

K O N I N K L I J K N E D E R L A N D S
M E T E O R O L O G I S C H I N S T I T U U T

Seismic Records
at De Bilt

Volume 43

1955

De Bilt - 1961

P R E F A C E

This seismic Yearbook was composed under the supervision of
Dr. J. VELDKAMP, director of the Geophysical Section.
The records have been reduced by Mr. J. OLDEMAN, scientific
headassistant.

The Director in Chief of the
Royal Netherlands Meteorological
Institute,

Ir. C.J. WARNERS.

De Bilt, May 1960.

INTRODUCTION

SEISMOLOGICAL STATION DE BILT

The geographic coordinates of the seismological station are: 52°6'11" N and 5°10'6" E. The instruments are placed at a height of 3 m above mean sea-level on a subsoil consisting of sand (pleistocene).

The instruments are:

a set of seismographs (two horizontal and one vertical) with galvanometric recording according to GALITZIN,

one astatic horizontal seismograph according to WIECHERT, $M = 200$ kg, two horizontal pendulums according to BOSCH, $M = 25$ kg.

THE GALITZIN SEISMOGRAPHS AT DE BILT. Below are given: the period of the galvanometer T_1 , the reduced pendulum length l , the distance A_1 between the mirror of the galvanometer and the recording paper, and the rough values for the natural period T of the undamped pendulum, of the damping constant μ and of the multiplying factor k for the year 1955.

	NS comp.	EW comp.	Z comp.
Period of galvanometer T_1	24.43 sec	24.96 sec	12.0 sec
Reduced length of pendulum l	123 mm	123 mm	406 mm
Distance A_1	1380 mm	1380 mm	1380 mm
Period of pendulum T	25 sec	25 sec	12 sec
Damping constant μ	0.0	0.0	0.0
Multiplying factor k	11.0	11.0	175

THE WIECHERT AND BOSCH SEISMOGRAPHS AT DE BILT. The mean values of the natural period of the undamped pendulum T , of the damping ratio and of the static magnification V for the year 1955 are:

	T	ϵ	V
WIECHERT (NS comp.)	5.0 sec	4	170
" (EW comp.)	5.0 sec	4	170
BOSCH (NS comp.)	18.0 sec	4	20
" (EW comp.)	18.0 sec	4	20

SEISMOLOGICAL STATION HEERLEN

The geographic coordinates of the seismological station are: 50°53'0" N and 5°59'0" E.

The instrument, a horizontal seismograph, $M = 450$ kg, is placed at a height of 100 m above mean sea-level on a subsoil consisting of loess.

The mean values of the constants for the year 1955 are:

T	ϵ	V	V max.	T max.
2	3	400	600	2

SEISMOLOGICAL STATION WITTEVEEN

The geographic coordinates of the seismological station are: 52°48'8" N and 6°40'1" E.

The instrument, a GRENET vertical seismograph with galvanometric record, is placed at a height of 2 m above mean sea-level on a subsoil consisting of pleistocene sand.

The period of the 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.



EXPLANATION OF THE TABLES

The data given in this Yearbook have mostly been obtained from the GALITZIN records. The velocity of the recording paper is 30 mm per minute, allowing a good time-accuracy. Only when the earthquake was extraordinarily severe, so that the GALITZIN records could not be analyzed, the records of the WIECHERT and BOSCH seismographs were used. The velocity of the paper of these seismographs is 10 mm and 15 mm per minute respectively. Whenever these WIECHERT and BOSCH records were used, this has been mentioned in the column "remarks".

In a few cases the data from the seismograph at Heerlen are mentioned. The time is Greenwich mean time.

In the column "direction" + 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.
PPPP	=	P-wave three times reflected.
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.
SSSS	=	S-wave three 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 waves 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 discernable movement.
H	=	time of the shock at point of origin.
h	=	depth of the origin.
Δ	=	distance of epicentre.

The indices H, N, E, and Z refer to the 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 maximal amplitudes measured from the medium line. The amplitudes have been calculated by means of the formula:

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

In this formula $A l$ 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- and S-waves have been given. As the movement of these waves is irregular in general, the accuracy of these data is small. The amplitudes of the maxima of L-waves have been calculated in case of very strong earthquakes.



The amplitudes have been omitted when the oscillations were very irregular.

The seismological bulletins of the following stations were available: Algeria, Alicante, Almeria, Athens, Azores, BCIS (Bureau Central International de Séismologie), Beograd, Bogota, Brisbane, Budapest, Coimbra, Columbia University (Palisades N.Y. and Bermuda), Djakarta, Dublin, Firenze, Geophysics Division (New Zealand), Granada, Harvard University, Helsinki, Hermanus, Huancayo, Istanbul, Jena, John Carroll University (Cleveland), JSA (Jesuit Seismological Association), Kew, Kiruna, København, Ksara, La Paz, Lisboa, Manila, Melbourne, Paris, Pasadena, Perth, Poona, Praha, Prato, Quetta, Reykjavik, Riverview N.S.W., Roma, Santiago (Chile), Seismographic Stations of the University of California, Seismological Service of Canada, Stuttgart, Tabubaya, Tananarive, Toledo, Tortosa, Trieste, Uppsala, USCGS (United States Coast and Geodetic Survey), Western Samoa, Weston (Mass.), Wien, Zürich.

THE MICROSEISMIC ACTIVITY

The table on page 1 shows the character of the microseismic activity (see also 1915 p. 101 and 1916 p. 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 GALITZIN seismograph were used. The table below gives the amplitudes of the oscillations (measured from the medium line) and the corresponding amplitudes of the movement of the surface.

Character	Ampl. record	Ampl. surface
0	0 - $\frac{1}{2}$ mm	0 - $1\frac{1}{4}$ μ
1	$\frac{1}{2}$ - 2 "	$1\frac{1}{4}$ - 5 "
2	2 - 4 "	5 - 10 "
3	4 "	10 "

Seismic Records at De Bilt



International
Seismological
Centre

CHARACTER OF THE MICROSEISMIC MOVEMENT

Date 1955	Jan.	Febr.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	2	3	3	2	0 1 0	0 1	0	1 0 1	0	1	1	2 1 2
2	2	3 2	3	2 3 2	0 1 0	1	0	1 0 0	1	1	2 3	2
3	2	2 3	3 2	2	0 1 1	0	0	0	1	1 0	3 2	2 3 2
4	2	3	2	2 1	1 2	0 1 0	0 1 0	0	1	0 1	2 3	2 1
5	2 1	3	2	1	2 1	0 1	0 1	0	1	1 2	3 2	1 2
6	1 2 1	3	2 1	1 2	1	1	1 0 0	1	1	2 3 2	2 1	2
7	1	3	1	2 1	1 0 1	1	0	1 2	1 0	2 1	1 0	2
8	1 2	3	1	1 2	1 2	1	0 1 0	2 1	0 1	1	0 1	2
9	2 1 2	3 2	1	2 3 2	2 1	1	0	1 0	1 2 1	1	1	2 3
10	2 3	2 1	1	2	1	1 0	0 1 0	0	1	1 0	1 2	3
11	3 2	1	1	2 1	1	0	0	0 1 0	1	0 1 0	2 1	3
12	2 3	1	1	1 2	1 0	0 1 0	0	0 1 0	1 2	0	1	3
13	3	1	1	2 1	0 1	0 1 0	0	0	2 0	1	1	3
14	3	1	1 0 1	1	1 0	0 1	0 1	0 2	2 1	1	1	3
15	3	1	1	1	0 1	1 0	1	0	1	1 3 2	1	3
16	3	1 2	1	1	1	0	1 0 0	1	1	2	1	3
17	3	2	1	1	1 2	0 1 0	0 1	1 0	1	2	1	3 2
18	3	2	1 0	1	2 3 2	0 1 0	1	0 1	1	2 1	1	2
19	3 2	2 1	0 1	1	2 1	0 1	1	1 2	1 2	1 3 2	1	2
20	2	1	1 0 1	1	1	1	1 0	2 1	2	2	1	2 3
21	2	1	1 2	1	1	1 0	0	1 0	2	2 3	1	3
22	2	1	2	1	1 0	0 1	0 1 0	0	2	3 1	1	3
23	2	1	2	1	0 1	0 1	0	0 1	2 1	1	1 2	3
24	2 3	1	2 3 2	1	0 1	0 1 0	0	1 0 1	1	1 2 1	2 3	2 3
25	3	1	2 1	1	1 0	0 1 0	0 1	1 0	1 2	1	2 1	3
26	3 2	1	1	1 2	0 1	0	1 0	0	2	1	1	3
27	2	1 2	1 2 1	2 1	1	0	0 1 0	0	2 1	1	1 2 1	3
28	2	2 3	1 0	1 2 1	1	0	0 1	0	1	1	1 2 1	3
29	2		0 1	1 0	1 0	0 1 0	1 0	0	1	1	1	3
30	2		1	0	0 1	0 1 0	0 1 0	0	1 2 1	1	1 2 1	3
31	2 3		1 2		0 1	0	0 1	0		1		3 2

Seismic Records at De Bilt



Date 1955	Phase	Time	Direction	Period	Amplitude	Remarks
		h m s		s	μ	
Jan. 1 (1)	eP eS eL F	01 11.3 01 14.6 01 16 01 30				(1) Disturbed by microseisms. W1: 1P 1h 11m 15s. BCIS: 39° 1N 21° 8E, H. 1h 07m 04s. USCGS: 39° N 22° E, H. 1h 07m 02s. Central Greece.
Jan. 3 (2)	eL F	19 23 20 00				(2) Disturbed by microseisms. BCIS: 15° S 75° W, H. 18h 41m 55s, h = about 60 km. USCGS: H. 18h 41m 50s, h = about 60 km. Near coast of Peru.
Jan. 5 (3)	1PKP eSKKS eSKSP ePPS eSS eSSS eL F	01 10 29 01 22.0 01 26.0 01 29.0 01 37.0 01 42 02 10 04 00	-			(3) Disturbed by microseisms. W1: ePKP 1h 10.4m. USCGS: 50° S 162° E, H. 0h 50m 12s. Off south coast of South Island, New Zealand.
Jan. 5 (4)	ePKP ePP eSS eL F	18 08.1 18 11 17 18 30 19 04 21 00				(4) Disturbed by microseisms. W1: ePKP 18h 08m 10s. USCGS: 16° S 167° E, H. 17h 48m 35s. New Hebrides Islands.
Jan. 6 (5)	ePKP ePP eSS eL F	00 01.5 00 04.8 00 23.5 00 50 02 50				(5) Disturbed by microseisms. W1: ePKP 0h 01m 43s. BCIS: 16° 0S 167° E, H. 23h 42m 06s. USCGS: 16° S 167° E, H. 23h 42m 03s. New Hebrides Islands.
Jan. 6 (6)	ePKP ePP eSS eL F	02 42.0 02 45.3 03.03.8 03 39 05 00				(6) Disturbed by microseisms. (W1: ePKP 2h 42.0m) USCGS: aftershock of (4), H. 2h 22m 35s.
Jan. 6 (7)	eL F	11 00 11 40				(7) Disturbed by microseisms. USCGS: aftershock of (4), H. 9h 48m 19s.
Jan. 7 (8)	eS eL F	10.08.8 10.40 11 00				(8) Disturbed by microseisms. BCIS: 16° 0S 77° E, H. 9h 44m 29s. USCGS: 16° 0S 78° E, H. 9h 44m 28s. Indian Ocean.
Jan. 8 (9)	ePKP ePP eH eL F	07 53 08 07 56.0 08 20.5 08 35 10 30				(9) Disturbed by microseisms. Change of papers from 8h 11m till 8h 19m. USCGS: 11° S 166° E, H. 7h 33m 36s, h = about 60 km. Santa Cruz Islands.
Jan. 8 (10)	eP eL	07 57 04 08 01				(10) Disturbed by microseism. BCIS: 39° 5N 22° 1E, H. 7h 52m 58s. USCGS: 39° N 22° E, H. 7h 52m 57s. Central Greece.
Jan. 9 (11)						(11) W1: 1P 0h 39m 09s. USCGS: 54° N 162° E, H. 0h 27m 48s. Near east coast of Kamchatka.
Jan. 11 (12)						(12) W1: 1P 14h 00m 56s. USCGS: 27° N 127° E, H. 13h 48m 11s. Ryukyu Islands.
Jan. 13 (13)	1P 1S eL F	02 15 33 02 25 09 02 41 05 00				(13) Disturbed by microseisms. USCGS: 53° N 167° W, H. 2h 03m 43s. Fox Islands, Aleutian Islands.

Seismic Records at De Bilt

Date 1955	Phase	Time	Direction	Period	Amplitude	Remarks
		h m s		s	//	
Jan. 20 (14)	eL P	04 30 05 00				(14) Disturbed by microseisms. USCGS: $15\frac{1}{2}^{\circ}\text{N } 104\frac{1}{2}^{\circ}\text{W}$, H. 3h 48m 59s. Off coast of Mexico.
Jan. 25 (15)						(15) W1: eP 14h 55m 54s. USCGS: $80^{\circ}\text{N } 30^{\circ}\text{W}$, H. 14h 50m 05s. Arctic Ocean. Off west coast of Spitzbergen.
Jan. 28 (16)						(16) W1: 1P 7h 47m 03s. BCIS: $33^{\circ}.7\text{N } 23^{\circ}.4\text{E}$, H. 7h 41m 58s. Off south coast of Crete.
Jan. 28 (17)	eP eS eSS eL P	17 12.6 17 20 17 24.4 17 30 18 30	32			(17) Disturbed by microseisms. W1: 1P 17h 12m 25s. USCGS: $33^{\circ}\text{N } 82\frac{1}{2}^{\circ}\text{E}$. H. 17h 02m 33s. Tibet.
Jan. 29 (18)	eL P	17 50 18 10				(18) Disturbed by microseisms. W1: 1P 17h 15m 13s+. USCGS: $51\frac{1}{2}^{\circ}\text{N } 159\frac{1}{2}^{\circ}\text{E}$, H. 17h 03m 35s. Off southeast coast of Kamchatka.
Jan. 31 (19)	1P	05 15	35			(19) Disturbed by microseisms. W1: 1P 5h 15m 40s+. USCGS: $12\frac{1}{2}^{\circ}\text{S } 57^{\circ}\text{W}$, H. 5h 03m 03s. Mato Grosso, Brazil.
Jan. 31 (20)	eP eSS eL P	16 14 16 30 16 38 16 45	16			(20) Disturbed by microseisms. W1: 1P 16h 14m 03s; 1 16h 14m 08s. BCIS: $47\frac{1}{2}^{\circ}\text{N } 152\frac{1}{2}^{\circ}\text{E}$, H. 16h 02m 12s. USCGS: $46\frac{1}{2}^{\circ}\text{N } 153^{\circ}\text{E}$, H. 16h 02m 07s. Kurile Islands.
Feb. 1 (21)	eL P	19 57 20 20				(21) Disturbed by microseisms. W1: 1P 19h 28m 07s (+); 1 19h 28m 13s -. BCIS and CMO: $41^{\circ}.9\text{N } 142^{\circ}.6\text{E}$, H. 19h 16m 12s, h = about 60 km. USCGS: $42^{\circ}\text{N } 142\frac{1}{2}^{\circ}\text{E}$, H. 19h 16m 02s. Off south coast of Hokkaido, Japan.
Feb. 2 (22)						(22) W1: 1PKP 7h 42m 16s. USCGS: $22^{\circ}\text{S } 176^{\circ}\text{W}$, H. 7h 22m 32s. h = about 100 km. Tonga Islands.
Feb. 4 (23)	eL P	07 58 08 30				(23) Disturbed by microseisms. W1: 1P 7h 34m 37s; 1 7h 34m 46s. BCIS: $17\frac{1}{2}^{\circ}\text{S } 66\frac{1}{2}^{\circ}\text{E}$, H. 7h 21m 48s. USCGS: $17^{\circ}\text{S } 67^{\circ}\text{E}$, H. 7h 21m 49s. Mascarene Islands region.
Feb. 5 (24)	eP eS eL P	20 53.9 21 03.9 21 23 22 00				(24) Disturbed by microseisms. W1: eP 20h 53m 42s. USCGS: $46\frac{1}{2}^{\circ}\text{N } 153^{\circ}\text{E}$, H. 20h 41m 51s. CMO: $46^{\circ}\text{N } 152\frac{2}{3}^{\circ}\text{E}$, H. 20h 42.0m, h = about 60 km. Kurile Islands.
Feb. 6 (25)	eP eS eL P	01 00 01 04.5 01 05 01 20	15			(25) Disturbed by microseisms. W1: eP 1h 00m 10s. USCGS: foreshock of (26)m H. 0h 55m 32s.
Feb. 6 (26)	eP ez 1S eL P	02 32 02 33 02 36 02 37.5 03 10	36 59 38			(26) Disturbed by microseisms. W1: 1P 2h 32m 34s +. BCIS: $71^{\circ}.0\text{N } 15\frac{1}{2}^{\circ}\text{W}$, H. 2h 27m 51s. USCGS: $71^{\circ}\text{N } 13\frac{1}{2}^{\circ}\text{W}$, H. 2h 27m 53s. Jan Mayen Island region.

Seismic Records at De Bilt

Date 1955	Phase	Time			Direction	Period	Amplitude	Remarks
		h	m	s				
Feb. 9 (27)	eL F	10	14			s	u	(27) Disturbed by microseisms. Roma: 41°42'N 15°52'E, H. 10h 06m 57s. Gargano province, Italia.
Feb. 9 (28)	eL F	11	07					(28) Disturbed by microseisms. USCGS: 33°N 83°E, H. 10h 35m 24s. Tibet.
Feb. 10 (29)	eL F	00	42					(29) Disturbed by microseisms. W1: 1P 0h 14m 58s. BCIS: 50°N 156°E, H. 0h 03m 31s. USCGS: 50°N 156°E, H. 0h 03m 21s, h = about 60 km. Northern Kurile Islands.
Feb. 10 (30)	eL F	11	00					(30) Disturbed by microseisms. USCGS: 21½°S 173°W, H. 9h 36m 45s. Tonga Islands.
Feb. 13 (31)								(31) W1: 1P 17h 27m 49s+. USCGS: 56°N 160½°E, H. 17h 16m 55s, h = about 200 km. Central Kamchatka.
Feb. 13 (32)								(32) W1: eP 20h 03m 10s. CMO: 36°.5N 141°.0E, H. 18h 01m 53s, h = about 40 km. Off east coast of Honshu, Japan.
Feb. 14 (33)	eP ez eSKS ePS eSS eL F	17	07	37				(33) Disturbed by microseisms. BCIS: 3½°N 126½°E, H. 16h 53m 17s. USCGS: 2°N 126½°S, H. 16h 53m 09s. Molucca Passage.
Feb. 15 (34)	ePKP ePP eSS eL F	06	40	49				(34) Disturbed by microseisms. USCGS: 14°S 166½°E, H. 6h 21m 22s, h = about 60 km. New Hebrides Islands.
Feb. 15 (35)	ePKP eSS eL F	19	04.1					(35) Disturbed by microseisms. BCIS: 14½°S 167°E, H. 18h 41m 57s, h = about 60 km. USCGS: H. 18h 41m 47s, h = about 60 km. New Hebrides Islands.
Feb. 17 (36)								(36) W1: 1P 19h 34m 36s+. BCIS: 39°.6N 13°.8E, H. 19h 31m 32s. Near north coast of Sicilia.
Feb. 18 (37)	e(S) eL F	23	04	45				(37) Disturbed by microseisms. USCGS: 30½°N 67°E, H. 22h 48m 33s. Pakistan.
Feb. 21 (38)	eL F	19	56					(38) Disturbed by microseisms. BCIS: 39°.4N 23°.1E, H. 19h 46m 44s. Greece.
Feb. 21 (39)	eL F	23	26					(39) Disturbed by microseisms. BCIS: 40½°N 29½°W, H. 23h 14m 44s. Azores Islands region.
Feb. 23 (40)								(40) W1: 1PKP 5h 16m 30s+; 1 5h 16m 43s; epPKP 5h 17m 25s. USCGS: 20°S 175½°W, H. 4h 57m 11s, h = about 250 km. Tonga Islands.
Feb. 23 (41)								(41) W1: 1PKP 8h 55m 11s-. USCGS: 23°S 179°E, H. 8h 36m 22s, h = about 600 km. Fiji Islands region.

5
Seismic Records at De Bilt



Date 1955	Phase	Time			Direction	Period	Amplitude	Remarks
		h	m	s				
Feb. 23 (42)								(42) W1: 1PKP 11h 59m 41s-. USCGS: 18°S 178°W, H. 11h 41m 02s, h = about 600 km. Fiji Islands region.
Feb. 23 (43)	eL F	19	25					(43) Disturbed by microseisms. USCGS: 34°S 54½°E, H. 18h 31m 45s. Indian Ocean.
Feb. 27 (44)	1PKP ₁ 1PKP ₂ 1PP ePPP eSKSP 1SS eSSS eL F	21	03	22	+			(44) W1: 1PKP 21h 03m 18s+, 1 21h 03m 26s. BCIS: 28½°S 175°E, H. 20h 43m 23s. USCGS: 27½°S 176°E, H. 20h 43m 16s. Kermadec Islands region.
		21	03	49				
		21	07	26				
		21	11	09				
		21	17	52				
		21	27	22				
		21	33	10				
		22	00					
		02	00					
Mar. 1 (45)								(45) W1: 1P 1h 58m 35s. BCIS: 20°S 36½°W, H. 1h 46m 14s. USCGS: 21°S 37°W, H. 1h 46m 10s. Off coast of Brazil.
Mar. 1	1P eS ePS eSS eL F	04	53	00	+			(46) Disturbed by microseisms. W1: 1P 4h 52m 57s+. USCGS: 65°N 133°W, H. 4h 42m 59s. Yukon, Canada.
		05	01	07				
		05	01	27				
		05	05.2					
		05	11.9					
		06	15					
Mar. 1 (47)	eL F	15	30					(47) Disturbed by microseisms. W1: eP 14h 12m 22s. USCGS: aftershock of (46), H. 14h 02m 25s.
		16	00					
Mar. 2 (48)								(48) W1: ePKP 1h 55m 48s. USCGS: 4°S 152½°E, H. 1h 36m 45s. New Britain.
Mar. 3 (49)	eL F	20	56.5					(49) W1: eP 20h 51m 50s. BCIS: 70°N 30.5°W, H. 20h 47m 21s. USCGS: 71½°N 4½°W, H. 20h 47m 22s. Jan Mayen Island.
		21	05					
Mar. 5 (50)	eS eL F	19	46.5					(50) Disturbed by microseisms. BCIS: 10½°N 44°W, H. 19h 28m 33s. USCGS: 11°N 44°W, H. 19h 28m 31s. Atlantic Ocean.
		19	53					
		20	05					
Mar. 6 (51)	eL F	07	06					(51) Disturbed by microseisms. USCGS: 2½°S 100°E, H. 6h 18m 01s. Near south coast of Sumatra.
		07	35					
Mar. 6 (52)	eL F	11	42					(52) Disturbed by microseisms. USCGS: foreshock of (53), H. 10h 55m 28s.
		12	30					
Mar. 6 (53)	eSKS eL F	13	57.8					(53) Disturbed by microseisms. USCGS: 9½°N 122½°E, H. 13h 33m 31s. Negros Islands, Philippine Island.
		14	21					
		15	30					
Mar. 7 (54)	1PKP eL F	05	04	24				(54) Disturbed by microseisms. W1: ePKP 5h 04m 21s. USCGS: 18½°S 169°E, H. 4h 44m 44s. New Hebrides Islands.
		06	00					
		06	30					
Mar. 9 (55)	eL F	00	15					(55) USCGS: 50½°N 156°E, H. 23h 30m 20s, h = about 60 km. Off south coast of Kamchatka.
		00	35					

Seismic Records at De Bilt



Date 1955	Phase	Time	Direction	Period	Amplitude	Remarks
		h m s		s	//	
Mar. 9 (56)	eP ePP eS eSS eL F	02 39.2 02 42 24 02 49 29 02 55.0 03 06 04 10				(56) BCIS: $31\frac{1}{2}^{\circ}\text{S } 13\frac{1}{2}^{\circ}\text{W}$, H. 2h 26m 33s. USCGS: $30\frac{1}{2}^{\circ}\text{S } 13^{\circ}\text{W}$, H. 2h 26m 25s. Tristan du Cunha.
Mar. 9 (57)	ePKP eL F	05 59 15 06 50 07 05				(57) USCGS: $9\frac{1}{2}^{\circ}\text{S } 154\frac{1}{2}^{\circ}\text{E}$, H. 5h 39m 57s. Solomon Islands region.
Mar. 9 (58)	eL F	10 00 10 45				(58) Disturbed by microseisms. W1: 1P 9h 31m 18s-. USCGS: $24\frac{1}{2}^{\circ}\text{N } 123^{\circ}\text{E}$, H. 9h 19m 05s. Off northeast coast of Formosa.
Mar. 10 (59)	ePKP eH eL F	21 30.0 21 51.8 22 20 23 30				(59) USCGS: $15^{\circ}\text{S } 174^{\circ}\text{W}$, H. 21h 10m 11s. Samoa Islands.
Mar. 11 (60)	eP eL F	21 55.3 22 22 22 40				(60) USCGS: $52^{\circ}\text{N } 158^{\circ}\text{E}$, H. 21h 43m 40s. Kamchatka.
Mar. 12 (61)	eL F	00 26 00 50				(61) USCGS: $8^{\circ}\text{N } 124^{\circ}\text{E}$, H. 23h 32m 46s. Near northwest coast of Mindanao, Philippine Islands.
Mar. 13 (62)	eL F	04 40 05 40				(62) W1: eP 4h 15m 32s; e 4h 15m 57s. USCGS: $49\frac{1}{2}^{\circ}\text{N } 155^{\circ}\text{E}$, H. 4h 03m 53s, h = about 60 km. Kurile Islands.
Mar. 13 (63)	eL F	17 25 17 30				(63) Disturbed by microseisms. BCIS: $28^{\circ}\text{N } 56\frac{3}{4}^{\circ}\text{E}$, H. 16h 58m 00s. USCGS: H. 16h 58m 00s. Southern Iran.
Mar. 14 (64)	eP epP ez ePP ePPP eS eSS eSSS eL F	13 23 40 13 24 17 13 24 32 13 27.0 13 28.5 13 33 12 13 34 23 13 39.0 13 42.0 13 46 14 50				(64) Disturbed by visitors. W1: eP 13h 23m 38s; epP 13h 24m 15s. USCGS: $52\frac{1}{2}^{\circ}\text{N } 173\frac{1}{2}^{\circ}\text{W}$ H. 13h 12m 04s, h = about 100 km. Andreanof Islands, Aleutian Islands.
Mar. 16 (65)	eL F	20 59 21 25				(65) USCGS: $38^{\circ}\text{N } 71^{\circ}\text{E}$, H. 20h 39m 20s. Hindu Hush.
Mar. 16 (66)	eL F	22 50 23 15				(66) $26\frac{1}{2}^{\circ}\text{S } 115^{\circ}\text{W}$, H. 21h 45m 14s. Easter Island region.
Mar. 18 (67)	1P eS eH eSS eL F	00 18 04 00 27 30 00 28 29 00 32.0 00 38 04 30				(67) Disturbed by microseisms. W1: 1P 0h 18m 05s+. BCIS and CMO: $54^{\circ}.5\text{N } 161^{\circ}.0\text{E}$, H. 0h 06m 44s. USCGS: $54\frac{1}{2}^{\circ}\text{N } 161^{\circ}\text{E}$, H. 0h 06m 42s. Near east coast of Kamchatka.
Mar. 18 (68)	eL F	06 56.6 07 05				(68) Disturbed by microseisms. BCIS: $41^{\circ}.8\text{N } 15^{\circ}.6\text{E}$, H. 6h 49m 37s. Monte Gargano, Italy.

7
Seismic Records at De Bilt



Date 1955	Phase	Time			Direction	Period	Amplitude	Remarks
		h	m	s		s	μ	
Mar. 21 (69)	eL F	13	40					(69) Disturbed by microseisms. USCGS: 26°N 98½°E, H. 13h 02m 05s, h = about 100 km. China-Burma border.
Mar. 22 (70)	eL F	02	44					(70) Disturbed by microseisms. USCGS: 45°N 28°W, H. 2h 33m 09s. North Atlantic Ocean.
Mar. 22 (71)	eL F	06	50					(71) Disturbed by microseisms. BCIS: 26½°N 98½°E, H. 16h 14m 02s. USCGS: 26°N 98½°E, H. 16h 14m 00s. Burma.
Mar. 22 (72)	1P 1PP ez eSKS ePS eSS eSSS eL F	14	18	32				(72) W1: 1P 14h 18m 32s; 1 14h 18m 44s; 1PP 14h 22m 20s. BCIS: 9°05S, 91½°E, H. 14h 05m 06s. USCGS: 8½°S 92°E, H. 14h 05m 04s. Indian Ocean.
Mar. 23 (73)	eL F	05	50					(73) Disturbed by microseisms. USCGS: aftershock of (72), H. 4h 54m 31s.
Mar. 23 (74)	eL F	18	50					(74) Disturbed by microseisms. USCGS: 56½°S 147°E, H. 17h 16m 17s. Southwest of Macquari Island.
Mar. 27 (75)	1P eS eL F	14	49	22				(75) Disturbed by microseisms. BCIS: 29°09N 90°02E, H. 14h 38m 45s. USCGS: 30°N 90°E, H. 14h 38m 44s. Eastern Tibet.
Mar. 28 (76)	eP eS eL F	01	04	27				(76) W1: eP 1h 04m 40s. BCIS: and USCGS: 53°N 35°W, H. 0h 59m 09s. North Atlantic Ocean.
Mar. 28 (77)	eP ez ePP eS ePS eL F	09	24	53				(77) W1: 1P 9h 24m 45s+; 1 9h 24m 48s-; 1 9h 24m 48s. USCGS: 29°N 130°E, H. 9h 12m 09s. Ryukyu Islands.
Mar. 28 (78)	1P 1S eL F	14	50	11	+			(78) BCIS: 37°06N 21°01E, H. 14h 45m 45s. USCGS: 38°N 21°E, H. 14h 45m 46s. Near west coast of Greece.
Mar. 31 (79)	1P ePP ez 1SKS ePS eSS eL F	18	31	07	-			(79) W1: 1P 18h 31m 04s-. BCIS: H. 18h 17m 12s, h = about 60 km. USCGS: 8°N 124°E, H. 18h 17m 00s. Manilla: 7°55'N 124°05'E, h = about 50 km. Near northwest coast of Mindanao, Philippine Islands.
Apr 11 (80)	eL F	18	50					(80) W1: 1P 18h 45m 44s. BCIS: 64°01N 21°02W, H. 18h 41m 27s. USCGS: 64°N 21°W, H. 18h 41m 27s. Iceland.

8
Seismic Records at De Bilt



Date 1955	Phase	Time			Direction	Period	Amplitude	Remarks
		h	m	s				
April 3 (81)								(81) W1: 1P 0h 04m 20s. USCGS: 53 $\frac{1}{2}$ °N 154 $\frac{1}{2}$ °E, H. 23h 53m 42s, h = about 400 km. Off west coast of Kamchatka.
April 4 (82)	1P ePP eS 1PS eSS eL F	11	24	13	+	6	3	(82) Disturbed by microseisms. W1: eP 11h 24m 09s. USCGS: 22°N 121°E, H. 11h 11m 21s. Near south coast of Formosa.
		11	27	40				
		11	34	54				
		11	36	14				
		11	40.7					
April 4 (83)	eSS eL F	19	51					(83) Disturbed by microseisms. W1: 1P 19h 36m 33s. USCGS: 13°N 87°W, H. 19h 24m 04s. Nicaragua.
		19	55					
		20	50					
April 5 (84)	eL	14	49					(84) F in next shock. W1: 1P 14h 15m 27s. USCGS: 23°N 121°E, H. 14h 02m 46s. Formosa.
April 5 (85)	eP eS eSS eSSS eL F	15	22	00				(85) Disturbed by microseisms. W1: eP 15h 22.0m USCGS: 25°N 110°W, H. 15h 09m 15s. Gulf of California.
		15	32	24				
		15	38					
		15	41					
		15	47					
		18	00					
April 6 (86)								(86) W1: eP 13h 03.6m. No Galitzin records. USCGS: 17 $\frac{1}{2}$ °S 66 $\frac{1}{2}$ °E, H. 12h 50m 50s. Mascarene Islands region.
April 6 (87)								(87) W1: 1PKP 18h 33m 09s. BCIS: H. 18h 41.1m. Santa Cruz Islands region, South Pacific Ocean.
April 10 (88)								(88) W1: 1P 7h 42m 09s. BCIS: H. 7h 30m 30s. Off southwest coast of Kamchatka.
April 10 (89)	eL F	18	27					(89) Disturbed by microseisms. USCGS: 8°N 125°E, H. 17h 38m 12s. Mindanao, Philippine Islands.
		19	10					
April 13 (90)	eP eS eL F	20	50	11				(90) Disturbed by microseisms. W1: 1P 20h 50m 11s. He: eP 20h 50m 10s. BCIS: 37 $\frac{1}{4}$ °N 22 $\frac{1}{4}$ °E, H. 20h 45m 45s. USCGS: 37 $\frac{1}{2}$ °N 22°E, H. 20h 45m 45s. Peloponnesus, Greece.
		20	53	53				
		20	56					
		21	10					
April 14 (91)	1P 1PP 1PPP 1S eSS eSSS eL F	01	40	24	5	7		(91) Disturbed by microseisms. W1: eP 1h 40m 09s; e 1h 40m 13s; ePP 1h 42m 50s. USCGS: 30°N 101 $\frac{1}{2}$ °E, H. 1h 28m 58s. Sikang Province, China.
		01	43	04				
		01	44	42				
		01	49	39				
		01	59	14				
		01	57.2					
		02	02					
		05	00					
April 15 (92)	eP 1z 1PP eS eScS eSS eL F	03	49	33	6	9		(92) W1: 1P 3h 49m 27s. USCGS: 40°N 74 $\frac{1}{2}$ °E, H. 3h 40m 52s. Kirghiz S.S.R.
		03	49	36				
		03	51	30				
		03	56	32				
		03	59	28				
		04	00	08				
		04	02.5					
		07	30					

9
Seismic Records at De Bilt



Date 1955	Phase	Time			Direction	Period	Amplitude	Remarks
		h	m	s				
April 11 155 (93)								(93) W1: eP 4h 21m 59s. USCGS: aftershock, Kirghiz, H. 4h 13m 23s.
April 11 17 (94)	1P 1pP eS eL F	18 18 18 19 22	47 47 56 11 00	02 20 39	+	5	3	(94) Disturbed by microseisms. W1: 1P 18h 46m 58s; 1pP 18h 47m 16s. USCGS: 52°N 159½°E, H. 18h 35m 37s, h = about 60 km. Off south coast of Kamchatka.
April 17 (95)								(95) W1: 1P 23h 32m 55s, USCGS: 28°N 140°E, H. 23h 20m 33s, h = about 350 km. Bonin Islands region.
April 18 (96)	eL F	09 09	34 55					(96) W1: eP 9h 00m 43s. BCIS: 25½°N 124°E, H. 8h 47m 57s. USCGS: H. 8h 47m 58s. About 150 miles off north coast of Formosa.
April 19 (97)	eL F	13 13	05 20					(97) BCIS: Off southwest coast of Peloponnesus, Greece.
April 19 (98)	1P 1S eL F	16 16 16 18	51 55 56.3 30	32 00	+	6	5	(98) W1: eP 16h 51m 30s. BCIS: 39½°N 23°E, H. 16h 47m 19s. USCGS: 39½°N 23°E, H. 16h 47m 17s. Near east coast of Greece.
April 19 (99)	eP ePP eSKS ePS eSS eSSS eL F	20 20 20 20 20 21 21 24	38 42 49 52.8 58.5 02 13 00	31 57 10				(99) W1: eP 20h 38m 32s; ePP 20h 42m 52s; USCGS: 30°S 72°W, H. 20h 24m 05s. Near coast of Central Chile. Extensive damage from water waves at Tongoy and La Serena.
April 20 (100)	ePP eSKS ePS eSS eL F	02 02 02 02 03 04	31 37.5 40 51 08 30	13 34				(100) Disturbed by microseisms. USCGS: 30°S 72½°W, H. 2h 12m 26s. aftershock of (99).
April 20 (101)	ePP eSKS ePS eL F	06 06 06 06 08	07 13 16.5 42 00	13 34				(101) Disturbed by microseisms. USCGS: 30½°S 72½°W, H. 5h 48m 27s. Aftershock of (99)
April 20 (102)	eL F	08 08	40 48					(102) USCGS: 44½°N 83½°E, H. 8h 13m 35s. Sinkiang Province, China.
April 20 (103)	eL F	10 11	38 00					(103) USCGS: 1°N 126°E, H. 9h 44m 07s. Molucca Passage.
April 21 (104)	eP 1z 1S 1PcP eL F	07 07 07 07 07 08	22 22 26 26 27.5 10	31 34 00 54	-			(104) W1: eP 7h 22m 30s; e 7h 22m 27s. BCIS: H. 7h 18m 18s, USCGS: 39½°N 23°E, H. 7h 18m 17s. Near east coast of Greece.
April 22 (105)	ePS eL F	01 01 02	33.0 55 25					(105) USCGS: H. 1h 03m 56s. Sandwich Island region.
April 22 (106)	eL F	10 10	11 35					(106) W1: eP 10h 07.3m. BCIS: 34°N 23°E, H. 10h 02m 22s. USCGS: 34½°N 24½°E, H. 10h 02m 21s. Off south coast of Greece.

10
Seismic Records at De Bilt



Date 1955	Phase	Time	Direction	Period	Amplitude	Remarks
		h m s		s	μ	
Apr11 22 (107)	eP	16 39 22				(107) W1: eP 16h 39m 20s-. BCIS: 46° 3N 150° 4E, H. 16h 27m 34s, h = about 100 km. USCGS: 46°N 150½°E, H. 16h 27m 31s, h = about 100 km. Kurile Islands.
Apr11 23 (108)	eL F	03 20 03 40				(108) BCIS: H. 2h 32,6m. Near north-east coast of Formosa.
Apr11 23 (109)	eL F	04 50 05 30				(109) USCGS: aftershock of (99), H. 3h 58m 03s.
Apr11 23 (110)						(110) W1: 1P 16h 51m 16s. USCGS: 27½°N 139½°E, H. 16h 39m 04s, h = about 500 km. Bonin Islands.
Apr11 23 (111)	1PKP ePP ePS eSS eL F	18 47 56 18 49 54 18 59 52 19 06.7 19 28 20 00				(111) W1: 1PKP 18h 47m 58s. USCGS: 24½°S 113°W, H. 18h 28m 47s. Easter Islands region.
Apr11 24 (112)	eP ePP eS eScS eL F	13 08 18 13 10 12 13 15 27 13 18 07 13 25 14 20				(112) Disturbed by microseisms. W1: eP 13h 08m 10s; ePP 13h 10m 01s. USCGS: 45°N 86°E, H. 12h 59m 00s. Sinkiang Province China.
Apr11 26 (113)	eH eL F	03 35 03 43 04 30				(113) Disturbed by microseisms. USCGS: 13½°N 89½°W, H. 3h 03m 34s, h = about 60 km. Near coast of El Salvador.
Apr11 28 (114)	1P 1z eS ePS eL F	19 16 55 19 17 12 19 26 49 19 27.5 19 42 22 00				(114) Disturbed by microseisms. W1: 1P 19h 16m 51s. BCIS: 52°ON 178½°W, H. 19h 05m 03s. USCGS: 51°N 178½°W, H. 19h 04m 59s. Adak, Andreanof Islands.
Apr11 28 (115)						(115) W1: 1PKP 22h 06m 09s. USCGS: 20°S 169½°E, H. 21h 46m 30s. New Hebrides Islands.
Apr11 30 (116)	eL	02 06				(116) F in next shock. W1: 1P 1h 44m 48s; 1 1h 45m 24s. USCGS: 12½°ON 87°W, H. 1h 32m 25s. Near coast of Nicaragua.
Apr11 30 (117)	eL F	02 17 03 20				(117) W1: 1P 1h 56m 20s. USCGS: 12°N 87°W, H. 1h 43m 50s. Nicaragua, aftershock.
Apr11 30 (118)	eL F	14 50 15 25				(118) W1: eP 14h 17m 22s. USCGS: 40½°ON 143°E, H. 14h 05m 10s. Foreshock of (119).
May 1 (119)	eP 1PP eS ePS eL F	10 07 37 10 10 49 10 17 49 10 18 40 10 34 12 20				(119) W1: 1P 10h 07m 34s; ePP 10h 10m 48s. USCGS: 39½°ON 143½°E, H. 9h 55m 16s. Off east coast of northern Honshu, Japan.
May 1 (120)	eP ePP eS ePS eL F	14 11 04 14 14 15 14 21 18 14 22 05 14 38 16 10				(120) W1: eP 14h 11m 02s. USCGS: aftershock of (119). H. 14h 58m 44s.

11
Seismic Records at De Bilt



Date 1955	Phase	Time			Direction	Period	Amplitude	Remarks
		h	m	s		s	//	
May 1 (121)								(121) W1: 12h 26m 17s; 1 21h 26m 21s. BCIS: 45° 9'N 26° 6'E, H. 21h 22m 53s, h = about 150 km. USCGS: 45½°N 27°E, H. 21h 22m 40s. East central Romania.
May 3 (122)	eL F	17	55					(122) Disturbed by microseisms. USCGS: aftershock of (119), H. 17h 07m 33s.
May 4 (123)	eL F	00	55					(123) Disturbed by microseisms. USCGS: 28°N 96½°E, H. 0h 16m 59s. Northern Assam.
May 6 (124)	eL F	00	50					(124) Disturbed by microseisms. W1: eP 0h 16m 46s. BCIS and USCGS: 40°N 143°E, H. 0h 04m 31s. Near east coast of northern Honshu, Japan.
May 6 (125)	eS eL F	11	52.1					(125) Disturbed by microseisms. BCIS: 35° 1'N 36° 1'W, H. 11h 39m 52s. USCGS: 35½°N 36°E, H. 11h 39m 53s. North Atlantic Ocean.
May 8 (126)	eL F	21	46					(126) BCIS: 36° 6'N 10° 5'E, H. 21h 39m 01s. Near coast of Algeria.
May 11 (127)	eP eS eL F	11	16	48				(127) Disturbed by microseisms. W1: eP 11h 16m 50s. BCIS: 0° 0' lat. 77° 8'W, H. 11h 04m 01s. USCGS: 0° lat. 78°W, H. 11h 04m 00s. Ecuador.
May 11 (128)	eL F	16	37					(128) USCGS: 36°N 140½°E, H. 15h 48m 57s. Near east coast of Honshu, Japan.
May 11 (129)	eL F	17	25					(129) USCGS: 19½°N 121½°E, H. 16h 37m 10s. Near coast of Luzon, Philippine Islands.
May 13 (130)	eP eS eL F	03	40	17				(130) Disturbed by microseisms. USCGS: 19½°N 64°W, H. 3h 29m 55s. Virgin Islands region.
May 14 (131)	eS eL F	06	26.7					(131) Disturbed by microseisms. USCGS: 28°N 139½°E, H. 6h 04m 14s, h = about 500 km. Bonin Islands.
May 14 (132)	ez ez F	13	45	13				(132) Disturbed by microseisms. W1: 1P 13h 43m 54s; 1 13h 45m 13s. USCGS: 37°N 71½°E, H. 13h 35m 38s, h = about 200 km. Hindu Kush.
May 17 (133)	eP 1z 1z 1PP 1S eSS eSSS eL F	15	02	21				(133) Disturbed by microseisms. W1: eP 15h 02m 14s; 1 15h 02m 17s. BCIS: 6° 6'N 94° 0'E, H. 14h 49m 49s. USCGS: 7°N 94½°E, H. 14h 49m 47s. Nicobar Islands.
May 21 (134)	eL F	04	15					(134) USCGS: 29°N 140½°E, H. 3h 30m 06s. Bonin Islands region.

12
Seismic Records at De Bilt



Date 1955	Phase	Time			Direction	Period	Amplitude	Remarks
		h	m	s				
May 22 (135)	e F	05	00					(135) W1: 1 4h 59m 15s; 1 4h 59m 22s; 1 4h 59m 37s; 1 5h 00m 11s; 1 5h 00m 46s. He: 1 4h 59m 14s; 1 4h 59m 20s; 1 4h 59m 26s; 1 4h 59m 30s; 1 4h 59m 42s; 1 4h 59m 55s. BCIS: 47° 4N 11° 5E, H. 4h 57m 32s. East of Innsbrück, Austria.
May 22 (136)	eL F	15	07					(136) USCGS: 18°N 147½°E, H. 14h 05m 35s. Marianas Islands.
May 23 (137)	eL F	17	20					(137) USCGS: H. 16h 32m 38s. Near east coast of Formosa.
May 23 (138)	eL F	18	50					(138) USCGS: 18°S 169°E, H. 17h 41m 40s. New Hebrides Islands.
May 25 (139)								(139) W1: eP 3h 21m 34s. BCIS: 13°N 91½°W, H. 3h 08m 57s. USCGS: 14°N 92½°W, H. 3h 08m 58s. Off coast of Guatemala.
May 25 (140)	eP eS eL F	12	30	25				(140) W1: eP 12h 30m 38s. BCIS: 48°N 26½°W, H. 12h 25m 30s. USCGS: 46°N 27°W, H. 12h 25m 25s. North Atlantic Ocean.
May 25 (141)	eL F	19	00					(141) W1: eP 18h 32m 48s. BCIS: 48° 5N 156° 5E, H. 18h 20m 54s. USCGS: 48°N 157°E, H. 18h 20m 53s. Northern Kurile Islands.
May 26 (142)	ePKP ePP ePKS eSS eL F	16	42.5	05				(142) W1: ePKP 16h 42m 34s; ePP 16h 45.0m. BCIS: 9½°S 160½°E, H. 16h 23m 14s. USCGS: 10°S 161°E, H. 16h 23m 10s. Solomon Islands.
May 26 (143)	eL F	21	58					(143) USCGS: H. 21h 18m 09s. Sinkiang Province, China.
May 28 (144)	ePP eSKS ePPS eSS F	06	38	30				(144) W1: 1pPP 6h 39m 22s. USCGS: 30½°S 65°W, H. 6h 20m 40s, h = about 200 km. Cordoba Province, Argentina.
May 29 (145)	eL F	10	50					(145) USCGS: 49°N 157°E, H. 11h 05m 50s. Northern Kurile Islands region.
May 29 (146)	eP eS eL F	13	43.0	12				(146) Disturbed by microseisms. W1: eP 13h 42.7m. USCGS: 56°N 155°W, H. 13h 31m 26s. Near south coast of Kodiak Island.
May 29 (147)	eP ez eSKS eL F	15	48.5	09				(147) BCIS: 10°1S 110° 6E, H. 15h 34m 04s. USCGS: 10½°S 110½°E, H. 15h 34m 00s. Off south coast of Java.
May 29 (148)	eS eL F	21	23.9					(148) USCGS: aftershock of (146), H. 20h 03m 07s.

13
Seismic Records at De Bilt



Date 1955	Phase	Time			Direction	Period	Amplitude	Remarks
		h	m	s		s	//	
May 30 (149)	1P	12	44	07				(149) W1: 1P 12h 43m 55s; epP 12h 46.0m; 1PP 12h 47m 44s. USCGS: 24½°N 142½°E, H 12h 31m 41s, h = about 600 km. Vulcano Islands.
	epP	12	46	09				
	ePP	12	48	05				
	ePPP	12	50	17				
	1SKS	12	53	50				
	1S	12	54	39				
	ePS	12	56	00				
	eSS	12	59.7					
	eSSS	13	04.5					
	eH	13	08					
	eL	13	18					
	F	15	30					
May 30 (150)	ePP	23	46	49				(150) W1: ePKP 23h 45m 31s; ePP 23h 46m 37s. BCIS: 3°5S 136°5E, H. 23h 26m 52s. USCGS: 3°S 137°E, H. 23h 26m 50s. Western New Guinea region.
	ePS	23	56.5					
	eSS	00	03.0					
	eL	00	18					
	F	02	00					
May 31 (151)	ePKP	09	50	57				(151) W1: 1PKP 9h 50m 43s. USCGS: 27°S 177½°W, H. 9h 30m 44s, h = about 100 km. Kermadec Islands region.
	ez	10	04	39				
	eSS	10	14.0					
	F	10	45					
May 31 (152)								(152) W1: 1P 14h 56m 02s. USCGS: 42°N 141°E, H. 14h 44m 10s, h = about 100 km, Near south coast of Hokkaido, Japan.
May 31 (153)	eP	18	10	35				(153) W1: 1P 18h 10m 40s. BCIS: 0°5S 91°3W, H. 17h 57m 13s. USCGS: 0°lat. 92°W H. 17h 57m 12s. Galapagos Islands.
	ePP	18	14	18				
	eS	18	22					
	eL	18	30					
	F	19	10					
June 1 (154)	eL	12	16					(154) USCGS: 24½°N 122½°E, H. 15h 25m 32s. Near east coast of Formosa.
	F	12	36					
June 2 (155)	1P	00	30	53	+			(155) W1: 1P 0h 30m 49s+. BCIS: 51½°N 179½°W, H. 0h 18m 57s. USCGS: 51½°N 180°W, H. 0h 18m 56s. Andreanof Islands, Aleutian Islands.
	eS	00	40	40				
	eSS	00	46.0					
	eL	00	55					
	F	03	30					
June 2 (156)								(156) W1: 1P 2h 14m 02s. Aftershock of (155) BCIS: H. 2h 02m 11s. USCGS: H. 2h 02m 10s.
June 2 (157)	eP	23	38	50				(157) W1: 1P 23h 38m 48s. BCIS: 40°0N 25½°S, H. 23h 34m 33s. USCGS: 40°N 25½°S, H. 23h 34m 31s. Near west coast of Turkey.
	eS	23	43	24				
	eL	23	45					
	F	24	15					
June 3 (148)	e	11	45					(158) W1: eP 11h 42.0m. BCIS: 62½°N 5°E, H. 11h 39m 33s. USCGS: 62°N 4°E, H. 11h 39m 35s. Near west coast of Norway.
	F	11	53					
June 4 (159)	eP	17	03.7?					(159) P under paperclip. USCGS: 40°N 142½°E, H. 16h 51m 22s, h = about 60 km. Off east coast of northern Honshu, Japan.
	ePP	17	06	45				
	eS	17	13.7					
	eL	17	30					
	F	18	30					
June 5 (160)	1P	02	05	12				(160) W1: eP 2h 05m 10s; 1 2h 05m 36s, USCGS: 51½°N 180° H. 1h 53m 16s. Andreanof Island, Aleutian Islands.
	eS	02	15	00				
	eL	02	32					
	F	03	30					

14
Seismic Records at De Bilt



Date 1955	Phase	Time	Direction	Period	Amplitude	Remarks
		h m s		s	μ	
June 5 (161)	eP ePP eS eL F	06 24.0 06 27 06 34 06 53 07 55				(161) W1: eP 6h 23.9m USCGS: $24\frac{1}{2}^{\circ}\text{N } 122^{\circ}\text{E}$, H. 6h 11m 18s. Near northeast coast of Formosa.
June 5 (162)	eL F	15 03 16 00				(162) W1: 1P 15h 00m 17s. USCGS: $36\frac{1}{2}^{\circ}\text{N } 1\frac{1}{2}^{\circ}\text{E}$, H. 14h 56m 13s. Near north coast of Algeria.
June 5 (163)	eL F	16 08 16 25				(163) USCGS: $40^{\circ}\text{N } 75\frac{1}{2}^{\circ}\text{E}$, H. 15h 43m 07s. Sinkiang Province, China.
June 6 (164)	eL F	02 23 02 30				(164) USCGS: $12^{\circ}\text{N } 144^{\circ}\text{E}$, H. 1h 17m 09s. Marianas Islands.
June 7 (165)	eP eS eL F	01 00 01 09.7 01 25 02 30		29		(165) W1: eP 1h 00m 20s. USCGS: $27\frac{1}{2}^{\circ}\text{N } 101^{\circ}\text{E}$, H. 0h 48m 56s. Sikang Province, China.
June 9 (166)						(166) W1: 1PKP 4h 24m 47s-. USCGS: $16^{\circ}\text{S } 179^{\circ}\text{W}$, H. 4h 05m 20s. Fiji Islands.
June 11 (167)	eL F	22 42 23 15				(167) W1: 1PKP 21h 30m 50s. USCGS: $16\frac{1}{2}^{\circ}\text{S } 179^{\circ}\text{W}$, H. 21h 12m 27s, h = about 650 km. Fiji Islands.
June 12 (168)	eP eS eL F	20 42.6 20 52.4 21 10 22 30				(168) W1: eP 20h 42.6m BCIS and USCGS: $49^{\circ}\text{N } 155^{\circ}\text{E}$, H. 20h 30m 45s. Kurile Islands.
June 13 (169)						(169) W1: 1PKP 21h 55m 39s. USCGS: $21\frac{1}{2}^{\circ}\text{S } 170\frac{1}{2}^{\circ}\text{E}$, H. 21h 36m 06s, h = about 100 km. Loyalty Islands region.
June 14 (170)	eP eS ePS eSS eL F	06 24 06 35 06 36 06 40 06 53 09 00		18 10 17 49		(170) W1: eP 6h 24m 19s; e 6h 24m 26s. BCIS: $19\frac{1}{2}^{\circ}\text{N } 107\frac{1}{2}^{\circ}\text{W}$, H. 6h 11m 21s. USCGS: $20^{\circ}\text{N } 107^{\circ}\text{W}$, H. 6h 11m 18s. Off coast of Colima, Mexico.
June 14 (171)	eP ePP eL F	17 34 17 37 18 05 19 00		31 47		(171) Disturbed by microseisms. BCIS and USCGS: $36\frac{1}{2}^{\circ}\text{N } 141\frac{1}{2}^{\circ}\text{E}$, H. 17h 21m 57s. Near east coast of Honshu, Japan.
June 15 (172)	1PKP 1z F	03 20 03 21 03 30		51 17		(172) Disturbed by microseisms. W1: ePKP 3h 20m 47s. USCGS: $21^{\circ}\text{S } 169^{\circ}\text{E}$, H. 3h 01m 05s. Loyalty Islands.
June 15 (173)	eL F	16 30 17 15				(173) W1: 1PKP 15h 55m 16s. USCGS: $30^{\circ}\text{S } 153^{\circ}\text{E}$, H. 15h 36m 27s.
June 16 (174)	eL F	13 20 13 45				(174) W1: 1P 12h 50m 10s. BCIS: $25^{\circ}.1\text{N } 112^{\circ}.2\text{W}$, H. 12h 37m 22s. USCGS: $25^{\circ}\text{N } 113\frac{1}{2}^{\circ}\text{W}$, H. 12h 37m 15s. Off coast of Lower California.
June 17 (175)	eP eS eL F	08 19.5 08 30.0 08 50 09 30				(175) W1: 1P 8h 19m 18s. BCIS: $22^{\circ}.2\text{N } 121^{\circ}.3\text{E}$, H. 8h 06m 32s. USCGS: $22^{\circ}\text{N } 122^{\circ}\text{E}$, H. 8h 06m 31s. Near east coast of Formosa.

15
Seismic Records at De Bilt



Date 1955	Phase	Time			Direction	Period	Amplitude	Remarks
		h	m	s		s	//	
June 17 (176)								(176) W1: 1PKP 18h 19m 16s-. USCGS: 20 $\frac{1}{2}$ °S 175°W, H. 17h 59m 48s, h = about 200 km. Tonga Islands.
June 18 (177)	eL F	16	53					(177) W1: 1P 16h 20m 03s. BCIS: 23 $\frac{1}{2}$ °N 121 $\frac{1}{2}$ °E, H. 16h 07m 22s. USCGS: 24°N 122°E, H. 16h 07m 20s. Near east coast of Formosa.
June 19	eL F	00	55					(178) BCIS: données discordantes.
June 19 (179)		01	10					(179) W1: 1P 21h 37m 02s. USCGS: 53 $\frac{1}{2}$ °N 166°W, H. 21h 25m 21s. Fox Islands, Aleutian Islands.
June 20 (180)	eP 1z 1S eSS eL F	12	19	22	-			(180) Disturbed by microseisms. W1: 1P 12h 19m 19s (-). BCIS: 51 $\frac{1}{2}$ °N 179 $\frac{1}{2}$ °W, H. 12h 07m 34s, h = about 100 km. USCGS: 51 $\frac{1}{2}$ °N 180°, H. 12h 07m 25s. Andreanof Islands, Aleutian Islands.
June 21 (181)	eP ez F	11	02	51				(181) W1: 1P 11h 02m 38s (+). USCGS: 52°N 161 $\frac{1}{2}$ °E, H. 10h 51m 00s. Off coast of Kamchatka.
June 23 (182)	e F	11	47					(182) BCIS: 44°N 70 $\frac{1}{2}$ °E, H. 11h 19m 26s. USCGS: 42°N 71°E, H. 11h 19m 18s. Kirghiz, S.S.R.
June 23 (183)	eP eL F	22	25	30				(183) W1: 22h 25m 26s+. USCGS: 44 $\frac{1}{2}$ °N 149°E, H. 22h 13m 31s, h = about 60 km. Kurile Islands.
June 23 (184)								(184) W1: 22h 29m 05s+. BCIS: aftershock of (183), H. 22h 17m 11s.
June 27 (185)	1P eS eL F	10	23	46	-	(5)	2	(185) W1: 1P 10h 23m 39s; 1 10h 23m 43s. BCIS: 32 $\frac{1}{2}$ °N 78 $\frac{1}{2}$ °E, H. 10h 14m 10s. USCGS: 32°N 78 $\frac{1}{2}$ °E, H. 10h 14m 06s. India - Tibet border.
June 27 (186)	eL F	17	07					(186) USCGS: 1°N 128 $\frac{1}{2}$ °E, H. 16h 11m 44s. Halmahera Island.
June 27 (187)	eL F	22	40					(187) BCIS: H. 22h 30.0m. Near west coast of Turkey.
June 28 (188)	1P ez 1S eSS eL F	04	35	18				(188) W1: eP 4h 35m 09s. BCIS and USCGS: 86 $\frac{1}{2}$ °N 70°E. North Polar region.
June 28 (189)	eL F	04	36	35				
		04	41	05				
		04	43.5					
		04	46					
		05	45					
June 28 (189)	eL F	07	21					(189) W1: e 7h 17m 13s. BCIS: 44°N 20 $\frac{1}{2}$ °E, H. 7h 14m 07s. Yugoslavia.
June 28 (189)		07	41					
June 29 (190)	eL F	04	20					(190) USCGS: 10°N 126 $\frac{1}{2}$ °E, H. 3h 34m 22s. Off north coast of Mindanao Island, Philippine Islands.
June 29 (190)		05	00					

16
Seismic Records at De Bilt



Date 1955	Phase	Time			Direction	Period	Amplitude	Remarks
		h	m	s				
June 29 (191)	eP eS eL F	05	07	39				(191) W1: eP 5h 07m 32s. USCGS: 29°N 131°E, H. 04h 54m 52s. Ruyukyu Islands.
June 29 (192)								(192) W1: ePKP 10h 12m 40s. USCGS: 6½°S 143°E, H. 9h 53m 38s. New Guinea.
June 30 (193)	eL F	04	57					(193) W1: eP 4h 19.1m. USCGS: 48½°N 155½°E, H. 4h 07m 16s. Kurile Islands.
June 30 (194)	eL F	22	48					(194) USCGS: 10°N 126°E, H. 22h 02m 04s. Aftershock of (190).
July 3 (195)	1P 1pP 1S eSS eL F	14	38	24				(195) W1: 1P 14h 38m 21s-; epP 14h 38m 41s. BCIS: 52°ON 178½°E, H. 14h 26m 32s. USCGS: 52°N 178°E, H. 14h 26m 32s. Rat Islands, Aleutian Islands.
July 4 (196)	1P epP eS eL F	14	31	39				(196) W1: 1P 14h 31m 37s-. USCGS: 51½°N 177°E, H. 14h 19m 44s. Rat Islands, Aleutian Islands.
July 4 (197)	eL F	23	49					(197) USCGS: H 22h 55m 39s. Near east coast of Mindanao, Philippine Islands.
July 6 (198)	1P ePP 1S eL F	02	05	58	+			(198) W1: eP 2h 05m 55s; e 2h 06m 33s. BCIS: 52° 156½°E, H. 1h 54m 18s. USCGS: 51°N 158°E, H. 1h 54m 17s. Kamchatka.
July 6 (199)								(199) W1: 1PKP 15h 19m 12s. USCGS: 24½°S 177°W, H. 14h 59m 21s, h = about 100 km. Tonga Islands region.
July 7 (200)	eL F	05	37					(200) USCGS: 12½°N 88°W, H. 4h 57m 25s. Near coast of Nicaragua.
July 8 (201)								(201) W1: 1PKP 18h 38m 56s -. USCGS: 21°S 179½°W, H. 18h 20m 11s, h = about 600 km. Fiji Islands.
July 8 (202)	1PKP epPKP F	18	57	58	-			(202) W1: 1PKP 18h 57m 56s -; 1pPKP 19h 00m 12s+. USCGS: 20½°S 179½°W, H. 18h 39m 11s, h = about 600 km Fiji Islands.
July 9 (203)	e F	17	01					(203) BCIS: 42°.6N 19°0 E, H. 16h 54m 40s. Yugoslavia-Albania border.
July 10 (204)	e F	00	01.0					(204) BCIS: 40°.9N 22°.1E, H. 23h 53m 43s. USCGS: 40½°N 22°E, H. 23h 53m 20s. Northern Greece.
July 10 (205)	e F	04	26.5					(205) BCIS: aftershock of (204), H. 4h 17m 50s.
July 10 (206)	ePKP eL F	14	40	34				(206) W1: ePKP 14h 40.5m. USCGS: 20°S 175½°W, H. 14h 20m 52s. Tonga Islands.

17
Seismic Records at De Bilt



Date 1955	Phase	Time	Direction	Period	Amplitude	Remarks
		h m s		s	μ	
July 10 (207)	eL F	22 50 22 58				(207) BCIS: aftershock of (204), H. 22h 40.3m.
July 11 (208)	1P eS eL F	20 31 00 20 38 46 20 46.5 22 00				(208) W1: 1P 20h 31m 06s. USCGS: 1°S 13½°W, H. 20h 21m 21s. Atlantic Ocean.
July 12 (209)	(eP eS eL F	14 53.5) 15 01 23 15 09 15 50				(209) W1: eP 14h 53m 40s. USCGS: 12½°N 35°W, H. 14h 44m 26s. Atlantic Ocean.
July 12 (210)	eL F	16 45 17 15				(210) BCIS: H. 15h 46.4m. Sandwich Islands region.
July 13 (211)						(211) W1: 1PKP 10h 14m 45s. USCGS: 20°S 178½°W, H. 9h 55m 32s, h = about 300 km. Fiji Islands.
July 13 (212)	eL F	19 38 20 30				(212) USCGS: 6°S 154½°E, H. 18h 40m 34s. Solomon Islands.
July 13 (213)	ePP eSKS eSS eL F	20 35 41 20 41.5 20 45 21 10 22 00				(213) USCGS: 54½°S 27°W, H. 20h 16m 28s. Aftershock of (210).
July 14 (214)	eL F	04 55 05 30				(214) USCGS: 6°S 154½°E, H. 3h 54m 02s. Solomon Islands.
July 14 (215)	eP eS eL F	10 03.9 10 14 25 10 31 11 45				(215) BCIS: 8°ON 94°OE, H. 9h 51m 35s. USCGS: 8½°N 94°E, H. 9h 51m 37s. Nicobar Islands.
July 14 (216)	eL F	21 55 22 07				(216) BCIS: Probably Jan Mayen Island region.
July 15 (217)	eL F	04 13 04 22				(217) BCIS: 15°S 175°W, H. 2h 51m 49s. Off southwest of Samoa Island.
July 16 (218)	eP eS eL F	07 11 59 07 15 53 07 18 08 00				(218) W1: 1P 7h 11m 56s. BCIS: 39°ON 27°E, H. 7h 07m 12s. Dodecanese Islands.
July 16 (219)	ePKP eL F	12 36.8 13 40 14 00				(219) W1: ePKP 12h 36m 46s. USCGS: H 12h 17m 04s. Apia: 20°S 175°W, H. 12h 17.1m Tonga Islands.
July 17 (220)	eL F	08 35 09 10				(220) W1: eP 8h 06m 00s. USCGS: 46½°N 153°E, H. 7h 54m 02s. Kurile Islands.
July 17 (221)	eS eL F	22 19.7 22 26 22 46				(221) W1: eP 22h 10.0m. USCGS: 54°N 168°W, H. 21h 58m 25s. Fox Islands, Aleutian Islands.
July 18 (222)						(222) W1: 1P 10h 12m 57s (-) USCGS: 44½°N 149°E, H. 10h 40m 55s. Kurile Islands.

18
Seismic Records at De Bilt



Date 1955	Phase	Time			Direction	Period	Amplitude	Remarks
		h	m	s				
July 18 (223)	eP ePP F	11 49 11 52 12 15		12 32			μ	(223) W1 eP 11h 49m 11s. ePP 11h 52m 30s. e 11h 52m 40s. USCGS: 13 $\frac{1}{2}$ °S 167°E, H. 11h 29m 58s, h = about 150 km. New Hebrides Islands.
July 19 (224)	eP ePP eSS eL F	08 55.9 08 57 09 05.6 09 12 09 40		36				(224) USCGS: 40°N 68°E, H. 8h 47m 36s. Uzbek S.S.R.
July 20 (225)	eP eS eL F	00 03 00 13 00 33 02 00		42 0000				(225) W1: eP 0h 03m 47s. USCGS: 56 $\frac{1}{2}$ °N 153°W, H. 23h 52m 25s. Near south coast of Kodiak Island.
July 20 (226)	eP ePP eS eL F	21 13 21 16 21 23 21 38 22 00		25 50 57				(226) W1: eP 21h 13m 30s. USCGS: $\frac{1}{2}$ °N 78 $\frac{1}{2}$ °W, H. 21h 00m 43s. Northern Ecuador.
July 21 (227)	1P 1pP eSKS eS eL F	11 58 11 59 12 09 12 10 12 24 13 30		58 25 26 05				(227) W1: 1P 11h 59m 03s; epP 11h 59m 29s. USCGS: 15°S 74°W, H. 11h 45m 40s, h = about 100 km. Southern Peru.
July 23 (228)	ez F	03 59 04 06						(228) W1: eP 3h 56m 40s. Trieste: 46°10'N 12°40'E, H. 3h 54m 32s. Friuli, Northern Italy.
July 23 (229)	eL F	11 00 12 00						(229) USCGS: H. 10h 19m 49s. Sandwich Islands region.
July 23 (230)	eL F	12 20 12 35						(230) USCGS: H. 11h 23m 08s. Nigros Islands. Foreshock of (232).
July 23 (231)	ePP ePPP ePS ePPS eL F	13 08 13 10.8 13 18.0 13 19.3 13 47 14 30		24				(231) USCGS: 7°S 128 $\frac{1}{2}$ °E, H. 12h 48m 28s. Banda Sea.
July 23 (232)	eL F	14 55 16 00						(232) USCGS: 9 $\frac{1}{2}$ °N 122 $\frac{1}{2}$ °E, H. 13h 57m 04s. Negros Islands, Philippine Islands.
July 24 (233)	eL F	02 20 04 00						(233) USCGS: 14°S 175°W, H. 1h 04m 56s. Samoa Islands.
July 24 (234)	eP ePP eS eL F	11 14 11 17 11 25 11 44 12 30		38 52 00				(234) W1: 1P 11h 14m 35s. USCGS: 36°N 140°E, H. 11h 02m 14s, h = about 100 km. Southern Honshu, Japan.
July 24 (235)	eP ePP eS ePPS eL F	16 32 16 36 16 43.4 16 44.9 17 03 18 30		50 15				(235) W1: 1P 16h 32m 44s +. USCGS: 24°N 122°E, H. 16h 20m 03s. Near east coast of Formosa.
July 25 (236)	eL F	12 13 12 40						(236) USCGS: 23 $\frac{1}{2}$ °S 70 $\frac{1}{2}$ °W, H. 11h 22m 31s, h = about 600 km. Northern Chili.

Seismic Records at De Bilt

International
Seismological
Centre

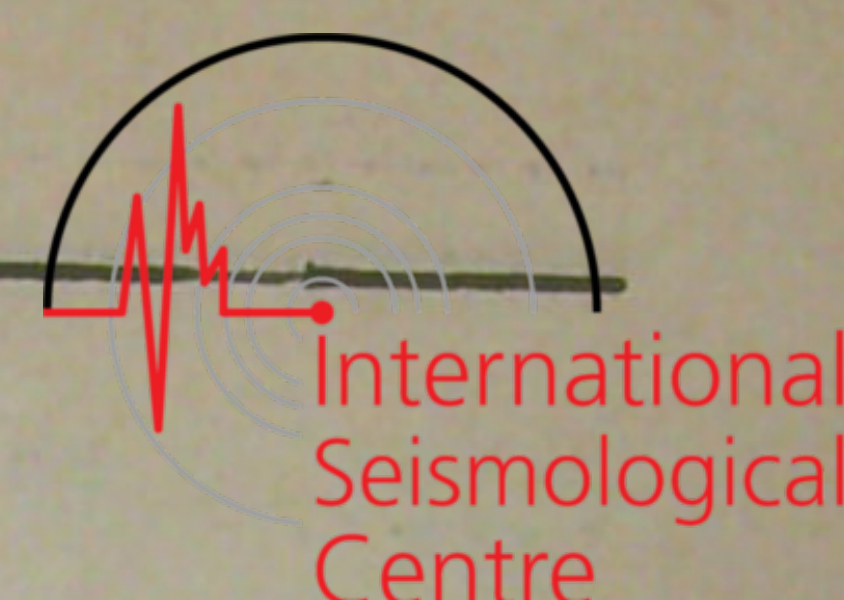
Date 1955	Phase	Time			Direction	Period	Amplitude	Remarks
		h	m	s		s	μ	
July 26 (237)	eP eS eSS eSSS eL F	04	15	36 56				(237) W1: 1P 4h 15m 34s (-), USCGS: foreshock of (239), H. 4h 04m 18s.
July 27 (238)	eS eL F	01	43	50				(238) W1: eP 1h 33m 23s. USCGS: 34°N 134°E, H. 1h 20m 50s. Shikoku, Japan.
July 27 (239)	eP ePP eS eSS eSSS eL F	18	30	27 49				(239) W1: 1P 18h 30m 26s (-) USCGS: 56½°N 153°W, H. 18h 19m 08s. Near south coast of Kodiak Island.
July 28 (240)	eL F	02	53					(240) USCGS: 40½°S 71½°W, H. 1h 59m 30s. Argentina - Chile border region.
July 29 (241)	eL F	22	23					(241) USCGS: 51½°N 158°E, H. 21h 53m 13s. Near south coast of Kamchatka.
Aug. 1 (242)	eS eL F	03	50.5					(242) USCGS: H. 3h 15m 40s. Sandwich Islands region.
Aug. 2 (243)								(243) W1: 1P 7h 02m 36s. BCIS: 9½°N 94½°E, H. 6h 50m 20s. USCGS: H. 6h 50m 16s. Nicobar Islands region.
Aug. 3 (244)	eL F	17	44					(244) BCIS: 32°N 91½°E, H. 17h 10m 15s. USCGS: H. 17h 10m 15s. Eastern Tibet.
Aug. 3 (245)	eL F	23	20					(245) USCGS: H. 22h 22m 40s. Santiago de Estera, Argentina.
Aug. 4 (246)	eS eL F	06	59	30				(246) BCIS and USCGS: 30½°N 86½°E, H. 6h 40m 46s. Tibet.
Aug. 4 (247)	e F	16	09					
Aug. 6 (248)	1PKP ₁ 1 PKP ₂ 1pPKP ₁ 1SKKS ₁ 1z F	08	50	35 51 06 30 37	+	3 4	5 12	(248) W1: ePKP, 8h 50m 33s; 1 8h 50m 36s; 1pPKP 8h 52m 03s; e 8h 53m 40s; ePP 8h 54m 10s. USCGS: 21½°S 177½°W, H. 8h 31m 25s, h = about 350 km. Tonga Islands region.
Aug. 7 (249)	eL F	13	43					(249) USCGS: 3½°S 145°E, H. 12h 34m 41s. Off north coast of New Guinea.
Aug. 7 (250)	eL F	19	23					(250) BCIS: H. 18h 24m 54s. Sandwich Islands region.
Aug. 9 (251)	eL F	19	25					(251) USCGS: 11°S 166½°E, H. 18h 14m 25s. Santa Cruz Islands.
Aug. 13 (252)	eL F	18	05					(252) BCIS: H. 17h 21.1m, Nigros Islands region.

20
Seismic Records at De Bilt



Date 1955	Phase	Time	Direction	Period	Amplitude	Remarks
		h m s		s	μ	
Aug. 14 (253)	ePKP eSS eL F	17 03 17 28.0 18 00 19 20				(253) USCGS: 33°S 179°W, H. 16h 43m 20s. Kermadec Islands region.
Aug. 15 (254)	eL F	17 33 18 00				(254) BCIS: 24½°N 95½°E, H. 16h 43m 52s. Birma.
Aug. 16 (255)	eL F	04 55 05 35				(255) USCGS: 12½°N 88½°W, H. 4h 18m 47s. Off coast of El Salvador.
Aug. 16 (256)	ePKP epPKP ez ePP epPP ez eSKS eSKKS ePPS eSS eH eL F	12 05 48 12 06 40 12 07 30 12 08 00 12 08 42 12 08 55 12 12 44 12 14 36 12 19.3 12 25.0 12 27.4 12 46 14 30				(256) W1: 1PKP 12h 05m 46s. BCIS: 6½°S 155½°E, H. 11h 47m 04s, h = about 200 km. USCGS: 6°S 155°E, H. 11h 46m 58s, h = about 200 km. Solomon Islands.
Aug. 16 (257)	eL F	19 48 20 25				(257) USCGS: 11°N 87°W, H. 19h 10m 06s. Off coast of Nicaragua.
Aug. 17 (258)						(258) W1: 1 13h 50m 36s; 1 13h 50m 47s.
Aug. 18 (259)	eL F	05 22 05 45				(259) BCIS: Off south coast of Honshu, Japan.
Aug. 20 (260)	eL F	04 25 04 40				(260) BCIS: 8½°N 40½°W, H. 4h 01m 15s. USCGS: H. 4h 01m 16s. Atlantic Ocean.
Aug. 20 (261)	eL F	07 05 07 20				(261) USCGS: 12°N 126°E, H. 6h 11m 38s. Samar Island, Philippine Islands.
Aug. 20 (262)						(262) W1: ePKP 19h 16m 57s. USCGS: 20½°S 176½°W, H. 18h 57m 28s, h = about 200 km. Tonga Islands.
Aug. 21 (263)						(263) W1: ePKP 9h 12m 21s. USCGS: 17°S 173°W, H. 8h 52m 44s. Tonga Islands.
Aug. 21 (264)	eL F	16 40 17 10				(264) USCGS: 24°N 96½°E, H. 16h 04m 01s. Birma.
Aug. 21 (265)	eP 1PP ePPP eSKS sSKKS eH ePS eL F	17 49.3 17 54 10 17 56.4 17 59.6 18 00.9 18 01.7 18 03 20 18 27 20 40				(265) W1: ePKP 17h 52m 47s. USCGS: 3°S 137½°E, H. 17h 33m 58s. New Guinea.
Aug. 23 (266)	eL F	14 37 15 05				(266) USCGS: 31°N 71½°E, H. 14h 09m 17s, h = about 60 km Central Pakistan.

21
Seismic Records at De Bilt



Date 1955	Phase	Time	Direction	Period	Amplitude	Remarks
		h m s		s	μ	
Aug. 23 (267)	eS eL F	15 54 16 05 17 15				(267) Disturbed by microseisms. W1: eP 15h 44m 33s. USCGS: 43 $\frac{1}{2}$ °N 128°W, H. 15h 32m 40s. About 150 miles off coast of Oregon, U.S.A.
Aug. 23 (268)	e F	21 10 21 35				(268) BCIS: 43 $\frac{1}{4}$ °N 46°E, H. 20h 56m 53s. USCGS: 43°N 46°E, H. 20h 56m 52s. Daghestan, U.S.S.R.
Aug. 24 (269)						(269) W1: ePKP 4h 55m 00s. USCGS: 18°S 178°W, H. 3h 36m 22s. h = about 600 km. Fiji Islands.
Aug. 24 (270)	eL F	07 39 07 55				(270) USCGS: 44 $\frac{1}{2}$ °N 129 $\frac{1}{2}$ °W, H. 6h 56m 20s. Off coast of Oregon, USA.
Aug. 24 (271)						(271) W1: 1PKP 15h 58m 45s +. USCGS: H. 15h 39m 17s. Fiji Islands.
Aug. 25 (272)	e F	06 07 06 15				(272) USCGS: aftershock of (268) H. 5h 49m 28s.
Aug. 25 (273)	e F	22 55 23 20				(273) W1: 1P 22h 24m 28s (-) USCGS: 52°N 176°E, H. 22h 12m 43s, h = about 60 km Rat Islands, Aleutian Islands.
Aug. 26 (274)	eL F	10 30 11 00				(274) BCIS: H. 9h 00m 21s. 250 km west of Macquarie Island.
Aug. 28 (275)	ez eL F	13 44.2 13 48 14 15				(275) W1: e 13h 44m 07s. BCIS: 37°N 27°E, H. 13h 39m 17s. USCGS: 38°N 27 $\frac{1}{2}$ °E, H. 13h 39m 17s. Dodecanesese Islands.
Aug. 28 (276)	1P ePP eS eSS eSSS eL F	20 25 54 20 29.1 20 36 08 20 42.0 20 45.5 20 52 23 20				(276) W1: eP 20h 25m 58s. USCGS: 14°N 91°W, H. 20h 13m 30s, h = about 60 km. Near coast of Guatemala.
Aug. 29 (277)	eL F	16 05 17 10				(277) USCGS: 51°N 178 $\frac{1}{2}$ °W, H. 15h 33m 56s. Andreanof Islands, Aleutian Islands,
Aug. 31 (278)	eL F	12 00 12 40				(278) BCIS: Off south coast of Tasmania.
Sept. 1 (279)	eL F	18 08 18 50				(279) USCGS: 10°N 84 $\frac{1}{2}$ °W, H. 17h 33m 01s. Costa Rica.
Sept. 3 (280)	eL F	05 32 06 35				(280) USCGS: 18 $\frac{1}{2}$ °N 70°W, H. 5h 23m 04s. Dominican Republic.
Sept. 3 (281)	eP eS eH eL F	12 48 38 12 58.8 13 04.7 13 14 15 51				(281) USCGS: 14°N 91°W, H. 12h 36m 20s, h = about 100 km Tacubaya: 13° 51'N 90°44'W, H. 12h 36m 20s, h = about 100 km Guatemala.

Seismic Records at De Bilt



Date 1955	Phase	Time	Direction	Period	Amplitude	Remarks
		h m s		s	μ	
Sept. (282)	3 eP 1PP eH ePS eSS eScS F	16 37 06 16 41 37 16 47 18 16 50.8 16 56.3 17 00.5 18 10				(282) BCIS: $3^{\circ}\text{S } 121\frac{1}{2}^{\circ}\text{E}$, H. 16h 23m 23s, h = about 300 km. USCGS: $1^{\circ}\text{N } 123^{\circ}\text{E}$, H. 16h 22m 52s. Celebes.
Sept. (283)	4 eL F	07 30 07 50				(283) Disturbed by microseisms. BCIS: South Pacific.
Sept. (284)	4 ePP e(SKS) eL F	11 47 44 11 54 30 12 14 12 35				(284) Disturbed by microseisms. USCGS: $22^{\circ}\text{S } 69^{\circ}\text{W}$, H. 11h 29m 40s, h = about 100 km Northern Chile.
Sept. (285)	4 eP eL F	19 21.5 19 50 20 20				(285) Disturbed by microseisms. USCGS: $43^{\circ}\text{N } 145^{\circ}\text{E}$, H. 19h 09m 30s. Hokkaido, Japan.
Sept. (286)	5 eL F	02 40 03 05				(286) Disturbed by microseisms. USCGS: $37\frac{1}{2}^{\circ}\text{N } 122^{\circ}\text{W}$, H. 2h 01m 15s. Santa Clara Country, California.
Sept. (287)	7 eP eS eL F	03 31.0 03 40 48 03 55 05 00				(287) W1: eP 3h 32m 05s. USCGS: $2^{\circ}\text{S } 68^{\circ}\text{E}$, H. 3h 19m 21s. Chagos Islands, Indian Ocean.
Sept. (288)	8 ePP e(PPP) ePS ePPS eSS eL	02 22 48 02 25 12 02 32.5 02 33 40 02 38.5 02 52				(288) Disturbed by microseisms. F in next shock BCIS: $60^{\circ}\text{S } 20^{\circ}\text{W}$, H. 2h 03m 15s. USCGS: H 2h 03m 15s. Sandwich Islands region.
Sept. (289)	8 ePKP ePP eL F	03 46 33 03 48 32 04 25 06 00				(289) Disturbed by microseisms. USCGS: $7^{\circ}\text{S } 155\frac{1}{2}^{\circ}\text{E}$, H. 3h 27m 14s. Solomon Islands.
Sept. (290)	9 e(PP) e(S) eL F	09 59 33 10 06.6 10 31 11.5				(290) Disturbed by microseisms. BCIS and USCGS: $2^{\circ}\text{S } 100^{\circ}\text{E}$, H. 9h 41m 47s. Near south coast of Sumatra.
Sept. (291)	10 eL F	21 57 22 20				(291) USCGS: $10^{\circ}\text{N } 123^{\circ}\text{E}$, H. 21h 04m 40s. Nigros Islands, Philippine Islands.
Sept. (292)	11 ePKP ePP ePKS	18 13.6 18 15.7 18 17 05				(292) USCGS: $7^{\circ}\text{S } 155^{\circ}\text{E}$, H. 17h 54m 28s. F in next shock. Solomon Islands.
Sept. (293)	11 ePKP ePP ePS eL F	18 23.5 18 25 39 18 35 08 18 54 20 30				(293) W1: ePKP 18h 23m 27s. USCGS: aftershock of (292), H. 18h 04m 16s.
Sept. (294)	12 1P eS eSS eL F	06 15 02 06 19 09 06 19 28 06 22.5 07 20	-			(294) W1: 1P 6h 14m 58s; 1pP 6h 15m 18s. BCIS: $32^{\circ}.9\text{N } 29^{\circ}.8\text{E}$, H. 6h 09m 29s, h = about 40 km. USCGS: $32\frac{1}{2}^{\circ}\text{N } 30^{\circ}\text{E}$, H. 6h 09m 30s. Off coast of Egypt.

23
Seismic Records at De Bilt



Date 1955	Phase	Time	Direction	Period	Amplitude	Remarks
		h m s		s	μ	
Sept. 13 (295)	ePS eSS eL F	02 23 02 27 02 33 04 00				(295) USCGS: 52°N 176°W, H. 2h 00m 43s, h = about 60 km. Andreanof Islands, Aleutian Islands.
Sept. 13 (296)	eL F	18 10 18 30				(296) USCGS: 45°S 96½°E, H. 16h 59m 52s. South Indian Ocean.
Sept. 15 (297)	ePP ez ePS eSS eL F	12 50 30 12 50 50 13 00.1 13 06.7 13 27 15 30				(297) Disturbed by microseisms. USCGS: 5°S 134½°E, H. 12h 30m 27s. Off coast of Western New Guinea.
Sept. 19 (298)	eL F	04 58 05 15				(298) Disturbed by microseisms. USCGS: 26½°N 129°E, H. 4h 11m 03s. Ryukyu Islands.
Sept. 20 (299)	ePKP ₁ ePKP ₂ ePP ePPP ePPS eSS eL F	13 40 18 13 40 57 13 44 43 13 48 18 13 58 18 14 04 14 38 16 00				(299) W1: ePKP 13h 40.4m USCGS: 32°S 178°W, H. 13h 20m 19s. Kermadec Islands region.
Sept. 21 (300)	eL F	07 42 07 50				(300) BCIS and USCGS: 14°S 14° 5W H. 7h 11m 52s. Atlantic Ocean.
Sept. 22 (301)	1P ePP eS eL F	03 37 56 03 41 18 03 48 22 04 04 05 30				(301) W1: 1P 3h 37m 45s. USCGS: 24°N 123°E, H. 3h 25m 03s. Off east coast of Formosa.
Sept. 23 (302)	1P 1S eSS eSSS eL F	15 17 54 15 27 27 15 32.0 15 36.0 15 46 18 00	(-)			(302) W1: 1P 15h 17m 44s +. USCGS: 27°N 101½°E, H. 15h 06m 19s. Yunnan Province, China
Sept. 24 (303)	eSS eL F	02 45 03 25 04 30				(303) USCGS: 32°S 178°W, H. 2h 00m 45s. Kermadec Islands.
Sept. 24 (304)	eP ePP eS eL F	10 34 20 10 37 44 10 45 00 11 03 11 55				(304) BCIS: 22½°N 121½°E, H. 10h 21m 27s. USCGS: 22°N 122°E, H. 10h 21m 29s. Off southeast coast of Formosa.
Sept. 25 (305)	eSKS eSKKS eL F	19 23 58 19 25.0 19 50 20 30				(305) BCIS: 6°N 127°E, H. 18h 59m 24s, h = about 100 km. USCGS: 6°N 127½°E, H. 18h 59m 22s, h = 100 km. Off east coast of Mindanao, Philippine Islands.
Sept. 26 (306)	1P 1pP ePP epPP 1S eSS ePS eL F	08 40 30 08 41 23 08 43 43 08 44 37 08 50 27 08 51 24 08 51 52 09 03 10 30				(306) W1: 1P 8h 40m 34s+; 1pP 8h 41m 25s; 1sP 8h 41m 46s. USCGS: 15½°N 92½°W, H. 8h 28m 20s, h = about 200 km. Chiapas, Mexico.

24
Seismic Records at De Bilt



Date 1955	Phase	Time	Direction	Period	Amplitude	Remarks
		h m s		s	μ	
Sept. 28 (307)	eL F	02 23 02 55				(307) USCGS: 27°N 101½°E, H. 1h 46m 36s. Yunnan Province, China.
Sept. 28 (308)	eL F	05 11 05 20				(308) USCGS: H. 4h 21m 43s. Celebes Sea.
Sept. 28 (309)	eP ePP eS eL F	18 22 22 18 25 46 18 33 04 18 52 19 05				(309) W1: eP 18h 22m 24s. BCIS and USCGS: 15° 0N 97° 5W H, 18h 09m 40s. Near coast of Oaxaca, Mexico.
Sept. 29 (310)	eL F	13 39 13 52				(310) USCGS: 28°N 101°E, H. 12h 58m 29s. Sikang Province, China.
Sept. 29 (311)	eS eL F	20 20.3 20 40 20 58				(311) USCGS: 40°N 141°E, H. 19h 58m 27s, h = about 150 km. Northern Honshu, Japan.
Sept. 29 (312)	eL F	07 55 08 25				(312) USCGS: 7½°N 126½°E, H. 7h 00m 22s. Near east coast of Mindanao, Philippine Islands.
Sept. 30 (313)	eL F	20 05 20 35				(313) USCGS: 51½°N 176½°W, H. 19h 14m 24s. Andreanof Islands, Aleutian Islands.
Oct. 2 (314)	eE F	16 43 16 55				(314) Disturbed by microseisms. USCGS: 5½°N 83°W, H. 16h 02m 54s. Off coast of Panama.
Oct. 2 (315)	e F	18 08 18 10				(315) Disturbed by microseisms. BCIS: 39° 8 N 19° 8E, H. 17h 57m 54s. Corfu Islands region.
Oct. 2 (316)	e F	21 05 21 15				(316) Disturbed by microseisms. USCGS: H. 19h 35m 43s. Tonga Islands region.
Oct. 5 (317)	e F	03 03.5 03 13				(317) Disturbed by microseisms. BCIS: 37° 8N 20° 8E, H. 2h 55m 19s. Ionean Sea, Greece.
Oct. 5 (318)	1P eS eL F	09 09 25 09 17.7 09 32 10 05	+			(318) W1: 1P 9h 09m 19s (+). Disturbed by microseisms. USCGS: 53½°N 161°E, H. 8h 57m 55s. Near east coast of Kamchatka.
Oct. 9 (319)	eL F	13 19 13 30				(319) BCIS: 2½°S 12½°W, H. 12h 50m 29s. USCGS: 2°S, 12½°W, H. 12h 50m 30s. Mid Atlantic Ridge.
Oct. 9 (320)	ePP ePS eSS eL F	18 01.2 18 11 22 18 19 18 40 20 00				(320) W1: 1PKP 17h 59m 13s. USCGS: 5°S 153°E, H. 17h 40m 09s. New Britain.
Oct. 9 (321)	eP epP eS eSS eL F	23 25 36 23 25 52 23 35 26 23 40 44 23 51 00 50				(321) W1: 1P 23h 25m 31s; 1pP 23h 25m 43s. USCGS: 50½°N 176°E, H. 23h 13m 32s. Near Islands, Aleutian Islands.

25
Seismic Records at De Bilt



Date 1955	Phase	Time			Direction	Period	Amplitude	Remarks
		h	m	s		s	//	
Oct. 10 (322)	1PKP 1pPKP ePP ePKS ePS eSS eSSS eL F	09	16	50 04 48 20.2 28.8 36.2 40.3 57 30				(322) BCIS: $5\frac{1}{2}^{\circ}\text{S } 153^{\circ}\text{E}$, H. 8h 57m 44s. USCGS: $50^{\circ}\text{S } 153^{\circ}\text{E}$, H. 8h 57m 44s. New Britain.
Oct. 10 (323)	ePKP epPKP ePP eH eSS eL F	21	11	18 33 14.5 26.9 34 08 10				(323) W1: 1PKP 21h 11m 15s. USCGS: $17\frac{1}{2}^{\circ}\text{S } 174^{\circ}\text{W}$, H. 20h 51m 42s, h = about 60 km. Tonga Islands
Oct. 11 (324)	eL F	02	48	20				(324) USCGS: H. 1h 14m 27s. Northern Celebes.
Oct. 11 (325)	eL F	05	44	05				(325) USCGS: H. 4h 10m 00s. Indian Ocean, 700 miles east of Mascarene Islands.
Oct. 11 (326)	eL F	22	42	05				(326) BCIS: H. 20h 24.1m, h = about 600 km. Fiji Islands region.
Oct. 13 (327)	eL F	02	13	15				
Oct. 13 (328)	1PKP 1PP ePPP eL F	09	46	02 30 23 26 30	+			(328) W1: 1PKP 9h 46m 01s. BCIS: $9^{\circ}.7\text{S } 161^{\circ}.0\text{E}$, H. 9h 26m 46s. USCGS: $9\frac{1}{2}^{\circ}\text{S } 161^{\circ}\text{E}$, H. 9h 26m 44s. Solomon Islands.
Oct. 13 (329)	eL F	18	35	00				(329) USCGS: $24^{\circ}\text{N } 121^{\circ}\text{E}$, H. 17h 50m 16s. Formosa.
Oct. 13 (330)	eL F	22	27	00				(330) $12^{\circ}\text{N } 87^{\circ}\text{W}$, H. 21h 50m 59s. Near coast of Nicaragua.
Oct. 14 (331)	eL F	02	21	45				(331) USCGS: $16\frac{1}{2}^{\circ}\text{S } 172^{\circ}\text{W}$, H. 0h 55m 55s. Tonga Islands.
Oct. 14 (332)	eL F	09	27	10				(332) USCGS: $3^{\circ}\text{S } 103\frac{1}{2}^{\circ}\text{W}$, H. 8h 43m 00s. Pacific Ocean, west of Galapagos Islands.
Oct. 19 (333)	e F	02	28	55				(333) USCGS: $40^{\circ}\text{N } 139\frac{1}{2}^{\circ}\text{E}$, H. 1h 45m 26s. Northern Honshu, Japan.
Oct. 19 (334)	eP eS eL F	10	06	33 15 29 30				(334) W1: 1P 10h 06m 29s -. Disturbed by microseisms. USCGS: $49\frac{1}{2}^{\circ}\text{N } 155^{\circ}\text{E}$, H. 9h 54m 43s. Northern Kurile Islands.
Oct. 20 (335)	eL F	04	27	55				(335) BCIS: H. 3h 43m 20s. 300 km northeast of Prince Edward Island.
Oct. 21 (336)	eS eL F	04	55	24 15 00				(336) W1: 1P 4h 44m 46s +. Disturb- ed by microseisms. USCGS: $4^{\circ}\text{N } 95^{\circ}\text{E}$, H. 4h 32m 03s. Near coast of Sumatra.

26
Seismic Records at De Bilt



Date 1955	Phase	Time			Direction	Period	Amplitude	Remarks
		h	m	s				
Oct. 21 (337)	1PKP 1pPKP ePP eS esS F	19	21	21	(-) (-)	s	//	(337) W1 1PKP 19h 21m 15s+; 1pPKP 19h 23m 44s (+) Disturbed by microseisms. USCGS: 21°S 179°W, H. 19h 02m 40s, h = about 650 km. Fiji Islands.
		19	23	48				
		19	24.9					
		19	49.2					
		19	53.3					
		20	10.3					
		20	10					
Oct. 21 (338)	eSS eL F	23	43.5					(338) Disturbed by microseisms. BCIS: 2°S 123°E, H. 23h 09m 43s. USCGS: 1°S 123°E, H. 23h 09m 38s. Northern Celebes.
		23	58					
		00	40					
Oct. 22 (339)	eSS eL F	22	45					(339) Disturbed by microseisms. USCGS: 6°S 149°E, H. 22h 06m 56s. New Britain.
		23	05					
		23	45					
Oct. 23 (340)	eL F	18	15					(340) USCGS: 11½°S 163°E, H. 17h 04m 09s. Solomon Islands.
		18	40					
Oct. 24 (341)	eL F	04	50					(341) USCGS: 37°N. 121°W, H. 4h 40.5m Contra Costa County, California.
		05	05					
Oct. 25 (342)	eP ez eS F	16	46	56				(342) Disturbed by microseisms. USCGS: 16½°N 95½°W, H. 16h 34m 23s, Oaxaca, Mexico.
		16	47	06				
		16	57.4					
		17	50					
Oct. 26 (343)	eL F	20	55					(343) BCIS: Probably North Atlant- ic Ocean.
		21	10					
Oct. 28 (344)	eL F	01	00					(344) Disturbed by microseisms. BCIS: Mid Atlantic Ocean.
		01	05					
Oct. 28 (345)	eL F	01	36					(345) BCIS: 39½°N 29½°W, H. 1h 23m 55s. Mid Atlantic Ridge.
		01	50					
Oct. 30 (346)	e F	16	23.5					(346) Disturbed by microseisms. BCIS: 34½°N 6½°E, H. 16h 16m 47s. Algeria.
		16	40					
Oct. 30 (347)								(347) W1: 1PKP 19h 39m 25s (-). USCGS: 19°S 180°, H. 19h 20m 50s, h = about 650 km. Fiji Islands.
Oct. 31 (348)	eP eS eL F	01	17.8					(348) Disturbed by microseisms. USCGS: 52°N 175½°W, H. 1h 05m 53s. Andreanof Islands, Aleutian Islands.
		01	27.5					
		01	45					
		02	40					
Nov. 2 (349)	eL F	00	27					(349) USCGS: 39½°N 144°E, H. 23h 46m 10s. Off east coast of Honshu, Japan.
		01	00					
Nov. 10 (350)	1PKP 1PP eSS F	02	03	34	+			(350) W1: ePKP 2h 03m 28s. Disturbed by microseisms. USCGS: 15°S 174°W, H. 1h 44m 04s, h = about 100 km. Samoa Islands.
		02	06	51				
		02	25	15				
		04	00					
Nov. 11 (351)	eL F	18	39					(351) Disturbed by microseisms. BCIS: 37½°N 27½°E, H. 18h 27m 35s. USCGS: H. 18h 17m 34s. Western Turkey.
		18	45					
Nov. 11 (352)	eL F	20	16					(352) Disturbed by microseisms. BCIS: aftershock of (351), H. 20h. 04m 09s.
		20	20					

27
Seismic Records at De Bilt



Date 1955	Phase	Time			Direction	Period	Amplitude	Remarks
		h	m	s		s	μ	
Nov. 12 (353)	eP ePP eS F	05	39	06				(353) W1: eP 5h 39m 06s. Disturbed by microseisms. BCIS: 25° 2'N 34° 5'E, H. 5h 32m 15s. Northern Red Sea. USCGS: 26°N 35°E, H. 5h 32m 14s.
Nov. 12 (354)	eL F	11	05					(354) Disturbed by microseisms. USCGS: 5°S 152½°E, H. 10h 07m 47s, h = about 60 km. New Britain region.
Nov. 12 (355)	eL F	12	02					(355) Disturbed by microseisms. USCGS: 10°N 126°E, H. 11h 12m 15s. Near south coast of Mindanao, Philippine Islands.
Nov. 14 (356)	eL F	00	03					(356) Disturbed by microseisms. USCGS: 33½°S 179½°W, H. 23h 07m 08s, h = about 100 km. Kermadec Islands region.
Nov. 14 (357)								(357) W1: ePKP 3h 28m 16s, H. 3h 09m 10s, h = about 200 km. New Hebrides Islands.
Nov. 14 (358)	eL F	14	13					(358) Disturbed by microseisms. BCIS and USCGS: 17½°N 145½°E, H. 13h 23m 09s, h = about 150 km. Marianas Islands region.
Nov. 15 (359)	1P eS eL F	10	18	23				(359) W1: 1P 10h 18m 10s +; 1 10h 18m 20s -. Disturbed by microseisms. USCGS: 55½°N 155°W, H. 10h 06m 49s. Off south coast of Alaska, Peninsula.
Nov. 15 (360)	eL F	22	35					(360) USCGS: 43½°N 87°E, H. 22h 10m 53s. Sinkiang Province, China.
Nov. 17 (361)	eL F	00	10					(361) USCGS: 84°N 2°E, H. 23h 54m 04s. Arctic Ocean, northeast of Greenland.
Nov. 17 (362)	eSKS ePS eL F	07	18.0					(362) Change of papers: 7h 11m - 7h 17m. USCGS: 26½°S 69°W, H. 6h 53m 27s, h = about 60 km. Northern Chile.
Nov. 19 (363)	eL F	07	00					(363) USCGS: 14°S 179°W, H. 5h 39m 08s. Fiji Islands region.
Nov. 19 (364)								(364) W1: 1PKP 8h 45m 05s -. USCGS: 17½°S, 168°E, H. 8h 25m 32s. New Hebrides Islands.
Nov. 22 (365)	ePKP ePP eSS e eL F	03	43	18				(365) BCIS: 25°.0S 122°.5W, H. 3h 24m 05s. USCGS: 24½°S 123°W, H. 3h 24m 00s. Eastern Tuamotu Archipelago.

28
Seismic Records at De Bilt



Date 1955	Phase	Time			Direction	Period	Amplitude	Remarks
		h	m	s		s	μ	
Nov. 23 (366)	1P 1z ePP ePPP 1S 1sS eSS eL F	06	41	10 40 58 13 43 08 55.5 02.5 30	+			(366) W1: 1P 6h 41m 04s (+) USCGS: 50 $\frac{1}{2}$ °N 157°E, H. 6h 29m 29s, h = about 60 km. Near south coast of Kamchatka.
Nov. 24 (367)	eL F	05 06	39 00					(367) USCHS: 19°N 120 $\frac{1}{2}$ °E, H. 4h 51m 20s. Near north coast of Luzon, Philippine Islands.
Nov. 27 (368)	eL F	20 20	14 42					(368) USCGS: 23°N 124 $\frac{1}{2}$ °E, H. 19h 30m 35s. Off east coast of Formosa.
Nov. 28 (369)	eL F	19 20	55 20					(369) USCGS: H. 18h 21m 39s. Samoa Islands region.
Dec. 4 (370)	eL F	14 14	22 32					(370) Disturbed by microseisms. USCGS: 34°N 49°E, H. 14h 02m 08s. Central Iran.
Dec. 6 (371)	eL F	05 06	14 02					(371) Disturbed by microseisms. USCGS: 24°N 122 $\frac{1}{2}$ °E, H. 20h 14m 18s. Off east coast of Formosa.
Dec. 7 (372)	eSKS eL F	15 15 17	27 40 30					(372) Disturbed by visitors. BCIS and USCGS: 26°N 142°E, H. 15h 03m 11s. Bonin Island.
Dec. 14 (373)	eL F	11 11	29 45					(373) W1: eP 11h 03m 15s. Disturbed by visitors. BCIS: 21°N 92°E, H. 10h 51m 46s USCGS: 22°N 92 $\frac{1}{2}$ °E, H. 10h 51m 44s. Pakistan-Burma border.
Dec. 19 (374)	eL F	04 05	06 00					(374) Disturbed by microseisms. BCIS: 8°N 127°E, H. 3h 13m 48s. USCGS: H. 3h 13m 46s. Near east coast of Mindanao, P.I.