

KONINKLIJK NEDERLANDS METEOROLOGISCH INSTITUUT

No. 108.

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SEISMIC RECORDS  
AT DE BILT

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34.

1946.

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TE VERKRIJGEN BIJ HET  
STAATSDRUKKERIJ- EN UITGEVERIJBEDRIJF  
'S GRAVENHAGE

Prijs f 1.00.

## INTRODUCTION.

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

THE GALITZIN SEISMOGRAPHS. Below are given: the period of the galvanometer  $T_1$ , the reduced length of pendulum 1, the distance between the mirror of the galvanometer and the recording paper  $A_1$ , and the rough values for the natural period of the undamped pendulum  $T$ , of the damping constant  $\mu$  and of the multiplying factor  $k$  for the year 1946.

	NS comp.	EW comp.	Z comp.
Period of galvanometer $T_1$	24,43 sec	24,96 sec.	12,0 sec
Reduced length of pendulum 1	123,1 mm	122,6 mm	406 mm
Distance $A_1$	1380 mm	1380 mm	1380 mm
Period of pendulum $T$	25 sec	25 sec	12 sec
Damping constant $\mu$	0,0	0,0	0,0
Multiplying factor $k$	11,0	11,0	178

THE WIECHERT AND BOSCH SEISMOGRAPHS. The mean values of the natural period of the undamped pendulum  $T$ , of the damping ratio  $\varepsilon$  and of the static magnification  $V$  are for the year 1946:

	$T$	$\varepsilon$	$V$
WIECHERT (NS comp.)	4,9 sec	4	160
„ (EW comp.)	4,9 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.

*The Director in Chief of the Royal  
Netherlands Meteorological Institute,*

*F. A. Vening Meinesz.*

DE BILT, October 1950.

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 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 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 mean values were used:  $k = 10,9$  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. Moreover 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 too irregular.

The seismological bulletins of the following stations were available: Alicante, Almeria, Berkeley (California), Bogota, Bucarest, BCIS (Bureau Central International Séismologique), Firenze, Granada, Helsinki, Istanbul, Jena, JSA (Jesuit Seismological Association), La Plata, Lisboa, Oak Ridge Observatory of the Harvard University, Pasadena, Perth, Praha and Cheb, Roma, Seismological Service of Canada, Toledo, Trieste, Uccle, Wellington N.Z., Western Samoa, Weston (Mass.), 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—1/4 mm	0—1 1/4 μ
1	1/4—1 "	1 1/4—5 "
2	1—2 "	5—10 "
3	>2 "	>10 "



Character of the microseismic movement.

Date 1946	Jan.	Febr.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	1, 2	3	1, 2	1	1	2, 1	1	1	1, 0	1, 0	1	1, 2
2	2, 1	3, 2	2, 3, 2	1	1	1	1, 2, 1	1, 2, 1	0, 1	0, 1	1	2, 3, 2
3	1	2	2	1	1	1	1, 2, 1	1	1	1	1	2, 3, 2
4	1, 2	2, 3	2	1	1	1, 2	1, 0	1, 0	1, 2, 1	1, 2, 1	1	2, 1
5	2	3	2	1, 2, 1	1, 2	2	0, 1	0, 1	1	1, 2	1, 2, 1	1, 2, 1
6	2	3, 2	2	1, 2, 1	2, 1	2, 1	1	1	1, 0	2	1	1, 2, 1
7	2	2, 3, 2	2, 1	1, 2, 1	1	1, 2, 1	1	1	0, 1	2, 1	1	1, 2, 1
8	2	2, 3	1	1, 2	1, 2, 1	1	1	1	1, 0	1	1, 2	1, 2
9	2, 3, 2,	3, 2	1	2	1	1	1	1	0, 1	1, 2	2, 1	2, 1
10	2, 3, 2,	2, 3	1, 2	2	1	1, 2, 1	1	1, 2	1	2, 1	1	1
11	2, 3	3, 2	2, 3, 2	2	1, 0	1	1, 0	2, 1	1, 2	1	1, 2, 1	1, 3, 2
12	3	2, 3, 2	2, 3	2, 1	0	1	0, 1, 0	1	2, 1	1	1, 2	2, 3, 1
13	3, 2	2, 1	3, 2	1	0, 1	1	0, 1, 0	1, 3, 2	1	1	2, 3, 2	1
14	2	1	2, 3, 2	1, 2	1, 2, 1	1	0, 1	2, 1	1, 3, 2	1	2, 1	1
15	2, 1	1	2, 1	2, 1	1	1, 2	1, 2	1, 0	2, 1	1	1, 2, 1	1
16	1, 2	1, 2	1	1	1	2, 1	2, 1	0, 1	1, 2, 1	1	1	1, 2, 1
17	2	2	1, 2	1	1	1	1	1	1	1	1, 2	1, 2, 1
18	2	2	2, 3	1	1, 0	1	1	1	1, 3	1	2, 3	1
19	2, 1	2, 3	3	1, 2, 1	0, 1	1	1	1, 0, 1	3, 2	1, 2, 1	3, 2	1, 2, 1
20	1, 2	3	3, 2	1, 2, 1	1	1	1, 0	1, 0, 1	2, 3	1	2, 3	1
21	2	3, 2	2, 1	1, 2, 1	1, 0, 1	1, 0	0, 1	1	3, 2	1	3	1
22	2, 3	2, 3	1	1	1	0, 1	1	1	2, 1	1	3	1
23	3, 2	3	1, 2	1, 2	1	1, 0	1	1, 0, 1	1, 2, 1	1	3	1, 2, 1
24	2, 3	3, 2	2	2, 3, 2	1	0, 1, 0	1, 0	1, 0	1	1, 2, 1	3	1
25	3, 2	2	2, 1	2	1, 0	0, 1, 0	0, 1, 0	0	1, 2, 1	1	3	1, 2, 1
26	2	2	1, 2, 1	2, 1	0, 1	0, 1	0, 1	0, 1	1	1	3	1
27	2	2, 1	1	1	1, 2, 1	1	1, 2, 1	1	1	1	3, 2	1, 2, 1
28	2, 3	1	1	1	1	1, 2, 1	1, 0, 1	1, 2	1	1, 2	2, 3, 2	1
29	3		1	1	1	1	1	2, 1	1, 0, 1	2, 1	2, 1	1
30	3		1	1	1	1	1, 3, 2	1	1	1	1, 2, 1	1, 2, 1
31	3		1		1, 2		2, 1	1		1, 2, 1		1, 3, 1

Date 1946	Phase	Time			Direction	Period s	Amplitude μ	Remarks
		h	m	s				
Jan. 2 (1)	eL	16	15				(1) JSA: 6°,5 S 151°,5 E, H. 15h11m51s.	
	F	16	50					
Jan. 4 (2)	eL	20	27				(2) JSA: 10° N 84° W, H. 19h43m47s.	
	F	20	50					
Jan. 5 (3)	iPKP	20	16	48	—	6	(3) Disturbed by strong microseisms. USCGS: 16° S 167° E, H. 19h57,3m, JSA: 15°,9 S 170° E, H. 19h57m32s, h=100 km.	
	iz	20	17	10				
	iPP	20	19	54				
	eSS	20	38	10				
	eL	21	00					
Jan. 6 (4)	F	23	00					
	eL	10	30	50				
Jan. 6 (4)	eL	10	50					
	F	11	20					
Jan. 7 (5)	eH	6	43				(5) Pasadena: 7° N 127° E, H. 6h14m00s.	
	eL	7	08					
	F	7	30					
Jan. 11 (6)	iP	1	44	00	(—)		(6) Disturbed by strong microseisms. h = 580 km. BCIS: 45°,3 N 129°,7 E, H. 1h33m39s, h = 600 km. Pasadena: 45° N 129° E, H. 1h33m24s, h = 550 km. JSA: 43°,5N 130°E, H. 1h33m30s, h=600 km.	
	ipP	1	46	00	(—)			
	iS	1	52	39				
	eSSS	2	00					
	F	3	00					
Jan. 12 (7)	iP	20	36	46			(7) Disturbed by strong microseisms. BCIS: 60° N 147° W, H. 20h25,6m. USCGS: 59° N 147°,5 W, H. 20h25,7m, JSA: 59°,4 N 148°,2 W, H. 20h25m39s.	
	iPP	20	39	15				
	iS	20	45	25				
	iSS	20	50	00				
	eSSS	20	53	10				
	eL	20	58					
	F	23	30					
Jan. 17 (8)	ePS	10	10				(8) Disturbed by strong microseisms. BCIS: 6°,5 S 147°,5 E, H. 9h39,5m. J.S.A.: Region: 7° S 146°,5 E, H. 9h39m40s, h = 150 km. Wellington: 5°,5 S 146°,5 E, H. 9h 39,7m, h = 120 km ca. Violent shock at Lae, New Guinea.	
	eL	10	41					
	F	11	10					
Jan. 20 (9)	eSS	17	35				(9) Disturbed by strong microseisms. BCIS: 17°,5 S 166°,5 E, H. 16h54m18s. JSA: 16°,9 S 167°,4 E, H. 16h54m25s.	
	eE	17	52					
	eL	18	04					
	F	10	20					

Date 1946	Phase	Time	Direction	Period	Amplitude	Remarks
Jan. 21 (10)	eS eL F	11 34 11 37 11 50				(10) Disturbed by strong microseisms. BCIS: 42° N 35°,5 E, H. 11h25m15s.
Jan. 24 (11)	e F	7 13 7 35				(11) Disturbed by strong microseisms.
Jan. 25 (12)	iP iS Mn Me Mz F	17 33 19 17 34 21 17 35 17 35 17 35 18 05		10 10 10	500 800 240	(12) Disturbed by strong microseisms. Zurich: Region of the Wildstrubel, 46° 22' N 7° 31' E. BCIS: H. 17h31m50s.
Febr. 9 (13)	eL F	13 25 13 35				(13) Disturbed by strong microseisms. BCIS: 43°,6 N 17°,6 E, H. 13h19,3m.
Febr. 10 (14)	eL F	13 42 13 50				
Febr. 12 (15)	iP iS eL F	2 47 15 2 50 30 2 51 30 3 40				(15) Disturbed by strong microseisms. BCIS: 35°,8 N 5°,0 E, H. 2h43m24s.
Febr. 15 (16)	eL F	3 56 4 10				(16) Disturbed by strong microseisms. USCGS: 47°,3 N 122°,7 W, H. 3h17,8m.
Febr. 16 (17)	eL F	23 13 23 40				
Febr. 17 (18)	e F	14 33 14 36				
Febr. 18 (19)	eSS eL F	0 54 35 1 08 2 30				(19) JSA: 6° S 150°,5 E, H. 0h16m38s.
Febr. 19 (20)	e F	17 35 17 50				
Febr. 19 (21)	eL F	19 25 19 45				
Febr. 20 (22)	eL F	4 26 5 45				(22) Disturbed by strong microseisms. BCIS: Philippine Islands.
Febr. 21 (23)	iP iS eL F	15 48 14 15 52 23 15 58 16 15	(+)	6 10	6 35	(23) Disturbed by strong microseisms. Istanbul: 38° 17' N 31° 42' E. BCIS: 38° N 33° E, H. 15h43m04s.

Date 1946	Phase	Time	Direction	Period	Amplitude	Remarks
Febr. 24 (24)	eE e F	9 57 10 02 11 00				(24) Disturbed by strong microseisms. JSA: Celebes Islands. Possibly deep.
Febr. 25 (25)	eL F	2 25 3 10				
Febr. 26 (26)	e F	5 13 30 5 20				
Febr. 28 (27)	eZ eH eL F	2 41 2 47 25 3 10 4 00				
March 3 (28)	e F	11 38 11 40				(28) BCIS: Aftershock of (12).
March 5 (29)	eL F	5 03 5 15				
March 7 (30)	e F	17 19 17 35				
March 8 (31)	iP F	19 22 53 19 32				(31) BCIS: Hohe Tauern, 47°,4 N 12°,3 E, H. 19h19m13s.
March 9 (32)	eP eZ iPS eL F	16 29 53 16 32 12 16 40 05 16 54 17 35				(32) BCIS: 54° N 170° E, H. 16h18,5m. JSA: 54° N 160°,5 E, H. 16h18,4m, possibly deeper than normal.
March 11 (33)	e F	21 22 21 26				
March 12 (34)	ePP ePKS ePPP ePPS eSS eL F	0 23 16 0 24 26 0 26 08 0 35 0 41 1 00 1 35				(34) BCIS: 36°,8 S 104°,0 W, H. 0h01m58s. JSA: 35°,8 S 105°,5 W, H. 0h02m00s.
March 12 (35)	iP ePP eS eSS eL F	2 29 40 2 31 20 2 35 47 2 38 40 2 41 4 20				(35) BCIS: 31° N 53° E, H. 2h21m56s. JSA: 32° N 52°,5 E, H. 2h21,8m.

Date 1946	Phase	Time	Direction	Period	Amplitude	Remarks
March 13 (36)	eL F	1 10 1 25				
March 13 (37)	eL F	9 58 10 40				(37) Disturbed by microseisms. JSA: 52° S 139° E, H. 8h40m36s.
March 15 (38)	eL F	3 53 4 35				(38) Disturbed by microseisms. JSA: 20° N 145° E, H. 3h03,0m.
March 15 (39)	ePKP iPP eL F	8 05 14 8 08 10 8 58 10 05				(39) Disturbed by microseisms. Pasadena: 15° S 167° E, H. 7h46,0m. Wellington: 14° S 167° E, H. 7h45,6m.
March 15 (40)	eL	14 00				(40) Disturbed by microseisms. F in next shock. Foreshock of (41).
March 15 (41)	eL F	14 22 15 30				(41) Disturbed by microseisms. USCGS: 35° 7' N 118° 0' W, H. 13h49,6m. Pasadena: 35° 7' N 118° 0' W, H. 13h49m36s.
March 16 (42)	eL F	12 16 12 45				
March 17 (43)	eL F	21 35 22 00				(43) Disturbed by microseisms.
March 20 (44)	eL F	5 45 6 17				
March 24 (45)	cz eL F	15 52 44 16 45 17 45				(45) Disturbed by microseisms. Wellington: 22° 5' S 171° 5' E, H. 15h32,9m.
March 25 (46)	eL F	9 22 9 50				(46) JSA: 19° N 74° 7' W, H. 8h47m40s.
March 25 (47)	eL F	22 57 23 40				(47) JSA: 14° N 93° 5' W, H. 22h16m45s.
March 26 (48)	eP ePP iSKS iS ePS eL F	17 22 41 17 26 41 17 33 20 17 34 04 17 35 30 17 52 20 20				(48) BCIS: Possibly: 2° N 110° E, H. 17h09,0m JSA: 3° 5' S 101° 5' E, H. 17h09m05s.
March 27 (49)	e F	6 27 7 10				

Date 1946	Phase	Time	Direction	Period	Amplitude	Remarks
March 27 (50)	iP ePP eS eSS	23 39 41 23 41 50 23 47 05 23 51				(50) BCIS: 25° N 62° 2' E, H. 23h30m47s. JSA: 25° N 63° 3' E, H. 23h30m40s.
March 28	eL F	0 00 0 45				
March 29 (51)	iP eS ePS eSS eL F	7 39 01 7 49 38 7 50 00 7 55 8 07 10 40				(51) BCIS: 3° 0' S 81° 6' W, H. 7h26m03s. JSA: 2° 1' S 80° 4' W, H. 7h26m11s.
April 1 (52)	eS eL F	6 20 40 6 28 7 00				(52) BCIS: 4° 5' S 23° W, H. 6h02,4m. JSA: 1° N 27° W, H. 6h02m46s.
April 1 (53)	iP iS eSS eL F	12 40 38 12 50 16 12 55 20 13 04 17 05	+	7	15	(53) BCIS: 53° 1' N 163° 5' W, H. 12h28m53s. USCGS: 54° N 164° W, H. 12h28,9m. JSA: 53° 0' N 162° 7' W, H. 12h29m04s. Tidal wave, destructive in Hawaiian Islands, Tahiti and Marquesas Islands.
April 1 (54)	iP iS eL	17 10 53 17 20 28 17 34		6	4	(54) Aftershock of (53). BCIS: H. 16h59m08s. F in next shock.
April 1 (55)	iP iS eL F	19 09 13 19 18 51 19 32 22 05		6	15	(55) Aftershock of (53). BCIS: H. 18h57m27s.
April 2 (56)	iP eS eL	4 25 18 4 35 04 4 45		6	2	(56) Aftershock of (53). BCIS: H. 4h13m16s. F in next shock.
April 2 (57)	iP eS	5 49 54 5 59 30		5	2	(57) Aftershock of (53). BCIS: H. 5h38m10s. F in next shock.
April 2 (58)	iP iS F	6 08 49 6 18 20 7 40				(58) Aftershock of (53). BCIS: 5h57m05s.
April 2 (59)	eL F	13 39 14 12				(59) Aftershock of (53). BCIS: H. 13h04,3m.
April 2 (60)	e F	15 10 15 30				

Date 1946	Phase	Time	Direction	Period	Amplitude	Remarks
April 2 (61)	iP	16 42 04				(61) Aftershock of (53). BCIS: H. 16h30m21s.
	eS	16 51 40				
	eL	17 03				
	F	18 35				
April 3 (62)	e	4 08				
	F	5 00				
April 3 (63)	iP	9 10 12	+	7	1	(63) Aftershock of (53). BCIS: H. 8h58m29s.
	ePP	9 13 00				
	eS	9 19 48				
	eL	9 32				
	F	11 00				
April 4 (64)	eL	17 09				(64) Aftershock of (53). BCIS: H. 16h31,1m.
	F	18 00				
April 4 (65)	eP	21 37 25				(65) Aftershock of (53). BCIS: H. 21h25m40s.
	eS	21 46 54				
	eL	22 04				
	F	22 50				
April 5 (66)	iP	20 58 51	+			(66) BCIS: 35°,4 N 23°,8 E, H. 20h53m58s. JSA: 36°,4 N 24°,9 E, H. 20h54m15s, h = 100 km.
	ipP	20 59 10	-			
	eS	21 02 44				
	eS	21 05 11				
	eL	21 05				
	F	21 40				
April 5 (67)	e	22 30				
	F	22 45				
April 6 (68)	iP	5 04 15				(68) Aftershock of (53). BCIS: H. 4h52m31s.
	iPPP	5 09 02				
	eS	5 13 58				
	eL	5 23				
April 6 (69)	F	6 50				
	ez	14 09				
	ez	14 15 05				
	eh	14 21 30				
	eh	14 25 30				
	eL	14 44				
April 7 (70)	F	16 40				(70) BCIS: Aftershock of (53)?
	e	23 38				
April 8 (71)	F	23 55				(71) Disturbed by microseisms. Aftershock of (53). BCIS: H. 17h36,5m.
	eL	18 20				
	F	18 45				

Date 1946	Phase	Time	Direction	Period	Amplitude	Remarks
April 9 (72)	eL	11 14				(72) BCIS: near 50° N 152° E, H. 10h31,4m. JSA: 46°,4 N 150°,0 E, H. 10h31m20s.
	F	11 35				
April 9 (73)	eP	20 44 57				(73) Disturbed by microseisms. BCIS: 72° N 10° W, H. 20h40,3m.
	iPPP	20 45 32				
	eS	20 48 40				
	eL	20 50				
April 11 (74)	F	21 30				(74) BCIS: 4° S 13° W, H. 1h52,1m. JSA: 0° S 15° W, H. 1h52m32s.
	iP	2 02 00		5	3	
	iS	2 10 04				
	iPS	2 10 12				
	eL	2 19				
April 11 (75)	F	6 00				
	e	6 40				
April 11 (76)	F	6 55				
	eL	10 06				
April 12 (77)	F	10 25				(77) BCIS: 38°,2 N 28° E, H. 7h36m56s. JSA: 36°,0 N 26°,2 E, H. 7h36m56s.
	eP	7 41 47				
	eS	7 45 52				
	eL	7 49				
April 12 (78)	F	8 10				(78) F during change of papers from 8h19m till 8h35m.
	e	8 16 30				
April 13 (79)	iPKP	7 04 41	+			(79) BCIS: 20° S 168° E, H. 6h44,9m. Wellington: 20°,5 S 168°,5 E, H. 6h44,9m.
	ePP	7 08 08				
	eL	7 56				
	F	9 00				
April 13 (80)	iPKP	19 17 06	-			(80) JSA: very roughly 15° S 179° W, H. 18h58,0m, h = 300—400 km.
	iz	19 18 13	+			
	ee	19 39				
	ee	19 58				
	F	20 30				
April 16 (81)	eP	11 47 25				(81) BCIS: 41°,3 N 20°,6 E, H. 11h43m52s. JSA: 41°,4 N 20°,2 E, H. 11h43m50s.
	iS	11 50 20				
	eL	11 51 30				
	F	12 20				
April 16 (82)	e	15 50				
	F	16 00				
April 17 (83)	e	14 38				
	F	15 00				



Date 1946	Phase	Time	Direction	Period	Amplitude	Remarks
April 17 (84)	eL F	17 07 17 35				(84) BCIS: 24° S 171° E, H. 15h50,3m.
April 18 (85)	eL F	8 19 9 20				(85) JSA: Southwest Pacific, H. 7h02,2m.
April 18 (86)	eL F	20 34 21 00				
April 21 (87)	e F	7 32 7 50				
April 23 (88)	iPKP <sub>1</sub> iPKP <sub>2</sub> eSS eL F	5 15 55 5 16 13 5 39 19 6 10 7 25		6	3	(88) JSA: 49°,8 S 139°,0 E, H. 4h56m05s; Riverview: 51° S 140° E, H. 4h56m04s.
April 23 (89)	e(PS) eL F	11 13 11 50 13 00				(89) JSA: 16°,1 S 173°,2 W, H. 10h40m05s. Wellington: 14°,5 S 174°,5 W, H. 10h39,8m.
April 25 (90)	e F	1 30 1 55				
April 26 (91)	eL F	20 50 21 10				
April 30 (92)	eL F	8 50				(92) eL during change of papers from 8h19m till 8h33m.
May 1 (93)	eL F	10 46 11 05				
May 3 (94)	iz ez ePP ez ePPP e	22 20 38 22 21 19 22 23 10 22 25 00 22 26 43 22 32 30	(-)			(94) BCIS: 27°,5 S 159°,5 E, H. 22h00,2m.  F in next shock.
May 3 (95)	iPKP iPP ePKS iPS eSS eL F	22 42 53 22 44 38 22 46 05 22 54 39 23 02 26 23 23 3 20				(95) USCGS: 9° S 153° E, H. 22h23,4m. BCIS: 4° S 155° E, H. 22h23,8m. JSA: 7° S 155° E, H. 22h23,8m.
May 4	e F	15 36 16 00				
May 4 (96)	e F	15 36 16 00				

Date 1946	Phase	Time	Direction	Period	Amplitude	Remarks
May 7 (97)	eL F	15 18 15 30				
May 8 (98)	iP ePP iS iPS iSS eSSS eL F	5 33 37 5 37 30 5 44 38 5 45 53 5 51 16 5 54 30 6 05 9 30	+	6	8	(98) BCIS: 1° S 99° E, H. 5h20,5m. USCGS: 1° S 98° E, H. 5h20,3m. JSA: 1°,1 S 98°,6 E, H. 5h20,4m.
May 8 (99)	(ePKP ePP ePPP ePS eSS eL F	10 04 10) 10 05 38 10 08 10 10 15 23 10 22 22 10 42 12 40				(99) BCIS: 2° S 143° E, H. 9h45,6m. JSA: 3°,5 S 143°,3 E, H. 9h45m19s.
May 9 (100)	e F	19 59 20 25				(100) BCIS: 42° N 54° E, H. 19h48,2m.
May 9 (101)	iP ePP eS eL	22 39 43 22 42 51 22 49 58 23 08	+			(101) BCIS: 55°,5 N 150° E, H. 22h28,6m.  F in next shock.
May 9 (102)	iP eS	23 47 31 23 57 41				(102) USCGS: 22° N 108° W, H. 23h34,4m. JSA: 23°,1 N 108°,1 W, H. 23h34m29s.
May 10	eL F	0 14 1 30				
May 10 (103)	e F	3 03 3 10				
May 10 (104)	e F	3 30 3 35				
May 10 (105)	e F	7 22 7 25				
May 10 (106)	eP eS eL F	13 27 16 13 31 41 13 34 14 15	(-)			(106) $\Delta = 2700$ km. BCIS: South of Greenland.
May 11 (107)	iP eL F	16 28 50 16 33 17 00				(107) BCIS: 70° N 0° E, H. 16h25m12s.

Date 1946	Phase	Time	Direction	Period	Amplitude	Remarks
May 11 (108)	ePKP eL	17 36 49 18 24				(108) BCIS: 10° S 179,5° E, H. 17h17,4m. F in next shock.
May 11 (109)	iP eL F	18 42 45 18 47 41 19 45				(109) BCIS: 70° N 0° E, H. 18h39,1m. Aftershock of (107).
May 12 (110)	iP eS eL F	13 25 58 13 30 43 13 33 14 55	+			(110) BCIS: 30° N 22° W, H. 13h20,1m.
May 13 (111)	eP eE F	6 35 31 6 39 19 7 05				(111) BCIS: 56° N 137°,5 W, H. 6h24,7m.
May 15 (112)	eP ePP eS (eSS eSSS eE eL F	22 23 12 22 26 37 22 33 53 22 39 30) 22 42 50 22 47 35 22 51 01 25	+	-		(112) BCIS: 17° N 96° W, H. 22h10 <sup>m</sup> 42s. USCGS: 16° N 97° W, H. 22h10,6m. JSA: 16° N 96°,2 W, H. 22h10 <sup>m</sup> 40s.
May 16	F	01 25				
May 16 (113)	ez eN eL F	5 47 02 5 57 30 6 25 7 50				(113) BCIS: 6°,5 S 154° E, H. 5h25,3m.
May 18 (114)	eL F	13 25 13 40				(114) BCIS: 40° N 18° E, H. 13h15,0m.
May 19 (115)	eP eS eSSS eL F	0 42 40 0 52 00 1 00 1 04 2 20				(115) BCIS: 58° N 167°,5 E, H. 0h31 <sup>m</sup> 53s. JSA: 55° N 165°,5 E, H. 0h31 <sup>m</sup> 27s.
May 19 (116)	e F	16 05 16 15				
May 20 (117)	iz F	22 12 07 22 14	+			
May 21 (118)	iP iPP ez iS eL F	9 27 12 9 29 19 9 31 30 9 35 45 9 46 12 20		-		(118) BCIS: 14°,9 N 61°,0 W. USCGS: 14°,2 N 60°,8 W, H. 9h16,6m. Damage at Martinique. JSA: 15°,3 N 60°,5 W.

Date 1946	Phase	Time	Direction	Period	Amplitude	Remarks
May 22 (119)	i or ez F	9 53 ? 9 58				(119) BCIS: 19° S 176° E, H. 9h33,6m i or ez under paperclip 53 <sup>m</sup> 13 <sup>s</sup> till 53 <sup>m</sup> 20 <sup>s</sup> .
May 23 (120)	ez ez eL F	1 49 45 1 50 46 2 26 3 50				(120) BCIS: Aftershock of (113).
May 23 (121)	eL F	12 05 12 35				
May 25 (122)	eL F	12 25 12 50				
May 27 (123)	eL F	2 06 2 35				
May 29 (124)	iP ipP iS F	19 37 13 19 37 46 19 47 35 20 45				(124) h = 120 km. BCIS: near Formosa.
May 30 (125)	e F	0 38 (35) 0 50				(125) BCIS: foreshock of (126).
May 30 (126)	iP iS eL Me Mn Mz F	3 42 45 3 44 02 3 44 30 3 45 3 45 30 3 45 30 5 00	+	5	3	(126) BCIS: H. 3h41 <sup>m</sup> 19 <sup>s</sup> . Zürich: 46°19' N 7°30' E.
May 30 (127)	eL F	12 35 13 00			10 9 9	300 200 125
May 31 (128)	e F	2 05 2 30				
May 31 (129)	iP iS eL F	3 18 36 3 23 22 3 26 30 5 00	+	6	4	(129) Istanbul: 39°,11 N 41°,29 E. BCIS: H. 3h12 <sup>m</sup> 39 <sup>s</sup> . JSA: 39°,1 N 41°,1 E, H. 3h12 <sup>m</sup> 43 <sup>s</sup> .
May 31 (130)	e F	16 36 16 50				
June 1 (131)	eL F	16 55 17 40				(131) BCIS: 23°,5 N 123°,5 E (URSS), H. 16h11,9m. JSA: 25°,8 N 125°,0 E, H. 16h11 <sup>m</sup> 56 <sup>s</sup> .

Date 1946	Phase	Time	Direction	Period	Amplitude	Remarks
June 2 (132)	iP	1 21 42	+			(132) BCIS: 23° N 121° E (URSS), H 1h 09,1m.
	ePP	1 25 03				
	eS	1 32				
	eSSS	1 43				
	eL	1 50				
	F	2 50				
June 3 (133)	eL	14 25				(133) BCIS: Aleutian Islands? JSA: possibly 51°,5 N 170°,3 W, H. 13h44m20s.
	F	15 00				
June 3 (134)	eL	17 44				(134) BCIS: 24°,5 N 122° E, H. 17h03m45s. URSS: 27° N 127° E.
	F	18 10				
June 4 (135)	iPKP	5 03 49	—			(135) BCIS: 7°,5 S 173°,0 E, H. 4h44,4m.
	F	5 05				
June 4 (136)	e	15 06				(136) Zürich: Aftershock of (126).
	F	15 09				
June 5 (137)	ePP	1 13 40				(137) BCIS: 5° S 153° E, H. 0h52,7m. URSS: 10° S 150° E. JSA: 5°,1 S 152°,8 E, H. 0h52m40s.
	ePS	1 23 40				
	eSS	1 31				
	eL	1 53				
	F	3 15				
June 6 (138)	eS	10 55				(138) Disturbed by microseisms and visitors. URSS: 7°,5 S 10° W. JSA: 1°,0 N 20°,0 W, H. 10h38m05s.
	F	12 20				
June 7 (139)	iP	4 25 37	—	5	6	(139) h = 100 km. USCGS: 17° N 94° W, H. 4h13,3m, h = 100 km ca. JSA: 16°,7 N 94°,6 W, H. 4h13m18s, h = 100 km ca.
	ipP	4 26 01				
	ePP	4 28 46				
	ez	4 29 44				
	iS	4 35 48				
	isS	4 36 26				
	eL	4 53				
	F	7 00				
June 9 (140)	eL	10 16				(140) BCIS: 50° N 92° E, H. 9h52,7m.
	F	10 46				
June 12 (141)	eL	10 50				(141) BCIS: 21° N 121°,5 E (URSS).
	F	11 20				
June 12 (142)	ePP	16 27 00				(142) BCIS: 12°,3 N 144°,3 E, H. 16h08m27s. JSA: 12°,1 N 143°,4 E, H. 16h08m21s.
	eSKS	16 33 16				
	eL	17 03				
	F	18 40				
June 13 (143)	eL	21 56				
	F	22 05				

Date 1946	Phase	Time	Direction	Period	Amplitude	Remarks
June 15 (144)	eP	18 44 00		8	2	(144) BCIS: 3° S 129° E, H. 18h29,3m. URSS: 0° S 129° E. JSA: possibly 3°,5 S 126° E, H. 18h29m12s.
	ePP	18 48 25				
	ePS	18 57 40				
	ePPS	18 58 48				
	eL	19 23				
	F	21 10				
June 16 (145)	eL	10 35				(145) BCIS: 13°,3 N 50°,5 E, H. 10h09,4m. URSS: 16° N 56,5° E.
	F	11 00				
June 19 (146)	eL	1 11				
	F	1 40				
June 20 (147)	eL	0 55				(147) BCIS: 29° N 66° E, H. 0h34m55s. URSS: 29° N 65° E.
	F	1 50				
June 21 (148)	ePKP	12 40 20				
	eL	13 26				
	F	14 30				
June 21 (149)	e	13 26				
	F	14 30				
June 23 (150)	iP	17 24 35	—	6	4	(150) USCGS: 49°,9 N 125°,3 W, H. 17h13m 20s. JSA: 50°,1 N 125°,0 W, H. 17h13m19s. Building damage and landslides along the east coast of Vancouver Island. F in next shock.
	iPP	17 27 19				
	iPPP	17 29 00				
	iS	17 33 46				
	ePS	17 34 05				
	eSS	17 39				
	eL	17 43				
June 23 (151)	MN	17 50				
	ME	17 52				
	Mz	17 55				
June 23 (151)	eL	21 21				(151) URSS: 20°,5 N 175°,5 E.
	F	21 55				
June 24 (152)	e	4 30				(152) URSS: 41°48' N 75°52' E, h = 100 km. BCIS: H. 4h11,2m.
	eL	4 36				
	F	5 00				
June 24 (153)	iz	16 00 11	+			(153) USCGS: 14° N 91° W, H. 15h48,0m. JSA: 14°,9 N 89°,7 W, H. 15h48m16s, h = 200 km.
	F	16 50				
June 24 (154)	eL	18 25				
	F	19 00				
June 25 (155)	ez	0 14 36				(155) BCIS: H. 23h54,7m. URSS: 8°,5 S 126°,0 E, h = 155 km.
	F	1 20				
June 25 (156)	eL	15 04				
	F	15 25				

Date 1946	Phase	Time	Direction	Period	Amplitude	Remarks
		h m s		s	$\mu$	
June 26 (157)	iP eS eL F	8 05 56 8 16 05 8 33 9 05	+			(157) USCGS: 14° N 91° W, H. 7h53,6m. JSA: 14°,3 N 91°,3 W, H. 7h53m50s, h = 200 km.
June 26 (158)	ePKP <sub>1</sub> ePKP <sub>2</sub> ePP eL F	12 54 40 12 55 45 12 59 30 13 50 16 00				(158) JSA: 42°,9 S 171°,6 E, H. 12h34m42s, Wellington: 43°,2 S 171°,5 E, H. 12h34,7m, h = 30 km.
June 27 (159)	ePKP ez eL F	21 59 35 22 03 50 22 59 23 50				(159) BCIS: 10° S 170° E, H. 21h40,1m.
June 28 (160)	eL F	8 35 9 40				(160) BCIS: aftershock of (158), H. 7h12,8m.
July 1 (161)	e F	2 18 2 25				
July 1 (162)	eL F	3 23 3 50				(162) USCGS: 64° N 148° W, H. 2h52,4m. URSS: 63°,7 N 148°,0 W. JSA: 64°,5 N 147°,8 W, H. 2h52m30s.
July 1 (163)	eL F	10 55 11 20				
July 1 (164)	iPKP iPP ePS eSS eL F	22 54 31 22 56 24 23 06 20 23 13 23 30 1 20				(164) BCIS: 5° S 153° E, H. 22h35,5m. URSS: 5°,0 S 152°,0 E. JSA: 5° S 154° E, H. 22h35m42s, h = 100 km.
July 2 (165)	eL F	11 48 12 10				(165) URSS: prov. epicenter 31° N 90° E.
July 4 (166)	eL F	10 55 11 20				
July 7 (167)	eL F	21 31 21 55				
July 8 (168)	ePKP ez eL F	18 08 15 18 12 23 19 14 20 10				(168) BCIS: 13° S 173° E, H. 17h48,8m. JSA: possibly 29°,3 S 178° W, H. 17h48m30s.

Date 1946	Phase	Time	Direction	Period	Amplitude	Remarks
		h m s		s	$\mu$	
July 8 (169)	e F	22 30 30 22 32				(169) Near shock?
July 9 (170)	iPKP eSS eE eL F	1 28 04 1 51 00 2 09 2 22 4 15	(+)	5	3	(170) BCIS: 23° S 174°,5 W, H. 1h08m24s. JSA: 23° S 176° W, H. 1h08m08s. Uccle: H. 1h08,7m, h = 275 km ca.
July 9 (171)	iPKP ipPKP ePP epPP eSS esSS eSSS eL F	13 33 09 13 33 53 13 36 35 13 37 14 13 55 00 13 56 30 14 00 14 15 15 40	+	7 10	14 7	(171) h = 180 km. BCIS: 20° S 169° E, H. 13h14m, h = 170 km. JSA: 19°,2 S 169°,0 E, H. 13h13m50s, h = 150 à 200 km.
July 10 (172)	e F	0 15 0 25				
July 10 (173)	eL F	17 27 17 35				
July 11 (174)	iP ipP iPP ipPP iS esS eL F	4 58 53 4 59 25 5 02 03 5 02 35 5 09 00 5 09 48 5 20 30 6 45	+	5 7	5 34	(174) h = 120 km. USCGS: 17° N 94° W, H. 4h46,6m. JSA: 17°,0 N 93°,9 W, H. 4h46m39s, h = 125 km.
July 11 (175)	e F	13 25 13 30				(175) BCIS: 42°,6 N 17°,3 E, H. 13h18m39s. Beograd: 43°15' N 14°42' E.
July 12 (176)	eL F	19 57 20 25				(176) BCIS: 15°,4 S 167°,0 E, H. 18h48m08s.
July 13 (177)	eL F	2 25 2 55				(177) BCIS: H. 1h39,9m. URSS: 33°,5 N 136° E.
July 13 (178)	eP eS eL F	5 21 34 5 25 38 5 27 5 40				(178) $\Delta$ = 2500 km.

Date 1946	Phase	Time	Direction	Period	Amplitude	Remarks
July 13 (179)	eP eS eL F	6 26 21 6 30 27 6 32 6 45				(179) $\Delta = 2500$ km.
July 13 (180)	e F	11 55 12 00				(180) URSS: 50° 5' N 96° 5' E.
July 16 (181)	e F	4 11 4 17				(181) Zürich: aftershock of (12) and (126).
July 16 (182)	iP iz eS eL F	5 31 40 5 32 44 5 35 50 5 38 7 30	+ —	4 13	8 40	(182) BCIS: 35° 0' N 25° 5' E, H. 5h26m40s. URSS: 35° N 23° 5' E. JSA: 34° 7' N 25° 2' E.
July 16 (183)	e F	8 30 9 45				
July 16 (184)	iP iS eL F	19 50 29 19 54 38 19 58 20 30	+	5	3	(184) BCIS: 38° 6' N 31° 6' E, H. 19h45m24s. URSS: 40° N 26° E.
July 17 (185)	eS eL F	1 39 00 1 49 2 15				(185) BCIS: 0° N 12° 5' W, H. 1h21,8m.
July 17 (186)	eL F	23 50 0 15				
July 18 (187)	eP iS eSSS eL	6 18 20 6 27 50 6 35 30 6 41				(187) BCIS: 50° N 130° W, H. 6h07m02s. USCGS: 50° N 129° W, H. 6h07,1m. JSA: 49° 3' N 129° 5' W, H. 6h07m02s. F in next shock.
July 18 (188)	eL F	7 51 9 20				(188) BCIS: aftershock of (187). URSS: 48° 0' N 129° 0' W. USCGS: H. 7h16,5m. JSA: 49° 7' N 128° 9' W, H. 7h16m30s. Change of papers from 7h36m till 7h46m.
July 19 (189)	e F	19 13 19 25				
July 19 (190)	iP iPP eS eL F	21 28 32 21 31 45 21 38 57 22 00 23 30	+			(190) BCIS: 37° 6' N 141° 8' E, H. 21h16m11s. URSS: 30° N 134° 5' E.

Date 1946	Phase	Time	Direction	Period	Amplitude	Remarks
July 23 (191)	eL F	10 46 11 10				
July 23 (192)	eL F	18 14 19 35				(192) BCIS: 10° S 160° E, H. 17h14,5m.
July 24 (193)	iPKP ePP eL F	11 19 04 11 20 57 12 00 13 10	(+)			(193) BCIS: H. 11h00,0m. URSS: 5° S 150° E. JSA: 5° S 153° E, H. 11h00=00s.
July 24 (194)	eL F	23 25 23 50				
July 25 (195)	iP iP eS ePPS eSS eL F	16 54 02 16 54 06 17 03 50 17 04 47 17 09 30 17 18 19 40	(+)			(195) USCGS: 51° N 179° W, H. 16h42,1m. JSA: 50° 3' N 179° 5' W, H. 16h42m08s.
July 26 (196)	eP e(PP) eSKS eS eL F	6 58 22 7 02 12 7 08 54 7 09 22 7 30 9 15				(196) USCGS: 21° 6' S 70° 0' W, H. 6h44,7m, h = 100 km. JSA: 19° 8' S 70° 9' W, H. 6h44m53s, h = 80 km.
July 26 (197)	e F	20 43 21 00				
July 26 (198)	iPKP ePP F	22 51 21 22 54 50 23 20				(198) BCIS: 19° 2' S 173° 5' E, H. 22h31,4m.
July 27 (199)	eL F	0 40 1 20				
July 27 (200)	eL F	16 38 17 10				(200) BCIS: H. 16h25m50s. URSS: 35° 8' N 45° 7' E.
July 27 (201)	eL F	22 52 23 30				(201) BCIS: Solomon Islands.
July 30 (202)	eL F	4 19 4 40				
July 31 (203)	eL F	15 04 15 30				BCIS: 3° N 132° E, H. 12h58,9m. URSS: 4° 5' N 130° E.

Date 1946	Phase	Time	Direction	Period	Amplitude	Remarks
Aug. 1 (204)	eL F	15 58 16 25				
Aug. 2 (205)	e F	2 10 3 00				(205) no z-registration. BCIS: 53°,5 N 165° W, H. 1h38,0m.
Aug. 2 (206)	eP eSKS eS ePS eL F	19 32 45 19 43 20 19 44 24 19 46 00 20 04 22 30				(206) Disturbed by microseisms. USCGS: 27° S 70° W, H. 19h18,7m. JSA: 25°,5 S 71°,1 W, H. 19h19m01s, h = 80 km. URSS: 31° S 70° W.
Aug. 3 (207)	eL F	9 00 0 15				
Aug. 3 (208)	iP ePP eS eL F	13 18 41 13 21 58 13 29 03 13 48 14 45	(+)			(208) BCIS: 37°,6 N 141°,0 E, H. 13h06m20s. JSA: 37° N 141° E, H. 13h06,3m. URSS: 39° N 146° E.
Aug. 4 (209)	iP iS eL ME MN Mz F	18 01 51 18 10 45 18 23 18 25 18 30 18 30 23 30		21 18 18	1100 550 620	(209) USCGS: 19°,3N 69°,0W, H. 17h51m07s JSA: 19°,2 N 68°,9 W, H. 17h51m07s. URSS: 21°,5 N 68°,5 W.
Aug. 5 (210)	eL F	1 24 1 45				(210) Aftershock of (209).
Aug. 5 (211)	eL F	3 15 3 30				(211) Aftershock of (209).
Aug. 5 (212)	eL F	4 12 4 45				(212) Aftershock of (209).
Aug. 5 (213)	eL F	5 11 5 30				(213) Aftershock of (209).
Aug. 5 (214)	eP eS eL F	12 44 00 12 52 40 13 04 14 00				(214) BCIS: H. 12h33,2m. Aftershock of (209).
Aug. 5 (215)	eL F	16 00 16 10				(215) URSS: 42° N 95°,5 E.

Date 1946	Phase	Time	Direction	Period	Amplitude	Remarks
Aug. 5 (216)	e F	20 44 21 00				
Aug. 6 (217)	eL F	3 52 4 30				(217) BCIS: 11°,5 S 165°,5 E, H. 2h46,9m.
Aug. 6 (218)	eL F	6 23 7 10				(218) Aftershock of (209).
Aug. 6 (219)	eL F	16 48 17 05				(219) Aftershock of (209).
Aug. 7 (220)	eL F	18 58 19 30				(220) BCIS: H. 18h26m27s. Aftershock of (209).
Aug. 7 (221)	eL F	19 53 21 00				(221) BCIS: H. 19h21,6m. Aftershock of (209).
Aug. 7 (222)	eL F	22 00 22 30				(222) Aftershock of (209).
Aug. 7 (223)	eL F	23 15 24 00				(223) BCIS: 25°,0 N 63°,5 E, H. 22h47,0m. URSS: 27°,5 N 60°,0 E.
Aug. 8 (224)	eP eS eL MN ME Mz	13 39 15 13 48 05 13 56 14 04 14 04 14 04		5 20 20 20	2 200 400 350	(224) Aftershock of (209). USCGS: H. 13h28m24s. JSA: H. 13h28m27s. F in next shock.
Aug. 8 (225)	eP eS eL F	17 34 50 17 43 40 17 56 19 15				(225) Aftershock of (209). BCIS: H. 17h24m03s.
Aug. 9 (226)	eL F	8 55 10 00				(226) Aftershock of (209). BCIS: H. 8h25,6m.
Aug. 9 (227)	iP eS eL F	20 17 26 20 26 06 20 37 21 55	+			(227) Aftershock of (209). BCIS: H. 20h06,6m.
Aug. 10 (228)	eP eL F	2 21 13 2 43 3 30				(228) Aftershock of (209). BCIS: H. 2h10,4m.
Aug. 10 (229)	eP eSSS eL F	9 11 9 28 9 33 10 15				(229) Aftershock of (209). BCIS: H. 9h00,3m.

Date 1946	Phase	Time	Direction	Period	Amplitude	Remarks
Aug. 10 (230)	eP	11 56 35				(230) Aftershock of (209). BCIS: H. 11h45,8m.
	eSSS	12 14				
	eL	12 20				
	F	12 50				
Aug. 11 (231)	ePP	2 16 06				(231) Disturbed by microseisms. USCGS: 8° S 155° E, H. 1h54,3m. JSA: 8° 3 S 155° 7 E, H. 1h54m26s. URSS: 7° 5 S 156° 0 E.
	eSS	2 33 00				
	eL	2 47				
	F	5 00				
Aug. 12 (232)	eL	10 04				(232) Aftershock of (209). BCIS: H. 9h31,8m.
	F	10 35				
Aug. 14 (233)	eP	9 52 50				(233) BCIS: 37° 6 N 141° 8 E, H. 9h40m30s. JSA: 38° 7 N 142° 0 E, H. 9h40m40s. URSS: 32° 5 N 134° 0 E.
	eL	10 24				
	F	10 50				
Aug. 15 (234)	ePKP	15 43 50		8	6	(234) BCIS: 22° S 172° E, H. 15h23,9m. USCGS: 22° S 170° E, H. 15h23,9m. JSA: 22° 3 S 171° 4 E, H. 15h24m02s, deeper than normal.
	iPKP	15 43 56				
	ePP	15 47 30				
	eL	16 35				
	F	18 15				
Aug. 15 (235)	iP	19 34 28				(235) BCIS: 26° 5 N 66° E, H. 19h25,3m. URSS: 28° N 65° E.
	iP	19 34 49				
	iS	19 41 44				
	eSS	19 45 30				
	eL	19 55				
	F	20 45				
Aug. 16 (236)	eL	17 55				
	F	18 30				
Aug. 17 (237)	eP	9 54 43				(237) BCIS: 35° 8 N 45° 7 E, H. 9h48m09s. Istanbul: 35° 5 N 44° E. URSS: 35° 8 N 45° 0 E.
	eS	10 00				
	eL	10 03				
	F	10 40				
Aug. 17 (238)	iP	23 44 17 (+)				(236) BCIS: 35° 8 N 45° 7 E, H. 23h37,7m.
	eS	23 49 24				
	eL	23 53				
Aug. 18	F	0 40				
Aug. 19 (239)	eL	6 12				(239) BCIS: aftershock of (209), H. 5h40,8m.
	F	6 45				
Aug. 19 (240)	eP	20 10 23				(240) BCIS: aftershock of (209).
	eL	20 41				
	F	21 10				
Aug. 20 (241)	eL	4 10				
	F	4 25				

Date 1946	Phase	Time	Direction	Period	Amplitude	Remarks	
							h m s
Aug. 20 (242)	eL	10 25				(242) BCIS: aftershock of (209).	
	F	10 55					
Aug. 20 (243)	eL	13 18				(243) BCIS: aftershock of (209), H. 12h49,3m.	
	F	13 50					
Aug. 20 (244)	iP	17 30 16 (+)				(244) BCIS: 41° 7 N 19° 5 E, H. 17h26m43s.	
	eS	17 33 19					
	eL	17 34					
	F	18 15					
Aug. 20 (245)	eL	23 12				(245) BCIS: 7° S 150° E, H. 22h09m42s.	
	F	23 55					
Aug. 21 (246)	eL	6 27					
	F	6 40					
Aug. 21 (247)	eL	9 46					
	F	10 10					
Aug. 21 (248)	iPKP	18 19 59		8	3	(248) BCIS: 25° S 177° 5 W, H. 18h00m27s, h = 100 km. JSA: 25° S 177° W, H. 18h00m20s, h = 100 km. Pasadena: 24° S 177° W, H. 18h00m18s, h = 100 km. F in next shock.	
	iPP	18 23 49					
	ePPP	18 27 20					
	iSKKS	18 30 34					
	i(PSKS)	18 33 59					
	ePPS	18 37 00					
	eSS	18 44 10					
	eL	19 12					
Aug. 21 (249)	iP	19 28 17 (-)		10	5	(249) BCIS: aftershock of (209). USCGS: H. 19h17,6m.	
	iS	19 37 14					
	e(PPS)	19 38 00					
	eSSS	19 44 30					
	F	22 45					
Aug. 22 (250)	eL	17 49					
	F	18 35					
Aug. 24 (251)	eS	0 46 30				(251) BCIS: 13° 2 N 50° 6 E, H. 0h29m30s.	
	eL	0 57					
	F	1 25					
Aug. 24 (252)	eL	3 18					
	F	3 55					
Aug. 24 (253)	eP	14 29 06				(253) aftershock of (209). BCIS: H. 14h18,3m.	
	eS	14 37 50					
	eL	14 49					
	F	15 50					

Date 1946	Phase	Time	Direction	Period	Amplitude	Remarks
Aug. 25 (254)	eP eS eL F	11 28 39 11 32 48 11 35 12 00				(254) BCIS: 41° 3' N 33° 2' E, H. 11h23,7m URSS: 42° 1' N 32° 1' E.
Aug. 25 (255)	eL F	13 01 13 30				
Aug. 25 (256)	eL F	16 35 16 50				
Aug. 28 (257)	eL F	3 07 3 40				
Aug. 28 (258)	eL F	21 29 22 25				(258) Disturbed by microseisms. URSS: 26° S 18° E.
Aug. 28 (259)	e(P) e(PP) iH eH F	22 41 22 45 04 22 50 46 22 54 30 24 00	+			(259) Disturbed by microseisms. USCGS: 21° S 70° W, H. 22h28,2m. JSA: 27° 0' S 62° 7' W, H. 22h28m20s, h = 600 km. Zürich: h = 500 à 600 km. Pasadena: h = 560 km.
Aug. 30 (260)	e F	0 13 0 55				
Sept. 4 (261)	eL F	19 35 19 55				
Sept. 5 (262)	eL F	13 27 14 05				
Sept. 6 (263)	eL F	5 03 5 20				
Sept. 6 (264)	eL F	20 30 23 10				(264) BCIS: aftershock of (209), H. 21h58,1m.
Sept. 9 (265)	eL F	17 34 18 00				(265) BCIS: 36° 26',5 N 4° 0',2 E (d'après Alger) H. 17h26,4m.
Sept. 10 (266)	eL F	1 21 1 40				
Sept. 11 (267)	e F	10 18 11 00				(267) Disturbed by microseisms. BCIS: 1° 8' S 28° E, H. 9h55,5m. URSS: 2° S 27° E.
Sept. 12 (268)	ePP eSS eL	14 16 36 14 34 14 55				(268) BCIS: 5° 5' S 152° 2' E, H. 13h55,6m. URSS: 5° S 149° E. F in next shock.

Date 1946	Phase	Time	Direction	Period	Amplitude	Remarks
Sept. 12 (269)	iP iPP iS eL MN ME Mz F	15 28 44 15 31 22 15 38 06 15 57 16 02 16 04 16 04 21 30	+			(269) BCIS: 23° 5' N 96° E, H. 15h17,2m. USCGS: 25° 5' N 89° E, H. 15h16,9m. URSS: 24° N 96° E. JSA: 23° N 92° E, H. 15h17m17s.
Sept. 13 (270)	eL F	5 12 5 40				(270) BCIS: 5° N 15° W? JSA: 33° N 41° 7' W, H. 4h54m11s.
Sept. 13 (271)	e F	15 33 15 40				
Sept. 13 (272)	ePKP ePP eL F	16 07 05 16 10 35 17 05 18 10				(272) BCIS: 21° S 169° E, H. 15h47,3m.
Sept. 13 (273)	iP ePPP iS eSS eL F	19 10 43 19 15 16 19 20 11 19 25 19 33 21 40	+			(273) BCIS: 52° 5' N 158° 5' E, H. 18h59,1m. JSA: 52° 8' N 160° E, H. 18h59m17s. URSS: 53° N 159° E.
Sept. 14 (274)	eL F	7 00 7 20				
Sept. 14 (275)	eL F	21 12 21 45				(275) BCIS: 40° 5' S 149° E, H. 19h48,7m.
Sept. 15 (276)	eL F	16 22 17 10				(276) URSS: 34° N 86° E.
Sept. 15 (277)	e F	22 47 23 00				
Sept. 21 (278)	eL F	22 39 23 10				
Sept. 23 (279)	ePKP ePP eL	22 13 04 22 15 59 22 58				(279) Disturbed by microseisms. BCIS: 14° S 167° E, H. 21h53,4m. F in next shock.
Sept. 23 (280)	ePKP iPP	23 48 49 23 50 28				(280) Disturbed by microseisms. BCIS: 6° S 146° E, H. 23h29,8m. USCGS: 3° S 144° E, H. 23h29,8m.
Sept. 24	ePS eSS eL F	0 00 30 0 07 0 29 2 40	-			JSA: 5° 8' S 147° 7' E, H. 23h29m56s. URSS: 6° S 144° E.



Date 1946	Phase	Time	Direction	Period	Amplitude	Remarks
Sept. 24 (281)	e	18 48				
	F	19 00				
Sept. 24 (282)	e	19 44				
	F	20 00				
Sept. 25 (283)	eP	10 16 30				(283) USCGS: aftershock of (209), H. 10h 05.5m. JSA: 19°,8 N 70°,0 W, H. 10h05m42s.
	eS	10 25 10				
	eL	10 35				
	F	11 30				
Sept. 25 (284)	eL	15 29				(284) BCIS: aftershock of (209), H. 14h57,8m. JSA: aftershock of (209), H. 14h58,1m.
	F	16 00				
Sept. 26 (285)	e	11 35				(285) BCIS: 26° S 178° E, H. 10h53,2m, h = 550 km. JSA: 25°,6 S 178° E, H. 10h53m16s, h = 600 km.
	F	11 50				
Sept. 26 (286)	e	12 10				
	F	12 20				
Sept. 27 (287)	e	16 21 25				
	eL	16 25				
	F	16 40				
Sept. 27 (288)	eL	20 30				(288) URSS: 31° N 137° E?
	F	21 00				
Sept. 28 (289)	eL	14 06				
	F	14 35				
Sept. 29 (290)	eP	3 17 52				(290) BCIS: 5° S 153° E, H. 3h02m00s. USCGS: 5° S 154° E, H. 3h02,0m. JSA: 4°,8 S 152°,8 E, H. 3h01m55s. URSS: 8° S 150° E.
	iPKP	3 21 03				
	iPP	3 23 00				
	ePKS	3 24 32				
	eSKS	3 28 24				
	iSKKS	3 30 03				
	ePS	3 33				
	eSS	3 40 30				
	eL	3 55				
	Me	4 01		37	450	
	MN	4 20		22	230	
	Mz	4 20		22	180	
Sept. 29 (291)	eL	10 05				(291) URSS: 4° S 151° E. BCIS: H. 9h09m36s.
	F	11 30				

Date 1946	Phase	Time	Direction	Period	Amplitude	Remarks
Sept. 29 (292)	iP	20 31 23				(292) BCIS: 11°,3 N 48°,5 E, H. 20h22m00s. URSS: 13° N 50° E.
	eS	20 38 55				
	eL	20 50				
	F	21 30				
Sept. 30 (293)	eP	1 13 14				(293) USCGS: 12°,5 S 76° W, H. 0h59,7m, h: slightly less than 100 km. JSA: 12°,6 S 75°,8 W, H. 0h59m51s.
	ePP	1 17 04				
	ePPP	1 19 04				
	iSKS	1 23 27				
	eS	1 24 08				
	eL	1 45				
Sept. 30 (294)	F	3 00				(294) BCIS: 41° S 16° W, H. 11h29m10s.
	ez	11 43 24				
Oct. 1 (295)	eS	11 53 39				
	ePS	11 54 45				
	eSS	11 59 39				
	eSSS	12 03 20				
	eL	12 13				
	F	13 30				
Oct. 1 (295)	eL	11 57				
	F	12 20				
Oct. 2 (296)	iP	4 57 44	+	6	4	(296) BCIS: 52°,5 N 158° E, H. 4h46m07s. USCGS: 51° N 157° E, H. 4h45,9m. JSA: 50°,3 N 157°,7 E, H. 4h46m07s. URSS: 54° N 160° E. F in next shock.
	iz	4 58 10	-			
	iz	4 58 29				
	ePP	5 00 30				
	eS	5 07 12				
	eSS	5 11 54				
	eL	5 22				
Oct. 2 (297)	iP	6 54 53	+	12	10	(297) Aftershock of (296). BCIS: H. 6h43m15s. USCGS: H. 6h43m03s. JSA: H. 6h43m13s.
	iPP	6 57 38				
	ePPP	6 59 24				
	eS	7 04 22				
	eSS	7 09 00				
	eL	7 20				
	e(L')	9 05				
Oct. 3 (298)	F	9 50				
	eL	5 07				
Oct. 3 (299)	F	5 35				
	ez	7 00 44				(299) BCIS: Solomon Islands.
eL	7 50					
Oct. 3 (300)	F	8 30				
	eL	12 50				
Oct. 3 (300)	F	13 05				

Date 1946	Phase	Time	Direction	Period	Amplitude	Remarks
Oct. 3 (301)	eL F	15 50 16 30				(301) BCIS: 38° 8' N 44° 2' E, H. 15h37,7m URSS: 39° 0' N 44° 5' E.
Oct. 3 (302)	eL F	16 45 18 10				(302) BCIS: 23° S 171° 5' E, H. 15h36m42s
Oct. 3 (303)	eL F	20 46 21 15				
Oct. 4 (304)	iP iz iS eSS eSSS eL F	14 56 18 15 04 45 15 04 54 15 09 05 15 11 40 15 16 30 17 00	(—)			(304) USCGS: aftershock of (209), H. 14h 45m26s. JSA: 19° 7' N 69° 2' W, H. 14h45m35s.
Oct. 6 (305)	eL F	4 20 4 35				
Oct. 7 (306)	eL F	7 16 8 30				(306) Disturbed by microseisms.
Oct. 8 (307)	eL F	7 10 7 20				(307) Disturbed by microseisms.
Oct. 8 (308)	iz ez F	14 15 03 14 18 40 15 30				(308) Disturbed by microseisms. BCIS: 25° S 178° 5' E, H. 13h56,3m, h = 500—600 km.
Oct. 8 (309)	eL F	23 49 0 20				(309) Disturbed by microseisms.
Oct. 9 (310)	eL F	5 18 5 35				(310) Disturbed by microseisms.
Oct. 9 (311)	eL F	6 20 7 40				(311) Disturbed by microseisms. BCIS: Aftershock of (299), H. 5h22,7m. URSS: 7° N 160° E.
Oct. 9 (312)	eL F	21 10 22 00				(312) Disturbed by microseisms.
Oct. 10 (313)	eL F	5 20 6 30				(313) BCIS: aftershock of (299), H. 4h23,1m.
Oct. 13 (314)	eP eS eL F	21 29 50 21 34 06 21 36 22 10				(314) BCIS: 33° 8' N 26° 5' E, H. 21h24m30s, no z-registration.

Date 1946	Phase	Time	Direction	Period	Amplitude	Remarks
Oct. 14 (315)	eH eSS eH eL F	5 16 5 28 54 5 45 6 05 7 30				(315) BCIS: 30° 5' S 177° 5' W, H. 4h44,7m. JSA: 30° 7' S 178° 2' W, H. 4h44m45s. no z-registration.
Oct. 15 (316)	eL F	0 05 0 30				
Oct. 15 (317)	ez eL	6 58 30 7 45				(317) F during change of papers from 7h50m till 8h12m.
Oct. 15 (318)	eL F	8 55 10 00				
Oct. 18 (319)	eP eS eL F	4 39 00 4 43 20 4 46 5 10				(319) BCIS: 31° N 25° E, H. 4h33,6m.
Oct. 21 (320)	eL F	14 23 15 00				
Oct. 22 (321)	ePKP iPKP ipPKP iPP ipPP ePPP eSS F	10 19 16 10 19 27 10 20 16 10 22 22 10 23 06 10 25 31 10 40 27 12 15	(—)	5 9	6 7	(321) BCIS: 15° S 167° 5' E, H. 10h00m05s. h = 150—200 km. JSA: 22° S 178° E, H. 10h00m41s, h = 250 km.
Oct. 22 (322)	eL F	18 30 19 10				(322) BCIS: 18° 5' S 168° 5' E, H. 17h27m00s.
Oct. 23 (323)	e F	21 22 21 25				(323) Trieste: 46° 06' N 12° 26' E. BCIS: H. 21h17m45s.
Oct. 25 (324)	e Mz F	14 13 00 14 13 20 14 15 00		0,5	5	(324) Explosion?
Oct. 25 (325)	iP iz ePP eS eH eSS eH eL F	22 01 30 22 02 24 22 04 11 22 10 42 22 11 25 22 15 22 22 16 10 22 23 23 25	+	5	4	(325) BCIS: 57° N 161° E, H. 21h50,5m. h = 150 km. JSA: 53° 5' N 159° 8' E, H. 21h50m23s. URSS: 41° N 143° E, h = 250 km.

Date 1946	Phase	Time	Direction	Period	Amplitude	Remarks	
							h
Oct. 26 (326)	ePKP	0 39 55		6	3	(326) JSA: 60°,6 S 37°,0 W, H. 0h21m11s.	
	iPP	0 40 52					
	e	0 49 20					
	ePS	0 51 14					
	eSS	0 57 00					
	eSSS	1 01					
	eL	1 13					
	F	3 20					
Oct. 26 (327)	eL	12 59					
	F	13 45					
Oct. 29 (328)	eL	0 04					
	F	0 20					
Oct. 30 (329)	eP	7 59 00				(329) Begin during change of papers, eP by Wiechert. BCIS: 54°,0 N 165°,0 W, H. 7h47m31s. USCGS: 54° N 164° W, H. 7h47,6m. JSA: 53°,7 N 163°,3 W, H. 7h47m44s. URSS: 54° N 158° W.	
	ePPP	8 03 43					
	iS	8 08 42					
	eSS	8 14 00					
	eSSS	8 17 20					
	eL	8 22					
Oct. 30 (330)	e	14 55					
	F	15 25					
Nov. 1 (331)	iP	11 26 16	+	11	15	(331) BCIS: 51°,8 N 174°,5 W, H. 11h14m22s. USCGS: 52° N 174° W, H. 11h14,4m. JSA: 51°,1 N 174°,2 W, H. 11h14m25s. URSS: 50°,5 N 172°,5 W.	
	eS	11 36 00					
	iPPS	11 36 58					
	eSS	11 41 26					
	eSSS	11 45 07					
	eL	11 51					
	MN	12 07					
	ME	12 08					
Nov. 1 (332)	eL	21 15				(332) BCIS: 10° S 161°,5 E, H. 20h09,5m.	
	F	21 45					
	eP	14 18 00					(333) BCIS: 5° N 125° E, H. 14h04,0m. JSA: 5°,5 N 125°,6 E, H. 14h04m00s. URSS: 6°,5 N 127°,5 E.
	ePP	14 22 15					
ePPP	14 24 20						
iSKS	14 28 40						
Nov. 2 (333)	ePPS	14 31 45					
	eSS	14 36 30					
	eL	14 52					
	F	15 45					

Date 1946	Phase	Time	Direction	Period	Amplitude	Remarks
Nov. 2 (334)	iP	18 36 50	+	6	25	(334) BCIS: 41°,8 N 71°,7 E, H. 18h28m30s. USCGS: 41° N 76° E, H. 18h28,4m. JSA: 42°,1 N 71°,9 E, H. 18h28m39s, h = 100 km. URSS: 41°,7 N 72°,2 E.
	ePP	18 38 38				
	iS	18 43 45				
	eL	18 50				
	MN	18 58				
	ME	18 58				
	Mz	18 58				
	F	23 00				
Nov. 3 (335)	e	1 31				
	F	1 40				
Nov. 3 (336)	eL	2 14				
	F	2 30				
Nov. 3 (337)	eL	14 00				(337) BCIS: aftershock of (334), H. 13h34m10s. URSS: 40°,8 N 72°,0 E.
	F	14 10				
Nov. 3 (338)	iP	19 42 10	-	6	20	(338) BCIS: 0°,9 S 16°,5 W, H. 19h32m30s. USCGS: 0° S 16° W, H. 19h32,5m. JSA: 0°,4 S 17°,3 W, H. 19h32m40s. URSS: 2°,5 S 14°,5 W.
	iz	19 42 32				
	iS	19 49 50				
	eL	19 58				
	MN	20 05				
	F	21 30				
Nov. 4 (339)	e	10 47				(339) BCIS: aftershock of (334), H. 10h23,0m. URSS: 41°51' N 72°00' E.
	F	11 00				
Nov. 4 (340)	iP	21 54 48	+	6	40	(340) BCIS: 40°,0 N 54°,0 E, H. 21h47m48s. USCGS: 40° N 53° E, H. 21h47,6m. JSA: 40°,0 N 54°,3 N, H. 21h47m47s. URSS: 40°,5 N 55°,0 E.
	iPP	21 56 00				
	iS	22 00 24				
	iSS	22 03				
	eL	22 05				
Nov. 5	F	2 00				
Nov. 6 (341)	e	17 26				
	F	17 30				
Nov. 6 (342)	iP	20 05 54	-	4	4	(342) JSA: 36° N 81° E, H. 19h56,5m. BCIS: H. 19h56,5m. URSS: 35° N 80° E.
	iS	20 13 37				
	eSS	20 17 20				
	eL	20 24				
	MN	20 28				
	F	21 40				
Nov. 7 (343)	e	10 10				
	F	10 25				

Date 1946	Phase	Time	Direction	Period	Amplitude	Remarks
Nov. 7 (344)	eP	16 02 25				(344) BCIS: aftershock of (334). URSS: 42° N 70°,5 E.
	eS	16 09 08				
	eSS	16 12 20				
	eL	16 18				
	F	17 00				
Nov. 7 (345)	eL	18 38				(345) BCIS: afterhock of (209), H. 18 <sup>h</sup> 06,0m. JSA: 19°,4 N 69°,5 W, H. 18 <sup>h</sup> 06m04s.
	F	19 00				
Nov. 7 (346)	eL	22 27				
	F	23 00				
Nov. 9 (347)	eL	12 32				
	F	12 50				
Nov. 10 (348)	eP	0 55 40				(348) BCIS: H. 0 <sup>h</sup> 46,8m. URSS: 40°,5 N 77°,5 E.
	eS	1 02 50				
	eSS	1 06 30				
	eL	1 12				
	F	2 00				
Nov. 10 (349)	e	9 17				
	F	9 30				
Nov. 10 (350)	iP	17 56 05	—	8	10	(350) BCIS: 8°,5 S 77°,2 W, H. 17 <sup>h</sup> 42 <sup>m</sup> 53 <sup>s</sup> . USCGS: 9° S 77°,5 W, H. 17 <sup>h</sup> 42,8m. JSA: 8°,7 S 77°,6 W, H. 17 <sup>h</sup> 42 <sup>m</sup> 55 <sup>s</sup> . URSS: 10°,5 S 80° W. Destruction in Peru; 800 deaths and 500 injuries.
	eSKS	18 06 40				
	ePS	18 08 16				
	iSS	18 13 25				
	eSSS	18 16 30				
	eL	18 24				
	MN	18 33		24	135	
	ME	18 33		24	300	
	Mz	18 35		24	250	
	F	22 30				
Nov. 12 (351)	iP	6 08 00				(351) BCIS: 54°,3 N 163°,5 W, H. 5 <sup>h</sup> 56 <sup>m</sup> 21 <sup>s</sup> . JSA: 52°,9 N 163°,0 W, H. 5 <sup>h</sup> 56 <sup>m</sup> 22 <sup>s</sup> . URSS: 51°,5 N 164°,5 W.
	iPP	6 10 48				
	eS	6 17 50				
	eL	6 31				
	F	8 00				
Nov. 12 (352)	eL	15 12				
	F	15 30				
Nov. 12 (353)	ePKP	17 48 27	+			(353) Disturbed by microseisms. BCIS: 20°,4 S 173° W, H. 17 <sup>h</sup> 28 <sup>m</sup> 43 <sup>s</sup> . USCGS: 21° S 173° W, H. 17 <sup>h</sup> 28,7m. JSA: 20°,0 S 173°,9 W, H. 17 <sup>h</sup> 28 <sup>m</sup> 42 <sup>s</sup> . URSS: 20°,0 S 170° W.
	iPP	17 51 56				
	eSKKS	17 59				
	ePSKS	18 02				
	eSS	18 11				
	eSSS	18 18				
	eL	18 40				
	F	20 30				

Date 1946	Phase	Time	Direction	Period	Amplitude	Remarks
Nov. 14 (354)	eL	12 03				(354) BCIS: aftershock of (209), H. 11 <sup>h</sup> 34,7m.
	F	12 30				
Nov. 15 (355)	eL	3 06				
	F	3 25				
Nov. 15 (356)	eL	8 38				
	F	9 00				
Nov. 16 (357)	eL	13 20				
	F	14 00				
Nov. 17 (358)	ePP	3 08 50				(358) JSA: 6° S 132° E, H. 2 <sup>h</sup> 49,2m. BCIS: H. 2 <sup>h</sup> 49,1m. URSS: 7°,5 S 130° E, h = 120 km.
	epPP	3 09 30				
	ePPP	3 11 15				
	ePS	3 18 45				
	eL	3 48				
Nov. 17 (359)	F	4 30				
	eL	14 23				
Nov. 17 (360)	F	14 40				(360) Disturbed by strong microseisms. BCIS: 12° N 56°,5 E, H. 22 <sup>h</sup> 24,4m. URSS: 11°,5 N 55° E.
	eS	22 42 20				
Nov. 19 (361)	eSSS	22 48				(361) Disturbed by strong microseisms.
	eL	22 51 30				
	F	24 00				
Nov. 21 (362)	eL	11 40				(362) Disturbed by strong microseisms. BCIS: 38°,6 N 20°,2 E, H. 1 <sup>h</sup> 43 <sup>m</sup> 26 <sup>s</sup> .
	F	12 00				
Nov. 21 (363)	eS	1 51				(363) Disturbed by strong microseisms.
	eL	1 53				
Nov. 21 (364)	F	2 20				(364) Disturbed by strong microseisms.
	e	4 30				
Nov. 27 (365)	F	5 30				(365) Disturbed by strong microseisms. BCIS: 18° S 175° W, H. 15 <sup>h</sup> 51,6m, h = 300 km. JSA: 18°,7 S 175°,2 W, H. 15 <sup>h</sup> 51 <sup>m</sup> 36 <sup>s</sup> , h = 300 km.
	eL	8 48				
Nov. 28 (366)	F	9 00				(366) Disturbed by strong microseisms. BCIS: H. 21 <sup>h</sup> 40,2m. URSS: 35°50' N 68°30' E.
	iPKP	16 10 41	—	5	20	
Dec. 4 (367)	ipPKP	16 11 53	—			(367) Disturbed by microseisms. BCIS: 23° N 121° E, H. 22 <sup>h</sup> 46,8m. JSA: 23°,5 N 122°,5 E, H. 22 <sup>h</sup> 46,8m. Destruction in the region of Tainan, 53 deaths, 312 injured, 100 buildings destroyed.
	F	17 00				
Dec. 4 (368)	eL	22 05				
	F	22 20				
Dec. 5 (369)	ePP	23 03				
	iS	23 10 12				
	eL	23 32				
	MN, E	23 34 30		20	70	
Dec. 5 (370)	F	1 00				

Date 1946	Phase	Time	Direction	Period	Amplitude	Remarks
Dec. 5 (368)	eL F	7 37 8 10				(368) BCIS: 4° 7' S 145° 8' E, H. 6h44m37s. JSA: 5° 2' S 144° 8' E, H. 6h44m33s. URSS: 4° 0' S 147° 5' E.
Dec. 8 (369)	F F	13 18 13 30				
Dec. 9 (370)	e F	12 52 13 00				
Dec. 13 (371)	eL F	13 29 14 15				
Dec. 16 (372)	eL F	17 24 17 45				
Dec. 17 (373)	iPKP (pPKP) F	22 59 49 23 03 04 23 04 30				(373) Disturbed by microseisms. BCIS: 20° S 178° W, H. 22h41,2m. JSA: 20° 8' S 177° 8' W, H. 22h41m10s. Pasadena: h = 580 km.
Dec. 19 (374)	ePP ePPP ePS eL F	1 03 40 1 06 10 1 13 25 1 44 2 10				(374) BCIS: 7° 3' S 127° 5' E, H. 0h44m08s. JSA: 7° 3' S 128° E, H. 0h44m09s. URSS: 7° 5' S 128° 5' E. Christchurch: h = 100 km.
Dec. 19 (375)	iP ipP iPP epPP iS esS eSS eL F	3 09 53 3 10 19 3 13 14 3 13 37 3 20 10 3 21 04 3 26 3 37 4 30	+			(375) h = 100 km. BCIS: 25° 0' N 123° 0' E, H. 2h57m22s, h = 100 km. JSA: 25° 3' N 123° 3' E, H. 2h57m23s, h = 100 km. URSS: 25° 0' N 125° 0' E, h = 120 km.
Dec. 20 (376)	iP iS iPS iSS iSSS eL F	19 31 41 19 42 13 19 43 14 19 48 08 19 51 33 20 00 2 00	+	7	25	(376) iS, etc. by Wiechert seismograph. BCIS: 33° 5' N 136° 0' E, H. 19h19m05s. USCGS: 33° 3' N 134° 0' E, H. 19h19,0m. JSA: 33° 2' N 135° 6' E, H. 19h19m09s. URSS: 31° 0' N 137° 0' E. Damage and tsunami; 2000 killed and 36000 buildings destroyed.
Dec. 21 (377)	iP eS eL F	3 51 25 4 01 30 4 18 5 10				(377) BCIS: foreshock of (378), H. 3h39m22s. JSA: 44° 3' N 148° 1' E, H. 3h39m24s. URSS: 41° 5' N 148° 5' E.

Date 1946	Phase	Time	Direction	Period	Amplitude	Remarks
Dec. 21 (378)	eS eSS eL ME Mz F	10 40 55 10 46 40 10 55 11 02 30 11 07 14 30			25 240 22 140	(378) P during control of instruments. BCIS: 44° 8' N 148° 5' E, H. 10h18m49s. USCGS: 44° N 148° E, H. 18h18,8m. JSA: 44° 2' N 148° 0' E, 18h18m50s. URSS: 41° 5' N 145° 0' E.
Dec. 21 (379)	iP eS eL F	20 00 50 20 10 50 20 25 22 00	(—)	4	5	(379) Disturbed by microseisms. BCIS: aftershock of (378), H. 19h48,8m. JSA: 44° 5' N 147° 8' E, H. 19h48m50s. URSS: 47° 0' N 152° 5' E.
Dec. 21 (380)	eL F	22 38 23 00				(380) BCIS: H. 21h 59,3m. URSS: 24° 5' N 96° 0' E.
Dec. 22 (381)	eL F	14 05 14 40				
Dec. 24 (382)	eL F	4 55 6 30				(382) BCIS: 3° 0' S 147° 0' E, H. 3h59,9m. URSS: 2° 0' S 150° 5' E.
Dec. 24 (383)	eL F	10 21 30 11 00				(383) BCIS: aftershock of (376), H. 9h35,2m
Dec. 24 (384)	eP eS eL F	16 49 30 16 59 40 17 15 18 10				(384) Disturbed by microseisms. BCIS: aftershock of (378), H. 16h37m28s. JSA: 44° 5' N 148° 5' E, H. 16h37m29s.
Dec. 26 (385)	eL F	8 55 9 10				(385) Disturbed by microseisms. URSS: 30° N 130° E.
Dec. 26 (386)	eL e	17 50 18 10				(386) Disturbed by microseisms. BCIS: 11° 5' S 117° 5' E, H. 16h50,5m. URSS: 9° S 121° E. JSA: 11° 2' S 118° 9' E, H. 16h50m33s.
Dec. 28 (387)	e F	1 30 1 50				(387) Disturbed by microseisms. Aftershock of (209). BCIS: H. 0m58,1m. JSA: 19° 2' N 69° 4' W, H. 0h58m07s.
Dec. 28 (388)	eL F	10 45 11 30				(388) Disturbed by microseisms. Aftershock of (378). BCIS: H. 10h9,4m. JSA: 44° 6' N 148° 2' E, H. 10h09m25s.
Dec. 29 (389)	eL F	5 05 5 20				(389) Disturbed by microseisms.
Dec. 30 (390)	en eL F	4 27 30 4 38 5 00				(390) BCIS: 0° 5' N 29° W, H. 4h09,1m.