

KONINKLIJK NEDERLANDS  
METEOROLOGISCH INSTITUUT

SEISMOLOGICAL BULLETIN  
of the seismograph stations  
in The Netherlands

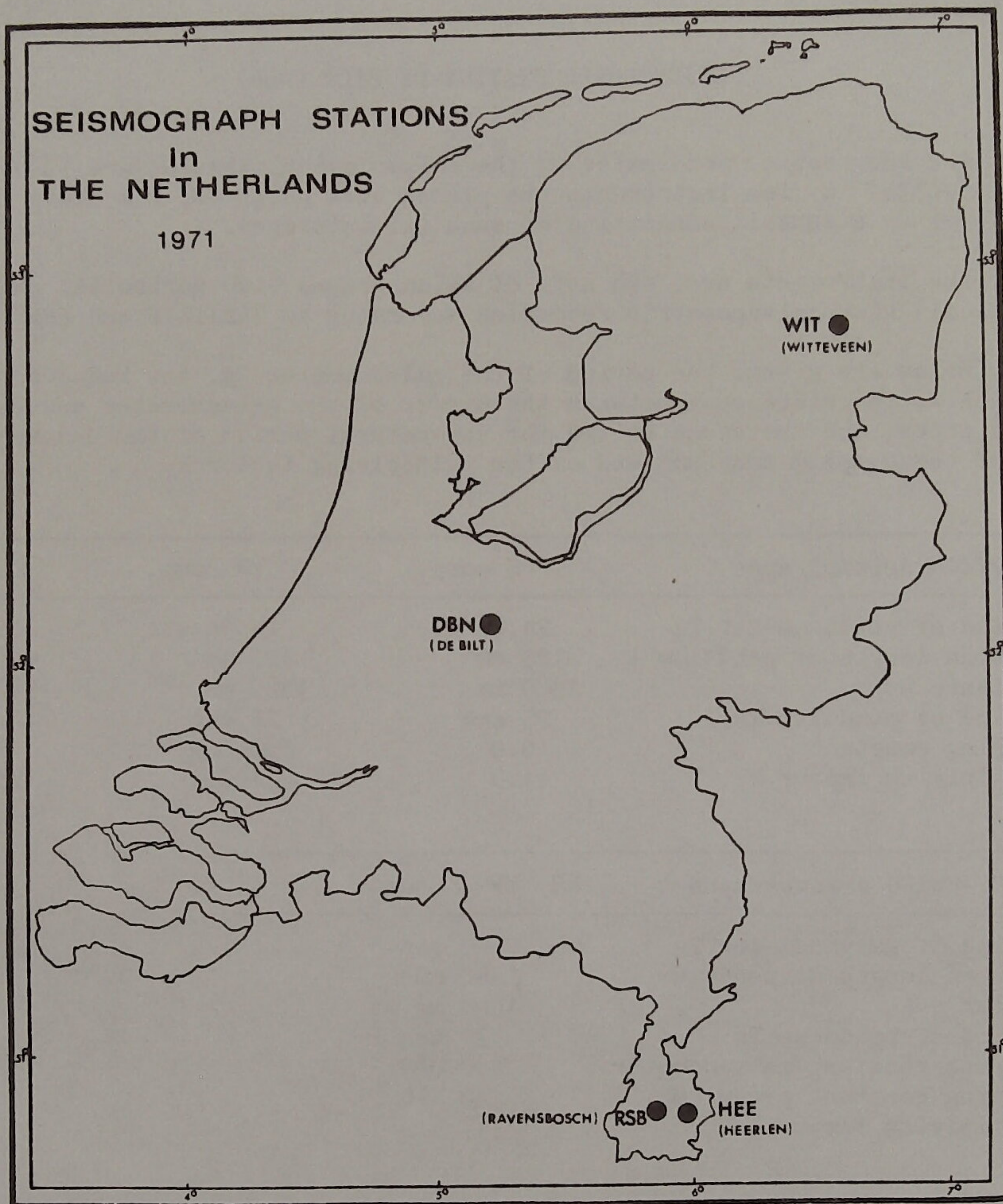
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### SEISMOGRAPH STATION DE BILT (DBN)

The geographic co-ordinates of the seismological station are  $52^{\circ}06'10''N$  and  $5^{\circ}10'36'' E$ . 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  $T_g$ , 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 $T_g$	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 $T_s$	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 $T_g$	90 sec.		
Reduced length of pendulum $l$	360 mm		
Distance $A$	1000 mm		
Period of pendulum $T_s$	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:  $50^{\circ}53'06''N$  and  $5^{\circ}58'56''E$ .

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:  $52^{\circ}48'48'' N$  and  $6^{\circ}40'11''E$ .

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.

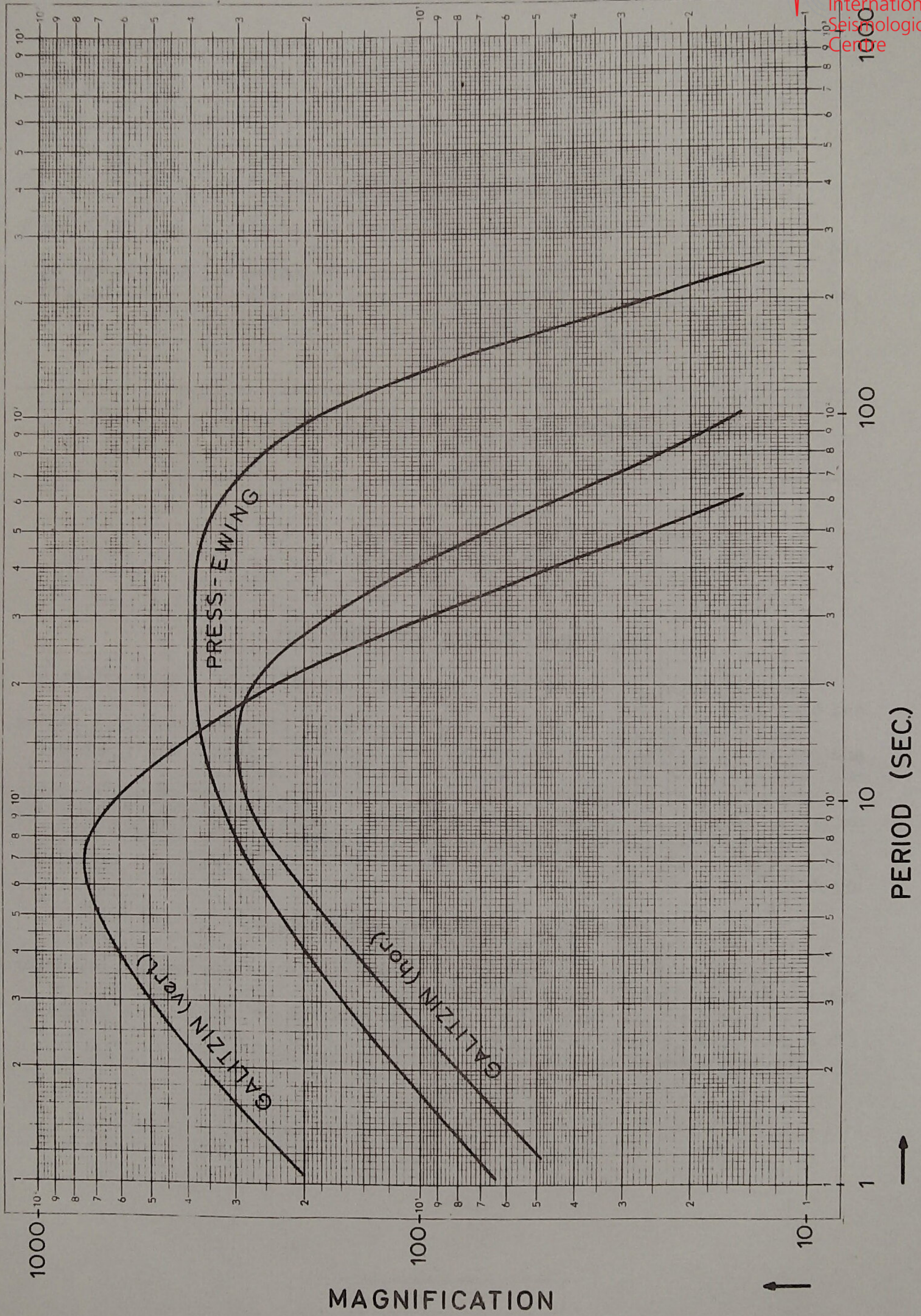
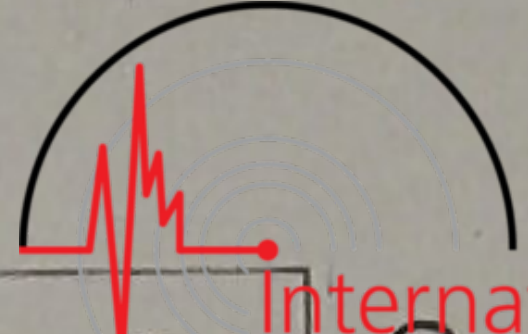
### SEISMOGRAPH STATION RAVENSBOSCH (RSB)

The geographic co-ordinates of this temporary and experimental seismological station are:  $50^{\circ}53'18''N$  and  $5^{\circ}49'57''E$ .

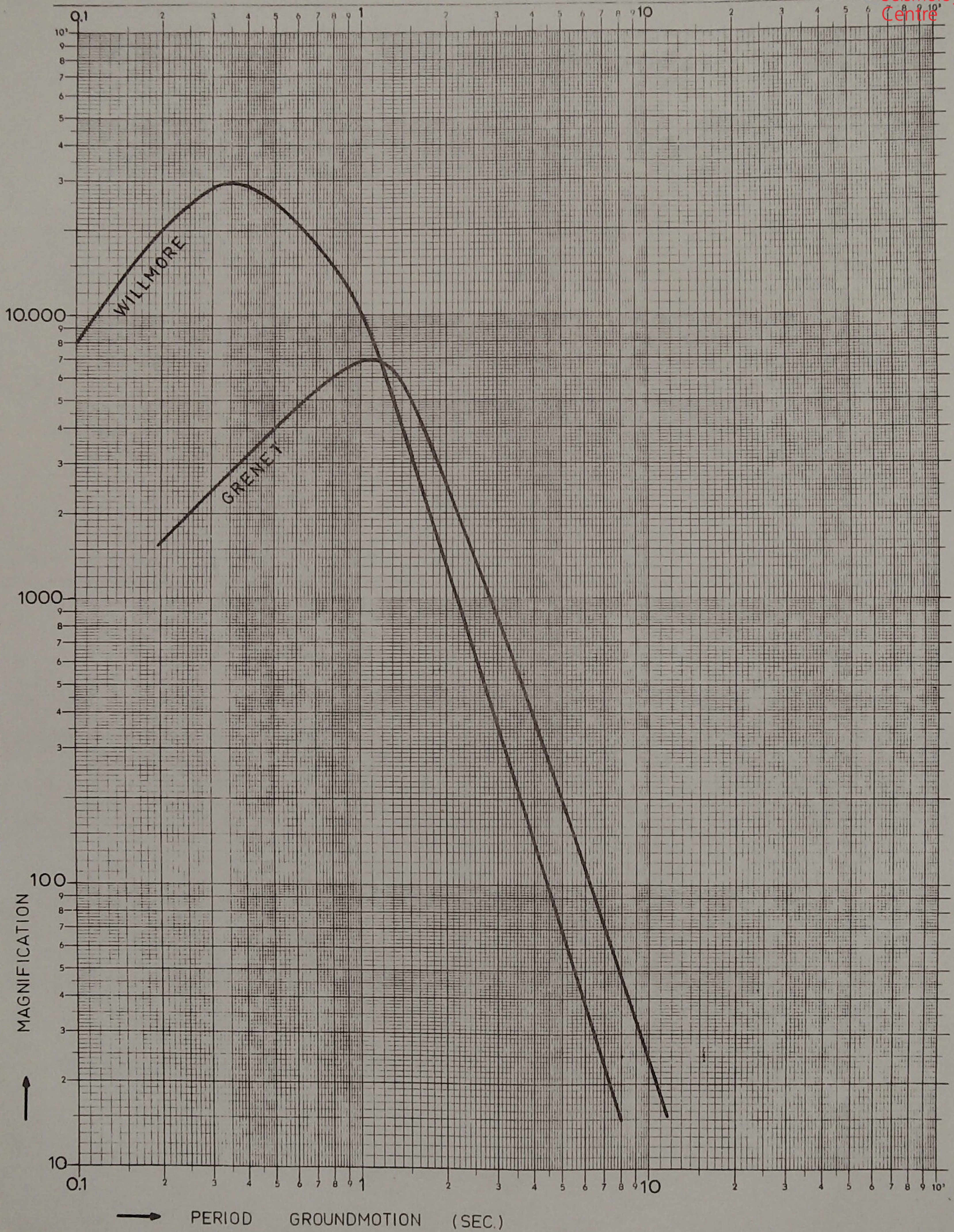
The instrument, a vertical WILLMORE seismograph is placed at a height of 135 m above mean sealevel on a subsoil consisting of loess.

For instrumental constants see station Witteveen.











THE MICROSEISMIC ACTIVITY.

The table on page 7 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 were 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 - $\frac{1}{2}$ mm	0 - $1\frac{1}{2}$ $\mu$
1	$\frac{1}{2}$ - 2 mm	$1\frac{1}{2}$ - 5 $\mu$
2	2 - 4 mm	5 - 10 $\mu$
3	> 4 mm	> 10 $\mu$



Character of the microseismic movement

Date 1971	Jan.	Febr.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	1	121	1	1	001	0	0	0	121	1	1	2
2	1	1	1	1	001	001	0	0	1	1	1 2	2
3	1	2	1	1	1	1	0	0 1	1	1	2	2 1
4	123	1	1	1	1	1	0	1	1	1	2 1	1
5	3	1	1	1	1	1	0	0 1	1 0	1	1	1 2
6	2 1	1	1	1	1	0	0	110	0	1	1	2
7	1	1	0 1	1	1	0	0	0	0	1	112	2
8	1 2	1	1	0	1 0	0	0	0	0	1	2	2 1
9	2	1	1	0	1	0	0	1	0	1	2 1	1
10	2	1	1	0	1 2	011	0	1	0	112	1	1
11	2	1	1	1	2 1	011	1	1	0	2 1	1	1
12	2	1 2	1	1	1	1	1	100	0 1	1	1	1
13	1	223	1	1	1	100	1	0 1	1	1	1	2
14	1	2	1	0	1 0	001	1	1	1	1	1	2
15	1	2	1	0	001	1	1	1	1 0	2 1	1	2 3
16	1	2 1	1	1	1	1	1	1 0	0	1	2	332
17	2	1	1 2	1	1	1 0	1	0 1	0	1	2	1
18	2	1	2	2	100	1	1 0	1	0	2	2 1	1 2
19	2 3	1	2	1	0	1	0	1	0 1	2	1	2 3
20	3	1 2	1	1	0	1	0	1	1	2	1	3
21	3 2	2 1	1	1	0 1	1	0	1	1	2 3	2 3	3
22	2 1	1	1	1	1	1	0	1	1	3 2	3 2	3
23	1 2	1	1	1	1	100	0	1	1	2	211	2
24	2	1	1	122	1	0	0	1	1	2 1	1	2
25	2 3	1	122	1	1	0 1	1 0	1	1	1	1	2 3
26	322	1	232	1 0	1	1	0	1	1	1	1	3 2
27	2	1	2 1	0	1	1	0	1	1 0	1	1 2	2 1
28	1	1	1	0 1	1	0	001	1	0	1	2	1
29	1		1	1	100	0	1 0	1	0	1	2	1
30	1		1	100	0	0	011	1	111	1	2	1
31	1		1		0		101	1		1		1 2



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:

$$V = \frac{A k T_b}{\pi_1} \frac{1}{\left\{ 1 + \left( \frac{T_b}{T} \right)^2 \right\}^2}$$



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:

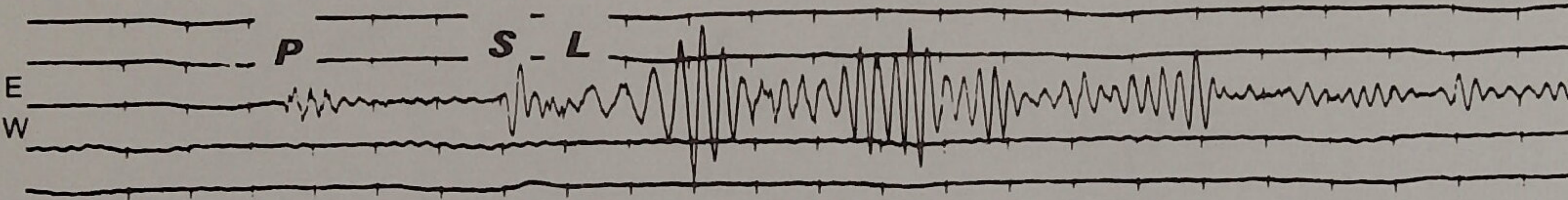
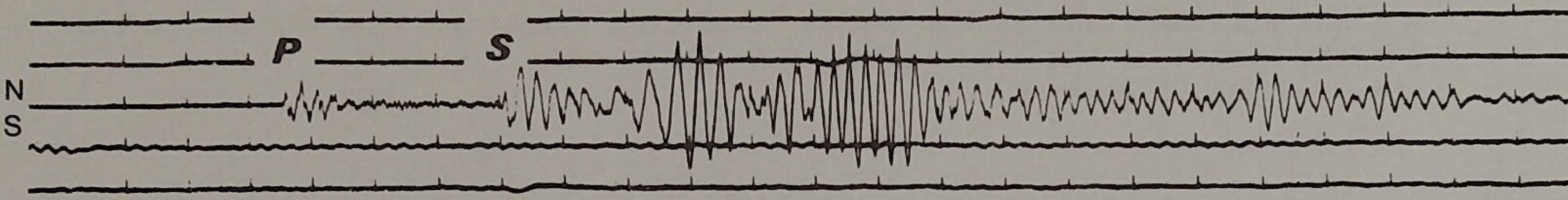
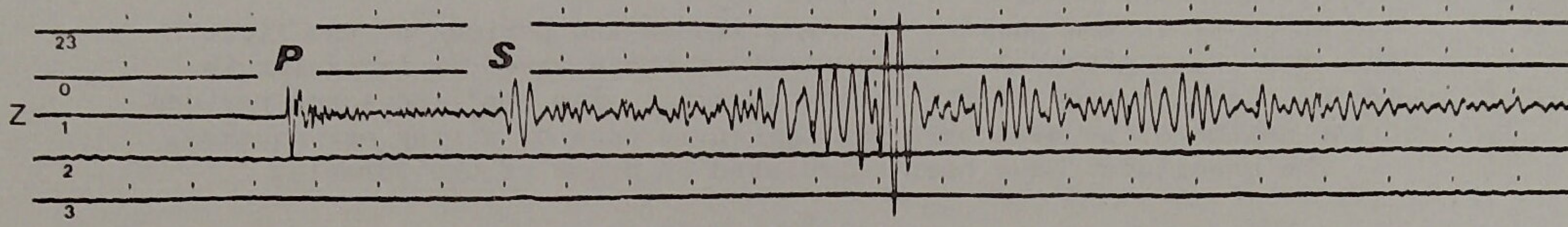
$$M = \log \left( \frac{A}{T} \right) + 1.66 \log \Delta + 3.3$$

$A$  = maximum amplitude of the  $L$ -wave in microns (measured from the medium line).

$T$  = the period of the concerning  $L$ -wave in seconds.

$\Delta$  = distance in degrees.







SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Jan. 1.	DBN: ePP ePPP eSP eL F	08	18	30 01 28 56 20		32			5.9	6.2	4.0S 141.2E, F: 07 57 58.8 h 17 km, Mb 5.5. Ms 5.8. New Guinea.
Jan. 2.	DBN: e F RSB: eP	00	59	01 02 00 50 51							35.0N 23.1E, H: 00 46 15.0 h 32 km, Mb 4.6. Crete.
Jan. 3.	DBN: e F WIT: eP	03	48	03 58 03 17 40							41.3N 142.5E, H: 03 05 42.0 h 61 km, Mb 5.2. Hokkaido, Japan region.
Jan. 3	DBN: eL F WIT: eP RSB: iP	10	57	11 29 10 24 13 10 24 20							33.6N 138.7E, H: 10 11 39.8 h 24 km. Mb 5.2. South of Hunshu, Japan.
Jan. 3.	DBN: eL F WIT: eP	14	33	14 50 14 03 34							41.4N 143.4E, H: 13 51 29.4 h 25 km. Mb 5.3. Hokkaido, Japan region.
Jan. 3.	DBN: iPP eSKS eS iH ePS eSS eSSS eL F RSB: ePP	17	54	38 46 17 36 03 09.7 42 19 21.0 17 54.7		50			108	7.4	55.5S 2.6W, H: 17 35 40.2, h N, Mb 6.4, Ms 7.1. South Atlantic Ridge.
Jan. 3.	DBN: eP eS eL F WIT: eP RSB: iP	23	23	42 00 30.0 59 23 23 43 23 23 36	-	12			6.0	5.2	34.7N 26.3E, H: 23 18 41.3 h 32 km. Mb 5.2, Ms 5.5. Crete.
Jan. 4.	DBN: e F	05	13	05 29							29.6S 112.0W, H: 03 59 12.6 h N, Mb 5.2, Ms 5.5. Easter Island region.
Jan. 4.	DBN: eL F	10	23.5	10 29							58.4N 32.3W, H: 10 12 35.5 h N, Mb 4.4. North Atlantic Ocean.



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Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms		
		h	m	s			Z	NS	EW				
Jan. 4.	WIT: iPKP	11	27	57.2	-						23.5S 179.9E, H: 11 09 08.6 h 580 km, Mb 4.9. South of Fiji Islands.		
Jan. 4.	DBN: eL F	14 15.4	57								3.3S 143.0E, H: 13 57 30.6 h 18 km, Mb 5.2, Ms 5.4. Near north coast of New Guinea.		
Jan. 4.	DBN: eL F	19 19	33 41								29.2 N 69.2E, H: 19 01 20.3 h 34 km, Mb 4.9. West Pakistan.		
Jan. 4.	DBN: eL F WIT: eP RSB: iP	21 22.5 21 21	52	15 25		20		5.3		5.9	34.5N 137.1E, H: 21 08 53.4 h 40 km, Mb 5.6, Ms 5.7. Near south coast of Honshu, Japan.		
Jan. 6.	DBN: eL F WIT: iP RSB: eP	06 07.2 06 06	48	42.3(+) 51							36.4N 141.2E, H: 06 04 21.3 h 45 km, Mb 5.4. Near east coast of Honshu, Japan.		
Jan. 8.	DBN: eP eS eSS eL F WIT: eP	14 15 15 15 16.5 14	57 07 13 21	28 28   18.7(-)	-				15	7.5	6.0	47.4N 154.4E, H: 14 45 29.5 h 32 km, Mb 5.6, Ms 5.8. Kuril Islands.	
Jan. 9.	DBN: eL F	00 00	23 46									29.1N 69.1E, H: 23 52 16.3 h 4 km, Mb 5.2. West Pakistan.	
Jan. 10.	DBN: eP iPKP iPP iPPP eSKS eS M F WIT: ePKP i iPP eSP HEE: eL	07 07 07 07 07 07 08 13.0 07 07 07 07 07	32 36 37 39 43.1 44.7 30	14 00 04 12    38 10 58 33	+ -       +				25		998	8.4	3.1S 139.7E, H: 07 17 03.7 h N, Mb 7.3, Ms 8.0. West New Guinea.
Jan. 10.	DBN: eL F	15 16.0	26										3.2S 139.8E, H: 14 29 56.3 h 28 km, Mb 5.8, Ms 5.9. West New Guinea.



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Jan. 10.	DBN: eL F	17	09								3.1S 139.8E, H: 16 07 45.9 h N, Mb 5.7, Ms 5.7. West New Guinea.
Jan. 10	DBN: eL F	17.6									3.4S 140.0E, H: 16 38 36.0 h 27 km, Mb 5.5, Ms 6.0. West New Guinea.
Jan. 10.	DBN: eL F	20	10								3.2S 139.8E, H: 19 13 36.8 h 33 km, Mb 5.8, Ms 5.5. West New Guinea.
Jan. 10.	DBN: e F	23.2									3.2S 139.9E, H: 22 14 37.4, h 30 km, Mb 6.1, Ms 5.8. West New Guinea.
Jan. 11.	DBN: e F	12	42								3.1S 139.7E, H: 11 08 17.4 h N, Mb 5.1. West New Guinea.
Jan. 11.	DBN: e F	19	53								23.7N 121.7E, H: 19 06 45.5 h 20 km, Mb 5.4. Taiwan.
Jan. 11.	WIT: iPKP	21	22	03.8	+						20.5S 178.5W, H: 21 03 23.2 h 584 km, Mb 4.7. Fiji Islands region.
Jan. 12.	DBN: eL F	15	37								9.9N 138.2E, H: 14 42 15.4 h N, Mb 5.5, Ms 5.3. West Caroline Islands.
Jan. 12.	DBN: eL F	16.0									3.2S 140.0E, H: 14 57 11.6 h N, Mb 5.8, Ms 5.6. West New Guinea.
Jan. 13.	DBN: eL F	11	24								3.1S 139.6E, H: 10 22 46.9 h N, Mb 5.5. West New Guinea.
Jan. 14.	DBN: e F	05	02								56.0N 163.0E, H: 04 21 13.3 h 45 km, Mb 4.7, Ms 4.9. Near east coast of Kamchatka.
Jan. 14.	DBN: eL F	11	20								2.9S 139.4E, H: 10 23 45.5 h N, Mb 5.2, Ms 5.4. Near north coast of West New Guinea.



SEISMOLOGICAL BULLETIN



Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
1971											
Jan. 14.	DBN: eL F	19.1 19.7									3.0S 139.7E, H: 18 07 22.1 h N, Mb 5.4, Ms 5.6. West New Guinea.
Jan. 14.	DBN: e F	20.2 20.6									No determination of epicenter.
Jan. 14.	WIT: eP	23 54 41									53.6N 161.6E, H: 23 43 20.8 h 44 km, Mb 5.0. Off east coast of Kamchatka.
Jan. 15.	DBN: eL F	00 27 00 49									53.6N 161.7E, H: 23 50 32.6 h N, Mb 4.4. Off east coast of Kamchatka.
Jan. 15.	RSB: iP	02 56 12									48.1N 9.2E, H: 02 55 15.6 h 3 km, Germany, Swabian Jura.
Jan. 15.	DBN: eL F	21 06 21 50									33.1S 178.4W, H: 19 32 42.8 h N, Mb 4.7. South of Kermadec Islands.
Jan. 16.	DBN: eL F	02.0 02.6									No determination of epicenter.
Jan. 17.	RSB: eP	04 21 21									BCIS: 46.5N 7.6E, H: 04 20 10.0, Switzerland.
Jan. 18.	DBN: eL F	01 00 01 30									1.0N, 125.8E, H: 00 03 31.6 h N, Mb 5.4. Molucca Passage.
Jan. 18.	DBN: eL F WIT: eP	05 48 06 00 05 14 08									41.6N 142.6E, H: 05 02 08.8 h 47 km, Mb 5.4. Hokkaido, Japan region.
Jan. 19.	DBN: eS eSS eL F WIT: eP RSB: eP	03 40 02 03 45 36 03 53 05.5 03 29 32 03 29 39			20		12		6.3		d.b.m. 23.8N 108.6W, H: 03 16 53.6, h N, Mb 5.5, Ms 5.9 Gulf of California.
Jan. 19.	DBN: eL F WIT: eP RSB: eP	23 47 23 53 23 38.9 23 38 43									d.b.m. 34.4N 24.0E, H: 23 33 56.8, h N, Mb 4.8. Crete.



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Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Jan. 20.	DBN: eL F	05	19								d.b.m. 8.8N 79.2W, H: 04 45 00.1, h 33 km, Mb 5.6, Ms 5.6. Panama.
	WIT: eP RSB: eP	04	57	11.5	+						
		04	57	08	+						
Jan. 20.	DBN: eL F	21	51								d.b.m. 35.1N 46.9E, H: 21 32 03.0, h 57 km, Mb 5.1. Iran-Iraq border region.
	RSB: eP	21	38	39							
Jan. 21.	WIT: iPKP RSB: ePKP	12	42	57.8	+						21.5S 176.7W, H: 12 23 32.0 h 193 km, Mb 5.1. Fiji Islands region.
		12	43	03	+						
Jan. 22.	WIT: iPKP RSB: iPKP	02	54	43.4	+						18.0S 178.4W, H: 02 36 10.9 h 597 km, Mb 4.7. Fiji Islands region.
		02	54	50	-						
Jan. 22.	HEE: i RSB: i	15	47	19							Local shock. No determination of epicenter.
		15	47	19							
Jan. 22.	DBN: eL F	21	11								5.8S 151.3E, H: 19 59 46.1 h 57 km, Mb 5.3. New Britain region.
		21	23								
Jan. 24.	DBN: eL F	14	18								d.b.m. 49.2N 156.1E, H: 13 28 43.6, h 36 km, Mb 5.2, Ms 5.0. Kuril Islands.
		14	25								
Jan. 24.	WIT: iPKP RSB: iPKP	19	00	11.4	+						20.5S 178.4W, H: 18 41 28.0 h 557 km, Mb 4.9. Fiji Islands region.
		19	00	07							
Jan. 25.	DBN: ePP iPPS eSS iSSS eL F	00	39	48							9.6S 151.3E, H: 00 18 26.1 h 38 km, Mb 5.8, Ms 6.3. Dentrecasteaux Islands region.
		00	51	26							
		00	57	44							
		01	02	39							
		01	20			25			5.6	6.3	
		02.0									
	WIT: ePKP RSB: ePKP	00	37	32							
		00	37	44							
Jan. 25.	DBN: e F	02.1									40.2N 124.5W, H: 01 34 39.6 h N, Mb 4.2. Near coast of northern California.
		02.6									



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Jan. 25.	DBN: iP	16	20	04	+	20	19.6	6.4		51.5N 177.7W, H: 16 08 15.1 h 38 km, Mb 5.9, Ms 6.3. Andreanof Islands, Aleutian Islands.	
	ePP	16	22	55							
	iS	16	20	51							
	eSS	16	34	56							
	eSSS	16	38.2								
	eL	16	43								
	F	19.2									
WIT: eP	16	20	02	(+)							
RSB: iP	16	20	12	-							
Jan. 26.	DBN: e	19	51							51.7N 174.9W, H: 19 32 04.9 h 36 km, Mb 5.4, Ms 5.5. Andreanof Islands, Aleutian Islands.	
	eL	20	09								
	F	22.3									
Jan. 28.	WIT: iP	06	47	31.5	+					17.9S 178.5W, H: 29 01.0 h 616 km, Mb 5.0. Fiji Islands region.	
	RSB: iP	06	47	37							
Jan. 29.	DBN: iP	22	08	39	-	7	19.6			51.7N 150.9E, H: 21 58 05.4 h 544 km, Mb 6.1. Sea of Okhotsk.	
	ipP	22	10	31							
	isP	22	11	25							
	ipPP	22	13	00							
	isPP	22	14	04							
	ipPPP	22	14	37							
	i	22	15	58							
	iS	22	17	24							
	isS	22	20	37							
	eSS	22	22	23							
	F	01.6									
	WIT: eP	22	08	33.5							-
	ipP	22	10	28.5							-
	HFF: eP	22	08	49							-
i	22	08	57	-							
RSB: iP	22	08	44	-							
Jan. 31.	DBN: eL	05	50							37.2N 30.6E, H: 05 37 31.1 h 37 km, Mb 4.6. Turkey.	
	F	06	00								
Feb. 1.	DBN: iP	05	31	18	-					51.7N 172.9W, H: 05 19 23.4 h 40 km, Mb 5.5, Ms 5.8. Andreanof Islands, Aleutian Islands.	
	eS	05	41	20							
	eL	05.9									
	F	06.3									
Feb. 2.	WIT: eP	08	10	56.5						23.8N 91.8E, H: 07 59 57.0 h 48 km, Mb 5.4. India-East Pakistan border region.	
	RSB: iP	08	11	02							







SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Feb. 6.	DBN: ePP eL F	08	36	54							2.2N 126.9E, H: 08 17 48.6 h N, Mb 5.6, Ms 5.6. Molucca Passage.
Feb. 6.	DBN: eL F WIT: eP RSB: eP	11	24								47.0N 154.1E, H: 10 43 05.5 h 60 km, Mb 5.6. Kuril Islands.
Feb. 6.	DBN: eL F	18	14.5		18			2.4	4.2		42.5N 11.8E, H: 18 09 09.1 h N, Mb 4.6. Central Italy. 18 dead.
Feb. 6.	DBN: eL F	19	30								27.1S 177.0W, H: 18 07 10.0 h 129 km, Mb 5.0. Kermadec Islands region.
Feb. 6.	DBN: eS eL F	22	28	42							36.0N 69.9E, H: 22 12 44.8 h 109 km, Mb 5.0. Hindu Kush region.
Feb. 7.	DBN: iP iZ iPP iPPP iS iPS eSS eL F WIT: eP RSB: eP	02	41	15	+						51.4N 176.7W, H: 02 29 28.2 h 50 km, Mb 6.0. Andreanof Islands, Aleutian Islands.
Feb. 7.	WIT: iP RSB: iP	02	53	51.1	+						51.2N 177.1W, H: 02 42 04.5 h 49 km, Mb 5.8, Andreanof Islands, Aleutian Islands.
Feb. 7.	RSB: eP	03	05	09							51.2N 176.9W, H: 02 53 09.1 h 33 km, M 5.4. Andreanof Islands, Aleutian Islands.
Feb. 7.	RSB: eP	03	32	58							51.1N 177.0W, H: 03 20 59.9 h 43 km, M 5.4. Andreanof Islands, Aleutian Islands.
Feb. 7.	DBN: eL F	18	14								27.5S 175.2W, H: 16 50 01.4 h N, Mb 5.2, Ms 5.2. Kermadec Islands region.



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Feb. 8.	DBN: eL F WIT: eP RSB: eP	03 03.5 02 02	14  40 41	  57 01						51.3N 178.8W, H: 02 29 11.4 h 44 km, Mb 5.2. Andreanof Islands, Aleutian Islands.	
Feb. 8.	DBN: eP ePKP ePP eSKP eSKS eL F WIT: ePKP RSB: ePKP	21 21 21 21 21 22.0 01.6 21 21	20 23 25 26 30  23.5 23	06 20 15 43 32   21		22		34	7.1	63.5S 61.2W, H: 21 04 21.8 h N, Mb 6.3, Ms 7.0. South Shetland Islands.	
Feb. 9.	DBN: iP iPP ePPP iS iPS iSS eSSS eL F WIT: iP RSB: iP	14 14 14 14 14 14 14 14 in next shock 14 14	12 16 17 23 24 28 31 37  12 13	54 03 55 07 00 28 52  57.5 03	+	6	4.7			34.4N 118.4W, H: 14 00 41.6 h 13 km, Mb 6.2, Ms 6.5. Southern California. 65 dead.	
Feb. 9.	DBN: eL F	16.5 18.3								34.3N 118.3W, H: 15 28 20.7 h 14 km, Mb 5.1. Southern California.	
Feb. 9.	WIT: e PSB: e	22 22	04 04	44 50						No determination of epicenter.	
Feb. 11.	DBN: eL F WIT: eP RSB: eP	13 14.5 13 13	41  07 07	  40 51						51.2N 177.2W, H: 12 55 53.8 h 50 km, Mb 5.5, Ms 5.2 Andreanof Islands, Aleutian Islands.	
Feb. 11.	DBN: e F WIT: e RSB: eP	18 18 18 18	55 59 55 51	  50 36						43.2N 12.6E, H: 18 49 20.2 h 4 km, Mb 4.9. Central Italy.	
Feb. 12.	DBN: e F RSB: eP	05 05 04	01 04 57	  09						43.3N 12.5E, H: 04 54 56.9 h N. Mb 4.7. Central Italy.	
Feb. 12.	RSB: eP	07	50	(40)						44.2N 16.9E, H: 07 48 04.9 h N, Mb 4.8. Yugoslavia.	
Feb. 13.	RSB: ePKP	23	54	59						22.8S 170.9E, H: 23 35 09.1 h 30 km, Mb 5.0. Loyalty Islands region.	



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Feb. 14.	DBN: eL F WIT: iP RSB: eP	16 17 16 16	45 13 34 34	  49.9 55	  +  					36.6N 55.6E, H: 16 27 36.1 h 39 km, Mb 5.2, Ms 5.3. Iran.	
Feb. 15.	WIT: iPKP RSB: iPKP	04 04	03 03	52.2 59	+ +					17.7S 178.5W, H: 03 45 18.4 h 579 km, Mb 4.5. Fiji Islands region.	
Feb. 15.	WIT: ePKP i RSB: ePKP	08 08 08	09 09 10	47.2 51.9 01 (d.b.m)	  					25.2S 178.3E, H: 07 51 02.6 h 584 km, Mb 5.7. South of Fiji Islands.	
Feb. 15.	WIT: iP RSB: eP	08 08	24 24	37.6 33 (d.b.m)	+  					39.2N 29.4E, H: 08 19 56.2 h 28 km, Mb 4.9. Turkey.	
Feb. 16.	DBN: eL F WIT: iP RSB: iP	15 16 14 14	08 00 38 38	  45.0 54	  - +	18	6.8		6.0	24.0N 122.2E, H: 14 26 09.1 h 32 km, Mb 5.8, Ms 5.4. Taiwan region.	
Feb. 17.	DBN: eL F	05 05	00 12							59.8S 26.4W, H: 04 00 17.8 h N, Mb 5.4. South Sandwich Islands region.	
Feb. 17.	DBN: eL F WIT: iP	05 06 05	59 10 25	  06.7	  -					40.2N 142.3E, H: 05 13 00.6 h 48 km, Mb 5.3, Ms 6.2. Near east coast of Honshu, Japan.	
Feb. 17.	RSB: ePg	08	10	57						Bensberg: 51°52'N 7°52'E, H: 08 10 36, Ml 2.6. Rockburst. Ruhr coal district, West Germany.	
Feb. 18.	DBN: eScP eL F	03 03 03	18 21 38	08						84.0N 1.5W, H: 03 05 19.6 h N, Mb 4.9. North of Svalbard.	
Feb. 18.	DBN: ePg i iSg WIT: iPg i i iSg HEE: iPg iSg RSB: iPg	23 23 23 23 23 23 23 23 23 23	41 42 42 41 42 42 42 41 41 41	(47) 03.3 11.3 58.7 02.2 11.7 23.0 29 31 29	   +      +					50.9N 6.0E, H: 23 41 24.4 h 27 km, Mb 4.2. Germany. Felt in the Germany-Netherlands border region.	



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Feb. 19.	DBN: eL F	07	10								14.2N 91.7W, H: 06 27 58.2 h 68 km, Mb 5.0. Guatemala.
Feb. 20.	DBN: eS eL F RSB: eP	07	24.5								37.8N 29.5E, H: 07 15 20.4 h 19 km, Mb 4.6. Turkey.
Feb. 20.	DBN: e F	13	13								14.5N 93.3W, H: 12 24 58.3 h 34 km, Mb 5.0, Ms 4.4. Near coast of Chiapas, Mexico.
Feb. 21.	DBN: e F WIT: ePKP	03	46								23.8S 180.0W, H: 03 20 20.0 h 512 km, Mb 5.2. South of Fiji Islands.
Feb. 21.	DBN: iP iS iPS eL F WIT: iP ipP RSB: eP	10	48	42	-						23.8S 67.2W, H: 10 35 20.1 h 169 km, Mb 6.3. Chile-Argentina border region.
Feb. 22.	DBN: iS eL F	14	37	08		10		6.3		6.5	37.2N 30.3E, H: 14 27 44.7 h 45 km, Mb 5.0. Turkey.
Feb. 22.	DBN: e F	21	52								No determination of epicenter.
Feb. 22.	DBN: eL F	23	10								2.2N 126.9E, H: 22 08 27.8 h N, Mb 5.1, Ms 4.9. Molucca Passage.
Feb. 23.	DBN: iP iS eL F WIT: iP RSB: eP	19	45	55	-						39.6N 27.4E, H: 19 41 23.0 h 15 km, Mb 5.0, Ms 5.4. Turkey.
Feb. 24.	DBN: eL F	18	16								26.6N 128.8E, H: 17 25 09.9 h 19 km, Mb 4.6. Ryukyu Islands.
Feb. 24.	DBN: eL F	20	03								19.2N 121.1E, H: 19 20 16. h 39 km, Mb 4.6. Philippine Islands region.



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Feb. 25.	DBN: eS eL F	04	35.5			18			2.5	5.6	12.2N 87.5W, H: 04 15 41.5 h 52 km, Mb 5.3. Near coast of Nicaragua.
Feb. 25.	DBN: eL F WIT: eP i RSB: eP	20	11			10		2.8		5.6	37.1N 138.3E, H: 19 27 53.0 h 40 km, Mb 5.5, Ms 4.9. Near west coast of Honshu, Japan.
Feb. 25.	DBN: eL F RSB: eP	23	03								3.2N 95.9E, H: 22 14 17.7 h N, Mb 5.4, Ms 5.2. Off west coast of northern Sumatra.
Feb. 26.	DBN: eL F	06	07								10.4S 161.3E, H: 04 55 50.0 h 90 km, Mb 4.9. Solomon Islands.
Feb. 26.	DBN: eL F	20	15								18.0S 167.1E, H: 18 58 04.6 h 11 km, Mb 5.6, Ms 5.0. New Hebrides Islands.
Feb. 26.	WIT: e	21	44	21							No determination of epicenter.
Feb. 27.	DBN: eL F	01	07								40.4N 124.8W, H: 00 31 39.9 h N, Mb 5.3, Ms 5.1. Near coast of northern California.
Feb. 27.	WIT: iPKP RSB: iPKP	05	03	20.8	-						20.2S 177.8W, H: 04 44 35.0 h 524 km, Mb 5.0. Fiji Islands region.
Feb. 27.	RSB: ePKP	13	45	36							21.4S 177.9W, H: 13 26 27.1 h 390 km, Mb 5.0. Fiji Islands region.
Feb. 27.	DBN: eL F	17	13			16		2.3		5.5	40.7N 143.5E, H: 16 32 49.4 h 38 km, Mb 5.2. Off east coast of Honshu, Japan.
Feb. 28.	DBN: e F WIT: iPKP RSB: ePKP	12	28								19.3S 176.5W, H: 11 10 48.5 h 109 km, Mb 4.8. Fiji Islands region.



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Mar. 1.	DBN: eL F	13	32								52.8S 140.2E, H: 12 09 43.6 h N, Mb 5.2. West of Macquarie Island.
Mar. 2.	DBN: eL F	01	45								54.4S 51.1W, H: 00 45 42.6 h N, Mb 4.9. South Atlantic Ocean.
Mar. 3.	DBN: eL F	15.5			16			6.5	6.0		25.9N 109.9W, H: 14 46 30.7 h 34 km, Mb 5.3, Ms 5.4. Gulf of California.
Mar. 3.	DBN: iP eS eL F WIT: iP RSB: iP	22	05	46	-						48.3N 153.0E, H: 21 54 09.1 h 120 km, Mb 5.8. Kuril Islands.
Mar. 4.	DBN: eS eSS eL F WIT: eP RSB: iP	00	50	32							30.4N 138.3E, H: 00 28 26.3 h 428 km, Mb 5.7. South of Honshu, Japan.
Mar. 4.	DBN: e F	04	41								2.0N 126.8E, H: 04 13 38.0 h 68 km, Mb 5.0. Molucca Passage.
Mar. 4.	DBN: eL F	08	33								40.7N 143.5E, H: 07 48 39.0 h 37 km, Mb 5.2. Off east coast of Honshu, Japan.
Mar. 6.	WIT: iPKP RSB: iPKP	04	59	37.7	+						18.8S 177.6W, H: 04 40 57.5, h 543 km, Mb 4.6. Fiji Islands region.
Mar. 6.	DBN: eL F	08	48								21.5N 121.9E, H: 08 00 19.1 h 41 km, Mb 4.9. Taiwan region.
Mar. 7.	DBN: e F	12	30								No determination of epicenter.
Mar. 8.	DBN: eL F	15	14								2.9S 139.4E, H: 14 11 46.2, h 15 km, Mb 5.2, Ms 5.4. Near north coast of West New Guinea.



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Mar. 8.	WIT: iPKP RSB: iPKP	21	47	01.6	-						17.8S 178.7W, H: 21 28 29.7 h 607 km, Mb 4.7. Fiji Islands region.
Mar. 8.	DBN: eL F	22 23	56 01								37.5N 29.7E, H: 22 44 47.3 h 21 km, Mb 4.7. Turkey.
Mar. 9.	DBN: eS eL ePcP F RSB: eP	05 05 05 05 05	06 07.2 07 26 02	07 54 31		10		4.5	4.7		38.7N 20.3E, H: 04 58 38.9 h 16 km, Mb 4.8. Greece.
Mar. 11.	HEE: e	14	46	35							No determination of epicenter.
Mar. 11.	HEE: e	20	24	09							No determination of epicenter.
Mar. 11.	DBN: eL F	16 16.3	03								59.3N 146.7W, H: 15 25 45.9 h 18 km, Mb 5.0. Gulf of Alaska.
Mar. 12.	DBN: e F	00 00	31.0 34								40.1N 77.1E, H: 23 59 46.5 h N, Kirgir-Sinkiang border region.
Mar. 12.	WIT: iPKP	14	47	37.0							18.3S 175.7W, H: 14 28 28.8 h 280 km, Mb 4.7. Tonga Islands.
Mar. 12.	DBN: eL F	23 23	18 51			15			3.1	5.7	18.8N 119.8E, H: 22 32 51.0 h 44 km, Mb 5.0. Philippine Islands region.
Mar. 13.	DBN: eSS eL F	03 03 04	28 46 03								40.1N 142.4E, H: 02 59 38.5 h 57 km, Mb 5.1. Near east coast of Honshu, Japan.
Mar. 13.	DBN: ePKP eSKS eSP eSS eL F RSB: iPKP	16 16 16 16 16 18 16	08 11.0 21.3 29 56 20 08	06		22		4.6	6.2		18.4S 173.6E, H: 15 47 57.1 h 20 km, Mb 5.6, Ms 6.0. Fiji Islands region.



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Mar. 13.	DBN: iPP	19	32	54						5.7S 145.4E, H: 19 12 25.0 h 118 km, Mb 6.3. East New Guinea region.	
	ePS	19	42.9								
	ePPS	19	44.0								
	eSS	19	50	28							
	iSSS	19	55	08							
	eL	20	12								
	F	21	39								
	WIT: ePKP	19	31	08.6	+						
	ePP	19	32	45.5							
	e	19	41	06							
RSB: iPKP	19	31	11	+							
Mar. 14.	DBN: iP	00	02	52	-					50.6N 129.9W, H: 23 51 35.5 h N, Mb 5.7, Ms 6.1. Vancouver Island region.	
	eS	00	12	23							
	eSS	00	17.0								
	eSSS	00	20.8								
	eL	00	25			18		15	6.3		
	F	01.8									
	WIT: eP	00	02	50.5	+						
RSB: eP	00	02	58								
Mar. 14.	DBN: e	02	19							No determination of epicenter.	
	F	02	56								
Mar. 14.	DBN: iPKP	06	28	56	+					21.3S 169.2E, H: 06 09 14.5 h 11 km, Mb 5.1, Ms 5.3. Loyalty Islands region.	
	eL	07	27								
	F	08.5									
	WIT: ePKP	06	28.9								
	RSB: ePKP	06	29	04							
Mar. 15.	DBN: eL	06	16							41.7N 143.7E, H: 05 35 44.6 h 48 km, Mb 5.4, Ms 5.1. Hokkaido, Japan region.	
	F	06.8									
	WIT: iP	05	47	44.3	+						
	ipP	05	47	53.3							
Mar. 15.	RSB: ePKP	21	11	03						15.5S 167.6E, H: 20 51 47.8 h 118 km, Mb 5.4. New Hebrides Islands.	
Mar. 16.	DBN: iPKP	12	52	24	-					10.9S 163.7E, H: 12 32 30.6 h 42 km, Mb 5.8, Ms 6.4. Solomon Islands.	
	ePP	12	54	29							
	eSP	13	04	46							
	eSS	13	12	30							
	eSSS	13	17	28							
	eL	13	27.4			24		7.8	6.5		
	F	15.2									



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Mar. 16.	DBN: eP	20	49	12		20	8.9	6.3		8.3N 127.1E, H: 20 35 18.8 h 52 km, Mb 5.7. Philippine Islands region.	
	ePP	20	53	28							
	eSKS	20	59	53							
	eSP	21	02	20							
	eL	21	49								
	F	23.4									
RSB: eP	20	49	12								
Mar. 17.	HEE: e	09	17	26						No determination of epicenter.	
Mar. 18.	WIT: iPKP	02	53	40.6						23.8S 179.9E, H: 02 34 48.7 h 542 km, Mb 5.0. South of Fiji Islands.	
Mar. 18.	DBN: e	04	00							49.2N 156.3E, H: 03 13 15.4 h N, Mb 5.1. Kuril Islands.	
	F	04	10								
	WIT: eP	03	24	57							
Mar. 18.	WIT: iPKP	05	39	49.2	+					20.9S 174.4W, H: 05 20 03.7 h N, Mb 5.2. Tonga Islands.	
Mar. 18.	HEE: e	06	26	06						No determination of epicenter.	
Mar. 19.	WIT: ePKP	02	42	06.5	-					21.3S 169.2E, H: 02 22 29.6 h 36 km, Mb 5.3, Ms 5.4. Loyalty Islands region.	
	RSB: ePKP	02	42	14							
Mar. 19.	DBN: eL	17	46							2.1N 126.8E, H: 16 45 30.1 h N, Mb 5.4, Ms 5.3. Molucca Passage	
	F	18	08								
Mar. 19.	DBN: eS	21	30	18						49.5N 28.5W, H: 21 21 31.8 h N, Mb 4.8. North Atlantic Ridge.	
	eL	21	31.6								
	F	21	45								
	WIT: eP	21	26	31							
	RSB: eP	21	26	26							
Mar. 20.	DBN: eL	03	08							14.2N 60.6W, H: 02 39 06.8 h 68 km, Mb 5.2. Windward Islands.	
	F	03	20								
	WIT: eP	02	49	42							
	RSB: eP	02	49	48							
Mar. 20.	DBN: iP	07	54	44	+	20	11.8	5.9		1.4S 13.7W, H: 07 45 05.2 h N, Mb 5.0, Ms 5.5. North of Ascension Island.	
	eS	08	02.4								
	eSS	08	05.4								
	eL	08	09								
	F	09	00								
	WIT: eP	07	54	56							
	RSB: eP	07	54	44							



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Mar. 20.	DBN: eL F	10.8 11 01									7.4S 114.6E, H: 09 44 50.3 h 5 km, Mb 5.5. Bali Sea.
Mar. 20.	DBN: eL F	22 00.5 22 08									No determination of epicenter.
Mar. 21.	WIT: iPKP RSB: ePKP	15 35 22.5 15 35 29									18.1S 178.4W, H: 15 16 56.9 56.9, h 686 km, Mb 4.2. Fiji Islands region.
Mar. 22.	WIT: iP RSB: iP	04 41 01.7 + 04 41 13									49.7N 78.2E, H: 04 32 57.8 h 0 km, Mb 5.8. Eastern Kazakh, SSR.
Mar. 22.	DBN: eL F	10 49 11 00									0.2S 17.9W, H: 10 19 03.7 h N, Mb 5.2. North of Ascension Island.
Mar. 23.	DBN: iPKP ePP eSS eSSS eL F WIT: iPKP RSB: iPKP	02 35 08 02 39 00 02 58 06 03 04.0 03 26 04.8 02 35 11.9 - 02 35 16 -			20			1.8	5.9		22.9S 176.4W, H: 02 15 26.9 h 76 km, Mb 6.0. South of Fiji Islands.
Mar. 23.	DBN: eH eL F RSB: eP	07 16.4 07 18.6 07 26 07 06 14									61.3N 56.5E, H: 06 59 56.0 h 0 km, Mb 5.6. Ural Mountains region.
Mar. 23.	DBN: iP iS eL F WIT: iP HEE: eP RSB: iP	09 30 57 + 09 34 46 09 35.2 in next shock 09 30 52.9 - 09 31 19 09 31 10 +			14			106	6.1		71.0N 7.0W, H: 09 26 29.3 h N, Mb 6.0, Ms 6.3. Jan Mayen Island region.
Mar. 23.	DBN: eL F WIT: iP RSB: iP	10 17 11.6 10 00 55.9 - 10 01 03			16		34		6.4		41.5N 79.3E, H: 09 52 12.3 h N Mb 4.7. Kirgiz-Sinkiang border region.
Mar. 23.	DBN: iP ePP eS eSS eL F WIT: eP RSB: eP	20 56 13 + 20 58 05 21 03 40 21 07.0 21 11 22 24 20 56 04 20 56 08			16		42		6.5		41.5N 79.3E, H: 20 47 17.4 h N, Mb 6.0, Ms 5.8. Kirgiz-Sinkiang border region.



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Mar. 24.	DBN: eL	03.6								5.3S 151.5E, H: 02 26 14.7 h 71 km, Mb 5.6. New Britain region.	
	F	03.8									
	WIT: ePKP	02	45	08							
	e	02	45	23							
	RSB: ePKP	02	45	11							
	e	02	45	26							
Mar. 24.	DBN: e	05	21							38.0N 20.2E, H: 05 11 12.3 h 17 km, Mb 4.7. Greece.	
	F	05	28								
Mar. 24.	DBN: iP	14	04	58	-					35.5N 98.2E, H: 13 54 17.7 h 13 km, Mb 5.8, Ms 6.4. Tsinghai Province, China.	
	iS	14	13	51							
	eSS	14	18.0								
	eL	14	25			24		27	6.5		
	F	16.0									
	WIT: iP	14	04	51.5	+						
	RSB: iP	14	05	01	-						
Mar. 24.	RSB: iP	21	03	27	+					41.5N 79.5E, H: 20 54 28.6 h 18 km, Mb 5.3. Kirgiz-Sinkiang border region.	
Mar. 24.	DBN: eL	21	23							41.4N 79.4E, H: 21 01 54.9 h 25 km, Mb 5.3. Kirgiz-Sinkiang border region.	
	F	21	39								
	WIT: eP	21	10	42							
	RSB: iP	21	10	52							
Mar. 25.	WIT: iP	03	43	50.0	+					50.5N 176.8W, H: 03 31 53.6 h 11 km, Mb 5.3. Andreanof Islands, Aleutian Islands.	
	RSB: eP	03	44	04							
Mar. 25.	DBN: eL	17	06							38.5N 142.1E, H: 16 19 51.7 h 53 km, Mb 5.5. Near east coast of Honshu, Japan.	
	F	17	14								
	WIT: iP	16	32	04.1							
	i	16	32	16.1							
	RSB: eP	16	32	15	-						
Mar. 26.	DBN: eL	10	20							55.4S 129.1W, H: 09 08 06.6 h N, Mb 5.7, Ms 6.0. South Pacific Cordillera.	
	F	11.2									
Mar. 26.	DBN: eL	18	10							60.3N 141.0W, H: 17 35 18.0 h 7 km, Mb 5.5, Ms 5.7. Southeastern Alaska.	
	F	19.0									
	WIT: iP	17	45	56.5	-						
	RSB: iP	17	46	07	+						
Mar. 27.	DBN: eL	01	45							7.5S 81.6W, H: 00 53 25.0 h 29 km, Mb 5.4, Ms 4.8. Off coast of northern Peru.	
F	02.1										



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Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Mar. 27.	WIT: iP RSB: iP	17	21	21.0	+						52.5N 174.5W, H: 17 09 52.3 h 138 km, Mb 5.6. Andreanof Islands, Aleutian Islands.
Mar. 28.	DBN: eL F	03 04	35 08								19.1N 96.3E, H: 02 54 12.2 h 34 km, Mb 4.4. Burma.
Mar. 28.	DBN: iP eL F WIT: eP RSB: eP	08 09 10.6	35 01	43	(-)	19			15.6	6.4	Change of papers: 08.41-08.55 11.8N 95.1E, H: 08 23 19.9 h N, Mb 5.5, Ms 6.3. Andaman Islands region.
Mar. 28.	DBN: eL F	18 19	59 12								9.6S 124.4E, H: 17 56 56.1 h N, Mb 5.7. Timor.
Mar. 29.	DBN: eL F	04 05.0	32								33.3S 71.9W, H: 03 31 51.4 h N, Mb 4.9, Ms 4.9. Near coast of central Chile.
Mar. 29.	WIT: iP	19	32	45.0	(+)						41.2N 137.6E, H: 19 21 20.3 h 289 km, Mb 4.9. Eastern Sea of Japan.
Mar. 30.	HEF: e RSB: e	06 06	38 38.6	37							No determination of epicenter.
Mar. 30.	DBN: eL F WIT: eP RSB: eP	12 13.0	16								51.2N 177.5W, H: 11 30 38.9 h 20 km, Mb 5.7, Ms 5.4. Andreanof Islands, Aleutian Islands.
Mar. 30.	DBN: e F	18 18	50 56								No determination of epicenter.
Mar. 30.	DBN: e F WIT: ePKP RSB: ePKP	23 23	08 54								24.8S 176.0W, H: 22 39 25.0 h N, Mb 5.0, Ms 5.1. South of Fiji Islands.
Mar. 31.	DBN: eL F	11 11.7	15								9.0N 125.7E, H: 10 23 57.3 h N, Mb 5.4, Ms 5.1. Mindanao, Philippine Islands.
Mar. 31.	WIT: ePKP RSB: ePKP	11 11	53 53	30 39							29.1S 177.5W, H: 11 33 14.1 h 67 km, Ms 5.2. Kermadec Islands.



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Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Apr. 1.	DBN: ePKP	00	30	20						16.9S 167.3E, H: 00 10 43.2 h 31 km, Mb 4.9, Ms 5.4. New Hebrides Islands.	
	eSS	00	52								
	eL	01.4									
	F	02	29								
	RSB: ePKP	00	30	17							
Apr. 1.	DBN: eSS	06	17							16.5S 167.3E, H: 05 35 44.8 h 24 km, Mb 5.2, Ms 5.4. New Hebrides Islands.	
	eL	06	51								
	F	08	08								
Apr. 1.	RSB: ePKP	06	21	50						16.6S 172.7W, H: 06 02 06.5 h N, Mb 4.5. Samoa Islands region.	
Apr. 1.	DBN: eS	12	58							17.9S 66.0E, H: 12 33 24.5 h N, Mb 5.0, Ms 5.3. Mascarene Islands region.	
	eSS	13	02.5								
	eL	13	22								
	F	14.0									
Apr. 1.	WIT: ePKP1	19	57	48						29.8S 179.3W, H: 19 38 18.8 h 214 km, Mb 5.3. Kermadec Islands region.	
	iPKP2	19	58	20.0							
	RSB: ePKP1	19	57	50							
	iPKP2	19	58	28							
Apr. 2.	DBN: eL	01	49.7							43.1N 13.1E, H: 01 43 56.6 h 39 km, Mb 4.5. Central Italy.	
	F	01	52								
Apr. 2.	WIT: ePKP	02	59	54						25.8S 177.4W, H: 02 40 14.9 h 193 km, Mb 4.6. South of Fiji Islands.	
Apr. 2.	DBN: eL	05	09							8.9N 125.7E, H: 04 16 08.8 h 31 km, Mb 5.3. Mindanao Philippine Islands.	
	F	05	33								
Apr. 2.	HEE: e	14	31	19						No determination of epicenter.	
Apr. 3.	RSB: e	00	06	35						No determination of epicenter.	
Apr. 3.	DBN: eS	05	08	40						32.3N 95.1E, H: 04 49 03.4 h N, Mb 5.7. Tibet.	
	eL	05	21			17		38	6.6		
	F	06	35								
	WIT: eP	04	59	39	+						
	RSB: iP	04	59	46	+						
Apr. 3.	WIT: eP	05	01.4							32.3N 95.4E, H: 04 50 45.6 h N, Mb 5.8. Tibet. Disturbed by preceding shock	
	RSB: eP	05	01	27	+						



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Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Apr. 3.	DBN: e F	14	49								42.6S 83.3W, H: 13 38 15.3 h N, Mb 5.0. West Chile Rise.
Apr. 4.	DBN: iSg eL F WIT: ePn iPg HEE: ePg eSg RSB: ePn	05	03	12							51.8N 11.5E, H: 05 00 53.0 h 0 km, Mb 4.6. Germany, Rockburst.
Apr. 4.	DBN: iPKP eSKS ePS eSS eSSS eL F WIT: ePKP RSB: ePKP	10	35	28							56.2S 122.5W, H: 10 15 37.2 h N, Mb 6.2, Ms 6.6. Easter Island Cordillera.
		11	04	15							
		11.4				19		13.2		6.7	
		13.9									
		10	35	28.5(+)							
		10	35	23							
Apr. 4.	DBN: iP ePP ePPP eS eSPP eL F WIT: iP RSB: iP	18	51	59	+						38.4N 142.1E, H: 18 39 39.2 h 52 km, Mb 5.8. Near east coast of Honshu, Japan.
		18	55	08							
		18	57	00							
		19	02	16							
		19	03	18							
		19	17			18		12.5		6.3	
		20.5									
		18	51	52.0	+						
		18	52	00							
Apr. 5.	DBN: ePKP ePPP eSKS ePS eSS eSSS eL F RSB: ePKP	05	20	58							0.3S 124.7E, H: 05 02 11.8 h N, Mb 5.8. Molucca Sea.
		05	23	55							
		05	27	44							
		05	31.0								
		05	37								
		05	40.6								
		05	54								
		06.6									
		05	21	04							



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Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Apr. 5.	DBN: iP	09	16	09	-					53.4N 170.6W, H: 09 04 42.8 h 153 km, Mb 5.8. Fox Islands, Aleutian Islands.	
	ipP	09	16	58							
	ipPP	09	19	44							
	epPPP	09	21	34							
	isS	09	26	38							
	eL	09	38								
	F	10.4									
	WIT: iP	09	16	04.8	-						
epF	09	16	44.5								
RSB: iP	09	16	16	-							
Apr. 5.	WIT: ePKP	14	45	38.7						25.9S 179.8W, H: 14 26 30.7 h 432, Mb 5.0. South of Fiji Islands.	
Apr. 5.	WIT: iP	20	19	54.1	+					20.1S 178.3W, H: 20 01 09.5 h 522 km, Mb 4.7. Fiji Islands region.	
	RSB: ePKP	20	19	59							
Apr. 6.	DBN: eL	00	57							42.3N 145.0E, H: 00 17 11.8 h 34 km. Mb 5.3. Hokkaido, Japan region.	
	F	01.6									
	WIT: eP	00	19	14							
Apr. 6.	DBN: eL	07	09			15	3.2		5.2	29.8N 51.9E, H: 06 49 52.9 h 10 km. Mb 5.2. Ms 5.1. Southern Iran.	
	F	07.7									
	RSB: eP	06	57	32							
Apr. 6.	DBN: eL	10	15							42.3N 145.1E, H: 09 35 35.8 h 35 km. Mb 5.1. Hokkaido, Japan region.	
	F	10	38								
Apr. 6.	DBN: iP	11	25	10	+					22.2S 179.6W, H: 11 06 30.6 h 603 km, Mb 5.6. South of Fiji Islands.	
	PKP2	11	25	15							
	epPKP1	11	27	25							
	ePP	11	28	30							
	F	12.9									
	WIT: ePKP1	11	25	09.0	-						
	iPKP2	11	25	14.0							
	ipPKP2	11	27	32							
	RSB: ePKP1	11	25	14	-						
	iPKP2	11	25	20	-						
	i	11	25	30	-						
	ipPKP1	11	27	39	-						
	Apr. 6.	WIT: ePKP1	16	20	11.8	-					
iPKP2		16	20	17.0							
epPKP2		16	22	27							
RSB: ePKP1		16	20	14							
iPKP2		16	20	21							
i		16	20	34							



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Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms		
		h	m	s			Z	NS	EW				
Apr. 7.	DBN: iP	05	13	58	-	7	2.6			2.4N 129.1E, H: 04 59 39.4 h 47 km. Mb 6.5. Ms 6.6. Halmahera.			
	ipP	05	14	19									
	iPP	05	18	32									
	epPP	05	18	55									
	eSKS	05	24	50									
	eSKKS	05	25	44									
	iSP	05	27	40									
	eL	05	54								25	33	6.9
	F	08.8											
	WIT: eP	05	13	53									
	e	05	17	20									
	ePKP	05	18.2										
	ePP	05	18.5										
RSB: eP	05	13	59										
Apr. 8.	DBN: iP	07	59	26	+	5	1.5		4.3S 102.4E, H: 07 45 57.8 h 75 km. Mb 6.3. Southern Sumatra.				
	ePP	08	03	20									
	eSKS	08	09	58									
	eS	08	10	46									
	iH	08	11	48									
	eSP	08	12	04									
	eL	08	32							25	8.1	6.3	
	F	10.0											
	WIT: iP	07	59	22.6									
	RSB: eP	07	59	25									
Apr. 8.	DBN: eL	18	31						BCIS. 34.3N 23.8E, H: 18 18 10, Southwest of Crete.				
	F	18	38										
Apr. 9.	DBN: eL	06	50			14	2.6	5.6	44.4N 139.1E, H: 06 08 33.0 h N, Mb 5.6. Ms 5.3. Eastern Sea of Japan.				
	F	07	20										
	WIT: iP	06	20	12.8									
	e	06	20	17.8									
	RSB: eP	06	20	23									
Apr. 10.	DBN: eL	01	17						52.1N 169.9W, H: 00 36 44.0 h 51 km, Mb 4.8. Fox Islands Aleutian Islands.				
	F	02.1											
Apr. 10.	WIT: iP	01	41	03.7	+				21.3S 178.8W, H: 01 22 17.2 h 542. Mb 5.7. Fiji Islands region.				
	RSB: ePKP1	01	41	02									
	iPKP2	01	41	08									
	e	01	41	14									
Apr. 10.	DBN: eL	03	05	43					42.5N 20.1E, H: 02 58 05.9 h 21 km. Mb 4.6. Yugoslavia.				
	F	03	10										
Apr. 10.	WIT: ePKP	13	21	59.5					20.8S 178.7W, H: 13 03 17.4 h 582 km. Mb 4.7. Fiji Islands region.				
	RSB: ePKP	13	22	05									



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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
1971											
Apr. 10.	DBN: eL F RSB: eP	13 13 13	33 40 26	33							38.9N 29.1E, H: 13 21 55.0 h 28 km. Mb 4.7. Turkey.
Apr. 12.	DBN: iP ePP eScP eS eSS eL F WIT: eP ePP RSB: iP	19 19 19 19 19 19 19 19 19 19 19	11 13 17 18.0 21.3 23.5 21.0 11 13 11	32 09 12 26.7 14 28	+       -  +	4     28	4.1     14.6		5.9	28.3N 55.6E, H: 19 03 25.9 h 44 km, Mb 6.0. Ms 5.9 Southern Iran.	
Apr. 12.	WIT: iPKP RSB: ePKP	19 19	54 54	24.1 29	+  -						23.5S 179.7W, H: 19 35 33.2 h 546 km. Mb 4.9. South of Fiji Islands.
Apr. 12.	RSB: ePKP	21	01	27							19.1S 169.6E, H: 20 42 18.1 h 272 km. Mb 5.2. New Hebrides Islands.
Apr. 12.	DBN: iPKP F WIT: iPKP RSB: iPKP	21 21 21 21	19 20 19 19	10 07.7 15	-  - -						17.9S 178.2W, H: 21 00 37.3 h 612 km. Mb 5.3. Fiji Islands region.
Apr. 13	DBN: eL F WIT: ePKP RSB: ePKP	06.7 07.4 05 05	37 37	47 54							24.7S 175.8W, H: 05 17 54.3 h N, Mb 5.3. Ms 5.3. South of Tonga Islands.
Apr. 13.	WIT: ePKP RSB: iPKP	06 06	17 17	01 06							15.9S 174.0W, H: 05 57 34.5 h 73 km. Mb 5.5. Tonga Islands.
Apr. 13.	DBN: eS eL F WIT: eP RSB: iP	13 13 13 12 12	01 03 19 57 57	28 21.9 18		18	2.7		4.7	39.0N 29.9E, H: 12 52 34.6 h 13 km. Mb 5.1. Turkey.	
Apr. 13.	DBN: iPYP F WIT: iPKP RSB: iPKP	18 18 18 18	06 07 05 06	01 59.5 05	+   +						17.7S 178.8W, H: 17 47 24.2 h 559 km. Mb 5.3. Fiji Islands region.



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Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Apr. 14.	DBN: eL	12	18			15			2.6	5.6	27.7N 112.4W, H: 11 38 42.1 h N, Mb 5.4. Ms 5.2. Baja California.
	F	13	13								
	WIT: eP	11	51	12							
	RSB: e	11	51.3								
Apr. 14.	DBN: eL	20	16								27.7N 112.2W, H: 19 35 05.3 h N, Mb 5.3. Baja California.
	F	20	50								
Apr. 15.	RSB: e	01	31	02							No determination of epicenter.
	e	01	31	18							
Apr. 15.	DBN: eL	04	27								9.0N 125.8E, H: 03 35 10.4 h 35 km. Mb 4.9. Mindanao, Philippine Islands.
	F	04	45								
Apr. 15.	RSB: i	09	46	57							Local shock. No determination of epicenter.
Apr. 17.	DBN: eL	02	47								6.3S 154.7E, H: 01 41 20.1 h 72 km. Mb 5.7. Solomon Islands.
	F	03	18								
Apr. 17.	WIT: eP	16	42	50.5 +							41.0N 37.0E, H: 16 37 38.4 h N, Mb 4.8. Turkey.
	RSB: eP	16	42	47							
Apr. 17.	DBN: eL	18	07								0.2S 91.6W, H: 17 19 12.8 h N, Mb 5.4. Ms 5.2. Galapagos Islands.
	F	18	41								
Apr. 17.	RSB: iPKP	20	21	19							19.8S 168.1E, H: 20 01 35.8 h 10 km. Mb 5.1. New Hebrides Islands.
	i	20	21	32							
Apr. 18.	DBN: eL	18	24								0.2S 91.4W, H: 17 41 27.9 h N, Mb 5.7. Ms 5.5. Galapagos Islands.
	F	19.4									
Apr. 19.	DBN: eP	02	47	58		10		8.7		5.0	39.0N 20.5E, H: 02 43 52.2 h 16 km. Mb 5.1. Ms 4.8. Greece-Albania border region.
	eS	02	51	15							
	eL	02	53								
	F	03	23								
	RSB: eP	02	47	40							
Apr. 19.	DBN: eL	05	53								13.9N 90.5W, H: 05 07 48.5 h 92 km. Mb. 5.0. Near coast of Guatemala.
	F	06	16								



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Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Apr. 20.	DBN: eL F	01.2 01.6									4.8S 145.8E, H: 00 07 07.9 h 36 km. Mb 5.1. Near north coast of New Guinea.
Apr. 20.	WIT: eP	13 52 20									52.9N 158.8E, H: 13 41 02.1 h 83 km. Mb 5.1. Near east coast of Kamchatka
Apr. 20.	DBN: ipP ePP eS iPS eSS eL F WIT: iP epP RSB: eP	14 26 37 14 30 02 14 36 46 14 37 28 14 42 20 14 53 15 40 14 26 17.7 14 26 43 14 26 36									21.8S 69.0W, H: 14 12 46.8 h 93 km. Mb 5.7. Northern Chile.
Apr. 20.	WIT: eP	16 27 17									4.7N, 126.5E, H: 16 13 21.0 h 79 km. Mb 5.6. Talaud Islands.
Apr. 21.	RSB: i	00 20 33									Local shock. No determinatio of epicenter.
Apr. 21.	DBN: eP iS iPS eL F WIT: iP	06 53 54 07 03 36 07 04 12 07 21 08.9 06 53 49.2				16	4.2		5.7		53.9N 161.5W, H: 06 42 16.3 h 21 km. Mb 5.1. Ms 5.4. South of Alaska.
Apr. 21.	DBN: eL F WIT: eP	13 49 14.10 13 39 37				18		2.4	5.1		32.4N 40.2W, H: 13 32 08.4 h N, Mb 5.0. North Atlantic Ridge.
Apr. 22.	DBN: eL F	09 36.5 09 42									41.9N 20.3E, H: 09 28 27.3 h 36 km. Mb 4.8. Albania.
Apr. 22.	DBN: eL F	22 47 22 57									71.6N 3.2W, H: 22 37 12.7 h N, Mb 4.7. Jan Mayen Island region.
Apr. 25.	DBN: eL F WIT: iP RSB: iP	04 00 44 04 04 03 41 01.6 + 03 41 12 +				12		3.3	5.3		49.8N 78.1E, H: 03 32 58.0 h 0 km. Mb 5.9. Eastern Kazakh SSR.



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Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Apr. 25.	DBN: iP	17	52	33	+	16			6.2	5.0	68.2N 18.1W, H: 17 48 03.9 h N, Mb 4.9. Iceland region.
	iS	17	56	18							
	eL	17	57.5								
	F	18	26								
	WIT: eP	17	52	27							
	RSB: iP	17	52	46							
Apr. 26.	DBN: eL	05	38								24.5S 176.2W, H: 04 19 18.8 h N, Mb 5.3. Ms 5.5. South of Fiji Islands.
	F	06	27								
	WIT: ePKP	04	39	13							
	RSB: ePKP	04	39	28							
Apr. 26.	DBN: eL	19	17								11.4N 86.8W, H: 18 32 20.3 h 69 km. Mb 4.7. Near coast of Nicaragua.
	F	19	32								
Apr. 26.	DBN: eL	23	13								25.7N 125.7E, H: 22 23 55.6 h 19 km. Mb 5.1. South-western Ryukyu Islands.
	F	23	27								
Apr. 27.	RSB: e	06	38	44							BCIS: 49.9N 8.5E, H: 06 37 46.0. Northern Rhinegraben, Germany.
Apr. 27.	DBN: eL	10	54								19.2N 121.2E, H: 10 04 06.3 h 18 km. Mb 5.0. Philippine Islands region.
	F	11	12								
Apr. 27.	DBN: eL	15	18								44.4N 147.1E, H: 14 39 29.5 h 117 km. Mb 4.6. Kuril Islands.
	F	15	24								
Apr. 27.	DBN: eL	21	22								30.9S 177.0W, H: 19 55 18.1 h 38 km. Mb 4.9. Kermadec Islands.
	F	22	02								
Apr. 28.	DBN: eP	15	43	37		24			47	6.8	22.9N 101.0E, H: 15 32 00.9 h 15 km. Mb 5.6. Ms 6.3. Burma-China border region.
	ePPP	15	48	24							
	iS	15	53	34							
	iSP	15	54	20							
	iSS	15	59	06							
	iSSS	16	01	41							
	eL	16	06								
	F	17	24								
	WIT: eP	15	43	43							
	RSB: eP	15	43	49							



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Apr. 29.	RSB: iP	04	36	22	+						48.5N 8.9E, H: 04 35 29.4 h N. Swabian Jura, Germany.
Apr. 29.	DBN: eL F	08 09	42 12			18			1.7	5.2	0.5S 19.8W, H: 08 14 53.6 h N, Mb 5.1. Central Mid-Atlantic Ridge.
Apr. 29.	DBN: eL F	17 18	35 15								54.5S 136.7W, H: 16 14 57.6 h N, Mb 5.0. South Pacific Cordillera.
Apr. 29.	DBN: eP ePP eSKS iS eSP eSS eL F RSB: eP	20 20 20 20 20 20 20 22.0 20	09 13 20 21 22 27 42 42 09	42 39 10 04 20 44 42 42 42		24			13	6.4	12.6N 122.3E, H: 19 56 11.6 h 4 km. Mb 5.5. Ms 5.7. Luzon, Philippine Islands.
Apr. 30.	DBN: eL F	03 03	46 58								11.4S 12.8W, H: 03 15 35.2 h N, Mb 4.7. Ascension Island region.
Apr. 30.	DBN: eL F WIT: iP	16 17 15	25 00 59	41.8	-						52.8N 172.5E, H: 15 48 06.5 h 37 km. Mb 5.5. Ms 5.0. Near Islands, Aleutian Islands.
May 1.	WIT: i	12	17	32.4	+						No determination of epicenter.
May 1.	DBN: eL F RSB: eP	13 14 13	56 09 49	44							40.9N 27.8E, H: 13 45 25.8 h 13 km. Mb 4.6. Turkey.
May 1.	DBN: iP iPKP iSKP ipSKP eSKS eL F WIT: ePKP RSB: iP	14 14 14 14 14 15 16 14 14	35 35 38 39 41 31 26 35 35	04 45 38 19 56 03.4 09	(-) +						22.3S 171.6E, H: 14 15 36.2 h 147 km. Mb 5.8. Loyalty Islands region.
May 2.	DBN: eL F	02 03	31 05								11.9N 143.2E, H: 01 36 18.0 h 20 km. Mb 5.1. South of Mariana Islands.



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
May 2.	DBN: iP ePP ePPP eS iPS eSS eL F WIT: eP RSB: eP	06 06 06 06 06 06 06 10 06 06	20 23 24 30 31 35 41 47 20 20	14 13 52 08 07 00  24	(+)	20	93		7.1	51.4N 177.2W, H: 06 08 27.3 h 43 km. Mb 6.0. Ms 7.1. Andreanof Islands, Aleutian Islands.	
May 3.	DBN: eL F WIT: eP RSB: eP	01 01 00 00	02 36 43 43	  23 31		18	6.5		5.8	30.8N 84.5E, H: 00 33 22.5 h 16 km. Mb 5.4. Tibet.	
May 3.	DBN: ePP eL F	11 11.9 13.1	11	32		18	2.0		5.8	11.1S 161.6E, H: 10 49 26.9 h 45 km. Mb 4.6. Ms 5.7. Solomon Islands.	
May 3.	RSB: e	11	48	08						17.9S 178.7W, H: 11 29 34.0 h 638 km. Mb 4.4. Fiji Islands region.	
May 4.	DBN: iP ePP eSKS ePS eSS eL F WIT: eP e RSB: eP	02 02 02 02 02 02 05.4 02 02 02	18 22 29 31 37 50  18 22 18	24 31 00 26 18  15 13 21	+	22		15	6.5	6.6S 105.4E, H: 02 04 32.6 h 69 km. Mb 6.1. Sunda Strait.	
May 4.	WIT: e	04	48	04						No determination of epicenter.	
May 4.	WIT: iPn RSB: iP	14 14	04 04	43.8 37	-					BCIS: 51.5N 7.2E, H: 14 04 18 Germany, Rockburst Ruhr coal district.	
May 5.	DBN: eZ F	01 01	25 48	09						41.9N 20.2E, H: 01 15 33.0 h 9 km. Mb 4.9. Albania.	
May 5.	DBN: eL F	02 02	32 52							19.7N 121.3E, H: 01 43 17.5 h 64 km. Mb 4.8. Philippine Islands region.	



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
May 5.	DBN: eL F	09	50 53							41.2N 15.3E, H: 09 41 44.1 h 12 km. Mb 4.3. Southern Italy.	
May 6.	DBN: eL F WIT: eP RSB: eP	03 04	52 18 48.3 48 03		12		4.6		4.6	41.4N 15.2E, H: 03 45 13.6 h N. Mb 4.9. Southern Italy.	
May 6.	DBN: eL F WIT: eP epP RSB: eP	04 04	36 49 29 18.4 29 21.8 29 14							39.0N 29.7E, H: 04 24 33.9 h 23 km. Mb 4.6. Turkey.	
May 7.	WIT: iPKP	00	28 26.6							23.5S 180.0W, H: 00 09 38.5 h 574 km. Mb 5.2. South of Fiji Islands.	
May 7.	DBN: iPP ePPP ePS ePPS eSS eL F WIT: ePP RSB: ePP	00 00 00 00 00 01 03.0	40 07 42 14 49 34 50 24 55.5 12 03.0 00 39 53 00 39 52		30		21		6.7	2.6S 119.6E, H: 00 21 13.9 h 35 km. Mb 5.8. Ms 5.8. Celebes.	
May 8.	DBN: iPP iSKS esSKS eS esS eSP esSP eSS F	01 01 01 01 01 01 01 01 01 02.5	09 11 14 44 15 56 16 44 17 56 18 48 19.6 25 00 02.5							42.2S 71.7W, H: 00 49 45.6 h 151 km. Mb 5.9. S.Chile-Argentina border region.	
May 8.	DBN: eP eS eL F	03 03 03 03	08 32 15 40 24 47							29.6N 66.3E, H: 03 00 08.9 h N. Mb 4.9. West Pakistan.	
May 9.	WIT: eP	03	18 33.1							42.6N 145.0E, H: 03 06 37.7 h 70 km. Mb 5.2. Hokkaido, Japan region.	



SEISMOLOGICAL BULLETIN



Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
1971											
May 9.	DBN: iPKP	08	44	15	(-)						39.8S 104.8W, H: 08 25 01.7
	ePP	08	46	43							h N. Mb 6.2. Ms 6.0.
	ePKS	08	47	44							Southern Pacific Ocean.
	eSP	08	56	50							
	eSS	09	04	06							
	eSSS	09	09.0								
	eL	09.5				22			6.9	6.4	
	F	11.0									
	WIT: ePKP	08	44	12							
	e	08	44	15							
	RSB: ePKP	08	44	13							
May 9.	DBN: eL	19	39								39.7S 105.0W, H: 18 35 09.8
	F	in next shock									h N. Mb 5.4. Ms 5.4. Easter Island Cordillera.
May 9.	DBN: eL	19	49								35.6N 71.1E, H: 19 26 34.6
	F	20	50								h 85 km. Mb 5.5.
	WIT: eP	19	35	03.7							West Pakistan.
	RSB: iP	19	35	10	+						
May 10.	DBN: eL	00	38								52.2N 171.0W, H: 00 01 16.3
	F	01	20								h 48 km. Mb 5.3. Ms 5.1. Fox Islands, Aleutian Islands.
May 10.	DBN: eL	12	46			18			2.0	5.6	8.0N 126.8E, H: 11 53 53.0
	F	13	31								h N. Mb 5.8. Ms 5.4.
	WIT: eP	12	07	41.7							Mindanao, Philippine Islands.
	RSB: eP	12	07	48							
May 10.	DBN: eP	14	59	56							42.8N 71.4E, H: 14 51 46.8
	iPP	15	01	46							h N. Mb 5.6. Ms 5.4.
	eS	15	06.9								Kirgiz SSR.
	eSS	15	09	36							
	iZ	15	12	04							
	eL	15	15			18			13.3	5.8	
	iZ	15	16	35							
	F	15.8									
	WIT: eP	14	59	46.5							
	e	14	59	51.3							
	ePP	15	01	32							
	RSB: eP	14	59	55							
	ePP	15	01	42							
May 11.	DBN: eL	00	58								22.3N 121.1E, H: 00 09 35.0
	F	01	09								h 46 km. Mb 5.4.
	WIT: eP	00	22	14							Taiwan region.
	epP	00	22	33							
	RSB: eP	00	22	22							



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
May 12.	DBN: eP	06	30	12	-	12			115	6.4	37.6N 29.8E, H: 06 25 13.0 h 23 km. Mb 5.5. Ms 5.9. Turkey, 100 killed.
	iZ	06	30	20	+						
	iS	06	34	28							
	eL	06	36								
	F	08.5									
	WIT: eP	06	30	14.0							
	HEE: eP	06	30	11							
RSB: eP	06	30	04								
May 12.	DBN: eP	10	15	36	+	11			18.5	5.6	37.5N 29.7E, H: 10 10 37.2 h N. Mb 5.5. Turkey.
	eS	10	19	40							
	eL	10	22								
	F	11.1									
	WIT: eP	10	15	31							
RSB: eP	10	15	25								
May 12.	DBN: eP	13	02	21	+	10			59	5.9	37.6N 29.6E, H: 12 57 24.8 h N. Mb 5.4. Ms 5.2. Turkey.
	eS	13	06	32							
	eL	13	08								
	F	14.0									
	WIT: eP	13	02	20							
	i	13	02	21.8							
	e	13	03	17							
RSB: eP	13	02	15								
May 12.	DBN: eL	14	38.5								37.6N 29.6E, H: 14 23 35.4 h N. Mb 4.4. Turkey.
	F	14	41								
May 12.	DBN: e	16	42.5								No determination of epicenter.
	F	16	46								
	FSB: e	16	29	20							
May 12.	DBN: eP	17	17	14		10			3.4	4.8	37.6N 30.0E, H: 17 12 25.4 h 28 km. Mb 4.7. Turkey.
	eS	17	21	38							
	eL	17	24								
	F	17	42								
	WIT: eP	17	17.4								
	RSB: eP	17	17	17							
May 12.	DPN: eL	18	00.5								37.4N 29.6E, H: 17 48 03.0 h N. Mb 4.4. Turkey.
	F	18	10								
May 12.	DPN: eL	19	14								37.5N 29.8E, H: 19 02 25.6 h N, Mb 4.5. Turkey.
	F	19	22								



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
May 12.	DBN: eS	20	22	20		11			3.4	4.8	37.5N 29.9E, H: 20 13 08.1 h 36 km. Mb 4.8. Turkey.
	eL	20	24								
	F	20	40								
	WIT: eP	20	18.1								
	RSB: eP	20	18	05							
May 12.	WIT: eP	21	52	45							47.5N 154.4E, H: 21 40 56.5 h N. Mb 5.6. Kuril Islands.
May 12.	DBN: eS	04	54	42							37.5N 29.7E, H: 04 45 27.5 h 14 km. Mb 4.8. Turkey.
	eL	04	57.5								
	F	05	07								
	WIT: eP	04	50.5								
	RSB: eP	04	50	21							
May 13.	DBN: eL	08	41								37.7N 30.0E, H: 08 30 25.0 h N. Mb 4.4. Turkey.
	F	08	49								
May 13.	DBN: eL	13	40								37.6N 29.9E, H: 13 28 39.5 h N. Mb 4.7. Turkey.
	F	13	51								
May 13.	DBN: e	18	45								ISC: 63.9N 23.9W, H: 18 35 30.1, h 33 km. Mb 4.4. Iceland region.
	F	18	49								
May 13.	WIT: i	19	07	26.2 +							No determination of epicenter.
May 13.	DBN: eL	20	18								63.9N 23.1W, H: 20 08 46.2, h N, Mb 4.1. Iceland region.
	F	20	23								
May 13.	DBN: eL	23	46								37.6N 29.9E, H: 23 32 54.9 h N. Mb 4.4. Turkey.
	F	23	52								
May 14.	DBN: eL	08	55								6.5S 107.1E, H: 07 56 36.7 h 10 km. Mb 5.3. Java.
	F	09	16								
May 14.	WIT: e	14	11	53							No determination of epicenter.
May 14.	DBN: eS	22	27	36							37.7N 30.0E, H: 22 18 23.0 h N. Mb 4.5. Turkey.
	eL	22	30								
	F	22	42								
	RSB: eP	22	23	16							



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
May 14.	DBN: eS eL F RSB: eP	23	00	20		11			3.4	4.8	37.4N 29.5E, H: 22 51 10.7 h N. Mb 4.7. Turkey.
May 15.	DBN: eL F	05	32								8.3N 82.9W, H: 04 50 30.1 h 45 km. Mb 4.5. Panama-Costa Rica border region.
May 15.	DBN: eL F	12	32								37.5N 29.9E, H: 12 19 56.9 h N. Mb 4.3. Turkey.
May 15.	RSB: e	18	16	03							No determination of epicenter. Local shock.
May 16.	WIT: iPKP RSB: iPKP	05	30	09.4							18.4S 178.0W, H: 05 11 34.3 h 585 km. Mb 5.2. Fiji Islands region.
May 16.	DBN: eL F	08	53								37.5N 29.9E, H: 08 39 34.1 h N. Mb 4.5. Turkey. Change of papers: 08 57 - 09 14.
May 16.	DBN: eS eL F	09	34	08		11			5.1	5.0	37.6N 29.7E, H: 09 25 01.4 h N. Mb 4.9. Ms 5.0. Turkey.
May 16.	WIT: i	14	44	44.8							No determination of epicenter.
May 16.	DBN: eL F	23	09								9.3N 125.5E, H: 22 17 00.5 h 16 km. Mb 4.7. Mindanao, Philippine Islands
May 17.	DBN: iP epP iS esS eSS eSSS eL F WIT: iP iPcP epP e RSB: eP epP	11	16	35	+						1.6S 77.7W, H: 11 04 07.1 h 176 km. Mb 5.7. Ecuador.
		11	17	14							
		11	26	46							
		11	27	53							
		11	32	42							
		11	35	50							
		11.8									
		13.1									
		11	16	39.0	-						
		11	16	45.5							
		11	17	22.8							
		11	17	35.9							
		11	16	34							
		11	17	19							



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
May 17.	DBN: eL F	14	27			11			3.4	4.8	37.7N 29.9E, H: 14 16 17.9 h N. Mb 4.8. Turkey.
May 18.	WIT: iPKP RSB: iPKP	01	05	40.1	+						29.7S 178.7E, H: 00 46 20.1 h 600.km. Mb 5.4. Kermadec Islands region.
May 18.	DBN: eL F	02	16								37.5N 29.8E, H: 02 03 55.1 h N. Mb 4.5. Turkey.
May 18.	DBN: e F	03	26								ISC: 37.8N, 29.8E, H: 03 13 10, h 0 km. Turkey.
May 18.	DBN: eP iPP eS eL F	06	27	24							28.4S 68.8W, H: 06 12 36.7 h 95 km. Mb 5.8. La Rioja Province, Argentina.
May 18.	RSB: iPKP	07	18	02							20.8S 175.9W, H: 06 58 30.8 h 175 km. Mb 5.1. Tonga Islands.
May 18.	DBN: eP iPP iPPP eS iPS eSS eL F WIT: eP i HEE: eL RSB: eP i	22	54	55	(+)						63.9N 146.1E, H: 22 44 43.8 h N, Mb 5.8. Ms 6.6. Eastern Siberia.
		22	57	08							
		22	58	33							
		23	02	49							
		23	03	12							
		23	07.0			21			63	6.8	
		23	13								
		03.0									
		22	54	45							
		22	54	58.5							
		23	20								
		22	54	58							
		22	55	01	-						
May 19.	DBN: eL F	04	09								19.2N 121.1E, H: 03 14 21.9 h 28 km. Mb 4.9. Philippine Islands region.
May 19.	WIT: ePg RSB: iPn	17	32	20							48.3N 9.1E, H: 17 30 44.0 h 17 km. Germany.
		17	31	37							



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
May 20.	DBN: eS	03	16	03		11			3.4	4.8	37.6N 30.0E, H: 03 06 45.3 h N. Mb 4.8. Turkey.
	eL	03	18.5								
	F	03	30								
	WIT: eP	03	11	47							
	RSB: eP	03	11	40							
May 20.	DBN: eL	08	36								42.3N 126.3W, H: 08 01 08.6 h N. Mb 5.0. Ms 5.0. Off coast of Oregon.
	F	08	56								
May 21.	WIT: iP KP	00	49	40.6							19.2S 177.2W, H: 00 30 43.8 h 396 km. Mb 4.9. Fiji Islands region.
	RSB: iP KP	00	49	47 (+)							
May 21.	DBN: eS	09	50	24		11			2.0	4.6	37.5N 29.7E, H: 09 41 12.2 h 7 km. Mb 4.9. Turkey.
	eL	09	54								
	F	10	06								
	RSB: eP	09	46	05							
May 21.	DBN: iP	19	08	29	+	18		1.4		5.3	52.5N 173.2W, H: 18 56 43.7 h 36 km. Mb 5.7. Ms 5.3. Andreanof Islands, Aleutian Islands.
	eS	19	18	21							
	eL	19	32								
	F	20	33								
	WIT: eP	19	08	24							
May 22.	DBN: iP	16	49	51	+	22	540			7.1	38.8N 40.5E, H: 16 43 58.7 h 3 km. Mb 6.0. Ms 6.7. Turkey, 1000 dead.
	iPcP	16	52	03							
	iS	16	54	42							
	iSS	16	55	39							
	eL	16	56.6								
	F	in next shock									
	WIT: iP	16	49	44.8							
	i	16	49	49.7							
	HEE: iP	16	49	50							
	eS	16	54.8								
RSB: eP	16	49	44								
May 22.	DBN: eP	20	14			20		86		6.3	32.4N 92.1E, H: 20 03 32.4 h N. Mb 5.6. Ms 6.1. Tibet. Disturbed by preceding shock.
	eS	20	22	33							
	eSS	20	27	18							
	eL	20	31								
	F	22.5									
	WIT: eP	20	13	56							
	RSB: eP	20	14	04							
May 22.	RSB: eP	17	40	04							38.8N 40.6E, H: 17 34 15.1 h 13 km. Mb 4.8. Turkey.
May 22.	RSB: eP	18	41	14							39.0N 40.7E, H: 18 35 30.6 h N. Mb 4.7. Turkey.



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
May 23.	DBN: eL F	10 11	58 06							6.1S 107.1E, H: 09 56 34.2 h N. Mb 4.6. Java.	
May 24.	DBN: eL F	02 02	33 44							38.8N 40.5E, H: 02 20 13.9 h N. Mb 4.7. Turkey.	
May 25.	RSB: eP	04	40	44						27.7N 55.4E, H: 04 32 36.9 h 23 km. Mb 5.1. Southern Iran.	
May 25.	DBN: iP iS eL F WIT: iP HEE: iP RSB: iP	05 05 05 07.0 05 05 05	48 52 53.0 48 48 48	16 16 11.6 08 08	- - -	6 15	4.1	65		39.0N 29.7E, H: 05 43 27.0 h 24 km. Mb 5.8. Ms 5.5. Turkey.	
May 25.	DBN: iP ipP ePP eS eSS ePKKP ePKKS eL F WIT: iP RSB: eP ipP	13 13 13 13 13 13 13 13 14 13 13 13	12 13 16 23 29 29 33 41 40 12 12 13	48 05 12 10 16 52 44 20 52.8 53 01	+ +	20		13		31.3N 131.5E, H: 13 00 19.9 h 52 km. Mb 5.6. Kyushu, Japan.	
May 26.	WIT: ePKP i RSB: ePKP i i	00 00 00 00	31 31 30 31 31	03 14 59 08 22						24.9S 179.1W, H: 00 11 54.5 h 413 km. Mb 5.4. South of Fiji Islands.	
May 26.	DBN: eP ePP eS eSS eL F WIT: eP RSB: eP	02 02 02 02 03 04 02 02	49 50 55 58 01 25 49 49	25 56 41 17 14 25 25 25	+ +	14		9.4		35.5N 58.2E, H: 02 41 46.0 h 26 km. Mb 5.4. Ms 5.4. Iran.	



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
May 26.	DBN: iP ipP ePP eS eSS ePKKS eL F WIT: eP RSB: eP	06 06 06 06 06 06 06 08 06 06	25 25 29 36 42 46 53 20 25 25	43 59 00 08 09 48  40 46	+	20		15.6	6.4	31.3N 131.5E, H: 06 13 14.7 h 50 km. Mb 5.5. Ms 5.7. Kyushu, Japan.	
May 26.	DBN: e F	17 17	01 12							ISC: 43.6 N 45.7E, H: 16 46 02.0, h 0 km. Mb 4.5. Eastern Caucasus.	
May 27.	DBN: eL F	00 01	57 02							38.3N 69.0E, H: 00 30 27.7 h 36 km. Mb 4.8. Tadzhik SSR.	
May 28.	DBN: eL F	12 13	46 00							52.8N 132.9W, H: 12 11 02.9 h N. Mb 4.7. Ms 4.6. Queen Charlotte Islands region.	
May 28.	RSB: e	12	42	53						No determination of epicenter.	
May 28.	DBN: eL F RSB: eP epP	14 15 14 14	51 12	 21 52						14.8N 91.4W, H: 14 12 07.9 h 124 km. Mb 5.4. Guatemala.	
May 28.	DBN: eL F	21 21	05 17							13.7N 89.8W, H: 20 19 25.7 h 84 km. Mb 4.4. El Salvador.	
May 29.	DBN: iP ePP eL F WIT: eP RSB: eP	09 09 09 10 09 09	05 08 33 24 05 05	12 23   07 15	+	20		12.5	6.3	31.3N 131.4E, H: 08 52 43.6 h 48 km. Mb 5.5. Ms 5.7. Kyushu, Japan. Change of papers: 09 10 - 09 16.	
May 30.	RSB: iP epPKP	07 07	27 28	47 49	+					19.1S 169.4E, H: 07 08 38.1 h 255 km. Mb 5.3. New Hebrides Islands.	
May 30.	DBN: eL F	12 13	31 00							25.3N 96.4E, H: 11 55 59.9 h N. Mb 4.9. Burma.	



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
May 30.	DBN: iP	15	55	39	+	18	34		6.6	25.2N 96.4E, H: 15 44 15.7 h 15 km. Mb 5.8. Ms 6.1. Burma.	
	ePP	15	58	20							
	iS	16	04	55							
	iPPS	16	05	39							
	eSS	16	09	28							
	eSSS	16	12	55							
	eL	16	16								
	F	18	18								
WIT: eP	15	55	31								
RSB: eP	15	55	37								
May 30.	DBN: eL	22	19							25.3N 96.4E, H: 21 39 00.5 h N. Mb 4.9. Burma.	
	F	22	31								
May 31.	DBN: iP	03	51	26	+	15	16.2		5.5	72.2N 1.2E, H: 03 46 52.2 h N. Mb 5.5. Ms 5.7. Norwegian Sea.	
	iS	03	55	08							
	eL	03	56								
	F	in next shock									
	WIT: eP	03	51	19							
RSB: eP	03	51	38								
May 31.	DBN: eP	05	25	17		18	18.6		6.4	25.2N 96.5E, H: 05 13 59.7 h N Mb 5.3. Ms 6.1. Burma.	
	iS	05	34	36							
	ePPS	05	35	21							
	iSS	05	39	11							
	iSSS	05	42	48							
	eL	05	50								
	F	07	16								
	WIT: eP	05	25	13							
RSB: eP	05	25	17								
May 31.	DBN: eS	08	32	46		18		1.7	5.1	23.8N 45.0W, H: 08 17 15.1 h N. Mb 5.0. Ms 5.3. North Atlantic Ridge.	
	eL	08	39								
	F	09	10								
May 31.	DBN: eL	10	00							2.6N 96.6E, H: 09 11 09.6 h 21 km. Mb 5.0. Northern Sumatra.	
	F	10	20								
June 1.	DBN: eL	01	20							18.0N 120.3E, H: 00 26 13.6 h 59 km. Mb 5.0. Luzon, Philippine Islands.	
	F	01	36								
June 1.	WIT: i	07	33	54.0	+					ISC: 19.6S 178.3W, H: 07 15 10.2, h 519 km. Mb 4.1. Fiji region.	
	RSB: e	07	33	59							
June 1.	DBN: e	20	20							20.2N 120.8E, H: 19 23 44.8 h N. Philippine Islands region.	
	F	20	25								



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
June 2.	WIT: i	15	23	05.6							No determination of epicenter.
June 5.	DBN: eL F	00 00	00 31								51.6N 171.3W, H: 23 22 50.3 h N. Mb 4.9. Fox Islands, Aleutian Islands.
June 5.	DBN: eL F WIT: iP	02 02 01	24 41 50	31.9 +							9.4N 92.5E, H: 01 38 10.9 h N. Mb 5.3. Ms 5.2. Nicobar Islands region.
June 5.	DBN: eL F	10 10	17 37								6.1N 126.2E, H: 09 20 54.0 h 67 km. Mb 5.5. Mindanao, Philippine Islands
June 5.	DBN: eL F	11 11	05 12								37.3N 113.7E, H: 10 21 28.0 h N Mb. 4.7. Northeastern China.
June 5.	DBN: eL F WIT: iP RSB: iP	14 15 14 14	56 33 33 33	09.3 - 07 +		20			3.2	5.7	9.3N 84.2W, H: 14 20 42.3 h 26 km. Mb 5.4. Ms 5.1. Costa Rica.
June 5.	DBN: e F	22 22	17 35								ISC: 54.8S 146.1E, H: 20 47 25, h 33 km. West of Macquarie Island.
June 6.	DBN: eL F	02 03	53 00								15.1N 96.3W, H: 02 10 26.9 h N. Mb 4.7. Near coast of Oaxaca, Mexico.
June 6.	RSB: iP	04	11	09							53.9N 171.9W, H: 04 00 21.7 h 272 km. Mb 5.2. Fox Islands, Aleutian Islands.
June 6.	WIT: i	15	02	59.0 -							No determination of epicenter.
June 6.	WIT: e	15	15	32							No determination of epicenter.
June 6.	DBN: eL F	16 16	29 40								55.3S 27.7W, H: 15 33 15.8 h N. Mb 5.2. South Sandwich Islands region.



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
June 6.	DBN: eL F WIT: eP RSB: eP	17 17 16 16	04 14 58 58	  45 38						50.5N 29.6W, H: 16 53 41.8 h N. Mb 4.7. North Atlantic Ridge.	
June 6.	DBN: e F RSB: ePn e eSg	22 22 22 22	04 05 00 01 02	  44 09 33						44.9N 7.0E, H: 21 59 14.0 h 17 km. Mb 4.1. Northern Italy.	
June 7.	DBN: eL F	00 01	43 39							55.4S 27.9W, H: 23 50 01.3 h 126 km. Mb 5.5. South Sandwich Islands region.	
June 7.	DBN: eL F	09 09	04 15							55.3S 27.7W, H: 08 04 45.9 h N. Mb 5.3. South Sandwich Islands region.	
June 7.	DBN: eL F RSB: eP	13 13 13	48 53 39	03						34.3N 22.7E, H: 13 34 18.8 h 36 km. Mb 4.5. Mediterranean Sea.	
June 7.	DBN: eL F	22 22	33 46							37.7S 73.9W, H: 21 30 34.7 h 23 km. Mb 5.0. Near coast of central Chile.	
June 8.	RSB: iPn	02	22	56						48.6N 9.2E, H: 02 22 06.1 h 31 km. Mb 4.2. Swabian Jura, Germany.	
June 8.	DBN: eP eS eL F RSB: eP	17 17 17 17 17	04 08 11 26 04	27 38   19	(+)					37.5N 29.8E, H: 16 59 24.8 h 10 km. Mb 4.7. Turkey.	
June 8.	DBN: eP eS eL F WIT: eP RSB: eP	23 23 23 00 23 23	47 51 54.1 30 48 47	55 57   05 47	+	11		9.4	5.3	37.6N 29.7E, H: 23 42 55.2 h 28 km. Mb 4.8. Turkey.	
June 9.	DBN: eL F	03 03	10 17							37.6N 29.7E, H: 02 57 25.5 h 12 km. Mb 4.4. Turkey.	



SEISMOLOGICAL BULLETIN



Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
1971											
June 9.	DBN: eL F	14 15	16 07								56.4S 123.9W, H: 13 06 33.0 h N. Mb 5.1. Easter Island Cordillera.
June 9.	DBN: e F RSB: ePKP	20 20 20	45 52 45	59							17.5S 172.7W, H: 20 26 16.4 h 33 km (N). Mb 5.1. Tonga Islands region.
June 9.	DBN: eL F	21 21	49 59								56.7N 156.5W, H: 21 09 48.3 h 56 km. Mb 5.2. Alaska Peninsula.
June 10.	DBN: eP ePP eS ePS eL F RSB: eP	07 07 07 07 07 08 07	00 04 11 13 26 06 00	41 24 51 05							10.9S 76.2W, H: 06 47 34.6 h 99 km. Mb 5.9. Peru.
June 10.	RSB: iP	08	17	19							22.2S 178.8W, H: 07 58 09.5 h 418 km. Mb 4.7. South of Fiji Islands.
June 10.	DBN: eL F WIT: eP RSB: iP	09 09 09 09	46.0 52 36 36	37 35							39.1N 29.6E, H: 09 31 54.5 h N. Mb 4.9. Turkey.
June 10.	DBN: eP eS eL F RSB: eP	18 19 19 in next shock 18	58 02 04.6	53 48							59.5N 30.3W, H: 18 54 04.6 h N. Mb 4.4. North Atlantic Ocean.
June 10.	DBN: iP eS eL F WIT: iP RSB: eP	19 19 19 19.7 19 19	07 11 12.9	31 28	-	18			2.7	4.7	59.4N 30.4W, H: 19 02 41.6 h N. Mb 4.5. North Atlantic Ocean.
June 10.	DBN: iP epP ePP iS F WIT: eP ipP RSB: iP ipP	20 20 20 20 21 20 20 20 20	11 12 14 21 08 11 12 11 12	31 24 34 09	-	4	1.6				41.1N 138.4E, H: 19 59 52.5 h 226 km. Mb 5.7. Eastern Sea of Japan.



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms	
		h	m	s			Z	NS	EW			
June 10.	DBN: eP	21	37	27	-	18			1.6	4.5	59.3N 30.4W, H: 21 32 38.4 h N. Mb 4.9. North Atlantic Ocean.	
	eS	21	41	24								
	eL	21	42.3									
	F	22	00									
	RSB: eP	21	37	37								
June 10.	DBN: eP	23	50	12	-	17			2.0	4.6	60.0N 30.5W, H: 23 44 38.6 h N. Mb 4.3. Ms 4.5. North Atlantic Ocean.	
	i	23	50	32								
	eS	23	53	32								
	eL	23	54.5									
	F	00	20									
	WIT: eP	23	40	48								
	RSB: eP	23	49	40								
June 11.	DBN: eP	00	55	32							ISC: 59.5N 31.5W, H: 00 50 39 h 33 km. Mb 4.2. North Atlantic Ocean.	
	eS	00	59	20								
	eL	01	01.0									
	F	01	12									
June 11.	DBN: eL	02	16		+						4.2S 80.7W, H: 01 32 59.0 h 43 km. Mb 5.4. Peru-Ecuador border region.	
	F	02	48									
	RSB: eP	01	46	05								
June 11.	DBN: eL	05	07								51.4N 159.3E, H: 04 24 02.7 h N. Mb 4.8. Off east coast of Kamchatka.	
	F	05	30									
June 11.	DBN: eL	06	52								59.2N 30.3W, H: 06 41 31.1 h N. Mb 4.5. North Atlantic Ocean.	
	F	07	01									
June 11.	DBN: eL	10	39								59.4N 30.4W, H: 10 28 40.1 h N. Mb 4.4. North Atlantic Ocean.	
	F	10	48									
	RSB: eP	10	33	36								
June 11.	DBN: iP	13	06	56	-	24				62	6.8	18.0N 69.8W, H: 12 56 04.3 h 57 km. Mb 6.1. Dominican Republic region.
	iPcP	13	07	17								
	iScP	13	11	27								
	iS	13	15	42								
	iSS	13	20	03								
	iSSS	13	23	16								
	eL	13	27.0									
	F	in next shock										
	WIT: iP	13	06	58.6								
	RSB: iP	13	06	59								



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
June 11.	DBN: iP	14	10	28	+	18			32	6.7	51.5N 176.1E, H: 13 58 37.7 h 32 km. Mb 5.9. Ms 6.5. Rat Islands, Aleutian Islands.
	iPcP	14	10	35							
	iPPP	14	15	16							
	iS	14	20	24							
	iSS	14	25	36							
	eL	14	35.0								
	F	17.0									
	WIT: iP	14	10	23.0							
RSB: eP	14	10	37								
June 11.	DBN: eL	23	30								24.0N 122.5E, H: 22 42 31.3 h 46 km. Mb 5.1. Taiwan region.
	F	23	45								
June 12.	DBN: eL	01	58								28.5N 128.3E, H: 01 13 21.2 h 69 km. Mb 4.7. Ryukyu Islands.
	F	02	17								
June 12.	DBN: eL	03	41								35.3N 140.5E, H: 02 53 47.5 h 35 km. Mb 4.8. Near coast of Honshu, Japan.
	F	03	47								
June 12.	DBN: eL	19	49								18.9N 64.3W, H: 19 18 48.5 h 43 km. Mb 5.0. Virgin Islands.
	F	19	59								
June 12.	WIT: iPcP	22	59	38.8	+						18.8S 176.5W, H: 22 40 35.3 h 329 km. Mb 5.2. Fiji Islands region.
	RSB: iPcP	22	59	43							
June 12.	WIT: iPcP	23	55	49.2(+)							20.8S 178.9W, H: 23 37 10.1 h 605 km. Mb 4.9. Fiji Islands region.
	RSB: iPcP	23	55	53							
June 13.	DBN: eL	04	49								36.2N 140.9E, H: 04 05 51.7 h 55 km. Mb 5.5. Near east coast of Honshu, Japan.
	F	05	10								
	WIT: eP	04	18	12	+						
	e	04	18	30							
RSB: eP	04	18	21								
June 14.	DBN: eZ	14	02.4								56.2N 123.6E, H: 13 48 55.7 h N. Mb 5.6. Ms 5.7. Eastern Russia.
	iS	14	07	24							
	eSP	14	07	56							
	iScS	14	09	00							
	eL	14	18			14		9.0		5.9	
	F	15	12								
June 15.	DBN: eL	08	06								41.5N 79.4E, H: 07 39 37.1 h N. Mb 5.6. Kirgiz-Sinkiang border region.
	F	08	19								
	RSB: iP	07	48	29							



SEISMOLOGICAL BULLETIN



Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
1971											
June 15.	DBN: iP	22	13	09	-						41.5N 79.3E, H: 22 04 13.4
	ePP	22	15	04							h N. Mb 5.6. Ms 5.6.
	eS	22	20	16							Kirgiz-Sinkiang border
	iPS	22	20	25							region.
	eSS	22	23	57							
	eL	22	27			16		30		6.3	
	F	23	40								
	WIT: eP	22	13	02.5	-						
	RSB: eP	22	13	04							
June 16.	DFN: eP	01	07	27							41.5N 79.4E, H: 00 58 37.4
	ePP	01	09	22							h N. Mb 5.4. Ms 5.5.
	iPS	01	14	50							Kirgiz-Sinkiang border
	eSS	01	18	09							region.
	eL	01	22			16		12		5.9	
	F	01	58								
	WIT: eP	01	07.4								
	RSB: eP	01	07	29							
June 16.	WIT: e	05	20	07	+						Local shock. No determination
	RSB: ePg	05	20	05							of epicenter. Records in
	iSg	05	20	21							Germany at BNS, GRF, BUH,
											FUR.
June 16.	DBN: eL	14	18								41.3N 79.3E, H: 13 46 50.5
	F	14	28								h N. Mb 5.1.
											Kirgiz-Sinkiang border
											region.
June 17.	DBN: eL	19	50								ISC: 35.2S 179.2W, H: 18 16
	F	20	15								02.6, h 33 km. Mb 4.8.
											East of North Island, New
											Zealand.
June 17.	DBN: iP	21	14	20	-	6	3.5				25.5S 69.2W, H: 21 00 40.9
	ipP	21	14	53							h 93 km. Mb 6.3.
	ePP	21	18	34							Northern Chile, one killed.
	iSKS	21	24	56							
	iPS	21	27	24							
	F	01.4									
	WIT: eP	21	14	27.5							
	ipP	21	15	01.9							
	ePP	21	18	44.5							
	RSB: eP	21	14	21							
	ipP	21	14	53							
June 18.	RSB: iPKP	15	28	51							21.9S 170.1E, H: 15 09 03.5
											h 28 km. Mb 5.1.
											Loyalty Islands region.



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
June 19.	DBN: eP	17	32	00		12			11.5	5.8	41.5N 79.3E, H: 17 23 02.7 h N. Mb 5.2. Ms 5.3. Kirgiz-Sinkiang border region.
	ePP	17	33	50							
	eSS	17	43.0								
	eL	17	48								
	F	18	23								
	RSB: eP	17	31	54							
June 19.	DBN: eL	23	53								19.8N 109.1W, H: 23 19 15.2 h N. Mb 4.8. Ms 5.5. Revilla Gigedo Islands region.
	F	24.3									
June 20.	RSB: iPKP	03	11	06							19.0S 169.7E, H: 02 51 25.4 h 19 km. Mb 4.9. New Hebrides Islands.
June 21.	WIT: ePg	07	27	41							46.4N 5.7E, H: 07 25 28.5 h 6 km. Mb 4.5. France.
	eSn	07	28	33							
	iSg	07	29	13.2							
	HEE: e	07	27	18							
	eSn	07	27	34							
	iSg	07	28	01							
	RSB: eP	07	26	42							
June 22.	WIT: iPkP	07	08	51.8							21.1S 178.8W, H: 06 50 08.9 h 584 km. Mb 4.7. Fiji Islands region.
June 24.	DBN: eP	14	05	04		24			7.0	6.1	23.5N 123.7E, H: 13 52 15.2 h 9 km. Mb 5.6. Ms 5.4. Southwestern Ryukyu Islands.
	ePP	14	08	32							
	eS	14	15	33							
	eL	14	31.6								
	F	15	31								
	WIT: eP	14	05	00.5							
	e	14	05	12.0							
	RSB: eP	14	05	07							
June 25.	DBN: eL	01	19								21.1S 174.2E, H: 00 05 34.8 h 30 km. Mb 4.5. New Hebrides Islands region.
	F	01	36								
June 26.	DBN: eL	02	56								24.6N 94.7E, H: 02 16 37.0 h 76 km. Mb 5.2. Burma-India border region.
	F	03	04								
	WIT: eP	02	28	01.3							
	RSB: eP	02	28	07							
June 26.	DBN: e	04	59	40							No determination of epicenter.
	F	05	00	30							



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
June 26.	DBN: eL F WIT: eP	16 16 15	27 36 58	  18.0						19.0N 68.0W, H: 15 47 32.8 h N. Mb 5.3. North Atlantic Ocean.	
June 26.	DBN: iP ePP ePPP ePPPP iSKS iS iSP eSS eL F WIT: eP	19 19 19 19 19 19 19 19 20 22 19	40 44 46 48 51 51 53 58.0 08 40 40	44 20 30 25 12 50 06   48.5	-	20	10.7	6.3	5.2S 96.9E, H: 19 27 13.9 h 25 km. Mb 5.8. Ms 6.4. Southwest of Sumatra.		
June 27.	DBN: eL F	09 09	04 18						19.1N 67.9W, H: 08 31 18.9 h 48 km. Mb 4.9. Mona Passage.		
June 27.	WIT: iP e	14 14	41 44	41.9 00.2	+				25.2N 178.2E, H: 14 22 53.1 h 607 km. Mb 5.3. South of Fiji Islands.		
June 27.	DBN: eL F	18 19	54 18						3.5S 145.5E, H: 17 50 50.7 h N. Mb 5.4. Near north coast of New Guinea.		
June 27.	DBN: eL F	21 22	57 10						3.5S 145.5E, H: 20 50 22.6 h 17 km. Mb 4.9. Near north coast of New Guinea.		
June 28.	DBN: eL F	03 03	24 35						14.4N 91.6W, H: 02 44 07.7 h 97 km. Mb 5.0. Guatemala.		
June 28.	DBN: eL F	05 05	38 56						37.9N 106.2E, H: 05 01 48.6 h N. Mb 5.2. Northern China.		
June 28.	WIT: ePKP RSB: ePKP	20 20	56 57	55 00					22.2S 170.3E, H: 20 37 11.5 h 14 km. Mb 4.7. Loyalty Islands region.		



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
June 28.	DBN: eP	23	42	48		8	4.0		5.0	37.5N 29.8E, H: 23 37 39.9 h 7 km. Mb 4.9. Turkey.	
	ePPP	23	43	27							
	iS	23	46	54							
	eL	23	49.0								
	iPcS	23	50	08							
	F	00	11								
RSB: e	23	42.6									
June 29.	DBN: eP	04	31	32		8	4.0		5.0	37.5N 29.9E, H: 04 26 31.2 h 28 km. Mb 4.9. Turkey.	
	ePPP	04	32.4								
	iS	04	35	44							
	eL	04	37.5								
	iPcS	04	38	58							
	F	05	00								
RSB: eP	04	31	26								
June 29.	DBN: eP	09	13	53		13	4.5		5.2	37.1N 36.8E, H: 09 08 11.7 h 35 km. Mb 5.0. Ms 5.5. Turkey.	
	eS	09	18	47							
	eSS	09	20	24							
	eL	09	21								
	F	09	53								
	WIT: iP	09	13	50.0 +							
RSB: eP	09	13	47								
June 29.	RSB: ePKP	09	46	20						21.0S 173.8W, H: 09 26 34.9 h 69 km. Mb 5.2. Tonga Islands.	
June 29.	DBN: eL	21	13							11.1S 165.9E, H: 20 05 13.8 h 46 km. Mb 5.0. Ms 5.3. Santa Cruz Islands.	
	F	22	15								
June 30.	WIT: i	06	16	24.9 -						No determination of epicenter.	
June 30.	HEE: i	15	56	43						No determination of epicenter.	
	i	15	56	50							
June 30.	DBN: eL	16	20							15.2N 60.5W, H: 15 50 18.8 h 66 km. Mb 4.8. Leeward Islands.	
	F	16	26								
July 1.	DBN: iPP	01	35	56		17			5.7	6.4S 130.3E, H: 01 16 16.8 h 133 km. Mb 5.8. Banda Sea.	
	eSKS	01	41	24							
	esSKS	01	42	32							
	eS	01	43	24							
	eSP	01	45	14							
	eL	02	13								
	F	02	45								
RSB: ePP	01	35	56								



SEISMOLOGICAL BULLETIN



Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
1971											
July 1.	DBN: eL F	05	28								No determination of epicenter.
July 1.	HEE: e	07	59	32							No determination of epicenter.
July 1.	DBN: eL F RSB: eP	12 12 12	31 44 19	40							36.4N 43.4E, H: 12 13 27.6 h 16 km. Mb 5.1. Iraq.
July 1.	DBN: e F	19 19	08 19								No determination of epicenter.
July 1.	DBN: eL F	21 22	56 08								5.5S 147.1E, H: 20 51 44.2 h 224 km. Mb 4.9. East New Guinea region.
July 2.	DBN: eP eS eL F	03 03 03 04	43 48 50 28	51 00	16		4.2				35.2N 36.3W, H: 03 35 48.6 h N. Mb 4.7. 5.2 North Atlantic Ridge.
July 2.	RSB: ePKP	05	29	20							16.1S 174.4W, H: 05 09 59.3 h 160 km. Mb 4.4. Tonga Islands.
July 2.	DBN: eP ePP eSKS eS eSS eL F	05 05 05 05 06 06 08.3	48 51 58 59 06 18	00 46 35 19 08	22			15.3	6.5		12.3N 123.9E, H: 05 34 27.3 h 35 km. Mb 5.3. Ms 5.6. Luzon, Philippine Islands.
July 2.	DBN: eS eL F	21 21 21	19 22.6 32	19	13		2.0		4.5		34.1N 5.2W, H: 21 11 07.7 h 7 km. Mb 4.6. Morocco.
July 3.	DBN: ePKP eL F WIT: iPKP e PSB: iPKP	01 02.0 03.0 01 01 01	10 10 10 10 10 10	09 08.5 15 14	- +						17.7S 173.2W, H: 00 50 32.1 h N. Mb 5.2. Ms 5.0. Tonga Islands.
July 3.	DBN: eL F RSB: eP	04 04 04	15 32 10	59							35.1N 27.8E, H: 04 05 53.8 h 34 km. Mb 4.7. Dodecanese Islands.



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
July 3.	WIT: iPKP	04	26	26.0	+					21.5S 179.1W, H: 04 07 44.3 h 600 km. Mb 5.3. Fiji Islands region.	
	epPKP	04	28	49							
	RSB: iPKP	04	26	31							
	e	04	26	40							
	epPKP	04	28	51							
July 3.	DBN: eL	04	52							41.3N 79.3E, H: 04 26 22.1 h 17 km. Mb 4.9. Kirgiz-Sinkiang border region.	
	F	05	00								
July 3.	WIT: ePKP	12	31	23.8	(-)					23.5S 180.0W, H: 12 12 32.3 h 543 km. Mb 5.4. South of Fiji Islands.	
	RSB: ePKP	12	31	28							
July 3.	RSB: e	21	12	25						No determination of epicenter.	
July 3.	WIT: ePKP	23	03	46.9	-					19.5S 177.5W, H: 22 45 08.2 h 580 km. Mb 4.8. Fiji Islands region.	
	RSB: ePKP	23	03	51							
July 4.	DBN: eL	00	34							24.1S 68.9W, H: 23 44 50.6 h 103 km. Mb 5.4. Chile-Argentina border region.	
	F	00	55								
	RSB: eP	23	58	48							
July 4.	DBN: eL	09	52							21.2N 146.2E, H: 09 02 30.8 h 67 km. Mb 5.2. Mariana Islands region.	
	F	10	28								
	WIT: eP	09	16	16							
July 4.	DBN: eL	10	31							33.8N 138.6E, H: 09 46 19.1 h 3 km. Mb 5.0. South of Honshu, Japan.	
	F	10	53								
July 4.	DBN: eS	11	54	39		17	5.0	6.0		15.6N 121.9E, H: 11 30 51.1 h 30 km. Mb 5.5. Ms 5.1. Luzon, Philippine Islands.	
	eL	12	18								
	F	13	06								
	WIT: eP	11	44.0								
	RSB: eP	11	44	05							
July 4.	DBN: eL	19	14							43.6N 147.9E, H: 18 33 18.0 h N. Mb 4.6. Kuril Islands.	
	F	19	48								
	WIT: eP	18	45.2								
July 4.	DBN: eL	23	30							10.7N 141.3E, H: 22 35 29.8 h N. Mb 5.3. West Caroline Islands.	
	F	23	54								







SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
July 9.	DBN: iP	03	17	33	+	8	5.8			32.5S 71.2W, H: 03 03 18.7 h 58 km. Mb 6.6. Near coast of central Chile 83 killed.	
	epP	03	17	56							
	iPP	03	21	54							
	iPPF	03	24	17							
	iSKP	03	25	11							
	iSKS	03	28	34							
	iPS	03	31	28							
	eSS	03	37	21							
	eL	03	56								
	F	08.3									
	WIT: eP	03	17	38							
	e	03	21	15.5							
	ePP	03	21	47							
	i	03	22	09.3							
	i	03	22	29.6							
e	03	33.0									
HEE: eL	03	58									
RSB: eP	03	17	29								
iPP	03	21	55								
				27			470	8.0			
July 9.	WIT: eP	06	51	45.5						43.5N 147.7E, H: 06 39 47.0 h 49 km. Mb 5.1. Kuril Islands.	
July 9.	WIT: eP	08	18	33						43.4N 147.7E, H: 08 06 35.2 h 54 km. Mb 4.9. Kuril Islands.	
July 9.	WIT: iPKP	08	58	03.4	+					20.7S 177.7W, H: 08 39 13.4 h 500 km. Mb 4.6. Fiji Islands region.	
	RSB: ePKP	08	58	07							
July 9.	DBN: eL	10	50							5.9S 154.4E, H: 09 49 43.3 h 62 km. Mb 5.3. Solomon Islands.	
	F	12	06								
July 9.	DBN: eL	17	25							43.5N 147.7E, H: 16 44 15.8 h 46 km. Mb 4.9. Kuril Islands.	
	F	18.1									
	WIT: eP	16	56	15							
July 9.	DBN: ePP	19	34	08						32.2S 71.7W, H: 19 15 33.9 h 53 km. Mb 5.2. Near coast of central Chile.	
	eSKS	19	40	40							
	ePS	19	43	43							
	eSS	19	49.2								
	eL	20	08								
	F	21.1									
					17			2.7	5.8		
July 9.	DBN: eL	21.3								32.4S 71.5W, H: 20 19 49.4 h 47 km. Mb 5.2. Near coast of central Chile.	
	F	21.9									



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
July 9.	DBN: iP	22	31	59	+	17			2.3	5.3	0.3N 17.0W, H: 22 22 27.6 h N. Mb 5.3. North of Ascension Island.
	ePP	22	34	00							
	eS	22	39	44							
	eL	22	49								
	F	23	30								
	WIT: eP	22	32	06							
	RSB: eP	22	31	50							
July 10.	DBN: eL	03	56								43.6N 147.7E, H: 03 05 00.5 h 36 km. Mb 4.8. Kuril Islands.
	F	04	09								
July 10.	DBN: ePP	05	44	58							6.0E 154.6E, F: 05 23 51.6 h 59 km. Mb 5.8. Solomon Islands.
	e	06	22								
	F	07.6									
July 10.	DBN: eL	14	03								32.6S 71.5W, F: 13 04 43.3 h 55 km. Mb 5.1. Near coast of central Chile.
	F	14	24								
July 10.	WIT: eP	17	06	11.8	+						64.2N 55.2E, H: 16 59 59.3 h 0 km. Mb 5.3. Ural Mountains region.
	e	17	06	45.5							
July 10.	DBN: eL	22	20								30.3S 71.9W, F: 21 26 51.0 h 46 km. Mb 4.8. Near coast of central Chile.
	F	22	37								
July 11.	DBN: eS	05	48	13							0.9S 13.3W, H: 05 30 53.9 h N. Mb 5.1. North of Ascension Island.
	eL	05	55								
	F	06	27								
	WIT: eP	05	40	33							
	RSB: eP	05	40	17							
July 11.	DBN: eP	10	05	52		17			9.3	6.4	32.3S 71.8W, H: 09 51 37.7 h 36 km. Mb 5.9. Ms 6.3. Near coast of central Chile.
	ePP	10	10	23							
	eSKS	10	16	41							
	iPF	10	19	44							
	ePPF	10	21	03							
	eSS	10	25	11							
	eSSS	10	29	47							
	eL	10	40								
	F	13	15								
	WIT: eP	10	05	57							
	RSB: e	10	10								



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
July 11.	DBN: eP	20	18	36		14	8.0		5.3	37.2N 36.8E, H: 20 12 54.8 h 9 km. Mb 5.2. Ms 5.8. Turkey.	
	eS	20	23	14							
	eL	20	25.5								
	F	21	20								
	WIT: eP	20	18	32							
RSB: eP	20	18	29								
July 11.	DBN: eL	22	55							33.0S 71.9W, H: 21 59 57.2 h 49 km. Mb 5.1. Near coast of central Chile.	
	F	23	30								
July 11.	DBN: eL	23	35							32.1S 71.7W, H: 22 38 09.3 h 45 km. Mb 5.1. Near coast of central Chile.	
	F	00	05								
July 12.	WIT: iP	02	23	53.4	+					53.1N 16.0E, H: 02 12 29.5 h N. Mb 4.9. Near east coast of Kamchatka.	
	RSB: eP	02	24	04							
July 12.	WIT: ePg	07	12	02						49.5N 8.6E, H: 07 10 50.6 h N. Upper Rhinegraben, Germany.	
	HEE: eSg	07	12	02							
	RSB: eP	07	11	32							
	eS	07	11	58							
July 12.	DBN: eL	09	47							24.0N 111.2W, H: 09 02 09.2 h N. Mb 4.8. Baja California.	
	F	10	07								
July 12.	DBN: eL	14	07			22		1.9	5.8	6.4S 148.7E, H: 13 02 02.2 h 33 km. Mb 5.1. Ms 5.6. New Britain region.	
	F	14	39								
July 12.	WIT: iP	16	00	53.2	-					52.0N 173.2E, H: 15 49 11.2 h 25 km. Mb 5.3. Near Islands, Aleutian Islands.	
	RSB: eP	16	01	04							
July 14.	DBN: eL	00	53							9.3N 126.2E, H: 00 01 49.2 h 73 km. Mb 5.4. Mindanao, Philippine Islands	
	F	01	09								



SEISMOLOGICAL BULLETIN



Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
1971											
July 14.	DBN: iP iPKP iPP ePKS ePPP iSKS iS iPS ePPS eSS eSSS eL F	06 06 06 06 06 06 06 06 06 06 06 07 11.9	27 30 32 33 35 38 40 42 44 49.2 54.0 13	12 29 31 51 11 26 08 54 16	+	40			1700	8.6	5.5S 153.9E, H: 06 11 29.1 h 47 km. Ms 7.9. New Ireland region. PSB: incomplete records.
	WIT: iP HEE: e i eL	06 06 06 07	30 31 31 11	33.2 27 48	+						
July 14.	WIT: iP i	07 07	56 56	21.2 38.0							4.8S 153.6E, H: 07 37 15.9 h N. Mb 5.6. Ms 6.8. New Ireland region.
July 14.	DBN: eL F	12.9				20		1.4		5.6	4.9S 153.2E, H: 11 43 29.9 h N. Mb 5.1. New Ireland region.
		in next shock									
July 14.	DBN: eL F	13.6 14 45				20		1.8		5.7	5.7S 154.1E, H: 12 30 15.6 h N. Mb 5.5. Solomon Islands.
July 14.	DBN: eL F	14 56 15 38									ICS: 4.6 S 153.4E, H: 13 48 01, h 46 km. New Ireland region.
July 14.	DBN: eL F	15 41 17 36									ISC: 5.4S 153.1E, H: 14 58 52, h 25 km. Mb 5.2. New Ireland region.
July 14.	DBN: eL F	18.6				18			2.7	6.0	5.2S 153.3E, H: 17 38 40.3 h N. Mb 5.2. Ms 6.3. New Ireland region.
		in next shock									
July 14.	DBN: ePKP iPP eL F WIT: ePKP i PSB: ePKP	18 18 19 22.8 18 18 18	46 48 20 46 46 47 46	43 44 47 48 48 05.7 47		20		12.8		6.6	5.2S 153.3E, H: 18 27 43.7 h N. Mb 5.6. Ms 6.5. New Ireland region. Disturbed by preceding shock.



SEISMOLOGICAL BULLETIN



Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
1971											
July 15.	DBN: eL F	00.0 00.5									2.6N 129.3E, H: 23 00 05.9 h 41 km. Mb 5.5. Halmahera.
July 15.	DBN: eL F	00 57 01 18									54.2N 133.7W, H: 00 24 02.3 h N. Mb 5.2. Queen Charlotte Islands region.
July 15.	DBN: eP eS eL F WIT: eP e HEE: eP* i i iSn RSB: eP	01 35 24 01 37 07 01 37.6 02 50 01 35 31 01 35 41 01 35 22 01 35 33 01 35 58 01 36 19 01 35 07			12			105	5.7		44.8N 10.3E, H: 01 33 22.3 h 8 km. Mb 5.2. Parma, Northern Italy. 2 killed.
July 15.	DBN: eL F RSB: ePKP	15 09 15 22 14 16 00									5.0S 153.4E, H: 13 56 52.9 h N. Mb 5.0. Ms 5.3. New Ireland region.
July 15.	WIT: iPYP RSB: iPKP i	18 34 35.2 18 34 42 18 34 58			- +						25.2S 178.4E, H: 18 15 44.9 h 590 km. Mb 5.3. South of Fiji Islands.
July 16.	DBN: eL F	22 59 23 24									39.0N 143.5E, H: 22 15 39.1 h 22 km. Mb 5.2. Off east coast of Honshu, Japan.
July 17.	DBN: eL F	03 52 04 01									15.3N 45.3W, H: 03 23 53.6 h N. Mb 4.6. North Atlantic Ridge.
July 17.	DBN: eP iS isS F WIT: eP i RSB: eP epP	05 45 00 05 55 07 05 55 58 06 52 05 44 56 05 44 58.3 05 44 57 05 45 31									7.0N 94.7E, H: 05 32 42.9 h 138 km. Mb 5.8. Nicobar Islands region.
July 17.	DBN: eL F	07 48 08 02									5.1S 153.2E, H: 06 38 20.0 h N. Mb. 4.8. Ms 5.5. New Ireland region.







SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
July 19.	DBN: eL F WIT: ePKP RSB: ePKP	15	46								4.9S 144.5E, H: 14 48 42.3 h 74 km. Mb 5.5. Near North coast of New Guinea.
July 19.	DBN: ePP eSS eSSS eL F WIT: ePP	15 16 16 16 18.8	58 15 19 34	38 25 44		18		9.5	6.5		5.5S 150.6E, H: 15 37 46.1 h N. Mb 5.3. Ms 6.2. New Britain region. Disturbed by preceding shock.
July 19.	RSB: eP	17	10	43	(-)						24.3N 122.4E, H: 16 58 09.3 h 62 km. Mb 5.4. Taiwan region.
July 20.	WIT: iPn ePg	08 08	35 35	06.0 30.5	+						56.5N 0.7E, H: 08 33 48.2 h 0 km. Mb 4.6. North Sea. Undersea explosion of 10 tons TnT at 200 meters in 210 meters water.
July 20.	RSB: ePKP	10	11	20							17.5S 172.7W, H: 09 51 42.0 h N. Mb 4.8. Ms 5.2. Tonga Islands region.
July 20.	RSB: eP	10	47	20	+						15.3N 120.3E, H: 10 34 11.5 h N. Mb 5.4. Luzon, Philippine Islands.
July 20.	DBN: ePKP eL F WIT: ePKP RSB: ePKP e	17 18.7 20.0 17 17 17	54 54 54	01 58.4 59 11	-	20		1.8	5.8		19.6S 177.3E, H: 17 34 20.1 h N. Mb 5.5. Ms 5.5. South of Fiji Islands.
July 20.	DBN: eL F RSB: ePKP	22 23 21	22 38 45								5.6S 153.9E, H: 21 25 55.9 h 53 km. Mb 5.4. New Ireland region.
July 20.	RSB: ePKP	23	42	44							17.4S 172.9W, H: 23 23 03.3 h N. Mb 4.9. Tonga Islands region.
July 21.	DBN: e F	00 01	43 14								No determination of epicenter.



SEISMOLOGICAL BULLETIN



Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
1971											
July 21.	DBN: eL F	03	30								1.2S 14.9W, H: 03 00 32.2 h N. Mb 4.5. North of Ascension Island.
July 21.	DBN: eL F	13	00								5.9S 154.0E, H: 12 03 27.3 h 27 km. Mb 5.5. Ms 5.9. Solomon Islands.
July 21.	HEE: i RSB: e	19	44	40							Local shock. No determination of epicenter.
July 22.	WIT: i	06	36	59.5							No determination of epicenter.
July 22.	RSB: e	20	05	04							No determination of epicenter.
July 22.	DBN: eL F WIT: eP RSB: eP epP	22	53								35.5N 138.8E, H: 22 07 19.3 h 24 km. Mb 5.4. Honshu, Japan.
July 23.	DBN: eL F	01	01								4.7S 153.1E, H: 23 55 25.0 h 61 km. Mb 5.2. New Ireland region.
July 23.	DPN: iPKP epPKP WIT: iPKP RSB: iPKP	07	04	22	+	4	1.2				17.6S 178.9W, H: 06 45 45.1 h 547 km. Mb 5.2. Fiji Islands region.
July 23.	DBN: eL F	08	42								52.7N 160.7E, H: 08 01 22.7 h N. Mb 4.8. Ms 4.3. Off east coast of Kamchatka.
July 23.	WIT: e	11	15.0								No determination of epicenter.
July 23.	DBN: eZ eL F	15	10	54							BCIS: 40.0N 26.1E, H: 15 06 00. Turkey.
July 23.	RSB: e e e	19	01.3								No determination of epicenter.



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
July 24.	DBN: eP	11	52	08		16			4.9	5.5	39.5N 73.2E, H: 11 43 38.8 h N. Mb 5.6. Tadzhik-Sinkiang border region.
	ePP	11	54	02							
	eL	12	11								
	F	12	32								
	WIT: eP	11	52	04.5							
	ePP	11	54	00							
	RSB: eP	11	52	06							
July 24.	DBN: ePKP	13	08	50							17.9S 172.5W, H: 12 49 11.2 h N. Mb 5.4. Tonga Islands region.
	F	13	13								
	WIT: iPKP	13	08	49.4 +							
	RSB: ePKP	13	08	48							
July 25.	DBN: eL	04	25								52.6N 160.7E, H: 03 45 04.6 h N. Mb 4.9. Ms 4.5. Off east coast of Kamchatka.
	F	04	58								
	WIT: eP	03	56	35							
July 25.	DBN: eP	13	05	22		23			46	6.9	12.4N 123.7E, H: 12 51 42.0 h N. 5.6. Ms 6.3. Luzon, Philippine Islands.
	ePP	13	09	03							
	eSKS	13	15	52							
	eS	13	16	34							
	eSS	13	23	08							
	eL	13	38								
	F	15.8									
	RSB: eP	13	05	21							
July 25.	DBN: iP	15	53	05	+	7	4.1				52.2N 173.1E, H: 15 41 21.3 h 28 km. Mb 5.8. Ms 6.3. Near Islands, Aleutian Islands. RSB: change of papers: 15 48-15 55
	iPPP	15	57	44							
	iS	16	02	48							
	iPS	16	03	16							
	ePPS	16	03	48							
	iSS	16	07	47							
	eSSS	16	11.3								
	eL	16	17								
	F	19.0									
	WIT: eP	15	53	01.5							
	epP	15	53	13							
July 25.	WIT: ePKP	16	25	10							16.8S 178.3W, H: 16 06 26.0 h 450 km. Mb 5.1. Fiji Islands region.
	RSB: ePKP	16	25	15							



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
July 26.	DBN: iP	01	39	00	+	21		480	8.2	4.9S 153.2E, H: 01 23 21.3 h 48 km. Ms 7.9. New Ireland region.	
	iPKP	01	42	20							
	iPP	01	44	18							
	iPKS	01	45	54							
	eSKS	01	49	48							
	iS	01	51	36							
	iPS	01	54	09							
	iSPP	01	55	51							
	eL	02.5									
	F	07.0									
	WIT: ePKP	01	42	20							
	HEE: ePKP	01	42	31							
	eL	02	21								
	RSB: eP	01	39	04							
ePKP	01	42	17								
ePP	01	44	18								
July 26.	WIT: iP	01	57	17	(+)					39.9N 77.2E, H: 01 48 33.9 h N. Mb 6.0. Southern Sinkiang Province, China. Disturbed by preceding shock.	
July 26.	WIT: ePKP	02	09	41						4.7S 153.3E, H: 01 53 45.1 h N. Mb 5.6. New Ireland region.	
	RSB: ePKP	02	09	43							
July 26.	WIT: iPKP	02	12	45.0	-					4.7S 153.3E, H: 01 53 45.1 h N. Mb 5.6. New Ireland region.	
	RSB: ePKP	02	12	46							
July 26.	WIT: ePKP	02	18	10						ISC: 5.22S 152.81E, H: 01 59 16, h 87 km. New Britain region.	
	RSB: ePKP	02	18	11							
July 26.	WIT: ePKP	02	21	41						ISC: 5.40S 152.07E, H: 02 02 47, h 74 km. Mb 5.9. New Britain region.	
July 26.	WIT: ePKP	02	38	23.5						5.5S 151.7E, H: 02 19 21.4 h N. Mb 5.8. New Britain region.	
	ePP	02	40	24							
	RSB: ePKP	02	38	25							
	ePP	02	40	25							
July 26.	WIT: ePKP	02	43	57						5.2S 152.2E, H: 02 24 57.0 h N. Mb 6.4. New Britain region.	
	RSB: ePKP	02	43	59							



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Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
July 26.	WIT: ePKP RSB: ePKP	02	48	38							5.7S 151.9E, H: 02 29 38.2 h N. Mb 6.2. New Britain region.
July 26.	WIT: ePKP RSB: ePKP	04	38	16	-						ISC: 5.45S 152.82E, H: 04 19 09.5, h 0 km. Mb 5.7. New Britain region.
July 26.	WIT: iPKP RSB: iPKP	06	47	32.4	-						ISC: 20.06S 178.23W, H: 06 28 52.8, h 588 km. Mb 4.9. Fiji region.
July 26.	DBN: eL F WIT: ePKP RSB: ePKP	07	58			19			2.8	6.0	5.5S 152.1E, H: 06 59 28.3 h N. Mb 5.7. Ms 5.9. New Britain region.
July 26.	DBN: eL F RSB: ePKP	10	6								5.7S 151.6E, H: 09 34 51.5 h N. Mb 5.3. Ms 5.8. New Britain region.
July 26.	DBN: eL F	11	55			18		1.7		5.7	5.0S 153.2E, H: 10 56 40.6 h N. Mb 5.1. New Ireland region.
July 26.	DBN: ePKP ePP eSKS ePS eSPP eSS eL F WIT: iPKP RSB: ePKP	15	54	43							5.6S 151.4E, H: 15 35 37.8 h N. Mb 5.4. Ms 6.2. New Britain region.
July 26.	WIT: ePKP RSB: ePKP	16	02	05							
July 26.	WIT: ePKP RSB: ePKP	16	06	40							
July 26.	WIT: ePKP RSB: ePKP	16	08	00							
July 26.	WIT: ePKP RSB: ePKP	16	14.0								
July 26.	WIT: ePKP RSB: ePKP	16	33			20			14.3	6.6	
July 26.	WIT: ePKP RSB: ePKP	17	04	39.0							
July 26.	WIT: ePKP RSB: ePKP	17	04	41							
July 26.	WIT: ePKP RSB: ePKP	17	04	00.2							6.0S 151.5E, H: 16 45 00.0 h N. Mb 5.5. Ms 5.4. New Britain region.
July 26.	WIT: ePKP RSB: ePKP	17	04	01							
July 26.	DBN: eL F WIT: ePKP RSB: ePKP	18	48			20		1.8		5.8	5.2S 153.1E, H: 17 49 59.7 h N. Mb 5.3. Ms 5.4. New Ireland region.
July 26.	WIT: ePKP RSB: ePKP	18	09	05							
July 26.	WIT: ePKP RSB: ePKP	18	09	00							



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
July 26.	DBN: ePKP	19	34	35						5.9S 151.3E, H: 19 15 31.4 h N. Mb 5.6. Ms 6.1. New Britain region.	
	ePP	19	36	29							
	eSKS	19	41	50							
	eSPP	19	48.0								
	eSS	19	53	28							
	eL	20	10			25			8.5 6.4		
	F	22.0									
	WIT: ePKP	19	34	30							
RSB: ePKP	19	34	31								
July 26.	DBN: e	22	44							ISC: 5.3S 152.3E, H: 21 44 23, h 0 km. New Britain region.	
	F	22	59								
July 27.	DBN: eL	01	21							5.4S 152.4E, H: 00 22 25.3 h N. Mb 5.4. Ms 5.3. New Britain region.	
	F	in next shock				19			1.4 5.6		
	WIT: ePKP	00	41	26							
	RSB: ePKP	00	41	27							
July 27.	DBN: iP	02	15	25	-					2.7S 77.4W, H: 02 02 49.6 h 135 km. Mb 6.3. Peru-Ecuador border region 1 killed.	
	ipF	02	15	58							
	iPP	02	18	41							
	ipPP	02	19	30							
	eSKS	02	25	14							
	iS	02	25	54							
	isS	02	26	55							
	isSKS	02	27	46							
	eSS	02	30	54							
	esSS	02	33	00							
	eL	02.7									
	F	06.1									
	WIT: iP	02	15	29.7	-						
	HEE: eP	02	15	31							
RSB: iP	02	15	25	-							
	iPP	02	18	40							
July 27.	DBN: ePKP	07	54	42						5.9S 151.6E, H: 07 35 41.1 h 40 km. Mb 5.4. Ms 5.4. New Britain region.	
	ePP	07	56	27							
	eSKS	08	04	46							
	eSS	08	14.0								
	eL	08	35			19			1.7 5.7		
	F	10.2									
RSB: ePKP	07	54	42								
July 27.	RSB: e	09	00	16						No determination of epicenter.	



SEISMOLOGICAL BULLETIN



Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
1971											
July 27.	DBN: eP	14	37	40							13.8N 95.8E, H: 14 25 31.2 h 36 km. Mb 5.4. Ms 5.8. Andaman Islands region.
	ePP	14	40	38							
	eS	14	47	42							
	eSS	14	53.0								
	eSSS	14	56.6								
	eL	15	04		18		6.8		6.0		
	F	16.4									
	RSB: eP	14	37	38	(+)						
July 27.	DBN: eL	19	14								5.6S 151.4E, H: 18 08 41.2 h 46 km. Mb 5.4. Ms 5.3. New Britain region.
	F	20.0									
	RSB: ePKP	18	27	42	-						
July 27.	DBN: ePKP	21	07	00	+						5.2S 153.0E, H: 20 47 56.5 h 43 km. Mb 5.5. Ms 6.5. New Ireland region.
	ePP	21	08	54							
	eSKP	21	10	16							
	eSKS	21	14	07							
	eSKKS	21	15	52							
	eS	21	16	27							
	ePS	21	19	06							
	eSPP	21	20	23							
	eSKKS	21	23	51							
	eSKKS	21	27	00							
	eSSS	21	30	56							
	eL	21	42		37		22.5		6.8		
	F	00.5									
	WIT: ePKP	21	06	59							
	i	21	22	33.8							
	RSB: ePKP	21	07	02							
	e	21	22	38							
July 28.	DBN: eL	00	37			16		1.6	5.7	6.3S 151.2E, H: 23 35 21.5 h N. Mb 5.2. Ms 5.8. New Britain region.	
	F	in next shock									
	WIT: ePKP	23	54	21							
	RSB: ePKP	23	54	25							
July 28.	DBN: iPYP	01	29	27	+						5.1S 152.9E, H: 01 10 24.1 h N. Mb 6.0. Ms 6.4. New Britain region.
	ePP	01	31	18							
	eSKP	01	32	44							
	iFYS	01	36	35							
	eSKKS	01	38	15							
	eS	01	38	50							
	ePS	01	41	16							
	eSPP	01	42	56							
	eSKKS	01	46	43							
	eSKKS	01	49	11							
	eSSS	01	53	26							
	eL	02	06		36		16.5		6.7		
	F	04.7									
	WIT: ePKP	01	29	24							
	RSB: iPYP	01	29	27	+						



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
July 28.	WIT: iPKP RSB: ePKP	06	02	19.0	+						20.3S 177.9W, H: 05 43 35.0 h 550 km. Mb 4.7. Fiji Islands region.
July 28.	RSB: e	08	33	57							No determination of epicenter.
July 28.	DBN: eL F	08 09	57 28								5.8S 151.7E, H: 07 48 58.2 h N. Mb 5.2. Ms 5.2. New Britain region.
July 28.	DBN: eL F	11 11	20 47								5.6S 152.5E, H: 10 17 29.4 h N. Mb 5.7. New Britain region.
July 29.	DBN: eL F	10 10	31.7 33								44.7N 10.2E, H: 10 25 55.4 h N. Mb 4.3. Northern Italy.
July 29.	DBN: eP ePP ePPP eS eSS eL F WIT: iP RSB: iP	22 22 22 22 22 22 23.7 22 22	30 33 34 39 45.0 56 23.7 29 30	02 03 43 59 59.6	+						52.1N 173.4E, H: 22 18 20.1 h 42 km. Mb 5.6. Ms 5.6. Near Islands, Aleutian Islands.
July 30.	DBN: eL F	00 01	50 13								52.1N 173.5E, H: 00 07 22.4 h 45 km. Mb 4.9. Ms 4.7. Near Islands, Aleutian Islands.
July 30.	DBN: ePKP ePP eSKS eSKYS ePS eSPP eL F WIT: ePKP RSB: ePKP	06 06 06 06 06 06 07 08.6 06 06	37 39 44 46 49 50 17 08.6 37 37	13 00 12 14 00 50 17 10 14		24		3.3	6.0		4.5S 152.9E, H: 06 18 12.0 h 42 km. Mb 5.7. Ms 5.6. New Britain region.
July 30.	DBN: ePP eSP eL F RSB: ePKP	13 13 14.5 15.8 13	44 56 14.5 15.8 43	54 26		18		1.0	5.5		6.0S 151.5E, H: 13 23 58.3 h N. Mb 5.3. Ms 5.5.



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
July 30.	RSB: e	19	10	09							No determination of epicenter.
July 30.	DBN: eL F	19 19	40 54								5.7S 153.8E, H: 18 30 06.6 h 36 km. Mb 5.1. Ms 5.4. New Ireland region.
July 30.	DBN: eL F WIT: ePKP RSB: ePKP	21 22 21 21	54 40	02 03							5.3S 153.3E, H: 20 47 01.6 h N. Mb 5.5. Ms 5.3. New Ireland region.
July 31.	WIT: e	17	30	06							No determination of epicenter.
July 31.	DBN: eL F	23 23	03 39			18			1.0	5.4	32.4S 71.5W, H: 22 08 48.0 h 46 km. Mb 5.5. New coast of central Chile.
Aug. 1.	DBN: eL F WIT: iP RSB: iP	02 03 02 02	43 32 17 17	44.2 55	- +	18			2.0	5.4	50.4N 156.8E, H: 02 06 06.6 h 20 km. Mb 5.6. Kuril Islands.
Aug. 1.	DBN: eL F	17 17	14 37								6.2S 151.4E, H: 16 03 39.2 h N. Mb 5.0. New Britain region.
Aug. 1.	DBN: eL F	22 23	53 38								5.3S 152.7E, H: 21 49 46.3 h 38 km. Mb 5.0. Ms 5.3. New Britain region.
Aug. 2.	DBN: ePKP ePP ePPP eSKS ePPF eSS eSSS eL F RSB: ePKP	00 00 00 00 00 00 01 01 02.9 00	39 40 43 46 52 58 02 21	04 44 35 03 16 00 23		17		1.7		5.8	5.6S 152.6E, H: 00 19 54.2 h 36 km. Mb 5.6. Ms 5.8. New Britain region.
Aug. 2.	DBN: eL F	05 05	22 36								32.8S 72.0W, H: 04 22 17.7 h 9 km. Mb 5.3. Off coast of Central Chile.



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Aug. 2.	DBN: iP	07	37	03	-	9	20			41.4N 143.5E, H: 07 24 56.8 h 51 km. Mb 6.6. Hokkaido, Japan region. RSB: incomplete records.	
	iPP	07	40	11							
	ePPP	07	42	16							
	iZ	07	43	12							
	iS	07	47	00							
	iSP	07	47	36							
	ePPS	07	48	18							
	eSS	07	52	20							
	eSSS	07	55	30							
	eL	08	02			34		175	7.4		
F	11.5										
WIT: iP	07	36	57.4	-							
HEE: eL	08	08									
Aug. 2.	RSB: ePg	11	44	02						Bensberg: 50°23'N 7°18'E H: 11 43 41.3. M1 2.8. Neuwieder Becken, Germany.	
	eSg	11	44	17							
Aug. 2.	DBN: eL	13	40							41.3N 143.5E, H: 13 00 01.5 h 54 km. Mb 5.6. Hokkaido, Japan region.	
	F	14.1									
	WIT: eP	13	12	08							
Aug. 3.	DBN: e	01	53							No determination of epicenter.	
	F	01	57								
Aug. 3.	DBN: eL	17	52							No determination of epicenter.	
	F	18	17								
	HEE: e	17	37	39							
	RSB: e	17	29	40							
Aug. 3.	RSB: e	17	48	26						No determination of epicenter.	
Aug. 4.	DBN: eL	00	14							2.9S 147.6E, H: 23 06 10.4 h 14 km. Mb 4.7. Admiralty Islands region.	
	F	00	28								
Aug. 4.	DBN: iP	00	32	55	+	5	2.5			36.3N 70.7E, H: 00 24 36.5 h 206 km. Mb 5.6. Hindu Kush region.	
	ipP	00	33	38							
	isP	00	34	00							
	iPP	00	34	49							
	iPPP	00	35	49							
	ipPPP	00	36	35							
	iS	00	39	38							
	isS	00	40	49							
	eSS	00	43	06							
	iSSS	00	44	24							
	esSSS	00	45	37							
	F	in next shock									
	WIT: iP	00	32	47.5	+						
	epP	00	33	34							
	RSB: eP	00	32	54	+						



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Aug. 4.	DBN: eP	00	40	03						41.2N 143.7E, H: 00 27 43.2 h 18 km. Mb 5.1. Hakkaido, Japan region.	
	eS	00	50	23							
	ePS	00	50	55							
	ePPS	00	51	21							
	eSS	00	55	28							
	eSSS	00	58.7								
	eL	01	07			25			3.0		5.7
F	01	44									
Aug. 4.	WIT: iP	14	15	02.3(+)						46.6N 27.4W, H: 14 09 58.0 h N. Mb 5.1. North Atlantic Ridge.	
Aug. 4.	DBN: eL	20	31							62.7S 157.0E, H: 19 06 52.9 h N. Mb 4.8. Balleny Islands region.	
	F	21	17								
Aug. 5.	DBN: iP	02	08	42	+	5	3.6			0.9S 22.1W, H: 01 58 51.7 h N. Mb 6.3. Ms 7.0. Central Mid-Atlantic Ridge.	
	iPcP	02	09	32							
	iZ	02	10	02							
	iPP	02	10	38							
	iPPP	02	12	16							
	iScP	02	13	32							
	eS	02	16	36							
	iPS	02	17	00							
	iScS	02	18	40							
	iSS	02	20	14							
	eSSS	02	22	00							
	eL	02	23			15			136		7.1
	F	06.7									
	WIT: eP	02	08	49							
	i	02	08	54.0							
i	02	10	26.2								
HEE: eL	02	26									
RSB: eP	02	08	35								
Aug. 5.	DBN: eL	23	20							12.6N 94.8E, H: 22 37 10.9 h 31 km. Mb 5.0. Andaman Islands region.	
	F	23	57								
Aug. 6.	WIT: iPcP	23	11	00.6	-					20.2S 177.9W, H: 22 52 15.3 h 530 km. Mb 5.3. Fiji Islands region.	
	epPKP	23	13	04							
	RSB: ePKP	23	11	00							
	i	23	11	05.5	-						
	epPKP	23	13	10							
Aug. 7.	WIT: e	05	44	27						Bensberg: 51°39'N 7°04'E H: 05 44 13, Ml 2.3. Ruhr coal district, Germany.	
	RSB: e	05	44	41 (+)							



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Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Aug. 7.	WIT: e RSB: ePg iSg	05	51	12.5 12 27							Bensberg: H: 05 50 49, M1 2.8 Ruhr coal district, Germany.
Aug. 7.	WIT: iPKP i ePP RSB: ePKP i ePP	07	12	33.2 35.6 53.5 29 37 01	+    +						13.9S 167.2E, H: 06 53 27.0 h 178 km. Mb 5.4. New Hebrides Islands.
Aug. 8.	DBN: eL F	00	23	30							6.7S 148.5E, H: 23 10 31.4 h N. Mb 4.6. New Britain region.
Aug. 8.	DBN: eL F	04	22	31							0.7S 22.2W, H: 03 51 22.9 h N. Mb 4.7. Central Mid-Atlantic Ridge.
Aug. 8.	DBN: eL F	19	49	55							38.6N 21.8E, H: 19 39 30.5 h 56 km. Mb 4.4. Greece.
Aug. 9.	DBN: iP ePP eS eSS eSSS eL F WIT: eP e RSB: eP i	03	01	55 03 07 09 10 12 53 01 01 01 01	(+)						36.2N 52.7E, H: 02 54 36.7 h 27 km. Mb 5.2. Ms 5.3. Iran.
Aug. 9.	DBN: eL F	04	52	59							37.6N 29.8E, H: 04 40 46.5 h 11 km. Mb 4.8. Turkey.
Aug. 9.	DBN: ePKP iPP ePS eSPP eL F RSB: ePKP	12	31	02 03 43.2 31 06 15.5 02		27		10.3		6.5	5.9S 154.3E, H: 12 12 01.7 h 63 km. Mb 6.0. Solomon Islands.



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Aug. 9.	DBN: ePKP ePP iZ eSKS ePS eSPP eL F WIT: ePKP RSB: ePKP	20	20	56 44 06 47 54 10 58 22.7 20 20		18			6.8	6.3	5.8S 152.2E, H: 20 01 38.2 h 24 km. Mb 5.9. Ms 6.2. New Britain region.
Aug. 10.	DBN: eL F	05	20	06.8							5.7S 152.1E, H: 04 23 56.0 h N. Mb 5.9. Ms 5.4. New Britain region.
Aug. 10.	WIT: eP dif	11	49	23							5.7S 152.2E, H: 11 33 49.1 h 26 km. Mb 4.9. New Britain region.
Aug. 10.	DBN: ePP eZ eSKS eSKKS ePS ePPS eL F	14	59	00 06 00 51 09 28 33 06		18		3.4		6.0	5.3S 153.5E, H: 14 37 54.0 h 38 km. Mb 5.2. Ms 5.7. New Ireland region.
Aug. 11.	DBN: iPKP eZ eSKS eL F WIT: ePKP RSB: iPKP	00	19	59 03 27.0 01.0 02.0 57.5 03	-						18.6S 176.0E, H: 00 00 22.4 h N. Mb 5.5. Ms 5.1. Fiji Islands region.
Aug. 11.	DBN: ePKP <sub>1</sub> ePKP <sub>2</sub> ePP eL F	14	43	32 30 15 40 16.8		19			3.1	6.2	62.7S 155.7E, H: 14 23 31.6 h N. Mb 5.4. Ms 6.1. Balleny Islands region.
Aug. 11.	DBN: eL F	18	57	49							62.6S 155.2E, H: 17 37 25.3 h N. Mb 5.0. Balleny Islands region.
Aug. 12.	DBN: eL F RSB: eP	04	59	11		18		1.4		5.3	12.6N 95.1E, H: 04 17 05.6 h 40 km. Mb 5.3. Ms 5.1. Andaman Islands region.



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Aug. 12.	DBN: iP	14	33	29	+	17			5.0	5.9	19.7N 106.0W, H: 14 20 43.0 h N. Mb 5.6. Ms 5.5. Of coast of Jalisco, Mexico.
	iPcP	14	33	33							
	iPP	14	36	53							
	ePPP	14	39	00							
	eS	14	44	08							
	eSP	14	45	04							
	iPPS	14	45	22							
	eSS	14	49	44							
	eSSS	14	53	20							
	eL	14	58								
	F	16	18								
WIT: eP	14	33	32								
RSB: eP	14	33	31								
Aug. 13.	DBN: eL	16	12								42.2S 172.1E, H: 14 42 42.1 h 18 km. Mb 5.3. South Island, New Zealand.
	F	16	52								
Aug. 13.	DBN: ePP	17	09	56							6.1S 154.1E, H: 16 48 46.5 h 21 km. Mb 6.0. Ms 6.2. Solomon Islands.
	ePPP	17	12	34							
	eSKS	17	14	52							
	ePS	17	19	42							
	eSPP	17	21	24							
	eSS	17	26	42							
	eL	17	56			20			6.4	6.3	
F	19.4										
Aug. 14.	DBN: epPKP	00	35	00							14.9S 167.2E, H: 00 15 17.8 h 120 km. Mb 5.5. New Hebrides Islands.
	iPP	00	37	33							
	ipPP	00	38	00							
	epSKP	00	38	58							
	ePPP	00	40	36							
	epPPP	00	41	14							
	eSS	00	55.7								
	eSSS	01	00.5								
	eL	01	21								
	F	02	30								
	WIT: ePKP	00	34	25							
RSB: ePKP	00	34	30								
Aug. 14.	DBN: ePKP	09	21	16							15.7S 178.6W, H: 09 01 31.3 h N. Mb 5.7. Fiji Islands region.
	ePP	09	24	16							
	eSKS	09	28	09							
	eL	10.2									
	F	in next shock									
RSB: ePKP	09	21	10								



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Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Aug. 14.	DBN: ePKP	09	22	36						15.2S 178.4W, H: 09 02 52.6 h N. Mb 5.6. Ms 6.6. Fiji Islands region.	
	ePP	09	25	48							
	eSKS	09	29	28							
	eSS	09	44	24							
	eSSS	09	49	56							
	eL	10.2				21		18.5			6.8
	F	12.0									
RSB: ePKP	09	22	35								
Aug. 14.	DBN: eL	12.6								15.7S 178.5W, H: 11 23 28.6 h N. Mb 5.2. Fiji Islands region.	
	F	13.5									
Aug. 15.	DBN: eL	13	02.5			20		1.8		5.5 21.9N 121.8E, H: 12 14 29.3 h 28 km. Mb 4.8. Taiwan region.	
	F	13	21								
Aug. 15.	DBN: eL	16	11							15.0S 177.0W, H: 14 52 59.7 h N. Mb 5.1. Ms 4.9. Fiji Islands region.	
	F	16	36								
Aug. 15.	DBN: e	19	30							20.7S 68.9W, H: 19 05 45.3 h 80 km. Mb 5.3. Chile-Bolivia border region.	
	F	20	12								
Aug. 16.	DBN: iP	05	09	25						28.9N 103.7E, H: 04 58 00.3 h N. Mb 5.5. Szechwan Province, China.	
	eS	05	18	32							
	eL	05	32			20			3.2		5.7
	F	in next shock									
	WIT: iP	05	09	21.0	-						
RSB: eP	05	09	25								
Aug. 16.	DBN: eL	06	12							21.7N 121.8E, H: 05 26 41.5 h N. Mb 4.9. Taiwan region.	
	F	06	38								
Aug. 16.	DBN: eL	16	24			20				5.4 40.8N 143.8E, H: 15 41 18.6 h N. Mb 5.1. Ms 4.9. Off east coast of Honshu, Japan.	
	F	17.3						1.8			
Aug. 16.	DBN: iS	19	14	52						28.9N 103.7E, H: 18 53 54.7 h N. Mb 5.3. Ms 5.6. Szechwan Province, China.	
	eSS	19	21.0								
	eSSS	19	23	04							
	eL	19	28			21		6.2			5.9
	F	20	28								
	WIT: iP	19	05	15.9	+						
	RSB: eP	19	05	23							
Aug. 16.	DBN: eL	23	13							28.8N 103.6E, H: 22 37 33.6 h N. Mb 5.4. Szechwan Province, China.	
	F	23.9									
	WIT: eP	22	48	54	-						
	RSB: iP	22	49	01	-						



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Aug. 17.	DBN: eP	04	35	16	(-)	13		1.6	4.7	37.1N 36.8E, H: 04 29 33.1 h N. Mb 5.0. Turkey.	
	eS	04	40	14							
	eL	04	42								
	F	05	08								
	WIT: eP	04	35	08							
RSB: eP	04	35	04								
Aug. 17.	DBN: eL	10	15							28.9N 103.7E, H: 09 36 15.5 h N. Mb 4.9. Szechwan Province, China.	
	F	10	30								
Aug. 17.	DBN: eL	00	49							15.5S 173.4W, H: 23 46 41.4 h 70 km. Mb 5.5. Tonga Islands.	
	F	01.1									
	RSB: ePKP	00	06	12							
Aug. 18.	DBN: eL	03	10							ISC: 6.1S 151.8E, H: 02 07 17, h 21 km. New Britain region.	
	F	03	25								
Aug. 18.	DBN: e	06	47							No determination of epicenter.	
	F	06	56								
Aug. 18.	DBN: e	08	01							No determination of epicenter.	
	F	08	11								
Aug. 18.	DBN: eL	14	55							37.1N 116.0W, H: 14 00 00.0 h 0 km. Mb 5.4. Southern Nevada. Nevada test site.	
	F	15	04								
Aug. 19.	DBN: eL	00	21							No determination of epicenter.	
	F	00	30								
Aug. 19.	RSB: e	01	21	17						No determination of epicenter.	
Aug. 19.	DRN: eP	08	41	48		20		8.9	6.2	23.9N 121.9E, H: 08 28 53.1 h 23 km. Mb 5.4. Ms 5.6. Taiwan.	
	ePP	08	45	06							
	eS	08	52	09							
	eSS	08	58	04							
	eSSS	09	02.0								
	eL	19	10								
	F	10.2									
RSB: eP	08	41	37								
Aug. 19.	DBN: eL	11	58							21.9N 121.8E, H: 11 12 40.7 h 15 km. Mb 4.8. Taiwan region.	
	F	12.5									



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms		
		h	m	s			Z	NS	EW				
Aug. 19.	DBN: iP	22	27	24	+	6	5.5			49.3N 155.4E, H: 22 15 37.7 h N. Mb 6.0. Ms 6.1. Kuril Islands.			
	ePP	22	30	14									
	iS	22	37	00									
	iPS	22	37	24									
	iPPS	22	37	56									
	iSS	22	42	18									
	eSSS	22	45.5										
	eL	22	49								30	13.4	6.2
	F	01.3											
	WIT: eP	22	27	17							+		
RSB: iP	22	27	28	+									
Aug. 20.	DBN: ePKP	02	16	20					20.6S 174.1W, H: 01 56 35.5 h 52 km. Mb 5.2. Tonga Islands.				
	e	03	18										
	F	04	14										
	WIT: ePKP	02	16	16									
RSB: ePKP	02	16	22										
Aug. 20.	DBN: e	11	28						21.9N 121.6E, H: 10 34 45.8 h N. Mb 4.6. Taiwan region.				
	F	11	33										
Aug. 20.	DBN: iP	21	48	40	+	8	2.8		6.2	6.0	13.4N 92.4W, H: 21 36 09.6 h N. Mb 5.8. Ms 5.6. Off coast of Chiapas, Mexico.		
	eS	21	59	02									
	eL	22	15									19	
	F	24.5											
	WIT: eP	21	48	44								+	
PSB: eP	21	48	42										
Aug. 21.	RSB: eP	04	01	47						39.6N 12.8E, H: 03 59 04.0 h 484 km. Mb 4.3. Tyrrhenian Sea.			
Aug. 21.	RSB: ePKP	10	42	50	(-)					19.3S 167.9E, H: 10 23 11.8 h 20 km. Mb 5.0. New Hebrides Islands region.			
Aug. 21.	RSB: ePKP	12	10	36	(-)					19.2S 167.8E, H: 11 50 59.8 h N. Mb 4.7. New Hebrides Islands region.			
Aug. 21.	DBN: eL	13	42							21.8S 70.2W, H: 12 47 44 h 17 km. Mb 5.8. Near coast of Northern Chile.			
	F	14	03										
Aug. 21.	DBN: eL	17	20							42.1N 29.3W, H: 17 08 21.5 h N. Mb 4.7. Azores Islands region.			
	F	18	13										
	RSB: eP	17	13	47									
Aug. 21.	RSB: ePKP	17	25	00						19.3S 167.9E, H: 17 05 21.3 h 31 km. Mb 4.7. New Hebrides Islands region.			
Aug. 21.	RSB: ePKP	17	29	00						19.2S 167.7E, H: 17 09 23.4 h N. Mb 4.5. New Hebrides Islands region.			



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Aug. 21.	RSB: ePKP	17	29	00						19.2S 167.7E, H: 17 09 23.4 h N. Mb 4.5. New Hebrides Islands region.	
Aug. 21.	DBN: eL F WIT: eP	23 23 22	23 43 55							54.3N 162.5W, H: 22 43 38.4 h N. Mb 5.2. Alaska Peninsula.	
Aug. 22.	RSB: ePKP	13	21	59	(+)					19.6S 167.9E, H: 13 02 19.8 h N. Mb 4.8. New Hebrides Islands region.	
Aug. 22.	DBN: eL F WIT: eP RSB: eP	18 18 18 18	11 28 01 01							30.1N 50.7E, H: 17 54 14.6 h N. Mb 5.1. Iran.	
Aug. 23.	DBN: ePKP ePS eSS eSSS eL F RSB: ePKP	04 04 04 04 04 04 04	27 38 44 49.0 59 07.7 27	00 46 24		19		33	7.0	4.0S 146.1E, H: 04 08 02.0 h N. Mb 5.2. Ms 6.3. East New Guinea region.	
Aug. 23.	RSB: eP	05	47	50						28.8N 103.7E, H: 05 36 11.4 h N. Mb 5.2. Szechwan Province, China.	
Aug. 23.	DBN: e eL F	18 19 20.5	50 19	18						9.1S 107.5E, H: 18 27 33.6 h N. Mb 5.4. South of Java.	
Aug. 23.	DBN: iP eS eSF eSSS eL F WIT: eP RSB: iP	22 22 22 22 22 22 22 22	07 17 22.5 26.0 31 24.9 07 07	16 08	+	8	1.2			45.6N 151.0E, H: 21 55 17.7 h 34 km. Mb 5.7. Ms 5.6. Kuril Islands.	
Aug. 24.	DBN: eL F	04 05	32 20							38.6S 78.6E, H: 03 33 15.7 h N. Mb 4.7. Ms 5.3. Mid-Indian Rise.	
Aug. 24.	RSB: iP	06	04	41	+					19.2S 167.8E, H: 05 45 03.8 h N. Mb 4.6. New Hebrides Islands.	



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Aug. 24.	DBN: eL F	08 09	52 25								11.4N 86.4W, H: 08 09 12.4 h 87 km. Mb 5.0. Near coast of Nicaragua.
Aug. 24.	DBN: ePP eL F RSB: ePKP	13 14 15 13	50 42 00 48	16   21							5.5S 152.9E, H: 13 29 12.8 h 36 km. Mb 5.2. Ms 5.2. New Britain region.
Aug. 24.	DBN: eP ePP eS eL F WIT: eP RSB: eP ePP	16 16 16 17 18 16 16 16	42 44 49 01 00 42 42 44	18 12 28   11 22 16		12	9.0		5.8		52.2N 91.4E, H: 16 33 22.7 h N. Mb 5.2. Central Russia.
Aug. 24.	RSB: ePKP	22	33	30.5	-						19.4S 168.0E, H: 22 13 52.8 h N. Mb 5.3. New Hebrides Islands.
Aug. 25.	RSB: ePKP	01	15	11							ISC: 19.3S 167.9E, H: 00 55 32.3, h 33 km. New Hebrides Islands.
Aug. 25.	RSB: iPKP e	02 02	32 32	32 46	+						19.4S 167.9E, H: 02 12 53.4 h N. Mb 4.5. New Hebrides Islands region.
Aug. 25.	RSB: iPKP i	07 07	31 31	26 36	-						19.3S 167.8E, H: 07 11 48.3 h N. Mb 4.8. New Hebrides Islands region.
Aug. 25.	RSB: ePKP e	08 08	26 26	33 43							19.1S 167.8E, H: 08 06 55.2 h N. New Hebrides Islands region.
Aug. 25.	DBN: e F	18 19	56 10								28.4N 128.1E, H: 18 08 44.6 h 40 km. Mb 4.4. Ryukyu Islands.
Aug. 25.	DBN: eL F	21 21	10 27								26.9S 176.4W, H: 20 07 45.6 h 61 km. Mb 4.3. South of Fiji Islands.
Aug. 25.	DBN: e F	22 22	18 40								No determination of epicenter.
Aug. 26.	DBN: eL F	03 03	18 40								19.0N 67.7W, H: 02 47 49.8 h 53 km. Mb 4.8. Mona Passage.



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Aug. 26.	DBN: eL F	07	09								41.0N 143.7E, H: 06 25 28.3 h 35 km. Mb 4.9. Hokkaido, Japan region.
Aug. 26.	DBN: ePP eSKS eSP eSPP eL F	11	09	54							55.7S 26.1W, H: 10 50 40.2 h N. Mb 5.9. Ms 5.5. South Sandwich Islands region.
Aug. 26.	DBN: iPKP eL F WIT: ePKP RSB: iPKP	17	53	24	+						20.1S 168.7E, H: 17 33 45.7 h 16 km. Mb 5.0. Ms 5.3. Loyalty Islands.
Aug. 26.	RSB: ePKP	18	12	47							20.0S 168.7E, H: 17 53 07.3 h 27 km. Mb 4.9. Loyalty Islands.
Aug. 26.	RSB: ePKP e	23	33	00							ISC: 19.44S 167.97E, H: 23 13 21.7, h 33 km. New Hebrides Region.
Aug. 26.	RSB: ePKP	23	59	18							20.1S 168.6E, H: 23 39 36.5 h 18 km. Mb 5.0. Loyalty Islands.
Aug. 27.	RSB: e	00	12	36	-						20.1S 168.9E, H: 23 52 56.1 h N. Mb 4.3. Loyalty Islands.
Aug. 27.	RSB: e e	02	58	19							No determination of epicenter.
Aug. 27.	WIT: eP RSB: eP	05	27	40							30.2N 50.7E, H: 05 20 15.1 h 54 km. Mb 5.0. Iran.
Aug. 27.	RSB: iPKP	05	38	01	+						19.3S 167.9E, H: 05 18 19.7 h 12 km. Mb 4.6. New Hebrides Islands region.
Aug. 27.	HEE: i RSB: e	06	05	21							Local shock? No determination of epicenter.



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Aug. 27.	DBN: eL F	07	11								19.2N 68.1W, H: 06 37 53.2 h N. Mb 4.7. North Atlantic Ridge.
Aug. 28.	DBN: iPKP F WIT: iPKP RSB: ePKP epPKP	04 04 04 04 04	28 32 28 28 29	37 (-) 31.6 (-) 36 19							18.8S 174.7W, H: 04 09 07.4 h 153 km. Mb 5.4. Tonga Islands.
Aug. 28.	DBN: eL F RSB: eP	16 17 16	50 03 10								28.3N 130.7E, H: 15 57 47.7 h 35 km. Mb 5.7. Ryukyu Islands.
Aug. 28.	RSB: e	16	28	45	-						No determination of epicenter.
Aug. 29.	DBN: eL F	09 09	06 32								11.5N 86.2W, H: 08 26 52.4 h N. Mb 4.9. Near coast of Nicaragua.
Aug. 29.	DBN: iP eS eL F RSB: eP	11 11 11 11 11	00 04 05.7 32 00	40 28 -	-	6	2.0				67.6N 18.8W, H: 10 56 17.2 h N. Mb 4.7. Ms 4.8. Iceland region.
Aug. 29.	RSB: iPKP	12	21	10	+						19.4S 167.8E, H: 12 01 28.9 h 13 km. Mb 4.6. New Hebrides Islands region.
Aug. 30.	DBN: eL F	23 24.1	37			20			1.4	5.6	36.4S 98.4W, H: 22 37 40.0 h N. Mb 5.3. Ms 5.3. Southern Pacific Ocean.
Aug. 31.	DBN: eL F RSB: eP	16 16 16	15 26 07								42.5N 29.3W, H: 16 02 08.6 h N. Mb 4.6. Azores Islands region.
Sep. 1.	DBN: eSP eL F	01 01 01	01 27 45	27							59.3S 27.0W, H: 00 32 08.6 h N. Mb 5.4. Ms 5.6. South Sandwich Islands region.
Sep. 1.	DBN: eL F WIT: iPKP RSB: ePKP	21 21 20 20	29 38 36 36	42.8 +							5.5S 152.9E, H: 20 17 37.4 h 34 km. Mb 5.2. New Britain region.



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Sep. 1.	RSB: iPKP	23	51	11.5	+						15.5S 175.1W, H: 23 32 10.6 h 300 km. Mb 4.9. Tonga Islands.
Sep. 2.	WIT: ePKP RSB: ePKP	06	52	23 22							11.1S 166.3E, H: 06 33 20.7 h 175 km. Mb 5.4. Santa Cruz Islands.
Sep. 2.	DBN: eL F WIT: eP RSB: iP	18 19 18 18	46 00 32 32								30.1N 50.8E, H: 18 24 47.3 h 45 km. Mb 5.1. Iran.
Sep. 2.	WIT: iPKP RSB: ePKP	23	29	02.0 07	+						20.7S 169.4E, H: 23 09 27.9 h 50 km. Mb 4.8. New Hebrides Islands.
Sep. 3.	DBN: eL F WIT: ePKP RSB: ePKP i	01 01 00 00 00	10 57 07 07 07	44 43 50							24.4S 175.2W, H: 23 47 52.2 h N. Mb 5.7. Ms 5.4. South of Tonga Islands.
Sep. 3.	WIT: ePg eSg RSB: eP* ePg eSn HEE: iSn	21 21 21 21 21 21	34.7 35 34 34 34 34								48.2N 6.5E, H: 21 33 08.5 h 26 km. France. HEE: no exact timecorrection.
Sep. 3.	RSB: ePKP	23	48	36							15.3S 173.0W, H: 23 28 51.4 h 37 km. Mb 4.8. Tonga Islands.
Sep. 4.	DBN: eL F	00 01	34 06								56.3S 26.6W, H: 23 37 29.4 h N. Mb 5.3. South Sandwich Islands region.
Sep. 4.	WIT: iP RSB: iP	16 16	04 04	41.0 51	+						55.0N 163.4W, H: 15 53 25.4 h 107 km. Mb 5.8. Unimak Island region.
Sep. 5.	DBN: eL F	03 04	59 30								5.2S 153.0E, H: 03 00 12.7 h 45 km. Mb 5.1. New Ireland region.
Sep. 5.	DBN: eL F	09 10	57 27								17.1N 99.8W, H: 09 13 15.3 h 50 km. Mb 5.2. Ms 5.0. Guerrero, Mexico.
Sep. 5.	DBN: eL F	12 12	31 41								37.3N 30.3E, H: 12 19 56.9 h 20 km. Mb 4.5. Turkey.



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Sep. 5.	DBN: eL F RSB: eP	15 16 15	33 10 06	52							56.0N 165.1E, H: 14 55 21.0 h N. Mb 5.1. Ms 4.9. Komandorsky Islands region.
Sep. 5.	DBN: iP ePP iZ iPPP iS iPS eSS eSSS eL F WIT: eP RSB: eP i HEE: eL	18 18 18 18 18 18 19 19 19 23 18 18 18 19	47 49 50 51 56 57 01 04 10 10 47 47 47 14	08 44 05 45 48 35 42 52	+	30			640	7.9	46.5N 141.2E, H: 18 35 25.0 h 9 km. Mb 6.3. Ms 7.1. Sakhalin Island.
Sep. 5.	WIT: iP RSB: eP	19 19	45 45	23.4 34	-						46.4N 141.2E, H: 19 33 47.2 h 15 km. Mb 5.5. Ms 6.3. Sakhalin Island.
Sep. 5.	DBN: eL F	23 00.2	21								8.9S 108.4W, H: 22 33 16.6 h N. Mb 5.2. Ms 5.4. Northern Easter Island Cordillera.
Sep. 6.	DBN: eL F	00 01	57 10								33.2N 69.9E, H: 00 33 25.9 h 37 km. Mb 4.9. Afghanistan.
Sep. 6.	DBN: eL F WIT: iP i RSB: eP	03 04 03 03 03	37 09 11 11 11	11.3 15.2 22	-						46.7N 141.2E, H: 02 59 39.2 h N. Mb 5.4. Sakhalin Island.
Sep. 6.	DBN: eP eS eSP eL F WIT: eP i RSB: eP	06 07 07 07 08 06 06 06	57 07 07 24 03 57 57 57	40 20 52	+	20			2.9	5.6	46.4N 141.1E, H: 06 45 59.0 h 16 km. Mb 5.7. Sakhalin Island.



SEISMOLOGICAL BULLETIN



Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
1971											
Sep. 6.	DBN: eL F	11 29 12 00									46.4N 141.4E, H: 10 48 32.8 h 41 km. Mb 4.7. Sakhalin Island.
Sep. 6.	DBN: iP iS iPS eSS eSSS eL F WIT: iP i RSB: eP e	13 48 48 13 58 24 13 59 00 14 03 12 14 06 32 14 13 15.1 13 48 43.4 13 48 49.1 13 48 54 13 49 01			+	30			7.0	6.0	46.7N 141.4E, H: 13 37 10.8 h 29 km. Mb 6.1. Ms 5.5. Sakhalin Island.
Sep. 6.	WIT: iP RSB: eP	20 23 07.5 20 23 13			+						21.1S 177.8W, H: 20 04 02.2 h 356 km. Mb 4.7. Fiji Islands region.
Sep. 7.	RSB: eSg	07 59 05									43.2N 0.2E, H: 07 54 28.7 h N. Mb 4.0. France.
Sep. 8.	DBN: eL F WIT: eP RSB: eP	03 53 04 48 03 29 04 03 29 13				20			3.6	5.7	46.7N 141.3E, H: 03 17 25.4 h 16 km. Mb 5.0. Ms 5.2. Sakhalin Island.
Sep. 8.	DBN: eL F WIT: iP e RSB: eP	08 09 08 33 07 37 31.5 07 37 43 07 37 39			-						37.2N 141.3E, H: 07 25 14.5 h 56 km. Mb 5.5. Near east coast of Honshu, Japan.
Sep. 8.	DBN: iP iPP iPPP iS iPS iSS iSSS eL F WIT: eP RSB: eP	12 00 06 12 02 57 12 04 42 12 09 45 12 10 23 12 14 25 12 17 49 12 22 14 58 12 00 01 12 00 12			+	6	4.4				46.4N 141.1E, H: 11 48 23.4 h 6 km. Mb 5.9. Ms 6.6. Sakhalin Island.
Sep. 8.	WIT: iP RSB: eP	13 01 54.9 13 01 58			+						29.2N 60.0E, H: 12 53 34.0 h 12 km. Mb 5.4. Southern Iran.



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms			
		h	m	s			Z	NS	EW					
Sep. 8.	DBN: iP	17	11	36	+	6	4.0			46.3N 140.9E, H: 16 59 52.6 h 16 km. Mb 5.9. Ms 6.2. Near east coast of eastern Russia.				
	iPP	17	14	28										
	ePPP	17	16	08										
	iS	17	21	13										
	iPS	17	21	48										
	eSS	17	25	18										
	eSSS	17	29	14										
	eL	17	34								13	32	6.7	
	F	19	35											
WIT: eP	17	11	29	-										
RSB: eP	17	11	40											
Sep. 8.	DBN: eL	20	00							46.4N 140.9E, H: 19 22 15.4 h 19 km. Mb 5.3. Near east coast of eastern Russia.				
	F	20	25											
	WIT: eP	19	33	51										
RSB: eP	19	34	03											
Sep. 8.	DBN: iP	20	37	45	+	5	1.0			53.8N 35.3W, H: 20 32 29.9 h N. Mb 4.9. Ms 5.0. North Atlantic Ocean.				
	iS	20	42	14										
	eL	20	44.0								15	6.2	5.2	
	F	21	21											
Sep. 8.	DBN: eL	22	50							41.1N 43.8E, H: 22 35 15.8 h 33 km. Mb 4.8. Turkey-USSR border region.				
	F	23	04											
Sep. 9.	DBN: eP	15	15	07		12	8.6			37.3N 30.2E, H: 15 10 03.4 h 23 km. Mb 5.3. Turkey.				
	iS	15	19	30										
	eL	15	22											
	F	15	50											
	WIT: iP	15	15	06.6							-			
	RSB: eP	15	14	59										
Sep. 9.	DBN: iP	23	13	21	+	5	4.4			44.4N 150.9E, H: 23 01 06.8 h 7 km. Mb 6.0. Ms 5.9. Kuril Islands region.				
	ePP	23	16	24										
	iS	23	23	13										
	eSP	23	23	45										
	eSS	23	28	16										
	eL	23	37								16	7.5	6.1	
	F	01	50											
	WIT: iP	23	13	10.7							-			
	RSB: iP	23	13	20.5							-			
Sep. 10.	DBN: iPKP	06	48	31	+					20.4S 174.2W, H: 06 28 51.1 h N. Mb 5.8. Ms 5.8. Tonga Islands.				
	ePP	06	52	03										
	eSKS	06	55	28										
	eSPP	07	04	45										
	eSS	07	11	12										
	eSSS	07	16	50										
	eL	07	44								20	2.5	6.0	
	F	09	17											
	WIT: ePKP	06	48	34							+			
RSB: ePKP	06	48	39											



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Sep. 10.	WIT: iPKP RSB: ePKP	14	11	08.2	(-)						18.1S 179.6W, H: 13 52 41.8 h 671 km. Mb 5.2. Fiji Islands region.
Sep. 11.	DBN: eL F	02	13.0								38.9N 22.1E, H: 02 03 09.9 h 4 km. Mb 4.5. Greece.
Sep. 11.	DBN: eL F	06	29								15.2N 96.2E, H: 05 49 24.4 h N. Mb 4.9. South Burma.
Sep. 11.	DBN: eL F	07	10								15.1N 96.3E, H: 06 28 11.1 h 28 km. Mb 5.3. South Burma.
Sep. 12.	DBN: eL F	05	12								59.5S 18.5W, H: 04 16 14.5 h N. Mb 5.3. South western Atlantic Ocean.
Sep. 12.	DBN: ePKP epPKP eL F WIT: iPKP e RSB: ePKP i i	08 08 09 10 08 08 08 08 08	26 26 29 04 26 26 26 26 27	36 59   43.0 56 38 47.5 05	    +   +  						26.7S 177.1W, H: 08 06 54.1 h 101 km. Mb 5.8. South of Fiji Islands.
Sep. 12.	DBN: eL F	20	00								18.3N 146.3E, H: 19 07 37.1 h 77 km. Mb 4.9. Mariana Islands.
Sep. 12.	RSB: ePKP	20	33	05	+						17.5S 168.7E, H: 20 13 57.5 h 229 km. Mb 5.0. New Hebrides Islands.
Sep. 13.	RSB: iP	01	22	07.5	-						33.9N 138.3E, H: 01 09 55.8 h 249 km. Mb 5.2. South of Honshu, Japan.
Sep. 13.	DBN: eS eL F WIT: iP RSB: iP	04 04 05 04 04	38.0 49 08 28 28	   57.1 53	   + +						17.9N 69.7W, H: 04 18 01.9 h 48 km. Mb 5.7. Dominican Republic region.







SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Sep. 15.	DBN: iP	13	42	20	-					31.5N 140.0E, H: 13 29 34.4 h 72 km. Mb 5.2. South of Honshu, Japan.	
	ePP	13	45	49							
	eS	13	53	00							
	eL	14	12								
	F	15	04								
Sep. 15.	DBN: iP	15	07	26	+	6	2.6			39.1N 143.4E, H: 14 55 05.3 h 17 km. Mb 5.8. Ms 6.0. Off east coast of Honshu, Japan.	
	ePP	15	10	31							
	ePPP	15	12	20							
	iS	15	17	41							
	eSS	15	23	13							
	eSSS	15	26	26							
	eL	15	33			20		27	6.7		
	F	18	23								
	WIT: eP	15	07	21	+						
	e	15	07	30							
	RSB: iP	15	07	31.5							
	e	15	07	41							
Sep. 16.	DBN: iPP	06	42	11						5.9S 130.7E, H: 06 22 37.6 h 115 km. Mb 6.2. Banda Sea.	
	ipPP	06	42	46							
	isPP	06	43	23							
	ePPP	06	44	47							
	epPPP	06	45	22							
	iSKS	06	47	45							
	isSKS	06	48	38							
	iSP	06	51	33							
	eSS	06	58	00							
	esSS	06	58	48							
	eSSS	07	01	56							
	eL	07.3									
	F	09.0									
	WIT: ePKP	06	40	45							
	iPP	06	42	02.8							
	i	06	42	09.8							
	iPPP	06	44	28.5							
eSP	06	51	27								
RSB: ePKP	06	40	49								
ePP	06	42	04								
eSP	06	51.6									
Sep. 16.	DBN: eL	14	20							ISC: 39.0N 143.7E, H: 13 34 19, h 6 km. Mb 4.0. Off east coast of Honshu.	
	F	14	31								



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Sep. 16.	DBN: eL	19	33		-					39.0N 143.5E, H: 18 51 44.1 h 43 km. Mb 5.2. Off east coast of Honshu, Japan.	
	F	20	11								
	WIT: iP	19	03	57.6							
	e	19	04	07							
	RSB: eP	19	04	06.5							
	e	19	04	15.5							
Sep. 17.	WIT: ePKP	14	40	33.5	+					21.6S 174.5W, H: 14 20 47.9 h N Mb 5.2. Tonga Islands.	
	i	14	40	38.5							
	RSB: ePKP	14	40	43							
Sep. 18.	DBN: eL	17	57							13.5N 90.0W, H: 17 11 54.7 h 82 km. Mb 4.8. Near coast of Guatemala.	
	F	18	11								
Sep. 19.	DBN: ePKP	10	19	07	-					21.3S 178.5W, H: 10 00 19.3 h 545 km. Mb 5.4. Fiji Islands region.	
	epPKP	10	21	05							
	WIT: iP	10	19	05.2							
	RSB: iP	10	19	10							
	PKP1	10	19	18							
	iPKP2	10	19	18							
	epPKP1	10	21	17							
Sep. 20.	DBN: eL	02	41							39.4N 143.3E, H: 01 55 18.1 h 30 km. Mb 4.6. Off east coast of Honshu, Japan.	
	F	02	53								
Sep. 20.	DBN: eL	04	06							39.3N 143.5E, H: 03 22 16.5 h 33 km. Mb 4.4. Off east coast of Honshu, Japan.	
	F	04	26								
Sep. 20.	DBN: eP	06	21	44						ISC: 41.57N 32.48E, H: 06 16 41.8, h 0 km. Turkey.	
	eS	06	25	34							
	eL	06	27.5								
	F	06	40								
Sep. 20.	DBN: eP	06	55.5			18		1.4	5.2	56.4N 153.0W, H: 06 44 14.2 h N. Mb 5.2. Ms 5.3. Kodiak Island region.	
	eS	07	40	40							
	eL	07	20								
	F	08.2									
Sep. 20.	RSB: eP	08	07	23						ISC: 41.54N 32.66E, H: 08 02 36.9, h 0 km. Mb 4.0. Turkey.	
Sep. 20.	DBN: eL	21	30							56.3N 153.0W, H: 20 54 13.9 h 37 km. Mb 4.8. Ms 4.8. Kodiak Island region.	
	F	22.0									



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Sep. 21.	DBN: eL F WIT: iP RSB: eP	09.5 in next shock									37.3N 138.6E, H: 08 43 31.9 h 186 km. Mb 5.4. Near west coast of Honshu, Japan.
Sep. 21.	DBN: eL F	08 55 28.1 08 55.6									32.4N 91.8E, H: 09 13 51.5 h N. Mb 5.0. Tibet.
Sep. 21.	DBN: eS eL F WIT: eP RSB: eP	16 58 16 17 00.7 17 20 16 53 52 16 53 (51)									37.3N 30.2E, H: 16 48 51.6 h 37 km. Mb 4.8. Turkey.
Sep. 21.	DBN: eL F	20 21 20 25									30.9N 41.6W, H: 20 01 57.1 h N. Mb 4.3. North Atlantic Ridge.
Sep. 22.	DBN: eL F	01 26 01 50									7.1S 80.5W, H: 00 40 12.4 h N. Mb 5.3. Off coast of northern Peru.
Sep. 22.	DBN: e F	08 39 08 48									ISC: 13.76S 166.56E, H: 07 24 43, h 32 km. Mb 5.0. New Hebrides.
Sep. 22.	DBN: eP eL F	08 52 20 08 58 09 36									42.3N 29.4W, H: 08 46 33.5 h N. Mb 4.3. Azores Islands region.
Sep. 22.	DBN: iP ePP iS eSP eSS eSSS eL F WIT: eP RSB: iP	14 26 47 14 30 04 14 37 16 14 38 17 14 43.0 14 46.7 14 54 16 00 14 26 52.3 14 26 53			+	6	1.4				15.1N 93.7W, H: 14 14 20.5 h N. Mb 5.2. Ms 5.6. Near coast of Chiapas Mexico.
Sep. 22.	DBN: eL F	23 03 23 12									10.9S 78.1W, H: 22 14 59.9 h 59 km. Mb 5.3. Near coast of Peru.



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Sep. 23.	WIT: iP	01	02	28.8	+						46.2N 137.2E, H: 00 51 30.6 h 291 km. Mb 4.8. Near east coast of eastern Russia.
Sep. 24.	DBN: iP	01	22	20	+	5	1.2				39.4N 143.2E, H: 01 10 00.4 h 22 km. Mb 5.6. Ms 5.7. Off east coast of Honshu, Japan.
	ePP	01	25	19							
	ePPP	01	27	18							
	iS	01	32	30							
	eSS	01	37	42							
	eSSS	01	41	12							
	eL	01	48.6			20			16	6.4	
	F	03	37								
	WIT: iP	01	22	14.6	+						
RSB: iP	01	22	19	+							
Sep. 24.	DBN: eP	04	46	19							16.4S 73.7W, H: 04 32 55.0 h 28 km. Mb 5.2. Ms 5.6. Near coast of Peru.
	ePP	04	50	11							
	eSKS	04	57	16							
	ePS	04	59	08							
	eSS	05	04	25							
	eL	05	20			20			2.5	5.7	
	F	06	18								
Sep. 24.	WIT: iPKP	19	39	12.4	+						22.7S 178.4W, H: 19 20 09.5 h 426 km. Mb 5.0. South of Fiji Islands.
	RSB: ePKP	19	39.3								
Sep. 24.	WIT: e	19	48	11	(-)						No determination of epicenter.
Sep. 25.	WIT: ePKP	03	09	32.5							17.9S 178.8W, H: 02 51 01.3 h 616 km. Mb 4.6. Fiji Islands region.
	RSB: ePKP	03	09	38							
Sep. 25.	DBN: iPKP	04	55	02	-	4	1.6				6.5S 146.6E, H: 04 36 14.0 h 115 km. Mb 6.3. East New Guinea region.
	iPP	04	56	47							
	ipPP	04	57	26							
	ipSKP	04	59	09							
	iPPP	04	59	31							
	ipPPP	05	00	05							
	eSP	05	06	44							
	epSP	05	07	22							
	eSS	05	13	05							
	eSSS	05	19	07							
	eL	05	28								
	F	07.5									
	WIT: iPKP	04	54	59.5	-						
	ePP	04	56	23							
	RSB: iPKP	04	55	02	-						



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Sep. 25.	DBN: eL F	10	38.6							44.2N 8.6E, H: 10 34 04.3 h 19 km. Mb 4.1. Northern Italy.	
Sep. 25.	DBN: eL F RSB: eP	15 16	43.8 00		10		24		4.8	41.3N 29.5W, H: 15 31 11.4 h N. Mb 4.6. Azores Islands region.	
Sep. 25.	DBN: eL F	19 19	06 25							3.3S 139.7E, H: 18 01 31.9 h N. Mb 5.1. West New Guinea.	
Sep. 25.	DBN: e F	22 22	04 51							No determination of epicenter.	
Sep. 25.	WIT: iPKP RSB: iPKP	22 22	37 37	05.8 10	- -					19.5S 176.8W, H: 22 18 05.2 h 373 km. Mb 5.0. Fiji Islands region.	
Sep. 26.	WIT: iPKP RSB: ePKP	05 05	28 28	24.2 28	+ +					20.0S 178.5W, H: 05 09 48.0 h 623 km. Mb 4.2. Fiji Islands region.	
Sep. 26.	DBN: eS eL F	05 05 05	52 54.2 58	00						37.9N 22.2E, H: 05 44 34.9 h 107 km. Mb 4.1. Southern Greece.	
Sep. 26.	DBN: eL F	16 16	30 35							3.2N 125.8E, H: 15 25 18.0 h 48 km. Mb 5.3. Talaud Islands.	
Sep. 26.	DBN: ePP ePS ePPS eSS eSSS eL F	16 17 17 17 17 17 18	52 01 02 07.0 11.0 27 17	12 24 12						0.0S 124.9E, H: 16 33 04.7 h 71 km. Mb 5.8. Molucca Sea.	
Sep. 27.	DBN: iP eS eL F WIT: iP RSB: iP HEE: i	06 06 06 07.3 06 06 06	06 11 14.2 07.3 05 06 06	06 35	+    + +	4  9	4.8  14.6			73.4N 55.1E, H: 05 59 55.2 h 0 km. Mb 6.4. Ms 5.2. Novaya Zemlya.	
Sep. 27.	WIT: i	14	04	39.0	-					No determination of epicenter.	
Sep. 27.	RSB: e	16	55.7							No determination of epicenter.	



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms		
		h	m	s			Z	NS	EW				
Sep. 27.	DBN: iP	19	13	27	+	4	2.1			46.4N 141.1E, H: 19 01 45.3 h 21 km. Mb 5.9. Ms 6.0. Sakhalin Island.			
	iPP	19	16	16									
	ePPP	19	18	02									
	iS	19	23	05									
	ePS	19	23	42									
	eSPP	19	23	54									
	eSS	19	27	46									
	eSSS	19	31	09									
	eL	19	35								20	29	6.6
	F	21.2											
WIT: eP	19	13	20.0	+									
RSB: eP	19	13	29										
Sep. 27.	DBN: ePP	22	40	28						3.2S 148.1E, H: 22 20 03.2 h N. Mb 5.5. Ms 6.1. Bismarck Sea.			
	ePKS	22	42	44									
	ePPP	22	43	12									
	eSKS	22	46.0										
	eSKKS	22	47	25									
	ePS	22	50	17									
	eSS	22	57	00									
	eSSS	23	00.0										
	eL	23	17								24	6.6	6.3
	F	01	00										
RSB: ePKP	22	39	14										
ePP	22	40	32										
Sep. 28.	DBN: eL	05	22.6		10				2.4	4.7	37.1N 30.1E, H: 05 10 24.8 h 36 km. Mb 4.7. Turkey.		
	F	05	34										
Sep. 28.	DBN: eL	15	01								3.7N 126.0E, H: 14 04 41.9 h 169 km. Mb 5.9. Talaud Islands.		
	F	15	14										
Sep. 28.	RSB: ePG	18	11	10							BCIS: 50.6N 7.3E, H: 18 10 54 Bad Godesberg, Germany.		
	i	18	11	10.7									
	eSg	18	11	23.7									
Sep. 28.	DBN: eL	20	44								9.0S 157.4E, H: 19 45 15.8 h N. Mb 5.5. Ms 5.1. Solomon Islands.		
	F	22.0											
Sep. 28.	DBN: eL	22	34								59.4S 27.0W, H: 21 38 43.3 h N. Mb 5.5. South Sandwich Islands region.		
	F	22	48										
Sep. 28.	DBN: eL	23	25								5.4S 152.8E, H: 22 22 52.9 h 43 km. Mb 4.8. Ms 5.1. New Britain region.		
	F	00	00										



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms		
		h	m	s			Z	NS	EW				
Sep. 29.	DBN: e	07	21	55	-					47.1N 9.0E, H: 07 18 51.6 h 24 km. Mb 4.5. Switzerland.			
	eSg	07	22	04									
	eL	07	22	42									
	WIT: ePn	07	20	20									
	eP*	07	20	35									
	i	07	20	59.3									
	eS	07	21	55									
	HEE: eSn	07	20	(41)									
	iSg	07	21	14									
RSB: iPn	07	19	58										
	iSn	07	20	49									
Sep. 29.	DBN: ePP	14	10	18						2.9S 142.0E, H: 13 50 02.5 h 16 km. Mb 5.5. Ms 5.3. Near north coast of New Guinea.			
	eL	14	51										
	F	15.4											
Sep. 30.	DBN: iP	08	30	30	+	4	3.9			26.8N 110.8W, H: 08 17 54.6 h N. Mb 5.6. Ms 6.6. Gulf of California.			
	iS	08	40	55									
	ePPS	08	42	10									
	iSS	08	46	23									
	eSSS	08	50	00									
	eL	08	52.5								18	80	7.1
	F	11	40										
	WIT: iP	08	30	32.2							-		
	RSB: iP	08	30	36							+		
Sep. 30.	DBN: eL	16.3								18.3N 104.9W, H: 15 33 29.4 h N. Mb 4.7. Near coast of Jalisco, Mexico.			
	F	16.6											
Sep. 30.	DBN: iP	21	33	28	+	6	4.1			0.5S 4.8W, H: 21 24 11.0 h N. Mb 6.0. Ms 5.5. South Atlantic Ocean.			
	ePcP	21	34	40									
	iPP	21	35	28									
	iS	21	40	55									
	eScS	21	43	18									
	iSS	21	44	37									
	eL	21	49								16	7.5	5.8
	F	24.5											
	WIT: iP	21	33	33.7							+		
	i	21	33	57.6									
	RSB: iP	21	33	17.5							+		
i	21	33	23										
Sep. 30.	WIT: iPKP	21	38	10.6	+					22.4S 179.6E, H: 21 19 25.6 h 585 km. Mb 4.9. South of Fiji Islands.			
Sep. 30.	WIT: eP	21	41	33.5						61.6N 140.3E, H: 21 31 25.9 h N. Mb 5.4. Ms 5.4. Eastern Siberia.			



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Oct. 1.	DBN: eL F WIT: ePKP	06	24								4.3S 152.9E, H: 05 16 56.2 h 45 km. Mb 5.1. New Britain region.
Oct. 1.	DBN: ePKP eL F WIT: ePKP	11	48	04							21.4S 169.7E, H: 11 28 23.4 h 32 km. Mb 5.2. Ms 5.0. Loyalty Islands region.
Oct. 1.	WIT: ePKP	16	29	34							19.9S 177.9W, H: 16 10 55.4 h 590 km. Mb 4.6. Fiji Islands region.
Oct. 1.	DBN: eL F	16	52								38.6N 69.8E, H: 16 27 47.7 h 36 km. Mb 4.9. Tadzhik SSR.
Oct. 1.	DBN: eL F	21	55								12.7S 77.1W, H: 21 08 34.8 h 43 km. Mb 4.7. Near coast of Peru.
Oct. 2.	DBN: eL F	03	43								64.4N 86.5W, H: 03 19 28.2 h N. Mb 5.0. Northern Territories, Canada.
Oct. 2.	RSB: e	07	49	06							No determination of epicenter.
Oct. 2.	WIT: ePKP	09	37	58							17.3S 174.8W, H: 09 29 07.9 H 200 km. Mb 4.4. Tonga Islands.
Oct. 2.	DBN: eL F	11	10								ISC: 45.11 N 42.2E, H: 10 56 45.0, h 33 km. South-Western Russia.
Oct. 3.	DBN: eL F	07	55								38.9N 29.9E, H: 07 44 26.9 h 23 km. Mb 4.7. Turkey.
Oct. 3.	DBN: ePP eL F WIT: ePKP	08	57	04							6.6S 155.0E, H: 08 36 04.8 h 58 km. Mb 5.9. Solomon Islands.



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Oct. 3.	DBN: ePKP ePP eSS eSSS eL F	13	44	04		26		36	7.2	14.7S 171.7E, H: 13 24 37.0 h 10 km. Mb 5.7. Ms 6.4. New Hebrides Islands region.	
		13	47	08							
		14	05	36							
		14	10.5								
		14	33								
		16.7									
	WIT: ePKP i ePP	13	44	12							
		13	44	20.5							
		13	47	08							
Oct. 3.	DBN: eL F	17	43						18.1N 94.1W, H: 17 01 06.8 h 38 km. Mb 5.0. Gulf of Campeche.		
		17	57								
	WIT: eP epP	17	13	26							
		17	13	39							
	RSB: eP	17	13	25							
Oct. 3.	WIT: eP	20	55	30.5					3.5N 82.9W, H: 20 42 46.7 h N. Mb 4.7. Panama.		
Oct. 3.	DBN: eP eS eL F	23	24	52					34.3N 26.1E, H: 23 19 42.4 h 40 km. Mb 4.7. Crete.		
		23	29	03							
		23	31.0								
		23	43								
	WIT: eP	23	24	47							
	RSB: eP	23	24	45							
Oct. 4.	DBN: eP ePKP iPP ePPS eSS eSSS eL F	01	46	17		34		36	7.0	5.8S 154.2W, H: 01 30 34.1 h 74 km. Mb 5.7. Solomon Islands.	
		01	49	32							
		01	51	36							
		02	03	08							
		02	09.0								
		02	13.7								
		02	25								
	05.0										
	WIT: ePKP epPKP RSB: ePKP	01	49	32.5							
		01	49	59.5							
01		49	40								
Oct. 4.	RSB: eP	10	05.7						61.6N 47.1E, H: 10 00 02.0 h 13 km. Mb 5.1. Western Russia.		
Oct. 4.	RSB: eP	16	40	08 (-)					34.4N 26.1E, H: 16 35 12.9 h 33 km. Mb 4.8. Crete.		



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Oct. 4.	DBN: eL F RSB: eP	16 17 16	48.6 00 45	52						42.9N 13.1E, H: 16 43 31.8 h N. Mb 5.0. Central Italy.	
Oct. 5.	DBN: eL F WIT: eP RSB: eP	02 02 01 01	09 33 50 51	51 03						67.5N 172.8W, H: 01 40 41.1 h N. Mb 5.3. Near north coast of eastern Siberia.	
Oct. 6.	DBN: eL F	01 02	59 06							38.3N 30.2E, H: 01 46 38.3 h 19 km. Mb 4.6. Turkey.	
Oct. 6.	WIT: iPKP	04	07	38.1	-					20.3S 178.0W, H: 03 48 53.7 h 540 km. Mb 4.6. Fiji Islands region.	
Oct. 6.	WIT: iPKP	07	34	19.0	(-)					20.6S 178.4W, H: 07 15 41.7 h 625 km. Mb 4.9. Fiji Islands region.	
Oct. 6.	WIT: i	23	25	11.6	+					No determination of epicenter.	
Oct. 7.	DBN: eL F	00 00	08 18							37.5N 72.1E, H: 23 43 28.9 h 107 km. Mb 4.8. Tadzhik SSR.	
Oct. 8.	DBN: iPKP WIT: iPKP RSB: iPKP i	16 16 16 16	23 23 23 23	25 22.0 24 27.5	- (+)					18.0S 178.3W, H: 16 04 45.4 h 548 km. Mb 5.7. Fiji Islands region.	
Oct. 9.	WIT: e e RSB: e i	02 02 02 02	31 32 31 32	58.9 15 54 11	  (-) -					BCIS: 51.4N 7.0E, H: 02 31 35 Germany, rockburst Ruhr coal district.	
Oct. 9.	WIT: iP	11	16	53.5	+					43.1N 143.8E, H: 11 05 08.1 h 122 km. Mb 5.3. Hokkaido, Japan region.	
Oct. 9.	DBN: eL F WIT: eP RSB: eP e e	13 14 13 13 13 13	56 26 28 28 28 28	02.0 06 13.5 34	   +					24.9N 122.1E, H: 13 15 36.4 h 85 km. Mb 5.7. Taiwan region.	



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Oct. 10.	RSB: eP	11	11	48							21.0S 68.4W, H: 10 58 27.6 h 88 km. Mb 5.4. Chile-Bolivia border region.
Oct. 10.	DBN: eS	18	46	07							23.0N 96.0E, H: 18 25 14.6 h 33 km. Mb 5.1. Burma.
	eSS	18	50	40							
	eL	19	01								
	F	19	48								
Oct. 11.	RSB: ePKP	05	10	00.0							17.6S 173.9W, H: 04 50 36.7 h 184 km. Mb 4.9. Tonga Islands.
	e	05	10	07.0							
	e	05	10	37.5							
	epPKP	05	10	53.5							
Oct. 12.	RSB: e	02	51	17							No determination of epicenter.
Oct. 12.	DBN: iP	09	57	18	-						15.8N 91.2W, H: 09 44 59.3 h 36 km. Mb 5.7. Ms 5.7. Mexico-Guatemala border region.
	eS	10	07	28							
	eL	10	21								
	F	11.1									
	WIT: eP	09	57	19							
	RSB: eP	09	57	17							
Oct. 13.	DBN: eS	03	35	55							34.3N 26.1E, H: 03 26 27.2 h 27 km. Mb 5.1. Crete.
	eL	03	38.4								
	F	04	06								
	WIT: iP	03	31	33.0	+						
	ePP	03	31	46.5							
	RSB: eP	03	31	23.5	+						
	iPP	03	31	39.0							
Oct. 13.	DBN: eL	06	01								No determination of epicenter.
	F	06	26								
Oct. 13.	DBN: eL	10	25								2.9N 132.8E, H: 09 31 00.5 h 41 km. Mb 5.3. West New Guinea region.
	F	10	55								
Oct. 13.	DBN: eL	12	45								2.9N 132.8E, H: 11 50 34.2 h N. Mb 5.3. West New Guinea region.
	F	13	07								
Oct. 13.	WIT: eP	22	49	30.5	+						21.7S 68.2W, H: 22 36 01.8 h 92 km. Mb 5.8. Chile-Bolivia border region.
	RSB: eP	22	49	26							



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Oct. 14.	DBN: eS eL F	13	16	24		15			3.1	5.6	23.1N 95.8E, H: 12 55 23.3 h 63 km. Mb 5.2. Burma.
Oct. 14.	RSB: eP	22	04	25							36.4N 71.1E, H: 21 55 55.9 h 112 km. Mb 5.1. Afghanistan-USSR border region.
Oct. 14.	DBN: ePP ePPP eSKS iPS iSPP eSS eL F	22	55	11		30		40		7.0	54.3S 1.8E, H: 22 36 28.6 h N. Mb 5.3. Ms 6.3. Bouvet Island region.
Oct. 15.	DBN: eL F	03	25								19.0N 121.1E, H: 02 33 16.1 h 60 km. Mb 5.1. Philippine Islands region.
Oct. 15.	DBN: eSS eL F RSB: eP	11	04	47							14.1S 73.3W, H: 10 33 46.7 h 54 km. Mb 5.7. Peru, five killed.
Oct. 15.	DBN: eP eS eL F	22	08	02		18			3.3	5.4	7.7N 37.3W, H: 21 58 35.8 h N. Mb 5.0. Ms 4.9. Central Mid-Atlantic Ridge.
Oct. 16.	DBN: iPKP iPP ePS ePPS eL F	05	34	23	+	24			5.5	6.2	6.0S 154.5E, H: 05 15 25.0 h 76 km. Mb 5.7. Solomon Islands.
Oct. 16.	WIT: ePKP RSB: iPKP	08	12	44							17.8S 178.0W, H: 07 54 09.2 h 570 km. Mb 4.6. Fiji Islands region.
Oct. 17.	RSB: e	02	09	58							No determination of epicenter.
Oct. 18.	WIT: ePKP RSB: iPKP	04	05	00.5(+)							30.4S 179.7W, H: 03 45 14.3 h 364 km. Mb 5.1. Kermadec Islands region.



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Oct. 18.	WIT: ePKP	10	19	13.5							22.7S 171.2E, H: 09 59 33.6 h 59 km. Mb 5.2. Loyalty Islands region.
Oct. 18.	DBN: eL F	13 15	47 08								22.6S 171.1E, H: 12 30 38.9 h 63 km. Mb 5.3. Loyalty Islands region.
	WIT: ePKP epPKP	12 12	50 50	15.5 34.5							
Oct. 18.	WIT: iP RSB: iP	13 13	15 15	17.9 21.5	- +						22.6S 171.1E, H: 12 55 38.3 h 65 km. Mb 5.5. Loyalty Islands region.
Oct. 19.	WIT: ePKP	08	32	33	(-)						22.7S 171.1E, H: 08 12 53.2 h 63 km. Mb 4.9. Loyalty Islands region.
Oct. 19.	WIT: eP	11	14	19							52.7N 167.0W, H: 11 02 37.7 h 22 km. Mb 5.6. Fox Islands, Aleutian Islands.
Oct. 20.	DBN: eL F	09 10.0	27			20		4.3		5.8	21.9N 121.4E, H: 08 40 19.0 h 35 km. Mb 5.5. Ms 5.3. Taiwan region.
	WIT: iP ipP	08 08	53 53	01.2 14.5	-						
	RSB: eP	08	53	08							
Oct. 21.	WIT: iP RSB: eP	08 08	35 35	23.1 29	- (-)						24.8N 125.3E, H: 08 22 45.7 h 63 km. Mb 5.2. South western Ryukyu Islands.
Oct. 22.	RSB: ePKP epPKP	20 20	57 58	57 53							16.8S 174.6W, H: 20 38 39.3 h 204 km. Mb 5.2. Tonga Islands.
Oct. 22.	WIT: ePKP RSB: ePKP	22 22	58 58	53 59	(-)						17.9S 178.6W, H: 22 40 20.7 h 597 km. Mb 4.8. Fiji Islands region.
Oct. 23.	DBN: eSS eL F	02 02 04.4	25 56	04							54.7S 146.3E, H: 01 41 12.7 h N. Mb 5.5. Ms 6.2. West of Macquarie Island.



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Oct. 23.	DBN: ePP	22	52	20						11.8N 142.5E, H: 22 33 30.9 h 28 km. Mb 5.9. Ms 6.3. South of Mariana Islands.	
	eSKS	22	58	20							
	iSP	23	01	20							
	iSPP	23	02	24							
	eSS	23	07	24							
	eSSS	23	11	26							
	eL	23	25			19			28		6.8
	F	01.2									
RSB: ePP	22	52.4									
Oct. 24.	DBN: eP	01	51	37						11.8N 142.3E, H: 01 37 30.4 h N. Mb 6.0. Ms 6.4. South of Mariana Islands.	
	iPP	01	56	05							
	iPPP	01	58	28							
	iSKS	02	02	26							
	iSP	02	05	26							
	eSPP	02	06	28							
	eSS	02	11	36							
	eL	02	29			20			30		6.8
	F	in next shock									
	WIT: iPP	01	56	01.0							
RSB: eP	01	51	45								
ePP	01	56	11								
Oct. 24.	DBN: eL	03	14							11.9N 142.3E, H: 02 21 02.3 h N. Mb 6.2. Ms 6.0. South of Mariana Islands. Disturbed by preceding shock.	
	F	05	00								
	RSB: eP	02	35.5								
	ePP	02	39.7								
Oct. 24.	WIT: ePKP	14	40	26	+					15.1S 173.9W, H: 14 21 02.0 h 66 km. Mb 5.6. Tonga Islands.	
	RSB: iPKP	14	40	31.0	+						
Oct. 25.	DBN: eL	00	03							11.8N 142.3E, H: 23 05 34.1 h 37 km. Mb 5.1. South of Mariana Islands.	
	F	00.5									
Oct. 25.	RSB: i	00	17	30	-					No determination of epicenter.	
Oct. 25.	WIT: eP	00	21	21						30.0N 137.1E, H: 00 09 29.8 South of Honshu, Japan.	
	RSB: iP	00	21	29	+						



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Oct. 25.	DBN: iPKP	04	06	00		8	1.8				13.1S 166.5E, H: 03 46 36.3 h 34 km. Mb 5.5. Ms 6.2. New Hebrides Islands.
	epPKP	04	06	58							
	iPP	04	08	48							
	ipPP	04	09	50							
	ePPP	04	11	41							
	eSPP	04	21	04							
	epSPP	04	22	13							
	eSS	04	26	56							
	eSSS	04	32.0								
	eL	04	52			20			3.9	6.2	
	F	06.7									
RSB: ePKP	04	06	02								
	ePP	04	08	54							
Oct. 25.	DBN: eL	17	51								2.0N 132.7E, H: 16 52 14.1 h N. Mb 5.2. West New Guinea region.
	F	18	11								
Oct. 25.	DBN: eL	18	19								2.0N 132.6E, H: 17 20 07.8 h N. Mb 5.2. West New Guinea region.
	F	18	38								
Oct. 26.	WIT: iPKP	06	31	17.6	+						17.9S 178.4W, H: 06 12 46.6 h 618 km. Mb 4.7. Fiji Islands region.
	RSB: iPKP	06	31	23	+						
Oct. 26.	DBN: eL	16	09								32.2S 71.7W, H: 15 14 40.7 h 44 km. Mb 5.1. Ms 5.3. Near coast of central Chile.
	F	16	43								
Oct. 26.	DBN: eL	20	00								11.9N 142.5E, H: 19 05 06.2 h N. Mb 5.6. Ms 5.1. South of Mariana Islands.
	F	20	32								
Oct. 26.	DBN: eL	21	50								13.0S 166.4E, H: 20 39 47.5 h 47 km. Mb 4.6. New Hebrides Islands.
	F	22.5									
Oct. 27.	WIT: eP	10	53	50							53.5N 160.1E, H: 10 42 29.0 h N. Mb 5.1. Near east coast of Kamchatka.
Oct. 27.	DBN: eP	09	40	15	-						17.4N 120.1E, H: 09 27 18.6 h 51 km. Mb 5.4. Luzon, Philippine Islands.
	eS	09	51	16							
	eL	10	14								
	F	10	48								



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms		
		h	m	s			Z	NS	EW				
Oct. 27.	DBN: iPKP	18	17	48	+	8	6.9			15.5S 167.2E, H: 17 58 36.9 h 40 km. Mb 6.0. Ms 7.1. New Hebrides Islands. One killed.			
	iPP	18	21	05									
	iPPF	18	24	06									
	ePS	18	31	31									
	iPPS	18	33	16									
	iSS	18	39	28									
	iSSS	18	44	48									
	eL	19	06								24	74	7.4
	F	23.4											
	WIT: ePKP	18	17	56									
	ePP	18	21	06.0									
	RSB: ePKP	18	18	00							+		
	i	18	18	08									
iPP	18	21	11										
Oct. 27.	WIT: eP	22	01	51.5					18.3N 100.3W, H: 21 49 18.3 h 72 km. Mb 5.1. Guerrero, Mexico.				
	RSB: eP	22	01	52									
Oct. 28.	WIT: iPKP	12	13	31.5	-				20.2S 176.3W, H: 11 54 17.1 h 260 km. Mb 4.8. Fiji Islands region.				
	RSB: ePKP	12	13	36									
Oct. 28.	DBN: eP	13	39	16	+	16	14.6	5.9	41.9N 72.4E, H: 13 30 57.1 h 22 km. Mb 5.5. Kirgiz SSR.				
	eSS	13	49	12									
	eL	13	55										
	F	14	23										
	WIT: eP	13	39	07.5									
	ePP	13	40	52									
	RSB: eP	13	39	15.5									
Oct. 28.	DBN: ePKP	14	39	48					13.3S 166.5E, H: 14 20 29.5 h N. Mb 5.6. Ms 5.1. New Hebrides Islands.				
	ePP	14	42	44									
	eL	in next shock											
	WIT: ePKP	14	39	54									
Oct. 28.	DBN: ipPKP	15	33	04	+	27		37	7.1	5.5S 153.9E, H: 15 13 37.8 h 120 km. Mb 5.7. New Ireland region.			
	eL	16	06										
	F	in next shock											
	WIT: iPKP	15	32	33.5(+)									
	epPKP	15	33	10									
	RSB: ePKP	15	32	41									
	epPKP	15	33	18									



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Oct. 28.	DBN: iPKP	18	19	16	-	8	1.4			6.8	13.4S 166.4E, H: 18 00 00.5 h N. Mb 5.7. Ms 6.7. New Hebrides Islands.
	iPP	18	22	17							
	ePS	18	32	36							
	iSPP	18	34	18							
	eSKKS	18	36	00							
	eSS	18	40	24							
	eSSS	18	45.6								
	eL	19	06								
	F	21.2									
	WIT: ePKP	18	19	24							
RSB: ePKP	18	19	26								
ePP	18	22	20								
Oct. 28.	RSB: e	23	06.7								No determination of epicenter.
Oct. 28.	RSB: eP	23	54	40							8.0S 74.4W, H: 23 41 56.1 h 154 km. Mb 4.9. Peru-Brazil border region.
Oct. 29.	WIT: ePKP1	01	02	49							28.2S 178.3E, H: 00 44 08.5 h 658 km. Mb 5.2. Kermadec Islands region.
	ePKP2	01	03	17							
	RSB: ePKP2	01	03	23							
Oct. 29.	DBN: iP	14	18	00	-						49.9N 154.9E, H: 14 06 27.0 h 95 km. Mb 5.6. Kuril Islands.
	ePP	14	20	46							
	ePPP	14	22	32							
	eS	14	27.5								
	eSP	14	28	12							
	ePKKP	14	37	00							
	eL	14	42.7								
	F	15	20								
WIT: eP	14	17	55.5								
RSB: eP	14	18	06								
Oct. 29.	DBN: eL	17	49								34.1N 86.3E, H: 17 16 52.1 h N. Mb 5.0. Tibet.
	F	18	00								
Oct. 29.	DBN: ePKP	20	26	39							13.5S 166.3E, H: 20 07 13.2 h N. Mb 5.3. New Hebrides Islands.
	ePP	20	29	16							
	eL	21	22								
	F	22.5									
	WIT: ePKP	20	26	37							
RSB: ePKP	20	26	40								
Oct. 30.	DBN: eL	00	25								13.6S 166.4E, H: 23 09 31.5 h 29 km. Mb 5.0. New Hebrides Islands.
	F	00	53								



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Oct. 30.	DBN: eS	14	38	26						32,1N 137.7E, H: 14 16 23.6 h 393 km. Mb 5.6. South of Honshu, Japan.	
	eSS	14	44	16							
	eL	15	03								
	F	15	27								
	WIT: iP	14	28	19.1	+						
	epP	14	29	48							
	RSB: iP	14	28	26.5	-						
epP	14	29	55								
Oct. 30.	DBN: eP	21	01	28	+					23.0N 121.4E, H: 20 48 48.0 h 35 km. Mb 5.3. Ms 5.5. Taiwan.	
	ePP	21	04	53							
	eS	21	12	06							
	eSP	21	13	03							
	eSS	21	18.0								
	eL	21	31			20		10.6	6.3		
	F	22.5									
	WIT: iP	21	01	25.6	-						
RSB: eP	21	01	31	+							
Oct. 30.	RSB: e	21	57	15						No determination of epicenter.	
Oct. 31.	RSB: eP	05	26	24						15.3N 93.9W, H: 05 13 59.5 h 90 km. Mb 4.7. Near coast of Chiapas, Mexico.	
Oct. 31.	WIT: ePKP2	12	31	08						38.8S 176.4E, H: 12 10 21.9 h 92 km. Mb 5.4. North Island, New Zealand.	
	RSB: ePKP2	12	31	16.5	-						
Nov. 1.	DBN: eL	05	56.6			14			3.2	5.4	44.0N 85.1E, H: 05 29 57.2 h N. Mb 5.0. Northern Sinkiang Prov. China.
	F	06	15								
Nov. 3.	WIT: eP	14	55	51	-						52.3N 159.1E, H: 14 44 23.0 h N. Mb 4.9. Off east coast of Kamchatka.
Nov. 4.	WIT: e	09	07	50.5							No determination of epicenter.
Nov. 5.	DBN: eS	11	37	20							0.8N 25.5W, H: 11 19 39.3 h N. Mb 5.4. Ms 5.1. Central Mid-Atlantic Ridge.
	eL	11	46.5			10		3.5	5.5		
	F	12	24								



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Nov. 5.	DBN: eL F WIT: iP e RSB: eP	22 23 22 22	57 08 23 23	19.9 38.5 23	+					10.2N 93.0E, H: 22 11 15.5 h 55 km. Mb 5.7. Andaman Islands region.	
Nov. 6.	DBN: eS eL F WIT: eP RSB: eP	19 19 20 19 19	52 54.8 12 48 48	40 33 28		10			3.8 4.8	39.0N 29.7E, H: 19 43 46.8 h 14 km. Mb 5.0. Turkey.	
Nov. 6.	DBN: iP ePcP eL F WIT: iP iPcP RSB: iP e	22 22 22 24.0 22 22 22 22	11 12 36.6 24.0 11 12 11 38	50 06 36.6 45.9 04.5 56 55	+	2	7.0			51.5N 179.1E, H: 22 00 00.1 h 2 km. Mb 6.8. Ms 5.7. Rat Islands, Aleutian Islands.	
Nov. 7.	WIT: iP	08	03	38.5	+					41.8N 142.2E, H: 07 51 44.8 h 75 km. Mb 5.0. Hokkaido, Japan region.	
Nov. 8.	DBN: eSS eL F WIT: eP RSB: iP	03 03 04.6 03 03	25 28 04.6 14 14	04 40 40.5						27.1N 54.5E, H: 03 06 36.4 h 36 km. Mb 5.6. Ms 5.9. Southern Iran.	
Nov. 8.	RSB: eP	22	56	48.5	-					5.8N 126.5E, H: 22 43 00.6 h 164 km. Mb 5.7. Mindanao, Philippe Islands.	
Nov. 10.	DBN: eL F	07 07	16 39							3.8S 151.6E, H: 06 12 15.6 h 32 km. Mb 4.9. Ms 4.9. New Ireland region.	
Nov. 10.	DBN: eL F	11 12	28 05							5.3S 152.6E, H: 10 22 42.4 h 49 km. Mb 5.2. Ms 5.4. New Britain region.	
Nov. 10.	DBN: e F	14 14	36 40							No determination of epicenter.	
Nov. 10.	DBN: e F	15 15	19 25							No determination of epicenter.	



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Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Nov. 10.	DBN: eL F	15	38								64.1N 22.4W, H: 15 28 21.2 h N. Mb 4.4. Iceland.
Nov. 10.	WIT: e	20	20	00.5							No determination of epicenter.
Nov. 11.	DBN: eL F	12	18								2.8S 136.5E, H: 11 16 52.3 h 17 km. Mb 5.7. Ms 5.1. West New Guinea region.
Nov. 12.	WIT: iPKP RSB: ePKP	05	20	14.5(+)							18.0S 176.8W, H: 05 01 17.0 h 360 km. Mb 4.9. Fiji Islands region.
Nov. 12.	DBN: eL F	12	43								36.5N 27.1E, H: 12 30 49.9 h 33 km. Mb 4.7. Dodecanese Islands.
Nov. 13.	DBN: eL F WIT: eP	16	16								11.0N 39.7E, H: 15 47 41.5 h 24 km. Mb 5.3. Ethiopia.
Nov. 14.	DBN: e F	15	50								No determination of epicenter.
Nov. 15.	DBN: eL F	01	30								5.1S 153.4E, H: 00 22 47.3 h 59 km. Mb 4.9. New Ireland region.
Nov. 15.	WIT: i	12	09	13.1 +							No determination of epicenter.
Nov. 15.	WIT: e RSB: e i HEF: i	21	17	50.5							BCIS: 50.9N 6.0E, H: 21 17 (10) M 2.1. (Bensberg). Voerendaal, Netherlands-Belgium border region. Felt at Heerlen.
Nov. 17.	DBN: eL F	12	32.4		10		6.0		5.0		69.1N 16.3W, H: 12 22 29.7 h N. Mb 4.7. Jan Mayen Island region.
Nov. 18.	DBN: eL F	07	56								38.3N 66.8E, H: 07 31 32.8 h 30 km. Mb 5.3. South-eastern Uzbek SSR;



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Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms			
		h	m	s			Z	NS	EW					
Nov. 18.	DBN: eL F	20 21	52 50								27.5S 176.3W, H: 19 27 18.0 h N. Mb 5.1. Ms 5.5. Kermadec Islands region.			
Nov. 19.	DBN: eL F	01 01	24 40								41.9N 72.4E, H: 01 00 01.0 h N. Mb 4.9. Kirgiz SSR.			
Nov. 19.	DBN: eL F	03 03	07.0 19		12			5.0		4.8	63.7N 22.9W, H: 02 57 48.8 h N. Mb 4.8. Iceland region.			
Nov. 19.	DBN: eL F	04 04	44 49								No determination of epicenter.			
Nov. 19.	DBN: e F	04 05	59 02								No determination of epicenter.			
Nov. 19.	DBN: eL F	06 06	07 11								83.6N 22.6W, H: 05 57 02.6 h 16 km. Mb 4.8. Iceland region.			
Nov. 20.	DBN: iPKP1 ipPKP1 i F WIT: iPKP1 i ipPKP1 RSB: ePKP1 i iPKP2 epPKP1	07 07 07 09.1 07 07 07 07 07 07 07	46 48 50 09.1 46 46 48 46 46 47 49	46 59 00 45.8 51.0 57.7 47.5 55.5 08.5 03.0	(+)    - (+)  + + -  	4		3.1			23.4S 179.9W, H: 07 28 01.0 h 551 km. Mb 6.0. South of Fiji Islands.			
Nov. 20.	DBN: eS eSS eL F	21 21 21 22	45 50.0 58 54	28					20	8.9	6.1	48.8N 129.5W, H: 21 24 42.6 h N. Mb 5.5. Ms 5.7. Vancouver Island region.		
Nov. 21.	DBN: iPKP iPP iPKS eSKS ePS eSS eSSS eL F WIT: ePKP i ePP RSB: ePKP ePP	06 06 06 06 06 06 06 07.0 08.9 06 06 06 06 06	16 18 20 23.5 29.5 37 42 07.0 08.9 16 16 19 16 19	14 56 00   00 30	-         +    	7		10.9			23	51	7.3	11.8S 166.5E, H: 05 57 11.9 h 115 km. Mb 6.4. Santa Cruz Islands.







SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Nov. 27.	DBN: eL F	04	04								39.8N 25.5E, H: 03 54 27.5 h 22 km. Mb 4.6. Aegean Sea.
Nov. 27.	RSB: e	08	30	09							No determination of epicenter.
Nov. 27.	DBN: eS eSS eL F WIT: iP RSB: iP	14 14 14 15 13 13	08 14.3 29 09 57 57	30    41.3 49.5	- +	18		4.7	5.9		29.2N 130.1E, H: 13 45 11.4 h 56 km. Mb 5.5. Fyukyu Islands.
Nov. 27.	RSB: ePKP	18	19	38							16.8S 173.1W, H: 18 00 01.9 h N. Mb 4.8. Tonga Islands.
Nov. 28.	DBN: eL F	11 12	59 52								55.3S 128.7W, H: 10 45 41.4 h N. Mb 4.7. Ms 5.5. South Pacific Cordillera.
Nov. 28.	DBN: eL F	13 13	10 22								ISC: 62.90N 25.4W, H: 13 01 04.8, h 0 km. Mb 4.7. Iceland region.
Nov. 28.	DBN: eL F	16 17	16 00								60.3S 153.5E, H: 14 58 23.8 h N. Mb 5.4. West of Macquarie Island.
Nov. 28.	RSB: eP	17	59	54							49.5N 155.5E, H: 17 48 09.7 h 85 km. Mb 5.0. Kuril Islands.
Nov. 29.	DBN: eL F	18 19	58.0 02								40.4N 15.8E, H: 18 49 36.4 h 13 km. Mb 4.7. Southern Italy.
Nov. 29.	DBN: eSKS eL F	20 20 21	38 58.7 37	10							11.2S 77.8W, H: 20 14 12.2 h 54 km. Mb 5.3. Near coast of Peru.
Dec. 2.	DBN: iP iPP ePPP iS eSS eSSS eL F WIT: iP ipP RSB: eP ipP ePP	17 17	30 33 35 40 45 49.0 53  30 30 30 30 33	31 28 16 27 24   25.5 36.7 35.5 49.0 35	-        -	9        28	8.6		6.9		44.8N 153.3E, H: 17 18 21.8 h 24 km. Mb 6.2. Ms 6.3. Kuril Islands region.



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Dec. 3.	DBN: eL F	15 16	40 04								22.8S 70.6W, H: 14 46 01.3 h 37 km. Mb 5.1. Near coast of Northern Chile.
Dec. 4.	DBN: eP ePKP iPP ePKS ePS ePPS eSS eSSS eL F WIT: ePKP RSB: ePKP	02 02 02 02 02 02 03 03 03 05.6 02 02	41 44 46 48 57 58 04.0 09.0 19 05.6 44 44	24 55 53 17 00 24 00 00 19 47.5 51	+	40			17	6.7	6.0S 154.6E, H: 02 25 51.5 h 78 km. Mb 6.0. Solomon Islands.
Dec. 4.	DBN: eL F	16 17.2	43.0								8.1N 126.6E, H: 15 55 45.1 h 54 km. Mb 5.5. Mindanao, Philippine Islands.
Dec. 5.	DBN: iS ePS eSS eL F	06 06 06 06 07	10 11 15.5 20.5 42	56 22		22			13.5	6.2	49.6N 129.5W, H: 05 50 05.8 h 5 km. Mb 5.6. Ms 6.0. Vancouver Island region.
Dec. 5.	DBN: eL F	08 08	23 54								3.2S 139.7E, H: 07 34 02.5 h 69 km. Mb 5.1. West New Guinea.
Dec. 6.	WIT: iP	00	21	22.2(+)							54.4N 158.5E, H: 00 10 22.9 h 171 km. Mb 5.1. Kamchatka.
Dec. 6.	RSB: ePKP	02	28	42							17.6S 167.8E, H: 02 09 09.9 h 27 km. Mb 4.6. New Hebrides Islands.
Dec. 6.	DBN: eL F	03 03	25 52								17.5S 167.9E, H: 02 06 43.5 h 27 km. Mb 4.7. Ms 5.1. New Hebrides Islands.
Dec. 7.	DBN: ePS ePPS eSS eSSS eL F	03 03 04 04 04 05.1	54 55 00 04 14 05.1	18 11 08 32		20			6.0	6.2	54.4S 5.9E, H: 03 26 19.9 h N. Mb 5.7. Ms 6.1. Bouvet Island region.



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Dec. 7.	DRN: eL F RSB: ePP	07 08.0 06	16  41	  48.5							3.7N 128.0E, H: 06 23 11.8 h 69 km. Mb 6.0. North of Halmahera.
Dec. 7.	DBN: eS eL F WIT: eP i RSB: eP	12 12 12 12 12 12	16 20 32 11 11 11	44   11.5 16.7 15							55.1N 54.4W, H: 12 04 19.7 h N. Mb 5.4. Ms 5.3. East of Labrador.
Dec. 8.	WIT: e RSB: ePKP1 iPKP2	06 06 06	29 29 29	48 16 31.0 +							25.4S 177.3W, H: 06 09 32.6 h 156 km. Mb 5.1. South of Fiji Islands.
Dec. 8.	DBN: eL F	09 10.0	13		22			7.2	5.9		49.1N 128.5W, H: 08 38 24.0 h N. Mb 5.2. Ms 5.3. Vancouver Island region.
Dec. 8.	DBN: eP ePP eSKS ePS eSS eSSS eL F RSB: eP i	16 16 16 16 16 16 16 16 16 16	19 23 29 32 37.5 41.0 56 18.7 19 19	12 08 44 10  41.0  14 18					10.6	6.3	22.9S 70.8W, H: 16 05 23.2 h 18 km. Mb 5.6. Ms 6.1. Near coast of Northern Chile.
Dec. 9.	DBN: eS eSS eL F WIT: eP i e RSB: eP	01 02 02 03 01 01 01 01	57 00 04.0 00 50 50 51 50	20 56   47 59.0 19 48					13.4	5.9	27.2N 56.4E, H: 01 42 30.7 h 15 km. Mb 5.3. Ms 5.8. Southern Iran.
Dec. 9.	DBN: eL F WIT: ePKP e RSB: ePKP i	16 17 15 15 15 15	11 08 20 21 20 20	  44.5 19.5 44 49							21.7S 173.2E, H: 15 00 59.1 h 41 km. Mb 5.6. Ms 5.7. New Hebrides Islands region.



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Dec. 9.	DBN: eL	23	25							25.6N 124.4E, H: 22 39 34.6 h 145 km. Mb 5.3. Northeast of Taiwan.	
	F	23	40								
	WIT: iP	22	51	56.5	-						
	RSB: iP	22	52	04.5	+						
Dec. 11.	DBN: ePKP	07	44	24						6.1S 154.5E, H: 07 25 19.1 h 65 km. Mb 5.9. Solomon Islands.	
	ePP	07	46	25							
	ePKS	07	47	47							
	ePS	07	56	20							
	ePPS	07	58	00							
	eSS	08	03.0								
	eSSS	08	07.8								
	eL	08	20			20	7.5		6.3		
	F	10.4									
RSB: ePKP	07	44	10								
Dec. 11.	DBN: e	22	22							23.0S 70.6W, H: 21 27 10.4 h 38 km. Mb 5.2. Ms 4.9. Near coast of Northern Chile.	
	F	22	25								
Dec. 12.	DBN: e	22	58.2							39.5N 73.2E, H: 22 27 41.1 h N Mb 4.8. Tadzhik- Sinkiang border region.	
	F	23	10.0								
Dec. 15.	RSB: iPKP2	07	47	34	+					31.2S 179.8W, H: 07 27 36.5 h 355 km. Mb 4.8. Kermadec Islands region.	
Dec. 15.	DBN: iP	08	41	11	+	7	54			56.0N 163.3E, H: 08 29 55.3 h N. Mb 6.1. Ms 7.8.	
	iPP	08	43	48							
	iPPP	08	45	26							
	iS	08	50	27							
	iSP	08	50	47							
	iSS	08	55	18							
	eSSS	08	58	24							
	eL	09	03			20		465	7.9		
	F	14.5									
	WIT: iP	08	41	06.1	+						
	HEE: e	08	41	38							
	eL	09	03								
	RSB: eP	08	41	15.5	+						
Dec. 15.	WIT: eP	09	33	47	-					55.8N 163.7E, H: 09 22 35.8 h N. Mb 5.2. Off east coast of Kamchatka.	



SEISMOLOGICAL BULLETIN



Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Dec. 15.	RSB: ePKP	23	47	43							55.7N 166.2E, H: 23 00 18.1 h N. Mb 4.8. Ms 5.4. Tonga Islands.
Dec. 16.	WIT: ep	08	24	53.5							56.0N 163.0E, H: 08 13 43.7 h 35 km. Mb 5.0. Near east coast of Kamchatka.
Dec. 16.	DBN: eL F WIT: eP RSB: eP	13 04 13 42 12 36 12 37	04 42 59 11		-						55.9N 163.6E, H: 12 25 48.0 h N. Mb 5.6. Ms 5.1. Off east coast of Kamchatka.
Dec. 16.	DBN: eS eL F RSB: eP	18 46 18 50 19 06 18 41	08   30								77.9N 17.8E, H: 18 35 45.5 h N. Mb 5.0. Ms 4.9. Svalbard region.
Dec. 17.	WIT: eP RSB: eP	02 10 02 10	55.0 44.5		-						35.0 24.0E, H: 02 06 05.2 h 33 km. Mb 4.7. Crete.
Dec. 17.	DBN: eL F	18 59									55.5N 163.9E, H: 18 25 24.6 h N. Mb 4.9. Ms 5.1. Off east coast of Kamchatka.
Dec. 17.	DBN: eL F WIT: eP e RSB: eP e	19 36 21.2 19 17 19 17 19 17 19 17				19	11.8		6.2		55.5N 164.0E, H: 19 06 07.1 h N. Mb 5.5. Ms 5.9. Komandorsky Islands region. Dist. by preceding shock.
Dec. 18.	DBN: eL F	06 56 07 20									55.3N 162.9E, H: 06 17 03.5 h N. Mb 4.8. Ms 4.9. Near east coast of Kamchatka.
Dec. 18.	DBN: eL F	07 24 08 10									55.4N 162.7E, H: 06 47 10.3 h N. Mb 5.0. Ms 4.8. Near east coast of Kamchatka.
Dec. 18.	DBN: eL F WIT: eP RSB: eP	22 33 23 16 22 09 22 09									55.6N 163.3E, H: 21 57 52.6 h N. Mb 5.5. Ms 5.1. Off east coast of Kamchatka.
Dec. 19.	DBN: eL F WIT: eP	08 25 09.2 08 01									55.9N 163.1E, H: 07 50 27.8 h N. Mb 5.0. Ms 5.3. Off east coast of Kamchatka.



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Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Dec. 20.	DBN: eL F	01	43								41.2N 48.3E, H: 01 29 18.5 h N. Mb 5.0. Eastern Caucasus.
Dec. 20.	DBN: eL F	01	55.7 02.3								41.1N 48.4E, H: 01 41 04.9 h N. Mb 5.2. Ms 5.2. Eastern Caucasus. Dist. by preceding shock.
Dec. 22.	RSB: eP i	07	05	46	+						47.9N 48.2E, H: 06 59 56.3 h 0 km. Mb 6.0. Western Kazakh SSR.
Dec. 23.	WIT: eP	00	19	33							14.6N 60.9W, H: 00 08 50.1 h 16 km. Mb 4.8. Windward Islands.
Dec. 23.	RSB: eP	13	27	26							15.1N 61.4W, H: 13 17 07.8 h 170 km. Mb 4.7. Leeward Islands.
Dec. 24.	WIT: ePKP RSB: ePKP	21	31	56							19.1S 175.7W, H: 21 12 42.5 h 253 km. Mb 5.0. Tonga Islands.
Dec. 24.	DBN: eL F	22	00								21.8N 121.0E, H: 21 12 11.0 h N. Mb 5.0. Taiwan region.
Dec. 24.	DBN: eL F RSB: ePKP	23	26								5.0S 153.3E, H: 22 21 42.8 h 50 km. Mb 5.0. Ms 5.2. New Ireland region.
Dec. 25.	DBN: eL F	00	40								36.2S 52.5E, H: 23 51 46.3 h N. Mb 5.1. Atlantic-Indian Rise.
Dec. 25.	RSB: ePKP	12	55	55							15.6S 173.1W, H: 12 36 20.7 h N. Mb 4.9. Ms 5.0. Tonga Islands.
Dec. 26.	WIT: eP	13	30	54							50.6N 175.1W, H: 13 19 02.0 h N. Mb 5.2. Andreanof Islands, Aleutian Islands.



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Date 1971	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Dec. 26.	WIT: eP	14	32	59							43.5N 147.9E, H: 14 20 46.5 h 27 km. Mb 5.2. Yuril Islands.
Dec. 26.	DBN: eL	16	50								6.3S 154.8E, H: 15 50 57.1 h 56 km. Mb 5.6.
	F	17	22								Solomon Islands.
	WIT: ePKP	16	09	56							
Dec. 27.	DBN: iPKP	11	20	19							19.9S 175.9W, H: 11 00 56.8 h 222 km. Mb 5.4.
	WIT: iPKP	11	20	15.4	-						Tonga Islands.
	epPKP	11	21	11							
	RSB: ePKP	11	20	21.0	-						
	ipPKP	11	21	16.0							
Dec. 28.	DBN: eL	07	21								15.3S 175.4W, H: 06 05 59.9 h 35 km. Mb 5.1. Ms 5.3.
	F	08	25								Tonga Islands.
Dec. 28.	DBN: e	12	54.5								No determination of epicenter.
	F	12	57								
Dec. 29.	WIT: i	14	34	52.4	(-)						No determination of epicenter.
	i	14	35	25.8	-						
Dec. 29.	DBN: eS	22	48.0								25.1N 94.7E, H: 22 27 02.0 h N. Mb 5.5.
	eL	23	03								Burma-India border region.
	F	23	18								
	WIT: eP	22	38	08							
	i	22	38	25.4	+						
	RSB: eP	22	38	13.5							
	i	22	38	31.0	+						
Dec. 30.	DBN: e	06	48	34							49.7N 78.1E, H: 06 20 57.7 h 0 km. Mb 5.8.
	F	06	50.1								Eastern Kazakh SSR.
	WIT: eP	06	29	00.0	+						
	i	06	29	12	-						
	RSB: eP	06	29	12							
Dec. 30.	WIT: iPKP	15	58	25.6	+						4.7S 151.9E, H: 15 39 37.4 h 109 km. Mb 6.0. New Britain region.