SEISMOLOGICAL SERVICE OF CANADA

SEISMOLOGICAL BULLETIN

January

1943

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DOMINION OBSERVATORY
OTTAWA, CANADA

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SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

R. Meldrum Stewart, Dominion Astronomer
Ernest A. Hodgson, Seismologist
W. W. Doxsee, Station Superintendent

S T A T I O N S

OTTAWA

ϕ = 45°23'38" N. λ = 75 42'57" W. h = 83m.

Time correction within 0.10s.

Foundation: boulder clay over limestone

Instruments: Milne-Shaw NS and EW components, designated 23 and 17, respectively, each with photographic registration, magnetic damping, paper speed of 15 mm. per min., mass 1 lb.

Benioff Vertical, short and long period, designated BS and BL, respectively, photographic registration, BS a paper speed of 60 mm. per min., BL a paper speed of 30 mm. per min., mass 235 lbs.

HALIFAX

Dalhousie University

ϕ = 44°38' N. λ = 63°36' W. h = 46m.

Time correction from recorded radio time signals

Foundation: Carbonaceous slate

Instruments: Bosch NS and EW components, designated HN and HE, respectively, each with photographic registration, magnetic damping, paper speed of 15 mm. per min., mass 200g.

SEVEN FALLS

Quebec Power Company

ϕ = 47°07'.4 N. λ = 70°49'.6 W. h = 232m. ca.

Time correction from recorded radio time signals

Foundation: Solid granite of Canadian Shield

Instruments: Wood-Anderson and Milne-Shaw, both EW component, designated SF and SM, respectively, each with photographic registration, magnetic damping, SF a paper speed of 60 mm. per min. and mass 15g., SM a paper speed of 8 mm. per min. and mass 1 lb.

VICTORIA

Dominion Astrophysical Observatory

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

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.

Wiechert Vertical, designated WV smoked sheet registration, air damping, paper speed of 15 mm. per min., mass 80 kg.

SHAWINIGAN FALLS

Shawinigan Water and Power Company

ϕ = 46°33'.1 N. λ = 72°45'.8 W. h = 60m. ca.
Time correction from recorded radio time signals
Foundation: solid granite of Canadian Shield
Instrument: Wood-Anderson NS component, designated SA, photographic registration, magnetic damping, paper speed of 60 mm. per min., mass 15g.

SASKATOON

University of Saskatchewan

ϕ = 52°08' N. λ = 106°38' W. h = 515m.
Time correction from radio time signals
Foundation: clay and sand
Instrument: Milne-Shaw NE component, designated SN, photographic registration, magnetic damping, paper speed of 8 mm. per min., mass 1 lb.

KIRKLAND LAKE

Lake Shore Mines

ϕ = 48°09' N. λ = 80°03' W. h = 320m.
Time correction from recorded radio time signals
Foundation: rock
Instrument: Converted Heiland Field Seismometer, vertical component, designated KL, photographic registration, paper speed of 30 mm. per min.

DETERMINED CONSTANTS

INSTRUMENT	T_o	V	ε	DISPLACEMENT FOR 1" ARC TILT	DISPLACEMENT FOR 10^{-6} g
17 (Ottawa)	12.0	300	20:1	50 mm.	
23 (Ottawa)	12.0	300	20:1	50 mm.	
BS (Ottawa)	1.0				5 mm.
BL (Ottawa)	1.0				16 mm.
HN (Halifax)	5.0	125	20:1		
HE (Halifax)	5.0	125	20:1		
SA (Shawinigan	1.0	2200			
20 (Victoria)	12.0	300	20:1		
21 (Victoria)	12.0	300	20:1		
WV (Victoria)	4.0	120	15:1		
SF (Seven Falls)	1.0	2500			
SM (Seven Falls)	12.0	300	20:1	50 mm.	
SN (Saskatoon)	10.0	150	20:1	18 mm.	
KL (Kirkland Lake)	1/30	2×10^4	at 30	cycles	

NOTE:- Universal Time used throughout.

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM January 1, 1943 to January 17, 1943 No. 1

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
9 Jan. 10	e_Z	9 56 56		
	e	10 05.5		
	L	10 10		
	F	10 24		
		Ottawa		
12 Jan. 11	e_Z	20 03 26		
	e_N	20 14 00		
	L	20 40		
	F	21 16		
		Seven Falls		
	e	20 03.3		
	e	20 14.1		
	eL	20 30		
	F	21 14		
		Ottawa		
14 Jan. 14	H	21 32.4	535	
	P_3	21 33 44		
	P_2	21 33 52		
	i	21 34 18		
	S_2	21 34 52		
	F	21 53		
		Halifax		
	e	(21 31 34)		No clock correction.
	L	(21 31.7)		
	F	(21 33)		
		Seven Falls		
	H	21 32.5	265	
	P_2	21 33 11		
	S_2	21 33 41		
	F	21 52		
		Shawinigan Falls		
	H	21 32.5	320	
	P_3	21 33 19.5		
	P_2	21 33 24		
	S_2	21 34 00		
	F	21 49		
		Ottawa		
15 Jan. 16	H	17 15.4	195	
	P_1	17 16 01.5		
	S_1	17 16 24.5		
	F	17 17.5		
		Ottawa		
16 Jan. 17	e_Z	17 09 23		
	L	17 20		
	F	17 31		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM January 17, 1943 to January 24, 1943 No. 2

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
18 Jan. 23	e_Z	13 36 01		
	L	13 42		
	F	14 00 ca.		
		Seven Falls		
	e	13 36.1		
	L	13 42		
	F	14 04		
		Ottawa		
21 Jan. 24	H	9 27.1	3300	
	P	9 33 19		
	PP	9 34 01		
	S	9 38 22		
	eL	9 41		
	F	9 59		
		Seven Falls		
	H	9 27.2	3620	
	P	9 33 47		
	S	9 39 11		
	F	9 58		
		Shawinigan Falls		
	H	9 27.1	3540	
	P	9 33 37		
	S	9 38 55		
	F	9 42		
		Ottawa		
22 Jan. 24	H	20 41.9	3650	USCGS. gives:-
	P	20 48 30		ϕ = 15±°N.
	i	20 48 43		λ = 91±°W.
	PPP	20 50 00		
	S	20 53 55		
	L	20 59		
	F	21 38		
		Victoria		
	H	20 42.2	4620	
	P_E	20 49 59		
	S	20 56 23		
	L	21 06		
	F	21 49		
		Saskatoon		
	H	20 41.9	5790	
	P	20 51 00		
	e	20 55 25		
	S	20 58 29		
	L	21 07		
	F	21 42		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM January 24, 1943 to January 27, 1943 No. 3

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Halifax		
22	e	(20 45 16)		No clock correction.
Jan.	e	(20 50.0)		
24	L	(20 56)		
(Cont'd)	F	(21 15)		
		Seven Falls		
	H	20 41.9	4000	
	P	20 48 57		
	S	20 54 44		
	e	20 57 41		
	L	21 02		
	F	21 54		
		Shawinigan Falls		
	H	20 41.9	3870	
	P	20 48 48		
	PPP	20 50.4		
	S	20 54 27		
	L	21 01		
	F	21 14		
		Ottawa		
26	H	11 51.9	115	
Jan.	P_1	11 52 15.5		
26	S_1	11 52 29		
	F	11 53		
		Ottawa		
29	H	2 45.3	6980	USCGS. gives:-
Jan.	P	2 55 42		ϕ = 52±°N.
27	S	3 04 18		λ = 80±°W.
	e	3 05 32		
	SS	3 09.0		
	SSS	3 11.1		
	eL	3 14		
	F	5 00 ca.		
		Victoria		
	e_E	2 57 48		
	L	3 00		
	F	3 44		
		Halifax		
	e	3 00		
	L	3 14		
	F	4 14		
		Seven Falls		
	H	2 45.3	7140	
	P	2 55 50		
	S	3 04 35		
	SS	3 09 02		
	SSS	3 11.6		
	L	3 16		
	F	5 33		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM January 27, 1943 to January 30, 1943 No. 4

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Shawinigan Falls		
29 Jan. 27 (Cont'd)	P	2 55 47		
	L	3 16		
	F	3 51		
		Ottawa		
32 Jan. 27	e_Z	10 41.0		
	L	11 02		
	F	11 13		
		Ottawa		
34 Jan. 29	e	6 12 55.5		Series of rockbursts at Lake Shore Mines, Kirkland Lake, Ontario.
	e	6 13 33		
	e	6 13 46		
	e	6 14 28		
	e	6 15 03.5		
	e	6 15 18		
	F	6 18		
		Shawinigan Falls		
	e	6 14 21		
	e	6 15 44		
	F	6 16.8		
		Ottawa		
35 Jan. 30	H	5 33.2	5060	USCGS. gives:-
	P	5 41 32		ϕ = 2°.0 S.
	PPP	5 43 32		λ = 80°.0 W.
	S	5 48 20		Depth = 100 km. ca.
	SS	5 51 14		
	eL	5 54		
	F	6 33		
		Victoria		
	H	5 33.1	6900	
	P	5 43 22		
	S	5 51 54		
	L	6 03		
	F	6 31		
		Saskatoon		
	H	5 33.2	6290	
	P	5 42 54		
	S	5 50 51		
	L	6 01		
	F	6 32		
		Halifax		
	e	5 42 10		
	e	5 46		
	F	5 54		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM January 30, 1943 to January 31, 1943 No. 5

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Seven Falls		
35 Jan. 30 (Cont'd)	H	5 33.2	5360	
	P	5 41 50		
	S	5 48 55		
	SSS	5 52.7		
	L	5 57		
	F	6 44		
		Shawinigan Falls		
	H	5 33.2	5240	
	P	5 41 44		
	S	5 48 42		
	F	5 53		
		Ottawa		
36 Jan. 31	i_Z	8 35 20		
	i_Z	8 35 44		
	e	8 40.5		
	e_Z	8 41 58		
	e	8 43		
	L	8 47		
	F	9 10		
		Saskatoon		
	e	8 37 11		
	e	8 41 34		
	e	8 46.3		
	L	8 53		
	F	9 05		
		Seven Falls		
	e	8 36 13		
	e	8 42 01		
	e	8 44.7		
	F	9 06		
		Shawinigan Falls		
	e	8 36 03		
	e	8 44.5		
	F	8 52		

W W. Doyle.

CORRELATION TABLE

This tabulation not only provides a yearly numbered list of all earthquakes recorded in Canada but also correlates the seismic registrations of the seven Canadian stations. The seismograph at the Kirkland Lake rockburst station (Established Dec. 19, 1939) records only the bursts and those earthquakes originating very close to Kirkland Lake. Entries for this station in the Correlation Table will be confined to those earthquakes and rockbursts which registered at Kirkland Lake and also at one or more outside stations. Such entries will be indexed as notes. Entries for each station show in hours and minutes the time of beginning of the tremors in Greenwich Mean Time. The appearance of entries in two or more columns in the same line indicates that these are known to be concerned with the same earthquake even though the times of beginning may differ slightly. The figures after the plus sign show the duration of the record in hours and minutes. The earthquake number and the day of the month on which it occurred are listed in the first and second columns, respectively, while the extreme right hand column is reserved for index letters to a series of notes following the tabulation. Certain letters are reserved for the purpose of classifying the entries: these are as follows:-

d (domesticus)	epicentre less than 100 km.
v (vicinus)	epicentre between 100 and 1000 km.
r (remotus)	epicentre between 1000 and 5000 km.
u (ultimus)	epicentre beyond 5000 km.

(above lower-case letters apply to earthquakes of the lowest order of intensity on a scale of three.)

D, V, R, U :	distance as above, intensity intermediate.
D, V, R, U :	distance as above, intensity - top of scale.
L	Long (or surface waves) alone recorded.
Q	Questionable (may not be seismic).
T	Time uncertain.
P	Preliminary tremors alone recorded.
*	Recorded only by short period seismograph.

EARTHQUAKE CORRELATION TABLE
Month January, 1943

No.	Date	Ottawa	Victoria	Saskatoon	Halifax	Seven Falls		Shawinigan	**
						M. S.	W. A.		
1	2	5 12+0 02P*	.....	.....	.....	.....	.....	.....	..
2	2	12 04+0 01P*	.....	.....	.....	.....	.....	.....	..
3	5	13 46+0 03P	.....	.....	.....	.....	.....	.....	..
4	6	6 59+0 02P*	.....	.....	.....	.....	.....	.....	..
5	6	10 00+0 02P	10 25+0 15L	.....	.....	.....	.....	.....	..
6	7	11 26+0 02P	.....	.....	.....	.....	.....	.....	..
7	7	22 47+0 01P	.....	.....	.....	.....	.....	.....	..
8	9	6 11+0 03P*	.....	.....	.....	.....	.....	.....	..
9	10	9 57+0 27u	10 08+0 08L	.....	.....	10 11+0 14L	.....	.....	..
10	10	15 32+0 02P*	15 49+0 09L	.....	.....	.....	.....	.....	..
11	10	20 20+0 0.2P*	.....	.....	.....	.....	.....	.....	..
12	11	20 03+1 13u	20 35+0 25L	20 45+0 14L	.....	20 14+1 00u	20 03+0 05P	20 03+0 04P	..
13	12	9 18+0 0.5P*	.....	.....	.....	.....	.....	.....	..
14	14	21 34+0 19V	.....	.....	(21 32)+0 02v	21 34+0 03v	21 33+0 19V	21 33+0 16V	A
15	16	17 16+0 01.5v*	.....	.....	.....	.....	.....	.....	B
16	17	17 09+0 22u	.....	.....	.....	17 23+0 10L	.....	17 23+0 03L	..
17	17	.....	18 06+0 10L	.....	.....	.....	.....	.....	..
18	23	13 36+0 24r	13 39+0 31L	.....	.....	13 41+0 22L	13 36+0 07P	13 36+0 03P	..
19	23	13 42+0 02P*	.....	.....	.....	.....	.....	.....	..
20	23	23 19+0 01P*	.....	.....	.....	.....	.....	.....	..
21	24	9 33+0 26r	.....	.....	.....	9 39+0 19r	9 34+0 06r	9 34+0 08r	C
22	24	20 48+0 50r	20 50+0 59r	20 51+0 51u	(20 45)+0 30r	20 49+1 05r	20 49+0 23r	20 49+0 25r	E
23	25	2 43+0 02P*	.....	.....	.....	.....	.....	.....	..
24	25	4 07+0 0.6P*	.....	.....	.....	.....	.....	.....	..
25	25	18 39+0 03P	.....	.....	.....	.....	.....	18 39+0 02P	..
26	26	11 52+0 01v*	.....	.....	.....	.....	.....	.....	F
27	26	15 56+0 06L	.....	.....	.....	15 58+0 06L	.....	15 56+0 04L	..
28	27	2 02+0 01P*	.....	.....	.....	2 24+0 17L	.....	.....	..
29	27	2 56+2 03U	2 58+0 46u	.....	3 00+1 14u	2 56+2 37U	2 56+0 54U	2 56+0 55U	G
30	27	3 08+0 02P*	.....	.....	.....	.....	.....	.....	..
31	27	3 18+0 01P*	.....	.....	.....	.....	.....	.....	..
32	27	10 41+0 32u	.....	.....	.....	11 03+0 08L	.....	.....	..
33	28	22 17+0 0.3P*	.....	.....	.....	.....	.....	.....	..
34	29	6 13+0 05V*	.....	.....	.....	.....	.....	6 14+0 02v	J
35	30	5 42+0 51u	5 43+0 48u	5 43+0 49u	5 42+0 12u	5 42+1 02u	5 42+0 04P	5 42+0 11u	K
36	31	8 35+0 35u	8 51+0 17L	8 37+0 28u	.....	8 42+0 24u	8 36+0 13u	8 36+0 16u	..

CORRELATION OF EARTHQUAKES
January, 1943

N O T E S

A :	Ottawa	Δ = 535 km.	H = $21^h32^m.4$ U.T.
	Seven Falls	Δ = 265 km.	H = 21 32.5 U.T.
	Shawinigan Falls	Δ = 320 km.	H = 21 32.5 U.T.
B :	Ottawa	Δ = 195 km.	H = $17^h15^m.4$ U.T.
C :	Ottawa	Δ = 3300 km.	H = $9^h27^m.1$ U.T.
	Seven Falls	Δ = 3620 km.	H = 9 27.2 U.T.
	Shawinigan Falls	Δ = 3540 km.	H = 9 27.1 U.T.
E :	Ottawa	Δ = 3650 km.	H = $20^h41^m.9$ U.T.
	Victoria	Δ = 4620 km.	H = 20 42.2 U.T.
	Saskatoon	Δ = 5790 km.	H = 20 41.9 U.T.
	Seven Falls	Δ = 4000 km.	H = 20 41.9 U.T.
	Shawinigan Falls	Δ = 3870 km.	H = 20 41.9 U.T.
F :	Ottawa	Δ = 115 km.	H = $11^h51^m.9$ U.T.
G :	Ottawa	Δ = 6980 km.	H = $2^h45^m.3$ U.T.
	Seven Falls	Δ = 7140 km.	H = 2 45.3 U.T.

J : A series of pronounced rockburst shocks at Lake Shore Mines, Kirkland Lake, Ont.

K :	Ottawa	Δ = 5060 km.	H = $5^h33^m.2$ U.T.
	Victoria	Δ = 6900 km.	H = 5 33.1 U.T.
	Saskatoon	Δ = 6290 km.	H = 5 33.2 U.T.
	Seven Falls	Δ = 5360 km.	H = 5 33.2 U.T.
	Shawinigan Falls	Δ = 5240 km.	H = 5 33.2 U.T.

Dominion Observatory,
Ottawa, Canada,
March 23, 1943.

SEISMOLOGICAL BULLETINS RECEIVED
January, 1943

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

STATIONS	BULLETINS	RECEIVED
Berkeley and Auxiliary Stations	January to March, 1940	January 6
Apia	July to September, 1942	" 7
Sydney	May and June, 1942	" 9
Weston	Preliminary for December, 1942	" 9
Brisbane	October, 1942	" 11
Santa Clara	December, 1942	" 12
New Zealand Stations	November and December, 1942	" 19
Brisbane	November, 1942	" 21
Riverview	January to April, 1942	" 26
Perth	October and November, 1942	" 26

DOMINION OBSERVATORY,
OTTAWA - CANADA.

SEISMOLOGICAL SERVICE OF CANADA

SEISMOLOGICAL BULLETIN

February

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DOMINION OBSERVATORY
OTTAWA - CANADA

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SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

R. Meldrum Stewart, Dominion Astronomer
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S T A T I O N S

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Time correction within 0.10s.

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Benioff Vertical, short and long period, designated BS and BL, respectively, photographic registration, BS a paper speed of 60 mm. per min., BL a paper speed of 30 mm. per min., mass 235 lbs.

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Time correction from recorded radio time signals

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Instruments: Bosch NS and EW components, designated HN and HE, respectively, each with photographic registration, magnetic damping, paper speed of 15 mm. per min., mass 200g.

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Quebec Power Company

ϕ = 47°07'.4 N. λ = 70°49'.6 W. h = 232m. ca.

Time correction from recorded radio time signals

Foundation: Solid granite of Canadian Shield

Instruments: Wood-Anderson and Milne-Shaw, both EW component, designated SF and SM, respectively, each with photographic registration, magnetic damping, SF a paper speed of 60 mm. per min. and mass 15g., SM a paper speed of 8 mm. per min. and mass 1 lb.

VICTORIA

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

Time correction from recorded radio time signals

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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.

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Foundation: solid granite of Canadian Shield

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

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University of Saskatchewan

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Time correction from radio time signals

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Lake Shore Mines

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Time correction from recorded radio time signals

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Instrument: Converted Heiland Field Seismometer, vertical component, designated KL, photographic registration, paper speed of 30 mm. per min.

DETERMINED CONSTANTS

INSTRUMENT	T_o	V	ε	DISPLACEMENT FOR 1" ARC TILT	DISPLACEMENT FOR 10^{-6} g
17 (Ottawa)	12.0	300	20:1	50 mm.	
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BL (Ottawa)	1.0				16 mm.
HN (Halifax)	5.0	125	20:1		
HE (Halifax)	5.0	125	20:1		
SA (Shawinigan)	1.0	2200			
20 (Victoria)	12.0	300	20:1		
21 (Victoria)	12.0	300	20:1		
WV (Victoria)	4.0	120	15:1		
SF (Seven Falls)	1.0	2500			
SM (Seven Falls)	12.0	300	20:1	50 mm.	
SN (Saskatoon)	10.0	150	20:1	18 mm.	
KL (Kirkland Lake)	1/30	2×10^4	at 30	cycles	

NOTE:- Universal Time used throughout.

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM February 1, 1943 to February 16, 1943 No. 6

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
40	e_E	4 54.0		
Feb.	e_N	5 17		
7	eL	5 29		
	F	7 22		
		Ottawa		
43	e_Z	21 38 10		
Feb.	L	21 49		
10	F	22 02		
		Ottawa		
46	H	7 28.8	6280	
Feb.	P	7 38 28		
16	e	7 42 30		
	S	7 46 24		
	i	7 48 00		
	SS	7 50 27		
	e	7 53.0		
	F	8 23		
		Victoria		
	H	7 28.7	8365	
	P	7 40 23		
	S	7 50 06		
	e	7 51 23		
	eL	8 02		
	F	8 30		
		Saskatoon		
	iS	7 49 09		
	SS	7 53 22		
	L	7 58		
	F	8 24		
		Halifax		
	e	7 37 19		
	L	7 44		
	F	8 24		
		Seven Falls		
	H	7 28.8	6450	
	P	7 38 39		
	S	7 46 45		
	L	7 53		
	F	8 27		
		Shawinigan Falls		
	H	7 28.8	6380	
	P	7 38 34		
	S	7 46 36		
	F	7 49		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM February 16, 1943 to February 22, 1943 No. 7

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
47	eZ	14 56 58		
Feb.	L	15 40		
16	F	16 07		
		Victoria		
	e	15 01 47		
	L	15 19		
	F	15 54		
		Ottawa		
48	H	16 51.0	105	Felt at Hawkesbury and
Feb.	P_2	16 51 21		Alexandria, Ont. and at
16	S_2	16 51 33		Lachute, Que.
	F	16 55		
		Seven Falls		
	e	16 52 28		
	F	16 54		
		Shawinigan Falls		
	H	16 51.0	180	
	P_2	16 51 33		
	S_2	16 51 54		
	F	16 54		
		Ottawa		
51	eZ	2 34 21		
Feb.	e	2 55.0		
17	L	3 18		
	F	4 25		
		Seven Falls		
	e	2 55.5		
	L	3 23		
	F	4 21		
		Ottawa		
52	eZ	5 52 41		
Feb.	L	6 54		
17	F	7 19		
		Ottawa		
57	H	9 20.1	4400	
Feb.	P	9 27 38		Compression NE.
22	PP	9 29 02		
	e	9 33 20		
	S	9 33 50		
	i	9 35 16		
	SS	9 36 45		
	SSS	9 37 12		
	e	9 39		
	L	9 41		
	F	12 50+		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM February 22, 1943 to February 22, 1943 No. 8

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Victoria		
57 Feb. 22 (Cont'd)	H	9 20.5	4200	
	P	9 27 49		
	eT	9 28 05		
	PP	9 29 16		
	eT	9 33 38		
	S	9 33 49		
	SS	9 36 11		
	SSS	9 37 13		
	L	9 38.5		
	F	11 53		
		Saskatoon		
	H	9 20.4	4035	
	P	9 27 33		
	PPP	9 29 13		
	S	9 33 23		
	e	9 35 21		
	SSS	9 36 06		
	e	9 37.4		
	L	9 39		
	F	13 14		
		Halifax		
	H	9 20.3	4920	
	P	9 28 30		
	PPP	9 30 30		
	eS	9 35.2		
	SSS	9 38.2		
	L	9 41		
	F	11 28		
		Seven Falls		
	H	9 20.0	4920	
	P	9 28 09		
	PP	9 29 49		
	e	9 34 29		
	iS	9 34 49		
	SSS	9 38 29		
	eL	9 41		
	F	12 22		
		Shawinigan Falls		
	H	9 20.0	4740	
	P	9 27 58		
	PP	9 29.5		
	S	9 34.5		
	SS	9 37.4		
	L	9 42		
	F	11 08		
		Ottawa		
59 Feb. 22	eZ	11 01 43		
	L	11 15		
	F	11 28		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM February 22, 1943 to February 28, 1943 No. 9

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
60 Feb. 23	e_Z	23 02.0		
	L	23 15		
	F	23 35		
		Ottawa		
62 Feb. 24	e_Z	4 30 56		
	e_N	4 39 26		
	L	4 45		
	F	5 18		
		Seven Falls		
	e	4 33.1		
	L	4 49		
	F	5 22		
		Ottawa		
65 Feb. 28	H	12 55.3	8960	
	P_Z	13 07 25		
	e_Z	13 11 07		
	S	13 17 34		
	SS	13 23.0		
	SSS	13 25.6		
	L	13 32		
	F	14 12		
		Victoria		
	H	12 55.5	8960	
	P_N	13 07.38		
	e_N	13 11 19		
	e_S	13 17 47		
	L	13 29		
	F	14 09		
		Saskatoon		
	e	13 17.5		
	L	13 35		
	F	14 00		
		Halifax		
	e	13 16 59		
	F	13 25		
		Seven Falls		
	H	12 55.2	8860	
	P	13 07 14		
	e	13 09 19		
	e	13 10 45		
	S	13 17 19		
	e	13 19 21		
	SS	13 23.0		
	L	13 31		
	F	14 25		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM February 28, 1943 to February 28, 1943 No. 10

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
66 Feb. 28	H	16 40.0	130	
	P_2	16 40 21		
	S_2	16 40 36		
	F	16 43		
		Seven Falls		
	e	16 41 38		
	e	16 41 51		
	F	16 43		
		Shawinigan Falls		
	e	16 41 05		
	F	16 42		

W. W. Doxsee.

EARTHQUAKE CORRELATION TABLE

Month February, 1943

No.	Date	Ottawa	Victoria	Saskatoon	Halifax	Seven Falls		Shawinigan	**
						M. S.	W. A.		
37	3	23 17+0 02P*	.....	.....	.....	.....	.....	.....	..
38	6	3 25+0 42L	3 35+0 20L	3 41+0 11L	.....	3 29+0 48L	.....	.....	..
39	6	9 51+0 01P*	.....	.....	.....	.....	.....	.....	..
40	7	4 54+2 28u	5 50+0 41L	5 21+1 31L	.....	5 26+1 57L	.....	.....	..
41	8	20 19+0 02P	.....	.....	.....	.....	.....	.....	..
42	9	12 45+0 01P*	.....	.....	.....	.....	.....	.....	..
43	10	21 38+0 24u	.....	.....	.....	.....	.....	.....	..
44	11	.....	.....	.....	.....	.....	.....	11 44+0 03P	..
45	14	7 39+0 02P	.....	8 14+0 09L	.....	8 07+0 13L	.....	.....	..
46	16	7 38+0 45u	7 40+0 50u	7 49+0 35u	7 37+0 12u	7 47+0 41u	7 39+0 14u	7 39+0 10u	A
47	16	14 57+1 10u	15 02+0 52u	15 36+0 06L	.....	15 37+0 39L	.....	.....	..
48	16	16 51+0 04v	.....	.....	.....	.....	16 52+0 01v	16 52+0 02v	B
49	16	17 09+0 04P	.....	.....	.....	.....	.....	.....	..
50	17	0 42+0 0.4P*	.....	.....	.....	.....	.....	.....	..
51	17	2 34+1 51u	3 07+0 48L	3 14+0 47L	.....	2 55+1 26u	.....	.....	..
52	17	5 53+1 26u	.....	6 42+0 18L	.....	6 57+0 39L	.....	.....	..
53	21	0 15+0 03P	.....	.....	.....	.....	.....	.....	..
54	21	16 49+0 01P	.....	.....	.....	.....	.....	.....	..
55	21	18 30+0 01P*	.....	.....	.....	.....	.....	.....	..
56	21	19 30+0 03P	.....	.....	.....	.....	.....	.....	..
57	22	9 28+3 22R	9 28+2 25R	9 28+3 46R	9 28+2 00R	9 28+2 49R	9 28+1 36R	9 28+1 40R	C
58	22	10 19+0 04P*	.....	.....	.....	.....	.....	.....	..
59	22	11 02+0 26r	.....	.....	.....	.....	11 17+0 08L	11 15+0 11L	..
60	23	23 02+0 33r	23 13+0 09L	.....	.....	23 16+0 24L	.....	.....	..
61	24	.....	.....	.....	.....	0 18+0 26L	.....	.....	..
62	24	4 31+0 47u	4 43+0 11L	.....	.....	4 33+0 49u	.....	.....	..
63	24	15 27+0 0.4P*	.....	.....	.....	.....	.....	.....	..
64	25	5 24+0 0.3P*	.....	.....	.....	.....	.....	.....	..
65	28	13 07+1 05u	13 08+1 01u	13 17+0 43u	13 17+0 08u	13 07+1 18u	13 07+0 14u	13 07+0 02P	E
66	28	16 40+0 03v	.....	.....	.....	.....	16 42+0 01v	16 41+0 01v	F

CORRELATION OF EARTHQUAKES
February, 1943

N O T E S

A :	Ottawa	Δ = 6280 km.	H = $7^h28^m.8$ U.T.
	Victoria	Δ = 8365 km.	H = 7 28.7 U.T.
	Seven Falls	Δ = 6450 km.	H = 7 28.8 U.T.
	Shawinigan Falls	Δ = 6380 km.	H = 7 28.8 U.T.
B :	Ottawa	Δ = 105 km.	H = $16^h51^m.0$ U.T.
	Shawinigan Falls	Δ = 180 km.	H = 16 51.0 U.T.
	Felt at Hawkesbury and Alexandria, Ont. and at Lachute, Que.		
C :	Ottawa	Δ = 4400 km.	H = $9^h20^m.1$ U.T.
	Victoria	Δ = 4200 km.	H = 9 20.5 U.T.
	Saskatoon	Δ = 4035 km.	H = 9 20.5 U.T.
	Halifax	Δ = 4920 km.	H = 9 20.3 U.T.
	Seven Falls	Δ = 4920 km.	H = 9 20.0 U.T.
	Shawinigan Falls	Δ = 4740 km.	H = 9 20.0 U.T.
E :	Ottawa	Δ = 8960 km.	H = $12^h55^m.3$ U.T.
	Victoria	Δ = 8960 km.	H = 12 55.5 U.T.
	Seven Falls	Δ = 8860 km.	H = 12 55.2 U.T.
F :	Ottawa	Δ = 130 km.	H = $16^h40^m.0$ U.T.

Dominion Observatory,
Ottawa, Canada,
March 25, 1943.

SEISMOLOGICAL BULLETINS RECEIVED
February and March, 1943

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

STATIONS	BULLETINS	RECEIVED
United States Coast and Geodetic Survey	September to December, 1940	February 1
New Zealand Stations	November and December, 1942	" 2
Martinique	October to December, 1941	" 2
Mexico	January 1/35 to December 31/39	" 4
Santa Clara	January, 1943	" 22
Pasadena	January to March, 1941	March 2
Perth	December, 1942	" 6
Sydney	July and August, 1942	" 9
Santa Clara	February, 1943	" 11
Riverview	June to September, 1942	" 13
Bogota	July, 1942	" 24

DOMINION OBSERVATORY,
OTTAWA - CANADA.

SEISMOLOGICAL SERVICE OF CANADA

SEISMOLOGICAL BULLETIN

March,
1943

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DOMINION OBSERVATORY
OTTAWA - CANADA

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SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

R. Meldrum Stewart, Dominion Astronomer
Ernest A. Hodgson, Seismologist
W. W. Doxsee, Station Superintendent

S T A T I O N S

OTTAWA

ϕ = 45°23'38" N, λ = 75 42'57" W. h = 83m.
Time correction within 0.10s.
Foundation: boulder clay over limestone
Instruments: Milne-Shaw NS and EW components, designated 23 and 17, respectively, each with photographic registration, magnetic damping, paper speed of 15 mm. per min., mass 1 lb.

Benioff Vertical, short and long period, designated BS and BL, respectively, photographic registration, BS a paper speed of 60 mm. per min., BL a paper speed of 30 mm. per min., mass 235 lbs.

HALIFAX

Dalhousie University

ϕ = 44°38' N. λ = 63°36' W. h = 46m.
Time correction from recorded radio time signals
Foundation: Carbonaceous slate
Instruments: Bosch NS and EW components, designated HN and HE, respectively, each with photographic registration, magnetic damping, paper speed of 15 mm. per min., mass 200g.

SEVEN FALLS

Quebec Power Company

ϕ = 47°07'.4 N. λ = 70°49'.6 W. h = 232m. ca.
Time correction from recorded radio time signals
Foundation: Solid granite of Canadian Shield
Instruments: Wood-Anderson and Milne-Shaw, both EW component, designated SF and SM, respectively, each with photographic registration, magnetic damping, SF a paper speed of 60 mm. per min. and mass 15g., SM a paper speed of 8 mm. per min. and mass 1 lb.

VICTORIA

Dominion Astrophysical Observatory

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

Wiechert Vertical, designated WV smoked sheet registration, air damping, paper speed of 15 mm. per min., mass 80 kg.

SHAWINIGAN FALLS

Shawinigan Water and Power Company

ϕ = 46°33'.1 N. λ = 72°45'.8 W. h = 60m. ca.

Time correction from recorded radio time signals

Foundation: solid granite of Canadian Shield

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

SASKATOON

University of Saskatchewan

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

Time correction from radio time signals

Foundation: clay and sand

Instrument: Milne-Shaw NE component, designated SN, photographic registration, magnetic damping, paper speed of 8 mm. per min., mass 1 lb.

KIRKLAND LAKE

Lake Shore Mines

ϕ = 48°09' N. λ = 80°03' W. h = 320m.

Time correction from recorded radio time signals

Foundation: rock

Instrument: Converted Heiland Field Seismometer, vertical component, designated KL, photographic registration, paper speed of 30 mm. per min.

DETERMINED CONSTANTS

INSTRUMENT	T_o	V	ε	DISPLACEMENT FOR 1" ARC TILT	DISPLACEMENT FOR 10^{-6} g
17 (Ottawa)	12.0	300	20:1	50 mm.	
23 (Ottawa)	12.0	300	20:1	50 mm.	
BS (Ottawa)	1.0				5 mm.
BL (Ottawa)	1.0				16 mm.
HN (Halifax)	5.0	125	20:1		
HE (Halifax)	5.0	125	20:1		
SA (Shawinigan)	1.0	2200			
20 (Victoria)	12.0	300	20:1		
21 (Victoria)	12.0	300	20:1		
WV (Victoria)	4.0	120	15:1		
SF (Seven Falls)	1.0	2500			
SM (Seven Falls)	12.0	300	20:1	50 mm.	
SN (Saskatoon)	10.0	150	20:1	18 mm.	
KL (Kirkland Lake)	1/30	2×10^4	at 30 cycles		

NOTE:- Universal Time used throughout.

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM March 1, 1943 to March 7, 1943 No. 11

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
70 March 5	H	0 31.8	4460	USCGS. gives:-
	P	0 39 21		ϕ = 5°.8 N.
	PP	0 40 51		λ = 82°.8 W.
	S	0 45 36		
	SSS	0 48.6		
	eL	0 52		
	F	2 14		
		Victoria		
	H	0 31.8	6200	
	P	0 41 19		
	S	0 49 11		
	L	0 59		
	F	2 04		
		Saskatoon		
	H	(0 30.0)	6520	No time correction.
	P	(0 39.9)		
	S	(0 48 04)		
	L	(0 58)		
	F	(1 40)		
		Halifax		
	eN	0 41.5		
	e	0 45 42		
	L	0 48		
	F	1 20		
		Seven Falls		
	H	0 31.8	4740	
	P	0 39 44		
	S	0 46 14		
	SSS	0 49.4		
	L	0 55		
	F	2 07		
		Shawinigan Falls		
	H	0 31.9	4480	
	P	0 39 35		
	PP	0 41 21		
	S	0 45.8		
	SSS	0 49 11		
	L	0 55		
	F	1 09		
		Ottawa		
72 March 7	H	3 01.9	7010	USCGS. gives:-
	P	3 12 16		ϕ = 57°± N.
	S	3 20.9		λ = 164°± E.
	SS	3 25.3		
	SSS	3 28		
	L	3 32		
	F	5 23		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM March 7, 1943 to March 9, 1943 No. 12

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Victoria		
72 March 7 (Cont'd)	H	3 01.9	4480	
	P	3 09 29		
	PP	3 11 08		
	S	3 15 45		
	SSS	3 19 08		
	L	3 22		
	F	5 30		
		Saskatoon		
	H	3 02.0	5010	
	P	3 10 19		
	S	3 17 04		
	SS	3 20 08		
	L	3 24		
	F	4 34		
		Halifax		
	H	3 01.5	7660	
	P	3 12 29		
	S	3 21 38		
	L	3 37		
	F	4 20		
		Seven Falls		
	H	3 01.9	7080	
	P	3 12 21		
	S	3 21 03		
	SS	3 25.8		
	SSS	3 28 03		
	L	3 33		
	F	6 05		
		Shawinigan Falls		
	H	3 01.8	7140	
	P	3 12 16		
	S	3 21 01		
	L	3 38		
	F	3 56		
		Ottawa		
76 March 9	H	3 25.9	410	USCGS. gives:-
	P_3	3 26 50		ϕ = 42°.2 N.
	P_2	3 26 59		λ = 80°.9 W.
	S_2	3 27 45		
	L?	3 28 12		
	F	3 37		
		Shawinigan Falls		
	e	3 28 38		
	e	3 29 20		
	F	3 36		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM March 9, 1943 to March 10, 1943 No. 13

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
77 March 9	H	9 48.7	12,800	USCGS. gives:-
	P'Z	10 07 30		ϕ = 56° S.
	PP	10 08 15		λ = 72° W.
	SKS_N	10 14.1		
	PS	10 17 55		
	SS	10 24 08		
	SSS	10 28.0		
	L	10 47		
	F	13 41		
		Victoria		
	e	10 10 45		
	e	10 11 44		
	L	10 52		
	F	13 35		
		Saskatoon		
	e	10 11.6		
	e	10 27		
	L	10 45		
	F	13 16		
		Halifax		
	H	(10 48.1)	12,300	Clock correction uncertain.
	PP	(10 08.5)		
	SKS	(10 14 34)		
	PS	(10 17 44)		
	SS	(10 23)		
	F	(12 30)		
		Seven Falls		
	e	10 08 28		
	e	10 13 36		
	e	10 18 01		
	e	10 24 10		
	L	10 35		
	F	13 55		
		Ottawa		
79 March 9	e_Z	20 01.6		
	e_N	20 11		
	eL	20 31		
	F	21 20		
		Seven Falls		
	e	20 17 37		
	L	20 28		
	F	21 40		
		Ottawa		
81 March 10	e	8 34 45		
	e	8 40.7		
	e	8 44		
	eL	9 09		
	F	10 20		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM March 10, 1943 to March 14, 1943 No. 14

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Victoria		
81 March 10 (Cont'd)	e	8 37 20		
	L	9 23		
	F	10 19		
		Seven Falls		
	e	8 40.4		
	L	9 02		
	F	10 51		
		Ottawa		
83 March 11	e_Z	9 53 00		
	e_N	10 15.5		
	L	10 26		
	F	11 19		
		Seven Falls		
	e	10 15.5		
	L	10 33		
	F	10 51		
		Ottawa		
86 March 14	e_Z	12 12.4		
	L	12 45		
	F	13 53		
		Ottawa		
88 March 14	H	14 02.3	420	
	P_2	14 03 27		
	S_2	14 04 14.5		
	e	14 04 16.5		
	L?	14 04 20		
	F	14 07		
		Ottawa		
89 March 14	e_Z	17 29 58		USCGS. gives:-
	e_E	17 31.4		ϕ = 22°±S.
	e_N	17 34		λ = 170°±E.
	e_E	17 37		
	e	17 41 48		
	e	17 48.7		
	L	18 05		
	F	18 56+		
		Victoria		
	e_E	(17 34)		
	L	(17 55)		
	F	(18 47)		
		Saskatoon		
	e	17 38.5		
	L	18 00		
	F	18 58		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM March 14, 1943 to March 15, 1943 No. 15

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Seven Falls		
89 March 14 (Cont'd)	e	17 31 52		
	e	17 43.6		
	e	17 49.2		
	L	18 10		
	F	20 34		
		Ottawa		
90 March 14	H	18 38.3	6900	USCGS. gives:-
	P	18 48 30		ϕ = 21°± S.
	S	18 57 02		λ = 71°± W.
	L	19 13		
	F	20 05		
		Saskatoon		
	H	18 38.1	8480	
	P	18 49 50		
	S	18 59 38		
	L	19 13		
	F	19 53		
		Halifax		
	H	18 38.2	6800	
	P	18 49.6		
	S	18 58 03		
	e	18 58 48		
	F	19 34		
		Seven Falls		
	H	18 38.2	7050	
	P	18 48 39		
	S	18 57 19		
	PS	18 58 05		
	M	19 24		
	F	19 29		
		Shawinigan Falls		
	H	18 38.2	7020	
	P	18 48 36		
	S	18 57 15		
	PS	18 58 00		
	F	19 04		
		Ottawa		
91 March 15	eZ	2 43 36		USCGS. gives:-
	e	2 55.0		ϕ = 21°± S.
	L	3 22		λ = 169°± E.
	F	4 53		
		Saskatoon		
	e	2 52.3		
	L	3 15		
	F	3 57		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM March 15, 1943 to March 15, 1943 No. 16

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Seven Falls		
91 March 15 (Cont'd)	e	2 45.6		
	e	2 55.3		
	L	3 26		
	F	5 30+		
		Ottawa		
92 March 15	e_Z	5 06.6		USCGS. gives:- ϕ = 10°± N. λ = 142°± E.
	e_N	5 15		
	L	5 33		
	F	6 37		
		Saskatoon		
	e	5 12 38		
	e	5 19 02		
	L	5 30		
	F	6 01		
		Ottawa		
93 March 15	e_Z	15 06.4		
	L	15 15		
	F	15 34		
		Ottawa		
94 March 15	e	23 17 35		USCGS. gives:- ϕ = 14°± S. λ = 174°± W.
	e	23 23 18		
	e	23 24 08		
	e	23 27 05		
	e	23 32 30		
	L	23 44		
	F	0 42		
		Victoria		
	H	22 59.6	8000	
	P	23 10 55		
	S	23 20 21		
	L	23 32		
	F	0 33		
		Saskatoon		
	e	23 16 38		
	e	23 23 04		
	i	23 23 27		
	e	23 29.6		
	F	0 00		
		Seven Falls		
	e	23 18 02		
	e	23 23 32		
	e	23 24 33		
	e	23 27 18		
	e	23 33		
	F	0 48		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM March 15, 1943 to March 20, 1943 No. 17

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
97 March 16	e_Z	10 00 04		
	e	10 06.8		
	L	10 10		
	F	10 32		
		Victoria		
	e	10 02 10		
	e	10 10 22		
	L	10 26		
	F	10 40		
		Ottawa		
99 March 17	H	22 58.0	7480	
	P	23 08 49		
	S	23 17 50		
	L	23 30		
	F	23 51		
		Victoria		
	e	23 21 03		
	L	23 44		
	F	23 57		
		Seven Falls		
	H	22 57.9	7680	
	P	23 08 57		
	S	23 18 07		
	L	23 26		
	F	23 45		
		Ottawa		
105 March 19	e_Z	17 35 27		
	L	17 54		
	F	18 05		
		Ottawa		
107 March 20	e_E	5 20.2		
	e	5 26.4		
	L	5 43		
	F	6 50		
		Victoria		
	e	5 13.8		
	L	5 29		
	F	6 19		
		Saskatoon		
	e	5 16.8		
	e	5 22.4		
	L	5 35		
	F	6 24		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM March 20, 1943 to March 25, 1943 No. 18

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Seven Falls		
107 March 20 (Cont'd)	e	5 20.6		
	e	5 27.4		
	L	5 46		
	F	7 21		
		Ottawa		
110 March 21	H	20 35.6	13,900	USCGS. gives:-
	P'Z	20 54 39		ϕ = 6°± S.
	e	20 56 48		λ = 146°± E.
	S_N	21 04.4		
	PS	21 06.3		
	SS	21 13.1		
	eL	21 27		
	F	23 37		
		Victoria		
	H	20 36.1	9900	
	P	20 49.0		
	S	20 59 50		
	L	21 13		
	F	23 35		
		Saskatoon		
	e	21 01 20		
	L	21 18		
	F	23 11		
		Seven Falls		
	e	20 59.0		
	e	21 07.1		
	e	21 15.5		
	L	21 28		
	F	23 47		
		Ottawa		
111 March 22	eZ	8 43 00		
	eN	9 02		
	L	9 26		
	F	9 53		
		Seven Falls		
	e	8 43 02		
	L	9 25		
	F	9 53		
		Ottawa		
112 March 25	e	18 46 40		
	e	18 57.6		
	e	19 02.5		
	e	19 05.5		
	L	19 14		
	F	21 00 ca.		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM March 25, 1943 to March 26, 1943 No. 19

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Victoria		
112 March 25 (Cont'd)	e	18 49 07		
	e_E	18 51 13		
	e_N	19 07.8		
	L	19 30		
	F	20 51		
		Seven Falls		
	e	18 47 34		
	e	18 58 02		
	e	19 02.4		
	L	19 13		
	F	21 16		
		Ottawa		
113 March 26	e_Z	16 01 42		
	L_N	16 15		
	F	16 21		
		Ottawa		
114 March 26	H	17 38.0	12,800	
	e_Z	17 56 46		
	PP	17 57 33		
	SKS_E	18 03 22		
	S_N	18 05 18		
	PS	18 07 06		
	SS_N	18 13 15		
	SSS_N	18 18.8		
	eL	18 30		
	F	19 10		
		Victoria		
	H	17 38.4	9180	
	P_N	17 50 47		
	e_E	17 51 26		
	S	18 01 06		
	L	18 17		
	F	19 01		
		Saskatoon		
	e	17 54 33		
	e	18 02 02		
	e	18 02 45		
	L	18 23		
	F	18 49		
		Seven Falls		
	H	17 38.0	13,100	
	PP	17 57 57		
	SKS	18 03 36		
	PS	18 07 38		
	L	18 33		
	F	20 03		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM March 26, 1943 to March 31, 1943 No. 20

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
116 March 29	e_Z	5 33 04		
	L	6 18		
	F	6 47		
		Ottawa		
117 March 31	H	6 41.9	440	Rockburst at Lake Shore Mines, Kirkland Lake, Ont.
	P_3	6 42 52,5		
	P_2	6 43 01		
	P_1	6 43 13		
	S_3	6 43 38		
	S_2	6 43 51		
	S_1	6 44 03		
	e	6 44 11		
	F	6 47		
		Seven Falls		
	e	6 45 03		
	F	6 46		
		Shawinigan Falls		
	e	6 44 04		
	e	6 44 25		
	F	6 46		
		Ottawa		
118 March 31	e_Z	21 56 32		
	e	22 03 07		
	eL	22 08		
	F	22 28		

W. H. Dossee.

EARTHQUAKE CORRELATION TABLE

Month March, 1943

No.	Date	Ottawa	Victoria	Saskatoon	Halifax	Seven Falls		Shawinigan	**
						M. S.	W. A.		
67	1	8 03+0 01P	.....	.....	.....	.....	.....	.....	..
68	4	.....	.....	.....	.....	10 47+0 27L	.....	.....	..
69	4	20 42+0 18L	.....	.....	.....	20 39+0 10L	.....	.....	..
70	5	0 39+1 35R	0 41+1 23u	(0 40)+1 00u	0 41+0 40u	0 40+1 27R	0 40+0 21R	0 40+0 29R	A
71	6	.....	.....	15 30+0 24L	.....	.....	.....	.....	..
72	7	3 12+2 11u	3 09+2 21r	3 10+1 24u	3 12+1 08u	3 12+2 53u	3 12+0 42u	3 12+0 44u	B
73	7	.....	21 46+0 07L	.....	.....	.....	.....	.....	..
74	8	9 48+0 12L	.....	9 46+0 10L	.....	9 50+0 06L	.....	.....	..
75	8	22 45+0 0.5P*	.....	.....	.....	.....	.....	.....	..
76	9	3 27+0 10V	.....	.....	.....	.....	3 29+0 08v	3 29+0 07v	C
77	9	10 07+3 34U	10 11+3 24U	10 12+3 04U	(10 08)+2 22U	10 08+3 47U	.....	10 08+0 03P	E
78	9	15 39+0 03P*	.....	.....	.....	.....	.....	.....	..
79	9	20 02+1 18u	20 52+0 18L	20 52+0 10L	.....	20 18+1 22u	.....	.....	..
80	9	21 35+0 01P*	.....	.....	.....	.....	.....	.....	..
81	10	8 35+1 45u	8 37+1 42u	9 23+0 37L	.....	8 40+2 11u	.....	.....	..
82	11	3 51+0 01P*	.....	.....	.....	.....	3 50+0 02P	.....	..
83	11	9 53+1 26u	.....	.....	.....	10 15+0 36u	.....	.....	..
84	12	23 22+0 29L	.....	.....	.....	23 18+0 51L	.....	.....	..
85	14	9 05+0 01P*	.....	.....	.....	9 59+0 23L	.....	.....	..
86	14	12 12+1 41u	.....	.....	.....	12 47+1 43L	.....	.....	..
87	14	12 56+0 01P*	.....	.....	.....	.....	.....	.....	..
88	14	14 03+0 04v	.....	.....	.....	.....	.....	.....	F
89	14	17 30+1 26u	17 34+1 13u	17 38+1 20u	18 20+0 32L	17 32+3 02u	18 16+0 25L	.....	..
90	14	18 48+1 17u	18 50+1 00u	18 50+1 03u	18 50+0 44u	.....	18 49+0 40u	18 49+0 15u	G
91	15	2 44+2 09u	.....	2 52+1 05u	3 37+0 21L	2 46+2 45u	.....	.....	..
92	15	5 07+1 30u	.....	5 13+0 48u	.....	5 36+1 32L	.....	.....	..
93	15	15 06+0 28u	.....	.....	.....	15 17+0 54L	.....	.....	..
94	15	23 18+1 24u	23 11+1 22u	23 17+0 43u	.....	23 18+1 30u	.....	.....	J
95	16	8 55+0 0.5P*	.....	.....	.....	.....	.....	.....	..
96	16	9 56+0 0.3P*	.....	.....	.....	.....	.....	.....	..
97	16	10 00+0 32r	10 02+0 38u	.....	.....	10 07+0 23L	.....	.....	..
98	16	23 ?2+0 01P	.....	.....	.....	.....	.....	.....	..

EARTHQUAKE CORRELATION TABLE

Month March, 1943

No.	Date	Ottawa	Victoria	Saskatoon	Halifax	Seven Falls		Shawinigan	**
						M. S.	W. A.		
99	17	23 09+0 42u	23 21+0 36u	.....	.....	23 18+0 27u	23 09+0 11u	23 09+0 03P	K
100	18	13 03+0 02P	13 19+0 09L	.....	.....	.....	.....	.....	..
101	18	13 58+0 02P*	.....	.....	.....	.....	.....	.....	..
102	18	.....	.....	.....	.....	.....	20 43+0 01v	.....	..
103	19	3 05+0 02L	.....	.....	.....	3 05+0 03L	3 05+0 02L	.....	..
104	19	.....	9 51+0 10L	.....	.....	10 09+0 05L	.....	.....	..
105	19	17 35+0 30u	17 35+0 25L	.....	.....	17 55+0 08L	.....	.....	..
106	19	20 45+0 0.7P*	.....	.....	.....	.....	.....	.....	..
107	20	5 20+1 30u	5 14+1 05u	5 17+1 07u	.....	5 21+2 00u	.....	.....	..
108	20	7 05+0 01P*	.....	.....	.....	.....	.....	.....	..
109	20	21 10+0 06L	21 03+0 08L	.....	.....	.....	.....	.....	..
110	21	20 55+2 42U	20 49+2 46U	21 01+2 10U	21 33+1 13L	20 59+2 48U	21 46+0 28L	21 29+0 30L	N
111	22	8 43+1 10u	.....	.....	.....	9 25+0 28L	8 43+0 02P	.....	..
112	25	18 47+2 13u	18 49+2 02u	.....	19 03+0 44L	18 48+2 29u	.....	.....	..
113	26	16 02+0 19u	.....	.....	.....	16 16+0 06L	.....	.....	..
114	26	17 57+1 13u	17 51+1 10u	17 55+0 55u	.....	17 58+2 05u	17 58+0 13u	.....	Q
115	26	18 08+0 04P*	.....	.....	.....	.....	.....	.....	..
116	29	5 33+1 14u	6 44+0 26L	6 36+0 05L	.....	6 16+0 15L	.....	.....	..
117	31	6 43+0 04v	.....	.....	.....	.....	6 45+0 01v	6 44+0 02v	R
118	31	21 57+0 31u	22 19+0 17L	.....	.....	22 07+0 14L	.....	.....	..

CORRELATION OF EARTHQUAKES
March, 1943

N O T E S

A :	Ottawa	Δ = 4,460 km.	H = $0^h31^m.8$ U.T.
	Victoria	Δ = 6,200 km.	H = 0 31.8 U.T.
	Saskatoon	Δ = 6,520 km.	H = (0 30.0) U.T.
	Seven Falls	Δ = 4,740 km.	H = 0 31.8 U.T.
	Shawinigan Falls	Δ = 4,480 km.	H = 0 31.9 U.T.
B :	Ottawa	Δ = 7,010 km.	H = $3^h01^m.9$ U.T.
	Victoria	Δ = 4,480 km.	H = 3 01.9 U.T.
	Saskatoon	Δ = 5,010 km.	H = 3 02.0 U.T.
	Halifax	Δ = 7,660 km.	H = 3 01.5 U.T.
	Seven Falls	Δ = 7,080 km.	H = 3 01.9 U.T.
	Shawinigan Falls	Δ = 7,140 km.	H = 3 01.8 U.T.
C :	Ottawa	Δ = 410 km.	H = $3^h25^m.9$ U.T.
	Felt in S'W. Ontario, Western New York State and Pennsylvania.		
E :	Ottawa	Δ = 12,800 km.	H = $9^h48^m.7$ U.T.
	Halifax	Δ = 12,300 km.	H = (9 48.1) U.T.
F :	Ottawa	Δ = 420 km.	H = $14^h02^m.3$ U.T.
G :	Ottawa	Δ = 6,900 km.	H = $18^h38^m.3$ U.T.
	Saskatoon	Δ = 8,480 km.	H = 18 38.1 U.T.
	Halifax	Δ = 6,800 km.	H = 18 38.2 U.T.
	Seven Falls	Δ = 7,050 km.	H = 18 38.2 U.T.
	Shawinigan Falls	Δ = 7,020 km.	H = 18 38.2 U.T.
J :	Victoria	Δ = 8,000 km.	H = $22^h59^m.6$ U.T.
K :	Ottawa	Δ = 7,480 km.	H = $22^h58^m.0$ U.T.
	Seven Falls	Δ = 7,680 km.	H = 22 57.9 U.T.
N :	Ottawa	Δ = 13,900 km.	H = $20^h35^m.6$ U.T.
	Victoria	Δ = 9,900 km.	H = 20 36.1 U.T.
Q :	Ottawa	Δ = 12,800 km.	H = $17^h38^m.0$ U.T.
	Victoria	Δ = 9,180 km.	H = 17 38.4 U.T.
	Seven Falls	Δ = 13,100 km.	H = 17 38.0 U.T.
R :	Ottawa	Δ = 440 km.	H = $16^h41^m.9$ U.T.
	Rockburst at Lake Shore Mines, Kirkland Lake, Ont.		

Dominion Observatory,
Ottawa, Canada,
May 6, 1943.

SEISMOLOGICAL SERVICE OF CANADA

SEISMOLOGICAL BULLETIN

April

1943

****

DOMINION OBSERVATORY
OTTAWA - CANADA

****

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

R. Meldrum Stewart, Dominion Astronomer
Ernest A. Hodgson, Seismologist
W. W. Doxsee, Station Superintendent

S T A T I O N S

OTTAWA

ϕ = 45°23'38" N. λ = 75 42'57" W. h = 83m.
Time correction within 0.10s.
Foundation: boulder clay over limestone
Instruments: Milne-Shaw NS and EW components, designated 23 and 17, respectively, each with photographic registration, magnetic damping, paper speed of 15 mm. per min., mass 1 lb.

Benioff Vertical, short and long period, designated BS and BL, respectively, photographic registration, BS a paper speed of 60 mm. per min., BL a paper speed of 30 mm. per min., mass 235 lbs.

HALIFAX

Dalhousie University

ϕ = 44°38' N. λ = 63°36' W. h = 46m.
Time correction from recorded radio time signals
Foundation: Carbonaceous slate
Instruments: Bosch NS and EW components, designated HN and HE, respectively, each with photographic registration, magnetic damping, paper speed of 15 mm. per min., mass 200g.

SEVEN FALLS

Quebec Power Company

ϕ = 47°07'.4 N. λ = 70°49'.6 W. h = 232m. ca.
Time correction from recorded radio time signals
Foundation: Solid granite of Canadian Shield
Instruments: Wood-Anderson and Milne-Shaw, both EW component, designated SF and SM, respectively, each with photographic registration, magnetic damping, SF a paper speed of 60 mm. per min. and mass 15g., SM a paper speed of 8 mm. per min. and mass 1 lb.

VICTORIA

Dominion Astrophysical Observatory

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

Wiechert Vertical, designated WV smoked sheet registration, air damping, paper speed of 15 mm. per min., mass 80 kg.

SHAWINIGAN FALLS

Shawinigan Water and Power Company

ϕ = 46°33'.1 N. λ = 72°45'.8 W. h = 60m. ca.

Time correction from recorded radio time signals

Foundation: solid granite of Canadian Shield

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

SASKATOON

University of Saskatchewan

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

Time correction from radio time signals

Foundation: clay and sand

Instrument: Milne-Shaw NE component, designated SN, photographic registration, magnetic damping, paper speed of 8 mm. per min., mass 1 lb.

KIRKLAND LAKE

Lake Shore Mines

ϕ = 48°09' N. λ = 80°03' W. h = 320m.

Time correction from recorded radio time signals

Foundation: rock

Instrument: Converted Heiland Field Seismometer, vertical component, designated KL, photographic registration, paper speed of 30 mm. per min.

DETERMINED CONSTANTS

INSTRUMENT	T_o	V	ε	DISPLACEMENT FOR 1" ARC TILT	DISPLACEMENT FOR 10^{-6} g
17 (Ottawa)	12.0	300	20:1	50 mm.	
23 (Ottawa)	12.0	300	20:1	50 mm.	
BS (Ottawa)	1.0				5 mm.
BL (Ottawa)	1.0				16 mm.
HN (Halifax)	5.0	125	20:1		
HE (Halifax)	5.0	125	20:1		
SA (Shawinigan)	1.0	2200			
20 (Victoria)	12.0	300	20:1		
21 (Victoria)	12.0	300	20:1		
WV (Victoria)	4.0	120	15:1		
SF (Seven Falls)	1.0	2500			
SM (Seven Falls)	12.0	300	20:1	50 mm.	
SN (Saskatoon)	10.0	150	20:1	18 mm.	
KL (Kirkland Lake)	1/30	2×10^4	at 30	cycles	

NOTE:- Universal Time used throughout.

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM April 1, 1943 to April 5, 1943 No. 21

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
119 Apr. 1	e_Z	14 37 48		
	e_N	14 41 32		
	e_E	14 59 36		
	eL	15 16		
	F	16 56		
		Victoria		
	e	14 43.5		
	e_N	14 58 29		
	L	15 10		
	F	16 52		
		Seven Falls		
	e	14 58 40		
	L	15 18		
	F	16 32		
		Shawinigan Falls		
	e	14 38 03		
	L	15 47		
	F	15 56		
		Ottawa		
123 Apr. 5	e_Z	2 09 15		
	e_N	2 19 48		
	e_E	2 20 12		
	e	2 25.0		
	eL	2 33		
	F	3 38		
		Victoria		
	e	2 20 14		
	L	2 40		
	F	3 34		
		Saskatoon		
	e	2 19.8		
	L	2 36		
	F	3 25		
		Seven Falls		
	e	2 19 47		
	L	2 36		
	F	3 37		
		Ottawa		
126 Apr. 5	e_Z	21 04 05		
	L	21 40		
	F	22 22		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM April 5, 1943 to April 6, 1943 No. 22

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
129 Apr. 6	H	16 07.3	8400	Compression to N.
	iP	16 19 02		USCGS, gives:-
	PP	16 22.0		ϕ = 32° S.
	iS	16 28 47		λ = 70° W.
	i	16 30 20		
	i_N	16 32 13		
	SS	16 33 58		
	eL	16 45		
	F	21 15		
		Victoria		
	H	16 07.2	10,335	
	P	16 20 24		
	PP	16 24 02		
	S	16 31 32		
	SS	16 37.8		
	eL	16 45		
	F	21 25		
		Saskatoon		
	H	16 07.3	9740	
	P	16 20 04		
	PP	16 23 45		
	iS	16 30 47		
	e	16 33 36		
	SS	16 36 45		
	SSS	16 40.5		
	eL	16 44		
	F	20 00ca.		
		Halifax		
	H	16 07.3	8440	
	P	16 19 00		
	S	16 28 45		
	SS	16 33.5		
	SSS	16 36.5		
	eL	16 42		
	F	19 15		
		Seven Falls		
	H	16 07.4	8560	
	P	16 19 12		
	e	16 26 18		
	iS	16 29 04		
	SS	16 34 19		
	eL	16 41		
	F	20 41		
		Shawinigan Falls		
	H	16 07.3	8500	
	P	16 19 08		
	PP	16 22.1		
	S	16 28 57		
	SS	16 33.9		
	eL	16 46		
	F	18 47		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM April 6, 1943 to April 8, 1943 No. 23

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
137 Apr. 7	H	13 07.1	8420	
	P	13 18 49		
	S	13 28 35		
	eL	13 44		
	F	14 52		
		Victoria		
	e	13 30.7		
	L	13 51		
	F	15 18		
		Saskatoon		
	e	13 30 36		
	L	13 56		
	F	14 16+		
		Seven Falls		
	e	13 28 53		
	L	13 39		
	F	15 07		
		Ottawa		
141 Apr. 7	H	23 18.0	8420	
	P	23 29 42		
	P_N	23 32.6		
	S	23 39 28		
	S_N	23 44.3		
	eL	23 57		
	F	1 17		
		Victoria		
	e	23 42 06		
	L	0 01		
	F	1 32		
		Saskatoon		
	e	23 41 29		
	L	0 07		
	F	1 02		
		Seven Falls		
	H	23 18.0	8540	
	P	23 29.9		
	S	23 39 46		
	L	23 46		
	F	1 28		
		Ottawa		
144 Apr. 8	e_Z	23 13 23		
	L_N	23 45		
	F	0 00		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM April 8, 1943 to April 11, 1943 No. 24

NO. AND DATE	PHASE	TIME	DISTAMCE	REMARKS
		h m s	km.	
		Ottawa		
145 Apr. 9	eZ	9 06 18		USCGS. gives:-
	e	9 07 14		ϕ = 19° N.
	e	9 13 13		λ = 145° E.
	e	9 14 25		
	eZ	9 17		
	e	9 22		
	L?	9 32		
	F	10 53		
		Victoria		
	H	8 49.2	8110	
	P	9 00 36		
	e	9 04.1		
	iS	9 10 08		
	eL	9 19		
	F	10 29		
		Saskatoon		
	H	8 49.1	8940	
	eP	9 01 18		
	iS	9 11 36		
	SS	9 17 05		
	eL	9 24		
	F	10 00ca.		
		Seven Falls		
	e	9 07 19		
	e	9 13.2		
	e	9 14 29		
	e	9 22.3		
	L	9 33		
	F	10 37		
		Ottawa		
148 Apr. 11	H	14 46.2	10,000	
	PZ	14 59 09		
	S	15 10 04		
	SS	15 16 18		
	eL	15 30		
	F	17 20		
		Victoria		
	H	14 46.5	7120	
	P	14 57 01		
	S	15 05 45		
	e	15 14		
	L	15 19		
	F	17 00ca.		
		Saskatoon		
	e	15 11		
	L	15 19		
	F	16 40		

SEISMOLOGICAL SERVICE OF CAN
DOMINION OBSERVATORY, OTTAWA

FROM April 11, 1943 to April 17, 1943 No. 25

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Seven Falls		
148	e	15 10 06		
Apr.	e	15 16.3		
11	e	15 20.8		
(Cont'd)	L	15 31		
	F	17 10		
		Ottawa		
150	eZ	19 56 31		
Apr.	e	20 07 32		
12	eL	20 29		
	F	21 08		
		Victoria		
	e	20 03 08		
	L	20 25		
	F	21 03		
		Victoria		
152	eE	12 53 36		
Apr.	L	13 10		
13	F	13 28		
		Ottawa		
153	eZ	10 59 11		
Apr.	L	11 10		
15	F	11 27		
		Ottawa		
154	H	11 34.9	8420	
Apr.	P	11 46 39		
15	S	11 56 25		
	SSS	12 05		
	eL	12 13		
	F	14 00ca.		
		Victoria		
	H	11 35.3	9880	
	P	11 48 11		
	S	11 59 00		
	L	12 16		
	F	14 13		
		Saskatoon		
	e	11 58 22		
	L	12 11		
	F	13 18		
		Seven Falls		
	e	11 56 43		
	e	12 02		
	L	12 16		
	F	14 02		
		Victoria		
162	eN	0 40.5		
Apr.	L	0 48		
17	F	1 08		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM April 17, 1943 to April 30, 1943 No. 26

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Saskatoon		
162 Apr. 17 (Cont'd)	e	0 46.2		
	L	0 53		
	F	1 10		
		Ottawa		
164 Apr. 19	H	1 19.4	3040	
	P_Z	1 25 14		
	S	1 30.0		
	L	1 33		
	F	1 56		
		Seven Falls		
	e	1 30.6		
	L	1 34		
	F	2 05		
		Ottawa		
166 Apr. 21	H	7 21.0	145	
	P_2	7 21 25		
	S_2	7 21 42		
	F	7 22.2		
		Ottawa		
167 Apr. 23	e_Z	18 18 39		
	L	18 39		
	F	18 57		
		Ottawa		
171 Apr. 29	e_Z	0 01 05		
	e	0 09		
	L	0 18		
	F	1 07		
		Ottawa		
172 Apr. 29	H	15 25.0	9030	
	P_Z	15 37 13		
	S	15 47 25		
	SSS_E	15 56.3		
	eL	16 03		
	F	16 33		
		Seven Falls		
	e	15 47 28		
	L	16 03		
	F	16 28		
		Shawinigan Falls		
	H	15 25.0	9050	
	P	15 37 14		
	S	15 47 27		
	F	15 50		

W. W. Dyce.

EARTHQUAKE CORRELATION TABLE

Month April, 1943

No.	Date	Ottawa	Victoria	Saskatoon	Halifax	Seven Falls		Shawinigan	**
						M. S.	W. A.		
119	1	14 38+2 18u	14 44+2 08u	15 13+1 27L	15 19+0 45L	14 59+1 33u	.....	14 38+1 18u	..
120	2	20 13+0 01P*	.....	.....	.....	.....	.....	.....	..
121	3	15 44+0 13L	.....	.....	.....	.....	.....	.....	..
122	4	12 45+0 26L	.....	.....	.....	.....	.....	.....	..
123	5	2 09+1 29u	2 20+1 14u	2 20+1 05u	.....	2 20+1 17u	.....	2 09+0 02P	..
124	5	3 18+0 03P	.....	.....	.....	.....	.....	3 18+0 04P	..
125	5	8 42+0 10L	8 38+0 13L	8 40+0 08L	.....	8 44+0 17L	.....	8 44+0 04L	..
126	5	21 04+1 18u	21 24+0 12L	.....	.....	21 47+0 24L	.....	.....	..
127	5	.....	.....	.....	.....	22 48+0 08L	.....	.....	..
128	6	15 47+0 01P*	.....	.....	.....	.....	.....	.....	..
129	6	16 19+4 56U	16 20+5 05U	16 20+3 40U	16 19+2 56U	16 19+4 22U	16 19+2 20U	16 19+2 28U	A
130	6	16 46+0 01P*	.....	.....	.....	.....	.....	.....	..
131	6	18 29+0 0.6P*	.....	.....	.....	.....	.....	.....	..
132	6	18 59+0 0.3P*	.....	.....	.....	.....	.....	.....	..
133	6	20 15+0 0.1P*	.....	.....	.....	.....	.....	.....	..
134	6	20 31+0 0.4P*	.....	.....	.....	.....	.....	.....	..
135	7	.....	7 01+0 18L	.....	.....	.....	.....	.....	..
136	7	9 38+0 29L	9 35+0 23L	9 37+0 04L	.....	9 40+0 27L	.....	.....	..
137	7	13 19+1 33u	13 31+1 47u	13 31+0.46u	.....	13 29+1 38u	.....	13 19+0 03P	B
138	7	17 08+0 0.6v	.....	.....	.....	.....	.....	.....	..
139	7	18 13+0 01P	.....	.....	.....	.....	.....	.....	..
140	7	22 52+0 01P	23 16+0 13L	.....	.....	.....	.....	.....	..
141	7	23 30+1 47u	23 42+1 50u	23 41+1 21u	.....	23 40+1 48u	23 30+0 13u	23 30+0 03P	C
142	8	5 52+0 0.4P*	.....	.....	.....	.....	.....	.....	..
143	8	18 42+0 01P	.....	.....	.....	.....	.....	.....	..
144	8	23 13+0 47u	.....	.....	.....	.....	.....	.....	..
145	9	9 06+1 47u	9 01+1 28u	9 01+0 59u	.....	9 07+1 30u	9 13+0 02P	9 07+0 06P	E
146	9	19 58+0 01P*	.....	.....	.....	.....	.....	.....	..
147	9	.....	.....	.....	.....	.....	.....	23 07+0 01P	..
148	11	14 59+2 21u	14 57+2 03u	15 11+1 29u	15 37+0 23L	15 10+2 00u	15 36+0 10L	15 44+0 07L	F
149	12	5 06+0 27L	.....	.....	.....	5 10+0 19L	.....	.....	..
150	12	19 57+1 11u	20 03+1 00u	.....	.....	20 32+0 46L	.....	.....	..
151	13	9 08+0 03P	9 20+0 03L	.....	.....	.....	9 08+0 02P	9 08+0 03P	..

EARTHQUAKE CORRELATION TABLE

Month April, 1943

No.	Date	Ottawa	Victoria	Saskatoon	Halifax	Seven Falls		Shawinigan	**
						M. S.	W. A.		
152	13	.....	12 54+0 34u	.....	.....	.....	.....	.....	..
153	15	10 59+0 28r	10 53+0 23L	11 00+0 10L	.....	11 12+0 12L	.....	.....	..
154	15	11 47+2 13u	11 48+2 25u	11 58+1 20u	.....	11 57+2 05u	.....	.....	G
155	15	14 42+0 01P*	15 05+0 11L	.....	.....	.....	.....	.....	..
156	15	17 36+0 02P*	.....	.....	.....	.....	.....	17 36+0 01P	..
157	15	17 51+0 20L	17 39+0 15L	17 43+0 12L	17 55+0 06L	17 53+0 20L	17 53+0 04L	17 52+0 04L	..
158	15	21 30+0 0.5P*	.....	.....	.....	.....	.....	.....	..
159	15	21 46+0 06L	.....	21 36+0 05L	.....	21 47+0 05L	21 46+0 02L	.....	..
160	16	.....	0 45+0 09L	.....	.....	.....	.....	.....	..
161	16	.....	12 31+0 06L	.....	.....	.....	.....	.....	..
162	17	1 03+0 13L	0 40+0 28r	0 46+0 24r	.....	1 01+0 17L	.....	.....	..
163	17	3 45+0 23L	3 30+0 05L	.....	.....	3 45+0 24L	.....	.....	..
164	19	1 25+0 31r	.....	.....	.....	1 31+0 34r	.....	.....	J
165	20	0 26+0 01P	.....	.....	.....	.....	.....	.....	..
166	21	7 21+0 01v*	.....	.....	.....	.....	.....	.....	K
167	23	18 19+0 38u	.....	.....	.....	.....	.....	18 19+0 03P	..
168	26	.....	.....	.....	.....	2 19+0 12L	.....	.....	..
169	26	20 54+0 0.2P*	.....	.....	.....	.....	.....	.....	..
170	26	23 34+0 04P	.....	.....	.....	.....	.....	23 37+0 02P	..
171	29	0 01+1 06u	0 05+0 49L	.....	.....	0 12+0 09L	.....	.....	..
172	29	15 37+0 56u	15 43+0 45u	.....	.....	15 47+0 41u	.....	15 37+0 12u	N

CORRELATION OF EARTHQUAKES
April, 1943

N O T E S

A :	Ottawa	Δ = 8,400 km.	H = $16^h07^m.3$ U.T.
	Victoria	Δ = 10,335 km.	H = 16 07.2 U.T.
	Saskatoon	Δ = 9,740 km.	H = 16 07.3 U.T.
	Halifax	Δ = 8,440 km.	H = 16 07.3 U.T.
	Seven Falls	Δ = 8,560 km.	H = 16 07.4 U.T.
	Shawinigan Falls	Δ = 8,500 km.	H = 16 07.3 U.T.
B :	Ottawa	Δ = 8,420 km.	H = $13^h07^m.1$ U.T.
C :	Ottawa	Δ = 8,420 km.	H = $23^h18^m.0$ U.T.
	Seven Falls	Δ = 8,540 km.	H = 23 18.0 U.T.
E :	Victoria	Δ = 8,110 km.	H = $8^h49^m.2$ U.T.
	Saskatoon	Δ = 8,940 km.	H = 8 49.1 U.T.
F :	Ottawa	Δ = 10,000 km.	H = $14^h46^m.2$ U.T.
	Victoria	Δ = 7,120 km.	H = 14 46.5 U.T.
G :	Ottawa	Δ = 8,420 km.	H = $11^h34^m.9$ U.T.
	Victoria	Δ = 9,880 km.	H = 11 35.3 U.T.
J :	Ottawa	Δ = 3,040 km.	H = $1^h19^m.4$ U.T.
K :	Ottawa	Δ = 145 km.	H = $7^h21^m.0$ U.T.
N :	Ottawa	Δ = 9,030 km.	H = $15^h25^m.0$ U.T.
	Shawinigan Falls	Δ = 9,050 km.	H = 15 25.0 U.T.

Dominion Observatory,
Ottawa - Canada,
May 29, 1943.

SEISMOLOGICAL BULLETINS RECEIVED
April and May, 1943

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

STATIONS	BULLETINS	RECEIVED
Santa Clara	March, 1943	April 13
New Zealand Stations	February, 1943	" 15
Pasadena	Preliminary for November-December, 1942	" 16
Weston	January and February, 1943	" 19
Sydney	September and October, 1942	" 20
Perth	January and February, 1943	" 28
Brisbane	February, 1943	May 17
India Stations	July to December, 1940	" 20
New Zealand Stations	March, 1943	" 24
Sydney	November and December, 1942	" 25
Santa Clara	April, 1943	" 27

DOMINION OBSERVATORY,
OTTAWA - CANADA.
May 29, 1943.

SEISMOLOGICAL SERVICE OF CANADA

SEISMOLOGICAL BULLETIN

May

1943

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DOMINION OBSERVATORY
OTTAWA - CANADA

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SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

R. Meldrum Stewart, Dominion Astronomer
Ernest A. Hodgson, Seismologist
W. W. Doxsee, Station Superintendent

S T A T I O N S

OTTAWA

ϕ = 45°23'38" N. λ = 75 42'57" W. h = 83m.

Time correction within 0.10s.

Foundation: boulder clay over limestone

Instruments: Milne-Shaw NS and EW components, designated 23 and 17, respectively, each with photographic registration, magnetic damping, paper speed of 15 mm. per min., mass 1 lb.

Benioff Vertical, short and long period, designated BS and BL, respectively, photographic registration, BS a paper speed of 60 mm. per min., BL a paper speed of 30 mm. per min., mass 235 lbs.

HALIFAX

Dalhousie University

ϕ = 44°38' N. λ = 63°36' W. h = 46m.

Time correction from recorded radio time signals

Foundation: Carbonaceous slate

Instruments: Bosch NS and EW components, designated HN and HE, respectively, each with photographic registration, magnetic damping, paper speed of 15 mm. per min., mass 200g.

SEVEN FALLS

Quebec Power Company

ϕ = 47°07'.4 N. λ = 70°49'.6 W. h = 232m. ca.

Time correction from recorded radio time signals

Foundation: Solid granite of Canadian Shield

Instruments: Wood-Anderson and Milne-Shaw, both EW component, designated SF and SM, respectively, each with photographic registration, magnetic damping, SF a paper speed of 60 mm. per min. and mass 15g., SM a paper speed of 8 mm. per min. and mass 1 lb.

VICTORIA

Dominion Astrophysical Observatory

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

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.

Wiechert Vertical, designated WV smoked sheet registration, air damping, paper speed of 15 mm. per min., mass 80 kg.

SHAWINIGAN FALLS

Shawinigan Water and Power Company

ϕ = 46°33'.1 N. λ = 72°45'.8 W. h = 60m. ca.

Time correction from recorded radio time signals

Foundation: solid granite of Canadian Shield

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

SASKATOON

University of Saskatchewan

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

Time correction from radio time signals

Foundation: clay and sand

Instrument: Milne-Shaw NE component, designated SN, photographic registration, magnetic damping, paper speed of 8 mm. per min., mass 1 lb.

KIRKLAND LAKE

Lake Shore Mines

ϕ = 48°09' N. λ = 80°03' W. h = 320m.

Time correction from recorded radio time signals

Foundation: rock

Instrument: Converted Heiland Field Seismometer, vertical component, designated KL, photographic registration, paper speed of 30 mm. per min.

DETERMINED CONSTANTS

INSTRUMENT	T_o	V	ε	DISPLACEMENT FOR 1" ARC TILT	DISPLACEMENT FOR 10^{-6} g
17 (Ottawa)	12.0	300	20:1	50 mm.	
23 (Ottawa)	12.0	300	20:1	50 mm.	
BS (Ottawa)	1.0				5 mm.
BL (Ottawa)	1.0				16 mm.
HN (Halifax)	5.0	125	20:1		
HE (Halifax)	5.0	125	20:1		
SA (Shawinigan)	1.0	2200			
20 (Victoria)	12.0	300	20:1		
21 (Victoria)	12.0	300	20:1		
WV (Victoria)	4.0	120	15:1		
SF (Seven Falls)	1.0	2500			
SM (Seven Falls)	12.0	300	20:1	50 mm.	
SN (Saskatoon)	10.0	150	20:1	18 mm.	
KL (Kirkland Lake)	1/30	2×10^4	at 30	cycles	

NOTE:- Universal Time used throughout.

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM May 1, 1943 to May 2, 1943 No. 27

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
176 May 2	H	17 18.3	4140	
	iP	17 25 32		Compression to N.
	PPP	17 27 02		
	iS	17 31 28		USCGS. gives:-
	e	17 32 07		ϕ = 6°.4 N.
	SSS	17 34 12		λ = 80°.1 W.
	eL	17 36.3		
	F	21 15		
		Victoria		
	H	17 18.2	6160	
	P	17 27 41		
	PP	17 30 02		
	iS	17 35 31		
	SSS	17 41.4		
	e	17 43		
	L	17 45		
	F	20 28		
		Saskatoon		
	H	17 18.5	5300	
	P	17 27 09		
	iS	17 34 11		
	eL	17 40.5		
	F	19 09 ca.		
		Halifax		
	H	17 18.5	4290	
	P	17 25 51		
	PPP	17 27.5		
	S	17 31 57		
	SSS	17 34.8		
	L	17 37		
	F	18 37		
		Seven Falls		
	H	17 18.3	4380	
	P	17 25 52		
	PPP	17 27 36		
	iS	17 32 03		
	SS	17 35.2		
	L	17 38		
	F	21 01		
		Shawinigan Falls		
	H	17 18.3	4350	
	P	17 25 44		
	S	17 31 53		
	SSS	17 35.0		
	L	17 40		
	F	18 26		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM May 2, 1943 to May 3, 1943 No. 28

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
177 May 3	H	1 59 ca.	13,400ca.	
	P^1Z	2 17 58		
	PP	2 19 25		
	SKS	2 25 16		
	PS	2 29 09		
	SS	2 35 20		
	eL	2 47		
	F	4 51		
		Victoria		
	e_N	2 13 03		
	e_N	2 16 20		
	e	2 23 28		
	L	2 39		
	F	5 04		
		Saskatoon		
	H	1 59.5 ca.	11,350ca.	
	PP	2 17 29		
	SKS	2 23 52		
	SSS	2 31 38		
	L	2 42		
	F	4 39		
		Halifax		
	e_N	2 25.4		
	e_E	2 36.4		
	L	2 53		
	F	3 59		
		Seven Falls		
	H	1 59 ca.	13,600ca.	
	P'	2 17.7		
	PP	2 19 28		
	SKKS	2 26.6		
	SS	2 35.5		
	L	2 47		
	F	4 57		
		Shawinigan Falls		
	e	2 17.9		
	L	2 56		
	F	3 16		
		Victoria		
179 May 3	e	17 00.8		
	L	17 29		
	F	17 47		
		Seven Falls		
	e	17 09.0		
	L	17 35		
	F	18 14		

SEISMOLOGICAL SERVICE OF CA
DOMINION OBSERVATORY, OTTAWA

FROM May 3, 1943 to May 22, 1943 No. 29

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
181 May 4	e_Z	18 32 08		
	L	18 51		
	F	19 06		
		Ottawa		
189 May 7	H	23 38.2	95	
	P_2	23 38 26		
	S_2	23 38 37		
	F	23 39.7		
		Ottawa		
192 May 9	H	11 03.2	175	
	P_2	11 03 38.5		
	S_2	11 03 58.5		
	e	11 04 02		
	F	11 06		
		Shawinigan Falls		
	H	11 03.2	230	
	P_2	11 03 47		
	S_2	11 04 13		
	F	11 06		
		Ottawa		
196 May 13	e_Z	23 24 53		
	L	23 38		
	F	23 52		
		Ottawa		
199 May 18	e_Z	6 22.7		
	e_N	6 34		
	e_E	6 42		
	L	7 01		
	F	7 43		
		Victoria		
	e	6 28		
	L	6 45		
	F	7 16		
		Ottawa		
202 May 22	H	9 02.1	8320	
	P	9 13 45		
	S	9 23 26		
	SS	9 28.3		
	eL	9 34		
	F	10 17		
		Victoria		
	e	9 28.1		
	L	9 46		
	F	10 33		
		Saskatoon		
	e	9 25 29		
	L	9 51		
	F	10 05		

SEISMOLOGICAL SERVICE OF CA
DOMINION OBSERVATORY, OTTAWA

FROM May 22, 1943 to May 25, 1943 No. 30

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Seven Falls		
202 May 22 (Cont'd)	H	9 02.3	8380	
	P	9 13 58		
	S	9 23 42		
	L	9 40		
	F	10 25		
		Ottawa		
203 May 25	H	23 07.6	13,850	USCGS. gives:-
	P'	23 26 35		ϕ = 7°.5 N.
	PP	23 28 17		λ = 126°.5 E.
	SKP	23 29.7		
	SKKS	23 35 12		
	PPS	23 39 42		
	SS	23 45 04		
	SSS	23 50.5		
	eL	0 04		
	F	4 00 ca.		
		Victoria		
	H	23 07.4	11,100	
	P	23 21 11		
	PP	23 25.2		
	SKS	23 31 51		
	PS	23 33 57		
	e	23 38 03		
	SSS	23 43		
	L	23 52		
	F	3 46		
		Saskatoon		
	e?	23 22.3		
	e	23 25 37		
	e	23 33.6		
	e	23 39 27		
	e	23 41 09		
	L	23 51		
	F	2 30		
		Halifax		
	e	23 29 02		
	e_N	23 41 23		
	e	23 45 46		
	e_N	23 50.4		
	L	0 07		
	F	1 29		
		Seven Falls		
	H	23 07.8	13,700	
	P'	23 26 43		
	PP	23 28 19		
	SKKS	23 35 06		
	S	23 36 16		
	PPS	23 39 13		
	SS	23 45 04		
	SSS	23 49.7		
	eL	23 59		
	F	3 47		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM May 25, 1943 to May 31, 1943 No. 31

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Shawinigan Falls		
203 May 25 (Cont'd)	H	23 07.6	13,800	
	P'	23 26 35		
	PP	23 28 17		
	PS	23 38 07		
	SS	23 45.0		
	SSS	23 50.1		
	L	0 07		
	F	1 12		
		Ottawa		
204 May 26	H	10 31.6	4040	USCGS. gives:-
	P	10 38 42		ϕ = 17°.5 N.
	PPP	10 40 10		λ = 106°.5 W.
	S	10 44 32		
	SSS	10 47.1		
	L	10 50		
	F	11 41		
		Victoria		
	H	10 31.5	3700	
	P	10 38 13		
	S	10 43 42		
	SS	10 46		
	L	10 49		
	F	11 49		
		Saskatoon		
	H	10 31.6	3660	
	P	10 38 18		
	S	10 43 44		
	L	10 49		
	F	11 43		
		Seven Falls		
	H	10 31.5	(4620)	
	P	10 39 17		
	eS	10 45.6		
	SSS	10 48.6		
	L	10 53		
	F	11 45		
		Shawinigan Falls		
	e	10 39 05		
	L	10 52		
	F	11 06		

W. W. Doyle.

EARTHQUAKE CORRELATION TABLE

Month May, 1943

No.	Date	Ottawa	Victoria	Saskatoon	Halifax	Seven Falls		Shawinigan	
						M. S.	W. A.		
173	1	.....	17 44+0 22L	.....	.....	.....	.....	.....	..
174	2	.....	5 02+0 07L	5 04+0 03L	.....	5 12+0 04L	.....	.....	..
175	2	6 51+0 07L	6 46+0 09L	.....	.....	6 54+0 06L	.....	.....	..
176	2	17 26+3 49R	17 28+3 00U	17 27+1 42U	17 26+1 11R	17 26+3 35R	17 26+1 00R	17 26+1 00R	A
177	3	2 18+2 33U	2 13+2 51U	2 17+2 22U	2 25+1 34U	2 19+2 38U	2 18+1 10U	2 18+1 08U	B
178	3	10 24+0 08P	.....	.....	.....	.....	10 24+0 03P	10 24+0 12P	..
179	3	17 32+0 30L	17 01+0 46u	.....	.....	17 09+1 05u	.....	.....	..
180	4	17 52+0 0.2P	.....	.....	.....	.....	.....	17 53+0 01P	..
181	4	18 32+0 34r	.....	.....	.....	.....	.....	18 32+0 03P	..
182	5	.....	15 20+0 18L	.....	.....	.....	.....	.....	..
183	5	17 00+0 08L	.....	.....	.....	17 02+0 08L	.....	.....	..
184	6	8 56+0 0.3P*	.....	.....	.....	.....	.....	.....	..
185	6	10 20+0 0.5P*	.....	.....	.....	.....	.....	.....	..
186	7	8 26+0 0.5P*	.8 55+0 11L	.....	.....	9 13+0 22L	.....	.....	..
187	7	20 36+0 02P	.....	.....	.....	.....	.....	.....	..
188	7	21 08+0 32L	.....	.....	.....	21 07+0 21L	.....	.....	..
189	7	23 38+0 01d*	.....	.....	.....	.....	.....	.....	C
190	7	23 58+0 0.6P*	.....	.....	.....	.....	.....	.....	..
191	8	5 53+0 01P*	.....	.....	.....	.....	.....	.....	..
192	9	11 04+0 02v	.....	.....	.....	.....	.....	11 04+0 02v	E
193	10	.....	5 51+0 05L	.....	.....	.....	.....	.....	..
194	10	.....	10 44+0 25L	.....	.....	.....	.....	.....	..
195	12	.....	8 45+0 05L	.....	.....	.....	.....	.....	..
196	13	23 25+0 27u	23 25+0 25L	23 30+0 11L	.....	23 40+0 18L	23 40+0 06L	.....	..
197	15	2 29+0 02P	.....	.....	.....	.....	.....	.....	..
198	17	.....	17 58+0 15L	.....	.....	17 37+0 30L	.....	.....	..
199	18	6 23+1 20u	6 28+0 48u	.....	.....	6 41+1 08L	.....	.....	..
200	20	.....	11 34+0 09L	.....	.....	.....	.....	.....	..
201	21	7 49+0 15L	8 00+0 22L	.....	.....	7 53+0 15L	.....	.....	..
202	22	9 14+1 03u	9 28+1 05u	9 25+0 40u	.....	9 24+1 01u	9 14+0 03P	.....	G
203	25	23 27+4 33U	23 21+4 25U	23 22+3 08U	23 29+2 00U	23 27+4 20U	23 27+1 47U	23 27+1 46U	J
204	26	3 21+0 0.3P	.....	.....	.....	.....	.....	.....	..
205	26	10 39+1 02r	10 38+1 11r	10 38+1 05r	10 53+0 17L	10 39+1 06r	10 54+0 13L	10 39+0 26r	K
206	26	.....	18 11+0 04L	.....	.....	.....	.....	.....	..
207	30	8 38+0 01P*	.....	.....	.....	.....	.....	.....	..
208	31	2 40+0 01P*	2 57+0 18L	.....	.....	.....	.....	.....	..

CORRELATION OF EARTHQUAKES
May, 1943

N O T E S

A :	Ottawa	Δ = 4,140 km.	H = $17^h18^m.3$ U.T.
	Victoria	Δ = 6,160 km.	H = 17 18.2 U.T.
	Saskatoon	Δ = 5,300 km.	H = 17 18.5 U.T.
	Halifax	Δ = 4,290 km.	H = 17 18.5 U.T.
	Seven Falls	Δ = 4,380 km.	H = 17 18.3 U.T.
	Shawinigan Falls	Δ = 4,350 km.	H = 17 18.3 U.T.
B :	Ottawa	Δ = 13,400 km. ca.	H = 1^h59^m U.T. ca.
	Saskatoon	Δ = 11,350 km. ca.	H = 1 59.5 U.T. ca.
	Seven Falls	Δ = 13,600 km. ca.	H = 1 59 U.T. ca.
C :	Ottawa	Δ = 95 km.	H = $23^h38^m.2$ U.T.
E :	Ottawa	Δ = 175 km.	H = $11^h03^m.2$ U.T.
	Shawinigan Falls	Δ = 230 km.	H = 11 03.2 U.T.
G :	Ottawa	Δ = 8,320 km.	H = $9^h02^m.1$ U.T.
	Seven Falls	Δ = 8,380 km.	H = 9 02.3 U.T.
J :	Ottawa	Δ = 13,850 km.	H = $23^h07^m.6$ U.T.
	Victoria	Δ = 11,100 km.	H = 23 07.4 U.T.
	Seven Falls	Δ = 13,700 km.	H = 23 07.8 U.T.
	Shawinigan Falls	Δ = 13,800 km.	H = 23 07.6 U.T.
K :	Ottawa	Δ = 4,040 km.	H = $10^h31^m.6$ U.T.
	Victoria	Δ = 3,700 km.	H = 10 31.5 U.T.
	Saskatoon	Δ = 3,660 km.	H = 10 31.6 U.T.
	Seven Falls	Δ = 4,620 km.	H = 10 31.5 U.T.

Dominion Observatory,
Ottawa, Canada,
July 9, 1943.

SEISMOLOGICAL SERVICE OF CANADA

SEISMOLOGICAL BULLETIN

June

1943

DOMINION OBSERVATORY
OTTAWA - CANADA

****

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

R. Meldrum Stewart, Dominion Astronomer
Ernest A. Hodgson, Seismologist
W. W. Doxsee, Station Superintendent

S T A T I O N S

OTTAWA

ϕ = 45°23'38" N. λ = 75 42'57" W. h = 83m.
Time correction within 0.10s.
Foundation: boulder clay over limestone
Instruments: Milne-Shaw NS and EW components, designated 23 and 17, respectively, each with photographic registration, magnetic damping, paper speed of 15 mm. per min., mass 1 lb.

Benioff Vertical, short and long period, designated BS and BL, respectively, photographic registration, BS a paper speed of 60 mm. per min., BL a paper speed of 30 mm. per min., mass 235 lbs.

HALIFAX

Dalhousie University

ϕ = 44°38' N. λ = 63°36' W. h = 46m.
Time correction from recorded radio time signals
Foundation: Carbonaceous slate
Instruments: Bosch NS and EW components, designated HN and HE, respectively, each with photographic registration, magnetic damping, paper speed of 15 mm. per min., mass 200g.

SEVEN FALLS

Quebec Power Company

ϕ = 47°07'.4 N. λ = 70°49'.6 W. h = 232m. ca.
Time correction from recorded radio time signals
Foundation: Solid granite of Canadian Shield
Instruments: Wood-Anderson and Milne-Shaw, both EW component, designated SF and SM, respectively, each with photographic registration, magnetic damping, SF a paper speed of 60 mm. per min. and mass 15g., SM a paper speed of 8 mm. per min. and mass 1 lb.

VICTORIA

Dominion Astrophysical Observatory

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

Wiechert Vertical, designated WV smoked sheet registration, air damping, paper speed of 15 mm. per min., mass 80 kg.

SHAWINIGAN FALLS

Shawinigan Water and Power Company

ϕ = 46°33'.1 N. λ = 72°45'.8 W. h = 60m. ca.

Time correction from recorded radio time signals

Foundation: solid granite of Canadian Shield

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

SASKATOON

University of Saskatchewan

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

Time correction from radio time signals

Foundation: clay and sand

Instrument: Milne-Shaw NE component, designated SN, photographic registration, magnetic damping, paper speed of 8 mm. per min., mass 1 lb.

KIRKLAND LAKE

Lake Shore Mines

ϕ = 48°09' N. λ = 80°03' W. h = 320m.

Time correction from recorded radio time signals

Foundation: rock

Instrument: Converted Heiland Field Seismometer, vertical component, designated KL, photographic registration, paper speed of 30 mm. per min.

DETERMINED CONSTANTS

INSTRUMENT	T_o	V	ε	DISPLACEMENT FOR 1" ARC TILT	DISPLACEMENT FOR 10^{-6} g
17 (Ottawa)	12.0	300	20:1	50 mm.	
23 (Ottawa)	12.0	300	20:1	50 mm.	
BS (Ottawa)	1.0				5 mm.
BL (Ottawa)	1.0				16 mm.
HN (Halifax)	5.0	125	20:1		
HE (Halifax)	5.0	125	20:1		
SA (Shawinigan)	1.0	2200			
20 (Victoria)	12.0	300	20:1		
21 (Victoria)	12.0	300	20:1		
WV (Victoria)	4.0	120	15:1		
SF (Seven Falls)	1.0	2500			
SM (Seven Falls)	12.0	300	20:1	50 mm.	
SN (Saskatoon)	10.0	150	20:1	18 mm.	
KL (Kirkland Lake)	1/30	2×10^4	at 30	cycles	

NOTE:- Universal Time used throughout.

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM June 1, 1943 to June 3, 1943 No. 32

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
209 June 1	H	4 15.4	4000	
	P_Z	4 22 27		
	PPP	4 24.0		
	S	4 28 14		
	SSS	4 30.8		
	eL	4 34		
	F	5 12		
		Victoria		
	e	4 26.6		
	L	4 29		
	F	5 19		
		Seven Falls		
	e	4 28.7		
	e	4 32.4		
	L	4 37		
	F	5 22		
		Ottawa		
210 June 2	eZ	3 08 30		
	L	3 45		
	F	4 02		
		Ottawa		
211 June 2	H	5 24.2	3180	
	P	5 30 14		
	S	5 35 10		
	L	5 39		
	F	6 11		
		Saskatoon		
	e	5 37 30		
	L	5 50		
	F	6 02		
		Seven Falls		
	H	5 24.3	3480	
	P	5 30.7		
	S	5 35 59		
	L	5 42		
	F	6 14		
		Victoria		
213 June 3	e	20 15 42		
	L	20 28		
	F	21 00+		
		Seven Falls		
	e	20 19.1		
	L	20 47		
	F	23 23		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM June 3, 1943 to June 8, 1943 No. 33

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Victoria		
214 June 3	e	21 00		
	e	21 10 04		
	L	21 23		
	F	22 16		
		Ottawa		
218 June 7	e	19 01 47		
	L	20 16		
	F	20 31		
		Ottawa		
219 June 7	e	23 42 22		
	eE	23 50		
	eL	0 21		
	F	1 26+		
		Victoria		
	e	23 46		
	L	0 18		
	F	1 29+		
		Saskatoon		
	e	23 57		
	L	0 14		
	F	1 23		
		Seven Falls		
	e	23 50.5		
	e	0 00.4		
	L	0 18		
	F	1 21		
		Ottawa		
220 June 8	e	1 22 07		
	e	1 27 10		
	L	1 31		
	F	2 23		
		Victoria		
	e	1 26		
	e	1 34.8		
	L	1 48		
	F	2 36		
		Saskatoon		
	e	1 24.8		
	e	1 32 16		
	L	1 41		
	F	2 23		
		Halifax		
	e	1 20 49		
	e	1 25 12		
	L	1 28		
	F	1 39		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM June 8, 1943 to June 8, 1943 No. 34

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Seven Falls		
220 June 8 (Cont'd)	e	1 21 26		
	e	1 26 24		
	e	1 29.3		
	L	1 31		
	F	2 40		
		Ottawa		
222 June 8	H	20 42.5 ca.	15,600ca.	USCGS. gives:-
	P'Z	21 02 02		ϕ = 19° N.
	PP	21 04 53		λ = 116° E.
	SKS	21 09.2		
	e	21 12.8		
	PPS	21 17.2		
	SS	21 23.1		
	SSS	21 28.7		
	eL	21 48		
	F	0 06		
		Victoria		
	H	20 42.2 ca.	13,600ca.	
	PP	21 02.7		
	eN	21 06 16		
	S	21 10 52		
	SS	21 19 29		
	SSS	21 23.1		
	eL	21 34		
	F	0 40		
		Saskatoon		
	e	21 07.3		
	e	21 20.8		
	e	21 29		
	L	21 36		
	F	23 51		
		Halifax		
	e	21 04 52		
	e	21 22.8		
	L	21 40		
	F	23 00		
		Seven Falls		
	H	20 42.6 ca.	16,100ca.	
	P'	21 02 14		
	e	21 05		
	PPS	21 17.3		
	SS	21 22 47		
	e	21 32.6		
	L	21 39		
	F	0 34		
		Shawinigan Falls		
	e	21 04.6		
	e	21 23.4		
	L	21 46		
	F	22 47		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM June 8, 1943 to June 13, 1943 No. 35

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
223	H	3 06.2	15,500ca.	USCGS. gives:-
June	P'Z	3 25 36		ϕ = 9° N.
9	PP	3 28 18		λ = 120° E.
	SKP	3 29		
	PPS	3 40.3		
	SS	3 46.5		
	SSS	3 52.0		
	L	4 12		
	F	7 00 ca.		
		Victoria		
	e	3 26 21		
	eN	3 28 17		
	e	3 33 50		
	e	3 38 25		
	L	3 57		
	F	7 28		
		Saskatoon		
	H	3 06.6 ca.	13,000ca.	
	PPP	3 29.0		
	SKS	3 32.3		
	PPS	3 37 04		
	SS	3 42 11		
	L	3 59		
	F	6 48		
		Halifax		
	e	3 28		
	e	3 46		
	eE	3 51		
	L	4 03		
	F	5 28		
		Seven Falls		
	e	3 25.8		
	e	3 28 53		
	e	3 39 16		
	e	3 46 15		
	L	4 03		
	F	8 01		
		Shawinigan Falls		
	e	3 26.0		
	e	3 29.1		
	e	3 44.4		
	L	4 02		
	F	5 16		
		Ottawa		
228	H	5 12.0	9200	USCGS. gives:-
June	P	5 24 24		ϕ = 43° N.
13	S	5 34 44		λ = 142° E.
	SS	5 40.1		
	eL	5 51		
	F	8 21		

SEISMOLOGICAL SERVICE OF CAN.
DOMINION OBSERVATORY, OTTAWA

FROM June 13, 1943 to June 13, 1943 No. 36

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Victoria		
228 June 13 (Cont'd)	H	5 12.4	6540	
	P	5 22 17		
	S	5 30 28		
	SS	5 35 18		
	e	5 37 52		
	L	5 41		
	F	8 47		
		Saskatoon		
	H	5 12.4	7260	
	P	5 23 00		
	S	5 31 51		
	SS	5 36 22		
	e	5 39 50		
	L	5 43		
	F	8 02		
		Seven Falls		
	H	5 12.2	9300	
	P	5 24 38		
	PP	5 28 16		
	S	5 35 02		
	SS	5 40 22		
	e	5 47		
	L	5 51		
	F	9 00		
		Shawinigan Falls		
	P	5 24 25		
	L	5 54		
	F	6 24		
		Ottawa		
230 June 13	H	8 37.1	9520	
	P	8 49 42		
	S	9 00 16		
	PS	9 01.3		
	SS	9 06		
	L	9 16		
	F	10 51		
		Victoria		
	H	8 37.4	6590	
	P	8 47 30		
	S	8 55 44		
	L	9 10		
	F	10 39		
		Saskatoon		
	H	8 37.4	7440	
	P	8 48.2		
	S	8 57 11		
	L	9 11		
	F	10 31		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM June 13, 1943 to June 14, 1943 No. 37

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Seven Falls		
230 June 13 (Cont'd)	e	9 00 18		
	e	9 06.2		
	L	9 19		
	F	11 14		
		Ottawa		
231 June 13	eZ	16 36 14		
	L	17 06		
	F	17 30		
		Ottawa		
232 June 13	H	17 39.4	9560	
	PZ	17 52 00		
	S	18 02 36		
	SS	18 08		
	eL	18 20		
	F	19 29		
		Victoria		
	e	17 58.2		
	L	18 11		
	F	19 25		
		Saskatoon		
	e	17 59 30		
	L	18 13		
	F	19 03		
		Seven Falls		
	e	18 02.5		
	L	18 21		
	F	19 33		
		Ottawa		
233 June 14	eZ	3 19 23		
	L	4 09		
	F	4 33		
		Seven Falls		
	e	3 21.9		
	L	4 09		
	F	5 08		
		Ottawa		
235 June 14	eZ	17 30 16		
	eN	17 37.5		
	L	17 41		
	F	18 15		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM June 14, 1943 to June 15, 1943 No. 38

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
236 June 15	H	11 11.1	9280	
	P	11 23 29		
	S	11 33 52		
	e	11 39.8		
	eL	11 51		
	F	12 40		
		Victoria		
	H	11 11.3	6670	
	P	11 21 21		
	S	11 29 40		
	L	11 36		
	F	12 58		
		Saskatoon		
	e	11 31 00		
	L	11 44		
	F	12 27		
		Seven Falls		
	e	11 34 05		
	L	11 51		
	F	13 22		
		Shawinigan Falls		
	H	11 11.1	9220	
	P	11 23 28		
	S	11 33 49		
	F	11 37		
		Ottawa		
237 June 15	H	18 21.8	3690	USCGS. gives:-
	P	18 28 30		ϕ = 14°5 N.
	PPP	18 29 50		λ = 93° W.
	S	18 33 58		
	L	18 38		
	F	19 57+		
		Victoria		
	H	18 21.8	4660	
	P	18 29 39		
	S	18 36 05		
	SS	18 39 21		
	L	18 42		
	F	20 48+		
		Saskatoon		
	H	18 22.0	4150	
	P	18 29 15		
	PPP	18 30 47		
	S	18 35.2		
	L	18 41		
	F	20 02+		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM June 15, 1943 to June 19, 1943 No. 39

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Halifax		
237 June 15 (Cont'd)	e	18 30 52		
	e	18 35.2		
	L	18 42		
	F	19 25		
		Seven Falls		
	H	18 21.7	4100	
	P	18 28 55		
	PPP	18 30 28		
	S	18 34.8		
	L	18 41		
	F	19 54		
		Shawinigan Falls		
	H	18 21.9	3900	
	P	18 28 48		
	PP	18 30 02		
	S	18 34.5		
	L	18 41		
	F	19 12		
		Ottawa		
238 June 15	H	19 45.5	3720	
	P_Z	19 52 10		
	PPP	19 53 33		
	S	19 57 40		
	L	20 03		
	F	20 38+		
		Seven Falls		
	e	19 54.2		
	L	20 04		
	F	20 32+		
		Ottawa		
239 June 15	eZ	20 33		
	e	20 38		
	L	20 44		
	F	22 00 ca.		
		Seven Falls		
	e	20 34.2		
	L	20 43		
	F	22 22		
		Victoria		
247 June 18	e	19 45.3		
	L	19 59		
	F	20 29		
		Victoria		
248 June 19	e	9 28 54		
	L	9 42		
	F	10 43		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM June 19, 1943 to June 22, 1943 No. 40

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Seven Falls		
248 June 19 (Cont'd)	e	9 35.3		
	L	10 00		
	F	11 07		
		Ottawa		
249 June 20	H	15 33.0	7980	
	PZ	15 44 17		
	S	15 53 41		
	SS	15 58.5		
	L	16 08		
	F	17 19		
		Victoria		
	H	15 33.3	9420	
	P	15 45.9		
	S	15 56 22		
	L	16 15		
	F	17 19		
		Halifax		
	e	15 52.4		
	L	16 06		
	F	16 21		
		Seven Falls		
	H	15 33.1	7380	
	P	15 43 53		
	S	15 52 49		
	e	15 57.1		
	L	16 06		
	F	17 13		
		Ottawa		
250 June 20	H	17 39.7	8760	
	P	17 51 43		
	S	18 01 44		
	L	18 17		
	F	19 20		
		Victoria		
	e	18 03.7		
	e	18 08.4		
	e	18 14 34		
	L	18 29		
	F	20 06		
		Seven Falls		
	e	18 01.4		
	L	18 12		
	F	19 12		
		Ottawa		
251 June 22	eZ	20 01 44		
	L	20 13		
	F	20 20		

SEISMOLOGICAL SERVICE OF CAN
DOMINION OBSERVATORY, OTTAWA

FROM June 22, 1943 to June 30, 1943 No. 41

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
254 June 24	eZ	20 40 12		
	L	21 14		
	F	21 42		
		Ottawa		
259 June 28	e	15 26.6		
	L	15 34		
	F	16 35		
		Seven Falls		
	e	15 25.7		
	L	15 39		
	F	17 03		
		Ottawa		
260 June 29	e	9 33.7		
	e	9 37.5		
	e	9 43.2		
	L	10 19		
	F	10 35		
		Victoria		
	e	9 29 10		
	L	9 47		
	F	10 21		
		Saskatoon		
	e	9 31 15		
	e	9 39 09		
	L	9 49		
	F	10 21		
		Seven Falls		
	e	9 33.7		
	e	9 43.1		
	F	10 47		
		Ottawa		
261 June 30	e	11 11.0		
	L	11 23		
	F	11 53		
		Seven Falls		
	e	11 07 21		
	e	11 10.2		
	L	11 28		
	F	12 10		
		Ottawa		
262 June 30	e	20 23 03		USCGS. gives:-
	e	20 31 08		ϕ = 14°5 S.
	L	20 43		λ = 74° W.
	F	21 03		

W. W. Doyle.

EARTHQUAKE CORRELATION TABLE

Month June, 1943

No.	Date	Ottawa	Victoria	Saskatoon	Halifax	Seven Falls		Shawinigan	**
						M. S.	W. A.		
209	1	4 22+0 50r	4 27+0 52r	4 30+0 25L	.....	4 29+0 53r	4 40+0 04L	4 36+0 08L	A
210	2	3 08+0 54u	.....	.....	.....	3 45+0 14L	.....	.....	..
211	2	5 30+0 41r	5 42+0 25L	5 37+0 25r	.....	5 36+0 38r	5 31+0 12r	5 31+0 14r	B
212	3	.....	12 34+0 18L	.....	.....	.....	.....	.....	..
213	3	20 18+2 12L	20 16+0 44u	.....	.....	20 19+3 04u	.....	.....	..
214	3	.....	21 00+1 16u	.....	.....	.....	.....	.....	..
215	4	19 01+0 0.2P*	.....	.....	.....	.....	.....	.....	..
216	4	23 19+0 01P*	.....	.....	.....	23 29+0 16L	.....	.....	..
217	6	.....	3 14+0 14L	.....	.....	.....	.....	.....	..
218	7	19 02+1 29u	19 17+0 11L	19 14+0 09L	.....	.....	.....	.....	..
219	7	23 42+1 44u	23 46+1 43u	23 57+1 26u	0 35+0 31L	23 50+1 31u	.....	.....	..
220	8	1 22+1 01r	1 26+1 10r	1 25+0 58r	1 21+0 18r	1 21+1 19r	1 21+0 20r	1 22+0 10r	..
221	8	18 46+0 01P	.....	.....	.....	.....	.....	.....	..
222	8	21 02+3 04U	21 03+3 37U	21 07+2 44U	21 05+1 55U	21 05+3 29U	21 02+1 47U	21 05+1 42U	C
223	9	3 26+3 34U	3 26+4 02U	3 29+3 41U	3 28+2 00U	3 29+4 34U	3 26+1 47U	3 26+1 50U	E
224	10	0 47+0 01P	.....	.....	.....	.....	.....	.....	..
225	11	.....	8 36+0 52L	.....	.....	9 14+0 36L	.....	.....	..
226	11	22 53+0 01P	.....	.....	.....	.....	.....	.....	..
227	12	.....	16 17+0 14L	.....	.....	.....	.....	.....	..
228	13	5 24+2 57U	5 22+3 25U	5 23+2 39U	.....	5 25+3 35U	5 25+1 01U	5 24+1 00U	F
229	13	6 11+0 02P*	.....	.....	.....	.....	.....	.....	..
230	13	8 50+2 01u	8 47+1 52u	8 48+1 43u	.....	9 00+2 14u	.....	.....	G
231	13	16 36+0 54u	.....	.....	.....	17 09+0 16L	.....	.....	..
232	13	17 52+1 37u	17 58+1 27u	17 59+1 04u	.....	18 02+1 30u	.....	.....	J
233	14	3 19+1 14u	4 31+0 22L	4 32+0 30L	.....	3 22+1 46u	.....	.....	..
234	14	17 12+0 12L	.....	.....	.....	17 06+0 25L	.....	.....	..
235	14	17 30+0 45r	17 32+0 20L	17 33+0 21L	17 46+0 09L	17 43+0 37L	.....	17 36+0 12L	..
236	15	11 23+1 17u	11 21+1 37u	11 31+0 56u	12 01+0 12L	11 34+1 48u	11 34+0 08P	11 23+0 13u	K
237	15	18 28+1 29R	18 30+2 18R	18 29+1 32R	18 31+0 54R	18 29+1 25R	18 29+0 41R	18 29+0 43R	N
238	15	19 52+0 46r	20 47+1 16L	20 02+0 40L	20 08+0 55L	19 54+0 38r	.....	19 54+0 02P	Q
239	15	20 33+1 27r	.....	20 42+0 56L	.....	20 34+1 48r	.....	.....	..
240	15	22 13+0 01P	.....	.....	.....	.....	.....	.....	..
241	16	.....	.....	.....	.....	7 30+0 27L	.....	.....	..

EARTHQUAKE CORRELATION TABLE

Month June, 1943

No.	Date	Ottawa	Victoria	Saskatoon	Halifax	Seven Falls		Shawinigan	**
						M. S.	W. A.		
242	16	7 57+0 01P	.....	.....	.....	.....	.....	.....	..
243	17	17 09+0 02P	.....	.....	.....	.....	.....	.....	..
244	18	14 25+0 30L	14 24+0 37L	.....	.....	14 25+0 22L	.....	.....	..
245	18	.....	16 35+0 12L	.....	.....	.....	.....	.....	..
246	18	17 05+0 02P	.....	.....	.....	.....	.....	.....	..
247	18	20 11+0 33L	19 45+0 44u	.....	.....	20 17+0 41L	.....	.....	..
248	19	9 55+0 44L	9 29+1 14u	.....	.....	9 35+1 32u	.....	.....	..
249	20	15 44+1 35u	15 46+1 33u	.....	15 52+0 29u	15 53+1 21u	15 44+0 04P	15 44+0 02P	R
250	20	17 52+1 28u	18 04+2 02u	.....	18 16+0 15L	18 01+1 11u	.....	.....	S
251	22	20 02+0 18r	20 24+0 13L	.....	.....	.....	.....	20 02+0 01P	..
252	23	17 30+0 01P	.....	.....	.....	.....	.....	17 30+0 03P	..
253	24	12 26+0 01P	.....	.....	.....	.....	.....	12 26+0 01P	..
254	24	20 40+1 02u	20 44+0 53L	.....	.....	20 52+0 56L	.....	.....	..
255	25	4 30+0 09r	.....	4 27+0 08r	.....	.....	4 37+0 04r	4 34+0 08r	..
256	27	10 17+0 01P	.....	.....	.....	.....	.....	.....	..
257	27	.....	20 14+0 10L	.....	.....	.....	.....	.....	..
258	28	.....	3 28+0 22L	.....	.....	3 50+0 39L	.....	.....	..
259	28	15 27+1 08u	15 16+0 59L	15 23+0 04L	15 43+0 15L	15 26+1 37u	.....	.....	..
260	29	9 34+1 01u	9 29+0 52u	9 31+0 50u	.....	9 34+1 13u	.....	9 24+0 04P	..
261	30	11 11+0 42u	11 15+0 45L	.....	.....	11 10+1 00u	11 07+0 05P	11 07+0 12P	..
262	30	20 23+0 40u	.....	.....	.....	.....	.....	.....	..

CORRELATION OF EARTHQUAKES
June, 1943

N O T E S

A :	Ottawa	Δ = 4,000 km.	H = $4^h15^m.4$ U.T.
B :	Ottawa	Δ = 3,180 km.	H = $4^h24^m.2$ U.T.
	Seven Falls	Δ = 3,480 km.	H = 4 24.3 U.T.
C :	Ottawa	Δ = 15,600 km. ca.	H = $20^h42^m.5$ U.T. ca.
	Victoria	Δ = 12,800 km. ca.	H = 20 42.2 U.T. ca.
	Seven Falls	Δ = 16,100 km. ca.	H = 20 42.6 U.T. ca.
E :	Ottawa	Δ = 15,500 km. ca.	H = $3^h06^m.2$ U.T. ca.
	Saskatoon	Δ = 13,000 km. ca.	H = 3 06.6 U.T ca.
F :	Ottawa	Δ = 9,200 km.	H = $5^h12^m.0$ U.T.
	Victoria	Δ = 6,540 km.	H = 5 12.4 U.T.
	Saskatoon	Δ = 7,260 km.	H = 5 12.4 U.T.
	Seven Falls	Δ = 9,300 km.	H = 5 12.2 U.T.
G :	Ottawa	Δ = 9,520 km.	H = $8^h37^m.1$ U.T.
	Victoria	Δ = 6,590 km.	H = 8 37.4 U.T.
	Saskatoon	Δ = 7,440 km.	H = 8 37.4 U.T.
J :	Ottawa	Δ = 9,560 km.	H = $17^h39^m.4$ U.T.
K :	Ottawa	Δ = 9,280 km.	H = $11^h11^m.1$ U.T.
	Victoria	Δ = 6,670 km.	H = 11 11.3 U.T.
	Shawinigan Falls	Δ = 9,220 km.	H = 11 11.1 U.T.
N :	Ottawa	Δ = 3,690 km.	H = $18^h21^m.8$ U.T.
	Victoria	Δ = 4,660 km.	H = 18 21.8 U.T.
	Saskatoon	Δ = 4,150 km.	H = 18 22.0 U.T.
	Seven Falls	Δ = 4,100 km.	H = 18 21.7 U.T.
	Shawinigan Falls	Δ = 3,900 km.	H = 18 21.9 U.T.
Q :	Ottawa	Δ = 3,720 km.	H = $19^h45^m.5$ U.T.
R :	Ottawa	Δ = 7,980 km.	H = $15^h33^m.0$ U.T.
	Victoria	Δ = 9,420 km.	H = 15 33.3 U.T.
	Seven Falls	Δ = 7,380 km.	H = 15 33.1 U.T.
S :	Ottawa	Δ = 8,760 km.	H = $17^h39^m.7$ U.T.

Dominion Observatory,
Ottawa, Canada,
August 3, 1943.

SHAWINIGAN FALLS

Shawinigan Water and Power Company

ϕ = 46°33'.1 N. λ = 72°45'.8 W. h = 60m. ca.

Time correction from recorded radio time signals

Foundation: solid granite of Canadian Shield

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

SASKATOON

University of Saskatchewan

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

Time correction from radio time signals

Foundation: clay and sand

Instrument: Milne-Shaw NE component, designated SN, photographic registration, magnetic damping, paper speed of 8 mm. per min., mass 1 lb.

KIRKLAND LAKE

Lake Shore Mines

ϕ = 48°09' N. λ = 80°03' W. h = 320m.

Time correction from recorded radio time signals

Foundation: rock

Instrument: Converted Heiland Field Seismometer, vertical component, designated KL, photographic registration, paper speed of 30 mm. per min.

DETERMINED CONSTANTS

INSTRUMENT	T_o	V	ε	DISPLACEMENT FOR 1" ARC TILT	DISPLACEMENT FOR 10^{-6} g
17 (Ottawa)	12.0	300	20:1	50 mm.	
23 (Ottawa)	12.0	300	20:1	50 mm.	
BS (Ottawa)	1.0				5 mm.
BL (Ottawa)	1.0				16 mm.
HN (Halifax)	5.0	125	20:1		
HE (Halifax)	5.0	125	20:1		
SA (Shawinigan)	1.0	2200			
20 (Victoria)	12.0	300	20:1		
21 (Victoria)	12.0	300	20:1		
WV (Victoria)	4.0	120	15:1		
SF (Seven Falls)	1.0	2500			
SM (Seven Falls)	12.0	300	20:1	50 mm.	
SN (Saskatoon)	10.0	150	20:1	18 mm.	
KL (Kirkland Lake)	1/30	2×10^4	at 30	cycles	

NOTE:- Universal Time used throughout.

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM July 1, 1943 to July 5, 1943 No. 42

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
264 July 4	H	9 52.1	3940	USCGS. gives:-
	P	9 59 07		ϕ = 9° N.
	PPP	10 00 32		λ = 84°.5 W.
	S	10 04 50		Depth 100 km. ca.
	SS	10 07 08		
	L	10 11		
	F	11 17		
		Victoria		
	e	10 01.4		
	e	10 10 55		
	L	10 21		
	F	11 21		
		Saskatoon		
	e	10 01.0		
	i	10 10 24		
	L	10 21		
	F	11 00		
		Seven Falls		
	e	10 01.1		
	e	10 05 32		
	L	10 08		
	F	11 26		
		Shawinigan Falls		
	e	9 59.4		
	L	10 12		
	F	10 27		
		Seven Falls		
265 July 4	e	13 42 35		
	L	13 53		
	F	15 28		
		Ottawa		
268 July 5	H	21 07.9	6840	USCGS. gives:-
	P	21 18 05		ϕ = 17°.5 S.
	S	21 26 33		λ = 73° W.
	eE	21 27.8		
	eL	21 37		
	F	22 21		
		Victoria		
	H	21 08.0	8620	
	P	21 19 28		
	S	21 29 23		
	L	21 46		
	F	22 28		
		Seven Falls		
	H	21 08.0	6880	
	P	21 18 18		
	S	21 26.8		
	L	21 37		
	F	23 08		

SEISMOLOGICAL SERVICE OF
DOMINION OBSERVATORY, O

FROM July 5, 1943 to July 11, 1943 No. 43

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
271 July 6	H	22 10.2	225	NESA Bulletin No. 121 gives
	iP_n	22 10 48		ϕ = 44°.9 N.
	iS_n	22 11 14		λ = 73°.2 W.
	i	22 11 17.5		H = $22^h10^m14^s.5$
	i	22 11 23		
	L	22 11 27		
	F	22 17		
		Seven Falls		
	H	22 10.2	310	
	P_n	22 10 58		
	S_3	22 11 33.5		
	e	22 11 38.5		
	e	22 11 41.5		
	F	22 18		
		Shawinigan Falls		
	H	22 10.2	185	
	P_n	22 10 44		
	S_2	22 11 06		
	S_1	22 11 08.5		
	F	22 19		
		Victoria		
272 July 6	e	13 08 56		
	L	13 24		
	F	14 35		
		Victoria		
275 July 8	e	15 00.3		
	L	15 23		
	F	16 00		
		Ottawa		
277 July 9	e_Z	23 38 14		
	e	23 46.0		
	e	23 54		
	L	23 57		
	F	0 42		
		Victoria		
	e	23 34 22		
	L	23 40		
	F	1 14		
		Seven Falls		
	e	23 46.0		
	L	23 56		
	F	0 53		
		Ottawa		
278 July 11	H	2 11 ca.	13,000 ca.	
	P'_Z	2 29 49		
	PP	2 31.1		
	PS	2 40.6		
	SS	2 47		
	SSS	2 52		
	L	3 06		
	F	5 04		

SEISMOLOGICAL SERVICE OF CAN
DOMINION OBSERVATORY, OTTAWA

FROM July 11, 1943 to July 21, 1943 No. 44

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Victoria		
278	e	2 23 16		
July	e	2 34 50		
11	L	2 49		
(Cont'd)	F	5 21		
		Saskatoon		
	e	2 28 44		
	e	2 38.0		
	L	3 00		
	F	5 11		
		Halifax		
	e	2 30 01		
	e	2 49.5		
	L	3 08		
	F	4 11		
		Seven Falls		
	H	2 11 ca.	13,000 ca.	
	P'	2 29.8		
	PP	2 30 51		
	PS	2 40 50		
	PPS	2 41.6		
	e	2 48 40		
	L	3 07		
	F	5 38		
		Shawinigan Falls		
	e	2 29.9		
	L	3 07		
	F	3 33		
		Ottawa		
289	H	23 19.7	165	
July	P_2	23 20 09		
19	S_2	23 20 27.8		
	F	23 21		
		Ottawa		
291	e	4 37.2		
July	L	4 53		
21	F	5 24		
		Victoria		
	e	4 36 57		
	L	4 55		
	F	6 10		
		Saskatoon		
	e	4 37 22		
	L	4 56		
	F	5 45		
		Seven Falls		
	e	4 37.4		
	L	4 52		
	F	6 20		

SEISMOLOGICAL SERVICE OF CA...
DOMINION OBSERVATORY, OTTAWA

FROM July 21, 1943 to July 23, 1943 No. 45

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
292 July 21	H	15 22.1	440	
	P_n	15 23 07		
	S_2	15 24 03		
	S_1	15 24 15		
	L?	15 24 29		
	F	15 28		
		Ottawa		
294 July 22	H	2 09.5	4960	
	P_Z	2 17 42		
	S	2 24.4		
	SSS	2 28.5		
	L	2 32		
	F	2 49		
		Victoria		
	H	2 09.5	6740	
	P	2 19 37		
	S	2 28 00		
	L	2 40		
	F	3 12		
		Seven Falls		
	e	2 25 01		
	L	2 33		
	F	2 55		
		Ottawa		
296 July 23	H	14 53 ca.	16,000 ca.	USCGS. gives:-
	P'	15 12 32		ϕ = 10°.5 S.
	PP	15 15 44		λ = 117°.5 E.
	SKKS	15 22 33		
	PPS_N	15 28.0		
	SS_E	15 33.8		
	L	15 55		
	F	17 28		
		Victoria		
	H	14 53 ca.	13,000 ca.	
	P	15 07.4		
	P'	15 11.1		
	PP	15 12 15		
	S	15 19 17		
	SKKS	15 20 08		
	PS	15 22 00		
	PPS	15 23.0		
	SS	15 28 34		
	L	15 42		
	F	17 57		
		Saskatoon		
	e	15 12 11		
	e	15 14.3		
	e	15 22 09		
	e	15 30 14		
	L	15 47		
	F	17 34		

FROM July 23, 1943 to July 29, 1943 No. 46

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Halifax		
296 July 23 (Cont'd)	e	15 12 35		
	e	15 35.1		
	L	15 55		
	F	16 38		
		Seven Falls		
	e	15 12 29		
	e	15 15 39		
	e	15 20 42		
	e	15 34 01		
	e	15 41.5		
	L	15 57		
	F	18 04		
		Shawinigan Falls		
	e	15 12 29		
	e	15 15 40		
	e	15 22.5		
	e	15 35.6		
	L	16 09		
	F	16 30		
		Ottawa		
301 July 28	H	4 04.8	4820	
	P_Z	4 12 53		
	S	4 19 28		
	SS	4 22 42		
	L	4 27		
	F	4 49		
		Victoria		
	e	4 09 08		
	L	4 14		
	F	4 51		
		Saskatoon		
	e	4 14 33		
	L	4 18		
	F	4 35		
		Seven Falls		
	e	4 19.6		
	L	4 28		
	F	5 04		
		Shawinigan Falls		
	e	4 13 58		
	L	4 29		
	F	4 36		
		Ottawa		
302 July 29	H	3 02.4	2920	USCGS. gives:- ϕ = 18°.9 N. λ = 67° W.
	P	3 08 04		
	PP	3 08 38		
	e	3 09 24		
	S	3 12 42		
	i_Z	3 13 23		
	SS	3 13 40		
	L	3 15 32		
	F	7 16		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM July 29, 1943 to July 29, 1943 No. 47

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Victoria		
302 July 29 (Cont'd)	H	3 02.5	5790	
	P	3 11 40		
	PP	3 13.9		
	PPP	3 14 43		
	S	3 19 09		
	e_E	3 20 26		
	SSS	3 24 16		
	L	3 28		
	F	8 13		
		Saskatoon		
	H	3 02.6	4790	
	P	3 10 36		
	S	3 17 09		
	SSS	3 20 25		
	L	3 23		
	F	7 08		
		Halifax		
	H	3 02.4	2700	
	P	3 07 44		
	e	3 08 09		
	S	3 12 06		
	L	3 14		
	F	6 22		
		Seven Falls		
	H	3 02.5	3000	
	P	3 08 13		
	e	3 10 32		
	S	3 12 56		
	SS	3 13 41		
	L	3 15		
	F	8 59		
		Shawinigan Falls		
	H	3 02.3	3020	
	P	3 08 06		
	S	3 12.9		
	i	3 13 45		
	L	3 16		
	F	5 13		
		Ottawa		
309 July 29	e_Z	11 48.5		
	L	11 53		
	F	12 36		

SEISMOLOGICAL SERVICE OF CANA
DOMINION OBSERVATORY, OTTAWA

FROM July 29, 1943 to July 31, 1943 No. 48

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km,	
		Ottawa		
311 July 30	H	1 02.7	2910	USCGS. gives:-
	P	1 08 17		ϕ = 18°.9 N.
	PP	1 08.8		λ = 67° W.
	S	1 12 54		
	L	1 16		
	F	2 31		
		Victoria		
	e	1 12.3		
	L	1 27		
	F	2 56		
		Saskatoon		
	e	1 17 25		
	e	1 20 44		
	L	1 25		
	F	2 19		
		Halifax		
	e	1 08.0		
	L	1 12		
	F	1 42		
		Seven Falls		
	e	1 09.0		
	S	1 13 10		
	L	1 15		
	F	2 43		
		Shawinigan Falls		
	e	1 08 23		
	e	1 13 54		
	L	1 16		
	F	1 32		

W W Doxsee.

EARTHQUAKE CORRELATION TABLE

Month July, 1943

No.	Date	Ottawa	Victoria	Saskatoon	Halifax	Seven Falls		Shawinigan	**
						M. S.	W. A.		
263	3	.....	1 11+0 08L	.....	.....	.....	.....	.....	..
264	4	9 59+1 18r	10 01+1 20r	10 01+0 59r	11 08+0 29L	10 01+1 25r	10 06+0 23r	9 59+0 28r	A
265	4	13 56+0 31L	14 07+0 42L	14 07+0 22L	.....	13 43+1 45u	.....	.....	..
266	4	22 18+0 15L	22 34+0 15L	.....	.....	22 17+0 23L	.....	.....	..
267	5	.....	14 44+0 19L	.....	.....	14 52+0 33L	.....	.....	..
268	5	21 18+1 03u	21 19+1 09u	.....	.....	21 18+1 50u	21 18+0 03P	21 18+0 06P	B
269	6	.....	.....	.....	.....	.....	.....	9 50+0 04P	..
270	6	.....	13 46+0 17L	.....	.....	13 21+0 38L	.....	.....	..
271	6	22 11+0 06V	.....	.....	.....	.....	22 11+0 07v	22 11+0 08v	C
272	6	13 45+0 45L	13 09+1 26u	13 33+0 29L	.....	12 57+2 07L	.....	.....	..
273	7	.....	.....	.....	.....	18 32+0 06L	.....	.....	..
274	8	14 03+0 06L	14 08+0 10L	.....	.....	14 04+0 07L	.....	.....	..
275	8	15 40+0 33L	15 00+1 00u	.....	.....	15 14+1 24L	.....	.....	..
276	9	.....	3 06+0 23L	.....	.....	3 30+0 11L	.....	.....	..
277	9	23 38+1 04u	23 34+1 40u	23 46+0 32L	.....	23 46+1 07u	.....	.....	..
278	11	2 30+2 34u	2 23+2 58u	2 29+2 42u	2 30+1 41u	2 31+3 07u	2 30+1 08u	2 30+1 03u	E
279	12	.....	9 02+0 14L	.....	.....	.....	.....	.....	..
280	12	.....	22 52+0 22L	.....	.....	.....	.....	.....	..
281	13	.....	12 00+0 07L	.....	.....	.....	.....	.....	..
282	14	.....	10 46+0 21L	.....	.....	.....	.....	.....	..
283	14	20 41+0 47L	20 08+1 01L	.....	.....	20 48+1 05L	.....	.....	..
284	15	.....	0 06+0 04L	.....	.....	0 43+0 16L	.....	.....	..
285	15	12 35+0 13L	12 49+0 14L	12 45+0 12L	.....	.....	.....	.....	..
286	16	16 04+0 02P	.....	.....	.....	.....	.....	16 04+0 03P	..
287	18	8 06+0 01P*	.....	.....	.....	.....	.....	8 06+0 02P	..
288	18	8 19+0 01P*	8 18+0 10L	.....	.....	.....	.....	.....	..
289	19	23 20+0 01v*	.....	.....	.....	.....	.....	.....	F
290	20	.....	4 47+0 03L	.....	.....	.....	.....	.....	..
291	21	4 37+0 47u	4 37+1 33u	4 37+1 08u	.....	4 37+1 43u	.....	.....	..
292	21	15 23+0 05v	.....	.....	.....	.....	15 25+0 02v	15 24+0 03v	G
293	21	.....	23 19+0 10L	.....	.....	.....	.....	.....	..
294	22	2 18+0 31r	2 20+0 52u	.....	.....	2 25+0 30r	.....	.....	J

EARTHQUAKE CORRELATION TABLE

Month July, 1943

No.	Date	Ottawa	Victoria	Saskatoon	Halifax	Seven Falls		Shawinigan	**
						M. S.	W. A.		
295	22	7 20+0 01P*	.....	.....	.....	.....	.....	.....	..
296	23	15 13+2 15U	15 07+2 50U	15 12+2 22U	15 13+1 25U	15 13+2 52U	15 12+1 14U	15 12+1 17U	K
297	24	.....	.....	5 52+1 35L	.....	.....	.....	.....	..
298	24	23 37+0 0.4P*	23 55+0 04L	.....	.....	.....	.....	.....	..
299	27	.....	.....	.....	.....	15 49+0 03L	.....	.....	..
300	27	.....	22 52+0 03L	.....	.....	.....	.....	.....	..
301	28	4 13+0 36r	4 09+0 42r	4 15+0 20r	4 31+0 07L	4 20+0 44r	4 27+0 11L	4 14+0 22r	N
302	29	3 08+4 08R	3 12+5 01U	3 11+3 57R	3 08+3 14R	3 08+5 51R	3 08+2 27R	3 08+2 05R	Q
303	29	3 29+0 07P*	.....	.....	.....	.....	3 29+0 10P	3 30+0 08P	..
304	29	4 14+0 04P*	.....	.....	.....	.....	4 15+0 03P	4 13+0 04P	..
305	29	4 19+0 02P*	.....	.....	.....	.....	4 19+0 03P	4 19+0 03P	..
306	29	6 26+0 02P*	.....	.....	.....	.....	.....	.....	..
307	29	6 31+0 01P*	.....	.....	.....	.....	6 32+0 01P	.....	..
308	29	.....	.....	.....	.....	9 39+0 06L	.....	.....	..
309	29	11 48+0 48r	11 59+1 03L	.....	.....	11 52+0 44L	11 50+0 02P	11 48+0 05P	..
310	29	11 54+0 02P*	.....	.....	.....	.....	11 54+0 02P	11 54+0 03P	..
311	30	1 08+1 23r	1 12+1 44u	1 17+1 12r	1 08+0 34r	1 09+1 34r	1 09+0 20r	1 08+0 24r	R
312	30	1 13+0 07P	.....	.....	.....	.....	.....	.....	..
313	30	1 30+0 05P*	.....	.....	.....	.....	.....	.....	..
314	30	4 35+0 02P*	.....	.....	.....	.....	4 35+0 02P	.....	..
315	30	21 33+0 34L	21 47+0 25L	21 46+0 19L	.....	21 36+0 33L	.....	.....	..
316	31	3 28+0 03P*	.....	.....	.....	.....	.....	3 28+0 03P	..
317	31	3 33+0 48L	3 49+0 32L	3 40+0 33L	.....	3 33+0 56L	3 33+0 03L	3 33+0 03L	..
318	31	20 09+0 02P*	.....	.....	.....	.....	.....	.....	..
319	31	20 14+0 02P*	20 30+0 24L	.....	.....	20 15+0 23L	.....	.....	..

CORRELATION OF EARTHQUAKES
July, 1943

N O T E S

A :	Ottawa	Δ = 3,940 km.	H = $9^h52^m.1$	U.T.
B :	Ottawa	Δ = 6,840 km.	H = $21^h07^m.9$	U.T.
	Victoria	Δ = 8,620 km.	H = 21 08.0	U.T.
	Seven Falls	Δ = 6,880 km.	H = 21 08.0	U.T.
C :	Ottawa	Δ = 225 km.	H = $22^h10^m.2$	U.T.
	Seven Falls	Δ = 310 km.	H = 22 10.2	U.T.
	Shawinigan Falls	Δ = 185 km.	H = 22 10.2	U.T.
E :	Ottawa	Δ = 13,000 km. ca.	H = 2^h11^m ca.	U.T.
	Seven Falls	Δ = 13,000 km. ca.	H = 2 11 ca.	U.T.
F :	Ottawa	Δ = 165 km.	H = $23^h19^m.7$	U.T.
G :	Ottawa	Δ = 440 km.	H = $15^h22^m.1$	U.T.
J :	Ottawa	Δ = 4,960 km.	H = $2^h09^m.5$	U.T.
	Victoria	Δ = 6,740 km.	H = 2 09.5	U.T.
K :	Ottawa	Δ = 16,000 km. ca.	H = 14^h53^m	U.T.
	Victoria	Δ = 13,000 km. ca.	H = 14 53	U.T.
N :	Ottawa	Δ = 4,820 km.	H = $4^h04^m.8$	U.T.
Q :	Ottawa	Δ = 2,920 km.	H = $3^h02^m.4$	U.T.
	Victoria	Δ = 5,790 km.	H = 3 02.5	U.T.
	Saskatoon	Δ = 4,790 km.	H = 3 02.6	U.T.
	Halifax	Δ = 2,700 km.	H = 3 02.4	U.T.
	Seven Falls	Δ = 3,000 km.	H = 3 02.5	U.T.
	Shawinigan Falls	Δ = 3,020 km.	H = 3 02.3	U.T.
R :	Ottawa	Δ = 2,910 km.	H = $1^h02^m.7$	U.T.

Dominion Observatory,
Ottawa, Canada,
September 13, 1943.

SEISMOLOGICAL BULLETINS RECEIVED
June and July, 1943

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

STATIONS	BULLETINS	RECEIVED
Brisbane	March, 1943	June 14
Santa Clara	May, 1943	" 15
Apia	January to March, 1943	" 17
New Zealand Stations	April, 1943	" 28
Perth	March and April, 1943	July 3
Brisbane	April, 1943	" 10
Bogota	April, 1943	" 12
Brisbane	May, 1943	" 13
Santa Clara	June, 1943	" 19
Saint Louis and Auxiliary Stations	Preliminaries for January 27, 30) 31; February 16, 22; March 5, 7,) 9, 14, 15, 21, and April 9, 1943)	" 26
Ksara	October to December, 1942	" 26
Saint Louis and Auxiliary Stations	Preliminaries for August 8, 24,) and November 25, 1942; also) April 6 and May 2, 1943)	" 26
Denver	June, 1941 to June, 1943	" 26
Florissant	January, 1942	" 26
Riverview	January to March, 1943	" 29
Bogota	May, 1943	" 30

DOMINION OBSERVATORY,
OTTAWA - CANADA

SEISMOLOGICAL SERVICE OF CANADA

SEISMOLOGICAL BULLETIN
JULY
1943

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DOMINION OBSERVATORY
OTTAWA - CANADA

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SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

R. Meldrum Stewart, Dominion Astronomer
Ernest A. Hodgson, Seismologist
W. W. Doxsee, Station Superintendent

S T A T I O N S

OTTAWA

ϕ = 45°23'38" N. λ = 75 42'57" W. h = 83m.
Time correction within 0.10s.
Foundation: boulder clay over limestone
Instruments: Milne-Shaw NS and EW components, designated 23 and 17, respectively, each with photographic registration, magnetic damping, paper speed of 15 mm. per min., mass 1 lb.

Benioff Vertical, short and long period, designated BS and BL, respectively, photographic registration, BS a paper speed of 60 mm. per min., BL a paper speed of 30 mm. per min., mass 235 lbs.

HALIFAX

Dalhousie University

ϕ = 44°38' N. λ = 63°36' W. h = 46m.
Time correction from recorded radio time signals
Foundation: Carbonaceous slate
Instruments: Bosch NS and EW components, designated HN and HE, respectively, each with photographic registration, magnetic damping, paper speed of 15 mm. per min., mass 200g.

SEVEN FALLS

Quebec Power Company

ϕ = 47°07'.4 N. λ = 70°49'.6 W. h = 232m. ca.
Time correction from recorded radio time signals
Foundation: Solid granite of Canadian Shield
Instruments: Wood-Anderson and Milne-Shaw, both EW component, designated SF and SM, respectively, each with photographic registration, magnetic damping, SF a paper speed of 60 mm. per min. and mass 15g., SM a paper speed of 8 mm. per min. and mass 1 lb.

VICTORIA

Dominion Astrophysical Observatory

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

Wiechert Vertical, designated WV smoked sheet registration, air damping, paper speed of 15 mm. per min., mass 80 kg.

SEISMOLOGICAL SERVICE OF CANADA

SEISMOLOGICAL BULLETIN

August

1943

DOMINION OBSERVATORY

OTTAWA - CANADA

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

R. Meldrum Stewart, Dominion Astronomer
Ernest A. Hodgson, Seismologist
W. W. Doxsee, Station Superintendent

S T A T I O N S

OTTAWA

ϕ = 45°23'38" N. λ = 75 42'57" W. h = 83m.
Time correction within 0.10s.
Foundation: boulder clay over limestone
Instruments: Milne-Shaw NS and EW components, designated 23 and 17, respectively, each with photographic registration, magnetic damping, paper speed of 15 mm. per min., mass 1 lb.

Benioff Vertical, short and long period, designated BS and BL, respectively, photographic registration, BS a paper speed of 60 mm. per min., BL a paper speed of 30 mm. per min., mass 235 lbs.

HALIFAX

Dalhousie University

ϕ = 44°38' N. λ = 63°36' W. h = 46m.
Time correction from recorded radio time signals
Foundation: Carbonaceous slate
Instruments: Bosch NS and EW components, designated HN and HE, respectively, each with photographic registration, magnetic damping, paper speed of 15 mm. per min., mass 200g.

SEVEN FALLS

Quebec Power Company

ϕ = 47°07'.4 N. λ = 70°49'.6 W. h = 232m. ca.
Time correction from recorded radio time signals
Foundation: Solid granite of Canadian Shield
Instruments: Wood-Anderson and Milne-Shaw, both EW component, designated SF and SM, respectively, each with photographic registration, magnetic damping, SF a paper speed of 60 mm. per min. and mass 15g., SM a paper speed of 8 mm. per min. and mass 1 lb.

VICTORIA

Dominion Astrophysical Observatory

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

Wiechert Vertical, designated WV smoked sheet registration, air damping, paper speed of 15 mm. per min., mass 80 kg.

SHAWINIGAN FALLS

Shawinigan Water and Power Company

ϕ = 46°33'.1 N. λ = 72°45'.8 W. h = 60m. ca.

Time correction from recorded radio time signals

Foundation: solid granite of Canadian Shield

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

SASKATOON

University of Saskatchewan

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

Time correction from radio time signals

Foundation: clay and sand

Instrument: Milne-Shaw NE component, designated SN, photographic registration, magnetic damping, paper speed of 8 mm. per min., mass 1 lb.

KIRKLAND LAKE

Lake Shore Mines

ϕ = 48°09' N. λ = 80°03' W. h = 320m.

Time correction from recorded radio time signals

Foundation: rock

Instrument: Converted Heiland Field Seismometer, vertical component, designated KL, photographic registration, paper speed of 30 mm. per min.

DETERMINED CONSTANTS

INSTRUMENT	T_o	V	ε	DISPLACEMENT FOR 1" ARC TILT	DISPLACEMENT FOR 10^{-6} g
17 (Ottawa)	12.0	300	20:1	50 mm.	
23 (Ottawa)	12.0	300	20:1	50 mm.	
BS (Ottawa)	1.0				5 mm.
BL (Ottawa)	1.0				16 mm.
HN (Halifax)	5.0	125	20:1		
HE (Halifax)	5.0	125	20:1		
SA (Shawinigan)	1.0	2400			
20 (Victoria)	12.0	300	20:1		
21 (Victoria)	12.0	300	20:1		
WV (Victoria)	4.0	120	15:1		
SF (Seven Falls)	1.0	2500			
SM (Seven Falls)	12.0	300	20:1	50 mm.	
SN (Saskatoon)	10.0	150	20:1	18 mm.	
KL (Kirkland Lake)	1/30	2×10^4	at 30 cycles		

NOTE:- Universal Time used throughout.

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM August 1, 1943 to August 8, 1943 No. 49

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
323 Aug. 1	eZ	16 37 09		
	eZ	16 40 24		
	e	16 46 22		
	L	17 09		
	F	17 36		
		Victoria		
	e	16 32.6		
	eE	16 42 00		
	L	16 55		
	F	17 42		
		Saskatoon		
	e	16 43.7		
	L	17 12		
	F	17 32		
		Seven Falls		
	e	16 40.1		
	e	16 49		
	L	17 17		
	F	18 06		
		Ottawa		
324 Aug. 2	eZ	1 06.0		
	e	1 09 28		
	e	1 21.0		
	eL	1 44		
	F	3 33		
		Victoria		
	e	1 05.4		
	e	1 15.6		
	L	1 38		
	F	3 49		
		Saskatoon		
	e	1 07		
	L	1 45		
	F	3 33		
		Seven Falls		
	e	1 06.0		
	e	1 09.0		
	e	1 15.8		
	e	1 28.7		
	L	1 50		
	F	4 07		
		Ottawa		
331 Aug. 8	eZ	0 44.5		
	eE	0 49.0		
	L	0 52		
	F	1 20		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM August 8, 1943 to August 13, 1943 No. 50

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Victoria		
335 Aug. 9	e	5 32.8		
	L	5 36		
	F	6 28		
		Saskatoon		
	H	5 30.1	1880	
	P	5 34 00		
	S	5 37 15		
	L	5 38.6		
	F	5 55		
		Ottawa		
340 Aug. 10	H	15 13.6	7450	USCGS. gives:-
	P	15 24 23		ϕ = 54° N.
	PP	15 27.0		λ = 161° E.
	iS	15 33 22		
	SS	15 37.8		
	L	15 47		
	F	17 09		
		Victoria		
	H	15 13.3	4790	
	P	15 21 19		
	S	15 27 52		
	SSS	15 31 29		
	L	15 34		
	F	17 18		
		Saskatoon		
	H	15 13.8	5390	
	P	15 22.5		
	S	15 29 36		
	SS	15 32 09		
	L	15 38		
	F	16 00		
		Halifax		
	e	15 34 20		
	L	15 50		
	F	16 25		
		Seven Falls		
	H	15 13.5	7510	
	P	15 24 25		
	iS	15 33 27		
	SSS	15 41 15		
	L	15 49		
	F	18 19		
		Ottawa		
350 Aug. 13	e_Z	7 47 20		
	e_N	7 55 38		
	eL	8 02		
	F	8 16		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM August 13, 1943 to August 31, 1943 No. 51

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
353 Aug. 15	eZ	0 19 00		
	L	0 23.5		
	F	1 14		
		Seven Falls		
	e	0 20.0		
	e	0 23 51		
	L	0 26		
	F	1 25		
		Victoria		
360 Aug. 20	e	1 46.1		
	L	2 01		
	F	3 07		
		Victoria		
361 Aug. 22	e	11 15 39		
	L	11 22		
	F	11 38		
		Victoria		
363 Aug. 27	e	1 07 43		
	L	1 27		
	F	1 57		
		Ottawa		
368 Aug. 31	H	16 10.8	3550	USCGS. gives:-
	P	16 17 21		ϕ = 13°.5 N.
	i	16 17 38		λ = 91°.5 W.
	PPP	16 18 32		
	S	16 22 40		
	e	16 25 12		
	L	16 27		
	F	17 16		
		Victoria		
	H	16 10.8	4700	
	P	16 18 41		
	S	16 25 09		
	SSS	16 28 33		
	L	16 34		
	F	17 15		
		Saskatoon		
	e	16 20 18		
	L	16 28		
	F	16 54		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM August 31, 1943 to August 31, 1943 No. 52

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Halifax		
368 Aug. 31 (Cont'd)	H	16 10.9	4055	
	P	16 18.0		
	PPP	16 19 37		
	S	16 23 50		
	L	16 27		
	F	16 47		
		Seven Falls		
	H	16 10.8	4000	
	P	16 17 48		
	PPP	16 19 20		
	S	16 23 35		
	SS	16 25 56		
	L	16 30		
	F	17 14		
		Shawinigan Falls		
	P	16 17 39		
	L	16 27		
	F	16 38		
			W. W. Doxsee.	

EARTHQUAKE CORRELATION TABLE

Month August, 1943

No.	Date	Ottawa	Victoria	Saskatoon	Halifax	Seven Falls		Shawinigan	**
						M. S.	W. A.		
320	1	.....	.....	.....	.....	1 25+0 12L	.....	.....	..
321	1	.....	.....	7 17+0 19L	.....	.....	.....	.....	..
322	1	14 30+0 0.5P*	.....	.....	.....	14 53+0 20L	.....	.....	..
323	1	16 37+0 59u	16 33+1 09u	16 44+0 48u	.....	16 40+1 26u	.....	.....	..
324	2	1 06+2 27u	1 05+2 44u	1 07+2 26u	1 58+1 03L	1 06+3 01u	1 09+1 10u	.....	..
325	2	.....	10 23+0 07L	.....	.....	9 40+0 41L	.....	.....	..
326	2	.....	.....	.....	.....	12 15+0 10L	.....	.....	..
327	2	.....	.....	.....	.....	20 33+0 12L	.....	.....	..
328	4	.....	.....	.....	.....	1 08+0 06L	.....	1 01+0 08P	..
329	6	12 15+0 01P*	.....	.....	.....	.....	.....	12 15+0 06P	..
330	7	.....	11 10+0 13L	.....	.....	.....	.....	.....	..
331	8	0 44+0 36u	0 57+0 27L	.....	.....	0 49+0 35L	0 45+0 04P	0 45+0 03P	..
332	8	0 50+0 02P*	.....	.....	.....	.....	0 50+0 03P	0 50+0 04P	..
333	8	.....	.....	.....	.....	7 24+0 09L	.....	.....	..
334	8	8 39+0 02P*	8 49+0 13L	.....	.....	8 53+0 10L	.....	.....	..
335	9	5 45+0 31L	5 33+0 55r	5 34+0 21r	5 50+0 16L	5 49+0 32L	5 09+0 11L	5 48+0 05L	A
336	9	15 06+0 01v*	.....	.....	.....	.....	.....	15 06+0 01v	..
337	9	18 04+0 17L	17 24+1 08L	.....	.....	17 49+0 51L	.....	.....	..
338	10	.....	12 28+0 05L	.....	.....	.....	.....	.....	..
339	10	.....	14 07+0 53L	.....	.....	14 11+1 04L	.....	.....	..
340	10	15 24+1 45u	15 21+1 57r	15 22+0 38u	15 34+0 51u	15 24+2 55u	15 33+0 26u	.....	B
341	10	15 48+0 01P*	.....	.....	.....	.....	.....	.....	..
342	11	.....	5 41+0 30L	.....	.....	.....	.....	.....	..
343	11	.....	.....	.....	.....	13 00+0 15L	.....	12 53+0 02P	..
344	11	.....	.....	.....	.....	.....	14 59+0 02P	.....	..
345	12	5 04+0 01P	5 01+0 49L	.....	.....	5 15+1 01L	.....	5 04+0 02P	..
346	12	.....	8 27+0 14L	.....	.....	.....	.....	.....	..
347	12	11 24+0 02P*	.....	.....	.....	11 30+0 10L	.....	11 24+0 03P	..
348	12	11 28+0 03P*	.....	.....	.....	.....	11 28+0 02P	11 28+0 03P	..
349	13	.....	3 41+0 06L	.....	.....	.....	.....	.....	..
350	13	7 47+0 29u	8 20+0 17L	.....	.....	8 01+0 35L	.....	7 47+0 02P	..
351	14	3 00+0 09L	3 03+0 09L	.....	.....	3 02+0 20L	.....	.....	..
352	14	8 27+0 01P*	.....	.....	.....	9 12+0 21L	.....	.....	..

EARTHQUAKE CORRELATION TABLE

Month August, 1943

No.	Date	Ottawa	Victoria	Saskatoon	Halifax	Seven Falls		Shawinigan	**
						M. S.	W. A.		
353	15	0 19+0 55r	0 39+0 42L	.....	0 23+0 04L	0 24+1 01r	0 20+0 10r	0 24+0 07L	..
354	15	0 24+0 04P	.....	.....	.....	.....	.....	.....	..
355	15	0 42+0 03P*	.....	.....	.....	.....	0 43+0 03P	0 43+0 02P	..
356	15	.....	2 51+0 47L	.....	.....	3 12+0 50L	.....	.....	..
357	15	.....	13 09+0 23L	.....	.....	.....	.....	.....	..
358	17	.....	.....	.....	.....	3 26+0 12L	.....	.....	..
359	17	9 26+0 0.2P*	.....	.....	.....	.....	.....	.....	..
360	20	2 23+0 42L	1 46+1 21u	.....	.....	2 16+0 53L	.....	.....	..
361	22	.....	11 16+0 22u	.....	.....	11 33+0 28L	.....	.....	..
362	23	.....	8 01+0 14L	.....	.....	8 18+0 24L	.....	.....	..
363	27	1 36+0 34L	1 08+0 49u	1 32+0 32L	.....	1 46+0 37L	.....	.....	..
364	27	10 47+0 05L	10 32+0 18L	10 36+0 07L	.....	10 48+0 06L	.....	.....	..
365	29	3 07+0 14L	3 08+0 15L	3 05+0 12L	.....	.....	.....	.....	..
366	29	4 03+0 07L	3 54+0 13L	3 55+0 08L	.....	.....	.....	4 04+0 03L	..
367	31	15 45+0 28L	.....	.....	.....	15 47+0 26L	.....	.....	..
368	31	16 17+0 59r	16 19+0 56r	16 20+0 34r	16 18+0 29r	16 18+0 56r	16 18+0 22r	16 18+0 20r	C

CORRELATION OF EARTHQUAKES

August, 1943

N O T E S

A :	Saskatoon	Δ = 1880 km.	H = $5^h30^m.1$ U.T.
B :	Ottawa	Δ = 7450 km.	H = $15^h13^m.6$ U.T.
	Victoria	Δ = 4790 km.	H = 15 13.3 U.T.
	Saskatoon	Δ = 5390 km.	H = 15 13.8 U.T.
	Seven Falls	Δ = 7510 km.	H = 15 13.5 U.T.
C :	Ottawa	Δ = 3550 km.	H = $16^h10^m.8$ U.T.
	Victoria	Δ = 4700 km.	H = 16 10.8 U.T.
	Halifax	Δ = 4055 km.	H = 16 10.9 U.T.
	Seven Falls	Δ = 4000 km.	H = 16 10.8 U.T.

Dominion Observatory,
Ottawa, Canada,
October 13, 1943

SEISMOLOGICAL BULLETINS RECEIVED
August and September, 1943

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

STATIONS	BULLETINS	RECEIVED
New Zealand Stations	May, 1943	August 9
Santa Clara	July, 1943	" 10
Weston	March and April, 1943	" 14
Helwan	Year 1942	" 18
Bogota	June, 1943	" 20
New Zealand Stations	June, 1943	" 26
Weston	Preliminary for May and June, 1943	" 26
Apia	April to June, 1943	" 28
Weston	Preliminary for July, 1943	" 30
Saint Louis and Auxiliary Stations	Supplements to April, May, June, July, Sept., Oct., Dec., 1942 and Feb., 1943	
	Preliminaries for Sept. 9, 26, Oct. 21, 26, 28, Nov. 10, 12, 19, 28, Dec. 9, 26, 31, 1942 and March 15, May 25, 26, June 30, July 4, 5, 1943	" 30
Pasadena	Preliminary for January - March, 1943	" 31
Santa Clara	August, 1943	September 3
United States Coast and Geodetic Survey	January to July, 1941	" 7
Perth	May and June, 1943	" 10
Weston	Preliminary for August, 1943	" 15
Sydney	January and February, 1943	" 23

DOMINION OBSERVATORY,
OTTAWA - CANADA.

SEISMOLOGICAL SERVICE OF CANADA

SEISMOLOGICAL BULLETIN
September
1943

DOMINION OBSERVATORY
OTTAWA - CANADA

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

R. Meldrum Stewart, Dominion Astronomer
Ernest A. Hodgson, Seismologist
W. W. Doxsee, Station Superintendent

S T A T I O N S

OTTAWA

ϕ = 45°23'38" N. λ = 75°42'57" W. h = 83m.

Time correction within 0.10s.

Foundation: boulder clay over limestone

Instruments: Milne-Shaw NS and EW components, designated 23 and 17, respectively, each with photographic registration, magnetic damping, paper speed of 15 mm. per min., mass 1 lb.

Benioff Vertical, short and long period, designated BS and BL, respectively, photographic registration, BS a paper speed of 60 mm. per min., BL a paper speed of 30 mm. per min., mass 235 lbs.

HALIFAX

Dalhousie University

ϕ = 44°38' N. λ = 63°36' W. h = 46m.

Time correction from recorded radio time signals

Foundation: Carbonaceous slate

Instruments: Bosch NS and EW components, designated HN and HE, respectively, each with photographic registration, magnetic damping, paper speed of 15 mm. per min., mass 200g.

SEVEN FALLS

Quebec Power Company

ϕ = 47°07'.4 N. λ = 70°49'.6 W. h = 232m. ca.

Time correction from recorded radio time signals

Foundation: Solid granite of Canadian Shield

Instruments: Wood-Anderson and Milne-Shaw, both EW component, designated SF and SM, respectively, each with photographic registration, magnetic damping, SF a paper speed of 60 mm. per min. and mass 15g., SM a paper speed of 8 mm. per min. and mass 1 lb.

VICTORIA

Dominion Astrophysical Observatory

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

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.

Wiechert Vertical, designated WV, smoked sheet registration, air damping, paper speed of 15 mm. per min., mass 80 kg.

SHAWINIGAN FALLS

Shawinigan Water and Power Company

ϕ = 46°33'.1 N. λ = 72°45'.8 W. h = 60m. ca.

Time correction from recorded radio time signals

Foundation: solid granite of Canadian Shield

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

SASKATOON

University of Saskatchewan

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

Time correction from radio time signals

Foundation: clay and sand

Instrument: Milne-Shaw NE component, designated SN, photographic registration, magnetic damping, paper speed of 8 mm. per min., mass 1 lb.

KIRKLAND LAKE

Lake Shore Mines

ϕ = 48°09' N. λ = 80°03' W. h = 320m.

Time correction from recorded radio time signals

Foundation: rock

Instrument: Converted Heiland Field Seismometer, vertical component, designated KL, photographic registration, paper speed of 30 mm. per min.

DETERMINED CONSTANTS

INSTRUMENT	T_o	V	ε	DISPLACEMENT FOR 1" ARC TILT	DISPLACEMENT FOR 10^{-6} g
17 (Ottawa)	12.0	300	20:1	50 mm.	
23 (Ottawa)	12.0	300	20:1	50 mm.	
BS (Ottawa)	1.0				5 mm.
BL (Ottawa)	1.0				16 mm.
HN (Halifax)	5.0	125	20:1		
HE (Halifax)	5.0	125	20:1		
SA (Shawinigan)	1.0	2400			
20 (Victoria)	12.0	300	20:1		
21 (Victoria)	12.0	300	20:1		
WV (Victoria)	4.0	120	15:1		
SF (Seven Falls)	1.0	2500			
SM (Seven Falls)	12.0	300	20:1	50 mm.	
SN (Saskatoon)	10.0	150	20:1	18 mm.	
KL (Kirkland Lake)	1/30	2×10^4	at 30 cycles		

NOTE:- Universal Time used throughout.

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM September 1, 1943 to September 6, 1943 No. 53

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
372 Sept. 5	H	8 34.5	14,600 ca.	USCGS. gives:-
	P'Z	8 53 47		ϕ = 0°
	SKP	8 57 09		λ = 125° E.
	SKKS	9 03		
	PPS	9 09 00		
	SS	9 13.2		
	SSS	9 18		
	eL	9 38		
	F	11 12 ca.		
		Victoria		
	H	8 34.6	11,780	
	PP	8 53 46		
	SKS	8 59 24		
	PS	9 02 18		
	SS	9 07.9		
	SSS	9 12.0		
	e_N	9 18.1		
	eL	9 22		
	F	11 23		
		Seven Falls		
	H	8 34.6	14,700	
	SKP	8 57 13		
	SKKS	9 03.1		
	PPS	9 08 40		
	SS	9 13.8		
	SSS	9 18 02		
	eL	9 29		
	F	11 18		
373 Sept. 6		Ottawa		
	H	3 42 ca.	13,700 ca.	USCGS. gives:-
	P'	4 01 01		ϕ = 53°.2 S.
	PP_N	4 02 26		λ = 159°.4 E.
	SKP	4 04 20		
	SKS	4 08.0		
	PPS	4 14 40		
	SSS	4 24 00		
	e	4 28.2		
	eL	4 42		
	F	7 35		
		Victoria		
	H	3 41.6	13,550	
	P'	4 00.4		
	PP	4 01 58		
	SKS	4 07.7		
	PS	4 11 55		
	i	4 14 16		
	SS	4 18 42		
	SSS	4 22.9		
	L	4 36		
	F	8 18		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM September 6, 1943 to September 7, 1943 No. 54

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Saskatoon		
373 Sept. 6 (Cont'd)	H	3 41.4	14,900	
	P'	4 00 44		
	PP	4 03 04		
	SKP	4 04 07		
	SKS	4 07.8		
	e	4 13 22		
	PPS	4 15 00		
	SS	4 21		
	SSS	4 25		
	L	4 37		
	F	7 09		
		Halifax		
	e	4 00 54		
	e	4 04.6		
	e	4 14 56		
	e	4 17.6		
	e	4 24.6		
	L	4 33		
	F	6 21		
		Seven Falls		
	H	3 41.7	15,700	
	P'	4 01 14		
	PP	4 04.3		
	PPS	4 16.8		
	SS	4 23.3		
	SSS	4 28.0		
	L	4 43		
	F	7 43		
		Shawinigan Falls		
	e	4 01 07		
	e	4 14.4		
	e	4 22.9		
	e	4 28.9		
	L	4 45		
	F	6 08		
		Ottawa		
376 Sept. 7	eZ	19 42 34		
	e	19 45		
	L	19 46		
	F	20 03		
		Victoria		
	e	19 34 49		
	L	19 37 09		
	F	19 49		
		Saskatoon		
	e	19 34 42		
	e	19 37 20		
	L	19 38		
	F	20 05		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM September 7, 1943. to September 10, 1943 No. 55

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Seven Falls		
376	e	19 42.9		
Sept.	e	19 46 26		
7	L	19 47		
(Cont'd)	F	19 58		
		Shawinigan Falls		
	e	19 33 58		
	L	19 46		
	F	19 57		
		Ottawa		
377	H	15 13.3	205	
Sept.	P_2	15 13 49		
8	S_n	15 14 11		
	S_2	15 14 12.5		
	F	15 15		
		Seven Falls		
378	e	19 37 27		
Sept.	e	19 37 40		
8	F	19 39		
		Ottawa		
379	H	2 31.8	2900	USCGS. gives:-
Sept.	P_Z	2 37 24		ϕ = 18°.9 N.
10	e_Z	2 37 57		λ = 67° W.
	S_N	2 42.0		
	L	2 45		
	F	3 20		
		Seven Falls		
	e	2 38.4		
	L	2 43		
	F	3 08		
		Ottawa		
381	H	8 37.2	10,430	USCGS. gives:-
Sept.	PZ	8 50.5		ϕ = 35°.1 N.
10	PP	8 54.1		λ = 133°.3 E.
	SKS	9 00 58		
	S	9 01 42		
	PS	9 02 50		
	SS	9 08		
	SSS	9 12.5		
	eL	9 22		
	F	11 57		
		Victoria		
	H	8 36.7	7990	
	P	8 48 00		
	S	8 57 25		
	SS	9 01.5		
	L	9 10		
	F	11 54		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM September 10, 1943 to September 14, 1943 No. 56

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Saskatoon		
381 Sept. 10 (Cont'd)	e	8 58 57		
	L	9 12		
	F	11 17		
		Seven Falls		
	e	8 54.4		
	S	9 01 29		
	SS	9 07 58		
	L	9 20		
	F	12 05		
		Shawinigan Falls		
	e	8 50.5		
	e	9 01.0		
	L	9 23		
	F	10 10		
		Ottawa		
384 Sept. 11	e	20 02.2		USCGS. gives:- ϕ = 16°.5 S. λ = 173° W.
	e	20 07		
	eL	20 22		
	F	21 41		
		Victoria		
	e	19 55 52		
	L	20 10		
	F	21 06		
		Saskatoon		
	e	19 57 59		
	e	20 04		
	L	20 15		
	F	21 27		
		Seven Falls		
	e	19 59.5		
	e	20 02.5		
	e	20 03 47		
	e	20 09.1		
	L	20 26		
	F	22 12		
		Ottawa		
388 Sept. 14	H	2 01 ca.	13,900 ca.	
	P'Z	2 20 06		
	PP_E	2 22.0		
	SKP_N	2 23.0		
	SKS_E	2 27.2		
	PS_E	2 31.5		
	SS_E	2 39.0		
	L	3 00		
	F	4 31 ca.		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM September 14, 1943 to September 14, 1943 No. 57

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Victoria		
388 Sept. 14 (Cont'd)	H	2 01.1	10.560	
	PPP_N	2 20 23		
	SKS	2 24 57		
	SS	2 32.1		
	L	2 44		
	F	4 10 ca.		
		Saskatoon		
	e	2 26 00		
	e	2 28 44		
	e	2 34.6		
	e	2 41.7		
	L	2 50		
	F	4 04+		
		Halifax		
	e	2 23.2		
	L	3 00		
	F	4 04		
		Seven Falls		
	H	2 01.6	13,670	
	PP	2 22 06		
	SKS	2 27 29		
	SKKS	2 29.1		
	PS	2 32.1		
	SS	2 38 53		
	L	3 00		
	F	4 12+		
		Ottawa		
389 Sept. 14	H	3 47 ca.	13,900 ca.	
	P'Z	4 06 10		
	PP_E	4 07.7		
	PPS	4 19		
	SS	4 24.4		
	e_E	4 25 12		
	eL	4 40		
	F	6 42		
		Victoria		
	e	4 11.0		
	e	4 12 45		
	e	4 17.2		
	e	4 30		
	L	4 37		
	F	6 45		
		Saskatoon		
	H	3 47.4	11,450	
	PP	4 05.6		
	PS	4 14 36		
	SS	4 20.6		
	SSS	4 24 09		
	L	4 36		
	F	6 31		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM September 14, 1943 to September 14, 1943 No. 58

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Halifax		
389 Sept. 14 (Cont'd)	e	4 09 16		
	L	4 44		
	F	6 06		
		Seven Falls		
	H	3 47.6	13,670	
	PP	4 08 06		
	PS	4 18.1		
	SS	4 24 51		
	L	4 43		
	F	7 05		
		Ottawa		
390 Sept. 14	H	7 18 ca	13,300 ca.	
	P'Z	7 36 52		
	PP	7 38.0		
	SKS	7 43.7		
	S_N	7 46.2		
	PS	7 48.2		
	SS	7 54.6		
	SSS	7 59.0		
	eL	8 13		
	F	10 37		
		Victoria		
	H	7 18.3	10,100	
	P	7 31 25		
	S	7 42 23		
	SS	7 49		
	L	7 55		
	F	10 20		
		Saskatoon		
	H	7 18.1	11,670	
	PP	7 36 30		
	SKS	7 42 36		
	PS	7 45.6		
	SS	7 51.0		
	L	8 06		
	F	10 14		
		Halifax		
	e_E	7 38.8		
	e_N	7 46.8		
	e	7 56		
	L	8 12		
	F	9 44		
		Seven Falls		
	H	7 18.3	13,500 ca.	
	PP	7 38 40		
	SKS	7 44 06		
	PS	7 48 24		
	SS	7 55 45		
	e	8 03.9		
	L	8 13		
	F	11 50		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM September 14, 1943 to September 20, 1943 No. 59

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Shawinigan Falls		
390 Sept. 14 (Cont'd)	e	7 37.3		
	L	8 12		
	F	9 01		
		Victoria		
394 Sept. 16	e_N	13 12 04		
	e	13 15 16		
	L	13 34		
	F	14 11		
		Victoria		
397 Sept. 17	e	10 32 29		
	L	10 50		
	F	11 25		
		Saskatoon		
	e	10 33 27		
	L	10 57		
	F	11 19		
		Seven Falls		
	e	10 35 09		
	e	10 39 12		
	L	11 05		
	F	11 47		
		Victoria		
398 Sept. 19	e_N	5 00.1		
	e	5 09 40		
	L	5 26		
	F	6 20		
		Seven Falls		
	e	5 00.3		
	L	5 15		
	F	7 25		
		Ottawa		
399 Sept. 20	H	0 53.9	4010	USCGS. gives:-
	P	1 01 00		ϕ = 19°5 N.
	S	1 06 48		λ = 109° W.
	SSS	1 09.5		
	eL	1 11		
	F	1 55		
		Victoria		
	H	0 54.1	3090	
	P	0 59 58		
	S	1 04 48		
	L	1 09		
	F	2 07		
		Saskatoon		
	e	1 05 32		
	L	1 09		
	F	1 59		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM September 20, 1943 to September 23, 1943 No. 60

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Seven Falls		
399 Sept. 20 (Cont'd)	H	0 54.2	5800	
	P	1 03 19		
	S	1 10.8		
	SSS	1 15 26		
	L	1 19		
	F	2 08		
		Ottawa		
402 Sept. 22	H	23 18 ca.	14,000 ca.	
	P'_Z	23 37 11		
	PP_E	23 39.0		
	S_N	23 47.0		
	PS_E	23 48.6		
	SS	23 56.0		
	eL	0 12		
	F	1 46		
		Victoria		
	e	23 42.6		
	L	0 04		
	F	2 17		
		Saskatoon		
	e	23 37.0		
	e	23 46 21		
	L	0 09		
	F	1 48		
		Halifax		
	e	23 40		
	L	0 24		
	F	1 05		
		Seven Falls		
	H	23 18 ca.	14,500 ca.	
	P'	23 37 21		
	PP	23 39.4		
	PS	23 49.4		
	SS	23 56.9		
	L	0 27		
	F	2 37		
		Ottawa		
404 Sept. 23	H	15 00.8	3480	USCGS. gives:- ϕ = 15° N. λ = 92° W.
	P	15 07 14		
	i	15 07 38		
	PP_N	15 08 14		
	PPP	15 08 32		
	S	15 12 29		
	i	15 13 00		
	eL	15 16		
	F	16 12		

	F	12 46		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM September 28, 1943 to September 30, 1943 No. 63

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Seven Falls		
418 Sept. 28 (Cont'd)	H	16 30.4	35	
	P1	16 30 32		
	S1	16 30 37		
	F	16 33		
		Shawinigan Falls		
	e	16 30 52		
	e	16 31 26		
	F	16 32		

W. W. Doxsee.

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM September 23, 1943 to September 24, 1943 No. 61

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Victoria		
404 Sept. 23 (Cont'd)	H	15 00.7	4510	
	P	15 08 22		
	S	15 14 40		
	SSS	15 18 12		
	L	15 24		
	F	16 30		
		Saskatoon		
	H	15 00.2	4720	
	P	15 08 04		
	PP	15 09 36		
	S	15 14 33		
	SSS	15 18 00		
	F	16 03		
		Halifax		
	H	15 00.2	3870	
	P	15 07 04		
	PPP	15 08 36		
	S	15 12.7		
	SSS	15 15.9		
	L	15 22		
	F	15 36		
		Seven Falls		
	H	15 00.7	3880	
	P	15 07 40		
	PPP	15 09 12		
	S	15 13 20		
	SS	15 15.5		
	L	15 20		
	F	16 30		
		Shawinigan Falls		
	H	15 00.7	3760	
	P	15 07 31		
	PPP	15 09.0		
	S	15 13 03		
	L	15 20		
	F	15 36		
		Ottawa		
408 Sept. 24	e_Z	11 44 44		
	e_Z	11 48.6		
	e_N	11 55.3		
	eL	12 18		
	F	12 35		
		Victoria		
	e	11 55.2		
	L	12 21		
	F	12 53		
		Saskatoon		
	e	11 55.2		
	L	12 21		
	F	12 46		

EARTHQUAKE CORRELATION TABLE

Month September, 1943

No.	Date	Ottawa	Victoria	Saskatoon	Halifax	Seven Falls		Shawinigan	**
						M. S.	W. A.		
369	2	9 13+0 02P*	.....	.....	.....	.....	.....	.....	..
370	2	23 20+0 01P*	.....	.....	.....	.....	.....	.....	..
371	4	.....	7 37+0 13L	.....	.....	.....	.....	.....	..
372	5	8 54+2 18U	8 54+2 29U	.....	.....	8 57+2 21U	8 57+0 55U	8 57+0 10P	A
373	6	4 01+3 34U	4 00+4 18U	4 01+3 08U	4 01+2 20U	4 01+3 42U	4 01+1 56U	4 01+2 07U	B
374	6	.....	.....	8 03+0 19L	.....	.....	.....	.....	..
375	6	.....	.....	.....	.....	.....	.....	15 05+0 06L	..
376	7	19 43+0 20r	19 35+0 14r	19 35+0 30r	.....	19 46+0 12r	19 43+0 12r	19 34+0 23r	..
377	8	15 14+0 01v	.....	.....	.....	.....	.....	....	C
378	8	.....	.....	.....	.....	.....	.....	19 37+0 01d	..
379	10	2 37+0 43r	2 57+0 29L	2 51+0 18L	.....	2 43+0 25L	2 38+0 08r	2 37+0 13r	E
380	10	3 03+0 01P*	.....	.....	.....	.....	.....	.....	..
381	10	8 50+3 07U	8 48+3 06U	8 59+2 18U	.....	8 54+3 11U	9 01+0 51U	8 50+1 20U	F
382	10	.....	.....	.....	.....	14 26+0 07L	.....	.....	..
383	11	2 09+0 13L	.....	.....	.....	2 06+0 15L	.....	.....	..
384	11	20 02+1 39u	19 56+1 10u	19 58+1 29u	.....	20 00+2 12u	.....	20 30+0 08L	..
385	12	1 17+0 01P*	.....	.....	.....	2 10+0 55L	.....	.....	..
386	13	.....	.....	.....	.....	23 36+0 17L	.....	.....	..
387	14	.....	.....	.....	.....	1 20+0 19L	.....	.....	..
388	14	2 20+2 11U	2 20+1 50U	2 26+1 38U	2 23+1 41U	2 22+1 50U	3 12+0 31L	3 09+0 19L	G
389	14	4 06+2 36U	4 11+2 34U	4 06+2 25U	4 09+1 57U	4 08+2 57U	4 49+0 33L	4 49+0 31L	J
390	14	7 37+3 00U	7 31+2 49U	7 36+2 38U	7 39+2 05U	7 39+4 16U	7 39+1 28U	7 37+1 24U	K
391	14	7 47+0 01P*	.....	.....	.....	.....	.....	.....	..
392	14	14 58+0 29L	14 55+0 15L	.....	.....	.....	.....	.....	..
393	16	1 21+0 15L	1 08+0 26L	1 12+0 37L	.....	0 35+1 29L	.....	.....	..
394	16	13 46+0 27L	13 12+0 59u	13 40+0 33L	.....	14 00+0 24L	.....	.....	..
395	17	.....	.....	.....	.....	0 46+0 29L	.....	.....	..
396	17	5 21+0 17L	5 11+0 24L	.....	.....	5 27+0 15L	.....	.....	..
397	17	10 46+1 01L	10 32+0 53u	10 33+0 46u	.....	10 35+1 12u	.....	.....	..
398	19	.....	5 00+1 20u	5 24+0 55L	.....	5 00+2 25u	.....	.....	..
399	20	1 01+0 54r	1 00+1 06r	1 06+0 53r	.....	1 03+1 05r	1 15+0 14L	1 15+0 10L	N
400	21	.....	.....	.....	.....	4 56+0 51L	.....	.....	..
401	22	23 27+0 03L	23 17+0 06L	23 18+0 05L	.....	.....	23 26+0 06L	23 25+0 04L	..
402	22	23 37+2 09u	23 43+2 34u	23 37+2 11u	23 40+1 25u	23 39+2 58u	23 37+1 06u	23 37+0 03P	O
403	23	12 55+0 07L	12 50+0 06L	12 51+0 08L	.....	12 57+0 07L	.....	12 56+0 02L	..

EARTHQUAKE CORRELATION TABLE

Month September, 1943

No.	Date	Ottawa	Victoria	Saskatoon	Halifax	Seven Falls		Shawinigan	**
						M. S.	W. A.		
404	23	15 07+1 05r	15 08+1 22r	15 08+0 55r	15 07+0 29r	15 08+1 22r	15 08+0 30r	15 08+0 28r	P
405	23	.....	.....	.....	.....	.....	.....	15 37+0 02P	..
406	24	.....	3 35+0 18L	.....	.....	3 43+0 37L	.....	.....	..
407	24	.....	6 52+0 39L	7 04+0 20L	.....	7 01+0 31L	.....	.....	..
408	24	11 45+0 50u	11 55+0 58u	11 55+0 51u	.....	11 55+1 13u	.....	11 45+0 05P	..
409	24	.....	15 03+0 10L	.....	.....	15 07+0 26L	.....	.....	..
410	25	5 55+0 0.6v*	.....	.....	.....	.....	5 53+0 02d	5 53+0 01v	Q
411	26	3 18+0 26L	3 39+0 21L	3 32+0 38L	.....	2 30+2 00u	.....	.....	..
412	26	18 42+0 35L	.....	18 32+0 35L	.....	18 30+0 59u	.....	.....	..
413	26	.....	.....	.....	.....	22 56+0 10L	.....	.....	..
414	27	4 53+0 0.2P*	.....	.....	.....	.....	.....	.....	..
415	27	19 31+0 0.2P*	.....	.....	.....	.....	.....	.....	..
416	27	22 22+1 55u	22 27+1 58u	22 51+0 40L	.....	22 30+2 03u	.....	.....	..
417	28	11 38+0 29L	12 07+0 55L	11 28+0 24L	.....	11 38+0 41L	.....	.....	..
418	28	16 32+0 01v*	.....	.....	.....	.....	16 31+0 03d	16 31+0 01v	R
419	29	.....	.....	.....	.....	5 36+0 03L	.....	.....	..
420	29	.....	.....	.....	.....	10 14+0 21L	.....	.....	..
421	30	.....	8 01+0 14L	.....	.....	8 22+0 15L	.....	.....	..

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM September 24, 1943 to September 28, 1943 No. 62

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Seven Falls		
408 Sept. 24 (Cont'd)	e	11 55.4		
	L	12 19		
	F	13 08		
		Seven Falls		
410 Sept. 25	H	5 52.6	50	
	Pl	5 52 44		
	Sl	5 52 50		
	F	5 55		
		Shawinigan Falls		
	H	5 52.7	185	
	Pl	5 53 16		
	Sl	5 53 38		
	F	5 54		
		Seven Falls		
411 Sept. 26	e	2 30.5		
	L	3 15		
	F	4 30		
		Seven Falls		
412 Sept. 26	e	18 30.3		
	L	18 43		
	F	19 29		
		Ottawa		
416 Sept. 27	i_Z	22 22 26		
	e_N	22 40.0		
	e_N	22 51.0		
	e_L	22 57		
	F	0 17		
		Victoria		
	e	22 27 17		
	e	32 47.1		
	F	0 25		
		Seven Falls		
	e	22 29.6		
	e	22 41.2		
	L	22 50		
	F	0 33		
		Ottawa		
418 Sept. 28	e_Z	16 32 20		
	e_Z	16 32 32		
	F	16 33.5		

CORRELATION OF EARTHQUAKES
September, 1943

N O T E S

A	:	Ottawa	Δ = 14,600 km. ca.	H = $8^h34^m.5$ U.T.
		Victoria	Δ = 11,780 km.	H = 8 34.6 U.T.
		Seven Falls	Δ = 14,700 km.	H = 8 34.6 U.T.
B	:	Ottawa	Δ = 13,700 km. ca.	H = 3^h42^m U.T.
		Victoria	Δ = 13,550 km.	H = 3 41.6 U.T.
		Saskatoon	Δ = 14,900 km.	H = 3 41.4 U.T.
		Seven Falls	Δ = 15,700 km.	H = 3 41.7 U.T.
C	:	Ottawa	Δ = 205 km.	H = $15^h13^m.3$ U.T.
E	:	Ottawa	Δ = 2,900 km.	H = $2^h31^m.8$ U.T.
F	:	Ottawa	Δ = 10,430 km.	H = $8^h37^m.2$ U.T.
		Victoria	Δ = 7,990 km.	H = 8 36.7 U.T.
G	:	Ottawa	Δ = 13,900 km. ca.	H = 2^h01^m U.T.
		Victoria	Δ = 10,560 km.	H = 2 01.1 U.T.
		Seven Falls	Δ = 13,670 km.	H = 2 01.6 U.T.
J	:	Ottawa	Δ = 13,900 km. ca.	H = 3^h47^m U.T.
		Saskatoon	Δ = 11,450 km.	H = 3 47.4 U.T.
		Seven Falls	Δ = 13,670 km.	H = 3 47.6 U.T.
K	:	Ottawa	Δ = 13,300 km.	H = 7^h18^m U.T.
		Victoria	Δ = 10,100 km.	H = 7 18.3 U.T.
		Saskatoon	Δ = 11,670 km.	H = 7 18.1 U.T.
		Seven Falls	Δ = 13,500 km.	H = 7 18.3 U.T.
N	:	Ottawa	Δ = 4,010 km.	H = $0^h53^m.9$ U.T.
		Victoria	Δ = 3,090 km.	H = 0 54.1 U.T.
		Seven Falls	Δ = 5,800 km.	H = 0 54.2 U.T.
O	:	Ottawa	Δ = 14,000 km. ca.	H = 23^h18^m ca. U.T.
		Seven Falls	Δ = 14,500 km. ca.	H = 23 18 ca. U.T.
P	:	Ottawa	Δ = 3,480 km.	H = $15^h00^m.8$ U.T.
		Victoria	Δ = 4,510 km.	H = 15 00.7 U.T.
		Saskatoon	Δ = 4,720 km.	H = 15 00.2 U.T.
		Halifax	Δ = 3,870 km.	H = 15 00.2 U.T.
		Seven Falls	Δ = 3,880 km.	H = 15 00.7 U.T.
		Shawinigan Falls	Δ = 3,760 km.	H = 15 00.7 U.T.
Q	:	Seven Falls	Δ = 50 km.	H = $5^h52^m.6$ U.T.
		Shawinigan Falls	Δ = 185 km.	H = 5 52.7 U.T.
R	:	Seven Falls	Δ = 35 km.	H = $16^h30^m.4$ U.T.

Dominion Observatory,
Ottawa, Canada,
November 9, 1943.

SEISMOLOGICAL SERVICE OF CANADA

SEISMOLOGICAL BULLETIN
October
1943

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DOMINION OBSERVATORY
OTTAWA - CANADA

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SEISMOLOGICAL SERVICE OF C[illegible]
DOMINION OBSERVATORY, OTTAWA

R. Meldrum Stewart, Dominion Astronomer
Ernest A. Hodgson, Seismologist
W. W. Doxsee, Station Superintendent

S T A T I O N S

OTTAWA

ϕ = 45°23'38" N. λ = 75°42'57" W. h = 83m.

Time correction within 0.10s.

Foundation: boulder clay over limestone

Instruments: Milne-Shaw NS and EW components, designated 23 and 17, respectively, each with photographic registration, magnetic damping, paper speed of 15 mm. per min., mass 1 lb.

Benioff Vertical, short and long period, designated BS and BL, respectively, photographic registration, BS a paper speed of 60 mm. per min., BL a paper speed of 30 mm. per min., mass 235 lbs.

HALIFAX

Dalhousie University

ϕ = 44°38' N. λ = 63°36' W. h = 46m.

Time correction from recorded radio time signals

Foundation: Carbonaceous slate

Instruments: Bosch NS and EW components, designated HN and HE, respectively, each with photographic registration, magnetic damping, paper speed of 15 mm. per min., mass 200g.

SEVEN FALLS

Quebec Power Company

ϕ = 47°07'.4 N. λ = 70°49'.6 W. h = 232m. ca.

Time correction from recorded radio time signals

Foundation: Solid granite of Canadian Shield

Instruments: Wood-Anderson and Milne-Shaw, both EW component, designated SF and SM, respectively, each with photographic registration, magnetic damping, SF a paper speed of 60 mm. per min. and mass 15g., SM a paper speed of 8 mm. per min. and mass 1 lb.

VICTORIA

Dominion Astrophysical Observatory

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

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.

Wiechert Vertical, designated WV, smoked sheet registration, air damping, paper speed of 15 mm. per min., mass 80 kg.

SHAWINIGAN FALLS

Shawinigan Water and Power Company

ϕ = 46°33'.1 N. λ = 72°45'.8 W. h = 60m. ca.

Time correction from recorded radio time signals

Foundation: solid granite of Canadian Shield

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

SASKATOON

University of Saskatchewan

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

Time correction from radio time signals

Foundation: clay and sand

Instrument: Milne-Shaw NE component, designated SN, photographic registration, magnetic damping, paper speed of 8 mm. per min., mass 1 lb.

KIRKLAND LAKE

Lake Shore Mines

ϕ = 48°09' N. λ = 80°03' W. h = 320m.

Time correction from recorded radio time signals

Foundation: rock

Instrument: Converted Heiland Field Seismometer, vertical component, designated KL, photographic registration, paper speed of 30 mm. per min,

DETERMINED CONSTANTS

INSTRUMENT	T_o	V	ε	DISPLACEMENT FOR 1" ARC TILT	DISPLACEMENT FOR 10^{-6} g
17 (Ottawa)	12.0	300	20:1	50 mm.	
23 (Ottawa)	12.0	300	20:1	50 mm.	
BS (Ottawa)	1.0				5 mm.
BL (Ottawa)	1.0				16 mm.
HN (Halifax)	5.0	125	20:1		
HE (Halifax)	5.0	125	20:1		
SA (Shawinigan)	1.0	2400			
20 (Victoria)	12.0	300	20:1		
21 (Victoria)	12.0	300	20:1		
WV (Victoria)	4.0	120	15:1		
SF (Seven Falls)	1.0	2500			
SM (Seven Falls)	12.0	300	20:1	50 mm.	
SN (Saskatoon)	10.0	150	20:1	18 mm.	
KL (Kirkland Lake)	1/30	2×10^4	at 30 cycles		

NOTE:- Universal Time used throughout.

CORRELATION OF EARTHQUAKES
October, 1943

N O T E S

A :	Ottawa	Δ = 165 km.	H = $23^h00^m.0$ U.T.	
B :	Ottawa	Δ = 8,000 km.	H = $13^h09^m.0$ U.T.	
	Seven Falls	Δ = 7,420 km.	H = 13 09.1 U.T.	
	Shawinigan Falls	Δ = 7,680 km.	H = 13 09.0 U.T.	
C :	Victoria	Δ = 8,865 km.	H = $23^h08^m.3$ U.T.	
E :	Ottawa	Δ = 12,000 km.	ca.	H = 17^h23^m U.T. ca.
	Victoria	Δ = 8.865 km.		H = (17 25.3) U.T.
	Seven Falls	Δ = 12,000 km.	ca.	H = 17 23.3 U.T. ca.
F :	Ottawa	Δ = 450 km.		H = $16^h17^m.7$ U.T.

Rockburst at Lake Shore Mines, Kirkland Lake, Ontario.

Dominion Observatory,
Ottawa, Canada,
November 24, 1943.

SEISMOLOGICAL BULLETINS RECEIVED
October, 1943

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

STATIONS	BULLETINS	RECEIVED	
New Zealand Stations	July, 1943	October	2
Brisbane	June and July, 1943	"	4
United States Coast and Geodetic Survey	August and September, 1941	"	6
Bogota	July, 1943	"	14
Santa Clara	September, 1943	"	19
Bogota	August, 1943	"	21
New Zealand Stations	August, 1943	"	25
Brisbane	August, 1943	"	27
Ksara	April to June, 1943	"	28
Ksara	Year 1940	"	29

Dominion Observatory,
Ottawa - Canada.

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM October 1, 1943 to October 16, 1943 No. 64

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
422 Oct. 1	e_Z	18 01 56		
	e_N	18 09		
	L	18 13		
	F	18 33		
		Victoria		
430 Oct. 4	e	10 52.6		
	e	11 03.3		
	L	11 28		
	F	11 48		
		Saskatoon		
	e	11 06.5		
	L	11 36		
	F	11 55		
		Ottawa		
435 Oct. 13	e_Z	4 51 27		
	e_N	4 59.0		
	eL	5 02		
	F	5 40		
		Victoria		
	e	4 54 51		
	L	4 58		
	F	5 44		
		Saskatoon		
	e	4 55 18		
	L	5 00		
	F	5 19		
		Seven Falls		
	e	5 01.0		
	eL	5 03		
	F	5 46		
		Ottawa		
439 Oct. 15	H	23 00.0	165	
	P_1	23 00 27.5		
	S_1	23 00 47		
	F	23 01.6		
		Ottawa		
440 Oct. 16	e_Z	10 07.1		
	e_Z	10 12.2		
	L	10 16		
	F	10 31		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM October 16, 1943 to October 21, 1943 No. 65

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
441 Oct. 16	H	13 09.0	8000	
	P_Z	13 20 19		
	S	13 29 45		
	L	13 42		
	F	13 55		
		Seven Falls		
	H	13 09.1	7420	
	P	13 19 56		
	S	13 28.9		
	L	13 44		
	F	13 56		
		Shawinigan Falls		
	H	13 09.0	7680	
	P	13 20 04		
	S	13 29 14		
	F	13 30		
		Victoria		
443 Oct. 17	e	23 00.7		
	L	23 21		
	F	0 00		
		Seven Falls		
	e	23 09		
	L	23 43		
	F	0 30		
		Ottawa		
446 Oct. 21	e	23 36 32		USCGS. gives:-
	e	23 42 42		ϕ = 16°.5 S.
	eL	23 56		λ = 178° E.
	F	1 10		
		Victoria		
	H	23 08.3	8865	
	P	23 20 22		
	S	23 30 27		
	L	23 44		
	F	0 55		
		Saskatoon		
	e	23 32 15		
	e	23 38 21		
	L	23 50		
	F	0 44		
		Seven Falls		
	e	23 32 55		
	e	23 37 01		
	e	23 43 29		
	L	0 00		
	F	1 46		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM October 21, 1943 to October 23, 1943 No. 66

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
447 Oct. 22	e_N	16 29.7		
	eL	16 56		
	F	17 33		
		Ottawa		
448 Oct. 23	H	17 23 ca.	12,000 ca.	USCGS. gives:-
	PP	17 41.8		ϕ = 25° N.
	SKS	17 48 14		λ = 92°.5 E.
	SKKS	17 49 36		
	PS	17 51.3		
	SS	17 57 14		
	SSS	18 01 12		
	eL	18 16		
	F	20 03		
		Victoria		
	H	(17 25.3)	8865	Clock correction uncertain.
	P	(17 37 25)		
	S	(17 47 30)		
	SS	(17 55)		
	L	(18 03)		
	F	(19 55)		
		Saskatoon		
	e	17 47 37		
	e	17 50.1		
	e	17 55.5		
	L	18 06		
	F	19 48		
		Halifax		
	e	17 52 08		
	e	18 01.0		
	L	18 11		
	F	18 45		
		Seven Falls		
	H	17 23.3	12,000 ca.	
	PP	17 41 54		
	SKS	17 48 05		
	SKKS	17 49 16		
	SS	17 56 49		
	SSS	18 01.4		
	L	18 09		
	F	20 06		
		Shawinigan Falls		
	e	17 40.5		
	e	17 48.1		
	e	17 57.0		
	L	18 22		
	F	18 40		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM October 23, 1943 to October 31, 1943 No. 67

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
450 Oct. 24	e_Z	13 52 08		
	e_N	14 01.8		
	L	14 19		
	F	14 39		
		Seven Falls		
	e	14 01 57		
	L	14 21		
	F	14 33		
		Ottawa		
451 Oct. 24	e	16 31 40		
	e	16 39 28		
	eL	16 51		
	F	18 29		
		Victoria		
	e	16 17 10		
	e	16 27 35		
	L	16 44		
	F	17 32		
		Seven Falls		
	e	16 24.2		
	e	16 33 59		
	e	16 40.6		
	L	16 50		
	F	18 43		
		Ottawa		
452 Oct. 24	e_Z	23 34 05		
	L	0 02		
	F	0 16		
		Seven Falls		
	e	23 43.3		
	L	0 00		
	F	0 19		
		Ottawa		
455 Oct. 26	H	16 17.7	450	Rockburst at Lake Shore Mines, Kirkland Lake, Ontario.
	P_n	16 18 44		
	P_2	16 18 54		
	S_n	16 19 31		
	S_2	16 19 45		
	F	16 21.5		
		Seven Falls		
	e	16 20 55		
	F	16 22		
		Shawinigan Falls		
	e	16 20 58		
	e	16 21 11		
	F	16 23		

W. W. Doxsee.

EARTHQUAKE CORRELATION TABLE

Month October, 1943

No.	Date	Ottawa	Victoria	Saskatoon	Halifax	Seven Falls		Shawinigan	**
						M. S.	W. A.		
422	1	18 02+0 31u	.....	.....	.....	18 09+0 56L	.....	.....	..
423	1	18 54+0 11L	.....	.....	.....	.....	.....	.....	..
424	2	.....	.....	.....	.....	5 45+0 06L	.....	.....	..
425	2	.....	.....	.....	.....	9 01+0 07L	.....	.....	..
426	2	.....	.....	.....	.....	.....	.....	17 32+0 02P	..
427	3	1 08+0 18L	.....	.....	.....	1 05+0 35L	.....	.....	..
428	3	.....	.....	.....	.....	8 58+0 09L	.....	.....	..
429	3	.....	.....	.....	.....	20 08+0 56L	.....	.....	..
430	4	.....	10 53+0 55u	11 06+0 49u	.....	11 10+1 03L	.....	.....	..
431	6	17 45+0 0.3P*	.....	.....	.....	.....	.....	.....	..
432	7	8 03+0 01P*	.....	.....	.....	.....	.....	.....	..
433	8	22 45+0 0.5P*	.....	.....	.....	.....	.....	.....	..
434	9	.....	.....	.....	.....	10 34+0 13L	.....	.....	..
435	13	4 51+0 49r	4 55+0 49r	4 55+0 24r	.....	5 01+0 45r	5 04+0 10L	5 02+0 08L	..
436	13	5 56+0 0.3P*	.....	.....	.....	.....	.....	.....	..
437	13	10 53+0 03L	.....	.....	.....	.....	.....	.....	..
438	15	22 20+0 0.6P*	.....	.....	.....	.....	.....	.....	..
439	15	23 00+0 01v*	.....	.....	.....	.....	.....	.....	A
440	16	10 07+0 24r	.....	.....	.....	.....	.....	10 12+0 04L	..
441	16	13 20+0 35u	.....	.....	.....	13 29+0 27u	13 20+0 02P	13 20+0 10u	B
442	16	15 23+0 10L	15 08+0 10L	.....	.....	15 24+0 07L	.....	.....	..
443	17	23 36+0 48L	23 01+0 59u	23 26+0 31L	.....	23 09+1 21u	.....	.....	..
444	19	17 58+0 07L	.....	17 57+0 07L	.....	.....	.....	.....	..
445	20	4 28+0 10L	.....	4 10+0 25L	.....	4 30+0 08L	.....	.....	..
446	21	23 37+1 33u	23 20+1 35u	23 32+1 08u	.....	23 33+2 13u	0 04+0 11L	.....	C
447	22	16 30+1 03u	16 52+0 25L	16 54+0 16L	.....	16 52+0 39L	.....	.....	..
448	23	17 42+2 21U	(17 37)+2 18U	17 48+2 00U	17 52+0 53U	17 42+2 24U	18 10+0 28L	17 40+1 00U	E
449	23	17 53+0 02P*	.....	.....	.....	.....	.....	17 53+0 03P	..
450	24	13 52+0 47u	14 00+0 19L	.....	.....	14 02+0 31u	.....	13 52+0 02P	..
451	24	16 32+1 57u	16 17+1 15u	.....	17 12+0 19L	16 24+2 19u	17 04+0 16L	.....	..
452	24	23 34+0 42u	.....	23 49+0 07L	.....	23 43+0 36u	.....	.....	..
453	25	11 55+0 0.4P*	.....	.....	.....	.....	.....	.....	..
454	26	5 08+0 11L	4 56+0 15L	5 00+0 07L	.....	5 11+0 13L	.....	.....	..
455	26	16 19+0 03v*	.....	.....	.....	.....	16 21+0 01v	16 21+0 02v	F
456	27	.....	.....	.....	.....	17 06+0 19L	.....	.....	..
457	29	17 56+0 06L	.....	.....	.....	.....	.....	.....	..

SEISMOLOGICAL SERVICE OF CANADA

SEISMOLOGICAL BULLETIN
November
1943

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DOMINION OBSERVATORY
OTTAWA - CANADA

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SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

R. Meldrum Stewart, Dominion Astronomer
Ernest A. Hodgson, Seismologist
W. W. Doxsee, Station Superintendent

S T A T I O N S

OTTAWA

ϕ = 45°23'38" N. λ = 75°42'57" W. h = 83m.

Time correction within 0.10s.

Foundation: boulder clay over limestone

Instruments: Milne-Shaw NS and EW components, designated 23 and 17, respectively, each with photographic registration, magnetic damping, paper speed of 15 mm. per min., mass 1 lb.

Benioff Vertical, short and long period, designated BS and BL, respectively, photographic registration, BS a paper speed of 60 mm. per min., BL a paper speed of 30 mm. per min., mass 235 lbs.

HALIFAX

Dalhousie University

ϕ = 44°38' N. λ = 63°36' W. h = 46m.

Time correction from recorded radio time signals

Foundation: Carbonaceous slate

Instruments: Bosch NS and EW components, designated HN and HE, respectively, each with photographic registration, magnetic damping, paper speed of 15 mm. per min., mass 200g.

SEVEN FALLS

Quebec Power Company

ϕ = 47°07'.4 N. λ = 70°49'.6 W. h = 232m. ca.

Time correction from recorded radio time signals

Foundation: Solid granite of Canadian Shield

Instruments: Wood-Anderson and Milne-Shaw, both EW component, designated SF and SM, respectively, each with photographic registration, magnetic damping, SF a paper speed of 60 mm. per min. and mass 15g., SM a paper speed of 8 mm. per min. and mass 1 lb.

VICTORIA

Dominion Astrophysical Observatory

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

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.

Wiechert Vertical, designated WV, smoked sheet registration, air damping, paper speed of 15 mm. per min., mass 80 kg.

SHAWINIGAN FALLS

Shawinigan Water and Power Company

ϕ = 46°33'.1 N. λ = 72°45'.8 W. h = 60m. ca.

Time correction from recorded radio time signals

Foundation: solid granite of Canadian Shield

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

SASKATOON

University of Saskatchewan

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

Time correction from radio time signals

Foundation: clay and sand

Instrument: Milne-Shaw NE component, designated SN, photographic registration, magnetic damping, paper speed of 8 mm. per min., mass 1 lb.

KIRKLAND LAKE

Lake Shore Mines

ϕ = 48°09' N. λ = 80°03' W. h = 320m.

Time correction from recorded radio time signals

Foundation: rock

Instrument: Converted Heiland Field Seismometer, vertical component, designated KL, photographic registration, paper speed of 30 mm. per min,

DETERMINED CONSTANTS

INSTRUMENT	T_o	V	ε	DISPLACEMENT FOR 1" ARC TILT	DISPLACEMENT FOR 10^{-6} g
17 (Ottawa)	12.0	300	20:1	50 mm.	
23 (Ottawa)	12.0	300	20:1	50 mm.	
BS (Ottawa)	1.0				5 mm.
BL (Ottawa)	1.0				16 mm.
HN (Halifax)	5.0	125	20:1		
HE (Halifax)	5.0	125	20:1		
SA (Shawinigan)	1.0	2400			
20 (Victoria)	12.0	300	20:1		
21 (Victoria)	12.0	300	20:1		
WV (Victoria)	4.0	120	15:1		
SF (Seven Falls)	1.0	2500			
SM (Seven Falls)	12.0	300	20:1	50 mm.	
SN (Saskatoon)	10.0	150	20:1	18 mm.	
KL (Kirkland Lake)	1/30	2×10^4	at 30 cycles		

NOTE:- Universal Time used throughout.

SEISMOLOGICAL SERVICE OF CA...
DOMINION OBSERVATORY, OTTAWA

FROM November 1, 1943 to November 3, 1943 No. 68

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
459 Nov. 2	e	18 27 32		
	e	18 37.0		
	e	18 43.0		
	e	18 54.0		
	eL	19 00		
	F	21 05		
		Victoria		
	e	18 30 12		
	e	18 31 15		
	e	18 47.1		
	L	19 08		
	F	21 04		
		Saskatoon		
	e	18 34.8		
	e	18 46.7		
	L	19 02		
	F	21 00		
		Halifax		
	e_N	18 33.8		
	e_E	18 41.8		
	L	19 02		
	F	20 02		
		Seven Falls		
	e	18 27 49		
	e	18 35.2		
	e	18 43 11		
	L	18 54		
	F	21 47		
		Ottawa		
461 Nov. 3	H	14 32.5	4860	USCGS. gives:-
	P	14 40 35		ϕ = 62° N.
	PP	14 42 12		λ = 151° W.
	PPP_N	14 42 48		
	S	14 47 12		
	SS	14 50 28		
	SSS	14 51 12		
	eL	14 53		
	F	18 48		
		Victoria		
	H	14 32.2	2335	
	iP	14 36 51		
	S	14 40 43		
	L	14 43		
	F	18 55		
		Saskatoon		
	H	14 32.7	2690	
	P	14 37 57		
	S	14 42 18		
	L	14 45		
	F	18 32		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM November 3, 1943 to November 6, 1943 No. 69

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Halifax		
461 Nov. 3 (Cont'd)	H	14 32.4	5610	
	P	14 41 18		
	S	14 48 37		
	SS	14 52 34		
	L	14 56		
	F	17 05		
		Seven Falls		
	H	14 32.5	4935	
	P	14 40 42		
	S	14 47 23		
	SS	14 50.5		
	L	14 54		
	F	19 07		
		Shawinigan Falls		
	H	14 32.5	4940	
	P	14 40 39		
	PP	14 42 23		
	S	14 47 20		
	SS	14 50.6		
	L	14 54		
	F	16 19		
		Victoria		
463 Nov. 4	e	6 24 05		
	L	6 32		
	F	7 00		
		Saskatoon		
	e	6 25.5		
	L	6 35		
	F	6 53		
		Seven Falls		
	e	6 29 13		
	L	6 37		
	F	7 35		
		Victoria		
464 Nov. 4	e	7 08		
	L	8 00		
	F	9 00		
		Ottawa		
466 Nov. 6	eZ	0 08 38		
	eZ	0 08 56		
	F	0 09.7		
		Seven Falls		
	H	0 06.6	70	
	P1	0 06 51		
	S1	0 06 59		
	F	0 09		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM November 6, 1943 to November 6, 1943 No. 70

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Shawinigan Falls		
466	e	0 07 42		
Nov. 6	F	0 09		
(Cont'd)		Ottawa		
468	H	8 31.3	16,000ca.	USCGS. gives:-
Nov. 6	P'	8 50 49		ϕ = 5°.5 S.
	e	8 51 04		λ = 134° E.
	PP	8 53 48		
	SKP	8 54 14		
	PPP	8 57 05		
	PS	9 04 00		
	PPS	9 07 02		
	SS	9 12.1		
	SSS	9 18.1		
	eL	9 43		
	F	12 46		
		Victoria		
	H	8 31.4	12,450ca.	
	P	8 46.1		
	PP	8 50 37		
	SKKS	8 57 37		
	e	9 14 39		
	L	9 20		
	F	12 41		
		Saskatoon		
	H	8 31.5	12,900ca.	
	PP	8 51 14		
	SKS	8 57 00		
	S	8 59 00		
	PS	9 01 03		
	SS	9 07.2		
	SSS	9 11.5		
	eL	9 24		
	F	12 56		
		Seven Falls		
	H	8 31.4	15,900ca.	
	P'	8 50.9		
	e	8 51 22		
	PP	8 53 50		
	SKP	8 54.4		
	e	9 04 24		
	PPS	9 06 37		
	SS	9 11.5		
	L	9 32		
	F	13 37		
		Shawinigan Falls		
	H	8 31.5	15,300ca.	
	P'	8 50 55		
	PP	8 53 29		
	e	9 03.9		
	SS	9 11.3		
	L	9 40		
	F	11 06		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM November 6, 1943 to November 13, 1943 No. 71

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
471 Nov. 8	H	6 59.6	4680	
	P	7 07 27		
	S_N	7 13.9		
	L	7 19		
	F	8 03		
		Saskatoon		
	e	7 13.5		
	e	7 16.5		
	L	7 20		
	F	7 48		
		Seven Falls		
	e	7 13 05		
	e	7 16.3		
	L	7 20		
	F	8 07		
		Ottawa		
472 Nov. 9	H	11 46.4	9150	
	PZ	11 58 42		
	S	12 09 00		
	L	12 28		
	F	12 47		
		Seven Falls		
	e	11 59.1		
	S	12 09 03		
	L	12 28		
	F	12 42		
		Shawinigan Falls		
	H	11 46.7	8980	
	P	11 58 52		
	S	12 09 02		
	F	12 11		
		Ottawa		
477 Nov. 13	eZ	19 02 48		
	eL	19 38		
	F	20 17		
		Victoria		
	e	(19 06)		
	L	(19 25)		
	F	(20 10)		
		Saskatoon		
	e	19 10.6		
	L	19 31		
	F	20 03		
		Seven Falls		
	e	19 14.6		
	e	19 21 41		
	L	19 42		
	F	20 26		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM November 13, 1943 to November 24, 1943 No. 72

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
482 Nov. 16	H	11 38.1	6650	
	P	11 48 06		
	S	11 56 24		
	SS_N	12 00.7		
	eL	12 07		
	F	12 31		
		Victoria		
	H	11 38.0	8550	
	P	11 49 50		
	S	11 59 41		
	L	12 15		
	F	12 57		
		Saskatoon		
	e	11 58 51		
	e	12 08.4		
	L	12 16		
	F	12 43		
		Seven Falls		
	e	11 56 44		
	L	12 04		
	F	12 24		
		Ottawa		
489 Nov. 21	e_Z	19 48 41		
	L	20 05		
	F	20 18		
		Ottawa		
492 Nov. 24	e_N	13 36		
	e_N	13 43		
	e_E	13 49.7		
	e_N	13 53		
	e_E	13 56.2		
	L	14 08		
	F	15 08		
		Victoria		
	e	13 40.6		
	e	13 46 36		
	L	14 05		
	F	15 06		
		Saskatoon		
	e	13 41 22		
	e	13 47.0		
	L	13 59		
	F	14 37		
		Seven Falls		
	e	13 45.3		
	e	13 59.0		
	L	14 05		
	F	15 46		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM November 24, 1943 to November 26, 1943 No. 73

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Saskatoon		
493	e	20 45 01		Local?
Nov.	e	20 45 04		
26	F	20 46		
		Ottawa		
496	H	22 20.6	8340	USCGS. gives:-
Nov.	P	22 32 14		ϕ = 41° N.
26	PPP	22 36 45		λ = 36° E.
	iS	22 41 56		
	SS	22 47.0		
	SSS	22 50.0		
	eL	22 55		
	F	2 26		
		Hamilton		
		Courtesy of Mr. E. Mantle		
	H	22 20.9	8580	
	P	22 32 48		
	PP	22 35 44		
	S	22 42 41		
	SS	22 47 34		
	SSS	22 50.8		
	eL	22 58		
	F	1 50		
		Victoria		
	H	22 20.8	9920	
	P	22 33 42		
	S	22 44 33		
	L	23 06		
	F	2 50		
		Saskatoon		
	H	22 20.8	9100	
	P	22 33 03		
	S	22 43 18		
	SS	22 49 37		
	L	23 00		
	F	1 58		
		Halifax		
	H	22 20.8	7500	
	P	22 31 41		
	S	22 40 43		
	SS	22 45.5		
	SSS	22 48.5		
	L	22 53		
	F	0 16		
		Seven Falls		
	H	22 20.5	7940	
	P	22 31 49		
	S	22 41 11		
	SSS	22 49.3		
	eL	22 55		
	F	2 58		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM November 26, 1943 to November 30, 1943 No. 74

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Shawinigan Falls		
496	H	22 20.5	8160	
Nov.	P	22 31 59		
26	S	22 41 33		
(Cont'd)	SS	22 46 13		
	SSS	22 49.5		
	eL	22 57		
	F	0 18		
		Victoria		
497	e	6 46 07		
Nov.	L	7 06		
28	F	7 43		
		Ottawa		
498	eZ	17 22 29		
Nov.	L	17 38		
28	F	18 55		
		Seven Falls		
	e	17 31.8		
	L	17 39		
	F	19 10		
		Victoria		
499	e	0 42 16		Local.
Nov.	L?	0 42 26		
29	F	0 45		
		Ottawa		
501	H	19 37.2	8050	
Nov.	P	19 48 36		
29	S	19 58 04		
	SS_N	20 02 40		
	eL	20 12		
	F	20 50		
		Seven Falls		
	e	19 58 23		
	L	20 09		
	F	21 13		
		Seven Falls		
502	e	21 39 59		
Nov.	L	21 58		
29	F	23 18		

W. H. Dopsee.

EARTHQUAKE CORRELATION TABLE

Month November, 1943

No.	Date	Ottawa	Victoria	Saskatoon	Halifax	Seven Falls M. S.	Seven Falls W. A.	Shawinigan	**
458	2	18 09+0 05L	18 01+0 04L	.....	.....	18 12+0 03L	.....	.....	..
459	2	18 28+2 37U	18 30+2 34U	18 35+2 25U	18 34+1 28U	18 28+3 19U	19 06+0 24L	.....	..
460	2	.....	.....	.....	.....	23 19+0 06L	.....	.....	..
461	3	14 41+4 07R	14 37+4 18R	14 38+3 54R	14 41+2 24U	14 41+4 26R	14 41+1 57R	14 41+1 38R	A
462	4	.....	.....	.....	.....	1 25+0 05L	.....	.....	..
463	4	6 36+0 51L	6 24+0 36u	6 26+0 27u	.....	6 29+1 06u	.....	.....	..
464	4	7 42+0 40L	7 08+1 52u	7 56+0 19L	.....	7 41+1 32L	.....	.....	..
465	5	10 40+0 02P*	.....	.....	.....	.....	.....	.....	..
466	6	0 09+0 01v*	.....	.....	.....	.....	0 07+0 02d	0 08+0 01v	B
467	6	.....	6 57+0 25L	.....	.....	7 20+0 53L	.....	.....	..
468	6	8 51+3 55U	8 46+3 55U	8 51+4 05U	.....	8 51+4 45U	8 51+2 21U	8 51+2 15U	C
469	6	.....	.....	.....	.....	21 04+0 06L	.....	.....	..
470	7	9 31+0 18L	.....	.....	.....	9 23+0 33L	.....	.....	..
471	8	7 07+0 56r	7 21+0 39L	7 13+0 35r	7 22+0 11L	7 13+0 54r	7 21+0 08L	7 07+0 03P	E
472	8	.....	.....	.....	.....	23 29+0 32L	.....	.....	..
473	9	.....	.....	.....	.....	0 28+0 06L	.....	.....	..
474	9	11 59+0 48u	.....	.....	.....	12 09+0 33u	11 59+0 13P	11 59+0 12u	F
475	13	.....	11 30+0 08L	.....	.....	.....	.....	.....	..
476	13	17 38+0 10L	17 32+0 23L	17 40+0 12L	.....	17 32+0 34L	.....	.....	..
477	13	19 03+1 14u	19 06+1 04u	19 11+0 52u	.....	19 15+1 11u	.....	.....	..
478	13	.....	.....	.....	.....	20 37+0 33L	.....	.....	..
479	14	.....	.....	.....	.....	4 44+0 05L	.....	.....	..
480	15	0 06+0 03P*	.....	.....	.....	.....	.....	.....	..
481	16	.....	.....	.....	.....	6 03+0 15L	.....	.....	..
482	16	11 48+0 43u	11 50+1 07u	11 59+0 44u	.....	11 57+0 27u	.....	11 48+0 04P	G
483	17	.....	8 30+0 08L	.....	.....	.....	.....	.....	..
484	18	.....	19 20+0 21L	.....	.....	19 40+0 20L	.....	.....	..
485	20	.....	.....	.....	.....	0 43+0 19L	.....	.....	..
486	20	.....	.....	.....	.....	8 08+0 20L	.....	.....	..
487	20	.....	.....	.....	.....	10 44+0 06L	.....	.....	..
488	20	19 28+0 10L	19 25+0 19L	19 27+0 06L	.....	19 27+0 21L	.....	.....	..
489	21	19 49+0 29u	.....	20 00+0 13L	.....	20 04+0 18L	.....	19 49+0 02P	..
490	23	.....	.....	.....	.....	22 45+0 22L	.....	.....	..

EARTHQUAKE CORRELATION TABLE

Month November, 1943

No.	Date	Ottawa	Victoria	Saskatoon	Halifax	Seven Falls		Shawinigan	**
						M. S.	W. A.		
491	24	.....	7 45+0 17L	.....	.....	7 59+0 51L	.....	.....	..
492	24	13 36+1 32u	13 41+1 25u	13 41+0 56u	.....	13 45+2 01u	.....	.....	..
493	26	.....	.....	20 45+0 01d	.....	.....	.....	.....	..
494	26	21 45+0 01P	.....	.....	.....	.....	.....	21 45+0 01P	..
495	26	21 48+0 03P	21 55+0 05L	.....	.....	22 03+0 28L	21 48+0 02P	21 48+0 06P	..
496	26	22 32+3 54U	22 34+4 16U	22 33+3 25U	22 32+1 44U	22 32+4 26U	22 32+1 55U	22 32+1 46U	J
497	28	.....	6 46+0 57u	.....	.....	7 12+1 11L	.....	.....	..
498	28	17 22+1 33u	17 31+1 29L	17 34+0 57L	.....	17 32+1 38u	.....	17 22+0 02P	..
499	29	.....	0 42+0 03d	.....	.....	.....	.....	.....	..
500	29	.....	.....	.....	.....	19 29+0 05L	.....	.....	..
501	29	19 49+1 01u	20 01+1 01L	.....	.....	19 58+1 15u	.....	19 49+0 04P	K
502	29	21 48+0 52L	21 37+1 32L	21 45+0 38L	.....	21 40+1 38u	.....	.....	..

CORRELATION OF EARTHQUAKES
November, 1943

N O T E S

A :	Ottawa	Δ =	4,860 km.	H = $14^h32^m.5$ U.T.
	Victoria	Δ =	2,335 km.	H = 14 32.2 U.T.
	Saskatoon	Δ =	2,690 km.	H = 14 32.7 U.T.
	Halifax	Δ =	5,610 km.	H = 14 32.4 U.T.
	Seven Falls	Δ =	4,935 km.	H = 14 32.5 U.T.
	Shawinigan Falls	Δ =	4,940 km.	H = 14 32.5 U.T.
B :	Seven Falls	Δ =	70 km.	H = $0^h06^m.6$ U.T.
C :	Ottawa	Δ =	16,000 km.	H = $8^h31^m.3$ U.T.
	Victoria	Δ =	12,450 km.	H = 8 31.4 U.T.
	Saskatoon	Δ =	12,900 km.	H = 8 31.5 U.T.
	Seven Falls	Δ =	15,900 km.	H = 8 31.4 U.T.
	Shawinigan Falls	Δ =	15,300 km.	H = 8 31.5 U.T.
E :	Ottawa	Δ =	4,680 km.	H = $6^h59^m.6$ U.T.
F :	Ottawa	Δ =	9,150 km.	H = $11^h46^m.4$ U.T.
	Shawinigan Falls	Δ =	8,980 km.	H = 11 46.7 U.T.
G :	Ottawa	Δ =	6,650 km.	H = $11^h38^m.1$ U.T.
	Victoria	Δ =	8,550 km.	H = 11 38.0 U.T.
J :	Ottawa	Δ =	8,340 km.	H = $22^h20^m.6$ U.T.
	Hamilton	Δ =	8,580 km.	H = 22 20.9 U.T.
	Victoria	Δ =	9,920 km.	H = 22 20.8 U.T.
	Saskatoon	Δ =	9,100 km.	H = 22 20.8 U.T.
	Halifax	Δ =	7,500 km.	H = 22 20.8 U.T.
	Seven Falls	Δ =	7,940 km.	H = 22 20.5 U.T.
	Shawinigan Falls	Δ =	8,160 km.	H = 22 20.5 U.T.
K :	Ottawa	Δ =	8,050 km.	H = $19^h37^m.2$ U.T.

Dominion Observatory,
Ottawa, Canada,
January 7, 1944.

SEISMOLOGICAL BULLETINS RECEIVED

November and December, 1943

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

STATION	BULLETINS	RECEIVED
Perth	July and August, 1943	November 5
India Stations	January to March, 1941	" 10
Brisbane	September, 1943	" 15
Santa Clara	October, 1943	" 18
Ksara	January to March, 1943	" 27
Bogota	September, 1943	" 29
United States Coast and Geodetic Survey	December, 1941	" 29
New Zealand Stations	September, 1943	December 6
Apia	July to September, 1943	" 9
Santa Clara	November, 1943	" 13
Brisbane	October, 1943	" 14
Ksara	July to September, 1943	" 16
New Zealand Stations	October, 1943	" 18
Bogota	October, 1943	" 20
Sydney	March, 1943	" 22
Perth	September and October, 1943	" 29

DOMINION OBSERVATORY,
OTTAWA - CANADA.

SEISMOLOGICAL SERVICE OF CANADA

SEISMOLOGICAL BULLETIN
December
1943

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DOMINION OBSERVATORY
OTTAWA - CANADA

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SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

R. Meldrum Stewart, Dominion Astronomer
Ernest A. Hodgson, Seismologist
W. W. Doxsee, Station Superintendent

S T A T I O N S

OTTAWA

ϕ = 45°23'38" N. λ = 75°42'57" W. h = 83m.

Time correction within 0.10s.

Foundation: boulder clay over limestone

Instruments: Milne-Shaw NS and EW components, designated 23 and 17, respectively, each with photographic registration, magnetic damping, paper speed of 15 mm. per min., mass 1 lb.

Benioff Vertical, short and long period, designated BS and BL, respectively, photographic registration, BS a paper speed of 60 mm. per min., BL a paper speed of 30 mm. per min., mass 235 lbs.

HALIFAX

Dalhousie University

ϕ = 44°38' N. λ = 63°36' W. h = 46m.

Time correction from recorded radio time signals

Foundation: Carbonaceous slate

Instruments: Bosch NS and EW components, designated HN and HE, respectively, each with photographic registration, magnetic damping, paper speed of 15 mm. per min., mass 200g.

SEVEN FALLS

Quebec Power Company

ϕ = 47°07'.4 N. λ = 70°49'.6 W. h = 232m. ca.

Time correction from recorded radio time signals

Foundation: Solid granite of Canadian Shield

Instruments: Wood-Anderson and Milne-Shaw, both EW component, designated SF and SM, respectively, each with photographic registration, magnetic damping, SF a paper speed of 60 mm. per min. and mass 15g., SM a paper speed of 8 mm. per min. and mass 1 lb.

VICTORIA

Dominion Astrophysical Observatory

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

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.

Wiechert Vertical, designated WV, smoked sheet registration, air damping, paper speed of 15 mm. per min., mass 80 kg.

SHAWINIGAN FALLS

Shawinigan Water and Power Company

ϕ = 46°33'.1 N. λ = 72°45'.8 W. h = 60m. ca.

Time correction from recorded radio time signals

Foundation: solid granite of Canadian Shield

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

SASKATOON

University of Saskatchewan

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

Time correction from radio time signals

Foundation: clay and sand

Instrument: Milne-Shaw NE component, designated SN, photographic registration, magnetic damping, paper speed of 8 mm. per min., mass 1 lb.

KIRKLAND LAKE

Lake Shore Mines

ϕ = 48°09' N. λ = 80°03' W. h = 320m.

Time correction from recorded radio time signals

Foundation: rock

Instrument: Converted Heiland Field Seismometer, vertical component, designated KL, photographic registration, paper speed of 30 mm. per min.

DETERMINED CONSTANTS

INSTRUMENT	T_o	V	ε	DISPLACEMENT FOR 1" ARC TILT	DISPLACEMENT FOR 10^{-6} g
17 (Ottawa)	12.0	300	20:1	50 mm.	
23 (Ottawa)	12.0	300	20:1	50 mm.	
BS (Ottawa)	1.0				5 mm.
BL (Ottawa)	1.0				16 mm.
HN (Halifax)	5.0	125	20:1		
HE (Halifax)	5.0	125	20:1		
SA (Shawinigan)	1.0	2400			
20 (Victoria)	12.0	300	20:1		
21 (Victoria)	12.0	300	20:1		
WV (Victoria)	4.0	120	15:1		
SF (Seven Falls)	1.0	2500			
SM (Seven Falls)	12.0	300	20:1	50 mm.	
SN (Saskatoon)	10.0	150	20:1	18 mm.	
KL (Kirkland Lake)	1/30	2×10^4	at 30 cycles		

NOTE:- Universal Time used throughout.

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM December 1, 1943 to December 1, 1943 No. 75

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
503 Dec. 1	H	6 04.6	14,400	
	P'Z	6 23 47		
	PP	6 25 42		
	SKKS	6 32.5		
	PS	6 36.4		
	PPS	6 38.0		
	SS	6 43.4		
	SSS	6 48.7		
	eL	7 02		
	F	7 45		
		Victoria		
	H	6 04.7	10,700	
	P	6 18 08		
	PP	6 22 00		
	SKS	6 28 33		
	eL	6 47		
	F	7 51		
		Saskatoon		
	e	6 30 19		
	L	6 49		
	F	7 32		
		Seven Falls		
	H	6 04.7	14,400	
	P'	6 23 53		
	e	6 26.5		
	PPS	6 37 30		
	SS	6 43.5		
	L	7 04		
	F	8 32		
		Ottawa		
504 Dec. 1	H	10 35.0	7,065	USCGS. gives:-
	P	10 45 23		ϕ = 20°.2 S.
	S	10 54 04		λ = 68°.1 W.
	i	10 54 50		Depth 100 km. ca.
	SS	10 58.5		
	e	11 01 30		
	eL	11 04		
	F	11 57		
		Victoria		
	H	10 35.0	9,020	
	P	10 47 12		
	S	10 57 24		
	L	11 10		
	F	12 57		
		Saskatoon		
	H	10 35.5	8,155	
	P	10 47 02		
	S	10 56 36		
	SS	11 02		
	SSS	11 03.8		
	L	11 11		
	F	11 58		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM December 1, 1943 to December 3, 1943 No. 76

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Halifax		
504 Dec. 1 (Cont'd)	e	10 53 51		
	L	11 02		
	F	11 08		
		Seven Falls		
	H	10 35.2	7,020	
	P	10 45 38		
	S	10 54 17		
	F	12 24		
		Shawinigan Falls		
	H	10 35.0	7,160	
	P	10 45 32		
	S	10 54 18		
	SSS	11 02		
	F	11 09		
		Ottawa		
505 Dec. 2	e_Z	2 12 48		
	e_N	2 30.0		
	eL	2 45		
	F	3 09		
		Victoria		
	e	2 17 52		
	L	2 37		
	F	3 13		
		Ottawa		
507 Dec. 2	e_N	5 36.8		
	eL	6 00		
	F	6 51		
		Victoria		
	e_E	5 25.2		
	e	5 32.7		
	L	6 00		
	F	6 41		
		Seven Falls		
	e	5 43.4		
	L	5 59		
	F	7 01		
		Ottawa		
508 Dec. 3	e_Z	4 57 08		
	e	5 10.5		
	eL	5 31		
	F	6 55		
		Victoria		
	e_E	5 02 11		
	L	5 22		
	F	6 10		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM December 3, 1943 to December 8, 1943 No. 77

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Saskatoon		
508 Dec. 3 (Cont'd)	e	5 12.5		
	L	5 22		
	F	6 00		
		Seven Falls		
	e	5 12.5		
	e	5 16.5		
	L	5 33		
	F	7 07		
		Ottawa		
509 Dec. 3	H	6 53.0	9,160	
	P_Z	7 05 22		
	S_N	7 15 40		
	L	7 36		
	F	7 53		
		Ottawa		
511 Dec. 6	H	7 19.7	265	
	P_n	7 20 19		
	P_1	7 20 24		
	S_n	7 20 49		
	S_2	7 20 53		
	F	7 21.5		
		Shawinigan Falls		
	e	7 20 38		
	F	7 21		
		Ottawa		
512 Dec. 7	e_Z	1 14 14		
	L	1 22		
	F	1 36		
		Seven Falls		
	e	1 15.3		
	L	1 23		
	F	1 43		
		Ottawa		
513 Dec. 8	e_Z	19 45 38		
	e_N	19 51.2		
	e_E	19 55 07		
	eL	19 57		
	F	20 37		
		Seven Falls		
	e	19 47.7		
	e	19 53.0		
	eL	19 58		
	F	20 48		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM December 8, 1943 to December 22, 1943 No. 78

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
514 Dec. 9	e_Z	3 29 32		
	L	3 50		
	F	4 04		
		Ottawa		
517 Dec. 21	H	13 46.3	3,620	USCGS. gives:-
	P	13 52 54		ϕ = 13° N.
	S_N	13 58 18		λ = 70°.5 W.
	e_L	14 03		
	F	14 52		
		Saskatoon		
	e	14 02 04		
	e	14 05 46		
	L	14 09		
	F	14 39		
		Seven Falls		
	H	13 46.5	3,650	
	P	13 53 10		
	S	13 58 35		
	SS	14 00.8		
	L	14 03		
	F	15 00		
		Ottawa		
518 Dec. 22	e_Z	7 10 21		
	e_N	7 17 12		
	e_N	7 27.6		
	F	7 32		
		Victoria		
	e	7 21 00		
	L	7 34		
	F	7 47		
		Ottawa		
519 Dec. 22	e_Z	12 59 41		
	e_L	13 05		
	F	14 00		
		Victoria		
	e	13 10 38		
	L	13 22		
	F	14 20		
		Saskatoon		
	e	13 08 58		
	e	13 11 42		
	L	13 15		
	F	14 05		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM December 22, 1943 to December 23, 1943 No. 79

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
520 Dec. 23	H	15 56.0	3,610	USCGS. gives:-
	P	16 02 37		ϕ = 13°.3 N.
	S	16 08 00		λ = 70°.4 W.
	SS	16 09 50		
	L	16 12		
	F	17 17		
		Victoria		
	e	16 06.0		
	S	16 13 28		
	L	16 23		
	F	17 15		
		Saskatoon		
	e	16 11 42		
	L	16 17		
	F	17 04		
		Halifax		
	H	15 56.1	3,600	
	P_N	16 02 38		
	S_E	16 08.0		
	L	16 13		
	F	16 31		
		Seven Falls		
	H	15 56.1	3,740	
	P	16 02 52		
	S	16 08 23		
	L	16 12		
	F	17 17		
		Ottawa		
521 Dec. 23	H	19 00.1	13,500	USCGS. gives:-
	P'Z	19 19 03		ϕ = 6° S.
	PP	19 20 36		λ = 152° E.
	SKS	19 26.0		
	SKKS	19 27.6		
	PS_E	19 30 28		
	SS	19 37 14		
	SSS	19 41 38		
	eL	20 00		
	F	22 26		
		Victoria		
	H	19 00.4	9,740	
	P	19 13 12		
	PP	19 16.6		
	S	19 23 55		
	SS	19 28.6		
	L	19 37		
	F	23 30		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM December 23, 1943 to December 24, 1943 No. 80

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Saskatoon		
521 Dec. 23 (Cont'd)	H	19 00.0	11,400	
	PP	19 18 07		
	SKS	19 24 27		
	PS	19 27.0		
	SS	19 32 33		
	e	19 39		
	F	22 23		
		Seven Falls		
	H	19 00.2	13,800	
	P'	19 19 11		
	PP	19 20 49		
	SKKS	19 27.8		
	S	19 28.6		
	PS	19 30 35		
	SS	19 37 18		
	L	20 00		
	F	23 38		
		Shawinigan Falls		
	H	19 00.1	13,800	
	P'	19 19 07		
	PP	19 20.9		
	SS	19 37.4		
	eL	20 00		
	F	21 10		
		Ottawa		
523 Dec. 24	eZ	1 06 48		
	e	1 12.0		
	eL	1 17		
	F	1 49		
		Saskatoon		
	e	1 16.0		
	L	1 26		
	F	1 43		
		Seven Falls		
	e	1 07 02		
	e	1 12.3		
	L	1 16		
	F	2 03		
		Ottawa		
524 Dec. 24	eZ	2 06 52		
	eE	2 16		
	eE	2 26		
	L	2 41		
	F	4 08		
		Victoria		
	eE	(2 04)		
	e	2 12		
	L	2 29		
	F	3 56		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM December 24, 1943 to December 31, 1943 No. 81

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Saskatoon		
524 Dec. 24 (Cont'd)	e	2 15		
	L	2 33		
	F	3 34		
		Seven Falls		
	e	2 14.3		
	e	2 18.3		
	e	2 25.3		
	L	2 39		
	F	4 18		
		Ottawa		
532 Dec. 25	e_Z	8 24 25		
	e_N	8 32.3		
	L	8 35		
	F	9 22		
		Victoria		
	H	8 17.7	2,740	
	P	8 23.1		
	S	8 27.5		
	L	8 29		
	F	9 28		
		Saskatoon		
	H	8 17.3	3,120	
	P	8 23 15		
	S	8 28 07		
	L	8 32		
	F	9 14		
		Seven Falls		
	e	8 24.9		
	L	8 36		
	F	9 20		
		Shawinigan Falls		
	e	8 25.2		
	L	8 34		
	F	8 48		
		Ottawa		
538 Dec. 30	e_Z	22 21 31		
	e_N	22 40.5		
	L	22 55		
	F	23 41		
		Seven Falls		
	e	22 33.3		
	e	22 40.8		
	L	22 56		
	F	0 09		

W. W. Doxsee.

EARTHQUAKE CORRELATION TABLE

Month December, 1943

No.	Date	Ottawa	Victoria	Saskatoon	Halifax	Seven Falls		Shawinigan	**
						M. S.	W. A.		
503	1	6 24+1 21u	6 18+1 33u	6 30+1 02u	.....	6 26+2 06u	6 24+0 01P	6 24+0 02P	A
504	1	10 45+1 12u	10 47+2 10u	10 47+1 11u	10 54+0 14u	10 54+1 30u	10 46+0 16u	10 46+0 23u	B
505	2	2 13+0 56u	2 18+0 55u	2 42+0 26L	.....	2 20+1 17L	.....	.....	..
506	2	3 59+0 09L	.....	.....	.....	4 00+0 23L	.....	.....	..
507	2	5 37+1 14u	5 25+1 16u	5 51+0 48L	.....	5 43+1 18u	.....	.....	..
508	3	4 57+1 58u	5 02+1 08u	5 12+0 48u	.....	5 12+1 55u	.....	.....	..
509	3	7 05+0 48u	7 15+0 14L	7 13+0 25L	.....	7 34+0 15L	.....	7 05+0 03P	C
510	3	.....	.....	.....	.....	.....	17 53+0 0.1d	.....	..
511	6	7 20+0 01v	.....	.....	.....	.....	.....	7 21+0 0.5v	E
512	7	1 14+0 22r	.....	.....	.....	1 16+0 28r	1 15+0 13r	1 15+0 14r	..
513	8	19 46+0 51u	20 01+0 23L	20 01+0 24L	.....	19 48+1 00u	.....	.....	..
514	9	3 30+0 34u	3 38+0 23L	3 39+0 16L	.....	3 50+0 23L	.....	.....	..
515	13	.....	.....	.....	.....	17 00+0 42L	.....	.....	..
516	17	.....	.....	.....	.....	14 40+0 45L	.....	.....	..
517	21	13 53+0 59r	14 04+1 07L	14 02+0 37r	.....	13 59+1 01r	13 53+0 15r	13 53+0 03P	G
518	22	7 10+0 22u	7 21+0 26u	.....	.....	7 17+0 19L	.....	7 11+0 02P	..
519	22	13 00+1 00u	13 11+1 09u	13 09+0 56u	13 09+0 14L	13 05+1 07L	.....	13 00+0 04P	..
520	23	16 03+1 14r	16 06+1 09r	16 12+0 52r	16 03+0 28r	16 08+1 09r	16 03+0 20r	16 03+0 08r	J
521	23	19 19+3 07U	19 13+4 17U	19 18+3 05U	19 41+1 33L	19 21+4 17U	19 19+1 42U	19 19+1 51U	K
522	23	19 29+0 01P*	.....	.....	.....	.....	.....	.....	..
523	24	1 07+0 42u	1 28+0 28L	1 16+0 27u	.....	1 12+0 51u	1 07+0 02P	1 07+0 02P	..
524	24	2 07+2 01u	2 04+1 52u	2 15+1 19u	.....	2 14+2 04u	.....	.....	..
525	24	.....	4 15+0 04L	.....	.....	.....	.....	.....	..
526	24	6 02+0 22L	5 43+0 09L	5 50+0 21L	.....	6 06+1 14L	.....	.....	..
527	24	.....	6 40+0 13L	.....	.....	.....	.....	.....	..
528	24	9 51+0 01P*	.....	.....	.....	.....	.....	.....	..
529	24	12 46+0 34L	12 26+0 34L	12 33+0 24L	.....	12 39+0 47L	.....	.....	..
530	25	5 26+0 46L	5 10+0 21L	5 15+0 44L	.....	5 26+1 20L	.....	.....	..
531	25	7 14+0 07P*	.....	.....	.....	.....	.....	.....	..
532	25	8 24+0 58r	8 23+1 05r	8 23+0 51r	8 40+0 12L	8 36+0 44r	8 25+0 26r	8 25+0 23r	N
533	25	.....	.....	.....	.....	12 21+0 07L	.....	.....	..
534	26	5 15+0 40L	5 10+0 26L	5 15+0 21r	.....	5 14+0 50L	.....	5 17+0 11L	..
535	27	4 50+0 58L	.....	4 48+0 20L	.....	4 59+1 24L	.....	.....	..
536	30	7 28+0 28L	7 05+0 31L	7 13+0 19L	.....	7 30+0 27L	.....	.....	..
537	30	8 31+0 48L	8 23+0 25L	8 29+0 26L	.....	8 40+0 40L	.....	.....	..
538	30	22 22+1 19u	22 44+0 24L	22 51+0 34L	.....	22 33+1 36u	.....	.....	..

CORRELATION OF EARTHQUAKES

December, 1943

N O T E S

A :	Ottawa	Δ = 14,400 km.	H = $6^h04^m.6$ U.T.
	Victoria	Δ = 10,700 km.	H = 6 04.7 U.T.
	Seven Falls	Δ = 14,400 km.	H = 6 04.7 U.T.
B :	Ottawa	Δ = 7,065 km.	H = $10^h35^m.0$ U.T.
	Victoria	Δ = 9,020 km.	H = 10 35.0 U.T.
	Saskatoon	Δ = 8,155 km.	H = 10 35.5 U.T.
	Seven Falls	Δ = 7,020 km.	H = 10 35.2 U.T.
	Shawinigan Falls	Δ = 7,160 km.	H = 10 35.0 U.T.
C :	Ottawa	Δ = 9,160 km.	H = $6^h53^m.0$ U.T.
E :	Ottawa	Δ = 265 km.	H = $7^h19^m.7$ U.T.
G :	Ottawa	Δ = 3,620 km.	H = $13^h46^m.3$ U.T.
	Seven Falls	Δ = 3,650 km.	H = 13 46.5 U.T.
J :	Ottawa	Δ = 3,610 km.	H = $15^h56^m.0$ U.T.
	Halifax	Δ = 3,600 km.	H = 15 56.1 U.T.
	Seven Falls	Δ = 3,740 km.	H = 15 56.1 U.T.
K :	Ottawa	Δ = 13,500 km.	H = $19^h00^m.1$ U.T.
	Victoria	Δ = 9,740 km.	H = 19 00.4 U.T.
	Saskatoon	Δ = 11,400 km.	H = 19 00.0 U.T.
	Seven Falls	Δ = 13,800 km.	H = 19 00.2 U.T.
	Shawinigan Falls	Δ = 13,800 km.	H = 19 00.1 U.T.
N :	Victoria	Δ = 2,740 km.	H = $8^h17^m.7$ U.T.
	Saskatoon	Δ = 3,120 km.	H = 8 17.3 U.T.

Dominion Observatory,
Ottawa, Canada,
February 2, 1944.