BULLETIN OF THE SLOVAK SEISMOGRAPHIC STATIONS FOR THE YEAR 1968

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BULLETIN OF THE SLOVAK SEISMOGRAPHIC STATIONS

BRATISLAVA
ŠROBÁROVÁ
HURBANOVO
AND
SKALNATÉ PLESO

FOR THE YEAR 1968

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 1968

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Introduction

The seismological bulletin for the year 1968 contains the results of the interpretation of records from the network of seismographic stations on the territory of Slovakia: Bratislava (central station), Šrobárová, Hurbanovo and Skalnaté Pleso. The content of the bulletin is in accordance with the recommendations given in (12,13) and in comparison with the previous Annual Bulletin 1967 it contains separately periods and amplitudes of body and surface waves and the time of $(A/T)_{max}$ for body waves.

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 the ten-day preliminary bulletins for stations Bratislava and Šrobárová and in the montly preliminary bulletins with readings of the seismograms from the stations Hurbanovo and Skalnaté Pleso. The ten-day preliminary bulletins have been 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 every tenth day of the month. The earthquake data obtained from the Bratislava seismograms were also punched on cards which were supplied regularly 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 the epicentres, origin times or shock magnitudes, frequently quoted, are as follows: Bulletin of the ISC, Vol. 5, 1968; Ten-day Bulletin and Quaterly Bulletin of the Academy of Sciences of the U.S.S.R., Institute of Physics of the Earth, Moscow, 1968. 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 analysis of earthquakes from small epicentral distances, explosions and

rockbursts was realized by means of special travel-time curves published in the papers (1, 2, 3, 4). The analysis of earthquakes with $\Delta > 10^{\circ}$ was realized by means of travel-time tables published in the papers (5, 6, 7, 8, 9).

For calculating the magnitudes on the basis of the relation

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

measurements of the amplitudes and periods of P (horizontal or vertical), PP (horizontal or vertical), S (horizontal), or surface waves horizontal components were used. The standard calibrating functions (10) were used for PV, PH, PPH and SH body waves of shallow earthquakes (h < 60 km), and for their surface waves (h < 100 km). The value of magnitude for PPV waves as well as for all the other body waves of earthquakes with focal depth h > 60 km were calculated on the basis of Q-function (11). No magnitudes were calculated from the surface waves of earthquakes with h > 100 km. The station correction S was not yet taken into consideration. The magnitudes from body waves were calculated only for the stations Bratislava and Šrobárová. The amplitudes of the maximum body waves are expressed in nanometres (nm) while the maximum amplitudes of surface waves are expressed in micrometres (μm). As regards the magnitudes from the maximum amplitudes of body waves (vertical component, station Bratislava), in the cases, when two remarkable maxima occur within 25 seconds of the P onset, there are declared two magnitudes mPV1, mPV2. The corresponding amplitudes and periods appear in the column 6 and the time of $(A/T)_{max}$ is given in column 4.

Microseisms were measured on the records of the Mainka horizontal seismograph, 210 kg pendulum, at the station Hurbanovo. The maximum microseismic ground-amplitudes on the N-S and E-W components were read four times per day, at 0 h, 06 h, 12 h, 18 h, GMT 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 μm.

The ten-day preliminary bulletins for station Bratislava and Šrobárová were prepared by Mrs. K. Mrázová and Mrs. A. Weihsová. The monthly bulletin for the stations Hurbanovo and Skalnaté Pleso was prepared by Mrs. K. Mrázová. The measuring of microseisms for the station Hurbanovo was carried out by Mrs. A. Weihsová. The reinterpretation of all preliminary readings and the determination of magnitudes was carried out by Mrs. K. Mrázová and Mr. A. Molnár.

In preparing this bulletin the authors have been in different parts assisted by Mrs. B. Miková and Mrs. I. Bochníčková.

Bratislava, March 1974 K. Mrázová

List of Abbreviations Used in this Bulletin

Ts	seismograph free period
Tg	galvanometer free period
Vo	static magnification
Vm	max. dynamic magnification
ϵ : 1	damping ratio
Ds	seismograph damping
Dg	galvanometer damping
r	max. deviation due to friction
σ^2	coupling factor
D	epicentral distances determined according to the time differences between S and P phases
Dc	epicentral distances calculated with regard to the geocentric coordinates by the use of computer
Az	azimuth of stations with respect to the epicentre, measured round the station from North through East; determined by the use of computer
h	depth of focus in km
H	origin time, expressed in GMT
i	impulsive beginning of a phase
e	poorly defined beginning of a phase
+ and –	compressional or dilatational motion in a longitudinal wave
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
MLH, MLV	magnitudes based on surface wave amplitudes
mPH, mPV, mPV1, mPV2, mPPH, mSH	magnitudes based on body wave amplitudes
M (MOS)	surface waves magnitude from Ten-day Preliminary Bulletin, Moscow
MLH (MOS)	surface waves magnitude from the Decade Bulletin, Moscow
mPV (MOS)	body waves magnitude from the Decade Bulletin, Moscow
RES	residual (observed – calculated travel times)

Station Instrumentation

Coordinates of Seismographic Stations

Station	Latitude	Longitude	Altitude above mean sea level	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

Instrumental Constants for the Year 1968

Bratislava: "VEGIK", electromagnetic seismograph with galvanometric registration

Constants

Component	Ts	Tg	Ds	Dg	σ^2	Tm	Vm	Paper speed
Z	1.78	1.91	0.874	1.05	0.114	0.85–1.70	4896	20 mm/min
N	2.00	1.86	0.905	1.02	0.103	0.87–1.75	2574	20 mm/min
E	2.00	1.92	0.896	1.08	0.104	0.85–1.75	2509	20 mm/min

Šrobárová: "KIRNOS", electromagnetic seismograph with galvanometric registration, class "C" according to (12).

Constants for the period January 1–June 30, 1968

Component	Ts	Tg	Ds	Dg	σ^2	Vm	Paper speed
Z	19.2	1.16	0.50	6.30	0.188	1061	15 mm/min
N	24.3	1.19	0.67	8.20	0.188	1009	15 mm/min
E	25.9	1.19	0.66	7.76	0.197	979	15 mm/min

Constants for the period July 1–December 31, 1968

Component	Ts	Tg	Ds	Dg	σ^2	Vm	Paper speed
Z	23.0	1.13	0.59	7.30	0.241	1147	15 mm/min
N	24.4	1.20	0.49	7.50	0.261	1143	15 mm/min
E	25.0	1.20	0.55	7.70	0.242	1045	15 mm/min

Hurbanovo: "MAINKA", horizontal seismograph, M = 210 kg, air damping, mechanical registration, component N and E

Constants

Month	Component	Ts	V_0	r (mm)	ϵ : 1	Paper speed
Jan.–Apr.	N	7.3	51.8	0.3	3.3	30 mm/min
	E	10.6	53.1	0.9	4.4	30 mm/min
May.–Aug.	N	7.5	48.3	0.3	4.9	30 mm/min
	E	10.5	58.7	0.7	4.0	30 mm/min
Sept.–Dec.	N	7.4	46.2	0.1	4.0	30 mm/min
	E	11.0	51.4	0.9	3.9	30 mm/min

Skalnaté Pleso: "VEGIK", electromagnetic seismograph with galvanometric registration

Constants

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

List of Seismic Phases Used in this Bulletin

Phase	
Pn, Sn	longitudinal and transverse waves refracted below the crust
Pg, Sg	wawes in the upper crust
Pb, Sb	waves in the lower crust
P, S	direct longitudinal or transverse waves propagating in the mantle
PKP	direct longitudinal waves transversing the Earth's core without detailed identification
PKIKP	direct longitudinal wave propagating through the inner core [Travel time branch DF (5)]
PKHKP	direct longitudinal wave refracted in the intermediate zone between the inner and outer core. Phase symbol according to Bolt (9) [Travel-time branch GH]
PKP2	direct longitudinal wave propagating only through the outer core [Travel-time branch AB (5)]
PP, PPP, SS, SSS	P or S waves reflected once or twice at the Earth's surface
PcP, ScS	P or S waves reflected at the Earth's core boundary
PcS, ScP	P or S waves transformed on reflection at the Earth's core boundary
PKKP	P waves reflected from the inner surface of the core, thereby passing twice through the core
PKPPKP	PKP waves reflected from the Earth's surface, passing twice through the core
SKS	S waves passing through the core as P waves, transformed back into S waves in the mantle
SKKS	S waves transformed on refraction in the core into P waves, reflected from the inner surface of the core and then transformed back into S waves

PS, SP, PPS, SPP, PSPS, SPSP etc.	P and S waves reflected and transformed at the Earth's surface
SKP	S wave transformed into P on refraction into the core
PKS	P wave transformed into S on refraction when leaving the core
pP, sP, sPP etc.	P or S waves reflected from the surface as P waves, supposing deep focus earthquake
pS, sS, pSS etc.	P or S waves reflected from the surface as S waves
LmV, LmH	waves of maximum amplitude in the surface wave group (on the vertical or horizontal component)

List of Quoted Agencies Reporting Epicentral Parameters

Code	Agency
ATH	Athens. Seismological Institute, National Observatory, Athens
BEO	Belgrade. Seismological Institute, Belgrade
BCIS	Bureau Central International de Seismologie, Strasbourg
BRA	Bratislava. Geophysical Institute of the Slovak Academy of Sciences
HRB	Hurbanovo, Geophysical Institute of the Slovak Academy of Sciences
ICS	International Seismological Centre, Edinburgh
LJU	Ljubljana. Astronomical and Geophysical Observatory, University of Ljubljana, Ljubljana
MOS	Academy of Sciences of the U.S.S.R., Institute of Physics of the Earth, Moscow
PAS	Seismological Laboratory, California, Institute of Technology, Pasadena
PRU	Průhonice, Geophysical Institute, Czechoslovak Academy of Sciences, Prague, Czechoslovakia
SPE	Skalnaté Pleso, Geophysical Institute of the Slovak Academy of Sciences
SRO	Šrobárová. Geophysical Institute of the Slovak Academy of Sciences
UPP	Seismological Institute Uppsala, Sweden
USAEC	U.S. Atomic Energy Commission, Washington
USCGS	U.S. Coast and Geodetic Survey, U.S. Department of Commerce, Washington Science Centre
VIE	Vienna. Zentralanstalt für Meteorologie und Geodynamik, Wien
VKA	Vienna-Kobenzl. Zentralanstalt für Meteorologie und Geodynamik, Wien
WAR	Warsaw. Geophysical Institute of the Polish Academy of Sciences, Warsaw

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Earthquake Observations at the Stations Bratislava, Šrobárová, Hurbanovo and Skalnaté Pleso

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
02	BRA SRO	–iPKIKP iPKIKP	00 40 03.3 00 40 04	+4.4 +4.1	280	1.5					123.21 122.74	55.48 56.86	New Ireland Region 5.17 S 153.31 E H = 00 21 11.9, h = 65 km, Mag = 5.4 (ISC). M (MOS) = 5.5.
02	BRA	eSg	08 26 30								2.05	196.81	Yugoslavia 46.2 N 16.25 E H = 08 25.4 (BCIS).
03	BRA	eP	02 37 00	–0.7							80.02	6.55	Andreanof Islands, Aleutian Islands 51.79 N 173.32 W H = 02 24 55.4, h = 49 km, Mag = 4.6 (ISC).
03	BRA	eP	04 14 45	–3.5							25.45	351.79	Norwegian Sea 72.95 N 5.1 E H = 04 09 17, h = 11 km, Mag = 4.6 (ISC).
03	BRA	iP i	04 15 06 15 18	+0.1	250	1.5					25.36	351.57	Norwegian Sea 72.84 N 4.9 E H = 04 09 35.4, h = 0 km, Mag = 5.1 (ISC). mPV (BRA) = 5.6.

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Δc	Az	Remarks
03	BRA	+iP	07 43 19.5	+0.3	90	1.5					25.17	348.83	Norwegian Sea
		i	43 22.5		310	1.5							72.22 N 1.55 E
		epP	43 27	−1.5									H = 07 37 55.1, h = 33 km,
	SRO	iP	07 43 26.3	+2.7									Mag = 5.2 (ISC).
													mPV1 (BRA) = 5.2,
													mPV2 (BRA) = 5.7.
03	BRA	eP	10 29 24	+1.5							71.68	351.44	Gulf of Alaska
	SPC	eP	10 29 26	+7.7							70.95	353.05	59.70 N 146.71 W
													H = 10 18 02.0, h = 27 km,
													Mag = 4.7 (ISC).
03	SRO	iPg	12 13 44.7										No determination of
		iSg	13 49.2										epicentre.
03	BRA	e	13 35 34										No determination of
		e	36 15										epicentre.
	SRO	iP	13 35 52										
04	BRA	eP	01 09 51	−1.3	150	1.5					79.78	5.29	Fox Islands,
		iPcP	09 59	−1.5	280	1.5							Aleutian Islands
													52.17 N 171.36 W
	SRO	eP	01 09 53	−1.2									H = 00 57 41, h = 8 km,
	SPC	eP	01 09 47	+1.8							80.05	6.03	Mag = 5.7 (ISC).
											78.54	7.26	mPV (MOS) = 5.7, MLH (MOS) = 6.0,
													mPV1 (BRA) = 5.9, mPV2 (BRA)
													= 6.2.
04	BRA	ePKIKP	10 46 35	+0.1							124.40	63.08	Eastern New Guinea Region
													9.83 S 148.82 E
													H = 10 27 39, h = 23 km.

04	BRA	ePg	12 03 50										Slovakia
		iSg	03 52										Explosion.
													D ≐ 15 km.
04	BRA	ePn	20 12 26	−0.4							5.80	146.36	Yugoslavia
													43.25 N 21.50 E
													H = 20 10 57 (BCIS).
05	BRA	eP	06 51 42	+5.3							49.88	87.20	Tibet–India Border Region
	SRO	iP	06 51 36	+0.5							49.09	87.77	30.41 N 79.25 E
													H = 06 42 44.4, h = 7 km,
													Mag = 5.0 (ISC).
05	BRA	ePb	12 35 24	+4.3							5.93	149.12	Yugoslavia
	SRO	ePb	12 35 12	+4.3							5.24	155.69	43.00 N 21.25 E
													H = 13 33.6 (BCIS).
06	BRA	eP	10 25 30	+1.1							6.84	107.15	Roumania
		e	25 47										45.76 N 26.46 E
		eS	26 48	+2.7									H = 10 23 50,5, h = 173 km,
													Mag = 4.6 (ISC).
	SPC	eP	10 25 16	−4.5							5.43	126.81	
06	BRA	eP	12 23 36										No determination of epicentre.
06	BRA	eP	18 53 42										No determination of epicentre.
		e	53 54										
06	BRA	eP	19 08 15										No determination of epicentre.
06	BRA	ePP	23 46 15	−6.4							109.02	249.33	Near Coast of Northern Chile
	SRO	ePP	23 46 22	−4.3							109.66	250.01	27.90 S 70.97 N
													H = 23 27 22.4, h = 49 km,
													Mag = 5.7 (ISC).
													MLH (MOS) = 6.4.

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
07	BRA	eP	11 25 08	+2.8	270	3.0					84.72	43.62	Off East Coast of Honshu, Japan
	SRO	eP	11 25 06	+2.3							84.41	44.43	33.61 N 141.71 E H = 11 12 33.4, h = 36 km, Mag = 5.2 (ISC). mPV (MOS) = 6.0, MLH (MOS) = 6.0, mPV (BRA) = 5.9.
08	BRA	ePKIKP	03 35 27	–5.1							139.63	40.45	New Hebrides Region
		e	35 36										13.74 S 171.48 E H = 03 17 12.3, h = 628 km, Mag = 5.1 (ISC).
08	BRA	iP	20 32 29	–0.1	240	1.0					61.16	248.12	Central Mid-Atlantic Ridge
		iP	32 38		260	1.6							8.09 N 38.07 W
		ipP	32 44	–0.8									H = 20 22 19, h = 59 km,
	SRO	iP	20 32 34	–0.5							61.79	249.35	Mag = 5.3 (ISC).
		i	32 40										M (MOS) = 5.4,
		ipP	32 49	–1.7									mPV1 (BRA) = 6.3,
	SPC	eP	20 32 44	–1.0							63.46	250.36	mPV2 (BRA) = 6.1.
08	BRA	ePKIKP	21 33 17	+0.9							145.30	20.52	Samoa Region 14.8 S 174.8 W H = 21 13 41.8, h = 33 km, Mag = 4.7 (ISC).
08	BRA	+iPKP2	22 13 59.5	+0.5	260	1.6							Samoa Region
		i	14 03.5		310	1.6							14.76 S 174.99 W
		i	14 23		570	1.6							H = 21 54 33, h = 120 km,
	SRO	iPKP2	22 14 00	+1.0							145.24	22.99	Mag = 5.2 (ISC).
09	BRA	ePKP2	00 45 23	+3.5							145.85	20.25	Tonga
	SRO	ePKP2	00 45 18	–1.5							145.89	22.45	15.3 S 174.51 W H = 00 25 41, h = 31 km, Mag = 4.6 (ISC).
09	SRO	eP	23 18 40	–2.8							12.68		Mediterranean Sea 35.52 N 22.54 E H = 23 15 42.8, h = 46 km, Mag = 4.7 (ISC).
11	BRA	eP	16 25 15	+2.3	160	2.0					83.88	44.28	Off East Coast of Honshu, Japan
		epP	25 30	+2.0									
	SRO	iP	16 25 16	+4.3							83.57	44.28	34.39 N 141.28 E H = 16 12 46.7, h = 47 km, Mag = 5.1 (ISC). M (MOS) = 4.4, mPV (BRA) = 5.8.
11	BRA	ePn	17 09 30	+3.8							5.18	225.06	Northern Italy
		i	10 06										44.39 N, 11.99 E
		eSn	10 30	+2.2									H = 17 08 05.3, h = 0 km,
	SRO	ePg	17 09 54	–3.0							5.57	234.41	Mag = 4.5 (ISC).
12	BRA	eP	04 28 58	+4.5							70.92	91.34	Andaman Island Region 13.27 N 93.12 E H = 04 17 37, h = 13 km, Mag = 5.5 (ISC).
12	SRO	iPg	12 23 01										Small local shock.
12	BRA	ePn	15 07 17	+2.0							7.17	160.35	Albania
	SRO	ePn	15 07 08	+1.4							6.60	166.87	41.37 N 20.3 E H = 15 05 25.9, h = 0 km, Mag = 4.3 (ISC).

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
13	BRA	–iP	07 16 00	+0.2							81.80	63.02	Taiwan Region
		i	16 02		250	1.8							24.13 N 122.21 E
	SRO	eP	07 15 57	+0.2							81.23	63.82	H = 07 03 45.8, h = 55 km (ISC).
													mPV (BRA) = 6.0.
14	BRA	epPKP2	08 22 31	+4.3							151.06	33.30	South of Fiji
	SPC	epPKIKP	08 22 14	–9.9									22.43 S 179.58 W
											149.02	37.57	H = 08 01 27.5, h = 602 km,
													Mag = 5.3 (ISC).
14	BRA	ePn	12 31 00	+1.8							10.74	197.62	Sicily
													37.85 N 13.02 E
													H = 12 28 27, h = 20 km,
													Mag = 4.9 (ISC).
													M (MOS) = 5.1.
14	BRA	ePP	12 43 52	–9.0							109.42	79.34	Banda Sea
	SRO	iPP	12 44 00	–6.0							108.68	80.40	7.53 S 127.91 E
													H = 12 25 06.2, h = 80 km,
													Mag = 6.0 (ISC).
													mPV (MOS) = 6.5.
14	BRA	eP	12 52 52	–1.7							79.35	5.20	Fox Islands,
													Aleutian Islands
													52.61 N 171.29 W
													H = 12 40 49.7, h = 44 km,
													Mag = 5.5 (ISC).
													MLH (MOS) = 6.2, mPV (MOS) = 6.1.

14	BRA	+iP	15 51 06.5	–1.5							10.69	197.65	Sicily
	SRO	eP	15 51 06	–0.5							10.64	203.25	37.90 N 13.03 E
													H = 15 48 33.3, h = 38 km,
													Mag = 4.6 (ISC).
													M (MOS) = 4.8.
14	BRA	eP	17 55 12	–2.8							79.31	5.17	Fox Islands,
		ePcP	55 21	+2.5	150	1.5							Aleutian Islands
													52.65 N 171.25 W
													H = 17 43 06, h = 3 km,
													Mag = 5.4 (ISC).
													MLH (MOS) = 6.2, mPV (MOS) = 6.1.
													mPV (BRA) = 5.9.
15	BRA	–eP	01 35 36	–2.3							10.68	197.43	Sicily
		i	35 39.5		260	1.5							37.89 N 13.08 E
		eS	37 45	+6.8									H = 01 33 04.1, h = 44 km,
		Lm	41 00				8.3	9.0	10.0	9.0			Mag = 5.1 (ISC).
	SRO	eP	01 35 42	+4.3							10.63	203.03	M (MOS) = 5.4,
													MLH (BRA) = 5.2.
15	BRA	+iP	02 03 45	+11.7	120	1.0					10.80	197.49	Sicily
		i	03 57		550	1.4							37.78 N 13.03 E
		Lm	09.5				21.0	9.0	50.0	9.0			H = 02 01 04.1, h = 3 km,
	SRO	eP	02 03 44	+10.7							10.75	203.03	Mag = 5.4 (ISC).
	HRB	Lm	02 08				99.0	10.0	31.9	10.0	10.77	202.42	MLH (MOS) = 5.9,
													MLH (BRA) = 5.8, MLH (HRB) = 6.0.
15	BRA	–iPn	19 47 17.3	+1.7							1.00	222.90	Austria
		iSn	47 32.3	+1.7									47.43 N 16.1 E
													H = 19 46 54.5, h = 0 km (ISC).
16	BRA	ePg	13 49 49	+2.6							4.43	159.52	Yugoslavia
		eSn	50 22.5	+2.1									44.0 N 19.25 E
		eSg	50 37.5	+5.9									H = 13 48 18 (BCIS).

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Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
16	BRA	eP	16 45 19	–1.2							10.73	197.76	Sicily
		i	45 40		240	1.2							37.86 N 12.99 E
		eSn	47 13	–4.6									H = 16 42 46.0, h = 25 km,
		Lm	51				8.3	9.0	14.2	9.0			Mag = 5.1 (ISC).
	SRO	eP	16 45 22	+1.8							10.68	203.33	M (MOS) = 5.4,
		Lm	50				32.0	16.0	73.0	16.0			MLH (BRA) = 5.3,
	HRB	Lm	16 49				61.0	10.0	13.0	16.0	10.71	202.72	MLH (SRO) = 5.7, MLH (HRB) = 5.8.
18	BRA	ePKIKP	12 23 11	+0.2							144.20	25.99	Fiji Region
		e	23 26										14.60 S 178.25 W
	SRO	ePKIKP	12 23 15	+4.3							144.14	28.11	H = 12 03 33, h = 3 km,
	SPC	ePKIKP	12 23 07	–0.5							142.32	30.16	Mag = 5.1 (ISC).
19	BRA	ePKIKP	06 23 44	–2.5							129.44	52.95	Solomon Islands
		e	24 02										9.29 S 158.46 E
		ePKS	27 11	–10.9									H = 06 04 36, h = 13 km,
	SRO	ePKIKP	06 23 45	–1.1							128.99	54.47	Mag = 6.0 (ISC).
	SPC	ePKHKP	06 23 28	+4.0							127.15	55.61	MLH (MOS) = 6.6, mPV (MOS) = 6.4.
19	BRA	–iP	18 27 33	–1.3	750	1.4					84.14	325.05	Nevada
		i	27 36		3880	1.4							Nuclear explosion "FAULTLESS"
		e	27 45										38.63 N 116.21 W
		i	27 54										H = 18 15 0.1 s,
		e	28 24										(USAEC),
	SRO	iP	18 27 37.6	+1.5	5300	1.6					84.89	325.90	Mag = 6.3 (ISC).
		i	27 39.6										mPV1 (BRA) = 6.6,
													mPV2 (BRA) = 7.3,
													mPV (SRO) = 7.4.
20	BRA	ePKP2	17 01 09	+2.0							144.59	32.58	Fiji
	SRO	ePKP2	17 01 05	+4.0							144.44	34.69	16.28 S 178.15 E
													H = 16 41 28, h = 28 km,
													Mag = 5.6 (ISC).
													mPV (MOS) = 6.5.
20	BRA	+iPKIKP	21 40 46.7	+0.4	170	1.8					157.89	41.20	Kermadec Islands Region
		i	40 48.2		1000	1.5							30.08 S 179.51 W
		iPKP2	41 24.5	+0.8	250	1.5							H = 21 21 31.6, h = 352 km,
		i	41 25.7		1750	1.5							Mag = 5.7 (ISC).
	SRO	ePKIKP	21 40 45	–0.9							157.60	44.14	
		iPKP2	41 21	–1.2									
21	BRA	eP	16 52 10	+0.1							56.37	218.47	North of Ascension Island
		epP	52 22	+2.0									1.44 S 14.10 W
		eS	59 58	+1.4									H = 16 42 29.5, h = 38 km,
		Lm	17 17				3.8	12.0	9.4	12.0			Mag = 5.4 (ISC).
	SRO	eP	16 52 15	+3.7							56.61	219.93	mPV (MOS) = 6.2, MLH (MOS) = 6.1,
		Lm	17 16				34.2	24.0	22.3	24.0			MLH (BRA) = 6.1,
													MLH (SRO) = 6.4.
22	BRA	eP	20 39 45	–2.8							26.44	111.96	Persia–Iraq Border Region
													33.80 N 46.83 E
													H = 20 34 12.6, h = 51 km,
													Mag = 4.9 (ISC).
													M (MOS) = 4.5.
22	BRA	eP	21 26 18	–1.3							26.42	112.00	Persia–Iraq Border Region
		e	26 21		40	1.2							33.80 N 46.80 E
													H = 21 40 44.1, h = 51 km,
													Mag = 4.9 (ISC).
													mPV (BRA) = 5.0.
23	BRA	eP	15 48 53										No determination of epicentre.

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
23	BRA	eP	19 26 13	+0.7							42.93	149.75	Ethiopia 8.69 N 37.41 E H = 19 18 14.4, h = 33 km, Mag = 4.9 (ISC).
24	BRA	eP	01 09 35	–0.2							61.13	248.26	Central Mid-Atlantic Ridge H = 00 59 22, h = 28 km, Mag = 5.0 (ISC).
24	BRA	e	11 26 10										No determination of epicentre.
25	BRA Lm SRO	eP Lm iP	09 59 23 10 05 09 59 26	–3.6 +0.8			1.3	6.0	16.7	9.0	10.86 10.83	197.27 202.18	Sicily 37.71 N 13.06 E H = 09 56 46, h = 4 km, Mag = 5.0 (ISC). M (MOS) = 5.5, MLH (BRA) = 5.3.
25	BRA	eP	14 38 11	–0.2							10.82	197.85	Sicily 37.78 N 12.94 E H = 14 35 32, h = 23 km, Mag = 4.4 (ISC).
26	BRA	ePP	05 04 09	–4.7							105.41	86.16	Flores Island Region 8.93 S 120.32 E H = 04 45 41.7, h = 29 km, Mag = 6.0 (ISC). mPV (MOS) = 6.2, MLH (MOS) = 6.4.
27	BRA	eP	00 57 18	+0.4							48.67	270.69	North Atlantic Ridge 29.93 N 42.78 W H = 00 48 41, h = 80 km, Mag = 5.0 (ISC). M (MOS) = 5.
27	BRA SRO SPC	eP e eP eP	14 08 39 08 51 14 08 49 14 08 37	–2.9 +9.9 +7.5							82.13 81.55 79.81	64.09 64.89 66.45	Taiwan 23.19 N 121.57 E H = 13 56 23.3, h = 49 km, Mag = 5.3 (ISC). M (MOS) = 5.6.
29	BRA SRO 	+iP ipP iP ipP	05 07 28 08 16 05 07 22.8 08 11	+1.0 +1.0 +2.4 +3.6							40.35 39.56	86.66 87.07	Hindu Kush Region 36.44 N 70.39 E H = 05 00 09.3, h = 212 km, Mag = 5.3 (ISC). mPV (MOS) = 5.9.
29	BRA SRO HRB	–iP i iPP eS Lm iP eP i	10 31 04.2 31 06.7 31 05.6 40 58 11 14 10 31 05 10 31 06 41 18	+1.8 –1.3 +3.1 +3.8 +4.8	3080 4100	2.5 2.5					78.51 78.33 78.33	34.88 35.60 35.53	Kurile Islands 43.52 N 146.72 E H = 10 19 02.9, h = 20 km, Mag = 6.3 (ISC). mPV (MOS) = 7.0, MLH (MOS) = 7.1, mPV1 (BRA) = 7.0, mPV2 (BRA) = 7.1.
29	BRA	eP e	10 54 10 54 22	+1.3							79.09	35.53	Kurile Islands 43.12 N 147.34 E H = 10 42 06, h = 25 km, Mag = 5.2 (ISC). MLH (MOS) = 5.3.

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
29	BRA	eP	11 56 01	+0.2							79.09	34.60	Kurile Islands 43.18 N 147.45 E H = 11 43 58.2, h = 34 km, Mag = 5.1 (ISC).
29	BRA SRO	–iP ipP i eP	16 54 50.4 55 01 55 09 16 54 50	–0.6 0.0 0.0	240	1.0					78.80 78.62	34.66 35.38	Kurile Islands 43.39 N 147.18 E H = 16 42 49.9, h = 35 km, Mag = 5.7 (ISC). MLH (MOS) = 6.1, mPV (BRA) = 6.3.
29	BRA	eP	21 04 09	–0.2	900	1.4					75.52	354.64	Kodiak Island Region 56.39 N 153.54 W H = 20 52 21.5, h = 6 km, Mag = 5.1 (ISC). M (MOS) = 5.7, mPV (BRA) = 5.7.
30	BRA	eP	01 42 16	–1.9	150	1.4					78.80	34.92	Kurile Islands 43.26 N 146.88 E H = 01 30 16.8, h = 40 km, Mag = 5.3 (ISC). MLH (MOS) = 4.8, mPV (BRA) = 5.9.
30	BRA SRO	eP eP	02 00 31.4 02 00 29	+0.2 –1.5	120	1.4					79.13 78.96	34.45 35.18	Kurile Islands 43.21 N 147.66 E H = 01 48 28.5, h = 31 km, Mag = 5.1 (ISC). MLH (MOS) = 5.7, mPV (BRA) = 5.8.

30	BRA	eP	02 32 37	+3.3							79.08	34.39	Kurile Islands 43.28 N 147.69 E H = 02 20 31.0, h = 25 km, Mag = 4.7 (ISC). MLH (MOS) = 5.0.
30	BRA	eP	02 50 15	–0.8							79.16	34.34	Kurile Islands 43.24 N 147.80 E H = 02 38 08, h = 1 km, Mag = 5.0 (ISC). MLH (MOS) = 5.0.
30	BRA	iP i	03 13 46 13 49	–2.8	120 180	1.5 1.5					79.09	34.74	Kurile Islands 43.10 N 147.29 E H = 03 01 41, h = 7 km, Mag = 5.3 (ISC). MLH (MOS) = 5.8, mPV1 (BRA) = 5.8, mPV2 (BRA) = 6.0.
30	BRA	eP	03 35 43	+0.5	90	1.5					79.11	34 49	Kurile Islands 43.21 N 147.60 E H = 03 23 39.8, h = 19 km, Mag = 4.9 (ISC). MLH (MOS) = 5.3, mPV (BRA) = 5.7.
30	BRA	iP ipP	03 57 01.4 59 10.4	–0.1 –2.1							78.68	89.43	Java 6.10 S 113. 36 E H = 03 44 24.8, h = 599 km Mag = 6.0 (ISC). mPV (MOS) = 6.0.
30	BRA	e	04 22 43	+4.2							79.16	34.84	Off Coast of Hokkaido, Japan 42.98 N 147.23 E H = 04 10 35.6, h = 24 km, Mag = 5.1 (ISC).

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Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
30	BRA	ePKP2	06 37 13	–1.4							153.98	26.38	Tonga Region 24.00 S 175.20 W H = 06 17 02.7, h = 33 km, Mag = 5.0 (ISC).
30	BRA	eP	08 59 13	+10.3							79.09	34.74	Kurile Islands 43.10 N 147.30 E H = 08 47 00, h = 40 km (ISC).
30	BRA	eP	18 47 05	–0.8							79.25	34.76	Off Coast of Hokkaido, Japan 42.95 N 147.38 E, H = 18 34 59.5, h = 17 km, Mag = 4.8 (ISC). MLH (MOS) = 5.0.
31	BRA	ePKP2	01 39 20	–3.1							147.21	27.73	West of Tonga 17.79 S 178.23 W H = 01 20 46.4, h = 662 km, Mag = 4.4 (ISC).
31	BRA	eP	11 55 20	–6.1							58.87	78.89	Tibet 29.80 N 92.20 E H = 11 45 18, h = 25 km, Mag = 5.1 (ISC). M (MOS) = 5.5.

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Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
01	BRA	eP	12 59 22	–2.0							78.85	34.90	Kurile Islands
	SRO	eP	12 59 23	0.0							78.67	35.62	43.22 N 146.94 E
	SPC	eP	12 59 15	+2.8							76.80	37.02	H = 12 47 21.9, h = 24 km, Mag = 5.5 (ISC). MLH (MOS) = 5.0.
02	BRA	e	07 59 43										No determination of epicentre.
	SRO	e	07 59 39										
02	BRA	ePKIKP	10 10 13	+3.0							147.04	47.66	Loyalty Islands Region 22.35 S 171.36 E H = 09 50 40.8, h = 98 km, Mag = 5.0 (ISC).
02	SRO	ePg	14 19 43										Small local shock.
03	BRA	–iP	03 38 12.2	+1.1							77.99	29.61	Kurile Islands
	SPC	eP	03 38 03	+2\2							76.05	31.67	46.57 N 152.64 E H = 03 26 27.8, h = 56 km, Mag = 5.4 (ISC). MLH (MOS) = 5.0.
03	BRA	eP	05 49 35	–0.2							94.27	300.66	Near Coast of Guerrero, Mexico
		ePP	53 25	–0.4									16.67 N 93.39 W
	SRO	eP	05 49 45	+4.4							95.50	303.18	H = 05 36 18.0, h = 29 km, Mag = 5.6 (ISC).
03	BRA	eSn	10 41 14	–3.4							2.48	27.63	Poland
	SPC	iPn	10 40 33.5	+2.3									50.35 N 18.90 E
		eSg	40 50	–1.7							1.45	323.64	H = 10 40 03.2, Mag = 3.4 (WAR).

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Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remark
03	BRA	–iP	11 42 47	+1.4							78.91	34.96	Kurile Islands
		epP	42 59	+4.0									43.14 N 146.91 E
	SRO	eP	11 42 45	+0.4							78.73	35.69	H = 11 30 43.5, h = 26 km,
	SPC	eP	11 42 39	+5.8							76.86	37.08	Mag = 5.4 (ISC).
													MLH (MOS) = 5.2.
03	BRA	eP	15 53 35	+1.0							90.92	296.26	Chiapas, Mexico
		epP	54 08	0.0									16.62 N 93.63 W
	SRO	eP	15 53 31	–0.9							91.81	297.16	H = 15 40 44.1, h = 133 km,
	SPC	eP	15 53 46	+1.9							92.30	298.67	Mag = 5.3 (ISC).
04	BRA	eP	09 22 29	+1.6							79.12	34.71	Kurile Islands
	SRO	eP	09 22 27	+2.2							78.95	35.44	43.08 N 147.35 E
													H = 09 10 22.9, h = 18 km,
													Mag = 5.3 (ISC).
													MLH (MOS) = 5.3.
04–07	SPC												The apparatus was out of order.
04	BRA	+iP	11 12 54.5	+1.9							79.14	34.92	Off Coast of Hokkaido, Japan
		Lm	55.5		Masked by large microseisms								42.96 N 147.12 E
	SRO	eP	11 12 53	0.0							78.96	35.65	H = 11 00 50.8, h = 38 km,
		eS	22 51	+2.9									Mag = 5.5 (ISC).
		Lm	55				8.3	16.0	14.9	16.0			mPV (MOS) = 6.6,
													MLH (MOS) = 6.4,
													MLH (SRO) = 6.5.
04	BRA	ePKP2	16 46 38	+14.3							153.52	25.74	Tonga Region
													23.47 S 175.07 W
													H = 16 26 23, h = 89 km,
													Mag = 4.7 (ISC).

04	BRA	ePKIKP	19 37 26	+5.2							151.25	22.15	Tonga
													20.8 S 174.07 W
													H = 19 17 36.8, h = 34 km
													Mag = 4.7 (ISC).
06	BRA	–iP	09 59 23	+1.5							73.04	20.27	Near East Coast of Kamchatka
													55.00 N 161.99 E
													H = 09 47 54.0, h = 35 km,
													Mag = 4.8 (ISC).
05–07	SRO												The interpretation obscured
04–07	SPC												by large microseisms.
07	BRA	–iP	22 25 24.8	–0.6							13.52	144.85	Dodecanese Islands
		i!	25 29.3										36.65 N 26.74 E
	SRO	eP	22 25 21	+3.1	Masked by microseisms						12.77	147.79	H = 22 22 19.0, h = 153 km,
	SPC	eP	22 25 31	+7.2							13.40	156.88	Mag = 5.0 (ISC).
08	BRA	iP	11 06 34.9	–3.0							45.27	125.03	Arabian Sea
	SPC	eP	11 06 19	–11.6							44.2	129.47	14.56 N 54.03 E
													H = 10 58 23, h = 48 km,
													Mag = 5.1 (ISC).
													M (MOS) = 5.0.
08	BRA	+iP	12 36 36.4	+0.6							45.26	124.95	Arabian Sea
		ePP	38 26	+2.0									14.60 N 54.07 E
	SRO	eP	12 36 32	+2.0	Masked by microseisms						44.39	126.03	H = 12 28 26, h = 84 km,
	SPC	eP	12 36 31	+4.0							43.22	129.40	Mag = 5.3 (ISC).
													M (MOS) = 5.6
09	BRA	–iP	13 24 31.5	–2.5							6.88	108.39	Roumania
	SRO	iP	13 24 23.6	+1.5							5.99	108.58	45.61 N 26.42 E
		iS	25 30	–0.2									H = 13 22 54.5, h = 128 km,
													Mag = 4.6 (ISC).
													mPV (MOS) = 5.0.

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
10	BRA	iPg iSg	08 59 43.4 59 44.9										Slovakia Explosion. D ≐ 15 km.
10	BRA SRO SPC	–iP i ipP iP eP	10 11 58.4 12 01 12 14 10 11 59.4 10 11 50	+0.6 +0.6 +1.4 +9.0	576	1.2					78.40 78.29 76.45	30.16 30.87 32.23	Kurile Islands Region 45.95 N 152.25 E H = 10 00 02.0, h = 55 km, Mag = 5.7 (ISC). mPV (MOS) = 5.0, mPV (BRA) = 6.6.
11–29	SPC												The apparatus was out of order.
12	BRA SRO	ePdiff iPKIKP i ePP ePKKP3 Lm iPKIKP	06 00 19 03 38.5 03 43 05 25 13 37 47.5 06 03 42.6	 +0.7 –1.0 +1.7 +4.1					 224.0 	 20.0 	123.55 123.07	55.67 57.06	New Ireland Region 5.54 S 153.36 E H = 05 44 45.1, h = 46 km, Mag = 6.2 (ISC). mPV (MOS) = 7.3, MLH (MOS) = 7.2, MLH (BRA) = 7.8.
12	BRA	ePKIKP	07 56 22	+2.1							149.07	18.94	Tonga 18.28 S 173.01 W H = 07 36 38.4, h = 26 km, Mag = 4.7 (ISC).
12	BRA SRO	iP eP	10 21 17.5 10 21 17	–3.2 +0.4							10.22 9.85	176.59 182.05	Ionian Sea 37.96 N 17.87 E H = 10 18 50, h = 10 km, Mag = 5.2 (ISC).

13–14	BRA												The apparatus was out of order.
12–19	SRO												The interpretation obscured by large microseisms.
15	BRA	eP	15 56 57	+0.2							77.85	28.92	Kurile Islands 47.01 N 153.40 E H = 15 45 02.3, h = 44 km, Mag = 4.9 (ISC). MLH (MOS) = 5.0.
17	BRA	eSn	08 31 28								2.97	328.61	Czechoslovakia Explosion of 7.7 tons. H = 08 30 (PRU).
19	BRA	ePKIKP	14 14 02	–0.1							123.46	55.86	New Ireland Region 5.55 S 153.18 E H = 13 55 10.7, h = 55 km, Mag = 5.4 (ISC). M (MOS) = 5.2.
19	BRA SRO HRB	eP eP eP iS Lm	22 48 12 22 48 04 22 48 14 49 58 52	–4.0 –2.3 –0.6			1971	8.0	1556	8.0	10.43 9.68 10.34	144.30 147.88 159.32	Aegean Sea 39.40 N 24.94 E H = 22 45 42.4, h = 7 km, Mag = 6.0 (ISC). mPV (MOS) = 6.9, MLH (MOS) = 7.0, MLH (HRB) = 7.5.
20–24	SRO												The apparatus was out of order.
20	BRA	eP	05 17 43	+1.5							73.45	353.90	Kodiak Island Region 58.35 N 151.76 W H = 05 06 07, h = 0 km, Mag = 5.0 (ISC). M (MOS) = 4.5.

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
20	BRA	e	06 21 28				Traces				10.74	142.56	Aegean Sea 39.30 N 25.5 E H ≒ 06 15 46, h = 32 km, Mag = 4.4 (ISC).
20	BRA	eP eS	09 38 23 40 20	+1.7 +2.0							10.40	144.50	Aegean Sea 39.41 N 24.88 E H = 09 35 51.6, h = 33 km, Mag = 4.5 (ISC). M (MOS) = 5.0.
20	BRA	eP	16 54 06	+2.0							14.21	143.93	Dodecanese Islands 36.15 N 27.39 E H = 16 50 44.8, h = 64 km, Mag = 4.9 (ISC). M (MOS) = 4.6.
21	BRA	eP	00 04 09	+15.2							80.51	52.11	Kyushu, Japan 32.04 N 130.68 E H = 23 51 38.6, h = 0 km, Mag = 4.8 (ISC). M (MOS) = 5.5.
21	BRA	eP	01 57 07	+1.9							80.49	52.19	Kyushu, Japan 32.01 N 130.59 E H = 01 44 55.0, h = 31 km, Mag = 5.0 (ISC). M (MOS) = 6.0.

21	BRA	iP	15 42 38.5	−2.0	175	1.4					85.39	324.17	Southern Nevada Nuclear explosion "KNOX". 37.117 N 116.054 W H = 15 30 00 (USAEC), Mag = 5.8 (ISC). mPV (BRA) = 6.1.
21	BRA	iPKIKP iPKP2 epPKIKP	19 46 59.5 47 35.5 47 52	−0.5 −1.5 +0.2							158.29	40.44	Kermadec Islands Region 30.28 S 179.00 W H = 19 27 27.0, h = 198 km, Mag = 5.2 (ISC).
21	BRA	eP	21 20 04	+1.0							80.12	8.31	Andreanof Islands, Aleutian Islands 51.45 N 176.05 W H = 21 07 58.7, h = 61 km, Mag = 5.2 (ISC). M (MOS) = 5.8.
22	BRA	eP	02 19 19	+6.0							10.53	140.73	Aegean Sea 39.66 N 25.72 E H = 02 16 39, h = 6 km, Mag = 4.5 (ISC).
22	BRA	eP	05 00 22	+2.8							10.47	144.04	Aegean Sea 39.39 N 25.02 E H = 04 57 47, h = 19 km, Mag = 4.7 (ISC). M (MOS) = 4.5.
22	BRA	ePg eSg	11 42 09.7 42 13.3										Slovakia Explosion. D ≒ 30 km.

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
22	BRA	eP	12 24 28								6.81	160.54	Albania 41.7 N 20.13 E H = 12 22 50, h = 46 km (ISC).
22	BRA	eP	17 59 07	+3.6							80.10	8.54	Andreanof Islands, Aleutian Islands 51.44 N 176.41 W H = 17 46 57.9, h = 50 km, Mag = 5.2 (ISC). M (MOS) = 5.0.
23	BRA	ePKIKP	02 33 07	+3.8							146.42.	42.34	Loyalty Islands Region 22.32 S 170.16 E H = 02 13 27, h = 35 km (ISC).
24	BRA	ePKIKP ePKP2 e	01 31 13.5 31 54.5 32.15.5	+5.1 +0.7							160.95	40.60	South of Kermadec Islands 32.61 S 177.47 W H = 01 11 12.0, h = 21 km, Mag = 5.4 (ISC).
24	BRA	eP	12 56 51.3	+3.3							7.07	160.88	Albania 41.44 N 20.18 E H = 12 55 03, h = 24 km, Mag = 4.5 (ISC).
24	BRA SRO	iPn i ePn	13 25 34.1 26 10.8 13 25 23	–0.1 –3.7							6.91 6.05	107.09 107.44	Roumania 45.74 N 26.55 E H = 13 23 54.5, h = 142 km, Mag = 4.2 (ISC).

24	BRA	eP	17 02 06	–6.5							83.05	44.99	Near South Coast of Honshu, Japan 34.22 N 139.22 E H = 16 49 47.4, h = 20 km, Mag = 4.8 (ISC).
25	BRA SRO	iPg ePn eSg iPg iSg	08 03 14.0 03 15 03 30 05 03 27 03 51	–0.8 –1.2 0.0 +2.2 +1.1							1.06 1.73	238.17 163.56	Austria 47.60 N 15.77 E H = 08 02 53.7, h = 0 km (ISC).
25	BRA	eP	10 37 12	+0.4							75.40	36.73	Hokkaido, Japan Region 45.14 N 142.24 E H = 10 25 56.5, h = 271 km, Mag = 5.1 (ISC). mPV (MOS) = 5.4.
25	BRA	eP	12 55 54	–0.1							79.51	95.94	Off West Coast of Northern Sumatra 3.88 N 95.69 E H = 12 43 51, h = 51 km, Mag = 5.0 (ISC).
25	BRA	eP	15 44 18	+7.9							14.50	221.11	Algeria 36.55 N 5.31 E H = 15 40 44, h = 20 km, Mag = 4.8 (ISC). M (MOS) = 4.5.
25	BRA	eP	20 12 42	+0.3							81.30	41.51	Near East Coast of Honshu, Japan 37.63 N 141.51 E H = 20 00 31.4, h = 65 km, Mag = 5.4 (ISC).

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
26	BRA	eP i eS Lm	11 02 40 02 54 12 12 45	+1.0 −4.2	1300	1.6			156.7	18.0	82.39	64.44	Taiwan Region 22.76 N 121.47 E H = 10 50 15, h = 8 km, Mag = 6.0 (ISC). mPV (MOS) = 6.6, MLH (MOS) = 6.9, mPV (BRA) = 6.8, MLH (BRA) = 7.4.
27	BRA	eP	13 40 20	+3.7							10.48	141.63	Aegean Sea 39.61 N 25.51 E H = 13 37 45.4, h = 35 km, Mag = 4.7 (ISC). M (MOS) = 4.5.
28	BRA SRO	iP ipP iS iS	12 19 50.6 21 13 29 41.6 12 29 39	−1.0 −0.6 −0.2 0.0							83.43 83.08	46.67 47.47	South of Honshu, Japan 32.95 N 137.85 E H = 12 08 01.8, h = 348 km, Mag = 5.7 (ISC). mPV (MOS) = 6.1.
29	BRA	+iP epP	15 57 37.6 58 15	−1.1 −2.7							73.95	23.78	Kamchatka 52.76 N 157.49 E H = 15 46 19.0, h = 160 km, Mag = 5.2 (ISC). mPV (MOS) = 5.5.
29	BRA	eP	16 49 28	−23.3							78.22	29.53	Kurile Islands 46.4 N 152.9 E H = 16 38 01, h = 87 km, Mag = 4.1 (ISC).
29	BRA	ePKIKP	23 55 14	+1.7							138.39	46.58	New Hebrides 14.56 S 167.23 E H = 23 36 05.4, h = 156 km, Mag = 4.9 (ISC).

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Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
01	BRA	e	10 44 57										No determination of epicentre (PRU : e 10 44 49 VIE : e 10 44 23).
01	BRA	eP	22 16 53	−1.9							60.71	258.90	North Atlantic Ridge 14.63 N 45.04 W H = 22 06 44.3, h = 38 km, Mag = 4.6 (ISC).
01	BRA	eP e	23 10 36 10 42	+3.7							60.70	258.97	North Atlantic Ridge 14.68 N 45.08 W H = 23 00 23, h = 9 km, Mag = 4.7 (ISC).
02	BRA SRO	ePn iPb ePn	06 54 03.4 54 12.4 06 53 45	−1.5 +0.2 +0.2	Masked by microseisms						4.02 3.26	140.65 148.73	Yugoslavia 45.0 N 20.7 E H = 06 53 01, h = 0 km (ISC).
02	SRO	eP	22 13 42	+0.3	Masked by microseisms						71.06	122.78	Chagos Archipelago Region 6.09 S 71.41 E H = 22 02 24.2, h = 28 km, Mag = 5.5 (ISC).
03	BRA SRO	eP ipP e eP	23 08 28 10 13 14 43 23 08 30	−3.1 +1.9 +2.1	Masked by microseisms						99.08 98.36	77.38 78.36	Northern Celebes 1.57 N 122.53 E H = 22 55 36.6, h = 433 km, Mag = 5.5 (ISC).
03–07	SRO												Interpretation obscured by large microseisms.

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
05	BRA	iP	00 34 12.0	+1.7							78.37	0.32	Unimak Islands Region 53.84 N 163.42 W H = 00 22 07.5, h = 2 km, Mag = 4.8 (ISC). M (MOS) = 5.0.
05	BRA SPC	iP eP	00 42 58.6 00 42 52	+2.5 +1.0							78.38 77.32	0.21 2.12	Unimak Islands Region 53.83 N 163.24 W H = 00 30 58.2, h = 34 km, Mag = 5.1 (ISC). M(MOS) = 5.0.
05	BRA	ePKP2 e	14 56 11 59 54	−6.7							148.47	21.72	Tonga 18.05 S 174.63 W H = 14 36 44.1, h = 157 km, Mag = 4.9 (ISC).
05	BRA	eP epP	18 30 01 30 22	+3.0 +1.5							95.32	69.34	Mindanao, Philippine Islands 9.64 N 126.23 E H = 18 16 41, h = 72 km, Mag = 5.4 (ISC). mPV (MOS) = 5.9, MLH (MOS) = 5.9.
05	BRA	ePKP2	21 40 24	−0.9							146.35	48.04	Loyalty Islands Region 21.87 S 170.77 E H = 21 20 52.2, h = 105 km, Mag = 4.9 (ISC).
07	BRA	eSg	00 25 32	+3.8							6.79	258.37	Switzerland 46.39 N 7.48 E H = 00 21 43.5, h = 1 km (ISC).
07	BRA	eP	07 26 35	+0.6							25.41	345.18	Jan Mayen Island Region 71.68 N 3.2 W H = 08 21 8.4, h = 32 km, Mag = 4.4 (ISC).
07	BRA SRO	eP i! eS eP e	07 26 48 26 56 31 29 07 26 56 31 47	+0.1 +15.6 +2.9							25.41 25.97	344.45 343.93	Jan Mayen Island Region 71.51 N 4.02 W H = 07 21 17.7, h = 0 km, Mag = 5.1 (ISC). M (MOS) = 5.7.
07	BRA SRO	eP eP	07 33 17 07 33 21	−2.7 +1.3							25.41 25.97	344.83 344.29	Jan Mayen Island Region 71.60 N 3.6 W H = 07 27 43.5, h = 33 km, Mag = 4.9 (ISC).
07	BRA	e	09 30 08										No determination of epicentre.
07	BRA	eP	13 10 44	+4.0							25.37	344.85	Jan Mayen Island Region 71.57 N 3.5 W H = 13 05 14.9, h = 33 km, Mag = 4.3 (ISC).
07	BRA SRO	ePKIKP ePKIKP	13 41 14 13 41 11	+5.3 +2.7							122.48 121.97	58.13 59.49	New Britain Region 5.82 S 151.04 E H = 13 22 17.1, h = 38 km, Mag = 5.4 (ISC). mPV (MOS) = 6.3, MLH (MOS) = 6.2.

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Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
09	BRA	eP	00 57 36	–4.0							74.74	93.82	Nicobar Islands Region
	SRO	eP	00 57 35	–0.6							73.91	94.63	8.83 N 94.01 E H = 00 45 57, h = 3 km, Mag = 5.1 (ISC). M (MOS) = 5.6.
09	BRA	eSg	11 24 04								3.13	321.55	Czechoslovakia Explosion of 28.4 tons. H = 11 22 (PRU).
09	BRA	ePKIKP	21 19 16	+4.0							144.83	21.69	Samoa Region
	SRO	ePKIKP	21 19 16	+3.2							144.84	23.84	14.51 S 175.59 W H = 20 59, 51, h = 130 km, Mag = 4.4 (ISC).
10	BRA	eP	04 01 35	+2.4							74.37	9.00	Andreanof Islands, Aleutian Islands 52.08 N 177.32 W H = 03 49 25.1, h = 7 km, Mag = 5.4 (ISC). M (MOS) = 5.2.
10	BRA	eP	07 13 32	–0.5							10.40	147.70	Aegean Sea
		Lm	18.5										39.13 N 24.23 E
	SRO	eP	07 13 21	–0.6							9.68	151.53	H = 07 10 59.0, h = 0 km,
		eS	15 10	–1.7									Mag = 5.0 (ISC).
		Lm	17.5				12.5	10.0	19.0	10.0			M (MOS) = 5.2,
	HRB	Lm	07 17				Traces				9.77	151.19	MLH (SRO) = 5.2.
10	BRA	+iPKIKP	07 31 13.8	–3.1	504	1.8					162.40	54.01	Off East Coast of North Island, N. Z.
													36.28 S 179.48 E H = 07 11 19.1, h = 46 km, Mag = 5.6 (ISC). M (MOS) = 5.5.
11	BRA	ePKP2	08 46 03	–1.3							146.78	19.66	Tonga
		iP	46 09		2250	1.4							16.13 S 173.95 W
	SRO	ePKP2	08 46 04	+0.3							146.82	21.91	Mag = 5.9 (ISC).
	SPC	iPKP2	08 46 01.4	+3.7							145.06	24.30	H = 08 26 30.0, h = 87 km, mPV (MOS) = 6.0.
06–10	SPC												The apparatus was out of order.
11	BRA	eP	17 35 30	+6.7							10.59	141.77	Aegean Sea
	SRO	e	17 37 50				Traces				9.83	145.11	39.50 N 25.56 E H = 17 32 46.9, h = 0 km, Mag = 4.7 (ISC).
12	BRA	eP	09 44 18	+0.8							79.94	278.40	Caribbean Sea 13.15 N 72.30 W H = 09 32 13.2, h = 58 km, Mag = 5.3 (ISC).
12	BRA	ePKIKP	12 15 51	+3.8							147.85	18.20	Samoa Region 17.0 S 172.9 W H = 11 56 08.6, h = 33 km, Mag = 4.2 (ISC).
12	BRA	+iPKIKP	18 43 09.5	+0.8							145.13	23.47	Fiji Region
	SRO	ePKIKP	18 43 11	+2.4							145.11	25.64	15.07 S 176.53 E H = 18 23 34.5, h = 33 km, Mag = 5.2 (ISC).

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
12	BRA	ePg	19 59 36	+0.3							5.48	222.30	Northern Italy 44.0 N 12.0 E H = 19 57 46 (BCIS).
13	BRA	eP	11 20 36	−9.5							37.46	271.54	Azores Region 37.1 N 32.4 W H = 11 13 33.1, h = 33 km, Mag = 4.4 (ISC).
13	BRA	e	11 48 10										No determination of epicentre.
13	BRA	eP	12 58 03	−1.0							55.24	265.45	North Atlantic Ridge 22.46 N 45.19 W H = 12 48 34, h = 33 km, Mag = 4.6 (ISC).
13	BRA	eP	19 29 00										Nicobar Islands Region No determination of epicentre (BCIS).
13	BRA	e	20 28 14										No determination of epicentre.
13	BRA SRO	ePKIKP iPKHKP ePKP2 epPKP2 ePKIKP	20 44 17 44 24.6 44 32 46 27 20 44 24	−0.8 −0.8 −3.4 +6.5							149.80 149.71	28.90 31.31	West of Tonga 20.45 S 177.92 W H = 20 25 31.8, h = 513 km, Mag = 5.0 (ISC).
13	BRA	ePn	21 49 58	+4.5							0.65	236.02	Austria 47.8 N 16.3 E H = 21 49 36 (BCIS).

14	BRA	eP	02 15 25	−2.1							34.63	80.72	Central Kazakhstan 42.46 N 66.38 E H = 02 08 34.2, h = 14 km, Mag = 5.3 (ISC). MLH (MOS) = 5.1.
14	BRA	e	11 08 19										No determination of epicentre.
14	BRA	ePKIKP epPKIKP	19 05 06 05 15	+2.0 −3.0							157.17	32.61	Kermadec Islands Region 27.93 S 176.56 W H = 18 45 14, h = 49 km, Mag = 5.2 (ISC).
15	BRA SRO	eP eP	03 01 21 03 01 12	−0.6 −2.7	Masked by microseisms						7.29 6.72	160.66 167.10	Albania 41.24 N 20.3 E H = 02 59 32.6, h = 44 km (ISC). Mag = 3.4 (ATH).
15	BRA	eP	07 31 39	−1.2							78.71	32.77	Kurile Islands 44.42 N 149.32 E H = 07 19 39.3, h = 40 km, Mag = 4.8 (ISC). M (MOS) = 4.5.
15	BRA SRO	iP eP	22 57 48.5 22 57 42	−0.2 +2.3							4.84 4.17	150.97 159.33	Yugoslavia 43.89 N 20.35 E H = 22 56 36.9, h = 43 km, Mag = 4.2 (USCGS).
16	BRA SRO	ePn ePn	00 16 46 00 16 39	+0.1 +2.2							4.87 4.22	151.75 160.15	Yugoslavia 43.83 N 20.29 E H = 00 15 29.8, h = 0 km (ISC).
16–18	SRO												Large microseisms.

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
16	BRA	eP	18 13 42	+6.1							10.45	144.36	Aegean Sea 39.38 N 24.94 E H = 18 11 05.8, h = 43 km, Mag = 4.5 (ISC). M (MOS) = 4.5.
19	BRA SRO	ePKP2 ePKP2	01 55 36 01 55 36	–1.0 –1.0	Masked by microseisms						148.26 148.33	17.43 20.96	Tonga Region 17.37 S 172.66 W H = 01 35 49.6, h = 33 km, Mag = 5.1 (ISC). M (MOS) = 5.5.
19	BRA	iPg iSg	15 41 15 41 19.5										Slovakia Explosion. D ≐ 40 km.
20	BRA	eP	12 25 13	+1.5							79.40	12.36	Rat Islands, Aleutian Islands 51.40 N 177.48 E H = 12 13 03, h = 4 km, Mag = 5.0 (ISC).
20	BRA	ePKIKP	13 13 39	+3.3							145.97	18.02	Tonga 15.13 S 173.22 W H = 12 54 00.1, h = 33 km, Mag = 4.7 (ISC).
21	BRA SRO	eP eSg	16 11 52 16 14 36	–2.2 –2.0	Masked by microseisms						10.35 9.57	141.25 144.62	Aegean Sea 39.76 N 25.49 E H = 16 09 23.8, h = 19 km, Mag = 4.3 (ISC). M (MOS) = 4.5.

22	BRA	eP	15 12 39	–1.4	250	1.4					85.31	324.44	Southern Nevada Nuclear explosion "STINGER" 37.33 N 116.31 W H = 15 00 00 (USAEC), Mag = 5.6 (ISC). mPV (BRA) = 6.2.
22	BRA	eSb	19 33 48	–8.6							7.93	183.97	Southern Italy 40.25 N 16.39 E H = 19 29 58, h = 22 km (ISC).
22	BRA SRO	eP iP Lm	20 47 03 20 47 09 21 27	–1.5 +3)4	Masked by microseisms						81.84 81.57	40.94 41.71	Off East Coast of Honshu, Japan 37.49 N 142.47 E H = 20 34 44, h = 8 km, Mag = 5.3 (ISC). M (MOS) = 5.5.
23	BRA SRO HRB SPC	eP eP Lm Lm eP	17 28 22 17 28 13 31.5 17 32 17 28 20	–2.1 –0.9 –0.5			28.0 Traces	10.0	19.4	12.0	10.34 9.57 9.66 10.14	141.29 144.56 144.38 156.45	Aegean Sea 39.76 N 25.48 E H = 17.25 55.0, h = 33 km, Mag = 4.6 (ISC). M (MOS) = 5.0, MLH (SRO) = 5.5.
12–22	SPC												The timing mechanism was out of order.
24	BRA	eP ePP	07 22 59 25 10	–0.5 –5.6							60.87	229.18	Central Mid-Atlantic Ridge 1.19 S 24.29 W H = 07 12 47.5, h = 30 km, Mag = 5.3 (ISC). M (MOS) = 5.0.

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
26	BRA	iP epP e ePP	00 54 50.3 56 54 58 41 59 08	+0.3 +4.5 +0.8							100.93	87.67	Bali Sea 6.59 S 116.18 E H = 00 41 57.8, h = 528 km, Mag = 5.8 (ISC). mPV (MOS) = 5.9.
26	BRA	eP	10 54 32	+1.0							85.52	44.20	South of Honshu, Japan 32.62 N 141.66 E H = 10 41 56.2, h = 39 km, Mag = 4.7 (ISC).
26	BRA	iPKIKP	14 53 37	+4.7							149.71	29.61	West of Tonga 20.48 S 178.31 W H = 14 34 48.9, h = 535 km, Mag = 4.3 (ISC).
26	BRA	eP	19 54 04	+0.5							96.54	70.26	Mindanao, Philippine Islands 8.10 N 126.30 E H = 19 40 41.9, h = 82 km, Mag = 5.5 (ISC).
27	BRA	eP	05 04 36	–0.6							77.35	28.09	Kurile Islands 47.83 N 154.11 E H = 04 52 47.0, h = 59 km, Mag = 5.4 (ISC).
27	BRA	eP	19 05 24	+0.7							77.08	41.86	Eastern Sea of Japan 40.89 N 138.03 E H = 18 53 31.3, h = 27 km, Mag = 5.2 (ISC). M (MOS) = 4.5.
28	BRA	eP	01 20 31	–0.4							91.18	294.16	Mexico–Quatemala Border Region 15.08 N 92.10 W H = 01 07 37.3, h = 107 km, Mag = 5.3 (ISC).
28	BRA SRO SPC	eP eS Lm eP eS Lm eP	07 42 32 44 47 47.5 07 42 26 44 22 47.5 07 42 45	–1.7 +3.4 –0.7 +1.1 +2.8							10.69 10.15 11.35	163.63 168.34 177.41	Ionian Sea 37.84 N 20.89 E H = 07 39 59.5, h = 23 km, Mag = 5.3 (ISC). M (MOS) = 5.9, MLH (SRO) = 5.5.
28–31	SRO												Large microseisms.
28	BRA SPC	ePn eP eS	16 39 56 16 40 15 42 16	–3.1 +7.4 +9.6							8.99 9.70	163.57 179.38	Greece–Albania Border Region 39.49 N 20.38 E H = 16 37 47.3, h = 18 km, Mag = 4.6 (ISC). M (MOS) = 5.0.
29	BRA	iPn	06 30 25.2	–1.8							5.32	149.16	Yugoslavia 43.54 N 20.85 E H = 06 29 05, h = 17 km (ISC).
30	BRA	ePKP2	19 38 39	–5.8							151.59	22.77	Tonga 21.21 S 174.28 W H = 19 18 51, h = 100 km, Mag = 4.4 (ISC).
31	BRA	eP	03 28 00	+2.4							71.77	90.95	Andaman Islands Region 12.9 N 94.0 E H = 03 16 37, h = 33 km, Mag = 5.0 (ISC).
31	SRO												The apparatus did not work.

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
01	BRA	–iP	00 54 15.5	–0.9							81.01	50.76	Shikoku, Japan
		iP	54 17.0		750	1.4							32.48 N 132.28 E
		i	54 27.5		3000	1.4							H = 00 42 04.2, h = 37 km,
		e	01 00 09										Mag = 6.2 (ISC).
		eS	04 19	–3.4									mPV (MOS) = 7.3,
		Lm	36				427.4	16.0	512.9	16.0			MLH (MOS) = 7.7,
	HRB	eP	00 54 19.3	+11.9							80.62	51.45	MLH (BRA) = 8.1,
		Lm	01 35				741.0	16.0	880.0	16.0			mPV1 (BRA) = 6.6,
													mPV2 (BRA) = 7.2,
													MLH (HRB) = 8.3.
01	BRA	–iP	07 25 31.0	+0.1							81.16	50.95	Shikoku, Japan
		i	25 34		1280	1.6							32.24 N 132.21 W
		eS	35 34	–4.4									H = 07 13 18.2, h = 40 km,
		Lm	08 06.5				79.0	16.0	79.0	16.0			Mag = 5.9 (ISC),
	SRO	iP	07 25 30	+0.2							80.75	51.72	mPV (MOS) = 6.5,
		iS	35 39	+5.0			29.0	20.0	33.0	20.0			MLH (MOS) = 6.7,
		Lm	08 05										MLH (BRA) = 7.3,
	HRB	Lm	08 06				61.2	14.0	40.0	14.0	80.77	51.65	mPV (BRA) = 6.8,
													MLH (SRO) = 6.8,
													MLH (HRB) = 7.2.
3.4–7.4.	SPC												The apparatus was out of order.
02	BRA	e	21 13 41										No determination of epicentre.

03	BRA	eP	16 36 46	–1.8							78.54	14.30	Near Islands,
		i!	36 48		560	1.0							Aleutian Islands
													51.76 N 174.19 E
													H = 16 24 43, h = 11 km,
													Mag = 5.4 (ISC).
													M (MOS) = 5.5,
													mPV (BRA) = 6.6.
05	BRA	ePKIKP	02 19 58	–2.4							145.14	28.79	West Tonga
													16.02 S 179.53 W
													H = 02 00 26, h = 32 km,
													Mag = 4.6 (ISC).
05	BRA	e	16 00 24								10.37	141.04	Aegean Sea
	SRO	e	15 59 38								9.59	144.38	39.76 N 25.55 E
													H = 15 54 32.7, h = 18 km,
													Mag = 4.5 (ISC).
06	BRA	iP	23 00 10.6	+2.1							79.21	12.94	Rat Islands, Aleutian Islands
													51.45 N 176.53 E
													H = 22 48 06.8, h = 41 km,
													Mag = 4.8 (ISC).
07	BRA	ePKP2	01 51 42	+7.0							144.84	34.78	West of Tonga
													17 01 S 177.03 W
													H = 01 31 55, h = 17 km,
													Mag = 4.9 (ISC).
07	BRA	iP	04 52 24	+2.0							79.17	12.95	Rat Islands, Aleutian Islands
		epP	52 37	+0.5									51.48 N 176.49 E
													H = 04 40 21.4, h = 49 km,
													Mag = 5.3 (ISC).
													mPV (MOS) = 6,
													MLH (MOS) = 6.0.

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
07	BRA	+iP	05 23 09	+0.9							34.13	354.68	North of Svalbard
	SRO	iP	05 23 14	+1.6							34.57	354.45	81.52 N 3.4 W
													H = 05 16 24.3, h = 28 km,
													Mag = 5.3 (ISC).
09	BRA	eP	02 41 56	+0.9							88.84	322.39	Southern California
		i	41 59		640	3.0							33.22 N 116.19 W
		iScS	52 53	+5.1									H = 02 29 00.2, h = 12 km,
		Lm	03 19				111.0	18.0	223.0	18.0			Mag = 6.0 (ISC).
	SRO	eP	02 42 02	+2.3							89.26	324.71	mPV (MOS) = 6.7,
		i	49 26										MLH (MOS) = 6.9,
		iS	52 38	–10.2									mPV (BRA) = 6.3,
		i	53 08										MLH (BRA) = 7.7,
		Lm	03 20				117.0	20.0	130.0	20.0			MLH (SRO) = 7.5.
09	BRA	iPKIKP	11 46 08	+1.7							147.38	27.69	West of Tonga
		ipPKIKP	48 38	–0.3									17.94 S 178.15 W
	SRO	iPKIKP	11 46 10	+3.9							147.29	29.96	H = 11 27 39.0, h = 65 km,
													Mag = 5.1 (ISC).
10	BRA	iPg	11 01 26								25 km		Slovakia
		eSg	01 29										Explosion.
10	BRA	ePKIKP	18 51 45	+1.1							147.36	47.69	Loyalty Islands Region
													23.63 S 171.53 E
													H = 18 32 09.1, h = 56 km,
													Mag = 5.1 (ISC).

12	BRA	eSg	11 02 32								3.11	317.66	Czechoslovakia
													Explosion of 15.2 tons.
													50.42 N 13.83 E
													H = 11 00 (PRU).
12	BRA	ePKIKP	19 54 35	+5.3							149.84	28.52	West of Tonga
													20.42 S 177.71 W
													H = 16 35 40.6, h = 481 km,
													Mag = 4.5 (ISC).
14	BRA	eP	08 49 49	+5.6							84.81	43.83	Off East Coast of Honshu,
	SRO	iP	08 49 42	+1.2							84.49	44.64	Japan
		Lm	09 23										33.42 N 141.56 E
	SCP	eP	08 49 36								82.62	46.09	H = 08 37 10.3, h = 25 km,
													Mag = 5.4 (ISC).
													M (MOS) = 5.5.
14	BRA	eP	13 17 42	+2.9							84.74	43.81	Off East Coast of Honshu,
	SRO	iP	13 17 39	+1.2							84.42	44.62	Japan
		eS	23 02	+2.9									33.49 N 141.53 E
		Lm	13 51										H = 13 05 06.5, h = 26 km,
	SPC	eP	13 17 33	+5.9							82.54	46.08	Mag = 5.3 (ISC).
													M (MOS) = 5.6.
17	BRA	eP	09 16 39	–1.6							20.14	237.74	Straits of Gibraltar
	SRO	eP	09 16 49	+0.4							20.65	240.57	35.24 N 3.73 W
	SPC	eP	09 17 05	–1.8							22.45	240.58	H =09 12 04.3, h = 13 km,
													Mag = 5.0 (ISC).
													M (MOS) ~ 5.0.
17	SPC	eP	13 18 47	+3.3							38.97	89.38	Afganistan–USSR Border
													Region
													36.43 N 71.48 E
													H = 13 11 27.7, h = 124 km,
													Mag = 5.2 (ISC).
													M (MOS) = 5.3.

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
18	BRA	ePn	03 09 51	+0.6							7.26	161.09	Albania
	SRO	eSg	03 11 49	+4.2							6.70	167.59	41.25 N 20.22 E
	SPC	ePn	03 10 02	+3.3							7.94	180.13	H = 03 08 03.4, h = 36 km,
													Mag = 4.4 (ISC).
18	BRA	ePKIKP	10 18 17	–0.3							154.75	32.64	South of Fiji
	SCP	ePKIKP	10 18 18	+2.2							152.72	37.26	25.11 S 177.67 W
													H = 09 58 53.3, h = 232 km,
													Mag = 5.0 (ISC).
18	BRA	ePb	11 02 38.2								95 km		No determination of epicentre
													(VKA: ePn 11 02 51
													ePg 02 54
													iSg 03 11).
18	BRA	ePn	19 40 05.2	–3.0							7.36	241.71	Northern Italy
		eSg	42 29	+6.5									44.31 N 8.07 E
	SRO	e	19 43 01								7.93	247.58	H = 19 38 18, h = 8 km,
													Mag = 4.0 (ISC).
19	BRA	eP	09 17 47	–1.4							95.08	203.88	South Atlantic Ridge
	SCP	ePP	09 17 54	–1.4							95.89	206.08	42.69 S 16.05 W
													H = 09 04 28.2, h = 33 km,
													Mag = 5.5 (ISC).
19	BRA	ePg	10 28 41.2								110 km		Slovakia
		e	28 44.2										No determination of epicentre
		e(Sg)	28 54.7										(VKA: e 10 28 54).
19	BRA	e	11 03 37								3.38	312.74	Czechoslovakia
													Explosion of 21.5 tons.
													50.40 N 13.22 E
													H = 11 02 (PRU).
19	BRA	iPg	14 03 35										Local shock.
20	BRA	eP	09 50 41	–2.2							33.03	269.06	Azores
													38.27 N 26.72 W
													H = 09 44 08.4, h = 28 km,
													Mag = 4.8 (ISC).
20	BRA	eP	10 24 38	+1.7							33.05	269.14	Azores
	SRO	eP	10 24 45	+1.8							33.86	270.58	38.30 N 26.77 W
		Lm	40				2.1	12.0	2.2	12.0			H = 10 18 00, h = 15 km,
	SCP	eP	10 24 54	–3.0							34.14	270.01	Mag = 5.0 (ISC).
													M (MOS) = 5.3,
													MLH (SRO) = 5.2.
20	BRA	ePKIKP	12 44 50	+2.6							146.57	17.20	Samoa Region
	SRO	ePKIKP	12 44 49	+1.7							146.65	19.43	15.62 S 172.63 W
		Lm	13 56				2.9	20.0	2.9	20.0			H = 12 25 10.9, h = 35 km,
	SPC	ePKIKP	12 44 46	–3.9							144.91	21.93	Mag = 5.7 (ISC).
													mPV (MOS) = 0.5,
													MLH (MOS) ~ 6.0,
													MLH (SRO) = 6.1.
20	BRA	eP	20 01 56	–1.1							72.56	208.57	South Atlantic Ridge
													19.89 S 11.90 W
													H = 19 50 29.4, h = 18 km,
													Mag = 4.7 (ISC).

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Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
21	BRA	iP	08 46 16	–0.1							81.01	39.94	Near East Coast of Honshu, Japan
		ePP	49 32	+9.0									36.68 N 142.99 E
		eS	56 29	+7.6									H = 08 34 03.2, h = 33 km,
		Lm	09 26				33.4	15.0	33.4	15.0			Mag = 5.4 (ISC).
	SRO	iP	08 46 16	+1.2							80.82	40.70	mPV (MOS) = 6.5,
		eS	56 25	+6.0									MLH (MOS) = 6.2,
		Lm	09 26				9.0	15.0	15.2	15.0			MLH (BRA) = 7.0,
	SPC	eP	08 46 08								78.93	42.13	MLH (SRO) = 6.5.
		Lm	09 25										
22	BRA	e	15 50 12										No determination of epicentre. Near Earthquake? (PRU: traces).
23	BRA	ePb	10 35 12.2								110 km		No determination of epicentre. Near Earthquake (VKA: eSg 10 35 28).
		eSg	35 28.7										
		e	35 46.7										
23	BRA	eP	12 46 51	–1.0							36.84	109.27	Southern Persia
	SRO	eP	12 46 44	–1.2							35.95	110.08	27.68 N 56.76 E
	SPC	eP	12 46 43	+3.6							35.28	113.98	H = 12 39 49.4, h = 74 km,
													Mag = 5.1 (ISC).
23	BRA	+iP	20 40 43.2	+0.4	720	1.0					72.97	352.96	Gulf of Alaska
		i	40 50.7		1440	1.0							58.69 N 149.93 W
		eS	50 12	–2.8									H = 20 29 14.6, h = 22 km,
	SRO	iP	20 40 44								73.42	353.63	Mag = 6.2 (ISC).
		eS	50 20										mPV (MOS) = 6.7,
		Lm	21 28				2.9	16.0	15.7	16.0			MLH (MOS) = 6.5,
	SPC	eP	20 40 43	+5.0							72.18	354.63	mPV1 (BRA) = 6.8,
													mPV2 (BRA) = 7.1,
													MLH (SRO) = 6.4.

24	BRA	eP	03 15 23	–0.3							69.35	123.78	Chagos Archipelago Region
	SPC	eP	03 15 19	+3.0							68.25	126.92	4.99 S 68.43 E
													H = 03 04 20, h = 60 km,
													Mag = 4.9 (ISC).
24	BRA	eP	08 20 35	–0.2							10.47	144.72	Aegean Sea
	SRO	eP	08 20 28	+3.0							9.72	148.32	39.33 N 24.88 E
		eSn	22 20	+1.9									H = 08 18 03.3, h = 20 km,
		Lm	24				20.6	12.0	47.5	12.0			Mag = 5.1 (ISC).
	SPC	eP	08 20 42	+5.1							10.40	159.68	M (MOS) = 5.5,
													MLH (SRO) = 5.6.
24	BRA	e	10 19 41										No determination of epicentre (VKA: e 10 19 42).
24	BRA	ePb	12 00 53								85 km		No determination of epicentre. Near Earthquake (VKA: iPg 12 01 10, iSg 12 01 38).
		eSg	01 05										
24	BRA	eP	19 42 52	–3.7							69.36	123.72	Chagos Archipelago Region
	SRO	eP	19 42 48	+4.1							68.49	124.68	4.96 S 68.48 E
	SPC	eP	19 42 56	+6.3							68.25	126.86	H = 19 31 50, h = 38 km,
													Mag = 5.0 (ISC).
25	BRA	ePKIKP	00 03 09	–3.8							109.82	77.89	Banda Sea
													6.92 S 129.21 E
													H = 23 44 45, h = 44 km,
													Mag = 4.8 (ISC).
													M (MOS) = 5.0.
25	BRA	e	18 30 29								5.23	253.64	Switzerland
													46.46 N 9.83 E
													H = 18 27 41.4, h = 41 km (ISC).

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
25	BRA SRO	–iPKIKP ePKP2	21 45 12.9 45 16	+1.1 +0.3							146.15 146.22	17.79 20.00	Tonga 15.28 S 173.05 W H = 21 25 35.9, h = 33 km, Mag = 5.2 (ISC). M (MOS) ~ 6.0.
26	BRA SRO	–iPKIKP ePKP2 Lm	01 02 12 01 02 16 02 10	+1.7 +1.0			3.6	20.0	1.5	20.0	146.25 146.32	17.97 20.19	Tonga 15.40 S 173.13 W H = 00 42 38, h = 59 km, Mag = 5.5 (ISC). mPV (MOS) = 6.5, MLH (MOS) = 6.0, MLH (SRO) = 6.1.
26	BRA SRO	eP eP	03 04 10 03 04 00	+0.9 –2.6							27.72 26.84	105.91 106.58	Persia 35.09 N 50.16 E H = 02 58 23.8, h= 32 km, Mag = 5.2 (ISC). M (MOS) = 4.6.
26	BRA SRO	–iP eP	13 25 08 25 08	–0.5 +1.6							56.92 57.23	223.46 224.89	Central Mid-Atlantic Ridge 0.10 S 18.09 W H = 13 15 27.1, h = 61 km, Mag = 5.2 (ISC). M (MOS) = 5.5.
26	BRA SRO	eP eP	13 33 26 33 20	+1.3 –4.5							81.56 81.28	41.57 42.33	Near East Coast of Honshu, Japan 37.38 N 141.63 E H = 13 21 11.1, h = 49 km, Mag = 5.2 (ISC). M (MOS) = 5.0.
26	BRA SRO	–iP iP	15 12 39 15 12 44	–1.2 0.0	1200	1.0					85.40 86.16	324.54 325.40	Southern Nevada Nuclear explosion "BOXCAR". 37°17'43" N 116°27'20" W H = 15 00 00.1 (USAEC), Mag = 6.2 (ISC). mPV (BRA) = 7.0.
26	BRA SRO	eP eP	18 01 20 01 24	+1.1 –0.9							94.75 95.62	304.95 305.86	Near Coast of Michoacan, Mexico 18.82 N 103.31 W H = 17 48 01.5, h = 48 km, Mag = 5.5 (ISC). mPV (MOS) = 6.5, MLH (MOS) = 6.2.
27	BRA	e(Pb) e(Sg)	09 00 11 00 21								70 km		No determination of epicentre. Near Earthquake (VKA: ePg 09 00 16.2, eSg 09 00 29).
28	BRA	eP	04 30 49	–0.6							85.37	15.89	North Pacific Ocean 44.76 N 174.58 E H = 04 18 15.5, h = 36 km, Mag = 5.5 (ISC). M (MOS) = 5.0.
28	BRA	eP	09 33 04	+2.1							25.21	346.20	Jan Mayen Island Region 71.74 N 1.70 W H = 09 27 38.2, h = 33 km, Mag = 4.3 (ISC).
28	BRA	eP	10 16 37	–0.1							91.67	289.74	Off Coast of Central America 11.87 N 88.93 W H = 10 03 35, h = 57 km, Mag = 4.8 (ISC).

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Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
29	BRA	ePKHKP	09 51 39	+7.2							150.22	31.89	West of Tonga 21.38 S 179.25 W H = 09 32 54.4, h = 61 km, Mag = 4.5 (ISC).
29	BRA	iP	17 06 45.2	+0.3							21.45	104.52	North-West Persia–USSR Border Region
		i	06 53		480	1.0							
	SPC	iP	17 06 30	+0.9							19.78	111.15	39.24 N 44.23 E H = 17 01 55.6, h = 17 km, Mag = 5.3 (ISC). MLH (MOS) = 5.5, mPV (BRA) = 5.8.
30	BRA	ePKIKP	19 04 53	+1.3							151.76	22.88	Tonga 21.39 S 174.28 W H = 18 45 15, h = 112 km, Mag = 4.6 (ISC).

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Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
01	BRA	eP	08 56 01	+0.2							81.19	39.80	Off East Coast of Honshu, Japan
		ePeP	56 12	+1.6									
	SRO	eP	08 55 59	–3.0							80.94	40.56	38.65 N 143.22 E H = 08 43 44.4, h = 13 km, Mag = 5.4 (ISC). M (MOS) = 5.5.
01	BRA	eP	19 25 00	+1.8							79.11	38.91	Near East Coast of Honshu, Japan 40.87 N 142.68 E H = 19 12 53.3, h = 15 km, Mag = 4.9 (ISC). M (MOS)= 5.3.
02	BRA	–iP	05 41 07.0	–7.0	280	1.2					74.13	280.49	Dominican Republic Region
		ipP	41 28.8	+2.9									18.80 N 69.69 W
		isP	41 38.8	+5.2									H = 05 29 37.7, = 75 km,
	SRO	eP	05 41 11	+0.3							74.99	281.44	Mag = 5.6 (ISC).
		ipP	41 35	+3.3									mPV (BRA) = 6.3.
02	BRA	eP	08 05 30	–0.6							38.97	271.71	Azores Region
	SRO	eP	08 05 39	+1.2							39.79	273.00	36.95 N 34.04 W H = 07 58 13, h = 98 km, Mag = 4.8 (ISC).
02	BRA	e(Pb)	13 19 51								150 km		No determination of epicentre (VKA: iSg 13 20 37).
		e(Sg)	20 12										
02	BRA	e	14 18 25										No determination of epicentre.

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
02	BRA	ePKIKP	23 44 24								109.90	76.86	Banda Sea
		epPKIKP	45 03										6.34 S 130.00 E
	SRO	ePKIKP	23 44 25								109.18	77.94	H = 23 26 02.9, h = 119 km,
		epPKIKP	45 00										Mag = 5.7 (ISC).
	SPC	eP	23 44 32								107.65	79.02	mPV (MOS) = 6.2.
03	BRA	iP	05 44 58	–0.4	160	1.6					82.46	60.60	Northeast of Taiwan
		ePcP	45 15	+11.3									25.19 N 124.68 E
	SRO	iS	05 55 03	+13.6							81.92	61.40	H = 05 32 45.3, h = 95 km,
	SPC	eP	05 44 49	–3.3							80.14	62.94	Mag = 5.7 (ISC).
													mPV (MOS) = 6.0.
													mPV (BRA) = 5.7.
03	BRA	+iP	16 25 39	+0.2							78.09	0.23	Unimak Island Region
													54.12 N 163.28 W
													H = 16 13 42.2, h = 31 km,
													Mag = 4.9 (ISC).
07	BRA	eP	09 12 48	+0.6							85.05	274.63	Northern Colombia
													6.82 N 73.01 W
													H = 09 00 28.2, h = 157 km,
													Mag = 5.6 (ISC).
07	BRA	ePKIKP	12 02 19	+4.5							148.80	27.53	West of Tonga
													19.26 S 177.58 W
													H = 11 43 33.0, h = 551 km,
													Mag = 4.8 (ISC).
08	BRA	ePKIKP	11 19 54	–1.5							154.65	127.56	Macquarie Island Region
													57.96 S 157.57 E
													H = 11 00 07, h = 25 km,
													Mag = 5.5 (ISC).

08	BRA	–iP	12 29 41.6	+1.4							83.58	335.20	Off Coast of Oregon
		i	29 44.6		1240	2.0							43.58 N 127.89 W
		eS	40 15										H = 12 17 14.2, h = 30 km,
		Lm	13 10						18.2	15.0			Mag = 6.1 (ISC).
	SRO	iP	12 29 45	-1.5							84.24	336.03	mPV (MOS) = 6.4,
		iS	40 15	+10.4									mPV (BRA) = 6.7,
		Lm	13 11				9.2	16.0	9.5	16.0			MLH (SRO) = 6.4.
08	BRA	eP	22 06 15	+0.1							83.37	335.62	Off Coast of Oregon
													43.90 N 128.19 W
													H = 22 17 13, h = 25 km (ISC).
08	BRA	eP	22 52 36	–0.6							40.95	84.69	Afganistan–USSR Border
													Region
													37.18 N 71.89 E
													H = 22 45 06.6, h = 139 km,
													Mag = 4.9 (ISC).
													mPV (MOS) = 5.3.
09	BRA	ePKP2	00 06 18	+7.8							156.41	30.79	South of Fiji
													26.94 S 176.16 W
													H = 23 45 56, h = 93 km,
													Mag = 4.5 (ISC).
09	BRA	eP	03 15 30	+3.0							83.44	334.53	Off Coast of Oregon
													43.45 N 126.98 W
													H = 03 03 01.9, h = 33 km,
													Mag = 5.3 (ISC).
09	BRA	ePKIKP	07 39 54	+1.4							159.85	42.02	Kermadec Islands Region
													31.91 S 178.63 W
													H = 07 19 58, h = 38 km,
													Mag = 5.0 (ISC).

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
09	BRA	eP	13 06 09	+1.9							99.85	273.09	Near Coast of Northern Peru 5.29 S 81.79 W H = 12 52 24.6, h = 34 km, Mag = 5.6 (ISC).
09	BRA	eP	14 34 30	+1.7							81.99	46.66	Southern Honshu, Japan 34.13 N 136.85 E H = 14 22 11.0, h = 37 km, Mag = 4.9 (ISC). M (MOS) = 5.5.
09	BRA	eP	18 16 06	+1.5							91.29	295.91	Chiapas, Mexico 16.11 N 93.58 W H = 18 03 09.9, h = 107 km, Mag = 5.1 (ISC).
10	BRA	e e	10 44 45 45 06										No determination of epicentre (VKA: eSg 10 44 45).
11	BRA	ePKIKP	15 52 26	+5.5							120.75	62.11	Eastern New Guinea Region 6.40 S 147.26 E H = 15 33 40.5, h = 70 km, Mag = 5.5 (ISC).
11	BRA	ePKIKP	17 17 10	+1.2							146.13	49.46	Loyalty Island Region 22.12 S 169.93 E H = 16 57 33, h = 32 km (ISC).

13	BRA	+iP i!PP	02 50 32 50 37	−1.6 −11.0							16.90	97.23	Western Caucasus 43.53 N 40.47 E H = 02 46 35.0, h = 5 km, Mag = 5.0 (ISC). MLH (MOS) = 4.7.
13	BRA	eP	19 48 23	−0.7							82.12	274.72	Lake Maracaibo 9.06 N 71.08 W H = 19 36 00, h = 5 km, Mag = 4.9 (ISC).
13	BRA	eP	21 15 05	−1.9							67.21	214.08	South Atlantic Ridge 13.0 S 14.9 W H = 21 04 13.8, h = 33 km, Mag = 5.1 (ISC).
14	BRA	ePKIKP	05 56 42	+2.3							153.29	29.71	South of Fiji 23.86 S 176.98 W H = 05 37 14.8, h = 209 km, Mag = 4.8 (ISC).
14	BRA	−iP i! epP ePP eS esS Lm	14 17 05 17 09 17 48 20 14 27 06 28 10 52	−0.6 +2.0 −1.0 −9.6 −2.0 	2250	1.4					81.47	54.32	Ryukyu Islands 29.93 N 129.39 E H = 14 05 05.4, h = 162 km, Mag = 5.9 (ISC). mPV (MOS) = 6.3, mPV (BRA) = 6.7.
	SRO	iP iS esS Lm	14 17 03 27 03 28 07 51	−0.6 +5.4 +0.3 			14.3	20.0	20.2	20.0	81.01	55.09	

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
15	BRA	–iP	08 01 51	–0.5							64.30	170.32	Zambia
		ipP	01 58	–2.5									15.91 S 26.16 E
	SRO	eP	08 01 48	+0.8							63.82	171.58	H = 07 51 16.5, h = 29 km,
													Mag = 5.7 (ISC).
													M (MOS) = 5.5.
15	BRA	ePKIKP	15 20 22	–1.0							157.85	39.76	Kermadec Islands Region
	SRO	ePKHKP	15 20 35	+12.6							157.58	42.72	29.77 S 179.00 W
													H = 15 00 30.0, h = 31 km,
													Mag = 5.4 (ISC).
													MLH (MOS) = 6.1,
													mPV (MOS) = 6.4.
16	BRA	iP	01 01 04	–0.2	520	1.6					79.42	38.47	Off East Coast of Honshu,
		i	01 16		2340	1.6							Japan
		iPS	02 11 48	–2.2									40.86 N 143.38 E
		Lm	38				3732	20.0	4479	20.0			H = 00 48 57, h = 9 km
	SRO	iP	01 01 03	0.0							79.18	39.20	Mag = 6.1 (ISC).
	HRB	eP	01 01 10	+4.7							79.19	39.13	mPV (MOS) = 7.2,
		ePS	11 52	+3.5									MLH (MOS) = 8.2,
		Lm	02 40				111	18.0	128	18.0			MLH (BRA) = 8.9,
													mPV1 (BRA) = 6.4,
													mPV2 (BRA) = 7.1,
													MLH (HRB) = 7.4.
16	BRA	eP	05 56 47	–0.9							79.93	38.47	Off East Coast of Honshu,
													Japan
													40.43 N 143.75 E
													H = 05 44 38, h = 14 km,
													Mag = 4.7 (ISC).

16	BRA	eP	06 48 56	–4.3							79.08	38.56	Hokkaido, Japan Region
													41.09 N 143.03 E
													H = 06 36 51.8, h = 41 km,
													Mag = 5.6 (ISC).
16	BRA	eP	08 01 02	–0.1							78.70	38.70	Hokkaido, Japan Region
													41.33 N 142.61 E
													H = 07 49 2.1, h = 42 km,
													Mag = 5.1 (ISC).
16	BRA	eP	08 58 48	+3.1							79.42	38.54	Off East Coast of Honshu,
													Japan
													40.82 N 143.30 E
													H = 08 46 40.8, h = 38 km,
													Mag = 4.9 (ISC).
16	BRA	–iP	09 10 14.0	0.0							78.67	38.52	Hokkaido, Japan Region
		eSKS	20 26	+5.3									41.46 N 142.78 E
	SRO	iP	09 10 13	+0.3							78.43	39.24	H = 08 58 12, h = 23 km,
		eS	20 07	+3.6									Mag = 5.5 (ISC).
													mPV (MOS) = 6.4,
													MLH (MOS) = 5.9.
16	BRA	eP	14 01 50	+3.4							80.27	38.38	Off East Coast of Honshu,
													Japan
													39.92 N 143.55 E
													H = 13 49 32.3, h = 0 km,
													Mag = 5.0 (ISC).
16	BRA	eP	15 04 35	+2.0							78.70	38.98	Hokkaido, Japan Region
													41.44 N 143.49 E
													H = 14 52 32.4, h = 40 km,
													Mag = 4.9 (ISC).

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
16	BRA	–iP	16 25 57	+1.8	980	1.6					80.38	38.96	Off East Coast of Honshu, Japan
		eSKS	36 02	–4.0									39.78 N 143.54 E
		Lm	17 07				16.7	12.0	16.7	12.0			H = 16 13 45.8, h = 31 km,
	SRO	iP	16 25 55	+1.1							80.14	39.71	Mag = 5.6 (ISC).
		eS	36 02										mPV (MOS) = 6.5.
													MLH (MOS) = 6.5,
													MLH (BRA) = 6.7,
													mPV (BRA) = 6.7.
16	BRA	–iP	18 55 20	0.0							78.96	39.30	Near East Coast of Honshu, Japan
		ipP	55 35	–2.0	490	1.6							40.78 N 142.15 E
	SRO	iP	18 55 19	+0.3							78.72	40.03	H = 18 43 21.6, h = 60 km,
													Mag = 5.8 (ISC).
													M (MOS) = 5.6,
													mPV (BRA) = 6.2.
16	BRA	–iP	19 28 45	–1.4							78.66	38.77	Hokkaido, Japan Region
	SRO	eP	19 28 43	–5.6							78.72	40.03	41.33 N 142.50 E
													H = 19 16 47.7, h = 43 km,
													Mag = 5.5 (ISC).
													M (MOS) = 5.7.
16	BRA	iP	20 34 15	+0.5							78.63	38.57	Hokkaido, Japan Region
	SRO	iP	20 34 15	+1.3							78.39	39.29	41.46 N 142.69 E
													H = 20 22 14.6, h = 31 km,
													Mag= 5.6 (ISC).
													mPV (MOS) = 6.1,
													MLH (MOS) = 6.0.

16	BRA	eP	23 17 03	+0.1							80.18	39.18	Off East Coast of Honshu, Japan
		i!	17 07.5		2820	1.4							39.83 N 143.16 E
		eS	27 11	+6.5									H = 23 04 54.6, h = 32 km,
	SRO	iP	23 17 01	–0.6							79.94	39.93	Mag = 5.9 (ISC).
		eS	27 12	+11.9									mPV (MOS) = 6.9,
													MLH (MOS) = 6.9,
													MLH (BRA) = 7.4,
													mPV (BRA) = 7.2.
17–18	BRA												The timing mechanism out of order.
17	SRO	iP	10 54 55	+0.3							80.18	39.82	Off East Coast of Honshu, Japan
		iS	11 05 03	+8.9									39.69 N 143.46 E
		Lm	11 35				4.6	16.0	7.1	16.0			H = 10 42 44.3, h = 18 km,
													Mag = 5.3 (ISC).
													mPV (MOS) = 6.2,
													MLH (SRO) = 6.2.
17	SRO	eP	16 14 31	+1.2							79.70	38.91	Off East Coast of Honshu, Japan
		iS	24 35	+6.6									40.59 N 144.08 E
		Lm	55				9.2	16.0	13.0	16.0			H = 16 02 24.1, h = 32 km,
													Mag = 5.1 (ISC).
													mPV (MOS) = 5.8,
													MLH (MOS) = 6.2,
													MLH (SRO) = 6.5.
19	BRA	eP	04 25 07	+4.4							83.11	42.35	Near East Coast of Honshu, Japan
		Lm	05 06										35.65 N 141.90 E
	SRO	eP	04 25 02	+0.9							82.82	43.14	H = 04 12 36, h = 11 km,
		Lm	05 06				8.1	16.0	7.1	16.0			Mag = 5.1 (ISC),
													mPV (MOS) = 6.1,
													MLH (MOS) = 6.0,
													MLH (SRO) = 6.3.

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Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
19	BRA	eP	06 06 34	+0.9							83.10	42.32	Near East Coast of Honshu, Japan
	SRO	eP	06 06 34	+2.4									35.68 N 141.92 E
													H = 05 54 08, h = 19 km,
													Mag = 4.8 (ISC),
													M (MOS) = 5.5.
19	BRA	eP	09 39 55	+1.8							9.79	190.60	Sicily
	SRO	e	09 42 36								9.63	196.60	38.52 N 14.82 E
													H = 09 37 32.0, h = 39 km,
													Mag = 4.8 (ISC).
													M (MOS) = 4.5.
19	BRA	eP	22 28 51	+0.4							79.30	38.55	Off East Coast of Honshu,
		Lm	23 08								79.07	39.28	Japan
	SRO	eP	22 28 52	+2.6									40.91 N 143.21 E
		eS	38 51	+5.2									H = 22 16 47.5, h = 35 km,
		Lm	23 07				3.8	18.0	6.6	18.0			Mag = 5.2 (ISC).
	SPC	eP	22 28 42	+2.2							77.19	40.70	M (MOS) = 6.0,
													MLH (SRO) = 6.1.
20	BRA	eP	03 28 30	+0.9							80.28	38.55	Off East Coast of Honshu,
	SRO	eP	03 28 30	+2.1							80.05	39.30	Japan
		eS	38 35	+6.8									40.09 N 143.91 E
		Lm	04 08				2.3	16.0	3.6	16.0			H = 03 16 19.9, h = 28 km,
													Mag = 5.5 (ISC).
													M (MOS) = 6.0,
													MLH (SRO) = 5.9.
20	BRA	–iPKIKP	07 32 59	–0.2							159.13	39.61	Kermadec Islands
		iPKP2	33 38	+2.1									30.86 S 178.21 W
		ePP	37 15	–5.0									H = 07 03 06.6, h = 45 km,
	SPC	ePKIKP	07 33 02	+3.4							156.98	44.12	Mag = 6.0 (ISC).
													M (MOS) = 5.8.
20	BRA	–iP	10 46 06	+0.4							76.77	27.15	Kurile Islands
	SPC	eP	10 45 58	+1.2							74.89	29.16	48.77 N 154.93 E
													H = 10 34 18.8, h = 55 km,
													Mag = 5.6 (ISC).
													mPV (MOS) = 5.9,
													MLH (MOS) = 5.7.
20	BRA	eP	12 05 32	0.0							74.97	23.62	Near East Coast of Kamchatka
													51.91 N 158.44 E
													H = 11 53 56.6, h = 64 km,
													Mag = 5.3 (ISC).
													MLH (MOS) = 5.0.
20	BRA	ePb	12 34 26										No determination of epicentre.
		eSg	34 38										
20	BRA	e	14 02 59										No determination of epicentre (VKA: i 14 03 17.3).
20	BRA	ePKIKP	17 39 15	–0.1							123.07	55.37	New Ireland Region
													5.00 S 153.31 E
													H = 17 20 22.1, h = 37 km,
													Mag = 5.0 (ISC).
20	BRA	–iPKIKP	20 25 41	–1.1							159.12	39.56	Kermadec Islands
		iPKP2	26 20	–1.5									30.84 S 178.20 W
	SPC	iPKIKP	20 25 44	+4.2							156.97	44.07	H = 20 05 48, h = 33 km,
													Mag = 6.0 (ISC).
													mPV (MOS) = 6.8,
													MLH (MOS) = 6.7.

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Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
20	BRA	–iP	21 21 46	+1.1	1040	1.6					78.84	32.03	Kurile Islands Region
		i	21 48		1750	1.4							44.67 N 150.28 E
		eS	31 41	+3.0									H = 21 09 45.4, h = 44 km,
		Lm	22 06				39.7	16.0	158.8	16.0			Mag = 5.9 (ISC).
	SPC	iP	21 21 36	+0.3							76.84	34.13	mPV (MOS) = 7.0,
													MLH (MOS) = 6.9,
													mPV1 (BRA) = 6.7,
													mPV2 (BRA) = 7.0,
													MLH (BRA) = 7.4.
20	BRA	eP	23 36 25	+1.1							78.48	31.80	Kurile Islands
													45.09 N 150.31 E
													H = 23 24 25.1, h = 34 km,
													Mag = 4.5 (ISC).
21	BRA	eP	00 17 09	+1.3							78.61	31.97	Kurile Islands Region
													44.9 N 150.2 E
													H = 00 05 09.8, h = 47 km,
													Mag = 4.2 (ISC).
21	BRA	eP	00 31 34	0.0							78.81	32.02	Kurile Islands Region
	SPC	eP	00 31 24	+1.9							76.82	34.11	44.70 N 150.28 E
													H = 00 19 31.8, h = 22 km,
													Mag = 5.3 (ISC).
													mPV (MOS) = 6.4,
													MLH (MOS) =5.7.
21	BRA	eP	03 12 17	+0.3							80.06	38.62	Off East Coast of Honshu, Japan
													40.24 N 143.68 E
													H = 03 00 09, h = 21 km,
													Mag = 4.4 (ISC).
21	BRA	eP	04 06 09	–0.6							34.50	86.98	Southeastern Uzbekistan
	SPC	eP	04 05 55	+2.6							33.40	90.76	38.89 N 65.10 E
													H = 03 59 10, h = 1 km,
													Mag = 5.4 (ISC).
21	BRA	eP	04 23 29	+0.6							79.26	38.13	Hokkaido, Japan Region
	SPC	eP	04 23 19	+0.6							77.15	40.28	41.17 N 143.64 E
													H = 04 11 21, h = 4 km,
													Mag = 5.4 (ISC).
													M (MOS) = 5.5.
21	BRA	eP	08 32 01	+0.3	470	1.4					78.67	32.02	Kurile Islands Region
		ePP	32 09	+9.0									44.82 N 150.18 E
		eSKS	42 09	–1.0									H = 08 19 58, h = 14 km,
	SRO	iP	08 32 00.0	0.0							78.53	32.74	Mag = 5.7 (ISC).
		iS	41 56										mPV (MOS) = 6.7,
		Lm	09 04				16.2	22.0	6.5	22.0			MLH (MOS) = 6.2,
	SPC	eP	08 31 52	+4.3							76.68	34.11	mPV(BRA) = 6.4,
													MLH (SRO) = 6.4.
21	BRA	eP	10 24 26	–3.5							76.60	32.16	Kurile Islands
													44.81 N 149.96 E
													H = 10 12 30.7, h = 38 km,
													Mag = 4.2 (ISC).
21	BRA	eP	11 04 50	+1.0							84.68	65.67	Philippine Islands Region
													20.21 N 122.08 E
													H = 10 52 18, h = 39 km,
													Mag = 4.9 (ISC).
													M (MOS) = 5.6.
21	BRA	ePb	11 07 43.2										No determination of epicentre
		iSg	07 50.7										(VKA: e Pn 11 07 49).

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
21	BRA SPC	eP eP	11 12 48 11 12 39	+2.4 +3.7							78.76 76.77	31.96 34.06	Kurile Islands Region 44.77 N 150.31 E H = 11 00 45, h = 30 km, Mag = 5.2 (ISC). mPV (MOS) = 6.2, MLH (MOS) = 5.8.
21	BRA SPC	eP eP	11 15 57 11 15 46	+2.3 +0.7							78.57 76.58	32.08 34.17	Kurile Islands Region 44.88 N 150.04 E H = 11 03 56.2, h = 39 km, Mag = 5.2 (ISC). MLH (MOS) = 5.6.
21	BRA	eP	13 20 42	+2.3							78.90	32.16	Kurile Islands Region 44.55 N 150.17 E H = 13 08 38.8, h = 35 km, Mag = 4.2 (ISC).
21	BRA	ePb iSg	14 07 20.8 07 26.8								50 km		No determination of epicentre (VKA: e 14 07 34).
21	BRA SPC	eP e	18 59 30 18 59 21	+0.7 +6.3							78.88 78.89	31.93 34.02	Kurile Islands Region 44.68 N 150.44 E H = 18 47 25, h = 10 km, Mag = 5.3 (ISC). mPV (MOS) = 6.3, MLH (MOS) = 5.5, M (MOS) = 5.5.

22	BRA	eP	05 39 20	+1.2							79.01	31.86	Kurile Islands Region 44.60 N 150.61 E H = 05 27 12, h = 1 km, Mag = 4.6 (ISC).
22	BRA SRO SPC	+iP eP eP	11 03 53 11 03 52 11 03 43	+0.5 +0.8 −0.1							78.70 78.47 76.59	38.45 39.17 40.59	Hokkaido, Japan Region 41.47 N 142.88 E H = 10 51 54.0, h = 47 km, Mag = 5.8 (ISC). M (MOS) = 5.7.
22	BRA	e	12 04 21										Near Earthquake?
22	BRA	eP	13 34 30	+2.1							84.22	324.98	Nevada 38.52 N 116.19 W H = 13 21 58.2, h = 28 km, Mag = 4.8 (ISC).
22	BRA	eP	16 01 28	00							79.04	38.57	Hokkaido, Japan Region 41.12 N 143.00 E H = 15 49 28.8, h = 57 km, Mag = 4.9 (ISC).
22	BRA	eP	18 41 57	−2.1							28.37	110.08	Western Persia 33.16 N 49.25 E H = 18 36 07.8, h = 51 km, Mag = 4.5 (ISC). M (MOS) = 4.5–5.0.
22	BRA	eP	18 48 19	−0.6							78.85	31.98	Kurile Islands Region 44.68 N 150.35 E H = 18 36 15, h = 18 km, Mag = 4.8 (ISC).

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
22	BRA	eP	19 41 30	+0.7							79.47	39.47	Near East Coast of Honshu, Japan
		ePP	44 30	–1.0									40.27 N 142.34 E
		eSKS	51 34	–2.0									H = 19 29 26.9, h = 50 km,
		Lm	20 19								79.22	40.21	Mag = 5.4. (ISC).
	SRO	iP	19 41 30	+2.1									mPV (MOS) = 6.1,
		eS	51 32	+10.1									MLH (MOS) ≅ 6.0,
		Lm	20 19				6.7	20.0	13.0	20.0			MLH (SRO) = 6.3.
	SPC	eP	19 41 15	–2.9							77.34	41.63	
22	BRA	eP	20 13 12	–0.7							78.85	31.97	Kurile Islands Region
	SPC	eP	20 13 03	–0.8							76.86	34.06	44.69 N 150.37 E
													H = 20 01 09, h = 11 km,
													Mag = 5.2 (ISC).
													MLH (MOS) = 5.0.
23	BRA	eP	07 54 28	+1.4							78.71	31.92	Kurile Islands Region
													44.83 N 150.33 E
													H = 07 42 25.8, h = 27 km,
													Mag = 4.8 (ISC).
23	BRA	ePb	10 50 17.2								70 km		No determination of epicentre
		eSg	50 26.2										(VKA: ePn 10 50 28).
23	BRA	eP	14 37 35	+0.5							79.99	38.58	Off East Coast of Honshu, Japan
													40.32 N 143.67 E
													H = 14 25 25, h = 13 km,
													Mag = 4.8 (ISC).
													M (MOS) = 5.0.

23	BRA	ePKIKP	17 44 13	–1.4							161.16	79.31	South Island, New Zealand
		ePKP2	45 00	+0.6									41.72 S 172.03 E
		ePP	48 44	–0.8									H = 17 24 16.8, h = 21 km,
	SRO	ePKIKP	17 44 12	–1.7									Mag = 6.1 (ISC).
		iPP	48 48	+4.2							160.42	81.60	mPV (MOS) = 6.8,
		Lm	18 38				30.3	20.0	40.3	20.0			MLH (MOS) = 7.1,
	SPC	ePKIKP	17 44 13	+1.9							158.93	79.93	MLH (SRO) = 7.2.
23	BRA	eP	18 45 02	+1.4							78.71	32.03	Kurile Islands Region
													44.78 N 150.20 E
													H = 18 32 59, h = 22 km,
													Mag = 5.1 (ISC).
													MLH (MOS) = 5.0.
23	BRA	ePKIKP	19 02 50	–1.0							159.31	38.12	Kermadec Islands
													30.76 S 177.57 W
													H = 18 42 57, h = 39 km,
													Mag = 5.5 (ISC).
23	BRA	eP	23 43 26	–0.5							38.18	142.69	Ethiopia
													14.86 N 39.90 E
													H = 23 36 08.4, h = 33 km,
													Mag = 4.8 (USCGS).
24	BRA	eP	00 08 32	0.0							80.08	38.57	Off East Coast of Honshu, Japan
													40.25 N 143.75 E
													H = 23 56 20, h = 5 km,
													Mag = 4.9 (ISC).
													M (MOS) = 5.0.
24	BRA	eP	11 29 05	+0.7							78.95	0.13	Unimak Island Region
													53.26 N 163.11 W
													H = 11 17 03.0, h = 33 km,
													Mag = 4.5 (ISC).

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
24	BRA	iP	14 18 28	+0.7	490	1.6					79.26	38.61	Off East Coast of Honshu, Japan
		ePP	21 26	−2.0									40.91 N 143.11 E
		eS	28 26	+2.0			55.6	18.0	77.7	18.0			H = 14 06 23, h = 27 km,
		Lm	57										Mag = 5.7 (ISC).
	SRO	eP	14 18 28	+2.0							79.03	39.34	mPV (MOS) = 6.5,
		iS	28 28	+7.7									MLH (MOS) = 6.5,
		Lm	59				15.4	18.0	43.3	18.0			mPV (BRA) = 6.4,
	SPC	eP	14 18 18	+2.7							77.15	40.77	MLH (BRA) = 7.2,
													MLH (SRO) = 6.9.
24	BRA	eP	15 56 49								102.94	85.78	Flores Sea
													6.84 S 118.91 E
													H = 15 43 54.8, h = 618 km,
													Mag = 5.8 (ISC).
24	BRA	ePKIKP	21 17 23	−1.7							161.21	80.05	South Island, New Zealand
		ePKP2	18 09	−4.7									41.95 S 171.93 E
													H = 20 57 25.9, h = 14 km,
													Mag = 5.7 (ISC).
24	BRA	eP	21 46 43	+10.2							79.82	38.22	Off East Coast of Honshu, Japan
													40.65 N 143.94 E
													H = 21 34 23, h = 12 km,
													Mag = 4.6 (ISC).
24	BRA	eP	21 48 57	+3.0							75.40	16.46	Komandorsky Islands Region
													54.14 N 169.33 E
													H = 21 37 11.8, h = 5 km,
													Mag = 5.2 (ISC).

24	BRA	eP	23 59 10	−0.1							79.59	274.80	Venezuela
													10.99 N 69.40 E
													H = 23 47 00.2, h = 4 km,
													Mag = 4.6 (ISC).
25	BRA	eP	00 33 54	+1.0							19.25	103.00	Turkey
	SPC	eP	00 33 36	+3.1							17.54	110.08	40.86 N 42.16 E
													H = 00 29 26.0, h = 9 km,
													Mag = 4.6 (ISC).
													M (MOS) = 4.6.
25	BRA	eP	07 10 15	+6.2							14.79	94.58	Western Caucasus
													44.99 N 38.12 E
													H = 07 06 40.4, h = 33 km (ISC).
													MLH (MOS) = 4.5.
25	BRA	eP	12 05 03	−0.8							79.91	38.99	Off East Coast of Honshu, Japan
	SRO	eP	12 05 02	−0.5									
	SPC	eP	12 04 55	+2.8							77.79	41.16	40.16 N 143.17 E
													H = 11 52 56.2, h = 26 km,
													Mag = 5.4 (ISC).
25	BRA	eP	14 13 06	−1.2							79.53	38.55	Off East Coast of Honshu, Japan
	SPC	eP	14 30 55	+0.2							77.41	40.71	40.72 N 143.37 E
													H = 14 19 01.2, h = 28 km,
													Mag = 5.1 (ISC).
25	BRA	ePKP2	15 02 29	−3.0							159.15	145.73	Balleny Islands Region
	SPC	ePKP2	15 02 32	+1.0							158.75	142.15	63.17 S 170.9 E
													H = 14 41 52.8, h = 9 km,
													Mag = 5.2 (ISC).
27	BRA	ePKP2	19 22 43	+1.3							151.60	23.40	Tonga
													21.31 S 174.58 W
													H = 19 02 56, h = 154 km,
													Mag = 4.5 (ISC).

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
28	BRA	ePKP2	02 30 19	−1.1							160.12	37.15	Kermadec Islands Region 31.31 S 176.78 W H = 02 09 42.2, h = 33 km, Mag = 4.8 (ISC).
28	BRA	ePKIKP	03 53 56	+11.6							159.71	38.33	Kermadec Islands Region 31.15 S 177.42 W H = 03 33 49.7, h = 33 km, Mag = 4.7 (ISC).
28	BRA	ePKIKP	09 26 22	−2.6							159.44	38.59	Kermadec Islands 30.95 S 177.67 W H = 09 06 30.0, h = 33 km, Mag = 5.5 (ISC). M (MOS) = 5.6.
28	BRA	ePdiff	13 41 59								113.27	66.85	Near North Coast of West New Guinea 2.98 S 139.34 E H = 13 27 19.8, h = 73 km, Mag = 6.2 (ISC). mPV (MOS) = 7.4, MLH (MOS) = 7.4, MLH (BRA) = 7.7, MLH (SRO) = 7.6.
		ePKIKP	45 55	+6.0									
		ePP	46 44	−4.0									
		Lm	14 42				75.0	20.0	134.0	20.0			
	SRO	ePdiff	13 42 00								112.65	68.02	
		Lm	14 29				152.0	24.0	121.0	24.0			
	SPC	ePdiff	13 41 53								110.95	69.14	

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
28	BRA	–iP	22 41 56.0	+0.9							77.90	14.99	Near Islands, Aleutian Islands 52.19 N 172.85 E H = 22 29 58.1, h = 21 km, Mag = 5.6 (ISC). mPV (MOS) ~ 6.0, MLH (MOS) = 5.8.
		&	51 52	+0.6									
	SRO	iP	22 42 00	+4.2							78.03	15.70	
		iPP	44 56	−2.1									
		eS	52 00	+5.2									
	SPC	eP	22 41 51	+5.6							76.34	16.95	
28	BRA	eP	23 07 21	+0.6							77.71	14.93	Near Islands, Aleutian Islands 52.39 N 172.85 E H = 22 55 28, h = 54 km, Mag = 4.5 (ISC).
30	BRA	eP	01 17 21	−0.7							34.97	112.11	Southern Persia 27.83 N 53.94 E H = 01 10 31.5, h = 40 km, Mag = 5.2 (ISC). M (MOS) = 5.0.
30	BRA	eP	05 35 48	0.0	490	1.6					78.97	32.19	Kurile Islands Region 44.48 N 150.19 E H = 05 23 48.0, h = 45 km, Mag = 5.8 (ISC). mPV (MOS) = 6.7, MLH (MOS) = 6.2, mPV (BRA) = 6.4.
		eS	45 48	+6.0									
		Lm	06 14										
	SRO	iP	05 35 48	+0.7							78.83	32.91	
		iS	45 44	+1.3									
	SPC	eP	05 35 38	0.0							79.97	34.29	
30	BRA	eP	17 43 58	+0.4							15.01	143.90	Dodecanese Islands 35.45 N 27.88 E H = 17 40 26, h = 27 km, Mag = 5.3 (ISC). M (MOS) = 5.5, MLH (BRA) = 5.6, MLH (SRO) = 6.0.
		Lm	52				14.2	9.0	11.3	9.0			
	SRO	iP	17 43 52	+4.2							14.26	146.57	
		eS	46 40	+7.6									
		Lm	50				51.5	12.0	34.5	12.0			
	SPC	eP	17 44 00	+5.5							14.83	154.93	

May 1968

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
30	BRA	+iPn	18 16 30	0.0							2.77	181.53	Yugoslavia
		iPg	16 42	−0.9									45.40 N 17.0 E
		eSg	17 27	+7.5									H = 18 15 47, h = 33 km (ISC).
	SRO	iPn	18 16 28	−3.0							2.58	201.04	
		iPg	17 16	+3.0									
		iSg	17 16	+3.0									
30	BRA	+iP	19 59 29	−2.4							31.97	112.78	Southern Persia
	SRO	eP	19 59 24	+0.4							31.09	113.66	29.70 N 51.24 E
													H = 19 53 05, h = 22 km,
													Mag = 5.2 (ISC).
													M (MOS) = 5.0.

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Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
01	BRA	eP	10 43 52	−0.1							79.51	39.50	Near East Coast of Honshu,
	SRO	iP	10 43 52	+1.2							79.26	40.23	Japan
	SPC	iP	10 43 42	−0.7							77.38	41.66	40.22 N 142.34 E
													H = 10 31 49.3, h = 48 km,
													Mag = 5.5 (ISC).
													M (MOS) = 5.5.
01	BRA	e	11 00 39										No determination of epicentre.
													Near Earthquake
													(VKA: ePg 11 00 24).
01	BRA	ePKIKP	11 42 31	+1.2							159.68	38.22	Kermadec Islands Region
													31.10 S 177.4 W
													H = 11 22 33, h = 18 km,
													Mag = 4.8 (ISC).
													M (MOS) = 5.1.
02	BRA	ePKIKP	01 29 58	+0.5							147.97	27.30	Tonga
													18.43 S 177.74 W
													H = 01 11 20.1, h = 569 km,
													Mag = 4.3 (ISC).
02	BRA	ePn	01 37 55	−2.2							2.99	210.75	Yugoslavia
		iPg	38 04	−3.3									45.58 N 14.93 E
		iSg	38 49	+2.4									H = 01 37 07.5, h = 0 km (ISC).
	SRO	eSg	01 39 00	+6.8							3.23	227.43	

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	
02	BRA SPC	ePKIKP ePKIKP	08 37 38 08 37 40	–1.5 –0.8							128.60 126.32	52.00 54.67	Solomon Islands 8.18 S 158.64 E H = 08 18 39.8, h = 68 km, Mag = 5.4 (ISC). M (MOS) = 5.0.
03	BRA	eP	08 44 22	+2.6							82.68	42.56	Near East Coast of Honshu, Japan 35.90 N 141.39 E H = 08 31 59.9, h = 48 km, Mag = 4.7 (ISC). M (MOS) = 5.0.
03	BRA	ePKIKP	09 36 13	–0.8							119.79	61.79	Eastern New Guinea Region 5.46 S 146.91 E H = 09 17 45.2, h = 182 km, Mag = 5.5 (ISC).
03	BRA SRO	eP eP Lm	10 44 32 10 44 28 51	–2.2			2.5	10.0	1.5	10.0	15.11 14.35	143.78 146.43	Dodecanese Islands 35.38 N 27.97 E H = 10 41 01, h = 26 km, Mag = 4.4 (ISC). M (MOS) = 4.5, MLH (SRO) = 4.7.
03	BRA SRO SPC	eP eP eP	14 27 57 14 28 00 14 27 50	–0.9 +2.9 +3.8							77.45 77.30 75.44	32.75 33.45 34.82	Kurile Islands 45.51 N 148.43 E H = 14 16 18.4, h = 152 km, Mag = 5.4 (ISC). mPV (MOS) = 5.7.
04	BRA	eP	01 49 54	+1.7							25.66	102.65	Caspian Sea 37.50 N 49.19 E H = 01 44 25.6, h = 49 km, Mag = 4.6 (ISC). M (MOS) = 4.2.
04	BRA SRO	eP eP	06 55 58 06 55 48	+1.5 –0.5							27.97 27.08	111.71 112.56	Western Persia 32.86 N 48.28 E H = 06 50 08.3, h = 45 km, Mag = 5.1 (ISC). M (MOS) = 4.5.
04	BRA	e	09 35 35										No determination of epicentre. Near Earthquake (PRU: D ≐ 255 km, VKA: iPg 09 35 03.9).
04	BRA	iPb	11 09 44								80 km		Slovakia No determination of epicentre (VKA: ePn 11 09 55).
04	BRA SRO	eP eP	17 27 29 17 27 28	–0.9 +1.1							82.64 82.06	64.65 65.46	Taiwan Region 22.43 N 121.48 E H = 17 15 08.7, h = 35 km, Mag = 5.2 (ISC). M (MOS) = 5.0.
05	BRA	e	11 37 32										No determination of epicentre. Near Earthquake (VKA: e 11 37 14).
05	BRA	ePKP2	13 02 56	+0.5							161.26	79.64	South Island, New Zealand 41.86 S 172.08 E H = 12 43 20.2, h = 66 km, Mag = 5.0 (ISC).

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
05	BRA	iP	23 17 35	+2.0							78.03	14.07	Near Islands, Aleutian Islands
		ipP	17 47	0.0									
	SPC	eP	23 17 28	+2.4							76.50	16.03	53.31 N 174.31 E H = 23 05 37.2, h = 36 km, Mag = 5.0 (ISC).
06	BRA SRO SPC												The apparatus was not operational.
07	BRA	ePn	09 36 12	−3.4							5.80	236.40	Northern Italy
		eSg	37 58	+0.4									44.75 N 10.32 E H = 09 34 46, h = 25 km (ISC).
07	BRA	eP	12 11 13	−2.2							100.04	81.51	Celebes
		Lm	12 59				60.0	20.0	60.0	20.0			1.86 S 120.10 E
	SRO	eP	12 11 12	+1.0							99.29	82.48	H = 11 57 31, h = 27 km, Mag = 5.9 (ISC).
		ePP	15 12	−4.4									
		Lm	13 02				22.0	21.0	33.4	21.0			mPV (MOS) = 6.7,
	SPC	eP	12 11 14	+9.0							97.85	83.74	MLH (MOS) = 6.7, MLH (BRA) = 7.2, MLH (SRO) = 6.9,
08	BRA	ePKIKP	00 35 44	+0.1							128.48	53.50	Solomon Islands 8.71 S 157.57 E H = 00 16 36, h = 9 km, Mag = 5.4 (ISC). M (MOS) = 5.7.

08	BRA	eP	00 48 59	+1.1							39.56	2.67	North of Franz Joseph Land 87.00 N 51.4 E H = 00 41 28.7, h = 32 km, Mag = 5.2 (ISC). MLH (MOS) = 4.6.
08	BRA	eP	02 56 44	+0.5							79.73	38.33	Off East Coast of Honshu, Japan H = 02 44 34, h = 10 km, Mag = 4.9 (ISC). M (MOS) ~ 5.0.
08	BRA	eP	05 41 45	−0.6							78.73	34.65	Kurile Islands
	SRO	iP	05 41 48	+2.4							78.55	35.37	43.45 N 147.14 E H = 05 29 45.6, h = 36 km, Mag = 5.4 (ISC). MLH (MOS) = 5.7.
08	BRA	eP	21 06 46	+1.8							78.49	38.84	Hokkaido, Japan Region 41.43 N 142.29 E H = 20 54 46.0, h = 39 km, Mag = 5.2 (ISC). M (MOS) = 5.0.
08	BRA	eP	21 54 28	+0.1							82.75	55.09	Ryukyu Islands 28.44 N 129.62 E H = 21 42 07.4, h = 44 km, Mag = 5.1 (ISC).
08	BRA	eP	23 37 35	−0.9							97.49	170.67	South of Africa
	SRO	eP	23 37 36	+2.3							97.02	171.47	48.94 S 31.22 E
		Lm	00 28				6.3	16.0	7.1	16.0			H = 23 24 05.3, h = 37 km,
	SPC	eP	23 37 30	−10.3							98.20	172.71	Mag = 5.6 (ISC). mPV (MOS) = 6.2, MLH (MOS) = 6.0, MLH (SRO) = 6.4.

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
09	BRA SRO SPC	eP iP iP	01 01 30 01 01 34 01 01 02	–2.8 –0.2 –12.9							22.75 21.88 21.02	102.74 103.23 108.95	North-West Persia–USSR Border Region 39.09 N 46.10 E H = 00 56 32, h = 31 km, Mag = 5.0 (ISC). MLH (MOS) = 4.9, M (MOS) = 5.2.
09–22	SPC												The apparatus was not operational.
09	BRA	ePKP2	02 55 03	+10.3							146.21	26.69	West of Tonga 16.65 S 178.00 W H = 02 36 09, h = 512 km, Mag = 3.9 (ISC).
09–11	SRO												The apparatus was out of order.
09	BRA	eP	04 25 03	+1.1							77.28	94.55	Nicobar Islands Region 6.46 N 95.21 E H = 04 13 08.9, h = 33 km, Mag = 4.5 (ISC).
09	BRA	ePKIKP	09 36 15	+0.5							151.97	37.79	South of Fiji 24.17 S 178.73 W H = 09 17 28.5, h = 542 km, Mag = 5.0 (ISC).

09	BRA	eP	14 00 21	+1.4							80.20	98.48	Off East Coast of Honshu, Japan 40.20 N 143.93 E H = 13 48 13.4, h = 50 km, Mag = 4.6 (ISC). M (MOS) = 5.0.
09	BRA	ePKIKP	22 22 05	+13.9							159.68	39.06	Kermadec Islands Region 31.24 S 177.70 W H = 22 01 56.3, h = 33 km, Mag = 5.0 (ISC).
10	BRA	eP	12 52 34	+0.5							75.91	359.23	Alaska Peninsula 56.29 N 161.55 W H = 12 41 04.3, h = 165 km, Mag = 5.5 (ISC).
10	BRA	eP	15 16 29	–2.2							55.05	265.63	North Atlantic Ridge 22.70 N 45.15 W H = 15 07 00.5, h = 33 km, Mag = 4.7 (ISC).
11	BRA	eP	03 13 29	+0.9							39.11	63.98	Eastern Kazakhstan (UPP: Underground explosion) 49.80 N 78.13 E H = 03 05 57.7, h = 0 km, Mag = 5.2 (ISC).
11	BRA	eP	06 05 08	–2.8							89.93	290.90	Salvador 13.96 N 88.69 W H = 05 52 34.6, h = 212 km, Mag = 5.1 (ISC).
11	BRA	eP	06 14 08	–2.5							21.19	108.67	Turkey 38.15 N 42.85 E H = 06 09 27.6, h = 53 km, Mag = 4.7 (ISC). M (MOS) ~ 4.0.

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Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
11	BRA	eP	17 48 33	+7.9							5.08	176.73	Yugoslavia 43.1 N 17.5 E H = 17 47 09, h = 56 km, Mag = 4.3 (USCGS).
12	BRA	–iP	13 53 59	+0.3	240	1.2					80.37	39.56	Near East Coast of Honshu, Japan 39.47 N 142.89 E H = 13 41 49.4, h = 31 km, Mag = 6.0 (ISC). mPV (MOS) = 7.1, MLH (BRA) = 8.0, mPV (BRA) = 6.2, MLH (SRO) = 7.4, MLH (HRB) = 7.6.
		ePP	57 06	+3.0									
		eS	14 04 18	+6.8									
		Lm	14 32				158.8	16.0	555.8	16.0			
	SRO	eP	13 54 00	+2.6							80.12	40.31	
		Lm	14 31				93.4	18.0	111.4	18.0			
	HRB	eS	14 04 10	+11.8							80.13	40.24	
12	BRA	eP	18 04 10	–2.4							80.62	39.67	Near East Coast of Honshu, Japan 39.20 N 142.96 E H = 17 52 00.6, h = 23 km, Mag = 5.3 (ISC). M (MOS) = 5.2.
12	BRA	eP	19 07 58	+1.3							80.44	39.14	Off East of Honshu, Japan 39.64 N 143.39 E H = 18 55 45.1, h = 18 km, Mag = 5.0 (ISC). M (MOS) = 5.0.
12	BRA	eP	20 25 25	+0.7							80.64	39.40	Off East Coast of Honshu, Japan 39.33 N 143.25 E H = 20 13 24.2, h = 37 km, Mag = 4.4 (ISC). M (MOS) = 5.2.
12	BRA	eP	22 09 52	+0.8							80.53	39.63	Near East Coast of Honshu, Japan 39.30 N 142.93 E H = 21 57 39.6, h = 21 km, Mag = 5.6 (ISC). mPV (MOS) = 6.3, MLH (MOS) = 6.1.
	SRO	eP	22 09 52	+2.1							80.28	40.38	
		eS	19 56	+5.6									
12	BRA	eP	23 39 10	+0.8							88.67	70.77	Mindoro, Philippine Islands 13.84 N 120.75 E H = 23 26 30.1, h = 135 km, Mag = 5.1 (ISC).
13	BRA	eP	00 17 21	+9.3							80.39	39.41	Off East Coast of Honshu, Japan 39.53 N 143.07 E H = 00 04 59.6, h = 13 km, Mag = 5.3 (ISC). M (MOS) = 5.3.
13	BRA	eP	02 17 55	+1.4							80.36	39.51	Near East Coast of Honshu, Japan 39.51 N 142.94 E H = 02 05 42, h = 13 km, Mag = 5.2 (ISC). M (MOS) = 5.6.

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
13	BRA	eP	09 08 28	+3.5							80.80	39.61	Off East Coast of Honshu, Japan 39.08 N 143.15 E H = 08 48 15.0, h = 50 km, Mag = 4.7 (ISC). M (MOS) = 5.1.
13	BRA	eP	12 08 34	−0.3							80.65	39.56	Off East Coast of Honshu, Japan 39.24 N 143.09 E H = 11 56 21.1, h = 15 km, Mag = 5.3 (ISC). M (MOS) = 5.7.
	SRO	eP	12 08 36	+0.2							80.40	40.31	
		eS	18 44	+2.4									
13	BRA	eP	21 22 48	+2.2							80.44	39.53	Near East Coast of Honshu, Japan 39.43 N 142.97 E H = 21 10 34.9, h = 22 km, Mag = 5.5 (ISC). M (MOS) = 5.8, MLH (SRO) = 6.1.
		ePcP	22 58	+0.9									
	SRO	eP	21 22 56	+12.5							80.18	40.28	
		eS	32 48	+3.3									
		Lm	22 02				2.9	20.0	7.2	20.0			
13	BRA	eP	23 10 27	+0.3							31.91	112.52	Southern Persia 29.84 N 51.30 E H = 23 04 03.7, h = 49 km, Mag = 4.8 (ISC). M (MOS) = 5.0.
14	BRA	eP	12 04 48	−1.2							80.48	39.60	Near East Coast of Honshu, Japan 39.46 N 142.93 E H = 11 52 38.3, h = 24 km, Mag = 5.4 (ISC). M (MOS) = 5.4.
14	BRA	eP	12 39 32	+1.2							79.42	29.78	Kurile Islands Region 45.23 N 153.40 E H = 12 27 26.7, h = 31 km, Mag = 5.5 (ISC). MLH (MOS) = 5.4, M (MOS) = 5.3.
14	BRA	eP	13 35 21	+1.1							75.35	23.28	Off East Coast of Kamchatka 51.71 N 159.18 E H = 13 23 41.0, h = 52 km, Mag = 5.2 (ISC). MLH (MOS) = 5.4, M (MOS) = 5.4.
14	BRA	ePKP2	19 24 15	+5.3							161.14	79.77	South Island, New Zealand 41.84 S 171.91 E H = 19 03 27.5, h = 25 km, Mag = 5.5 (ISC).
15	BRA	eP	02 26 22	+1.4							80.32	43.66	Near West Coast of Honshu, Japan 37.22 N 138.61 E H = 02 14 11.9, h = 35 km, Mag = 5.1 (ISC).
15	BRA	eP	03 43 31	+1.5							80.40	39.59	Near East Coast of Honshu, Japan 39.43 N 142.88 E H = 03 31 16.4, h = 8 km, Mag = 5.3 (ISC). M (MOS) = 5.2.

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
15	BRA	eP	05 24 27	+1.0							92.15	295.37	Near Coast of Chiapas, Mexico 14.47 N 92.91 W H = 05 11 19.4, h = 40 km, Mag = 5.4 (ISC).
15	BRA	eP epP	06 11 13 11 51	+0.8 +2.8							82.20	58.18	Ryukyu Islands 26.93 N 126.55 E H = 05 59 03.0, h = 126 km, Mag = 5.6 (ISC).
15	BRA	eP epP	11 39 15 39 28	+1.4 +2.4							75.39	23.23	Off East Coast of Kamchatka 51.69 N 159.28 E H = 11 27 33.1, h = 42 km, Mag = 5.6 (ISC). MLH (MOS) = 5.4.
15	BRA	ePKIKP	13 53 57	+8.5							141.82	48.66	New Hebrides 18.21 S 167.88 E H = 13 34 14.8, h = 11 km, Mag = 5.3 (ISC).
15	BRA	–iP	14 12 39	–1.5	250	1.4					85.35	324.42	Southern Nevada Nuclear explosion "RICKEY". 37°15'54" N 116°18'53" W H = 14 00 00 (USAEC), Mag = 5.9 (ISC). mPV (BRA) = 6.2.

15	BRA	ePn	14 32 51	–0.8							4.68	166.56	Yugoslavia 43.61 N 18.6 E H = 14 31 42, h = 66 km, Mag = 4.0 (ISC).
15	BRA	e	15 48 49										Yugoslavia No determination of epicentre (VIE: e 15 48 10).
15	BRA	ePKP2	19 51 45	+3.0							144.96	50.31	Loyalty Islands 21.4 S 168.8 E H = 19 32 11, h = 70 km (ISC). Mag = 4.7 (USCGS).
15	BRA	eP	20 05 09	+1.9							78.37	38.31	Hokkaido, Japan Region 41.82 N 142.79 E H = 19 53 11.0, h = 51 km, Mag = 5.3 (ISC). M (MOS) = 5.0.
16	BRA	eP	05 08 58	+3.3							88.92	209.18	Tristan da Cunha Region 36.1 S 15.9 W H = 04 56 02.9, h = 34 km, Mag = 5.1 (ISC).
16	BRA	eP	08 38 19	+1.8							17.04	125.97	Turkey 36.70 N 34.27 E H = 08 34 21.4, h = 52 km, Mag = 4.4 (ISC).
16	BRA	eP	13 05 59	+4.7							10.54	190.70	Sicily 37.78 N 14.65 E H = 13 03 22, h = 23 km (ISC). Mag = 4.8 (USCGS).

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Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
16	BRA	eP	19 28 02	+3.0							101.94	185.13	Bouvet Island Region 53.89 S 8.6 E H = 19 14 08.0, h = 33 km, Mag = 5.2 (ISC).
17	BRA	eP	05 01 50	+13.6							23.31	96.94	Eastern Caucasus 40.75 N 48.24 E H = 04 56 31, h = 36 km, Mag = 4.7 (ISC). MLH (MOS) = 4.5.
17	BRA	eP	05 04 07	−3.1							23.25	96.47	Eastern Caucasus 40.94 N 48. 29 E H = 04 59 06.5, h = 49 km, Mag = 4.8 (ISC). MLH (MOS)= 4.5, M (MOS) = 4.5.
17	BRA	eP	07 48 31	+0.5							81.89	54.87	Ryukyu Islands 29.25 N 129.2 E H = 07 36 11, h = 20 km, Mag = 4.6 (ISC).
17	BRA	ePg eSg	09 32 16 33 46	−4.6 −8.9							7.23	238.93	Northern Italy 44.1 N 8.5.E H = 09 29 57, h = 0 km (ISC).

17	BRA	−iP	12 05 01.0	−0.9							79.13	38.54	Hokkaido, Japan Region 41.06 N 143.10 E H = 11 52 58.5, h = 26 km, Mag = 5.8 (ISC). mPV (MOS) = 6.6, MLH (BRA) = 7.5, MLH (SRO) = 7.1.
		i	05 07		650	1.4							
		eS	15 01	+4.2									
		Lm	43				111.1	18.0	166.6	18.0			
	SRO	iP	12 05 04	+3.8							78.90	39.26	
		iS	15 00	+5.3									
		Lm	43				42.9	20.0	86.4	20.0			
17	BRA	eP	17 08 25	−0.4							80.17	38.54	Off East Coast of Honshu, Japan 40.19 N 143.84 E H = 16 56 12.5, h = 1 km, Mag = 5.4 (ISC). M (MOS) = 5.8.
	SRO	iP	17 08 25	+0.8							79.93	39.29	
		eS	18 20	+2.5									
17	BRA	ePKIKP	18 28 52	−0.5							136.14	45.88	Santa Cruz Islands 12.36 S 166.50 E H = 18 09 38.1, h = 63 km, Mag = 5.6 (ISC). M (MOS) = 5.7.
		ePP	31 34	−2.7									
		ePKP2	32 34	+2.0									
	SRO	iPKIKP	18 28 56	+4.5							135.79	47.62	
		iPP	31 32	−2.9									
17	BRA	eP	19 09 46	+2.2							81.28	39.50	Off East Coast of Honshu, Japan 38.74 N 143.60 E H = 18 57 29.9, h = 34 km, Mag = 4.9 (ISC). mPV (MOS) = 6.2, MLH (MOS) = 6.2, MLH (BRA) = 7.0.
		Lm	46				20.0	15.0	53.3	15.0			
	SRO	eP	19 09 47	+4.4							81.03	40.26	
		eS	20 00	+11.9									
18	BRA	−iPn	05 29 14.7	−0.7							6.72	252.10	Northern Italy 45.73 N 7.96 E H = 05 27 33.2, h = 1 km, Mag = 4.7 (ISC). M (MOS) = 4.6, MLgH (BRA) = 4.8.
		ipg	29 46	−0.9									
		iSg	31 13	−1.6									
		Lm	32				2.0	3.0	3.0	3.0			
	SRO	ePn	05 29 32	+6.6							7.41	257.48	
		iSg	31 40	+2.3									

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Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
19	BRA	eP	01 50 28	+1.1							80.40	39.44	Off East Coast of Honshu, Japan 39.51 N 143.04 E H = 01 38 17.1, h = 29 km, Mag = 5.3 (ISC). M (MOS) = 5.4.
19	BRA	eP	05 13 33	+1.1							39.60	63.40	Eastern Kazakhstan (UPP: Underground explosion, Mag = 6.3) 49.96 N 79.05 E H = 05 05 57.4, h = 0 km, Mag = 5.4 (ISC).
19	BRA	–iP	08 27 04	–1.1							96.97	269.49	Northern Peru 5.55 S 77.20 W H = 08 13 35.6, h = 33 km, Mag = 6.1 (ISC). MLH (MOS) = 6.9, MLH (BRA) = 7.4, mPV (BRA) = 7.4, MLH (SRO) = 7.0.
		ipP	27 11	–4.0	1150	1.0							
		Lm	09 19				77.0	18.0	77.0	18.0			
	SRO	eP	08 27 09	+0.2							97.78	270.34	
		iSKS	37 55	+11.1									
		Lm	09 09				50.1	20.0	27.3	20.0			
20	BRA	eP	05 52 07	–1.4							97.01	269.59	Northern Peru 5.51 S 77.30 W H = 02 38 38.7, h = 33 km, Mag = 5.8 (ISC).

22	BRA	–iP	01 24 42	+1.0							80.01	38.58	Off East Coast of Honshu, Japan 40.31 N 143.68 E H = 01 12 33.3, h = 29 km, Mag = 5.6 (ISC). mPV (MOS) = 6.6, MLH (MOS) = 6.0, MLH (SRO) = 6.3.
		ipP	24 52	+0.5									
	SRO	~~ip~~ P	01 24 41	+1.3							79.77	39.33	
		eS	34 43	+4.0									
		Lm	02 04				5.75	16.0	8.34	16.0			
22	BRA	ePn	12 22 46	–2.5							4.66	242.62	Northern Italy 45.87 N 11.18 E H = 12 21 38.7, h = 37 km, Mag = 4.5 (ISC).
		iPg	23 07	–5.5									
		iSg	24 06	–7.0									
	SPC	eSg	12 25 34	+4.0							6.97	245.00	
22	BRA	ePn	12 39 04	+2.6							4.63	241.23	Northern Italy 45.79 N 11.3 E H = 12 37 49, h = 9 km, Mag = 4.1 (ISC).
		iPb	39 13	+2.5									
		iSg	40 19	–2.0									
23	BRA	eP	09 22 39	–4.0							31.93	112.70	Southern Persia 29.76 N 51.24 E H = 09 16 18, h = 32 km, Mag = 5.3 (ISC). M (MOS) = 5.6.
	SPC	eP	09 22 33	+2.8							30.49	118.04	
23	BRA	eP	17 05 32	+1.3							75.14	354.06	Kodiak Island Region 56.70 N 152.44 W H = 16 53 50.2, h = 28 km, Mag = 4.8 (ISC). M (MOS) = 5.4.
	SPC	eP	17 05 29	+3.0							74.30	355.82	
24	BRA	eP	20 22 05	–2.8							56.92	220.80	North of Ascension Island 1.1 S 16.1 W H = 20 12 22, h = 22 km, Mag = 4.9 (ISC).

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Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
25	BRA	e Pn	15 08 27										No determination of epicentre (VKA: ePn 15 08 29).
25	BRA	eP	23 45 32	+1.2							80.55	39.04	Off East Coast of Honshu, Japan
	SRO	iP	23 45 30	–0.1							80.31	39.79	H = 23 33 15.9, h = 2 km,
		eS	55 38	+2.6									Mag = 5.1 (ISC).
		Lm	00 24				2.7	16.0	1.8	16.0			M (MOS) = 5.6,
	SPC	eP	23 45 13	–6.9							78.43	41.22	MLH (SRO) = 5.8.
26	BRA	eP	01 55 02	+1.4							85.70	331.30	Near Coast of Northern California
	SRO	eP	01 55 06	–0.4							86.40	332.15	40.07 N 124.28 W
		eS	02 05 50	+9.1									H = 01 42 20.9, h = 10 km,
	SPC	eP	01 55 06	+2.6							85.76	333.48	Mag = 5.1 (ISC).
													M (MOS) = 5.5.
26	BRA	–iP	10 35 45	–0.7							78.22	38.21	Hokkaido, Japan Region
		ePP	38 39	–5.0									42.00 N 142.78 E
	SRO	iP	10 35 46	+1.6							77.99	38.92	H = 10 23 50.4, h = 52 km,
	SPC	eP	10 35 38	+3.9							76.11	40.34	Mag = 5.6 (ISC).
													M (MOS) = 5.4.
26	BRA	eP	11 00 24	+0.4							85.72	331.48	Near Coast of Northern California
	SPC	eP	11 00 29	+3.1							85.77	333.66	40.13 N 124.5 W
													H = 10 47 43.4, h = 8 km (ISC).
26	BRA	e	14 05 43										No determination of epicentre. Near Earthquake (VKA: e 14 05 16).

26	BRA	ePKIKP	15 55 58	–2.5							146.90	47.56	Loyalty Islands Region
	SRO	iPKIKP	15 59 58	–1.9							146.53	49.70	22.20 S 171.33 E
	SPC	iPKIKP	15 51 59	+0.7							144.66	50.78	H = 15 40 33.1, h = 110 km,
													Mag = 5.6 (ISC).
27	BRA	ePKIKP	02 21 23	+5.8							149.81	30.80	West of Tonga
	SPC	ePKP2	02 21 23	–1.7							147.82	35.12	20.80 S 178.87 W
													H = 02 02 40.2, h = 602 km,
													Mag = 4.7 (ISC).
27	BRA	e	10 00 51								0.60	287.97	Austria
													Explosion of 2.3 tons.
													48.35 N 16.25 E
													H = 10 00 06 (VIE).
27	BRA	e	11 11 36										No determination of epicentre. Near Earthquake (VKA: iPg 11 11 14).
27	BRA	eSg	15 47 36	–3.1							7.23	257.91	Switzerland
													46.19 N 6.9 E
													H = 15 43 41.2, h = 38 km (ISC).
27	BRA	eSg	16 28 21	–7.5							7.39	259.26	Switzerland
													46.3 N 6.6 E
													H = 16 24 24, h = 0 km (ISC).
28	BRA	e	10 28 08										No determination of epicentre. Near Earthquake.
29	BRA	eP	11 53 11	–2.1							50.12	164.14	Lake Tanganyika Region
													1.03 S 29.21 E
													H = 11 48 19.0, h = 33 km,
													Mag = 5.1 (ISC).

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Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
30.	BRA	eP	15 00 52	+1.1							80.83	40.05	Near East Coast of Honshu, Japan 38.82 N 142.70 E H = 14 48 39.5, h = 35 km, Mag = 4.9 (ISC). M (MOS) = 4.9.

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Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
01	BRA	–iP	04 06 38.0	–0.1							20.42	79.40	Southwestern Russia Underground explosion. Mag = 6.6 (UPP). 47.85 N 47.72 E H = 04 02 00.9, h = 29 km, Mag = 5.5 (ISC).
01	BRA	–iP	10 57 24.0	+0.1	620	2.0					81.64	43.89	Honshu, Japan 36.01 N 139.33 E
		ePP	11 00 31	–2.0									H = 10 45 12.0, h = 68 km,
		eS	07 34										Mag = 5.8 (ISC).
	SRO	iP	10 57 24	+1.7							81.33	44.66	M (MOS) = 6.7,
		eS	11 07 30	+4.0									mPV (BRA) = 6.4.
	SPC	iP	10 57 14								79.45	46.12	
01	BRA	e	13 20 28										No determination of epicentre. Near Earthquake (VKA: e 13 20 03).
02	BRA	eP	03 58 03	–0.7							94.01	301.87	Guerrero, Mexico 17.61 N 100.24 W
		epP	58 23	0.0									H = 03 44 51.7, h = 66 km,
		ePP	04 01 52	–1.0									Mag = 5.7 (ISC).
	SRO	eP	03 58 08	+0.3							94.88	302.78	mPV (MOS) = 6.7,
		ePP	04 02 06	+7.1									MLH (MOS) = 6.3.
02	BRA	ePKIKP	04 50 44	+0.2							158.49	37.35	Kermadec Islands 29.90 S 177.74 E H = 04 30 50, h = 28 km, Mag = 5.4 (ISC).

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
02	BRA	ePg	09 36 26										Near shock.
02	BRA	eP	22 24 55	+1.6							83.96	57.54	Ryukyu Islands 25.97 N 128.34 E H = 22 12 27, h = 42 km, Mag = 5.0 (ISC). M (MOS) = 5.2.
03	BRA	ePg	11 44 06										No determination of epicentre. Near Earthquake (VIE: iPg 11 44 24).
02–03	SPC												The appartus was out of order.
04	SPC	eP	07 24 08	–6.5							76.30	36.35	Kurile Islands 43.99 N 147.32 E H = 07 12 23.8, h = 73 km, Mag = 5.1 (ISC).
04	BRA	e	11 02 38										No determination of epicentre. Near Earthquake (VIE: iPg 11 02 41).
04	SRO SPC	eP eS eP	21 50 30 52 30 21 50 46	+2.2 +3.0 +2.3							10.67 11.63	158.49 168.18	Southern Greece 37.76 N 23.23 E H = 21 47 53.6, h = 20 km, Mag = 5.2 (ISC).
05	BRA	ePn	08 40 46	+2.7							2.93	220.19	Yugoslavia 45.9 N 14.4 E H = 08 39 55, h = 0 km (ISC).

05	BRA SPC	–iP eS Lm iP	11 40 23 50 32 12 20 11 40 13	–0.3 +6.0 –0.6	1200	1.0	66.6	15.0	66.6	15.0	80.82 78.67	40.58 42.77	Near East Coast of Honshu, Japan 38.54 N 142.14 E H = 11 28 13.0, h = 44 km, Mag = 6.0 (ISC). mPV (MOS) = 6.8, MLH (MOS) = 6.6, MLH (BRA) = 7.3, mPV (BRA) = 7.0.
06	BRA	ePKIKP	17 47 46	–0.5							143.63	48.50	New Hebrides 19.70 S 168.98 E H = 17 28 11.1, h = 0 km, Mag = 5.1 (ISC).
06	BRA	ePKIKP	19 47 28	–0.6							112.49	73.75	Aroe Islands Region 6.42 S 133.91 E H = 19 28 58.9, h = 58 km, Mag = 5.6 (ISC).
07	BRA	e	00 47 52								2.52	211.67	Yugoslavia 46.0 N 15.2 E H = 00 46 40 (BCIS).
07	BRA	eP	13 28 25	+0.1							80.36	39.61	Near East Coast of Honshu, Japan 39.45 N 142.84 E H = 13 16 12.3, h = 9 km, Mag = 5.0 (ISC). M (MOS) ~ 5.0.
07	BRA SRO SPC	ePKIKP ePKIKP ePKIKP	14 43 21 14 43 22 14 43 21	(+3.2) +4.2 +6.0							152.51 152.49 150.67	24.00 26.60 28.96	Tonga Region 22.27 S 174.59 W H = 14 23 32.0, h = 32 km, Mag = 5.2 (ISC). M (MOS) = 5.1.

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
08–10	SRO												The apparatus was not operational.
08	BRA	eSg	05 49 18	−1.4							6.80	255.91	Switzerland 46.11 N 7.6 E H = 05 45 34.7, h = 33 km (ISC).
08	BRA	ePKIKP	12 28 06	+2.4							150.88	33.03	South of Fiji 22.21 S 179.53 W H = 12 09 25.2, h = 579 km, Mag = 4.8 (ISC).
08	BRA	eP	17 21 50	−1.4							31.87	112.95	Southern Persia 29.71 N 51.08 E H = 17 15 27.5, h = 35 km, Mag = 4.8 (ISC). M (MOS) = 5.4.
08	BRA SPC	eP eS eP	17 44 36 47 35 17 44 43	−0.3 +14.0 +4.1							14.93 15.14	153.58 164.53	Crete 34.47 N 25.08 E H = 17 41 06.4, h = 38 km, Mag = 5.3 (ISC). M (MOS) = 5.0.
08	BRA	eP ePP	21 37 42 41 12	+0.3 −2.6							89.20	45.66	Bonin Islands Region 28.73 N 142.59 E H = 21 24 43, h = 3 km, Mag = 5.2 (ISC). M (MOS) = 5.3.
09	BRA	ePg eSg Lm	12 56 30 56 40 56 44								80 km		No determination of epicentre (VIE: iPg 12 56 47).
10	BRA SRO SPC	eP iP eS Lm eP	20 52 38 20 52 37 21 02 30 21 33 20 52 30	−0.4 −0.1 −4.8 +3.9			 5.95	 16.0	 3.45	 16.0	79.90 79.67 77.78	38.86 39.60 41.02	Off East Coast of Honshu, Japan 40.24 N 143.31 E H = 20 40 30.1, h = 21 km, Mag = 5.4 (ISC). mPV (MOS) = 6.1, MLH (MOS) = 6.0, MLH (SRO) = 6.1.
12	BRA SPC	–iP eS Lm iP	00 36 47.0 01 06 52 37 00 56 38	−0.1 +2.0 +2.4							80.44 78.32	39.32 41.50	Off East Coast of Honshu, Japan 39.54 N 143.20 E H = 00 44 37.3, h = 30 km, Mag = 5.8 (ISC). mPV (MOS) = 6.3, MLH (MOS) = 6.2.
12–14 11–12	BRA SRO												The apparatus was not operational.
12	SPC	eP	04 08 30	+2.6							78.31	41.42	Off East Coast of Honshu, Japan 39.59 N 143.28 E H = 03 56 24, h = 1 km, Mag = 5.6 (ISC).
15	BRA	e	14 14 45										No determination of epicentre. Near Earthquake.
16	BRA	ePg eSg	11 24 52 25 04								80 km		No determination of epicentre (VIE: ePg 11 25 08).

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Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
17	BRA	ePg	18 09 08										Local shock.
18	BRA	e	02 11 41										No determination of epicentre. Near Earthquake. Traces.
18	BRA	ePKIKP	05 24 23	+6.4							149.58	24.41	Tonga 19.51 S 175.71 W H = 05 04 58.5, h = 220 km, Mag = 5.0 (ISC).
19	BRA SRO	eP eP	05 08 04 05 08 01	–0.9 +0.9							74.62 73.79	94.18 95.00	Nicobar Islands Region 8.48 N 93.67 E H = 04 56 28, h = 36 km, Mag = 5.5 (ISC). M (MOS) = 5.6.
19	BRA	eP	16 53 57	–0.3							74.62	94.03	Nicobar Islands Region 8.78 N 93.78 E H = 16 42 24, h = 69 km, Mag = 4.6 (ISC).
21	BRA	e	06 29 53								119.95	56.94	New Ireland Region 3.14 S 150.45 E H = 06 09 43.2, h = 33 km, Mag = 5.3 (ISC). M (MOS) = 5.5.
21	BRA	ePKIKP	17 48 09	(+9.4)							150.04	127.69	West of Macquarie Island 58.17 S 148.9 E H = 17 28 22, h = 58 km, Mag = 4.8 (ISC). M (MOS) = 5.9.
21	BRA	eP epP	21 13 08 15 12	–0.5 +3.0							73.82	30.86	Sea of Okhotsk 49.56 N 147.95 E H = 21 02 31.4, h = 576 km, Mag = 4.8 (ISC).
22	BRA SRO SPC	ePKIKP ePKIKP ePKIKP	18 18 02 18 18 01 18 18 04	(+0.5) +0.6 +3.8							143.98 143.59 141.73	48.78 50.76 51.85	New Hebrides 20.09 S 169.03 E H = 17 58 32.1, h = 47 km, Mag = 5.4 (ISC). M (MOS) = 5.5.
23	BRA	eP ePP	18 41 32 45 26	+1.1 –1.8							96.63	307.78	Off Coast of Jalisko, Mexico 18.88 N 106.88 W H = 18 28 03.0, h = 33 km, Mag = 5.4 (ISC).
23	BRA	eP ePP eS Lm	23 14 46 17 46 24 40 52	+1.0 –2.0 –3.9							79.87	38.74	Off East Coast of Honshu, Japan 40.33 N 143.41 E H = 23 02 37.1, h = 23 km,
	SRO	eP eS Lm	23 14 46 24 50 54	+2.3 +9.3							79.63	39.48	Mag = 5.3 (ISC). mPV (MOS) = 6.0, MLH (MOS) = 6.0.
24	SRO SPC	iPKIKP ePKIKP	20 40 30 20 40 25	+2.4 +1.0							146.16 144.48	18.13 22.78	Tonga 15.33 S 173.24 W H = 20 20 51.7, h = 51 km, Mag = 5.3 (ISC).

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
25	BRA	–iPKIKP	07 43 02	+3.1							159.26	39.60	Kermadec Islands
		iPP	47 24	+3.0									30.97 S 178.13 W
		Lm	08 59.5						88.8	18.0			H = 07 23 02, h = 17 km,
	SRO	iPKIKP	07 42 58	–0.6							158.99	42.71	Mag = 6.5 (ISC).
		iPP	47 18	–4.0									mPV (MOS) = 7.0,
		iPPP	50 54	–10.0									MLH (MOS) = 6.9,
		Lm	09 07				74.5	20.0	21.6	20.0			MLH (BRA) ~ 7.6,
	SPC	iPKIKP	07 43 02	+2.7							157.11	44.12	MLH (SRO) = 7.4.
25	BRA	–iP	11 02 21	–1.5							76.76	33.75	Kurile Islands
		ipP	02 30.5	0.0									45.59 N 146.74 E
		ePP	05 21	–5.0									H = 10 50 32.7, h = 30 km,
	SRO	iP	11 02 2[illegible]	+0.4							76.60	34.44	Mag = 5.7 (ISC).
	SPC	eP	11 02 15	+4.1							74.73	35.81	mPV (MOS) = 6.2,
													MLH (MOS) = 6.0.
25	BRA	ePn	22 07 20	–0.3							7.52	162.47	Greece–Albania
		eSn	08 20	+3.0									Border Region
	SRO	ePn	22 07 16	+3.3									40.95 N 20.09 E
		eSg	09 20	–0.3							6.98	168.86	H = 22 05 29, h = 23 km,
	SPC	eP	22 07 36	+7.4							8.24	180.82	Mag = 4.5 (ISC).
26	BRA	eP	17 19 06	+0.6							75.19	208.30	South Atlantic Ridge
		ePP	21 55										22.47 S 12.60 W
													H = 17 07 24.0, h = 29 km,
													Mag = 5.1 (ISC).
26	BRA	eP	20 55 58	–0.5							42.69	91.93	West Pakistan
													32.23 N 70.19 E
													H = 20 48 05.1, h = 50 km,
													Mag = 4.6 (ISC).
													M (MOS) = 4.7.

27	BRA	eP	02 49 24	+1.2							15.05	143.82	Dodecanese Islands
		eS	52 20	+11.0									53.43 N 27.92 E
		Lm	56				12.8	9.0	15.6	9.0			H = 02 45 51, h = 29 km,
	SRO	eP	02 49 18	+5.1							14.29	146.49	Mag = 5.0 (ISC).
		eS	51 56	+1.7									M (MOS) = 5.6,
		Lm	55				44.8	14.0	27.8	14.0			MLH (BRA) = 5.6,
	SPC	eP	02 49 29	+8.1							14.86	154.84	MLH (SRO) = 5.8
27	BRA	ePKIKP	11 11 12	(+2.5)							146.31	38.36	South of Fiji
	SPC	ePKIKP	11 11 08	+0.7							144.18	42.06	19.20 S 175.74 E
													H = 10 51 36.3, h = 55 km,
													Mag = 5.4 (ISC).
28	BRA	ePKIKP	11 18 14	+2.0							152.76	24.24	Tonga Region
		ePKP2	18 35	+1.8									22.54 S 174.62 W
		e	18 45										H = 10 58 26.3, h = 35 km,
		e	19 45										Mag = 5.0 (ISC).
		e	22 18										
	SRO	ePKIKP	11 18 20	+8.0							152.73	26.85	
28	BRA	eP	21 24 12	+1.0							73.70	17.52	Komandorsky Islands
	SRO	eP	21 24 16	+4.5							73.79	18.15	Region
		eS	33 48	+2.0									55.39 N 166.69 E
	SPC	eP	21 24 08	+2.9							72.07	19.36	H = 21 12 37, h = 14 km,
													Mag = 5.4 (ISC).
													mPV (MOS) = 6.0,
													MLH (MOS) = 6.0.
29	BRA	eP	07 48 33	+1.0							72.28	2.54	Fox Islands, Aleutian Islands
													52.87 N 167.01 W
													H = 07 36 27, h = 20 km,
													Mag = 4.6 (ISC).
29	BRA	eP	10 07 15	+2.0							92.55	295.66	Off Coast of Chiapas, Mexico
													14.96 N 94.20 W
													H = 09 54 06.2, h = 54 km,
													Mag = 5.0 (ISC).

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Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
29	BRA	ePKIKP	11 31 48	(+2.5)							152.63	24.65	Tonga Region
	SRO	ePKIKP	11 31 43	−2.4							152.59	27.26	22.47 S 174.86 W
	SPC	ePKIKP	11 31 45	+6.8							150.77	29.58	H = 11 11 59, h = 59 km,
													Mag = 5.7 (ISC).
													mPV (MOS) = 6.1.
29	BRA	eP	11 47 51	+1.9							93.12	295.45	Off Coast of Chiapas, Mexico
													14.38 N 94.40 W
													H = 11 34 41, h = 68 km,
													Mag = 4.4 (ISC).
29	BRA	ePKIKP	12 39 36	(+3.4)							152.72	24.51	Tonga Region
	SPC	ePKP2	12 39 38	−7.3							150.87	29.45	22.54 S 174.76 W
													H = 12 19 46.6, h = 33 km,
													Mag = 5.2 (ISC).
29	BRA	ePKIKP	13 49 30	(+8.8)							120.17	56.82	New Ireland Region
		e	51 24										3.27 S 150.66 E
													H = 13 30 32.6, h = 28 km,
													Mag = 5.2 (ISC).
													M (MOS) = 5.6.
29	BRA	ePKIKP	15 39 45	(+2.9)							151.92	22.63	Tonga
	SPC	ePKP2	15 39 49	−3.6							150.11	27.60	21.51 S 174.11 W
													H = 15 19 57.3, h = 33 km,
													Mag = 5.0 (ISC).

30	BRA	ePdiff	00 06 32								107.50	69.96	Western New Guinea
		ePP	11 18	+13.3									Region
		ePKKP2	22 00	0.0									0.27 S 133.47 E
		eSS	26 09	0.0									H = 23 52 17, h = 25 km,
		Lm	53										Mag = 6.1 (ISC).
	SRO	ePdiff	00 06 30								106.86	71.05	mPV (MOS) = 6.7,
		ePP	11 01	+0.7									MLH (MOS) = 6.0,
		ePS	20 17	0.0									MLH (SRO) = 6.2.
		Lm	00 50				4.32	20.0	4.29	20.0			
30	BRA	ePKIKP	03 09 24	(+7.0)							149.92	31.05	West of Tonga
		epPKP2	11 54	0.0									20.94 S 178.95 W
													H = 02 50 40.6, h = 611 km,
													Mag = 4.8 (ISC).
30	BRA	ePKIKP	04 30 00	(+2.0)							152.54	24.47	Tonga Region
		ePP	33 57	+1.0									22.36 S 174.80 W
	SRO	ePKIKP	04 30 04	+6.0							152.51	27.06	H = 04 10 12.3, h = 33 km,
	SPC	ePKP2	04 30 06	−4.2							150.69	29.40	Mag = 5.3 (ISC).
30	BRA	−iP	17 46 30	+0.4							78.68	33.09	Kurile Islands
													44.28 N 148.92 E
													H = 17 34 29.7, h = 33 km,
													Mag = 5.2 (ISC).
													M (MOS) = 4.6.
30	BRA	eP	20 52 27	+1.4							100.09	271.00	Near Coast of Northern
	SRO	eP	20 52 32	+2.7							100.91	271.83	Peru
		ePP	56 42										6.86 S 80.42 W
		Lm	21 38				7.3	20.0	3.6	20.0			H = 20 38 42.3, h = 36 km,
													Mag = 5.8 (ISC).
													MLH (MOS) = 6.1,
													MLH (SRO) = 6.2.

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Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
31	BRA	eP	01 49 33	+0.4							80.09	38.39	Off East Coast of Honshu, Japan 40.34 N 143.95 E H = 01 37 23.1, h = 20 km, Mag = 4.6 (ISC). M (MOS) = 5.0.
31	BRA	ePn	09 24 36	+5.7							10.74	162.60	Southern Greece 37.84 N 21.14 E H = 09 21 56, h = 34 km, Mag = 4.4 (ISC).
31	BRA	ePKIKP ePKP2	14 05 57 06 36	(+1.5) –1.0							159.99	40.73	Kermadec Islands Region 31.80 S 178.1 W H = 13 46 00.4, h = 33 km, Mag = 4.6 (ISC).
31	BRA SRO	eP eP	19 33 00 19 32 52	+0.4 +2.3							14.98 14.22	143.40 146.05	Dodecanese Islands 35.54 N 28.00 E H = 19 29 29.7, h = 49 km, Mag = 4.8 (ISC). M (MOS) = 4.4.

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Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
01	BRA	ePKIKP	00 33 54	–0.7							155.88	32.87	South of Fiji 29.79 S 177.26 W
		ipPKIKP	34 24	–4.7									
	SRO	iPKIKP	00 33 56	+1.7							155.72	35.71	H = 00 14 16.3, h = 126 km, Mag = 5.6 (ISC).
		ipPKIKP	34 24	–5.1									
	SPC	ePKIKP	00 33 54	–1.0							153.85	37.59	M (MOS) = 5.2.
01	BRA	eP	14 29 51	–1.4							34.64	272.86	Azores 39.25 N 29.88 W H = 14 23 04.4, h = 33 km, Mag = 4.9 (ISC).
01	BRA	eP	20 32 08	–0.2							87.66	68.18	Luzon, Philippine Islands
		eS	42 45	–1.0									16.30 N 122.11 E
		Lm	21 17				30.1	18.0	180.4	18.0			H = 20 19 21.5, h = 31 km,
	SRO	eP	20 32 08	+3.4							87.04	69.04	Mag = 5.9 (ISC).
		eS	42 44	+4.7									mPV (MOS) = 7.0,
		Lm	21 10				121.6	22.0	90.4	22.0			MLH (MOS) = 7.5,
	HRB	eP	20 32 13	+8.0							87.09	68.98	mPV (BRA) = 7.5,
		eS	42 37	–3.2									MLH (BRA) = 7.5,
		Lm	21 15				30.6	16.0	82.5	16.0			MLH (SRO) = 7.4,
	SPC	eP	20 32 00	+3.2							85.36	70.54	MLH (HRB) = 7.3.
01	BRA	eP	23 17 51	+2.6							88.00	68.61	Philippine Islands Region 15.76 N 122.00 E H = 23 05 06, h = 82 km (ISC).
02	BRA	eP	04 05 00	+0.7							26.12	103.71	Western Persia 36.85 N 49.33 E H = 03 59 27.1, h = 36 km, Mag = 4.7 (ISC). M (MOS) = 4.5.

August 1968

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
02	BRA	eP	13 37 49	−0.8							39.59	105.29	Southern Persia
		epP	38 07	−0.8									27.54 N 60.92 E
		eS	43 39	−3.1									H = 13 30 23.3, h = 65 km,
													Mag = 5.7 (ISC).
													M (MOS) = 4.9.
02	BRA	–iP	14 19 57	+0.6	1180	1.4					93.43	299.37	Oaxaca, Mexico
		ePP	23 42	−1.0									16.56 N 97.79 W
		eS	30 51	−8.0									H = 14 06 43.5, h = 36 km,
		Lm	15 05				149.0	20.0	373.0	20.0			Mag = 6.3 (ISC).
	SRO	iP	14 20 00	−0.4							94.31	300.27	MLH (MOS) = 7.5,
		ePP	23 52	+1.1									MLH (BRA) = 7.8,
	HRB	eP	14 20 03	+2.7							94.21	300.18	MLH (HRB) = 7.5,
		Lm	15 05				103.2	20.0	134.1	20.0			mPV (MOS) = 7.2,
	SPC	eP	14 20 05	+2.2							94.70	301.86	mPV (BRA) = 6.9.
03	BRA	iP	05 07 05	+0.6	840	1.8					84.23	57.58	Ryukyu Islands
		eScS	17 33	−1.0									25.73 N 128.50 E
		Lm	05 51				111.1	18.0	111.1	18.0			H = 04 54 36.2, h = 43 km,
	SRO	iP	05 07 02	+0.2							83.73	58.39	Mag = 6.5 (ISC).
		eScS	17 28	+2.6									mPV (MOS) = 6.5,
		Lm	43				94.0	18.0	104.4	18.0			mPV (BRA) = 6.6,
	SPC	iP	05 06 55	+8.6							81.93	59.90	MLH (MOS) = 6.8,
													MLH (BRA) = 7.4,
													MLH (SRO) = 7.4.
03	BRA	eP	06 37 51	−0.6							87.67	67.93	Luzon, Philippine Islands
		eS	48 30	+2.0									16.45 N 122.31 E
	SRO	eS	06 48 32	+5.9							87.05	68.80	H = 06 25 07.4, h = 52 km,
	SPC	iP	06 37 41	−1.7							85.37	70.30	Mag = 6.1 (ISC).
													mPV (MOS) = 6.5,
													MLH (MOS) = 6.5.
04	BRA	eP	11 54 51	+0.6							97.99	70.85	Mindanao, Philippine
		epP	55 16	−0.4									Islands
		ePP	58 57	+4.0									6.60 N 126.77 E
	SRO	eP	11 54 48	+0.5							97.33	71.83	H = 11 41 23.8, h = 96 km,
		ePP	58 44	−2.9									Mag = 5.9 (ISC).
		e	12 02 36										mPV (MOS) = 6.7,
		eSKS	05 20	+6.0									MLH (MOS) = 6.0,
		Lm	12 42				5.7	20.0	5.6	20.0			MLH (SRO) = 6.3.
	SPC	eP	11 54 41	+1.0							95.69	73.17	
04	BRA	eP	18 22 09	−0.7							15.05	144.37	Dodecanese Islands
													35.36 N 27.77 E
													H = 18 18 38.4, h = 42 km,
													Mag = 4.5 (ISC).
05	BRA	eP	05 04 26	+2.9							25.47	352.24	Greenland Sea
	SPC	eP	05 04 23	+5.5							24.78	349.87	73.03 N 5.7 E
													H = 04 58 57.0, h = 33 km,
													Mag = 4.6 (ISC).
05	BRA	–iP	16 29 14	+0.9	400	1.4					80.37	50.22	Shikoku, Japan
		eP	39 12	+2.0									33.31 N 132.31 E
		Lm	17 02										H = 16 17 05.5, h = 48 km,
	SRO	iP	16 29 12	+1.0							79.97	50.98	Mag = 6.2 (ISC).
		ePP	32 28	+14.0									mPV (MOS) = 6.5,
		iS	39 12	+2.0									MLH (MOS) = 6.5,
		Lm	17 03				35.0	18.0	25.2	18.0			mPV (BRA) = 6.4,
	SPC	iP	16 29 03	+0.3							78.11	52.48	MLH (SRO) = 6.8.
06	BRA	eP	00 21 38	−0.4							51.95	268.97	North Atlantic Ridge
													26.80 N 44.64 W
													H = 00 12 30.7, h = 33 km,
													Mag = 4.7 (ISC).

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
06	BRA SPC	eP eP	03 29 14 03 29 05	+0.9 +1.7							87.98 85.67	68.61 70.97	Luzon, Phillipine Islands 15.78 N 121.98 E H = 03 16 34, h = 106 km, Mag = 4.8 (ISC). M (MOS) = 5.0.
06	BRA	eP	04 47 50	+0.9							84.26	57.70	Ryukyu Islands 25.63 N 128.41 E H = 04 35 23, h = 61 km, Mag = 5.0 (ISC).
06	BRA SPC	eP eP	05 05 50 05 05 43	−0.8 +2.8							88.04 85.74	68.65 71.02	Luzon, Philippine Islands 15.70 N 121.99 E H = 94 53 04.4, h = 48 km, Mag = 5.3 (ISC). M (MOS) = 5.5.
06	BRA SPC	eP ePP eP	08 42 51 44 38 08 42 49	−1.5 0.0 +2.3							44.41 43.49	128.35 132.91	Eastern Gulf of Aden 13.98 N 51.53 E H = 08 34 40, h = 13 km, Mag = 4.9 (ISC). M (MOS) = 5.3.
07	BRA SPC	eP eP	08 12 09 08 12 00	+0.8 +1.0							78.18 76.10	36.39 38.50	Hokkaido, Japan Region 43.01 N 144.77 E H = 08 00 15.1, h = 68 km, Mag = 5.5 (ISC). M (MOS) = 5.5.
07	BRA	ePn eSn	09 04 57 05 39	+7.6 −5.4							4.59	185.50	Yugoslavia 43.6 N 16.5 E H = 09 03 37, h = 0 km (ISC).
08	BRA SRO SPC	eP ePP eP iP	05 07 30 10 33 05 07 28 05 07 19	+1.4 −6.0 +0.9 +1.4							82.31 82.02 80.14	42.20 42.98 44.43	Near East Coast of Honshu, Japan 36.40 N 141.50 E H = 04 55 09.5, h = 36 km, Mag = 5.5 (ISC). M (MOS) = 5.5.
09	BRA SRO SPC	ePKIKP ePP ePKIKP ePP ePKIKP	03 27 21 29 42 03 27 22 29 44 03 27 25	+6.1 0.0 −2.0 −8.4 +3.8							133.04 133.92 134.73	285.08 285.86 288.96	Easter Island Region 22.45 S 113.18 W H = 03 08 14, h = 122 km, Mag = 5.4 (ISC). M (MOS) = 6.0.
09	BRA	eP epP	10 50 03 50 15	−0.6 0.0							78.73	34.60	Kurile Islands 43.48 N 147.20 E H = 10 38 04.3, h = 41 km, Mag = 5.2 (ISC). MLH (MOS) = 5.0.
10	BRA SRO HRB	eP eSKS Lm eP Lm eP eSKS Lm	02 20 54 31 36 03 08.5 02 20 52 03 07 02 21 00 31 36 03 04	−1.4 +1.0 −0.3 +7.1 +1.0 			149.3 208.6 165.1	20.0 24.0 22.0	298.6 93.1 64.9	20.0 24.0 22.0	101.63 100.94 101.00	74.64 75.64 75.54	Molucca Passage 1.38 N 126.24 E H = 02 07 00, h = 1 km, Mag = 6.3 (ISC). mPV (MOS) = 7.5, MLH (MOS) = 7.7, MLH (BRA) = 7.7, MLH (SRO) = 7.4, MLH (HRB) = 7.5.
10	BRA	eP	04 19 42	0.0							101.86	74.47	Molucca Passage 1.31 N 126.52 E H = 04 05 50.5, h = 35 km, Mag = 5.7 (ISC). MLH (MOS) ~ 6.0.

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
09–19	SPC												The apparatus was not operational.
10	BRA	eP	04 32 54	–0.1							22.07	110.78	Iraq 37.00 N 43.13 E H = 04 28 01.4, h = 42 km, Mag = 4.9 (ISC).
10	BRA SRO 	eP ePP eSKS eP ePP eS Lm	06 05 39 09 57 16 15 06 05 37 10 08 17 12 06 53	+0.8 +6.0 +2.0 +1.9 +11.8 +8.0			12.8	22.0	9.0	22.0	101.64 100.94	74.60 75.61	Molucca Passage 1.40 N 126.27 E H = 05 51 49, h = 41 km, Mag = 6.1 (ISC). mPV (MOS) = 7.0, MLH (MOS) = 6.6, MLH (SRO) = 6.5.
10	BRA	eP	08 24 07	+0.3							101.5	74.40	Molucca Passage 1.59 N 126.37 E H = 08 10 16, h = 32 km, Mag = 5.6 (ISC). M (MOS) = 5.6.
10	BRA	eP ePP	16 54 13 57 43	–0.3 +1.5							88.01	69.13	Luzon, Philippine Islands H = 16 41 31.5, h ∓ 86 km, Mag = 5.1 (ISC). M (MOS) = 5.5.
10	BRA	ePKP2	10 38 07	(+0.5)							145.88	48.16	Loyalty Islands Region 21.51 S 170.44 E H = 19 18 43.3, h = 141 km, Mag = 5.2 (ISC).
11	BRA	eP epP	12 49 16 49 58	+0.6 +2.0							79.02	10.62	Andreanof Islands, Aleutian Islands 52.13 N 179.97 W H = 12 37 29.1, h = 166 km, Mag = 5.6 (ISC).
11	BRA SRO 	eP eP eSKS Lm	20 14 34 20 14 31 25 08 21 06	+1.0 +1.4 –2.4			3.42	20.0	1.0	20.0	101.64 100.95	74.34 75.35	Molucca Passage 1.56 N 126.47 E H = 20 00 45.4, h = 58 km, Mag = 5.7 (ISC). mPV (MOS) = 6.7, MLH (MOS) = 6.0, MLH (SRO) = 5.9.
12	BRA	e	13 55 31										No determination of epicentre. Near Earthquake (VIE: ePg 13 55 28).
12	BRA	ePg eSg	15 39 49 39 53										Local shock.
13	BRA	e	01 55 29								5.20	257.50	Switzerland 46.8 N 9.7 E H = 01 52 44, h = 0 km (ISC).
13	BRA	eP	03 06 37	–4.0							101.51	74.30	Molucca Passage 1.69 N 126.41 E H = 02 52 51, h = 31 km, Mag = 5.6 (ISC). M (MOS) ~ 5.0.

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
13	BRA	eSg	13 33 53	–5.0							5.12	258.01	Switzerland 46.87 N 9.8 E H = 13 31 06.4, h = 0 km (ISC).
13	BRA	Lm	17 01.9								9.06	289.92	Belgium 50.5 N 3.7 E H = 16 57 12, h = 0 km (ISC).
13	BRA	Lm	18 05.7								5.10	257.48	Switzerland 46.83 N 9.84 E H = 18 02 53.6, h = 0 km (ISC).
13	BRA SPC	ePKIKP ePKIKP	19 54 35 19 54 32	–2.0 +7.0							139.36 137.12	46.89 49.94	New Hebrides 15.51 S 167.55 E H = 19 35 21.3, h = 129 km, Mag = 5.3 (ISC).
14	BRA SPC	eP eP	01 25 05 01 25 00	–0.4 +2.2							72.59 70.90	20.01 21.84	Near East Coast of Kamchatka 55.51 N 162.07 E H = 01 13 44.5, h = 69 km, Mag = 5.1 (ISC). M (MOS) = 4.9.
14	BRA SRO	eP eP	08 09 30 08 09 24	–1.2 –9.0							88.84 86.53	68.67 71.03	Philippine Islands 15.08 N 122.51 E H = 07 56 37, h = 15 km, Mag = 5.5 (ISC). M (MOS) = 5.4.

14	BRA	eP	08 52 12	+8.4							94.86	304.48	Michoacan, Mexico 18.46 N 102.98 W
		epP	52 30	0.0									
	SRO	eP	08 52 09	+1.5							95.73	305.40	H = 08 38 47.5, h = 63 km,
	SPC	eP	08 52 12	+0.5							95.95	307.03	Mag = 5.7 (ISC). M (MOS) = 5.5.
14	BRA	eP	22 27 57	–0.6	545	3.0					98.37	80.51	Northern Celebes 0.06 N 119.73 E
		ePP	32 03	+2.0									H = 22 14 20.1, h = 22 km,
		eSKS	38 33	0.0									Mag = 6.1 (ISC).
		ePS	40 56	+3.0									mPV (MOS) = 7.3,
		Lm	23 23				89.0	18.0	111.1	18.0			mPV (BRA) = 6.7,
	SRO	eP	22 27 53	–1.3							97.62	81.48	MLH (MOS) = 7.3,
		ePP	31 57	0.0									MLH (BRA) = 7.4,
		Lm	23 12				82.0	25.0					MLH (SRO) = 7.1,
	HRB	ePP	22 32 06	+7.3			82.0	25.0			97.69	81.38	MLH (HRB) = 7.2.
		Lm	23 16				67.6	20.0	51.6	20.0			
	SPC	eP	22 27 47	–1.0							96.16	82.77	
15	BRA	eP	02 33 14	+3.0							14.81	147.71	Crete 35.18 N 26.70 E H = 02 29 43.1, h = 48 km, Mag = 5.0 (ISC). M (MOS) = 5.0.
15	SRO	ePKIKP	07 10 09	+3.3							153.11	32.75	South of Fiji 23.87 S 177.19 W
		iPKP2	10 22	–2.6									H = 06 50 39.1, h = 192 km, Mag = 5.4 (ISC).
15	BRA	ePKIKP	18 00 53	+1.6							136.19	46.50	Santa Cruz Island 12.62 S 166.15 E
		ePP	03 34	+1.1									
	SRO	ePP	18 03 32	–1.4							135.84	48.23	H = 17 41 28.6, h = 4 km, Mag = 5.4 (ISC). M (MOS) = 5.5.

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Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Az	Dc	Remarks
16	BRA SRO	eP iP eS Lm	10 51 32 10 51 33 11 01 45 11 32	−0.4 +2.9 +9.1			2.82	12.0	2.64	12.0	81.33 81.08	39.73 40.49	Off East Coast of Honshu, Japan 38.57 N 143.39 E H = 10 39 16.7, h = 22 km, Mag = 5.4 (ISC). mPV (MOS) = 6.2, MLH (MOS) = 6.0, MLH (SRO) = 6.0.
16	BRA	iPKIKP iPKP2	11 52 50 53 05	0.0 +0.4							150.12	31.59	West of Tonga 21.23 S 179.14 W H = 11 34 15.8, h = 637 km, Mag = 5.0 (ISC).
16	BRA	eP ePP	18 39 08 42 47	+1.5 −5.0							93.07	299.51	Oaxaca, Mexico 16.93 N 97.68 W H = 18 25 57.6, h = 57 km, Mag = 5.3 (ISC).
16	BRA	ePg eSg	21 34 39 35 03	+8.3 −4.0							2.77	228.72	Yugoslavia 46.3 N 14.1 E H = 21 33 47, h = 33 km (ISC).
17	BRA SRO	eP ePP eP eSKS	04 14 29 18 48 04 14 28 25 00	+1.3 +7.0 −1.4 +6.7							101.75 101.01	74.60 75.61	Molucca Passage 1.31 N 126.35 E H = 04 00 36.5, h = 33 km, Mag = 5.7 (ISC). mPV (MOS) = 6.5, MLH (MOS) = 6.0.
17	BRA	eP	04 50 42	+3.0							86.06	45.23	South of Honshu, Japan 31.60 N 141.00 E H = 04 38 05.0, h = 68 km, Mag = 5.2 (ISC).
18	BRA	eP	12 06 56	−0.8							78.07	25.98	Kurile Islands Region 48.13 N 157.34 E H = 11 55 00.3, h = 32 km, Mag = 5.2 (ISC). M (MOS) = 5.2.
18	BRA SRO SPC	ePKIKP ePP ePKIKP iPP ePKIKP ePP	18 27 54 30 36 18 27 56 30 36 18 27 57 30 23	−2.2 +2.8 +0.4 −3.0 +4.8 −9.0							136.24 135.89 134.01	46.45 48.19 49.45	Santa Cruz Islands 12.65 S 166.20 E H = 18 08 38, h = 54 km, Mag = 5.2 (ISC).
18	BRA SRO	iPKIKP epPKIKP ePP ePKIKP iPP i!SKP2 ePKS eSP eSPP	18 56 41 58 47 59 03 18 56 42 59 06 59 24 19 00 20 08 32 10 08	+0.7 −0.4 0.0 +2.4 +0.5 −0.2 +5.6 +10.0 +5.7							130.96 130.53	52.02 53.58	Solomon Islands 10.20 S 159.90 E H = 18 38 30.3, h = 534 km, Mag = 6.1 (ISC).
19	BRA SRO SPC	ePn eSn eSg eSg eSg	00 38 28 39 43 40 37 00 41 04 00 41 59	−2.0 −5.0 −1.0 0.0 +2.0							7.29 8.04 9.54	259.33 263.72 257.72	Switzerland 46.34 N 6.73 E H = 00 36 43.1, h = 33 km, Mag = 4.3 (ISC).

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
19	BRA	eP	15 39 31	–2.5							15.79	152.82	Eastern Mediterranean Sea 33.74 N 25.68 E H = 15 35 52.2, h = 33 km, Mag = 4.9 (ISC).
20,21	SPC												The apparatus was not operational.
19	BRA	ePKIKP epPKIKP	16 01 55 02 37	+3.6 –2.0							146.58	19.62	Tonga 15.93 S 173.98 W H = 15 42 28.8, h = 144 km, Mag = 5.2 (ISC).
20	BRA	ePKIKP ePKP2	03 34 58 35 37	–2.3 –3.1							158.66	43.73	Kermadec Islands Region 31.23 S 179.97 W H = 03 15 44.8, h = 347 km, Mag = 4.7 (ISC).
21	SRO	ePKIKP e e Lm	18 16 40 17 32 21 04 19 25	+9.9			10.2	22.0	5.7	22.0	158.39	43.98	Kermadec Islands 30.71 S 178.96 W H = 17 56 48.6, h = 33 km, Mag = 5.4 (ISC). MLH (SRO) = 6.6.
22	BRA	eP eS Lm	14 11 54 21 45 14 51	–3.2 +2.0			12.0	14.0	6.0	14.0	76.78	15.78	Near Islands, Aleutian Islands 53.03 N 171.11 E H = 14 00 04, h = 6 km, Mag = 5.5 (ISC). mPV (MOS) = 6.0. MLH (MOS) = 6.3, MLH (BRA) = 6.3, MLH (SRO) = 6.1.
	SRO	eP eS Lm	14 12 00 21 52 14 51				6.9	16.0	4.5	16.0	76.90	16.47	
	SPC	eP	14 11 50	–2.1							75.20	17.71	

23	BRA	eP eSKS e e	22 49 27 59 27 23 00 31 03 12								100.14	248.57	Southern Bolivia 21.95 S 63.64 W H = 22 36 49.8, h = 513 km, Mag = 5.6 (ISC).
	SRO	eP epP eSKS	22 49 45 51 42 59 29	+3.8 +0.8 +0.8							100.77	249.35	BRA: Time relative.
25	BRA	eP eS	09 19 41 29 35	+1.2 –5.0							80.05	38.90	Off East Coast of Honshu, Japan 40.09 N 143.37 E H = 09 07 29.7, h = 14 km, Mag = 5.5 (ISC). M (MOS) = 5.7.
28	BRA SRO	ePKP2 ePKIKP	12 10 22 12 10 11								147.26 147.02	38.00 40.22	South of Fiji 19.97 S 176.37 E H = 11 50 31.0, h = 40 km, Mag = 5.6 (ISC). M (MOS) = 5.7. BRA: Time relative.
28	BRA	eP eS Lm	20 55 24 21 06 18 21 38.5		560	2.4	22.2	18.0	22.2	18.0	88.17	68.73	Philippine Islands Region 15.55 N 122.02 E H = 20 42 20.2, h = 42 km, Mag = 5.7 (ISC). mPV (MOS) = 6.3, MLH (MOS) = 6.5, MLH (BRA) = 6.7, mPV (BRA) = 6.4, MLH (SRO) = 6.4. BRA: Time relative.
	SRO	eP eS Lm	20 55 11 21 05 49 21 40	+5.3 +7.0			8.8	16.0	8.9	16.0	87.54	69.60	
29	BRA	eP	01 49 27								88.18	68.73	Luzon, Philippine Islands 15.51 N 121.98 E H = 01 36 22.5, h = 39 km, Mag = 5.3 (ISC). BRA: Time relative.

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Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
29	BRA SRO	eP eP	22 57 41 22 57 45	+1.0	710	1.4					85.34 86.10	324.44 325.30	Southern Nevada Nuclear explosion "SLEDGE" 37°15'01" N 116°20'49" W H = 22 45 00 (USAEC), Mag = 5.9 (ISC). mPV (BRA) = 6.6.
30	BRA	eP	02 57 00								79.86	39.29	Near East Coast of Honshu, Japan 40.04 N 142.81 E H = 02 44 53.5, h = 43 km, Mag = 5.1 (ISC). M (MOS) = 5.1. BRA: Time relative.
30	BRA	eP	05 37 32								23.05	96.54	Eastern Caucasus 41.01 N 48.04 E H = 05 32 19.1, h = 56 km, Mag = 4.5 (ISC). M (MOS) = 4.1. BRA: Time relative.
30	BRA	ePg eSg	15 40 57 41 02										Local shock.
30	BRA SRO	eP eP eS	22 11 05 22 10 45 17 21	+6.4 −0.5							46.59 45.72	122.53 123.57	Arabian Sea 14.51 N 56.33 E H = 22 02 22, h = 57 km, Mag = 5.2 (ISC). M (MOS) = 5.4. BRA: Time relative.

31	BRA	eP ePP eS Lm	10 54 29 56 00 59 53 11 45.5		520	1.6	199.8	15.0	333.0	15.0	34.08	98.67	Persia 34.15 N 59.01 E H = 10 47 41.3, h = 25 km, Mag = 5.9 (ISC).
	HRB	eP	10 54 34	+16.0							33.31	99.21	MLH (MOS) = 7.5, MLH (BRA) = 7.2, mPV (BRA) = 6.2. BRA: Time relative.
31	BRA	ePKIKP e	20 14 00 15 36								147.95	27.17	West Tonga 18.39 S 177.68 W H = 19 54 35.7, h = 386 km, Mag = 4.9 (ISC). BRA: Time relative.

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
01	BRA	ePg eSn	01 22 05 22 24	+2.0 –6.0							5.24	178.51	Adriatic Sea 42.93 N 17.29 E H = 01 20 25, h = 24 km, Mag = 4.2 (ISC).
01	BRA	ePP	05 45 09	–6.4							22.79	102.52	Northwest Persia–USSR Border Region 39.14 N 46.20 E, H = 05 39 45, h = 24 km, Mag = 5.0 (ISC). M (MOS) = 4.8.
01	BRA SRO HRB	eP eP iS Lm eS	07 34 36 07 34 06 39 22 53 07 39 20	 –1.0 –1.4 			 20.9 	 14.0 	 24.4 	 14.0 	33.60 32.74 32.83	99.45 100.02 100.00	Persia 34.09 N 58.24 E H = 07 27 30.6, h = 14 km, Mag = 5.9 (ISC). mPV (MOS) = 6.5, MLH (MOS) = 6.3, MLH (SRO) = 6.2, BRA: Time relative.
03	BRA	eP	05 35 57								78.57	36.02	Hokkaido, Japan Region 42.87 N 145.47 E H = 05 23 30.4, h = 47 km, Mag = 5.3 (ISC). M (MOS) ~ 4.5. BRA: Time relative.

03	BRA SRO HRB 	eP ePP Lm iP eS Lm eP Lm	08 23 21 23 36 31 08 22 42 24 58 28 08 22 58 28	 –2.2 +1.7 			 11.8 75.2 96.7	 5.0 10.0 6.0	 17.6 79.2 46.2	 5.0 10.0 6.0	12.54 11.65 11.75	114.81 115.82 115.83	Turkey 41.81 N 32.39 E H = 08 19 52.6, h = 56 km, Mag = 5.7 (ISC). M (MOS) = 6.2, MLH (BRA) = 5.7, MLH (SRO) = 6.1, MLH (HRB) = 6.3. BRA: Time relative, HRB: Time relative.
03	BRA	eP	10 01 06								34.32	98.63	Persia 34.02 N 59.26 E H = 09 53 50, h = 30 km, Mag = 4.9 (ISC). BRA: Time relative.
03	BRA	eP	10 59 27								12.64	114.77	Turkey 41.76 N 32.50 E H = 10 56 15.5, h = 11 km, Mag = 4.6 (ISC). BRA: Time relative.
03	BRA	e	14 12 12								12.50	114.93	Turkey 41.81 N 32.33 E H = 14 09 10.5, h = 14 km, Mag = 4.6 (ISC). BRA: Time relative.
03	BRA	eP	15 18 02								67.98	276.56	North Atlantic Ocean 20.58 N 62.30 W H = 15 37 00.3, h = 34 km, Mag = 5.6 (ISC). M (MOS) = 5.3. BRA: Time relative.

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
03	BRA	e	18 56 11								39.62	87.69	Hindu Kush Region 36.30 N 69.18 E H = 18 48 12.1, h = 38 km, Mag = 5.2 (ISC). MLH (MOS) = 5.1, BRA: Time relative.
03	BRA	e	19 08 51								61.12	233.95	Central Mid-Atlantic Ridge 0.80 N 27.97 W H = 18 58 08.4, h = 33 km, Mag = 4.8 (ISC). BRA: Time relative.
03	BRA	e	23 50 15								141.31	48.40	New Hebrides 17.69 S 167.74 E H = 23 30 13.2, h = 11 km, Mag = 4.7 (ISC). BRA: Time relative.
04	BRA	e	10 46 35								74.13	22.41	Near East Coast of Kamchatka 53.17 N 159.58 E H = 10 34 31.7, h = 58 km, Mag = 4.9 (ISC). BRA: Time relative.
04	BRA SRO	eP eP	23 31 36 23 31 31	+7.7							33.67 32.82	99.42 99.99	Persia 34.06 N 58.32 E H = 23 24 45, h = 1 km, Mag = 5.4 (ISC). M (MOS) = 5.7. BRA: Time relative.

06	BRA	e	14 13 14								85.32	324.26	Southern Nevada 37.21 N 116.08 W H = 14 00 02.0, h = 18 km, Mag = 5.5 (ISC). BRA: Time relative.
06	BRA	ePg eSg	14 41 15 41 16.8										No determination of epicentre. Local shock BRA: Time relative.
06	BRA SRO 	eP eS eP iS Lm	19 35 42 45 51 19 35 05 45 15 20 15	 +3.7 +5.4 			 4.9	 16.0	 4.4	 16.0	81.97 81.55 	51.99 52.78 	Kyushu, Japan 30.96 N 131.84 E H = 19 22 45.4, h = 20 km, Mag = 5.6 (ISC). mPV (MOS) = 5.8, MLH (MOS) = 6.0, MLH (SRO) = 6.1, BRA: Time relative.
08	BRA	eP	02 14 09								75.25	36.29	Hokkaido, Japan Region 45.51 N 142.63 E H = 02 02 22.5, h = 309 km, Mag = 4.9 (ISC). BRA: Time relative.
08	BRA SRO 	ePKIKP ePdiff ePKIKP ePP ePS Lm	15 31 45 15 27 17 30 45 32 17 41 41 16 24	 –18.1 +7.1 –5.4 			 2.9	 16.0	 4.5	 16.0	116.10 115.51 	64.16 65.38 	Near North Coast of New Guinea 3.74 S 143.01 E H = 15 12 24.4, h = 32 km, Mag = 6.0 (ISC). MLH (MOS) = 6.2, MLH (SRO) = 6.2. BRA: Time relative.
08–13	SRO												The appartus was out of order.

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
09	BRA	eP	00 51 44								97.45	265.46	Peru–Brazil Border Region 8.62 S 74.55 W H = 00 37 44.0, h = 122 km, Mag = 5.9 (ISC). BRA: Time relative.
10	BRA	e	12 57 02										Yugoslavia
11	BRA	eP	19 24 00	–0.5							34.50	98.37	Persia 34.03 N 59.54 E H = 19 17 13.7, h = 33 km, Mag = 5.2 (ISC) . M (MOS) = 5.9.
12	BRA SPC	ePKIKP iPKHKP iPKP2 ePKIKP ipPKP2	23 02 43 02 49 02 59 23 02 14 04 38	(+1.7) –1.4							150.36 148.34	32.21 36.49	West of Tonga 21.57 S 179.35 W H = 22 44 07.1, h = 640 km, Mag = 5.8 (ISC). mPV (MOS) = 6.0. SPC: Time relative.
14	BRA	eP	01 38 25	+0.3							91.81	125.45	South Indian Ocean 24.45 S 80.41 E H = 01 25 18.9, h = 33 km, Mag = 5.4 (ISC).
14	BRA SRO 	eP Lm iP eS Lm	13 55 15 14 12.5 13 55 09 14 00 29 14 11	+0.5 +1.3 			16.6 20.8	12.0 14.0	16.6 17.4	12.0 14.0	34.15 33.27	112.38 113.26	Southern Persia 28.30 N 53.17 E H = 13 48 26, h = 3 km, Mag = 5.8 (ISC). mPV (MOS) = 6.1, MLH (MOS) = 6.1, MLH (SRO) = 6.1.
15	BRA SRO 	eP eS Lm eP eS Lm	04 59 39 05 02 08 05 07 04 59 25 05 01 52 05 04	+11.8 –3.2 +4.7 –5.6 			1.0 18.2	8.0 16.0	5.0 4.0	8.0 16.0	14.70 14.02	153.34 156.52	Crete 34.70 N 25.05 E H = 04 55 58.4, h = 17 km, Mag = 4.8 (ISC). M (MOS) = 5.0, MLH (BRA) = 5.0, MLH (SRO) = 5.3.
15	BRA SRO 	eP eP Lm 	11 02 20 11 02 19 11 50 	+1.8 +2.9 			2.9 	16.0 	3.6 	16.0 	79.37 79.14 	38.51 39.25 	Off East Coast of Honshu, Japan 40.87 N 143.30 E H = 10 50 13.4, h = 26 km, Mag = 5.4 (ISC). M (MOS) = 5.8, MLH (SRO) = 5.9.
16	BRA SRO 	ePKIKP e Lm ePP Lm	14 14 24 16 21 15 00 14 15 46 15 04	(+0.1) –11.3 			25.3	24.0	26.6	24.0	121.38 120.84	60.48 61.80	New Britain Region 6.08 S 148.77 E H = 13 55 35.7, h = 49 km, Mag = 5.9 (ISC). mPV (MOS) = 6.7, MLH (MOS) = 6.8, MLH (SRO) = 6.9.
17	BRA	eSn	12 18 22	–4.0							4.14	231.52	Northern Italy 45.5 H 12.5 E H = 12 16 38, h = 43 km.

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
17	BRA	e?	18 08 13								145.41	22.10	Tonga
		ePKIKP	09 28	+3.8									15.13 S 175.67 W
	SRO	ePKIKP	18 09 29	+2.2							145.41	24.28	H = 17 49 47.0, h = 17 km,
		Lm	19 08				2.0	24.0	2.7	24.0			Mag = 5.1 (ISC).
													MLH (SRO) = 6.0.
													(VKA: e 18 08 15).
18	BRA	eP	04 05 30	+4.6							14.65	153,40	Crete
	SRO	Lm	04 10								13.99	156.59	34.74 N 25.01 E
													H = 04 01 59, h = 30 km,
													Mag = 4.6 (ISC).
18	BRA	eP	06 21 21	+0.8							18.55	108.21	Turkey
													39.81 N 40.21 E
													H = 06 17 03, h = 25 km,
													Mag = 4.6 (ISC).
													M (MOS) = 4.3.
18	BRA	ePg	11 25 23										Local shock.
18	BRA	ePKIKP	12 03 23	(+9.5)							141.43	49.62	New Hebrides
													18.20 S 167.13 E
													H = 11 43 45.5, h = 33 km,
													Mag = 5.7 (ISC).
19	BRA	eP	11 21 39	–2.0							47.62	270.86	North Atlantic Ridge
													30.71 N 41.94 W
													H = 11 13 07.4, h = 33 km,
													Mag = 4.8 (ISC).

19	BRA	eP	22 19 20	–1.8							34.14	112.31	Southern Persia
	SRO	eP	22 19 16	–1.5							33.25	113.19	28.34 N 53.19 E
		Lm	22 35				1.9	14.0	1.3	14.0			H = 22 12 36, h = 18 km,
													Mag = 5.1 (ISC).
													M (MOS) = 5.2,
													MLH (SRO) = 5.0.
20	BRA	–iP	06 11 37	+0.3	3220	1.2					75.27	269.70	Near Coast of Venezuela
		eS	21 08	+2.0									10 76 N 62.70 W
	SRO	iP	06 11 40	–2.1							76.09	270.69	H = 06 00 03.3, h = 103 km,
		epP	12 00	–5.0									Mag = 6.2 (ISC).
		iS	21 20	+3.8									mPV (MOS) = 6.8,
	SPC	iP	06 10 53										MLH (MOS) = 6.4,
													mPV (BRA) = 7.0.
													SPC: Time relative.
20	BRA	ePKIKP	18 49 01	+3.9							157.16	33.39	Kermadec Islands Region
		ePKP2	49 49	+4.0									28. 04 S 176.88 W
													H = 18 19 10.0, h = 70 km,
													Mag = 5.2 (ISC).
													M (MOS) = 5.7.
21	BRA	–iP	13 17 55.0	+0.2			400.0	3.0	400.0	3.0	78.10	38.25	Hokkaido, Japan Region
		eS	27 46	+3.0									42.08 N 142.65 E
		Lm	13 55.5				24.0	20.0	65.0	20.0			H = 13 06 00.8, h = 57 km,
	SRO	iP	13 17 54	–2.8									Mag = 5.9 (ISC).
		iS	27 36	–8.7									mPV (MOS) = 6.8,
		isS	28 12	+8.3									MLH (MOS) = 6.6,
		Lm	13 55				39.7	22.0	34.2	22.0			MLH (BRA) = 7.0,
													mPH (BRA) = 6.3,
													MLH (SRO) = 6.8.
21	BRA	ePg	13 59 31								D ≐ 80 km		No determination of epicentre
		eSg	59 40										(VKA: iPg 13 59 45.2).

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Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
22	BRA	eP	09 33 16	–0.3							87.96	68.72	Luzon, Phillipine Islands 15.72 N 121.88 E H = 09 20 30.2, h = 47 km, Mag = 5.3 (ISC). M (MOS) = 5.5.
22	BRA	ePKIKP	20 41 45	(+6.8)							146.09	20.60	Tonga 15.58 S 174.65 W H = 20 22 02.5, h = 33 km, Mag = 4.6 (ISC).
22	BRA	ePKIKP	20 50 16	(+5.5)							145.58	21.70	Tonga 15.24 S 175.4 W H = 20 30 35.5, h = 33 km, Mag = 4.9 (ISC).
23	BRA SRO	eP eP eS	05 15 58 05 16 00 25 40	+0.1							80.01 79.78	38.52 39.26	Off East Coast of Honshu, Japan 40.33 N 143.75 E H = 05 03 47, h = 9 km, Mag = 5.2 (ISC). M (MOS) = 5.8.
24	BRA SRO	eP iP	03 46 59 03 46 58	+1.2 +0.7							80.02 79.78	38.57 39.31	Off East Coast of Honshu, Japan 40.30 N 143.70 E H = 03 34 46.0, h = 4 km, Mag = 5.2 (ISC). M (MOS) = 5.7.

24	BRA SRO	eP eS eP	04 24 16 27 49 04 24 08	–1.1 +2.0 +0.8							18.96 18.08	109.67 110.40	Turkey 39.19 N 40.29 E H = 04 19 53, h = 8 km, Mag = 5.1 (ISC).
25	BRA	ePKIKP	00 34 13	(–1.5)							147.31	28.22	West of Tonga 17.97 S 178.46 W H = 00 15 39.9, h = 587 km, Mag = 5.0 (ISC).
25	BRA SRO	eP epP eP ePP	10 51 33 52 06 10 51 39 55 24	+3.4 +7.0 +3.0 +5.6							91.16 92.05	294.86 295.75	Mexico–Guatemala Border Region 15.54 N 92.65 W H = 10 38 36.4, h = 114 km, Mag = 5.8 (ISC).
25	BRA	iPg	13 00 03										Slovakia No determination of epicentre (VKA: e 13 00 19).
25	BRA SRO	eP eP	20 56 39 20 56 29	+3.3 +2.8							18.93 18.05	109.55 110.27	Turkey 39.24 N 40.29 E H = 20 52 15.8, h = 41 km, Mag = 5.0 (ISC). M (MOS) = 4.5.
26	BRA SRO	ePKIKP iPKP2 ePKIKP	02 58 36 58 48 02 58 40	(–0.4) –2.6 +2.8							148.82 148.75	27.45 29.81	West of Tonga 19.27 S 177.53 W H = 02 39 55.8, h = 549 km, Mag = 5.1 (ISC).
26	BRA	ePKIKP	09 00 00	(+2.6)							147.04	28.14	West of Tonga 17.70 S 178.51 W H = 08 41 21.2, h = 566 km, Mag = 5.3 (ISC).

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
26	BRA	ePKIKP	14 57 03.0	(+0.1)							150.51	27.36	West of Tonga
		ipPKIKP	57 32	0.0									20.86 S 176.89 W
	SRO	iPKIKP	14 57 05	+4.7							150.44	29.81	H = 14 37 41.2, h = 202 km,
		iPKP2	57 11	−4.7									Mag = 5.7 (ISC).
26	BRA	ePKIKP	18 22 44	(−0.5)							158.92	38.73	Kermadec Islands
		ePKP2	23 22	−3.0									30.52 S 178.01 W
		Lm	19 29										H = 18 02 47, h = 12 km,
	SRO	iPKIKP	18 22 43	−3.3							158.67	41.81	Mag = 5.8 (ISC).
		iPP	22 43	+1.5									mPV (MOS) = 6.5,
		Lm	19 29				22.0	22.0	23.7	22.0			MLH (MOS) = 6.7,
													MLH (SRO) = 7.0.
27	BRA	ePP	04 17 49	+1.0							109.79	77.87	Banda Sea
	SRO	ePP	04 17 33	−4.7							109.07	78.94	6.89 S 129.21 E
													H = 03 58 58, h = 151 km,
													Mag = 5.9 (ISC).
													mPV (MOS) = 6.1.
27	BRA	eP	10 45 27	−0.2							40.87	83.57	Tadzhikistan
		epP	45 52	+2.0									37.84 N 72.31 E
													H = 10 37 54.3, h = 104 km,
													Mag = 5.3 (ISC).
													mPV (MOS) = 5.5.
27	BRA	ePg	13 46 25								D ≐ 60 km		Slovakia
		eSg	46 29										No determination of epicentre
													(VKA: iSg 13 46 45).

27	BRA	ePKIKP	17 01 03	+0.3							159.24	38.39	Kermadec Islands
		ePKP2	01 44	−0.8									30.74 S 177.71 W
	SRO	ePKIKP	17 01 03	+0.5							158.99	41.51	H = 16 41 08.4, h = 32 km,
													Mag = 5.4 (ISC).
													M (MOS) = 5.7.
28	BRA	eP	00 55 57	+2.0							10.15	135.75	Turkey
		Lm	59										40.49 N 26.38 E
	SRO	Lm	00 59								9.33	138.71	H = 00 53 28.0, h = 28 km,
													Mag = 4.4 (ISC).
													M (MOS) = 4.5,
													MLH (BRA) = 4.5.
28	BRA	ePP	14 11 48.4	+2.4							101.94	263.73	Near Coast of Peru
	SRO	Lm	14 52				2.8	20.0	2.5	20.0	102.71	264.53	13.10 S 76.37 W
													H = 13 59 35.2, h = 66 km,
													Mag = 5.9 (ISC).
													MLH (MOS) = 6.1,
													MLH (SRO) = 5.9.
29	BRA	–iP	03 50 28	−0.4							39.13	63.94	Eastern Kazakhstan
	SPC	iP	03 50 25	−0.6							38.81	66.35	(UPP: Underground explosion,
													Mag = 6.3)
													49 82 N 78.18 E
													H = 03 42 57.8, h = 0 km,
													Mag = 5.8 (ISC).

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Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
03	BRA	ePKIKP	12 38 02	(+0.5)							160.88	45.72	South of Kermadec Islands 33.46 S 179.19 W H = 12 18 04, h = 24 km, Mag = 5.2 (ISC).
04	BRA	eP	00 52 15	+15.7							78.51	38.33	Hokkaido, Japan Region 41.69 N 142.86 E H = 00 40 01.9, h = 47 km, Mag = 4.9 (ISC). M (MOS) = 5.2.
04	BRA	ePKIKP	06 22 56	(–0.6)							116.41	204.51	South of Sandwich Islands Region 56.27 S 27.07 W H = 06 04 30, h = 45 km, Mag = 6.1 (ISC). M (MOS) = 5.4.
04	BRA	ePKIKP	07 48 08	(+2.4)							148.24	18.35	Tonga Region 17.40 S 172.89 W H = 07 28 26.4, h = 33 km, Mag = 5.1 (ISC).
05	BRA	ePP	15 18 33	–2.1							23.74	93.68	Caspian Sea 41.70 N 49.55 E H = 15 12 52.3, h = 70 km, Mag = 4.9 (ISC). M (MOS) ~ 5.0.
06	BRA	ePKIKP	05 34 48	(+1.7)							145.46	21.47	Tonga 15.09 S 175.30 W H = 05 16 11.6, h = 33 km, Mag = 5.2 (ISC). M (MOS) = 5.8.
06	BRA SRO	ePKIKP ePKP2 Lm	09 06 33 09 06 39 10 15	(–3.3) +0.8			3.4	20.0	2.0	20.0	145.26 145.28	21.50 23.67	Samoa Region 14.90 S 175.37 W H = 08 47 02, h = 35 km, Mag = 5.4 (ISC). MLH (MOS) = 6.0, MLH (SRO) = 6.1.
06	BRA SRO	ePKIKP ePKP2	09 34 37 09 34 39	(+2.2) +2.0							145.34 145.37	21.08 23.06	Samoa Region 14.92 S 175.11 W H = 09 15 00.4, h = 33 km, Mag = 4.9 (ISC).
06	BRA	ePKIKP	23 46 32	(+2.3)							145.45	20.93	Samoa Region 15.0 S 175.00 W H = 23 26 55.0, h = 33 km, Mag = 4.3 (ISC).
07	BRA	ePKIKP	00 18 32	+2.8							145.24	21.37	Samoa Region 14.86 S 175.30 W H = 23 59 07, h = 130 km, Mag = 4.1 (ISC).
07	BRA	ePg	15 37 56										Local shock.

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
07	BRA	iP	19 32 27	+0.2			2350	1.4	2350	1.4	90.30	48.40	Bonin Islands Region
		ipP	34 29	+2.2									26.29 N 140.70 E
		eSKS	42 09	+3.9									H = 19 20 20.8, h = 518 km,
		eS	42 38	+3.0									Mag = 6.1 (ISC).
		Lm	20 15				39.7	16.0	39.7	16.0			mPV(MOS) = 6.8,
	SRO	iP	19 32 25	−0.1							89.93	49.30	mPH (BRA) = 7.5.
		Lm	20 11				50.2	20.0	57.6	20.0			
	HRB	eP	19 32 31	+7.5							89.95	49.21	
		Lm	20 15										
	SPC	iP	19 32 21	+6.3							88.06	50.74	
07	BRA	eP	21 00 59	0.0							78.13	38.40	Hokkaido, Japan Region
		ePs	11 20	−15.5									41.97 N 142.51 N
	SPC	eP	21 00 52	+6.0							76.01	40.53	H = 20 49 04.2, h = 52 km,
													Mag = 5.7 (ISC).
													mPV (MOS) = 6.3,
													MLH (MOS) = 6.2.
08	BRA	eP	01 03 12	+15.8							82.33	43.64	Near East Coast of Honshu, Japan
													35.58 N 140.06 E
													H = 00 50 41.4, h = 73 km,
													Mag = 5.1 (ISC).
09	BRA	ePKIKP	03 58 19	(+1.8)							145.18	21.53	Samoa Region
	SRO	ePKP2	03 58 23	+3.5							145.20	23.70	14.83 S 175.41 W
													H = 03 38 51, h = 99 km,
													Mag = 5.0 (ISC).
													M (MOS) = 5.8.

09	BRA	ePKIKP	17 30 11	+0.8							145.34	21.52	Samoa Region
	SRO	ePKP2	17 30 19	+9.6							145.36	23.70	14.98 S 175.36 W
													H = 17 10 49, h = 137 km,
													Mag = 4.6 (ISC).
10	BRA	ePKIKP	15 24 24	+1.2							121.22	60.66	New Britain Region
													6.04 S 148.55 E
													H = 15 05 35.4, h = 52 km,
													Mag = 5.4 (ISC).
12	BRA	ePKIKP	19 36 19	+2.3							149.87	30.47	West of Tonga
		i!	36 22										20.79 S 178.68 W
		ipPKP2	38 48	−5.3									H = 19 17 39.7, h = 597 km,
	SRO	iPKP2	19 36 25	−7.7							149.75	32.87	Mag = 5.6 (ISC).
		ipPKP2	38 49	−3.9									M (MOS) = 6.4.
	SPC	ePKIKP	19 36 19	+5.4							149.89	34.81	
		epP	38 42	+8.2									
12	BRA	eP	23 27 40	−0.3							40.52	86.43	Hindu Kush Region
		ePP	29 06	+14.0									36.47 N 70.66 E
	SPC	eP	23 27 28	+0.3							38.41	89.94	H = 23 20 19.5, h = 200 km,
													Mag = 5.2 (ISC).
													mPV (MOS) = 5.5.
14	BRA	ePKIKP	03 17 42	(+2.8)							119.01	105.89	Western Australia
	SRO	ePP	03 18 48	−2.5							118.13	196.85	31.54 S 117.00 E
		iPS	28 38	−3.7									H = 02 58 51.8, h = 18 km,
		Lm	04 10				5.7	20.0	7.1	20.0			Mag = 5.9 (ISC).
	SPC	ePKIKP	03 17 45	+5.7							117.30	107.40	mPV (MOS) = 6.9,
													MLH (MOS) = 6.6,
													MLH (SRO) = 6.4.
16–31	SRO												The apparatus was not operational.

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Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
14	BRA SPC	eP eP	05 34 13 05 34 07	+1.0 +9.5							72.55 70.50	90.19 92.90	Andaman Islands Region 12.83 N 95.09 E H = 05 22 44.3, h = 23 km, Mag = 5.1 (ISC). M (MOS) ~ 5.0.
14	BRA SPC	eP eP	09 23 37 09 23 29	+0.2 +4.0							80.98 78.84	40.61 42.81	Near East Coast of Honshu, Japan 38.38 N 142.22 E H = 09 11 26.0, h = 47 km, Mag = 5.2 (ISC). M (MOS) = 5.2.
15–22	SPC												The apparatus was not operational.
19	BRA	eP ePP	09 59 52 10 01 31	+1.2 –4.5							41.71	83.42	Tadzhikistan 37.46 N 73.27 E H = 09 52 04.5, h = 41 km, Mag = 5.2 (ISC). mPV (MOS) = 5.3, MLH (MOS) = 5.3.
19	BRA	eP	15 38 16	+4.8							13.74	157.80	Crete 35.24 N 23.40 E H = 15 34 54, h = 13 km, Mag = 4.8 (ISC). M (MOS) ~ 5.0.

19	BRA	ePKP2	17 48 24	–0.2							146.02	17.91	Tonga 15.17 S 173.15 W H = 17 28 40, h = 6 km, Mag = 5.2 (ISC).
19	BRA	ePn	22 50 48	–2.5							3.18	189.91	Yugoslavia 45.00 N 16.8 E H = 22 49 58, h = 0 km (ISC).
20	BRA	eP	07 20 39	+2.6							81.37	62.33	Taiwan Region 24.91 N 122.47 E H = 07 08 20, h = 22 km, Mag = 5.3 (ISC). mPV (MOS) = 6.1, MLH (MOS) = 6.1.
20	BRA	eP	23 16 44	+0.1							6.90	106.46	Roumania 45.81 N 26.59 E H = 23 15 04.0, h = 120 km, Mag = 4.6 (ISC). mPV (MOS) = 5.0.
22	BRA	ePn eSn	01 02 22 02 39	–1.8 –0.3							1.22	167.18	Hungary 46.98 N 17.50 E H = 01 01 59.7, h = 0 km (ISC).
22	BRA	ePn	07 24 32	+0.6							4.67	180.58	Yugoslavia 43.50 N 17.04 E H = 07 23 18.0, h = 0 km, Mag = 4.3 (ISC).
23	BRA	ePKIKP	02 13 34	+2.5							144.72	121.09	West of Macquarie Island 53.90 S 140.40 E H = 01 53 59.4, h = 33 km, Mag = 4.8 (ISC).

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Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
23	BRA	iPg	11 59 35				8960	0.6	5600	0.6			Slovakia (Marianka) Explosion of 37 tons. D ≐ 10 km.
23	BRA	ePdiff	21 19 48								115.98	63.68	Near North Coast of New Guinea 3.38 S 143.29 E H = 21 04 42.9, h = 21 km, Mag = 6.2 (ISC). mPV (MOS) = 6.7, MLH (MOS) = 7.1, MLH (BRA) = 7.3, MLH (HRB) = 6.8.
		ePKIKP	23 30	+5.5									
		eSKS	30 18	–0.6									
		ePKKP	34 33	+11.1									
		eSKKS3	41 42	+0.1									
		Lm	22 16				45.5	18.0	45.5	18.0			
	HRB	Lm	22 15				15.9	20.0	14.4	20.0	115.45	64.76	
	SPC	ePKIKP	21 23 37	+19.0							113.66	66.01	
24	BRA	ePg	11 03 39										Local shock.
		eSg	03 43										
24	BRA	eP	16 04 50	–1.2							98.53	71.04	Mindanao, Philippine Islands H = 15 51 16, h = 44 km, Mag = 5.5 (ISC). mPV (MOS) = 6.5, MLH (MOS) = 6.2.
		ePPP	11 04	–8.0									
	SPC	eP	16 04 49	+7.3							96.24	73.35	
24	BRA	eP	22 47 37	–0.2							76.29	26.19	Kurile Islands 49.63 N 155.86 E H = 22 35 54.0, h = 62 km, Mag = 5.5 (ISC). MLH (MOS) = 5.2.
	SPC	eP	22 47 37	+6.7							74.43	28.18	
25	BRA	eP	10 41 26	–0.6							79.04	95.83	Northern Sumatra 4.30 N 95.46 E H = 10 29 26, h = 51 km, Mag = 5.4 (ISC).
		epP	41 40	–0.5									
	SPC	eP	10 41 28	–12.0							77.10	98.45	
25	BRA	eP	11 50 26	+1.7							80.20	12.57	Rat Islands, Aleutian Islands 50.57 N 177.46 E H = 11 38 14.9, h = 23 km, Mag = 5.0 (ISC).
	SPC	eP	11 50 29	+2.3							78.72	14.59	
26	BRA	eP	16 08 24	–1.4							78.55	36.08	Hokkaido, Japan Region 42.86 N 145.38 E H = 15 56 28.3, h = 52 km, Mag = 5.2 (ISC).
	SPC	eP	16 08 20	+6.8							76.48	38.20	
26	BRA	eP	19 28 54	–0.9							79.66	4.17	Fox Islands, Aleutian Islands 52.39 N 169.59 W H = 19 16 50.3, h = 37 km, Mag = 4.6 (ISC).
28	BRA	eP	12 57 13	–0.6							11.22	142.57	Aegean Sea 38.89 N 25.82 E H = 12 54 30, h = 4 km, Mag = 4.5 (ISC).
28	BRA	eP	14 53 07	–1.6							86.46	44.28	South of Honshu, Japan 33.46 N 140.88 E, H = 14 40 41, h = 60 km, Mag = 5.4 (ISC). MLH (MOS) = 4.5.
		ePcP	53 16	+3.0									
	SPC	eP	14 53 00	+4.5							82.26	46.54	

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Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
28	BRA	ePKHKP	23 51 34	+1.2							136.15	46.00	Santa Cruz Islands
		ePKIKP	51 46	+2.2									12.41 S 166.43 E
		ePP	54 25	–2.7									H = 23 32 27.7, h = 49 km,
		ePKS	55 16	–2.8									Mag = 5.9 (ISC).
	SPC	ePKIKP	23 51 43	+3.3							133.92	49.01	mPV (MOS) = 6.6,
													MLH (MOS) = 6.2.
29	BRA	eP	04 18 49	+1.2							86.71	44.94	South of Honshu, Japan
		ePP	22 13	+1.0									31.22 N 141.71 E
	SPC	eP	04 18 42	+4.6							84.50	47.23	H = 04 06 06.6, h = 35 km,
													Mag = 5.6 (ISC).
													MLH (MOS) = 5.5.
29	BRA	ePKIKP	07 39 56	+2.7							147.10	28.53	West of Tonga
													17.83 S 178.70 W
													H = 07 21 15.5, h = 551 km,
													Mag = 5.3 (ISC).
29	BRA	ePKHKP	11 46 47	+8.8							152.75	24.95	Tonga Region
	SPC	ePKHKP	11 46 43	+8.6							150.89	29.87	22.63 S 174.96 W
													H = 11 26 52.1, h = 33 km,
													Mag = 5.1 (ISC).
29	BRA	eP	22 27 06	–0.7	160	2.0					66.27	354.19	Alaska
	SPC	eP	22 27 07	+3.9							65.44	355.57	65.46 N 150.07 W
													H = 22 16 16.5, h = 7 km,
													Mag = 6.0 (ISC).
													mPV (MOS) = 6.7,
													MLH (MOS) = 6.2,
													mPV (BRA) = 5.9.
30	BRA	ePP	04 16 46	–6.0							41.70	83.67	Tadzhikistan
													37.33 N 73.14 E
													H = 04 07 25, h = 55 km,
													Mag = 5.1 (ISC).
													mPV (MOS) = 5.0,
													MLH (MOS) = 5.0.
30	BRA	eP	16 55 55	–1.0							18.63	115.19	Turkey
	SPC	eP	16 55 48	+7.8							17.31	123.43	37.99 N 38.56 E
													H = 16 51 35.2, h = 3 km,
													Mag = 5.0 (ISC).
													MLH (MOS) = 5.0.
31	BRA	eP	03 25 30	–15.0							13.65	144.10	Dodecanese Islands
		Lm	33				4.0	8.0	5.0	8.0			36.62 N 27.01 E
	SPC	eP	03 25 33	+4.0							13.50	156.04	H = 03 22 14, h = 2 km,
													Mag = 5.0 (ISC).
													MLH (MOS) = 5.1,
													MLH (BRA) = 5.1.
31	BRA	eP	09 20 27	–1.1							101.83	74.68	Molucca Passage
		ePP	24 49	+8.0									1.20 N 126.34 E
													H = 09 06 37, h = 1 km,
													Mag = 6.1 (ISC).
													mPV (MOS) = 6.7,
													MLH (MOS) = 6.0.

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Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
03	BRA	ePn	04 51 03	–3.8							6.27	164.52	Yugoslavia
		iSn	52 21	–2.8									42.10 N 19.35 E
	HRB	ePn	04 51 33	+13.8							5.83	171.50	H = 04 49 33.7, h = 28 km,
		Lm	53.5				320.0	6.0	48.0	6.0			Mag = 5.1 (ISC).
	SPC	ePn	04 51 25	–2.2							7.12	185.38	M (MOS) = 5.5,
													MLH (HRB) = 6.3.
03	BRA	eP	18 43 03	–1.6							12.77	132.68	Turkey
													38.81 N 29.11 E
													H = 18 40 01.7, h = 23 km,
													Mag = 4.8 (ISC).
04	BRA	eP	09 11 21	–3.0							49.45	122.60	Arabian Sea
													12.14 N 57.99 E
													H = 09 02 34, h = 51 km,
													Mag = 5.0 (ISC).
04	BRA	ePKIKP	09 25 57	(–3.1)							140.27	40.04	New Hebrides Region
		i	26 03										14.20 S 172.02 E
		eSKP2	28 45	–2.3									H = 09 07 39.6, h = 596 km,
		eSKP	29 00	–2.5									Mag = 5.8 (ISC).
													mPV (MOS) = 6.1.
06	BRA	eP	13 45 14	+7.2							17.45	132.59	Cyprus
													35.13 N 32.73 E
													H = 13 41 5.6, h = 65 km,
													Mag = 4.8 (ISC).
07	BRA	ePKIKP	03 52 36	(+6.8)							147.53	17.71	Samoa Region
													16.63 S 172.70 W
													H = 03 32 51.1, h = 33 km,
													Mag = 5.1 (ISC).
													M (MOS) = 5.5.
07	BRA	iP	10 08 20	–0.3	240	1.4					30.20	20.36	Novaya Zemlya
		i	08 34										(UPP: Underground explosion)
		i	08 48										73.39 N 54.58 E
		iPP	09 16	–1.0									H = 10 02 05.4, h = 0 km,
	SRO	eP	10 08 22	+1.5							30,25	19.74	Mag = 6.1 (ISC).
	SPC	iP	10 08 11	+6.6							28.52	19.66	mPV (BRA) = 5.9.
07	BRA	ePg	11 03 50										Local shock.
		eSg	03 53										
07	BRA	eP	14 48 35	–0.2							78.68	32.02	Kurile Islands Region
													44.81 N 150.18 E,
													H = 14 36 36.4, h = 42 km,
													Mag = 5.3 (ISC).
													M (MOS) ~ 5.0.
08	BRA	ePKIKP	18 45 57	+0.8							148.56	30.48	West of Tonga
		epPKIKP	48 35	+6.6									19.56 S 179.19 W
													H = 18 27 27.1, h = 675 km,
													Mag = 5.1 (ISC).
09	BRA	eP	13 51 56	+5.8							44.66	105.69	Near Coast of West Pakistan
													23.79 N 64.73 E
													H = 13 43 36, h = 15 km,
													Mag = 5.1 (ISC).
													M (MOS) = 5.5.

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
10	BRA	eP	17 14 30	0.0							84.47	66.34	Philippine Islands Region
		epP	14 40	0.0									19.94 N 121.39 E
	SPC	eP	17 14 22	+2.5							82.15	68.71	H = 17 02 00.0, h = 46 km, Mag = 5.3 (ISC). M (MOS) = 5.5.
11	BRA	eP	09 05 28	−1.3							74.47	355.44	Kodiak Island Region 57.51 N 154.73 W H = 08 53 57.1, h = 76 km, Mag = 5.0 (ISC).
11	BRA	−iP	14 53 22	−0.7							79.98	28.96	Off East Coast of Honshu, Japan
		eS	15 03 28	−4.9									40.12 N 143.25 E
		Lm	15 32.5				6.7	15.0	6.7	15.0			H = 14 41 15.1, h = 31 km, Mag = 5.5 (ISC). mPV (MOS) = 5.6, MLH (MOS) = 6.2, MLH (BRA) = 6.3, MLH (SRO) = 6.6.
	SRO	iP	14 53 22	+1.2							79.74	39.71	
		iS	03 26	+6.6									
		Lm	15 32				9.8	16.0	16.9	16.0			
	SPC	iP	14 53 17	+5.7							77.86	41.13	
11	BRA	eP	23 37 34	−5.4							13.71	143.70	Dodecanese Islands
	SRO	eP	23 37 28	−0.3							12.96	146.55	36.61 N 27.15 E
		eS	39 58	+4.1									H = 23 34 21.5, h = 23 km(ISC).
		Lm	43				5.6	12.0	3.5	12.0			M (MOS) = 5.2,
	SPC	eP	23 37 39	+6.0							13.54	155.60	MLH (SRO) = 4.9.
12	BRA	iP	00 56 34.0	+1.2							82.85	56.48	Ryukyu Islands
	SRO	iP	00 56 32	+4.5							82.36	57.28	27.50 N 128.48 E
		eS	01 06 48	+13.9									H = 00 44 14.8, h = 69 km, Mag = 5.7 (ISC). M (MOS) = 5.6, MLH (SRO) = 6.0.
		Lm	36				5.7	20.0	2.0				
	SPC	eS	00 56 26	+8.0									
12	BRA	eP	03 40 49	−2.8							13.59	143.55	Dodecanese Islands
	SRO	eP	03 40 42	+14.0							12.83	146.41	36.74 N 27.11 E
		eS	43 16	+12.4									H = 03 37 39, h = 26 km, Mag = 4.7 (ISC). M (MOS) = 5.0, MLH (SRO) = 4.7.
		Lm	47				3.8	12.0	2.6	12.0			
12	SRO	eS	06 14 24	+1.4							12.94	146.46	Dodecanese Islands
		Lm	06 18				2.8	10.0	4.4	10.0			36.64 N 27.16 E H = 06 08 55.6, h = 24 km, Mag = 4.8 (ISC). MLH (SRO) = 4.9.
12	SRO	eP	09 09 32	−2.0							79.20	38.61	Hokkaido, Japan Region 41.17 N 144.03 E H = 08 57 27, h = 14 km, Mag = 5.2 (ISC).
12	SRO	Lm	10 39				3.4	20.0	5.1	20.0	81.68	55.49	Ryukyu Islands 29.16 N 129.54 E H = 09 53 44.6, h = 47 km, Mag = 5.2 (ISC). MLH (SRO) = 6.0.
12	BRA	ePKP2	22 20 29	+8.7							146.56	17.34	Samoa Region
	SRO	ePKIKP	22 20 18	+2.5							146.64	19.57	15.63 S 172.71 W
	SPC	ePKP2	22 20 27	+13.3							144.90	22.06	H = 22 00 39.0, h = 47 km, Mag = 5.2 (ISC).

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
13	BRA	iPg iSg	15 01 12 01 15										Local shock.
13	BRA SPC	ePKIKP ePKP2	16 08 06 16 08 12	(+1.3) −0.2							149.89 147.91	30.79 35.06	West of Tonga 20.86 S 178.80 W H = 15 49 27.2, h = 598 km, Mag = 5.1 (ISC).
13	BRA SRO SPC	eP iP eScS Lm eP	18 53 52 18 53 51 19 04 19 32 18 53 45	+0.1 −0.4 +10.2 +3.6			3.4	20.0	9.1	20.0	79.68 79.44 77.56	39.33 40.06 41.49	Near East Coast of Honshu, Japan 40.17 N 142.65 E H = 18 41 47.2, h = 40 km, Mag = 5.6 (ISC). mPV (MOS) = 5.9, MLH (MOS) = 5.9, MLH (SRO) = 6.1.
14	BRA	ePKIKP	11 54 33	(+1.8)							150.07	25.07	Tonga 20.08 S 175.89 W H = 11 35 11.5, h = 214 km, Mag = 5.0 (ISC).
14	BRA	ePKIKP	23 28 23	−5.5							145.67	48.59	Loyalty Islands Region 21.46 S 170.10 E H = 23 08 53.5, h = 93 km, Mag = 5.6 (ISC).

15	SRO	eP	06 32 00	+3.0							30.92	94.32	Persia–USSR Border Region 37.6 N 58.5 E H = 06 25 39, h = 22 km, Mag = 5.1 (ISC). mPV (MOS) = 5.5, MLH (MOS) = 5.5.
17	BRA	eP epP	00 28 15 28 55	+1.2 0.0							82.78	276.20	Venezuela 9.57 N 72.63 W H = 00 16 06.4, h = 150 km, Mag = 5.8 (ISC).
22	BRA SRO SPC	eP eP iS Lm eP	09 12 13 09 12 08 22 48 09 50 09 11 56	+1.4 −0.6 +7.4 −3.6			3.4	20.0	5.1	20.0	87.80 87.17 85.49	68.22 69.08 70.58	Luzon, Philippine Islands 16.17 N 122.17 E H = 08 59 27.7, h = 60 km, Mag = 5.3 (ISC). mPV (MOS) = 5.6, MLH (MOS) = 6.0, MLH (SRO) = 6.0.
22	SPC	eP	10 45 24	−3.0							98.88	77.34	Molucca Passage 1.48 N 125.60 E H = 10 31 49, h = 37 km, Mag = 5.6 (ISC).
22	SPC	eP	11 51 05	−4.3							88.05	77.34	Luzon, Philippine Islands 13.16 N 122.60 E H = 11 38 16, h = 7 km, Mag = 5.5 (ISC).
24	BRA SRO SPC	ePKIKP iSKP ePKP2 iSKP	21 29 34 33 03 21 29 29 21 32 55	+0.9 +2.9 +2.7 +7.6							145.77 145.77 143.97	22.73 24.93 27.15	Tonga 15.58 S 175.93 W H = 21 09 52, h = 64 km, Mag = 5.3 (ISC).

November 1968

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
25	BRA	eP	18 50 34	+1.2							99.18	71.85	Mindanao, Philippine Islands
	SRO	eP	18 50 33	+3.2							98.51	72.83	5.05 N 126.77 E
		eS	19 01 05	–6.2									H = 18 36 52.3, h = 25 km,
		Lm	19 39				8.0	20.0	7.1	20.0			Mag = 5.3 (ISC).
	SPC	eP	18 50 32	+11.3							96.89	74.15	mPV (MOS) = 6.4,
													MLH (MOS) = 6.1,
													MLH (SRO) = 6.4.
26	BRA	ePn	15 37 08	+7.3							6.33	167.08	Albania
													41.98 N 19.0 E
													H = 15 35 24.7, h = 0 km (ISC).
26	BRA	eP	18 41 17	–3.7							54.12	43.65	Lake Baikal Region
	SPC	eP	18 41 08	+3.5							51.93	45.43	56.06 N 111.51 E
													H = 18 31 53.0, h = 4 km,
													Mag = 5.1 (ISC).
													mPV (MOS) = 5.5,
													MLH (MOS) = 5.3.
28	BRA	eP	10 49 18	+0.2							92.61	296.29	Near Coast of Oaxaca
	SRO	eP	10 49 23	+1.1							93.50	257.19	15.31 N 94.75 W
		ePP	53 10	+1.0									H = 10 36 08, h = 27 km,
		Lm	11 29				7.4	18.0	8.5	18.0			Mag = 5.6 (ISC).
													mPV (MOS) = 6.5,
													MLH (MOS) = 6.3.
28	BRA	ePKIKP	16 49 14	(–0.6)							126.13	53.61	Solomon Islands
													6.78 S 156.21 E
													H = 16 30 33.5, h = 180 km,
													Mag = 5.7 (ISC).
													mPV (MOS) = 5.9.

December 1968

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
01	BRA	eP	13 28 35	+1.5							99.03	264.35	Peru
													10.54 S 74.81 W
													H = 13 14 55, h = 33 km,
													Mag = 5.4 (ISC).
02	BRA	eP	02 44 05	–0.4							62.18	172.63	Zambia
	SPC	iP	02 44 14	+5.7							63.00	176.10	14.01 S 23.82 E
													H = 02 23 42.4, h = 15 km,
													Mag = 5.9 (ISC).
													M (MOS) = 5.5.
03	BRA	iPn	20 58 30	–2.1							3.78	165.23	Yugoslavia
		iPg	58 47	+0.2									44.51 N 18.45 E
		eSn	59 15	–3.2									H = 20 57 31.0, h = 5 km,
		eSg	59 32	–4.6									Mag = 4.6 (ISC).
	SRO	ePn	20 58 23	–1.4							3.31	178.30	M (MOS) = 5.5.
		ePg	58 33	–3.8									
		eSg	59 19	–1.0									
	HRB	ePn	20 58 31	–1.1							3.37	176.87	
		iSn	59 23	+4.8									
	SPC	ePn	20 58 46	–0.3							4.84	195.41	
04	BRA	eP	19 40 45	+8.0							13.76	144.31	Dodecanese Islands
													36.50 N 27.02 E
													H = 19 37 22, h = 32 km,
													Mag = 4.7 (ISC).
04	BRA	eP	21 50 54	–1.6							52.81	124.86	Carlsberg Ridge
													8.35 N 58.45 E
													H = 21 41 35, h = 58 km,
													Mag = 5.1 (ISC).

December 1968

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Ec	Remarks
05	BRA	eP	07 55 25	+0.6							13.63	144.41	Dodecanese Islands
		Lm	08 00				2.3	6.0	11.6	6.0			36.60 N 26.92 E
	SRO	+iP	07 55 14	–0.6							12.88	147.31	H = 07 52 11.1, h = 31 km,
		iS	57 44	+5.9									Mag = 5.4 (ISC).
		Lm	08 01				28.2	10.0	13.2	10.0			M (MOS) = 5.5.
	HRB	Lm	08 01.5				16,0	6.0	8.0	6.0	12.98	147.06	MLH (SRO) = 5.6, MLH (HRB) = 5.6.
05	BRA	eP	09 49 50	+1.2	470	1.4					26.27	321.26	Iceland Region
		Lm	10 03				16.6	12.0	66.6	12.0			63.95 N 21.75 W
	SRO	eP	09 49 55	–1.1							27.06	321.33	H = 09 44 11.4, h = 5 km,
		eS	54 43	+9.5									Mag = 5.5 (ISC).
													mPV (MOS) = 6.0,
													MLH (MOS) = 6.0,
													MLH (BRA) = 6.4,
													mPV (BRA) = 6.1.
05	BRA	ePn	22 34 00.5	–3.7							2.85	177.23	Yugoslavia
													45.32 N 17.30 E
													H = 22 33 21.6, h = 0 km (ISC).
07	SRO	ePP	05 17 55	+6.0							117.35	62.50	Bismarck Sea
		Lm	06 10				11.4	20.0	6.1	20.0			3.63 S 146.18 E
													H = 04 57 57.2, h = 74 km,
													Mag = 5.6 (ISC).
													mPV (MOS) = 6.0,
													MLH (MOS) = 6.4,
													MLH (SRO) = 6.5.
07	BRA	eP	15 53 01	+1.6							79.03	13.45	Rat Islands, Aleutian Islands
		epP	53 11	–0.4									
	SRO	eP	15 53 03	+2.8							79.18	14.18	51.50 N 175.68 E
	SPC	eP	15 52 53	+1.1							77.52	15.44	H = 15 40 58.1, h = 37 km,
													Mag = 5.4 (ISC).
													MLH (MOS) = 5.5.
07	BRA	eP	15 58 42	–2.0							79.05	13.45	Rat Islands, Aleutian Islands
													51.48 N 175.68 E
													H= 15 46 41, h = 25 km,
													Mag = 5.1 (ISC).
07	BRA	ePKIKP	21 55 14	0.0							144.57	48.87	New Hebrides
		epPKIKP	55 31	–5.0									20.62 S 169.32 E
	SRO	ePKIKP	21 55 15	+3.7							144.18	50.08	H = 21 35 46.9, h = 79 km,
	SPC	ePKIKP	21 55 12	+4.0							142.32	51.95	Mag = 5.6 (ISC).
11	BRA	eP	11 57 45	+1.2							81.03	48.87	Shikoku, Japan
	SPC	eP	11 57 33	–0.1							78.78	51.12	33.60 N 134.06 E
													H = 11 45 32.0, h = 42 km,
													Mag = 5.4 (ISC).
													M (MOS) = 5.3.
11	SPC	ePKHKP	21 53 56	+9.0							151.71	32.97	South of Fiji
													23.95 S 176.13 W
													H = 21 34 11, h = 128 km,
													Mag = 5.1 (ISC).
12	BRA	ePKIKP	00 44 22	+5.4							145.70	25.78	Fiji Region
													16.0 S 177.66 W
													H = 00 24 39, h = 13 km,
													Mag = 5.1 (ISC).
12	BRA	ePKIKP	07 38 32	–1.5							145.60	26.01	Fiji Region
		epPKIKP	40 17	+3.3									15.95 S 177.82 W
	SPC	ePKP2	07 38 34	+2.1							143.72	30.27	H = 07 19 45.0, h = 424 km,
													Mag = 5.4 (ISC).

December 1968

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
14	BRA	eP	10 11 05	+0.6							79.06	13.42	Rat Islands, Aleutian Islands 51.48 N 175.73 E H = 09 59 02.5, h = 33 km, Mag = 5.3 (ISC). mPV (MOS) = 6.2, MLH (MOS) = 5.9.
15	BRA	eP	02 26 21	+1.7							79.00	13.32	Rat Islands, Aleutian Islands 51.66 N 175.86 E H = 02 14 17.8, h = 33 km, Mag = 5.8 (ISC). MLH (MOS) = 6.0.
	SRO	eP	02 26 23	+2.0							79.15	14.05	
	SPC	eP	02 26 14	+2.2							77.50	15.31	
15	BRA	eP	02 40 36	+2.7							78.88	13.36	Rat Islands, Aleutian Islands H = 02 28 31.9, h = 29 km, Mag = 5.4 (ISC). mPV (MOS) = 6.7, MLH (MOS) = 6.2.
	SPC	eP	02 40 29	+3.7							77.37	15.34	
17	BRA	iP	12 13 29	−0.3	750	1.4					71.73	354.71	Southern Alaska 60.15 N 152.82 W H = 12 02 14.8, h = 82 km, Mag = 6.0 (ISC). mPV (MOS) = 6.3, MLH (MOS) = 6.2, mPV (BRA) = 6.6.
		epP	13 53	−2.0									
		ePP	16 16	+15.0									
		eS	22 44	+3.0									
	SRO	iP	12 13 35	+4.0							72.15	355.35	
		isP	14 11	+4.1									
		iS	22 55	+10.6									
	SPC	eP	12 13 27	+3.4							70.87	356.33	
18	BRA	ePKIKP	20 22 53	+8.1							149.34	28.06	West of Tonga 19.86 S 177.66 W H = 20 03 44.9, h = 374 km, Mag = 5.6 (ISC).
	SPC	ePKIKP	20 22 49	+4.5							147.40	32.49	
19	BRA	−iP	05 25 15	−0.6							40.31	87.24	Hindu Kush Region 36.15 N 70.08 E H = 05 17 51.5, h = 148 km, Mag = 5.7 (ISC). mPV (MOS) = 6.0.
		ipP	25 48	0.0									
		ePP	27 06	+15.5									
	SRO	iP	05 25 11	+3.2							39.51	87.67	
		ipP	25 43	+2.2									
		ePPP	27 27	+11.5									
		eSS	34 11	+17.5									
	SPC	iP	05 25 02	+4.5							38.21	90.80	
19	BRA	−iP	15 27 30	−0.3							74.06	21.95	Near East Coast of Kamchatka 53.42 N 160.20 E H = 15 15 58.7, h = 51 km, Mag = 5.4 (ISC). mPV (MOS) = 5.8, MLH (MOS) = 6.0.
	SPC	eP	15 27 22	−1.9							72.30	23.84	
19	BRA	−iP	16 42 40	−0.4	1000	1.4					85.46	324.50	Southern Nevada Nuclear explosion "BENHAM". 37°13'53" N 116°28'25" W H = 16 30 00.0 (USAEC), Mag = 6.3 (ISC). mPV (BRA) = 6.8.
	SRO	eP	16 42 43	−1.5							86.20	325.37	
	SPC	iP	16 42 44	+1.5							85.78	326.68	
21	BRA	eP	13 10 21	+0.1							79.77	38.29	Off East Coast of Honshu, Japan 40.66 N 143.82 E H = 12 58 14.0, h = 26 km, Mag = 4.8 (ISC). MLH (MOS) = 5.1.

Date	Code	Phase	GMT h m s	RES (O–C)	Z A	Z T	EW A	EW T	NS A	NS T	Dc	Az	Remarks
22	BRA	eP	09 16 49	+1.2							60.85	67.17	Tsinghai Province, China 36.25 N 101.83 E H = 09 06 35, h = 21 km, Mag = 5.5 (ISC). MLH (MOS) = 5.2.
22	BRA	eP epP	16 56 28 56 35	+0.6							75.63	354.80	Kodiak Island Region 56.30 N 153.84 W H = 16 44 43.5, h = 25 km, Mag = 5.4 (ISC). MLH (MOS) = 5.7.
24	BRA	eP	13 12 11	+0.3							85.10	68.39	Luzon, Philippine Islands 18.20 N 120.19 E H = 12 59 38.5, h = 47 km, Mag = 5.2 (ISC). MLH (MOS) ~ 5.0.
25	BRA	eP	04 08 38	+0.2							78.43	38.30	Hokkaido, Japan Region 41.77 N 142.84 E H = 03 56 39.2, h = 32 km, Mag = 5.3 (ISC). MLH (MOS) = 5.6.
25	BRA SPC	eP e eP	12 20 42 21 27 12 20 53	+3.4 +10 .9							14.22 14.50	155.21 166.56	Crete 34.99 N 24.31 E H = 12 17 19.1, h = 58 km, Mag = 5.0 (ISC).
29	BRA	eP	07 28 40	–2.9							88.61	71.16	Mindoro, Philippine Islands 13.63 N 120.40 E H = 07 15 53.6, h = 46 km, Mag = 5.2 (ISC). MLH (MOS) = 5.6.
30	BRA	ePKIKP	05 08 23	+4.4							147.22	17.29	Samoa Region 16.27 S 172.54 W H = 04 48 41.1, h = 33 km, Mag = 5.2 (ISC).
30	BRA	eP	07 14 48	+1.0							74.19	353.57	Kodiak Island Region 57.58 N 151.36 W H = 07 03 10.0, h = 19 km, Mag = 5.4 (ISC). MLH (MOS) = 5.0.
30	BRA SPC	eP e eP	10 33 05 34 28 10 33 07	0.0 +1.7							28.50	355.42	Svalbard Region 76.32 N 7.90 E H = 10 27 10.9, h = 24 km, Mag = 4.8 (ISC). MLH (MOS) = 5.5.

Observations of Microseisms at the Station Hurbanovo

Microseismic activity
Apparatus: Mainka EW

January 1968

Hurbanovo

GMT	00 h			06 h			12 h			18 h		
Date	K	T	A	K	T	A	K	T	A	K	T	A
1	0.0			0.0			2	4	1.7	2	4	1.7
2	2	3	1.8	2	4	1.7	2	4	1.7	2	4	1.7
3	1	4	3.5	2	4	3.5	2	6	4.9	2	6	1.6
4	2	6	1.6	2	6	4.9	2	6	4.9	2	3	1.8
5	0.0			0.0			0.0			2	3	1.8
6	2	3	1.8	2	3	1.8	2	4	3.5	2	4	1.7
7	2	4	3.5	2	4	3.5	2	3	1.8	2	4	1.7
8	2	4	3.5	2	4	3.5	2	6	4.9	2	6	4.9
9	2	4	1.7	2	6	3.2	2	6	3.2	2	6	3.2
10	2	3	1.8	2	3	1.8	...			...		
11	...			...			2	6	1.6	2	6	1.6
12	2	6	1.6	2	6	1.6	2	6	3.2	2	6	3.2
13	2	6	3.2	2	6	3.2	2	6	3.2	2	6	3.2
14	2	6	1.6	2	6	3.2	2	6	3.2	2	6	3.2
15	2	6	3.2	2	6	3.2	2	3	1.8	2	3	1.8
16	2	3	1.8	2	3	1.8	2	3	1.8	2	3	1.8
17	2	3	1.8	2	3	1.8	0.0			0.0		
18	0.0			0.0			0.0			0.0		
19	0.0			0.0			0.0			2	3	1.8
20	2	3	1.8	0.0			2	3	1.8	2	6	3.2
21	2	6	3.2	2	6	3.2	2	6	3.2	2	4	3.5
22	2	4	3.5	2	3	1.8	2	3	1.8	2	3	1.8
23	0.0			2	3	1.8	2	3	1.8	0.0		
24	0.0			0.0			2	6	3.7	2	4	3.5
25	2	3	1.8	2	3	1.8	2	4	3.5	2	4	3.5
26	2	6	1.8	2	4	3.5	2	4	3.5	2	4	3.5
27	2	3	1.8	2	4	3.5	2	4	3.5	2	4	3.5
28	2	4	3.5	2	4	5.2	2	8	6.3	2	8	8.2
29	2	6	4.9	2	6	4.9	2	4	3.5	2	4	3.5
30	2	3	1.8	2	3	1.8	2	3	1.8	2	3	1.8
31	2	3	1.8	2	3	1.8	2	3	1.8	2	3	1.8

Microseismic activity
Apparatus: Mainka NS

January 1968

Hurbanovo

GMT	00 h			06 h			12 h			18 h		
Date	K	T	A	K	T	A	K	T	A	K	T	A
1	0.0			0.0			2	3	1.7	2	3	1.7
2	2	3	1.7	2	3	1.7	2	4	3.1	2	4	3.1
3	2	4	3.1	2	4	3.1	2	6	4.2	2	6	4.2
4	2	6	4.2	2	4	3.1	2	6	4.2	2	6	4.2
5	2	3	1.7	2	3	1.7	2	3	3.4	2	3	3.4
6	2	3	3.4	2	3	3.4	1	4	3.1	1	3	1.7
7	0.0			1	3	1.7	2	3	1.7	2	3	1.7
8	2	3	1.7	2	3	1.7	2	4	4.6	2	6	4.2
9	3	3	1.7	2	4	3.1	2	6	2.6	2	6	2.6
10	2	3	1.7	2	3	1.7	...			...		
11	...			...			2	6	4.2	2	6	4.2
12	0.0			2	3	1.7	2	6	4.2	2	6	2.6
13	2	4	1.6	2	4	1.6	2	4	1.6	2	4	3.1
14	2	4	1.6	2	4	1.6	2	4	3.1	2	4	3.1
15	2	6	2.6	2	6	2.6	2	6	4.2	2	6	4.2
16	2	4	1.6	2	6	2.6	2	3	1.7	2	3	1.7
17	2	3	1.7	2	3	1.7	2	4	1.6	0.0		
18	0.0			0.0			2	3	1.7	2	3	1.7
19	2	3	1.7	2	3	1.7	2	3	1.7	0.0		
20	0.0			0.0			2	3	1,7	2	3	1.7
21	2	3	1.7	2	3	1.7	2	3	1.7	2	3	1.7
22	2	3	1.7	2	3	1.7	0.0			0.0		
23	0.0			0.0			2	3	1.7	2	3	1.7
24	2	3	1.7	2	3	1.7	2	3	1.7	2	3	1.7
25	2	3	1.7	2	3	1.7	2	4	3.1	2	4	3.1
26	2	4	3.1	2	4	3.1	2	6	2.6	2	6	2.6
27	2	3	1.7	2	3	1.7	2	3	1.7	2	3	1.7
28	2	3	1.7	2	3	1.7	2	4	3.1	2	4	3.1
29	2	4	3.1	2	4	3.1	2	3	1.7	2	3	1.7
30	0.0			2	3	1.7	2	3	1.7	2	3	1.7
31	2	3	1.7	0.0			2	3	1.7	2	3	1.7

Microseismic activity
Apparatus: Mainka EW

February 1968

Hurbanovo

GMT	00 h			06 h			12 h			18 h		
Date	K	T	A	K	T	A	K	T	A	K	T	A
1	1	3	1.8	1	3	1.8	1	3	1.8	0.0		
2	1	3	1.8	0.0			0.0			0.0		
3	0.0			0.0			0.0			0.0		
4	1	3	1.8	1	4	1.7	1	3	1.8	1	6	3.1
5	2	6	3.1	2	6	3.1	2	6	4.9	2	4	3.4
6	2	3	1.8	2	4	3.4	2	4	3.4	2	4	3.4
7	2	4	3.4	2	4	3.4	0.0			0.0		
8	0.0			0.0			0.0			0.0		
9	0.0			2	3	1.8	0.0			0.0		
10	0.0			0.0			0.0			2	3	1.8
11	2	3	1.8	2	3	1.8	2	6	3.1	2	6	7.9
12	2	6	7.4	tt			2	6	4.9	2	4	3.4
13	2	4	3.4	2	4	3.2	2	6	4.9	2	6	4.9
14	2	3	1.8	2	4	3.4	2	6	3.1	2	6	3.9
15	0.0			2	4	3.4	2	6	3.1	2	6	3.1
16	2	6	3.1	2	6	4.9	2	6	3.1	0.0		
17	2	3	1.8	2	3	1.8	2	3	1.8	2	3	1.8
18	2	3	1.8	2	3	1.8	2	3	1.8	2	3	1.8
19	2	3	1.8	2	3	1.8	2	3	1.8	2	3	1.8
20	2	3	1.8	2	3	1.8	0.0			0.0		
21	0.0			0.0			2	3	1.8	2	3	1.8
22	2	3	1.8	2	3	1.8	2	4	5.2	2	4	5.2
23	2	4	5.2	2	4	5.2	2	4	3.4	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			tt			0.0		
27	0.0			0.0			2	3	1.8	0.0		
28	0.0			0.0			2	3	1.8	0.0		
29	2	4	3.4	2	4	3.4	2	4	3.4	2	4	3.4

Microseismic activity
Apparatus: Mainka NS

February 1968

Hurbanovo

GMT	00 h			06 h			12 h			18 h		
Date	K	T	A	K	T	A	K	T	A	K	T	A
1	0.0			1	3	1.7	1	3	1.7	0.0		
2	0.0			0.0			0.0			1	3	1.7
3	1	3	1.7	0.0			0.0			0.0		
4	0.0			0.0			2	4	3.1	2	4	3.1
5	2	6	2.6	2	4	3.1	2	6	4.2	2	6	2.6
6	2	3	1.7	2	4	3.1	2	4	3.1	0.0		
7	0.0			2	3	1.7	2	3	1.7	2	3	1.7
8	2	3	1.7	2	3	1.7	0.0			0.0		
9	0.0			0.0			2	3	1.7	0.0		
10	0.0			0.0			2	3	1.7	2	3	1.7
11	2	3	1.7	0.0			2	6	4.2	2	6	4.2
12	2	6	4.2	tt			2	6	2.6	2	4	3.1
13	0.0			2	4	3.1	3	6	6.3	2	6	2.6
14	2	6	2.6	2	6	2.6	2	6	2.6	2	6	2.6
15	2	6	2.6	2	6	2.6	2	6	6.3	2	6	6.3
16	2	4	1.5	2	4	3.1	2	6	4.2	2	3	1.7
17	2	3	1.7	2	3	1.7	0.0			0.0		
18	0.0			0.0			0.0			0.0		
19	0.0			0.0			2	3	3.4	2	3	3.4
20	2	3	3.4	2	3	3.4	2	3	1.7	2	3	1.7
21	2	3	1.7	2	3	1.7	0.0			0.0		
22	0.0			0.0			2	3	3.4	2	3	3.4
23	2	3	3.4	2	3	3.4	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			tt			0.0		
27	0.0			0.0			2	3	1.7	0.0		
28	0.0			0.0			2	4	3.1	2	4	3.1
29	2	4	3.1	2	4	3.1	2	4	3.1	2	4	3.1

Microseismic activity
Apparatus: Mainka EW

March 1968

Hurbanovo

GMT	00 h			06 h			12 h			18 h		
Date	K	T	A	K	T	A	K	T	A	K	T	A
1	2	3	1.8	2	3	1.8	2	4	3.5	0.0		
2	0.0			2	4	3.5	2	6	3.2	2	6	3.2
3	2	4	3.5	2	6	3.2	2	3	1.8	2	3	1.8
4	2	3	1.8	2	3	1.8	2	6	3.2	2	6	4.9
5	2	4	3.5	2	6	3.2	2	6	4.9	2	6	4.9
6	2	6	3.2	2	6	4.9	2	6	4.9	2	6	4.9
7	2	6	3.2	2	6	3.2	2	3	1.8	2	3	1.8
8	0.0			0.0			1	3	1.8	1	3	1.8
9	1	3	1.8	1	3	1.8	2	6	4.9	2	6	4.9
10	2	6	3.2	2	6	3.2	2	4	3.5	2	3	1.8
11	2	3	1.8	2	3	1.8	0.0			0.0		
12	0.0			0.0			0.0			0.0		
13	0.0			0.0			2	4	3.5	2	4	3.5
14	2	6	3.2	2	6	3.2	2	6	3.2	2	6	3.2
15	2	4	3.5	2	4	3.5	2	6	3.2	2	4	1.7
16	0.0			2	4	3.5	2	6	3.2	2	6	3.2
17	2	6	3.2	2	6	3.2	2	8	3.2	2	6	3.2
18	2	6	3.2	2	6	3.2	2	8	3.2	2	6	3.2
19	2	6	3.2	2	6	3.2	2	6	3.2	2	6	3.2
20	2	4	1.7	2	4	3.5	2	6	3.2	2	6	3.2
21	0.0			0.0			0.0			0.0		
22	0.0			0.0			0.0			0.0		
23	0.0			0.0			2	4	3.5	2	4	3.5
24	2	4	3.5	2	4	3.5	2	4	3.5	2	4	3.5
25	2	4	3.5	2	4	3.5	2	4	3.5	2	4	3.5
26	0.0			0.0			0.0			0.0		
27	0.0			0.0			0.0			0.0		
28	0.0			0.0			2	6	3.2	2	6	3.2
29	2	6	3.2	2	6	3.2	2	3	1.8	0.0		
30	0.0			0.0			0.0			0.0		
31	0.0			0.0			0.0			0.0		

Microseismic activity
Apparatus: Mainka NS

March 1968

Hurbanovo

GMT	00 h			06 h			12 h			18 h		
Date	K	T	A	K	T	A	K	T	A	K	T	A
1	0.0			0.0			2	3	1.7	2	3	1.7
2	0.0			2	4	3.1	2	4	3.1	2	4	3.1
3	0.0			0.0			0.0			0.0		
4	0.0			0.0			2	6	2.6	2	6	2.6
5	2	3	1.7	2	6	2.6	2	6	6.3	2	6	2.6
6	2	6	2.6	2	6	6.3	2	5	4.1	2	5	4.1
7	2	3	3.4	2	3	3.4	2	4	3.1	2	4	3.1
8	0.0			0.0			2	5	4.1	2	5	2.8
9	0.0			2	5	2.8	2	6	4.2	2	3	1.7
10	2	3	1.7	2	3	1.7	2	3	1.7	2	3	1.7
11	2	3	1.7	2	3	1.7	2	3	1.7	2	3	1.7
12	0.0			0.0			2	3	1.7	2	3	1.7
13	2	3	1.7	2	3	1.7	2	4	3.1	2	4	3.1
14	2	4	3.1	2	4	3.1	1	6	4.2	2	6	4.2
15	2	4	1.6	2	4	3.1	2	5	2.8	2	5	2.8
16	2	5	2.8	2	4	3.1	2	4	3.1	2	4	3.1
17	2	4	3.1	2	4	3.1	2	6	1.2	2	6	1.2
18	2	6	1.2	2	6	1.2	2	6	2.6	2	6	2.6
19	2	4	3.1	2	6	2.6	2	3	1.7	2	3	1.7
20	2	3	1.7	2	3	1.7	2	6	2.6	2	6	2.6
21	2	3	3.4	2	3	3.4	2	3	3.4	2	3	3.4
22	0.0			0.0			2	3	3.4	2	3	3.4
23	0.0			2	3	3.4	2	4	3.1	2	4	3.1
24	2	4	3.1	2	4	3.1	2	4	3.1	2	4	3.1
25	2	4	3.1	2	4	3.1	2	4	3.1	2	6	2.6
26	0.0			2	3	1.7	2	4	3.1	2	4	3.1
27	2	4	3.1	2	4	3.1	0.0			0.0		
28	0.0			2	4	3.1	2	6	5.1	2	6	5.1
29	2	6	4.2	2	6	5.1	2	6	4.2	2	6	4.2
30	0.0			2	3	1.7	0.0			0.0		
31	0.0			0.0			0.0			0.0		

Microseismic activity
Apparatus: Mainka EW

April 1968

Hurbanovo

GMT	00 h			06 h			12 h			18 h		
Date	K	T	A	K	T	A	K	T	A	K	T	A
1	1	3	1.8	1	4	3.4	1	4	3.4	1	4	3.4
2	1	4	3.4	1	6	3.1	1	6	3.1	2	6	3.1
3	0.0			0.0			2	3	1.8	2	3	1.8
4	0.0			2	3	3.1	2	6	3.1	2	4	3.4
5	2	3	1.8	2	3	1.8	2	6	4.6	2	6	4.6
6	2	4	3.4	2	4	3.4	2	6	4.6	2	6	4.6
7	2	4	1.7	2	4	3.4	0.0			0.0		
8	0.0			0.0			0.0			0.0		
9	0.0			0.0			2	1	1.8	0.0		
10	0.0			0.0			0.0			0.0		
11	0.0			0.0			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			2	3	1.8	2	3	1.8	2	3	1.8
15	2	3	1.8	2	3	1.8	0			0		
16	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		
22	0			0			0			0		
23	0			0			0			0		
24	0			0			0			2	3	1.8
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		
30	0			0			0			0		

Microseismic activity
Apparatus: Mainka NS

April 1968

Hurbanovo

GMT	00 h			06 h			12 h			18 h		
Date	K	T	A	K	T	A	K	T	A	K	T	A
1	1	4	3.1	2	4	3.1	2	4	3.1	2	4	3.1
2	2	4	3.1	2	4	3.1	2	6	3.9	2	6	3.9
3	2	4	1.5	2	6	2.6	2	6	2.6	2	6	2.6
4	2	4	1.5	2	6	2.6	2	3	1.7	2	3	1.7
5	2	3	1.7	2	3	1.7	2	6	2.6	2	6	3.9
6	2	3	1.7	2	4	3.1	2	4	3.1	2	4	3.1
7	2	4	3.1	2	4	3.1	2	3	1.7	2	3	1.7
8	2	3	1.7	2	3	1.7	...			...		
9	...			...			0.0			0		
10	0.0			0.0			0.0			0.0		
11	0.0			0.0			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		
15	0			0			...			...		
16	...			...			0.0			0		
17	0			0			0.0			0		
18	0			0			0.0			0.0		
19	0.0			0.0			2	3	1.7	1	3	1.7
20	0.0			2	3	1.7	0			0		
21	0			0			0			0		
22	0			0			2	3	1.7	0.0		
23	0			0			0			0		
24	0			0			0.0			1	3	1.7
25	0			0			0.0			0.0		
26	0.0			0.0			0.0			0.0		
27	2	3	1.7	2	3	1.7	...			...		
28	...			...			...			...		
29	...			...			2	3	1.7	2	3	1.7
30	2	3	1.7	2	3	1.7	0.0			0		

Microseismic activity
Apparatus: Mainka EW

May 1968

Hurbanovo

GMT	00 h			06 h			12 h			18 h		
Date	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			2	3	1.6
5	2	3	1.6	0.0			0.0			0		
6	2	3	1.6	2	3	1.6	2	6	2.8	2	4	3.1
7	2	4	3.1	2	4	3.1	2	3	1.6	2	3	1.6
8	2	3	1.6	2	3	1.6	0			0		
9	0.0			0.0			...			...		
10	...			...			2	3	1.6	0.0		
11	0.0			2	3	1.6	2	4	1.6	2	4	1.6
12	2	4	1.6	2	4	1,6	2	4	1.6	2	3	1.6
13	2	3	1.6	2	3	1.6	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			0.0			0.0			0.0		
22	0.0			0.0			0.0			0.0		
23	0.0			0.0			0			0		
24	0			0			0			0		
25	0			0			0			0.0		
26	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
Apparatus: Mainka NS

May 1968

Hurbanovo

GMT	00 h			06 h			12 h			18 h		
Date	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			2	3	1.6	2	3	1.6
4	0.0			2	3	1.6	2	3	1.6	2	3	1.6
5	2	3	1.6	2	3	1.6	0			0		
6	0			0			2	6	2.8	2	6	2.8
7	2	4	1.5	2	3	1.6	2	3	1.6	2	3	1.6
8	2	3	1.6	2	3	1,6	2	3	3.1	3	3	3.1
9	2	4	2.9	2	4	2.9	0.0			0.0		
10	0.0			0.0			0.0			0.0		
11	0.0			0.0			2	3	1.6	2	3	1.6
12	2	3	1.6	2	3	1.6	2	3	1.6	2	3	1.6
13	2	3	1.6	2	3	1.6	2	4	2.9	2	3	1.6
14	0			0			2	4	2.9	2	4	2.9
15	0.0			2	3	1.6	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			2	3	1.6	0.0		
21	0.0			0.0			0.0			0.0		
22	0.0			0.0			0			0		
23	0.0			0.0			0			0		
24	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			2	3	1.6	2	3	1.6
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
Apparatus: Mainka EW

June 1968

Hurbanovo

GMT	00 h			06 h			12 h			18 h		
Date	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		
3	0			0			0.0			0.0		
4	0.0			0.0			0.0			0.0		
5	0.0			0.0			2	3	1.6	0.0		
6	0			0.0			0.0			0.0		
7	0.0			0.0			tt			0.0		
8	0.0			0.0			0.0			0.0		
9	0.0			0			0			0.0		
10	0.0			0.0			0			0		
11	0			0			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			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			0.0			0.0			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			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		

Microseismic activity
Apparatus: Mainka NS

June 1968

Hurbanovo

GMT	00 h			06 h			12 h			18 h		
Date	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	3	1.9	2	3	1.9
3	0.0			0.0			0.0			0.0		
4	0.0			0.0			0.0			0.0		
5	0.0			2	3	1.9	0			0		
6	0			0			2	3	1.9	2	3	1.9
7	2	3	1.9	2	3	1.9	tt			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			0.0			0.0		
11	0.0			0.0			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			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			2	3	1.9	2	3	1.9
21	0.0			0.0			0.0			0.0		
22	0.0			0.0			0.0			0.0		
23	0.0			1	3	1.9	1	3	1.9	0.0		
24	0.0			1	3	1.9	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		

Microseismic activity
Apparatus: Mainka EW

July 1968

Hurbanovo

GMT	00 h			06 h			12 h			18 h		
Date	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			0.0		
5	0.0			0.0			tt			0.0		
6	0.0			2	3	1.6	2	3	1.6	2	3	1.6
7	2	3	1.6	0.0			0.0			0.0		
8	0.0			0.0			2	3	1.6	2	3	1.6
9	2	3	1.6	2	3	1.6	2	3	1.6	0		
10	0			0			2	3	1.6	2	3	1.6
11	2	3	1.6	2	3	1.6	0.0			0.0		
12	0.0			0.0			2	3	1.6	2	3	1,6
13	2	3	1.6	2	3	1.6	2	3	1.6	2	3	1.6
14	2	3	1.6	2	3	1.6	2	3	1.6	2	3	1.6
15	0.0			2	3	1.6	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			2	3	1.6	0.0		
19	0.0			2	3	1.6		2	3	1.6	...	
20	...			...			2	3	1.6	2	3	1.6
21	0.0			2	3	1.6	2	3	1.6	2	3	1.6
22	2	3	1.6	2	3	1.6	2	3	1.6	tt		
23	2	3	1.6	2	3	1.6	2	3	1.6	2	3	1.6
24	2	3	1.6	2	3	1.6	2	3	1.6	2	3	1.6
25	2	3	1.6	2	3	1.6	2	3	1.6	2	3	1.6
26	2	3	1.6	2	3	1.6	0.0			2	3	1.6
27	0.0			2	3	1.6	0.0			0.0		
28	0.0			2	3	1.6	0.0			0.0		
29	2	3	1.6	2	3	1.6	2	3	1.6	0.0		
30	tt			2	3	1.6	2	3	1.6	2	3	1.6
31	2	3	1.6	2	3	1.6	2	3	1.6	2	3	1.6

Microseismic activity
Apparatus: Mainka NS

July 1968

Hurbanovo

GMT	00 h			06 h			12 h			18 h		
Date	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			0.0		
5	0.0			0.0			0.0			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			2	3	1.9	2	3	1.9
10	2	3	1.9	2	3	1.9	0.0			0.0		
11	0.0			0.0			2	3	1.9	2	3	1.9
12	2	3	1.9	2	3	1.9	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			0.0		
16	0.0			0.0			0.0			0.0		
17	0.0			0.0			2	3	1.9	2	3	1.9
18	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
19	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
20	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
21	0.0			0.0			2	3	1.9	2	3	1.9
22	2	3	1.9	2	3	1.9	2	3	1.9	tt		
23	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
24	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
25	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
26	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
27	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
28	2	3	1.9	2	3	1.9	2	3	1.9	0.0		
29	0.0			2	3	1.9	2	3	1.9	2	3	1.9
30	tt			2	3	1.9	2	3	1.9	0.0		
31	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9

Microseismic activity
Apparatus: Mainka EW

August 1968

Hurbanovo

GMT	00 h			06 h			12 h			18 h		
Date	K	T	A	K	T	A	K	T	A	K	T	A
1	2	3	1.6	2	3	1.6	2	3	1.6	2	3	1.6
2	2	3	1.6	2	3	1.6	2	3	1.6	2	3	1.6
3	2	3	1.6	tt			2	3	1.6	0.0		
4	2	3	1.6	0.0			0.0			2	4	3.1
5	2	4	3.1	2	3	1.6	2	4	3.1	2	4	3.1
6	0.0			2	4	3.1	0.0			0.0		
7	0.0			0.0			0.0			0.0		
8	0.0			0.0			2	3	1.6	2	3	1.6
9	0.0			0.0			2	4	3.1	2	3	1.6
10	2	4	3.1	0.0			2	4	1.6	2	4	3.1
11	2	3	1.6	0.0			2	4	1.6	2	3	1.6
12	2	4	3.1	2	4	3.1	2	3	1.6	0.0		
13	2	3	1.6	2	3	1.6	2	4	3.1	2	4	3.1
14	0.0			2	4	3.1	2	3	1.6	2	3	1.6
15	2	3	1.6	2	3	1.6	2	3	1.6	2	4	3.1
16	...			...			2	4	3.1	2	4	3.1
17	2	4	3.1	2	4	3.1	2	4	3.1	2	4	3.1
18	2	4	3.1	2	4	3.1	tt			0.0		
19	0.0			0.0			0.0			0.0		
20	2	3	1.6	2	3	1.6	2	3	1.6	2	3	1.6
21	2	3	1.6	2	3	1.6	2	3	1.6	2	3	1.6
22	2	3	1.6	2	3	1.6	2	3	1.6	2	3	1.6
23	0.0			2	3	1.6	2	3	1.6	2	3	1.6
24	2	3	1.6	2	3	1.6	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			2	3	1.6	0.0			0.0		

Microseismic activity
Apparatus: Mainka NS

August 1968

Hurbanovo

GMT	00 h			06 h			12 h			18 h		
Date	K	T	A	K	T	A*	K	T	A	K	T	A
1	2	3	1.9	0.0			2	3	1.9	2	3	1.9
2	2	3	1.9	2	3	1.9	0.0			0.0		
3	0.0			tt			2	3	1.9	2	3	1.9
4	2	3	1.9	2	3	1.9	0.0			2	3	1.9
5	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
6	0.0			2	3	1.9	2	3	1.9	2	3	1.9
7	2	3	1.9	2	3	1.9	0.0			0.0		
8	0.0			0.0			2	3	1.9	2	3	1.9
9	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
10	2	3	1.9	2	4	3.6	2	3	1.9	2	3	1.9
11	2	3	1.9	2	3	1.9	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			2	3	1.9	2	3	1.9
15	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
16	...			...			2	3	1.9	0.0		
17	0.0			0.0			0.0			0.0		
18	0.0			0.0			tt			0.0		
19	0.0			0.0			2			0.0		
20	2	3	1.9	2	3	1.9	0.0			0.0		
21	0.0			0.0			2	3	1.9	2	3	1.9
22	2	3	1.9	2	3	1.9	0.0			0.0		
23	0.0			0.0			0.0			0.0		
24	0.0			0.0			2	3	1.9	2	3	1.9
25	2	3	1.9	2	3	1.9	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			2	3	1.9	2	3	1.9
31	0.0			2	3	1.9	0.0			0.0		

Microseismic activity
Apparatus: Mainka EW

September 1968

Hurbanovo

GMT	00 h			06 h			12 h			18 h		
Date	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	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
4	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
5	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
6	2	3	1.9	2	3	1.9	0.0			0.0		
7	0.0			0.0			2	3	1.9	2	3	1.9
8	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
9	2	3	1.9	2	3	1.9	0.0			0.0		
10	0.0			0.0			2	3	1.9	2	3	1.9
11	2	3	1.9	2	3	1.9	...			...		
12	...			...			2	4	3.7	2	3	1.9
13	2	3	3.6	2	3	3.6	0.0			0.0		
14	0.0			0.0			2	3	1.9	2	3	1.9
15	0.0			0.0			2	3	1.9	2	3	1.9
16	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
17	2	3	1.9	2	3	1.9	2	4	3.7	0.0		
18	2	4	3.7	2	4	3.7	0.0			0.0		
19	2	3	1.9	2	4	3.7	2	3	1.9	0.0		
20	2	3	1.9	tt			2	3	1.9	2	3	1.9
21	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
22	2	3	1.9	2	3	1.9	2	3	1.9	0.0		
23	0.0			0.0			2	3	1.9	0.0		
24	0.0			0.0			2	3	1.9	2	3	1.9
25	2	3	1.9	2	4	3.7	2	4	3.7	2	4	3.7
26	2	4	3.7	2	4	3.7	2	4	3.7	2	3	1.9
27	0.0			0.0			0.0			0.0		
28	tt			0.0			2	4	3.7	2	4	3.7
29	2	4	3.7	2	4	3.7	...			...		
30	...			...			2	3	1.9	2	3	1.9

Microseismic activity
Apparatus: Mainka NS

September 1968

Hurbanovo

GMT	00 h			06 h			12 h			18 h		
Date	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	3	1.9	0.0		
3	0.0			2	3	1.9	2	3	1.9	2	3	1.9
4	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
5	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
6	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
7	2	3	1.9	2	3	1.9	0.0			0.0		
8	2	3	1.9	2	3	1.9	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			2	3	1.9	2	3	1.9
12	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
13	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
14	2	3	1.9	2	3	1.9	0.0			0.0		
15	0.0			0.0			2	3	1.9	2	3	1.9
16	2	3	1.9	2	3	1.9	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			tt			0.0			0.0		
21	0.0			0.0			2	3	1.9	2	3	1.9
22	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
23	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
24	0.0			2	4	3.6	2	4	3.6	2	4	3.6
25	0.0			2	3	1.9	2	3	1.9	0.0		
26	0.0			2	3	1.9	2	3	1.9	2	3	1.9
27	2	3	1.9	2	3	1.9	2	4	3.6	2	4	3.6
28	tt			2	4	3.6	2	4	3.6	2	4	3.6
29	2	4	3.6	2	4	3.6	0.0			0.0		
30	0.0			0.0			0.0			0.0		

Microseismic activity
Apparatus: Mainka EW

October 1968

Hurbanovo

GMT	00 h			06 h			12 h			18 h		
Date	K	T	A	K	T	A	K	T	A	K	T	A
1	2	4	3.6	2	4	3.6	2	4	3.6	2	4	3.6
2	2	4	3.6	2	4	3.6	2	8	1.5	2	4	3.6
3	2	6	3.3	2	6	3.3	2	4	3.6	2	4	3.6
4	2	6	4.8	2	6	5.3	2	4	3.6	2	4	3.6
5	2	6	3.3	2	6	4.8	2	6	4.8	2	6	3.3
6	2	4	3.6	2	3	1.9	2	4	3.6	2	4	3.6
7	2	3	3.3	2	4	3.6	2	4	3.6	2	3	3.6
8	2	3	1.0	2	4	3.6	2	4	3.6	2	4	3.6
9	2	4	3.6	2	4	3.6	...			2	3	1.9
10	2	4	3.6	2	6	3.3	2	6	4.8	2	6	3.3
11	2	6	4.8	2	6	4.8	2	8	2.9	2	8	2.9
12	2	6	3.3	2	6	3.3	2	6	3.3	2	6	3.3
13	2	4	3.6	2	6	3.3	2	6	3.6	0.0		
14	0.0			0.0			0.0			0.0		
15	2	3	1.9	2	3	1.9	1	3	1.8	0.0		
16	2	3	1.9	2	3	1.9	0.0			0.0		
17	0.0			0.0			0.0			0.0		
18	0.0			0.0			2	4	3.6	2	4	3.6
19	2	4	3.6	2	4	3.6	2	3	1.9	2	3	1.9
20	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
21	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
22	2	3	1.9	2	3	1.9	2	4	3.6	2	4	3.6
23	2	3	1.9	2	3	1.9	2	4	3.6	2	4	3.6
24	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
25	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
26	2	3	1.9	0.0			2	3	3.7	2	6	3.7
27	0.0			0.0			2	3	1.9	2	3	1.9
28	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
29	2	3	1.9	2	3	1.9	tt			2	3	1.9
30	2	3	1.9	2	3	1.9	2	6	3.7	2	6	7.0
31	2	6	7.0	2	3	1.9	2	6	3.7	2	6	7.0

Microseismic activity
Apparatus: Mainka NS

October 1968

Hurbanovo

GMT	00 h			06 h			12 h			18 h		
Date	K	T	A	K	T	A	K	T	A	K	T	A
1	2	4	3.6	2	4	3.6	2	4	3.6	2	4	3.6
2	2	3	2.0	2	4	3.6	2	3	3.9	2	4	1.8
3	2	4	3.6	2	6	3.2	2	4	3.6	2	4	3.6
4	2	4	3.6	2	6	3.2	2	6	4.8	2	6	4.8
5	2	4	3.6	2	6	4.8	2	6	3.2	2	4	3.6
6	2	4	3.6	2	3	2.0	2	3	2.0	2	3	2.0
7	2	3	2.0	2	3	2.0	2	3	2.0	2	3	3.9
8	2	3	3.9	2	3	3.9	2	3	3.9	2	3	3.9
9	2	3	3.9	2	3	3.9	2	4	1.8	2	4	3.6
10	2	3	2.0	2	4	3.6	2	6	4.8	2	6	3.2
11	2	6	3.2	2	6	4.8	2	6	4.8	2	4	3.6
12	2	6	4.8	2	6	4.8	2	8	10.3	2	8	10.3
13	2	6	3.2	2	4	3.6	2	6	4.8	2	6	3.6
14	2	6	3.2	2	6	3.2	2	4	3.6	2	3	3.6
15	2	3	2.0	2	3	2.0	2	3	2.0	2	4	3.6
16	2	3	2.0	2	3	2.0	2	3	2.0	2	3	3.6
17	2	3	2.0	2	3	2.0	2	3	3.9	2	3	3.6
18	2	3	2.0	2	3	2.0	2	3	2.0	2	3	2.0
19	2	3	2.0	2	3	2.0	2	3	2.0	2	3	2.0
20	2	3	2.0	2	4	3.6	2	3	2.0	2	3	2.0
21	2	3	2.0	2	3	2.0	2	3	2.0	2	3	2.0
22	2	3	2.0	2	3	2.0	2	3	2.0	2	3	2.0
23	2	3	2.0	2	3	2.0	2	3	2.0	2	3	2.0
24	2	3	2.0	2	3	2.0	2	3	2.0	2	3	2.0
25	2	3	2.0	2	3	2.0	2	3	2.0	2	3	2.0
26	2	3	2.0	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			tt			0.0		
30	0.0			0.0			2	6	3.6	2	6	3.6
31	2	6	3.6	2	6	3.6	2	6	3.6	2	3	2.3

Microseismic activity
Apparatus: Mainka EW

November 1968

Hurbanovo

GMT	00 h			06 h			12 h			18 h		
Date	K	T	A	K	T	A	K	T	A	K	T	A
1	2	4	1.8	2	4	3.6	2	4	3.6	2	4	3.6
2	0.0			2	3	1.9	2	4	1.8	2	4	1.8
3	2	3	1.9	2	4	3.6	2	3	1.9	2	4	3.6
4	2	3	1.9	2	3	1.9	2	4	3.6	2	4	3.6
5	2	3	1.9	2	4	3.6	2	3	3.7	2	3	3.1
6	2	3	1.9	2	3	1.9	2	4	3.6	2	3	3.7
7	2	3	1.9	2	3	1.9	2	6	9.0	2	4	3.6
8	2	3	1.9	2	3	1.9	2	6	9.0	2	6	9.0
9	2	4	3.6	2	4	3.6	2	4	3.6	2	4	3.6
10	2	4	3.6	2	4	3.6	2	3	3.9	2	3	3.1
11	2	3	1.9	2	3	1.9	2	3	3.7	2	3	3.1
12	2	3	1.9	2	3	1.9	2	3	1.9	2	3	3.1
13	2	4	3.6	2	4	3.6	2	4	3.6	2	4	3.6
14	2	4	1.8	2	4	1.8	2	4	1.8	2	4	3.6
15	2	4	3.6	2	4	5.4	2	5	5.1	2	5	5.1
16	2	4	5.4	2	4	5.4	2	4	3.6	2	4	3.6
17	2	4	3.6	2	3	1.9	2	3	3.1	2	3	3.1
18	2	3	1.9	2	3	1.9	2	3	3.1	2	3	3.1
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			0.0		
22	0.0			0.0			0.0			0.0		
23	0.0			0.0			0.0			0.0		
24	0.0			0.0			2	3	3.1	0.0		
25	0.0			2	3	1.9	2	3	3.1	0.0		
26	0.0			0.0			2	4	3.6	2	3	3.1
27	0.0			2	6	7.2	2	6	7.2	2	6	7.2
28	2	4	3.6	2	6	7.2	2	6	7.2	2	6	7.2
29	2	3	1.9	2	3	1.9	0.0			0.0		
30	0.0			2	3	1.9	2	3	3.1	2	3	3.1

Microseismic activity
Apparatus: Mainka NS

November 1968

Hurbanovo

GMT	00 h			06 h			12 h			18 h		
Date	K	T	A	K	T	A	K	T	A	K	T	A
1	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
2	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
3	2	3	1.9	2	3	1.9	0.0			0.0		
4	0.0			2	3	1.9	2	4	3.5	2	4	3.5
5	0.0			2	4	3.5	2	4	3.5	2	4	3.5
6	2	4	3.5	2	4	3.5	2	4	3.5	2	4	3.5
7	2	4	1.9	2	3	1.9	2	4	3.5	2	6	2.9
8	2	4	3.5	2	3	1.9	2	3	1.9	2	3	1.9
9	2	4	2.5	2	3	1.9	2	3	1.9	2	3	1.9
10	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
11	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
12	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
13	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
14	2	3	1.9	2	3	1,9	2	3	1.9	2	3	1.9
15	2	3	1.9	2	4	7.0	2	6	4.5	2	6	4.5
16	2	4	3.5	2	5	2.7	2	4	5.7	2	4	5.7
17	2	4	1.8	2	3	1.9	2	3	3.9	2	3	3.9
18	2	3	3.9	2	3	3.9	2	4	3.5	2	4	3.5
19	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
20	2	3	1.9	2	3	1.9	2	3	1.9	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			0.0			0.0		
24	0.0			0.0			0.0			0.0		
25	0.0			0.0			2	3	1.9	2	3	1.9
26	2	3	1.9	2	3	1.9	2	4	3.5	2	4	3.5
27	2	3	1.9	2	4	3.5	2	4	3.5	2	4	3.5
28	2	3	1.9	2	4	5.7	2	3	1.9	2	3	1.9
29	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
30	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9

Microseismic activity
Apparatus: Mainka EW

December 1968

Hurbanovo

GMT	00 h			06 h			12 h			18 h		
Date	K	T	A	K	T	A	K	T	A	K	T	A
1	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
2	2	3	1.9	2	3	1.9	2	4	3.6	0.0		
3	2	4	3.6	2	4	5.1	2	6	3.2	2	6	3.2
4	2	3	1.9	2	3	1.9	2	3	3.7	2	3	1.9
5	0.0			2	3	1.9	0.0			0.0		
6	0.0			2	3	1.9	2	3	1.9	2	3	1.9
7	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
8	2	3	1.9	2	3	1.9	2	4	3.6	2	4	3.6
9	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
10	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
11	2	3	1.9	2	3	1.9	2	6	3.2	2	6	3.2
12	2	4	1.8	2	4	3.6	2	4	3.6	2	3	1.9
13	2	3	1.9	2	3	1.9	2	6	3.2	2	6	3.2
14	2	4	3.6	2	3	1.9	2	6	3.2	2	6	3.2
15	2	6	3.2	2	6	3.2	2	6	3.2	2	6	3.2
16	2	6	3.2	2	6	3.2	2	8	2.9	2	8	2.9
17	2	4	3.6	2	4	3.6	tt			2	8	2.9
18	2	6	3.2	2	6	3.2	2	6	9.7	2	6	9.7
19	2	6	9.7	2	6	9.7	2	3	3.7	2	3	3.7
20	2	3	3.7	2	3	3.7	2	6	3.2	2	6	3.2
21	2	3	3.2	2	6	3.2	2	6	4.8	2	6	4.8
22	2	6	4.8	2	6	4.8	2	8	5.8	2	8	5.4
23	2	6	3.2	2	6	3.2	2	8	4.4	2	8	4.4
24	2	4	3.6	2	6	4.8	2	4	3.6	2	4	3.6
25	2	4	3.6	2	4	3.6	2	4	3.6	2	4	3.6
26	2	4	3.6	2	4	3.6	2	4	3.6	2	4	3.6
27	2	4	3.6	2	4	3.6	2	4	3.6	2	4	3.6
28	2	4	3.6	2	4	3.6	2	3	1.9	2	3	1.9
29	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
30	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
31	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9

Microseismic activity
Apparatus: Mainka NS.

December 1968

Hurbanovo

GMT	00 h			06 h			12 h			18 h		
Date	K	T	A	K	T	A	K	T	A	K	T	A
1	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
2	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
3	2	3	1.9	2	3	1.9	2	6	3.2	2	3	1.9
4	0.0			2	3	1.9	2	3	3.9	2	4	3.6
5	2	3	1.9	2	3	1.9	0.0			0.0		
6	0.0			0.0			2	3	1.9	2	3	1.9
7	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
8	2	3	1.9	2	3	1.9	0.0			0.0		
9	0.0			0.0			0.0			0.0		
10	0.0			0.0			2	3	1.9	2	3	1.9
11	2	3	1.9	2	3	1.9	2	3	3.6	2	4	3.6
12	2	3	1.9	2	3	1.9	2	4	3.6	2	4	3.6
13	2	4	3.6	2	4	3.6	2	6	3.2	2	6	3.2
14	2	4	3.6	2	4	3.6	2	6	8.0	2	6	8.0
15	2	6	8.0	2	6	8.0	2	6	4.9	2	6	4.9
16	2	6	4.9	2	6	4.9	2	6	4.9	2	6	4.9
17	2	6	4.9	2	4	3.6	tt			2	4	3.6
18	2	4	3.6	2	4	3.6	2	6	16.0	2	4	16.0
19	2	6	8.0	2	6	8.0	2	4	3.6	2	4	3.6
20	2	3	1.9	2	3	1.9	2	6	4.9	2	6	4.9
21	2	4	3.6	2	4	3.6	2	6	3.2	2	6	3.2
22	2	6	3.2	2	6	3.2	2	6	4.9	2	6	4.9
23	2	6	4.9	2	6	4.9	2	6	4.9	2	6	4.9
24	2	4	3.9	2	4	3.6	2	4	3.6	2	4	3.6
25	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
26	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
27	2	3	1.9	2	3	1.9	2	4	3.6	2	4	3.6
28	2	3	1.9	2	3	1.9	2	3	1.9	2	3	1.9
29	2	3	1.9	2	3	1.9	...			...		
30	2	3	1.9	2	3	1.9	...			...		
31	...			...			...			...		

BULLETIN OF THE SLOVAK SEISMOGRAPHIC STATIONS
BRATISLAVA, ŠROBÁROVÁ, HURBANOVO AND SKALNATÉ PLESO
FOR THE YEAR 1968

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