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SEISMIC RECORDS
AT DE BILT

35.

1947.

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INTRODUCTION

SEISMOGRAPHIC STATION DE BILT

The geographic coordinates of the seismographic station are: $52^{\circ} 6',1$ N and $5^{\circ} 10',6$ E. The instruments are standing 3 m above mean sea-level on a subsoil consisting of sand (diluvial deposits).

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 pedulums according to BOSCH, $M = 25$ kg.

THE GALITZIN SEISMOGRAPHS AT DE BILT. Below are given: the period of the galvanometer T1, the reduced length of pendulum l, the distance between the mirror of the galvanometer and the recording paper A1, and the rough values for the natural period of the undamped pendulum T, of the damping constant μ and of the multiplying factor k for the year 1947.

	NS comp.	EW comp.	Z comp.
Period of galvanometer T1	24,43 sec	24,96 sec	12,0 sec
Reduced length of pendulum l	123 mm	123 mm	406 mm
Distance A1	1380 mm	1380 mm	1380 mm
Period of pedulum 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 ϵ and of the static magnification V are for the year 1947:

	T	ϵ	V
WIECHERT (NS comp.)	5,0 sec	4	160
„ (EW comp.)	5,0 sec	4	170
BOSCH (NS comp.)	18,0 sec	4	20
„ (EW comp.)	18,0 sec	4	20

PREFACE

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 assistant.

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Netherlands Meteorological Institute,*

Ir. C. J. Warners.

DE BILT, October 1951.

SEISMOGRAPHIC STATION HEERLEN

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

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

The mean values of the constants are for the year 1947.

T	ϵ	V	V max.	T max.
2	3	400	600	2

EXPLANATION OF THE TABLES

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

The data from the seismograph at Heerlen are mentioned in a few cases.

The time is Greenwich mean time, from midnight till midnight counted as 0 till 24 hours. 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 subjoined symbols were used for the phases.

- P = normal first phase, or first longitudinal tremor.
 pP = P-wave one time reflected at the earth's surface near the epicenter.
 PP = P-wave reflected halfway between epicenter 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 epicenter.
 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 epicenter 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 epicenter.
 sS' = S'-wave reflected near the epicenter.
 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 epicenter.

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

The distance of epicenter 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:

$$V = \frac{A_1 k T_b}{\pi l} \cdot \frac{1}{\left\{1 + \left(\frac{T_b}{T}\right)^2\right\}^2}$$

Here A_1 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.

For the vertical component of the Galitzin records they were: $k = 175$ and $T = 12,0$ sec.

It was tried to give the amplitudes and periods of the first P- and S- waves. 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 cases of very strong earthquakes.

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

The seismological bulletins of the following stations were available: Alicante, Almeria, BCIS (Bureau Central International Séismologique), Beograd, Bucarest, Firenze, Graz, Helsinki, Istanbul, John Carroll University (Cleveland), JSA (Jesuit Seismological Association), Kew, Ksara, La Paz, Oak Ridge Observatory of the Harvard University, Ottawa, Pasadena, Perth, Poona, Prato, Reykjavik, Riverview N.S.W., Roma, Santiago, Scoresby-Sund, Stuttgart, Toledo, Trieste, Uccle, Uppsala, URSS (Russia), USCGS (United States Coast and Geodetic Survey), Wellington (New Zealand), Western Samoa, Weston (Massachusetts), Zürich.

THE MICROSEISMIC ACTIVITY.

The table on page VII gives the character of the microseismic activity (see also 1915 p. 101 and 1916 p. 101). The employed 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 WIECHERT seismograph were employed. In the table below the amplitudes of the oscillations (measured from the medium line) and the corresponding amplitudes of the movement of the soil are given.

Character	Ampl. record	Ampl. soil
0	0— $\frac{1}{4}$ mm	0— $1\frac{1}{4}$ μ
1	$\frac{1}{4}$ —1 "	$1\frac{1}{4}$ —5 "
2	1—2 "	5—10 "
3	> 2 "	> 10 "

Character of the microseismic movement.

Date 1947	Jan.	Febr.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	1, 2	1, 3	2, 3, 1	1	2, 1	0, 1, 0	0, 1, 0	0, 1, 0	0, 1	1	1	1, 2
2	2, 3, 2	3, 2	1, 2	1, 0	1, 2	0, 1, 0	0, 1, 0	0, 1, 0	1	1, 0	1, 2	2, 3, 2
3	2, 3, 2	2, 3, 2	2, 3, 1	0, 1	2, 3, 1	0, 1, 0	0, 1, 0	0, 1	1, 0	0, 1	2	2
4	2, 3, 2	2	1, 3	1, 2	1, 2, 1	0, 1	0, 1	1, 0	0, 1, 0	1, 0	2	2, 1
5	2, 3	2, 1	3, 2	2, 3	1	1, 3, 2	1, 2, 1	0, 1	0, 1, 0	0, 1, 0	2, 1	1, 2
6	3	1	2, 3, 2	3	1	2, 1	1, 2	1, 2	0, 1, 0	0, 1, 0	1, 2	2, 1
7	3, 2	1, 2	2, 1	3, 2	1, 0, 1	1, 2, 1	2	2, 1	0	0, 1	2	1, 0
8	2, 3	2, 3, 2	1, 2, 1	2, 3	1	1, 3, 2	2, 3, 2	1	0, 1	1, 2, 1	2, 1	0, 1, 0
9	3	2	1	3, 1	1	2, 1	2, 1	1	1, 2	1	1	0, 1, 0
10	3	2, 1	1, 3	1, 0	1, 0	1, 0	1, 2	1	2, 1	1	1, 2, 1	0, 1
11	3	1	3, 2	0, 1, 0	0	0, 1	2, 1	1, 0	1, 2	1	1, 2	1
12	3, 2	1	2, 3, 2	0, 1, 0	0, 1, 0	1	1, 0	0, 1, 0	2, 1	1	2, 3	1
13	2, 3	1, 2, 1	2, 3	0, 1	0, 1, 0	1, 0	0, 1	0, 1, 0	1	1, 2, 1	3, 2	1, 2, 1
14	3	1, 2, 1	3, 2	1, 2	0, 1	0, 1	1, 0	0, 1	1	1, 2, 1	2, 1	1
15	3, 2	1, 0	2	2, 1	1	1	0, 1	1, 0	1, 2, 1	1	1, 2	1
16	2, 3, 2	0, 1	2, 3	1, 0, 1	1, 2, 1	1	1	0, 1, 0	1	1, 2, 1	2	1
17	2, 1	1, 0	3, 2	1	1	1, 2, 1	1	0	1	1, 2, 1	2	1
18	1	0, 1	2, 1	1, 2, 1	1, 0, 1	1, 0	1	0, 1, 0	1	1, 2, 1	2, 3, 2	1, 0
19	1, 0, 1	1, 0	1, 3, 2	1, 2, 1	1	0, 1, 0	1, 0	0, 1	1	1	2, 1	0, 2, 1
20	1, 3, 1	0, 1	2, 1	1	1	0, 1, 0	0, 1, 0	1	1, 0	1	1, 2	1
21	1, 2, 1	1, 2, 1	1, 2	1, 2	1	0, 1, 0	0, 1	1	0, 1	1	2	1
22	1, 2	1	2, 3, 2	2, 3, 2	1	0, 1	1, 0	1, 0	1, 3, 1	1	2, 3, 2	1, 2
23	2, 1	1	2	2, 3	1	1, 0	0, 1, 0	0, 1	1, 2	1	2	2
24	1	1	2, 1	3, 2	1	0, 1, 0	0, 1, 0	1, 0	2, 1	1	2, 3	2, 3, 2
25	1	1, 2, 1	1, 2	2, 1	1, 0, 1	0, 1, 0	0, 1, 0	0, 1, 0	1	1, 2	3	2, 1, 2
26	1, 2	1, 2, 1	2, 1	1, 2, 1	1	0, 1, 0	0, 1	0, 1	1, 2, 1	2, 1	3, 2	2, 3
27	2, 1	1, 2, 1	1, 2, 1	1	1	0, 1	1, 0, 1	1	1	1, 2, 1	2, 1	3
28	1	1, 2	1	1, 2	1	1	1, 0	1	1, 2	1	1, 2, 1	3, 2, 3
29	1		1, 2	2	1	1	0, 1, 0	1	2	1	1	3
30	1		2, 1	2, 3, 2	1, 0	1, 0	0, 1, 0	1, 0	2, 1	1, 2, 1	1, 2, 1	3, 1
31	1		1, 3, 1		0, 1, 0		0, 1, 0	0		1		1

Date 1947	Phase	Time			Direction	Period	Amplitude	Remarks
		h	m	s				
Jan. 3 (1)	ePS	2	39	40				(1) Disturbed by strong microseisms. BCIS: aftershock of Dec. 21 1946, 44° 8' N 148° 5' E. USCGS: 45° N 148° 5' E, H. 2h17m06s, Hokkaido, Japan, off east coast. JSA: 44° 5' N 149° 1' E, H. 2h17m11s, deeper than normal.
	eL	2	53					
	F	4	30					
Jan. 8 (2)	eL	0	56					(2) BCIS: 9° 8' N 126° 2' E, H. 0h04.6m. URSS: 10° 5' N 127° 5' E.
	F	1	15					
Jan. 15 (3)	eL	19	10					(3) USCGS: 27° N 111° W, H. 18h28.0m. JSA: 27° 5' N 111° 6' W, H. 18h28m07s.
	F	19	30					
Jan. 18 (4)	eL	3	21					(4) URSS: 41/55' N 67° 20' E, h = 200 km. BCIS: H. 2h58.7m.
	F	3	30					
Jan. 21 (5)	eL	20	55					(5) BCIS: aftershock of Aug. 2 1946. USCGS: 225° S 70° W, H. 20h06m40s. JSA: 22° 8' S 69° 2' W, H. 20h07m01s, h = 100 km. (Northern Chile.)
	F	21	15					
Jan. 24 (6)	ez	17	00	24				(6) BCIS: aftershock of Dec. 20 1946, H. 16h47.8m. URSS: 34° 0' N 137° 5' E.
	e(PS)	17	10	53				
	eL	17	29					
	F	18	30					
Jan. 25 (7)	eL	4	25					(7) USCGS: 13° N 88° W, H. 3h52.6m. JSA: 13° 4' N 87° 5' W, H. 3h52m39s.
	F	6	00					
Jan. 26 (8)	iP	10	18	51	+	8		(8) BCIS: 13° 7' N 86° 1' W, H. 10h06m57s, h = 150—170 km. USCGS: 12° N 86¼° W, H. 10h06m45s, h = 170 km, Nicaragua, west coast. JSA: 13° 5' N 86° 7' W, H. 10h06m46s, h about 75 km.
	iPP	10	22	04	-	7		
	iS	10	28	45				
	iPS	10	29	39				
	eL	10	43					
Jan. 29 (9)	F	12	00					(9) BCIS: 26° 5' S 63° 7' W, H. 8h17m52s, h = 600 km. USCGS: 27° S 63° W, H. 8h17.8m. JSA: 27° 0' S 62° 8' W, H. 8h17m50s, h = 600 km.
	iP	8	30	30	-			
	iPP	8	34	36	+			
	ez	8	37	30				
	iii	8	40	15				
Jan. 30 (10)	eii	8	44	10				(10) URSS: 9° N 82° 5' E.
	F	10	00					
	eL	1	45					
	F	2	00					
Jan. 30 (11)	iP	12	41	01	+			(11) BCIS: H. 12h32.8m. URSS: 37° 00' N 71° 30' E, h = 200 km.
	ez	12	42	06				
	ez	12	43	57				
	F	13	15					

SEISMIC RECORDS AT DE BILT.

Date 1947	Phase	Time	Direction	Period	Amplitude	Remarks
Febr. 5 (12)	eL F	0 15 0 35				(12) BCIS: 42° 5' N 142° E, H. 23h38m28s. URSS: 41° N 142° E.
Febr. 7 (13)	iPP iPKS iPPP eSS eL F	9 02 23 9 03 26 9 05 16 9 20 9 39 11 15	+	4	7	(13) Disturbed by microseisms. BCIS: 9° 5' S 161° 5' E, H. 8h40m35s. JSA: 10° 1' S 161° 9' E, H. 8h40m40s. URSS: 15° S 161° 5' E.
Febr. 9 (14)	eL F	5 18 5 40				(14) Disturbed by strong microseisms. JSA: 17° S 75° W, H. 4h29,9m.
Febr. 9 (15)	eL F	19 34 20 15				(15) Disturbed by microseisms. URSS: 27° 8' N 128° 1' E.
Febr. 10 (16)	eS eL F	4 20 21 4 30 6 00				(16) BCIS: 29° N 82° 5' E, H. 4h02,0m. URSS: 30° N 82° 5' E.
Febr. 10 (17)	eL F	17 34 17 45				
Febr. 11 (18)	eL F	3 35 3 50				
Febr. 11 (19)	e F	19 28 19 40				
Febr. 12 (20)	ePS eL F	20 31 20 20 51 22 00				(20) BCIS: 30° N 128° E, H. 20h07,2m. URSS: 30° 5' N 132° E.
Febr. 13 (21)	eL F	2 53 3 05				
Febr. 13 (22)	e F	6 04 6 10				
Febr. 15 (23)	eL F	1 51 2 25				
Febr. 16 (24)	eL F	10 04 10 35				
Febr. 17 (25)	eS eL F	0 16 20 0 17 00 0 22				(25) BCIS: 44° 45' N 7° 16' E, H. 0h12m33s.

SEISMIC RECORDS AT DE BILT.

Date 1947	Phase	Time	Direction	Period	Amplitude	Remarks
Febr. 18 (26)	eP ipP iS esS iSS F	13 42 13 13 43 54 13 52 08 13 55 02 13 57 58 15 00				(26) Disturbed by microseisms. BCIS: 33° N 136° E, H. 13h30m27s, h = 450 km. JSA: 32° 1' N 137° 3' E, H. 13h30m29s, h about 450 km. URSS: 32° N 138° E, h = 420 km.
Febr. 19 (27)	eL F	7 43 8 00				
Febr. 21 (28)	eS eL F	22 23 25 22 45 23 30				(28) BCIS: 36° N 133° E, H. 22h01,2m. URSS: 31° N 133° E.
Febr. 22 (29)	eL F	4 39 5 05				
Febr. 24 (30)	iP iPP eSKS eS ePS eL F	17 44 47 17 48 21 17 55 09 17 55 37 17 56 55 18 10 19 30	-	7	4	(30) BCIS: 12° S 69° W, H. 17h31,8m. La Paz: 15° 30' S 68° 45' W.
Febr. 26 (31)	eL F	2 33 3 00				(31) JSA: 11° N 88° 5' W, H. 1h50m06s.
March 2 (32)	eL F	1 50 2 25				(32) Disturbed by microseisms.
March 2 (33)	ePP ePPP eSS eL F	19 30 00 19 32 45 19 46 31 20 05 21 30				(33) Disturbed by microseisms. BCIS: 5° S 144° 5' E, H. 19h09m23s. USCGS: 5° 5' S 144° E, H. 19h09m21s. JSA: 5° 4' S 144° 5' E, H. 19h09m25s. URSS: 5° 0' S 143° 0' E.
March 7 (34)	eL F	5 03 5 20				(34) Disturbed by microseisms.
March 8 (35)	eL F	15 47 16 10				(35) Disturbed by microseisms. URSS: 27° N 95° 5' E.
March 10 (36)	eS ePS eSS eL F	2 12 00 2 12 23 2 16 00 2 20 2 50				(36) Disturbed by microseisms. BCIS: 10° S 12° W, H. 1h53,2m. JSA: 10° 5' S 11° 6' W, H. 1h53m17s.
March 11 (37)	eL F	17 18 17 30				(37) Disturbed by strong microseisms. BCIS: foreshock of (40), H. 17h06,5m.

Date 1947	Phase	Time	Direction	Period	Amplitude	Remarks	
							h
March 16 (38)	eL F	10 15 10 50				(38) Disturbed by microseisms. BCIS: 17°,5 N 128° E, H. 9h31,5m. URSS: 22° N 121° E.	
March 17 (39)	iP iS iPS eSS eL M _N M _E F	8 30 28 8 39 27 8 39 51 8 43 50 8 50 8 57 8 57 12 30	+		25 25	900 850	(39) Disturbed by strong microseisms. BCIS: 33°,5 N 100° E, H. 8h19m30s. USCGS: 33°,5 N 99°,5 E, H. 8h19m31s. JSA: 33°,3 N 98°,8 E, H. 8h19m37s. URSS: 35° N 102° E.
March 21 (40)	e F	23 11 23 20				(40) Disturbed by strong microseisms. BCIS: 35°,7 N 23°,6 E, H. 23h00m03s.	
March 25 (41)	(ePKP) ePKP ePP eSKKS ePSKS eL F	20 52 33) 20 52 54 20 57 25 21 04 00 21 07 46 21 52 23 50				(41) Disturbed by strong microseisms. USCGS: 39° S 178° E, H. 20h32m15s. JSA: 38°,8 S 178°,3 E, H. 20h32m15s. Wellington: 38°,8 S 178°,5 E, H. 20h32,2m.	
March 27 (42)	eL F	17 45 18 15					
March 28 (43)	e F	3 50 10 4 00				(43) BCIS: 33° N 25°,5 E, H. 3h40,4m.	
March 29 (44)	eL F	8 00 8 15					
April 2 (45)	(eP) iPP ePPP eSKS iPS iSS iSSS eL F	5 54 15) 5 59 03 6 01 08 6 04 50 6 08 44 6 15 13 6 18 45 6 30 10 00	(+)			(45) BCIS: 2° S 137°,5 E, H. 5h39,2m. USCGS: 1°,5 S 138° E, H. 5h39m10s. JSA: 1°,8 S 138°,3 E, H. 5h39m16s.	
April 2 (46)	iP ePP eS eSS eL F	20 57 49 21 01 10 21 08 14 21 14 30 21 24 23 00				(46) BCIS: 24°,1 N 122°,0 E, H. 20h45m08s. URSS: 25° N 123° E.	
April 3 (47)	eL F	20 50 21 05				(47) Aftershock of (46).	

Date 1947	Phase	Time	Direction	Period	Amplitude	Remarks
April 4 (48)	eL F	1 49 2 30				
April 8 (49)	eL F	0 30 0 45				(49) URSS: 40°30' N 71°42' E, H. 0h06m05s, h = 100 km.
April 9 (50)	eL F	15 00 15 25				
April 9 (51)	e F	21 40 21 50				(51) URSS: 41°30' N 72°40' E.
April 10 (52)	iP ez ePP iS eSS eSSS eL F	16 10 17 16 10 45 16 13 35 16 20 25 16 25 30 16 29 30 16 35 18 30	+			(52) Pasadena: 34°58' N 116°32' W, H. 15h 58m04s.
April 11 (53)	eSSS eL F	0 33 0 50 1 20				(53) BCIS: 32° S 56° E, H. 0h02,0m. URSS: 38° S 60° E.
April 11 (54)	eP eS ePS eSS eSSS eL F	14 42 30 14 52 57 14 54 12 14 59 10 15 03 20 15 10 16 30				(54) BCIS: 20°,4 N 121°,7 E, H. 14h29m31s. URSS: 19° N 120° E.
April 12 (55)	eP iS eL F	14 09 30 14 13 06 14 14 30 15 00				(55) BCIS: 40°,2 N 25°,6 E, H. 14h05m12s. URSS: 38°,5 N 26°,5 E. Istanbul: 39°48' N 26°39' E.
April 12 (56)	eL F	16 10 16 13				(56) BCIS: aftershock of (55), H. 16h00,8m.
April 12 (57)	eL F	16 20 16 30				(57) BCIS: aftershock of (55), H. 16h10,8m.
April 13 (58)	eL F	4 37 5 30				
April 13 (59)	e F	18 15 19 00				(59) Disturbed by strong microseisms.
April 14 (60)	eH F	3 39 5 30				

Date 1947	Phase	Time	Direction	Period	Amplitude	Remarks
		h m s		s	μ	
April 14 (61)	iP iS ePS eSS eL F	7 27 39 7 37 29 7 38 17 7 43 7 51 11 00	+			(61) BCIS: 44° 8' N 148° 5' E, H. 7h15m35s. USCGS: 45° 0' N 146° 5' E, H. 7h15,5m. URSS: 41° 0' N 148° 5' E.
April 16 (62)	eL F	13 31 14 00				(62) BCIS: 38° N 21° 5' E, H. 13h21,0m.
April 18 (63)	iPg iP'g	11 00 50 11 00 56				(63) Explosion of Heligoland.
April 19 (64)	eL F	17 54 18 20				(64) BCIS: 37° 7' N 43° 5' E, H. 17h39m07s. URSS: 37° 7' N 41° 7' E.
April 19 (65)	(eP eS eL F	20 33 50) 20 37 20 20 39 21 10				(65) BCIS: 39° 8' N 23° 4' E, H. 20h29m43s. URSS: 40° 5' N 23° 3' E.
April 22 (66)	eL F	19 29 19 40				(66) Disturbed by strong microseisms.
April 24 (67)	iP iS eL F	19 45 00 19 52 52 20 00 22 00	-			(67) Disturbed by microseisms. BCIS: 7° 5' N 38° 7' W, H. 19h35m06s. USCGS: 7° 5' N 38° W, H. 19h35m08s. JSA: 7° 6' N 39° 0' W, H. 19h35m14s. URSS: 6° 5' N 40° W.
April 26 (68)	eL F	13 38 14 20				(68) URSS: 6° N 125° 5' E. BCIS: H. 12h45,1m.
April 26 (69)	eL F	18 19 19 00				(69) BCIS: aftershock of (68), H. 17h25,0m.
April 29 (70)	eL F	6 24 6 50				(70) Disturbed by microseisms.
April 30 (71)	eL F	5 25 5 50				(71) Disturbed by microseisms. BCIS: 60° N 138° 5' W, H. 4h49m44s. JSA: 59° N 139° W, H. 4h49,8m. URSS: 56° N 142° 5' W.
April 30 (72)	eL F	17 27 17 35				(72) BCIS: 45° N 32° 5' W, H. 17h14,6m.
May 2 (73)	iP eS eSS eSSS eL F	2 30 35 2 40 08 2 45 2 49 2 54 4 00	+			(73) BCIS: 54 $\frac{3}{4}$ ° N 163 $\frac{1}{2}$ ° W, H. 2h18m57s. USCGS: 54° N 164° W, H. 2h19,0m. JSA: 53° 8' N 164° 3' W, H. 2h19m06s. URSS: 53° 5' N 162° 5' W.

Date 1947	Phase	Time	Direction	Period	Amplitude	Remarks
		h m s		s	μ	
May 3 (74)	eL F	4 25 4 40				(74) Disturbed by microseisms.
May 3 (75)	eL F	10 17 10 55				(75) BCIS: 35° 5' N 141° 0' E, H. 9h35m27s.
May 4 (76)	eL F	22 58 23 15				(76) BCIS: 22° N 55° E, H. 22h34,0m.
May 6 (77)	eL F	12 50 13 20				
May 6 (78)	ePKP ez iPP ePKS iPPP eSKKS ePS iPPS eSS eSSS eL F	20 49 42 20 51 20 20 51 37 20 52 57 20 54 22 20 58 20 21 01 21 03 00 21 08 21 13 21 26 1 30	+	-		(78) BCIS: 6° 5' S 148° 5' E, H. 20h30m34s. USCGS: 7° S 149° E, H. 20h30m32s. JSA: 6° 5' S 149° 0' E, H. 20h30m35s.
May 7 (79)	eL F	15 08 15 45				(79) BCIS: 0° N 156° E, H. 14h08,5m. URSS: 12° 5' N 163° 5' E.
May 8 (80)	iP eS eSS eL F	18 56 37 19 05 30 19 10 06 19 17 20 00	(+)			(80) BCIS: 24° 5' N 95° 5' E, H. 18h45,0m. URSS: 27° 0' N 99° 5' E.
May 8 (81)	eL F	23 40 23 55				
May 9 (82)	eH F	0 24 1 15				
May 9 (83)	eL F	14 45 15 05				
May 9 (84)	eL F	22 41 22 50				
May 10 (85)	eL F	0 36 1 20				(85) BCIS: 60° 5' N 142° 5' E, H. 0h07m20s.
May 10 (86)	eL F	3 00 3 15				

Date 1947	Phase	Time	Direction	Period	Amplitude	Remarks
		h m s		s	μ	
May 11 (87)	iP iS eL F	6 36 03 6 39 10 6 40 30 7 30	-			(87) BCIS: 39° 1' N 16° 9' E, H. 6h32m21s. Roma: 38° 33' N 17° E, H. 6h32m09s. Destructive in Calabria. USCGS: 38° 5' N 17° 5' E, H. 6h32m39s.
May 11 (88)	iH eL F	19 04 46 19 35 21 30				(88) BCIS: 5° S 111° E, H. 18h40,1m. JSA: 5° 3' S 110° 7' E. URSS: 10° 5' S 105° 0' E.
May 11 (89)	eL F	22 59 23 35				(89) BCIS: 1° S 138° E, H. 22h03,3m. URSS: 0° N 140° 0' E.
May 12 (90)	eL F	11 10 11 30				
May 13 (91)	eL F	14 30 14 37				
May 14 (92)	iPKP F	2 27 27 4 20	(-)			(92) BCIS: 22° 5' S 169° 5' E, H. 2h07,7m.
May 16 (93)	eL F	18 12 18 20				
May 16 (94)	eL F	22 25 22 55				
May 17 (95)	eL F	4 20 4 30				
May 17 (96)	ePKP ePP PcPPKP eSKKS eSKSP ePPS eL F	7 26 41 7 31 40 7 35 41 7 38 7 42 7 44 30 8 25 11 00	+			(96) BCIS: 37 $\frac{3}{4}$ ° S 177° E, H. 7h06m37s. USCGS: 37° 5' S 180° E, H. 7h06,7m. JSA: 38° 3' S 176° 7' E, H. 7h06m48s. Wellington: 39° 4' S 178° 9' E, H. 7h06,6m.
May 22 (97)	eL F	14 27 14 33				
May 24 (98)	eS eSS eL F	0 27 10 0 30 38 0 36 1 20				(98) P under paperclip. BCIS: 13° 0' N 48° 9' E, 0h10m30s. URSS: 12° 5' N 49° 5' E.
May 24 (99)	eL F	5 07 5 25				
May 25 (100)	eL F	12 38 13 20				(100) Disturbed by microseisms. URSS: 5° N 129° E.

Date 1947	Phase	Time	Direction	Period	Amplitude	Remarks
		h m s		s	μ	
May 25 (101)	eS eL F	23 23 20 23 43 0 20				(101) URSS: 22° N 121° E.
May 26 (102)	eL F	11 39 12 25				
May 26 (103)	eL F	15 45 16 05				
May 26 (104)	iPP eSS eL F	20 01 48 20 18 20 20 40 21 20	+			(104) BCIS: 7° S 158 $\frac{1}{4}$ ° E, H. 19h40,0m. JSA: 8° 6' S 157° 8' E, h about 550 km. URSS: 4° 5' S 151° 5' E.
May 27 (105)	ePP epPP epPPP ePS ePPS eL F	3 54 30 3 54 55 3 57 35 4 03 40 4 04 57 4 30 5 15				(105) BCIS: 8° 5' S 124° 5' E, H. 3h34,9m. JSA: 4° 6' S 123° 4' E, H. 3h34m57s, h about 100 km. URSS: 9° S 123° 5' E.
May 27 (106)	eZ ePKP iPP eL F	6 15 00 6 18 35 6 19 56 6 50 10 00				(106) BCIS: 1 $\frac{3}{4}$ ° S 135 $\frac{1}{2}$ ° E, H. 5h58,9m. USCGS: 2° S 136° E, H. 5h58m54s. JSA: 2° 6' S 141° 0' E, H. 5h59m14s.
May 27 (107)	eL F	21 34 21 50				(107) JSA: 40° 2' N 123° 8' W, H. 20h58m44s.
May 28 (108)	ePKP epPKP eL F	15 07 42 15 08 22 16 08 17 00				(108) Disturbed by visitors. BCIS: 24° S 179° E, H. 14h47,9m. JSA: 29° 1' S 177° 6' W, H. 14h47m57s, h about 100 km.
May 30 (109)	eL F	14 10 15 00				
May 30 (110)	e F	22 36 22 40				
June 1 (111)	iP iPP eS eL F	11 23 04 11 23 29 11 26 38 11 28 12 30	(+) (-)			(111) BCIS: 36° 3' N 21° 7' E, H. 11h18m32s. URSS: 37° 4' N 20° 7' E.
June 1 (112)	eL F	16 21 16 30				

Date 1947	Phase	Time	Direction	Period	Amplitude	Remarks
June 1 (113)	eL F	16 40 16 46				
June 1 (114)	eL F	19 26 19 35				(114) URSS: 41°05' N 72°20' E. BCIS: H. 18h56,9m.
June 1 (115)	e eL F	22 42 22 45 23 00				(115) URSS: Gobi, 39° N 90° E.
June 2 (116)	iP iPP eS eSS eL F	6 48 57 6 50 34 6 55 45 6 59 10 7 06 8 30	+			(116) BCIS: aftershock of (115), H. 6h40,6m.
June 3 (117)	e F	4 00 4 05				
June 3 (118)	e F	4 15 4 20				
June 3 (119)	e F	5 15 5 30				
June 3 (120)	eL F	5 55 6 30				
June 4 (121)	eP iS iz eL F	0 34 00 0 37 27 0 37 38 0 38 30 2 00	-	5	8	(121) BCIS: 39½° N 24¼° E, H. 0h29m45s. URSS: 38°,3 N 24°,7 E, h = 100 km.
June 4 (122)	e F	10 37 10 45				
June 6 (123)	eL F	1 00 1 15				(123) URSS: 18°,5 N 121°,0 E.
June 7 (124)	eL F	5 43 6 05				(124) URSS: 26°,7 N 101°,5 E.
June 7 (125)	iPP eS ePPS eL F	19 05 31 19 13 00 19 15 07 19 35 21 30	(-)			(125) BCIS: 11° N 125° E, H. 18h47,9m. USCGS: 11° N 127° E, H. 18h47,9m. JSA: 11°,9 N 124°,1 E, H. 18h47m58s. URSS: 12°,0 N 127°,5 E.
June 8 (126)	e F	0 29 0 40				(126) Disturbed by microseisms.

Date 1947	Phase	Time	Direction	Period	Amplitude	Remarks
June 10 (127)	e eL F	11 38 12 00 12 30				(127) Disturbed by visitors. BCIS: aftershock of (125), H. 11h12,6m.
June 10 (128)	eP eS eL F	19 46 22 19 51 05 19 53 20 50				(128) BCIS: 39° N 29°,5 W, H. 19h40m32s. URSS: 39° N 30° W.
June 12 (129)	e F	6 38 6 50				
June 12 (130)	eP ePKP ePP iSKS iPS eSS eL F	9 16 46 9 20 25 9 21 16 9 27 22 9 30 28 9 36 30 9 53 12 30	-			(130) BCIS: ¾° N 126¼° E, H. 9h02,4m. USCGS: 1° N 126° E, H. 9h02m23s. JSA: 1°,0 N 126°,5 E, H. 9h02m34s, h = 100 km. URSS: 2°,3 N 125°,5 E.
June 13 (131)	iP iPP eS ePS eSS eL	20 38 38 20 42 39 20 50 08 20 51 36 20 56 50 21 12	+			(131) BCIS: 21¾° N 146¼° E, H. 20h24m53s. USCGS: 21° N 146°,5 E, H. 20h24m56s. JSA: 21°,7 N 145°,0 E, H. 20h24m51s. URSS: 21°,0 N 146°,5 E. F in next shock.
June 14 (132)	ePP eS ePS eSS eL F	0 08 07 0 15 28 0 17 00 0 22 0 38 4 00				(132) BCIS: aftershock of (131), H. 23h 50m 22s. USCGS: H. 23h50,3m.
June 14 (133)	eL F	8 15 9 00				(133) BCIS: aftershock of (131), H. 7h22,3m.
June 14 (134)	eP ePP eS eL F	16 43 48 16 47 45 16 55 15 17 20 18 30				(134) BCIS: aftershock of (131), H. 16h 30m09s.
June 15 (135)	eL F	21 25 21 35				(135) BCIS: aftershock of (131), H. 20h 21,6m.
June 16 (136)	eP eS eL F	0 27 50 0 35 35 0 40 1 15				(136) BCIS: 13°,5 N 55°,7 E, H. 0h18,1m. URSS: 15° N 59° E.

Date 1947	Phase	Time	Direction	Period	Amplitude	Remarks
June 16 (137)	eL	11 20				
	F	11 40				
June 16 (138)	eL	22 00				
	F	22 30				
June 17 (139)	eL	2 17				(139) BCIS: 23° S 170° E, H. 0h59,2m.
	F	2 35				
June 17 (140)	eL	14 50				(140) BCIS: 6°,5 S 150°,5 E, H. 13h45,9m.
	F	15 15				
June 19 (141)	eSKS	2 39 10				(141) BCIS: aftershock of (131), H. 2h14,6m.
	eL	3 05				
	F	4 10				
June 19 (142)	ePP	7 52 32				(142) Beginning during change of papers. BCIS: aftershock of (131), H. 7h34m39s. USCGS: H. 7h34,6m. JSA: 21°,7 N 145°,0 E, H. 7h34m39s.
	iSKS	7 58 55				
	eS	7 59 58				
	iPS	8 01 10				
	eL	8 20				
	F	11 30				
June 19 (143)	esS or					(143) JSA: 3°,5 N 101°,7 W, H. 22h47m44s, h = 300 km.
	ePS	23 13 30				
	eL	23 31				
June 20 (144)	eL	24 00				
	eP	13 42 20				(144) BCIS: 28° N 43°,5 W, H. 13h34,3m.
	eS	13 48 48				
F	14 40					
June 20 (145)	eL	19 47				(145) BCIS: aftershock of (131), H. 18h55,1m. URSS: 22° N 145°,5 E.
	F	20 20				
June 20 (146)	e	22 17				
	F	22 25				
June 20 (147)	eP	23 15 25				(147) BCIS: aftershock of (128) H. 23h09,5m.
	eS	23 20 04				
	eL	23 22 30				
	F	0 20				
June 21 (148)	eL	1 11				(148) BCIS: aftershock of (128).
	F	1 40				
June 23 (149)	e	22 04				
	F	22 10				
June 26 (150)	e	19 09				(150) BCIS: aftershock of (130), H. 18h12,2m.
	F	19 35				

Date 1947	Phase	Time	Direction	Period	Amplitude	Remarks
June 28 (151)	eSKS	2 12 20				(151) BCIS: aftershock of (130), H. 1h47,4m.
	iPS	2 15 24				
	eL	2 43				
	F	3 15				
June 28 (152)	e	11 15 30				(152) Stuttgart: 48°15' N 9°00' E, H. 11h13m 13s, h = 10—20 km. Heerlen: i: 11h14m16s, 11h14m42s and 11h15m00s.
	F	11 20				
June 28 (153)	ez	19 21 40				
	eL	19 29				
	F	19 40				
June 28 (154)	e	22 32				
	F	22 40				
June 30 (155)	ePKP	8 10 36				(155) Change of papers from 8h11m till 8h23m. BCIS: aftershock of (130), H. 7h51,6m.
	eL	8 47				
	F	10 10				
June 30 (156)	eL	23 18				
	F	23 30				
July 1 (157)	ez	0 38				
July 1 (158)	ez	21 07				
	F	21 12				
July 4 (159)	e	20 16				
	F	20 25				
July 7 (160)	iP	22 40 00				(160) BCIS: 38¼° N 20¼° E, H. 22h35m50s. Trieste: 35°,3 N 19°,5 E. URSS: 35°,5 N 20° E, h = 100 km.
	ipP	22 40 17				
	eS	22 43 33				
	eL	22 45				
	F	23 15				
July 9 (161)	e(P)	18 21 04				(161) URSS: 22°,5 N 124°,0 E. BCIS: H. 17h57,8m.
	eL	18 41				
	F	19 15				
July 10 (162)	eP	10 28 49				(162) Disturbed by visitors. URSS: 34°,0 N 76°,5 E. BCIS: H. 10h19,4m.
	eS	10 36 10				
	eL	10 41				
	F	12 00				
July 10 (163)	iP	16 17 42				(163) Disturbed by microseisms. USCGS: 14° N 93° W, H. 16h05,1m. JSA: 13°,9 N 92°,9 W, H. 16h05m10s, h = 100 km.
	eL	16 45				
	F	17 40				

Date 1947	Phase	Time	Direction	Period	Amplitude	Remarks
July 12 (164)	iP	2 10 53	+			(164) BCIS and USCGS: 45° N 149° E, H. 1h58,8m. JSA: 45° N 150°,3 E, H. 1h59m02s.
	eS	2 20 50				
	eL	2 35				
	F	3 40				
July 12 (165)	iPKP	12 49 28	+			(165) BCIS: 21° S 173¼° W, H. 12h29m35s. USCGS: 20° S 176° W, H. 12h29,6m. JSA: 20°,0 S 176°,3 W, H. 12h29m36s. URSS: 20° S 170° W.
	iz	12 49 58				
	ePP	12 53 20				
	eL	13 45				
	F	15 20				
July 13 (166)	eL	13 39				(166) No z-record. BCIS: 20½° S 175½° W, H. 12h57m30s, h = 150 km. USCGS: 19° S 179° W, H. 12h57,3m, h about 100 km. JSA: 19°,7 S 178°,8 W, H. 12h57m30s, h = 150 km. URSS: 21° S 170° W.
	F	14 45				
July 13 (167)	eL	15 17				(167) URSS: 36°,5 N 57°,5 E.
July 15 (168)	e	14 38				
	F	14 50				
July 16 (169)	iP	19 33 13	+			(169) BCIS: 32¼° N 135¼° E, H. 19h20,5m. JSA: 32°,6 N 135°,0 E, H. 19h20m41s. URSS: 29°,5 N 131°,5 E.
	eS	19 43 40				
	ePS	19 44 40				
	eL	20 05				
	F	21 00				
July 17 (170)	ePP	4 53 12				(170) BCIS: 5°,0 S 147°,5 E, H. 4h32m16s. URSS: 10° S 150° E.
	eSS	5 10				
	eSSS	5 15				
	eL	5 30				
	F	6 30				
July 17 (171)	eL	10 06				
	F	10 30				
July 20 (172)	eL	11 40				
	F	12 40				
July 21 (173)	ePKP	0 53 00				(173) Pasadena: Southwest Pacific.
	ez	0 54 40				
	F	1 05				
July 21 (174)	iP	9 40 55	-			(174) BCIS: 36½° N 21¼° E, H. 9h36,3m. Trieste: 37° N 22° E.
	eS	9 44 30				
	eL	9 46				
	F	10 00				

Date 1947	Phase	Time	Direction	Period	Amplitude	Remarks
July 21 (175)	eL	10 50				(175) BCIS: 9¼° S 118° E, H. 9h56,8m. URSS: 10° S 115° E.
	F	11 25				
July 21 (176)	eL	11 54				(176) URSS: 6° N 119°,5 E.
	F	12 30				
July 23 (177)	eL	5 45				(177) USCGS: 17° N 68°,5 W, H. 5h13,4m. JSA: 18°,7 N 68°,1 W, H. 5h13m34s.
	F	6 10				
July 23 (178)	eP	17 28 00				(178) BCIS: 56°,5 S 30° W, H. 17h13,3m. USCGS: 54° S 30° W, H. 17h13,5m. JSA: 55°,3 S 28°,5 W, H. 17h13m22s.
	ePKP	17 32 15				
	ePP	17 32 32				
	ePPP	17 34 50				
	eSKS	17 38 35				
	eSKKS	17 39 38				
	eS	17 40 25				
	ePS	17 42 00				
	eSS	17 48 20				
	eL	18 05				
July 24 (179)	F	20 30				(179) BCIS: aftershock of (178), H. 8h39,8m. JSA: 54°,8 S 28°,9 W, H. 8h39m58s. F lost in next shock.
	ePP	8 58 58				
	ePS	9 08 35				
	eSS	9 14 50				
	eL	9 32				
July 24 (180)	ez	10 59 32				(180) BCIS: foreshock of (182), H. 10h39,9m. JSA: 19°,1 S 169°,4 E, H. 10h40m00s. F lost in next shock.
July 24 (181)	ez	11 20 45	(-)			(181) BCIS: foreshock of (182), H. 11h01,1m. F lost in next shock.
	eL	11 48				
July 24 (182)	iPKP	12 36 28	-			(182) BCIS: 19°,5 S 170°,3 E, H. 12h16m49s. USCGS: 18°,5 S 170° E, H. 12h16,9m. JSA: 19°,1 S 170°,2 E, H. 12h16m57s.
	ePPP	12 43 05				
	eSS	12 58 45				
	eL	13 18				
	F	16 00				
July 24 (183)	ez	16 47 44				(184) JSA: 34°,0 N 116°,5 W, H. 22h10m46s, many aftershocks.
	F	16 55				
July 24 (184)	eP	22 29 00				(185) BCIS: 17° S 179° W, H. 1h00,5m, h = 600 km.
	eS	22 33 13				
	eL	22 53				
	F	23 15				
July 25 (185)	iPKP	1 19 10	+			
	ez	1 21 35				
	F	1 30				

Date 1947	Phase	Time	Direction	Period	Amplitude	Remarks
July 25 (186)	iP	19 21 23	—	—	—	(186) BCIS: $26\frac{1}{2}^{\circ}$ S $63\frac{1}{4}^{\circ}$ W, H. $19^{\text{h}}08^{\text{m}}39^{\text{s}}$, h = 600 km. USCGS: 21° S 67° W, H. $19^{\text{h}}09,0^{\text{m}}$, h about 400 km. JSA: $23^{\circ},5$ S $65^{\circ},4$ W, H. $19^{\text{h}}08^{\text{m}}47^{\text{s}}$, h about 400 km.
	iz	19 25 27				
	ezH	19 31 06				
	F	20 15				
July 26 (187)	eL	1 05	—	—	—	
	F	1 35				
July 26 (188)	eP	12 07 20	—	—	—	(188) BCIS: 48° N $152^{\circ},5$ E, H. $11^{\text{h}}55,3^{\text{m}}$. URSS: $47^{\circ},5$ N $152^{\circ},5$ E.
	eS	12 17 06				
	eL	12 37				
	F	13 10				
July 26 (189)	ePP	16 17 54	—	—	—	(189) BCIS: H. $15^{\text{h}}57,7^{\text{m}}$. URSS: $2^{\circ},5$ S $140^{\circ},5$ E.
	eL	16 58				
	F	17 25				
July 26 (190)	eP	23 12 50	—	—	—	(190) BCIS: 50° S 10° W, H. $22^{\text{h}}58,7^{\text{m}}$.
	ePP	23 16 45				
	eL	23 45				
	F	1 00				
July 27 (191)	ezH	20 20	—	—	—	(191) BCIS: $39^{\circ}55'$ N $41^{\circ}16'$ E, H. $20^{\text{h}}09,2^{\text{m}}$. Istanbul: $39^{\circ}55'$ N $41^{\circ}16'$ E, H. $20^{\text{h}}08,9^{\text{m}}$. Trieste: 40° N 42° E. URSS: 40° N 40° E.
	F	20 40				
July 28 (192)	eP	3 59 23	+	9	10	(192) BCIS: 64° N 148° W, H. $3^{\text{h}}48,8^{\text{m}}$. USCGS: $62^{\circ},5$ N 151° W, H. $3^{\text{h}}48,7^{\text{m}}$. JSA: $62^{\circ},9$ N $145^{\circ},9$ W, H. $3^{\text{h}}49^{\text{m}}02^{\text{s}}$. URSS: $62^{\circ},5$ N $147^{\circ},0$ W.
	eL	4 25				
	F	4 55				
July 28 (193)	ez	7 43 08	—	—	—	
	eL	7 49				
	F	8 00				
July 29 (194)	eL	7 20	—	—	—	(194) BCIS: H. $6^{\text{h}}25,4^{\text{m}}$. URSS: 2° N 128° E.
	F	8 00				
July 29 (195)	iP	13 54 16	+	9	10	(195) BCIS: $28^{\circ},8$ N $93^{\circ},5$ E, H. $13^{\text{h}}43^{\text{m}}20^{\text{s}}$. USCGS: $28^{\circ},5$ N 93° E, H. $13^{\text{h}}43^{\text{m}}19^{\text{s}}$. JSA: $28^{\circ},2$ N $93^{\circ},2$ E, H. $13^{\text{h}}43^{\text{m}}24^{\text{s}}$. URSS: 30° N 95° E.
	ePP	13 57 00				
	ePPP	13 58 30				
	eS	14 03 10				
	eSS	14 07 40				
	eSSS	14 10 40				
	eL	14 16				
	F	19 30				
July 30 (196)	eL	0 25	—	—	—	(196) BCIS: aftershock of (195), H. $23^{\text{h}}30,3^{\text{m}}$.
	F	1 10				

Date 1947	Phase	Time	Direction	Period	Amplitude	Remarks
July 30 (197)	eL	2 07	—	—	—	(197) BCIS: aftershock of (195), H. $01^{\text{h}}12,1^{\text{m}}$.
	F	2 40				
July 30 (198)	eL	19 25	—	—	—	(198) URSS: 42° N 129° E.
	F	19 50				
July 31 (199)	eL	10 35	—	—	—	
	F	11 00				
July 31 (200)	eP	14 26 06	—	—	—	(200) USCGS and BCIS: 0° N 84° W, H. $14^{\text{h}}12,9^{\text{m}}$. JSA: 2° N 84° W, H. $14^{\text{h}}13^{\text{m}}11^{\text{s}}$.
	ePP	14 30 04				
	eS	14 36 52				
	eL	14 55				
Aug. 1 (201)	F	15 30	—	—	—	(201) Pasadena, South America.
	ez	1 07 13				
	ezH	1 13 32				
	e	1 16 00				
Aug. 1 (202)	F	1 30	—	—	—	(202) $\Delta = 2500$ km.
	eP	3 15 10				
	eS	3 19 06				
	eL	3 21				
Aug. 1 (203)	F	3 30	—	—	—	(203) BCIS: 17° S 168° E, H. $4^{\text{h}}23,3^{\text{m}}$.
	ePKP	4 43 00				
	eL	5 30				
	F	6 30				
Aug. 1 (204)	eL	15 11	—	—	—	(204) JSA: 27° N $1\frac{1}{2}^{\circ}$ W, H. $14^{\text{h}}25^{\text{m}}15^{\text{s}}$.
	F	15 30				
Aug. 2 (205)	eL	1 49	—	—	—	
	F	2 00				
Aug. 2 (206)	ez	2 39 18	—	—	—	
	eL	2 45				
	F	3 00				
Aug. 4 (207)	eL	18 25	—	—	—	
	F	19 20				
Aug. 5 (208)	iP	14 33 16	+	9	10	(208) BCIS: 27° N 65° E, H. $14^{\text{h}}24,1^{\text{m}}$. USCGS: 25° N 64° E, H. $14^{\text{h}}24^{\text{m}}10^{\text{s}}$. JSA: $24^{\circ},2$ N $61^{\circ},2$ E, H. $14^{\text{h}}24^{\text{m}}14^{\text{s}}$.
	ePP	14 35 18				
	iS	14 40 28				
	iPS	14 40 43				
	eSS	14 44 35				
	eL	14 49				
	F	19 00				

Date 1947	Phase	Time	Direction	Period	Amplitude	Remarks
		h m s		s	μ	
Aug. 6 (209)	iP epP eS esS e F	5 58 55 6 01 02 6 08 50 6 12 43 6 21 40 7 00	- +			(209) $h = 600$ km. BCIS: 9° S $71^{\circ},5$ W, H. $5h46m50s$, $h=550$ km. USCGS: $9^{\circ},5$ S 72° W, H. $5h46,9m$, $h=550$ km. JSA: $8^{\circ},6$ S $70^{\circ},3$ W, H. $5h47m03s$.
Aug. 6 (210)	iz eL	9 50 38 9 53				(210) BCIS: $36^{\circ}18' \pm 4'$ N, $6^{\circ}40' \pm 4'$ E, H. $9h46,5m$. USCGS: 37° N 8° E, H. $9h46m40s$. F lost in next shock.
Aug. 6 (211)	eL F	10 23 10 45				(211) BCIS: aftershock of (210).
Aug. 7 (212)	eP ePP eS eL F	0 51 30 0 54 06 1 00 35 1 14 3 00				(212) BCIS: $18\frac{3}{4}^{\circ}$ N $75\frac{1}{2}^{\circ}$ W, H. $0h40m10s$. USCGS: $19^{\circ},8$ N $75^{\circ},8$ W, H. $0h40,3m$. JSA: $19^{\circ},8$ N $75^{\circ},7$ W, H. $0h40m22s$.
Aug. 7 (213)	eL F	12 36 13 10				(213) BCIS: aftershock of (210), H. $12h29m29s$.
Aug. 9 (214)	eP ePPP eS ePS eL F	2 58 16 3 02 00 3 06 20 3 16 32 3 13 4 20	+			(214) BCIS: $0^{\circ},5$ N $28^{\circ},5$ W, H. $2h48m13s$. USCGS: 1° N 28° W, H. $2h48,3m$. JSA: $1^{\circ},5$ N $29^{\circ},7$ W, H. $2h48m28s$.
Aug. 12 (215)	e F	6 26 6 35				
Aug. 12 (216)	eL F	16 05 16 30				
Aug. 13 (217)	eL F	17 25 18 00				
Aug. 15 (218)	eP eS eL	4 17 00 4 21 47 4 26 20	+			(218) BCIS: $42\frac{1}{4}^{\circ}$ N $46\frac{1}{4}^{\circ}$ E, H. $4h10m55s$. Trieste: $38^{\circ},5$ N $42^{\circ},5$ E. F lost in next shock.
Aug. 15 (219)	iP e eL F	5 04 36 5 08 (30) 5 14 5 50				(219) BCIS: aftershock of (218), H. $4h58m32s$.

Date 1947	Phase	Time	Direction	Period	Amplitude	Remarks
		h m s		s	μ	
Aug. 15 (220)	eP ePP eS eL F	9 27 45 9 31 17 9 38 15 9 58 11 10				(220) Pasadena: $29^{\circ},4$ N $142^{\circ},2$ E.
Aug. 16 (221)	ez eL F	6 02 00 6 20 6 55				(221) BCIS: Gulf of Aden.
Aug. 17 (222)	eP ePP eS eL F	9 17 24 9 20 43 9 27 50 9 45 10 45				(222) $\Delta = 9500$ km. BCIS: Formosa.
Aug. 17 (223)	eP eS eL F	15 08 29 15 11 54 15 14 15 45	+			(223) BCIS: $37\frac{1}{2}^{\circ}$ N $19\frac{3}{4}^{\circ}$ E, H. $15h04,2m$.
Aug. 18 (224)	eL F	7 00 8 00				(224) JSA: $4^{\circ},0$ S $106^{\circ},7$ W, H: $6h08m53s$.
Aug. 19 (225)	eL F	20 36 21 10				(225) BCIS: region of Himalaya, H. $20h07,2m$.
Aug. 22 (226)	ePKP ePP ePPP ePS eL F	2 50 40 2 53 19 2 56 22 3 03 32 3 39 5 00	+			(226) JSA: $9^{\circ},7$ S $165^{\circ},6$ E, H. $2h31m36s$.
Aug. 23 (227)	eL F	5 10 6 10				(227m) No time-marks. BCIS: probably Burma, H. $4h34,1m$.
Aug. 23 (228)	eL F	14 42 15 00				
Aug. 24 (229)	eP ePP eS eScS eSS eL F	11 46 10 11 48 10 11 53 28 11 56 05 11 57 20 12 02 13 20	+			(229) BCIS: 43° N 82° E, H. $11h37,0m$.
Aug. 26 (230)	eL F	5 30 5 55				(230) BCIS: $34^{\circ},5$ S 46° E, H. $4h42,4m$.
Aug. 26 (231)	e F	6 05 30 6 20				

Date 1947	Phase	Time	Direction	Period	Amplitude	Remarks
		h m s		s	μ	
Aug. 27 (232)	iPKP ₁ iPKP ₂ iPP eSS eL F	13 57 48 13 58 51 14 02 36 14 23 20 14 52 17 30	- + - - - -			(232) USCGS: 42° S 179° E, H. 13h37,6m. JSA: 37°,8 S 179°,1 E, H. 13h37m48s. Wellington: 39°,7 S 179°,2 E, H. 13h 37,8m.
Aug. 28 (233)	iP ePP eS ePS eL F	7 02 06 7 04 54 7 11 43 7 12 06 7 28 9 00	+ + + + + +			(233) BCIS: 49°,6 N 154°,9 E, H. 6h50m18s. USCGS: 50° N 155° E, H. 6h50,3m. JSA: 51°,3 N 156°,6 E, H. 6h50m36s.
Aug. 28 (234)	iP e(PcP) ePP eS ePS ePPS eSS eL F	14 41 03 14 41 30 14 43 48 14 50 30 14 51 06 14 51 27 14 55 00 15 05 17 30	+ + + + + + + + +	5	7	(234) BCIS: 52°,8 N 159°,5 E, H. 14h29m27s. USCGS: 52° N 159° E, H. 14h29,4m. JSA: 54°,0 N 160°,1 E, H. 14h29m43s.
Aug. 28 (235)	ePP eSKS eS ePS eL F	20 06 30 20 12 50 20 14 06 20 15 52 20 38 21 40	- - - - - -			(235) USCGS: 29°,5 S 71° W, H. 19h48,0m. JSA: 29°,9 S 70°,8 W, H. 19h48m13s, h = 100 km.
Aug. 29 (236)	ez ez eL F	21 22 27 21 28 29 21 52 22 10	- - - -			
Aug. 30 (237)	iP eS eL F	22 26 24 22 30 18 22 33 0 40	- - - -	4	8	(237) BCIS: 35°,8 N 23°,7 E, H. 22h21m36s. JSA: 36°,0 N 23°,6 E, H. 22h21m43s. Heerlen: iP 22h26m15s; e 22h26m28s; eS 22h30m05s.
Aug. 31 (238)	eL F	1 18 2 00	- -			
Sept. 1 (239)	eL F	6 53 7 20	- -			
Sept. 2 (240)	iPKP ipPKP F	14 51 58 14 53 05 17 00	- - -			(240) Disturbed by visitors. BCIS and JSA: 20°,2 S 175°,4 W, H. 14h32m 40s, h = 250 km. USCGS: 20° S 179° W, H. 14h32,3m, h = 200 km.

Date 1947	Phase	Time	Direction	Period	Amplitude	Remarks
		h m s		s	μ	
Sept. 3 (241)	iP eS eL F	15 38 39 15 48 21 16 00 17 00	+ + + +			(241) BCIS: 48° N 153°,5 E, H. 15h26,9m, h = 150 km. JSA: 47°,1 N 153°,0 E, H. 15h27m03s, h about 150 km.
Sept. 3 (242)	ePKP ePP ePKS ePPS eL F	19 15 40 19 18 07 19 19 12 19 30 20 20 01 21 30	+ + + + + +			(242) BCIS and USCGS: 11° S 162° E, H. 18h56,4m. JSA: 11°,7 S 164° E, H. 18h56m30s.
Sept. 4 (243)	ePKP ePP ePS F	0 49 52 0 52 57 1 03 15 3 00	+ + + +			(243) USCGS: 15° S 174° W, H. 0h30,2m. JSA: 15°,7 S 173°,4 W, H. 0h30m14s.
Sept. 4 (244)	eL F	15 37 16 10	+ +			(244) Disturbed by visitors.
Sept. 10 (245)	eL F	0 25 1 00	+ +			(245) Disturbed by strong microseisms. BCIS: Region of South China, H. 23h47,6m.
Sept. 11 (246)	eL F	11 11 11 25	+ +			
Sept. 13 (247)	eP eS eL F	15 15 28 15 18 53 15 20 30 16 00	+ + + +			(247) BCIS: 37 $\frac{3}{4}$ ° N 19 $\frac{3}{4}$ ° E, H. 15h11,3m. Trieste: 38° N 20° E. No record from Sept. 14, 11h23m till Sept. 15, 11h22m.
Sept. 16 (248)	eL F	23 08 23 15	+ +			
Sept. 17 (249)	eP ePPP eS eSSS eL F	17 57 10 18 00 30 18 05 09 18 11 30 18 12 30 19 20	+ + + + + +			(249) BCIS: 0° 27° W, H. 17h46,8m; Trieste: 5° N 25° W.
Sept. 19 (250)	eP eS eL F	7 40 00 7 43 30 7 45 8 10	+ + + +			(250) Δ = 2050 km.
Sept. 20 (251)	ez e F	18 57 12 19 20 20 10	+ + +			

Date 1947	Phase	Time	Direction	Period	Amplitude	Remarks
		h m s		s	μ	
Sept. 23 (252)	eP eS eSS eL F	12 36 08 12 42 24 12 45 44 12 50 16 30	+			(252) BCIS: 33° 5' N 59° E, H. 12h28m08s. USCGS: 33° 5' N 58° 5' E, H. 12h28m08s. JSA: 34° 1' N 57° 6' E, H. 12h28m22s. Trieste: 36° 5' N 61° E.
Sept. 25 (253)	ePP eSKS ePPS eSS eL F	23 50 05 23 56 30 0 00 28 0 05 10 0 20 2 30				(253) JSA: 0° 5' N 127° E, H. 23h31m10s.
Sept. 26 (254)	eP eSS eL F	3 12 28 3 22 00 3 27 4 30				(254) BCIS: aftershock of (252), H. 3h04,5m.
Sept. 26 (255)	iP ePP iS eSS eL F	16 14 31 16 17 54 16 24 47 16 30 38 16 37 19 00	+			(255) BCIS: 24° 5' N 122° 3' E, H. 16h01m55s, h = 100 km. USCGS: 24° 5' N 123° 5' E, H. 16h01m54s, h = 100 km. JSA: 21° 7' N 122° 4' E, H. 16h01m52s, h = 150 km. Heerlen: i: 16h14m28s.
Sept. 28 (256)	eL F	4 35 5 10				
Sept. 29 (257)	eL F	0 36 0 45				
Oct. 1 (258)	ePKP ePP ePKS eL F	12 50 56 12 53 48 12 54 58 13 36 15 40				(258) BCIS: 13° S 167° E, H. 12h31,6m, h = 100 km. JSA: 12° 2' S 166° 1' E, H. 12h31m40s, h about 100 km.
Oct. 1 (259)	eL F	22 00 22 15				
Oct. 2 (260)	eL F	20 43 20 50				(260) Almeria: 38° 5' N 9° 9' W, H. 20h34m33s. Alicante: 38° 5' N 9° 55' W, H. 20h34m39s, h = 20 km.
Oct. 3 (261)	iP ePP iS eSS eL F	6 22 27 6 24 14 6 29 16 6 32 26 6 35 8 00	+			(261) BCIS: 28° N 63° E, H. 6h13,7m, h = 300 km. JSA: 26° N 55° E, H. 6h14m00s.

Date 1947	Phase	Time	Direction	Period	Amplitude	Remarks
		h m s		s	μ	
Oct. 3 (262)	iP ipP iS i(ScS) isS eSS eL F	23 44 47 23 45 17 23 55 06 23 55 22 23 55 51 0 00 36 0 10 1 15	+	4	7	(262) USCGS: 19° N 102° W, H. 23h32,2m, h = 200 km. JSA: 18° 6' N 101° 5' W, H. 23h32m15s, h = 100 km. Tacubaya: 18° 33' N 100° 33' W, H. 23h32m31s.
Oct. 4 (263)	ez ez eL F	15 51 12 15 55 12 16 56 18 00				(263) BCIS: South Pacific.
Oct. 5 (264)	ePP eSKS ePS eSS eL F	19 00 53 19 06 40 19 10 27 19 17 01 19 33 22 00				(264) BCIS: 4° S 138° 5' E, H. 18h41,0m. USCGS: 3° S 140° E, H. 18h41,0m. JSA: 4° 0' S 133° 7' E, H. 18h40m42s.
Oct. 6 (265)	eSS eL F	15 36 10 15 41 16 40				(265) BCIS: aftershock of (261), H. 15h17,7m.
Oct. 6 (266)	iP iz iS eL MH F	20 00 04 20 00 11 20 03 41 20 05 00 20 09 24 00	+		750	(266) Athens: 36° 5' N 21° 9' E. BCIS: 36° 9' N 22° 0' E, H. 19h55m31s. USCGS: 37° N 22° E, H. 19h55m31s. JSA: 36° 9' N 21° 7' E, H. 19h55m40s.
Oct. 7 (267)	iP ePP eS eSS eL F	2 03 47 2 06 03 2 12 21 2 16 33 2 23 4 30				(267) BCIS: 64° 5' N 147° 5' W, H. 1h53m23s. USCGS: 64° 5' N 146° W, H. 1h53,4m. JSA: 64° 0' N 148° 6' W, H. 1h53m23s.
Oct. 7 (268)	e eL F	19 06 19 27 19 50				
Oct. 8 (269)	eL F	4 03 4 20				
Oct. 10 (270)	eL F	15 00 17 00				(270) beginning during repair of instrument from 7h40m till 14h42m. JSA: 31° 0' S 177° 8' W, H. 13h42m52s.
Oct. 10 (271)	e F	18 21 18 55				

Date 1947	Phase	Time	Direction	Period	Amplitude	Remarks
Oct. 13 (272)	eL F	8 44 9 45				(272) Disturbed by microseisms. Wellington: 44° 2' S 169° 0' E, H. 7h31.4m.
Oct. 13 (273)	e F	23 35 23 43				
Oct. 14 (274)	ePKP ePP eSKKS eSS eL F	2 01 43 2 06 05 2 12 28 2 25 54 3 05 4 30				(274) USCGS: 32° S 180°, H: 1h41.1m. JSA: 32° 8' S 178° 4' E, H. 1h41m14s.
Oct. 14 (275)	ePP eSS eL F	22 40 00 22 49 00 22 53 23 30				(275) Poona: 39° 5' N 75° E, 22h29m18s.
Oct. 15 (276)	eL F	20 05 21 10				(276) BCIS: aftershock of (267), H. 19h34.6m.
Oct. 16 (277)	iP iPP iS eSS eSSS eL Me Mn Mz F	2 20 09 2 22 26 2 28 40 2 32 48 2 35 48 2 39 2 41 2 44 2 51 6 30	+	5	2	(277) Aftershock of (267). BCIS: 64° 5' N 147° 5' W, H. 2h09m46s. USCGS: 64° 5' N 148° 8' W, H. 2h09m45s. JSA: 63° 8' N 148° 1' W, H. 2h09m50s. Tacubaya: H. 2h09m47s.
Oct. 20 (278)	iP iPP eS eSS eL F	1 53 42 1 55 52 2 02 06 2 06 17 2 10 5 00	-	4½	2	(278) Aftershock of (267). BCIS: 64° 5' N 147° 5' W, H. 1h43m17s. USCGS: H. 1h43m16s. JSA: 64° 0' N 147° 9' W, H. 1h43m17s.
Oct. 20 (279)	eL F	12 56 13 13				(279) BCIS: Kuriles.
Oct. 20 (280)	eL F	14 34 14 50				
Oct. 21 (281)	eL F	10 22 11 10				(281) BCIS: Japan, H. 9h45.9m.
Oct. 22 (282)	ePKS eL F	17 45 18 27 19 50				(282) BCIS: 10° S 151° 5' E, H. 17h22.6m.

Date 1947	Phase	Time	Direction	Period	Amplitude	Remarks	
							h
Oct. 24 (283)	eL F	18 00 19 20				(283) BCIS: South Pacific.	
Oct. 27 (284)	F	11 00				(284) Begin during check of instruments from 10h34m till 10h39m. BCIS: 38° N 8° E, H. 10h30.1m.	
Oct. 27 (285)	eL F	12 13 12 40					
Oct. 27 (286)	eL F	13 25 14 00					
Oct. 31 (287)	eL F	3 01 3 35					
Nov. 1 (288)	eP ePP ePPP eSKS eS ePS eSS eL F	6 13 17 6 17 21 6 19 30 6 23 50 6 24 36 6 26 14 6 31 13 6 47 9 00				(288) BCIS: 4° S 102° 5' E, H. 5h59.5m. JSA: 6° S 102° E, H. 5h59m33s.	
Nov. 1 (289)	eP iz ePP iSKS iS eSSS eL Me F	15 12 04 15 12 10 15 15 50 15 22 42 15 23 10 15 32 36 15 36 15 48 20 15	+		25	180	(289) BCIS: 11° 0' S 74° 5' W, H. 14h58m50s. USCGS: 11° S 75° W, H. 14h58m51s. JSA: 10° 8' S 74° 5' W, H. 14h58m54s.
Nov. 2 (290)	iP ePP eS ePS eL F	7 12 28 7 15 28 7 22 28 7 23 20 7 34 8 30	+				(290) USCGS: 40° N 127° W, H. 7h00.3m. JSA: 40° 6' N 126° 5' W, H. 7h00m26s.
Nov. 4 (291)	iP eS iPS eSS eSSS eL Me	0 21 05 0 30 51 0 31 34 0 36 30 0 39 40 0 44 0 55	-		24	165	(291) BCIS: 44° 7' N 140° 7' E, H. 0h09m10s. USCGS: 43° N 140° E, H. 0h09.1m. JSA: 44° 8' N 139° 6' E, H. 0h09m14s. F after 2h55m. No record 4 Nov. from 2h55m till 9h13m.
Nov. 5 (292)	eL F	0 05 0 25					

Date 1947	Phase	Time	Direction	Period	Amplitude	Remarks
Nov. 5 (293)	eL F	3 10 3 50				
Nov. 6 (294)	e F	16 26 16 40				(294) Disturbed by microseisms. BCIS: 40° N 24° E, H. 16h18,0m.
Nov. 7 (295)	eL F	23 40 0 25				(295) Disturbed by microseisms. BCIS: aftershock of (289). USCGS: H. 23h 00,5m. JSA: 10°,8 S 74°,5 W, H. 23h00m29s.
Nov. 8 (296)	e F	2 25 2 35				(296) Disturbed by microseisms.
Nov. 8 (297)	eL F	4 40 5 15				(297) Disturbed by microseisms. BCIS: 50° N 142° E.
Nov. 8 (298)	e F	14 12 14 20				(298) Disturbed by microseisms.
Nov. 8 (299)	e F	16 50 17 05				(299) Disturbed by microseisms. BCIS: Himalaya, H. 16h24,8m.
Nov. 9 (300)	eL F	0 15 0 40				(300) Disturbed by microseisms.
Nov. 9 (301)	iPKP eSKS eSS eL F	5 17 34 5 25 15 5 40 25 6 00 7 30	—			(301) No z-record from 5h18m till 5h23m. USCGS: 23° S 171° E, H. 4h57,8m. JSA: 23°,4 S 170°,4 E, H. 4h57m51s.
Nov. 10 (302)	eP iPP eL F	4 04 17 4 04 47 4 10 20 5 00	—			(302) eS under paperclip. BCIS: 47° N 28° W, H. 3h59m10s. Trieste: 45°,0 N 28°,3 W, H. 3h59m14s.
Nov. 12 (303)	iPKP eL F	16 38 46 17 41 18 40				(303) Disturbed by strong microseisms. Aftershock of (301). USCGS: H. 16h18,9m. JSA: 23°,5 S 170°,5 E, H. 16h18m58s.
Nov. 13 (304)	eL F	3 50 4 20				(304) Disturbed by strong microseisms.
Nov. 14 (305)	eL F	5 51 6 30				(305) Disturbed by strong microseisms.
Nov. 14 (306)	iS eL F	11 11 37 11 21 12 15				(306) Disturbed by microseisms. Trieste: 43° N 145° E. BCIS: 42° N 142° E, H. 10h50,2m, h=200 km. USCGS: 46° N 143° E, H. 10h50,5m, h=200 km. JSA: 44°,3 N 143°,6 E, H. 10h50m30s, h=200 km.

Date 1947	Phase	Time	Direction	Period	Amplitude	Remarks
Nov. 15 (307)	eL F	23 47 0 20				(307) Disturbed by microseisms.
Nov. 16 (308)	eL F	2 27 2 50				(308) Disturbed by microseisms.
Nov. 17 (309)	eS eL F	10 13 48 10 20 11 15				(309) Disturbed by microseisms. BCIS and USCGS: 14° N 45° W, H. 9h56,5m. JSA: 17° N 46°,3 W, H. 9h56m51s.
Nov. 19 (310)	eL F	13 58 14 15				(310) Disturbed by microseisms.
Nov. 20 (311)	iP eS ePS or ePPS eSS eL F	8 31 21 8 41 05 8 42 03 8 46 20 8 58 9 45	—			(311) BCIS: 49¾° N 156° E, H. 8h19,5m. USCGS: 47° N 153° E, H. 8h19,3m. JSA: 48°,8 N 154°,8 E, H. 8h19m48s.
Nov. 20 (312)	iPKP	9 55 25	+			(312) BCIS: 19° S 179° E, H. 9h36,6m, h=500—550 km.
Nov. 21 (313)	eP iS ePS eSS eL F	4 07 20 4 18 00 4 18 57 4 23 30 4 36 6 00				(313) USCGS: 19° N 107° W, H. 3h54m15s. JSA: 19°,0 N 107°,3 W, H. 3h54m15s.
Nov. 21 (314)	e F	9 54 10 00				(314) Disturbed by microseisms.
Nov. 21 (315)	eL F	20 03 21 20				(315) JSA: 5°,8 S 152°,1 E, H. 19h02m06s.
Nov. 22 (316)	e F	1 38 1 50				
Nov. 23 (317)	eS eL F	10 11 00 10 20 11 30				(317) Disturbed by microseisms. USCGS: 44°47' N 112°02' W, H. 9h46m05,5s. JSA: 44°59' N 111°43' W, H. 9h46m05s.
Nov. 25 (318)	eL F	19 00 19 10				(318) Disturbed by strong microseisms. Aftershock of (289). JSA: 10°,8 S 74°,5 W, H. 18h15m10s.
Nov. 26 (319)	eL F	23 35 0 00				

Date 1947	Phase	Time	Direction	Period	Amplitude	Remarks
Nov. 29 (320)	eP eS eL F	10 18 18 10 21 50 10 22 10 45				(320) BCIS: aftershock of (294).
Dec. 8 (321)	ePKP eL F	17 38 30 18 30 19 05				(321) BCIS: 16° S 168° E, H. 17h18,7m.
Dec. 9 (322)	eL F	5 13 5 30				
Dec. 9 (323)	e F	10 02 10 11				
Dec. 9 (324)	eE F	23 26 20 23 35				(324) BCIS: 42° N 20° E, H. 23h18,9m. Trieste: 42° N 19° E, H. 23h18m55s.
Dec. 9 (325)	ez eH eL F	23 45 (30) 23 49 (50) 23 52 0 30				(325) BCIS: 36°,8 N 35°,7 E, 23h39m53s. Istanbul: 36°,9 N 35°,3 E.
Dec. 10 (326)	e F	5 05 5 10				
Dec. 11 (327)	eL F	13 25 13 40				
Dec. 13 (328)	eL F	23 42 24 00				
Dec. 15 (329)	(ez) eL F	13 28 30 13 31 13 50				
Dec. 15 (330)	iPKP ₁ iPKP ₂ iPP ePPP eSKKS iz iPPS eSSP eL F	19 40 31 19 41 43 19 45 34 19 49 32 19 52 53 19 55 20 19 59 24 20 08 30 20 39 22 00				(330) BCIS: 60°,2 S 159° W, H. 19h20m30s, h = 100 km. USCGS: 59° S 161° W, H. 19h20m26s, h = 100 km. JSA: 60°,3 S 166°,8 W, H. 19h20m17s, h = 100 km.
Dec. 16 (331)	eL F	21 05 21 55				
Dec. 17 (332)	eL F	22 30 22 36				

Date 1947	Phase	Time	Direction	Period	Amplitude	Remarks
Dec. 19 (333)	eL F	3 14 3 30				
Dec. 19 (334)	e(SSS) eL F	5 00 45 5 04 5 30				
Dec. 19 (335)	eL F	17 22 18 05				(335) Disturbed by microseisms.
Dec. 21 (336)	eL F	1 23 2 00				
Dec. 21 (337)	eL F	17 57 18 30				(337) Disturbed by microseisms. JSA: 20° S 160° W, H. 16h46m13s.
Dec. 22 (338)	eL F	3 12 3 30				(338) Disturbed by microseisms.
Dec. 24 (339)	eSSS eL F	6 07 20 6 30 8 00				(339) Disturbed by strong microseisms. JSA: 54° S 110° E, H. 5h21m48s. No recording Dec. 25 from 0h13m till 7h48m.
Dec. 26 (340)	eL F	17 43 19 00				(340) Disturbed by very strong microseisms. USCGS: 20° S 168° E, H. 16h43,8m. BCIS: 19° S 169° E, H. 16h44,0m. JSA: 20° S 169°,7 E.
Dec. 26 (341)	eL F	21 15 21 50				(341) Disturbed by very strong microseisms.
Dec. 28 (342)	eL F	17 42 18 00				(342) Disturbed by very strong microseisms.
Dec. 29 (343)	eL F	18 20 18 35				(343) Disturbed by very strong microseisms.
Dec. 29 (344)	eL F	18 50 19 10				(344) Disturbed by very strong microseisms.
Dec. 30 (345)	eL F	0 13 0 25				(345) Disturbed by very strong microseisms. BCIS: foreshock of (349), H. 0h02,5m.
Dec. 30 (346)	eL F	2 35 3 05				(346) Disturbed by very strong microseisms. USCGS: 9°,5 N 84°,5 W, H. 1h55,3m. JSA: 9°,5 N 84°,0 W, H. 1h55m18s.
Dec. 30 (347)	eL F	7 10 7 30				(347) Disturbed by very strong microseisms.

SEISMIC RECORDS AT DE BILT.

Date 1947	Phase	Time			Direction	Period s	Amplitude μ	Remarks
		h	m	s				
Dec. 30 (348)	eL	9	05				(348) Disturbed by strong microseisms.	
	F	9	15					
Dec. 31 (349)	eP	5	35	45	(—)		(349) BCIS: 59°,7 N 31°,8 W, H. 5h30m48s.	
	eS	5	39	40				
	eL	5	41	00				
	F	6	05					
Dec. 31 (350)	e	15	12	20				
	F	15	15					
Dec. 31 (351)	ePKP	15	26	02			(351) BCIS: 14½° S 174¼° W, H. 15h06,1m. USCGS: 15° S 176° W, H. 15h06,5m. JSA: 16° S 173°,4 W, H. 15h06m36s.	
	ePP	15	29	30				
	ePS	15	39	52				
	eSS	15	48	00				
	eL	16	13					
F	17	30						