

BULLETIN OF THE SLOVAK SEISMOGRAPHIC STATIONS FOR THE YEAR 1974

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**BULLETIN  
OF THE SLOVAK  
SEISMOGRAPHIC  
STATIONS**



**BRATISLAVA  
ŠROBÁROVÁ  
HURBANOV  
AND  
SKALNATÉ PLESO  
FOR THE YEAR 1974**

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Bulletin  
of the Slovak Seismographic  
Stations Bratislava, Šrobárová  
Hurbanovo and Skalnaté Pleso  
for the Year 1974

Editor

Klára Mrázová

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

The seismological bulletin for the year 1974 contains the results of the interpretation of records from the network of seismograph stations on the territory of Slovakia: Bratislava /central station/, Šrobárová, Hurbanovo and Skalnaté Pleso.

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

This annual bulletin contains the final analysis of the records and the completed and revised parameters of earthquakes and explosions. The sources of information regarding epicentres, origin times, depth of foci and shock magnitudes, frequently quoted are as follows: Bulletin of ISC, Vol. 11, 1974; Bulletin of BCIS, 1974; Quarterly Bulletin of the Academy of Sciences of the U.S.S.R., 1974. The time standard used throughout is Greenwich Mean Time.

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

The processing of data and numerical calculations were carried out according to a program compiled by Mrs. K. Mrázová, using the computer CDC 3300 in the Computing Centre, Bratislava.

For calculating the surface-wave magnitudes the standard calibrating functions [5] were used. Station corrections were ignored, as were the calculations of surface-wave magnitudes at distances less than  $6^\circ$ . Surface wave magnitudes were calculated for earthquakes with focal depths less or equal 80 km. The values of body-wave magnitudes from P waves in the distance interval [ $16^\circ$ ,  $100^\circ$ ] were calculated on the basis of Q functions [6]. The values of the amplitudes of short period P waves registered on the vertical component are given in nanometers while the values of AEW and ANS for calculating surface-wave magnitudes are given in micrometers.

An earthquake magnitude formula, giving the closest possible fit to surface-wave magnitudes determined by NEIS was developed for the station Šrobárová [8]. The value of station correction for Šrobárová is -0.22 and the standard error  $\pm 0.03$ . For the determination of magnitudes the station correction was not taken into consideration.

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

In preparing this bulletin the author has been in different parts assisted by Mrs. N. Hupková, Mrs. Z. Ferechová, Mrs. A. Stranovská and Mrs. J. Šajgalíková. The investigation of macroseismic observations of earthquakes felt on the territory of Slovakia was carried out by Mr. I. Brouček.

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

## The Program for Producing the Bulletin

The program has been written in USASI FORTRAN/MASTER [9]. It consists of one main program and 11 procedures. The theoretical travel-time tables [1-4] of important phases /p.12, 13/ are stored on a mass storage file; each phase /except the phases Pg, Pb, Pn and Sg, Sb, Sn/ requires 14 blocks /the block size being 1536 characters/, one block for the case of surface focus and 13 blocks for focal depths expressed in fractions of an Earth's radius / $R = 6338 \text{ km}$ /, measured from the base of the crust /Table 1/. The observed arrival times as well as amplitudes and periods of surface and body waves for all stations were punched on 80 column punched cards. When all punched cards were accumulated for the whole year, they were transferred and stored on a mass storage file.

The program contains the following procedures:

- "DIAZ" for calculating the epicentral distances and azimuths of the observing stations
- "USP" for arranging the epicentral distances into ascending order
- "PAG" for the layout of the Bulletin
- "HL" converts the depth of foci given in km into fraction of Earth's radius and according to this value is then determined the number of block on the mass storage file, where the theoretical travel-times are stored
- "QML" for determination of surface-wave magnitudes according the "Prague" formula /Vaněk et al., 1962/. Station corrections are ignored, as are observations at distances less than  $6^\circ$ . MLH is calculated only when the focal depth  $h < 80 \text{ km}$

"QMPV" for calculation of body-wave magnitudes on the basis of Q functions [ 6 ], stored on mass storage file in digital form. Body-wave magnitudes are calculated for the distance range [ 16°, 100° ]

Subroutine designated as "PHI", for automatic phase identification. According this subroutine the travel-time for each phase is compared with all possible theoretical travel-times. From all possible phases it is determined and printed that one, which has the minimum value of |O-C|. In the case when the minimum value of |O-C|  $\geq$  20.0 s the observed phase is printed without phase-identification, i.e. only the observed time is printed and designated by letter i or e. A disadvantage of this subroutine is, that in cases when no other phase fits better according to |O-C|, there are printed two identical phases /except the P phase/ e.g. two pP phases. In these cases it should be considered as a real phase that one which has smaller residual |O-C|.

"PHI1" distance range [ 8°, 105° ]

"PHI2" [ 0°, 8° ] and  $h \leq 33$  km, or when there is no depth determination

"PHI3"  $\Delta \geq 110^\circ$

"PHI4"  $\Delta < 8^\circ$  and  $h > 33$  km

"PHI5"  $105^\circ \leq \Delta < 110^\circ$

The listing of the whole program may be obtained on request from the author.

## List of Seismic Phases

Phase		
In Bulletin	Usual	
PN,SN	Pn,Sn	longitudinal and transverse waves refracted below the crust
PG,SG	Pg,Sg	waves in the upper crust
PB,SB	Pb,Sb	waves in the lower crust
P,S	P,S	direct longitudinal or transverse waves propagating in the mantle
PKIKP	PKIKP	direct longitudinal wave propagating through the inner core, travel-time branch DF [ 1 ]
PKHKP	PKHKP	direct longitudinal wave refracted in the intermediate zone between the inner and outer core; phase symbol according to Bolt [ 4 ], travel-time branch GH
PKP2	PKP2	direct longitudinal wave propagating only through the outer core, travel-time branch AB [ 1 ]
PP	PP	P waves reflected once at the Earth's surface
PCP	PcP	P waves reflected at the Earth's core boundary
SCS	ScS	S waves reflected at the Earth's core boundary
SKS	SKS	S waves passing through the core P waves
SKSDE	SKS	transformed back into S waves in the mantle;

the letter DE designates the branch DE according to [1]

PKSAB	PKS	P wave transformed into S on the refraction
PKSBC	PKS	when leaving the core; AB, BC and DF
PKSDF	PKS	designate the branches according to [1]
SKPAB	SKP	S wave transformed into P on the refraction
SKPBC	SKP	when leaving the core; AB, BC and DF
SKPDF	SKP	designate the branches according to [1]
PS,SP	PS,SP	P and S waves reflected and transformed at the Earth's surface
SS	SS	S waves reflected once at the Earth's surface
AP	pP	P waves reflected from the surface as P waves, supposing deep focus earthquake
XP	sP	S waves reflected from the surface as P waves, supposing deep focus earthquake
XS	sS	S waves reflected from the surface as S waves, supposing deep focus earthquake
APKP	pPKP	PKP waves reflected from the surface, supposing deep-focus earthquake
APKIKP	pPKIKP	PKIKP waves reflected from the surface, supposing deep-focus earthquake
APKIKP	pPKP2	PKP2 waves reflected from the surface, supposing deep-focus earthquake
APKIKP	pPKHKP	PKHKP waves reflected from the surface, supposing deep-focus earthquake
PDIFF	Pdif	P waves diffracted on the core boundary
PKPEX	-	PKIKP waves [extrapolation of travel-times for the distance range (105, 110)]
LMH,LMV	Lm	waves of maximum amplitude in the surface wave group, on the horizontal or vertical component

Table 1

Number of blocks on mass storage file	Phase	Distance range	Transformed distance range
1 - 14	P	0 - 105	1 - 106
15 - 28	PKIKP	106 - 108	1 - 75
29 - 42	PKP2	143 - 180	1 - 38
43 - 56	PKHKP	125 - 156	1 - 32
57 - 70	S	0 - 107	1 - 108
71 - 84	SKS	62 - 180	1 - 118
85 - 98	SKSDE	99 - 133	1 - 35
99 - 112	PP	0 - 180	1 - 181
113 - 126	pP	1 - 105	1 - 105
127 - 140	sP	1 - 105	1 - 105
141 - 154	PoP	0 - 100	1 - 101
155 - 168	PS	44 - 147	1 - 104
169 - 182	SP	44 - 147	1 - 104
183 - 196	SKPAB	131 - 148	1 - 18
197 - 210	SKPBC	130 - 140	1 - 11
211 - 224	SKPDF	104 - 180	1 - 77
225 - 238	PKSAB	131 - 148	1 - 18
239 - 252	PKSBC	130 - 140	1 - 11
253 - 266	PKSDF	104 - 180	1 - 77
267 - 280	SS	0 - 180	1 - 181
281 - 294	ScS	0 - 100	1 - 101
295 - 308	sS	19 - 100	1 - 92
309	Pg	0 - 8	1 - 9
310	Pb	0 - 8	1 - 9
311	Pn	0 - 8	1 - 9
312	Sg	0 - 8	1 - 9

Number of blocks on mass storage file	Phase	Distance range	Transformed distance range
313	Sb	0 - 8	1 - 9
314	Sn	0 - 8	1 - 9
315 - 328	Qfu	16 - 100	1 - 85
329	Sigfu	6 - 180	1 - 175
330 - 343	HKPKP	0 - 44	1 - 45 +++
344 - 357	pPKIKP	106 - 180	1 - 75
358 - 371	pPKP2	143 - 180	1 - 38
372 - 385	pPKHKP	125 - 156	1 - 32
386 - 399	Pdif	105 - 110	1 - 6
400 - 413	PKPEX	105 - 110	1 - 6

Remarks:

The line marked +++, here the interval 0 - 44 is not the distance range but  $dt/d\Delta$ , as HKPKP means the depth corrections for PKP.

Sigfu ... the calibration functions /Vaněk et al., 1962/ [5].

Qfu ... Q functions [6].

List of Abbreviations Used in this Bulletin

A	length of recording arm
Az	azimuth of station with respect to the epicentre
Dc	epicentral distance
Dg	damping constant of the galvanometer
Ds	damping constant of the seismometer
E	poorly distinguishable beginning of a phase
$\xi$ :1	damping ratio
H	origin time
DEPTH	depth of focus in km
I	impulsive beginning of a phase
K	characteristics of microseisms:
1	disturbance showing microseisms in groups
2	continuous disturbance
3	disturbance of a mixed and irregular character
0	no microseismic movement
C.0	very weak microseismic movement, amplitude less than 0.1 micrometer
tt	disturbance could not be measured because of earthquake
v	disturbance could not be measured because of gusts of wind
...	disturbance could not be measured for other reasons
Kg	moment of inertia of the galvanometer
Ks	moment of inertia of the seismometer
l	reduced pendulum length
MB	body-wave magnitude given by ISC
MLH	surface-wave magnitude
MPV	body-wave magnitude calculated from short period P waves
r	max. deviation due to friction



$\zeta^2$  coupling coefficient  
 $T_g$  free period of the galvanometer  
 $T_s$  free period of the seismometer  
 $V_o$  static magnification  
 $V_m$  max. dynamic magnification  
 + and - compressional or dilatational motion in a longitudinal wave  
 NE nuclear explosion

### Station Instrumentation

### Coordinates of the Seismographic Stations

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

### Constants for the Year 1974

#### HURBANOVČ

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

Month	Component	$T_s$ [s]	$V_o$	$r$ [mm]	$\zeta:1$	Paper speed
January-June	N-S	8.1	50.0	0.9	3.6	30 mm/min
	E-W	9.8	51.0	2.0	3.2	
June-December	N-S	8.1	47.1	0.7	3.6	30 mm/min
	E-W	9.2	56.0	1.7	3.4	

"VEGIX", electromagnetic seismograph with galvanometric registration  
1974, Jan. 01-Dec. 31

Component	Ts [s]	Tg [s]	Ds	Dg	$\sigma^{-2}$	A [m]	l [m]	K1 [kg m <sup>2</sup> ]	K2 [kg m <sup>2</sup> · 10 <sup>-8</sup> ]	Paper speed
Z	1.4	1.27	0.57	1.42	0.25	0.5	0.094	0.01	0.081	15 mm/min
N-S	1.27	1.15	0.50	1.52	0.085	0.5	0.0934	0.0101	0.077	15 mm/min
E-W	1.27	1.15	0.51	1.51	0.092	0.5	0.0940	0.0098	0.08	15 mm/min

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

1974, Nov. 01-Dec. 31

Component	Ts [s]	Tg [s]	Ds	Dg	$\sigma^{-2}$	A [m]	l [m]	K1 [kg m <sup>2</sup> ]	K2 [kg m <sup>2</sup> · 10 <sup>-8</sup> ]	Paper speed
Z	20.9	1.16	0.43	7.85	0.234	0.93	0.488	0.362	0.425	15 mm/min
N-S	21.7	1.20	0.42	7.41	0.245	0.98	0.488	0.358	0.409	15 mm/min
E-W	24.8	1.16	0.50	7.75	0.264	0.98	0.499	0.358	0.406	15 mm/min

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

1974, Jan. 01-Oct. 31

Component	Ts [s]	Tg [s]	Ds	Dg	$\sigma^{-2}$	A [m]	l [m]	K1 [kg m <sup>2</sup> ]	K2 [kg m <sup>2</sup> · 10 <sup>-8</sup> ]	Paper speed
Z	20.5	1.20	0.46	7.27	0.204	0.93	0.488	0.362	0.493	15 mm/min
N-S	23.0	1.20	0.41	7.69	0.219	0.98	0.488	0.358	0.502	15 mm/min
E-W	25.3	1.16	0.46	7.81	0.293	0.93	0.499	0.358	0.470	15 mm/min

SKALNATE PLESO

"VEGIK", electromagnetic seismograph with galvanometric registration

1974, Jan.01-Dec.31

Component	Ts [s]	Tg [s]	Ds	Dg	$\sigma^2$	Vm [Tm = 1.3]	Paper speed
Z	1.9	1.9	0.97	0.90	0.12	4851.5	60 mm/min

List of Quoted Agencies Reporting Epicentral Parameters

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

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

[Faint, illegible text, likely bleed-through from the reverse side of the page.]

MICROSEISMIC ACTIVITY

JANUARY 1974

COMPONENT EW

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	0.0			0.0			0.0			0.0		
2	3	4	5.3	0.0			3	5	5.0	3	5	5.0
3	3	4	8.5	2	6	5.5	2	7	8.3	3	6	4.6
4	3	5	5.0	2	6	13.7	3	5	5.0	3	4	5.3
5	3	5	5.0	3	6	4.6	3	5	5.0	0.0		
6	0.0			0.0			0.0			0.0		
7	3	5	4.0	0.0			3	6	9.2	0.0		
8	3	5	5.0	2	6	8.2	3	5	3.0	0.0		
9	3	6	4.6	3	6	9.2	0.0			0.0		
10	3	5	6.0	3	5	9.9	0.0			0.0		
11	3	6	9.2	2	6	9.2	3	6	5.5	0.0		
12	0.0			3	6	4.6	3	5	5.0	0.0		
13	0.0			0.0			3	5	5.0	0.0		
14	0.0			3	6	4.6	0.0			0.0		
15	0.0			0.0			0.0			0.0		
16	3	5	5.0	2	4	6.4	0.0			0.0		
17	0.0			3	6	9.2	0.0			0.0		
18	0.0			0.0			0.0			0		
19	0.0			3	5	9.9	0.0			0.0		
20	0			0.0			0.0			0.0		
21	0.0			0.0			0.0			0.0		
22	3	6	9.2	2	6	4.6	0.0			0.0		
23	0.0			3	4	5.3	0.0			0		
24	0			0.0			0.0			0		
25	0.0			0.0			0.0			0		
26	0.0			0.0			0.0			0		
27	0.0			0.0			0.0			0.0		
28	1	5	6.0	3	6	9.2	3	5	5.0	0.0		
29	3	4	4.3	0.0			0.0			0.0		
30	3	5	5.0	0.0			3	5	6.0	0.0		
31	0.0			0.0			3	6	9.2	0.0		

MICROSEISMIC ACTIVITY

JANUARY 1974

COMPONENT NS

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	0.0			3	6	4.4	3	5	5.9	0.0		
2	3	6	8.8	2	6	5.3	3	6	5.3	3	5	4.9
3	2	6	7.9	2	6	9.7	2	5	10.7	2	7	4.8
4	2	6	8.8	2	5	9.8	2	6	13.2	3	5	4.9
5	3	6	6.2	3	6	4.4	3	5	9.8	3	3	5.7
6	3	6	4.4	3	5	4.9	3	3	5.7	0.0		
7	3	5	4.9	3	6	13.2	3	6	5.3	3	6	9.7
8	3	6	7.9	2	7	7.2	2	4	8.5	3	5	2.9
9	2	4	7.5	1	5	9.8	3	4	5.3	3	7	8.0
10	1	6	5.3	3	4	10.7	3	6	8.8	3	5	9.8
11	3	5	9.8	2	7	8.8	2	5	7.8	3	5	9.8
12	3	6	4.4	2	5	4.9	3	5	13.7	3	7	8.0
13	0.0			0.0			3	5	5.9	0.0		
14	3	5	9.8	1	4	10.7	3	5	4.9	0.0		
15	0.0			1	5	5.9	3	4	6.4	0.0		
16	3	5	9.8	1	5	9.8	3	5	9.8	0.0		
17	3	4	10.7	1	5	9.8	3	5	5.9	0.0		
18	3	6	4.4	1	6	5.3	3	6	13.2	0.0		
19	3	5	10.7	1	4	10.7	3	6	8.8	0.0		
20	0.0			3	5	9.8	0.0			0.0		
21	0.0			2	6	5.3	2	6	8.8	3	5	4.9
22	3	5	5.9	2	5	9.8	1	5	9.8	3	6	8.8
23	3	4	6.4	2	5	8.8	3	4	6.4	0.0		
24	0.0			0.0			0.0			0.0		
25	0.0			3	6	8.8	3	5	4.9	0.0		
26	0.0			0.0			0.0			0		
27	0.0			0.0			3	5	4.9	3	6	8.8
28	1	4	6.4	2	6	9.7	1	5	9.8	3	6	8.8
29	3	5	9.8	2	5	10.7	3	4	6.4	3	5	9.8
30	3	5	4.9	2	5	14.6	1	6	9.7	3	5	9.8
31	3	4	10.7	3	5	4.9	3	6	0.0	3	5	5.9

MICROSEISMIC ACTIVITY

FEBRUARY 1974

COMPONENT EW

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	0.0			3	5	6.0	3	5	8.0	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		
6	0.0			3	5	14.9	3	6	5.5	0.0		
7	0.0			3	4	4.3	0.0			0.0		
8	0.0			0.0			3	6	9.2	0.0		
9	0.0			3	6	5.5	3	5	5.0	0.0		
10	0.0			3	5	5.0	3	4	10.6	3	5	6.0
11	3	5	9.9	3	6	14.7	3	6	9.2	0.0		
12	3	5	8.0	0.0			0.0			0		
13	0.0			0.0			0.0			0.0		
14	0.0			0.0			0.0			0		
15	0.0			3	6	5.5	0.0			0		
16	0.0			0.0			0.0			0.0		
17	0			0.0			0.0			0.0		
18	0.0			0.0			0.0			0		
19	0.0			0.0			0.0			0		
20	0.0			0.0			0.0			0		
21	0.0			0.0			0.0			0.0		
22	0.0			0.0			0.0			0		
23	0.0			0.0			0.0			0		
24	0			0.0			0			0		
25	0			0.0			0.0			0		
26	0.0			0.0			3	6	9.2	0.0		
27	0			0.0			0.0			0		
28	0.0			0.0			0.0			0.0		

MICROSEISMIC ACTIVITY

FEBRUARY 1974

COMPONENT NS

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	3	4	5.3	1	6	8.8	3	5	5.9	0.0		
2	0.0			0.0			0.0			0.0		
3	0.0			0.0			0.0			0.0		
4	0.0			3	5	4.9	0.0			0.0		
5	0.0			3	5	4.9	0.0			0.0		
6	3	6	8.8	1	7	8.0	1	6	8.8	3	6	8.8
7	3	6	8.8	3	6	8.8	3	5	5.9	0.0		
8	0.0			3	5	8.8	3	6	7.0	0.0		
9	3	6	8.8	1	6	7.9	1	6	16.7	2	5	9.8
10	3	6	8.8	3	6	13.2	3	5	9.8	3	5	4.9
11	3	6	8.8	2	6	13.2	1	6	8.8	3	6	10.6
12	3	6	7.9	3	6	8.7	3	5	9.8	0.0		
13	3	6	8.8	1	6	5.3	3	5	9.8	0.0		
14	3	5	9.8	3	6	13.2	3	6	13.2	3	6	7.8
15	3	5	9.8	1	6	5.3	3	6	7.9	0.0		
16	3	5	9.8	3	6	5.3	3	6	8.8	0.0		
17	0.0			0.0			0.0			0		
18	0.0			3	5	4.9	3	5	4.9	0.0		
19	0.0			0.0			0.0			0.0		
20	0.0			0.0			0.0			0		
21	0			0.0			0.0			0		
22	0.0			3	5	4.9	0.0			0.0		
23	0.0			3	6	5.3	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			3	6	5.3	3	5	5.9	0.0		
27	0.0			0.0			3	4	10.7	0.0		
28	0.0			0.0			0.0			0.0		

MICROSEISMIC ACTIVITY

MARCH 1974

COMPONENT EW

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	0.0			0.0			0.0			0.0		
2	0.0			0.0			0.0			0.0		
3	0.0			0.0			0.0			0.0		
4	0			0.0			0.0			0.0		
5	0.0			3	4	5.3	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			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			3	4	6.4	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		
31	0.0			0.0			0.0			0.0		

MICROSEISMIC ACTIVITY

MARCH 1974

COMPONENT NS

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	3	5	5.9	1	5	15.6	3	6	4.4	...		
2	...			0.0			0.0			0		
3	0.0			0			0			0		
4	0.0			3	4	5.3	0.0			0.0		
5	3	4	5.3	3	5	7.8	3	5	7.8	0.0		
6	0.0			0.0			0.0			0		
7	0.0			0.0			0.0			0		
8	0.0			3	5	5.9	3	4	4.3	0.0		
9	0.0			0.0			0.0			0.0		
10	0.0			0.0			0			0.0		
11	0.0			0.0			3	5	11.7	0		
12	0.0			0.0			0.0			0.0		
13	0			0.0			0.0			0		
14	0			0.0			0.0			0.0		
15	0.0			0.0			0.0			0.0		
16	3	4	5.3	3	5	7.8	3	4	5.3	0.0		
17	0			0.0			3	5	4.9	0.0		
18	0.0			3	5	4.9	3	6	5.3	0.0		
19	3	6	4.4	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			3	4	10.7	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		
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

APRIL 1974

COMPONENT EW

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	0.0			0.0			0.0			0.0		
2	0.0			0.0			0.0			0.0		
3	0.0			0.0			0.0			0.0		
4	0.0			0.0			0.0			0		
5	0.0			0.0			0.0			0.0		
6	0.0			0.0			0.0			0		
7	0.0			0.0			0			0		
8	0.0			3	4	6.4	0.0			0.0		
9	0.0			3	4	5.3	0.0			0		
10	0.0			0.0			0.0			0.0		
11	0.0			0.0			0.0			0		
12	0.0			0.0			0.0			0		
13	0.0			3	6	4.6	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		
17	0.0			0.0			0.0			0		
18	0.0			0.0			0.0			0		
19	0.0			0.0			0.0			0.0		
20	0			0.0			0			0		
21	0.0			0			0.0			0.0		
22	0.0			0.0			0.0			0		
23	0.0			0.0			0.0			0.0		
24	0.0			0.0			0.0			0		
25	0.0			0.0			0.0			0		
26	0			0.0			0.0			0		
27	0.0			0.0			0.0			0.0		
28	0.0			0			0.0			0.0		
29	0.0			0.0			0.0			0		
30	0.0			0.0			0.0			0.0		

MICROSEISMIC ACTIVITY

APRIL 1974

COMPONENT NS

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	0.0			0.0			0.0			0.0		
2	0.0			0.0			0.0			0		
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		
6	0.0			0.0			0.0			0.0		
7	0.0			0			0.0			0		
8	0.0			1	5	4.9	3	4	6.4	0.0		
9	0.0			3	4	4.3	0.0			0.0		
10	0.0			0.0			0.0			3	4	4.3
11	0.0			3	4	6.4	0.0			0		
12	0.0			0.0			3	5	4.9	0.0		
13	0.0			0.0			0.0			0.0		
14	0			0.0			0			0.0		
15	0.0			0.0			0.0			0.0		
16	0.0			0.0			0.0			0		
17	0.0			0.0			0.0			0		
18	0.0			0.0			0.0			0		
19	0.0			0.0			0.0			0		
20	0.0			0.0			0.0			0		
21	0			0			0.0			0.0		
22	0.0			0.0			0.0			0.0		
23	0.0			0.0			0.0			0		
24	0			0.0			0.0			0.0		
25	0.0			0.0			0.0			0.0		
26	0.0			0.0			0.0			0		
27	0			0.0			0.0			0.0		
28	0.0			0			0.0			0.0		
29	0			0.0			0.0			0		
30	0.0			0.0			0.0			0.0		

## MICROSEISMIC ACTIVITY

MAY 1974

## COMPONENT EW

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	0.0			0.0			0.0			0.0		
2	2	4	2.1	2	4	2.1	2	4	2.1	2	4	2.1
3	2	2	2.3	2	4	2.1	2	4	2.1	2	6	1.8
4	2	4	2.1	2	4	2.1	2	4	2.1	2	4	2.1
5	2	4	2.1	2	4	2.1	2	4	2.1	2	4	2.1
6	2	4	2.1	2	4	2.1	2	4	2.1	2	4	2.1
7	2	4	2.1	2	4	2.1	2	4	2.1	2	4	2.1
8	2	2	2.3	2	2	2.3	2	2	2.3	2	2	2.3
9	0.0			0.0			0.0			0.0		
10	0.0			0.0			0.0			0.0		
11	2	4	2.1	2	4	3.2	2	4	3.2	2	4	2.1
12	2	4	2.1	2	4	2.1	2	4	2.1	2	4	2.1
13	2	4	2.1	2	4	2.1	2	4	2.1	2	4	2.1
14	2	4	2.1	2	2	2.3	2	2	2.3	2	4	2.1
15	2	4	2.1	2	4	2.1	2	2	2.3	2	4	2.1
16	0.0			0.0			0.0			0.0		
17	2	2	2.3	2	4	5.3	2	4	2.1	2	4	2.1
18	0.0			0.0			0.0			2	4	2.1
19	2	4	2.1	2	4	3.2	2	4	2.1	2	4	2.1
20	2	4	3.2	2	4	3.2	2	4	3.2	2	4	2.1
21	2	2	2.3	2	4	2.1	2	4	3.2	2	2	2.3
22	2	2	2.3	2	4	3.2	2	4	3.2	2	2	2.3
23	0.0			2	2	2.3	2	4	3.2	2	2	2.3
24	0.0			2	2	2.3	2	4	3.2	2	2	2.3
25	0.0			2	2	2.3	2	2	2.3	2	4	2.1
26	2	2	2.3	2	4	3.2	2	4	2.1	2	2	2.3
27	2	2	2.3	2	4	2.1	2	4	2.1	2	2	2.3
28	2	2	3.5	2	2	2.3	2	4	3.2	2	2	2.3
29	2	2	2.3	2	2	2.3	2	2	3.5	2	2	2.3
30	0.0			2	2	2.3	2	4	3.2	2	2	2.3
31	2	2	2.3	2	4	2.1	2	6	4.6	2	2	2.3

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## MICROSEISMIC ACTIVITY

MAY 1974

## COMPONENT NS

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	0.0			0.0			0.0			0.0		
2	2	3	2.3	2	2	2.4	2	4	2.1	2	3	2.3
3	2	4	2.1	2	4	2.1	2	4	2.1	2	2	2.4
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	2	2	2.4	2	2	2.4	2	2	2.4	2	2	2.4
9	0.0			0.0			0.0			0.0		
10	0.0			0.0			0.0			0.0		
11	2	4	2.1	2	6	2.6	2	4	2.1	2	2	2.4
12	0.0			0.0			0.0			0.0		
13	2	4	2.1	2	4	2.1	2	2	2.4	2	2	2.4
14	0.0			0.0			0.0			0.0		
15	2	4	2.1	2	4	2.1	2	4	2.1	2	4	2.1
16	2	4	3.2	2	4	2.1	2	4	2.1	2	2	2.4
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			2	4	2.1	2	4	2.1	2	4	2.1
21	0.0			0.0			0.0			0.0		
22	0.0			0.0			0.0			0.0		
23	2	2	2.4	2	2	3.6	2	2	2.4	2	2	2.4
24	0.0			2	2	2.4	2	2	2.4	0.0		
25	...			...			...			...		
26	2	2	2.4	2	4	2.1	2	4	2.1	2	4	3.2
27	0.0			2	2	2.4	2	2	2.4	0.0		
28	0.0			2	2	2.4	2	4	2.1	2	2	2.4
29	...			0.0			...			...		
30	0.0			2	2	2.4	2	2	2.4	0.0		
31	0.0			0.0			0.0			0.0		

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MICROSEISMIC ACTIVITY  
COMPONENT EW

JUNE 1974

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	0.0			0.0			0.0			0.0		
2	2	4	1.9	2	4	1.9	2	2	2.1	2	2	2.1
3	2	4	1.9	2	4	1.9	2	4	1.9	2	2	2.1
4	2	2	2.1	2	2	2.1	2	2	2.1	2	2	2.1
5	2	2	2.1	2	4	1.9	2	4	1.9	2	2	2.1
6	0.0			2	4	1.9	2	4	1.9	2	2	2.1
7	2	2	2.1	2	4	1.9	2	4	1.9	2	2	2.1
8	2	2	2.1	2	2	2.1	2	2	2.1	2	2	2.1
9	0.0			2	2	2.1	2	4	2.9	2	4	1.9
10	0.0			2	2	2.1	2	2	2.1	2	2	2.1
11	0.0			2	4	2.9	2	4	2.9	2	2	2.1
12	0.0			2	2	2.1	2	2	2.1	2	2	2.1
13	0.0			2	4	2.9	2	4	2.9	2	2	2.1
14	0.0			2	2	2.1	2	4	2.9	0.0		
15	0.0			0.0			0.0			0.0		
16	...			2	2	2.1	2	2	2.1	...		
17	0.0			2	4	1.9	2	2	2.1	2	2	2.1
18	0.0			2	2	2.1	2	4	2.9	2	2	2.1
19	2	2	2.1	2	4	2.9	2	4	2.9	2	2	2.1
20	2	2	2.1	2	2	2.1	2	4	2.9	2	2	2.1
21	0.0			2	2	2.1	2	2	2.1	2	2	2.1
22	2	4	1.9	2	2	2.1	2	2	2.1	2	4	1.9
23	2	2	2.1	2	2	2.1	2	2	2.1	2	4	1.9
24	0.0			2	2	2.1	2	4	1.9	0.0		
25	0.0			2	4	2.9	2	4	2.9	0.0		
26	2	2	2.1	2	4	2.9	2	4	2.9	2	2	2.1
27	2	2	2.1	2	2	2.1	2	4	2.9	2	4	1.9
28	2	2	2.1	2	4	1.9	2	4	2.9	2	2	2.1
29	2	2	2.1	2	6	4.1	2	6	4.1	2	2	2.1
30	2	2	2.1	2	2	2.1	2	6	2.5	2	4	1.9

MICROSEISMIC ACTIVITY  
COMPONENT NS

JUNE 1974

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	0.0			0.0			0.0			0.0		
2	2	2	2.6	2	2	2.6	2	2	2.6	2	2	2.6
3	2	2	2.6	2	4	2.3	2	4	2.3	2	2	2.6
4	0.0			2	2	2.6	2	4	2.3	2	2	2.6
5	2	2	2.6	2	4	2.3	2	4	2.3	2	2	2.6
6	0.0			2	2	2.6	2	2	2.6	2	2	2.6
7	0.0			0.0			0.0			0.0		
8	0.0			0.0			0.0			0.0		
9	0.0			2	2	2.6	2	2	2.6	0.0		
10	0.0			2	2	2.6	2	4	2.3	2	2	2.6
11	0.0			2	2	2.6	2	2	2.6	2	2	2.6
12	0.0			2	2	2.6	2	2	2.6	2	2	2.6
13	0.0			2	2	2.6	2	2	2.6	0.0		
14	0.0			2	2	2.6	2	4	3.4	0.0		
15	0.0			0.0			0.0			0.0		
16	0.0			0.0			0.0			0.0		
17	0.0			2	2	2.6	2	2	2.6	0.0		
18	0.0			2	4	2.3	2	2	2.6	0.0		
19	0.0			2	2	2.6	2	4	3.4	2	2	2.6
20	0.0			2	4	3.4	2	2	2.6	2	2	2.6
21	0.0			2	2	2.6	2	2	2.6	0.0		
22	0.0			2	2	2.6	2	2	2.6	0.0		
23	0.0			0.0			0.0			0.0		
24	0.0			0.0			2	2	2.6	0.0		
25	0.0			2	2	2.6	2	2	2.6	2	4	3.4
26	0.0			2	2	2.6	2	4	2.3	0.0		
27	0.0			2	2	2.6	2	2	2.6	0.0		
28	0.0			2	2	2.6	2	2	2.6	2	2	2.6
29	0.0			2	2	2.6	2	2	2.6	2	2	2.6
30	0.0			2	2	2.6	2	2	2.6	2	2	2.6

MICROSEISMIC ACTIVITY

JULY 1974

COMPONENT EW

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	2	2	2.1	2	4	1.9	2	4	2.9	2	6	2.5
2	2	9	7.1	2	2	2.1	2	4	0.0	2	6	8.3
3	0.0			2	2	3.2	2	2	3.2	2	4	9.7
4	2	2	2.1	2	2	3.2	2	4	10.7	2	2	2.1
5	2	2	2.1	2	4	2.9	2	4	5.8	2	2	2.1
6	TT			2	4	2.9	2	4	5.8	2	4	2.9
7	2	4	2.9	2	6	6.6	2	2	4.3	2	4	1.9
8	0.0			2	4	2.9	2	4	4.9	2	2	2.1
9	2	4	1.9	2	2	3.2	2	4	4.9	2	4	7.8
10	2	4	2.9	2	4	2.9	2	4	4.9	2	4	4.9
11	2	2	2.1	2	4	1.9	2	4	4.9	2	2	3.2
12	0.0			2	4	1.9	2	4	4.9	2	2	2.1
13	TT			2	2	2.1	2	2	3.2	2	2	3.2
14	0.0			0.0			2	2	2.1	2	4	2.9
15	2	2	2.1	2	4	4.9	2	2	3.2	2	4	4.9
16	TT			2	2	3.2	2	2	3.2	2	2	2.1
17	TT			2	2	3.2	2	2	3.2	0.0		
18	0.0			2	4	4.9	2	6	4.1	2	4	1.9
19	2	2	2.1	2	4	4.9	2	4	2.9	2	2	3.2
20	2	2	2.1	2	4	1.9	2	4	4.9	2	4	1.9
21	2	4	2.9	2	4	2.9	2	4	2.9	2	4	1.9
22	TT			2	4	2.9	2	4	4.9	TT		
23	2	5	2.9	2	4	1.9	2	2	2.1	2	2	2.1
24	2	2	3.2	2	4	2.9	2	4	2.9	2	2	2.1
25	2	2	3.2	2	2	3.2	2	4	4.9	2	4	2.9
26	2	2	2.1	2	2	3.2	2	4	2.9	2	4	2.9
27	2	2	3.2	2	4	2.9	2	4	4.9	2	2	2.1
28	2	2	3.2	2	2	2.1	2	2	3.2	2	2	3.2
29	0.0			2	4	1.9	2	4	1.9	2	2	2.1
30	2	4	2.9	2	4	1.9	2	2	2.1	2	4	1.9
31	2	2	2.1	2	4	2.9	2	4	1.9	2	4	2.9

MICROSEISMIC ACTIVITY

JULY 1974

COMPONENT NS

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	2	2	2.6	2	2	2.6	2	2	3.8	2	2	3.8
2	2	2	3.8	2	2	3.8	2	2	2.6	2	2	2.6
3	0.0			0.0			0.0			0.0		
4	0.0			2	4	3.4	2	2	2.6	2	2	2.6
5	0.0			2	2	2.6	2	2	3.8	2	2	2.6
6	2	2	2.6	2	2	2.6	2	2	2.6	2	3	2.4
7	0.0			2	2	2.6	2	2	2.6	2	2	2.6
8	2	2	2.6	2	2	2.6	2	2	2.6	2	2	5.1
9	2	2	2.6	2	2	3.8	2	2	3.8	2	2	3.8
10	2	2	2.6	2	4	2.3	2	4	2.3	2	3	3.7
11	0.0			2	2	2.6	2	2	2.6	2	2	2.6
12	0.0			2	2	2.6	2	4	3.4	2	2	2.6
13	0.0			2	2	2.6	2	4	3.4	2	2	2.6
14	2	2	2.6	2	2	2.6	2	2	2.6	2	2	2.6
15	2	2	2.6	2	2	3.8	2	4	5.7	2	2	3.8
16	2	2	2.6	2	2	3.8	2	2	3.8	2	2	3.8
17	0.0			2	4	2.3	2	4	3.4	2	2	2.6
18	2	2	2.6	2	4	2.3	2	4	2.3	2	4	2.3
19	2	2	2.6	2	3	2.4	2	4	3.4	2	2	2.6
20	2	4	2.3	2	2	2.6	2	2	2.6	2	2	3.8
21	2	2	2.6	2	2	3.8	2	2	3.8	2	2	2.6
22	0.0			2	2	3.8	2	2	3.8	2	2	2.6
23	2	2	2.6	2	2	3.8	2	2	2.6	2	2	2.6
24	2	2	2.6	2	4	2.3	2	2	3.8	2	2	2.6
25	2	2	2.6	2	4	2.3	2	4	2.3	2	2	2.6
26	0.0			2	2	2.6	2	2	2.6	2	2	2.6
27	0.0			2	2	2.6	2	2	3.8	0.0		
28	2	2	2.6	2	2	2.6	2	2	3.8	0.0		
29	0.0			2	2	2.6	2	2	2.6	0.0		
30	2	2	2.6	2	2	2.6	2	2	2.6	2	2	2.6
31	0.0			2	3	2.6	2	2	2.6	2	2	2.6

MICROSEISMIC ACTIVITY

AUGUST 1974

COMPONENT EW

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	2	2	2.1	2	4	1.9	2	2	2.1	2	2	2.1
2	2	2	3.2	2	4	1.9	2	4	2.9	2	2	2.1
3	0.0			0.0			2	4	1.9	2	4	2.9
4	0.0			2	2	2.1	2	2	3.2	2	4	2.9
5	2	2	2.1	2	2	2.1	2	2	2.1	2	2	2.1
6	0.0			2	2	2.1	2	2	2.1	2	2	2.1
7	0.0			2	2	2.1	2	2	3.2	2	2	2.1
8	0.0			2	2	2.1	2	4	1.9	2	4	1.9
9	0.0			0.0			2	4	1.9	2	2	2.1
10	0.0			0.0			0.0			2	2	2.1
11	0.0			0.0			0.0			0.0		
12	0.0			2	2	2.1	2	2	2.1	0.0		
13	2	2	2.1	2	2	2.1	2	2	2.1	2	4	2.9
14	2	2	2.1	2	2	2.1	2	2	2.1	0.0		
15	2	4	3.9	2	4	1.9	2	2	2.1	2	2	3.2
16	2	4	1.9	2	2	2.1	2	4	1.9	2	2	2.1
17	0.0			2	2	2.1	2	4	2.9	2	5	3.6
18	0.0			0.0			2	4	1.9	0.0		
19	0.0			2	4	2.9	2	2	2.1	0.0		
20	0.0			2	2	2.1	2	2	2.1	2	2	2.1
21	0.0			2	4	1.9	2	2	2.1	2	2	2.1
22	0.0			2	2	2.1	2	2	2.1	0.0		
23	0.0			2	2	2.1	2	2	2.1	2	2	2.1
24	0.0			0.0			2	2	2.1	2	2	3.2
25	0.0			2	2	2.1	2	2	2.1	0.0		
26	2	4	1.9	2	4	1.9	2	2	2.1	2	4	2.9
27	TT			2	2	2.1	2	2	2.1	TT		
28	2	2	2.1	2	4	1.9	2	4	1.9	2	2	2.1
29	0.0			0.0			0.0			0.0		
30	2	2	2.1	0.0			2	2	2.1	0.0		
31	0.0			2	4	1.9	2	4	2.9	0.0		

MICROSEISMIC ACTIVITY

AUGUST 1974

COMPONENT NS

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	0.0			2	4	2.3	2	4	2.3	2	2	2.6
2	2	2	2.6	2	2	2.6	2	2	2.6	2	2	2.6
3	TT			2	2	2.6	2	2	2.6	TT		
4	0.0			0.0			0.0			0.0		
5	0.0			2	2	2.6	2	2	2.6	0.0		
6	0.0			2	2	2.6	2	2	2.6	0.0		
7	0.0			2	2	2.6	2	2	2.6	2	2	2.6
8	0.0			0.0			2	2	2.6	2	2	3.8
9	0.0			0.0			2	2	2.6	0.0		
10	0.0			0.0			0.0			0.0		
11	2	2	2.6	2	2	2.6	2	2	2.6	2	2	2.6
12	0.0			2	2	2.6	2	2	2.6	0.0		
13	0.0			2	2	2.6	2	2	2.6	0.0		
14	2	2	2.6	2	2	2.6	2	2	2.6	0.0		
15	2	2	2.6	2	2	2.6	2	4	2.3	2	4	3.4
16	2	2	2.6	2	4	3.4	2	4	2.3	2	4	2.3
17	0.0			0.0			2	2	2.6	0.0		
18	0.0			0.0			2	9	10.9	0.0		
19	0.0			2	2	2.6	2	2	2.6	2	2	2.6
20	0.0			2	2	2.6	2	4	2.3	2	2	2.6
21	0.0			2	2	2.6	2	2	2.6	2	2	2.6
22	0.0			2	2	2.6	2	2	2.6	0.0		
23	0.0			2	2	2.6	2	2	2.6	2	2	2.6
24	2	2	2.6	2	2	2.6	2	2	2.6	2	2	2.6
25	0.0			0.0			2	2	2.6	2	2	2.6
26	0.0			2	2	2.6	2	2	2.6	2	2	2.6
27	0.0			2	2	2.6	2	4	2.3	0.0		
28	2	2	2.6	2	2	3.8	2	2	3.8	2	2	3.8
29	0.0			0.0			2	2	2.6	0.0		
30	0.0			0.0			0.0			0.0		
31	0.0			2	2	2.6	2	2	2.6	2	2	2.6

MICROSEISMIC ACTIVITY

SEPTEMBER 1974

COMPONENT EW

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	0.0			0.0			2	4	2.9	2	4	2.9
2	...			2	4	1.9	2	4	3.9	0.0		
3	2	2	2.1	2	2	2.1	2	4	3.9	0.0		
4	0.0			2	4	4.9	2	4	2.9	0.0		
5	0.0			2	2	2.1	2	4	3.9	0.0		
6	2	2	3.2	2	2	2.1	2	2	3.2	2	2	3.2
7	2	2	2.1	2	4	1.9	2	4	1.9	2	4	1.9
8	0.0			2	2	2.1	2	2	3.2	2	2	3.2
9	2	2	2.1	2	2	2.1	2	2	3.2	0.0		
10	2	2	2.1	2	2	3.2	2	4	2.9	2	2	2.1
11	0.0			2	4	1.9	2	4	2.9	2	2	2.1
12	2	3	2.1	0.0			0.0			2	3	3.1
13	0.0			2	2	2.1	2	2	2.1	0.0		
14	0.0			0.0			0.0			0.0		
15	0.0			2	3	3.1	2	2	3.2	0.0		
16	0.0			2	2	2.1	2	2	2.1	0.0		
17	0.0			2	2	2.1	2	2	2.1	0.0		
18	2	2	2.1	2	2	3.2	2	4	2.9	2	2	2.1
19	2	2	2.1	2	3	3.1	2	3	3.1	2	2	2.1
20	2	2	2.1	2	2	4.3	2	2	3.2	2	2	3.2
21	2	2	2.1	2	2	2.1	2	2	2.1	2	2	2.1
22	0.0			2	2	2.1	2	2	2.1	2	2	2.1
23	2	2	2.1	2	2	2.1	2	4	2.9	2	4	1.9
24	2	2	2.1	2	4	2.9	2	4	4.9	2	4	2.9
25	2	2	3.2	2	2	3.2	2	2	3.2	2	2	3.2
26	0.0			2	3	2.1	2	4	2.9	0.0		
27	2	4	2.9	2	4	1.9	2	4	2.9	2	2	2.1
28	2	4	2.9	2	4	2.9	2	4	3.9	2	4	1.9
29	0.0			2	4	4.9	2	4	7.8	2	2	2.1
30	0.0			2	2	2.1	2	2	2.1	0.0		

MICROSEISMIC ACTIVITY

SEPTEMBER 1974

COMPONENT NS

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	2	2	2.6	2	2	2.6	2	2	2.6	2	2	3.8
2	0.0			2	2	2.6	2	2	3.8	0.0		
3	0.0			0.0			2	2	3.8	0.0		
4	2	2	2.6	2	2	2.6	2	2	3.8	0.0		
5	0.0			2	2	2.6	2	2	2.6	0.0		
6	0.0			2	2	2.6	2	2	2.6	2	2	2.6
7	0.0			2	2	2.6	2	2	2.6	2	2	2.6
8	2	2	2.6	2	2	2.6	2	2	2.6	2	2	2.6
9	2	2	2.6	2	2	2.6	2	2	2.6	2	2	2.6
10	2	2	2.6	2	2	3.8	2	4	2.3	2	2	2.6
11	2	3	2.6	2	4	2.3	2	2	2.6	2	2	2.6
12	0.0			2	2	2.6	2	2	2.6	0.0		
13	0.0			2	2	2.6	2	2	2.6	2	2	2.6
14	0.0			0.0			0.0			0.0		
15	0.0			2	2	2.6	2	2	2.6	0.0		
16	0.0			2	2	2.6	2	2	2.6	2	2	2.6
17	0.0			2	2	2.6	2	2	2.6	2	2	3.8
18	2	2	2.6	2	2	2.6	2	2	3.8	2	2	2.6
19	2	2	3.8	2	4	4.5	2	4	4.5	2	2	3.8
20	2	2	2.6	2	2	3.8	2	2	5.1	2	2	5.1
21	2	2	2.6	2	3	4.9	2	3	3.7	2	2	2.6
22	0.0			2	4	2.3	2	4	2.3	0.0		
23	2	2	2.6	2	4	4.5	2	4	5.7	2	2	3.8
24	0.0			2	4	4.5	2	4	5.7	2	4	4.5
25	2	2	3.8	2	4	2.3	2	4	5.7	2	3	3.7
26	0.0			2	4	3.4	2	4	3.4	0.0		
27	2	2	2.6	2	2	2.6	2	2	2.6	2	4	3.4
28	2	4	3.4	2	4	3.4	2	4	4.5	2	2	2.6
29	0.0			2	4	3.4	2	4	5.7	2	2	2.6
30	0.0			2	2	2.6	2	2	2.6	0.0		

MICROSEISMIC ACTIVITY  
COMPONENT EW

OCTOBER 1974

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	0.0			2	2	2.1	2	2	2.1	0.0		
2	0.0			2	2	2.1	2	2	2.1	0.0		
3	0.0			2	2	2.1	2	2	2.1	0.0		
4	0.0			2	2	2.1	2	2	2.1	0.0		
5	0.0			0.0			2	4	1.9	0.0		
6	0.0			0.0			0.0			0.0		
7	0.0			2	4	1.9	2	4	1.9	0.0		
8	0.0			2	4	1.9	2	4	1.9	0.0		
9	0.0			2	4	1.9	2	4	1.9	0.0		
10	2	4	2.9	2	4	1.9	2	4	1.9	2	4	1.9
11	2	4	2.9	2	4	1.9	2	4	2.9	2	2	2.1
12	0.0			2	4	2.9	2	4	2.9	2	2	2.1
13	0.0			2	4	2.9	2	4	2.9	0.0		
14	2	4	1.9	2	4	2.9	2	4	2.9	2	4	1.9
15	2	2	2.1	2	4	2.9	2	4	2.9	2	2	2.1
16	2	4	2.9	2	4	2.9	2	4	2.9	2	2	2.1
17	2	4	1.9	2	4	3.9	2	4	1.9	2	4	1.9
18	0.0			2	4	1.9	2	4	1.9	2	2	2.1
19	2	4	1.9	...			...			2	4	2.9
20	2	5	1.9	2	2	2.1	2	4	1.9	2	2	2.1
21	2	2	3.2	2	4	2.9	2	4	1.9	2	2	2.1
22	0.0			2	4	1.9	2	4	2.9	2	4	2.9
23	2	2	2.1	TT			2	4	2.9	2	4	1.9
24	2	4	1.9	2	4	4.9	2	4	4.9	2	4	2.9
25	2	4	1.9	2	4	2.9	2	4	3.9	2	4	1.9
26	2	4	1.9	2	4	3.9	2	4	3.9	2	4	2.9
27	2	4	1.9	2	4	2.9	2	4	1.9	2	4	1.9
28	2	4	1.9	2	4	2.9	2	4	1.9	2	4	1.9
29	2	2	2.1	2	2	3.2	2	2	2.1	2	2	2.1
30	2	2	2.1	2	2	2.1	2	4	2.9	2	2	2.1
31	2	2	2.1	2	4	1.9	2	4	1.9	2	2	2.1

MICROSEISMIC ACTIVITY  
COMPONENT NS

OCTOBER 1974

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	0.0			2	2	2.6	2	2	2.6	0.0		
2	0.0			0.0			2	2	2.6	0.0		
3	0.0			2	2	2.6	2	2	2.6	0.0		
4	0.0			2	2	2.6	2	2	2.6	0.0		
5	0.0			0.0			0.0			0.0		
6	0.0			0.0			2	2	2.6	2	2	2.6
7	0.0			2	4	2.3	2	4	2.3	0.0		
8	0.0			2	4	2.3	2	4	2.3	0.0		
9	0.0			2	2	2.6	2	2	2.6	0.0		
10	0.0			2	4	3.4	2	4	3.4	0.0		
11	0.0			2	2	2.6	2	2	2.6	0.0		
12	0.0			2	2	2.6	2	2	2.6	0.0		
13	0.0			2	2	2.6	2	2	2.6	0.0		
14	0.0			2	4	2.3	2	4	2.3	0.0		
15	2	2	2.6	2	4	2.3	2	4	3.4	2	2	2.6
16	2	2	2.6	2	4	2.3	2	4	2.3	2	2	2.6
17	2	2	3.8	2	4	3.4	2	4	3.4	2	4	2.3
18	0.0			2	4	2.3	2	2	2.6	2	2	2.6
19	2	2	2.6	...			...			2	2	2.6
20	0.0			2	2	2.6	2	2	2.6	0.0		
21	2	2	3.8	2	2	2.6	2	4	2.3	2	2	2.6
22	2	2	2.6	2	4	2.3	2	4	3.4	2	4	2.3
23	0.0			TT			2	4	3.4	2	4	2.3
24	0.0			2	2	2.6	2	2	2.6	0.0		
25	2	4	2.3	2	4	5.7	2	4	5.7	2	4	2.3
26	2	4	2.3	2	4	3.4	2	4	3.4	2	4	3.4
27	2	4	2.3	2	4	3.4	2	4	5.7	2	4	3.4
28	2	4	2.3	2	4	2.3	2	4	2.3	2	4	2.3
29	0.0			2	4	3.4	2	4	4.5	0.0		
30	2	2	2.6	2	2	2.6	2	4	3.4	2	2	2.6
31	2	2	2.6	2	4	3.4	2	4	2.3	2	4	2.3

MICROSEISMIC ACTIVITY  
COMPONENT EW

NOVEMBER 1974

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	...			...			...			...		
2	0.0			2	4	1.9	2	4	1.9	0.0		
3	0.0			2	4	1.9	2	4	1.9	0.0		
4	2	4	2.9	2	4	4.9	2	4	2.9	2	4	2.9
5	2	4	2.9	2	4	2.9	2	2	2.1	2	2	2.1
6	2	2	2.1	2	4	2.9	2	2	2.1	2	2	2.1
7	2	4	2.9	2	4	1.9	2	4	2.9	2	2	2.1
8	2	2	3.2	2	4	4.9	2	4	4.9	2	2	2.1
9	2	2	2.1	2	4	4.9	2	2	3.2	2	4	2.9
10	2	2	2.1	2	4	2.9	2	4	2.9	2	4	2.9
11	2	2	2.1	2	4	2.9	2	4	4.9	2	4	1.9
12	2	4	1.9	2	4	2.9	2	4	2.9	2	4	1.9
13	2	4	2.9	2	4	4.9	2	4	4.9	2	4	2.9
14	2	4	1.9	2	4	2.9	2	4	2.9	2	4	1.9
15	2	4	1.9	2	4	1.9	2	4	2.9	2	4	1.9
16	0.0			2	4	1.9	2	4	1.9	0.0		
17	0.0			2	4	1.9	2	2	2.1	0.0		
18	0.0			2	2	2.1	2	4	1.9	0.0		
19	0.0			2	2	2.1	2	2	2.1	0.0		
20	0.0			2	2	2.1	2	4	1.9	2	2	2.1
21	0.0			2	4	2.9	2	4	2.9	0.0		
22	0.0			2	2	2.1	2	4	2.9	0.0		
23	2	4	1.9	2	4	2.9	2	4	2.9	2	4	1.9
24	2	2	2.1	2	2	3.2	2	2	3.2	2	2	2.1
25	2	4	1.9	2	4	1.9	2	4	1.9	2	2	2.1
26	2	4	2.9	2	4	2.9	2	4	2.9	2	2	2.1
27	2	2	2.1	2	2	3.2	2	4	2.9	2	2	2.1
28	0.0			2	4	2.9	2	4	2.9	0.0		
29	0.0			2	4	1.9	2	4	2.9	0.0		
30	0.0			2	2	2.1	2	4	4.9	0.0		

MICROSEISMIC ACTIVITY  
COMPONENT NS

NOVEMBER 1974

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	0.0			2	2	3.8	2	2	2.6	0.0		
2	2	2	2.6	2	4	2.3	2	2	2.6	2	2	2.6
3	0.0			0.0			2	2	2.6	0.0		
4	0.0			2	4	3.4	2	4	2.3	2	2	2.6
5	0.0			2	2	3.8	2	4	2.3	0.0		
6	2	2	2.6	2	4	2.3	2	4	3.4	2	4	4.5
7	2	2	2.6	2	4	2.3	2	4	2.3	2	2	2.6
8	0.0			2	4	2.3	2	4	3.4	2	2	2.6
9	2	2	2.6	2	4	3.4	2	4	5.7	2	4	3.4
10	2	2	3.8	2	2	3.8	2	2	2.6	2	2	2.6
11	2	4	3.4	2	4	5.7	2	4	5.7	2	4	3.4
12	2	4	2.3	2	4	3.4	2	4	5.7	2	4	2.3
13	2	4	3.4	2	4	5.7	2	4	6.8	2	4	3.4
14	2	4	2.3	2	4	5.7	2	4	3.4	2	4	3.4
15	2	4	2.3	2	4	5.7	2	4	5.7	2	4	3.4
16	0.0			2	4	3.4	2	4	3.4	0.0		
17	0.0			0.0			0.0			0.0		
18	0.0			2	4	3.4	2	4	5.7	0.0		
19	2	2	2.6	2	4	2.3	2	4	2.3	2	2	2.6
20	0.0			2	4	3.4	2	4	3.4	0.0		
21	2	2	2.6	2	2	2.6	2	4	2.3	2	2	2.6
22	0.0			2	4	2.3	2	4	2.3	2	4	2.3
23	2	2	2.6	2	4	2.3	2	4	2.3	2	4	3.4
24	2	2	3.8	2	4	3.4	2	2	2.6	2	2	2.6
25	2	2	3.8	2	2	3.8	2	2	3.8	2	2	2.6
26	0.0			2	4	3.4	2	4	3.4	0.0		
27	2	4	2.3	2	4	3.4	2	4	3.4	0.0		
28	0.0			2	4	3.4	2	4	3.4	0.0		
29	0.0			2	2	2.6	2	4	2.3	0.0		
30	2	2	3.8	2	4	3.4	2	4	3.4	2	2	2.6



MICROSEISMIC ACTIVITY

DECEMBER 1974

COMPONENT EW

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	2	4	1.9	2	4	1.9	2	4	1.9	2	4	1.9
2	2	4	1.9	2	4	1.9	2	4	1.9	2	4	1.9
3	0.0			2	4	1.9	2	4	1.9	0.0		
4	0.0			2	4	1.9	2	4	1.9	0.0		
5	2	4	1.9	2	4	2.9	2	4	2.9	2	4	1.9
6	0.0			2	4	2.9	2	4	2.9	0.0		
7	0.0			2	4	1.9	2	2	2.1	0.0		
8	2	4	1.9	2	4	2.9	2	4	1.9	2	4	1.9
9	2	4	1.9	2	4	1.9	2	4	1.9	2	4	1.9
10	2	4	1.9	2	4	2.9	2	4	2.9	2	4	1.9
11	2	4	1.9	2	4	2.9	2	4	2.9	2	4	1.9
12	2	4	1.9	2	4	2.9	2	4	4.9	2	4	1.9
13	2	4	1.9	2	4	2.9	2	4	1.9	2	4	1.9
14	0.0			2	4	1.9	2	4	1.9	0.0		
15	0.0			2	2	2.1	2	2	2.1	0.0		
16	2	4	1.9	2	4	1.9	2	4	1.9	2	4	1.9
17	2	4	1.9	2	4	2.9	2	4	2.9	2	4	1.9
18	0.0			2	4	2.9	2	4	2.9	0.0		
19	2	4	2.9	2	4	4.9	2	4	4.9	2	4	2.9
20	2	4	2.9	2	4	4.9	2	4	4.9	2	4	2.9
21	2	4	2.9	2	4	4.9	2	4	4.9	2	4	2.9
22	2	4	2.9	2	4	2.9	2	4	2.9	2	4	2.9
23	2	4	1.9	2	4	4.9	2	4	4.9	2	4	1.9
24	2	4	2.9	2	4	4.9	2	4	4.9	2	4	2.9
25	2	2	2.1	2	4	1.9	2	4	1.9	2	2	2.1
26	2	4	1.9	2	4	2.9	2	4	2.9	2	4	1.9
27	2	2	2.1	2	4	2.9	2	4	2.9	2	2	2.1
28	2	2	2.1	2	4	1.9	2	4	1.9	2	4	1.9
29	0.0			0.0			2	2	2.1	0.0		
30	0.0			2	4	1.9	2	4	1.9	0.0		
31	2	4	1.9	2	2	2.1	2	2	2.1	2	4	2.9

MICROSEISMIC ACTIVITY

DECEMBER 1974

COMPONENT NS

GMT Date	00 h			06 h			12 h			18 h		
	K	T	A	K	T	A	K	T	A	K	T	A
1	2	4	2.3	2	4	2.3	2	4	2.3	2	4	2.3
2	2	4	2.3	2	4	2.3	2	4	2.3	2	4	2.3
3	0.0			2	4	2.3	2	4	2.3	0.0		
4	2	4	2.3	2	4	2.3	2	4	2.3	2	4	2.3
5	2	4	2.3	2	4	3.4	2	4	3.4	2	4	2.3
6	0.0			2	4	2.3	2	4	3.4	0.0		
7	0.0			2	4	2.3	2	4	2.3	0.0		
8	2	4	2.3	2	4	2.3	2	4	2.3	2	4	2.3
9	2	4	2.3	2	4	3.4	2	4	5.7	2	4	2.3
10	2	4	2.3	2	4	3.4	2	4	3.4	2	4	2.3
11	2	4	2.3	2	4	5.7	2	4	3.4	2	4	2.3
12	2	4	2.3	2	4	3.4	2	4	5.7	2	4	2.3
13	2	4	2.3	2	4	2.3	2	4	3.4	2	4	2.3
14	0.0			2	4	2.3	2	4	2.3	0.0		
15	0.0			0.0			0.0			0.0		
16	2	2	2.6	2	4	3.4	2	4	3.4	2	4	2.3
17	2	4	2.3	2	4	3.4	2	4	3.4	2	4	2.3
18	2	4	2.3	2	4	3.4	2	4	3.4	2	4	2.3
19	2	4	3.4	2	4	5.7	2	4	5.7	2	4	3.4
20	2	4	3.4	2	4	5.7	2	4	5.7	2	4	3.4
21	2	4	3.4	2	4	5.7	2	4	5.7	2	4	3.4
22	2	4	3.4	2	4	5.7	2	4	5.7	2	4	3.4
23	2	4	2.3	2	4	3.4	2	4	3.4	2	4	2.3
24	2	4	3.4	2	4	5.7	2	4	5.7	2	4	3.4
25	2	4	2.3	2	4	3.4	2	4	3.4	2	4	2.3
26	2	4	2.3	2	4	5.7	2	4	5.7	2	4	2.3
27	2	4	2.3	2	4	5.7	2	4	5.7	2	4	2.3
28	2	4	2.3	2	4	3.4	2	4	3.4	2	4	2.3
29	0.0			2	2	2.6	2	4	3.4	0.0		
30	2	2	2.6	2	4	2.3	2	4	3.4	2	2	2.6
31	0.0			2	4	2.3	2	4	3.4	0.0		

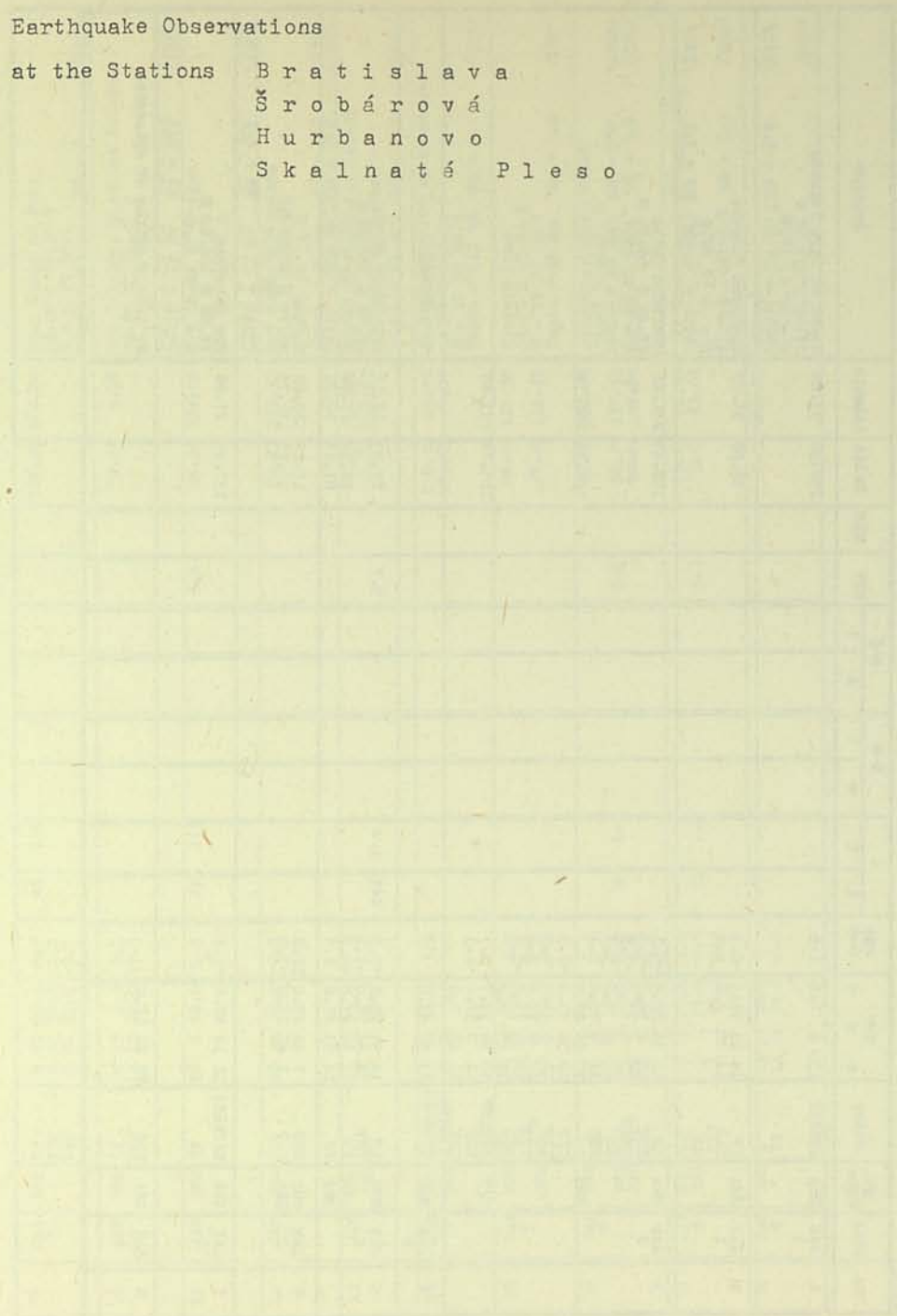


Macroseismic Observations 1974

Date	Origin time	Location	Latitude North	Longitude East	Focal depth /km/	Shaken area /km/	Epicentral Int./MCS/	Felt at
December 9	12 15 /BRA/	Czechoslovakia-Austrian Border Region	48.2°	17.0°			5.5°	I = 4.5° Dev. Nová Ves, Vysoká pri Morave, Záhorská Bystřica /District of Bratislava/
								I = 4° Devín, Stupava /District of Bratislava/
								I = 3.5° Bratislava, Galanta
								I = 3° Podunajské Biskupice, Vajnory /District of Bratislava/

Earthquake Observations

at the Stations Bratislava  
 Šrobárová  
 Hurbanovo  
 Skalnatá Pleso



No.	Date	St. Code	Phase	GMT		RSS O-C	Z		E-W		N-S		MPV	MLH	Delta Azimuth	Remarks
				h	m		A	T	A	T	A	T				
1	JAN 1	BRA	EPKIKP	13	2 7.0	1.5								152.30	35.08	South of Fiji Islands 23.91 S 179.87 W H = 12 43 17.4 Depth = 527 km MB = 5.2 /ISC/
2	JAN 1	BRA	IP IAP	14 19 39.0 14 20 4.0	-0.5 4.0									79.06	95.29	Northern Sumatra 4.64 N 95.87 E H = 14 7 42.0 Depth = 76 km MB = 5.1 /ISC/
3	JAN 2	BRA	EP IPP ISKKS EFS EFS SRO I IXP IPP ISKKS IFS LMV SFC EPDIFP EPP LMV	10 56 20.0 11 0 34.0 11 6 49.0 11 8 49.0 11 8 49.0 11 8 49.0 10 56 25.0 10 56 53.0 11 0 42.0 11 6 57.0 11 9 53.0 11 45 0.0 10 56 32.7 11 0 55.0 11 45 0.0	-0.1 -5.3 -1.9 6.7 1.1 1.1 -1.9 -2.0 3.1 -1.5 0.0 2.3 -1.3 0.0									103.44	251.41	Northern Chile 22.49 S 68.26 W H = 10 42 27.7 Depth = 83 km MB = 6.6 /ISC/
4	JAN 2	BRA	E	13 51 53.0												No determination of epicentre
5	JAN 2	SFC	IP	14 53 29.8	-2.5		243	1.4					5.7	79.33	62.61	Northeast of Taiwan 26.02 N 124.38 E H = 14 41 47.8 Depth = 203 km MB = 5.5 /ISC/
6	JAN 3	SRO BRA	EXP EAP	7 42 45.0 7 42 29.0	19.8 -3.0									10.14 10.95	139.62 136.75	Turkey 39.74 N 26.82 E H = 7 39 48.0 Depth = 29 km MB = 4.2 /ISC/
7	JAN 3	BRA	EAPKHKP	11 34 48.0	-1.4									137.95	47.86	New Hebrides 14.62 S 166.24 E H = 11 15 29.0 Depth = 33 km MB = 5.5 /ISC/
8	JAN 3	BRA	EPG	22 28 12.0												No determination of epicentre

9	JAN 5	BRA EAP EPP EPP	EP EAP EPP EPP	8 47 32.0 8 47 57.0 8 51 39.0 8 52 4.0	-0.0 0.1 -5.7 19.3		44	1.0						101.29	264.24	Near Coast of Peru 12.28 S 76.30 W H = 8 33 50.2 Depth = 92 km MB = 6.1 /ISC/
10	JAN 5	BRA BRA	EP EXP	14 13 3.0 14 13 38.0	0.1 19.5									79.89	5.36	Fox Islands, Aleutian Islands 52.05 N 171.46 W H = 14 0 56.3 Depth = 37 km MB = 5.4 /ISC/
11	JAN 5	BRA	EP	16 6 32.0	-1.3		42	1.5				5.4		84.30	334.02	Off Coast of Oregon 42.46 N 126.80 W H = 15 54 0.0 Depth = 11 km MB = 5.0 /ISC/
12	JAN 5	BRA	EP	23 41 49.0	-0.9									84.27	333.97	Off Coast of Oregon 42.47 N 126.73 W H = 23 29 19.0 Depth = 25 km MB = 5.0 /ISC/
13	JAN 6	BRA SFC	EP EP	14 42 23.0 14 42 41.0	-2.4 0.6									56.96 59.10	219.92 222.83	North of Ascension Island 1.46 S 15.45 W H = 14 32 40.0 Depth = 27 km MB = 5.2 /ISC/
14	JAN 6	SFC BRA	EAPKHKP EPIKIP	17 59 15.4 17 59 0.0	3.9 3.7									136.40 138.63	49.90 46.87	New Hebrides 14.87 S 167.18 E H = 17 39 44.5 Depth = 119 km MB = 5.5 /ISC/
15	JAN 7	SFC BRA	EP EP	15 30 16.0 15 30 24.3 15 30 25.0	5.7 1.1 1.1									26.08 27.48	117.38 111.47	Western Iran 33.26 N 47.95 E H = 15 24 40.4 Depth = 52 km MB = 5.0 /ISC/
16	JAN 8	SRO BRA SFC	IP TIP IPCP EPP	22 0 19.0 22 10 59.0 22 0 18.1 22 0 24.8 22 3 56.0	0.0 -8.5 -3.8 0.6 -4.6		36	1.0				5.6		89.83 90.47 90.66	158.40 157.51 159.84	Atlantic-Indian Ridge 38.84 S 46.43 E H = 21 47 20.9 Depth = 24 km MB = 5.9 /ISC/
17	JAN 9	SFC BRA	HP IXP	3 1 20.8 3 1 29.0 3 1 45.0	1.6 -0.4 -1.1		51	1.0				5.5		73.61 75.43	24.95 23.01	Off East Coast of Kamohatka 51.75 N 159.62 E H = 2 49 48.0 Depth = 40 km MB = 5.3 /ISC/
18	JAN 9	BRA	IS	13 11 31.0 13 12 38.0	-2.6									6.38	166.93	Albania 41.99 N 19.02 E H = 13 9 55.8 Depth = 54 km /ISC/

1974

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No.	Date	St. Code	Phase	GMT		RES O-C	Z		E-W			N-S			MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T	A	T					
19	JAN 10	SPC BRA	EP EP	2 48	35.0	0.5										73.69 75.47	25.10 23.15	Off East Coast of Kamohatka 51.65 N 159.45 E H = 2 37 3.2 Depth = 41 km MB = 4.9 /ISC/	
20	JAN 10	BRA	IP	5 30	38.1	0.2	40	1.0					5.5		75.64	23.04	Off East Coast of Kamohatka 51.54 N 159.72 E H = 5 18 53.0 Depth = 24 km MB = 5.2 /ISC/		
21	JAN 10	SPC SRO BRA	IPKIKP LMPV EPKIKP E LMPV EAPKHP EPKIKP EAPKIKP EPP ESKFPAB LMPV	9 10 9 13 10 9 9 10 9 13 9 25 10 8 9 10 9 10 9 11 9 13 9 14 10 13	34.7 10.0 0.0 36.0 40.0 0.0 30.0 38.0 3.0 27.0 15.0 0.0	3.7 -3.8 1.5 12.3 -5.0 2.9 16.3 -1.2 -0.1		32.8	22.0	39.4	22.0	7.2		135.88 137.75 138.12	49.96 48.74 46.95	New Hebrides 14.45 S 166.87 E H = 8 51 13.8 Depth = 36 km MB = 6.3 /ISC/			
22	JAN 10	ERA	IPG	11 2	39.0													No determination of epicentre	
23	JAN 11	SPC BRA	EP EPP	2 11 2 12	1.0 55.0	1.7 -1.0									38.55 40.67	89.87 86.37	Hindu Kush Region 36.42 N 70.84 E H = 2 3 48.9 Depth = 141 km MB = 4.8 /ISC/		
24	JAN 11	BRA	EPKIKP EPKSAB	5 55 5 59	55.0 37.0	0.2 -1.0									137.73	47.16	New Hebrides 14.19 S 166.54 E H = 5 36 34.3 Depth = 37 km MB = 5.7 /ISC/		
25	JAN 11	BRA	EPCP	15 12	6.0	-4.0									78.90	207.90	South Atlantic Ridge 26.10 S 13.60 W H = 14 59 59.4 Depth = 33 km MB = 4.5 /ISC/		
26	JAN 13	BRA SRO	EP EP	21 41 21 41	50.0 57.0	-0.1 3.4									60.85 61.37	238.99 240.28	Central Mid-Atlantic Ridge 3.50 N 31.48 W H = 21 31 42.0 Depth = 64 km MB = 5.2 /ISC/		

27	JAN 14	BRA	IP	20 43	34.0	-1.3	40	1.0								76.75	27.15	Kurile Islands 48.79 N 154.92 E H = 20 31 46.6 Depth = 42 km MB = 5.4 /ISC/
28	JAN 14	BRA	EPKIKP	23 51	17.0	0.2										131.40	49.99	Solomon Islands 9.76 S 161.45 E H = 23 32 11.3 Depth = 63 km MB = 5.5 /ISC/
29	JAN 15	BRA	EPKIKP EFP2	8 51 8 52	57.0 36.0	-0.1 -1.1										159.22	41.22	Kermadec Islands Region 31.23 S 178.73 W H = 8 32 10.1 Depth = 92 km MB = 5.6 /ISC/
30	JAN 15	BRA	EP	19 52	57.0	1.5										24.86	323.90	Iceland 64.50 N 17.80 W H = 19 47 34.6 Depth = 33 km MB = 4.6 /ISC/
31	JAN 17	BRA	E	17 9	13.0													No determination of epicentre
32	JAN 18	BRA	EP	17 4	11.0	-0.2										73.89	280.25	Dominican Republic Region 18.82 N 69.34 W H = 16 52 43.4 Depth = 82 km MB = 5.1 /ISC/
33	JAN 18	BRA	EP	21 27	40.0	-1.0										88.40	210.18	South Atlantic Ridge 34.08 S 20.15 W H = 21 14 31.2 Depth = 33 km MB = 5.4 /ISC/
34	JAN 19	BRA	ES E E	2 51 2 52 2 53 2 54	39.0 4.0 28.0 3.0	-5.2										6.71	260.76	Switzerland 46.68 N 7.46 E H = 2 49 50.3 Depth = 83 km /ISC/
35	JAN 21	SRO BRA	ESN EPN EPB ESB	10 6 10 5 10 5 10 6	24.0 38.0 52.0 37.0	-5.1 -10.8 -2.2 -0.6										3.33 3.36	203.64 193.54	Yugoslavia 44.90 N 16.00 E H = 10 4 54.0 Depth = 0 km /ISC/
36	JAN 21	BRA	EP	20 14	11.0	-2.7										9.36	188.89	Sicily 38.90 N 15.26 E H = 20 11 56.0 Depth = 14 km /ISC/

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No.	Date	St. Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
37	JAN 22	BRA SRO	IP EP	13 39	47.1	-0.4 2.2	69	1.2					5.7	72.92 72.97	20.14 20.77		Near East Coast of Kamohatka H = 13 28 19.0 Depth = 28 km MB = 5.6 /ISC/
38	JAN 23	BRA	IPG	11 2	10.0												No determination of epicentre
39	JAN 23	SFO SHO BHA	IPKP2 EPKP2 IPKIP EPKHP EPKP2 EAPKP2	14 10 14 10 14 10 14 10 14 10 14 11	12.0 30.0 6.0 13.0 24.0 57.0	-4.0 6.2 0.9 4.6 -0.5 -4.0								149.54 151.40 151.56	37.04 35.20 32.70		South of Fiji 22.78 S 179.08 W H = 13 51 5.9 Depth = 41 km MB = 5.3 /ISC/
40	JAN 23	BRA	IPG	15 6	13.0												No determination of epicentre
41	JAN 24	BRA	ESG	18 24	19.0												No determination of epicentre
42	JAN 24	BRA	EXP	18 54	46.0	2.2								70.07	352.35		Southern Alaska 61.44 N 147.80 W H = 18 43 26.0 /ISC/ MB = 4.8
43	JAN 24	SFO IXP ESGS LMV	IP IXP ESGS LMV	19 24 19 24 19 34 20 3	39.2 50.0 52.0 0.0	0.1 -0.7 2.4 0.0	436	1.2					6.5	76.55	39.62		Hokkaido, Japan Region 42.03 N 143.89 E H = 19 12 49.5 MB = 5.8 /ISC/ Depth = 27 km
44	JAN 24	BRA	EP	23 50	10.0	1.1								78.77	37.43		Hokkaido, Japan Region 41.96 N 144.04 E H = 23 38 9.0 Depth = 42 km MB = 5.1 /ISC/
45	JAN 25	SRO BRA	EPKP EP E EPP	20 41 20 45 20 41 20 44	45.0 41.0 36.0 49.0	8.2 -0.9 -2.5 -3.6			10.0	20.0	20.0	20.0		98.60 99.98	49.60 48.58		Mariana Islands 18.87 N 145.64 E H = 20 28 13.7 Depth = 149 km MB = 5.7 /ISC/

46	JAN 25	BRA	EPKIKP EAPKP2	22 58 23 0	57.0 9.0	-0.6 2.0								147.27	17.45		Samoa Islands Region 16.34 S 172.62 W H = 22 40 16.2 Depth = 10 km MB = 5.0 /ISC/
47	JAN 26	BRA SRO	EP EAP EPP LMV	5 48 5 49 5 49 6 32	51.0 9.0 9.0 57.0	-6.2 -2.2 -6.2 1.2								94.99 95.86	304.88 305.70		Near Coast of Michoacan, Mexico 18.58 N 103.40 W H = 5 35 38.5 Depth = 47 km MB = 5.2 /ISC/
48	JAN 27	BRA	EP	8 57	42.0	-1.7								43.49	271.80		North Atlantic Ridge 33.78 N 38.58 W H = 8 49 40.3 Depth = 23 km MB = 5.0 /ISC/
49	JAN 28	BRA SRO	EP IAP EP	3 42 3 42 3 42	39.0 43.0 41.0	0.4 -2.0 -1.7								15.30 15.61	222.36 226.26		Algeria 36.06 N 4.43 E H = 3 39 31.0 Depth = 28 km MB = 4.7 /ISC/
50	JAN 29	BRA	IPG	11 2	24.0												No determination of epicentre
51	JAN 29	BRA	E	19 15	28.0									109.65	78.80		Banda Sea 7.36 S 128.45 E H = 18 57 10.3 Depth = 127 km MB = 5.7 /ISC/
52	JAN 30	BRA	IP	5 4	33.1	0.2								39.06	63.86		Eastern Kazakh SSR 49.89 N 78.11 E H = 4 57 2.6 Depth = 0 km MB = 5.4 /ISC/
53	JAN 30	BRA	EPKIKP EPP	10 11 10 12	50.0 44.0	7.2 14.3								111.68	72.67		Aroe Islands Region 5.15 S 134.15 E H = 9 53 13.9 Depth = 51 km MB = 5.9 /ISC/
54	JAN 30	BRA	EPN EPG ESR ESG	22 57 22 57 22 57 22 57	13.0 23.0 32.0 35.0	-0.5 8.1 -0.9 1.1								1.45	131.37		Hungary 47.20 N 18.70 E H = 22 56 46.0 /ISC/ Depth = 0 km
55	JAN 31	BRA	EP	7 16	12.0	0.2								81.22	51.51		Kyushu, Japan 31.85 N 131.74 E H = 7 3 98.9 Depth = 43 km MB = 5.5 /ISC/

No.	Date	St. Code	Phase	GMT h m s	RSS O-C	Z		E-W		N-S		MPV	MLH	Delta Azimuth	Remarks
						A	T	A	T	A	T				
56	JAN 31	BRA E	E	10 34 13.0											No determination of epicentre
57	JAN 31	BRA EAPFP2	EAPFP2	15 31 26.0	4.4								147.17	28.39	Fiji Islands Region 17.87 S 178.60 W H = 15.10 28.4 Depth = 580 km MB = 5.1 /ISC/
58	JAN 31	BRA HIP	HIP	20 7 33.1	0.7								79.71	3.61	Fox Islands, Aleutian Islands 52.38 N 168.69 W H = 19 55 27.4 MB = 5.6 /ISC/
59	JAN 31	BRA EP	EP	20 28 0.0	-0.1								79.76	3.60	Fox Islands, Aleutian Islands 52.33 N 168.67 W H = 20 15 55.1 MB = 5.0 /ISC/
60	JAN 31	BRA EPKIKP	EPKIKP	20 35 22.0	2.8								126.62	54.29	Solomon Islands 7.49 S 156.01 E H = 20 16 20.1 Depth = 41 km MB = 5.6 /ISC/
61	JAN 31	SRO IPP BBA EPKIKP	EAPKIKP IPP EPKIKP	23 49 20.0 23 51 18.0 23 49 6.0	5.4 9.7 1.0								126.02 126.4E	55.77 54.32	Solomon Islands 7.39 S 155.92 E H = 23 30 5.0 MB = 5.9 /ISC/
62	FEB 1	BRA EP IAP IS LMV	EP IAP IS LMV	0 3 41.0 0 4 2.0 0 6 5.0 0 9 0.0	-15.0 0.8 -2.3			5.3	7.0	5.2	7.0	5.1	12.10	138.92	Turkey 38.55 N 27.22 E H = 0 1 2.1 Depth = 24 km MB = 5.2 /ISC/
63	FEB 1	SRO IPP BBA IAPKIKP IPP	IPKIKP EPKIKP IAPKIKP IPP	3 31 34.0 3 31 33.0 3 31 45.0 3 32 24.0 3 33 40.0	1.1 -0.8 7.3 7.4								125.76 126.23	56.00 54.55	Solomon Islands 7.28 S 155.62 E H = 3 12 31.0 Depth = 12 km MB = 6.2 /ISC/
64	FEB 1	BRA IPG	IPG	11 49 43.0											No determination of epicentre
65	FEB 1	BRA IP EXP	IP EXP	15 16 21.0 15 16 38.0	0.6 -0.5								73.62	20.52	Near East Coast of Kamohatka 54.38 N 162.02 E H = 15 4 49.9 Depth = 44 km MB = 5.3 /ISC/

66	FEB 1	BRA EPKIKP	EPKIKP	15 43 6.0	4.5									125.81	55.05	Solomon Islands 7.15 S 155.05 E H = 15 24 4.3 Depth = 44 km MB = 5.6 /ISC/
67	FEB 2	BRA EP	EP	3 44 55.0	-3.1									39.68	271.14	Azores Islands Region 35.65 N 34.51 W H = 3 37 26.0 Depth = 23 km MB = 4.9 /ISC/
68	FEB 2	BRA EPKIKP EPP	EPKIKP EPP	12 3 7.0 12 4 20.0	-16.7 10.7									111.46	72.71	Arcs Islands Region 5.00 S 133.98 E H = 11 44 54.0 MB = 5.6 /ISC/
69	FEB 2	BRA EP IAP EPOP	EP IAP EPOP	16 6 36.0 16 6 47.0 16 7 10.0	-0.6 -2.8 11.1									69.95	352.29	Southern Alaska 61.55 N 147.63 W H = 15 55 28.1 Depth = 45 km MB = 5.2 /ISC/
70	FEB 2	BRA IAP E EPP	IAP E EPP	20 9 36.0 20 10 14.0 20 13 16.0	-3.1 10.2									92.56	96.25	Sunda Strait 8.12 S 104.17 E H = 19 56 15.7 MB = 5.3 /ISC/
71	FEB 3	BRA EAP	EAP	9 2 41.0	-0.1									46.71	122.70	Arabian Sea 14.34 N 56.30 E H = 8 54 6.4 Depth = 15 km MB = 4.8 /ISC/
72	FEB 3	SRO IPOP BBA IP IXP I IPP	IPOP IP IXP I IPP	10 21 21.0 11 0 0.0 10 21 19.0 10 21 29.0 10 22 7.0 10 24 42.0	-0.2 -0.8 -0.0 7.0 5.2			1.9	2.0	12.0	2.7	12.0	5.6	83.83 84.45	68.74 67.91	Luzon, Philippine Islands 18.93 N 120.13 E H = 10 8 47.4 Depth = 21 km MB = 5.8 /ISC/
73	FEB 4	BRA ESN ISG	ESN ISG	14 3 5.0 14 3 18.0	-8.1 -0.6									2.12	256.45	Austria 47.63 N 14.05 E H = 14 2 8.4 Depth = 5 km /ISC/
74	FEB 4	SRO EPKIKP BBA IAPKIKP IAPKIKP EPP	EPKIKP IAPKIKP IAPKIKP EPP	20 29 34.0 20 32 42.0 20 26 41.0 20 26 51.0 20 30 4.0 20 31 26.0	-5.1 3.0 3.1 3.9 -13.9									125.93 126.40	55.84 54.40	Solomon Islands 7.55 S 155.82 E H = 20 10 42.0 Depth = 46 km MB = 5.8 /ISC/

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N

No.	Date	St. Code	Phase	GMT h m s	RES O-C	Z			E-W			N-S			MLH	Delta Azimuth	Remarks
						A	T		A	T		A	T				
75	FEB 5	SPC BRA	EPC ISG EPW ESB ESG E	15 26 22.3 15 26 43.6 15 26 42.0 15 27 20.0 15 27 39.0 15 28 4.0	0.5 2.3 -1.8 11.4										1.49 2.89	341.45 31.84	Poland 50.60 N 19.50 E H = 15 25 52.0 Depth = 0 km /ISC/
76	FEB 5	SRO BRA	EKFP2 EKFP2	22 47 9.0 22 47 6.0	2.8 -0.4										145.99 146.04	27.89 25.68	Fiji Islands Region 16.31 S 177.50 W H = 22 27 23.3 Depth = 8 km MB = 5.1 /ISC/
77	FEB 6	BRA	+IP IPCP I EPP +IP LHV	4 16 12.0 4 16 21.0 4 17 5.0 4 17 47.0 4 19 3.0 4 16 13.0 4 52 0.0	-0.2 -0.8 -8.5 -1.0	140	1.0			16.4	20.0	18.3	20.0	6.5	78.78	1.82	Unimak Islands Region 53.75 N 164.70 W H = 4 4 9.0 Depth = 7 km MB = 5.9 /ISC/
78	FEB 6	BRA	IPC	21 5 12.0													No determination of epicentre
79	FEB 8	BRA	EP EXP E	14 33 18.0 14 33 28.0 14 34 15.0	-0.1 -0.1									74.89	17.38	Komandorsky Islands Region 54.32 N 167.61 E H = 14 21 37.4 Depth = 23 km MB = 5.4 /ISC/	
80	FEB 8	BRA	IPKP2 IAPKIKP I E	18 44 10.0 18 44 19.0 18 44 44.0 18 45 30.0	0.2 1.1									145.66	48.32	Loyalty Islands Region 21.37 S 170.23 E H = 18 24 32.2 Depth = 33 km MB = 5.2 /ISC/	
81	FEB 8	BRA	ES E	20 16 3.0 20 17 27.0	10.2									8.32	245.59	France 44.22 N 6.54 E H = 20 12 17.7 Depth = 33 km /ISC/	
82	FEB 10	BRA	EPG E ESN	22 36 31.0 22 36 51.0 22 37 7.0	7.3 -5.2									7.10	261.03	Switzerland 46.60 N 6.90 E H = 22 34 2.0 Depth = 0 km /ISC/	
83	FEB 11	BRA	EP EAP	1 53 54.0 1 54 10.0	-1.1 0.8									92.41	96.35	Sunda Strait 6.08 S 104.00 E H = 1 40 48.3 Depth = 48 km MB = 5.5 /ISC/	

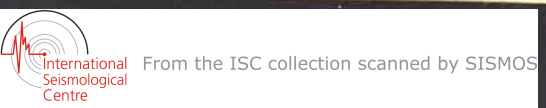
84	FEB 13	BRA	EPP EPP	23 55 53.0 23 56 9.0	0.3 16.3												Northern Sulawesi 0.11 S 122.90 E H = 23 38 8.5 Depth = 143 km MB = 5.5 /ISC/
85	FEB 14	BRA	+EP	12 10 37.0	-0.1									54.97	264.26	North Atlantic Ridge 21.95 N 44.25 W H = 12 1 5.9 Depth = 26 km MB = 5.3 /ISC/	
86	FEB 15	BRA	IPG	11 51 33.0													No determination of epicentre
87	FEB 16	BRA	EP EXP EPP E	2 2 33.0 2 2 40.0 2 5 12.0 2 7 13.0	0.2 -1.1 -1.8									71.69	93.24	Andaman Islands Region 11.47 N 92.32 E H = 1 51 10.2 Depth = 19 km MB = 5.2 /ISC/	
88	FEB 16	BRA	EPIKIP	5 58 55.0	-0.3									158.51	45.90	Kermadec Islands Region 31.54 S 179.16 E H = 5 39 56.2 Depth = 499 km MB = 5.3 /ISC/	
89	FEB 19	SRO BRA	EP EPP	3 43 19.0 3 43 19.0 3 46 47.0	1.1 -0.1 -5.8									88.82 89.46	70.51 69.63	Iuzon, Philippine Islands 13.98 N 122.17 E H = 3 30 22.0 Depth = 19 km MB = 5.7 /ISC/	
90	FEB 20	BRA	EP EAP E	16 23 4.0 16 23 14.0 16 24 30.0	1.6 0.5									73.85	281.26	Dominican Republic Region 19.52 N 70.05 W H = 16 13 29.6 Depth = 36 km MB = 4.8 /ISC/	
91	FEB 21	BRA	IPG	14 0 28.0													No determination of epicentre
92	FEB 22	SRO	IPCP IAP ISCS I BRA	0 48 38.0 0 50 10.0 0 52 22.0 0 58 26.0 1 6 54.0 0 48 38.0 0 48 44.0 0 50 7.0 0 52 14.0 0 56 28.0	-2.0 5.1 -3.0 0.7 2.5 0.2 18.3 -3.9									82.47	47.93	Near S. Coast of Southern Honshu 33.17 N 136.98 E H = 0 36 54.6 Depth = 351 km MB = 5.9 /ISC/	
														82.83	47.14		





No.	Date	St. Code	Phase	GMT		RES O-G	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
111	MAR 3	SRO BRA	IAP IAP	5 2	2 47.0 2 49.0	-0.1 -3.6								53.63 54.38	82.53 81.97	Tibet 10.74 N 86.32 E H = 4 53.17.3 Depth = 29 km MB = 5.4 /ISC/	
112	MAR 3	SRO BRA	IPOP IP ISKS LMH IP IPOP EPP	5 2 2 3 2 34 2 3 5 3 5 4 5 6	11.0 19.0 23.0 0.0 10.0 13.0 28.0 30.0	-1.7 0.6 3.6 0.0 1.3 -1.0 9.2			3.3	24.0	2.5	24.0	5.7	82.35 82.66	43.97 43.18	Near East Coast of Honshu 35.57 N 140.75 E H = 4 50 49.1 Depth = 49 km MB = 5.6 /ISC/	
113	MAR 3	BRA	EPAKIP EPAKIP	13 11 13 12	11 46.0 12 33.0	-0.8 -0.3								161.38	59.49	Off East Coast of North Island 36.73 S 177.08 E H = 12 51 45.6 Depth = 6 km /ISC/	
114	MAR 3	SRO	IAPKIP IP IP LMH IPKIP IAPKHKP EPP	14 42 14 45 14 52 15 39 14 42 14 42 14 43 14 45	17.0 29.0 11.0 0.0 13.0 14.0 13.0 37.0	-1.5 -0.7 4.5 0.1 0.4 0.1 5.1							143.91	49.71	New Hebrides 20.01 S 169.77 E H = 14 22 38.1 Depth = 19 km MB = 6.0 /ISC/		
115	MAR 4	BRA	EP E E	2 19 2 19 2 21	0.0 19.0 28.0 8.0	7.0								5.45	236.40	Northern Italy 44.97 N 10.71 E H = 2 17 21.0 Depth = 44 km /ISC/	
116	MAR 4	SPC BRA E EAPKIP	EPAKIP IAPKIP EPAKIP EPAKIP EAPKIP	12 57 12 59 12 57 12 57 12 59	38.0 8.5 37.0 27.0 27.0 8.0	3.9 8.2 -4.9 5.1 -2.0			2.0	20.0	3.0	20.0	6.1	146.43 148.35	31.69 27.29	Paji Region 18.79 S 177.61 W H = 12 38 32.5 Depth = 371 km MB = 5.4 /ISC/	
117	MAR 5	BRA	IPG	12 31	46.0											No determination of epicentre	
118	MAR 6	BRA	IP IPOP IAP	1 53 1 53 1 56	14.0 21.0 43.0 26.0	-0.1 5.5 -6.6								89.74	288.17	Nicaragua 12.33 N 86.42 W H = 1 40 30.4 Depth = 138 km MB = 5.7 /ISC/	

119	MAR 6	BRA	E	10 46	48.0												No determination of epicentre
120	MAR 6	SRO	IP IPKIP ISKPDF LMH	19 46 19 48 19 50 20 41	10.0 14.0 50.0 54.0	6.6 -18.7								108.69	78.73	Banda Sea 6.47 S 129.10 E H = 19 29 9.8 Depth = 26 km MB = 5.7 /ISC/	
121	MAR 7	BRA	IPG	11 1	46.0												No determination of epicentre
122	MAR 7	SEC SRO BRA	EAP EP EXP EPP EPCP	11 42 11 42 11 42 11 43 11 45	1.0 6.0 13.0 26.0 8.0 11.0	-0.1 1.4 0.8 5.2 -2.3 -3.0								28.13 29.19 30.04	100.68 96.40 95.97	Iran-USSR Border Region 37.65 N 55.95 E H = 11 36 2.4 Depth = 21 km MB = 5.2 /ISC/	
123	MAR 8	BRA	EP EAP E	2 37 2 38	22.0 25.0 13.0	3.3 -2.5								14.65	154.34	Crete 34.66 N 24.74 E H = 2 39 52.8 Depth = 47 km MB = 4.7 /ISC/	
124	MAR 9	BRA	E	9 1	29.0												No determination of epicentre
125	MAR 9	BRA	EPAKIP EAPKHKP	18 0 18 1	18.0 20.0 -4.6									143.40	46.99	New Hebrides 19.03 S 169.66 E H = 17 41 19.6 Depth = 278 km MB = 5.4 /ISC/	
126	MAR 9	SRO BRA	IPKIP IP ISKDE EFS LMH IAPKIP	20 33 20 35 20 39 20 40 20 45 21 24 20 33	22.0 24.0 4.0 32.0 32.0 0.0 27.0 36.0	-3.6 -1.0 1.1 8.1 0.5 -4.9								126.25	55.55	Solomon Islands 7.48 S 156.20 E H = 20 14 28.0 Depth = 47 km MB = 5.8 /ISC/	
									9.0	20.0	12.0	20.0	6.7	126.71	54.09		



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No.	Date	St. Code	Phase	GMT h m s	RES O-C	Z			E-W			N-S			MLH	Delta	Azimuth	Remarks
						A	T	A	A	T	A	A	T					
127	MAR 10	BRA	EPN EPB	21 53 0.2 21 53 30.0	-3.6 7.4										7.82	157.17	Greece 40.88 N 21.10 E H = 21 51 6.0 Depth = 32 km MB = 4.3 /ISC/	
128	MAR 11	SPC	IP IAP	11 48 58.5 11 49 38.0	2.5 4.1										74.71	30.45	Kurile Islands 48.31 N 153.16 E H = 11 37 31.6 Depth = 154 km MB = 5.8 /ISC/	
129	MAR 13	BRA	EP E	17 24 16.0 17 25 27.0	4.1										14.71	154.39	Crete 34.60 N 24.75 E H = 17 20 45.2 Depth = 46 km MB = 4.6 /ISC/	
130	MAR 14	BRA	EPKP2	10 32 8.0	1.6										144.64	47.63	New Hebrides 20.29 S 170.01 E H = 10 12 32.8 Depth = 35 km MB = 5.2 /ISC/	
131	MAR 14	SRO	EAPKHP IPP LMH	21 18 18.0 21 21 6.0 22 19 0.0	-0.0 0.2										137.13	48.62	New Hebrides 13.87 S 166.60 E H = 20 58 58.8 Depth = 41 km MB = 5.5 /ISC/	
132	MAR 14	BRA	EPKP2 EPKP2	23 12 59.0 23 13 21.0	-3.8 18.2					1.0	16.0	1.8	16.0		148.67	27.66	Pi41 Region 19.16 S 177.69 W H = 22 54 6.6 Depth = 515 km MB = 4.9 /ISC/	
133	MAR 15	BRA	IPG	7 11 10.0	3.6										2.17	36.40	Poland 49.90 N 19.10 E H = 7 10 23.0 Depth = 0 km /ISC/	

134	MAR 15	BRA	EP E	22 23 23.0 22 24 8.0	1.6										77.21	24.78	Kurile Islands Region 49.41 N 158.37 E H = 22 11 29.9 Depth = 40 km MB = 5.0 /ISC/
135	MAR 16	BRA	EPKP2	1 23 4.0	2.6										146.18	18.10	Tonga 15.35 S 173.22 W H = 1 3 24.0 Depth = 51 km MB = 4.7 /ISC/
136	MAR 17	BRA	IP IPCP E	4 9 29.0 4 9 36.0 4 10 37.0	0.5 2.8										83.35	95.56	Northern Sumatra 1.25 N 98.53 E H = 3 57 7.2 Depth = 64 km MB = 5.7 /ISC/
137	MAR 18	BRA	+IPKHP I I	11 15 42.0 11 16 7.0 11 16 40.0	-2.9 10.0										145.83	17.28	Samoa 14.91 S 172.83 W H = 10 56 12.3 Depth = 25 km MB = 5.9 /ISC/
138	MAR 21	BRA	EP	13 52 16.0	-1.8					3.0	20.0	3.0	20.0	6.2	57.05	223.61	Central Mid-Atlantic Ridge 0.16 S 18.26 W H = 13 42 32.6 Depth = 33 km MB = 4.8 /ISC/
139	MAR 22	BRA	EP EAP	7 16 6.0 7 16 17.0	0.1 -0.0										78.54	0.33	Unimak Islands Region 53.67 N 163.44 W H = 7 4 5.6 Depth = 36 km MB = 5.0 /ISC/
140	MAR 22	SRO	EPB ISG I	17 4 27.0 17 6 27.0 17 7 7.0	-1.3 4.5										7.34	166.56	Greece-Albania Border Region 40.65 N 20.55 E H = 17 2 20.0 Depth = 27 km MB = 4.5 /ISC/
141	MAR 22	SRO	EP IP IPP	18 22 5.0 18 22 8.0 18 23 54.0	1.9 0.9 -2.4										46.08 46.59	59.05 58.85	USSR-Mongolia Border Region 49.84 N 90.88 E H = 18 13 40.5 Depth = 33 km MB = 5.4 /ISC/

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No.	Date	St. Code	Phase	GMT		RES O-C	Z			E-W			N-S			MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T	A	T					
142	MAR 22	BRA SRO	EP EP	19 16	12.0	0.5									27.17 27.81	337.83 337.54		Jan Mayen Island Region 70.85 N 14.37 W H = 19 10 27.4 Depth = 20 km /ISC/	
143	MAR 22	BRA	ISC ISN ISN	21 31 21 31 21 32	48.9 57.0 6.0	-0.3 -2.2 6.8									0.10	225.85		Austria-Czechoslovakia 48.10 N 17.00 E H = 21 31 46.0 /ISC/	
144	MAR 23	SRO	+IFKIKP IFKP2 IFKSAB I +IFKIKP IFKIKP IAPKHKP IAPKP2 I	14 47 14 47 14 49 14 57 14 47 14 47 14 49 14 49 14 54	23.0 37.0 23.0 19.0 24.0 26.0 36.0 43.0 50.0	-0.0 -7.3 0.5 0.7 8.6 -0.5 3.0								152.02	38.07		South of Fiji Islands 23.93 S 179.88 E H = 14 28 33.0 Depth = 504 km MB = 6.0 /ISC/		
145	MAR 23	BRA	EKHKP IAPKHKP	15 13 15 15	2.0 9.0	3.6 6.0									151.85	37.06		South of Fiji 23.91 S 179.01 E H = 14 54 7.7 Depth = 531 km MB = 5.5 /ISC/	
146	MAR 23	SFC	EKIKP	15 31	6.0	-1.2									152.70	40.17		South of Fiji 26.30 S 179.00 W H = 15 11 56.0 Depth = 320 km /ISC/	
147	MAR 23	SFC BRA	IPG EPB ESN E	18 8 18 9 18 8 18 9 18 10	93.8 18.5 54.0 25.0 25.0	2.5 -1.1 0.0								1.21 2.65	336.80 35.44		Poland 50.30 N 19.50 E H = 18 8 7.0 Depth = 0 km /ISC/		
148	MAR 23	SFC SRO BRA	EAPKHKP IFKIKP IFKP2 I EAPKHKP I EPP	20 45 20 45 20 42 20 46 20 45 20 46 20 47 20 49	32.0 36.4 35.0 19.0 35.0 39.0 14.0 20.0	-1.2 -1.2 -1.6 -2.8 -0.3 15.4								145.56 147.44 147.76	47.17 45.90 43.70		New Hebrides Region 21.86 S 173.73 E H = 20 25 52.0 Depth = 33 km MB = 5.7 /ISC/		

149	MAR 24	SFC BRA	EKIP2 EKP2 IAPKIKP	0 31 0 33 0 31	21.0 26.0 41.0	-1.9 -5.7 2.0								145.93 148.07	43.82 39.93		South of Fiji 21.17 S 175.78 E H = 0 12 45.2 Depth = 595 km MB = 5.2 /ISC/
150	MAR 24	BRA	IP IXP I Ipp E	4 35 4 35 4 38 4 39 4 41	1.0 36.0 25.0 18.0 43.0	2.1 8.3 -0.3								103.53	53.18		South of Marianas 12.57 N 144.24 E H = 4 21 5.1 Depth = 74 km MB = 5.8 /ISC/
151	MAR 24	SFC SRO	EAP IP IP LMH IP IXP IXP EFCP EPP	14 25 14 25 14 27 14 27 14 35 14 25 14 25 14 26 14 26 14 27	32.0 28.0 25.0 55.0 0.0 42.0 56.0 7.0 51.0 43.0	-0.4 2.8 13.5 1.2 5.7 16.7 11.6 -5.5								54.02 55.38	88.01 85.65		Nepal 27.66 N 86.00 E H = 14 16 1.1 Depth = 20 km MB = 5.4 /ISC/
152	MAR 25	BRA	EKIP2	4 28	5.0	1.8								149.60	24.91		Tonga 15.60 S 175.96 W H = 4 8 9.9 Depth = 33 km MB = 4.8 /ISC/
153	MAR 25	BRA	EFCP EAP	7 50	38.0 43.0	7.4 -3.3								95.33	304.78		Near Coast of Michoacan, Mexico 18.25 N 103.52 W H = 7 37 11.0 Depth = 56 km MB = 4.7 /ISC/
154	MAR 27	BRA	EKIKP EKP2 EAPKIP2	3 27 3 27 3 28	15.0 46.0 12.0	2.4 0.5 14.7								157.05	29.45		Kermadec Islands Region 27.34 S 175.34 W H = 3 7 21.4 Depth = 38 km MB = 5.7 /ISC/
155	MAR 27	BRA	IP IXP EPP IF	16 41 16 41 16 44 16 41	2.0 19.0 5.0 2.0	1.4 4.6 -2.9 0.4								81.10	10.81		Andreanof Islands 50.06 N 179.60 W H = 16 28 47.0 Depth = 32 km MB = 5.6 /ISC/
156	MAR 28	BRA SFC	EAP EPP EPP	21 35 21 35 21 35	12.0 31.0 38.7	-2.4 3.7 1.8								10.56 12.07	188.76 199.93		Sicily 37.77 N 15.09 E H = 21 32 42.8 Depth = 36 km /ISC/

No.	Date	St. Code	Phase	GMT			RES O-C	E-W			N-S			MLH	Delta	Azimuth	Remarks
				h	m	s		A	T	A	T	A	T				
157	MAR 29	SRC BRA	IP IP IXP	22 2	7.5	2.0								73.51 74.38	356.72 354.99	Kodiak Islands Region 57.56 N 153.92 W H = 21 50 Depth = 23 km MB = 5.8 /ISC/	
158	APR 1	SRO	EPOP IS	22 3	36.0	-1.0								86.69	45.75	South of Honshu 30.98 N 141.95 E H = 21 50 Depth = 16 km MB = 5.2 /ISC/	
159	APR 2	BRA	LMH IPCP EXP	22 3	39.0	0.6								87.02	44.90		
159	APR 2	BRA	IPKIP IAPKIP EAPKIP	4 21	35.7	4.6								125.81	54.65	Solomon Islands 6.97 S 155.32 E H = 4 2 Depth = 44 km MB = 5.4 /ISC/	
160	APR 2	BRA	E	12 32	15.0											No determination of epicentre	
161	APR 2	BRA	E	15 57	27.0											No determination of epicentre	
162	APR 3	BRA	E	8 54	0.0											No determination of epicentre	
163	APR 3	BRA	I	11 3	55.5											No determination of epicentre	
164	APR 3	BRA	E	16 24	31.2											No determination of epicentre	
165	APR 4	BRA	EP	7 49	7.0	-0.4								80.93	41.93	Honshu 37.70 N 140.81 E H = 7 37 Depth = 100 km MB = 5.2 /ISC/	
166	APR 4	BRA	EPG	8 53	36.0											No determination of epicentre	
167	APR 4	BRA	E	13 24	4.0											No determination of epicentre	
168	APR 4	BRA	E	13 50	54.0											No determination of epicentre	

169	APR 4	BRA	EAP	15 1	2.0	-0.8								66.70	214.02	South Atlantic Ridge 12.54 S 14.65 W H = 14 50 Depth = 21 km MB = 5.1 /ISC/
170	APR 6	BRA	IP IPCP EPP SRO +IPCP	2 5	40.4	0.1	280	1.0						77.04	358.63	Alaska Peninsula 55.15 N 150.57 W H = 1 53 Depth = 8 km MB = 5.8 /ISC/
171	APR 6	BRA	E	3 2	51.0									138.10	47.23	New Hebrides 14.53 S 166.69 E H = 2 11 Depth = 16 km MB = 5.3 /ISC/
172	APR 6	BRA	IP IPCP EPP SRO +IPCP I	4 7	52.6	-0.5								77.14	358.59	Alaska Peninsula 55.05 N 160.51 W H = 3 55 Depth = 6 km MB = 6.0 /ISC/
173	APR 6	BRA	EPP EPP	8 10	47.0	2.4								111.81	31.92	New Hebrides 14.66 N 166.63 E H = 7 51 Depth = 14 km MB = 5.2 /ISC/
174	APR 6	BRA	E	12 15	44.0											No determination of epicentre
175	APR 6	SRO BRA	EP EP	20 27	11.0	0.5								40.61 41.99	84.62 84.23	Tadzhikistan 37.19 N 72.56 E H = 20 19 Depth = 45 km MB = 5.2 /ISC/
176	APR 6	BRA	E	22 4	11.0											No determination of epicentre
177	APR 7	BRA	EAP	1 0	32.0	-3.5								14.77	225.04	Algeria 36.89 N 4.10 E H = 0 57 Depth = 31 km MB = 4.6 /ISC/
178	APR 7	SRO BRA	EP EAP IAP E	14 26	8.0	2.8								13.90	157.88	Crete 34.75 N 24.79 E H = 14 22 Depth = 38 km MB = 4.7 /ISC/

No.	Date	St. Code	Phase	GMT		RSS O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m s		A	T	A	T	A	T					
179	APR 9	BRA	BFG	10	1 32.0	11.5								2.53	297.82	Czechoslovakia 49°30' N 13.68° E H = 10 0 30.0 /RHC/	
180	APR 9	BRA	IPG	11	0 42.5											No determination of epicentre	
181	APR 9	BRA	IPG	11	11 30.5											No determination of epicentre	
182	APR 9	BRA	E	11	29 42.0											No determination of epicentre	
183	APR 9	BRA	E	11	35 42.0											No determination of epicentre	
184	APR 9	SPC SRO BRA	IP IP IPCP EXP	13 22 54.0 13 23 2.0 13 23 4.3 13 23 19.3 13 24 14.0	1.9 -0.5 1.0 0.0 14.2	140	1.0					5.6		75.54 77.40 77.55	34.91 33.53 32.83	Kurile Islands 45°38' N 148.41° E H = 13 11 23.8 Depth = 199 km MB = 5.4 /ISC/	
185	APR 9	BRA	E	21	29 27.0											No determination of epicentre	
186	APR 10	BRA	EP	1	40 25.0	0.7								79.56	3.63	Fox Islands 52.53° N 158.75° W H = 1 28 16.3 Depth = 15 km MB = 4.6 /ISC/	
187	APR 10	BRA	IPG	4	35 0.0											No determination of epicentre	
188	APR 10	BRA	IPG ISG I	9 30 7.0 9 30 12.0 9 30 14.0 9 30 20.0												No determination of epicentre	
189	APR 10	BRA	IPG	12	37 11.0											No determination of epicentre	
190	APR 10	BRA	EPOP EXP E EPP	22 55 57.0 22 56 36.0 22 57 10.0 22 59 34.0	0.5 1.2 1.0 -2.4									91.33	293.46	Guatemala 14.52° N 91.64° W H = 22 43 0.5 Depth = 105 km MB = 5.4 /ISC/	

191	APR 11	BRA	E	11	59 50.0											No determination of epicentre
192	APR 11	SFC BRA	EPCP EP EAP	21 49 43.0 21 49 48.0 21 50 9.0	-4.8 0.3 1.8									76.50 78.59	39.10 36.97	Hokkaido region 42.36° N 144.42° E H = 21 37 52.3 Depth = 72 km MB = 5.2 /ISC/
193	APR 12	BRA	IPG	12	28 49.4											No determination of epicentre
194	APR 12	BRA	EP	17	58 45.0	-0.9								96.63	60.18	Philippine Sea 14.27° N 134.37° E H = 17 45 18.7 Depth = 38 km MB = 5.5 /ISC/
195	APR 14	BRA	EKP2 EAPK1KP	1 30 55.0 1 31 7.0	0.6 11.4									144.37	50.17	Loyalty Islands 20.86° S 168.53° E H = 1 11 16.9 Depth = 4 km /ISC/
196	APR 14	BRA	EPB SC	7 16 12.0 7 17 22.0	2.1 0.3									4.68	237.31	Northern Italy 45.50° N 11.50° E H = 7 14 47.0 Depth = 0 km /ISC/
197	APR 14	SRO BRA	LMH EP EXP	11 32 0.0 10 56 0.0 10 56 15.0	0.5 0.4			0.8	12.0		0.9	12.0		83.41 83.91	59.30 57.49	Ryukyu Islands 26.04° N 128.35° E H = 10 43 31.9 Depth = 35 km MB = 5.1 /ISC/
198	APR 14	SRO BRA	LMH EPCP EXP	12 27 0.0 11 50 52.0 11 51 12.0	-2.1 11.4			0.4	16.0		0.6	12.0		83.50 83.99	59.29 57.48	Ryukyu Islands 25.98° N 128.42° E H = 11 38 20.2 Depth = 25 km MB = 4.9 /ISC/
199	APR 14	BRA	EAPK1KP E	18 44 34.0 18 45 53.0	-1.4									144.48	50.17	Loyalty Islands 20.95° S 168.59° E H = 38 24 54.0 Depth = 19 km /ISC/
200	APR 14	BRA	E	22 8 28.0										144.36	49.98	Loyalty Islands 20.79° S 168.62° E H = 21 48 22.5 Depth = 4 km /ISC/
201	APR 15	BRA	E	0 53 45.0												No determination of epicentre

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No.	Date	St. Code	Phase	GMT		RES O-C	Z		E-W			N-S			MPV	MLH	Delta Azimuth	Remarks
				h	m s		A	T	A	T	A	T	A	T				
202	APR 15	BRA EPCP EXP	ESG ESG E	3 56 3 57	26.0 4.0	-1.7 16.6										84.96	67.39	Iazon 18.88 N 120.89 E H = 3 43 54.0 MB = 5.2 /ISC/ Depth = 59 km
203	APR 15	BRA SRO	ESG ESG E	21 30 21 30 21 53	14.0 26.0 10.0	2.7 14.7										4.97 5.31	220.59 230.63	Northern Italy 44.30 N 12.60 E H = 21 27 27.0 /ISC/ Depth = 0 km
204	APR 16	SFC IAP E	IFCP IAP E	11 35 11 35 11 38	30.0 58.0 0.0	5.0 3.7										86.38 88.68	73.19 70.82	Mindoro 13.80 N 120.71 E H = 11 22 32.9 MB = 5.3 /ISC/ Depth = 124 km
205	APR 16	BRA	EP	16 44	38.0	-0.3												No determination of epicentre
206	APR 17	BRA	EP	0 40	1.0	1.4										40.52	271.20	North Atlantic Ridge 35.20 N 35.37 W H = 0 32 21.4 Depth = 28 km MB = 5.0 /ISC/
207	APR 17	BRA	EP	0 51	46.0	-1.7										80.14	6.64	Andreasof Islands 51.66 N 173.44 W H = 0 39 40.9 MB = 4.8 /ISC/ Depth = 46 km
208	APR 17	SFC I I BRA I IS E E	EP I I I I I E E	1 32 1 32 1 33 1 32 1 32 1 33 1 35 1 36	26.7 40.6 31.0 28.4 38.4 27.4 6.0 12.0	-6.4 -0.5 -3.7 -1.9 0.1										3.31 3.57	168.51 127.09	Romania 45.94 N 21.19 E H = 1 31 34.4 Depth = 46 km /ISC/
209	APR 17	BRA	EP	8 54	34.0													No determination of epicentre
210	APR 17	SFC IAP I BRA IAP I	IP IAP I I I I	18 34 18 34 18 34 18 34 18 34 18 35	34.0 34.0 42.2 36.3 43.3 35.3	-0.5 3.7 -1.9 0.1	160	2.0						5.5		35.73 36.18	145.87 140.38	Red Sea 17.30 N 40.30 E H = 18 27 34.0 MB = 5.1 /ISC/ Depth = 12 km

211	APR 18	BRA	EP	8 24	27.0													No determination of epicentre
212	APR 18	BRA	EP	11 6	33.0													No determination of epicentre
213	APR 18	BRA EPAF2 EAPKIP	EP E E	14 35 14 35	20.0 41.0	-0.3 9.7										144.23	50.14	Loyalty Islands 20.73 S 168.46 E H = 14 15 48.0 /ISC/ Depth = 34 km
214	APR 18	BRA	IPG	15 33	14.0													No determination of epicentre
215	APR 18	BRA EAPKHP EAPKIP	EP E E	16 23 16 23	6.0 20.0	0.5 9.2										144.51	49.88	Loyalty Islands 20.89 S 168.76 E H = 16 3 29.0 /ISC/ Depth = 21 km
216	APR 19	SRO BRA I I I I EPP	EP E E E E E E	7 23 7 23 7 23 7 23 7 26 7 27	57.0 20.8 5.4 5.5 13.8 46.0	4.3 1.4 5.5 3.9 -0.3										151.60 151.84	40.43 37.95	South of Fiji 24.08 S 176.59 E H = 7 5 8.6 MB = 5.6 /ISC/ Depth = 594 km
217	APR 19	BRA	EP	8 1	25.0											3.13	326.98	Czechoslovakia 50.76 E 14.42 E H = 7 59 7.0 /PRU/ No determination of epicentre
218	APR 19	BRA E E	EP E E	11 17 11 17 11 17	30.0 44.0 52.0													No determination of epicentre
219	APR 20	SRO E E	EP E E	2 20 2 29	39.0 51.0	0.2										147.28	49.71	Loyalty Islands Region H = 2 1 3.0 MB = 5.1 /ISC/ Depth = 48 km
220	APR 20	BRA	EP	8 0	46.0	-1.5										76.72	94.42	Nicaragua Islands Region 6.96 N 94.92 E H = 7 49 5.0 Depth = 77 km MB = 4.4 /ISC/
221	APR 20	SFC SRO BRA E E	EP E E E E	8 46 8 47 8 46 8 47 8 48	54.7 3.0 56.0 26.0 11.0	2.1 0.7 2.0 11.6										145.47 147.34 147.71	50.74 49.65 47.50	Loyalty Islands Region 22.84 S 171.83 E H = 8 27 16.9 MB = 5.1 /ISC/ Depth = 43 km

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No.	Date	St. Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m s		A	T	A	T	A	T					
222	APR 20	BRA E	ESG E	9	0 18.0 0 23.0												No determination of epicentre
223	APR 21	SRO BRA	LPKP2 LMH LPKP2 LAPKPKP E	1 13 13.0 1 24 0.0 1 13 14.0 1 13 21.0 1 14 48.0	-0.5 -1.0 -1.0			0.4	16.0	0.9	16.0		5.6	147.23 147.61	49.83 47.68		Loyalty Islands Region 22.93 S 171.68 E H = 0 53 31.4 Depth = 46 km MB = 5.4 /ISC/
224	APR 21	BRA	IF IFCP E	2 19 50.0 2 20 5.0 2 23 6.0	1.6 3.6									75.77	34.20		Sea of Okhotsk 46.19 N 145.45 E H = 2 8 0.0 Depth = 6 km MB = 5.2 /ISC/
225	APR 21	BRA E	ES E	4 4 14.0 4 6 12.0	4.7									9.31	177.95		Southern Italy 39.86 N 17.53 E H = 4 0 4.1 Depth = 0 km /ISC/
226	APR 22	SRO	LMH	1 10 0.0				0.6	16.0	0.9	16.0		5.2	73.97	60.63		Eastern China 31.62 N 119.26 E H = 6 29 15.0 Depth = 3 km MB = 5.0 /ISC/
227	APR 22	BRA EAP	EP EAP	1 50 10.0 1 50 21.0	3.0 -0.7									70.86	89.95		Andaman Islands 14.22 N 94.05 E H = 1 38 53.7 Depth = 52 km MB = 4.8 /ISC/
228	APR 22	SRO BRA	EPKP2 EPKP2 EAPKHKP E EPKSDP	2 25 4.0 2 25 8.0 2 25 11.0 2 26 23.0 2 28 31.0	-1.3 1.2 -2.3 -2.1									147.36 147.74	49.79 47.63		Loyalty Islands Region 22.93 S 171.78 E H = 2 5 23.5 Depth = 53 km MB = 5.2 /ISC/
229	APR 22	BRA	EPB ISB ISN ISN ESB	12 26 31.0 12 26 44.4 12 26 49.4 12 27 4.0 12 28 48.0	0.5 1.2 3.4 18.0 -3.7									0.92	197.03		Austria 47.29 N 16.71 E H = 12 26 12.0 Depth = 33 km /ISC/
230	APR 22	BRA EP	EP	14 42 40.0	3.6									68.02	252.16		Central Mid-Atlantic Ridge 9.70 N 41.40 W H = 14 32 12.0 Depth = 0 km MB = 4.4 /ISC/

231	APR 23	BRA EP EXP	EP ISN E	15 36 44.5 15 37 3.0	-6.4 2.7									60.46	259.43		North Atlantic Ridge 15.13 N 45.22 W H = 15 26 40.4 Depth = 22 km MB = 4.5
232	APR 23	BRA EP EXP	EP EXP	17 48 35.8 17 49 9.2	-9.7 9.0									60.05	245.15		Central Mid-Atlantic Ridge 7.35 N 35.33 W H = 17 38 39.7 Depth = 35 km MB = 4.6 /ISC/
233	APR 24	BRA SFC	IFN ISN E	6 58 37.0 6 59 4.0	-3.3 -3.9									2.14	35.03		Czechoslovakia 49.90 N 19.00 E H = 6 58 3.0 /ISC/
234	APR 24	BRA SFC	I E	11 3 9.0 11 4 5.0													No determination of epicentre
235	APR 25	BRA SFC	EP EAP	0 12 29.0 0 12 35.5	-0.5 -0.6									48.19 48.63	162.51 166.89		Uganda 1.11 N 30.05 E H = 0 3 47.0 Depth = 11 km MB = 4.9 /ISC/
236	APR 25	BRA	E	8 53 36.0													No determination of epicentre
237	APR 25	BRA	EP	16 1 1.0	0.6									82.96	52.60		Ryukyu Islands 29.81 N 131.99 E H = 15 48 38.2 Depth = 40 km MB = 4.8 /ISC/
238	APR 26	BRA	E	7 3 12.0													No determination of epicentre
239	APR 26	BRA	ESB	7 24 40.0	0.0									6.80	266.38		Switzerland 47.50 N 7.10 E H = 7 21 14.0 Depth = 33 km /ISC/
240	APR 26	BRA	EPG ISG	13 0 3.0 13 0 12.0													No determination of epicentre
241	APR 26	BRA EP	EP	18 15 21.0	1.4									36.40	140.33		Red Sea 17.10 N 40.44 E H = 18 8 18.0 Depth = 48 km MB = 4.4 /ISC/



No. Date	St. Code	Phase	h	GMT m s	RES O-C	Z			E-W			N-S			MLH	Delta Azimuth	Remarks
						A	T	A	A	T	A	T	A	T			
242	APR 27	SRO IPKIKP IPKP2 I I BRA	7 44 44.1 7 45 10.1 7 49 46.1 7 52 18.1 7 44 41.0	1.7 -1.6 -1.5													South of Tonga 26.28 S 175.78 W H = 7 24 53.6 Depth = 44 km MB = 6.1 /ISC/
243	APR 27	SPC EP BRA	10 12 20.5 10 12 27.0	2.6 -0.9													Near East Coast of Kamchatka 55.90 N 162.84 E H = 10 1 5.6 Depth = 54 km MB = 5.0 /ISC/
244	APR 29	SPC I	17 38 41.0 17 39 4.0														No determination of epicentre
245	APR 29	SRO IPP EP IXP E	20 9 13.3 20 9 49.3 20 9 20.0 20 9 33.0 20 10 10.0	0.3 17.1 -1.0 7.2													Equator 30.39 N 31.64 E H = 20 4 37.5 Depth = 12 km MB = 4.8 /ISC/
246	APR 29	BRA EPCP	22 33 38.0	-0.8													Colombia 4.83 N 76.11 W H = 22 20 54.6 Depth = 103 km MB = 4.9 /ISC/
247	MAY 3	BRA IPG	11 59 10.3														No determination of epicentre
248	MAY 4	SPC BRA	9 28 56.0 9 29 6.5 9 28 50.0 9 29 12.0 9 29 30.0	-7.2 3.3 1.2 -0.1 17.9													South of Fiji 24.80 S 179.06 E H = 9 10 0.5 Depth = 530 km MB = 5.4 /ISC/
249	MAY 4	SRO BRA	13 5 44.4 13 8 8.4 13 5 46.0 13 5 52.0 13 7 44.0 13 8 35.0 13 9 13.0	4.0 -0.4 -3.5 2.5 -14.3 -0.7 -10.9													New Hebrides Region 13.92 S 172.65 E H = 12 47 28.1 Depth = 599 km MB = 5.4 /ISC/
250	MAY 4	BRA EPCP EAP	18 7 10.0 18 7 20.0	-0.4 1.6													South of Panama 7.64 N 82.73 W H = 17 54 7.0 Depth = 29 km MB = 5.0 /ISC/

251	MAY 4	SPC BRA	22 8 46.5 22 8 59.0 22 9 9.0	3.6 1.8 1.1													Off East Coast of Kamchatka 51.72 N 159.40 E H = 21 57 11.3 Depth = 34 km MB = 4.7 /ISC/
252	MAY 5	SPC BRA	6 9 51.0 6 10 4.0 6 10 20.0	-2.7 0.2 6.8													Taiwan Region 22.29 N 121.44 E H = 5 57 36.8 Depth = 34 km MB = 5.5 /ISC/
253	MAY 5	BRA EAPKIKP EAPKIKP E ESKPPC	8 37 19.0 8 37 37.0 8 38 9.0 8 40 34.0	-1.8 16.2 9.0 11.0													New Hebrides 14.47 S 167.87 E H = 8 17 49.0 Depth = 23 km MB = 5.0 /ISC/
254	MAY 5	SRO EP BRA IP	14 31 24.0 14 32 24.0 14 31 26.0	0.7 1.3													Near East Coast of Honshu 37.78 N 141.77 E H = 14 19 12.5 Depth = 50 km MB = 5.7 /ISC/
255	MAY 5	BRA EP EXP	19 22 20.0 19 23 31.0	-0.1 18.6													Kurile Islands 45.96 N 149.37 E H = 19 10 39.8 Depth = 146 km MB = 4.9 /ISC/
256	MAY 6	BRA IP I IS	7 51 14.0 7 51 25.0 7 52 9.0	18.5 17.7													Austria 46.50 N 13.18 E H = 7 50 26.0 Depth = 64 km /ISC/
257	MAY 6	SPC BRA EAP	10 44 50.0 10 44 33.0 10 44 58.0	0.3 13.8 -2.2													Northern Sumatra 3.30 N 96.80 E H = 10 32 37.1 Depth = 46 km MB = 4.8 /ISC/
258	MAY 6	SPC BRA SRO	11 58 0.0 11 58 2.0 11 58 26.0 11 58 4.0 11 58 28.0	-0.4 0.3 17.3 -1.2 19.2													Tonga 15.37 S 173.32 W H = 11 38 22.1 Depth = 33 km MB = 5.6 /ISC/
259	MAY 7	SPC BRA IPKIKP I E	2 44 48.5 2 45 10.0 2 44 52.0 2 45 17.6 2 46 30.0 2 54 13.0	-1.8 14.3 -0.4 18.7 E													Fiji Region 16.67 S 177.37 W H = 2 25 11.9 Depth = 33 km MB = 5.4 /ISC/
260	MAY 8	BRA E	14 43 0.0 14 43 46.0														No determination of epicentre

No.	Date	St. Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
261	MAY 8	SRO	IP	23 45	52.0	1.8	3000	4.0					6.8	82.21	45.90	Near South Coast of Honshu 34.57 N 138.75 E H = 23.33 27.4 Depth = 10 km MB = 5.8 /ISC/	
			IPP ISKS LMH	23 49 23 56 0 27	8.0 8.0 0.0	1.4				32.0	20.0	36.0	20.0		6.9		82.54
262	MAY 9	SRO	IP	23 45	50.7	-1.2										Loyalty Islands Region 21.66 S 169.67 E H = 16 7.44.8 Depth = 46 km MB = 5.2 /ISC/	
			IPP ISKS LMH	23 48 23 49 23 56	14.7 17.2 18.0	2.5				36.0	12.0	36.0	12.0		7.1		
263	MAY 10	SRO	IPKIP2	16 27	20.0	0.9										Prince Edward Islands Region 45.97 S 35.10 E H = 23 56 39.1 Depth = 33 km MB = 5.5 /ISC/	
			IPKIP EAPKIP	16 27 16 29	19.2 10.2	8.1											
264	MAY 10	SRO	EAP	0 10	4.0	-4.0										Kermadec Islands Region 30.94 S 173.39 W H = 2 3 46.5 Depth = 238 km MB = 5.3 /ISC/	
			IPP ISKS LMH	0 13 0 22 0 52	56.0 40.0 0.0	8.1 10.3				5.0	16.0	5.0	16.0		6.2		95.07
265	MAY 10	SRO	IPKIP2	2 23	15.7	0.6										Ryukyu Islands 27.48 N 129.54 E H = 5 25 37.3 Depth = 31 km MB = 5.0 /ISC/	
			IPKIP EAPKIP	2 23 2 24	53.7 10.0	-0.5 -6.6											
266	MAY 10	SRO	EFCP	5 38	7.0	-0.9										Northern Easter I. Cordillera 4.30 S 102.07 W H = 8 12 5.6 Depth = 33 km MB = 5.9 /ISC/	
			EXP	5 38	16.0	-0.7											
267	MAY 10	SRO	IPP	8 31	28.0	-7.5										No determination of epicentre	
			E	8 42	16.0												
268	MAY 10	SRO	IP	19 36	2.3	2.0										Szechwan Province 28.19 N 103.98 E H = 19 25 17.0 Depth = 17 km MB = 5.8 /ISC/	
			IPP ISKS LMH	19 38 20 6 19 36	42.0 0.0 12.0	15.9 0.0 1.4				31.0	12.0	39.0	12.0		6.9		65.30
269	MAY 11	SRO	IP	19 36	24.0	1.8										Molucca Passage 1.87 N 126.48 E H = 0 43 45.9 Depth = 43 km MB = 6.1 /ISC/	
			IPP ISKS LMH	19 45 20 6 0 57	31.0 0.0 28.0	-2.1 0.9				33.0	12.0	33.0	12.0		6.9		99.14
270	MAY 11	SRO	IP	1 1	30.2	1.3										Marianas Region 19.73 N 147.34 E H = 6 14 11.9 Depth = 26 km MB = 6.2 /ISC/	
			IPP ISKS LMH	1 9 1 27 0 57	12.0 0.0 51.0	10.7 -1.1				2.0	24.0	3.0	24.0		5.8		100.73
271	MAY 11	SRO	IP	6 27	45.0	2.7										Molucca Passage 1.94 N 126.47 E H = 20 53 15.0 Depth = 26 km MB = 5.5 /ISC/	
			IPP ISKS LMH	6 31 6 40 7 8	42.0 56.0 0.0	-4.3 7.8				6.0	20.0	4.0	20.0		6.2		96.86
272	MAY 12	SRO	IP	6 27	52.0	0.8										No determination of epicentre	
			IPP	6 31	56.0	-0.7				0.8	20.0	1.0	20.0		5.4		101.41
273	MAY 12	SRO	EAP	21 7	4.0	0.6										Northern Chile 19.57 S 69.05 W H = 10 5 54.6 Depth = 107 km MB = 5.6 /ISC/	
			IPP ISKS LMH	21 17 21 55 21 7	16.0 40.0 27.0	2.4 1.9											
274	MAY 12	SRO	IP	19 50	36.0	-5.5										Germany 48.27 N 8.97 E H = 19 48 13.0 Depth = 7 km /ISC/	
			IPP ISKS LMH	19 51 19 52 19 52	6.5 36.0	-6.2 -1.2											
275	MAY 13	SRO	IP	11 15	4.8											No determination of epicentre	
			IPP	11 15	5.8												
276	MAY 13	SRO	IP	17 47	36.0	3.3										Hindu Kush Region 36.54 N 70.98 E H = 17 40 27.6 Depth = 197 km MB = 5.3 /ISC/	
			IPP ISKS LMH	17 48 17 47 17 50	19.0 40.0 9.6	4.4 3.0 1.8											

No.	Date	St. Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
269	MAY 11	SRO	IP	19 36	24.0	1.8										Molucca Passage 1.87 N 126.48 E H = 0 43 45.9 Depth = 43 km MB = 6.1 /ISC/	
			IPP ISKS LMH	19 45 20 6 0 57	31.0 0.0 28.0	-2.1 0.9				33.0	12.0	33.0	12.0		6.9		99.14
270	MAY 11	SRO	IP	1 1	30.2	1.3										Marianas Region 19.73 N 147.34 E H = 6 14 11.9 Depth = 26 km MB = 6.2 /ISC/	
			IPP ISKS LMH	1 9 1 27 0 57	12.0 0.0 51.0	10.7 -1.1				2.0	24.0	3.0	24.0		5.8		100.73
271	MAY 11	SRO	IP	6 27	45.0	2.7										Molucca Passage 1.94 N 126.47 E H = 20 53 15.0 Depth = 26 km MB = 5.5 /ISC/	
			IPP ISKS LMH	6 31 6 40 7 8	42.0 56.0 0.0	-4.3 7.8				6.0	20.0	4.0	20.0		6.2		96.86
272	MAY 12	SRO	IP	6 27	52.0	0.8										No determination of epicentre	
			IPP	6 31	56.0	-0.7				0.8	20.0	1.0	20.0		5.4		101.41
273	MAY 12	SRO	EAP	21 7	4.0	0.6										Northern Chile 19.57 S 69.05 W H = 10 5 54.6 Depth = 107 km MB = 5.6 /ISC/	
			IPP ISKS LMH	21 17 21 55 21 7	16.0 40.0 27.0	2.4 1.9											
274	MAY 12	SRO	IP	19 50	36.0	-5.5										Germany 48.27 N 8.97 E H = 19 48 13.0 Depth = 7 km /ISC/	
			IPP ISKS LMH	19 51 19 52 19 52	6.5 36.0	-6.2 -1.2											
275	MAY 13	SRO	IP	11 15	4.8											No determination of epicentre	
			IPP	11 15	5.8												
276	MAY 13	SRO	IP	17 47	36.0	3.3										Hindu Kush Region 36.54 N 70.98 E H = 17 40 27.6 Depth = 197 km MB = 5.3 /ISC/	
			IPP ISKS LMH	17 48 17 47 17 50	19.0 40.0 9.6	4.4 3.0 1.8											

No.	Date	St. Code	Phase	GMT		RES O-C	Z		E-W		N-S		MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T				
		BRA	IPP I	17 47 50.5 17 49 29.5 17 50 31.5	0.4 -0.8								40.68	86.13		
277	MAY 13	SPC SRO	IP IAP IXS LMH EPCP	19 7 29.2 19 7 39.2 19 18 39.6 19 54 0.0 19 7 39.0	-0.2 0.5 2.3 -0.3			1.0	12.0	2.0	12.0	5.8	90.03 91.08 91.93	100.05 98.62 97.72	South West of Sumatra 6.64 S 102.65 E H = 18 54 29.0 Depth = 15 km MB = 5.3 /ISC/	
278	MAY 13	SPC BRA	IXP EAP	19 43 50.0 19 43 56.0	-0.4 -0.2								90.03 91.93	99.84 97.51	South West of Sumatra 6.50 S 102.81 E H = 19 30 40.6 Depth = 25 km MB = 5.1 /ISC/	
279	MAY 13	SPC	EPCP	20 16 11.5	5.1								98.54	75.64	Molucca Passage 2.82 N 126.67 E H = 20 2 32.7 Depth = 58 km MB = 5.3 /ISC/	
280	MAY 13	BRA	EPN ESN	20 30 26.0 20 30 45.0	0.2 0.5								1.33	240.43	Austria 47.50 N 15.40 E H = 20 30 0.0 Depth = 8 km /VIS/	
281	MAY 14	BRA	E	7 31 3.0											No determination of epicentre	
282	MAY 15	BRA	EP	10 14 48.0	-4.2								51.46	269.50	North Atlantic Ridge 27.43 44.54 W H = 10 5 46.5 Depth = 23 km MB = 4.6 /ISC/	
283	MAY 15	BRA SPC	EP EP	10 43 2.0 10 43 18.0	-0.1 0.3								51.32 53.40	269.25 270.81	North Atlantic Ridge 27.38 N 44.27 W H = 10 33 58.0 Depth = 26 km MB = 5.1 /ISC/	
284	MAY 15	SPC BRA	EPCP EP	12 26 3.0 12 26 1.0	0.5 -0.4								88.72 88.88	151.29 148.89	Atlantic Indian Ridge 34.13 S 55.62 E H = 12 13 9.1 Depth = 32 km MB = 4.8 /ISC/	
285	MAY 15	SPC BRA +IP	IP IP	13 16 6.0 13 16 10.0	3.4 1.0		70	1.0				5.6	78.47 79.66	5.62 3.65	Fox Islands 52.43 N 168.77 W H = 13 4 4.7 Depth = 45 km MB = 5.2 /ISC/	

286	MAY 15	BRA	EP	13 53 15.0	0.9								51.38	269.33	North Atlantic Ridge 27.39 N 44.37 W H = 13 44 10.6 Depth = 33 km MB = 4.5 /ISC/
287	MAY 15	BRA	EP	14 8 19.0	-0.7								51.45	269.38	North Atlantic Ridge 27.37 N 44.46 W H = 13 59 15.7 Depth = 34 km MB = 4.7 /ISC/
288	MAY 15	SPC SRO	IP EXS LMV +PCP IS LMH +IP LMH	19 11 29.6 19 21 21.5 18 47 0.0 19 11 47.3 18 21 27.3 18 49 0.0 19 11 38.9 19 41 0.0	1.0 -2.1 -4.0 10.9 -0.3					6.7 6.0	39.0 20.0	20.0 20.0	74.23 76.04 76.08	27.79 26.48 25.81	Kurdle Islands 49.98 N 156.22 E H = 18 59 56.1 Depth = 58 km MB = 6.0 /ISC/
289	MAY 15	BRA	EP	19 38 38.0	2.1								51.40	269.34	North Atlantic Ridge 27.38 N 44.39 W H = 19 29 32.2 Depth = 33 km MB = 5.2 /ISC/
290	MAY 15	BRA	E	23 30 43.0											No determination of epicentre
291	MAY 16	BRA	IPG ISC I LMH	15 34 48.3 15 34 49.8 15 34 50.5 15 34 51.7											No determination of epicentre
292	MAY 16	BRA	E	17 24 11.0 17 25 6.0									51.42	269.22	North Atlantic Ridge 27.30 N 44.34 W H = 17 15 47.0 Depth = 0 km MB = 4.7 /ISC/
293	MAY 16	SPC SRO BRA	IP EPP +IP I +IP IPP	20 11 57.4 20 12 46.0 20 15 31.0 20 12 3.8 20 22 52.2 20 12 6.9 20 15 47.0	0.4 -0.3 -1.9 -0.6 -2.1						5.3		87.09 88.96 89.33	50.64 49.19 48.31	Born Islands Region 27.15 N 140.18 E H = 20 0 3.1 Depth = 489 km MB = 5.3 /ISC/
294	MAY 16	BRA SRO	EXP EXP LMH	23 21 10.0 23 21 20.8 23 55 0.0	-1.3 5.4								90.41 91.29	287.33 288.23	Near Coast of Nicaragua 11.27 N 86.22 W H = 23 7 50.3 Depth = 65 km MB = 5.4 /ISC/



No.	Date	St. Code	Phase	GMT		RES O-C	Z		E-W			N-S			MPV	MLH	Defts	Azimuth	Remarks
				h	m		s	A	T	A	T	A	T	A					
314	MAY 24	SPC BRA	EAP EP	20 38	11.0	-3.6										72.56 74.32	24.22 22.32	Near East Coast of Kamchatka 53.03 N 159.85 E H = 20 26 36.8 Depth = 48 km MB = 5.0 /ISC/	
315	MAY 25	BRA	EP EAP	0 43	38.0	2.3										83.43	55.63	Ryukyu Islands 27.57 N 129.63 E H = 9 31 13.5 Depth = 52 km MB = 4.8 /ISC/	
316	MAY 26	SRO	IFKIKP IPP I	1 51	40.0	-1.7										140.96	50.21	New Hebrides 17.69 S 167.80 E H = 1 32 11.6 Depth = 13 km MB = 5.8 /ISC/	
317	MAY 26	BRA	EAPKIKP E	1 51	45.0	-1.6			3.0	20.0						141.34	48.32		
318	MAY 26	SRO BRA	EXP I EP	13 9	32.0	0.6										10.78	168.24	Southern Greece 37.22 N 21.05 E H = 13 6 50.0 MB = 4.1 /ISC/	
319	MAY 27	SRO BRA	+IXP I LMH EP	4 53	28.0	-1.1										75.67	25.42	Kurile Islands 50.78 N 157.38 E H = 4 41 25.1 Depth = 60 km MB = 5.6 /ISC/	
320	MAY 27	BRA	IPC I ICG IFG IFN IFN ISG	11 23	32.9	-3.8										0.94	240.40	Austria 47.70 N 15.90 E H = 11 23 18.0 Depth = 1 km /ISC/	
321	MAY 27	BRA	EP IFCP E	14 13	2.0	0.1										71.06	351.19	Southern Alaska 60.26 N 146.00 W H = 14 1 41.6 Depth = 10 km MB = 5.4 /ISC/	
322	MAY 28	SRO BRA	EP E	14 13	4.0	-0.7										71.53	351.83	No determination of epicentre	

323	MAY 28	BRA	E E	8 1	37.0													No determination of epicentre
324	MAY 28	BRA	E	8 1	48.0													No determination of epicentre
325	MAY 29	SRO BRA	EP EP EXP	4 26	40.0	1.1										54.98 55.85	125.15 124.13	Carlsberg Ridge 6.13 N 60.65 E H = 4 17 8.8 Depth = 35 km MB = 5.1 /ISC/
326	MAY 29	BRA	E	8 53	26.0													No determination of epicentre
327	MAY 29	BRA	ESG	11 1	55.0	8.9										3.21	310.24	Czechoslovakia 50.18 N 13.29 E H = 11 0 0.0 /FRU/
328	MAY 29	BRA SPC	IPG E	12 1	6.7													No determination of epicentre
329	MAY 29	BRA	E E	12 11	56.0													No determination of epicentre
330	MAY 30	SRO	E	15 45	16.0													No determination of epicentre
331	MAY 31	BRA	EP	3 25	8.0	-3.1										78.59	0.56	Unimak Island Region 53.62 N 163.81 W H = 3 13 11.3 Depth = 34 km MB = 4.8 /ISC/
332	MAY 31	SFC BRA	IPP +IP IPP	3 34	13.4	1.2										37.22	65.92	Eastern Kazakhstan 49.91 N 78.91 E H = 3 26 57.4 Depth = 0 km MB = 5.9 /ISC/
333	MAY 31	BRA SRO	EAPKP2 EAPKP2 E	8 0	31.0	11.2	140	1.0								148.25 148.52	17.44 19.77	Tonga Region 17.30 S 172.40 W H = 7 40 19.0 Depth = 53 km /ISC/
334	MAY 31	BRA	EP E	9 0	36.5													No determination of epicentre

No.	Date	St. Code	Phase	GMT h m s	RES O-C	Z			E-W			N-S			MPV	MLH	Delta Azimuth	Remarks
						A	T		A	T		A	T					
335	MAY 31	BRA	EP EPCP	9 22 15.0 9 22 30.0	0.5 0.9										74.49	22.24	Off East Coast of Kamohatka H = 91 N 160.08 E H = 9 10 39.1 Depth = 46 km MB = 5.0 /ISC/	
336	MAY 31	BRA	EP EAP	11 24 34.0 11 24 42.0	-1.2 -0.9										86.51	140.04	Atlantic Indian Ridge 28.00 S 63.57 E H = 11 11 53.0 Depth = 24 km MB = 5.1 /ISC/ No determination of epicentre	
337	MAY 31	BRA	HP	13 0 37.0													No determination of epicentre	
338	MAY 31	BRA	EP EAP	14 18 12.0 14 18 17.0	2.8 0.6										91.66	315.66	Gulf of California 27.36 N 111.13 W H = 14 5 1.9 Depth = 26 km MB = 5.4 /ISC/ No determination of epicentre	
339	JUN 1	BRA	E	2 2 30.0													No determination of epicentre	
340	JUN 1	BRA	EP	3 38 14.0													No determination of epicentre	
341	JUN 1	BRA	EP EPG IPW ISB ISG ISN	11 4 32.4 11 4 37.7 11 4 37.6 11 4 40.6 11 4 41.3 11 4 47.5													No determination of epicentre	
342	JUN 1	BRA	E	22 49 31.0 22 49 36.0													No determination of epicentre	
343	JUN 2	BRA	E	1 13 23.0													No determination of epicentre	
344	JUN 2	BRA	E	1 19 47.0													No determination of epicentre	
345	JUN 2	BRA	IPK IPB ISN E	5 27 4.6 5 27 13.6 5 28 8.6 5 29 19.6	0.3 -2.7 -1.6										5.58	184.60	Adriatic Sea 42.60 N 16.50 E H = 5 25 38.0 Depth = 0 km /ISC/	

346	JUN 2	BRA	IAPKIP IPKIP I E IAPKIP	12 37 9.8 12 37 12.8 12 37 44.8 12 39 7.0 12 37 10.4	-0.2 0.4													Tonga 16.73 S 173.03 W H = 12 17 24.0 Depth = 15 km MB = 5.2 /ISC/
347	JUN 2	BRA	EP	23 16 34.0	-0.5													Colombia 5.51 N 76.83 W H = 23 3 44.4 Depth = 37 km MB = 5.2 /ISC/
348	JUN 3	SPC	EP IPP EP IPP BRA EP EPP E E	11 52 57.0 11 54 22.0 11 53 7.0 11 54 39.0 11 53 8.0 11 53 8.0 11 54 52.0 11 55 36.0 11 57 12.0	5.7 -4.1 4.5 -0.9 -0.9 -0.9 4.3													Afghanistan-USSR Border Region 36.89 N 71.35 E H = 11 45 36.9 Depth = 105 km MB = 5.2 /ISC/
349	JUN 3	BRA	E	15 41 50.0														No determination of epicentre
350	JUN 3	BRA	EPP	23 44 25.0	-4.8													Tadzikistan 39.21 N 71.62 E H = 23 35 23.8 Depth = 38 km MB = 4.9 /ISC/
351	JUN 4	SPC	IPKIP IAPKIP IPP IPKIP IAPKIP I IPP E I I I I	4 33 22.0 4 34 38.0 4 36 38.0 4 33 24.0 4 33 34.0 4 34 39.0 4 34 53.0 4 36 42.0 4 44 29.0 4 33 23.0 4 34 53.0 4 36 23.0 4 38 21.0 4 40 21.0 4 43 55.0	1.3 13.1 -4.1 1.5 11.0 11.0 -10.6 0.5 -7.8												Tonga 15.89 S 175.04 W H = 4 14 13.8 Depth = 256 km MB = 6.1 /ISC/	
352	JUN 4	BRA	EP	15 24 23.0	0.3													North Atlantic Ridge 10.82 N 42.56 W H = 15 14 6.0 Depth = 51 km MB = 4.9 /ISC/

No.	Date	St. Code	Phase	GMT		RES O-C	Z			E-W			N-S			MLH	Delta Azimuth	Remarks
				h	m		A	T	A	T	A	T	A	T				
353	JUN 4	BRA E SFC	E E E	19 37 19 37 19 37	20.0 32.0 40.0												No determination of epicentre	
354	JUN 5	BRA SFC	EAPKHP EAPKHP EAPKP2	0 0 0 0 0 0	23.5 30.0 52.0	-0.5 1.3 15.0											Samoa Region 16.20 S 172.80 W H = 23 40 43.2 Depth = 33 km /ISC/	
355	JUN 5	BRA	E	3 48	6.0												No determination of epicentre	
356	JUN 5	BRA E	E E	11 21 11 22	45.0 3.0												Czechoslovakia expl. of 30.2t 50.59 N 140.50 E H = 11 20 0.0 /ISC/	
357	JUN 5	BRA SFC	EAPKHP EAPKHP EAPKHP	22 20 22 20 22 20	34.0 29.0 42.0	-0.2 1.6 4.8											Tonga 15.16 S 173.60 W H = 22 0 49.9 Depth = 42 km MB = 4.9 /ISC/	
358	JUN 6	BRA	E	16 14	40.0												No determination of epicentre	
359	JUN 6	BRA SFC	EP	17 13	35.0	2.5											Kurile Islands Region 44.97 N 150.83 E H = 17 1 40.0 Depth = 17 km MB = 4.7 /ISC/	
360	JUN 6	BRA E	E E	18 10 18 12	46.0 26.0												No determination of epicentre	
361	JUN 6	BRA SFC	IP IAP EP	19 10 19 11 19 10	32.2 18.5 40.0	2.9 4.4 -0.2											Hindu Kush Region 36.41 N 70.77 E H = 19 3 26.0 Depth = 212 km MB = 5.1 /ISC/	
362	JUN 7	BRA E	E E	2 8 2 8	22.0 26.0												No determination of epicentre	
363	JUN 7	BRA SRO	EAPKHP EAPKHP I LMH	7 7 7 7 8 7	30.0 18.3 50.3	7.6 0.0											Tonga 15.39 S 175.29 W H = 6 47 37.0 Depth = 30 km MB = 5.2 /ISC/	

364	JUN 7	BRA E E I	E E E I	11 39 11 40 11 41 11 42	42.0 52.5 56.5 5.0												No determination of epicentre
365	JUN 7	BRA EP	EP	13 12 13 13	57.0 16.0												No determination of epicentre
366	JUN 7	BRA SRO	EXP I EP E E E	14 48 14 52 14 48 14 48 14 50 14 52	54.0 44.7 56.0 43.0 5.0 13.0	-5.6 5.4											Greece 38.86 N 20.50 E H = 14 46 32.0 Depth = 53 km MB = 4.3 /ISC/
367	JUN 7	BRA EP EXP	EP EXP	18 2 18 2	24.0 43.0	1.2 5.6											Aluetian Islands Region 20.84 N 170.60 W H = 17 50 9.2 Depth = 34 km MB = 5.0 /ISC/
368	JUN 7	BRA SRO	EAP EXP E EP BSKS LMH SFC EXP	23 2 23 2 23 3 23 2 23 12 23 36 23 2	7.0 15.0 8.0 2.0 38.0 0.0 12.0 21.5	-3.3 0.8 -1.7 4.3 3.2 -1.0											South of Panama 5.68 N 82.84 W H = 22 48 51.2 Depth = 33 km MB = 5.4 /ISC/
369	JUN 8	BRA E	E E	8 54 8 54	5.0 25.0												No determination of epicentre
370	JUN 8	BRA SRO	I E E E	11 53 11 53 11 53 11 54	6.0 15.0 31.0 30.0												No determination of epicentre
371	JUN 8	BRA E	E	16 54	28.0												No determination of epicentre
372	JUN 8	BRA SRO	EAPKHP EPP LMH EAPKHP	17 34 17 36 18 21 17 34	30.0 30.0 0.0 30.0	6.5 11.7 5.6 13.5											Solomon Islands 7.16 S 155.02 E H = 17 15 27.0 Depth = 42 km MB = 5.2 /ISC/
373	JUN 8	BRA E	EAPKHP	22 15	15.0	1.3											Solomon Islands 9.56 S 160.70 E H = 21 56 5.0 Depth = 30 km MB = 5.4 /ISC/

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No.	Date	St. Code	Phase	GMT		RBS O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks		
				h	m		A	T	A	T	A	T							
374	JUN 9	SPC	EPKP2	3	21	13.0									145.72	22.22	Samoa Region 16.45 S 172.58 W H = 3 1 33.9 Depth = 33 km MB = 5.0 /ISC/		
			EAPK1K	3	21	30.0													
			EPKP2	3	21	18.0										147.38		17.43	
			IAPK1F2	3	22	3.7													
375	JUN 9	BRA	IAPK1F2	3	22	3.7											Near Coast of Northern Peru 5.77 S 81.00 W H = 14 16 2.4 Depth = 36 km MB = 5.6 /ISC/ No determination of epicentre		
			IAPK1K	3	23	25.0													
			IAPK1F2	3	21	44.0													
			EPCP	14	29	44.0	0.2												
376	JUN 9	BRA	EAP	14	29	54.0	-1.0										No determination of epicentre		
			E	14	30	45.0													
377	JUN 9	BRA	E	16	43	15.0											No determination of epicentre		
			E	16	44	21.0													
378	JUN 10	BRA	E	20	18	12.0											No determination of epicentre		
			E	20	19	27.0													
379	JUN 10	BRA	E	11	13	15.0											No determination of epicentre		
			E	11	13	17.8													
380	JUN 10	BRA	E	11	13	24.0											No determination of epicentre		
			E	11	23	22.0													
381	JUN 10	BRA	E	11	53	9.0	0.5								2.77	321.29	Czechoslovakia 50.30 N 14.40 E H = 11 52 22.0 /ISC/ No determination of epicentre		
			E	11	54	18.0	-0.6												
382	JUN 10	BRA	E	16	57	17.0											No determination of epicentre		
			E	16	57	19.0													
383	JUN 11	BRA	E	16	58	23.0											No determination of epicentre		
			E	17	6	0.0													
383	JUN 11	BRA	EAPK1K	22	35	27.0	12.7								158.15	39.47	Kermadec Islands 29.98 S 178.72 W H = 22 15 13.7 Depth = 12 km MB = 4.9 /ISC/ No determination of epicentre		
			E	11	11	55.0													

384	JUN 12	BRA	EPP	10	24	45.0	-8.4								20.61	125.62	Jordan Syria Region 34.10 N 37.28 E H = 10 19 48.8 MB = 4.6 /ISC/		
385	JUN 12	BRA	IYP	16	37	40.0	1.7											Near Coast of Venezuela 10.61 N 63.47 W H = 16 25 45.2 Depth = 11 km MB = 5.7 /ISC/	
			IFCP	16	37	43.0	-3.4												
			IFCP	16	38	0.0	13.6												
			I	16	38	33.0													
386	JUN 12	BRA	IYP	16	39	24.0	-0.6	26000	4.0									Fox Islands 52.28 N 170.24 W H = 16 46 33.5 Depth = 41 km MB = 5.2 /ISC/	
			IFCP	16	37	37.6	-0.6												
			I	16	38	57.6	-0.5												
			LMH	17	6	0.0													
387	JUN 12	BRA	IFCP	16	58	46.0	-0.7											Iceland 64.77 N 21.07 W H = 17 55 9.1 Depth = 14 km MB = 5.5 /ISC/	
			E	16	59	43.0													
388	JUN 14	BRA	IYP	18	0	52.0	0.5											No determination of epicentre	
			I	18	1	59.0													
			I	18	2	26.0													
			I	18	3	27.0													
389	JUN 14	BRA	+AP	18	0	52.6	-1.3										No determination of epicentre		
			E	18	2	39.6													
390	JUN 14	BRA	E	18	14	0.0												No determination of epicentre	
			E	7	11	11.0													
391	JUN 14	BRA	E	7	11	28.0												No determination of epicentre	
			E	8	53	43.0													
392	JUN 14	BRA	E	8	54	52.0												No determination of epicentre	
			E	11	24	21.0													
393	JUN 15	BRA	E	11	42	13.0												Czechoslovakia expl. of 22.5T 50.58 N 14.00 E H = 11 40 0.0 /ISC/ No determination of epicentre	
			E	0	32	16.0													
393	JUN 15	BRA	IAP	0	56	27.0	-3.6											Eastern Caucasus 43.19 N 45.35 E H = 0 52 5.6 Depth = 35 km Mb = 4.6 /ISC/ No determination of epicentre	
			IFP	0	55	41.4	0.4	70	1.0										
			E	0	56	34.0													
			E	0	58	24.0													

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No.	Date	St. Code	Phase	h	GMT m s	RES O-C	Z		E-W		N-S		MLH	Delta	Azimuth	Remarks	
							A	T	A	T	A	T					
394	JUN 15	SFC BRA EAP I E	EAP EP EAP I E	2 49 2 48 2 49 2 50 2 51 2 52	29.0 58.0 46.0 24.0 29.0 9.0	-3.2 -2.5 5.7								77.33 78.77	13.30 11.33	Rat Islands 52.23 N 178.85 E H = 2 37 14.3 Depth = 160 km MB = 5.5 /ISC/	
395	JUN 15	SFC BRA EAP	EP EP EAP	3 40 3 40 3 41	47.5 54.0 16.0	-1.1 -1.6 -3.8									43.62 44.49	134.05 129.48	Eastern Gulf of Aden 13.48 N 50.89 E H = 3 32 49.0 Depth = 65 km MB = 5.1 /ISC/
396	JUN 17	BRA	EP	2 30	22.0	0.7									77.18	27.73	Kurile Islands 48.15 N 154.46 E H = 2 18 31.6 Depth = 54 km MB = 5.1 /ISC/
397	JUN 17	BRA	EP	16 48	36.0	0.7									78.59	38.72	Hokaido Region 41.41 N 142.51 E H = 16 36 38.0 Depth = 56 km MB = 5.0 /ISC/
398	JUN 17	BRA	EXP E	19 28 19 31	36.0 52.0	14.7									9.22	176.52	Southern Italy 38.90 N 17.82 E H = 19 25 52.8 Depth = 33 km MB = 3.8 /ISC/
399	JUN 17	BRA	ESC	21 28	46.0	7.4									4.53	258.75	Austria 47.10 N 10.60 E H = 21 26 9.0 Depth = 9 km /ISC/
400	JUN 18	BRA	E	7 44 7 44	8.0 28.0										9.49	169.86	Greece 38.45 N 20.43 E H = 8 26 11.4 Depth = 24 km MB = 4.7 /ISC/
401	JUN 18	SRO BRA	EXP ES I I I I I I E	8 28 8 30 8 31 8 36 8 28 8 29 8 29 8 31 8 32 8 36	48.0 12.0 48.0 8.0 36.0 28.0 28.0 51.0 49.0 41.0 36.0	9.7 -4.8 -0.9									10.01	164.81	No determination of epicentre

402	JUN 18	BRA E	E	13 20 13 21	57.0 19.0												No determination of epicentre
403	JUN 19	SRO SFC BRA	IPOP ISK LMH EPCP EP EXP E	3 8 3 18 3 45 3 8 3 8 3 9 3 9	12.4 36.4 0.0 13.0 12.0 27.0 30.0	1.8 5.1 0.0 0.0 -2.3											Atlantic-Indian Ridge 33.57 S 56.85 E H = 2 55 21.2 Depth = 41 km MB = 4.8 /ISC/
404	JUN 19	BRA	EP	16 12	40.0	0.1									85.39	324.34	Southern Nevada 37.19 N 116.21 W H = 16 0 0.2 Depth = 5 km MB = 4.8 /ISC/
405	JUN 19	BRA	E	16 53	44.0												No determination of epicentre
406	JUN 19	BRA	E	17 32 17 33	55.0 12.0												No determination of epicentre
407	JUN 19	SFC BRA	EXS ESCS	19 34 19 34	23.0 22.0	-3.7 4.0											Off Coast of North. California 41.60 N 126.70 W H = 19 11 10.0 Depth = 33 km /ISC/
408	JUN 19	BRA	E	22 6 22 7	23.0 34.0												No determination of epicentre
409	JUN 20	BRA	EP	2 54	33.0	0.4									61.05	238.54	Central Mid-Atlantic Ridge 3.11 N 31.27 W H = 2 44 19.8 Depth = 33 km MB = 4.8 /ISC/
410	JUN 20	SRO HRE BRA	IPW IPB IPG ISB LMH EPB ESN IPN IPB ISN ISN ISB	9 29 9 29 9 29 9 30 9 30 9 29 9 29 9 29 9 30 9 30 9 30 9 31 9 31	27.8 33.2 48.2 19.8 0.0 38.3 8.3 30.8 38.8 13.2 22.8 26.3 30.3 35.0 40.0 14.1	-2.3 -2.7 5.2 -1.2 1.5 -5.8 -4.5 -3.4 -8.9 0.7 4.2 -1.7 -2.9 -3.1 -14.1										Yugoslavia 44.34 N 16.82 E H = 9 28 33.4 Depth = 33 km MB = 4.8 /ISC/	
		SFC	EPN IPG ISH	9 29 9 30 9 30	50.4 12.7 40.0	-2.9 -3.1 -14.1									5.13	199.86	

No.	Date	St. Code	Phase	GMT		RES O-C	Z			E-W			N-S			MLH	Delta Azimuth	Remarks
				h	m s		A	T	A	T	A	T	A	T				
411	JUN 20	BR4	IPN IPB IPG ISN ISN	17 9 17 9 17 9 17 9 17 9	5.7 10.7 12.7 31.7 36.2	-1.0 1.5 -0.2 4.5 0.0									2.30	210.37	Yugoslavia 46.17 N 15.43 E H = 17 8 27.0 Depth = 6 km /ISC/	
412	JUN 20	BR4	IS IMH IS EP E ES ES LMH EP LMY	17 9 17 10 17 9 17 9 17 9 17 9 17 9 17 11 17 12	40.1 43.2 0.0 39.2 9.7 19.9 29.9 50.1 0.0 1.0 30.0	5.6 8.7 6.5 -5.9 10.1 10.1 14.4			2.0	1.0	0.9	1.0			2.43	207.41	Yugoslavia 46.00 N 15.50 E H = 17 8 27.3 Depth = 47 km MB = 4.5 /ISC/	
413	JUN 20	BR4	EPG ESC E	18 34 18 35 18 35	32.0 3.0 9.0												No determination of epicentre	
414	JUN 20	BR4	EPN ESC	18 59 18 59	33.0 6.0												No determination of epicentre	
415	JUN 20	BR4	IPN IPB IPG ISN ISB ISG LMH IPN IPG ISN ISN ISC ISC EPG	22 27 22 27 22 27 22 27 22 27 22 27 22 27 22 27 22 27 22 27 22 27 22 27 22 27 22 27 22 27 22 27	10.0 14.1 22.1 27.1 30.1 42.1 47.1 10.1 11.9 27.9 43.9 47.9 0.0 12.0 1.0	0.1 1.5 5.6 10.6 10.1 -1.5 -0.5 -1.6 6.4 -2.6 1.4 4.2 16.2 2.1							2.37	209.43	Yugoslavia 46.09 N 15.43 E H = 22 26 29.2 Depth = 0 km MB = 4.2 /ISC/			
416	JUN 21	SFC	EPG ESC	1 1 1 1	2.1 23.5	-0.1 2.7									4.49	228.20	Poland 50.28 N 18.85 E H = 1 0 33.9 MB = 2.9 /WAR/	

417	JUN 21	SFC BR4 EP	EP EP	21 6 21 6	17.2 30.0	2.9 0.1									54.38 56.33	42.69 40.94	East of Lake Baykal 56.44 N 11.36 E H = 20 56 45.0 Depth = 10 km MB = 5.2 /ISC/
418	JUN 22	BR4 SRO	IAPKHKP IAPKIKP IPP IPIKIKP I IPP EAPKHKP E EPP	8 32 8 34 8 34 8 32 8 32 8 34 8 36 8 32 8 34	12.3 19.3 25.3 4.0 54.0 12.0 36.0 7.4 28.5	5.7 -3.4 -4.1 3.6 0.4 -3.8 -11.9								133.03	285.81	Eastern Island Region 22.07 S 113.98 W H = 8 12 53.0 Depth = 85 km MB = 5.7 /ISC/	
419	JUN 22	BR4	EAPKIKP	10 19	45.0	-2.1									151.34	22.06	Tonga 20.88 S 174.00 W H = 9 59 52.3 Depth = 33 km MB = 5.0 /ISC/
420	JUN 22	BR4	EP EAP	10 42 10 42	0.0 13.0	2.7 2.3									79.87	39.30	Near East Coast of Honahu 40.03 N 142.81 E H = 10 29 51.9 Depth = 46 km MB = 5.1 /ISC/
421	JUN 22	SRO BR4	IPN IPB IPG ISG LMH IP I I N	23 32 23 32 23 32 23 34 23 35 23 32 23 34 23 34 23 37 23 32	6.0 22.0 48.0 28.0 24.0 0.0 12.0 21.2 17.2 48.2 9.2 20.3	2.3 0.9 8.7 2.8 8.0 -1.0 6.2			4.5	12.0	3.8	12.0	4.4		7.38	151.01	Greece-Bulgaria Border Region 41.25 N 23.05 E H = 23 30 12.1 Depth = 8 km MB = 5.0 /ISC/
422	JUN 24	BR4	EP EAP	19 13 19 14	25.0 55.0	0.8 -0.8									83.16	47.26	South of Honahu 32.83 N 137.10 E H = 19 140.8 Depth = 401 km MB = 5.2 /ISC/
423	JUN 24	BR4 SRO	EAPKIKP EPP E IPKIKP EPS	20 53 20 53 21 4 21 53 21 3	13.0 36.0 11.0 4.0 8.0	-1.6 -3.1 4.9 4.5								110.31	214.84	South Sandwich Islands Region 36.03 S 27.47 W H = 20 34 33.0 Depth = 52 km MB = 5.9 /ISC/	

No.	Date	St. Code	Phase	GMT		RES O-C	Z			E-W			N-S			MPV	MLH	Delta Azimuth	Remarks
				h	m		s	A	T	A	T	A	T	A	T				
424	JUN 25	BRA	IP	5	14	10.4	-0.6									92.68	296.86	Near Coast of Oaxaca, Mexico 15.61 N 95.26 W H = 5 1 1.2 Depth = 33 km MB = 5.2 /ISC/	
425	JUN 25	BRA SRO	EAPKIKP E E	5 5 5	25 25 33	19.0 54.0 0.0	3.0 -1.3 -15.2									159.98 160.09	239.62 238.55	South Pacific Cordillera 54.70 S 131.66 W H = 5 5 15.0 Depth = 4 km MB = 5.5 /ISC/	
426	JUN 25	BRA	IPG	11	3	7.5												No determination of epicentre	
427	JUN 25	SPC SRO	EPOP LMV IP	17 16 17	35 22 32	38.0 0.0 36.0	1.1 1.3 -1.3									94.07 94.33	125.79 124.48	South Indian Ocean 26.02 S 84.30 E H = 17 22 17.9 Depth = 20 km MB = 6.1 /ISC/	
428	JUN 25	BRA	EPOP	17	52	25.0	-2.0									84.16	42.98	Off East Coast of Honshu 34.43 N 141.97 E H = 17 39 49.0 Depth = 4 km MB = 4.7 /ISC/	
429	JUN 25	BRA SRO	IP IXP EAP IP IXS LMH	22 22 22 22 22 22	29 29 29 29 33 41	7.8 25.8 10.0 16.0 52.0 0.0	1.3 6.4 -3.6 2.3 0.1	7.0	1.0							24.79 25.22 25.55	324.41 321.87 324.34	Iceland 64.66 N 17.44 W H = 22 23 46.2 Depth = 32 km MB = 5.1 /ISC/	
430	JUN 26	BRA	EP	1	27	54.0	-0.8									28.25	256.03	Svalbard Region 76.13 N 9.30 E H = 1 21 58.1 Depth = 0 km MB = 4.3 /ISC/	
431	JUN 26	BRA	E	8	59	56.0												No determination of epicentre	

432	JUN 26	BRA	EP E	18 18	53 54	40.0 41.0	-2.2									62.89	254.68	North Atlantic Ridge 10.50 N 42.70 W H = 38 43 19.0 Depth = 51 km MB = 4.7 /ISC/
433	JUN 26	SRO BRA	EKHKP IPKIKP IPKIKP IAPKIP2	23 23 23 23	52 52 52 54	16.0 15.0 22.5 30.0	-1.5 0.8 4.5 -4.5									151.71 151.93	38.99 36.49	South of Fiji 23.86 S 179.31 E H = 23 33 26.8 Depth = 528 km MB = 5.3 /ISC/
434	JUN 27	SRO BRA	EP IAP IS LMH IP IFCP IXP E E	2 2 2 2 2 2 2 2	1 44.0 11 36.0 1 42.5 1 49.5 5 40.0 5 55.5	0.9 1.3 4.5 0.0 36.5 0.9 2.3 2.5 40.0 55.5	0.9 1.3 4.5 0.0 36.5 0.9 2.3 2.5 40.0 55.5									83.01 83.34	46.01 45.21	South of Honshu 33.86 N 139.20 E H = 1 49 10.4 Depth = 24 km MB = 5.6 /ISC/
435	JUN 27	SRO BRA	EP EP E	5 5	28.0 27.0	2.3 17.0	2.3 -0.9									80.64 81.05	51.81 51.04	Shikoku 32.27 N 132.05 E H = 4 49 17.2 Depth = 54 km MB = 4.9 /ISC/
436	JUN 27	SRO BRA	EKIKP IPP LMH EAPKIKP E	8 8 8 8 8	5 5 50 5 9	0.0 36.0 0.0 3.0 18.8 11.0	1.7 -1.4 3.8 -0.0									121.95 122.43	57.28 55.92	New Britain Region 4 72 S 152.56 E H = 7 46 11.6 Depth = 68 km MB = 5.9 /ISC/
437	JUN 28	BRA	E	5	18	25.0												No determination of epicentre
438	JUN 28	BRA SRO SRO	IXP IXP LMH	11 11 11	13 13 19	12.7 28.7 0.0	0.6 12.2 -0.4									14.50 14.80	221.29 225.37	Algeria 36.57 N 5.26 E H = 11 9 38.5 Depth = 20 km MB = 5.0 /ISC/
439	JUN 28	BRA	IPKIKP	11	13	38.6	1.3									16.68	226.48	
439	JUN 28	BRA	IPKIKP	18	26	6.0	0.5									141.60	48.46	New Hebrides 17.98 S 167.87 E H = 18 6 35.0 Depth = 17 km /ISC/



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No.	Date	St. Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta Azimuth	Remarks
				h	m		A	T	A	T	A	T				
		SPC	LMH EP I E	23 56 23 23 23 23 23 25	0.0 1.0 42.5 33.0	-2.9		2.0	16.0	3.0	16.0		5.8	76.57	209.23	
458	JUL 2	BRA	IPKIKP IAPKIP E	7 35 7 35 7 36	21.4 30.4 52.0	0.1 -1.7								144.66	121.13	West of Macquarie Island 53.91 S 140.30 E H = 7 15 48.1 Depth = 33 km MB = 5.2 /ISC/
459	JUL 2	BRA	EP I I	8 2 8 3 8 3	41.0 15.4 23.4											No determination of epicentre
460	JUL 2	BRA	IPG	11 4	15.4											No determination of epicentre
461	JUL 2	BRA	EAF E	16 48 16 49	52.0 32.0	-2.5								40.53	76.03	Alma-Ata Region 42.18 N 75.34 E H = 16 41 7.3 Depth = 26 km MB = 4.6 /ISC/
462	JUL 2	SPC	EPKIKP LMH IPKIKP IPKSDF LMH IPKIKP IAPKIP I IPP I I LMY	23 46 0 52 23 48 23 50 0 52 23 46 23 47 23 50 23 54 23 59 0 46	22.7 0.0 10.6 0.0 23.3 34.3 49.3 44.3 24.3 0.0	4.8 2.2 18.0 2.7 2.9 9.6		28.0	24.0	21.0	24.0		7.0	156.54 158.41 158.57	37.73 35.79 32.69	Kermadec Islands Region 29.22 S 175.94 W H = 23 26 26.8 Depth = 33 km MB = 6.5 /ISC/
463	JUL 3	BRA	IP	3 13	38.3											No determination of epicentre
464	JUL 3	SPC	IPKIKP IPP IPKIKP IPP E LMH IPKIKP IPKIP2 E	23 45 23 48 23 45 23 49 0 8 0 51 23 45 23 45 23 49 23 54	3.0 59.5 2.7 14.7 0.0 51.0 3.5 40.5 34.5 34.5	3.4 -10.9 0.7 -6.1 1.3 12.9		3.0	20.0	5.0	20.0		6.3	156.59 158.47 158.64	38.27 36.38 33.27	Kermadec Islands Region 29.37 S 176.13 W H = 23 25 14.0 Depth = 77 km MB = 5.0 /ISC/

465	JUL 4	BRA	IP	12 58	18.6											No determination of epicentre
466	JUL 4	SPC	EAP IP I LMH LMH IP IPP YS LMH	19 39 19 39 19 47 20 12 20 1 19 39 19 39 19 41 19 46 20 3	26.5 39.0 0.0 0.0 0.0 40.5 47.2 41.2 48.0 0.0	-2.3 1.5	2000	2.0					6.7	48.35 50.11	65.20 63.17	Mongolia 45.20 N 93.86 E H = 19 30 41.1 Depth = 16 km MB = 5.9 /ISC/
467	JUL 5	BRA	E E	0 54 0 54	17.0 42.0											No determination of epicentre
468	JUL 5	BRA	IPG	13 3	3.4											No determination of epicentre
469	JUL 5	BRA	E	15 50	15.0											No determination of epicentre
470	JUL 5	BRA	E	15 0	46.0											No determination of epicentre
471	JUL 5	BRA	EPKIKP IAPKIP IAPKIP2 EAKSEC	18 24 18 24 18 25 18 27	9.0 57.0 5.0 7.0	0.1 2.2 17.2 5.7								158.76	33.38	Kermadec Islands Region 29.50 S 176.11 W H = 18 4 10.0 Depth = 3 km MB = 5.4 /ISC/
472	JUL 5	BRA	EP EXP E	20 22 20 22 20 23	11.0 26.0 26.0	1.2 7.0								85.07	286.28	Caribbean Sea 14.62 N 81.81 W H = 20 9 34.3 Depth = 21 km MB = 5.0 /ISC/
473	JUL 6	BRA	EKIP2	23 39	54.0	-1.1								155.59	35.18	South of Fiji 26.92 S 178.36 W H = 23 20 9.7 Depth = 320 km MB = 4.6 /ISC/
474	JUL 7	BRA	IP EPOP	13 5 13 5	14.3 26.0	0.1 1.9								78.01	29.53	Kurile Islands 46.59 N 152.75 E H = 12 53 20.3 Depth = 57 km MB = 5.1 /ISC/
475	JUL 8	BRA	EPG IPG E	0 18 0 18 0 19 0 20	6.0 10.0 39.0 15.0	4.2 18.3 18.3 15.0								1.59	211.28	Yugoslavia 46.80 N 15.90 E H = 0 17 30.0 Depth = 0 km /ISC/





No.	Date	St. Code	Phase	GMT h m s	RSS O-C	Z		E-W		N-S		MPV	MLH	Delta Azimuth	Remarks
						A	T	A	T	A	T				
491	JUL 13	BRA SPC	E E	10 23 27.0 10 22 57.0											No determination of epicentre
492	JUL 13	BRA EP	EP	10 34 11.0	-1.9								87.21	278.68	Panama-Colombia Border Region 7.93 N 77.49 W H = 10 21 25.3 Depth = 11 km MB = 4.8 /ISC/
493	JUL 13	BRA E	E	12 32 49.0											No determination of epicentre
494	JUL 13	BRA EP EXP	EP EXP	13 13 40.0 13 14 6.0	-0.3 11.2								87.65	278.48	Panama-Colombia Border Region 7.47 N 77.64 W H = 13 0 54.1 Depth = 33 km MB = 4.7 /ISC/
495	JUL 13	BRA E	E	13 21 29.0											No determination of epicentre
496	JUL 13	BRA IPP IPP SRO EP LMH SPC	IP IPP IPP SRO EP LMH IP	16 1 3.4 16 1 18.4 16 1 29.4 16 2 26.0 16 1 5.0 16 2 9.0 16 7 0.0 16 1 32.5	4.4 7.1 18.1 2.1 2.1 5.7			1.7	20.0	2.0	20.0				Algeria 35.97 N 4.76 E H = 15 57 22.1 Depth = 9 km MB = 4.8 /ISC/
497	JUL 13	BRA EP	EP	16 28 43.0	-0.1								87.28	278.58	Panama-Colombia Border Region 7.81 N 77.46 W H = 16 15 56.3 Depth = 18 km MB = 4.8 /ISC/
498	JUL 13	BRA EP	EP	16 46 7.0	0.3								87.75	278.49	Panama-Colombia Border Region 7.40 N 77.71 W H = 16 35 20.5 Depth = 37 km MB = 4.6 /ISC/
499	JUL 13	BRA EP	EP	18 1 40.0	0.2								87.15	278.69	Panama-Colombia Border Region 7.98 N 77.46 W H = 17 48 53.9 Depth = 20 km MB = 4.7 /ISC/
500	JUL 13	BRA SRO SRO SRO SRO	IP IPCP ISOP IPCP	18 11 30.0 18 11 38.0 18 22 33.0 18 11 43.0	-1.3 0.4 9.5 1.4								87.30 88.16 89.18	278.60 279.50 280.91	Panama-Colombia Border Region 7.81 N 77.49 W H = 17 58 42.3 Depth = 5 km MB = 5.4 /ISC/

501	JUL 13	BRA EPKIP2	E	19 3 56.0	-0.9								1.47	19.41	Tonga Region 17.07 S 173.00 W H = 18 44 12.0 Depth = 45 km MB = 4.7 /ISC/
502	JUL 13	BRA EP	EP	19 28 33.0	-0.3								87.28	278.62	Panama-Colombia Border Region 7.84 N 77.49 W H = 19 15 46.5 Depth = 18 km MB = 4.5 /ISC/
503	JUL 13	BRA IP IPCP SRO SRO	IP IPCP SRO SRO	23 21 32.0 23 21 34.0 23 21 42.0	1.1 0.8 0.5								87.75 89.64	278.27 280.59	Panama-Colombia Border Region 7.25 N 77.55 W H = 23 8 42.6 Depth = 23 km MB = 5.3 /ISC/
504	JUL 14	BRA IP SRO SRO	IP SRO SRO	2 1 30.4 2 2 10.0 2 1 42.5	0.7 2.1								87.34 89.22	278.69 281.00	Panama-Colombia Border Region 7.84 N 77.59 W H = 1 48 43.8 Depth = 26 km MB = 5.3 /ISC/
505	JUL 14	BRA IP IPCP E EPP SRO SRO	IP IPCP E EPP SRO SRO	2 26 39.4 2 26 41.4 2 27 13.4 2 28 11.0 2 30 22.0 2 26 46.0 2 28 49.8	1.2 0.7 16.9 1.5 0.9					5.9			87.38	278.59	Panama-Colombia Border Region 7.74 N 77.54 W H = 2 13 49.6 Depth = 10 km MB = 5.8 /ISC/
506	JUL 14	BRA E	E	8 15 23.0											No determination of epicentre
507	JUL 14	SRO IPKIKP EAPKIP2	E IPKIKP EAPKIP2	19 8 17.0 19 8 17.1 19 9 38.1	2.1 1.8 1.0								156.82 157.01	38.93 36.02	Kermadec Islands Region 28.35 S 178.00 W H = 18 48 43.1 Depth = 191 km MB = 5.3 /ISC/
508	JUL 14	BRA E	E	20 47 27.0 20 47 28.0											No determination of epicentre
509	JUL 14	BRA E	E	20 52 17.0											No determination of epicentre
510	JUL 14	BRA EAP	EAP	21 35 0.0	-0.7								25.75	353.89	Greenland Sea 73.50 N 7.80 E H = 21 29 22.1 Depth = 33 km MB = 4.4 /ISC/
511	JUL 15	BRA E	E	1 39 45.0											No determination of epicentre

No.	Date	St. Code	Phase	GMT			RES O-C	Z			E-W			N-S			MLH	Delta Azimuth	Remarks
				h	m	s		A	T	A	T	A	T	A	T				
512	JUL 15	BRA E	E	1	49	18.0											No determination of epicentre		
513	JUL 15	BRA IPOF	IPOF	23	24	16.4	-0.8								87.56	278.46	Panama-Colombia Border Region 7.52 N 77.56 W H = 23 11 27.4 Depth = 23 km MB = 5.3 /ISC/		
514	JUL 16	BRA E	E	14	53	43.0											No determination of epicentre		
515	JUL 16	BRA E	E	16	11	37.0											No determination of epicentre		
516	JUL 17	BRA EP IPOF	EP IPOF	0	5	19.0	-13.6								90.92	96.08	Southern Sumatra 4.78 S 103.20 E H = 23 52 35.8 Depth = 74 km MB = 5.0 /ISC/		
517	JUL 17	SRC SRO	E I I I I I I I I I	5	10	46.3											Romania 45.76 N 26.61 E H = 5 9 21.9 Depth = 135 km MB = 5.0 /ISC/		
518	JUL 17	SRO ES	ES	7	39	39.0											No determination of epicentre		
519	JUL 18	BRA IPKFP IAPKHP IAPKHP I I E E	IPKFP IAPKHP IAPKHP I I E E	11	24	23.2	1.1								145.95	18.61	Tonga 15.18 S 173.56 W H = 11 4 48.0 Depth = 70 km MB = 5.7 /ISC/		
		SRO IAPKHP I I I I I I I I I I	IPKFP IAPKHP I I I I I I I I I I	11	24	23.8	1.4								146.01	20.81			
		SRO IAPKHP I I I I I I I I I I	IPKFP IAPKHP I I I I I I I I I I	11	26	24.1	0.7												
		SRO IAPKHP I I I I I I I I I I	IPKFP IAPKHP I I I I I I I I I I	11	28	50.0	-8.1												
		SRO IAPKHP I I I I I I I I I I	IPKFP IAPKHP I I I I I I I I I I	11	24	23.8	0.7												
		SRO IAPKHP I I I I I I I I I I	IPKFP IAPKHP I I I I I I I I I I	11	26	23.8	-8.1												
		SRO IAPKHP I I I I I I I I I I	IPKFP IAPKHP I I I I I I I I I I	12	3	0.0													
520	JUL 18	BRA ESB	ESB	16	58	48.0	-2.4											Northern Italy 44.80 N 7.90 E H = 16 55 38.0 Depth = 33 km /ISC/	
521	JUL 18	BRA E	E	17	12	32.0											No determination of epicentre		
522	JUL 18	BRA IP IAP EFP	IP IAP EFP	17	14	25.6												Guerrero Mexico 17.06 N 98.42 W H = 19 21 26.3 Depth = 63 km MB = 5.5 /ISC/	
523	JUL 18	BRA IP	IP	19	34	36.0	0.2											Eastern Caucasus 42.53 N 45.17 E H = 22 20 7.4 Depth = 0 km MB = 4.6 /ISC/	
524	JUL 18	BRA EPKFP	EPKFP	23	19	38.0	0.1								159.73	38.97	Kermadec Islands Region 31.27 S 177.84 W H = 22 59 2.8 Depth = 43 km MB = 4.9 /ISC/		
525	JUL 18	BRA EPKHP	EPKHP	23	31	4.0	6.7								149.96	29.62	Fiji Region 20.72 S 178.22 W H = 23 12 15.5 Depth = 573 km MB = 4.7 /ISC/		
526	JUL 19	BRA EPKHP	EPKHP	18	4	26.0	1.1								124.82	54.42	Solomon Islands 6.03 S 154.93 E H = 17 45 45.0 Depth = 168 km MB = 5.7 /ISC/		
527	JUL 19	BRA EPKFP	EPKFP	18	53	6.0	0.5								147.10	16.34	Samoa Region 16.05 S 172.04 W H = 18 33 22.3 Depth = 33 km MB = 5.2 /ISC/		
528	JUL 19	BRA EFP E	EFP E	19	5	17.0	0.1								81.38	94.17	Northern Sumatra 3.65 N 98.24 E H = 18 53 4.0 Depth = 50 km MB = 4.8 /ISC/		
529	JUL 21	SRO E EFP	E EFP	0	3	8.0	-2.2								13.25	147.02	Dodecanese Islands 36.30 N 27.20 E H = 23 56 29.0 Depth = 33 km /ISC/		



No.	Date	St. Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta Azimuth	Remarks	
				h	m		A	T	A	T	A	T					
530	JUL 21	SRO BRA	I EXP	5 29 5 28	0.0 39.0	2.5									7.81 8.32	171.80 165.78	Albani 40.07 N 19.76 E H = 5.24 Depth = 36 km MB = 4.0 /ISC/
531	JUL 21	BRA	IPOP IPOP E	8 41 8 41 8 42	39.0 43.0 42.0	1.4 5.4									91.78	293.69	Near Coast of Chiapas, Mexico 14.32 N 92.11 W H = 8.28 Depth = 56 km MB = 5.2 /ISC/ No determination of epicentre
532	JUL 21	BRA	E	18 50	27.0												No determination of epicentre
533	JUL 22	BRA	EP ES	7 21 7 23	39.0 9.0	-0.5 -9.5									9.00	188.59	Southern Italy 39.25 N 15.38 E H = 7.19 Depth = 257 km MB = 4.5 /ISC/ No determination of epicentre
534	JUL 22	BRA	E	15 38	29.0												No determination of epicentre
535	JUL 23	BRA	EAPKIP EKP2 E	0 48 0 48 0 49	6.0 13.0 41.0	-2.3 -0.2									151.04	22.15	Tonga 20.60 S 174.13 W H = 0.28 Depth = 33 km MB = 5.0 /ISC/
536	JUL 23	BRA	IPKP2 IAFKHP ESKPF	11 18 11 18 11 21	1.7 22.7 29.7	-1.0 -13.5 7.1									143.70	47.84	New Hebrides 19.55 S 169.37 E H = 10.98 Depth = 146 km MB = 5.7 /ISC/
537	JUL 23	BRA	EP	22 2	46.0	-0.6									76.72	26.38	Kurile Islands 49.16 N 155.90 E H = 21.50 Depth = 33 km MB = 4.5 /ISC/
538	JUL 24	BRA	ISB ESG	0 26 0 26	14.4 39.0	2.6 13.3									5.35	275.46	Germany 48.40 N 9.10 E H = 0.23 Depth = 31 km /ISC/
539	JUL 24	SRO BRA	IPKIP LMH EPKIP IPKP2 EPKAB	8 47 8 59 10 7 8 47 8 48 8 50	32.5 54.0 0.0 33.0 11.0 15.0	0.8 1.0 -2.5 -7.5		2.0	20.0	1.0	20.0		5.9	159.59 159.85	42.40 39.21	Kermadec Islands Region 31.42 S 177.65 W H = 8.27 Depth = 10 km MB = 5.4 /ISC/	

540	JUL 24	BRA	E	10 24	8.0												No determination of epicentre
541	JUL 24	BRA	E	14 23	44.0												No determination of epicentre
542	JUL 24	BRA	EPKIP EAPKIP	14 33 14 34	52.0 4.0	1.2 1.6								148.89	21.31		Tonga 18.40 S 174.30 W H = 14.14 Depth = 36 km MB = 5.2 /ISC/
543	JUL 24	BRA	E	22 30	24.0												No determination of epicentre
544	JUL 25	BRA	IFN ISG E	1 2 1 3 1 4	22.3 14.3 13.0	-5.1 3.1									2.70	198.27	Yugoslavia 45.80 N 15.90 E H = 1.42 Depth = 0 km /ISC/
545	JUL 25	BRA	E	13 40 13 40	20.0 34.0												No determination of epicentre
546	JUL 25	BRA	E	13 50	28.0												No determination of epicentre
547	JUL 25	SRO BRA	EPKIP EPP EPKIP EPKIP	17 36 17 38 17 36 17 36	29.0 17.0 35.0 35.0	-3.8 -1.4 1.2 5.2								123.34 123.83	57.76 56.37	New Britain Region 6.10 S 153.03 E H = 17.17 Depth = 33 km MB = 5.4 /ISC/	
548	JUL 25	BRA	ESB	19 14	53.0	7.9									7.50	296.34	Germany 51.02 N 6.43 E H = 19.10 Depth = 12 km /ISC/
549	JUL 26	BRA	E	3 25	48.0												No determination of epicentre
550	JUL 26	BRA	IFN IFB IFC	11 30 11 30 11 31	41.2 54.2 7.2	-0.9 -0.4 -1.0								5.77	141.34		Yugoslavia 43.55 N 22.06 E H = 11.29 Depth = 0 km /ISC/
551	JUL 26	BRA	IFC I	11 51 11 51	36.2 39.0												No determination of epicentre
552	JUL 26	SRO BRA	EPP E EPP	13 19 13 19 13 19	41.0 16.0 49.0	-2.3 0.1								106.37 107.08	76.86 75.80		Seram 3.53 S 129.91 E H = 13.1 Depth = 24 km MB = 5.6 /ISC/

No.	Date	St. Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
553	JUL 26	BRB EPN IFG		20 15 49.0 21 15 51.0											151.24	21.40	No determination of epicentre Tonga 20.70 S 173.70 W H = 20 9 42.3 Depth = 33 km MB = 4.5 /ISC/
554	JUL 26	BRB	EAPKHP	20 29 38.0		-1.0											
555	JUL 26	BRB	EP EAP	20 49 32.0 20 49 48.0		1.1 1.3									80.84	4.64	Fox Islands 51.17 N 170.19 W H = 20 37 21.5 Depth = 56 km MB = 4.9 /ISC/
556	JUL 27	BRB	EP IFCP E EPP IFCP I IXS LMH	4 38 8.0 4 38 26.0 4 39 24.0 4 40 45.0 4 38 21.0 4 42 49.0 4 47 53.0 5 10 0.0		2.8 4.7 -6.3 -0.7 3.2									73.60	17.98	Komandorsky Islands Region 55.46 N 166.52 E H = 4 26 33.5 Depth = 33 km MB = 4.8 /ISC/
557	JUL 27	BRB	E E	9 0 9.0 9 0 27.0					1.7	20.0	2.0	20.0		5.5			No determination of epicentre
558	JUL 27	BRB	E E	18 12 25.0 18 13 23.0													No determination of epicentre
559	JUL 28	SPC SRO BRB	IP EAP EPP LMV IP IS LMH IP IXP I I EXS LMH	11 46 47.7 11 47 32.0 11 49 36.0 12 23 0.0 11 45 57.4 11 56 49.4 12 20 0.0 11 46 56.6 11 47 15.6 11 48 8.6 11 49 24.6 11 57 11.0 12 24 0.0		1.9 2.9 -7.9 1.4 3.1 0.1 -1.1 -1.0	9800 8.0 800 2.0					6.9 6.4		76.52 78.36 78.46	31.54 30.18 29.47	Kurile Islands 46.22 N 153.14 E H = 11 34 59.3 Depth = 50 km MB = 6.0 /ISC/	
560	JUL 28	BRB	IP IXP E	12 19 48.6 12 20 52.6 12 21 17.0		0.1 -1.6			39.0	14.0	42.0	14.0		7.1	78.54	29.46	Kurile Islands 46.15 N 153.21 E H = 12 7 50.3 Depth = 46 km MB = 5.3 /ISC/

561	JUL 28	SPC BRB	EP IP EPP	13 43 28.4 13 43 35.6 13 44 32.6 13 46 42.0		4.1 0.6 7.4									76.52 78.45	31.36 29.29	Kurile Islands 46.31 N 153.35 E H = 13 31 36.9 Depth = 42 km MB = 5.4 /ISC/
562	JUL 28	SRO BRB	IP IPCP I E	13 53 37.6 13 53 36.5 13 53 41.5 13 54 27.5 13 55 19.5		1.5 -0.1 -4.6									78.33 78.42	30.02 29.30	Kurile Islands 46.33 N 153.32 E H = 13 41 37.4 Depth = 32 km MB = 5.4 /ISC/
563	JUL 28	BRB	EP	15 22 33.0		-0.3									78.56	29.53	Kurile Islands 46.10 N 153.13 E H = 15 10 31.0 Depth = 17 km MB = 4.6 /ISC/
564	JUL 28	BRB	EP E E	16 34 58.0 16 35 29.0 16 39 32.0 16 39 46.0		1.1									78.67	29.49	Kurile Islands 46.03 N 153.26 E H = 16 22 55.0 Depth = 23 km MB = 4.7 /ISC/
565	JUL 28	SRO BRB	IP EP EXP E	16 45 53.6 16 45 53.0 16 46 19.0 16 47 31.0		0.8 -0.3 6.6									78.46 78.55	30.22 29.51	Kurile Islands 46.12 N 153.16 E H = 16 33 55.2 Depth = 47 km MB = 5.0 /ISC/
566	JUL 28	BRB	EP	18 12 46.0		3.2									78.49	29.28	Kurile Islands 46.28 N 153.39 E H = 18 0 42.0 Depth = 24 km MB = 4.9 /ISC/
567	JUL 29	SPC BRB	EAP EPOP	2 25 38.2 2 25 48.0 2 26 14.0		-0.7 -1.6 18.4									76.62 78.55	31.56 29.49	Kurile Islands 46.13 N 153.18 E H = 2 13 43.0 Depth = 11 km MB = 4.8 /ISC/
568	JUL 29	SPC SRO BRB	IP EAP LMV IP ISKS LMH IP IXP I EPP	3 27 5.0 3 27 21.0 4 1 0.0 3 27 13.6 3 37 13.6 3 59 0.0 3 27 16.1 3 27 33.1 3 28 50.1 3 30 20.0		0.7 2.3 -0.9 -6.3 1.1 -0.7 5.4	4100 160						6.5 5.9		76.43 78.28 78.37	31.74 30.39 29.67	Kurile Islands 46.20 N 152.83 E H = 3 15 17.8 Depth = 46 km MB = 5.7 /ISC/

No.	Date	St. Code	Phase	GMT h m s	RES O-C	Z			E-W			N-S			MPV	MLH	Delta Azimuth	Remarks
						A	T	A	A	T	A	T						
569	JUL 29	SFC	I	7 27 16.7	0.6	7840	8.0							6.8	76.62	31.81	Kurile Islands 46.01 N 152.88 E H = 7 16 27.3 Depth = 46 km MB = 5.9 /ISC/	
		SRO	IPP	7 28 25.6	-5.1										78.46	30.45		
		IS	7 31 19.6	3.4														
570	JUL 29	BRA	I	8 0 0.0	0.6	140	2.0							5.7	78.56	29.73	Tonga 18.08 S 175.01 W H = 11 52 33.2 Depth = 231 km MB = 4.8 /ISC/	
				7 28 26.2	1.2													
				7 28 40.2	4.9													
571	JUL 29	BRA	I	7 29 10.2													No determination of epicentre	
				7 30 23.2														
				7 32 26.2	-3.2													
572	JUL 29	BRA	EP	12 11 55.0													Carlsberg Ridge 8.24 N 59.69 E H = 17 47 11.3 Depth = 33 km MB = 4.8 /ISC/	
				12 39 15.0														
				12 39 17.0														
573	JUL 29	BRA	IP	17 56 27.0	-0.2												No determination of epicentre	
				23 32 50.0														
				23 32 53.0														
574	JUL 30	SFC	IP	5 19 46.0	2.1	2000	4.0										Hindu Kush Region 36.42 N 70.76 E H = 5 12 40.4 Depth = 209 km MB = 6.3 /ISC/	
				5 19 58.0	3.2													
				5 20 2.2	0.9	2300	2.0											
575	JUL 30	SFC	EAPKHP	5 20 15.2													Samoa Region 16.22 S 172.70 W H = 10 27 25.5 Depth = 33 km MB = 4.7 /ISC/	
				5 20 20.2	-0.1													
				5 21 9.2	18.7													

576	JUL 30	SFC	EP	11 48 56.0	3.2												Pakistan 35.48 N 71.46 E H = 11 41 30.2 Depth = 97 km MB = 5.0 /ISC/	
				11 49 7.0	3.4													
				11 51 30.0	1.9													
577	JUL 30	SFC	EP	11 49 12.0	0.1												Kurile Islands 46.17 N 153.20 E H = 22 39 40.0 Depth = 8 km MB = 5.1 /ISC/	
				11 50 51.0														
				11 51 29.0														
578	JUL 31	SFC	E	11 52 37.0													No determination of epicentre	
				22 51 33.5	0.8													
				22 51 44.0	0.6													
579	JUL 31	SFC	E	22 52 7.0	14.0												No determination of epicentre	
				11 50 3.0														
				11 50 20.0														
580	AUG 1	SFC	EAPKHP	14 59 48.0													Loyalty Islands Region 22.40 S 170.88 E H = 4 59 7.3 Depth = 39 km /ISC/	
				14 59 59.0														
				5 18 48.0	1.8													
581	AUG 1	SFC	IP	5 18 46.2	-0.5												Kodiak Island Region 56.59 N 152.22 W H = 5 55 36.9 Depth = 23 km MB = 5.7 /ISC/	
				5 29 38.0														
				5 57 0.0														
582	AUG 1	SFC	IP	5 18 52.0	-0.4												Kodiak Island Region 56.52 N 152.43 W H = 7 59 55.4 Depth = 22 km MB = 5.1 /ISC/	
				6 7 17.8	3.0													
				6 7 21.0	1.4													
583	AUG 1	SFC	EAP	6 8 10.0													Zambia 16.67 S 28.17 E H = 9 36 26.8 Depth = 14 km MB = 5.0 /ISC/	
				8 11 36.1	2.2													
				8 11 40.0	1.3													
584	AUG 1	SFC	EAP	9 47 6.0	-1.2												Kurile Islands 49.63 N 156.07 E H = 22 39 22.4 Depth = 56 km MB = 5.3 /ISC/	
				9 47 10.0	-0.4													
				9 47 18.0	-1.0													

No.	Date	St. Code	Phase	GMT		RSC O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
585	AUG 2	SPC SRO	EP IAP IPP I I	8 29 53.6 8 30 2.0 8 31 10.4 8 31 30.4 8 32 16.4	5.5 -4.6 17.1									29.64 30.21	117.75 113.19	Iran 30.49 N 50.71 E H = 8 23 45.5 Depth = 53 km MB = 4.8 /ISC/	
586	AUG 3	SPC SRO	IP IPP ISGS IMH IAP IPP E	18 28 40.9 18 28 50.4 18 31 58.4 18 33 6.4 18 33 0.0 18 28 51.6 18 29 25.6 18 32 0.6 18 34 43.0	2.6 2.1 0.8 -3.2 1.7 13.2 0.6		320	2.0	2.3	12.0	3.6	12.0	6.0	79.73 81.61	45.71 44.26	Honshu 36.01 N 139.93 E H = 18 16 35.0 Depth = 57 km MB = 5.7 /ISC/	
587	AUG 4	SPC SRO	IP IPP	15 10 43.0 15 10 54.4 15 11 28.4 15 14 46.4 15 16 20.4 15 11 0.2 15 11 8.2 15 11 20.2 15 11 40.2 15 12 32.2 15 15 6.0	2.7 2.4 16.2 1.4 -0.5 -1.5 -3.7 18.3 -0.8		2100	2.0				6.0	19.14 20.22	101.16 95.39	Eastern Caucasus 42.36 N 45.97 E H = 15 6 17.2 Depth = 33 km MB = 5.4 /ISC/		
588	AUG 5	SPC BRA	EP IP E EPP	13 26 20.0 13 26 30.2 13 27 15.0 13 28 7.0	1.7 -0.7 18.9									33.16 34.62	117.25 112.22	Southern Iran 28.03 N 53.62 E H = 13 19 43.3 Depth = 38 km MB = 5.2 /ISC/	
589	AUG 5	BRA	EPG ESG	18 40 15.0 18 42 16.0	-2.0 19.8									7.58	244.85	Northern Italy 44.93 N 7.50 E H = 18 37 45.9 Depth = 9 km /ISC/	
590	AUG 6	BRA	EP EAP	11 17 25.0 11 17 33.0	0.0 0.6									31.25	354.95	Greenland Sea 78.89 N 3.50 E H = 11 11 5.2 Depth = 26 km MB = 4.5 /ISC/	
591	AUG 6	BRA	E E	14 45 21.0 14 45 37.0												No determination of epicentre	

592	AUG 6	BRA	E I	16 0 12.0 16 0 14.0												No determination of epicentre
593	AUG 6	SPC SRO BRA	EP EP EP EAP	17 0 49.6 17 0 52.0 17 1 0.0 17 1 45.0	1.2 -6.7 0.7 4.0									75.26 77.11 77.23	32.88 31.52 30.83	Kurile Islands 46.65 N 150.60 E H = 16 49 22.8 Depth = 170 km MB = 5.3 /ISC/
594	AUG 6	SPC SRO BRA	EPKHKP EAPKFP EPP IAPKFP LMH I E EPP	18 57 56.0 18 58 18.5 19 1 34.5 18 57 58.6 18 58 32.6 20 9 0.0 18 58 0.0 18 58 20.0 18 58 47.0 18 59 28.0 19 2 7.0	2.0 0.2 -2.4 -0.2 6.7 0.0 1.1 5.8 0.0 20.0			1.7	20.0	2.0	20.0		150.21 152.03 152.06	29.12 26.79 24.22	Tonga 21.86 S 174.84 W H = 18 38 11.3 Depth = 38 km MB = 5.7 /ISC/	
595	AUG 7	SPC BRA	EAP EP	0 57 41.4 0 57 45.0	-4.1 1.3									24.92 25.65	351.04 353.35	Greenland Sea 73.34 N 7.10 E H = 0 52 15.1 Depth = 31 km MB = 4.4 /ISC/
596	AUG 7	SPC BRA	EP EP EPP	1 53 13.0 1 53 16.0 1 53 47.0	3.6 -0.3 -9.6									24.94 24.67	351.28 353.57	Greenland Sea 73.39 N 7.40 E H = 1 47 47.8 Depth = 33 km MB = 4.4 /ISC/
597	AUG 7	BRA	IPG	7 20 27.0												No determination of epicentre
598	AUG 7	SPC BRA	EP EP	8 32 41.0 8 32 43.0	3.3 0.5									74.20 75.03	355.73 353.97	Kodiak Island Region 56.80 N 152.27 W H = 8 21 2.4 Depth = 32 km MB = 4.5 /ISC/
599	AUG 7	SPC BRA	EAP EP E	8 35 20.8 8 35 20.0 8 36 7.0	-3.9 1.3									74.38 75.21	355.73 353.97	Kodiak Island Region 56.62 N 152.31 W H = 8 23 37.9 Depth = 35 km MB = 5.0 /ISC/
600	AUG 7	SRO	E	8 42 51.0												No determination of epicentre

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No.	Date	St. Code	Phase	GMT h m s	RSS O-C	Z			E-W			N-S			MLH	Delta Azimuth	Remarks
						A	T		A	T		A	T				
601	AUG 7	SRO BRA E E E E	EPG IP EPG E E E	15 39 22.0 15 40 22.7 15 39 29.0 15 39 41.0 15 40 6.0 15 40 10.0 15 41 23.0												No determination of epicentre	
602	AUG 8	SRO BRA SRO	IP IPP IPP IPP I IXS LMH	1 30 39.3 1 30 44.0 1 30 52.0 1 31 12.0 1 30 46.7 1 32 50.7 1 33 23.0 1 35 30.7 1 41 0.0	2.7 0.7 0.6 -0.9 -0.9 5.8	50	1.0		3.0	20.0	5.0	20.0	5.1	24.86 25.57 26.03	350.40 352.74 352.07	Greenland Sea 73.19 N 6.30 E H = 1 25 13.9 Depth = 20 km MB = 5.0 /ISC/	
603	AUG 8	SRO BRA SRO	IAP IP IXP IXP IAP	19 10 24.0 19 10 28.0 19 10 35.0 19 10 48.0 19 10 36.0	-2.1 0.2 -0.1 12.9 -1.1									24.87 25.99 26.04	350.77 353.10 352.42	Greenland Sea 73.25 N 6.80 E H = 19 4 58.0 Depth = 18 km MB = 5.0 /ISC/	
604	AUG 8	SRO BRA SRO BRA	EPCP LMV EPCP ISOS LMH EP	19 28 59.7 20 4 0.0 19 28 28.0 19 39 35.6 20 4 0.0 19 29 4.0	-1.4 0.0 19.3 7.4 -0.9			17.0	16.0			6.7	79.49 81.25 81.81	64.79 63.24 62.44	Taiwan Region 24.50 N 122.69 E H = 19 16 43.0 Depth = 2 km MB = 5.3 /ISC/		
605	AUG 8	SRO BRA SRO	IAP IP IPP EPP	23 30 10.1 23 30 12.0 23 30 44.0 23 30 48.0	-1.4 0.7 -7.6 -9.6								25.00 25.72 26.18	350.97 353.26 352.59	Greenland Sea 73.40 N 6.90 E H = 23 24 41.2 Depth = 25 km MB = 4.7 /ISC/		
606	AUG 9	BRA	E	15 45 29.0											No determination of epicentre		
607	AUG 9	SRO BRA E	E E E	17 3 33.0 17 3 33.0 17 3 41.0											No determination of epicentre		
608	AUG 9	SRO BRA E E	I E E E	20 20 36.0 20 18 29.0 20 20 23.0 20 21 23.0											No determination of epicentre		

609	AUG 9	BRA	ESG	22 23 6.0	4.0									7.27	100.41	Germany 51.42 N 7.06 E H = 22 19 1.7 Depth = 0 km /ISC/	
610	AUG 11	SRO SRO HRB EPP EPP LMH BRA IPP	EP IP EP EPP EPP LMH IPP IPP	1 21 23.0 1 21 37.0 1 21 41.0 1 23 23.0 1 27 0.0 1 21 40.0 1 23 16.0	0.7 2.6 6.0 11.3 0.5 -2.4	320	2.0	14.0	21.0	12.0	12.0	5.7	6.0	41.03 40.28 40.35	83.94 81.04 81.04	Tadzhikistan - Sinkiang 39.34 N 73.76 E H = 1 13 55.0 Depth = 7 km MB = 6.2 /ISC/	
611	AUG 11	SRO BRA EPP E	EP EAP EPP E	5 20 9.0 5 20 23.0 5 29 8.0 5 31 40.0	-0.1 -5.1 -14.1									40.28 41.03	83.06 80.73	Tadzhikistan - Sinkiang 38.33 N 73.75 E H = 5 12 35.1 Depth = 48 km MB = 5.3 /ISC/	
612	AUG 11	SRO SRO	EAP IPP LMV LMH	7 9 43.0 7 11 11.8 7 28 0.0 7 28 0.0	2.6 5.7			4.2	16.0	4.5	16.0	5.6	40.31	81.02	38.86 40.28 41.03	83.91 81.02	Tadzhikistan - Sinkiang 39.34 N 73.80 E H = 7 2 7.0 Depth = 18 km MB = 5.1 /ISC/
613	AUG 11	SRO SRO IPP ISS ISS LMH BRA IPP IPP EPP EPP EPP	EP EPP IPP IPP IPP LMH IPP IPP IPP EPP EPP EPP	20 12 55.6 20 14 14.0 20 13 5.0 20 14 49.0 20 22 9.0 20 31 0.0 20 13 11.0 20 13 32.0 20 14 47.0 20 18 2.0 20 23 11.0	3.0 -1.9 0.3 7.2 7.4 0.1 4.8 -2.2 0.9	160	2.0	10.8	16.0	9.8	16.0	5.4	5.9	38.72 40.17 40.92	83.86 60.97 80.63	Tadzhikistan - Sinkiang 39.44 N 73.67 E H = 20 5 30.9 Depth = 41 km MB = 5.7 /ISC/	
614	AUG 11	SRO SRO ISS LMH BRA IPP I LMH	EXP MIV IPP ISS LMH IPP I LMH	21 29 12.0 21 47 0.0 21 29 15.0 21 38 21.0 21 48 0.0 21 29 18.0 21 31 2.0 21 33 10.0 21 49 0.0	0.8 2.6 11.8 -0.6 5.5			14.7	16.0	18.7	16.0	6.1	40.87	83.87 80.97 80.64	38.67 40.13 40.87	Tadzhikistan - Sinkiang 39.46 N 73.62 E H = 21 23 7.1 Depth = 26 km MB = 5.8 /ISC/	
615	AUG 11	BRA EPP	EP EPP	23 26 38.0 23 28 11.0	-0.7 -5.9			7.8	8.0	7.8	8.0	6.1	40.85	80.64	40.85	Tadzhikistan - Sinkiang 39.47 N 73.59 E H = 23 18 59.9 Depth = 47 km MB = 4.9 /ISC/	

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No.	Date	St. Code	Phase	GMT h m s	RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
						A	T	A	T	A	T					
616	AUG 12	SRO BRA	IPKIKP IPKIKP IPKIP2 I	3 12 13.3 3 12 14.0 3 12 16.0 3 13 34.0	0.0 0.6 0.8								145.18 145.27	30.38 28.21	P141 Region 16.03 S 179.16 W H = 2 52 38.0 Depth = 26 km MB = 5.6 /ISC/ No determination of epicentre	
617	AUG 12	BRA	IPC	12 25 42.0												No determination of epicentre
618	AUG 12	BRA	EAP EPP E	14 22 48.0 14 24 20.0 14 26 43.0	-5.4 -1.2								41.17	80.29	Southern Sirkians Province 39.50 N 74.10 E H = 14 15 0.1 MB = 4.7 /ISC/ Depth = 39 km	
619	AUG 12	SRO	21 40 58.0 LMH	-1.9 21 44 0.0			1.5	16.0	1.8	16.0			95.16	302.97	Guerrero, Mexico 17.50 N 100.57 W H = 21 27 15.8 MB = 5.0 /ISC/ Depth = 44 km No determination of epicentre	
620	AUG 12	SRO	E	22 22 2.0												No determination of epicentre
621	AUG 13	BRA SRO	IP IP ISCS LMH	3 58 24.8 3 58 25.5 4 2 53.5 4 8 41.5 4 36 0.0	-0.4 -0.8 -2.5		5.2	20.0	8.2	20.0			79.87 80.08	9.60 10.34	Andreanof Islands 51.49 N 178.11 W H = 3 46 19.9 Depth = 47 km MB = 5.7 /ISC/ 6.1	
622	AUG 13	SRO	IAPKHKP I	6 12 45.5 6 13 45.5	0.4								145.07	30.59	P141 Region 15.97 S 179.32 W H = 5 53 7.0 MB = 5.2 /ISC/ Depth = 22 km	
623	AUG 13	SRO	IAPKHKP E	7 39 53.5 7 41 37.5	-1.8								144.88	30.39	P141 Region 15.75 S 179.28 W H = 7 20 15.9 MB = 4.8 /ISC/ Depth = 33 km	
624	AUG 13	SRO SRO BRA	EAPKHKP IAPKHKP I LMH EAPKIP2 EAPKHKP IAPKHKP E	13 12 23.4 13 12 25.5 13 21 37.8 14 8 0.0 13 12 20.0 13 12 26.0 13 12 42.0 13 13 33.0	1.9 -1.0 0.3 -4.0 -1.0 -0.5 10.4		2.0	24.0	3.0	24.0			143.09 144.94 145.03	32.67 30.72 28.56	P141 Region 15.87 S 179.44 W H = 12 52 46.1 MB = 5.5 /ISC/ Depth = 40 km	

625	AUG 13	SRO	IAPKHKP IAPKHKP	14 1 9.5 14 1 23.5	10.1								145.06	30.53	P141 Region 15.95 S 179.29 W H = 13 41 29.0 MB = 4.9 /ISC/ Depth = 31 km No determination of epicentre	
626	AUG 13	BRA	IP I	14 16 4.0 14 17 6.0												No determination of epicentre
627	AUG 13	SRO SRO BRA	EAPKIP2 IAPKHKP EAPKIP2 E E E	15 5 27.0 15 5 29.5 15 5 27.0 15 3 30.0 15 6 10.0 15 6 35.0 15 7 45.0	0.9 0.3 -4.0 -1.0								147.20 147.55 146.42	121.80 123.25 122.58	West of Macquarie Island 55.43 S 146.38 E H = 14 45 46.5 Depth = 33 km MB = 5.4 /ISC/ 6.0	
628	AUG 14	BRA	IP I I I E	5 46 57.0 5 46 25.0 5 48 9.0 5 48 25.0 5 50 27.0 5 47 1.6 5 59 9.6	-1.7								79.86	9.63	Andreanof Islands 51.49 N 178.17 W H = 5 34 53.9 Depth = 51 km MB = 5.6 /ISC/ 80.07 10.38	
629	AUG 14	BRA	IP E	11 4 32.0 11 4 43.0			1.0	20.0	2.0	20.0						No determination of epicentre
630	AUG 14	SRO SRO BRA	EAPKHKP EAPKHKP EAPKHKP	21 34 15.7 21 34 26.3 21 34 28.0	-1.9 4.1 3.0								145.32 146.99	22.09 17.33	Samoa Region 16.05 S 172.61 W H = 21 14 37.0 MB = 4.5 /ISC/ Depth = 33 km No determination of epicentre	
631	AUG 15	SRO	E	22 30 33.5												No determination of epicentre
632	AUG 16	BRA SRO	IP IP IS LMH	9 53 38.0 9 54 23.0 9 53 38.0 10 3 38.0 10 31 0.0	0.6 -0.5 -0.7								79.97 80.18	9.44 10.19	Andreanof Islands 51.42 N 177.85 W H = 9 41 31.1 MB = 5.6 /ISC/ Depth = 43 km No determination of epicentre	
633	AUG 16	BRA	E	12 34 25.0 12 34 50.0			3.0	20.0	6.0	20.0						No determination of epicentre
634	AUG 16	BRA	E I	13 12 4.0 13 12 24.0												No determination of epicentre

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No.	Date	St. Code	Phase	GMT			RES O-C	Z		E-W		N-S			MLH	Delta Azimuth	Remarks
				h	m	s		A	T	A	T	A	T				
635	AUG 17	BRA	EP IAP E	5 24 11.0 5 24 17.0 5 25 18.0	0.6 -3.7									68.06	29.84	Sea of Okhotsk 54.89 N 144.09 E H = 5 13 12.7 Depth = 29 km MB = 5.4 /ISC/ No determination of epicentre	
636	AUG 17	BRA	E	11 23 6.0												No determination of epicentre	
637	AUG 17	SPC	EP	23 58 25.8	0.2									38.88	84.04	Tadzhikistan - Sinkiang 39.26 N 73.77 E H = 23 50 59.0 Depth = 15 km MB = 4.8 /ISC/	
638	AUG 18	BRA SRO	EPP IAP E LMH EPKIKP LMV	11 4 17.0 11 4 9.8 11 13 25.8 11 49 0.0 11 3 1.5 11 49 0.0	4.1 -7.0 1.1											Near Coast of Central Chile 38.34 S 73.27 W H = 10 44 11.0 Depth = 19 km MB = 5.9 /ISC/	
639	AUG 18	SPC	EPN ESE E EPG ESG	13 33 57.3 13 34 18.1 13 34 44.6 13 34 20.0 13 35 5.0	-0.0 -0.6 -0.1 11.7									1.58	326.95	Poland 50.50 N 18.90 E H = 13 33 28.0 Depth = 0 km /ISC/	
640	AUG 19	SRO	E IPCP LMH EPFP	12 29 25.0 12 30 2.0 13 4 0.0 12 30 8.0	-3.4 1.1											South of Honshu 35.23 N 139.50 E H = 12 17 30.0 Depth = 6 km MB = 5.1 /ISC/	
641	AUG 20	SFC BRA	IP IAP IP IPCP E E SRO	20 56 51.7 20 57 10.2 20 56 51.2 20 57 7.4 20 58 26.0 20 59 31.0 20 56 57.8 21 7 49.8 21 31 0.0	3.4 5.0 0.5 1.1 0.3 13.4		210 100	1.3 1.0								Near Islands 52.17 N 174.95 E H = 20 44 59.8 Depth = 42 km MB = 5.7 /ISC/	
642	AUG 21	SRO	E	8 45 37.8												No determination of epicentre	
643	AUG 21	SRO	E	10 0 50.0												No determination of epicentre	

644	AUG 21	SRO	E	13 8 58.0												London, Soc 17.51 N 20.10 E H = 13 2.54.0 Depth = 38 km MB = 4.1 /ISC/
645	AUG 22	BRA	IPG	11 4 32.0												No determination of epicentre
646	AUG 22	SFC BRA	EPK2 EPK2	12 7 58.8 12 8 10.8	-2.7 0.3											Fiji Region 20.70 S 178.42 W H = 11 49 15.8 Depth = 596 km MB = 5.1 /ISC/
647	AUG 23	SFC BRA	EPP E ESKPDF	5 9 5.5 5 8 52.0 5 12 13.0	-1.4 3.8											Banda Sea 7.53 S 127.48 E H = 4 50 35.1 Depth = 139 km MB = 5.6 /ISC/
648	AUG 24	BRA	IAP IAP EPP EPP ISGS LMH	10 53 16.5 10 53 27.5 10 54 25.5 10 56 38.0 10 53 21.2 11 3 37.2 11 32 0.0	0.0 -1.0 18.8 3.1 1.0		180 2000	1.0 2.0								Fox Islands 22.44 N 168.27 W H = 10 41 11.5 Depth = 40 km MB = 5.7 /ISC/
649	AUG 24	BRA	EPP EPP	11 21 1.0 11 31 14.0	-5.8 7.2											Tadzhikistan - Sinkiang 39.38 N 73.69 E H = 11 21 48.9 Depth = 50 km MB = 4.8 /ISC/
650	AUG 24	BRA	E	15 7 41.0												No determination of epicentre
651	AUG 24	BRA	E	16 57 53.0												No determination of epicentre
652	AUG 24	BRA	EAPKIKP EPK2	18 52 15.0 18 52 24.0	1.3 2.7											Tonga 21.60 S 173.90 W H = 18 32 17.8 Depth = 33 km MB = 4.8 /ISC/
653	AUG 24	SRO	E	22 14 41.0												Greece 38.00 N 20.30 E H = 22 8 43.0 Depth = 11 km MB = 4.1 /ISC/





No.	Date	St. Code	Phase	GMT h m s	RES O-C	Z		E-W		N-S		MLH	Delta Azimuth	Remarks
						A	T	A	T	A	T			
669	AUG 29	SFC BRA	EPKIP EPKP2	17 18 44.5 17 18 48.0	2.3 -0.4							144.10 145.61	23.74 19.16	Tonga 15.12 S 173.90 W H = 18 59 17.0 Depth = 88 km MB = 4.9 /ISC/
670	AUG 30	BRA SFC SRO	IP IXP IP	15 12 40.3 15 13 9.0 15 12 43.0 15 12 44.3	-0.3 0.7 -0.1	70	1.0				5.8	85.37 85.72 86.13	324.23 326.41 325.09	Nevada N.E. 37.15 N 116.08 W H = 15 0 0.2
671	AUG 30	SRO	EPG E IMH EPN ESG E EPG EPG ESG	17 44 24.9 17 52 40.3 18 16 0.0 17 44 7.0 17 45 38.0 17 46 36.0 17 44 33.7 17 44 38.0 17 45 50.8	7.9 -5.4 7.3 -3.6 10.3			3.4	24.0	4.4	24.0	3.81 4.53 4.53	153.68 145.64 145.64	Yugoslavia 44.37 N 20.67 E H = 17 43 0.9 Depth = 33 km /ISC/
672	AUG 30	SFC BRA	EPGP EPP EPP	23 42 4.0 23 45 23.6 23 42 10.0 23 45 39.0	0.5 4.5 -0.7 1.2							85.22 87.43	47.36 45.05	South of Honshu 30.55 N 142.06 E H = 23 29 23.1 Depth = 18 km MB = 5.3 /ISC/
673	AUG 31	SRO BRA	IXP EPKIP E	1 33 44.5 1 33 42.0 1 34 25.0	-0.5 1.0							146.59 146.97	50.67 48.56	Loyalty Islands Region 22.55 S 170.87 E H = 1 14 3.0 Depth = 28 km /ISC/
674	AUG 31	BRA	EP EXP	18 17 30.0 18 18 4.0	0.2 9.5							89.43	96.41	Northern Sumatra 0.62 N 97.95 E H = 18 2 8.0 Depth = 63 km MB = 4.5 /ISC/
675	AUG 31	BRA	E E	23 50 3.0 23 50 24.0 23 51 29.0	0.3 2.3 1.2									No determination of epicentre
676	SEP 2	SFC BRA	IPGP EPP EPCP	4 45 56.6 4 46 18.6 4 46 6.0	0.3 2.3 1.2							86.19 88.12	98.65 96.24	Southern Sumatra 2.79 S 101.21 E H = 4 33 17.4 Depth = 8 km MB = 5.2 /ISC/

677	SEP 3	SFC SRO BRA	EPGP IPGP EP I	1 52 19.5 1 52 30.2 1 52 28.0 1 53 34.0	-0.5 2.0 1.4							84.08 85.96 86.27	46.23 44.78 43.94	South of Honshu 32.13 N 142.41 E H = 1 39 43.0 Depth = 8 km MB = 5.2 /ISC/
678	SEP 3	SFC SRO BRA	IP EPP IP IXP EPP	6 7 30.5 6 10 21.5 6 7 36.2 6 7 40.2 6 8 5.2 6 11 11.0	2.5 -16.7 -0.3 0.5 10.7 14.4							82.07 83.74 84.37	71.40 69.85 69.02	Philippine Islands Region 18.26 N 119.20 E H = 5 55 9.7 Depth = 34 km MB = 5.9 /ISC/
679	SEP 3	SFC SRO	IP IP IP ISCS IMH ERA	19 48 45.6 19 50 3.0 19 48 0.2 19 50 32.2 19 59 4.2 20 7 0.0 19 49 0.0 19 50 34.0 19 51 3.0	2.5 -13.6 -0.2 8.4 -1.3 -5.7 1.4			1.5	12.0	1.8	12.0	38.77 40.23	83.64 80.95	Tadzhikistan - Sinkiang 39.42 N 73.74 E H = 19 41 21.1 Depth = 43 km MB = 5.3 /ISC/
680	SEP 4	BRA	E	4 9 48.0								40.97	80.62	No determination of epicentre
681	SEP 4	SRO BRA	IP IMH IP I I	6 32 52.2 6 36 36.2 6 38 0.0 6 32 50.4 6 32 27.4 6 32 2.4 6 37 23.0	1.2 -2.6			15.0	12.0	8.0	12.0	15.15 15.31	195.64 191.53	Mediterranean Sea 33.09 N 13.50 E H = 6 29 14.0 Depth = 0 km MB = 5.2 /ISC/
682	SEP 4	BRA	E	8 54 0.0										No determination of epicentre
683	SEP 4	BRA	IP E	9 32 3.0 9 33 14.0	-0.8							79.25	39.86	Near East Coast of Honshu 40.24 N 141.76 E H = 9 20 2.5 Depth = 52 km MB = 5.2 /ISC/
684	SEP 4	BRA	E	9 40 28.0										No determination of epicentre
685	SEP 4	BRA	IPN IPG I	11 7 6.6 11 7 22.6										No determination of epicentre
686	SEP 4	BRA	E	12 42 22.0										No determination of epicentre

No.	Date	St. Code	Phase	GMT		RES O-C	Z		E-W		N-S		MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T				
687	SEP 4	ERA E		16	48	44.0										No determination of epicentre
688	SEP 5	ERA E		0	5	12.0										No determination of epicentre
689	SEP 5	ERA EAP		8	0	39.0	-1.2						85.09	274.68		Northern Colombia 6.82 N 73.07 W H = 7 47 41.1 Depth = 160 km MB = 5.3 /ISC/
690	SEP 5	ERA E		8	42	2.0										No determination of epicentre
691	SEP 5	ERA E		11	2	40.0										No determination of epicentre
692	SEP 5	SRO I ERA EP SPC EAP		11	40	52.0							13.01	156.08		Crete 35.71 N 24.75 E H = 11 34 37.4 Depth = 53 km MB = 4.4 /ISC/
693	SEP 5	SPC EP ERA EP		18	33	56.0	-2.6						80.31	56.20		Ryukyu Island 29.29 N 130.57 E H = 18 21 43.5 Depth = 46 km MB = 5.0 /ISC/
694	SEP 6	SPC EAP ERA EP E		15	31	29.7	-4.1						38.77	83.96		Tadzhikistan - Sinkiang 39.36 N 73.69 E H = 15 23 59.9 Depth = 44 km MB = 4.8 /ISC/
695	SEP 6	SPC EAPKIP ERA EP SRO EAPKIP		20	55	30.3	-1.0						144.87	22.69		Tonga 15.70 S 173.08 W H = 20 35 51.8 Depth = 34 km MB = 4.9 /ISC/
696	SEP 6	SPC EAPKIP SRO IPKIP ERA IAPKIP E		23	45	43.5	0.3						123.89	56.70		Solomon Islands 7.04 S 155.90 E H = 23 26 32.8 Depth = 70 km MB = 5.5 /ISC/

697	SEP 7	ERA EP IAP SRO I SPC EP		19	52	9.3	4.9						70.73	271.32		Leeward Islands 15.15 N 60.65 W H = 19 40 52.4 Depth = 56 km MB = 5.5 /ISC/
698	SEP 7	SPC EP ERA EP SRO I IPKIP LMH ERA IP IPKIP I E		20	56	44.0	6.0						96.19	97.73		South of Java 9.80 S 108.49 E H = 20 43 15.0 Depth = 60 km MB = 6.0 /ISC/
699	SEP 8	ERA EPKIP		5	35	30.0	-0.8						122.30	53.83		New Ireland Region 3.64 S 153.97 E H = 5 17 27.2 Depth = 442 km MB = 5.7 /ISC/
700	SEP 8	SRO EP ERA EP ESS E		19	12	10.0	-4.5						9.26	149.47		Aegean Sea 39.66 N 24.39 E H = 19 9 56.7 Depth = 0 km MB = 4.3 /ISC/
701	SEP 9	ERA EPB ESS		12	51	23.0	1.7						3.75	242.07		Northern Italy 46.31 N 12.32 E H = 12 50 14.3 Depth = 0 km /ISC/
702	SEP 9	ERA EPW		22	58	9.0	0.7						7.21	149.35		Yugoslavia 41.85 N 22.02 E H = 22 56 19.0 Depth = 27 km /ISC/
703	SEP 10	ERA EP I		13	0	3.0										No determination of epicentre
704	SEP 10	ERA IPG		13	54	20.0										No determination of epicentre
705	SEP 10	ERA IPKIP IPKIP E		21	26	5.0	2.6						159.14	37.96		Kermadec Islands 30.58 S 177.61 W H = 21 6 9.0 Depth = 41 km MB = 5.7 /ISC/

No.	Date	St. Code	Phase	GMT		RES O-C	Z		P-W		N-S		MPV	MLH	Delta Azimuth	Remarks
				h	m		A	T	A	T	A	T				
706	SEP 11	BRA	EFKIKP EAPKIKP	1 36 52.0 1 37 10.0	-3.1 9.4									159.12	37.86	Kermadec Islands 30.55 S 177.58 W H = 1 16 58.0 Depth = 17 km MB = 5.3 /ISC/
707	SEP 11	SRO BRA	ESC EXP ES E	5 17 24.0 5 15 19.0 5 12 22.0 5 17 25.0 5 18 23.0	8.0 10.0 11.3									7.84 8.34	172.51 166.46	Albania 40.03 N 19.64 E H = 5 12 57.0 Depth = 28 km MB = 4.5 /ISC/
708	SEP 11	BRA	EFKP2 EAPKIP E	16 37 27.0 16 38 32.0 16 39 17.0	-1.3									146.09	17.59	Samoa Region 15.20 S 172.95 W H = 16 17 49.0 Depth = 33 km MB = 5.1 /ISC/
709	SEP 12	BRA	EP	5 32 9.0	0.8									84.93	333.86	Off Coast of Northern California 41.82 N 126.95 W H = 5 19 30.5 Depth = 3 km MB = 5.0 /ISC/
710	SEP 12	BRA	EPP	6 12 26.0	2.2									41.30	80.65	Southern Sinkiang Province 39.23 N 74.09 E H = 6 3 1.1 Depth = 37 km MB = 4.9 /ISC/
711	SEP 12	BRA	E	17 42 12.0												No determination of epicentre
712	SEP 12	BRA	EPCP	20 27 34.0	-0.2									91.04	291.43	El Salvador 13.45 N 89.84 W H = 20 14 34.3 Depth = 62 km MB = 4.9 /ISC/
713	SEP 12	BRA	EFKP2	20 37 33.0	0.6									146.03	17.30	Samoa Region 15.10 S 172.80 W H = 20 17 48.1 Depth = 0 km MB = 4.7 /ISC/
714	SEP 12	BRA	ESG	20 53 29.0	11.8									3.16	316.33	Czechoslovakia 50.40 N 13.70 E H = 20 51 33.0 Depth = 0 km /ISC/
715	SEP 13	SRO BRA	EP EKS EAP	8 1 10.0 8 1 37.0 4 59 19.0	-7.4 -0.6									16.66 17.54	122.16 120.87	Turkey 36.06 E H = 40 53.8 Depth = 59 km MB = 4.2 /ISC/

716	SEP 13	BRA	EP E	8 1 10.0 8 1 25.0												No determination of epicentre
717	SEP 13	BRA	IP IAP EPP IP IXS LMH	8 4 28.0 8 4 38.0 8 7 27.0 8 4 29.0 8 14 1.0 8 40 0.0	0.6 -1.4 15.2 1.3 -8.6	250	1.0						6.3	72.82 72.86	20.16 20.78	Near East Coast of Kamohatka 55.25 N 162.00 E H = 7 53 1.1 Depth = 40 km MB = 5.8 /ISC/
718	SEP 13	BRA	EP I	10 0 28.0 10 0 33.0												No determination of epicentre
719	SEP 13	BRA	IPG	11 59 23.0												No determination of epicentre
720	SEP 13	SRO	E	12 15 29.0										10.02	130.86	Turkey 40.79 N 28.29 E H = 12 10 3.0 Depth = 8 km /ISC/
721	SEP 13	BRA	E I	12 54 2.0 12 54 54.0												No determination of epicentre
722	SEP 13	SRO	ISS I IP I E E	18 27 33.5 18 29 25.5 18 27 9.0 18 27 18.0 18 29 25.0 18 30 30.1	17.9 -0.4									8.19 8.91	151.71 147.36	Greece 40.48 N 23.39 E H = 18 24 57.4 Depth = 8 km MB = 4.4 /ISC/
723	SEP 14	BRA	IPG	11 33 48.0												No determination of epicentre
724	SEP 14	BRA	E	23 49 48.0												No determination of epicentre
725	SEP 16	SPC BRA	EP EP	16 53 19.0 16 53 36.0	3.6 2.3									38.59 40.79	83.89 80.66	Tadzhikistan - Sinkiang 39.49 N 73.52 E H = 16 45 54.3 Depth = 37 km MB = 5.0 /ISC/
726	SEP 16	SPC BRA	EP IP	21 8 52.6 21 9 1.0	3.1 0.3									76.61 78.62	35.29 33.19	Kurile Islands 44.28 N 149.76 E H = 20 57 2.4 Depth = 49 km MB = 5.3 /ISC/
727	SEP 16	SPC BRA	EP IP EAP E	22 7 26.8 22 7 36.0 22 8 28.0	1.4 -0.0 -0.0									74.44 76.30	28.15 28.16	Kurile Islands 48.03 N 151.80 E H = 21 55 57.7 Depth = 58 km MB = 5.5 /ISC/

No.	Date	St. Code	Phase	h	m	s	RES O-C	Z			E-W			N-S			MLH	Delta Azimuth	Remarks
								A	T	A	A	T	A	T	A	T			
728	SEP 17	SPC BRA	EAP IP	2 13	6.0	0.1	0.1									74.31 75.13	355.60 353.84	Kodiak Island Region 56.68 N 152.06 W H = 2 126.2 Depth = 17 km MB = 5.0 /ISC/	
729	SEP 17	BRA	EXP	4 20	27.0	-0.4										8.33	161.16	Greece-Albania Border Region 40.22 N 20.61 E H = 4 18 11.1 Depth = 49 km /ISC/	
730	SEP 17	SRO BRA	IPN IP IP IS IS EAP	5 12 5 13 5 16 5 12 5 13 5 14 5 16 5 12	31.4 55.4 0.0 32.6 46.6 28.6 23.6 29.6 48.5	3.4 -1.6 -1.4 6.4 15.3 0.1				14.0	10.0	12.0	10.0	5.0	7.70 8.27	166.66 160.92	Greece-Albania Border Region 40.29 N 20.63 E H = 5 10 31.8 Depth = 17 km MB = 4.9 /ISC/		
731	SEP 18	SRO BRA BRA	EPN ESB EP ES	9 9 9 10 9 9 9 10	3.0 52.0 6.0 40.0	3.4 -2.7 -1.3 -3.6									7.81 8.38	165.96 160.32	Greece-Albania Border Region 40.21 N 20.78 E H = 9 7 2.0 Depth = 3 km MB = 4.4 /ISC/		
732	SEP 18	BRA	E	12 15	37.0													No determination of epicentre	
733	SEP 18	BRA	EPP	18 44	29.0	-2.3									95.61	94.87	Java 7.47 S 107.26 E H = 18 27 20.5 Depth = 88 km MB = 5.2 /ISC/		
734	SEP 19	BRA	IPG	15 35	44.0													No determination of epicentre	
735	SEP 20	SPC SRO BRA	IP IP IP IXP E	1 4 1 4 1 5 1 4 1 5 1 6	37.3 56.0 44.0 58.3 23.3 33.0	-9.3 -1.0 0.2 5.4									76.36 78.23 78.43	38.52 37.12 36.40	Hokkaido Region 42.79 N 144.94 E H = 0 53 0.9 Depth = 49 km MB = 5.6 /ISC/		

736	SEP 20	SPC SRO BRA	EPKIKP EPKIKP ESKPDF EPKIKP EAPKPF ESKPDF	19 44 19 44 19 47 19 44 19 45 19 47	10.2 27.0 19.0 13.0 17.0 24.0	-4.7 9.7 -1.5 -4.4 -6.7 -14.7									157.23 159.11 159.28	38.39 36.49 33.30	Tonga Region 29.96 S 175.83 W H = 19 24 32.0 Depth = 105 km MB = 5.1 /ISC/	
737	SEP 20	SRO BRA	E IP	20 5 20 5	15.0 14.2													No determination of epicentre
738	SEP 20	SRO BRA	EPKIKP IPN IPKIKP EAPKIP E ISKPDF	21 26 21 29 22 22 21 28 21 28 21 39 21 40 21 42	51.0 51.0 0.0 51.2 53.2 21.0 52.0 18.2	2.2 2.0 1.3 3.3 2.2 3.9			2.0	20.0	4.0	20.0			119.33 119.90	64.33 63.05	Eastern New Guinea Region 6.20 S 146.10 E H = 21 20 11.8 Depth = 105 km MB = 5.8 /ISC/	
739	SEP 21	BRA	E EPP	3 31 3 32	15.0 3.0	-3.5									109.33	77.63	Banda Sea 6.39 S 129.07 E H = 3 13 1.0 Depth = 5 km MB = 5.3 /ISC/	
740	SEP 21	BRA	EAPKIP EAPKPF	11 42 11 42	17.0 49.0	-6.6 1.8									154.00	27.50	South of Tonga 24.18 S 175.70 W H = 11 22 19.0 Depth = 81 km MB = 4.7 /ISC/	
741	SEP 21	SRO BRA	IPKHKP IPP IPN IPKIKP IAPKPF I EPP	13 1 13 1 13 2 13 12 14 5 13 0 13 1 13 1 13 4	19.8 26.8 29.0 50.8 0.0 7.2 28.2 4.2 13.2 10.0	6.3 -7.5 -1.5 -0.2 13.4 3.0					3.0	20.0	6.1		153.48 153.57	30.21 27.54	Tonga Region 23.78 S 175.88 W H = 12 40 26.0 Depth = 68 km MB = 5.4 /ISC/	
742	SEP 21	SRO BRA	IP IP IAP IPP E EKS	16 6 16 6 16 6 16 9 16 10 16 16	25.0 25.3 56.3 29.3 8.0 39.0	-0.8 -0.6 0.3 13.5 -2.2									74.43 74.45	24.72 24.07	Kamchatka 52.19 N 157.44 E H = 15 54 59.1 Depth = 119 km MB = 5.7 /ISC/	
743	SEP 21	BRA	EPP E	17 23 17 24	24.0 15.0	-6.3									104.26	251.03	Northern Chile 23.34 S 68.58 W H = 17 5 14.4 Depth = 98 km MB = 5.2 /ISC/	

No.	Date	St. Code	Phase	h	GMT	S	RCS	Z		E-W			N-S			MPV	MLH	Delta	Azimuth	Remarks
								A	T	A	T	A	T	A	T					
744	SEP 21	BRA	EPKIKP EPKIP2	19 45 34.0 19 45 44.0	4.9 -0.8											150.70	34.43	South of Fiji 22.32 S 173.72 E H = 19 26 46.0 Depth = 580 km MB = 5.1 /ISC/		
745	SEP 23	BRA	E	0 28 22.0														No determination of epicentre		
746	SEP 23	SRO	IP IPP ISP I LMH IP IPCP E E	19 36 59.2 19 37 34.2 19 38 50.2 19 44 2.2 19 48 14.2 20 2 0.0 19 36 58.1 19 37 43.1 19 38 23.0 19 40 41.0 19 41 33.0 19 45 12.0	2.0 2.2 3.5 -0.1 -1.5			40	1.0	7.6	12.0	4.5	12.0	5.5	6.0	48.14	187.37	Gabon 0.28 S 12.83 E H = 19 28 18.3 Depth = 41 km MB = 5.9 /ISC/		
747	SEP 24	BRA	EP EAP	2 8 0.0 2 8 5.0	-2.1 -1.0											61.35	258.06	North Atlantic Ridge 13.66 N 44.93 W H = 1 57 44.7 Depth = 16 km MB = 5.0 /ISC/		
748	SEP 24	BRA	EPG ESN E	10 49 19.0 10 49 36.0 10 50 7.0	-1.9 -0.7											0.95	134.56	Hungary 47.50 N 18.10 E H = 10 49 2.0 Depth = 33 km /ISC/		
749	SEP 25	BRA	E	12 1 54.0 12 2 5.0												1.84	330.03	Czechoslovakia, Explosion 49.75 N 15.69 E H = 12 0 2.0 /ISC/		
750	SEP 25	BRA	EAPKIP	16 8 48.0	6.0											125.05	61.97	Eastern New Guinea Region 9.80 S 149.95 E H = 15 49 39.0 Depth = 3 km MB = 5.4 /ISC/		
751	SEP 26	BRA SPC	IXP IXP IPP	15 17 41.2 15 17 43.5 15 20 53.6	0.8 1.3 -9.3											85.39 85.73	324.22 326.39	Southern Nevada, N.E. 37.13 N 116.07 E H = 15 5 0.0 /ISC/		

752	SEP 27	SPC SRO	EP IP IS ISS LMH IP IXP IPP E	3 22 28.0 3 22 32.4 3 33 0.4 3 38 32.4 3 57 0.0 3 22 38.0 3 23 4.0 3 26 13.0 3 29 6.0	1.9 -3.3 3.7 3.4 0.7 11.6 18.6											10.0	20.0	17.0	20.0	6.5	82.99 84.17	46.13 44.68	Off East Coast of Honshu 33.67 N 141.30 E H = 3 10 6.8 Depth = 35 km MB = 5.7 /ISC/
753	SEP 27	BRA	IPOP IXP I I I	4 21 44.8 4 22 16.8 4 24 30.8 4 27 11.8 4 29 39.8 4 29 48.0	-1.0 15.3												86.97	270.68	Colombia 2.72 N 71.27 W H = 4 9 1.6 Depth = 44 km MB = 5.5 /ISC/				
754	SEP 27	SRO BRA	IAP IP EPP	5 36 8.4 5 36 7.6 5 38 16.6	0.4 -0.0 4.0												87.79	271.59	Nepal 28.59 N 85.51 E H = 5 26 33.6 Depth = 20 km MB = 5.5 /ISC/				
755	SEP 27	SRO BRA	IP IS LMH IP IPCP IPCP I IS LMH	5 59 28.4 6 9 24.0 6 32 0.0 5 59 27.6 5 59 32.6 5 59 46.6 6 0 25.6 6 9 28.6 6 38 0.0	0.0 -0.5 -1.8 -6.0 8.0 2.2			40	8380	4.0	7.2	33.0	20.0	6.2	6.9	78.6	35.92	43.12 N 146.86 E H = 5 47 24.0 Depth = 5 km MB = 6.0 /ISC/					
756	SEP 27	BRA	IPG	10 0 3.7															No determination of epicentre				
757	SEP 27	BRA	IPG	11 50 19.6															No determination of epicentre				
758	SEP 27	BRA	E	12 1 37.6															No determination of epicentre				
759	SEP 28	BRA	EPKIKP IPKIP2	0 2 44.0 0 3 8.0	1.5 1.0											152.91	39.10	South of Fiji 25.29 S 178.61 E H = 23 43 59.8 Depth = 590 km MB = 5.5 /ISC/					
760	SEP 28	BRA	EPKIKP	7 3 53.0	1.9											146.23	45.91	Loyalty Islands Region 22.03 S 170.26 E H = 7 11 17.0 Depth = 47 km /ISC/					

No.	Date	St. Code	Phase	GMT		RSS O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
761	SEP 28	BRA EP		21	6 7.0	0.7								84.67	44.43	South of Honahu 33.20 N 140.87 E H = 20.53 37.1 Depth = 54 km MB = 4.6 /ISC/	
762	SEP 29	SRO EP LMH		6 38 6 44	44.0 0.0	10.7								14.31	146.63	Dodecanese Islands 35.40 N 27.89 E H = 6.35 33.4 Depth = 49 km MB = 4.6 /ISC/	
763	SEP 29	BRA IP E		14 1 14 3	36.0 5.0	-3.4								84.62	44.43	South of Honahu 33.24 N 140.84 E H = 13.49 11.3 Depth = 61 km MB = 4.6 /ISC/	
764	SEP 29	SRO IP		15 59	41.0	-5.5								42.55	77.32	Kirgiziya-Sinkiang 40.30 N 77.92 E H = 15.51 51.0 Depth = 24 km MB = 5.3 /ISC/	
765	OCT 1	SRO E BRA ES		0 39 0 30	19.0 18.0	-6.2								8.12 8.55	177.29 171.12	Southern Italy 39.70 N 18.61 E H = 0.34 40.0 Depth = 13 km MB = 3.8 /ISC/	
766	OCT 1	SRO EP EPP ESP LMH		4 21 4 25 4 34 5 1	23.0 35.0 29.0 0.0	5.1 3.8 0.2			4.9	20.0	5.2	20.0		101.76	57.12	South of the Marianas 12.07 N 141.12 E H = 4.7 27.7 Depth = 40 km MB = 5.3 /ISC/	
767	OCT 3	BRA E		8 54	10.0											No determination of epicentre	
768	OCT 3	BRA EP EPP LMH SRO IP E LMH		14 35 14 39 14 39 15 23 14 35 14 38 15 12	26.0 38.0 33.0 0.0 29.7 5.0 0.0	0.2 -6.9 0.5	110	1.0						102.12	265.21	Near Coast of Peru 12.24 S 77.58 W H = 14.21 29.3 Depth = 9 km MB = 6.2 /ISC/	
769	OCT 4	BRA EP		11 5	32.0											No determination of epicentre	
770	OCT 4	BRA E		12 15	29.0											No determination of epicentre	

771	OCT 4	BRA E		12 44	26.0											No determination of epicentre
772	OCT 4	BRA EP		17 47	49.0	-1.5								74.62	22.94	Off East Coast of Kamchatka 52.51 N 159.17 E H = 17.36 17.8 Depth = 76 km MB = 4.8 /ISC/
773	OCT 4	BRA EP E		18 7 18 9	18.0 49.0	-1.6								74.80	22.56	Off East Coast of Kamchatka 52.50 N 159.83 E H = 17.55 41.0 Depth = 33 km MB = 4.8 /ISC/
774	OCT 4	SRO IP IPCP IS BRA IP IAP		22 32 22 34 22 39 22 32 22 32	29.0 25.0 5.0 40.1 42.0	-3.9 2.8 7.6 0.2 -7.4	2090	4.0				6.2		43.25	102.02	Pakistan 26.38 N 66.65 E H = 22.24 32.8 Depth = 32 km MB = 5.7 /ISC/
775	OCT 4	BRA EP		22 47	10.0	-0.5								75.21	22.35	Off East Coast of Kamchatka 52.21 N 160.41 E H = 22.35 27.3 Depth = 19 km MB = 5.2 /ISC/
776	OCT 5	BRA E		16 54	49.0											No determination of epicentre
777	OCT 7	SRO EAP E SPC EXP		11 45 11 48 11 46	40.0 28.0 4.0	2.0 -5.0								8.03	176.65	Southern Italy 39.78 N 18.92 E H = 11.43 33.8 Depth = 36 km MB = 4.4 /ISC/
778	OCT 7	SRO I		22 18	36.0									112.03	204.16	South Sandwich Islands Region 58.08 S 27.26 W H = 21.53 8.0 Depth = 286 km MB = 5.5 /ISC/
779	OCT 8	SRO IP IS LMH SPC IP		10 2 10 11 10 11 10 2	12.0 40.0 28.0 22.7	-0.6 4.4 3.2								70.88	274.93	Leeward Islands 17.37 N 61.99 W H = 9.50 59.0 Depth = 41 km MB = 6.4 /ISC/
780	OCT 9	SPC IP IS LMV HRB ES SRO IP IXP		7 43 7 53 8 19 7 44 7 53 7 44 7 44	53.5 39.8 0.0 3.5 55.8 1.0 18.0	3.0 5.7 2.7 1.8 0.2 2.6								76.80	34.26	Kurile Islands Region 44.64 N 150.09 E H = 7.32 0.6 Depth = 34 km MB = 6.3 /ISC/

No.	Date	St. Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
781	OCT 10	SFC BRA	IPKP2 EPKHKP	2 5 2 6	58.6 0.0	-3.8											South of Fiji 22.08 S 179.47 W H = 1.47 13.1 Depth = 595 km MB = 5.1 /ISC/
782	OCT 11	BRA	EPG ESB	4 4 4 5	24.0 0.0	-2.1 -1.2											Austria 47.52 N 12.46 E H = 4 3 22.4 Depth = 11 km /ISC/
783	OCT 10	BRA	ESB	5 18	10.0	-0.1											Austria 47.50 N 12.50 E H = 5 16 32.0 Depth = 9 km /ISC/
784	OCT 10	SRO BRA	IP I LMH IP IFCP E	7 0 7 8 7 18 7 43 7 0 7 0 7 5	19.0 55.0 55.0 0.0 10.5 20.5 19.0 45.0	1.8 -0.7 -7.9 -6.6											Hokkaido Region 41.05 N 143.09 E H = 6 48 15.5 Depth = 33 km MB = 5.7 /ISC/
785	OCT 10	BRA	EP	7 8	52.0	-0.7											Off East Coast of Honshu 40.99 N 143.15 E H = 6 56 49.7 Depth = 36 km MB = 5.7 /ISC/
786	OCT 10	SRO BRA	IFCP E IPP ESCS IFCP EPP	21 45 21 47 21 48 21 55 21 45 21 48	9.0 39.0 40.0 51.0 12.2 40.0	0.8 -0.7 0.6 0.3 -7.4											Southern Sumatra 4.15 S 102.83 E H = 21 32 18.9 Depth = 89 km MB = 5.7 /ISC/
787	OCT 11	SRO SRO BRA	EAPKP2 EPKP2 EPKHKP	8 54 8 53 8 55	2.0 53.0 44.0	-3.1 -1.6 1.9											West of Macquarie Islands 60.70 S 153.94 E H = 8 33 52.7 Depth = 33 km MB = 5.1 /ISC/

788	OCT 11	BRA	IFG	11 50	43.0												No determination of epicentre
789	OCT 11	BRA	E	13 12	46.0												No determination of epicentre
790	OCT 11	SFC BRA	EP EP	18 22 18 23	53.0 4.0	0.7 0.9											North West of Kurile Islands 52.15 N 152.68 E H = 18 12 18.7 Depth = 453 km MB = 4.5 /ISC/
791	OCT 12	SFC BRA	IP IP	4 59 4 59	28.8 39.0	1.0 -0.3											Off East Coast of Honshu 40.52 N 143.57 E H = 4 47 30.9 Depth = 20 km MB = 5.3 /ISC/
792	OCT 12	SRO BRA	EP ES EP	6 27 6 37 6 59	0.0 0.0 0.0	1.5 1.9 0.2											Off East Coast of Honshu 40.54 N 143.58 E H = 6 14 51.0 Depth = 17 km MB = 5.5 /ISC/
793	OCT 12	SFC BRA	EP EP	12 57 12 57	26.8 39.0	2.5 3.1											Off East Coast of Honshu 40.50 N 143.56 E H = 12 45 27.4 Depth = 20 km MB = 4.7 /ISC/
794	OCT 12	BRA	EP	16 29	35.0	0.8											Off East Coast of Honshu 40.39 N 143.71 E H = 16 17 23.0 Depth = 8 km MB = 5.0 /ISC/
795	OCT 12	BRA	EPKP2	19 18	22.0	-2.0											Fiji Region 17.84 S 178.44 W H = 16 52 42.1 Depth = 606 km MB = 5.0 /ISC/
796	OCT 13	BRA	E	3 56	52.0												No determination of epicentre
797	OCT 13	BRA	E	11 56 11 57	11.0 0.0												No determination of epicentre
798	OCT 14	SRO BRA BRA	ESB IPN ISN	4 13 4 12 4 13	27.0 22.6 12.0	2.6 -4.1 -9.0											Yugoslavia 43.63 N 17.48 E H = 4 11 15.0 Depth = 11 km /ISC/

No.	Date	St. Code	Phase	GMT		RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m		A	T	A	T	A	T					
799	OCT 14	SFC EPP LMV	IP EPP LMV	14 23 40.8 14 26 31.7	1.9 -4.1										77.62	40.55	Off East Coast of Honshu 40.64 N 143.69 E H = 14.11 41.2 Depth = 13 km MB = 5.4 /ISC/
		SRO	IP EPP IS	15 3 0.0 14 23 51.0 14 24 11.0	1.8 2.0	990	2.0					6.4			79.50	39.13	
		LMH	LMH	15 4 0.0													
		ERA	EP	14 23 50.0	-0.4										79.73	38.39	
800	OCT 15	SFC	IAP	1 28 47.0	-0.6										77.64	40.48	Off East Coast of Honshu 40.65 N 143.78 E H = 1 16 45.9 Depth = 12 km MB = 5.4 /ISC/
		SRO	IP	1 28 55.0	0.9										79.52	39.06	
		LMH	LMH	2 7 0.0													
		ERA	IP	1 28 55.0	-0.4										79.75	38.32	
801	OCT 15	SRO	EPN	9 58 43.0	-5.0										7.89	153.14	Greece 40.67 N 22.99 E H = 9 56 49.2 Depth = 0 km MB = 4.2 /ISC/
		ERA	EP	10 1 39.0 9 58 58.0	0.2										8.60	148.55	
802	OCT 15	ERA	EPKIP EKP2	21 47 33.0 21 48 13.0	-0.9 -0.1										159.09	38.74	Kermadec Islands 30.67 S 177.92 W H = 21 27 40.7 Depth = 42 km MB = 5.7 /ISC/
803	OCT 16	ERA	EPG ISS	3 44 9.0 3 45 1.0	10.1 5.4										5.42	275.25	Germany 48.38 N 9.00 E H = 3 42 10.8 Depth = 21 km /ISC/
804	OCT 16	ERA	IAP IAP I LMH EP LMH SRO IAP I IXS LMH EP LMV	5 51 27.4 5 51 41.0 5 51 18.4 5 51 28.2 5 51 34.6 5 51 46.6 5 55 10.6 5 57 6.6 5 57 8.0 5 51 43.0 6 7 0.0	-0.6 2.4 0.0 -12.7 -1.1 -0.2 4.6 4.6 2.8	70	1.0										North Atlantic Ridge 52.71 N 32.00 W H = 5 45 11.2 Depth = 41 km MB = 5.7 /ISC/

805	OCT 16	SFC SRO ERA	IP IPGP IP IPGP EPP E	9 41 50.3 9 41 58.6 9 42 6.6 9 41 57.2 9 42 9.2 9 45 13.0 9 47 9.0	3.8 1.8 1.7 -0.9 3.3 11.6													Off East Coast of Honshu 40.35 N 143.72 E H = 9 29 46.7 Depth = 8 km MB = 5.5 /ISC/
806	OCT 16	ERA	EPKIP E	17 49 22.0 17 50 6.0	2.3										121.33	61.00	New Britain Region 5.30 S 148.38 E H = 17 30 34.4 Depth = 70 km MB = 5.5 /ISC/	
807	OCT 16	ERA	E	19 49 55.0													No determination of epicentre	
808	OCT 17	ERA	E	11 54 31.0													No determination of epicentre	
809	OCT 17	ERA	E	12 59 50.0													No determination of epicentre	
810	OCT 18	ERA SFC	EP IAP EAP	0 37 52.0 0 38 4.4 0 38 17.6	0.2 -4.0 -2.8													Leeward Islands 17.56 N 62.27 W H = 0 26 44.1 Depth = 60 km MB = 5.0 /ISC/
811	OCT 18	SPC	E	2 45 29.4													No determination of epicentre	
812	OCT 18	ERA	IPG ISG	11 50 53.6 11 50 56.6													No determination of epicentre	
813	OCT 18	ERA SRO	IPKP2 EAPKP2 EAPKHP	12 11 31.6 12 12 3.0 12 11 35.0	-2.0 18.8 -0.8													Samoa Region 16.38 S 172.29 W H = 11 51 49.3 Depth = 33 km MB = 5.3 /ISC/
814	OCT 18	ERA	EP	14 14 33.0	-0.1										78.40	0.41	Unimak Island Region 53.81 N 163.58 W H = 14 2 34.6 Depth = 36 km MB = 4.8 /ISC/	
815	OCT 20	ERA	EP	11 11 13.0													No determination of epicentre	





No.	Date	St. Code	Phase	GMT h m s	RES O-C	Z		E-W		N-S		MPV	MLH	Delta Azimuth	Remarks	
						A	T	A	T	A	T					
		BR	IPN ISC ISC I LMH IPN LMV	1 6 9.0 1 7 13.0 1 7 22.0 1 7 31.0 1 7 47.6 1 8 33.0 1 6 28.3 1 1 8 0.0	-1.5 -0.0 9.0 18.0			1.0	1.5	5.6	2.0			3.69	165.25	
833	OCT 29	BR	EP	3 22 3.0	1.1									75.91	270.13	Near Coast of Venezuela 10.58 N 63.45 W H = 3 10 16.9 Depth = 33 km MB = 5.0 /ISC/
834	OCT 29	SPC SHO	E IPP I LMH E IPKIKP IPKIKP	3 28 23.5 3 28 32.6 3 33 0.0 3 40 25.6 4 0 0.0 3 28 32.0 3 32 36.0 3 33 13.0	-6.2			11.7	24.0	15.0	20.0			107.79 109.31	73.80 78.73	Banda Sea 6.33 S 129.52 E H = 3 14 18.6 Depth = 156 km MB = 6.3 /ISC/
835	OCT 29	BR	EAFKIKP E	9 7 54.0 9 8 18.0	13.1									146.91	17.01	Samoa Region 15.94 S 172.45 W H = 8 47 53.0 Depth = 33 km MB = 4.8 /ISC/
836	OCT 29	BR	IPG	15 40 46.4												No determination of epicentre
837	OCT 29	BR	IPN ISN	18 1 24.3 18 1 39.3	1.0 4.7									0.67	225.59	Austria 47.70 N 16.40 E H = 18 1 7.0 Depth = 10 km /ISC/
838	OCT 30	SPC BR	EP LMV EP EAP EXP E	16 19 43.7 16 58 0.0 16 19 51.0 16 20 5.0 16 20 20.0 16 21 7.0	3.2 -1.5 -3.4 5.3									79.87 82.16	55.80 53.50	Ryukyu Islands 29.89 N 130.61 E H = 16 7 36.3 Depth = 56 km MB = 5.3 /ISC/
839	OCT 31	BR	EPKHKP EAFKIP	7 6 24.0 7 7 11.0	-0.6 19.8									152.47	24.38	Tonga Region 22.28 S 174.78 W H = 6 46 35.3 Depth = 33 km MB = 4.8 /ISC/

840	OCT 31	BR	E	7 23 48.0												No determination of epicentre
841	OCT 31	BR	EPN I ISG	8 34 52.0 8 35 36.0 8 36 6.0												No determination of epicentre
842	OCT 31	BR	E	15 14 35.0 15 15 4.0												No determination of epicentre
843	OCT 31	SRO	IPG ISG I IPN ISN ISG E ESN	22 24 39.7 22 25 11.7 22 25 39.7 22 24 19.2 22 24 25.2 22 25 4.2 22 25 31.2 22 26 9.0 22 25 34.4	12.6 1.2 -2.3 -2.9 5.9 -1.0									3.31	180.16	Yugoslavia 44.50 N 18.30 E H = 22 23 21.0 Depth = 0 km /ISC/
844	NOV 1	BR	EPKHKP	3 56 9.0	0.7									4.88	196.60	
845	NOV 1	BR	EPN RSN E	10 42 14.0 10 42 45.0 10 43 36.0	2.7 -11.1									152.06	22.80	Tonga 21.67 S 174.15 W H = 3 36 20.0 Depth = 33 km MB = 4.7 /ISC/
846	NOV 1	BR	E	11 26 50.0										3.68	175.59	Yugoslavia 44.50 N 17.50 E H = 10 41 12.0 Depth = 0 km /ISC/
847	NOV 2	SPC SRO IP	EP IP I I I	5 5 29.0 5 5 51.7 5 6 11.7 5 14 48.7 5 2 56.4 5 8 12.4 5 15 17.4	-11.2 -4.7 -0.0	5170	2.0				7.0			26.77 28.55	24.01 23.75	No determination of epicentre Novaya Zemlya 70.81 N 53.91 E H = 4 59 56.9 Depth = 0 km MB = 6.4 /ISC/
848	NOV 2	BR	E	22 1 11.0										28.56	24.48	
849	NOV 2	SPC BR	EP EP	22 7 29.5 22 7 40.0	0.9 0.1									80.20 82.37	44.30 42.08	No determination of epicentre Near East Coast of Honshu 36.42 N 141.67 E H = 21 55 21.4 Depth = 45 km MB = 5.1 /ISC/

No.	Date	St. Code	Phase	h	GMT	RES	Z			E-W			N-S			MLH	Delta	Azimuth	Remarks
							A	T		A	T		A	T					
850	NOV 2	SPC BRA	IPKIKP IPKIP2 IAKIKPF ISKEAB I	22 38 22 38 22 39 22 40 22 38	30.0 36.3 11.3 12.3 35.6	0.2 0.2 16.8 -0.7								144.19 145.90 145.95	23.92 19.33 21.54		Tonga 15.23 S 173.98 W H = 22.19 2.9 Depth = 76 km MB = 5.6 /ISC/		
851	NOV 3	BRA	E	1 23 1 24	17.0 18.0												No determination of epicentre		
852	NOV 3	BRA	EPB ESG	23 0 23 2	51.0 19.0	-0.3 9.4								5.09	226.61		Northern Italy 44.55 N 11.93 E H = 22.59 21.4 Depth = 22 km /ISC/		
853	NOV 4	SPC BRA	EAPKIKP EAPKIP2 EPKHKP EPMKIP2	15 6 15 7 15 6 15 7	54.4 14.0 49.0 7.0	0.6 5.2 -0.6 1.1								150.83 152.67	28.86 23.88		Tonga Region 22.40 S 174.48 W H = 14.46 59.8 Depth = 33 km MB = 4.9 /ISC/		
854	NOV 4	SPC BRA	EAPKIKP EAPKIKP EAPKIP2 E	17 49 17 49 17 49 17 50	17.0 19.0 43.0 7.0	-3.0 -3.6 -0.3								151.10 152.93	28.49 23.46		Tonga Region 22.60 S 174.20 W H = 17.29 25.0 Depth = 37 km MB = 4.9 /ISC/		
855	NOV 5	BRA	EPKIP2 E	0 21 0 22	41.0 29.0	-0.5								146.39	17.62		Samoa Region 15.50 S 172.90 W H = 0 2 1.1 Depth = 33 km MB = 4.8 /ISC/		
856	NOV 5	BRA	IPG E	2 27 2 28	4.3 21.3												No determination of epicentre		
857	NOV 6	BRA	EPN EFG E	14 34 14 35 14 36	46.0 18.0 20.0	-4.9 13.2								3.65	167.61		Yugoslavia 44.60 N 18.20 E H = 14.33 52.0 Depth = 0 km /ISC/		
858	NOV 7	SPC BRA	IPN ISG IPN ISN I E	2 35 2 35 2 35 2 35 2 37 2 37	0.7 22.4 8.7 17.3 17.3 49.0	-0.1 -0.2 -1.6 -1.2								1.53 2.19	310.79 23.27		Poland 50.17 N 18.45 E H = 2.34 32.2 Depth = 0 km /ISC/		
859	NOV 7	BRA	E	4 11 4 12	36.0 36.0												No determination of epicentre		

860	NOV 7	BRA	IPG E	12 34 13 15	30.8 18.0												No determination of epicentre
861	NOV 7	BRA	E	13 15	18.0												No determination of epicentre
862	NOV 7	BRA	EPP	13 35	9.0	-5.8								99.89	257.90		Southern Peru 15.51 S 70.61 W H = 13.17 39.2 Depth = 173 km MB = 5.3 /ISC/
863	NOV 8	BRA	IAFKHKP IPKSDP	13 54 13 57	16.8 51.8	-1.0 2.2								146.34	17.97		Tonga 15.49 S 173.11 W H = 13.34 37.0 Depth = 17 km MB = 5.3 /ISC/
864	NOV 8	SRO	IAP IPCP IAP IPP IS IS IMH	21 35 21 35 21 32 21 36 21 36 21 44 21 45	25.0 13.6 17.6 3.9 3.9 45.6 45.6	-0.4 -0.4 2.6 5.4 5.1 7.8								77.12	39.26		Hokkaido Region 42.53 N 141.75 E H = 21.23 22.2 Depth = 125 km MB = 5.9 /ISC/
865	NOV 9	SRO BRA	IPCP E EXP	6 3 6 7 6 3	50.0 2.0 24.5	11.9								9.01 9.53	169.95 164.68		Greece 36.92 N 20.32 E H = 6 0 45.0 Depth = 24 km MB = 4.8 /ISC/
866	NOV 9	SRO	EPGP ESCS LMH	10 42 10 53 11 13	38.0 2.0 0.0	1.0 -5.1								83.92	280.31		Near North Coast of Colombia 11.50 N 75.20 W H = 10.29 59.4 Depth = 0 km MB = 4.6 /ISC/
867	NOV 9	BRA	E	11 52	8.0												No determination of epicentre
868	NOV 9	BRA	IP IPP IMH IP	13 13 13 15 13 18 13 20 13 58 13 13	49.7 4.7 4.7 20.7 0.0 51.6	1.5 2.1								102.18	264.98		Near Coast of Peru 12.44 S 77.46 W H = 12.59 51.0 Depth = 6 km MB = 6.0 /ISC/
		SRO	IP	13 13	51.6	-0.1	29.40	1.0	115.0	20.0	84.9	18.0	7.5	102.96	265.78		

No.	Date	St. Code	Phase	GMT			RES O-C	Z		E-W		N-S		MPV	MLH	Delta	Azimuth	Remarks
				h	m	s		A	T	A	T	A	T					
869	NOV 9	SRO	I IPP ISKS LMH	13 16 13 17 13 18 13 24 14 2	14.6 17.6 5.6 29.6 0.0				15.0	16.0	40.4	16.0		7.1	92.75	96.48	Sunda Strait 6.44 S 102.38 E H = 19 10 55.8 Depth = 55 km MB = 6.1 /ISC/	
870	NOV 9	BRA	EP E	20 19 20 20	49.0 24.0												No determination of epicentre	
871	NOV 10	SRO	IKP2 IAPKIP ISKPP LMH IKKIP IAPKIP EPP	4 45 4 45 4 48 5 50 4 45 4 42 4 48	9.7 17.7 33.7 0.0 5.9 27.8 22.0	1.2 1.0 -3.3 -0.8 11.1 -5.4		2.3	20.0	2.1	20.0		6.0	145.30 145.37	29.21 27.04	Phi Region 15.91 S 178.47 W H = 4 25 31.9 Depth = 31 km MB = 5.8 /ISC/		
872	NOV 11	BRA	EBB EBB	0 43 0 44	57.0 7.0	-2.9 7.1								5.62	273.45		Germany 48.20 N 8.70 E H = 0 41 9.0 /ISC/ Depth = 0 km	
873	NOV 11	SFC BRA	EP IP IAP EPP	5 29 5 29 5 30 5 33	44.5 52.8 9.8 7.0	-1.3 -0.6 -2.4 10.0	40	1.0					5.3	78.39 79.77	11.55 9.56	Andreas Islands 51.59 N 178.18 W H = 5 17 51.2 Depth = 69 km MB = 5.7 /ISC/		
874	NOV 11	SFC	EPKHP IKKHP	6 48 6 48	48.2 53.5	1.0 6.3								151.43	34.88		South of Phi 24.06 S 177.16 W H = 6 29 16.7 Depth = 163 km MB = 5.6 /ISC/	
875	NOV 12	BRA	EP I I I	3 0 3 3 3 3 3 3	25.0 18.2 21.2 5.2	8.5								7.11	274.86		France 48.28 N 6.46 E H = 2 58 38.1 Depth = 36 km /ISC/	

876	NOV 12	BRA	EP	3 28 3 28	31.0 31.0	-0.1									78.51	31.26	Kurile Islands 45.33 N 150.98 E H = 3 16 31.8 Depth = 35 km MB = 4.8 /ISC/ No determination of epicentre	
877	NOV 12	BRA	EP I	13 44 13 44	7.0 9.2													
878	NOV 12	SFC BRA	EP IAP E	22 26 22 26 22 27 22 28	52.6 55.6 12.6 15.6	6.2 -0.5 -0.2	40	1.2					5.9	95.35 97.59	80.33 78.04		Celebes Sea 2.27 N 121.06 E H = 22 13 26.9 Depth = 58 km MB = 5.8 /ISC/	
879	NOV 13	SFC SRO BRA	EP IAP IAS I IAP IPP E	2 40 2 41 2 45 2 49 2 41 2 41 2 41 2 44	48.0 5.2 2.3 26.3 9.7 15.7 56.0 19.0	-1.6 -2.3 8.4 -0.2 -0.7 -1.6 7.7	70	1.0					5.0	19.26 20.39	99.09 93.46		Eastern Caucasus 42.90 N 46.56 E H = 2 36 24.2 Depth = 25 km MB = 5.1 /ISC/	
880	NOV 13	BRA	ESG ISG E	5 45 5 45 5 45	4.0 11.0 26.0	4.7 11.7								2.52	206.40		Yugoslavia 45.90 N 15.50 E H = 5 43 36.0 /ISC/ Depth = 0 km	
881	NOV 13	SRO BRA	EPKIP EAPKIP EAPKIP E	17 19 17 19 17 19 17 20	2.0 5.0 10.0 8.0	4.3 -4.9 0.1								148.97 149.63	127.92 127.39		West of Macquarie Islands 58.01 S 148.50 E H = 16 59 17.4 Depth = 33 km MB = 5.4 /ISC/	
882	NOV 14	BRA	EP IXP E E	5 0 5 0 5 1 5 2	17.0 33.0 9.0 8.0	-7.8 0.4								73.21	155.47		Alaska Peninsula 58.77 N 154.56 W H = 4 48 53.0 Depth = 18 km MB = 5.2 /ISC/	
883	NOV 14	SRO BRA SFC	IXP I LMH EP I E EAP LMV	13 25 13 27 13 28 13 29 13 25 13 26 13 28 13 32	14.3 34.3 36.3 0.0 2.0 4.0 23.0 0.0	5.7 -5.9 -2.3		8.1	16.0	14.3	16.0		5.0	9.94 10.59 10.88	157.80 153.62 168.13		Greece 38.50 N 23.08 E H = 13 22 34.7 Depth = 27 km MB = 4.9 /ISC/	

No.	Date	St. Code	Phase	h	GMT	RES	Z		E-W		N-S		MPV	MLH	Delta Azimuth	Remarks
							A	T	A	T	A	T				
884	NOV 14	SRO BRA SFC	IPP EP EP	14 29 14 29 14 29	18.4 15.0 26.5	-1.2 -7.1 0.4								9.94 10.59 10.89	158.14 153.94 188.44	Greece 38.48 N 23.01 E H = 14.26 Depth = 6 km MB = 5.0 /ISC/
885	NOV 14	BRA	EP I	15 32 15 33	13.0 7.0	-6.5								10.61	153.35	Greece 36.50 N 23.15 E H = 15.29 Depth = 35 km MB = 4.9 /ISC/
886	NOV 14	BRA	ESB	17 12	10.0	-3.9								5.42	273.35	Germany 48.20 N 9.00 E H = 17.9 Depth = 15 km /ISC/
887	NOV 15	SRO BRA	IPP LMH IPP IXP IPP E	23 45 23 48 0 21 23 45 23 45 23 48 23 50	2.5 14.5 0.0 3.9 31.9 12.9 31.9	1.0 2.1 0.9 10.8 -1.9		5.4	16.0	4.5	16.0	6.2	6.1	82.29 82.58	43.57 42.78	Near East Coast of Honshu 35.85 N 141.10 E H = 23.32 Depth = 44 km MB = 5.8 /ISC/
888	NOV 17	BRA	IPK2	1 20	1.5	-1.0								147.40	20.48	Tonga 16.84 S 174.25 W H = 10.34 Depth = 169 km MB = 4.9 /ISC/
889	NOV 17	BRA	IP	17 35	50.3	3.1	70	1.0				5.7	73.18	20.59	Near East Coast of Kamchatka 54.75 N 161.61 E H = 17.24 Depth = 42 km MB = 5.4 /ISC/	
890	NOV 18	BRA	IP E EPP	18 15 18 16 18 19	32.5 32.5 5.0	1.6 18.6							83.91	66.07	Philippine Islands Region 20.54 N 121.22 E H = 18.3 Depth = 37 km MB = 5.5 /ISC/	
891	NOV 19	SRO BRA	IPP IS LMH IPP IAP EPP	4 7 4 18 4 59 4 7 4 8 4 11	47.3 9.3 0.0 22.2 11.6 20.0	-1.6 -0.2 0.6 2.7 8.4		4.1	24.0	5.9	24.0	6.0	84.56 85.18	67.79 66.95	Philippine Islands Region 19.00 N 121.39 E H = 3.55 Depth = 60 km MB = 5.7 /ISC/	

892	NOV 19	BRA	IPK2	5 59	5.5	-4.0								147.37	28.30	Fiji Region 18.04 S 178.48 W H = 5.40 Depth = 607 km MB = 5.1 /ISC/
893	NOV 19	BRA	IAPKHP	7 9	55.6	-0.9								139.78	47.44	New Hebrides 16.06 S 167.46 E H = 6.50 Depth = 44 km MB = 5.2 /ISC/
894	NOV 19	BRA	E	17 48	16.0											No determination of epicentre
895	NOV 20	BRA	EP	0 21	13.0	-0.0								78.62	1.37	Fox Islands Region 53.57 N 165.14 W H = 0.9 Depth = 27 km MB = 5.0 /ISC/
896	NOV 20	SRO BRA	IPKIP LMH IAPKIP IAPKIP ISKPC I E	4 34 4 37 5 32 4 34 4 34 4 37 4 22 4 42	11.6 3.6 0.0 6.2 30.2 27.2 16.2 7.2	2.8 -0.1 -3.2 2.6 -10.1		35.0	24.0	37.0	24.0	7.1	138.47 138.83	48.90 47.09	New Hebrides 15.12 S 167.16 E H = 4.14 Depth = 62 km MB = 6.2 /ISC/	
897	NOV 21	SFC	E	22 6	3.0											No determination of epicentre
898	NOV 23	SRO	EPN I LMH	18 49 18 51 18 52	15.0 21.0 0.0											No determination of epicentre
899	NOV 27	SRO	IP IXS LMH	16 58 17 2 17 9	6.1 22.1 9.0	6.1 -10.2		4.8	12.0	1.4	10.0	5.8	23.87	111.70	Iran-Iraq Border Region 25.26 N 45.66 E H = 16.52 Depth = 57 km MB = 5.0 /ISC/	
900	NOV 29	SFC SRO	EPCP IS IPP IAP IPP IXS IXS LMH	22 17 22 26 22 17 22 19 22 20 22 27 22 29 22 52	7.5 52.4 14.6 6.6 38.6 6.6 46.0 7.0	-1.1 4.0 0.6 15.0 -1.6 0.1 -11.2		47.0	20.0	45.0	20.0		83.31 85.18	49.84 48.38	South of Honshu 30.71 N 138.44 E H = 22.5 Depth = 429 km MB = 6.1 /ISC/	

No.	Date	St. Code	Phase	GMT h m s	RCS O-C	Z		E-W		N-S		MLH	Delta	Azimuth	Remarks
						A	T	A	T	A	T				
901	DEC 1	SRO	E LMH	12 14 27.0 12 16 0.0				2.9	8.0	3.7	8.0	4.7	10.16	142.15	Turkey 39.49 N 26.35 E H = 12 9.29.5 Depth = 36 km MB = 4.5 /ISC/
902	DEC 2	SRO	EPG ISG I I	1 57 17.0 1 58 39.0 1 58 37.0 1 59 55.0	-4.1 -4.2								6.27	219.20	Central Italy 42.82 N 12.93 E H = 1 55 16.0 Depth = 5 km /ISC/
903	DEC 2	SRO	E I I	13 5 50.0 13 7 47.0 13 8 47.0											No determination of epicentre
904	DEC 3	SFC	EPDIFF IPP EPP I I LMH	3 20 55.5 3 25 24.0 3 25 32.9 3 27 45.9 3 36 38.9 4 5 0.0	7.1 6.9 4.4			5.1	20.0	9.2	20.0	6.4	106.66 108.21	78.15 77.04	Banda Sea 5.04 S 129.99 E H = 3 6 35.7 Depth = 32 km MB = 6.0 /ISC/
905	DEC 4	SRO	IP I ISKS LMH	3 20 11.1 3 23 43.1 3 30 31.1 4 5 0.0	0.8 4.8			15.3	16.0	9.2	20.0	6.5	82.63	97.40	Northern Sumatra 0.50 N 97.89 E H = 3 7 47.0 Depth = 20 km MB = 5.8 /ISC/
906	DEC 6	SFC	E	15 31 6.7											No determination of epicentre
907	DEC 7	SFC	EP IP IXS LMH	7 46 14.6 7 46 25.0 7 56 40.0 8 22 0.0	1.3 3.6 -0.6			2.6	20.0	2.0	20.0	5.7	78.94 80.45	6.96 5.72	Fox Islands 51.81 N 170.80 W H = 7 34 11.0 Depth = 30 km MB = 5.5 /ISC/
908	DEC 9	BRA	ISG	12 14 19.0	-0.3								0.13	270.80	Austria 48.17 N 16.91 E H = 12 14 15.0 Depth = 5 km /ISC/
909	DEC 10	SFC	IP IAP IP IXP LMH IP	1 48 10.5 1 48 51.2 1 48 3.8 1 48 18.0 1 50 0.0 1 48 26.4	2.3 -1.6 -1.3 -9.3 0.8								38.28 39.60 40.39	90.07 86.97 86.55	Hindu Kush Region 26.48 N 70.47 E H = 1 41 7.0 Depth = 213 km MB = 5.3 /ISC/

910	DEC 10	SFC	EAP	13 14 34.0	-0.9								77.24	37.57	Off Coast of Hokkaido 42.56 N 146.64 E H = 13 2 34.5 Depth = 18 km MB = 4.9 /ISC/	
911	DEC 14	SFC	EXP E IS LMH E E	2 39 13.0 2 39 39.0 2 41 1.0 2 42 0.0 2 39 17.0	2.3 11.9 1.1			6.3	12.0	7.6	12.0	4.9	9.78	168.63	Greece 36.19 N 20.75 E H = 2 36 37.7 Depth = 32 km MB = 5.2 /ISC/	
912	DEC 17	SFC	EPKIKP IAPKIKP I E	15 54 38.8 15 55 7.0 15 55 35.0 15 55 2.0 15 57 8.0	-1.9 0.6 -0.2 6.1								145.52 145.92 146.80	120.26 121.52 120.80	West of Macquarie Island 54.21 S 143.90 E H = 15 35 20.2 Depth = 33 km MB = 5.2 /ISC/	
913	DEC 17	SRO	EPKIP2 I IAPKIKP IAPKIP2	23 21 51.0 23 22 39.0 23 21 47.0 23 22 5.0	-0.2 -0.5 3.8								150.34 150.37	26.79 24.34	Tonga 20.26 S 175.43 W H = 23 1 54.5 Depth = 31 km MB = 5.3 /ISC/	
914	DEC 19	BRA	IP I I	16 13 41.0 16 13 47.0 16 14 23.0	-1.3 2.6								88.34	279.13	Panama 7.39 N 78.59 W H = 16 0 49.1 Depth = 10 km MB = 5.3 /ISC/	
915	DEC 20	SRO	IPKIP2 IPKIKP E	2 59 32.0 2 59 26.0 2 1 11.0	3.8 1.2								145.30 145.33	26.64 24.46	Fiji Region 15.43 S 177.03 W H = 2 40 31.8 Depth = 379 km MB = 5.0 /ISC/	
916	DEC 20	SRO	EP E I I LMH EP I LMH	15 11 31.0 15 12 44.0 15 12 40.0 15 14 12.0 15 15 0.0 15 11 32.0 15 12 32.0 15 14 14.0 15 15 0.0	-2.1 -7.7									8.30	168.06	Greece-Albania Border Region 39.67 N 20.53 E H = 15 9 32.6 Depth = 47 km MB = 4.7 /ISC/
917	DEC 21	BRA	IPKIP2 IAPKIKP I IAPKIKP I LMH	8 48 33.0 8 48 39.0 8 49 6.0 8 48 37.0 8 49 37.0 8 55 0.0	0.5 5.3 3.3								145.10 145.13	20.62 22.79	Samoa Region 14.62 S 174.91 W H = 8 28 53.0 Depth = 8 km MB = 5.5 /ISC/	

No.	Date	St. Code	Phase	h	GMT m s	RES O-C	Z		E-W		N-S		MLH	Delta	Azimuth	Remarks
							A	T	A	T	A	T				
918	DEC 22	SRO	IPKP2	17	2 46.0	-3.8							146.78	30.87	Fiji Region 17.63 S 178.83 W H = 16.44 2.3 Depth = 525 km MB = 5.0 /ISC/	
		E	IPKP2	17	4 10.0	-3.2							146.87	28.63		
		BRA	EPKP2	17	3 5.0	14.8										
919	DEC 23	BRA	IPKP2	1	23 38.0	1.1							144.98	21.90	Samoa Region 14.69 S 175.67 W H = 1 4 7.0 Depth = 75 km MB = 5.2 /ISC/	
		E	IAKHKP	1	23 51.0	-0.8										
		SRO	IAFKLKP	1	24 15.0	18.1										
920	DEC 23	SRO	IPKP2	1	23 42.0	5.1							144.99	24.06	Eastern Caucasus 43.16 N 46.54 E H = 5.22 3.0 Depth = 37 km MB = 4.8 /ISC/	
		E	EP	5	26 46.0	-0.8										
		BRA	LMH	5	27 54.0	0.8										
921	DEC 23	BRA	IP	11	1 29.0										No determination of epicentre	
		E	IP	11	1 29.0											
		SRO	IPCP	7	8 26.0	-0.1										
922	DEC 24	SRO	IPCP	7	18 54.0	3.9							85.44	96.43	Southern Sumatra 2.30 S 99.01 E H = 6 55.47.0 Depth = 32 km MB = 5.9 /ISC/	
		BRA	LMH	7	19 0.0	-0.8										
		E	IP	7	8 26.0	0.6										
923	DEC 25	BRA	IP	3	1 13.0	-0.6							78.70	14.08	Near Islands 51.66 N 174.59 E H = 2.49 3.0 Depth = 7 km MB = 5.8 /ISC/	
		SRO	IP	3	1 15.0	0.6	2100	2.0								
		E	LMH	3	42 0.0											
924	DEC 27	BRA	IPG	12	38 13.0										No determination of epicentre	
		E	IPG	12	38 13.0											
		SRO	IPG	12	38 13.0											
925	DEC 27	BRA	E	12	57 12.0										No determination of epicentre	
		E	E	12	57 12.0											
		SRO	E	12	57 12.0											
926	DEC 28	SRO	IP	12	19 35.0	-0.3							42.03	87.06	Pakistan 35.06 N 72.91 E H = 12 11 46.6 Depth = 45 km MB = 5.9 /ISC/	
		E	IXP	12	19 55.0	2.1										
		BRA	ISS	12	29 7.0	13.4										
927	DEC 29	SRO	IP	3	55 35.0	1.1									Iceland 64.63 N 17.55 W H = 3 50 5.9 Depth = 31 km MB = 5.1 /ISC/	
		E	IXP	3	55 55.0	8.6										
		BRA	LMH	4	6 0.0											

927	DEC 29	SRO	IP	3	55 35.0	1.1									Iceland 64.63 N 17.55 W H = 3 50 5.9 Depth = 31 km MB = 5.1 /ISC/
		E	IXP	3	55 55.0	8.6									
		BRA	LMH	4	6 0.0										

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