

**BULLETIN  
OF THE SLOVAK  
SEISMOGRAPHIC  
STATIONS**

CENTRE SÉISMOLOGIQUE  
EUROPÉO - MÉDITERRANÉEN



**BRATISLAVA  
ŠROBÁROVÁ  
HURBANOVO  
AND**

**SKALNATÉ PLESO  
FOR THE YEAR 1971**

Slovak Academy of Sciences  
Geophysical Institute

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# Bulletin of the Slovak Seismographic Stations Bratislava, Šrobárová, Hurbanovo and Skalnaté Pleso for the Year 1971

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VEDA, Publishing House of the Slovak Academy of Sciences  
Bratislava 1977

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## I n t r o d u c t i o n

The seismological bulletin for the year 1971 contains the results of the interpretation of records from the network of seismograph stations on the territory of Slovakia: Bratislava /central station/, Šrobárová, Hurbanovo and Skalnaté Pleso.

The records from the network are collected at the Geophysical Institute of the Slovak Academy of Sciences in Bratislava, where they are analysed. The preliminary results of the interpretation were published in ten-day preliminary bulletins for stations Bratislava and Šrobárová and in monthly preliminary bulletins with readings of the seismograms from stations Hurbanovo and Skalnaté Pleso. The ten-day preliminary bulletins were exchanged with about twenty seismological institutions from various parts of the world. The times of the onsets of the important earthquake phases appearing on the Bratislava and Šrobárová seismograms were sent to the seismological centres in Washington, Strasbourg and Moscow twice a week. The earthquake data obtained from the Bratislava and Šrobárová seismograms were also punched on cards which were regularly supplied to the International Seismological Centre in Edinburgh.

This annual bulletin contains the final analysis of the records and the completed and revised parameters of earthquakes and explosions. The sources of information regarding epicentres, origin times or shock magnitudes, frequently quoted are as follows: Bulletin of ISC, Vol. 8, 1971; Bulletin of BCIS, 1971; Quarterly Bulletin of the Academy of Sciences of the U.S.S.R., 1971. The time standard used throughout is Greenwich Mean Time.

The epicentres of almost all earthquakes or explosions occurring in Czechoslovakia were determined at the Geophysical Institute of the Czechoslovak Academy of Sciences in Prague or at the Geophysical Institute of the Slovak Academy of Sciences in Bratislava.

The processing of data and numerical calculations were carried out according to a program compiled by Mrs. K. Mrázová, using the computer Gier in the Institute of theoretical cybernetics. The program is written in Gier-Algol IV. The main features of the program are that the theoretical travel-time tables /1, 2, 3, 4/ of important phases /p. 16/ are stored on magnetic tape. The epicentral distances and azimuths of the observing stations from the epicentre are calculated after computation of the geocentric direction cosines from the coordinates. After the input of observed arrival times of important phases, the residuals O-C for each observed phase are calculated. An automatic phase identification is carried out in the case of phase P, resp. Pdiff, PKIKP, PKHKP, PKP2 as well as in the case of phases: pPKIKP-pPKP2; pP-PcP; SKS /branch ab/ - SKS /branch df/; PKS /branch ab/ - PKS /branch bc/ - PKS /branch df/; PS/SP; Pg-Pb-Pn; Sg-Sb-Sn. From all possible phases it is determined and printed that one, which has the minimum value of |O-C|. In the case when the minimum value of |O-C| > 20 s, the observed time is printed, designated only by letter i or e.

For calculating the magnitude on the basis of the relation

$$M = \log \left( \frac{A}{T} \right)_{\max} + \delta(\Delta) + S,$$

the standard calibrating functions [5] were used for P phase of shallow earthquakes and for their surface waves /  $h < 100$  km/. The values of body wave magnitudes from PV waves of earthquakes with focal depth  $h \geq 100$  km and with epicentral distances in the interval /20°, 100°/ were calculated on the basis of Q-functions [6], /stored on the magnetic tape in digital form/. In cases when two remarkable maxima occurred within the interval of

25 seconds, beginning from the first onset, two values of mPV were determined. The values of the amplitudes AV are given in nanometers while the values of AEW and ANS are given in micrometers.

An earthquake magnitude formula, giving the closest possible fit to surface waves magnitudes determined by NEIC has been developed for the station Šrobárová [8]. The value of station correction for Šrobárová according to [8]:  $S = -0.22$  and the standard error:  $\pm 0.03$ . For the determination of magnitudes the station correction was not yet taken into consideration.

For the measurements of microseisms the records of the Mainka horizontal seismograph at the station Hurbanovo were used. The maximum microseismic trace amplitudes were measured on the N-S and E-W components four times per day at 0, 06, 12, and 18 h G.M.T. Using a short procedure the trace amplitudes were converted into ground amplitudes /in micrometers/ and tabulated. The period was determined by measuring the length to 0.1 mm of 2-4 whole periods in a well developed maximum group. The periods are given in whole seconds. The trace amplitudes were measured from peak to peak, halved and the corresponding ground motion given to 0.1  $\mu$ m.

The ten-day preliminary bulletins for stations Bratislava and Šrobárová were prepared by Mrs. K. Mrázová and Mrs. A. Weihsová. The interpretation of earthquakes registered on the Hurbanovo and Skalnaté Pleso seismograms was carried out by Mrs. K. Mrázová and Mr. A. Molnár. The investigation of macroseismic observations of earthquakes felt on the territory of Slovakia was carried out by Mr. I. Brouček.

In preparing this bulletin the authors have been in different parts assisted by Mr. P. Pajdušek, Mrs. A. Miková, Mrs. I. Bochníčková and Mrs. N. Hupková.

The content of this bulletin is in accordance with the recommendations given in [7].

List of Abbreviations Used in this Bulletin

A	length of recording arm
Az	azimuth of stations with respect to the epicentre
Dc	epicentral distance calculated with regard to geocentric coordinates
Dg	damping constant of the galvanometer
Ds	damping constant of the seismometer
e	poorly defined beginning of a phase
$\xi$ : 1	damping ratio
H	origin time, expressed in G.M.T.
h	depth of focus in km
i	impulsive beginning of a phase
K	characteristics of microseisms:
1	disturbance showing microseisms in groups
2	continuous disturbance
3	disturbance of a mixed and irregular character
0	no microseismic movement
0.0	very weak microseismic movement: amplitude less than 0.1 micron
tt	disturbance could not be measured because of earthquake
v	disturbance could not be measured because of gusts of wind
...	disturbance could not be measured for other reasons
Kg	moment of inertia of the galvanometer
Ks	moment of inertia of the seismometer
l	reduced pendulum length
MB	body waves magnitude given by ISC
MLH	surface waves magnitude
MPV	body waves magnitude

r max. deviation due to friction  
 $\delta^2$  coupling coefficient  
 Tg free period of the galvanometer  
 Ts free period of the seismometer  
 Vo static magnification  
 Vm max. dynamic magnification  
 +and- compressional or dilatational motion in a longitudinal wave  
 NE nuclear explosion

### Station Instrumentation

#### Coordinates of the Seismographic Stations

Station	Latitude	Longitude	Elevation	Lithologic foundation
Bratislava	48°10'06" N	17°06'18" E	270 m	Granite
Šrobárová	47°48'48" N	18°18'48" E	150 m	Bed of sand
Hurbanovo	47°52'25" N	18°11'34" E	115 m	Bed of sand
Skalnaté Pleso	49°11'20" N	20°14'32" E	1772 m	Granite

#### Constants for the Year 1971

##### HURBANOVO

"MAINKA", horizontal seismograph, M = 210 kg, air damping, mechanical registration

Month	Component	Ts /s/	Vo	r /mm/	$\epsilon$ :1	Paper speed
January-April	N-S	8.0	48.2	0.6	3.6	30 mm/min
	E-W	10.8	53.3	0.9	3.4	
May-August	N-S	8.3	46.0	0.4	3.5	30 mm/min
	E-W	10.6	52.1	0.9	4.3	
September-December	N-S	8.3	46.0	0.4	3.5	30 mm/min
	E-W	10.6	52.1	0.9	4.3	

##### SKALNATÉ PLESO

"VEGIK", electromagnetic seismograph with galvanometric registration

Component	Ts /s/	Tg /s/	Ds	Dg	$\delta^2$	Vm	Paper speed
Z	1.9	1.9	0.97	0.90	0.12	3860	60 mm/min

"VEGIK", electromagnetic seismograph with galvanometric registration

Component	Ts /s/	Tg /s/	Ds	Dg	$\delta^2$	A /m/	l /m/	K1 /kg m <sup>2</sup> /	K2 /kg m <sup>2</sup> / x 10 <sup>-8</sup>	Paper speed
Z	1.78	1.91	0.87	1.05	0.114	1.12	0.0940	0.0098	1.35	15 mm/1 min
N-S	2.00	1.86	0.91	1.02	0.103	1.03	0.0934	0.0101	3.67	15 mm/1 min
E-W	2.00	1.92	0.90	1.08	0.104	1.03	0.0940	0.0100	3.7	15 mm/1 min

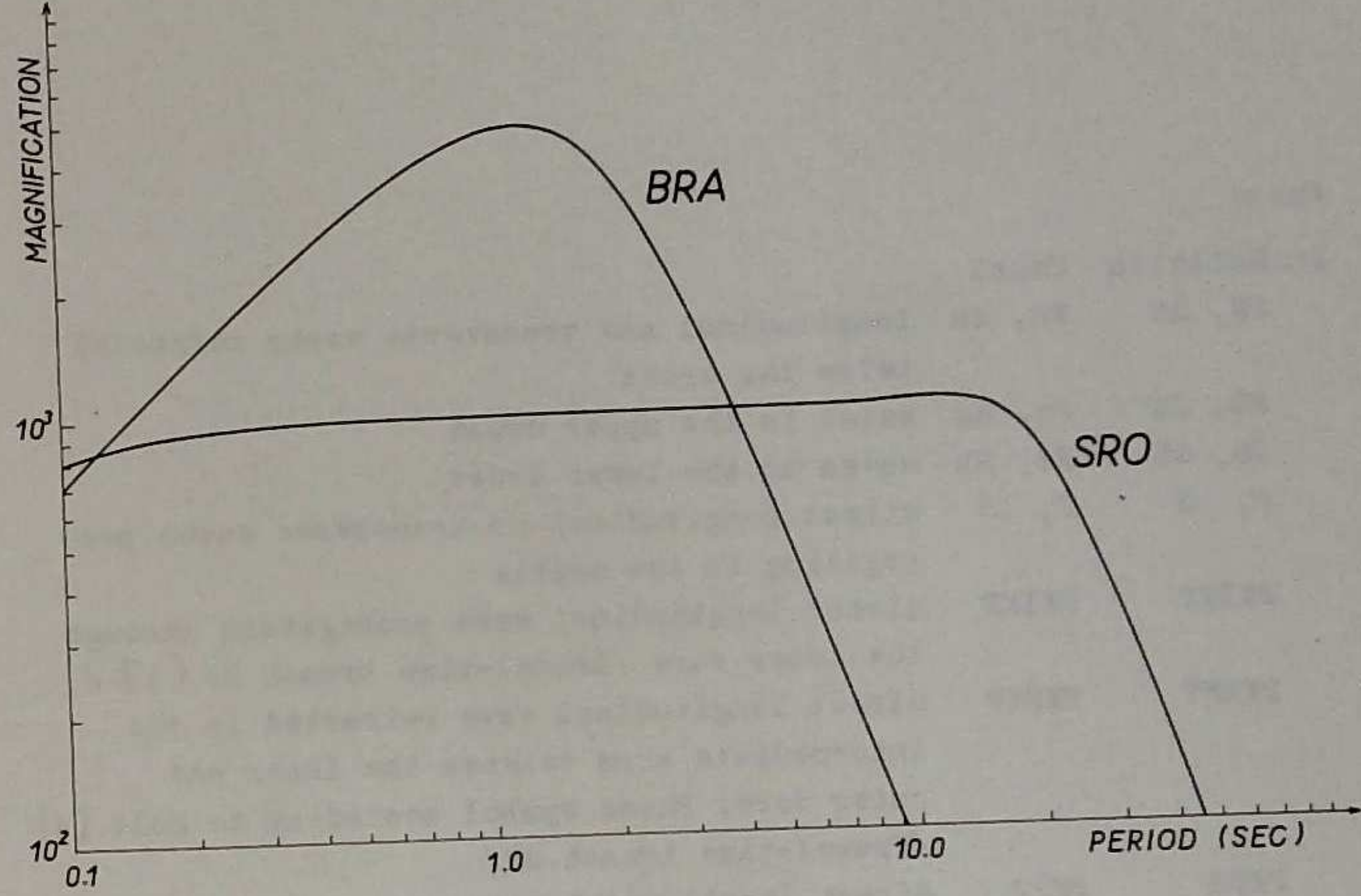
## ŠROBÁROVÁ

"KIRNOS", electromagnetic seismograph with galvanometric registration, class "C" according to [7]

Component	Ts /s/	Tg /s/	Ds	Dg	$\delta^2$	A /m/	l /m/	K1 /kg m <sup>2</sup> /	K2 /kg m <sup>2</sup> / x 10 <sup>-9</sup>	Paper speed
Z	22.4	1.17	0.54	8.00	0.234	0.98	0.488	0.362	4.87	15 mm/1 min
N-S	22.7	1.25	0.47	7.70	0.277	0.98	0.488	0.358	5.31	15 mm/1 min
E-W	24.9	1.15	0.49	7.70	0.367	0.98	0.499	0.358	4.28	15 mm/1 min

## RESPONSE AMPLITUDE CHARACTERISTIC

STATION BRATISLAVA COMPONENT Z  
STATION ŠROBÁROVÁ COMPONENT Z






List of Seismic Phases

Phase

In Bulletin	Usual	
PN, SN	Pn, Sn	longitudinal and transverse waves refracted below the crust
PG, SG	Pg, Sg	waves in the upper crust
PB, SB	Pb, Sb	waves in the lower crust
P, S	P, S	direct longitudinal or transverse waves propagating in the mantle
PKIKP	PKIKP	direct longitudinal wave propagating through the inner core /Travel-time branch DF [1] /
PKHKP	PKHKP	direct longitudinal wave refracted in the intermediate zone between the inner and outer core. Phase symbol according to Bolt [4] /Travel-time branch GH/
PKP2	PKP2	direct longitudinal wave propagating only through the outer core /Travel-time branch AB [1] /
PP	PP	P waves reflected once at the Earth's surface
PCP	PcP	P waves reflected at the Earth's core boundary
SKSAB	SKS	S waves passing through the core as P waves, transformed back into S waves in the mantle /the letters AB resp. BC designates the branch AB or BC according to [1] /
SKSBC	SKS	
PS, SP	PS, SP	P and S waves reflected and transformed at the Earth's surface
PKSAB	PKS	P wave transformed into S on the refraction when leaving the core /the letters AB, BC and DF
PKSBC	PKS	



PKSDF	PKS	designates the branches according to [1] /
AP	pP	P waves reflected from the surface as P waves, supposing deep focus earthquake
LMH	LmH	waves of maximum amplitude in the surface wave group /on the horizontal component/

List of Quoted Agencies Reporting Epicentral Parameters

Code	Agency
ATH	Athens, Seismological Institute, National Observatory, Athens
BCIS	Bureau Central International de Seismologie, Strasbourg
BRA	Bratislava, Geophysical Institute, Slovak Academy of Sciences, Bratislava
ISC	International Seismological Centre, Newbury, United Kingdom
LJU	Ljubljana, Astronomical and Geophysical Observatory, University of Ljubljana, Ljubljana
MOS	Moscow, Academy of Sciences of the U.S.S.R., Institute of Physics of the Earth, Moscow
NEIS	Natl. Earthquake Inform. Service, Denver, Colorado, U.S.A.
PRU	Prùhonice, Geophysical Institute, Czechoslovak Academy of Sciences, Prague
UPP	Uppsala, Seismological Institute, Uppsala
USAEC	U.S. Atomic Energy Commission, Washington
VIE	Vienna, Zemtralanstalt für Meteorologie und Geodynamik, Wien
WAR	Warsaw, Geophysical Institute of the Polish Academy of Sciences, Warsaw

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No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
1	1	BRA	EPKIKP E E	08 16 40.0 08 19 13.0 08 20 13.0	0.1									115.32	65.98	New Guinea 4.12 S 141.23 E, H = 07 57 59.0, MB = 5.5 /ISC/. DEPTH = 17 km,	
2	2	SRO	LMH	00 55 00.0										13.19	162.23	Crete 35.12 N 23.17 E, H = 00 46 15.0, MB = 4.6 /ISC/. DEPTH = 42 km,	
3	3	BRA	EP EPCP	14 03 33.0 14 03 49.0	0.2 7.5									79.06	38.07	Hokkaido Region 41.37 N 143.55 E, H = 13 51 29.0, MB = 5.2 /ISC/. DEPTH = 25 km,	
4	3	SRO	EPDIFF E LMH	17 50 07.0 18 05 07.0 18 39 00.0 17 50 16.0	19.8 1.3									104.79 104.98	191.89 191.23	South Atlantic Ridge 55.90 S 2.40 W, H = 17 35 44.0, MB = 5.2 /ISC/. DEPTH = 43 km	
5	3	SRO	IP IPP IS I LMH	23 22 11.0 23 22 17.0 23 24 43.0 23 25 07.0 23 28 30.0	4.4 -2.4 -3.3 0.3									14.47 15.17	152.64 143.70	Crete 34.63 N 26.32 E, H = 23 18 43.0, MB = 5.2 /ISC/. DEPTH = 47 km,	
6	4	SRO	IP I E E LMH	23 22 31.0 23 28 01.0 23 30 13.0 00 34 30.0	3.1									81.44 81.79	47.01 46.24	Near South Coast of Honshu 34.54 N 137.12 E, H = 21 08 53.8, MB = 5.6 /ISC/. DEPTH = 44 km,	
7	5	BRA	E	11 55 54.0	0.7											Small local shock	

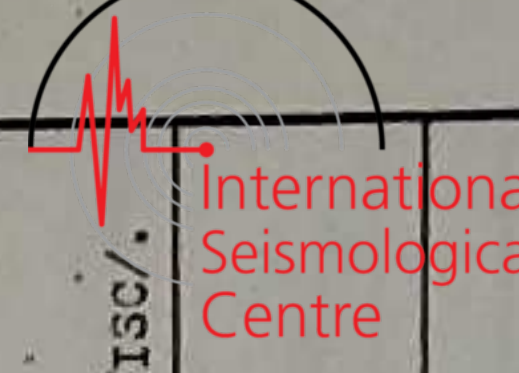
No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
8	6	BRA	E E	11 12 54.0 11 14 21.0													Small local shock
9	8	SPC SRO BRA	+IP EP EAP E EPP LMH	14 57 16.0 14 57 27.0 14 57 27.0 14 57 38.0 14 58 09.0 15 00 27.0 15 37 00.0	1.0 1.7 1.3 2.1 3.6									75.93 77.76 77.84	30.34 29.00 28.29	Kurile Islands 47.31 N 154.19 E, H = 14 45 30.0, MB = 5.7 /ISC/. DEPTH = 34 km,	
10	10	SPC SRO HRB	EPKIKP EPKIKP EPKIKP E E LMH	07 35 35.0 07 35 39.0 07 35 43.0 07 36 37.0 07 45 00.0 07 52 12.0 08 18 00.0	1.6 2.2 6.1 5.2 1.0 0.3									111.35 113.05 113.10	68.99 67.88 67.75	West Irian 3.21 S 139.68 E, H = 07 17 04.0, MB = 6.5 /ISC/. DEPTH = 41 km,	
11	11	BRA	EPKIKP	21 22 06.0	1.8									149.72	29.42	Fiji Region 20.46 S 173.21 W, H = 21 03 19.0, MB = 4.7 /ISC/. DEPTH = 532 km,	
12	14	ERA	EP	23 54 58.0	3.1									74.18	21.13	Off East Coast of Kamchatka 53.63 N 161.49 E, H = 23 43 17.0, MB = 5.0 /ISC/. DEPTH = 15 km,	
13	15	BRA	ESG	02 58 10.0	-3.3									5.37	273.53	Germany 48.22 N 9.08 E, H = 02 55 16.0, MB = 3 km /ISC/. DEPTH = 3 km	
14	15	BRA	EPKIKP	19 52 43.0	3.5									161.12	43.63	South Kermadec Islands 33.28 S 178.35 W, H = 19 32 43.0, MB = 4.7 /ISC/. DEPTH = 33 km,	
15	18	BRA	EP EAP	05 14 04.0 05 14 19.0	-2.0 0.7									78.44	38.56	Hokkaido Region 41.62 N 142.56 E, H = 05 02 08.0, MB = 5.3 /ISC/. DEPTH = 43 km,	

No.	Date	STA Code	Phase	GMT			RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m	s		A	T	A	T	A	T					
16	18	BRA	EPDIFF	06	06	12.0	-10.8								104.23	71.99	Molucca Passage 1.04 N 129.89 E, H = 05 52 19.0, DEPTH = 21 km, MB = 5.4 /ISC/.	
17	19	BRA SRO	EP LMH	03 30 03 31 04 12	08.0 19.0 30.0	0.5		6.0	12.0			6.4		93.49 94.33	311.93 312.85	Gulf of California 23.80 N 108.73 W, H = 03 16 54.0, DEPTH = 33 km, MB = 5.5 /ISC/.		
18	19	BRA SPC	EP EPP E	23 37 23 37 23 38 23 37	26.0 35.0 25.0 33.0	1.5 -2.2						6.1		14.80 15.14	156.89 167.83	Crete 34.30 N 24.06 E, H = 23 33 56.0, DEPTH = 34 km, MB = 4.9 /ISC/.		
19	20	BRA	+IP EAP E EPP	04 57 04 58 04 58 05 01	59.0 05.0 35.0 14.0	12.1 17.5 4.4	150	1.5						87.58	280.45	Panama 8.84 N 79.07 W, H = 04 44 56.0, DEPTH = 2 km, MB = 5.5 /ISC/.		
20	22	BRA	EPKIKP	20 18	36.0	1.2								122.71	57.76	New Britain Region 5.83 S 151.43 E, H = 19 59 46.0, DEPTH = 63 km, MB = 5.3 /ISC/.		
21	24	SPC BRA	E ES EP E EPP E	13 40 13 42 13 33 13 34 13 35 13 39	18.0 29.0 07.0 38.0 57.0 04.0	-4.1 1.1 -3.6							75.05 76.91	28.18 26.17	Kurile Islands 49.08 N 156.31 E, H = 13 21 16.0, DEPTH = 40 km, MB = 4.3 /ISC/.			
22	24	BRA	EP EPCP EPP	23 28 23 28 23 31	14.0 30.0 17.0	1.6 4.2 13.4							75.38	354.30	Kodiak Island Region 56.49 N 152.91 W, H = 23 16 31.0, DEPTH = 38 km, MB = 4.9 /ISC/.			
23	25	SPC SRO BRA	EPKIKP EPP EPKIKP EPP E -IPKIKP EAPKIKP EPP E E	00 37 00 39 00 37 00 39 00 40 00 37 00 37 00 39 00 42 00 43	23.0 11.0 26.0 22.0 16.0 28.0 35.0 35.0 38.0 39.0 51.0	3.6 5.7 3.2 5.3 4.2 -4.0 -0.9							123.46 125.24 125.78	62.87 61.85 60.45	D'Entrecasteux Islands Region 9.65 S 151.40 E, H = 00 18 25.0, DEPTH = 31 km, MB = 5.9 /ISC/.			

24	25	SPC BRA	IP -IP IAP I IPP E LMH EP	16 20 16 20 16 20 16 20 16 23 16 24 17 02 16 20	14.0 20.0 38.0 50.0 17.0 16.0 30.0 28.0	-0.4 -1.9 3.3 -8.4 5.0	220	1.5					5.9	78.57 79.94	11.35 9.35	Andreeanof Islands 51.46 N 177.71 W, H = 16 08 16.0, DEPTH = 45 km, MB = 5.9 /ISC/.
25	25	BRA	EP	21 39	21.0	-0.5			27.0	15.0			6.9	80.16	10.09	Svalbard Region 76.90 N 9.40 E, H = 21 33 18.0, DEPTH = 0 km /ISC/.
26	26	BRA	EP	01 07	49.0	3.0								28.80	355.37	Svalbard Region 76.60 N 7.50 E, H = 01 01 49.0, DEPTH = 33 km, MB = 4.4 /ISC/.
27	26	BRA	EP EAP E	19 44 19 44 19 45	15.0 33.0 42.0	3.2 9.7								79.99	7.57	Andreeanof Islands 51.69 N 174.93 W, H = 19 32 05.0, DEPTH = 39 km, MB = 5.3 /ISC/.
28	26	BRA	+IP I I	22 52 22 52 22 52	21.0 31.0 36.0	6.0								15.90	97.24	Western Caucasus 43.93 N 39.20 E, H = 22 48 22.0, DEPTH = 6 km, MB = 4.8 /ISC/.
29	27	SRO BRA	EP E EP E LMH	16 07 16 10 16 07 16 10 16 11	44.0 49.0 54.0 48.0 30.0	1.2 4.0				1.5	6.0	1.5	6.0	8.19 8.73	169.74 164.07	Greece-Albania Border Region 39.73 N 20.20 E, H = 16 05 44.0, DEPTH = 59 km, MB = 4.3 /ISC/.
30	27	BRA	EP	20 51	44.0	4.8								28.79	355.06	Svalbard Region 76.56 N 6.90 E, H = 20 45 42.0, DEPTH = 31 km, MB = 4.7 /ISC/.
31	27	BRA	IP IAP	22 40 22 41	37.0 05.0	2.2 -0.8								93.31	94.69	Northern Sumatra 1.85 N 99.15 E, H = 22 28 20.0, DEPTH = 117 km, MB = 5.3 /ISC/.
32	28	SRO BRA	EPKIKP EPKIKP EAPKIKP EPKSDP	00 07 00 07 00 08 00 11	35.0 35.0 09.0 07.0	2.7 2.0 -10.3 -0.6								138.49 138.85	48.65 16.83	New Hebrides 15.05 S 167.32 E, H = 23 48 20.0, DEPTH = 113 km, MB = 5.2 /ISC/.

No.	Date	STA Code	Phase	GMT h m s	RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
						A	T	A	T	A	T					
33	28	BRA	EP	11 09 50.0	5.4									28.64	354.98	Svalbard Region 76.40 N 6.90 E, H = 11 03 49.0, DEPTH = 33 km, MB = 4.3 /ISC/.
34	29	BRA	EP EAP	16 54 54.0 16 55 30.0	-0.6 17.1									79.09	39.91	Near East Coast of Honshu 40.34 N 141.60 E, H = 16 42 56.0, DEPTH = 68 km, MB = 5.1 /ISC/.
35	29	SPC HRB	-IP -IP EAP EPP IS E E LMH	22 08 33.0 22 08 46.0 22 10 32.0 22 11 32.0 22 17 28.0 22 18 00.0 22 22 27.0 22 37 00.0	2.8 5.3 1.7 -1.7 2.6									71.08 72.90	29.91 28.56	Sea of Okhotsk 51.69 N 150.97 E, H = 21 53 03.0, DEPTH = 515 km, MB = 6.0 /ISC/.
		SRO	-IP IAP	22 08 36.0 22 10 36.0	-4.8 5.6									72.91	28.62	
		BRA	IPP IS LMH -IP I IAP I IPP IS I LMH	22 11 36.0 22 17 24.0 22 26 00.0 22 08 41.0 22 08 54.0 22 09 42.0 22 10 33.0 22 11 09.0 22 11 30.0 22 17 27.0 22 22 20.0 22 31 00.0	2.2 -1.5 -0.2 -4.4 0.7									72.99	27.99	
36	29	BRA	EPKIP	23 57 09.0	-4.4									153.87	27.08	Tonga Region 24.00 S 175.56 W, H = 23 37 24.0, DEPTH = 22 km, MB = 5.0 /ISC/.
37	31	BRA	+IPG	05 31 31.0												Small local shock

38	1	BRA	EPN EPG	12 28 51.0 12 29 30.0	0.1 1.7									7.69	245.36	Northern Italy 44.53 N 7.32 E, H = 12 26 55.0, DEPTH = 11 km /ISC/.
39	4	SPC SRO HRB	EP IP EP BSKSAB EPS IP ISKSAB IPS I LMH	15 45 39.0 15 45 55.0 15 45 46.0 15 56 12.0 15 57 04.0 15 45 57.0 15 56 15.0 15 57 04.0 15 58 15.0 16 24 00.0	-8.1 2.3 -7.1 4.0 -3.0 0.0 1.9 -12.1	400	1.5				6.4			82.07 83.16 83.25	98.40 96.76 96.68 95.90	Northern Sumatra 0.53 N 98.72 E, H = 15 33 29.5, DEPTH = 40 km, MB = 6.2 /ISC/.
40	6	SPC BRA	IP EP EPOP E	10 54 53.0 10 55 00.0 10 55 15.0 10 55 27.0	3.9 0.3 5.3			43.0	16.0	40.0	16.0			76.14 78.05	30.52 28.47	Kurile Islands 47.04 N 154.11 E, H = 10 43 01.2, DEPTH = 23 km, MB = 5.6 /ISC/.
41	6	BRA	EPN EPG ESN LMH	18 10 56.0 18 11 22.0 18 12 10.0 18 13 09.0	4.1 -3.0 -2.9									6.97	214.73	Central Italy 42.31 N 11.76 E, H = 18 09 06.1, DEPTH = 2 km /ISC/.
42	6	BRA	EPKIP EPKP2	18 26 48.0 18 27 18.0	-0.5 -2.5									156.51	33.31	Kermadec Islands 27.44 S 177.15 N, H = 18 07 14.0, DEPTH = 166 km, MB = 5.0 /ISC/.
43	6	BRA	-IP EPP E	22 20 12.0 22 21 48.0 22 22 45.0	-0.4 -2.5									40.23	87.70	Hindu-Kush Region 35.95 N 69.79 E, H = 22 12 46.0, DEPTH = 119 km, MB = 5.0 /ISC/.
44	7	SPC BRA	IP -IP IPP ISKSAB I LMH EP E LMH	02 41 32.0 02 41 34.0 02 44 40.0 02 51 40.0 02 55 09.0 03 24 30.0 02 41 32.0 02 51 00.0 03 23 00.0	3.3 -2.0 0.3 -5.1 -5.0	250	1.5				5.9			78.67 80.03	10.78 8.79	Andeanof Islands 51.47 N 176.81 W, H = 02 29 29.1, DEPTH = 40 km, MB = 5.8 /ISC/.
45	7	BRA	+IP E	03 05 16.0 03 06 25.0	-2.8									80.25	8.91	Andeanof Islands 51.23 N 176.94 W, H = 02 53 08.0, DEPTH = 21 km, MB = 5.4 /ISC/.



No.	Date	STA Code	Phase	GMT		RES O-C	Z			E-W			N-S			MLH	Delta	Azimuth	Remarks
				h	m		s	A	T	A	T	A	T	A	T				
46	7	BRA	EP E	03 31 22.0 03 33 07.0		-1.5									80.20	8.89	Andreanof Islands 51.28 N 176.92 W, H = 03 13 13.0, DEPTH = 21 km, MB = 5.0 /ISC/.		
47	7	BRA	EPKIKP	17 10 01.0		7.6									157.47	29.28	Kermadec Islands Region 27.70 S 175.10 W, H = 16 50 01.0, MB = 5.2 /ISC/.		
48	7	BRA	-IPKIKP IPP I LMH	21 23 27.0		3.4										213.54	213.54	South Shetland Islands 63.43 S 61.36 W, H = 21 04 19.1, DEPTH = 12 km, MB = 6.0 /ISC/.	
				21 25 25.0		2.1													
				21 26 26.0															
49	SRO	EPKIKP LMH	21 23 20.0		-3.9											213.77	213.77		
			21 24 00.0		2.5														
			21 23 30.0																
50	BRA	+IP TAP	14 56 00.0													3.07	3.07	Andreanof Islands 51.22 N 177.19 W, H = 12 55 54.3, DEPTH = 53 km, MB = 5.5 /ISC/.	
			14 16 10.0																
			14 24 31.0		3.4														
51	SRO	I IS LMH	14 56 00.0													89.45	324.55 325.35	Southern California 34.30 N 118.43 W, H = 14 00 40.6, DEPTH = 9 km, MB = 6.2 /ISC/.	
			14 13 00.0		7.5														
			14 24 36.0																
52	SRO	E ESN LMH	14 55 00.0													214.99	214.99		
			13 08 03.0		2.2														
			13 08 20.0		4.5														
53	BRA	EPN EPG ESN E	18 50 48.0		-3.3											5.85	213.51	Central Italy 43.20 N 12.69 E, H = 13 49 21.2, DEPTH = 4 km, MB = 4.3 /ISC/.	
			18 51 13.0		-4.3														
			18 51 55.0		-5.1														
54	HRB	LMH ESN LMH	18 52 07.0													6.06	221.60		
			18 52 45.0		-10.4														
			18 51 55.0																
55	SRO	E ESN LMH	18 53 30.0		-9.6											6.07	222.63		
			18 51 28.0																
			18 51 56.0																
56	BRA	EPB ESN LMH	03 30 50.0		-1.9											6.20	158.27	Yugoslavia 42.36 N 20.20 E, H = 03 29 03.0, DEPTH = 26 km /ISC/.	
			03 31 50.0		-0.7														
			03 32 30.0																

53	12	BRA	EPKIKP	19 25 42.0		10.3									120.20	62.73	Eastern New Guinea Region 6.28 S 146.50 E, H = 19 06 54.7, DEPTH = 123 km, MB = 5.6 /ISC/.		
54	14	SRO	EPN EPB E LMH	00 06 17.0		-7.7										5.88	214.29	Central Italy 43.22 N 12.58 E, H = 00 04 54.3, DEPTH = 0 km /ISC/.	
				00 06 44.0		2.4													
				00 08 04.0															
55	SRO	+IP EP BRA	16 33 36.0		4.6											28.60	102.63	Iran 36.62 N 55.74 E, H = 16 27 32.0, DEPTH = 4 km, MB = 5.3 /ISC/.	
			16 33 42.0		1.5														
			16 33 43.0		-5.1														
56	SRO	EPKIKP EPKIKP	04 03 56.0		2.6											30.29	30.29	Fiji Region 17.67 S 178.46 W, H = 03 45 17.8, DEPTH = 571 km, MB = 4.7 /ISC/.	
			04 03 52.0		-1.5														
57	15	BRA	IPKIKP	08 09 40.0		-6.0										33.36	33.36	South of Fiji 25.20 S 178.41 E, H = 07 51 02.0, DEPTH = 574 km, MB = 5.7 /ISC/.	
58	18	BRA	EP EPP	03 12 22.0		0.4										36.28	356.73	North of Svalbard 83.94 N 1.40 W, H = 03 05 19.4, DEPTH = 33 km, MB = 4.3 /ISC/.	
				03 13 45.0		-0.1													
59	18	BRA	ISG	23 45 46.0		-0.8										7.98	295.37	The Netherlands 51.04 N 5.64 E, H = 23 41 23.0, DEPTH = 16 km /ISC/.	
60	20	BRA	EP E	07 18 34.0		-2.6										13.69	134.58	Turkey 37.82 N 29.39 E, H = 07 15 22.8, DEPTH = 36 km, MB = 4.5 /ISC/.	
				07 23 27.0															
61	21	BRA	EPKIKP EPKIP2 E	03 24 25.0		0.2											20.53	20.53	North of New Zealand 20.40 S 173.32 W, H = 03 04 39.2, DEPTH = 33 km, MB = 5.0 /ISC/.
				03 24 43.0		4.5													
				03 25 10.0															

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No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
62	21	BRA	EPDIFF	10 49	00.0	-9.5								103.73	249.75		Chile-Argentina Border Region 23.81 S 67.20 W, H = 10 35 19.7, DEPTH = 166 km, MB = 6.0 /ISC/.
			E	10 52	10.0												
63	22	SRO	EPP	10 53	19.0	-6.1								104.37	250.49		Turkey 37.24 N 30.30 E, H = 14 27 44.9, DEPTH = 47 km, MB = 5.0 /ISC/.
			E	10 54	01.0												
64	23	SRO	ESKSD	11 00	25.0	11.4								13.76	135.82		Turkey 33.62 N 27.32 E, H = 19 41 23.0, DEPTH = 10 km, MB = 5.0 /ISC/.
			EPDIFF	11 00	25.0												
65	25	SPC	ESKSD	10 49	14.0	2.6								4.7	135.66		Near West Coast of Honshu 37.11 N 138.35 E, H = 19 27 53.7, DEPTH = 37 km, MB = 5.5 /ISC/.
			EPDIFF	10 49	14.0												
66	25	SRO	ESKSD	10 59	30.0	0.9								5.4	133.66		Off West Coast of Northern Sumatra 3.23 N 95.93 E, H = 22 14 14.0, DEPTH = 6 km, MB = 5.3 /ISC/.
			EPDIFF	10 59	30.0												
67	26	BRA	LMH	11 37	00.0	-0.1								10.46	138.24		Solomon Islands 10.47 S 161.35 E, H = 04 55 52.1, DEPTH = 107 km, MB = 5.7 /ISC/.
			EPDIFF	11 37	00.0												
68	27	SRO	EP	14 30	59.0	-0.1								13.76	135.82		Near West Coast of Northern Sumatra 3.23 N 95.93 E, H = 22 14 14.0, DEPTH = 6 km, MB = 5.3 /ISC/.
			EPDIFF	14 30	59.0												
69	27	SRO	E	14 31	51.0	-1.3								10.82	149.54		Near West Coast of Honshu 37.11 N 138.35 E, H = 19 27 53.7, DEPTH = 37 km, MB = 5.5 /ISC/.
			EPDIFF	14 31	51.0												
70	27	SRO	LMH	14 33	30.0	3.1								11.27	135.52		Off West Coast of Northern Sumatra 3.23 N 95.93 E, H = 22 14 14.0, DEPTH = 6 km, MB = 5.3 /ISC/.
			EPDIFF	14 33	30.0												
71	27	SRO	LMH	14 36	00.0	3.3								5.0			Near West Coast of Honshu 37.11 N 138.35 E, H = 19 27 53.7, DEPTH = 37 km, MB = 5.5 /ISC/.
			EPDIFF	14 36	00.0												
72	27	SRO	EP	14 37	18.0	3.8								10.82	149.54		Off West Coast of Northern Sumatra 3.23 N 95.93 E, H = 22 14 14.0, DEPTH = 6 km, MB = 5.3 /ISC/.
			EPDIFF	14 37	18.0												
73	27	SRO	EP	19 44	00.0	1.5								78.10	46.11		Near West Coast of Honshu 37.11 N 138.35 E, H = 19 27 53.7, DEPTH = 37 km, MB = 5.5 /ISC/.
			EPDIFF	19 44	00.0												
74	27	SRO	E	19 46	37.0	-0.4								80.29	43.90		Off West Coast of Northern Sumatra 3.23 N 95.93 E, H = 22 14 14.0, DEPTH = 6 km, MB = 5.3 /ISC/.
			EPDIFF	19 46	37.0												
75	27	SRO	LMH	19 49	30.0	-5.3								131.35	50.60		Solomon Islands 10.47 S 161.35 E, H = 04 55 52.1, DEPTH = 107 km, MB = 5.7 /ISC/.
			EPDIFF	19 49	30.0												
76	27	SRO	EP	19 44	04.0	2.9								10.82	149.54		Near West Coast of Honshu 37.11 N 138.35 E, H = 19 27 53.7, DEPTH = 37 km, MB = 5.5 /ISC/.
			EPDIFF	19 44	04.0												
77	27	SRO	ES	19 46	15.0	11.5								11.27	135.52		Off West Coast of Northern Sumatra 3.23 N 95.93 E, H = 22 14 14.0, DEPTH = 6 km, MB = 5.3 /ISC/.
			EPDIFF	19 46	15.0												
78	27	SRO	EP	19 44	05.0	-2.3								11.27	135.52		Off West Coast of Northern Sumatra 3.23 N 95.93 E, H = 22 14 14.0, DEPTH = 6 km, MB = 5.3 /ISC/.
			EPDIFF	19 44	05.0												
79	27	SRO	E	19 44	13.0	4.9								10.46	138.24		Near West Coast of Honshu 37.11 N 138.35 E, H = 19 27 53.7, DEPTH = 37 km, MB = 5.5 /ISC/.
			EPDIFF	19 44	13.0												
80	27	SRO	E	19 44	19.0	3.3								10.46	138.24		Off West Coast of Northern Sumatra 3.23 N 95.93 E, H = 22 14 14.0, DEPTH = 6 km, MB = 5.3 /ISC/.
			EPDIFF	19 44	19.0												
81	27	SRO	E	19 45	10.0	3.3								10.46	138.24		Near West Coast of Honshu 37.11 N 138.35 E, H = 19 27 53.7, DEPTH = 37 km, MB = 5.5 /ISC/.
			EPDIFF	19 45	10.0												
82	27	SRO	E	19 46	18.0	3.3								10.46	138.24		Off West Coast of Northern Sumatra 3.23 N 95.93 E, H = 22 14 14.0, DEPTH = 6 km, MB = 5.3 /ISC/.
			EPDIFF	19 46	18.0												
83	27	SRO	E	19 47	10.0	3.3								10.46	138.24		Near West Coast of Honshu 37.11 N 138.35 E, H = 19 27 53.7, DEPTH = 37 km, MB = 5.5 /ISC/.
			EPDIFF	19 47	10.0												
84	27	SRO	LMH	19 48	30.0	3.3								10.46	138.24		Off West Coast of Northern Sumatra 3.23 N 95.93 E, H = 22 14 14.0, DEPTH = 6 km, MB = 5.3 /ISC/.
			EPDIFF	19 48	30.0												
85	27	SRO	EP	19 39	52.0	1.5								78.10	46.11		Near West Coast of Honshu 37.11 N 138.35 E, H = 19 27 53.7, DEPTH = 37 km, MB = 5.5 /ISC/.
			EPDIFF	19 39	52.0												
86	27	SRO	EP	19 40	02.0	-0.4								80.29	43.90		Off West Coast of Northern Sumatra 3.23 N 95.93 E, H = 22 14 14.0, DEPTH = 6 km, MB = 5.3 /ISC/.
			EPDIFF	19 40	02.0												
87	27	SRO	EAP	19 40	08.0	-5.3								131.35	50.60		Solomon Islands 10.47 S 161.35 E, H = 04 55 52.1, DEPTH = 107 km, MB = 5.7 /ISC/.
			EPDIFF	19 40	08.0												
88	27	SRO	E	19 40	23.0	-5.3								131.35	50.60		Solomon Islands 10.47 S 161.35 E, H = 04 55 52.1, DEPTH = 107 km, MB = 5.7 /ISC/.
			EPDIFF	19 40	23.0												

No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
68	27	BRA	EP	00 44	20.0	-0.2								85.53	331.56		Near Coast of Northern California 40.34 N 124.50 W, H = 00 31 39.5, DEPTH = 3 km, MB = 5.4 /ISC/.
69	27	SRO	EPKP2	05 03	25.0	-2.0								147.81	38.28		Fiji Region 20.20 S 177.74 E, H = 04 44 32.9, DEPTH = 497 km, MB = 4.9 /ISC/.
			EPKP2	05 03	25.0	-3.1									148.01	36.01	
70	27	BRA	EPKHKP	13 45	36.0	5.6								150.60	29.40		Fiji Region 21.28 S 177.87 W, H = 13 26 25.5, DEPTH = 367 km, MB = 4.9 /ISC/.
			EPKHKP	13 46	09.0												



No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
71	3	SRO BRA	-IP EAP E -IP EAP E	22 05 47.0 22 06 21.0 22 07 47.0 22 05 46.0 22 06 03.0 22 09 14.0	00 50 19.0 00 40 30.0 00 42 15.0 00 50 24.0	-0.7 1.5 -2.2 -16.9	80	1.0				5.5		76.59 76.67	29.22 28.53	Kurile Islands 48.23 N 153.07 E, H = 21 54 09.7, DEPTH = 127 km, MB = 5.7 /ISC/.	
72	4	SRO BRA	EP IS +IP EAP ES	00 40 27.0 00 50 19.0 00 40 30.0 00 42 15.0 00 50 24.0	-1.0 -1.1 0.2 3.4 0.4	40	1.2				5.0			85.42 85.79	48.56 47.72	South of Honshu 38.41 N 139.44 E, H = 00 28 38.3, DEPTH = 449 km, MB = 5.6 /ISC/.	
73	4	BRA	EP	08 00 44.0	-0.5									79.56	38.43	Off East Coast of Honshu 40.76 N 143.53 E, H = 07 48 39.4, DEPTH = 34 km, MB = 5.1 /ISC/.	
74	9	SRO	E ES E LMH	05 01 30.0 05 02 39.0 05 03 40.0 05 05 00.0	1.0			3.0	12.0	5.0	12.0		4.6	9.20	163.54	Greece 38.74 N 20.44 E, H = 04 58 41.3, DEPTH = 36 km, MB = 4.7 /ISC/.	
75	13	SPC SRO	EPKIKP IPKP2 I EPP E EPPF2 EAPKP2 E	16 07 26.0 16 07 33.0 16 07 33.0 16 08 43.0 16 10 45.0 16 20 17.0 16 07 35.0 16 07 47.0 16 08 44.0	-2.7 1.0 -5.0 2.0 2.0									142.45 144.33	44.47 43.06	Fiji Region 18.35 S 173.53 E, H = 15 47 58.0, MB = 5.7 /ISC/.	
76	13	BRA	-IPKIKP I IPP E	19 31 03.0 19 31 11.0 19 32 33.0 19 33 05.0	2.7 6.4									113.12	63.33	Eastern New Guinea Region 5.75 S 145.39 E, H = 13 12 24.8, DEPTH = 114 km, MB = 6.2 /ISC/.	
77	14	SPC BRA	EP EP EPCP LMH EP E ES LMH	00 03 29.0 00 03 32.0 00 03 50.0 00 04 44.0 00 39 00.0 00 03 31.0 00 07 47.0 00 13 33.0 00 41 30.0	-0.1 1.5 9.0 -2.9 6.8			9.0	17.0	18.0	17.0		6.5	77.36 77.62	341.03 333.24	Vancouver Island Region 50.61 N 129.39 W, H = 23 51 34.2, DEPTH = 22 km, MB = 5.7 /ISC/.	

78	14	BRA	EPKP2 E	06 28 59.0 06 29 08.0	5.3									145.07	49.88	Loyalty Islands Region 21.36 S 169.09 E, H = 06 09 13.4, MB = 5.5 /ISC/.
79	14	SRO	IP	06 52 25.0	3.0									74.76	36.83	Hokkaido Region 45.78 N 142.46 E, H = 06 41 16.3, DEPTH = 332 km, MB = 4.4 /ISC/.
80	15	SPC BRA	IPKP2 EPKP2 E E IPKIKP IPKP2 I	11 07 51.0 11 07 57.0 11 08 09.0 11 09 35.0 11 07 53.0 11 08 07.0 11 10 23.0	-1.3 -2.6 2.8 7.1									146.97 148.66	23.27 18.40	Tonga Region 17.82 S 172.82 W, H = 10 48 10.2, DEPTH = 33 km, MB = 5.3 /ISC/.
81	15	SPC BRA	IPKIKP IPKIKP	21 11 00.0 21 11 05.0	3.1 4.0									137.14 139.37	49.90 46.86	New Hebrides 15.51 S 167.58 E, H = 20 51 48.3, DEPTH = 124 km, MB = 5.4 /ISC/.
82	16	SPC SRO	EPKIKP EPP EPKIKP EPKSDF E LMH EPKIKP EAPKIKP E EPP EPKSDF	12 51 41.0 12 54 05.0 12 51 45.0 12 55 23.0 13 12 03.0 13 43 00.0 12 51 47.0 12 51 53.0 12 52 05.0 12 54 20.0 12 55 26.0	0.9 4.0 1.4 4.5 2.7 -1.6 4.9 6.8			3.4	16.0	2.8	16.0		6.2	131.34 133.21	50.99 49.77	Solomon Islands 10.93 S 163.90 E, H = 12 32 29.0, DEPTH = 21 km, MB = 5.9 /ISC/.
83	16	SPC SRO	EP EP EPP E LMH EP E E EPP	20 48 38.0 20 48 45.0 20 52 43.0 21 02 51.0 21 42 30.0 20 48 47.0 20 49 09.0 20 49 17.0 20 52 44.0	2.5 1.9 6.1 1.0 2.0			4.2	20.0	5.3	20.0		6.1	94.57 96.23	71.66 70.30	Philippine Islands Region 8.43 N 127.23 E, H = 20 35 15.0, DEPTH = 20 km, MB = 5.8 /ISC/.
84	18	BRA	EPKP2	05 40 03.0	-0.5									151.28	23.07	North of New Zealand 20.95 S 174.52 W, H = 05 20 15.0, DEPTH = 131 km, MB = 4.9 /ISC/.



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No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
85	19	BRA	+IPKIKP E	02 42	03.0	-0.5								145.14	49.53	Loyalty Islands Region 21.31 S 169.31 E, H = 02 22 27.0, DEPTH = 18 km, MB = 5.2 /ISC/.	
86	19	BRA	EP	06 25	30.0	-0.8								91.50	297.80	Oaxaca Mexico 17.13 N 95.26 W, H = 06 12 32.5, DEPTH = 84 km, MB = 5.4 /ISC/.	
87	20	BRA	E	02 50	42.0									71.34	270.60	Windward Islands 14.23 N 60.58 W, H = 02 39 08.6, DEPTH = 82 km, MB = 5.2 /ISC/.	
88	20	BRA	EP	07 54	45.0	-0.9								56.14	217.97	North of Ascension Island 1.40 S 13.63 W, H = 07 45 08.9, DEPTH = 48 km, MB = 4.9 /ISC/.	
		SRO	IP	07 55	21.0	-5.5								56.37	219.44		
			E	08 05	42.0					5.0	20.0			5.7			
		LMH		08 17	00.0												
89	22	BRA	+IP E	04 40	29.0	0.1								39.15	64.08	Eastern Kazakhstan 49.73 N 78.16 E, H = 04 32 57.8, DEPTH = 0 km, MB = 5.7 /ISC/.	
			E	04 40	44.0												
90	22	BRA	EP	10 28	47.0	-0.5								56.81	223.25	North of Ascension Island 0.08 S 17.88 W, H = 10 19 04.1, DEPTH = 33 km, MB = 5.0 /ISC/.	
			E	10 29	11.0												
91	22	BRA	EP	10 52	20.0	-0.5								81.90	41.32	Off East Coast of Honshu 37.23 N 142.13 E, H = 10 40 04.2, DEPTH = 43 km, MB = 5.3 /ISC/.	
92	23	SRO	IPKHKP IPKP2	02 35	10.0	-1.4								152.64	30.04	South of Fiji 22.96 S 176.14 W, H = 02 15 23.7, DEPTH = 49 km, MB = 6.1 /ISC/.	
			I	02 35	32.0	4.3											
		BRA	IPKIKP	02 36	42.0	1.3											
			E	02 35	09.0	7.4											
			IAPKIKP	02 35	19.0	8.1											
			E	02 32	38.0	-1.8											
			IAPKP2	02 32	16.0												
			E	02 37	27.0												

No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
93	23	SPC BRA	+IP IP	07 05	11.0	2.4								23.50	45.17	Ural Mountains Region [NE /UPP/] 61.39 N 56.22 E, H = 06 59 56.4, DEPTH = 0 km, MB = 5.5 /ISC/.	
			IP	07 05	33.0	3.3								25.69	44.47		
94	23	SPC BRA	+IP IAP	09 32	00.0	6.2								25.24	339.48	Jan Mayen Island Region 70.97 N 6.86 W, H = 09 26 28.8, DEPTH = 29 km, MB = 5.9 /ISC/.	
			IP	09 31	59.0	2.5								25.52	341.99		
			IAP	09 32	06.0	1.6											
			IPP	09 32	29.0	-7.6											
			I	09 33	18.0					3.3	12.0			26.03	341.55		
			E	09 35	31.0												
			LMH	09 44	00.0												
			EP	09 31	59.0	-2.2											
			EAP	09 32	09.0	-0.1											
			ES	09 36	28.0	0.0											
			E	09 36	15.0												
			LMH	09 46	10.0	-3.0				1.4	10.0			26.11	341.52		
			EP	09 31	59.0												
95	23	SPC SRO	+IP IP	20 55	02.0	-0.3								41.25	77.77	Kirziziya-Sinkiang Border Region 41.42 N 79.20 E, H = 20 47 16.0, DEPTH = 14 km, MB = 5.8 /ISC/.	
			IP	20 55	13.0	-2.2								42.82	75.17		
			IS	21 01	45.0	6.1											
			I	21 05	25.0	6.2											
			LMH	21 14	00.0												
			EP	20 55	09.0	-6.7				6.2	16.0			42.88	75.17		
			EPCP	20 57	00.0	-7.1											
			LMH	21 13	00.0	-1.8											
			+IP	20 55	19.0												
			I	20 55	29.0	3.8											
			IPCP	20 57	13.0												
			I	20 58	43.0					10.0	8.0			6.1	74.87		
			LMH	21 15	00.0												
96	24	BRA	EPKIKP	02 45	03.0	1.0								122.32	57.29	New Britain Region 5.28 S 151.54 E, H = 02 26 14.7, DEPTH = 69 km, MB = 5.7 /ISC/.	
			EAPKIKP	02 45	17.0	-14.8											
			EPP	02 46	40.0	-2.9											
97	24	SRO	EP	05 13	43.0	5.2								10.03	170.62	Ionian Sea 37.89 N 20.37 E, H = 05 11 10.0, DEPTH = 6 km, MB = 4.6 /ISC/.	
			E	05 16	17.0												
			IP	05 13	46.0	1.2											
			E	05 17	33.0					3.2	6.0			10.55	165.75		
			LMH	05 19	00.0												
98	24	BRA	EP	13 47	43.0	0.7								42.29	95.92	Pakistan 30.37 N 67.86 E, H = 13 39 48.0, DEPTH = 18 km, MB = 4.7 /ISC/.	



No.	Date	STA Code	Phase	GMT		RBS O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks	
				h	m		A	T	A	T	A	T						
99	24	SPC SRO	+IP ES IP E E ES LMH ES LMH +IP E LMH	14 04 14 11 14 04 14 06 14 08 14 12 14 32 14 12 14 28 14 04 14 08 14 30	08.0 50.0 17.0 41.0 05.0 21.0 00.0 13.0 00.0 21.0 28.0 30.0	4.0 -4.5 1.3 4.7 2.0 0.8								56.70 58.35	72.69 70.67	Chinghai Province 35.46 N 98.04 E, H = 13 54 18.4, DEPTH = 13 km, MB = 5.7 /ISC/.		
		IRB BRA	ES LMH +IP E LMH	14 12 14 32 14 12 14 28 14 04 14 08 14 30	21.0 00.0 13.0 00.0 21.0 28.0 30.0	4.7 2.0 0.8	12.9 5.2 3.0	20.0 7.0 12.0	11.3 6.6	20.0 7.0 12.0	6.2 6.3 6.6	41.49 43.76	77.70 74.81	43.65	70.64 70.15	Kirgiziya-Sinkiang Border Region 41.33 N 79.51 E, H = 20 54 27.7, DEPTH = 16 km, MB = 5.2 /ISC/.		
100	24	SPC BRA	EP EP EAP	21 02 21 02 21 02	19.0 39.0 41.0	3.3 0.8 1.9							43.65	74.77		74.77	Kirgiziya Sinkiang Border Region 41.41 N 79.40 E, H = 21 01 57.2, DEPTH = 42 km, MB = 5.2 /ISC/.	
101	24	BRA	EP	21 10	05.0	5.6												
102	25	SPC BRA	EP -IP	03 44 03 44	05.0 12.0	2.9 2.6								79.60 80.97	10.97 8.34	8.34	10.97	Andeanof Islands 50.52 N 176.80 W, H = 03 31 52.0, DEPTH = 3 km, MB = 5.2 /ISC/.
103	25	BRA	EPKP2 E	14 08 14 09	47.0 54.0	1.8								146.19	17.75		17.75	North of New Zealand 15.31 S 173.02 W, H = 13 49 03.6, DEPTH = 33 km, MB = 5.1 /ISC/.
104	25	BRA +IP EAP	+IP EAP	16 32 16 32	03.0 21.0	1.2 5.2								80.86	40.60	40.60	40.60	Near East Coast of Honshu 38.49 N 142.15 E, H = 16 19 51.6, DEPTH = 50 km, MB = 5.6 /ISC/.
105	26	BRA	EPKP2	09 28	36.0	-2.2								157.82	238.13	238.13	238.13	South Pacific Cordillera 55.40 S 128.70 W, H = 09 08 10.2, DEPTH = 33 km, MB = 5.4 /ISC/.

106	26	SPC BRA	EP +IP I EAP EPP E EP EAP LMH	17 46 17 46 17 46 17 49 17 53 17 46 17 46 18 20	33.0 33.0 39.0 50.0 26.0 32.0 56.0 00.0	1.7 -2.0 0.0 1.2 -6.1 0.0									69.73 70.40	350.15 348.61	South Eastern Alaska 60.33 N 140.94 W, H = 17 35 17.2, DEPTH = 0 km, MB = 5.8 /ISC/.		
107	27	BRA	EPKIP	01 38	21.0	-0.3													
108	27	BRA	-IP I EAP EPP E	17 21 17 21 17 22 17 24 17 26	43.0 50.0 23.0 35.0 52.0	-0.5 5.9 -11.3								79.20	7.22	7.22	7.22	Andeanof Islands 52.52 N 174.55 W, H = 17 09 51.8, DEPTH = 133 km, MB = 5.6 /ISC/.	
109	28	SPC SRO BRA	E EPP I LMH -IP IPCP I EPP E	08 35 08 37 08 35 09 09 08 34 08 35 08 35 08 37 08 39	46.0 26.0 43.0 00.0 58.0 12.0 48.0 42.0 27.0	7.6 5.7 2.9 6.3													
110	28	BRA	EP EAP	14 51 14 51	12.0 19.0	-0.5 -6.6													
111	29	BRA	EP	18 07	20.0	1.8													
112	29	BRA	EP	19 32	41.0	0.0													
113	30	BRA	EP EAP E	03 48 03 48 03 49	44.0 50.0 23.0	0.2 -0.1													

No.	Date	STA Code	Phase	GMT h m s	RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
						A	T	A	T	A	T					
114	30	BRA	EPKP2	06 16 37.0	0.7								145.16	49.58	Loyalty Islands Region 21.34 S 169.30 E, H = 05 57 04.0, MB = 4.8 /ISC/.	
115	30	BRA	EP IAP I I E	11 42 53.0 11 43 00.0 11 43 08.0 11 43 18.0 11 44 20.0 12 22 00.0	3.3 -0.7								80.24	9.21	Andreanof Islands 51.19 N 177.41 W, H = 11 30 41.3, MB = 5.7 /ISC/.	
116	30	SRO	LMH EP E LMH	19 45 01.0 19 46 18.0 19 42 33.0 19 45 14.0 19 46 12.0	1.7			2.2	20.0	2.0	20.0	5.6	80.46	9.96	Greece 38.98 N 20.79 E, H = 19 40 13.3, MB = 4.7 /ISC/.	
117	30	BRA	EPKIKP	22 59 22.0	1.4								154.23	27.47	Tonga 24.40 S 175.60 W, H = 22 39 25.0, MB = 5.0 /ISC/.	
118	31	BRA	EP E	09 27 20.3 09 27 35.0	-5.3								35.50	70.15	Mindanao 8.98 N 125.72 E, H = 09 14 05.0, MB = 5.5 /ISC/.	
119	31	BRA	EPKIKP E EPKSDF	11 53 05.0 11 53 20.0 11 56 20.0	1.6 -15.9								157.82	36.75	Kermadec Islands 27.20 S 177.87 W, H = 11 33 19.0, MB = 5.1 /ISC/.	

120	1	BRA	EPKIKP E EPP E	00 30 13.0 00 30 28.0 00 33 19.0 00 34 13.0	3.6 7.7								140.32	48.04	New Hebrides 16.72 S 167.40 E, H = 00 10 43.4, MB = 4.9 /ISC/.
121	1	BRA	EPKIKP	05 55 16.0	3.6								140.24	48.07	New Hebrides 16.66 S 167.34 E, H = 05 35 45.4, MB = 5.0 /ISC/.
122	1	SPC BRA	EPKP2 EPKIKP E	06 21 44.0 06 21 45.0 06 22 04.0	-0.4 0.3								145.54 147.21	22.35 17.58	Samoa Region 16.30 S 172.70 W, H = 06 02 07.2, MB = 4.5 /ISC/.
123	1	SPC BRA	EP EP E E	12 45 23.0 12 45 28.0 12 45 45.0 12 46 00.0	0.2 0.9								78.02 78.79	135.74 132.94	Mascarene Islands Region 17.75 S 66.00 E, H = 12 33 26.0, MB = 4.9 /ISC/.
124	1	SPC BRA	-IPKIKP +IPKIKP IPKP2 EPP	19 57 50.0 19 57 49.0 19 58 25.0 20 02 04.0	4.9 1.0 -1.0 -3.9								156.19 158.36	45.00 40.66	Kermadec Islands Region 30.38 S 179.04 W, H = 19 38 19.2, MB = 5.2 /ISC/.
125	2	BRA	EP	01 28 16.0	-0.7								80.46	96.00	Northern Sumatra 3.12 N 96.28 E, H = 01 16 04.8, MB = 5.0 /ISC/.
126	2	BRA	E LMH	01 45 29.0 01 47 25.0				0.6	5.0	0.6	5.0	3.8	6.11	208.82	Central Italy 42.74 N 13.11 E, H = 01 43 55.4, MB = 4.8 /ISC/.
127	2	BRA	EPKP2	03 00 12.0	-0.7								155.17	31.40	South of Fiji 25.89 S 176.95 W, H = 02 40 05.0, MB = 4.8 /ISC/.
128	2	BRA	EPKIKP	19 34 19.0	0.2								125.27	55.30	Solomon Islands 6.81 S 154.58 E, H = 19 15 21.4, MB = 5.1 /ISC/.

No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
129	3	SPC SRO BRA	IP EPP EP LMH +IP E E LMH	04 58 05 00 04 59 05 25 04 59 04 59 05 01 05 04 05 27	49.0 54.0 00.0 00.0 04.0 22.0 13.0 30.0	0.9 -1.2 0.9 0.1 -2.5		10.5	16.0	26.4	16.0			56.89 58.46 59.16	77.65 75.55 74.99	Tibet 32.16 N 34.99 E, H = 04 49 03.1, DEPTH = 27 km, MB = 5.6 /ISC/.	
130	3	SRO BRA	E EPN ESN I LMH	19 04 19 04 19 04 19 05 19 06	40.0 00.0 55.0 07.0 00.0	-1.7 -5.0								4.52 4.90	183.83 173.19	Yugoslavia 43.30 N 17.90 E, H = 19 02 45.0, DEPTH = 0 km /ISC/.	
131	4	BRA	EPN E ESN LMH EPN	05 02 05 02 05 03 05 03 05 02	17.0 37.0 12.0 36.0 16.0	0.1 -6.1 -12.4								5.16 5.98	317.79 315.16	Germany 51.86 N 11.51 E, H = 05 00 56.5, DEPTH = 33 km /ISC/.	
132	4	BRA	EPKIKP E E LMH	10 35 10 36 10 37 11 58	28.0 13.0 40.0 00.0	1.9		11.0	18.0	22.0	18.0		7.0	154.32	236.42	Easter Island Cordillera 56.27 S 122.57 W, H = 10 15 37.9, MB = 5.7 /ISC/.	
133	4	BRA	+IP IAP I I	18 51 18 52 18 52 18 52	49.0 00.0 07.0 25.0	-1.6 -4.4								80.94	40.62	Near East Coast of Honshu 38.41 N 142.18 E, H = 18 39 39.9, DEPTH = 49 km, MB = 5.8 /ISC/.	
134	5	BRA	EP	05 16	05.0	1.3								101.97	76.96	Molucca Sea 0.36 S 124.73 E, H = 05 02 15.9, DEPTH = 67 km, MB = 6.0 /ISC/.	
135	5	SPC BRA SRO	-IP IAP IPP -IP IAP EPP E IP IAP EPP E	09 16 09 17 09 19 09 16 09 17 09 19 09 27 09 16 09 17 09 19 09 27	25.0 04.0 21.0 31.0 09.0 30.0 19.0 30.0 06.0 38.0 38.0 20.0	2.1 3.8 -0.1 1.5 1.8 -1.3 -1.1 -1.6							77.52 78.74 79.02	6.61 4.67 5.40	Fox Islands 53.26 N 170.53 W, H = 09 04 42.3, DEPTH = 150 km, MB = 5.8 /ISC/.		

No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
136	6	BRA	EP EAP E	09 47 09 47 09 48	38.0 48.0 13.0	2.7 0.8								78.81	36.58	Hokkaido Region 42.38 N 145.01 E, H = 09 35 35.1, MB = 5.1 /ISC/.	
137	6	SPC SRO BRA	+IPKHKP I IPP +IPKIKP I E +IPKIKP I I EPP	11 25 11 27 11 28 11 25 11 27 11 28 11 25 11 27 11 29	11.0 32.0 52.0 08.0 36.0 34.0 16.0 34.0 02.0	3.6 0.8 -1.7 0.0 -1.2								148.84 150.71 150.88	37.26 35.44 32.99	South of Fiji 22.20 S 179.51 W, H = 11 06 28.9, MB = 5.6 /ISC/.	
138	6	SPC BRA	EP EP	12 05 12 05	44.0 53.0	2.8 0.3								76.76 78.84	38.68 36.55	Hokkaido Region 42.37 N 145.07 E, H = 11 53 52.0, MB = 5.2 /ISC/.	
139	6	SPC BRA	IPKHKP I I EPPKHKP E E	16 20 16 22 16 22 16 20 16 22 16 22	12.0 20.0 29.0 13.0 20.0 34.0	2.8 -1.7								149.77 151.86	40.71 36.59	South of Fiji 23.82 S 179.23 E, H = 16 01 25.2, DEPTH = 545 km, MB = 5.3 /ISC/.	
140	7	SPC SRO BRA	IP EP IPP LMH IP E E LMH	05 13 05 13 05 17 05 20 06 11 05 13 05 14 05 15 06 28	26.0 28.0 48.0 20.0 00.0 35.0 45.0 32.0 00.0	3.6 -1.8 5.0 2.3		3.0	18.0	4.2	18.0		6.1 6.9	100.38 102.00 102.67	73.95 72.70 71.67	Djailolo Gilolo /Halmahera/ 2.45 N 129.13 E, H = 04 59 37.0, DEPTH = 29 km, MB = 6.3 /ISC/.	
141	8	SPC SRO HRB BRA	+IP +IP E I E ES IP E E	07 58 07 58 08 04 08 09 08 15 08 09 07 58 07 59 08 09	44.0 49.0 12.0 12.0 20.0 32.0 49.0 15.0 38.0	2.6 2.5 3.7 -1.5		8.0	13.0	25.0	13.0			88.14 89.22 89.31 90.07	98.86 97.38 97.30 96.49	Southern Sumatra 4.42 S 102.32 E, H = 07 45 57.7, MB = 6.3 /ISC/.	



No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
142	9	SRO BRA	EP EP	06 20	12.0	1.8 -0.6								74.42 74.67	39.70 39.04		Eastern Sea of Japan 44.45 N 139.09 E, H = 06 08 31.5, DEPTH = 13 km, MB = 5.5 /ISC/.
143	9	BRA	E E	09 31 09 32	33.0 06.0								3.13	327.08			Czechoslovakia /Expl. of 23.5 tons/ 50.76 N 14.43 E, H = 09 30 18.0, /PRU/.
144	9	BRA	IP	22 12	52.0	7.5							14.41	155.78			Crete 34.76 N 24.23 E, H = 22 09 21.5, DEPTH = 42 km, MB = 4.6 /ISC/.
145	10	BRA	IP	00 48	49.0	-0.6							79.88	4.40			Fox Islands 52.15 N 169.94 W, H = 00 36 44.4, DEPTH = 48 km, MB = 5.0 /ISC/.
146	10	BRA	I	01 20	37.0												No determination of epicentre
147	10	SPC SRO	IPKIKP IPKHKP	01 41 01 43	00.0 16.0	2.0							148.25	35.27			Fiji Region 21.22 S 173.76 W, H = 01 22 16.5, DEPTH = 531 km, MB = 5.6 /ISC/.
148	10	SRO BRA	EP IS EP	02 59 03 00 02 59	32.0 42.0 34.0	3.3 10.5 -3.0							5.49 6.08	165.65 158.22			Yugoslavia 42.43 N 20.15 E, H = 0? 58 07.2, DEPTH = 37 km, MB = 4.4 /ISC/.
149	10	BRA	EP	03 00 03 01	03.0 04.0	3.7							26.19	355.50			Greenland Sea 74.08 N 9.30 E, H = 06 07 39.4, DEPTH = 44 km, MB = 4.4 /ISC/.

150	10	SRO BRA	EPKIKP E E EPKIKP	13 21 13 25 13 26 13 22	48.0 16.0 32.0 04.0	-8.5 4.8							149.78 149.90	32.76 30.35			Fiji Region 20.80 S 178.61 W, H = 13 03 16.0, MB = 4.6 /ISC/.
151	12	SPC SRO	IP IP E E I LMH	19 10 19 10 19 10 19 11 19 11 19 25	13.0 14.0 28.0 09.0 44.0 00.0	4.3 -0.3							34.14 34.79	114.56 110.55			Southern Iran 28.30 N 55.61 E, H = 13 03 25.2, DEPTH = 37 km, MB = 6.0 /ISC/.
152	12	BRA	+IP EPP E E ES	19 10 19 11 19 12 19 12 19 16	21.0 33.0 03.0 18.0 00.0	-0.9 -10.1 4.9		6.9	20.0	9.7	20.0		151.99	34.37			South of Fiji 23.49 S 179.68 W, H = 19 35 33.7, MB = 4.9 /ISC/.
153	12	SPC BRA	EPKP2 EPKIKP E E	21 19 21 19 21 19 21 21	10.0 10.0 15.0 30.0	-1.5 0.4							145.43 147.36	32.01 27.71			Fiji Region 17.92 S 178.17 W, H = 21 00 36.0, MB = 5.3 /ISC/.
154	13	SPC BRA	EPKHKP EPKHKP E E E	05 37 05 37 05 38 05 38 05 39	42.0 49.0 11.0 31.0 15.0	-1.5 0.6							152.76 154.69	32.91 27.97			Tonga 24.91 S 175.65 W, H = 05 17 58.0, MB = 5.1 /ISC/.
155	13	BRA	EPKP2 E E	06 17 06 17 06 18	10.0 36.0 13.0	-0.8							146.65	19.49			North of New Zealand 15.98 S 173.89 W, H = 05 57 37.5, MB = 5.4 /ISC/.
156	13	SRO BRA	IP E ES LMH IP E LMH	12 55 12 55 12 57 13 01 12 55 12 56 13 01	28.0 36.0 40.0 00.0 49.0 46.0 00.0	-3.4 -6.0 6.3							12.10	132.30			Turkey 39.03 N 29.80 E, H = 12 52 38.7, MB = 5.1 /ISC/.

No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
157	13	SPC SRO	EPKP2 +EPKP2 E	18 06	01.0	-0.7								145.10 146.94	32.84 30.85	Fiji Region 17.78 S 178.76 W, H = 17 47 23.0, DEPTH = 556 km, MB = 5.3 /ISC/.	
158	13	BRA	EP	22 51	10.0	0.4								83.13	97.85	South-West of Sumatra 0.11 S 96.69 E, H = 22 38 46.1, DEPTH = 36 km, MB = 5.0 /ISC/.	
159	15	BRA	EP	19 05	28.0	-1.3								43.91	132.77	Eastern Gulf of Aden 12.79 N 48.56 E, H = 18 57 27.0, DEPTH = 61 km, MB = 4.7 /ISC/.	
160	16	BRA	EP	21 32	17.0	-0.8								19.99	129.88	Jordan Syria Region 33.64 N 35.43 E, H = 21 27 42.0, DEPTH = 8 km, MB = 4.5 /ISC/.	
161	17	BRA	EPKIXP	02 00	12.0	0.1								124.95	54.77	Solomon Islands 6.30 S 154.76 E, H = 01 41 20.4, DEPTH = 76 km, MB = 5.5 /ISC/.	
162	17	BRA	+IP IPP E E	16 41 16 41 16 42 16 49	26.0 40.0 16.0 49.0	5.5 6.6								15.78	108.64	Turkey 41.24 N 37.08 E, H = 16 37 39.3, DEPTH = 33 km, MB = 4.8 /ISC/.	
163	17	BRA	E	17 29	49.0									102.81	283.99	Galapagos Islands 0.40 S 91.77 W, H = 17 19 12.7, DEPTH = 33 km, MB = 5.3 /ISC/.	
164	19	SRO	EP	02 46	08.0	2.2								9.14	168.99	Greece 38.81 N 20.54 E, H = 02 43 50.5, DEPTH = 8 km, MB = 4.7 /ISC/.	

165	20	BRA SRO	EPP EPDIFF E	14 30 14 26 14 33	57.0 38.0 20.0	0.0 -2.9								103.40 104.07	252.42 253.17	Northern Chile 21.78 S 69.00 W, H = 14 12 45.5, DEPTH = 81 km, MB = 5.6 /ISC/.
166	21	BRA SRO	E E E LMH	07 00 07 01 07 04 07 38	55.0 07.0 28.0 00.0									78.21 78.57	359.16 359.89	South of Alaska 53.99 N 161.51 W, H = 06 42 17.3, MB = 5.2 /ISC/.
167	21	BRA SRO	EP EPP E EP EPP E	13 40 13 42 13 43 13 40 13 42 13 45	24.0 15.0 00.0 32.0 16.0 44.0	-1.8 2.4 -0.4 -4.9								45.40 46.23	271.38 272.60	North Atlantic Ridge 32.39 N 40.18 W, H = 13 32 08.6, DEPTH = 33 km, MB = 5.0 /ISC/.
168	21	SRO	E LMH	20 13 20 15	40.0 59.0									14.08	159.89	Crete 34.41 N 24.12 E, H = 20 06 06.0, DEPTH = 53 km /ISC/.
169	22	SRO	EP E LMH	09 30 09 32 09 34	00.0 19.0 00.0	2.2								6.10	165.33	Albania 41.89 N 20.38 E, H = 09 28 27.8, DEPTH = 40 km, MB = 4.7 /ISC/.
170	23	BRA	E E	11 02 11 03	34.0 19.0									82.98	336.47	Off Coast of Oregon 44.62 N 129.20 W, H = 10 49 29.4, DEPTH = 33 km /ISC/.
171	25	SPC SRO BRA	EP E +IP E E	03 40 03 41 03 40 03 40 03 42 03 44	11.0 21.0 24.0 30.0 25.0 34.0	2.0 0.4 1.5								36.77 38.52 39.09	66.47 64.10 64.05	Eastern Kazakhstan 49.77 N 78.03 E, H = 03 32 57.9, MB = 5.9 /ISC/.
172	25	BRA SPC SRO	EP EPP EP EP EPP E E	17 53 17 54 17 53 17 54 17 53 17 54 18 05	47.0 26.0 47.0 30.0 49.0 29.0 15.0	4.7 -1.5 3.5 0.7 0.3 -7.8								26.79 26.92 27.48	331.78 323.56 331.61	Iceland Region 68.41 N 18.05 W, H = 17 48 03.5, DEPTH = 33 km, MB = 5.0 /ISC/.



No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
173	26	SPC BRA	EPKHKP E EPKHKP E EPKP2 E	04 39 09.0 04 39 16.0 04 39 10.0 04 39 29.0 04 39 44.0	1.3 -2.6 -2.7									152.42 154.36	33.17 28.29	Tonga 24.64 S 175.92 W, H = 04 19 18.0, MB = 5.3 /ISC/. DEPTH = 30 km, Local shock	
174	27	SRO BRA	E E E	11 43 28.0 11 43 06.0 11 43 30.0													Local shock
175	27	BRA	EP E	14 55 36.0 14 57 18.0	2.6									40.48	81.35	Kirgiziya 39.27 N 72.88 E, H = 14 48 01.0, MB = 4.8 /ISC/. DEPTH = 80 km,	
176	27	SRO BRA	EPKIKP E EPKIKP E	20 15 13.0 20 15 13.0 20 16 10.0	2.4 2.2									159.86 160.08	39.89 36.64	Kermadec Islands Region 31.20 S 176.62 W, H = 19 55 16.0, MB = 5.0 /ISC/. DEPTH = 38 km,	
177	28	BRA	EPKIKP E	14 50 57.0 14 51 08.0	7.1									163.53	70.25	North Island New Zealand 40.60 S 176.59 E, H = 14 30 47.0, MB = 5.3 /ISC/. DEPTH = 9 km,	
178	28	SRO HRB BRA	+IP EPCP ES LMH ES LMH +EP EPCP EPP E LMH	15 43 09.0 15 43 29.0 15 52 09.0 16 10 00.0 15 52 04.0 16 12 00.0 15 43 11.0 15 43 41.0 15 45 47.0 15 49 06.0 16 13 00.0	3.2 -2.0 2.4 -3.5 0.7 7.0 4.7			4.3 20.0 4.4 9.0	20.0 4.0	8.8 20.0 3.3 4.0	20.0 9.0		6.0 6.3	68.55 68.62 69.28	79.15 79.09 78.45	Burma-China Border Region 22.98 N 101.02 E, H = 15 32 01.0, MB = 5.6 /ISC/. DEPTH = 11 km,	
179	29	BRA	EP	00 59 20.0	-0.5									85.44	67.86	Luzon 18.21 N 120.85 E, H = 00 46 47.0, MB = 5.3 /ISC/. DEPTH = 56 km,	
180	29	BRA ES E	E ES E	04 37 33.0 04 37 54.0 04 38 16.0	1.5									5.45	274.73	Germany 48.33 N 8.95 E, H = 04 35 29.7, MB = 5.3 /ISC/. DEPTH = 62 km	

181	29	BRA	EP EPCP E	08 24 45.0 08 25 30.0 08 27 18.0	-1.0 -7.6									58.02	225.05	Central Mid Atlantic Ridge 0.45 S 19.79 W, H = 08 14 53.0, MB = 5.1 /ISC/. DEPTH = 26 km,	
182	29	BRA	E	12 01 45.0										3.11	317.66	Czechoslovakia /Expl. of 14.5 tons/ 50.42 N 13.83 E, H = 12 00 01.0, MB = 5.1 /ISC/. DEPTH = 0 km /FRU/.	
183	29	BRA	EP EPCP	15 38 25.0 15 38 36.0	0.1 -0.7									76.57	16.04	Near Islands 53.16 N 170.60 E, H = 15 26 34.6, MB = 5.2 /ISC/. DEPTH = 23 km,	
184	29	SRO ERA	IP IPP I LMH +EP E E	20 09 13.0 20 12 49.0 20 20 05.0 20 53 00.0 20 09 15.0 20 13 27.0 20 20 17.0	-0.4 2.8 -1.4			3.4 20.0	20.0	3.0 20.0	20.0		5.9	89.90 90.55	71.31 70.41	Luzon 12.63 N 122.28 E, H = 19 56 14.0, MB = 5.6 /ISC/. DEPTH = 18 km,	
185	30	BRA	EP	03 26 19.0	3.2									65.29	212.60	Ascension Island Region 11.72 S 12.88 W, H = 03 15 35.0, MB = 4.7 /ISC/. DEPTH = 33 km,	
186	30	BRA	EP	06 14 08.0	4.4									17.36	119.78	Turkey 37.76 N 36.18 E, H = 06 10 04.0, MB = 4.4 /ISC/. DEPTH = 60 km,	
187	30	SPC BRA	EP EP E	09 11 46.0 09 12 09.0 09 13 36.0	-6.0 2.2									26.45 28.08	111.96 106.41	Iran 34.68 N 50.33 E, H = 09 06 16.7, MB = 4.7 /ISC/. DEPTH = 38 km,	
188	30	SPC BRA	E E E E E E	12 18 00.0 12 18 11.0 12 18 20.0 12 18 18.0 12 18 36.0 12 18 45.0													Near Jhocky



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No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta Azimuth	Remarks
				h	m		A	T	A	T	A	T				
189	30	SPC BRA	+IP +IP IPCP E E	15 59 15 59 16 00 16 00 16 01	52.0 57.0 15.0 20.0 21.0	1.6 -2.2 4.9								75.70 77.26	17.04 15.10	Near Islands 52.77 N 172.38 E, H = 15 48 04.7, MB = 5.5 /ISC/. DEPTH = 21 km,
190	30	BRA	E	18 02	39.0									85.51	290.41	Caribbean Sea 17.02 N 85.32 W, H = 17 49 51.7, MB = 5.0 /ISC/. DEPTH = 6 km,

191	1	BRA	IPKFP2	05 11	55.0	7.8								146.58	23.63	Fiji Region 16.50 S 176.20 W, H = 04 52 06.0, /ISC/. DEPTH = 33 km
192	1	SRO	EP ES LMH ES LMH IP E ES LMH	13 47 13 49 13 53 13 49 13 53 13 47 13 48 13 50 13 55	49.0 45.0 00.0 50.0 00.0 59.0 18.0 01.0 00.0	-1.5 3.9 6.4 -3.1 2.1		4.7 5.1 4.3	10.0 9.0 9.0	8.4 3.5 14.2	10.0 9.0 9.0			9.74 8.85 10.59	131.22 131.08 128.92	Turkey 40.95 N 27.99 E, H = 13 45 27.4, MB = 4.6 /ISC/. DEPTH = 13 km,
193	1	BRA	EPKIKP E EPP	14 35 14 35 14 38	02.0 32.0 28.0	2.8 -3.2								147.15	47.26	Loyalty Islands Region 22.32 S 171.62 E, H = 14 15 35.6, DEPTH = 144 km, MB = 5.7 /ISC/.
194	2	SPC BRA	IP -IP IAP E EPP LMH +IP IPP E ISKXSAB LMH	06 20 06 20 06 20 06 22 06 23 06 53 06 20 06 23 06 25 06 30 06 53	27.0 33.0 44.0 19.0 41.0 00.0 34.0 41.0 03.0 41.0 00.0	0.3 -1.1 -1.3 3.2 -1.3 1.3 -3.9		41.0 46.5	20.0 16.0	81.3 44.5	20.0 16.0		7.1 7.1	80.25	9.79	Andeanof Islands 51.42 N 177.21 W, H = 06 08 26.9, MB = 6.0 /ISC/. DEPTH = 38 km,
195	3	SRO BRA	EP E EP	00 42 00 54 00 42	36.0 50.0 39.0	0.3 -2.4								52.26 53.03	83.84 83.28	Tibet 30.79 N 84.33 E, H = 00 33 24.6, MB = 5.3 /ISC/. DEPTH = 27 km,
196	3	SRO BRA	E LMH E E	11 09 11 12 12 02 11 09 11 11	16.0 26.0 00.0 31.0 16.0			1.3	20.0	2.1	20.0		5.9	132.47 132.89	52.24 50.62	Salomon Islands 11.28 S 161.84 E, H = 10 49 26.4, MB = 4.8 /ISC/. DEPTH = 45 km,
197	4	SPC SRO BRA	EP +IP IPP I LMH EP IAP	02 17 02 17 02 21 02 28 03 00 02 17 02 17	37.0 42.0 28.0 42.0 00.0 43.0 46.0	-2.9 -2.9 1.4 -5.8 -6.5		2.2	20.0	4.9	20.0		6.0	91.72 92.92	97.73 96.55 95.64	Sunda Strait 6.54 S 105.37 E, H = 02 04 31.0, MB = 5.9 /ISC/. DEPTH = 11 km,

No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
197			I E IPP E E LMH	02 18 43.0 02 20 43.0 02 21 31.0 02 23 40.0 02 29 29.0 03 07 00.0		-2.3											
198	4	SPC ERA	IP IP	19 43 00.0 19 43 00.0		2.2 0.7								86.95 87.27	147.14 144.68	Atlantic Indian Ridge 30.85 S 59.29 E, H = 19 30 14.9, DEPTH = 33 km, MB = 4.8 /ISC/.	
199	4	BRA	E E	23 18 27.0 23 18 41.0									0.51	286.57	Austria 48.31 N 16.38 E, H = 23 18 16.7, DEPTH = 0 km /ISC/.		
200	5	SRO BRA	E LMH IPN E LMH EPN	01 17 50.0 01 19 34.0 01 17 15.0 01 18 42.0 01 19 30.0 01 17 24.0		-1.9 -1.8							6.10 6.69 7.32	166.05 159.19 179.79	Albania 41.87 N 20.28 E, H = 01 15 35.0, MB = 4.5 /ISC/.		
201	5	BRA	E	03 11 18.0									156.29	31.14	South of Fiji 26.88 S 176.36 W, H = 02 51 13.0, DEPTH = 80 km, MB = 4.8 /ISC/.		
202	5	SRO BRA	E LMH EPN ESG LMH	09 43 54.0 09 47 00.0 09 43 33.0 09 45 41.0 09 46 05.0		-1.1 -2.2							7.09 7.22	199.43 191.54	Southern Italy 41.03 N 15.20 E, H = 09 41 44.8, DEPTH = 12 km, MB = 4.2 /ISC/.		
203	5	BRA	E	16 57 26.0									74.95	39.63	Eastern Sea of Japan 43.36 N 138.64 E, H = 16 37 06.7, DEPTH = 259 km, MB = 4.1 /ISC/.		
204	5	BRA	E	22 35 24.0									12.15	345.70	Germany 59.30 N 11.20 E, H = 22 32 48.0, DEPTH = 0 km /ISC/.		

205	6	BRA	EP	01 04 10.0		-3.5								50.19	269.93	North Atlantic Ridge 28.52 N 43.70 W, H = 00 55 18.9, DEPTH = 33 km, MB = 4.5 /ISC/.
206	6	SRO	I I I ISG LMH ESN LMH EPN I I ISN ISG LMH E	03 47 00.0 03 47 10.0 03 48 38.0 03 49 00.0 03 49 30.0 03 48 18.0 03 50 00.0 03 46 57.0 03 47 14.0 03 47 36.0 03 48 24.0 03 49 04.0 03 49 50.0 03 47 28.0		-4.0 -3.3 -4.4 0.3 -4.2							6.97	199.48	Southern Italy 41.20 N 15.24 E, H = 03 45 13.8, DEPTH = 33 km, MB = 4.8 /ISC/.	
207	6	SRO BRA	EP E LMH EP	04 27 23.0 04 30 34.0 04 32 00.0 04 27 41.0		-5.2 1.5								12.07 12.92	132.41 130.30	Turkey 39.04 N 29.75 E, H = 04 24 35.7, DEPTH = 34 km, MB = 4.7 /ISC/.
208	7	BRA	E E E E	00 28 26.0 00 30 50.0 00 31 08.0 00 39 14.0		0.6								151.89	34.62	South of Fiji 23.45 S 172.84 W, H = 00 09 38.3, DEPTH = 571 km, MB = 5.1 /ISC/.
209	7	SRO	IPP I LMH	00 39 02.0 00 39 23.0 01 21 00.0		8.0								99.62	83.35	Sulawesi /Celebes/ 2.68 S 119.69 E, H = 00 21 13.0, DEPTH = 24 km, MB = 5.4 /ISC/.
210	7	BRA	E	01 01 50.0									100.38	82.31	Sulawesi /Celebes/ 2.64 S 119.73 E, DEPTH = 46 km, MB = 5.3 /ISC/.	
211	7	BRA	IP E E	07 01 40.0 07 01 53.0 07 03 52.0		2.0								27.24	314.86	Iceland Region 61.40 N 25.30 W, H = 06 55 55.0, DEPTH = 33 km /ISC/.
212	7	BRA SRO	E E E E	08 01 13.0 08 01 28.0 08 01 51.0 08 02 29.0												Local small shock
213	7	BRA	I	13 41 52.0												Local small shock

No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m s		A	T	A	T	A	T					
214	8	BRA	ESG E	00 35	36.0 00 35 42.0	1.5								1.59	249.85	Austria 47.60 N 14.90 E, H = 00 34 42.0, DEPTH = 0 km /ISC/.	
215	8	BRA	E EPP E EPS E E EPP E EPS	01 08 01 09 01 11 01 19 01 22 01 08 01 09 01 16 01 19	54.0 42.0 39.0 13.0 29.0 55.0 43.0 23.0 15.0	-1.9 -16.5 -4.0 -19.0							119.24 119.74	238.23 238.71	Southern Chile-Argentina 42.29 S 71.79 W, H = 00 49 45.0, DEPTH = 146 km, MB = 5.8 /ISC/.		
216	8	BRA	EP E	03 04 03 09	35.0 44.0	0.1							55.30			North Atlantic Ridge 22.33 N 45.14 W, H = 02 55 07.0, DEPTH = 72 km, MB = 4.8 /ISC/.	
217	8	BRA	IP	23 05	43.0	2.3							25.73	353.20	Greenland Sea 73.40 N 6.80 E, H = 23 00 07.0, DEPTH = 0 km /ISC/.		
218	8	ERA	IP	23 40	05.0	5.8							25.36	353.66	Greenland Sea 73.10 N 7.80 E, H = 23 34 29.0, DEPTH = 0 km /ISC/.		
219	9	BRA	E	07 52	44.0								147.09	21.33	Tonga 16.66 S 174.79 W, H = 07 33 21.8, DEPTH = 212 km, MB = 4.7 /ISC/.		
220	9	BRA	E I I E EPP E E E IPKIKP I IPP E	08 44 08 44 08 44 08 45 08 47 08 52 08 56 08 44 08 44 08 47 08 56	17.0 29.0 35.0 11.0 25.0 11.0 35.0 19.0 35.0 23.0 25.0 27.0	8.1 -6.1 3.7							138.30 139.03	259.30 259.63	Southern Pacific Ocean 39.78 S 104.87 W, H = 08 25 01.1, DEPTH = 29 km, MB = 6.0 /ISC/.		

220		SPC	LMH EPKIKP EPP	09 51 08 44 08 47	00.0 25.0 30.0	-2.8 -0.2		4.0	20.0		3.0	20.0		6.2	140.51	262.45	
221	9	SPC SRO	IP +IP I I IPP I LMH +IP I I I I	19 34 19 34 19 34 19 35 19 35 19 41 20 20 19 34 19 34 10 35 19 36 19 37	00.0 07.0 28.0 14.0 46.0 50.0 00.0 13.0 28.0 52.0 23.0 37.0	4.2 0.4 1.3 -0.1		0.8	12.0		0.4	12.0		4.9	39.21 40.52 41.31	90.83 87.76 87.32	Pakistan 35.54 N 71.06 E, H = 19 26 34.2, DEPTH = 82 km, MB = 5.5 /ISC/.
222	9	SRO BRA	E LMH EPG LMH	23 06 23 07 23 05 23 07	57.0 13.0 28.0 13.0	6.9							6.93 7.07	198.53 190.51	Southern Italy 41.20 N 15.40 E, H = 23 03 00.0, DEPTH = 0 km /ISC/.		
223	10	BRA	EP	08 13	04.0	6.9							76.01	130.34	Mid Indian Rise 14.34 S 66.24 E, H = 08 01 11.5, DEPTH = 33 km, MB = 4.7 /ISC/.		
224	10	BRA	E	09 40	18.0								146.01	18.69	Tonga 15.25 S 173.59 W, H = 09 20 24.6, DEPTH = 33 km, MB = 4.8 /ISC/.		
225	10	SPC SRO BRA	EP EPP EP EPP E	12 07 12 11 12 07 12 11 12 07	15.0 01.0 26.0 16.0 44.0	3.0 -2.1 6.5 -0.1							94.74 96.39 97.04	72.15 70.80 69.83	Mindanao 7.93 N 126.95 E, H = 11 53 53.8, DEPTH = 41 km, MB = 5.9 /ISC/.		
226	10	SPC SRO BRA	EP EP E LMH EP EPP E	14 58 14 58 15 04 15 15 14 59 15 00 15 01	45.0 58.0 18.0 00.0 00.0 27.0 22.0	2.2 2.4 -1.7 -1.1		4.0	16.0		6.2	16.0		35.44 36.96 37.68	80.51 77.55 77.34	Kirgiziya 42.85 N 71.29 E, H = 14 51 45.0, DEPTH = 14 km, MB = 5.6 /ISC/.	
227	11	SPC ERA	EP EP	00 21 00 22	45.0 00.0	2.4 5.3							80.22 82.54	67.32 64.96	Taiwan Region 22.31 N 121.16 E, H = 00 09 36.4, DEPTH = 55 km, MB = 5.5 /ISC/.		



No.	Date	STA Code	Phase	GMT			RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks			
				h	m	s		A	T	A	T	A	T								
228	12	SRO	+I IPP I IS E ES LMH	06 28 24.0			10.3								13.16	136.41	Turkey 37.64 N 29.72 E, H = 06 25 15.4, DEPTH = 30 km, MB = 5.5 /ISC/.				
				06 28 44.0																	
				06 30 44.0																	
				06 28 27.0																	
229	12	SRO	+I I IS LMH	06 30 47.0			-4.6											Turkey 37.51 N 29.71 E, H = 10 10 25.4, DEPTH = 29 km, MB = 5.1 /ISC/.			
				06 33 00.0																	
				06 28 33.0																	
				06 28 38.0																	
230	12	SRO	+I IP IS LMH	06 29 03.0			-7.2											Turkey 37.58 N 29.60 E, H = 12 57 25.0, DEPTH = 33 km, MB = 5.3 /ISC/.			
				06 30 17.0																	
				06 31 17.0																	
				06 31 38.0																	
231	12	SRO	+I IP IS LMH	06 34 00.0			8.1											Tonga 15.54 S 175.15 W, H = 13 35 51.6, DEPTH = 33 km, MB = 5.0 /ISC/.			
				10 13 44.0																	
				10 14 34.0																	
				10 16 16.0																	
232	12	SRO	+I IP IS LMH	10 13 49.0			14.2											Turkey 37.51 N 29.62 E, H = 14 23 34.0, DEPTH = 19 km, MB = 4.4 /ISC/.			
				13 00 28.0																	
				13 03 00.0																	
				13 06 00.0																	

No.	Date	STA Code	Phase	GMT			RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks				
				h	m	s		A	T	A	T	A	T									
233	12	SRO	+I IPP I IS E ES LMH	15 15 14.0			1.0											Turkey 37.63 N 30.10 E, H = 15 11 53.1, DEPTH = 43 km, MB = 4.5 /ISC/.				
				17 15 36.0																		
				17 18 02.0																		
				17 20 00.0																		
234	12	SRO	+I IP IS LMH	16 31 08.0			7.9											Turkey 37.54 N 29.80 E, H = 16 27 36.8, DEPTH = 0 km /ISC/.				
				17 15 42.0																		
				17 15 44.0																		
				17 16 09.0																		
235	12	SRO	+I IP IS LMH	17 16 38.0			0.6											Turkey 37.60 N 29.93 E, H = 17 12 26.7, DEPTH = 35 km, MB = 4.6 /ISC/.				
				17 19 47.0																		
				17 21 00.0																		
				17 51 14.0																		
236	12	SRO	+I IPP I IS E ES LMH	17 56 12.0			-1.0											Turkey 37.50 N 29.57 E, H = 18 48 05.1, DEPTH = 49 km /ISC/.				
				19 05 32.0																		
				19 05 40.0																		
				19 05 47.0																		
237	12	SRO	+I IP IS LMH	19 10 44.0			0.9											Turkey 37.49 N 29.70 E, H = 19 02 27.1, DEPTH = 40 km, MB = 4.5 /ISC/.				
				20 16 08.0																		
				20 18 44.0																		
				20 21 00.0																		
238	12	SRO	+I IPP I IS E ES LMH	20 16 08.0			-1.8											Turkey 37.56 N 29.85 E, H = 20 13 05.0, DEPTH = 8 km, MB = 4.7 /ISC/.				
				20 21 00.0																		
				20 21 00.0																		
				20 16 27.0																		
239	12	SRO	+I IPP I IS E ES LMH	20 19 10.0			-0.5											Kurile Islands 47.45 N 154.38 E, H = 21 40 58.6, DEPTH = 49 km, MB = 5.2 /ISC/.				
				20 19 10.0																		
				20 21 00.0																		
				21 53 32.0																		
240	13	SRO	+I IPP I IS E ES LMH	04 10 36.0			2.8											Turkey 37.54 N 29.97 E, H = 04 07 23.6, DEPTH = 36 km, MB = 4.4 /ISC/.				
				04 12 56.0																		
				04 10 47.0																		

No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		s	A	T	A	T	A					
241	13	SRO ES LMH EP	E	04 48	40.0	8.2								13.31	136.63	Turkey 37.49 N 29.78 E, H = 04 45 29.1, DEPTH = 23 km, MB = 4.8 /ISC/.	
242	13	BRA SRO ES EP	E	04 51	16.0	0.9			4.0	5.0	3.9	4.0		14.13	134.38	Turkey 37.56 N 29.97 E, H = 08 14 36.3, DEPTH = 35 km, MB = 4.6 /ISC/.	
243	13	BRA SRO ES EP	E	08 17	54.0	8.3								13.34	135.92	Turkey 37.59 N 30.06 E, H = 08 30 24.0, DEPTH = 13 km, MB = 4.5 /ISC/.	
244	13	SRO SPC BRA EP	E	08 31	36.0	6.1								14.17	133.72	Turkey 37.67 N 29.99 E, H = 13 28 39.0, DEPTH = 27 km, MB = 4.7 /ISC/.	
245	13	SRO SPC E	E	13 31	48.0	-1.8			1.6	8.0	1.9	8.0		13.27	135.58	Turkey 37.62 N 29.91 E, H = 22 47 11.1, DEPTH = 46 km, MB = 4.4 /ISC/.	
246	13	SRO BRA E	E	13 34	14.0	-3.0							4.6	13.50	144.88	Turkey 37.55 N 29.93 E, H = 23 32 56.0, DEPTH = 33 km, MB = 4.6 /ISC/.	
247	14	SRO LMH EP	E	04 23	12.0	0.6								13.33	136.05	Turkey 37.51 N 29.90 E, H = 04 18 31.0, DEPTH = 24 km, MB = 4.4 /ISC/.	
248	14	BRA EP	E	04 26	14.0	-2.0								14.16	133.84	Bonin Islands Region 27.77 N 141.03 E, H = 09 57 42.0, DEPTH = 26 km, MB = 5.4 /ISC/.	
249	14	SRO ES LMH EP LMH	E	10 10	35.0	5.9								13.35	136.24	Turkey 37.65 N 29.96 E, H = 22 18 24.0, DEPTH = 31 km, MB = 4.6 /ISC/.	

250	14	SRO BRA EP	E	22 54	18.0	-2.2								13.22	137.33	Turkey 37.47 N 29.55 E, H = 22 51 08.0, DEPTH = 8 km, MB = 4.6 /ISC/.
251	15	SRO BRA LMH	E	22 56	45.0	-3.5			1.6	8.0	1.9	8.0		14.04	135.03	Turkey 37.57 N 30.06 E, H = 12 19 57.1, DEPTH = 33 km, MB = 4.3 /ISC/.
252	15	SRO E	E	22 54	26.0									13.38	135.64	Turkey 37.64 N 29.91 E, H = 21 47 36.0, DEPTH = 29 km, MB = 4.6 /ISC/.
253	16	SRO BRA E	E	12 26	43.0									14.21	133.46	Fiji Region 18.44 S 177.92 W, H = 05 11 33.2, DEPTH = 574 km, MB = 5.2 /ISC/.
254	16	SRO BRA E	E	12 27	27.0									13.25	135.88	Turkey 37.55 N 29.86 E, H = 08 39 34.9, DEPTH = 32 km, MB = 4.4 /ISC/.
255	16	SRO BRA EP E	E	21 55	23.0				2.5	4.0	2.0	4.0		14.78	29.91	Turkey 37.55 N 29.81 E, H = 09 24 58.0, DEPTH = 3 km, MB = 4.8 /ISC/.
256	17	BRA E	E	05 30	30.0									147.92	26.61	Tonga 15.33 S 173.10 W, H = 02 00 53.9, DEPTH = 33 km, MB = 4.9 /ISC/.
257	17	BRA EP E	E	05 34	08.0	-0.4								13.28	136.39	Fiji Region 16.19 S 179.99 W, H = 05 46 28.0, DEPTH = 17 km, MB = 4.3 /ISC/.
258	17	BRA SRO SPC E	E	05 29	48.0	-0.4								14.10	134.15	Ecuador 1.59 S 77.69 W, H = 11 04 06.9, DEPTH = 172 km, MB = 5.7 /ISC/.



No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
259	17	SRO BRA	EP ES LMH EP E	14 19 14 22 14 24 14 19 14 24	27.0 00.0 00.0 34.0 31.0	0.5 7.1 -3.3		2.1	4.0	2.9	4.0		5.1	13.21 14.03	135.91 133.70		Turkey 37.67 N 29.87 E, H = 14 16 19.0, DEPTH = 39 km, MB = 4.8 /ISC/.
260	18	SPC BRA	EPKP2 E EPP	01 05 01 05 01 07 01 09	34.0 43.0 24.0 25.0	-0.1 -0.7 0.3								154.63 156.83	47.86 43.92		Kermadec Islands Region 29.72 S 178.82 E, H = 00 46 18.0, DEPTH = 571 km, MB = 5.4 /ISC/.
261	18	SRO BRA	EP LMH E	02 07 02 11 02 07	11.0 27.0 28.0	5.0								13.38 14.20	136.29 134.07		Turkey 37.48 N 29.91 E, H = 02 03 56.0, DEPTH = 33 km /ISC/.
262	18	BRA	E	03 21	25.0									13.90	133.55		Turkey 37.80 N 29.80 E, H = 03 13 10.0, DEPTH = 0 km /ISC/.
263	18	BRA	E EPP E	06 30 06 31 06 32	07.0 23.0 25.0	1.5							108.11	247.52		La Rioja Province Argentina 28.47 S 68.86 W, H = 06 12 36.4, DEPTH = 94 km, MB = 5.7 /ISC/.	
264	18	BRA	EPKP2	07 18	10.0	-1.5							150.78	25.50		Tonga 20.82 S 175.98 W, H = 06 58 35.0, DEPTH = 217 km, MB = 4.9 /ISC/.	
265	18	SPC HRB BRA	EP EP ES LMH +IP E ES LMH +IP IS LMH	22 54 22 55 23 03 23 18 22 55 22 58 23 03 23 19 22 55 23 03 23 19	50.0 02.0 18.0 00.0 04.0 37.0 22.0 00.0 06.0 23.0 00.0	3.2 3.2 -0.4 5.1 3.4 7.1 4.3	150	22.8	6.0	9.2	6.0	5.9	6.9	59.53 61.29 61.30	24.56 23.43 23.06		Eastern Siberia 63.92 N 146.10 E, H = 22 44 39.3, DEPTH = 0 km, MB = 5.9 /ISC/.
266	19	BRA	+I E	12 00 12 00	23.0 30.0												Local small shock

267	19	BRA	EPN ISG	17 32 17 33	04.0 34.0	3.1 8.2							4.88	274.97			Germany 48.36 N 9.80 E, H = 17 30 44.5, DEPTH = 17 km /ISC/.
268	20	BRA	EP	02 47	37.0	-0.2							79.60	6.53			Andreas of Islands 52.21 N 173.37 W, H = 02 35 36.9, DEPTH = 77 km, MB = 5.4 /ISC/.
269	20	SRO BRA	E E E LMH EP EPP LMH	03 09 03 13 03 14 03 15 03 09 03 10 03 15	54.0 34.0 42.0 28.0 52.0 13.0 16.0	-13.9 -3.8		0.9	5.0	1.2	5.0	4.7	13.33 14.16	135.84 133.64			Turkey 37.58 N 29.98 E, H = 03 06 44.6, DEPTH = 23 km, MB = 4.8 /ISC/.
270	20	BRA	EP	08 13	40.0	1.6							84.06	333.55			Off Coast of Oregon 42.49 N 126.10 W, H = 08 01 08.8, DEPTH = 27 km, MB = 4.7 /ISC/.
271	21	BRA	EPKXP	00 49	46.0	3.8							148.74	26.73			Fiji Region 19.07 S 177.18 W, H = 00 30 39.6, DEPTH = 343 km, MB = 4.9 /ISC/.
272	21	SRO SPC BRA	E E E EP E LMH	09 44 09 47 09 44 09 44 09 45 09 49	48.0 23.0 29.0 34.0 04.0 37.0	-0.5		2.8	6.0	3.3	6.0	5.1	13.23 13.51 14.05	136.92 146.20 134.65			Turkey 37.52 N 29.65 E, H = 09 41 13.3, DEPTH = 12 km, MB = 4.8 /ISC/.
273	21	BRA	E E E	10 52 10 53 10 53	52.0 00.0 11.0												Local small shock
274	21	BRA SRO	EP E EPP E EP E LMH	19 08 19 09 19 11 19 12 19 08 19 19 19 46	47.0 30.0 45.0 15.0 49.0 06.0 00.0	-0.3 -3.9 0.3		1.5	16.0	0.9	16.0	5.5	73.29 79.54	6.38 7.12			Andreas of Islands 52.54 N 173.20 W, H = 18 56 43.6, DEPTH = 33 km, MB = 5.7 /ISC/.

No.	Date	STA Code	Phase	GMT		RES O-C	Z			E-W			N-S			MLH	Delta	Azimuth	Remarks
				h	m		s	A	T	A	T	A	T	A	T				
275	22	SPC	+IP	16 48	11.0	1.1												Turkey 38.85 N 40.52 E, H = 16 43 59.3, MB = 5.9 /ISC/.	
		SRO	IP	16 48	21.0	3.7													
		HRB	LMH	17 12	00.0	4.5	29.3	12.0	27.0	12.0									
276	22	BRA	+EP	16 48	24.0	5.5												Turkey 38.96 N 40.34 E, H = 17 32 34.2, MB = 4.3 /ISC/.	
		BRA	E	16 51	40.0	-2.7													
		BRA	LMH	16 51	58.0	0.1	85.0	9.0	242.0	9.0									
277	22	SPC	EP	18 39	40.0	2.9												Turkey 39.08 N 40.63 E, H = 18 35 31.8, MB = 4.7 /ISC/.	
		BRA	EP	18 39	56.0	0.7													
		BRA	EP	18 48	04.0	0.7													
279	22	SPC	EP	20 13	03.0	0.7												Tibet 32.36 N 92.11 E, H = 20 03 31.9, MB = 5.5 /ISC/.	
		SRO	E	20 13	17.0	3.7													
		BRA	LMH	20 21	07.0	-9.2	11.6	12.0	16.2	12.0									
280	23	SRO	EP	01 06	09.0	3.8												Turkey 37.58 N 30.12 E, H = 01 02 55.0, MB = 4.4 /ISC/.	
		BRA	ES	01 08	33.0	-0.9													
		BRA	EP	01 06	26.0	9.9	12.0	9.0	28.4	9.0									
281	23	SRO	E	05 22	21.0	5.8												Turkey 37.61 N 30.12 E, H = 05 19 08.0, MB = 4.5 /ISC/.	
		BRA	ES	05 24	37.0	0.1													
		BRA	EP	05 27	29.0	0.1													

No.	Date	STA Code	Phase	GMT		RES O-C	Z			E-W			N-S			MLH	Delta	Azimuth	Remarks
				h	m		s	A	T	A	T	A	T	A	T				
282	23	SRO	I	20 14	20.0													Turkey 37.48 N 29.95 E, H = 20 11 21.5, MB = 5.6 /ISC/.	
		BRA	E	20 19	12.0														
		BRA	E	20 14	55.0														
283	24	BRA	+EP	02 24	37.0	-2.1												Turkey 38.98 N 40.60 E, H = 02 20 14.5, MB = 4.6 /ISC/.	
		BRA	EP	05 46	21.0	7.5													
		BRA	EP	05 48	43.0	-5.9	32.0	8.0	45.0	8.0									
284	25	SRO	-I	05 46	21.0													Turkey 39.05 N 29.71 E, H = 05 43 26.1, MB = 5.7 /ISC/.	
		HRB	ES	05 48	32.0														
		SPC	LMH	05 51	00.0		25.3	7.0	23.3	7.0									
285	25	SPC	EP	13 12	22.0	0.8												Kyushu 31.31 N 131.34 E, H = 13 00 20.5, MB = 5.6 /ISC/.	
		SRO	EPP	13 15	22.0	-0.9													
		BRA	EP	13 12	38.0	6.9	6.6	12.0	10.0	12.0									
286	26	SPC	-IPKHP	00 30	58.0	1.0												South Of Fiji 24.90 S 179.14 W, H = 00 11 54.1, MB = 5.4 /ISC/.	
		SRO	IPKHP	00 31	04.0	7.0													
		BRA	EPKHP	00 31	08.0	3.1	151.41	39.03											
287	26	SPC	ESKDF	00 37	15.0	-7.8												Iran 35.55 N 58.20 E, H = 02 41 46.3, MB = 5.4 /ISC/.	
		BRA	+IPKIP	00 30	56.0	-0.8	153.28	37.29											
		BRA	I	00 31	05.0	-1.5	153.47	34.66											
288	26	SPC	+IP	02 48	03.0	0.5												Iran 35.55 N 58.20 E, H = 02 41 46.3, MB = 5.4 /ISC/.	
		SRO	+IP	02 48	15.0	3.4	30.83	101.88											
		BRA	ES	02 53	26.0	6.3	31.86	97.85											
289	26	BRA	LMH	03 07	00.0	0.0												Iran 35.55 N 58.20 E, H = 02 41 46.3, MB = 5.4 /ISC/.	
		BRA	+IP	02 48	19.0	0.0	32.71	97.34											
		BRA	I	02 49	46.0	-3.0													





No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
288	26	SRO BRA	EP ES LMH EP E	06 25 06 35 06 58 06 25 06 26	32.0 32.0 00.0 28.0 00.0	6.3 2.5 0.1			4.1	24.0	7.3	24.0		6.0	81.04 81.47	52.79 52.01	Kyushu 31.35 N 131.46 E, H = 06 13 14.8, DEPTH = 52 km, MB = 5.5 /ISC/.
289	26	SRO BRA	E EP E	16 54 16 50 16 51	26.0 43.0 22.0	0.3								19.53 20.35	92.30 92.29	Eastern Caucasus 43.60 N 45.68 E, H = 16 46 02.0, MB = 4.5 /ISC/.	
290	27	SRO BRA	E EP	17 02 17 02	14.0 22.0	-6.4								78.69 78.87	35.75 35.03	Kurile Islands 43.14 N 146.81 E, H = 16 50 28.8, MB = 5.0 /ISC/.	
291	28	BRA	EP	12 22	50.0	0.0								76.21	341.79	Queen Charlotte Islands Region 52.81 N 132.83 W, H = 12 11 03.3, MB = 4.6 /ISC/.	
292	28	BRA	EP EAP E	14 25 14 25 14 29	00.0 30.0 05.0	1.6 -3.8								91.05	293.46	Guatemala 14.74 N 91.46 W, H = 14 12 08.3, DEPTH = 136 km, MB = 5.3 /ISC/.	
293	29	BRA	E	00 27	00.0									78.57	32.80	Kurile Islands 44.52 N 149.18 E, H = 00 15 36.3, MB = 5.4 /ISC/.	
294	29	SPC SRO BRA	+IP +EP ESKSAB LMH +EP EAP E LMH	09 04 09 04 09 15 09 44 09 04 09 05 09 06 09 44	48.0 57.0 05.0 00.0 57.0 06.0 10.0 00.0	3.0 2.1 0.4 -0.1 -5.3		4.6	16.0	3.6	16.0		6.0	79.14 80.99	54.29 52.78	Kyushu 31.39 N 131.43 E, H = 08 52 44.2, MB = 5.6 /ISC/.	
295	30	BRA SRO	EPKP2 E	09 14 09 12	19.0 00.0	2.5		6.6	12.0	6.6	12.0		6.4	145.88 145.91	20.30 22.50	Tonga 15.33 S 174.53 W, H = 08 54 45.6, DEPTH = 94 km, MB = 4.5 /ISC/.	



296	30	SRO BRA	E E E	10 56 10 58 10 56	17.0 01.0 28.0									13.27 14.10	136.42 134.18	Turkey 37.55 N 29.80 E, H = 10 50 11.0, MB = 4.5 /ISC/.
297	30	BRA	EP	12 06	37.0	0.2								64.72	79.87	Burma 25.22 N 96.43 E, H = 11 56 01.0, MB = 5.0 /ISC/.
298	30	SPC SRO HRB BRA	IP E +IP I IPP IS LMH ES +IP -IPP ES LMH	15 54 15 03 15 54 15 55 15 57 16 03 16 20 16 03 15 54 15 55 15 57 16 03 16 24	45.0 08.0 53.0 17.0 25.0 28.0 00.0 25.0 58.0 53.0 20.0 30.0 00.0	3.6 1.9 11.3 5.4 1.5 2.1 -0.4 -1.7		6.0	24.0	18.0	24.0	6.2	62.50 63.98	82.59 80.56	Burma 25.20 N 96.41 E, H = 15 44 19.6, MB = 5.6 /ISC/.	
299	30	BRA	EP	21 49	38.0	0.6								64.62	79.88	Burma 25.28 N 96.34 E, H = 21 39 02.0, MB = 4.8 /ISC/.
300	31	BRA	EP	03 45	26.0	3.5								25.20	348.90	Norwegian Sea 72.26 N 1.60 E, H = 03 39 56.5, MB = 4.3 /ISC/.
301	31	SPC BRA	+IP +IP I IPP I I ES LMH +IP IS LMH	03 52 03 52 03 52 03 52 03 53 03 54 03 56 04 03 03 52 03 56 04 03	13.0 17.0 26.0 47.0 23.0 08.0 40.0 00.0 21.0 41.0 00.0	1.5 0.3 -6.4 1.5 -0.5 -6.0	250	1.5				5.7	24.68 25.22	346.02 348.52	Norwegian Sea 72.21 N 1.09 E, H = 03 46 50.6, MB = 5.5 /ISC/.	
302	31	BRA	+EP EAP EPP	05 24 05 24 05 27	38.0 44.0 08.0	0.3 -0.4 7.5								64.77	79.82	Burma 25.22 N 96.51 E, H = 05 13 58.6, MB = 5.2 /ISC/.

No.	Date	STA Code	Phase	GMT		RBS O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
303	31	BRA	EP EPCP	08 26 08 27	36.0 35.0	-4.1 -9.1								54.19	266.54		North Atlantic Ridge 23.84 N 45.03 W, H = 08 17 16.0, MB = 4.9 /ISC/. DEPTH = 37 km,
304	31	BRA	EP	09 23	24.0	-0.7								81.01	96.01		Northern Sumatra 2.71 N 96.64 E, H = 09 11 15.0, DEPTH = 61 km, MB = 5.1 /ISC/.

No.	Date	STA Code	Phase	GMT		RBS O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks	
				h	m		A	T	A	T	A	T						
305	3	BRA	I I I I	22 21 22 21 22 21 22 21	22.0 28.0 34.0 37.0													
306	4	BRA	EP E	08 04 08 06	50.0 43.0	0.3									42.63	8.55		North of Severnaya Zemlya 84.25 N 109.90 E, H = 07 56 53.4, MB = 4.9 /ISC/. DEPTH = 23 km,
307	4	SPC BRA SRO	EP EPP E E E	09 17 09 19 09 18 09 19 09 20	47.0 24.0 10.0 46.0 17.0	2.0 1.2								41.20 42.52 42.75	8.73 8.50 8.47		North of Severnaya Zemlya 84.30 N 108.90 E, H = 09 10 00.6, MB = 5.1 /ISC/. DEPTH = 24 km,	
308	4	BRA	EP	15 26	18.0	1.4								81.94	55.61		Ryukyu Islands 28.75 N 128.59 E, H = 15 14 12.9, DEPTH = 155 km, MB = 5.0 /ISC/.	
309	5	BRA	EP EP E	14 33 14 33 14 34	46.2 52.0 13.0	2.4 8.2								90.59	284.58		Costa Rica 9.33 N 84.22 W, H = 14 20 44.2, DEPTH = 37 km, MB = 5.4 /ISC/.	
310	5	BRA	EPKP2	21 07	19.0	6.6								148.17	121.44		Macquarie Islands 54.80 S 146.10 E, H = 20 47 25.0, DEPTH = 33 km /ISC/.	
311	6	BRA	EP EPP E	04 10 04 11 04 13	26.0 53.0 02.0	0.5 -1.0								38.81	63.87		Eastern Kazakhstan 49.98 N 77.74 E, H = 04 02 57.3, MB = 5.5 /ISC/. DEPTH = 0 km,	
312	6	BRA	ESG LMH	22 03 22 04	30.0 30.0	-3.7								7.92	248.10		France 44.73 N 6.77 E, H = 21 59 12.0, DEPTH = 17 km /ISC/.	
313	7	SRO BRA	E EP E	13 44 13 37 13 38	00.0 44.0 02.0	1.0								13.89 14.48	164.36 160.82		Mediterranean Sea 34.32 N 22.80 E, H = 13 34 19.1, MB = 4.7 /ISC/.	



No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
314	8	BRA	+ISB LMH	02 24 02 25	56.0 30.0	3.3								5.48	275.47	Germany 48.40 N 8.90 E, H = 02 22 06.0, DEPTH = 31 km /ISC/.	
315	8	SRO	E LMH	17 02 17 05	36.0 08.0									13.33	136.57	Turkey 37.48 N 29.81 E, H = 16 59 27.0, DEPTH = 21 km, MB = 4.8 /ISC/.	
316	8	SRO	+I IPP	23 46 23 46	04.0 21.0	7.2								13.27	136.45	Turkey 37.55 N 29.79 E, H = 23 42 54.0, DEPTH = 11 km, MB = 4.8 /ISC/.	
		HRB	ES	23 50 23 48	00.0 35.0	-1.1			10.5	4.0	10.0	4.0	5.7	13.37	136.28		
		SPC	I	23 51 23 46	00.0 08.0				2.5	5.0	3.0	5.0	5.0	13.53	145.72		
		BRA	LMH	23 48 23 51	23.0 00.0	-3.8								14.09	134.21		
		BRA	EP	23 46 23 47	12.0 06.0	1.7											
		BRA	E	23 50 23 51	51.0 18.0												
317	9	SRO	E	03 01 03 05	16.0 12.0									13.37	136.51	Turkey 37.46 N 29.85 E, H = 02 57.26.2, DEPTH = 12 km /ISC/	
		BRA	EP	03 00 03 00	59.0 59.0	9.8								14.19	134.27		
318	9	BRA	EPKHP	13 26 13 26	30.0 20.0	0.0								155.19	237.48	Easter Island Cordillera 55.80 S 124.10 W, H = 13 06 33.3, DEPTH = 29 km, MB = 4.9 /ISC/.	
		SRO	EPKHP	13 28 13 28	20.0 20.0	-3.9								155.68	236.76		
319	9	SPC	EPKP2	20 46 20 46	00.0 10.0	1.8								146.72	22.87	Tonga Region 17.52 S 172.67 W, H = 20 26 16.5, DEPTH = 33 km, MB = 5.3 /ISC/.	
		BRA	EPKP2	20 46 20 46	01.0 31.0	-3.9								148.40	18.01		
		SRO	EPKP2	20 47 20 46	49.0 04.0	-1.1								148.47	20.34		
		BRA	E	20 48 20 48	44.0 44.0												

320	9	SPC	EP	21 21 21 21	25.0 28.0	1.8								74.53	358.10	Alaska Peninsula 56.61 N 156.44 W, H = 21 09 48.0, DEPTH = 50 km, MB = 5.2 /ISC/.
		BRA	EP	21 21 21 21	28.0 00.0	-0.4								75.45	356.32	
321	10	BRA	E	02 39 02 39	03.0 00.0									75.45	356.32	Local shock
322	10	BRA	IP	07 01 07 01	13.0 13.0									100.14	265.17	Peru 10.81 S 76.18 W, H = 06 47 35.4, DEPTH = 98 km, MB = 5.6 /ISC/.
323	10	SRO	E	09 38 09 39	20.0 00.0									12.03	132.81	Turkey 39.02 N 29.63 E, H = 09 31 53.9, DEPTH = 33 km, MB = 5.0 /ISC/.
		BRA	LMH	09 34 09 35	54.0 02.0	-3.2								12.87	130.67	
		BRA	EP	09 35 09 39	02.0 30.0											
324	10	BRA	IP	17 40 17 41	42.0 30.0	0.0								79.87	4.79	Fox Islands 52.13 N 170.56 W, H = 17 28 34.0, DEPTH = 26 km, MB = 5.3 /ISC/.
325	10	SPC	IP	20 11 20 12	12.0 18.0	1.4								74.97	43.56	Eastern Sea of Japan 41.10 N 138.52 E, H = 19 59 53.3, DEPTH = 233 km, MB = 5.6 /ISC/.
		SRO	IAP	20 11 20 12	24.0 15.0	3.0								76.85	42.12	
		BRA	-IP	20 19 20 43	48.0 00.0	-1.1								77.13	41.42	
		BRA	LMH	20 11 20 11	51.0 22.0	-0.6										
		BRA	E	20 12 20 12	16.0 16.0	-1.7										
		BRA	EAP	20 15 20 20	15.0 54.0	3.3										
		BRA	ES	20 20 20 20	54.0 42.0	-1.2										
326	10	BRA	EP	21 38 21 38	42.0 42.0	-1.2								29.57	310.11	North Atlantic Ocean 59.37 N 30.38 W, H = 21 32 41.0, DEPTH = 51 km, MB = 5.0 /ISC/.
327	11	BRA	IP	01 46 01 46	33.0 33.0	0.2								98.27	272.99	Peru-Ecuador Border Region 4.17 S 80.65 W, H = 01 32 59.0, DEPTH = 45 km, MB = 5.5 /ISC/.
328	11	BRA	IP	04 35 04 35	49.0 49.0	2.1								75.81	23.37	Off East Coast of Kamchatka 51.25 N 159.37 E, H = 04 24 01.0, DEPTH = 24 km, MB = 4.9 /ISC/.



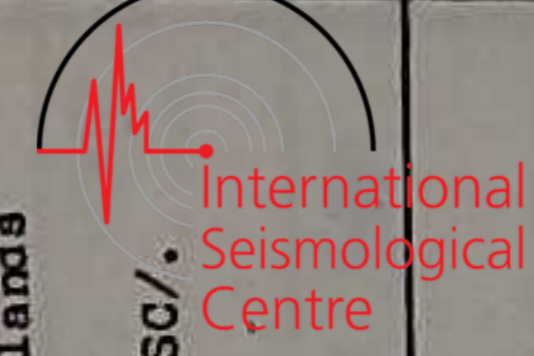
No.	Date	STA Code	Phase	h	GMT m	RBS O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
							A	T	A	T	A	T					
329	11	BRA	IP IAP E ES LMH EP SRO IS LMH	13 07 40.0 13 07 49.0 13 08 37.0 13 17 13.0 13 35 00.0 13 07 42.0 13 07 47.0 13 17 19.0 13 35 00.0	-0.9 -2.3 -0.6 -3.3 1.2 -4.1			0.1	21.0	0.2	21.0		4.4	74.76	280.00	Dominican Republic Region 18.02 N 69.79 W, H = 12 56 02.7, MB = 6.0 /ISC/.	
330	11	SPC BRA	IP IP I I ISKSAB LMH EP ES LMH IP IS LMH	14 10 33.0 14 10 40.0 14 12 40.0 14 14 25.0 14 20 49.0 14 47 00.0 14 10 40.0 14 20 35.0 14 49 00.0 14 10 48.0 14 20 35.0 14 47 00.0	-0.3 -1.5 1.9 -2.2 -4.0 5.6 -4.4		0.5	15.0	0.7	15.0		5.2	77.42 78.92	15.17 13.18	Ret Islands 51.67 N 176.04 E, H = 13 58 37.6, MB = 4.8 /ISC/.		
331	11	BRA	EP	15 33 34.0	0.1									79.96	10.35	Andreanof Islands 51.26 N 179.24 W, H = 15 21 27.1, MB = 5.0 /ISC/.	
332	12	BRA	EPKP2	22 59 48.0	-2.5									148.52	25.21	Fiji Region 18.61 S 176.46 W, H = 22 40 34.1, DEPTH = 312 km, MB = 5.1 /ISC/.	
333	12	SPC BRA	EPKIKP EPKHPP	23 55 47.0 23 55 52.0	3.2 3.3									147.99 149.98	34.97 30.63	Fiji Region 20.92 S 178.72 W, H = 23 37 10.2, DEPTH = 609 km, MB = 5.0 /ISC/.	
334	13	SPC	EP	04 18 00.0	3.1									79.98	44.88	Near East Coast of Honshu 36.28 N 140.93 E, H = 04 05 52.0, DEPTH = 55 km, MB = 5.5 /ISC/.	

335	14	SPC SRO	IP ES LMH LMH IP	13 58 45.0 14 07 07.0 14 22 00.0 14 22 00.0 13 58 55.9	2.0 5.8		5.0	16.0	5.0	16.0			5.9 5.5	57.25 59.13	40.31 38.94	Eastern Russia 56.18 N 123.59 E, H = 13 48 53.7, MB = 5.4 /ISC/.
336	15	SRO BRA	EP E EP EPP	07 47 29.0 08 00 27.0 07 47 40.0 07 49 23.0	-5.9 -0.5 1.5									42.95 43.64	75.10 74.79	Kirgiziya Sinkiang Border Region 41.40 N 79.38 E, H = 07 39 35.1, MB = 5.4 /ISC/.
337	15	BRA	EP I IPCP LMH	22 12 15.0 22 12 22.0 22 14 06.0 22 32 00.0	-0.9 3.3		0.2	9.0	0.3	9.0			4.6	43.51	74.92	Kirgiziya Sinkiang Border Region 41.39 N 79.18 E, H = 22 04 20.4, DEPTH = 36 km, MB = 5.3 /ISC/.
338	16	BRA	IP I IPP	01 06 40.0 01 06 46.0 01 08 22.0	-0.1 1.6									43.53	74.73	Kirgiziya Sinkiang Border Region 41.49 N 79.29 E, H = 00 53 35.1, MB = 5.3 /ISC/.
339	16	BRA SRO	IP I LMH EP LMH	06 14 21.0 06 15 27.0 06 16 12.0 06 14 23.0 06 16 19.0	-0.9 -3.1									5.29 5.59	218.59 229.25	Central Italy 43.94 N 12.54 E, H = 06 13 03.3, MB = 4.0 /ISC/.
340	17	BRA	EPN E	07 42 20.0 07 43 57.0	-1.9									6.05	270.80	Switzerland 47.90 N 7.10 E, H = 07 40 49.0, DEPTH = 20 km /ISC/.
341	17	BRA	EPKIKP	18 36 02.0	1.7									162.27	49.03	East Of North Island New Zealand 35.21 S 179.20 W, H = 18 16 02.6, DEPTH = 33 km, MB = 4.8 /ISC/.
342	17	BRA HRB SRO	EPDIFF E EPP E E LMH EPP LMH EPDIFF E ESKSAB LMH EPP	21 14 48.0 21 18 21.0 21 19 15.0 21 23 15.0 21 30 21.0 22 06 00.0 21 19 20.0 21 52 00.0 21 14 44.0 21 18 24.0 21 25 20.0 21 50 00.0 21 19 25.0	3.9 4.2 4.5 -3.0 1.4 -3.2		0.1	18.0	0.3	18.0		4.9	106.63	250.54	Northern Chile 25.40 S 69.06 W, H = 21 00 39.2, MB = 6.0 /ISC/.	
							1.1	16.0	1.0	16.0		5.6	106.69	250.60		
							24.0	16.0	9.0	16.0		6.9	108.34	252.33		



No.	Date	STA Code	Phase	GMT		RES O-C	Z			E-W			N-S			MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T	A	T						
343	18	SRO BRA	EPKP2 EPKP2 EPKIKP E	15 28 42.0 15 28 42.0 15 28 57.0 15 29 32.0 15 34 04.0		0.0 -1.5 -4.3											145.55 145.95	51.15 49.09	Loyalty Islands Region 21.85 S 170.01 E, H = 15 09 06.4, DEPTH = 46 km, MB = 5.1 /ISC/.	
344	19	BRA	EP EPP	04 11 26.0 04 12 50.0		0.2 -4.3											38.80	63.89	Eastern Kazakhstan 49.97 N 77.72 E, H = 04 03 57.7, MB = 5.4 /ISC/.	
345	19	BRA	EPKP2 E	11 15 05.0 11 15 17.0		0.8											144.34	50.07	Loslyty Islands 20.80 S 168.56 E, H = 10 55 28.0, DEPTH = 11 km, MB = 5.0 /ISC/.	
346	19	SRO BRA	EP E LMH EP EPCP E	17 31 00.0 17 40 06.0 17 49 00.0 17 31 05.0 17 32 54.0 17 33 30.0		0.4 -0.3 0.5	1.5	16.0				2.1	16.0				42.81 43.50	75.10 74.79	Kirgiziya Sinkiang Border Region 41.47 N 79.22 E, H = 17 23 02.3, DEPTH = 26 km, MB = 5.2 /ISC/.	
347	20	BRA	EPKIKP E	03 10 58.0 03 11 03.0		-0.7											143.33	46.91	New Hebrides 18.95 S 169.67 E, H = 02 51 26.0, MB = 5.0 /ISC/.	
348	20	SRO BRA	EPG E EP EPG LMH	06 00 00.0 06 02 08.0 05 59 45.0 06 00 06.0 06 01 49.0		8.2 3.5											6.44 6.97	169.71 162.82	Albania 41.47 N 19.84 E, H = 05 57 43.4, DEPTH = 0 km /ISC/.	
349	21	BRA SRO	E LMH E LMH	07 28 04.0 07 29 49.0 07 28 32.0 07 30 12.0													7.91 8.68	261.52 265.47	France 46.43 N 5.75 E, H = 07 25 23.8, DEPTH = 6 km, MB = 4.4 /ISC/.	
350	22	BRA	LMH	01 03 25.0													6.54	256.81	Switzerland 46.30 N 7.90 E, H = 00 59 45.0, DEPTH = 33 km /ISC/.	

351	22	BRA	EP	06 37 22.0		0.6											40.09	87.18	Hindu-Kush Region 36.31 N 69.88 E, H = 06 30 00.0, DEPTH = 158 km, MB = 4.8 /ISC/.
352	23	BRA	EP	18 07 36.0		1.3											73.18	92.70	Andaman Islands Region 10.72 N 93.74 E, H = 17 56 18.0, DEPTH = 144 km, MB = 4.6 /ISC/.
353	24	BRA	EPKIKP E	00 11 42.0 00 14 13.0		2.1											148.73	120.54	West of Macquarie Islands 54.43 S 147.19 E, H = 23 51 57.0, MB = 5.3 /ISC/.
354	24	BRA	E	11 30 48.0													3.14	321.67	Czechoslovakia [Explosion of 12 tons] 50.59 N 14.05 E, H = 11 29 06.0.
355	24	SPC SRO BRA	IP +IP I LMH +EP E EPP ES	14 04 33.0 14 04 41.0 14 15 14.0 14 45 00.0 14 04 41.0 14 05 27.0 14 07 50.0 14 15 01.0		2.0 0.9 -2.0 -4.4 0.5	1.5	20.0				1.2	20.0				80.84 82.60 83.16	64.63 63.09 62.29	South Western Ryukyu Islands 23.57 N 123.78 E, H = 13 52 17.1, 5.6 /ISC/.
356	26	SRO BRA	E E LMH EPN E LMH	04 52 13.0 04 53 42.0 04 54 10.0 04 52 04.0 04 53 13.0 04 54 11.0		3.9											7.35 7.84	173.51 167.07	Albania 40.50 N 19.40 E, H = 04 50 02.0, DEPTH = 0 km /ISC/.
357	26	BRA	EP	09 08 29.0		1.6											79.60	39.45	Near East Coast of Honshu 40.17 N 142.46 E, H = 08 56 24.7, MB = 4.9 /ISC/.
358	26	BRA	IP I	15 59 00.0 15 59 33.0		-0.4											72.88	279.47	North Atlantic Ocean 19.02 N 68.03 W, H = 15 47 35.0, DEPTH = 51 km, MB = 5.2 /ISC/.



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Centre

No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
359	26	SRO	IP I ESKSAB LMH	19 40 19 43 19 50 20 00	03.0 25.0 19.0 00.0	7.6 8.3 -0.6 0.9								86.18	101.92	South West of Sumatra 5.18 S 96.20 E, H = 19 27 11.0, DEPTH = 0 km, MB = 5.9 /ISC/.	
		BRA	-EP I I ES	19 39 19 40 19 41 19 50	59.0 33.0 12.0 39.0			2.6	20.0	2.1	20.0		5.7	37.05	101.03		
360	26	BRA	EP EPP	22 31 22 32	05.0 44.0	2.8 2.3								41.09	85.97	Afghanistan-UJJR Border Region 36.40 N 71.45 E, H = 22 23 27.6, DEPTH = 107 km, MB = 4.9 /ISC/.	
361	27	BRA	EP	08 42	44.0	-0.7								72.78	279.49	Mona Passage 19.10 N 67.97 W, H = 08 31 17.9, DEPTH = 34 km, MB = 5.1 /ISC/.	
362	27	BRA	EPKIKP E E E	14 41 14 43 14 43 14 44	35.0 50.0 50.0 02.0	-3.7								156.26	44.00	South of Fiji 29.25 S 178.44 E, H = 14 22 51.3, DEPTH = 588 km, MB = 5.3 /ISC/.	
363	27	BRA	-EP E	17 27 17 28	50.0 11.0									80.05	4.74	Fox Islands 51.95 N 170.45 W, H = 17 15 38.8, DEPTH = 14 km, MB = 5.2 /ISC/.	
364	28	BRA	EP	05 12	10.0	-0.5								62.42	63.23	Northern China 37.86 N 106.14 E, H = 05 01 49.0, DEPTH = 38 km, MB = 5.1 /ISC/.	
365	28	BRA	EPKIKP	19 20	49.0	-1.1								144.43	32.91	Fiji Region 16.20 S 177.99 E, H = 19 01 17.3, DEPTH = 33 km, MB = 4.6 /ISC/.	
366	28	BRA	EP E	19 58 19 58	08.0 19.0	-1.7								19.23	97.24	Western Caucasus 42.54 N 43.34 E, H = 19 53 45.8, DEPTH = 34 km, MB = 4.6 /ISC/.	

367	28	BRA	EPKIP2 E	20 56 20 57	54.0 06.0	-1.5								146.11	49.22	Loyalty Islands Region 22.03 S 170.04 E, H = 20 37 17.0, DEPTH = 40 km /ISC/.
368	28	SRO	E EPP E LMH LMH LMH EP EPP E	23 40 23 41 23 42 23 45 23 45 23 45 23 41 23 41 23 45	50.0 06.0 37.0 00.0 00.0 00.0 04.0 13.0 34.0	3.4							13.26	136.07	Turkey 37.61 N 29.87 E, H = 23 37 43.0, DEPTH = 23 km, MB = 4.8 /ISC/.	
369	29	SRO	E E LMH LMH SFC BRA EP ES E LMH	04 29 04 32 04 34 04 34 04 29 04 29 04 32 04 34 04 36	46.0 38.0 00.0 36.0 48.0 52.0 30.0 37.0 18.0								13.34	136.32	Turkey 37.51 N 29.97 E, H = 04 26 32.2, DEPTH = 29 km, MB = 4.7 /ISC/.	
370	29	SPC SRO BRA	EP IP I LMH EP EPP E LMH	09 12 09 12 09 13 09 19 09 12 09 12 09 18 09 22	12.0 18.0 28.0 00.0 25.0 40.0 25.0 00.0	2.7 5.4 1.5 1.3							17.06 17.32	128.85 121.37	Turkey 37.11 N 36.85 E, H = 09 08 12.0, DEPTH = 35 km, MB = 5.0 /ISC/.	
371	29	BRA	E	11 17	55.0									17.97	119.85	Turkey 37.33 N 36.72 E, H = 11 13 41.0, DEPTH = 12 km, MB = 4.5 /ISC/.
372	29	SPC BRA	EP E	15 23 15 23	23.0 51.0	2.4								76.83 78.85	32.97 30.88	Kurile Islands 45.21 N 151.68 E, H = 15 11 29.0, DEPTH = 26 km, MB = 4.8 /ISC/.
373	29	BRA	E	20 24	31.0									76.39	95.12	Nicobar Islands Region 6.75 N 94.19 E, H = 19 05 36.4, DEPTH = 107 km, MB = 5.4 /ISC/.

No.	Date	STA Code	Phase	GMT		RES O-C	Z			E-W			N-S			MPV	MLH	Delta Azimuth	Remarks
				h	m		A	T	A	T	A	T	A	T					
374	30	SPC BRA	EP EP	04 04	09.0 34.0	-3.6 2.1											37.28 63.47	65.86 63.47	Eastern Kazakhstan 49.92 N 79.01 E, H = 03 57 02.1, DEPTH = 33 km, MB = 5.2 /ISC/.
375	30	BRA	EP	19 27	06.0	-0.9											78.87	96.22	Northern Sumatra 4.17 N 95.05 E, H = 19 15 10.0, DEPTH = 72 km, MB = 4.8 /ISC/.

376	1	SPC SRO	EPKPEX E	01 34 01 34	43.0 58.0	15.1											107.85 109.39	78.87 77.79	Banda Sea 6.40 S 130.24 E, H = 01 16 16.4, DEPTH = 129 km, MB = 5.6 /ISC/.
377	1	SRO HRB	I IS LMH I I LMH EP ES LMH IP ES	15 42 15 42 15 43 15 43 15 43 15 43 15 42 15 43 15 44 15 43 15 43	38.0 48.0 18.0 40.0 48.0 55.0 47.0 09.0 05.0 13.0 43.0	-4.0 -1.7 4.8 4.2 3.2										0.77	201.61	Hungary 47.10 N 17.90 E, H = 15 42 28.0, DEPTH = 39 km /ISC/.	
378	1	BRA	IP	23 19	19.0	0.1											18.19	119.89	Turkey 37.17 N 36.91 E, H = 23 15 03.4, DEPTH = 0 km, MB = 4.5 /ISC/.
379	2	BRA	IP E	05 47 05 48	39.0 10.0	5.0											91.69	69.38	Luzon 12.42 N 123.84 E, H = 05 34 28.9, DEPTH = 35 km, MB = 5.4 /ISC/.
380	2	BRA	EP	06 46	34.0	-0.3											76.89	15.67	Near Islands 52.96 N 171.33 E, H = 06 34 40.0, DEPTH = 9 km, MB = 5.1 /ISC/.
381	2	BRA	EP	12 15	49.0	-0.7											15.30	143.72	Eastern Mediterranean Sea 35.22 N 28.10 E, H = 12 12 10.8, DEPTH = 0 km /ISC/.
382	2	BRA SRO	E E E3	21 15 21 16 21 20	49.0 01.0 05.0	-1.4											21.90 22.42	238.33 240.99	Marocco 34.11 N 5.39 W, H = 21 11 11.9, DEPTH = 44 km, MB = 4.4 /ISC/.
383	3	SPC BRA SRO	EPKP2 EPKIP EPKP2 E E EPKP2	01 10 01 10 01 10 01 10 01 11 01 10	12.0 16.0 19.0 40.0 31.0 22.0	-2.1 4.0 -1.8 1.0											146.64 148.34	23.68 18.86	North of New Zealand 17.56 S 173.14 W, H = 00 50 32.7, DEPTH = 33 km, MB = 5.2 /ISC/.

No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
384	3	SRO BRA	EP ES E EP	04 09 25.0 04 12 08.0 04 15 22.0 04 09 31.0	04 09 25.0 04 12 08.0 04 15 22.0 04 09 31.0	4.9 7.4 1.2								14.53	147.08	Dodecanese Islands 35.15 N 27.89 E, H = 04 05 55.4, DEPTH = 40 km, MB = 4.5 /ISC/.	
385	3	BRA	EP	04 34 30.0	04 34 30.0	2.8								43.55	74.90	Kirgiziya-Sinkiang Border Region 41.38 N 79.23 E, H = 04 26 25.8, DEPTH = 42 km, MB = 4.8 /ISC/.	
386	3	BRA	EPKHKP	12 31 21.0	12 31 21.0	-1.2								151.90	34.73	South of Fiji 23.48 S 179.89 W, H = 12 12 31.6, DEPTH = 534 km, MB = 5.4 /ISC/.	
387	4	BRA SRO	E E	00 03 33.0 00 03 23.0	00 03 33.0 00 03 23.0									104.99 105.65	250.66 251.39	Chile-Argentina Border Region H = 23 44 48.0, DEPTH = 77 km, MB = 5.3 /ISC/.	
388	4	BRA	EP	09 58 50.0	09 58 50.0	4.7								83.17	45.68	South of Honshu 33.73 N 138.63 E, H = 09 46 19.0, DEPTH = 19 km, MB = 4.9 /ISC/.	
389	4	BRA	E	10 58 32.0	10 58 32.0	ε								41.17	86.06	Afghanistan-USSR Border Region 36.30 N 71.50 E, H = 10 48 06.0, DEPTH = 350 km /ISC/.	
390	4	SPC SRO	IP EP E	11 43 30.0 11 43 39.0 11 46 38.0	11 43 30.0 11 43 39.0 11 46 38.0	1.3 2.2								85.73 87.40	71.18 69.69	Luzon 15.60 N 121.85 E, H = 11 30 53.0, DEPTH = 50 km, MB = 5.5 /ISC/.	
391	4	BRA	EP	18 45 17.0	18 45 17.0	-5.4								79.14	34.16	Kurile Islands. 43.35 N 147.99 E, H = 18 33 15.0, DEPTH = 4 km, MB = 5.7 /ISC/.	
392	5	BRA	EPKIKP	01 41 04.0	01 41 04.0	2.3								160.87	43.42	South of Kermadec Islands 33.03 S 178.45 W, H = 01 21 01.0, MB = 5.1 /ISC/.	

393	5	SRO BRA	LMH E EPP	16 59 30.0 16 55 53.0 16 56 08.0	16 59 30.0 16 55 53.0 16 56 08.0	8.2								11.74 12.63	115.87 114.85	Turkey 41.75 N 32.48 E, H = 16 52 49.0, MB = 5.6 /ISC/.
394	8	BRA	IPKIKP EAPKIKP	05 05 52.0 05 06 13.0	05 05 52.0 05 06 13.0	-0.7 -5.4								131.34	50.75	Solomon Islands 10.01 S 160.93 E, H = 04 46 46.7, DEPTH = 58 km, MB = 5.3 /ISC/.
395	8	BRA	EP EAP E	06 05 38.0 06 05 49.0 06 06 07.0	06 05 38.0 06 05 49.0 06 06 07.0	-0.1 -3.1								72.71	279.57	Mona Passage 19.21 N 67.97 W, H = 05 54 13.6, DEPTH = 50 km, MB = 4.9 /ISC/.
396	8	BRA	EP	14 12 40.0	14 12 40.0	-0.4								85.40	324.19	Southern Nevada 37.11 N 116.05 W, H = 14 00 00.1, DEPTH = 0 km /ISC/.
397	8	SPC SRO	E E EPP E EPS LMH E E EPP E	19 24 35.0 19 25 40.0 19 25 31.0 19 26 00.0 19 28 23.0 19 35 29.0 20 09 00.0 19 21 28.0 19 25 29.0 19 26 07.0 19 37 13.0	19 24 35.0 19 25 40.0 19 25 31.0 19 26 00.0 19 28 23.0 19 35 29.0 20 09 00.0 19 21 28.0 19 25 29.0 19 26 07.0 19 37 13.0	-3.3 3.2	3.0	16.0	3.6	16.0	6.2			107.98 109.50	79.72 78.60	Banda Sea 7.03 S 129.70 E, H = 19 07 07.3, DEPTH = 92 km, MB = 6.1 /ISC/.
398	8	BRA	EP E	23 46 13.0 23 46 50.0	23 46 13.0 23 46 50.0	0.7								24.36	141.74	Egypt 27.54 N 33.82 E, H = 23 40 56.4, DEPTH = 34 km, MB = 4.8 /ISC/.
399	9	BRA	E E EPKIKP EPP EPS E LMH EPP E EPS LMH +I	03 17 55.0 03 21 34.0 03 21 55.0 03 22 34.0 03 32 09.0 03 36 40.0 04 41 00.0 03 22 40.0 03 23 00.0 03 32 16.0 04 42 00.0 03 17 53.0	03 17 55.0 03 21 34.0 03 21 55.0 03 22 34.0 03 32 09.0 03 36 40.0 04 41 00.0 03 22 40.0 03 23 00.0 03 32 16.0 04 42 00.0 03 17 53.0	6.5 -5.1 1.0 -3.5 2.5								112.38	245.97	Near Coast Of Central Chile 32.51 S 71.21 W, H = 03 03 16.9, DEPTH = 40 km, MB = 6.5 /ISC/.
		SRO	+I	03 17 53.0	03 17 53.0		104.8	22.0	228.1	22.0	7.8			112.98	246.59	



No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
400	10	BRA	EPKIKP	09	42 47.0	-5.3								112.79	246.01	Near Coast of Central Chile 32.77 S 71.60 W, H = 09 24 22.3, DEPTH = 59 km, MB = 4.3 /ISC/.	
401	10	BRA	E	13 19 41.0 13 20 14.0 13 23 17.0										112.86	246.15	Near Coast of Central Chile 32.72 S 71.76 W, H = 13 04 41.3, DEPTH = 38 km, MB = 5.2 /ISC/.	
402	10	BRA	EPKIKP EPKP2 E	15 59 59.0 16 00 11.0 16 01 11.0		-4.5 2.0								146.84	19.32	North of New Zealand 16.15 S 173.75 W, H = 15 40 35.5, DEPTH = 104 km, MB = 4.7 /ISC/.	
403	10	SPC BRA	EP EP E	17 05 17.0 17 05 35.0 17 06 38.0		2.5 0.5								23.78 25.86	37.97 37.81	Western Russia 64.20 N 54.77 E, H = 16 59 59.6, DEPTH = 0 km, MB = 5.2 /ISC/.	
404	11	BRA	EP EPP	05 40 28.0 05 42 33.0		-0.7 0.1								55.52	217.87	North of Ascension Island 0.87 S 13.30 W, H = 05 30 53.2, DEPTH = 24 km, MB = 5.0 /ISC/.	
405	11	BRA	EPP	10 10 59.0 10 11 07.0 10 12 30.0 11 00 00.0 10 10 48.0 10 11 00.0 10 13 24.0 10 20 40.0 11 02 00.0 10 11 15.0		-2.6 -6.4 3.4 -3.3		8.4	16.0	2.7	16.0		6.5	112.47 113.08 114.78	246.54 247.17 248.96	Near Coast of Central Chile 32.19 S 71.72 W, H = 09 51 38.2, DEPTH = 36 km, MB = 5.8 /ISC/.	
406	11	SPC SRO	EP IP IPP ES	20 16 58.0 20 17 00.0 20 17 14.0 20 20 09.0 20 24 00.0 20 17 03.0 20 17 20.0 20 17 54.0 20 18 12.0 20 20 30.0		3.2 1.9 3.1 0.4 -0.1 -2.5 1.5		9.5	20.0	6.2	20.0		5.1	17.02 17.28 18.16	128.74 121.25 120.02	Turkey 37.16 N 36.85 E, H = 20 12 56.2, DEPTH = 19 km, MB = 5.0 /ISC/.	

407	12	BRA	E	02 24 06.0										74.30	22.23	Near East Coast of Kamchatka 53.09 N 159.96 E, H = 02 12 27.0, MB = 5.0 /ISC/.
408	12	SPC BRA	EP E +EP EPCP E E	16 01 04.0 16 01 13.0 16 01 11.0 16 01 20.0 16 01 31.0 16 02 32.0		2.3 0.7 -0.2								76.56 78.11	16.79 14.83	Near Islands 52.03 N 173.19 E, H = 15 49 12.7, MB = 5.3 /ISC/.
409	14	BRA	E LMH	06 30 26.0 07 14 00.0			30.0	20.0	75.0	20.0			7.4	123.81	55.16	New Ireland Region 5.52 S 153.86 E, H = 06 11 28.9, MB = 6.0 /ISC/.
410	14	HRB BRA	EPKIKP E LMH EPKIKP	07 56 04.0 07 57 14.0 07 56 00.0 07 56 10.0		-4.1 1.1							8.0	122.69 123.13	56.39 55.16	New Ireland Region 4.95 S 153.48 E, H = 07 37 22.0, MB = 5.6 /ISC/.
411	14	BRA	E	08 29 17.0										123.45	55.68	New Ireland Region 5.46 S 153.30 E, H = 08 10 35.0, MB = 4.7 /ISC/.
412	14	BRA	E	09 23 20.0										123.46	55.23	New Ireland Region 5.26 S 153.62 E, H = 09 04 13.0, MB = 5.0 /ISC/.
413	14	BRA	EPKIKP	11 48 44.0		2.6								123.26	55.40	New Ireland Region 5.17 S 153.39 E, H = 11 29 47.0, MB = 4.9 /ISC/.
414	14	BRA	EPKIKP	12 02 28.0		4.5								122.95	55.40	New Ireland Region 4.91 S 153.22 E, H = 11 43 29.0, MB = 4.9 /ISC/.
415	14	BRA	EPKIKP	12 09 14.0		0.8								123.15	55.49	New Ireland Region 5.12 S 153.26 E, H = 11 50 16.0, MB = 4.8 /ISC/.
416	14	BRA	EPKIKP	12 46 25.0		0.7								122.45	55.46	New Britain Region 4.52 S 152.30 E, H = 12 27 36.0, MB = 5.1 /ISC/.

No.	Date	STA Code	Phase	GMT h m s	RES O-C	Z		E-W		N-S		MLH	Delta	Azimuth	Remarks
						A	T	A	T	A	T				
417	14	BRA	EPKIKP	13 27 04.0	-0.3								123.57	55.42	New Ireland Region 5.44 S 153.55 E, H = 13 08 06.0, /ISC/ DEPTH = 8 km
418	14	BRA	EPKIKP	15 10 53.0	2.9								123.36	55.90	New Ireland Region 5.49 S 153.10 E, H = 14 51 52.0, MB = 4.7 /ISC/ DEPTH = 7 km, MB = 4.7 /ISC/.
419	14	SPC BRA	EPKIKP EPKIKP	17 57 42.0 17 57 46.0	3.2 2.8								120.86 123.16	58.08 55.55	New Ireland Region 5.16 S 153.23 E, H = 17 38 47.0, MB = 5.2 /ISC/ DEPTH = 16 km, MB = 5.2 /ISC/.
420	14	SPC BRA	EPKIKP +EPKIKP E E	18 46 38.0 18 46 41.0 18 47 07.0 18 48 33.0	4.7 3.3								120.92 123.22	58.00 55.47	New Ireland Region 5.17 S 153.32 E, H = 18 27 44.0, MB = 5.6 /ISC/ DEPTH = 32 km, MB = 5.6 /ISC/.
421	14	BRA	EPKIKP E	20 43 53.0 20 44 16.0	4.0								123.75	55.92	New Ireland Region 5.83 S 153.30 E, H = 20 24 54.8, MB = 4.7 /ISC/ DEPTH = 36 km, MB = 4.7 /ISC/.
22	14	BRA	E	22 07 29.0									5.76	237.11	Northern Italy 44.83 N 10.30 E, H = 22 05 37.6, /ISC/ DEPTH = 0 km
423	15	BRA	+IPN IPG I ISN ISG LMH EPN LMH IP	01 34 50.0 01 35 18.0 01 35 27.0 01 36 03.0 01 36 35.0 01 39 00.0 01 34 59.0 01 38 00.0 01 35 26.0	-1.9 -0.2 2.9 0.9 0.3 2.5								5.80	236.76	Northern Italy 44.78 N 10.29 E, H = 01 33 22.5, MB = 4.8 /ISC/ DEPTH = 7 km, MB = 4.8 /ISC/.
424	15	BRA	E	06 19 47.0									22.63	131.36	Turkey 31.20 N 36.80 E, H = 06 15 31.3, MB = 4.6 /ISC/ DEPTH = 34 km, MB = 4.6 /ISC/.
425	15	BRA	E	07 35 17.0 07 37 20.0									5.92	234.15	Northern Italy 44.50 N 10.40 E, H = 07 33 24.0, /ISC/ DEPTH = 0 km
426	15	BRA	EPKIKP	14 15 49.0	2.2								123.10	55.40	New Ireland Region 5.04 S 153.30 E, H = 13 56 51.0, MB = 5.0 /ISC/ DEPTH = 18 km, MB = 5.0 /ISC/.
427	15	BRA	E	15 45 23.0									5.64	234.55	Northern Italy 44.71 N 10.66 E, H = 15 43 30.4, /ISC/ DEPTH = 0 km
428	15	BRA	EP E LMH	18 50 35.0 18 52 23.0 18 53 44.0	-0.3								5.77	237.68	Northern Italy 44.87 N 10.24 E, H = 18 49 09.8, /ISC/ DEPTH = 36 km
429	16	BRA	EPKIKP	08 06 35.0	2.7								123.71	55.87	New Ireland Region 5.77 S 153.31 E, H = 07 47 37.9, MB = 5.1 /ISC/ DEPTH = 34 km, MB = 5.1 /ISC/.
430	16	SPC BRA	IP +EP EAP	22 27 42.0 22 27 56.0 22 28 03.0	0.1 2.7 7.0								78.76 80.88	41.54 39.36	Off East Coast of Honshu 39.15 N 143.47 E, H = 22 15 37.3, MB = 5.2 /ISC/ DEPTH = 9 km, MB = 5.2 /ISC/.
431	17	SPC SRO BRA	IP EP I +IP IS	05 44 09.0 05 44 13.0 05 54 43.0 05 44 19.0 05 53 57.0	0.9 -1.4 -0.1 5.5								74.56 75.69	97.28 95.44	Nicobar Islands Region 6.98 N 94.65 E, H = 05 32 43.4, MB = 5.6 /ISC/ DEPTH = 144 km, MB = 5.6 /ISC/.
432	17	SPC BRA	IP I EP EAP	15 11 00.0 15 11 14.0 15 11 11.0 15 11 26.0	3.7 -0.2 0.6								59.55 61.74	83.92 81.15	Eastern India 26.41 N 93.15 E, H = 15 00 55.8, MB = 5.4 /ISC/ DEPTH = 52 km, MB = 5.4 /ISC/.
433	18	BRA	E E	05 31 23.0 05 32 47.0									5.79	236.19	Northern Italy 44.74 N 10.35 E, H = 05 29 29.3, /ISC/ DEPTH = 0 km



No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		s	A	T	A	T	A					
434	18	SPC	IPKIKP	14 50	10.0	5.5							6.5	120.66	57.80	New Ireland Region 4.96 S 153.32 E, H = 14 31 17.8, DEPTH = 48 km, MB = 5.8 /ISC/.	
		SRO	EPP	14 50	19.0									122.49	56.64		
		BRA	+IPKIKP	14 51	53.0									122.96	55.26		
435	18	BRA	+EP	16 20	03.0	0.0								6.88	107.36	Romania 45.72 N 26.50 E, H = 16 18 23.5, DEPTH = 145 km, MB = 4.5 /ISC/.	
		BRA	E	16 21	26.0												
		BRA	LMH	16 23	30.0												
436	19	SPC	IPKIKP	00 33	40.0	4.7							6.3	121.69	57.93	New Ireland Region 5.78 S 153.80 E, H = 00 14 45.2, DEPTH = 37 km, ME = 5.9 /ISC/.	
		SRO	I	00 35	30.0									123.51	56.79		
		BRA	IPKIKP	00 33	38.0									123.99	55.39		
437	19	BRA	EPKIKP	15 07	22.0	1.6								117.92	63.60	Near North Coast of New Guinea 4.90 S 144.52 E, H = 14 48 42.4, DEPTH = 75 km, MB = 5.6 /ISC/.	
		SRO	E	15 57	22.0												
		BRA	IPKIKP	15 58	15.0												
438	19	BRA	EPKIKP	15 56	42.0	4.0							6.3	121.94	58.38	New Britain Region 5.50 S 150.56 E, H = 15 37 42.0, DEPTH = 3 km, MB = 5.3 /ISC/.	
		SRO	IPP	15 58	21.0												
		BRA	ESKSAB	16 03	27.0												
439	19	BRA	E	22 01	15.0									6.01	238.56	Northern Italy 44.80 N 9.90 E, H = 21 58 12.0, DEPTH = 0 km /ISC/.	
		BRA	E	22 01	15.0												
440	20	SPC	EPKP2	10 11	23.0	-0.4								146.58	22.50	Tonga Region 17.33 S 172.50 W, H = 09 51 42.2, DEPTH = 33 km, MB = 4.7 /ISC/.	
		BRA	EPKP2	10 11	26.0									148.25	17.63		

441	20	SPC	IP	10 46	48.0	3.3								84.95	72.54	Luzon 15 32 N 120.26 E, H = 10 34 11.7, MB = 5.4 /ISC/.	
		BRA	-EP	10 46	56.0									87.25	70.17		
442	20	SRO	E	17 41	12.0												No determination of epicentre
		BRA	E	17 11	36.0												
		BRA	E	17 42	51.0												
		BRA	E	17 43	00.0												
443	20	SPC	IPKP2	17 53	58.0	1.2								145.23	40.07	South of Fiji 19.61 S 177.33 E, H = 17 34 20.0 DEPTH = 28 km, MB = 5.5 /ISC/.	
		SRO	EPKIKP	17 54	00.0									147.11	38.44		
		BRA	EPKIKP	17 54	00.0									147.32	36.21		
444	20	BRA	EPKIKP	21 44	50.0	1.3								123.93	55.19	New Ireland Region 5.64 S 153.91 E, H = 21 25 54.9, DEPTH = 42 km, MB = 5.4 /ISC/.	
		BRA	E	21 45	11.0												
		BRA	EPP	21 46	35.0												
445	20	SPC	EPKP2	23 42	45.0	0.8								146.32	23.08	Tonga Region 17.16 S 172.90 W, H = 23 23 04.1, MB = 4.9 /ISC/.	
		BRA	EPKP2	23 42	47.0									148.01	18.27		
		BRA	E	23 43	39.0												
446	21	BRA	E	12 22	42.0	11.9								124.27	55.13	Solomon Islands 5.89 S 154.14 E, H = 12 03 28.3, DEPTH = 42 km, MB = 5.3 /ISC/.	
		BRA	E	12 24	36.0												
		BRA	EPKSDF	12 26	10.0												
447	22	SPC	IP	22 19	29.0	2.1								73.72	46.64	Near South Coast of Honshu 35.48 N 139.01 E, H = 22 07 22.5, DEPTH = 48 km, MB = 5.4 /ISC/.	
		BRA	EP	22 19	38.0									81.92	44.41		
		BRA	EAP	22 19	47.0												
		BRA	E	22 20	32.0												
448	22	BRA	EPKIKP	00 14	18.0	3.7								122.71	55.35	New Ireland Region 4.69 S 153.12 E, H = 23 55 25.4, DEPTH = 62 km, MB = 5.2 /ISC/.	
		BRA	E	00 14	41.0												
449	24	SPC	IP	11 51	00.0	1.2								38.38	84.15	Tadzhikistan-Sinkiang Border Region 39.47 N 73.18 E, H = 11 43 39.3, DEPTH = 36 km, MB = 5.5 /ISC/.	
		SRO	EPP	11 52	29.0									39.83	81.23		
		BRA	EP	11 51	18.0									40.58	80.90		
		BRA	I	11 51	36.0												
450	24	BRA	EPKP2	13 08	58.0	-2.6								148.67	18.16	Tonga Region 17.90 S 172.69 W, H = 12 49 11.5, DEPTH = 36 km, MB = 5.5 /ISC/.	
		SRO	E	13 09	07.0									148.74	20.51		



No.	Date	STA Code	Phase	GMT		RES O-C	Z			E-W			N-S			MPV	MLH	Delta	Azimuth	Remarks
				h	m		s	A	T	A	T	A	T	A	T					
451	24	BRA	EP	20	37	31.0	1.8									30.29	154.92	Atlantic Indian Ridge 37.73 S 49.45 E, H = 20 24 30.4, DEPTH = 33 km, MB = 4.7 /ISC/.		
452	25	SPC ERA	EP EP	03	56	34.0 47.0	-0.7 2.2									73.26 75.02	24.04 22.12	Off East Coast of Kamchatka 52.48 N 160.62 E, H = 03 45 04.0, DEPTH = 27 km, MB = 4.9 /ISC/.		
453	25	SPC SRO BRA	IP EP EP E	13	04	41.0 42.0 50.0 03.0 27.0 39.0 00.0	4.5 -2.3 2.7 -2.4				12.0	18.0	46.0	18.0	7.0	89.30 90.96 91.60	71.81 70.37 69.46	Luzon 12.44 N 123.71 E, H = 12 51 43.5, DEPTH = 42 km, MB = 5.7 /ISC/.		
454	25	ERA	EP	15	46	01.0	1.5									78.08	14.98	Near Islands 52.02 N 172.95 E, H = 15 34 00.0, DEPTH = 18 km, MB = 4.8 /ISC/.		
455	25	SPC BRA SRO	IP I E +IP I I ISKSAB EP	15	53	13.0 03.0 39.0 20.4 20.0 22.0 17.0 20.0	2.9 1.6 -7.9 0.5									76.43 77.93 78.12	16.86 14.90 15.61	Near Islands 52.13 N 173.03 E, H = 15 41 22.5, DEPTH = 36 km, MB = 5.8 /ISC/.		
456	25	BRA	EPKIKP	17	03	35.0	6.4								123.38	56.03	New Ireland Region 5.57 S 153.02 E, H = 16 44 35.0, DEPTH = 35 km, MB = 4.3 /ISC/.			
457	25	BRA	EP E	21	01	49.0 13.0	-3.1								78.14	14.91	Near Islands 51.98 N 173.08 E, H = 20 49 52.0, DEPTH = 16 km, MB = 4.8 /ISC/.			
458	25	BRA	EPKIKP	22	43	24.0	3.9								123.49	55.32	New Ireland Region 5.33 S 153.57 E, H = 22 24 27.3, DEPTH = 43 km, MB = 4.9 /ISC/.			

459	25	BRA	EP	23	59	18.0	4.2								78.28	14.88	Near Islands 51.85 N 173.19 E, H = 23 47 15.9, DEPTH = 36 km, MB = 4.7 /ISC/.
460	26	SPC SRO HRB	E IPKIKP E EPKIKP E EPP EPS LMH	01	38	42.0 13.0 48.0 13.0 40.0 55.0 50.0 00.0 48.0 15.0 15.0 30.0 00.0	4.5 1.0 1.4 5.2 2.1 -3.8			117.9	22.0	304.1	22.0	7.9	120.64 122.47 122.50	57.98 56.82 56.67	New Ireland Region 4.93 S 153.18 E, H = 01 23 21.2, DEPTH = 43 km, MB = 6.6 /ISC/.
461	26	BRA	IPKIKP	04	38	11.0	2.6								123.17	56.15	New Britain Region 5.45 S 152.82 E, H = 04 19 09.5, DEPTH = 0 km, MB = 5.7 /ISC/.
462	26	BRA	IPKIKP	06	47	32.0	0.4								149.34	29.18	Fiji Region 20.06 S 178.23 W, H = 06 28 52.8, DEPTH = 588 km, MB = 4.9 /ISC/.
463	26	BRA	EPKIKP	07	18	29.0	7.2								122.85	56.79	New Britain Region 5.48 S 152.19 E, H = 06 59 27.0, DEPTH = 21 km, MB = 5.7 /ISC/.
464	26	BRA	EPKIKP	12	23	55.0	4.1								122.55	57.38	New Britain Region 5.52 S 151.61 E, H = 12 05 05.8, DEPTH = 90 km, MB = 5.6 /ISC/.
465	26	BRA	EPKIKP E E	15	08	36.0 27.0 36.0	-0.7								122.83	55.18	New Ireland Region 4.71 S 153.31 E, H = 14 49 45.2, DEPTH = 43 km, MB = 4.8 /ISC/.
466	26	SPC SRO BRA	IPKIKP IPP EPKIKP LMH EPKIKP EPP E	15	54	30.0 59.0 34.0 30.0 33.0 11.0 36.0	3.5 2.0 4.0 2.0 -2.2			5.2	20.0	3.1	20.0	6.2	120.31 122.11 122.61	60.10 58.93 57.63	New Britain Region 5.69 S 151.47 E, H = 15 35 41.0, DEPTH = 2 km, MB = 5.5 /ISC/.

No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
467	26	BRA	EPKIKP E	17 03	55.0	2.6								122.87	57.79	New Britain Region 5.98 S 151.51 E, H = 16 45 02.2, DEPTH = 54 km, MB = 5.6 /ISC/.	
468	26	BRA	EPKIKP E	17 34	36.0	-3.0								123.20	56.84	New Britain Region 5.80 S 152.35 E, H = 17 15 46.1, DEPTH = 38 km, MB = 5.2 /ISC/.	
469	26	BRA	EPKIKP	18 08	56.0	2.4								123.17	55.62	New Ireland Region 5.20 S 153.19 E, H = 17 49 59.0, DEPTH = 26 km, MB = 5.3 /ISC/.	
470	26	SPC	IPKIKP I EPP EPKIKP EPKIKP E EPP	19 34	23.0	4.0								120.35	60.37	New Britain Region 5.86 S 151.31 E, H = 19 15 33.0, DEPTH = 49 km, MB = 6.1 /ISC/.	
471	26	BRA	EP	23 20	55.0	1.0								82.05	43.39	Near East Coast of Honshu 35.96 N 140.12 E, H = 23 08 41.0, DEPTH = 79 km, MB = 4.9 /ISC/.	
472	27	BRA	EPKIKP	00 41	19.0	1.0								122.85	56.62	New Britain Region 5.40 S 152.31 E, H = 00 22 25.2, DEPTH = 33 km, MB = 5.3 /ISC/.	
473	27	BRA	+IP I IPP I LMH EP E LMH	02 15	58.0	0.0	750	1.5						95.04	271.45	Peru-Ecuador Border Region 2.79 S 77.35 W, H = 02 02 44.0, DEPTH = 88 km, MB = 6.4 /ISC/.	
474	27	BRA	EPKIKP	07 54	36.0	2.7								122.85	57.60	New Britain Region 5.87 S 151.62 E, H = 07 35 41.5, DEPTH = 41 km, MB = 5.5 /ISC/.	

475	27	BRA	EPKIKP	13 50	37.0	-3.3								123.05	55.92	New Britain Region 5.24 S 152.31 E, H = 13 31 50.0, DEPTH = 56 km, MB = 4.7 /ISC/.
476	27	BRA	EPKIKP E	14 21	23.0	3.2								123.01	56.20	New Britain Region 5.34 S 152.69 E, H = 14 02 25.0, DEPTH = 23 km, MB = 4.7 /ISC/.
477	27	SPC SRO BRA	IP E ES LMH +EP E	14 36	45.0	1.9								70.36 71.63	91.68 89.76	Andaman Islands Region 13.71 N 95.87 E, H = 14 25 30.0, DEPTH = 29 km, MB = 5.3 /ISC/.
478	27	BRA	EPKIKP	18 27	33.0	1.5								122.63	57.58	New Britain Region 5.68 S 151.51 E, H = 18 08 42.1, DEPTH = 57 km, MB = 5.3 /ISC/.
479	27	SPC SRO BRA	IPKIKP EPP E EPS LMH EPKIKP E EPP E LMH	21 06	50.0	4.8								120.68	58.47	New Britain Region 5.20 S 152.85 E, H = 20 47 57.5, DEPTH = 41 km, MB = 5.5 /ISC/.
480	27	BRA	EPKIKP	23 54	16.0	2.4								122.78	58.42	New Britain Region 6.21 S 151.02 E, H = 23 35 22.9, DEPTH = 49 km, MB = 5.3 /ISC/.
481	28	SPC SRO BRA	IPKIKP EPKIKP E LMH +EPKIKP E E LMH	01 29	17.0	3.8								120.64 122.46	58.41 57.27	New Britain Region 5.14 S 152.87 E, H = 01 10 23.1, DEPTH = 24 km, MB = 5.8 /ISC/.
482	28	BRA	EPKHKP	06 02	24.0	5.1								149.68	28.77	Fiji Region 20.21 S 177.99 W, H = 05 41 33.9, DEPTH = 523 km, MB = 4.6 /ISC/.

No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
483	28	BRA E	E	08	08 56.0									122.94	55.75	New Britain Region 5.07 S 152.97 E, H = 07 48 20.8, DEPTH = 52 km, MB = 5.0 /ISC/.	
484	28	BRA	EPKIKP	10	09 00.0	-2.8								121.83	56.72	New Britain Region 4.60 S 151.66 E, H = 09 50 11.9, DEPTH = 33 km, MB = 4.6 /ISC/.	
485	28	SPC	IPN EPG LMH LMH	20 22 34.0 20 22 56.0 20 23 30.0 20 23 30.0	-0.8 20.0									1.41	321.75	Poland 50.29 N 18.88 E, H = 20 22 07.8, DEPTH = 0 km, MB = 3.1 /WAR/.	
486	29	BRA	LMH	01	10 30.0									2.42	28.05		
487	29	BRA E	E	09 04 12.0 09 05 08.0										6.30	237.14	Italy 44.50 N 9.70 E, H = 01 07 48.0.	
488	29	BRA EP SRO LMH	EP LMH	10 27 24.0 10 29 07.0 10 29 40.0	1.4									123.12	56.01	New Britain Region 5.34 S 152.88 E, H = 08 42 57.0, DEPTH = 20 km, MB = 4.2 /ISC/.	
489	29	BRA E	E	10 39 27.0										5.83	236.01	Northern Italy 44.70 N 10.32 E, H = 10 25 56.4, DEPTH = 42 km /ISC/.	
490	29	BRA +IP SRO EP	IP IPCP EPP EP	22 30 18.0 22 30 23.0 22 33 11.0 22 30 20.0	1.0 -4.0 0.1 2.3									123.44	55.96	New Ireland Region 5.59 S 153.10 E, H = 10 27.36.0, DEPTH = 19 km /ISC/.	
491	30	SIC BEA EPP	IP EP EPP	00 19 11.0 00 19 19.0 00 22 05.0	0.5 -0.1 -11.4									78.12	14.73	Near Islands 52.05 N 173.34 E, H = 22 18 15.0, DEPTH = 3 km, MB = 5.6 /ISC/.	
492	30	BRA	ESG	08 31 23.0	9.9									3.03	335.22	Czechoslovakia [Explosion of 6.5 tons] 50.90 N 15.10 E, H = 08 29 33.0, DEPTH = 0 km /PRU/.	
493	30	BRA	EPKIKP	13 42 52.0	1.1									122.89	57.81	New Britain Region 6.01 S 151.50 E, H = 13 23 58.0, DEPTH = 33 km, MB = 5.5 /ISC/.	
494	30	BRA E	E	21 04 45.0										122.98	56.32	New Britain Region 5.37 S 152.59 E, H = 20 46 59.0, DEPTH = 36 km, MB = 5.5 /ISC/.	
495	31	BRA	EPB LMH	02 04 40.0 02 06 30.0	-6.1									5.81	233.23	Northern Italy 44.50 N 10.60 E, H = 02 03 04.0, DEPTH = 0 km /ISC/.	
496	31	BRA E	E	23 35 23.0										123.14	57.41	New Britain Region 6.02 S 151.92 E, H = 23 15 52.3, DEPTH = 40 km, MB = 4.9 /ISC/.	

No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
497	1	SRO BRA	EP +IP E E	02 17 02 17 02 18 02 20	56.0 56.0 11.0 17.0	2.5 2.4								75.95 75.98	25.91 25.24	Kurile Islands 50.32 N 156.92 E, H = 02 06 10.0, DEPTH = 48 km, MB = 5.5 /ISC/.	
498	1	BRA	EP	10 54	07.0	3.2								78.13	131.24	Mid-Indian Rise 16.31 S 67.13 E, H = 10 42 06.7, DEPTH = 36 km, MB = 4.9 /ISC/.	
499	1	BRA	EPKIKP	16 22	16.0	-17.0								123.12	57.92	New Britain Region 6.25 S 151.56 E, H = 16 03 38.0, DEPTH = 23 km, MB = 5.2 /ISC/.	
500	1	BRA	EPKIKP E	22 08 22 09	43.0 04.0	4.4								123.01	56.25	New Britain Region 5.36 S 152.65 E, H = 21 49 46.8, DEPTH = 43 km, MB = 5.0 /ISC/.	
501	2	SRO BRA	EPKIKP E E E	00 38 00 39 00 38 00 39 00 41	48.0 30.0 51.0 19.0 31.0	1.2 3.3								122.58 123.07	57.94 56.56	New Britain Region 5.56 S 152.47 E, H = 00 19 53.0, DEPTH = 24 km, MB = 5.6 /ISC/.	
502	2	BRA	EP E E	04 18 04 20 04 21	19.0 19.0 04.0	4.7								6.18	231.34	Northern Italy 44.10 N 10.40 E, H = 04 16 44.0, DEPTH = 186 km /ISC/.	
503	2	BRA	ESG	05 49	24.0	3.7								5.86	235.51	Northern Italy 44.64 N 10.33 E, H = 05 46 06.6, DEPTH = 0 km /ISC/.	
504	2	SRO HRB BRA	-IP ISKSAB LMH IP ISKSAB LMH -IP I E IS LMH	07 36 07 47 08 11 07 37 07 47 08 11 07 36 07 37 07 46 08 15	55.0 03.0 00.0 00.0 01.0 00.0 58.0 13.0 19.0 52.0 00.0	-0.6 0.5 4.4 -1.5 1.1 1.0	1.8	34.0 2.5 55.0	20.0 22.0 18.0	41.0 3.0 277.0	20.0 22.0 20.0	6.5 6.4 7.6		78.79 78.79 79.01	38.87 38.80 38.14	Hokkaido Region 41.37 N 143.44 E, H = 07 24 56.0, DEPTH = 45 km, MB = 6.5 /ISC/.	

505	2	BRA	EPKIKP	11 47	08.0	2.2								123.21	55.43	New Ireland Region 5.14 S 153.34 E, H = 11 28 14.6, DEPTH = 51 km, MB = 4.6 /ISC/.
506	2	SRO BRA	IP EP EPP	13 12 13 12 13 15	03.0 01.0 04.0	2.0 -1.2 0.7								78.86 79.09	38.85 38.12	Hokkaido Region 41.32 N 143.52 E, H = 13 00 00.0, DEPTH = 37 km, MB = 5.6 /ISC/.
507	3	BRA	EP	21 08	00.0	-3.3								47.41	266.52	North Atlantic Ridge 28.38 N 39.40 W, H = 20 59 30.3, DEPTH = 33 km, MB = 4.7 /ISC/.
508	4	SPC SRO	IP E IP IPP I I IP I IAP	00 31 00 32 00 31 00 32 00 39 00 40 00 31 00 32 00 32	40.0 51.0 52.0 24.0 00.0 44.0 57.0 05.0 48.0	-0.4 0.7 -6.2 -0.8 6.3	2.0 1.5							38.48 39.80 40.59	89.95 86.86 86.44	Hindu Kush Region 36.42 N 70.73 E, H = 00 24 36.9, DEPTH = 207 km, MB = 5.6 /ISC/.
509	4	BRA	E	02 07	08.0									40.63	86.41	Hindu Kush Region 36.42 N 70.78 E, H = 01 59 04.1, DEPTH = 215 km, MB = 4.9 /ISC/.
510	4	BRA	EP	18 36	12.0	0.6								79.57	3.50	Fox Islands 52.53 N 168.54 W, H = 18 24 06.4, DEPTH = 35 km, MB = 4.5 /ISC/.
511	4	BRA	E	19 27	18.0									153.35	136.92	Ballyn Islands Region 62.20 S 156.30 E, H = 19 06 54.0, DEPTH = 37 km, MB = 4.8 /ISC/.



No. Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
			h	m		A	T	A	T	A	T					
512	5 BRA	IP IPCP IPP I I LMH EP ES LMH IP I	02 08 02 09 02 11 02 15 02 17 02 35 02 09 02 17 02 35 02 09 02 09	54.0 42.0 03.0 51.0 24.0 00.0 00.0 03.0 00.0 08.0 17.0	-0.2 0.8 -4.5	410	1.5					6.2		59.47	227.16	Central Mid-Atlantic Ridge 0.85 S 22.07 W, H = 01 58.53.2, MB = 6.0 /ISC/ DEPTH = 43 km,
513	5 BRA	E E	05 07 05 08	46.0 31.0										100.49	82.35	Sulawesi /Celebes/ 2.75 S 119.78 E, H = 04 50 39.0, MB = 5.2 /ISC/ DEPTH = 91 km,
514	5 BRA	EP	13 36	12.0	0.9									72.83	90.45	Andaman Islands Region 12.45 N 95.10 E, H = 13 24 43.9, MB = 4.8 /ISC/ DEPTH = 33 km,
515	5 BRA	EP EPCP E	14 02 14 03 14 04	59.0 11.0 18.0	1.5 1.6									76.47	1.18	Unimak Island Region 55.72 N 164.92 W, H = 13 51 09.3, MB = 5.1 /ISC/ DEPTH = 33 km,
516	5 SPC BRA	EP +IP EPP	22 48 22 48 22 51	28.0 39.0 27.0	3.1 1.8 8.4									70.47 72.51	33.30 90.58	Andaman Islands Region 12.60 N 94.78 E, H = 22 37 10.0, MB = 4.9 /ISC/ DEPTH = 71 km,
517	5 BRA	E	23 17	33.0										2.42	27.67	Poland 50.30 N 18.96 E, H = 23 16 07.8,
518	6 BRA	EPKIKP	15 21	50.0	3.0									123.71	55.73	New Ireland Region 5.70 S 153.41 E, H = 15 02 53.2, /ISC/ DEPTH = 39 km
519	6 SPC SRO BRA	EPKIKP -IPKP2 E -EPMKIP I I	23 11 23 11 23 12 23 11 23 11 23 11	00.0 10.0 27.0 01.0 06.0 30.0	4.1 -3.7 0.6									147.80 149.65 149.74	32.28 30.95 28.54	Fiji Region 20.33 S 177.76 W, H = 22 52 14.7, MB = 5.2 /ISC/ DEPTH = 527 km,

520	7 BRA	EPKIKP I E E	07 12 07 12 07 13 07 15	24.0 33.0 00.0 53.0	-6.2									137.77	46.23	New Hebrides 13.91 S 167.12 E, H = 06 53 27.6, MB = 5.4 /ISC/ DEPTH = 182 km,
521	7 BRA	E E	15 30 15 32	13.0 03.0										121.44	55.88	New Ireland Region 3.87 S 152.04 E, H = 15 02 57.0, /ISC/ DEPTH = 2 km
522	7 SRO BRA	E E E E	17 10 17 14 17 10 17 15	19.0 15.0 31.0 19.0										12.28 13.13	132.47 130.37	Turkey 38.87 N 29.91 E, H = 17 07 25.0, MB = 4.6 /ISC/ DEPTH = 20 km,
523	8 BRA	EP E ES E	19 41 19 43 19 43 19 46	54.0 30.0 56.0 12.0	-2.8 4.1									10.28	159.40	Greece 38.44 N 21.69 E, H = 19 39 28.7, MB = 4.4 /ISC/ DEPTH = 36 km,
524	9 BRA	-EP E E E E	03 00 03 00 03 01 03 08 03 10	32.0 50.0 39.0 21.0 18.0	-2.4									28.73	101.18	Iran 36.27 N 52.81 E, H = 02 54 35.0, MB = 5.2 /ISC/ DEPTH = 12 km,
525	9 BRA	EP	04 44	11.0	2.4									14.09	134.51	Turkey 37.51 N 29.71 E, H = 04 40 46.8, /ISC/ DEPTH = 11 km,
526	9 SPC SRO BRA	EPKIKP E E E IPKIKP E EPP LMH	12 30 12 30 12 32 12 30 12 31 12 32 13 19	52.0 58.0 57.0 53.0 34.0 40.0 00.0	2.6 5.0 -0.9 -4.6									122.05 123.88 124.35	57.50 56.35 54.95	Solomon Islands 5.88 S 154.31 E, H = 12 12 01.5, MB = 5.9 /ISC/ DEPTH = 60 km,
527	9 SRO BRA	EPKIKP E E E LMH EPKIKP E E E	20 20 20 22 20 25 20 34 21 14 20 20 20 20 20 21 20 23	37.0 13.0 05.0 37.0 00.0 37.0 46.0 10.0 19.0	-5.5 -6.2									127.88 128.23	48.11 46.58	New Britain Region 5.68 S 162.12 E, H = 20 01 37.0, MB = 5.7 /ISC/ DEPTH = 15 km,





No.	Date	STA Code	Phase	GMT			RES O-C	Z			E-W			N-S			MPV	MLH	Delta	Azimuth	Remarks
				h	m	s		A	T		A	T		A	T						
528	10	SPC SRO	IPKIKP IPKIKP EPP LMH	14 56 48.0 14 56 47.0 14 58 33.0 15 51 00.0		4.0 -0.4 2.9														New Ireland Region 5.39 S 153.49 E, H = 14 37 53.0, MB = 5.2 /ISC/.	
		BRA	E E EPP EPPSDF	14 56 51.0 14 57 11.0 14 58 42.0 15 00 24.0		2.6 8.5 0.1															
529	11	SPC SRO	EPKIKP IPKIKP E	00 19 57.0 00 19 57.0 00 21 09.0		2.4 -0.9														Fiji Region 18.56 S 176.08 E, H = 00 00 23.0, MB = 5.5 /ISC/.	
		BRA	-IPKIKP I E EPP	00 19 59.0 00 19 11.0 00 20 23.0 00 23 29.0		0.7 4.7															
530	11	BRA	BP E	05 06 54.0 05 07 23.0		-13.9														Molucca Passage 1.13 N 126.16 E, H = 04 53 19.0, MB = 5.4 /ISC/.	
531	11	BRA	IP E E	05 40 21.0 05 41 10.0 05 44 49.0		-0.3														Southern Greece 36.81 N 23.96 E, H = 05 37 27.3, MB = 5.0 /ISC/.	
532	11	BRA	E	13 24 46.0																South of Honshu 32.14 N 137.94 E, H = 13 14 16.3, MB = 5.2 /ISC/.	
533	11	SRO	IPKHKP	14 43 21.0		1.4														Ballynny Islands Region 62.66 S 155.80 E, H = 14 23 35.0, MB = 5.1 /ISC/.	
		SPC	EPKIKP	14 43 16.0		-0.4															
		BRA	IPKHKP	14 43 20.0		-1.7															
		BRA	IAPKIKP EPP	14 43 52.0 14 47 22.0		6.3 8.9															
534	11	SRO SPC BRA	IPKHKP IPKP2 IPKHKP E	17 57 13.0 17 57 30.0 17 57 18.0 17 58 10.0		-1.2 0.0 1.7															Ballynny Islands Region 62.57 S 155.50 E, H = 17 37 21.0, MB = 5.1 /ISC/.

No.	Date	STA Code	Phase	GMT			RES O-C	Z			E-W			N-S			MPV	MLH	Delta	Azimuth	Remarks	
				h	m	s		A	T		A	T		A	T							
535	12	SPC SRO	IP EP E	04 28 20.0 04 28 27.0 04 29 18.0		0.3 -0.1															Ardemen Islands Region 12.50 N 95.08 E, H = 04 17 03.0, MB = 5.3 /ISC/.	
		BRA	IP E EPP	04 28 31.0 04 29 28.0 04 31 22.0		-1.0 7.9																
536	12	BRA	IP EPP	14 34 07.0 14 38 00.0		0.6 1.4															Off Coast of Jalisco, Mexico 19.62 N 106.04 W, H = 14 20 42.0, MB = 5.5 /ISC/.	
537	13	BRA	IPKIKP EPKP2 E	15 02 45.0 15 03 30.0 15 07 21.0		4.3 2.3															South Island, New Zealand 42.15 S 172.22 E, H = 14 42 41.4, MB = 5.5 /ISC/.	
538	13	SPC SRO	EPKIKP EPKIKP EPP E E LMH	17 07 44.0 17 07 50.0 17 09 30.0 17 16 26.0 17 26 22.0 17 59 00.0		4.3 6.7 -2.0															Solomon Islands 6.15 S 154.12 E, H = 16 48 48.0, MB = 5.5 /ISC/.	
		BRA	IPKIKP E EPP E	17 07 51.0 17 08 33.0 17 09 36.0 17 11 21.0		6.8 1.2																
539	14	SPC SRO	EPKIKP EPKIKP E E E LMH	00 34 29.0 00 35 00.0 00 34 30.0 00 38 00.0 00 38 50.0 00 35 13.0 00 37 51.0		3.5 1.0 -5.6																New Hebrides 14.82 S 167.18 E, H = 00 15 18.1, MB = 5.5 /ISC/.
		BRA	EPKIKP E E E E E E	00 34 24.0 00 35 13.0 00 37 51.0																		
540	14	SPC SRO	EPKIKP IPKP2 E E E LMH	09 21 07.0 09 22 27.0 09 21 10.0 09 22 42.0 09 39 30.0 09 43 58.0 10 48 00.0		3.9 2.1																Fiji Region 15.69 S 178.33 W, H = 09 01 33.0, MB = 5.3 /ISC/.
		BRA	EPKP2 E E E E E E LMH	09 21 09.0 09 22 45.0 09 24 17.0 10 31 00.0		0.9																

No.	Date	STA Code	Phase	GMT		RES O-C	Z			E-W			N-S			MPV	MLH	Delta	Azimuth	Remarks
				h	m		s	A	T	A	T	A	T	A	T					
541	14	SRO BRA	EPKIP EPKP2 E	11 43 11 43 11 43	04.0 05.0 15.0	0.7 -0.1										145.12 145.18	28.92 26.75	Fiji Region 15.68 S 178.37 W, H = 11 23 29.0, DEPTH = 31 km, MB = 5.0 /ISC/.		
542	15	SPC BRA	IP IP	12 26 12 26	45.0 55.0	1.5 -0.5										80.90 83.22	67.20 64.84	Taiwan Region 21.87 N 121.73 E, H = 12 14 29, DEPTH = 19 km, MB = 5.0 /ISC/.		
543	15	SRO BRA	IPKP2 +IPKP2 E	15 12 15 12 15 12	34.0 34.0 40.0	0.3 0.2										145.00 145.03	26.46 24.30	Fiji Region 15.11 S 177.03 W, H = 14 53 05.7, MB = 4.9 /ISC/.		
544	15	BRA	E	19 23	46.0											102.61	253.13	Chile-Bolivia Border Region 20.72 S 68.96 W, H = 19 05 45.1, DEPTH = 74 km, MB = 5.2 /ISC/.		
545	16	SPC SRO	IP EP ES	05 08 05 08 05 17	40.0 50.0 38.0	3.2 2.9 5.3										64.65 66.27	74.60 72.72	Szechwan Province 28.89 N 103.71 E, H = 04 58 00.0, MB = 5.5 /ISC/.		
546	16	SPC BRA	E I E	05 39 05 39 05 39	03.0 13.0 22.0											80.84 83.15	67.19 64.82	Taiwan Region 21.93 N 121.70 E, H = 03 26 44.4, DEPTH = 23 km, MB = 5.1 /ISC/.		
547	16	BRA	EAPKIP	08 21	47.0	-8.3										144.58	24.42	Fiji Region 14.70 S 177.23 W, H = 08 02 06.1, DEPTH = 33 km, MB = 4.6 /ISC/.		
548	16	SPC BRA	IP I EP E	15 51 15 53 15 51 15 53	25.0 16.0 34.0 25.0	1.8 -0.8										77.60 79.70	40.25 38.10	Off East Coast of Honshu 40.82 N 143.99 E, H = 15 39 26.6, DEPTH = 19 km, MB = 4.9 /ISC/.		
549	16	SPC SRO BRA	IP EP EPP E	19 04 19 04 19 04 19 07	35.0 43.0 46.0 13.0	3.1 0.7 -0.5 -3.2										64.61 66.23 66.89	74.62 72.74 72.10	Szechwan Province 28.90 N 103.66 E, H = 18 53 59.0, MB = 5.3 /ISC/.		

550	16	SPC BRA	IP EP	22 48 22 48	13.0 25.0	3.0 0.5										64.66 66.95	74.72 72.19	Szechwan Province 28.80 N 103.64 E, H = 22 37 32.0, MB = 5.3 /ISC/.
551	17	SPC SRO BRA	EP EP EP E EPP E	04 33 04 33 04 33 04 33 04 34 04 35	32.0 35.0 44.0 46.0 01.0 37.0	1.6 1.5 -0.5 1.3										17.03 17.29 18.16	129.06 121.57 120.32	Turkey 37.03 N 36.77 E, H = 04 29 33.4, DEPTH = 35 km, MB = 5.0 /ISC/.
552	17	BRA	BP	17 18	31.0	-1.1										66.94	72.19	Szechwan Province 28.81 N 103.63 E, H = 17 07 47.0, MB = 4.7 /ISC/.
553	17	SPC BRA	IPKP2 -IPKP2 I	00 06 00 06 00 06	11.0 16.0 52.0	0.5 -0.9										144.66 146.36	23.15 18.49	North Of New Zealand 15.57 S 173.40 W, H = 23 46 46.0, DEPTH = 110 km, MB = 5.3 /ISC/.
554	19	BRA	E E E	01 31 01 31 01 31	32.0 43.0 52.0													No determination of epicentre
555	19	SRO BRA	E LMH FP E	08 41 09 15 08 41 08 41	27.0 00.0 16.0 49.0	3.5	4.3	20.0	6.2	20.0	6.0					81.18 81.75	64.09 63.30	Taiwan Region 23.99 N 121.95 E, H = 08 28 54.0, MB = 5.4 /ISC/.
556	19	SPC BRA	IP IP EAP	11 24 11 25 11 25	50.0 03.0 15.0	-5.7 -4.7 3.9										80.83 83.15	67.22 64.86	Taiwan Region 21.91 N 121.67 E, H = 11 12 40.3, DEPTH = 11 km, MB = 4.9 /ISC/.
557	19	SRO BRA	+IP I ES LMH +IP IAP IAP I ES LMH	22 27 22 28 22 32 22 37 22 37 22 37 22 27 22 27 22 28 22 37	27.0 39.0 07.0 07.0 00.0 26.0 32.0 29.0 17.0 12.0 00.0	0.7 -1.1 -0.6 -4.3 -7.3	600	2.0	11.2	20.0	18.5	20.0	6.4	6.6	6.9	76.43 76.48	27.25 26.57	Kurile Islands 49.29 N 153.49 E, H = 22 15 38.2, DEPTH = 32 km, MB = 6.1 /ISC/.

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No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
558	20	BRA	EPKIKP	02	16 08.0	-7.7								151.04	22.33	North of New Zealand 20.62 S 174.22 W, H = 01 56 43.8, DEPTH = 119 km, MB = 5.0 /ISC/.	
559	20	BRA	E	19	14 52.0									67.98	353.60	Central Alaska 63.70 N 149.48 W, H = 13 00 05.0, DEPTH = 33 km /ISC/.	
560	20	BRA	-EP E E E	21 49 21.0 21 49 29.0 21 49 35.0 22 00 29.0		1.1	150	1.5				6.2		92.75	293.27	Off Coast of Chiapas, Mexico 13.30 N 92.41 W, H = 21 36 06.0, DEPTH = 9 km, MB = 5.8 /ISC/.	
		SRO	IP	21 49 27.0		3.0			3.0	20.0	2.0	20.0	5.8	93.63	294.17		
		SPC	ESKSAB LMH IP	22 28 00.0 22 28 00.0 21 49 30.0		3.3								94.22	295.73		
561	21	BRA	EPKP2 E EPP	16 28 06.0 16 28 12.0 16 31 27.0		1.9							145.48	41.62	19.30 S 173.62 E, H = 16 08 23.8, DEPTH = 46 km, MB = 5.2 /ISC/.		
562	21	BRA	EP	17 14 54.0		-1.2							32.88	277.15	Azores Region 42.19 N 29.35 W, H = 17 08 22.3, DEPTH = 35 km, MB = 4.8 /ISC/.		
563	21	BRA	+IP E	22 55 34.0 22 56 01.0		-0.8							77.85	359.73	Alaska Peninsula 54.36 N 162.45 W, H = 22 43 38.9, DEPTH = 33 km, MB = 5.2 /ISC/.		
564	22	BRA	EP	11 14 20.0		1.8							35.61	355.19	North of Svalbard 82.96 N 6.20 W, H = 11 07 21.8, DEPTH = 33 km, MB = 4.5 /ISC/.		
565	22	BRA	BP	18 00 26.0		-9.1							31.40	112.83	Iran 30.08 N 50.75 E, H = 17 54 16.7, DEPTH = 51 km, MB = 4.9 /ISC/.		

566	23	SPC SRO	IPKIKP EPKIKP EPP EPS E LMH	04 26 51.0 04 26 39.0 04 28 16.0 04 37 48.0 04 39 00.0 05 08 00.0		7.9 -7.4 17.7 9.7								115.78 117.54	64.07 62.96	Near North Coast of New Guinea 4.03 S 145.97 E, H = 04 07 58.5, DEPTH = 0 km, MB = 5.5 /ISC/.
		BRA	EPKIKP E E E LMH	04 26 55.0 04 27 22.0 04 28 32.0 04 30 38.0 05 10 00.0		7.5		8.4	20.0	12.4	20.0	6.6	118.09	61.70		
567	23	BRA	EPKHKP	15 59 28.0		5.2		7.0	15.0	27.0	15.0	7.0	150.05	30.25	Fiji Region 20.92 S 178.50 W, H = 15 40 44.5, DEPTH = 614 km, MB = 5.0 /ISC/.	
568	23	BRA	E	18 47 53.0									97.10	95.85	South of Java 9.24 S 107.54 E, H = 18 27 33.3, DEPTH = 33 km /ISC/.	
569	23	SRO	+IP E E LMH +IP EAP E E LMH	22 07 16.0 22 08 28.0 22 17 36.0 22 45 00.0 22 07 14.0 22 07 29.0 22 07 40.0 22 08 34.0 22 50 00.0		0.8 -1.9 1.9		3.0	20.0	5.0	20.0	5.9	78.18 78.31	31.88 31.17	Kurile Islands 45.55 N 150.95 E, H = 21 55 18.1, DEPTH = 38 km, MB = 5.7 /ISC/.	
570	24	BRA	EPKIKP	13 48 08.0		1.5		11.0	18.0	20.0	18.0	6.5	123.31	56.12	Britain Region 5.55 S 152.91 E, H = 13 29 12.0, DEPTH = 28 km, MB = 5.1 /ISC/.	
571	24	SRO	EP E LMH	16 41 48.0 16 54 52.0 17 02 00.0		6.4							45.44	55.85	Central Russia 52.18 N 91.56 E, H = 16 33 21.0, DEPTH = 12 km, MB = 5.4 /ISC/.	
		BRA	-EP EPP LMH	16 41 47.0 16 43 32.0 17 02 00.0		1.7 1.9	120	1.2	3.9	16.0	5.3	16.0	5.8	45.91	55.69	
		BRA	EP	09 11 08.0		-1.6			2.8	9.0	2.8	9.0		19.74	110.81	Turkey 33.42 N 40.81 E, H = 09 06 40.6, DEPTH = 41 km /ISC/.

No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
573	26	BRA	EP	02	59	14.0	-0.1							72.65	279.29	Mona Passage 19.07 N 67.73 W, H = 02 47 48.6, DEPTH = 38 km, MB = 4.8 /ISC/.	
574	26	BRA	LMH	11	59	21.0								6.48	237.23	Northern Italy 44.40 N 9.50 E, H = 11 55 52.0, DEPTH = 33 km /ISC/.	
575	26	SRO ERA	EPKIKP EPKIKP E	17 53 17 53 17 53	16.0 20.0 44.0	-3.1 0.2								143.30 143.69	51.23 49.27	New Hebrides 20.00 S 168.61 E, H = 17 33 48.0, DEPTH = 31 km, MB = 5.0 /ISC/.	
576	28	BRA	EPKIKP	03 24	24.0	4.9								150.19	30.40	Fiji Region 21.08 S 178.52 W, H = 03 05 23.5, DEPTH = 443 km, MB = 4.9 /ISC/.	
577	28	BRA	-IPKIKP IPKP2 I IPP IPKP2 E	04 28 04 28 04 29 04 32 04 28 04 29	36.0 40.0 21.0 15.0 40.0 24.0	2.5 -4.8 1.7 -4.8								149.20 149.20	22.04 24.42	North of New Zealand 18.80 S 174.60 W, H = 04 09 04.1, DEPTH = 123 km, MB = 5.5 /ISC/.	
578	28	SRO BRA	E -IP IAP E	16 10 16 10 16 10 16 11	37.0 14.0 22.0 14.0	0.4 3.0								83.05 83.51	55.25 54.45	Ryukyu Islands 28.24 N 130.73 E, H = 15 57 45.4, DEPTH = 18 km, MB = 5.5 /ISC/.	
579	29	BRA	EP E	03 48 03 49	49.0 13.0	0.0								98.59	70.52	Philippine Islands 6.34 N 127.41 E, H = 03 35 15.3, DEPTH = 58 km, MB = 5.4 /ISC/.	
580	29	BRA SRO	E E	11 02 11 02	55.0 02.0									26.68 27.39	330.14 330.00	Iceland Region 67.72 N 18.79 W, H = 10 56 16.9, DEPTH = 33 km, MB = 5.0 /ISC/.	
581	30	BRA E E	E E E	23 15 23 15 23 15	05.0 21.0 28.0											No determination of epicentre	

582	31	BRA	EPKIKP EPKP2	21 33 21 33	05.0 27.0	-0.8 4.5								151.43	21.52	North of New Zealand 20.90 S 173.71 W, H = 21 13 21.6, DEPTH = 33 km, MB = 5.0 /ISC/.
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No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
583	1	BRA	EPKIKP IAPKIKP	20 36	34.0	1.1 -8.6								123.30	56.20	New Britain Region 5.58 S 152.85 E, H = 20 17 33.0, MB = 5.2 /ISC/.	
584	1	BRA	EPKIKP	23 05	36.0	2.7								123.34	56.25	New Britain Region 2.64 S 152.34 E, H = 22 46 39.8, MB = 4.8 /ISC/.	
585	2	SPC SRO BRA	IP IP +IP	18 30 18 31 18 31	55.0 01.0 05.0	1.1 2.1 -1.7								29.98 30.53 31.42	118.13 113.61 112.72	Iran 30.11 N 50.81 E, H = 18 24 46.0, MB = 5.1 /ISC/.	
586	2	SPC SRO	IPKHKP EPKHKP EPKP2 E -IPKIKP IPKP2	00 07 00 07 00 08 00 08 00 07 00 08	42.0 45.0 05.0 23.0 41.0 04.0	0.0 -1.7 -0.6 0.0 -1.9								152.46 154.29	31.39 29.12	Tonga 24.36 S 175.07 W, H = 23 47 49.0, MB = 5.7 /ISC/.	
587	3	SPC BRA SRO	IPKP2 EPKIKP IPKP2	23 48 23 48 23 48	27.0 28.0 31.0	1.8 0.2 -0.7								144.39 146.05 146.13	21.81 17.13 19.33	Samoa Region 15.10 S 172.70 W, H = 23 28 54.0, MB = 4.9 /ISC/.	
588	4	SPC BRA SRO	IP +IP +IP I	16 05 16 05 16 05 16 06	00.0 08.0 12.0 12.0	-3.5 -1.4 0.7								76.20 77.27 77.61	2.14 0.27 0.98	Unimak Island Region 54.94 N 163.35 W, H = 15 53 25.7, MB = 5.7 /ISC/.	
589	5	BRA	EPKIKP	03 19	07.0	2.5								123.04	55.87	New Britain Region 5.21 S 152.34 E, H = 03 00 13.7, MB = 5.1 /ISC/.	
590	5	BRA	EP	06 13	53.0	10.2								55.16	123.93	Carlsberg Ridge 6.80 N 60.40 S, H = 06 04 27.0, MB = 4.7 /ISC/.	
591	5	BRA	E	09 30	17.0									94.22	301.30	Guerrero, Mexico 17.10 N 99.89 W, H = 09 13 15.1, MB = 5.1 /ISC/.	

592	5	SRO BRA	I E EP	12 23 12 27 12 23	20.0 41.0 31.0	5.9								13.71 14.53	136.11 133.93	Turkey 37.24 N 30.19 E, H = 12 19 59.0, MB = 4.5 /ISC/.
593	5	BRA	EP	15 06	50.0	-0.8								72.79	18.09	Komandorsky Islands Region 56.04 N 165.20 E, H = 14 55 22.8, MB = 5.1 /ISC/.
594	5	SPC SRO HRB E BRA	IP IP LMH IP EPP E ES IP E LMH	18 46 18 47 19 10 18 49 18 51 18 56 18 47 19 24	48.0 04.0 00.0 00.0 28.0 37.0 02.0 00.0	-2.7 2.3 -1.7 2.1 6.6 -0.9		13.0	14.0	24.0	14.0	6.4	6.7	71.73 73.61 73.61	38.59 37.20 37.14	Sakhalin 46.54 N 141.15 E, H = 18 35 27.0, MB = 6.0 /ISC/.
595	5	BRA	EP	19 45	26.0	1.3								73.96	36.63	Sakhalin 46.38 N 141.18 E, H = 19 33 46.5, MB = 5.6 /ISC/.
596	5	BRA	E	22 53	29.0			83.0	12.0	150.0	12.0	7.6		120.09	291.93	Northern Easter Island Cordillera 9.04 S 108.54 W, H = 22 33 22.0, MB = 5.1 /ISC/.
597	6	BRA	EP	00 41	17.0	1.9								41.93	91.14	Afghanistan 33.12 N 69.86 E, H = 00 33 25.0, MB = 5.0 /ISC/.
598	6	BRA	EP	01 22	56.0	-4.7								92.24	276.11	Near West Coast of Columbia 2.43 N 78.94 W, H = 01 09 50.0, MB = 5.0 /ISC/.
599	6	BRA	IP	03 11	11.0	-0.9								73.67	36.40	Sakhalin 46.74 N 141.20 E, H = 02 59 36.0, MB = 5.4 /ISC/.
600	6	BRA	EP E	06 57 07 01	38.0 39.0	2.0								73.94	36.65	Sakhalin 46.38 N 141.15 E, H = 06 46 00.0, MB = 5.6 /ISC/.

No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		s	A	T	A	T	A					
601	6	BRA E		11	15	47.0								74.02	36.43	Sakhalin 46.44 N 141.46 E, H = 10 48 34.1, DEPTH = 50 km, MB = 4.3 /ISC/.	
602	6	SRO BRA	*IP I *IP IAP ES LMH	13 48 44.0 13 48 52.0 13 48 43.0 13 48 51.0 13 58 15.0 14 26 00.0		0.7 -1.4 0.2 2.0	240	1.0	9.4	12.0	2.8	12.0	6.3	73.53 73.73	36.92 36.28	Sakhalin 46.76 N 141.39 E, H = 13 37 10.1, DEPTH = 21 km, MB = 6.1 /ISC/.	
603	6	BRA	EPKHP	20 23 10.0		2.4								150.45	23.92	Fiji Region 21.06 S 177.69 W, H = 20 04 04.7, DEPTH = 382 km, MB = 4.8 /ISC/.	
604	7	BRA SRO	IPG ISG LMH	04 03 37.0 04 04 31.0 04 04 52.0		-3.9 0.3								3.80 4.38	239.14 249.44	Northern Italy 46.12 N 12.41 E, H = 04 02 25.0, DEPTH = 28 km, MB = 4.1 /ISC/.	
605	8	SRO BRA	EP LMH EP	03 29 02.0 04 58 00.0 03 29 09.0		1.7 7.5			2.6	20.0	3.2	20.0	5.7	73.56 73.76	36.99 36.35	Sakhalin 46.70 N 141.34 E, H = 03 17 25.6, DEPTH = 12 km, MB = 5.0 /ISC/.	
606	8	BRA	EPP	07 40 39.0		1.4								81.62	41.82	Near East Coast of Honshu 37.19 N 141.41 E, H = 07 25 14.5, DEPTH = 52 km, MB = 5.5 /ISC/.	
607	8	SPC SRO	IP *IP IS LMH EP LMH EP EPP E LMH	11 59 41.0 12 00 04.0 12 03 32.0 12 30 00.0 12 00 07.0 12 30 00.0 12 00 00.0 12 02 48.0 12 04 36.0 12 31 00.0		-8.4 3.5 2.9 6.5 -1.7 2.1		30.8 25.6	12.0 12.0	30.5 50.7	12.0 12.0	7.0 7.1	71.79 73.67 73.67 73.87	38.68 37.29 37.23 36.65	Sakhalin 46.44 N 141.09 E, H = 11 43 25.9, DEPTH = 17 km, MB = 5.7 /ISC/.		
608	8	BRA	IP EPP	13 00 51.0 13 02 23.0		-2.0 -0.1			17.0	12.0	42.0	12.0	7.0	37.91	104.20	Southern Iran 29.19 N 60.04 E, H = 12 53 37.3, DEPTH = 34 km, MB = 5.3 /ISC/.	

609	8	BRA	EP	17 04 45.0		7.1								14.51	134.16	Turkey 37.22 N 30.12 E, H = 17 01 10.0, MB = 4.9 /ISC/.
610	8	SPC SRO HRB BRA	IP E LMH LMH EP E EPP LMH	17 11 18.0 17 21 21.0 17 44 00.0 17 45 00.0 17 11 30.0 17 12 33.0 17 14 12.0 17 47 00.0		0.7 0.4 -3.6	360	1.2	20.0 16.3	12.0 10.0	21.0 14.9	12.0 10.0	6.8 6.7 6.3	71.89 73.77 73.77 73.98	38.82 37.43 37.37 36.78	Sakhalin 46.28 N 141.03 E, H = 16 59 54.8, MB = 5.8 /ISC/.
611	8	BRA	EP	19 33 51.0		-0.4			9.4	12.0	18.9	12.0	6.6	73.88	36.76	Near East Coast of Eastern Russia 46.37 N 140.97 E, H = 19 22 15.3, MB = 5.2 /ISC/.
612	8	BRA	EP	20 39 03.0		-0.3								32.81	300.12	Atlantic Ocean 53.93 N 35.31 W, H = 20 32 30.0, MB = 4.9 /ISC/.
613	8	BRA	E	22 27 45.0										110.50	76.47	Banda Sea 6.56 S 130.67 E, H = 22 08 58.5, DEPTH = 61 km, MB = 5.5 /ISC/.
614	8	BRA	EP E	22 39 51.0 22 40 48.0		0.0								20.26	99.95	Western Caucasus 41.25 N 44.00 E, H = 22 35 15.8, MB = 4.8 /ISC/.
615	9	SRO	EP E	15 13 20.0 15 16 28.0		0.9								13.62	135.89	Turkey 37.34 N 30.18 E, H = 15 10 06.7, MB = 5.2 /ISC/.
616	9	SPC SRO SRO IS LMH +IP IPCP	IP IS IP I IS LMH +IP IPCP	23 13 06.0 23 23 03.0 23 13 20.0 23 13 43.0 23 23 12.0 23 51 00.0 23 13 13.0 23 13 33.0		2.1 9.9 5.9 2.8 6.2	300	2.0	3.9	16.0	4.5	16.0	6.0 6.2	77.34 79.19 79.32	33.94 32.57 31.84	Kurile Islands Region 44.34 N 150.85 E, H = 23 01 06.0, DEPTH = 7 km, MB = 6.0 /ISC/.

No.	Date	STA Code	Phase	GMT		RBS O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
616			IPP IS LMH	23 16 23 23 23 55	18.0 12.0 00.0	5.6 -2.4			3.0	12.0	8.0	12.0		6.3			North of New Zealand 20.4L S 174.17 W, H = 06 28 51.0, DEPTH = 29 km, MB = 5.8 /ISC/.
617	10	BRA SRO	IPYIKP E IPKHKP IAPKP2 I	06 48 06 49 06 48 06 49 06 50	35.0 29.0 36.0 00.0 16.0	0.1 -0.7 -4.1							147.14	150.85 150.85	30.16		Fiji Region 18.17 S 179.56 W, H = 13 52 41.4, DEPTH = 664 km, MB = 5.0 /ISC/.
618	10	BRA	E	14 11	14.0									9.40	160.54		Greece 38.87 N 22.31 E, H = 02 03 11.0, DEPTH = 5 km, MB = 4.5 /ISC/.
619	11	SRO BRA	E E IP E E	02 06 02 08 02 09 02 05 02 06 02 09	13.0 11.0 31.0 43.0 49.0 17.0	4.1							10.03	156.01			South Burma 15.14 N 96.33 E, H = 06 28 12.0, DEPTH = 30 km, MB = 5.0 /ISC/.
620	11	BRA	EP	06 39	32.0	-1.0							71.72		87.61		Northern Italy 44.80 N 10.40 E, H = 23 18 13.0, DEPTH = 0 km /ISC/.
621	11	BRA	E E	23 20 23 21	17.0 29.0								5.73		236.43		South of Honshu 33.99 N 138.41 E, H = 01 09 56.3, DEPTH = 251 km, MB = 5.2 /ISC/.
622	12	SRO BRA	EPKIKP +IPYIFP IPKP2 E EPP	08 26 08 26 08 27 08 28 08 30	39.0 38.0 05.0 08.0 44.0	3.2 2.0 -1.0 -0.4							155.79 155.95		35.37 32.53		Dominikan Republic Region 17.95 N 69.73 W, H = 04 18 01.5, DEPTH = 42 km, MB = 5.7 /ISC/.
623	13	BRA	-IP E EPP	01 21 01 22 01 25	56.0 14.0 11.0	2.1 1.0	400	1.5				6.0	82.86		45.68		
624	13	BRA	+IP I I	04 29 04 29 04 30	41.0 58.0 38.0	2.1	120	1.0				5.9	74.77		279.91		

625	14	SPC SRO	IP EP E LMH	03 22 03 22 03 26 03 49 03 22 03 22 03 24	00.0 09.0 27.0 00.0 11.0 41.0 05.0	4.3 3.9 1.4			2.2	12.0	1.8	12.0		5.7		81.28 79.37	Burma-China Border Region 22.97 N 100.71 E, H = 03 11 06.0, MB = 5.3 /ISC/.
626	14	BRA	-IPKIKP I EPP	05 39 05 39 05 41	23.0 41.0 11.0	-0.3 4.2							123.29		58.07		New Britain Region 6.46 S 151.55 E, H = 05 20 27.8, MB = 6.1 /ISC/.
627	14	SPC BRA	EPKIKP EPKHKP E E	14 27 14 27 14 28 14 28	36.0 39.0 02.0 26.0	1.4 -0.4							149.14 150.95		27.49 22.61		North of New Zealand 20.57 S 174.39 W, H = 14 08 05.9, DEPTH = 128 km, MB = 4.9 /ISC/.
628	14	BRA	I I I I E	17 16 17 16 17 17 17 17 17 17	55.0 59.0 04.0 09.0 12.0												No determination of epicentre
629	14	BRA SRO	IP E EPP LMH	20 03 20 03 20 05 20 03 20 12	31.0 46.0 49.0 35.0 00.0	-0.6 4.8 0.2			0.7	12.0	2.0	12.0		5.5		235.07 236.37	Central Mid-Atlantic Ridge 1.02 N 29.00 W, H = 19 53 10.7, DEPTH = 0 km, MB = 5.1 /ISC/.
630	15	SRO BRA	EP EP EPP	13 42 13 42 13 45	07.0 09.0 30.0	0.8 1.2 0.9							85.36 85.71		46.73 45.89		South of Honshu 31.52 N 140.13 E, H = 13 29 34.4, DEPTH = 61 km, MB = 5.1 /ISC/.
631	15	SRO	IP I IPP ISKSAB LMH	15 07 15 07 15 10 15 17 15 17 15 07 15 07 15 08 15 17 15 46 15 17 15 46	19.0 31.0 23.0 29.0 00.0 23.0 36.0 24.0 31.0 31.0 00.0 31.0 00.0	0.8 -0.3 0.5 4.8 1.5 4.5 0.8	350	2.0				6.0	80.59		40.16		Off East Coast of Honshu 39.17 N 143.39 E, H = 14 55 07.0, DEPTH = 30 km, MB = 5.8 /ISC/.
		HRB BRA	EP LMH IP I	15 07 15 07 15 10 15 17 15 17	19.0 31.0 23.0 29.0 00.0				15.4	12.0	18.9	12.0		6.8	40.08		
		BRA	IP I	15 07 15 07	21.0 36.0				5.1	12.0	13.5	12.0		6.6	39.40		
		BRA	EP EPP LMH	15 10 15 10 15 17 15 46	30.0 31.0 00.0 00.0				16.0	12.0	17.0	12.0		6.8			



No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
632	16	SRO BRA	E IPP E IAPKIKP	06 36 06 41 06 36 06 41	19.0 35.0 53.0 29.0	5.2 -10.4								109.33 110.03	77.11 76.03	Banda Sea 5.93 S 130.68 E, H = 06 22 36.7, DEPTH = 107 km, MB = 6.4 /ISC/.	
633	16	BRA	EP	19 03	55.0	-1.0								80.85	39.27	Off East Coast of Honshu 39.22 N 143.54 E, H = 18 51 42.9, DEPTH = 27 km, MB = 5.2 /ISC/.	
634	17	SPC BRA	EPKIKP EPKIKP E	14 40 14 40 14 41	25.0 31.0 04.0	-4.4 -1.2								149.97 151.78	27.74 22.79	North of New Zealand 21.40 S 174.23 W, H = 14 20 48.0, DEPTH = 37 km, MB = 5.0 /ISC/.	
635	19	SRO	IPKHKP IPKP2 E E +IPKIKP I I IPKP2 E	10 19 10 19 10 20 10 21 10 21 10 19 10 19 10 19 10 21	09.0 21.0 25.0 17.0 04.0 10.0 19.0 17.0	4.1 1.5 1.0 -1.0								150.21 150.34	32.90 30.47	Fiji Region 21.23 S 178.50 W, H = 10 00 19.1, DEPTH = 539 km, MB = 5.3 /ISC/.	
636	20	BRA	E	10 16	35.0									106.08	249.98	Northern Chile 25.36 S 69.16 W, H = 09 57 00.5, DEPTH = 89 km, MB = 4.7 /ISC/.	
637	21	BRA	-EP EAP	08 55 08 56	23.0 08.0	-0.4 -1.2	150	1.5				5.5		80.27	43.52	Near West Coast of Honshu 37.34 N 138.72 E, H = 08 43 32.0, DEPTH = 186 km, MB = 5.4 /ISC/.	
638	21	BRA	IP I	09 17 09 18	44.0 05.0	-0.6							1.10	239.50	Austria 47.60 N 15.70 E, H = 09 17 22.0, DEPTH = 0 km /ISC/.		
639	21	SRO BRA	EP EP IPP E	16 52 16 52 16 52 16 57	09.0 17.0 29.0 32.0	3.5 0.7 0.1								13.67 14.50	136.10 133.91	Turkey 37.27 N 30.17 E, H = 16 48 52.1, DEPTH = 42 km, MB = 4.8 /ISC/.	

No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
640	23	BRA	EP EAP E	13 43 13 43 13 43	11.0 24.0 56.0	-0.3 -0.2								78.39	1.13	Unimak Island Region 53.81 N 164.76 W, H = 13 31 13.9, DEPTH = 45 km, MB = 5.3 /ISC/.	
641	23	BRA	E E E	20 20 20 20 20 20	24.0 35.0 41.0											No determination of epicentre	
642	24	SRO BRA	EP ES LMH EP E E E LMH	01 22 01 32 02 05 01 22 01 24 01 27 01 32 02 02	11.0 15.0 00.0 13.0 27.0 03.0 23.0 00.0	-0.9 -1.0 -0.2	200	2.0	7.0	15.0	20.0	15.0	5.7 6.0	80.33 80.58	40.09 39.33	Off East Coast of Honshu 39.42 N 143.28 E, H = 01 09 59.5, DEPTH = 13 km, MB = 5.7 /ISC/.	
643	25	BRA	E	03 43	12.0									158.62	35.43	Kermadec Islands Region 29.70 S 176.95 W, H = 03 22 42.5, DEPTH = 43 km, MB = 5.0 /ISC/.	
644	25	SRO BRA	EPKIKP EPP E E IPKIKP EPP E E	04 54 04 56 04 58 04 06 04 54 04 56 04 56 05 01	48.0 09.0 36.0 02.0 52.0 13.0 46.0 17.0	-3.1 -11.6 -0.2 -11.5								119.93 120.49	64.08 62.78	Eastern New Guinea Region 6.54 S 146.64 E, H = 04 36 13.7, DEPTH = 111 km, MB = 6.3 /ISC/.	
645	25	BRA SRO	EPN EPG EPN ESG	10 35 10 36 10 35 10 38	56.0 16.0 55.0 06.0	5.8 -8.4 -2.9 -9.9								7.14 7.68	238.47 244.74	Northern Italy 44.11 N 8.65 E, H = 10 34 02.0, DEPTH = 3 km, MB = 4.0 /ISC/.	
646	25	BRA	EPKHKP E EPKP2	22 37 22 37 22 37	08.0 12.0 20.0	1.1 1.0								149.29	25.75	Fiji Region 19.44 S 176.49 W, H = 22 17 59.3, DEPTH = 311 km, MB = 4.9 /ISC/.	
647	26	BRA	EPKIKP EPKP2	01 52 01 52	07.0 35.0	-3.1								155.40	32.24	South of Fiji 26.24 S 177.21 W, H = 01 32 32.0, DEPTH = 129 km, MB = 4.9 /ISC/.	



No. Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
			h	m		A	T	A	T	A	T					
648	26	SRO EP E EP E	05 47 05.0 05 49 56.0 05 51 17.0 05 47 10.0 05 47 29.0		4.5 1.4								10.34 10.93	163.52 159.13		Southern Greece 37.83 N 22.00 E, H = 05 44 32.0, DEPTH = 48 km, MB = 4.4 /ISC/.
649	26	BRA EPKIKP	09 45 20.0		0.9								146.08	17.67		Samoa Region 15.20 S 173.00 W, H = 09 25 41.0, DEPTH = 18 km, MB = 4.5 /ISC/.
650	26	SPC BRA E	16 46 46.0 16 46 51.0 16 47 23.0										139.95 140.15	148.87 149.28		Molucca Sea 70.02 S 124.84 E, H = 16 33 04.3, DEPTH = 70 km, MB = 5.8 /ISC/.
651	27	BRA IP E EPP E ES LMH IP E ES LMH IP IPP IS LMH	06 06 09.0 06 06 34.0 06 07 05.0 06 07 48.0 06 11 22.0 06 23 00.0 06 06 00.0 06 07 06.0 06 11 10.0 06 20 00.0 06 06 14.0 06 07 08.0 06 11 12.0 06 20 00.0		-1.3 0.0 12.0 -10.5 0.7 -0.4 3.2 2.3 1.2	520	1.5		9.0 34.1 2.3	6.0 12.0 30.0 2.2	6.0 6.0 9.0 6.0	6.2 6.1 6.5 5.5	30.28 30.30 30.33	20.47 19.93 19.85		Novaya Zemlya 73.39 N 54.91 E, H = 05 59 55.4, DEPTH = 0 km, MB = 6.5 /ISC/.
652	27	BRA EPKIKP EAPKIKP E	15 14 48.0 15 15 18.0 15 16 47.0		0.3 -16.0								119.18	63.31		Eastern New Guinea Region 5.76 S 145.48 E, H = 14 56 12.0, DEPTH = 113 km, MB = 5.3 /ISC/.
653	27	BRA EP EAP E	15 49 08.0 15 49 20.0 15 49 44.0		-3.6 -6.1								76.49	26.48		Kurile Islands 49.32 N 155.61 E, H = 15 37 25.5, DEPTH = 52 km, MB = 5.3 /ISC/.
654	27	SPC SRO E ES LMH	19 13 10.0 19 13 17.0 19 17 50.0 19 22 48.0 19 47 00.0		1.4 -2.7 0.4	200	2.0		3.1	8.0 2.7	8.0	5.8 6.1	71.84 73.72	38.66 37.27		Sakhalin 46.41 N 141.16 E, H = 19 01 46.4, DEPTH = 27 km, MB = 5.8 /ISC/.

654		HRB BRA LMH IP IPCP EPP E ES LMH	19 48 00.0 19 13 20.0 19 13 39.0 19 16 09.0 19 17 58.0 19 22 52.0 19 51 00.0		-0.9 2.5 2.2 2.1	150	1.5	6.8	12.0 17.0	13.5 12.0	12.0	5.8 6.7	73.72 73.92	37.21 36.63		
655	27	BRA EPKIKP E	22 38 51.0 22 39 12.0		2.6								118.82	58.88		Bismarck Sea 3.17 S 148.41 E, H = 22 20 03.4, DEPTH = 33 km, MB = 5.5 /ISC/.
656	28	SRO EP E EP E EP E	05 13 45.0 05 15 00.0 05 18 25.0 05 13 50.0 05 14 14.0 05 15 10.0		-10.3 -1.2								13.71 14.54	136.30 134.11		Turkey 37.21 N 30.15 E, H = 05 10 26.0, DEPTH = 32 km, MB = 4.7 /ISC/.
657	28	BRA E EPP E	12 30 05.0 12 31 21.0 12 32 08.0		-5.3								94.82	49.15		Volcano Islands Region 22.09 N 142.75 E, H = 12 14 37.7, DEPTH = 257 km, MB = 4.6 /ISC/.
658	28	BRA E EPKIKP E	20 04 20.0 20 04 40.0		-0.2								128.61	53.82		Solomon Islands Region 8.96 S 157.43 E, H = 19 45 14.0, DEPTH = 19 km, MB = 5.4 /ISC/.
659	29	BRA SRO EPN ESG E EPG ESN LMH	07 20 10.0 07 21 56.0 07 20 40.0 07 21 00.0 07 21 40.0 07 23 00.0		-7.7 0.6 1.9 -2.7								5.56 6.33	262.02 267.05		Germany 47.11 N 9.03 E, H = 07 18 51.7, DEPTH = 24 km, MB = 4.4 /ISC/.
660	30	BRA EP EAP E E LMH EP LMH EP SRO EPP EPS E	08 31 08.0 08 31 11.0 08 33 38.0 08 37 08.0 09 03 00.0 08 31 14.0 09 04 00.0 08 31 11.0 08 34 49.0 08 43 21.0 08 47 39.0		1.3 -4.5 4.1 0.5 -5.6 -9.8								91.91	315.15		Gulf of California 26.88 N 110.80 W, H = 08 17 59.8, DEPTH = 29 km, MB = 5.7 /ISC/.

No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
661	30	BRA	E E	12 52	08.0 12 52 35.0									46.61	58.11	USSR-Mongolia Border Region 50.30 N 91.30 E, H = 12 43 32.8, MB = 4.6 /ISC/ DEPTH = 0 km,	
662	30	BRA SRO	EP EP EPP ES E LMH IP	21 33 21 33 21 35 21 40 21 47 21 57 21 33	19.0 18.0 15.0 43.0 48.0 00.0 38.0	-0.9 -2.5 -4.2 1.6 3.8	300	1.2	4.5	16.0	5.0	16.0	6.1	52.06 52.14	208.35 209.94	211.68	South Atlantic Ocean 0.45 S 4.89 W, H = 21 24 10.8, MB = 6.0 /ISC/ DEPTH = 30 km,

663	1	BRA	EPKIP E	05 35 05 36	43.0 09.0	-3.7								122.30	55.36	New Britain Region 4.35 S 152.89 E, H = 05 16 56.2, MB = 5.6 /ISC/ DEPTH = 43 km,
664	1	SRO BRA	EPKP2 IPKP2 IAPKIP	11 47 11 48 11 48	59.0 00.0 09.0	-0.2 -0.7 -6.8								145.05 145.45	51.26 49.22	Loyalty Islands Region 21.47 S 169.65 E, H = 11 28 24.3, MB = 5.0 /ISC/ DEPTH = 36 km,
665	1	BRA	E	16 36	44.0									38.69	84.09	Tadzhikistan 38.72 N 69.74 E, H = 16 27 47.0, MB = 4.9 /ISC/ DEPTH = 21 km,
666	3	SRO	E	07 50	54.0									12.23	132.23	Turkey 38.94 N 29.92 E, H = 07 44 28.0, MB = 4.7 /ISC/ DEPTH = 26 km,
667	3	BRA	EPKIP	08 55	00.0	1.0								125.27	54.73	Solomon Islands 6.55 S 154.97 E, H = 08 36 03.9, MB = 5.9 /ISC/ DEPTH = 52 km,
668	3	SPC SRO	EPKIP EPKIP EPP E LMH IPKIP EPP E LMH	13 44 13 44 13 46 13 47 13 48 14 42 13 44 13 47 13 54 14 45	10.0 10.0 18.0 12.0 48.0 00.0 13.0 13.0 03.0 00.0	6.0 2.7 6.6 5.2 6.0		7.0	20.0	9.0	20.0	6.6	138.33 140.21	44.11 42.68	40.77	New Hebrides Region 14.60 S 171.69 E, H = 13 24 38.1, MB = 5.5 /ISC/ DEPTH = 10 km,
669	3	BRA	EP	17 14	04.0	-0.4								90.29	297.61	Chiapas, Mexico 17.96 N 94.32 W, H = 17 01 07.2, MB = 5.0 /ISC/ DEPTH = 46 km,
670	3	SRO BRA	E EP	23 26 23 23	25.0 22.0	2.2								14.89 15.58	154.13 151.18	Crete 34.10 N 26.08 E, H = 23 19 41.2, MB = 4.6 /ISC/ DEPTH = 35 km,

No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
671	4	SRO	EPKIKP EPP EPS LMH	01 49 28.0 01 51 13.0 02 01 10.0 02 40 00.0		3.6 0.3 4.0								123.79	56.53	Solomon Islands 5.89 S 154.14 E, H = 01 30 33.6, DEPTH = 64 km, MB = 5.7 /ISC/.	
		BRA	EPKIKP EPP EPS LMH	01 49 28.0 01 51 18.0 02 01 01.0 02 45 00.0		2.7 2.2 -9.1			12.0	24.0	6.0	20.0	6.6	124.27	55.13		
672	4	BRA	EPKP2	16 10 49.0	3.4				33.0	18.0	130.0	21.0	7.6	145.65	49.74	Loyalty Islands Region 21.80 S 169.50 E, H = 15 51 12.0, DEPTH = 65 km, MB = 4.4 /ISC/.	
673	4	BRA	EP E	16 38 56.0 16 39 19.0	6.7									15.56	150.81	Crete 34.16 N 26.18 E, H = 16 35 09.0, DEPTH = 17 km, MB = 4.5 /ISC/.	
674	4	BRA	EPN E EPB E ESB LMH	16 45 00.0 16 45 07.0 16 45 18.0 16 45 31.0 16 45 45.0 16 46 34.0 16 47 00.0	-2.1 -1.0 -2.4 -0.8									6.06	209.47	Central Italy 42.82 N 13.06 E, H = 16 43 32.6, DEPTH = 33 km, MB = 4.5 /ISC/.	
		SRO	EPN EPG ESN ESB ESG	16 45 07.0 16 45 40.0 16 46 18.0 16 46 35.0 16 46 57.0	3.4 -2.6 -6.1 -0.9				1.8	2.0	2.9	2.0	4.8	6.22	218.48		
675	4	BRA	EP ES EP ES E	22 23 30.0 22 24 28.0 22 23 33.0 22 24 40.0 22 25 25.0	3.9 -7.4 4.6 0.4									6.09	210.03	Central Italy 42.82 N 12.97 E, H = 22 21 56.3, DEPTH = 43 km /ISC/.	
676	5	BRA	E E LMH	00 07 56.0 00 08 16.0 00 10 28.0										6.10	209.71	Central Italy 42.79 N 13.00 E, H = 00 07 07.3, DEPTH = 0 km /ISC/.	
677	5	BRA	EP E	01 51 21.0 01 51 34.0	3.4									64.55	4.13	Near North Coast of Eastern Siberia 67.38 N 172.57 W, H = 01 40 41.6, DEPTH = 33 km, MB = 5.2 /ISC/.	

678	5	BRA	E	04 30 31.0										6.19	196.10	Central Italy 42.20 N 14.80 E, H = 04 27 54.0, DEPTH = 0 km /ISC/.
679	5	BRA	EP	18 38 21.0	-1.4									36.59	110.71	Southern Iran 27.24 N 55.88 E, H = 18 31 18.7, DEPTH = 44 km, MB = 5.1 /ISC/.
680	6	BRA	EPKIKP EAPKIKP	10 46 30.0 10 46 56.0	3.2 2.0									148.42	19.79	North of New Zealand 17.75 S 173.62 W, H = 10 26 51.0, DEPTH = 62 km, MB = 4.8 /ISC/.
681	6	BRA	EPKP2	11 51 24.0	-0.5									145.13	44.22	New Henrides Region 19.71 S 172.07 E, H = 11 31 45.0, DEPTH = 9 km, MB = 4.9 /ISC/.
682	6	BRA	E	23 52 47.0										40.85	83.80	Tadzhikistan 37.72 N 72.19 E, H = 23 43 23.1, DEPTH = 38 km, MB = 4.8 /ISC/.
683	8	BRA	EPKIKP E	14 34 22.0 14 36 08.0	-3.2									119.33	65.17	New Guinea 6.87 S 144.27 E, H = 14 15 37.0, DEPTH = 20 km, MB = 5.6 /ISC/.
684	8	SPC SRO BRA	IPKP2 -IPKIKP I -IPKIKP IPKP2 I IPP	16 23 24.0 16 23 28.0 16 26 24.0 16 23 25.0 16 23 38.0 16 24 08.0 16 27 00.0	-0.9 4.0 0.9 4.5 -2.7									145.58 147.42 147.51	32.22 30.20 27.92	Fiji Region 18.10 S 178.23 W, H = 16 04 44.1, DEPTH = 534 km, MB = 5.6 /ISC/.
685	8	BRA	E	17 11 53.0										11.93	135.97	Turkey 39.04 N 27.74 E, H = 17 08 15.0, DEPTH = 13 km /ISC/.
686	9	BRA	EP EAP	11 16 55.0 11 17 23.0	1.8 -1.2									77.74	36.97	Hokkaido Region 43.07 N 143.79 E, H = 11 05 08.3, DEPTH = 122 km, MB = 5.3 /ISC/.

No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m s		A	T	A	T	A	T					
687	9	BRA	EAP EAP EPP	13 27	44.0	0.1 -17.7 -2.8								81.14	62.67	Taiwan Region 24.86 N 122.03 E, H = 13 15 38.5, DEPTH = 104 km, MB = 5.7 /ISC/.	
688	10	SRO BRA	E EP E	18 36 18 36 18 37	35.0 00.0 21.0	-0.1								65.15 65.90	82.67 81.98	Burma 23.00 N 95.92 E, H = 18 25 16.8, DEPTH = 46 km, MB = 4.9 /ISC/.	
689	11	BRA	EPKIKP E	05 10 05 11	00.0 08.0	2.9								147.82	20.46	North of New Zealand 17.25 S 174.13 W, H = 04 50 39.0, DEPTH = 198 km, MB = 4.8 /ISC/.	
690	11	SRO BRA	EP EAP EP EPP	10 28 10 28 10 28 10 31	31.0 39.0 33.0 39.0	-0.2 -4.8 0.3 -4.6								81.97 82.27	43.90 43.12	Near East Coast of Honshu, Japan 35.92 N 140.54 E, H = 10 16 14.5, DEPTH = 44 km, MB = 5.2 /ISC/.	
691	12	BRA	IP E I EPP EP E	09 57 09 58 09 58 10 01 09 58 09 58	57.0 09.0 18.0 33.0 00.0 19.0	0.2 1.8 -1.0								90.01 90.90	293.95 294.84	Guatemala Border Region 15.86 N 91.16 W, H = 09 44 58.1, DEPTH = 25 km, MB = 5.7 /ISC/.	
692	12	BRA	+IPN IPG ISN IMH ESG	11 46 11 46 11 47 11 48 11 48	03.0 29.0 10.0 00.0 19.0	-3.2 -2.2 -1.9 19.6								5.57 6.04	230.79 239.14	Northern Italy 44.48 N 11.07 E, H = 11 44 40.0, DEPTH = 9 km /ISC/.	
693	12	BRA	EPKP2 E	18 12 11 12	18.0 33.0	-0.7								145.98	18.20	North of New Zealand 15.16 S 173.32 W, H = 17 52 36.9, DEPTH = 9 km, MB = 5.2 /ISC/.	
694	13	SRO BRA SPC	EP EP E E LMH IP	03 30 03 30 03 30 03 30 03 37 03 30	01.0 03.0 24.0 39.0 21.0 09.0	5.1 -1.9 2.8								14.75 15.44	153.99 151.04	Crete 34.24 N 26.06 E, H = 03 26 26.1, DEPTH = 17 km, MB = 5.0 /ISC/.	

695	13	BRA	E EPP	22 53 22 54	54.0 02.0	-6.9								102.99	251.89	Chile-Bolivia Border Region 21.93 S 68.29 W, H = 22 36 02.6, DEPTH = 102 km, MB = 5.6 /ISC/.
696	14	BRA	EP EAP	13 06 13 06	03.0 16.0	-1.2 -1.3								65.82	81.98	Burma 23.06 N 95.86 E, H = 12 55 21.6, DEPTH = 47 km, MB = 4.1 /ISC/.
697	14	ERA	IP	21 19	45.8	-0.5								79.44	4.13	Fox Islands 52.61 N 169.56 W, H = 21 07 42.5, DEPTH = 40 km, MB = 4.6 /ISC/.
698	14	SPC BRA	EP EP EPP	22 03 22 03 22 05	13.0 28.0 09.0	2.6 0.1 2.4								38.71 40.83	89.53 86.05	Afghanistan-USSR Border Region 36.50 N 71.15 E, H = 21 55 52.9, DEPTH = 82 km, MB = 5.0 /ISC/.
699	14	SRO BRA	EP ES LMH EPP E	22 50 23 02 23 31 22 54 22 55	32.0 10.0 00.0 49.0 13.0	0.7 -1.1 0.7 0.7		7.7	16.0	6.2	12.0			102.71 102.94 104.23	189.40 188.70 190.60	Bouvet Island Region 54.40 S 2.50 E, H = 22 36 34.8, DEPTH = 25 km, MB = 5.2 /ISC/.
700	15	BRA	EPP	10 51	34.0	-7.4								100.80	260.85	Peru 14.20 S 73.45 W, H = 10 33 46.3, DEPTH = 54 km, MB = 5.7 /ISC/.
701	15	BRA	EP E EPCP E	22 08 22 09 22 09 22 10	51.0 11.0 30.0 29.0	-0.3 -4.3								60.87	246.93	Central Mid-Atlantic Ridge 7.70 N 37.11 W, H = 21 58 40.8, DEPTH = 43 km, MB = 4.8 /ISC/.
702	16	SRO BRA	EPKIKP EPP EPKIKP E E	05 34 05 36 05 34 05 35 05 36	17.0 09.0 17.0 32.0 38.0	2.3 4.8 1.4								124.00 124.47	56.32 54.91	Solomon Islands 5.96 S 154.40 E, H = 05 15 24.4, DEPTH = 71 km, MB = 5.6 /ISC/.
703	16	BRA SRO	IP E E LMH	06 00 06 00 06 02 06 25	17.0 41.0 17.0 00.0	-0.2		2.9	24.0	1.8	24.0			75.60 75.69	208.76 209.88	South Atlantic Ridge 22.70 S 13.20 W, H = 05 48 34.0, DEPTH = 33 km, MB = 4.8 /ISC/.



No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks	
				h	m		A	T	A	T	A	T						
720	24	SRO	EP E EPP EPS LMH EPDIFF E EPP E LMH	01 51 31.0 01 52 30.0 01 55 46.0 02 04 43.0 02 40 00.0 01 51 29.0 01 54 38.0 01 55 44.0 02 10 20.0 02 33 00.0		5.2 5.9 -2.0 1.1 0.3									102.64 103.11	56.21 55.14	South of The Marianas 11.86 N 142.38 E, H = 01 37 29.0, MB = 6.1 /ISC/. DEPTH = 21 km, MB = 6.1 /ISC/.	
721	24	BRA	+IFKP2 I E	14 40 35.0 14 40 44.0 14 41 23.0 14 40 36.0		-1.3									145.99 146.05	18.89 21.10	North of New Zealand 15.26 S 173.71 W, H = 14 21 06.3, MB = 5.5 /ISC/. DEPTH = 105 km, MB = 5.5 /ISC/.	
722	25	SRO	EPKIKP EPP E LMH EPKIKP EPP E	04 05 58.0 04 08 36.0 04 20 50.0 05 08 00.0 04 06 00.0 04 08 35.0 04 09 47.0		3.3 -3.7 4.6 -6.9									136.40 136.75	48.28 46.52	New Hebrides 13.12 S 166.42 E, H = 03 46 37.1, MB = 5.6 /ISC/. DEPTH = 40 km, MB = 5.6 /ISC/.	
723	27	SRO BRA	E EP	09 40 10.0 09 40 02.0		9.3									84.89 85.53	69.71 68.87	Luzon 17.48 N 120.11 E, H = 09 27 19.5, MB = 5.3 /ISC/. DEPTH = 56 km, MB = 5.3 /ISC/.	
724	27	SPC SRO	EPKIKP EPKIKP EPP E LMH EPKIKP EPP E EPKIKP EPP E LMH	18 17 54.0 18 18 02.0 18 20 48.0 18 26 22.0 19 16 00.0 18 18 00.0 18 20 49.0 19 16 00.0 18 18 01.0 18 18 31.0 18 20 55.0 18 21 16.0 18 21 36.0 18 22 01.0 19 17 00.0		-1.5 3.0 -7.5 1.0 -6.6 1.4 -2.7 1.4									137.02 138.89	50.36 49.16	New Hebrides 15.57 S 167.24 E, H = 17 58 37.9, MB = 6.3 /ISC/. DEPTH = 49 km, MB = 6.3 /ISC/.	
		HRB	EPKIKP EPP E LMH	18 18 00.0 18 20 49.0 19 16 00.0		1.0 -6.6									138.91 139.26	48.96 47.34		
		BRA	EPKIKP E EPP E EPKIKP EPP E LMH	18 18 01.0 18 18 31.0 18 20 55.0 18 21 16.0 18 21 36.0 18 22 01.0 19 17 00.0		1.4 -2.7 1.4									7.0 7.2	7.0 7.2		
		SRO BRA	E EP	09 40 10.0 09 40 02.0		9.3									32.0 32.0	21.0 21.0	15.0 15.0	21.0 21.0

725	28	SPC SRO	IP IP EPP E E LMH EP E EPCP	13 38 05.0 13 38 18.0 13 39 50.0 13 47 06.0 13 47 06.0 13 53 00.0 13 38 27.0 13 38 40.0 13 40 28.0		1.2 1.5 5.4 4.5 -6.2									36.60 38.10	81.30 78.38	Kirgiziya 41.88 N 72.35 E, H = 13 30 56.4, MB = 5.4 /ISC/. DEPTH = 15 km, MB = 5.4 /ISC/.
726	28	SPC SRO	IPKIKP EPKIKP E LMH EPKIKP E EPP E	15 32 25.0 15 32 30.0 15 33 12.0 16 22 00.0 15 32 34.0 15 33 25.0 15 34 17.0 15 35 31.0		6.6 8.1 11.2 4.5									121.62 123.45	57.61 56.46	New Ireland Region 5.57 S 153.99 E, H = 15 13 37.2, MB = 5.8 /ISC/. DEPTH = 107 km, MB = 5.8 /ISC/.
727	28	SRO	EPKIKP EPP LMH EPKIKP EPP E LMH	18 19 26.0 18 22 06.0 19 22 00.0 18 19 21.0 18 22 08.0 18 23 28.0 19 04 00.0		6.1 0.3 0.5 0.1									136.64 137.00	48.47 46.71	New Hebrides 13.40 S 166.43 E, H = 18 00 00.9, MB = 5.7 /ISC/. DEPTH = 33 km, MB = 5.7 /ISC/.
728	29	SRO BRA	IP I +IP EAP E E	14 18 06.0 14 21 26.0 14 18 04.0 14 18 19.0 14 19 19.0 14 21 31.0		2.2 -0.1 -14.4									75.77 75.82	27.33 26.66	Kurile Islands 49.83 N 154.90 E, H = 14 06 29.1, MB = 5.6 /ISC/. DEPTH = 116 km, MB = 5.6 /ISC/.
729	29	BRA	E E	20 24 19.0 20 26 34.0											136.88	46.86	New Hebrides 13.34 S 166.28 E, H = 20 07 20.0, MB = 5.1 /ISC/. DEPTH = 98 km, MB = 5.1 /ISC/.
730	29	BRA	EPKIKP	23 28 49.0		-2.9									137.05	46.81	New Hebrides 13.48 S 166.40 E, H = 23 09 32.3, MB = 5.1 /ISC/. DEPTH = 34 km, MB = 5.1 /ISC/.

No.	Date	STA Code	Phase	GMT			RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m	s		A	T	A	T	A	T					
731	30	SPC SRO	IP IP EAP E	14 28 02.0 14 28 12.0 14 29 32.0 14 32 34.0	0.8 1.3 -9.1										81.87 83.75	49.48 48.01	South of Honshu 32.09 N 137.80 E, H = 14 16 23.4, DEPTH = 391 km, MB = 5.5 /ISC/.	
		BRA	ES +IP E EAP. EPP E	14 38 00.0 14 28 12.0 14 29 39.0 14 31 34.0 14 33 49.0	0.7 -0.5 -3.9 -1.0	220	1.5						5.7		84.11	47.20		

No.	Date	STA Code	Phase	GMT			RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m	s		A	T	A	T	A	T					
732	3	BRA	EPG E LMH	18 10 44.0 18 11 17.0 18 12 20.0	-1.6										2.45	28.59	Poland 50.30 N 18.93 E, H = 18 09 56.8, DEPTH = 40 km /WAR/.	
733	3	BRA	E LMH	21 31 50.0 21 32 38.0											3.38	240.24	Northern Italy 46.41 N 12.86 E, H = 21 30 48.2, DEPTH = 33 km /ISC/.	
734	5	BRA HRB SRO SPC	EP EPCP EPP IP I E IP EPCP EPP EP	11 29 44.0 11 30 26.0 11 32 07.0 11 29 49.0 11 30 43.0 11 33 29.0 11 29 44.0 11 30 26.0 11 32 07.0 11 30 00.0	-0.1 -3.9 10.5 2.2 -3.0 -5.6 6.7									59.97	251.64	Central Mid-Atlantic Ridge 0.70 N 25.65 W, H = 11 19 36.8, DEPTH = 21 km, MB = 5.2 /ISC/.		
735	5	SPC SRO BRA	IP EP E -IP I	22 22 32.0 22 22 37.0 22 23 29.0 22 22 41.0 22 23 23.0	2.3 0.5 -0.5	352	1.2					6.4		71.10 72.25	96.48 94.54	Andaman Islands Region 10.11 N 92.93 E, H = 22 11 15.1, DEPTH = 53 km, MB = 5.9 /ISC/.		
736	6	BRA	E E	17 03 52.0 17 05 38.0											80.08	38.41	Off East Coast of Honshu 40.33 N 143.92 E, H = 16 52 55.8, DEPTH = 37 km, MB = 4.4 /ISC/.	
737	6	SRO HRB BRA	E E E LMH LMH E EPP ES E LMH	19 46 43.0 19 50 05.0 19 51 29.0 19 59 00.0 19 58 00.0 19 46 53.0 19 47 08.0 19 49 11.0 19 51 08.0 19 53 00.0	5.3 -7.6			4.5 4.9	12.0 10.0	8.1 6.4	12.0 10.0		5.0 5.0	12.20 12.95	132.25 130.28	Turkey 39.02 N 29.78 E, H = 19 43 47.5, DEPTH = 16 km, MB = 5.0 /ISC/.		



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No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
738	6	BRA	IP IAP IPP IPS LMH +IP	22 12 05.0 22 12 14.0 22 15 09.0 22 22 48.0 22 42 00.0 22 12 07.0		-5.2 3.5 1.5 -3.7 -4.2	1008	1.2				6.7	79.55	11.33	Rat Islands /NE Cannikin/ 51.47 N 179.11 E, H = 22 00 00.1, DEPTH = 2 km, MB = 6.8 /ISC/.		
739	8	SPC SRO	IP IP IPP LMH -IP I EPP E ES	03 13 24.0 03 13 27.0 03 14 53.0 03 29 00.0 03 13 38.0 03 14 10.0 03 15 05.0 03 16 40.0 03 19 19.0		0.7 -1.3 9.4 2.2 10.7 6.2	460	1.2	4.2	16.0	8.9	16.0	34.40 34.97	117.39 113.35	Southern Iran 27.04 N 54.47 E, H = 03 06 34.0, DEPTH = 11 km, MB = 5.6 /ISC/.		
740	8	BRA	IP	22 56 20.0		-1.1							98.47	71.59	Mindanao 5.76 N 126.52 E, H = 22 43 01.5, DEPTH = 174 km, MB = 5.5 /ISC/.		
741	10	SRO BRA	EPKIKP E EPKIKP E	10 41 35.0 10 42 09.0 10 41 35.0 10 41 46.0		2.2 1.3							122.35 122.84	57.60 56.23	New Britain Region 5.21 S 152.57 E, H = 10 22 43.3, DEPTH = 52 km, MB = 5.2 /ISC/.		
742	11	SRO BRA	I I	10 17 37.0 10 17 37.0											No determination of epicentre		
743	11	SRO BRA	EP E EP E	10 31 45.0 10 32 07.0 10 31 47.0 10 32 16.0		-2.9 -2.1							77.89 78.12	39.01 38.30	Hokkaido Region 42.03 N 142.61 E, H = 10 19 56.1, DEPTH = 70 km, MB = 5.2 /ISC/.		
744	12	SRO BRA	E EPKIP2 E	05 20 21.0 05 20 21.0 05 20 22.0		-4.1							147.77 147.81	27.73 25.43	Fiji Region 17.97 S 176.80 W, H = 05 01 17.2, DEPTH = 363 km, MB = 4.9 /ISC/.		
745	13	SPC BRA	EP +IP EAP E EPP ES	15 55 30.0 15 55 32.0 15 55 34.0 15 56 25.0 15 57 17.0 16 01 48.0		2.3 2.3 -6.9 7.1 5.1	41	0.5				5.4	41.34 41.59	150.31 145.35	Ethiopia 11.03 N 39.71 E, H = 15 47 44.0, DEPTH = 39 km /ISC/.		

746	15	BRA	E	00 41 42.0										123.17	55.47	New Ireland Region 5.13 S 153.29 E, H = 00 22 47.1, DEPTH = 56 km, MB = 4.8 /ISC/.
747	16	BRA	EP EAP	01 34 14.0 01 36 18.0		0.7 3.4							73.78	30.88	Sea of Okhotsk 49.58 N 147.89 E, H = 01 23 36.2, DEPTH = 581 km, MB = 4.6 /ISC/.	
748	17	BRA	EP	12 28 08.0		0.8							26.65	333.21	Iceland Region 68.88 N 16.80 W, H = 12 22 32.7, DEPTH = 65 km, MB = 4.7 /ISC/.	
749	18	SRO BRA	EP E LMH EP EPP E	07 38 36.0 07 40 10.0 07 56 00.0 07 38 42.0 07 40 11.0 07 41 35.0		1.7 1.1 4.8			3.0	16.0	1.8	16.0	36.07 36.86	86.82 86.47	South-Eastern Uzbekistan 38.44 N 66.78 E, H = 07 31 33.0, DEPTH = 27 km, MB = 5.2 /ISC/.	
750	18	SRO BRA	-EPKIKP EPKIKP	19 47 10.0 19 47 08.0		0.6 -1.6										Kermadec Islands Region 27.50 S 176.24 W, H = 19 27 17.9, DEPTH = 33 km, MB = 5.1 /ISC/.
751	20	BRA	IPKIKP I E	07 46 47.0 07 49 01.0 07 55 08.0 08 01 14.0		0.7							151.88	34.69	South of Fiji 23.45 S 179.88 W, H = 07 27 59.5, DEPTH = 533 km, MB = 6.0 /ISC/.	
752	20	SRA	+IP I	21 36 44.0 21 37 02.0		-2.0							79.18	338.22	Vancouver Island Region 48.79 N 129.46 W, H = 21 24 42.1, DEPTH = 28 km, MB = 5.5 /ISC/.	
753	21	SRO HRB BRA	IPKIKP E EPP IPKIKP I EPP I LMH	06 16 18.0 06 25 34.0 06 31 00.0 06 19 02.0 06 16 23.0 06 16 35.0 06 18 56.0 06 23 35.0 07 53 00.0		0.1 2.0 4.5 -5.9							135.39 135.41 135.74	47.21 47.02 45.48	Santa Cruz Islands 11.87 S 166.55 E, H = 05 57 12.0, DEPTH = 119 km, MB = 6.5 /ISC/.	



No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
754	22	BRA	+IP IAP EPP E	00 58 06.0 00 58 18.0 01 01 17.0 01 03 20.0	12 41 29.0 12 42 18.0 12 43 00.0	-1.2 -0.4 11.4								77.99	14.12	Near Islands 52.33 N 174.23 E, H = 00 46 11.1, DEPTH = 38 km, MB = 5.7 /ISC/.	
755	22	BRA	IP ES LMH	12 41 29.0 12 42 18.0 12 43 00.0	12 41 29.0 12 42 18.0 12 43 00.0	0.1 -3.3								4.55	166.39	Yugoslavia 43.74 N 18.58 E, H = 12 40 20.7, DEPTH = 38 km /ISC/.	
756	22	BRA	EP E	22 48 45.0 22 49 12.0	22 48 45.0 22 49 12.0	0.8								48.47	270.79	North Atlantic Ridge 30.13 N 42.66 W, H = 22 40 02.6, DEPTH = 31 km, MB = 5.2 /ISC/.	
757	24	BRA	EKFP2 E	18 25 10.0 18 25 31.0	18 25 10.0 18 25 31.0	-2.7								148.48	18.47	Tonga Region 17.65 S 172.90 W, H = 18 05 21.0, DEPTH = 14 km, MB = 5.5 /ISC/.	
758	24	SPC HRB	IP IP I I ES E LMH	19 46 38.0 19 47 00.0 19 47 58.0 19 48 24.0 19 56 20.0 19 56 36.0 20 22 00.0	19 46 38.0 19 47 00.0 19 47 58.0 19 48 24.0 19 56 20.0 19 56 36.0 20 22 00.0	-9.2 2.6 -2.4 -0.5 5.4 -0.6 -1.7		30.2	15.0	79.1	15.0		7.2	74.32	22.76	Off East Coast of Kamchatka 52.85 N 159.22 E, H = 19 35 28.5, DEPTH = 93 km, MB = 6.4 /ISC/.	
		BRA	IP I E ES LMH	19 46 57.0 19 47 33.0 19 53 45.0 19 56 28.0 20 24 00.0	19 46 57.0 19 47 33.0 19 53 45.0 19 56 28.0 20 24 00.0			22.0	9.0	67.0	12.0		7.2	74.33	23.40		
		SRO	IP E ES E	19 46 57.0 19 53 20.0 19 56 21.0 20 03 00.0	19 46 57.0 19 53 20.0 19 56 21.0 20 03 00.0												
759	25	BRA	ESN I LMH	01 32 36.0 01 32 39.0 01 32 30.0	01 32 36.0 01 32 39.0 01 32 30.0	-1.6								2.08	239.45	Austria 47.08 N 14.48 E, H = 01 31 34.0, DEPTH = 0 km /ISC/.	
760	25	BRA	EP E	23 52 18.0 23 52 43.0	23 52 18.0 23 52 43.0	2.1								79.13	338.02	Vancouver Island Region 48.76 N 129.16 W, H = 23 40 13.0, DEPTH = 33 km, MB = 5.1 /ISC/.	

761	27	ERA E E		03 59 25.0 04 00 15.0	03 59 25.0 04 00 15.0									10.43	140.67	Aegean Sea 39.75 N 25.66 E, H = 03 54 28.0, DEPTH = 24 km, MB = 4.6 /ISC/.
762	27	ERA EP EAP E		13 57 28.0 13 57 45.0 13 58 05.0	13 57 28.0 13 57 45.0 13 58 05.0	-1.1 0.8								82.45	54.28	Ryukyu Islands 29.18 N 130.13 E, H = 13 45 11.1, DEPTH = 54 km, MB = 5.6 /ISC/.
763	28	ERA E E		11 30 45.0 11 31 30.0	11 30 45.0 11 31 30.0									109.48	246.90	Chile-Argentina Border Region 29.86 S 69.50 W, H = 11 12 00.0, DEPTH = 99 km, MB = 5.8 /ISC/.
764	29	SRO ERA E LMH		18 53 33.0 18 54 26.0 18 51 38.0 18 52 08.0 18 54 30.0	18 53 33.0 18 54 26.0 18 51 38.0 18 52 08.0 18 54 30.0	4.3								7.69	194.68	Southern Italy 40.34 N 15.77 E, H = 18 49 35.0, DEPTH = 4 km, MB = 4.5 /ISC/.

No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta Azimuth	Remarks	
				h	m		A	T	A	T	A	T					
765	2	HRB	IP E E IS LMH EP EPP E ES LMH	17 30 17 31 17 33 17 40 18 06 17 30 17 33 17 36 17 40	28.0 30.0 24.0 26.0 00.0 32.0 35.0 03.0 31.0 00.0	-1.3 -1.5 2.1 2.1 2.3											
766	4	SRO	EPP E LMH E EPP EPPSDF EPS	02 45 02 52 03 37 02 44 02 46 02 48 02 56	30.0 36.0 00.0 16.0 30.0 19.0 30.0	-1.5 -4.3 1.5 0.2											
767	5	BRA SRO	EP E EP	06 02 06 03 06 02	17.0 11.0 20.0	6.2 5.7											
768	5	BRA SRO	EP EP E LMH	06 24 06 24 06 30 06 38	53.0 50.0 04.0 00.0	0.9 -5.5											
769	6	BRA	E	02 28	40.7												
770	7	BRA SRO	IP E EP	12 12 12 12 12 12	23.7 48.0 29.0	4.6 3.0											
771	8	SRO BRA	EPP2 EPPKHP	06 29 06 29	33.0 11.0	1.5 -0.8											

772	9	BRA	IPKIKP IAPKIKP I E	15 20 15 20 15 21 15 25	38.0 50.0 29.0 23.0	2.0 -8.2											
773	11	BRA	E E	03 47 03 48	57.0 12.0												
774	11	BRA	EPPKIP E	07 44 07 44	18.0 54.0	6.2											
775	14	BRA	E E	09 49 09 49	03.0 36.0												
776	15	BRA HRB SRO	+IP IPP ES LMH IP IPP ES I I LMH +IP	08 41 08 44 08 50 09 16 08 41 08 44 08 50 08 51 08 51 09 18 08 41	21.0 02.0 39.0 00.0 18.0 00.0 37.0 00.0 50.0 00.0 22.8	0.8 -1.2 -0.6 -2.4 -3.5 -3.0 2.2											
777	15	BRA	EP	10 38	45.0	0.0											
778	15	BRA	EP	11 22	33.0	-1.4											
779	15	BRA	EP	12 13	14.0	-4.1											

No.	Date	STA Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta Azimuth	Remarks
				h	m		s	A	T	A	T	A				
780	15	BRA	EP	13	03	09.0	1.1							72.44	19.48	Near East Coast of Kamchatka 55.85 N 162.78 E, H = 12 51 44.0, MB = 4.8 /ISC/.
781	15	BRA	EP	13	19	11.0	0.9							72.87	18.88	Komandorsky Islands Region 55.68 N 164.01 E, H = 13 07 42.1, MB = 5.1 /ISC/.
782	15	BRA	EP	13	29	45.0	0.7							72.25	19.31	Near East Coast of Kamchatka 56.09 N 162.92 E, H = 13 18 19.0, MB = 4.9 /ISC/.
783	15	BRA	EP	15	18	18.0	1.8							72.61	19.09	Off East Coast of Kamchatka 55.84 N 163.51 E, H = 15 06 50.3, MB = 5.0 /ISC/.
784	15	BRA	EP	15	31	15.0	0.3							31.18	112.83	Iran 30.24 N 50.57 E, H = 15 24 58.3, MB = 5.1 /ISC/.
785	15	BRA	EPKP2	23	47	47.0	-0.8							146.79	20.87	North of New Zealand 16.30 S 174.62 W, H = 23 28 05.8, MB = 5.1 /ISC/.
786	16	BRA	EP	00	14	32.0	-0.5							72.75	18.92	Off East Coast of Kamchatka 55.78 N 163.87 E, H = 00 03 05.0, MB = 4.8 /ISC/.
787	16	BRA	+EP EAP E EPP	12	37	13.0 20.0 23.0 04.0	-1.1 -1.3 7.8							72.57	19.08	Off East Coast of Kamchatka 55.89 N 163.50 E, H = 12 25 47.0, MB = 5.6 /ISC/.
788	16	BRA	EP	13	22	38.0	1.1							72.58	19.11	Off East Coast of Kamchatka 55.86 N 163.46 E, H = 13 11 09.0, MB = 4.7 /ISC/.

789	16	BRA	EP	15	19	04.0	-1.7							72.45	19.40	Near East Coast of Kamchatka 55.88 N 162.92 E, H = 15 07 42.0, MB = 4.7 /ISC/.
790	16	BRA	EP	18	41	50.0	-0.7							29.75	0.43	Svalbard Region 77.80 N 18.10 E, H = 18 35 45.3, MB = 4.9 /ISC/.
791	17	BRA	EP	04	18	56.0	-2.0							72.48	19.48	Near East Coast of Kamchatka 55.82 N 162.81 E, H = 04 07 34.0, MB = 5.0 /ISC/.
792	17	BRA	EP	18	11	35.0	2.3							83.90	94.40	Northern Sumatra 1.61 N 99.76 E, H = 17 59 21.0, MB = 4.8 /ISC/.
793	17	BRA	E E	18	37	55.0 20.0								72.96	19.06	Off East Coast of Kamchatka 55.53 N 163.80 E, H = 18 25 24.0, MB = 4.9 /ISC/.
794	17	BRA SRO	EP EPCP E E LMH	19	17	38.0 50.0 21.0 35.0 27.0 09.0 49.0 00.0	2.7 -2.4 -0.7							72.97	19.04	Off East Coast of Kamchatka 55.53 N 163.83 E, H = 19 06 07.3, MB = 5.6 /ISC/.
795	18	BRA	E	06	05	26.0								5.73	213.74	Central Italy 43.32 N 12.75 E, H = 06 02 11.5, MB = 5.5 /ISC/.
796	18	BRA	+IP IPCP E	22	09	19.7 32.0 14.0	0.2 -4.9							72.78	19.35	Off East Coast of Kamchatka 55.59 N 163.23 E, H = 21 57 51.0, MB = 5.5 /ISC/.
797	19	BRA SRO	EP E EP	08	01	52.0 25.0 56.0	-0.4 3.2							72.35 72.41	19.34 19.95	Near East Coast of Kamchatka 55.99 N 162.94 E, H = 07 50 24.0, MB = 5.0 /ISC/.

No.	Date	STA Code	Phase	GMT h m s	RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
						A	T	A	T	A	T					
798	19	BRA	E E	15 48 49.0 15 49 19.0									73.09	19.62	Off East Coast of Kamchatka 55.21 N 163.02 E, H = 15 32 19.2, MB = 5.1 /ISC/.	
799	20	SRO BRA	EP EP E	01 34 21.0 01 34 21.0 01 34 39.0	6.5 -1.8								22.33 23.18	95.99 95.74	Eastern Caucasus 41.23 N 48.38 E, H = 01 29 14.0, MB = 5.1 /ISC/.	
800	20	SRO BRA	EP EP EPP E	01 46 01.0 01 46 13.0 01 46 40.0 01 47 12.0	-0.4 3.3 -0.2								22.39 23.23	96.18 95.92	Eastern Caucasus 41.14 N 48.40 E, H = 01 41 04.0, DEPTH = 28 km, MB = 5.1 /ISC/.	
801	22	SRO BRA	IP IP	07 04 30.0 07 04 41.0	-2.5 0.8								19.92 20.64	78.65 79.12	Western Kazakhstan 47.90 N 48.07 E, H = 06 59 56.5, MB = 6.0 /ISC/.	
802	24	BRA	EPKIKP EPKP2 E	21 31 51.0 21 32 07.0 21 33 05.0	-5.2 -1.4								149.22	24.19	North of New Zealand 19.13 S 175.71 W, H = 21 12 43.5, DEPTH = 262 km, MB = 5.1 /ISC/.	
803	24	SRO BRA	EP EP E	00 04 42.0 00 04 51.0 00 05 36.0	0.6 6.3								89.05 89.74	152.96 152.06	Atlantic-Indian Ridge 36.20 S 52.50 E, H = 23 51 48.5, MB = 5.0 /ISC/.	
804	25	BRA	EPKP2	12 56 00.0 12 56 11.0 12 56 31.0 12 57 24.0 12 56 00.0	-1.6								146.34	17.72	Samoa Region 15.46 S 172.97 W, H = 12 36 21.4, MB = 4.9 /ISC/.	
805	26	BRA	EP E	13 31 16.0 13 31 31.0	0.9								80.96	7.79	Andreanof Islands 50.70 N 175.05 W, H = 13 19 03.5, MB = 5.4 /ISC/.	
806	26	BRA	EPKIKP	16 09 49.0	-1.9								125.07	54.67	Solomon Islands 6.36 S 154.90 E, H = 15 50 57.4, MB = 5.6 /ISC/.	

807	27	BRA	EPKIKP IPKP2 I EAPKIKP E	11 20 18.0 11 20 29.0 11 20 41.0 11 21 23.0 11 22 14.0	1.9 0.2 -18.5								149.89	24.88	North of New Zealand 19.88 S 175.85 W, H = 11 00 56.7, DEPTH = 222 km, MB = 5.4 /ISC/.
808	27	BRA	E	22 20 28.0									4.94	115.12	Romania 45.89 N 23.51 E, H = 22 18 47.6, DEPTH = 0 km /ISC/.
809	28	BRA	EPKP2	06 25 35.0 06 25 40.0	-1.1								145.66	21.88	North of New Zealand 15.34 S 175.48 W, H = 06 06 06.0, MB = 4.8 /ISC/.
810	29	BRA	EP EAP E	22 37 32.0 22 37 47.0 22 38 31.0	-0.5 1.6								63.63	81.08	Burma-India Border Region 25.17 N 94.73 E, H = 22 27 04.0, MB = 5.6 /ISC/.
811	30	BRA	+IP	06 28 30.0	1.4								39.11	64.07	Eastern Kazakhstan 49.75 N 78.10 E, H = 06 20 57.9, MB = 5.7 /ISC/.
812	30	BRA	EPKIKP	15 58 21.0	1.8								122.05	56.65	New Britain Region 4.75 S 151.84 E, H = 15 39 38.3, DEPTH = 116 km, MB = 5.9 /ISC/.
813	30	BRA	EP	19 18 45.0	-0.9								79.17	2.93	Fox Islands 52.96 N 167.65 W, H = 19 06 44.0, MB = 4.9 /ISC/.
814	31	BRA	IPN I LMH	09 07 59.0 09 08 31.0 09 08 45.0	-2.5								0.99	235.18	Austria 47.60 N 15.91 E, H = 09 07 40.6, MB = 4.9 /ISC/.

Observations of Microseisms  
at the Station H u r b a n o v o



Empty grid for recording microseism observations.

Grid for recording microseism observations, containing very faint, illegible text.

Microseismic activity



January 1971

Component: NS

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	0.0			0.0			0.0			0.0		
2	0.0			0.0			0.0			0.0		
3	3	4.0	4.4	3	4.0	8.8	2	4.0	4.4	2	4.0	8.8
4	2	4.0	4.4	2	4.0	4.4	2	4.0	4.4	2	4.0	4.4
5	1	4.0	8.8	1	6.0	9.1	1	6.0	7.2	1	6.0	7.2
6	1	6.0	3.6	1	6.0	9.1	2	4.0	4.4	2	4.0	4.4
7	1	4.0	4.4	2	4.0	4.4	1	4.0	8.8	1	6.0	3.6
8	3	6.0	3.6	3	6.0	3.6	3	6.0	3.6	0.0		
9	0.0			0.0			1	6.0	3.6	1	4.0	4.4
10	1	4.0	4.4	1	6.0	3.6	2	4.0	4.4	...		
11	...			1	4.0	4.4	1	4.0	4.4	1	4.0	4.4
12	1	4.0	4.4	1	4.0	4.4	2	6.0	7.2	0.0		
13	1	4.0	4.4	1	4.0	4.4	0.0			0.0		
14	0.0			0.0			0.0			0.0		
15	0.0			0.0			1	4.0	4.4	0.0		
16	0.0			0.0			0.0			0.0		
17	0.0			0.0			1	4.0	4.4	1	4.0	4.4
18	1	4.0	4.4	1	4.0	4.4	1	6.0	3.6	1	4.0	4.4
19	1	4.0	4.4	1	4.0	4.4	1	6.0	7.2	1	6.0	3.6
20	1	6.0	3.6	1	6.0	3.6	0.0			0.0		
21	3	4.0	4.4	1	6.0	3.6	0.0			0.0		
22	0.0			0.0			1	4.0	4.4	0.0		
23	0.0			0.0			0.0			0.0		
24	0.0			0.0			0.0			0.0		
25	0.0			0.0			2	4.0	4.4	2	4.0	4.4
26	2	4.0	4.4	2	4.0	4.4	2	4.0	4.4	2	4.0	4.4
27	0.0			2	4.0	4.4	1	4.0	4.4	0.0		
28	0.0			0.0			0.0			0.0		
29	0.0			0.0			0.0			0.0		
30	0.0			0.0			0.0			0.0		
31	0.0			0.0			0.0			0.0		

Component: EW

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	0.0			0.0			0.0			0.0		
2	0.0			0.0			0.0			0.0		
3	1	4.0	8.6	1	4.0	4.2	2	6.0	7.5	1	4.0	4.2
4	1	4.0	4.2	1	4.0	4.2	2	6.0	9.4	2	6.0	7.5
5	1	4.0	8.5	1	6.0	9.4	2	6.0	9.4	2	6.0	3.8
6	2	6.0	3.8	2	4.0	4.2	3	4.0	4.2	3	4.0	4.2
7	1	6.0	3.8	1	6.0	3.8	...			0.0		
8	0.0			0.0			0.0			0.0		
9	0.0	/		0.0			2	4.0	4.2	2	4.0	4.2
10	2	6.0	3.8	2	6.0	7.5	1	6.0	9.4	1	6.0	7.5
11	1	4.0	4.2	...			1	4.0	4.2	1	4.0	4.2
12	1	4.0	4.2	1	6.0	3.8	2	6.0	7.5	1	3.0	2.2
13	1	4.0	4.2	1	4.0	4.2	0.0			0.0		
14	0.0			0.0			0.0			2	4.0	4.2
15	2	4.0	4.2	2	4.0	4.2	0.0			0.0		
16	0.0			0.0			0.0			0.0		
17	0.0			0.0			1	4.0	4.2	1	4.0	4.2
18	1	4.0	4.2	1	4.0	4.2	1	6.0	3.8	1	6.0	3.8
19	1	4.0	4.2	1	6.0	3.8	1	4.0	4.2	1	4.0	4.2
20	1	4.0	4.2	1	4.0	4.2	3	4.0	4.2	3	4.0	4.2
21	1	4.0	4.2	1	6.0	3.8	2	6.0	7.5	2	6.0	3.8
22	2	6.0	3.8	2	6.0	3.8	0.0			0.0		
23	0.0			0.0			0.0			0.0		
24	0.0			0.0			0.0			0.0		
25	0.0			0.0			1	6.0	3.8	1	4.0	4.2
26	1	4.0	4.2	1	4.0	4.2	1	6.0	9.4	1	4.0	4.2
27	0.0			1	4.0	4.2	1	4.0	4.2	1	4.0	4.2
28	0.0			1	4.0	4.2	...			...		
29	...			...			0.0			0.0		
30	0.0			0.0			0.0			0.0		
31	0.0			0.0			0.0			0.0		

Component: NS



GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	0.0			0.0			2	4.0	4.4	0.0		
2	0.0			0.0			1	4.0	4.4	1	4.0	4.4
3	0.0			2	4.0	4.4	2	4.0	4.4	2	4.0	4.4
4	2	4.0	6.6	2	6.0	9.1	2	6.0	9.1	2	6.0	9.1
5	2	6.0	9.1	2	3.0	2.4	1	4.0	2.2	0.0		
6	0.0			0.0			0.0			0.0		
7	0.0			0.0			0.0			0.0		
8	0.0			0.0			0.0			0.0		
9	0.0			0.0			0.0			0.0		
10	0.0			0.0			1	4.0	2.2	0.0		
11	0.0			1	4.0	4.4	1	4.0	2.2	TT		
12	0.0			1	6.0	3.6	1	4.0	2.2	0.0		
13	1	4.0	2.2	1	4.0	4.4	0.0			0.0		
14	0.0			0.0			0.0			0.0		
15	0.0			1	6.0	3.6	2	6.0	3.6	2	6.0	3.6
16	2	6.0	3.6	2	6.0	3.6	2	6.0	3.6	2	6.0	3.6
17	2	6.0	1.8	2	6.0	3.6	2	6.0	3.6	2	4.0	2.2
18	2	4.0	2.2	2	6.0	1.8	...			...		
19	...			...			0.0			0.0		
20	0.0			0.0			0.0			0.0		
21	0.0			0.0			0			0		
22	0			0			0.0			0.0		
23	0.0			0.0			1	4.0	2.2	1	4.0	2.2
24	0.0			1	4.0	2.2	1	4.0	4.4	0.0		
25	0.0			1	4.0	4.4	0.0			0.0		
26	0.0			0.0			0.0			0.0		
27	0.0			0.0			0.0			0.0		
28	0.0			0.0			0.0			0.0		

Microseismic activity

February 1971

Component: EW

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	2	4.0	4.2	2	4.0	4.2	2	4.0	4.2	0.0		
2	0.0			2	4.0	4.2	1	6.0	3.8	1	4.0	2.1
3	1	4.0	4.2	2	6.0	9.4	2	6.0	9.4	2	6.0	9.4
4	2	4.0	6.3	2	4.0	8.5	2	6.0	9.4	2	6.0	9.4
5	2	4.0	8.5	2	4.0	8.5	2	6.0	9.4	2	6.0	9.4
6	2	4.0	4.2	2	4.0	4.2	2	4.0	2.1	2	4.0	2.1
7	2	4.0	4.2	2	4.0	2.1	1	4.0	2.1	0.0		
8	0.0			0.0			0.0			0.0		
9	0.0			0.0			0.0			0.0		
10	0.0			0.0			1	4.0	4.2	1	4.0	4.2
11	0.0			1	4.0	4.2	1	4.0	4.2	TT		
12	1	4.0	2.1	1	6.0	3.8	1	6.0	3.8	0.0		
13	0.0			1	4.0	2.1	1	6.0	3.8	1	6.0	3.8
14	1	4.0	4.2	1	4.0	4.2	2	4.0	4.2	2	4.0	4.2
15	2	4.0	4.2	2	4.0	4.2	2	6.0	3.8	2	6.0	3.8
16	2	6.0	3.8	2	6.0	3.8	2	6.0	3.8	2	4.0	2.1
17	2	4.0	2.1	2	6.0	3.8	0.0			0.0		
18	0.0			0.0			0.0			0.0		
19	0.0			0.0			0.0			0.0		
20	0.0			0.0			0.0			0.0		
21	0.0			0.0			0			0		
22	0			0			0.0			0.0		
23	0.0			0.0			1	4.0	4.2	1	4.0	2.1
24	0.0			1	4.0	4.2	1	4.0	4.2	1	4.0	4.2
25	0.0			0.0			1	4.0	4.2	0.0		
26	0.0			0.0			0.0			0.0		
27	0.0			0.0			1	4.0	4.2	1	4.0	4.2
28	0.0			0.0			0.0			0.0		

Microseismic activity

March 1971

Component: NS



GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	0.0			0.0			0.0			0.0		
2	0.0			0.0			0.0			0.0		
3	0.0			0.0			0.0			0.0		
4	0.0			1	4.0	2.2	1	4.0	2.2	0.0		
5	0.0			0.0			1	4.0	4.4	1	4.0	2.2
6	0.0			1	4.0	2.2	0.0			0.0		
7	0.0			0.0			0.0			0.0		
8	0.0			1	6.0	3.6	1	4.0	4.4	1	4.0	4.4
9	1	4.0	4.4	1	4.0	4.4	1	4.0	4.4	1	4.0	4.4
10	1	4.0	4.4	1	4.0	2.2	1	6.0	5.4	0.0		
11	0.0			1	4.0	2.2	0.0			0.0		
12	0.0			0.0			0.0			0.0		
13	0.0			0.0			0.0			0.0		
14	0.0			0.0			0.0			0.0		
15	0.0			0.0			0			0		
16	0			0			1	4.0	2.2	1	4.0	2.2
17	1	4.0	2.2	1	4.0	2.2	1	4.0	4.4	1	4.0	4.4
18	1	4.0	4.4	1	4.0	4.4	1	6.0	3.6	1	4.0	4.4
19	0.0			1	4.0	4.4	1	4.0	2.2	0.0		
20	0.0			0.0			0			0		
21	0			0			0			0.0		
22	0.0			1	4.0	2.2	1	4.0	4.4	1	4.0	4.4
23	0			1	4.0	2.2	1	4.0	2.2	0.0		
24	0.0			0.0			0.0			0.0		
25	0.0			0.0			2	6.0	3.6	2	6.0	3.6
26	2	6.0	3.6	2	6.0	3.6	2	6.0	3.6	1	4.0	2.2
27	1	4.0	2.2	1	4.0	2.2	0.0			0.0		
28	0.0			0.0			0.0			0.0		
29	0.0			0.0			0.0			0.0		
30	0.0			0.0			1	4.0	2.2	0.0		
31	0.0			0.0			0.0			0.0		



Component: EW

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	0.0			0.0			0.0			0.0		
2	0.0			0.0			0.0			0.0		
3	0.0			0.0			0.0			0.0		
4	0.0			1 4.0 2.1			1 4.0 2.1			0.0		
5	0.0			0.0			1 4.0 2.1			1 6.0 3.8		
6	0.0			1 6.0 3.8			0.0			0.0		
7	0.0			0.0			0.0			1 4.0 2.1		
8	1 6.0 3.8			1 6.0 3.8			2 6.0 3.8			2 6.0 3.8		
9	0.0			2 6.0 3.8			1 4.0 4.2			1 4.0 4.2		
10	1 4.0 4.2			1 4.0 4.2			1 6.0 3.8			1 4.0 2.1		
11	1 4.0 2.1			1 6.0 3.8			1 4.0 2.1			1 4.0 2.1		
12	1 4.0 4.2			1 6.0 1.9			1 6.0 1.9			0.0		
13	0.0			1 6.0 1.9			2 4.0 2.1			2 4.0 2.1		
14	2 4.0 2.1			2 4.0 4.2			2 4.0 2.1			2 4.0 2.1		
15	2 4.0 2.1			2 4.0 2.1			0.0			0.0		
16	0.0			1 4.0 2.1			0.0			0.0		
17	0.0			1 4.0 2.1			1 4.0 2.1			1 4.0 4.2		
18	1 4.0 4.2			1 6.0 3.8			1 6.0 3.8			1 4.0 4.2		
19	0.0			1 4.0 4.2			2 6.0 3.8			2 6.0 1.9		
20	2 6.0 3.8			2 6.0 3.8			1 4.0 4.2			0.0		
21	0.0			0.0			1 4.0 4.2			0.0		
22	1 4.0 4.2			1 4.0 4.2			1 4.0 4.2			1 4.0 4.2		
23	1 4.0 4.2			1 4.0 4.2			0.0			0.0		
24	0.0			0.0			1 4.0 2.1			1 4.0 2.1		
25	1 4.0 2.1			1 4.0 2.1			2 6.0 3.8			2 6.0 3.8		
26	2 6.0 3.8			2 6.0 3.8			2 6.0 3.8			2 6.0 3.8		
27	2 6.0 3.8			2 6.0 3.8			2 4.0 2.1			2 4.0 2.1		
28	0.0			0.0			0.0			0.0		
29	0.0			0.0			0.0			0.0		
30	0.0			0.0			1 4.0 2.1			1 4.0 2.1		
31	0.0			0.0			0.0			0.0		

Component: NS



GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	0			0			0			0		
2	0			0			0			0		
3	0			0			0.0			0.0		
4	0			0			0.0			0.0		
5	0.0			0.0			0.0			0.0		
6	0.0			1 6.0 1.8			0.0			0.0		
7	0			0.0			0.0			0.0		
8	0			0			0			0		
9	0			0			1 4.0 2.2			0		
10	0			0			0			0		
11	0			0			1 4.0 2.2			2 4.0 2.2		
12	2 4.0 2.2			2 6.0 3.6			...			0.0		
13	0.0			0.0			1 4.0 4.4			0.0		
14	0			0.0			0.0			0.0		
15	0.0			0.0			0.0			...		
16	...			...			0.0			0.0		
17	0.0			0.0			0.0			0.0		
18	0.0			0.0			0.0			0.0		
19	0.0			0.0			2 6.0 3.6			2 6.0 3.6		
20	2 4.0 2.2			...			1 4.0 4.4			1 4.0 2.2		
21	1 4.0 2.2			...			1 4.0 2.2			0.0		
22	0.0			0.0			0.0			0.0		
23	0.0			0.0			0.0			0.0		
24	0.0			0.0			1 4.0 4.4			1 4.0 4.4		
25	1 4.0 4.4			1 4.0 4.4			0.0			0.0		
26	0.0			0.0			0.0			0.0		
27	0.0			0.0			0.0			0.0		
28	0.0			0.0			0.0			0.0		
29	0.0			0.0			0.0			0.0		
30	0.0			0.0			0.0			0.0		

Component: EW

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	0			0			0			0		
2	0			0			0.0			0.0		
3	0.0			0.0			0.0			0.0		
4	0.0			0.0			0.0			0.0		
5	0.0			0.0			1 6.0 1.9			0.0		
6	0.0			1 6.0 1.9			0.0			0		
7	0			1 6.0 1.9			1 6.0 1.9			0.0		
8	0			1 4.0 2.1			1 6.0 1.9			0.0		
9	0.0			1 6.0 1.9			0.0			0.0		
10	0.0			0.0			0.0			0.0		
11	1 4.0 2.1			0.0			2 4.0 2.1			2 6.0 3.8		
12	2 6.0 3.8			2 6.0 3.8			2 4.0 4.2			2 6.0 3.8		
13	1 4.0 2.1			2 6.0 3.8			1 4.0 4.2			0.0		
14	0			1 4.0 4.2			1 6.0 3.8			0.0		
15	0			1 6.0 1.9			1 4.0 4.2			0.0		
16	0			1 6.0 1.9			0.0			0.0		
17	0.0			0.0			1 6.0 1.9			1 6.0 1.9		
18	1 6.0 1.9			1 6.0 1.9			2 6.0 3.8			2 6.0 3.8		
19	2 6.0 3.8			2 6.0 3.8			2 6.0 9.4			2 6.0 9.4		
20	2 6.0 9.4			2 6.0 9.4			2 4.0 4.2			2 4.0 4.2		
21	0.0			1 4.0 2.1			0.0			0.0		
22	0.0			0.0			0.0			0.0		
23	0.0			0.0			1 4.0 4.2			1 4.0 2.1		
24	1 4.0 4.2			1 4.0 4.2			1 4.0 4.2			1 4.0 4.2		
25	1 4.0 4.2			1 4.0 4.2			0.0			0.0		
26	0.0			0.0			0.0			0.0		
27	0.0			0.0			0.0			0.0		
28	0.0			0.0			0.0			0.0		
29	0.0			0.0			0.0			0.0		
30	0.0			0.0			0.0			0.0		

Component: NS

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	0.0			0.0			0.0			0		
2	0			TT			0.0			0.0		
3	0.0			0.0			0			0		
4	0			0.0			0			0		
5	0			0			1 4.0 2.3			1 4.0 2.3		
6	0.0			1 4.0 2.3			2 4.0 2.3			2 4.0 2.3		
7	0.0			2 4.0 2.3			2 4.0 2.3			0		
8	0			0			0			0		
9	0			0			0			0		
10	0			0			0.0			0.0		
11	0			0			0.0			0.0		
12	0.0			TT			0.0			TT		
13	0			0			0.0			0.0		
14	0.0			0.0			1 4.0 2.3			0.0		
15	0.0			0.0			1 4.0 2.3			0.0		
16	0.0			1 4.0 2.3			0.0			0.0		
17	0.0			0.0			1 4.0 2.3			0		
18	0			0			0.0			0.0		
19	TT			0.0			0.0			0		
20	0.0			0.0			0			0		
21	0			0			1 4.0 2.3			0		
22	0.0			0.0			0			0		
23	0			0			0.0			0.0		
24	0.0			0.0			0.0			0.0		
25	0.0			0.0			0.0			0.0		
26	0.0			0.0			0.0			0.0		
27	0.0			0.0			0.0			0.0		
28	0.0			0.0			0.0			0.0		
29	0.0			0.0			0.0			0.0		
30	0.0			0.0			0.0			0.0		
31	0.0			0.0			0.0			0.0		

Microseismic activity

May 1971

Component: EW

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	0.0			0.0			0.0			0.0		
2	0.0			TT			0.0			0.0		
3	0.0			0.0			0.0			0.0		
4	0.0			0.0			0			0		
5	0			0								
6	...			...			2 4.0 2.3			2 4.0 2.3		
7	2 4.0 2.3			2 4.0 2.3			2 4.0 2.3			2 4.0 2.3		
8	0.0			2 4.0 2.3			0.0			0.0		
9	0.0			0.0			0.0			0.0		
10	0.0			0.0			0.0			0.0		
11	0.0			0.0			1 4.0 2.3			1 4.0 2.3		
12	0.0			TT			1 4.0 2.3			TT		
13	0			0.0			1 4.0 2.3			1 4.0 2.3		
14	0			1 4.0 2.3			1 4.0 2.3			1 4.0 2.3		
15	0.0			1 4.0 2.3			0.0			0.0		
16	0.0			0.0			0.0			0.0		
17	0.0			0.0			0.0			0.0		
18	0.0			0.0			0.0			0.0		
19	TT			1 4.0 2.3			0.0			0.0		
20	0.0			0.0			0.0			0.0		
21	0.0			0.0			...			...		
22	...			...			...			...		
23	...			...			0.0			0.0		
24	0.0			0.0			1 4.0 2.3			1 4.0 2.3		
25	0.0			0.0			0.0			0.0		
26	0.0			...			...			...		
27	...			...			0.0			0.0		
28	0.0			0.0			0.0			0.0		
29	0.0			0.0			0.0			0.0		
30	0.0			0.0			0.0			0.0		
31	0.0			0.0			0.0			0.0		

Microseismic activity

June 1971



Component: NS

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	0.0			0.0			0.0			0.0		
2	0			1 4.0 2.3			0.0			0.0		
3	0.0			1 4.0 2.3			0.0			0.0		
4	0.0			0.0			0			0		
5	0			0			0.0			0		
6	0.0			1 4.0 2.3			0			0		
7	0			1 6.0 1.8			0			0		
8	0			0			0			0		
9	0			0			0.0			0.0		
10	0.0			0.0			0			0		
11	0			0			1 4.0 2.3			1 4.0 2.3		
12	0.0			0.0			0.0			0.0		
13	0.0			0.0			0.0			0.0		
14	0.0			0.0			0.0			0.0		
15	0			0.0			0			0		
16	0			0.0			0.0			0.0		
17	0.0			0.0			0.0			0.0		
18	0.0			0.0			0.0			0.0		
19	0.0			0.0			0.0			0.0		
20	0.0			0.0			0.0			0.0		
21	0.0			0			0.0			0.0		
22	0.0			1 4.0 2.3			0.0			0.0		
23	0.0			0.0			0.0			0.0		
24	0.0			0.0			0.0			0.0		
25	0.0			0.0			1 4.0 4.5			1 4.0 2.3		
26	0.0			0.0			0			0		
27	0			0			0			1 4.0 2.3		
28	0.0			1 4.0 4.5			0.0			0.0		
29	0.0			0.0			0.0			0.0		
30	0.0			0.0			0.0			0.0		
31	0.0			0.0			0.0			0.0		

Microseismic activity

June 1971

Microseismic activity

Component: EW

Component: NS

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	0.0			0.0			0.0			0.0		
2	0.0			1 4.0 2.3			0.0			0.0		
3	0.0			0.0			0.0			0.0		
4	0.0			0.0			0.0			0.0		
5	0.0			1 4.0 2.3			1 4.0 4.6			0.0		
6	1 4.0 2.3			1 4.0 4.6			1 4.0 2.3			1 4.0 2.3		
7	1 4.0 2.3			1 4.0 2.3			1 4.0 2.3			1 4.0 2.3		
8	0.0			1 4.0 2.3			0.0			0.0		
9	0.0			0.0			0.0			0.0		
10	0.0			0.0			0.0			0.0		
11	0.0			0.0			0			0		
12	0.0			1 4.0 2.3			1 4.0 2.3			0.0		
13	0.0			0.0			0.0			0.0		
14	0.0			0.0			0.0			0.0		
15	0.0			0.0			0.0			0.0		
16	0.0			0.0			0.0			0.0		
17	0.0			0.0			0.0			0.0		
18	0.0			0.0			0.0			0.0		
19	0.0			0.0			0.0			0.0		
20	0.0			0.0			0.0			0.0		
21	0.0			1 4.0 2.3			1 4.0 2,3			0.0		
22	0.0			0.0			0.0			0.0		
23	0.0			0.0			1 4.0 4.6			1 4.0 4.6		
24	0.0			1 4.0 4.6			1 4.0 2.3			1 4.0 2.3		
25	0.0			1 4.0 4.6			0.0			1 4.0 2.3		
26	0.0			1 4.0 4.6			1 4.0 4.6			0.0		
27	0.0			1 4.0 2.3			1 4.0 4.6			0.0		
28	0.0			0.0			0.0			0.0		
29	0.0			0.0			0.0			0.0		
30	0.0			0.0			0.0			0.0		



International  
Seismological  
Centre

Microseismic activity

July 1971

Microseismic activity

Component: NS

Component: EW

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	0.0			0.0			0.0			0.0		
2	0.0			0.0			0.0			0.0		
3	0			0			0.0			0.0		
4	0.0			0.0			1 4.0 2.3			1 4.0 2.3		
5	1 4.0 2.3			1 4.0 2.3			1 4.0 2.3			1 4.0 2.3		
6	0.0			1 4.0 2.3			0.0			0.0		
7	0.0			0.0			0.0			1 4.0 2.3		
8	1 4.0 2.3			1 4.0 2.3			1 4.0 2.3			1 4.0 2.3		
9	0.0			1 4.0 2.3			0.0			1 4.0 2.3		
10	0.0			0.0			0.0			1 4.0 2.3		
11	0.0			0.0			0.0			1 4.0 2.3		
12	1 4.0 2.3			0.0			0.0			1 4.0 2.3		
13	0.0			1 4.0 2.3			1 4.0 2.3			1 4.0 2.3		
14	0.0			0.0			TT			1 4.0 2.3		
15	0.0			0.0			1 4.0 2.3			1 4.0 2.3		
16	0.0			0.0			1 6.0 1.8			1 4.0 2.3		
17	0.0			0.0			0.0			1 6.0 3.7		
18	1 6.0 1.8			1 6.0 1.8			1 6.0 1.8			1 4.0 2.3		
19	1 4.0 2.3			1 4.0 2.3			1 4.0 2.3			0.0		
20	0.0			0.0			0.0			0.0		
21	0.0			0.0			0.0			0.0		
22	0.0			0.0			0.0			0.0		
23	0.0			0.0			1 4.0 2.3			1 4.0 2.3		
24	0.0			0.0			1 4.0 2.3			0		
25	0.0			0.0			1 4.0 2.3			0.0		
26	0.0			0.0			TT			0		
27	0			0			0			0		
28	0			0			0			1 4.0 2.3		
29	1 4.0 2.3			1 4.0 2.3			1 4.0 2.3			1 4.0 2.3		
30	1 4.0 2.3			1 4.0 2.3			1 4.0 2.3			1 4.0 2.3		
31	...			...			...			...		

Microseismic activity

July 1971

Component: EW

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	0.0			0.0			0.0			0.0		
2	0.0			0.0			0.0			0.0		
3	0.0			0.0			0			0		
4	0			0			0			0		
5	0			0			1 6.0 2.1			1 6.0 2.1		
6	0.0			1 4.0 2.3			1 6.0 2.1			1 6.0 2.1		
7	1 6.0 2.1			0.0			0.0			0.0		
8	0.0			0.0			0.0			0.0		
9	0.0			0.0			1 4.0 2.3			0.0		
10	0.0			1 4.0 2.3			1 4.0 2.3			1 4.0 2.3		
11	1 4.0 2.3			0.0			1 4.0 2.3			0.0		
12	0.0			1 4.0 2.3			1 4.0 2.3			1 4.0 2.3		
13	1 4.0 2.3			1 4.0 2.3			1 4.0 2.3			0.0		
14	0.0			TT			1 4.0 2.3			0.0		
15	0.0			1 4.0 2.3			0.0			0.0		
16	0.0			0.0			0.0			0.0		
17	0.0			0.0			1 4.0 2.3			0.0		
18	0.0			1 4.0 2.3			1 4.0 2.3			1 4.0 2.3		
19	1 4.0 2.3			1 4.0 2.3			0.0			0.0		
20	0.0			0.0			1 6.0 2.1			1 6.0 2.1		
21	1 4.0 2.3			1 6.0 2.1			0.0			0.0		
22	0.0			0.0			0.0			0.0		
23	0.0			0.0			1 4.0 2.3			0.0		
24	0.0			0.0			1 4.0 2.3			1 4.0 2.3		
25	0.0			1 4.0 2.3			1 4.0 2.3			0.0		
26	0.0			TT			1 4.0 2.3			0.0		
27	0.0			1 4.0 2.3			1 6.0 2.1			1 4.0 2.3		
28	0.0			1 6.0 4.2			...			...		
29	...			...			1 4.0 4.6			1 4.0 2.3		
30	1 4.0 2.3			1 4.0 2.3			1 4.0 2.3			1 4.0 2.3		
31	1 6.0 2.1			1 4.0 2.3			1 4.0 2.3			1 4.0 2.3		



Microseismic activity

August 1971

Component: NS

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	0.0			0.0			0.0			0.0		
2	0.0			0.0			1 4.0 4.5			1 4.0 4.5		
3	1 4.0 4.5			0.0			0.0			0.0		
4	0.0			TT			1 4.0 4.5			0.0		
5	0.0			1 4.0 4.5			1 6.0 3.7			0.0		
6	1 4.0 4.5			1 6.0 3.7			1 4.0 4.5			1 4.0 4.5		
7	1 6.0 3.7			0.0			0.0			0.0		
8	0.0			0.0			0.0			0.0		
9	0.0			0.0			0.0			0.0		
10	0.0			0.0			1 4.0 4.5			0.0		
11	0.0			0.0			0.0			0.0		
12	1 4.0 4.5			0.0			0.0			0.0		
13	0.0			0.0			0.0			0.0		
14	0.0			0.0			1 4.0 4.5			0.0		
15	0.0			0.0			0.0			0.0		
16	0.0			0.0			0.0			0.0		
17	0.0			0.0			1 4.0 4.4			1 4.0 4.5		
18	1 4.0 4.5			1 4.0 4.5			1 4.0 4.5			1 4.0 4.5		
19	0.0			2 4.0 4.5			2 4.0 4.5			2 4.0 4.5		
20	2 4.0 4.5			2 4.0 4.5			2 4.0 4.5			2 4.0 4.5		
21	2 4.0 4.5			2 4.0 4.5			2 4.0 4.5			0.0		
22	0.0			0.0			0.0			2 4.0 2.3		
23	...			...			2 4.0 4.5			2 4.0 2.3		
24	0.0			0.0			2 4.0 4.5			0.0		
25	0.0			0.0			2 4.0 4.5			2 4.0 2.3		
26	0.0			2 6.0 3.7			2 4.0 4.5			0.0		
27	0.0			0.0			0.0			0.0		
28	0.0			0.0			0.0			0.0		
29	0.0			0.0			0.0			0.0		
30	0.0			0.0			0.0			0.0		
31	0.0			0.0			0.0			0.0		

Microseismic activity

August 1971

Microseismic activity

Component: EW

Component: NS

GMT Date	00 h			06 h			12 h			18 h					
	K	T	A	K	T	A	K	T	A	K	T	A			
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
2	0.0	0.0	0.0	...	0.0	1 4.0 4.6	0.0	1 4.0 4.6	0.0	1 4.0 4.6	0.0	1 4.0 4.6			
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
5	0.0	0.0	0.0	TT	1 4.0 4.6	0.0	1 4.0 4.6	0.0	1 4.0 4.6	0.0	1 4.0 4.6	0.0	1 4.0 4.6		
6	1	4.0	4.6	1	4.0	4.6	1	4.0	4.6	1	4.0	4.6	1	4.0	4.6
7	0.0	0.0	0.0	0.0	1 6.0 4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	1 4.0 4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1 4.0 4.6	0.0	1 4.0 4.6	0.0	1 4.0 4.6	0.0	1 4.0 4.6	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	1 6.0 6.2	0.0	1 4.0 4.6	0.0	1 4.0 4.6	0.0	1 4.0 4.6	0.0	1 4.0 4.6	0.0
12	0.0	1 4.0 4.6	0.0	0.0	1 6.0 4.2	0.0	1 4.0 4.6	0.0	1 4.0 4.6	0.0	1 4.0 4.6	0.0	1 4.0 4.6	0.0	1 4.0 4.6
13	0.0	0.0	0.0	0.0	1 4.0 4.6	0.0	1 4.0 6.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	1 4.0 6.9	0.0	1 4.0 4.6	0.0	1 4.0 4.6	0.0	1 4.0 4.6	0.0	1 4.0 4.6	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	1 6.0 2.1	0.0	1 6.0 2.1	0.0	1 6.0 2.1	0.0	1 6.0 2.1	0.0	1 6.0 2.1	0.0	1 6.0 2.1
17	0.0	0.0	0.0	0.0	1 4.0 4.6	0.0	1 4.0 4.6	0.0	1 4.0 4.6	0.0	1 4.0 4.6	0.0	1 4.0 4.6	0.0	1 4.0 4.6
18	0.0	1 4.0 4.6	0.0	0.0	1 6.0 4.2	0.0	1 6.0 4.2	0.0	1 6.0 4.2	0.0	1 6.0 4.2	0.0	1 6.0 4.2	0.0	1 6.0 4.2
19	0.0	1 4.0 4.6	0.0	0.0	1 6.0 4.2	0.0	2 6.0 4.2	0.0	2 6.0 4.2	0.0	2 6.0 4.2	0.0	2 6.0 4.2	0.0	2 6.0 4.2
20	0.0	0.0	0.0	0.0	2 4.0 2.3	0.0	1 4.0 4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	1 4.0 4.6	0.0	2 4.0 4.6	0.0	2 4.0 4.6	0.0	2 4.0 4.6	0.0	2 4.0 4.6	0.0	2 4.0 4.6
22	0.0	2 4.0 4.6	0.0	0.0	2 4.0 4.6	0.0	2 4.0 4.6	0.0	2 4.0 4.6	0.0	2 4.0 4.6	0.0	2 4.0 4.6	0.0	2 4.0 4.6
23	0.0	0.0	0.0	0.0	2 4.0 4.6	0.0	2 4.0 4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	1 6.0 4.2	0.0	2 4.0 4.6	0.0	2 4.0 4.6	0.0	2 4.0 4.6	0.0	2 4.0 4.6
25	0.0	0.0	0.0	0.0	2 6.0 4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2 4.0 4.6	0.0	2 4.0 4.6	0.0	2 4.0 4.6	0.0	2 4.0 4.6	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Microseismic activity

International Seismological Centre September 1971

Microseismic activity

Component: NS

Component: NS

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	1 4.0 4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	1 4.0 4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	1	4.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	1	4.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	2	4.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	1	4.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Microseismic activity

September 1971

Component: EW

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	0.0			0.0			0.0			0.0		
2	0.0			0.0			1	4.0	4.6	1	4.0	4.6
3	1	4.0	4.6	1	4.0	4.6	1	4.0	4.6	1	4.0	4.6
4	0.0			1	4.0	4.6	2	6.0	4.2	2	6.0	4.2
5	2	4.0	4.6	2	6.0	4.2	0.0			TT		
6	0.0			0.0			0.0			0.0		
7	0.0			0.0			0.0			0.0		
8	0.0			0.0			TT			0.0		
9	0.0			0.0			0.0			0.0		
10	0.0			0.0			0.0			0.0		
11	0.0			0.0			1	4.0	4.6	1	4.0	4.6
12	0.0			0.0			0.0			0.0		
13	0.0			0.0			1	4.0	4.6	0		
14	0			0			0.0			0.0		
15	0.0			0.0			0.0			0.0		
16	0			1	4.0	4.6	1	4.0	4.6	1	4.0	4.6
17	0			1	6.0	4.2	1	6.0	2.1	1	4.0	4.6
18	1	4.0	4.6	1	4.0	4.6	1	6.0	4.2	0.0		
19	0.0			0.0			1	4.0	4.6	1	4.0	4.6
20	1	4.0	4.6	1	4.0	4.6	1	4.0	4.6	1	4.0	4.6
21	1	4.0	4.6	1	4.0	4.6	1	4.0	4.6	1	4.0	4.6
22	1	4.0	4.6	1	4.0	4.6	2	6.0	4.2	2	6.0	4.2
23	2	4.0	4.6	2	4.0	4.6	2	6.0	4.2	2	6.0	4.2
24	0.0			0.0			0.0			0.0		
25	0.0			0.0			0.0			0.0		
26	0.0			0.0			0.0			0.0		
27	0.0			TT			1	6.0	2.1	1	6.0	2.1
28	1	4.0	4.6	1	4.0	4.6	1	4.0	2.3	0.0		
29	0.0			1	4.0	4.6	1	4.0	2.3	0.0		
30	0.0			0.0			0.0			0.0		



Microseismic activity

International Seismological Centre  
October 1971

Component: NS

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	0.0			0.0			0.0			0.0		
2	0.0			0.0			0.0			0.0		
3	0.0			0.0			0.0			0.0		
4	0.0			0.0			0			0		
5	0			0.0			0.0			0.0		
6	0.0			0.0			2	4.0	2.3	0.0		
7	2	4.0	4.5	2	4.0	4.5	2	6.0	5.5	...		
8	...			...			2	6.0	5.5	2	6.0	5.5
9	2	6.0	3.7	2	6.0	5.5	2	4.0	4.5	0.0		
10	0.0			0.0			2	4.0	2.3	0.0		
11	0.0			0.0			2	4.0	2.3	0.0		
12	2	4.0	6.8	2	4.0	6.8	2	6.0	3.7	2	4.0	4.5
13	2	4.0	2.3	2	4.0	4.5	2	4.0	2.3	0.0		
14	0.0			0.0			0.0			0.0		
15	0.0			0.0			2	4.0	2.3	2	4.0	2.3
16	2	4.0	2.3	2	4.0	2.3	0.0			0.0		
17	0.0			0.0			0.0			0.0		
18	0.0			0.0			2	3.0	2.5	2	4.0	2.3
19	2	4.0	4.5	2	4.0	4.5	2	4.0	4.5	0.0		
20	2	4.0	2.3	2	4.0	2.3	2	4.0	4.5	2	4.0	4.5
21	...			...			2	4.0	6.8	2	4.0	6.8
22	2	4.0	6.8	2	6.0	5.5	2	6.0	9.2	2	6.0	5.5
23	2	6.0	5.5	2	6.0	3.7	2	3.0	2.5	0.0		
24	0.0			2	4.0	4.5	2	3.0	2.5	0.0		
25	2	4.0	2.3	2	4.0	4.5	2	4.0	6.8	2	4.0	6.8
26	0.0			0.0			...			...		
27	...			...			0.0			0.0		
28	0.0			0.0			0.0			0.0		
29	0.0			0.0			0.0			0.0		
30	0.0			0.0			2	4.0	2.3	0.0		
31	0.0			0.0			0.0			0.0		

Microseismic activity

October 1971

Component: EW

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	0.0			0.0			0.0			0.0		
2	0.0			0.0			0.0			0.0		
3	0.0			0.0			1 4.0	4.6		0.0		
4	0.0			0.0			1 4.0	4.6		1 4.0	4.6	
5	0			1 4.0	4.6		2 4.0	4.6		2 4.0	4.6	
6	2 4.0	4.6		2 6.0	4.2		2 4.0	2.3		2 4.0	4.6	
7	0.0			2 4.0	4.6		2 6.0	4.2		2 6.0	6.2	
8	2 6.0	6.2		2 6.0	8.3		2 6.0	8.3		2 6.0	8.3	
9	2 6.0	8.3		2 6.0	8.3		2 6.0	6.2		2 4.0	6.3	
10	2 4.0	4.6		2 4.0	4.6		2 4.0	4.6		2 4.0	4.6	
11	2 4.0	4.6		2 4.0	4.6		2 6.0	4.2		2 6.0	4.2	
12	2 6.0	4.2		2 6.0	8.3		2 6.0	6.2		2 6.0	6.2	
13	2 4.0	4.6		2 4.0	4.6		2 4.0	6.9		2 4.0	6.3	
14	2 4.0	4.6		2 4.0	4.6		0.0			0.0		
15	0.0			0.0			2 6.0	8.3		2 6.0	8.3	
16	2 4.0	4.6		2 4.0	4.6		2 4.0	4.6		2 4.0	4.6	
17	2 4.0	4.6		2 4.0	4.6		2 4.0	4.6		2 4.0	4.6	
18	2 4.0	4.6		2 4.0	4.6		2 4.0	4.6		2 4.0	4.6	
19	2 4.0	4.6		2 6.0	4.2		2 4.0	2.3		2 4.0	4.6	
20	2 4.0	4.6		2 4.0	4.6		2 4.0	4.6		2 4.0	4.6	
21	2 4.0	2.3		2 4.0	2.3		2 4.0	4.6		2 4.0	4.6	
22	2 6.0	8.3		2 6.0	8.3		2 6.0	8.3		2 6.0	8.3	
23	2 6.0	8.3		2 6.0	8.3		2 6.0	8.3		2 6.0	8.3	
24	2 4.0	2.3		2 4.0	2.3		2 6.0	4.2		2 6.0	4.2	
25	2 6.0	4.2		2 6.0	6.2		2 6.0	6.2		2 6.0	6.2	
26	2 4.0	4.6		2 6.0	4.2		0.0			0.0		
27	0.0			0.0			0.0			0.0		
28	0.0			0.0			0.0			0.0		
29	0.0			0.0			0.0			0.0		
30	2 4.0	2.3		2 4.0	2.3		2 4.0	2.3		2 4.0	2.3	
31	0.0			0.0			0.0			0.0		



Microseismic activity

International  
Seismological  
Centre

November 1971

Component: NS

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	0.0			0.0			0.0			0.0		
2	0.0			2 4.0	2.3		2 4.0	4.5		2 4.0	4.5	
3	2 4.0	4.5		2 4.0	4.5		2 6.0	9.2		2 6.0	9.2	
4	2 6.0	9.2		2 6.0	9.2		2 6.0	9.2		2 6.0	9.2	
5	2 6.0	9.2		2 6.0	9.2		2 4.0	2.3		0.0		
6	0.0			2 4.0	4.5		2 4.0	4.5		2 3.0	2.5	
7	0.0			0.0			0.0			0.0		
8	0.0			0.0			2 6.0	5.5		2 4.0	4.5	
9	2 4.0	2.3		2 4.0	4.5		2 4.0	4.5		2 4.0	4.5	
10	2 4.0	4.5		2 4.0	4.5		2 4.0	4.5		2 4.0	4.5	
11	2 4.0	4.5		2 4.0	4.5		2 6.0	9.2		2 6.0	9.2	
12	2 6.0	7.4		2 6.0	9.2		2 4.0	4.5		2 4.0	4.5	
13	2 4.0	4.5		2 4.0	4.5		2 4.0	4.5		2 4.0	2.3	
14	0.0			0.0			0.0			0.0		
15	0.0			2 4.0	4.5		2 4.0	4.5		2 4.0	4.5	
16	2 4.0	4.5		2 4.0	4.5		2 6.0	3.7		2 6.0	9.2	
17	2 6.0	9.2		2 6.0	9.2		2 6.0	3.7		2 6.0	3.7	
18	2 6.0	3.7		2 4.0	4.5		2 4.0	4.5		2 4.0	4.5	
19	2 4.0	4.5		2 4.0	4.5		2 4.0	4.5		2 4.0	4.5	0.0
20	0.0			2 4.0	4.5		2 4.0	4.5		2 4.0	4.5	
21	2 4.0	4.5		2 4.0	4.5		2 6.0	5.5		2 6.0	3.7	
22	2 6.0	3.7		2 6.0	3.7		2 6.0	5.5		2 4.0	4.5	
23	2 4.0	4.5		2 4.0	4.5		2 4.0	4.5		2 4.0	4.5	
24	0.0			2 4.0	4.5		2 4.0	4.5		2 6.0	9.2	
25	0.0			2 4.0	4.5		2 4.0	4.5		2 6.0	9.2	
26	2 4.0	4.5		2 4.0	4.5		2 6.0	9.2		2 6.0	9.2	
27	0.0			2 4.0	6.3		2 4.0	4.5		2 4.0	4.5	
28	2 6.0	9.2		2 4.0	4.5		2 4.0	4.5		2 4.0	4.5	
29	2 4.0	4.5		2 4.0	4.5		2 4.0	4.5		2 4.0	4.5	
30	2 4.0	4.5		2 4.0	4.5		2 6.0	3.7		2 6.0	3.7	



Microseismic activity

November 1971

Component: EW

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	0.0			0.0			0.0			0.0		
2	0.0			0.0			2 6.0 4.3			2 6.0 4.3		
3	2 6.0 4.3			2 6.0 4.3			2 6.0 8.6			2 6.0 8.6		
4	2 6.0 8.6			2 6.0 8.6			2 6.0 8.6			2 6.0 8.6		
5	2 4.0 4.7			2 4.0 4.7			2 4.0 4.7			2 4.0 4.7		
6	2 4.0 4.7			2 4.0 4.7			2 4.0 4.7			2 4.0 4.7		
7	2 4.0 4.7			2 4.0 4.7			2 4.0 4.7			2 4.0 4.7		
8	2 4.0 4.7			2 6.0 6.4			2 4.0 7.1			2 4.0 7.1		
9	2 4.0 2.4			2 4.0 4.7			2 4.0 4.7			2 4.0 4.7		
10	2 4.0 4.7			2 4.0 4.7			2 4.0 4.7			2 4.0 4.7		
11	0.0			2 6.0 4.3			2 6.0 8.6			2 6.0 8.6		
12	2 6.0 8.6			2 6.0 8.6			2 6.0 8.6			2 6.0 8.6		
13	2 4.0 4.7			2 4.0 4.7			2 4.0 4.7			2 4.0 4.7		
14	2 4.0 4.7			2 4.0 4.7			2 4.0 4.7			0.0		
15	2 4.0 4.7			2 4.0 4.7			2 6.0 8.6			2 6.0 8.6		
16	2 4.0 4.7			2 4.0 4.7			2 6.0 4.3			2 4.0 7.1		
17	2 6.0 4.3			2 4.0 7.1			2 6.0 4.3			2 6.0 8.6		
18	2 4.0 4.7			2 4.0 4.7			2 4.0 4.7			2 4.0 4.7		
19	0.0			2 4.0 4.7			2 4.0 4.7			2 4.0 4.7		
20	2 4.0 4.7			2 4.0 4.7			2 6.0 4.3			2 4.0 4.7		
21	2 4.0 4.7			2 4.0 4.7			2 6.0 6.4			2 6.0 6.4		
22	2 6.0 6.4			2 6.0 6.4			2 6.0 4.3			2 6.0 4.3		
23	2 6.0 4.3			2 6.0 4.3			2 4.0 4.7			2 4.0 4.7		
24	0.0			2 4.0 4.7			0.0			0.0		
25	0.0			2 4.0 4.7			2 6.0 4.3			2 6.0 4.3		
26	0.0			2 4.0 4.7			2 4.0 4.7			2 6.0 8.6		
27	2 6.0 3.6			2 6.0 8.6			2 6.0 8.6			2 6.0 8.6		
28	2 6.0 6.4			2 6.0 6.4			2 6.0 6.4			2 6.0 6.4		
29	2 4.0 4.7			2 4.0 4.7			2 4.0 4.7			2 4.0 4.7		
30	2 4.0 4.7			2 4.0 4.7			2 4.0 4.7			2 4.0 4.7		



Microseismic activity

December 1971

Component: NS

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	2 4.0 4.5			2 4.0 4.5			2 4.0 4.5			2 4.0 4.5		
2	2 4.0 4.5			2 4.0 4.5			2 6.0 3.7			2 4.0 4.5		
3	0.0			2 4.0 4.5			2 4.0 4.5			2 4.0 4.5		
4	2 4.0 4.5			2 4.0 4.5			2 4.0 4.5			2 4.0 4.5		
5	2 4.0 4.5			2 4.0 4.5			2 4.0 4.5			2 4.0 4.5		
6	2 4.0 4.5			2 4.0 4.5			2 6.0 3.7			2 6.0 3.7		
7	2 6.0 9.2			2 6.0 9.2			2 6.0 9.2			2 6.0 9.2		
8	2 6.0 9.2			2 6.0 9.2			2 6.0 9.2			2 6.0 9.2		
9	2 6.0 9.2			2 6.0 9.2			2 4.0 4.5			2 4.0 4.5		
10	0.0			2 4.0 4.5			2 4.0 4.5			2 4.0 4.5		
11	0.0			2 4.0 4.5			2 4.0 4.5			2 4.0 4.5		
12	2 4.0 4.5			2 4.0 4.5			2 4.0 4.5			...		
13	...			...			...			...		
14	...			...			2 4.0 4.5			2 4.0 4.5		
15	2 4.0 4.5			2 4.0 4.5			2 4.0 4.5			2 4.0 4.5		
16	2 4.0 4.5			2 4.0 4.5			2 4.0 4.5			2 4.0 4.5		
17	2 4.0 4.5			2 4.0 4.5			2 6.0 3.7			2 6.0 3.7		
18	2 4.0 4.5			2 4.0 4.5			2 6.0 3.7			2 6.0 3.7		
19	2 6.0 3.7			2 4.0 4.5			2 6.0 3.7			2 6.0 3.7		
20	2 6.0 3.7			2 6.0 3.7			2 6.0 5.5			2 6.0 5.5		
21	2 4.0 4.5			2 4.0 4.5			2 6.0 3.7			2 6.0 3.7		
22	2 6.0 3.7			2 6.0 3.7			2 6.0 3.7			2 6.0 3.7		
23	2 6.0 3.7			2 6.0 3.7			2 6.0 3.7			2 6.0 3.7		
24	2 6.0 3.7			2 6.0 3.7			2 4.0 4.5			2 4.0 4.5		
25	2 4.0 4.5			2 4.0 4.5			0.0			0.0		
26	0.0			0.0			2 4.0 4.5			2 4.0 4.5		
27	2 4.0 4.5			2 4.0 4.5			2 6.0 3.7			2 6.0 3.7		
28	2 6.0 3.7			0.0			0.0			...		
29	...			...			...			...		
30	...			...			...			...		
31	...			...			...			...		



GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	2	4.0	4.7	2	4.0	4.7	2	4.0	4.7	2	4.0	4.7
2	2	4.0	4.7	2	6.0	4.3	2	6.0	6.4	2	6.0	6.4
3	2	4.0	4.7	2	4.0	4.7	2	4.0	4.7	2	4.0	4.7
4	2	6.0	4.3	2	4.0	4.7	2	4.0	4.7	2	4.0	4.7
5	2	4.0	4.7	2	4.0	4.7	2	6.0	8.6	2	6.0	8.6
6	2	6.0	8.6	2	6.0	8.6	2	6.0	8.6	2	6.0	8.6
7	2	6.0	8.6	2	6.0	8.6	2	6.0	8.6	2	6.0	8.6
8	2	6.0	8.6	2	6.0	6.4	2	6.0	4.3	2	6.0	6.4
9	2	6.0	6.4	2	6.0	4.3	2	3.0	2.4	0.0		
10	0.0			2	4.0	4.7	2	4.0	4.7	2	4.0	4.7
11	0.0			2	4.0	4.7	2	4.0	4.7	2	4.0	4.7
12	2	4.0	4.7	2	4.0	4.7	2	4.0	4.7	2	4.0	4.7
13	0.0			2	4.0	4.7	2	4.0	4.7	2	4.0	4.7
14	2	6.0	4.3	2	6.0	4.3	2	6.0	8.6	2	6.0	8.6
15	2	6.0	8.6	2	6.0	8.6	2	4.0	4.7	2	4.0	4.7
16	2	4.0	4.7	2	4.0	4.7	2	4.0	7.1	2	4.0	7.1
17	2	4.0	4.7	2	4.0	4.7	2	3.0	2.4	2	4.0	4.7
18	2	4.0	4.7	2	4.0	4.7	2	6.0	4.3	2	6.0	4.3
19	2	6.0	4.3	2	6.0	4.3	2	6.0	4.3	2	6.0	4.3
20	2	6.0	4.3	2	6.0	4.3	2	6.0	4.3	2	6.0	4.3
21	2	6.0	4.3	2	6.0	4.3	2	6.0	4.3	2	6.0	4.3
22	2	6.0	4.3	2	6.0	4.3	2	6.0	4.3	2	6.0	4.3
23	2	4.0	4.7	2	4.0	4.7	2	6.0	4.3	2	6.0	4.3
24	2	6.0	4.3	2	6.0	4.3	2	4.0	4.7	2	4.0	4.7
25	2	4.0	4.7	2	4.0	4.7	2	6.0	4.3	2	6.0	4.3
26	2	6.0	4.3	2	6.0	4.3	2	4.0	4.7	2	6.0	4.3
27	2	6.0	4.3	2	6.0	4.3	2	6.0	6.4	2	6.0	4.3
28	2	6.0	4.3	2	6.0	4.3	2	3.0	2.4	2	3.0	2.4
29	0.0			0.0			...			...		
30	...			0.0			...			...		
31	...			...			...			...		

BULETEN O SVETOVEM SEISMOLOGICKEM STAVU  
 BRATISLAVA, SEPTEMBER, OKTOMBROVA  
 AKADEMIK PUBLIS FOR THE YEAR 1971

Česká národní povel ústav  
 Ústav geofyziky a geodynamiky  
 Ústav geofyziky a geodynamiky

Prvé vydanie. Vydala VEDA, vydavateľstvo Slovenskej  
 akadémie vied v Bratislave roku 1971 ako svoju 1282. publikáciu.  
 Značka štátnej knihárne 1300 Bratislava. AR 14, 02, 13, 36  
 Kódex 610, V 14, 02, 13, 36. Vydavateľstvo Slovenskej akadémie vied, Bratislava.  
 1971-1972

BULLETIN OF THE SLOVAK SEISMOGRAPHIC STATIONS  
BRATISLAVA, ŠROBÁROVÁ, HURBANOVO  
AND SKALNATE PLESO FOR THE YEAR 1971

Obálku navrhol Pavel Amena  
Redaktorka publikácie Eva Zikmundová  
Technický redaktor Anton Szomogyi

Prvé vydanie. Vydala VEDA, vydavateľstvo Slovenskej  
akadémie vied v Bratislave roku 1977 ako svoju 1982. publi-  
káciu. Strán 164, náklad 500 výtlačkov. AH 14,06 /text 13,96  
ilustr. 0,10/, VH 14,67. Vytlačili Nitrianske tlačiarne, n.p.,  
Nitra.

SÚKK 1197/I-1973