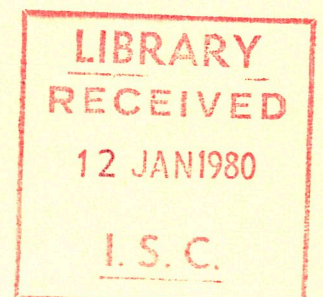


**KONINKLIJK NEDERLANDS  
METEOROLOGISCH INSTITUUT**

SEISMOLOGICAL BULLETIN  
OF THE SEISMOGRAPH STATIONS  
IN THE NETHERLANDS

VOLUME 62  
1974

DE BILT-1979



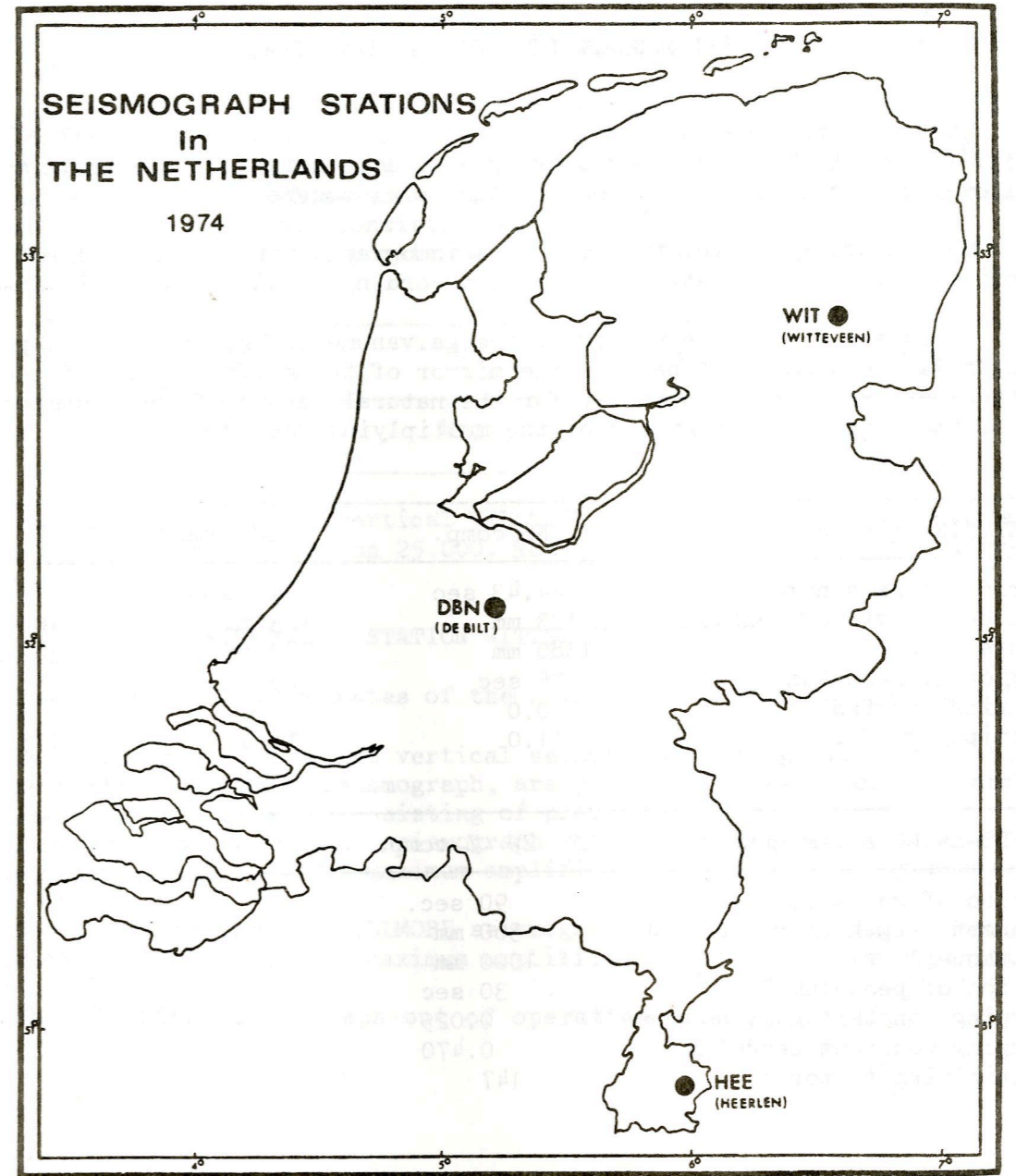
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Publicatienummer K.N.M.I. 108-62



Geographical coordinates of the stations

Code	Latitude (North)	Longitude (East)	Elevation (above m.s.l.)
DBN	52°06'10"	5°10'36"	2 m
HEE	50°53'06"	5°58'56"	115 m
WIT	52°48'48"	6°40'11"	17 m

SEISMOGRAPH STATION DE BILT (DBN)

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

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

Below are given: the period of the galvanometer  $T_g$ , 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°53'06"N and 5°58'56"E.

The instruments, a horizontal seismograph (EW-component,  $M = 450$  kg), and one vertical WILLMORE seismograph, are placed at a height of 115 m above mean sealevel on a subsoil consisting of loess.

The mean values of the constants for the horizontal seismograph are:

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

The constants for the vertical WILLMORE seismograph are: T seismograph 1.7 sec, maximum amplification 25.000. Not operative from May 28 - August 9.

SEISMOGRAPH STATION WITTEVEEN (WIT)

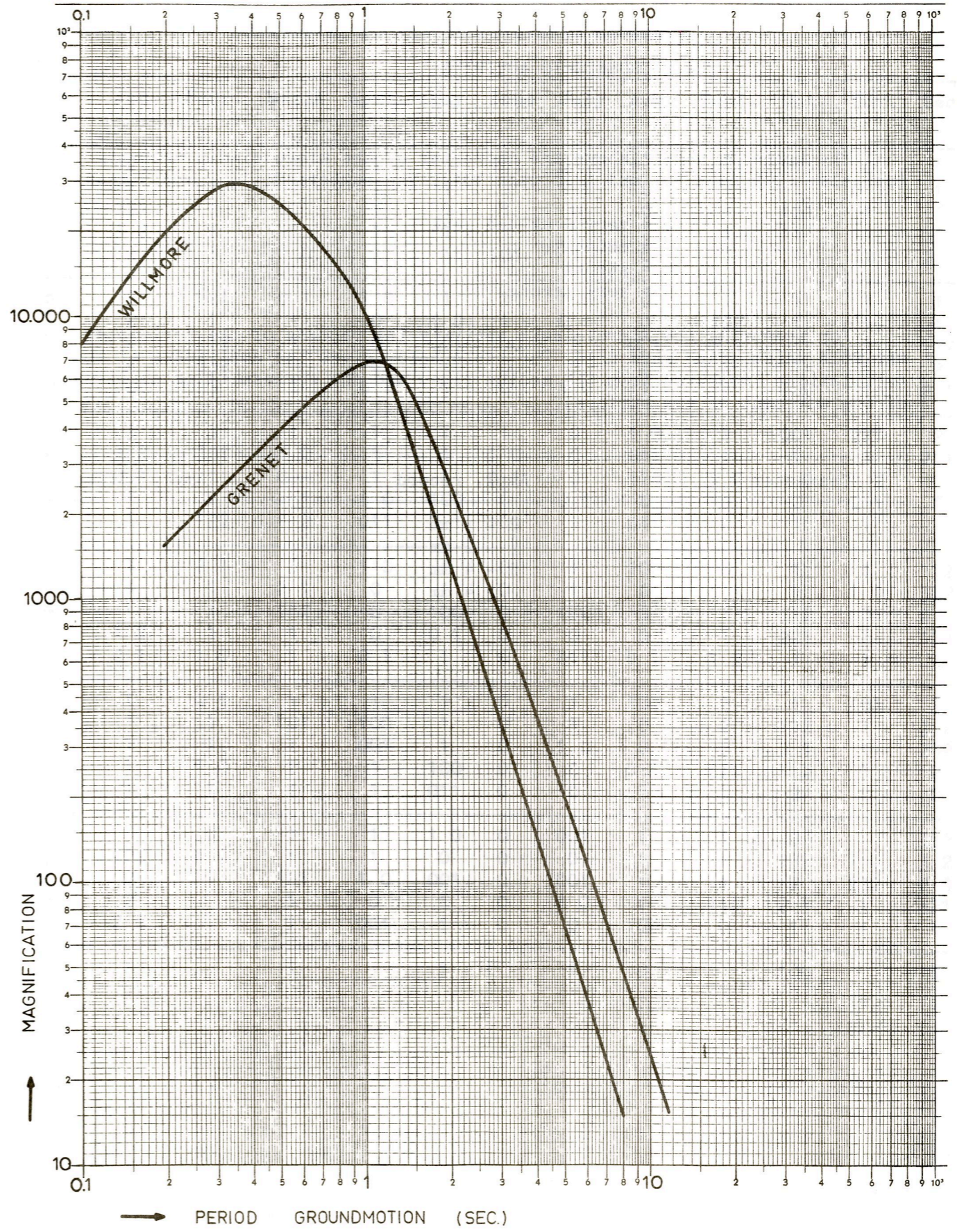
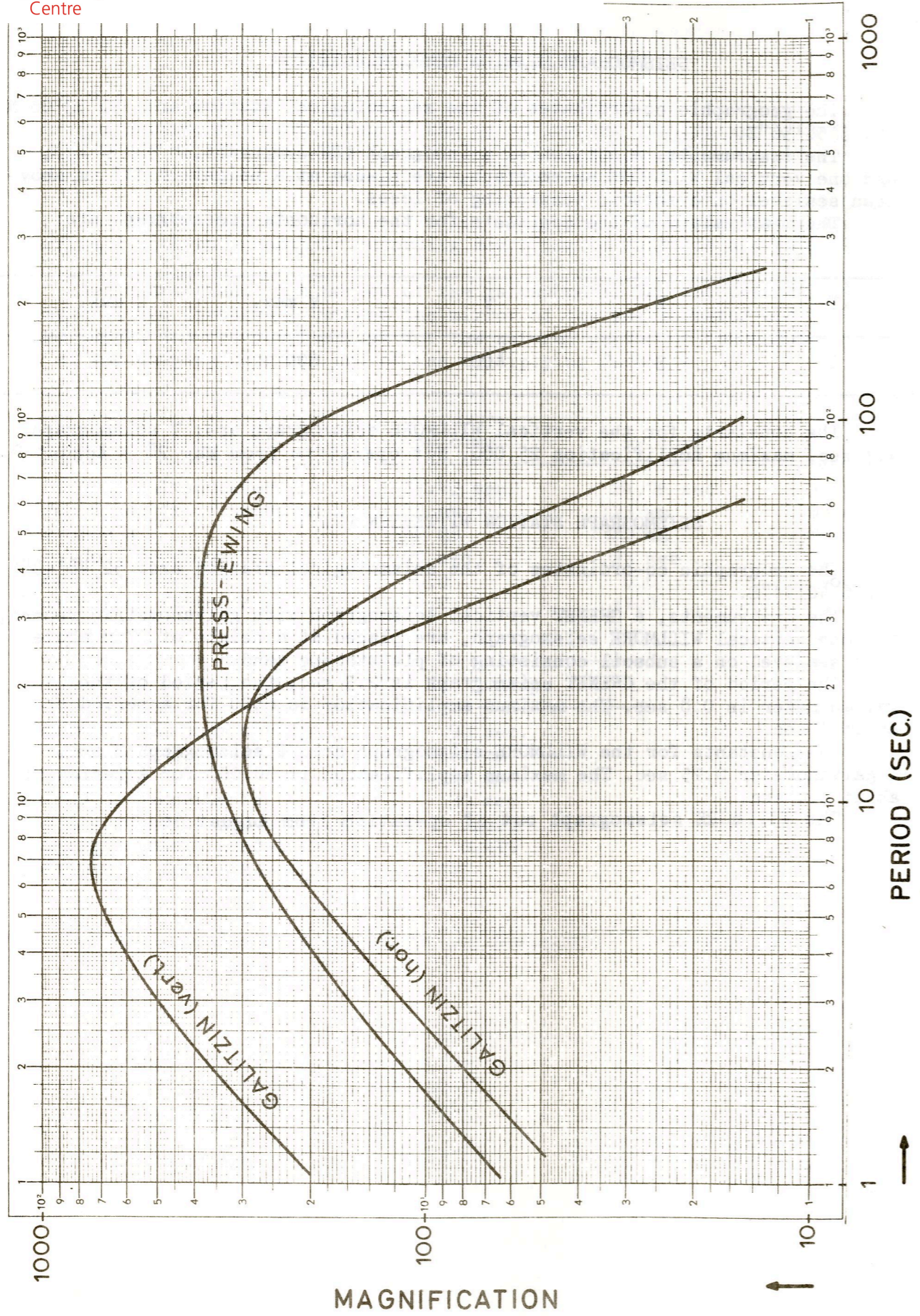
The geographic co-ordinates of the seismological station are: 52°48'48"N and 6°40'11"E.

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

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

The constants for the WILLMORE seismograph are: T seismograph 2 sec, T galvanometer 0.25 sec. The maximum amplification is 30.000 for a period of about 0.4 sec.

The WILLMORE seismograph out of operation from August 16.



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 - 1/2 mm	0 - 1 1/2 μ
1	1/2 - 2 mm	1 1/2 - 5 μ
2	2 - 4 mm	5 - 10 μ
3	> 4 mm	> 10 μ

Character of the microseismic movement

Date 1974	Jan.	Febr.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	121	1	1	1	1	101	0 1	1 0	011	011	0	1
2	1	1	1	1	1	1	1 0	0	1	1	0 1	1
3	121	1	1	1	1	1	0	0	1	101	1	1
4	1 2	1	1	1	1	1	1	0	1	1	1	1
5	2	1	1 0	1	1	101	1	0	1	1	1	221
6	2	121	0 1	1 0	1	1	1 0	0	1	1	1	1
7	2	1	1	0	1 0	1	0 1	0	122	1	1	1
8	2	112	1	0	001	100	1	0 1	2 1	1	1	112
9	2	332	1	0	1	0	1	1	1	1	1	2
10	2	3	1	0 1	1	0	1 0	1	1	100	1	2 1
11	3	3	1	1	1	1	0	1 0	1	001	221	2
12	3 2	321	1 0	1	1	1 0	0	011	1	1	1	211
13	2 1	1	0--	1	1	0 1	0	110	1 0	1 0	1 2	1
14	1	1	--1	1 0	100	1	0 1	0	0	0	2 1	1
15	1	122	1 2	011	0 1	100	1	011	0	1	1	1
16	1	2 1	2	110	1	0	1	100	0	1	1	112
17	1	1	2 1	0	1	0	1	0	011	1	1 0	332
18	1	1	112	0	100	0	100	0	1	112	001	2 1
19	1 2	1	1	0	0 1	0	0	0	1	221	1	123
20	2 1	1 0	1	0 1	1	0	011	0 1	1 2	1	1	3
21	1	0 1	1	1	1	0	1	100	2	1	101	3
22	1	1	101	100	1	0	1	0	2	112	1	3 2
23	1	1	1	001	1	0	1 0	0	2	2 1	1	232
24	1	1 0	1	1	100	0	0	0 1	211	1 2	1	2
25	1	0	1	1	011	0	0	1	1	2	1	2
26	1	0	1	1	1 0	0	001	1	1	2	1	332
27	122	0 1	1	1	0	0	0	1	1	232	112	3 2
28	2	1	101	1 0	001	0	001	1	1	2	232	2 3
29	2		1	0	1	0	1 0	1	110	2 1	1	321
30	2 1		1	001	1	0	0	100	0	1	1	1
31	1		1		1		1	0		100		1

EXPLANATION OF THE TABLES.

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

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

The time is Greenwich mean time.

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

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

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

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

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

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

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:

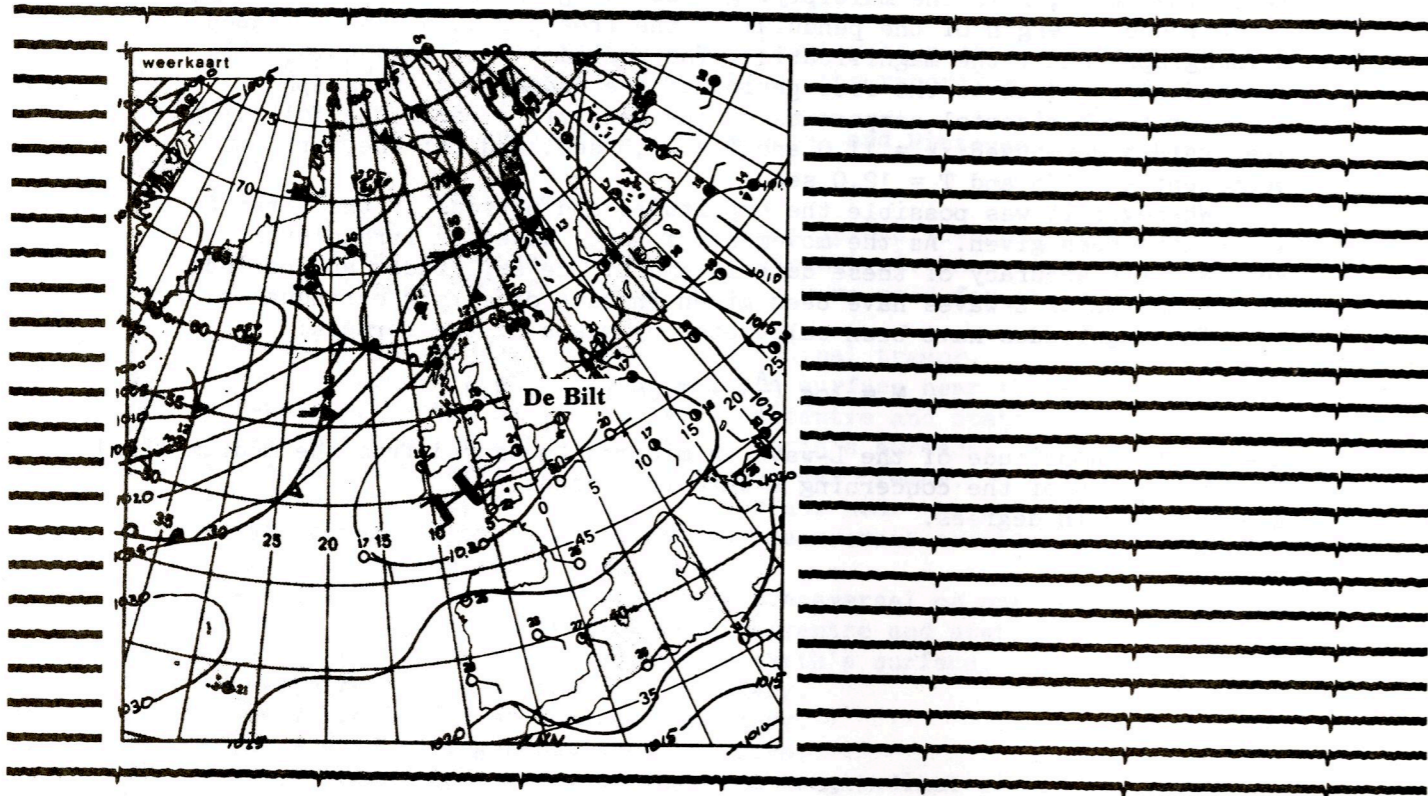
$$M = \log \left( \frac{A}{T} \right) + 1.66 \log \Delta + 3.3$$

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

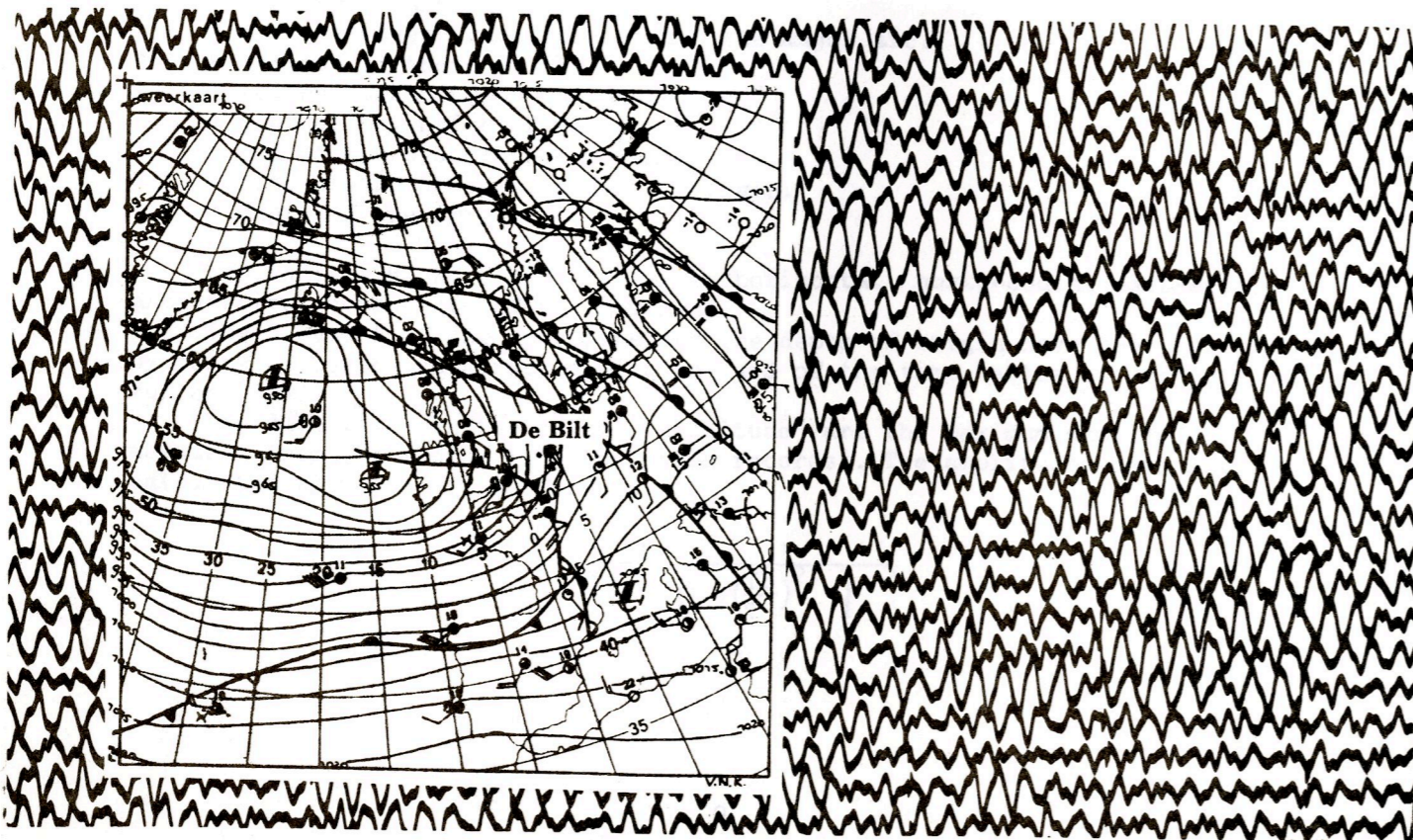
T = the period of the concerning L-wave in seconds.

$\Delta$  = distance in degrees.

SMALL AND STRONG MICROSEISMS RECORDED AT DE BILT  
RELATED TO DIFFERENT MARINE WEATHER CONDITIONS



Records from GALITZIN vertical seismograph



Seismological Data

Data without indication are from De Bilt; WIT means Witteveen, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
JAN. 1974											
	1. HEE:ePKP	07	11	49.0							ISC: 20.0S 170.4E, H: 06 52 04, h N. New Hebrides.
	1. WIT:ePKP	13	02	10.0	(-)						23.7S 179.7E, H: 12 43 16.1, h 501 km. Mb 5.0.
	HEE:iPKP	13	02	16.0	+						South of Fiji Islands.
	i	13	02	29.0	+						
	1. WIT:eP	14	20	15.5							4.6N 95.9E, H: 14 07 40.1, h 59 km. Mb 5.4.
	e	14	20	40.5							Northern Sumatra.
	2. iP	10	55	56	+	6	2.7				22.5S 68.4W, H: 10 42 29.9, h 105 km. Mb 6.4.
	ipP	10	56	26							Northern Chile.
	iPP	10	59	50							
	iSKS	11	06	24							
	isSKS	11	07	22							
	eSS	11	13.1								
	eSSS	11	17.5								
	eL	11	23								
	F	16.0									
	WIT:iP	10	56	00.5							
	epP	10	56	32.5							
	iPKKP	11	12	57.0	+						
	iP'P'	11	20	45.0							
	HEE:iP	10	55	54.0							
	ipP	10	56	28.0	-						
	i	10	59	49.0	+						
	iPKKP	11	13	02.0	+						
	iP'P'	11	20	47.0	+						
	2. WIT:iP	14	54	01.6	+						26.0N 124.4E, H: 14 41 47.9, h 205 km. Mb 5.7.
	i	14	54	12.6	+						Northeast of Taiwan.
	HEE:iP	14	54	08.0	+						
	4. eL	09	54								40.6N 77.6E, H: 09 27 55.7, h 26 km. Mb 5.5, Ms 4.8.
	F	10	06								Kirgiz-Sinkiang border region.
	5. iP	08	47	02	(-)						12.3S 76.4W, H: 08 33 50.7, h 98 km. Mb 6.3.
	eL	09	14								Near coast of Peru.
	F	10.7									10 Killed.
	WIT:iP	08	47	06.9	+						
	e	08	47	11.0							
	e	08	47	32.0							
	HEE:iP	08	47	02.0							
	e	08	47	26.5							



veen, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
JAN. 1974	WIT:ePKP	04	39	40.5							21.8S 175.1W, H: 04 19 52.7, h N. Mb 5.0, Ms 5.3. Tonga Islands.
	HEE:ePKP	04	39	44							
6.	eL	10	18.1								57.5N 33.8W, H: 10 07 12.6, h N. Mb 4.9, Ms 4.7. North Atlantic Ocean.
	F	10	27								
	WIT:eP	10	12	21.0							
	HEE:eP	10	12	21.5							
6.	i	10	12	24.5							
	HEE:eP	10	38	18.0							57.7N 33.6W, H: 10 33 06.1, h N. Mb 4.6, Ms 4.3. North Atlantic Ocean.
6.	eL	15	00								1.5S 15.5W, H: 14 32 39.9, h N. Mb 5.3, Ms 4.9. North of Ascension Island..
	F	15.3									
	HEE:eP	14	42	13.5							
6.	HEE:ePKP	17	58	57.0							14.9S 167.2E, H: 17 39 44.1, h 117 km. Mb 5.6. New Hebrides Islands.
7.	eL	04	44								19.1N 121.1E, H: 03 55 39.4, h 39 km. Mb 5.0, Ms 5.2. Philippine Islands region.
	F	05	04								
	HEE:eP	04	08	36.5							
	e	04	08	47.5							
7.	WIT:eP	15	31	34.0							33.3N 47.9E, H: 15 24 38.2, h 32 km. Mb 5.0. Western Iran.
7.	eL	17	25								26.9S 65.7W, H: 16 35 57.8, h 33 km. Mb 5.8. Tucuman Prov., Argentina.
	F	17	51								
8.	eSKS	22	11	43							39.0S 46.2E, H: 21 47 21.7, h N. Mb 6.0, Ms 6.1. Atlantic - Indian Rise.
	eL	22	34								
	F	23.9									
8.	eL	23	59								41.2N 142.0E, H: 23 12 34.8, h 69 km. Mb 4.8. Hokkaido, Japan region.
	F	24	23								
9.	eL	03	30								51.6N 159.6E, H: 02 49 46.3, h N. Mb 5.4, Ms 5.4. Off east coast of Kamchatka.
	F	04.0									
	WIT:eP	03	01	18.5							
	HEE:eP	03	01	29.5							

Seismological Data

Data without indication are from De Bilt; WIT means Witteveen, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
JAN. 1974	WIT:ePKP	00	58	43.0	+						ISC: 22.0S 179.7W, H: 00 39 56.0, h 546 km, Mb 4.6. South of Fiji.
	HEE:ePKP	00	58	47.5							
10.	HEE:eP	02	48	46.5							51.7N 159.6E, H: 02 37 01.5, h N. Mb 4.9, Ms 4.8. Off east coast of Kamchatka.
10.	eL	05	59								51.6N 159.7E, H: 05 18 54.3, h N. Mb 5.3, Ms 5.1. Off east coast of Kamchatka.
	F	06	23								
	WIT:eP	05	30	26.0							
	HEE:eP	05	30	38.0							
10.	iPKP	09	10	27	+	7	5.4				14.4S 166.9E, H: 08 51 13.3, h 34 km. Mb 6.7, Ms 7.2. New Hebrides Islands.
	iPP	09	13	27							
	iH	09	22	40							
	iSKKS	09	27	16							
	iSS	09	31	55							
	eSSS	09	37	20							
	eL	09	48			21		75		7.5	
	F	13.0									
	WIT:iPKP	09	10	37.5	+						
	e	09	14	01.5							
10.	iSKP	09	14	14.0							57.3N 33.6W, H: 22 31 47.8, h N. Mb 5.1, Ms 4.6. North Atlantic Ocean.
	HEE:ePKP	09	10	34.0							
	iSKP	09	14	18.5							
10.	eL	22	43								57.3N 33.5W, H: 01 59 17.5, h N. Mb 4.7, Ms 4.4. North Atlantic Ocean.
	F	22	47								
	WIT:eP	22	36	53.0							
11.	e	22	37	13.0							14.2S 166.6E, H: 05 36 30.8, h 15 km. Mb 5.7, Ms 6.2. New Hebrides Islands.
	HEE:iP	22	36	58.0							
11.	HEE:eP	02	04	29.0							57.3N 33.5W, H: 01 59 17.5, h N. Mb 4.7, Ms 4.4. North Atlantic Ocean.
11.	eL	06	45								18.5S 173.4E, H: 06 20 29.2, h N. Mb 4.9. Fiji Islands region.
	F	08	25								
	WIT:ePKP	05	55	51.0							
	eSKP	05	59	39.5							
12.	HEE:ePKP	05	55	54.0							48.8N 155.0E, H: 20 31 43.0, h 14 km. Mb 5.5, Ms 4.8. Kuril Islands.
	eSKP	05	59	39.0							
12.	HEE:iPKP	06	40	09.0							
14.	WIT:eP	20	43	27.0							48.8N 155.0E, H: 20 31 43.0, h 14 km. Mb 5.5, Ms 4.8. Kuril Islands.
	HEE:iP	20	43	37.5							

WIT means Witteveen, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
15. JAN. 1974.	eL F	23	29.0			17		8.3	6.0	32.9N 104.2E, H: 22 50 29.9, h N. Mb 5.3, Ms 5.7. Szechwan Prov., China.	
16.	eL F HEE:eP	05 06 05	39 03 05					09.5		23.5N 121.4E, H: 04 52 30.7, h 58 km. Mb 5.1. Taiwan.	
18.	eL F	08	12							60.3S 150.5E, H: 06 52 43.4, h N. Mb 5.7, Ms 5.6. West of Macquarie Island.	
18.	HEE:iP	17	03	25.5	+					18.8N 69.4W, H: 16 52 43.1, h 82 km. Mb 5.3. Dominican Republic region.	
19.	HEE:ePn e iPg iSn	02 02 02 02	50 50 51 51	56.5 59.0 17.0 47.5						46.7N 7.4E, H: 02 49 50.3, h N. Switzerland.	
20.	HEE:ePKP	02	26	14.0						5.3S 151.5E, H: 02 07 17.9, h 74 km. Mb 5.1. New Britain region.	
20.	WIT:ePKP HEE:ePKP	05 05	32 32	39.0 41.0						14.4S 167.0E, H: 05 13 14.8, h N. Mb 5.6, Ms 4.9. New Hebrides Islands.	
21.	HEE:eP	23	01	24.0						14.9N 93.6W, H: 22 48 52.1, h 33 km. Mb 5.0, Ms 4.8. Near coast of Chiapas, Mexico.	
22.	eL F WIT:iP HEE:iP	14 13 13	01 39 39	15.1 33.4 45.0		22		4.2	5.7	55.2N 162.1E, H: 13 28 20.0, h N. Mb 5.7, Mb 5.5. Near east coast of Kamchatka.	
23.	WIT:ePKP i HEE:iPKP <sub>2</sub> i	14 14 14 14	10 10 10 10	04.5 09.1 14.0 24.5						22.9S 179.1W, H: 13 51 08.8, h 449 km. Mb 5.4. South of Fiji Islands.	
24.	eL F	09 09	50.0 57							38.3N 20.0E, H: 09 40 16.0, h N. Mb 4.7. Greece.	
24.	HEE:iP	13	22	14.0	+					39.8N 14.6E, H: 13 19 23.2, h 538 km. Mb 4.6. Tyrrhenian Sea.	

Seismological Data

Data without indication are from De Bilt; WIT means Witteveen, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
24. JAN. 1974.	iP ePP iS iSP eSS eL F WIT:iP HEE:eP	19 19 19 19 19 19 19	24 28 35 36 40 50 24	56 08 02 00 20 22.3 50.2		8		2.1		42.1N 143.9E, H: 19 12 52.1, h 45 km. Mb 5.9, Ms 6.1. Hokkaido, Japan region.	
25.	eL F HEE:eP	00 00 23	19 40 50	18.0						41.9N 144.0E, H: 23 38 08.5, h 41 km. Mb 5.2. Hokkaido, Japan region.	
25.	eL F	10 11	44 19							41.8N 144.0E, H: 10 04 28.1, h 41 km. Mb 5.9. Hokkaido, Japan region.	
25.	WIT:ePKP HEE:ePKP	14 14	30 30	16.0 20.5						20.0S 178.1W, H: 14 11 37.9, h 606 km. Mb 4.7. Fiji Islands region.	
25.	ePP epPP eS iSPP eL F HEE:ePP	20 20 20 20 21 22 20	46 46 52 55 15 22.0 46	02 40 20 48 22.0 04.5						18.9N 145.5E, H: 20 28 13.0, h 141 km. Mb 5.9. Mariana Islands.	
25.	HEE:iPKP e	22 23	59 00	56.5 08.5						16.4S 172.5W, H: 22 40 16.1, h 10 km. Mb 5.2, Ms 5.0. Samoa Islands region.	
26.	iP ePP iS eSS eSSS eL F WIT:eP HEE:eP	05 05 05 06 06 06 05 05	48 51 58 05.0 08.6 17 48 48	20 51 56 05.0 08.6 07.9 32.0 33.5		7		2.7		18.6N 103.4W, H: 05 35 33.6, h N. Mb 5.1, Ms 6.1. Near coast of Michoacan, Mexico.	
27.	WIT:ePKP HEE:ePKP	07 07	52 52	29.0 35.0						17.8S 178.8W, H: 07 33 57.6, h 605 km. Mb 4.7. Fiji Islands region.	
27.	eL F HEE:eP	09 09 08	05.6 11 56	45		17		8.3	5.5	33.8N 38.6W, H: 08 49 41.2, h N, Mb 5.1, Ms 5.3. North Atlantic Ridge.	

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
28. JAN. 1974.	eL	03	46.8							36.1N 4.5E, H: 03 39 03.6, h N. Mb 4.8, Ms 4.6. Algeria.	
	F	03	53								
	HEE:eP	03	42	33.0							
29.	WIT:ePKP	19	15	37.0						7.4S 128.6E, H: 18 57 13.1, h 154 km. Mb 5.7. Banda Sea.	
	HEE:iPKP	19	15	39.0							
30.	WIT:iP	05	05	05.9						49.8N 78.1E, H: 04 57 02.1, h 0 km. Mb 5.4. Eastern Kazakh SSR.	
	HEE:iP	05	05	15.5							
30.	iPP	10	13	08						5.2S 134.1E, H: 09 53 12.0, h N. Mb 5.9, Ms 6.3. Aroe Islands region.	
	iPPP	10	16	02							
	eSKKS	10	19	40							
	iSP	10	22	44							
	iSPP	10	24	02							
	eSS	10	29	24							
	eSSS	10	34.0								
	eL	10.7			20		8.9	6.4			
	F	in next shock									
30.	eL	11.9								No determination of epicenter	
	F	12.7									
31.	eL	07	47		24		5.0	5.8		31.8N 131.6E, H: 07 03 58.1, h 37 km. Mb 5.6, Ms 5.4. Kyushu, Japan	
	F	08	40								
	WIT:eP	07	16	35.0							
	HEE:eP	07	16	42.5							
31.	WIT:iPKP	15	29	02.4						17.8S 178.7W, H: 15 10 29.1, h 584 km. Mb 5.3. Fiji Islands region.	
31.	eL	20	34							52.4N 168.7W, H: 19 55 26.2, h 36 km. Mb 5.6, Ms 5.0. Fox Islands, Aleutian Is- lands.	
	F	in next shock									
	WIT:eP	20	07	06.5	+						
	HEE:eP	20	07	15.0	+						
	i	20	07	17.5	-						
31.	eL	21.2								7.5S 156.0E, H: 20 16 22.5, h 62 km. Mb 5.3. Solomon Islands.	
	F	22.4									
	WIT:ePKP	20	35	26.0							
	HEE:ePKP	20	35	28.0							

Seismological Data  
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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
31. JAN. 1974.	iPP	23	51	28						7.5S 155.9E, H: 23 30 05.3, h 34 km. Mb 6.0, Ms 7.0. Solomon Islands.	
	iSKP	23	52	44							
	iPPP	23	53	58							
	iSKS	23	56	16							
	iPS	24	01	46							
	iSPP	24	03	02							
	eSS	24	08.5								
	eL	24.5			24		62	7.3			
	F	03.3									
	WIT:ePKP	23	49	11.0	-						
	HEE:iPKP	23	49	14.0	-						
	i	23	49	29.0							
	eSKP	23	52	36.0							
31.	WIT:ePKP	23	57	07.5						ISC: 7.0S 155.8E, H: 23 38 03.9, h N, Mb 5.8. Solomon Islands.	
	HEE:ePKP	23	57	12.0							
	eScSP	00	00	34.5							



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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
FEB. 1974											
1.	WIT:eP HEE:iP	00	05	36.5	+						38.6N 27.0E, H: 00 01 02.4, h 29 km. Mb 5.2. 2 Killed. Turkey.
		00	05	29.0	+						
1.	WIT:ePKP HEE:ePKP	01	23	18.5							7.3S 155.9E, H: 01 04 14.5, h 49 km. Mb 5.2. Solomon Islands.
		01	23	21.0							
1.	iPKP i iPP iSKP iPPP eSKS iPS iSS iSSS eL F WIT:iPKP i HEE:iPKP i eSKP	03	31	40							7.4S 155.6E, H: 03 12 33.1, h 40 km. Mb 6.2, Ms 7.1. Solomon Islands.
		03	32	00							
		03	33	55							
		03	35	19							
		03	36	20							
		03	38	38							
		03	44	07							
		03	51	42							
		03	56	20							
		04	11			22	65		7.3		
		07.0									
		03	31	38.0							
		03	31	45.7							
		03	31	41.5							
		03	31	51.5							
		03	35	14.5							
1.	eL F	09	20								6.9S 155.2E, H: 08 24 33.7, h N. Mb 5.3, Ms 5.8. Solomon Islands.
		10.0									
1.	WIT:ePKP	09	27	28.5							7.2S 155.8E, H: 09 08 24.5, h 48 km. Mb 5.3. Solomon Islands.
1.	eL F	16	24								7.1S 155.1E, H: 15 24 04.6, h 48 km. Mb 5.6, Ms 5.2. Solomon Islands.
		17.6									
2.	eL F	03	52.0								35.6N 34.5W, H: 03 37 25.0, h N. Mb 4.9. Azores Islands region.
		03	59								
2.	WIT:ePKP HEE:iPKP ipPKP	08	46	41.5	+						19.1S 169.5E, H: 08 27 40.2, h 269 km. Mb 5.6. New Hebrides Islands.
		08	46	48.0							
		08	48	07.0	-						

Seismological Data

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
FEB. 1974											
2.	eL F	12	46			20		3.6			6.0S 134.0E, H: 11 44 52.9, h N. Mb 5.6, Ms 5.8. Aroe Islands region.
		13	23								
2.	eL F	16	30								61.6N 147.6W, H: 15 55 28.3, h 48 km. Mb 5.1, Ms 4.7. Southern Alaska.
		17.7									
	WIT:eP HEE:eP ipP	16	06	02.5							
		16	06	13.0							
		16	06	22.0							
2.	eL F	20	47			20			2.5	5.7	6.2S 104.3E, H: 19 56 11.4, h N. Mb 5.2, Ms 5.6. Sunda Strait.
		21	37								
2.	HEE:eP	21	22	24.5							16.0S 74.5W, H: 21 09 01.5, h 63 km. Mb 5.2. Near coast of Peru.
3.	eP ePP eS eSS eL F	10	21	46							18.9N 120.1E, H: 10 08 48.4, h 30 km. Mb 5.9, Ms 5.2. Luzon, Philippine Islands.
		10	25	20							
		10	32	30							
		10	38	39							
		10	55			20			5.4	6.0	
		11.9									
	WIT:iP ipP HEE:iP ipP	10	21	39.3	-						
		10	21	49.3							
		10	21	45.5	-						
		10	21	55.0	+						
3.	eL F	17	12								7.3S 155.5E, H: 16 12 56.7, h 43 km. Mb 5.4, Ms 5.6. Solomon Islands.
		18	32								
	WIT:ePKP HEE:ePKP	16	32	05							
		16	32	07.5							
3.	HEE:e	19	10	31.0							No determination of epicenter
3.	eL F	19	48								5.1S 133.8E, H: 18 45 45.7, h N. Mb 5.7, Ms 5.2. Aroe Islands region.
		20	19								
4.	iSKP eSS eL F WIT:iPKP HEE:ePKP e eSKP e	20	33	01							7.3S 155.8E, H: 20 10 42.0, h 55 km. Mb 5.4., Solomon Islands.
		20	45.3								
		21	06								
		23.0									
		20	29	47.2	-						
		20	29	49.5							
		20	29	57.0							
		20	33	17.0							
		20	33	27.5							

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms			
		h	m	s			Z	NS	EW					
FEB. 1974	HEE:ePKP e	22	46	58.5							16.2S 177.7W, H: 22 27 26.3, h 62 km. Mb 5.0. Fiji Islands region.			
		22	47	03.5										
6.	iP iPP iS eSS eSSS eL F WIT:iP HEE:iP	04	15	49	+	7	6.8				53.8N 164.7W, H: 04 04 07.2, h 2 km. Mb 5.9, Ms 6.5. Unimak Island region.			
		04	18	43										
		04	25	29										
		04	30.3											
		04	34.0											
		04	38											
		in next shock										21	20.0	6.4
		04	15	44.7										
		04	15	54.5										
		06	21											
07	14					No determination of epicenter								
18	04					No determination of epicenter								
18	20					No determination of epicenter								
10	42					3.8S 134.0E, H: 09 41 51.0, h 30 km. Mb 5.8, Ms 5.4. West New Guinea region.								
11	03					3.8S 134.0E, H: 09 41 51.0, h 30 km. Mb 5.8, Ms 5.4. West New Guinea region.								
14	33	03.5				54.4N 167.6F, H: 14 21 37.4, h N. Mb 5.4, Ms 5.0. Komandorsky Islands region.								
18	44	09.5				21.4S 170.1E, H: 18 24 32.2, h N. Mb 5.4, Ms 5.8. Loyalty Islands region.								
18	44	16.5				21.4S 170.1E, H: 18 24 32.2, h N. Mb 5.4, Ms 5.8. Loyalty Islands region.								
00	32					0.0N 122.7E, H: 23 37 52.9 h 11 km. Mb 5.8, Ms 4.8. Northern Celebes.								
00	55					0.0N 122.7E, H: 23 37 52.9 h 11 km. Mb 5.8, Ms 4.8. Northern Celebes.								
06	51	02.0				2.5N 99.0E, H: 06 38 06.5, h 34 km. Mb 5.6, Ms 5.0. Northern Sumatra.								
06	51	03.5				2.5N 99.0E, H: 06 38 06.5, h 34 km. Mb 5.6, Ms 5.0. Northern Sumatra.								
12	09	55.0				22.0N 44.2W, H: 12 01 07.0, h N. Mb 5.4. North Atlantic Ridge.								
12	09	48.5				22.0N 44.2W, H: 12 01 07.0, h N. Mb 5.4. North Atlantic Ridge.								
04	04	50.0				20.4N 121.5E, H: 03 51 46.6, h 36 km. Mb 5.1. Philippine Islands region.								
02	03	17.5				11.4N 92.3E, H: 01 51 10.8, h 25 km. Mb 5.5, Ms 6.0. Andaman Islands region.								

Seismological Data

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
FEB. 1974	eSS eL F	02	21.0			20	14.2	6.3		11.4N 92.4E, H: 01 53 46.6, h N. Mb 5.7, Ms 6.1. Andaman Islands region.	
		02	36								
		03.6									
16.	WIT:eP HEE:eP	02	05	46.0						31.5S 179.1E, H: 05 39 57.4, h 510 km. Mb 5.2. Kermadec Islands region.	
		02	05	52							
16.	WIT:ePKP <sub>2</sub> HEE:iPKP <sub>2</sub>	05	59	32.0	+					31.5S 179.1E, H: 05 39 57.4, h 510 km. Mb 5.2. Kermadec Islands region.	
		05	59	39.0							
17.	eL F	05	23							18.4N 146.7F, H: 04 33 11.9, h 58 km. Mb 5.6. Mariana Islands.	
		05	48								
18.	eL F	21	40							39.7N 143.5F, H: 21 01 22.3, h N. Mb 4.7, Ms 5.3. Off east coast of Honshu, Japan.	
		22.1									
19.	eS eSPP eSS eSSS eL F WIT:eP i e HFE:eP e	03	55	12						13.9N 122.1E, H: 03 30 21.8, h 17 km. Mb 5.7, Ms 6.1. Luzon, Philippine Islands.	
		03	56	56							
		04	01.5								
		04	05.0								
		04	13								
		05.7									
		03	43	39.5							
		03	43	45.4							
		03	43	55.5							
		03	43	43.5							
03	43	48.0									
20.	WIT:ePKP HEE:ePKP	00	56	18.5						20.8S 174.9W, H: 00 36 37.7, h 60 km. Mb 5.0. Tonga Islands.	
		00	56	22.0							
20.	eL F	16	44							19.6N 70.0W, H: 16 11 26.8, h 18 km. Mb 4.9. Dominican Republic region.	
		17	07								
22.	iP ipP iS iSP isS iSS eSSS F WIT:eP i ipP iS HEE:eP i ipP iS	00	48	52	+	6	2.0			33.2N 136.9E, H: 00 36 53.8, h 385 km. Mb 6.0, Near south coast of Southern Honshu, Japan.	
		00	50	16							
		00	58	36							
		00	59	43							
		01	01	20							
		01	04	36							
		01	10	34							
		02.7									
		00	48	43.0							
		00	48	45.0							
00	50	13.9									
00	58	43.5									
00	48	50.5									
00	48	52.5									
00	50	21.0									
00	59	02.5									

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
FEB. 1974	WIT:e	01	17	41							No determination of epicenter.
	HEE:e	01	17	38.5							
22.	WIT:eP	03	41	50.0	+						36.5N 71.5E, H: 03 33 26.5, h 116 km. Mb 5.4. Afghanistan-USSR border region.
	HFE:iP	03	41	54.5							
23.	WIT:iP	04	26	50.9	-						42.2N 143.0E, H: 04 14 56.7, h 64 km. Mb 5.3. Hokkaido, Japan region.
25.	eL	02	03								11.5S 13.3W, H: 01 32 17.3, h N. Mb 5.0, Ms 4.9. Ascension Islands region.
	F	02	39								
25.	iP	05	58	27	+	22	3.0	5.7			44.0N 147.8E, H: 05 46 25.1, h 12 km. Mb 5.9, Ms 5.4. Kuril Islands.
	iS	06	08	40							
	eL	06	22								
	F	07.4									
	WIT:iP	05	58	24.6							
	HEE:iP	05	58	34.0							
	e	05	58	45.0							
25.	WIT:e	20	05	23							51.6N 3.0W, H: 20 03 44.1, h N. Mb 4.3. United Kingdom.
	ePg	20	05	47.0							
	eSn	20	06	24.0							
	HEE:iPn	20	05	08.5							
	iPg	20	05	43.5							
	iSn	20	06	11.0							
	iSg	20	06	56.5							
26.	WIT:iP	06	35	06.1	+						53.3N 159.7E, H: 06 23 45.3, h 49 km. Mb 5.6., Ms 4.7. Near coast of Kamchatka.
	e	06	35	26.5							
	HEE:iP	06	35	16.5							
26.	eL	10	48								12.1N 143.6E, H: 09 55 18.2, h 24 km. Mb 5.3, Ms 5.0. South of Mariana Islands.
	F	11	33								
27.	eL	05	01								11.6S 13.4W, H: 04 28 30.3, h 5.1, Ms 4.7. Ascension Island region.
	F	05	30								
27.	WIT:eP	17	11	59.5							37.1N 116.1W, H: 17 00 00.1, h 0 km. Mb 5.8. Southern Nevada.
	HEE:iP	17	12	04.5							

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
FEB. 1974	eL	18	52								1.3N 97.7E, H: 18 01 48.7, h N. Mb 5.9, Ms 5.4. Northern Sumatra.
	F	19	31								
	WIT:iP	18	14	45.4							
	i	18	15	12.1	-						
	HEE:iP	18	14	47.0	-						
27.	HEE:iPKP	19	12	42.5							16.6S 172.3W, H: 18 53 04.4, h N. Mb 5.1. Samoa Islands region.
27.	WIT:ePKP	20	57	30.5	-						17.8S 173.2W, H: 20 37 53.9, h N. Mb 5.1, Ms 4.8. Tonga Islands.
	e	20	57	41.0							
	HEE:ePKP	20	57	35.5							
	i	20	57	51.0	+						
28.	ePKP	14	19	16	+						36.8S 176.9E, H: 13 59 17.8, h 15 km. Mb 5.8, Ms 6.2. Off east coast of North Island, New Zealand.
	iPKP <sub>2</sub>	14	20	12							
	ePP	14	23	55							
	ePPS	14	37	38							
	eSS	14	44.5								
	eL	15.3									
	F	16.8									
	WIT:ePKP <sub>2</sub>	14	20	10							
	HEE:iPKP <sub>2</sub>	14	20	16.5							
	ePP	14	24	02.5							
28.	WIT:iPKP	16	25	45.0	+						18.6S 174.5W, H: 16 06 14.7, h 98 km. Mb 5.3. Tonga Islands.
	e	16	26	13.0							
	HEE:iPKP	16	25	50.0							
28.	WIT:iP	20	27	59.9	-						9.2N 84.2W, H: 20 15 36.9, h 59 km. Mb 5.2. Costa Rica.
	HEE:iP	20	27	58.0							
	i	20	28	06.0							
28.	iP	20	32	30	+	6	4.8				9.3N 84.1W, H: 20 20 10.2, h 46 km. Mb 5.8, Ms 6.2. Costa Rica.
	iPP	20	35	36							
	iS	20	42	44							
	iPPS	20	43	49							
	eSS	20	48	16							
	eL	20	57								
	F	22.6									
	WIT:iP	20	32	33.8							
	HEE:eP	20	32	31.0							
	i	20	33	20.5							

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
MARCH 1974											
	2.	eL F HEE: ePKP2	06 06 05	07 46 06							36.8S 177.0E, H: 04 45 58.4, h 28 km. Mb 5.4, Ms 5.0. Off east coast of North Island, New Zealand.
3.	eP iS eSS eL F WIT: eP i i HEE: iP i	05 05 05 05 07.0 05 05 05 05	03 13 19.6 28 07.0 03 03 03 03	18 35 19.6 28 12.5 14.0 26.8 20.5 32.5	-	20	5.3	5.9		35.6N 140.6E, H: 04 50 48.9, h 46 km. Mb 5.6, Ms 5.6. Near east coast of Honshu, Japan.	
3.	eL F WIT: ePKP2 HEE: iPKP2	14 in next shock 13 13	14 12 12		+					36.7S 177.1E, H: 12 51 44.9, h 6 km. Ms 5.4. Off east coast of North Island, New Zealand.	
3.	iPKP iz eSS eSSS eL F WIT: iPKP i e HEE: iPKP i i	14 14 15 15 15 17.0 14 14 14 14 14 14	42 43 04.8 10.0 30 17.0 42 42 42 42 42 42	16 11 04.8 10.0 30 14.0 22.0 58.5 19.5 29.0 50.5	(-)	3	2.0			20.1S 169.7E, H: 14 22 37.5, h 17 km. Mb 6.1, Ms 6.1. New Hebrides Islands.	
3.	HEE: ePKP	18	27	30						16.7S 176.8E, H: 18 07 54.9, h 90 km. Mb 4.9. Fiji Islands region.	
3.	eL F	19 19	22 47							No determination of epicenter.	
4.	eL F	01 01	18.4 25							36.3N 34.1W, H: 01 03 59.7, h N. Mb 4.9, Ms 4.8. Azores Islands region.	
4.	WIT: ePKP epPKP HEE: ePKP ipPKP	12 12 12 12	57 59 57 59	30.5 04.5 35.5 09.5	+					18.8S 177.7W, H: 12 38 33.6, h 383 km. Mb 5.5. Fiji Islands region.	

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
MARCH 1974											
	6.	iP ipP iPP iS isS eSS eL F WIT: eP i ipP HEE: iP ipP	01 01 01 02 02 02 02 04.5 01 01 01 01 01	52 53 55 02 03 07 18 04.5 52 52 53 52 53	32 10 39 31 26 49 18 37.5 39.6 08.5 35.5 07.0	+					12.3N 86.4W, H: 01 40 26.4, h 110 km. Mb 5.8. Nicaragua.
6.	HEE: eP	02	43	42						5.6S 11.4W, H: 02 33 47.5, h N. Mb 5.2. Ascension Island region.	
6.	WIT: e HEE: e	04 04	01 01	34.5 39.0						No determination of epicenter	
6.	HEE: iPKP	04	38	47.0						18.7S 169.1E, H: 04 19 38.0, h 247 km. Mb 4.8. New Hebrides Islands.	
6.	iPP iH iSP iSPP eSS eSSS eL F WIT: ePP HEE: ePP	19 19 19 19 20 20 20 19 19	49 56 58 59 05.0 09.3 16 in next shock 48 48	01 50 30 55 05.0 09.3 16 42.5 57		18	6.8	6.3		6.6S 129.0E, H: 19 29 08.1, h 26 km. Mb 5.7, Ms 6.3. Banda Sea.	
6.	eL F	21 22.6	20							40.3N 142.2E, H: 20 40 55.1, h 59 km. Mb 5.0. Near east coast of Honshu, Japan.	
7.	HEE: eP	03	55	26						33.9N 25.5E, H: 03 50 29.0, h N. Mb 4.3. Eastern Mediterranean Sea.	
7.	eL F WIT: eP e ePP	11 12 11 11 11	54 44 43 43 44	12.0 21.0 39.5						37.6N 55.8E, H: 11 36 02.4, h 21 km. Mb 5.1, Ms 5.0. Iran-USSR border region.	

**Seismological Data**

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Date MARCH 1974	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
7.	eL F	13	14								No determination of epicentre.
8.	WIT: eP HEE: eP	02	38	42							34.8N 24.7E, H: 02 33 53.1, h 50 km. Mb 4.5. Crete.
8.	eL F	10	09								30.9N 131.6E, H: 09 25 06.1, h 42 km. Mb 5.5, Ms 5.4. Kyushu, Japan.
9.	HEE: eP	04	16	52.0							34.6N 25.1E, H: 04 12 07.7, h 54 km. Mb 4.6. Crete.
9.	WIT: ePKP HEE: iPKP ipPKP i	18	00	21.0	- +						19.0S 169.6E, H: 17 41 20.1, h 286 km. Mb 5.4. New Hebrides Islands.
9.	ePKP iPP ePKS eSKS eSS eL F WIT: ePKP HEE: ePKP e	20	33	34		20		9.0	6.5		7.5S 156.2E, H: 20 14 28.3, h 50 km. Mb 5.8, Ms 6.5. Solomon Islands.
9.	WIT: ePKP HEE: ePKP	20	37	12							7.3S 156.2E, H: 20 18 06.3, h N. Mb 5.7, Ms 6.6. Solomon Islands.
10.	WIT: ePKP HEE: ePKP	00	16	53.5							20.3S 178.5W, H: 23 58 13.1, h 586 km. Mb 4.5. Fiji Islands region.
10.	HEE: ePKP	08	06	39.5							7.4S 156.0E, H: 07 47 32.6, h 54 km. Mb 5.3. Solomon Islands.
10.	eL F WIT: eP HEE: iP	16	57								0.4N 30.0W, H: 16 17 03.8, h 43 km. Mb 5.1, Ms 5.6. Near coast of Ecuador.

**Seismological Data**

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Date MARCH 1974	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
11.	iS eL F WIT: iP HEE: iP epP	11	58	36							48.3N 153.2E, H: 11 37 33.5, h 169 km. Mb 5.9. Kuril Islands.
12.	eL F	16	05								8.8N 150.9E, H: 15 11 05.5, h N. Mb 5.5, Ms 4.8. Caroline Islands region.
12.	HEE: iP	18	26	09.5	+						36.8N 26.3E, H: 18 21 33.9, h 39 km. Mb 4.7, Ms 4.1. Dodecanese Islands.
12.	eL F	18	55								23.6N 125.4E, H: 18 07 56.0, h 69 km. Mb 4.8. Southwestern Ryukyu Islands.
13.	eL F	01	12								2.6N 125.3E, H: 00 15 32.1, h 10 km. Mb 5.0, Ms 4.6. Talaud Islands.
13.	WIT: ePKP	08	50	23.5							23.5S 180.0E, H: 08 31 29.2, h 494 km. Mb 4.8. South of Fiji Islands.
13.	eL F WIT: e HEE: eP	17	33.5								34.7N 24.8E, H: 17 20 45.5, h 51 km. Mb 4.6. Crete.
14.	WIT: ePKP HEE: iPKP	10	32	07.5							20.2S 170.0E, H: 10 12 27.6, h 1 km. Mb 5.2, Ms 5.0. New Hebrides Islands.
14.	WIT: e HEE: e	16	10	04.5							<b>BNS: Rockburst supposed.</b>
14.	ePP eSS eL F WIT: ePKP HEE: iPKP	21	21	12							13.9S 166.8E, H: 20 58 54.8, h 18 km. Mb 5.6, Ms 5.3. New Hebrides Islands.
14.	HEE: iPKP i	21	54	59.0	+						19.2S 167.7E, H: 21 35 23.0, h N. Mb 5.2. New Hebrides Islands region.



**Seismological Data**

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
MARCH 1974	14. WIT: iPKP	23	12	50.6	-						19.2S 177.8E, H: 22 54 09.0, h 542 km. Mb 5.0. Fiji Islands region.
	HEE: iPKP	23	12	55.5	+						
	15. HEE: iPKP	08	09	53.0	+						19.2S 167.8E, H: 07 50 12.8, h 7 km. Mb 4.9. New Hebrides Islands.
	17. WIT: iP	04	10	03.5							1.3N 98.6E, H: 03 57 07.1, h 61 km. Mb 5.7. Northern Sumatra.
	HEE: eP	04	10	04.0							
	18. eL	12	05			22	3.4		6.1		14.9S 172.8W, H: 10 56 12.4, h 27 km. Mb 5.9, Ms 6.0. Samoa Islands.
	F	13.3									
	HEE: iPKP	11	15	45.5	-						27.0N 126.5E, H: 23 39 15.5, h 140 km. Mb 5.1. East China Sea.
	i	11	15	53.5	+						
	18. WIT: iP	23	51	37.2	+						27.0N 126.5E, H: 23 39 15.5, h 140 km. Mb 5.1. East China Sea.
	ipP	23	52	15.1	-						
	HEE: eP	23	51	43.0							
	epP	23	52	21.5	-						
	19. WIT: iPKP	08	03	35.2							18.5S 177.8W, H: 07 44 58.2, h 570 km. Mb 4.5. Fiji Islands region.
	HEE: iPKP	08	03	39.5							
	20. HEE: i	02	53	49.0	+						No determination of epicenter.
	21. eL	06	32								36.9N 141.7E, H: 05 48 52.7, h 43 km. Mb 5.3, Ms 4.9. Near east coast of Honshu, Japan.
	F	06	59								
	WIT: eP	06	01	13.0							
	epP	06	01	23.5							
	HEE: eP	06	01	21.0							
	21. eL	14	10								0.2S 18.2W, H: 13 42 31.8, h N. Mb 4.9. Central Mid-Atlantic Ridge.
	F	14	26								
	22. eL	07	46								53.6N 163.4W, H: 07 04 06.2, h N. Mb 5.1, Ms 4.6. Unimak Island region.
	F	08	14								
	WIT: eP	07	15	38.5							
	e	07	15	49.0							
	22. WIT: iPKP	14	32	40.5							21.2S 178.9W, H: 14 14 01.4, h 614 km. Mb 4.7. Fiji Islands region.
	HEE: iPKP	14	32	45.0	+						

**Seismological Data**

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
MARCH 1974	22. eL	18	41								49.9N 90.8E, H: 18 13 40.6, h N. Mb 5.5, Ms 4.7. USSR-Mongolia border region.
	F	18	55								
	WIT: ePP	18	24	30.0							70.7N 14.7W, H: 19 10 27.6, h 22 km. Mb 5.0. Jan Mayen Island region.
	HEE: eP	18	22	42.5							
	ePP	18	24	35.0							
	22. eP	19	15	10	+						70.7N 14.7W, H: 19 10 27.6, h 22 km. Mb 5.0. Jan Mayen Island region.
	iZ	19	15	16	-						
	eL	19	19								
	F	19	35								
	WIT: eP	19	15	04.5							58.7S 25.0W, H: 01 28 05.3, h 61 km. Mb 5.3. South Sandwich Islands region.
	HEE: iP	19	15	21.0	+						
	23. eL	02	26								54.0N 36.1W, H: 07 05 06.9, h N. Mb 4.6, Ms 4.6. North Atlantic Ocean.
	F	02	56								
	23. eL	07	17.9								53.9N 35.3W, H: 07 09 02.8, h N. Mb 5.0, Ms 4.9. North Atlantic Ocean.
	F	in next shock									
	23. eL	07	20.6								53.8N 35.4W, H: 07 19 14.2, h N. Mb 5.1, Ms 5.1. North Atlantic Ocean.
	F	in next shock									
	HEE: eP	07	14	27.0							
	23. eL	07	30.8								ISC: 53.9N 164.8W, H: 10 05 41, h 0 km, Mb 4.3. Unimak Island Region.
	F	07	47								
	HEE: eP	07	24	37.5							
	23. eL	10	35								23.9S 179.8E, H: 14 28 35.4, h 535 km. Mb 6.1. South of Fiji Islands.
	F	10	57								
	23. iPKP	14	47	24	+	7	5.4				
	ipPKP	14	49	22	-						
	iPP	14	51	08							
	ipPP	14	53	04							
	iPPP	14	54	53							
	isSKS	14	57	12							
	iPPS	15	03	31							
	iSS	15	10	04							
	iSSS	15	15	52							
	F	17.5									
	WIT: iPKP	14	47	22.3	+						
	i	14	47	27.0	-						
	i	14	47	47.3							
	ipPKP	14	49	30.4							
	HEE: iPKP	14	47	24.5	+						
	i	14	47	46.0	-						
	ipPKP	14	49	21.0							

**Seismological Data**

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
MARCH 1974	23. WIT: iPKP	15	12	55.4	-						23.8S 178.8E, H: 14 54 11.3, h 569 km. Mb 5.6. South of Fiji Islands.
	i	15	13	00.4							
	HEE: ePKP	15	12	56.5							
	i	15	13	04.5	-						
	i	15	13	16.0							
	epPKP	15	15	15.5							
23.	HEE: ePKP	15	31	32.5							ISC: 26.3S 179.0W, H: 15 11 56. h 320 km. South of Fiji.
23.	iPKP2	20	45	47		20			3.9	6.2	21.9S 173.7E, H: 20 25 51.8, h N. Mb 5.7, Ms 6.1. New Hebrides Islands region.
	eL	21	36								
	F	23.0									
	WIT: ePKP	20	45	37.0	-						
	HEE: ePKP	20	45	40.0							
23.	WIT: iPKP	21	11	00.6	-						23.9S 179.5E, H: 20 52 06.8, h 521 km. Mb 5.0. South of Fiji Islands.
	HEE: ePKP	21	11	04							
23.	WIT: ePKP	22	05	55.0							20.7S 175.2W, H: 21 46 12.0, h N. Mb 5.3, Ms 5.4. Tonga Islands.
	HEE: ePKP	22	06	00							
23.	HEE: iP	22	27	29.5	+						37.0N 95.7E, H: 22 17 03.9, h N. Mb 4.8. Tsinghai Province, China.
24.	WIT: ePKP	00	31	24.0							21.1S 175.7E, H: 00 12 46.0, h 600 km. Mb 4.6. South of Fiji Islands.
	epPKP	00	33	38.5							
	HEE: iPKP	00	31	28.5	+						
	i	00	31	35.5	-						
	epPKP	00	33	43.5							
24.	iSKS	04	45	49							12.6N 144.3E, H: 04 21 05.8, h 79 km. Mb 5.9. South of Mariana Islands.
	iSP	04	48	44							
	eL	05	13								
	F	05	54								
	HEE: ePP	04	39	39.0							
	i	04	50	42.5	+						
e	04	50	57.0								
24.	iS	14	35	00		20			7.5	5.9	27.7N 86.1E, H: 14 16 03.1, h N. Mb 5.7, Ms 5.7. Nepal.
	eL	14	48.5								
	F	15.8									
	WIT: iP	14	26	24.5	-						
	i	14	26	47.8	+						
HEE: iP	14	26	28.5	-							
	i	14	26	53.0	+						

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
MARCH 1974	25. eL	05	30								19.4S 176.2W, H: 04 08 11.0, h N. Mb 5.0, Ms 5.2. Fiji Islands region.
	F	05	49								
	WIT: ePKP	04	27	55.0							
	HEE: ePKP	04	27	58.5							
25.	eL	08	17								18.2N 103.3W, H: 07 37 12.3, h 87 km. Mb 4.7. Near coast of Michoacan, Mexico.
	F	09	46								
26.	HEE: i	19	28	36.5							No determination of epicenter.
27.	WIT: ePKP2	03	27	35.0							27.3S 175.3W, H: 03 07 22.3, h 44 km. Mb 5.7, Ms 5.0. Kermadec Islands region.
	HEE: ePKP	03	27	09.5							
	iPKP2	03	27	42.0	+						
27.	HEE: iPKP	16	33	37.0							15.7S 173.7W, H: 16 14 15.8, h 136 km. Mb 4.8. Tonga Islands.
27.	WIT: iP	16	40	41.2	-						50.1N 179.7W, H: 16 28 47.3, h 37 km. Mb 5.6, Ms 4.8. Andreanof Is., Aleutian Is.
	HEE: iP	16	40	51.0	-						
28.	WIT: ePKP	02	18	54.5							20.4S 177.0W, H: 01 59 42.4, h 287 km. Mb 5.0. Fiji Islands region.
	HEE: iPKP	02	18	59.5	-						
	i	02	19	04.0	+						
	e	02	20	15.0							
28.	eL	21	41.7								37.1N 15.0E, H: 21 32 35.3, h N. Mb 4.6. Sicily.
	F	21	51								
	HEE: eP	21	36	12.5							
29.	iP	22	01	40	-						57.6N 153.9W, H: 21 50 35.3, h 44 km. Mb 5.7, Ms 5.2. Kodiak Island region.
	eS	22	10	48							
	eL	22	25								
	F	23.6									
	WIT: iP	22	01	37.8	-						
	ipP	22	01	49.5							
HEE: iP	22	01	48.0	-							
	ipP	22	02	00.0							
30.	WIT: iPKP	02	10	49.4							23.5S 180.0E, H: 01 52 01.0, h 572 km. Mb 4.7. South of Fiji Islands.
	HEE: ePKP	02	10	53.5							
	e	02	11	06.0							
30.	eL	18	51.0								63.9N 23.1W, H: 18 41 26.3, h N. Mb 4.6. Iceland region.
	F	18	59								
	WIT: eP	18	45	46.0							
30.	eL	19	20.0								63.8N 23.4W, H: 19 09 59.6, h N. Mb 4.4. Iceland region.
	F	19	36								

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
MARCH 1974											
30.	eL F WIT: eP	20	27.5								63.4N 23.6W, H: 20 16 36.7, h N. Mb 4.3. Iceland region.
31.	HEE: ePKP	05	07	58.0							36.0S 103.2W, H: 04 48 50.2, h N. Mb 5.2, Ms 5.2. Southern Pacific Ocean.
31.	ePP eSS eL F	07	07	43							2.2S 139.1E, H: 06 47 45.0, h N. Mb 5.6, Ms 5.6. Near north coast of west New Guinea.
31.	eL F	21	53								11.8N 87.9W, H: 21 13 45.8, h 49 km. Mb 5.0, Ms 4.7. Near coast Nicaragua.

**Seismological Data**

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
APRIL 1974											
1.	WIT: ePKP	15	50	31.0	+						18.6S 175.4W, H: 15 31 10.7, h 180 km. Mb 4.9. Tonga Islands
1.	eL F	21	23								60.3S 26.9W, H: 20 24 11.4, h N. Mb 5.4, Ms 5.0. South Sandwich Islands region.
1.	eL F WIT: eP HEE: eP	22	37								31.0N 142.0E, H: 21 50 49.5, h 16 km. Mb 5.3, Ms 5.3. South of Honshu, Japan.
2.	WIT: iP HEE: eP	03	36	26.9							41.3N 141.6E, H: 03 24 27.4, h 41 km. Mb 5.2, Ms 5.4. Hokkaido, Japan region.
2.	eL F WIT: ePKP HEE: ePKP	05	02								6.9S 155.3E, H: 04 02 33.6, h 47 km. Mb 5.4, Ms 5.7. Solomon Islands.
2.	eL F	08	05								11.7N 144.6E, H: 07 09 23.8, h 21 km. Mb 5.3. South of Mariana Islands.
3.	eL F	14	07								44.1S 41.4E, H: 13 15 30.8, h N. Mb 5.0. Prince Edward Islands region.
3.	eL F	23	35								No determination of epicenter.
4.	eL F	06	21								17.6S 13.2W, H: 05 46 53.7, h N. Mb 4.9. South Atlantic Ridge.
4.	WIT: eP	07	49	10.5(+)							37.7N 140.8E, H: 07 37 02.6, h 97 km. Mb 5.3. Honshu, Japan.
4.	WIT: iPKP	18	38	28.8							20.9S 178.7W, H: 18 19 47.4, h 584 km. Mb 4.4. Fiji Islands region.
5.	eL F HEE: eP	05	16								28.6N 43.6W, H: 04 56 04.9, h N. Mb 5.0, Ms 4.3. North Atlantic Ridge.

## Seismological Data

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
APRIL 1974	6.	iP	02	05	14	+					55.1N 160.4W, H: 01 53 47.3, h 27 km, Mb 5.7, Ms 5.1. Alaska Peninsula.
		iZ	02	05	30	-					
		eL	02		28						
		F	03	13	-						
		WIT: iP	02	05	10.6	+					
	HEE: iP	02	05	21.0	+						
6.	WIT: ePKP	02	31	13.5							14.6S 166.8E, H: 02 11 40.3, h 8 km, Mb 5.3, Ms 5.2 New Hebrides Islands
	e	02	34	54.0							
	HEE: ePKP	02	31	15.5							
	e	02	34	58.5							
6.	WIT: eP	02	46	32							49.9N 29.0W, H: 02 41 32.2, h N. Mb 4.7. North Atlantic Ridge.
	HEE: eP	02	46	27.0	-						
	e	02	46	29.5	+						
6.	eL	03	56								14.6S 166.7E, H: 02 43 25.2, h 16 km, Mb 5.4, Ms 5.2. New Hebrides Islands.
	F	in next shock									
	WIT: ePKP	03	02	57							
	e	03	06	36.5							
	HEE: iPKP	03	02	59.0	+						
	e	03	06	42.0							
6.	HEE: ePKP	04	03	17.5							
6.	iP	04	07	27	+						55.1N 160.4W, H: 03 56 01.8, h 40 km, Mb 6.0, Ms 5.3. Alaska Peninsula.
	iZ	04	07	43	-						
	eL	04		30							
	F	05	24								
	WIT: iP	04	07	23.2	+						
	i	04	07	34.8	-						
	i	04	07	40.3	+						
	HEE: iP	04	07	33.5	+						
	i	04	07	47.5							
6.	WIT: ePKP	06	19	53.0	-						20.4S 178.2W, H: 06 01 11.4, h 579 km, Mb 4.7. Fiji Islands region
	HEE: iPKP	06	19	58.0							
6.	WIT: ePKP	08	10	54.0							14.6S 166.7E, H: 02 43 25.2, h 16 km, Mb 5.4, Ms 5.2. New Hebrides Islands.
	HEE: ePKP	08	10	51.0							
6.	eL	20	46.4								37.1N 72.5E, H: 20 19 36.9, h 84 km, Mb 5.2. Tadzhik SSR.
	F	20	55								

## Seismological Data

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms	
		h	m	s			Z	NS	EW			
APRIL 1974	6.	WIT: eP	22	19	08.5						43.4N 146.3E, H: 22 07 13.5, h 53 km, Mb 4.9. Kuril Islands. ISC: 18.1S 173.5W, H: 22 40 17, h 5 km, Mb 4.6. Tonga.  34.8N 24.7E, H: 14 22 47.1, h 29 km, Mb 4.7, Ms 5.0. Crete.  45.5N 148.3E, H: 13 11 21.6, h 139 km, Mb 5.5. Kuril Islands  10.1S 160.5E, H: 20 25 36.0, h 25 km, Mb 5.1, Ms 4.8. Solomon Islands  14.5N 91.6W, H: 22 43 00.6, h 108 km, Mb 5.4. Guatemala.  22.8N 121.3E, H: 22 59 51.1, h 53 km, Mb 4.9. Taiwan region  42.4N 144.4E, H: 21 37 53.0, h 75 km, Mb 5.3. Hokkaido, Japan region.  18.6S 169.2E, H: 12 16 15.3, h 244 km, Mb 5.1. New Hebrides Islands.	
	6.	HEE: ePKP	23	00	03.5							
	7.	iP	14	27	44	+						
		iS	14	31	50		18		3.4	4.8		
		eL	14	34.2								
		F	15	19								
		WIT: eP	14	27	42.0							
		HEE: iP	14	27	32.5	-						
	9.	WIT: iP	13	23	00.0							
		HEE: iP	13	23	09.5	-						
	9.	eL	21	38								
		F	22	11								
10.	iP	22	55	14								
	i	22	55	32								
	eS	23	05	26								
	eSS	23	11	00								
	eL	23	22.0									
	F	in next shock										
	WIT: eP	22	55	18.5	-							
	epP	22	55	45.5	+							
e	22	55	52.0									
HEE: iP	22	55	18.0	-								
	epP	22	55	44.5								
	e	22	55	52.0								
10.	eL	23	45									
	F	24	10									
	WIT: eP	23	12	26.5								
	HEE: eP	23	12	33.5								
	e	23	12	41.5								
11.	WIT: iP	21	49	47.2	+							
	HEE: eP	21	49	56.0								
12.	HEE: iPKP	12	35	25.0	+							

**Seismological Data**

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
14. APRIL 1974	WIT: ePKP	01	31	07							20.9S 168.7E, H: 01 11 15.1, h 4 km. Mb 4.4. Loyalty Islands.
	HEE: ePKP	01	31	04.0							
14.	WIT: eP	07	07	14.0	+						14.7N 91.3W, H: 06 55 01.8, h 138 km. Mb 5.3. Guatemala.
	ipP	07	07	45.0							
	HEE: iP	07	07	14.0							
	ipP	07	07	43.5							
14.	WIT: iP	10	56	17.3	+						26.0N 128.5E, H: 10 43 31.2, h N. Mb 5.1. Ryukyu Islands.
	e	10	56	25.0							
14.	eL	11	33.9								No determination of epicenter.
	F	11	39								
14.	eL	11	40.0								34.4N 25.6E, H: 11 29 31.3, h 2 km. Mb 4.2. Crete.
	F	11	47								
14.	eL	12	35.0								No determination of epicenter.
	F	12	41								
14.	HEE: ePKP	18	44	52.5							20.9S 168.5E, H: 18 24 58.3, h N. Mb 5.0. Loyalty Islands.
15.	eL	04	32								18.9N 120.8E, H: 03 43 52.4 h 45 km. Mb 5.3, Ms 4.8. Luzon, Philippine Islands.
	F	05	04								
	HEE: eP	03	56	50.0							
17.	ePP	00	40	04	19		3.5	5.1			35.2N 35.3W, H: 00 32 21.4, h N. Mb 5.1, Ms 5.0. North Atlantic Ridge.
	eS	00	44	20							
	eL	00	47.0								
	F	01	30								
17.	eP	18	35	44							17.3N 40.4E, H: 18 27 33.7, h N. Mb 5.0, Ms 5.1. Red Sea.
	eS	18	42.4								
	eSS	18	45.8								
	eL	18	50								
	F	19.8									
	WIT: eP	18	35	42.0							
HEE: eP	18	35	35.0								
18.	eL	02	00								6.9N 72.9W, H: 01 19 22.6, h 24 km. Mb 5.0, Ms 4.5. Northern Colombia.
	F	02	18								
	HEE: eP	01	31	20.0							
18.	HEE: e	02	28	08.0							BCIS 44.7N 2.5E, H: 02 24 35 France.

**Seismological Data**

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
APRIL 1974	HEE: ePKP	02	59	29.0							16.1S 174.2W, H: 02 40 09.0, h 160 km. Mb 4.1. Tonga Islands.
	WIT: iP	08	24	20.3	+						17.7S 178.3W, H: 08 05 42.3, h 541 km. Mb 5.0. Fiji Islands region.
HEE: ePKP	08	24	25.5								
18.	HEE: ePKP	14	35	30.0							20.6S 168.4E, H: 14 15 47.8, h N. Mb 4.7. Loyalty Islands.
	e	14	35	50.0							
18.	eL	21	35								38.3S 93.8W, H: 20 33 01.4, h N. Mb 5.1, Ms 4.7. West Chile Rise.
	F			in next shock							
18.	eL	22	08								38.2S 93.7W, H: 21 05 58.5, h N. Mb 5.5, Ms 4.7. West Chile Rise.
	F	22	52								
19.	HEE: i	03	30	42.5							No determination of epicenter.
19.	WIT: ePKP	07	23	49.0	-						24.0S 178.5E, H: 07 05 09.1, h 596 km. Mb 5.5. South of Fiji Islands.
	i	07	23	55.3							
	i	07	23	56.0							
	epPKP	07	26	17.5							
	HEE: ePKP	07	23	52.0							
	i	07	24	00.0							
19.	WIT: ePKP	08	22	00.0							24.1S 178.7E, H: 08 03 13.3, h 601 km Mb 5.1. South of Fiji Islands.
	i	07	24	13.0							
	ipPKP	07	26	21.0							
	F	01	30								
20.	eL	03	19								22.9S 171.8E, H: 02 01 00.7, h N. Mb 5.1, Ms 4.8. Loyalty Islands region.
	F			in next shock							
	WIT: ePKP	02	20	45.0							
	HEE: ePKP	02	20	48.0							
	e	02	20	54.0							
	ePKP	03	29	51							
20.	eL	04	21								23.0S 171.8E, H: 03 10 07.9, h N. Mb 5.2, Ms 5.4. Loyalty Islands region.
	F	05.9									
	WIT: ePKP	03	29	54.0							
	HEE: ePKP	03	29	55.0							
	i	03	30	03.5							
	ePKP	03	29	51							
20.	HEE: ePKP	03	43	55.0							ISC: 22.9S 171.5E, H: 03 23 47, h 60 km. Loyalty Islands Region.
	i	03	43	59.0							
	i	03	44	03.0							
	ePKP	03	44	03.0							

## Seismological Data

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
APRIL 1974	20.	iPKP	08	47	04	-					22.8S 171.9E, H: 08 27 15.4, h N. Mb 5.1, Ms 5.5. Loyalty Islands region.
	eL	09	42								
	F	10.9									
	HEE: ePKP	08	47	04.0							
20.	WIT: eP	16	14	50						42.4N 143.0E, H: 16 02 58.3, h 66 km. Mb 5.1. Hokkaido, Japan region.	
21.	WIT: ePKP	01	01	50.0						20.1S 178.4W, H: 00 43 16.6, h 667 km. Mb 4.6. Fiji Islands region.	
	HEE: iPKP	01	01	54.5							
21.	iPKP	01	13	20	-					22.8S 171.7E, H: 00 53 30.0, h N. Mb 5.3, Ms 5.6. Loyalty Islands region.	
	ePP	01	16	48							
	eL	02.1									
	F	in next shock									
	WIT: ePKP	01	13	19.0							
	HEE: ePKP	01	13	17.0							
21.	eL	02	45							46.2N 145.4E, H: 02 08 02.9, h 28 km Mb 5.3, Ms 5.5. Sea of Okhotsk.	
	F	03.4									
	WIT: eP	02	19	44.0							
	HEE: eP	02	19	55.5							
21.	HEE: ePKP <sub>2</sub>	05	40	39.5						23.0S 171.7E, H: 05 20 47.7, h 47 km. Mb 4.7. Loyalty Islands region.	
22.	eL	01	03		18		5.1	5.8		31.6N 119.2E, H: 00 29 19.8, h N. Mb 5.2, Ms 5.5. Eastern China.	
	F	01	45								
	HEE: eP	00	41	22.5							
22.	eL	03	23							22.9N, 171.8E, H: 02 05 21.7, h 38 km. Mb 5.2. Loyalty Islands region.	
	F	04	21								
	WIT: ePKP	02	25	13							
	HEE: ePKP	02	25	03.5							
22.	eL	15	55							15.1N 45.2W, H: 15 26 41.4, h N. Mb 4.6, Ms 4.0. North Atlantic Ridge.	
	F	16	04								
24.	HEE: iPKP	01	27	47.0	-					16.2S 175.1W, H: 01 08 42.7, h 306 km. Mb 4.8. Tonga Islands.	
25.	eL	00	34							1.0N 30.1E, H: 00 03 49.1, h N. Mb 5.0. Uganda.	
	F	01	00								
	WIT: eP	00	13	21.5							
	HEE: eP	00	13	10.5							

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
APRIL 1974	25.	eL	09	47							17.0S 70.7W, H: 08 56 44.0, h N. Mb 5.3, Ms 4.8. Near Coast of Peru.
		F	10	00							
27.	eS	06	25	40						15.0S 72.2W, H: 06 01 47.3, h 113 km. Mb 5.8. Southern Peru.	
	eL	06	49								
	F	07.4									
	HEE: eP	06	14	54.0	+						
27.	WIT: ePKP	06	37	27.0						17.9S 178.4W, H: 06 18 55.2, h 579 km. Mb 4.5. Fiji Islands region.	
	HEE: iPKP	06	37	33.0	+						
27.	ePKP	07	44	40		8	2.7			26.2S 175.9W, H: 07 24 54.0, h 45 km. Mb 6.1, Ms 5.9. South of Tonga Islands.	
	iPP	07	43	39		20		2.8	6.1		
	eL	08.7									
	F	10.3									
	WIT: iPKP	07	44	41.9							
	i	07	44	50.0	+						
	iPKP	07	45	03.4							
	HEE: iPKP <sub>2</sub>	07	44	46.0	-						
	i	07	44	54.0	+						
	iPKP <sub>2</sub>	07	45	07.5							
28.	eL	04	50							3.9S 104.0W, H: 03 57 49.9, h N. Mb 5.1, Ms 5.3. Northern Easter Island Cordillera.	
	F	05	26								
28.	WIT: ePKP	12	56	10.0						20.8S 177.2W, H: 12 37 00.7, h 319 km. Mb 4.7, Fiji Islands region.	
	HEE: iPKP	12	56	14.0							
28.	HEE: eP	16	34	20.0						34.2N 24.5E, H: 16 29 31.4, h N. Mb 4.3. Crete.	
28.	eL	18	20							22.9S 171.8E, H: 17 00 04.7, h 29 km. Mb 4.9, Ms 5.0, Loyalty Islands region.	
	F	19.0									
	WIT: ePKP	17	19	49.0							
	HEE: ePKP <sub>2</sub>	17	20	00.5							
28.	eL	20	07							No determination of epicenter.	
	F	20	24								
29.	HEE: eP	20	10	38.0						30.5N 31.7E, H: 20 04 39.7, h N. Mb 4.9. United Arab Republic.	

**Seismological Data**

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
APRIL 1974											
29.	HEE: ePKP	21	13	41.0							ISC: 14.2S 179.6W, H: 20 54 14, h 0 km. Fiji Region.
29.	WIT: eP	22	33	04.0							4.8N 76.1W, H: 22 20 52.2, h 87 km. Mb 5.1. Colombia.
	HEE: eP	22	33	01.5							
30.	eL	04	15								15.9N 147.0E, H: 03 20 24.7, h N. Mb 4.8. Mariana Islands region.
	F	04	34								
30.	WIT: iPKP	19	49	51.2	+						20.3S 177.9W, H: 19 31 07.4, h 550 km. Mb 4.3. Fiji Islands region.
	HEE: iPKP	19	49	56.0	+						
	i	19	50	02.5	-						
30.	HEE: ePKP	20	15	15.5							19.7S 169.2E, H: 19 55 52.1, h 158 km. Mb 5.0. New Hebrides Islands.
	i	20	15	48.5	-						

**Seismological Data**

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
MAY 1974											
1.	HEE: iP	15	35	31.5							18.3N 145.2E, H: 15 22 24.7 h 455 km. Mb 5.5. Mariana Islands.
1.	WIT: ePKP	18	54	44.5							23.8S 179.9E, H: 18 35 51.2 h 522 km. Mb 4.8. South of Fiji Islands
2.	eL	04	50								35.0N 141.3E, H: 04 04 55.3 h 42 km. Mb 4.8. Near east coast of Honshu, Japan.
	F	05	15								
2.	eL	06	21								35.2N 141.3E, H: 05 35 31.8, h 14 km. Mb 4.9. Near east coast of Honshu, Japan.
	F	06	48								
2.	eL	22	18								35.1N 141.3E, H: 21 32 41.3, h N. Mb 5.0. Near east coast of Honshu, Japan.
	F	22	39								
	HEE: eP	21	45	19.0							
3.	eL	23	25								35.0N 141.4E, H: 22 40 24.8, h 14 km. Mb 4.5. Near east coast of Honshu, Japan.
	F	23	51								
4.	WIT: ePKP	09	28	50.0							24.8S 178.9E, H: 09 10 01.9 h 545 km. Mb 5.2. South of Fiji Islands.
	i	09	28	55.1	-						
	e	09	29	07.0							
	HEE: ePKP	09	28	45.5							
	e	09	28	58.5							
	e	09	29	14.0							
4.	iPKP	13	05	44	-	6	1.2				13.9S 172.6E, H: 12 47 28.3 h 602 km. Mb 5.5. New Hebrides Islands region
	eSS	13	39	16							
	F	14	21								
	WIT: ePKP	13	05	43.5	+						
	i	13	05	53.0	-						
	i	13	08	33.5	-						
	HEE: iPKP	13	05	49.0	+						
	i	13	08	37.5							
4.	eL	15	23.2								34.8N 5.1E, H: 15 14 11.9, h N. Mb 4.3. Algeria.
	F	15	29								
4.	HEE: eP	18	06	33.0							7.7N 82.6W, H: 17 54 07.0, h N. Mb 5.2. South of Panama
5.	eL	06	18.3								35.0N 4.6E, H: 06 09 19.2, h 30 km Mb 4.1. Algeria
	F	06	26								

en, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
MAY 1974	5.	eL	06	44		20	2.8		5.7	22.3N 121.5E, H:05 57 35.1, h 26 km. Mb 5.5 Taiwan region	
	F	07	16								
	WIT: eP	06	10	17.0							
	HEE: eP	06	10	23.0							
5.	ipKP	08	37	32						17.5S 167.9E, H:08 17 50.3, h 33 km. Mb 5.1, Ms 5.6 New Hebrides Islands.	
	eL	09	33								
	F	10	26								
	HEE: ePKP	08	37	20.0							
5.	eL	15	01							37.7 141.7E, H:14 19 12.0, h 48 km. Mb 5.6. Near east coast of Honshu, Japan	
	F	15	21								
	WIT: iP	14	31								27.8 -
	HEE: iP	14	31								37.0 -
5.	HEE: eP	19	22	29.5						46.2N 149.2E, H:19 10 40.0, h 143 km. Mb 5.1. Kuril Islands.	
6.	eL	11	19							2.6N 125.5E, H:10 25 22.8, h 39 km. Mb 5.0, Ms 5.1. Talaud Islands.	
	F	11	54								
6.	HEE: iPKP	11	57	56.0 +						15.2S 173.4W, H:11 38 19.7, h 13 km. Mb 5.7, Ms 5.2. Tonga Islands.	
6.	eL	23	13							ISC: 39.5N 119.2E, H:22 35 52, h 73 km. Mb 4.1. North-Eastern China.	
	F	23	26								
7.	ePKP	02	44	49		20	5.3		6.3	16.7S 177.3W, H:02 25 10.8, hN. Mb 5.5, Ms 6.0. Fiji Islands region.	
	iZ	02	46	04							
	iZ	02	47	52							
	eSS	03	07	0							
	eL	03	7								
	F	05	5								
	WIT: ePKP	02	44	46.0							
	HEE: iPKP	02	44	48.0 -							
7.	eL	03	32							12.7N 44.5W, H:03 04 57.5, hN. Mb 5.2, Ms 5.8 North Atlantic Ridge.	
	F	05	5								
	WIT: eP	03	14								39.5
	HEE: eP	03	14								33.0
7.	eL	12	35							8.6N 82.5W, H:11 54 32.5, hN. Mb 5.0. Panama-Costa Rica border region.	
	F	12	58								
8.	HEE: iPKP	12	11	00.5						18.0S 178.3W, H:11 52 26.5, h 634 km. Mb 4.5. Fiji Islands region	

**Seismological Data**

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
MAY 1974	8.	iP	23	46	00						34.5N 138.7E, H:23 33 25.2, h 2 km Mb 6.0, Ms 6.5, Near south coast of Honshu, Japan. (27 killed)
	iZ	23	46	09							
	iPP	23	49	10							
	iS	23	56	28							
	iSP	23	57	23							
	iSPP	23	57	56							
	iSS	24	02	00							
	eSSS	24	05	9							
	eL	24	10								
	F	04	0								
	WIT: eP	23	45	56.0 +							
	i	23	46	03.0							
HEE: iP	23	46	05.0								
i	23	46	09.0 -								
9.	ePPS	13	56	56							0.8N 125.9E, H:13 27 37.0, h 18 km. Mb 5.4, Ms 5.3. Molucca Passage.
	eL	14	23								
	F	15	06								
9.	WIT: iPKP	16	27	20.6 +							21.8S 169.7E, H:16 07 43.0, h 35 km. Mb 5.5. Loyalty Islands region.
	HEE: iPKP	16	27	26.0 +							
10.	iPP	00	14	36							46.0S 35.3E, H:23 56 38.0, h N. Mb 5.7, Ms 5.9. Prince Edward Islands region.
	iSKS	00	21	16							
	iSP	00	23	37							
	iSS	00	29	16							
	eL	00	40								
	F	02	5								
10.	WIT: iPKP2	02	23	49.0 +							30.7S 179.6W, H:02 03 46.1, h 227 km. Mb 5.3. Kermadec Islands region
	HEE: iPKP2	02	23	56.5 +							
10.	eL	06	15								27.5N 129.6E, H:05 25 37.3, hN. Mb 5.0 Ryukyu Islands.
	F	06	30								
	WIT: iP	05	38								
10.	ePP	08	30	00							4.4S 102.1W, H:08 12 05.0 hN. Mb 6.1, Ms 6.0. Northern Easter Island Cordillera.
	eSP	08	39	44							
	eSS	08	45	2							
	eSSS	08	49	4							
	eL	09	01								
	F	10	6								



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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
MAY 1974	10.	iP	19	36	49	6	1.6				28.2N 104.0E, H:19 25 15.0, h 11 km. Mb 6.2 Ms 6.8. Szechwan Province, China.
		iS	19	46	16						
		iPPS	19	47	04						
		iSS	19	51	00						
		eSSS	19	54	.2						
		eL	19	58							
	WIT:	eP	19	36	42.5	20	93		7.1		
		i	19	36	50.5						
		i	19	37	04.6						
	HEE:	eP	19	36	49.0						
		i	19	36	57.0						
	11.	11.	iP	00	58	03	20				
ePP			01	02	32						
iSKS			01	08	39						
iSP			01	11	40						
eSS			01	17	.6						
eL			01	36							
WIT:		eP	00	58	00.5		6.4	6.2			
		e	01	01	12.5						
		e	01	01	17.0						
HEE:		eP	00	58	03.0						
		e	01	01	17.0						
11.		11.	iP	06	28	02	20				
	iPP		06	32	12						
	iPPP		06	34	24						
	iPS		06	41	17						
	iSPP		06	42	08						
	eL		07	01							
	WIT:	eP	06	27	57.0		4.3	6.0			
		iP	06	28	05.0						
		ePP	06	32	05.5						
	HEE:	iP	06	28	05.0						
		ePP	06	32	05.5						
	11.	11.	eL	09	28	0					
F			09	32							
11.	11.	ePS	13	29	36	20	3.2		5.9		57.9S 7.3W, H:13 01 05.4, hN. Mb 5.8, Ms 5.9. Southwestern Atlantic Ocean
		eSS	13	39	.5						
		eL	13	47							
		F	15	8							

Seismological Data

Data without indication are from De Bilt; WIT means Witteveen, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms							
		h	m	s			Z	NS	EW									
MAY 1974	11.	WIT:	e	15	34	52.0						No determination of epicenter. BNS: Rockburst supposed.						
			e	15	35	13.0												
		HEE:	i	15	34	52.5												
			i	15	35	07.5												
	11.		eL	19	14							15.2S 166.8E, H:18 05 33.7, h 5 km. Mb 5.2, Ms 5.2. New Hebrides Islands.						
			F	20	10													
	11.		eSKS	21	18	12						1.9N 126.4E, H:20 53 16.0, hN. Mb 5.5, Ms 5.4. Molucca Passage						
			eL	21	46													
			F	22	6													
	12.	HEE:	eP	00	25	26.5						36.7N 27.0E, H:00 20 56.9, h 156km. Mb 4.5. Dodecanese Islands.						
	12.		eSKS	10	29	40						19.6S 69.0W, H:10 05 55.4, h 112 km. Mb 5.8. Northern Chile.						
			eSP	10	31	40												
eL			10	54														
F			11	35														
WIT:			eP	10	19	16.0												
			HEE:	eP	10	19												
12.		eL	12	55							55.9S 26.9W, H:11 47 50.6, hN Mb 5.1, Ms 5.4. South Sandwich Islands region							
		F	13	35														
12.	WIT:	e	19	49	47						48.3N 9.1E, H:19 48 13.3, h 12 km. Germany.							
		HEE:	iPn	19	49							06.0						
			i	19	49							08.5						
			eP*	19	49							15.0						
12.		eL	20	56							2.8N 126.8E, H:19 59 14.7 hN. Mb 5.1 Molucca Passage.							
		F	21	38														
13.	HEE:	eP	02	24	11.0						10.1N 124.1E, H:02 11 29.7, h 592 km. Mb 5.3. Leyte, Philippine Islands.							
13.		eL	12	57							7.3S 155.5E, H:11 52 55.9, h 33 km. Mb 5.6, Ms 5.4. Solomon Islands.							
		F	14	00														

en, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
MAY 1974											
	13.	iP	17	48	48	+	4	0.8			36.5N 70.9E, H:17 40 28.4, h 208 km. Mb 5.5. Hindu Kush region.
		iZ	17	49	44						
		eL	17	59	4						
		F	18	17							
	WIT:	eP	17	48	40.0						
	HEE:	eP	17	48	45.0	+					
	ipP	17	49	30.0							
	e	17	49	51.0							
13.	eP	19	08	32							6.7S 102.6E, H:18 54 32.2, hN. Mb 5.6. Southwest of Sumatra.
	ePP	19	12	28							
	eSKS	19	18	58							
	eS	19	19	50							
	ePS	19	21	25							
	eL	19	51								
	F	21	6								
14.	i	03	51	32							Local shock?
	F	03	52	30							
15	eL	13	52								52.4N 168.8W, H:13 04 04.1, h 44 km Mb 5.0, Ms 4.5. Fox Islands, Aleutian Islands.
	F	14	43								
15.	iP	19	11	36	+	8	2.8				50.0N 156.1E, H:18 59 55.9, h 56 km. Mb 6.1. Kuril Islands.
	ipP	19	14	20							
	iS	19	21	12							
	eSS	19	26	0							
	eL	19	33			19			35	6.7	
	F	in next shock									
WIT:	eP	19	11	29.0	+						
	i	19	11	30.5	-						
HEE:	iP	19	11	40.0	+						
	i	19	11	45.0							
15.	HEE:	eP	19	37	45.0						27.4N 44.4W, H:19 29 32.2, hN Mb 5.2. North Atlantic Ridge.
15	eL	21	15								No determination of epicenter.
	F	23	4								

Seismological Data

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
MAY 1974											
	16.	WIT: eP	03	11	01.5	+					
	HEE: iP	03	11	12.0							49.7N 78.2E, H:03 02 57.3 h 0 km. Mb 5.3. Eastern Kazakh SSR.
16.	HEE:	iPKP	05	38	36.0	-					18.5S 169.0E, H:05 19 23.9 h 225 km, Mb 4.4. New Hebrides.
16.		eL	20	49							27.2N 140.1E, H:20 00 01.5, h 471 km. Mb 5.3. Bonin Islands region.
		F	21	12							
	WIT:	eP	20	12	13.5						
	HEE:	eP	20	12	21.0						
16.		eP	23	20	05						11.2N 86.0W, H:23 07 46.6, h 36 km. Mb 5.5, Ms 5.6. Near coast of Nicaragua
		ePPS	23	31	25						
		eL	23	43		20			5.0	5.8	
		F	01	10							
	HEE:	epP	23	20	23.0						
17.	WIT:	eP	13	53	25.5	-					36.5N 70.9E, H:13 45 13.8, h 208 km. Mb 5.3. Hindu Kush region
	HEE:	eP	13	53	30.5	-					
17.		iP	14	31	47	-	4	0.8			64.7N 21.2W, H:14 27 32.0 hN. Mb 5.0. Iceland.
		eL	14	37.2		18			2.4	4.5	
		F	14	51							
	WIT:	eP	14	31	48.5						
	HEE:	iP	14	32	01.0						
17.		iP	15	35	09	-	5	0.9			11.2S 75.1W, H:15 22 07.4, h 111 km. Mb 6.0. Peru.
		ipP	15	35	39	+					
		iZ	15	35	51	+					
		iSKS	15	45	35						
		eL	16	06							
		F	16	51							
	WIT:	eP	15	35	15.0	+					
		ipP	15	35	43.5	-					
	HEE:	eP	15	35	10.5						
		e	15	35	16.5						
		ipP	15	35	39.0	+					
17.		iP	17	24	36		6	0.8			25.1N 125.6E, H:17 11 50.8, h 18 km Mb 5.8. Ms 5.6. Southwestern Ryukyu Islands
		ePS	17	36	32						
		eL	17	57		20			10.6	6.3	
		F	19	5							
	WIT:	iP	17	24	32.6						
	HEE:	iP	17	24	39.0						

en, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
MAY 1974	17.	eP	21	08	53	+					6.5S 106.8E, H:2055 11.2, h 131 km. Mb 6.0. Java
	ipP	21	09	28							
	iSKS	21	19	20							
	iS	21	20	24							
	iH	21	21	21							
	iSP	21	21	52							
	iSS	21	27	26							
	eL	21	41								
	F	22.9									
	WIT: eP	21	08	49.5							
	e	21	21	44.0							
	HEE: eP	21	08	52.5							
e	21	21	51.0								
17.	WIT: ePKP	23	25	46.0						26.1S 179.5W, H:23 06 44.1, h 494 km. Mb 5.3. South of Fiji Islands.	
HEE: e	23	26	07.5								
18.	eP	23	44	12						BCIS; 64.8N 21.7W, H: 23 39 52, Iceland	
	eL	23	49.3								
	F	24	06								
	WIT: eP	23	44	11.5							
HEE: eP	23	44	23.5								
19.	HEE: e	08	15	56.0						No determination of epicenter. 35.5N 26.3E, H:22 01 09.4 h 83 km. Mb 4.9. Crete.	
19.	iP	22	06	03	+						
	eH	22	10	16							
	eL	22	13.4								
	F	22	24								
	WIT: eP	22	05	59.5							
	HEE: iP	22	05	50.5	+						
	e	22	06	00.5							
20.	HEE: ePn	04	19	50.0						49.8N 7.7E H:04 19 25.2, h 25 km. Germany.	
	i	04	19	53.5							
	iSn	04	20	09.0							
21.	WIT: iPKP	05	06	24.0	+					21.2S 178.7W, H:04 47 40.7, h 571 km. Mb 5.2. Fiji Islands region.	
	HEE: ePKP	05	06	29.0							
	i	05	06	37.0	+						
21.	HEE: i	07	43	30						47.7N 7.7E, H:07 42 35.7, h N. Switzerland.	
	i	07	43	44.0							

Seismological Data

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
MAY 1974	21.	WIT: e	20	07	23.0						No determination of epicenter. No determination of epicenter. 27.3N 44.4W, H:11 08 24.8, hN. Mb 5.1, Ms 5.0. North Atlantic Ridge. 18.1S 177.8W, H:17 24 02.1, h 450 km. Mb 4.7 Fiji Islands region. 53.1N 159.8E, H:20 26 34.9, hN. Mb 5.0 Near east coast of Kamchatka. 71.0N 20.9W, H:20 13 30.0, hN. Mb 4.7. Eastern Greenland. 17.7S 167.8E, H:01 32 11.2, h 13 km. Mb 5.8, Ms 6.0. New Hebrides Islands. 17.8S 167.5E, H:02 15 26.4, h 31 km. Mb 5.2. New Hebrides Islands. 17.6S 167.6E, H:05 37 43.4, h 17 km Mb 4.9. New Hebrides Islands. 20.8S 178.5W, H:05 47 36.9, h 565 km. Mb 5.7. Fiji Islands region. 17.3S 167.1E, H:05 52 40.2, h 53 km. Mb 5.5 New Hebrides Islands.
	23.	eL	08	10							
		F	09.2								
	23.	eS	11	23	20						
		eL	11	28							
		F	12	16							
		HEE: eP	11	16	42.5						
	23.	WIT: iPKP	17	42	49.0	-					
		HEE: iPKP	17	42	54.5	+					
	24.	WIT: eP	20	37	59.0						
		HEE: iP	20	38	10.0	-					
	25.	HEE: eP	20	18	39.5	-					
26.		iPKP	01	51	43	+					
	ePP	01	55	04							
	eSS	02	13	46							
	eSSS	02	19	00		20	3.9	6.2			
	eL	02	40								
	F	04.8									
	WIT: ePKP	01	51	44							
	HEE: iPKP	01	51	46.0							
	e	01	56	19.5							
26.	HEE: ePKP	02	34	59.5							
26.	HEE: ePKP	05	57	17.5							
26.	WIT: iPKP	06	06	19.8	-						
	HEE: iPKP	06	06	24.0	-						
	i	06	06	31.5	+						
	i	06	08	01.5							
26.	HEE: ePKP	06	12	12.0							

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
MAY 1974											
26.	HEE: iPKP e	07 35 18.0 07 35 27.0									17.7S 167.8E, H:07 15 44.4, h 27 km. Mb 4.7. New Hebrides Islands.
26.	HEE: iPKP	08 34 24.5	-								17.7S 167.7E, H:08 14 50.0, h 8 km. Mb 5.1. New Hebrides Islands.
26.	HEE: ePKP	10 22 15.0									17.7S 167.8E, H:10 02 42.1, h 27 km. Mb 5.0. New Hebrides Islands.
26.	HEE: iPKP e	11 43 48.0 11 43 58.0									17.7S 167.7E, H:11 24 14.0, h 19 km. Mb 4.6. New Hebrides Islands.
26.	eL F HEE: eP	13 17.5 13 26 13 10 54.0									37.5N 21.1E, H:13 06 53.3, h 57 km. Mb 4.2. Southern Greece.
27.	iP ePP iS eSS eL F WIT: eP HEE: iP e	04 53 01 04 55 48 05 02 36 05 07 20 05 18.5 06 34 04 52 55.0 04 53 06.0 04 53 25.0	+	6	1.2						50.8N 157.3E, H:04 41 23.6, h 47 km. Mb 5.6, Ms 5.5. Kuril Islands.
27.	HEE: iP e	05 13 48.0 05 14 00.0	+			6.8		5.9			17.3N 98.9W, H:05 01 11.3, h 50 km. Mb 5.3. Gerrero, Mexico.
27.	eL F	11 29 12 19									8.5N 123.2E, H:10 37 05.8, h 35 km. Mb 5.2. Mindanao, Philippine Islands.
27.	eP eL F WIT: iP	14 12 28 14 37 15 16 14 12 24.9									60.3N 146.0W, H:14 01 43.5, h 21 km. Mb 5.5, Ms 5.7. Southern Alaska.
28.	WIT: ePKP2 HEE: iPKP2	03 15 33.5 03 15 41.0									31.8S 179.4E, H:02 55 50.9, h 450 km. Mb 5.0. Kermadec Islands region.
28.											Station Heerlen (HEE) Not operative from May 28-August 9, 1974.

Seismological Data

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms	
		h	m	s			Z	NS	EW			
MAY 1974												
29.	eL F	07 42.5 07 48									41.3N 29.5W, H:07 29 47.9, hN. Mb 4.5, Ms 4.3. Azores Islands region.	
30.	eL F	01 36 01 46									49.1N 128.4W, H:00 59 56.1, hN. Mb 4.8, Ms 4.2. Vancouver Island region.	
31.	WIT: iP ePcP	03 35 03.7 03 36 47.5	+								50.0N 78.8E, H:03 26 57.4, h 0 km. Mb 5.9. Eastern Kazakh SSR.	
31.	eL F	03 55 04 29									53.6N 163.8W, H:03 13 10.7, hN. Mb 4.8, Ms 4.6. Unimak Island region.	
31.	eL F	09 01 09 50									14.7S 177.3W, H:07 43 38.6, hN. Mb 5.0, Ms 5.4. Fiji Islands region.	
31	WIT: iP	09 22 02.5	+								53.0N 160.1E, H:09 10 37.9, hN. Mb 5.1, Ms 4.4. Near east coast of Kamchatka.	
31.	iP iS iSS iSSS eL F WIT: eP	14 17 32 14 27 52 14 33 24 14 36 49 14 41 17.4 14 17 29	+	4	1.1				18	20.0	6.5	27.2N 111.2W, H:14 04 59.9, hN. Mb 5.3, Ms 6.3. Gulf of California.

en, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
JUNE 1974	1.	iP	20	27	37						55.3N 35.3W, H:20 22 23.0 hN. Mb 4.7. North Atlantic Ocean
		eS	20	32	30						
		eL	20	33.9							
		F	20	47							
	2.	eL	16	53		20			2.7	5.8	2.7N 125.3E, H:15 59 51.4, hN. Mb 5.4, Ms 5.5. Talaud Islands.
		F	17.7								
	2.	WIT: ePKP	22	46	59.0						22.9S 179.8W, H:22 28 11.5, h 577 km. Mb 4.8. South of Fiji Islands.
	2.	WIT: eP	23	16	01.5	-					5.3N 76.9W, H:23 03 46.2, h 64 km Mb 5.2. Colombia.
	3.	eL	07	28							15.4S 173.3W, H: 06 14 38.5, hN Mb 5.4, Ms 5.0. Tonga Islands.
		F	07	50							
	3.	eL	12	05							36.9N 71.4E, H:11 45 36.2, h 100 km. Mb 5.3. Afghanistan-USSR border region.
		F	12	21							
		WIT: eP	11	54	02.0						
	4.	eL	03	21.5							No determination of epi- center.
		F	03	30							
	4.	iPKP	04	33	16	-	8	4.8			15.8S 175.1W, H:04 14 15.9, h 276 km. Mb 6.0. Tonga Islands.
		ipPKP	04	34	25	+					
		iPP	04	36	36						
		ipPP	04	37	52						
		iSS	04	54	40						
		iH	04	56	32						
		F	07.2								
		WIT: ePKP	04	33	15.5						
		ipPKP	04	34	32.0						
		iPP	04	36	33.5						
	4.	eL	15	38							10.8N 42.6W, H:15 14 03.4, hN. Mb 5.0, Ms 5.0 North Atlantic Ridge.
		F	16	05							
	5.	eL	00	36							29.4N 99.5E, H:00 02 10.8, hN. Mb 5.1. Szechwan Province, China.
		F	01	18							
		WIT: eP	00	13	17						
	6.	eL	19	16							2.9S 149.1E, H:18 15 33.4, h 37 km Mb 5.3, Ms 5.7. New Ireland region
		F	20.8								

## Seismological Data

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms	
		h	m	s			Z	NS	EW			
JUNE 1974	7.	eL	08	04		20			3.2		6.1	15.4S 175.3W, H:06 47 36.3, hN. Mb 5.2, Ms 6.0. Tonga Islands.
		F	09.0									
	7.	eP	23	01	17							5.7N 82.6W, H:22 48 48.5, hN. Mb 5.4, Ms 5.9. South of Panama.
		eS	23	11.9								
		eSS	23	17.3		20			3.6		5.8	
		eL	23	26								
		F	24.5									
		WIT: eP	23	01	29							
	8.	eL	18	18								7.2S 155.1E, H:17 15 25.1, h 33 km. Mb 5.1, Ms 5.3. Solomon Islands.
		F	19	46								
	9.	eL	04	14								16.5S 172.7W, H:03 01 33.4, hN. Mb 5.1, Ms 5.1. Samoa Islands region.
		F	05	32								
	9.	eP	10	54	29							5.8S 80.9W, H:10 41 22.1, h 52 km. Mb 5.1 Near coast of northern Peru.
		eL	11	25								
		F	12	07								
	9.	iP	14	29	11	+						5.8S 81.0W, H:14 16 03.7, h 50 km. Mb 5.7. Near coast of northern Peru.
		eL	14	59								
		F	16.2									
		WIT: eP	14	29	15							
10.	eL	10	33.1								44.7N 28.3W, H:10 20 58.2, hN. Mb 4.3. North Atlantic Ridge.	
	F	10	38									
11.	eL	23	37								29.9S 178.5W, H:22 15 12.5, h 16 km. Mb 4.7, Ms 5.3. Kermadec Islands.	
	F	24	30									
12.	eL	16	19								64.9N 20.8W, H:16 08 58.7, h 16 km. Mb 4.8. Iceland.	
	F	16	25									
12.	iP	16	36	49		4	1.5				10.6N 63.4W, H:16 25 47.6, h 34 km. Mb 5.7, Ms 6.1. Near coast of Venezuela. (3 killed).	
	eS	16	45	56		20			8.5	6.0		
	eL	16	55.0									
	F	in next shock										
	WIT: eP	16	36	57.0								
12.	iP	17	59	24	-	8	3.4				64.8N 21.0W, H:17 55 08.7, h 13 km. Mb 5.5, Ms 5.3. Iceland.	
	iZ	17	59	30	+							
	eS	18	03	06								
	eL	18	04.3			20			23.0	5.6		
	F	19.6										
	WIT: eP	17	59	27.0	-							
	i	17	59	41.0	+							

en, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
JUNE 1974											
12.	WIT: ePKP	22	24	36.0							17.8S 178.4W, H:22 06 00.0 h 555 km. Mb 4.8. Fiji Islands region.
14.	eL F	14 15	21 10								60.6S 37.6W, H:13 24 40.9, h N.Mb 5.4, Ms 5.6. Scotia Sea.
14.	WIT: ePKP	18	58	01.0							22.1S 179.7W, H:18 39 18.8, h 603 km. Mb 5.1. South of Fiji Islands.
15.	eL F	01 01	08 14								42.9N 45.2E, H:00 52 05.9, h 45 km. Mb 4.7. Eastern Caucasus.
15.	eS eL F WIT: eP e ipP	02 03 03 02 02 02	58 17 31 48 49 49	16   50.0 21.0 24.0							52.3N 178.8E, H:02 37 13.8, h 157 km Mb 5.7. Rat Islands, Aleutian Islands.
15.	ip eL F WIT: ip	07 07 08 07	14 40 28 14	29   23.1	+	20	2.1	5.4			28.3N 104.0E, H:07 03 00.2, h 39 km. Mb 5.5, Ms 5.3. Szechwan Province, China.
15.	eL F	10 11	57.0 05								No determination of epi- center.
15.	eL F	15 15	06 21								28.3N 104.0E, H:14 27 29.3 h 10 km. Mb 5.2 Szechwan Province, China.
17.	eL F WIT: eP	02 03 02	59 23 30	14.0							48.2N 154.4E, H:02 18 29.5, h N. Mb 5.1, Ms 4.3. Kuril Islands.
17.	eL F	06 06	31 42								No determination of epi- center.
17.	eL F	19 19	35.5 41								38.7N 17.8E, H:19 25 52.8 h N. Mb 3.8. Southern Italy.
18.	eP eL F	08 08 08	30 36.0 45	20							38.5N 20.4E, H:08 26 12.9, h N. Mb 4.8, Ms 4.4. Greece.
19.	eL F	03 04	42 3								33.4S 56.9E, H:02 55 19.7, h N. Mb 5.0, Ms 6.6. Atlantic-Indian Rise.

Seismological Data

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms	
		h	m	s			Z	NS	EW			
JUNE 1974												
19.	WIT: e	08	57	12.5	-						No determination of epi- center.	
20.	eL F	03 03	14 29								3.1N 31.3W, H:02 44 19.8, hN Mb 5.0, Ms 4.2. Central Mid-Atlantic Ridge.	
20.	eL F WIT: eP eL	09 09 09 09	34.5 46 31 35.0								44.4N 17.7E H:09 28 33.4, h N. Mb 5.1 Yugoslavia.	
20.	eL F WIT: e i e eL	17 17 17 17 17	13.3 29 11 11 11 13.5								46.0N 15.5E, H:17 08 27.3, h 47 km Mb 4.5. Yugoslavia.	
20.	eL F WIT: e eL	22 22 22 22	31.2 39 28 31.5	46.0							46.1N 15.5E, H:22 26 31.8, h N. Mb 4.4. Yugoslavia.	
20.	eL F	23 23	30 51								18.3N 121.1E, H:22 40 06.7, h N Mb 5.0. Luzon, Philippine Islands.	
21.	eL F	06 07	41 00								18.9N 67.0W, H:06 10 48.1, h 46 km. Mb 4.9, Ms 4.0. Mona Passage.	
21.	eL F	08 09	57.5 16		18				1.7	4.5	57.8N 32.6W, H:08 46 45.0 h N. Mb 4.8, Ms 4.4. North Atlantic Ocean.	
21.	eL F	21 21	28 51								56.5N 117.3E, H:20 56 48.7, h N Mb 5.3, Ms 4.5. East of Lake Baikal.	
22.	ePP eSS eL F WIT: ePKP	08 08 09 09 08	33 50.5 12 10.5 31	28   48.0		20				1.8	5.7	22.1S 113.6W, H:08 12 47.5 hN Mb 5.9, Ms 5.7. Easter Island region.
22.	eL F WIT: ipKP	11 11 10	18 31 19	38.0	-							20.8S 174.4W, H:09 59 53.0, h N Mb 5.1, Ms 4.9. Tonga Islands.

en, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
JUNE 1974											
22.	eL F WIT: eP	23	38.9								41.3N 23.0E, H:23 30 15.0, h N. Mb 5.1, Ms 4.4. Greece -Bulgaria border re- gion
23.	eL F WIT: iPKP	07	26								7.0S 155.8E, H:06 20 50.3, h 70 km. Mb 5.5. Solomon Islands.
24.	iPP iPPP iSP eSS eL F	20	53 38								55.8S 27.5W, H:20 34 35.4, h 80 km. Mb 6.0. South Sandwich Islands region
24,	eL F	22	32		20		3.2		5.9		in next shock
24,	eL F	22	32		20		2.7		5.8		2.3S 141.1E, H:21 35 09.8, h N. Mb 5.7. Ms 5.6. Near north coast of New Guinea.
25.	eP eS eL F WIT: iP	05	13 32								15.5N 95.4W, H:05 00 58.9 h 25 km. Mb 5.3, Ms 4.9. Near coast of Oaxaca, Mexico
25.	eL F	06	19								54.6S 131.6W, H:05 05 19.0, h N Mb 6.1, Ms 5.7. South Pacific cordillera.
25.	iP ipP iS eL F WIT: eP epP	08	57 18	+							15.4N 95.5W, H:08 44 45.3 h 30 km. Mb 5.6, Ms 5.0. Near coast of Oaxaca, Mexico.
25.	eP iPP iSKS eS iSP iSPP eSS eSSS eL F	17	36 22								26.1S 84.3E, H:17 22 19.3. h N. Mb 6.2, Ms 6.6. South Indian Ocean.
					20			21.5	6.7		

Seismological Data

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
JUNE 1974											
25.	iP iS eL F WIT: eP	22	27 44								64.6N 17.7W, H:22 23 46.2 h N. Mb 5.1, Ms 5.2. Iceland.
26.	ePS eSS eL F	14	14 28								36.6S 98.2W, H:13 43 35.3, h N. Mb 5.4, Ms 5.6. Southern Pacific Ocean.
26.	eS eL F	19	01 00		22			2.7	5.9		10.7N 44.0W, H:18 43 16.5, h N. Mb 4.7. North Atlantic Ridge.
26.	WIT: ePKP i epPKP	23	52 14.0	+							23.9S 179.2E, H:23 33 28.7, h 551 km. Mb 5.4. South of Fiji Islands.
27.	iP eS iSP eL F WIT: eP e	02	01 48	-	4			1.0			33.8N 139.2E, H:01 49 08.1, h 16 km. Mb 5.7, Ms 5.9. South of Honshu, Japan,
27.	WIT: ePKP	02	08 47.0								18.1S 177.9W, H:01 50 11.2, h 591 km. Mb 4.8. Fiji Islands region.
27.	eL F	05	32								32.3N 132.2E, H:04 49 15.5, h 39 km. Mb 5.0. Shikoku, Japan.
27.	ePP eSP eL F WIT: iPKP	08	07 02								4.7S 152.5E, H:07 46 11.9, h 70 km. Mb 6.1. New Britain region.
27.	eL F	13	40								6.6S 154.7E, H:12 29 08.4, h 50 km Mb 5.1, Ms 5.4. Solomon Islands.
27.	WIT: eP	19	04 40.5								10.5N 92.8E, H:18 52 36.2, h N. Mb 5.3. Andaman Islands region.

n, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
JUNE 1974											
27.	eL F	23	22								1.7N 30.8W, H:22 51 09.2, hN. Mb 5.3, Ms 5.0. Central Mid-Atlantic Ridge.
28.	eL F	03	46								33.3S 178.5W, H:02 32 50.3, h 38 km. Mb 5.0. South of Kermadec Islands.
28.	WIT: ePn iPg iSn	05	30	06.5							51.6N 7.8E, H:05 29 39.5, h 1 km Rockburst. Germany. (4 miners killed).
28.	eP eL F WIT: eP	11	13	22		18			4.1	4.7	36.6N 5.3E, H:11 09 40.3, hN. Mb 5.0, Ms 4.8. Algeria
29.	eP eL F WIT: e	01	10	40	-	18			2.4	4.4	36.7N 5.2E, H:01 06 58.6, hN. Mb 4.7, Ms 4.5. Algeria.
30.	ePKP eL F WIT: ePKP	08	53	15	-						18.0S 168.3E, H:08 33 46.5, h 61 km. Mb 5.7. New Hebrides Islands.
30.	eL F WIT: ePKP	19	04								7.1S 155.8E, H:17 55 44.4, h 53 km. Mb 5.3. Solomon Islands.

Seismological Data

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms	
		h	m	s			Z	NS	EW			
July 1974												
1.	e(Sg) F WIT: ePn iPg iSn eSg	01	28	13							49.4N 6.0E, H: 01 26 38.0, h 0 km. Mb 4.3. Rockburst. France.	
1.	WIT: iPKP	06	42	34.8	+						ISC: 17.9S 178.6W, H: 06 23 02.5, h 33 km, Mb 5.0. Fiji Region.	
1.	eL F	17	39			20				6.0	6.1	22.1S 64.7W, H:16 51 51.5, h 13 km. Mb 5.5, Ms 5.9. Salta Province, Argentina.
1.	eP eL F WIT: eP	23	22	58		18				2.7	5.6	22.6S 10.7W, H:23 11 14.5, h N. Mb 5.6, Ms 5.6. South Atlantic Ridge.
2.	eL F	08	36									54.1S 140.2E, H:07 15 46.1, h N. Mb 5.4, Ms 5.3. West of Macquarie Island.
2.	eL F	17	06.5			20				1.8	5.0	42.2N 75.6E, H:16 41 05.8, h N. Mb 5.0. Alma-Ata region.
2.	eL F	20	25									16.0S 75.1W, H:19 34 10.4, h N. Mb 4.8, Ms 4.8. Off coast of Peru.
2.	iPKP iPKS iSKKS iSS eSSS eL F WIT: ePKP	23	46	22	+	8				9.6		29.1S 176.0W, H:23 26 26.6, h N. Mb 6.8, Ms 7.2. Kermadec Islands region.
3.	eL F	04	07									No determination of epi- center.
3.	eL F	05	38			18				1.7	5.4	40.4N 125.1W, H:05 00 58.6, h 12 km. Mb 5.4, Ms 5.2. Off coast of Northern Cali- fornia.



n, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms		
		h	m	s			Z	NS	EW				
July 1974	3.	iPKP	23	45	03	-	10	3.8			29.1S 176.1W, H:23 25 09.3, h N. Mb 6.2, Ms 6.6. Kermadec Islands region.		
		iZ	23	45	34								
		iPP	23	49	10								
		iSKKS	23	59	35								
		iSPP	24	02	28								
		eSS	24	08.7									
		eL	24	41									
F	02.9			20	6.4	6.5							
WIT:ePKP	23	45	05.0										
e	23	45	12.5										
4.	4.	iP	19	40	25						45.1N 94.0E, H:19 30 42.1, h N. Mb 6.1, Ms 6.7. Mongolia.		
		iPP	19	42	27								
		iS	19	48	00								
		iSS	19	51	53								
		eL	19	56.5									
		F	22.5										
		WIT:iP	19	40	09.3								
i	19	40	16.4										
4.	4.	eL	23	34							No determination of epicenter.		
		F	24.4										
5.	5.	eL	06	05							44.8S 80.0W, H:04 58 55.4, h N. Mb 5.2, Ms 5.1. Off coast of Southern Chile.		
		F	06	24									
6.	6.	eL	15	48							60.8S 38.1W, H:14 51 23.6, h N. Mb 5.6, Ms 5.5. Scotia Sea.		
		F	16	23									
7.	7.	WIT:eP	13	05	08.0	+					46.6N 152.7E, H:12 53 17.3, h 33 km. Mb 5.2. Kuril Islands.		
8.	8.	iP	05	58	04	+	6	2.6			36.4N 141.1E, H:05 45 37.0, h 35 km. Mb 6.0, Ms 6.0. Near east coast of Honshu, Japan.		
		iPP	06	01	16								
		eS	06	08	24								
		eSS	06	14	00								
		eL	06	25									
		F	08.5										
		WIT:iP	05	57	59.0								
i	05	58	11.0										
8.	8.	WIT:iP	12	21	15.0	+					52.6N 158.8E, H:12 09 52.4, h 60 km. Mb. 4.8. Near east coast of Kamchatka.		
9.	9.	eL	02	44.0							36.7N 28.4E, H:02 32 17.6, h 69 km. Mb 5.0. Dodecanese Islands.		
		F	02	53									
		WIT:eP	02	37								09	
9.	9.	eL	17	00							28.2N 103.9E H:16 20 29.5, h 33 km. Mb 5.2. Szechwan Province, China.		
		F	17	14									

Seismological Data

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms	
		h	m	s			Z	NS	EW			
July 1974	9.	eL	18	14							14.6N 81.8W, H:17 37 21.9, h N. Mb 5.0, Ms 4.9. Caribbean Sea.	
		F	18	48								
10.	WIT:ep	03	05	02.0							49.8N 78.1E, H:02 56 57.5, h 0 km. Mb 5.3. Eastern Kazakh SSR.	
10.	WIT:iP	16	12	00.5	+						37.1N 116.0W, H:16 00 00.1, h 0 km. Mb 5.7. Southern Nevada.	
11.	11.	eL	06	40							13.1N 145.4E, H:05 34 22.1, h 53 km. Mb 5.3. Mariana Islands.	
		F	06	56								
11.	11.	iP	18	00	51						71.6N 4.1W, H:17 56 18.5, h N. Mb 5.0. Jan Mayen Island region.	
		eL	18	06.0								
		F	18	24								
13.	13.	iP	01	30	32	+	8	18.6			7.7N 77.7W, H:01 18 22.8, h 12 km. Mb 6.4, Ms 7.3. Panama-Colombia border region. (11 Fatalities)	
		iZ	01	30	50							
		iS	01	40	36							
		eSS	01	46.0								
		eL	01	52								
		F	06.6									
WIT:eP	01	30	36.5									
i	01	30	37.4									
i	01	30	53.3									
13.	13.	WIT:iP	01	43	08.6	+					7.5N 77.8W, H:01 30 56.8, h N. Mb 5.4. Panama-Colombia border region.	
		i	01	43	12.6							
		e	01	43	42.5							
13.	13.	WIT:eP	01	52	15						6.9N 77.9W, H:01 39 59.3, h 21 km. Mb 5.2. Near West coast of Colombia.	
		epP	01	52	21.5							
13.	WIT:eP	02	08	51.5							7.6N 77.8W, H:01 56 39.9, h N. Mb 4.8. Panama-Colombia border region.	
13.	13.	WIT:eP	02	19	26						7.6N 77.7W, H:02 07 13.1, h 24 km. Mb 5.3. Panama-Colombia border region.	
		epP	02	19	30.5							
13.	WIT:eP	02	24	50.5							7.6N 77.7W, H:02 12 39.6, h N. Mb 5.0. Panama-Colombia border region.	
13.	WIT:eP	02	27	04							7.5N 77.7W, H:02 14 54.0, h 23 km. Mb 5.2. Panama-Colombia border region.	

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
July 1974											
13.	WIT:eP	02	32	33.5	+						7.4N 77.7W, H:02 20 22.8, h 45 km. Mb 5.5 Panama-Colombia border region.
13.	WIT:eP epP	04 04	03 03	16.0 23.5							7.7N 77.7W, H:03 51 04.0, h 23 km. Mb 5.0. Panama-Colombia border region.
13.	WIT:eP	10	33	38.0	-						7.7N 77.6W, H:10 21 24.3, h 12 km. Mb 4.9. Panama-Colombia border region.
13.	WIT:iP	10	50	33.5							26.5N 125.7E, H:10 38 06.8. h 97 km. Mb 5.1. Northeast of Taiwan.
13.	WIT:eP	12	59	52.5							7.7N 77.5W, H:12 47 39.6, h 29 km. Mb 4.9, Ms 4.2. Panama-Colombia border region.
13.	eL F WIT:eP	13 14 13	39 14	09.5							7.5N 77.6W, H:13 00 53.3, h N Mb 4.9, Ms 4.6. Panama-Colombia border region.
13.	eL F	16 16	04.4 36			18			3.0	4.5	36.0N 4.8E, H:15 57 25.2, h 37 km. Mb 4.8. Algeria.
13.	WIT:iP	16	28	08.9	-						7.8N 77.6W, H:16 15 56.0, h 18 km. Mb 4.9. Panama-Colombia border region.
13.	iP eS eL F	18 18 18	10 20 36	52 56	+	4	0.8				7.7N 77.7W, H:17 58 41.4, h 5 km. Mb 5.4, Ms 5.7. Panama-Colombia border region.
13.	WIT:iP	23	20	59.7	+						7.5N 77.6W, H:23 11 27.8, h 28 km. Mb 5.3, Ms 4.4. Panama-Colombia border region.
14.	WIT:eP	02	00	54.5	+						7.8N 77.6W, H:01 48 43.6, h 26 km. Mb 5.2, Ms 4.5. Panama-Colombia border region.
14.	iP eL F WIT:eP i	02 02 02 02	26 46	00 03.8 03.5 09.5	+						7.7N 77.6W, H:02 13 50.4, h 15 km. Mb 5.9, Ms 5.0. Panama-Colombia border region.
15.	WIT:eP	23	23	41.0	-						7.5N 77.6W, H:23 11 27.8, h 28 km. Mb 5.3, Ms 4.4. Panama-Colombia border region.

Seismological Data

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms	
		h	m	s			Z	NS	EW			
July 1974												
17.	e F WIT:iP	05 05	15 25	52							45.8N 26.5E, H:05 09 23.0, h 145 km. Mb 5.1. Rumania.	
17.	eL F	05 08	12 18	49.0	+						56.3S 27.5W, H:07 19 53.7, h N. Mb 5.4, Ms 4.9. South Sandwich Islands region.	
17.	eL F	10 11	50 04								27.5S 70.9W, H:09 54 16.4, h N. Mb 5.2, Ms 4.7. Near coast of Northern Chile.	
18.	eL F	03 04	53 12								41.6S 86.1W, H:02 46 07.5, h N. Mb 4.6, Ms 4.9. West Chile Rise.	
18.	ePKP iZ ePP eSS eL F WIT:ePKP	11 11 11 11 12 13 11	24 24 27 45.5 11 39	15 28 42		20				2.1	5.9	15.2S 173.6W, H:11 04 43.2, h N. Mb 5.9, Ms 5.8. Tonga Islands.
18.	ePP eL F	18 19 20	50 29	14 55		20				1.8	5.7	45.8S 76.3W, H:18 29 50.7, h N. Mb 5.1, Ms 5.4. Off coast of Southern Chile.
18.	WIT:iP	19	33	59.9	+						17.1N 98.4W, H:19 21 24.6, h 48 km. Mb 5.6, Ms 5.2. Guerrero, Mexico.	
18.	WIT:iPKP	23	30	58.0							20.7S 178.4W, H:23 12 18.4, h 600km. Mb 4.6. Fiji Islands region.	
19.	eL F	00 01	24 08								31.3S 177.7W, H:22 59 01.6, h N. Mb 5.0, Ms 5.2. Kermadec Islands region.	
19.	eL F	02 03	59 25								32.8S 71.7W, H:02 02 51.3, h 44 km. Mb 5.2, Ms 4.5. Near coast of Central Chile.	
19.	WIT:iPKP	18	04	29.9							6.1S 154.9E, H:17 45 43.9, h 157 km. Mb 5.7. Solomon Islands.	
20.	eL F	20 21	28 00								0.8S 127.4E, H:19 30 13.8, h N. Mb 5.2, Ms 4.9. Halmahera.	

n, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
21. 1974	iP	08	40	56	+					14.3N 92.1W, H:08 28 35.3, h 70 km. Mb 5.3. Near coast of Chiapas, Mexico.	
	eS	08	51	13							
	eL	09	07								
	F	09.9									
	WIT:eP	08	41	03.0							
21.	eL	22	23							11.6N 86.1W, H:21 41 58.1, h 78 km. Mb 5.0. Near coast of Nicaragua.	
	F	22	48								
21.	eL	23	11							11.3N 86.1W, H:22 33 38.2, h 87 km. Mb 5.2. Near coast of Nicaragua.	
	F	23	54								
22.	eL	16	38							12.8N 71.1W, H:16 03 30.4, h N. Mb 4.6, Ms 4.7. Near north coast of Colombia.	
	F	16	50								
23.	WIT:ePKP	00	47	58.0						20.7S 174.3W, H:00 28 13.3, h N Mb 5.0, Ms 5.0. Tonga Islands.	
	e	00	48	08.5							
23.	WIT:ePKP	07	04	43.0						16.6S 173.6W, H:06 45 12.6, h 46 km. Mb 5.5, Ms 4.3. Tonga Islands.	
23.	WIT:iPKP	11	18	04.6	-					19.5S 169.3E, H:10 58 47.5, h 162 km. Mb 5.6. New Hebrides Islands.	
	eSKP	11	21	31.5							
24.	eL	05	05							55.5S 28.3W, H:04 07 33.2, h 37 km. Mb 5.5, Ms 5.2. South Sandwich Islands region.	
	F	05	21								
24.	iPKP	08	47	35						31.3S 177.8W, H:08 27 35.9, h N. Mb 5.4, Ms 5.8. Kermadec Islands region.	
	ePP	08	51	45							
	eSKSP	09	02	12							
	eSS	09	11	56							
	eL	09	53								
	F	11.5									
24.	WIT:ePKP	14	33	49.0						18.3S 174.6W, H:14 14 11.2, h N. Mb 5.2. Tonga Islands.	
24.	eL	21	19							13.0N 144.9E, H:20 23 01.2, h 78 km. Mb 5.4. Mariana Islands.	
	F	21	42								
25.	ePP	17	38	44						6.1S 153.1E, H:17 17 38.9, h 33 km. Mb 5.5, Ms 5.3. New Britain region.	
	eL	18	24								
	F	19	41								
	WIT:ePKP	17	36	41							

Seismological Data

Data without indication are from De Bilt; WIT means Witteveen, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
25. 1974	WIT:ePg	19	11	36.5						51.0N 6.4E, H:19 10 58.3, h 8 km. Germany.	
	eSn	19	11	50.0							
	eS <sup>xi</sup>	19	11	55.5							
26.	ePP	13	20	32						3.6S 128.9E, H:13 01 02.6, h 25 km. Mb 5.6, Ms 5.4. Ceram.	
	eL	14	01								
	F	14.6									
27.	iP	04	38	12	+	18				55.5N 166.4E, H:04 26 47.0, h N. Mb 5.3, Ms 5.4. Komandorsky Islands region.	
	iS	04	47	30							
	eL	05	01								
	F	06	10								
	WIT:eP	04	38	07							
28.	iP	11	46	56	+	9	10.0			46.3N 153.3E, H:11 34 59.7, h 52 km. Mb 5.9. Kuril Islands.	
	iZ	11	47	34							
	iPP	11	49	58							
	iPPP	11	51	51							
	iZ	11	52	58							
	iS	11	56	55							
	iSS	12	02	20							
	eSSS	12	05	40							
	eL	12	09								
	F	15.5									
	WIT:eP	11	46	51.0							
28.	WIT:eP	12	04	39.5						46.3N 153.4E, H:11 52 51.9, h 60 km. Mb 5.0. Kuril Islands.	
28.	WIT:eP	12	19	42.5						46.2N 153.3E, H:12 07 50.0, h 46 km. Mb 5.3. Kuril Islands.	
28.	WIT:eP	13	16	09.5						46.3N 153.3E, H:13 04 17.5, h 44 km. Mb 4.8. Kuril Islands.	
28.	WIT:iP	13	43	29.2	-					46.3N 153.5E, H:13 31 39.3, h 66 km. Mb 5.3. Kuril Islands.	
28.	WIT:eP	13	53	31.0						46.3N 153.3E, H:13 41 38.8, h 46 km. Mb 5.4. Kuril Islands.	
28.	WIT:eP	16	45	48.5						46.2N 153.2E, H:16 33 55.6, h 49 km. Mb 4.9, Ms 5.0. Kuril Islands.	
28.	WIT:eP	17	17	33						46.3N 153.1E, H:17 05 40.0, h 42 km. Mb 4.8. Kuril Islands.	

HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
July 1974											
28.	eL F	17	19								No determination of epicenter.
29.	iP iZ iS iSS eL F WIT:eP	03	27	16	+	9	4.3				46.2N 153.1E, H:03 15 16.7, h 38 km. Mb 5.7, Ms 5.8. Kuril Islands.
29.	eS eSS eL F WIT:eP	07	38	20		20	10.6		6.2		46.1N 153.1E, H:07 16 26.1, h N. Mb 5.9, Ms 6.2. Kuril Islands. DBN: P in change of papers.
29.	eL F	10	09						16.0	6.4	46.3N 153.3E, H:09 28 48.4, h N. Mb 4.9, Ms 5.5. Kuril Islands.
29.	WIT:iPKP	12	11	45.9	+						18.0S 175.2W, H:11 52 36.9, h 260 km. Mb 4.9. Tonga Islands.
29.	WIT:iPKP	22	32	46.1	-						17.9S 178.5W, H:22 14 12.8, h 586 km. Mb 5.4. Fiji Islands region.
30.	iP ipP isP iPP ipPP iS isS eL F WIT:iP ipP isP	05	20	59	+	6	15.0				36.4N 70.8E, H:05 12 40.6, h 211 km. Mb 6.5. Hindu Kush region.
30.	WIT:ePKP	22	01	48.5							17.8S 178.6W, H:21 43 18.8, h 613 km. Mb 5.3. Fiji Islands region.
30.	eL F WIT:eP epP	23	24								46.2N 153.2E, H:22 39 44.5, h 42 km. Mb. 5.0, Ms 4.7. Kuril Islands.

Seismological Data

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
August 1974											
1.	iP iZ iS iH iSS eSSS eL F	05	18	54	-						56.5N 152.3W, H:05 07 59.0, h 10 km. Mb 5.2, Ms 6.1. Kodiak Island region.
1.	iP eL F WIT:iP	06	06	50	+	19			11.4	6.1	56.7N 152.1W, H:05 55 38.2, h N. Mb 5.7, Ms 6.3. Kodiak Island region.
1.	eL F	08	38			19			2.8	5.5	56.6N 152.3W, H:07 59 56.9, h N. Mb 5.2, Ms 6.0. Kodiak Island region.
1.	eL F	20	58			20			1.1	5.5	41.9S 88.3E, H:19 57 30.0, h N. Mb 5.1, Ms 5.7. Southeast Indian Rise.
1.	iP eS eL F	22	51	04	+	20			1.8	5.4	49.8N 156.0E, H:22 39 21.0, h 41 km. Mb 5.3, Ms 5.2. Kuril Islands.
2.	eL F	08	44								30.5N 50.6E, H:08 23 44.0, h 44 km. Mb 4.8. Iran.
2.	eL F	11	11								3.7N 126.1E, H:10 15 10.2, h 56 km. Mb 4.9. Talaud Islands.
2.	eL F	15	19								33.4N 139.4E, H:14 33 26.6, h 24 km. Mb 5.1, Ms 4.5. South of Honshu, Japan.
2.	eL F	16	52								33.4N 139.3E, H:16 05 25.1, h 34 km. Mb 4.8. South of Honshu, Japan.
3.	eL F	04	35.4			20			1.8	5.2	35.4N 80.6E, H:04 08 13.8, h 20 km. Mb 5.0. Kashmir-Tibet border region.
3.	iP ePP eS eL F WIT:iP i e	18	29	00	+	4	0.8				36.0N 139.8E, H:18 16 34.0, h 58 km. Mb 5.6, Honshu, Japan. (2 killed).

, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
August 1974											
4.	eL F	11 12	01 00								62.1N 154.9W, H:09 39 58.7, h N. Mb 5.2, Ms 5.3. South Pacific Cordillera.
4.	eP eS eL F WIT:eP e e	15 15 15 16 15 15 15	12 17 20.5 05 12 12 12	16	16		2.0	4.8			42.3N 45.9E, H:15 06 17.1, h N. Mb 5.4, Ms 5.0. Eastern Caucasus.
5.	WIT:eP	13	27	37.0							28.0N 53.5E, H:13 19 39.5, h 11 km. Mb 5.3. Southern Iran.
6.	eL F	11 12	25 02								78.7N 2.4E, H:11 11 07.0, h N. Mb 4.4, Ms 4.0. Greenland Sea.
6.	eL F	13 13	41 51								56.6N 152.5W, H:12 59 55.6, h 16 km. Mb 4.5, Ms 4.7. Kodiak Island region.
6.	iPKP ePP eSS eL F WIT:iPKP i	18 19 19 19 21 18 18	58 01 20 55 35 57 58	00 32 48	+	19		2.5	6.0		21.8S 175.2W, H:18 38 13.1, h 48 km. Mb 5.7, Ms 5.7. Tonga Islands.
7.	eL F	01 01	04 18								73.5N 6.9E, H:00 52 14.9, h N, Mb 4.6. Greenland Sea.
7.	eL F	01 02	59 04								73.3N 6.7E, H:01 47 48.2, h N. Mb 4.5. Greenland Sea.
7	eP eS eSS eL F	08 08 08 08 09	34 44 48.4 59 51	48 15	+	18	2.0	5.3			56.6N 152.3W, H:08 23 36.8, h N. Mb 4.9, Ms 5.3. Kodiak Island region.
8.	eP eL F WIT:eP	01 01 02 01	30 35.4 05 29	05	-	20		4.0	4.9		73.2N 6.2E, H:01 25 15.8, h N. Mb 5.0, Ms 5.2. Greenland Sea.

Seismological Data

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
August 1974											
8.	WIT:ePKP	10	40	47.5							19.8S 177.8W, H:10 22 06.3, h 569 km. Mb 5.0. Fiji Islands region.
8.	eL F	19 19	16 23								73.2N 5.9E, H:19 05 00.9, h N. Mb 4.8, Ms 4.6. Greenland Sea.
8.	eS eL F	19 19 21.5	40 56	40		20		50.0	6.9		24.6N 122.7E, H:19 16 45.9, h 32 km. Mb 5.4, Ms 6.0. Taiwan region.
8.	eL F	23 23	37 41								73.4N 6.5E, H:23 24 42.4, h N. Mb 4.7, Ms 4.5. Greenland Sea.
9.	WIT:eP	05	06	21.0							8.5S 74.3W, H:04 53 30.7, h 159 km. Mb 5.6. Peru-Brazil border region.
9.	WIT:ePn HEE:ePn eSn	22 22 22	19 19 19	30.0 21.5 34.5	-						51.5N 7.1E, H:22 19 04.0, h 0 Km. Rockburst Germany.
10.	WIT:iPKP HEE:iPKP e	10 10 10	06 06 06	13.4 17.5 22.0	+						18.5S 179.5W, H:09 47 39.2, h 595 km. Mb 5.1. Fiji Islands region.
10.	WIT:iPKP epPKP HEE:iPKP i epPKP	11 11 11 11 11	41 43 41 41 43	08.1 33.0 11.5 20.5 33.0	- - - + -						21.4S 179.2W, H:11 22 26.4, h 602 km. Mb 5.5. Fiji Islands region.
10.	WIT:ePn e e HEE:ePn	12 12 12 12	51 52 53 51	40.0 10.5 08.0 52.5	- - - -						57.1N 5.2W, H:12 49 38.1, h 10 km. Mb 4.3. United Kingdom.
11.	iP iPP iH iS eSS eL F WIT:eP i eS eL HEE:eP ePP eL	01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01	22 24 27 29 32.6 36.5 05.4 22 22 30 38 22 24 27 39	37 26 28 32	+	6		8.4			39.5N 73.8E, H:01 13 55.5, h 9 km. Mb 6.4, Ms 7.3. Tadzhik-Sinkiang border region.

a, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
11. August 1974	HEE:eP	05	28	14.0							39.4N 73.8E, H:05 19 33.2, h 32 km. Mb 5.2. Tadzhik-Sinkiang border region
11.	eL F WIT:eP HEE:eP	05 05	37 21	 02.0	20		4.5		5.5		39.3N 73.8E H:05 12 33.3, h N. Mb 5.4. Tadzhik-Sinkiang border region
11.	eL F WIT:eP HEE:iP ePP	05 06 05	46 20 32	  21.5	20		5.4		5.6		39.4N 73.8E, H:05 23 52.5, h 27 km. Mb 5.6. Tadzhik-Sinkiang border region
11.	eL F WIT:eP HEE:eP	07 07 07	26 57 10	  42.5	20		9.0		5.8		39.4N 73.9E, H:07 02 08.5, h N. Mb 5.2, Ms 5.4. Tadzhik-Sinkiang border region
11.	eL F	09 09	34 44								39.2N 73.9E, H:09 08 58.5, h 29 km. Mb 5.1. Tadzhik-Sinkiang border region
11.	iP ePP iS eSS iZ eL F WIT:iP ePP HEE:iP ePP	20 20 20 20 20 20 20 20 20 20	14 16 21 24 24 58.5 13 15	06 00 04 16 53 in next shock 58.9 49.0	+	6	0.7				39.5N 73.7E, H:20 05 30.1, h N. Mb 5.8, Ms 5.7. Tadzhik-Sinkiang border region.
11.	iP iPP iS eSS eL F WIT:eP HEE:eP i ePP	21 21 21 21 21 21 21 21 21 21	30 32 37 40 44.5 23.6 30 30 30 32	16 03 11 22 44.5 in next shock 05.0 11.0 13.5 04.5	+	6	1.4				39.5N 73.6E, H:21 21 33.8, h 9 km. Mb 5.9, Ms 6.1. Tadzhik-Sinkiang border region.
					20		42.5		6.4		

Seismological Data

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
12. August 1974	ePKP eSS eL F HEE:ePKP	03 03 04 05.6 03	12 34 00	12 06		20		3.2		6.1	16.0S 179.4W, H:02 52 42.4, h 70 km. Mb 5.7. Fiji Islands region.
12.	eL F	14 14	42 55								0.0S 16.5W, H:14 17 05.1, h N. Mb 5.0, Ms 4.5. North of Ascension Island.
12.	HEE:eP e	21 21	40 40	04.0 12.0							17.6N 100.4W, H:21 27 18.6, h 73 km. Mb 5.1. Guerrero, Mexico.
12.	eL F	21 21	44 53		20			2.5		5.2	39.2N 74.0E, H:21 17 47.6, h 27 km. Mb 5.2, Ms 5.4. Southern Sinkiang Prov., China.
12.	eL F	22 22	23 34		20			1.8		5.1	39.4N 73.9E, H:21 57 17.6, h N. Mb 5.0. Tadzhik-Sinkiang border region
13.	eP eS eSS eL F WIT:eP HEE:eP e	03 04 04 04 06.9 03 03 03	58 07 13 18.5	10 57 00		20		7.0		6.0	51.5N 178.1W, H:03 46 20.3, h 52 km. Mb 5.8. Andreanof Is., Aleutian Islands.
13.	eL F HEE:ePKP e	07 08.1 06 06	08 12 12 12	44 53.0							16.1S 179.4W, H:05 53 07.4, h 29 km. Mb 5.3, Ms 5.4. Fiji Islands region.
13.	ePKP eSS eL F HEE:ePKP	13 13 14 in next shock 13	12 34 00	20 12 21.5		22		1.9		5.8	15.8S 179.5W, H:12 52 47.3, h 55 km. Mb 5.4. Fiji Islands region.
13.	eL F HEE:ePKP	14 15.7 14	53 01 07								15.9S 179.3W, H:13 41 29.2, h N. Mb 5.0, Ms 5.4. Fiji Islands region.
13.	WIT:ePKP HEE:ePKP	15 15	22 22	03.0 07.0							5.3S 150.8E, H:15 03 14.8, h 100 km. Mb 5.5. New Britain region.

en, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Blit	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
August 1974											
13.	eL F	16	00								55.5S 146.3E, H:14 45 42.0, h N. Mb 5.6, Ms 5.7. West of Macquarie Island.
14.	eL F	04	34								No determination of epi- center.
14.	iP eS eL F WIT:iP HEE:eP	05	46	42	+						51.6N 178.1W, H:05 34 54.4, h 56 km. Mb 5.7. Andreanof Is., Aleutian Islands.
14.	eL F WIT:eP HEE:eP	07	32								41.1N 142.8E, H:06 49 21.7, h 41 km. Mb 5.3. Hokkaido, Japan region.
14.	WIT:iP HEE:eP	15	06	56.0	+						68.9N 75.9E, H:14 59 58.3, h 0 km. Mb 5.5. Western Siberia.
14.	HEE:ePKP	21	34	14.0							15.9S 173.1W, H:21 14 37.7, h N. Mb 4.5, Ms 4.3. Tonga Islands.
14.	eL F	22	33			20		2.1	5.1		39.2N 73.9E, H:22 06 52.9, h N. Mb. 5.0. Tadzhik-Sinkiang border region.
15.	WIT:ePKP <sub>2</sub> HEE:ePKP <sub>2</sub>	01	38	56.0							22.1S 175.7W, H:01 19 24.8, h 170 km. Mb 4.8. Tonga Islands region.
15.	HEE:ePKP	08	47	18.0							ISC: 20.1S 177.5W, H:08 28 31.2, h 554 km, Mb 4.4. Fiji Region.
16.	eL F	00	38								39.3N 73.8E, H:00 11 08.0, h 50 km. Mb 4.9. Tadzhik-Sinkiang border region.
16.	WIT:iPKP HEE:ePKP	07	22	57.7	+						20.4S 178.4W, H:07 04 09.6, h 503 km. Mb 4.6. Fiji Islands region.

**Seismological Data**  
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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Blit	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
August 1974											
16.	iP iS iPPS eL F WIT:eP HEE:eP	09	53	20	+	7		1.2			51.5N 177.8W, H:09 41 31.7, h 46 km. Mb 5.7, Ms 5.8. Andreanof Is. Aleutian Islands.
16.	eL F	12	08								No determination of epi- center.
16.	HEE:ePKP	17	16	35.0							19.8S 177.8W, H:16 57 36.4, h 435 km. Mb 4.7. Fiji Islands region.
17.	eL F WIT:eP HEE:eP e	05	50								54.9N 143.9E, H:05 13 08.1, h 1 km. Mb 5.4, Ms 4.9. Sakhalin Island.
18.	eL F HEE:eP	00	15			20		3.2		5.3	39.2N 73.9E, H:23 50 58.9, h 32 km. Mb 5.0, Ms 5.3. Tadzhik-Sinkiang border region.
18.	iPdiff. iPKP iPP iPPP eSKS iPS iSPP iSS eSSS eL F WIT:ePKP HEE:ePP	10	58	56	+	10		1.1			38.5S 73.4W, H:10 44 12.8, h 36 km. Mb 5.9, Ms 7.1. Near coast of central Chile.
18.	HEE:eP	17	28	30							50.6N 175.1E, H:17 16 26.0, h N. Mb 5.0, Ms 4.7. Rat Islands, Aleutian Islands.
18.	eL F	20	57								No determination of epi- center.
19.	eL F	00	09								41.7S 75.2W, H:23 07 47.8, h 21 km. Mb 5.3, Ms 4.3. Off coast of southern Chile.

en, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
August 1974	eL	13	08							33.3N 139.5E, H:12 17 32.5, h 23 km. Mb 5.3, Ms 4.6. South of Honshu, Japan.	
	F	13	30								
	WIT:eP	12	30	09.0							
	HEE:iP	12	30	17.0							
19.	eP	20	07	08						12.3N 88.9W, H:19 54 44.8, h 67 km. Mb 5.2. Off coast of Central America.	
	eL	20	39								
	F	20	54								
	HEE:eP	20	07	07							
20.	eL	05	30							33.4N 139.4E, H:04 39 52.8, h 31 km. Mb 4.8. South of Honshu, Japan.	
	F	05	46								
	HEE:eP	04	52	34.5	+						
20.	eL	07	10							No determination of epicenter.	
	F	07	25								
20.	eL	19	28							11.3N 140.7E, H:18 31 15.7, h 6 km. Mb 5.3, Ms 4.4. West Caroline Islands.	
	F	19	54								
20.	iP	20	56	43	+					52.2N 175.0E, H:20 45 01.4, h 58 km. Mb 5.6. Rat Islands, Aleutian Islands.	
	eS	21	06	20							
	eL	21	21.5								
	F	22	08								
	WIT:iP	20	56	37.6	+						
	HEE:iP	20	56	48.0	+						
	epP	20	57	07.0							
21.	eL	03	10							No determination of epicenter.	
	F	03	22								
21.	eL	13	14							37.2N 19.6E, H:13 02 46.2, h N. Mb 4.1. Ionian Sea.	
	F	13	20								
21.	eL	19	12							39.2N 74.0E, H:18 45 16.7, h N. Mb. 5.0. Southern Sinkiang Prov., China.	
	F	19	19								
21.	eL	22	07							0.4N 125.2E, H:21 12 29.9, h 46 km. Mb 5.0, Ms 4.6. Molucca Passage	
	F	22	31								
22.	WIT:iPKP	12	07	55.4	-					20.7S 178.5W, H:11 49 14.8, h 583 km. Mb 5.1. Fiji Islands region.	
	HEE:ePKP	12	08	03							
	i	12	08	08.5							
23.	eL	04	46							23.8N 121.6E, H:03 58 49.1, h N. Mb 5.0. Taiwan.	
	F	05	03								
	WIT:eP	04	11	23.5							
	HEE:eP	04	11	30.0							

Seismological Data

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
August 1974	iPP	05	10	12							7.5S 127.5E, H:04 50 34.6, h 136 km. Mb 5.8. Banda Sea.
	iSP	05	19	22							
	iPPS	05	20	40							
	eSS	05	26	22							
	eL	05	47								
	F	06	6								
	WIT:iPKP	05	09	01.7	(-)						
	ePKKP	05	19	49.5							
	HEE:ePKP	05	09	02.0							
	e	05	10	05.5							
23.	eL	06	54							No determination of epicenter.	
	F	07	15								
23.	eL	16	54							39.3N 73.7E, H:16 26 30.5, h N Mb 4.9. Tadzhik-Sinkiang border region.	
	F	17	00								
23.	eL	17	45							4.6S 105.4E, H:16 52 03.0, h N. Mb 4.8, Ms 5.3. Northern Easter Island Cordillera.	
	F	18	08								
24.	eL	00	24							19.1N 68.0W, H:23 55 36.8, h N. Mb 5.0. Ms 4.3. North Atlantic Ocean.	
	F	00	50								
	WIT:eP	00	06	14							
	HEE:eP	00	06	18.5							
24.	iP	02	59	42	+					4.3N 76.9W, H:02 47 30.1, h 84 km. Mb 5.9. Colombia.	
	eS	03	09	48							
	eL	03	26								
	F	03	48								
	WIT:iP	02	59	46.5	+						
	epP	03	00	11.0							
24.	HEE:iP	02	59	43.0	+					21.7S 174.2W, H:03 21 43.8, h N. Mb 4.8, Ms 4.3. Tonga Islands.	
	e	02	59	58.5							
24.	HEE:ePKP	03	41	34.5							
24.	iP	10	52	55	+	6	1.0			52.4N 168.3W, H:10 41 11.2, h 41 km. Mb 5.7, Ms 5.6. Fox Islands, Aleutian Islands.	
	eS	11	02	44							
	eL	11	18			20		2.8	5.6		
	F	12	4								
	WIT:iP	10	52	50.8	+						
HEE:iP	10	53	01.0								



een, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
24.	eL F	12	40								39.3N 73.9E, H:12 14 37.1, h N. Mb 4.9. Tadzhik-Sinkiang border region.
24.	WIT:ePKP HEE:ePKP e	18	52	06.5							21.5S 174.5W, H:18 32 19.3, h N. Mb 4.8. Tonga Islands.
24.	eL F	22	19								37.9N 19.6E, H:22 08 38.6, h 11 km. Mb 4.1. Ionian Sea.
24.	eL F WIT:eP HEE:eP	23	03								52.3N 168.3W, H:22 18 55.4, h 37 km. Mb 5.3, Ms 4.5. Fox Islands, Aleutian Islands.
25.	iP ePP eS eSP eSS eL F WIT:iP e HEE:iP e	01	31	29	-	6	1.5				32.ON 142.3E, H:01 18 39.9, h N. Mb 5.9, Ms 5.6. South of Honshu, Japan.
						20		3.6	5.8		
25.	WIT:eP HEE:eP epP	04	33	01.5							32.ON 142.4E, H:04 20 17.0, h 40 km. Mb 5.3. South of Honshu, Japan.
25.	eL F HEE:ePKP e	04	38								16.8S 175.8E, H:03 27 46.3, h N. Mb 5.1, Ms 5.3. Fiji Islands region.
25.	eL F	10	55								32.ON 142.3E, H:10 13 18.1, h N. Mb 5.0. South of Honshu, Japan.
25.	WIT:ePKP HEE:iPKP i	12	10	48.5							19.7S 178.0W, H:11 51 51.2, h 404 km. Mb 4.8. Fiji Islands region.
25.	WIT:iPKP i epPKP HEE:ePKP i ePKP <sub>2</sub> epPKP i	14	53	38.0	+						23.5S 179.9W, H:14 34 46.7, h 542 km. Mb 5.3. South of Fiji Islands.

Seismological Data

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
25.	HEE:e(P)	19	47	00.0							38.4N 19.8E, H:19 43 11.5, h N. Mb 4.1. Ionian Sea.
26.	eL F WIT:eP HEE:iP	07	10								16.ON 91.0W, H:06 27 40.7, h N. Mb 5.1, Ms 4.8. Mexico-Guatemala border region.
27.	eL F	07	24								38.3S, 73.4W, H:06 24 07.1, h 23 km. Mb 5.4, Ms 4.6. Near coast of central Chile.
27.	iP iPP iS eSS eL F WIT:eP i ePP HEE:iP iPP	13	04	36		5	0.6				39.7N 73.8E, H:12 56 03.2, h N. Mb 5.8, Ms 5.9. Tadzhik-Sinkiang border region.
						20		26.5	6.2		
27.	eL F WIT:eP HEE:eP	18	00								39.4N 73.9E, H:17 33 58.1, h N. Mb 5.3, Ms 5.2. Tadzhik-Sinkiang border region.
28.	WIT:ePKP HEE:iPKP i	10	37	57.5(-)							17.9S 178.5W, H:10 19 27.4, h 613 km. Mb 4.8. Fiji Islands region.
28.	eP eL F	18	54	20							59.5N 144.5W, H:18 43 25.7, h 4 km. Mb 4.9, Ms 4.6. Gulf of Alaska.
29.	eL F	00	24								<b>No determination of epi- center.</b>
29.	HEE:eP	01	10	45.0							36.5N 71.3E, H:01 02 28.5, h 228 km. Mb 5.0. Afghanistan-USSR border region.
29.	eL F HEE:ePKP <sub>2</sub>	04	12								28.9S 177.5W, H:02 50 14.9, h 58 km. Mb 5.3. Kermadec Islands region.
29.	WIT:ePKP e HEE:iPKP	04	52	13							19.2S 173.3W, H:04 32 33.3, h N. Mb 5.2, Ms 4.8. Tonga Islands.

veen, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
August 1974	iP	10	06	06.0	+	3	2.1	4.3	5.1	73.4N 55.1E, H:09 59 55.6, h 0 km. Mb 6.4, Ms 5.0. Novaya Zemlya.	
	eL	10	15								
	F	11	00								
	WIT:iP	10	05	56.0							
	iPcP	10	09	05.5							
	HEE:iP	10	06	12.5							
	iPcP	10	09	12.0							
29.	HEE:eP	15	06	27.5						67.2N 62.1E, H:14 59 59.6, h 0 km. Mb 5.2. Ural Mountains region.	
30.	eL	08	24							12.8N 87.4W, H:07 45 20.9, h 62 km. Mb 4.9. Near coast of Nicaragua.	
	F	08	40								
30.	WIT:iP	15	11	59.3	+					37.2N 116.1W, H:15 00 00.2, h 0 km. Mb 5.8. Southern Nevada.	
	HEE:iP	15	12	05.0							
30.	eL	19	01							30.6N 141.8E, H:18 14 09.9, h 46 km. Mb 5.1, Ms 4.6. South of Honshu, Japan.	
	F	19	36								
30.	WIT:ePKP	19	27	20.5						18.0S 178.5W, H:19 08 47.3, h 587 km. Mb 4.2. Fiji Islands region.	
	HEE:ePKP	19	27	26.5							
30.	eP	23	42	20	+	20		3.2	5.8	30.6N 141.9E, H:23 29 23.6, h 24 km. Mb 5.3, Ms 5.7. South of Honshu, Japan.	
	ePP	23	45	51							
	eSKS	23	52	54							
	iS	23	53	12							
	iSP	23	54	16							
	eSS	23	59.0								
	eSSS	24	03.0								
	eL	24	14								
	F	02.0									
	WIT:eP	23	42	16.0							
	e	23	42	27.0							
	HEE:eP	23	42	23.5							
	e	23	42	34.5							

Seismological Data

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Sept. 1974	eL	10	39							43.0S 82.7W, H:09 33 40.1, h N. Mb 5.0, Ms 4.8. West Chile Rise.	
	F	10	51								
	1.										
	eL	09	40								
	F	10	00								
	2.										
	eL	02	33								
	F	02	58								
	3.										
	eL	06	41								
	F	07.3									
	3.										
	WIT:eP	06	08	01.5							
	HEE:iP	06	08	06.5							
e	06	08	18.0								
3.	eL	20	07.0							39.4N 73.7E, H:19 41 19.9, h N. Mb 5.4, Tadzhik-Sinkiang border region.	
	F	20	19								
	HEE:eP	19	49	54.0	+						
4.	iP	06	33	52	+	4	1.6			33.1N 13.6E, H:06 29 16.4, h 17 km. Mb 5.1, Ms 5.6. Mediterranean Sea.	
	iS	06	37	36							
	eL	06	38.8			18		16.0	5.4		
	F	07.7									
	WIT:eP	06	33	54.5							
	ipP	06	33	58.8	+						
	HEE:eP	06	33	35.0							
	epP	06	33	40.0							
	e	06	33	43.5							
6.	eL	15	51.0							39.3N 73.8E, H:15 23 58.3, h N. Mb 4.9. Tadzhik-Sinkiang border region.	
	F	15	58								
6.	HEE:ePKP	20	55	26.5						15.6S 173.3W, H:20 36 02.1, h 124 km. Mb 4.7. Tonga Islands.	
6.	eL	24	32							7.1S 155.9E, H:23 26 32.8, h 63 km. Mb 5.4. Solomon Islands.	
	F	24	50								
	WIT:epPKP	23	45	47.0							
	HEE:ePKP	23	45	36.0							
	epPKP	23	45	50.0							

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Sept. 1974	eL	20	11								d.b.m. 15.1N 60.6W, H:19 40 52.2, h 58 km. Mb 5.7. Leeward Islands.
	F	20	18								
	WIT:iP	19	51	24.0	+						
	i	19	51	40.7	-						
	HEE:eP	19	51	20.0							
	i	19	51	37.0	+						
7.	eL	21	30		20	26.7			6.8		d.b.m. 9.8S 108.4E, H:20 43 11.5, h N. Mb 6.1, Ms 6.5 South of Java.
	F	23.5									
	HEE:ePKP	21	01	31.0							
8.	WIT:ePKP	05	35	34.5	-						3.7S 153.9E, H:05 17 27.5, h 449 km. Mb 5.7. New Ireland region.
	HEE:iPKP	05	35	39.5	-						
9.	eL	18	14								34.6N 36.6W, H:17 58 07.1, h N. Mb 5.0, Ms 4.5. North Atlantic Ridge.
	F	18	24								
10.	eL	22	24								30.4S 177.8W, H:21 06 07.9, h 27 km. Mb 5.5, Ms 5.1. Kermadec Islands.
	F	23	08								
	WIT:ePKP <sub>2</sub>	21	26	35.0							
	HEE:ePKP <sub>2</sub>	21	26	42.0	-						
11.	eL	02	45								30.4S 178.0W, H:01 17 02.1, h 43 km. Mb 5.3, Ms 5.2. Kermadec Islands.
	F	03	26								
	HEE:ePKP <sub>2</sub>	01	37	33.0							
11.	HEE:ePKP	16	37	22.0							15.0S 173.0W, H:16 17 50.0, h N. Mb 5.2, Ms 4.7. Tonga Islands.
11.	eL	20	14								8.4S 121.9E, H:19 16 17.2, h N. Mb 5.8. Flores Island region.
	F	20	39								
12.	eL	06	00								41.9N 126.6W, H:05 19 35.3, h N. Mb 5.0. Ms 4.9. Off coast of northern California.
	F	06	14								
12.	eL	06	29.0								39.2N 74.2E, H:06 03 00.2, h N. Mb 5.2. Southern Sinkiang Prov., China.
	F	06	39								
12.	WIT:ePKP	20	06	32.5							21.0S 179.1W, H:19 47 53.2, h 606 km. Mb 4.8. Fiji Islands region.
	HEE:ePKP	20	06	37.0							
	e	20	06	46.0							
12.	eL	20	56								13.6N 89.9W, H:20 14 37.3, h 85 km. Mb 5.0. El Salvador.
	F	21	30								

Seismological Data

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Sept. 1974	eL	23	55								58.6S 25.2W, H:22 56 22.2, h N. Mb 5.5, Ms 5.0. South Sandwich Islands region.
	F	24	05								
13.	WIT:iP	03	11	01.2	+						49.8N 78.1E, H:03 02 57.8, h 0 km. Mb 5.2. Eastern Kazakh SSR.
	HEE:eP	03	11	12.0							
13.	eP	08	04	18							55.3N 162.0E, H:07 53 02.7, h 55 km. Mb 5.8. Near east coast of Kamchatka.
	eL	08	27								
	F	09.2									
	WIT:iP	08	04	13.2	+						
	HEE:iP	08	04	24.0	+						
13.	eL	18	34.5								40.5N 23.4E, H:18 24 59.2, h 24 km. Mb 4.5. Greece.
	F	18	39								
15.	eL	19	55.8								<b>No determination of epicenter.</b>
	F	20	01								
15.	HEE:ePKP	20	53	28.5	+						18.6S 169.2E, H:20 34 18.8, h 244 km. Mb 5.1. New Hebrides Islands.
16.	WIT:iP	00	51	24.4	-						23.9S 65.5W, H:00 38 15.3, h 280 km. Mb 5.6. Jujuy Province, Argentina.
	HEE:eP	00	51	18.0	-						
16.	eL	17	12.6								39.5N 73.5E, H:16 45 57.1, h 64 km. Mb 5.0. Tadzhik-Sinkiang border region.
	F	17	21								
16.	eL	21	36								44.3N 148.7E, H:20 57 03.3, h 54 km. Mb 5.3. Kuril Islands.
	F	22	06								
	WIT:eP	21	08	56.0							
	HEE:eP	21	09	07.0	+						
16.	eL	22	34								49.6N 155.9E, H:21 55 50.8, h 48 km. Mb 5.5, Ms 4.7. Kuril Islands.
	F	23	04								
	WIT:eP	22	07	27.5	-						
	HEE:eP	22	07	38.0	-						
17.	eS	02	21	48							56.7N 151.7W, H:02 01 23.2, h 17 km. Mb 5.0, Ms 5.1. Kodiak Island region.
	eZ	02	30	24	-						
	eL	02	36								
	F	03.4									
	WIT:eP	02	12	32.5							
	HEE:eP	02	12	42.5							

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Sept. 1974	17.	eS	05	17	20	16	7.8	4.9	40.3N 20.6E, H:05 10 31.5, h 17 km. Mb 5.2, Ms 5.0. Greece-Albania border region.		
	eL	05	18.3								
	F	05	40								
	WIT:eP	05	14	20							
	eL	05	18.9								
	HEE:eP	05	14	02.0							
		e	05	14	11.5						
		eL	05	18.5							
19.	eL	20	48		10.3S 13.1W, H:20 15 52.6, h N. Mb 4.8. Ascension Island region.						
	F	20	59								
20.	eL	01	31		42.8N 145.0E, H:00 53 01.0, h 51 km. Mb 5.6. Hokkaido, Japan region.						
	F	02	02								
	WIT:eP	01	04	56.5		+					
	e	01	05	10.0							
		HEE:eP	01	05	06.5	+					
20.	eL	20	43		23.8S 175.9W, H:19 24 24.3, h N. Mb 5.3, Ms 5.4. Tonga Islands region.						
	F	21.2									
	WIT:iPKP	19	44	16.5		-					
	i	19	44	26.5		+					
	HEE:ePKP	19	44	20.0							
		e	19	44	33.0						
20.	HEE:ePKP	20	09	45.0						44.5S 168.0E, H:19 48 42.9, h 51 km. Mb 5.4. South Island, New Zealand.	
20.	eSS	21	58	00	6.2S 146.1E, H:21 20 12.3, h 111 km. Mb 5.8. East New Guinea region.						
	eL	22	19								
	F	22.9									
	WIT:iPKP	21	38	57.5		-					
	e	21	39	40.0							
	HEE:ePKP	21	39	00.0		-					
		e	21	39	42.5						
21.	eL	04	10		6.4S 129.0E, H:03 13 05.6, h N. Mb 5.4, Ms 5.5. Banda Sea.						
	F	04	38								
21.	HEE:ePKP <sub>2</sub>	06	17	01.5	44.4S 168.1E, H:05 55 57.6, h 49 km. Mb 5.8, Ms 5.3. South Island, New Zealand.						
21.	iPKP <sub>2</sub>	13	00	28	23.7S 176.0W, H:12 40 22.1, h N. Mb 5.6, Ms 6.3. South of Fiji Islands.						
	ePP <sub>2</sub>	13	03	55							
	eSS	13	23.4								
	eL	13	55								
	F	15.0									
	WIT:iPKP	13	00	15.3		+					
	i	13	00	29.1		-					
	HEE:iPKP	13	00	19.0		+					

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Sept. 1974	21.	WIT:eP	16	06	15.0	-	20	10.7	6.0	52.2N 157.5E, H:15 54 59.2, h 118 km. Mb 5.8. Kamchatka.	
	e	16	06	26.0							
	e	16	06	45.5							
	HEE:eP	16	06	25.0							
		e	16	06	38.0	+					
21.	WIT:ePKP	19	45	30.5	-	20	10.7	6.0	22.4S 179.7E, H:19 26 45.7, h 576 km. Mb 5.1. South of Fiji Islands.		
	HEE:ePKP	19	45	35.0							
	i	19	45	45.5						+	
23.	iP	19	37	28	-	20	10.7	6.0	d.b.m. 0.3 S 12.9E, H:19 28 17.2, h N. Mb 5.9, Ms 6.2. Gabon.		
	eS	19	45	00							
	eSS	19	48	55							
	eL	19	52.0								
		F	21.0								
		WIT:eP	19	37	35.5						
		HEE:iP	19	37	21.5	-					
26.	WIT:eP	15	17	00.5	-	20	10.7	6.0	37.1N 116.1W, H:15 05 00.2, h 0 km. Mb 5.6, Ms 4.2. Southern Nevada.		
	HEE:eP	15	17	05.0							
26.	WIT:ePKP	15	20	50.5	-	20	10.7	6.0	23.4S 175.7W, H:15 00 58.2, h N. Mb 5.2, Ms 4.8. Tonga Islands region.		
	HEE:ePKP	15	20	55.0							
27.	eP	03	22	48	-	22	13.0	6.3	33.6N 141.1E, H:03 10 07.9, h 46 km. Mb 5.8, Ms 6.1. Off east coast of Honshu, Japan.		
	iS	03	33	14							
	eSS	03	39.0								
	eL	03	48								
	F	in next shock									
	WIT:iP	03	22	41.3						+	
	e	03	22	48.5							
	e	03	22	58.0							
	HEE:iP	03	22	49.0						+	
	i	03	22	56.5						-	
		i	03	23	05.5	+					
27.	iS	04	31	08	-	20	8.9	6.1	2.7N 71.4W, H:04 09 01.3, h 43 km. Mb 5.6, Ms 5.8. Colombia.		
	eL	04	42								
	F	05.8									
	WIT:iP	04	21	12.0						+	
		HEE:iP	04	21	08.0	+					
27.	WIT:iP	05	36	49.7	-	20	8.9	6.1	28.6N 85.5E, H:05 26 39.4, h 70 km. Mb 5.6. Nepal.		
	HEE:iP	05	36	54.0							
	epP	05	37	12.5							

veen, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Sept. 1974	27.	iP	05	59	32	+	9	7.2			43.2N 146.7E, H:05 47 29.4, h 43 km. Mb 6.0, Ms 6.7. Kuril Islands.
	ePP	06	02	30							
	ePPP	06	04	24							
	iS	06	09	32							
	eSS	06	14	45							
	eL	06	22			20		110	7.2		
	F	09.4									
	WIT:eP	05	59	27.5	+						
	ipP	05	59	41.2	-						
	HEE:iP	05	59	36.5	+						
ipP	05	59	50.5								
28.	WIT:ePKP	00	02	50.5	+					25.3S 178.6E, H:23 44 00.9, h 605 km. Mb 5.4. South of Fiji Islands.	
HEE:ePKP	00	02	54.0								
i	00	03	10.0								
29.	HEE:eP	06	40	35.0						35.5N 27.9E, H:06 35 34.4, h 56 km. Mb 4.6. Dodecanese Islands.	
29.	eL	16	17.0		20		7.1	5.7		40.4N 78.0E, H:15 51 51.7, h N. Mb 5.4, Ms 5.1. Southern Sinkiang Prov., China.	
F	16	50									
WIT:eP	16	00	36.0								
ePcP	16	02	06.0								
ePP	16	02	30.0								
HEE:eP	16	00	43.5								
ePcP	16	02	09.0								
ePP	16	02	42.0								
29.	HEE:eP	23	38	43.0						35.1N 9.6E, H:23 34 57.3, h N. Mb 4.5. Tunisia	
30.	eL	06	36							2.6N 71.2W, H:05 55 37.3, h 22 km. Mb 4.9, Ms 4.3. Colombia.	
F	06	45									

Seismological Data

Data without indication are from De Bilt; WIT means Witteveen, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Oct. 1974	1.	eL	00	43.1							39.7N 18.8E, H:00 34 40.2, h 22 km. Mb 3.9. Southern Italy.
	F	00	53								
	1.	iPKP	04	25	56						12.0N 141.1E, H:04 07 26.9, h 43 km. Mb 5.3, Ms 5.7. South of Mariana Islands.
	iPP	04	26	16							
	iSKS	04	32	20							
	iPS	04	35	12							
	iPPS	04	36	12							
	eSS	04	40	52							
	eL	04	55			20		3.5	5.9		
	F	06.5									
HEE:ePKP	04	26	03.5								
1.	eL	09	25							13.0N 145.2E, H:08 29 55.5, h 51 km. Mb 5.3. Mariana Islands.	
F	09	55									
2.	iP	03	08	12						5.9S 81.1W, H:02 54 59.7, h 5 km. Mb 5.7, Ms 5.6. Near coast of northern Peru.	
eSKS	03	18	56								
eL	03	35									
F	04.6										
WIT:eP	03	08	18.0								
HEE:eP	03	08	14.5								
2.	WIT:iP	15	07	57.8	-					51.7N 158.1E, H:14 56 30.1, h 51 km. Mb 5.2. Near east coast of Kamchatka.	
HEE:iP	15	08	09.5	-							
3.	iP	14	34	54	+	10	18.2			12.3S 77.8W, H:14 21 29.1, h 13 km. Mb 6.6, Ms 7.6. Near coast of Peru. (78 killed).	
iPP	14	38	45								
iS	14	46	00								
iSS	14	52	16								
eSSS	14	56.4									
eL	15	00			20			375	7.8		
F	19.5										
WIT:iP	14	35	06.0	+							
eL	15	09									
HEE:eP	14	34	55.5	+							
i	14	35	07.5								
eP'P'	15	00	13.0								
eL	15	03									
4.	HEE:eP	04	10	58.0						22.8S 63.7W, H:03 58 31.0, h 533 km. Mb 5.0. Salta Province, Argentina.	
4.	WIT:eP	17	47	38.5						52.7N 159.0E, H:17 36 13.7, h N. Mb 4.9, Ms 4.1. Off east coast of Kamchatka.	
HEE:eP	17	47	49.5								
4.	WIT:eP	18	09	38.5						52.4N 160.0E, H:17 58 10.7, h N. Mb 5.0. Off east coast of Kamchatka.	

reen, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms	
		h	m	s			Z	NS	EW			
Oct. 1974	4.	iP	22	33	44	-	5	1.4			26.3N 66.5E, H:22 24 32.7, h N. Mb 5.8, Ms 5.9. West Pakistan.	
	eS	22	41	04								
	eL	22	49		19		26.0		6.3			
	F	24.2										
	WIT:eP	22	33	36.0								
	i	22	33	38.0								
	HEE:eP	22	33	38.0	-							
	e	22	33	52.5								
	4.	WIT:iP	22	46	58.5							52.2N 160.5E, H:22 35 26.6, h 16 km. Mb 5.3. Off east coast of Kamchatka.
	HEE:eP	22	47	08.5								
7.	eL	05	48							12.2S 77.9W, H:04 57 51.4, h N. Mb 5.0, Ms 4.7. Near coast of Peru.		
F	06	09										
7.	WIT:iP	10	04	17.5	-					45.9N 143.1E, H:09 53 09.7, h 325 km. Mb 5.2. Hokkaido, Japan region.		
HEE:eP	10	04	26.5									
7.	eL	11	52.0							39.7N 18.8E, H:11 43 36.9, h 19 km. Mb 4.6. Southern Italy.		
F	12	00										
7.	WIT:eP	17	22	34.0						11.6N 85.4W, H:17 10 36.3, h 225 km. Mb 5.1. Nicaragua.		
HEE:eP	17	22	32.0									
7.	iSP	22	21	25						58.3S 27.4W, H:21 52 40.4, h N. Mb 6.0. South Sandwich Islands region.		
eSS	22	27.6										
eSSS	22	31.6										
eL	22.7											
F	23.5											
8.	iP	10	01	18.5	-						17.3N 62.0W, H:09 50 58.1, h 47 km. Mb 6.6, Ms 7.5. Leeward Islands.	
i	10	01	27									
iS	10	09	50									
iSPP	10	10	22									
eSS	10	14.3										
eSSS	10	16	48									
eL	10	20.0		19		120	7.1					
F	14.7											
WIT:iP	10	01	25.7	-								
i	10	01	28.2	+								
i	10	01	35.4									
eP'P'	10	30	32									
HEE:iP	10	01	21.0	-								
i	10	01	32.0									
eS	10	09	48									
eL	10	20										
eP'P'	10	30	29.0									

Seismological Data

Data without indication are from De Bilt; WIT means Witteveen, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Oct. 1974	8.	HEE:iP	12	59	45.0	+					17.5N 61.9W, H:12 49 23.7, h 53 km. Mb 5.1, Leeward Islands.
8.	HEE:iP	18	16	47.0	+					17.4N 62.0W, H:18 06 23.7, h 47 km. Mb 4.8. Leeward Islands.	
9.	iP	07	44	02	+	7	13.5				
i	07	44	28								
iPP	07	47	03								
iPPP	07	48	56								
iS	07	53	56								
iH	07	54	40								
iSS	07	59	20								
eL	08	06.5		22		35.0		6.7			
F	11.0										
WIT:iP	07	43	57.2	+							
HEE:iP	07	44	07.0	+							
i	07	44	32.5								
eS	07	54	06								
10.	WIT:ePKP	02	05	55.5	-					22.1S 179.5W, H:01 47 12.7, h 588 km. Mb 5.1. South of Fiji Islands.	
HEE:ePKP	02	06	00.5	-							
e	02	06	10.5	+							
10.	iP	07	00	24	+	6	1.3			41.0N 143.1E, H:06 48 14.0, h 29 km Mb 5.8, Ms 6.2. Hokkaido, Japan region.	
iPP	07	03	28								
iS	07	10	28								
eL	07	25		20			45	6.8			
F	in next shock										
WIT:eP	07	00	19.5	+							
HEE:eP	07	00	28.0	+							
10.	iP	07	08	58	+	6	2.3				40.9N 143.1E, H:06 56 49.0, h 45 km. Mb 5.8, Ms 6.2. Off east coast of Honshu, Japan.
iPP	07	12	06								
iS	07	19	04								
eL	07	33		20			45	6.8			
F	10.5										
WIT:eP	07	08	52.0								
i	07	08	57.0								
HEE:eP	07	09	02.0								
i	07	09	06.0								
10.	eL	20	44							12.4S 77.6W, H:19 52 59.0, h 27 km. Mb 5.3, Ms 5.1. Near coast of Peru.	
F	21	02									
10.	eL	21	49							13.0S 77.5W, H:20 57 47.5, h N. Mb 4.8, Ms 4.4. Off coast of Peru.	
F	22	10									
10.	eL	22	23							4.1S 102.8E, H:21 32 10.6, h 21 km. Mb 6.0. Southern Sumatra.	
F	23	04									
HEE:eP	21	45	44.0								

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Oct. 1974											
11.	HEE:eP	04	49	36.0							14.5S 74.3W, H:04 36 22.8, h 99 km. Mb 5.3. Peru.
11.	eL F	07 25 08.2									60.7S 153.3E, H:06 00 14.2, h N. Mb 5.3. West of Macquarie Island.
11.	eL F	08 39 in next shock									13.3S 112.3W, H:07 43 27.3, h N. Mb 5.0, Ms 5.6. Northern Easter Island Cordillera.
11.	eL F	09 50 11 40		20				3.5	6.2		60.7S 153.9E, H:08 33 52.3, h N. Mb 5.3, Ms 6.1. West of Macquarie Island.
11.	eP eL F WIT:eP HEE:iP	14 24 36 14 57 15 39 14 24 32.0 14 24 38.5		20			3.5		5.8		23.2N 121.4E, H:14 11 56.1, h 44 km. Mb 5.3, Taiwan.
12.	eL F WIT:iP HEE:eP	05 28 06 24 04 59 39.5 04 59 48.5		20				1.8	5.4		40.5N 143.5E, H:04 47 31.4, h 26 km. Mb 5.3, Ms 5.3. Off east coast of Honshu, Japan.
12.	iP i iPP iS eSS eSSS eL F WIT:eP epP HEE:eP epP	06 27 04 06 27 20 06 30 12 06 37 14 06 42 40 06 46.0 06 54 08.8 06 27 01.0 06 27 10.0 06 27 09.0 06 27 17.5		4		0.8					40.5N 143.6E, H:06 14 51.5, h 24 km. Mb 5.5, Ms 6.0. Off east coast of Honshu, Japan.
12.	eL F	13 14 13 57									56.1N 153.7W, H:12 33 24.9, h 10 km. Mb 4.8, Ms 4.8. Kodiak Island region.
12.	eL F	17 03 17 27									No determination of epicenter.
12.	WIT:ePKP HEE:ePKP	19 18 14.0 19 18 19.5									17.9S 178.7W, H:18 59 44.2, h 623 km. Mb 4.9. Fiji Islands region.

Seismological Data

Data without indication are from De Bilt; WIT means Witteveen, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Oct. 1974											
13.	eL F	03 31 04 04									0.5N 126.0E, H:02 34 53.1, h 41 km. Mb 5.5, Ms 5.1. Molucca Passage.
13.	eL F	22 01 22 26		20				2.1		5.3	34.7N 87.2E, H:21 29 52.2, h N Mb 5.0. Tibet.
14.	WIT:iP HEE:eP	07 57 50.5 07 57 45.0		- +							2.4S 76.4W, H:07 45 17.2, h 162 km. Mb 5.1. Peru-Ecuador border region.
14.	iP ePP eS eSS eL F WIT:iP i HEE:eP e	14 23 56 14 27 00 14 34 12 14 39 28 14 51 16 33 14 23 51.0 14 24 01.0 14 24 03.5 14 24 11.0		+ + + + + +	7		0.8				40.6N 143.7E, H:14 11 41.1, h 15 km. Mb 5.3, Ms 5.7. Off east coast of Honshu, Japan.
14.	eL F	21 46 22 11									40.5N 143.7E, H:21 02 03.0, h 21 km. Mb 4.9. Off east coast of Honshu, Japan.
15.	iP eS eSS eL F WIT:iP e HEE:eP e	01 29 00 01 39 10 01 44 28 01 56 02.9 01 28 56.1 01 29 05.5 01 29 04.5 01 29 14.5 01 36 07.5		+ + + + - +	20		3.6			5.8	40.6N 143.7E, H:01 16 47.1, h 22 km. Mb 5.4, Ms 5.5. Off east coast of Honshu, Japan.
15.	HEE:ePKP	07 09 09.5									16.6S 172.7W, H:06 49 32.2, h N Mb 4.9, Ms 5.0. Samoa Islands region.
15.	eL F WIT:ePKP <sub>2</sub> i HEE:iPKP <sub>2</sub> i	22 54 23 34 21 48 05.0 21 48 08.8 21 48 14.5 21 48 18.0		- + +							30.7S 178.0W, H:21 27 42.5, h 59 km. Mb 5.7. Kermadec Islands.
16.	WIT:ePg HEE:ePn eP*	03 43 44.5 03 43 00.5 03 43 10.0		+ +							48.3N 9.1E, H:03 42 08.6, h 21 km. Germany.

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Oct. 1974	16.	eS	05	45	32						52.6N 32.2W, H:05 36 27.6, h N Mb 5.0. North Atlantic Ocean.
	eL	05	47.2								
	F	in next shock									
	WIT:eP	05	41	34.0							
	HEE:eP	05	41	35.5	-						
		e	05	41	44.5	+					
16.	iP	05	50	09	+						52.6N 32.1W, H:05 45 09.8, h N Mb 5.8, Ms 6.9. North Atlantic Ocean.
	iS	05	54	28		18	440	7.0			
	eL	05	55.8								
	F	09.6									
	WIT:iP	05	50	15.4	+						
	i	05	50	27.8							
	eL	05	59.0								
	HEE:iP	05	50	16.5	+						
	i	05	50	28.0	-						
	eS	05	54	49							
eL	05	58.0									
16.	WIT:iP	06	41	04.2							50.0N 79.0E, H:06 32 57.5, h 0 km. Mb 5.5. Eastern Kazakh SSR.
	HEE:iP	06	41	14.0	+						
16.	eL	10	12								40.3N 143.7E, H:09 29 49.0, h 24 km. Mb 5.6, Ms 5.2. Off east coast of Honshu, Japan.
	F	10.8									
	WIT:iP	09	41	58.3	+						
	e	09	42	09.0							
	HEE:iP	09	42	07.5							
		i	09	42	18.5						
17.	eL	22	25								No determination of epicenter.
	F	22	37								
18.	eL	00	56								17.6N 62.2W, H:00 26 42.6, h 45 km. Mb 5.2, Ms 4.4. Leeward Islands.
	F	01	09								
	HEE:eP	00	37	06.5							
		ipP	00	37	19.0						
18.	eL	10	05								3.2S 142.0E, H:09 04 04.3, h 36 km. Mb 5.4, Ms 5.4. Near north coast of New Guinea.
	F	10	32								
18.	HEE:iPKP	12	11	26.5	-						16.3S 172.4W, H:11 51 49.0, h N. Mb 5.4, Ms 5.2. Samoa Islands region.
	i	12	11	41.5							
20.	eL	11	33.7			18	8.5	4.9			39.7N 18.9E, H:11 25 55.3, h N Mb 4.9, Ms 4.9. Southern Italy.
	F	11	57								
	WIT:e(P)	11	29	43.0							
	HEE:eP	11	29	22.0							
20.	WIT:eP	11	55	03.0							42.3N 142.3E, H:11 43 05.1, h 24 km. Mb 5.3, Ms 4.9. Hokkaido, Japan region.

Seismological Data

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Oct. 1974	20.	eL	16	36							6.6S 154.8E, H:15 27 39.6, h 43 km. Mb 5.6, Ms 5.7. Solomon Islands.
	F	17	17								
	HEE:ePKP	15	46	44.5							
20.	eL	20	48								6.6S 154.7E, H:19 39 31.1, h 43 km. Mb 5.5, Ms 5.8. Solomon Islands.
	F	21.5									
21.	eL	03	32								54.3S 133.1W, H:02 14 39.3, h N. Mb 5.4. South Pacific Cordillera.
	F	04	20								
21.	WIT:iPKP	04	31	02.5	+						17.9S 178.6W, H:04 12 29.4, h 602 km. Mb 6.0. Fiji Islands region.
	i	04	31	09.4	+						
	epPKP	04	33	23.5							
	HEE:iPKP	04	31	07.5	+						
	i	04	31	10.5	-						
		ipPKP	04	33	25.0						
21.	WIT:iP	12	59	33.2							53.9N 160.5E, H:12 48 13.6, h N. Mb 5.7, Ms 4.7. Near east coast of Kamchatka.
	HEE:iP	12	59	43.5	+						
22.	eL	04	57.4								62.3N 26.0W, H:04 46 32.6, h N. Mb 4.0, Ms 4.5. Iceland region.
	F	05	01								
22.	iP	05	10	43	+	6	2.1				62.1N 26.4W, H:05 06 16.2, h N. Mb 5.1, Ms 5.4. Iceland region.
	eS	05	14	30							
	eL	05	17.5			17			5.8	5.0	
	F	05	48								
	WIT:eP	05	10	48.5							
	HEE:eP	05	10	54.5							
	i	05	11	01.5	+						
22.	eL	10	06								0.7S 98.1E, H:09 16 41.0, h 84 km. Mb 5.2. Southern Sumatra.
	F	10	44								
22.	iP	12	10	39	+	6	3.0				62.1N 26.2W, H:12 06 11.2, h N. Mb 4.9, Ms 5.6. Iceland region.
	eS	12	14	24							
	eL	12	15.3			17			8.3	5.2	
	F	12	48								
	HEE:eP	12	10	56.0							
	i	12	10	58.0							
22.	eL	23	34								13.5N 120.6E, H:22 45 42.1, h 41 km. Mb 5.2, Ms 5.1. Mindoro, Philippine Islands.
	F	24.2									



...een, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Oct. 1974											
23.	eL F WIT:ePKP HEE:ePKP i ePP	07 10.2 06 06 06 06	20  34 34 34 36	08.5  08.0 13.5 20.5		21		55	7.3	8.4S 154.0E, H:06 14 54.0, h 48 km. Mb 6.1, Ms 7.2. Dentrecasteaux Islands region. DBN: Clock failure. From Oct. 22, 23 13 GMT- Oct. 23, 08 23 GMT. no time marks.	
23.	eL F HEE:eP	12 12 11	18 26 56	30.0						1.0S 16.0W, H:11 46 56.0, h N. Mb 4.9, Ms 5.1. North of Ascension Island.	
24.	WIT:eP HEE:eP	05 05	39 39	19.0 27.5	+					33.4N 140.8E, H:05 26 47.0, h 63. km. Mb 5.4. South of Honshu, Japan.	
24.	eL F	08 09.0	16							30.9N 141.5E, H:07 30 49.5, h 45 km. Mb 5.1, Ms 4.8. South of Honshu, Japan.	
24.	WIT:iPKP HEE:iPKP	21 21	21 22	55.8 01.5	-					17.4S 178.7W, H:21 03 20.7, h 556 km. Mb 5.0. Fiji Islands region.	
25.	eL F WIT:eP epP e HEE:eP epP	00 01.1 00 00 00 00 00	45  17 18 18 17 18	50  18.5 30.0 50.0 16.5						15.8N 93.1W, H:00 05 34.1, h 120 km. Mb 5.5. Near coast of Chiapas, Mexico.	
25.	HEE:ePKP	03	38	13.0						6.3S 152.3E, H:03 19 07.7, h 18 km. Mb 5.7, Ms 5.0. New Britain region.	
27.	HEE:ePKP <sub>2</sub>	00	02	33.0						31.5S 177.5W, H:23 41 56.2, h 50 km. Mb 5.2, Ms 5.0. Kermadec Islands region.	
29.	eL F WIT:eP eL HEE:eP i eS eL	01 01 01 01 01 01 01 01	11.2 22 08 11.5 07 07 09 11.0	00  47.0 58.5 43.0	14		10.6	4.8		44.6N 18.4E, H:01 05 15.5, h N. Mb 5.1, Ms 4.8. Yugoslavia.	

Seismological Data

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Oct. 1974											
29.	iPKP iPP iZ iSKKS iPS iSS eL F WIT:iPKP HEE:iPKP e e ePKKP	03 03 03 03 03 03 04 06.2 03 03 03 03	32 33 34 40 43 49 09  32 32 33 33 43	42 50 48 36 21 36  43.5 45.0 42.0 52.0 20.5							6.9S 129.5E, H:03 14 14.6, h 117 km. Mb 6.5. Banda Sea.
29.	eL F	03	43								10.5N 63.4W, H:03 10 17.0, h N. Mb 5.1, Ms 5.3. Near coast of Venezuela.
30.	HEE:e	10	08	41.0							No determination of epi- center.
30.	eP eS eL F WIT:eP	16 16 16 17.8 16	20 30 51  20	12 40  05.0		20			10.6	6.2	29.9N 130.4E, H:16 07 33.2, h 33 km. Mb 5.3, Ms 5.8. Ryukyu Islands.
31.	HEE:ePn e i e	07 07 07 07	17 19 20 20	57.0 19.5 08.0 27.5	+						43.2N 0.9W, H:07 15 41.4, h N. Mb 3.8. Pyrenees, France.
31.	eL F WIT:iPKP HEE:ePKP i	08 09 07 07 07	08 01 06 06 06	  26.7 31.5 40.0							22.4S 174.8W, H:06 46 35.2, h N. Mb 4.9, Ms 5.3. Tonga Islands region.

Data without indication are from De Bilt; WIT means Witteveen, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USCGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Nov. 1974	1. WIT: ePKP	03	56	07.0	+					21.6S 174.3W, H: 03 36 19.6, h N. Mb 4.7, Ms 4.9 Tonga Islands.	
	HEE: ePKP	03	56	10.5							
	e	03	56	23.0							
2.	eL	01	29							10.3N 40.9W, H: 01 03 36.7, h N. Mb 4.9, Ms 5.0 North Atlantic Ridge.	
	F	02	01								
	HEE: eP	01	13	11.5							
2.	iP	05	05	57	+	2	18.0			70.8N 54.1 E, H:04 59 56.7, h 0 km. Mb 6.7, Ms 5.3. Novaya Zemlya. WIT: Not recorded because of instrument failure.	
	iS	05	10	46							
	eL	05	14.0		18		8.5	5.4			
	F	06	32								
	HEE: iP	05	06	03.5	+						
	iPcP	05	09	09.5							
2.	HEE: e	05	38	18.0	-					No determination of epicenter.	
2.	eL	09	13							41.4 N 142.1E, H: 08 27 29.2 h 67 km. Mb 5.1. Hokkaido, Japan region	
	F	09	20								
	WIT: eP	08	39	25.5							
2.	eL	22	39							36.3 N 141.7E, H:21 55 20.4, h 44 km. Mb 5.1 Near east coast of Honshu, Japan.	
	F			in next shock							
	WIT: eP	22	07	43.0							
	HEE: eP	22	07	51.5							
2.	eL	23	30							15.2S 174.1W, H:22 19 05.2, h 97 km Mb 5.6. Tonga Islands,	
	F	24.5									
	WIT: ePKP	22	38	25.0							
	e	22	38	30.0							
	HEE: iPcP	22	38	31.0	-						
	i	22	38	59.5	+						
4.	WIT: iPcP	15	06	48.6						22.4S 174.9W, H:14 47 00.1, h N. Mb 5.0, Ms 4.4. Tonga Islands region.	
	HEE: iPcP	15	06	53.0							
4.	WIT: iPcP	17	49	12.8						22.3S 174.8W, H:17 29 24.4, h N. Mb 4.9, Ms 4.9. Tonga Islands Region.	
	i	17	49	24.6							
	e	17	49	36.0							
	HEE: ePKP	17	49	17.0							
	i	17	49	29.0	-						
	i	17	49	37.0							

Seismological Data

Data without indication are from De Bilt; WIT means Witteveen, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Nov. 1974	5. eL	12	09							39.7S 173.8E, H:10 38 41.2, h 33 km. Mb 5.3, Ms 4.9. Off west coast of North Island, New Zealand.	
	F	12	45								
7.	HEE: e	02	38	58.5						No determination of epicenter. Germany?	
8.	HEE: ePKP	13	54	13.0						15.6S 173.2 W, H:13 34 35.3, h 12 km. Mb 5.3, Ms 4.9, Tonga Islands.	
	e	13	54	22.5							
8.	HEE: ePKP	13	57	46.0	+					15.7 S 173.2W, H:13 38 12.1, h N. Mb 5.4, Ms 5.2 Tonga Islands.	
8.	iP	21	35	11	+	4	2.0			42.5N 141.8E, H:21 23 21.8, h 132 km. Mb 6.0. Hokkaido, Japan region	
	iP	21	35	43							
	iPP	21	38	12							
	iS	21	44	56							
	i	21	45	34							
	eL	22	00								
	F	23.3									
	WIT: eP	21	35	04.0							
	i	21	35	06.5	+						
	e	21	37	31.0							
	HEE: eP	21	35	13.5	+						
	i	21	35	16.0	+						
	i	21	37	55.0							
	i	21	38	17.0							
9.	WIT: ePKP	01	49	29.0						ISC: 22.4S 170.5E, H:01 29 51, h 31 km. Loyalty Islands Region.	
	HEE: ePKP	01	49	35.0							
9.	HEE: eP	05	58	03.5	+					48.1 N 152.9 E, H:05 46 24.2 h 153 km. Mb 4.8. Kuril Islands	
9.	iP	10	41	52	+					ISC: 11.5N 75.2W, H:10 29 59.4, h 0 km. Mb 4.6. Near north coast of Colombia	
	iS	10	51	24							
	eSS	10	56	00							
	eL	11	05			22			25.0		
	F	12.8									

een, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms	
		h	m	s			Z	NS	EW			
Nov. 1974	9.	iP	13	13	17	+	10	6.0			12.5S 77.8W, H: 12 59 49.8, h 6 km. Mb 6.0, Ms 7.2. Near coast of Peru.	
		iPP	13	16	48							
		iSKS	13	23	56							
		eSS	13	31.5								
		eL	13	40	20							
		F	16.8									
		WIT: eP	13	13	22.5							+
		e	13	13	39.5							
		e	13	14	15.0							
		HEE: iP	13	13	18.0							+
e	13	13	35.0									
eL	13	14	10.0									
WIT: eP	14	28	47.3	-								
HEE: eP	14	28	56.0		+							
9.	iP	19	24	42		22	9.6	6.3			6.5S 105.3E, H: 19 10 55.2, h 51 km. Mb 6.1. Sunda Strait.	
	iSP	19	37	43								
	eL	19	59									
	F	21.5										
	WIT: e	19	28	08.0								
	HEE: e	19	28	13.5								
9.	WIT: ePKP	23	07	42.0	+					17.6S 178.5W, H: 22 49 10.5, h 590 km. Mb 4.8. Fiji Islands region.		
	HEE: ePKP	23	07	47.5								
10.	iPKP	04	45	16	20	3.9	6.2			15.9S 178.5W, H: 04 25 31.9, h 33 km. Mb 5.8, Ms 6.1. Fiji Islands region.		
	iPP	04	48	38								
	eL	05	33									
	F	07.0										
	HEE: iPKP	04	45	10.5							-	

Seismological Data

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Nov. 1974	11.	WIT: iPKP	04	30	51.5	+					17.9S 178.5W, H: 04 12 18.7, h 593 km. Mb 5.2. Fiji Islands region.
		HEE: iPKP	04	30	57.0						
	11.	eL	06	00							51.6N 178.1W, H: 05 17 51.0, h 68 km. Mb 5.8. Andreanof Is., Aleutian Islands.
		F	06	15							
		WIT: iP	05	29	33.5						
	HEE: eP	05	29	42.5							
	11.	WIT: iPKP	06	48	52.7	-					23.9S 177.6W, H: 06 29 21.1, h 196 km. Mb 5.6. South of Fiji Islands.
		HEE: iPKP	06	48	56.5						
		i	06	49	08.5						
	12.	eL	01	45							10.7S 79.1W, H: 00 53 54.2, h N. Mb 5.0, Ms. 4.5. Off coast of Peru.
F		02	00								
12.	WIT: ePg	03	00	13.0						48.3N 6.8E, H: 02 58 40.1, h 36 km. France.	
	HEE: ePn	02	59	21.0							
	iP*	02	59	27.0							-
	i	02	59	41.5							
	i	03	00	02.5							
12.	eL	23	07							2.3N 121.1E, H: 22 13 25.8, h 54 km. Mb 5.8. Celebes Sea.	
	F	23	40								
13.	eL	02	52							42.7N 46.6E, H: 02 36 25.5, h 42 km. Mb 5.1, Ms 4.7. Eastern Caucasus.	
	F	03	09								
13.	eL	18	23							58.0S 148.3E, H: 16 59 16.6, hN. Mb 5.3, Ms 5.9. West of Macquarie Island.	
	F	19	00								

en, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Nov. 14, 1974	eL F	05	21							58.8N 154.6W, H:04 48 54.7, h 37 km Mb 5.5, Ms 5.6, Alaska Peninsula.	
14.	eL F	13	32.2		15		8.1		5.1	38.5N 23.1E, H:13 22 33.1, h 19 km. Mb 5.0, Ms 5.0. Greece.	
14.	eL F WIT: eP	14	36.4		15		6.0		4.9	38.5N 23.0E, H:14 26 45.8, h 3 km Mb 5.1, Ms 5.2. Greece.	
14.	eL F	15	39.4		15		4.8		4.8	38.5N 23.1E, H:15 29 44.8, h 24 km Mb 5.0, Ms 5.1. Greece.	
15.	eL F	22	58							37.4N 76.9E, H:22 31 29.2, h 34 km Mb 5.0. Southern Sinkiang Prov., China	
15.	iP iZ eS	23	45	12	+	5	0.9			35.8N 141.0E, H:23 32 42.1, h 36 km Mb 5.8, Ms 5.6. Near east coast of Honshu Japan	
	eL F WIT: iP e HEE: iP e	23	45	12	+						
	eL F WIT: iP e HEE: iP e	23	45	15.5	+						
	eL F	23	45	24.0							
16.	eL F	17	04.4							33.0N 104.0E, H:16 25 53.8, h N. Mb 5.1, Ms 5.2. Kansu Province, China.	
16.	iP iZ iS eL F WIT: eP e HEE: eP	19	29	15						52.7N 32.1W, H:19 24 14.5, h N. Mb 5.0, Ms 4.9. North Atlantic Ocean.	
	eL F WIT: eP e HEE: eP	19	35.0			20		3.5	4.8		
	eL F WIT: eP e HEE: eP	19	29	22.0							
	eL F WIT: eP e HEE: eP	19	29	46.0							
	eL F WIT: eP e HEE: eP	19	29	22.0							
17.	eP e	00	17	10.0						7.7N 77.6W, H:00 05 00.4, h 21 km Mb 5.0, Ms 4.3. Panama-Colombia border region	
17.	eP e	00	17	13.5							
17.	ePKP iPKP e	01	19	50.5	+					17.0S 174.3W, H:01 00 36.5, h 192 km Mb 5.0 Tonga Islands.	
	ePKP iPKP e	01	19	55.5							
	ePKP iPKP e	01	20	43.5							

Seismological Data

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Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Nov. 17, 1974	eP eP	15	13	19.0						32.8N 55.1E, H:15 05 47.7, h 43 km Mb 5.2. Iran.	
	eP eP	15	13	19.5							
17.	eL F	16	10							43.5N 127.0W, H:15 27 59.4, h 12 km Mb 5.1. Off coast of Oregon.	
	eL F	16	19								
17.	iP iP	17	35	33.3	+					54.8N 161.5E, H:17 24 17.9, h 31 km Mb 5.3. Near east coast of Kamchatka	
	iP iP	17	35	44.0	+						
18.	eL F WIT: eP HEE: iP	18	50							20.6N 121.2E, H:18 03 03.3, h 36 km. Mb 5.5. Philippine Islands region.	
	eL F WIT: eP HEE: iP	18	15	50.0							
	eL F WIT: eP HEE: iP	18	15	56.0	+						
19.	iSPP eL F WIT: eP HEE: iP i	04	20	08		20		3.5	5.8	19.0N 121.3E, H:03 55 18.9, h 44 km. Mb 5.7, Ms 5.7. Philippine Islands region	
	iSPP eL F WIT: eP HEE: iP i	04	43								
	eL F WIT: eP HEE: iP i	04	08	14.0							
	eL F WIT: eP HEE: iP i	04	08	17.5							
	eL F WIT: eP HEE: iP i	04	08	26.0							
19.	eL F	05	58			20		3.5	6.0	3.2S 150.6E, H:04 58 23.0, h 18 km Mb 5.5, Ms 6.1. New Ireland region.	
	eL F	07.7									
19.	iPKP iPKP	05	58	59.0						17.9S 178.7W, H:05 40 29.6, h 639 km. Mb 5.1. Fiji Islands region.	
	iPKP iPKP	05	59	04.5	-						
20.	iPKP iPP iPKS iPS iZ iSKKS eSS eSSS eL F WIT: iPKP i ePP HEE: ePKP i i ePP	04	34	06	+					15.0S 167.1E, H:04 14 46.9, h N. Mb 6.4, Ms 6.9. New Hebrides Islands.	
	iPKP iPP iPKS iPS iZ iSKKS eSS eSSS eL F WIT: iPKP i ePP HEE: ePKP i i ePP	04	37	15							
	iPKP iPP iPKS iPS iZ iSKKS eSS eSSS eL F WIT: iPKP i ePP HEE: ePKP i i ePP	04	38	00							
	iPKP iPP iPKS iPS iZ iSKKS eSS eSSS eL F WIT: iPKP i ePP HEE: ePKP i i ePP	04	47	40							
	iPKP iPP iPKS iPS iZ iSKKS eSS eSSS eL F WIT: iPKP i ePP HEE: ePKP i i ePP	04	49	04							
	iPKP iPP iPKS iPS iZ iSKKS eSS eSSS eL F WIT: iPKP i ePP HEE: ePKP i i ePP	04	50	36							
	iPKP iPP iPKS iPS iZ iSKKS eSS eSSS eL F WIT: iPKP i ePP HEE: ePKP i i ePP	04	56.0								
	iPKP iPP iPKS iPS iZ iSKKS eSS eSSS eL F WIT: iPKP i ePP HEE: ePKP i i ePP	05	01.0								
	iPKP iPP iPKS iPS iZ iSKKS eSS eSSS eL F WIT: iPKP i ePP HEE: ePKP i i ePP	05	20			22		46	7.2		
	iPKP iPP iPKS iPS iZ iSKKS eSS eSSS eL F WIT: iPKP i ePP HEE: ePKP i i ePP	05	09.5								
	iPKP iPP iPKS iPS iZ iSKKS eSS eSSS eL F WIT: iPKP i ePP HEE: ePKP i i ePP	04	34	11.6							
	iPKP iPP iPKS iPS iZ iSKKS eSS eSSS eL F WIT: iPKP i ePP HEE: ePKP i i ePP	04	34	30.0							
	iPKP iPP iPKS iPS iZ iSKKS eSS eSSS eL F WIT: iPKP i ePP HEE: ePKP i i ePP	04	37	02.0							
	iPKP iPP iPKS iPS iZ iSKKS eSS eSSS eL F WIT: iPKP i ePP HEE: ePKP i i ePP	04	34	09.0							
	iPKP iPP iPKS iPS iZ iSKKS eSS eSSS eL F WIT: iPKP i ePP HEE: ePKP i i ePP	04	34	10.5							
	iPKP iPP iPKS iPS iZ iSKKS eSS eSSS eL F WIT: iPKP i ePP HEE: ePKP i i ePP	04	34	28.0	-						
	iPKP iPP iPKS iPS iZ iSKKS eSS eSSS eL F WIT: iPKP i ePP HEE: ePKP i i ePP	04	37	22.0	-						

en, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Nov. 1974											
20.	eL F	14	12								53.6S 28.3W, H:13 21 41.2, h N. Mb 6.0, Ms 5.6. Southwestern Atlantic Ocean.
21.	eL F	08	44								8.0S 155.7E, H:07 32 49.5, h N. Mb 5.1, Ms 5.2. Solomon Islands
21.	eS eL F WIT: eP HEE: eP	21	52	24							52.3N 31.6W, H:21 43 19.6, h N. Mb 4.7. North Atlantic Ridge.
22.	WIT: iPKP HEE: iPKP i i	00	55	35.2	-						22.8S 177.5W, H:00 36 08.9, h 211 km Mb 5.4 South of Fiji Islands.
23.	eL F HEE: eP	10	28								23.5N 123.8E, H:09 44 03.8 h N Mb 5.4, Ms 5.1 Southwestern Ryukyu Islands.
23.	eL F	18	55.0								39.7N 19.1E, H:18 46 33.4, h N. Mb 4.7. Ionian Sea.
24.	eL F	07	46								5.6N 82.6W, H:07 05 37.2 h 36 km Mb 5.0, Ms 4.9. South of Panama.
28.	WIT: eP	16	43	42.0							53.6N 163.7W, H:16 31 58.3, h 32 km Mb 5.3 Unimak Island region
29.	HEE: iPKP	10	08	40.0							19.6S 169.4E, H:09 49 15.4, h 142 km Mb 5.5 New Hebrides Islands
29.	eL F	21	34								51.8N 98.9E, H:21 05 31.6, h N. Mb 5.2 USSR-Mongolia border region

Seismological Data

Data without indication are from De Bilt; WIT means Witteveen, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Nov. 1974											
29.	iP ipP isP iS isS eL F WIT: iP ipP HEE: iP epP	22	17	27	-	8	6.5				30.7N 138.3E, H:22 05 22.4, h 419 km Mb 6.1 South of Honshu, Japan.
30.	WIT: eP	13	08	56.0							53.3N 173.0E H:12 57 20.6, h 17 km Mb 5.2, Ms 4.9. Near Islands, Aleutian Islands
30.	eL F	14	47								19.4N 155.4W, H:13 54 23.0, h 8 km Mb 5.1, Ms 5.5 Hawaii.

Data without indication are from De Bilt; WIT means Witteveen, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Dec. 1974											
1.	HEE:eP	12	13	45							39.5N 26.2E, H: 12 09 28.8, h 36 km. Mb 4.5. Turkey.
2.	HEE:ePKP <sub>2</sub>	00	38	45.5							35.2S 179.6W, H: 00 18 02.7, h 120 km. Mb 5.1. East of North Island, New Zealand.
2.	eL F HEE:e e e	02 02 01 01 01	00 25 57 57 59	  35.0 53.0 32.0							43.0N 13.0E, H: 01 55 15.9, h 7 km. Mb 4.9. Central Italy.
2.	HEE:ePKP	02	10	44.0							11.0S 166.4E, H: 01 51 37.0, h 153 km. Mb 5.2. Santa Cruz Islands.
2.	eL F WIT:eP HEE:eP e	07 07 06 06 06	19 56 47 47 47	  03.5 03.5 12.0							19.1N 121.2E, H: 06 34 07.7, h 53 km. Mb 5.5. Philippine Islands region.
2.	WIT:ePKP HEE:iPKP	07 07	02 02	32.5 37.0	+						6.2S 153.1E. H: 06 43 30.4, h 28 km. Mb 5.8, Ms 5.3. New Britain region.
2.	eL F WIT:eP HEE:eP i	09 09 09 09 09	29.7 56 13 13 13	  48.5 48.0 54.0	+						28.0N 55.8E, H: 09 05 44.2, h 36 km. Mb 5.4. Southern Iran.
2.	WIT:ePKP HEE:iPKP	12 12	40 41	56.5 01.5							20.4S 178.1W, H: 12 22 15.7, h 587 km. Mb 4.8. Fiji Islands region.
2.	HEE:eP	12	49	03.0							14.6N 91.5W, H: 12 36 44.5, h 97 km. Mb 5.2. Guatemala.
3.	iPP eSKS eSKKS eSS eL F HEE:ePKP ePP	03 03 03 03 04 06.5 03 03	26 32 33 42.3 03  25 26	20 12 20 42.3 03  20 22.5		22			13.4	6.5	5.0S 129.8E, H: 03 06 35.2, h N. Mb 6.2, Ms 6.5. Banda Sea.

Seismological Data

Data without indication are from De Bilt; WIT means Witteveen, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Dec. 1974											
4.	iP iS eL F WIT:eP i e HEE:eP	03 03 03 06.8 03 03 03 03	20 31 47  20 20 21 20	52 42   49.0 51.8 07.5 51.5		19		42.5		6.8	0.4N 97.8E, H: 03 07 46.3, h 20 km. Mb 6.0, Ms 6.9. Northern Sumatra.
4.	WIT:iPKP HEE:iPKP	05 05	29 30	58.5 04.5	- +						18.3S 177.1W, H: 05 11 02.4, h 375 km. Mb 4.7. Fiji Islands region.
5.	iP ipP iS eSS eL F WIT:iP HEE:iP i iPKKP	12 12 12 12 12 13.8 12 12 12 12	10 10 20 26.7 35  10 10 10 27	10 53 32    20.0 13.5 15.5 29.5	+	6	2.7				d.b.m. 7.7S 74.5W, H: 11 57 31.3, h 162 km. Mb 6.0. Peru-Brazil border region.
6.	eL F	14 15	39.5 18								8.3N 82.9W, H: 13 58 38.6, h 46 km. Mb 5.4, Ms 5.4. Panama-Costa Rica border region.
7.	HEE:ePKP	05	49	15.5							15.1S 173.5W, H: 05 29 46.0, h N. Mb 4.8, Ms 4.7. Tonga Islands.
7.	iP iS eL F WIT:eP HEE:eP	07 07 08 10.0 07 07	46 56 13  45 46	00 02   55.5 06.5	+	17	5.0		5.8		51.9N 170.8W, H: 07 34 11.0, h N. Mb 5.5, Ms 5.8. Fox Islands, Aleutian Islands.
7.	WIT:eP HEE:eP	22 22	14 14	23.5 30.5							51.7N 174.8E, H: 22 02 40.2, h 33 km. Mb 5.0, Ms 4.9. Near Islands, Aleutian Islands.
8.	eL F	00 00	37.5 42								64.0N 22.8W, H: 00 26 53.6, h N. Mb 4.3. Iceland.
8.	eL F	01 01	37.0 45								63.7N 22.6W, H: 01 26 34.5, h 28 km. Mb 4.6. Iceland region.
8.	eL F	01 02	57.1 00								64.0N 22.8W, H: 01 46 28.7, h N. Mb 4.4. Iceland.

een, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms
		h	m	s			Z	NS	EW		
Dec. 1974											
8.	eL F	04	01.0								64.0N 22.8W, H: 03 50 35.4, h 15 km. Mb 4.1. Iceland.
8.	eL F	06	59.0								63.8N 22.5W, H: 06 47 54.4, h 11 km. Mb 4.3. Iceland region.
8.	eL F	07	15.8								64.1N 22.5W, H: 07 05 16.8, h N. Mb 4.3. Iceland.
9.	HEE:ePKP	10	06	22.0							20.3S 174.3W, H: 09 46 32.1, h N.Mb 5.4, Ms 4.9. Tonga Islands.
10.	WIT:iPKP HEE:iPKP	01	23	13.5	-						20.0S 178.5W, H: 01 04 37.9, h 626 km. Mb 4.7. Fiji Islands region.
10.	iS isS eL F WIT:eP i HEE:iP e	01	56	03							36.5N 70.5E, H: 01 41 06.0, h 204 km. Mb 5.5 Hindu Kush region.
10.	eL F	02	50.7								30.4N 41.9W, H: 02 31 39.8, h N. Mb 5.0, Ms 4.9. North Atlantic Ridge.
14.	eS eL F WIT:eP HEE:iP	02	44	08		16		4.9	4.8		38.3N 20.8E, H: 02 36 38.4, h N. Mb 5.3. Greece.
14.	HEE:e(P)	21	33	10							38.6N 20.4E, H: 21 29 19.8, h 11 km. Mb 5.0. Greece.
15.	WIT:ePKP HEE:ePKP	17	07	14.5							18.0S 174.2W, H: 16 47 35.7, h N. Mb 5.1, Ms 4.9. Tonga Islands.
16.	eSS eL F	08	31	52							24.9S 112.1W, H: 07 53 56.8, h N. Mb 5.1., Ms 5.9. Easter Island region.
16.	HEE:ePn iSg e	17	19	44.5							49.7N 6.4E, H: 17 19 23.2, h N. Germany.

Seismological Data

Data without indication are from De Bilt; WIT means Witteveen, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms	
		h	m	s			Z	NS	EW			
Dec. 1974												
16.	HEE:iPn iSg e	17	53	36.0	+						49.8N 6.4E, H: 17 53 14.3, h N. Germany.	
17.	WIT:ePKP HEE:iPKP	23	21	41.5	+						20.5S 175.3W, H: 23 01 52.6, h 31 km. Mb 5.4, Ms 5.2. Tonga Islands.	
18.	eL F	08	27.7								d.b.m. 48.4N 103.1E, H: 07 54 40.4, h N. Mb 5.0, Ms 5.1. Mongolia.	
19.	WIT:iPKP HEE:iPKP	11	17	29.1	-						17.5S 179.0E, H: 10 59 01.9, h 646 km. Mb 4.5. Fiji Islands.	
19.	eS eSS eSSS eL F WIT:eP i HEE:eP	16	23	16		23				5.9	5.9	7.4N 78.7W, H: 16 00 49.0, h 13 km. Mb 5.4, Ms 5.8. Panama.
20.	WIT:ePKP HEE:iPKP	02	59	19.0	-						15.4S 177.1W, H: 02 40 31.3, h 374 km. Mb 5.1. Fiji Islands region.	
20.	HEE:eP	15	13	05.5							39.7N 20.4E, H: 15 09 29.0, h 12 km. Mb 4.8. Greece-Albania border region.	
20.	WIT:eP HEE:iP	16	49	49.0							49.8N 149.7E, H: 16 38 55.6, h 416 km. Mb 5.0. North-west of Kuril Islands.	
21.	HEE:eP e	00	39	07.5							7.3N 78.6W, H: 00 26 53.8, h N. Mb 5.1. Panama.	
21.	eL F WIT:ePKP HEE:iPKP	09	40	11.0							14.6S 175.2W, H: 08 28 55.9, h N. Mb 5.6. Ms 6.1, Samoa Islands region.	
21.	WIT:ePKP HEE:ePKP	21	41	09.5							ISC: 17.6S 177.7W, H: 21 21 42.2, h 33 km. Mb 4.7. Fiji Region.	
22.	WIT:iPKP HEE:iPKP	17	02	40.7	+						17.6S 179.0W, H: 16 44 05.3, h 559 km. Mb 5.1. Fiji Islands region.	

even, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms	
		h	m	s			Z	NS	EW			
Dec. 1974												
23.	eL F HEE:iPKP	02 02 01	17 51 23								34.5	14.6S 175.7W, H: 01 04 02.7, h N. Mb 5.4, Ms 5.6, Samoa Islands region.
23.	eL F	05 05	38 49									43.1N 47.0E, H: 05 22 08.4, h N. Mb 4.9, Ms 5.0. Eastern Caucasus.
23.	HEE:iPKP	11	35	40.0								16.2S 176.7W, H: 11 16 48.3, h 421 km. Mb 4.6. Fiji Islands region.
23.	HEE:e	16	36	07.5								35.4N 26.1E, H: 16 31 24.5, h N. Mb 4.5. Crete.
23.	eL F WIT:eP HEE:eP	24 24 23 23	22 39 54 54									5.3N 82.5W, H: 23 42 14.5, h N. Mb 5.1, Ms 5.0. South of Panama
24.	WIT:epP HEE:ipP	02 02	23 23	11.0 09.5	-							14.3N 90.1W, H: 02 10 25.4, h 155 km. Mb 5.4. Guatemala.
24.	eL F	02 03	48 11									No determination of epi- center.
24.	HEE:e(Pn) e(Sg) e	03 03 03	28 29 29	46.0 04.5 24.5	-							No determination of epi- center. Local shock ?
24.	iP iZ iPP eSKS eS eL F HEE:eP	07 07 07 07 07 07 10.5 07	09 09 13 19 20 41 09	08 31 05 30 12 05.0	- +							2.3S 99.0E, H: 06 55 47.1, h N. Mb 5.8, Ms 6.8. Southern Sumatra.
25.	HEE:ePKP	02	36	12.5								14.3S 167.3E, H: 02 17 14.4, h 179 km. Mb 5.0. New Hebrides Islands.
25.	iP eS eSS eL F WIT:iP e HEE:iP	03 03 03 03 05.0 03 03 03	01 10 15 26 05.0 00 01 01	01 52 56	+ + +	18						51.7N 174.6E, H: 02 49 13.0, h 40 km. Mb 5.7, Ms 5.8. Near Islands, Aleutian Islands.
25.	WIT:eP HEE:eP	08 08	06 06	28.5 39.0								51.7N 174.5E, H: 07 54 46.0, h 37 km. Mb 5.1, Ms 4.8. Near Islands, Aleutian Islands.

Seismological Data

Data without indication are from De Bilt; WIT means Witteveen, HEE means Heerlen

Date	Phase	G.M. Time			First motion	Period s	Amplitude $\mu$			Magnitude De Bilt	Remarks Data without indication are from USGS; d.b.m. means disturbed by microseisms	
		h	m	s			Z	NS	EW			
Dec. 1974												
25.	HEE:ePKP <sub>2</sub>	12	53	13.0								31.9S 179.8E, H: 12 33 09.6, h 327 km. Mb 5.1. Kermadec Islands region.
27.	WIT:iP ePcP HEE:iP	05 05 05	55 56 55	04.3 43.0 14.5	+ +							50.0N 79.0E, H: 05 46 56.8, h 0 km. Mb 5.6., Ms 4.7. Eastern Kazakh SSR.
28.	iP iPP iH eL F WIT:iP HEE:iP	12 12 12 12 13.5 12 12	20 22 31 35.4	36 24 48	+ +	23				27.5	6.3	d.b.m. 35.1N 72.9E, H: 12 11 43.8, h 22 km. Mb 6.0, Ms 6.2. West Pakistan. (5300 reported killed)
29.	eL F WIT:iP HEE:iP	03 04 03 03	59.5 12 54 54		+ +							d.b.m. 64.5N 17.6W, H: 03 50 06.1, h N. Mb 5.2. Iceland.
29.	WIT:eP HEE:iP	18 18	35 35	32.0 44.0	-							61.6N 150.5W, H: 18 25 00.7, h 67 km. Mb 5.6. Southern Alaska.
30.	HEE:eP	04	56	07.0								36.0N 69.7E, H: 04 47 44.3, h 116 km. Mb 5.3. Hindu Kush region.
31.	eP eS eL F HEE:eP	20 20 20 20	27 38 56	52 02								14.1N 91.9W, H: 20 15 32.8, h 75 km. Mb 5.4. Guatemala.
31.	iP eL F WIT:eP HEE:eP	20 21 21.8 20 20	33 00 00 33 33	31 36.5 57.5	+ +	6 20				1.9	7.1 6.1	14.1N 91.8W, H: 20 21 09.1, h 39 km. Mb 5.7. Ms 6.1, Guatemala.
31.	eL F	23 23	36 58									19.1N 155.4W, H: 22 40 48.0, h 5 km. Mb 5.5. Ms 5.2, Hawaii.