International Seismological Centre From the ISC collection scanned by SISMOS

ROYAL OBSERVATORY EDINBURGH

DEPARTMENT OF MINES AND TECHNICAL SURVEYS

DOMINION OBSERVATORIES BRANCH

SEISMOLOGICAL SERVICE OF CANADA
WESTERN DIVISION

SEISMOLOGICAL BULLETIN

January and February

1951

oo

DOMINION ASTROPHYSICAL OBSERVATORY

VICTORIA / CANADA

oo

International Seismological Centre From the ISC collection scanned by SISMOS

SEISMOLOGICAL SERVICE OF CANADA
WESTERN DIVISION
DOMINION ASTROPHYSICAL OBSERVATORY, VICTORIA

C. S. Beals, Dominion Astronomer

Ernest A. Hodgson, Chief, Seismological Division

S T A T I O N S

VICTORIA

φ = 48°31'14" N. λ = 123°24'56" W. h = 197 m.

Time correction from recorded radio time signals

Foundation: rock

Instruments: Milne-Shaw NS and EW components, designated 21 and 20, respectively, each with photographic registration, magnetic damping, paper speed of 8 mm. per min., mass 1 lb.

Benioff Vertical, short-period, designated B 5705, photographic registration, paper speed of 60 mm. per min., mass 235 lbs., installed June, 1948.

SASKATOON

University of Saskatchewan

φ = 52°08' N. λ = 106°38' W. h = 515 m.

Time correction from radio time signals

Foundation: clay and sand

Instrument: Milne-Shaw NE and NW components, designated 18 and 22, respectively, each with photographic registration, magnetic damping, paper speed of 8 mm. per min., mass 1 lb.

DETERMINED CONSTANTS

INSTRUMENT	Ts	Tg	V	ε	DISPLACEMENT FOR 1" ARC TILT
B 5705 (Victoria)	1.0	0.1			
20 (Victoria)	12.0		300	20:1	50 mm.
21 (Victoria)	12.0		300	20:1	50 mm.
18 (Saskatoon)	10.0		150	20:1	18 mm.
22 (Saskatoon)	10.0		150	20:1	18 mm.
NOTE:- Universal Time used throughout					

International Seismological Centre From the ISC collection scanned by SISMOS

MOLOGICAL SERVICE OF CANADA
WESTERN DIVISION
DOMINION ASTROPHYSICAL OBSERVATORY, VICTORIA

STATIONS: V - Victoria S - Saskatoon

January, 1951 No. 1

DATE	STN.	PHASE	h m s	REMARKS
1	V	eZ	20 29 20	New Hebrides H = 20 16 20
3	S	L	12 39.0	Mexico
3	S	L	13 23.8	Mexico
3	V	$ePnZ$ SnZ eZ	13 43 16.5 13 43 47.0 13 43 50.5	Δ = 290 km.
5	V	iZ e e	01 02 06 c 01 09 44 01 11 59	Panama H = 00 52 40 h = 100 km.
	S	i i L	01 08 30 01 11 14 01 19	
6	V	iZ iZ iZ e i i e	05 30 17 c 05 31 11 05 32 03 05 34 57 05 39 09 05 41 10 05 42 09	Afghanistan h = 250 km. H = 05 17 19
	S	e e e L	05 40 50 05 41 53 05 43 26 06 12	
6	V	iPZ iS iScS L	08 00 58 d 08 08 39 08 11 01 08 19	Δ = 55° Panama H = 07 51 31 h = 100 km.
	S	iP iS iScS SS L	08 00 21 08 07 25 08 10 08 08 11.2 08 17.2	Δ = 50°
7	V	iP_1Z Pn e S_1 S_n	04 15 32.6 d 04 15 34.5 04 15 43.0 04 15 44.5 04 15 47	Δ = 90 km.
8	V	eZ	21 52 34	New Britain H = 21 39 29
13	V	eZ	20 33 31	California H = 20 31 31
14	S	L	11 11	Tonga Islands H = 10 19 24
15	V S	eZ e L	04 24 54 04 36.2 04 54	New Hebrides H = 04 12 14

International Seismological Centre From the ISC collection scanned by SISMOS

January, 1951 No. 2

DATE	STN.	PHASE	h m s	REMARKS
18	V	PZ	21 22 33 d	Aleutian Islands
		iZ	21 22 51	H = 21 15 50
		i	21 25 08	h = 60 km.
		iS	21 28 02	
		L	21 50.8	
	S	i	21 33 39	
		L	21 39	
19	V	eZ	01 49 08	El Salvador H = 01 40 48
22	V	eZ	12 35 50 c	Mozambique Channel H = 12 16 02
23	V	eZ	07 05 00	South Pacific Ocean H = 06 52 42
		L	07 4[illegible]	
	S	i	07 [illegible] 36	
		L	07 [illegible]	
23	V	P_1Z	23 [illegible] 50.9	Δ = 70 km.
		S_1Z	23 [illegible] 08.6	
24	V	eZ	00 [illegible] 37	Santa Cruz Islands H = 00 46 02
24	V	iPZ	05 [illegible] 47	Sandwich Islands H = 04 49 28
		PP	05 [illegible] 18	
24	V	PZ	07 [illegible] 02	California
		e	07 25 19	H = 07 17 01
		L	07 25.2	
	S	i	07 25 37	
		L	07 27.9	
25	S	L	12 32	Chile H = 12 22 40
26	V	eZ	15 18 05	
		e	15 20 15	
29	V	ePZ	05 45 13	California H = 05 43 47
		e	05 45 16	
		i	05 45 22	
		i	05 45 28	
		iS	05 46 30	
	S	L	05 53	
30	V	L	11 37	Mexico H = 11 16 43
	S	L	11 37.5	
30	S	i	19 20 05	Mexico H = 19 00 30
		L	19 21.6	

W. G. Milne
Seismologist in Charge
Western Division

International Seismological Centre From the ISC collection scanned by SISMOS

SEISMOLOGICAL SERVICE OF CANADA
WESTERN DIVISION
DOMINION ASTROPHYSICAL OBSERVATORY, VICTORIA

STATIONS: V - Victoria S - Saskatoon

February, 1951 No. 3

DATE	STN.	PHASE	h m s	REMARKS
4	V	iZ	15 49 16 c	Tonga Islands
6	V	eZ	06 10 50	Alaska peninsula
7	V	iZ	03 49 57 c	Bonin Islands
7	V	iP_n	18 25 16.8 d	Δ = 172 km.
		iS_n	18 25 36	
7	V	eZ	22 33 16	
8	V	eZ	10 50 41	Tonga Islands
9	V	eZ	01 31 52	Fiji Islands
9	V	eZ	03 30 13	
10	V	eZ	08 48 08	Japan
10	V	eZ	11 29 05	Guam
11	V	eZ	03 38 38	
12	V	ePZ	17 31 06	Δ = 53°2
		S	17 38 23	USCGS: H = 17:22:02
		SS	17 42.1	φ = 66° N.
		L	17 50.1	λ = 136° E.
	S	P	17 31 22	Siberia
		S	17 38 52	
		L	17 53.2	
13	V	iZ	08 58 17 c	Guatemala
13	V	ePZ	12 07 24	Δ = 76°
		S	12 16 59	Samoa Islands
		P'P'Z	12 34 21	H = 11:55:50
		L	12 30	
13	V	eZ	16 36 19	Guatemala
13	V	iPZ	22 17 43 d	Δ = 20°2
		iZ	22 17 45 d	USCGS: Alaska
		iZ	22 17 50 c	φ = 56° N.
		S	22 21 47	λ = 155 1/2° W.
		L	22 23.2	H = 22:12:58
	S	P	22 19 00	
		S	22 23 55	
		L	22 26.0	
14	V	PZ	00 53 12	Local
		e	00 53 16	
		e	00 53 25	
		eS?	00 54 16	

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Febraary, 1951 No. 4

DATE	STN.	PHASE	h m s	REMARKS
14	V	eP_n	10 01 30	Δ = 650
		e	10 01 33	
		P_1	10 01 51	
		S_n	10 02 37	
		i	10 02 59	
		S_2	10 03 05	
		S_1	10 03 17	
14	V	eP_nZ	10 19 15	Δ = 650 km.?
		i	10 19 35	
		i	10 20 43	
		S_2	10 20 51	
		S_1	10 21 02	
15	V	iZ	05 27 04	Colima, Mexico
	S	L	05 40.5	
16	V	iZ	05 15 28	
		iZ	05 15 35	
17	V	iPZ	21 21 16 d	Δ = 85°
		ePP	21 25 09	USCGS: New Guinea
		iS	21 31 05	φ = 7° S.
		e	21 32 22	λ = 146° E.
		PS	21 33 39	h = 100 km.
		L	21 48	H = 21:06:58
17	V	eZ	21 38 38	
18	S	e	05 24 15	
		i	05 25 32	
		i	05 31 21	
		e	05 34 46	
19	V	eZ	22 23 29	
		L	22 43	
	S	L	22 51	
23	V	eZ	00 02 41	Off coast of Oregon
23	V	eZ	00 14 57	
23	V	eZ	00 29 48	
23	V	eZ	02 07 55	Off coast of Oregon
23	V	iZ	02 58 10	Off coast of Oregon
		e	02 59 00	
		i	03 00 45	
		L	03 01 39	
	S	i	03 00 43	
		e	03 06.3	
24	V	eZ	06 15 20	

W. G. Milne
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Western Division

International Seismological Centre From the ISC collection scanned by SISMOS

DEPARTMENT OF MINES AND TECHNICAL SURVEYS

DOMINION OBSERVATORIES BRANCH

SEISMOLOGICAL SERVICE OF CANADA

WESTERN DIVISION

SEISMOLOGICAL BULLETIN

March and April

1951

oo

DOMINION ASTROPHYSICAL OBSERVATORY

VICTORIA / CANADA

oo

International Seismological Centre From the ISC collection scanned by SISMOS

SEISMOLOGICAL SERVICE OF CANADA
WESTERN DIVISION
DOMINION ASTROPHYSICAL OBSERVATORY, VICTORIA

C. S. Beals, Dominion Astronomer

Ernest A. Hodgson, Chief, Seismological Division

S T A T I O N S

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φ = 48°31'14" N. λ = 123°24'56" W. h = 197 m.

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Instruments: Milne-Shaw NS and EW components, designated 21 and 20, respectively, each with photographic registration, magnetic damping, paper speed of 8 mm. per min., mass 1 lb.

Benioff Vertical, short-period, designated B 5705, photographic registration, paper speed of 60 mm. per min., mass 235 lbs., installed June, 1948.

SASKATOON

University of Saskatchewan

φ = 52°08' N. λ = 106°38' W. h = 515 m.

Time correction from radio time signals

Foundation: clay and sand

Instrument: Milne-Shaw NE and NW components, designated 18 and 22, respectively, each with photographic registration, magnetic damping, paper speed of 8 mm. per min., mass 1 lb.

DETERMINED CONSTANTS

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B 5705 (Victoria)	1.0	0.1			
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21 (Victoria)	12.0		300	20:1	50 mm.
18 (Saskatoon)	10.0		150	20:1	18 mm.
22 (Saskatoon)	10.0		150	20:1	18 mm.

NOTE:- Universal Time used throughout

International Seismological Centre From the ISC collection scanned by SISMOS

SEISMOLOGICAL SERVICE OF CANADA
WESTERN DIVISION
DOMINION ASTROPHYSICAL OBSERVATORY, VICTORIA

STATIONS: V - Victoria S - Saskatoon

March, 1951 No. 5

DATE	STN.	PHASE	h m s	REMARKS
2	V	eZ	00 41 59	
4	V	eZ	11 29 16	Southern Peru
	S	L	11 58	H = 11:17:33
5	V	iP_{nZ}	12 26 46.0	Δ = 102 km.
		i	12 26 48.5	
		iS_n	12 26 58.7	
		i	12 27 02.8	
5	V	eZ	20 23 42	Ryukyu Islands
				H = 20:11:45
	S	i	20 24 22	
		i	20 34 36	
5	V	$ePnZ$	22 28 34.5	Δ = 170 km.
		S_n	22 28 53.5	
8	V	eZ	15 25 05	Solomon Islands
		L	15 54	
9	V	L	20 30	Flores Sea
	S	L	20 35	
10	V	iPZ	22 10 08 c	Δ = 85°
		e	22 13 36	USCGS: New Hebrides
		S	22 20 30	φ = 15 1/2° S.
		e	22 21 34	λ = 167 1/2° W.
		L	22 32	H = 21:57:37
	S	e	22 15 11	h = 200 km.
		e	22 21 23	
		e	22 22 05	
		L	22 32.8	
14	V	eZ	12 32 31	
14	V	eZ	14 01 36	
17	V	eZ	04 40 50	Tibet
		L	05 20	
17	V	eZ	22 25 50	
17	V	eZ	22 36 56	
17	V	eZ	22 41 29	
17	V	eZ	22 49 54	
17	V	eZ	23 02 33	
19	V	eZ	07 36 03	
19	V	eZ	09 49 23	Mozambique

International Seismological Centre From the ISC collection scanned by SISMOS

DATE	STN.	PHASE	h m s	REMARKS
19	V	i_Z	20 37 11 d	Kamchatka
		L	20 47.5	H = 20:28:55
	S	L	20 57	
19	V	iP_{1Z}	23 36 09.7 c	Δ = 42 km.
		iS_{1Z}	23 36 14.8	
23	V	P_Z	21 51 42	USCGS: Kermadec Islands
		S	22 01 58	φ = 31° S.
		i	22 02 40	λ = 180°
		e	22 03 36	h = 300 km.
				H = 21:38:54
	S	i	21 56 54	
		i	22 06 05	
		L	22 11.5	
24	V	i_Z	00 30 04 c	Santa Cruz Islands
		i	00 40 18	
24	V	P_Z	21 00 53	El Salvador
		L	21 19	
25	V	P_Z	15 41 37	
26	V	e_Z	16 56 05	
28	V	i_Z	10 16 14 d	New Hebrides
29	V	e_Z	06 21 35	Siberia
29	V	e_Z	18 04 19	
29	V	P_{1Z}	18 21 05.5	Δ = 40 km.
		S_{1Z}	18 21 09.6	
31	V	i_Z	09 25 03 d	
	S	e	09 30.2	

W. G. Milne
Seismologist in Charge
Western Division

International Seismological Centre From the ISC collection scanned by SISMOS

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

STATIONS: V - Victoria S - Saskatoon

April, 1951 No. 7

DATE	STN.	PHASE	h m s	REMARKS
1	S	L	19 30.8	California
2	V	e_Z	00 21 49	El Salvador
		L	00 37.5	
	S	e	00 30 53	
		e	00 39 52	
2	V	e_Z	22 22 44	New Britain
3	V	e_Z	03 25 30	Tonga Islands
3	V	e_Z	22 10 21	
4	V	e_Z	17 25 52	
5	V	iP_{1Z}	17 58 33.0	Δ = 72 km.
		iS_{1Z}	17 58 41.5	
6	V	iP	23 03 41	
7	V	iP	00 58 16	
7	V	e_Z	23 44 33	
8	V	e_Z	21 51 22	Turkey
10	V	P_Z	11 07 38	Δ = 80°
		S	11 17 34	Samoa Islands
				H = 10 55 41
10	V	P_{1Z}	18 02 05	Δ = 33 km.
		S_{1Z}	18 02 09	
10	V	P_{1Z}	18 05 16	Δ = 33 km.
		S_{1Z}	18 05 20	
10	V	P_{1Z}	18 06 43	Δ = 40 km.
		S_{1Z}	18 06 48	
10	V	P_{1Z}	18 40 59	Δ = 33 km.
		S_{1Z}	18 41 03	
10	V	P_{1Z}	20 27 01	Δ = 26 km.
		S_{1Z}	20 27 04	
11	V	P_{1Z}	05 11 52	Δ = 88 km.
		S_{1Z}	05 12 05	
11	V	i_Z	22 43 07	
		L	22 57.4	
12	V	e_Z	04 56 33	
13	V	e_Z	10 44 36	

International Seismological Centre From the ISC collection scanned by SISMOS

DATE	STN.	PHASE	h m s	REMARKS
13	V	e_Z	15 37 28	
		L	15 41.8	
13	V	e_Z	23 07 15	
14	V	eP_Z	00 57 53	Δ = 82°
		S	01 08 07	Argentina H = 00:45:28
	S	e	00 57 31	
		i	01 07 37	
14	V	P_Z	04 23 14	Δ = 91°
		S	04 33 47	
		L	05 07.2	
14	V	P_Z	13 42 19	Δ = 54°
		S	13 49 48	Siberia
		L	14 02.6	H = 13:32:59
	S	i	13 50 37	
		L	14 00.6	
14	V	e_Z	20 11 28	
14	V	P_Z	23 54 29	Δ = 90°
		S	00 05 06	Assam
		L	00 29.5	
15	V	e_Z	06 51 38	
		e	06 51 46	
15	V	e_Z	12 50 52	Fiji Islands
		i	12 51 00	
16	V	e_Z	20 03 38	Japan
16	V	e_Z	20 41 35	Kamchatka
17	V	P_{1Z}	22 58 33	Δ = 33 km.
		S_{1Z}	22 58 37	
17	V	P_{1Z}	23 00 09	Δ = 40 km.
		S_{1Z}	23 00 14	
17	V	P_{1Z}	23 01 43	Δ = 40 km.
		S_{1Z}	23 01 48	
17	V	P_{1Z}	23 03 13	Δ = 40 km.
		S_{1Z}	23 03 18	
17	V	P_{1Z}	23 04 36	Δ = 40 km.
		S_{1Z}	23 04 41	
17	V	P_{1Z}	23 05 43	Δ = 40 km.
		S_{1Z}	23 05 48	
19	V	i_Z	05 56 56	
20	V	P_{1Z}	19 16 34	Δ = 33 km.
		S_{1Z}	19 15 38	
20	V	e_Z	21 15 56	Tonga Islands
21	V	i_Z	17 28 43	Solomon Islands

International Seismological Centre From the ISC collection scanned by SISMOS

April, 1951 No. 9

DATE	STN.	PHASE	h	m	s	REMARKS
22	V	P_Z	12	43	03	Baffin Bay
		e_Z	12	52	02	H = 12:36:16
		e_Z	12	53	15	
		L	12	54	.2	
	S	i	12	47	15	
		e	12	49	10	
		e	12	50	25	
23	V	P_Z	00	59	54	Δ = 38°
		PP	01	01	26	Hawaii H = 00:52:21
		S	01	05	56	
	S	S	01	08	30	
		L	01	17	.5	
23	V	P_Z	07	04	11	New Zealand
	S	S	07	13	54	
		L	07	32	.1	
23	V	P_Z	13	29	12	Δ = 82°
		S	13	39	19	Bolivia H = 13:17:00
		e	13	41	09	
	S	S	13	38	24	
		e	13	40	.2	
24	V	e_Z	03	02	55	
24	V	i_Z	10	25	13	Fiji Islands
30	S	e	15	52	45	Solomon Islands
		e	16	00	52	

W. G. Milne
Seismologist in Charge
Western Division

International Seismological Centre From the ISC collection scanned by SISMOS

SEISMOLOGICAL BULLETINS RECEIVED

March, 1951

We acknowledge, with thanks, the receipt of the following seismological publications and bulletins:-

STATION	BULLETINS
Saint Louis and Auxiliary Stations	Preliminaries - October 5, 8, 21, 28, 31, November 1, 2, 5, 22, March 20, 27, 29, April 4, 10,14
Wellington	April-June, 1949, September, October, 1950
De Bilt	January, 1951
Cleveland	December, 1950, January, 1951
South Africa	December, 1950
Weston	January, 1951
Budapest	January, 1951
Cartuja	1948, 1949
Japan	1949
Tortosa	December, 1950
Zurich	November, December, 1950, January, 1951, Year 1949
Toledo	November, December, 1950
Eger	October, 1950
Stara Dala	August, 1950
Hautes Tatra	September, 1950, October, December
Toledo	December, 1950, January, 1951
Helsinki	October-December, 1950
Richmond	January, 1951
Pasadena	April-June, 1950
Saint Louis and Auxiliary Stations	Preliminaries April 15, 16, September 29, October 23, December 1, 2
Tamanrasset	September, 1950
Algiers	September, 1950
Tacubaya	December, 1950
Santa Clara	February, 1951
La Paz	October, 1949
Columbia	February 20-March 19, 1951
De Bilt	February, 1951
Belgium	1947
Rome	December, 1950
Athens	December, 1950
Pasadena	April-June, 1950
Wellington	November, 1950
Tortosa	January, 1951
Lisbon	October-December, 1950
Weston	February, 1951
Strasbourg	February, 1951
Bureau Central	November, 1950
Bureau Central (B.C.I.S.)	October, 1950
Berkeley	October-December, 1943, January-September, 1944, July-September, 1949
India	May, June, 1950
Tacubaya	January, 1951
Beograd	January, 1951
Cleveland	February, 1951
Wellington	November, 1950
Dublin	October-December, 1950
South Africa	January, 1951
Tortosa	February, 1951
Rome	January, 1951
Algiers	October, 1950
Tamanrasset	October, 1950

International Seismological Centre From the ISC collection scanned by SISMOS

SEISMOLOGICAL BULLETINS RECEIVED

April, 1951

STATION	BULLETINS
Algiers	November, December, 1950
Tamanrasset	November, December, 1950
Tananarive	April, 1950
Perth	October-December, 1950
Stara Dala	October, 1950
Prague	January, 1951
Hautes Tatra	August, 1950, January, 1951
Eger	August, 1950, January, 1951
Stara Dala	January, 1951
Brisbane	December, 1950
Richmond	February, 1951
Apia	October-December, 1950
Harvard	July-December, 1950
Athens	January, 1951
Pasadena	October-December, 1950
Malaga	May, June, 1950
Japan	November, 1950
Rome	February, 1951
Toledo	January, February, 1951
Helwan	September-December, 1950
De Bilt	March, 1951
Columbia	March 21, April 3, 1951
Chinchina	January-May, 1950
Galerazamba	April, 1949-May, 1950
Strasbourg	March, April 1-10, 1951
Bureau Central	December, 1950
Bureau Central (B.C.I.S.)	November, 1950
De Bilt	1946

Dominion Observatory,
Ottawa - Canada,
July 3, 1951.

International Seismological Centre From the ISC collection scanned by SISMOS

DEPARTMENT OF MINES AND TECHNICAL SURVEYS

DOMINION OBSERVATORIES BRANCH

ROYAL OBSERVATORY 13 MAR 1951 EDINBURGH

SEISMOLOGICAL SERVICE OF CANADA

WESTERN DIVISION

SEISMOLOGICAL BULLETIN

May to July

1951

000

DOMINION ASTROPHYSICAL OBSERVATORY

VICTORIA / CANADA

International Seismological Centre From the ISC collection scanned by SISMOS

SEISMOLOGICAL SERVICE OF CANADA
WESTERN DIVISION
DOMINION ASTROPHYSICAL OBSERVATORY, VICTORIA

C. S. Beals, Dominion Astronomer

Ernest A. Hodgson, Chief, Seismological Division

S T A T I O N S

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φ = 48°31'14" N. λ = 123°24'56" W. h = 197 m.

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International Seismological Centre From the ISC collection scanned by SISMOS

SEISMOLOGICAL SERVICE OF CANADA
WESTERN DIVISION
GEOPHYSICAL OBSERVATORY, VICTORIA

STATIONS: V - Victoria
S - Saskatoon

May, 1951 No. 10

DATE	STN.	PHASE	h m s	REMARKS
1	S	e	05 25 34	
		e	05 42 44	
		e	05 47 39	
		e	06 06 29	
2	V	P	16 37 6.5	
2	S	L	17 45 09	
2	V	P	19 58 20.7	
3	V	P	04 18 43.4 c	
4	V	P	12 03 00	
6	V	P	23 16 12.3	
	S	P	23 17 24	
		e	23 20 41	
		L	23 28.2	
7	V	P	20 30 39.7	
7	S	e	20 39 13	
		e	20 44 19	
8	V	P	20 11 45.5	
9	S	L	10 30	
9	V	P	15 15 46.3	
10	V	P	09 38 12.2	
10	V	P	19 51 50.8	
10	V	P	20 35 15.9	
11	V	P	02 25 10	
12	V	P	22 21 05.6	
19	V	P	16 06 25.2	
20	V	P	12 24 32.5	
21	V	P	08 40 04.3	Δ = 83°.5
		S	08 50 18.3	
		e	08 51 29.3	
		L	08 56 45.3	
22	V	P	13 47 23.3	

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May, 1951 No. 11

DATE	STN.	PHASE	h m s	REMARKS
30	V	P	01 01 25.0	Aleutian Islands h = 150 km.
30	V	P	17 26 17.2	
		e	17 26 28.0	
30	V	P	17 29 11.8	
		e	17 29 17.0	
30	V	P	17 35 55.0	
		e	17 36 02.0	
30	V	P	17 48 39.0	
			17 48 45.0	
31	V	P	21 09 0.8	

W. G. Milne
Seismologist-in-Charge

International Seismological Centre From the ISC collection scanned by SISMOS

SEISMOLOGICAL SERVICE OF CANADA
WESTERN DIVISION
DOMINION ASTROPHYSICAL OBSERVATORY, VICTORIA

STATIONS: V - Victoria
S - Saskatoon

June, 1951

No. 12

DATE	STN.	PHASE	h m s	REMARKS
1	V	P	16 35 49.5	USCGS: 14 1/2N., 145 E. H = 16:23:35 Mariana Islands
1	V	P	20:08:24.1	USCGS: 52 1/2N., 172 W. H = 20:02:14 Aleutian Islands
3	V	P	05 58 26.4	Δ = 129 km.
		e	05 58 29.5	Felt at Alberni, B.C.
		e	05 58 41.7	
3	V	P	21 04 22.3	
		e	21 04 42.3	
		e	21 05 54.3	
4	V	P	12 30 43.5	
5	V	P	01 43 10.4	USCGS: 9 1/2N., 86 W. H = 01:34:20 d = 60 km. Near coast of Costa Rica
5	V	P	17 09 33.4	USCGS: 30 N., 132 E.
		SKS	17 19 28.4	H = 16:57:47
		S	17 19 45.4	d = 100 km.
	S	P	17 10 09	South of Kyushu, Japan
		S	17 20 34	
		SS	17 25 15	
		SSS	17 30.1	
		L	17 39.4	
6	V	P	16 19 55.7	USCGS: 71 1/2 N., 8 W.
		S	16 27 25.7	H = 16:10:52
		L	16 31.7	d = 60 km.
	S	P	16 19 05	Jan Mayen Island
		S	16 25 25	
		SS	16 28.2	
		L	16 30.3	
12	V	P	22 53 36.5	
13	V	P	01 16 12.7	USCGS: 19 1/2 N., 63 W. H = 01:06:40 d = 60 km. North of Leeward Islands
15	V	P	20 54 41.9	
16	V	P	01 15 45.2	
16	V	P	23 27 30.4	
16	V	P	23 29 05.4	
16	V	P	23 44 06.4	

International Seismological Centre From the ISC collection scanned by SISMOS

June, 1951

DATE	STN.	PHASE	h m s	REMARKS
16	V	iPn	23 48 31.4	Foreshock of 09:41:48
		Sn	23 49 41.4	USCGS: 23:46:58
17	V	P	00 39 27.5	
17	V	P	01 09 21.5	
17	V	P	02 06 59.5	Bonin Islands region
				USCGS: 01:55:05**
17	V	P	09 41 48	USCGS: 44 1/2 N., 130 W.,H = 09:40:15
		e	09 42 59	300 mi. off coast of Oregon
17	V	P	09 50 43	
17	V	P	11 00 18.1	Aftershock of 09:41:48
		e	11 01 28	USCGS: 10:58:43
17	V	P	11 16 24.1	
17	V	P	11 35 35.3	Δ = 107 km.
		e	11 35 49.0	
17	V	P	12 19 09.2	
17	V	P	12 31 37.1	
17	V	P	21 38 11.8	
20	V	P	22 03 10.5	USCGS: 25 N., 121 E.
				Northern Formosa
				H = 21:50:20
25	V	P	16 16 57.9	
	S	P	16 18 10	
		e	16 22 11	
26	V	P	18 58 30.2	Δ = 115 km.
		e	18 58 44.6	
27	V	P	10 51 45.5	
		e	10 52 06.5	

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International Seismological Centre From the ISC collection scanned by SISMOS

SEISMOLOGICAL SERVICE OF CANADA
WESTERN DIVISION
DOMINION ASTROPHYSICAL OBSERVATORY, VICTORIA

STATIONS: V - Victoria
S - Saskatoon

July, 1951 No. 14

DATE	STN.	PHASE	h m s	REMARKS
8	V	e	06 08 34.4	
9	V	P	00 11 28	USCGS: 16 N., 96 W.
		S	00 17 25	H = 00:03:54
		SS	00 21 28.5	d = 60 km.
		L	00 25 07	Near coast of Oakaca, Mexico
		e	00 29.0	
	S		00 16 43	
11	V	eP	18 32 44	USCGS: 28 1/2 N., 139 1/2 E.
		e	18 34 24	H = 18:22:00
		iS	18 41 31	d = 550 km.
	S	P	18 33 24	Bonin Island region
		sP?	18 36 09	
		S	18 42 55	
		sS	18 45 56	
		SSS	18 51 26	
13	V	P	02 03 37	USCGS: 50 N., 130 W.
		S	02 05 14	H = 02:02:25
				Off coast of British Columbia
16	V	e	11 03 45	
		e	11 04 22	
	S	e	11 04 46	
		e	11 05 39	
		e	11 06 49	
		e	11 08 26	
18	V	P	09 19 35	USCGS: 1 N., 27 W.
		S	09 30 46	H = 09:06:16
		L	09 46.3	Mid-Atlantic Ocean
	S	P	09 18 45	
		S	09 29 00	
		PS	09 29 44	
		SS	09 34.2	
		G	09 40.6	
19	V	P	20 48 10	
		S	20 53 40	
		L	20 56.3	
20	V	P	06 47 02.5	Δ = 87 km. Local
		S	06 47 13.2	
20	V	P	16 19 16.5	Local
20	V	P	17 00 10.5	Local Δ = 38 km.
		S	17 00 15.0	
20	V	P	17 16 01	Local
		S	17 16 05.5	
20	V	P	17 17 01	Local
		S	17 17 05.5	

International Seismological Centre From the ISC collection scanned by SISMOS

July, 1951 No. 15

DATE	STN.	PHASE	h m s	REMARKS
20	V	P	17 17 39.5	Local
			17 17 43.5	
20	V	P	17 29 42	Local
		S	17 29 46	
20	V	P	17 33 22.5	Local
		S	17 33 27.0	
20	V	P	18 00 7.5	Local
20	V	P	22 00 05.5	Local
		S	22 00 10.5	
20	V	P	22 13 50.5	Local
		S	22 13 58.0	Δ = 55 km.
20	V	P	22 14 23.5	Local
		S	22 14 30.5	
20	V	P	23 00 05	Local
		S	23 00 09.5	
22	V	P	09 07 49.0	USCGS: 51 N., 178 1/2 W. 09:01:02 d = 60 km. Near Aleutian Islands
22	V	P	22 00 06	Local
		e	22 00 10.5	
23	V	P	01 00 06.5	Local
		e	01 00 12.5	
24	V	e	19 57 51	Local
24	V	P	22 27 52.5	Local
		e	22 27 57	
		e	22 28 10	
24	V	P	23 57 52.5	Local
		e	23 57 58	
		e	23 58 11	
26	V	P	10 10 23.5	USCGS: 41 N., 143 E. H = 10:00:00 d = 100 km. South of Hokkaido, Japan
		e	10 24.9	
26	V	e	12 39 08.5	
26	V	e	12 40 14.0	
26	V	e	18 00 10.0	
~~26~~	V	P	16 30 10.0	
26	V	P	21 30 08.5	Local
		e	21 30 14.5	
		e	21 30 23.5	
		e	21 30 28.5	

International Seismological Centre From the ISC collection scanned by SISMOS

July, 1951 No.16

DATE	STN.	PHASE	h m s	REMARKS
26	V	P	23 00 08.5	Local
		e	23 00 14.5	
		e	23 00 23.5	
		e	23 00 27.5	
27	V	P	01 10 34.5	About 250 miles off S.E. coast of Honshu, Japan USCGS: 00:59:23
28	V	P	19 26 31.6	USCGS: 19:15:10 Off S.E. coast of Honshu, Japan
28	V	P	21 08 41.2	USCGS: 35 N., 147 E. H = 20:58:20 d = 200 km. East of Honshu, Japan
		e	21 09 09.2	
28	V	P	21 30 08.2	
		e	21 30 27.2	
28	V	P	23 00 08.3	USCGS: 37 N., 143 E. H = 23:04:33 Off east coast of Honshu, Japan
		e	23 00 27.3	
29	V	e	11 00.0	
	S	e	11 03.5	

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International Seismological Centre From the ISC collection scanned by SISMOS

DEPARTMENT OF MINES AND TECHNICAL SURVEYS

DOMINION OBSERVATORIES BRANCH

SEISMOLOGICAL SERVICE OF CANADA

WESTERN DIVISION

SEISMOLOGICAL BULLETIN

August to December

1951

000

DOMINION ASTROPHYSICAL OBSERVATORY

VICTORIA / CANADA

000

International Seismological Centre From the ISC collection scanned by SISMOS

S T A T I O N S (Cont'd)

SHAWINIGAN FALLS

Shawinigan Water and Power Company
φ = 46°33'1 N. λ = 72°45'8 W. h = 60 m. ca.

Time correction from recorded radio time signals

Foundation: Precambrian basement rocks of Canadian Shield

Instrument: Wood-Anderson NS component, designated SA, photographic registration, magnetic damping, paper speed of 60 mm. per min., mass 15g.

KIRKLAND LAKE

φ = 48°08'41" N. λ = 80°01'45" W. h = 310 m.

Time correction from recorded radio time signals

Foundation: Precambrian basement rocks (Timiskaming Tuff)

Instrument: Sprengnether Vertical, short-period, designated No. 1130, galvanometric registration on photographic paper, paper speed 60 mm. per min.

DETERMINED CONSTANTS

INSTRUMENT	Ts	Tg	V	ε	DISPLACEMENT FOR 1" ARC TILT
17 (Ottawa)	12.0		300	20:1	50 mm.
23 (Ottawa)	12.0		300	20:1	50 mm.
BS (Ottawa)	1.0	0.1			
BL (Ottawa)	1.0	48			
HN (Halifax)	5.0		125	20:1	
HE (Halifax)	5.0		125	20:1	
SA (Shawinigan)	1.0		2200		
SF (Seven Falls)	1.0		2200		
SH (Seven Falls)	12.0		300	20:1	50 mm.
S1130 (Kirkland Lake)	1.4	1.4			

NOTE:- Universal Time used throughout

International Seismological Centre From the ISC collection scanned by SISMOS

SEISMOLOGICAL SERVICE OF CANADA
WESTERN DIVISION
DOMINION ASTROPHYSICAL OBSERVATORY, VICTORIA

STATIONS: V - Victoria A - Alberni
S - Saskatoon HB - Horseshoe Bay

August, 1951 No. 17

On August 6, 1951, a station with 3 component short-period seismometers was set in operation at Horseshoe Bay (HB) north of Vancouver, British Columbia. Its coordinates are 49°22'39" N. Lat. and 123°16'33" W. Long. A similar station was installed at Alberni (A) on Vancouver Island on August 11, 1951. Its coordinates are 49°16'14" N. Lat. and 124°49'18" W. Long.

DATE	STN.	PHASE	h m s	REMARKS
2	V	iP	04 02 04	USCGS: 4 S., 154 1/2 E. H = 03:40:27 d = 500 km. New Britain Island region
2	V	e	10 39.4	
		L	11 03.1	
2	V	e	20 38 46.3	Foreshock of 00:32:24
		L	20 57 09.3	
3	V	e	00 26 02	
3	V	P	00 32 24	USCGS: 13 N., 87 1/2 W.
		S	00 39 14	H = 00:23:58
		L	00 49.8	d = 100 km.
	S	e	00 38 05	Near south coast of Nicaragua
		L	00 41.3	
3	V	e	05 34 13.8	USCGS: 05:25:45
		L	05 51 10.8	Aftershock of 00:32:24
5	V	e	16 35 42.5	
6	V	e	07 58 35	USCGS: 13 N., 87 1/2 W. H = 08:08:56 d = 100 km. Near south coast of Nicaragua
6	V	e	08 37 09	
		L	09 55 58	
6	V	e	10 51 01	
6	V	e	15 43 36	
8	V	e	12 44 04.8	Local
		e	12 44 43.8	USCGS: 49 N., 129 W.
		e	12 44 47.8	H = 12:43:07
	HB		12 44 04.4	Off coast of Vancouver Island
8	V	e	14 14 05.9	USCGS: 14:13:08
		e	14 14 46.9	Aftershock of 12:44:04.8
		e	14 14 50.9	
	HB		14 14 08.1	
8	V	e	22 29 59.7	USCGS: 44 N., 128 W.
		e	22 31 24.7	H = 22:28:40
				Off coast of Oregon
8	V	e	23 36 09.8	

International Seismological Centre From the ISC collection scanned by SISMOS

August, 1951 No. 18

DATE	STN.	PHASE	h m s	REMARKS
9	HB	i	20 49 19.5	
		i	20 49 24.5	
10	V	e	05 44 35.8	USCGS: 8 1/2 N., 40 W.
		e	05 54 56.8	H = 05:32:33 Atlantic Ocean
		L	06 10 30.8	700 miles off north coast of Brazil
10	HB	e	15 28 14.2	
			15 28 17.5	
10	V	i	23 09 54.7 c	USCGS: 46 N., 143 1/2 E.
		e	23 11 11.7	H = 23:00:21 d = 300 km.
				Off north coast of Hokkaido, Japan
13	V	P	18 07 48.3	Local
		S	18 07 56.5	Δ = 62 km.
		e	18 07 58.0	
	HB	P	18 07 43.8 d	
		S	18 07 49.2	Δ = 44 km.
13	V	eP	18 46 23.5	Δ = 91°5
		e	18 50 04.5	USCGS: 43 N., 32 1/2 E.
		S	18 57 06.5	H = 18:33:40
		L	19 10.4	Black Sea, off north coast
	S	P	18 45 53	of Turkey
		S	18 55 55	
		SS	19 00 15	
		G	19 06.1	
		L	19 13.2	
13	V	e	22 30 49.5	
	HB	P	22 30 36.9	Δ = 45 km.
		S	22 30 42.2	
13	V	e	23 44 30.8	Local
		e	23 44 33.2	
14	V	e	03 53 27.8	
		i	03 53 33.6	
14	V	e	09 01 24.4	
14	V	e	09 04 34.4	
14	V	e	20 11 10.2	
16	V	e	16 16 03.1	
16	V	e	22 47 39.0	
17	V	i	23 40 59.8 c	Δ = 108 km.
		i	23 41 04.3	
		i	23 41 12.8	
	HB	iP	23 40 51.4	
	A	i	23 41 09.9	Δ = 175 km.
		i	23 41 14.8	
		i	23 41 29.5	

International Seismological Centre From the ISC collection scanned by SISMOS

August, 1951

DATE	STN.	PHASE	h m s	REMARKS
18	V	P	11 35 14.4 c	Δ = 77 km.
		S	11 35 24.1	
	HB	P	11 35 20.3	Δ = 107 km.
		S	11 35 33.3	
	A	i	11 35 32.4	Δ = 165 km.
		e	11 35 51.7	
		i	11 35 54.3	
18	V	P	14 02 23.2	
		S	14 03 08.8	
18	V	P	18 37 17.1	Δ = 35 km.
		S	18 37 21.3	
	A	P	18 37 35.8	Δ = 147 km.
		S	18 37 53.0	
	HB	P	18 37 25.4	Δ = 80 km.
		S	18 37 35.3	
18	V	P	23 20 58.0	
20	V	P	02 54 32.3	
		S	02 54 36.3	
20	V	P	05 55 44.5	USCGS: 23 1/2 N., 108 W.
	S	e	06 01 12	H = 05 59 14
		L	06 05.0	Gulf of California
20	V	e	09 54 04.4	
		e	09 54 14.2	
	HB	e	09 54 21.0	
		e	09 54 21.6	
		i	09 54 36.2	
		i	09 54 37.3	
	A	P	09 54 21.6	Δ = 197 km.
		e	09 54 43.2	
20	V	e	22 04 54.1	
21	V	P	11 04 27.8 c	Δ = 41°
		PP	11 05 59.8	USCGS: 19 3/4 N., 156 W.
		S	11 10 35.8	H = 10:56:57.5
		L	11 13.5	Near west coast of Hawaii
	S	P	11 05 55	
		S	11 13 10	
		ScS	11 15 48	
		SS	11 16 45	
		L	11 19.5	
22	V	e	08 55 21.6	Aftershock of 11:04:27.8 Hawaii
22	V	P	10 22 57.2	Δ = 36 km. Local
		S	10 23 03.8	
	HB	P	10 23 05.7	
		S?	10 23 16.2	
	A	iP	10 23 10	Δ = 92 km.
		iS	10 23 21.5	
22	V	e	13 39 01.1	
	HB	e	13 39 2.6	
	A	e	13 38 45.6	

International Seismological Centre From the ISC collection scanned by SISMOS

August, 1951

DATE	STN.	PHASE	h m s	REMARKS
23	V	eP_1	07 54 26.2	Δ = 98 km.
		iP_n	07 54 27.4	
		iS_1	07 54 38.1	
		iS_n	07 54 39.4	
		iS?	07 54 41.9	
	HB	eP	07 54 33.0	Δ = 142 km.
		iP	07 54 34.4	
		iS	07 54 49.9	
	A	P	07 54 21.4	Δ = 62 km.
		S	07 54 29.7	
23	V	e	14 37 15.2	
		e	14 38 31.2	
	HB	e	14 33 05.2	
23	V	P	18 58 51.9	Local
		S	18 59 24.4	Δ = 310 km.
23	V	e	21 18 51.0	
23	V	i	23 19 37.7	
		i	23 20 08.7	
24	V	e	14 30 48.0 c	USCGS: 47 N., 151 E. H = 14 21 15 Kurile Islands
25	HB	e	14 01 21.9	
		e	14 01 33.9	
	A	e	14 01 26.8	
		e	14 01 42.1	
27	HB	i	23 10 47.7	

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International Seismological Centre From the ISC collection scanned by SISMOS

SEISMOLOGICAL SERVICE OF CANADA

WESTERN DIVISION

DOMINION ASTROPHYSICAL OBSERVATORY, VICTORIA

STATIONS: V - Victoria A - Alberni
S - Saskatoon HB - Horseshoe Bay

September, 1951 No. 21

DATE	STN.	PHASE	h m s	REMARKS
5	HB	e	06 03 48.5	Local
		e	06 03 53.1	
	A	i	00 20 30.5	Local
		i	00 20 32.8	
6	V	P	04 28 40.9	Δ = 41 km.
		S	04 28 45.7	
	HB	P	04 28 50.2	Δ = 81 km.
		S	04 29 0.1	
	A	P	04 28 58.1	
		S	04 29 15.4	
		e	04 29 17.2	
9	V	P	04 55 59.5 c	Δ = 81°.5
		S	05 06 00	USCGS: 16 S., 173 W.
		e	05 21 00	H = 04 43 00
				Samoa Islands region
10	V	P	12 55 02.8	Local
		e(S)	12 55 45.8	
	A	P	12 54 50.8	Δ = 291 km.
			12 55 21.3	
			12 55 23.1	
12	V	e	13 01 15.8	
		i	13 01 19.8	
12	V	e	15 19 55.1	USCGS: 45 1/2 N., 151 E.
		e	15 20 07.1	H = 15:10:18
				Kurile Islands
12	V	e	16 21 08.2	
13	V	P	04 55 18.8	Δ = 220 km.
		S	04 55 42.8	
	A	e	04 55 02.1	Δ = 95 km.
		i	04 55 14.9	
13	V	e(P)	06 21 08.9	Δ = 315 km.
		e(S)	06 21 41.9	
	A	P	06 21 09.7	Δ = 490 km.
		S	06 21 47.1	
13	V	e	06 55 24	
14	V	P	07 08 18.2	Local
		e	07 08 21.1	USCGS: 49 N., 128 1/2 W.
		e	07 08 47.2	H = 07:07:21
		S?	07 09 07.1	Off west coast of Vancouver
	HB	e	07 08 04.8	Island
		e	07 08 05.7	
	A	e	07 08 06.1	
		e	07 08 39.6	
14	V	e	08 18 32.7	

International Seismological Centre From the ISC collection scanned by SISMOS

DATE	STN.	PHASE	h m s	REMARKS
15	V	e	08 20 44.4	USCGS: H = 08:11:14 d = 100 km. Near San Juan, Porto Rica
16	V	e	01 55 09 d	USCGS: H = 01:43:02 Mariana Islands
16	V	e	16 50 21	USCGS: 22 S., 177 W. H = 16:38:03 d = 200 km. Tonga Islands
17	V	e	12 09 52	USCGS: 18 S., 173 W. H = 11:57:39 Tonga Islands
17	V	e	21 06 49	
19	V	e	05 58 56.5	
20	V	P S	12 43 44.6 12 49 44.6	USCGS: 65 N., 154 W. H = 12:38:40 Central Alaska
20	A	e e	20 53 12.5 20 53 14.0	Local
21	V	e	03 33 07.8	
21	V	e	04 31 10.8	USCGS: 19 N., 70 W. H = 04:22:11 d = 100 km. Dominican Republic
21	V	e	10 55 19.3	USCGS: H = 10:42:16 Kermadec Islands region
21	V HB	P S e e	11 23 16.8 11 23 36.9 11 23 25.6 11 23 52.2	Δ = 180 km.
21	V	e	12 19 04.5	
21	V	e	18 58 00.8	USCGS: 28 1/2 S., 178 W. H = 18:44:57 Kermadec Islands
21	V HB	e e e	19 36 29.3 19 36 35.1 19 36 30.3	Local
21	V	e	21 04 37.0	
21	V	e	21 21 29.1	
22	V HB A	e i e e Pn Sn	10 17 37.3 10 17 39.3 10 17 30.3 10 18 25.7 10 17 30.6 10 18 04.1	Local USCGS: 48 N., 127 W. H = 10:17:00 Off coast of Vancouver Island Δ = 315 km.
26	HB A	e e e	15 35 15 35 45.0 15 35 47.2	Local

International Seismological Centre From the ISC collection scanned by SISMOS

DATE	STN.	PHASE	h m s	REMARKS
27	V	P	07 36 11.5	USCGS: H = 07:26:00 d = 500 km. Sea of Japan
27	V	P	14 01 59	USCGS: 16 N., 62 W. H = 13:51:46 Windward Islands
27	V	P_n	19 25 08.8	Local
		P_1	19 25 17.8	USCGS: 49 N., 129 W.
		S_n	19 25 53.8	H = 19:24:12
		S_1	19 26 18.8	Off coast of Vancouver Island.
	HB	e	19 25 10.8	
		e	19 25 47.3	
		e	19 25 53.7	
	A	P_n	19 24 57	
		S_n	19 25 27	
		S_1	19 25 38.5	
27	A	e	19 31 35.0	Aftershock of 19:25:08.8
		e	19 32 05.5	
27	A	e	19 44 08.1	Aftershock of 19:25:08.8
		e	19 44 38.6	USCGS: 19:43:24
27	V	P	19 53 45.3	Local
27	V	P	21 36 04.8	
28	V	P	12 15 48.5	USCGS: 11 1/2 N., 86 W.
		e	12 15 59.0	H = 12:07:24 d = 200 km. Near south coast of Nicaragua
28	V	P	12 17 17.5	Nicaragua
		e	12 17 24.5	
28	V	P	15 19 37.0	USCGS: 50 1/2 N., 130 W.
	A	e	15 19 20.0	H = 15:18:27 Off coast of Vancouver Island
30	V	P	08 32 24.5	Local
		S	08 32 30.5	Δ = 45 km.
30	V	P	13 31 39.1	
		e	13 32 59.1	
		e	13 33 02.1	
	HB	e	13 32 31	
	A	e	13 31 39.6	
		e	13 33 04.9	
30	V	P	14 50 16.7	
	HB	e	14 50.1	
	A	e	14 49 57.6	
			14 50 37.9	
30	V	P	17 19 14.3	USCGS: 36 1/2 N., 140 E. H = 17:08:16 Central Honshu, Japan

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WESTERN DIVISION

DOMINION ASTROPHYSICAL OBSERVATORY, VICTORIA

STATIONS: V - Victoria A - Alberni
S - Saskatoon HB - Horseshoe Bay

October, 1951 No. 24

DATE	STN.	PHASE	h m s	REMARKS
1	V	P	02 39 51.0	
1	V	P	09 34 55.5	
1	V	P	11 17 03.5	Local?
1	V	P	11 56 04	Local?
2	V	P	02 10 40.3	
4	V	P_1	23 27 42.5	Δ = 80 km.
		S_1	23 27 52.5	
	HB	P_1	23 26 58.6	
		S_1	23 27 21.8	
5	V	e	12 01.2	
5	V	P_n	16 13 43.3	Δ = 430 km.
		S_n	16 14 26.3	
	A	P_n	16 13 16.9	
	HB	P_n	16 12 45.3	
6	A	P_1	00 38 10.5	
		S_1	00 38 13.5	
6	V	P	06 01 24.5	Aleutians
7	S	L	04 18.0	
7	V	P	06 09 58	
7	V	P_1	11 59 39.0	Δ = 55 km.
		S_1	11 59 46.0	
	A	P	11 59 55.2	
	HB	P	11 59 56.4	
		S	12 00 11.2	
8	V	P_n	05 12 37.4	Δ = 560 km.
		S_n	05 13 32.9	
		e	05 14 04.4	
8	V	P_n	06 46 33	
		e	06 47 02	
9	V	P	05 07 50.5	
9	V	P	06 29 39.0	
9	V	P	09 24 26.7	
9	V	P	10 23 10.3	
9	V	P	15 53 34.3	

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DATE	STN.	PHASE	h m s	REMARKS
9	V	P_1	22 59 38.0	Δ = 98 km.
		S_1	22 59 49.5	
	A	P	22 59 57.6	
		S	23 00 14.1	
	HB	P	22 59 50.5	
		S	23 00 10.5	
10	V	P	04 26 25.5	
11	V	P	02 50 35.5	
		SKS	03 01 06	
		S	03 01.3	
		L	03 14.1	
11	V	P	06 03 14.5	
11	V	P	21 58 04.1	
12	V	P	13 59 44	
		e	14 00 40.5	
13	V	P_n	19 46 29.5	Off coast of Oregon
		e	19 46 50	
		e	19 47 34	
		e	19 48 14	
13	V	P	22 47 43	Sandwich Islands
14	V	P	09 48 31	Java Sea
14	V	P	18 30 05.4	Fiji Islands
15	V	P	21 13 33.0	Japan
17	V	P	0 42 11.5	
18	V	P	08 36 48.0	Japan
		S	08 45 15.5	
		PS	08 45.8	
		L	08 52.3	
	S	e	08 46 29	
		i	08 47 11	
		L	09 01	
19	HB	P_1	00 18 58.7	Δ = 18 km.
		S_1	00 19 01.0	
19	V	P	02 44 58.8	
		e	02 46 06.8	
19	V	P	15 01 52.1	Japan
		i	15 02 10.1	
21	V	P	21 18 56	
21	V	P	21 47 05	Formosa
		e	21 50.7	
		S	21 57.9	
	S	P	21 47 38	
		S	21 58 35	
		L	22 15.5	
21	V	P	22 05 54.5	

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DATE	STN.	PHASE	h m s	REMARKS
21	V	P	23 08 17.1	
22	V	P	01 07 31.9	
22	V	P	01 14 52.7	
22	V	P	03 42 33.9	Formosa
		e	03 45.0	
		S	03 49.7	
		e	03 52.8	
	S	P	03 42 51	
		S	03 53 31	
		L	04 08.9	
22	V	P	04 00 18.9	
22	V	P	04 05 06.9	
22	V	P	04 07.4	
22	V	P	04 40 56.0	
		S	04 51.4	
22	V	P	04 49 37.0	
22	V	P	05 30 34.2	
22	V	P	05 36 43.0	
22	V	P	05 55 49.5	Formosa aftershock
	S	P	05 56 30	
		S	06 07 04	
22	V	P	06 05 57.0	
22	V	P	06 10 38.1	
22	V	P	06 40 04.6	
22	V	P	05 56 34.1	
22	V	P	07 05 51.6	
22	V	P	07 10 37.1	
22	V	P	07 20 13.6	
22	V	P	07 24 58.1	
22	V	P	07 38 10.6	
22	V	P	08 46 40.7	
22	V	P	09 27 51.2	
22	V	P	09 53 26.7	
22	V	P	10 13 13.3	Peru, Ecuador
22	V	P	10 38 27.3	
22	V	P	11 23 51.3	

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DATE	STN.	PHASE	h m s	REMARKS
22	V	P	11 32 58.3	
22	V	P	11 46 37.9	
22	V	P	12 05 43.4	
22	V	P	13 01 27.5	
22	V	P	13 14 02.0	
		S	13 24.8	
22	V	P	13 22 52.5	
22	V	P	13 40 58.0	
22	V	P	14 59 32.6	
22	V	P	15 04 24.6	
22	V	P	15 08 44.1	
22	V	P	15 42 36.7	
		S	15 53.3	
22	V	P	16 19 44.7	
	S	e	16 24.0	
22	V	P	16 51 48.7	
22	V	P	18 55 28.2	
22	V	P	21 04 27.8	
22	V	P	23 49 14.6	
23	V	P	02 34 52.3	
23	V	P	06 25 03.0	Fiji Islands
23	V	P	09 01 03.6	
		e	09 18 46.1	
		L	09 19 22.1	
	S	L	09 48	
23	V	P	11 32 06.2	
23	V	P	13 40 05.9	
23	V	P	13 43 38.5	
23	V	P	20 03 52.3	
		e	20 04 09.3	
		e	20 04 39.8	
		e	20 05 28.8	
23	V	P	21 51 23.9	
24	V	P	03 51 48.3	
24	V	P	13 55 02.8	
24	V	P	21 02 43.2	

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October, 1951

DATE	STN.	PHASE	h m s	REMARKS
25	V	P	04 13 53.5	
25	V	P	12 32 28.4	
	S	L	13 11	
25	V	P	21 50 52.9	
26	V	P	00 55 24.1	
26	V	P	05 47 48.0	
26	V	P	06 16 37.1	
26	V	P	07 01 28.6	
26	V	P	23 17.6	
26	V	P	23 20.6	
26	V	P_1	23 41 44.1	
		S_1	23 41 57.4	
		e	23 41 59.7	
	A	P_1	23 42 05.5	
	HB	P_1	23 41 41.6	
26	A	P_1	23 48 16.9	
27	V	P	02 14 00.7	
27	V	P	02 15 40.7	
27	V	e	02 33 05.2	
		e	02 33 15.2	
		e	02 33 34.2	
27	V	e	02 49 44.2	
27	V	e	15 24 04.6	
	A	e	15 23 55.9	
28	V	P	02 18 39.3	
28	V	P	07 06 43.0	
		L	07 30	
	S	L	07 52	
28	V	P	14 52 23.5	
		S	14 53 55.0	
		e	14 55 03.0	
	A	P	14 52 16.1	
	HB	P	14 52 18.7	
29	A	P	21 59 57.7	Local blast?
30	V	P	22 51 16.3	
31	V	P	06 17 52.2	
31	V	e	07 15.4	Malacca Straits
		e	07 19.0	
		L	07 52	
	S	L	08 05	

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SEISMOLOGICAL SERVICE OF CANADA

WESTERN DIVISION

DOMINION ASTROPHYSICAL OBSERVATORY, VICTORIA

STATIONS: V - Victoria A - Alberni
S - Saskatoon HB - Horseshoe Bay

November, 1951 No. 29

DATE	STN.	PHASE	h m s	REMARKS
2	V	P	22 08 46.5	Northern Caucasia
		e	22 50.3	
3	V	P	07 36 38.7	
		e	07 36 43.7	
		e	07 37 43.7	
4	V	P	03 36 23.2	
		e	03 36 32.5	
	HB	P	03 36 36.6	
4	V	P	11 23 04.1	Philippines
4	V	P	14 32 36.1	Alaska
4	V	P	19 35 03.0	
5	V	P	21 17 30.9	
6	V	P	08 15 01.0	
6	V	P	15 06 31.0	Kuriles
6	V	P	16 49 22.0	Kurile Islands
		pP	16 49 34.5	
		PcP	16 49 56.5	
		PP	16 51 24	
		S	16 56 40	
		SS	17 00 28	
		L	17 02.3	
	S	P	16 50 15	
		S	16 58 21	
		ScS	16 59 50	
		SS	17 02 04	
		L_Q	17 07.2	
		L_R	17 10.0	
6	V	P	18 59 42	
7	V	P_n	09 16 53.7	
		S	09 17 02.0	
	HB	P_n	09 16 52.9	
		e	09 16 57.6	
8	V	P	13 50 20.8	Alaska
		PP	13 50 51.8	
		S	13 54 37	
		SS	13 55 54	
		L	13 56.7	
	S	P	13 52 09	
		S	13 56 48	
		L	14 01.3	
9	V	P_1	14 55 37.7	
		S_1	14 55 43.5	

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November, 1951 No. 30

DATE	STN.	PHASE	h m s	REMARKS
9	V	P	22 20 23	Chile, Bolivia
12	V	P	08 18 45.2	
		S	08 26 21	
		e	08 28 34	
	S	P	08 19 41	
		S	08 27 43	
		L	08 39.0	
12	V	P	09 25 56.3	Fiji
		e	09 27 24	
12	V	P	09 45 28	Leeward Islands
13	V	P	11 26 45	California
13	V	P	14 17 48.8	
		S	14 18 20.1	
14	V	P	08 41 49.8	
		S	08 43 13.3	
14	V	P_1	19 27 55.0	
		S_1	19 27 56.8	
14	V	P	22 56 20	
15	V	P	08 34 15	Kamchatka
15	V	P	08 47 37	
15	V	P	10 11 12	
15	V	P	10 40 19	
15	V	P	11 09 49	
15	V	P	15 11 23	
15	V	P	19 50 37	Kamchatka
	S	e	19 58 50	
		L	20 11	
15	V	P	20 28 54	
15	V	P	20 48 44	
15	V	P	22 07 43	
16	V	P	01 48 26	
16	V	P	15 11 47	
16	V	P	15 29 21	
18	V	P	09 49 16	Eastern Tibet
		PP	09 53 00	
		SKS	10 00 00	
		S	10 00 25	
		L	10 15.8	
	S	P	09 49 22	
		SKS	09 59 59	
		S	10 00 32	
		PS	10 01 50	
		SS	10 05 45	
		L	10 18	

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December, 1951

DATE	STN.	PHASE	h m s	REMARKS
20	HB	P	15 06 45.0	
		S	15 06 54.5	
21	V	P	08 09 28	
22	V	P	02 17 52	
22	V	P	04 15 44	
22	V	P	04 43 32	
22	V	P	07 16 42	
22	V	P	10 02 47	
22	V	P	13 05 23	
24	V	iP	04 37 03 d	
24	V	P	04 43 23	
24	V	P	07 28 00	
24	V	P_n	14 41 12.3	
		S_n	14 41 15.2	
	HB	P_n	14 41 14.9	
		S_n	14 41 36.1	
24	V	P	19 00 06	
	S	P	19 03 44	
24	V	P	19 03 13	Formosa
		PP	19 06 37	
		S	19 13 56	
		PS	19 13 40	
		L	19 27.5	
	S	P	19 07 24	
		L	19 35	
24	V	P	21 33 24	
25	V	P	10 04 50	
26	V	P	06 51 25	
29	V	P_1	00 24 50.0	
		S_1	00 24 57.8	
	HB	P_1	00 24 48.4	
		S_1	00 24 59.3	

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SEISMOLOGICAL SERVICE OF CANADA
WESTERN DIVISION
DOMINION ASTROPHYSICAL OBSERVATORY, VICTORIA

STATIONS: V - Victoria A - Alberni
S - Saskatoon HB - Horseshoe Bay

December, 1951 No. 32

DATE	STN.	PHASE	h m s	REMARKS
1	V	P	22 46 44	
6	V	P	14 39 12	Colombia
7	V	iP	20 20 22.2	
		eS	20 20 25.4	
		i	20 20 26.5	
	A	P	20 20 40.8	
		i	20 20 59.0	
		i	20 20 59.8	
	HB	P	20 20 32.8	
		S	20 20 34.8	
8	V	P'	04 34 18	Δ = 165°
		P_2'	04 35 10	Indian Ocean
		PP	04 39 03	
		PPP	04 42.9	
		SKS?	04 49 48	
		SS	05 00 04	
		SSS	05 06.1	
		L	05 25	
	S	e	04 34 30	
		e	04 58.6	
		e	05 04.6	
		L	05 18.8	
11	V	P	18 50 48.3	
		S	18 50 59.5	
	A	P	18 50 37.5	
	HB	P	18 50 33.8	
		S	18 50 44.2	
11	A	P	18 51 44.5	
	HB	P	18 51 40.6	
11	V	P	19 45 11.9	
		S	19 45 23.1	
	A	P	19 45 11.3	
	HB	P	19 45 06.9	
11	V	P	19 59 56.3	
		S	20 00 07.5	
	A	P	19 59 54.6	
	HB	P	19 59 51.4	
11	V	P	21 23 20	
12	V	P	01 44 56.3	Mexico
		e	01 44 58.3	
		e	01 45 17	
		S	01 51 04	
		L	01 57.8	
	S	P	01 44 55	
		S	01 50 00	
		L	01 55.0	

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DATE	STN.	PHASE	h m s	REMARKS
12	V	P	03 06 29.1	
		S	03 06 33.0	
	A	P	03 06 42.9	
		S	03 06 54.8	
	HB	P	03 06 40.6	
12	V	P	21 50 09	Japan
13	V	P	01 08 09	
13	V	P	01 29 13	
13	V	P	22 33 48	
14	V	P	19 26 41.8	
		e	19 26 43.2	
		S	19 26 53.0	
	HB	P	19 26 49.7	
14	V	P	20 02 52.1	
		S	20 03 06.9	
	HB	P	20 02 54.2	
15	V	P	07 01 08	
	A	P	07 01 41.3	
	HB	P	07 01 12.9	
		S	07 01 25.2	
15	V	P	09 59 39	Aleutians
15	V	P	22 03 35.9	
		S	22 04 13.9	
16	V	P	01 29 02.8	
		e	01 29 42.0	
16	V	P	03 38 04	
16	A	P	23 14 50.5	
		S	23 14 57.6	
17	V	P	12 42 21	Tonga Islands
18	V	P	10 47 17.3	Near Alberni
		S	10 47 34.4	
	A	P	10 46 58.7	
	HB	P	10 47 16.8	
		S	10 47 34.7	
19	V	P	08 18 20.3	
		e	08 19 27.8	
	A	P	08 18 17.7	
21	A	P	18 13 39.5	
	HB	P	18 13 18.0	
23	V	P	00 23 43	
23	HB	P	01 12 53.3	Local blast?
23	V	P	07 07 13 c	Windward Islands
24	V	P	10 35 25	Panama

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December, 1951 No. 34

DATE	STN.	PHASE	h m s	REMARKS
24	V	P	14 53 38	Mariana Islands
25	V	P	16 07 26	Solomon Islands
26	V	P	00 50 44	Off southern California
		S	00 54 00	
		L	00 57.9	
	S	P	00 51 40	
		S	00 55 37	
		L	00 57.9	
26	V	P	06 33 19	Off Oregon
28	V	P	09 27 38	Mexico
		S	09 33 31	
		L	09 38.3	
	S	P	09 27 21	
		S	09 33 06	
		L	09 37.9	
28	V	P	16 09 44	
30	V	P	17 46 50	Alaska
30	V	P	22 34 56	
31	V	P	20 13 57	Guatemala

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