CANADA

SEISMOLOGICAL STATION, DOMINION OBSERVATORY
OTTAWA

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$\varphi = 45° 23' 38''$ N. $\lambda = 75° 42' 57''$ W. $h = 83$ m.

Foundation: boulder clay over limestone (Ordovician). Time: Mean Greenwich, midnight to midnight. Time correction: within 0·25s.

AUXILIARY STATIONS

SASKATOON

$\varphi = 52° 08'$ N. $\lambda = 106° 38'$ W. $h = 515$ m.

Foundation: clay and sand. Time correction: from manually recorded radio time signals.

HALIFAX

$\varphi = 44° 38'$ N. $\lambda = 63° 36'$ W. $h = 46$ m.

Foundation: carbonaceous slate. Time correction: from hourly recorded railroad time service.

SHAWINIGAN FALLS

$\varphi = 46° 33'{\cdot}1$ N. $\lambda = 72° 45'{\cdot}8$ W. $h = 60$ m. *ca.*

Foundation: solid granite of Canadian Shield. Time correction: from automatically recorded radio time signals.

SEVEN FALLS

$\varphi = 47° 07'{\cdot}4$ N. $\lambda = 70° 49'{\cdot}6$ W. $h = 232$ m. *ca.*

Foundation: solid granite of Canadian Shield. Time correction: from automatically recorded radio time signals.

INSTRUMENTS—FIXED CONSTANTS

STATION	INSTRUMENT	SYMBOL	REGISTRATION	DAMPING	PAPER SPEED	MASS
Ottawa	Bosch	I	Photographic	Air	15 mm. per min.	200 g.
Ottawa	Bosch	II	Photographic	Magnetic	15 mm. per min.	200 g.
Ottawa	Milne-Shaw	17	Photographic	Magnetic	15 mm. per min.	1 lb.
Ottawa	Milne-Shaw	23	Photographic	Magnetic	15 mm. per min.	1 lb.
Ottawa	Spindler-Hoyer	W	Smoked Sheet	Air	15 mm. per min.	80 kg.
Halifax	Mainka	HN	Smoked Sheet	Air	15 mm per min.	139 kg.
Halifax	Mainka	HE	Smoked Sheet	Air	15 mm. per min.	139 kg.
Saskatoon	Mainka	SN	Smoked Sheet	Air	15 mm. per min.	139 kg.
Saskatoon	Mainka	SE	Smoked Sheet	Air	15 mm. per min.	139 kg.
Shawinigan Falls	Wood-Anderson	SA	Photographic	Magnetic	60 mm. per min.	15 g.
Seven Falls	Wood-Anderson	SF	Photographic	Magnetic	60 mm. per min.	15 g.
Seven Falls	Milne-Shaw	SM	Photographic	Magnetic	6 mm. per min.	1 lb.

INSTRUMENTS—DETERMINED CONSTANTS

INSTRUMENT	T_0	r/T_0^2	V	ϵ	COMP.	DISPLACEMENT FOR 1″ ARC TILT
I	5.1		120	2:1	NS	
II	6.0		120	12:1	EW	
17	12.0		250	20:1	EW	44 mm.
23	12.0		250	20:1	NS	44 mm.
W	5.3		160	10:1	Z	
HN	10.3		92	Aper.	NS	
HE	9.4		155	"	EW	
SN	9.0		61	"	NS	
SE	9.0		56	"	EW	
SA	0.9		2000		NS	
SF	1.0		1800		EW	
SM	12.0		250	20:1	EW	44 mm.

DOM. OBS. No. 67

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AUXILIARY STATIONS

Toronto

ϕ = 43°40' N. λ = 79°24' W. h = 111 m.

Foundation: sand and clay

Instruments: Milne-Shaw, NS. and EW. components, photographic recording, paper speed of 8 mm. per min., mass 1 lb., period 12 secs., magnetic damping 20:1, and magnification 150 fold.

Victoria

ϕ = 48°25' N. λ = 123°19' W. h = 68 m.

Foundation: rock

Instruments: Milne-Shaw, NS. and EW. components, photographic recording, paper speed of 8 mm. per min., mass 1 lb., period 12 secs., magnetic damping 20:1, and magnification 250 fold.

Wiechert Vertical not operating.

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FROM January 1, 1937 to January 7, 1937 No. 1

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Ottawa			
7 Jan. 7	e	6 35 40			
	eL	6 48			
	F	7 28			
		Victoria			
	e	6 31 18			
	eL	6 39			
	F	8 03			
		Ottawa			
9 Jan. 7	H	13 21ca		10,200ca	USCGS. gives:-
	PP	13 37.5			ϕ = 35°.5 N.
	e	13 45 08			λ = 97°.5 E.
	PS	13 45 52			
	L_E	14 00			JSA. gives:-
	F	17 17			ϕ = 36°.1 N.
		Toronto			λ = 98°.6 E.
	e	13 38.8		10,200ca	
	$\overline{ScPcS}$	13 45 17			
	PS	13 47 36			
	eL	14 09			
	F	17 00			
		Victoria			
	H	13 21.1		9,400	
	P	13 33 38			
	PP	13 36 59			
	S	13 44 07			
	SS	13 50.0			
	eL	13 58			
	F	18 40			
		Saskatoon			
	H	13 21.1		9,780	
	P	13 33 51			
	S	13 44 36			
	L	13 59			
	F	15 07			
		Shawinigan			
	H	13 21.2		10,200ca	
	P	13 34 16			
	PPP	13 39 39			
	$\overline{ScPcPcS}$	13 44 59			
	eL	14 05			
	F	15 37			
		Seven Falls			
	P	13 34 41		10,300ca	
	PP	13 38.5			
	$\overline{ScPcPcS}$	13 45 32			
	SS	13 52 07			
	SSS	13 55 38			
	eL	14 05			
	F	17 42			

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FROM January 7, 1937 to January 23, 1937 No. 2

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Ottawa			
11	e	13 28.4			
Jan.	e	13 34			
11	eL	13 37			
	F	13 57			
		Toronto			
	e_E	13 31.7			
	e_N	13 33			
	eL	13 36			
	F	13 57			
		Victoria			
	e	13 34 50			
	e	13 38 43			
	eL	13 43			
	F	14 05			
		Seven Falls			
	i	13 29 35			
	eL	13 35			
	F	14 29			
		Ottawa			
15	e_E	22 33			
Jan.	eL	22 37			
19	F	23 23			
		Victoria			
	e	22 29.5			
	eL	22 32			
	F	23 30			
		Ottawa			
17	H	10 56ca		11,600ca	
Jan.	e_E	11 14.3			
23	PPP	11 16.3			
	S	11 21.4			
	SSS	11 32 40			
	eL	11 46			
	F	13 22			
		Toronto			
	e_E	11 16.6			
	e	11 21.6			
	e	11 32 24			
	e_E	11 37.3			
	eL	11 46			
	F	13 22			
		Victoria			
	H	10 55.5		10,620	
	P	11 08 52			
	PP	11 12 41			
	$\overline{S_cP_cS}$	11 19 15			
	S_N	11 20 12			
	eL	11 37			
	F	14 02			

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FROM January 23, 1937 to January 31, 1937 No. 3

NO. AND DATE	PHASE	TIME	AMP.	DISTANCE	REMARKS
		h m s	μ	km.	
		Seven Falls			
17 Jan. 23 (Cont'd)	e	11 17.9			
	e	11 23.4			
	e	11 26.2			
	e	11 33.1			
	eL	11 45			
	F	13 47			
		Saskatoon			
	e	11 13.7			
	e	11 28			
	eL	11 42			
	F	12 21			
		Ottawa			
18 Jan. 25	H	6 34ca		13,300ca	USCGS. gives:-
	PP	6 54.3			ϕ = 12° S.
	ScPcS	6 59.8			λ = 164° E.
	PS	7 04			
	SS	7 10.4			JSA. gives:-
	eL	7 24			ϕ = 10°.6 S.
	F	9 37			λ = 163°.3 E.
		Halifax			
	eE	6 59			
	eL ?	7 13			
	F	8 11			
		Toronto			
	e	7 01			
	e	7 10 10			
	eL	7 23			
	F	9 40			
		Victoria			
	H	6 34.2		9,620	
	P	6 46 54			
	ScPcS	6 57 15			
	S	6 57 32			
	SS	7 03 32			
	e	7 10			
	eL	7 14			
	F	10 24			
		Saskatoon			
	e	6 58.5			
	e	7 06			
	eL	7 19			
	F	8 11+			
		Seven Falls			
	e	6 54.8			
	e	6 59.8			
	e	7 04.6			
	e	7 11.3			
	eL	7 29			
	F	9 46			

N.B. :- With the amalgamation of Canadian seismic services it is now practicable to record chronologically all earthquakes registered in Canada. Beginning with 1937 each year's registrations will be numbered separately.

W. D. Dobbs.

CORRELATION TABLE

This tabulation not only provides a serially numbered list of all earthquakes recorded at the Ottawa station but also shows a correlation of the entire Ottawa series with those obtained in each of the three Quebec series (Shawinigan-Wood-Anderson: Seven Falls-Wood-Anderson: Seven Falls-Milne-Shaw). The entries for each of the four series show in hours and minutes the time of beginning of the tremors in Greenwich Mean Time. The appearance of entries for two or more series 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 Ottawa serial number of the earthquake 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.

EARTHQUAKE CORRELATION TABLE

Month January, 1937

No.	Date	Ottawa	Victoria	Toronto	Saskatoon	Halifax	Seven Falls		Shawinigan	**
							M. S.	W. A.		
1	2	22 46+0 41r	22 46+0 24r	22 52+0 17r	22 51+0 10r	.....	22 55+0 12r	.....	22 54+0 06r	..
2	4	23 49+0 28L	.....	.....	.....	.....	23 51+0 18L	.....	.....	..
3	5	0 55+0 43L	0 39+0 38L	0 51+0 37L	.....	.....	0 21+1 12u	.....	.....	..
4	5	5 52+0 37L	5 31+0 39L	5 50+0 31L	.....	.....	5 46+0 32L	.....	.....	..
5	5	11 37+0 18L	.....	.....	.....	.....	11 41+0 15L	.....	.....	..
6	5	22 03+1 12u	21 59+0 53u	22 05+1 14u	.....	.....	22 03+1 28u	.....	.....	..
7	7	6 36+0 52u	6 31+1 32u	6 56+0 25L	.....	.....	6 34+0 54u	.....	.....	..
8	7	7 32+0 39L	.....	7 31+0 47L	.....	.....	7 28+0 42L	.....	.....	..
9	7	13 38+3 39U	13 34+5 09U	13 39+3 21U	13 34+1 33U	.....	13 38+4 03U	13 35+2 02U	13 34+2 02U	A
10	8	15 55+0 28L	15 57+0 21L	.....	.....	.....	.....	.....	.....	..
11	11	13 28+0 29r	13 35+0 30r	13 32+0 25r	.....	.....	13 30+0 48r	13 29+0 15r	13 28+0 15r	..
12	16	18 01+0 12L	.....	18 00+0 14L	.....	.....	18 02+0 11L	.....	.....	..
13	17	9 04+0 11L	.....	.....	.....	.....	.....	.....	.....	..
14	19	.....	.....	.....	.....	.....	.....	20 58.5+0 0.3d	.....	B
15	19	22 33+0 50r	22 30+1 00r	22 34+0 47r	22 34+0 02L	.....	22 39+0 27r	22 40+0 13r	22 39+0 13r	..
16	21	15 01+0 11L	15 19+0 21L	.....	.....	.....	15 01+0 11L	.....	.....	..
17	23	11 14+2 08u	11 09+2 53u	11 17+2 05u	11 14+1 07u	11 32+0 41u	11 18+2 17u	11 56+0 20L	11 17+0 56u	C
18	25	6 54+2 40u	6 47+3 37U	6 55+2 45u	6 58+1 13u	6 59+1 12u	6 55+2 51u	6 55+1 16u	6 55+1 25u	E
19	29	18 13+0 25L	17 59+0 23L	18 15+0 22L	.....	.....	18 20+0 08L	.....	.....	..
20	30	6 46+0 17L	6 47+0 56L	6 52+0 08L	.....	.....	.....	.....	.....	..
21	30	7 19+0 44L	.....	7 25+0 18L	.....	.....	.....	.....	.....	..
22	31	2 19+0 05L	2 14+0 07L	2 18+0 06L	.....	.....	.....	.....	.....	..