	-2	
LAHORE	148.01	80.3	19 29	0	
FRUNSE	148.49	58.8	19 31	2	
MEDAN	149.27	153.2	19 31	1	
SEMIPALATNSK	149.99	42.4	19 32	1	
CHATRA	157.78	96.4	19 37	-5	20 47
MATUSIRO	157.85	289.6	19 42	0	21 0
CHITTAGONG	159.73	112.6	19 41	-4	
LHASA	161.82	91.2	19 50	3	
CHANGCHUN	164.06	322.8	19 47	-2	
KUNMING	169.48	126.7	19 54	1	
PEKING	171.10	339.0	19 54	0	25 2 PP
CHENGTU	173.04	97.1	19 57	2	25 17 PP
NANKING	174.26	274.7	19 56	1	

FEBRUARY 20 22.H 27.M 2.S EPICENTRE -2.40 -77.37 DEPTH= 47.KM

A= 0.21839 B=-0.97497 C=-0.04167 D=-0.9758 E=-0.2186
G=-0.0091 H= 0.0407 K=-0.9991 HT= 7.2

DEPTH OF FOCUS= 0.002R

SE= 2.07

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
CHINCHINA	7.53	13.5	1	52K	2						2	21 P*
BOGOTA	7.72	25.3	1	51	-2	3	50	30			2	27 P*
FUQUENE	8.63	25.0	2	3	-2							
BALBOA HTS.	11.50	349.1	2	43	-1							
AREQUIPA	15.12	157.8	3	32	0							
CARACAS	16.51	38.9	3	56A	6	6	59	8				
LA PAZ	16.70	147.6	3	52	0	7	12	17				
SANTIAGO MA.	19.25	325.4	4	23	0							
TRINIDAD	20.52	50.5	4	40	3						10	11
ANTOFAGASTA	22.21	162.9	4	53	-1							
SAN JUAN	23.44	27.8	5	8	2							
MERIDA	26.13	333.2	5	37	5						10	28
VERA CRUZ	28.30	320.1									7	2 PPP
TACUBAYA	30.49	316.2	6	17	6						11	0
COLUMBIA	36.37	354.9	7	2	0							
FAYETTEVILLE	41.39	339.2	7	42A	-1				8	4		
MORGANTOWN	41.90	357.0	7	48K	0							
WICHITA MTS.	41.96	333.5	7	46	-2	14	4	1			13	33 SCP
LUBBOCK	42.59	329.3	7	54	1							
PALISADES	43.32	3.8	8	5	6	14	37	14			17	53 SS
LAWRENCE	44.34	340.0	8	5	-2							
TUCSON TELE.	46.82	320.3	8	27	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 194

TUCSON	46.83	320.2	8 27	0	15 16	3	10 12 PP
BREBEUF	47.81	3.6	8 34	-1			
OTTAWA	47.62	1.6	8 33	0			
GLEN CANYON	50.45	324.3	8 56	1			
LARAMIE	50.51	332.5	8 55	-1			
RAPID CITY	51.74	336.4	9 5	0			
BOULDER CITY	51.76	321.1	9 5	0			
PORT STANLEY	51.78	164.7	9 6	1			
FLAMING GRGE	52.07	329.4	9 6	-1			11 7 PP
PASADENA	52.84	317.2	9 13	0	17 1	24	
SALT LAKE C.	53.24	327.5	9 16	0			
RUTH	53.95	324.1	9 23	2			
EUREKA	54.69	323.7	9 26	-1			
FRESNO	55.43	318.9	9 31	-1			
BOZEMAN	56.41	332.2	9 39	0			
LICK	56.97	318.4	9 43K	0			
RENO	57.06	321.6	9 44K	0			
BUTTE	57.38	331.5	9 44	-2			
CONCORD	57.60	318.8	9 47	-1			
BERKELEY	57.67	318.6	9 48K	0			
MINERAL	58.65	321.4	9 53A	-2			
SHASTA	59.34	321.3	9 57	-3			
HUNGRY HORSE	59.76	332.5	10 2	-1			
ARCATA	60.50	320.6	10 10A	2			
MBOUR	62.10	72.4	10 16	-2	18 46	8	
VICTORIA	64.54	328.0	10 38	4			
RESOLUTE	77.69	355.3	11 51	-2			
TOLEDO	78.81	48.7	12 0	0			15 1 PP
THULE	78.89	2.2	11 56	-4			
BYRD STATION	80.20	186.8	12 7	0			
BAGNERES	82.54	46.2	12 19	0			
FOLINIERE	83.19	40.5	12 23	0			
KEW	83.83	37.8	12 27	1			
COLLEGE	83.97	336.1	12 25	-2			15 34 PP
TAMANRASSET	84.37	67.0	12 30	1			
CLERMONT-FD.	85.08	43.9	12 33	1			
PARIS	85.13	40.8	12 34	2			
GARCHY	85.27	42.4	12 33	0			13 31
SOUTH POLE	87.61	180.0	12 45	1			
NORD	88.24	7.4	12 47	-1			
WITTEVEEN	88.29	37.1	12 50	2			
BENSBERG	88.41	39.0	12 50	2			
STUTTGART	89.58	41.3	12 54	0			
COLLMBERG	92.09	38.9	13 7	1			
PRUHONICE	93.07	40.3	13 12	2			
SHIRAZ	125.33	55.0	18 59	3			
CHARTERS TS.	131.72	240.3	19 11	3			
QUETTA	136.36	47.0	19 21	4			
MUNDARING	143.46	199.6	19 28	-2			
CHATRA	151.55	30.0	19 46	3			
SHILLONG	154.75	23.3	19 49A	2			

FEBRUARY 21 3.H 1.M 51.S EPICENTRE 36.33 23.00 DEPTH= 0.KM

A= 0.74331 B= 0.31557 C= 0.58984 D= 0.3908 E=-0.9205
G= 0.5429 H= 0.2305 K=-0.8075 HT= -0.3

SE= 2.23

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
ATHENS	1.73	19.1	0	35A	4	0	55	1				
REGGIO CALA.	6.13	288.9	1	34	0	2	39	-6				
MESSINA	6.23	289.7	1	35K	0	2	39	-9			2	9
ISTANBUL UN.	6.64	43.1	1	43	2	3	13	15				
ISTANBUL KA.	6.70	43.2	1	43	1						3	34 SG
BELGRADE	8.70	347.9	2	45	35						5	21
HELWAN	9.50	130.3	2	21	0	3	59	-10				
ROME	9.89	307.4	2	27	1						3	4 P*
JERUSALEM	11.10	110.6	2	41A	-2	4	38	-11				
KISHINEV	11.53	20.3	2	51	2							
LJUBLJANA	11.62	329.3	2	47	-3	5	5	4				
TRIESTE	11.63	326.0	2	46	-4	4	59	-3			6	28 SGSGSG
FLORENCE X.	11.67	313.2	2	51	1						3	23
PADOVA	12.37	320.6				5	9	-11			3	51
VIENNA-H.	12.88	339.7	3	6	-1	5	21	-11				

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 195

NIEDZIKA	13.23	352.3	3 11	0				
KRAKOW	13.89	351.7	3 25	5				
MONACO	14.02	306.6	3 20	-2				
ISOLA	14.47	307.7	3 30	2				
CHUR	14.54	320.4	3 30	1	6 3	-9		
PRUHONICE	14.96	338.4	3 35	1	6 27	6		
RAVENSBERG	15.13	323.3	3 37	1	6 17	-9		
EBINGEN	15.72	323.2	3 43	-1				
CHEB	15.75	334.1	3 47	3				
TUBINGEN	15.92	324.3	3 47	0	6 32	-12		
STUTTGART	15.99	325.3	3 46	-1	6 33	-13	4 15	
BASLE	16.00	319.2	3 22A	-26			5 52	
NEUCHATEL	16.02	316.7	3 47	-1			6 29	
ALGIERS UNI.	16.04	277.5	3 52	4			4 14	PP
KARLSRUHE	16.57	324.4	3 57	2	7 7	8		
STRASBOURG	16.58	322.3	3 56	1	7 0	1	4 9	PP
COLLMBERG	16.59	337.5	3 56K	1			4 13	PP
BESANCON	16.70	316.1	3 56	0				
HEIDELBERG	16.70	325.9	3 57	0	6 49	-13		
JENA	16.74	334.2	3 58	1	7 14	11	4 15	PP
CLERMONT-FD.	17.68	308.4	4 9	0				
TIFLIS	17.75	65.7	4 14	4				
GARCHY	18.40	312.7	4 18	0	7 34	-7		
BENSBERG	18.52	327.1	4 19	0	7 37	-7	4 35	PP
BAGNERES	18.80	298.0	4 24	1			4 55	
MUNSTER	19.08	329.9	4 25	-1				
PARIS	19.52	316.1	4 31	0				
WITTEVEEN	20.10	330.2	4 38	0				
TAMANRASSET	20.29	233.1	4 41A	1	8 37	14		
COPENHAGEN	20.65	342.9	4 43A	0			4 59	PP
FOLINIERE	21.20	313.2	4 48	-1				
GRANADA	21.31	280.3	5 9	19				
MOSCOW	21.81	22.6	5 9	14				
KEW	22.48	319.6	5 1	-1				
GOTEBORG	22.60	344.5	4 59	-4				
TEHERAN	22.93	83.0	5 8	2			5 34	PP
UPPSALA	23.79	353.3	5 12	-3				
PULKOVO	23.93	9.1	5 11	-5				
NURMI JARVI	24.22	2.0	5 15	-4				
DURHAM	25.01	325.2	5 27	1				
SHIRAZ	25.58	96.6	5 33A	1	9 55	-3		
UMEA	27.57	357.4	5 58	8				
KAJAANI	27.93	4.4	5 51	-2				
SKALSTUGAN	28.06	349.8	5 52	-3				
SODANKYLA	31.16	2.7	6 19	-3				
KIRUNA	31.58	358.1	6 24	-2				
APATITY	31.83	7.6	6 27	-1				
BANGUI	32.05	188.3	6 31	1			6 46	SP
QUETTA	37.02	86.6	7 14	1				
SCORESBY SD.	41.62	339.0	8 7	16				
NORD	47.56	352.7	8 36K	-3				
CHATRA	54.60	80.6	9 30	-2				
BULAWAYO	56.41	173.7	9 44	-1				
SHILLONG	58.93	79.6	9 59	-4				
PRETORIA	61.94	174.7	10 24	1				
RESOLUTE	62.09	344.6	10 22	-2				
HALIFAX	63.45	307.2	10 48	15				
SHAWINIGAN	68.24	312.3	11 3	-1				
OTTAWA	70.59	312.4	11 18	-1				
COLLEGE	78.88	356.0	12 4	-2				
FAYETTEVILLE	87.31	313.8	12 49	0				
HUNGRY HORSE	87.41	332.9	12 50	0				
LARAMIE	89.51	323.9	13 0	0				
WICHITA MTS.	90.81	315.4	13 6	0			13 23	
FLAMING GRGE	91.58	326.0	13 13	3				
CHARTERS TS.	128.14	87.9	18 59	-9				

FEBRUARY 22 21.H 53.M 36.S EPICENTRE -28.75-177.24 DEPTH= 68.KM

A=-0.87710 B=-0.04225 C=-0.47845 D=-0.0481 E= 0.9988
G= 0.4779 H= 0.0230 K=-0.8781 HT= 2.2

DEPTH OF FOCUS= 0.005R

SE= 2.82

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

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961					PAGE
KIMBERLEY	119.07	202.1	18 42	1	
LAHORE	119.08	292.1	18 41	0	
SEMIPALATNSK	119.30	314.2	18 40	-1	
SHAWINIGAN	119.85	50.4	18 42	0	
ANDIJAN	122.92	302.0	18 50	2	
NAMANGAN	123.49	302.1	18 50	0	
KHEYS	123.64	350.7	18 50	0	
QUETTA	124.77	288.4	18 54A	2	
TASHKENT	125.32	302.1	18 53A	0	
BULAWAYO	125.36	210.2	18 54A	1	
NORD	126.51	3.5	18 53	-2	
WINDHOEK	127.14	196.7			19 59
BROKEN HILL	130.38	213.5	19 5A	2	
SVERDLOVSK	131.02	321.9	19 3	-1	
SHIRAZ	136.82	283.8	19 6	-9	22 48
APATITY	137.04	343.3	19 14	-1	
TEHERAN	138.62	292.5	19 19	1	22 59 PKS
SODANKYLA	138.76	346.3	19 14	-4	
KIRUNA	139.48	349.8	19 13	-7	
LWIRO	140.33	223.4	19 18A	-3	
KAJAANI	141.23	342.8	19 17	-6	
MAKHACH-KALA	141.51	303.9	19 19	-4	
UMEA	143.16	347.2	19 22	-4	
MOSCOW	143.33	327.2	19 22	-4	
TIFLIS	143.65	302.2	19 25	-2	
PULKOVO	143.76	336.7	19 25	-2	
SKALSTUGAN	144.62	352.7	19 27K	-2	
NURMIJARVI	144.97	341.2	19 37A	8	
SOTCHI	146.99	306.7	19 35	2	
UPPSALA	147.29	346.1	19 34A	1	
GOTEBORG	150.35	350.0	19 37A	-1	
KSARA	151.32	288.6	19 40	1	23 31 PP
BANGUI	151.47	214.8	19 42	2	
JERUSALEM	151.85	284.3	19 41A	1	23 27 PP
COPENHAGEN	152.20	348.2	19 49K	8	
KISHINEV	152.70	319.0	19 47	6	
LWOW	153.45	328.3	19 45	3	
DURHAM	153.81	5.7	20 4A	21	20 23 PKP2
KRAKOW	155.04	333.2	19 46	1	20 42
HELWAN	155.08	279.6	19 46	1	30 6 SKKS
I STANBUL KA.	155.27	306.8	19 46	1	20 28 20 10 PKP2
I STANBUL UN.	155.34	306.8	19 46K	1	20 16 PKP2
NIEDZIKA	155.38	331.8	19 47	2	20 46
SKALNATE PL.	155.59	331.5	19 46	1	20 16 PKP2
RACIBORZ	155.68	335.4	20 12	27	20 35
WITTEVEEN	155.78	354.2	19 54	8	
COLLMBERG	156.19	343.9	19 47A	1	24 8 PP
MUNSTER	156.52	352.4	19 47	0	20 17
MBOUR	156.79	123.9	19 50	3	
JENA	156.86	345.7	19 47	0	23 54 PP
PRUHONICE	156.97	340.3	19 48	1	20 18 23 54 PP
BENSBERG	157.56	352.7	20 20K	32	
BRATISLAVA	157.66	334.1	19 48K	0	20 18 PKP2
VIENNA-H.	157.87	335.3	19 46A	-2	20 21 PKP2
BELGRADE	158.67	323.5	19 50K	1	24 36
HEIDELBERG	158.88	349.1	19 49	-1	
KARLSRUHE	159.30	349.4	19 51	1	24 14 PP
STUTTGART	159.38	347.7	19 50	0	24 1 PP
STRASBOURG	159.82	350.3	19 52	1	24 14 PP
FOLINIERE	159.85	6.2	19 52	1	
PARIS	159.96	0.5	20 6	15	20 33 PKP2
EBINGEN	160.01	347.8	19 51	0	
LJUBLJANA	160.40	335.0	19 52A	1	24 14 PP
TRIESTE	161.02	335.7	19 53	1	20 35 PKP2
BESANCON	161.36	353.1	19 54	2	
GARCHY	161.50	359.3	20 8	16	24 22 PP
PADOVA	161.87	339.0			20 24
PAVIA	162.83	344.5			26 44
CLERMONT-FD.	163.00	359.1	19 56	2	20 44
FLORENCE X.	163.52	337.8	19 54	0	24 29 PP
ROME	164.68	331.5	19 58K	2	24 32 PP
BAGNERES	165.55	7.7	19 58	2	
MESSINA	165.77	314.8	19 55	-2	20 56 PKP2
TOLEDO	167.56	25.0	20 0	2	24 50 PP
GRANADA	170.04	30.8	19 26K	-33	24 32 PP
ALMERIA	170.80	27.2	20 0	0	25 37 PP
ALGIERS UNI.	172.00	358.3	20 1	1	25 15 PP
TAMANRASSET	173.56	203.4	20 4A	3	20 18 25 22 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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 198

FEBRUARY 23 4.H 16.M 20.S EPICENTRE 38.41 143.00 DEPTH= 37.KM

A=-0.62741 B= 0.47280 C= 0.61872 D= 0.6018 E= 0.7986
G=-0.4941 H= 0.3724 K=-0.7856 HT= -1.1

DEPTH OF FOCUS= 0.001R

SE= 2.52

	DELTA DEG.	AZ. DEG.	P		O-C S	S		O-C S	*PP		SUPP.	
			M	S		M	S		M	S	M	S
ISINOMAKI	1.32	271.3	0	24A	2	0	42	3				
MIYAKO	1.47	327.4	0	25A	0	0	46	3				
MIZUSAWA	1.63	296.7	0	30	3	1	4	17				
SENDAI	1.66	265.8	0	28A	1	0	49	1				
MORIOKA	1.92	312.7	0	32A	1	1	2	8				
YAMAGATA	2.09	266.4	0	34A	1	1	9	11				
HUKUSIMA	2.10	252.5	0	34A	0	1	0	1				
ONAHAMA	2.21	229.4	0	34A	-1	1	11	9				
HATINOHE	2.40	332.2	0	37	-1	1	13	7				
SAKATA	2.53	282.1	0	41	1	1	12	2				
SHIRAKAWA	2.55	240.5	0	40A	0	1	19	9				
AKITA	2.61	301.0	0	42A	1	1	23	11				
MI TO	2.86	225.6	0	42A	-2							
AOMORI	2.95	325.2	0	47	1	1	35	15				
UTUNOMIYA	3.11	234.2	0	47A	-1	1	46	22				
KAKIOKA	3.13	226.8	0	45A	-3	1	39	14				
NIIGATA	3.15	262.3	0	51	2	1	34	9				
TUKUBASAN	3.18	227.5	0	46A	-3						1	34
TYOSI	3.19	213.3	0	46A	-3	1	37	11				
KUMAGAYA	3.66	233.1	0	55	-1	1	50	12				
MAEBASI	3.72	238.5	0	57A	0	1	46	6				
HONGO	3.73	224.8	0	54	-3						2	55
URAKAWA	3.74	357.5	0	57	0	2	5	25				
AIKAWA	3.76	265.5	1	3	6	1	58	17				
TOKYO C.M.O.	3.77	224.6	0	55A	-2	1	50	9				
HAKODATE	3.80	333.9	0	57	-1	1	52	10				
TITIBU	3.96	233.4	0	58	-2	2	3	17				
TAKADA	3.98	252.3	1	1	1	1	56	9				
YOKOHAMA	4.01	223.1	0	59	-2	1	49	2				
OI WAKE	4.11	241.0	1	2	0	2	8	18				
MORI	4.13	334.0	1	4K	2	2	10	20				
NAGANO	4.19	247.0	1	5A	2	1	59	7				
MURORAN	4.20	339.1	0	54	-9	2	3	11				
MATUSIRO	4.24	245.4	1	4A	0	1	55	2			1	32
MERA	4.32	217.1	1	5	0	2	12	17				
TOMAKOMAI	4.35	346.1	1	12	6	2	11	15				
HUNATU	4.46	230.7	1	6	-1	1	59	0				
KOHU	4.48	233.7	1	7	0	2	22	23				
OB IHIRO	4.51	1.9	1	6	-2	2	13	13				
MATUMOTO	4.55	243.3	1	9	1	2	24	23				
AJIRO	4.59	224.2	1	7	-2	2	8	6				
MISIMA	4.62	225.9	1	9	0	2	16	13				
OSIMA	4.66	219.8	1	7A	-3						1	33
KUSIRO	4.69	12.7	1	6	-4	1	55	-9				
SAPPORO	4.82	345.5	1	10	-2	2	13	5				
SUTTSU	4.86	335.2	1	15	2	2	25	16				
TOYAMA	4.91	251.4	1	15A	2	2	41	31				
WAZIMA	4.93	259.8	1	14	0							
SHIZUOKA	5.04	228.5	1	12A	-3	2	28	15				
IIDA	5.05	236.7	1	16	1	2	19	6				
TAKAYAMA	5.11	245.6	1	17	1						1	33
NEMURO	5.29	20.9	1	14K	-5	2	11	-8				
ASAHI GAWA	5.38	355.1	1	21	1	2	7	-15				
KANAZAWA	5.39	251.6	1	22	2							
OMAESAKI	5.41	226.8	1	25	5	2	42	20				
HAMAMATU	5.62	230.7	1	22A	-1	2	37	9				
RUMOE	5.63	349.8	1	29	5	2	37	9				
ABASHIRI	5.69	9.4	1	20	-4	3	0	31				
NAGOYA	5.82	238.1	1	27K	1	2	44	11				
GIHU	5.83	240.8	1	26	0	2	51	18				
HUKUI	5.89	248.5	1	29	2	2	56	22				
HATIDYOZIMA	5.91	207.2	1	44	17	2	33	-2				
TSURUGA	6.19	245.7	1	33	2	2	57	15				
HIKONE	6.25	242.0	1	32	0	3	4	21				
KAMEYAMA	6.34	237.9	1	35	2	2	58	12				

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 199									
TU	6.40	236.6	1	36	2						
KYOTO	6.75	242.1	1	39	0	3	9	13			
MAIZURU	6.76	246.6	1	40A	1	3	14	18			
ABUYAMA	6.94	241.6	1	40A	-2						
OWASE	7.00	233.8	1	42	-1	3	32	30			
WAKKANAI	7.07	352.4	1	44	0	3	16	12			
OSAKA	7.09	240.3	1	54	10	3	45	41			
TOYOOKA	7.15	248.8	1	44A	-1	3	25	19			
KOBE	7.31	241.8	1	45	-2	3	16	6			
WAKAYAMA	7.57	238.9	1	58	7	3	50	34			
TOTTORI	7.63	250.4	1	54	2	3	36	18			
SIOMISAKI	7.67	232.0	1	50	-2	4	13	54			
SUMOTO	7.68	240.5	1	50A	-2	3	45	26			
KURILSK	7.72	26.5	1	47	-6	3	12	-8	2	8	
HIMEJI	7.95	243.2	2	1	5						3 3
SAIGO	8.02	257.0	1	58	1	4	1	34			
TOKUSIMA	8.06	240.1	2	6	8	3	52	24			
YONAGO	8.28	251.9	2	3K	2	3	49	15			
TAKAMATU	8.29	243.2	2	0	-1	3	43	9			
MATSUE	8.48	252.6	2	6	3	3	46	7			
Y. -SAKHLINSK	8.61	358.7	2	1	-4						3 39
MUROTO	8.82	236.9	2	18	10	4	32	45			
KOTI	9.08	240.6	2	9	-3	4	10	16			
HIROSIMA	9.43	247.9	2	13	-3	4	8	6			
MATUYAMA	9.44	244.2	2	17K	0	4	19	16			
HAMADA	9.45	251.6	2	16A	-1	4	3	0			
SIMIDU	9.91	238.5	2	19	-4	5	11	57			
UWAZIMA	9.93	241.8	1	42	-41	4	12	-3			
OOITA	10.58	244.2	2	32A	0	4	49	18			
UGLEGORSK	10.69	356.7	2	29	-5						5 26
SIMONOSEKI	10.72	249.1	2	32	-2						
HUKUOKA	11.30	248.6	2	40	-2	5	6	18			
KUMAMOTO	11.46	244.6	2	43	-1	5	27	35			
SAGA	11.52	247.3	3	4	19	5	44	51			
UNZENDAKE	11.82	245.2	2	31	-18	4	50	-11			
ITUHARA	11.84	253.4	2	49	0						
NAGASAKI	12.09	246.0	2	51A	-2	5	43	36			
KAGOSIMA	12.27	240.0	3	15	20						4 10
TOMIE	12.95	247.8	3	3	-1	6	15	47			
CHANGCHUN	14.38	297.7	3	21A	-2	6	6	4			
SEVERO-KUR.	15.38	32.9	3	36	0						
ZO-SE	19.33	254.4	4	21A	-4	7	52	-3			
NANKING	20.74	259.6	4	36A	-4						
PEKING	20.83	282.9	4	38	-3						
KLYUCHI	21.51	27.8	4	46	-2						
MAGADAN	21.74	10.8	4	50	0						
TAINAN	24.80	238.3	5	6K	-14	9	47	10			
TAWU	24.80	236.1	5	25	5	9	50	13			
GUAM	24.90	176.0	5	22	1	10	34	55			
YAKUTSK	25.01	345.2	5	20	-2						
SIAN	27.67	271.9	5	45A	-2						
ULAN-BATOR	27.77	301.7	5	48	1	10	33	7			
HONG KONG	29.45	245.3	6	2	0	10	59	6	6	40	11 26 *SS
BAGUIO CITY	29.45	228.1	6	2	0	10	52	-1			
IRKUTSK	30.12	310.1	6	8A	0	11	3	0			
MANILA	30.56	225.3	6	13	1						8 59
LANCHOW	31.12	278.0	6	17	0						
KUNMING	36.42	260.7	7	3A	0	12	45	4			
NHATRANG	39.79	238.2	7	31	0						9 14 PP
RABAU	43.24	166.6	7	58	-1						
LHASA	43.46	274.6	8	2A	1						
SHILLONG	44.69	268.9	8	10A	-1	14	48	3			9 49 PP
SEMPALATNSK	45.12	306.6	8	14	-1	14	51	0	8	39	10 3 PCP
CHITTAGONG	46.38	265.1	8	25A	0	15	8	-1	8	59	10 15 PP
COLLEGE	47.26	32.9	8	31	0	15	24	3	8	55	10 20 PP
PORT MORESBY	47.72	174.5	8	33	-2	15	27	-1			9 33
CHATRA	47.78	273.3	8	36A	0	15	31	3			
CALCUTTA	48.99	267.6	7	44	-61						15 54
FRUNSE	50.80	298.1	8	59	0						10 58 PP
KHEYS	51.56	348.0	9	4	-1				9	30	11 5 PP
MEDAN	53.18	240.6	9	17	0						
DEHRA DUN	53.24	282.1	9	20	3	16	51	7			11 18 PP
TASHKENT	55.05	298.1	9	30	0				9	59	
LAHORE	55.52	285.3	9	32A	-2	17	19	4			
WARSAK DAM	56.49	289.2	9	41A	0						
DUZHANBE	56.53	295.3	9	40	-1						17 34
CHARTERS TS.	58.27	176.4	9	50	-3						
HYDERABAD	59.57	268.7	10	2A	0	18	12	4			12 19 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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 200

NORD MADRAS	59.76 60.79	356.6 263.4	10 2A -2 10 10A -1							
RESOLUTE QUETTA	60.96 61.74	14.9 287.4	10 10A -2 10 16 -1		18 39 15 18 28 2					12 28 PP
APATITY POONA	61.95 62.56	335.8 272.5	10 17A -1 10 21 -2		18 40 2 19 2 8		10 44			12 33 PP 14 9 PPP
BOMBAY THULE	63.17 63.73	273.5 7.9	10 27 0 10 28 -2							12 50
ASHKABAD SODANKYLA	64.10 64.18	299.0 337.3	10 34A 1 10 32A -1				10 53			12 46 PP 10 48
NOUMEA VICTORIA	64.28 64.56	155.9 47.3	10 38 4 10 39 3							
KIRUNA KAJAANI	65.67 65.90	339.5 334.2	10 42A -1 10 43A -1		19 32 8 19 31 1					
BRISBANE MOSCOW	66.09 66.89	170.5 323.6	10 46 1 10 50 -1		19 40 1					13 24 PP
AFIAMALU PULKOVO	67.07 67.64	131.5 329.7	11 23 31 10 54 -1							15 10 PPP
UMEA SHASTA	68.53 69.27	336.4 54.1	11 2 1 11 7 2							
NURMI JARVI HUNGRY HORSE	69.32 69.92	332.3 43.8	11 4A -2 11 9 0							11 24 PCP 12 5
MINERAL TEHERAN	69.97 70.01	54.1 300.1	11 12A 2 11 11A 1							
SCORESBY SD. BERKELEY	70.87 70.92	354.7 56.6	11 15K 0 11 17 2		20 24 8 20 28 2					20 48 PS
TIFLIS CONCORD	70.95 70.99	308.4 56.4	11 16A 0 11 23 7		20 22 -5 20 32 5					13 57 PP
SKALSTUGAN GORIS	71.09 71.25	339.0 305.8	11 15A -1 11 18 1							14 1 PP
RENO LICK	71.56 71.63	54.0 56.7	11 24A 5 11 24A 4							
BUTTE UPPSALA	72.10 72.27	45.2 334.4	11 22 0 11 23A 0							
RIVERVIEW SHIRAZ	72.27 72.61	172.9 294.2	11 48A 25 11 25K 0		20 44 2 20 45 2					14 12 PP 25 11 SS
ADELAIDE BOZEMAN	73.12 73.16	183.7 44.8	11 27 -1 11 30 1							
FRESNO CANBERRA	73.57 74.01	174.9 52.2	11 34 3 11 34 0							12 31
EUREKA MUNDARING	74.33 74.77	203.4 51.9	11 34 -2 11 40 2							
RUTH SIMFEROPOL	75.22 75.73	316.0 49.2	11 39A -2 11 47 3		21 5 -11					21 16 16 17 PPP
SALT LAKE C. PASADENA	75.78 75.81	57.7 335.3	11 46 2 11 45A 1							13 42 14 35 PP
GOTEBORG WARSAW	76.59 77.00	327.6 324.4	11 49 1 11 52 1							21 44 12 23
LWOW IASI	77.14 77.25	320.8 333.8	11 52 0 11 52 0							14 45 PP 14 54 PP
COPENHAGEN GLEN CANYON	78.27 78.44	52.1 42.3	11 59 1 11 59 0		21 43 5		12 24			12 8 PCP
RAPID CITY KRAKOW	78.66 78.88	326.6 327.2	12 0 0 12 2 1							17 10 14 59
CHORZOW NIEDZIKA	78.96 79.38	325.9 327.4	12 2 0 12 4A 0							14 59
RACIBORZ BUCHAREST	79.81 80.53	319.5 330.8	12 7 1 12 10A 0							15 11 PP 15 14 PP
COLLMBERG MOORLANDS	80.56 80.56	176.9 315.5	12 14K 4 12 9 -1							
ISTANBUL KA. ISTANBUL UN.	80.63 80.94	315.5 329.3	12 9 -1 12 31 19				12 32			15 19 PP
PRAGUE PRUHONICE	80.96 80.98	329.2 325.3	12 13A 1 12 13 1		22 15 -2 21 27 -50					17 6 PPP 16 38 PP
BUDAPEST HURBANOVO	81.05 81.30	326.0 326.7	12 0 -13 12 16 2							
BRATISLAVA KSARA	81.36 81.36	306.4 331.3	12 14 0 12 14 0		22 28 7 22 22 1					15 25 PP 15 49 PP
JENA VIENNA-H.	81.55 81.55	327.2 334.9	12 16A 1 12 16 1							
WITTEVEEN KARAPIRO	81.66 81.74	154.5 330.4	12 14 -2 12 14 -2							17 31
CHEB TUCSON	81.77 81.78	55.3 55.2	12 17 1 12 17 0		22 17 -8		12 48			15 42 PP
TUCSON TELE. MUNSTER	81.94 82.31	334.0 322.7	12 17 0 12 10K -9							12 49 15 32 PP
BELGRADE DURHAM	82.34 82.34	340.2 340.2	12 52K 33		22 5 -26					

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 201

SOFIA	82.45	319.7	12 20	0					23 12
BENSBERG	82.94	333.6	12 22A	0					12 33 PCP
JERUSALEM	83.11	305.2	12 23A	0					15 36 PP
HEIDELBERG	83.68	331.9	12 26	0					
STUTTGART	83.99	331.3	12 29	1	22 49	1			15 45 PP
LJUBLJANA	84.06	326.8	12 28A	0			13 1		16 0 PP
KARLSRUHE	84.12	331.9	12 29	1	22 54	5			
EBINGEN	84.59	331.1	12 32	1					
RAVENSBURG	84.67	330.5	12 33	2					
TRIESTE	84.70	326.9	12 31	0	22 54	-1	13 4		31 56 SSS
STRASBOURG	84.71	332.0	12 32A	1	22 56	1			15 48
KEW	84.91	338.0	12 33A	1	22 57	0			28 41 SS
BASLE	85.65	331.5	12 11A	-25					
PADOVA	85.69	327.9	12 52	16	23 22	18			24 34 PS
PARIS	86.36	335.1	12 41	1					
BESANCON	86.48	332.3	12 36	-4					
ROXBURGH	86.81	161.8			24 27	72			23 12 SKS
HELWAN	86.87	306.1	12 40	-2	23 31	15			
FLORENCE X.	87.27	327.2	12 42	-2	23 21	2			
FOLINIERE	87.35	336.8	12 45	1					
GARCHY	87.49	334.0	12 46	1					13 17
WICHITA MTS.	87.54	46.5	12 45	0	23 25	3			16 6 PP
ROME	88.25	325.4	12 48	-1	23 14	-15			16 18 PP
ISOLA	88.66	330.0	12 51	0					16 17 PP
CLERMONT-FD.	88.77	333.2	11 44	-67					
MONACO	88.88	329.5	12 51	-1					13 25
SHAWINIGAN	89.55	23.8	12 54	-1					
OTTAWA	89.59	26.1	12 54	-1					
MESSINA	89.73	321.3	12 49	-7	23 9	-33			16 30 PP
REGGIO CALA.	89.76	321.2							16 21
BAGNERES	92.17	333.7	13 7	0					
MORGANTOWN	92.93	31.8	13 11	0					
WESTON	93.74	24.7	13 9	-5					
TORTOSA	94.02	332.4							16 48
PALISADES	94.07	27.1			24 21	0			30 57 SS
TOLEDO	96.44	335.1	13 27	1	24 15	16			17 23 PP
ALICANTE	96.55	331.9	13 17	-10	24 21	22			19 25 PPP
TAMANRASSET	107.23	319.2	17 45	777	24 59	9			18 43 PP
WILKES	107.38	193.1							33 43 SS
LWIRD	110.24	283.7							19 5
BANGUI	113.29	296.4	18 35	1					19 5 SPKP
BROKEN HILL	117.99	273.5	18 45	2					
BULAWAYO	121.10	268.1	18 50	1					
SOUTH POLE	128.22	180.0	19 2	-1					
BYRD STATION	128.83	167.2	19 5	1					
LA PAZ	145.06	60.0	19 33	-1					

FEBRUARY 23 21.H 45.M 54.S EPICENTRE 36.75 27.09 DEPTH= 58.KM

A= 0.71508 B= 0.36570 C= 0.59576 D= 0.4553 E=-0.8903
G= 0.5304 H= 0.2713 K=-0.8032 HT= -0.5

DEPTH OF FOCUS= 0.004R

SE= 3.60

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S		
ATHENS	2.94	295.4	0	50	4	1	27	7				
ISTANBUL UN.	4.53	18.5									1	20 P*
ISTANBUL KA.	4.58	19.1									1	21 PG
SOFIA	6.61	335.2	1	33	-4	3	46	54				
BUCHAREST	7.70	354.7									3	41
HELWAN	7.73	151.4									2	32
KSARA	7.76	109.6	1	59	6	3	37	17				
JERUSALEM	8.36	124.0	1	55	-6	3	23	-12				
REGGIO CALA.	9.20	281.8	2	14	1							
MESSINA	9.28	282.4	2	9	-5						4	31
BELGRADE	9.50	330.1									3	11
SIMFEROPOL	9.77	30.8	2	17	-3							
TIMISOARA	10.01	335.7									5	44
KISHINEV	10.34	6.7									3	26
SOTCHI	11.82	50.9									3	44
BUDAPEST	12.27	333.4				4	57	-13				
ROME	12.42	298.9									3	36
LJUBLJANA	13.22	318.5	3	2	-5	5	11	-22			3	52
LWOW	13.25	351.3	3	16	9							

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 202									
SKALNATE PL.	13.38	340.3									3 49
TRIESTE	13.40	315.7									3 53 PGPG
BRATISLAVA	13.57	330.3	3 13		2						3 22 PP
NIEDZIKA	13.58	340.9	3 9		-2						3 54
VIENNA-H.	13.93	328.9	3 23		7						
FLORENCE X.	13.97	305.0	3 33		16	6 48	57				
KRAKOW	14.26	341.0									8 32
PADOVA	14.35	311.8									3 48
KASPERSKE H.	15.81	325.7	3 40		0						4 51
PAVIA	15.91	307.5	3 31		-11						10 51
PRUHONICE	16.03	329.5	3 44		1						
PRAGUE	16.15	329.5	4 3		18						
CHUR	16.49	313.2									4 35
MONACO	16.53	301.0	3 49		0						4 35
MAKHACH-KALA	16.84	62.1									4 45
ISOLA	16.93	302.2	3 55		1						
RAVENSBURG	16.95	316.0	3 54		-1						4 38
CHEB	17.03	326.1									4 35
COLLMBERG	17.68	329.8	4 3		-1						4 16 PP
STUTTART	17.70	318.3	4 4		0						4 48
BASLE	17.98	312.9									4 35
JENA	18.00	326.8	4 9		1						4 30 PPP
NEUCHATEL	18.11	310.7									4 53
KARLSRUHE	18.31	317.8	4 8		-3						
HEIDELBERG	18.37	319.2	4 12		0						
STRASBOURG	18.42	316.0	4 11		-2						5 11
BESANCON	18.81	310.5	4 17		0						
ALGIERS UNI.	19.25	277.3	4 26		4						8 40 PCP
TEHERAN	19.62	85.7	4 27		1	8 0	1				
CLERMONT-FD.	20.08	304.1	4 37		6						
BENSBERG	20.11	321.2	4 31		-1						5 15
MOSCOW	20.29	17.4	4 31		-2						
MUNSTER	20.52	324.0	4 24		-12						5 20
GARCHY	20.63	308.2	4 35		-2						5 20
COPENHAGEN	21.39	336.9									5 30
BAGNERES	21.55	295.4	4 46		0						
PARIS	21.60	311.6	4 47		0						5 31
SHIRAZ	22.39	101.1	4 55K		0	9 40	48	5 41			
PULKOVO	23.13	4.2	5 3		1						
GOTEBORG	23.23	339.2	5 2		-1						
TAMANRASSET	23.26	239.2	5 3		0						5 36 PP
FOLINIERE	23.40	309.6	5 3		-1						
NURMIJARVI	23.83	357.0	5 6		-3						
UPPSALA	23.91	348.2	5 12		3						
TOLEDO	24.57	286.9	5 14		-2	9 37	7				5 59 PP
DURHAM	26.63	321.7	5 48K		13						
UMEA	27.42	353.4	5 44		2						
SKALSTUGAN	28.33	346.1	5 51		0						
SVERDLOVSK	30.04	37.4	6 5		-1						
KIRUNA	31.36	355.2	6 14		-3						
BANGUI	33.14	195.6	6 30		-3						
QUETTA	33.71	89.4	6 43		5						
ANDIJAN	35.24	69.3	7 6		15						
WARSAK DAM	36.12	80.8	6 56		-2						
LWIRO	38.83	177.3	7 20		-1						
NORD	47.58	352.1	8 28		-4						
BULAWAYO	56.60	178.3	9 40		1						
RESOLUTE	62.54	345.3	10 21		1						
SHAWINIGAN	70.35	313.8	11 12		2						
COLLEGE	78.63	357.8	11 57		0						
HUNGRY HORSE	88.47	335.2	12 50		3						
WICHITA MTS.	92.76	317.9	13 7		0						13 53

FEBRUARY 23 21.H 56.M 51.S EPICENTRE 36.68 27.43 DEPTH= 47.KM

A= 0.71348 B= 0.37037 C= 0.59479 D= 0.4607 E=-0.8875
G= 0.5279 H= 0.2740 K=-0.8039 HT= -0.5

DEPTH OF FOCUS= 0.002R

SE= 3.52

	DELTA DEG.	AZ. DEG.	P M	O-C S	S M	O-C S	*PP M	S S	SUPP. M	S S
ATHENS	3.23	294.6	0 40A	-9					1 27	SG
ISTANBUL UN.	4.52	15.1	1 22	14	2 32	32				

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 203

ISTANBUL KA.	4.56	15.7										1 25 PG
KSARA	7.48	110.0										4 35 SG
HELWAN	7.54	153.3	1	49	-1				3	38	25	
									3	11	-4	
JERUSALEM	8.09	124.9	1	56	-1				3	31	2	
BELGRADE	9.70	329.1										5 21
KISHINEV	10.38	5.3	2	25	-4							
LWOW	13.36	350.4	3	5	-4							
TRIESTE	13.64	315.3										7 29
NIEDZIKA	13.74	340.1	3	10	-4							3 44
BRATISLAVA	13.77	329.7	3	9	-5							
VIENNA-H.	14.13	328.3	3	26	7							
TIFLIS	14.37	64.2										
KRAKOW	14.42	340.2	3	20	-3							
KASPERSKE H.	16.02	325.3	3	41	-2							4 57
PRUHONICE	16.23	329.0	3	47	1							
MONACO	16.80	300.9	3	51	-2							
RAVENSBURG	17.19	315.7	3	55	-3							
ISOLA	17.21	302.1	3	55	-3							
COLLMBERG	17.88	329.4	4	3	-4							4 24 PPP
STUTTGART	17.94	318.0	4	6	-1							
JENA	18.21	326.4	4	3	-8							4 56
HEIDELBERG	18.61	318.9	4	15	0							
STRASBOURG	18.66	315.7	4	14	-2							4 43
BESANCON	19.07	310.3	4	18	-3							
TEHERAN	19.35	85.6	4	28	4							
MOSCOW	20.28	16.8	4	32	-2							
BENSBERG	20.34	320.9	4	32	-3							
CLERMONT-FD.	20.35	304.0	4	21	-14							
GARCHY	20.90	308.0	4	36	-4							
BAGNERES	21.83	295.4	4	53	3							
PARIS	21.85	311.5	4	48	-2							
SHIRAZ	22.10	101.2	4	56	4				9	2	14	
PULKOVO	23.18	3.7	5	4	1							
GOTEBORG	23.39	338.9	5	5	0							
NURMIJARVI	23.91	356.6	5	7	-3							
UPPSALA	24.03	347.8	5	10	-1				8	58	-24	
UMEA	27.52	353.1	5	44	0							
SKALSTUGAN	28.47	345.8	5	50	-3							
SODANKYLA	30.74	359.4	6	14	1							
KIRUNA	31.45	354.9	6	18	-1							
BANGUI	33.15	196.2	6	32	-2							
KHEYS	45.55	6.7	7	3	-74							
NORD	47.68	352.0	8	28	-6							
CHATRA	51.02	83.1	9	0	1							
HUANCAYO	107.28	267.7										10 4 PPP

FEBRUARY 24 3.H 4.M 26.S EPICENTRE 25.87 125.41 DEPTH= 136.KM

A=-0.52208 B= 0.73424 C= 0.43397 D= 0.8150 E= 0.5795
G=-0.2515 H= 0.3537 K=-0.9009 HT= 3.1

DEPTH OF FOCUS= 0.016R

SE= 4.10

	DELTA DEG.	AZ. DEG.	P			O-C			*PP		SUPP.	
			M	S	S	M	S	S	M	S		
ISIGAKIZIMA	1.90	216.6	0	29A	-4							
MAWASHI	2.31	81.0	0	25A	-13	0	47	-20				
ILAN	3.49	252.5	0	55	1							
TAIPEI	3.62	257.5	0	59	3	1	43	5				
HWAL IEN	3.93	242.0	1	0	0							
HSINCHU	4.16	256.1	0	54	-9	2	39	48				
TAICHUNG	4.62	249.3	1	10	1							
ALISHAN	4.81	241.8	0	58K	-13							
TAITUNG	4.98	232.3	1	11	-3	2	5	-6				
TAWU	5.41	230.6	1	19	-1	2	16	-7				
TAINAN	5.53	240.0	1	25	4							
HENGCHUN	5.75	228.9	1	25	1	2	29	0				
YAKUSIMA	6.40	43.4	1	24	-9						3 50	
ZO-SE	6.40	325.4	1	32	-1	2	43	-2				
TOMIE	7.33	22.8	1	42	-3	3	1	-7				
NAGASAKI	7.87	28.7	1	47A	-6	3	14	-6				
KUMAMOTO	8.32	32.4	1	53	-6						2 9	
NANKING	8.47	318.2	2	1K	0	3	32	-3				
SAGA	8.49	28.9	2	9	8	3	14	-21				
HUKUOKA	8.81	28.2	1	58	-7						2 16	

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961												PAGE 204	
OOITA	9.11	34.9	2 14K	5		4	9	19					
SIMONOSEKI	9.36	29.4	2 24	12									
SIMIDU	9.53	42.0	2 20	5									
MATUYAMA	10.19	37.1	2 37	14		5	23	67					
KOTI	10.40	40.8	3 0	34		4	53	32					
HIROSIMA	10.42	34.0	2 30	4		4	31	10					
BAGUIO CITY	10.43	206.5	2 24	-3		4	20	-2					
HAMADA	10.67	31.0	2 33K	3		4	19	-8					
CANTON	11.34	258.4	2 38	-1		4	43	0			3	5	*SP
SUMOTO	11.78	42.0	2 48	4		5	4	11					
MANILA	11.86	200.8	2 46	1		4	52	-3					
OSAKA	12.36	42.6									3	18	
KAMEYAMA	13.07	44.2									3	24	
HIKONE	13.21	42.3	3 12	9									
NAGOYA	13.59	44.3	2 49	-19							5	47	
GIHU	13.62	43.1	3 15	7		5	49	13					
OMAESAKI	14.07	48.8									3	35	
SHIZUOKA	14.40	47.9									6	6	
TOYAMA	14.75	40.1									4	34	
MISIMA	14.86	48.4	3 33	9		6	13	8					
AJIRO	14.92	48.9	3 25	0		6	17	11					
KOHU	14.92	46.0	3 29	4		6	18	11					
HUNATU	14.96	46.9	3 34	9		6	18	11					
OSIMA	14.96	50.3	3 22K	-3		6	22	15					
MATUSIRO	15.25	42.7	3 24	-5		6	20	6			3	52	
OIWAKE	15.32	44.0	3 41	11									
NAGANO	15.33	42.3	3 36	6		6	26	10					
MERA	15.35	50.6	3 35	5		6	25	9					
YOKOHAMA	15.50	48.7	3 25	-7		6	30	10					
TOKYO C.M.O.	15.71	48.1	3 47	12		6	33	9					
KUMAGAYA	15.74	46.1	3 36	1		6	42	17					
PEKING	16.10	333.6	3 40K	1							3	57	4 8 *SP
TUKUBASAN	16.25	47.1	3 33	-8		6	33	-4			4	5	PPP
UTUNOMIYA	16.30	45.8	3 57	15		6	36	-2					
KAKI OKA	16.31	47.2	3 26	-16									
SIAN	16.53	304.2	3 46K	1									
MITO	16.59	47.2	3 40	-5		6	46	2					
SHIRAKAWA	16.86	44.8	3 44	-5		6	49	-1					
ONAHAMA	17.20	46.3	4 0	7		6	52	-6					
HUKUSIMA	17.41	43.5	3 52	-3		6	59	-3					
CHANGCHUN	17.92	359.8	3 58K	-3		7	20	6			4	31	*SP
SENDAI	18.00	42.9	4 10	8		7	8	-7					
VLADIVOSTOK	18.01	15.5	4 0	-2									
ISINOMAKI	18.35	43.1	3 59	-7		7	16	-7					
AKITA	18.49	38.1									7	34	
MIZUSAWA	18.68	41.1	4 16	6		7	37	7					
KUNMING	20.48	272.8	4 31	3		8	14	9			5	4	*SP
LANCHOW	21.07	304.0	4 35	1									
URAKAWA	21.63	37.0	4 39	-1		8	27	1					
GUAM	21.95	120.6	4 44	1		8	39	7			5	24	PP
OBHIRO	22.39	36.1									8	40	
Y.-SAKHLINSK	25.18	28.6	5 11	-3		9	36	10					
ULAN-BATOR	26.39	331.3	5 23	-2									
SHILLONG	30.18	276.9	5 35	-24		10	52	5			6	46	PP
LHASA	30.58	285.0	6 6K	3		10	58	5					
IRKUTSK	30.81	334.4	6 2	-3									
CHITTAGONG	30.81	270.7	6 4	-1		11	5	8			6	10	7 5 PP
CALCUTTA	33.88	272.4									11	53	
CHATRA	34.20	280.2	6 35	1									
YAKUTSK	36.26	3.4	6 47	-4									
MAGADAN	38.00	20.8	6 19	-47									
RABAU	39.58	135.2	7 8	-11									
PORT MORESBY	40.94	146.1	7 44	14		14	14	43			13	33	PCS
DEHRA DUN	41.79	287.3	7 38	1							13	46	
SEMIPALATNSK	42.27	317.6	7 39	-2									
FRUNSE	44.53	305.6	8 1A	2									
LAHORE	44.84	289.6	8 1	-1		14	29	1			9	44	PP
TIKSI	45.84	1.5	7 55K	-15									
ANDIJAN	46.08	302.6	8 15A	3									
NAMANGAN	46.62	302.9	8 18	2									
TASHKENT	48.43	303.3	8 30	0									
BOMBAY	48.86	273.1				15	32	7			9	7	
CHATTERS TS.	49.97	154.1	8 42	0							10	0	
QUETTA	51.31	289.0	8 53K	1		16	4	5			10	54	PP
SVERDLOVSK	55.00	322.6	9 27K	8									
MUNDARING	58.18	189.2	9 38	-4									
SHIRAZ	63.62	291.8	10 18	0									
CANBERRA	64.82	158.8	10 27	1							10	52	

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 205

COLLEGE	65.54	27.9	10 28	-3						
TIFLIS	66.57	306.4	10 40K	3					13	7 PP
APATI TY	67.13	335.4	10 39	-2	19	34	12	11	7	
MOSCOW	67.82	322.4	10 44	-1						
SODANKYLA	69.70	335.9	10 53	-4						
KAJAANI	70.32	332.4	10 59A	-1						
PULKOVO	70.50	327.7	11 0	-1						
NORD	71.05	354.5	11 1	-4						
KIRUNA	71.75	337.3	11 7	-2						
NURMI JARVI	72.91	329.4	11 14	-2						
UMEA	73.48	333.5	11 18	-1						
KSARA	75.73	300.8	11 32	0	21	3	2			14 18 PP
RESOLUTE	76.37	10.2	11 33K	-2						
UPPSALA	76.37	330.4	11 33	-2						
SKALSTUGAN	76.72	335.0	11 36	-1						12 19
JERUSALEM	77.01	299.1	11 41	2						
LWOW	77.56	319.4	11 44A	2						
KARAPIRO	78.98	141.8	11 49	-1						
KRAKOW	79.82	320.9	11 55	1						12 1 PCP
GOTEBORG	80.00	330.0	11 56	1						
SKALNATE PL.	80.05	320.0	11 48	-8						
HELWAN	80.83	298.6	12 1	1						15 7 PP
COPENHAGEN	80.88	328.1	11 54A	-6						
SCORESBY SD.	81.16	349.4	12 1A	0						
BRATISLAVA	82.36	320.1	11 34	-34						
VIENNA-H.	82.74	320.4	12 11A	1						
PRUHONICE	82.86	322.6	12 11	1						
COLLMBERG	82.99	324.2	12 12A	1						12 17 PCP
KASPERSKE H.	83.85	322.2	12 16	1						12 46
JENA	83.94	324.4	12 17	1						13 29
LJUBLJANA	84.97	319.2	12 22	1						
WITTEVEEN	85.30	327.7	12 24	2						
MUNSTER	85.35	326.7	12 23	0						
TRIESTE	85.64	319.2	12 26	2						
BENSBERG	86.19	326.1	12 28A	1						13 28
HEIDELBERG	86.32	324.2	12 28	1						
STUTTGART	86.40	323.5	12 29	1						
TUBINGEN	86.65	323.4	12 30	1						
EBINGEN	86.91	323.1	12 32	2						
ARCATA	87.50	45.3	12 34	1						
TANANARIVE	87.74	247.9	13 5	31						
SHASTA	88.67	44.8	12 40A	1						
HUNGRY HORSE	88.98	35.1	12 40	0						16 19 PP
MINERAL	89.37	44.7	12 42A	0						
LICK	91.02	47.2	12 50A	0						
BUTTE	91.24	36.2	12 51	0						
EUREKA	93.39	42.9	13 1	0						16 34 PP
WOODY	93.79	47.3	13 1	-1						
PASADENA	95.16	48.2			23	40	10			24 28 S
FLAMING GRGE	96.33	38.5	13 14	0						
LWIRO	96.93	270.9								13 48
LARAMIE	98.15	36.3	13 23	1						
TAMANRASSET	104.32	304.3								17 51 PP
WICHITA MTS.	106.72	36.7	14 3	777						18 27 PP
PALISADES	111.08	15.6								29 5 PS
BYRD STATION	119.60	169.5	18 32	-1						
CARACAS	141.90	19.9	19 16	0						
TRINIDAD	143.10	11.2	19 17	-1						
HUANCAYO	156.09	58.8	19 51	14						20 8 PKP2

FEBRUARY 25 15.H 1.M 59.S EPICENTRE -15.38-175.73 DEPTH= 0.KM

A=-0.96197 B=-0.07186 C=-0.26353 D=-0.0745 E= 0.9972
G= 0.2628 H= 0.0196 K=-0.9647 HT= 5.7

SE= 3.06

	DELTA DEG.	AZ. DEG.	P		O-C S	S O-C			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
AFIAMALU	4.09	69.6	0	55	-10	1	6	-49				
PORT VILA	15.47	259.1	3	44	3							
NOUMEA	18.21	245.1	4	16	0							
ONERAHI	22.16	201.8	5	4	5							
KARAPIRO	23.75	197.3	5	11	-4							
BRISBANE	31.57	242.5	6	23	-3	11	32	-3				
RABAUL	33.47	286.0	6	37	-6							

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 206

RIVERVIEW	35.06	232.4						
PORT MORESBY	36.70	274.9	7 11	0	12 30	1		
CANBERRA	37.28	231.2	7 19A	4	12 59	4		
MELBOURNE	41.23	229.5	7 50	2				
TARRALEAH	42.09	222.7	7 57A	2				
ADELAIDE	45.16	235.8	8 18	-2				
MUNDARING	63.57	241.7	10 35	0				
MATUSIRO	67.49	321.1	11 0	0	20 5	9		
BYRD STATION	69.32	171.1	11 8	-3				
PETROPAVLOVK	71.61	344.0	11 24	-1				
Y.-SAKHLINSK	72.44	331.6	11 30	0				
VINEYARD	72.87	43.1	11 33	0				
BERKELEY	72.94	41.7	11 34	1	21 8	8		
LICK	73.03	42.4	11 35A	1				
PASADENA	73.63	46.8	11 38	1	21 7	0		21 49
FRESNO	73.93	43.8	11 38	-1				
SHASTA	74.53	39.3	11 43	1				
SOUTH POLE	74.72	180.0	11 40	-3				13 0
MINERAL	74.81	39.9	11 45A	1				
LEMBANG	75.39	266.8	11 49K	2				12 11
VLADIVOSTOK	75.42	323.2	11 48	1				
RENO	75.47	41.4	11 49A	1				
BOULDER CITY	76.91	46.7	11 56	0				
EUREKA	77.93	43.1	12 2	1				12 23
TUCSON TELE.	78.19	51.6	12 5	2				
HONG KONG	78.19	297.2			22 58	61		
VICTORIA	78.74	32.4	12 7A	1				
MAGADAN	79.45	343.4	12 8	-2				
GLEN CANYON	79.68	47.1	12 13	2				
PENTICTON	81.22	33.3	12 12	-7				
SALT LAKE C.	81.31	43.6	12 21	1				
COLLEGE	82.78	11.6	12 24	-3			12 42	
FLAMING GRGE	83.03	44.4	12 37	8				
BUTTE	83.43	38.7	12 32	1				
HUNGRY HORSE	83.76	36.2	12 32	0				
BOZEMAN	84.18	39.6	12 35	1				
LARAMIE	85.79	45.3	12 44	1				
WICHITA MTS.	88.43	53.5	12 54	-1				
FAYETTEVILLE	92.27	53.3	13 13	0				
RESOLUTE	102.31	15.6	13 59	0				
PALISADES	108.77	51.5						34 21 55
SODANKYLA	126.03	349.5	19 4	0				
KAJAANI	128.73	347.0	19 11	1				
MOSCOW	132.31	335.1	19 17	1				
NURMIJARVI	132.56	346.5	19 17	0				
LWOW	142.08	339.1	19 38	4				
COLLMBERG	143.49	350.8	19 36	-1				22 48 PP
NIEDZIKA	143.61	342.3	19 37	0				
JENA	144.05	352.1	19 32	-6				22 52 PP
BENSBERG	144.43	356.8	19 34	-4				
PRUHONICE	144.49	348.6	19 39	1				
HURBANOVO	145.61	343.3	19 34	-6				
BRATISLAVA	145.63	344.7	19 41	1				19 54 PKP2
VIENNA-H.	145.74	345.6	19 39K	-2				
HEIDELBERG	145.88	354.8	19 43	2				
KSARA	146.09	308.5	19 42	1				23 10 PP
STUTTGART	146.45	354.0	19 41	-1				20 4
FOLINIERE	146.47	5.7	19 43	1				
STRASBOURG	146.77	355.8	19 47	5				20 6
JERUSALEM	147.43	305.6	19 48	5				
LJUBLJANA	148.24	346.4	19 47	2				
TRIESTE	148.79	347.1	19 49	3				
CLERMONT-FD.	149.69	1.6	19 54	7				
LWIRO	150.07	236.2	19 53	5				
ISOLA	151.20	355.8	19 59	10				20 28 PKP2
HELWAN	151.26	304.8	20 1	12				21 13
MONACO	151.61	355.2	19 21	-29				
ATHENS	151.69	326.3	19 58	8				
TAMANRASSET	172.54	351.1	20 13	2			20 30	25 19 PP

FEBRUARY 26 5.H 48.M 54.S EPICENTRE -32.68-111.28 DEPTH= 68.KM

A=-0.30607 B=-0.78588 C=-0.53732 D=-0.9318 E= 0.3629
G= 0.1950 H= 0.5007 K=-0.8434 HT= 0.9

DEPTH OF FOCUS= 0.005R

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 207

SE= 2.92

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
HUANCAYO	38.80	66.4	7	22	2	13	28	16				
AREQUIPA	39.36	75.5	7	24	0							
LA PAZ	42.10	78.1	7	48A	1	14	9	8				
PORT STANLEY	42.82	132.7	7	51	-2							
BYRD STATION	47.57	181.9	8	29	-2							
CHINCHINA	50.47	48.9	9	5	12	16	24	24				
BOGOTA	51.20	50.7	9	1	2	16	29	19			20	12 SS
BALBOA HTS.	51.27	41.7	9	0	1						16	22
COMITAN	51.99	23.6	9	16	12	16	36	15			15	26
FUQUENE	52.06	50.3	9	4A	-1	16	55	33				
TACUBAYA	53.05	14.3	9	10K	-2	16	52	16			12	24 PPP
VERA CRUZ	53.58	17.9									9	46
CAPE HALLETT	55.74	201.3				17	22	10			14	49 PCS
SCOTT BASE	56.63	194.5	9	49	11	17	38	15			21	44 SS
SOUTH POLE	57.50	180.0	9	42	-3						10	8
AFIAMALU	57.89	273.8				17	59	19				
WELLINGTON	58.07	238.6	9	53	4	17	46	4				
CHATEAU	58.14	241.1									10	8
KARAPIRO	58.54	242.5	9	50	-2						10	15
ONERAHI	60.15	244.5	10	3	0							
CARACAS	60.27	52.3	10	2A	-2	18	18	7				
ROXBURGH	60.59	232.5				18	28	13			20	0 SCS
TRINIDAD	64.18	56.6	10	27	-3							
TUCSON	64.58	0.4	10	31	-1	19	9	4			12	54 PP
TUCSON TELE.	64.67	0.5	10	32	-1						12	44 PP
LUBBOCK	66.50	8.6	10	45	0							
PASADENA	66.79	353.8	10	46	0	19	51	19			24	6 SS
WICHITA MTS.	68.09	11.2	10	53	-2	19	43	-5			13	19 PP
BOULDER CITY	68.38	356.9	10	56	0							
GLEN CANYON	69.29	359.7	11	2	0							
FRESNO	69.54	352.7	11	3K	-1							
VINEYARD	69.71	351.4	11	5	0							
FAYETTEVILLE	70.25	14.6	11	8	0	20	23	10			11	33
LICK	70.32	351.2	11	9K	1							
BERKELEY	70.93	350.8	11	12K	0	20	35	14			24	54 SS
CONCORD	71.00	351.0	11	12K	0							
RUTH	71.62	357.0	11	16	0	20	43	14				
EUREKA	71.92	356.2	11	18	0						17	34
RENO	72.29	353.1	11	21K	1							
LAWRENCE	72.82	13.0	11	22	-1							
SALT LAKE C.	73.08	359.5	11	24	-1							
FLAMING GRGE	73.26	1.5	11	25	-1						13	36
MINERAL	73.29	351.8	11	26K	0							
SHASTA	73.73	351.2	11	28	0							
FORT NELSON	75.96	227.9	11	43	2							
WILKES	76.24	196.1				21	32	12			26	22 SS
MOORLANDS	76.32	228.3	11	42	-1							
RAPID CITY	76.74	6.0	11	46	0						14	35 PP
TARRALEAH	76.86	228.1	11	45	-1							
BOZEMAN	77.98	0.2	11	52	-1							
RIVERVIEW	78.16	237.5	11	54A	0	21	48	7			12	1 PCP
BUTTE	78.34	359.1	11	54	-1							
CANBERRA	78.88	235.2	11	57K	-1							
PENNSYLVANIA	79.35	25.2	12	2	2						22	31 SCS
MELBOURNE	80.25	231.3	12	8	3	22	15	12				
BRISBANE	80.31	243.8	12	2	-3	22	7	3				
HUNGRY HORSE	80.70	358.1	12	7	0							
PALISADES	81.02	27.7	12	12	3	22	22	11			23	12 PS
VICTORIA	81.56	351.9	12	11K	-1							
PENTICTON	81.97	354.5	12	14	0							
WESTON	83.21	28.6	12	20A	0						22	48
OTTAWA	84.14	24.3	12	26	1							
ADELAIDE	86.01	230.7	12	35	1							
SHAWINIGAN	86.18	25.5	12	35	0							
CHARTERS TS.	89.29	246.6	12	49	-1							
RABAUL	93.26	263.0	13	9	1							
COLLEGE	101.33	345.0	13	34	-11							
GRANADA	121.86	63.6									19	51 PP
TUKUBASAN	122.27	295.0									30	29
NORD	122.78	10.0									20	28 PP
MATUSIRO	123.81	294.8									30	38 PS
TAMANRASSET	123.90	83.0	18	51	0						20	34 PP
BANGUI	125.46	110.1	18	55	1						20	47
ALGIERS UNI.	126.82	66.1	18	53	-3						20	44 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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961					PAGE 208	
SETIF	128.48	67.4	19 1	2	21	6 PP
CLERMONT-FD.	128.87	55.0	19 3	3		
TIKSI	129.99	339.0	19 1	-1		
YAKUTSK	131.81	326.4	19 5	-1	22 29	SKP
BENSBERG	132.09	48.5	19 8A	2	20 16	
MUNSTER	132.40	47.2	19 7	0		
STUTT GART	133.36	51.6	19 10	1		
FLORENCE X.	134.34	58.6	19 26	16	28 36	
JENA	134.88	48.6	19 12	1	20 24	
PADOVA	134.93	56.4			22 13	
CHANGCHUN	134.98	301.3	19 21	9		
ROME	135.02	61.4	19 14	2	22 19	PP
KIRUNA	135.24	23.7	19 13	1		
COLLMBERG	135.76	48.0	19 14	1	22 51	PKS
TRIESTE	136.26	56.2			22 1	PP
PRUHONICE	136.81	49.9	19 17	2	22 6	PP
LJUBLJANA	136.82	55.6	19 11	-4	22 9	PP
MESSINA	136.82	67.2			22 44	
MESSINA	136.82	67.2	19 14	-1	22 19	PP
UMEA	136.85	29.1	19 18A	3		
UPPSALA	136.99	35.2			40 18	SS
SODANKYLA	137.53	22.6	19 17	1		
NANKING	138.04	283.2			20 04	
HONG KONG	138.65	267.3			21 05	
APATITY	139.51	20.0	19 20	0	22 17	
KAJAANI	139.67	26.5	19 21	1		
NURMI JARVI	140.07	32.4	19 22	1		
NIEDZIKA	140.59	50.3	19 16	-6	19 48	
BELGRADE	140.98	57.5	19 26K	3	22 36	
PEKING	141.46	294.8			19 37	
LWOW	142.91	49.1	19 23	-3	23 0	PKS
PULKOVO	142.93	31.4	19 24	-2		
ATHENS	143.18	68.8	19 26	0		
BUCHAREST	145.03	57.9	19 31A	1		
IASI	145.70	52.8	19 33	2		
ISTANBUL UN.	147.36	63.7	19 35	1		
ISTANBUL KA.	147.42	63.6	19 35	1		
ULAN-BATOR	147.52	309.3	19 36	2		
IRKUTSK	147.70	318.0	19 37	3		
HELWAN	148.02	84.9	19 36K	1		
MOSCOW	148.39	33.9	19 36	1	22 56	SKP
KUNMING	149.38	264.6	19 41	4		
SIMFEROPOL	150.61	55.2	19 43	4	23 25	PP
LANCHOW	150.92	286.5	19 41	2		
JERUSALEM	151.71	82.7	19 39	-1		
KSARA	152.57	78.6	19 44	3	23 35	PP
SVERDLOVSK	155.21	10.6	19 45	0		
SHILLONG	158.60	256.7	20 25	36		
TIFLIS	158.97	57.8	19 53	3	24 11	PP
SEMPALATNSK	160.34	337.7	19 51	0	24 10	PP
POONA	165.18	199.4	19 56	0		
TEHERAN	165.34	73.2	19 59	3	24 38	PP
BOMBAY	165.80	196.0			22 9	
SHIRAZ	165.80	98.0	19 56K	-1	31 41	
FRUNSE	168.85	337.0	20 0	1	24 57	PP
ASHKABAD	170.03	55.3	20 1	2	25 2	PP
DEHRA DUN	171.70	256.0	20 28	28	25 32	
LAHORE	175.11	258.2	20 4	2		
QUETTA	177.09	148.2	20 5	3	25 39	PP
WARSAK DAM	177.29	299.9	20 4	2	25 39	PP

FEBRUARY 26 18.H 10.M 52.S EPICENTRE 31.84 131.56 DEPTH= 56.KM

A=-0.56462 B= 0.63686 C= 0.52499 D= 0.7483 E= 0.6634
G=-0.3483 H= 0.3928 K=-0.8511 HT= 1.2

DEPTH OF FOCUS= 0.004R

SE= 2.71

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
MIYAZAKI	0.14	303.8	0	7	-3							
KAGOSIMA	0.90	252.9	0	15K	-2	0	28	-3				
ASOSAN	1.13	338.7	0	21A	1	0	38	2				
KUMAMOTO	1.22	323.5	0	24K	3	0	44	6				
OOITA	1.39	2.1	0	25	1	0	43	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 209

UNZENDAKE	1.42	309.0	0 28A	4	0 51	9
SIMIDU	1.52	51.5	0 21	-4	0 32	-13
UWAZIMA	1.62	30.9	0 25A	-2	0 32	-15
YAKUSIMA	1.66	213.5	0 25A	-2		
NAGASAKI	1.68	302.4	0 28A	0	0 54	6
SAGA	1.76	323.2	0 30A	1	0 57	6
HUKUOKA	2.00	330.5	0 33A	1	0 59	3
SIMONOSEKI	2.17	346.0	0 36A	2	1 6	6
MATUYAMA	2.24	26.9	0 34	-1	0 46	-16
KOTI	2.38	43.7	0 36K	-1	1 6	0
TOMIE	2.49	288.9	0 39K	0	1 20	12
MUROTO	2.62	56.9	0 38K	-3	1 5	-7
HIROSIMA	2.63	15.9	0 39	-2	1 10	-2
ITUHARA	3.03	321.5	0 47A	0	1 36	14
HAMADA	3.08	7.8	0 49A	2	1 42	19
TAKAMATU	3.24	39.6	0 49	-1	1 29	2
TOKUSIMA	3.38	48.0	0 51A	0	1 31	0
OKAYAMA	3.45	34.3	0 51A	-2	1 30	-3
HIMEJI	3.56	41.2	0 58	4	1 54	18
SUMOTO	3.76	47.6	0 54K	-3	1 49	9
WAKAYAMA	3.86	50.9	0 58K	0	1 42	-1
YONAGO	3.88	22.2	0 57A	-1	1 46	3
SIOMISAKI	3.90	64.6	0 54K	-5	1 48	4
KOBE	4.15	46.0	1 2	0	1 53	3
TOTTORI	4.26	30.1	1 2	-2	2 1	8
OSAKA	4.35	48.8	1 3K	-2	1 56	1
OWASE	4.49	59.1	1 3	-4	1 54	-5
ABUYAMA	4.52	46.9	1 3K	-4		
NARA	4.56	50.5	1 9	1	2 4	3
TOYOOKA	4.57	35.6				
SAIGO	4.59	18.2	1 7	-1	2 13	12
KYOTO	4.71	46.6	1 9	-1	2 11	7
MAIZURU	4.83	40.4	1 12K	0	2 4	-3
TU	5.04	54.2	1 17	2	2 18	6
KAMEYAMA	5.09	52.5	1 13K	-2	2 14	0
HIKONE	5.20	47.6	1 16	-1	2 24	8
TSURUGA	5.34	43.5	1 20	1	2 22	2
NAGOYA	5.61	52.2	1 19K	-4	2 30	3
GIHU	5.61	49.4	1 23K	0	2 58	31
HUKUI	5.72	41.5	1 26A	2	2 34	5
HAMAMATU	5.90	59.2	1 27A	0	2 33	-1
OMAESAKI	6.22	62.0	1 20	-11	2 32	-10
KANAZAWA	6.30	40.7	1 39	7	2 47	3
IIDA	6.39	53.2	1 46	13		
TAKAYAMA	6.39	46.2	1 33	-1	2 0	-46
SHIZUOKA	6.52	59.5	1 32K	-3	3 16	27
MAWASHI	6.55	212.4	1 34	-2	2 58	5
NAGATURO	6.70	63.8	1 36	-2	3 10	16
TOYAMA	6.73	42.4	1 39K	1	2 59	5
MATUMOTO	6.90	48.7	1 44	3	3 11	12
KOHU	6.97	54.9	1 41	-1	3 38	38
MISIMA	6.99	60.1	1 38K	-4	3 15	14
HUNATU	7.03	56.8	1 43	0	3 11	9
WAZIMA	7.06	37.1	1 43A	0	3 5	2
HATIDYOZIMA	7.07	77.6	1 43	0	3 9	6
AJIRO	7.07	61.0	1 40	-3	3 33	30
OSIMA	7.17	63.9	1 42	-2	3 4	-1
MATUSIRO	7.23	47.8	1 43A	-2	3 12	5
NAGANO	7.31	47.0	1 48	2	3 20	11
OIWAKE	7.33	50.4	1 45	-2	3 8	-1
TITIBU	7.49	54.5	1 50	1	4 5	52
MERA	7.57	63.8	1 46	-4	3 18	3
TORISIMA	7.61	98.0	2 5	14	3 39	23
TAKADA	7.62	44.6	1 53	2	3 26	10
YOKOHAMA	7.64	59.9	1 53	2	3 40	23
MAEBASI	7.71	51.8	1 54K	2	3 40	21
KUMAGAYA	7.79	54.4	1 53	0	3 34	13
TOKYO C.M.O.	7.82	58.5	1 51	-2	3 26	5
HONGO	7.85	58.3	1 56	2		
AIKAWA	8.26	39.9	1 59K	0	3 40	8
TUKUBASAN	8.32	56.0	1 57	-3	3 47	13
KAKIOKA	8.39	56.2	2 1K	0	3 48	13
NIIGATA	8.64	43.4	2 10	5	3 45	3
TYOSI	8.65	60.9	2 6A	1	3 51	9
MI TO	8.66	56.1	2 7A	2	3 41	-1
SHIRAKAWA	8.88	51.3	2 10	2	4 55	67
ZO-SE	8.90	268.0	2 8A	0		
ONAHAMA	9.25	54.0	2 13	0	4 5	8

4 7

4 22

4 16

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961							PAGE 210	
HUKUSIMA	9.40	48.7	2 16	1	4 11	11		
YAMAGATA	9.63	46.0	2 19K	1				
SAKATA	9.75	41.5	2 25	5	4 20	11		
SENDAI	9.98	47.5	2 23K	0	4 19	4		
ISINOMAKI	10.34	47.9	2 27K	-1	4 43	20		
AKITA	10.48	39.0	2 32	2	4 32	5		
MI ZUSAWA	10.66	44.3	2 36	4	5 1	30		
NANKING	10.86	274.5	2 35A	0				
MORIOKA	11.06	42.2	2 38K	0	4 43	2		
TAIPEI	11.14	235.0	2 40	1	5 12	29		
ILAN	11.15	233.2	3 8	29	5 24	41		
VLADIVOSTOK	11.26	1.3	2 41	1				
MIYAKO	11.49	44.4	2 43	-1	4 46	-5		
AOMORI	11.64	37.1	2 50	5	5 6	11		
HSINCHU	11.67	235.7	2 42	-4	5 27	32		
HWALIEN	11.77	230.7	2 52K	5	5 13	15		
HATINOHE	11.83	40.1	2 47	-1	5 2	3		
TAICHUNG	12.29	234.1	2 59	5	5 25	15		
HAKODATE	12.37	33.9	2 57	2	5 15	3		
MORI	12.51	32.6	3 1	4	5 27	11		
YUSHAN	12.55	231.1	3 4	6	5 36	19		
ALISHAN	12.63	231.6	3 0K	1	5 25	7		
MURORAN	12.87	33.0	2 59	-3	5 22	-2		
SUTTSU	12.92	29.7	3 5	2	5 35	9		
TAITUNG	12.94	228.1	3 6	3	6 17	51		
CHANGCHUN	12.94	339.4	3 5A	2	5 46	20		
TAINAN	13.37	231.6	3 19	11	6 7	31		
TOMAKOMAI	13.39	33.7	3 11	2				
KAOSIUNG	13.60	230.3	3 28	17				
SAPPORO	13.63	31.9	3 10A	-2	5 44	2		
URAKAWA	13.63	37.9	3 12	0	5 32	-11		
HENGCHUN	13.74	227.1	3 24	11	6 2	17		
HIROO	14.01	38.7	3 18	1				
OBIHIRO	14.40	36.6	3 21	-1	6 34	33		
RUMOE	14.45	30.4	3 23	0	6 21	19		
ASAHIKAWA	14.65	32.5	3 25	0				
PEKING	14.89	307.5	3 30A	2	6 30	18		
KUSIRO	15.07	38.8	3 26	-5	6 26	10		
WAKKANAI	15.68	27.3	3 40	2	6 34	4		
ABASHIRI	15.74	35.8	3 43	4	6 52	20		
NEMURO	15.94	40.1	3 38	-4	6 39	2		
Y.-SAKHLINSK	17.41	26.3	3 58	-2	7 8	-2		
HONG KONG	18.15	242.7	4 7A	-2	7 10	-17		
BAGUIO CITY	18.31	215.6	4 8	-3				
CANTON	18.35	246.1	4 10A	-2	7 45	14		
SIAN	19.13	283.3	4 21A	0				
MANILA	19.59	211.7	4 27	1			8 8	
GUAM	21.93	143.6	4 49K	-1	8 39	-5		
OKHA	23.19	17.4	5 3	1	9 14	8		5 51
CHENGTU	23.56	274.4	5 6A	0	9 25	12		
ULAN-BATOR	24.67	317.7	5 16	-1				
KUNMING	26.15	262.5	5 29A	-2	10 9	13		
IRKUTSK	28.46	323.8	5 51A	0			6 54 PPP	
PETROPAVLOVK	28.82	34.8	5 55	0	10 42	3		12 8 SS
YAKUTSK	30.22	358.3	6 6	-1				
MAGADAN	30.56	19.3	6 11	1	11 15	8		
KLYUCHI	31.85	31.1	6 19	-3	11 28	1		7 30 PP
TOCKLAI	32.38	270.5	6 42	16				
LHASA	34.76	277.2	6 48A	1				
SHILLONG	35.23	270.0	6 47A	-4	12 14	-5		8 4 PP
CHITTAGONG	36.45	265.0	7 1A	0	12 35	-3		8 27 PP
CHATRA	38.82	274.3	7 21A	0	13 19	5	7 21	8 53 PP
CALCUTTA	39.31	267.3	7 23A	-2	13 34	12		9 1 PP
TIKSI	39.87	358.7	7 27	-3				
RABAUL	40.86	147.5	7 38	0	13 50	5		
PORT BLAIR	40.98	249.5	7 36	-3	13 42	-5		9 44 PCP
BOKARO	41.00	270.6	7 39A	0	14 7	20		8 51 PP
MEDAN	41.76	234.4	7 45A	0	14 2	4		
SEMI PALATNSK	41.94	311.6	7 46	-1				
PORT MORESBY	43.64	157.4	8 0	0	14 24	-1		
DJAKARTA	44.56	216.4	8 6	-2	14 40	1		10 23 PP
LEMBANG	44.73	214.9	8 9A	0	14 43	2		18 1 SCS
VIZIANAGRAM	45.35	264.3	6 51	-83				8 45
DEHRA DUN	45.46	282.8	8 17	2	14 56	4		10 7 PP
FRUNSE	45.80	300.7	8 18	0				15 10 PS
LAHORE	48.19	285.6	8 37A	1	15 37	7		10 31 PP
HONIARA	49.21	141.7	8 44	0				10 11
WARSAK DAM	49.79	289.6	8 49A	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 211

HYDERABAD	49.91	266.4	9 49A	59	16 57	63		11 48
TASHKENT	49.95	299.4	8 50	0				10 49 PP
MADRAS	50.57	260.4	8 53A	-2	16 22	18		10 51 PP
DUZHANBE	50.87	296.0	8 56	-1				16 24 PS
POONA	53.33	270.2	9 13A	-2	16 43	2		11 19 PP
CHARTERS TS.	53.52	162.7	9 16	-1	16 42	-2		
SVERDLOVSK	53.74	319.9	9 17	-1	16 53	6		11 31 PP
BOMBAY	54.04	271.1	9 20	-1	16 54	3		11 30 PP
COLOMBO	54.09	254.1	9 20	-1	17 10	18		12 44 PP
KODAI KANAL	54.27	259.1	9 23	1	16 59	5		11 23 PP
QUETTA	54.65	286.4	9 24A	-1	17 1	2	9 39	11 24 PP
KHEYS	56.12	349.1			17 24	5		11 37 PP
COLLEGE	57.73	29.9	9 47	0	17 49	9		
ASHKABAD	58.94	297.9	9 57A	1	18 4	8		12 16 PP
PORT VILA	60.60	139.1	9 59	-8				
HONOLULU	62.83	80.8	10 24A	2	18 56	11		
KIPAPA	62.85	80.6	10 25	3				
APATITY	63.99	335.0	10 29A	-1	19 1	1		12 39 PP
TEHERAN	64.94	297.8	10 36A	0	19 19	7		
MUNDARING	65.11	194.4	10 35A	-2	19 17	3		
PERTH	65.17	194.7	10 37	0	19 14	0		13 6 PP
SITKA	65.52	36.8	10 40	1				
NORD	65.61	355.1	10 39A	-1	19 25	5		20 35 SKS
HAWAII V.OB.	66.04	81.3	10 41	-2	19 37	12		
MOSCOW	66.43	322.0	10 43	-2	19 29	-1		14 40 PPP
SHIRAZ	66.47	291.2	10 45K	0	19 32	2	10 52	14 45 PPP
SODANKYLA	66.47	335.9	10 43A	-2	19 37	7		13 14 PP
ADELAIDE	66.80	173.6	10 47A	-1	19 38	4	10 59	
GORIS	67.21	303.2	10 50	0	19 48	9		13 35 PP
TIFLIS	67.41	306.0	10 51A	0				13 18 PP
KAJAANI	67.54	332.5	10 52A	0	19 44	1		20 59
RIVERVIEW	67.88	162.5	10 54A	0	19 56	9		13 34 PP
KIRUNA	68.33	337.6	10 55A	-2	19 44	-8		13 27 PP
PULKOVO	68.35	327.7	10 56	-1	19 53	0		13 30 PP
CANBERRA	68.79	164.8	11 0A	0	20 4	6	11 14	13 36 PP
RESOLUTE	69.50	11.9	11 4A	0	20 9	3		
MELBOURNE	70.43	168.8	11 9	-1	20 27	10		
NURMI JARVI	70.50	329.9	11 8A	-2	20 15	-3		
UMEA	70.53	334.0	11 9A	-2				39 10 PKPPKP
AFIAMALU	70.80	120.8	11 13	1	20 31	10		14 18 PP
THULE	71.28	4.9	11 14	-1				11 30 PCP
SIMFEROPOL	73.06	312.6	11 24A	-2	20 51	4		14 0 PP
SKALSTUGAN	73.54	336.0	11 26A	-2				14 15 PP
UPPSALA	73.80	331.3	11 28A	-2	20 53	-3		14 2 PP
ALBERNI	74.61	41.3	11 37	2				
TARRALEAH	75.04	168.6	11 39A	2				11 50 PCP
VICTORIA	75.79	41.5	11 44	3				
FORT NELSON	75.80	168.1	11 44	3	21 25	7		
IASI	75.90	317.0	11 43	1	21 26	7		
SCORESBY SD.	76.21	351.1	11 43A	-1	21 31	9		14 38 PP
LWOW	76.47	320.6	11 44	-1	21 27	2		14 38 PP
BACAU	76.62	316.7	11 47	1				
WARSAW	76.69	323.7	11 46A	0	21 32	4		14 38 PP
SEATTLE	76.89	41.8	11 50	2	21 42	12		
KSARA	77.25	301.9	11 49	-1	21 33	-1		14 42 PP
PENTICTON	77.45	39.4	11 51	0				
GOTEBORG	77.45	331.4	11 48A	-3				
BERGEN	78.12	335.9	11 57	3	21 21	-22		14 47 PP
ISTANBUL KA.	78.20	311.1	11 53A	-2	21 47	3		14 53 PP
BUCHAREST	78.25	315.1	11 55A	0	21 50	6		16 14 PP
ISTANBUL UN.	78.27	311.1	11 48	-7				14 56 PP
ONERAHI	78.33	145.6	11 45	-11	21 47	2		
CAMPULUNG	78.42	316.3	12 2	6	21 42	-4		
KRAKOW	78.52	322.3	11 55	-2	21 57	10		18 9
COPENHAGEN	78.57	329.7	11 56A	-1	21 54	6	12 10	15 2 PP
JERUSALEM	78.75	300.3	11 57A	-1				
CHORZOW	78.86	322.9	11 58	0	21 57	6		14 57 PP
SKALNATE PL.	78.86	321.5	11 58	-1	21 56	5		15 8 PP
RACIBORZ	79.39	323.0	12 2	1	22 3	7		15 20 PP
ARCATA	79.50	48.3	12 4A	2				
TIMI SOARA	80.35	318.2	12 10	3	22 16	10		
KECSKEMET	80.50	319.8	12 20	13	22 18	10		12 29 PCP
BUDAPEST	80.53	320.6	12 9	1	22 17	9		15 5 PP
KARAPIRO	80.62	146.2	12 8	0			12 23	15 19 PP
SHASTA	80.67	47.8	12 9	1				
HURBANOVO	80.74	321.2	12 13	4	22 20	10		15 16 PP
SOFIA	80.88	314.8	12 9	0	22 25	13		
HUNGRY HORSE	81.00	38.0	12 12A	2	22 23	10		15 25 PP
UKIAH	81.02	49.4	12 12A	2	22 24	11		

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 212									
BRATISLAVA	81.14	321.9	12 10K	-1							
COLLMBERG	81.19	326.1	12 11A	0	22 22	7				15 19	PP
PRUHONICE	81.29	324.4	12 11A	0	22 24	8				15 18	PP
PRAGUE	81.29	324.5	12 10	-1	22 25	9				15 19	PP
BELGRADE	81.34	317.8	12 11A	-1	22 28	11				27 57	SS
MINERAL	81.37	47.7	12 13A	1							
VIENNA-H.	81.47	322.3	12 13A	1	22 29	11				15 33	
SIDA	81.71	346.9	12 17A	3							
TUAI	82.08	145.7	12 16	0	22 26	2					
REYKJAVIK	82.08	348.6	12 20	4							
JENA	82.10	326.4	12 15	-1	22 26	1				15 25	PP
SAN FRANCISCO	82.28	50.2	12 16	-1							
CHEB	82.29	325.4	12 14	-3	22 28	2				14 26	PP
KASPERSKE H.	82.32	324.2	12 16A	-1						13 58	
BERKELEY	82.34	50.1	12 18A	1	22 22	-5				15 34	PP
KAIMATA	82.56	151.5	12 22	4	22 33	4					
BRANNER	82.65	50.4	12 19A	1							
RENO	82.96	47.6	12 22A	2							
WELLINGTON	82.96	148.7	12 18	-2	22 33	0				15 29	PP
WITTEVEEN	83.00	329.9	12 20	0							
LICK	83.05	50.2	12 22A	1						15 39	PP
ABERDEEN	83.10	336.6	12 23	2	22 40	5				15 37	PP
MUNSTER	83.19	328.9	12 21	0						14 37	
BUTTE	83.24	39.2	12 23A	2	22 46	10				13 43	
ATHENS	83.36	310.8	12 13	-9	22 41	4	12 27				
VINEYARD	83.56	50.6	12 24	1							
LJUBLJANA	83.84	321.4	12 24A	-1	22 38	-4	12 36			15 38	PP
GEBBIES PASS	84.04	151.4	12 29	3	22 48	4					
BENSBERG	84.11	328.4	12 25A	-1	22 47	2	12 34			15 45	PP
DE BILT	84.16	330.1	12 27	1	22 48	3				15 41	PP
ROXBURGH	84.24	154.3	12 16	-11	22 20	-26				15 55	PP
BOZEMAN	84.28	38.7	12 28A	1						13 2	
HEIDELBERG	84.49	326.5	12 28A	0	22 51	3					
TRIESTE	84.51	321.4	12 27A	-1	22 50	1	12 42			15 46	PP
FRESNO	84.58	49.8	12 30A	2							
STUTTGART	84.67	325.8	12 29A	0	22 57	7				15 49	PP
DURHAM	84.80	334.9	12 34A	5	22 52	1	13 3			15 51	PP
KARLSRUHE	84.91	326.4	12 32	2	22 56	3					
TUBINGEN	84.93	325.7	12 30A	0	22 51	-2					
RAVENSBURG	85.19	324.9	12 31	0	22 53	-2					
EBINGEN	85.22	325.5	12 31A	0	22 53	-3					
EUREKA	85.37	45.9	12 34A	2	22 49	-8				15 50	PP
STRASBOURG	85.52	326.4	12 33A	0	22 56	-2				14 51	PP
PADOVA	85.66	322.1	12 33A	-1	22 58	-2				15 53	PP
CHUR	85.87	324.3	12 37	2						22 55	
RUTH	86.13	45.6	12 39A	3							
BASLE	86.35	325.7	12 12A	-25						22 12	
BOLOGNA	86.56	321.7	13 1	23	23 2	-6					
KEW	86.89	332.2	12 38A	-2	23 0	-12				15 52	PP
SALT LAKE C.	87.01	42.9	12 42A	2	23 15	2					
NEUCHATEL	87.03	325.7	12 39	-1	23 23	10					
FLORENCE X.	87.09	321.2	12 39A	-2	22 56	-18					
PRATO	87.10	321.4	12 43	2	23 19	5					
PASADENA	87.20	51.2	12 42A	1	23 10	-5				29 2	SS
PAVIA	87.21	323.3	12 31A	-10						23 6	SCS
BESANCON	87.31	326.3	13 8	26							
ROME	87.68	319.2	12 42A	-1	23 30	11				16 12	PP
PARIS	87.75	329.1	12 44	0	23 27	7				16 14	PP
BOULDER CITY	88.25	48.0	12 22A	-24							
MESSINA	88.32	314.9	12 44A	-2	23 29	4	12 57			16 14	PP
REGGIO CALA.	88.33	314.8	12 46	0	23 9	-16					
GARCHY	88.63	327.8	12 46	-2	23 16	-12					
ISOLA	88.99	323.6	12 47	-3	23 31	0					
FOLINIERE	89.05	330.6	12 51	1							
MONACO	89.11	323.1	12 48	-2						16 27	
MACQUARIE I.	89.18	164.4	12 54	3						16 37	PP
GLEN CANYON	89.63	45.6	12 54A	1	23 16	-21				16 35	PP
CLERMONT-FD.	89.74	326.8	12 54A	1	23 46	8					
LARAMIE	90.15	39.3	12 56	1						15 15	
CUGLIERI	91.01	320.0								17 18	
BAGNERES	93.17	326.6	13 8	-1							
TUCSON	93.18	48.8	13 11A	2	24 6	-3				16 53	PP
TUCSON TELE.	93.19	48.6	13 11A	2	22 52	-77	13 21			27 12	*SS
TORTOSA	94.73	325.0	13 13	-3	23 50	-32					
TANANARIVE	94.88	250.9	13 18A	1	23 58	-25				17 5	PP
SETIF	95.59	319.0	13 20	0	23 58	8				17 8	PP
ALGIERS UNI.	96.47	320.8	13 22	-2	23 49	-6				17 15	PP
ALICANTE	97.11	324.0	13 32	5	24 3	5				17 30	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 213									
LAWRENCE	97.20	35.0	13 28	1							
TOLEDO	97.63	327.1	13 29	0	24 29	28	13 46	17 31	PP		
LUBBOCK	97.73	42.6	13 32	2				17 31			
SERRA PILAR	98.61	330.7	13 35K	1	24 9	3		17 39	PP		
CHIHUAHUA	98.64	48.7			25 16	70		17 55	PP		
WICHITA MTS.	98.72	39.8	13 35	1	23 44	-22	13 46	17 39	PP		
WILKES	99.19	188.4	13 34K	-2	24 16	7		17 36	PP		
OTTAWA	99.23	19.1	13 37	0							
ALMERIA	99.27	324.2	13 36K	-1	24 9	0		17 36	PP		
COIMBRA	99.31	330.1			24 17	8		24 56	S		
GRANADA	99.56	325.2	13 38K	0	23 43	-27		17 40	PP		
BREBEUF	99.70	17.7	13 40	1							
FAYETTEVILLE	99.97	36.1	13 41A	1	25 14	62	14 5	17 50	PP		
LISBON	100.85	329.7			24 23	6		25 35	S		
CLEVELAND	100.92	24.7	13 49K	5				18 7	PP		
LWIRO	102.02	274.8	13 49A	0							
MAZATLAN	102.12	52.9						25 32	SKKS		
MIRNY	102.40	194.8	13 53	2							
HALIFAX	102.66	11.0	13 55K	3							
PENNSYLVANIA	102.77	22.5			24 33	7		18 12	PP		
MORGANTOWN	103.11	24.5	17 41	227							
WESTON	103.21	17.2	13 59K	5	24 34	6		18 18	PP		
PALISADES	103.79	19.6	13 58A	1	24 34	3		18 14	PP		
FORDHAM	103.95	19.6	18 8	250							
WASHINGTON	104.75	22.7	18 25	264							
TAMANRASSET	105.07	309.4	14 2	777	24 45	9		18 28	PP		
BANGUI	106.91	286.3	14 14	777				24 12			
CAPE HALLETT	107.26	168.5	14 20	777	24 57	11		18 44	PP		
COLUMBIA	107.67	28.0	18 37	777	26 18	90					
BROKEN HILL	108.48	264.2	14 20	777							
TACUBAYA	109.56	50.9	14 38	777	26 41	105		19 21	PP		
BULAWAYO	111.03	258.8	14 30	-237							
SCOTT BASE	111.45	172.5	18 42	14	25 16	12		19 21	PP		
VERA CRUZ	111.71	48.8	14 42	-226	26 48	103		19 56	PP		
MERIDA	114.34	42.5	15 11	-202	27 20	125		19 38	PP		
COMITAN	116.43	47.8			27 36	133		29 36	PS		
KIMBERLEY	117.84	251.9	18 42A	2							
GRAHAMSTOWN	118.12	246.5						19 39	PP		
LUANDA	118.64	277.6						20 5	PP		
LOME	119.49	299.5						20 9			
SOUTH POLE	121.67	180.0	18 38	-9			19 13	20 26	PP		
HERMANUS	124.24	247.7			26 2	13		20 38	PP		
BYRD STATION	124.41	168.5	18 52	-1			19 10	20 42	PP		
MBOUR	125.02	321.8						22 14			
SAN JUAN	127.27	21.2	19 0	2				20 59	PP		
BALBOA HTS.	129.69	41.6	19 6	3							
FORT FRANCE	132.12	16.7	19 10	3				22 38			
CARACAS	134.33	25.8	19 14A	2	26 14	-1					
CHINCHINA	135.17	40.2	19 18A	5				22 52	SKP		
FUQUENE	135.76	37.6	19 17A	3							
TRINIDAD	135.97	18.5	19 12	-3							
BOGOTA	136.29	38.6	19 24	9							
ARGENTINE I.	145.18	168.4	19 32	1							
HUANCAYO	148.37	57.5	19 41A	5				42 24	SS		
AREQUIPA	154.07	59.2	19 49	4							
LA PAZ	156.48	54.1	19 52	4				24 2	PP		
PORT STANLEY	158.98	163.5	19 58	7				20 40			
SANTA LUCIA	161.24	100.8	19 56A	3				24 32	PP		
BUENOS AIRES	171.15	110.8	21 4	63							

FEBRUARY 26 21.H 1.M 13.S EPICENTRE 16.13 121.60 DEPTH= 87.KM

A=-0.50360 B= 0.81864 C= 0.27606 D= 0.8517 E= 0.5240
G=-0.1446 H= 0.2351 K=-0.9611 HT= 5.5

DEPTH OF FOCUS= 0.009R

SE= 2.50

	DELTA DEG.	AZ. DEG.	P			S			*PP		SUPP.	
			M	S	O-C S	M	S	O-C S	M	S		
BAGUIO CITY	1.02	286.7	0	11	-10	0	21	-15				
MANILA	1.53	199.1	0	24	-3							
HENGCHUN	5.90	352.3	1	38K	11							
TAITUNG	6.60	356.4	1	35	-2							
HWALIEN	7.80	0.1	1	50	-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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 215

WICHITA MTS.	116.63	36.5								18 50 PP
PORT STANLEY	144.51	180.6	19 28	1						
SAN JUAN	144.88	12.8	19 32	5						
FORT FRANCE	149.22	5.2	19 44	10						
TRINIDAD	153.23	6.6								19 51 PKP2

FEBRUARY 27 1.H 7.M 52.S EPICENTRE 6.79 -73.12 DEPTH= 169.KM

A= 0.28836 B=-0.95029 C= 0.11748 D=-0.9569 E=-0.2904
G= 0.0341 H=-0.1124 K=-0.9931 HT= 6.9

DEPTH OF FOCUS= 0.021R

SE= 1.77

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
FUQUENE	1.45	204.8	0 30K	-1	0 51	-4		
BOGOTA	2.36	203.7	0 40	-1	1 10	-3		
CHINCHINA	3.08	234.1	0 49A	-1	1 24	-4		
GALERAZAMBA	4.50	331.9			2 3	2		
BALBOA HTS.	6.73	289.1	1 35	-3	2 45	-9		
CARACAS	7.14	58.5	1 42K	-1				3 48 SG
TRINIDAD	12.20	70.9	2 49	0	5 18	16		
ST. VINCENT	13.28	60.6	3 3	0				
SAN JUAN	13.39	30.0	3 3	-1	5 19	-11		3 54
FORT FRANCE	14.15	55.2	3 8	-6				6 9
ST. KITTS	14.59	43.1	3 19	-1				
BARBADOS	14.72	63.7	3 29	8				
HUANCAYO	18.85	186.7	4 10A	0	7 33	3		
LA PAZ	23.66	168.0	4 58	1	9 0	4		
COLUMBIA	28.05	345.9	5 38	0				
FAYETTEVILLE	34.97	329.5	6 38K	0				
CLEVELAND	35.34	349.0	6 44K	3				
WICHITA MTS.	36.38	323.3	6 49K	-1	12 19	1		9 12 PCP
OTTAWA	38.53	357.1	7 8	0				
TUCSON TELE.	43.23	311.1	7 47	1	13 11	-49		9 32 PP
TUCSON	43.27	310.9	7 48	1	13 11	-49		9 9
CONCEPCION	43.40	178.8						
RAPID CITY	45.51	329.6	9 4	60				
GLEN CANYON	46.13	316.3	8 11	2				9 44
SALT LAKE C.	48.33	320.5	8 27	1				
PASADENA	49.65	309.6	8 37	1				9 11
EUREKA	50.37	316.9	8 43	1				13 40 SCP
BOZEMAN	50.73	326.2	8 45	0				
BUTTE	51.79	325.7	8 53	0				
FRESNO	51.90	312.1	8 52	-1				
RENO	53.04	315.2	9 3K	1				
VINEYARD	53.06	311.4	9 2K	0				
LICK	53.47	312.0	9 6K	1				
HUNGRY HORSE	53.97	327.3	9 9	0				
CONCORD	54.03	312.6	9 10K	1				
BERKELEY	54.13	312.4	9 11K	1				
MINERAL	54.63	315.4	9 13K	0				11 16 PP
SHASTA	55.32	315.5	9 17K	-2				
MBOUR	55.59	77.3	10 1	41				
ARCATA	56.57	315.1	9 28A	1				
PENTICTON	57.58	325.8	9 34	0				
VICTORIA	59.37	323.5	9 47	0				
RESOLUTE	69.00	353.9	10 48K	-1				
BAGNERES	73.18	47.2	11 34	20				
FOLINIERE	73.49	41.2	11 15	-1				
GARCHY	75.67	43.0	11 54	26				
TAMANRASSET	76.95	68.3	11 35	-1		12 16		
COLLEGE	77.40	335.0	11 38	0		12 20		14 33 PP
ISOLA	78.25	46.4	11 41	-2				
NORD	78.64	7.2	11 44	-1				
STUTT GART	79.92	41.8	11 50	-2		12 30		
SKAL STUGAN	81.91	26.8	12 1A	-1				12 44
COLLMBERG	82.32	39.2	12 5	1		12 55		16 46
KASPERSKE H.	82.75	41.4	12 5	-1				
PRUHONICE	83.35	40.5	12 10	1				
LJUBLJANA	83.52	44.5	12 11	1				12 52
UPPSALA	84.56	30.5	12 14	-2				
KIRUNA	85.10	22.3	12 18	0				
UMEA	85.44	26.4	12 16	-4				
SODANKYLA	87.52	22.4	12 30	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 216

NURMIJARVI	87.96	29.4				13 12
KAJAANI	88.65	25.6	12 35	0		
KHEYS	89.50	7.1	13 42	63		
BYRD STATION	89.78	187.3	13 41	60		
BANGUI	91.21	85.5	11 46	-61		12 30
SOUTH POLE	96.75	180.0	13 12	-1		
SVERDLOVSK	106.22	24.4	13 52	777		
SHIRAZ	116.48	52.2	15 48K	-156		
QUETTA	126.92	44.0	18 46	2		
CANBERRA	132.07	227.6	18 56	2		
CHARTERS TS.	139.60	246.9	19 1	-7		22 31

FEBRUARY 27 10.H 29.M 51.S EPICENTRE -38.90 -72.55 DEPTH= 49.KM

A= 0.23396 B=-0.74436 C=-0.62545 D=-0.9540 E=-0.2998
G=-0.1875 H= 0.5967 K=-0.7803 HT= -1.3

DEPTH OF FOCUS= 0.002R

SE= 3.80

	DELTA DEG.	AZ. DEG.	P		O-C S	S		O-C S	*PP		SUPP.	
			M	S		M	S		M	S	M	S
CONCEPCION	2.11	11.0	0	32	-1	0	57	-2				
SANTA LUCIA	5.67	16.4	1	22	-1	2	38	10				
PORT STANLEY	16.40	146.0	3	51	3							
AREQUIPA	22.38	2.7	4	55	0							
LA PAZ	22.65	11.1	5	0	3	9	7	9				
HUANCAYO	26.86	354.0	5	37	-1						13 31	
BOGOTA	43.33	357.8	8	2	4	14	27	5			17 46	SS
CHINCHINA	43.74	355.6	8	2	0	14	30	2			17 58	SS
FUQUENE	44.16	358.3	8	9	4						10 1	
BYRD STATION	44.87	190.4	9	9	58							
CARACAS	49.43	7.3	8	47	0	15	52	3				
SOUTH POLE	51.28	180.0	8	59	-2				9 8			
SAN JUAN	57.30	7.3	9	40	-5				9 50			
CAPE HALLETT	60.90	198.1	9	27	-43							
TACUBAYA	63.14	331.7	10	36	11	18	58	8				
HERMANUS	70.62	118.8				20	40	19				
COLUMBIA	72.96	352.6	11	24	-2							
MBOUR	74.16	56.2	11	35	2							
WINDHOEK	75.93	107.7	11	45	2							
LUBBOCK	77.07	335.2	11	54	5							
WICHITA MTS.	77.12	338.2	11	46	-4				11 55		14 59	PP
FAYETTEVILLE	77.25	342.2	11	48K	-2							
KIMBERLEY	77.77	117.0	11	54A	1							
TUCSON TELE.	79.23	327.7	11	59	-2							
TUCSON	79.23	327.7	11	59	-2						12 20	
CHATEAU	80.36	227.0	12	10	3							
CLEVELAND	80.42	353.2	12	5	-3							
KARAPIRO	81.22	227.9	12	9	-3							
PRETORIA	82.00	116.5	12	7	-9							
GLEN CANYON	83.64	329.5	12	22	-2						12 30	
OTTAWA	83.97	357.8	12	24	-2							
PASADENA	84.08	323.4	12	26	0	22	52	6			23 44	PS
BULAWAYO	85.86	112.4	12	38	3							
FLAMING GRGE	86.27	332.9	12	36	-1						12 43	
RUTH	86.94	328.3	12	47K	7	23	15	2				
FRESNO	86.99	323.8	12	42	1							
SALT LAKE C.	87.03	331.2	12	46	5							
RAPID CITY	87.12	338.4	12	48	7							
EUREKA	87.56	327.8	12	41	-2						12 51	
LICK	88.31	322.9	12	48K	1							
CONCORD	89.02	323.0	12	50A	0							
BERKELEY	89.03	322.9	12	49K	-1	23	23	-10				
RENO	89.26	325.4	13	1	9							
BROKEN HILL	89.39	108.0	12	45A	-7							
MINERAL	90.72	324.7	12	58	0							
BOZEMAN	91.02	334.1	12	58	-2							
SHASTA	91.36	324.5	12	59	-2							
BUTTE	91.85	333.4	13	2	-2							
BANGUI	93.63	87.3	13	15	3						16 58	PP
HUNGRY HORSE	94.36	333.7	13	12	-3				13 21			
TAMANRASSET	95.28	65.1	13	21A	2	24	14	24			17 11	PP
LWIRO	97.42	98.9	13	32	3							
PRUHONICE	116.88	46.3									19 44	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 217

COLLEGE	118.74	331.9	18 40	-2				
KIRUNA	126.45	28.1	19 8	11				
SODANKYLA	128.67	29.3	19 0	-2				
MOSCOW	131.92	45.5	19 22	14				
SHIRAZ	134.28	84.3	19 9	-3	19 26	22 3	PP	
KHEYS	134.45	10.0	19 12	-1				
POONA	144.51	115.3	19 30	-1				
SVERDLOVSK	144.69	43.9	19 30	-1				
TIKSI	145.44	348.2	19 29	-3				
QUETTA	145.75	92.2	19 36	3	19 53	23 19	PKS	
MAGADAN	145.81	321.5	19 32	-1				
WARSAK DAM	150.84	88.4	19 43	2				
TASHKENT	150.86	72.9	19 48	7				
LAHORE	152.08	95.0				19 50	PKP2	
NAMANGAN	152.61	74.2	19 52	9				
Y.-SAKHLINSK	153.12	299.1	19 56	12				
YAKUTSK	153.13	336.7	19 52	8				
FRUNSE	154.96	70.4	19 48	1				
SEMIPALATNSK	157.63	50.2	19 51	1				

FEBRUARY 27 13.H 6.M 30.S EPICENTRE 52.58-169.03 DEPTH= 0.KM

A=-0.59908 B=-0.11612 C= 0.79222 D=-0.1903 E= 0.9817
G=-0.7777 H=-0.1508 K=-0.6102 HT= -6.4

SE= 2.58

	DELTA DEG.	AZ. DEG.	P		O-C S	S		O-C S	*PP		SUPP.	
			M	S		M	S		M	S	M	S
COLLEGE	16.40	33.2	3	52	-1						4	48
PETROPAVLOVSK	19.46	284.2	4	31	0	8	23	18				
SITKA	19.80	63.5	4	35	0							
MAGADAN	23.18	303.4	5	12	3	9	29	11				
ARCATA	32.44	92.9	6	44A	10							
TIKSI	32.66	328.7	6	37	1							
YAKUTSK	33.17	310.9	6	36	-4							
SHASTA	33.58	91.8	6	42	-2							
MINERAL	34.27	91.6	6	49A	-1							
HUNGRY HORSE	34.54	74.5	6	50	-2						9	29 PCP
BERKELEY	35.41	95.6	7	2	2							
RENO	35.85	91.3	7	4	1							
RESOLUTE	36.09	25.7	7	4	-1							
LICK	36.12	95.7	7	11A	5							
BUTTE	36.57	77.1	7	8	-1							
VINEYARD	36.67	96.3	7	16	6							
FRESNO	37.61	94.9	7	17	-1							
BOZEMAN	37.66	76.7	7	18	0							
EUREKA	38.23	88.3	7	23	0				7	38		
MATUSIRO	39.91	267.8	7	37	0	13	50	7			9	38 PPP
SALT LAKE C.	39.96	83.7	7	37	-1							
PASADENA	40.35	96.5	7	45	4	13	57	7				
FLAMING GRGE	41.35	81.7	7	47	-2				8	0	10	3 PCP
GLEN CANYON	42.49	88.0	7	57	-1							
RAPID CITY	43.17	73.9	8	3	-1							
CHANGCHUN	43.22	285.7	8	4A	0							
KHEYS	44.49	350.1	8	16	1							
NORD	45.24	5.5	8	21	0							
TUCSON	46.12	92.4	8	27	-1	15	15	1			10	12 PP
TUCSON TELE.	46.12	92.2	8	27	-1							
PEKING	50.92	287.3	9	4	-1	16	30	9				
LAWRENCE	51.02	74.3	9	3	-3							
WICHITA MTS.	51.87	80.7	9	9	-3							
FAYETTEVILLE	53.57	76.3	9	21A	-4				9	33	10	13
ZO-SE	53.98	275.6	9	28	0	17	14	11				
NANKING	54.76	278.2	9	32	-2	17	22	8				
SCORESBY SD.	54.97	12.9	9	34A	-1							
OTTAWA	57.49	56.5	9	51	-2							
APATITY	59.01	350.1	10	3	-1							
MORGANTOWN	59.28	63.9	10	2	-4							
KIRUNA	59.70	355.9	10	8A	-1							
SODANKYLA	59.79	353.1	10	9A	0							
SEMIPALATNSK	61.93	317.3	10	22	-2							
CHAPEL HILL	62.43	66.3	10	23	-4							
KAJAANI	62.95	351.8	10	31A	0							
SVERDLOVSK	63.60	332.1	10	34	-1							
UMEA	63.71	355.4	10	33A	-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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961					PAGE 218				
SKALSTUGAN	64.18	359.3	10 37	-2					11 5
CHENGTU	64.54	287.6	10 40	-1	19 32	12			
NURMIJARVI	66.73	352.7	10 54A	-1					
UPPSALA	67.80	356.4	11 1	-1					
KUNMING	69.42	284.6	11 12	0	20 35	16			
MOSCOW	69.83	344.3	11 14	0					
GOTEBORG	70.08	359.4	11 14	-2					
ANDIJAN	72.95	315.8	11 35	2					
NAMANGAN	73.06	316.4	11 34	0					
TASHKENT	73.76	318.1	11 39	1					
WITTEVEEN	74.91	2.7	12 18	34					
SHILLONG	75.35	292.8	11 46	-1					
COLLMBERG	76.48	358.7	11 54A	1					12 5 PCP
JENA	76.86	359.6	11 56	1					12 57
KRAKOW	77.46	354.1	11 59	0					
PRUHONICE	77.77	357.6	12 1A	1					14 10
CHITTAGONG	77.89	290.8	12 0	-1					
NIEDZIKA	78.07	353.8	12 2	0					
HEIDELBERG	78.38	1.5	12 5	1					
FOLINIERE	78.56	7.7	12 5	0					
KASPERSKE H.	78.64	358.3	12 6A	1					
PARIS	78.73	5.7	12 7	1					
WARSAK DAM	78.93	312.5	12 6	-1					
STUTTGART	79.02	1.1	12 8	1					
STRASBOURG	79.18	2.2	12 9	1					12 54
BRATISLAVA	79.49	355.8	12 10A	0					
LAHORE	79.69	309.1	12 13A	2					
GARCHY	80.29	5.4	12 14	0					12 30
BESANCON	80.46	3.4	12 16	1					
NEUCHATEL	80.74	2.8	12 18	1					
TIFLIS	81.62	335.1	12 23A	2					
LJUBLJANA	81.70	357.5	12 22	0					
CHARTERS TS.	82.12	221.9	12 21	-3					
TRIESTE	82.12	358.0	12 27	3					
SAN JUAN	83.18	68.8	12 40	11					
ISOLA	83.56	2.8	12 40	9					12 44
MONACO	84.02	2.6	12 35	1					
QUETTA	84.22	313.8	12 36A	1	23 0 0				12 48
BAGNERES	84.27	7.9	12 34	-1					
TEHERAN	85.25	328.0	12 41	1					
KARAPIRO	91.13	192.1	13 5	-3					
BROKEN HILL	139.49	333.4	19 30	0					
BULAWAYO	144.84	330.4	19 39A	0					
WINDHOEK	149.67	348.7	19 52	5					
KIMBERLEY	154.08	331.3	20 1	8					

FEBRUARY 27 21.H 40.M 5.S EPICENTRE 36.39 26.96 DEPTH= 72.KM

A= 0.71925 B= 0.36584 C= 0.59063 D= 0.4534 E=-0.8913
G= 0.5264 H= 0.2678 K=-0.8069 HT= -0.4

DEPTH OF FOCUS= 0.006R

SE= 3.04

	DELTA DEG.	AZ. DEG.	P		O-C S	S O-C			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
ATHENS	3.03	302.4	0	43A	-4						0	29 SG
ISTANBUL UN.	4.91	18.2	1	24	11	2	44	34				
ISTANBUL KA.	4.96	18.8									1	28 PG
HELWAN	7.46	149.3	1	47	-2	3	8	-5				
KSARA	7.75	106.7	1	55	2	3	32	12			4	25 SG
BUCHAREST	8.05	355.6	2	24	27						3	30
JERUSALEM	8.25	121.5	1	57	-2							
REGGIO CALA.	9.18	284.1	1	55	-17							
MESSINA	9.27	284.7	2	12	-1						4	46
BELGRADE	9.77	331.6									4	30
KISHINEV	10.72	6.9	2	28	-5							
ROME	12.51	300.5				5	27	12			6	19
LJUBLJANA	13.43	319.8	3	4	-5	6	55	78				
TRIESTE	13.59	317.0	3	15	4						7	23
LWOW	13.60	351.9	3	7	-4							
NIEDZIKA	13.90	341.7	3	11	-4						6	53
FLORENCE X.	14.10	306.4	3	32	14						8	28
VIENNA-H.	14.19	329.9	3	10	-9							
PADOVA	14.52	313.0									4	55
TIFLIS	14.84	63.6	3	31	4							

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 220

ISOLA	17.06	302.4	3 53	-2				
RAVENSBURG	17.08	316.2	3 52	-3				
SETIF	17.53	275.1	3 59	-2				
EBINGEN	17.67	316.5	4 3	1				
COLLMBERG	17.82	329.8	4 4	0			4 40	
STUTTGART	17.84	318.4	4 4	0			4 29	
JENA	18.14	326.9	4 7	-1			4 52	
NEUCHATEL	18.24	310.9	4 7	-2				
HEIDELBERG	18.51	319.4	4 10	-2				
STRASBOURG	18.56	316.1	4 12	-1			4 40	
BESANCON	18.95	310.7	4 17	0				
ALGIERS UNI.	19.34	277.7	4 17	-5			4 35 PP	
TEHERAN	19.56	85.4	4 26	2				
CLERMONT-FD.	20.21	304.3	4 34	3				
BENSBERG	20.25	321.3	4 31	0			5 0	
MOSCOW	20.39	17.1	4 33	0				
GARCHY	20.77	308.3	4 34	-3				
PARIS	21.73	311.8	4 47	1				
SHIRAZ	22.30	100.8	4 54A	2	8 55	8		
TAMANRASSET	23.26	239.6	5 1	0				
FOLINIERE	23.53	309.7	4 55	-9				
NURMIJARVI	23.96	356.9	5 7	-1				
UPPSALA	24.04	348.1	5 29	20				
GRANADA	24.57	280.6	5 34	20				
TOLEDO	24.67	287.1	5 14	-1				
SVERDLOVSK	30.10	37.2	6 4	0				
SODANKYLA	30.79	359.6	6 11	1				
KIRUNA	31.48	355.1	6 16	0				
BANGUI	33.04	195.8	6 31	1				
QUETTA	33.65	89.3	6 37	2				
NORD	47.71	352.1	8 29	-2				
CHATRA	51.23	82.9	8 57	-1				
SHILLONG	55.56	81.9	9 30A	0				
RESOLUTE	62.67	345.3	10 19	0				
HUNGRY HORSE	88.61	335.3	12 46	1				
KARAPIRO	154.85	102.6	20 12	29				

FEBRUARY 28 12.H 33.M 37.S EPICENTRE 46.58 152.63 DEPTH= 56.KM

A=-0.61253 B= 0.31713 C= 0.72404 D= 0.4598 E= 0.8880
G=-0.6430 H= 0.3329 K=-0.6898 HT= -4.1

DEPTH OF FOCUS= 0.004R

SE= 1.13

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
KURILSK	3.59	249.6	0	56	1							
Y.-SAKHLINSK	6.82	277.3	1	41	1							
UGLEGORSK	7.53	293.2	1	52K	2	3	25	10				
MIZUSAWA	11.25	232.6	2	55	14	4	37	-9				
MAGADAN	13.04	355.9	3	3	-2							
TUKUBASAN	13.97	226.6	3	13	-4	5	41	-10			3	24
MATUSIRO	14.71	232.1	3	24K	-2	5	49	-19			6	23
VLADIVOSTOK	15.10	264.3	3	31	0							
YAKUTSK	20.26	328.0	4	34	1	8	20	7				
COLLEGE	36.49	38.2	7	2	0						10	25
KHEYS	45.15	346.7	8	14	1							
RESOLUTE	51.11	18.4	8	58	-1							
SHILLONG	52.04	268.3	9	6A	0							
CHATRA	54.48	272.9	9	24	0							
PENTICTON	55.58	52.4	9	32	0							
HUNGRY HORSE	59.16	50.9	9	58	0				10	12	10	46
SODANKYLA	59.29	338.6	9	57	-1							
LAHORE	60.24	285.6	10	5	0							
KIRUNA	60.39	341.1	10	5K	-1							
KAJAANI	61.52	335.8	10	15	1							
SCORESBY SD.	63.19	358.0	10	24	-1							
EUREKA	63.55	59.8	10	28	1				10	43		
UMEA	63.73	338.6	10	27	-1							
PASADENA	65.64	65.5	10	55	14							
QUETTA	65.97	289.0	10	43A	0				10	54		
FLAMING GRGE	66.43	55.0	10	44	-2							
CHARTERS TS.	66.60	186.5	10	47	0							
RAPID CITY	67.65	49.1	10	54	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 221

UPPSALA	67.74	337.3	10 52	-2		
LARAMIE	68.29	52.5	10 58	1		11 17 PCP
BERGEN	70.11	343.4	11 9	1		
GOTEBORG	71.07	338.9	11 13	-1		
TIFLIS	71.22	311.2	11 17	2		
TUCSON	71.46	62.6	11 16	-1	11 33	
TUCSON TELE.	71.47	62.5	11 18	1		
TEHERAN	71.84	302.9	11 20	1		
COPENHAGEN	72.74	337.7	11 24K	0		22 14
BRISBANE	73.62	179.9	11 32	3		
SHIRAZ	75.46	297.7	11 40K	0		
NIEDZIKA	75.81	330.1	11 42	0		12 7
COLLMBERG	76.49	335.3	11 45A	-1		14 31 PP
WICHITA MTS.	76.85	53.2	11 48	0		
PRUHONICE	77.20	333.7	11 49A	-1		
FAYETTEVILLE	78.19	49.5	11 55A	0		
KASPERSKE H.	78.24	333.9	11 56A	1		
BENSBERG	78.37	338.5	11 56K	0		
SHAWINIGAN	79.07	30.0	12 0	0		
HEIDELBERG	79.39	336.9	12 1	-1		
STUTTGART	79.82	336.3	12 4	0		
TUBINGEN	80.09	336.4	12 6	0		
EBINGEN	80.44	336.3	12 7	0		
RAVENSBURG	80.62	335.7	12 8	0		
LJUBLJANA	80.68	331.9	12 8A	-1		
FOLINIERE	82.19	342.4	12 17	0		
JERUSALEM	83.74	310.5	12 26	2		
ATHENS	84.19	321.8	12 26A	-1		
KARAPIRO	86.61	162.0	12 39	0		
TAMANRASSET	104.82	328.8				24 33
BYRD STATION	135.11	165.7	19 8	-5		19 30

MARCH 3 6.H 25.M 38.S EPICENTRE -22.83 171.21 DEPTH= 0.KM

A=-0.91175 B= 0.14093 C=-0.38581 D= 0.1528 E= 0.9883
G= 0.3813 H=-0.0589 K=-0.9226 HT= 4.0

SE= 3.58

	DELTA DEG.	AZ. DEG.	P			O-C			*PP		SUPP.	
			M	S	S	M	S	S	M	S		
NOUMEA	4.43	275.9	1	9	-1	2	10	7				
PORT VILA	5.76	331.3	1	26	-3	2	52	15				
ONERAHI	13.18	168.7	3	10	-1							
AUCKLAND	14.33	168.3	3	24	-2							
KARAPIRO	15.50	167.1	3	40	-2							
TUAI	16.71	163.7	3	52	-5							
BRISBANE	17.30	251.0	4	2	-3	7	6	-10				
COBB RIVER	18.24	176.3	4	22	6							
WELLINGTON	18.64	171.6	4	18	-3	8	14	27			5 50	
KAIMATA	19.63	179.5	4	36	3	8	22	13				
RIVERVIEW	20.75	233.7	4	44K	-1	8	41	9			5 7 PP	
GEBBIES PASS	20.85	177.1	4	48	2							
ROXBURGH	22.65	183.5	5	4	0	9	14	6				
CHARTERS TS.	23.38	272.0	5	11	0	9	25	4				
RABAUL	26.12	312.3	5	46	9							
PORT MORESBY	26.64	296.2	5	43	1	10	18	2				
MELBOURNE	27.02	230.4	5	44	-2							
TARRALEAH	28.33	220.9	5	57	-1				6 7			
ADELAIDE	30.77	239.6	6	17	-2						6 35	
HUNDARING	49.23	246.8	8	49	-3							
PERTH	49.56	246.8	8	56	1							
SCOTT BASE	55.12	181.2	9	44	8							
WILKES	57.64	204.6	9	52K	-2	17	50	-2			11 59 PP	
MANILA	61.62	302.4	10	22	0	18	22	-21				
LEMBANG	63.06	273.9	10	31A	0							
BYRD STATION	64.10	169.6	10	32	-6							
MATUSIRO	66.77	331.5	10	55K	0	19	43	-4				
HONG KONG	71.38	304.9				20	50	8				
CANTON	72.46	305.1	11	32	2	20	56	2				
NANKING	74.11	315.6	11	49	9							
MEDAN	75.38	280.3	11	58	11							
CHANGCHUN	78.56	328.0	12	3	-2	21	52	-9				
PEKING	80.87	320.4	12	17	0	22	22	-4				
KUNMING	81.72	301.6	12	23	1	22	37	3				
CHENG TU	83.55	306.9	12	32	1	22	51	-2				

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 222

BERKELEY	86.85	46.6	12 51	3					
LICK	86.99	47.3	12 47K	-1					
FRESNO	87.95	48.6	12 52	-1					
SHASTA	88.27	44.2	12 54	-1					
ISABELLA	88.33	50.1	12 54	-1					
MINERAL	88.59	44.8	12 55K	-1					
RENO	89.35	46.2	13 0	0					
CHITTAGONG	89.35	294.5	12 59	-1	23 49	0			
ULAN-BATOR	90.95	322.7	13 6	-1					
EUREKA	91.91	47.7	13 9	-3					
TUCSON	92.39	56.0	13 13	-1				14 1	
COLLEGE	92.95	16.3	13 11	-5				14 19	
GLEN CANYON	93.86	51.5	13 24	3					
FLAMING GRGE	97.07	48.6	13 44	9					
BOMBAY	104.58	284.6	18 30	261				28 2	
QUETTA	112.94	294.3	18 41	2				27 17	
PALISADES	123.09	55.0						37 37	SS
SAN JUAN	126.43	83.5	19 7	2					
UMEA	134.72	342.4	19 15	-6					
NURMIJARVI	135.74	337.0	19 22	-1					
KSARA	139.46	295.8	19 29	-1				22 25	PP
JERUSALEM	140.12	292.7	19 32	1					
ISTANBUL KA.	143.44	308.8	19 36	-1					
HELWAN	143.51	289.7	19 34	-3					
CHORZOW	145.04	328.6	19 39	0				20 21	
RACIBORZ	145.56	328.9	19 41	1				20 31	
COLLMBERG	146.94	334.7	19 44K	1				23 32	PP
PRAGUE	147.29	332.0	19 57	14					
PRUHONICE	147.30	331.7	19 44	1				20 34	
BELGRADE	147.56	319.6	19 50K	6				22 3	
BANGUI	147.77	239.4	19 46	2			19 56		
JENA	147.79	335.6	19 46	2				20 55	
ATHENS	148.35	306.0	19 42K	-3					
KASPERSKE H.	148.36	331.5	19 46	1				20 27	
BENSBERG	149.30	340.1	19 45	-1				20 30	
HEIDELBERG	150.10	336.8	19 52	4					
LJUBLJANA	150.11	326.4	19 48	0				20 29	
STUTTGART	150.41	335.4	19 47	-1				20 30	
TRIESTE	150.77	326.6	19 51	2				27 4	PPP
GARCHY	153.81	341.5	19 54	1					
ISOLA	155.03	332.3	19 56	1				20 7	PKP2
ALGIERS UNI.	162.75	326.3	20 4	0				20 55	PKP2
TAMANRASSET	166.80	272.5	20 8	1				25 1	PP
MBOUR	168.57	135.9	20 13	5				25 22	PP
BENI ABBES	170.64	322.2	20 10	0				25 17	PP

MARCH 4 22.H 26.M 4.S EPICENTRE 37.91 142.41 DEPTH= 47.KM

A=-0.62675 B= 0.48247 C= 0.61189 D= 0.6100 E= 0.7924
G=-0.4849 H= 0.3733 K=-0.7909 HT= -0.9

DEPTH OF FOCUS= 0.002R

SE= 2.54

	DELTA DEG.	AZ. DEG.	P		O-C S	S		O-C S	*PP		SUPP.	
			M	S		M	S		M	S	M	S
ISINOMAKI	1.00	301.3	0	16K	-2	0	31	-1				
SENDAI	1.24	287.1	0	19K	-2	0	31	-7				
ONAHAMA	1.54	231.8	0	21K	-4	0	41	-4				
HUKUSIMA	1.55	264.5	0	23K	-3	0	44	-1				
MI ZUSAWA	1.58	320.8	0	24	-2	0	48	2				
YAMAGATA	1.66	282.3	0	24K	-3	0	46	-2				
MIYAKO	1.77	348.9	0	27A	-2	0	49	-1				
SHIRAKAWA	1.91	246.2	0	28K	-3	0	51	-3				
MORIOKA	2.03	331.9	0	30K	-2	0	55	-2				
MITO	2.18	226.0	0	30K	-4	1	2	1				
SAKATA	2.25	296.7	0	35	0	1	2	0				
UTUNOMIYA	2.44	236.9	0	36	-2	1	4	-3				
KAKIOKA	2.45	227.4	0	35	-3	1	3	-4				
TUKUBASAN	2.50	228.3	0	34K	-5							
TYOSI	2.52	210.2	0	37	-2	1	7	-2				
AKITA	2.55	315.7	0	41A	1	1	20	10				
NIIGATA	2.66	271.2	0	45	4	1	17	4				
HATINOHE	2.70	345.6	0	43	1	1	14	0				
KUMAGAYA	3.00	234.9	0	43	-3	1	21	0				
HONGO	3.05	224.7	0	47	0	1	21	-2				

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 223

MAEBASI	3.07	241.5	0 45	-2	1 23	0	
TOKYO C.M.O.	3.09	224.6	0 45	-2	1 20	-3	
AOMORI	3.17	337.0	0 50	2			
AIKAWA	3.29	273.1	0 49	-1	1 22	-7	
TITIBU	3.29	235.1	0 48	-2	1 25	-4	
YOKOHAMA	3.33	222.7	0 50	-1			
OIWAKE	3.47	244.0	0 56	3			
NAGANO	3.58	251.0	0 57A	3	1 38	2	
MATUSIRO	3.62	249.0	0 53K	-2	1 25	-12	
MERA	3.64	215.6	0 52	-3			
KOHU	3.82	235.2	0 58	0	1 43	1	
AJIRO	3.91	224.0	0 57	-2	1 40	-4	
MATUMOTO	3.92	246.3	1 2	3	1 49	5	
MISIMA	3.94	226.0	0 58	-1	1 46	1	
OSIMA	3.98	218.9	0 58	-2			
HAKODATE	4.09	342.4	1 3	2			
URAKAWA	4.24	3.7	1 4	0	1 52	0	
TOYAMA	4.33	255.3	1 7	2	2 7	12	
SHIZUOKA	4.37	229.0	1 5	0	1 56	0	
IIDA	4.39	238.4	1 5	-1	1 58	2	
WAZIMA	4.41	264.7	1 8	2			
MORI	4.41	341.9	1 14	8	2 12	15	
HIROO	4.42	8.8	1 4	-2	1 53	-4	
TAKAYAMA	4.49	248.5	1 8	1			
MURORAN	4.54	346.5	1 22	14			
OMAE SAKI	4.73	226.9	1 10	0			
TOMAKOMA I	4.75	352.6					1 30
HAMAMATU	4.95	231.3	1 13	-1	2 18	8	
OB IHIRO	5.04	6.6	1 15	0	2 27	15	
SUTTSU	5.16	341.8	1 20	4			
NAGOYA	5.17	239.6	1 16	-1	2 25	9	
GIHU	5.18	242.8	1 17	0	2 15	-1	
SAPORO	5.21	351.4	1 32	15	2 23	6	
KUSIRO	5.28	16.1	1 14	-4	2 12	-7	
HIKONE	5.62	243.8	1 24	1			
KAMEYAMA	5.68	239.3	1 29	5	2 25	-4	
TU	5.74	237.8	1 31	7			
NEMURO	5.92	23.0	1 32	5	2 27	-8	
KYOTO	6.11	243.8	1 31	1	3 7	28	
NARA	6.22	240.7	1 30	-1			
ABASHIRI	6.26	12.5	1 31	-1			
ABUYAMA	6.30	243.2	1 30A	-2			
OWASE	6.33	234.6	1 43	10	2 59	14	
OSAKA	6.44	241.7			3 12	25	1 53
TOYOOKA	6.54	251.0	1 32	-4			2 49
TAKAMATU	7.66	244.6	2 6	15	3 51	33	
KURILSK	8.37	27.5	2 25	24			
KOTI	8.43	241.6			3 31	-6	4 28
HAMADA	8.86	253.3			3 49	1	4 30
Y.-SAKHLINSK	9.10	1.3	2 8	-3			
OOITA	9.95	245.2					4 52
CHANGCHUN	14.22	299.9	3 24	4	6 5	8	
ZO-SE	18.75	255.1	4 14	-3			
NANKING	20.20	260.3	4 30	-3			
PEKING	20.49	284.1	4 33	-3	8 16	-2	
MAGADAN	22.31	11.3	4 55	1			
YAKUTSK	25.38	346.0	5 20	-4			
ULAN-BATOR	27.64	302.6	5 44	-1			
MANILA	29.88	225.0	6 7	2			
LANCHOW	30.73	278.5	6 11	-1			
TIKSI	34.50	352.5	6 44K	-1			
KUNMING	35.88	260.9	6 59	2			
SEMIPALATNSK	45.04	306.9	8 12A	-1			
CHITTAGONG	45.87	265.2	7 56	-23			
CHATRA	47.34	273.4	8 31K	0			
COLLEGE	47.93	32.7	8 35	0			8 46
KHEYS	51.95	348.0	9 5	-1			
SVERDLOVSK	55.02	318.4	9 27	-2			
LEMBANG	55.06	223.7	9 26	-3			
CHARTERS TS.	57.81	175.7	9 47	-2			
NORD	60.22	356.5	10 3A	-2			
QUETTA	61.45	287.4	10 13	-1			
RESOLUTE	61.56	14.7	10 13A	-1			
APATI TY	62.22	335.8	10 16K	-3			
THULE	64.29	7.7	10 30	-2			
SODANKYLA	64.46	337.3	10 33	0			
VICTORIA	65.24	46.9	10 39	0			
BRISBANE	65.68	169.9	10 42	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 224

KIRUNA	65.98	339.4	10 42	-1		
KAJAANI	66.15	334.1	10 43A	-1		
PENTICTON	66.99	44.8	10 49	-1		
MOSCOW	67.02	323.5	10 49	-1		
UMEA	68.80	336.3	10 59	-2		
NURMI JARVI	69.54	332.1	11 5A	0		
SHASTA	69.94	53.7	11 10	2		
HUNGRY HORSE	70.60	43.4	11 13	1		
MINERAL	70.64	53.7	11 13A	1		
SHIRAZ	72.39	294.0	11 17K	-6	11 34	11 46 *SP
UPPSALA	72.52	334.2	11 22	-1		
MUNDARING	73.69	203.0	11 30	0		
EUREKA	74.68	51.8	11 38	2		11 58
WOODY	75.06	56.4	11 38	0		
FLAMING GRGE	77.75	47.4	11 55	2		
KRAKOW	78.82	326.3	12 0	1		12 28
NIEDZIKA	79.11	325.7	12 3	2		
COLLMBERG	80.73	330.6	12 10A	1		15 6 PP
PRUHONICE	81.15	328.9	12 12A	0		
KARAPIRO	81.42	154.1	12 14	1		
JENA	81.57	331.0	12 14	0		
KASPERSKE H.	82.21	328.9	12 16A	-1		
JERUSALEM	83.02	304.9	12 23K	2	12 35	
STUTTGART	84.20	331.0	12 28	1		
BASLE	85.87	331.2	12 18A	-18		
PARIS	86.62	334.8	12 41	2		
FOLINIERE	87.62	336.5	12 45	1		
GARCHY	87.73	333.6	12 45	0	13 0	13 11 *SP
WICHITA MTS.	88.22	46.1	12 48	1		
FAYETTEVILLE	89.64	42.5	13 54A	60		
SHAWINIGAN	90.19	23.4	12 59	3		
OTTAWA	90.24	25.8	12 57	1		
TAMANRASSET	107.30	318.7				18 35 PP
BYRD STATION	128.45	167.3	19 2	0		
LA PAZ	145.71	59.9	19 36	3		

MARCH 5 1.H 26.M 23.S EPICENTRE -10.63 161.57 DEPTH= 48.KM

A=-0.93263 B= 0.31087 C=-0.18319 D= 0.3162 E= 0.9487
G= 0.1738 H=-0.0579 K=-0.9831 HT= 6.5

DEPTH OF FOCUS= 0.002R

SE= 2.37

	DELTA DEG.	AZ. DEG.	P			O-C			*PP		SUPP.	
			M	S	S	M	S	S	M	S	M	S
PORT VILA	9.63	137.9	2	12	-7	3	57	-10				
RABAU	11.29	303.7	2	46	4							
NOUMEA	12.52	158.7	2	59	1	5	13	-4				
PORT MORESBY	14.25	273.6	3	23	2	6	8	10				
CHARTERS TS.	17.49	235.6	4	3	1	7	27	14				
BRISBANE	18.62	205.2	4	17	1	7	48	9				
RIVERVIEW	24.99	200.9	5	19A	-2	9	43	4	5 28	10 47 SS		
RAOUL ISLAND	26.66	137.0	5	36	-1							
CANBERRA	27.11	203.0	5	41A	0	10	20	6		6 34 PCS		
ONERAHI	27.60	157.1	5	48	3							
KARAPIRO	29.94	157.5	6	6A	0							
MELBOURNE	30.92	206.1	6	15	0				6 30	9 7 PCP		
CHATEAU	31.06	158.7	6	16A	0							
TUAI	31.32	156.2	6	18	0							
COBB RIVER	31.89	163.9	6	24	1							
ADELAIDE	31.95	217.1	6	23	-1					12 51 PCS		
WELLINGTON	32.67	161.4	6	29	-1							
KAIMATA	32.92	166.5	6	46	14							
TARRALEAH	34.21	200.1	6	45A	2					7 0		
GEBBIES PASS	34.33	165.7	6	43	-1							
FORT NELSON	34.49	198.6	6	46	0							
ROXBURGH	35.36	170.6				12	55	32				
PERTH	47.17	236.1								18 57		
MANILA	47.35	301.3	8	30	-1	15	36	15				
BAGUIO CITY	48.64	303.0	8	40	-1	15	32	-7				
TUKUBASAN	50.80	337.6	9	6	8	16	9	0		21 21 SSS		
KIPAPA	50.88	51.1	8	57	-2							
ABUYAMA	51.52	332.6	9	1A	-2							
MATUSIRO	51.81	336.0	9	3A	-3	16	23	0				
LEMBANG	53.40	269.4	9	16A	-1	16	42	-2	9 40	11 22 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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961					PAGE 225				
ZO-SE	56.76	318.4	9 40	-2	17 28	-1			
HONG KONG	56.83	305.5	9 52	10	16 43	-47		17 20	*SS
CANTON	57.88	305.8	9 50	0	17 45	1			
NANKING	58.95	317.7	9 57	0	17 56	-2			
Y.-SAKHLINSK	59.80	345.2	10 1	-2	18 11	2			
CHANGCHUN	63.43	331.4	10 25	-2	18 53	-2			
PETROPAVLOVK	63.44	358.0	10 26	-1					
PEKING	65.63	323.1	10 41	-1	19 19	-3			
SCOTT BASE	67.27	178.8	10 53	1					
KUNMING	67.42	302.9	10 53	0	19 46	2			
CHENGTU	68.81	308.7	11 1	-1	19 58	-2			
MAGADAN	70.47	354.2	11 9	-3					
ULAN-BATOR	75.71	325.5	11 41	-1					
YAKUTSK	76.57	345.2	11 44	-3	21 26	-2			
BYRD STATION	77.68	169.9	11 53	-1				12 11	
SOUTH POLE	79.44	180.0	12 3	0			12 18		
MAWSON	83.55	202.4	12 25A	0					
COLLEGE	84.22	19.4	12 27	-1			12 43	15 17	PP
TIKSI	84.92	350.1	12 29K	-2					
SAN FRANCISCO	85.59	50.5	12 36	1					
BRANNER	85.69	50.9	12 37K	2					
BERKELEY	85.76	50.4	12 37A	1	23 6	3		28 55	SS
CONCORD	85.93	50.4	12 38A	2					
LICK	86.08	51.1	12 39A	2				15 59	PP
VINEYARD	86.12	51.7	12 39	2					
SHASTA	86.49	47.7	12 41K	2					
MINERAL	86.96	48.2	12 42A	1				13 4	
PASADENA	87.97	54.9	12 47A	1	23 28	4		28 49	SS
RENO	88.06	49.3	12 48A	1					
VICTORIA	88.16	40.0	12 49	2					
PENTICTON	90.79	39.9	13 0K	0					
EUREKA	90.93	50.1	13 2	2			13 13	16 28	PP
SEMPALATNSK	92.62	320.7	13 5A	-3					
TUCSON	93.58	58.0	13 14	2	24 9	-5	13 38	17 4	PP
GLEN CANYON	93.80	53.3	13 14	1				16 59	PP
HUNGRY HORSE	94.16	41.7	13 15	0					
SALT LAKE C.	94.28	49.5	13 18	2					
BUTTE	94.70	44.2	13 17	-1					
BOZEMAN	95.69	44.7	13 23	1					
FLAMING GRGE	96.15	49.6	13 25	1					
QUETTA	99.21	299.0	13 37	-1					
RAPID CITY	101.05	47.0	13 47	1					
RESOLUTE	103.75	15.4	14 8	10					
WICHITA MTS.	104.02	56.8	13 59	-1				18 4	PP
FAYETTEVILLE	107.66	55.5	18 39	777					
SHIRAZ	111.68	297.7	19 14	44					
MOSCOW	117.49	328.1						20 1	PP
KAJAANI	117.64	339.0	18 42	1					
OTTAWA	120.29	43.4	18 46	0					
NURMI JARVI	120.96	336.8	18 50	2					
SHAWINI GAN	121.88	41.3	18 49	0					
PALISADES	122.78	47.9	18 50	-1			19 1	30 31	PS
LA PAZ	123.94	118.1	18 56	3				20 25	PP
WESTON	124.23	45.6	18 54K	0					
BULAWAYO	124.52	236.6	18 55	0					
BOGOTA	124.60	91.7	19 11	16					
FUQUENE	125.07	90.8						20 46	PP
KSARA	125.37	304.0	18 53	-3				21 4	PP
JERUSALEM	126.31	301.6	19 0	2				21 9	PP
NIEDZIKA	129.75	327.9	19 6	1					
HELWAN	129.97	300.1	19 7	2					
LWIRO	131.29	257.5	19 11	4					
COLLMBERG	132.01	333.9	19 21	12				21 39	PP
PRUHONICE	132.24	331.7	19 13	4				21 41	PP
CARACAS	132.37	85.5	19 12	2				22 39	SKP
KASPERSKE H.	133.29	331.4	19 12	1				21 41	PP
SAN JUAN	133.30	74.8	19 13	2			19 25	22 19	*SKP
BENSBERG	134.63	337.4						22 3	
STUTTGART	135.49	334.0	19 18	3			19 37	22 1	PP
STRASBOURG	136.28	334.9						22 3	
GARCHY	139.19	337.5	19 25	3				22 26	PP
BANGUI	142.77	263.2	19 26	-2				20 5	SPCP
BAGNERES	143.85	336.7	19 34	4					
ALGIERS UNI.	147.54	326.8	19 50	13					
TOLEDO	148.19	338.7	19 42	4				20 40	
SERRA PILAR	148.40	345.7	19 43K	5				19 53	PKP2
GRANADA	150.37	335.6						23 33	PP
TAMANRASSET	154.12	300.9	19 48	2			20 24	24 1	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 226

MBOUR 176.00 339.2 20 6 1 26 12 PP

MARCH 5 21.H 26.M 6.S EPICENTRE -20.98-176.22 DEPTH= 130.KM

A=-0.93250 B=-0.06156 C=-0.35588 D=-0.0659 E= 0.9978
G= 0.3551 H= 0.0234 K=-0.9345 HT= 4.4

DEPTH OF FOCUS= 0.015R

SE= 1.58

	DELTA DEG.	AZ. DEG.	P			S			*PP		SUPP.	
			M	S	O-C	M	S	O-C	M	S	M	S
APIA	8.30	31.4	1	58	0	3	22	-9				
RAOUL ISLAND	8.38	190.2	2	0	1	3	38	5				
NOUMEA	16.17	262.2	3	45	5	6	34	-1				
KARAPIRO	18.34	201.1	4	7K	1	7	33	10	4	24		
TUAI	18.66	196.4				7	25	-5				
CHATEAU	19.49	199.5	4	19	0	7	48	1				
WELLINGTON	21.63	198.7	4	45	5	8	26	-1				
GEBBIES PASS	24.49	199.7				9	20	4				
BRISBANE	28.94	251.1	5	46	-3	9	10	-78				
CANBERRA	33.64	237.4	6	30	0							
CHARTERS TS.	35.09	264.6	6	43	1						12 43	
PORT MORESBY	37.08	282.5	7	0	1							
MELBOURNE	37.44	234.7	7	2	0							
ADELAIDE	41.82	240.7	7	38	0							
GUAM	51.40	308.4	8	53	0							
MUNDARING	60.62	244.4	9	56	-3							
BYRD STATION	63.90	170.7	10	20	-1				10	37		
SOUTH POLE	69.15	180.0	10	54	0							
MATUSIRO	71.58	322.7	11	7K	-1							
LEMBANG	74.69	268.5	11	26A	0							
BERKELEY	77.43	41.0	11	43	1							
LICK	77.48	41.7	11	45	3							
PASADENA	77.80	46.1	11	44	0							
FRESNO	78.29	43.1	11	47	0						12 33	
SHASTA	79.16	38.7	11	52A	1							
MINERAL	79.40	39.3	11	53A	0							
TUCSON	81.91	51.1	12	6	0				12	15	12 52 *SP	
EUREKA	82.33	42.7	12	8	0				12	54	13 9 *SP	
PENTICTON	86.13	33.2	12	27	0							
FLAMING GRGE	87.34	44.2	12	33	0						13 17 *SP	
BUTTE	88.07	38.7	12	35	-1							
COLLEGE	88.32	11.7	12	36	-2				12	56	13 25 *SP	
HUNGRY HORSE	88.53	36.2	12	38	0							
WICHITA MTS.	92.11	53.6	12	54	-1						13 37	
RAPID CITY	92.87	43.6	12	58	-1							
QUETTA	122.90	293.0	18	42K	2							
SHIRAZ	135.37	291.3	19	5	1							
NURMIJARVI	137.84	344.8	19	0	-9							
UPPSALA	139.93	349.2	19	7	-5							
LWIRO	146.34	229.7	19	27K	3						20 16	
WITTEVEEN	148.13	356.7	19	1	-26							
KRAKOW	148.29	340.0	19	30	3							
NIEDZIKA	148.71	339.0	19	33K	5							
RACIBORZ	148.79	342.0	19	30	2						20 21	
COLLMBERG	148.88	348.8	19	32K	4						23 0 PP	
JENA	149.48	350.3	19	29	0						20 22	
PRUHONICE	149.82	346.1	19	35K	6						20 24	
JERUSALEM	149.95	297.5	19	36K	7						20 24 PKP2	
BENSBERG	149.96	355.7	19	35K	6						20 25	
KASPERSCHE H.	150.84	346.7	19	31	0						20 32	
STUTTGART	151.92	352.3	19	33	1						19 49	
PARIS	152.21	1.8	19	40	7							
STRASBOURG	152.27	354.3	19	40	7						20 28	
LJUBLJANA	153.49	343.1	19	35	1						19 56 PKP2	
HELWAN	153.64	295.2	19	44	9						19 58	
GARCHY	153.75	1.1	19	44	9						19 53 PKP2	
BANGUI	158.09	223.2	19	41	0						21 6	
TAMANRASSET	177.58	318.3	19	56	2						25 35 PP	

MARCH 7

10.H 10.M 34.S EPICENTRE -28.78-175.58 DEPTH= 0.KM

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 227

A=-0.87521 B=-0.06761 C=-0.47900 D=-0.0770 E= 0.9970
G= 0.4776 H= 0.0369 K=-0.8778 HT= 2.2

SE= 2.63

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
RAOUL ISLAND	2.10	256.6	0	38	1							
ONERAHI	10.99	228.1	2	42	0							
AUCKLAND	11.42	222.6	2	46	-1	4	59	2				
TUAI	11.67	209.2	2	49	-2	4	55	-8				
KARAPIRO	11.75	216.8	2	50	-2							
CHATEAU	12.73	213.0	3	2A	-3	5	13	-16				
WELLINGTON	14.75	209.7	3	26	-6	6	3	-14				
APIA	15.32	14.1	3	34	-5	6	5	-25				
COBB RIVER	15.55	214.8	3	43	1	6	24	-12				
KAIMATA	17.28	214.1	4	4	0	7	1	-15				
NOLMEA	17.44	287.6	4	8	2	7	35	15				
GEBBIES PASS	17.63	209.2	4	6	-3	7	8	-16				
PORT VILA	18.41	303.2	4	13	-5	7	45	3				
ROXBURGH	20.50	211.6	4	39	-3	8	20	-7				
BRISBANE	27.91	265.2	5	52	-2	10	29	-8				
RIVERVIEW	28.79	251.5	6	3A	1	10	47	-4			6	58 PP
HONIARA	29.97	305.1	6	10	-2							
CANBERRA	30.60	248.6	6	18A	0	11	21	1			7	22 PP
MACQUARIE I.	31.64	208.6	6	30	3							
MELBOURNE	33.97	244.2	6	48	1	12	10	-2				
CHARTERS TS.	35.68	275.3	7	0	-2	12	27	-12				
ADELAIDE	39.03	249.0	7	30K	0	13	28	-2			9	7 PP
RABAUL	39.17	302.6	7	29	-2	13	36	4				
PORT MORESBY	39.91	291.4	7	37	0	13	33	-10				
CAPE HALLETT	44.26	186.2	8	16A	3	14	50	3			18	40 SS
SCOTT BASE	49.81	184.8	9	1K	4	16	15	9			10	56 PP
HONOLULU	52.57	20.7	9	14	-3	16	52	8				
KIPAPA	52.71	20.7	9	17	-2							
GUAM	56.87	312.1	9	48	-1							
WILKES	57.55	207.4	9	54	0							
MUNDARING	58.04	248.5	9	56	-1	17	50	-7				
PERTH	58.35	248.4	9	59	0	18	4	3			22	25 SS
SOUTH POLE	61.38	180.0	10	22	2						11	18
MIRNY	64.52	206.3	10	41	0	19	24	4			13	6 PP
TORISIMA	72.40	320.9	11	30	0							
ARGENTINE I.	72.53	155.7				21	58	63				
MAWSON	74.55	199.8	11	45	3	21	24	6			27	6 SS
MANILA	74.89	296.4	11	44	0	21	18	-3				
LEMBANG	75.19	270.3	11	45K	-1	21	20	-5			22	0 SCS
MERA	76.07	323.5	11	50	-1	21	36	2				
DJAKARTA	76.18	270.5	11	52	0	21	32	-4			15	36
OSIMA	76.19	323.1	11	48A	-4	21	36	0				
BAGUIO CITY	76.30	297.5	11	50	-2	21	32	-5				
AJIRO	76.55	323.1	11	52	-2	21	43	3				
YOKOHAMA	76.55	323.7	11	54	0	21	45	5				
OMAESAKI	76.68	322.3	11	53	-2	21	44	3				
MISIMA	76.68	323.1	11	57	2	21	40	-1				
TOKYO C.M.O.	76.69	324.0	11	53K	-2	21	44	3				
SHIZUOKA	76.86	322.6	11	53	-3	21	43	0				
MI TO	76.87	324.9	11	55	-1	21	44	1				
KAKIOKA	76.90	324.6	11	55	-1						21	6
TUKUBASAN	76.93	324.6	11	53K	-3	21	37	-7			15	3 PP
HAMAMATU	77.04	322.0	11	56	-1	21	50	5				
HUNATU	77.07	323.2	11	58	1	21	47	2				
ONAHAMA	77.10	325.5	11	56	-1	21	50	4				
SIOMISAKI	77.17	319.9	11	53	-4	21	49	3				
KUMAGAYA	77.25	324.0	11	58	0	21	51	4				
TITIBU	77.27	323.7	11	58	0	21	52	5				
UTUNOMIYA	77.31	324.6	11	57	-1	21	54	6				
KOHU	77.31	323.2	11	58	0	21	51	3				
OWASE	77.38	320.6	12	3	5	21	50	1				
SHIRAKAWA	77.57	325.2	12	3	4	21	56	5				
MAEBASI	77.60	324.0	11	58	-2	21	49	-2				
NAGOYA	77.78	321.9	11	58	-3	21	57	4				
KAMEYAMA	77.81	321.3	12	0	-1	21	56	3				
OI WAKE	77.82	323.6	12	3	2						12	25
MUROTO	77.93	318.8	12	5	4	21	57	2				
HUKUSIMA	77.94	325.8	12	3	2	22	0	5				
NARA	78.04	320.8	12	5	3	21	59	3				
MATUMOTO	78.06	323.2	12	3	1	22	4	8				
GIHU	78.06	321.9	12	5	3	21	59	3				
SENDAI	78.13	326.4	11	58	-5	21	59	2				

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961										PAGE 228	
MATUSIRO	78.15	323.6	12	1K	-2	21	58	1			
YAKUSIMA	78.18	314.5	12	3	0	21	49	-8		14	43 PP
OSAKA	78.18	320.6	12	2K	-1	22	3	6			
HIKONE	78.25	321.5	12	7	4	22	0	2			
NAGANO	78.26	323.6	12	3	0	21	59	1			
SIMIDU	78.30	317.7	11	57	-6	21	59	0			
SUMOTO	78.30	320.0	11	57A	-6					13	40 PP
ABUYAMA	78.32	320.8	12	3K	-1						
KYOTO	78.35	321.0	12	7	3	22	1	2			
TAKAYAMA	78.36	322.7	12	3	-1						
YAMAGATA	78.39	326.0	12	3	-1	22	4	5			
KOBE	78.40	320.4	12	3	-1	22	4	4			
KOTI	78.52	318.6	12	4K	-1	22	3	2			
TAKADA	78.56	324.0	12	4	-1	22	7	6			
MIYAZAKI	78.62	316.2	12	8K	3	22	2	0			
MIZUSAWA	78.70	327.1	12	8	2	22	1	-2			
HIMEJI	78.71	319.8	12	10	4	22	7	4			
MIYAKO	78.72	327.9	12	6	0	22	5	2			
NIIGATA	78.78	325.0	12	7	1	22	12	8			
TAKAMATU	78.78	319.5	12	9	3	22	4	0			
TOYAMA	78.80	323.0	12	5	-1	23	6	62			
UWAZIMA	78.87	317.8	12	10	3	22	7	2			
KAGOSIMA	78.91	315.4	12	6	-1	22	6	1			
KANAZAWA	78.97	322.6	12	14	7						
MORIOKA	79.13	327.4	12	7	-1	22	14	7			
MATUYAMA	79.17	318.4	12	6K	-2	22	10	2			
TOYOOKA	79.22	320.8	12	7	-2	22	10	2			
AIKAWA	79.26	324.6	12	13	4						
HENGCHUN	79.46	302.2	12	12	2						
WAZIMA	79.47	323.3	12	9	-1	22	15	4			
TAWU	79.56	302.6	12	11	1	22	7	-5			
TAITUNG	79.61	303.0	12	11	0	21	34	-38			
HATINOHÉ	79.62	328.2	12	8	-3	22	16	3			
AKITA	79.66	326.8	12	11K	0	22	16	3			
KUMAMOTO	79.69	316.4	12	10	-1	22	14	1			
HIROSIMA	79.75	318.5	12	10	-1	22	12	-2			
HWALIEN	80.00	304.3	12	16	3						
NAGASAKI	80.12	315.8	12	13	0	22	19	1			
NEMURO	80.13	332.3	12	12	-1	22	21	3			
AOMORI	80.20	327.9	12	20	6	22	26	7			
HIROO	80.22	330.3	12	20	6						
SAGA	80.23	316.5	12	19	5					23	20
KUSIRO	80.33	331.4	12	14	0	22	23	3			
ALISHAN	80.33	303.5	11	26	-48						
HAMADA	80.33	318.7	12	13K	-1	22	19	-1			
URAKAWA	80.35	329.9	12	15	0	22	25	5			
TAINAN	80.45	302.7	12	20	5						
SAIGO	80.54	320.4	12	22	6	22	26	4			
TAIPEI	80.72	305.1	12	20	3	22	20	-4			
TOMIE	80.73	315.1	12	18A	1	22	27	3			
OBHIRO	80.79	330.6	12	17	0					21	31
TAICHUNG	80.80	303.9	12	6	-11						
HAKODATE	80.99	328.5	12	18	0						
TOMAKOMAI	81.27	329.5	12	26	7	22	38	8			
MURORAN	81.29	328.9	12	20	0	22	36	6			
MORI	81.30	328.6	12	22	2	22	37	7			
SAPORO	81.72	329.6	12	14	-8	22	35	1		15	31 PP
VINEYARD	82.70	41.1	12	26	-1						
BRANNER	82.71	40.1	12	27K	0						
SAN FRANCISCO	82.81	39.7	12	27	0						
PASADENA	82.85	44.8	12	27K	-1	22	54	8		23	51 PS
LICK	82.96	40.5	12	29K	1						
BERKELEY	82.98	39.8	12	28	0	22	55	8		15	38 PP
CONCORD	83.16	39.8	12	30K	1					15	41 PP
NHATRANG	83.20	287.8	12	30K	1	22	50	1			
UKIAH	83.35	38.3	12	29K	-1						
WAKKANAI	83.45	331.2	12	38	7						
MANZANILLO	83.60	64.3	12	34	3	22	56	3		28	35 SS
FRESNO	83.63	41.9	12	31K	-1						
ARCATA	84.14	36.6	12	37K	3						
MAZATLAN	84.28	59.8	12	30	-5	23	8	8		17	29
Y.-SAKHLINSK	84.31	332.8	12	34	-1	23	10	9			
PETROPAVLOVK	84.50	344.7	12	34	-2	22	58	-4		24	3 PS
HONG KONG	84.60	298.9	12	37K	0	22	54	-9		15	49 PP
ZO-SE	84.67	309.7	12	37K	0	23	1	-3	12	59	13 10 *SP
SHASTA	84.91	37.7	12	38K	0						
MINERAL	85.09	38.3	12	38K	-1					13	12
GUADALAJARA	85.28	63.5	12	42	2	23	10	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 229

RENO	85.52	39.9	12 41K	0				13 6
CANTON	85.68	299.1	12 43K	1	23 9	-5	13 2	23 17 S
SANTA LUCIA	85.79	125.9	12 43K	1	23 8	-7		28 50 SS
VLADIVOSTOK	86.28	324.4	12 46	1				23 33 SCS
TUCSON	86.39	50.2	12 45K	0				16 12 PP
TUCSON TELE.	86.52	50.2	12 46	0	23 49	27	12 59	15 52 PP
NANKING	86.88	309.2	12 48K	0	23 16	-9	13 10	13 21 *SP
CORVALLIS	87.21	34.5	12 52A	3				
CHIHUAHUA	87.60	55.5	12 48	-3	23 18	-14		16 6 PP
EUREKA	87.69	41.9	12 51K	-1	23 29	-4		16 16 PP
TACUBAYA	87.88	66.6	12 49K	-4				16 15 PP
MEDAN	87.97	275.2	12 53	0	23 35	-1		13 26
RUTH	88.11	42.6	12 55K	1				
OAXACA	88.65	69.9	12 52	-4	23 42	0		30 18
GLEN CANYON	88.77	46.1	12 58	1	23 55	12		18 9 PP
SEATTLE	89.89	32.8	13 2	0				17 34
ALBERNI	89.90	30.5	12 24	-38				
VICTORIA	89.99	31.7	13 2	-1				
CHANGCHUN	90.25	321.6	13 3K	-1	23 33	-24	13 25	13 37 *SP
VERA CRUZ	90.27	68.3	13 6	2	23 46	-11		14 34
SALT LAKE C.	90.95	42.9	13 6K	-1	23 41	-22		30 13 PKKP
ANTOFAGASTA	91.09	117.8	13 8	0				
SITKA	92.01	20.7	13 12K	0	23 58	-14		16 50 PP
COMITAN	92.12	72.7	13 14	2	24 26	13		17 26
MAGADAN	92.29	343.6	13 12	-1	24 18	3		16 58 PP
PENTICTON	92.33	32.9	13 13K	0				
FLAMING GRGE	92.53	43.9	13 13K	-1				16 44 PP
HUANCAYO	93.07	105.4	13 20K	3				51 28
PEKING	93.27	314.4	13 18K	0	23 50	-33	13 39	13 51 *SP
LUBBOCK	93.35	53.4	13 18	0				
SAN SALVADOR	93.37	76.3	13 19	1	23 46	-38		
BUTTE	93.78	38.5	13 18K	-2	23 49	-39		17 3 PP
BOZEMAN	94.41	39.4	13 23K	0	23 14	-79		17 12 PP
HUNGRY HORSE	94.47	36.0	13 22K	-1	23 58	-36		17 10 PP
SIAN	94.95	306.4	13 26K	1	24 2	-36		
KUNMING	94.99	295.8	13 27K	1	24 3	-35		14 0 *SP
LARAMIE	95.10	45.3	13 25	-1				
COLLEGE	95.82	11.5	13 27K	-3	24 1	-5		17 18 PP
WICHITA MTS.	96.25	53.8	13 30	-1	24 2	-6		17 23 PP
MERIDA	96.46	69.8	13 29A	-3	24 11	2		17 29 PP
LA PAZ	96.74	112.8	13 36	2	25 1	51		
PORT BLAIR	96.99	279.4	13 40	5				20 14
RAPID CITY	98.08	43.9	13 39K	-1	23 29	-48		16 34 PP
LANCHOW	99.46	305.9	13 47	1	24 24	0		
BALBOA HTS.	99.50	85.0	13 43	-3				15 46
FAYETTEVILLE	100.05	54.4	13 48A	-1	24 26	-1		17 54 PP
YAKUTSK	100.55	337.0	13 48	-3				17 48 PP
CHINCHINA	101.10	90.4	13 54A	1	24 35	3		18 2 PP
TOCKLAI	102.10	293.9						17 19
BOGOTA	102.30	91.5	14 2K	3				
CHITTAGONG	102.59	288.6	14 0	0	24 40	0	14 13	18 21 PP
FUQUENE	102.99	90.9	14 2K	0				18 5 PP
ULAN-BATOR	103.11	317.6	14 1	-1				
SHILLONG	103.94	291.6	14 6	0	24 50	4		17 39
CALCUTTA	105.54	287.4	14 15	777	25 1	8		28 11 PS
COLOMBO	106.03	269.1	14 17	777	25 2	7		18 37 PP
LHASA	106.30	295.1	14 20	777	25 3	7		18 43
TERRE HAUTE	106.34	53.9	18 31	777				24 26
IRKUTSK	106.57	320.8	14 16K	777	24 54	-4		18 37 PP
TIKSI	107.27	344.1	14 15	777				18 35 PP
VIZIANAGRAM	107.87	281.2			25 25	22		
BOKARO	108.23	287.6	14 27	777	25 7	2		28 30 PS
CHATRA	108.30	291.0	14 32	777	25 9	4		19 3 PP
MADRAS	108.51	274.9	18 40	777	25 12	6		28 16 PS
COLUMBIA	108.93	61.1	17 43K	777	25 5	-3	17 58	
KODAIKANAL	109.66	271.1						19 9 PP
CHAPEL HILL	111.15	59.8	18 3	-33	25 8	-9		
CLEVELAND	111.26	53.5						19 13 PP
CARACAS	111.27	89.5	14 39A	-237				18 6
MORGANTOWN	111.77	55.8	18 34	-3				19 19 PP
HYDERABAD	111.91	278.4	14 45K	-232	25 17	-3		19 1 PP
WASHINGTON	113.64	57.4	14 37K	-243				18 14 PP
GEORGETOWN	113.64	57.4	18 44	4				
PENNSYLVANIA	113.65	55.2						19 32 PP
GRAHAMSTOWN	114.76	200.3	19 16A	33				
RESOLUTE	115.09	16.8	18 41	-2				14 58 P
SAN JUAN	115.33	82.1	18 44	0				29 21 PKKP
HERMANUS	115.60	193.6	15 4	-220				19 51 PP
TRINIDAD	116.19	92.0	18 49	4				29 26 PS

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 230

POONA	116.35	277.5	18 47	1	25 36	-1	19 58	PP
OTTAWA	116.48	50.8	18 45	-1			29 17	
PALISADES	116.58	56.0	18 46	0	25 38	0	19 50	PP
TANANARIVE	116.88	226.5	18 53A	6			20 2	PP
DEHRA DUN	117.03	291.3	18 48	1	25 45	5	20 0	PP
BOMBAY	117.40	277.5			25 45	4	19 59	PP
BREBEUF	117.94	51.1	18 49	0				
FORT FRANCE	118.19	88.0	18 42	-7				
SHAWINIGAN	118.75	50.1	18 50	0				
WESTON	118.81	55.0	18 52	2	25 49	3	20 9	PP
LCO. MARQUES	119.20	209.1	18 54K	3	26 18	31	19 13	PP
KIMBERLEY	119.57	200.6	18 54A	2				
SEMIPALATNSK	120.37	314.0					20 21	PP
LAHORE	120.45	291.5	18 55	1				
PRETORIA	121.17	205.1	18 58	3				
THULE	121.81	15.4	19 6K	10			19 22	
FRUNSE	122.90	304.5	18 59	1			22 41	PKS
WARSAK DAM	123.37	293.6	18 59	0				
KHEYS	123.91	350.8	18 59	-1	26 5	2	20 42	PP
KHOROG	124.18	297.6					28 46	SKKS
KARACHI	124.53	281.7	19 1K	-1				
HALIFAX	124.75	53.7	19 3	1				
BULAWAYO	126.04	208.4	18 56K	-8				
QUETTA	126.17	287.9	19 6K	1	26 17	8	21 5	PP
NORD	126.46	3.8	19 2	-3			20 57	PP
TASHKENT	126.58	301.9	19 7	2			21 0	PP
WINDHOEK	127.50	194.8	19 9A	2				
BROKEN HILL	131.13	211.6	19 4	-10				
SVERDLOVSK	131.95	322.1	19 16	0				
ASHKABAD	134.58	296.2	19 21	0			21 54	PP
SCORESBY SD.	135.68	12.3	19 23A	0			21 57	PP
APATITY	137.49	344.0	19 25K	-1			22 59	PKS
SHIRAZ	138.25	283.3	18 28	-59			18 50	
SODANKYLA	139.13	347.1	19 23	-6			22 12	PP
KIRUNA	139.76	350.7	19 23K	-7			22 24	PP
TEHERAN	139.98	292.4	19 25A	-5			23 3	PKS
KAJAANI	141.69	343.7	19 30	-3				
UMEA	143.51	348.3	19 35	-2				
GORIS	143.99	298.5	19 38	1			26 2	PPP
MOSCOW	144.14	328.1	19 37	-1			22 51	PP
PULKOVO	144.36	337.7	19 35	-3			22 47	PP
TIFLIS	144.90	302.5	19 40	1			20 1	
NURMIJARVI	145.46	342.4	19 38K	-2			23 19	SKP
UPPSALA	147.66	347.5	19 44K	0			23 5	PP
BERGEN	148.38	359.2	19 49	4			24 0	PKS
GOTEBORG	150.61	351.7	19 51	3				
ABERDEEN	151.26	7.4	19 54	5			24 24	PP
SIMFEROPOL	151.49	312.5	19 50	0			23 32	PP
ANGRA DO HO.	152.01	61.1			27 36	40	43 57	SS
BANGUI	152.24	211.7	19 52	1			23 46	PP
COPENHAGEN	152.51	350.1	19 51K	0	26 52	-5	23 40	PP
KSARA	152.71	288.6	20 2	11	27 8	11	24 6	PP
JERUSALEM	153.28	284.1	19 54K	2				
PONTA DELGDA	153.39	62.6	19 57A	5			20 19	PKP2
WARSAW	153.52	336.8	19 53K	0	26 52	-6	23 41	PP
DURHAM	153.67	7.8	19 54A	1	26 40	-18	23 45	PP
LWOW	154.23	330.0	19 54	0			23 49	PP
IASI	154.25	321.9	20 3K	9			22 44	
BACAU	155.00	321.4	20 6	11			20 49	
FOCSANI	155.35	319.4					20 50	
MBOUR	155.55	121.4	19 58	3			24 50	PP
KRAKOW	155.71	335.2	19 55K	0			20 42	
CHORZOW	155.84	336.8	19 57	1			20 25	PKP2
WITTEVEEN	155.93	356.6	19 58	2			23 56	PP
RACIBORZ	156.29	337.6	19 57	1			23 43	PKS
SKALNATE PL.	156.29	333.6	19 55	-1			24 1	PP
ISTANBUL KA.	156.45	307.9	19 56	0			20 31	PKP2
ISTANBUL UN.	156.52	307.9	19 54	-3			23 34	PKS
HELWAN	156.53	279.2	19 56K	-1			24 21	
COLLMBERG	156.60	346.4	19 57K	0			24 6	
DE BILT	156.70	358.8	19 58K	1			24 5	PP
MUNSTER	156.71	355.0	19 57	0			24 4	PP
BUCHAREST	156.73	317.9	19 58K	1			27 44	
CAMPULUNG	156.83	320.8	20 1	4	20 45		24 51	PP
KEW	157.06	7.6	19 57K	0	20 45		24 49	PP
JENA	157.23	348.2	19 58	0			24 3	PP
LOME	157.26	171.8	20 0	2			24 6	PP
PRAGUE	157.42	343.0	19 57K	-1			24 6	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 231

PRUHONICE	157.47	342.8	19 57K	-1				24 6 PP
BENSBERG	157.75	355.4	19 58K	0	27 12	10		24 8 PP
CHEB	157.88	346.3	19 59	1				20 33 PKP2
BUDAPEST	158.15	332.6	20 0	1	26 54	-9		23 59 PP
HURBANOVO	158.15	334.5	19 59	0				20 38 PKP2
BRATISLAVA	158.30	336.6	19 58A	-1				24 6 PP
KECSKEMET	158.31	330.7	20 36	37				
VIENNA-H.	158.48	337.8	19 59K	0				24 10 PP
TIMI SOARA	158.49	326.5	20 3	4				20 44
KASPERSKE H.	158.50	343.4	19 59K	0				24 13 PP
JERSEY	159.03	12.0	20 3	3				24 35 PP
SOFIA	159.36	317.3	19 57	-3	26 53	-11		
BELGRADE	159.54	325.8	20 2A	2				27 59 PPP
STUTTGART	159.69	350.7	20 1	1				24 17 PP
PARIS	159.95	3.7	20 2	1				24 13 PP
TUBINGEN	159.96	350.9	20 1K	0				20 41 PKP2
STRASBOURG	160.06	353.5	20 2K	1	27 8	3		24 21 PP
EBINGEN	160.31	350.9	20 2K	1				20 44 PKP2
RAVENSBURG	160.61	349.4	20 2	1				
ZAGREB	160.70	334.9	20 1K	-1				24 21
LJUBLJANA	161.02	337.9	20 2K	0	27 11	5	20 12	24 33 PP
BASLE	161.12	353.4	19 49K	-13				30 49 SKKS
ATHENS	161.48	304.6	20 4	2				
GARCHY	161.50	2.9	20 11	9				24 28 PP
BESANCON	161.52	356.6	20 4K	2				20 50 PKP2
CHUR	161.52	348.9	20 4K	2				24 31 PP
TRIESTE	161.62	338.9	20 2K	0			20 14	24 32 PP
NEUCHATEL	161.71	354.5	20 3	0				
PADOVA	162.39	342.4	20 3K	0				24 31 PP
CLERMONT-FD.	163.01	3.1	20 7	3				24 37 PP
BOLOGNA	163.37	342.5	19 56	-8				22 14
SERRA PILAR	163.73	37.4	20 5A	0	27 4	-4		24 45 PP
PRATO	164.01	342.2						32 9
FLORENCE X.	164.06	341.7	20 4	-1			20 58	
COIMBRA	164.47	39.5	20 6K	1				24 47 PP
ISOLA	164.49	352.9	20 6	1				24 47 PP
MONACO	164.89	351.6	20 6	0				21 5 PKP2
LISBON	165.00	45.1	20 2	-4				24 46 PP
BAGNERES	165.33	12.4	20 7	1				20 56 PKP2
ROME	165.36	335.5	20 6K	0				24 50 PP
MESSINA	166.80	318.2	20 5	-2	27 5	-5	20 18	24 52 PP
REGGIO CALA.	166.81	317.7	20 7K	0				23 57 PP
TOLEDO	166.91	30.0	20 8K	1	27 9	-1		24 58 PP
TORTOSA	167.57	13.9	20 9	1			25 5	
GRANADA	169.26	36.7	20 6A	-3	27 3	-8		25 18 PP
ALICANTE	169.62	21.9	20 13	4	27 16	5		25 20 PP
ALMERIA	170.09	34.0	20 10K	1	26 51	-21		25 11 PP
ALGIERS UNI.	171.95	7.9	20 12K	2				25 25 PP
TAMANRASSET	173.94	189.7	20 13K	2				25 31 PP

MARCH 7 19.H 8.M 39.S EPICENTRE -38.87 78.36 DEPTH= 26.KM

A= 0.15751 B= 0.76459 C=-0.62497 D= 0.9794 E=-0.2018
G=-0.1261 H=-0.6121 K=-0.7806 HT= -1.3

SE= 2.81

	DELTA DEG.	AZ. DEG.	P			O-C			*PP		SUPP.	
			M	S	S	M	S	S	M	S	M	S
MIRNY	28.95	167.9	6	0	0	10	54	6				
PERTH	31.15	88.8	6	20	1	11	42	20			7 31 PP	
MUNDARING	31.44	89.1	6	20	-2							
WILKES	33.01	156.8	6	33A	-3	11	57	6			7 49 PPP	
TANANARIVE	33.27	297.9	6	45K	7						7 57	
LCO. MARQUES	40.32	274.7							7 44			
LEMBANG	41.40	47.2	7	47A	1	14	3	4			8 25 PP	
DJAKARTA	41.48	45.7	7	46	-1	14	3	2				
XIMBERLEY	45.09	266.1	8	14K	-2							
COLOMBO	45.56	2.1	8	25	5	15	4	4				
MEDAN	46.22	28.7	8	30	5	15	23	14				
BULAMAYO	46.54	278.9	7	55	-33						8 27	
HERMANUS	46.94	256.2	8	35	4	15	25	6			15 31 PS	
ADELAIDE	47.65	105.0	8	35A	-1	15	33	3			10 7 PCP	
KODAIKANAL	48.35	358.8									19 34	
BROKEN HILL	50.04	284.9	8	31	-24							
TAPRALEAH	50.57	117.0	9	6K	7							

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961				PAGE 232			
FORT NELSON	50.97	118.0				16 31 15	22 2 SSS
MELBOURNE	51.16	111.1	9 3	0		16 27 9	
SOUTH POLE	51.32	180.0	9 6	2			
MADRAS	51.62	2.3	9 10	3		16 57 32	22 34
SCOTT BASE	52.02	164.4	9 5	-5		16 42 12	10 20 PCP
PORT BLAIR	52.03	18.0	9 7	-3		16 36 6	21 51 SS
CAPE HALLETT	54.03	157.8				16 35 -23	19 14 SCS
WINDHOEK	54.16	268.6	9 32	6			
CANBERRA	55.16	109.9	9 33A	0		17 2 -11	21 1 SS
HYDERABAD	56.00	0.1	9 38K	-1		17 23 -1	11 42 PP
POONA	57.25	354.9	9 45K	-3		17 39 -1	
RIVERVIEW	57.41	109.3	9 51	2		17 48 5	18 6 PS
BOMBAY	57.70	353.8	9 52	1		17 49 3	18 22 PPS
LWIRO	57.97	296.2	9 32	-21		18 0 10	
NHATRANG	58.41	36.1	9 54	-2		17 50 -6	
CHARTERS TS.	60.70	93.0	10 9	-3		18 30 5	
BRISBANE	61.81	103.6	10 20	1		18 46 7	
CHITTAGONG	62.20	14.1	10 23	1		18 48 4	10 33 12 46 PP
BOKARO	62.76	7.7	10 25	-1		18 55 4	
KARACHI	64.24	348.6	10 33	-2			
SHILLONG	65.34	13.4	10 8A	-34			
CHATRA	65.87	8.6	10 40	-6		19 30 0	
MANILA	66.56	45.7	10 50	0			
KUNMING	67.62	23.9	10 56	-1		19 56 5	
PORT MORESBY	67.66	84.0	10 57	0		19 58 7	
DEHRA DUN	68.83	359.7	11 5	1		20 11 6	13 39 PP
HONG KONG	69.48	35.4				20 15 2	
QUETTA	69.51	349.5	11 6	-3		20 16 3	11 14 13 41 PP
CANTON	69.80	34.2	11 11	1		20 6 -11	
BANGUI	69.83	293.4	11 11	0			13 44
LAHORE	70.16	356.3	11 8	-5			
CHATEAU	71.48	125.6	11 20	-1			
KARAPIRO	72.22	124.5	11 26	1			
SHIRAZ	72.30	336.5	10 52K	-33		20 49 3	11 23
WARSAK DAM	72.78	354.1	11 26	-2			
CHENG TU	73.18	22.9	11 28	-3		20 56 0	
RABAU	74.78	83.0	11 36	-4			
TEHERAN	78.31	337.9	12 0	0		21 58 6	
ANDIJAN	79.43	355.4	12 7K	1		22 8 4	
NAMANGAN	79.70	354.9	12 5	-2			
NANKING	79.95	34.0	12 8	-1		22 15 6	22 27 SKS
ZO-SE	80.22	36.3	12 10	0		22 20 8	
TASHKENT	80.24	353.1	12 10	0		22 18 6	
JERUSALEM	80.93	323.9	12 21	7			
HELWAN	81.23	320.0	12 16	1			
FRUNSE	81.39	357.2	12 16K	0		22 31 7	
KSARA	82.35	325.4	12 23K	2		22 25 -9	12 39 15 35 PP
PEKING	85.80	28.2	12 37	-2			
TIFLIS	85.83	335.5	12 40	1		23 16 7	
SEMI PALATNSK	88.91	1.2	12 50	-4		23 41 3	
ULAN-BATOR	90.07	18.7	12 41	-18			
ISTANBUL KA.	91.38	325.0	13 8	3		24 9 9	
TAMANRASSET	91.61	298.1	13 8	2		24 15 13	16 47 PP
CHANGCHUN	92.61	32.0	13 15	4			
MATUSIRO	93.14	44.2	13 16	3		23 43 -33	30 39 SS
TUKUBASAN	93.94	45.6	13 15A	-2		24 25 2	17 4 PP
TARANTO	96.68	317.7					28 52
ROME	100.23	316.2					28 41
MOSCOW	100.41	338.0					18 3 PP
ALGIERS UNI.	102.33	307.3				25 29 58	32 15 SS
COLLMBERG	106.39	323.5	18 21	777			19 7
STUTT GART	106.51	319.9					18 39 PP
YAKUTSK	108.74	22.9					18 45 PP
BENSBERG	108.96	320.7					18 58 PP
KEW	113.06	318.2					38 51
TIKSI	115.81	15.8					19 44 PP
LA PAZ	116.62	216.3	18 45	3		25 46 15	
NORD	128.92	349.1	19 7	1			
BOGOTA	137.71	223.3				25 21 -68	22 25 PP
CARACAS	138.10	237.0	19 32	9			23 39 SKP
RESOLUTE	143.96	357.0	19 5	-28			
BREBEUF	158.27	296.8	20 33	38			
PALISADES	158.66	284.6	20 1	6		27 51 55	24 17 PP
SHASTA	163.94	76.9					20 55
FRESNO	165.49	92.6	20 11	9			
RENO	165.89	81.6	20 12K	9			
PASADENA	165.90	104.4	20 12	9			
HUNGRY HORSE	166.96	39.4	21 13	70			24 51 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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 233

TUCSON	170.02	128.6	20 14	9	25 19	PP
TUCSON TELE.	170.15	128.7	20 10	5	25 0	PP
GLEN CANYON	171.91	100.5	20 10	4	21 39	
FLAMING GRGE	173.70	68.5	20 11	4	25 30	PP
RAPID CITY	174.66	12.2	20 9	2		
WICHITA MTS.	175.19	211.5	20 11	3	25 37	PP
LARAMIE	176.12	49.9	20 17	9	21 49	

MARCH 7 23.H 12.M 0.S EPICENTRE -4.70 153.16 DEPTH= 60.KM

A=-0.88933 B= 0.44997 C=-0.08135 D= 0.4515 E= 0.8923
G= 0.0726 H=-0.0367 K=-0.9967 HT= 7.0

DEPTH OF FOCUS= 0.004R

SE= 2.54

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
RABAU	1.11	296.5	0	22	1							
PORT MORESBY	7.58	231.6	1	49	-2	3	14	-2				
HONIARA	8.21	125.3	2	10	11	3	37	5				
CHARTERS TS.	16.71	203.1	3	50	-2	7	2	8				
PORT VILA	19.69	132.3									4	16
GUAM	19.88	335.2	4	30	1	8	25	20				
NOUMEA	21.72	144.9	4	48	0						5	41
BRISBANE	22.57	180.9	4	56	0	8	58	3				
RIVERVIEW	29.05	183.5	6	7	10						7	1
CANBERRA	30.71	186.7	6	12	0	11	6	-3				
ADELAIDE	32.96	202.1	6	30A	-1						12	56
MANILA	37.17	301.7	7	12	5	13	9	20				
TARRALEAH	37.92	188.1	7	14K	1				7	37		
KARAPIRO	38.87	151.3	7	22	1				7	38		
CHATEAU	39.88	152.5	7	30	0				7	46		
GEBBIES PASS	42.48	159.0	7	48	-3							
MATUSIRO	43.34	342.4	7	56A	-2						9	45
MUNDARING	43.96	227.4	8	3	0							
LEMBANG	45.35	265.1	8	13	-1	14	50	0				
HONG KONG	46.63	306.7	8	24	0	14	26	-42				
NHATRANG	46.81	291.5	8	26	0						9	48
ZO-SE	46.89	321.5	8	27A	1							
CANTON	47.69	307.1	8	34A	1	15	52	29				
NANKING	49.05	320.6	8	44A	1	16	9	27				
CHANGCHUN	54.43	335.4	9	22A	-2							
PEKING	56.00	326.1	9	34	-1	17	43	26				
KUNMING	57.23	303.8	9	45A	1							
CHENG TU	58.64	310.2	9	53A	-1	18	18	26				
MAGADAN	64.07	358.7	10	28	-2							
CHITTAGONG	65.69	297.0	10	40A	-1	19	19	-1	11	5	13	11
ULAN-BATOR	66.21	327.9	10	43	-1							
SHILLONG	66.58	300.3	10	47A	1							
YAKUTSK	68.93	348.4	10	58	-3							
IRKUTSK	70.19	330.5	11	8A	-1							
CHATRA	70.98	300.3	11	13A	0							
SCOTT BASE	73.46	177.0	11	29	1							
TIKSI	77.83	352.3	11	50K	-3						11	48
POONA	81.39	289.4	12	12A	0							
COLLEGE	81.63	21.7	12	11	-2				12	34	15	29
BOMBAY	82.41	289.7	12	17	0	22	29	2			22	55
SEMIPALATNSK	82.82	321.9	12	18A	-1							
LAHORE	82.97	302.4	12	20A	0							
FRUNSE	84.80	313.6	12	31A	2							
SOUTH POLE	85.33	180.0	12	33	1							
WARSAK DAM	85.67	304.5	12	34A	0							
ANDIJAN	86.09	311.3	12	38A	2	22	59	-5				
NAMANGAN	86.65	311.4	12	40K	2							
KARACHI	88.44	294.9	12	47A	0	23	12	-14				
TASHKENT	88.48	311.5	12	48	1							
SHASTA	88.83	49.2	12	50	1							
QUETTA	89.06	300.2	12	50A	0	23	19	-13			23	37
FRESNO	90.41	53.3	13	12	16							
PASADENA	91.50	56.0	13	4	3						13	53
HUNGRY HORSE	95.35	42.0	13	18	-1							
KHEYS	95.44	350.6	13	18	-1							
RESOLUTE	100.22	14.5	13	39	-2							
SHIRAZ	101.55	299.2	13	45K	-2	24	21	1				
TIFLIS	106.80	312.1	14	11	777							

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961					PAGE 234	
SODANKYLA	107.73	340.9	14 13K	777		
MOSCOW	108.07	327.5	14 15	777		
KAJAANI	109.10	337.7	18 24	777		
KIRUNA	109.39	342.8	14 21	777	18 56	PP
UMEA	111.96	339.5	18 30	1		
NURMI JARVI	112.19	335.3	18 29	0		
KSARA	115.18	305.2	18 38	3	19 38	PP
UPPSALA	115.42	337.0	18 35	0		
GOTEBORG	119.05	337.4	18 43	1		
HELWAN	119.80	301.7	18 46	2		
BULAWAYO	120.22	243.6	18 47	2		
COPENHAGEN	120.26	335.5	18 46K	1		
NIEDZIKA	120.28	326.3	18 47K	2		
COLLMBERG	122.94	331.4	18 48	-2	20 32	PP
PRUHONICE	123.02	329.4	18 51A	1	20 29	
ATHENS	123.39	313.0	18 52A	1		
JENA	123.86	331.7	18 51	-1	20 37	
KASPERSKE H.	124.04	329.1	18 53A	1		
PALISADES	124.53	42.3			20 54	PP
WITTEVEEN	124.68	336.0	18 55	2		
MUNSTER	124.91	334.7	18 56	2		
LJUBLJANA	125.41	325.6	18 56A	1		
BENSBERG	125.84	334.1	18 56	1	19 40	
DURHAM	126.06	342.2	18 59A	3		
TRIESTE	126.08	325.6	18 58	2		
STUTTGART	126.42	331.0	18 58	1	19 27	20 55 PP
TUBINGEN	126.68	330.9	18 58	1		
RAVENSBURG	126.92	329.9	18 58	0		
EBINGEN	126.97	330.7	18 59	1		
STRASBOURG	127.27	331.7	19 0	2	19 29	
FLORENCE X.	128.63	325.1	19 0	-1	22 19	
HUANCAYO	129.00	109.5	19 6	4		
BESANCON	129.06	331.6	19 3	1		
WINDHOEK	129.22	235.9			22 23	
PARIS	129.45	335.2	19 4	2	23 22	PP
GARCHY	130.38	333.5	19 5	1	22 24	PP
ISOLA	130.68	328.1	19 6K	1	19 27	PP
FOLINIERE	130.68	337.2	19 6	1	22 26	PKP2
MONACO	130.78	327.4	19 5	0	22 26	
CLERMONT-FD.	131.49	332.2	19 10	4		
BANGUI	134.69	271.5	19 2	-10	23 18	
BAGNERES	134.93	332.0	19 14	1		
ALGIERS UNI.	137.93	323.3	19 19	1	22 9	PP
SAN JUAN	139.30	67.2	19 25	4		
SERRA PILAR	140.21	338.3	19 11	-11	19 28	22 20 PP
TAMARRASSET	143.94	303.0	19 28A	-1	19 55	22 47 PP
ST. VINCENT	145.00	73.8	19 31	0		
TRINIDAD	145.26	78.1	19 31	0	23 10	PP
MBOUR	166.32	315.4	20 3	5	21 4	PKP2

MARCH 8 O.H 17.M 53.S EPICENTRE 52.40-164.94 DEPTH= 0.KM

A=-0.59170 B=-0.15924 C= 0.79027 D=-0.2599 E= 0.9656
G=-0.7631 H=-0.2054 K=-0.6128 HT= -6.3

SE= 2.34

	DELTA DEG.	AZ. DEG.	P		O-C S	S O-C			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
COLLEGE	15.28	28.5	3	36	-3	6	53	24				
SHASTA	31.07	95.0	6	23A	1							
MINERAL	31.76	94.8	6	28	0							
HUNGRY HORSE	32.17	76.5	6	32	0				6	42		
RENO	33.34	94.4	6	43A	1							
LICK	33.62	99.2	6	44A	0							
RESOLUTE	35.17	25.7	6	57	-1							
BOZEMAN	35.25	79.0	6	59	1							
PASADENA	37.85	100.0	7	20	0						16	37
FLAMING GRGE	38.89	84.4	7	29	0						9	38
												PCP
RAPID CITY	40.80	76.3	7	55	10							
LARAMIE	40.98	81.3	7	46	0							
THULE	41.31	20.8	7	49	0							
MATUSIRO	42.41	271.3	7	57K	-1						9	50
TUCSON	43.61	95.6	8	8	0				8	17	8	38
												PP
TUCSON TELE.	43.61	95.4	8	8	0							
NORD	45.17	6.3	8	21	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 235

LAWRENCE	48.64	76.9	8 46	-2	
WICHITA MTS.	49.42	83.5	8 53	-1	10 13 PCP
FAYETTEVILLE	51.16	79.0	9 5	-2	
OTTAWA	55.48	58.8	9 36	-3	
SHAWINIGAN	56.23	56.1	9 41	-3	
BREBEUF	56.50	57.5	9 44	-2	
MORGANTOWN	57.09	66.4	9 58A	8	
WESTON	59.86	58.8	10 8A	-2	
KIRUNA	60.03	357.7	10 10	-1	
SODANKYLA	60.24	354.9	10 13	1	
KAJAANI	63.44	353.8	10 33	-1	
UMEA	64.05	357.4	10 38A	0	
NURMIJARVI	67.18	354.9	10 57	-1	
UPPSALA	68.09	358.6	11 3	-1	
GOTEBORG	70.23	1.8	11 17	0	
COPENHAGEN	72.27	1.6	11 29	0	
PORT MORESBY	73.92	229.7	11 37	-2	
WITTEVEEN	74.92	5.3	11 45	0	
COLLMBERG	76.66	1.3	11 55A	1	12 6 PCP
BENSBERG	76.80	5.1	11 56	1	
JENA	77.01	2.3	11 57	1	
KRAKOW	77.85	356.8	12 2	1	12 12 PCP
PRUHONICE	78.00	0.3	12 3A	1	
FOLNIERE	78.34	10.4	12 4	0	
PARIS	78.60	8.4	12 3	-2	
STUTTGART	79.09	3.9	12 7	-1	
STRASBOURG	79.21	4.9	12 10	2	
CHATRA	79.25	300.1	12 8	-1	
GARCHY	80.17	8.3	12 14	0	
WARSAK DAM	80.86	315.4	12 17	0	
SAN JUAN	80.88	71.9	12 16	-1	12 26
LAHORE	81.71	312.1	12 23	1	
ISOLA	83.55	5.8	12 33	2	
CHARTERS TS.	83.71	225.4	12 31	-1	
MONACO	84.03	5.6			12 35
QUETTA	86.11	316.9	12 45	1	
GRANADA	89.32	14.8	13 7	7	
BULAWAYO	146.12	336.7	19 43K	2	

MARCH 9 3.H 59.M 7.S EPICENTRE 10.73 -41.68 DEPTH= 0.KM

A= 0.73393 B=-0.65354 C= 0.18504 D=-0.6600 E=-0.7468

G= 0.1382 H=-0.1231 K=-0.9827 HT= 6.4

SE= 3.93

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
BARBADOS	17.69	279.5	4	15	6							
ST. VINCENT	19.31	279.2	4	34	5							
TRINIDAD	19.38	271.6	4	29	0							
ST. KITTS	21.44	290.2	4	51	0							
MBOUR	24.39	78.9	5	17	-4	9	41	3				
CARACAS	24.81	271.8	5	23	-2	9	47	2				
SAN JUAN	24.82	290.6	5	26	1				5	36	6	1 PP
FUQUENE	32.14	263.2	6	32A	1							
BOGOTA	32.65	261.8	6	37K	2	11	56	5				
CHINCHINA	34.08	263.0	6	31	-17	11	57	-17			7	51
LA PAZ	37.64	224.4	7	19	1	14	12	64				
HAI FAX	38.68	334.8	7	26	-1							
AREQUIPA	39.99	227.9	7	36	-2							
LISBON	40.24	40.6	7	35	-5				7	44		
HUANCAYO	40.37	236.8	7	41	0	13	49	-1				
PALISADES	41.40	322.4	7	49	0	14	5	0			9	37 PCP
COIMBRA	41.55	39.3	7	49A	-1							
SERRA PILAR	41.99	38.1	7	53K	-1				8	23		
COLUMBIA	42.75	309.1	8	0	0							
GRANADA	43.18	46.0	8	18K	14	15	38	67	8	25	10	39 PP
PENNSYLVANIA	43.73	319.6				14	37	-2				
ALMERIA	43.84	47.1	8	8K	-1	14	42	1				
BREBEUF	44.10	327.7	8	1	-10							
TOLEDO	44.19	42.4	8	11	-1	14	47	1			10	27 PPP
SHAWINIGAN	44.38	329.4	8	13	-1							
MORGANTOWN	44.48	317.0	8	26A	12							
OTTAWA	45.16	326.2	8	19	-1							
TAMANRASSET	46.57	68.8	8	29	-2	15	21	1			10	30 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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961					PAGE 236		
TORTOSA	47.69	43.6	8 53	13			
ALGIERS UNI.	47.87	49.6	8 39	-2	15 42	4	10 22 PP
BAGNERES	48.51	40.7	8 45	-1			
SETIF	49.45	51.2	8 56	3			10 41 PP
FOLINIÈRE	51.10	34.1	9 4	-2			
CLERMONT-FD.	51.67	39.0	9 2	-8			
GARCHY	52.36	37.3	9 15	-1			10 27
KEW	52.72	31.3	9 25	7	16 49	3	
ISOLA	53.50	42.3	9 23	-1			
MONACO	53.57	42.9	9 26	1			
FAYETTEVILLE	53.63	307.0	9 23	-2			
DURHAM	54.10	27.4	9 36	8			
DALLAS	55.02	302.6	9 34	-1			
LAWRENCE	55.19	310.2	9 35	-1			
BASLE	55.20	38.7	9 19	-18			
PAVIA	55.28	41.9					26 24
STRASBOURG	55.77	37.6	8 39	-62			9 29
FLORENCE X.	56.18	44.1	9 43	-1	17 43	11	
EBINGEN	56.32	38.5	9 43	-2			
ROME	56.45	46.6	9 41	-5	17 41	5	26 18
BENSBERG	56.48	34.8	9 45	-1			10 17
HEIDELBERG	56.68	37.0	9 44	-3			
STUTTGART	56.75	37.9	9 45	-3	17 40	0	9 55
WICHITA MTS.	56.84	304.5	9 46	-2	17 24	-17	12 0 PP
WITTEVEEN	57.08	32.7	9 50	0			
MUNSTER	57.19	33.9	9 51	0			
MESSINA	57.79	51.5					18 50
TRIESTE	58.47	42.7	9 59	-1	18 4	2	12 18 PP
JENA	58.99	36.3	10 5	2	18 18	9	22 11 SS
LJUBLJANA	59.10	42.4	10 4	0			10 33
KASPERSKA H.	59.51	38.8	10 10	3			
COLLMBERG	59.95	36.3	10 12	2			11 15
BANGUI	60.03	91.1	10 8	-3		10 18	
PRUHONICE	60.40	38.1	10 13	0			12 32 PP
SCORESBY SD.	60.97	7.5	10 26	9			
VIENNA-H.	60.98	40.4	10 18	1			
BRATISLAVA	61.42	40.7	10 27	7			
HURBANOVO	62.04	41.3	10 11	-13			
GOTEBORG	62.05	29.3	10 31	7			
RAPID CITY	62.22	314.3	10 24	-1		10 36	
RACIBORZ	62.66	38.9	10 27	-1			
BELGRADE	62.81	45.0	10 37A	8			14 20 PPP
LARAMIE	63.42	310.8	10 31	-2			
KRAKOW	63.73	39.2	10 36	1			
ATHENS	64.11	53.0	10 30	-8			
UPPSALA	65.61	28.5	10 47	-1			
FLAMING GRGE	66.22	310.0	10 50	-1		11 3	14 15 PP
LWOW	66.25	40.2	10 55	3			
TUCSON TELE.	66.66	300.6	10 53	-1			
TUCSON	66.75	300.5	10 54	-1		11 5	14 12 PP
THULE	67.21	353.4	10 55	-3			
GLEN CANYON	67.59	305.6	11 2	2		11 12	
BOZEMAN	67.99	314.9	11 2	-1			
SALT LAKE C.	68.06	309.6	11 2	-1			
UMEA	68.22	24.9	11 11	7			
BUTTE	69.09	315.2	11 8	-1			
NURMI JARVI	69.15	29.0	11 17	7			
KIRUNA	69.78	20.9	11 12	-2			
HUNGRY HORSE	70.33	317.5	11 16	-1			11 27
RESOLUTE	70.44	346.9	11 17	-1	20 32	2	
EUREKA	71.15	308.1	11 21	-1		11 32	13 58 PP
LWIRO	71.29	96.1	11 22K	-1			
NORD	71.70	3.8	11 23	-2			
PULKOVO	71.75	30.4	11 32	6			
SODANKYLA	71.87	22.2	11 24	-2			
PASADENA	72.91	302.5	11 32	-1			
KSARA	73.82	57.8	11 43	5			14 3 PP
BROKEN HILL	73.90	108.5	11 38	0			
PENTICTON	74.08	318.3	11 38	-1			
RENO	74.12	308.1	11 41	1			
FRESNO	74.17	305.2	11 39	-1			
APATITY	74.47	22.7	11 50	8			
MOSCOW	75.19	35.1	11 53	7			
VINEYARD	75.44	305.3	11 47	0			
MINERAL	75.47	309.0	11 47A	0			
LICK	75.62	305.9	12 OK	12			
BULAWAYO	75.64	114.1	11 46	-2			
SHASTA	76.06	309.4	11 49	-2			

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 237

PRETORIA	76.99	119.7	11 56	0		
TIFLIS	80.34	49.3	12 24	10		
TEHERAN	86.29	54.5	12 49	4		
COLLEGE	87.09	335.7	12 47	-2		
SHIRAZ	88.37	60.3	12 59	4	13	21
LEMBANG	149.43	85.3	19 51	5	20	6
MANILA	149.52	34.4			20	5
CANBERRA	153.67	200.0	19 56	4		

MARCH 11 1.H 31.M 40.S EPICENTRE 48.87 154.80 DEPTH= 59.KM

A=-0.59749 B= 0.28111 C= 0.75099 D= 0.4257 E= 0.9049
G=-0.6795 H= 0.3197 K=-0.6603 HT= -5.0

DEPTH OF FOCUS= 0.004R

SE= 2.44

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
PETROPAVLOVK	4.82	28.9	1	12	0						2	6
KURILSK	5.97	235.1	1	30	2	2	39	3				
Y.-SAKHLINSK	8.32	261.7									3	29
UGLEGORSK	8.38	276.2	2	6	4						3	50
NEMURO	8.47	232.6	1	59	-4	3	31	-7				
ABASHIRI	8.73	240.2	2	6	-1	3	59	14				
OKHA	8.80	306.6	2	12	5						4	1
KUSIRO	9.34	234.8	2	12A	-3	3	54	-5				
WAKKANAI	9.58	253.8	2	23	5	4	15	10				
ASAHIKAWA	9.99	244.0	2	29	5							
OBIHIRO	10.04	238.0	2	26	2	4	27	11				
RUMOE	10.34	246.5	2	30	1							
HIROO	10.40	235.0	2	24	-5	4	20	-5				
URAKAWA	10.78	235.9	2	33	-1	4	32	-2				
MAGADAN	10.95	349.2	2	40	3						3	43
SAPPORO	11.01	243.2	2	37	-1	4	41	1				
MURORAN	11.68	241.1	2	46	-1	4	54	-2				
SUTTSU	11.83	244.6	2	48	-1	5	6	6				
MORI	12.06	241.2	2	49	-3	5	7	2				
HAKODATE	12.13	239.7	2	56	3						3	19
MIYAKO	13.00	229.7	3	2	-2	5	18	-10				
MORIOKA	13.38	231.8	3	2	-7	5	28	-9				
MIZUSAWA	13.82	230.3	3	19	4	5	43	-4				
AKITA	13.93	234.4	3	17	1	5	47	-3				
ISINOMAKI	14.26	228.0	3	15	-6	5	46	-12				
SENDAI	14.60	228.6	3	30	5	5	52	-14				
YAMAGATA	14.89	229.9	3	24	-5	6	6	-7				
HUKUSIMA	15.21	228.4	3	29	-4	6	14	-6				
SHIRAKAWA	15.83	227.5	3	38	-3							
AIKAWA	16.15	234.0	3	49	4	6	53	11				
MI TO	16.31	225.4	3	40	-7						4	0
UTUNOMIYA	16.45	227.1	3	47	-2	6	57	8				
KAKIOKA	16.56	225.7	3	43	-7	6	54	3				
TUKUBASAN	16.61	225.9	3	46K	-5	6	40	-12			4	9 PPP
VLADIVOSTOK	16.89	258.7	3	54	0						7	7
MAEBASI	16.96	228.6	3	53	-2	7	10	10				
KUMAGAYA	17.01	227.4	3	55	-1	7	13	12				
NAGANO	17.19	231.0	3	58	0	7	14	8				
TOKYO C.M.O.	17.21	225.6	4	0	2	7	11	5				
OI WAKE	17.28	229.5	3	59	0	7	22	14				
MATUSIRO	17.29	230.7	3	56	-3	7	13	5				
TITIBU	17.29	227.7	3	57	-2							
YOKOHAMA	17.46	225.3	4	5	4							
MATUMOTO	17.64	230.6	4	3	0							
TOYAMA	17.69	233.1	4	8	4	7	43	26				
KOHU	17.79	228.2	4	5	0	7	29	10				
NERA	17.80	224.0	4	7	2							
HUNATU	17.83	227.4	4	6	0	7	34	14				
MISIMA	18.05	226.3	4	14	5	7	37	12				
TAKAYAMA	18.08	231.9	4	3	-6							
OSIMA	18.13	224.7	4	12	2	7	31	4				
IIDA	18.28	229.4	4	11	0	7	42	12				
SHIZUOKA	18.43	227.2	4	13	0	7	39	6				
OMAE SAKI	18.82	226.9	4	19	1	7	54	12				
NAGOYA	18.98	230.5	4	18	-2	7	42	-4				
TSURUGA	19.08	233.1	4	19	-2							
YAKUTSK	19.22	322.6	4	22	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 238

HIKONE	19.28	232.1	4 20	-3	7 57	5		
KAMEYAMA	19.49	230.8	4 25	0	7 53	-3		
KYOTO	19.74	232.6	4 27	-1	8 6	4		
TOYOOKA	19.84	235.2	4 28	-1				
ABIYAMA	19.94	232.6	4 29A	-1				
NARA	19.95	231.7	4 30	0	8 19	13		
OSAKA	20.13	232.2	4 32A	0	8 15	5		
SAIGO	20.18	239.1	4 33	0				
OWASE	20.24	229.9	4 33	0	8 13	1		
KOBE	20.29	232.9	4 36	2			10 54	
SUMOTO	20.70	232.8	4 36A	-2	8 25	4		
CHANGCHUN	20.90	267.2	4 37A	-3	8 26	1	4 51	4 57 *SP
SIOMISAKI	20.95	229.7	4 39	-1	8 35	9		
TOKUSIMA	21.08	232.9	4 43	1				
TAKAMATU	21.17	234.3	4 43	0	8 39	9		
HAMADA	21.83	238.7	4 51A	2	8 48	6		
MUROTO	21.92	232.2	4 50	0	8 49	5		
HIROSIMA	22.01	237.1	4 51A	0	8 56	11		
KOTI	22.03	233.9	4 52	1	8 50	4		
MATUYAMA	22.22	235.6	4 53	0	8 57	8		
SIMONOSEKI	23.16	238.8	5 5K	3				
OOITA	23.31	236.5	5 5	1	9 18	10		
HUKUOKA	23.75	239.0	5 11A	3	9 23	7		
SAGA	24.03	238.6	5 16	5				
KUMAMOTO	24.13	237.3	5 13	1	9 36	14		
NAGASAKI	24.65	238.4	5 18A	1	9 41	10		
KAGOSIMA	25.16	235.6	5 23	1	9 53	13		
TOMIE	25.36	239.8	5 24	0	9 51	8		
TIKSI	25.77	341.4	5 24	-3			6 3 PP	
YAKUSIMA	26.06	234.0	5 31	1				
PEKING	28.70	266.7	5 54A	0	10 34	-3	6 15 *SP	
ZO-SE	30.95	247.5	6 15A	1	11 16	3	6 39 *SP	
ULAN-BATOR	31.41	286.7	6 18	0				
NANKING	31.77	251.5	6 21A	0	11 28	2	7 42 *SP	
COLLEGE	33.79	40.3	6 38	-1	12 0	3	9 51	
SIAN	36.73	263.9	7 3A	-1				
SITKA	41.14	51.3	7 43	3	14 0	11		
CANTON	41.54	246.8	7 45A	1	13 57	2	8 9 *SP	
HONG KONG	41.63	245.2	7 46	2	14 1	5	8 2	
BAGUIO CITY	42.70	232.8	7 54	1	14 10	-2		
MANILA	43.90	230.8	8 0	-3	13 56	-33		
KIPAPA	46.30	109.0	8 34	12				
HONOLULU	46.34	109.2	8 36	14	15 12	8		
SEMI PALATNSK	46.40	301.6	8 22	-1			10 14 PP	
KUNMING	46.76	258.9	8 27A	1	15 14	4	8 40	8 49 *SP
RESOLUTE	48.47	19.5	8 39	0	15 37	3		10 32 PP
NORD	49.70	358.4	8 46	-2				
VICTORIA	51.41	57.3	9 0	-1				
LHASA	51.42	272.6	9 3A	2	16 21	6		
THULE	51.99	11.8	9 4	-2			9 51	
RABAU	52.90	183.3	9 11	-2				
PENTICTON	53.04	54.7	9 12	-2				
SVERDLOVSK	53.06	316.7	9 13	-1	16 38	0	21 3	
SHILLONG	53.58	268.2	9 16A	-2				
CORVALLIS	53.71	61.4	9 30	11				
CHITTAGONG	55.83	265.4	9 34A	0	17 19	4	9 44	11 40 PP
CHATRA	55.83	272.8	9 35K	1	17 15	0		18 18
APATITY	55.85	336.7	9 40	6	17 21	6		
SHASTA	56.59	64.6	9 39	0			9 56	
HUNGRY HORSE	56.60	53.0	9 38A	-1	17 29	4		19 50 SCS
MINERAL	57.27	64.5	9 43A	-1				
SODANKYLA	57.69	338.9	9 45	-2				
TASHKENT	57.81	297.5	9 48	0				19 33 SCS
BERKELEY	58.44	67.2	9 52	0	17 53	4	10 6	21 53 SS
KIRUNA	58.70	341.5	9 52	-2				
BOKARO	58.78	271.3	9 57A	2	17 59	5		
BUTTE	58.83	54.4	9 54	-1				
RENO	58.85	64.2	9 55A	0			10 12	
LICK	59.16	67.3	9 56A	-1				10 57
DEHRA DUN	59.47	282.3	9 59	-1	18 3	0		13 44 PPP
DUZHANBE	59.86	295.3	10 2	0	18 9	1		12 22 PP
BOZEMAN	59.87	54.0	10 2	0				
KAJAANI	60.03	336.1	10 2	-1				
FRESNO	60.65	66.7	10 9	1				
SCORESBY SD.	60.94	358.8	10 10	0				
EUREKA	61.15	62.1	10 11A	0	18 50	26		12 31 PP
WARSAK DAM	61.15	289.6	10 11	0				
RUTH	61.89	61.7	10 17	1	18 39	5		25 39

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961				PAGE 239			
UMEA	62.13	339.1	10 12	-6			10 48 PCP
SALT LAKE C.	62.66	58.6	10 20	-1			
PULKOVO	62.70	332.0	10 20	-1	18 43	-1	12 40 PP
MOSCOW	63.34	325.7	10 26	0	18 54	2	26 20 SSS
PASADENA	63.38	67.9	10 25	-1	18 56	4	23 14 SS
NURMIJARVI	63.77	335.1	10 28K	0			
FLAMING GRGE	63.93	57.1	10 28	-1	18 54	-5	10 56
BOULDER CITY	64.16	64.3	10 30	-1			
VIZIANAGRAM	64.35	268.5	9 28	-64			
RAPID CITY	65.06	51.0	10 32	-5			13 2 PP
GLEN CANYON	65.39	61.5	10 40	1			11 6
MEDAN	65.55	245.5	10 40	0	19 47	28	
UPPSALA	66.18	338.0	10 44	0			
ASHKABAD	66.35	301.0	10 47	2	19 31	2	
QUETTA	66.61	289.5	10 46A	-1	19 34	2	13 11 PP
HYDERABAD	68.14	271.7	10 56A	0	19 53	3	13 29 PP
DJAKARTA	68.95	232.3	11 0	-1	20 8	8	
CHARTERS TS.	69.07	188.6	11 0	-2			21 24
LEMBANG	69.09	231.2	11 0A	-2	20 8	6	11 24 PCP
TUCSON	69.13	64.7	11 2	0			13 39 PP
TUCSON TELE.	69.13	64.6	11 2	0			
MADRAS	70.21	267.2			20 22	7	
KARACHI	70.30	285.3	11 12	2			
POONA	70.38	275.9	11 11A	1	20 19	2	20 41 PS
BOMBAY	70.79	276.9	11 15	3	20 21	0	20 46 PS
TIFLIS	70.80	311.9	11 14	1	20 33	11	13 20 PP
COPENHAGEN	71.17	338.6	11 16K	1			11 45
GORIS	71.71	309.4	11 19	1			14 0 PP
TEHERAN	71.81	303.6	11 20A	1	20 44	11	
LAWRENCE	72.86	50.1	11 23	-2			
LWOW	72.97	329.1	11 26	1			
SIMFEROPOL	73.17	320.4	11 26A	-1			14 18 PP
IASI	73.93	325.6	11 31	0		11 57	
CHORZOW	74.19	332.3	11 34	1			11 48 PCP
WICHITA MTS.	74.32	55.1	11 33A	0	21 4	3	11 44 PCP
SKALNATE PL.	74.77	331.0	11 37	1			
DURHAM	74.84	346.1	11 37A	1			
COLOMBO	74.93	263.2			21 9	1	
COLLMBERG	75.00	336.3	11 38	1			
WITTEVEEN	75.14	340.6	11 40	2			
FAYETTEVILLE	75.60	51.3	11 40A	-1			12 7
SHIRAZ	75.68	298.6	11 41K	0	21 47	30	
JENA	75.71	337.0	11 42	1	21 18	1	14 38 PP
MUNSTER	75.72	339.8	11 41	0			12 10
PRUHONICE	75.77	334.8	11 42	0	21 21	4	
BRISBANE	75.93	181.9	11 42	-1	21 24	5	
DE BILT	76.13	341.3			21 20	-1	
OTTAWA	76.28	34.0	11 43	-1			
SHAWINIGAN	76.35	31.6	11 45	0			
HURBANDVO	76.57	331.6	11 48	3			
BRATISLAVA	76.65	332.4	11 47K	0	21 30	3	
BUDAPEST	76.66	330.9	11 46	-1			
DALLAS	76.71	55.1	11 47	0			
BENSBERG	76.76	339.6	11 48A	1			12 22
VIENNA-H.	76.80	332.9	11 49A	2			12 12
KASPERSKE H.	76.81	335.0	11 48A	0			13 32
BUCHAREST	76.82	324.9	11 48A	0		12 10	
BREBEUF	76.96	32.7	11 48	0			
CLEVELAND	77.26	39.9	11 49A	-1			
KEW	77.80	344.4	11 53A	0	21 40	0	26 50 SS
HEIDELBERG	77.84	338.1	11 55	2			
KARLSRUHE	78.28	338.1	11 54	-2	21 50	5	
STUTTGART	78.29	337.5	11 56	0	21 45	0	27 26 SS
ISTANBUL KA.	78.47	321.2	11 56	-1	21 50	3	
BELGRADE	78.52	328.7	11 41	-16			13 30
ISTANBUL UN.	78.53	321.3	11 56	-1			
TUBINGEN	78.56	337.6	11 58	1			
STRASBOURG	78.84	338.4	11 59A	0	21 56	5	15 56 PP
EBINGEN	78.91	337.5	11 58	-1			
ZAGREB	79.09	332.0	12 1A	1			
RAVENSBURG	79.12	336.9	12 1	1			
LJUBLJANA	79.33	333.1	12 2	1			12 32
SOFIA	79.34	325.8	12 3	2	22 3	7	
PENNSYLVANIA	79.35	37.9	12 0	-1	21 59	3	12 28
MORGANTOWN	79.47	39.9	12 3A	1			
PARIS	79.81	341.8	12 5	1			12 32
BASLE	79.86	338.1	11 57A	-7			
TRIESTE	79.92	333.4	12 5	0	22 7	5	26 45 SS
CHUR	80.00	336.6	12 6	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 240

FOLINIÈRE	80.43	343.7	12 8	1					
WESTON	80.49	32.8	12 7A	-1					
BESANCON	80.51	339.0	12 9	1					
NEUCHATEL	80.51	338.3	12 8	0					
PALISADES	80.72	35.2	12 2	-7	22 34	24		22 58	PS
HALIFAX	81.02	26.7	12 9	-1					
GARCHY	81.14	341.0	12 12	1				13 51	
KSARA	81.36	312.5	12 13A	1	22 23	6	12 37	15 18	PP
RIVERVIEW	82.39	183.1	12 18A	1	22 33	6		12 40	
CLERMONT-FD.	82.56	340.4	12 19	1					
CHAPEL HILL	82.97	41.3	12 21	1					
ISOLA	83.12	337.3	12 18A	-3				13 15	
ATHENS	83.27	323.1	12 21A	-1					
JERUSALEM	83.34	311.8	12 24A	2					
MONACO	83.45	336.8	12 24A	1				12 50	
COLUMBIA	83.69	43.8	12 24	0					
ROME	83.71	332.7	12 25A	1	22 45	4	12 55	15 38	PP
CANBERRA	83.97	184.8	12 25A	0	22 44	1		23 13	SCS
ADELAIDE	84.69	193.2	12 29A	0			12 41	23 16	
TACUBAYA	85.63	65.5	12 37	3	23 0	0		13 0	
BAGNERES	85.77	341.7	12 33	-1					
MESSINA	86.08	329.0	12 34	-2	22 59	-5		15 56	PP
REGGIO CALA.	86.14	328.9	12 36	0					
MELBOURNE	86.76	187.8	12 40	1				22 52	PP
KARAPIRO	88.36	163.7	12 46	-1					
TOLEDO	89.67	343.9	12 54	1	23 47	9		16 37	PP
MERIDA	89.97	57.5						27 56	
SETIF	91.04	335.7	12 59	-1	23 53	3		16 30	PP
TARRALEAH	91.08	186.2	13 0A	0				13 15	*SP
ALGIERS UNI.	91.12	337.7	13 0	0	23 49	-1		16 36	PP
FORT NELSON	91.65	185.5	13 3	1					
GRANADA	92.20	342.9	13 2A	-3	24 8	8		15 56	PP
TAMANRASSET	103.58	331.0	13 56	0	24 57	47		18 12	PP
CARACAS	110.40	44.3	19 1A	35	26 2	63			
CHINCHINA	110.76	55.2						19 2	PP
FUQUENE	111.36	53.2						18 51	PP
LWIRO	114.65	297.2						14 42	
MBOUR	116.61	351.1						19 52	PP
BROKEN HILL	124.42	288.9	18 56A	3					
BULAWAYO	128.57	284.1	19 3A	2					
AREQUIPA	130.49	65.8	19 8	3					
LA PAZ	132.51	62.4	19 10	2				21 39	PP
SOUTH POLE	138.68	180.0	19 23	3					
SANTA LUCIA	143.06	82.5	19 25	-3				22 37	PP

MARCH 11 8.H 41.M 4.S EPICENTRE 11.64 42.98 DEPTH= 0.KM

A= 0.71677 B= 0.66789 C= 0.20039 D= 0.6817 E=-0.7316
G= 0.1466 H= 0.1366 K=-0.9797 HT= 6.3

SE= 2.85

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
ADDIS ABABA	4.88	238.4	1	8	-8							
LWIRO	19.72	226.5	4	38K	5							
SHIRAZ	20.00	24.9	4	32K	-5						11	0
HELWAN	21.13	330.9	4	50K	2							
JERUSALEM	21.29	341.5	4	54	4							
KSARA	23.02	344.7	5	10	3	9	35	21			5	47 PP
BANGUI	25.16	255.3	5	31	3	10	24	33				
KARACHI	26.29	56.8	5	38A	-1						11	20 SS
GORIS	27.91	5.5									7	1 SCP
QUETTA	28.91	46.7	6	2A	0	10	53	1			6	52 PP
ASHKABAD	29.60	25.1	6	8	0	10	59	-4			7	3 PP
BROKEN HILL	29.64	209.4	6	11	2							
BOMBAY	29.65	72.2	6	7	-2	11	7	3			6	59 PP
TIFLIS	30.01	2.7	6	12	0							
POONA	30.55	73.3	6	15A	-2	11	23	4			13	2 SS
TANANARIVE	30.69	171.5	6	22	4						7	50 PPP
ATHENS	31.38	330.0	6	25A	1							
ISTANBUL KA.	31.77	339.8	6	30	2	11	40	2				
ISTANBUL UN.	31.77	339.7	6	30A	2							
KODAIKANAL	33.88	88.9	6	53	7							
SIMFEROPOL	34.06	348.7	6	51K	3	12	16	3			8	0 PP
WARSAK DAM	34.27	44.9	6	48	-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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961			PAGE 241						
BULAWAYO	34.60	204.2	6 53	1					
HYDERABAD	34.78	76.2	6 54K	0	12 27	3		8 12	PP
LAHORE	35.05	50.7	6 55A	-1	12 23	-6			
SOFIA	35.35	334.6	6 59	0	12 46	13			
REGGIO CALA.	35.92	321.9	7 4	0					
MESSINA	36.05	321.9	7 6	1	12 48	4		8 27	PP
MADRAS	36.35	83.9	7 11	4	12 56	7		8 35	PP
TAMARRASSET	37.35	292.3	7 16K	0	13 8	4		8 42	PP
DEHRA DUN	37.44	54.8	7 13	-3	13 15	10		8 40	PP
TASHKENT	37.50	33.2	7 16	-1				8 39	PP
IASI	37.76	342.8	7 14	-5					
BELGRADE	38.30	333.9	7 45	22				9 17	
LCO. MARQUES	38.72	195.0	7 24	-3					
PRETORIA	39.86	201.1	7 27	-10					
ROME	40.22	324.1	7 42	2	14 0	13		16 56	SS
LWOW	41.16	341.4	7 51	4					
FRUNSE	41.47	35.6	7 49	-1				14 17	
SETIF	41.77	312.2	7 52	0	14 3	-7		9 31	PP
SKALNATE PL.	41.91	337.7	7 58	5					
LJUBLJANA	41.95	330.2	7 54	0				9 28	PP
TRIESTE	42.05	329.2	7 55	0	14 18	3		9 29	PP
FLORENCE X.	42.12	325.4	7 55	0	14 19	3			
BRATISLAVA	42.36	334.3	7 58A	1	14 13	-6			
BOKARO	42.39	67.4	7 59	2	14 22	2		9 36	PP
VIENNA-H.	42.73	333.8	8 OK	0				8 34	
KRAKOW	42.75	338.2	7 59	-1					
PADOVA	42.85	327.6	8 1	0	14 33	7		10 35	PPP
CHORZOW	43.29	337.6	8 4	-1				9 58	PCP
ALGIERS UNI.	43.72	311.8	8 8	0	14 38	-1		9 50	PP
KIMBERLEY	43.83	203.3	8 9	0					
CHATRA	44.14	63.4	8 8	-4					
MOSCOW	44.19	355.7	8 16	4	14 44	-2		17 46	SCS
MONACO	44.28	322.9	8 12	-1				10 2	PP
CALCUTTA	44.56	69.7	8 23	8	15 4	13			
KASPERSKE H.	44.62	332.7	8 14K	-1				10 6	PP
ISOLA	44.77	323.2	8 11	-6					
PRUHONICE	44.82	334.2	8 16K	-1	14 58	3		15 12	PS
PRAGUE	44.94	334.2	8 19	1					
CHUR	45.02	327.7	8 26	7					
EBINGEN	46.18	328.7	8 26	-2					
TUBINGEN	46.35	329.2	8 28	-1					
STUTTGART	46.41	329.5	8 29	-1	15 19	1		10 19	PP
COLLMBERG	46.47	334.4	8 28	-2	15 29	11		10 25	OPP
BASLE	46.48	327.2	8 6	-24					
NEUCHATEL	46.50	326.3	8 29	-1					
JENA	46.81	333.1	8 35	2	15 14	-9		10 23	PP
ALICANTE	46.92	312.2	8 29	-5	15 19	-6		10 19	PP
STRASBOURG	47.05	328.5	8 34	-1	15 26	-1		10 24	PP
HEIDELBERG	47.10	329.9	8 33	-2					
SVERDLOVSK	47.11	13.2	8 34	-1	15 28	0			
BESANCON	47.18	326.0	8 35	-1					
TORTOSA	47.24	315.7	8 39	3					
CHITTAGONG	47.73	70.4	8 43	3	15 45	9		10 36	PP
ALMERIA	47.86	309.6	8 40K	-1				10 36	PP
CLERMONT-FD.	47.97	322.8	8 37	-5				8 46	
LHASA	48.04	60.6	8 41K	-2	15 38	-3			
SHILLONG	48.10	66.1	8 39K	-4					
BAGNERES	48.48	318.3	8 44	-2					
GARCHY	48.82	324.5	8 47	-2				10 37	PP
GRANADA	48.82	309.6	8 52K	3	16 8	16		10 55	PP
BENSBERG	48.87	330.6	8 48	-1				10 52	PP
PULKOVO	48.96	351.5	8 52	2				10 14	PCP
SEMI PALATNSK	49.24	30.8	8 49	-3	15 58	0			
MUNSTER	49.33	331.8	8 52	0					
PARIS	49.99	325.9	9 46	48				10 56	PP
TOLEDO	50.07	312.8	8 59	1	16 13	4		10 54	PP
WITTEVEEN	50.33	332.2	8 59	-1					
DE BILT	50.56	330.7			16 26	10			
NURMIJARVI	50.63	348.4	9 1A	-1					
HERMANUS	51.05	205.3						16 34	PPS
FOLINIERE	51.63	324.5	9 8	-2					
UPPSALA	51.69	344.0	9 9	-1					
KEW	52.96	327.5	9 19	-1					
COIMBRA	53.35	311.7	9 22K	-1					
KAJAANI	53.46	351.7	9 22	-2					
SERRA PILAR	53.76	312.8	9 27K	1	17 5	5		11 32	PP
UMEA	54.52	347.8	9 31	0					
DURHAM	55.40	330.4	9 35	-3	17 33	11			

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961					PAGE 242		
MEDAN	55.71	93.6	9 41	1			
APATI TY	56.21	355.6	9 44	0			
SODANKYLA	56.73	352.5	9 46	-1			
KUNMING	57.87	67.6	9 53	-2	17 56	2	
KIRUNA	58.07	350.1	9 55A	-2			
MBOUR	58.34	279.8	9 59	0	18 9	8	
LANCHOW	59.73	55.0	10 7	-1			
SIAN	63.70	57.5	10 37	2			
ULAN-BATOR	64.02	42.2	10 36	-1			
LEMBANG	66.86	102.6	10 57A	1			
CANTON	67.58	69.7	11 0	0			
KHEYS	69.34	2.6	11 13	2			13 52 PP
PEKING	69.76	51.6	11 13	-1	20 27	5	
SCORESBY SD.	70.84	341.2	11 23K	3			
NANKING	71.95	60.0	11 27	0	20 55	7	
NORD	74.28	352.4	11 37	-3			
CHANGCHUN	76.53	47.5	11 52	-1	21 41	2	
TIKSI	77.74	18.9	11 56	-4			
YAKUTSK	78.29	28.7	12 4	1	21 56	-2	
ABUYAMA	85.55	55.5	12 40K	-1			
MATUSIRO	87.31	53.4	12 59	9	23 20	-9	29 39 SS
MAGADAN	88.87	29.0	12 58	1			
TUKUBASAN	88.87	53.4	13 0	3	23 44	0	33 28 SSS
RESOLUTE	90.00	349.7	13 2K	0	24 0	6	29 56 SS
PALISADES	101.79	316.4			24 58	23	27 22 PPS
COLLEGE	103.28	4.7	17 10	187			
PORT MORESBY	105.62	96.6	18 37	777	25 0	7	
RIVERVIEW	111.43	121.8	18 35	-1			
HUNGRY HORSE	116.89	343.0	19 22	36			
WICHITA MTS.	121.24	323.2	18 57	2			20 26 PP
EUREKA	125.50	340.0	19 6	3			21 13 PP
TUCSON TELE.	129.55	330.9	19 13	2			
TUCSON	129.68	330.9	19 13	2			22 13 PP

MARCH 12 23.H 21.M 32.S EPICENTRE -28.69-175.74 DEPTH= 0.KM

A=-0.87617 B=-0.06529 C=-0.47755 D=-0.0743 E= 0.9972
G= 0.4762 H= 0.0355 K=-0.8786 HT= 2.2

SE= 2.62

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
KARAPIRO	11.75	216.1	2	49	-3							
WELLINGTON	14.76	209.2	3	37	5	5	57	-20				
APIA	15.26	14.8	3	35	-3						4	12
KAIMATA	17.28	213.6				6	59	-17				
GEBBIES PASS	17.64	208.8	4	4	-5	7	3	-21				
BRISBANE	27.78	265.1	6	3	11						9	9
RIVERVIEW	28.69	251.3	6	2K	1	10	47	-2			6	54 PP
CANBERRA	30.51	248.4	6	18	1						7	18 PP
FORT NELSON	32.85	234.4	6	38	0						9	23 PCP
TARRALEAH	33.36	235.8	6	45	3						9	23 PCP
MELBOURNE	33.89	244.1	6	46	-1						14	48
CHARTERS TS.	35.53	275.3	6	59	-2	12	33	-3				
ADELAIDE	38.94	248.9	7	29K	0						9	40 PCP
RABAUL	39.00	302.7	7	26	-4							
PORT MORESBY	39.75	291.4	7	35	-1	13	24	-17			9	12 PP
HONOLULU	52.53	20.9	9	17	0							
KIPAPA	52.67	20.9	9	19	1							
WILKES	57.57	207.3	9	50A	-4	17	48	-3			24	49
MUNDARING	57.94	248.5	9	54	-2							
SOUTH POLE	61.47	180.0	10	20	-1							
MANILA	74.72	296.4	11	44	1	20	38	-41				
LEMBANG	75.05	270.3	11	45K	0	21	23	0	12	9	12	35
DJAKARTA	76.05	270.6	11	50	-1	21	34	0				
TUKUBASAN	76.78	324.6	11	54K	-1	21	40	-2			21	48 SKS
MATUSIRO	78.00	323.6	12	2K	0	21	58	3			26	57 SS
VINEYARD	82.72	41.1	12	18	-9							
PASADENA	82.88	44.9	12	28	0	23	46	60			22	54 SKS
LICK	82.98	40.6	12	29K	1							
BERKELEY	83.00	39.8	12	29	1	22	49	2			24	16 *SPS
CONCORD	83.18	39.9	12	30	1							
FRESNO	83.66	42.0	12	33K	1							
ZO-SE	84.51	309.8	12	37K	1	23	6	4				
SHASTA	84.92	37.8	12	39K	1							
MINERAL	85.10	38.4	12	38K	-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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 243									
CANTON	85.51	299.2	12	43K	2	23	16	4			
RENO	85.54	40.0	12	42K	1						
TUCSON	86.44	50.3	12	47	1	23	11	-10	13	16	16 12 PP
TUCSON TELE.	86.57	50.2	12	47	1						
NANKING	86.71	309.3	12	48K	1	23	27	3			
EUREKA	87.71	42.0	12	52	0						32 52 PKKP
MEDAN	87.83	275.2	12	53	1						
RUTH	88.13	42.7	12	56K	2						
GLEN CANYON	88.80	46.1	12	58	1						14 51
CHANGCHUN	90.09	321.7	13	4K	1	23	57	2			23 34 SKS
SALT LAKE C.	90.97	43.0	13	7.	0						
PENTICTON	92.33	32.9	13	13K	0						
FLAMING GRGE	92.56	44.0	13	15	1						16 54
PEKING	93.11	314.5	13	17	0						
BUTTE	93.79	38.5	13	20	0						
BOZEMAN	94.42	39.5	13	23	0						
HUNGRY HORSE	94.47	36.1	13	21	-2						
KUNMING	94.83	295.9	13	28K	3	24	44	7			
COLLEGE	95.76	11.6	13	28	-1				13	56	33 37 PKKP
WICHITA MTS.	96.30	53.9	13	30	-2						17 30 PP
CHENG TU	96.55	301.3	13	39	6	24	16	7			25 4 S
BOGOTA	102.43	91.5									27 17 PS
FUQUENE	103.13	90.9				25	24	42			22 27 PS
RESOLUTE	115.04	16.8	18	42	-1						
PALISADES	116.64	56.0									20 10 PP
BOMBAY	117.25	277.6	19	3	16						27 6
QUETTA	126.01	288.0	19	6K	2						
BULAWAYO	126.06	208.6	19	6	2						23 40 PKS
BROKEN HILL	131.14	211.8	19	16	2						23 43 PKS
LWIRO	141.26	221.5	19	32A	-1						
KAJAANI	141.56	343.7	19	31	-2						
UMEA	143.39	348.2	19	36	0						
NURMI JARVI	145.33	342.4	19	39K	-1						
UPPSALA	147.54	347.4	19	45	2						
GÖTEBORG	150.50	351.6	19	56	8						
BANGUI	152.24	212.1	19	52	1				20	20	
KSARA	152.55	288.8	19	54	3	27	6	9	20	40	23 41 PP
JERUSALEM	153.12	284.3	19	52	0						23 48 PP
DURHAM	153.60	7.6	20	8	15						
MBOUR	155.71	121.4	19	56	1						23 58 PKS
RACIBORZ	156.15	337.4									21 25
I STANBUL KA.	156.28	307.9	19	54	-2						23 57 PP
HELWAN	156.38	279.5	19	58K	2						24 1 PP
COLLMBERG	156.48	346.2	19	57	1						24 2 PKS
KEW	156.99	7.3									20 28 PKP2
JENA	157.11	348.0	19	58	1						24 7 PP
PRUHONICE	157.34	342.6									20 31 PKP2
BENSBERG	157.65	355.2	20	0A	2						20 32 PKP2
BRATI SLAVA	158.16	336.4	20	0	1						
VIENNA-H.	158.34	337.7									20 36 PKP2
KASPERSCHE H.	158.37	343.2									20 35 PKP2
STUTTGART	159.58	350.5	20	1	1						20 40
TUBINGEN	159.84	350.7	20	1	0						
PARIS	159.86	3.4	20	2	1						20 42 PKP2
STRASBOURG	159.95	353.2	20	0	-1						25 16 PP
LJUBLJANA	160.88	337.8	20	2	0						24 35 PP
ATHENS	161.32	304.7									20 46 PKP2
GARCHY	161.42	2.5	20	3	1						20 48 PKP2
BESANCON	161.42	356.3	20	4	2						
TRIESTE	161.48	338.6	20	3	1						24 43 PP
CLERMONT-FD.	162.93	2.7	20	6	2						
FLORENCE X.	163.93	341.4	20	2	-3						20 48 PKP2
ISOLA	164.38	352.5	19	56A	-9						20 51 PKP2
MONACO	164.77	351.2	20	6	0						
BAGNERES	165.27	11.9	20	6	0						29 51
TOLEDO	166.90	29.4	20	10	3						25 1 PP
ALMERIA	170.09	33.1	20	10K	1						25 13 PP
ALGIERS UNI.	171.88	6.9	20	11	1						25 25 PP
RELIZANE	172.29	23.1	20	13	2						25 27 PP
SETIF	172.45	353.0	20	11	0						25 29 PP
TAMANRASSET	174.01	191.2	20	13K	2						25 33 PP

MARCH 13 B.H 3.M 39.5 EPICENTRE 19.20-107.17 DEPTH= 0.KM
 A=-0.27894 B=-0.90298 C= 0.32682 D=-0.9555 E= 0.2952

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 244

G=-0.0965 H=-0.3123 K=-0.9451 HT= 4.9

SE= 3.42

	DELTA DEG.	AZ. DEG.	P			O-C			*PP		SUPP.	
			M	S	S	M	S	S	M	S	M	S
MANZANILLO	2.69	92.6	0	43A	-2						1	9
GUADALAJARA	3.91	67.2	1	1	-1	1	57	7				
MAZATLAN	4.03	10.1	1	3	-1	1	50	-3				
LEON	5.51	68.7	1	25	0						3	7
TACUBAYA	7.53	87.1	1	52K	-2						3	10
CHIHUAHUA	9.44	5.8	2	23	3						4	17
OAXACA	10.12	100.7									4	27
VERA CRUZ	10.43	88.2	2	30	-4							
TUCSON	13.41	346.5	3	15	1	5	41	-4				
TUCSON TELE.	13.47	347.0	3	16	1	6	11	25	3	23		
COMITAN	14.62	99.2	3	27	-3	6	33	19			3	37 PP
LUBBOCK	15.09	17.3	3	32	-4							
DALLAS	16.48	32.3	3	56	2							
MERIDA	16.58	81.0	3	53	-2	7	5	5				
WICHITA MTS.	17.24	24.5	4	4	0						9	9
PASADENA	17.83	328.9	4	11K	0							
SAN SALVADOR	18.08	105.0	4	18	4						10	27
GLEN CANYON	18.13	348.5	4	16	1						5	49 PP
SANTIAGO MA.	18.81	104.7	4	27	4						10	31
FAYETTEVILLE	20.35	31.5	4	40K	0	8	33	9	5	0	5	27 PP
FRESNO	20.72	330.2	4	41	-3							
RUTH	21.08	342.9	4	48K	0	8	57	18				
VINEYARD	21.48	327.4	4	50	-2							
EUREKA	21.60	341.2	4	53	0						6	57 PP
FLAMING GRGE	21.75	355.4	4	56	1						8	4 PP
SALT LAKE C.	21.87	350.4	4	56	0						10	8
LICK	22.07	328.0	4	56K	-2							
LARAMIE	22.08	3.2	5	0	2							
LAWRENCE	22.25	25.2	5	0	0	9	23	22				
BRANNER	22.40	327.2	5	3A	2							
CONCORD	22.77	328.3	5	5K	0							
BERKELEY	22.79	327.9	5	4A	-1	9	12	2			6	2
SAN FRANCISCO	22.81	327.4	5	5	0							
RENO	23.03	334.4	5	8A	0							
UKIAH	24.24	328.4	5	21	2							
MINERAL	24.46	332.6	5	19A	-2							
SHASTA	25.09	331.9	5	26	-2							
BOZEMAN	26.60	353.9	5	42	0							
BUTTE	27.12	351.7	5	46	0	10	24	0				
COLUMBIA	27.53	52.4	5	49	-1						16	5 SCS
HUNGRY HORSE	29.61	350.7	6	8	-1							
CHAPEL HILL	29.83	50.3	6	10	-1							
MORGANTOWN	31.05	43.2	6	21K	-1	12	1	34				
CLEVELAND	31.14	38.9	6	21	-1	11	37	9				
PENTICTON	31.68	344.4	6	26	-1							
WASHINGTON	32.60	46.6	6	33	-2	12	17	26				
GEORGETOWN	32.60	46.6	6	35	0							
PENNSYLVANIA	33.02	43.0	6	38	-1	12	3	6			7	47 PP
CHINCHINA	33.84	110.6	6	59A	13	12	35	25			14	42
ROCHESTER	34.74	40.1	6	49	-5							
FUQUENE	35.31	108.4	7	OK	1							
BOGOTA	35.38	109.9	7	3A	4	12	43	9			15	20
FORDHAM	35.68	45.5	7	4	2	12	45	6				
PALISADES	35.74	45.3	7	1	-1	12	39	0			8	13 PP
WESTON	38.08	44.7	7	25A	3	13	22	7			8	49 PP
BREBEUF	38.16	39.0	7	23	0							
SAN JUAN	38.81	84.3	7	28	0						8	38 PP
SHAWINIGAN	39.22	38.1	7	30	-1							
CARACAS	39.76	96.7	7	33	-3	13	42	1				
ST. KITTS	42.15	85.1	7	54	-2							
HUANCAYO	44.14	132.2	8	9	-3	15	45	60				
KIPAPA	47.58	281.8	8	37	-2							
HONOLULU	47.67	281.6	8	37	-3						19	25
AREQUIPA	49.86	132.9	8	57	0							
LA PAZ	52.27	130.2	9	9	-6	16	39	-1				
COLLEGE	53.01	339.6	9	18	-3	16	32	-18			10	3
RESOLUTE	55.90	3.9	9	38A	-4	17	28	-1			21	23 SS
THULE	60.56	9.8	10	10	-4							
SANTA LUCIA	62.88	146.0	10	28	-2	18	58	-1			14	7 PPP
SCORESBY SD.	70.47	20.8	11	22A	4							
NORD	71.21	8.9	11	22	-1							
DURHAM	83.15	34.2	12	39	10							
LISBON	84.23	51.1	12	42	7							

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 245

COIMBRA	84.25	49.5	12 37A	2					12 47	PCP
KEW	85.20	36.9	12 48	9	22	14	-55			
MBOUR	85.55	76.4	12 49	8	23	11	-2			
FOLINIÈRE	86.24	39.4	12 45	0						
TOLEDO	87.50	48.6	12 40	-11	23	23	-8			
BENSBERG	89.61	35.2	13 8	7						
STRASBOURG	91.16	37.0	14 13	65					30 21	SS
STUTTGART	91.91	36.3	13 16	5						
COLLMBERG	92.51	32.9	13 22	8					17 7	
ISOLA	92.98	41.1	13 11	-5					17 0	PP
MONACO	93.44	41.3	13 25	7						
FLORENCE X.	95.76	39.8	13 29	10						
SETIF	95.81	48.7	13 24	-5					17 19	PP
TUKUBASAN	95.92	311.4			24	5	-1		26 7	SP
TRIESTE	96.18	37.3	13 39	8						
LJUBLJANA	96.39	36.6	13 38	6						
MATUSIRO	97.09	312.5	13 34	-1	24	10	-2		26 19	PS
BYRD STATION	99.25	182.2	13 40	-5						
CHANGCHUN	101.02	324.2							17 59	
TAMANRASSET	102.16	60.6	14 6	8	25	44	67		18 24	PP
PORT MORESBY	107.77	266.0			25	10	7		34 22	SS
PEKING	108.57	326.2							19 1	
RIVERVIEW	109.90	240.1			25	7	-5		21 49	PKS
ZO-SE	111.77	316.4							19 19	
NANKING	112.67	318.6							19 12	
KSARA	116.60	34.0			25	29	-9		19 53	PP
JERUSALEM	117.80	36.0							20 3	
CHENG TU	122.07	328.2							20 30	
WARSAK DAM	127.09	1.3	19 2	-4						
KUNMING	127.21	325.4							20 58	
SHIRAZ	127.64	22.4	19 7	0						
QUETTA	130.59	6.7	19 13	0					21 28	PP
CHATRA	132.18	342.6							22 43	
CHITTAGONG	134.72	334.9	19 18	-3						
BROKEN HILL	137.36	90.7	19 11	-15						
BOMBAY	142.14	0.0							23 31	
LEMBANG	144.03	285.3	19 39	2					23 24	
MEDAN	145.96	309.0	19 41	0						
TANANARIVE	156.10	93.5	20 3	7					20 30	PKP2

MARCH 13 19.H 17.M 16.S EPICENTRE 34.46 26.67 DEPTH= 18.KM

A= 0.73845 B= 0.37086 C= 0.56317 D= 0.4488 E=-0.8936
G= 0.5033 H= 0.2527 K=-0.8263 HT= 0.3

SE= 2.97

	DELTA DEG.	AZ. DEG.	P			S			O-C		*PP		SUPP.	
			M	S	S	M	S	S	M	S	M	S		
ATHENS	4.24	326.7	1	5K	0							1	22	PG
HELWAN	6.04	137.9	1	27	-4							3	4	SG
ISTANBUL UN.	6.83	15.0	1	46	4									
ISTANBUL KA.	6.87	15.4	1	39	-4									
JERUSALEM	7.66	108.0	1	50	-3	3	15	-6						
KSARA	7.67	92.2	1	50	-4	3	25	4						
SOFIA	8.64	343.4	2	7	0	3	56	11						
TARANTO	9.59	311.5				4	2	-7				6	4	
REGGIO CALA.	9.61	295.4	2	23	2	4	2	-7						
MESSINA	9.72	295.8	2	21	-1	4	4	-8				2	29	PP
BUCHAREST	9.96	357.7	2	20	-5	4	29	11				5	49	
CAMPALUNG	10.87	353.9										6	37	
BELGRADE	11.40	337.1	2	56K	11							6	23	SG
SIMFEROPOL	11.94	26.4	2	55	3									
TIMISOARA	12.02	341.4				5	20	12				6	57	
KISHINEV	12.66	6.8	2	59	-3	5	8	-16						
ROME	13.40	307.9	3	35	23							7	9	
BUDAPEST	14.23	338.5										7	47	
LJUBLJANA	14.82	325.0	3	28	-2	6	22	7				7	2	
TRIESTE	14.91	322.4	3	32	0	6	26	9				8	19	SGSGSG
FLORENCE X.	15.14	312.5	3	29	-6	6	18	-5						
LWOW	15.48	353.6	3	42	3									
PADOVA	15.74	318.4	3	48	6							6	32	
VIENNA-H.	15.78	333.9	3	45	2									
TIFLIS	16.00	57.7	3	46K	0									
KRAKOW	16.35	344.4	3	50	0							4	7	PP
RACIBORZ	16.81	340.8	3	54	-2							4	10	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961				PAGE 246			
PAVIA	17.15	313.9					7 24
SETIF	17.44	281.8	4 2	-2			4 17 PP
MONACO	17.54	307.6	4 7	2			
KASPERSKE H.	17.57	330.5	4 3	-3			
PRUHONICE	17.88	333.8	4 6	-4	7 29	3	
CHUR	17.91	318.9	4 8	-2			
ISOLA	17.98	308.5	4 9	-2	7 38	10	
MAKHACH-KALA	18.31	56.2	4 16	1			
RAVENSBURG	18.44	321.3	4 14	-2			
TUBINGEN	19.21	322.4	4 22	-4			
STUTTGART	19.26	323.2	4 23	-3	7 55	-2	
ALGIERS UNI.	19.33	283.7	4 23	-4	7 56	-3	4 38 PP
BASLE	19.38	318.1	4 18	-10			
NEUCHATEL	19.44	316.1	4 25	-3			8 2
COLLMBERG	19.53	333.7	4 26K	-3			8 57
JENA	19.79	330.9	4 29	-3	8 8	-1	4 44 PP
KARLSRUHE	19.85	322.6	4 30	-3			
STRASBOURG	19.91	320.8	4 32	-1	8 34	23	5 36
HEIDELBERG	19.96	323.9	4 34	0			
BESANCON	20.13	315.6	4 35	-1			
TEHERAN	20.26	79.3	4 38	1	8 10	-9	
CLERMONT-FD.	21.18	309.3	4 46	-1			
RELIZANE	21.39	281.0	4 50	1			5 8 PP
TORTOSA	21.63	294.8	4 57	6	8 57	12	
BENSBERG	21.74	325.3	4 52	0	8 46	-1	5 42 PP
TAMANRASSET	21.86	243.4	4 52K	-2	8 52	3	5 16 PP
GARCHY	21.87	313.0	4 52	-2			
ALICANTE	22.16	288.0	4 57	0	8 56	1	9 33 SS
MUNSTER	22.23	327.7	5 55	58			6 19
BAGNERES	22.32	300.5	4 59	1			
SHIRAZ	22.41	95.2	4 59K	0	9 2	3	
MOSCOW	22.58	16.3	5 0	-1	8 56	-7	
PARIS	22.94	316.0	5 4	0			
WITTEVEEN	23.24	328.3	5 7	0			
COPENHAGEN	23.39	339.5	5 5	-4	9 14	-3	5 53
DE BILT	23.43	325.4					9 26
ALMERIA	23.76	284.2	5 11	-1	9 12	-11	5 48 PP
GRANADA	24.64	285.1	5 21A	0	9 51	12	5 36 PP
FOLINIERE	24.66	313.7	5 19	-2			
TOLEDO	25.00	291.5	5 23	-1	9 55	10	11 3 SS
GOTEBORG	25.27	341.4	5 25	-2			
PULKOVO	25.44	4.3	4 56	-32			
KEW	25.84	319.4	5 31	-1	10 8	9	
UPPSALA	26.09	349.6	5 31	-3			
NURMI JARVI	26.10	357.7	5 31K	-4			
DURHAM	28.26	324.6	6 9	15			
UMEA	29.66	354.2	6 3	-4			
KAJAANI	29.66	0.9	6 6	-1			
SKALSTUGAN	30.49	347.3	6 9	-5			
BANGUI	30.84	195.8	6 16	-1			
SVERDLOVSK	32.09	35.3	6 28	0			
SODANKYLA	32.96	360.0	6 33	-3			
KIRUNA	33.61	355.7	6 39	-2			
TASHKENT	34.06	65.6	6 45	0			
QUETTA	34.15	85.8	6 46	0	12 8	-3	8 3 PP
NAMANGAN	35.88	66.0	7 3	2			
ANDIJAN	36.43	66.3	7 6	1			
LWIRO	36.57	176.4	7 7K	0			
WARSAK DAM	36.88	77.6	7 8	-1			
FRUNSE	37.95	62.7	7 20K	2			
LAHORE	39.79	80.4	7 34	0			
SEMIPALATNSK	41.70	50.7	7 48A	-1			
DEHRA DUN	43.21	80.7					14 28
BOMBAY	43.67	98.6					14 5
SCORESBY SD.	44.44	338.9	8 11	-1			
KHEYS	47.83	6.6	8 36	-3			
BROKEN HILL	48.66	177.7	8 44	-1			
NORD	49.80	352.4	8 49	-5			
BULAWAYO	54.32	177.8	9 27A	-1			
TANANARIVE	56.68	156.2	9 47	2			
WINDHOEK	57.43	190.5	9 48	-2			
THULE	57.97	343.9	9 50	-4			
TIKSI	61.40	20.7	10 14	-3			
KIMBERLEY	62.89	181.9	10 25	-2			
RESOLUTE	64.67	345.5	10 35	-4			
YAKUTSK	65.88	30.2	10 56	9			
SHAWINIGAN	71.70	314.2	11 21	-2			
WESTON	72.95	309.9	11 30A	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 248											
CHATRA	68.32	300.4	11	4K	-1	20	8	3			24	33	SS
BOKARO	68.77	297.0	11	7	0	20	23	12			13	47	PP
WILKES	68.93	196.3	11	6	-2	20	16	3			24	54	SS
CAPE HALLETT	69.96	173.8	11	17	2	20	24	-1			24	51	SS
MADRAS	72.01	284.7	11	31	4	20	58	9			13	58	PP
HYDERABAD	74.30	289.0	11	45A	4	21	17	3			21	47	PS
MIRNY	74.63	200.6	11	44	2								
SCOTT BASE	74.96	176.6	11	44K	0	21	21	-1			13	58	PP
TIKSI	76.17	353.0	11	47K	-4	21	31	-4					
DEHRA DUN	76.94	302.0	11	57	1	21	47	4			14	55	PP
POONA	78.79	289.5	12	5A	-1	22	1	-2					
BOMBAY	79.80	289.8	12	15	4	22	19	5			23	15	PPS
LAHORE	80.31	302.6	12	14	0								
SEMIPALATNSK	80.34	322.2	12	12A	-2								
COLLEGE	81.21	22.3	12	16	-3	22	28	-1					
FRUNSE	82.21	313.8	12	25A	1								
WARSAK DAM	83.01	304.7	12	28	0								
ANDI JAN	83.47	311.5	12	32A	2	23	0	8					
NAMANGAN	84.03	311.6	12	34	1								
KARACHI	85.79	295.1	12	41	-1	23	13	-2					
TASHKENT	85.87	311.7	12	42	0	23	13	-2					
MAWSON	86.19	202.6	12	46	2								
QUETTA	86.40	300.4	12	45	0	23	18	-3			16	1	PP
SOUTH POLE	86.71	180.0	12	45	-2								
BERKELEY	89.53	52.2				23	53	3			14	17	
VICTORIA	89.61	41.5	13	7	7								
SHASTA	89.66	49.4	13	4	3						16	50	PP
MINERAL	90.23	49.8	13	7K	4								
RENO	91.55	50.7	13	16	7								
PASADENA	92.63	56.1	13	17	3	24	24	7			25	36	PS
SVERDLOVSK	92.89	326.6	13	15	-1	24	20	0					
KHEYS	93.71	350.5	13	18	-1	24	33	6					
EUREKA	94.52	50.8	13	22	-1						17	33	PP
HUNGRY HORSE	95.85	41.9	13	30	1				13	42	13	58	
BUTTE	96.92	44.2	13	34	0								
BOZEMAN	98.00	44.5	13	43	4								
TUCSON	98.77	58.0	13	43	1	24	22	1			17	6	PP
TUCSON TELE.	98.86	57.9	13	45	2								
SHIRAZ	98.89	299.3	13	43	0						17	51	PP
RESOLUTE	99.45	14.2	13	45	-1	25	16	52			17	50	PP
RAPID CITY	103.72	45.5	14	5	0								
TIFLIS	104.19	312.1	14	12	5								
MOSCOW	105.68	327.3									18	38	PP
SODANKYLA	105.69	340.6	14	8	777								
WICHITA MTS.	108.72	54.5	14	29	777	25	36	30			18	58	PP
KSARA	112.52	305.2									19	31	PP
SCORESBY SD.	112.77	357.4									19	30	PP
LWOW	115.57	324.9									19	52	
HELWAN	117.14	301.9									19	58	
BULAWAYO	118.76	245.0	18	51	1								
BELGRADE	120.07	321.2	19	46	54						20	22	
BROKEN HILL	120.27	251.3	18	57	4								
COLLMBERG	120.64	330.7	18	56	2						20	29	PP
PRUHONICE	120.67	328.8	19	0A	6						20	30	PP
VIENNA-H.	120.70	326.3	18	56	2						20	32	PP
HERMANUS	121.08	226.2									16	30	
JENA	121.56	331.0	18	51	-4						20	18	PP
KASPERSKE H.	121.68	328.4	18	58	2						20	20	
LWIRO	121.84	265.3	19	1	5						20	32	
MUNSTER	122.69	333.9									20	0	
LJUBLJANA	122.98	325.0	19	2	4						20	44	PP
BENSBERG	123.60	333.3	19	4	5						20	40	PP
TRIESTE	123.65	325.0	19	5	6						20	48	PP
DURHAM	124.04	341.1	19	12K	12								
STUTTGART	124.10	330.2	19	3	3						20	41	PP
KARL SRUHE	124.37	330.9	19	6	5								
PADOVA	124.86	325.7									21	53	
STRASBOURG	124.97	330.9	19	7	5						20	56	PP
PALISADES	125.01	40.6				26	28	22			29	8	PKKP
FLORENCE X.	126.19	324.5	19	20	16						21	10	PP
SANTA LUCIA	126.41	136.5									38	6	SS
ROME	126.55	321.9									21	7	PP
WINDHOEK	128.06	238.0	19	13	5								
GARCHY	128.12	332.5	19	11	3						21	16	PP
ISOLA	128.30	327.2									21	0	PP
MONACO	128.39	326.6	19	14	5						21	16	PP
FOLINIERE	128.52	336.1	19	11	2						21	8	PKP2
CLERMONT-FD.	129.20	331.2	19	16	6								
BANGUI	132.36	272.9	19	23	7						21	50	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 249

BAGNERES	132.63	330.9	19 21	4					
AREQUIPA	133.76	116.5	19 29	10					
BOGOTA	135.15	86.8	19 28	7	26 26	-5		22 50	SKP
ALGIERS UNI.	135.46	322.4	19 23	1				22 3	PP
FUQUENE	135.48	85.6	19 27	5				23 5	SKP
LA PAZ	136.72	118.3	19 30	6				22 12	PP
TOLEDO	137.10	331.4	19 29	4				22 15	PP
RELIZANE	137.65	323.3	19 29	3				22 20	PP
ALMERIA	138.59	327.0	19 36K	8				22 25	PP
GRANADA	138.95	328.4						22 26	PP
SAN JUAN	140.82	64.8	19 36	4					
TAMANRASSET	141.28	303.0	19 32	0	26 40	-1		22 28	PP
CARACAS	141.82	77.3	19 35	2	26 46	4			
ST. KITTS	144.21	64.7	19 39	2					
ST. VINCENT	146.75	71.0	19 46	4					
TRINIDAD	147.17	75.5	19 46	3					
LAKE TOBA	150.71	264.1	19 57	9					
MBOUR	163.73	313.3	20 12	8				21 6	PKP2

MARCH 16 4.H 30.M 39.S EPICENTRE -25.07 179.92 DEPTH= 486.KM

A=-0.90691 B= 0.00122 C=-0.42132 D= 0.0013 E= 1.0000
G= 0.4213 H=-0.0006 K=-0.9069 HT= 3.3

DEPTH OF FOCUS= 0.071R

SE= 1.38

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
ONERAHI	11.69	202.8	2	39	2							
NOUMEA	12.65	279.8	2	50	3	5	8	7				
KARAPIRO	13.36	195.2	2	55	1							
AFIAMALU	13.57	36.7	2	53K	-4	5	13	-6				
CHATEAU	14.57	193.7	3	7	0	5	43	6				
WELLINGTON	16.73	193.6	3	28	-1	6	17	0				
COBB RIVER	17.06	198.8	3	32	0	6	24	1				
KAIMATA	18.77	199.9	3	50	1	6	52	-1				
GEBBIES PASS	19.52	196.0	3	53	-3	7	1	-4				
RIVERVIEW	26.47	244.0	4	59K	0						6	26
CANBERRA	28.51	241.7	5	17K	0				6	49		
CHARTERS TS.	31.42	272.2	5	43	1	10	15	-1				
MOORLANDS	32.01	229.0	5	47A	0						11	19
MELBOURNE	32.23	238.3	5	48	-1						10	59
TARRALEAH	32.46	229.7	5	51A	0						11	20
PORT MORESBY	34.83	290.8	6	10	-1							
ADELAIDE	36.80	244.6	6	27K	0						8	10
SCOTT BASE	53.21	183.5	8	35K	1							
MUNDARING	55.71	247.3	8	49	-3							
BYRD STATION	60.49	169.9	9	23	-1				11	5		
SOUTH POLE	65.08	180.0	9	53	-1							
LEMBANG	71.12	271.2	10	30	0							
MATUSIRO	72.81	325.9	10	39K	-1				12	25		
BERKELEY	82.83	42.5	11	35A	1							
LICK	82.88	43.2	11	35A	1							
PASADENA	83.18	47.5	11	36	0							
FRESNO	83.69	44.6	11	39	1							
SHASTA	84.55	40.2	11	43A	1							
MINERAL	84.80	40.9	11	44K	0							
TUCSON	87.22	52.5	11	58	3				13	53	12	40
EUREKA	87.72	44.2	11	58	0				13	51		
GLEN CANYON	89.19	48.2	12	6	1				13	59		
SALT LAKE C.	91.06	44.9	12	14	1							
FLAMING GRGE	92.73	45.7	12	21	0				14	18		
COLLEGE	93.07	13.2	12	21	-1				14	16		
HUNGRY HORSE	93.91	37.7	12	25	-1							
WICHITA MTS.	97.37	55.2	12	41	-1				14	36	16	46
QUETTA	121.15	291.3	17	59	2							
BROKEN HILL	131.86	218.4									20	27
SODANKYLA	134.59	345.9									21	6
												SKP
KAJAANI	136.98	342.5	18	19	-8						21	14
UMEA	139.01	346.4									21	20
NURMI JARVI	140.69	340.9	18	26	-9						21	23
GOTEBORG	146.27	348.3	18	46	2							SKP
COLLMBERG	151.95	342.4	19	0	8				21	3	22	7
												*SPKP
PRUHONICE	152.66	339.2	19	1	8				21	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 250

GARCHY 157.69 354.3 19 1 1
 TAMANRASSET 174.40 247.2 19 15 2
 21 29 19 36 PKP2
 24 42 PP

MARCH 16 4.H 58.M 4.S EPICENTRE 51.99 176.07 DEPTH= 37.KM

A=-0.61692 B= 0.04234 C= 0.78588 D= 0.0685 E= 0.9977
 G=-0.7840 H= 0.0538 K=-0.6184 HT= -6.1

DEPTH OF FOCUS= 0.001R

SE= 1.73

	DELTA DEG.	AZ. DEG.	P			O-C			*PP		SUPP.	
			M	S	S	M	S	S	M	S	M	S
PETROPAVLOVK	10.67	282.4	2	33	0	4	33	1				
MAGADAN	16.03	308.0	3	44	0							
Y.-SAKHLINSK	22.10	270.3	4	54A	1	8	56	7				
COLLEGE	22.49	41.1	4	58	1							
YAKUTSK	26.58	310.3	5	35	-1							
TIKSI	28.53	330.9	5	53K	-1							
MATUSIRO	30.79	254.9	6	11A	-3	11	14	1				
CORVALLIS	39.96	75.8	7	36	4							
RESOLUTE	40.50	24.2	7	37A	1							
SHASTA	42.73	80.1	7	56	1							
ULAN-BATOR	43.16	293.2	7	58	0							
HUNGRY HORSE	43.34	65.9	7	59	-1					9	52 PP	
MINERAL	43.42	80.0	8	1A	1							
RENO	45.00	79.7	8	15K	2							
LICK	45.26	83.4	8	16A	1							
NORD	46.48	2.6	8	24	-1							
EUREKA	47.37	77.2	8	31	-1							
PASADENA	49.48	84.1	8	48	0							
FLAMING GRGE	50.37	71.5	8	50	-5					9	55	
RAPID CITY	51.93	64.6	9	6	-1							
TUCSON	55.27	80.6	9	32	1					9	59	
SCORESBY SD.	57.15	7.1	9	45	0							
APATITY	57.53	344.0	10	39K	51							
SODANKYLA	58.76	346.7	9	56K	0					10	45 PCP	
KIRUNA	59.12	349.5	9	58	-1					10	25	
WICHITA MTS.	60.86	70.1	10	9	-2					10	48 PCP	
KAJAANI	61.67	344.8	10	17	1							
FAYETTEVILLE	62.41	66.1	10	20	-1					10	58	
UMEA	63.00	348.2	10	25	0							
SHAWINIGAN	65.50	45.0	10	39	-2							
NURMIJARVI	65.53	344.9	10	40K	-1							
SHILLONG	66.81	282.2	10	57A	8							
MOSCOW	67.28	336.0	10	54K	2							
CHATRA	68.69	286.5	10	59	-2							
CHITTAGONG	69.23	279.9	11	3	-2							
PALISADES	69.30	49.5	11	3	-2							
COLUMBIA	71.17	58.8	11	17	1							
COLLMBERG	76.10	349.1	11	44	-1							
BENSBERG	77.00	352.8	11	51K	1							
QUETTA	77.43	303.0	11	53	0					12	1 PCP	
TIFLIS	77.55	324.8	11	54A	1							
KASPERSKE H.	78.16	348.4	11	56	-1							
STUTTGART	78.99	351.1	12	1	0							
STRASBOURG	79.31	352.1	12	4	1							
FOLINIERE	79.58	357.7	12	4	0							
TEHERAN	80.17	317.2	12	8	0							
GARCHY	80.93	355.2	12	12	0							
LJUBLJANA	81.06	347.1	12	12	0							
TRIESTE	81.56	347.6	12	16	1							
FLORENCE X.	83.71	349.0	12	5	-21							
ISOLA	83.74	352.1	12	11	-15							
MONACO	84.16	351.8	12	29	1							
SHIRAZ	84.88	313.3	12	31K	-1							
SAN JUAN	91.58	57.2	13	4	0							
TAMANRASSET	105.10	351.0	14	4	777					18	19 PP	
BANGUI	120.65	333.6	19	38	50				19	48		
BYRD STATION	136.65	166.7	19	12	-6							
SOUTH POLE	141.80	180.0	19	28	1					22	47 SKP	

MARCH 16

11.H 19.M 45.S EPICENTRE -6.75 130.99 DEPTH= 90.KM

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 251

A=-0.65138 B= 0.74970 C=-0.11681 D= 0.7549 E= 0.6559
G= 0.0766 H=-0.0882 K=-0.9932 HT= 6.9

DEPTH OF FOCUS= 0.009R

SE= 3.81

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
PORT MORESBY	16.22	100.4	3	49	5	6	45	4				
CHARTERS TS.	19.89	133.3	4	33	6	8	14	13				
RABAU	21.24	84.2	4	46	5							
LEMBANG	23.20	268.4	4	58A	-2	8	58	-3			16	0 SCS
MANILA	23.44	335.3	5	3	1	9	11	6				
DJAKARTA	24.01	270.0	5	15	7						6	11
GUAM	24.29	34.2	5	13	3							
BAGUIO CITY	25.22	336.0	5	18	-1							
MUNDARING	28.63	206.9	5	54	4							
NHATRANG	28.71	311.0	5	49A	-2						6	34 PP
ADELAIDE	28.97	166.8	5	59K	6						7	56
BRISBANE	29.14	137.3	6	1	6						7	56
RIVERVIEW	32.78	148.0	6	33A	6	11	51	15	6	51	7	51
CANBERRA	32.90	152.3	6	34K	6	11	47	9	6	53	7	5 *SP
HONG KONG	33.24	330.7	6	29	-2							
MELBOURNE	33.44	159.7	6	39	6							
CANTON	34.31	330.3	6	39A	-1	11	54	-6				
NOUMEA	37.51	118.1	7	15	8						7	47
TARRALEAH	37.96	161.2	7	17K	6						8	48 PP
MOORLANDS	38.32	160.5	7	20K	6							
ZO-SE	38.79	346.5	7	17A	-1	13	0	-8				
FORT NELSON	38.82	160.7	7	24	6							
NANKING	40.31	343.9	7	29	-1	13	27	-4				
KUNMING	41.94	320.1	7	44A	0	13	51	-4				
MATUSIRO	43.59	8.4	7	56A	-1	14	15	-4			8	24 *SP
CHENGTU	45.30	326.6	8	9	-2	14	34	-10				
SIAN	45.81	334.3	8	14A	-1	14	44	-7				
MI ZUSAWA	46.61	10.9	8	25	4	15	3	1				
CHITTAGONG	48.04	308.2	8	32A	0	15	22	-1	8	51	10	25 PP
PEKING	48.52	344.8	8	35A	-1	15	23	-6				
ONERAHI	49.08	132.3	8	19	-21							
SHILLONG	49.77	311.7	8	44A	-2							
CHANGCHUN	50.61	354.7	8	51A	-1	15	50	-8				
KARAPIRO	50.87	134.3	8	34	-20						9	19
CHATEAU	51.43	135.8	8	48	-10						9	23
WELLINGTON	51.89	138.5	9	9	7							
LHASA	52.74	315.4	9	7A	-1	16	23	-4				
CHATRA	53.99	310.1	9	15	-2							
MADRAS	54.15	291.3	9	18	0							
Y.-SAKHLINSK	54.54	9.8	9	21	0							
ULAN-BATOR	58.44	341.2	9	48	-1							
POONA	61.68	295.1	10	9A	-2							
BOMBAY	62.72	295.2	10	15	-3							
IRKUTSK	63.05	342.0	10	20A	0	18	43	1				
PETROPAVLOVK	64.00	18.2	10	27	0	18	54	0				
MAGADAN	67.95	10.7	10	52	0	19	42	0				
YAKUTSK	68.57	359.4	11	4	9	19	51	2				
WARSAK DAM	69.23	310.1	11	0A	0							
KARACHI	69.66	299.5	11	0A	-2							
ALMATA	69.74	320.9	11	4A	1							
QUETTA	71.45	304.8	11	13A	0	20	19	-4	11	27	13	52 PP
ANDI JAN	71.52	316.9	11	14A	1	20	23	-1				
SEMIPALATNSK	71.79	328.6	11	14A	-1							
NAMANGAN	72.10	316.8	11	18A	1							
STALINABAD	73.12	313.6	11	23	0							
SCOTT BASE	73.45	172.6	11	30	5						11	47 PCP
TASHKENT	73.87	316.3	11	28	1							
TIKSI	78.23	359.3	11	52K	0	21	35	-3				
TANANARIVE	81.66	251.9	12	15A	5						12	53
SOUTH POLE	83.29	180.0	12	23	5				12	44		
SHIRAZ	83.38	300.8	12	19K	0	22	30	-1	12	46		
SVERDLOVSK	85.07	328.7	12	13	-14							
TEHERAN	85.53	306.6	12	31A	1				13	7		
BYRD STATION	86.72	170.5	12	41	6							
TIFLIS	91.60	311.6	13	0A	2							
COLLEGE	92.33	25.0	13	2	0				13	31		
KHEYS	93.87	351.0	13	11	2							
MOSCOW	97.42	325.3									18	24
HELWAN	101.69	299.0	17	52	248							
KIRUNA	103.91	338.5	13	53	-1						14	21

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 252

UMEA	105.11	334.6								18 21 PP
RESOLUTE	107.24	11.5	14 10	777						26 2
HUNGRY HORSE	111.52	40.5	18 29	5						
EUREKA	112.01	50.2	18 30	5						
COLLMBERG	112.55	323.1	18 29	3			18 45			19 14 PP
BANGUI	112.69	271.9	18 32	6						19 26
LJUBLJANA	113.08	317.3	18 30	3						19 23 PP
TRIESTE	113.71	317.1								19 26 PP
STUTTGART	115.65	321.4	18 35	3						19 38 PP
BENSBERG	116.11	324.2								19 43 PP
ISOLA	118.69	317.1	18 47	9						20 8 PP
PARIS	119.76	323.4	18 44	4			19 14			
RAPID CITY	119.99	42.4	18 46	6						
GARCHY	120.07	321.6	18 43	2			19 11			19 37 PP
BAGNERES	123.74	318.2	18 51	3						19 21
ALGIERS UNI.	124.05	310.2	18 52	4			19 20			20 31 PP
TAMANRASSET	125.23	293.0	18 55A	4	25 52	7	19 25			20 42 PP
RELIZANE	126.29	309.8	18 57	4						19 19
WICHITA MTS.	126.64	51.4	18 58	5						20 56 PP
TOLEDO	127.98	316.4								20 51
FAYETTEVILLE	129.46	48.1	19 4	5						22 17
PALISADES	139.30	29.2								34 37 PPS
MBOUR	147.63	286.2	19 39	7						20 7 PKP2
HUANCAYO	147.85	125.4					19 45			20 14 SPKP
AREQUIPA	147.96	136.3	19 43	11						
LA PAZ	150.14	140.9	19 41	6						

MARCH 16 13.H 45.M 37.S EPICENTRE -8.44 121.87 DEPTH= 66.KM

A=-0.52240 B= 0.84015 C=-0.14578 D= 0.8492 E= 0.5280
G= 0.0770 H=-0.1238 K=-0.9893 HT= 6.7

DEPTH OF FOCUS= 0.005R

SE= 2.55

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
LEMBANG	14.22	275.5	3 20	1	6 4	8					3 42 PPP	
DJAKARTA	15.09	277.5	3 27	-4	6 19	3					15 44 SCS	
MANILA	22.97	358.0	5 3	3	9 3	2						
MUNDARING	24.00	191.9	5 8	-1	9 30	11						
PERTH	24.06	192.7	5 11	1	9 33	13						
NHATRANG	24.08	328.3	5 12	2	9 29	9						
PORT MORESBY	24.99	94.1	5 17	-2	9 38	2						
CHARTERS TS.	26.28	118.8	5 30	-1								
HENGCHUN	30.27	357.9	6 11	4								
ADELAIDE	30.59	152.1	6 9A	-1				6 22			12 16	
TAWU	30.61	358.2	6 14	4								
TAITUNG	31.00	358.7	6 16	2								
TAINAN	31.29	357.1	6 26	10								
HONG KONG	31.47	346.2	6 19	1	10 47	-33						
ALISHAN	31.78	358.1	6 14	-6								
HWALIEN	32.21	359.6	5 25	-59								
TAICHUNG	32.41	358.0	5 56	-30								
CANTON	32.43	345.2	6 28A	2	11 42	7						
TAIPEI	33.27	359.4	7 10	37								
BRISBANE	34.77	126.8	6 48	2	12 18	7						
PORT BLAIR	35.21	304.1	6 50	0	12 16	-2					7 54 PP	
MELBOURNE	35.94	148.0	6 57	1				7 4			8 32 PP	
CANBERRA	36.49	141.2	7 1A	0	12 45	8					8 32 PP	
RIVERVIEW	36.95	137.4	7 5A	0	12 47	3					8 32 PP	
HONIARA	37.62	94.5	7 9	-1								
KUNMING	38.21	331.3	7 18A	3	13 12	8					8 42 PP	
ZO-SE	39.32	359.1	7 25A	1	13 26	6					9 1 PP	
TARRALEAH	40.08	151.4	7 31A	0				7 41				
NANKING	40.38	355.9	7 34A	1	13 43	7					9 12 PP	
MOORLANDS	40.53	150.9	7 35A	1							7 49 SP	
FORT NELSON	40.98	151.2	7 39	1								
NAGASAKI	41.64	10.2	7 38	-5	14 0	5						
KUMAMOTO	41.88	11.2	7 46	1								
SIMIDU	42.33	13.9	7 45	-4							9 50	
OOITA	42.46	12.1	7 51	1	12 55	-72						
CHITTAGONG	42.48	316.6	7 53	3	14 15	8					9 38 PP	
CHENG TU	42.49	337.0	7 51A	1	14 12	5					9 32 PP	
HUKUOKA	42.56	10.5	7 51	0	13 14	-54						

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 253

MATUYAMA	43.30	13.3	7 59	2	14 23	4	
HIROSIMA	43.73	12.7	7 57	-4	14 24	-1	17 59 SCS
TOCKLAI	43.76	323.9	8 6	5			
TAKAMATU	44.06	14.5	8 0	-3	14 26	-4	
HAMADA	44.17	12.1	8 6K	2	14 41	9	
SIAN	44.19	344.6	8 4	0	14 39	7	
SUMOTO	44.30	15.5	8 4K	-1	14 38	4	
OWASE	44.41	17.1	8 7	1			17 58
COLOMBO	44.56	288.8	8 7	0			15 4 PPS
SHILLONG	44.67	320.0	8 8A	0	14 44	5	9 48 PP
KOBE	44.69	15.6	8 12	4			17 57
OSAKA	44.76	16.0	8 6	-3	14 42	2	
NARA	44.87	16.4	8 10	0			
NOUMEA	44.96	113.1	8 12	2			9 57
ABUYAMA	44.98	16.0	8 10	-1			
CALCUTTA	44.99	313.8	8 12K	1	14 47	3	
KYOTO	45.16	16.1	8 16	4			9 45
KAMEYAMA	45.21	17.0	8 15	3	14 30	-17	
HAMAMATU	45.47	18.4	8 13	-1			
HIKONE	45.54	16.5	8 17	2	14 57	6	
NAGOYA	45.66	17.4	8 12	-4	14 57	4	
GIHU	45.81	17.0	8 19	2			
MISIMA	46.23	19.5	8 20	0			
HUNATU	46.52	19.1	8 24	1			
MADRAS	46.57	296.8	8 22A	-1	15 6	0	10 11 PP
KOHU	46.61	18.8	8 23	0			
TOYAMA	47.15	16.8	8 30	2	15 20	6	
OIWAKE	47.21	18.4	8 29	1			
MATUJIRO	47.30	18.0	8 27A	-2	15 16	0	10 28 PP
NAGANO	47.42	17.9	8 31	1	15 37	19	
TUKUBASAN	47.61	20.0	8 29K	-2	15 19	-2	15 29 PS
BOKARO	47.65	313.1	8 30K	-2	15 16	-5	10 16 PP
KAKIOKA	47.65	20.1	8 32	0			
WAZIMA	47.70	16.2	8 32	0	15 27	5	
UTUNOMIYA	47.84	19.6	8 31	-2			
MI TO	47.89	20.3	8 31	-2			
KODAIKANAL	47.93	291.9	8 50K	16			10 41 PP
LHASA	48.10	323.2	8 37A	2	15 34	6	10 33 PP
SHIRAKAWA	48.47	19.6	8 39	1			
PEKING	48.51	354.2	8 37A	-1	15 35	2	
ONAHAMA	48.55	20.4	8 39	0	15 39	5	
CHATRA	48.60	317.3	8 38A	-1	15 30	-5	10 27 PP
NIIGATA	48.83	18.1	8 39	-2	14 53	-45	
YAMAGATA	49.54	19.1	8 45	-1			
SENDAI	49.74	19.6	8 49	1	15 57	6	
HYDERABAD	50.02	301.1	8 47K	-3	15 51	-3	10 44 PP
ISINOMAKI	50.02	20.0	8 50	0	16 1	6	
MIZUSAWA	50.59	19.4	8 56	2	16 9	7	
MORIOKA	51.12	19.1	8 59	1	16 17	7	
MIYAKO	51.34	19.9	9 0	0	16 17	4	
HATINOHE	51.99	19.0	9 4	-1	16 24	2	
AOMORI	52.02	18.2	9 5	0	16 30	8	
CHANGCHUN	52.11	3.2	10 4A	58			
VLADIVOSTOK	52.12	9.3	9 4	-2	16 27	4	21 53 SSS
HAKODATE	52.92	17.7	9 12	0			
MORI	53.13	17.4	9 21	8			11 48
MURORAN	53.45	17.6	9 16	0			
SUTTSU	53.67	16.7	8 58	-19			
URAKAWA	53.86	19.2	9 17	-2			
SAPPORO	54.25	17.5	9 16	-5	16 51	-1	
POONA	54.43	299.9	9 20A	-3	16 52	-3	16 59 PS
MACQUARIE I.	54.63	154.5	9 24	0			
ONERAHI	54.93	128.0	9 27	1			
ROXBURGH	54.95	140.7	9 23	-4	16 53	-9	
KAIMATA	55.06	136.7	9 35	8			
KUSIRO	55.14	20.0	9 26	-2	17 11	7	
COBB RIVER	55.42	134.6	9 30	0			
BOMBAY	55.47	299.8	9 27	-3	17 7	-2	20 51 SS
AUCKLAND	55.57	129.1	9 31	0	17 32	22	19 22 SCS
GEBBIES PASS	56.35	137.5	9 36	-1			
KARAPIRO	56.44	130.1	9 38A	1			
WAKKANAI	56.49	16.6	9 26	-12	17 30	8	
CHATEAU	56.82	131.6	9 39A	-1			
WELLINGTON	56.93	134.2	9 40A	-1	17 43	15	16 34
DEHRA DUN	57.05	314.5	9 47	5	17 33	4	13 3 PPP
ULAN-BATOR	57.66	348.1	9 45	-1			
Y.-SAKHLINSK	58.25	16.6	9 49	-1	17 47	2	13 21 PPP
WILKES	58.34	185.4	9 49K	-2	17 47	1	10 2 10 53 PCP

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961										PAGE 254	
MIRNY	61.29	192.7	10 10	-1	18 33	9				12 40	PP
IRKUTSK	62.31	347.9	10 16A	-2							
KARACHI	62.81	303.4	10 18	-3							
WARSAK DAM	63.67	314.5	10 26	-1							
AFIAMALU	65.15	101.4	10 34	-2							
QUETTA	65.20	308.7	10 34A	-3	19 13	0	10 49		13 2	PP	
PETROPAVLOVK	68.74	22.8	10 58	-1	20 3	7			13 36	PP	
SEMI PALATNSK	68.82	332.9	10 59	0	19 58	1			11 42		
TASHKENT	69.10	320.2	11 0	-1	20 3	3			12 17		
CAPE HALLETT	70.13	165.9	11 7K	0	20 18	6			13 28	PP	
YAKUTSK	70.51	3.9	11 10	0	20 18	2					
MAWSON	70.73	200.4	11 12K	1					11 26		
MAGADAN	71.60	15.0	11 16	0	20 38	9			21 9	PS	
TANANARIVE	72.54	252.8	11 25A	3	20 55	15			15 32	PPP	
SCOTT BASE	73.08	171.0	11 26A	1	20 32	-14	11 46		14 4	PP	
ASHKABAD	74.96	312.9	11 36	0	21 9	2			12 50		
SHIRAZ	76.59	303.1	11 43K	-2	21 24	-1					
TEHERAN	79.39	308.7	11 59	-2	22 11	16					
TIKSI	80.03	2.2	12 2	-2					14 59	PP	
SOUTH POLE	81.62	180.0	12 14	2	22 26	8			13 34		
SVERDLOVSK	81.96	330.9	12 15	1	22 23	2			15 25	PP	
GORIS	84.33	311.2	12 45	19					23 11		
LCO, MARQUES	85.71	244.5	12 36A	3							
TIFLIS	86.04	313.0	12 35	0	22 59	-3			13 6		
BYRD STATION	86.51	171.2	12 39	2	23 6	0			16 2	PP	
PRETORIA	89.68	244.2	12 53	1							
GRAHAMSTOWN	89.82	236.5	12 32	-21							
BULAWAYO	90.17	249.7	12 54K	0							
BROKEN HILL	91.19	255.3	13 0A	1							
KSARA	91.33	303.8	12 59	-1	23 40	-11	13 32		16 39	PP	
JERUSALEM	91.56	301.7	13 1A	0							
KIMBERLEY	92.15	240.7	13 4A	0							
MOSCOW	93.67	325.7	13 9	-2	24 20	9			17 0	PP	
KHEYS	94.14	351.5	13 15	2	23 47	-28			24 4	SKKS	
SIMFEROPOL	94.31	314.6	13 12	-1					17 0	PP	
HERMANUS	95.57	234.1			23 58	10			24 37	S	
APATITY	97.14	337.2			23 57	1			17 25	PP	
ISTANBUL KA.	97.58	310.4	13 27	-1	24 1	2			17 21	PP	
ISTANBUL UN.	97.64	310.3	13 32	3							
COLLEGE	97.71	25.5	13 30	1							
PULKOVO	98.01	329.3			24 5	4			17 36	PP	
KAJAANI	99.35	333.6	14 10	34					17 31	PP	
SODANKYLA	99.75	337.0	13 27	-11					17 16	PP	
BUCHAREST	99.96	313.6	17 46K	247	24 19	8			18 53		
CAMPULUNG	100.75	314.5	17 51	248					18 34		
NURMI JARVI	100.84	330.0	13 46	3					17 45	PP	
LWOW	101.45	319.1							26 48	PS	
SOPIA	101.94	311.8			24 28	8			16 57		
KIRUNA	102.09	337.6	13 48	-1	24 25	4			18 4	PP	
UMEA	102.66	333.6							17 56	PP	
BANGUI	103.72	272.5	13 55	-1					24 35		
SKALNATE PL.	103.93	318.5	18 26	269							
BELGRADE	104.00	314.0			24 38	8			18 14	PP	
KRAKOW	104.09	319.4							24 34		
UPPSALA	104.40	329.7	17 46	227					18 22	PP	
NORD	104.67	354.2							18 17	PP	
CHORZOW	104.67	319.7	18 16	256					18 35	PCP	
BRATISLAVA	106.09	317.6	18 19	777							
VIENNA-H.	106.57	317.8	18 4	777					19 0	PP	
COPENHAGEN	107.85	325.9			24 53	6			18 51	PP	
REGGIO CALA.	107.92	307.2							18 39	PP	
LJUBLJANA	108.07	315.6	17 41	777					18 48	PP	
COLLMBERG	108.32	321.3	18 1	777					18 41	PP	
TRIESTE	108.65	315.3			24 57	7			18 51	PP	
JENA	109.27	321.0	17 57	777	24 38	-15			18 45	PP	
PADOVA	109.99	315.2							19 28	PP	
ROME	110.01	311.5			24 58	2			18 51	PP	
RESOLUTE	110.56	9.8	18 27	2					29 37		
FLORENCE X.	110.67	313.6							19 21	PP	
STUTTGART	111.15	319.1	18 7	-19					19 21	PP	
MUNSTER	111.47	322.7	18 37	10					19 4		
KARLSRUHE	111.66	319.5							19 25	PP	
PAVIA	111.91	315.3							19 1	PP	
BENSBERG	111.99	321.7							19 33	PP	
STRASBOURG	112.17	319.1							19 21	PP	
DE BILT	112.88	323.3							19 23	PP	
ISOLA	113.58	314.6	18 30	-1					19 54	PP	
SCORESBY SD.	113.94	347.5	18 51	19					19 30	PP	
SHASTA	114.92	49.0							19 26	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 255

ABERDEEN	115.05	330.1								30 21 PPS
PARIS	115.48	320.3	18 41	6						19 37 PP
GARCHY	115.55	318.6	18 41	6						19 32 PP
MINERAL	115.58	49.3	18 37K	2						
DURHAM	115.77	327.5								20 2 PP
LICK	116.09	52.6	18 43A	7						
KEW	116.32	323.8								19 48 PP
RENO	117.09	49.9	18 53	15						20 0 PP
TAMARRASSET	117.48	291.2	18 41	3	25 38	13				19 38 PP
FRESNO	117.63	52.9								19 34 PP
ALGIERS UNI.	118.03	307.2	18 40	1						19 50 PP
HUNGRY HORSE	118.59	39.0	18 43	2						
BAGNERES	118.71	314.7								18 46 PP
TORTOSA	119.07	312.2	18 42	1						
PASADENA	119.42	55.6	18 46	4	28 1	149				30 23 PS
EUREKA	119.99	49.2	18 45	2						20 34 PP
RELIZANE	120.21	306.5								19 54 PP
BUTTE	120.36	41.1	18 43	-1						43 53
ALICANTE	120.42	309.6			25 51	16				20 23 PP
RUTH	120.80	49.2			28 12	156				20 6 PP
BOZEMAN	121.48	41.0	18 48	2						28 30
SALT LAKE C.	122.64	46.6	18 50	2						28 53
TOLEDO	122.67	312.2	18 51	3	25 42	0				20 32 PP
GRANADA	123.11	309.1			25 55	11				36 49 SS
GLEN CANYON	123.99	50.9	18 54	3						22 28
COIMBRA	125.72	314.0	18 56	2						
TUCSON	125.83	56.2	18 58	3	28 42	170				21 2 PP
RAPID CITY	127.20	39.8	18 59	2						
WICHITA MTS.	134.64	48.7	19 5	-6						21 47 PP
FAYETTEVILLE	137.16	44.5	19 9	-7						22 9
MBOUR	139.27	282.2	19 26	6						22 25 PP
SHAWINIGAN	140.01	15.8	19 15	-6						
MORGANTOWN	143.31	28.7	19 25K	-2						
HALIFAX	143.64	6.6	19 25A	-3						
WESTON	144.25	16.8	19 29	0						47 17 SSS
PALISADES	144.66	20.8	19 28	-1				20 57		29 21 PKKP
WASHINGTON	145.22	26.4	19 31	1						20 2 PP
GEORGETOWN	145.22	26.4	19 31	1						
ANTOFAGASTA	145.87	159.6	19 36	5						
CHAPEL HILL	146.64	31.8	19 35	2						
LA PAZ	153.32	158.2	19 47	4	26 38	-3				
HUANCAYO	153.41	139.7	19 52A	9				20 35		
CHINCHINA	162.29	100.1	19 57	3						20 46 PKP2
FUQUENE	164.23	99.8	19 58A	2						20 55 PKP2
SAN JUAN	167.43	37.4	19 59	1	27 4	10				25 36 PP
CARACAS	171.08	76.0	19 59	-1						25 27 PP
TRINIDAD	176.09	55.5	20 6	4						

MARCH 16 18.H 21.M 17.S EPICENTRE -8.44 121.91 DEPTH= 62.KM

A=-0.52287 B= 0.83984 C=-0.14583 D= 0.8489 E= 0.5285
G= 0.0771 H=-0.1238 K=-0.9893 HT= 6.7

DEPTH OF FOCUS= 0.005R

SE= 2.89

	DELTA DEG.	AZ. DEG.	P			S			*PP		SUPP.	
			M	S	S	M	S	S	M	S		
LEMBANG	14.25	275.5	3 19K	-1	6 5	8						
DJAKARTA	15.12	277.5	3 29	-2	6 19	1						
MANILA	22.98	358.0	5 6	6	9 20	18						
PERTH	24.06	192.7	5 14	3	9 36	15						
NHATRANG	24.10	328.2	5 13	2	9 30	9						
BAGUIO CITY	24.74	357.0	5 24	7	9 44	12						
PORT MORESBY	24.96	94.1	5 19	0	9 48	12						
MEDAN	26.06	296.4	5 26	-4	9 58	4				7 33		
CHARTERS TS.	26.25	118.8	5 30	-1	10 22	25						
ADELAIDE	30.58	152.2	6 9K	-1	11 5	-1						
HONG KONG	31.48	346.2	6 20	2	11 27	7						
CANTON	32.44	345.2	6 29	3	11 43	7						
BRISBANE	34.74	126.8	6 48	2	12 20	9						
MELBOURNE	35.92	148.1	6 57	1			12 3					
CANBERRA	36.47	141.2	7 1K	0	12 47	9						
RIVERVIEW	36.93	137.4	7 5A	0	12 54	9						
KUNMING	38.23	331.3	7 1B	2	13 12	7				8 50 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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961										PAGE 256	
ZO-SE	39.32	359.0	7 26	1	13 26	5					
TARRALEAH	40.06	151.4	7 32K	1							
NANKING	40.38	355.9	7 35	1	13 43	6					
MOORLANDS	40.52	150.9	7 35K	0						9 15 PP	
CHITTAGONG	42.50	316.6	7 52	1	14 14	6				9 33 PP	
CHENG TU	42.50	336.9	7 50	-1	14 12	4					
SIAN	44.21	344.5	8 3	-2							
COLOMBO	44.59	288.7	8 11	3	14 35	-4					
SHILLONG	44.69	320.0	8 8	-1	14 42	2					
NOUMEA	44.93	113.1	8 12	1							
MADRAS	46.60	296.8	8 28	4	15 7	0					
MATUSIRO	47.29	17.9	8 26A	-3	15 17	0					
LANCHOW	47.41	340.0	8 30	0							
BOKARO	47.67	313.1	8 33	1	15 21	-1				10 23 PP	
KODAIKANAL	47.96	291.9								15 35	
LHASA	48.12	323.1	8 35	-1	15 34	5					
PEKING	48.52	354.1	8 37	-2	15 37	3					
CHATRA	48.62	317.3	8 38	-2							
HYDERABAD	50.05	301.1	8 49	-2	15 51	-5				19 15 SS	
VLADIVOSTOK	52.12	9.3	9 3	-3							
POONA	54.46	299.9	9 20	-3	16 54	-2					
BOMBAY	55.50	299.8	9 31	0	17 8	-2				10 43 PP	
KARAPIRO	56.42	130.2	9 38	0							
CHATEAU	56.80	131.6	9 40	0							
DEHRA DUN	57.07	314.5			17 31	0				13 24 PPP	
ULAN-BATOR	57.67	348.1	9 44	-2							
Y.-SAKHLINSK	58.24	16.6	9 49A	-1	17 50	4					
WILKES	58.34	185.4	9 45	-6	17 50	3				19 48 SCS	
IRKUTSK	62.32	347.9	10 21	3	18 44	6					
WARSAK DAM	63.69	314.5	10 24	-3							
AFIAMALU	65.12	101.4	10 30	-7							
QUETTA	65.23	308.7	10 34	-3	19 11	-3				13 1 PP	
ALMATA	65.68	325.5	10 39	-1							
FRUNSE	66.74	324.0	10 47	0	19 40	7					
ANDIJAN	66.86	321.1	10 47	-1	19 40	6					
NAMANGAN	67.43	320.9	10 50	-1	19 44	3					
STALINABAD	67.99	317.4	10 53	-2	19 50	2					
PETROPAVLOVK	68.73	22.8	10 58	-1	20 6	10					
SEMIPALATNSK	68.84	332.9	10 58	-2	20 2	4					
TASHKENT	69.12	320.2	11 2	0	20 3	2					
CAPE HALLETT	70.12	165.9	11 7	-1						24 59 SS	
YAKUTSK	70.51	3.9	11 15	5							
TANANARIVE	72.57	252.8	11 25A	3						11 47	
SCOTT BASE	73.08	171.0	11 26	1							
SHIRAZ	76.62	303.1	11 43	-3	21 26	0					
TIKSI	80.03	2.2	12 2	-3							
SOUTH POLE	81.61	180.0	12 14	1							
SVERDLOVSK	81.98	330.9	12 16	1							
MAKHACH-KALA	84.48	314.7	12 27	0							
TIFLIS	86.07	313.0	12 35	0							
BYRD STATION	86.50	171.2	12 38	1						16 10 PP	
BULAWAYO	90.20	249.7	12 56K	1							
BROKEN HILL	91.22	255.3	13 0	0							
KSARA	91.36	303.8	13 5	5	23 55	3				16 28 PP	
KIMBERLEY	92.18	240.7	13 13A	9							
MOSCOW	93.69	325.7								16 55 PP	
KHEYS	94.15	351.5								16 14 PP	
SIMFEROPOL	94.33	314.6								17 9 PP	
HELWAN	94.64	299.4	13 6	-9						21 48	
ISTANBUL KA.	97.61	310.4			24 2	2				26 17 PS	
COLLEGE	97.69	25.5	13 27	-2					13 45		
ROME	110.04	311.5								28 32 PS	
RESOLUTE	110.56	9.8	18 30	5							
STUTTGART	111.17	319.1								19 36 PP	
ISOLA	113.61	314.6	19 34	63							
TAMANRASSET	117.51	291.2	18 41	2	25 39	13				19 51 PP	
HUNGRY HORSE	118.57	39.0	18 42	1							
EUREKA	119.97	49.2	18 45	1							
FLAMING GRGE	124.33	45.7	18 52	0							
WICHITA MTS.	134.62	48.7	19 3	-9						21 50 PP	
FAYETTEVILLE	137.14	44.5	19 15	-1						21 56 PP	
SHAWINIGAN	140.00	15.8	19 20	-2							
MORGANTOWN	143.30	28.8	19 27	0							
WESTON	144.24	16.9	19 28	-1							
PALISADES	144.65	20.9	19 29	-1						41 29 SS	
ANTOFAGASTA	145.86	159.6	19 39	7							
CHAPEL HILL	146.63	31.9	19 37	4						19 57	
COLUMBIA	146.94	36.4	19 40	6							

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 257

AREQUIPA	151.93	151.8	19 52	11	
LA PAZ	153.30	158.2	19 47	4	20 10 PKP2
FUQUENE	164.20	99.8	20 OK	4	24 38 PP
CARACAS	171.05	76.1	20 2	1	25 9 PP

MARCH 17 14.H 6.M 36.S EPICENTRE -24.03-174.68 DEPTH= 0.KM

A=-0.91039 B=-0.08470 C=-0.40499 D=-0.0926 E= 0.9957
G= 0.4033 H= 0.0375 K=-0.9143 HT= 3.6

SE= 4.44

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S S	O-C S	*PP M S	SUPP. M S
RAOUL ISLAND	5.95	208.4	1 29	-2	2 31	-10		
AFIAMALU	10.44	15.8						3 47
ONERAHI	15.05	216.5						4 0
KARAPIRO	16.17	208.8	3 53	3				
WELLINGTON	19.33	204.6			7 42	-20		
GEBBIES PASS	22.21	204.9			8 45	-15		
BRISBANE	29.46	256.5	6 4	-3				10 17
CANBERRA	33.32	241.8	6 41	0				
CHARTERS TS.	36.33	268.4	7 1	-6				
MELBOURNE	36.95	238.5	7 11	-1				
PORT MORESBY	39.19	285.2	7 27	-4	13 45	13		
ADELAIDE	41.66	243.8	7 49	-2				
CAPE HALLETT	49.04	186.1			16 18	23		
SCOTT BASE	54.59	184.7	9 38	6				
MUNDARING	60.62	245.7	10 12	-3				
BYRD STATION	60.67	170.5	10 20	5				
WILKES	62.14	206.1						20 45 SCS
SOUTH POLE	66.11	180.0	10 56	5				
MATUSIRO	74.86	322.3	11 45	1	21 24	3		25 50 SS
LEMBANG	76.03	268.7	11 48	-2				
LICK	78.84	40.5	12 14K	8				12 24 PCP
PASADENA	78.93	44.8	12 22	16	22 30	25		
PETROPAVLOVK	80.16	344.0	12 16	3				
Y.-SAKHLINSK	80.49	332.0	12 17	2				
MINERAL	80.88	38.2	12 32K	15				
BOULDER CITY	82.21	45.1	12 34	10				
ZO-SE	82.30	308.8	12 25	1				
TUCSON	82.74	50.1	12 39	12	22 53	9	13 6	
TUCSON TELE.	82.87	50.0	12 40	13				
HONG KONG	83.06	298.0	12 30	2	22 52	4		
EUREKA	83.63	41.7	12 39	8				
CANTON	84.11	298.3	12 36	2	23 26	28		
NANKING	84.54	308.5	12 38	2				
GLEN CANYON	84.90	45.8	12 45	7				
CHANGCHUN	87.06	321.1	12 50	2				
SANTA LUCIA	87.90	125.7			23 26	-9		29 48 SS
MAGADAN	87.98	343.2	12 54	1				
MEDAN	88.37	274.6	13 7	12				
FLAMING GRGE	88.55	43.5	12 41	-14				
HUNGRY HORSE	90.16	35.6	13 10	7				
PEKING	90.55	314.1	13 7	2	23 32	-27		
COLLEGE	91.03	11.1	13 10	3				16 51 PP
WICHITA MTS.	92.79	53.2	13 22	7				14 8
KUNMING	93.66	295.7	13 22	3	23 53	-33		
CHENG TU	94.96	301.2	13 28	3	24 47	10		
TIKSI	102.94	344.3	13 39	-22				
PALISADES	113.21	54.0			24 46	-39		29 26 PS
QUETTA	125.36	290.9	19 1	-2				
NURMI JARVI	141.15	344.9	19 35	3				
LWIRO	145.30	224.4	19 43A	4				
GOTEBORG	146.02	353.6	19 47	6				
LWOW	150.40	335.1						21 1
WITTEVEEN	151.24	358.3	20 8	19				
KSARA	151.62	297.1	18 51	-58			19 40	29 32 SKKS
MUNSTER	152.05	357.0	20 5	15				
COLLMBERG	152.14	349.7	19 56	6			20 26	23 53 PP
SKALNATE PL.	152.29	338.7	20 6	16				
JERUSALEM	152.53	293.0	20 2	11				
JENA	152.71	351.3	20 3	12				20 39
PRUHONICE	153.12	346.8	20 4	12				
ISTANBUL KA.	153.87	316.2	19 54	1				23 49 PP
KASPERSKE H.	154.12	347.5	20 4	11			20 52	
BRATISLAVA	154.16	341.7	19 56	3				

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961						PAGE 258
STUTT GART	155.11	353.8	20	0	6	20 24
STRASBOURG	155.43	356.1	19	56	1	20 34
HELWAN	156.12	289.8	20	9	13	20 33
BANGUI	156.63	215.3	20	3	7	20 42
LJUBLJANA	156.81	343.6	20	10	13	
MBOUR	156.90	110.5	20	8	11	24 16 PKP2
TRIESTE	157.38	344.5				20 34 PKP2
ISOLA	159.85	356.4	20	48	48	21 14
TOLEDO	162.33	24.4				21 1 PKP2
ALGIERS UNI.	167.16	8.2	20	22	15	25 6
TAMANRASSET	178.74	188.6	20	18	6	25 58 PP

MARCH 17 20.H 10.M 37.S EPICENTRE -23.69-175.95 DEPTH= 33.KM

A=-0.91447 B=-0.06470 C=-0.39945 D=-0.0706 E= 0.9975
G= 0.3985 H= 0.0282 K=-0.9168 HT= 3.7

SE= 1.95

	DELTA DEG.	AZ. DEG.	P		O-C S	S O-C			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
RAOUL ISLAND	5.82	197.2	1	25	-1	2	32	0				
ONERAHI	14.67	212.7	3	40	13							
KARAPIRO	15.96	205.2	3	44	1							
WELLINGTON	19.19	201.7	4	28	4	7	32	-21				
GEBBIES PASS	22.06	202.4				8	36	-14				
BRISBANE	28.41	255.9	5	51	-3	11	7	30				
CANBERRA	32.47	241.0	6	30	1							
CHARTERS TS.	35.18	268.4	6	51	-2						12	23
MOORLANDS	35.75	229.5	6	59	1							
MELBOURNE	36.15	237.8	6	59	-2						16	0
TARRALEAH	36.22	230.0	7	4	2							
RABAUL	36.34	297.3	7	7	4							
PORT MORESBY	37.98	285.7	7	15	-1	13	26	20				
ADELAIDE	40.78	243.4	7	38K	-2						9	44 PPP
KIPAPA	48.11	22.7	8	37	-1							
CAPE HALLETT	49.27	185.5				16	2	12				
SCOTT BASE	54.84	184.4							9	43	11	31 PP
MUNDARING	59.71	245.7	10	2	-2							
BYRD STATION	61.20	170.5	10	11	-3							
WILKES	61.94	206.0				19	5	26			15	5 PCS
SOUTH POLE	66.46	180.0	10	46	-2							
TUKUBASAN	72.62	324.0	11	18A	-8	20	49	2			21	44 SCS
MATUSIRO	73.88	323.0	11	32	-1	20	45	-16			21	57 SCS
LEMBANG	74.88	269.1	11	39K	0							
VINEYARD	79.11	41.8	12	3	0							
BERKELEY	79.31	40.5	12	5	1	22	9	8				
LICK	79.34	41.2	12	5K	1				12	25		
PASADENA	79.51	45.5	12	6	1	22	11	8				
PETROPAVLOVK	79.51	344.7	12	4	-1	22	12	9				
Y.-SAKHLINSK	79.65	332.7	12	6A	0	22	8	4				
FRESNO	80.10	42.6	12	8	0							
SHASTA	81.11	38.3	12	13	0							
ZO-SE	81.18	309.4	12	14	0	22	36	16				
MINERAL	81.33	38.9	12	17A	2							
UGLEGORSK	81.54	333.6	12	15A	-1	22	34	10				
RENO	81.86	40.4	12	18K	1							
HONG KONG	81.87	298.6	12	19	2	21	55	-32			22	41 *SS
VLADIVOSTOK	81.96	324.3	12	20	2							
CANTON	82.93	298.9	12	23	0	22	50	12				
NANKING	83.42	309.1	12	26	1	22	54	11				
TUCSON	83.42	50.7	12	26	1	22	43	0			15	53 PP
TUCSON TELE.	83.54	50.7	12	28	2							
EUREKA	84.15	42.3	12	28	-1				12	43		
GLEN CANYON	85.50	46.4	12	37	1							
CHANGCHUN	86.06	321.7	12	40A	2	23	7	-2				
TACUBAYA	86.19	67.0				23	8	-2	13	2	16	18 PP
MEDAN	87.18	275.1	12	44	0							
MAGADAN	87.32	343.8	12	43	-2	23	25	4				
PENTICTON	88.25	33.0	12	49	0							
SANTA LUCIA	89.05	126.2	14	27	94	23	20	-17			29	37 SS
FLAMING GRGE	89.11	44.0	12	53	0							
PEKING	89.47	314.7	12	55A	0	23	52	11				
BUTTE	90.02	38.5	12	55	-2							
HUNGRY HORSE	90.56	36.1	12	59	-1							
COLLEGE	90.91	11.6	13	1	-1				13	16		

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961					PAGE 259				
SIAN	91.65	306.8	13 6	1					
KUNMING	92.47	296.2	13 12	3	24 25	18			
WICHITA MTS.	93.51	53.6	13 12	-2				23 46	SKKS
CHENGTU	93.78	301.7	13 16	1	24 32	13			
RAPID CITY	94.65	43.7	13 18	-1					
YAKUTSK	95.74	337.4	13 24	0					
FAYETTEVILLE	97.35	53.9	13 32K	1				16 37	
LA PAZ	99.00	112.4						17 6	
TIKSI	102.29	344.6							
RESOLUTE	110.31	16.3	18 30	2					
PALISADES	113.94	54.1			25 25	6		20 1	PP
KHEYS	118.84	351.3						13 24	
WARSAK DAM	120.91	296.5	18 47	-2					
ANDIJAN	121.13	304.4	18 50	1					
TASHKENT	123.51	304.9						20 35	
QUETTA	124.15	291.3	18 57A	2					
SVERDLOVSK	127.68	324.6	19 11	9					
BULAWAYO	130.29	210.8	19 9	2					
SODANKYLA	134.10	348.1	19 6	-8				22 58	SKP
KIRUNA	134.70	351.3	19 18	3					
BROKEN HILL	135.20	214.6	19 18	2					
SHIRAZ	136.52	288.7	19 20	1				23 0	
KAJAANI	136.71	345.1	19 21	2					
MAKHACH-KALA	139.44	309.1	19 26	2				23 1	PKS
MOSCOW	139.59	331.1	19 40	16					
NURMI JARVI	140.51	344.1	19 22	-4					
TIFLIS	141.70	308.0	19 21	-7				22 36	PKS
UPPSALA	142.62	348.7	19 26	-4					
LWIRO	144.72	226.4	19 34A	1					
GOTEBORG	145.54	352.5	19 35	0					
COPENHAGEN	147.45	351.2	19 43	5					
SIMFEROPOL	147.63	318.3	19 44	6					
KI SHI NEV	149.41	325.7	19 43	2					
LWOW	149.59	334.1	19 50	9				20 19	
KSARA	150.43	297.2	19 44	1				23 29	PP
WITTEVEEN	150.84	356.7	19 53	10					
KRAKOW	150.90	338.7	19 49	6				19 59	PKP2
JERUSALEM	151.33	293.2	19 52A	8					
RACIBORZ	151.43	340.8	19 52	8				20 1	PKP2
SKALNATE PL.	151.53	337.4	19 53	9				20 26	PKP2
COLLMBERG	151.58	348.2	19 52A	8				23 38	PP
MUNSTER	151.63	355.3	19 43	-1					
JENA	152.18	349.8	19 48	3				23 38	PP
PRUHONICE	152.50	345.2						19 53	PP
BENSBERG	152.67	355.7	19 59	13				21 46	
ISTANBUL KA.	152.81	315.6	19 45	-1				23 33	PP
BRATISLAVA	153.45	340.2	19 50	3				20 23	PKP2
KASPERSKA H.	153.52	345.9	19 50	3					
VIENNA-H.	153.60	341.3	19 48	1					
STUTT GART	154.63	351.9	19 49	0				20 15	
FOLINIERE	154.71	7.0	20 13	24					
HELWAN	154.91	290.1	19 50	1				20 44	
STRASBOURG	154.98	354.1	19 53	4				27 23	
BELGRADE	155.03	331.6	20 8K	19					
BASLE	156.04	354.1	19 13	-37					
LJUBLJANA	156.13	341.8	19 51A	0				20 34	
BESANCON	156.44	356.7	20 23	32					
GARCHY	156.44	1.7	19 52	1				20 18	
TRIESTE	156.72	342.6	19 52	1				20 29	
ATHENS	157.97	314.8	20 27	34					
MBOUR	158.11	111.2	19 55	2				20 44	PKP2
PAVIA	158.15	350.2						29 51	
FLORENCE X.	159.10	345.3	19 55	1					
BAGNERES	160.40	8.5	20 1	5				20 49	
ROME	160.52	340.8	19 55	-1				24 24	PP
TOLEDO	162.46	21.1	20 2	4				24 34	PP
ALGIERS UNI.	166.93	3.5	20 4	2				24 54	PP
TAMANRASSET	178.37	236.7	20 8	1	20 27			25 49	PP

MARCH 17 22.H 40.M 17.S EPICENTRE 34.24 141.32 DEPTH= 47.KM

A=-0.64672 B= 0.51770 C= 0.56012 D= 0.6249 E= 0.7807
G=-0.4373 H= 0.3500 K=-0.8284 HT= 0.4

DEPTH OF FOCUS= 0.002R

SE= 3.17

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 260

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
NERA	1.40	299.1	0	23	-1	0	34	-8				
TYOSI	1.52	345.4	0	26K	0	0	44	-1				
OSIMA	1.69	288.7	0	24K	-4	0	36	-13				
HATIDYOZIMA	1.71	228.7	0	29	1	0	48	-2				
YOKOHAMA	1.81	311.2	0	28	-2							
TOKYO C.M.O.	1.93	318.4	0	30K	-1	0	54	-1				
HONGO	1.94	319.4	0	22	-10						0	55
AJIRO	2.00	294.3	0	30K	-2	0	54	-3				
MISIMA	2.14	294.8	0	33	-1	0	57	-3				
KAKI OKA	2.19	335.1	0	35	0	0	59	-2				
TUKUBASAN	2.21	333.4	0	34A	-1							
MITO	2.24	342.1	0	35	-1	1	4	1				
HUNATU	2.44	301.6	0	37	-2	1	2	-6				
KUMAGAYA	2.48	320.6	0	43	4							
TITIBU	2.53	313.9	0	41	1							
UTUNOMIYA	2.59	333.1	0	40	-1	1	7	-4				
OMAESAKI	2.59	278.8	0	40	-1	1	11	0				
KOHU	2.68	302.9	0	40	-2	1	15	1				
ONAHAMA	2.72	352.9	0	41	-2	1	11	-4				
MAEBASI	2.83	320.1	0	44	0	1	4	-14				
SHIRAKAWA	3.01	342.9	0	46	-1	1	19	-3				
HAMAMATU	3.01	280.1	0	46	-1	1	14	-8				
OIWAKE	3.08	313.3	0	48	0	1	22	-2				
IIDA	3.14	294.9	0	48	-1	1	29	4				
MATUMOTO	3.40	307.1	0	52	0							
MATUSIRO	3.42	312.9	0	51K	-2	1	31	-1				
NAGANO	3.52	314.4	0	55	1	1	34	-1				
NAGOYA	3.70	285.7	0	53	-3	1	38	-1				
TAKADA	3.79	319.6	0	58	0	1	42	0				
TAKAYAMA	3.84	300.8	1	0	2							
TORISIMA	3.85	193.3	0	57	-2	1	37	-6				
GIHU	3.92	288.4	0	58	-2	1	45	0				
SENDAI	4.03	355.3	0	58A	-3	1	44	-4				
KAMEYAMA	4.05	279.9	1	6	5	1	51	3				
YAMAGATA	4.07	349.2	1	1K	-1	1	47	-2				
NIIGATA	4.10	334.0	1	3	1	1	50	0				
TOYAMA	4.16	307.2	1	1	-2	2	5	14				
ISINOMAKI	4.18	360.0	1	2A	-1	1	46	-5				
HIKONE	4.30	285.2	1	5	0	2	1	6				
AIKAWA	4.51	327.5	1	8	0	1	45	-15				
TSURUGA	4.54	289.5	1	13	5	1	59	-1				
HUKUI	4.54	294.8	1	21	13							
NARA	4.56	277.0	1	10	1							
KYOTO	4.68	281.1	1	10	0	2	7	3				
WAZIMA	4.76	312.3	1	19	8							
ABUYAMA	4.79	279.1	1	10	-2							
MIZUSAWA	4.88	358.2	1	14	1	2	5	-4				
SUMOTO	5.31	272.8	1	21K	2	2	21	1				
MIYAKO	5.42	5.3	1	27	6	2	15	-8				
MORIOKA	5.45	358.8	1	21	0	2	17	-6				
TOYOOKA	5.50	285.3	1	27	5	2	28	4				
AKITA	5.55	350.2	1	25	3							
TAKAMATU	6.02	272.8	1	29	0	2	50	12				
AOMORI	6.58	356.4	1	24	-13	2	38	-13				
HAKODATE	7.57	356.8				3	14	-1				
HAMADA	7.66	277.5				3	20	2			4	3
URAKAWA	7.98	7.8	1	59	3	3	18	-8				
OOTA	8.15	265.6				3	59	29				
HIROO	8.18	10.5	1	55	-4	3	21	-10				
OBHIRO	8.79	9.1	2	19	12							
KUSIRO	9.05	14.5	2	5	-6	3	41	-12				
NEMURO	9.66	18.8				3	54	-14				
VLADIVOSTOK	11.51	323.1	2	45	0							
Y.-SAKHLINSK	12.81	4.3	3	1	-1	5	30	6				
GUAM	20.92	170.7	4	42	1							
YAKUTSK	28.76	348.6	5	56	0	10	45	5				
TIKSI	38.03	353.6	7	15	-1							
CHITTAGONG	44.78	268.1	8	14	3							
SEMPALATNSK	46.62	309.6	8	23A	-3							
CHATRA	46.77	276.2	8	25	-2							
COLLEGE	51.50	31.0	9	6	3							
CHARTERS TS.	54.23	174.3	9	22	-2							
WARSAK DAM	56.65	291.1	9	37	-4							
SVERDLOVSK	57.21	319.8									10	44
QUETTA	61.74	288.8	10	14K	-2							

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 262

PETROPAVLOVK	68.68	22.9	9	57	-56				
SEMIPALATNSK	68.72	332.9	10	49	-4				
TASHKENT	69.00	320.2	11	0	5				
YAKUTSK	70.42	3.9	11	3	0				
MAGADAN	71.53	15.1	11	10	0				
TANANARIVE	72.51	252.8	11	19	3				11 49
SCOTT BASE	73.18	171.0	11	20	0				
SHIRAZ	76.50	303.1	11	43	4	21	19	6	21 42 SKS
TIKSI	79.95	2.3	11	56	-2	21	56	6	
SOUTH POLE	81.70	180.0	12	8	1				
SVERDLOVSK	81.86	330.9	12	8	0				
TIFLIS	85.94	313.0	12	29	1				
BYRD STATION	86.60	171.2	12	32	1				
BULAWAYO	90.15	249.7	12	50	2				
BROKEN HILL	91.16	255.3	12	55	2				
KSARA	91.24	303.8	12	44	-9				
MOSCOW	93.57	325.7							17 0 PP
COLLEGE	97.65	25.5	13	23	0				
PRUHONICE	107.45	319.7							18 48 PP
ROME	109.92	311.5							29 40
RESOLUTE	110.49	9.8	18	18	0				
TAMANRASSET	117.40	291.3	18	35	3				19 51 PP
HUNGRY HORSE	118.56	38.9	18	35	1				
EUREKA	119.97	49.1	18	33	-4				
GLEN CANYON	123.97	50.8	18	39	-6				
FLAMING GRGE	124.32	45.7	18	34	-11				
TUCSON TELE.	125.89	56.0	18	51	3				
WICHITA MTS.	134.62	48.6	19	7	2				21 48 PP
MORGANTOWN	143.26	28.6	19	20	-1				
PALISADES	144.60	20.7	19	22	-1				40 12 SS
CHAPEL HILL	146.59	31.7	19	33	7				
AREQUIPA	152.05	151.9	19	48	13				
HUANCAYO	153.51	139.7	19	54	17				

MARCH 18 14.H 54.M 56.S EPICENTRE -49.90 163.40 DEPTH= 0.KM

A=-0.61976 B= 0.18476 C=-0.76273 D= 0.2857 E= 0.9583
G= 0.7309 H=-0.2179 K=-0.6467 HT= -5.4

SE= 2.73

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
MACQUARIE I.	5.36	209.0	1	17	-7							
ROXBURGH	5.96	44.4	1	30	-2	2	34	-8				
GEBBIES PASS	8.86	49.2	2	11	-2	3	47	-8				
KAIMATA	9.23	40.0	2	19	1	3	59	-5				
COBB RIVER	10.97	40.1	2	39	-3							
WELLINGTON	11.72	47.0	2	52	0							
FORT NELSON	13.07	296.1	3	3	-7	5	24	-13				
MOORLANDS	13.47	297.5	3	13	-2							
TONGARIRO	13.73	43.5	3	16	-3	5	45	-8				
CHATEAU	13.74	43.5	3	18	-1	5	44	-9				
TARRALEAH	13.97	296.5	3	19A	-3							
KARAPIRO	14.79	40.6	3	30	-3						3	50
ONERAHI	16.22	33.6	3	46	-5							
MELBOURNE	17.89	305.4	4	13	1	7	42	12				
CANBERRA	17.97	318.8	4	14	1	7	34	2			8	47 PCP
RIVERVIEW	18.42	326.0	4	19A	0	7	41	-1			4	38 PP
CAPE HALLETT	22.70	174.6	5	4A	-1							
ADELAIDE	23.40	300.3	5	12K	0	9	22	0	5	16		
BRISBANE	23.91	336.1	5	15	-2	9	18	-13				
SCOTT BASE	28.09	178.5	5	56A	0	10	39	-1			6	51 PP
WILKES	31.20	218.4	6	21K	-2	11	26	-4			7	15 PP
CHARTERS TS.	32.72	329.2	6	36	-1	11	54	1				
MIRNY	38.20	217.6	7	22	-2						16	10 SS
BYRD STATION	39.08	164.4	7	30	-1	13	37	6				
MUNDARING	39.16	279.1	7	31	-1	13	10	-22				
PERTH	39.41	278.8	7	35	1	13	37	1			8	59 PP
SOUTH POLE	40.29	180.0	7	41	0						9	14 PP
HONIARA	40.44	354.7	7	43	1							
AFIAMALU	41.22	38.2	7	54	5	14	14	11				
PORT MORESBY	42.57	335.9	8	1	1	14	28	5				
RBAUL	46.52	344.5	8	31	0	15	22	2			11	25
KERGUELEN I.	56.46	231.6	9	47	1	17	44	7				
LEMBANG	63.18	293.1	10	32K	-1	19	1	-2	10	42		
DJAKARTA	64.16	292.8	10	40	1	19	20	4			11	52

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 263

GUAM	65.18	339.9	10 48	2					
PORT STANLEY	72.87	154.6	11 30	-3	21 4	5			
MANILA	74.29	317.4	11 44	3	20 20	-55			
NHATRANG	77.91	305.8	12 3	1					
KIPAPA	78.81	36.3	12 10	3					
HONG KONG	84.07	315.2	12 34	0	22 59	0			
SANTA LUCIA	84.22	137.1	12 42K	7	23 2	2	28 36	SS	
CANTON	85.13	314.9	12 42	2	23 12	3			
PORT BLAIR	86.77	292.2	12 50	2	23 33	8	16 20	PP	
ABUYAMA	87.93	337.4	12 57	4					
TUKUBASAN	88.19	341.3	12 53	-2	23 23	-15	13 1	24 39	PS
MATUSIRO	88.90	339.9	13 0	2	23 24	-21	25 18	PS	
ZO-SE	88.92	324.8	13 1K	3	23 49	4	23 27	SKS	
HERMANUS	90.25	208.9	13 9	5	23 55	-2	25 4	PS	
PIETERMZBURG	90.52	219.6	13 5	-1					
NANKING	90.69	323.4	13 9K	3	24 6	5			
COLOMBO	91.07	279.4	12 13	-55	23 41	-23			
TANANARIVE	91.21	238.4	13 11	2	24 13	7	25 10	PS	
KUNMING	91.99	307.7	13 15K	3	24 19	6			
LCO. MARQUES	92.76	223.0	13 13	-3					
MADRAS	95.51	283.5	13 32	4	24 12	8	26 4	PS	
CHENG TU	95.93	311.8	13 34	4	24 11	4	24 52	S	
SIAN	96.66	317.3	13 37	3					
AREQUIPA	98.17	127.5					17 43		
Y.-SAKHLINSK	98.18	345.9	13 43	2	24 23	5	17 52	PP	
SHILLONG	98.18	300.1	13 41	0					
BULAWAYO	99.62	222.6	13 46	-1					
HUANCAYO	99.80	121.9					15 51		
LA PAZ	99.83	130.3	13 46	-2	24 36	9			
HYDERABAD	99.95	285.1	13 58	9	24 34	7	21 5		
BOKARO	100.33	294.6	12 55	-55			19 6		
LANCHOW	100.45	314.7	13 55	4					
CHATRA	101.82	297.5	13 49	-8					
WINDHOEK	101.90	211.6	14 2	5					
PETROPALOVK	102.62	357.1			24 41	1	18 17	PP	
POONA	103.66	282.5	14 7	2					
BOMBAY	104.58	282.0	14 15	6					
BROKEN HILL	104.68	225.2	14 19	9					
PASADENA	108.58	59.0			25 22	15	19 2	PP	
BERKELEY	109.15	53.8			26 52	103	19 9	PP	
TACUBAYA	109.30	82.6					29 7	PPS	
MAGADAN	109.57	353.2	18 41	777					
FRESNO	109.63	56.1					19 8	PP	
VERA CRUZ	111.12	85.1					21 28	PPP	
MINERAL	111.34	52.4					29 36	PS	
TUCSON	111.38	65.2	19 46	70	26 19	61	29 6	PS	
TUCSON TELE.	111.51	65.2					19 20		
RENO	111.67	54.1					19 28	PP	
IRKUTSK	113.42	324.9					19 38	PP	
EUREKA	113.67	56.5	18 45K	4			19 47	PP	
RUTH	114.03	57.3			27 38	129	19 46	PP	
YAKUTSK	114.76	343.3	19 1	18					
LWIRO	115.09	231.8					19 50		
LUANDA	115.97	213.1					20 3		
WARSAK DAM	116.22	292.2	18 45	-1					
QUETTA	116.39	286.2	18 45	-1	25 33	-5	19 56	PP	
VICTORIA	116.44	45.3	18 57	11					
MERIDA	116.59	88.6			25 52	14			
SALT LAKE C.	116.82	57.9					19 58		
PENTICTON	118.78	46.7	18 53	2					
BUTTE	120.01	53.2	18 57	4					
FRUNSE	120.43	301.5	19 0	6			20 27	PP	
WICHITA MTS.	120.44	71.1	18 55	1	26 4	12	20 34	PP	
COLLEGE	120.51	21.9	18 51	-3			20 21	PP	
BOZEMAN	120.57	54.3	18 57	3					
HUNGRY HORSE	120.83	50.4	18 56	1			20 27	PP	
TASHKENT	122.46	297.1	19 6	8			23 9	PPP	
SEMPALATNSK	122.46	311.1	18 58	0			20 36	PP	
CARACAS	122.96	115.5					20 34	PS	
TIKSI	123.67	347.5	18 59	-1					
FAYETTEVILLE	124.05	72.7	19 5	4					
SHIRAZ	125.17	275.7	19 7	4			20 53		
ASHKABAD	126.86	287.4	19 10	4			22 45		
SAN JUAN	129.62	110.3	19 14	2			19 34		
TEHERAN	129.85	280.8	19 12	0					
COLUMBIA	131.03	83.4	19 14	0					
CLEVELAND	135.17	74.9	19 16	-6					
GORIS	135.31	281.6	19 30	8	26 40	8	22 2	PP	

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961					PAGE 264				
SVERDLOVSK	135.70	309.9	19 27	4					22 59 SKP
WASHINGTON	136.53	80.7	19 14	-11					25 23
TIFLIS	137.51	283.3	19 29	3					22 17 PP
JERUSALEM	137.75	264.7	19 32	5					23 11 PKS
KSARA	138.63	267.5	19 32	4					22 27 PP
HELWAN	138.97	259.2	19 31	2					22 24 PP
PALISADES	139.72	80.1	19 48	18					41 26 SS
RESOLUTE	140.37	24.1	19 22	-10					
OTTAWA	140.82	73.2	19 29	-3					
KHEYS	141.30	345.3	19 34	1	26 36	-6			22 31 PP
WESTON	142.09	79.9	19 55	20					22 37 PP
SHAWINIGAN	143.17	73.0	19 33	-3					
MBOUR	144.58	179.4	19 36	-3					22 38 PP
SIMFEROPOL	145.87	281.6	19 43	2					22 58 PP
THULE	146.70	19.7	19 46	3					
ISTANBUL KA.	147.23	272.1	19 42	-1					23 15 PP
ISTANBUL UN.	147.27	272.0	19 36	-7					29 13
MOSCOW	147.44	301.5	19 44	0	26 48	-3			23 23 PKS
TAMANRASSET	147.84	220.8	19 45	1					23 31 PP
HALI FAX	148.09	81.2	19 49K	4					
NORD	148.16	0.0	19 44	-1					
ATHENS	148.98	262.9	19 49	3					27 5
APATITY	149.75	324.3	19 51	4					36 56
BUCHAREST	150.76	275.8	19 53	4					24 13 PP
IASI	150.95	281.9	20 1	12					20 39 PKP2
BACAU	151.14	280.3							20 7 PKP2
SOFIA	151.76	270.7	19 54	4					23 35 PP
PULKOVO	151.81	308.5	20 2	11					23 44 PP
CAMPULUNG	151.81	276.7							20 27 PKP2
SODANKYLA	152.33	325.2	20 1	10					
KAJAANI	152.69	318.0	20 0	8					
TROMSOE	153.99	332.4	20 8	14					
LWOW	154.03	285.6	19 59	5					23 36 PKS
REGGIO CALA.	154.18	255.2	20 9	15					21 0
MESSINA	154.30	255.2	20 11	17					23 58 PP
KIRUNA	154.37	328.1	20 6	12					23 57 PP
TIMI SOARA	154.46	275.3	20 5	11					
TARANTO	154.54	261.3	19 42	-12					24 22 PP
BELGRADE	154.58	272.8	20 10	16	27 26	26			24 2 PP
NURMIJARVI	154.60	310.5	20 17	23					24 7
SKALNATE PL.	156.22	282.5	20 8	11					20 36 PKP2
WARSAW	156.41	290.2	20 6	9					24 44
BUDAPEST	156.50	277.9	20 39	42					23 13 PKS
KRAKOW	156.65	284.5	20 0	3					24 9
HURBANOVO	157.15	278.4	20 8	10					43 44 SS
CHORZOW	157.29	284.7	20 22	24					24 9
RACIBORZ	157.74	283.9	20 23	24					21 29
ZAGREB	157.87	271.9	20 19	20					
BRATISLAVA	157.94	278.5	20 6	7					24 12 PP
UPPSALA	158.18	310.2	20 50	51					21 24
ROME	158.34	259.5	19 59	0					24 13 PP
VIENNA-H.	158.43	278.3	20 2A	3					24 17 PP
LJUBLJANA	158.90	271.5	20 0	0					24 18 PP
SCORESBY SD.	159.19	5.1	20 11	11					24 22 PP
TRIESTE	159.24	269.9	20 5	5					24 18 PP
PRUHONICE	160.02	282.2	20 4	3					24 26 PP
FLORENCE X.	160.06	262.8	20 7	6	27 28	23			
PRAGUE	160.11	282.5							20 53
PRATO	160.20	262.9	20 22	21					24 38 PP
PADOVA	160.36	267.7	20 40	38	26 56	-9			24 42 PP
KASPERSKE H.	160.45	279.4	20 9	7					24 26 PP
ALGIERS UNI.	160.67	234.7	20 5	3					24 27 PP
RELIZANE	161.14	227.9	20 4	2					24 33 PP
COLLMBERG	161.21	285.7	20 5	3					24 34 PP
COPENHAGEN	161.59	299.5	19 44	-19					44 56 SS
PAVIA	162.01	264.7	20 9	6					27 39
JENA	162.05	284.1	20 6	3					24 35 PP
CHUR	162.41	270.1	20 58	54					24 36 PP
MONACO	162.47	258.6	20 18	14					21 4 PKP2
RAVENSBURG	162.64	273.1	20 17	13					20 54 PKP2
ISOLA	162.93	259.5	20 15	11					24 45 PP
STUTTGART	163.12	276.1	20 17	13					24 41 PP
EBINGEN	163.17	274.0	20 17	13					20 57 PKP2
TUBINGEN	163.19	275.2	20 17	13					20 57 PKP2
ALMERIA	163.44	223.4	20 8A	3					24 57 PP
HEIDELBERG	163.61	278.0	20 13	8					24 45 PP
ALICANTE	163.69	231.0	20 8	3	27 11	3			24 50 PP
STRASBOURG	164.04	274.6	20 13	8	27 10	2			24 46 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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 265

NEUCHATEL	164.12	268.5	21	5	60					24	46	PP	
GRANADA	164.21	221.3	20	12A	7	26	37	-31	20	34	24	46	PP
MUNSTER	164.61	287.0	20	14	8						21	26	
BENSBERG	164.83	283.1	20	20	14						24	54	PP
BESANCON	164.83	268.6	20	9	3								
DE BILT	166.12	287.5	20	12	5						25	4	PP
CLERMONT-FD.	166.13	260.2	20	18	11						25	2	PP
BAGNERES	166.61	245.7	20	11	3						24	24	PP
TOLEDO	166.62	226.3	19	58	-10	26	36	-34			24	45	PP
GARCHY	166.72	266.2	20	10	2						24	57	PP
PARIS	167.50	272.3	20	18	2						25	4	PP
LISBON	167.63	208.3	20	24	16						29	26	PPP
ABERDEEN	168.72	315.8									25	42	
KEW	169.55	284.9									25	13	PP
SERRA PILAR	169.60	215.6	20	9A	0	27	5	-7			25	14	PP
DURHAM	169.60	303.7	21	30A	81						25	25	PP
JERSEY	170.54	271.2	20	35	25						25	8	PP

MARCH 19 4.H 51.M 56.S EPICENTRE 40.23 143.07 DEPTH= 54.KM

A=-0.61200 B= 0.46003 C= 0.64330 D= 0.6009 E= 0.7994
G=-0.5142 H= 0.3865 K=-0.7656 HT= -1.8

DEPTH OF FOCUS= 0.003R

SE= 3.23

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
MIYAKO	1.02	236.0	0	15K	-4	0	29	-4				
HATINOHE	1.21	284.9	0	19K	-3	0	35	-3				
MORI OKA	1.55	250.7	0	24K	-2	0	45	-1				
AOMORI	1.84	289.4	0	29K	-1	0	52	-1				
MI ZUSAWA	1.86	234.4	0	30	0	0	51	-2				
URAKAWA	1.93	353.6	0	33	2	0	56	1				
HIROO	2.06	5.2	0	31	-2							
ISINOMAKI	2.25	217.6	0	34A	-2	1	3	0				
AKITA	2.34	258.4	0	37A	0	1	8	3				
HAKODATE	2.36	312.9	0	36A	-1	1	3	-2				
SENDAI	2.58	221.4	0	40A	-1	1	11	0				
MURORAN	2.62	323.7	0	40	-1	1	10	-2				
TOMAKOMAI	2.65	335.5	0	47	5	1	13	0				
MORI	2.66	315.6	0	43	1	1	15	2				
OBIHIRO	2.69	2.1	0	50	8	1	31	17				
SAKATA	2.83	243.1	0	44	0	1	19	2				
YAMAGATA	2.89	227.8	0	42	-3	1	21	2				
KUSIRO	2.92	19.5	0	42	-3	1	15	-5				
SAPPORO	3.12	336.2	0	46	-2	1	19	-6				
SUTTSU	3.34	321.2	0	58	7	1	35	5				
ASAHI GAWA	3.59	351.9	1	7	12							
NEMURO	3.62	30.4	0	51	-4	1	31	-6				
ONAHAMA	3.69	208.1	1	0	4	1	39	0				
SHIRAKAWA	3.82	216.6	0	56	-2	1	39	-3				
RUMOE	3.87	344.3	1	5	6							
NIIGATA	3.89	234.9	0	58	-1	1	48	4				
ABASHIRI	3.89	13.0	1	0	1	1	41	-3				
AIKAWA	4.35	241.1	1	6	1	2	4	8				
MI TO	4.35	208.8	1	2	-3	2	24	28				
UTUNOMIYA	4.45	215.4	1	10	3	2	7	9				
KAKIOKA	4.59	210.6	1	5	-4	2	6	4				
TUKUBASAN	4.63	211.2	1	5	-4							
TYOSI	4.83	202.0	1	10	-2	2	18	10				
TAKADA	4.90	231.9	1	13	0	2	20	11				
MAEBASI	4.95	220.7	1	13	-1	2	20	9				
KUMAGAYA	5.00	216.7	1	14	-1	2	16	4				
HONGO	5.21	211.0	1	17	0						2	43
NAGANO	5.22	228.6	1	18	0	2	33	16				
TOKYO C.M.O.	5.24	211.0	1	17	-1	2	7	-11				
OI WAKE	5.27	223.8	1	24	6							
TITIBU	5.28	217.8	1	17	-1	2	31	12				
WAKKANAI	5.29	349.3	1	41	22						2	42
MATUJIRO	5.30	227.6	1	18A	-1	2	25	6				
YOKOHAMA	5.50	210.5	1	29	7	2	45	21				
WAZIMA	5.59	241.4	1	22	-1							
MATUMOTO	5.65	226.9	1	24	0							
KOHU	5.78	219.5	1	24	-1	2	44	13				
TOYAMA	5.80	234.4	1	29	3	2	52	20				

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961										PAGE 266
HUNATU	5.82	217.1	1	20	-6	2	38	6		
MERA	5.89	206.9	1	37	10					
AJIRO	6.05	212.6	1	28	-1				1	57
MISIMA	6.06	213.9	1	32	3	2	50	12		
KURILSK	6.12	33.7	1	25	-5	2	32	-8		
IIDA	6.26	223.0	1	34	2	2	58	15		
SHIZUOKA	6.42	216.7	1	48	14	2	55	8		
Y.-SAKHLINSK	6.79	358.0	1	36	-4					
OMAESAKI	6.81	216.0	1	52	12					
GIHU	6.93	227.9	1	41	-1	3	18	18		
HAMAMATU	6.95	219.4							3	7
NAGOYA	6.99	225.7	1	44	2	3	4	3		
HIKONE	7.32	229.6	1	50	3	3	30	20		
KAMEYAMA	7.50	226.4	2	7	18	3	30	16		
KYOTO	7.80	230.5	1	59	5	3	32	11		
NARA	7.99	228.4	1	54	-2					
ABUYAMA	8.00	230.4	1	55A	-1					
OWASE	8.24	223.9							3	36
VLADIVOSTOK	8.84	292.7	2	7A	-1	3	55	8		
TAKAMATU	9.29	233.5	2	18	4					
MATUYAMA	10.40	235.4	2	27	-2	3	58	-27		
CHANGCHUN	13.68	291.0	3	12	-1					
ZO-SE	19.94	249.7	4	29	-1					
MAGADAN	19.95	11.6	4	29	-1					
PEKING	20.55	278.2	4	32	-4	8	29	11		
NANKING	21.20	255.0	4	40	-3					
YAKUTSK	23.28	344.0	5	0	-4	9	7	-1		
ULAN-BATOR	26.90	298.7	5	36	-2					
IRKUTSK	29.02	307.6	5	45	-12					
CANTON	30.34	244.7	6	9	0					
MANILA	31.90	223.3	6	23	1					
TIKSI	32.28	351.6	6	24	-2					
KUNMING	36.80	258.3	7	4	0					
SEMIPALATNSK	44.10	305.1	8	3	-2					
SHILLONG	44.81	267.1	8	10A	0				21	19
COLLEGE	45.71	33.9	8	18	0					
CHATRA	47.75	271.7	8	34	0					
ALMATA	48.26	296.5	8	37	-1					
KHEYS	49.80	347.6	8	47	-2					
FRUNSE	50.01	296.7	8	51A	0					
NAMANGAN	52.76	295.7	9	5	-7					
SVERDLOVSK	53.65	317.4	9	17	-1					
TASHKENT	54.26	297.0	9	21	-2					
WARSAK DAM	55.97	288.0	9	35A	0					
NORD	57.95	356.6	9	45	-4					
RESOLUTE	59.19	15.2	9	56	-2					
CHARTERS TS.	60.08	176.5	10	12	8					
APATITY	60.32	335.4	10	4	-2					
QUETTA	61.26	286.5	10	11A	-1				12	26 PP
THULE	61.93	8.0	10	14	-2					
SODANKYLA	62.53	337.0	10	18K	-2					
POONA	62.55	271.6	10	11	-10					
TROMSOE	63.12	341.0	10	24	0					
KIRUNA	64.00	339.2	10	29	-1					
KAJAANI	64.30	333.8	10	31K	-1					
PENTICTON	65.00	45.7	10	35	-2					
MOSCOW	65.47	323.2	10	39	-1					
UMEA	66.89	336.1	10	44	-5					
NURMI JARVI	67.74	331.9	10	53	-1					
SHASTA	68.17	54.7	11	7	10					
HUNGRY HORSE	68.58	44.3	11	0	1					
MINERAL	68.87	54.7	11	4	3					
SCORESBY SD.	69.07	354.7	11	2	0					
TEHERAN	69.16	299.5	11	4	1					
RENO	70.46	54.5	11	21	10					
UPPSALA	70.66	334.2	11	11	-1					
SHIRAZ	71.93	293.7	11	18K	-1	21	22	47		
EUREKA	72.86	52.7	11	25	0				12	5
CHINA LAKE	74.10	56.5	11	35	3					
LWOW	75.56	324.2	11	41	0					
BOULDER CITY	75.75	54.9	11	52	10					
FLAMING GRGE	75.82	48.2	11	42	0					
RAPID CITY	77.06	42.6	11	50	1					
GLEN CANYON	77.12	52.4	11	16	-33				11	50
KRAKOW	77.18	326.4	11	50	0				12	0 PCP
COLLMBERG	78.97	330.7	12	0A	0				14	59 PP
ISTANBUL KA.	79.31	315.3	12	1	0					
PRUHONICE	79.43	329.1	12	3A	1				13	53

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 267

JENA	79.80	331.2	12 7	3		12 31
VIENNA-H.	80.06	327.0	12 7A	2		15 34
KSARA	80.33	306.2	12 7	0		
KASPERSKE H.	80.49	329.1	12 7	-1		
TUCSON	80.69	55.6	12 11	2		
TUCSON TELE.	80.70	55.5	12 10	1		
STUTT GART	82.42	331.2	12 18	0		13 7
BASLE	84.08	331.5	12 27A	1		
PARIS	84.74	335.1	12 34	4		
HELWAN	85.84	306.0	12 35	0		
GARCHY	85.88	334.0	13 35	60	13 50	
WICHITA MTS.	86.25	46.6	12 38	1		13 46
TAMANRASSET	105.89	319.6	18 9	777		18 24 PP
BROKEN HILL	117.92	274.5	19 0	19		
BULAWAYO	121.20	269.2	18 57A	10		

MARCH 19 4.H 59.M 19.S EPICENTRE -6.36 105.44 DEPTH= 84.KM

A=-0.26457 B= 0.95807 C=-0.11000 D= 0.9639 E= 0.2662
G= 0.0293 H=-0.1060 K=-0.9939 HT= 6.9

DEPTH OF FOCUS= 0.008R

SE= 2.20

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
DJAKARTA	1.40	82.8						0 24 PG
LEMBANG	2.22	102.3	0 34K	-1				15 14 SCS
MEDAN	11.96	325.5	3 1	12				
MANILA	26.02	36.5	5 29	2				5 59
MUNDARING	27.40	159.8	5 30	-9				
MADRAS	31.62	307.5	6 17	0	11 22	4		
SHILLONG	34.37	338.0	6 38	-2				
CHATRA	37.44	332.6	7 7K	1				9 25
POONA	39.77	309.0	7 26	0				
BOMBAY	40.78	308.6	7 37	3	13 50	12		9 20
PORT MORESBY	41.41	97.0	7 40	1				
ADELAIDE	41.83	137.5	7 42K	-1	13 54	0		9 15
CHARTERS TS.	41.88	113.0	7 44	1	13 59	4		
DEHRA DUN	44.94	325.7	8 8	0	14 39	0		
MELBOURNE	47.61	137.0	8 31	2	15 31	14		
CANBERRA	49.29	132.0	8 42A	0				
BRISBANE	49.52	120.7	8 46	2	15 51	7		
RIVERVIEW	50.31	129.2	8 50K	0	16 0	5		
TARRALEAH	50.94	141.2	8 55A	0				
WARSAK DAM	51.37	323.6	8 57A	-1				
MOORLANDS	51.48	140.9	8 58	-1				
QUETTA	51.78	316.7	9 0A	-1	16 15	0	9 35	11 0 PP
MATUSIRO	52.57	33.3	9 6	-1				10 16
ANDI JAN	55.85	329.9	9 30A	-1				
NAMANGAN	56.38	329.6	9 33	-1				17 15
TANANARIVE	57.61	251.7	9 45	2				
TASHKENT	57.85	328.3	9 44	-1				17 6
IRKUTSK	58.41	359.2	9 49	0				
WILKES	59.99	177.6			18 32	-3		
SHIRAZ	62.12	308.2	10 13K	-1	18 33	2		
TEHERAN	65.75	313.8	10 17	-21	19 11	-5		
KARAPIRO	70.44	127.9	11 6	-1				
CHATEAU	70.60	129.2	11 8	0				
YAKUTSK	70.71	11.9	11 7	-1				
MAKHACH-KALA	71.79	319.1	11 13	-2				20 29
SVERDLOVSK	72.80	336.1	11 20	-1				
TIFLIS	73.03	317.0	11 32	10				
JERUSALEM	76.77	304.6	11 44	0				13 53
KSARA	76.82	306.8	11 43	-1				14 44 PP
TIKSI	79.35	7.4	11 56	-2	21 49	-1		
HELWAN	79.52	301.8	11 59	0				14 47
SIMFEROPOL	81.45	317.1	12 8	-1				
MOSCOW	83.01	328.1	12 16A	-1				
SOUTH POLE	83.68	180.0	12 20	0			12 47	
ISTANBUL KA.	83.97	312.4	12 22	0				
ISTANBUL UN.	84.02	312.3	12 22	0				
APATITY	89.06	338.6	12 47	0				
KHEYS	89.89	353.1	12 50	0				
KAJAANI	90.34	334.6	12 54	1				
BYRD STATION	90.82	172.9	12 56	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 268

NURMIJARVI	90.96	330.8	12 57	2	
SODANKYLA	91.53	337.7	12 58	0	
UMEA	93.54	333.7	13 6	-1	
KIRUNA	93.95	337.7	13 9	0	
UPPSALA	94.34	329.6	13 11	0	
PRUHONICE	95.39	319.6	17 7	231	
COLLMBERG	96.44	320.9	16 52	212	
TAMANRASSET	101.56	291.9	13 45	1	17 44 PP
COLLEGE	102.81	24.8	18 1	252	
RESOLUTE	110.72	5.7	18 23	1	
VICTORIA	121.13	35.8	18 45	2	
PENTICTON	122.86	33.5	18 47	1	
SHASTA	125.37	43.7	18 53	2	
MINERAL	126.06	43.8	18 55A	3	
HUNGRY HORSE	126.43	31.8	18 55	2	
LICK	127.29	47.2	18 58K	3	
EUREKA	130.29	42.1	19 3	3	22 22
PASADENA	131.17	49.5			22 30
FLAMING GRGE	133.63	36.7	19 9	2	
GLEN CANYON	134.54	42.6	19 13	5	
TUCSON TELE.	137.55	47.7			22 47
SHAWINIGAN	139.93	358.1	19 17	-1	
LAWRENCE	142.54	26.9	19 4	-19	
WESTON	144.01	355.9	19 25K	0	
WICHITA MTS.	144.11	34.9	19 26	0	22 39 PP
FAYETTEVILLE	145.37	28.6	19 29A	1	19 43 19 51 *SP
PALISADES	145.49	359.1	19 29	1	35 43 PPS
PENNSYLVANIA	145.58	4.4	19 31	3	
FORDHAM	145.65	359.1	19 29	1	
MORGANTOWN	146.52	7.6	19 33A	3	

MARCH 19 7.H 14.M 57.S EPICENTRE -16.44 167.19 DEPTH= 0.KM

A=-0.93573 B= 0.21276 C=-0.28132 D= 0.2217 E= 0.9751
G= 0.2743 H=-0.0624 K=-0.9596 HT= 5.5

SE= 2.91

	DELTA DEG.	AZ. DEG.	P			S			*PP		SUPP.	
			M	S	O-C	M	S	O-C	M	S	M	S
NOUMEA	5.87	186.7	1	26	-5	2	46	6				
HONIARA	9.92	313.8	2	27	0	4	21	1				
BRISBANE	17.23	228.3	4	0	-4	7	21	6				
RBAUL	19.12	307.9	4	28	1					8	31	
CHARTERS TS.	20.20	256.5	4	38	-1	8	40	19				
ONERAHI	20.28	163.0	4	44	4							
PORT MORESBY	20.74	287.3	4	45	0	8	42	10				
AUCKLAND	21.43	163.1	4	53	1	8	52	6				
RIVERVIEW	22.54	216.9	5	4A	1	9	6	0		5	33 PP	
KARAPIRO	22.63	162.6	5	2	-2					12	10 SCP	
CHATEAU	23.82	163.8	5	18A	2					12	20 SCP	
CANBERRA	24.85	217.4	5	25A	-1	10	0	13	5	35		
WELLINGTON	25.60	166.7	5	31	-2							
GEBBIES PASS	27.56	171.4	5	51	0							
MELBOURNE	28.93	218.2	6	9	6							
ROXBURGH	29.00	176.9				10	57	2				
MOORLANDS	31.06	209.4	6	28	6							
TARRALEAH	31.30	210.4	6	24	0							
ADELAIDE	31.43	228.7	6	23	-2							
MUNDARING	48.57	241.7	8	44	-3							
PERTH	48.89	241.8	8	55	5							
MANILA	55.04	301.7	9	37	1	17	7	-11				
BAGUIO CITY	56.38	303.1	9	46	0	17	38	2				
TUKUBASAN	58.31	334.4				18	7	6		9	21	
LEMBANG	58.95	271.9	10	1K	-3							
MATUSIRO	59.38	333.0	10	5	-2	18	16	1		22	12 SS	
SCOTT BASE	61.43	180.1	10	18	-3							
WILKES	61.95	202.5				18	43	-5		22	45 SS	
HONG KONG	64.63	305.0	10	43	1	19	20	-1				
ZO-SE	64.72	317.0	10	43	1	19	29	7				
CANTON	65.70	305.3	10	52A	3	19	44	10				
Y.-SAKHLINSK	66.89	342.1	10	43	-13	19	54	5				
NANKING	66.90	316.3	10	57	1	19	53	4				
PETROPAVLOVK	69.57	354.5	11	13	0							
MEDAN	70.52	279.9	11	20	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961								PAGE 269	
BYRD STATION	71.03	169.8							9 43
CHANGCHUN	71.16	329.3	11 21	-2	20 43	4			
PEKING	73.54	321.5	11 38	1	21 12	5			
SOUTH POLE	73.66	180.0							10 20
KUNMING	75.14	302.2	11 47	1	21 31	7			
CHENGTU	76.68	307.8	11 55	0	21 46	5			
MAGADAN	76.89	351.5	11 56	0					
ULAN-BATOR	83.58	324.0	12 32	0					
YAKUTSK	83.62	343.2	12 31	-1					22 53 PS
LICK	85.59	49.2							11 41
SHASTA	86.46	45.9							11 50
LHASA	86.47	302.1	12 48	2					
MINERAL	86.86	46.4							11 52
PASADENA	86.93	53.2			23 39	13			
IRKUTSK	87.31	326.8	12 43	-7					23 23 SKKS
COLLEGE	87.97	17.6	12 38	-15				12 52	15 44 PP
CHATRA	88.72	298.3	12 57	0					23 26
EUREKA	90.52	48.9	13 2	-3				13 30	16 47 PP
TIKSI	91.61	348.7	12 43	-27					23 23 SKKS
PENTICTON	91.78	38.8							12 24
TUCSON	92.06	57.1	13 15	3				13 36	
TUCSON TELE.	92.18	57.0	13 4	-9					
GLEN CANYON	92.93	52.4							12 14
HUNGRY HORSE	94.88	41.0							13 32
FLAMING GRGE	95.75	49.2							12 30
BOMBAY	99.20	287.0	17 10	205					21 29
RAPID CITY	100.97	47.2							13 4
WICHITA MTS.	102.57	57.3	12 49	-71					18 19
NAMANGAN	104.69	308.8	17 27	197					
SANTA LUCIA	105.84	132.6							27 48 PS
TASHKENT	106.53	308.9							18 44 PP
QUETTA	106.76	297.1	18 26	777	25 4	5			
RESOLUTE	107.84	16.1	18 30	777					
OTTAWA	120.50	46.7	18 53	-1					
APATITY	120.97	341.1	18 56	1					
PALISADES	122.33	51.6							37 15 SS
SHAWINIGAN	122.35	45.0	18 58	0					
SODANKYLA	123.11	342.9	18 48	-11					
KIRUNA	124.39	345.4	19 1	-1					
TIFLIS	124.84	309.6	19 4	2					
KAJAANI	124.98	339.6	19 2	-1					
MOSCOW	125.29	327.7	19 5	2					
BULAWAYO	125.44	229.7	19 4	0					
SCORESBY SD.	125.69	3.8	19 6A	2					
UMEA	127.51	342.2	19 6	-2					
NURMIJARVI	128.41	337.4	19 11	2					
BROKEN HILL	128.97	235.3	19 12	2					
SAN JUAN	129.24	79.5	19 12	1					
SIMFEROPOL	131.56	316.1	19 24	9					22 45 PKS
LWOW	135.38	326.4	19 25	3					
ISTANBUL KA.	136.41	312.9	19 26	2					22 58 PP
COLLMBERG	139.58	335.1	19 28	-2	19 52				22 31 PP
PRUHONICE	139.91	332.6	19 29	-2					23 10 PKS
BELGRADE	140.24	322.4	19 24K	-7					22 28 PP
JENA	140.43	335.8	19 29	-3					22 34 PP
KASPERSKE H.	140.97	332.4	19 33	0					23 11 PKS
BENSBERG	142.02	339.4	19 39	5					
LJUBLJANA	142.71	328.1	19 34	-1					
HEIDELBERG	142.77	336.7	19 33	-3					
STUTTART	143.06	335.5	19 36	0					23 19 SKP
TUBINGEN	143.33	335.5	19 37	0					
EBINGEN	143.65	335.2	19 37	0					
RAVENSBURG	143.70	334.2	19 37	0					
STRASBOURG	143.80	336.7	19 40	3					21 17
CHUR	144.47	333.3	19 40	1					
BASLE	144.73	335.9	19 39A	0					
BESANCON	145.57	337.2	19 43	3					
FLORENCE X.	145.96	328.2	19 43A	2					
FOLINIERE	146.22	345.3	19 43	1					
GARCHY	146.56	340.2	19 39	-3					20 7 PKP2
ROME	146.61	324.6							19 47 PKP2
MESSINA	146.99	316.6	19 44	1					
ISOLA	147.65	332.8	19 49	5					23 1 PP
MONACO	147.83	331.9	19 50	6					
CLERMONT-FD.	147.87	338.8	19 51	7					23 22
BAGNERES	151.25	340.0	19 57	7					
ALGIERS UNI.	155.35	328.3	19 58	3	20 23				24 2 PP
TOLEDO	155.43	343.6	19 57	2					24 3 PP
RELI ZANE	157.38	330.7	20 5	7	20 32				21 2 PKP2

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 270

TAMANRASSET	161.63	293.0	20	6	3		20	29	24	31	PP
MBOUR	175.49	116.5	20	21	9				25	47	PP

MARCH 19 7.H 51.M 39.S EPICENTRE 2.34 127.13 DEPTH= 89.KM

A=-0.60310 B= 0.79664 C= 0.04050 D= 0.7973 E= 0.6036
G=-0.0244 H= 0.0323 K=-0.9992 HT= 7.2

DEPTH OF FOCUS= 0.009R

SE= 3.50

	DELTA DEG.	AZ. DEG.	P M S	O-C S	M S O-C M S S	*PP M S	SUPP. M S
MANILA	13.63	334.4	3 10	0	4 57 -43		
LEMBANG	21.50	244.8	4 40K	-2			5 17
PORT MORESBY	23.11	120.6	5 3	5			
HONG KONG	23.50	328.6	5 1A	-1	9 13 7		5 30 PS
CANTON	24.58	328.2	5 12	0	9 31 7		
RABAU	25.85	104.5	5 37	13			
MEDAN	28.44	273.2	5 51	3			
CHARTERS TS.	29.14	140.8	5 50	-4			15 38
KUNMING	32.64	316.1	6 24	-1			
MATUSIRO	35.54	15.4	6 49A	-1			9 34
CHENG TU	35.67	324.5	6 49	-2	12 20 0		
BRISBANE	38.53	141.8	7 14	-1			
ADELAIDE	38.67	164.7	7 12K	-4		7 29	8 42 PP
PEKING	38.82	346.5	7 18	1			
CHITTAGONG	39.63	303.0	7 29	5			
LANCHOW	39.88	330.0	7 26	0			
VLADIVOSTOK	40.83	5.3	7 35A	1			
CHANGCHUN	41.35	358.0	7 38	0			
RIVERVIEW	42.50	149.9	8 2K	14			
CANBERRA	42.69	153.3	7 46	-3		8 1	
MELBOURNE	43.25	159.3	7 51	-3			12 50
CHATRA	45.37	306.3	8 8	-3			
TARRALEAH	47.75	160.6	8 40A	11			
MOORLANDS	48.12	160.1	8 43	11			
ULAN-BATOR	48.65	342.0	8 38	2			
DEHRA DUN	54.11	306.2	9 21	4			
PETROPAVLOVK	56.85	22.2	9 36	-1			
YAKUTSK	59.57	1.4	9 54	-2			
KARAPIRO	60.02	136.9	9 57	-2			
WARSAK DAM	60.54	308.1	10 1A	-2			
CHATEAU	60.67	138.2	9 59	-5			
NAMANGAN	62.91	315.5	10 19	0			
QUETTA	63.22	302.7	10 18A	-3		10 47	12 42 PP
TASHKENT	64.71	315.1	10 27	-3			
TIKSI	69.20	0.6	10 57	-2	20 12 16		
SHIRAZ	75.48	299.9	11 34	-2	21 9 2	11 51	
TEHERAN	77.07	306.0	11 52	7			
MAKHACH-KALA	80.82	313.0	12 2	-3	22 11 7		
TANANARIVE	80.91	250.5	12 6	1			12 23
TIFLIS	82.72	311.6	12 15	0			
SCOTT BASE	82.91	172.2	12 15	-1			
KHEYS	84.35	351.1	12 23	0			
COLLEGE	85.79	25.3	12 29	-1		12 43	15 45 PP
MOSCOW	87.80	325.5	12 39	-1			
APATITY	89.28	337.5	12 55	8			
KSARA	89.75	303.7	12 51	2			
SODANKYLA	91.90	337.6	13 1	2			
KAJAANI	92.03	334.3	12 59	-1			
SOUTH POLE	92.32	180.0	12 59	-2			
KIRUNA	94.10	338.6	13 6	-3			
NURMIJARVI	94.10	331.0	13 14	5			
NORD	94.50	355.0	13 9A	-2			
UMEA	95.31	334.8	13 10	-1			
BYRD STATION	96.26	170.7	13 18	-1			
RESOLUTE	99.11	10.4	13 31A	-1			
PRUHONICE	102.52	322.4	13 48	1			14 8
COLLMBERG	103.00	324.0	13 54	5			
EUREKA	108.92	46.9	18 22	777			
FLAMING GRGE	113.03	43.4	18 26	0			
GLEN CANYON	113.03	48.1	18 22	-4			
RAPID CITY	115.57	38.0	18 27	-4			
TAMANRASSET	117.89	297.2	18 36	0			28 58 PKKP

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 271

WICHITA MTS.	123.48	45.0	18 48	1	20 28 PP
FAYETTEVILLE	125.74	41.2	18 52	1	
SHAWINIGAN	128.25	17.4	18 57	1	
HUANCAYO	155.74	114.5	19 47	4	

MARCH 19 9.H 18.M 50.S EPICENTRE 36.80 141.02 DEPTH= 54.KM

A=-0.62397 B= 0.50497 C= 0.59637 D= 0.6291 E= 0.7773
G=-0.4636 H= 0.3752 K=-0.8027 HT= -0.5

DEPTH OF FOCUS= 0.003R

SE= 4.06

	DELTA DEG.	AZ. DEG.	P		O-C S	S		O-C S	*PP		SUPP.	
			M	S		M	S		M	S	M	S
ONAHAMA	0.18	328.7	0	7	-3	0	14	-3				
MITO	0.60	226.9	0	10A	-5	0	20	-5				
SHIRAKAWA	0.72	297.1	0	14K	-2	0	25	-2				
KAKI OKA	0.88	230.3	0	14K	-3	0	24	-6				
TUKUBASAN	0.94	232.4	0	14	-4							
UTUNOMIYA	0.95	255.5	0	16K	-2	0	30	-2				
TYOSI	1.08	187.2	0	14A	-6	0	25	-9				
KUMAGAYA	1.47	244.5	0	23K	-2	0	43	-1				
SENDAI	1.47	356.4	0	23K	-2	0	43	-1				
HONGO	1.48	223.3	0	22	-3	0	41	-3				
TOKYO C.M.O.	1.51	223.0	0	23	-3	0	43	-2				
YAMAGATA	1.55	340.1	0	25K	-1	0	47	1				
ISINOMAKI	1.65	8.3	0	26K	-2	0	47	-1				
YOKOHAMA	1.76	219.5	0	27	-2	0	49	-2				
TITIBU	1.76	243.1	0	26	-3	0	49	-2				
NIIGATA	1.93	306.2	0	32	1	1	5	10				
OI WAKE	2.04	257.6	0	33	0	0	56	-2				
MERA	2.11	207.6	0	31	-3							
HUNATU	2.23	235.3	0	34	-2	1	3	1				
TAKADA	2.24	278.6	0	37	1	1	4	2				
NAGANO	2.27	267.7	0	38K	2	1	9	6				
MATUSIRO	2.27	264.4	0	36K	0	1	6	3				
KOHU	2.28	241.2	0	35K	-1	1	6	2				
SAKATA	2.30	336.3	0	38	1	1	8	4				
MI ZUSAWA	2.33	2.2	0	36	-1	1	5	0				
AJIRO	2.34	222.3	0	35	-2	1	3	-2				
MI SIMA	2.37	225.7	0	36	-2	1	9	3				
MATUMOTO	2.51	258.4	0	39	-1	1	12	3				
AI KAWA	2.52	299.8	0	41	1	1	20	10				
SHIZUOKA	2.80	230.2	0	41	-3	1	16	-1				
IIDA	2.88	244.7	0	45	0	1	19	0				
MORI OKA	2.90	2.3	0	44	-1	1	17	-2				
MIYAKO	2.95	14.5	0	43	-3	1	15	-5				
AKITA	3.01	346.4	0	47	0	1	26	4				
TOYAMA	3.07	269.4	0	48	1	1	33	10				
TAKAYAMA	3.10	259.1	0	49	1							
OMAESAKI	3.16	226.9	0	50	1							
WAZIMA	3.34	281.3	0	56	5							
HAMAMATU	3.39	233.3	0	52	0	1	40	9				
NAGOYA	3.66	244.9	0	55	-1	1	42	4				
GIHU	3.71	249.2	0	58	2	1	46	6				
HATINOHE	3.75	6.0	0	56	-1	1	42	1				
HATIDYOZIMA	3.82	195.6	1	2	4	1	35	-7				
AOMORI	4.02	357.4	0	55	-6	1	50	3				
HIKONE	4.15	249.9	1	8	5	1	54	3				
TSURUGA	4.16	255.5	1	4	1	1	55	4				
KAMEYAMA	4.17	243.6	1	7	4	1	58	7				
TU	4.21	241.6	1	9	5							
KYOTO	4.64	249.1	1	11	1	2	4	1				
NARA	4.72	244.9	1	10	-1	2	11	6				
OWASE	4.78	236.8	1	23	12	2	25	19				
ABUYAMA	4.82	248.1	1	10	-2							
OSAKA	4.95	246.0	1	24	10	2	28	17				
HAKODATE	5.01	357.8	1	16	1	2	19	7				
TOYOOKA	5.17	257.7	1	18	1	2	24	8				
MORI	5.31	356.4	1	25	6	2	28	8				
WAKAYAMA	5.41	243.5	1	30	10							
MURORAN	5.52	359.7	1	25	3	2	38	13				
URAKAWA	5.52	13.8	1	26	4	2	24	-1				
SUMOTO	5.55	245.6	1	25K	3	2	48	23				

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961						PAGE 272	
HIROO	5.76	17.3	1 22	-3	2 25	-6	
TOMAKOMAI	5.84	4.1					2 2
TOKUSIMA	5.92	244.5	1 32	5	3 13	38	
SUTTSU	6.03	354.5	1 39	10	2 46	9	
TAKAMATU	6.19	248.5	1 36	5	2 34	-8	
SAPPORO	6.27	2.2	1 41	9			
TORISIMA	6.33	185.6	0 46	-47			
OBIIHRO	6.34	14.7	1 33	0			
YONAGO	6.35	259.9	1 35	2	3 15	29	
MUROTO	6.63	239.8	2 35	58	3 25	33	
KUSIRO	6.70	21.8	1 33	-5	2 46	-8	
KOTI	6.93	244.4	3 3	81	3 26	26	
RUMOE	7.16	3.5					3 5
NEMURO	7.4	26.8					2 59
HAMADA	7.51	258.1	3 14	85	3 56	42	
ABASHIRI	7.63	18.0					2 44
VLADIVOSTOK	9.42	314.9	2 18	2	4 11	10	
Y.-SAKHLINSK	10.29	6.5	2 21	-7			
CHANGCHUN	13.88	305.2	3 15	-1	5 8	-41	
ZO-SE	17.40	256.7					4 24
NANKING	18.93	262.1	4 17	-2			
MAGADAN	23.64	12.5	5 6	-1			
YAKUTSK	26.22	347.9	5 24	-8	9 58	0	
CANTON	27.48	247.9	5 43	0			
LANCHOW	29.81	279.9	6 1	-3			
CHENG TU	31.24	269.7	6 13	-4			
KUNMING	34.61	261.3	6 43	-3			
TIKSI	35.47	353.4	6 52	-1			
SHILLONG	43.09	269.3	7 54K	-2			
SEMIPALATNSK	44.84	307.6	8 8A	-3			
CHATRA	46.30	273.6	8 21A	-1			
COLLEGE	49.46	32.1	8 45	-2			9 14 10 54 PP
FRUNSE	50.18	298.6	8 51	-1			
KHEYS	52.81	348.2	9 9	-3			
LEMBANG	53.49	222.8	9 12	-5			
SVERDLOVSK	55.12	318.6	9 27	-2			
WARSAK DAM	55.54	289.3	9 31	-1			
QUETTA	60.72	287.3	10 6	-2			
NORD	61.27	356.3	10 9A	-3			
APATI TY	62.78	335.7	10 20	-2			
RE SOLUTE	62.92	14.3	10 20A	-3			
SODANKYLA	65.06	337.1	10 34	-3			
KIRUNA	66.63	339.1	10 43	-4			
KAJAANI	66.67	333.9	10 45	-2			
MOSCOW	67.25	323.4	11 0	9			
UMEA	69.37	336.0	11 1	-3			
NURMI JARVI	70.01	331.8	11 6	-2			
SHASTA	71.50	52.8	11 27	10			
SHIRAZ	71.83	293.7	11 17K	-2			
SKALSTUGAN	72.02	338.5	11 29	9			
CANBERRA	72.13	173.1	11 22	1			
HUNGRY HORSE	72.17	42.6	11 20	-1			
MINERAL	72.19	52.8	11 29A	8			
SCORESBY SD.	72.32	354.1	11 21K	-1			
UPPSALA	73.03	333.9	11 24K	-2			
RENO	73.79	52.7	11 56	26			
LICK	73.83	55.4	11 40	9			
SIMFEROPOL	75.27	315.4	11 40	1			
EUREKA	76.25	50.9	11 42	-2			
GOTEBORG	76.61	334.6	11 43	-4			
CHINA LAKE	77.37	54.7	12 48	57			
FLAMING GRGE	79.32	46.6	12 1	-1			
GLEN CANYON	80.51	50.8	12 5	-3			
RAPID CITY	80.69	41.1	12 7	-2			
COLLMBERG	81.15	330.0	12 10	-1			15 42
PRUHONICE	81.52	328.3	12 12	-1			15 14 PP
JENA	82.01	330.4	12 27	11			13 3
KASPERSKE H.	82.58	328.3	12 17	-2			
TUCSON	83.99	54.1	12 25	-1			
HEIDELBERG	84.34	330.9	12 28	0	12 54		
STUTTGART	84.63	330.3	12 28	-1			
GARCHY	88.23	332.9	12 57	11			
WICHITA MTS.	89.79	45.3	12 54	0			13 48
FAYETTEVILLE	91.22	41.7	12 58	-3			13 13
TAMANRASSET	107.38	317.3	18 32	777			
SOUTH POLE	126.61	180.0	18 58	1			
LA PAZ	147.23	59.7	19 46	11			

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 273

MARCH 19 12.H 5.M 48.S EPICENTRE -16.67 166.86 DEPTH= 0.KM

A=-0.93341 B= 0.21783 C=-0.28511 D= 0.2273 E= 0.9738
G= 0.2777 H=-0.0648 K=-0.9585 HT= 5.4

SE= 3.95

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
HONIARA	9.86	316.1	2	18	-8	4	19	0				
BRISBANE	16.84	228.3	4	1	2	7	22	16				
RABAU	19.02	309.1	4	25	-1							
CHARTERS TS.	19.84	257.0	4	28	-7	8	32	18				
ONERAHI	20.16	162.0	4	37	-2							
PORT MORESBY	20.51	288.2	4	47	4	8	46	18				
AFIAMALU	20.78	85.3	4	42	-3							
AUCKLAND	21.31	162.3									11	42
RIVERVIEW	22.17	216.7	5	4A	5	9	9	9			5	31 PP
KARAPIRO	22.51	161.8	5	4	1							
CHATEAU	23.69	163.0	5	17	3							
CANBERRA	24.48	217.3	5	25	3	9	50	10			5	35 *SP
WELLINGTON	25.45	166.0	5	32	1							
MELBOURNE	28.56	218.1	5	50	-10	10	47	0				
ROXBURGH	28.80	176.4				11	12	21				
MOORLANDS	30.71	209.2	6	28K	9							
ADELAIDE	31.04	228.7	6	24K	2							
MUNDARING	48.19	241.9	8	46	2							
MANILA	54.89	302.0	9	39	4							
LEMBANG	58.64	272.1	10	2K	0							
MATUSIRO	59.44	333.4	10	6	-1	18	28	12			22	14 SS
SCOTT BASE	61.20	180.0	10	20	1				10	28		
HONG KONG	64.51	305.3	10	44	3	19	31	11				
CANTON	65.57	305.6	10	52	4							
NANKING	66.85	316.6	10	57	1						17	37
Y.-SAKHLINSK	67.01	342.3	10	59	2	19	54	4				
PETROPVLOVK	69.76	354.7	11	14	0							
BYRD STATION	70.86	169.8	11	19	-2							
CHANGCHUN	71.19	329.5	11	24	1	20	39	-1				
SOUTH POLE	73.43	180.0	11	37	1							
PEKING	73.53	321.7	11	39	2	21	11	5				
KUNMING	75.00	302.4	11	49	4	21	31	8				
CHENG TU	76.57	308.0	11	57	3	21	46	6				
MAGADAN	77.07	351.7	11	49	-8							
LANCHOW	79.33	312.7	12	10	1							
YAKUTSK	83.75	343.4	12	32	0	22	55	0				
SHILLONG	84.16	298.7	12	35A	0							
LICK	85.97	49.3	12	48A	4							
SHASTA	86.84	46.0	13	3	15							
FRESNO	87.09	50.4	12	55A	6							
MINERAL	87.24	46.5	13	3K	13							
COLLEGE	88.28	17.7	12	51	-4						13	17
CHINA LAKE	88.37	51.9	12	52	-3							
EUREKA	90.90	49.0	13	6	-1							
TIKSI	91.77	348.7	13	6	-5							
TUCSON	92.45	57.2	13	14	0							
RESOLUTE	108.14	16.1	18	28	777							
SHAWINIGAN	122.73	45.1	18	59	1							
SODANKYLA	123.23	342.8	18	58	-1							
KIRUNA	124.53	345.2	19	1	-1						19	2
TIFLIS	124.75	309.5	19	6	4							
KAJAANI	125.08	339.4	19	2	-1							
SCORESBY SD.	125.94	3.6	19	5	1							
UMEA	127.63	342.1	19	7	-1							
NURMI JARVI	128.50	337.2	19	10	1							
BROKEN HILL	128.58	235.4	18	47	-23							
UPPSALA	131.44	339.9									22	47 PKS
SIMFEROPOL	131.51	315.9									22	43 PP
KSARA	132.94	300.8	19	19	1						21	48 PP
HELWAN	137.34	296.1	19	28	2						23	15
COLLMBERG	139.65	334.7	19	27	-3						22	27 PP
PRUHONICE	139.97	332.2	19	28	-3						23	11 PP
JENA	140.51	335.4	19	26	-6							
KASPERSKE H.	141.02	332.0	19	44	11							
STUTT GART	143.13	335.1	19	35	-1							
STRASBOURG	143.88	336.3	19	38	1							
PADOVA	144.51	329.1	19	43	4							
CHUR	144.53	332.9	19	43	4							

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 274

BASLE	144.81	335.4	19 40A	1	
NEUCHATEL	145.49	335.5	19 42	2	
PARIS	145.50	341.7	19 42	2	
BESANCON	145.66	336.7	19 44	3	
FLORENCE X.	145.99	327.7	19 32A	-9	20 6
FOLINIÈRE	146.36	344.8	19 43	1	
ROME	146.61	324.1	19 48	6	30 12 SKKS
MESSINA	146.94	316.1	19 46	3	
CLERMONT-FD.	147.96	338.3	19 51	7	
BAGNERES	151.35	339.4	19 57	7	
ALGIERS UNI.	155.38	327.5	19 52	-3	20 24 PKP2
TAMARRASSET	161.42	292.1	20 4	2	24 33 PP

MARCH 20 3.H 30.M 27.5 EPICENTRE 36.77 71.05 DEPTH= 73.KM

A= 0.26073 B= 0.75942 C= 0.59607 D= 0.9458 E=-0.3247
G= 0.1936 H= 0.5638 K=-0.8029 HT= -0.5

DEPTH OF FOCUS= 0.006R

SE= 2.38

	DELTA DEG.	AZ. DEG.	P		O-C S	S		O-C S	*PP		SUPP.	
			M	S		M	S		M	S	M	S
KHOROG	0.80	28.4	0	18	0	0	29	-2				
GARM	2.30	345.2	0	38	1	1	11	6				
DZERGETAL	2.45	3.3	0	41	2	1	15	7				
DUZHANBE	2.55	315.4	0	41	0	1	13	2				
MURGAB	2.79	54.3									0	56
FERGANA	3.65	8.8	0	57	1	1	39	1				
ANDI JAN	4.10	14.1	1	3	1	1	50	1			1	27
NAMANGAN	4.23	6.4	1	5	1	1	52	-1				
SAMARKAND	4.32	313.3	1	3	-2							
TASHKENT	4.74	343.6	1	10	-1	2	4	-1				
TCHIMKENT	5.63	349.0	1	22	-1						2	18
FRUNSE	6.64	23.3	1	38	1	2	52	0			3	20
RYBACHE	6.91	33.3				2	55	-4			1	41
QUETTA	7.41	208.7	1	48K	0	3	10	-1			2	22 *SP
ALMATA	7.91	33.1	1	55	0	3	23	-1			3	52
PRZHEVALSK	8.04	42.6	1	56	-1							
KURMENTY	8.34	39.5	2	1	0							
DEHRA DUM	8.69	135.8	2	6	0	3	36	-7			2	15 PP
ASHKABAD	10.18	280.4	2	25	-1	4	20	1			4	59
KIZYL-ARVAT	11.91	286.2	2	48	-1						5	14
KARACHI	12.39	197.2	2	50	-5							
SEMIPALATNSK	15.15	23.1	3	33	2						6	28
TEHERAN	15.90	272.1	3	45	4	6	54	19				
CHATRA	16.89	121.4	3	48	-5	6	44	-13			4	7 PPP
SHIRAZ	17.04	250.7	3	56K	1	7	13	12			7	29 SS
BOMBAY	17.87	174.5	3	33	-32						7	33
BOKARO	18.10	131.4	4	32	24	7	43	19			4	56 PP
LHASA	18.16	107.3	4	7	-2							
POONA	18.34	171.5	4	10K	-1	7	52	22				
TIFLIS	20.89	291.8	4	39	0							
SHILLONG	20.98	116.3	4	39	-1							
SVERDLOVSK	21.25	344.1	4	41	-1						5	1
CHITTAGONG	23.01	122.9	5	5	5	9	8	7	5	33	5	47 PP
MADRAS	25.05	158.6	5	28	9						9	35
LANCHOW	26.32	81.7	5	31	0							
CHENG TU	27.99	92.9	5	47	1						10	48
ULAN-BATOR	28.50	55.7	5	51	0							
KYAKHTA	28.72	50.5	5	51	-2							
KSARA	28.76	274.7	6	11	18							
KABANSK	29.31	47.3	5	57	-1						11	11
MOSCOW	29.47	320.7	5	58	-1							
HELWAN	33.72	270.0	6	53	16						9	15
PULKOVO	34.71	324.6	6	44	-1							
APATI TY	37.38	337.3	7	7	-1	12	45	-5				
KAJAANI	37.62	330.4	7	9A	-1							
NURMI JARVI	37.63	324.1	7	10	0							
KRAKOW	38.69	306.6	7	19	0						7	54
CANTON	38.79	98.5	7	20	1							
SODANKYLA	39.51	334.8	7	25	0						9	31 PCP
UMEA	40.60	328.1	7	37	3							
UPPSALA	40.88	321.7	7	36A	-1							
ZO-SE	41.59	82.7	7	43	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 275

MEDAN	41.67	135.9	7 51	8				
KIRUNA	41.86	333.9	7 45A	0				
NHATRANG	42.05	115.6	7 47	1				
PRUHONICE	42.16	306.7	7 49A	2			9 26 PP	
KASPERSCHE H.	42.86	305.5	7 54	1			9 21	
TROMSOE	43.03	336.1	7 55	1				
COLLMBERG	43.05	308.7	7 55A	0	13 2 -72		9 44 PCP	
COPENHAGEN	43.27	315.1	7 57K	1				
GOTEBORG	43.58	318.1	8 0A	1				
YAKUTSK	43.74	35.6	7 59	-1				
JENA	43.98	308.3	8 2	0		8 45	10 0 PPP	
SKAL STUGAN	44.00	326.6	8 2A	0				
TIKSI	45.50	22.1	8 12	-2	14 48 -2			
STUTTGART	45.71	305.5	8 17	1			9 57 PP	
TUBINGEN	45.89	305.2	8 18	1				
HEIDELBERG	45.98	306.4	8 18	0				
EBINGEN	46.01	304.7	8 19	1				
VLADIVOSTOK	46.18	62.4	8 18	-2				
STRASBOURG	46.73	305.5	8 17	-7				
BENSBERG	46.74	308.8	8 25	1				
BERGEN	47.07	321.8	8 27	0				
MANILA	49.52	102.8					8 47	
GARCH'	50.09	304.6	8 50	0		9 19	9 29 *SP	
PARIS	50.11	306.7	8 50	0				
KEW	51.28	310.6	9 0	1				
FOLINIERE	52.03	307.2	9 4	-1				
MATUSIRO	52.82	68.7	9 8A	-2		9 26	10 4	
BAGNERES	53.27	300.2	9 14	0				
NORD	53.54	349.5	9 15A	-1			10 20	
SCORESBY SD.	56.82	336.4	9 50	10				
TAMANRASSET	57.56	275.5	9 44A	-1		10 12	11 55 PP	
THULE	64.20	350.2	10 28	-2				
BROKEN HILL	64.85	226.4	10 34	0				
RESOLUTE	68.44	356.0	10 55A	-1				
BULAWAYO	69.35	222.7	11 2A	0				
PRETORIA	74.15	219.6	11 30	-1				
COLLEGE	74.21	16.2	11 30	-1		11 56	11 40 PCP	
KIMBERLEY	78.34	220.4	11 53	-1				
MUNDARING	80.38	142.3	12 3	-2				
CHARTERS TS.	90.62	114.7	12 55	-1				
SHAWINIGAN	90.91	336.0	12 59	2				
PENTICTON	93.76	7.0	13 11	1				
HUNGRY HORSE	95.13	3.4	13 17	0				
ADELAIDE	95.14	130.3	13 15K	-2				
RAPID CITY	99.36	355.8	13 36	0				
WICHITA MTS.	108.22	351.0	18 21	777			19 9	
TUCSON	111.31	1.7	18 28	2			18 48	
SOUTH POLE	126.59	180.0	18 55	0				
BYRD STATION	136.44	177.3	19 1	-13				

MARCH 20 6.H 16.M 23.S EPICENTRE 11.51 -86.35 DEPTH= 56.KM

A= 0.06238 B=-0.97R16 C= 0.19829 D=-0.9980 E=-0.0636
G= 0.0126 H=-0.1979 K=-0.9801 HT= 6.3

DEPTH OF FOCUS= 0.004R

SE= 2.73

	DELTA DEG.	AZ. DEG.	P		O-C S	S O-C			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
SANTIAGO MA.	2.85	313.8	0	44	0						1	26 SG
SAN SALVADOR	3.52	308.1	0	53	0	2	31	57				
BALBOA HTS.	7.15	110.2	1	41	-3	3	27	22				
COMITAN	7.32	310.7	1	49	3	3	17	8				
MERIDA	9.89	341.9	2	18	-4	4	9	-3			2	39
GALERAZAMBA	10.90	92.7	2	46	11							
OAXACA	11.49	299.7	2	44	1	5	13	22			2	49 PP
VERA CRUZ	12.13	310.2	2	54	2							
CHINCHINA	12.45	120.6	2	59K	3	5	33	19				
FUQUENE	13.85	114.7	3	13A	-2							
BOGOTA	13.95	118.4	3	15K	-1	5	56	6				
TACUBAYA	14.65	303.9	3	22K	-3	6	16	10				
GUADALAJARA	18.66	301.4	4	13	-2							
CARACAS	19.09	91.1	4	16	-4	7	52	4				
SAN JUAN	20.69	68.3	4	37	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 276									
COLUMBIA	22.91	11.4	5	2	3	9	37	36			
ST. KITTS	23.59	73.0	5	6	0						
TRINIDAD	24.50	89.6	5	12	-3						
ST. VINCENT	24.55	83.5	5	17	2						
FORT FRANCE	24.75	79.8	5	16	-1						
CHIHUAHUA	25.10	315.6								7	28
CHAPEL HILL	25.18	14.0								5	23
FAYETTEVILLE	25.48	345.1	5	24A	0	10	15	30	5	38	6 25 PP
WICHITA MTS.	25.65	336.2	5	24	-2	10	1	13			8 54 PCP
HUANCAYO	25.84	154.6	5	26	-2	10	20	29			
LUBBOCK	26.15	329.6	5	30	0						
LAWRENCE	28.47	345.3	5	50	-1						
WASHINGTON	28.50	15.3	5	54	2	11	32	58			6 58
GEORGETOWN	28.50	15.3	5	53	1	11	6	32			
MORGANTOWN	28.57	10.4	5	53K	1						
PENNSYLVANIA	30.11	12.9	6	8	2						
CLEVELAND	30.15	7.2	6	7	1						
TUCSON TELE.	30.53	316.6	6	9	-1				6	50	9 6 PP
TUCSON	30.55	316.3	6	8	-2	11	8	2	6	32	9 2 PCP
FORDHAM	31.22	18.4	6	17	1						
PALISADES	31.36	18.3	6	16A	-1	10	51	-28	6	28	7 39 PP
AREQUIPA	31.44	151.8	6	18	0						
LA PAZ	33.16	146.7	6	33	0	11	55	8			
WESTON	33.43	20.4	6	35	0	12	25	34			7 57 PP
GLEN CANYON	34.03	322.4	6	41	1	13	3	62			9 19 PCP
OTTAWA	34.97	13.1	6	47A	-1						
BOULDER CITY	35.43	318.2	6	53	1						
RAPID CITY	35.56	338.9	6	54	1	12	40	16	7	15	8 20 PP
FLAMING GRGE	35.63	329.4	6	53	-1	13	9	44			8 35 PP
PASADENA	36.73	313.0	7	3	0	12	59	17	7	16	8 39 PP
SHAWINIGAN	36.77	15.7	7	3A	-1						
SALT LAKE C.	36.78	326.9	7	16A	12	13	33	50			9 26 PCP
RUTH	37.52	322.3	7	14	4						
ANTOFAGASTA	38.31	156.1	7	22	6						
HALIFAX	38.34	26.4	7	18	1						
FRESNO	39.21	315.6	7	24	0						17 43
BOZEMAN	40.02	332.9	7	30	-1						9 15 PCP
RENO	40.71	319.2	7	37A	1						
LICK	40.76	315.2	7	38A	1						9 39 PCP
BUTTE	40.98	332.0	7	38	-1						
CONCORD	41.37	315.7	7	44K	2						
BERKELEY	41.45	315.5	7	44K	2	14	4	11			9 38 PCP
MINERAL	42.30	319.1	7	52A	3						
HUNGRY HORSE	43.39	333.2	7	57	-1						8 37 PP
CORVALLIS	45.69	323.1	8	19	2						
PENTICTON	46.67	330.4	8	22A	-2						
SANTA LUCIA	47.14	162.0				15	15	-1			18 11 SKS
VICTORIA	48.08	327.4	8	34	-2						
ALBERNI	49.27	327.5	8	45	0						
RESOLUTE	63.33	357.5	10	21A	-4						
MBOUR	67.45	79.1	10	53	1	19	57	15			
COLLEGE	67.72	336.1	10	50	-3				11	18	13 14 PP
SCORESBY SD.	70.79	18.7	11	39	27						
DURHAM	77.68	36.2	11	32K	-20	20	59	-39			
KEW	78.63	39.5									22 7
FOLINIERE	78.73	42.3	11	56	-2						
ALGIERS UNI.	82.74	54.0	12	13	-6						15 42 PP
STRASBOURG	84.18	41.7									23 7
STUTTART	85.12	41.4	12	48	17						
KIRUNA	85.64	21.4	12	32	-1						
JENA	86.10	38.9	12	49	13						
KHEYS	86.28	5.5									16 10
COLLMBERG	86.88	38.3	12	40	1						16 8 PP
UMEA	86.93	25.2	12	46	6						
TAMANRASSET	87.32	67.4	12	40	-2	23	16	0	13	10	16 6 PP
PRUHONICE	88.18	39.4	12	55	9				13	17	16 17 PP
ROME	88.88	47.5									23 37
PULKOVO	92.96	26.9									16 51
BYRD STATION	92.99	185.5	13	5	-3						
ISTANBUL KA.	100.86	44.1									17 45 PP
SOUTH POLE	101.44	180.0	13	46	0						
YAKUTSK	101.47	343.5									17 1
SIMFEROPOL	102.32	38.8									19 58
SCOTT BASE	104.72	192.1				25	16	41			18 13 PP
BROKEN HILL	116.60	100.5	18	37	0						
BULAWAYO	117.16	106.8	17	39	-60						
RIVERVIEW	123.25	237.1	18	48A	-2						
NAMANGAN	123.96	20.0									20 37
PEKING	124.62	339.1	18	53	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 277

CANBERRA	124.74	235.0	18	55K	2		
CHARTERS TS.	128.84	253.5	19	1	0	22	21
ZO-SE	130.06	328.8	19	4	1	22	31
WARSAK DAM	130.10	24.1	19	4	0		
QUETTA	131.23	31.2	19	7	1	22	31 PKS
LANCHOW	131.73	348.9	19	8	1		
ADELAIDE	132.97	232.6	19	9	0		
DEHRA DUN	135.78	19.5				22	50
CHENG TU	136.90	346.9	19	17	1	22	54
CANTON	140.57	330.8	19	20	-3	23	6
HONG KONG	140.83	329.1	19	26	3	23	5
MANILA	142.38	313.1	19	24	-2	22	35
KUNMING	142.53	346.4	19	32	6		
SHILLONG	143.10	2.7	19	24K	-3		
MUNDARING	150.90	222.1	19	40	0		
NHATRANG	151.81	326.3	19	43	2	20	18
MEDAN	164.19	341.3	19	56A	0		
LEMBANG	165.45	287.4	19	55A	-3	24	51 PPP

MARCH 20 11.H 38.M 43.S EPICENTRE 46.58 142.88 DEPTH= 349.KM

A=-0.54998 B= 0.41628 C= 0.72404 D= 0.6035 E= 0.7973
G=-0.5773 H= 0.4370 K=-0.6898 HT= -4.1

DEPTH OF FOCUS= 0.050R

SE= 3.92

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
Y. -SAKHLINSK	0.45	346.2	0	44	-1	1	19	-1				
WAKKANAI	1.43	216.1	0	45A	-3	1	21	-5				
UGLEGORSK	2.56	348.0	0	59	3	1	42	2				
RUMOE	2.78	199.1	0	53	-5	1	37	-6				
ASAHI GAWA	2.82	187.5	0	55	-3							
OB IHIRO	3.67	176.3	1	1	-5	1	48	-10				
SAPORO	3.68	197.7	1	1A	-5	1	50	-8				
KURILSK	3.74	109.4	1	5	-2	1	56	-3				
KUSIRO	3.76	162.7	0	59	-8							
NEMURO	3.78	148.5	0	59	-8	1	46	-14				
TOMAKOMAI	4.06	193.7	1	5	-5	1	56	-9				
SUTTSU	4.23	207.5	1	8	-4	2	0	-8				
HIROO	4.31	175.6	1	5	-8	1	54	-16				
URAKAWA	4.43	180.9	1	8	-6	2	1	-11				
MURORAN	4.47	198.4	1	9	-5	2	1	-12				
MORI	4.78	201.1	1	13	-5	2	9	-10				
HAKODATE	5.01	198.4	1	13A	-7	2	10	-13				
ADMORI	5.96	195.5	1	26	-5	2	28	-14				
HATINOHE	6.13	189.7	1	24	-9	2	28	-18				
MIYAKO	6.96	185.8	1	34	-9	2	45	-18				
MORIOKA	6.99	190.9	1	35A	-8	2	47	-17				
AKITA	7.15	197.5	1	38	-7	2	54	-13				
MIZUSAWA	7.56	190.4	1	44	-6	3	0	-16				
SAKATA	8.00	197.3	1	49	-6	3	15	-10				
ISINOMAKI	8.23	188.6	1	51K	-7	3	15	-15				
SENDAI	8.43	190.7	1	54	-6	3	19	-16				
YAMAGATA	8.53	193.5	1	54	-7	3	23	-14				
NIIGATA	9.11	199.5	2	19	11						3	40
AIKAWA	9.22	203.4	2	2A	-7							
ONAHAM	9.74	189.4				3	45	-20				
MITO	10.35	190.9	2	15	-8	4	2	-14				
NAGANO	10.50	201.1	2	21	-4	4	13	-6				
KAKIOKA	10.54	192.0	2	19	-6	4	6	-14				
TUKUBASAN	10.56	192.3	2	18	-8	4	3	-18				
MAEBASI	10.56	197.0	2	18A	-8	4	13	-8				
MATUSIRO	10.62	200.8	2	20K	-6	4	11	-11			3	53
OI WAKE	10.74	199.1	2	23	-5							
TOYAMA	10.74	205.2	2	22	-6	4	15	-10				
KUMAGAYA	10.75	195.4	2	24	-4	4	25	0				
TYOSI	10.96	188.7	3	54	84	4	14	-15				
TOKYO C.M.O.	11.14	193.3	2	30	-3	4	26	-7				
KOHU	11.37	198.1	2	31	-4	4	30	-8				
YOKOHAMA	11.40	193.4				4	36	-3				
IIDA	11.69	200.8	2	31	-8	4	33	-12				
MEHA	11.88	192.3	4	16	95							
PETROPAVLOVK	12.04	51.9	2	45	2	4	53	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 278							
GIHU	12.08	204.5				4	46	-8	
NAGOYA	12.24	203.4	2	39	-7	4	50	-7	
CHANGCHUN	12.69	263.8	2	48	-3	5	6	-1	
KYOTO	12.75	207.6	2	55	3	5	37	29	
ABUYAMA	12.94	207.8	2	47K	-7				
NARA	13.03	206.6	2	49	-6				
MAGADAN	13.82	17.1	3	6	2				
YAKUTSK	17.21	338.7	3	39	-1				
PEKING	20.45	261.0	4	11	-1	7	39	3	
ZO-SE	22.79	234.9							9 57
ULAN-BATOR	24.32	286.4	4	48	-1				
IRKUTSK	25.49	297.1	4	59	0				
TIKSI	25.99	349.9	5	2	-2				
LANCHOW	30.87	264.2	5	47	0				
CANTON	33.39	235.6							13 45
CHENG TU	33.89	255.9				11	8	-3	
KUNMING	38.40	250.2							12 17
SEMI PALATNSK	40.60	299.1	7	6	-2				
COLLEGE	40.64	37.8	7	8	-1			8 29	8 53 PCP
KHEYS	43.58	346.3	7	34	2				
SHILLONG	45.35	260.7	7	44K	-2				
CHITTAGONG	47.53	257.4	8	11	8				
SITKA	48.69	46.1	8	12	0				
SVERDLOVSK	49.01	313.8	8	13	-1				
ANDI JAN	49.79	290.3							9 31
NORD	51.60	356.2	8	32A	-2				
RESOLUTE	53.12	16.3	8	44A	-1				
STALINABAD	53.30	289.9							9 55
WARSAK DAM	54.09	283.7	8	51	-1				
APATITY	54.53	333.6	8	54	-1				
THULE	55.66	8.5	9	1	-2				
SODANKYLA	56.66	335.5	9	9	-1				
TROMSOE	57.09	339.8	9	12	-1				
KIRUNA	58.03	337.8	9	19A	0				
ALBERNI	58.07	50.5	9	19	0				
KAJAANI	58.57	332.2	9	23A	0				
VICTORIA	59.26	50.5	9	27	-1				
QUETTA	59.51	282.9	9	28	-1	17	11	1	10 12 PCP
MOSCOW	60.37	321.1	9	31	-4				
PENTICTON	60.75	48.0	9	38A	0				
UMEA	61.06	334.7	9	39	-1			9 57	10 17 PCP
CORVALLIS	61.73	54.1	9	45A	1				
NURMI JARVI	62.11	330.4	9	45	-2	17	43	0	11 5
SCORESBY SD.	62.73	354.3	9	52	1				10 21 PCP 10 26 PCP
SKALSTUGAN	63.46	337.7	9	55	0				
HUNGRY HORSE	64.20	46.2	10	0	0				10 31 PCP
SHASTA	64.72	56.9	10	4A	1				
UPPSALA	64.91	332.9	10	4A	-1				10 33 PCP
MINERAL	65.40	56.8	10	8A	0				
TIFLIS	65.95	305.7	10	12	1				
TEHERAN	66.02	297.1	10	12	0				
BUTTE	66.51	47.3	10	13	-2				
BERKELEY	66.65	59.2	10	11A	-5				
RENO	66.97	56.5	10	19	1				
LICK	67.37	59.3	10	20A	0				
BOZEMAN	67.52	46.8	10	22	1				
GOTEBORG	68.39	334.1	10	26	0				
FRESNO	68.84	58.6	10	29	0				
SHIRAZ	69.35	291.5	10	32K	0	19	9	-1	
LWOW	70.36	323.0	10	39	1				
SALT LAKE C.	70.55	51.0	10	40	1				11 15 PCP
PASADENA	71.61	59.7	10	45	-1				12 35
FLAMING GRGE	71.74	49.5	10	47	1				
BOULDER CITY	72.28	56.3	10	50	0				
COLLMBERG	73.39	329.8	10	56A	0			12 16	12 52 *SP
GLEN CANYON	73.40	53.6	10	57	1			12 19	
PRUHOINE	73.93	328.2	11	0	1			12 20	12 56 *SP
I STANBUL KA.	74.73	314.2	11	3	-1				
KASPERSKE H.	74.99	328.2	11	6A	1				
BENSBERG	75.60	332.9	11	9A	0				
STUTTGART	76.81	330.5	11	16	1				
TUBINGEN	77.08	330.5	11	17	0				11 37
TUCSON TELE.	77.26	56.4	11	18	0				
TUCSON	77.26	56.5	11	18	0			12 41	
EBINGEN	77.42	330.4	11	19	0				
STRASBOURG	77.48	331.3	11	20	1				11 59
PARIS	78.93	334.6	11	29	2				
BESANCON	79.23	331.7	11	29	1				
FOLINIERE	79.82	336.3	11	32	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 279

GARCHY	80.12	333.5	11 33	0		
LAWRENCE	80.24	42.2	11 33	-1		
FLORENCE X.	80.37	326.7	11 32	-2		
ADELAIDE	81.26	183.5	11 36	-3		
ISOLA	81.55	329.5	11 43	2		
WICHITA MTS.	82.00	47.0	11 43A	0		
SHAWINIGAN	82.12	24.0	11 43A	0		
OTTAWA	82.30	26.3	11 43A	-1		
FAYETTEVILLE	83.06	43.2	11 48A	0		
BAGNERES	84.81	333.5	11 56	-1		
MORGANTOWN	86.03	31.8	12 4A	1		
WESTON	86.36	24.7	12 5K	1		
KARAPIRO	89.08	154.7	12 16	-1	13 37	
TAMANRASSET	100.93	320.4	13 9	-2		17 30 PP
SOUTH POLE	136.39	180.0	18 40	-1		
BYRD STATION	136.79	165.4	18 27	-14		21 28 SKP

MARCH 20 15.H 53.M 23.S EPICENTRE -18.47-175.27 DEPTH= 248.KM

A=-0.94587 B=-0.07830 C=-0.31495 D=-0.0825 E= 0.9966
G= 0.3139 H= 0.0260 K=-0.9491 HT= 5.0

DEPTH OF FOCUS= 0.034R

SE= 2.17

	DELTA DEG.	AZ. DEG.	P		O-C S	S O-C			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
AFIAMALU	5.64	36.9	1	27A	3							
NOUMEA	17.56	254.4	2	51	-59						3	39
ONERAHI	19.52	206.0	4	10	0	7	40	8				
AUCKLAND	20.30	203.5	4	17	-1	7	49	3			5	15
KARAPIRO	20.99	200.7	4	25A	0	8	12	13				
WELLINGTON	24.28	198.5	4	55K	-1	8	55	0			5	53 PP
COBB RIVER	24.77	202.0	5	2	1	9	6	3				
HONIARA	25.65	287.2	5	8	-1						5	49
GEBBIES PASS	27.13	199.4	5	21	-1	9	39	-2			15	51 SCS
ROXBURGH	29.82	202.1	5	47	1	10	23	0			6	49 PP
BRISBANE	30.66	247.3	5	52	-1	10	36	-1				
RIVERSVIEW	33.62	236.3	6	18K	-1	11	26	4	7	3	7	41 PP
RABAUL	34.84	290.0	6	26	-3						8	7
CANBERRA	35.78	234.8	6	37A	0	11	58	3	7	23	8	10 PP
CHARTERS TS.	36.30	261.0	6	40	-2	12	0	-3				
PORT MORESBY	37.51	278.7	6	51	-1	12	22	0	7	38	8	27 PP
MELBOURNE	39.64	232.5	6	58	-11							
MOORLANDS	39.75	224.9	7	9K	-1						9	13 PCP
FORT NELSON	39.86	224.1	7	11	0	13	3	6				
TARRALEAH	40.18	225.4	7	13K	-1							
MACQUARIE I.	41.03	202.7	7	22	1							
HONOLULU	42.95	23.8	7	36	0							
KIPAPA	43.09	23.9	7	36	-1							
ADELAIDE	43.86	238.5	7	42K	-1	13	55	0	8	19	9	28 PP
GUAM	50.61	306.0	8	35	-1						9	48 PCP
SCOTT BASE	60.06	184.3	9	44K	1	17	49	14			12	1 PP
MUNDARING	62.53	243.1	9	58	-1							
PERTH	62.85	243.0	10	3	2	19	22	72				
RYRD STATION	66.22	170.9	10	23	0				11	12	19	0 SCS
WILKES	66.90	205.0	10	28A	1	17	53	-66	11	12	12	57 PP
YOKOHAMA	68.56	321.6	10	37	-1							
TOKYO C.M.O.	68.67	321.8	10	40	2	19	16	-4				
MISIMA	68.76	320.9	10	39	0							
KAKIOKA	68.81	322.5	10	40	1							
TUKUBASAN	68.84	322.5	10	39	0	19	25	3			20	21 PS
OMAESAKI	68.85	320.1	10	40	1	19	28	6				
ONAHAMA	68.90	323.5	10	40	0							
HUNATU	69.13	321.1	10	43	2	19	32	7				
UTUNOMIYA	69.21	322.6	10	43	1						11	22
KUMAGAYA	69.21	322.0	10	44	2						20	27
HAMAMATU	69.24	319.9	10	43	1							
KOHU	69.37	321.1	10	44	1	19	34	6				
SHIRAKAWA	69.41	323.2	10	42	-1							
MAEBASI	69.57	322.0	10	43K	-1							
SIOMISAKI	69.62	317.7	10	34	-10	19	40	9				
ISINOMAKI	69.72	324.9	10	46	1							
OWASE	69.75	318.5	10	44	-1							
OIWAKE	69.83	321.6	10	48	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 280									
SENDAI	69.84	324.5	10 47	2							
NAGOYA	69.99	319.8	10 45	-1	19 39	4					
KAMEYAMA	70.09	319.3	10 48	1	19 44	8					
MATUMOTO	70.11	321.2	10 40	-7							
YAMAGATA	70.13	324.2	10 47	0							
MATUSIRO	70.17	321.6	10 46K	-1	19 42	5	11 49	16 17	*PPPP		
MIYAKO	70.26	326.2	10 47	-1							
NAGANO	70.26	321.7	10 50	2				18 37			
GIHU	70.27	319.9	10 48	0	19 45	6					
MIZUSAWA	70.33	325.3	10 50	2	19 33	-6					
NARA	70.38	318.8	10 50	1							
KYOTO	70.66	319.0	10 53	3							
ABUYAMA	70.67	318.8	10 51K	1							
SUMOTO	70.74	318.0	10 51K	0	19 51	7					
MANILA	70.83	293.3	10 54	3				19 7			
TOYAMA	70.88	321.1	10 52K	0							
HATINOHE	71.13	326.5	10 52	-1	19 53	5					
KOTI	71.13	316.5	10 53	0	19 48	0					
AIKAWA	71.16	322.8	10 49	-4	19 46	-3					
NEMURO	71.23	330.9	10 55	1	19 52	2					
TAKAMATU	71.28	317.5	10 55	1				11 37			
AKITA	71.31	325.1	10 54K	0	19 53	3					
YAKUSIMA	71.32	312.3	10 57	3	19 58	7					
WAZIMA	71.51	321.5	10 58	3							
KUSIRO	71.52	329.9	10 50	-5	19 54	1					
MIYAZAKI	71.55	314.0	10 57	1	20 3	10					
TOYOOKA	71.56	318.9	10 56K	0	19 59	6					
SOUTH POLE	71.64	180.0	10 56	0			11 48	28 1	SCS		
AOMORI	71.73	326.3	11 0	3	20 16	21					
MATUYAMA	71.80	316.4	10 59	2	20 5	9					
BAGUID CITY	72.02	294.8	11 0	1							
OBIHIRO	72.05	329.2	11 0	1	20 6	7					
OOITA	72.20	315.2	10 59K	-1	20 8	8					
HIROSIMA	72.36	316.6	11 0K	0	20 8	6					
HAKODATE	72.45	327.0	11 2	1							
TOMAKOMAI	72.63	328.1	11 5	3	20 11	6					
HAMADA	72.92	316.9	11 5K	1	20 15	6					
SAPPORO	73.07	328.3	11 3	-2	20 13	3					
NAGASAKI	73.08	313.9	11 5K	0	20 17	7					
SIITTSU	73.44	327.4	11 8	1	20 22	8					
RUMOE	73.58	329.0	11 9	1							
MIRNY	73.91	204.6	11 10	0				14 2	PP		
PETROPAVLOVK	74.69	344.0	11 12	-2	20 32	4					
BRANNER	74.74	41.3	11 15A	1							
BERKELEY	74.96	40.9	11 15K	-1	20 39	8	12 0	14 57	*PPP		
LICK	75.03	41.6	11 15K	-1			12 5				
CONCORD	75.14	40.9	11 16K	-1			12 5				
UKIAH	75.16	39.4	11 13	-4							
Y.-SAKHLINSK	75.36	331.8	11 18	0	20 42	7	11 52	14 7	PP		
PASADENA	75.43	46.0	11 19A	1	20 43	7	12 3	14 8	PP		
LEMBANG	75.68	267.5	11 20K	0	20 41	2		14 9	PP		
FRESNO	75.86	43.0	11 21A	0			12 12				
DJAKARTA	76.62	267.9	11 25K	0	20 49	0		14 17	PP		
SHASTA	76.65	38.5	11 25K	0			12 14				
MINERAL	76.90	39.2	11 25K	-1			12 14				
RENO	77.50	40.7	11 29K	-1			12 23				
VLADIVOSTOK	78.15	323.4	11 35	2	21 15	10					
ZO-SE	78.42	308.4	11 36K	1	21 15	7	12 28	12 49	*SP		
CORVALLIS	78.60	35.0	11 37K	1							
BOULDER CITY	78.72	46.0	11 36K	0							
TUCSON	79.64	51.0	11 41K	0	21 23	2	12 30	14 55	PP		
TUCSON TELE.	79.77	51.0	11 42	0							
EUREKA	79.89	42.5	11 42K	0	21 41	17	12 36	14 44	PP		
HONG KONG	80.00	297.5	11 45K	2	21 35	10		14 46	PP		
RUTH	80.39	43.2	11 44K	-1	21 37	8	12 29				
NHATRANG	80.46	286.3	11 47K	2	21 36	7					
GUADALAJARA	80.51	64.5			21 41	11		14 1			
ALBERNI	80.91	30.8	11 48	0							
CANTON	81.02	297.9	11 51K	3	21 46	11		13 2	*SP		
VICTORIA	81.11	32.0	11 45	-4							
GLEN CANYON	81.46	46.5	11 51	0	21 53	13	12 42	14 37	PP		
CHIHUAHUA	81.59	56.2			21 54	13	12 50				
ARGENTINE I.	81.81	156.6	11 59	7	21 52	9					
SITKA	82.31	20.7	11 55	0			12 45				
CHANGCHUN	82.41	321.1	11 57K	1	21 58	9		13 9	*SP		
MAGADAN	82.53	343.3	11 52	-4	21 55	5		15 10	PP		
SALT LAKE C.	83.24	43.2	12 0K	0	23 8	70	12 53	35 7	PKPPKP		
PENTICTON	83.55	32.9	11 59	-2							

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 281

TACUBAYA	83.59	67.2	12	OK	-2	22	6	5		15	19	PP
MAWSON	84.32	199.1	12	6A	1	22	12	4		23	36	*SS
OAXACA	84.87	70.3				22	3	-10	13	1		
FLAMING GRGE	84.93	44.0	12	8K	0	22	16	2	13	3		
BUTTE	85.56	38.4	12	11	0							
COLLEGE	85.71	11.4	12	10	-2	22	17	-4	13	3	15	40 PP
HUNGRY HORSE	85.99	35.9	12	12K	-1	22	22	-2	13	7	15	32 PP
VERA CRUZ	86.21	68.5	12	16	1	22	41	15	13	7	22	25 SKS
BOZEMAN	86.28	39.3	12	15K	0	22	0	-27	13	8	15	36 PP
PEKING	86.30	314.3	12	17K	2				13	11	13	29 *SP
LUBBOCK	86.98	53.2	12	19	1							
MEDAN	87.38	274.6	12	20	0	22	32	-5				
COMITAN	88.78	72.5				23	7	17	13	17	22	45 SKS
SIAN	89.07	306.6	12	30K	2							
WICHITA MTS.	89.91	53.3	12	31	-1	22	46	-14			16	5 PP
KUNMING	90.75	296.1	12	40	4	23	23	15			22	52 SKS
KERGUELEN I.	91.19	216.5	12	50	12	23	23	11				
YAKUTSK	91.21	337.3	12	36	-2							
SANTA LUCIA	91.59	126.0	12	41	1	23	27	12	13	29	16	19 PP
CHENGTU	91.60	301.7	12	42K	2	23	30	15	13	37	13	55 *SP
MERIDA	92.56	68.9				23	2	-22			16	28 PP
LANCHOW	93.61	306.7									22	53
FAYETTEVILLE	93.75	53.3	12	50	0	23	45	11	13	12	16	35 PP
HUANCAYO	95.45	104.5	13	3	6						23	21 SKKS
PORT BLAIR	95.51	280.4	12	59	1	23	18	10			16	53 PP
ANTOFAGASTA	95.57	117.1	13	2	4							
ULAN-BATOR	95.65	318.6	12	59	1							
AREQUIPA	97.37	110.0	13	10	4							
TIKSI	97.46	344.7	13	4	-3						17	1 PP
TOCKLAI	98.07	295.4	13	18	9							
IRKUTSK	98.70	322.2	13	12	0						17	16 PP
SHILLONG	100.25	293.6	13	18K	-1	23	39	7			17	26 PP
LA PAZ	100.34	111.3	13	23	3	23	43	10				
CHINCHINA	100.69	88.3	13	23	2	23	41	6			17	31 PP
CHATRA	104.65	293.7	13	42	3	24	1	8			17	55 PP
CLEVELAND	104.73	50.8				24	1	8				
RESOLUTE	105.15	15.8	13	39	777						24	3
BOKARO	105.16	290.4	13	44	777	24	5	10			18	6 PP
CHAPEL HILL	105.51	56.9	18	5	777							
MORGANTOWN	105.55	53.0	13	45	777						17	59 PP
COLOMBO	106.22	272.0	13	49	777	24	10	10				
PENNSYLVANIA	107.32	52.1	19	4	777	24	13	8			25	5
MADRAS	107.63	278.1	13	54	777	24	18	12			18	26 PP
KODAIKANAL	109.44	274.6				24	23	9			18	44 PP
OTTAWA	109.54	47.5	18	1	777							
PALISADES	110.32	52.3	14	50	-192	24	26	9	15	24	19	2 PP
HYDERABAD	110.35	282.2				24	35	18			14	6
CARACAS	110.53	85.4				25	23	65			14	56
SHAWINIGAN	111.69	46.5	18	7A	2						29	14
WESTON	112.40	51.1	17	56	-10	24	36	10			19	14 PP
DEHRA DUN	113.19	295.7				24	36	7			19	16 PP
SEMPALATNSK	113.20	317.6	18	8	0	24	34	5			25	43
SAN JUAN	113.22	77.5	19	2	54							
KHEYS	113.81	351.7	18	10	1						19	4 PP
POONA	114.86	282.3									19	12 PP
BOMBAY	115.90	282.5				25	47	68			19	19 PP
NORD	116.20	3.4	18	14A	0						19	16 PP
FRUNSE	116.96	309.2	18	18	3	24	52	9	19	19	19	28 PP
HALI FAX	118.08	48.8	18	19	2							
WARSAK DAM	119.06	299.1	18	20	1							
TASHKENT	120.96	307.5									19	45 PP
KARACHI	122.16	288.1	18	29	4	25	14	13			20	0
QUETTA	122.72	294.4	18	29K	3	25	16	14	19	22	20	26 PP
SVERDLOVSK	123.75	326.8	18	30	2				19	26	20	12 PP
TANANARIVE	123.89	230.8	18	33A	4						20	15 PP
GRAHAMSTOWN	124.44	202.2	18	33A	3							
SCORESBY SD.	125.57	10.7	18	34A	2	25	44	33	19	30	20	55 PP
HERMANUS	125.62	194.7									20	32 PP
APATITY	127.63	346.5	18	37	1	25	27	10	19	33	20	38 PP
TROMSOE	128.11	353.7	18	27	-10						31	4
SODANKYLA	129.14	349.3	18	30	-9						20	48 PP
KIMBERLEY	129.21	202.9	18	41K	2							
ASHKABAD	129.64	304.3	18	42	2						20	55 PP
KIRUNA	129.66	352.3	18	32	-8						20	51 PP
PRETORIA	130.48	208.2	18	36	-5							
KAJAANI	131.83	346.7	18	33	-11						21	56 SKP
UMEA	133.47	350.6	18	36	-11						22	0 SKP
SKALSTUGAN	134.63	355.3	18	43K	-6						22	4 SKP
PULKOVO	134.81	342.1	18	53	4				19	44	21	24 PP

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961				PAGE 282			
BULAWAYO	135.04	212.6	18 37	-13			
SHIRAZ	135.24	293.7	18 53	3		22 6	SKP
TEHERAN	135.49	302.4	18 53	2		21 19	
NURMI JARVI	135.66	346.0	18 38	-13	19 50	22 24	PKS
WINDHOEK	137.45	197.0	18 47	-7			
UPPSALA	137.64	350.4	18 44	-10		21 44	PP
BERGEN	138.12	359.6	18 50	-5			
GORIS	138.48	309.2	19 2	6		22 37	PKS
TIFLIS	138.81	313.0	19 1	4			
BROKEN HILL	139.78	217.2	18 54K	-4			
GOTEBORG	140.46	353.9	18 54	-6			
COPENHAGEN	142.40	352.8	19 1A	-2	20 0	22 15	PP
DURHAM	143.45	6.1	19 4K	-1		40 36	SS
WARSAW	143.97	342.9	19 6K	0		22 21	PP
SIMFEROPOL	144.00	323.6	19 5	-1	20 5	22 23	PP
LWOW	145.10	338.0	19 9	1	20 8	22 31	PP
WITTEVEEN	145.69	357.9	19 13	4			
IASI	145.77	331.9	19 12	3	20 13	19 49	PKP2
KRAKOW	146.22	342.3	19 11K	1		22 36	
CHORZOW	146.27	343.5	19 12	2		21 29	
DE BILT	146.44	359.5	19 15K	5	20 7	42 37	SS
MUNSTER	146.50	356.8	19 13	3		20 6	
BACAU	146.55	331.8	19 16	6		20 6	
COLLMBERG	146.60	350.6	19 11K	1	20 9	22 38	PP
RACIBORZ	146.67	344.2	19 16A	5		23 49	
KEW	146.83	5.8	19 11K	0	20 6	41 13	SS
SKALNATE PL.	146.90	341.2	19 13	2	20 10		
FOCSANI	147.07	330.5	19 19	8		20 31	
JENA	147.16	352.0	19 12	1	26 10 17	20 7	22 39
PONTA DELGDA	147.24	47.9	19 15A	4		20 9	
BENSBERG	147.53	357.1	19 13K	1	20 9	22 48	PP
PRUHONICE	147.60	348.1	19 17	5		22 39	PP
CHEB	147.88	350.7	19 16	4		22 43	PP
KSARA	148.29	305.0	19 15	2	26 8 13	19 54	22 32
CAMPULUNG	148.39	332.1	19 17	4		29 26	
BUCHAREST	148.54	330.0	19 13K	0	26 5 10	20 10	19 47
KASPERSKE H.	148.59	348.8	19 15K	2		22 42	PP
LWIRO	148.61	231.5	19 19	6			
BRATI SLAVA	148.71	344.0	19 16	2	20 16		
BUDAPEST	148.79	341.1	19 20	6		22 52	PKS
VIENNA-H.	148.82	344.9	19 16K	2		19 28	PKP2
HEIDELBERG	148.98	354.9	19 16	2			
KECSKEMET	149.07	339.8	19 20	6			
ISTANBUL KA.	149.31	322.4	19 15	1	25 9 -47	20 4	22 53
ISTANBUL UN.	149.38	322.4	19 17	2		22 31	PP
KARLSRUHE	149.39	355.2	19 29	14	19 39		
FOLINIERE	149.48	6.8	19 17	2			
JERUSALEM	149.50	301.6	19 18K	3		22 20	PP
TIMI SOARA	149.55	336.9	19 25	10			
STUTT GART	149.55	354.1	19 15	0	20 4	41 43	SS
PARIS	149.68	2.9	19 19	4	20 22	22 56	PP
TUBINGEN	149.81	354.3	19 17	2			
STRASBOURG	149.87	356.0	19 19	4	19 52	22 57	PP
EBINGEN	150.17	354.3	19 17	1			
RAVENSBU RG	150.50	353.3	19 18	2			
BELGRADE	150.63	336.9	19 19K	3		29 36	PKKP
BASLE	150.93	356.0	19 22	5		22 0	
SOFIA	151.16	330.8	19 18	1		23 3	PP
ZAGREB	151.18	343.6	19 19K	2			
GARCH	151.24	2.4	19 19	2	20 22	23 7	PP
BESANCON	151.28	358.2	19 20	3			
LJUBLJAMA	151.33	345.7	19 20K	2	19 51	23 3	PP
CHUR	151.43	353.1	19 24	6			
NEUCHATEL	151.49	356.8	19 20	2			
LUANDA	151.59	197.9	19 21K	3	20 26	23 9	PP
TRIESTE	151.88	346.5	19 20	2		23 7	PP
PADOVA	152.49	349.1	19 23A	4	20 16	23 37	PP
CLERMONT-FD.	152.75	2.5	19 23	3		23 26	PP
PAVIA	153.11	353.0	19 16	-4		35 48	PPS
HELWAN	153.28	300.1	19 22K	2		23 10	PP
PRATO	154.11	349.4	19 27	6		24 25	PP
FLORENCE X.	154.18	349.1	19 22	0		23 14	PP
I SOLA	154.30	356.2	19 25	3		19 36	PKP2
ATHENS	154.46	323.4	19 25A	3		23 5	
MONACO	154.72	355.4	19 25	3		23 29	PP
BAGNERES	155.18	8.0	18 25	-58			
COIMBRA	155.55	24.9	19 26A	3		23 30	PP
ROME	155.73	345.8	19 24K	0	20 23	23 26	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 283

TOLEDO	157.36	17.8	19 29K	3			23 37	PP
CUGLIERI	158.12	352.1					29 7	
MESSINA	158.19	336.5	19 28	1			20 37	
REGGIO CALA.	158.24	336.2	19 25	-2			35 24	
MBOUR	158.79	97.8	19 31	3			23 50	PP
ALICANTE	159.68	11.9	19 19	-9	25 57	-11	23 45	PP
GRANADA	159.98	19.8	19 35K	6	26 35	27	23 59	PP
ALMERIA	160.63	17.6	19 30	1			20 14	
ALGIERS UNI.	161.71	4.3	19 32K	1			20 19	24 4 PP
RELIZANE	162.40	11.3	19 34	3			20 25	24 9 PP
TAMANRASSET	175.65	350.4	19 42K	2			20 36	25 11 PP

MARCH 20 23.H 42.M 43.S EPICENTRE -23.52-175.34 DEPTH= 42.KM

A=-0.91484 B=-0.07452 C=-0.39689 D=-0.0812 E= 0.9967
G= 0.3956 H= 0.0322 K=-0.9179 HT= 3.8

DEPTH OF FOCUS= 0.001R

SE= 4.39

	DELTA DEG.	AZ. DEG.	P			S			*PP		SUPP.	
			M	S	O-C S	M	S	O-C S	M	S	M	S
RAOUL ISLAND	6.15	201.5	1 13	-17	2 18	-22						
APIA	10.24	19.8	2 26	-1	4 16	-6						
ONERAHI	15.11	213.8	3 29	-3								
AUCKLAND	15.78	210.3			6 47	13				3 57		
KARAPIRO	16.34	206.4	3 40	-8								
NOUMEA	16.82	270.6	3 54	0						5 58		
WELLINGTON	19.55	202.8	4 14	-12	7 24	-35						
COBB RIVER	20.16	207.0			7 47	-25						
KAIMATA	21.90	207.0	4 36	-15	8 23	-22						
GEBBIES PASS	22.42	203.3	4 42	-14	8 29	-26						
ROXBURGH	25.20	205.9	5 13	-10	9 23	-20						
BRISBANE	28.99	255.6	5 49	-9	9 49	-55						
RIVERVIEW	31.02	243.1	6 6A	-9						7 10	PP	
CANBERRA	33.04	241.0	6 28	-5						7 42	PP	
CHARTERS TS.	35.74	267.9	6 48	-8	12 23	-7						
MOORLANDS	36.28	229.5	7 2A	1								
FORT NELSON	36.34	228.7			12 33	-7						
TARRALEAH	36.75	230.1	6 58	-7								
PORT MORESBY	38.48	285.1	7 12	-7						8 53		
ADELAIDE	41.35	243.3	7 34	-9	13 39	-15						
KIPAPA	47.75	22.0	8 37	3								
SCOTT BASE	55.05	184.6	9 25A	-4						10 29	PCP	
MUNDARING	60.28	245.5	9 58	-8								
PERTH	60.60	245.5	10 2	-6						18 22		
BYRD STATION	61.27	170.5	10 6	-7								
WILKES	62.33	206.0	10 18	-2	18 36	-6				20 4	SCS	
SOUTH POLE	66.62	180.0	10 40	-8								
MIRNY	69.32	205.3	10 56	-9						15 34	PP	
MANILA	72.82	294.9	11 29	3	20 31	-16						
TUKUBASAN	72.82	323.6	11 23	-3	20 53	6				21 46	PS	
MATUSIRO	74.09	322.6	11 30	-3	20 53	-9				14 33	PP	
BAGUIO CITY	74.12	296.2	12 31	58								
LEMBANG	75.44	268.8	11 36K	-5						21 48		
BERKELEY	78.83	40.2	12 3A	3	22 7	14				23 0	PPS	
LICK	78.85	40.9	11 55A	-5			12 3					
PASADENA	79.00	45.2	12 3	2	22 5	10				22 53	PS	
CONCORD	79.01	40.2	12 4A	3								
PETROPAVLOVK	79.51	344.4	11 58	-6	22 0	0				12 15	PCP	
MAWSON	79.55	199.3	12 0	-4	21 59	-2						
FRESNO	79.60	42.3	12 6	2								
Y.-SAKHLINSK	79.76	332.3	12 6	1	22 9	6						
SHASTA	80.64	38.0	12 12	2								
MINERAL	80.86	38.6	12 14K	3								
RENO	81.37	40.2	12 17K	4								
ZO-SE	81.51	309.1	12 14A	0	22 37	16						
NHATRANG	81.84	287.1	12 15	-1			12 24					
VLADIVOSTOK	82.16	324.0	12 17	0								
BOULDER CITY	82.28	45.4	12 18	0								
HONG KONG	82.29	298.3	12 19K	1	22 37	8				15 22	PP	
TUCSON	82.88	50.4	12 23	2	22 47	12				15 45	PP	
TUCSON TELE.	83.01	50.4	12 22	0						15 25	PP	
CANTON	83.34	298.6	12 24A	1	22 57	17						
EUREKA	83.65	42.1	12 25	0						15 29	PP	
NANKING	83.75	308.8	12 26A	0	23 0	16						

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 284									
RUTH	84.11	42.7	12 49A	22							
GLEN CANYON	84.98	46.1	12 32	0					15 36	PP	
CHANGCHUN	86.28	321.4	12 37	-1	23 20	11			23 6	SKS	
OAXACA	86.65	70.0							29 25	SS	
SALT LAKE C.	86.96	42.9	12 44	3					23 20		
KERGUELEN I.	87.10	216.5	12 57	15	23 19	3					
MAGADAN	87.32	343.5	12 43	0							
MEDAN	87.73	274.9	12 43	-2							
PENTICTON	87.81	32.8	12 45	-1							
VERA CRUZ	88.13	68.3							18 5	PPP	
SANTA LUCIA	88.69	126.0							23 17		
BUTTE	89.54	38.3	12 49	-5							
PEKING	89.76	314.4	12 55A	0							
HUNGRY HORSE	90.10	35.8	12 56	0					16 8	PP	
BOZEMAN	90.22	39.2	12 57	0							
COLLEGE	90.65	11.4	12 57	-2					16 14	PP	
SIAN	92.01	306.6	13 5	0							
KUNMING	92.90	296.0	13 10	1	24 23	14			23 48	SKS	
WICHITA MTS.	92.97	53.4	13 8	-2					14 42		
CHENG TU	94.18	301.5	13 15A	0	24 34	14			23 52	SKS	
HUANCAYO	94.23	105.0	12 53	-22					13 45		
AREQUIPA	95.69	110.6	13 21	-1							
YAKUTSK	95.81	337.2	13 20	-3							
PORT BLAIR	96.32	279.9	14 4	39					24 4		
LANCHOW	96.54	306.4	13 25	-1							
FAYETTEVILLE	96.80	53.7	13 28	1							
LA PAZ	98.54	112.1	13 37	2	24 53	45					
ULAN-BATOR	99.37	318.2	13 37	-2							
CHINCHINA	100.87	89.3			24 24	4					
BOGOTA	102.16	90.2							21 27	PKS	
SHILLONG	102.16	292.7	13 50K	-1							
TIKSI	102.28	344.4	13 58	6							
COLOMBO	106.26	270.5	18 25	777					24 53		
BOKARO	106.79	289.1	18 21	777							
MADRAS	108.20	276.6							24 52		
RESOLUTE	110.00	16.2	18 22	-4	26 48	107			38 37		
CARACAS	110.92	87.4			25 7	3			19 23	PP	
PALISADES	113.40	53.9	15 8	-205	25 20	6			19 56	PP	
DEHRA DUN	115.23	293.7							19 38		
BOMBAY	116.81	280.1							19 17		
FRUNSE	120.01	307.0	18 45	-1							
HERMANUS	120.73	194.0							36 42	SS	
TASHKENT	123.87	304.9							20 40	PP	
KIMBERLEY	124.53	201.5							24 49		
SVERDLOVSK	127.87	324.8	18 59	-2					28 1	SKKS	
BULAWAYO	130.72	210.2	19 3	-3							
ASHKABAD	132.28	300.6	19 6	-3					21 28	PP	
APATITY	132.49	345.5							21 30	PP	
SODANKYLA	134.06	348.4	19 12	-1							
KIRUNA	134.62	351.7	19 16	2							
BROKEN HILL	135.65	214.0	19 16	0							
SHIRAZ	137.00	288.8	19 17	-1					22 52	PKS	
TEHERAN	137.95	297.8	19 21	1					24 59	PP	
UMEA	138.41	349.7	19 15	-6							
PULKOVO	139.55	340.3	19 15	-8					22 21	PP	
SKALSTUGAN	139.64	354.7	19 24	1							
MOSCOW	139.72	331.6	19 16	-7					28 31	SKKS	
NURMI JARVI	140.50	344.6	19 18	-7							
GORIS	141.43	304.4	19 21	-5	26 20	-10			22 24	PP	
TIFLIS	142.04	308.3	19 23	-4					22 32	PP	
UPPSALA	142.57	349.3	19 24	-4							
LWIRO	145.23	225.8	19 31	-2					23 35		
GOTEBORG	145.45	353.1	19 30	-3							
LUANDA	146.75	195.6	19 39K	4					20 47		
COPENHAGEN	147.37	351.8	19 39	3							
SIMFEROPOL	147.88	318.9	19 35	-2					19 41	PKP2	
DURHAM	148.45	6.9	19 43K	5	26 51	11			23 24	PP	
WARSAW	148.72	340.5	19 45	6							
LWOW	149.68	334.8	19 46	6					19 55	PKP2	
IASI	150.09	327.8	19 50	9					20 46		
KSARA	150.85	297.6	19 42	0					23 27	PP	
KRAKOW	150.95	339.5	19 49	7							
CHORZOW	151.04	340.9	19 50	8							
RACIBORZ	151.46	341.6	19 47	4							
MUNSTER	151.51	356.2	19 51	8							
COLLMBERG	151.53	349.0	19 44K	1					23 21	PP	
SKALNATE PL.	151.60	338.2	19 47	4							
JERUSALEM	151.78	293.7	19 45	2					19 49		

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 285

KEW	151.84	6.6							43	1	SS	
JENA	152.12	350.6	19	44	0				23	22	PP	
PRUHONICE	152.48	346.1	19	51	7				30	23	SKKS	
BENSBERG	152.54	356.6	19	53	9				21	0		
BUCHAREST	152.75	325.1	19	31	-14				23	37		
ISTANBUL KA.	153.09	316.3	19	43	-2	26	48	2	23	34	PP	
ISTANBUL UN.	153.15	316.4	19	52	7				23	39		
BRATISLAVA	153.49	341.1	19	48	2				20	13	PKP2	
KASPERSKE H.	153.49	346.8	19	45	-1				22	39		
VIENNA-H.	153.63	342.2	19	48	2							
STUTTGART	154.54	352.9	19	49	2				23	42	PP	
PARIS	154.71	3.4	19	52	5				20	27	PKP2	
STRASBOURG	154.87	355.1	19	42	-5				30	29	SKKS	
BELGRADE	155.15	332.6	19	45A	-3				23	39	PP	
HELWAN	155.38	290.6	19	47	-1				24	8	PP	
LJUBLJANA	156.15	342.8	19	48	-1			20	2	20	19	PKP2
GARCHY	156.26	2.7	19	51	2				24	33	PP	
BESANCON	156.30	357.8	20	21	32							
PADOVA	157.39	346.7							20	27		
MBOUR	157.64	110.1	19	52	1				24	0	PP	
PAVIA	158.09	351.4	19	50	-2				38	52	PPS	
ATHENS	158.25	315.8							20	36	PKP2	
FLORENCE X.	159.08	346.5	19	54	1				24	8	PP	
ISOLA	159.30	355.1	19	56	3							
BAGNERES	160.15	9.8	19	55	1							
ROME	160.55	342.2	18	52	-62				24	28	PP	
CUGLIERI	163.07	349.7							45	47		
ALICANTE	164.58	15.4	19	57	-1	27	0	3	24	45	PP	
ALGIERS UNI.	166.73	5.6	20	0	0				24	53	PP	
TAMANRASSET	178.91	227.2	20	4	-1				25	40	PP	

MARCH 21 9.H 22.M 33.S EPICENTRE -21.67-179.92 DEPTH= 560.KM

A=-0.93018 B=-0.00123 C=-0.36711 D=-0.0013 E= 1.0000
G= 0.3671 H= 0.0005 K=-0.9302 HT= 4.3

DEPTH OF FOCUS= 0.083R

SE= 2.23

	DELTA DEG.	AZ. DEG.	P		O-C S	S O-C			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
AFIAMALU	10.94	46.5	2	27	-1	4	25	-2				
ONERAHI	14.91	198.3	3	12	4							
KARAPIRO	16.67	192.6	3	25	0							
BRISBANE	25.45	251.6	4	38	-8							
RIVERVIEW	28.22	238.4	4	51	-19							
CANBERRA	30.37	236.6	5	31K	2							
CHARTERS TS.	31.60	266.6	5	42	3						11	6
PORT MORESBY	33.90	285.9	6	2	4							
MELBOURNE	34.23	234.0	6	3	2							
FORT NELSON	34.52	224.5	6	2K	-1							
ADELAIDE	38.48	240.7	6	37K	1							
SCOTT BASE	56.60	183.4	8	51	-1							
BYRD STATION	63.79	170.3	9	36	-3							
MATUSIRO	70.11	325.1	10	20	2							
LICK	80.33	43.5	11	15K	1							
PASADENA	80.80	47.7	11	17	0							
FRESNO	81.18	44.8	11	18A	-1							
SHASTA	81.88	40.4	11	23	1							
MINERAL	82.15	41.0	11	24K	0							
RENO	82.78	42.5	11	28K	1							
CORVALLIS	83.75	36.9	11	53	21							
BOULDER CITY	84.09	47.7	11	34	1							
TUCSON	85.05	52.6	11	39	1				13	51	12	3
TUCSON TELE.	85.17	52.6	11	39	0							
EUREKA	85.20	44.3	11	39	0				13	50		
GLEN CANYON	86.84	48.2	11	47	1				13	53		
SALT LAKE C.	88.57	44.8	11	55	0							
PENTICTON	88.63	34.7	11	54	-1							
COLLEGE	89.74	13.1	11	59	-1				14	9	17	39
HUNGRY HORSE	91.15	37.5	12	6	-1							
WICHITA MTS.	95.32	54.9	12	24	-2							
RESOLUTE	109.42	16.3	17	7	777							
SHIRAZ	132.39	290.9									20	47
GOTEBORG	142.98	349.4	18	30	-1							
COLLMBERG	148.75	344.3	18	46A	6							

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 287

TUBINGEN	150.68	335.2	19 48	9	
EBINGEN	151.00	334.9	19 48	8	
STRASBOURG	151.13	336.7	19 49	9	20 14
BASLE	152.07	335.7	19 52	11	
BESANCON	152.90	337.4			20 33
GARCHY	153.82	341.3	19 46	2	
TAMANRASSET	166.68	272.4	20 0	2	24 50 PP

MARCH 22 21.H 28.M 46.S EPICENTRE -24.68 179.14 DEPTH= 515.KM

A=-0.90963 B= 0.01360 C=-0.41519 D= 0.0149 E= 0.9999
G= 0.4151 H=-0.0062 K=-0.9097 HT= 3.4

DEPTH OF FOCUS= 0.076R

SE= 1.76

	DELTA DEG.	AZ. DEG.	P		O-C S	S O-C			*PP		SUPP.	
			M	S		M	S	S	M	S	M	S
RAOUL ISLAND	5.25	150.7	1	30	-1							
ONERAHI	11.80	199.3	2	39	2	4	50	7				
NOUMEA	11.89	278.9	2	41	3	4	54	9				
KARAPIRO	13.56	192.2	2	55A	0	5	21	5				
AFIAMALU	13.71	40.3	2	54K	-2	5	13	-6				
TUAI	14.18	186.4	2	59	-2	5	23	-5				
WELLINGTON	16.95	191.4	3	27	-2	6	16	-2				
COBB RIVER	17.21	196.6				6	21	-1				
GEBBIES PASS	19.71	194.1	3	59	4	7	0	-5				
HONIARA	23.75	306.4	4	32	0							
RIVERVIEW	26.00	243.0				8	46	-1				
CANBERRA	28.08	240.8	5	12	1	9	21	2			6	39 PP
CHARTERS TS.	30.70	271.9	5	33	0	9	59	-1				
FORT NELSON	31.82	227.2	5	42A	-1				7	21		
RABAU	32.98	303.8	5	50	-3							
PORT MORESBY	34.04	290.9	6	2	1						14	20
ADELAIDE	36.33	244.0	6	19K	-1	11	24	-2	7	53	9	27
MUNDARING	55.21	247.2	8	23	-22							
BYRD STATION	60.99	169.9	9	22	-2				11	10		
SOUTH POLE	65.47	180.0	9	52	-1				11	42		
LEMBANG	70.41	271.4	10	22K	-1							
MATUSIRO	72.10	326.3	10	31K	-2	19	16	3			19	58
ABUYAMA	72.20	323.5	10	34A	1							
NHATRANG	77.42	289.8	11	2	0						11	4 PCP
BERKELEY	83.03	42.9	11	32A	1							
LICK	83.09	43.6	11	32A	0							
PASADENA	83.44	47.9	11	35	2							
FRESNO	83.91	45.0	10	36	-60							
SHASTA	84.72	40.6	11	41A	1							
MINERAL	84.97	41.3	11	41K	0							
TUCSON	87.55	52.9	11	56	3				13	54		
TUCSON TELE.	87.67	52.8	11	55	1							
EUREKA	87.94	44.5	11	55	0				14	1	15	29 PP
GLEN CANYON	89.47	48.5	12	4	2						12	34
SALT LAKE C.	91.29	45.2	12	12	1							
COLLEGE	92.85	13.5	12	14	-4				14	17		
WICHITA MTS.	97.73	55.5	12	39	-1						16	39 PP
SHILLONG	98.00	294.4	12	41	0							
RESOLUTE	112.53	16.7	17	34	-3							
QUETTA	120.35	291.7	17	53	1							
BROKEN HILL	131.71	219.5									20	52
SHIRAZ	132.59	288.4	18	15	0						20	55
SODANKYLA	134.04	345.6									20	57 SKP
KIRUNA	134.90	348.8	18	9	-11							
KAJAANI	136.39	342.3	18	21	-1						21	6 SKP
NURMI JARVI	140.09	340.6	18	23	-6						21	16 SKP
UPPSALA	142.56	344.7	18	29	-5							
GOTEBORG	145.74	347.8	18	47	8							
KSARA	146.82	294.5	18	44A	3							
JERUSALEM	147.54	290.8	18	47	5				20	49		
HELWAN	150.98	287.5	18	54	7							
COLLMBERG	151.37	341.7	18	54	7						21	2
PRUHONICE	152.04	338.5	18	57	9							
KASPERSKE H.	153.10	338.8	19	13	23							
GARCHY	157.23	353.1	19	30	34							
TAMANRASSET	173.86	253.4	19	2	-7						24	36 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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 288

MARCH 24 22.H 57.M 12.S EPICENTRE 35.88 141.06 DEPTH= 51.KM

A=-0.63161 B= 0.51045 C= 0.58353 D= 0.6286 E= 0.7778
G=-0.4538 H= 0.3668 K=-0.8121 HT= -0.2

DEPTH OF FOCUS= 0.003R

SE= 2.73

	DELTA DEG.	AZ. DEG.	P			O-C			*PP			SUPP.	
			M	S	S	M	S	S	M	S	M	S	
TYOSI	0.23	225.8	0	6K	-5	0	10	-8					
MI TO	0.69	316.5	0	14K	-2	0	25	-2					
KAKIOKA	0.79	296.3	0	15K	-2	0	25	-4					
TUKUBASAN	0.84	293.8	0	15A	-2								
HONGO	1.06	261.0	0	20	0								
ONAHAMA	1.07	353.3	0	19K	-1	0	36	2					
TOKYO C.M.O.	1.08	259.6	0	20K	0	0	39	4					
UTUNOMIYA	1.17	305.1	0	21K	0	0	38	1					
YOKOHAMA	1.23	248.9	0	23K	1	0	38	0					
KUMAGAYA	1.38	281.6	0	24K	0	0	41	-1					
MERA	1.39	226.5	0	23A	-1	0	41	-1					
SHIRAKAWA	1.41	331.6	0	25K	0	0	43	0					
TITIBU	1.61	274.0	0	27	0	0	58	11					
MAEBASI	1.69	288.4	0	28K	0	1	0	11					
OSIMA	1.76	231.5	0	26A	-3	0	47	-4					
AJIRO	1.80	243.1	0	30A	0	1	2	10					
MI SIMA	1.88	246.7	0	31A	0	0	59	5					
HUNATU	1.90	259.1	0	32	1	0	58	4					
KOHU	2.04	264.8	0	34A	1	1	10	12					
OI WAKE	2.08	283.1	0	34	0	1	7	8					
NAGATURO	2.21	235.3	0	34	-2	1	11	9					
SHIZUOKA	2.35	248.0	0	37A	-1	1	6	0					
SENDAI	2.39	357.1	0	37A	-1	1	5	-2					
MATUSIRO	2.39	286.7	0	37K	-1	1	22	15			1	7	
YAMAGATA	2.43	346.8	0	39A	0	1	11	3					
NAGANO	2.44	289.6	0	40K	1	1	32	24					
MATUMOTO	2.53	279.2	0	42	2	1	21	11					
ISINOMAKI	2.55	4.7	0	40A	-1	1	11	0					
TAKADA	2.57	299.1	0	42K	1	1	23	12					
NIIGATA	2.59	322.3	0	44A	3	1	20	8					
IIDA	2.65	263.1	0	38	-4	1	26	13					
OMAESAKI	2.65	241.9	0	44A	2	1	22	9					
HAMAMATU	2.96	247.9	0	46K	0	1	35	14					
HATIDYOZIMA	2.97	201.0	0	49	3	1	18	-3					
TAKAYAMA	3.10	276.1	0	50	2	1	10	-15					
AIKAWA	3.10	314.3	0	48K	0	1	32	7					
SAKATA	3.17	342.4	0	51	2	1	31	5					
TOYAMA	3.22	285.8	0	51K	1	1	38	10					
MIZUSAWA	3.24	1.0	0	50	0	1	27	-1					
NAGOYA	3.41	259.1	0	53A	0	1	51	19					
GIHU	3.52	263.4	0	55A	1	1	58	23					
KANAZAWA	3.62	281.6	1	1	5	1	59	21					
WAZIMA	3.66	295.3	0	57	1								
MORIOKA	3.81	1.3	0	55A	-3	1	47	4					
MIYAKO	3.83	10.6	0	57	-2	1	41	-2					
AKITA	3.90	349.1	1	1A	1	1	50	5					
HUKUI	3.92	273.9	1	1A	1	1	50	5					
HIKONE	3.96	262.5	1	1A	1	2	2	16					
TSURUGA	4.06	268.2	1	3K	1	1	57	8					
OWASE	4.38	247.0	1	4	-2	2	1	4					
KYOTO	4.43	260.3	1	11	4	2	15	17					
NARA	4.44	255.8	1	7	0	2	15	17					
ABUYAMA	4.59	258.9	1	9A	0								
MAIZURU	4.63	266.5	1	11K	1	2	14	11					
HATINOHE	4.65	4.5	1	9	-1	2	11	7					
OSAKA	4.68	256.4	1	11	0	2	25	21					
AOMORI	4.93	357.6	1	13	-1	2	13	2					
KOBE	4.95	257.7	1	15	1	2	34	23					
SIOMISAKI	4.99	242.4	1	13	-2	2	20	8					
TOYOOKA	5.09	267.8	1	16	0	2	23	9					
SUMOTO	5.27	254.8	1	19A	0	2	38	19					
TORISIMA	5.43	186.9	1	19	-2	1	52	-31					
TOTTORI	5.61	268.2	1	24	1	2	52	25					
TOKUSIMA	5.62	253.1	2	25	61	4	12	104					
HIMEJI	5.62	257.7	1	30	6	2	40	12					

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 289

HAKODATE	5.92	357.9	1 41	13	2 48	13		
TAKAMATU	5.95	256.8	1 29	1	2 53	17		
OKAYAMA	5.96	260.5	1 29	1	2 46	10		
TSURUGI SAN	6.14	252.7	1 26	-5	3 27	46		
MORI	6.22	356.7	1 34	2	2 52	9		
SAIGO	6.27	275.2	1 35	2	3 5	21		
YONAGO	6.29	268.1	2 27	54	4 10	86		
URAKAWA	6.40	11.6	1 34	-1	2 47	0		
MURORAN	6.43	359.5	1 33	-2	2 51	3		
MATSUE	6.51	268.5	1 36	0	3 25	35		
KOTI	6.62	251.6	1 39	1	3 0	7		
HIROO	6.63	14.7	1 35	-3	2 49	-4		
TOMAKOMAI	6.75	3.3	1 48	9				
SUTTSU	6.94	355.0	1 46	4	3 14	14		
MATUYAMA	7.10	255.7	1 45	1	3 27	22		
SAPPORO	7.18	1.7	1 42	-3	2 57	-10		
OB IHIRO	7.22	12.6	1 42	-4	3 28	20		
HIROSI MA	7.23	260.4	1 47	1	3 31	23		
SIMIDU	7.37	247.5	1 47	-1	3 39	28		
UWAZ IMA	7.50	251.8	1 50	0	3 19	5		
KUSIRO	7.54	19.0	1 48	-2	3 7	-9		
ASAHI GAWA	7.95	6.9	1 53	-3				
RUMOE	8.07	2.9	2 9	11				
NEMURO	8.21	23.8	1 54	-6	3 20	-12		
OO I TA	8.22	253.9	2 0A	0	3 40	8		
ABASHIRI	8.50	15.9	1 58	-6	3 35	-4		
SIMONOSEKI	8.54	259.9	2 5A	1	3 59	19		
ASOSAN	8.77	253.0					4 45	
MI YAZAKI	8.93	246.5	2 10A	0	4 55	65		
HUKUOKA	9.08	258.4	2 12	0	4 9	15		
KUMAMOTO	9.09	253.3	2 1K	-11	4 34	40		
SAGA	9.25	256.6	2 17K	3	4 16	18		
WAKKANAI	9.54	2.7					4 5	
KAGOS IMA	9.75	246.8	2 21	0	4 29	19		
NAGASAKI	9.76	254.4	2 20A	-1	4 20	10		
VLAD I VOSTOK	10.11	318.4	2 26	0	4 22	3		
YAKUS IMA	10.37	241.5	2 16	-13				
TOM I E	10.68	255.8	3 23	50	5 46	73		
Y. -SAKHL I NSK	11.20	5.9	2 36	-5	4 37	-8		
CHANGCHUN	14.45	308.1	3 22A	-2	6 9	6		
ZO-SE	17.25	259.6	3 58A	-1	7 17	9		
NANK I NG	18.86	264.8	4 15A	-4	7 53	9		
PEK I NG	20.03	289.4	4 27A	-5	8 12	3		
PE TROPAVLOVK	21.15	30.4	4 43	0	8 34	4		5 18 PPP
GUAM	22.57	170.6	5 3	6				
MAGADAN	24.52	12.0	5 18	2	9 36	6		
S I AN	26.29	275.9	5 31A	-2				
HONG KONG	27.01	247.2			10 20	8		
YAKUTSK	27.11	348.3	5 40	-1	10 14	1		
CANTON	27.18	249.6	5 43	2				
MANILA	27.68	225.4	5 44	-2			6 34 PP	
ULAN-BATOR	27.89	306.2	6 48	60				
IRKUT SK	30.65	313.9	6 11A	-1			7 11 PP	
CHENG TU	31.28	271.2	6 15A	-3	11 23	3		
KUNMING	34.52	262.7	6 44A	-2				
TIKSI	36.38	353.5	8 20	78				
TOCKLAI	40.26	270.3	7 14	-20			17 7	
LHASA	42.15	276.3	7 50A	0	14 13	8		
SHILLONG	43.12	270.3	7 55A	-2	14 23	3	8 22	9 45 PP
CHITTAGONG	44.64	266.3	8 11A	1	14 37	-5	8 26	9 56 PP
PORT MORESBY	45.40	171.5	8 14	-2	14 51	-2		18 7 SS
CHATRA	46.40	274.5	8 24A	0	15 9	2		
CALCUTTA	47.35	268.6	8 34	3	15 48	28		20 28 SS
COLLEGE	50.22	31.7	8 54	1			9 18	10 42 PP
MEDAN	50.58	240.5	8 29	-27				
FRUNSE	50.65	299.3	8 57	0				16 18 PS
DEHRA DUN	52.28	283.1	9 9	0	16 39	10		
DJAKARTA	52.76	224.6	9 8K	-4	16 24	-11		
LEMBANG	52.84	223.4	9 10A	-3	16 26	-10	9 30	10 54
LAHORE	54.70	286.1	9 26A	-1	17 1	-1		
TASHKENT	54.89	299.0	9 28	0				17 14 PS
SVERDLOVSK	55.83	319.1	9 30	-5	17 20	3		19 17 SCS
WARSAK DAM	55.87	289.9	9 35A	0				
CHARTERS TS.	55.88	174.1	9 34	-1				
HYDERABAD	57.97	269.0	9 39A	-11	17 39	-6		19 37 SCS
MADRAS	58.96	263.6	9 56A	-1	18 3	5		13 42
QUETTA	61.02	287.8	10 10A	-1	18 28	4	10 33	12 26 PP
POONA	61.13	272.8	10 11A	-1	18 28	2		
BOMBAY	61.77	273.7	10 15	-1	18 44	10		

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961		PAGE 290										
NORD	62.18	356.4	10 18A	-1								
COLOMBO	62.73	258.2									18 56	
APATITY	63.62	335.9	10 20A	-8							12 45	PP
RESOLUTE	63.79	14.2	10 29A	-1	19	1	2					
BRISBANE	63.90	168.4	10 30	0	19	4	4					
ASHKABAD	63.97	299.2	10 33	2							19 22	PS
SODANKYLA	65.91	337.3	10 43A	0							13 7	PP
AFIAMALU	66.62	129.1	10 58	10								
TROMSOE	66.71	341.2	10 47	-1								
VICTORIA	67.42	45.8	10 54	1								
KIRUNA	67.49	339.3	10 52A	-1							13 18	PP
KAJAANI	67.50	334.1	10 54A	1	19	49	5					
MOSCOW	68.00	323.6	10 54	-2	19	50	0				13 24	PP
PULKOVO	69.03	329.5	11 3A	0	20	5	2				13 44	PP
PENTICTON	69.20	43.7	11 3	-1								
CORVALLIS	69.45	49.4	11 18	13								
TEHERAN	69.93	300.0	11 9A	1	20	20	7					
UMEA	70.22	336.1	11 5A	-5								
ADELAIDE	70.52	182.0	11 4	-8							20 21	
NURMI JARVI	70.82	332.0	11 13A	-1	20	23	0	11	40		13 46	PP
CANBERRA	71.22	173.1	11 20	4								
TIFLIS	71.30	308.2	11 16A	-1							21 1	PS
MUNDARING	71.41	202.1	11 16	-1								
GORIS	71.46	305.6	11 20	3								
SHASTA	72.03	52.6	11 23	2								
SHIRAZ	72.23	294.0	11 22K	0	20	44	4	11	35		14 5	PP
MINERAL	72.72	52.5	11 27K	2								
HUNGRY HORSE	72.82	42.4	11 27	1								
SKALSTUGAN	72.88	338.6	11 26	0							14 6	PP
SCORESBY SD.	73.23	354.1	11 29A	1								
MELBOURNE	73.43	176.8	11 26	-3								
BERKELEY	73.63	55.0	11 27K	-3							11 43	PCP
UPPSALA	73.86	334.0	11 31A	-1								
RENO	74.32	52.5	11 29	-5							11 47	PCP
LICK	74.33	55.2	11 37	3								
BUTTE	74.99	43.8	11 39	1								
SIMFEROPOL	75.94	315.6	11 44A	0	21	23	2				14 35	PP
BOZEMAN	76.05	43.4	11 47	3								
EUREKA	76.80	50.8	11 49	1				12	34			
RUTH	77.56	50.5	12 5	12								
TARRALEAH	77.96	175.9	11 51	-4								
IASI	78.10	320.3	11 56	0								
LWOW	78.14	323.9	11 56	0	21	54	9				14 46	PP
MOORLANDS	78.15	175.4	11 55	-1								
PASADENA	78.45	56.3	12 0	2								
FORT NELSON	78.65	175.3	11 57	-2								
COPENHAGEN	78.82	333.2	12 0A	0								
BOULDER CITY	79.59	53.1	13 4	60								
KRAKOW	79.89	325.9	12 3	-2	22	5	2				15 7	PP
FLAMING GRGE	79.93	46.5	12 14	8							14 35	PP
KARAPIRO	80.09	153.0	12 13	7								
SKALNATE PL.	80.36	325.1	12 11	3							15 14	PP
RACIBORZ	80.65	326.7	12 10	1							12 57	
BUCHAREST	80.71	318.8	12 10	0								
GLEN CANYON	81.06	50.7	11 51	-21				12	16			
CHATEAU	81.21	153.6	12 14	2								
ISTANBUL KA.	81.26	314.8	12 11	-2							15 4	PP
ISTANBUL UN.	81.32	314.8	12 13	0								
RAPID CITY	81.36	41.0	12 14	1								
KSARA	81.59	305.7	12 14	0								
COLLMBERG	81.96	330.0	12 16	0							15 24	PP
PRUHONICE	82.31	328.4	12 19A	1	22	29	1				15 29	PP
BRATISLAVA	82.54	325.9	12 20K	1								
VIENNA-H.	82.81	326.4	12 21A	0							15 19	PP
JENA	82.81	330.5	12 20	-1	22	33	0				15 30	PP
WITTEVEEN	83.16	334.1	12 23	1								
JERUSALEM	83.28	304.4	12 24A	1								
SOFIA	83.35	318.9	12 24	1	22	43	4					
BELGRADE	83.36	321.9	12 24A	1	22	48	9				15 39	PP
KASPERSCHE H.	83.37	328.3	12 24A	1							15 31	PP
MUNSTER	83.51	333.1	12 25	1	22	36	-4					
DURHAM	84.17	339.3	12 28K	1								
BENSBERG	84.49	332.7	12 29A	0								
TUCSON	84.50	54.0	12 32	3	22	47	-3	13	0		12 38	PCP
TUCSON TELE.	84.51	53.9	12 31	2				12	57		14 56	PP
HEIDELBERG	85.15	331.0	12 33	1								
LJUBLJANA	85.29	325.8	12 33A	0							15 54	PP
STUTTGART	85.43	330.3	12 35A	1	22	58	-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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961										PAGE 291		
KARLSRUHE	85.59	330.9	12 35	0	23 13	12						
TUBINGEN	85.71	330.3	12 35A	0								
TRIESTE	85.95	326.0	12 37	1	22 59	-5				16	0 PP	
EBINGEN	86.03	330.1	12 37	0								
RAVENSBURG	86.08	329.5	12 37	0								
STRASBOURG	86.19	331.0	12 38	1	23 12	5				12	50	
ATHENS	86.40	315.3	12 38K	-1						15	49	
KEW	86.65	337.0	12 40A	0	23 13	2				16	5 PP	
PADOVA	86.98	326.9								17	18	
HELWAN	87.07	305.0	12 41A	-1						16	5 PP	
BASLE	87.11	330.5	12 43A	1						14	14	
BESANCON	87.97	331.2	12 47	1								
PARIS	87.97	334.0	12 47	1						16	16 PP	
TARANTO	88.13	320.6	12 13	-34	21 53	-92						
FLORENCE X.	88.52	326.2	12 42	-7	23 38	9						
FOLINIÈRE	89.03	335.7	12 52	1								
GARCHY	89.05	332.9	13 10	19						14	58	
LAWRENCE	89.18	40.4	12 53	1								
ROME	89.41	324.3	12 52A	-1	23 44	7				16	25 PP	
I SOLA	90.04	328.8	12 50	-6								
MONACO	90.24	328.3	12 57	0								
CLERMONT-FD.	90.30	332.0	12 58	1								
WICHITA MTS.	90.41	45.3	12 58	0						30	26 PKKP	
FAYETTEVILLE	91.88	41.7	13 5A	1					13	17	13	46 *SP
SHAWINIGAN	92.48	22.6	13 9	2								
OTTAWA	92.53	25.0	13 8	1								
BAGNERES	93.72	332.4	13 12	-1								
PALISADES	97.02	25.9								24	55 SKKS	
TOLEDO	98.04	333.6	13 32	-1					13	56	17	33 PP
TAMANRASSET	108.07	317.2			25	1	10			18	45 PP	
LWIRO	109.27	281.6	18 56A	777								
SOUTH POLE	125.70	180.0	18 57	0						20	52	
BYRD STATION	126.71	167.6	18 59	1								
HUANCAYO	139.52	63.4	19 28	6								
LA PAZ	147.66	61.0	19 42	5								

MARCH 26 14.H 29.M 29.S EPICENTRE 5.85 126.39 DEPTH= 157.KM

A=-0.59021 B= 0.80087 C= 0.10130 D= 0.8050 E= 0.5933
G=-0.0601 H= 0.0815 K=-0.9949 HT= 7.0

DEPTH OF FOCUS= 0.020R

SE= 2.12

	DELTA DEG.	AZ. DEG.	P			O-C			*PP		SUPP.	
			M	S	S	M	S	S	M	S	M	S
MANILA	10.20	329.6	2	26	3	4	29	13				
BAGUIO CITY	11.94	332.0	2	47	1	5	6	9				
GUAM	19.59	66.0	4	17	-1							
CANTON	21.26	325.0	4	35	0	8	22	6				
LEMBANG	22.57	236.3	4	49A	2	8	49	10			5	41
DJAKARTA	22.89	238.8	4	45	-6						11	55
ZO-SE	25.59	349.6	5	16A	0	9	36	6	5	36	16	5 SCS
PORT MORESBY	25.65	126.1	5	15	-2	9	34	3			5	56 PP
NANKING	27.03	345.7	5	30A	1	10	1	7	5	51	6	0 *SP
KUNMING	29.67	312.7	5	54	1	10	41	5				
ABUYAMA	30.09	15.2	5	55	-2							
CHARTERS TS.	32.35	143.3	6	16	0	11	23	5				
MATUSIRO	32.41	17.9	6	14	-3	11	18	-1			12	36 SCP
CHENG TU	32.42	322.3	6	16	-1						6	47 *SP
SIAN	32.56	332.5	6	17	-1							
PORT BLAIR	33.75	282.2	6	33	5							
PEKING	35.25	346.3	6	41A	0	12	8	6			7	9 *SP
CHITTAGONG	37.19	299.7	6	50	-7	12	28	-4				
VLADIVOSTOK	37.43	6.6	7	0	1							
CHANGCHUN	37.83	358.7	7	2	-1	12	45	3			7	34 *SP
SHILLONG	38.39	304.5	7	5A	-2							
MUNDARING	38.84	193.9	7	12	1							
LHASA	40.86	309.7	7	29A	1	13	31	4				
BRISBANE	41.75	143.6	7	36	1	13	45	5				
ADELAIDE	42.24	164.9	7	40K	1						9	23 PCP
CHATRA	42.76	303.7	7	44	1						13	15
Y.-SAKHLINSK	43.36	16.3	7	47	-1	14	2	-1				
UGLEGORSK	45.08	14.5	8	2A	0							
ULAN-BATOR	45.10	341.5	8	1	-1							
RIVERVIEW	45.90	151.0	8	1	-7	14	48	8			18	3 SSS

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 293

PORT MORESBY	25.12	112.7	5 13	0	9 47	22	5 47	10 50	*SS
MEDAN	25.31	278.2	5 15K	0					
CHARTERS TS.	29.79	133.6	5 54K	-1	10 38	-2			
YAKUSIMA	30.87	11.4	6 4	-1	11 38	41			
ZO-SE	30.95	355.7	6 5A	-1	11 1	3			
KAGOSIMA	31.97	11.0	6 13	-2	11 6	-8			
KUNMING	32.14	322.3	6 17A	1	11 21	4			
NANKING	32.15	352.0	6 17A	1	11 22	5			
MIYAZAKI	32.48	12.2	6 20	1	11 28	6			
MUNDARING	32.67	191.9	6 18	-3					
TOMIE	32.71	7.8	6 20A	-1	12 15	50			
PERTH	32.73	192.5	6 22	1	11 31	5			
PORT BLAIR	32.90	291.6	6 22	-1	11 28	-1		17 28	
NAGASAKI	32.98	9.5	6 23A	0	11 45	15			
UNZENDAKE	33.04	10.1	6 18	-6				8 47	
SAGA	33.56	9.9	6 30K	2	12 4	25			
SIMIDU	33.66	14.1	6 30A	1				11 43	
OOITA	33.79	11.9	6 30A	0				8 33	
HUKUOKA	33.90	9.9	6 30	-1	12 40	56			
UWAZIMA	33.99	13.2	6 33	1				8 31	
TORISIMA	34.08	26.0	6 29	-4				7 27	
SIMONOSEKI	34.35	10.6	6 37	2				12 45	
MUROTO	34.42	15.5	6 36	1	11 55	3			
KOTI	34.53	14.5	6 38A	2	11 39	-15			
MATUYAMA	34.63	13.3	6 38A	1	11 56	1			
SIOMISAKI	35.06	17.6	6 41	0	12 4	2			
HIROSIMA	35.06	12.5	6 39A	-2	12 1	-1			
HAMADA	35.50	11.8	6 44A	-1	12 5	-3			
CHENG TU	35.73	330.1	6 47A	0					
KOBE	36.04	16.1	6 50	1	13 10	53			
ABUYAMA	36.33	16.5	6 51A	-1					
TOTTORI	36.56	14.3	6 53A	-1				7 22	
SIAN	36.73	339.2	6 56A	1	12 33	6			
TOYOOKA	36.74	15.2	6 55A	0				9 7	
OMASAKI	36.91	20.1	6 47	-9	12 32	2			
SAIGO	37.02	12.9	6 59	2	13 33	61			
NAGOYA	37.02	18.1	6 58A	1	12 33	1			
GIHU	37.17	17.7	7 0A	1	12 34	0			
TSURUGA	37.20	16.7	6 59	0	12 36	2			
HONIARA	37.24	105.7	6 58	-1				12 45	
SHIZUOKA	37.31	20.0	7 0	0	12 37	1			
OSIMA	37.47	21.4	6 59	-2				8 37	
ADELAIDE	37.57	159.7	7 1K	-1	12 43	3		15 17	SS
IIDA	37.62	19.0	7 1	-1	12 42	1			
AJIRO	37.62	20.8	7 2	0				7 43	
MISIMA	37.63	20.6	7 1A	-2	12 39	-2			
MERA	37.77	21.8	7 0	-4					
HUNATU	37.91	20.1	7 5	0	12 45	0			
KOHU	37.99	19.7	7 6A	0	12 47	1			
TAKAYAMA	38.01	17.9	7 5	-1					
YOKOHAMA	38.16	21.2	7 6	-1				9 16	
CHITTAGONG	38.18	307.6	7 14	7	13 2	13	7 35	8 47	PP
MATUMOTO	38.33	18.7	7 9	1	13 53	61			
TOKYO C.M.O.	38.42	21.2	7 7A	-2	12 32	-21			
TITIBU	38.45	20.2	7 9	0					
HONGO	38.45	21.2	7 9	0					
TOCKLAI	38.48	315.9	7 14	4	13 1	7		7 44	
TOYAMA	38.51	17.5	7 11	1	12 54	0			
OI WAKE	38.59	19.3	7 12	1	12 55	0			
MATUJIRO	38.67	18.8	7 10A	-1	12 48	-9		17 9	SCS
KUMAGAYA	38.71	20.4	7 11	-1				7 48	
NAGANO	38.79	18.7	7 11K	-1	12 58	0			
MAEBASI	38.83	19.9	7 11A	-2	12 1	-58			
BRISBANE	39.02	136.8	7 16	2	13 7	5			
TUKUBASAN	39.03	21.2	7 12A	-2	12 57	-5		8 31	PP
WAZIMA	39.05	16.7	7 17	3	13 2	0			
KAKIOKA	39.07	21.3	7 12	-2	13 2	-1			
TAKADA	39.20	18.5	7 15	-1	13 5	0			
UTUNOMIYA	39.24	20.7	7 15	-1	13 0	-5			
MI TO	39.31	21.5	7 15	-1				9 27	
SHILLONG	39.87	311.9	7 20A	-1	13 12	-3		8 42	PP
SHIRAKAWA	39.88	20.7	7 21	0	13 14	-1			
ONAHAMA	39.97	21.6	7 22A	0	13 13	-3			
AIKAWA	40.04	17.9	7 22A	-1	13 16	-1			
NI IGATA	40.20	18.8	7 25A	1	13 23	3			
LANCHOW	40.30	334.7	7 27A	2					
PEKING	40.36	351.0	7 24A	-1	13 22	0			
YAMAGATA	40.94	20.1	7 31A	1	13 32	2			

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961				PAGE 294			
CALCUTTA	41.04	305.4	7 31A	0	13 36	4	9 30 PPP
SENDAI	41.14	20.6	7 32	0	13 34	1	
SAKATA	41.35	19.1	7 36	3			
ISINOMAKI	41.44	21.0	7 35A	1	13 38	0	
MI ZUSAWA	41.99	20.3	7 40	2	13 39	-7	
AKITA	42.18	18.9	7 41A	1	13 40	-9	
CANBERRA	42.36	148.8	7 42K	0	13 55	4	8 10 10 7 PPP
RIVERVIEW	42.41	145.4	7 42K	0	13 56	4	8 18 15 1 SS
MELBOURNE	42.49	154.9	7 43	0			7 54
MORIOKA	42.52	20.0	7 44A	1	13 55	2	
MIYAKO	42.75	20.8	7 46	1	13 58	1	
LHASA	42.85	316.2	7 47A	2	14 2	4	
HATINOHE	43.38	19.8	7 50	0	14 8	2	
ADMORI	43.39	18.9	7 50A	0	14 10	4	
VLADIVOSTOK	43.46	8.7	7 51	1	13 11	-56	
VIZIANAGRAM	43.48	296.6	7 47A	-4	14 10	2	
CHANGCHUN	43.58	1.6	7 49A	-2			
BOKARO	43.73	305.4	7 55	2	14 18	7	9 26
CHATRA	44.10	310.1	7 56A	0	14 19	2	9 27 PP
HAKODATE	44.28	18.2	7 57A	0	14 22	3	
MORI	44.49	17.9	8 0A	1	14 26	4	
MURORAN	44.82	18.1	8 2A	1	14 31	4	
SUTTSU	45.03	17.2	8 4	1	14 33	3	
MADRAS	45.06	288.3	8 1A	-2	14 24	-6	9 42 PP
URAKAWA	45.25	19.9	8 6	1	14 37	4	
TOMAKOMAI	45.29	18.5	8 2	-3			
HIROO	45.55	20.4	8 8	1	14 41	4	
SAPPORO	45.61	18.1	8 8	0	14 11	-27	
OB IHIRO	46.08	19.8	8 13	2	14 48	3	
KUSIRO	46.55	20.9	8 15A	0	14 44	-7	
ASAHI GAWA	46.57	18.6	8 18	3			
TARRALEAH	46.88	156.9	8 17K	-1			13 34 SCP
NOUMEA	47.14	121.1	8 19	-1			
PORT VILA	47.26	114.4	8 20	0			8 40
NEMURO	47.28	21.7	8 21A	0	15 3	1	
MOORLANDS	47.29	156.4	8 20K	-1			15 12 SCP
FORT NELSON	47.77	156.6	8 23K	-1	15 12	3	
HYDERABAD	47.80	293.6	8 9A	-16	14 53	-16	10 9 PP
WAKKANAI	47.84	17.0	8 26	1	15 13	3	
ULAN-BATOR	49.85	345.2	8 40	0			
SEHORE	50.81	300.2	8 48A	0	15 52	1	9 10 10 42 PP
POONA	52.31	293.5	8 57A	-2	16 7	-4	10 52 PP
DEHRA DUN	52.81	309.0	9 4	1	16 19	1	10 41 PP
BOMBAY	53.34	293.6	9 6	-1	16 27	2	11 13 PP
IRKUTSK	54.51	345.4	9 14A	-1	16 44	3	9 54 17 38 *SS
LAHORE	56.22	308.7	9 25A	-2	17 4	0	
ONERAHI	58.98	132.8	9 44	-3	17 45	5	
WARSAK DAM	59.35	310.3	9 49A	0			
AUCKLAND	59.77	133.8	9 55	3	18 10	20	18 50 PS
KARACHI	60.06	298.8	9 51A	-3			
KAIMATA	60.20	141.0	10 0	5			10 57
PETROPVLOVK	60.22	23.5	9 55	0	17 58	2	12 20 PP
COBB RIVER	60.31	139.0	9 55	-1	18 14	17	
ROXBURGH	60.55	144.8	9 57	0	17 57	-3	10 27
KARAPIRO	60.77	134.6	9 59A	0			20 20 SCS
FRUNSE	61.17	320.6	10 1	-1			10 48 PCP
TONGARIRO	61.32	135.9	10 2	-1			
CHATEAU	61.32	135.9	10 2K	-1			39 16 PKPPKP
GEBBIES PASS	61.58	141.6	10 3	-1	18 28	15	10 41
MACQUARIE I.	61.60	157.5	10 5	0			10 16 10 37
QUETTA	61.66	304.6	10 3A	-2	18 16	2	10 29 12 20 PP
WELLINGTON	61.75	138.3	10 4	-2	18 17	2	19 48 SCS
YAKUTSK	61.88	2.1	10 6	-2	18 15	-1	
SEMIPALATNSK	62.28	330.1	10 6	-3			
TUAI	62.28	134.9	10 10	1			
RAOUL ISLAND	62.72	123.2	10 12	0			
MAGADAN	62.94	15.1	10 13	0			
TASHKENT	63.99	317.0	10 19	-1	18 40	-3	10 59 19 41 SCS
APIA	65.26	105.2	10 31	3			
WILKES	66.95	185.8	10 39K	0	19 19	0	11 13 PCP
KERGUELEN I.	67.29	214.8	10 44	3	19 29	6	
ASHKABAD	70.74	310.4	11 1	-1	20 7	3	14 32
TIKSI	71.51	1.7	11 4	-3	20 8	-4	
SHIRAZ	73.70	300.8	11 18K	-2	20 35	-2	38 37 PKPPYP
SVERDLOVSK	75.55	329.6	11 30	0	20 51	-2	12 11
TEHERAN	75.69	306.9	11 30A	-1	20 58	-1	
TANANARIVE	76.99	250.7	11 44A	6	21 21	8	14 31 PP
CAPE HALLETT	77.92	166.9	11 45K	1			
HONOLULU	78.92	68.4	11 52	3			12 6

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961										PAGE 295
MAWSON	79.33	199.9	11 51A	0	21 41	3				22 38 PS
GORIS	80.26	310.0	11 58	2	21 53	5				14 59 PP
SCOTT BASE	81.17	171.6	12 2	1	22 5	8				15 10 PP
TIFLIS	81.71	312.1	12 4A	0	22 6	3				
MOSCOW	87.75	325.6	12 32A	-2	22 58	-4	13 13			16 6 PP
KSARA	88.19	303.7	12 36A	0	23 24	18				16 5 PP
COLLEGE	89.25	25.3	12 40K	-1	22 58	-17				29 42 PKKP
SIMFEROPOL	89.69	314.8	12 41A	-2	23 17	-2	13 21			16 24 PP
APATITY	90.05	337.4	12 43	-2	23 23	0	13 24			16 19 PP
SOUTH POLE	90.08	180.0	12 46	1	23 2	-21				13 36
LCO. MARQUES	91.08	244.2	12 51A	2	23 39	7				23 14 SKS
PULKOVO	91.67	329.6	12 51A	-1	23 35	-2				16 29 PP
SODANKYLA	92.68	337.4	12 55A	-2	23 44	-2				22 39
PIETERMZBURG	92.97	240.5	12 59	1						
ISTANBUL KA.	93.49	311.0	12 59	-1	23 8	-45	13 15			16 43 PP
ISTANBUL UN.	93.55	311.0	12 59	-2						16 33 PP
IASI	94.16	317.2	13 4	1						24 5
NURMIJARVI	94.42	330.7	13 3	-2	23 57	-4				16 56 PP
FOCSANI	94.54	315.7			24 25	23				18 39
BYRD STATION	94.58	171.0	13 7	2	23 27	-35				13 42
BACAU	94.67	316.6			23 29	-34				14 16
BULAWAYO	94.87	249.9	13 8A	1						
KIRUNA	94.95	338.2	13 6A	-1	23 55	-10				16 56 PP
PRETORIA	95.07	244.3	13 8	0						
BROKEN HILL	95.15	255.6	13 8A	0						
BUCHAREST	95.43	314.5	13 8A	-1	23 32	2	13 45			17 15 PP
SITKA	95.87	32.6	13 13A	2	23 39	7				17 5
UMEA	95.88	334.3	13 10A	-1						30 5 PKKP
GRAHAMSTOWN	96.06	236.7	13 13A	1						
CAMPULUNG	96.10	315.4	13 17	5	23 30	-4	13 54			17 20 PP
LWOW	96.22	320.0	13 12	-1	23 14	-20	13 50			17 6 PP
NORD	96.43	354.6	13 13A	-1	23 37	2				17 11 PP
SOFIA	97.62	313.0	13 20	1	23 46	4				
WARSAW	97.73	322.7	13 19	-1						17 10
ATHENS	97.87	308.2	13 19A	-1	23 45	2				23 58 SS
KIMBERLEY	97.92	241.1	13 21	0						
UPPSALA	97.99	330.7	13 19A	-2	23 42	-1				17 23 PP
SKALNATE PL.	98.76	319.8	13 24	0						17 28 PP
CHORZOW	99.35	321.1	13 27	0						17 42
SKALSTUGAN	99.36	335.0	13 25	-2						
BELGRADE	99.37	315.4	13 25A	-2						17 38 PP
BUDAPEST	99.88	318.3	13 31	2	23 46	-7				17 42 PP
RACIBORZ	99.89	320.9	13 29	-1						17 35
HURBANOVO	100.35	318.8			24 3	8				17 25 PP
BRATISLAVA	101.00	319.2	13 33K	-2	24 0	2				17 42 PP
GOTEBORG	101.42	329.4	13 35A	-1						17 50 PP
VIENNA-H.	101.46	319.4	13 35A	-2	24 4	3				
COPENHAGEN	101.81	327.4	13 39A	1	24 10	8				17 51 PP
RESOLUTE	101.90	9.8	13 38A	-1	24 51	48				17 51 PP
HERMANUS	102.02	234.9	13 43	4	24 14	11				
PRUHONICE	102.20	321.4	13 40A	0	24 7	3				17 50 PP
PRAGUE	102.25	321.5			24 7	3				17 49 PP
ZAGREB	102.27	317.0	13 43K	3						
TARANTO	102.47	311.5	13 35	-6	24 35	30				
COLLMBERG	102.79	323.0	13 42A	0	25 15	68				17 55 PP
KASPERSCHE H.	103.04	320.7	13 43A	0						18 4 PP
LJUBLJANA	103.21	317.5	13 42	-2	24 10	1				18 4 PP
THULE	103.28	2.9	13 44K	-1						
CHEB	103.52	321.9								27 17 PS
JENA	103.76	322.9	13 45	-2	24 11	0				13 8
ALBERNI	103.78	38.9	13 49	2						
TRIESTE	103.83	317.3	17 2	195	24 14	2				18 8 PP
REGGIO CALA.	104.15	309.3	16 29	161						18 2
MESSINA	104.20	309.5	17 5	196						18 6
VICTORIA	104.88	39.4	13 53	1						
BANGUI	105.09	274.5	14 12	777						17 54
PADOVA	105.17	317.4	13 58	777	24 15	-3				18 17 PP
WINDHOEK	105.40	246.7	13 52	777						
ROME	105.67	313.7	13 54A	777	24 24	4	14 34			18 10 PP
MUNSTER	105.75	324.8	13 55	777						19 41
BOLOGNA	105.79	316.6	13 36	777						27 16
STUTTGART	105.85	321.3	13 56	777						18 22 PP
HEIDELBERG	105.99	322.0	13 56	777						
FLORENCE X.	106.04	315.9	13 54	777	25 30	68				
SCORESBY SD.	106.04	348.6	13 58A	777	24 44	22				18 24 PP
TUBINGEN	106.06	321.1	13 58	777						
CORVALLIS	106.11	43.2	14 5	777						18 12 PP
EBINGEN	106.24	320.7	14 5	777						

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961				PAGE 296			
KARLSRUHE	106.31	321.7	13 45 777				33 22 SS
BENSBERG	106.38	323.9	13 58 777	24 28	5		18 27 PP
ARCATA	106.56	47.1					18 25 PP
STRASBOURG	106.86	321.4	13 49 777	24 27	2		18 27 PP
PENTICTON	106.98	37.7	13 2A 777				
PAVIA	107.06	317.7					18 18 PP
DE BILT	107.10	325.5	14 3A 777				18 34 PP
BASLE	107.34	320.4					18 1
UKIAH	107.65	48.7	17 38 777				
SHASTA	107.85	46.9	14 7 777				18 12 PP
NEUCHATEL	107.92	320.1					18 41 PP
BESANCON	108.45	320.6	14 8 777				18 37 PP
MINERAL	108.52	47.1	14 4K 777				18 16 PP
ABERDEEN	108.54	332.2	14 57A 777	25 37	65		18 47 PP
MONACO	108.70	316.7					18 14 PP
BERKELEY	108.71	49.8	14 12 777				18 41 PP
ISOLA	108.81	317.2	14 9 777				18 16 PP
CUGLIERI	108.98	312.8					26 25
LICK	109.32	50.2	14 17K 777				18 18 PP
DURHAM	109.51	329.9	14 17K 777				18 55 PP
VINEYARD	109.68	50.7					18 13 PP
EDINBURGH	109.70	331.5		24 28	-9		27 59 PS
PARIS	110.00	323.0	18 17 3	25 27	49		18 53 PP
RENO	110.08	47.5	14 20 -234				18 10 PP
GARCHY	110.27	321.4	18 0 -15				18 54 PP
LUANDA	110.29	260.7					19 5 PP
KEW	110.45	326.4	18 56 41	25 34	54		19 32 PP
HUNGRY HORSE	110.76	37.1	18 6 -10	26 29	107		18 58 PP
CLERMONT-FD.	110.84	319.9	18 21 5				19 22 PP
FRESNO	110.89	50.3	14 19K-237				
FOLINIERE	111.79	323.9	14 23 -235				
BUTTE	112.66	38.9	18 18 -1				29 19 PKKP
EUREKA	112.90	46.5	18 24 4				29 11 PKKP
PASADENA	112.92	52.6	18 24 4	25 19	29		19 0 PP
RUTH	113.71	46.5	14 35A-226				19 16 PP
BOZEMAN	113.77	38.8	18 25 4				29 16 PKKP
BAGNERES	113.87	318.1					18 24 PP
ALGIERS UNI.	114.16	310.8	18 24A 2	24 59	4		19 25 PP
TORTOSA	114.54	315.8	17 32 -51				29 12
ARGENTINE I.	114.72	176.3	18 25 2				
BOULDER CITY	114.95	49.8	17 29A -55				27 59 PKKP
SALT LAKE C.	115.34	43.9	18 27A 2	25 10	11		19 28 PP
TAMANRASSET	115.86	295.4	18 29A 3	25 11	10		19 27 PP
ALICANTE	116.20	313.6	18 26 0	24 58	-5		19 32 PP
RELIZANE	116.41	310.6	18 28 1				19 34 PP
FLAMING GRGE	116.97	42.9	18 30 2	26 26	81		28 57 PKKP
GLEN CANYON	117.03	47.7	18 32 4				28 57 PKKP
TOLEDO	118.09	316.4	18 33A 3	25 17	8		19 46 PP
ALMERIA	118.25	312.7	18 31A 1	25 12	2		19 51 PP
GRANADA	118.94	313.5	18 39A 7	25 42	30		20 3 PP
LARAMIE	119.33	41.0	18 34 2				
TUCSON	119.35	52.4	18 37 5	25 54	40		20 33 PP
RAPID CITY	119.40	37.2	18 35 3				20 6 PP
TUCSON TELE.	119.41	52.3	18 37 5	24 37	-37		22 14 PKS
BENI ABBES	120.52	305.5	18 37 2	25 23	5	18 55	19 43 PP
SERRA PILAR	120.54	319.6		25 9	-9		18 37 PP
COIMBRA	120.90	318.6	18 38A 3				
LISBON	122.12	317.4	18 41A 3				20 19 PP
LOME	122.33	277.3	18 41 3				30 11 PS
CHIHUAHUA	124.49	54.6					17 43
LUBBOCK	125.67	47.3	18 49 4				
LAWRENCE	127.22	38.0	18 49 2				
WICHITA MTS.	127.44	44.3	18 51 3	25 41	2		20 50 PP
PORT STANLEY	128.55	178.7	18 54 4				21 0 PP
GUADALAJARA	129.58	62.8					21 7 PP
FAYETTEVILLE	129.63	40.3	18 55 3			19 27	21 4 PP
SHAWINIGAN	131.35	15.2	18 45 -10				
OTTAWA	131.54	18.3	18 43 -13				22 11
BREBEUF	132.08	16.4	18 48 -9				
CLEVELAND	132.72	25.9	19 2 4				
PONTA DELGDA	132.99	326.6	19 2K 3				22 18 PKS
ROCHESTER	133.11	21.0	18 46 -13				
TACUBAYA	133.65	62.8	19 11 11	26 1	7		22 43
PENNSYLVANIA	134.81	23.2	19 4 2	25 29	-27		21 40 PP
MORGANTOWN	134.93	26.0	18 50A -12				
HALIFAX	135.01	7.4	18 52 -10				
WESTON	135.60	16.0	19 5 2	28 42	164	19 48	21 49 PP
PALISADES	136.07	19.3	18 52 -12				21 38 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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 297

FORDHAM	136.22	19.4	18 56	-8				
VERA CRUZ	136.44	61.6	19 15	10		22 39		
OAXACA	136.61	64.8	19 15	10		21 55	PP	
WASHINGTON	136.75	23.9	18 54	-11		22 30	PP	
CHAPEL HILL	138.36	28.3	19 3	-5		22 0		
MBOUR	138.58	292.0	18 57	-12		21 46	PP	
COLUMBIA	138.89	32.0	19 1A	-8		22 1	PP	
COMITAN	141.06	63.6	19 27	13		41 45	SS	
MERIDA	141.26	55.3	19 25	11		22 35	PP	
SANTA LUCIA	144.16	159.2	19 21	2	19 53	23 6	PKS	
SAN SALVADOR	144.61	65.9	19 22	2				
SANTIAGO MA.	145.34	65.8	19 27	6				
ANTOFAGASTA	152.78	150.6	19 37	5				
HUANCAYO	157.63	122.8	19 50A	11				
AREQUIPA	157.84	138.0	19 54	15				
GALERAZAMBA	158.22	59.7				20 36	PKP2	
SAN JUAN	159.24	27.4	19 42	1	20 20	23 59		
LA PAZ	159.91	144.9	19 47	6		26 56	SKS	
CHINCHINA	160.00	75.2	19 41K	-1		24 15	PP	
BOGOTA	161.58	75.1	19 45	2		20 33	PKP2	
FUQUENE	161.68	72.2	19 47A	4				
FORT FRANCE	164.50	18.1	19 50	4		24 49		
CARACAS	165.05	45.0	19 48K	1		21 0	PKP2	
ST. VINCENT	165.92	20.6	19 50	3		20 50	PKP2	
BARBADOS	166.47	14.1	19 54	6				
TRINIDAD	168.17	25.6	19 53	4		21 6	PKP2	

MARCH 28 12.H 29.M 15.S EPICENTRE 51.90-176.15 DEPTH= 62.KM

A=-0.61819 B=-0.04161 C= 0.78493 D=-0.0672 E= 0.9977
G=-0.7832 H=-0.0527 K=-0.6196 HT= -6.1

DEPTH OF FOCUS= 0.005R

SE= 2.12

	DELTA DEG.	AZ. DEG.	P		O-C S	S			*PP		SUPP.				
			M	S		M	S	S	M	S	M	S			
PETROPAVLOVK	15.38	284.1	3	35	0	6	26	2			3	51	PPP		
COLLEGE	19.50	37.4	4	23	-2	8	9	13			8	40	PCP		
MAGADAN	19.95	305.5	4	31	1	8	26	20							
SITKA	24.00	61.5	5	12	2	9	45	25							
YAKUTSK	30.30	310.8	6	6	-2						7	28	PPP		
TIKSI	31.00	329.7	6	13	-1						7	29	PPP		
MIZUSAWA	32.07	263.6	6	26	3	12	36	66							
ALBERNI	32.15	74.0	6	25	1										
VICTORIA	33.30	74.5	6	34	0										
HONOLULU	33.61	148.5	6	37	0						15	10			
SEATTLE	34.37	75.3	6	46	3	12	14	9							
TUKUBASAN	34.54	260.5	6	44	-1	12	30	22	6	51	9	17	PCP		
PENTICTON	35.20	71.3	6	51A	1										
CORVALLIS	35.27	80.6	6	52K	1	13	1	42	7	12					
VLADIVOSTOK	35.49	276.7	6	53	0	12	23	0			8	12	PP		
MATUSIRO	35.49	262.6	6	53A	0	12	26	3			17	7	SCS		
ARCATA	36.82	86.4	7	14K	10										
SHASTA	37.97	85.4	7	15A	1	13	11	10							
ABUYAMA	38.21	262.9	7	16A	0										
UKIAH	38.39	88.0	7	17	0										
RESOLUTE	38.58	24.9	7	19A	0										
MINERAL	38.66	85.3	7	20K	1	13	13	2	7	39	9	21	PP		
HUNGRY HORSE	38.92	69.8	7	22	1	13	17	2			9	32	PCP		
CHANGCHUN	39.13	282.0	7	22A	-1	13	21	3							
BERKELEY	39.75	88.9	7	30K	2	13	34	6			8	52	PP		
CONCORD	39.81	88.6	7	30K	1						9	35	PCP		
RENO	40.25	85.0	7	34K	2										
LICK	40.47	89.0	7	36K	2				7	56					
BUTTE	40.97	72.1	7	38	0	13	22	-24							
VINEYARD	41.00	89.5	7	40	1										
FRESNO	41.97	88.3	7	49K	2										
BOZEMAN	42.05	71.7	7	48	1	13	47	-15							
EUREKA	42.65	82.3	7	53	1	14	21	11							
RUTH	43.41	81.9							8	0			13	28	SCP
SALT LAKE C.	44.38	78.1	8	7	1	14	40	4	8	24	17	56	SCS		
PASADENA	44.68	88.1	8	9K	1	14	43	4			10	11			
BOULDER CITY	45.55	85.4	7	17	-59										
FLAMING GRGE	45.77	76.3	8	17	0	14	57	1			13	41	SCP		
NORD	46.29	4.1	8	22A	1	15	27	24							

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961										PAGE 298	
IRKUTSK	46.50	303.6	8 23A	0						10 10	PP
PEKING	46.88	283.3	8 28	2	15 15	4					
GLEN CANYON	46.91	82.1	8 20	-6	15 20	8				10 23	PCP
RAPID CITY	47.54	69.1	8 31	0	15 43	22				10 42	PP
ULAN-BATOR	47.55	297.4	8 30	-1							
LARAMIE	47.82	73.5	8 32	-1						8 51	
GUAM	49.51	233.8	8 43	-4							
ZO-SE	49.65	270.7	8 48A	0	15 55	5					
NANKING	50.48	273.4	8 54A	0	16 2	0					
TUCSON	50.50	86.2	8 54	0	16 8	6				11 47	PP
TUCSON TELE.	50.51	86.0	8 54	0							
SIAN	55.03	282.5	9 27A	-1							
LUBBOCK	55.10	78.5	9 27	-1							
LAWRENCE	55.39	69.3	9 28	-2	17 8	0					
WICHITA MTS.	56.29	75.2	9 36A	-1	17 23	3				19 20	SCS
SCORESBY SD.	56.51	10.1	9 38	0							
FAYETTEVILLE	57.96	71.1	9 47A	-2	17 42	0	10 5			10 35	PCP
APATITY	58.82	347.2	9 54	-1	17 59	6				18 20	PS
SEMIPALATNSK	59.34	313.7	9 55	-3						13 39	
SODANKYLA	59.82	350.0	10 0	-1						39 25	PKPPKP
KIRUNA	59.95	352.8	10 1A	-1						39 32	PKPPKP
CANTON	60.24	270.0	10 5A	1	18 17	5					
HONG KONG	60.31	268.8	10 5A	0	18 15	2					
CHENGTU	60.50	283.0	10 6	0	18 16	1					
CLEVELAND	61.29	58.6	10 11A	0							
OTTAWA	61.44	52.1	10 10	-3							
MANILA	61.84	257.4	10 16	1							
SHAWINGAN	62.03	49.5	10 14	-2							
ROCHESTER	62.41	54.7	10 15	-4							
KAJAANI	62.87	348.5	10 20	-2						39 6	PKPPKP
MORGANTOWN	63.45	59.1	10 25	-1	18 55	3					
UMEA	63.91	352.0	10 27	-2						39 14	PKPPKP
HONIARA	64.46	206.3	10 32	0							
KUNMING	65.28	279.6	10 38A	0							
WASHINGTON	65.51	57.9	10 38	-1						12 45	PP
PALISADES	65.56	54.3	10 38	-2	19 20	2				23 48	SS
FORDHAM	65.70	54.4	10 39	-1							
WESTON	65.82	51.7	10 39	-2	19 6	-16	11 12			20 32	*SS
CHAPEL HILL	66.65	61.3	10 47	1							
NURMIJARVI	66.70	349.0	10 46	-1						39 15	PKPPKP
TACUBAYA	66.97	87.7	10 52	4							
COLUMBIA	66.99	64.0	10 48	-1	19 35	-1					
FRUNSE	67.57	311.3	10 53	1	19 48	5				15 3	SCP
HALIFAX	67.68	45.5	10 51A	-2							
UPPSALA	68.05	352.6	10 54A	-1						39 11	PKPPKP
PORT MORESBY	68.73	219.3	10 58	-1	19 58	2	11 11			11 22	PCP
TOCKLAI	68.88	286.6	11 5	5							
LHASA	68.91	291.3	11 2A	1	20 5	6					
MOSCOW	69.15	340.3	11 1	-1						11 16	PCP
GOTEBORG	70.56	355.4	11 10	-1							
NHATRANG	71.00	265.6	11 14	1						11 33	
TASHKENT	71.20	313.6	11 13	-1	20 30	5				13 50	PP
SHILLONG	71.48	287.8	11 15A	-1							
MERIDA	71.70	79.3			20 30	-1				11 48	
CHATRA	73.26	292.1	11 28A	1	20 51	2					
DURHAM	73.60	3.3	11 30	1							
CHITTAGONG	73.94	285.7	11 39	8	21 3	7				10 51	PCP
NOUMEA	75.44	196.6	11 40	1							
DEHRA DUN	75.62	300.8	11 36	-4	21 14	-1					
WITTEVEEN	75.63	358.2	11 24	-16							
WARSAK DAM	76.02	307.6	11 42	-1							
BOKARO	76.36	291.1	11 45A	1	21 26	3					
DE BILT	76.37	359.2	11 45	1						14 45	PP
MUNSTER	76.45	357.6	11 45	0						12 10	
COLLMBERG	76.88	354.1	11 47A	0						14 53	PP
KEW	76.94	2.7								22 15	
LWOW	77.21	346.8	11 49	0						16 47	PPP
JENA	77.34	355.0	11 50	0	21 36	2				14 54	PP
BENSBERG	77.48	357.9	11 51	0			12 2			15 1	PP
PRUHONICE	78.09	353.0	11 54	0	21 45	3				14 45	PP
ASHKABAD	78.68	319.0	12 1	4							
CHARTERS TS.	78.85	215.8	11 57A	-1	21 50	0					
HEIDELBERG	78.99	356.8	11 59	0							
KASPERSKE H.	79.01	353.5	11 59A	0						14 36	PP
IASI	79.20	343.8	12 10	10							
STUTT GART	79.60	356.4	12 1	-1							
FOLINIERE	79.64	2.9	12 2	0							
VIENNA-H.	79.65	351.5	12 3	0						14 58	PP

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961				PAGE 299					
PARIS	79.66	0.9	12 2	-1			12 14	15 7	PP
STRASBOURG	79.84	357.4	12 3	-1				15 7	PP
TUBINGEN	79.85	356.5	12 4	0					
SIMFEROPOL	80.06	338.7	12 5	0	22 7	4		15 9	PP
EBINGEN	80.20	356.5	12 5	-1					
TIFLIS	80.21	330.1	12 6A	0	22 10	6		15 14	PP
RAVENSBERG	80.58	356.1	12 8	1					
BASLE	80.90	357.4	12 10	1				20 7	
GARCHY	81.20	0.5	12 11	0			12 22	15 20	PP
BESANCON	81.21	358.5	12 12	1					
QUETTA	81.38	308.6	12 13A	1	22 19	3	12 29	15 23	PP
NEUCHATEL	81.44	357.9	12 12	0					
CAMPULUNG	81.50	345.1	12 13	1					
PORT BLAIR	81.62	278.1	12 13	0	22 18	-1			
GORIS	81.74	328.1	12 15	1	22 25	5		15 29	PP
BUCHAREST	82.15	344.1	12 15A	-1					
VIZIANAGRAM	82.17	289.2	11 19A	-57					
TRIESTE	82.46	353.0			22 32	5		23 47	
BELGRADE	82.60	348.2	12 18A	0	22 31	2		15 20	PP
CLERMONT-FD.	82.71	0.5						12 20	
TEHERAN	83.33	322.8	12 23A	1	22 44	8			
BRISBANE	83.53	207.5	12 24	1					
ISOLA	84.26	357.7	12 29	3				15 49	PP
SOFIA	84.27	345.7	12 26	0					
FLORENCE X.	84.48	354.6	12 29	1	23 48	60			
MONACO	84.70	357.4	12 29A	0					
ISTANBUL KA.	84.84	341.1	12 29	0	22 57	6		15 44	PP
BAGNERES	85.35	2.7	12 32	0					
HYDERABAD	85.61	292.6	12 18A	-15	22 44	-15		23 26	PPS
KARACHI	85.76	305.6	12 34A	0					
ROME	86.28	353.6	12 36A	0	23 25	20	12 48	16 19	PP
SERRA PILAR	86.72	9.4	12 40A	1					
LEMBANG	86.92	255.0	12 38A	-2				15 58	PP
PONTA DELGDA	87.08	23.0	12 42K	2			12 54		
POONA	87.31	296.8	12 42A	1	23 2	-13			
SAN JUAN	87.45	63.3	12 44	2			13 3	13 46	
BOMBAY	87.58	297.8	12 43	0	23 20	3			
MADRAS	88.13	288.6	12 44	-1	23 25	3			
SHIRAZ	88.27	319.2	12 46K	0	24 8	44		15 27	PP
TOLEDO	88.34	6.1	12 47	1	23 13	-11		16 27	PP
KARAPIRO	89.75	186.6	12 52K	-1					
ALICANTE	90.04	3.4	13 0	6	23 51	11		16 35	PP
RIVERVIEW	90.05	206.7	12 55A	1	23 41	1	13 5	12 56	PP
KSARA	90.14	333.8	12 56	1				16 34	PP
CHATEAU	91.01	186.4	12 56	-3					
TONGARIRO	91.02	186.5	12 57	-2					
GRANADA	91.05	5.9	13 0A	1	23 50	1		16 44	PP
ALGIERS UNI.	91.70	0.6	13 2	0	23 56	1		16 39	PP
CANBERRA	92.06	207.9	13 3A	-1	24 3	5		23 33	SKS
RELI ZANE	92.67	2.7	13 8	1				16 42	PP
FORT FRANCE	93.15	61.4	13 0	-9					
CARACAS	93.35	68.5	13 9	-1	24 14	5			
ST. VINCENT	94.37	62.4	13 17	3					
HELWAN	95.08	336.3	13 16	-2				21 45	
ADELAIDE	95.10	215.8	13 16	-2					
BARBADOS	95.32	61.1	13 22	3					
MELBOURNE	95.59	210.0	13 20	0					
TRINIDAD	96.36	63.9	13 24	1					
MOORLANDS	99.20	206.6	13 36	0					
FORT NELSON	99.61	206.3	13 38	0				33 13	SS
TAMANRASSET	105.63	358.4			24 41	3		18 18	PP
LA PAZ	113.92	86.4	14 25	-247					
SCOTT BASE	129.92	184.7	19 5	2				22 22	PKS
TANANARIVE	132.61	297.3	19 13A	5				21 46	PP
BYRD STATION	135.52	168.0	19 3	-10				22 39	SKP
BROKEN HILL	137.76	323.1	19 11	-7					
SOUTH POLE	141.71	180.0	19 20	-5				22 57	SKP
PORT STANLEY	142.85	114.8	19 23	-4					
BULAWAYO	142.87	319.3	19 26A	-1					
ARGENTINE I.	144.02	138.3	19 25	-4					
LCO. MARQUES	146.13	308.9	19 36	3					
MAWSON	147.91	218.2	19 38A	3					
PRETORIA	148.03	315.4	19 38	2					
WINDHOEK	148.98	335.7	19 39K	2					
PIETERMZBURG	150.29	308.2	19 49	10					
KIMBERLEY	152.10	317.9	19 13K	-29					
GRAHAMSTOWN	155.19	309.6	18 46X	-60					

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 300

MARCH 28 21.H 2.M 1.S EPICENTRE -22.22 -68.73 DEPTH= 115.KM

A= 0.33611 B=-0.86352 C=-0.37599 D=-0.9319 E=-0.3627
G=-0.1364 H= 0.3504 K=-0.9266 HT= 4.1

DEPTH OF FOCUS= 0.013R

SE= 2.31

	DELTA DEG.	AZ. DEG.	P		O-C S	S		O-C S	*PP		SUPP.	
			M	S		M	S		M	S	M	S
ANTOFAGASTA	2.14	226.2	0	33	-3	0	58	-5				
LA PAZ	5.72	5.8	1	27	3	2	3	-26				
SANTA LUCIA	11.30	188.2	2	39	0	4	49	5	3	10	3	42
SANTA LUCIA	11.30	188.2	2	42	3	4	49	5				
HUANCAYO	11.91	327.0	2	50	3	4	55	-3				
BOGOTA	27.18	348.3	5	34A	-1	10	5	2			6	12 PP
CHINCHINA	27.85	345.2	5	39A	-2						6	18 PP
FUQUENE	27.95	349.3	5	41K	-1							
PORT STANLEY	30.61	166.7	6	4	-1	10	58	0	6	34		
CARACAS	32.56	3.3	6	14	-8	11	27	-1				
BALBOA HTS.	32.75	339.9	6	29	5	11	31	0				
GALERAZAMBA	33.42	348.3				11	47	5			7	24 PP
TRINIDAD	33.45	13.2	6	29	-1						11	43
ST. VINCENT	35.92	12.5	6	50	-1						12	25
BARBADOS	36.24	15.2	6	38	-16							
FORT FRANCE	37.47	12.1	7	0	-4						12	53
ST. KITTS	39.75	9.0	7	22	-1							
SANTIAGO MA.	40.42	329.6	7	31	2						8	11
SAN JUAN	40.43	3.8	7	25	-4	13	35	7	7	55	9	6 PP
SAN SALVADOR	40.93	328.8	7	33	0						8	14
ARGENTINE I.	43.12	177.3	7	49	-2							
COMITAN	44.58	327.1	8	43	41						9	31 *SP
MERIDA	47.50	333.1	8	23	-2				8	53	9	7 *SP
VERA CRUZ	49.11	324.9	8	43	5						10	17 PCP
TACUBAYA	50.97	322.0	8	57	5	16	7	8			11	52 PPP
GUADALAJARA	54.39	319.2							9	43		
COLUMBIA	57.12	347.8	9	36	-1	17	23	2	10	4		
CHAPEL HILL	58.64	350.2									9	47
WASHINGTON	61.30	352.6	10	5	-1				10	35	13	13 PP
BYRD STATION	61.81	188.8	10	7	-2						10	36 PP
CHIHUAHUA	62.07	322.9	10	13	2	18	18	-7			10	54 PCP
FAYETTEVILLE	62.80	337.0	10	13K	-3	18	16	-18	10	39	19	9 *SS
PALISADES	63.09	355.6	10	15K	-3	18	37	-1	10	34	12	41 PP
PENNSYLVANIA	63.27	352.2	10	18	-1	18	41	1	10	48	13	29 SPP
WICHITA MTS.	63.33	332.7	10	16	-3	18	39	-2			10	44 PCP
WESTON	64.32	357.9	10	24	-2	18	52	-1	10	54	13	6 PP
CLEVELAND	64.48	349.4	10	26K	-1							
HALIFAX	66.68	4.0	10	40K	-1							
TUCSON	67.48	322.1	10	46	0	19	32	1	11	16	13	24 PP
TUCSON TELE.	67.49	322.2	10	46	0							
OTTAWA	67.59	354.7	10	45	-1							
SOUTH POLE	67.91	180.0	10	47	-1	19	27	-9	11	16	11	32 *SP
SHAWINIGAN	68.54	357.0	10	51	-1							
GLEN CANYON	71.41	324.9	11	14	4				11	35	14	0 PP
BOULDER CITY	72.47	322.2	10	17	-59							
RAPID CITY	73.15	334.8	11	19	-1				11	42	14	16 PP
PASADENA	73.16	318.8	11	21K	1	20	46	9	11	51	14	27 PP
FLAMING GRGE	73.31	329.0	11	21	0				11	52	16	38
LOME	73.98	76.4	11	53	28	20	48	2				
SALT LAKE C.	74.39	327.4	11	27	0							
RUTH	74.88	324.5	11	32K	2						12	12
SCOTT BASE	75.15	190.4	11	31	-1				12	1	11	40 PCP
EUREKA	75.59	324.1	11	33	-1				12	3	14	48 PP
FRESNO	75.91	319.9	11	36K	0				12	32		
LICK	77.39	319.3	11	44K	0				12	16		
BOZEMAN	77.74	331.1	11	46	0	22	19	52	12	16		
RENO	77.77	322.0	11	47K	1						12	31 *SP
BERKELEY	78.11	319.4	11	49K	1	22	12	41	12	18	22	28 SKS
WINDHOEK	78.13	109.6	11	48	0							
BUTTE	78.69	330.5	11	50	-1							
LUANDA	79.31	95.2	11	58	3						21	51 PP
MINERAL	79.34	321.7	11	53	-2							
SHASTA	80.02	321.6	11	57K	-1				12	30		
HUNGRY HORSE	81.10	331.3	12	4	0				12	36	12	46 *SP
ARCATA	81.12	320.9	12	5K	1							
GRAHAMSTOWN	82.31	122.7	12	10	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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 301

LISBON	82.37	42.9	12 14K	3	22 21	6			
BENI ABBES	82.43	53.3	12 11	0	22 22	6	12 41	23 17	PS
KIMBERLEY	82.53	117.9	12 11	0	22 19	2			
CORVALLIS	83.06	324.1	12 15K	1					
MAWSON	83.60	163.2	12 16	-1	22 29	1	12 46	13 2	*SP
SERRA PILAR	84.13	41.2	12 21K	1	22 39	6	12 50	15 31	PP
PENTICTON	84.36	329.3	11 45K	-36					
TAMANRASSET	84.99	63.1	12 23	-1	22 40	-2	12 53	15 36	PP
GRANADA	85.13	46.7	12 28K	4	22 46	3	12 52		
VICTORIA	85.68	327.0	12 27	0					
ALMERIA	85.72	47.4	12 56K	29	22 41	-8	13 12	23 39	PS
TOLEDO	86.28	44.2	12 31	1	23 3	9	13 1	22 51	SKS
PRETORIA	86.45	116.2	12 37	6					
ALBERNI	86.87	327.0	12 34	1					
RELIZANE	87.25	49.6	12 36	1	23 10	7	13 5	15 48	PP
BANGUI	89.19	85.0	13 5	21	23 25	4			
ALGIERS UNI.	89.51	49.7	12 44	-2	23 29	5	13 16	16 25	PP
TORTOSA	89.74	45.2	13 9	22	23 12	-14			
BAGNERES	90.64	43.1	12 54	3					
WILKES	91.71	179.7						23 53	
CLERMONT-FD.	93.81	41.8	13 36	31	23 36	-26			
TONGARIRO	94.36	224.6	13 9	1			13 40		
GARCHY	94.49	40.5	13 7	-2			13 38	17 3	PP
KEW	94.59	35.7			23 36	-33			
PARIS	94.87	38.9	13 9	-1	23 35	-36	13 40		
KARAPIRO	95.04	225.7	13 12	1			13 42	13 54	*SP
MONACO	95.64	45.0	13 11	-3					
BESANCON	96.25	41.4	13 26	10					
PAVIA	97.38	44.2			23 44	-3		26 14	PS
STRASBOURG	97.90	40.7	14 13	49	23 55	5		24 37	PPS
DE BILT	97.91	36.8			24 40	50		17 41	PP
SCORESBY SD.	98.10	14.3	13 31	6	23 59	8		31 41	SS
RESOLUTE	98.13	353.2	13 23	-2	24 42	51		29 56	
FLORENCE X.	98.19	46.1	13 50	25	24 46	55			
ROME	98.31	48.2			23 57	5	13 55	17 21	PP
BENSBERG	98.54	38.3	13 31	4			13 54	17 29	PP
STUTTART	98.89	40.9	13 31	2			13 57	31 16	SS
PADOVA	99.22	44.8			23 51	-5		24 56	
TRIESTE	100.54	45.0						17 36	PP
TARANTO	101.16	50.9	13 39	0				25 39	PS
LJUBLJANA	101.19	44.8						17 43	PP
KASPERSCHE H.	101.66	41.7	13 50	9				17 45	PP
COLLMBERG	102.06	39.4	13 47	4	24 17	7		17 53	PP
PRUHONICE	102.54	41.1	13 53	8	24 17	5		17 46	PP
COPENHAGEN	103.26	35.1			24 24	8		25 31	S
BRATISLAVA	103.55	43.4						17 22	
BELGRADE	104.76	47.4	17 30A	215				25 10	
COLLEGE	105.37	334.2	13 55	777			14 26	17 57	PP
TANANARIVE	105.50	118.3						18 20	PP
KRAKOW	105.87	42.1						24 33	
NORD	106.75	7.0	17 51	777					
LWOW	108.38	43.0						19 19	
BUCHAREST	108.55	48.9						18 43	
HELWAN	109.08	64.8						19 41	PP
ISTANBUL KA.	109.95	52.8			24 45	0		18 53	PP
KSARA	113.76	61.7						19 20	PP
SIMFEROPOL	114.27	49.4						19 17	
MOSCOW	117.24	37.6	18 31	-1					
KHEYS	117.51	8.5						19 43	
SOTCHI	118.13	51.4						19 44	
CHARTERS TS.	125.81	221.7	18 49	1				21 23	
MUNDARING	125.91	185.2	18 49	0					
TEHERAN	126.65	61.3	18 52	2				22 1	PP
SHIRAZ	127.12	69.0	18 52K	1	25 49	4			
TIKSI	129.54	352.9	18 55	-1					
SVERDLOVSK	129.58	33.5	18 56	0					
PORT MORESBY	132.83	232.1	19 6	4			19 36	22 9	PP
MAGADAN	133.44	333.5	19 7	4					
QUETTA	139.65	69.1	19 17K	3				22 40	PP
TASHKENT	140.00	51.6	19 9	-6					
STALINABAD	140.27	55.9	19 18	2					
NAMANGAN	141.83	51.3	19 18	0					
ANDIJAN	142.41	51.4	19 18	-1					
SEMIPALATNSK	142.86	33.1	19 17	-3					
UGLEGORSK	143.77	325.3	19 21	-1					
BOMBAY	143.91	88.1	19 46	24				22 34	
ALMATA	144.67	45.4	19 26	3					
POONA	144.79	89.1	19 23	-1					
LAHORE	145.90	66.2	19 25K	0				23 14	PKS

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 303

SENDAI	4.56	0.1	1	4K	-4	1	52	-8	
YAMAGATA	4.56	354.6	1	5K	-3	1	55	-5	
ABUYAMA	4.56	286.2	1	6K	-2				
ISINOMAKI	4.73	4.1	1	6K	-4	1	57	-7	
AIKAWA	4.81	334.2	1	10	-1				
SUMOTO	5.01	278.9	1	13	-1	2	7	-4	
SAKATA	5.25	350.9	1	17	0				
TOKUSIMA	5.26	275.7	1	24	6				
TOYOOKA	5.33	291.7	1	22	4				
MIZUSAWA	5.42	1.9	1	15	-5	2	5	-16	
TAKAMATU	5.72	278.1	1	24	0				
MORIOKA	5.99	2.0	1	17	-10	2	21	-14	
MIYAKO	6.00	8.0	1	31	3				
AKITA	6.04	354.2	1	36	8				
MATUYAMA	6.76	273.4	1	36	-2	4	30	96	
HATINOHE	6.83	4.1							2 14
AOMORI	7.10	359.3	1	36	-7	3	7	4	
MORI	8.38	358.3				3	44	10	
URAKAWA	8.56	9.5	1	52	-11				3 31
OBIIHRO	9.38	10.4				3	53	-6	
KUSIRO	9.66	15.5				3	50	-16	2 44
GUAM	20.46	169.2	4	32	-1				
MAGADAN	26.67	11.3	5	38	5				
YAKUTSK	29.22	349.2	5	54	-2				
TIKSI	38.52	353.9	7	16	0				
CHITTAGONG	44.40	268.4	7	57	-7				
SEMPALATNSK	46.69	310.0	8	21	-1				
COLLEGE	52.15	30.8	9	4	0	9	27		
CHARTERS TS.	53.74	173.7	9	14	-2				
KHEYS	55.81	348.7	9	39	8				
STALINABAD	57.08	297.3	9	40	0				
SVERDLOVSK	57.39	320.0	9	42	0				
QUETTA	61.58	288.9	10	10	-1				
NORD	64.34	356.4	10	39	10				
RESOLUTE	65.93	13.9	10	39	0				
SODANKYLA	67.87	337.6	10	52	0				
ADELAIDE	68.35	181.9	10	54	-1				18 24
CANBERRA	69.08	172.9	10	52	-7				
KIRUNA	69.48	339.6	10	56	-6				
UMEA	72.15	336.4	11	17A	-1				
NURMIJARVI	72.68	332.3	11	21	0				
MINERAL	74.16	52.0	11	34	5				
SKALSTUGAN	74.86	338.8	11	32	-1				
SCORESBY SD.	75.38	354.1	11	39	3				
RENO	75.75	51.9	11	42	4				
UPPSALA	75.76	334.2	11	38	-1				
BUTTE	76.65	43.4	11	44	0				
KARAPIRO	78.22	152.7	11	54K	2				
EUREKA	78.28	50.3	11	54	1	12	11		
CHINA LAKE	79.24	54.2	11	57	-1				
CHATEAU	79.33	153.3	11	59	1				
GOTEBORG	79.35	334.8	11	41	-17				
FLAMING GRGE	81.52	46.1	12	12	2	12	28	12	56
GLEN CANYON	82.54	50.4	12	21	6	12	37		
LARAMIE	83.54	44.0	12	21	1				
COLLMBERG	83.77	330.1	12	33	12				
WICHITA MTS.	92.04	45.2	13	2	1				
FAYETTEVILLE	93.59	41.7	13	9	1				
SOUTH POLE	123.53	180.0	18	49	1	25	50	8	
BYRD STATION	124.62	167.9	18	51	1				
LA PAZ	148.78	63.9	19	31	-3				

MARCH 29 18.H 10.M 20.S EPICENTRE 36.83 141.60 DEPTH= 64.KM

A=-0.62878 B= 0.49832 C= 0.59692 D= 0.6211 E= 0.7837
G=-0.4678 H= 0.3708 K=-0.8023 HT= -0.5

DEPTH OF FOCUS= 0.005R

SE= 2.87

	DELTA DEG.	AZ. DEG.	P		O-C S	S		*PP		SUPP.	
			M	S		M	S	M	S	M	S
ONAHAMA	0.58	281.8	0	10K	-5	0	20	-6			
MITO	1.02	243.9	0	16K	-3	0	32	-2			
SHIRAKAWA	1.14	284.8	0	18K	-3	0	33	-4			
TYOSI	1.27	208.9	0	20	-3	0	36	-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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961

PAGE 304

KAKIOKA	1.30	242.7	0 20K	-3	0 27	-13
TUKUBASAN	1.36	243.6	0 20	-4		
UTUNOMIYA	1.42	259.0	0 22K	-3	0 42	-1
SENDAI	1.54	338.9	0 23K	-3	0 40	-6
ISINOMAKI	1.61	352.1	0 24K	-3	0 43	-4
YAMAGATA	1.73	325.2	0 26K	-3	0 50	0
HONGO	1.86	233.4	0 29	-2		
TOKYO C.M.O.	1.89	233.0	0 28	-3	0 53	-1
KUMAGAYA	1.92	249.8	0 30	-1	0 56	1
MAEBASI	2.08	258.7	0 26K	-8	0 56	-3
YOKOHAMA	2.11	229.0	0 32A	-2	1 8	9
TITIBU	2.21	248.0	0 30	-5	1 4	2
NIIGATA	2.30	298.8	0 36	-1	1 7	3
MIZUSAWA	2.32	350.9	0 36	-1	1 0	-5
MERA	2.39	217.5	0 37	-1	1 7	1
SAKATA	2.49	326.3	0 39	0	1 13	4
OI WAKE	2.51	259.3	0 39	-1	1 14	5
HUNATU	2.65	240.7	0 41	-1	1 17	4
TAKADA	2.70	276.6	0 41	-1	1 21	7
AJIRO	2.70	229.5	0 42	0	1 15	1
KOHU	2.72	245.6	0 42	-1	1 25	10
NAGANO	2.74	267.6	0 43A	0	1 20	5
OSIMA	2.74	221.9	0 42	-1	1 13	-2
MATUSIRO	2.74	264.9	0 41K	-2	1 16	1
MISIMA	2.75	232.3	0 41	-2	1 22	7
MIYAKO	2.83	5.8	0 42	-2	1 12	-5
MORIOKA	2.88	353.3	0 43	-2	1 18	-1
AIKAWA	2.92	294.9	0 46	1	1 23	3
MATUMOTO	2.98	259.8	0 46	0	1 24	3
AKITA	3.11	338.1	0 51	3	1 29	4
IIDA	3.32	247.9	0 50	-1	1 32	2
TOYAMA	3.54	269.1	0 55	1	1 34	-1
OMAESAKI	3.54	232.0	0 56	2	1 48	13
TAKAYAMA	3.57	260.3	0 53	-1	1 11	-25
HATINOHE	3.69	359.1	0 56	0	1 36	-3
HAMAMATU	3.80	237.4	1 2	4	1 49	7
WAZIMA	3.80	279.6	0 56	-2		
KANAZAWA	3.99	267.1	1 8	8		
AOMORI	4.03	351.1	1 1	0	2 9	22
NAGOYA	4.11	247.5	1 2	0	1 55	6
GIHU	4.17	251.3	1 3	0	1 55	4
HUKUI	4.40	261.4	1 8	2	2 9	12
HIKONE	4.61	251.8	1 9	0	2 25	23
KAMEYAMA	4.62	246.1	1 15	6	2 11	9
TSURUGA	4.63	256.8	1 11	2		
TU	4.65	244.2	1 12	2		
HAKODATE	5.01	352.8	1 16	1	2 18	6
KYOTO	5.10	250.9	1 16	0	2 39	25
NARA	5.16	247.1	1 19	2		
OWASE	5.20	239.6	1 30	13	2 14	-3
ABUYAMA	5.28	250.0	1 16	-2		
MORI	5.32	351.7	1 25	6	2 28	8
URAKAWA	5.39	9.4	1 19	-1	2 17	-4
OSAKA	5.40	248.0	1 36	16	2 53	31
MURORAN	5.50	355.2	1 25	4	2 23	-1
HIROO	5.60	13.2	1 18	-5	2 20	-6
TOYOOKA	5.64	258.7	1 24	1	2 18	-9
KOBE	5.65	249.5			2 56	28
TOMAKOMAI	57.9	359.8				
SIOMISAKI	5.85	236.5	1 50	24	2 59	26
WAKAYAMA	5.85	245.5	1 37	11		
SUMOTO	5.99	247.4	1 27K	-1	2 45	9
SUTTSU	6.05	350.4	1 45	16	2 48	10
TOTTORI	6.15	259.8	1 32	2	2 50	10
OBHIRO	6.20	10.9	1 40	9	2 52	11
SAPPORO	6.23	358.3	1 33	2	2 49	7
TOKUSIMA	6.36	246.4	1 40	7	3 40	55
KUSIRO	6.50	18.4	1 28	-7	2 37	-12
TAKAMATU	6.65	250.0	1 37	0	3 11	19
YONAGO	6.82	260.6	1 40	0	3 29	32
ASAHI GAWA	6.96	4.6	1 50	8		
MUROTO	7.06	241.7	3 2	79	3 38	35
RUMOE	7.11	0.1			2 59	-5
KOTI	7.38	246.0	1 51	4	3 20	10
ABASHIRI	7.46	15.0	1 47	-2	3 6	-7
MATUYAMA	7.80	250.1	1 53	0	3 58	37
HAMADA	7.98	258.8	3 35	99	4 15	50
OOITA	8.94	249.2	2 13	4	4 28	39

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961				PAGE 306			
GEBBIES PASS	30.86	200.1	6 24	4			
BRISBANE	33.77	243.3	6 43	-2			10 54
RIVERVIEW	37.07	233.5	7 11	-2	12 57	-3	8 42 PP
CHARTERS TS.	38.81	256.8	7 26	-2	13 31	5	
PORT MORESBY	39.06	273.8	7 31	1	13 38	8	17 24 SCS
CANBERRA	39.26	232.3	7 30K	-2	13 26	-7	7 41
MOORLANDS	43.44	223.3	8 14	8			17 2 SSS
FORT NELSON	43.55	222.6	8 8	1			18 42 SS
TARRALEAH	43.86	223.8	8 11	2			
ADELAIDE	47.24	236.2	8 34	-2			
SCOTT BASE	63.48	184.6	10 34	0			12 50 PP
MUNDARING	65.75	241.5	10 47	-2			
TUKUBASAN	67.48	320.5	10 57	-3	19 58	3	11 6
MATUSIRO	68.85	319.7	11 8	0	20 18	6	27 3 SSS
BYRD STATION	69.16	171.3	11 7	-3			21 20 SCS
ABUYAMA	69.52	316.9	11 14A	2			
KURILSK	69.69	331.8	11 16	3			
WILKES	70.67	204.5					25 16 SS
VINEYARD	71.12	41.9	11 24	2			
BERKELEY	71.23	40.5	11 22	-1	20 46	6	21 19
LICK	71.30	41.3	11 24K	1			
PASADENA	71.77	45.7	11 27	1	20 49	3	21 25 PS
PETROPAVLOVK	72.10	342.6	11 27	-1	20 53	3	
FRESNO	72.16	42.7	11 28	0			
SHASTA	72.89	38.1	11 33	0			
MINERAL	73.15	38.8	11 33A	-1			
RENO	73.77	40.3	11 39K	1			
CORVALLIS	74.82	34.5	12 0	16			
SOUTH POLE	74.92	180.0	11 43	-1			
BOULDER CITY	75.07	45.7	11 44	-1			
UGLEGORSK	75.20	331.4	11 46	0			
TUCSON	76.09	50.7	11 52	1			
EUREKA	76.18	42.1	11 52	1			
TUCSON TELE.	76.22	50.7	11 53	1			
RUTH	76.69	42.8	12 17	23	21 43	2	
VLADIVOSTOK	76.70	322.0	11 55	1			
VICTORIA	77.32	31.4	11 58	0			
LEMBANG	77.77	266.2	11 42	-18			
GLEN CANYON	77.82	46.2	12 6	5			13 10
SALT LAKE C.	79.54	42.7	12 11	1			
MAGADAN	79.96	342.3	12 12	0			
HONG KONG	80.22	296.3	12 9	-5	22 43	24	
TACUBAYA	80.55	67.0	12 30	15			
FLAMING GRGE	81.24	43.5	12 18	-1			15 5 PP
BUTTE	81.80	37.9	12 21	-1			
COLLEGE	82.13	10.7	12 23	-1			15 29 PP
HUNGRY HORSE	82.21	35.3	12 22	-2			
BOZEMAN	82.53	38.7	12 27	1			
LARAMIE	83.97	44.5	12 32	-1			
WICHITA MTS.	86.41	52.8	12 45	0	23 15	-6	24 15 PS
RAPID CITY	86.74	42.7	12 48	1			
YAKUTSK	88.94	336.7	12 57	0			
SANTA LUCIA	91.94	125.3			24 19	7	23 43 SKS
ULAN-BATOR	94.47	318.4	13 22	-1			
TIKSI	94.81	344.4	13 24	-1			19 31
IRKUTSK	97.29	322.1					17 30 PP
LA PAZ	99.70	110.0	13 39	-8	24 31	6	
BOGOTA	100.06	87.9			24 27	0	
RESOLUTE	101.48	15.4	13 53	-2			
PALISADES	106.79	51.3			25 1	3	27 57 PS
SEMIPALATNSK	112.04	318.5					19 20 PP
BOMBAY	117.02	283.7					25 44
NAMANGAN	118.66	308.6					20 4 PP
TASHKENT	120.43	309.2					20 1 PP
SVERDLOVSK	122.01	328.4					20 31 PP
QUETTA	123.05	296.3	19 1	3			
APATI TY	124.86	347.9					20 45 PP
SODANKYLA	126.25	350.6	19 2	-3			
KIRUNA	126.64	353.6	19 4	-1			
MOSCOW	133.10	336.6	19 16	-2			
MAKHACH-KALA	135.52	316.8	19 23	1			
SHIRAZ	135.57	297.0	19 23	1			22 55 PKS
BULAWAYO	138.84	212.1	19 30	2			
SIMFEROPOL	142.37	327.7	19 32	-2			
LWOW	142.69	341.5	19 33	-2			
KISHINEV	143.31	334.5	19 27	-9			
BROKEN HILL	143.55	217.1	19 36	0			
COLLMBERG	143.62	353.4	19 37A	0			23 20

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

1961					PAGE 307
RACIBORZ	143.97	347.4	19 40	3	
JENA	144.13	354.8	19 44	7	22 51
BENSBERG	144.31	359.5	19 38K	0	19 49 PKP2
PRUHONICE	144.71	351.3	19 39A	1	22 56 PP
KASPERSKE H.	145.68	352.0	19 42	2	21 16
HEIDELBERG	145.84	357.7	19 42	2	
FOLINIÈRE	145.98	8.5	19 43	2	
BRATISLAVA	146.01	347.6	19 45	4	19 56 PKP2
VIENNA-H.	146.08	348.4	19 44	3	19 54 PKP2
KARLSRUHE	146.24	358.0	19 44	3	19 53 PKP2
CAMPULUNG	146.26	336.5	19 47	6	
PARIS	146.28	5.1	19 50	9	23 8 PP
STUTT GART	146.44	356.9	19 43	2	
BUCHAREST	146.54	334.5	19 44A	2	
STRASBOURG	146.68	358.7	19 46	4	30 3 SKKS
ISTANBUL KA.	147.73	327.4	19 48	4	23 16 PP
BASLE	147.74	358.9	19 31	-13	
GARCHY	147.85	4.7	19 55	11	20 5 PKP2
BESANCON	148.02	1.0	19 49	5	
BELGRADE	148.25	341.3	19 51K	7	
ZAGREB	148.48	347.6	19 49	4	
LJUBLJANA	148.54	349.6	19 47	2	20 29
TRIESTE	149.06	350.4	19 53	7	
JERUSALEM	149.22	307.5	19 53	7	
CLERMONT-FD.	149.36	5.0	19 55	9	
PADOVA	149.56	352.8	20 9	23	21 38
FLORENCE X.	151.24	353.2	19 45	-4	
MONACO	151.54	358.9	19 54	5	
BAGNERES	151.64	10.2	20 3	13	
LWIRO	152.13	233.4	20 OK	10	
ROME	152.92	350.5	19 53	2	23 41
HELWAN	153.06	307.0	20 1	9	23 48
TARANTO	153.19	342.0			20 21
TARANTO	153.19	342.0	20 21	29	
TOLEDO	153.65	18.9	20 2	10	23 52 PP
GRANADA	156.24	20.8	21 OK	64	25 7 PP
ALGIERS UNI.	158.25	8.0	19 59	0	24 15 PP
TAMANRASSET	172.35	8.4	20 14	4	25 29 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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

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.

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained as part of a global earthquake relocation project (Villaseñor et al., 1997) initiated with funding from the US National Science Foundation through grant EAR-9725140 and collected by SGA [Storia Geofisica Ambiente](#) (Bologna) on behalf of the [Istituto Nazionale di Geofisica e Vulcanologia](#) (Rome), in the frame of [Euroseismos](#) project.

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

These data are considered public domain and may be freely distributed or copied for non-profit purposes provided the previous references are quoted.

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

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