SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

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

1938 Canada Jan. Feb.

International Seismological Centre

S T A T I O N S

OTTAWA

ϕ = 45°23'38" N. λ = 75°42'57" W. h = 83 m.
Time correction within 0.25 s.
Foundation: boulder clay over limestone
Instruments: Milne-Shaw N and E 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, 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 = 46 m.
Time correction from recorded railroad time signals
Foundation: carbonaceous slate
Instruments: Mainka N and E components, designated HN and HE, respectively, each with smoked sheet registration, air damping, paper speed of 15 mm. per min., mass 139 kg.

SEVEN FALLS

Quebec Power Company

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

SHAWINIGAN FALLS

Shawinigan Water and Power Company

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

TORONTO

ϕ = 43°40' N. λ = 79°24' W. h = 111 m.
Time correction from radio time signals
Foundation: sand and clay
Instruments: Milne-Shaw N and E components, designated 18 and 22, respectively, each with photographic registration, magnetic damping, paper speed of 8 mm. per min., mass 1 lb.

International Seismological Centre

SASKATOON

University of Saskatchewan

ϕ = 52°08' N. λ = 106°38' W. h = 515 m.
Time correction from radio time signals
Foundation: clay and sand
Instruments: Mainka N and E components, designated SN and SE, respectively, each with smoked sheet registration, air damping, paper speed of 15 mm. per min., mass 139 kg.

VICTORIA

Meteorological Office

ϕ = 48°24'49" N. λ = 123°19'26" W. h = 67 m.
Time correction from radio time signals
Foundation: rock
Imstruments: Milne-Shaw N and E 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 - not operating.

DETERMINED CONSTANTS

INSTRUMENT	T_o	V	ϵ	DISPLACEMENT FOR 1" ARC TILT	DISPLACEMENT FOR 10^{-5} g.
17	12.0	250	20:1	44 mm.	
23	12.0	250	20:1	44 mm.	
BS					4.8 mm.
BL					20.0 mm.
HN					
HE					
SA	1.0	2000			
18	12.0	150	20:1		
22	12.0	150	20:1		
20	12.0	250	20:1		
21	12.0	250	20:1		
WV					
SF	1.0	1800			
SM	12.0	250	20:1	44 mm.	
SN	9.0	55	Aper.		
SE	9.0	50	"		

NOTE: Universal Time used throughout.

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM January 1, 1938 to January 2, 1938 No. 1

International Seismological Centre

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Ottawa			
2 Jan. 1	eZ	11 32.2			
	S?	11 37.8			
	L	11 44			
	F	12 27			
		Victoria			
	e	11 38 38			
	e	11 41.7			
	L	11 44.5			
	F	12 26			
		Toronto			
	e	11 37			
	L	11 43			
	F	12 19			
		Seven Falls			
	e	11 40			
	L	11 45			
	F	12 38			
		Ottawa			
4 Jan. 1	eZ	16 03 22			
	L	16 16			
	F	16 34			
		Ottawa			
5 Jan. 1 and 2	e	23 52.7			
	e	0 00.8			
	L	0 17			
	F	1 33			
		Victoria			
	H	23 28.3		8030	
	P	23 39 40			
	S	23 49 07			
	SS	23 54.0			
	L	0 02			
	F	1 29			
		Toronto			
	e	23 52 40			
	e	0 00.8			
	L	0 14			
	F	1 20			
		Seven Falls			
	e	23 52.5			
	e	23 55 12			
	e	0 01.5			
	L	0 13			
	F	1 53			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM January 2, 1938 to January 3, 1938 No. 2

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Ottawa			
7 Jan. 2	H	13 19.1		110	Δ and H from Joliat's tables for near quakes.
	PZ	13 19 25.5			
	iZ	13 19 28.5			
	SZ	13 19 39.5			
	LZ	13 19 42			
	F	13 21			
		Shawinigan Falls			
	e	13 20 07			
	F	13 20 28			
		Ottawa			
8 Jan. 2 and 3	H	22 27.4		3740	USCGS. gives:-
	P	22 34 11			ϕ = 15°.7 N.
	S	22 39 42			λ = 98°.0 W.
	e	22 42.7			
	L	22 45			
	F	0 15			
		Victoria			
	H	22 27.3		4180	
	P	22 34 37			
	PPP	22 36 16			
	S	22 40 36			
	SSS	22 43.6			
	L	22 46.5			
	F	0 26			
		Toronto			
	H	22 27.3		3480	
	P	22 33 43			
	S	22 38 58			
	L	22 45			
	F	23 45			
		Saskatoon			
	H	22 27.4		3920	
	P	22 34 22			
	S	22 40 05			
	L	22 44.5			
	F	23 30			
		Shawinigan Falls			
	H	22 27.5		4000	
	P	22 34 31			
	S	22 40.3			
	L	22 50			
	F	23 20			
		Seven Falls			
	H	22 27.4		4140	
	P	22 34 28			
	PP	22 36 04			
	S	22 40 34			
	L	22 45.0			
	F	0 12			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM January 3, 1938 to January 11, 1938 No. 3

International Seismological Centre

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Victoria			
11 Jan. 6	i	13 10 46			Nearby quake.
	L	13 10 58			
	F	13 11 45			
		Ottawa			
12 Jan. 6	H	13 28.7		60	Δ and H from Joliat's tables for near quakes.
	P_Z	13 28 53			
	S_Z	13 29 02			
	F	13 30 12			
		Shawinigan Falls			
	e	13 29 32			
	F	13 29 55			
		Seven Falls			
	e	13 30 16			
	F	13 30 29			
		Ottawa			
13 Jan. 7	e	15 54			
	e	16 03.6			
	L	16 17			
	F	17 41			
		Victoria			
	e	15 50.5			
	L	16 03			
	F	17 13			
		Toronto			
	e_E	15 57			
	e_N	16 03			
	L	16 17			
	F	17 50			
		Seven Falls			
	e	16 04			
	L	16 17			
	F	17 46			
		Ottawa			
15 Jan. 10	e_Z	17 59 10			
	L	18 18			
	F	18 47			
		Ottawa			
17 Jan. 11	e	15 36 00			
	e	15 38 05			
	e_E	15 43.2			
	L	15 53			
	F	16 56			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM January 11, 1938 to January 23, 1938 No. 4

International Seismological Centre

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Victoria			
17 Jan. 11 (Cont'd)	i	15 32 52			
	e_E	15 37.3			
	L	15 41			
	F	16 53			
		Toronto			
	e	15 36 00			
	L	15 54			
	F	16 41			
		Seven Falls			
	e	15 36.0			
	e	15 43.1			
	L	15 52			
	F	17 00			
		Ottawa			
19 Jan. 16	e_Z	21 50 47			
	L	22 05			
	F	22 25			
		Ottawa			
24 Jan, 23	H	8 33.1		7460	USCGS. gives:-
	P	8 43 54			ϕ = 21°.2 N.
	S	8 52 54			λ = 156°.1 W.
	i_N	8 53 50			
	SS	8 57 38			
	SSS	9 00.3			
	L	9 06			
	F	11 33			
		Victoria			
	H	8 33.0		4050	
	P	8 40 05			
	PPP	8 41 44			
	S	8 45 56			
	SSS	8 48 39			
	L	8 51			
	F	11 48			
		Toronto			
	H	8 33.1		7180	
	P	8 43 37			
	S	8 52 24			
	SS	8 57.0			
	L	9 05			
	F	10 55			
		Saskatoon			
	H	8 33.0		5350	
	P	8 41 40			
	S	8 48 44			
	SS	8 52.3			
	L	8 56			
	F	9 37			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM January 23, 1938 to January 24, 1938 No. 5

International Seismological Centre

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
24 Jan. 23 (Cont'd)		Shawinigan Falls			
	H	8 33.1		7690	
	P	8 44 09			
	S	8 53 19			
	L	9 07			
	F	9 38			
		Seven Falls			
	H	8 33.0		7780	
	P	8 44 06			
	S	8 53 20			
	SSS	9 00 22			
	L	9 06			
	F	11 43			
		Ottawa			
25 Jan. 24	H	5 29.0		50	Felt at Arnprior, Ont.
	P_Z	5 29 09.8			
	S	5 29 15.6			
	F	5 31			
		Shawinigan Falls			
	e	5 30 24			
	F	5 30 33			
		Ottawa			
26 Jan. 24	e	10 50.2			USCGS. gives:-
	e_N	10 56 58			ϕ = 71° S.
	e	11 00.3			λ = 47° W.
	e	11 06.6			
	e	11 18			
	L	11 23			
	F	14 09			
		Victoria			
	e	10 51.3			
	e	10 53 04			
	e	10 54 28			
	e	11 03.8			
	e	11 10.8			
	L	11 29			
	F	13 50			
		Toronto			
	e	10 51			
	e_N	10 57			
	e	11 00.4			
	e	11 06.4			
	e	11 18			
	L	11 22			
	F	13 53			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM January 24, 1938 to January 31, 1938 No. 6

International Seismological Centre

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Saskatoon			
26	e	11 10			
Jan.	e	11 22			
24	L	11 31			
(Cont'd)	F	12 04			
		Shawinigan Falls			
	e	10 51			
	e	10 57			
	e	11 01 56			
	e	11 07 04			
	L	11 24			
	F	11 45			
		Seven Falls			
	e	10 51 09			
	e	10 52 35			
	e	10 58.7			
	e	11 00.7			
	e	11 06.5			
	e	11 17.2			
	L	11 24			
	F	14 12			
				W. H. Doxsee	

International Seismological Centre

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. 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

January, 1938.

No.	Date	Ottawa	Victoria	Toronto	Saskatoon	Halifax	Seven Falls		Shawinigan	**
							M. S.	W. A.		
1	1	.....	1 03+0 05L	.....	.....	.....	.....	.....	.....	..
2	1	11 32+0 55r	11 39+0 47r	11 37+0 42r	11 45+0 11L	.....	11 40+0 58r	.....	.....	..
3	1	.....	14 39+0 09L	.....	.....	.....	.....	.....	.....	..
4	1	16 03+0 31u	16 16+0 10L	.....	.....	.....	.....	.....	.....	..
5	1	23 53+1 40u	23 40+1 49u	23 53+1 27u	.....	.....	23 53+2 00u	.....	.....	A
6	2	.....	6 30+0 08L	.....	.....	.....	.....	.....	.....	..
7	2	13 19+0 01v	.....	.....	.....	.....	.....	.....	13 20+0 0.4v	B
8	2	22 34+1 41R	23 35+1 51R	22 34+1 11R	22 34+0 56R	.....	22 35+1 38R	22 35+0 46R	22 35+0 46R	C
9	3	22 23+0 46u	22 05+0 36L	.....	.....	.....	22 27+0 24L	.....	.....	..
10	5	.....	8 39+0 09L	.....	.....	.....	.....	.....	.....	..
11	6	.....	13 11+0 01v	.....	.....	.....	.....	.....	.....	E
12	6	13 29+0 01.3d	.....	.....	.....	.....	.....	13 30+0 0.2v	13 30+0 0.4v	F
13	7	15 54+1 47u	15 51+1 22u	15 57+1 53u	.....	.....	16 04+1 42u	.....	.....	..
14	8	.....	13 22+0 11L	.....	.....	.....	.....	.....	.....	..
15	10	17 59+0 48u	.....	.....	.....	.....	18 19+0 23L	.....	.....	..
16	10	.....	.....	.....	.....	.....	21 47+0 23L	.....	.....	..
17	11	15 36+1 20u	15 33+1 20u	15 36+1 05u	.....	.....	15 36+1 24u	.....	.....	..
18	16	.....	14 32+0 43L	.....	.....	.....	14 49+0 48L	.....	.....	..
19	16	21 51+0 35u	.....	.....	.....	.....	22 13+0 09L	.....	.....	..
20	18	5 30+0 25L	5 23+0 23L	5 32+0 18L	.....	.....	5 21+0 33L	.....	.....	..
21	22	.....	.....	.....	.....	.....	1 30+0 15L	.....	.....	..
22	22	3 05+0 13L	3 19+0 08L	3 07+0 07L	.....	.....	.....	.....	.....	..
23	22	.....	.....	.....	.....	.....	4 20+0 05L	.....	.....	..
24	23	8 44+2 50u	8 40+3 08r	8 44+2 11u	8 42+0 55u	.....	8 44+2 59u	8 44+0 54u	8 44+0 54u	G
25	24	5 29+0 01.6d	.....	.....	.....	.....	.....	.....	5 30+0 0.2v	H
26	24	10 50+3 19U	10 51+3 00U	10 51+3 02U	11 10+0 53u	.....	10 51+3 21U	.....	10 51+0 54U	..
27	25	17 10+2 13L	17 17+2 02L	17 20+1 20L	.....	.....	17 12+2 20L	.....	.....	..
28	26	4 09+0 23L	4 20+0 33L	.....	.....	.....	4 10+0 26L	.....	.....	..
29	29	.....	.....	.....	.....	.....	5 09+2 21L	.....	.....	..
30	30	18 07+0 40L	17 58+0 24L	.....	.....	.....	18 09+0 42L	.....	.....	..

International Seismological Centre

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CORRELATION OF EARTHQUAKES

January, 1938.

N O T E S

A : Victoria — Δ = 8030 km. — H = $23^h 28^m.3$ U. T.

B : Ottawa — Δ = 110 km. — H = $13^h 19^m.1$ U. T.

C : Ottawa — Δ = 3740 km. — H = $22^h 27^m.4$ U. T.
Victoria — Δ = 4180 km. — H = 22 27.3 U. T.
Toronto — Δ = 3480 km. — H = 22 27.3 U. T.
Saskatoon — Δ = 3920 km. — H = 22 27.4 U. T.
Seven Falls — Δ = 4140 km. — H = 22 27.4 U. T.
Shawinigan Falls — Δ = 4000 km. — H = 22 27.5 U. T.

E : Origin probably within 500 km. of the Victoria station.

F : Ottawa — Δ = 60 km. — H = $13^h 28^m.7$ U. T.

G : Ottawa — Δ = 7460 km. — H = $8^h 33^m.1$ U. T.
Victoria — Δ = 4050 km. — H = 8 33.0 U. T.
Toronto — Δ = 7180 km. — H = 8 33.1 U. T.
Saskatoon — Δ = 5350 km. — H = 8 33.0 U. T.
Seven Falls — Δ = 7780 km. — H = 8 33.0 U. T.
Shawinigan Falls — Δ = 7690 km. — H = 8 33.1 U. T.

H : Ottawa — Δ = 50 km. — H = 5 29.0 U. T.
Felt at Arnprior, Ontario.

Dominion Observatory,
Ottawa, Canada,
March 11, 1938.

DOMINION OBSERVATORY, OTTAWA

R. Meldrum Stewart, Dominion Astronomer
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Quebec Power Company

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HN					
HE					
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22	12.0	150	20:1		
20	12.0	250	20:1		
21	12.0	250	20:1		
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SF	1.0	1800			
SM	12.0	250	20:1	44 mm.	
SN	9.0	55	Aper.		
SE	9.0	50	"		

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SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM February 1, 1938 to February 1, 1938 No. 7

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Ottawa			
33 Feb. 1 and 2	H	19 04 ca		15,000ca	USCGS. gives:
	eZ	19 23 23			ϕ = 5° S.
	P	19 23 35			λ = 131° E.
	PP	19 26 00			
	SKPZ	19 27 06			
	PPS	19 38 12			
	SS	19 43.5			
	SSS	19 49			
	L	20 04			
	LR	23 08			
	F	1 54			
		Victoria			
	H	19 04 ca		11,000ca	
	e	19 18.4			
	PPE	19 21 41			
	S	19 29 07			
	SS	19 36.0			
	L	19 51			
	F	1 10			
		Toronto			
	H	19 05 ca		14,500ca	All Toronto readings are from NS. component.
	P'	19 24.0			
	PP	19 26 03			
	SKP	19 27 11			
	i	19 33 20			
	S	19 36 17			
	SS	19 43 32			
	SSS	19 48 32			
	i	20 00 25			
	L	20 07			
	LR	22 40			
	F	22 50			
		Saskatoon			
	H	19 04 ca		12,500ca	
	PP	19 23 41			
	SKS	19 29 38			
	PS	19 33 09			
	SS	19 39 14			
	SSSN	19 43.0			
	L	20 00			
	LR	21 06			
	F	22 14			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM February 1, 1938 to February 4, 1938 No. 8

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Shawinigan Falls			
33 Feb. 1 (Cont'd)	H	19 04 ca		15,000ca	
	P'	19 23 42			
	PP	19 26 20			
	SKP	19 27 18			
	SKKS	19 33.1			
	SS	19 45.1			
	SSS	19 50			
	F	21 46			
		Seven Falls			
	H	19 04 ca		15,000ca	
	P'	19 23 41			
	PP	19 26.1			
	SKP	19 27 18			
	SKKS	19 33 02			
	S	19 34 27			
	PPS	19 40.4			
	SS	19 43.7			
	SSS	19 48.0			
	L	20 00			
	F	2 00			
		Ottawa			
35 Feb. 3	eZ	16 03 26			
	L	16 24			
	F	17 00			
		Seven Falls			
	e	16 12.1			
	L	16 24			
	F	16 55			
		Ottawa			
39 Feb. 4	H	10 27.4		5,010	
	P	10 35 39			
	S	10 42 24			
	SSE	10 45.6			
	L	10 49			
	F	11 14			
		Toronto			
	e	10 42 31			
	L	10 50			
	F	11 18			
		Seven Falls			
	e	10 43 05			
	e	10 45.8			
	e	10 47.2			
	L	10 50			
	F	11 25			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM February 4, 1938 to February 5, 1938 No. 9

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Ottawa			
40 Feb. 5	H	2 23.8		4,200	USCGS. gives:
	iP	2 31 04			φ = 4°.5 N.
	i_{NZ}	2 32 02			λ = 75°.9 W.
	PhE	2 32 18			
	PPP	2 32 46			
	S	2 37 04			
	i	2 38 06			
	SSS	2 40 06			
	L	2 42			
	F	5 33			
		Victoria			
	H	2 23.8		6,330	
	P	2 33 30			
	S	2 41 29			
	i_N	2 42 30			
	L	2 52			
	F	5 17			
		Toronto			
	H	2 23.8		4,040	
	P	2 30 54			
	S	2 36 44			
	SSS	2 39.7			
	L	2 42			
	F	4 51			
		Saskatoon			
	H	2 23.6		5,700	
	P	2 32 35			
	S	2 39 59			
	e	2 41 01			
	SSS	2 45.1			
	L	2 48			
	F	3 33			
		Shawinigan Falls			
	H	2 23.7		4,400	
	P	2 31 16			
	PPP	2 33 12			
	S	2 37 28			
	SSS	2 41 02			
	L	2 44			
	F	3 05			
		Seven Falls			
	H	2 23.8		4,360	
	P	2 31 20			
	PP	2 32 20			
	S	2 37 30			
	SSS	2 41.0			
	L	2 43			
	F	5 34			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM February 5, 1938 to February 8, 1938 No. 10

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Ottawa			
41	e_Z	10 13 47			
Feb.	L	10 31			
5	F	11 12			
		Ottawa			
46	i_Z	15 23 36			Local - epicentre probably
Feb.	i_Z	15 23 38.5			within 200 km. of the
7	F_Z	15 23 48			Ottawa station.
		Ottawa			
47	H	5 38.4		5,150	
Feb.	P_Z	5 46 47			
8	S_E	5 53 40			
	SS	5 56 46			
	L	6 01			
	F	6 33			
		Toronto			
	e	5 53.0			
	L	5 56			
	F	6 20			
		Seven Falls			
	e	5 54 07			
	e	5 57.1			
	L	6 00			
	F	6 38			
		Ottawa			
48	H	7 16.3		5,080	
Feb.	P	7 24 41			
8	S	7 31 30			
	S_E	7 34 36			
	L	7 39			
	F	8 25			
		Toronto			
	H	7 16.3		4,850	
	P_N	7 24.4			
	S	7 31.0			
	S_E	7 34.3			
	L	7 38			
	F	8 48			
		Seven Falls			
	i	7 32 03			
	e	7 35.0			
	L	7 38			
	F	8 44			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM February 8, 1938 to February 11, 1938 No. 11

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Ottawa			
49	H	14 21.6		5,080	
Feb.	PZ	14 29 58			
8	S	14 36 47			
	SSE	14 39 55			
	L	14 44			
	F	15 34			
		Toronto			
	e	14 36			
	eE	14 39,6			
	L	14 43			
	F	15 13			
		Seven Falls			
	i	14 37 18			
	e	14 40.1			
	L	14 43			
	F	15 27			
		Ottawa			
50	iZ	19 24 07.5			Same type as No. 46
Feb.	iZ	19 24 09			
8	FZ	19 24 14			
		Ottawa			
51	iZ	20 44 29.5			Same type as No. 46
Feb.	iZ	20 44 31			
8	F	20 44 42			
		Ottawa			
52	iZ	20 00 53			Same type as No. 46
Feb.	i	20 00 55			
9	F	20 01 12			
		Ottawa			
53	iZ	21 00 10			Same type as No. 46
Feb.	iZ	21 00 11			
9	FZ	21 00 26			
		Ottawa			
54	eZ	20 49 30			
Feb.	e	20 59			
10	L	21 13			
	F	21 33			
		Ottawa			
56	eZ	7 09 12			
Feb.	L	7 46			
11	F	8 08			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM February 11, 1938 to February 14, 1938 No. 12

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Ottawa			
57 Feb. 13	H	8 04.8		13,900	USCGS. gives:
	P_Z	8 22 49			ϕ = 38° S.
	SKS	8 29.8			λ = 179° W.
	PS_N	8 34.5			approx.
	SS	8 41 28			
	L	8 57			
	F	10 37			
		Victoria			
	e	8 28 06			
	e_E	8 35.6			
	L	8 49			
	F	10 53			
		Toronto			
	e	8 40.9			
	L	8 57			
	F	10 26			
		Seven Falls			
	e	8 28.9			
	e	8 41.4			
	L	9 02			
	F	10 52			
		Ottawa			
58 Feb. 14	H	2 54.3		9,230	
	P	3 06 42			
	S	3 17 03			
	PS_N	3 18 02			
	L	3 32			
	F	4 27			
		Victoria			
	e	3 18.1			
	L	3 36			
	F	4 16			
		Toronto			
	e	3 17.5			
	L	3 35			
	F	4 00			
		Seven Falls			
	e	3 16.4			
	L	3 27			
	F	4 34			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM February 14, 1938 to February 15, 1938 No. 13

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Ottawa			
60 Feb. 15	H	3 27.9		5,300	USCGS. gives:
	P	3 36 28			φ = 18° N.
	S	3 43 30			λ = 25° W.
	SSE	3 47.0			
	LF	3 50			
		4 51			
		Victoria			
	e	3 40.2			
	eL	3 50 02			
	F	4 06			
		4 56			
		Toronto			
	e	3 44.0			
	L	3 35			
	F	4 30			
		Seven Falls			
	e	3 42 50			35-88
	L	3 46			27 15
	F	4 50			8-43
		Ottawa			
61 Feb. 15	H	6 57.3		5,300	
	PZ	7 05 56			
	S	7 12 58			
	SS	7 16.0			
	L	7 21			
	F	8 11			
		Victoria			
	e	7 19.4			
	L	7 36			
	F	8 09			
		Toronto			
	e	7 13.4			
	L	7 22			
	F	8 06			
		Seven Falls			
	e	7 12.3			
	L	7 17			
	F	7 57			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM February 15, 1938 to February 28, 1938 No. 14

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Victoria			
64	e	6 20			
Feb.	e	6 28 30			
22	L	6 45			
	F	7 30			
		Ottawa			
65	H	17 56.6		105	Δ and H based on Joliat's Tables for nearby earth-
Feb.	P_Z	17 56 53.5			quakes.
23	S_Z	17 57 07.0			
	L_Z	17 57 10			
	F	17 58			
		Ottawa			
66	e_Z	3 28 29			
Feb.	L	3 46			
24	F	3 54			
		Ottawa			
67	e_Z	3 52 35			
Feb.	L	4 10			
24	F	4 21			
		Ottawa			
69	e	1 52			
Feb.	L	2 10			
27	F	2 34			

W. W. Doxsee

EARTHQUAKE CORRELATION TABLE

Month February, 1938.

No.	Date	Ottawa	Victoria	Toronto	Saskatoon	Halifax	Seven Falls		Shawinigan	**
							M. S.	W. A.		
31	1	19 10+0 01P*	.....	.....	.....	.....	.....	.....	.....	..
32	1	19 13+0 0.5P*	.....	.....	.....	.....	.....	.....	.....	..
33	1	19 23+6 31U	19 18+5 52U	19 24+3 26U	19 24+2 50U	.....	19 24+6 37U	19 24+2 20U	19 24+2 22U	A
34	1	20 09+0 03P*	.....	.....	.....	.....	.....	20 13+0 01P	20 11+0 03P	..
35	3	16 03+0 57u	16 06+0 30L	.....	.....	.....	16 12+0 43u	.....	.....	..
36	3	20 44+0 18L	.....	.....	.....	.....	20 42+0 17L	.....	.....	..
37	4	1 19+0 06L	.....	.....	.....	.....	.....	.....	.....	..
38	4	10 04+0 19L	.....	.....	.....	.....	10 09+0 16L	.....	.....	..
39	4	10 36+0 38u	10 44+0 36L	10 42+0 36u	.....	.....	10 43+0 42u	.....	.....	B
40	5	2 31+3 02R	2 33+2 44U	2 31+2 20R	2 33+1 00U	.....	2 31+3 03R	2 31+0 35R	2 31+0 34R	C
41	5	10 14+0 58u	10 18+0 15L	.....	.....	.....	10 30+0 38L	.....	.....	..
42	5	.....	12 37+0 08L	.....	.....	.....	.....	.....	.....	..
43	6	8 09+0 32L	7 49+0 23L	8 09+0 39L	.....	.....	8 02+0 32L	.....	.....	..
44	7	2 17+0 22L	1 59+0 20L	.....	.....	.....	2 17+0 32L	.....	.....	..
45	7	14 56+0 01P	.....	.....	.....	.....	.....	.....	.....	..
46	7	15 24+0 0.2v	.....	.....	.....	.....	.....	.....	.....	E
47	8	5 47+0 46u	.....	5 53+0 27u	.....	.....	5 54+0 44u	.....	.....	F
48	8	7 25+1 00u	.....	7 24+1 24r	.....	.....	7 32+1 12u	.....	.....	G
49	8	14 30+1 04u	.....	14 36+0 37u	.....	.....	14 37+0 50u	.....	.....	H
50	8	19 24+0 0.1v	.....	.....	.....	.....	.....	.....	.....	E
51	8	20 44+0 0.2v	.....	.....	.....	.....	.....	.....	.....	E
52	9	20 01+0 0.3v	.....	.....	.....	.....	.....	.....	.....	E
53	9	21 00+0 0.2v	.....	.....	.....	.....	.....	.....	.....	E
54	10	20 49+0 44u	.....	.....	.....	.....	21 11+0 16L	.....	.....	..
55	11	.....	2 20+0 13L	.....	.....	.....	.....	.....	.....	..
56	11	7 09+0 59u	.....	.....	.....	.....	.....	.....	.....	..
57	13	8 23+2 14u	8 28+2 25u	8 41+1 45u	8 55+0 35L	.....	8 29+2 23u	.....	.....	J
58	14	3 07+1 20u	3 18+0 58u	3 18+0 42u	.....	.....	3 16+1 18u	3 06+0 05P	3 07+0 06P	K

International Seismological Centre

EARTHQUAKE CORRELATION TABLE

Month February, 1938

No.	Date	Ottawa	Victoria	Toronto	Saskatoon	Halifax	Seven Falls		Shawinigan	**
							M. S.	W. A.		
59	14	15 38+0 18L	.....	.....	.....	.....	.....	.....	.....	..
60	15	3 36+1 15u	3 40+1 16u	3 44+0 46u	.....	.....	3 43+1 07u	3 36+0 03P	.....	N
61	15	7 06+1 05u	7 19+0 50u	7 13+0 53u	.....	.....	7 12+0 45u	.....	.....	W
62	19	7 35+0 01P	.....	.....	.....	.....	.....	.....	.....	..
63	20	8 32+0 12L	.....	.....	.....	.....	.....	.....	.....	..
64	22	6 57+0 41L	6 20+1 10u	7 10+0 23L	.....	.....	7 04+0 32L	.....	.....	..
65	23	17 57+0 01v	.....	.....	.....	.....	.....	.....	17 57+0 0.5v	X
66	24	3 28+0 26u	3 29+0 06L	.....	.....	.....	.....	.....	.....	..
67	24	3 53+0 28u	3 53+0 05L	.....	.....	.....	.....	.....	.....	..
68	25	9 11+0 08L	.....	.....	.....	.....	.....	.....	.....	..
69	27	1 52+0 42u	1 57+0 23L	.....	.....	.....	2 11+0 23L	.....	.....	..

International Seismological Centre

CORRELATION OF EARTHQUAKES

February, 1938

N O T E S

A :	Ottawa	Δ = 15,000 km.	ca	H = 19^h04^m	ca U. T.
	Victoria	Δ = 11,000 km.	"	H = 19 04	" U. T.
	Toronto	Δ = 14,500 km.	"	H = 19 05	" U. T.
	Saskatoon	Δ = 12,500 km.	"	H = 19 04	" U. T.
	Shawinigan Falls	Δ = 15,000 km.	"	H = 19 04	" U. T.
	Seven Falls	Δ = 15,000 km.	"	H = 19 04	" U. T.
B :	Ottawa	Δ = 5,010 km.		H = $10^h27^m.4$	U. T.
C :	Ottawa	Δ = 4,200 km.		H = $2^h23^m.8$	U. T.
	Victoria	Δ = 6,330 km.		H = 2 23.8	U. T.
	Toronto	Δ = 4,040 km.		H = 2 23.8	U. T.
	Saskatoon	Δ = 5,700 km.		H = 2 23.6	U. T.
	Shawinigan Falls	Δ = 4,400 km.		H = 2 23.7	U. T.
	Seven Falls	Δ = 4,360 km.		H = 2 23.8	U. T.

E : Nearby quake, epicentre probably within 200 km. of Ottawa station.

F :	Ottawa	Δ = 5,150 km.	H = $5^h38^m.4$ U. T.
G :	Ottawa	Δ = 5,080 km.	H = $7^h16^m.3$ U. T.
	Toronto	Δ = 4,850 km.	H = 7 16.3 U. T.
H :	Ottawa	Δ = 5,080 km.	H = $14^h21^m.6$ U. T.
J :	Ottawa	Δ = 13,900 km.	H = $8^h04^m.8$ U. T.
K :	Ottawa	Δ = 9,230 km.	H = $2^h54^m.3$ U. T.
N :	Ottawa	Δ = 5,300 km.	H = $3^h27^m.9$ U. T.
W :	Ottawa	Δ = 5,300 km.	H = $6^h57^m.3$ U. T.
X :	Ottawa	Δ = 105 km.	H = $17^h56^m.6$ U. T.

Dominion Observatory,
Ottawa, Canada,
April 7, 1938.

SEISMOLOGICAL BULLETINS RECEIVED

March, 1938.

International Seismological Centre

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

STATIONS	BULLETINS	RECEIVED	
Denver	April to June, 1937	March	1
Florissant	June, 1937	"	1
Saint Louis	June, 1937	"	1
Little Rock	May, 1937	"	1
Algiers	December 30, 1937 to January 31, 1938	"	4
Zürich	January, 1938	"	4
Rome	November 4 - 11, 1936	"	5
Prague	October 1 to December 31, 1937	"	7
DeBilt	Year 1935	"	8
Manila	December, 1937	"	9
Zinsen	Year 1935	"	12
Eger	Year 1937	"	12
Stuttgart	February, 1938	"	14
Pasadena	June, 1937	"	15
Melbourne	November and December, 1937	"	17
Nagoya	January to June, 1937	"	17
Rome	Year 1932	"	17
Rome	February 12 - 25, 1938	"	18
Cape Town	January and February, 1938	"	21
Richmond	February, 1938	"	21
Bucarest	February, 1938	"	22
Algiers	February, 1938	"	23
San Fernando	January and February, 1938	"	25
Riverview	January, 1938	"	26
Brisbane	December, 1937 and January, 1938	"	28
New Zealand Stations	January, 1938	"	28
Dublin	February, 1938	"	28
Ksara	February, 1938	"	30
Rome	February 26 to March 11, 1938	"	31
Zürich	February, 1938	"	31

DOMINION OBSERVATORY

OTTAWA - CANADA.

R. Meldrum Stewart,
Dominion Astronomer.

Ernest A. Hodgson,
Seismologist.

W. W. Doxsee,
Assistant Seismologist.

DOMINION OBSERVATORY, OTTAWA

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

International Seismological Centre

S T A T I O N S

OTTAWA

ϕ = 45°23'38" N. λ = 75°42'57" W. h = 83 m.
Time correction within 0.25 s.
Foundation: boulder clay over limestone
Instruments: Milne-Shaw N and E 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, 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 = 46 m.
Time correction from recorded railroad time signals
Foundation: carbonaceous slate
Instruments: Mainka N and E components, designated HN and HE, respectively, each with smoked sheet registration, air damping, paper speed of 15 mm. per min., mass 139 kg.

SEVEN FALLS

Quebec Power Company

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

SHAWINIGAN FALLS

Shawinigan Water and Power Company

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

International Seismological Centre

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

SASKATOON

University of Saskatchewan

φ = 52°08' N. λ = 106°38' W. h = 515 m.
Time correction from radio time signals
Foundation: clay and sand
Instruments: Mainka N and E components, designated SN and SE, respectively, each with smoked sheet registration, air damping, paper speed of 15 mm. per min., mass 139 kg.

DETERMINED CONSTANTS

INSTRUMENT	T_o	V	ε	DISPLACEMENT FOR 1" ARC TILT	DISPLACEMENT FOR 10^{-5} g.
17	12.0	250	20:1	44 mm.	
23	12.0	250	20:1	44 mm.	
BS					4.8 mm.
BL					20.0 mm.
HN					
HE					
SA	1.0	2000			
SF	1.0	1800			
SM	12.0	250	20:1	44 mm.	
SN	9.0	55	Aper.		
SE	9.0	50	"		

NOTE: Universal Time used throughout.

SEISMOLOGICAL SERVICE OF CANADA.

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM March 1, 1938 to March 21 No. 15

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Seven Falls			
70 Mar. 1	e	14 15.6			
	L	14 18			
	F	14 40			
		Ottawa			
74 Mar. 3	e	13 48.3			
	L	13 52			
	F	14 10			
		Ottawa			
79 Mar. 8	e_Z	5 54 13			
	e_E	6 01.4			
	L	6 27			
	F	8 31			
		Seven Falls			
	e	5 56			
	e	6 05 48			
	L	6 25			
	F	8 51			
		Ottawa			
81 Mar. 9	e	2 31.8			
	L	2 56			
	F	3 46			
		Ottawa			
82 Mar. 9	e	5 24 28			USCGS. gives:
	e	5 26.1			ϕ = 6°.1 N.
	e	5 30.5			λ = 83° W.
	L	5 34			
	F	6 02			
		Seven Falls			
	e	5 31 11			
	e	5 34.1			
	L	5 38			
	F	5 54			
		Ottawa			
85 Mar. 13	e_Z	17 56 34			
	L	18 18			
	F	18 34			
		Ottawa			
88 Mar. 21	e_E	1 44.8			
	e_E	1 53.5			
	L	2 07			
	F	3 00			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM March 21, 1938 to March 22, 1938 No. 16

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Ottawa			
89	H	15 22.4		3960	USCGS. gives:
Mar.	P	15 29 23			ϕ = 53° N.
22	PPP	15 30 48			λ = 131°.8 W.
	S	15 35 08			
	SS	15 37.2			
	L	15 40			
	F	18 50			
		Shawinigan Falls			
	H	15 22.4		4220	
	P	15 29 39			
	S	15 35 40			
	L	15 42			
	F	2 55			
		Seven Falls			
	H	15 22.4		4190	
	P	15 29 42			
	PPP	15 31 17			
	S	15 35 41			
	SSS	15 38.5			
	L	15 41			
	F	19 05			
		Ottawa			
90	H	22 27.8		4020	
Mar.	PZ	22 34 55			
22	S	22 40 44			
	L	22 46			
	F	23 48			
		Saskatoon			
	e	22 31 22			
	e	22 35.7			
	L	22 37			
	F	23 00			
		Shawinigan Falls			
	e	22 35 14			
	L	22 47			
	F	23 07			
		Seven Falls			
	i	22 41 13			
	i	22 47 46			
	L	22 51			
	F	23 49			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM March 22, 1938 to March 31, 1938 No. 17

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Ottawa			
93	e	8 33 50			
Mar.	L	8 37			
25	F	9 25			
		Seven Falls			
	e	8 34.6			
	L	8 37			
	F	9 20			
		Ottawa			
94	$e_{E?}$	16 14			
Mar.	e	16 17			
25	e	16 23.6			
	L	16 36			
	F	17 44			
		Seven Falls			
	e	16 18.2			
	e	16 24.7			
	L	16 43			
	F	18 16			
		Ottawa			
99	e_N	22 50.8			
Mar.	e_N	23 00.4			
31	e_E	23 06.6			
	L	23 22			
	F	0 10			

W. H. Doxsee.

EARTHQUAKE CORRELATION TABLE

Month March, 1938.

No.	Date	Ottawa	Saskatoon	Halifax	Seven Falls		Shawinigan	**
					M. S.	W. A.		
70	1	.....	.....	.....	14 16+0 25u	.....	.....	..
71	2	20 05+0 0.5P	.....	.....	.....	.....	.....	..
72	3	2 35+0 0.4P	.....	.....	.....	.....	.....	..
73	3	8 38+0 15L	.....	.....	.....	.....	.....	..
74	3	13 48+0 22u	.....	14 00+0 16L	.....	.....	.....	..
75	6	2 57+1 00L	.....	.....	3 00+0 35L	.....	.....	..
76	6	8 29+0 15L	.....	.....	8 33+0 12L	.....	.....	..
77	6	17 12+0 0.1P	.....	.....	.....	.....	.....	..
78	6	22 55+0 0.3P	.....	.....	.....	.....	.....	..
79	8	5 54+2 37u	.....	.....	5 56+2 55u	.....	.....	..
80	8	8 09+0 0.7P	.....	.....	.....	.....	.....	..
81	9	2 32+1 14u	.....	.....	2 59+0 42L	.....	.....	..
82	9	5 24+0 38r	.....	.....	5 31+0 23r	.....	.....	..
83	10	16 21+0 38L	.....	.....	16 20+0 44L	.....	.....	..
84	11	15 02+0 01P	.....	.....	.....	.....	.....	..
85	13	17 57+0 37u	.....	.....	18 16+0 17L	.....	.....	..
86	14	1 42+0 34L	.....	.....	1 40+0 45L	.....	.....	..
87	14	6 09+0 26L	.....	.....	6 03+0 23L	.....	.....	..
88	21	1 45+1 15u	.....	.....	2 11+0 30L	.....	.....	..
89	22	15 29+3 21R	.....	15 45+0 39L	15 30+3 35R	15 30+1 11R	15 30+1 25R	A
90	22	22 35+1 13r	22 31+0 29r	22 51+0 13L	22 41+1 08r	22 46+0 21r	22 35+0 32r	B
91	23	14 26+0 31L	.....	.....	14 30+0 25L	.....	.....	..
92	24	17 16+0 09L	.....	.....	17 16+0 07L	.....	.....	..
93	25	8 34+0 51u	.....	.....	8 35+0 45u	.....	.....	..
94	25	16 14+1 30u	.....	.....	16 18+1 58u	.....	.....	..
95	26	8 08+0 08L	.....	.....	8 09+0 07L	.....	.....	..
96	26	8 34+0 05L	.....	.....	8 38+0 08L	.....	.....	..
97	27	3 04+0 37L	.....	.....	.....	.....	.....	..
98	27	11 49+0 14L	.....	.....	.....	.....	.....	..
99	31	22 51+1 19u	.....	.....	23 20+0 49L	.....	.....	..

International Seismological Centre

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CORRELATION OF EARTHQUAKES

March, 1938

N O T E S

A :	Ottawa	Δ = 3960 km.	H = $15^h22^m.4$ U. T.
	Shawinigan Falls	Δ = 4220 km.	H = $15^h22^m.4$ U. T.
	Seven Falls	Δ = 4190 km.	H = $15^h22^m.4$ U. T.
B :	Ottawa	Δ = 4020 km.	H = $22^h27^m.8$ U. T.

Dominion Observatory,
Ottawa, Canada,
June 4, 1938.

International Seismological Centre

CORRELATION OF EARTHQUAKES

April, 1938.

.....

N O T E S

A :	Ottawa	Δ = 7080 km.	H = $14^h39^m.8$ U. T.
	Shawinigan Falls	Δ = 7180 km.	H = 14 39.8 U. T.
B :	Ottawa	Δ = 8140 km.	H = $10^h59^m.6$ U. T.
	Saskatoon	Δ = 9160 km.	H = 10 59.5 U. T.
	Seven Falls	Δ = 7800 km.	H = 10 59.4 U. T.
C :	Ottawa	Δ = 3850 km.	H = $4^h16^m.0$ U. T.
	Saskatoon	Δ = 1550 km.	H = 4 16.1 U. T.
	Seven Falls	Δ = 4150 km.	H = 4 15.9 U. T.
E :	Ottawa	Δ = 3630 km.	H = 17 08.0 U. T.

Dominion Observatory,
OTTAWA, CANADA,
June 20, 1938.

International Seismological Centre

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

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

S T A T I O N S

OTTAWA

ϕ = 45°23'38" N. λ = 75°42'57" W. h = 83 m.
Time correction within 0.10 s.
Foundation: boulder clay over limestone
Instruments: Milne-Shaw N and E 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, 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 = 46 m.
Time correction from recorded railroad time signals
Foundation: carbonaceous slate
Instruments: Mainka N and E components, designated HN and HE, respectively, each with smoked sheet registration, air damping, paper speed of 15 mm. per min., mass 139 kg.

SEVEN FALLS

Quebec Power Company

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

International Seismological Centre

SHAWINIGAN FALLS

Shawinigan Water and Power Company

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

SASKATOON

University of Saskatchewan

ϕ = 52°08' N. λ = 106°38' W. h = 515 m.
Time correction from radio time signals
Foundation: clay and sand
Instruments: Mainka N and E components, designated SN and SE, respectively, each with smoked sheet registration, air damping, paper speed of 15 mm. per min., mass 139 kg.

DETERMINED CONSTANTS

INSTRUMENT	T_o	V	ε	DISPLACEMENT FOR 1" ARC TILT	DISPLACEMENT FOR 10^{-5} g.
17	12.0	250	20:1	44 mm.	
23	12.0	250	20:1	44 mm.	
BS					4.8 mm.
BL					20.0 mm.
HN					
HE					
SA	1.0	2000			
SF	1.0	1800			
SM	12.0	250	20:1	44 mm.	
SN	9.0	55	Aper.		
SE	9.0	50	"		

NOTE: Universal Time used throughout.

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM April 1, 1938 to April 13, 1938 No. 18

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Ottawa			
100	e	22 03			
April	L	22 31			
1	F	23 13			
		Ottawa			
101	e_N	6 20.6			
April	e	6 26.5			
2	e	6 30.0			
	e_E	6 35.8			
	L	6 46			
	F	9 00			
		Seven Falls			
	e	6 28.2			
	e	6 36.0			
	L	6 46			
	F	8 48			
		Ottawa			
107	e_Z	19 36 53			
April	L	19 47			
10	F	19 57			
		Ottawa			
108	e	11 15			
April	L	11 18			
12	F	12 08			
		Ottawa			
109	e_Z	18 57.2			Shock felt at Timiskaming, Que., at $18^h56^m13^s$ U.T.
April	F_Z	18 57.5			
12					
		Ottawa			
110	i	2 55 53			
April	e	2 57 26			
13	e	3 04 09			
	L	3 11			
	F	4 07			
		Seven Falls			
	e	2 55 24			
	e	3 03 12			
	L	3 11			
	F	4 06			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM April 13, 1938 to April 17, 1938 No. 19

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Ottawa			
114	e	1(34.6)			
April	e	1(43)			
14	e	1(51)			
	L	2(05)			
	F	2(50)			
		Seven Falls			
	e	1 42 38			
	e	1 43 38			
	e	1 50 16			
	L	2 01			
	F	2 40			
		Ottawa			
115	e_N	20 25			
April	e	20 29.4			
16	L	20 32			
	F	21 32			
		Seven Falls			
	e	20 25 51			
	e	20 29.6			
	L	21 10			
	F	21 27			
		Ottawa			
116	i	9 16 02			Nearby quake.
April	F	9 18 05			
17					
		Shawinigan Falls			
	i	9 16 07			
	F	9 18			
		Ottawa			
117	H	14 39.8		7080	
April	P	14 50 13			
17	S	14 58 55			
	L	15 16			
	F	16 36			
		Seven Falls			
	i	14 59 16			
	L	15 11			
	F	16 33			
		Shawinigan Falls			
	H	14 39.8		7180	
	P	14 50 20			
	S	14 59 07			
	F	15 00			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM April 17, 1938 to April 22, 1938 No. 20

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Ottawa			
119	H	10 59.6		8140	USCGS. gives:
April	P	11 11 01			ϕ = 39°.5 N.
19	S	11 20 34			λ = 33°.5 E.
	L	11 32			
	F	13 51			
		Saskatoon			
	H	10 59.5		9160	
	P	11 11.8			
	S	11 22.1			
	L	11 34			
	F	12 08			
		Shawinigan Falls			
	e	11 10.7			
	L	11 33			
	F	11 46			
		Seven Falls			
	H	10 59.4		7800	
	P	11 10 31			
	S	11 19 46			
	e	11 24.5			
	L	11 36			
	F	14 12			
		Ottawa			
122	e	6 47.2			
April	e_E	6 52.8			
20	e_N	6 55.4			
	e_E	6 57.0			
	e_N	7 03.7			
	e_E	7 07			
	L	7 17			
	F	9 24			
		Seven Falls			
	e	6 47.3			
	e	6 52 57			
	e	7 08.2			
	L	7 18			
	F	9 23			
		Ottawa			
124	H	4 16.0		3850	
April	P	4 22 52			
22	S	4 28 30			
	S_N	4 31.0			
	L	4 33			
	F	5 31			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA.

International Seismological Centre

FROM April 22, 1938 to April 30, 1938 No. 21.

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Saskatoon			
124 April 22 (Cont'd)	H	4 16.1		1550	
	P	4 19 24			
	S	4 22 08			
	L	4 23.6			
	F	4 54			
		Shawinigan Falls			
	e	4 23.7			
	L	4 35			
	F	4 57			
		Seven Falls			
	H	4 15.9		4150	
	P	4 23 07			
	S	4 29 04			
	L	4 35			
	F	5 34			
		Ottawa			
131 April 25	H	17 08.0		3630	
	P	17 14 38			
	S	17 20 02			
	eN	17 21 14			
	SSE	17 22.0			
	L	17 24			
	F	18 45			
		Shawinigan Falls			
	e	17 14.9			
	L	17 26			
	F	17 47			
		Seven Falls			
	e	17 20.8			
	e	17 22.9			
	L	17 25			
	F	18 39			

W. W. Doyle.

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

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

International Seismological Centre

S T A T I O N S

OTTAWA

ϕ = 45°23'38" N. λ = 75°42'57" W. h = 83 m.
Time correction within 0.10 s.
Foundation: boulder clay over limestone
Instruments: Milne-Shaw N and E 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, 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 = 46 m.
Time correction from recorded railroad time signals
Foundation: carbonaceous slate
Instruments: Mainka N and E components, designated HN and HE, respectively, each with smoked sheet registration, air damping, paper speed of 15 mm. per min., mass 139 kg.

SEVEN FALLS

Quebec Power Company

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

International Seismological Centre

SHAWINIGAN FALLS

Shawinigan Water and Power Company

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

SASKATOON

University of Saskatchewan

ϕ = 52°08' N. λ = 106°38' W. h = 515 m.
Time correction from radio time signals
Foundation: clay and sand
Instruments: Mainka N and E components, designated SN and SE, respectively, each with smoked sheet registration, air damping, paper speed of 15 mm. per min., mass 139 kg.

DETERMINED CONSTANTS

INSTRUMENT	T_o	V	ε	DISPLACEMENT FOR 1" ARC TILT	DISPLACEMENT FOR 10^{-5} g.
17	12.0	250	20:1	44 mm.	
23	12.0	250	20:1	44 mm.	
BS					4.8 mm.
BL					20.0 mm.
HN					
HE					
SA	1.0	2000			
SF	1.0	1800			
SM	12.0	250	20:1	44 mm.	
SN	9.0	55	Aper.		
SE	9.0	50	"		

NOTE: Universal Time used throughout.

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM May 1, 1938 to May 5, 1938 No. 22

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km	
		Ottawa			
135 May 2	i	16 10 46			Nearby quake.
	F	16 11			
		Ottawa			
136 May 2	i	17 57 17			Same as No. 135
	F	17 57 21			
		Ottawa			
137 May 2	i	19 33 25			Same as No. 135
	F	19 33 31			
		Ottawa			
138 May 2	i	20 25 19			Same as No. 135
	F	20 25 24			
		Ottawa			
139 May 2	i	21 39 39			Same as No. 135
	F	21 39 47			
		Ottawa			
141 May 3	H	2 15.5		3540	USCGS. gives:
	P	2 22 00			ϕ = 18° N.
	PPP	2 23 20			λ = 99° W.
	iS	2 27 18			
	SS	2 29.0			
	L	2 32			
	F	3 27			
		Shawinigan Falls			
	H	2 15.6		3780	
	P	2 22 26			
	S	2 27 59			
	L	2 33			
	F	2 49			
		Seven Falls			
	H	2 15.5		3910	
	P	2 22 25			
	S	2 28 07			
	L	2 32			
	F	3 14			
		Ottawa			
142 May 5	H	0 33.0		85	
	P_Z	0 33 16			
	S_Z	0 33 27.5			
	L_Z	0 33 30			
	F	0 34			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM May 5, 1938 to May 11, 1938 NO. 23

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Shawinigan Falls			
142 May 5 (Cont'd)	e	0 33 53			
	F	0 34 13			
		Ottawa			
143 May 6	H	18 17.6		3630	USCGS. gives:
	P	18 24 14			ϕ = 13° N.
	PPN	18 25 14			λ = 87° W.
	S	18 29 38			
	SS	18 31.5			
	L	18 34			
	F	19 47			
		Shawinigan Falls			
	e	18 24 34			
	L	18 37			
	F	18 49			
		Seven Falls			
	S	18 30 23			
	e	18 33.0			
	L	18 36			
	F	19 53			
		Ottawa			
144 May 8	eZ	14 08 10			Probably two quakes the i at $15^h 01^m 20^s$ a preliminary phase of the second shock.
	e	14 09 52			
	e	14 13 41			
	e	14 14.5			
	eZ	14 17 09			
	e	14 20 33			
	iZ	15 01 20			
	L	15 04			
	F	16 22			
		Seven Falls			
	e	14 14.1			
	e	14 34.9			
	L	15 00			
	F	16 30			
		Ottawa			
148 May 11	H	14 44.8		3910	USCGS. gives:
	P	14 51 42			ϕ = 16°.9 N.
	e	14 52 14			λ = 101°.0 W
	PPPZ	14 53 15			
	e	14 53 52			
	S	14 57 24			
	e	14 58 12			
	e	15 01 05			
	L	15 03.5			
	F	17 23			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM May 11, 1938 to May 12, 1938 No. 24

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km	
		Saskatoon			
148	H	14 44.8		3930	
May	P	14 51 47			
11	S	14 57.5			
(Cont'd)	L	15 03			
	F	15 56			
		Halifax			
	e	14 52.6			
	e	14 59.5			
	L	15 09			
	F	15 46			
		Shawinigan Falls			
	H	14 44.9		4160	
	P	14 52 08			
	S	14 58.1			
	L	15 03			
	F	15 46			
		Seven Falls			
	H	14 44.7		4380	
	P	14 52 14			
	S	14 58 25			
	i	14 59 09			
	L	15 04			
	F	16 49			
		Ottawa			
149	H	15 39		14100	USCGS. gives:
May	P'_Z	15 58 04.5			ϕ = 8° S.
12	PP	15 59 57			λ = 147° E
	SKKS	16 06.9			
	PPS	16 11 32			
	SS	16 17 12			
	SSS_Z	16 21 38			
	L	16 31			
	F	18 56			
		Saskatoon			
	e_E	16 06 44			
	e_E	16 12.5			
	e	16 15.5			
	L	16 28			
	F	18 13			
		Shawinigan Falls			
	H	15 39		14300	
	P'	15 58.1			
	PP	16 00 04			
	PPS	16 11 52			
	SS	16 17.6			
	L	16 35			
	F	18 06			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM May 12, 1938 to May 19, 1938 No. 29

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Seven Falls			
149	e	16 00			
May	i	16 01 27			
12	i	16 10 17			
(Cont'd)	e	16 11 55			
	i	16 17 32			
	L	16 30.5			
	F	19 07			
		Halifax			
	e	16 02.1			
	L	16 39			
	F	17 29			
		Ottawa			
156	e	23 54			
May	L	23 59			
14	F	0 23			
		Ottawa			
157	e	3 44.4			
May	L	3 48			
15	F	4 08			
		Ottawa			
159	e	18 35 22			Nearby quake
May	F	18 35 29			
17		Shawinigan Falls			
	e	18 34 10			
	F	18 35			
		Seven Falls			
	e	18 33 19			
	i	18 33 24			
	F	34.4			
		Ottawa			
161	e	17 28			USCGS. gives:
May	e	17 30 14			ϕ = 0°.5 N.
19	e	17 30 33			λ = 119° E.
	e	17 31 26			
	e	17 43 34			
	e	17 48.2			
	L	18 08			
	F	22 08			
		Saskatoon			
	e	17 28			
	e	17 38			
	e_E	17 45			
	L	17 59			
	F	19 36			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM May 19, 1938 to May 22, 1938 NO. 28

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Shawinigan Falls			
161	e	17 27 59			
May	e	17 30 29			
19	e	17 31 24			
(Cont'd)	e	17 40.7			
	L	17 52			
	F	19 26			
		Seven Falls			
	e	17 30.2			
	i e	17 31 25			
	e	17 46.9			
	L	18 04			
	F	22 00			
		Halifax			
	e	17 32			
	e	17 49			
	L	18 06			
	F	19 12			
		Ottawa			
165	e_Z	16 03 23			Nearby quake
May	F	16 03 50			
20					
		Ottawa			
166	e_Z	18 45 23			Same as No. 165
May	F	18 45 54			
20					
		Ottawa			
167	e_Z	20 02 58			Same as No. 165
May	F	20 03 34			
20					
		Ottawa			
168	e_Z	21 09 37			Same as No. 165
May	F	21 10 08			
21					
		Ottawa			
169	e	8 16			
May	L	8 45			
22	F	10 14			
		Seven Falls			
	e	8 17.6			
	L	8 47			
	F	10 47			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM May 22, 1938 to May 28, 1938 No. 37

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Ottawa			
170	H	7 19.0		9470	USCGS. gives:
May	P	7 31 37			ϕ = 36° N.
23	e	7 35 25			λ = 141° E.
	S	7 42 09			
	i	7 43 45			
	i_E	7 48 49			
	e	7 56.4			
	L	8 00			
	F	11 46			
		Saskatoon			
	H	7 18.8		8000	
	P	7 30 05			
	S	7 39 30			
	SSS_E	7 47			
	L	7 51			
	F	9 26			
		Shawinigan Falls			
	H	7 19.1		9430	
	P	7 31 41			
	S	7 42 11			
	L	8 04			
	F	8 53			
		Seven Falls			
	H	7 19.0		9480	
	P	7 31 36			
	S	7 42 08			
	i	7 42 34			
	SS	7 48 16			
	SSS	7 51.6			
	L	7 59			
	F	11 42			
		Ottawa			
172	i_Z	19 46 25.5			Nearby quake
May	i_Z	19 46 42			
27	F	19 47.5			
		Ottawa			
174	H	10 14.1		3910	USCGS. gives:
May	P	10 21 03			ϕ = 43° N.
28	PPP_Z	10 22.4			λ = 125° W.
	S	10 26 45			
	L	10 31.5			
	F	12 20			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM May 28, 1938 to May 30, 1938 No. 28

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Saskatoon			
174	H	10 13.9		1880	
May	P	10 17 48			
28	S	10 21 03			
(Cont'd)	L	10 23			
	F	10 41			
		Shawinigan Falls			
	P	10 21 19			
	L	10 33			
	F	10 54			
		Seven Falls			
	H	10 14.2		4150	
	P	10 21 29			
	e	10 22 56			
	S	10 27 26			
	L	10 33			
	F	12 15			
		Ottawa			
175	H	16 42.2		9280	
May	P	16 54 35			
28	S	17 04 58			
	L	17 21			
	F	19 02			
		Shawinigan Falls			
	H	16 42.1		9340	
	P	16 54 36			
	S	17 05 02			
	L	17 37			
	F	17 41			
		Seven Falls			
	S	17 05 00			
	L	17 21			
	F	19 01			
		Ottawa			
176	H	14 29.8		13500	USCGS. gives:
May	P'_Z	14 48 41			ϕ = 20° S.
30	PP	14 50 11			λ = 169° E.
	PPP_Z	14 52 49			
	SKS	14 55.6			
	PS	14 59 46			
	SS	15 07.1			
	SSS	15 11.1			
	L	15 28			
	F	17 46			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM May 30, 1938 to May 31, 1938 No. 29

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Saskatoon			
176 May 30 (Cont'd)	e	14 55.2			
	L	15 18			
	F	16 03			
		Seven Falls			
	H	14 29.9		13900	
	PP	14 50 36			
	SKP	14 51 58			
	PS	15 00 28			
	SS	15 07 40			
	L	15 29			
	F	18 03			
		Halifax			
	e	14 52.4			
	e	14 56.5			
	L	15 36			
	F	15 56			

W. W. Doxsee

EARTHQUAKE CORRELATION TABLE

Month May, 1938

No.	Date	Ottawa	Saskatoon	Halifax	Seven Falls		Shawinigan	**
					M. S.	W. A.		
134	1	1 35+1 15L	.....	.....	.....	.....	.....	..
135	2	16 11+0 0.3d	.....	.....	.....	.....	.....	..
136	2	17 57+0 0.1d	.....	.....	.....	.....	.....	..
137	2	19 33+0 0.1d	.....	.....	.....	.....	.....	..
138	2	20 25+0 0.1d	.....	.....	.....	.....	.....	..
139	2	21 39+0 0.1d	.....	.....	.....	.....	.....	..
140	2	23 56+0 15L	.....	.....	.....	.....	.....	..
141	3	2 22+1 05r	.....	.....	2 24+0 52r	2 22+0 22r	2 22+0 27r	A
142	5	0 33+0 01d	.....	.....	.....	.....	0 34+0 0.3v	B
143	6	18 24+1 23r	.....	18 33+0 14L	18 30+1 23r	18 36+0 15L	18 25+0 24r	C
144	8	14 08+2 14u	.....	.....	14 14+2 16u	.....	.....	..
145	8	.....	.....	.....	.....	.....	15 01+0 01P	..
146	9	3 03+0 17L	.....	.....	.....	.....	.....	..
147	9	3 46+0 40L	.....	.....	.....	.....	.....	..
148	11	14 52+2 31R	14 52+1 04R	14 53+0 53R	14 52+1 57R	14 53+0 53R	14 52+0 54R	E
149	12	15 58+2 58U	16 07+2 07U	16 02+1 27U	16 00+3 07U	15 58+1 52U	15 58+2 08U	F
150	12	22 16+0 47L	.....	.....	22 20+1 07L	.....	.....	..
151	13	2 03+0 09L	.....	.....	1 40+0 29L	.....	.....	..
152	13	3 08+0 10L	.....	.....	3 06+0 11L	.....	2 59+0 01P	..
153	13	9 38+0 07L	.....	.....	9 35+0 07L	.....	.....	..
154	14	7 57+0 05L	.....	.....	.....	.....	.....	..
155	14	.....	.....	.....	12 49+0 33L	.....	.....	..
156	14	23 54+0 29u	.....	.....	23 59+0 16L	.....	.....	..
157	15	3 44+0 24u	.....	.....	3 45+0 10L	.....	.....	..
158	16	18 51+0 08L	.....	.....	.....	.....	.....	..
159	17	18 35+0 0.1v	.....	.....	.....	18 33+0 01d	18 34+0 01d	G
160	19	15 45+0 01P	.....	.....	.....	.....	.....	..
161	19	17 28+4 40U	17 28+2 08U	17 32+1 40U	17 30+4 29U	17 31+1 47U	17 28+1 58U	..
162	19	18 55+0 03P	.....	.....	.....	.....	.....	..

International Seismological Centre

EARTHQUAKE CORRELATION TABLE

Month May, 1938

No.	Date	Ottawa	Saskatoon	Halifax	Seven Falls		Shawinigan	**
					M. S.	W. A.		
163	20	5 50+0 29L	.....	.....	.....	.....	.....	..
164	20	8 17+0 37L	.....	.....	.....	.....	.....	..
165	20	16 03+0 0.5d	.....	.....	.....	.....	.....	..
166	20	18 45+0 0.5d	.....	.....	.....	.....	.....	..
167	20	20 03+0 0.6d	.....	.....	.....	.....	.....	..
168	21	21 10+0 0.5d	.....	.....	.....	.....	.....	..
169	22	8 16+1 58u	.....	.....	8 18+2 29u	.....	.....	..
170	23	7 32+4 14U	7 30+1 56U	8 05+0 24L	7 32+0 11U	7 32+1 03U	7 32+1 21U	H
171	23	16 29+0 16L	.....	.....	.....	.....	.....	..
172	27	19 46+0 1.1d	.....	.....	.....	.....	.....	..
173	27	22 01+0 13L	.....	.....	21 58+0 09L	.....	.....	..
174	28	10 21+1 59r	10 18+0 23r	10 36+0 15L	10 21+1 54r	10 21+0 27r	10 21+0 34r	J
175	28	16 55+2 07u	.....	.....	17 05+1 56u	.....	16 55+0 46u	K
176	30	14 49+2 57U	14 55+1 08U	14 52+1 04U	14 51+3 12U	15 33+0 20L	15 45+0 59L	N
177	30	20 44+0 26L	.....	.....	20 45+0 19L	.....	.....	..
178	31	0 04+0 29L	.....	.....	0 03+0 33L	.....	.....	..
179	31	8 53+0 10L	.....	.....	8 55+0 07L	.....	8 54+0 05L	..

International Seismological Centre

International Seismological Centre

CORRELATION OF EARTHQUAKES

May, 1938.

N O T E S

A :	Ottawa	Δ = 3540 km.	H = $2^h15^m.5$	U.T.
	Shawinigan Falls	Δ = 3780 km.	H = 2 15.6	U.T.
B :	Ottawa	Δ = 85 km.	H = $0^h33^m.0$	U.T.
C :	Ottawa	Δ = 3630 km.	H = $18^h17^m.6$	U.T.
E :	Ottawa	Δ = 3910 km.	H = $14^h44^m.8$	U.T.
	Saskatoon	Δ = 3930 km.	H = 14 44.8	U.T.
	Shawinigan Falls	Δ = 4160 km.	H = 14 44.9	U.T.
	Seven Falls	Δ = 4380 km.	H = 14 44.7	U.T.
F :	Ottawa	Δ = 14100 km.	H = 15^h39^m	U.T.
	Shawinigan Falls	Δ = 14300 km.	H = 15 39	U.T.
G :	Origin probably within 50 km of the Seven Falls station.			
H :	Ottawa	Δ = 9470 km.	H = $7^h19^m.0$	U.T.
	Saskatoon	Δ = 8000 km.	H = 7 18.8	U.T.
	Shawinigan Falls	Δ = 9430 km.	H = 7 19.1	U.T.
	Seven Falls	Δ = 9480 km.	H = 7 19.0	U.T.
J :	Ottawa	Δ = 3910 km.	H = $10^h14^m.1$	U.T.
	Saskatoon	Δ = 1880 km.	H = 10 13.9	U.T.
	Seven Falls	Δ = 4150 km.	H = 10 14.2	U.T.
K :	Ottawa	Δ = 9280 km.	H = $16^h42^m.2$	U.T.
	Shawinigan Falls	Δ = 9340 km.	H = 16 42.1	U.T.
N :	Ottawa	Δ = 13500 km.	H = $14^h29^m.8$	U.T.
	Seven Falls	Δ = 13900 km.	H = 14 29.9	U.T.

Dominion Observatory,
Ottawa, Canada,
July 25, 1938.

June 1938

International Seismological Centre

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

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

S T A T I O N S

OTTAWA

ϕ = 45°23'38" N. λ = 75°42'57" W. h = 83 m.
Time correction within 0.10 s.
Foundation: boulder clay over limestone
Instruments: Milne-Shaw N and E 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, 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 = 46 m.
Time correction from recorded railroad time signals
Foundation: carbonaceous slate
Instruments: Mainka N and E components, designated HN and HE, respectively, each with smoked sheet registration, air damping, paper speed of 15 mm. per min., mass 139 kg.

SEVEN FALLS

Quebec Power Company

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

International Seismological Centre

SHAWINIGAN FALLS

Shawinigan Water and Power Company

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

SASKATOON

University of Saskatchewan

ϕ = 52°08' N. λ = 106°38' W. h = 515 m.
Time correction from radio time signals
Foundation: clay and sand
Instruments: Mainka N and E components, designated SN and SE, respectively, each with smoked sheet registration, air damping, paper speed of 15 mm. per min., mass 139 kg.

DETERMINED CONSTANTS

INSTRUMENT	T_o	V	ε	DISPLACEMENT FOR 1" ARC TILT	DISPLACEMENT FOR 10^{-5} g.
17	12.0	250	20:1	44 mm.	
23	12.0	250	20:1	44 mm.	
BS					4.8 mm.
BL					20.0 mm.
HN					
HE					
SA	1.0	2000			
SF	1.0	1800			
SM	12.0	250	20:1	44 mm.	
SN	9.0	55	Aper.		
SE	9.0	50	"		

NOTE: Universal Time used throughout.

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM June 1, 1938 to June 9, 1938 No. 30

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Ottawa			
181	i	15 09 02			Nearby quake
June	i	15 09 03.5			
2	F	15 09 08			
		Ottawa			
182	i	17 46 51			Nearby quake
June	i	17 46 52.5			
2	F	17 47 05			
		Ottawa			
183	i	20 00 21			Nearby quake
June	i	20 00 22.3			
2	F	20 00 33			
		Ottawa			
187	H	19 16ca.		13000ca.	USCGS. gives:
June	P'	19 34 25			ϕ = 2° S.
9	SKP	19 37.0			λ = 128° E.
	PPP	19 37 56			
	SSS_N	19 56.0			
	L	20 10.5			
	F	22 42			
		Saskatoon			
	e	19 31			
	e	19 37			
	L	19 52			
	F	20 34			
		Shawinigan Falls			
	e	19 34.5			
	e	19 38 03			
	e	19 47			
	L	20 33			
	F	21 00			
		Seven Falls			
	H	19 15ca.		15000ca.	
	P'	19 34.5			
	PP	19 36 50			
	SKP	19 37 55			
	PPP	19 40 00			
	SKKS	19 43.8			
	e	19 47 00			
	SS	19 54 30			
	SSS	19 59 55			
	L	20 20			
	F	22 51			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM June 9, 1938 to June 10, 1938 No. 31

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Ottawa			
188	e	10 08 04			USCGS. gives:
June	e	10 11 03			ϕ = 25° N.
10	e	10 12 19			λ = 125° E.
	e	10 18 46			
	e	10 22 42			
	L	10 42			
	F	13 15			
		Saskatoon			
	H	9 53.8		10160	
	P	10 06 56			
	S	10 17 57			
	L	10 33			
	F	11 33			
		Shawinigan Falls			
	e	10 11			
	e	10 18.7			
	L	10 48			
	F	11 13			
		Seven Falls			
	e	10 12.8			
	e	10 18 13			
	e	10 27.4			
	e	10 31.5			
	e	10 38.7			
	L	10 48.4			
	F	14 17			
		Ottawa			
189	H	18 06.0		3760	USCGS. gives:
June	P	18 12 48			ϕ = 16°.5 N.
10	eSE	18 18 20			λ = 98° W.
	i	18 18 28			
	L	18 27			
	F	19 33			
		Saskatoon			
	e	18 18			
	L	18 24			
	F	18 39			
		Shawinigan Falls			
	H	18 06.0		4090	
	P	18 13 07			
	S	18 19 00			
	L	18 28			
	F	18 44			

DOMINION OBSERVATORY, OTTAWA

FROM June 10, 1938 to June 20, 1938 No. 32

International Seismological Centre

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Seven Falls			
189 June 10 (Cont'd)	e	18 13 35			
	S	18 19 15			
	L	18 25			
	F	20 21			
		Ottawa			
194 June 15	e	7 55 42			USCGS. gives: ϕ = 32° S. λ = 68° W.
	L	8 05			
	F	8 25			
		Ottawa			
197 June 16	H	2 15.1		11800	USCGS. gives: ϕ = 29° N. λ = 128° E.
	P	2 29.3			
	PP	2 33 33			
	SKS	2 40 10			
	PS	2 42 50			
	L	3 04			
	F	5 42			
		Saskatoon			
	e	2 28.1			
	e	2 38 41			
	L	3 02			
	F	4 24			
		Shawinigan Falls			
	e	2 29 17			
	e	2 33.5			
	e	2 39 57			
	L	3 16			
	F	3 36			
		Seven Falls			
	e	2 29			
	e	2 33 30			
	e	2 40 00			
	L	3 03			
	F	6 05			
		Ottawa			
199 June 20	e	14 11 55			
	L	14 20			
	F	14 43			
		Ottawa			
200 June 20 and 21	H	23 44.7ca		13000ca.	
	P'	0 03 28			
	PPP	0 07 07			
	PS	0 14 08			
	PPS	0 15 28			
	SS	0 21			
	L	0 35			
	F	2 35			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM June 20, 1938 to June 23, 1938 No. 33

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Saskatoon			
200	e	23 56			
June	e	0 06.4			
20	L	0 29			
and	F	0 58			
21					
(Cont'd)		Shawinigan Falls			
	e	0 03 21			
	e	0 13.7			
	L	0 39			
	F	1 01			
		Seven Falls			
	H	23 44.5ca		12800ca.	
	P'	0 03.1			
	PPP	0 06 28			
	PS	0 13 45			
	PPS	0 14 46			
	L	0 38			
	F	2 52			
		Ottawa			
203					
June	e_Z	23 27 02			
22	L	23 39			
and	F	0 16			
23					
		Ottawa			
204	e	1 16 00			
June	e	1 25 34			
23	L	1 33			
	F	2 00ca.			
		Seven Falls			
	e	1 25 53			
	L	1 35			
	F	1 57			
		Ottawa			
205	e_Z	13 14 16			USCGS. gives:
June	e	13 15 48			ϕ = 20° S.
23	e_E	13 25.4			λ = 169° E.
	L	13 31			
	F	13 36+			
		Seven Falls			
	e	13 16 08			
	e	13 17.5			
	i	13 26 03			
	i	13 27 52			
	L	13 58			
	F	15 54			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM June 23, 1938 to June 30, 1938 No. 34

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Ottawa			
206 June 25	H	23 45.3		4960	
	eP	23 53 28			
	e	23 55 20			
	eS	0 00 10			
	L	0 07			
	F	0 54			
		Seven Falls			
	e	23 59 03			
	L	0 05			
	F	0 54			
		Ottawa			
208 June 28	H	19 17.9		3540	USCGS. gives:
	eP	19 24 24			ϕ = 19° N.
	PPP	19 25 44			λ = 100° W.
	eS	19 29 42			
	L	19 33			
	F	20 25			
		Saskatoon			
	e	19 24 35			
	L	19 33			
	F	19 48			
		Ottawa			
210 June 29	e_N	19 11			
	e_E	19 12 50			
	L	19 35			
	F	20 44			
		Seven Falls			
211 June 30	e	17 15.4			
	e	17 22.4			
	L	17 43			
	F	19 11			

W. W. Doxsee.

EARTHQUAKE CORRELATION TABLE

Month June, 1938

No.	Date	Ottawa	Saskatoon	Halifax	Seven Falls		Shawinigan	**
					M. S.	W. A.		
180	2	11 43+0 11L	.....	.....	.....	.....	.....	..
181	2	15 09+0 0.1d	.....	.....	.....	.....	.....	..
182	2	17 47+0 0.2d	.....	.....	.....	.....	.....	..
183	2	20 00+0 0.2d	.....	.....	.....	.....	.....	..
184	5	1 31+0 43L	.....	.....	.....	.....	.....	..
185	5	2 22+0 34L	.....	.....	.....	.....	.....	..
186	6	3 00+0 09L	.....	.....	.....	.....	.....	..
187	9	19 34+3 08U	19 31+1 03U	.....	19 34+3 17U	.....	19 34+1 25U	A
188	10	10 08+3 07U	10 07+1 26U	.....	10 13+4 14U	10 34+0 47L	10 11+1 02U	B
189	10	18 13+1 20r	18 18+0 21r	.....	18 14+2 08r	.....	18 13+0 31r	C
190	10	18 37+0 01P	.....	.....	.....	.....	18 37+0 01P	..
191	11	17 55+0 16L	.....	.....	.....	.....	.....	..
192	12	8 51+0 20L	.....	.....	.....	.....	.....	..
193	13	3 50+1 17L	.....	.....	.....	.....	.....	..
194	15	7 56+0 29u	.....	.....	.....	.....	.....	..
195	15	.....	.....	.....	13 44+0 42L	.....	.....	..
196	15	20 46+1 35L	.....	.....	21 16+0 39L	.....	.....	..
197	16	2 29+3 13U	2 28+1 56U	3 21+0 15L	2 29+3 36U	.....	2 29+1 07U	E
198	18	.....	.....	.....	4 40+0 10L	.....	.....	..
199	20	14 12+0 31u	.....	.....	14 21+0 34L	.....	.....	..
200	20/1	0 03+2 32U	23 56+1 02U	0 36+0 19L	0 03+2 49U	.....	0 03+0 58U	F
201	21	7 18+0 50L	.....	.....	.....	.....	.....	..
202	22	3 31+0 13L	.....	.....	3 31+0 12L	.....	3 31+0 05L	..
203	22	23 27+0 49u	.....	.....	.....	.....	.....	..
204	23	1 16+0 44u	.....	1 39+0 20L	1 26+0 31u	.....	.....	..
205	23	13 14+0 22+u	.....	.....	13 16+2 38U	.....	13 58+0 13L	..
206	25	23 53+1 01r	.....	.....	23 59+0 55r	.....	.....	G
207	27	22 15+0 15L	.....	.....	22 16+0 12L	.....	.....	..
208	28	19 24+1 01r	19 25+0 23r	.....	.....	.....	.....	H
209	29	10 43+0 33L	.....	.....	.....	.....	.....	..
210	29	19 11+1 33u	.....	.....	19 37+1 38L	.....	.....	..
211	30	.....	.....	.....	17 15+1 56u	.....	.....	..

International Seismological Centre

International Seismological Centre

CORRELATION OF EARTHQUAKES

June, 1938.

N O T E S

A :	Ottawa	Δ = 13,000 km. ca.	H = $19^h 16^m$ ca. U.T.
	Seven Falls	Δ = 15,000 km. ca.	H = 19 15 ca. U.T.
B :	Saskatoon	Δ = 10,160 km.	H = $9^h 53^m.8$ U.T.
C :	Ottawa	Δ = 3,760 km.	H = $18^h 06^m.0$ U.T.
	Shawinigan Falls	Δ = 4,090 km.	H = 18 06.0 U.T.
E :	Ottawa	Δ = 11,800 km.	H = $2^h 15^m.1$ U.T.
F :	Ottawa	Δ = 13,000 km. ca.	H = $23^h 44^m.7$ ca. U.T.
	Seven Falls	Δ = 12,800 km. ca.	H = 23 44.5 ca. U.T.
G :	Ottawa	Δ = 4,960 km.	H = $23^h 45^m.3$ U.T.
H :	Ottawa	Δ = 3,540 km.	H = $19^h 17^m.9$ U.T.

Dominion Observatory,
Ottawa, Canada,
August 24, 1938.

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

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

July 1938

International Seismological Centre

S T A T I O N S

OTTAWA

ϕ = 45°23'38" N. λ = 75°42'57" W. h = 83 m.
Time correction within 0.10 s.
Foundation: boulder clay over limestone
Instruments: Milne-Shaw N and E 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, 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 = 46 m.
Time correction from recorded railroad time signals
Foundation: carbonaceous slate
Instruments: Mainka N and E components, designated HN and HE, respectively, each with smoked sheet registration, air damping, paper speed of 15 mm. per min., mass 139 kg.

SEVEN FALLS

Quebec Power Company

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

International Seismological Centre

SHAWINIGAN FALLS

Shawinigan Water and Power Company

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

Time correction from recorded radio time signals

Foundation: solid granite of Canadian Shield

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

SASKATOON

University of Saskatchewan

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

Time correction from radio time signals

Foundation: clay and sand

Instruments: Mainka N and E components, designated SN and SE, respectively, each with smoked sheet registration, air damping, paper speed of 15 mm. per min., mass 139 kg.

DETERMINED CONSTANTS

INSTRUMENT	T_o	V	ϵ	DISPLACEMENT FOR 1" ARC TILT	DISPLACEMENT FOR 10^{-5} g.
17	12.0	250	20:1	44 mm.	
23	12.0	250	20:1	44 mm.	
BS					7.0 mm.
BL					55.0 mm.
HN					
HE					
SA	1.0	1800			
SF	1.0	1800			
SM	12.0	250	20:1	43 mm.	
SN	9.3	58	Aper.		
SE	9.1	56	"		

NOTE: Universal Time used throughout.

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM July 1, 1938 to July 5, 1938 No. 39

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Ottawa			
212 July 2	i_Z	15 51 28			Nearby quake
	F	15 51 42			
		Ottawa			
213 July 2	e_Z	21 11 50			
	e	21 18.0			
	eL	21 21			
	F	21 53			
		Seven Falls			
	e	21 18			
	eL	21 21			
	F	21 41			
		Ottawa			
214 July 4	e_Z	21 31 28			
	e	21 42.7			
	L	22 06			
	F	23 27			
		Seven Falls			
	e	21 43			
	L	22 11			
	F	23 00			
		Ottawa			
215 July 5	i_Z	0 03 46			Nearby quake
	L_Z	0 03 49			
	F	0 04			
		Ottawa			
216 July 5	e_Z	2 22 31			
	e_E	2 24,8			
	e_E	2 29.7			
	L	2 56			
	F	5 17			
		Seven Falls			
	e	2 34			
	L	3 02			
	F	5 20			
		Ottawa			
218 July 5	i_Z	20 10 08			Nearby quake
	L_Z	20 10 09			
	F	20 11 11			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM July 5, 1938 to July 20, 1938 No. 38

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km	
		Ottawa			
219 July 5	e_E	22 27.5			USCGS. gives:-
	e_N	22 32.3			ϕ = 24° S.
	e_E	22 37.4			λ = 173° E.
	e	22 44.3			
	L	23 07			
	F	0 51			
		Seven Falls			
	e	22 33			
	e	22 45			
	L	23 05			
	F	0 43			
		Ottawa			
221 July 6	e	1 12.6			
	e_E	1 55			
	e_N	2 01.5			
	L	2 15			
	F	4 24			
		Seven Falls			
	e	1 13			
	e	1 45			
	e	2 02			
	L	2 18			
	F	4 14			
		Ottawa			
228 July 14	e	11 50.2			
	e	11 53.1			
	L	11 57			
	F	12 21			
		Ottawa			
229 July 14 and 15	e	23 57.4			
	e_N	0 07.8			
	e_N	0 11.3			
	L	0 26			
	F	1 34			
		Seven Falls			
	e	0 11.3			
	L	0 29			
	F	1 15			
		Ottawa			
236 July 20	H	0 23.7		7730	
	P	0 34 48			
	S	0 44.0			
	L	0 56			
	F	1 40			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM July 20, 1938 to July 24, 1938 No. 37

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Ottawa			
237	H	12 01.5		5380	
July	P	12 10 14			
20	S	12 17 20			
	L	12 21			
	F	12 42			
		Ottawa			
239	H	7 48.1			
July	P	7 55 18		4080	USCGS. gives:-
22	PP,	7 56 38			ϕ = 18°.9 N.
	S	8 01 10			λ = 107°.0 W.
	SSS	8 03 48			
	L	8 06			
	F	11 09			
		Seven Falls			
	H	7 48.1		4600	
	P	7 55 51			
	PP	7 57 24			
	S	8 02 14			
	SS	8 04 51			
	L	8 08			
	F	11 02			
		Shawinigan Falls			
	H	7 48.2		4300	
	P	7 55.6			
	S	8 04.6			
	L	8 05			
	F	8 46			
		Halifax			
	e	7 56			
	L	8 12			
	F	8 30			
		Ottawa			
242	e_Z	23 19 07			
July	e	23 31.0			
23	L	23 47			
and	F	0 42			
24					
		Ottawa			
243	H	13 12.4		6080	USCGS. gives:-
July	P	13 21 52			ϕ = 53° N.
24	iS	13 29 37			λ = 167° W.
	L	13 38			
	F	15 11			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM July 24, 1938 to July 29, 1938 No. 38

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
243		Seven Falls			
July	H	13 12.4		6180	
24	P	13 21 59			
(Cont'd)	S	13 29 50			
	L	13 37			
	F	14 36			
		Shawinigan Falls			
	H	13 12.5		6100	
	P	13 22.0			
	S	13 29 46			
	L	13 40			
	F	13 52			
		Ottawa			
244	H	8 18.4		25	Δ and H based on
July	P Z	8 18 29.5			Joliat's Tables for
26	S	8 18 32.5			nearby earthquakes.
	F	8 19 02			
		Ottawa			
245	i Z	17 18 20			Nearby quake.
July	F	17 18 23			
26					
		Ottawa			
247	i Z	16 06 10			Nearby quake.
July	F	16 06 12			
27					
		Ottawa			
250	e Z	13 25 56			USCGS. gives:-
July	e	13 28.4			ϕ = 1° N.
29	e E	13 46.6			λ = 96° E.
	L	14 11			
	F	15 46			
		Seven Falls			
	e	13 46.9			
	L	14 09			
	F	15 24			
		Ottawa			
251	i	13 48 47			Nearby quake.
July	F	13 49 09			
29					
		Ottawa			
252	i	14 55 00			Nearby quake.
July	F	14 55 13			
29					

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM July 29, 1938 to July 31, 1938 No. 39

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km	
		Ottawa			
253 July 29	i	16 05 25			Nearby quake.
	F	16 05 42			
		Ottawa			
254 July 29	e	16 29 27			Nearby quake.
	e	16 29 43			
	L	16 29 47			
	F	16 29 53			
		Ottawa			
255 July 29	i_Z	18 30 29			Nearby quake.
	L_Z	18 30 32			
	F	18 30 41			
		Ottawa			
256 July 29	i	19 51 30			Nearby quake.
	F	19 51 52			

W. W. Doxsee

EARTHQUAKE CORRELATION TABLE

Month July, 1938

No.	Date	Ottawa	Saskatoon	Halifax	Seven Falls		Shawinigan	**
					M. S.	W. A.		
212	2	15 51+0 0.3d	.....	.....	.....	.....	.....	A
213	2	21 12+0 41u	.....	.....	21 18+0 23u	.....	.....	..
214	4	21 31+1 56u	.....	.....	21 43+1 17u	.....	.....	..
215	5	0 04+0 0.3d	.....	.....	.....	.....	.....	A
216	5	2 23+2 54u	.....	.....	2 34+2 46u	.....	.....	..
217	5	10 51+0 37L	.....	.....	10 54+0 26L	.....	.....	..
218	5	20 10+0 0.1d	.....	.....	.....	.....	.....	A
219	5	22 28+2 23u	.....	.....	22 33+2 10u	.....	.....	..
220	5	22 57+0 0.5P	.....	.....	.....	.....	.....	..
221	6	1 13+3 12u	.....	.....	1 13+3 01u	1 13+0 03P	1 13+0 03P	..
222	6	10 40+0 40L	.....	.....	10 44+0 21L	.....	.....	..
223	7	18 16+0 39L	.....	.....	.....	.....	.....	..
224	8	12 21+0 12L	.....	.....	.....	.....	.....	..
225	8	22 52+0 40L	.....	.....	.....	.....	.....	..
226	12	13 24+1 43L	.....	.....	.....	.....	.....	..
227	13	11 41+0 18L	.....	.....	.....	.....	.....	..
228	14	11 50+0 31r	.....	.....	.....	.....	12 00+0 07L	..
229	14	23 57+1 36u	.....	.....	0 11+1 04u	.....	.....	..
230	15	5 07+0 0.3P	.....	.....	.....	.....	.....	..
231	15	22 49+0 0.6P	.....	.....	.....	.....	.....	..
232	16	16 13+0 33L	.....	.....	16 16+0 33L	.....	.....	..
233	16	18 22+0 28L	.....	.....	.....	.....	.....	..
234	17	2 25+0 0.2P	.....	.....	.....	.....	.....	..
235	17	11 35+0 15L	.....	.....	.....	.....	.....	..
236	20	0 35+1 05u	.....	.....	0 53+0 27L	.....	.....	B
237	20	12 10+0 32u	.....	.....	.....	.....	.....	C
238	21	10 01+0 45L	.....	.....	.....	.....	.....	..
239	22	7 55+3 14R	.....	7 56+0 34r	7 56+3 07R	7 56+0 45R	7 56+0 50R	E
240	22	17 07+0 0.2d	.....	.....	.....	.....	.....	▲

International Seismological Centre

EARTHQUAKE CORRELATION TABLE

Month July, 1938

No.	Date	Ottawa	Saskatoon	Halifax	Seven Falls		Shawinigan	**
					M. S.	W. A.		
241	23	13 52+0 38L	.....	.....	14 00+0 13L	.....	.....	..
242	23	23 19+1 23u	.....	.....	.....	.....	.....	..
243	24	13 22+1 49u	.....	.....	13 22+1 14u	.....	13 22+0 30u	F
244	26	8 18+0 0.5d	.....	.....	.....	.....	.....	G
245	26	17 18+0 0.1P	.....	.....	.....	.....	.....	A
246	27	15 41+0 0.1d	.....	.....	.....	.....	.....	..
247	27	16 06+0 0.1d	.....	.....	.....	.....	.....	A
248	27	17 44+0 55L	.....	.....	17 42+0 31L	.....	.....	..
249	27	19 56+0 35L	.....	.....	20 14+0 07L	.....	.....	..
250	29	13 26+2 20u	.....	.....	13 47+1 37u	.....	13 28+0 03P	..
251	29	13 49+0 0.4d	.....	.....	.....	.....	.....	A
252	29	14 55+0 0.2d	.....	.....	.....	.....	.....	A
253	29	16 05+0 0.3d	.....	.....	.....	.....	.....	A
254	29	16 29+0 0.4d	.....	.....	.....	.....	.....	A
255	29	18 30+0 0.2d	.....	.....	.....	.....	.....	A
256	29	19 51+0 0.4d	.....	.....	.....	.....	.....	A

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CORRELATION OF EARTHQUAKES

July, 1938.

N O T E S

A : Origin probably within 100 km. of the Ottawa station.

B :	Ottawa	Δ = 7730 km.	H = $0^h 23^m.7$ U.T.
C :	Ottawa	Δ = 5380 km.	H = $12^h 01^m.5$ U.T.
E :	Ottawa	Δ = 4080 km.	H = $7^h 48^m.1$ U.T.
	Seven Falls	Δ = 4600 km.	H = 7 48.1 U.T.
	Shawinigan Falls	Δ = 4300 km.	H = 7 48.2 U.T.
F :	Ottawa	Δ = 6080 km.	H = $13^h 12^m.4$ U.T.
	Seven Falls	Δ = 6180 km.	H = 13 12.4 U.T.
	Shawinigan Falls	Δ = 6100 km.	H = 13 12.5 U.T.
G :	Ottawa	Δ = 25 km.	H = $8^h 18^m.4$ U.T.

Dominion Observatory,
Ottawa, Canada,
October 13, 1938.

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

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

aug 1928
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S T A T I O N S

OTTAWA

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

Time correction within 0.10 s.

Foundation: boulder clay over limestone

Instruments: Milne-Shaw N and E 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, 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 = 46 m.

Time correction from recorded railroad time signals

Foundation: carbonaceous slate

Instruments: Mainka N and E components, designated HN and HE, respectively, each with smoked sheet registration, air damping, paper speed of 15 mm. per min., mass 139 kg.

SEVEN FALLS

Quebec Power Company

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

Time correction from recorded radio time signals

Foundation: solid granite of Canadian Shield

Instruments: Wood-Anderson and Milne-Shaw, both E component, designated SF and SM, respectively, each with photographic registration, magnetic damping, SF a paper speed of 60 mm. per min. and mass 15 g., SM a paper speed of 6 mm. per min. and mass 1 lb.

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SHAWINIGAN FALLS

Shawinigan Water and Power Company

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

Time correction from recorded radio time signals

Foundation: solid granite of Canadian Shield

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

SASKATOON

University of Saskatchewan

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

Time correction from radio time signals

Foundation: clay and sand

Instruments: Mainka N and E components, designated SN and SE, respectively, each with smoked sheet registration, air damping, paper speed of 15 mm. per min., mass 139 kg.

DETERMINED CONSTANTS

INSTRUMENT	T_o	V	ϵ	DISPLACEMENT FOR 1" ARC TILT	DISPLACEMENT FOR 10^{-5} c.
17	12.0	250	20:1	44 mm.	7.0 mm.
23	12.0	250	20:1	44 mm.	55.0 mm.
BS					
BL					
HN					
HE					
SA	1.0	1800			
SF	1.0	1800			
SM	12.0	250	20:1	43 mm.	
SN	9.3	58	Aper.		
SE	9.1	56	"		

NOTE: Universal Time used throughout.

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM August 1, 1938 to August 8, 1938 No. 40

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km	
		Ottawa			
258 Aug. 3	i	13 16 31			Nearby quake.
	LM	13 16 32.5			
	F	13 16 48			
		Ottawa			
259 Aug. 3	e	13 41 05			
	e	13 45 28			
	L	13 49			
	F	14 48			
		Seven Falls			
	e	13 40.7			
	e	13 47.2			
	L	13 53			
	F	14 29			
		Ottawa			
260 Aug. 3	iZ	15 12 46			Nearby quake.
	LM	15 12 47			
	F	15 13 16			
		Ottawa			
261 Aug. 3	iZ	18 01 49.5			Nearby quake.
	LM	18 01 51			
	F	18 02 10			
		Ottawa			
262 Aug. 4	H	8 55.0		7260	USCGS. gives:-
	P	9 05 38.5			ϕ = 24°.0 S.
	S	9 14 29			λ = 65°.4 W.
	SSS	9 22			Deep focus
	L	9 26			
	F	11 02			
		Shawinigan Falls			
	H	8 55.1		7350	
	P	9 05 48			
	S	9 14 43			
	F	9 28			
		Ottawa			
267 Aug. 8	i	15 04 31.5			Nearby quake.
	LM	15 04 32			
	F	15 04 53			
		Ottawa			
269 Aug. 8	i	16 09 27			Nearby quake.
	LM	16 09 28.5			
	F	16 09 42			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM August 8, 1938 to August 20, 1938 No. 41

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km	
		Ottawa			
270 Aug. 8	e_Z	18 32 00			
	e_N	18 40.5			
	L	18 43			
	F	19 22			
		Ottawa			
273 Aug. 16	e	4 47 13			USCGS. gives:-
	i_E	4 54 40			ϕ = 24°± N.
	e	4 56 30			λ = 95°± E.
	i	5 02 40			
	eL	5 23			
	F	7 48			
		Saskatoon			
	e	4 53.5			
	eL	5 19			
	F	6 05			
		Seven Falls			
	e	4 47 53			
	i	4 55 21			
	i	5 03 10			
	L	5 15			
	F	7 48			
		Ottawa			
274 Aug. 18	e	9 49 22			
	i	9 52 14			
	e	10 10 15			
	eL	10 32			
	F	11 24			
		Seven Falls			
	e	10 10			
	L	10 26			
	F	11 17			
		Ottawa			
275 Aug. 18	e	19 31			
	L	19 55			
	F	20 42			
		Ottawa			
277 Aug. 20	e	8 57			
	L	9 27			
	F	10 33			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM August 20, 1938 to August 24, 1938 No. 42

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km	
		Ottawa			
278 Aug. 21	e_N	16 35.6			
	e	16 38.2			
	L	16 42			
	F	17 17			
		Ottawa			
280 Aug. 22	e_Z	12 49 39			
	L_Z	12 50 37			
	F	12 53			
		Seven Falls			
	e	12 49.0			Nearby quake.
	F	12 50			
		Ottawa			
282 Aug. 23	e_Z	3 37 51			
	e_Z	3 38 09			
	e_Z	3 38 49			
	L_Z	3 39 12			
	F	3 42			
		Shawinigan Falls			
	e	3 39 51			Nearby quake.
	F	3 41			
		Ottawa			
283 Aug. 23	e_Z	5 06 12			
	e_Z	5 06 30			
	e_Z	5 07 12			
	L_Z	5 07 40			
	F	5 11			
		Shawinigan Falls			
	e	5 08 13			Nearby quake.
	F	5 10			
		Ottawa			
284 Aug. 23	e_Z	7 04 45			
	e_Z	7 05 03			
	e_Z	7 05 44			
	L_Z	7 06 06			
	F	7 09			
		Ottawa			
288 Aug. 24	e_Z	16 14 36			
	L	16 38			
	F	17 40			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM August 24, 1938 to August 31, 1938 No. 43

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km	
		Ottawa			
289	H	1 32 ca		14,000 ca	
Aug.	P	1 47 23			
25	P'	1 50 29			
	SKS	1 57 18			
	SS	2 09			
	L	2 33			
	F	4 22			
		Seven Falls			
	e	1 47.5			
	L	2 32			
	F	4 14			
		Ottawa			
291	e_Z	15 41.3			
Aug.	e	15 48			
29	e	15 59			
	L	16 15			
	F	18 03			
		Seven Falls			
	e	15 50.5			
	e	15 59.5			
	L	16 15			
	F	18 53			
		Ottawa			
292	e_Z	12 08.6			
Aug.	e	12 10.5			
30	e_N	12 22.4			
	e	12 27.6			
	L	12 39			
	F	15 26			
		Seven Falls			
	e	12 11.5			
	e	12 28.5			
	L	12 43			
	F	15 16			
		Ottawa			
294	i_Z	18 03 30			
Aug.	e_Z	18 05 04			
31	e	18 12.5			
	e	18 21.2			
	L	18 50			
	F	19 32			
		Seven Falls			
	e	18 12.5			
	e	18 21.7			
	L	18 54			
	F	19 13			

W. W. Doxsee.

EARTHQUAKE CORRELATION TABLE

Month August. 1938

No.	Date	Ottawa	Saskatoon	Halifax	Seven Falls		Shawinigan	**
					M. S.	W. A.		
257	2	20 41+0 15L	.....	.....	20 45+0 07L	.....	.....	..
258	3	13 16+0 0.3d	.....	.....	.....	.....	.....	A
259	3	13 41+1 07r	13 40+0 17L	.....	13 41+0 48r	.....	13 53+0 06L	..
260	3	15 13+0 0.5d	.....	.....	.....	.....	.....	A
261	3	18 02+0 0.3d	.....	.....	.....	.....	.....	A
262	4	9 06+1 56u	.....	.....	.....	.....	.....	B
263	5	17 11+0 22L	.....	.....	.....	17 11+0 04L	17 11+0 03L	..
264	5	17 55+0 03L	.....	.....	.....	.....	.....	..
265	8	11 42+0 09L	.....	.....	.....	.....	.....	..
266	8	13 33+0 23L	.....	.....	13 29+0 25L	.....	.....	..
267	8	13 04+0 0.3d	.....	.....	.....	.....	.....	A
268	8	15 53+0 21L	.....	.....	.....	.....	.....	..
269	8	16 09+0 0.3d	.....	.....	.....	.....	.....	A
270	8	18 32+0 50r	.....	.....	18 45+0 25L	18 44+0 07L	18 43+0 07L	..
271	12	4 42+1 03L	.....	.....	4 57+0 45L	.....	.....	..
272	15	17 03+0 12L	.....	.....	.....	.....	.....	..
273	16	4 47+3 01U	4 54+1 11U	.....	4 48+3 00U	4 47+1 07U	.....	..
274	18	9 49+1 35u	.....	.....	10 10+1 07u	.....	9 52+0 12u	..
275	18	19 31+1 11u	.....	.....	.....	.....	.....	..
276	20	6 12+0 25L	.....	.....	.....	.....	.....	..
277	20	8 57+1 36u	.....	.....	9 31+0 36L	.....	.....	..
278	21	16 36+0 41r	.....	.....	.....	.....	.....	..
279	21	17 26+0 10L	.....	.....	.....	.....	.....	..
280	22	12 50+0 03v	.....	.....	.....	12 49+0 01d	.....	C
281	22	22 23+0 34L	.....	.....	22 21+0 32L	.....	.....	..
282	23	3 38+0 04v	.....	.....	.....	.....	3 40+0 01d	E
283	23	5 06+0 05v	.....	.....	.....	.....	5 08+0 02d	E
284	23	7 05+0 04v	.....	.....	.....	.....	.....	..
285	23	9 10+0 22L	.....	.....	.....	.....	.....	..
286	23	10 49+0 07L	.....	.....	.....	.....	.....	..
287	24	16 03+0 02P	.....	.....	.....	.....	.....	..
288	24	16 15+1 25u	.....	.....	.....	.....	.....	..
289	25	1 47+2 35u	.....	.....	1 47+2 27u	.....	.....	F
290	28	21 20+0 16L	.....	.....	.....	.....	.....	..
291	29	15 41+2 22u	.....	.....	15 50+3 03u	.....	.....	..
292	30	12 09+3 17U	.....	.....	12 12+3 04U	.....	12 50+0 22L	..
293	30	17 31+0 07L	.....	.....	.....	.....	.....	..
294	31	18 03+1 29u	.....	.....	18 12+1 00u	.....	.....	..

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CORRELATION OF EARTHQUAKES

August, 1938.

N O T E S

A : Epicentre probably within 100 km. of the Ottawa station.

B : Ottawa Δ = 7260 km. H = $8^h55^m.0$ U.T.
Shawinigan Falls Δ = 7350 km. H = 8 55.1 U.T.

C : Epicentre probably within 100 km. of the Seven Falls station.

E : Epicentre probably within 100 km. of the Shawinigan Falls station.

F : Ottawa Δ = 14000 km. ca. H = 1^h32^m U.T. ca.

Dominion Observatory,
Ottawa, Canada,
October 28, 1938.

International Seismological Centre

CORRELATION OF EARTHQUAKES

September, 1938.

N O T E S

A : Ottawa Δ = 3700 km. H = $22^h48^m.5$ U.T.
Shawinigan Falls Δ = 3760 km. H = 22 48.7 U.T.
Seven Falls Δ = 3980 km. H = 22 48.7 U.T.

B : Ottawa Δ = 70 km. H = $23^h18^m.3$ U.T.

C : Ottawa Δ = 3840 km. H = $6^h10^m.8$ U.T.

E : Epicentre probably within 100 km. of the Ottawa station.

F : Ottawa Δ = 85 km. H = $0^h12^m.3$ U.T.

G : Shawinigan Falls Δ = 240 km. H = $4^h33^m.6$ U.T.
Seven Falls Δ = 50 km. H = 4 33.6 U.T.

Dominion Observatory,
Ottawa - Canada.
January 12, 1939.

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM: September 1, 1938 to September 7, 1938 No. 44

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Ottawa			
296 Sept. 1	H	22 48.5		3700	USCGS. gives:
	P	22 55 14			ϕ = 13°.1 N.
	S	23 00 43			λ = 89°.4 W.
	L	23 05.5			
	F	0 54			
		Shawinigan Falls			
	H	22 48.7		3760	
	P	22 55 30			
	e	22 56.8			
	S	23 01 02			
	L	23 06			
	F	23 21			
		Seven Falls			
	H	22 48.7		3980	
	P	22 55 42			
	PPP	22 57 14			
	S	23 01.5			
	L	23 07			
	F	1 12			
		Saskatoon			
	P	22 56 13			
	L	23 07			
	F	23 41			
		Ottawa			
297 Sept. 5	e	15 12.4			
	e	15 19			
	L	15 25			
	F	16 39			
		Seven Falls			
	e	15 19.6			
	L	15 47			
	F	16 32			
		Ottawa			
300 Sept. 7	e	4 22.5			USCGS. gives:
	e_E	4 29 48			ϕ = 24° N.
	e	4 31 33			λ = 121°.5 E.
	L	4 51			
	F	7 05			
		Seven Falls			
	e	4 31.6			
	L	4 51			
	F	6 32			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM September 7, 1938 to September 12, 1938 No. 45

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Ottawa			
301 Sept. 7	e	13 35			
	eL	13 57			
	F	14 37			
		Seven Falls			
	e	13 24.6			
	e	13 36.3			
	L	13 51			
	F	14 29			
		Ottawa			
302 Sept. 7	H	23 18.3		70	Δ and H based on Joliat's Tables for Nearby Earthquakes.
	P_Z	23 18 32			
	S	23 18 42			
	L	23 18 47			
	F	23 23			
		Shawinigan Falls			
	i	23 19 08			
	F	23 20			
		Ottawa			
304 Sept. 9	e	17 43.6			
	e_E	17 46.1			
	L	17 50			
	F	18 15			
		Seven Falls			
	e	17 44.1			
	L	17 50			
	F	18 24			
		Ottawa			
305 Sept. 12	H	6 10.8			
	P	6 17 41		3840	
	S	6 23 18			
	e_N	6 27			
	L	6 29			
	F	7 28			
		Seven Falls			
	eS?	6 24.1			
	L	6 30			
	F	7 19			
		Saskatoon			
	e	6 14.7			
	eL	6 19			
	F	6 35			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM September 12, 1938 to September 20, 1938 No. 46

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Ottawa			
306	i	14 08 24			
Sept.	L	14 08 26			Nearby quake.
13	F	14 08 36			
		Ottawa			
307	e	17 01 18			
Sept.	L	17 01 19			Nearby quake.
13	F	17 01 22			
		Ottawa			
308	i	17 54 05			
Sept.	L	17 54 07			Nearby quake
13	F	17 54 21			
		Ottawa			
311	eZ	3 37 35			
Sept.	L	3 42 07			
17	F	3 52			
		Shawinigan Falls			
	e	3 38.5			
	L	3 43			
	F	3 53			
		Seven Falls			
	e	3 42.5			
	L	3 44.5			
	F	3 53			
		Ottawa			
315	e	4 01 40			
Sept.	e	4 10 52			
18	L	4 18			
	F	5 06			
		Ottawa			
322	i	14 40 53			
Sept.	L	14 40 54			Nearby quake.
20	F	14 41 07			
		Ottawa			
323	i	15 24 41			
Sept.	L	15 24 42			Nearby quake.
20	F	15 24 56			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA.

International Seismological Centre

FROM September 20, 1938 to September 27, 1938 No. 47

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Ottawa			
324 Sept. 20	i	16 07 16			Nearby quake.
	L	16 07 17			
	F	16 07 33			
		Ottawa			
325 Sept. 20	i	19 38 15			Nearby quake.
	L	19 38 16			
	F	19 38 30			
		Ottawa			
326 Sept. 21	e_Z	19 05.2			
	e	19 16.1			
	e	19 22.4			
	eL?	19 30			
	F	20 37			
		Seven Falls			
	e	19 16			
	eL	19 30			
	F	20 46			
		Ottawa			
327 Sept. 22	H	0 12.3		85	A and H based on Joliat's Tables for Nearby Earthquakes
	P_Z	0 12 32			
	S_Z	0 12 44			
	L_Z	0 12 47			
	F	0 13 07			
		Ottawa			
328 Sept. 25	e_E	20 43			
	e	20 51			
	L	21 09			
	F	22 40			
		Ottawa			
329 Sept. 27	e_E	2 56.3			
	e_N	2 57.4			
	e	3 04.0			
	eL	3 17			
	F	4 31			
		Ottawa			
330 Sept. 27	e	10 34 42			
	eE	10 43.6			
	e	10 53.0			
	eL	11 07			
	F	12 46			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM September 27, 1938 to September 30, 1938 No. 48

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Shawinigan Falls			
331 Sept. 28	H	4 33.6		240	Δ and H based on Joliat's Tables for Nearby Earthquakes.
	P	4 34 11			
	S	4 34 38			
	L	4 34 45			
	F	4 38			
		Seven Falls			
	H	4 33.6		50	
	P	4 33 49			
	S	4 33 55			
	L	4 34 05			
	F	4 35.5			
		Ottawa			
332 Sept. 28	e_E	18 33.7			
	e	18 39.3			
	e	18 43.3			
	eL?	18 50			
	F	19 03			
		20 42			
		Seven Falls			
	e	18 39.4			
	e	18 43.9			
	e	18 50.4			
	L	19 20			
	F	20 29			
		Ottawa			
333 Sept. 29	e_Z	23 46 19			
	e_E	23 48.6			
	L	23 50			
	F	23 58			
		Shawinigan Falls			
	e	23 47.6			
	L	23 51			
	F	23 56			

W. W. Doxsee.

International Seismological Centre

EARTHQUAKE CORRELATION TABLE

September, 1938.

No.	Date	Ottawa	Saskatoon	Halifax	Seven Falls		Shawinigan	**
					M. S.	W. A.		
295	1	3 43+0 58L	.....	.....	.....	.....	.....	..
296	1	22 55+1 59r	22 56+0 44r	.....	22 56+2 17r	22 56+0 27r	22 55+0 26r	A
297	5	15 12+1 27u	.....	.....	15 20+1 12u	.....	.....	..
298	6	21 27+0 31L	.....	.....	21 32+0 25L	.....	.....	..
299	7	2 52+0 36L	.....	.....	.....	.....	.....	..
300	7	4 22+2 43u	.....	.....	4 32+2 00u	.....	5 07+0 19L	..
301	7	13 35+1 02u	.....	.....	13 25+1 04u	.....	.....	..
302	7	23 19+0 04d	.....	.....	.....	.....	23 19+0 01v	B
303	8	3 17+0 0.5P	.....	.....	.....	.....	.....	..
304	9	17 44+0 31u	.....	.....	17 44+0 40u	.....	.....	..
305	12	6 18+1 10r	6 15+0 20r	.....	6 24+0 55r	.....	6 29+0 10L	C
306	13	14 08+0 0.2d	.....	.....	.....	.....	.....	E
307	13	17 01+0 0.1d	.....	.....	.....	.....	.....	E
308	13	17 54+0 0.3d	.....	.....	.....	.....	.....	E
309	16	4 51+0 22L	.....	.....	4 52+0 14L	.....	.....	..
310	16	6 32+0 52L	.....	.....	6 35+0 34L	.....	.....	..
311	17	3 38+0 14r	.....	.....	.....	3 43+0 10r	3 38+0 15r	..
312	17	17 35+0 11L	.....	.....	.....	.....	17 35+0 08L	..
313	17	21 33+0 05L	.....	.....	.....	.....	.....	..
314	18	2 02+0 24L	.....	.....	.....	.....	.....	..
315	18	4 02+1 04u	.....	.....	4 27+0 25L	.....	.....	..
316	19	1 04+0 07L	.....	.....	.....	.....	.....	..
317	19	12 35+0 33L	.....	.....	12 37+0 14L	.....	.....	..
318	19	20 01+0 16L	.....	.....	.....	.....	.....	..

EARTHQUAKE CORRELATION TABLE

September, 1938.

No.	Date	Ottawa	Saskatoon	Halifax	Seven Falls		Shawinigan	**
					M. S.	W. A.		
319	20	3 21+0 20L	.....	.....	.....	.....	.....	..
320	20	.....	.....	.....	.....	.....	5 54+0 03P	..
321	20	14 35+0 50L	.....	.....	14 40+0 32L	.....	.....	..
322	20	14 41+0 0.3d	.....	.....	.....	.....	.....	E
323	20	15 25+0 0.3d	.....	.....	.....	.....	.....	E
324	20	16 07+0 0.3d	.....	.....	.....	.....	.....	E
325	20	19 38+0 0.3d	.....	.....	.....	.....	.....	E
326	21	19 05+1 32u	.....	.....	19 16+1 30u	.....	.....	..
327	22	0 13+0 0.6d	.....	.....	.....	.....	.....	F
328	25	20 43+1 57u	.....	.....	.....	.....	.....	..
329	27	2 56+1 34u	.....	.....	.....	.....	.....	..
330	27	10 35+2 11u	.....	.....	.....	.....	.....	..
331	28	.....	.....	.....	.....	4 34+0 02d	4 34+0 04v	G
332	28	18 34+2 08u	.....	.....	18 39+1 50u	.....	.....	..
333	29	23 46+0 12r	.....	.....	.....	.....	23 48+0 08r	..

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM October 1, 1938 to October 12, 1938 No. 49

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Ottawa			
334 Oct. 4	e_E	8 51			
	e	9 02			
	eL	9 18			
	F	10 07			
		Seven Falls			
	e	8 58			
	eL	9 19			
	F	10 09			
		Ottawa			
338 Oct. 9	e_Z	16 56 25			
	eL	17 22			
	F	18 45			
		Ottawa			
339 Oct. 10	H	2 56.4		6280	
	P_Z	3 06 04			
	S	3 14 00			
	SSS	3 20			
	L	3 26			
	F	4 18			
		Ottawa			
340 Oct. 10	H	20 48		14200	USCGS. gives:
	P'	21 07 12			ϕ = 1° N.
	PP	21 09 16			λ = 125° E.
	PS	21 19.3			
	SS	21 26			
	L	21 47			
	F	23 33			
		Seven Falls			
	H	20 48		14350	
	PP	21 09 21			
	SS	21 26 30			
	L	21 47			
	F	23 21			
		Ottawa			
341 Oct. 12	e	0 47 20			
	e	0 57 54			
	e_E	1 07.0			
	L	1 14			
	F	2 55			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM October 12, 1938 to October 19, 1938 No. 50

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
341 Oct. 12 (Cont'd)		Seven Falls			
	i	0 57 52			
	e	1 07			
	eL	1 17			
	F	2 58			
		Ottawa			
342 Oct. 13	e_Z	15 52 15			
	eL^Z	16 16			
	F	16 58			
		Ottawa			
343 Oct. 14	e_Z	15 59 36			
	L^Z	16 12			
	F	16 31			
		Shawinigan Falls			
	e	15 59 43			
	L	16 13			
	F	16 18			
		Ottawa			
344 Oct. 17	i_Z	15 39 06			
	e_Z	15 40 06			
	e^Z	15 49.1			
	F	16 20			
		Ottawa			
347 Oct. 19	H	4 13.6		9280	
	P_Z	4 26 01			
	eS	4 36 24			
	SS_N	4 42.5			
	eL	4 54			
	F	6 04			
		Shawinigan Falls			
	e	4 26.0			
	L	5 12			
	F	6 18			
		Seven Falls			
	H	4 13.6		9030	
	P	4 25 52			
	S	4 36 04			
	eL	4 50			
	F	6 17			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM October 19, 1938 to October 20, 1938 No. 51

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	kkm.	
		Ottawa			
348 Oct. 20	H	2 19.2		15800	USCGS. gives:
	P'Z	2 38 41			ϕ = 10° S.
	SKP	2 42 15			λ = 123° E.
	SKKS	2 48 30			
	PPS	2 54.3			
	SSS	2 59 52			
	L	3 27			
	LR	4 04			
	F	5 16			
		Shawinigan Falls			
	H	2 19.3		15800	
	P'	2 38 52			
	SKP	2 42 19			
	SKKS	2 48 31			
	F	3 05			
		Seven Falls			
	H	2 19.3		15700	
	P'	2 38.8			
	PP	2 41 50			
	SKP	2 42 32			
	SKKS	2 48 27			
	PPS	22 54.7			
	SS	3 00			
	L	3 21			
	F	5 19			
		Saskatoon			
	H	2 19.6		12900	
	PP	2 39 20			
	SKS	2 45 03			
	SKKS	2 46 29			
	PPS	2 49 57			
	SS	2 56 13			
	eL	3 13			
	F	3 55			
		Ottawa			
349 Oct. 20	eZ	10 12 10			
	eZ	10 15 40			
	F	10 19			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM October 20, 1938 to October 31, 1938 No. 52

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Ottawa			
350	e_Z	11 25			
Oct.	e_Z	11 31.4			
20	eL	11 39			
	F	12 08			
		Ottawa			
353	i_Z	17 14 53			Nearby quake.
Oct.	L	17 14 54			
21	F	17 15 10			
		Ottawa			
354	i_Z	20 05 53			Nearby quake.
Oct.	L	20 05 54			
21	F	20 06 06			
		Ottawa			
355	i_Z	20 09 19			Nearby quake.
Oct.	L	20 09 20			
21	F	20 09 32			
		Ottawa			
357	e_Z	23 54 35			
Oct.	e	0 13			
21	eL	0 37			
and	F	1 21			
22		Seven Falls			
	e	0 09			
	e	0 14			
	eL	0 35			
	F	1 32			
		Ottawa			
360	e_Z	5 14 47			
Oct	e	5 20			
23	eL	5 22			
	F	5 44			
		Seven Falls			
	e	5 15			
	eL	5 21			
	F	5 51			

W. W. Doxsee.

International Seismological Centre

EARTHQUAKE CORRELATION TABLE

Month October, 1938

No.	Date	Ottawa	Saskatoon	Halifax	Seven Falls		Shawinigan	**
					M. S.	W. A.		
334	4	8 51+1 16u			8 58+1 11u			..
335	5	0 51+0 34L			0 55+0 32L			..
336	7	1 55+0 38L						..
337	8				17 13+1 00L			..
338	9	16 56+1 49u			17 54+0 52L	16 57+0 03P	16 57+0 04P	..
339	10	3 06+1 12u			3 21+0 33L			A
340	10	21 07+2 26U			21 09+2 12U		21 09+0 11P	B
341	12	0 47+2 08U			0 58+2 00U	1 23+0 05L		..
342	13	15 52+1 06u						..
343	14	16 00+0 31r				16 13+0 06L	16 00+0 18r	..
344	17	15 39+0 41u						..
345	17	23 26+0 25L			23 26+0 37L			..
346	18	7 53+0 11L			7 41+0 24L			..
347	19	4 26+1 38u	5 50+0 25L		4 26+1 51u	4 26+0 53u	4 26+0 52u	C
348	20	2 39+2 37U	2 39+1 16U		2 39+2 40U	2 39+0 39U	2 39+0 26U	E
349	20	10 12+0 07P						..
350	20	11 25+0 43u						..
351	21	6 58+0 0.3P						..
352	21	7 19+0 02P						..
353	21	17 15+0 0.3d						F
354	21	20 06+0 0.2d						F
355	21	20 09+0 0.2d						F
356	21	21 26+0 44L			21 26+1 05L			..
357	21	23 55+1 26u			0 09+1 23u			..
358	22	16 12+0 0.5P						..
359	23	3 19+0 45L			3 15+0 56L			..
360	23	5 15+0 28u			5 15+0 36u			..
361	23	16 02+0 34L			15 55+0 54L			..
362	29				13 49+0 48L			..

DOMINION OBSERVATORY, OTTAWA

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

International Seismological Centre

S T A T I O N S

OTTAWA

ϕ = 45°23'38" N. λ = 75°42'57" W. h = 83 m.
Time correction within 0.10 s.
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, 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 = 46 m.
Time correction from recorded railroad 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 200 g.

SEVEN FALLS

Quebec Power Company

ϕ = 47°07!4 N. λ = 70°49!6 W. h = 232 m. 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 15 g., SM a paper speed of 6 mm. per min. and mass 1 lb.

VICTORIA

ϕ = 48°24'49" N. λ = 123°19'26" W. h = 67 m.
Time correction from 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 - not operating.

International Seismological Centre

SHAWINIGAN FALLS

Shawinigan Water and Power Company

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

SASKATOON

University of Saskatchewan

ϕ = 52°08' N. λ = 106°38' W. h = 515 m.
Time correction from radio time signals
Foundation: clay and sand
Instruments: Mainka NS and EW components, designated SN and SE, respectively, each with smoked sheet registration, air damping, paper speed of 15 mm. per min., mass 139 kg.

DETERMINED CONSTANTS

INSTRUMENT	T_o	V	ε	DISPLACEMENT FOR 1" ARC TILT	DISPLACEMENT FOR 10^{-5} g.
17	12.0	250	20:1	44 mm.	
23	12.0	250	20:1	44 mm.	
BS					7.0 mm.
BL					55.0 mm.
HN					
HE					
SA	1.0	1800			
20	12.0	250	20:1		
21	12.0	250	20:1		
WV					
SF	1.0	1800			
SM	12.0	250	20:1	43 mm.	
SN	9.3	58	Aper.		
SE	9.1	56	"		

NOTE: Universal Time used throughout.

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM November 1, 1938 to November 5, 1938 No. 53

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Ottawa			
363 Nov. 2	i_Z	5 48 29			
	e_Z	5 48 55			
	e	5 53.5			
	e	5 54 21			
	L	5 56			
	F	6 26			
		Seven Falls			
	e	5 49.5			
	L	5 54			
	F	6 24			
		Ottawa			
364 Nov. 2	i_Z	21 46 16			Nearby quake.
	L	21 46 29			
	F	21 47.5			
		Ottawa			
365 Nov. 5	H	8 43.4		10,000	USCGS. gives:
	P	8 56 23			ϕ = 38° N.
	i_Z	8 56 34			λ = 141° E.
	PP	9 00 18			
	S	9 07.4			
	SS	9 14			
	e	9 21			
	eL	9 31			
	F	11 03+			
		Victoria			
	H	8 43.5		7,140	
	P	8 54 01			
	S	9 02 46			
	SS	9 06 54			
	SSS	9 10			
	eL	9 14			
	F	11 01			
		Saskatoon			
	H	8 43.6		7,920	
	eP	8 54 53			
	iS	9 04 14			
	eL	9 15			
	F	10 46			
		Seven Falls			
	H	8 43.4		9,870	
	P	8 56 19			
	ePP	9 00.3			
	iS	9 07 08			
	SS	9 13 01			
	e	9 19 58			
	e	9 22.3			
	eL	9 27			
	F	11 12			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM November 5, 1938 to November 5, 1938 No. 54

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Shawinigan Falls			
365 Nov. 5 (Cont'd)	P	8 56 27			
	e	9 07.0			
	eL	9 30			
	F	10 02			
		Ottawa			
366 Nov. 5	H	10 50.3		10,000	
	P	11 03 18			
	PP	11 07.0			
	S	11 14 13			
	SS	11 20.5			
	e	11 27			
	L	11 36			
	F	15 17			
		Victoria			
	H	10 50.6		7,160	
	P	11 00 54			
	S	11 09 41			
	e	11 10 50			
	L	11 19			
	F	15 10			
		Saskatoon			
	H	10 50.5		7,900	
	eP	11 01 45			
	iS	11 11 05			
	SSS_E	11 19 03			
	eL	11 23			
	F	12 56			
		Seven Falls			
	H	10 50.5		9,680	
	eP	11 03.3			
	iS	11 13 58			
	SS	11 19 58			
	SSS	11 24 00			
	e	11 26 33			
	eL	11 29.3			
	F	15 19			
		Shawinigan Falls			
	P	11 03 18			
	e	11 14.2			
	eL	11 34			
	F	12 33			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM November 5, 1938 to November 6, 1938 No. 55

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Ottawa			
367 Nov. 6	H	8 54.2		9,620	
	P	9 06 54			
	PP	9 10 45			
	eS	9 17 32			
	iS	9 17 45			
	SS	9 24 00			
	SSS	9 31			
	L	9 40			
	F	13 30			
		Saskatoon			
	H	8 54.1		7,900	
	iP	9 05 19			
	iS	9 14 39			
	SS_N	9 19.0			
	SSS_E	9 22.9			
	eL	9 27			
	F	11 45			
		Halifax			
	e	9 07 19			
	e	9 10.4			
	e	9 17.8			
	e	9 19.8			
	F	11 00			
		Seven Falls			
	H	8 54.0		9,940	
	eP	9 06 56			
	S	9 17 48			
	SS	9 23.3			
	eL	9 30			
	F	13 45			
		Shawinigan Falls			
	H	8 54.3		9,600	
	eP	9 06 56			
	eSKS	9 17.0			
	eS	9 17 33			
	eSS	9 23.2			
	e	9 31.3			
	eL	9 39.8			
	F	11 01			
		Ottawa			
371 Nov. 6 and 7	H	21 39.1		9,600	
	P	21 51 47			
	PP_Z	21 55.5			
	S	22 02 24			
	i_E	22 02 42			
	i_N	22 03 04			
	SSS_Z	22 11.3			
	eL?	22 19			
	F	2 00+			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM November 6, 1938 to November 7, 1938 No. 36

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Victoria			
371 Nov. 6 and 7 (Cont'd)	H	21 39.3		7,010	
	P	21 49 42			
	S	21 58 20			
	e	21 59.1			
	SS	22 02.3			
	SSS	22 07.0			
	LM	22 14			
	F	1 59			
		Saskatoon			
	H	21 39.0		7,900	
	eP	21 50 17			
	eS	21 59.6			
	eL	22 12			
	F	23 50			
		Seven Falls			
	H	21 39.1		9,710	
	eP	21 51 48			
	S	22 02 30			
	eL	22 25.3			
	F	2 01			
		Shawinigan Falls			
	H	21 39.0		9,710	
	eP	21 51 45			
	eS	22 02 27			
	eL?	22 28			
	F	23 03			
		Ottawa			
372 Nov. 7	eZ	1 51 25			
	e	2 02.3			
	eN	2 14.3			
	eL?	2 23			
	F	4 05			
		Victoria			
	H	1 47.8		6,820	
	eP	1 58 00			
	PPP?	2 02.1			
	eSN	2 06 28			
	e	2 09.2			
	F	4 00			
		Seven Falls			
	e	1 51.5			
	e	2 02 24			
	eL	2 23			
	F	4 06			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM November 7, 1938 to November 9, 1938 No. 51

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Ottawa			
373 Nov. 7	e_Z	4 28 32			
	e_E	4 40			
	eL	5 08			
	F	6 00			
		Seven Falls			
	e	4 28.8			
	eL	5 01.3			
	F	6 02			
		Ottawa			
374 Nov. 7	e	19 57.1			
	e	20 07.3			
	eL_E	20 23			
	L	20 36			
	F	21 30			
		Victoria			
	e	19 31.9			
	e_N	19 45.5			
	e	19 53.0			
	e	19 54.1			
	F	22 00			
		Seven Falls			
	e	19 36 20			
	e	19 57 38			
	eL	20 20			
	F	21 57			
		Ottawa			
376 Nov. 9	e?	9 29			
	eS?	9 39.9			
	eLE	9 54			
	F	12 28			
		Victoria			
	e	9 27			
	iS?	9 35 19			
	e	9 36.4			
	F	12 30			
		Saskatoon			
	e	9 37 00			
	eL	9 51			
	F	11 00			
		Seven Falls			
	e	9 39 58			
	L	10 00			
	F	12 30			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM November 9, 1938 to November 10, 1938 No. 58

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Ottawa			
378 Nov. 9	e_Z	19 46 45			
	e_Z	19 46 55			
	L	20 01			
	F	20 15			
		Ottawa			
380 Nov. 10	H	(10 54.8)		(9,350)	
	ePP?	11 10 30			
	eS?	11 17.7			
	L	11 35			
	F	13 12			
		Victoria			
	e	10 57.5			
	e	11 20			
	F	13 15			
		Seven Falls			
	e	11 10.4			
	e	11 17.7			
	L	11 33			
	F	12 54			
		Ottawa			
381 Nov. 10	e_Z	15 28 47			
	e	15 33.4			
	L	15 35			
	F	15 56			
		Ottawa			
382 Nov. 10 and 11	H	20 18.7		5,630	USCGS. gives: ϕ = 56° N. λ = 159° W.
	eP	20 27 41			
	e_Z	20 27 47			
	i	20 27 53			
	PPP_E	20 30 18			
	S	20 35 03			
	L	20 43			
	LR_1	22 49			
	F	1 06+			
		Victoria			Light spot drifted beyond registration limits after first phase.
	iP	20 22 35			
	F	20 58			
		Saskatoon			
	H	20 18.8		3,280	
	iP	20 24 58			
	PP_E	20 26 07			
	iS	20 30 00			
	SS_E	20 32 16			
	eL	20 34			
	F	0 13			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM November 10, 1938 to November 11, 1938 No. 59

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Halifax			
382 Nov. 10 and 11 (Cont'd)	H	20 18.7		6,000	
	eP	20 28 03			
	iS	20 35 43			
	LM	20 47			
	F	1 00			
		Seven Falls			
	H	20 18.8		5,740	
	P	20 27 51			
	S	20 35 17			
	SSS	20 40 00			
	eL	20 44			
	F	1 15			
		Shawinigan Falls			
	H	(20 18.8)		(5,520)	
	P	20 27 43			
	S	(20 34 57)			
	e	20 38.9			
	eL	20 43.2			
	F	0 00			
		Ottawa			
384 Nov. 10	eZ	22 04 41			
	eZ	22 04 51			
	LZ	22 17			
	F	22 33			
		Shawinigan Falls			
	e	22 04 45			
	e	22 11 43			
	e	22 15.4			
	eL	22 18.2			
	F	22 45			
		Ottawa			
388 Nov. 11	H	0 57.9		5,520	
	P	1 06 44			
	e	1 09.0			
	S	1 13 58			
	e	1 16 30			
	SS	1 17.8			
	L	1 23			
	F	3 34			
		Saskatoon			
	e	1 04 09			
	e	1 08.7			
	L	1 11			
	F	2 03			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM November 11, 1938 to November 11, 1938 NO. 60

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Seven Falls			
388 Nov. 11 (Cont'd)	H	1 57.9		5,690	
	eP	1 06.9			
	S	1 14 18			
	i	1 19 01			
	L	1 23			
	F	3 37			
		Shawinigan Falls			
	H	1 57,8		5,640	
	eP	1 06 48			
	eS	1 14 09			
	e	1 16 40			
	eL	1 22			
	F	1 44			
		Ottawa			
391 Nov, 11	eZ	6 09 16			
	L	6 26			
	F	7 08			
		Victoria			
	e	6 04			
	e	6 09.2			
	L	6 11			
	F	6 45			
		Ottawa			
393 Nov. 11	H	8 31.0		5,300	
	PZ	8 39 35			
	SE	8 46.6			
	SS	8 49.5			
	L	8 55			
	F	9 17			
		Victoria			
	H	8 30.7		2,380	
	eP	8 35 28			
	eS	8 39 24			
	SSE	8 40.1			
	eL	8 41.5			
	F	8 58			
		Seven Falls			
	e	8 47.4			
	LM	8 58.9			
	F	9 08			
		Shawinigan Falls			
	e	8 39 40			
	L	9 21			
	F	9 35			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM November 11, 1938 to November 12, 1938 No. 61

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	Km.	
		Ottawa			
394 Nov. 11	eZ	9 02 13			
	L	9 17			
	F	10 56			
		Victoria			
	eS?	8 58.2			
	eL	9 01.5			
	F	10 59			
		Ottawa			
398 Nov. 11	eZ	22 42 42			
	L	23 03			
	F	23 09			
		Ottawa			
401 Nov. 12	e	8 51			
	LM	9 02			
	F	9 42			
		Victoria			
	e	8 29 07			
	e	8 33 45			
	eL	8 35			
	F	10 20			
		Ottawa			
403 Nov. 12	H	15 00.6		7,780	
	eP	15 11 46			
	eS	15 21.0			
	SS	15 25.6			
	LE	15 33			
	F	16 36			
		Victoria			
	e	14 59.0			
	eN	15 01.2			
	e	15 06.5			
	eLN	15 15			
	F	17 05			
		Seven Falls			
	H	15 00.9		7,460	
	P	15 11 51			
	eS	15 20 51			
	LM	15 30			
	F	17 03			

DOMINION OBSERVATORY, OTTAWA

FROM November 12, 1938 to November 13, 1938 No. 62

International Seismological Centre

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Ottawa			
407 Nov. 13	H	13 13.8		8,900	
	P	13 25 54			
	PP_N	13 29 02			
	S	13 36 00			
	SSS_N	13 44.6			
	L	13 52			
	F	14 43			
		Victoria			
	H	13 13.7		6,200	
	iP	13 23 16			
	iS	13 31 08			
	e_E	13 33 30			
	e_N	13 35.6			
	iL_E	13 40.3			
	F	15 10			
		Saskatoon			
	H	13 13.9		6,860	
	iP	13 24 06			
	iS	13 32 36			
	ePS_N	13 33.1			
	eL	13 45			
	F	14 05			
		Seven Falls			
	H	13 13.7		9,050	
	eP	13 25.9			
	iS	13 36 08			
	L	13 53			
	F	15 10			
		Shawinigan Falls			
	H	13 13.7		8,990	
	eP	13 25 54			
	eS	13 36 04			
	F	13 44			
		Ottawa			
408 Nov. 13 and 14	e	22 45.4			
	e	22 48.5			
	eS?	22 55.5			
	e_E	22 55 46			
	e_E	23 02.0			
	L	23 09			
	F	1 47			
		Victoria			
	H	22 32.0		7,090	
	iP	22 42 33			
	iS	22 51 15			
	e_E	22 52.3			
	e_N	22 53.1			
	SS	22 55.1			
	eL	23 00			
	F	1 50			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM November 13, 1938 to November 15, 1938 No. 63

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Saskatoon			
408	H	22 31.8		7,860	
Nov.	eP	22 43			
13	eS	22 52 22			
and	e_N	23 01			
14	eL	23 03			
(Cont'd)	F	0 11			
		Seven Falls			
	eS	22 55.5			
	eL	23 08			
	F	2 18			
		Ottawa			
409	e	3 00.3			
Nov.	eL	3 23			
14	F	3 48			
		Seven Falls			
	e	3 00.2			
	L	3 21			
	F	4 10			
		Ottawa			
410	e	12 36 28			
Nov.	eL_E	12 43			
14	F	13 42			
		Victoria			
	e	12 31.0			
	e_E	12 36.5			
	e_E	12 40.1			
	eL_E	12 48			
	F	13 30			
		Ottawa			
411	H	9 52.2		5,550	
Nov.	P_Z	10 01 04			
15	S	10 08 20			
	L	10 16			
	F	10 57			
		Victoria			
	H	9 52.2		2,480	
	iP	9 57 12			
	iS	10 01 16			
	eL	10 03			
	F	10 35			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM November 15, 1938 to November 17, 1938 No. 64

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Seven Falls			
411 Nov. 15 (Cont'd)	H	9 52.4		5,570	
	eP	10 01.4			
	eS	10 08.6			
	LM	10 20.9			
	F	10 52			
		Ottawa			
414 Nov. 15	e_Z	21 19.7			
	e_N	21 24			
	e_E	21 41			
	eL	21 54			
	F	23 11			
		Victoria			
	e	21 27			
	L	21 38			
	F	23 30			
		Seven Falls			
	e	21 24.1			
	i	21 40 38			
	e	21 49.4			
	eL	21 55			
	F	23 16			
		Ottawa			
415 Nov. 16	e_Z	5 45 04			
	e_E	5 52			
	L	6 02			
	F	6 36			
		Victoria			
	H	5 36.2		2,420	
	iP_E	5 41 03			
	PP	5 41.6			
	iS	5 45 03			
	SS	5 45 08			
	eL	5 46			
	F	6 52			
		Seven Falls			
	e	5 52			
	L	6 03			
	F	6 38			
		Ottawa			
418 Nov. 17	H	3 54.7		5,480	USCGS. gives:
	P	4 03 31			ϕ = 55° N.
	PP_Z	4 05.4			λ = 158° W.
	S	4 10 42			
	i	4 13 19			
	SS	4 14 09			
	L	4 18			
	F	8 00ca.			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM November 17, 1938 to November 18, 1938 No. 83

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Victoria			
418	H	3 54.5		2,480	
Nov.	iP	3 59 26			
17	PPP_N	4 00.2			
(Cont'd)	iS	4 03 30			
	iL	4 05.0			
	F	7 42			
		Saskatoon			
	H	3 54.4		3,300	
	eP	4 00 32			
	iS	4 05 35			
	SS_N	4 07 43			
	eL	4 09			
	F	6 00			
		Halifax			
	e	4 14			
	eS	4 19			
	eL	4 23			
	F	5 19			
		Seven Falls			
	H	3 54.8		5,570	
	P	4 03 43			
	iS	4 11 00			
	SS	4 14.5			
	L	4 19			
	F	8 09			
		Shawinigan Falls			
	H	3 54.8		5,520	
	eP	4 03 39			
	eS	4 10 52			
	SS	4 14 43			
	e	4 21.0			
	L	4 24			
	F	5 00			
		Seven Falls			
419	e	14 42.2			
Nov.	L	15 04			
18	F	15 50			
		Ottawa			
421	H	22 19 05		62	Felt at Morrisburg, Ont.
Nov.	PZ	22 19 17			
18	SZ	22 19 25			
	LZ	22 19 31			
	F	22 21.5			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM November 18, 1938 to November 22, 1938 NO. 66

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
422		Victoria			
Nov. 18	H	23 24.9		2,380	
	iP	23 29 42			
	iS	23 33 38			
	eL	23 35.2			
	F	0 00			
		Seven Falls			
	e	23 41.1			
	e	23 45.0			
	L	23 51			
	F	0 19			
		Ottawa			
423	e_Z	5 51.6			
Nov.	e	6 01.5			
19	L	6 18			
	F	7 22			
		Victoria			
	e	5 56.0			
	e	5 58.6			
	L	6 05			
	F	6 43			
		Seven Falls			
	e	6 01.5			
	eL	6 15			
	F	7 26			
		Victoria			
427	e	1 35 30			
Nov.	e	1 45 08			
21	L	2 03			
	F	2 24			
		Victoria			
429	e	15 00.3			
Nov.	e	15 04			
21	L	15 05			
	F	15 31			
		Victoria			
430	e	21 39.2			
Nov.	eL	21 45			
21	F	22 14			
		Ottawa			
431	H	1 14.5		9,520	USCGS. gives:
Nov.	P	1 27 07			ϕ = 37° N.
22	S	1 37 41			λ = 142° E.
	eL	1 56			
	F	4 39			

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM November 22, 1938 to November 22, 1938 No. 67

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Victoria			
431 Nov. 22 (Cont'd)	H	1 14.4		7,160	
	eP	1 24 52			
	PP	1 26.8			
	e	1 29.6			
	eS	1 33 38			
	PS?	1 34 42			
	SS_E	1 38.2			
	SSS_E	1 41.3			
	eL	1 45			
	F	5 00			
		Saskatoon			
	H	1 14.3		7,940	
	iP	1 25 37			
	iS	1 35 00			
	eL	1 48.5			
	F	2 45			
		Seven Falls			
	H	1 14.5		9,540	
	eP	1 27.2			
	iS	1 37 46			
	e	1 41			
	eSS	1 43.5			
	eL	1 53			
	F	4 44			
		Shawinigan Falls			
	H	1 14.3		(9,600)	
	eP	1 27 01			
	eS	(1 37 38)			
	F	1 46			
		Ottawa			
432 Nov. 22	i_Z	14 43 01			Nearby quake.
	i_Z	14 43 02.5			
	F	14 43 12			
		Ottawa			
433 Nov. 22	i_Z	16 21 30			Nearby quake.
	i_Z	16 21 31			
	F	16 21 35			
		Ottawa			
434 Nov. 22	i_Z	16 24 08			Nearby quake.
	i_Z	16 24 09			
	F	16 24 17			
		Ottawa			
435 Nov. 22	i_Z	17 03 50			Nearby quake.
	i_Z	17 03 51			
	F	17 04 14			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM November 22, 1938 to November 26, 1938 No. 68.

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Ottawa			
436 Nov. 22	i_Z	19 06 38			Nearby quake.
	i_Z	19 06 39			
	F	19 06 47			
		Ottawa			
437 Nov. 22	i_Z	19 59 47			Nearby quake.
	i_Z	19 59 48			
	F	20 00			
		Ottawa			
438 Nov. 22	i_Z	20 56 45.5			Nearby quake.
	i_Z	20 56 46.5			
	F	20 57			
		Ottawa			
439 Nov. 23	i_Z	15 10 41			Nearby quake.
	i_Z	15 10 42			
	F	15 10 49			
		Ottawa			
440 Nov. 23	iZ	15 52 13			Nearby quake.
	iZ	15 52 14			
	F	15 52 17			
		Seven Falls			
441 Nov. 25	e	0 12.5			
	e	0 17.7			
	eL	0 19			
	F	0 33			
		Ottawa			
442 Nov. 25	e	8 44.3			
	L	9 05			
	F	9 35			
		Ottawa			
443 Nov. 26	H	7 48.8		195	
	P_Z	7 48 27			
	i_Z	7 48 28			
	i_Z	7 48 31.5			
	i_Z	7 48 34			
	S	7 48 49.5			
	L	7 48 57			
	F	7 56			
		Shawinigan Falls			
	H	7 48.6		180	
	iP	7 48 49			
	iS	7 49 10			
	i	7 49 14			
	F	7 51			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM November 26, 1938 to November 30, 1938 No. 69

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Victoria			
445 Nov. 29	e_E	13 53.6			
	e	13 59.0			
	e	14 00.0			
	eL	14 02			
	F	16 05			
		Seven Falls			
	e	14 04			
	e	14 10			
	eL	14 24			
	F	15 01			
		Ottawa			
447 Nov. 30	S?	2 53 46			USCGS. gives:
	L	3 14			ϕ = 37° N,
	F	5 16			λ = 142° E.
		Victoria			
	H	2 30.2		7,020	
	P	2 40 39			
	S	2 49 18			
	PS?	2 50.3			
	e	2 52.3			
	e	2 57.9			
	eL	3 01			
	F	5 00			
		Saskatoon			
	e	2 41.4			
	e	2 50.7			
	e_N	3 00.5			
	eL	3 04.5			
	F	4 00			
		Seven Falls			
	H	2 30.4		9,690	
	P	2 43 09			
	S	2 53 50			
	e	3 06			
	eL	3 14			
	F	5 15			

W. W. Doxsee.

EARTHQUAKE CORRELATION TABLE

Month November, 1938

No.	Date	Ottawa	Victoria	Saskatoon	Halifax	Seven Falls		Shawinigan	**
						M. S.	W. A.		
363	2	5 48+0 38r	6 00+0 22L	.....	.....	5 49+0 34r	.....	5 49+0 13P	..
364	2	21 46+0 01.2d	.....	.....	.....	.....	.....	.....	..
365	5	8 56+2 07U	8 54+2 07U	8 55+1 51U	.....	8 57+2 17U	8 56+1 05U	8 56+1 05U	A
366	5	11 03+4 14U	11 01+4 09U	11 02+2 06U	.....	11 14+4 16U	11 03+1 35U	11 03+1 30U	B
367	6	9 07+4 23U	.....	9 05+2 40U	9 07+1 53U	9 07+4 40U	9 07+2 00U	9 07+1 55U	C
368	6	.....	.....	.....	.....	14 31+0 05L	.....	.....	..
369	6	18 08+0 34L	.....	.....	.....	18 02+0 39L	.....	.....	..
370	6	.....	21 23+0 27L	.....	.....	.....	.....	.....	..
371	6	21 52+4 08U	21 50+4 09U	21 50+2 00U	.....	21 53+4 08U	21 53+1 10U	21 52+1 11U	E
372	7	1 51+2 14u	1 58+2 02u	.....	.....	2 02+2 04u	1 51+0 45u	1 51+0 04P	F
373	7	4 29+1 31u	4 30+1 35L	.....	.....	5 01+1 00L	4 29+0 01.5P	4 29+0 05P	..
374	7	19 57+1 33u	19 32+2 28u	.....	.....	19 36+2 20u	.....	19 47+0 02P	..
375	8	.....	.....	.....	.....	13 58+0 13L	.....	.....	..
376	9	9 29+2 57u	9 27+3 03u	9 37+1 23u	.....	9 40+2 50u	.....	.....	..
377	9	.....	.....	.....	.....	16 58+0 12L	.....	.....	..
378	9	19 47+0 28r	20 00+0 09L	.....	.....	20 02+0 07L	.....	.....	..
379	10	10 08+0 02P	10 21+0 09L	.....	.....	.....	.....	.....	..
380	10	11 11+2 01u	10 58+2 17u	.....	.....	11 10+1 44u	.....	.....	G
381	10	15 29+0 27u	15 49+0 17L	.....	.....	15 34+0 30L	.....	.....	..
382	10	20 28+4 38U	20 23+0 30R	20 25+3 48R	.....	20 28+4 47U	20 28+2 55U	20 28+3 30U	H
383	10	22 00+0 03P*	.....	.....	.....	.....	.....	22 00+0 03P	..
384	10	22 05+0 28u	.....	.....	.....	.....	.....	22 05+0 40u	..
385	10	22 35+0 01P*	.....	.....	.....	.....	.....	22 35+0 02P	..
386	10	22 40+0 01P*	.....	.....	.....	.....	.....	.....	..
387	11	0 18+0 06P*	.....	.....	.....	.....	.....	0 18+0 04P	..
388	11	1 07+2 27u	.....	1 04+0 59u	.....	1 14+2 30u	1 07+0 43u	1 07+0 45u	I
389	11	3 43+0 39L	.....	.....	.....	3 44+0 41L	.....	.....	..
390	11	5 35+0 41L	.....	.....	.....	5 31+0 38L	.....	.....	..
391	11	6 09+0 59u	6 04+0 41u	.....	.....	6 26+0 40L	.....	.....	..
392	11	7 41+0 24L	7 23+0 28L	.....	.....	7 44+0 22L	.....	.....	..
393	11	8 40+0 37u	8 36+0 22r	8 45+0 55L	.....	8 47+0 31u	.....	8 40+0 55u	J
394	11	9 02+1 54u	8 58+1 01r	.....	.....	9 18+1 30L	9 21+0 13L	.....	..
395	11	15 08+0 37L	14 46+0 44L	.....	.....	15 08+0 36L	.....	.....	..
396	11	15 15+0 05P*	.....	.....	.....	.....	.....	.....	..

International Seismological Centre

EARTHQUAKE CORRELATION TABLE

Month November, 1938

No.	Date	Ottawa	Victoria	Saskatoon	Halifax	Seven Falls		Shawinigan	**
						M. S.	W. A.		
397	11	21 03+0 18L	20 45+0 27L	.....	.....	21 05+0 12L	.....	.....	..
398	11	22 43+0 27u	22 43+0 17L	.....	.....	23 01+0 12L	.....	.....	..
399	12	.....	3 29+0 29L	.....	.....	.....	.....	.....	..
400	12	6 30+0 01P*	.....	.....	.....	.....	.....	.....	..
401	12	8 51+0 51u	8 29+1 51u	.....	.....	8 49+1 20L	.....	.....	..
402	12	13 23+0 13L	13 01+0 49L	.....	.....	13 23+1 20L	.....	.....	..
403	12	15 12+1 24u	14 59+2 04u	.....	.....	15 11+1 52u	.....	.....	K
404	12	17 47+0 32L	17 28+0 48L	.....	.....	17 45+0 34L	.....	.....	..
405	13	5 55+0 25L	5 16+0 34L	.....	.....	5 58+0 25L	.....	.....	..
406	13	7 27+0 08L	7 09+0 18L	.....	.....	7 27+0 12L	.....	.....	..
407	13	13 26+1 18u	13 23+1 47u	13 24+1 41u	.....	13 26+1 44u	13 26+0 14u	13 26+0 18u	M
408	13	22 45+3 02u	22 43+3 07u	22 43+1 28u	.....	22 55+3 23u	23 19+0 15L	.....	N
409	14	3 00+0 48u	2 52+0 58L	.....	.....	2 59+1 10u	.....	.....	..
410	14	12 36+1 06u	12 31+0 59u	.....	.....	12 44+1 43L	.....	.....	..
411	15	10 01+0 56u	9 57+0 38r	.....	.....	10 08+0 51u	10 01+0 02P	10 01+0 07P	O
412	15	.....	.....	.....	.....	16 10+0 15L	.....	.....	..
413	15	19 41+0 26L	19 23+0 21L	.....	.....	19 41+0 30L	.....	.....	..
414	15	21 20+1 50u	21 27+2 03u	.....	.....	21 24+1 54u	.....	21 20+0 10P	..
415	16	5 45+0 51r	5 41+1 11r	5 50+0 16L	.....	5 52+0 47r	.....	5 45+0 02P	Q
416	16	11 55+0 16L	.....	.....	.....	11 54+0 14L	.....	.....	..
417	16	21 11+0 01P*	.....	.....	.....	.....	.....	.....	..
418	17	4 04+3 56U	3 59+3 43R	4 01+2 00R	4 14+1 05U	4 05+4 06U	4 05+1 07U	4 04+0 55U	R
419	18	.....	.....	.....	.....	14 42+1 08u	.....	.....	..
420	18	19 11+0 20L	19 00+0 17L	.....	.....	19 05+0 39L	.....	.....	..
421	18	22 19+0 02.5d*	.....	.....	.....	.....	.....	.....	T
422	18	23 51+0 40L	23 30+0 30r	.....	.....	23 41+0 38r	.....	.....	V
423	19	5 52+1 30u	5 56+0 47u	.....	.....	6 02+1 21u	.....	.....	..
424	19	10 46+0 01P*	.....	.....	.....	.....	.....	.....	..
425	20	.....	4 59+0 09L	.....	.....	.....	.....	.....	..
426	20	.....	8 56+0 11L	.....	.....	.....	.....	.....	..
427	21	2 00+0 41L	1 36+0 48u	.....	.....	2 00+0 30L	.....	.....	..
428	21	7 56+0 26L	.....	.....	.....	7 52+0 19L	.....	.....	..
429	21	.....	15 00+0 31r	.....	.....	15 22+0 25L	.....	.....	..

International Seismological Centre

EARTHQUAKE CORRELATION TABLE

Month November, 1938

No.	Date	Ottawa	Victoria	Saskatoon	Halifax	Seven Falls		Shawinigan	**
						M. S.	W. A.		
430	21	22 04+0 08L	21 39+0 35u	.....	.....	22 03+0 10L	.....	.....	..
431	22	1 27+3 12U	1 25+3 35U	1 26+1 18U	.....	1 27+3 29U	.....	1 27+0 19U	W
432	22	14 43+0 0.5d	.....	.....	.....	.....	.....	.....	..
433	22	16 22+0 0.5d	.....	.....	.....	.....	.....	.....	..
434	22	16 24+0 0.5d	.....	.....	.....	.....	.....	.....	..
435	22	17 04+0 0.5d	.....	.....	.....	.....	.....	.....	..
436	22	19 07+0 0.5d	.....	.....	.....	.....	.....	.....	..
437	22	20 00+0 0.5d	.....	.....	.....	.....	.....	.....	..
438	22	20 57+0 0.5d	.....	.....	.....	.....	.....	.....	..
439	23	15 11+0 0.5d	.....	.....	.....	.....	.....	.....	..
440	23	15 52+0 0.5d	.....	.....	.....	.....	.....	.....	..
441	25	0 21+0 16L	.....	.....	.....	0 13+0 30u	0 12+0 02P	0 12+0 05P	..
442	25	8 44+0 41u	.....	.....	.....	9 08+0 15L	.....	.....	..
443	26	7 48+0 08v	.....	.....	.....	.....	7 50+0 01v	7 49+0 02v	X
444	27	.....	.....	.....	.....	.....	.....	0 28+0 03P	..
445	29	.....	13 54+2 11r	.....	.....	14 04+0 57u	.....	.....	..
446	30	.....	20 02+0 04L	.....	.....	.....	.....	.....	..
447	30	2 54+2 22u	2 41+2 19u	2 41+1 19u	.....	2 54+2 32u	2 43+0 02P	2 43+0 18u	Y
448	30	.....	.....	.....	.....	16 07+0 20L	.....	.....	..

International Seismological Centre

CORRELATION OF EARTHQUAKES
November, 1938.

N O T E S

A :	Ottawa	Δ = 10,000 km.	H = $8^h43^m.4$ U.T.
	Victoria	Δ = 7,140 km.	H = 8 43.5
	Saskatoon	Δ = 7,920 km.	H = 8 43.6
	Seven Falls	Δ = 9,870 km.	H = 8 43.4
B :	Ottawa	Δ = 10,000 km.	H = $10^h50^m.3$ U.T.
	Victoria	Δ = 7,160 km.	H = 10 50.6
	Saskatoon	Δ = 7,900 km.	H = 10 50.5
	Seven Falls	Δ = 9,680 km.	H = 10 50.5
C :	Ottawa	Δ = 9,620 km.	H = $8^h54^m.2$ U.T.
	Saskatoon	Δ = 7,900 km.	H = 8 54.1
	Seven Falls	Δ = 9,900 km.	H = 8 54.0
	Shawinigan Falls	Δ = 9,600 km.	H = 8 54.3
E :	Ottawa	Δ = 9,600 km.	H = $21^h39^m.1$ U.T.
	Victoria	Δ = 7,010 km.	H = 21 39.3
	Saskatoon	Δ = 7,900 km.	H = 21 39.0
	Seven Falls	Δ = 9,710 km.	H = 21 39.1
	Shawinigan Falls	Δ = 9,710 km.	H = 21 39.0
F :	Victoria	Δ = 6,820 km.	H = $1^h47^m.8$ U.T.
G :	Ottawa	Δ = (9,350 km.)	H = ($10^h54^m.8$) U.T.
H :	Ottawa	Δ = 5,630 km.	H = $20^h18^m.7$ U.T.
	Saskatoon	Δ = 3,280 km.	H = 20 18.8
	Halifax	Δ = 6,000 km.	H = 20 18.7
	Seven Falls	Δ = 5,740 km.	H = 20 18.8
	Shawinigan Falls	Δ = (5,520 km.)	H = (20 18.8)
I :	Ottawa	Δ = 5,520 km.	H = $0^h57^m.9$ U.T.
	Seven Falls	Δ = 5,690 km.	H = 0 57.9
	Shawinigan Falls	Δ = 5,640 km.	H = 0 57.8
J :	Ottawa	Δ = 5,300 km.	H = $8^h31^m.0$ U.T.
	Victoria	Δ = 2,380 km.	H = 8 30.7

CORRELATION OF EARTHQUAKES

November, 1938.

N O T E S

K :	Ottawa	Δ = 7,780 km.	H = $15^h00^m.6$ U.T.
	Seven Falls	Δ = 7,460 km.	H = 15 00.9
M :	Ottawa	Δ = 8,900 km.	H = $13^h13^m.8$ U.T.
	Victoria	Δ = 6,200 km.	H = 13 13.7
	Saskatoon	Δ = 6,860 km.	H = 13 13.9
	Seven Falls	Δ = 9,050 km.	H = 13 13.7
	Shawinigan Falls	Δ = 8,900 km.	H = 13 13.7
N :	Victoria	Δ = 7,090 km.	H = $22^h32^m.0$ U.T.
	Saskatoon	Δ = 7,860 km.	H = 22 31.8
O :	Ottawa	Δ = 5,550 km.	H = $9^h52^m.2$ U.T.
	Victoria	Δ = 2,480 km.	H = 9 52.2
	Seven Falls	Δ = 5,570 km.	H = 9 52
Q :	Victoria	Δ = 2,420 km.	H = $5^h36^m.2$ U.T.
R :	Ottawa	Δ = 5,480 km.	H = $3^h54^m.7$ U.T.
	Victoria	Δ = 2,480 km.	H = 3 54.5
	Saskatoon	Δ = 3,300 km.	H = 3 54.4
	Seven Falls	Δ = 5,570 km.	H = 3 54.8
	Shawinigan Falls	Δ = 5,520 km.	H = 3 54.8
T :	Ottawa	Δ = 62 km.	H = $22^h19^m.1$ U.T.
V :	Victoria	Δ = 2,380 km.	H = $23^h24^m.9$ U.T.
W :	Ottawa	Δ = 9,520 km.	H = $1^h14^m.5$ U.T.
	Victoria	Δ = 7,160 km.	H = 1 14.4
	Saskatoon	Δ = 7,940 km.	H = 1 14.3
	Seven Falls	Δ = 9,540 km.	H = 1 14.5
	Shawinigan Falls	Δ = (9,600 km.)	H = (1 14.3)
X :	Ottawa	Δ = 195 km.	H = $7^h48^m.8$ U.T.
	Shawinigan Falls	Δ = 180 km.	H = 7 48.6
Y :	Victoria	Δ = 7,020 km.	H = $2^h30^m.2$ U.T.
	Seven Falls	Δ = 9,690 km.	H = 2 30.4

Dominion Observatory,

Ottawa, Canada

March 13, 1939.

DOMINION OBSERVATORY, OTTAWA

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

International Seismological Centre

S T A T I O N S

OTTAWA

ϕ = 45°23'38" N. λ = 75°42'57" W. h = 83 m.
Time correction within 0.10 s.
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, 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 = 46 m.
Time correction from recorded railroad 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 200 g.

SEVEN FALLS

Quebec Power Company

ϕ = 47°07!4 N. λ = 70°49!6 W. h = 232 m. 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 15 g., SM a paper speed of 6 mm. per min. and mass 1 lb.

VICTORIA

ϕ = 48°24'49" N. λ = 123°19'26" W. h = 67 m.
Time correction from 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 - not operating.

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SHAWINIGAN FALLS

Shawinigan Water and Power Company

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

SASKATOON

University of Saskatchewan

ϕ = 52°08' N. λ = 106°38' W. h = 515 m.
Time correction from radio time signals
Foundation: clay and sand.
Instruments: Mainka NS ane EW components, designated SN and SE, respectively, each with smoked sheet registration, air damping, paper speed of 15 mm. per min., mass 139 kg.

TORONTO

ϕ = 43°40' N. λ = 79°24' W. h = 111 m.
Time correction from radio time signals
Foundation: sand and clay
Instruments: Milne-Shaw NS and EW components, designated 18 and 22, respectively, each with photographic registration, magnetic damping, paper speed of 8 mm. per min., mass 1 lb.

DETERMINED CONSTANTS

INSTRUMENT	T_o	V	ε	DISPLACEMENT FOR 1" ARC TILT	DISPLACEMENT FOR 10^{-5} g.
17	12.0	250	20:1	44 mm.	
23	12.0	250	20:1	44 mm.	
BS					7.0 mm.
BL					55.0 mm.
HN					
HE					
SA	1.0	1800			
18	12.0	150	20:1		
22	12.0	150	20:1		
20	12.0	250	20:1		
21	12.0	250	20:1		
WV					
SF	1.0	1800			
SM	12.0	250	20:1	43 mm.	
SN	9.3	58	Aper.		
SE	9.1	56	"		

NOTE: Universal Time used throughout.

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM December 1, 1938 to December 6, 1938 No. 70

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Ottawa			
449 Dec. 1	e	2 37.1			
	e_N	2 50			
	eL	2 59			
	F	4 26			
		Victoria			
	e	2 33 52			
	e	2 43 27			
	L	2 48			
	F	4 00			
		Saskatoon			
	e	2 25 00			
	e	2 35 20			
	eL	2 51			
	F	3 26			
		Seven Falls			
	e	2 37.3			
	e	2 46.4			
	eL	2 59			
	F	4 31			
		Ottawa			
450 Dec. 1	H	23 29.3		240	Δ and H based on Joliat's Tables for Nearby Earthquakes.
	P	23 29 56			
	S	23 30 23			
	L	23 30 51			
	F	23 34			
		Ottawa			
453 Dec. 3	H	12 11.9		9,800	
	P_Z	12 24 46			
	S_E	12 35 36			
	e_E	12 48.3			
	eL	12 56			
	F	13 25			
		Victoria			
454 Dec. 4	H	15 38.9		5,600	
	P	15 46 55			
	S	15 54 13			
	L	16 00			
	F	16 51			
		Ottawa			
457 Dec. 6	e	23 29.4			
	L	23 52			
	F	0 28			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM December 6, 1938 to December 9, 1938 No. 71

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Victoria			
457 Dec. 6 (Cont'd)	e	23 13.6			
	e	23 24.4			
	L	23 46			
	F	1 00			
		Toronto			
	e_N	23 21			
	e_N	23 28.7			
	L	23 54			
	F	1 00			
		Seven Falls			
	e	23 27.9			
	e	23 37 30			
	eL	23 48			
	F	1 18			
		Ottawa			
458 Dec. 7	e	13 44			
	eL	14 21.3			
	F	15 28			
		Victoria			
	H	13 24.0		9,470	
	eP_E	13 36 35			
	eS	13 47 07			
	PPS	13 48.7			
	SS_E	13 53.8			
	eL	14 02			
	F	16 05			
		Toronto			
	e	14 03.1			
	L	14 23			
	F	15 42			
		Seven Falls			
	e	13 44.4			
	e	13 49			
	e	13 54			
	e	14 01			
	eL	14 13			
	F	16 02			
		Ottawa			
459 Dec. 9	H	3 55.5		5,150	
	eP_Z	4 04 00			
	eS	4 10 53			
	SS	4 13.8			
	L	4 18			
	F	5 10			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM December 9, 1938 to December 13, 1938 No. 12

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Victoria			
459	H	3 55.2		2,300	
Dec.	iP	3 59 53			
9	e_N	4 01.0			
(Cont'd)	iS	4 03 42			
	SS	4 04.5			
	L	4 05.4			
	F	5 30			
		Toronto			
	e	4 13 04			
	e	4 16 08			
	L	4 21			
	F	5 10			
		Saskatoon			
	e_E	3 58.2			
	e_E	4 01.2			
	eL	4 06			
	F	4 32			
		Seven Falls			
	H	3 55.6		5,280	
	P	4 04 09			
	S	4 11 09			
	SS	4 14 02			
	SSS	4 14.9			
	L	4 18			
	F	5 14			
		Shawinigan Falls			
	H	3 55.5		5,250	
	eP	4 04 04			
	eS	4 11 03			
	L	4 19			
	F	4 37			
		Ottawa			
463	H	9 10.8		3,460	
Dec.	eP_Z	9 17 11			
13	eS_Z	9 22 24			
	L	9 26			
	F	9 35			
		Seven Falls			
	e	9 21 38			
	L	9 25			
	F	9 31			
		Shawinigan Falls			
	H	9 11.0		3,180	
	P	9 17 02			
	S	9 21 57			
	L	9 25			
	F	9 32			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM December 13, 1938 to December 16, 1938 No. 73

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Seven Falls			
465	e	17 49.4			
Dec.	L	18 11			
13	F	19 19			
		Ottawa			
466	H	17 21 ca.		140° ca.	
Dec.	eP'Z	17 40 45			
16	PP	17 43.5			
	SKP	17 44 20			
	PPS	17 56.1			
	eL	18 18			
	F	Lost in next quake			
		Victoria			
	H	17 21 ca.		112° ca.	
	PPE	17 40.4			
	PPS	17 50.8			
	SS	17 56			
	L	18 14			
	F	Lost in next quake			
		Toronto			
	e	17 43			
	e	17 53			
	eL	18 18			
	F	20 20			
		Seven Falls			
	e	17 44 33			
	e	17 54.0			
	e	17 58.0			
	e	18 03.6			
	eL	18 19			
	F	20 32			
		Ottawa			
467	eZ	19 04 31			
Dec.	L	19 24			
16	F	20 15			
		Victoria			
	e	18 52			
	e	19 02			
	L	19 22			
	F	20 50			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM December 16, 1938 to December 19, 1938 No. 74

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ		
468	e_Z	23 34 15			
Dec.	e_L	0 13			
16	F	1 30			
and		Victoria			
17	e	23 41			
	e	0 01			
	L	0 13			
	F	2 10			
		Toronto			
	e	23 36			
	L	0 11			
	F	1 35			
		Seven Falls			
	e	23 38.6			
	e	23 57			
	L	0 23			
	F	1 39			
		Ottawa			
470	i_Z	15 48 30			Nearby quake.
Dec.	i_Z	15 48 31			
17	F	15 48.6			
		Ottawa			
471	e_Z	16 48 11			
Dec.	L_Z	17 16			
17	F	17 46			
		Seven Falls			
	e	16 48 03			
	e	16 58.4			
	L	17 14			
	F	18 13			
		Ottawa			
472	i_Z	18 42 56			Nearby quake.
Dec.	i_Z	18 42 57			
17	F	18 43.5			
		Seven Falls			
475	e	22 09.5			
Dec.	L	22 29			
18	F	23 03			
		Ottawa			
476	i_Z	18 13 55			
Dec.	L	18 32			
19	F	19 00			

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

International Seismological Centre

FROM December 19, 1938 to December 31, 1938

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Seven Falls			
476 Dec. 19 (Cont'd)	e	18 16.0			
	L	18 33			
	F	19 02			
		Ottawa			
477 Dec. 19	i_Z	18 36 06			
	L	19 02			
	F	19 45			
		Seven Falls			
	e	18 46 25			
	L	19 05			
	F	20 16			
		Seven Falls			
478 Dec. 21	e	13 12 12			
	eL	13 30			
	F	14 57			
		Victoria			
480 Dec. 23	H	18 14.5		2,500	
	eP	18 19.5			
	eS	18 23.6			
	eL	18 25			
	F	18 53			
		Shawinigan Falls			
481 Dec. 25	H	7 46.4		215	Δ and H based on Joliat's Tables for Nearby Earthquakes.
	P	7 46 56			
	S	7 47 20			
	L	7 47 24			
	F	7 48.5			
		Ottawa			
483 Dec. 28	H	4 49.9		415	Δ and H based on Joliat's Tables for Nearby Earthquakes. Rock burst at Lake Shore Mine at Kirkland Lake, Ontario.
	P_n	4 50 52			
	P*	4 51 01			
	S_n	4 51 37			
	S*	4 51 50			
	F	4 53.5			
		Ottawa			
484 Dec. 30	i_Z	2 39 54			
	L	3 30			
	F	3 45			
		Seven Falls			
	e	2 43 29			
	eL	3 20			
	F	4 29			
		Ottawa			
486 Dec. 30	e_Z	12 19 03			
	L	12 29			
	F	12 39			

W. W. Doysee.

EARTHQUAKE CORRELATION TABLE

Month December, 1938.

No.	Date	Ottawa	Victoria	Toronto	Saskatoon	Halifax	Seven Falls		Shawinigan	**
							M. S.	W. A.		
449	1	2 37+1.49u	2 34+1 26u	.....	2 25+1 01u	.....	2 37+1 54u	.....	.....	..
450	1	23 30+0 04v	.....	.....	.....	.....	.....	.....	.....	A
451	2	7 54+0 02P*	.....	.....	.....	.....	.....	.....	.....	..
452	2	23 00+0 29L	22 59+0 29L	.....	.....	.....	23 00+0 32L	.....	.....	..
453	3	12 25+1 00u	12 30+0 10L	.....	.....	.....	12 59+1 10L	.....	.....	B
454	4	.....	15 47+1 04u	.....	.....	.....	.....	.....	.....	C
455	4	17 20+0 36L	.....	.....	.....	.....	17 18+1 18L	.....	.....	..
456	6	9 32+0 15L	9 38+0 13L	.....	.....	.....	.....	.....	.....	..
457	6	23 29+0 59u	23 14+1 46u	23 21+1 39u	.....	.....	23 28+1 49u	.....	.....	..
458	7	13 44+1 44u	13 36+2 29U	14 03+1 39u	.....	.....	13 44+2 18u	14 30+0 08L	.....	E
459	9	4 04+1 06u	4 00+1 30r	4 13+0 57u	3 58+0 34u	.....	4 11+1 10u	4 04+0 30u	4 04+0 33u	F
460	12	5 32+0 08L	3 24+0 09L	3 30+0 10L	.....	.....	.....	.....	.....	..
461	12	.....	7 43+0 22L	8 02+0 05L	.....	.....	.....	.....	.....	..
462	12	22 20+0 11L	.....	.....	.....	.....	.....	.....	22 10+0 02P	..
463	13	9 17+0 18r	9 29+0 15L	9 21+0 12L	.....	.....	.....	9 22+0 09r	9 17+0 15r	G
464	13	.....	14 46+0 10L	.....	.....	.....	.....	.....	.....	..
465	13	18 08+0 27L	.....	.....	.....	.....	17 49+1 30u	.....	17 41+0 07P	..
466	16	17 41+1 20+u	17 40+1 22+u	17 43+2 37u	18 21+1 39L	18 22+1 18L	17 45+2 48u	18 37+0 09L	....	J
467	16	19 04+1 11u	18 52+1 58u	.....	.....	.....	.....	.....	.....	..
468	16	23 34+1 56u	23 41+2 29u	23 36+1 59u	.....	0 30+0 32L	23 39+2 00u	.....	.....	..
469	17	15 33+0 0.3P	.....	.....	.....	.....	.....	.....	.....	..
470	17	17 48+0 0.1d	.....	.....	.....	.....	.....	.....	.....	K
471	17	16 48+0 58u	.....	17 27+0 20L	.....	.....	16 58+1 05u	16 48+0 01P	16 48+0 04P	..
472	17	18 43+0 0.6d	.....	.....	.....	.....	.....	.....	.....	K
473	17	23 47+0 01P	.....	.....	.....	.....	.....	.....	.....	..
474	18	21 13+0 12L	.....	21 11+0 11L	.....	.....	21 13+0 18L	.....	.....	..
475	18	22 35+0 25L	.....	22 33+0 17L	.....	.....	22 09+0 53u	.....	.....	..
476	19	18 14+0 46u	18 12+1 11u	18 29+0 13L	.....	.....	18 16+0 46u	.....	.....	..

International Seismological Centre

EARTHQUAKE CORRELATION TABLE
Month December, 1938.

No.	Date	Ottawa	Victoria	Toronto	Saskatoon	Halifax	Seven Falls		Shawinigan	**
							M. S.	W. A.		
477	19	18 36+1 09u	.....	19 03+0 43L	.....	.....	18 46+1 30u	.....	.....	..
478	21	12 46+0 04P	.....	.....	.....	.....	13 12+1 45u	.....	.....	..
479	22	17 55+0 15L	.....	.....	.....	.....	17 44+0 28L	.....	.....	..
480	23	18 41+0 17L	18 20+0 33r	18 25+0 49L	.....	18 49+0 08L	18 34+0 37L	.....	18 26+0 02P	N
481	25	.....	.....	.....	.....	.....	.....	7 48+0 0.5v	7 47+0 1.5v	S
482	26	.....	6 58+0 12L	.....	.....	.....	.....	.....	.....	..
483	27	4 51+0 2.6v	.....	.....	.....	.....	.....	.....	4 52+0 01P	W
484	28	2 40+1 05u	3 11+0 10L	.....	.....	.....	2 43+1 46u	.....	.....	..
485	30	.....	12.19+0 04L	.....	.....	.....	.....	.....	.....	..
486	30	12 19+0 20u	.....	.....	.....	.....	.....	.....	12 19+0 02P	..
487	31	0 36+0 25L	0 43+0 11L	0 45+0 18L	.....	.....	0 37+0 33L	.....	.....	..

International Seismological Centre

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CORRELATION OF EARTHQUAKES

December, 1938.

N O T E S

A : Ottawa Δ = 240 km. H = $23^h29^m.3$ U.T.

B : Ottawa Δ = 9800 km. H = $12^h11^m.9$ U.T.

C : Victoria Δ = 5600 km. H = $15^h38^m.9$ U.T.

E : Victoria Δ = 9470 km. H = $13^h24^m.0$ U.T.

F : Ottawa Δ = 5150 km. H = $3^h55^m.5$ U.T.
Victoria Δ = 2300 km. H = 3 55.2 U.T.
Seven Falls Δ = 5280 km. H = 3 55.6 U.T.
Shawinigan Falls Δ = 5250 km. H = 3 55.5 U.T.

G : Ottawa Δ = 3460 km. H = $9^h10^m.8$ U.T.
Shawinigan Falls Δ = 3180 km. H = 9 11.0 U.T.

J : Ottawa Δ =15500 km.ca. H = 17^h21^mca. U.T.
Victoria Δ =12500 km.ca. H = 17 21 ca. U.T.

K : Epicentre probably within 100 km. of the Ottawa station.

N : Victoria Δ = 2500 km. H = $18^h14^m.5$ U.T.

S : Shawinigan Falls Δ = 215 km. H = $7^h46^m.4$ U.T.

W : Ottawa Δ = 415 km. H = $4^h49^m.9$ U.T.
Rock burst at Lake Shore Mine, Kirkland Lake, Ontario.

Dominion Observatory,
Ottawa, Canada,
March 30, 1939.