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M E T E O R O L O G I S C H I N S T I T U U T

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of the seismograph stations
in The Netherlands.

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P R E F A C E

This Seismological Bulletin for 1970 is the continuation of the series Seismic Records at de Bilt from the period 1908-1969.

The Bulletin was composed under the supervision of Drs. D. van Sabben, director of the Division of Geophysics. The records have been reduced by Drs. G. Houtgast and Mr. J.A. van Bodegraven.

The Director in Chief of the
Royal Netherlands Meteorological
Institute,

Dr. H.C. Bijvoet.

De Bilt, January 1978

I N T R O D U C T I O N

SEISMOGRAPH STATION DE BILT

The geographic co-ordinates of the seismological station are 52°06'10"N and 5°10'36" E. The instruments are placed at a height of 2 m above mean sealevel on a subsoil consisting of sand (pleistocene).

The instruments are: two sets of seismographs (two horizontal and one vertical) with galvanometric recording according to GALITZIN and PRESS-EWING.

Below are given: the period of the galvanometer Tg, the reduced pendulum length l, the distance A between the mirror of the galvanometer and the recording paper, and the rough values for the natural period of the undamped pendulum T, of the damping constant and of the multiplying factor k.

GALITZIN seismographs	NS comp.	EW comp.	Z comp.
Period of galvanometer Tg	24.43 sec	24.96 sec	12.0 sec
Reduced length of pendulum l	123 mm	123 mm	406 mm
Distance A	1380 mm	1380 mm	1380 mm
Period of pendulum Ts	25 sec	25 sec	12 sec
Damping constant	0.0	0.0	0.0
Multiplying factor k	11.0	11.0	175

PRESS-EWING seismographs	NS EW Z comp.
Period of galvanometer Tg	90 sec.
Reduced length of pendulum l	360 mm
Distance A	1000 mm
Period of pendulum Ts	30 sec
Damping constant galvanometer	0.025
Damping constant pendulum	0.470
Multiplying factor k	147

SEISMOGRAPH STATION HEERLEN (HEE)

The geographic co-ordinates of the seismological station are: 50°53'06"N and 5°58'56"E.

The instrument, a horizontal seismograph, EW-component, M = 450 kg, is placed at a height of 115 m above mean sealevel on a subsoil consisting of loess.

The mean values of the constants are:

T	E	V	V max.	T max.
2	3	400	600	2

SEISMOGRAPH STATION WITTEVEEN (WIT)

The geographic co-ordinates of the seismological station are: 52°48'48" N and 6°40'11"E.

The instruments, a GRENET vertical seismograph with galvanometric record, and one vertical WILLMORE seismograph, are placed at a height of 17 m above mean sealevel on a subsoil consisting of pleistocene sand.

The period of the GRENET seismograph is 2.3 sec, the period of the galvanometer is 0.8 sec. The maximum amplification is 6500 for a period of about 1 sec.

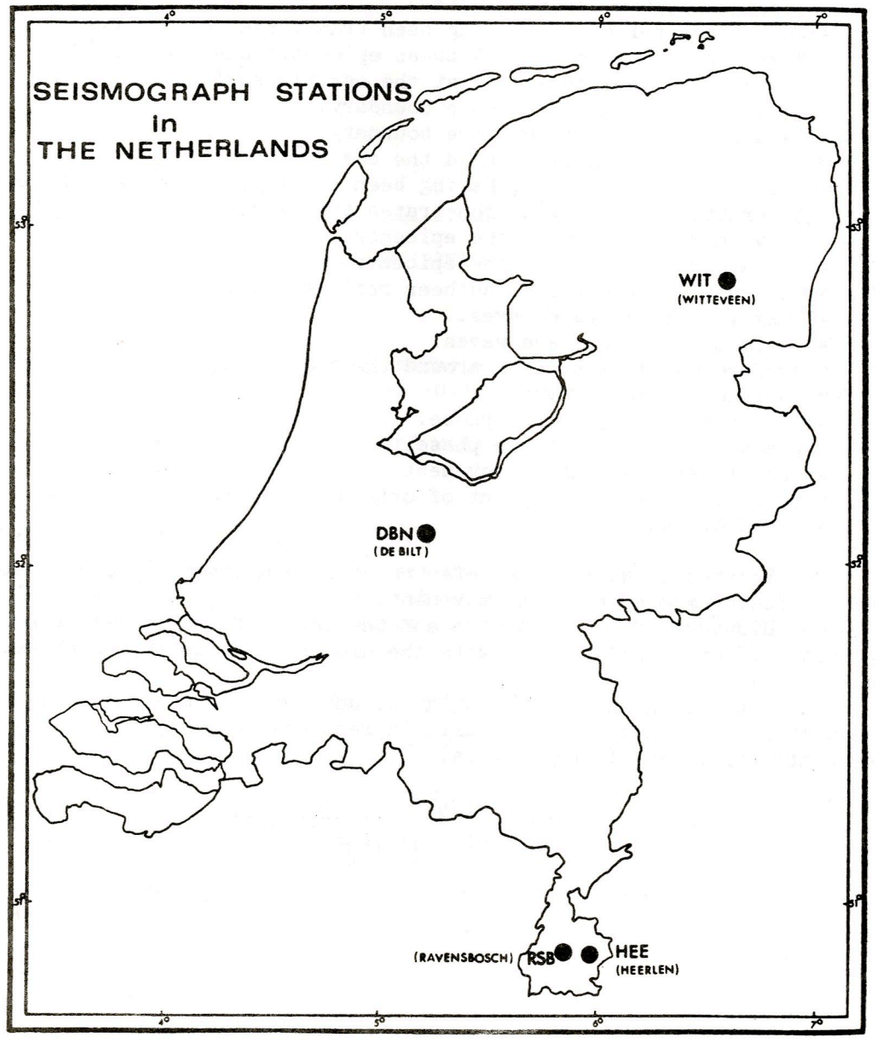
The constants for the WILLMORE seismograph are: T seismograph 2 sec, T galvanometer 0,25 sec. The maximum amplification is 30.000 for a period of about 0.4 sec.

SEISMOGRAPH STATION RAVENSBOSCH (RSB)

The geographic co-ordinates of this temporary and experimental seismological station are: 50°53'18"N and 5°49'57"E.

The instrument, a vertical WILLMORE seismograph is placed at a height of 135 m above mean sealevel on a subsoil consisting of loess.

For instrumental constants see station Witteveen.



EXPLANATION OF THE TABLES.

The data given in this yearbook have mostly been obtained from the GALITZIN and the PRESS-EWING records. The velocity of the recording paper is 30 mm and 15 mm per minute, respectively.

The data from the seismographs at Heerlen, Witteveen and Ravensbosch are also mentioned.

The time is Greenwich mean time.

In the column "first motion" + means an upward movement of the soil (compression), - means a downward movement (dilatation). Uncertain data have been given in parentheses. The following symbols were used for the phases:

P = normal first phase, or first longitudinal tremor.
pP = P-wave once reflected at the earth's surface near the epicentre.
PP = P-wave reflected halfway between epicentre and station.
PPP = P-wave two times reflected at the earth's surface.
S = second phase, arrival of the transversal tremor.
sS = S-wave reflected at the earth's surface near the epicentre.
PS = wave changed from longitudinal to transversal oscillation through reflection at the earth's surface.
PPS = wave twice reflected, having been transversal on one branch of the path.
SS = S-wave reflected halfway between epicentre and station.
SSS = S-wave two times reflected at the earth's surface.
PcP = P-wave reflected at the core boundary.
ScS = S-wave reflected at the core boundary.
P' = PKP = wave having penetrated the core.
S' = SKS = transversal wave, having been longitudinal within the core.
PKS = alternating wave having penetrated the core.
pP' = P'-wave reflected near the epicentre.
sS' = S'-wave reflected near the epicentre.
SKKS = alternating wave which has been reflected within the core.
L = long wave or surface waves.
M = maximum of the surface waves.
L' = surface waves travelling around the major arc.
M' = maximum of these waves.
i = sudden beginning of the phase.
e = gradual beginning of the phase.
F = end of the discernable movement
H = time of the shock at point of origin.
h = depth of the origin.

The indices H, N, E and Z refer to horizontal, north-south, east-west and vertical components of the movement.

The distance of the epicentre and the depth of origin have been calculated by means of curves constructed with the aid of the time tables of Jeffreys and Bullen (1940).

The data given in the column "amplitude" are the maximum amplitudes measured from the medium line (Galitzin records). The amplitudes have been calculated by means of the formula:

$$V = \frac{A\ k\ T_b}{\pi_l} \cdot \frac{1}{\left\{1 + \left(\frac{T_b}{T}\right)^2\right\}^2}$$

In this formula A is the distance between galvanometer mirror and recording paper, k is the multiplying factor, T_b the period of the wave, l the reduced length of the pendulum, T the free period of the undamped seismograph, and V the magnification. The period of the galvanometer is assumed to be equal to the free period of the undamped seismograph.

For the horizontal components of the Galitzin records the following mean values were used: k = 11,0 and T = 24,5 sec, and for the vertical component k = 175 and T = 12,0 sec.

Whenever it was possible the amplitudes and periods of the first P waves have been given. As the movement of these waves is irregular in general, the accuracy of these data is small. The amplitudes and periods of the maxima of L-waves have been given in case of strong earthquakes.

The magnitudes have been calculated by means of the formula:

$$M = \log\left(\frac{A}{T}\right) + 1.66\ \log\Delta + 3.3$$

A = maximum amplitude of the L-wave in microns (measured from the medium line).
T = the period of the concerning L-wave in seconds.
Δ = distance in degrees.

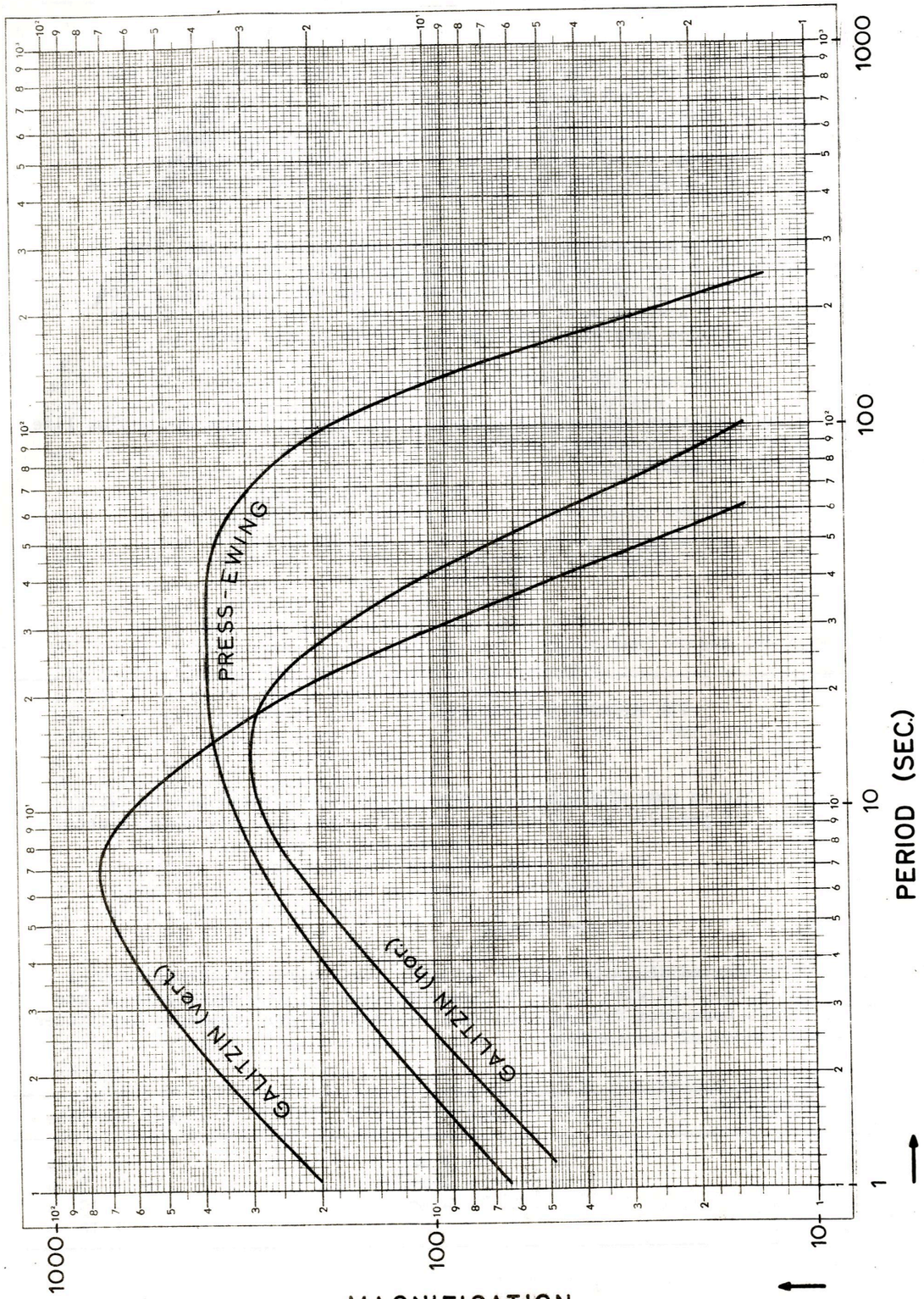
THE MICROSEISMIC ACTIVITY.

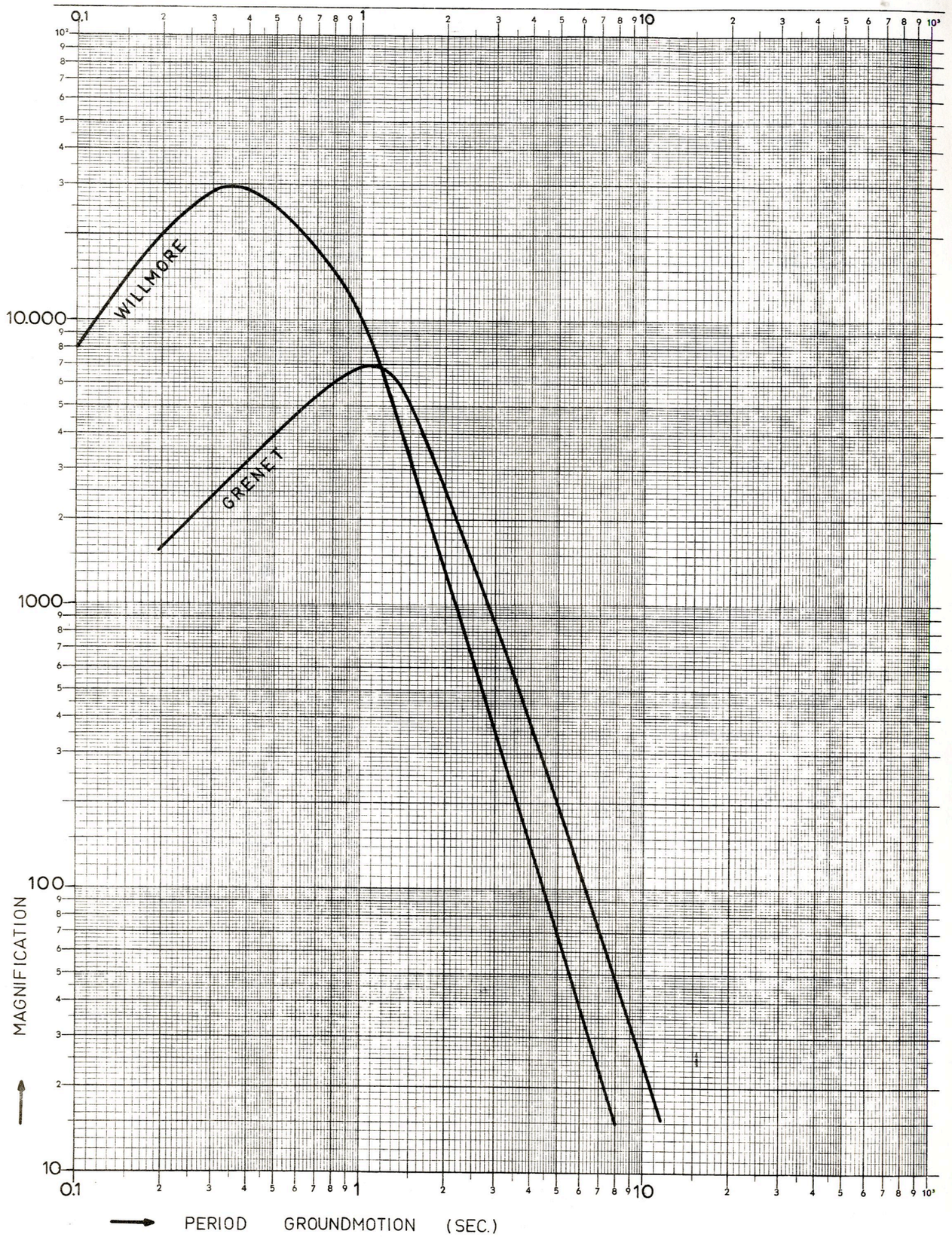
The table on page 10 shows the character of the microseismic activity (see also 1915 page 101 and 1916 page 101). The numbers 0, 1, 2 and 3 mean:

0 = very weak and weak
1 = moderate
2 = strong
3 = very strong

For measuring the microseismic activity the records of the horizontal GALITZIN seismograph ware used. The table below gives the amplitudes of the oscillations (measured from the medium line) and the corresponding amplitudes of the movement of the surface.

Character	Ampl. record	Ampl. surface
0	0 - ½ mm	0 - 1½ μ
1	½ - 2 mm	1½ - 5 μ
2	2 - 4 mm	5 - 10 μ
3	> 4 mm	> 10 μ





Character of the microseismic movement

Date 1970	Jan.	Febr.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	0	1 2	2	1	1	0	1	1 0	221	1	3 2	1
2	0 1	233	2	1	1	0	1	0	1	223	2 3	1
3	1	3	221	1	1	0	1	0	1	3 2	3	122
4	1	332	1	1	1	0	1	0	1	1	2	223
5	1	2	1	1	1	0	1	0	1	1	2	322
6	1	2	1	1 0	1	0	1 0	0	1	1 2	2 1	2
7	122	233	1 2	0	1	0	0	0	1	221	1	1
8	2	3	2 1	0	1	0	0	0	112	1	1 2	1
9	2	332	1	0 1	1	0	0	0	2	1	3	1
10	2 1	221	1	1 0	1 0	0	0 1	011	2	1	2 1	1
11	2 1	112	1 2	0	0	0	1	1	211	1	1 2	1
12	1	232	2 1	0 1	0	0 1	1	1 0	1	1	2 1	1
13	1	2 3	1	1	0	1 0	1	0 1	1	1	1	121
14	122	321	1 0	1	0	0	1 2	1	110	1	1	1
15	2	1	0	1	0	0	2	1	0	110	1	1
16	2	1	0 1	1	0	0	2 1	1	1	0	1 2	1
17	2	122	1 2	1	0	0 1	1 0	1	1	0	2 1	2
18	2	2	2	1 0	0 1	1 0	0	1 0	1	1	1	2
19	2	2 3	221	0 1	1	0	0	0	110	233	1	2 1
20	2	332	1	1	1	0 1	0 1	011	0	3	1	1
21	2 3	2	1	1	1	1 0	1 0	1 0	0	332	1	1
22	3 2	2 3	1	1	1	0	0	0	0	2 1	1	221
23	2	3 2	1 0	1 2	100	0	0 1	0	011	1	1	1
24	2	2	0 1	2	0	0 1	1	0	1	1	1	1
25	2	2 1	1	2 1	0	1	1	0	1	2	2 3	1
26	2	1	1 2	1	0 1	1 0	1	0	1	2 1	332	1
27	2	112	2	1 0	1	0	1	0	1	1	221	1
28	2 1	2	211	0 1	1	0 1	1 0	0	1	1	1	1
29	1		112	121	1	1	0	0	1	1	1	1
30	1		2 1	1 0	1	1	0 1	0 1	1	122	232	1
31	1		1		1 0		1	1		2		1

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Data without indication are from De Bilt

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Jan. 1	eL	2	25								8.6N 83.5W, H: 01 43 46.7,
	F	3.1									h 48 km, Mb 5.2, Ms 5.7
	WIT: eP	1	56	16.0							Costa Rica.
Jan. 1	WIT: eP	2	02	28							28.6N 129.3E, H: 01 49 55.6, h 39 km, Mb 5.2 Ryukyu Islands.
Jan. 1	eP	10	06	01							45.8N 154.4E, H: 09 53 59.9
	eL	10	40								hN,Mb 5.3
	F	11	10								Kuril Islands region.
	WIT: iP	10	05	57.2							
Jan. 1	WIT: ePKP	17	31	21.0							29.4S 177.6W, H: 17 11 00.6, h 44 km, Mb 5.4 Kermadec Islands.
Jan. 1	WIT: ePKP	22	27	42.0							4.0S 153.9E, H: 22 09 28.6, h 404 km,Mb 5.2 New Ireland region.
Jan. 2	HEE: i	8	40	53							Local shock.
Jan. 3	WIT: eP	7	00	30.0							41.8N 43.2E, H: 06 54 49.4 h 68 km, Mb 5.1 Turkey-USSR border region.
Jan. 3	eL	15	49								3.7S 118.7E, H: 14 51 48.6,
	F	16	19								h 38 km, Mb 5.0, Ms 5.2 Celebes.
Jan. 4	eP	17	12	24	-						24.1N 102.5E, H: 17 00 40.2,
	iPP	17	15	10							h 31 km, Mb 5.9, Ms 7.5
	eS	17	22	13							Yunnan Province, China.
	eSS	17	27.0								
	eL	17.6				20			260	7.6	
	F	21									
	WIT: eP	17	12	20							
	i	17	12	24.5	+						
	HEE: eL	17	39								
Jan. 4	WIT: eP	17	44	17.5							24.2N 102.5E, H: 17 32 40.2, h N,Mb 5.2 Yunnan Province, China.
Jan. 4	eL	22	23								24.2N 102.5E, H: 21 44 32.8,
	F	22	40								h N,Mb 5.0
	WIT: eP	21	56	11.0							Yunnan Province, China.

Date 1970	Phase	G.M. Time h m s	First motion	Period s	Amplitude μ Z	Amplitude μ NS	Amplitude μ EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Jan. 5	eSKS	0 43 48							19.2N 121.2E, H: 00 20 15.0
	eSS	0 49.9							h 53 km. Mb 5.4
	eSSS	0 53.6							Philippine Islands region.
	eL	1 06		20			7.0	6.1	
	F	1.7							
	WIT: eP	0 33 04.5							
Jan. 5	eL	9 39.5							d.b.m. 16.1N 59.6W, H: 09
	F	10.5							09 47.8, h 20 km. Mb 5.3,
	WIT: eP	9 20 17							Ms 5.1 Leeward Islands
Jan. 5	eL	12 26							d.b.m. 24.0N 102.7E, H: 11
	F	12.8							49 10.2, h N, Mb 4.9, Ms 5.6
	WIT: eP	12 00 53.5							Yunnan Province, China.
Jan. 6	ePP	5 57.3							d.b.m. 9.6S 151.5E, H: 05
	eS	6 09 00							35 51.8, h 8 km, Mb 5.7,
	eL	6.6		22		4.6		6.2	Ms 6.2 Dentrecasteaux
	F	8.0							Islands region.
	WIT: ePKP	5 55 02.0							
Jan. 6	eL	13 25							15.8N 59.7W, H: 12 56 05.9,
	F	13.7							h N, Mb 5.3, Ms 5.3
	WIT: eP	13 06 34							Leeward Islands.
Jan. 7	eP	8 06 48							15.9N 59.7W, H: 07 56 11.1,
	eS	8 15 04							h 25 km. Mb 5.7, Ms 5.9
	eSS	8 19.1							Leeward Islands
	eL	8 22		22			6.7	5.8	
	F	9.0							
	WIT: eP	8 06 40.3							
Jan. 8	iPKP	17 32 18	+	6	3.9				d.b.m. 34.7S 178.6E, H:17 12
	epPKP	17 33 06							39.1, h 179 km. Mb 6.1
	ePP	17 36 50							South of Kermadec Islands
	epPP	17 37 40							
	F	19.6							
	WIT: ePKP	17 32 16.5							
	epPKP	17 33 02.5							
Jan. 10	eP	12 21 04	+	6	2.2				6.8N 126.7E, H: 12 07 08.6,
	ePP	12 25 28							h 73 km. Mb 6.1 Mindanao,
	eSKS	12 32 00							Philippine Islands
	eSS	12 40.0							
	eL	12.9							
	F	16.9							
	WIT: iP	12 21 01.4	+						
	HEE: eL	13 00							

Date 1970	Phase	G.M. Time h m s	First motion	Period s	Amplitude μ Z	Amplitude μ NS	Amplitude μ EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Jan. 11	WIT: ePKP	5 39 20							22.6S 171.5E, H: 05 19 37.0,
									h 43 km. Mb 5.2, Ms 5.5
									Loyalty Islands region.
Jan. 11	eL	5 56							7.3N 126.8E, H: 05 02 05.8,
	F	6 20							h 70 km Mb 5.5 Mindanao,
									Philippine Islands.
Jan. 13	WIT: ePKP	22 51 46.5							23.4S 179.9W, H: 22 32 55.3,
									h 531 km Mb 4.8
									South of Fiji Islands.
Jan. 14	eH	2 53.0							10.3S 123.1E, H: 02 22 33.5,
	eL	3 19							h N, Mb 5.6, Ms 5.6 Timor.
	F	4.6							
Jan. 15	eL	17 35							11.5N 86.7W, H: 16 52 42.9,
	F	18.1							h 70 km Mb 5.1
									Near coast of Nicaragua.
Jan. 16	eP	8 16.3							60.3N 152.7W, H: 08 05 39.6,
	eS	8 25 08							h 91 km Mb 5.6
	eL	8 34							Southern Alaska.
	F	9.1							
	WIT: eP	8 16 18.5							
	i	8 20 42.0							
Jan. 18	eL	1 08							21.4N 146.7E, H: 00 18 23.9,
	F	1 48							h 39 km Mb 5.7, Ms 5.4
									Mariana Islands region.
Jan. 20	WIT: eP	0 49 57.0							53.8N 163.5W, H: 00 38 24.3,
									h N, Mb 5.1
									Unimak Island region.
Jan. 20	iPKP	07 39 35	-	7	13.0				25.8S 177.3W, H: 07 19 51.2,
	eL	08 33							h 80 km Mb 6.5
	F	10.5							South of Fiji Islands.
	WIT: ePKP	07 39 33.0	-						
	i	07 39 41.5	+						
	HEE: ePKP	07 39 50							
Jan. 20	WIT: ePKP	17 27 20							26.0S 177.2W, H: 17 07 31.2,
									h 105 km, Mb 5.4
									South of Fiji Islands.
Jan. 20	iP	17 45 06	+						42.5N 143.0E, H: 17 33 05.4,
	iS	17 55 00							h 46 km. Mb 6.3, Ms 6.4
	iSS	18 00 08							Hokkaido, Japan region.
	eL	18 09		24		30		6.7	
	F	19.5							
	WIT: iP	17 45 00.7	+						

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Jan. 21	iP	18	05	12	-						d.b.m. 7.0N 104.3W, H: 17
	ePP	18	08	45							51 38.5, h N, Mb 6.2, Ms 6.6
	iSKS	18	15	28							Off coast of Mexico.
	iPS	18	17	40							
	iSPP	18	18	18							
	eSS	18	23.0								
	eL	18	33			20			42.5	6.9	
	F	19.6									
	WIT: eP	18	05	15							
Jan. 22	WIT: ePKP	0	04	08							26.2S 177.1W, H: 23 44 09.8
											h 95 km, Mb 5.0
											South of Fiji Islands.
Jan. 22	eL	4	40								51.2N 177.3E, H: 03 55 32.6,
	F	5.5									h 38 km, Mb 5.3, Ms 5.5
	WIT: iP	4	07	18.6							Rat Islands, Aleutian Islands
Jan. 22	iP*	15	26	35							d.b.m. 48.3N 9.1E, H: 15 25
	eS*	15	27	42							17.0, h 16 km, Mb 4.5
	F	15	35								Germany
	WIT: iP_n	15	26	30.0							
	iP*	15	26	38.5							
	HEE: iP_n	15	26	11							
	iP*	15	26	21							
Jan. 22	eL	15	56								14.3N 92.4W, H: 15 14 28.8,
	F	16	40								h 58 km. Mb 5.5
											Near coast of Chiapas,
											Mexico.
Jan. 23	WIT: eP	3	43	01							d.b.m. 53.8N 163.6W, H: 03
	e	3	43	13							31 29.0, h N, Mb 5.1, Ms 4.8
											Unimak Island region.
Jan. 23	WIT: iP	22	34	05.0							49.8N 154.9E, H: 22 22 38.7,
											h 130 km, Mb 5.3
											Kuril Islands.
Jan. 24	eL	19	49								d.b.m. 17.4N 122.1E, H: 19
	F	20	06								00 00.3, h 63 km, Mb 5.1
											Luzon, Philippine Islands.
Jan. 26	WIT: eP	00	49	29.0							54.2N 160.3E, H: 00 38 11.5,
											h N Mb 4.9
											Near east coast of Kamchatka
Jan. 26	ePP	10	23	30							d.b.m. 12.6S 166.4E, H: 10
	eL	11.2				20		11		6.6	01 20.5, h 50 km, Mb 5.7,
	F	13									Ms 6.4 Santa Cruz Islands.
	WIT: ePKP	10	20	49.0							

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Jan. 26	WIT: epP	16	47	31							36.5N 70.4E, H: 16 38 31.7,
											h 224 km, Mb 4.7
											Hindu Kush region
Jan. 27	eL	00	14								35.0S 108.1W H: 23 12 42.0
	F	00.6									h N Mb 4.7, Ms 5.2
											Eastern Island Cordillera
Jan. 27	WIT: ePKP	09	22	09.5							10.9S 165.9E, H: 09 02 51.8,
											h 50 km Mb 5.5, Ms 5.5
											Santa Cruz Islands
Jan. 27	eL	10	06								7.5N 72.1W, H: 09 29 43.1,
	F	10.5									h 22 km. Mb 5.7, Ms 5.2
	WIT: iP	9	41	38.5							Northern Colombia
Jan. 27	WIT: eP	11	00	15.5							34.9N 101.3E, H: 10 49 31.4,
											h N Mb 5.1
											Tsinghai Province, China.
Jan. 28	ePKP	23	24	42	-						d.b.m. 20.7S 178.9W, H: 23
	epPKP	23	27	00							06 01.7, h 608 km, Mb 5.6
	ePP	23	28	00							Fiji Islands region
	epPP	23	31.3								
	F	24.5									
	WIT: iPKP	23	24	37.0	+						
	i	23	24	40.3							
	ipPKP	23	26	59.7							
Jan. 29	eL	4.2									19.9S 173.8W, H: 02 52 50.0,
	F	4.6									h 32 km. Mb 5.2, Ms 5.4
	WIT: ePKP	3	12	33.0							Tonga Islands
Jan. 29	WIT: iP	6	15	41.0	-						35.9N 140.4E, H: 06 03 21.7,
											h 70 km, Mb 5.1
											Near east coast of Honshu,
											Japan
Jan. 29	WIT: eP	11	12	47.0							38.8N 14.9E, H: 11 09 24.1,
											h 280 km. Mb 4.7
											Sicily
Jan. 29	WIT: ePKP	13	16	40.5							20.5S 176.8W, H: 12 57 28.3,
											h 285 km. Mb 4.9
											Fiji Islands region.
Jan. 30	ePKP	8	47	28	(-)	8	2.9				d.b.m. 14.6S 167.3E, H: 08
	ePP	8	50	33							28 22.7, h 172 km. Mb 5.7
	ePKS	8	51	07							New Hebrides Islands.
	eSKS	8	54	30							
	ePPS	9	02	46							
	eL	9.5									
	F	10.5									
	WIT: ePKP	8	47	32.0	-						

SEISMOLOGICAL BULLETIN

Data without indication are from De Bilt

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Jan. 31	WIT: eP	04	28	05							52.3N 31.7W, H: 04 23 00.2, h N. Mb 4.5 North Atlantic Ridge.
Jan. 31	iP	16	40	19		5	2.2				53.9N 35.5W, H: 16 35 03.9, h N, Mb 5.1, Ms 5.4
	eS	16	44.9								
	eL	16	46.5			16			8.2	5.3	North Atlantic Ocean
	F	17.5									
	WIT: eP	16	40	25.0							
Jan. 31	WIT: eP	21	20	54.0							49.7N 159.0E, H: 21 09 06.6, h 40 km. Mb 5.1 Kuril Islands region.

SEISMOLOGICAL BULLETIN

Data without indication are from De Bilt

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Feb.2	el	18.0									43.5N 147.5E, H: 17 22 08.0, h N, Mb 5.5, Kuril Islands.
	F	in next shock									
	WIT:iP	17	34	07.3	+						
	i	17	34	19.7							
Feb.2	WIT:eP	17	38	18.0							43.6N 147.5E, H: 17 26 18.7, h N, Mb 5.1, Kuril Islands.
Feb.2	eL	18.5									d.b.m. 43.5N, 147.4E, H: 17 49 51.9, h N, Mb 5.5, Kuril Islands.
	F	19.2									
	WIT:iP	18	01	52.1							
	i	18	02	04.0							
Feb.2	WIT:eP	18	17	50.0							43.3N 147.5E, H: 18 05 49.6, h N, Mb 5.2, Kuril Islands.
Feb.3	WIT:eP	19	29	15.0							43.6N 147.7E, H: 19 17 16.2, h 25 km, Mb 5.3, Kuril Islands.
Feb.4	eP	5	21	32							d.b.m. 15.5N 99.5W, H: 05 08 48.0, h 21 km, Mb 6.0, Ms 6.5.
	eS	5	32	12							
	eSS	5	38.0								
	eL	5	45			22			15.0	6.4	Off coast of Guerrero, Mexico.
	F	6.6									
	WIT:eP	5	21	35							
Feb.4	WIT:eP	13	19	11.0							43.5N 147.8E, H: 13 07 12.1, h N, Mb 5.1, Kuril Islands.
Feb.4	WIT:iP	17	11	59.9	+						37.1N 116.0W, H: 17 00 00.0, h 0 km, Mb 5.6, Southern Nevada, Test Site "GRAPE B".
Feb.4	eL	24	08								22.8S 171.4E, H: 22 45 58.2, h 57 km, Mb 5.2, Loyalty Islands region.
	F	24.6									
	WIT:ePKP	23	05	41							
Feb.5	eP	3	51.6								d.b.m. 24.3N 102.3E, H: 03 40 03.1, h N, Mb 5.2, Ms 5.3. Yunnan Province, China.
	eL	4	20								
	F	4.6									
	WIT:eP	3	51	50							
Feb.5	eP	12	58	34							d.b.m. 47.0N 154.2E, H: 12 46 38.2, h N, Mb 5.5, Ms 5.5, Kuril Islands.
	eS	13	08	32							
	eL	13	28			20			2.5	5.5	
	F	14.1									
	WIT:eP	12	58	29.0							
Feb.5	WIT:iP	14	53	32.0							47.1N 154.1E, H: 14 41 41.0, h N, Mb 5.4, Kuril Islands.

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Feb.5	eP	22	19	31	+						d.b.m. 12.6N 122.1E, H: 22
	ePP	22	23	22							05 58.3, h 11 km, Mb 6.0,
	eSKS	22	30	15							Ms 6.6, Luzon, Philippine
	eS	22	30	52							Islands.
	eSP	22	32	04							
	eSS	22	37	32							
	eSSS	22	41.0								
	eL	22	53			20		61		7.1	
	F	24.5									
	WIT:eP	22	19	24							
	RSB iP	22	19	27	+						
Feb.6	eL	0	52			20		5.3		5.8	d.b.m. 54.6N 163.6E, H: 00
	F	1.5									11 49.6, h 43 km, Mb 5.6,
	WIT:iP	0	23	07.0							Ms 5.3, Off east coast of
											Kamchatka.
											Disturbed by preceeding shock.
Feb.6	eL	3	06			19		3.1		5.8	12.5N 121.9E, H: 02 17 30.1,
	F	3.5									h 18 km, Mb 5.4, Mindoro,
											Philippine Islands.
Feb.6	WIT:eP	14	09	07.0							43.9N 147.9E, H: 13 57 14.3,
											h 78 km, Mb 5.0, Kuril
											Islands.
Feb.6	eSS	22	37.0								23.1N 100.8E, H: 22 10 41.6,
	eL	22	49			22		13.4		6.2	h N, Mb 5.4, Ms 6.1,
	F	23.6									Yunnan Province, China
	WIT:eP	22	22	21.5							
Feb.7	eL	10.7									d.b.m. 47.2N 154.1E, H: 10
	F	11.2									01 05.4, h N, Mb 5.4, Ms 5.5,
	WIT:eP	10	13	00.0	+						Kuril Islands.
Feb.7	eL	12	48								d.b.m. 47.3N 154.0E, H: 12
	F	13.4									07 35.8, h N, Mb 5.5, Ms 5.3,
	WIT:iP	12	19	24.5							Kuril Islands.
Feb.10	WIT:iPKP	18	04	04.0	+						17.3S 178.6W, H: 17 45 29.2,
											h 553 km, Mb 4.8, Fiji
											Islands region.
Feb.11	WIT:ePKP	02	19	38.0							20.9S 174.3W, H: 01 59 53.5,
	RSB:iPKP	02	19	43							h N, Mb 5.1, Tonga Islands.
Feb.11	WIT:eP	19	05	36							37.6N 22.6E, H: 19 01 17.5,
											h 66 km, Mb 5.0. Southern
											Greece.
Feb.12	e	2	29								29.4N 81.6E, H: 01 51 51.4,
	F	2	32								h 44 km, Mb 5.4, Nepal.
	WIT:eP	2	01	44.0							

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Feb.13	eL	4.1									24.5N 141.1E, H: 03 12 52.4,
	F	4.4									h 187 km, Mb 5.6, Volcano
											Islands region.
Feb.13	ePP	16	00	54							d.b.m. 5.9S 113.0E, H: 15
	epPP	16	03	04							43 28.7, h 636 km, Mb 5.8,
	iSKP	16	04	08							Java Sea.
	eSKS	16	06	16							
	eSSKS	16	10	40							
	eSS	16	15	15							
	eSSS	16	19	20							
	F	17.5									
	WIT:ePP	16	00.9								
	RSB ePP	16	01	03							
Feb.13	WIT:eP	17	39	28.0							15.9S 71.7W, H: 17 26 16.9,
											h 141 km. Mb 5.4, Southern
											Peru.
Feb.14	eP	11	30	25							9.9S 75.6W, H: 11 17 16.1,
	eL	11	56			20			3.6	5.8	h 35 km, Mb 5.9, Ms 5.4,
	F	12.5									Peru.
	WIT:eP	11	30	34							
Feb.16	eL	16	50								1.1N 120.2E, H: 15 55 04.9,
	F	17.3									h 50 km, Mb 5.4, Northern
											Celebes.
Feb.16	WIT:ePKP	21	55	14.0							25.2S 178.3E, H: 21 36 22.5,
											h 582 km, Mb 5.3, South of
											Fiji Islands.
Feb.17	eL	3	18								38.6N 43.2E, H: 02 59 54.9,
	F	3	25								h 35 km, Mb 4.9, Turkey.
Feb.17	eL	4	15								1.2N 120.2E, H: 03 18 53.8,
	F	4.8									h 30 km, Mb 5.2, Northern
											Celebes.
Feb.17	eL	6	39								9.8N 126.0E, H: 05 46 02.4,
	F	7.1									h 72 km, Mb 5.9, Mindoro,
	WIT:eP	5	59	36.5							Philippine Islands.
Feb.18	iPKP	15	42	52	-	4	4.0				d.b.m. 20.8S 176.9W, H: 15
	WIT:ePKP	15	42	46.5	+						23 33.7, h 259 km, Mb 5.8.
	i	15	42	50.3	-						Fiji Islands region.
	RSB:ePKP	15	42	48							
Feb.18	WIT:iPKP	16	43	17.2	-						22.9S 176.2W, H: 16 23 36.2,
	RSB:ePKP	16	43	21							h 100 km, Mb 5.2, South of
											Fiji Islands.

SEISMOLOGICAL BULLETIN

Data without indication are from De Bilt

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Feb.19	eL	7	44								27.4N 94.0E, H: 07 10 01.8,
	F	8.2									h 18 km, Mb 5.5. Eastern
	WIT:eP	7	20	59							India.
Feb.19	WIT:ePKP	11	08	00.5							30.2S 178.0W, H: 10 47 34.4,
	RSB:ePKP	11	08	09							h 18 km, Mb 5.6, Kermadec Islands.
Feb.22	eL	23	51								d.b.m. 71.1N 8.6W, H: 23
	F	24.1									41 10.8, h N, Mb 5.2,
	WIT:eP	23	45	38.0							Ms 5.4, Jan Maijen Island region.
Feb.23	WIT:iPKP	9	22	45.8	(+)						17.7S 178.7W, H: 09 04 08.4, h 540 km, Mb 4.7, Fiji Islands region.
Feb.23	eL	11	46								d.b.m. 27.8N 54.5E, H: 11
	F	12.0									22 26.2, h 20 km, Mb 5.5,
	WIT:eP	11	30	27.0							Southern Iran.
Feb.23	WIT:iPKP	17	59	50.0	+						17.6S 178.5W, H: 17 41 16.7, h 579 km, Mb 5.1, Fiji Islands region.
Feb.23	eL	21	36								19.2N 121.2E, H: 20 48 17.8,
	F	21	57								h 47 km, Mb 5.2, Philippine Islands region.
Feb.24	WIT:ePKP	0	56	11.0							22.5S 174.4W, H: 00 36 24.3, h 50 km, Mb 5.3, Tonga Islands region.
Feb.24	iP	2	18	52							d.b.m. 30.6N 103.0E, H: 02
	iS	2	28	18							07 36.8, h N, Mb 5.9, Ms 6.0,
	eSS	2	33.0								Szechwan Province, China.
	eL	2	43			18			8.5	6.0	
	F	3.5									
	WIT:iP	2	18	47.3							
	RSB:iP	2	18	54							
Feb.24	ePS	8	25	44							d.b.m. 59.6N 143.9W, H: 08
	eL	8	35			20		3.5		5.6	05 39.6, h 15 km. Mb 5.0,
	F	9.5									Ms 5.6, Gulf of Alaska.
Feb.24	WIT:iPKP	15	27	40.0	+						7.1S 155.6E, H: 15 08 35.5,
	RSB:iPKP	15	27	42							h 42 km, Mb 5.3, Solomon Islands.
Feb.25	eS	10	44	20							24.1N 122.2E, H: 10 20 59.4,
	eSS	10	50.5								h 49 km, Mb 5.2, Ms 5.3.
	eL	11	05			18			5.1	5.9	Taiwan region.
	F	11	30								
	WIT:eP	10	33	32.5							
	RSB:eP	10	33	40							

SEISMOLOGICAL BULLETIN

Data without indication are from De Bilt

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Feb.26	eL	16	39								13.6N 120.6E, H: 15 50 11.0,
	F	17.2									h 74 km, Mb 5.3. Mindoro,
	WIT:eP	16	03	18.0							Philippine Islands.
Feb.26	eP	23	18	02							43.5N 147.7E, H: 23 06 00.0,
	eS	23	28.3								h 36 km, Mb 5.4, Ms 5.5,
	eL	23	43			20			3.5	5.7	Kuril Islands.
	F	in next shock									
	WIT:eP	23	17	59.0							
	i	23	18	06.3	+						
Feb.26	iP	23	41	09							43.6N 147.8E, H: 23 29 02.7,
	iZ	23	41	28	+						h 15 km, Mb 5.6, Ms 5.7,
	eL	24	09			19			4.5	5.8	Kuril Islands.
	F	24.9									
	WIT:iP	23	41	04.0	+						
	RSB:eP	23	41	14							
Feb.27	eL	2	26								43.4N 147.7E, H: 01 45 10.8,
	F	3.3									h 15 km. Mb 5.2, Ms 5.5,
	WIT:eP	1	57	12.5							Kuril Islands.
Feb.27	eL	3	32								43.4N 147.7E, H: 02 50 55.6,
	F	4.2									h 38 km, Mb 5.0, Ms 5.3,
	WIT:eP	3	02	55							Kuril Islands.
Feb.27	WIT:iPKP	3	27	25.9	-						24.1S 179.8E, H: 03 08 33.0, h 545 km, Mb 4.8, South of Fiji Islands.
Feb.27	iP	7	19	51	-	6	5.5				50.1N 179.6W, H: 07 07 58.1,
	eS	7	29	48							h 20 km, Mb 6.0, Ms 5.9,
	eSP	7	31	02							Andreanof Islands,
	eSS	7	35.0								Aleutian Islands.
	eL	7	44			20		7.1		6.0	
	F	8.5									
	WIT:iP	7	19	54.0	-						
	i	7	19	57.0	+						
	RSB:iP	7	20	04							
Feb.27	WIT:eP	9	48	18.0							43.1N 147.7E, H: 09 36 00.8, h 21 km, Mb 5.0, Kuril Islands.
Feb.27	eL	13	50								31.8N 141.6E, H: 12 59 57.1,
	F	14.3									h 13 km, Mb 5.1, South of Honshu, Japan.
Feb.28	iP	11	04	02	-	6	18.0				52.7N 175.1W, H: 10 52 31.2,
	ipP	11	04	48							h 162 km, Mb 6.1,
	iPP	11	06	48							Andreanof Islands,
	iS	11	13	26							Aleutian Islands.
	isS	11	14	26							
	iSS	11	18	20							
	iSSS	11	21	32							
	F	14.3									
	WIT:iP	11	03	56.0	-						
	RSB:iP	11	04	07							

SEISMOLOGICAL BULLETIN

Data without indication are from De Bilt

Date 1970	Phase	G.M. Time h m s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Feb.28	eL	20 22							27.8N 56.3E, H: 19 58 48.1, h 35 km, Mb 5.5, Southern Iran.
	F	20.8							
	WIT:eP	20 06 56							

SEISMOLOGICAL BULLETIN

Data without indication are from De Bilt

Date 1970	Phase	G.M. Time h m s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Mar. 2	WIT:ePKP	15 45 12.5							22.0S 179.9W, H: 15 26 31.8, h 623 km, Mb 4.4, South of Fiji Islands.
Mar. 4	ePP	3 49 15							d.b.m. 12.1N 143.7E, H: 03 30 35.4, h N, Mb 6.2, Ms 6.2, South of Mariana Islands.
	eSKS	3 55.5							
	eSS	4 04.8							
	eL	4 25		20			7.2	6.2	
	F	5.3							
	RSB:ePP	3 49 21							
Mar. 4	ePKP	6 50 34							19.8S 178.6W, H: 06 31 56.2, h 624 km, Mb 5.5. Fiji Islands region.
	ipPKP	6 52 56							
	ePP	6 53 56							
	F	8.7							
	WIT:iPKP	6 50 31.0							
	epPKP	6 52 51.5							
	RSB:iPKP	6 50 36							
	epPKP	6 52 58							
Mar. 4	eL	15 20							7.6N 126.9E, H: 14 27 49.9, h 55 km, Mb 5.2, Mindanao Philippine Islands.
	F	16.0							
Mar. 5	eL	5 04.3							53.9N 19.7W, H: 04 56 25.1, h N, Mb 4.6, North Atlantic Ocean.
	F	5 22							
	WIT:eP	5 00 06							
Mar. 5	eL	5 23							7.2N 127.0E, H: 04 29 08.7, h 74 km, Mb 5.1, Philippine Islands region.
	F	6 02							
Mar. 7	WIT:ePKP	17 31 41.0							22.4S 174.4W, H: 17 11 52.3, h N, Mb 5.2, Tonga Islands region.
Mar. 9	eP	01 02 22							39.6N 143.4E, H: 00 50 03.2, h 14 km, Mb 5.3, Ms 5.8. Off east coast of Honshu, Japan.
	ePP	01 05 32							
	eS	01 12 37							
	eSS	01 18.0							
	eL	01 33		20			3.9	5.8	
	F	02.3							
	WIT:eP	01 02 17.5							
	RSB:eP	01 02 27							
Mar. 9	iPKP	16 20 43	-	10	15.0				19.0S 168.6E, H: 16 01 10.5, h 41 km, Mb 6.1, Ms 6.5, New Hebrides Islands.
	iPP	16 24 06							
	ePPP	16 27 20							
	eSS	16 42.5							
	eSSS	16 48.3							
	eL	17.2		22		32.5		7.1	
	F	20.0							
	WIT:iPKP	16 20 39.5							
	i	16 20 42.2	+						
	HEE:iPKP	16 20 49							
	RSB:iPKP	16 20 46	-						

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Mar. 9	WIT:e	16	46	32							No determination of epicenter.
	RSB:i	16	46	39	+						
Mar. 9	WIT:ePKP	18	50	25							19.1S 168.5E, H: 18 30 55.7,
	RSB:iPKP	18	50	31	-						h 33 km, Mb 5.3, New Hebrides Islands.
Mar.10	iP	5	10	27	+	4	6.5				44.8N 148.9E, H: 04 58 26.2,
	eS	5	20	18							h 40 km, Mb 6.0, Ms 5.4,
	eL	5	35			22		11.4		6.2	Kuril Islands.
	F	6.9									
	WIT:iP	5	10	20.7	+						
	RSB:iP	5	10	30	+						
Mar.10	WIT:eP	5	31	17.0							26.8N 97.0E, H: 05 20 10.3, h N. Mb 5.4, Burma.
Mar.10	eL	7	00								12.6N 122.1E, H: 06 11 56.4,
	F	7.6									h 30 km, Mb 5.7, Luzon
	WIT:eP	6	25	17.0							Philippine Islands.
	RSB:eP	6	25	23							
Mar.11	eP	22	49	42		4	3.4				d.b.m. 57.5N 153.9W, H: 22
	eS	22	58	50							38 34.6, h 29 km, Mb 6.0,
	eL	23	13			22		9.5		6.1	Ms 6.0, Kodiak Island region.
	F	24.4									
	WIT:iP	22	49	39.4	-						
	:iP	22	49	51.4							
	RSB:iP	22	49	50	-						
Mar.12	WIT:iPKP	16	49	18.0							20.7S 179.2W, H: 16 30 40.1, h 615 km, Mb 4.7, Fiji Islands region.
Mar.12	eL	18	49								24.2N 102.8E, H: 18 09 53.6,
	F	19.2									h N, Mb 5.2, Yunnan Province, China.
Mar.14	eS	02	03	15							38.6N 44.7E, H: 01 51 44.4,
	eL	02	07.0								h 23 km, Mb 5.3, Ms 4.8,
	F	2.8									Turkey-Iran border region.
	WIT:eP	01	57	52							
Mar.14	eL	07	53.5								28.3N 43.8W, H: 07 33 43.2,
	F	08	05								h N. Mb 5.2, Ms 5.2,
	WIT:eP	07	41	55.5							North Atlantic Ridge.
Mar.14	e(L)	15	54.6								42.5N 1.9E, H: 15 48 10.2,
	F	15	57								h N, Mb 4.3.
	WIT:eL	15	53.4								Pyrenees, France.
	HEE:eL	15	53.0								
Mar.14	WIT:iPKP	21	08	21.9	-						19.6S 178.2W, H: 20 49 46.1, h 610 km, Mb 5.1, Fiji Islands region.

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Mar.15	eL	6	22								26.4N 129.5E, H: 05 29 56.1,
	F	6.6									h 37 km, Mb 5.3, Ryukyu Islands.
Mar.15	ePP	12	57	24							29.7S 69.5W, H: 12 39 17.8,
	ipPP	12	58	08							h 119 km, Mb 6.0, Chile-
	eSKS	13	04	40							Argentina border region.
	F	13	57								
	WIT:ePP	12	57	35							
Mar.15	eL	16	33								26.8S 113.7W, H: 15 28 26.1,
	F	16	53								h N Mb 5.4, Ms 5.3,
											Easter Island region.
Mar.16	eL	17	39			22		1.9		5.8	19.2S 168.5E, H: 16 25 22.1,
	F	18.7									h 8 km, Mb 4.9, Ms 5.7,
	RSB:ePKP	16	45	02							New Hebrides Islands.
Mar.17	WIT:eP	22	11	13.0							59.2N 147.9W, H: 22 00 12.4
											h 47 km, Mb 5.1, Ms 4.8,
											Gulf of Alaska.
Mar.17	WIT:eP	23	27	34							33.9N 59.7E, H: 23 19 42.3,
											h 19 km, Mb 5.0 Iran.
Mar.19	iP	23	45	23	-	8	4.8				d.b.m. 51.3N 173.8E, H: 23
	ePPP	23	50	08							33 29.1, h 16 km, Mb 5.8,
	eS	23	55	10							Ms 6.2, Near Islands,
	eSS	24	00.0								Aleutian Islands.
	eL	24	06			22		13.4		6.3	
	F	1.5									
	WIT:eP	23	45	16.5							
	RSB eP	23	45	26							
Mar.20	eL	23	39								45.0S 80.3W, H: 22 34 16.9,
	F	24.2									h N, Mb 5.1, Ms 5.4, Off
											coast of Southern Chile.
Mar.21	eL	03	21								25.6N 109.7W, H: 02 39 46.6,
	F	03.8									h 5 km, Mb 5.0, Gulf of
											California.
Mar.21	eL	11	03								24.0N 142.7E, H: 10 09 55.4,
	F	11.4									h N, Mb 5.4, Volcano Islands
											region.
Mar.21	WIT:eP*	20	41	42							48.5N 9.2E, H: 20 40 21.3,
	ePg	20	41	54.5							h 14 km, Mb 4.1, Germany.
	HEE:e	20	42								
	RSB:iP*	20	41	14							
	iSg	20	42	10							

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Mar.23	epP	0	33	20							40.1N 140.2E, H: 00 20 54.7, h 146 km, Mb 5.7, Honshu, Japan.
	iS	0	42	43							
	eL	1.0									
	F	1.5									
	WIT:eP	0	32	44.5							
	epP	0	33	20							
	RSB:eP	0	32	53							
	epP	0	33	31							
Mar.23	eP	2	03	12							21.7N 73.0E, H: 01 52 59.3, h 3 km, Mb 5.4, India.
	eL	2	30								
	F	3.0									
	WIT:eP	2	03	01							
Mar.23	iP	12	27	12	+						29.8N 129.3E, H: 12 14 53.5, h 148 km, Mb 5.8, Ryukyu Islands.
	eL	12	59								
	F	13	20								
	WIT:iP	12	27	08.0	+						
	RSB:iP	12	27	16	-						
Mar.23	eL	21	05.0			14			4.0	4.7	39.1N 20.5E, H: 20 56 00.7, h 10 km, Mb 4.9, Greece-Albania border region.
	F	21.4									
Mar.23	WIT:eP	23	16	59.5							37.1N 116.0W, H: 23 05 00.0, h 0 km, Mb 5.5, Southern Nevada, Test site "Shaper".
Mar.24	eL	02	57								51.4N 173.9E, H: 02 18 13.2, h 12 km, Mb 4.9, Ms 5.0, Near Islands, Aleutian Islands.
	F	03	28								
Mar.24	ePKP	10	54	15							22.0S 126.7E, H: 10 35 22.1, h N, Mb 6.2, Ms 5.9, Western Australia.
	eL	11.8									
	F	12.5									
	WIT:ePKP	10	54	22.5	+						
	RSB:ePKP	10	54	23							
Mar.26	iP	19	11	59.0	+	2	4.7				37.3N 116.5W, H: 19 00 00.2, h 0 km. Mb 6.5, Ms 5.3, Southern Nevada. Test site "Handley"
	eL	19	45								
	F	20.1									
	WIT:iP	19	11	58.6	+						
	RSB:iP	19	12	04	+						
Mar.27	WIT:iP	04	39	03.0	+						5.6N 77.6W, H: 04 26 42.3, h 28 km, Mb 5.2, Near west coast of Colombia.
	RSB:eP	04	39	00							
Mar.27	RSB:iPKP	04	53	43	+						19.1S 168.5E, H: 04 34 03.4, h 16 km, Mb 4.4, New Hebrides Islands.

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Mar.27	RSB:iPKP	05	26	47	+						19.1S 168.5E, H: 05 07 06.6, h 11 km, New Hebrides Islands.
Mar.27	ePP	18	55	10							d.b.m. 0.4N 119.3E, H: 18 36 45.8, h 8 km, Mb 6.2, Ms 6.7, Northern Celebes.
	eSKS	19	01.5								
	ePS	19	04	22							
	eSS	19	10	20							
	eL	19	25			22		76		7.2	
	F	20.5									
	RSB:ePP	18	55	14							
Mar.28	eL	8	49								6.3S 154.6E, H: 07 45 59.9, h 64 km. Mb 5.9, Solomon Islands.
	F	9.7									
Mar.28	eL	10	18								52.2N 105.8E, H: 09 44 57.8, h N, Mb 5.2, Lake Baikal region.
	F	10	30								
Mar.28	iP	21	07	12	-	4	20				39.2N 29.5E, H: 21 02 23.4, h 20 km, Mb 6.0, Ms 7.1,
	iS	21	11	22							
	eL	21	12.5			20		600		7.0	Turkey, (1086 killed),
	F	1.0									
	WIT:iP	21	07	06.9	-						
	HEE:iP	21	07	02							
	RSB:eP	21	06	53	-						
Mar.28	WIT:eP	21	46	00.5							39.0N 29.3E, H: 21 41 18.6 h N, Mb 4.6, Turkey.
	RSB:eP	21	45	57							
Mar.28	WIT:eP	22	03	54.0							39.2N 29.3E, H: 21 59 10.9, h 17 km, Mb 4.8. Turkey.
	RSB:eP	22	03	49							
Mar.28	WIT:eP	22	10	16.5							38.8N 29.8E, H: 22 05 27.8, h 7 km, Mb 4.6. Turkey.
	RSB:eP	22	10	12							
Mar.28	WIT:eP	22	44	56							39.1N 29.3E, H: 22 40 14.9, h N. Mb 4.4. Turkey.
	RSB:eP	22	44	52							
Mar.28	WIT:iP	23	16	25.9	+						39.2N 29.5E, H: 23 11 44.0, h 37 km, Mb 5.2. Turkey.
	RSB:iP	23	16	21							
Mar.28	WIT:eP	23	33	06.0	+						39.3N 29.3E, H: 23 28 26.6, h 39 km, Mb 4.5, Turkey.
	RSB:eP	23	33	02							
Mar.28	WIT:eP	23	48	44.0							39.1N 29.8E, H: 23 43 58.6, h 22 km. Mb 5.1, Turkey.
	RSB:eP	23	48	39							
Mar.29	WIT:eP	02	10	05.5							39.3N 29.2E, H: 02 05 25.0, h 22 km. Mb 4.7, Turkey.
	RSB:eP	02	10	02							
Mar.29	RSB:eP	02	45	09							38.9N 29.5E, H: 02 40 34.0, h N, Mb 4.5, Turkey.

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Mar.29	WIT:iP	2	59	36.0							39.1N 29.8E, H: 02 54 50.8,
	RSB:eP	2	59	28							h 25 km, Mb 4.3, Turkey.
Mar.29	RSB:eP	3	15	25							39.1N 30.1E, H: 03 10 45.0, h N, Mb 4.4, Turkey.
Mar.29	eL	4	14			18			5.1	5.5	39.6N 75.4E, H: 03 48 47.3,
	F	4	30								h N, Mb 5.1, Southern Sinkiang Province, China.
Mar.29	eP	7	01	16							39.0N 29.7E, H: 06 56 21.9,
	eS	7	05	18							h 15 km, Mb 5.3, Turkey.
	eL	7	07.5			20		7.2		5.1	
	WIT:eP	7	01	09.0							
	RSB:eP	7	01	04							
Mar.29	WIT:iP	9	56	56.8	+						39.2N 29.2E, H: 09 52 14.9,
	RSB:eP	9	56	53							h 23 km, Mb 4.4, Turkey
Mar.29	iPKP	10	27	30		4	1.6				17.1S 168.5E, H: 10 08 20.3,
	ipPKP	10	28	24							h 232 km, Mb 6.0
	iPP	10	30	44							New Hebrides Islands.
	eSKKS	10	37	10							
	ePS	10	49.0								
	eL	11.2									
	F	12.4									
	WIT:ePKP	10	27	20							
	e	10	27	24.0							
	e	10	27	28.5							
	iPP	10	30	41.4							
	RSB:ePKP	10	27	28							
	iPP	10	30	47							
Mar.29	eL	14	49.0								38.9N 27.9E, H: 14 37 16.6,
	F	15	00								h 27 km, Mb 4.6, Turkey.
	WIT:iP	14	41	52.9	+						
	RSB:eP	14	41	48							
Mar.29	eL	19	22.0								39.1N 29.3E, H: 19 11 39.6,
	F	19	30								h 6 km, Mb 4.8, Turkey.
	WIT:iP	19	16	24.8	-						
Mar.29	eL	20	17								28.8N 129.9E, H: 19 30 51.4,
	F	20.6									h 23 km, Mb 5.4, Ryukyu Islands.
	WIT:eP	19	43	26.0							
Mar.30	WIT:iP	6	53	43.6							d.b.m. 39.3N 29.3E, H: 06
	RSB:eP	6	53	39							49 04.2, h N, Mb 4.7, Turkey.
Mar.30	eL	8	10.5			20		7.2		5.1	39.3N 29.2E, H: 07 59 50.7,
	F	8.4									h 17 km, Mb 5.2, Turkey.
	WIT:iP	8	04	31.5							
	RSB:eP	8	04	28							

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Mar.30	WIT:iP	08	39	56.5							39.1N 28.9E, H: 08 35 16.1,
											h 27 km, Mb 4.6, Turkey.
Mar.30	eL	16	43.5								39.1N 29.6E, H: 16 32 33.4,
	F	16.9									h 11 km, Mb 4.9, Turkey.
	WIT:iP	16	37	19.5	+						
	RSB:eP	16	37	15							
Mar.30	eP	17	00	32							d.b.m. 6.8N, 126.7E, H: 16
	ePP	17	04	52							46 45.6, h 76 km, Mb 5.9,
	eSKS	17	11	16							Mindanao, Philippine Islands.
	eSS	17	20.0								
	eL	17.5									
	F	19.5									
	WIT:eP	17	00	36							
	RSB:eSP	17	13	53							
Mar.30	WIT:eP	20	42	48							39.0N 29.6E, H: 20 38 00.9,
											h 5 km, Mb 4.5, Turkey.
Mar.30	WIT:iP	21	04	08.5							39.2N 29.3E, H: 20 59 30.3,
											h N, Mb 4.7, Turkey.
Mar.30	eL	22	10								49.6S 164.3E, H: 20 40 50.1,
	F	22.8									h N, Mb 5.4, Ms 6.0,
											Auckland Islands region.
Mar.31	WIT:eP	00	24	08.5	-						24.4N 123.1E, H: 00 11 36.4,
											h 71 km, Mb 5.0, South-western Ryukyu Islands.
Mar.31	WIT:eP	00	56	16.5							39.4N 29.3E, H: 00 51 35.6,
											h 14 km, Mb 4.7, Turkey.
Mar.31	eL	03	58.0								39.1N 29.9E, H: 03 46 48.3,
	F	04	04								h 15 km, Mb 4.8, Turkey.
	WIT:eP	03	51	34.5							
	RSB:eP	03	51	32							
Mar.31	WIT:iPKP	15	45	54.8	-						21.2S 178.6W, H: 15 27 09.5,
	RSB:iPKP	15	46	01							h 550 km, Mb 5.0, Fiji Islands region.
Mar.31	eL	18	55								3.8S 69.7E, H: 18 18 25.2,
	F	19.6									h N, Mb 5.5, Ms 5.7,
	WIT:eP	18	30	18.5							Chagos Archipelago region.

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Apr. 1	eL	15	03								39.8N 141.8E, H: 14 23 25.1,
	F	15.5									h 81 km, Mb 5.8, Honshu,
	WIT:iP	14	35	28.0	-						Japan.
Apr. 1	WIT:eP	16	00	43							39.4N 29.2E, H: 15 56 02.1, h 16 km, Mb 4.8, Turkey.
Apr. 2	WIT:eP	0	33	14.0							39.2N 29.4E, H: 00 28 32.1,
	RSB:eP	0	33	10							h 28 km, Mb 4.4, Turkey.
Apr. 2	eL	12	33								d.b.m. 20.4S 173.9W, H: 11
	F	13.5									11 42.0, h N, Mb 5.7, Ms 5.7,
	WIT:ePKP	11	31	26							Tonga Islands.
	RSB:ePKP	11	31	32							
Apr. 2	HEE:i	15	06	57							local shock.
Apr. 2	eL	20	46.5								39.1N 29.7E, H: 20 35 07.4,
	F	20	52								h 23 km, Mb 4.6, Turkey.
	WIT:eP	20	39	53							
Apr. 3	ePKP	07	12	21							20.5S 174.0W, H: 06 52 33.8,
	eL	08.1									h 39 km, Mb 5.7, Ms 5.8,
	F	09.2									Tonga Islands.
	WIT:ePKP	07	12	25							
	RSB:ePKP	07	12	25							
Apr. 3	WIT:iP	21	01	07.1	+						37.1N 54.6E, H: 20 53 54.5, h 43 km, Mb 5.2, Iran-USSR border region.
Apr. 4	WIT:ePKP	23	05	40.5	+						16.6S 177.3W, H: 22 46 51.8,
	RSB:iPKP	23	05	57	-						h 394 km, Mb 5.2, Fiji Islands region.
Apr. 5	eL	5	08.0								34.7N 25.2E, H: 04 55 40.1,
	F	5	13								h 54 km, Mb 4.5, Crete.
Apr. 5	eL	6	55.4								BCIS: 42.5N 1.6E, H:
	F	6	59								06 50 02. Andorra,Spain.
	RSB:eP	6	52	45							
Apr. 6	WIT:eP	1	07	35.0							13.9N 120.2E, H: 00 54 30.8, h 75 km. Mb 5.4, Mindoro, Philippine Islands.
Apr. 6	WIT:iPKP	6	27	56.0							d.b.m. 17.8S 178.4W, H: 06 09 18.2, h 543 km, Mb 4.4, Fiji Islands region.

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Apr. 7	iP	5	47	18	+	10	20.0				15.8N 121.7E, H: 05 34 05.6,
	ePP	5	51.1								h 37 km, Mb 6.4, Ms 7.3,
	eSKS	5	57.9								Luzon, Philippine Islands.
	eSS	6	05.0								(14 killed)
	eL	6	20			20		200		7.6	
	F	9.3									
	WIT:eP	5	47	11							
	i	5	47	41.0	+						
	ePP	5	50	51							
	HEE:eSKS	5	58								
	eL	6	22								
	RSB:eP	5	47	18							
Apr. 7	WIT:eP	6	25	03.0							15.7N 121.9E, H: 06 11 52.3,
	RSB:eP	6	25	05							h 22 km, Mb 5.7, Luzon, Philippine Islands.
Apr. 7	WIT:eP	9	23	47.5							34.7N 26.4E, H: 09 18 44.9,
	RSB:eP	9	23	34							h N, Mb 5.0, Crete.
Apr. 7	eL	9	26			20			6.2	4.9	34.8N 3.9W, H: 09 16 13.9,
	F	9.7									h N, Mb 4.9, Morocco.
Apr. 7	eL	16	07.0								0.3S 24.8W, H: 15 36 19.2,
	F	16.5									h N,Mb 5.2, Central Mid-Atlantic Ridge.
Apr. 7	iP	17	09	56	-						39.4N 29.1E, H: 17 05 11.9,
	eS	17	13.7								h 33 km, Mb 5.1, Turkey.
	eL	17	14.5			20		9.0		5.2	
	F	17.7									
	WIT:iP	17	09	50.2	-						
	RSB:eP	17	09	46							
Apr. 8	iP	13	54	42	-	6	41.0				38.4N 22.7E, H: 13 50 27.2,
	eS	13	58	15							h 17 km, Mb 5.8, Ms 5.9,
	eL	13	59.5			20		100		6.2	Greece.
	F	15.0									
	WIT:eP	13	54	43							
	i	13	54	46.6							
	eL	14	00								
	RSB eP	13	54	31							
Apr. 8	eL	17	28								No determination of
	F	17	54								epicenter.
Apr. 8	iP	21	37	08	+						15.4N 121,8E, H: 21 23 56.6,
	ePP	21	41	00							h N, Mb 5.7, Ms 6.2 Luzon,
	eSKS	21	47	28							Philippine Islands.
	eS	21	48	24							
	ePS	21	49.3								
	eSS	21	55.0								
	eL	22	10			20		35.5		6.8	
	F	23.7									
	WIT:eP	21	37	07.0							
	e	21	37	23.0	-						
	RSB:eP	21	37	13							

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Apr. 9	eL	0	23								15.5N 121.7E, H: 23 33 46.2,
	F	1.5									h N, Mb 5.2, Luzon, Philip-
											pine Islands.
Apr. 9	WIT:iP	0	12	00.3	+						45.3N 149.0E, H: 00 00 14.7,
	RSB:iP	0	12	10	+						h 100 km, Mb 5.4,
											Kuril Islands.
Apr. 9	eL	10	24.0								39.2N 29.5E, H: 10 12 29.8,
	F	10	33								h 33 km, Mb 4.8,Turkey.
	WIT:iP	10	17	11.0							
	i	10	17	14.0							
	RSB:eP	10	17	06							
Apr. 9	iP	16	37	01	+						13.2N 92.3W, H: 16 24 31.0,
	eS	16	47	38							h 41 km, Mb 5.3,Ms 5.0,
	eL	17	04								Off coast of Chiapas, Mexico.
	F	17.4									
	WIT:eP	16	37	05.0							
Apr. 9	eL	22	26								40.9S 43.3E, H: 21 41 52.3,
	F	23	06								h N, Mb 5.3, Atlantic-
											Indian rise.
Apr.10	e	1	28.0								No determination of
	F	1	31								epicenter.
	WIT:e	1	19	23.5							
	RSB:e	1	19	14							
Apr.10	ePKP	14	29.0								27.5S 177.9W, H: 14 09 16.0,
	F	14	36								h 158 km, Mb 5.5.
	WIT:ePKP	14	29	00.5	-						Kermadec Islands region.
Apr.10	WIT:e	20	20.5								48.4N 9.2E, H: 20 19 06.8,
	RSB:eP	20	20	00							h 17 km, Germany.
Apr.10	eL	22	56								15.8N 121.8E, H: 22 04 27.5,
	F	23	14								h 37 km. Mb 4.9,
											Luzon, Philippine Islands.
Apr.11	eL	1	13.0								38.2N 23.1E, H: 01 03 11.2,
	F	1	21								h 70 km. Mb 4.5, Greece.
Apr.11	iP	4	16	28	+						59.7N 142.7W, H: 04 05 41.1,
	ePP	4	18	56							h 7 km. Mb 5.2, Ms 6.2.
	eS	4	25	23							Gulf of Alaska.
	eSS	4	29.5								
	eL	4	35			20		16.0		6.2	
	F	in next shock									
	WIT:eP	4	16	28.0							
	RSB:eP	4	16	38							

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Apr.11	ePKP	6	41	00							19.3S 173.6W, H: 06 21 16.3,
	eL	7.6									h N Mb,5.3, Ms 5.7,
	F	9.0									Tonga Islands.
	WIT:ePKP	6	40	58.0							
	RSB:ePKP	6	41	01							
Apr.11	e	17	36.0								No determination of epicenter
	F	17	43								
Apr.12	eP	4	15	00	(+)	8	2.2				15.1N 122.1E, H: 04 01 44.0,
	ePP	4	18.9								h 24 km, Mb 5.9, Ms 7.0,
	eSKS	4	25	40							Philippine Islands region.
	eS	4	26	18							
	ePKKP	4	32.0								
	eSS	4	33.0								
	eL	4	47			22		183		7.5	
	F	8.6									
	WIT:eP	4	14	58.0							
	RSB:eP	4	15	01	+						
	ePP	4	18	57							
Apr.12	eL	15	12								15.1N 122.5E, H: 14 22 38.9,
	F	15.6									h N, Mb 5.4, Philippine
											Islands region.
Apr.13	eL	0	44								15.1N 122.4E, H: 23 52 07.6,
	F	1	00								h N, Mb 5.0,
											Philippine Islands region.
Apr.13	eL	5	27.0								39.3N 29.1E, H: 05 15 58.2,
	F	5	33								h 8 km, Mb 4.5, Turkey.
Apr.13	eL	9	16								15.2N 122.2E, H: 08 28 21.8,
	F	10.0									h 5 km, Mb 5.2, Philippine
											Islands region.
Apr.14	WIT:iPKP	14	06	15.5							21.0S 174.5W, H: 13 46 34.1,
	RSB:ePKP	14	06	19							h 651 km, Mb 5.4, Tonga
											Islands.
Apr.14	eL	19	48			20		7.1	6.1		33.3S 19.2E, H: 19 08 21.3,
	F	20.5									h N, Mb 5.7, Ms 5.4,
											Republic of South Africa.
Apr.15	eP	13	27	42							15.1N 122.7E, H: 13 14 21.4,
	eSKS	13	38.3								h 12 km, Mb 5.7, Ms 6.0,
	eL	14	00			20		14.2	6.3		Philippine Islands region.
	F	14.7									
	WIT:eP	13	27	36.0							
	RSB:eP	13	27	42							

Date 1970	Phase	G.M. Time h m s	First motion	Period s	Amplitude μ Z	Amplitude μ NS	Amplitude μ EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Apr.15	eS	16 38 44							39.3N 29.3E, H: 16 29 56.0,
	eL	16 40.5							h 18 km, Mb 4.6, Turkey.
	F	17.0							
	WIT:eP	16 34 36.5	+						
	RSB:eP	16 34 31							
Apr.16	eL	2 42							34.5N 141.6E, H: 01 55 56.4,
	F	3.3							h 35 km, Mb 5.2, Ms 5.6,
									Off east coast of Honshu,
									Japan.
Apr.16	eP	5 44 02	+						59.8N 142.6W, H: 05 33 17.5,
	ePP	5 46.6							h 7 km, Mb 5.5, Ms 6.8,
	eS	5 52 48							Gulf of Alaska.
	ePS	5 53 00							
	eScS	5 54.1							
	eSS	5 57.0							
	eL	6 03		20		78.5		6.9	
	F	9.7							
	WIT:eP	5 43 53.5							
	e	5 44 01.5	-						
	RSB:eP	5 44 11							
Apr.16	eP	10 47 12							39.0N 30.0E, H: 10 42 18.8,
	eS	10 51 12							h 9 km, Mb 5.5, Turkey.
	eL	10 52.5		20		8.9		5.2	
	F	11.3							
	WIT:iP	10 47 07.4	+						
	RSB:eP	10 47 02	-						
Apr.16	eL	11 55.0							39.0N 30.1E, H: 11 43 19.2,
	F	12 03							h 20 km, Mb 4.6, Turkey.
	WIT:eP	11 48 08.5	+						
Apr.16	iP	22 43 36							40.7N 23.5E, H: 22 39 28.3,
	eS	22 46 54							h 4 km, Mb 5.1, Greece.
	eL	22 48.0		20		6.2		4.9	
	F	23.1							
	WIT:eP	22 43 29.5							
	e	22 43 38.5							
	RSB:eP	22 43 19							
Apr.17	eL	17 07							14.5N 93.1W, H: 16 20 06.3,
	F	17.4							h N, Mb 4.6, Ms 5.1,
									Near coast of Chiapas,
									Mexico.
Apr.18	WIT:eP	5 42 06							39.4N 29.3E, H: 05 37 26.9,
	RSB:eP	5 42 01							h N, Mb 4.5, Turkey.
Apr.18	WIT:iP	9 01 22.1	+						59.9N 152.8W, H: 08 50 40.5,
	epP	9 01 46							h 94 km, Mb 5.7, Southern
	RSB:epP	9 01 59							Alaska.

Date 1970	Phase	G.M. Time h m s	First motion	Period s	Amplitude μ Z	Amplitude μ NS	Amplitude μ EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Apr.18	iP	23 37 38							43.3N 147.2E, H: 23 25 35.5,
	eS	23 47 44							h 38 km, Mb 5.2, Ms 5.7,
	eL	24 03		22			6.0	5.9	Kuril Islands.
	F	1.0							
	WIT:eP	23 37 34.5							
	RSB:eP	23 37 46							
Apr.19	eP	1 26 30							59.6N 142.8W, H: 01 15 46.8,
	eS	1 35.5							h 20 km, Mb 5.8, Ms 6.0,
	eSSS	1 43.1							Gulf of Alaska.
	eL	1 45.5		19			6.9	5.9	
	F	3.4							
	WIT:eP	1 26 30.5							
	i	1 26 35.3							
	RSB:eP	1 26 40							
Apr.19	iP	13 34 32	+	4	3.7				39.1N 29.8E, H: 13 29 36.4,
	eS	13 38 26							h 20 km, Mb 5.4, Ms 5.6,
	eL	13 39.5		21		35.0		5.8	Turkey.
	F	in next shock							
	WIT:eP	13 34 21.5	+						
	i	13 34 23.3	-						
	RSB:eP	13 34 17							
	eS	13 38 23							
Apr.19	eP	13 52 27							39.1N 29.8E, H: 13 47 35.2,
	eS	13 56 20							h 26 km, Mb 5.5, Ms 5.5,
	eL	13 57.5		21		31.5		5.7	Disturbed by preceeding shock.
	F	14.7							Turkey.
	WIT:eP	13 52 19	-						
	HEE:eP	13 52 17							
	RSB:eP	13 52 16							
Apr.19	WIT:iPKP	17 21 35.7	+						19.6S 177.7W, H: 17 02 59.4,
	RSB:ePKP	17 21 41							h 609 km, Mb 5.0, Fiji
									Islands region.
Apr.19	eL	18 21.0							BCIS: 45.8N 10.4E,
	F	18 24							H: 18 16 37
	WIT:e	18 18 54							Northern Italy.
Apr.20	ePKP	02 28 16							32,0S 179.4W, H: 02 08 34.5,
	ePP	02 32 36							h 144 km, Mb 5.4, South of
	eSKS	02 35.0							Kermadec Islands.
	eSS	02 52 36							
	eL	03.5							
	F	04.2							
Apr.20	iPKP	10 58 20	+						18.8S 169.3E, H: 10 39 12.5,
	ipPKP	10 59 18							h 246 km, Mb 6.3,
	iPP	11 01 41							New Hebrides Islands.
	eH	11 10.0							
	F	12.5							
	WIT:iPKP	10 58 17.3	-						
	HEE:iPKP	10 58 23							
	RSB:iPKP	10 58 24	+						

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Apr.20	iP	15	43	46	-						38.4N 22.8E, H: 15 39 29.2, h 20 km, Mb 5.2, Greece.
	eS	15	47	10							
	eL	15	48.7			19		6.1		4.9	
	F	16.1									
	WIT:eP	15	43	44.0							
	RSB:eP	15	43	35							
Apr.20	eL	22	42								9.8S 119.3E, H: 21 43 00.5, h N Mb 5.6, Ms 5.1,
	F	23.1									Sumba Island region.
Apr.21	WIT:iPKP	3	39	21.0	-						20.5S 178.3W, H: 03 20 37.5, h 550 km, Mb 4.5, Fiji
	RSB:ePKP	3	39	27							Islands region.
Apr. 21	WIT:eP	4	55	38.0							43.4N 147.5E, H: 04 43 37.3, h N, Mb 5.1, Kuril Islands.
Apr.22	eP	5	29	00							39.1N 29.8E, H: 05 24 05.7, h N, Mb 5.1, Turkey.
	eS	5	33	03							
	eL	5	35.0								
	F	5.8									
	WIT:iP	5	28	49.2	+						
	RSB:iP	5	28	44	-						
Apr.22	WIT:iP	18	43	30.0							39.1N 29.8E, H: 18 38 48.6, h 41 km, Mb 4.6, Turkey.
	i	18	43	33.5							
	RSB:iP	18	43	25	+						
Apr.23	RSB:eP	7	23	14							39.0N 30.1E, H: 07 18 29.2, h 15 km, Mb 5.0, Turkey.
Apr.23	iP	9	06	10	+						d.b.m. 39.1N 28.7E, H: 09 01 24.7, h 18 km, Mb 5.2, Ms 5.3, Turkey.
	eS	9	10	08							
	eL	9	12.0			20		17.9		5.5	
	F	9.5									
	WIT:iP	9	06	05.0	+						
	RSB:iP	9	06	00	+						
Apr.24	eL	0	51.3								39.1N 29.9E, H: 00 40 01.7, h 38 km, Mb 4.8, Turkey.
	F	1	00								
	WIT:eP	0	44	46.5							
	RSB:eP	0	44	40							
Apr.24	eP	1	28	32							d.b.m. 55.7N 35.0W, H: 01 23 12.0, h 10 km, Mb 5.4, Ms 5.4 North Atlantic Ocean.
	eS	1	32.5								
	eL	1	34.0			20		8.9		5.3	
	F	2.2									
	WIT:eP	1	28	31.0							
	RSB:eP	1	28	33							
Apr.24	WIT:eP	2	44	51.0							39.1N 28.6E, H: 02 40 11.2, h 5 km, Mb 4.5, Turkey.

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Apr.25	WIT:iPKP	20	49	30.9	-						20.5S 178.2W, H: 20 30 50.7, h 595 km, Mb 4.7, Fiji Islands region.
Apr.26	iP	6	45	04	+						55.5N 35.1W, H: 06 39 50.9, h N, Mb 5.0, Ms 5.2, North Atlantic Ocean.
	eS	6	49	27							
	eL	6	51.5			20		2.5		4.7	
	F	7.1									
Apr.26	iP	14	32	10	+						53.0N 171.5E, H: 14 20 30.6, h 41 km, Mb 5.8, Ms 5.7, Near Islands, Aleutian Islands.
	eS	14	41	45							
	eL	14	57			22		3.8		5.7	
	F	15.8									
	WIT:iP	14	32	03.4	+						
	i	14	32	11.7							
	RSB:eP	14	32	14							
Apr.26	WIT:ePKP	15	59	40.5	-						21.7S 176.2W, H: 15 40 06.9, h 131 km, Mb 5.2, Fiji Islands region.
	e	15	59	47.0							
Apr.27	WIT:eP	4	08	14.0							54.7N 161.6E, H: 03 56 59.6, h 51 km, Mb 5.2, Near east coast of Kamchatka.
Apr.27	eL	9	47.0								39.0N 29.5E, H: 09 35 12.9, h N, Mb 4.9, Turkey.
	F	10.1									
	WIT:iP	9	39	55.5							
	RSB:eP	9	39	18							
Apr.27	eL	22	36.5								39.0N 29.5E, H: 22 24 45.0, h N, Mb 4.7, Turkey.
	F	22	47								
	WIT:iP	22	29	28.5	-						
	RSB:eP	22	29	23							
Apr.28	eL	1	35								8.1S 156.4E, H: 00 29 21.0, h 3 km, Mb 5.2, Ms 5.6, Solomon Islands.
	F	2.9									
Apr.29	eL	06.6									43.5N 146.4E, H: 05 55 02.4, h 50 km, Mb 5.3, Kuril Islands.
	F	07.0									
	WIT:iP	06	06	58.5							
Apr.29	eP	11	35	14							d.b.m 14.6N 92.7W, H: 11 22 36.4, h 41 km, Mb 5.6, Ms 6.3, Near coast of Chiapas, Mexico.
	eSS	11	51.1								
	eL	12.0				20		16.0		6.4	
	F	12.7									
Apr.29	WIT:iP	14	14	04.5	-						14.6N 92.8W, H: 14 01 19.1, h N,Mb 5.6, Near coast of Chiapas, Mexico.

Date 1970	Phase	G.M. Time h m s	First motion	Period s	Amplitude μ Z	Amplitude μ NS	Amplitude μ EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Apr.29	iP	14 14 05	+						d.b.m. 14.5N 92.6W, H: 14 01
	iS	14 24 36							32.8, h N, Mb 5.8, Ms 7.3,
	eL	14.6		20			150	7.3	Near coast of Chiapas,
	F	17.0							Mexico
	WIT:iP	14 14 19.5	-						
	HEE:eL	14 47							
Apr.29	eL	19 21							d.b.m. 55.5S 124.4W, H: 18
	F	19.9							01 29.6, h N, Mb 5.6,
	WIT:iPKP	18 21 22.5	+						Easter Island Cordillera
Apr.29	eL	20 13							d.b.m. 14.7N, 93.5W, H: 19 29
	F	20 34							52.3, h 29 km, Mb 5.2, Near
									coast of Chiapas, Mexico.
Apr.29	eL	22 01							d.b.m. 14.6N 93.6W, H: 21 20
	F	in next shock							24.1, h 35 km, Mb 5.3,
									Ms 5.4, Near coast of Chiapas,
									Mexico.
Apr.29	eL	22 29							d.b.m. 14.2N 93.4W, H: 21 49
	F	23.1							00.7, h N, Mb 5.1, Near
									coast of Chiapas, Mexico.
Apr.30	eL	4 42							d.b.m. 14.7N 93.0W,H: 03 59
	F	5.1							50.2, h N, Mb 5.1, Ms 4.8,
									Near coast of Chiapas,
									Mexico.
Apr.30	iP	8 45 28	+	8	7.6				14.7N 93.2W, H: 08 32 59.1,
	eS	8 56.0							h 19 km, Mb 5.6, Ms 6.4,
	eSS	9 01.4							Near coast of Chiapas,
	eL	9 12		20			35.0	6.7	Mexico.
	F	10.0							
	WIT:iP	8 45 38.5	-						
	RSB:eP	8 45 33							
Apr.30	eP	13 04.0							14.4N 93.4W, H: 12 51 36.3,
	eL	13 33		20			5.0	5.8	h 24 km, Mb 5.3, Ms 5.6,
	F	14.4							Near coast of Chiapas,
									Mexico.
Apr.30	WIT:iP	14 52 42.0							27.2N 125.2E, H: 14 40 33.4,
									h 220 km, Mb 5.1, Northeast
									of Taiwan.
Apr.30	eL	15 12.0							39.3N 29.3E, H: 14 58 21.8,
	F	15 16							h 25 km, Mb 4.6, Turkey.
Apr.30	eL	16 56.0							39.4N 29.1E, H: 16 44 45.9,
	F	17 02							h 23 km, Mb 4.8. Turkey.

Date 1970	Phase	G.M. Time h m s	First motion	Period s	Amplitude μ Z	Amplitude μ NS	Amplitude μ EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Apr.30	eL	18 57							24.1N 121.7E, H: 18 10 08.7,
	F	19.5							h 59 km, Mb5.1, Taiwan.
Apr.30	eL	20 17							15.0N 94.0W, H: 19 30 28.7,
	F	20.7							h 23 km, Mb 5.1, Near coast
									of Oaxaca, Mexico.
Apr.30	eL	22 40							14.7N 93.4W, H: 21 56 27.5,
	F	23.0							h N, Mb 4.8, Near coast of
									Chiapas, Mexico.

Date 1970	Phase	G.M. Time h m s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
May 1	eL	0 11.0							39.2N 29.4E, H:23 59 10.7
	F	0 19							h N, Mb 4.6
	WIT: eP	0 03 51.5							Turkey.
	RSB: iP	0 03 34							
May 1	eS	3 46.3							15.7N 121.8E, H:03 22 13.4
	eL	4 10		20			3.6	5.8	h 29 km, Mb 5.5, Ms 5.4
	F	4 38							Luzon, Philippine Islands.
May 1	WIT: eP	4 20 41.0							14.6N 93.6W, H:04 08 07.2 h 35 km. Mb 5.1 Near coast of Chiapas, Mexico.
May 1	eP	8 47 53							14.6N 93.2W, H:08 35 24.2
	eS	8 58 15							h 44 km. Mb 5.4.
	eL	9.3							Near coast of Chiapas,
	F	10.0							Mexico.
May 1	eP	20 15 55							14.6N 93.6W, H:20 03 27.9
	eS	20 26 37							h 38 km. Mb 5.0, Ms 5.4
	eL	20 45							Near coast of Chiapas,
	F	21.1							Mexico.
	WIT: eP	20 16 02.0	+						
May 1	WIT: eP	20 47 43.5							42.9N 147.3E, H:20 35 38.4 h 15 km. Mb 5.1 Off coast of Hokkaido, Japan.
May 2	HEE: e	1 40 13							No determination of
	RSB: e	1 40 15							epicenter. Local shock.
May 2	iP	2 19 25	+						14.7N 93.7W, H:02 06 56.3
	eS	2 30 00							h 32 km. Mb 5.4, Ms 5.5
	eL	2 49							Near coast of Chiapas,
	F	3.2							Mexico.
	WIT: eP	2 19 29.5							
	RSB: eP	2 19 20							
May 2	eL	5 59							14.5N 93.0W, H:05 15 43.7
	F	6 20							h N, Mb 5.1, Ms 5.0
									Near coast of Chiapas,
									Mexico.
May 3	WIT: eP	4 31 35.5							43.6N 146.6E, H:04 19 40.8 h 57 km. Mb 4.8 Kuril Islands.

Date 1970	Phase	G.M. Time h m s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
May 3	eL	9 54							14.6N 93.5W, H:09 07 07.2
	F	10 05							h N, Mb 4.8
									Near coast of Chiapas,
									Mexico.
May 3	eL	19 27							3.3S 145.2E, H:18 22 56.7
	F	20 00							h N, Mb 5.0, Ms 4.8
									North coast of New Guinea.
May 4	eL	8 51							20.7S 173.5E, H:07 40 52.3
	F	9.9							h 14 km. Mb 5.2, Ms 5.7 New
	WIT: ePKP	8 00 42							Hebrides Islands region.
	e	8 01 03.5							
May 4	WIT: iPKP	11 44 10.0	-						21.5S 170.5E, H:11 24 42.6
	epPKP	11 44 46.0							h 135 km. Mb 5.2
									Loyalty Islands region.
May 4	ePP	19 12 56							41.6S 80.1E, H:18 53 19.7
	eSS	19 29.0							h N, Mb 5.3, Ms 6.2 Mid-
	eSSS	19 33.0							Indian Rise.
	eL	19 57		18		3.7		6.0	
	F	22.0							
May 4	WIT: iPKP	20 40 30.8	+						20.3S 177.9W, H:20 21 35.3
	RSB: ePKP	20 40 37							h 438 km. Mb 4.2
									Fiji Islands region.
May 5	WIT: ePKP	20 25 43.5							20.2S 170.2E, H:20 06 08.4
	RSB: ePKP	20 25 50							h 36 km. Mb 5.3
									New Hebrides Islands.
May 6	eL	3 23							15.7N 121.7E, H:02 35 17.2
	F	3 40							h 39 km. Mb 5.2.
									Luzon, Philippine Islands.
May 6	eL	12 38.5							50.0N 29.0W, H:12 28 16.0
	F	12 50							h N, Mb 4.8
	WIT: eP	12 33 12.5							North Atlantic Ridge.
May 6	eL	16 05							9.8N 92.9E, H:15 21 55.1
	F	17.2							h N, Mb 5.3, Ms 5.1 Nicobar
	WIT: eP	15 34 04.5							Islands region.
May 8	eL	3 01.0							38.9N 29.9E, H:02 49 15.6
	F	3 06							h 30 km. Mb 4.7
	WIT: eP	2 54 02.5							Turkey.
	RSB: eP	2 53 57							

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
May 8	eL	13	52								9.6S 151.2E, H:12 39 53.4
	F	14	02								h 16 km. Mb 5.0
											Dentrecasteaux Islands region.
May 9	eL	14	15								0.0S 130.0E, H:13 16 44.0
	F	14	36								h N, Mb 5.4
											West New Guinea region.
May 9	eL	19	02								4.4S 151.7E, H:18 00 50.0
	F	19	27								h 203 km. Mb 5.9.
	WIT: ePKP	18	19	27.0							New Britain region.
May 10	iPP	20	22	26							18.6N 145.2E, H:20 05 15.9
	eSS	20	36.2								h 602 km. Mb 5.6
	eL	20.9									Mariana Islands.
	F	21.5									
May 11	eL	3	37								28.5N 52.3E, H:03 12 19.7
	F	3	52								h 22 km. Mb 5.1
	WIT: eP	3	20	05.5							Southern Iran.
	RSB: eP	3	20	06							
May 11	WIT: iPKP	15	26	55.5							19.6S 178.0W, H:15 06 13.6
											h 480 km. Mb 4.9
											Fiji Islands region.
May 12	WIT: iPKP	1	21	33.5							23.5S 180.0W, H:01 02 43.2
											h 550 km. Mb 4.9
											South of Fiji Islands.
May 12	WIT: iPKP	17	17	38.0							20.6S 174.9W, H:16 58 01.4
											h 95 km. Mb 5.3
											Tonga Islands.
May 12	eP	22	53	20	(-)						38.2N 22.7E, H:22 49 02.2
	eS	22	56	56							h 35 km. Mb 4.9
	eL	22	59.0								Greece.
	F	23	10								
	RSB: eP	22	53	07							
May 14	ePP	8	53	13							3.4S 145.2E, H:08 32 42.2
	ePPP	8	55	48							h 29 km. Mb 5.6, Ms 5.8
	F	in next shock									Near north coast of New Guinea.

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
May 14	eP	9	26	27	(-)						43.0N 47.1E, H:09 20 22.0
	ePcP	9	29	32							h 17 km. Mb 5.6, Ms 5.5
	eL	9	34.0			20			10.6	5.5	Eastern Caucasus.
	F	11.0									
	WIT: eP	9	26	22.0							
	e	9	26	46.5							
	e	9	32	57							
	RSB: eP	9	26	22							
May 14	iP	18	18	30	+	5	1.5				43.0N 47.1E, H:18 12 28.0
	eS	18	23	24							h 44 km. Mb 5.6, Ms 6.5
	eL	18	26			20			80.0	6.4	Eastern Caucasus.
	F	20.5									
	WIT: eP	18	18	23.0	+						
	i	18	18	27.5							
	i	18	18	56.7							
	HEE: e	18	19								
	RSB: eP	18	18	25							
May 15	eP	9	57	12							14.5N 92.8W, H:09 44 45.2
	eL	10	26								h N, Mb 5.4, Ms 5.5
	F	11.1									Near coast of Chiapas, Mexico.
May 15	WIT: iPKP	10	59	33.1	-						21.5S 176.7W, H:10 40 14.0
	RSB: iPKP	10	59	36							h 251 km. Mb 5.3
											Fiji Islands region.
May 15	iP	17	22	17	+	7	7.5				50.2N 91.3E, H:17 13 15.1
	iPP	17	24	16							h N, Mb 5.9, Ms 6.7
	iS	17	29	36							USSR-Mongolia border region.
	eSS	17	33.0								
	eL	17	36.0			19		395		6.9	
	F	20.0									
	WIT: eP	17	22	06.0							
	i	17	22	12.0	+						
	eL	17	38								
	RSB: eP	17	22	18							
May 15	eL	20	39								50.2N 91.3E, H:20 12 16.9
	F	20.9									h N, Mb 5.0
											USSR-Mongolia border region.
May 15	eL	21	16								56.8N 117.8E, H:20 50 12.7
	F	22.0									h N, Mb 4.9
											East of Lake Baikal.
May 16	eL	2	33								14.7N 93.7W, H:01 53 07.4
	F	3.0									h 86 km. Mb 4.6
											Near coast of Chiapas, Mexico.

Date 1970	Phase	G.M. Time h m s	First motion	Period s	Amplitude μ Z	Amplitude μ NS	Amplitude μ EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
May 17	WIT: ePKP	3 53 54.0							17.6S 178.9W, H:03 35 22.8
	RSB: ePKP	3 54 00							h 610 km. Mb 4.4
									Fiji Islands region.
May 17	e(S)	7 00 42							43.0N 46.9E, H:06 49 06.1
	eL	7 05.0		19		4.8		5.5	h N, Mb 5.0
	F	7.6							Eastern Caucasus.
	WIT: eP	6 55 10							
	RSB: eP	6 55 39							
May 18	eP	1 34 56							52.1N 30.2W, H:01 30 05.6
	eS	1 39 02							h N, Mb 4.9
	eL	1 40.0		15		5.5		5.0	North Atlantic Ridge.
	F	2.1							
	WIT: eP	1 35 01.5	+						
	i	1 35 07.0	+						
	RSB: eP	1 35 01							
May 18	eL	8 01							50.3N 91.3E, H:07 32 16.2
	F	8 09							h N, Mb 4.8
									USSR-Mongolia border region.
May 19	eL	1 44							14.5N 93.2W, H:00 57 11.8
	F	2.0							h N, Mb 4.6
									Near coast of Chiapas, Mexico.
May 19	eL	10 58							10.9N 68.9W, H:10 22 57.6
	F	11 13							h 16 km. Mb 5.1, Ms 4.9
									Near coast of Venezuela.
May 20	ePP	20 23 10							55.9S 28.3W, H:20 03 42.2
	ePPP	20 25 36							h 70 km. Mb 6.0. South
	eH	20 30 34							Sandwich Islands region.
	eSP	20 32 18							
	ePS	20 32 52							
	eSS	20 38.0							
	eSSS	20 42.3							
	eL	20 56							
	F	22.8							
May 20	WIT: eP	20 42 39.0							51.5N 178.5W, H:20 30 54.7
									h 48 km. Mb 5.7
									Andreanof Islands,
									Aleutian Islands.
May 21	WIT: iPKP	00 55 27.3	-						20.3S 178.0W, H:00 36 43.8
									h 549 km. Mb 5.0
									Fiji Islands region.

Date 1970	Phase	G.M. Time h m s	First motion	Period s	Amplitude μ Z	Amplitude μ NS	Amplitude μ EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
May 23	eL	08 39							41.6S 89.8W, H:07 31 56.2
	F	08 57							h N, Mb 4.6, Ms 5.2
									Southern Pacific Ocean.
May 23	eL	15 20							50.1N 91.6E, H:14 51 34.6
	F	15 28							h 43 km. Mb 4.5
									USSR-Mongolia border region.
May 23	eL	23 50							43.5N 147.9E, H:23 09 52.8
	F	24 36							h 35 km. Mb 5.2, Ms 5.3
	WIT: eP	23 21 53.0							Kuril Islands.
May 25	WIT: ePKP	17 07 34.9	+						29.4S 177.8W, H:16 47 36.0
	e	17 07 54.0							h 63 km. Mb 5.5
									Kermadec Islands.
May 25	eL	23 42							57.4S 25.8W, H:22 45 35.2
	F	24.0							h 61 km. Mb 5.6
									South Sandwich Islands region.
May 26	WIT: iP	15 12 00.3	+						37.1N 116.1W, H:15 00 00.0
	RSB: eP	15 12 04							h 0 km. Mb 5.6
									Southern Nevada.
May 27	iP	12 17 31	-	8	14.5				27.2N 140.1E, H:12 05 06.0
	epP	12 19 40							h 382 km. Mb 6.2
	iPP	12 21 19							Bonin Islands region.
	epPP	12 23 17							
	iS	12 27 28							
	eSP	12 29 11							
	F	15.0							
	WIT: iP	12 17 26.9	-						
	i	12 19 07.0							
	RSB: iP	12 17 35	-						
May 27	iP	19 17 53	+						40.3N 143.0E, H:19 05 39.0
	iPP	19 21 00							h 33 km. Mb 5.7, Ms 6.0
	eS	19 28 00							Off east coast of Honshu, Japan
	eSS	19 33.5							
	eL	19 43.0		18		65		7.0	
	F	21							
	WIT: eP	19 17 47.0	+						
	RSB: eP	19 17 57							
May 27	eP	22 48 03	+						40.2N 143.2E, H:22 35 46.4
	eS	22 58 16							h 16 km. Mb 5.5, Ms 5.8
	eL	23 14		20		8.9		6.2	Off east coast of Honshu, Japan.
	F	in next shock							
	WIT: eP	22 47 57.5	+						
	RSB: eP	22 48 05							

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
May 28	eL	0	35			20		6.5		6.0	40.3N 143.0E, H:23 56 40.0
	F	1.7									h 38 km. Mb 5.4, Ms 5.8
	WIT: eP	0	08	47							Off east coast of Honshu, Japan.
May 28	WIT: iPKP	11	53	03.3							20.5S 169.7E, H:11 33 41.3
	RSB: iPKP	11	53	08	+						h 144 km. Mb 4.9
											New Hebrides Islands.
May 29	WIT: iP	4	42	54.0	-						44.2N 146.7E, H:04 31 03.7
	RSB: eP	4	43	04							h 73 km. Mb 5.3
											Kuril Islands.
May 29	eSS	5	56	16							15.0S 173.5W, H:05 14 38.0
	eL	6	24			20			2.1	5.9	h N, Mb 5.5, Ms 5.8
	F	7.6									Tonga Islands.
	WIT: ePKP	5	34	08.0							
	RSB: ePKP	5	34	12							
May 29	eL	11	10								24.0N 94.1E, H:10 33 58.6
	F	11	28								h 47 km. Mb 5.0
											Burma-India border region.
May 29	ePKP	19	21	37							11.6S 166.3E, H:19 02 19.0
	ePP	19	24	20							h 50 km. Mb 5.9, Ms 6.1
	ePKS	19	25	20							Santa Cruz Islands.
	ePPP	19	27	08							
	eSPP	19	36	28							
	eSS	19	42.3								
	eSSS	19	47.7								
	eL	20	07			22		4.6		6.2	
	F	21.5									
	WIT: ePP	19	24	16							
	RSB: ePKP	19	21	39							
	ePP	19	24	27							
May 29	WIT: ePKP	20	49	22.0							20.6S 178.7W, H:20 30 45.1
	i	20	49	23.1							h 610 km. Mb 5.1
	RSB: ePKP	20	49	25							Fiji Islands region.
May 29	WIT: eP	23	43	36.0							39.1N 29.3E, H:23 38 50.8
											h 24 km. Mb 4.3
											Turkey.
May 30	eL	5	03								21.9S 170.1E, H:03 25 12.1
	F	5	20								h 58 km. Mb 4.7
	WIT: ePKP	3	44	49.0							Loyalty Islands region.

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
May 30	eL	11	10								35.4S 15.9W, H:10 24 50.7
	F	11	17								h N, Mb 4.7
											Tristan da Cunha region.
May 30	WIT: iPKP	11	12	40.0							20.1S 178.5W, H:10 54 03.1
	RSB: ePKP	11	12	44							h 615 km. Mb 4.8
											Fiji Islands region.
May 30	eP	13	29	53							12.2N 124.5E, H:13 16 27.1
	ePP	13	33	52							h 93 km. Mb 5.8 Samar,
	eSPP	13	43	24							Philippine Islands.
	eL	14.1									
	F	14.6									
May 31	eL	0	04								53.7N 164.1W, H:23 19 37.4
	F	0.5									h N, Mb 4.9
											Unimak Island region.
May 31	WIT: ePg	8	13	03.5							48.4N 9.2E, H:08 11 29.3
	HEE: i	8	13	13							h 16 km. Mb 3.9
	RSB: ePg	8	12	22							Germany.
May 31	iP	20	36	43	-	8	13.0				9.2S 78.8W, H:20 23 27.3
	iPP	20	40	36							h 43 km. Mb 6.6, Ms 7.8
	eS	20	47	33							Near coast of Northern Peru.
	eLQ	21	07			22			900	8.2	(70.000 killed).
	eLR	21	12								
	F	01.2									
	WIT: eP	20	36	45.0							
	i	20	36	47.5							
	eL	21	13								
	HEE: e	20	37								
	RSB: eP	20	36	42							

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
June 1	eL	2	26								9.3S 79.0W, H: 01 36 10.2
	F	2.9									h 49 km. Mb 6.0, Ms 5.5
	WIT: eP	1	49	28							Off coast of Northern Peru.
	e	1	49	42							
	RSB: eP	1	49	23							
June 1	eP	2	58	47							10.2S 78.7W, H: 02 45 21.5
	eL	3	32								h 66 km. Mb 5.8
	F	4.2									Near coast of Peru.
June 1	eP	17	56	50							5.9N 82.5W, H: 17 44 15.0
	eS	18	07	20							h 9 km. Mb 5.6, Ms 5.7
	eL	18	20			20			3.2	5.7	South of Panama.
	F	19.0									
	WIT: eP	17	56	52.0							
	RSB: eP	17	56	50							
June 2	eP	1	50	49							9.8S 78.8W, H: 01 37 22.7
	eS	2	01	16							h 58 km. Mb 5.7
	eL	2	24								Near coast of Northern Peru.
	F	2.6									
	WIT: eP	1	50	56.5	+						
	RSB: eP	1	50	37							
June 2	eP	3	10	03							61.6N 151.7W, H: 02 59 31.3
	epP	3	10	33							h 95 km. Mb 5.5
	eS	3	18	43							Southern Alaska.
	eL	3	30								
	F	4.0									
	WIT: eP	3	10	02							
	RSB: eP	3	10	11							
June 2	WIT: iPKP	21	49	32.0							20.3S 177.4E, H: 21 30 32.2
	RSB: iPKP	21	49	37							h 388 km. Mb 5.2
											Fiji Islands region.
June 2	eL	24	16								45.7N 150.9E, H: 23 33 30.2
	F	24	45								h 20 km. Mb 5.4
	WIT: iP	23	45	24.5							Kuril Islands.
	RSB: iP	23	45	34							
June 4	eP	4	22	42							9.8S 78.6W, H: 04 09 26.3
	i	4	22	55	-						h 57 km. Mb 5.8
	eSKS	4	33	12							Near coast of Northern Peru.
	eS	4	33	46							
	eSP	4	35	00							
	eSS	4	40	28							
	eL	4	53			22			17.0	6.5	
	F	5.6									
	WIT: e(P)	4	22	53.5							
	RSB: eP	4	22	38							

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
June 5	iP	5	01	52	+	8	6.2				42.5N 78.8E, H: 04 53 06.4
	ePP	5	03	48							h 20 km. Mb 6.0, Ms 6.6
	iS	5	08	57							Alma-Ata region.
	eSS	5	12.6								
	eL	5	16			18		300		7.3	
	F	9.0									
	WIT: iP	5	01	44.5	+						
	i	5	01	52.0							
	eL	5	17								
	HEE: e	6	16								
	RSB: iP	5	01	51							
June 5	eL	11	06								63.4N 146.2E, H: 10 31 54.3
	F	11.7									h N, Mb 5.5, Ms 5.4
	WIT: iP	10	42	00.0							Eastern Siberia.
June 5	eL	23	18			20			1.8	5.4	52.2N 159.6E, H: 22 40 23.1
	F	24.2									h N, Mb 5.5, Ms 4.8
	WIT: iP	22	51	51.5	+						Off east coast of Kamchatka.
	RSB: eP	22	52	02							
June 9	ePKP	11	14.5								15.7S 172.9W, H: 10 55 01.1
	ePP	11	17.8								h N, Mb 5.3, Ms 5.4
	eL	12	10								Samoa Islands region.
	F	13.3									
	RSB: ePKP	11	14.6								
June 10	eL	5	28								39.2N 29.5E, H: 05 17 14.0
	F	5	40								h 27 km. Mb 4.2
	WIT: eP	5	21	55.5							Turkey.
	RSB: eP	5	21	50							
June 10	eL	9	07								No determination of
	F	9	22								epicenter.
June 10	iP	16	29	47.0	+	6	1.9				44.9N 149.5E, H: 16 17 48.7
	eS	17	39	34							h 57 km. Mb 5.7
	eL	16	54			22		7.6		6.0	Kuril Islands.
	F	19.4									
	WIT: iP	16	29	41.5	+						
	RSB: iP	16	29	51	+						

Date 1970	Phase	G.M. Time h m s	First motion	Period s	Amplitude μ Z	Amplitude μ NS	Amplitude μ EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
June 11	iP	6 16 27.0	-						24.5S 68.5W, H: 06 02 54.9
	ipP	6 16 56	+						h 112 km. Mb 6.3
	ePP	6 20 22							Chile-Argentina border
	epPP	6 20 53							region.
	iSKS	6 26 59							
	iSP	6 29 19							
	ePPS	6 30 16							
	eL	6 50							
	F	9.0							
	WIT: iP	6 16 32.8	+						
	ePKKP	6 33 11							
	RSB: iP	6 16 26	-						
	epP	6 16 55							
	ePKP	6 33 17							
June 11	ePKP1	17 06 32	+						59.1S 157.8E, H: 16 46 38.3
	iZ	17 06 57							h N, Mb 5.8, Ms 7.2
	iPKP2	17 07 20							Macquarie Islands region.
	eSS	17 32.0							
	eSSS	17 37.0							
	eL	18.1		20		120		7.8	
	F	20.4							
	WIT: e	17 07 02							
	RSB: ePKP1	17 06.8							
June 11	WIT: i	17 15 38.8	+						No determination of epicenter. Local shock.
June 11	WIT: eP	17 49 05.0							36.5N 71.1E, H:17 40 50.4 h 184 km. Mb 5.2 Afghanistan-USSR border region.
June 12	eP	5 05 42							56.6N 152.1W, H: 04 54 31.4
	eS	5 14 55							h N, Mb 5.2, Ms 5.3
	eL	5 30		18			2.7	5.5	Kodiak Island region.
	F	6.5							
	RSB: eP	5 04 50							
June 12	ePP	8 26 17							2.9S 139.1E, H: 08 06 16.6
	ePPP	8 29 03							h 32 km. Mb 5.7, Ms 6.1
	eL	9 03		20		5.3		6.2	Near North coast of West
	F	10.7							New Guinea.
June 14	ePP	0 20 38							52.0S 73.8W, H: 00 00 11.3
	eSKP	0 22 16							h N, Mb 6.0, Ms 6.6
	eSKS	0 26 08							Near coast of Southern Chile.
	eSP	0 30 26							
	eSS	0 37.0							
	ePKPPKP	0 38 08							
	eL	0 51		19		20.0		6.7	
	F	4.4							
	WIT: ePKP	0 19 09.0							
	e	0 19 14.0	+						
	RSB: ePKP	0 19 05							

Date 1970	Phase	G.M. Time h m s	First motion	Period s	Amplitude μ Z	Amplitude μ NS	Amplitude μ EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
June 14	eL	22 56							54.8S 119.7W, H: 21 42 00.0
	F	24.0							h N, Mb 5.1
									Easter Island Cordillera.
June 15	eL	1 30							9.7S 78.8W, H: 00 42 50.6
	F	1 46							h 51 km. Mb 5.4
									Near coast of Northern Peru.
June 15	ePP	11 34 56							54.3S 63.6W, H: 11 14 52.4
	eSKP	11 37 09							h N, Mb 5.6, Ms 7.0
	eSKS	11 41.0							Falkland Islands region.
	eSKKS	11 42.2							
	eSP	11 45 07							
	eSS	11 51 40							
	eL	12 05							
	F	16.0							
	WIT: ePKP	11 33 46.0							
	RSB: ePKP	11 33.7							
June 16	WIT: iPKP	2 51 37.1	-						23.1S 179.1E, H: 02 32 50.5
	RSB: ePKP	2 51 41							h 581 km. Mb 5.0. South of
									Fiji Islands.
June 16	iP	5 23 09	-						5.4N 82.5W, H: 05 10 33.0
	eS	5 33 30							h 17 km, Mb 5.6. Ms 5.3.
	eL	5 46		20			2.5	5.6	South of Panama.
	F	6.5							
	WIT: eP	5 23 13							
	RSB: eP	5 23 12							
June 17	iP	4 57 33	+						15.8S 71.8W, H: 04 44 20.9
	ePP	5 01 23							h 91 km. Mb 5.9.
	eSKS	5 08 00							Southern Peru.
	ePS	5 09 48							
	eSPP	5 10 38							
	eL	5 30							
	F	6.0							
	WIT: eP	4 57 37.5							
	RSB: eP	4 57 32							
June 17	HEE: e	13 50 20							No determination of epicenter.
									Local shock?
June 17	eL	19 30							30.2N 131.1E, H: 18 43 48.2
	F	20.0							h 24 km, Mb 5.1. Kyushu,
									Japan.

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
June 17	eL	22	32								36.3S 97.6W, H: 21 30 14.6
	F	22.8									h N. Mb 5.2. Ms 5.5.
											West Chile Rise.
June 18	eL	8.0									61.3S 160.0E, H: 06 39 03.3
	F	9.0									h N. Mb 5.0.
											Balleny Islands region.
June 18	eL	11	49								30.3N 131.2E, H: 10 55 16.1
	F	12	04								h 62 km, Mb 4.9. Kyushu,
											Japan.
June 18	eL	21	56								No determination of
	F	22.8									epicenter.
June 19	eP	11	09	50							22.2S 70.5W, H: 10 56 14.8
	eSKS	11	20	28							h 52 km, Mb 6.2.
	eS	11	21	16							Near coast of Northern Chile.
	eSS	11	28.0								
	eL	11	46			19			4.8	6.0	
	F	13.7									
	WIT: eP	11	09	55.5							
	RSB: eP	11	09	49							
June 19	iP	14	34	44	+	4	1.4				15.4N 45.9W, H: 14 25 18.4
	ePP	14	36	48							h N, Mb 5.5, Ms 5.8
	eS	14	42	28							North Atlantic Ridge.
	eL	14	50			20			7.8	5.8	
	F	16.2									
	WIT: eP	14	34	53.5							
	RSB: eP	14	33	45							
June 19	ePKP	18	58	19							15.4S 176.3W, H: 18 38 24.9
	F	in next shock									h N, Mb 5.3, Ms 5.8
											Fiji Islands region
June 19	ePKP	19	09.5								15.2S 176.3W, H: 18 49 46.6
	eL	20.0				20		3.2		6.1	h N, Mb 5.4, Ms 5.8
	F	21.6									Fiji Islands region.
	RSB: ePKP	19	09.3								

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
June 20	eL	3	03								40.1N 143.2E, H: 02 24 26.5
	F	3	39								h 42 km. Mb 4.9
	WIT: eP	2	36	34.0							Off east coast of Honshu,
											Japan.
June 20	WIT: iPKP	4	22	31.3	+						17.9S 178.6W, H: 04 04 01.8
	RSB: ePKP	4	22	37							h 633 km. Mb 4.4
											Fiji Islands region.
June 20	eS	6	13	16							39.0N 29.9E, H: 06 04 24.8
	eL	6	15.5								h 26 km. Mb 4.5
	F	6	25								Turkey.
June 21	eL	16	00								9.8S 78.7W, H: 15 13 37.8
	F	16	14								h 51 km. Mb 5.4
											Near coast of Northern Peru.
June 21	eL	20	22								26.6S 13.7W, H: 19 48 14.3
	F	20	42								h N, Mb 5.2
											South Atlantic Ridge.
June 22	iP	14	50	52	-						55.2N 156.5W, H: 14 39 30.6
	eS	15	00	17							h N, Mb 5.5, Ms 5.2
	eH	15	00	33							South of Alaska.
	eL	15	20			18		3.0		5.6	
	F	16.2									
	WIT: eP	14	50	50.0	+						
	RSB: eP	14	51	00							
June 22	WIT: iP	18	14	59.0	+						52.6N 158.9E, H: 18 03 37.1
											h 65 km. Mb 4.9
											Near east coast of Kamchatka.
June 22	iP	21	45	38	+	5	1.1				43.5N 147.6E, H:21 33 32.6
	eS	21	55	38							h N, Mb 5.6, Ms 5.3
	eL	22	11			18			2.7	5.6	Kuril Islands.
	F	23.6									
	WIT: iP	21	45	32.0	+						
	i	21	45	43.5							
	RSB: eP	21	45	42							
June 23	ePKP	4	28.0								59.6S 157.9E, H: 04 07 46.0
	ePP	4	32	27							h 30 km. Mb 5.3
	eL	5.5									Macquarie Islands region.
	F	6.5									
June 23	eL	4	36								60.7S 25.4W, H: 03 38 35.1
	F	5.3									h N, Mb 5.3, Ms 5.5
											South Sandwich Islands
											region.

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
June 23	WIT: iPKP	8	33	40.0	+						22.0S 179.7W, H: 08 15 02.0 h 649 km. Mb 4.8 South of Fiji Islands.
June 24	eS	7	51.0								51.8N 130.8W, H: 07 30 30.8 h N, Mb 4.9, Ms 5.4 Queen Charlotte Islands region.
	eL	8	03								
	F	9.2									
June 24	eP	13	20	28	+	9	6.4				51.8N 131.0W, H: 13 09 08.3 h 12 km. Mb 5.6, Ms 7.0 Queen Charlotte Islands region.
	iZ	13	20	52							
	iPP	13	23	08							
	iS	13	29	46							
	iSS	13	34	10							
	eL	13	39			20		195		7.3	
	F	17.7									
	WIT: eP	13	20	22.5							
	e	13	20	29.0							
	RSB: eP	13	20	31							
June 24	eL	19	34								No determination of epicenter.
	F	20.8									
June 25	ePKP	5	33	05	-						7.9S 158.7E, H: 05 13 58.6 h 69 km. Mb 6.1 Solomon Islands.
	ePP	5	35	20							
	epPP	5	35	43							
	eSKP	5	36	26							
	epSKP	5	36	53							
	eSPP	5	47	16							
	eL	6	16								
	F	7.6									
	WIT: ePKP	5	33	02.5							
	ePP	5	35	12.0							
	RSB: ePKP	5	33	06							
	epPKP	5	33	21							
	ePP	5	35	25							
June 26	eP	16	02	46							0.0S 17.9W, H: 15 53 11.2 h N, Mb 5.4 North of Ascension Island.
	eS	16	10	37							
	eL	16	20								
	F	17.0									
June 27	eL	10	33								9.8S 78.6W, H: 09 45 28.5 h 62 km. Mb 5.6 Near coast of Northern Peru.
	F	10	46								

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
June 27	eL	14.0									4.2N 126.2E, H: 13 12 59.5 h 85 km. Mb 5.6 Talaud Islands.
	F	14.6									
June 27	eL	19	04.5								41.5N 19.4E, H: 18 57 12.2 h 25 km. Mb 4.5 Albania.
	F	19	12								
	WIT: eL	19	05.1								
June 27	eP	23	05	54							14.7N 92.8W, H: 22 53 27.0 h 41 km. Mb 5.3, Ms 5.1 Near coast of Chiapas, Mexico.
	eL	23	33								
	F	24.2									
June 28	ePdiff	1	45	02	+						8.7S 124.2E, H: 01 30 12.6 h 41 km. Mb 6.0, Ms 6.2 Timor.
	iPP	1	49	53							
	ePPP	1	52	18							
	eSKS	1	55	31							
	iSP	1	59	34							
	iSPP	2	00	47							
	eSS	2	06.0								
	eL	2	26			22		7.6		6.3	
	F	4.7									
	WIT: ePP	1	49	46.5							
	RSB: ePP	1	49	51							
June 28	WIT: iP	2	06	01.0	+						49.8N 78.2E, H: 01 57 57.7 h 0 km. Mb 5.9 Eastern Kazakh SSR.
	RSB: iP	2	06	13	+						
June 28	eP	11	13	22							53.4N 160.4E, H: 11 01 53.5 h 23 km. Mb 5.8 Near east coast of Kamchatka.
	eL	11	37								
	F	in next shock									
	WIT: iP	11	13	16.9	+						
	RSB: iP	11	13	29	+						
June 28	iPKP	11	28	32	-	6	1.0				21.6S 179.5W, H: 11 09 54.2 h 623 km. Mb 5.8 Fiji Islands region.
	epPKP	11	30	53							
	ePP	11	31	53							
	ePS	11	42.5								
	F	13.0									
	WIT: ePKP1	11	28	28.5							
	iPKP2	11	28	33.6	-						
	epPKP	11	30	54.0							
	RSB: ePKP	11	28	32							
	epPKP	11	30	58							
June 28	eL	13	48								No determination of epicenter.
	F	14	15								

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
June 28	ePKP	22	58	21							21.1S 174.5W, H: 22 38 37.3
	eL	24.0									h 34 km. Mb 5.4, Ms 5.1
	F	24.9									Tonga Islands.
	WIT: ePKP	22	58	22.5	-						
	RSB: ePKP	22	58	27							
June 29	WIT: iPKP	6	08	16.0							31.1S 179.9W, H: 05 48 23.4
	RSB: iPKP	6	08	24							h 335 km. Mb 5.2
											Kermadec Islands region.
June 29	eL	18	32								0.1S 17.9W, H: 18 03 18.6
	F	18.7									h N, Mb 5.0
											North of Ascension Island.
June 30	eL	3	49.0								68.0N 18.7W, H: 03 38 09.5
	F	3	53								h N, Mb 4.3
											Iceland region.
June 30	eL	18	30								38.5N 20.2E, H: 18 21 14.2
	F	18	43								h 6 km. Mb 4.8
											Greece.

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
July 1	eL	16	40								23.8N 45.6W, H: 16 18 42.8,
	F	17.0									h N, Mb 5.1, North Atlantic
	WIT: eP	16	27	28.0							Ridge.
July 2	eSKS	1	08.8								
	eSP	1	11	20							d.b.m. 10.1S 78.6W, H: 00 45
	eL	1	32			22			6.1	6.1	02.0, h 62 km, Mb 5.8,
	F	2.0									Near coast of Peru.
July 2	ePKP$_2$	1	16	32							51.0S 139.5E, H: 00 56 15.3,
	eL	2.2									h N, Mb 5.6, Ms 6.0, South
	F	3.0									of Australia.
	WIT: ePKP	1	16	07.0							
	RSB: ePKP	1	16	06							
July 2	WIT: ePKP	7	37	04.0							21.8S 179.4W, H: 07 18 22.5,
											h 595 km. Mb 4.9, Fiji
											Islands region.
July 2	eL	8	00								38.7N 20.5E, H: 07 50 14.6,
	F	8	08								h 34 km, Mb 5.0, Greece.
July 2	eL	20	03								4.7N 97.7E, H: 19 14 01.5,
	F	20.5									h N, Mb 5.2, Ms 5.8 Northern
											Sumatra.
July 3	eL	0	51								38.7N 20.4E, H: 00 41 01.0,
	F	0	59								h N Mb 5.1, Greece.
July 5	eL	4	54								19.1N 68.4W, H: 04 19 35.1,
	F	5	12								h N Mb 4.6, North Atlantic
											Ocean.
July 5	eL	15	04								7.4N 126.9E, H: 14 12 16.6,
	F	15.7									h 59 km, Mb 5.6, Mindanao,
											Philippine Islands.
July 6	eL	1	08								17.4S 173.4W, H: 23 49 13.5,
	F	1.9									h 34 km, Mb 4.8, Ms 5.0,
	WIT: ePKP	0	08	48.0							Tonga Islands.
	RSB: ePKP	0	08	55							
July 6	eP	5	56	48							4.0N 78.2W, H: 05 44 23.3,
	eS	6	07	10							h N, Mb 4.5, Ms 5.1, South
	eL	6	25								of Panama.
	F	7	10								
July 7	eL	6	04								44.3S 82.1W, H: 04 56 16.9,
	F	6	16								h N, Mb 4.9, West Chile
											Ridge.
July 7	WIT: iP	6	32	09.0							45.6N 149.4E, H: 06 20 23.6,
											h 80 km, Mb 5.0. Kuril
											Islands.

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
July 7	eP	8	05	40							43.6N 28.9W, H: 08 00 11.7, h N, Mb 4.8, North Atlantic Ridge.
	eS	8	09	52							
	eL	8	11								
	F	8	32								
July 8	iP	4	59	28	-	6	2.7				18.0N 64.6W, H: 04 49 10.6 h 150 km, Mb 5.8, Virgin Islands.
	epP	5	00	13							
	iS	5	07	53							
	esS	5	08	50							
	eL	5	21								
	F	6	26								
	WIT:iP	4	59	34.4	-						
	RSB:iP	4	59	30	-						
July 9	eL	8	55								43.9N 148.4E, H: 08 11 09.7, h 51 km, Mb 5.4, Kuril Islands region.
	F	9.5									
	WIT:eP	8	23	06.5	+						
July 9	eP	11	36	44							43.9N 148.5E, H: 11 24 39.5, h 41 km, Mb 5.4, Ms 5.6, Kuril Islands region.
	eL	12	06								
	WIT:iP	11	36	37.3	+						
July 9	eP	12	24	00							43.8N 148.4E, H: 12 11 58.9, h 48 km, Mb 5.5, Ms 5.7, Kuril Islands region.
	eL	12	50								
	F	13	57								
	WIT:iP	12	23	56.2	+						
	RSB:eP	12	24	06							
July 10	ePKP	9	44	30							12.0S 166.6E, H: 09 25 24.4, h 140 km, Mb 5.3, Santa Cruz Islands.
	ePP	9	47	22							
	WIT:iPKP	9	44	35.0							
July 10	eP	13	27	30							17.5N 101.0W, H: 13 14 50.9, h 46 km, Mb 5.1, Ms 5.2, Near coast of Guerrero, Mexico.
	eL	14	00								
	F	14.7									
July 10	eL	17	05								28.7N 129.3E, H: 16 16 57.3, h 63 km, Mb 5.2, Ryukyu Islands.
	F	17	18								
	WIT:iP	16	29	26.0	-						
July 10	eL	21	56								13.9N 120.4E, H: 21 06 38.3, h 80 km. Mb 5.6, Mindoro, Philippine Islands.
	F	22	21								
	WIT:eP	21	19	43.5							
	RSB:iP	21	19	48	+						
July 11	eL	13	46								34.4N 22.2E, H: 13 33 51.9, h 18 km, Mb 4.6, Mediterranean Sea.
	F	13	56								
July 11	WIT:iP	14	40	33.0							36.5N 140.5E, H: 14 28 15.5, h 67 km, Mb 5.2, Near east coast of Honshu, Japan.

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
July 11	eL	22	00								28.3N 129.4E, H: 21 16 33.8, h 35 km, Mb 5.2, Ryukyu Islands.
	F	22	25								
	WIT:eP	21	29	08							
July 11	eS	22	53.3								37.6N 49.0E, H: 22 41 15.6, h 65 km, Mb 5.1, Caspian Sea.
	eL	22	57								
	F	23.3									
	WIT:eP	22	47	50							
July 11	eL	23	38.0								39.0N 20.6E, H: 23 29 20.2, h 41 km, Mb 4.8, Greece-Albania border region.
	F	23	48								
July 12	eL	05	39								No determination of epicenter.
	F	05	53								
July 12	ePP	9	35	45							10.8N 125.4E, H: 09 17 59.0, h 35 km, Mb 5.5, Ms 5.4, Leyte, Philippine Islands.
	eS	9	43.0								
	eL	10	06								
	F	10	47								
July 12	eL	10	51								No determination of epicenter.
	F	11	08								
July 13	eL	0	56.5								38.9N 20.6E, H: 00 46 47.4, h N, Mb 4.7, Greece
	F	1	06								
July 14	iP	18	11	16	+						72.5N 2.0E, H: 18 06 37.8, h N, Mb 4.9, Norwegian Sea.
	eL	18	16.7								
	F	18	30								
	RSB:iP	18	11	26	+						
July 16	iPKP	21	37	27	+						19.2S 173.5W, H: 21 17 44.2, h N, Mb 5.8, Ms 6.0, Tonga Islands.
	eSS	22	59	50							
	eSSS	23	05.0								
	eL	22	53			18			1.8	5.9	
	F	24.2									
	WIT:ePKP	21	37	26.0	(-)						
	i	21	37	41.5	+						
	RSB:ePKP	21	37	30							
July 17	WIT:iP	18	02	30.4	-						1.8S 77.3W, H: 17 49 59.5, h 182 km, Mb 4.9, Ecuador.
	RSB:eP	18	02	26							
July 17	iPKP	20	24	32	+	5	1.9				22.1S 174.7W, H: 20 04 46.5, h N, Mb 5.6, Ms 6.2, Tonga Islands region.
	ePP	20	28	06							
	eSKKS	20	35.2								
	eSS	20	47.5								
	eL	21	16			18			4.4	6.3	
	F	24.0									
	WIT:iPKP	20	24	34.5	+						
	i	20	24	43.0	-						
	RSB:ePKP	20	24	33							

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
July 18	iP	2	00	28	+	7	1.9				51.4N 178.5W, H: 01 48 38.9,
	ePPP	2	05	16							h 46 km, Mb 5.7. Ms 5.9,
	eS	2	10	15							Andreanof Islands,
	ePPS	2	11	00							Aleutian Islands.
	eSS	2	15.2								
	eSSS	2	18.5								
	eL	2	26			20			10.7	6.2	
	F	5.2									
	WIT:eP	2	00	24.0							
	RSB:eP	2	00	35							
July 19	ePKP	9	43	40							3.8S 152.4E, H: 09 22 40.1,
	eL	10	20			20		3.6		6.1	h 20 km, Mb 5.5, Ms 6.0,
	F	12.0									New Ireland region.
July 21	eL	1	52								36.5N 70.5E, H: 01 18 05,2,
	F	2	06								h 210 km, Mb 5.2, Hindu
											Kush region.
July 21	eL	11	28.0								BCIS: 46.5N 7.7E, H:11 24 35
	F	11	32								Switzerland.
	RSB:eP	11	25	43							
July 23	eL	5	51								6.1N 33.6W, H: 05 21 31.4,
	F	6	06								h N Mb 4.8, Central Mid-
											Atlantic Ridge.
July 23	WIT:ePKP	16	04	36.5							15.7S 173.9W, H: 15 45 14.6,
											h 95 km, Mb 5.4, Tonga
											Islands.
July 25	eP	22	53	39	+	14	16.8				d.b.m. 32.2N 131.7E, H:
	ePP	22	56	46							22 41 10.7, h 34 km, Mb 6.1,
	eS	23	04	08							Ms 7.0, Kyushu, Japan.
	eSS	23	10.0								
	eL	23	20			20		160		7.4	
	F	20									
	WIT:iP	22	53	32.2	+						
	i	22	53	37.2	+						
	i	22	53	55.3							
	RSB:eP	22	53	41	+						
July 26	iP	7	23	03	+						32.2N 131.8E, H: 07 10 36.0,
	ePP	7	26	23							h 35 km, Mb 6.1, Ms 5.9,
	eS	7	33	33							Kyushu, Japan.
	eSS	7	40.0								
	eL	7	51			20		30.0		6.7	
	F	9.0									
	WIT:eP	7	22	58.5							
	RSB:eP	7	23	05	+						
July 28	ePP	23	26	48							44.5S 79.6W, H: 23 06 22.9,
	ePS	23	36	40							h N, Mb 4.8, Ms 5.8, Off
	eSS	23	43	20							coast of southern Chile.
	eSSS	23	47.2								
	eL	23	59			18			4.8	6.2	
	F	1.7									

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
July 29	eP	5	59	50							39.9N 77.8E, H: 05 50 56.4,
	ePP	6	01	50							h 13 km, Mb 5.2, Ms 5.5,
	eS	6	07.1								Southern Sinkiang Province,
	eSS	6	10.6								China.
	eL	6	15.0			18			25.0	6.2	
	F	7.5									
	WIT:eP	5	59	46							
	RSB:eP	5	59	51							
July 29	iP	10	27	28	-	8	9.0				26.0N 95.4E, H: 10 16 19.3,
	iPP	10	30	05							h 59 km, Mb 6.5, Burma-
	iS	10	36	34							India border region.
	eSS	10	41	08							
	eL	10	50								
	F	13.0									
	WIT:iP	10	27	20.8	-						
	RSB:iP	10	27	26	-						
July 29	WIT:iP	10	42	11.5	+						26.2N 95.1E, H: 10 31 10.6,
											h 48 km, Mb 5.5, Burma-
											India border region.
July 29	WIT:e	10	55	30.0							No determination of epicenter.
July 30	eP	0	59	36	-	5	8.0				37.8N 55.9E, H: 0052 19.5,
	i	0	59	44	+						h 19 km, Mb 5.7 Ms 6.6,
	iPP	1	01	08							Iran-USSR border region.
	eS	1	05	32							(176 killed).
	eL	1	08.5			20		50		6.3	
	F	4.9									
	WIT:eP	0	59	29.0							
	i	0	59	32.9							
	RSB:eP	0	59	34							
July 30	iP	5	08	00	+	8	6.2				14.3N 51.8E, H: 04 58 43.8,
	iPP	5	10	05							h N, Mb 5.5, Ms 6.5,
	ePPP	5	11	20							Eastern Gulf of Aden
	eS	5	15	36							
	eSS	5	19.5								
	eL	5	25			18			44.0	6.5	
	F	8.7									
	WIT:eP	5	08	02.0							
	RSB:eP	5	07	53							
July 31	eL	2	33								43.4N 147.5E, H: 01 53 16.5,
	F	3.0									h 49 km, Mb 4.9. Kuril
	WIT:eP	2	05	14.5							Islands.
	e	2	05	26.0							
July 31	ePKP	4	00	34							17.8S 173.3W, H: 03 40 57.1,
	eL	4	57								h N, Mb 4.8, Tonga Islands
	F	5.9									
	WIT:ePKP	4	00	33.5							

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
July 31	eL	13	49								28.6N 103.6E, H: 13 10 47.4,
	F	14.3									h 25 km, Mb 5.5, Szechwan
	WIT:eP	13	22	10.0							Province, China.
July 31	eL	16	17								27.0S 113.3W, H: 15 16 18.7,
	F	in next shock									h N, Mb 5.3, Ms 5.6, Easter
											Island region.
July 31	iP	17	19	30	-	9	67.0				1.5S 72.6W, H: 17 08 05.4,
	ipP	17	21	44							h 651 km, Mb 7.1, Colombia.
	iS	17	29	00							(1 killed).
	isS	17	33	00							
	eSS	17	34.8								
	eL	17	49								
	F	22.0									
	WIT:iP	17	19	34.1	-						
	HEE:iP	17	19	33							
	iS	17	29	06							
July 31	WIT:e	17	45	40.5							No determination of epicenter.
July 31	WIT:e	17	48	02.0							No determination of epicenter.
July 31	WIT:e	18	06	07							No determination of epicenter.
	e	18	06	15.5							

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Aug. 1	WIT:eP	14	48	43							73.9N 9.9E, H: 14 43 59.0,
											h N, Mb 4.4, Greenland Sea.
Aug. 2	eL	01	58								46.7N 152.5E, H: 01 36 10.6,
	F	02	31								h 60 km, Mb 5.0, Kuril Islands
	WIT:IP	01	47	57.3	-						
	RSB:eP	01	48	08							
Aug. 2	eL	08	23.6								No determination of epicenter.
	F	08	32								
Aug. 2	iPKP	19	43	28	+						16.6S 172.8W, H: 19 23 55.3,
	eZ	19	43	57	+						h N, Mb 4.7, Ms 5.3,
	eL	20	35								Samoa Islands region.
	F	22.0									
	RSB:ePKP	19	43	33							
Aug. 3	ePKP	00	53	14	+						15.9S 173.9W, H: 00 33 54.3,
	eL	01	56								h 120 km, Mb 5.4, Tonga
	F	02	14								Islands.
	WIT:ePKP	00	53	14.0							
	RSB:ePKP	00	53	21							
Aug. 3	eL	04	56								16.2S 174.6W, H: 03 33 34.7,
	F	05	23								h N, Mb 5.2, Ms 5.1,
	WIT:ePKP	03	53	11							Tonga Islands.
	RSB:ePKP	03	53	12							
Aug. 3	ePP	07	22	32							7.9S 158.7E, H: 07 01 11.9,
	eL	08	06								h 67 km, Mb 5.9, Solomon
	F	09.1									Islands.
	WIT:ePKP	07	20	16							
	RSB:ePKP	07	20	23							
Aug. 3	eP	22	42	56							2.6N 98.0E, H: 22 30 02.5,
	epP	22	43	12							h 38 km. Mb 5.9, Northern
	eS	22	53	44							Sumatra
	eL	23	18								
	F	23.8									
	WIT:iP	22	42	54.5	-						
	ipP	22	43	11.0							
	RSB:iP	22	42	57	-						
	epP	22	43	14							
Aug. 4	eL	01	34								4.6S 134.0E, H: 00 32 06.4,
	F	01	55								h N, Mb 5.2, West New Guinea
											region.
Aug. 4	eL	13	30								31.8N 139.3E, H: 12 41 41.8,
	F	13	58								h 29 km, Mb 4.8, South of
											Honshu, Japan.
Aug. 4	eL	17	43.5								38.9N 22.0E, H: 17 32 47.8,
	F	17	47								h 65 km, Mb 4.3, Greece.

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Aug. 5	eL	04	33.0								44.1N 15.9E, H: 04 27 24.7, h N, Mb 4.7. Yugoslavia.
	F	04	40								
	WIT:eL	04	33.4								
	RSB:eL	04	31.5								
Aug. 5	eP	05	39	08							9.2S 78.9W, H: 05 25 57.6, h 69 km. Mb 5.6, Near coast of Northern Peru.
	eL	06	12								
	WIT:iP	05	39	13.0							
	RSB:eP	05	39	09							
Aug. 5	eP	09	18	38							11.9N 43.7W, H: 09 08 59.4, h N, Mb 5.2, Ms 4.5, North Atlantic Ridge.
	eL	09	34								
	F	10.0									
	WIT:eP	09	18	46.5							
	RSB:eP	09	18	36							
Aug. 6	eL	03	24								31.7N 139.4E, H: 02 37 49.0, h 29, Mb 4.7, South of Honshu, Japan.
	F	03	43								
Aug. 6	ePKP	21	41	27							23.0S 175.4W, H: 21 21 44.6, h 50 km, Mb 5.0, Ms 5.2, Tonga Islands region.
	ePP	21	45	10							
	eL	22	45								
	F	23	43								
	WIT:ePKP	21	41	35							
	RSB:ePKP	21	41	26							
Aug. 7	eL	02	24								43.8N 148.3E, H: 01 43 19.0, h N, Mb 5.0, Kuril Islands region.
	F	02	56								
	WIT:eP	01	55	20.0							
	e	01	55	31.0							
	RSB:eP	01	55	19							
Aug. 7	eL	05	05.0								39.0N 30.1E, H: 04 53 22.1, h 32 km, Mb 4.6, Turkey.
	F	05	11								
Aug. 7	ePKP	08	09	49	-						17.7S 178.3W, H: 07 51 12.0, h 548 km, Mb 5.5, Fiji Islands region.
	F	09.0									
	WIT:iPKP	08	09	47.8	+						
	RSB:ePKP	08	09	42							
	e	08	11	43							
Aug. 7	eP	16	46	44							27.3N 141.7E, H: 16 33 29.2, h N, Mb 5.4, Ms 5.6, Bonin Islands region.
	eL	17	18								
	F	18.1									
	WIT:eP	16	46	34							
Aug. 8	WIT:iP	09	13	24.1	-						30.6N 130.0E, H: 09 01 08.3, h 120 km, Mb 5.1, Kyushu, Japan.
	e	09	13	34.5							
Aug. 8	eL	12	10								44.3N 81.2E, H: 11 46 31.3, h N, Mb 4.7, Northern Sinkiang Province, China.
	F	12	23								

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Aug. 8	WIT:ePKP	17	17	07							17.5S 179.1W, H: 16 58 32.7, h 558 km, Mb 4.1, Fiji Islands region.
Aug. 8	eP	21	18	36							1.2N 126.1E, H: 21 04 05.9, h 24 km, Mb 5.8, Ms 5.5. Molucca Passage.
	ePP	21	23	00							
	eSKS	21	29	10							
	eSP	21	32.0								
	eSS	21	38	08							
	eL	21	57			20			3.8	5.9	
	F	22.8									
Aug. 9	eL	11	40								62.8S 160.5W, H: 10 16 04.6, h N, Mb 5.2, South Pacific Cordillera.
	F	12	27								
Aug. 9	WIT:iS	20	11	31.0							54.5N 2.4W, H: 20 09 00.5, h N, Mb 4.0, United Kingdom.
Aug.10	ePKP	15	34	38							13.9S 166.8E, H: 15 15 19.7, h 46 km, Mb 6.0, Ms 6.4, New Hebrides Islands.
	ePP	15	37	40							
	ePKS	15	38	32							
	ePS	15	48.0								
	eSKKS	15	51	20							
	eSS	15	56.0								
	eL	16	20			20		7.2		6.4	
	F	19.0									
	WIT:ePKP	15	34	48							
	iSKP	15	38	20.6							
Aug. 11	iP	3	58	26	+	10	1.5				1.1S 13.9W, H: 03 48 52.4, h N, Mb 5.4, Ms 5.9, North of Ascension Island.
	ePP	4	01	42							
	eS	4	06	16							
	eL	4	12.8			20			16.0	6.1	
	F	6.2									
	WIT:eP	3	58	34.0							
	e	3	58	41.5							
Aug. 11	ePKP	10	41	33	+						14.1S 166.7E, H: 10 22 20.0, h N, Mb 6.2, Ms 7.0, New Hebrides Islands.
	ePP	10	44	45							
	ePKS	10	45.5								
	ePS	10	55.0								
	eSKKS	10	58.3								
	eSS	11	03.0								
	eL	11	28			21	36.5			7.2	
	F	14.0									
	WIT:ePKP	10	41	47							
	eSKP	10	45	18.0							
Aug. 11	eSP	20	40	20	+						60.6S 25.4W, H: 20 10 52.4 h N, Mb 6.0, Ms 5.4 South Sandwich Islands region.
	eL	21	06								
	F	21.7									

Date 1970	Phase	G.M. Time h m s	First motion	Period s	Amplitude μ Z	Amplitude μ NS	Amplitude μ EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Aug. 12	ePKP	1 00 28							13.9S 166.5E, H: 00 40 42.9, h 39 km, Mb 5.4, Ms 5.7, New Hebrides Islands.
	eSKP	1 03 00							
	eSKKS	1 16.9							
	eL	1 53							
	F	in next shock							
Aug. 12	ePKP	1 59 01							13.9S 166.5E, H: 01 39 36.7, h 43 km, Mb 5.8, Ms 6.3, New Hebrides Islands.
	ePP	2 01 53							
	eSKKS	2 15.6							
	eSS	2 20.2							
	eL	2 46		20		7.2		6.4	
	F	5.0							
	WIT: ePKP	1 59 02.5							
	eSKP	2 02 33.0							
	RSB: ePKP	1 58 56							
	ePP	2 02 00							
	eSKP	2 02 38							
Aug. 12	eL	7 02							52.1N 35.7W, H: 06 52 33.7, h N, Mb 4.3, North Atlantic Ocean.
	F	7 12							
Aug. 12	eL	9 28							13.9S 166.7E, H: 08 21 24.4, h 42 km, Mb 5.1, Ms 5.4, New Hebrides Islands.
	F	in nwxt shock							
Aug. 12	eP	9 36 28	+	6	1.8				12.0N 86.5W, H: 09 24 11.5, h N, Mb 5.9, Ms 6.3, Nicaragua.
	ePP	9 39 40							
	ePS	9 47 16							
	eSPP	9 48 08							
	eSS	9 52 32							
	eSSS	9 56.0							
	eL	10 02		20			35.5	6.7	
	F	12.7							
	WIT: eP	9 36 35							
	RSB: eP	9 36 29							
Aug. 12	eL	11 02							12.1N 86.5W, H: 10 24 23.9, h N, Mb 5.6, Ms 5.5, Nicaragua.
	F	in prec. shock							
Aug. 12	eL	13 46							14.1S 166.4E, H: 12 34 51.4, h 28 km, Mb 4.9, New Hebrides Islands.
	F	14 51							
Aug. 12	eL	19 27							25.0N 124.7E, H: 18 43 14.9, h 87 km. Mb 5.2, North-east of Taiwan.
	F	19 45							
Aug. 12	WIT: iP	22 58 12.0							44.1N 147.8E, H: 22 46 19.0 h 69 km, Mb 5.2, Kuril Islands

Date 1970	Phase	G.M. Time h m s	First motion	Period s	Amplitude μ Z	Amplitude μ NS	Amplitude μ EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Aug. 13	epPKP	04 41 33							8.9S 118.0E, H: 04 22 38.5, h 117 km, Mb 6.0, Sumbawa Island region.
	ePS	04 51 18							
	eL	05 20							
	F	06.0							
	WIT: ePcPP'	04 56 13							
	RSB: ePKP	04 40 48							
Aug. 13	eL	15 59.0							49.0N 28.4W, H: 15 47 50.5, h N Mb 4.5, North Atlantic Ridge.
	F	16 05							
Aug. 13	eL	19 58.6							51.8N 105.5E, H: 19 26 55.5, h N, Mb 4.7, Lake Baikal region.
	F	20 13							
Aug. 13	ePP	23 45 30							14.1N 146.5E, H: 23 27 05.7, h 46 km, Mb 5.4, Ms 5.1, Mariana Islands.
	eSP	23 54 50							
	eL	24 21							
	F	01.0							
Aug. 15	eL	02 55							16.7S 177.1W, H: 01 41 48.3, h 50 km, Mb 4.7, Fiji Islands region.
	F	03.8							
	RSB: ePKP	02 01 25							
Aug. 15	eL	05 55							17.0S 177.2W, H: 04 42 55.1, h N, Mb 5.3, Fiji Islands region.
	F	06.6							
	RSB: ePKP	05 02 33							
Aug. 18	eL	04 28.8							BCIS: 46.4N 7.5E, H: 04 25 33.0, Switzerland.
	F	04 31							
	RSB: ePn	04 26 43							
	eSn	04 27 38							
Aug. 18	eL	17 50							39.2N 21.8E, H: 17 40 16.4, h 31 km, Mb 4.6. Greece.
	F	17 58							
Aug. 18	iP	18 02 48	+						60.7N 145.4W, H: 17 52 06.3, h 16 km, Mb 5.6, Ms 5.9. Southern Alaska.
	eS	18 11 33							
	eSS	18 16.0							
	eL	18 23		20		6.0		5.8	
	F	19.5							
	WIT: iP	18 02 45.8	-						
	RSB: eP	18 02 55							
Aug. 19	eP	02 05 20							41.1N 19.8E, H: 02 01 53.1, h N, Mb 5.2, Ms 5.7 Albania.
	eS	02 08 16							
	eL	02 09.1		18			25.5	5.4	
	F	03.1							
	WIT: eP	02 05 32							
	e	02 05 48							
	RSB: ePn	02 05 10							

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Aug.19	eL	03	18								10.5S 161.5E, H: 02 11 09.4,
	F	04	30								h 33 km, Mb 5.7, Ms 5.8, Solomon Islands.
Aug.19	eP	12	22	40							43.2N 11.1E, H: 12 19 54.5,
	eL	12	25.0								h N, Mb 5.1, Central Italy.
	F	12	42								
	RSB:eP	12	21	56							
Aug.20	WIT:i	05	40	37.5	-						No determination of epicenter.
Aug.21	WIT:iP	00	55	52.0	+						d.b.m. 45.8N 150.1E, H: 00
	RSB:eP	00	56	02							44 06.4, h 80 km, Mb 5.2, Kuril Islands.
Aug.21	WIT:i	02	57	33.0							No determination of epicenter.
Aug.22	eL	12	09								53.6N 161.3E, H: 11 27 15.3,
	F	12	24								h N, Mb 5.1, Ms 4.4, Off
	WIT:eP	11	38	38.5							east coast of Kamchatka.
Aug.22	WIT:e	13	31	26							No determination of epicenter.
Aug.23	eL	04	06								7.1S 11.9W, H: 03 35 01.3,
	F	04	20								h N, Mb 4.9. Ascension Island region.
Aug.23	WIT:iPKP	05	17	07.0	+						17.8S 178.8W, H: 04 58 31.5,
	RSB:iPKP	05	17	12	+						h 560 km, Mb 5.0. Fiji Islands region.
Aug.23	eL	08	04.4								No determination of epicenter.
	F	08	17								
Aug.23	iP	11	12	32	-	5	1.0				53.1N 35.1W, H: 11 07 18.4,
	eS	11	17.0								h N, Mb 5.0. Ms 4.6, North
	eL	11	19.0			20			2.5	4.7	Atlantic Ocean.
	F	12.0									
	WIT:eP	11	12	40							
	RSB:eP	11	12	42							
Aug.24	ePKP$_1$	12	50	16							56.6S 142.5W, H: 12 30 19.5,
	ePKP$_2$	12	51	00							h N, Mb 5.9, Ms 6.4, South
	ePP	12	54	43							Pacific Cordillera.
	eSKKS	13	01	32							
	eSKSP	13	05	10							
	eSS	13	15	00							
	eL	13.8				20		7.2		6.5	
	F	15.6									
	WIT:ePKP$_2$	12	51	06.0							
	ePP	12	54	49.0							
	RSB:ePKP	12	50	18							
	ePP	12	54	39							

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Aug.25	eP	1	43	16	+						43.3N 18.4E, H: 01 40 09.6,
	eS	1	45	38							h 10 km, Mb 5.2, Yugoslavia.
	eL	1	46.4								
	F	2	10								
	WIT:eP	1	43	11.0							
	RSB:eP	1	42	58							
Aug.26	eP	15	24	48							18.1N 120.5E, H: 15 11 54.6,
	eS	15	35	20							h 53 km, Mb 5.4, Luzon,
	eL	15	57								Philippine Islands.
	F	17.0									
	WIT:eP	15	24	50							
	RSB:eP	15	24	54							
Aug.26	WIT:iPKP	18	33	08.8	+						20.1S 178.1W, H: 18 14 26.5,
	RSB:ePKP	18	33	13							h 550 km, Mb 4.7. Fiji Islands region.
Aug.26	eL	21	39								34.8N 141.6E, H: 20 54 42.9,
	F	22	15								h 45 km, Mb 5.0, Off east coast of Honshu, Japan.
Aug.27	ePKP	16	41	53	+						15.2S 173.3W, H: 16 22 24.7,
	ePP	16	45	10							h 23 km, Mb 5.4, Ms 5.7. Tonga Islands.
	eSS	17	04.0								
	eL	17	17			20		2.6		6.0	
	F	19	08								
	WIT:ePKP	16	41	40.5							
	eSKP	16	45	51.0							
	RSB:ePKP	16	41	59							
Aug.27	iP	19	57	16	-	6	1.4				15.4N 95.6W, H: 19 44 42.0,
	eS	20	07	40							h 31 km, Mb 5.5, Ms 5.7,
	eSP	20	08	25							Near coast of Oaxaca, Mexico.
	eL	20	20			20			2.9	5.7	
	F	21.5									
	WIT:eP	19	57	19.5	+						
	RSB:eP	19	57	20							
Aug.28	iPKP	1	21	43	+						4.6S 153.1E, H: 01 02 48.9,
	ePP	1	23	28							h 88 km, Mb 5.9, New Ireland region.
	ePS	1	33.5								
	ePPS	1	35.4								
	eSS	1	41.4								
	eL	1	58								
	F	4.3									
	WIT:ePKP	1	21	41.0							
	i	1	21	44.8	-						
	RSB:ePKP	1	21	45	+						

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Aug.28	WIT:eP	1	35	13.5							24.7N 91.7E, H: 01 24 04.4, h 17 km, Mb 4.9, India-East-Pakistan border region.
Aug.28	ePKP	10	25	56							33.9S 179.8W, H: 10 06 08.8, h 90 km. Mb 5.6, South of Kermadec Islands.
	ePP	10	30	24							
	eL	11	25								
	F	12.3									
	WIT:iPKP	10	25	58.5							
	RSB:ePKP	10	26	01							
Aug.28	eL	15	13								15.1S 173.4W, H: 14 01 29.9, h N, Mb 5.3, Ms 5.3, Tonga Islands.
	F	16.7									
	RSB:ePKP	14	21	04							
Aug.28	eL	19	07								18.6N 121.0E, H: 18 22 02.9, h 23 km, Mb 5.1, Luzon, Philippine Islands.
	F	19	40								
Aug.29	WIT:iP	1	54	54.9	-						37.0N 136.7E, H: 01 43 12.2, h 284 km, Mb 5.2, Near west coast of Honshu, Japan.
	RSB:eP	1	55	04	-						
Aug.29	eL	10	50								41.5N 19.4E, H: 10 42 17.5, h 38 km, Mb 4.4, Albania.
	F	10	58								
Aug.29	eL	15	36								51.1N 135.3E, H: 14 59 22.6, h N, Mb 5.4, Eastern Russia.
	F	16.0									
	WIT:eP	15	10	19.5							
	RSB:eP	15	10	31							
Aug.30	WIT:ePKP	0	47	56.5							4.8S 153.4E, H: 00 29 00.1, h 60 km, Mb 5.0, Near Ireland region.
Aug.30	iP	0	50	15	+	5	0.7				52.1N 159.6E, H: 00 38 40.1, h N, Mb 5.2, Off east coast of Kamchatka.
	eS	1	00.0								
	eL	1	15			19		3.5		5.7	
	F	in next shock.									
	WIT:eP	0	50	09.5	+						
	RSB:eP	0	50	20							
Aug.30	eL	2.0									16.1S 172.5W, H: 00 43 57.4, h N,mb 5.3, Samoa Islands region.
	F	3.5									
	RSB:ePKP	1	03	33							

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Aug.31	iP	17	56	32	-	6	22.5				52.4N 151.6E, H: 17 46 09.0, h 645 km, Mb 6.6 Sea of Okhotsk
	ipP	17	58	40							
	iPP	17	59	11							
	ipPP	18	01	08							
	iS	18	05	04							
	esS	18	09	00							
	F	21.9									
	WIT:iP	17	56	26.5	-						
	ipP	17	58	35.4							
	i	18	24	01.0	+						
	HEE:eP	17	56	40							
	eS	18	05	14							
	RSB:iP	17	56	38	-						
	e	18	24.0								

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Data without indication are from De Bilt

Date 1970	Phase	G.M. Time h m s	First motion	Period s	Amplitude μ Z	Amplitude μ NS	Amplitude μ EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Sep. 1	eS	1 14 16							38.0N 20.2E, H: 01 06 41.8
	eL	1 16.2		20		7.2		5.0	h 16 km. Mb 4.8
	F	1 34							Greece.
	WIT: eP	1 10 55							
	RSB: eP	1 10 39							
Sep. 1	iP	5 25 13	-						17.7N 147.6E, H: 05 11 16.1
	ePP	5 29 26							h 40 km. Mb 6.3, Ms 6.4
	eSKS	5 35 52							Mariana Islands region.
	eS	5 37 00							
	iSP	5 38 46							
	eSS	5 44.0							
	eL	6 00		20		16.0		6.6	
	F	8.0							
	WIT: iPP	5 29 20.0							
	RSB: eP	5 25 16							
	ePP	5 29 30							
Sep. 3	eP	5 37 48							39.6N 38.7E, H: 05 32 09.7
	eS	5 42 25							h 23 km. Mb 5.1, Ms 5.3
	eL	5 45.5		15			5.7	5.2	Turkey.
	F	6 20							
	WIT: eP	5 37 45.0	-						
	RSB: eP	5 37 41							
Sep. 3	ePKP	9 51 56							16.9S 167.8E, H: 09 32 23.0
	eL	10 44		22		3.2		6.1	h 44 km. Mb 5.5, Ms 5.9
	F	11.8							New Hebrides Islands.
	RSB: iPKP	9 51 53							
Sep. 3	eL	22 10							28.8S 71.2W, H: 21 12 01.2
	F	22 23							h 67 km. Mb 4.8
									Near coast of Central Chile.
Sep. 5	iP	8 03 00	-	6	4.5				52.2N 151.4E, H: 07 52 27.9
	epP	8 04 57							h 580 km. Mb 5.7
	ePP	8 05 56							Sea of Okhotsk
	epPP	8 07 28							
	esPP	8 08 26							
	iS	8 11 40							
	isS	8 15 11							
	eSS	8 16							
	F	9.0							
	WIT: iP	8 02 51.5	-						
	ipP	8 04 51.8	+						
	RSB: iP	8 03 02	-						
Sep. 5	eL	10 03							38.0S 73.3W, H: 08 59 44.7
	F	10.5							h 43 km. Mb 4.8
									Near coast of Central Chile.

SEISMOLOGICAL BULLETIN

Data without indication are from De Bilt

Date 1970	Phase	G.M. Time h m s	First motion	Period s	Amplitude μ Z	Amplitude μ NS	Amplitude μ EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Sep. 5	eL	12 05.0		21		2.7		5.3	14.8N 53.8E, H: 11 38 46.1
	F	12.6							h N, Mb 4.9
									Arabian Sea.
Sep. 5	eL	14 14							32.0N 101.2E, H: 13 37 34.9
	F	14 28							h N, Mb 5.0
									Szechwan Province, China.
Sep. 5	RSB: ePKP	17 27 32							17.4S 171.9W, H: 17 07 50.7
									h N, Mb 5.2
									Tonga Islands region.
Sep. 6	WIT: iP	04 11 01.1	+						49.8N 78.1E, H: 04 02 57.4
	RSB: iP	04 11 12							h 0 km. Mb 5.6
									Eastern Kazakh SSR.
Sep. 7	eP	21 01.6							43.9N 16.1E, H: 20 58 49.8
	eL	21 04.5		19		17.0		5.1	h 5 km. Mb 5.5
	F	21.5							Yugoslavia.
	WIT: eP	21 01 27.0							
	eL	21 04.8							
	HEE: eL	21 04							
	RSB: iP	21 01 14							
Sep. 9	eL	20 06							29.9N 131.8E, H: 19 18 44.1
	F	20 21							h 13 km. Mb 5.1
	WIT: eP	19 31 20.5							Ryukyu Islands region.
Sep.11	eL	02 14		22			3.8	6.2	50.1S 114.5W, H: 01 04 12.4
	F	03.3							h N, Mb 5.2, Ms 5.9
									Easter Island Cordillera.
Sep.12	eP	14 43 07							34.3N 117.6W, H: 14 30 51.9
	eL	15 13		16			2.4	5.5	h 9 km. Mb 5.4
	F	15 34							Southern California.
	WIT: eP	14 43 08.0							
Sep.14	iP	9 57 12	+	7	2.0				38.7N 142.2E, H: 09 44 53.6
	ePP	10 00 20							h 44 km. Mb 5.6, Ms 5.9
	eS	10 07 24							Near east coast of Honshu,
	eSS	10 13.5							Japan.
	eL	10 22		20		26.5		6.6	
	F	11.5							
	WIT: iP	9 57 05.5	+						
	RSB: iP	9 57 16	-						

Date 1970	Phase	G.M. Time h m s	First motion	Period s	Amplitude μ Z	Amplitude μ NS	Amplitude μ EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Sep. 14	eL	10 13		15			10.4	5.8	39.9N 77.0E, H: 09 43 33.5
	F	in prec. shock							h N, Mb 5.2
									Southern Sinkiang Province, China. Disturbed by preceding shock.
Sep. 14	eL	16 17							34.1S 72.3W, H: 15 17 58.5
	F	in next shock							h N, Mb 4.9, Ms 5.2
									Near coast of Central Chile.
Sep. 14	eL	16 34							34.0S 72.2W, H: 15 36 51.3
	F	17 45							h 31 km. Mb 5.6, Ms 5.3
									Near coast of Central Chile.
Sep. 14	eL	19 03							34.0S 72.2W, H: 18 06 22.6
	F	19.6							h 15 km. Mb 5.1, Ms 5.0
									Near coast of Central Chile.
Sep. 14	WIT: eP	19 56 32.0							43.5N 147.9E, H: 19 44 31.5
	RSB: eP	19 56 41							h 30 km. Mb 5.1
									Kuril Islands.
Sep. 15	WIT: iPKP	9 54 48.0	-						20.5S 178.8W, H: 09 36 10.5
	RSB: iPKP	9 54 53	+						h 615 km. Mb 5.1
									Fiji Islands region.
Sep. 15	eSP	11 22 20							8.7N 127.2E, H: 10 55 19.2
	eL	11 50							h N, Mb 5.5, Ms 5.4
	F	12.4							Philippine Islands region.
Sep. 15	eL	22 03							30.2S 177.6W, H: 20 42 59.1
	F	23.0							h 34 km. Mb 5.2, Ms 5.3
									Kermadec Islands.
Sep. 16	eL	00 01							23.5S 37.3E, H: 23 15 30.9
	F	00 16							h N, Mb 4.9
									Mozambique Channel.
Sep. 16	eL	1 56							30.2S 177.7W, H: 00 35 29.6
	F	in next shock							h N, Mb 5.0
									Kermadec Islands.
Sep. 16	ePKP	2 07 53							13.0N 144.4E, H: 01 49 20.5
	iPP	2 08 05							h 47 km. Mb 6.0, Ms 5.7
	iSKS	2 14 09							Mariana Islands.
	ePS	2 17 07							
	eL	2 39		20		5.3		6.1	
	F	3.9							

Date 1970	Phase	G.M. Time h m s	First motion	Period s	Amplitude μ Z	Amplitude μ NS	Amplitude μ EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Sep. 16	eL	05 00							5.1S 130.4E, H: 04 00 08.1
	F	05.5							h N, Mb 5.4, Ms 5.3
									Banda Sea.
Sep. 18	iP	2 11 00	+						71.2N 7.7W, H: 02 06 30.4
	iS	2 14 51							h N, Mb 5.1, Ms 5.3
	eL	2 15.8							Jan Mayen Island region.
	F	3.0							
	WIT: eP	2 10 58.5							
	RSB: eP	2 11 13							
Sep. 18	iP	16 16 55	-						51.1N 29.6W, H: 16 12 07.1
	iS	16 20 52							h N, Mb 5.2, Ms 4.9
	eL	16 22.3		14			8.0	5.2	North Atlantic Ridge.
	F	17							
	WIT: eP	16 17 02.0							
	RSB: eP	16 17 00							
Sep. 18	eL	17 05							34.3N 26.3E, H: 16 53 40.0
	F	17 15							h 25 km. Mb 4.5
	RSB: eP	16 58 36							Crete.
Sep. 18	eL	18 20							20.9S 68.3W, H: 17 27 11.0
	F	18 25							h 133 km. Mb 5.3
									Chile-Bolivia border region.
Sep. 18	eL	20 24							36.4N 68.9E, H: 20 02 25.0
	F	21.0							h N, Mb 5.1
									Hindu Kush region.
Sep. 18	ePS	23 17 30							34.0S 72.0W, H: 22 49 02.9
	eL	23 43							h 20 km. Mb 5.2, Ms 5.3
	F	24.9							Near coast of Central Chile.
Sep. 19	WIT: eP	00 55 58.0	+						32.4N 137.7E, H: 00 44 01.2
									h 365 km. Mb 5.1
									South of Honshu, Japan.
Sep. 19	eL	1 33							48.4N 89.3E, H: 01 07 22.3
	F	2.0							h N, Mb 4.7
									Mongolia.
Sep. 19	eL	4 43							43.2S 41.5E, H: 03 54 17.0
	F	5 04							h N, Mb 5.1
									Prince Edward Islands region.
Sep. 19	ePP	6 56 36							33.5S 71.9W, H: 06 37 27.7
	ePS	7 05 55							h 21 km. Mb 5.5, Ms 5.6
	eL	7 31		20		2.1		5.7	Near coast of Central Chile.
	F	8.4							

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Sep. 20	eL	00	46								51.9S 74.1W, H: 23 41 48.0
	F	01.3									h N, Mb 4.8
											Near coast of Southern Chile.
Sep. 20	WIT: eP	10	50	42.0							29.5N 141.3E, H: 10 37 48.5
											h N, Mb 5.0
											South of Honshu, Japan.
Sep. 20	eL	17	52								16.5N 97.3W, H: 17 02 42.0
	F	18	05								h N, Mb 5.0, Ms 4.1
	WIT: eP	17	15	17							Oaxaca, Mexico.
	RSB: eP	17	15	18							
Sep. 21	WIT: ePKP	01	31	01							24.5S 176.4W, H: 01 11 08.7
	e	01	31	13							h N, Mb 4.9
											South of Fiji Islands.
Sep. 21	eL	3	55								No determination of
	F	4	22								epicenter.
Sep. 22	eP	6	50	12							38.0N 20.1E, H: 06 46 08.9
	eL	6	55.4								h N, Mb 4.4
	F	7	10								Greece.
Sep. 23	iPKP	12	23	56	+						6.5S 154.6E, H: 12 04 54.2
	iPP	12	26	03							h 39 km. Mb 5.7, Ms 6.5
	ePKS	12	27	24							Solomon Islands.
	iSPP	12	37	40							
	eL	13	01			20		9.6		6.4	
	F	15.4									
	WIT: ePKP	12	24	04							
	RSB: ePKP	12	24	00							
Sep. 23	WIT: iP	21	14	40.5	-						51.4N 179.4W, H: 21 02 54.6
											h 43 km. Mb 5.2
											Andreanof Islands, Aleutian Islands.
Sep. 23	ePKP	23	31	00							6.5S 154.7E, H: 23 11 58.5
	ePP	23	33	07							h 47 km. Mb 5.3, Ms 5.9
	ePKS	23	34	24							Solomon Islands.
	eSPP	23	44	37							
	eSSS	23	54	40							
	eL	00	07			20		3.2		6.0	
	F	02.3									
Sep. 24	eP	16	56	01							54.7N 162.8E, H: 16 44 39.9
	eS	17	05	32							h 34 km. Mb 5.3, Ms 5.2
	eL	17	22			18			2.1	5.4	Near east coast of Kamchatka.
	F	18.6									
	WIT: eP	16	55	56.5							
	RSB: eP	16	56	07							

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Sep. 26	eS	6	21	40							39.0N 21.9E, H: 06 14 08.7
	eL	6	24.0								h N, Mb 4.3
	F	6	30								Greece.
Sep. 26	iP	12	14	45	+	10	12.1				6.2N 77.6W, H: 12 02 29.3
	ePP	12	17	57							h 8 km. Mb 6.1, Ms 6.6
	ePPP	12	20	14							Near west coast of Colombia.
	iS	12	24	54							
	eSS	12	30.1								
	eL	12	36			19			51.0	6.8	
	F	in next shock									
	WIT: iP	12	14	49.5	+						
	i	12	14	57.5							
	e	12	18	10.5							
	RSB: iP	12	14	47							
Sep. 26	eS	15	19	32							6.3N 77.4W, H: 14 57 02.2
	eSS	15	24.7								h 14 km. Mb 5.3, Ms 5.4
	eL	15	34			22		4.8		5.8	Near west coast of Colombia.
	F	16.5									
	WIT: eP	15	09	21.5	+						
	RSB: eP	15	09	19							
Sep. 26	eL	18	01								3.8S 152.3E, H: 16 57 17.3
	F	18	25								h 51 km. Mb 4.9
											New Ireland region.
Sep. 27	iP	3	50	52	-	6	4.1				6.4N 77.4W, H: 03 38 36.2
	ePP	3	54	05							h 8 km. Mb 5.8, Ms 6.5
	iS	4	01	00							Near west coast of Colombia.
	eSS	4	06.4								
	eL	4	13			22			72.5	7.1	
	F	7.0									
	WIT: eP	3	50	56.5							
	RSB: eP	3	50	53							
Sep. 27	eL	16	05								39.3N 20.1E, H: 15 56 32.2
	F	16	15								h 23 km. Mb 4.2
											Greece-Albania border region.
Sep. 28	ePP	7	20	11							56.3S 27.3W, H: 07 01 06.2
	eL	7	53								h 107 km. Mb 5.4
	F	8.4									South Sandwich Islands region.
Sep. 28	eL	11	50.0								57.2N 33.4W, H: 11 39 08.9
	F	12	00								h N, Mb 4.6
	RSB: eP	11	44	20							North Atlantic Ridge.

Date 1970	Phase	G.M. Time h m s	First motion	Period s	Amplitude μ Z	Amplitude μ NS	Amplitude μ EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Sep. 28	iP	17 33 29	-						53.3N 158.7E, H: 17 22 12.1
	WIT: iP	17 33 23.9	-						h 118 km. Mb 5.4
	RSB: iP	17 33 36	-						Near east coast of Kamchatka.
Sep. 28	eL	24 00							57.2N 33.5W, H: 23 49 32.0
	F	in next shock							h N, Mb 4.8, Ms 4.7
	RSB: eP	23 54 41							North Atlantic Ocean.
Sep. 29	eL	0 07.6		16			2.0	4.6	57.3N 33.3W, H: 23 57 04.1
	F	0.6							h N, Mb 4.9, Ms 4.7
	RSB: eP	0 02 13							North Atlantic Ocean.
Sep. 29	iP	4 54 42							11.5N 85.5W, H: 04 42 46.6
	ipP	4 55 28							h 192 km. Mb 5.4
	eL	5 21							Nicaragua.
	F	5 42							
	WIT: eP	4 54 47.5	+						
	RSB: eP	4 54 46	+						
Sep. 29	ePKP	6 23 02							13.5S 166.5E, H: 06 03 26.0
	ePP	6 25 39							h 59 km. Mb 5.8
	iSKP	6 26 05							New Hebrides Islands.
	eSS	6 43 48							
	eSSS	6 48.7							
	eL	7 09		22			4.0	6.2	
	F	9.0							
	WIT: iPKP	6 22 50.7	-						
	e	6 23 07.0	+						
	RSB: ePKP	6 22 51							
Sep. 29	eL	17 33							20.6N 122.2E, H: 16 45 02.3
	F	17.9							h 51 km. Mb 4.8
									Philippine Islands region.
Sep. 30	eL	10 41		20			7.5	6.1	20.6N 122.0E, H: 09 52 22.7
	F	11.6							h N, Mb 5.1, Ms 5.3
									Philippine Islands region.

Date 1970	Phase	G.M. Time h m s	First motion	Period s	Amplitude μ Z	Amplitude μ NS	Amplitude μ EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Oct. 1	eL	22 32.5							38.1N 22.8E, H: 22 21 54.9
	F	22 38							h 24 km. Mb 4.7
									Greece.
Oct. 1	eP	22 42 55							38.0N 22.8E, H: 22 38 35.3
	iS	22 46 28							h 29 km. Mb 5.0
	eL	22 48							Greece.
	F	22 56							
	WIT: eP	22 42 49							
Oct. 2	eL	06 17							6.8S 154.9E, H: 06 15 32.8
	F	08.5							h 54 km. Mb 5.4
									Solomon Islands.
Oct. 3	eL	00 58							d.b.m. 55.2N 163.2E, H: 00 16
	F	01 13							25.9, h 31 km. Mb 5.2
									Off east coast of Kamchatka.
Oct. 3	eL	11 42							d.b.m. 6.1S 150.5E, H: 10 34
	F	12.0							09.8, H 23 km. Mb 5.0, Ms 5.5
									New Britain region.
Oct. 5	RSB: iPKP	20 00 45	+						15.8S 177.7W, H: 19 41 58.2
									h 456 km. Mb 4.8
									Fiji Islands region.
Oct. 5	eL	23 30.5							44.0N 15.8E, H: 23 24 23.0
	F	23 33							h 49 km. Mb 5.0
	RSB: eP	23 26 42							Yugoslavia.
Oct. 6	eL	22 05							6.2N 77.6W, H: 21 25 21.0
	F	22.3							h 33 km. Mb 5.2
	WIT: eP	21 37 36							Near west coast of Colombia.
	RSB: eP	21 37 42							
Oct. 6	eL	22 31							39.1N 71.6E, H: 22 06 26.8
	F	22 36							h 68 km. Mb 5.2
	WIT: eP	22 14 45							Tadzhik SSR.
	RSB: eP	22 14 49							
Oct. 7	RSB: iPKP	19 02 42							16.4S 172.4W, H: 18 43 01.2
									h 14 km. Mb 5.1
									Samoa Islands region.
Oct. 8	eL	03 56							3.3S 130.6E, H: 02 58 14.4
	F	04 19							h N, Mb 4.9
									Ceram.
Oct. 8	WIT: ePKP	04 07 54.0							19.3S 173.5W, H: 03 48 13.3
	RSB: ePKP	04 07 59							h 40 km. Mb 5.2
									Tonga Islands.

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Oct. 8	eL	05	28								53.8N 160.4E, H: 04 53 21.8
	F	06	20								h 53 km. Mb 5.6
	WIT: iP	05	04	39.8	+						Near east coast of Kamchatka.
	RSB: iPKP	05	04	52	+						
Oct. 8	WIT: iPKP	07	17	55.2	-						21.6S 179.1W, H: 06 59 10.6
											h 577 km. Mb 5.0
											Fiji Islands region.
Oct. 8	WIT: eP	13	13	57.5	+						50.4N 176.2W, H: 13 02 04.7
											h 38 km. Mb 5.1
											Andreanof Is., Aleutian Is.
Oct. 8	eL	22	24.0								38.3N 20.2E, H: 22 14 23.5
	F	22	34								h 57 km. Mb 4.5
	RSB: eP	22	18	19							Greece.
Oct. 8	iP	23	48	13	+						43.8N 147.4E, H: 23 36 09.7
	iZ	23	48	28							h 15 km. Mb 5.8, Ms 5.6
	eS	23	58	32							Kuril Islands.
	eL	00	11			20		2.3		5.5	
	F	01.7									
	WIT: iP	23	48	09.7	+						
	RSB: iP	23	48	20	+						
Oct. 9	eL	01	08.2								37.9N 19.9E, H: 00 58 43.6
	F	01	22								h 14 km. Mb 4.6
	RSB: eP	01	02	45							Ionian Sea.
Oct. 9	eL	01	44.0								39.0N 71.6E, H: 01 18 44.1
	F	02.1									h 81 km. Mb 5.1
	WIT: eP	01	26	58.5							Tadzhik SSR.
	RSB: eP	01	27	06							
Oct. 9	eL	08	44								35.0N 13.7E, H: 07 33 39.2
	F	08	00								h N, Mb 4.3. Mediterranean
	WIT: eP	07	37	55.0							Sea.
Oct. 9	eL	11	12								9.8N 126.4E, H: 10 16 15.3
	F	11	32								h 35 km. Mb 5.2, Ms 4.7
											Mindanao, Philippine Islands.
Oct. 9	eL	14	15								39.1N 71.7E, H: 13 48 52.6
	F	14	21								h 46 km. Mb 5.2
	WIT: eP	13	57	12							Tadzhik SSR.

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Oct. 10	eP	09	05	57	-						3.6S 86.2E, H: 08 53 04.8
	ePP	09	09	12							h N, Mb 5.9, Ms 6.3
	eL	09	35			19		12.0		6.3	South Indian Ocean.
	F	11.9									
	WIT: eP	09	06	00							
	RSB: eP	09	05	54							
Oct. 10	eL	13	57.2								38.0N 19.9E, H: 13 48 23.5
	F	14	10								h 18 km. Mb 4.6
											Ionian Sea.
Oct. 10	eL	15	13								No determination of
	F	15	25								epicenter.
Oct. 10	ePKP1	22	19	40							31.9S 177.9W, H: 21 59 42.9
	ePKP2	22	20	17							h N, Mb 5.9, Ms 6.2
	iPP	22	24	00							Kermadec Islands region.
	iPPS	22	37	34							
	iSS	22	44	13							
	eL	23	19			20		3.9		6.2	
	F	01.6									
	WIT: ePKP	22	19	39							
	RSB: ePKP2	22	20	19							
Oct. 11	iPKP1	03	36	47	+	8	1.7				31.8S 178.1W, H: 03 16 49.6
	iPKP2	03	37	27							h N, Mb 5.6, Ms 6.3
	iPP	03	41	10							Kermadec Islands region.
	eSKSP	03	51	35							
	iPPS	03	54	26							
	iSS	04	01	17							
	eL	04.6				20		8.9		6.6	
	F	in next shock									
	WIT: ePKP1	03	36	49.5							
	ePKP2	03	37	22.0							
	RSB: ePKP2	03	37	31							
Oct. 11	WIT: eP	03	42	43.5							26.7N 129.7E, H: 03 30 01.9
											h 27 km. Mb 5.3
											Ryukyu Islands.
Oct. 11	WIT: eP	05	41	15.0							43.5N 147.7E, H: 05 29 17.3
	RSB: eP	05	41	25							h 50 km. Mb 5.2, Ms 5.4
											Kuril Islands.
Oct. 11	iPKP2	05	58	34							32.1S 177.8W, H: 05 38 06.0
	iSS	06	22	34							h 32 km. Mb 5.6, Ms 6.1
	eL	07.0				20		3.0		6.2	South of Kermadec Islands.
	F	08.6									Disturbed by preceding
	WIT: ePKP2	05	58	40							Kermadec-shock.
	RSB: e	05	58	(50)							

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Oct. 11	WIT: iP	10	37	54.7	-						53.8N 160.7E, H: 10 26 34.4 h N, Mb 5.0 Near east coast of Kamchatka.
Oct. 11	eL	11	21								26.6N 129.7E, H: 10 31 33.0 h N, Mb 4.9 Ryukyu Islands.
	F	11	40								
Oct. 12	eL	08	25								32.0S 178.0W, H: 06 59 58.3 h N, Mb 5.1, Ms 5.2 South of Kermadec Islands.
	F	09.4									
Oct. 12	WIT: iP	09	44	14.2	+						42.8N 131.0E, H: 09 33 36.6 h 555 km. Mb 5.2 Eastern Russia-Northeastern China border region.
Oct. 12	eL	20	47								30.1N 113.4W, H: 20 05 34.5 h N, Mb 5.2 Gulf of California.
	F	21	06								
	WIT: eP	20	17	53							
Oct. 13	WIT: ePKP	04	19	11.5							18.8S 176.0E, H: 03 59 35.9 h N, Mb 5.3 Fiji Islands region.
Oct. 13	eL	05	35								23.7S 70.5W, H: 04 39 28.4 h 25 km. Mb 5.1, Ms 5.2 Near coast of northern Chile.
	F	05	37								
Oct. 13	ePP	19	13	40							4.1S 143.0E, H: 18 53 30.0 h 120 km. Mb 5.7 New Guinea.
	ePS	19	23.4								
	eL	19	49								
	F	20.5									
	WIT: iPKP	19	12	10.0	-						
Oct. 14	iP	06	06	07	+	3	7.0				73.3N 55.1E, H: 05 59 57.1 h 0 km. Mb 6.7, Ms 5.1 Novaya Zemlya.
	eL	06	14								
	F	07.0									
	WIT: iP	06	05	57.4	+						
	HEE: iP	06	06	14							
Oct. 14	eL	07	57								43.8N 146.9E, H: 07 14 26.2 h 40 km. Mb 4.6 Kuril Islands.
	F	08	20								
Oct. 14	eL	10	36								36.4N 143.2E, H: 10 04 42.4 h 41 km. Mb 4.5 Off east coast of Honshu, Japan.
	F	11	10								

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Oct. 14	WIT:iPKP	10	59	30.0	+						18.1S 178.5W, H: 10 40 58.0, h 609 km, Mb 5.3, Fiji Islands region.
Oct. 14	WIT:eP	14	41	59.5							37.1N 116.0W, H: 14 30 00.0, h 0 km, Mb 5.5, Southern Nevada.
Oct. 14	eL	16	46								43.4N 148.0E. H:16 00 34.1 h 42 km. Mb 5.2. Kuril Islands region
	F	17.3									
	WIT:eP	16	12	33.0							
	i	16	12	45.5	+						
	RSB:eP	16	12	44							
Oct. 14	WIT: eP	18	18	00							43.5N 147.8E, M:18 05 59.9. h 33 km. Mb 5.1 Kuril Islands.
	RSB: eP	18	18	10							
Oct. 14	iP	18	27	43		10	2.4				43.5N 148.0E. H:18 15 37.3, h 30 km. Mb 5.5, Ms 6.0. Kuril Islands region.
	eS	18	37	45							
	eSS	18	42	51							
	eL	18	53			20			9.1	6.2	
	F	in next shock									
	WIT: eP	18	27	37.5							
	RSB: eP	18	27	47							
Oct. 14	iP	21	26	03		6	1.1				43.5N 147.0E. H: 21 14 00.9, h 41 km. Mb 5.4, Ms 5.6. Kuril Islands.
	ePP	21	29	12							
	eS	21	36	18							
	eSS	21	41	24							
	eL	21	50			20		6.2	6.0		
	F	23.3									
	WIT: eP	21	25	57.5							
	RSB: eP	21	26	08	+						
Oct. 15	eL	04	22								39.8N 77.2E, H:03 55 16.1, hN, Mb 4.9. Southern Sin-Kiang Province, China.
	F	04	30								
Oct. 15	eL	05	10								39.8N 77.2E. H:04 42 19.0, hN. Mb 4.6. Southern Sinkiang Province, China.
	F	05	17								
Oct. 15	WIT: iPKP	12	31	58.0	+						17.6S 178.8W, H:12 13 23.6. h564 km. Mb 5.1. Fiji Islands region.
	RSB: iPKP	12	32	04	+						
Oct. 15	eL	16	12								42.0N 144.3E, H:15 25 22.3 h 56 km. Mb 4.7. Hokkaido, Japan region.
	F	16	31								
Oct. 16	WIT: e	02	26.2								No determination of epicenter.
	RSB: e	02	26	10							

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Oct. 16	iP	05	38	28	+	4	1.5				39.3N 140.7E, H: 05 26 13.3,
	eS	05	48	38							h 24 km, Mb 5.9, Ms 5.8,
	eSS	05	53.9								Honshu, Japan.
	eL	06	02			18			11.9	6.2	
	F	08.0									
	WIT:eP	05	38	22.0	+						
	RSB:eP	05	38	32							
Oct.17	eS	02	00	06							40.5N 35.8E, H: 01 50 23.9,
	eL	02	04.5								h N, Mb 4.2, Turkey.
	F	02	17								
	RSB e	01	55	28							
Oct.17	eL	03	55								24.0N 122.0E, H: 03 10 54.8,
	F	04	23								h 51 km, Mb 4.8, Taiwan region.
Oct.17	eL	06	00								41.4N 79.2E, H: 05 33 15.2,
	F	06	11								h N, Mb 5.0, Kirgiz-Sinkiang border region.
Oct.18	WIT:ePKP	01	26	14.0							25.7S 178.6E, H: 01 07 20.9, h 572 km, Mb 4.9, South of Fiji Islands.
Oct.18	eL	06	36								27.3N 55.0E, H: 06 10 39.1,
	F	07.0									h 40 km, Mb 4.8, Iran.
	RSB:eP	06	18	43							
Oct.18	WIT:ePKP	09	39	08.0							16.7S 172.1W, H: 09 19 33.2,
	RSB:ePKP	09	39	11							h 35 km, Mb 5.5 Ms 5.1, Samoa Islands region.
Oct.18	WIT:ePKP	16	33	56.5							22.9S 176.0W, H: 16 14 06.9, h 30 km, Mb 5.0, South of Fiji Islands.
Oct.18	WIT:ePKP	20	51	10.5							5.1S 152.1E, H: 20 32 16.9, h 68 km, Mb 5.4, New Britain region.
Oct.21	eL	08	25								d.b.m. 74.6N 8.4E, H: 08 14
	F	08.6									14.1, h N, Mb 5.5, Ms 5.2,
	WIT:iP	08	19	03.0	-						Greenland Sea.
Oct.21	eL	16	16								d.b.m. 7.7N 37.6W, H: 15 50
	F	16.6									05.5, h N, Mb 5.3, Ms 5.5, Central Mid-Atlantic Ridge.
Oct.22	eL	07	16			20			1.8	5.7	36.5S 97.2W, H: 06 14 00.2,
	F	08.0									h N, Mb 5.3, Ms 5.6, West Chile Rise.

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Oct.23	WIT:iP	00	06	05.0	-						48.0N 145.5E, H: 23 55 20.0,
	RSB:eP	00	06	15	-						h 479 km, Mb 5.1, Sea of Okhotsk.
Oct.23	eL	12	03								36.5S 97.2W, H: 11 01 28.4,
	F	12.8									h N, Mb 5.5, Ms 5.5, West Chile Rise.
Oct.23	RSB:eP	15	06	31							BCIS: 51.2N 9.9E, H: 15 05 00.6, h 0 km, Germany, Quarryblast.
Oct.25	eL	11	40								36.8N 45.1E, H: 11 22 18.2,
	F	11.9									h 19 km, Mb 5.5, Ms 4.8,
	WIT:eP	11	28	38.5							Iran-Iraq border region.
Oct.25	eL	12	41								13.7S 66.3E, H: 12 00 35.2,
	F	13.3									h 24 km, Mb 5.8, Ms 5.9,
	WIT:eP	12	13	11.0							Mid-Indian Rise.
Oct.25	iP	15	22	09	-						9.0N 93.9E, H: 15 09 49.4,
	ePP	15	25	11							h N, Mb 5.5, Ms 6.3,
	iS	15	32	31							Nicobar Islands region.
	eL	15	49			19			12.2	6.3	
	F	17.0									
	WIT:eP	15	22	08							
	i	15	22	15.5	-						
Oct.26	WIT:iPKP	08	31	30.4	+						18,2S 177,9W, H: 08 12 57.7 h 609 km Mb 5.1. Fiji Islands region.
Oct.26	eL	13	50								6.7N 82.5W. H: 13 10 13.2
	F	14.1									h N, Mb 4.8. South of Panama.
Oct.26	iP	20	59	25	-						79.8N 2.7E, H: 20 53 32.4,
	iPP	21	00	05							h 32 km, Mb 5.6, Ms 5.7,
	iPcP	21	02	35							Greenland Sea.
	eS	21	04	08							
	eL	21	05.3								
	F	22.6									
	WIT:eP	20	59	18.5							
	RSB:eP	20	59	30							
Oct.28	eL	23	24								No determination of epicenter.
	F	23	39								
Oct.28	eL	23	42								16.4S 177.5W, H: 22 27 01.0,
	F	24.2									h N, Mb 4.9, Fiji Islands region.
	RSB:ePKP	22	46	37							
Oct.29	eL	03	24								40.9S 80.5E, H: 02 23 24.7,
	F	04.9									h N, Mb 5.9, Ms 5.9, Mid-Indian Rise.

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Oct. 29	WIT:ip	19	42	28.4	-						44.6N 149.0E, H: 19 30 35.8,
	RSB:eP	19	42	40							h 67 km, Mb 5.2, Kuril Islands
Oct. 31	iPKP	18	12	26	+						4.9S 145.5E, H: 17 53 09.3,
	iPP	18	13	46							h 42 km, Mb 6.0, Ms 7.0,
	iPS	18	23	37							Near north coast of New
	eSS	18	30.6								Guinea.
	eSSS	18	34.1								
	eL	18	44			20		46.0		7.2	
	F	21.3									
	WIT:ePKP	18	12	04							
	ePP	18	13	38							
	RSB:ePKP	18	12	26							

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Nov. 1	eL	12	13								d.b.m. 4.8S 145.7E, H: 11 07
	F	12	26								40.7, h N, Mb 5.5, Ms 5.1.
											Near north coast of New
											Guinea.
Nov. 2	eL	11	25								d.b.m. 15.5S, 176.2W, H: 10
	F	12.0									13 36.3, h 44 km, Mb 5.4,
											Ms 5.7. Fiji Islands region.
Nov. 2	WIT:eP	02	40	40.5							62.0N 151.2W, H: 02 30 11.4,
	RSB:eP	02	40	52							h 70 km, Mb 5.6. Central
											Alaska.
Nov. 3	WIT:e	08	47.0								BCIS: 50.4N, 4.5E, H: 08 46
	RSB:iP	08	46	20	-						00.0 Belgium.
Nov. 3	eL	16	02								d.b.m. 18.4N 120.9E, H: 15
	F	16	13								12 11.6, h 41 km, Mb 5.5,
											Luzon, Philippine Islands.
Nov. 4	RSB:iPKP	18	02	49	+						20.0S 169.3E, H: 17 43 11.1,
											h 44 km, Mb 5.2, New Hebrides
											Islands.
Nov. 5	eL	13	51								6.9N 82.6W, H: 13 11 53.5,
	F	14	13								h N, Mb 5.6, Ms 5.6. South of
	WIT:iP	13	24	24.1	-						Panama.
Nov. 6	eL	07	25.0								63.8N 22.7W, H: 07 15 43.8,
	F	07	35								h 8 km, Mb 4.5. Iceland
											region.
Nov. 6	eL	11	34.8								63.8N 23.3W, H: 11 25 24.9,
	F	11	42								h N, Mb 4.3. Iceland region.
Nov. 7	eS	23	42	08							18.5N 120.9E, H: 23 18 24.0,
	eL	00	03								h 55 km, Mb 5.4, Luzon
	F	00	45								Philippine Islands.
	WIT:eP	23	31	15.0							
	e	23	31	26.0							
	RSB:eP	23	31	33							
Nov. 8	eL	09	51								32.2N 101.3E, H: 09 15 55.6,
	F	10	15								h 38 km, Mb 5.1, Ms 5.2,
	WIT:eP	09	26	50.5							Szechwan Province, China.
	RSB:eP	09	27.0								
Nov. 8	eP	15	12	48	-						9.1N 126.3E, H: 14 58 53.6,
	eSP	15	25	58							h 22 km, Mb 5.7, Ms 5.8,
	eL	15	48			22		5.0		6.0	Mindanao, Philippine Islands.
	F	17.0									
	RSB:eP	15	12.8								

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Nov. 8	iPP	22	55	36							3.4S 135.6E, H: 22 35 46.7,
	iSKP	22	58	12							h N, Mb 6.2, Ms 6.8 West
	iSP	23	05	16							New Guinea region.
	eSS	23	11	44							
	eL	01	25			21			29.5	6.9	
	F	02.2									
Nov. 9	RSB: eP	17	49	36							29.5N 56.9E, H: 17 41 42.2,
											h 106 km, Mb 5.5. Southern
											Iran.
Nov. 10	RSB: eP	00	38	18							34.6N 136.7E, H: 00 26 21.6,
											h 349 km, Mb 5.3. Honshu,
											Japan.
Nov. 10	eL	02	10								9.1N 126.5E, H: 01 16 46.1,
	F	02.6									h N, Mb 5.4, Mindanao,
											Philippine Islands.
Nov. 10	eL	15	12								32.0S 178.1W, H: 13 47 34.1,
	F	15.7									h 37 km, Mb 5.4, South of
	RSB: ePKP	14	08	14							Kermadec Islands.
Nov. 11	eL	21	10.6			18		6.8		5.1	36.1N 28.2E, H: 20 58 13.2,
	F	21.4									h 43 km, Mb 4.9. Dodecanese
											Islands.
Nov. 11	eL	22	13								11.6S 13.9W, H: 21 40 26.8,
	F	22.4									h N, Mb 4.9, Ms 5.0,
											Ascension Island region.
Nov. 12	iPP	06	28	00							5.1S 145.1E, H: 06 07 12.4,
	eSP	06	37	42							h 15 km, Mb 5.9, Ms 6.5,
	ePPS	06	39	14							East New Guinea region.
	eSS	06	43	24							
	eL	06	58			20		14.3		6.6	
	F	09.7									
Nov. 13	eL	01	00								22.1S 70.0W, H: 00 08 59.9,
	F	01.2									h 36 km, Mb 5.6, Ms 5.1,
											Near coast of Northern Chile.
Nov. 13	eP	14	29	44	(-)						11.9N 124.0E, H: 14 16 18.0,
	ePP	14	34	28							h 15 km, Mb 5.4, Ms 6.3,
	ePPP	14	36	42							Leyte, Philippine Islands.
	eS	15	40	44							
	eL	15	00			20			30.0	6.7	
	F	17.6									
	RSB: eP	14	30	05							

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Nov. 14	ePP	05	10	28							12.6N 143.3E, H: 04 51 37.8,
	eL	05	45								h 95 km, Mb 5.5. South of
	F	06.3									Mariana Islands.
Nov. 14	iP	08	11	04	+						22.7N 121.3E, H: 07 58 19.8,
	iPP	08	14	28							h 28 km, Mb 5.7, Ms 6.1,
	eS	08	21	30							Taiwan region (2 killed).
	eSP	08	22	41							
	eSS	08	27	28							
	eL	08	39			20		57.0		7.0	
	F	10.5									
	WIT: iP	08	11	00.5	+						
	RSB: iP	08	11	06	-						
Nov. 15	WIT: iPKP	03	32	29.1	+						22.9S 177.1W, H: 03 12 56.7,
	RSB: ePKP	03	32	23	+						h 171km, Mb 5.2,
											South of Fiji Islands.
Nov. 16	eL	05	23								43.2N 81.2E, H: 04 57 32.9,
	F	05	47								h 24 km, Mb 5.2, Northern
	RSB: eP	05	06	36							Sinkiang Province, China.
Nov. 16	eL	07	47								6.1S 148.6E, H: 06 44 21.4,
	F	08	22								h 81 km, Mb 5.5. New
											Britain region.
Nov. 16	eL	22	28								1.0S 126.9E, H: 21 32 58.8,
	F	23.1									h N, Mb 5.4, Ms 5.2,
											Molucca Sea.
Nov. 17	eL	08	19								29.4N 142.2E, H: 07 32 53.5,
	F	08.7									h N, Mb 5.1. South of Honshu,
											Japan.
Nov. 18	eL	03	05								6.1S 154.4E, H: 01 57 26.0,
	F	03.7									h 15 km, Mb 5.2, Ms 5.6.
											Solomon Islands.
Nov. 18	eL	10	46								3.7S 148.9E, H: 09 45 28.5,
	F	11	16								h N, Mb 4.9, Ms 5.8.
											Bismarck Sea.
Nov. 18	iP	12	30	01	-						35.1N 35.7W, H: 12 23 18.0,
	eS	12	35	32							h N, Mb 5.4, Ms 6.0, North
	eL	12	37.3			20		25.0		6.0	Atlantic Ridge.
	F	13.9									
Nov. 18	WIT: iPKP	17	01	56.7	-						21.9S 175.2E, H: 16 43 14.1,
	RSB: iPKP	17	02	01	-						h 570 km, Mb 5.6, South of
	i	17	02	09							Fiji Islands.
Nov. 18	eL	21	13								28.7S 112.7W, H: 20 10 58.2,
	F	21.8									h N, Mb 5.6, Ms 5.8. Easter
											Island region.

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Nov.20	eL	08	46								36.4S 97.3W, H: 07 42 01.8,
	F	09	12								h N, Mb 4.9, Ms 5.6. West Chile Rise.
Nov.20	iP	14	00	26	+	4	2.2				43.5N 146.9E, H: 13 48 23.7,
	eL	14	25			20		3.2		5.7	h 36 km, Mb 5.7, Ms 5.4,
	F	15.2									Kuril Islands.
	WIT:iP	14	00	21.0	+						
	RSB:iP	14	00	30	+						
Nov.21	eL	01	56								20.4S 174.2W. H: 00 28 14.5,
	F	02.3									h N, Mb 5.2, Ms 5.4. Tonga Islands.
Nov.21	eL	13	09								14.9N 120.1E, H: 12 19 39.2,
	F	13.5									h 47 km, Mb 5.5, Ms 5.2,
	RSB:eP	12	32	50							Luzon, Philippine Islands.
Nov.22	eL	03	06								41.5S 87.6W, H: 02 03 57.0,
	F	03	16								h N, Mb 4.6, Ms 5.2, West Chile Rise.
Nov.22	eL	06	57								No determination of epicenter.
	F	07	06								
Nov.22	eL	12	45								18.3N 146.0E, H: 11 53 59.1,
	F	13.2									h 91 km, Mb 5.5, Mariana Islands.
Nov.24	WIT:iP	05	18	15.5	+						47.4N 152.5E, H: 05 06 41.4,
	RSB:iP	05	18	25	+						h 136 km, Mb 5.3, Kuril Islands.
Nov.24	eL	12	11								47.5N 84.3E, H: 11 45 59.2,
	F	12	22								h N, Mb 4.9, Kazakh-Sinkiang border region.
Nov.24	eL	17	30								71.8N 2.5W, H: 17 20 13.5,
	F	17	36								h N, Mb 4.6, Jan Mayen Island region.
Nov.26	WIT:eP	02	02	34							34.6N 24.0E, H: 01 57 39.1,
	RSB:eP	02	02	22							h N, Mb 4.6, Crete.
Nov.26	iS	03	33	22							d.b.m. 43.8N 127.4W, H: 03 11
	iPS	03	34	00							42.8, h 14 km, Mb 5.6,
	eL	03	44.0								Ms 5.9. Off coast of Oregon.
	F	04.7									
	WIT:eP	03	23	33.0							
	e	03	23	39.0							
	e	03	23	49.5							
	RSB:eP	03	23	39							

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Nov.26	WIT:iPKP	16	35	23.7	-						23.4S 179.9E, H: 16 16 33.3
											h 549 km. Mb 4.7. South of Fiji Islands.
Nov.27	eL	10	21								24.2N 122.3E, H: 09 39 23.2,
	F	11.0									h 57 km, Mb 5.9. Taiwan region
	WIT:eP	09	51	55.0	+						
	RSB:iP	09	52	02	+						
Nov.27	eL	23	35								15.0N 122.8E, H: 22 44 33.8,
	F	24.0									h 33 km, Mb 4.7, Philippine Islands region.
Nov.28	ePP	01	15	16							1.0S 126.8E, H: 00 56 06.8,
	eSKS	01	21	21							h N, Mb 5.6. Molucca Sea.
	eSP	01	24	22							
	ePPS	01	25	48							
	eSS	01	30	20							
	eL	01	53								
	F	02.6									
Nov.28	eSP	11	35	31							20.9S 69.8W, H: 11 08 42.5,
	eSS	11	40.2								h 33 km, Mb 6.0, Ms 5.0,
	eL	11	58								Northern Chile.
	F	12.4									
	WIT:eP	11	22	32							
	RSB:eP	11	22	28							
Nov.28	eL	15	36								20.9S 69.9W, H: 14 45 31.7,
	F	15.9									h 34 km, Mb 5.9. Northern Chile.
Nov.28	iPP	20	43	03							4.1S 142.9E, H: 20 22 50.6,
	ipPP	20	43	36							h 114 km, Mb 5.8. New Guinea.
	iPPP	20	45	36							
	ePS	20	52	52							
	eSS	21	00								
	eL	21	21								
	F	22.9									
	WIT:ePKP	20	41	29.0							
	epPKP	20	42	04.0							
	RSB:ePKP	20	41	35							
Nov.29	eL	02	31								41.6N 81.8E, H: 02 03 37.4,
	F	02	37								h N, Mb 5.1. Southern Sinkiang Province, China.
Nov.29	iP	06	12	01							11.7S 14.1W, H: 06 01 18.7,
	iPP	06	14	26							h N, Mb 5.3, Ms 6.0.
	ePPP	06	16	03							Ascension Island region.
	iS	06	20	49							
	iSS	06	25	10							
	iSSS	06	28	20							
	eL	06	30			22			25.0	6.4	
	F	08.2									
	WIT:eP	06	12	15.0	-						
	RSB:eP	06	12	06							

Date 1970	Phase	G.M. Time h m s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Nov.29	eL	11 58.5							24.0N 45.1W, H: 11 35 35.7, h N, Mb 4.3. North Atlantic Ridge.
	F	12 04							
Nov.29	eL	15 59							41.6N 81.8E, H: 15 31 29.7, h N, Mb 4.7. Southern Sinkiang Province, China.
	F	16 07							
Nov.29	eL	20 42							15.3N 92.7W, H: 20 00 56.2, h 124 km, Mb 5.1, Mexico-Guatemala border region.
	F	20 54							
Nov.30	eL	17 51							11.4S 14.4W, H: 17 17 24.1, h N, Mb 4.7, Ascension Island region.
	F	18 00							

Date 1970	Phase	G.M. Time h m s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Dec. 1	eL	01 11.0							36.9N 9.7E, H: 01 02 44.2, h 24 km, Mb 5.1, Tunisia.
	F	01 16							
	WIT:iP	01 06 34.7	-						
	RSB:eP	01 06 25							
Dec. 1	WIT:iPg	10 50 02.0							50.3N 7.8E, H: 10 49 09.3, h 18 km, Mb 3.9, Germany.
	eSg	10 50 36.5							
	RSB:iP	10 49 35							
Dec. 1	eS	12 07 54							39.9N 38.8E, H: 11 57 29.1, h 21 km, Mb 4.7. Turkey.
	eL	12 12							
	F	12 23							
	WIT:iP	12 02 58.5	+						
	RSB:iP	12 03 04							
Dec. 1	iPP	18 36 48							11.0S 163.4E, H: 18 14 38.6, h N, Mb 5.5, Ms 6.1. Solomon Islands.
	eSS	18 54 38							
	eL	19 21		20		5.3		6.3	
	F	20.9							
Dec. 1	iP	21 21 28	+						51.4N 175.3W, H: 21 09 37.2, h 36 km, Mb 5.6, Ms 5.8. Andreanof Islands, Aleutian Islands.
	eS	21 31 18							
	ePS	21 32 00							
	eSS	21 36 34							
	eSSS	21 40 45							
	eL	21 46		19		5.2		5.8	
	F	24.0							
	WIT:eP	21 21 24.0							
	RSB:eP	21 21 35							
Dec. 1	RSB:ePKP	22 21 29							15.6S 173.2W, H: 22 01 54.1, h N. Mb 5.4, Tonga Islands.
Dec. 2	eP	02 46 45							51.4N 175.2W, H: 02 34 59.5, h 57 km, Mb 5.4, Andreanof Islands, Aleutian Islands.
	ePS	02 57 30							
	eSSS	03 06 10							
	eL	03 11		18		2.5		5.5	
	F	04 19							
	WIT:eP	02 46 44.5							
	RSB:eP	02 46 54							
Dec. 2	iP	09 15 04							51.4N 175.2W, H: 09 03 14.6, h 52 km, Mb 5.2. Andreanof Islands, Aleutian Islands.
	eL	09 46							
	F	10.7							
Dec. 2	RSB:eP	11 10 33							68.4N 67.4W, H: 11 03 09.8, h 27 km, Mb 4.9. Baffin Island region.

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Dec. 2	iPP	15	47	50							10.9S 163.5E, H: 15 25 46.7,
	eSS	16	05	36							h 36 km, Mb 5.3, Ms 6.5.
	eSSS	16	10	44							Solomon Islands.
	eL	16	21			20		10.6		6.6	
	F	in next shock									
	RSB: ePP	15	48.0								
Dec. 2	iPP	16	16	28							11.0S 163.3E, H: 15 54 19.9,
	eSS	16	34.2								h N Mb 5.8, Ms 7.0
	eSSS	16	39.0								Solomon Islands.
	eL	16	49			20		35.0		7.1	
	F	19.7									
	RSB: ePP	16	16	48							
Dec. 2	eL	19	48								35.9N 105.5E, H: 19 12 53.8,
	F	20	00								h 28 km. Mb 5.3, Ms 5.3.
											Kansu Province, China.
Dec. 3	eL	05	40			20			2.1	5.5	7.4N 76.1W, H: 04 59 53.4,
	F	06.1									h 38 km, Mb 5.7, Ms 5.5
	WIT: iP	05	12	10.5	+						Northern Colombia.
Dec. 3	eL	07	58								1.1S 126.8E, H: 07 02 46.6,
	F	08.8									h 26 km. Mb 5.8, Ms 5.5.
											Molucca Sea.
Dec. 4	eS	02	09	15							43.8N 39.1E, H: 01 59 29.1,
	eL	02	11.5								h N, Mb 4.9. Western
	F	02	40								Caucasus.
	WIT: eP	02	04	36.5							
	RSB: eP	02	04	41							
Dec. 4	eL	10	31								9.8N 79.7W, H: 09 51 16.1,
	F	11	10								h 20 km, Mb 5.3, Ms 5.2,
											Panama.
Dec. 4	HEE: i	15	44	26							No determination of epicenter
	RSB: i	15	44	24							Local shock.
Dec. 4	ePP	17	26	27							d.b.m. 23.1S 70.1W, H: 17 08
	eS	17	33.5								48.7, h 36 km, Mb 5.9, Ms 6.3.
	iPS	17	35	47							Near coast of Northern Chile.
	eSS	17	41	08							
	eL	17	51			20			10.6	6.3	
	F	19.8									
	WIT: eP	17	22	36.0							
	RSB: eP	17	22	30							
Dec. 5	WIT: ePKP	22	18	36.5	-						18.1S 175.4W, H: 21 59 25.3,
	RSB: ePKP	22	18	41	-						h 241 km, Mb 5.0. Tonga Is-
											lands.

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Dec. 6	iP	20	32	57	+						41.8N 143.5E, H: 20 20 52.2,
	eS	20	43	04							h 48 km, Mb 5.7, Ms 6.1,
	eSS	20	48	24							Hokkaido, Japan region.
	eL	20	57			21			20.0	6.5	
	F	23.1									
	WIT: iP	20	32	50.9	+						
	i	20	33	00.0							
	RSB: eP	20	33	01	+						
Dec. 7	iP	21	47	57	-	8	6.5				29.7N 140.0E, H: 21 35 21.4,
	ipP	21	48	51							h 179 km, Mb 5.9. South of
	iPP	21	51	36							Honshu, Japan.
	ipPP	21	52	32							
	iS	21	58	12							
	isS	21	59	32							
	eL	22	23								
	F	00.5									
	WIT: iP	21	47	54.0	-						
	ePP	21	51	29.0							
	RSB: eP	21	48	02	-						
Dec. 8	iP	19	44	18	+						30.7S 71.2W, H: 19 30 06.7,
	iPP	19	48	40							h 50 km, Mb 5.8, Ms 6.4,
	eSKS	19	55	12							Near coast of Central Chile.
	ePS	19	58	04							
	eSS	20	04	36							
	eSSS	20	07	36							
	eL	20	16			20			14.2	6.5	
	F	22.5									
	RSB: ePP	19	48	(42)							
Dec. 9	eP	08	15	25							d.b.m. 16.1N 99.4W, H: 08
	eL	08	44								02 43.3, h 34 km, Mb 5.5.
	F	10.1									Ms 5.4, Near coast of
	RSB: eP	08	15	28							Guerrero, Mexico.
Dec. 9	RSB: eP	16	41	00							1.4S 77.7W, H: 16 28 33.4,
											h 178 km, Mb 5.0. Ecuador.
Dec. 10	eP	04	47	40		8	18.0				4.0S 80.7W, H: 04 34 38.8,
	iPP	04	51	22							h 25 km, Mb 6.3, Ms 7.6.
	eSKS	04	58	14							Peru-Ecuador border region.
	iS	04	58	44							(81 killed)
	eSS	05	05.0								
	eL	05	14			21			175	7.5	
	F	09.1									
	WIT: eP	04	47	45.5	+						
	i	04	47	51.1	-						
	eP'P'	05	13	22.5							
	HEE: eP	04	47	54							
	e	04	48	08							

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Dec.10	eL	10	54								53.1N 169.8W, H: 10 15 07.2,
	F	11.8									h 48 km, Mb 5.5, Ms 5.3, Fox Islands, Aleutian Islands.
Dec.10	eL	12	21								4.0S 80.8W, H: 11 37 42.4,
	F	12.8									h 32 km, Mb 5.4. Peru-Ecuador border region.
Dec.11	WIT:eP	07	40	18.0							43.8N 28.4W, H: 07 34 54.5,
	i	07	40	22.8	+						h N, Mb 5.2, Ms 5.2. North Atlantic Ridge.
	RSB:eP	07	40	09							
Dec.11	iP	10	37	46	-						3.9S 80.7W, H: 10 24 36.2,
	eSKS	10	48	14							h 37 km, Mb 5.7, Ms 5.4. Peru-Ecuador border region.
	eS	10	48	34							
	ePS	10	49	40							
	eL	11	08								
	F	12.0									
	WIT:eP	10	37	48.0	+						
	i	10	37	53.0							
	RSB:eP	10	37	49							
Dec.12	WIT:iPKP	01	29	40.8	+						20.8S 178.0W, H: 01 10 41.2,
	i	01	30	08.0	+						h 411 km, Mb 5.5, Fiji Islands region.
	epPKP	01	31	21							
	RSB:iPKP	01	29	45							
Dec.12	eP	07	07	41	+						43.9N 54.8E, H: 07 00 57.3,
	eL	07	16.2			14			3.6	5.2	h 0 km, Mb 6.1. Western Kazakh SSR. WIT:Change of
	F	07	36								papers 07:07-07:10 GMT.
	RSB:eP	07	07	39	+						
Dec.12	WIT:eP	07	13	11.0	-						37.0N 10.0E, H: 07 09 21.7,
											h N, Mb 4.7. Tunisia.
Dec.13	eL	04	47								39.8N 139.4E, H: 04 03 42.5,
	F	05.0									h 14 km, Mb 5.4. Near west coast of Honshu, Japan.
	WIT:eP	04	15	49							
Dec.14	eP	07	45	46		6	1.8				1.3S 80.9W, H: 07 32 52.5,
	ePP	07	49	08							h N, Mb 5.4, Ms 5.7. Near coast of Ecuador.
	eS	07	56	20							
	eSPP	07	57	58							
	eL	08	16			19			3.5	5.8	
	F	09.3									
	RSB:eP	07	45	47							
Dec.14	eL	15	27								53.0N 169.9W, H: 14 48 11.8,
	F	16.2									h 50 km, Mb 5.3. Fox Islands, Aleutian Islands.

Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Dec.14	eL	21	48								53.0N 170.0W, H: 21 11 39.1,
	F	22.8									h 54 km, Mb 5.2, Fox Islands, Aleutian Islands.
Dec.15	WIT:ePKP	15	43	44.0							14.4S 167.3E, H: 15 24 37.4,
	i	15	43	46.0	+						h 182 km, Mb 5.8, New Hebrides Islands.
	RSB:iPKP	15	43	41							
Dec.16	WIT:eP	01	13	07.0	+						6.0N 77.5W, H: 01 00 46.9,
	RSB:iP	01	13	04	+						h 14 km, Mb 5.6, Ms 5.2, Near west coast of Colombia.
Dec.16	eL	09	25								8.7N 83.2W, H: 08 44 22.0,
	F	09	45								h 64 km, Mb 5.1. Costa Rica.
Dec.16	e	13	18								56.9S 25.1W, H: 12 18 53.0,
	F	13.6									h 30 km, Mb 4.8. South Sandwich Island region.
Dec.17	RSB:eP	07	09	13							49.7N 78.1E, H: 07 00 57.4,
											h 0 km, Mb 5.5, Eastern Kazakh SSR.
Dec.17	eL	09.6									56.0S 27.5W. H: 08 42 21.5,
	F	10.0									h 115 km, Mb 5.9. South Sandwich Islands region.
Dec.17	WIT:iP	16	17	00.2	+						37.1N 116.1W, H: 16 05 00.2,
	RSB:eP	16	17	04							h 0 km, Mb 5.7, Southern Nevada.
Dec.19	ePP	00	07	40							5.1N 123.5E, H: 23 50 12.2,
	ePPP	00	10	00							h 511 km, Mb 5.5. Mindanao, Philippine Islands.
	eSKS	00	13	16							
	iS	00	14	16							
	esS	00	17	16							
	isPS	00	19	22							
	eSS	00	22	04							
	esSS	00	24	48							
	esSSS	00	29	24							
	F	01.3									
	WIT:eP	00	03	12.5							
	i	00	03	15.9							
	RSB:eP	00	03	20							
Dec.19	eL	03	36								5.6S 151.9E, H: 02 28 55.9,
	F	04.0									h 56 km, Mb 5.6. New Britain region.

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Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Dec.19	iP	10	51	22	+						1.6S 99.9E, H: 10 38 05.2,
	eSKS	11	02	20							h 46 km, Mb 5.8, Ms 6.2,
	ePS	11	04	00							Southern Sumatra.
	eL	11	25			18			7.1	6.2	
	F	13.1									
	WIT:eP	10	51	19							
	RSB:eP	10	51	21	+						
Dec.20	eP	11	06	32							39.4N 29.2E, H: 11 01 48.0,
	eS	11	10	32							h 38 km, Mb 5.0. Turkey.
	eL	11	11.5			18		8.4		5.2	
	F	11	36								
	WIT:iP	11	06	25.5							
	RSB:iP	11	06	20							
Dec.20	WIT:iPKP	12	14	24.0	+						17.8S 180.0W, H: 11 55 56.7,
	RSB:iPKP	12	14	30	+						h 635 km, Mb 4.9. Fiji
											Islands region.
Dec.20	RSB:ePg	13	48	55							BCIS: 50.5N 4.3E, H: 13 48
											34.0 Belgium.
Dec.21	eL	13	49								9.2N 126.7E, H: 12 53 35.9,
	F	14.3									h N, Mb 5.2, Ms 5.2
											Mindanao, Philippine Islands.
Dec.21	eL	15	43								9.1S 116.4E, H: 14 40 45.0,
	F	16.0									h 92 km, Mb 5.9. Sumbawa
											Island region.
Dec.22	WIT:ePKP	05	56	42.0							d.b.m. 20.8S 169.8E, H: 05
	RSB:ePKP	05	57	19							37 47.9, h 119 km. Mb 5.6.
											New Hebrides Islands.
Dec.22	eL	16	12								20.5S 68.6W, H: 15 19 36.6,
	F	16	32								h 115 km, Mb 5.5 Chile-
											Bolivia border region.
Dec.22	eS	21	05	47							d.b.m. 28.3N 43.9W, H: 20 51
	eL	21	11								16.2, h N, Mb 5.3, Ms 5.4,
	F	in next shock									North Atlantic Ridge.
	WIT:eP	20	59	26.0							
Dec.22	eS	21	07.7								d.b.m. 28.3N 43.9W, H: 20 53
	eL	in preceding shock									04.3, h N, Mb 5.4,
	F	21	40								North Atlantic Ridge.
	WIT:iP	21	01	15.8	-						
	e	21	01	20.5							

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Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Dec.23	eL	07	21								43.8N 54.8E, H: 07 00 57.3,
	F	07	28								h 0 km, Mb 6.1, Western
	WIT:iP	07	07	32.9	+						Kazakh SSR.
	RSB:eP	07	07	39							
Dec.23	eL	12	36								12.3N 142.9E, H: 11 42 47.4,
	F	13.1									h 49 km, Mb 5.7, Ms 4.9,
											South of Mariana Islands.
Dec.23	eL	16	04								15.9N 93.8W, H: 15 23 39.1,
	F	16.4									h 90 km. Mb 5.3, Near coast
	WIT:eP	15	36	01.0							of Chiapas, Mexico.
	RSB:eP	15	35	59							
Dec.24	eS	08	23	12							16.1N 93.6W, H: 08 00 37.6,
	eL	08	39								h 116 km, Mb 5.6, Chiapas,
	F	09.3									Mexico.
	WIT:iP	08	12	55.3							
	RSB:eP	08	12	53							
Dec.24	WIT:eP	08	34	05.5							51.5N 178.3W, H: 08 22 20.8,
											h 54 km, Mb 5.3, Andreanof
											Island, Aleutian Island.
Dec.25	iP	13	03	14	+						0.3S 19.2W, H: 12 53 37.4,
	eS	13	11	06							h N, Mb 5.5, Ms 5.7,
	eL	13	20.2			19		11.0		6.0	Central Mid-Atlantic Ridge.
	F	14.3									
	WIT:eP	13	03	23.5	+						
	e	13	03	35.5							
	RSB:eP	13	03	11							
Dec.26	eL	10	45								9.3N 94.1E, H: 10 02 47.9,
	F	11.6									h 47 km, Mb 5.4, Ms 5.5,
	WIT:eP	10	15	02.5							Nicobar Islands region.
	e	10	15	07.0							
	RSB:eP	10	15	05							
Dec.26	RSB:iPKP	19	25	16	-						16.0S 178.2E, H: 19 05 46.9,
											h 86 km, Mb 5.3, Fiji
											Islands.
Dec.27	WIT:iPKP	10	32	25.1	+						20.4S 178.5W, H: 10 13 42.5,
											h 557 km, Mb 4.5, Fiji
											Islands region.
Dec.27	WIT:eP	20	56	43.5							44.9N 150.7E, H: 20 44 48.9,
											h 48 km. Mb 5.2, Kuril
											Islands region.

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Date 1970	Phase	G.M. Time h	m	s	First motion	Period s	Amplitude μ Z	NS	EW	Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
Dec.28	ePP	20	24	22							5.2S 153.6E, H: 20 03 25.1, h 61 km, Mb 6.0, New Ireland region.
	ePKS	20	25	24							
	eSKS	20	29	22							
	eSKKS	20	31	12							
	eSKSP	20	34	16							
	ePS	20	34	36							
	ePPS	20	36	01							
	eSKKS	20	39.0								
	eSS	20	41	24							
	eL	20	58			22			13.4	6.6	
	F	23.1									
	WIT:ePKP	20	22	21.0							
	i	20	22	44.0							
	RSB:ePKP	20	22	28							
Dec.29	iPKP	02	45	24	+						10.5S 161.4E, H: 02 26 12.2, h 72 km, Mb 6.1, Solomon Islands.
	iPP	02	47	59							
	ePKS	02	48	52							
	ePS	02	58	12							
	iZ	03	00	04							
	eL	03.4				20		13.0		6.7	
	F	05.7									
	WIT:ePP	02	47.8								
	RSB:ePP	02	48.0								
Dec.29	eP	08	14	57							3.9S 80.9W, H: 08 01 59.3, h 47 km, Mb 5.8, Ms 5.2, Peru-Ecuador border region.
	eS	08	25	38							
	eL	08	47								
	F	09	17								
	WIT:iP	08	15	05.2	+						
Dec.30	RSB:eP	02	21	59							44.4N 8.2E, H: 02 20 05.8, h N, Mb 4.0. Northern Italy.
Dec.30	eL	04	46			20		2.5		5.8	3.3S 152.5E, H: 03 41 11.9, h 29 km, Mb 5.2, Ms 5.6, New Ireland region.
	F	05.9									
	WIT:e(PKP)	04	00.5								
Dec.30	WIT:epP	08	24	32							1.4N 99.1E, H: 08 11 09.7, h 86 km, Mb 5.5, Northern Sumatra.
	RSB:eP	08	24	06							
Dec.30	eP	21	02	14							37.2N 15.0W, H: 20 57 30.5, h N, Mb 5.1, Ms 5.1, North Atlantic Ocean.
	eS	21	06	04							
	eL	21	06.8			19		13.8		5.3	
	F	21	49								
	WIT:iP	21	02	21.6							
	RSB:eP	21	02	05							
Dec.31	eL	06	10			21			2.7	5.5	47.8N 128.8W, H: 05 34 13.5, h N, Mb 5.2, Off coast of Washington.
	F	06	30								
Dec.31	RSB:eP	22	06	34							44.4N 8.5E, H: 22 04 47.9, h 33 km. Mb 4.1, Northern Italy.