CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY
OTTAWA

R. MELDRUM STEWART, *Director*

ERNEST A. HODGSON, *Seismologist*

W. W. DOXSEE, *Assistant Seismologist*

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

Lithologic foundation: boulder clay over limestone (Ordovician). Time: Mean Greenwich, midnight to midnight.
Time correction: within .25s.

AUXILIARY STATIONS

SASKATOON

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

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

HALIFAX

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

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. = 60m. 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. = 232m. ca.

Foundation: solid granite of Canadian Shield.
Time correction: from manually 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_o	r/T_o^2	V	ϵ	COMP.	DISPLACEMENT FOR 1" ARC TILT
I	5.6		120	2:1	NS	
II	8.0		120	15:1	EW	
17	12.0		250	20:1	EW	44 mm.
23	12.0		250	20:1	NS	43 mm.
W	6.1		160	7:1	Vert.	
HN	9.8		110	Aperiodic	NS	
HE	7.1		147	"	EW	
SN	9.0		61	"	NS	
SE	9.0		44?	"	EW	
SA	1.0		2200		NS	
SF	1.0		1750		EW	
SM	12.0		250		EW	44 mm.

DOM. OBS. No. 67
Req. 6041—5,000—5-33

OTTAWA, CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY

FROM January 1, 1934 to January 15, 1934 No. 1

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
5173 Jan. 2	e_E	21 - 23		
	e_E	21 - 31		
	L	21 - 47		
	F	22 - 38		
5174 Jan. 3	O	9 - 42.6	7470	USCGS gives ϕ = 53° N. λ = 155°E.
	iP	9 - 53 - 26		
	PR_3	9 - 58.5		
	iS	10 - 02 - 20		
	PS_E	10 - 02 - 56		
	eL	10 - 16		
	F	11 - 29		
5180 Jan. 11	e	10 - 40 - 46		
	eL	10 - 48		
	F	11 - 41		
5182 Jan. 14	e_N	12 - 13 - 08		L waves irregular.
	e	12 - 16 - 44		
	eL	12 - 19		
	F	12 - 44		
5183 Jan. 15	eP_N?	9 - 01 - 18	12,000 ca	Saskatoon
	PR_1	9 - 02 - 11		PR_{1N} = 9-01-31
	ScPcS	9 - 08 - 20		PR_{2N} = 9-03-44
	i_E	9 - 09 - 56		ScPcS = 9-08-00
	PS_N	9 - 11 - 11		S_E? = 9-08-48
	PPPS	9 - 12 - 32		SR_{1E} = 9-15-45
	SR_1	9 - 17 - 24		SR_{2E} = 9-21.0
	i	9 - 20 - 10		eL = 9-30
	SR_2	9 - 22 - 04		F =11-40
	SR_3	9 - 24.6		
	i	9 - 27 - 26		Halifax
	e	9 - 29 - 20		PR_{1N} = 9-01.9
	eL	9 - 33		ScPcS = 9-08-09
	F	11 - 38		PS_E = 9-11-15
				SR_1 = 9-16-45
				SR_{2E} = 9-24.4
				eL = 9-35
				F =11-16

OTTAWA, CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY

FROM January 15, 1934 to January 30, 1934 No. 2

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
5184 Jan. 16	e	19 - 17.5		
	eL	19 - 38		
	F	20 - 15		
5186 Jan. 19	e	2 - 05 - 44		
	i	2 - 05 - 57		
	eL	2 - 06.3		
	F	2 - 18		
5187 Jan. 19	e_E	10 - 08.3		
	eL	10 - 12		
	F	10 - 49		
5191 Jan. 21	e	23 - 55		
	e	23 - 56 - 20		
	L	23 - 57		
	F	0 - 06		
5193 Jan. 22	e_E	10 - 19		
	eL	10 - 23		
	F	10 - 53		
5195 Jan. 28	e_E	14 - 52.6		
	eL	14 - 56		
	F	15 - 21		
5196 Jan. 28	O	19 - 10.2	3800	
	iP	19 - 16 - 56		
	PR_2	19 - 18 - 08		
	iS	19 - 22 - 28		
	SR_{1E}	19 - 24 - 28		
	eL	19 - 26.3		
	F	23 - 03		
5198 Jan. 30	e_E	20 - 26.7		
	e_N	20 - 27.6		
	eL	20 - 30		
	F	21 - 4[illegible]		

Saskatoon

eP = 20-19-50
oS = 20-23.0
iL = 20-24-22
Δ = 1900
O = 20-16.0

OTTAWA, CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY

FROM January 30, 1934 to January 31, 1934 No. 3

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
5199 Jan. 31	e_E	10 - 40		
	eL	10 - 56		
	F	11 - 33		

N. B. The bulletin form for the current year will be the same as that used throughout 1933. With this maintenance of uniformity the page introductory to the correlation table will serve for the twelve-month period and will be included with the January issue only.

W. W. Doxsee

SEISMOLOGICAL BULLETINS RECEIVED

JANUARY

1934

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

STATIONS	BULLETINS	RECEIVED	
Perth	September 6 to October 2, 1933	January	3
Manila	October, 1933	"	3
Colaba	Year 1932	"	4
Nagoya	January to June, 1933	"	4
Peichiko	July to September, 1933	"	5
Mizusawa	Year 1932	"	5
Firenze	April, May and June, 1933	"	5
Pasadena	October and November, 1933	"	9
Saint Louis	September, October and November, 1933	"	9
Florissant	July, 1933	"	9
Quito	September and October, 1933	"	9
Toledo, Cartuja, Alicante, Almeria, Malaga	September and October, 1932	"	9
Melbourne	July, August and September, 1933	"	9
Algiers	August to November, 1933	"	10
Pulkova, Baku, Irkutsk, Kucino, Sverdlovsk, Tachkent	October, 1932 to June, 1933	"	10
Helwan	October and November, 1933	"	11
Sydney	November, 1933	"	11
Cape Town	November, 1933	"	11
Rome	December 3 - 16, 1933	"	12
Strasbourg, Paris, Bureau Central	November, 1933	"	13
Taihoku	September, 1933	"	15
Osaka	October 11 to December 3, 1933	"	15
Chiufeng	November, 1933	"	17
Zi-Ka-Wei	September 25 to November 18, 1933	"	17
Riverview	Provisional for November, 1933	"	18
Wellington	Preliminary for November, 1933	"	18
Zurich	December, 1933	"	19
Saint Louis	Preliminaries for August 25/33; December 4, 13, 14 and 15th/33)	"	19
Perth	October 2 to November 18, 1933	"	20
Richmond	December, 1933	"	22
Georgetown	December, 1933 and Seismological Despatches	"	22

SEISMOLOGICAL BULLETINS RECEIVED

JANUARY

1934

STATIONS	BULLETINS	RECEIVED
Uccle	March 17 to September 11, 1933	January 24
La Paz	January to July, 1933	" 25
Rome	December 17 - 31, 1933	" 26
Florissant	August, 1933	" 26
Fordham	October 1 to December 19, 1933	" 27
Firenze	July, August and September, 1933	" 29
Apia	October, November and December, 1933	" 31
Pasadena	December, 1933	" 31
Saint Louis	Preliminaries for January 3/34) January 15/34 and August 28/33)	" 31

DOMINION OBSERVATORY
OTTAWA - CANADA

R. Meldrum Stewart,
Director.

Ernest A. Hodgson,
Seismologist.

W. W. Doxsee,
Assistant Seismologist.

CORRELATION OF EARTHQUAKES

January, 1934.

.....

N O T E S

		Δ (km.)	O
A :	Ottawa	7470	9 - 42.6
	Shawinigan Falls	7550	9 - 42.5
	Seven Falls	7550	9 - 42.6
B :	Ottawa	12,000	
	Destructive earthquake in Central India.		
C :	Local disturbance recorded at Ottawa - may not be seismic.		
E :	Ottawa	3800	19 - 10.2
	Seven Falls	4230	19 - 10.1

Dominion Observatory,

Ottawa, Canada,

February 12, 1934.

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

January, 1934.

No.	Date	Ottawa	Shawinigan	Seven Falls		**
				W. A.	M. S.	
5172	1	7-52+0-15L	.....	.....	.....	..
5173	2	21-23+1-15u	.....	.....	21-42+0-48u	..
5174	3	9-53+2-36U	9-53+0-27U	9-53+0-28U	9-53+1-57U	A
5175	3	13-01+0-09L	.....	.....	13-01+0-14L	..
5176	4	13-25+0-08L	.....	.....	13-25+0-08L	..
5177	5	23-20+0-06L	23-19+0-03L	23-18+0-03L	.....	..
5178	6	14-03+0-15L	.....	.....	.....	..
5179	9	7-52+0-06L	.....	7-52+0-01L	7-52+0-07L	..
5180	11	10-41+1-00u	10-32+0-10P	10-32+0-04P	10-41+0-44u	..
5181	12	14-30+0-37L	.....	.....	.....	..
5182	14	12-13+0-31r	12-20+0-05r	12-20+0-06r	12-20+0-16r	..
5183	15	9-01+4-46U	8-58+2-08U	8-58+2-13U	8-58+4-20U	B
5184	16	19-17+0-58u	.....	.....	19-17+0-56u	..
5185	18	11-44+0-34L	.....	.....	11-47+0-26L	..
5186	19	2-06+0-12r	1-51+0-01P	2-06+0-02r	2-06+0-11r	..
5187	19	10-08+0-41r	10-15+0-11r	10-16+0-07r	10-13+0-36r	..
5188	20	18-42+0-45L	.....	.....	18-50+0-25L	..
5189	20	23-46+0-28L	.....	.....	23-48+0-24L	..
5190	21	7-55+0-19L	.....	.....	7-50+0-19L	..
5191	21	23-55+0-11r	23-53+0-14r	23-53+0-07r	23-56+0-08r	..
5192	22	8-49+0-16L	.....	.....	8-47+0-16L	..
5193	22	10-19+0-34u	.....	10-13+0-01P	10-19+0-16L	..
	25	.....	19-04+0-11P	.....	.....	..
5194	28	14-50+0-0.2d	.....	.....	.....	C
5195	28	14-53+0-28u	.....	.....	14-52+0-34u	..
5196	28	19-17+3-46R	19-17+0-50R	19-17+1-02R	19-17+3-45R	E
5197	30	19-41+0-12r	19-42+0-05r	.....	19-43+0-07r	..
5198	30	20-27+1-13R	20-24+0-48R	20-24+0-46R	20-28+1-10R	..
5199	31	10-40+0-53u	.....	.....	10-58+0-33u	..

CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY
OTTAWA

R. MELDRUM STEWART, *Director*

ERNEST A. HODGSON, *Seismologist*

W. W. DOXSEE, *Assistant Seismologist*

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

Lithologic foundation: boulder clay over limestone (Ordovician). Time: Mean Greenwich, midnight to midnight.
Time correction: within .25s.

AUXILIARY STATIONS

SASKATOON

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

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

HALIFAX

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

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. = 60m. 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. = 232m. ca.

Foundation: solid granite of Canadian Shield.
Time correction: from manually 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_o	r/T_o^2	V	ϵ	COMP.	DISPLACEMENT FOR 1" ARC TILT
I	5.6		120	2:1	NS	
II	8.0		120	15:1	EW	
17	12.0		250	20:1	EW	44 mm.
23	12.0		250	20:1	NS	43 mm.
W	6.1		160	7:1	Vert.	
HN	9.8		110	Aperiodic	NS	
HE	7.1		147	"	EW	
SN	9.0		61	"	NS	
SE	9.0		44?	"	EW	
SA	1.0		2200		NS	
SF	1.0		1750		EW	
SM	12.0		250		EW	44 mm.

DOM. OBS. No. 67

OTTAWA, CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY

FROM February 1, 1934 to February 12, 1934 No. 4

NO. AND DATE	PHASE	TIME h m s	DISTANCE km.	REMARKS
5200 Feb. 1	e_N	12 - 01.5		
	eL	12 - 04		
	F	12 - 13		
5202 Feb. 2	e	16 - 35 - 08		Local. Felt in Ottawa and Gatineau District.
	F	16 - 35 - 12		
5203 Feb. 3	e_E	14 - 54		
	e	15 - 00.7		
	e	15 - 10.3		
	eL	15 - 25		
	F	17 - 13		
5205 Feb. 4	e	13 - 51		
	e_E	14 - 04		
	eL	14 - 13		
	F	15 - 12		
5208 Feb. 4	e_E	22 - 26		
	eL	22 - 59		
	F	0 - 06		
5209 Feb. 9	e	9 - 36		
	eL	9 - 38		Short period L waves.
	F	9 - 53		
5210 Feb. 9	e	9 - 55		
	e	10 - 06		
	eL	10 - 20		
	F	11 - 35		
5211 Feb. 12	e_N	6 - 52 - 11		
	i	6 - 56 - 01		
	e_E	6 - 58.6		
	eL	7 - 02		
	F	7 - 30		
5216 Feb. 12	e_E	12 - 22.5		More pronounced on EW component.
	eL	12 - 29		
	F	13 - 03		

OTTAWA, CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY

FROM February 12, 1934 to February 24, 1934 No. 5

NO AND DATE	PHASE	TIME h m s	DISTANCE	REMARKS
5217 Feb. 13	e	10 - 05.3		
	e	10 - 09		
	eL	10 - 12		
	F	10 - 31		
5218 Feb. 14	i	4 - 19 - 20		USCGS. gives
	e_E	4 - 27.2		ϕ = 18° N.
	i	4 - 28 - 56		λ = 118° E.
	e	4 - 35.5		0 = 3 - 59.5
	e_E	4 - 46.5		
	eL	4 - 50		
	F	7 - 15		
5219 Feb. 14	e ?	22 - 31.4		Early phases masked by micros.
	e	22 - 34.8		
	i	22 - 37 - 26		
	L	22 - 41		
	F	23 - 19		
5222 Feb. 19	e_N	10 - 47.0		
	e_N	10 - 54.0		
	e	11 - 05.0		
	e_E	11 - 27		
	eL?	11 - 34		
	F	12 - 22		
5223 Feb. 20	e	3 - 36 - 28		Micros obscure phases.
	e_N	3 - 40.4		
	eL	3 - 50		
	F	4 - 15		
5224 Feb. 22	e	8 - 29.6		
	e_N?	8 - 39		
	eL	8 - 49		
	F	9 - 12		
5226 Feb. 24	e_N ?	0 - 55 - 20		
	e_N	0 - 59.6		
	e_E	1 - 00 - 24		
	e_E	1 - 02 - 24		
	eL	1 - 03 - 14		Short period L waves.
	F	1 - 33		

OTTAWA, CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY

FROM February 24, 1934 to February 28, 1934 No. 6

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
5228 Feb. 24	PR_1	6 - 42 - 12	(12000)	USCGS. gives :
	$\overline{iS_cP_cS}$	6 - 48 - 16		ϕ = 21° N.
	PS	6 - 51 - 00		λ = 145° E.
	SR_1	6 - 56 - 40		
	SR_3	7 - 05.4		0 = 6 - 23.7
	e	7 - 08 - 20		
	eL ?	7 - 15		
	F	9 - 42		
5229 Feb. 28	e	14 - 44.2		
	e	14 - 54.5		
	e	15 - 00.0		
	eL	15 - 14		
	F	17 - 28		

W W Doxsee

SEISMOLOGICAL BULLETINS RECEIVED

February, 1934.

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

STATIONS	BULLETINS	RECEIVED	
Perth	November, 1933	February	1
Algiers	December, 1933	"	1
Cape Town	December, 1933	"	2
Taihoku	October, 1933	"	6
Nagasaki	October 1, 1932 - September 30/33	"	7
Strasbourg, Paris, Bureau Central	December, 1933	"	9
Chiufeng	December, 1933	"	9
Rome	January 1 - 14, 1934	"	10
Manila	November, 1933	"	10
Zi-Ka-Wei	November 20 - December 2/33	"	12
San Fernando	November 19 - December 15/33	"	12
Saint Louis	Preliminary Bulletins for January 28th and 30th, 1934	"	13
Florissant	September and October, 1933	"	13
Riverview	Provisional for December, 1933	"	17
Zurich	January, 1934	"	19
Georgetown	January, 1934 and Seismological Despatches	"	19
Bergen	Years 1932 and 1933	"	20
Richmond	January, 1934	"	22
Rome	January 15 - 28, 1934	"	22
Reykjavik	October 5 - December 15, 1933	"	22
Helwan	December, 1933	"	22
Toledo, Cartuja, Alicante, Almeria, Malaga	November and December, 1932	"	23
Toronto	December/33 and January/34	"	24
Zi-Ka-Wei	December 4, 1933	"	26
Pasadena	January, 1934	"	28
Sydney	December, 1933	"	28

DOMINION OBSERVATORY,
OTTAWA - CANADA.

R. Meldrum Stewart,
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Seismologist.

W. W. Doxsee,
Assistant Seismologist.

CORRELATION OF EARTHQUAKES

February, 1934.

N O T E S

A : Felt in Ottawa and Gatineau Valley.

B : Local disturbance : may not be seismic.

C : Ottawa records being changed at time of this quake.

General : Micro storm February 26th.

Dominion Observatory,
Ottawa, Canada,
March 12, 1934.

EARTHQUAKE CORRELATION TABLE

February, 1934.

No.	Date	Ottawa	Shawinigan	Seven Falls		**
				W. A.	M. S.	
5200	1	12-02+0-11r	12-04+0-03r	.....	12-06+0-10r	..
5201	2	16-02+1-31L	.....	.....	16-02+1-24L	..
5202	2	16-35+0-0.1d	.....	.....	.....	A
5203	3	14-54+2-19U	.....	15-45+0-09L	15-04+1-46U	..
5204	4	10-06+0-22L	.....	.....	10-11+0-17L	..
5205	4	13-51+1-21u	14-05+0-02P	.....	13-51+1-21u	..
5206	4	15-49+0-0.3d	.....	.....	.....	B
5207	4	19-4.6+0-0.5d	.....	.....	.....	B
5208	4	22-26+1-42u	.....	.....	22-30+1-43u	..
5209	9	9-36+0-17r	9-39+0-08r	.....	9-39+0-12r	..
5210	9	9-55+1-39u	.....	.....	10-08+1-08u	..
5211	9	12-17+0-17L	11-39+0-01P	.....	12-17+0-17L	..
5212	11	9-57+0-35L	.....	.....	9-57+0-40L	..
5213	12	3-48+0-07L	3-40+0-01P	.....	3-47+0-13L	..
5214	12	6-52+0-38r	6-50+0-03P	6-51+0-02P	6-56+0-41r	..
5215	12	8-10+0-01L	.....	.....	.....	..
5216	12	12-22+0-40u	.....	.....	12-22+0-41u	..
5217	13	10-05+0-26u	.....	.....	10-07+0-22u	..
5218	14	4-19+2-56U	4-19+1-19U	4-19+1-28U	4-19+3-06U	..
5219	14	22-31+0-48r	22-37+0-10r	22-39+0-09r	22-27+0-47r	..
5220	16	2-12+0-03L	.....	.....	.....	..
5221	17	22-08+0-24L	.....	.....	.....	..
	18	.....	.....	.....	15-40+0-05L	C
5222	19	10-47+1-35u	.....	.....	10-54+1-39u	..
5223	20	3-36+0-39u	3-29+0-01P	.....	3-36+0-37u	..
5224	22	8-30+0-42u	.....	.....	8-38+0-41u	..
5225	22	21-50+0-09L	.....	.....	.....	..
5226	24	0-55+0-38r	0-55+0-18r	0-59+0-10r	0-59+0-31r	..
5227	24	5-45+0-11r	5-40+0-03P	5-40+0-03P	5-48+0-11r	..
5228	24	6-42+3-00U	6-48+1-13U	6-56+0-51U	6-43+3-10U	..
5229	28	14-44+2-44U	15-23+1-02U	15-26+0-23U	14-45+2-32U	..

CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY
OTTAWA

R. MELDRUM STEWART, *Director*

ERNEST A. HODGSON, *Seismologist*

W. W. DOXSEE, *Assistant Seismologist*

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

Lithologic foundation: boulder clay over limestone (Ordovician). Time: Mean Greenwich, midnight to midnight.
Time correction: within .25s.

AUXILIARY STATIONS

SASKATOON

$\varphi = 52°\ 08'$ N. $\lambda = 106°\ \frac{39'}{38'}$ W. h. = 515m.

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

HALIFAX

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

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. = 60m. 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. = 232m. ca.

Foundation: solid granite of Canadian Shield.
Time correction: from manually 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_o	r/T_o^2	V	ϵ	COMP.	DISPLACEMENT FOR 1" ARC TILT
I	5.6		120	2:1	NS	
II	8.0		120	15:1	EW	
17	12.0		250	20:1	EW	44 mm.
23	12.0		250	20:1	NS	43 mm.
W	6.1		160	7:1	Vert.	
HN	9.8		110	Aperiodic	NS	
HE	7.1		147	"	EW	
SN	9.0		61	"	NS	
SE	9.0		44?	"	EW	
SA	1.0		2200		NS	
SF	1.0		1750		EW	
SM	12.0		250		EW	44 mm.

DOM. OBS. No. 67

Roo. 6041—5,000—5-33

OTTAWA, CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY

FROM March 1, 1934 to March 5, 1934 No. 7

NO. and DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
5231 Mar. 1	e_E	20 - 14.5		
	e_N	20 - 34.5		
	eL ?	20 - 42		
	F	21 - 30		
5232 Mar. 1	O	21 - 45.5	9300	
	eP_N	21 - 57 - 55		
	PR_{1N}	22 - 01.3		
	i_N	22 - 08 - 07		
	iS_E	22 - 08 - 16		
	PS_E	22 - 09 - 08		
	SR_1	22 - 13.5		
	SR_{2E}	22 - 20.5		
	eL	22 - 25		
	F	23 - 46		
5234 Mar. 4	e_E	6 - 22.5		
	e	6 - 25.3		
	e_E	6 - 32.4		
	eL	6 - 46		
	F	7 - 49		
5235 Mar. 4	e	11 - 37		
	e	11 - 42		
	e	11 - 45		
	eL	11 - 47		
	F	12 - 47		
5236 Mar. 5	e	1 - 30.8		
	e	1 - 33.7		
	eL	1 - 38		
	F	1 - 56		
5237 Mar. 5	P'	12 - 07 - 34	(120°)	Interpretation based on Gutenberg's Tables.
	PR_1	12 - 08 - 54		
	PR_{2E}	12 - 12.1		
	$\overline{S_cP_cS}$	12 - 14 - 24		
	e_E	12 - 17.8		
	PPS_N	12 - 20.3		
	SR_1	12 - 25 - 00		
	SR_2	12 - 29.7		
	eL	12 - 40		
	F	16 - 30		

OTTAWA, CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY

FROM March 5, 1934 to March 16, 1934 No. 8

NO. and DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
5239 Mar. 6	e_E	15 - 02.8		
	e	15 - 07.0		
	eL	15 - 10		
	F	15 - 58		
5240 Mar. 7	O	22 - 41.9	3670	
	eP_N	22 - 48 - 32		
	eS	22 - 53 - 56		
	SR_{1E}	22 - 56		
	eL	22 - 58		
	F	0 - 25		
5245 Mar. 12	O	15 - 05.9	2930	Utah
	iP_E	15 - 11 - 25		USCGS. gives:
	PR_{2E}	15 - 12 - 04		ϕ = 41°.7 N.
	iS	15 - 15 - 58		λ = 112°.6 W.
	SR_1	15 - 16 - 58		O = 15-05.8
	SR_2	15 - 17 - 25		
	eL	15 - 19		
	F	17 - 28		
5246 Mar. 12	O	18 - 20.5	2930	
	iP_E	18 - 26 - 00		
	PR_2	18 - 26 - 38		
	i	18 - 27 - 06		
	iS	18 - 30 - 34		
	SR_{1E}	18 - 31.6		
	SR_{2N}	18 - 31 - 52		
	eL	18 - 33.6		
	F	19 - 30		
5247 Mar. 13	e_E	13 - 32		
	e_N	13 - 39		
	e	13 - 42		
	eL ?	14 - 00		
	F	16 - 18		
5254 Mar. 16	e	17 - 18		
	eL	17 - 29		
	F	18 - 24		

OTTAWA, CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY

FROM March 16, 1934 to March 31, 1934 No. 9

NO. and DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
5256 Mar. 18	O	4 - 33.3	8160	
	iP_N	4 - 44 - 49		
	PR_{2E}	4 - 49.5		
	S	4 - 54 - 17		
	PS_E	4 - 54 - 54		
	SR_2	5 - 03.1		
	eL	5 - 10		
	F	5 - 39		
5258 Mar. 20	eS ?	3 - 16.3		Preliminary phases masked by micros.
	eL	3 - 28		
	F	4 - 43		
5262 Mar. 24	e	12 - 24 - 45		USCGS. gives:
	e	12 - 30 - 13		ϕ = 10°S.
	e	12 - 34 - 16		λ = 161°E.
	i	12 - 34 - 36		O = 12-04.5
	e	12 - 41 - 10		
	i_E	12 - 42 - 00		
	e	12 - 53.2		
	eL	12 - 55		
	F	16 - 40		
5264 Mar. 29	e	20 - 26 - 12		
	eL	20 - 30		
	F	20 - 51		
5265 Mar. 30	e	4 - 24.7		
	eL ?	4 - 29		
	F	4 - 52		
5266 Mar. 30	e	6 - 09.4		
	eL	6 - 12		
	F	6 - 34		

W. W. Doxsee

SEISMOLOGICAL BULLETINS RECEIVED

March, 1934.

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

STATIONS	BULLETINS	RECEIVED	
Tananarive	April, May, and June, 1933	March	2
Rome	January 29 to February 11 34	"	2
Balboa, Bozeman, Charlottesville, Chicago, Columbia, Honolulu, Huancayo, Pittsburg, San Juan, Seattle, Sitka, Technology, Tucson, Ukiah	April, May, and June, 1933	"	2
Uccle	September 12 to December 31/33	"	5
Karlsruhe	July to December, 1933	"	6
Taihoku	November, 1933	"	7
Manila	December, 1933	"	8
Peichiko	October, November and December/33	"	9
Chiufeng	January, 1934	"	9
Wellington	Preliminary for December, 1933	"	14
Strasbourg, Paris, Bureau Central	January, 1934	"	16
Rome	February 12 - 25, 1934	"	17
Algiers	January, 1934	"	19
Quito	November and December, 1933	"	19
Georgetown	February, 1934 and Seismological Despatches	"	19
Trieste	March 8/31 to December 31/32	"	20
Capo Town	January, 1934	"	20
Richmond	February, 1934	"	23
Pasadena	Local shocks for January 34	"	23
Zurich	January 31 to February 28/34	"	24
Harvard	November 19/32 to March 30/33	"	24
Wellington	Preliminary for January, 1934	"	28
Sydney	January, 1934	"	28
Taihoku	December, 1933 and January, 1934	"	29
Melbourne	October, November and December/33	"	29
U.S. Coast and Geodetic Survey	U. S. Earthquakes for 1932	"	29
Toronto	February, 1934	"	31
Algiers	February, 1934	"	31
San Fernando	January and February, 1934	"	31

DOMINION OBSERVATORY,
OTTAWA - CANADA.

R. Meldrum Stewart,
Director.

Ernest A. Hodgson,
Seismologist.
W. W. Doxsee,
Assistant Seismologist.

CORRELATION OF EARTHQUAKES

March, 1934.

N O T E S

			Δ(km.)	O(G.M.T.)
A	:	Ottawa	9300	21 - 45.5
		Shawinigan Falls	9130	21 - 45.7
		Seven Falls	9440	21 - 45.5
B	:	Ottawa	(13300)	(11 - 48.5)
C	:	Ottawa	3670	22 - 41.9
E	:	Ottawa	2930	15 - 05.9
		Seven Falls	3220	15 - 05.9
F	:	Ottawa	2930	18 - 20.5
		Seven Falls	3220	18 - 20.5
G	:	Seven Falls	(8800)	(13 - 20.3)
H	:	Ottawa	8160	4 - 33.4
		Shawinigan Falls	8180	4 - 33.4

Dominion Observatory,

Ottawa, Canada,

April 27, 1934.

EARTHQUAKE CORRELATION TABLE

March, 1934.

No.	Date	Ottawa	Shawinigan	Seven Falls		**
				W. A.	M. S.	
5230	1	4-54+0-10L	.....	.....	4-49+0-34L	..
5231	1	20-14+1-16u	.....	.....	20-19+1-27u	..
5232	1	21-58+1-48U	21-58+0-17U	21-58+0-18U	21-59+2-20U	A
5233	2	20-57+0-09L	.....	.....	20-58+0-06L	..
5234	4	6-22+1-27u	.....	.....	6-26+1-53u	..
5235	4	11-37+1-10u	11-28+0-01P	.....	11-37+1-20u	..
5236	5	1-31+0-25u	.....	.....	1-27+0-25u	..
5237	5	12-08+4-22U	12-06+1-58U	12-08+2-04U	12-08+3-23U	B
5238	6	5-57+0-11L	.....	.....	5-58+0-05L	..
5239	6	15-03+0-55u	.....	.....	15-10+0-33u	..
5240	7	22-48+1-37r	22-49+0-31r	22-57+0-17r	22-55+1-22r	C
5241	9	3-20+0-28L	.....	.....	3-30+0-08L	..
5242	9	14-28+0-53L	.....	.....	14-41+0-17L	..
5243	10	9-00+0-41L	.....	.....	9-05+0-26L	..
5244	11	23-28+0-14L	.....	.....	23-30+0-05L	..
5245	12	15-12+2-17R	15-12+0-51R	15-12+0-48R	15-12+1-47R	E
5246	12	18-26+1-04R	18-26+0-38R	18-26+0-32R	18-26+1-15R	F
5247	13	13-32+2-46U	14-07+0-20L	13-42+0-56U	13-32+3-11U	G
5248	14	2-58+0-19L	.....	.....	.....	..
5249	14	5-04+0-12L	.....	.....	5-03+0-07L	..
5250	15	11-22+0-14L	.....	.....	11-25+0-04L	..
5251	15	11-47+1-24u	12-17+0-02L	.....	11-52+1-15u	..
5252	16	10-22+0-15L	.....	.....	10-20+0-09L	..
5253	16	14-45+0-18L	.....	.....	.....	..
5254	16	17-18+1-06u	.....	.....	17-29+0-53u	..
5255	17	22-56+0-10L	.....	.....	23-00+0-10L	..
5256	18	4-45+0-54u	4-45+0-14u	4-45+0-12u	4-54+0-38u	H
5257	19	15-49+0-04L	.....	.....	.....	..
5258	20	3-16+1-27u	.....	.....	3-16+1-42u	..
5259	21	4-17+0-05L	.....	.....	4-20+0-04L	..
5260	22	20-48+0-28L	.....	.....	20-51+0-19L	..
5261	22	23-00+0-38L	.....	.....	23-04+0-35L	..
5262	24	12-25+4-15U	12-24+1-25U	12-24+1-23U	12-25+3-14U	..
5263	27	4-27+0-42L	.....	.....	4-31+0-31L	..
5264	29	20-26+0-25u	.....	.....	20-26+0-28u	..
5265	30	4-25+0-27u	.....	.....	4-25+0-23u	..
5266	30	6-09+0-25L	.....	.....	6-09+0-12L	

CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY
OTTAWA

R. MELDRUM STEWART, *Director*

ERNEST A. HODGSON, *Seismologist*

W. W. DOXSEE, *Assistant Seismologist*

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

Lithologic foundation: boulder clay over limestone (Ordovician). Time: Mean Greenwich, midnight to midnight.
Time correction: within .25s.

AUXILIARY STATIONS

SASKATOON

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

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

HALIFAX

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

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. = 60m. 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. = 232m. ca.

Foundation: solid granite of Canadian Shield.
Time correction: from manually 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_o	r/T_o^2	V	ϵ	COMP.	DISPLACEMENT FOR 1" ARC TILT
	5.6		120	2:1	NS	
I	8.0		120	15:1	EW	
II	12.0		250	20:1	EW	44 mm.
17	12.0		250	20:1	NS	43 mm.
23	6.1		160	7:1	Vert.	
W	9.8		110	Aperiodic	NS	
HN	7.1		147	"	EW	
HE	9.0		61	"	NS	
SN	9.0		44?	"	EW	
SE	1.0		2200		NS	
SA	1.0		1750		EW	
SF	12.0		250		EW	44 mm.
SM						

DOM. OBS. No. 67

Rec. 6041—5,000—5-33

OTTAWA, CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY

FROM April 1, 1934 to April 15, 1934 No. 10

NO. and DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
5268 Apr. 3	e_N	7 - 44.3		
	e	7 - 46.3		
	eS?	7 - 50 - 28		
	e_E	7 - 53.3		
	eL	7 - 56		
	F	8 - 39		
5270 Apr. 3	e?	17 - 56.5		Early phases masked by micros.
	eL	18 - 01		
	F	18 - 17		
5274 Apr. 9	e	15 - 52 - 12		
	e	15 - 57.0		
	eL	16 - 04		
	F	17 - 11		
5275 Apr. 10	e	5 - 52 - 16		
	eL	5 - 55		
	F	6 - 13		
5276 Apr. 10	e	11 - 03.8		
	eL	11 - 24		
	F	12 - 15		
5277 Apr. 11	e	21 - 28.0		
	e	21 - 37.4		
	eL?	21 - 41		
	F	22 - 49		
5278 Apr. 14	e	21 - 37.3		
	iL	21 - 40 - 24		
	F	22 - 02		
5279 Apr. 15	e	2 - 59 - 01 to 2 - 59 - 12		Felt in Northern Vermont, New York State and Montreal, Canada.
	F			
5280 Apr. 15	PR_1	22 - 35 - 56	(130°)	USCGS. gives ϕ = 8° N. λ = 127° E. 0 = 22-15.5
	e	22 - 43 - 08		
	PS	22 - 46 - 12		
	SR_1	22 - 52 - 48		
	SR_{3E}	23 - 01.8		
	eL	23 - 12		
	F	1 - 05		

OTTAWA, CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY

FROM April 15, 1934 to April 30, 1934 No. 11

NO. and DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
5283 Apr. 18	e_E	12 - 55.4		
	e	12 - 58 - 20		
	L	13 - 04		
	F	13 - 26		
5287 Apr. 24	e_E	18 - 01.3		
	e_E	18 - 04.4		
	e_E	18 - 10.4		
	e_E	18 - 19.0		
	eL	18 - 21		
	F	20 - 10		
5288 Apr. 26	e_E	6 - 02.1		
	eL	6 - 25		
	F	7 - 25		
5289 Apr. 26	e?	8 - 17.3		
	e	8 - 27.1		
	eL?	8 - 50		
	F	9 - 47		
5290 Apr. 26	e	21 - 26 - 08		
	e	21 - 30.2		
	e_E?	21 - 37.0		
	eL	21 - 55		
	F	23 - 24		
5291 Apr. 27	e_E	21 - 07.4		
	e_E	21 - 12.8		
	e	21 - 17 - 16		
	e_E	21 - 23.2		
	e	21 - 36 - 02		
	eL	21 - 45		
	F	23 - 18		
5292 Apr. 28	e_E	15 - 38		
	eL	15 - 50		
	F	16 - 51		

W. W Doxsee

SEISMOLOGICAL BULLETINS RECEIVED

April

1934

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

STATIONS	BULLETINS	RECEIVED	
Rome	February 26 to March 11, 1934	April	3
Toledo, Cartuja, Alicante, Almeria, Malaga	January and February, 1933	"	3
Hamburg	October 1, 1933 to March 13, 1934	"	5
Helwan	January, 1934	"	6
Zi-Ka-Wei	February 3 - 14, 1934	"	7
Manila	January, 1934	"	7
Pasadena	February, 1934	"	9
Chiufeng	February, 1934	"	10
Zi-Ka-Wei	January 3 to February 2, 1934	"	10
Georgetown	March, 1934 and Seismological Despatches	"	11
Strasbourg, Paris, Bureau Central	February, 1934	"	11
Wellington	Preliminary for February, 1934	"	12
Cape Town	February, 1934	"	12
Rome	March 12 - 25, 1934	"	16
Pasadena	Local shocks for February, 1934	"	17
Florissant	November 1, 1933 to January 31/34	"	17
Osaka	October 1 to December 31, 1932		
and	December 4, 1933 to February 28/34	"	20
Denver	June 1 to September 30, 1933	"	20
Saint Louis	Supplementary for January 30, 1934	"	20
Tananarive	July, August and September, 1933	"	21
Richmond	March, 1934	"	21
Zurich	March, 1934	"	23
Riverview	Provisional for January, 1934 and February, 1934	"	24
Apia	January 1 to March 31, 1934	"	25
La Paz	August 1 to December 31, 1933	"	26
Toronto	March, 1934	"	27
Algiers	March, 1934	"	28
Rome	March 26 to April 8, 1934	"	28
Perth	December, 1933 to February, 1934	"	28
Fordham	January, February and March, 1934	"	30
Toledo	Local Earthquakes Registered	"	30

DOMINION OBSERVATORY,

OTTAWA - CANADA

R. Meldrum Stewart,
Director.

Ernest A. Hodgson,
Seismologist.

W. W. Doxsee,
Assistant Seismologist.

CORRELATION OF EARTHQUAKES

April, 1934.

.....

N O T E S

		Δ(km.)	O(G.M.T.)
A :	Shawinigan Falls	220	2 - 58.3
B :	Ottawa	(14,500)	22 - 14

Dominion Observatory,
Ottawa, Canada,
May 19, 1934.

EARTHQUAKE CORRELATION TABLE

April, 1934.

No.	Date	Ottawa	Shawinigan	Seven Falls		**
				W. A.	M. S.	
5267	2	23-33+0-04L	.....	.....	.....	..
5268	3	7-44+0-55u	.....	.....	7-48+0-54u	..
5269	3	9-26+0-36L	.....	.....	9-29+0-21L	..
5270	3	17-56+0-21u	.....	.....	.....	..
5271	6	5-33+0-03L	.....	.....	.....	..
	6	.....	.....	.....	19-34+0-46u	..
5272	7	2-28+0-09r	2-28+0-09r	2-29+0-07r	2-31+0-08r	..
5273	8	3-11+0-13L	.....	.....	3-14+0-12L	..
5274	9	15-52+1-19u	15-51+0-02P	.....	15-53+0-53u	..
5275	10	5-52+0-21u	.....	.....	5-55+0-17L	..
5276	10	11-04+1-11u	.....	.....	11-16+0-55u	..
5277	11	21-28+1-21u	.....	.....	21-41+0-48u	..
	13	.....	.....	.....	14-51+0-10L	..
5278	14	21-37+0-25r	21-37+0-16r	21-42+0-14r	21-43+0-06r	..
5279	15	2-59+0-.2v	2-59+0-04v	2-59+0-03v	.....	A
5280	15	22-36+2-29u	22-34+1-22u	22-34+1-04u	22-36+2-26u	B
	16	.....	.....	.....	14-36+0-08L	..
	17	.....	.....	.....	2-49+0-15L	..
5281	17	15-00+0-05r	14-59+0-10r	.....	.....	..
5282	18	12-37+0-10L	12-38+0-04L	.....	.....	..
5283	18	12-55+0-31u	.....	.....	13-03+0-12L	..
5284	19	19-10+0-06L	.....	.....	.....	..
	20	.....	.....	.....	15-22+0-07L	..
5285	22	12-01+0-06L	.....	.....	.....	..
	22	.....	14-54+0-04P	14-54+0-03P	.....	..
5286	24	4-28+0-11r	4-15+0-19r	4-30+0-01r	4-30+0-11r	..
5287	24	18-01+2-09u	.....	.....	18-02+2-03u	..
5288	26	6-02+1-23u	.....	.....	6-02+1-21u	..
5289	26	8-17+1-30u	.....	.....	8-33+1-19u	..
	26	.....	.....	.....	14-52+0-23L	..
5290	26	21-26+1-58u	.....	.....	21-26+2-12u	..
5291	27	21-07+2-11u	.....	.....	21-13+2-06u	..
5292	28	15-38+1-13u	.....	.....	.....	..
5293	28	19-05+0-23L	.....	.....	18-58+0-26L	..
5294	30	3-36+0-15L	.....	.....	3-35+0-12L	..
5295	30	8-57+0-09L	.....	.....	8-55+0-12L	..

CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY
OTTAWA

R. MELDRUM STEWART, *Director*

ERNEST A. HODGSON, *Seismologist*

W. W. DOXSEE, *Assistant Seismologist*

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

Lithologic foundation: boulder clay over limestone (Ordovician). Time: Mean Greenwich, midnight to midnight.
Time correction: within .25s.

AUXILIARY STATIONS

SASKATOON

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

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

HALIFAX

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

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. = 60m. 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. = 232m. ca.

Foundation: solid granite of Canadian Shield.
Time correction: from manually 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_o	r/T_o^2	V	ϵ	COMP.	DISPLACEMENT FOR 1" ARC TILT
I	5.6		120	2:1	NS	
II	8.0		120	15:1	EW	
17	12.0		250	20:1	EW	44 mm.
23	12.0		250	20:1	NS	43 mm.
W	6.1		160	7:1	Vert.	
HN	9.8		110	Aperiodic	NS	
HE	7.1		147	"	EW	
SN	9.0		61	"	NS	
SE	9.0		44?	"	EW	
SA	1.(		2200		NS	
SF	1.0		1750		EW	
SM	12.0		250		EW	44 mm.

DOM. OBS. No. 67

Req. 6041—5,000—5-33

OTTAWA, CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY

FROM May 1, 1934 to May 4, 1934 No. 12

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
5296 May 1	i	7 - 23 - 55		
	e_N	7 - 26 - 11		
	i_N	7 - 27 - 05		
	e	7 - 27 - 17		
	L	7 - 43		L waves of short period.
	F	8 - 41		
5297 May 2	e	10 - 01.0		
	eL	10 - 04		Short period L waves.
	F	10 - 33		
5298 May 3	e	1 - 55.5		
	e_E	2 - 03		
	L	2 - 18		
	F	3 - 24		
5299 May 4	e	0 - 55		
	eL	0 - 57		Same type as No. 5297.
	F	1 - 30		
5300 May 4	O	4 - 36.3	4680	USCGS. gives:
	iP	4 - 44 - 08		ϕ = 61° N.
	i_N	4 - 44 - 46		λ = 148° W.
	PR_1	4 - 45 - 42		
	PR_2	4 - 46 - 18		Halifax Record:
	PcS	4 - 49 - 46		O = (4-36.7)
	iS	4 - 50 - 27		Δ = 5470
	SR_1	4 - 53 - 22		iP = 4-45-24
	i_N	4 - 53 - 40		PR_1 = 4-47-38
	SR_2	4 - 55 - 52		iS = 4-52-32
	F	8 - 17		SR_1 = 4-56-24
				SR_2 = 4-57.5
				L = 5-01
				F = 6-12
				Saskatoon Record:
				O = 4-36.1
				Δ = 2730
				iP = 4-41-21
				iS = 4-45-40

OTTAWA, CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY

FROM May 4, 1934 to May 14, 1934 No. 13

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
5302	e_E	1 - 29.8		
May	eS ?	1 - 33 - 20		
5	e_E	1 - 37.0		
	eL	1 - 41		
	F	2 - 22		
5304	e	8 - 20		
May	eL ?	8 - 23.5		Short period irregular L waves.
6	F	8 - 43		
5307	e_N	17 - 23 - 51		
May	e_N	17 - 28 - 45		
11	e	17 - 32.5		
	eL ?	17 - 46		
	F	18 - 09		
5308	e	9 - 22 - 26		USCGS. gives:
May	e	9 - 27 - 44		ϕ = 5° S.
13	e	9 - 29 - 18		λ = 154° E.
	e	9 - 38 - 55		O = 9-01.9
	eL	9 - 53		
	F	11 - 30		
5309	e	13 - 26.5		USCGS. gives:
May	e	13 - 27.2		ϕ = 28° N.
14	e_E	13 - 29.8		λ = 113° W.
	eL	13 - 31		O = 13-15.0
	F	14 - 33		
5311	O	22 - 13.0	5070	USCGS. gives:
May	iP	22 - 21 - 15		ϕ = 59° N.
14	e_N	22 - 22 - 45		λ = 150° W.
	PR_1	22 - 23 - 04		
	iS	22 - 28 - 00		Saskatoon Record:
	S_cS	22 - 31 - 05		Δ = 3090 km.
	SR_1	22 - 31 - 26		O = 22-12.6
	e_N	22 - 33.0		eP = 22-18-23
	SR_3E	22 - 33 - 28		iS = 22-23-08
	L	22 - 35		
May 15	F	0 - 28		

OTTAWA, CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY

FROM May 14, 1934 to May 31, 1934 No. 14

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
5312 May 15	i	15 - 36 - 42		
	L	15 - 37 - 12		Irregular L waves of short period.
	F	16 - 13		
5314 May 19	O	10 - 47.8	3540	USCGS. gives: ϕ = 16° N. λ = 90° W.
	iP	10 - 54 - 12		
	iPR_2	10 - 55 - 32		
	iS	10 - 59 - 28		
	i_N	11 - 00 - 21		
	SR_2	11 - 01 - 37		
	L ?	11 - 04		
	F	11 - 36		
5315 May 21	e	10 - 21.8		
	eL	10 - 25		Sinusoidal L waves.
	F	10 - 53		
5317 May 22	e_E	11 - 12.4		USCGS. gives: ϕ = 0° λ = 30° W. O = 11-01.7
	e	11 - 20.0		
	eL	11 - 27		
	F	12 - 17		
5319 May 24	e	12 - 01 - 28		
	e_E?	12 - 04 - 24		
	eL	12 - 05		
	F	12 - 17		

W. W. Doxsee.

SEISMOLOGICAL BULLETINS RECEIVED

MAY, 1934.

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

STATIONS	BULLETINS	RECEIVED
Richmond	April, 1934	May 2
Pasadena	March, 1934	" 2
Zi-Ka-Wei	February 14 to March 5, 1934	" 7
Manila	February, 1934	" 7
Baku, Irkutsk, Kucino, Pulkovo, Sverdlovsk, Tachkent, Vladivostok	July to December, 1933	" 7
Chile	Year 1932	" 7
Lund	Years 1929 and 1930	" 8
Kobenhavn	October, 1931 to September, 1932	" 8
Chiufeng	March, 1934	" 8
Colaba	Year 1933	" 8
Nagoya	July to December, 1933	" 15
Tananarive	October and November, 1933	" 21
Zi-Ka-Wei	March 5 - 18th, 1934	" 22
Wellington	Preliminary for March, 1934	" 22
Melbourne	January, February and March, 1934	" 23
Pasadena	March 1 to April 23, 1933	" 23
Rome	April 9 - 30th, 1934	" 25
Paris, Bureau Central, Strasbourg	March, 1934	" 25
Zurich	April, 1934	" 28
Algiers	April, 1934	" 28
Georgetown	April, 1934 and Seismological Despatches	" 28
Balboa, Bozeman, Charlottesville, Chicago, Columbia, Honolulu, Huancayo, Montezuma, Pittsburg, San Juan, Seattle, Sitka, Technology, Tucson, Ukiah	July, August and September, 1933	" 30
Saint Louis	Preliminary bulletins for February 14, 24th, 1934	" 31

DOMINION OBSERVATORY
OTTAWA - CANADA

R. Meldrum Stewart,
Director.

Ernest A. Hodgson,
Seismologist.

W. W. Doxsee,
Assistant Seismologist.

CORRELATION OF EARTHQUAKES

May, 1934.

N O T E S

		Δ (km.)	O (G.M.T.)
A :	Ottawa	4680	4-36.3
	Shawinigan Falls	4650	4-36.4
	Seven Falls	4800	4-36.3
B :	Ottawa	5070	22-13.0
	Shawinigan Falls	5090	22-13.0
	—		
C :	Ottawa	3540	10-47.8
	Shawinigan Falls	3800	10-47.8
	Seven Falls	3810	10-47.9

E : Probably within 100 km. of the Shawinigan Falls station.

Dominion Observatory,

Ottawa, Canada,

June 11, 1934.

EARTHQUAKE CORRELATION TABLE

May, 1934.

No.	Date	Ottawa	Shawinigan	Seven Falls		**
				W. A.	M. S.	
5296	1	7-24+1-17r	7-24+0-09r	7-24+0-05r	7-43+1-05r	..
5297	2	10-01+0-32r	.....	.....	10-08+0-26r	..
5298	3	1-56+1-28u	.....	.....	1-56+1-36u	..
5299	4	0-55+0-35r	0-58+0-06r	0-58+0-02r	0-59+0-07r	..
5300	4	4-44+3-33R	4-44+1-23R	4-44+1-05R	4-44+3-53R	A
5301	4	11-28+0-08r	11-30+0-07r	11-29+0-04r	11-29+0-08r	..
5302	5	1-30+0-52r	.....	.....	1-34+0-40r	..
	5	.....	4-23+0-02P	.....	.....	..
5303	5	12-45+0-06r	12-46+0-08r	12-46+0-03r	12-46+0-06r	..
	5	.....	.....	.....	15-32+0-24L	..
5304	6	8-20+0-23r	8-22+0-17r	8-26+0-07r	8-26+0-22r	..
5305	8	20-14+0-33L	.....	.....	20-18+0-08L	..
5306	9	16-40+0-53L	.....	.....	16-36+1-00L	..
5307	11	17-24+0-45u	.....	.....	17-40+0-36L	..
5308	13	9-22+2-08u	9-22+0-02P	9-39+0-02P	9-23+1-55u	..
5309	13	20-00+0-07L	.....	.....	20-01+0-05L	..
5310	14	13-26+1-07r	13-30+0-18r	.....	14-10+0-16L	..
5311	14	22-21+2-07U	22-21+0-35U	.....	22-24+1-45U	B
5312	15	15-37+0-40r	15-38+0-06r	.....	15-38+0-27r	..
5313	15	23-51+0-06L	.....	.....	.....	..
5314	19	10-54+0-42r	10-54+0-21r	10-55+0-14r	10-55+0-33r	C
5315	21	10-22+0-31u	10-15+0-02P	10-15+0-01P	10-23+0-21u	..
5316	22	2-25+0-31L	.....	.....	2-25+0-37L	..
5317	22	11-12+1-05u	11-12+0-02P	11-12+0-01P	11-19+0-35u	..
5318	23	9-01+0-09L	.....	.....	9-04+0-07L	..
5319	24	12-02+0-15u	.....	.....	12-02+0-17u	..
5320	26	20-07+0-11L	.....	.....	.....	..
5321	26	22-54+0-21L	.....	.....	22-56+0-10L	..
5322	27	18-57+0-21L	.....	.....	18-24+0-04L	..
5323	28	23-30+0-36r	23-30+0-19r	.....	23-42+0-07r	..
5324	30	12-12+0-32L	.....	.....	12-18+0-20L	..
	30	.....	12-32+0-0.5d	12-32+0-0.3d	.....	E

CANADA

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OTTAWA

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

Lithologic foundation: boulder clay over limestone (Ordovician). Time: Mean Greenwich, midnight to midnight.
Time correction: within .25s.

AUXILIARY STATIONS

SASKATOON

$\varphi = 52°\ 08'$ N. $\lambda = 106°\ \frac{30'}{38'}$ W. h. = 515m.

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

HALIFAX

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

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. = 60m. ca.

Foundation: solid granite of Canadian Shield.
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SEVEN FALLS

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INSTRUMENTS—FIXED CONSTANTS

STATION	INSTRUMENT	SYMBOL	REGISTRATION	DAMPING	PAPER SPEED	MASS
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INSTRUMENTS—DETERMINED CONSTANTS

INSTRUMENT	T_o	r/T_o^2	V	ϵ	COMP.	DISPLACEMENT FOR 1" ARC TILT
	5.6		120	2:1	NS	
I	8.0		120	15:1	EW	
II	12.0		250	20:1	EW	44 mm.
17	12.0		250	20:1	NS	43 mm.
23	6.1		160	7:1	Vert.	
W	9.8		110	Aperiodic	NS	
HN	7.1		147	"	EW	
HE	9.0		61	"	NS	
SN	9.0		44?	"	EW	
SE	1.0		2200		NS	
SA	1.0		1750		EW	
SF	12.0		250		EW	
SM						44 mm.

DOM. OBS. No. 67

Req. 6041—5,000—5-33

OTTAWA, CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY

FROM June 1, 1934 to June 13, 1934 No. 15

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
5326 June 2	O	13 - 42.8	4000	
	eP	13 - 49 - 48		
	PR_2	13 - 51 - 18		
	eS	13 - 55 - 32		
	SR_2	13 - 58.0		
	eL	13 - 59		
	F	15 - 21		
5327 June 2	e	16 - 50.4		
	e	16 - 55.4		
	eL	16 - 59		
	F	17 - 47		
5328 June 2	e_E	21 - 16.4		
	e	21 - 24.3		
	eL	21 - 29		
	F	22 - 06		
5336 June 8	e_N?	4 - 57.3		
	e	5 - 03.3		
	eL	5 - 05		
	F	6 - 31		
5338 June 9	i	13 - 19 - 28		
	e	13 - 29 - 28		
	e	13 - 37 - 02		
	eL ?	13 - 54		
	F	15 - 52		
5340 June 12	O	9 - 32.5	3820	
	eP	9 - 39 - 15		
	eS	9 - 44 - 48		
	eSR_{1E}	9 - 47.2		
	eL	9 - 50		
	F	10 - 29		
5341 June 13	O	1 - 51.1	8930	USCGS. gives:
	eP	2 - 03 - 13		ϕ = 44° N.
	iS	2 - 13 - 18		λ = 147° E.
	SR_{2N}	2 - 23.1		
	eL	2 - 30		
	F	3 - 43		

OTTAWA, CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY

FROM June 13, 1934 to June 24, 1934 No. 16

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
5343	e	22 - 24 - 02		
June	e	22 - 27.8		
13	i	22 - 34 - 25		
	e	22 - 35 - 20		
	e	22 - 36 - 28		
	e_N	22 - 41.2		
	eL	22 - 58		
	F	1 - 17		
5347	e_N	6 - 38.7		
June	e_E	6 - 41.8		
15	e_N	6 - 42.2		
	eL	6 - 43		
	F	7 - 25		
5352	O	9 - 13.9	4890	Saskatoon Record:
June	eP	9 - 22 - 02		eP = 9-19-14
18	PR_2	9 - 24.0		eS = 9-23-42
	iS	9 - 28 - 37		O = 9-13.8
	SR_1	9 - 31 - 48		Δ = 2860
	eL	9 - 35		
	F	10 - 36		
5353	PR_1	18 - 42.3		USCGS. gives:
June	e_N	18 - 46 - 28		φ = 19° N.
22	S	18 - 46 - 44		λ = 105° W.
	SR_{1E}	18 - 49.2		
	eL ?	18 - 51		
	F	19 - 40		
5355	e	1 - 57 - 18		
June	e	2 - 01 - 00		
24	eL	2 - 10		
	F	3 - 09		
5356	O	5 - 59.6	7470	Saskatoon Record:
June	iP_N	6 - 10 - 26		eP = 6-11-45
24	P_cP_N	6 - 11 - 04		eS = 6-21-45
	iS_E	6 - 19 - 20		O = 5-59.7
	iPPPS	6 - 20 - 06		Δ = 8830
	iS_cS_E	6 - 21 - 02		
	e	6 - 23.3		Halifax Record:
	SR_{2E}	6 - 26 - 44		eP = 6-10-25
	eL	6 - 32		iS = 6-19-13
	F	9 - 09		O = 5-59.7
				Δ = 7370

OTTAWA, CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY

FROM June 24, 1934 to June 30, 1934 No. 17

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
5357 June 24	i	14 - 20 - 12		Preliminary phases lost while changing records.
	eL	14 - 24		
	F	14 - 50		
5362 June 29	e	8 - 43 - 27		
	i	8 - 46 - 01		
	eE	8 - 46 - 24		
	i	8 - 47 - 03		
	e	8 - 49.5		
	L	9 - 00		
	F	10 - 12		
5365 June 30	e	13 - 28 - 16		
	eE	13 - 36 - 24		
	eL	13 - 40		L irregular and of small amplitude.
	F	14 - 06		

W. W. Doxsee

SEISMOLOGICAL BULLETINS RECEIVED

June,

1934.

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

STATION	BULLETINS	RECEIVED
Manila	March, 1934	June 5
Peichiko	January to March, 1934	" 6
Rome	April 30 to May 20, 1934	" 8
Fordham	April and May, 1934	" 11
Sydney	February, 1934	" 11
Zi-Ka-Wei	March 24 to April 13, 1934	" 11
Riverview	March and April, 1934	" 11
Pasadena	April, 1934	" 12
Chiufeng	April, 1934	" 12
St. Louis	Preliminaries for March 1; 5; 7 and 12, 1934	" 12
Bureau Central, Paris, Strasbourg	April, 1934	" 12
Toledo, Cartuja, Almeria, Alicante, Malaga	March and April, 1933	" 13
Stuttgart	Year 1933	" 14
Oosaka	January to March, 1933 and March 2 to May 14, 1934	" 18
Trieste	Year 1933	" 18
Firenze	October to December, 1933	" 18
Frankfurt	January 7, 1933 to March 5, 1934	" 19
Wellington	April, 1934	" 19
Pasadena	April and May, 1933	" 20
Georgetown	May, 1934 and Seismological Despatches	" 22
Richmond	May, 1934	" 22
Zagreb	July to September, 1933	" 22
San Fernando	March and April, 1934	" 23
Toronto	April and May, 1934	" 23
Rome	May 21 to June 3, 1934	" 23
Pasadena	June, 1933	" 26

DOMINION OBSERVATORY
OTTAWA - CANADA.

R. Meldrum Stewart,
Director.

Ernest A. Hodgson,
Seismologist.

W. W. Doxsee,
Assistant Seismologist.

CORRELATION OF EARTHQUAKES

June, 1934.

.....

N O T E S

		Δ (km.)	O (G.M.T.)
A :	Ottawa	4000	13-42.7
	Shawinigan Falls	3890	13-42.6
	Seven Falls	3940	13-42.5
B :	Ottawa	3820	9-32.5
	Seven Falls	4040	9-32.7
C :	Ottawa	8930	1-51.1
	Shawinigan Falls	9040	1-51.0
	Seven Falls	8780	1-51.3
E :	Ottawa	4890	9-14.0
	Shawinigan Falls	4940	9-14.0
	Seven Falls	5010	9-14.0
F :	Ottawa	7470	5-59.6
	Shawinigan Falls	7465	5-59.7
G :	Recorded at Ottawa only.		

Dominion Observatory,

Ottawa, Canada,

July 18, 1934.

EARTHQUAKE CORRELATION TABLE

June, 1934.

No.	Date	Ottawa	Shawinigan	Seven Falls		**
				W. A.	M. S.	
5361	28	1-49+0-58L	.....	.....	2-04+0-24L	..
5362	29	8-43+1-29r	.....	.....	8-46+1-18r	..
5363	30	10-45+0-10L	.....	.....	10-44+0-05L	..
5364	30	12-26+0-09L	.....	.....	12-25+0-05L	..
5365	30	13-28+0-38r	.....	.....	.....	..
5366	30	20-36+0-10L	.....	.....	20-41+0-08L	..

EARTHQUAKE CORRELATION TABLE

June, 1934.

No.	Date	Ottawa	Shawinigan	Seven Falls		**
				W. A.	M. S.	
	1	.....	16-51+0-03P	16-52+0-02P	.....	..
	1	.....	22-52+0-01P	.....	.....	..
5325	2	6-19+0-55u	.....	.....	6-20+0-53u	..
5326	2	13-50+1-31r	13-50+0-39r	13-50+0-23r	13-53+1-35r	A
5327	2	16-50+0-57r	16-53+0-23r	16-56+0-19r	17-01+0-37r	..
5328	2	21-16+0-50u	.....	.....	21-16+0-42u	..
5329	3	21-59+0-49L	.....	.....	22-04+0-13L	..
5330	5	22-09+0-10L	.....	.....	22-10+0-04L	..
5331	6	3-54+1-15u	.....	.....	4-02+1-43u	..
5332	6	7-02+0-42u	.....	.....	7-07+0-47u	..
5333	6	11-17+0-36L	.....	.....	11-03+0-07L	..
5334	6	21-32+0-16L	.....	.....	21-36+0-08L	..
5335	8	4-48+0-09+L	.....	.....	4-51+0-08+L	..
5336	8	4-57+1-36r	5-04+0-17r	5-04+0-15r	5-01+1-14r	..
5337	8	19-12+0-28L	.....	.....	19-28+0-11L	..
5338	9	13-19+2-33u	13-20+0-04P	.....	13-20+2-04u	..
5339	10	20-30+0-41L	.....	.....	20-44+0-06L	..
5340	12	9-39+0-50r	9-39+0-07r	.....	9-39+0-40r	B
5341	13	2-03+1-40u	2-03+0-31u	.....	2-03+1-24u	C
5342	13	19-50+0-22L	.....	.....	.....	..
5343	13	22-24+2-53u	22-25+0-48u	22-34+0-17u	22-24+1-48u	..
5344	14	19-32+0-19L	.....	.....	.....	..
5345	14	21-48+0-18L	.....	.....	21-54+0-05L	..
5346	15	3-25+1-03L	.....	.....	.....	..
5347	15	6-39+0-46r	6-38+0-17r	6-40+0-11r	6-44+0-17r	..
5348	15	20-06+0-10L	.....	.....	.....	..
5349	16	19-18+0-23L	.....	.....	19-24+0-12L	..
5350	17	5-33+0-24L	.....	.....	5-33+0-19L	..
5351	17	14-29+1-01u	.....	.....	14-33+0-43u	..
5352	18	9-22+1-14R	9-22+0-32R	9-22+0-26R	9-22+1-22R	E
5353	22	18-42+0-58r	18-54+0-05L	.....	18-44+0-53r	..
5354	23	6-00+0-58L	.....	.....	6-05+0-31L	..
5355	24	1-57+1-12u	.....	.....	1-59+1-17uT	..
5356	24	6-10+2-59u	6-10+0-29u	6-10+0-13uT	6-13+2-24uT	F
5357	24	14-20+0-30u	.....	.....	14-19+0-24u	..
5358	24	17-28+0-12L	.....	.....	17-35+0-05L	..
5359	25	11-45+0-28L	.....	.....	11-58+0-17L	..
					12-06+0-09L	..
5360	27	12-11.4+0-0.2d	.....	.....	.....	C

CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY
OTTAWA

R. MELDRUM STEWART, *Director*

ERNEST A. HODGSON, *Seismologist*

W. W. DOXSEE, *Assistant Seismologist*

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

Lithologic foundation: boulder clay over limestone (Ordovician). Time: Mean Greenwich, midnight to midnight.
Time correction: within .25s.

AUXILIARY STATIONS

SASKATOON

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

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

HALIFAX

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

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. = 60m. 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. = 232m. ca.

Foundation: solid granite of Canadian Shield.
Time correction: from manually 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_o	r/T_o^2	V	ϵ	COMP.	DISPLACEMENT FOR 1" ARC TILT
I	5.6		120	2:1	NS	
II	8.0		120	15:1	EW	
17	12.0		250	20:1	EW	44 mm.
23	12.0		250	20:1	NS	43 mm.
W	6.1		160	7:1	Vert.	
HN	9.8		110	Aperiodic	NS	
HE	7.1		147	"	EW	
SN	9.0		61	"	NS	
SE	9.0		44?	"	EW	
SA	1.0		2200		NS	
SF	1.0		1750		EW	
SM	12.0		250		EW	44 mm.

DOM. OBS. No. 67

Req. 6041—5,000—5-33

OTTAWA, CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY

FROM July 1, 1934 to July 18, 1934 No. 18

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
	N. B.	Beginning with this issue, the interpretations are based on the revised Macelwane Tables of November, 1933.		
5368 July 4	e	2 - 01 - 08		
	e_N	2 - 07 - 22		
	e	2 - 10.0		
	eL ?	2 - 31		
	F	3 - 45		
5370 July 6 and 7	H	22 - 49.2	3790	Halifax Record: H = 22-49.1 Δ = 4845 km. eP = 22-57-10 eS = 23-03-46 Saskatoon Record: H = 22-49.2 Δ = 1655 km. eP = 22-52-43 eS = 22-55-37
	iP	22 - 56 - 00		
	PR_{1E}	22 - 57 - 16		
	iS	23 - 01 - 34		
	e_N	23 - 04.0		
	iL	23 - 06 - 26		
	F	2 - 37		
5372 July 10	e ?	1 - 07.9		USCGS. gives: φ = 19° N. λ = 80° W. H = 1-02.1
	eS	1 - 12 - 18		
	eL	1 - 15		
	F	2 - 07		
5382 July 16	H	8 - 19	3720	All times uncertain due to temporary failure of minute signals.
	eP	8 - 26.0		
	eS	8 - 31.5		
	SR_{2E}	8 - 35.5		
	eL	8 - 36.5		
	F	9 - 45		
5385 July 18	H	1 - 36.5	4135	Halifax Record: H = 1-36.4 Δ = 4500 km. eP = 1-44-03 PR_1 = 1-45-36 iS = 1-50-20 Saskatoon Record: H = 1-36.8 eP = 1-45-30 eS = 1-52-37 Δ = 5400 km.
	iP	1 - 43 - 40		
	PR_2	1 - 45 - 16		
	iS	1 - 49 - 36		
	i_E	1 - 50 - 16		
	SR_2	1 - 52 - 24		
	L	1 - 54.4		
	F	4 - 08+		

OTTAWA, CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY

FROM July 18, 1934 to July 19, 1934 No. 19

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
5386 July 18	H	4 - 00.8	4045	
	iP_N	4 - 07 - 54		
	PR_{1E}	4 - 09 - 08		
	PR_2	4 - 09 - 22		
	iS	4 - 13 - 44		
	SR_2	4 - 16 - 44		
	eL	4 - 19.4		
	F	6 - 42+		
5387 July 18	H	6 - 35.3	4380	
	eP_N	6 - 42 - 49		
	PR_1	6 - 44 - 18		
	eS_N	6 - 49.0		
	L	6 - 55		
	F	7 - 30		
5390 July 18	e_N	16 - 17.2		
	e	16 - 18.6		
	e	16 - 23.0		
	eL	16 - 29		
	F	17 - 07+		
5391 July 18	H	16 - 59.5	4310	Halifax Record: H = 16-59.5
	iP	17 - 06 - 58		Δ = 4780 km.
	PR_2	17 - 08 - 30		eP = 17-07-28
	iS	17 - 13 - 05		iS = 17-14-00
	SR_1	17 - 15 - 34		SR_1 = 17-17-00
	SR_{2E}	17 - 16 - 00		
	i	17 - 17 - 02		
	L	17 - 18.7		
	F	20 - 00+		
5392 July 18	e	20 - 00		USCGS. gives:
	i	20 - 10 - 16		ϕ = 14° S.
	i	20 - 17 - 18		λ = 167° E.
	i_E	20 - 20 - 14		H = 19-40.0
	i_N	20 - 28 - 30		
	i	20 - 35 - 08		
	iL_E	20 - 37 - 26		
	iL_N	20 - 38 - 10		
	F	23 - 39+		
5394 July 19	e	0 - 28.5		
	e	0 - 30 - 20		
	e_E	0 - 36.6		
	e_E	0 - 43.8		
	eL ?	1 - 00		
	F	1 - 48+		

OTTAWA, CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY

FROM July 19, 1934 to July 21, 1934 No. 20

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
5395 July 19	e_Z	1 - 46.6		
	e	1 - 48 - 40		
	e_N	1 - 58 - 44		
	e	2 - 06.4		
	eL	2 - 23		
	F	5 - 12+		
5397 July 19	e_E	6 - 11.2		
	e	6 - 15.1		
	e	6 - 22.2		
	eL	6 - 37		
	F	7 - 57+		
5398 July 19	e_E	7 - 57.3		
	e	8 - 02 - 44		
	e_E	8 - 06.5		
	eL?	8 - 26		
	F	11 - 20		
5406 July 20	e	2 - 17		
	e	2 - 29.1		
	eL	2 - 40		
	F	3 - 35		
5412 July 20	e_E	18 - 35.4		
	e_E	18 - 39.8		
	e_E	18 - 46.9		
	L	19 - 08		
	F	21 - 42		
5414 July 21	e	6 - 38.2		USCGS. gives:
	i	6 - 48 - 38		ϕ = 20° S.
	e_N	6 - 54 - 44		λ = 167° E.
	i_E	6 - 55 - 11		H = 6-17.9
	e	7 - 07.0		
	eL	7 - 12		
	F	10 - 46+		
5415 July 21	H	10 - 39.3	4065	Halifax Record:
	iP	10 - 46 - 24		H = 10-39.1
	PR_2	10 - 48 - 00		Δ = 4545 km.
	iS	10 - 52 - 16		eP = 10-46-50
	SR_{1E}	10 - 54 - 26		PR_1 = 10-48-23
	SR_2	10 - 55 - 12		S = 10-53-10
	iL	10 - 57 - 28		Saskatoon Record:
	F	13 - 19+		H = 10-39.1
				Δ = 5555 km.
				eP = 10-48-00
				PR_1 = 10-50.0
				iS = 10-55-16

OTTAWA, CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY

FROM July 21, 1934 to July 31, 1934 No. 27.

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
5416 July 21	e_E	13 - 24		Early phases lost in changing of records.
	e_N	13 - 28		
	eL	13 - 35		
	F	14 - 41		
5419 July 22	e	3 - 23.6		
	e	3 - 27.7		
	e_E	3 - 34.7		
	eL	3 - 51		
	F	5 - 46		
5420 July 22	e	20 - 10 - 50		
	e	20 - 19 - 50		
	e_E	20 - 22 - 16		
	L	20 - 40		
	F	21 - 26		
5422 July 23	e	18 - 38 - 06		
	eL	18 - 44		
	F	19 - 35		
5423 July 24	e	2 - 56.3		
	eL	3 - 01		
	F	3 - 35		
5426 July 27	H	2 - 26.1	3445	
	eP	2 - 32 - 24		
	PR_2	2 - 33 - 46		
	S	2 - 37 - 36		
	L	2 - 44		
	F	3 - 15		
5429 July 28	e_N	2 - 30		
	eL	2 - 53		
	F	3 - 29		
5430 July 28	e_E	16 - 12		
	e_E	16 - 16 - 28		
	eL	16 - 21		
	F	17 - 11		
5431 July 28 and 29	H	21 - 37.2	5380	Saskatoon Record: H = (21-37.4) Δ = 3140 km. P = (21-43-22) S = (21-48-15)
	eP	21 - 45 - 51		
	iS	21 - 52 - 57		
	i	21 - 55 - 38		
	SR_{2N}	21 - 59 - 38		
	iL	22 - 03 - 28		
	F	1 - 45		
5436 July 31	e_N	12 - 11.8		
	e	12 - 18.0		
	eL	12 - 46		
	F	13 - 20		

W. LeO. Gorman

SEISMOLOGICAL BULLETINS RECEIVED

July,

1934.

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

STATION	BULLETINS	RECEIVED
Algiers	May, 1934	July 3
Manila	April, 1934	" 3
Tokyo	October to December, 1933	" 3
Hukuoka	January to December, 1933	" 3
Zi-Ka-Wei	April 15 - 24th, 1934	" 3
Rome	June 4 - 17th, 1934	" 6
Zurich	May, 1934	" 6
Nagasaki	September 21/33 to May 6/34	" 10
Pasadena	May, 1934	" 10
Georgetown	June, 1934 and Seismological Despatches	" 12
Bureau Central) Paris) Strasbourg)	May, 1934	" 13
Helwan	February, 1934	" 13
Zinsen	January to April, 1934	" 16
Kobe	April, 1933 to June, 1933	" 16
Perth	March and April, 1934	" 17
Riverview	Provisional for May, 1934	" 17
Rome	June 18 to July 1, 1934	" 18
Sydney	March and April, 1934	" 18
Helwan	March, 1934	" 18
Wellington	Preliminary for May, 1934	" 19
Göttingen	October to December, 1933	" 19
Chiufeng	May, 1934	" 19
St. Louis	Preliminaries for March 12; 18; 24; April 15; May 4; 1934	" 20
Denver	October/33 to March/34	" 20
Richmond	June, 1934	" 23
St. Louis	Preliminaries for May 14; 19; 22; June 2; 13; 1934	" 23
Zi-Ka-Wei	April 26 to May 21, 1934	" 24
Upsala	Years 1932 and 1933	" 26
Quito	March and April, 1934	" 26
St. Louis	Preliminaries for June 18; 22; 24; July 6; 16; 1934	" 28
Little Rock	November and December, 1933	" 28

DOMINION OBSERVATORY
OTTAWA - CANADA

R. Meldrum Stewart,
Director.

Ernest A. Hodgson,
Seismologist.

W. W. Doxsee,
Assistant Seismologist.

EARTHQUAKE CORRELATION TABLE

July, 1934.

No.	Date	Ottawa	Shawinigan	Seven Falls		**
				W. A.	M. S.	
5405	19	23-54+0-46L	.....	.....	23-59+0-35L	..
5406	20	2-17+1-18u	2-17+0-06P	2-17+0-05P	2-17+1-47u	..
5407	20	4-50+0-44L	.....	.....	4-58+0-30L	..
5408	20	9-01+0-17L	.....	.....	.....	..
5409	20	12-03+0-07L	.....	.....	.....	..
5410	20	14-02+0-50L	.....	.....	14-06+0-38L	..
5411	20	17-48+0-43L	.....	.....	17-51+0-43L	..
5412	20	18-36+3-06u	.....	.....	18-36+2-56u	..
5413	21	1-01+0-17L	.....	.....	1-03+0-15L	..
5414	21	6-38+4-08U	6-38+2-20U	6-38+2-21U	6-38+4-08U	..
5415	21	10-46+2-33R	10-46+1-07R	10-46+1-10R	10-46+2-45R	K
5416	21	13-24+1-17u	.....	.....	13-37+1-01u	..
5417	21	19-38+0-13L	.....	.....	19-43+0-14L	..
5418	21	21-10+0-36L	.....	.....	21-10+0-38L	..
5419	22	3-24+2-22u	2-10+0-06P	.....	3-24+2-18u	..
5420	22	20-11+1-15u	.....	.....	20-11+1-06u	..
5421	23	13-56+0-36L	.....	.....	13-58+0-18L	..
5422	23	18-38+0-57u	.....	.....	18-38+0-41u	..
5423	24	2-56+0-39u	.....	.....	2-56+0-40u	..
5424	24	14-45+0-30L	.....	.....	15-04+0-09L	..
5425	25	11-30+0-20L	.....	.....	11-24+0-19L	..
5426	27	2-32+0-43r	2-33+0-20r	2-33+0-16r	2-33+0-54r	M
5427	27	12-55+1-57L	.....	.....	13-03+1-19L	..
5428	27	17-01+0-28L	.....	.....	17-02+0-18L	..
5429	28	2-30+0-59L	.....	.....	2-58+0-16L	..
5430	28	16-12+0-59u	.....	.....	16-16+0-46u	..
5431	28	21-46+4-00U	21-46+1-09U	21-46+1-04U	21-46+3-54U	N
5432	29	15-58+0-10L	.....	.....	.....	..
5433	30	2-28+1-05L	.....	.....	2-27+0-55L	..
5434	30	4-19+0-53L	.....	.....	4-45+0-06L	..
5435	31	6-35+1-00u	.....	.....	6-35+0-41u	..
5436	31	12-12+1-08u	.....	.....	12-24+1-06u	..
5437	31	15-44+0-10L	.....	.....	15-38+0-13L	..

CORRELATION OF EARTHQUAKES

July, 1934.

N O T E S

		Δ (km.)	H (G.M.T.)
A :	Ottawa	3790	22-49.2
	Shawinigan Falls	4135	22-49.0
	Seven Falls	4200	22-49.1
B :	May not be seismic		
C :	Ottawa	3720	8-19.3
	Seven Falls	4300	8-19.1
E :	Ottawa	4135	1-36.5
	Shawinigan Falls	4440	1-36.3
	Seven Falls	4730	1-36.4
F :	Ottawa	4045	4-00.8
G :	Ottawa	4380	6-35.3
I :	Ottawa	4310	16-59.5
	Shawinigan Falls	4310	16-59.8
	Seven Falls	4460	16-59.6
J :	Shawinigan Falls	380	19-15.5
K :	Ottawa	4065	10-39.3
	Shawinigan Falls	4300	10-39.2
	Seven Falls	4480	10-39.2
M :	Ottawa	3445	2-26.0
	Seven Falls	3780	2-26.1
N :	Ottawa	5380	21-37.2
	Shawinigan Falls	5470	21-37.1
	Seven Falls	5520	21-37.1

Dominion Observatory,
Ottawa, Canada,
August 28, 1934.

EARTHQUAKE CORRELATION TABLE

July, 1934.

No.	Date	Ottawa	Shawinigan	Seven Falls		**
				W. A.	M. S.	
5367	1	20-40+0-30	.....	.....	.....	..
5368	4	2-01+1-44u	.....	.....	2-12+1-50u	..
5369	4	17-31+0-12L	.....	.....	17-34+0-10L	..
5370	6	22-56+3-41R	22-56+1-20R	22-56+1-06R	22-56+3-39R	A
5371	7	6-02+0-06L	.....	.....	.....	..
5372	10	1-08+1-00r	1-08+0-17r	.....	1-13+1-07r	..
5373	10	3-24+0-20L	.....	.....	3-26+0-23L	..
5374	10	19-58+0-03L	.....	.....	.....	B
5375	10	22-12+0-35L	.....	.....	22-12+0-33L	..
5376	12	10-15+0-47u	.....	.....	10-37+0-33L	..
5377	12	11-29+0-43L	.....	.....	11-34+0-42L	..
5378	12	15-49+0-37L	14-44+0-01P	14-44+0-02P	15-46+0-36L	..
5379	13	10-41+0-25L	.....	.....	10-44+0-17L	..
5380	13	11-38+0-26L	.....	.....	.....	..
5381	13	12-51+0-11L	.....	.....	12-55+0-13L	..
5382	16	8-26+1-19r	8-26+0-24r	.....	8-26+1-16r	C
5383	17	18-24+0-19L	.....	.....	18-26+0-16L	..
5384	17	20-23+0-13L	.....	.....	.....	..
5385	18	1-44+2-24+R	1-44+1-50R	1-44+1-37R	1-44+2-25+R	E
5386	18	4-08+2-34R	4-08+0-50R	4-08+0-46R	4-08+2-43R	F
5387	18	6-43+0-47r	.....	.....	6-52+0-36r	G
5388	18	11-54+0-16L	.....	.....	11-56+0-18L	..
5389	18	14-03+1-19L	.....	.....	14-05+1-11L	..
5390	18	16-17+0-50u	.....	.....	16-23+0-42u	..
5391	18	17-07+2-53R	17-07+1-04R	17-07+1-05R	17-07+2-54R	I
5392	18	20-00+3-39U	20-00+2-32U	20-00+2-18U	20-00+4-32U	..
5393	18	23-33+0-55L	.....	.....	.....	..
5394	19	0-29+1-19u	.....	.....	0-34+1-34u	..
5395	19	1-47+3-25u	1-47+1-20u	1-47+1-16u	2-08+3-37u	..
5396	19	5-53+0-22L	.....	.....	5-53+0-24L	..
5397	19	6-11+1-46u	.....	6-59+0-05L	6-17+1-42u	..
5398	19	7-57+3-23u	8-37+0-37L	8-42+0-14L	7-59+3-18u	..
5399	19	11-50+0-20L	.....	.....	12-02+0-13L	..
5400	19	13-00+0-46L	.....	.....	13-06+0-31L	..
5401	19	15-04+0-56L	.....	.....	15-29+0-21L	..
5402	19	16-44+0-16L	.....	.....	.....	..
5403	19	18-18+0-29L	.....	.....	.....	..
		.....	19-16+0-04d	.....	.....	J
5404	19	19-56+0-42L	.....	.....	.....	..

CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY
OTTAWA

R. MELDRUM STEWART, *Director*

ERNEST A. HODGSON, *Seismologist*

W. W. DOXSEE, *Assistant Seismologist*

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

Lithologic foundation: boulder clay over limestone (Ordovician). Time: Mean Greenwich, midnight to midnight.
Time correction: within .25s.

AUXILIARY STATIONS

SASKATOON

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

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

HALIFAX

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

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. = 60m. 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. = 232m. ca.

Foundation: solid granite of Canadian Shield.
Time correction: from manually 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_o	r/T_o^2	V	ϵ	COMP.	DISPLACEMENT FOR 1" ARC TILT
I	5.6		120	2:1	NS	
II	8.0		120	15:1	EW	
17	12.0		250	20:1	EW	44 mm.
23	12.0		250	20:1	NS	43 mm.
W	6.1		160	7:1	Vert.	
HN	9.8		110	Aperiodic	NS	
HE	7.1		147	"	EW	
SN	9.0		61	"	NS	
SE	9.0		44?	"	EW	
SA	1.0		2200		NS	
SF	1.0		1750		EW	
SM	12.0		250		EW	44 mm.

DOM. OBS. No. 67

Req. 6041—5,000—5-33

OTTAWA, CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY

FROM August 1, 1934 to August 11, 1934 No. 22

NO AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
5438 Aug. 2	H	7 - 13.4	4620	
	eP	7 - 21 - 14		
	PR_2	7 - 23 - 06		
	S	7 - 27 - 38		
	SR_2	7 - 31.0		
	eL	7 - 33		
	F	8 - 36		
5442 Aug. 3	e_N	19 - 38.5		
	e_E	19 - 43		
	eL_E	19 - 46		
	F	20 - 27		
5443 Aug. 4	e	13 - 40.6		
	e	13 - 46.0		
	eL	14 - 03		
	F	15 - 26		
5446 Aug. 6	H	12 - 07.5	4440	
	eP_N	12 - 15 - 06		
	iS	12 - 21 - 20		
	SR_{2E}	12 - 24.6		
	eL	12 - 28		
	F	13 - 08		
5447 Aug. 7	H	3 - 39	14000	USCGS. gives:-
	PR_{1E}	4 - 00 - 04		
	ScP_cS	4 - 05 - 40		ϕ = 14° S.
	PS	4 - 10 - 20		λ = 167° E.
	SR_1	4 - 17 - 04		H = 3-40
	eL_N?	4 - 30		
	F	7 - 04		
5455 Aug. 11	e	8 - 43		
	e_E	8 - 53		
	eL	9 - 07		
	F	10 - 25		
5456 Aug. 11	e	12 - 18.5		
	e	12 - 26 - 27		
	e	12 - 35 - 05		
	eL ?	12 - 39		
	F	13 - 25		

OTTAWA, CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY

FROM August 12, 1934 to August 26, 1934 No. 23

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
5458 Aug. 13	e	0 - 10 - 04		
	e	0 - 20.0		
	e	0 - 26 - 37		
	eL	0 - 40		
	F	2 - 30		
5461 Aug. 14	e_E	9 - 09.0		
	e_E	9 - 18.7		
	F	10 - 29		
5462 Aug. 15	H	11 - 04.4	3720	
	eP_N	11 - 11 - 08		
	eS	11 - 16 - 38		
	eL	11 - 22		
	F	12 - 17		
5463 Aug. 16	e_N	14 - 43.5		
	e	14 - 46.0		
	e_N	14 - 49.8		
	eL	14 - 58		
	F	15 - 32		
5468 Aug. 20	e_N	0 - 53 - 29		
	e_E	0 - 53 - 51		
	eL	0 - 54 - 08		
	F	1 - 00		
5472 Aug. 21	e	19 - 55		
	e	20 - 06		
	eL	20 - 29		
	F	21 - 48		
5473 Aug. 23 24	e_E	23 - 56		
	e_E	0 - 07.5		
	e	0 - 18		
	eL	0 - 27		
	F	2 - 28		
5474 Aug. 26	H	1 - 32.1	3500	
	eP_E	1 - 38 - 35		
	eS	1 - 43 - 50		
	eL	1 - 47		
	F	2 - 45		

OTTAWA, CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY

FROM August 27, 1934 to August 31, 1934 No. 24

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
5475 Aug. 28	e_z	11 - 30 - 10		
	e	11 - 36.0		
	L	11 - 43		
	F	12 - 20		
5478 Aug. 31	H	5 - 02.9	2940	Halifax Record:-
	iP	5 - 08 - 35		Δ = 3100
	PR_1	5 - 09 - 14		eP = 5-08-47
	eS	5 - 13 - 14		eS = 5-13-38
	SR_1	5 - 14 - 30		H = 5-02.9
	iL	5 - 15 - 30		Saskatoon Record:-
	F	7 - 52		Δ = 2900
				eP = (5-08-48)
				eS = (5-13-24)
				H = (5-03.2)
5479 Aug. 31	e	15 - 21.3		
	eL	15 - 37		
	F	16 - 42		

W. W Doxsee

SEISMOLOGICAL BULLETINS RECEIVED

August,

1934.

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

STATIONS	BULLETINS	RECEIVED	
Richmond	July, 1934	August	1
Uccle	January 1 to May 5, 1934	"	2
St. Louis	December 2/33 to February 28/34	"	4
Little Rock	January to March, 1934	"	4
Florissant	February, 1934	"	4
Zurich	June, 1934	"	4
Chiufeng	June, 1934	"	4
La Plata	November /33 to June/34	"	4
Toledo, Cartuja, Alicante, Almeria, Malaga	May and June, 1934	"	4
Manila	May, 1934	"	4
Rome	July 5 - 15, 1934	"	4
Algiers	June, 1934	"	7
San Fernando	May and June, 1934	"	8
Tyosi	Year 1933	"	9
Riverview	June, 1934	"	10
Wellington	Preliminary for June, 1934	"	13
Perth	April 26 to June 15, 1934	"	15
Paris, Strasbourg, Bureau Central	June, 1934	"	15
Cartuja	April, May and June, 1933	"	16
Cape Town	March and April, 1934	"	17
Rome	July 16 - 29, 1934	"	18
St. Louis	Preliminaries for July 18; 21/34	"	20
Pasadena	June, 1934	"	20
Georgetown	July, 1934 and Seismological Despatches	"	20
Toronto	June and July, 1934	"	22
Zi-Ka-Wei	June 6 - 23, 1934	"	27
St. Louis	Preliminaries for July 28; August 7 and 12th, 1934	"	28
Florissant	March, April and May, 1934	"	28
Little Rock	April, May and June 2nd/34	"	28
Helwan	April, 1934	"	28
Zurich	July, 1934	"	29
Algiers	July, 1934	"	30

DOMINION OBSERVATORY,
OTTAWA - CANADA.

R. Meldrum Stewart,
Director.

Ernest A. Hodgson,
Seismologist.

W. W. Doxsee,
Assistant Seismologist.

CORRELATION OF EARTHQUAKES

August, 1934.

N O T E S

		Δ (km.)	H (G.M.T.)
A :	Ottawa	4620	7-13.4
	Shawinigan Falls	4620	7-13.4
	Seven Falls	4600	7-13.6
B :	Ottawa	4440	12-07.5
	Seven Falls Wood-Anderson record being changed at time of this quake.		
C :	Ottawa	14000	3-39
E :	Shawinigan Falls Wood-Anderson not operating at time of this quake.		
F :	Ottawa	3720	11-04.4
	Seven Falls	4080	11-04.4
G :	Ottawa	3500	1-32.1
I :	Ottawa	2940	5-02.9
	Shawinigan Falls	2890	5-02.8
	Seven Falls	2910	5-02.8

Dominion Observatory,

Ottawa, Canada,

September 24, 1934.

EARTHQUAKE CORRELATION TABLE

August, 1934.

No.	Date	Ottawa	Shawinigan	Seven Falls		**
				W. A.	M. S.	
5438	2	7-21+1-15r	7-21+0-27r	7-21+0-26r	7-21+1-06r	A
5439	2	11-37+1-04L	.....	.....	11-54+0-22L	..
5440	3	0-07+0-11L	.....	.....	0-13+0-04L	..
5441	3	17-51+0-07L	.....	.....	.....	..
5442	3	19-38+0-49u	.....	.....	19-46+0-37L	..
5443	4	13-41+1-45u	.....	.....	13-48+1-24u	..
5444	5	21-34+0-10L	.....	.....	21-36+0-08L	..
5445	6	10-40+0-06L	.....	.....	10-42+0-04L	..
5446	6	12-15+0-53r	12-15+0-01P	.....	12-19+0-37r	B
5447	7	4-00+3-04U	4-37+0-32L	4-42+0-27L	4-40+3-18U	C
5448	7	7-47+0-14L	.....	.....	7-42+0-16L	..
5449	7	12-13+0-53u	.....	.....	12-24+0-47u	..
5450	9	6-14+1-12L	.....	.....	6-33+0-07L	..
5451	9	14-14+0-29L	.....	.....	14-12+0-37L	..
5452	9	19-57+1-57L	.....	.....	21-06+0-28L	..
	10	.....	.....	18-11+0-0.3d	.....	E
5453	10	23-37+0-19L	.....	.....	23-45+0-10L	..
5454	11	5-29+0-30L	.....	.....	5-36+0-21L	..
5455	11	8-43+1-42u	.....	.....	8-52+1-19u	..
5456	11	12-18+1-07u	.....	.....	12-20+0-17+u	..
5457	12	14-38+0-57L	.....	.....	14-42+0-55L	..
5458	13	0-10+2-20u	.....	.....	0-10+2-14u	..
5459	13	11-17+1-09u	.....	.....	11-44+0-17L	..
5460	13	15-08+0-22L	.....	.....	15-09+0-18L	..
5461	14	9-09+1-20u	.....	.....	9-09+1-36u	..
5462	15	11-11+1-06r	.....	.....	11-11+1-09r	F
5463	16	14-44+0-48u	.....	.....	14-55+0-37u	..
5464	17	0-40+0-24L	.....	.....	0-56+0-06L	..
5465	18	3-24+0-29L	.....	.....	3-24+0-27L	..
5466	18	16-24+0-19L	.....	.....	16-21+0-32L	..
5467	19	23-47+0-34L	.....	.....	23-47+0-26L	..
5468	20	0-53+0-07v	0-53+0-10v	.....	0-56+0-03v	..
5469	21	7-07+0-14L	.....	.....	7-07+0-15L	..
5470	21	10-43+1-04L	.....	.....	10-41+1-05L	..
5471	21	18-04+0-24v	.....	.....	18-02+0-37v	..
5472	21	19-55+1-53u	.....	.....	19-55+2-02u	..
5473	23	23-56+2-32u	.....	.....	0-00+2-41u	..
5474	26	1-39+1-06r	1-49+0-14r	1-51+0-11r	1-45+1-06r	G
5475	28	11-30+0-50r	11-30+0-21r	.....	11-37+0-44r	..
5476	29	6-49+0-10L	.....	.....	.....	..
5477	30	23-05+0-35L	.....	.....	23-11+0-32L	..
5478	31	5-08+2-43R	5-08+1-10R	5-08+1-06R	5-08+2-28R	I
5479	31	15-21+1-21u	15-21+0-02P	.....	15-21+1-28u	..

CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY
OTTAWA

R. MELDRUM STEWART, *Director*
ERNEST A. HODGSON, *Seismologist*
W. W. DOXSEE, *Assistant Seismologist*

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

Lithologic foundation: boulder clay over limestone (Ordovician). Time: Mean Greenwich, midnight to midnight.
Time correction: within .25s.

AUXILIARY STATIONS

SASKATOON

$\varphi = 52°\ 08'$ N. $\lambda = 106°$ ~~30~~ 38' W. h. = 515m.

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

HALIFAX

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

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. = 60m. 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. = 232m. ca.

Foundation: solid granite of Canadian Shield.
Time correction: from manually 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.
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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_o	r/T_o^2	V	ϵ	COMP.	DISPLACEMENT FOR 1" ARC TILT
	5.6		120	2:1	NS	
I	8.0		120	15:1	EW	
II	12.0		250	20:1	EW	44 mm.
17	12.0		250	20:1	NS	43 mm.
23	6.1		160	7:1	Vert.	
W	9.8		110	Aperiodic	NS	
HN	7.1		147	"	EW	
HE	9.0		61	"	NS	
SN	9.0		44?	"	EW	
SE	1.0		2200		NS	
SA	1.0		1750		EW	
SF	12.0		250		EW	44 mm.
SM						

DOM. OBS. No. 67
Req. 0041—5,000—5-33

OTTAWA, CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY

FROM September 1, 1934 to September 18, 1934 No. 25

NO. AND DATE	PHASE	TIME h m s	DISTANCE km.	REMARKS
5480 Sept. 1	e	7 - 20 - 42		
	e_N	7 - 26 - 10		
	eL	7 - 33		
	F	8 - 03		
5481 Sept. 1	e	11 - 57.5		
	eL	12 - 05		
	F	12 - 33		
5482 Sept. 2	e	9 - 26 - 27		
	eL	9 - 27		
	F	9 - 40		
5484 Sept. 2	e	11 - 41 - 22		
	e	11 - 50		
	F	12 - 23		
5485 Sept. 3	e	10 - 29.3		
	eL	10 - 35		
	F	11 - 09		
5486 Sept. 4	e	17 - 03		
	eL	17 - 25		
	F	18 - 41		
5490 Sept. 14	e	17 - 21.6		
	eL	17 - 30		
	F	17 - 52		
5492 Sept. 15	H	6 - 56.9	3780	USCGS. gives:
	eP	7 - 03 - 41		ϕ = 20° N.
	PR_2	7 - 05 - 06		λ = 105° W.
	eS	7 - 09 - 14		
	SR_1	7 - 11 - 12		
	eL	7 - 14		
	F	9 - 13		
5493 Sept. 18	e	10 - 17.7		
	L	10 - 27		
	F	10 - 51		

OTTAWA, CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY

FROM September 19, 1934 to September 30, 1934 No. 26

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
5494 Sept. 21	eE	13 - 16.5		
	eL	13 - 34		
	F	14 - 08		
5495 Sept. 23	eE	8 - 28.7		
	e	8 - 35.0		
	eE	8 - 39.6		
	eL	8 - 50		
	F	9 - 53		
5496 Sept. 24	eE	10 - 54		
	eE	11 - 05.3		
	eL	11 - 19		
	F	12 - 00		
5497 Sept. 25	e	19 - 41.6		
	e	19 - 51.3		
	eL	20 - 03		
	F	20 - 49		
5498 Sept. 26	e	7 - 44.9		
	eL	7 - 51		
	F	8 - 23		

CORRELATION OF EARTHQUAKES
September, 1934.

N O T E S

		Δ (km.)	H (G.M.T.)
A :	Ottawa	3780	6-56.9
	Seven Falls	4120	6-57.0

Dominion Observatory,

Ottawa, Canada,

October 13, 1934.

EARTHQUAKE CORRELATION TABLE
September, 1934.

No.	Date	Ottawa	Shawinigan	Seven Falls		**
				W. A.	M. S.	
5480	1	7-21+0-42r	.....	.....	7-21+0-46r	..
5481	1	11-57+0-36u	.....	.....	11-57+0-38u	..
5482	2	9-16+0-27u	.....	.....	9-17+0-24u	..
5483	2	9-44+0-18r	.....	.....	9-45+0-21r	..
5484	2	11-41+0-42u	.....	.....	11-41+0-41u	..
5485	3	10-29+0-40u	.....	.....	10-32+0-32u	..
5486	4	17-03+1-38u	.....	.....	16-55+2-11u	..
5487	6	9-35+0-06L	.....	.....	.....	..
5488	6	11-09+0-07L	.....	.....	.....	..
	8	.....	.....	.....	12-08+0-45L	..
5489	12	15-20+0-24L	.....	.....	15-20+0-26L	..
5490	14	17-22+0-30u	.....	.....	17-30+0-27L	..
5491	15	0-55+0-44L	.....	.....	0-50+0-53L	..
5492	15	7-04+2-09r	7-04+0-45r	7-04+0-37r	7-04+2-02r	A
	16	.....	.....	.....	14-12+0-21L	..
5493	18	10-18+0-33u	.....	.....	10-21+0-31u	..
	20	.....	.....	.....	23-53+0-26L	..
5494	21	13-16+0-52u	13-01+0-02P	13-01+0-01P	13-17+1-02u	..
5495	23	8-29+1-24u	.....	.....	8-29+1-32u	..
5496	24	10-54+1-06u	.....	.....	11-06+0-53u	..
5497	25	19-42+1-07u	.....	.....	19-42+1-13u	..
5498	26	7-45+0-38u	.....	.....	7-45+0-37u	..
	27	.....	.0-35+0-05v?	0-34+0-06v?	.....	..
	28	.....	.....	.....	8-10+0-07L	..

SEISMOLOGICAL BULLETINS RECEIVED

September,

1934.

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

STATIONS	BULLETINS	RECEIVED
St. Louis	March to June, 1934	Sept. 1
Osaka	May 17 to June 29, 1934	" 4
Manila	June, 1934	" 5
Eger	Year 1933	" 6
Firenze	January and February, 1934	" 8
Chiufeng	July, 1934	" 10
Zinsen	May and June, 1934	" 10
Trieste	January to March, 1934	" 11
Wellington	Preliminary for July, 1934	" 12
Zurich	August, 1934	" 12
Perth	June 22 to July 12, 1934	" 12
Melbourne	March 27 to June 30, 1934	" 12
Tananarive	December/33 to February, 1934	" 12
Apia	April and May, 1934	" 12
Barcelona	May 7, 1933 to June 2, 1934	" 12
St. Louis	Preliminaries for July 28; August 7 and 12th, 1934	" 13
St. Louis	March to June, 1934	" 13
Florissant	March to June, 1934	" 13
Little Rock	April 2 to June 2, 1934	" 13
Helwan	May and June, 1934	" 15
Georgetown	August, 1934 and Seismological Despatches	" 17
Kobe	July to September, 1933	" 18
Rome	August 13 - 26, 1934	" 18
Gottingen	January to June, 1934	" 18
Pasadena	July, 1934	" 18
Bureau Central, Paris, Strasbourg	July, 1934	" 21
Richmond	August, 1934	" 22
St. Louis	Preliminaries for August 31/34	" 26
St Louis	July and August, 1934	" 26
Florissant	July, 1934	" 26
Zi-Ka-Wei	June 24 to July 18, 1934	" 26
Quito	May and June, 1934	" 26
Perth	July 16 - 19th, 1934	" 26
Riverview	Provisional for July, 1934	" 26
Cape Town	May and June, 1934	" 27
Cartuja	July to September, 1933	" 28

DOMINION OBSERVATORY,
OTTAWA, CANADA.

R. Meldrum Stewart,
Director.

Ernest A. Hodgson,
Seismologist.

W. W. Doxsee,
Assistant Seismologist.

CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY
OTTAWA

R. MELDRUM STEWART, *Director*

ERNEST A. HODGSON, *Seismologist*

W. W. DOXSEE, *Assistant Seismologist*

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

Lithologic foundation: boulder clay over limestone (Ordovician). Time: Mean Greenwich, midnight to midnight.
Time correction: within .25s.

AUXILIARY STATIONS

SASKATOON

$\varphi = 52°\ 08'$ N. $\lambda = 106°$ ~~30'~~ 38' W. h. = 515m.

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

HALIFAX

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

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. = 60m. 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. = 232m. ca.

Foundation: solid granite of Canadian Shield.
Time correction: from manually 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_o	r/T_o^2	V	ϵ	COMP.	DISPLACEMENT FOR 1" ARC TILT
I	5.3		120	2:1	NS	
	6.6		120	15:1	EW	
II	12.0		250	20:1	EW	44 mm.
17	12.0		250	20:1	NS	44 mm.
23	5.6		160	10:1	Vert.	
W	9.8		110	Aperiodic	NS	
HN	7.1		147	"	EW	
HE	9.0		61	"	NS	
SN	9.0		44 ?	"	EW	
SE	0.9		2000		NS	
SA	1.1		1750		EW	
SF	12.0		250	20:1	EW	43 mm.
SM						

DOM. OBS. No. 67

Req. 6041—5,000—5-33

OTTAWA, CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY

FROM October 1, 1934 to October 25, 1934 No. 27

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
5500 Oct. 5	e	21 - 04.4		
	eL	21 - 11		
	F	21 - 38		
5502 Oct. 6	e	13 - 07.3		
	eL	13 - 14		
	F	13 - 38		
5503 Oct. 10	i_{EZ}	16 - 01 - 12		USCGS. gives:
	e_{E}	16 - 06		ϕ = 23° S. ca
	i_{N}	16 - 08 - 14		λ = 176° W. ca
	e_{EZ}	16 - 10.2		
	e_{N}	16 - 12.0		
	e_{E}	16 - 13.7		
	i_{N}	16 - 16 - 38		
	e	16 - 20		
	eL ?	16 - 30		
	F	18 - 14		
5505 Oct. 18	e_{E}	8 - 08 - 20		
	e	8 - 14 - 04		
	e	8 - 18 - 08		
	e_{E}	8 - 24.5		
	eL	8 - 37		
	F	10 - 32		
5506 Oct. 21	e_{N}	18 - 17 - 48		MS. 17 not recording at time of quake.
	e_{N}	18 - 18 - 36		
	e_{N}	18 - 20 - 54		
	e_{N}	18 - 25.6		
	e_{N}	18 - 33.2		
	eL	18 - 40		
	F	19 - 09		
5508 Oct. 25	e_{E}	9 - 05		
	eL	9 - 10		
	F	9 - 34		

OTTAWA, CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY

FROM October 25, 1934 to October 31, 1934 No. 28

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s		
5510 Oct. 26	e	15 - 06 - 23		
	e	15 - 08 - 40		
	F	15 - 18		
5511 Oct. 26	e	17 - 35 - 35		
	e_N	17 - 38 - 08		
	e_N	17 - 47.5		
	e_E	17 - 52.0		
	eL	17 - 57		
	F	19 - 19		
5512 Oct. 27	e	10 - 20.1		
	e	10 - 27.2		
	eL	10 - 37		
	F	11 - 52		
5513 Oct. 29	e	2 - 49.3		Early phases masked by micros.
	eL	2 - 52		
	F	3 - 42		

W. W. Doxsee

SEISMOLOGICAL BULLETINS RECEIVED

October,

1934.

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

STATION	BULLETINS	RECEIVED
Rome	August 27 to September 9, 1934	October 1
Pasadena	August, 1934	" 2
Osaka	April to June, 1933	" 6
Osaka	July and August, 1934	" 6
Taihoku	August, 1934	" 6
Cartuja	October to December, 1933	" 6
Hamburg	March 13 to August 6, 1934	" 6
San Fernando	July and August, 1934	" 6
Toledo, Cartuja, Alicante, Almeria, Malaga	July and August, 1933	" 6
Manila	July, 1934	" 9
Bureau Central, Paris, Strasbourg	August, 1934	" 9
Chiufeng	August, 1934	" 9
Manila	July to December, 1933	" 9
Riverview	August, 1934	" 10
Sydney	May to July, 1934	" 10
Algiers	August, 1934	" 10
Zi-Ka-Wei	July 18-21, 1934	" 10
La Plata	July and August, 1934	" 15
Rome	September 10-23, 1934	" 18
Richmond	September, 1934	" 20
Prague	June 1 to September 30, 1934	" 24
Zurich	September, 1934	" 25
Wellington	Preliminary for August, 1934	" 25
Perth	July 19-20, 1934	" 25
Pasadena	Local shocks for July and August	" 25
Zi-Ka-Wei	July 22 to August 4, 1934	" 26
Victoria	August and September, 1934	" 29
Toronto	August and September, 1934	" 29
Peichiko	April to June, 1934	" 30
Central Station, Saint Louis	Preliminary for September 15/34	" 31
Saint Louis	August 31 to September 21, 1934	" 31
Florissant	August, 1934	" 31
Little Rock	Bulletin corrections	" 31

DOMINION OBSERVATORY
OTTAWA - CANADA.

R. Meldrum Stewart,
Director.

Ernest A. Hodgson,
Seismologist.

W. W. Doxsee,
Assistant Seismologist.

CORRELATION OF EARTHQUAKES

October, 1934.

.....

N O T E S

==========

A : May not be seismic

Mr. A. Boily reported that a slight quake was perceptible at 10 hours a. m. E. S. T., October 17th, at Baie St. Paul, Quebec. No trace of this disturbance could be detected on either the Wood-Anderson or Milne-Shaw records of the Seven Falls station.

Microseismic registration was practically continuous throughout the month with several extended storm periods.

Dominion Observatory,
Ottawa, Canada,
November 10, 1934.

EARTHQUAKE CORRELATION TABLE

October, 1934.

No.	Date	Ottawa	Shawinigan	Seven Falls		**
				W. A.	M. S.	
5499	1	3-07+0-11L	.....	.....	3-06+0-13L	..
	5	.....	.....	.....	8-50+0-13L	..
5500	5	21-04+0-34u	.....	.....	20-49+0-37u	..
5501	5	22-34+0-07L	.....	.....	22-29+0-16L	..
	6	.....	.....	.....	0-29+0-11L	..
5502	6	13-07+0-31u	.....	.....	13-13+0-23L	..
5503	10	16-01+2-13u	16-17+0-04P	16-00+0-07P	16-01+2-07u	..
5504	15	8-57+0-21L	.....	.....	8-54+0-20L	..
5505	18	8-08+2-24u	.....	.....	8-09+2-38u	..
	19	.....	.....	.....	21-57+0-13L	A
5506	21	18-18+0-51u	.....	.....	18-18+1-14u	..
5507	25	8-30+0-08L	.....	.....	8-30+0-05L	..
5508	25	9-05+0-30L	9-12+0-05L	.....	9-10+0-24L	..
5509	25	11-30+0-06L	.....	.....	11-31+0-05L	..
5510	26	15-06+0-12P	.....	.....	.....	..
5511	26	17-36+1-43u	.....	.....	17-36+2-02u	..
5512	27	10-20+1-32u	.....	.....	10-27+1-54u	..
5513	29	2-49+0-54R	2-53+0-10R	2-53+0-10R	2-48+0-46R	..
5514	29	16-55+0-26L	.....	.....	16-51+0-23L	..
5515	29	23-41+0-13L	.....	.....	.....	..
5516	30	23-20+0-04L	.....	.....	.....	..

CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY
OTTAWA

R. MELDRUM STEWART, *Director*

ERNEST A. HODGSON, *Seismologist*

W. W. DOXSEE, *Assistant Seismologist*

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

Lithologic foundation: boulder clay over limestone (Ordovician). Time: Mean Greenwich, midnight to midnight.
Time correction: within .25s.

AUXILIARY STATIONS

SASKATOON

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

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

HALIFAX

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

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. = 60m. 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. = 232m. ca.

Foundation: solid granite of Canadian Shield.
Time correction: from manually 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_o	r/T_o^2	V	ϵ	COMP.	DISPLACEMENT FOR 1" ARC TILT
I	5.3		120	2:1	NS	
II	6.6		120	15:1	EW	
17	12.0		250	20:1	EW	44 mm.
23	12.0		250	20:1	NS	44 mm.
W	5.6		160	10:1	Vert.	
HN	9.8		110	Aperiodic	NS	
HE	7.1		147	"	EW	
SN	9.0		61	"	NS	
SE	9.0		44 ?	"	EW	
SA	0.9		2000		NS	
SF	1.1		1750		EW	
SM	12.0		250	20:1	EW	43 mm.

DOM. OBS. No. 67

Req. 6041—5,000—5-33

OTTAWA, CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY

FROM November 1, 1934 to November 24, 1934 No. 29

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
5518 Nov. 4	e_E	2 - 19.6		
	e_E	2 - 23.6		
	eL	2 - 44		
	F	3 - 50+		
5519 Nov. 4	e_E	3 - 41 - 40		
	e_E	3 - 44 - 12		
	e_E?	3 - 46.8		
	e	3 - 51 - 02		
	eL	4 - 07		
	F	5 - 56		
5520 Nov. 5	H	23 - 02.7	6540	USCGS. gives:
	eP	23 - 12 - 37		ϕ = 52° N.
	eS	23 - 20.8		λ = 176° W.
	SR_{2N}	23 - 26		
	eL	23 - 31		
	F	1 - 29		
5527 Nov. 10	e	15 - 50 - 48		
	eL	15 - 54		
	F	16 - 29		
5528 Nov. 12	e	7 - 41.4		
	eL	7 - 57		
	F	8 - 51		
5534 Nov. 18	e	15 - 16		
	eL	15 - 20		
	F	15 - 53		
5535 Nov. 18	e	23 - 06		
	e_E	23 - 10		
	e	23 - 17		
	eL	23 - 31		
	F	0 - 20		
5536 Nov. 24	e	13 - 07		
	e	13 - 22		
	eL	13 - 47		
	F	14 - 44		

OTTAWA, CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY

FROM November 24, 1934 to November 30, 1934 No. 30

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
5537 Nov. 26	e	12 - 29.3		
	e	12 - 39		
	e	12 - 45.3		
	e_E	12 - 51		
	eL	12 - 59		
	F	13 - 41		
5538 Nov. 27	e	6 - 35.4		
	e	6 - 40 - 16		
	e	6 - 42.0		
	e	6 - 44.8		
	e	6 - 52		
	eL	7 - 08		
	F	8 - 25		
5540 Nov. 30	H	2 - 05.3	3910	<u>Saskatoon Record</u>: H = (2-04-9) no clock Δ = 3480 correction iP = (2-11-15) given. eS = (2-16-30) eL = (2-20) <u>Halifax Record</u>: H = 2-05.3 Δ = 4780 eP = 2-13-17 eS = 2-19-49 eL = 2-27
	iP	2 - 12 - 18		
	iPR_1	2 - 13 - 35		
	iS	2 - 18 - 00		
	SR_2	2 - 20 - 32		
	eL	2 - 23		
	F	5 - 39		

W. W. Dorsee.

SEISMOLOGICAL BULLETINS RECEIVED
November,
1934.

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

STATIONS	BULLETINS	RECEIVED
Lund	Year 1931	November 2
Ivigtut	Year 1931	" 2
Scoresby-Sund	January to August, 1932	" 2
San Fernando	Year 1933	" 3
Manila	August, 1934	" 5
Chiufeng	September, 1934	" 5
Riverview	Provisional for September, 1934	" 6
Pasadena	September, 1934	" 6
Perth	July 20 - 25, 1934	" 7
Apia	June to September, 1934	" 8
Strasbourg, Paris, Bureau Central	September, 1934	" 8
Tananarive	March to May, 1934	" 8
Rome	October 8 - 12, 1934	" 9
Uccle	May 6 to August 6, 1934	" 9
Cartuja	January to March, 1934	" 9
Zi-Ka-Wei	August 7 - 13, 1934	" 12
Lemberg	January 1 to February 23, 1933 and April 28 to December 31, 1933	" 15
Helwan	July to September, 1934	" 15
Graz	April 23, 1933 to May 4, 1934	" 17
Innsbruck	November 21 to December 31, 1932	" 17
Wien	April 27 to December 31, 1933	" 17
Taihoku	Preliminary report for September main earthquakes	" 19
Richmond	October, 1934	" 19
Balboa, Bozeman, Charlottesville, Chicago, Columbia, Honolulu, Huancayo, Montezuma, Pittsburg, San Juan, Seattle, Sitka, Technology, Tucson, Ukiah	October to December, 1933	" 19
Georgetown	September and October, 1934 and Seismological Despatches	" 21
Wellington	Preliminary for September, 1934	" 21
Harvard	March 30, 1933 to June 30, 1934	" 22

SEISMOLOGICAL BULLETINS RECEIVED
November,
1934

STATIONS	BULLETINS	RECEIVED
Toledo, Cartuja, Alicante, Almeria, Malaga	September and October, 1933	November 23
Ootomari, Sikka	Year 1933	" 26
Firenze	April, May, and June, 1934	" 27
Rome	October 22 to November 4, 1934	" 28
Nagoya	January to June, 1934	" 28
San Fernando	September and October, 1934	" 29
Kobe, Toyooka, Sumoto	October 1 to December 31, 1933	" 29

DOMINION OBSERVATORY,
OTTAWA - CANADA.

R. Meldrum Stewart,
Director.

Ernest A. Hodgson,
Seismologist.

W. W. Doxsee,
Assistant Seismologist.

CORRELATION OF EARTHQUAKES

November, 1934.

.....

N O T E S

A : Seven Falls Milne-Shaw not operating at time of the earthquake listed.

B : Ottawa Δ = 6540 km. H = 23-02.7 G.M.T.
Seven Falls Δ = 6620 km. H = 23-03.0 G.M.T.

C : Local disturbance, may not be seismic.

D : Ottawa Δ = 3910 km. H = 2-05.4 G.M.T.
Shawinigan Falls Δ = 4300 km. H = 2-05.3 G.M.T.
Seven Falls Δ = 4340 km. H = 2-05.5 G.M.T.

Dominion Observatory,
Ottawa, Canada,
December 12, 1934.

EARTHQUAKE CORRELATION TABLE
November, 1934.

No.	Date	Ottawa	Shawinigan	Seven Falls		**
				W. A.	M. S.	
5517	2	7-41+0-13L	.....	.....	7-42+0-08L	..
5518	4	2-20+1-30u	.....	.....	.....	A
5519	4	3-42+2-14u	.....	.....	.....	A
5520	5	23-13+2-16U	23-13+0-30U	23-13+0-39U	23-13+2-36U	B
5521	7	9-44+0-16L	.....	.....	.....	A
5522	9	4-16+0-35L	.....	.....	4-24+0-46L	..
	9	.....	13-52+0-03P	13-52+0-02P	.....	..
5523	9	16-30+0-13L	.....	.....	.....	..
5524	9	17-00+0-0.6d	.....	.....	.....	C
5525	9	20-28+0-0.6d	.....	.....	.....	C
5526	10	9-06+0-31L	.....	.....	.....	..
5527	10	15-51+0-38u	.....	.....	15-51+0-19u	..
5528	12	7-41+1-10u	.....	.....	7-41+1-18u	..
5529	16	5-57+0-06L	.....	.....	5-59+0-03L	..
5530	16	11-01+0-08L	.....	.....	.....	..
5531	16	14-33+1-47u	.....	.....	14-33+1-43u	..
5532	18	3-46+0-35L	.....	.....	.....	..
5533	18	9-53+0-12L	9-29+0-05P	9-30+0-02P	.....	..
5534	18	15-16+0-37r	15-22+0-06r	15-23+0-07r	15-21+0-20r	..
5535	18	23-06+1-14u	.....	.....	23-11+1-05u	..
5536	24	13-07+1-37u	.....	.....	.....	A
5537	26	12-29+1-12u	.....	.....	.....	A
5538	27	6-35+1-50u	6-33+0-15P	6-33+0-12P	.....	A
5539	29	5-32+0-14r	5-33+0-07r	5-33+0-05r	.....	A
5540	30	2-12+3-27R	2-12+1-10R	2-12+1-06R	.....	AE

CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY
OTTAWA

R. MELDRUM STEWART, *Director*

ERNEST A. HODGSON, *Seismologist*

W. W. DOXSEE, *Assistant Seismologist*

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

Lithologic foundation: boulder clay over limestone (Ordovician). Time: Mean Greenwich, midnight to midnight.
Time correction: within .25s.

AUXILIARY STATIONS

SASKATOON

$\varphi = 52°\ 08'$ N. $\lambda = 106°\ \cancel{30'}\ 38'$ W. h. = 515m.

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

HALIFAX

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

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. = 60m. 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. = 232m. ca.

Foundation: solid granite of Canadian Shield.
Time correction: from manually 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_o	r/T_o^2	V	ϵ	COMP.	DISPLACEMENT FOR 1" ARC TILT
I	5.3		120	2:1	NS	
	6.6		120	15:1	EW	
II	12.0		250	20:1	EW	44 mm.
17	12.0		250	20:1	NS	44 mm.
23	5.6		160	10:1	Vert.	
W	9.8		110	Aperiodic	NS	
HN	7.1		147	"	EW	
HE	9.0		61	"	NS	
SN	9.0		44?	"	EW	
SE	0.9		2000		NS	
SA	1.1		1750		EW	
SF	12.0		250	20:1	EW	43 mm.
SM						

DOM. OBS. No. 67

Req. 6041—5,000—5-33

CANADA

SEISMOLOGIC STATION, DOMINION OBSERVATORY
OTTAWA

R. MELDRUM STEWART, *Director*

ERNEST A. HODGSON, *Seismologist*

W. W. DOXSEE, *Assistant Seismologist*

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Time correction: from manually recorded radio time signals.

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Foundation: carbonaceous slate.
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$\varphi = 46°\ 33'{\cdot}1$ N. $\lambda = 72°\ 45'{\cdot}8$ W. h. = 60m. 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. = 232m. ca.

Foundation: solid granite of Canadian Shield.
Time correction: from manually 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.
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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_o	r/T_o^2	V	ϵ	COMP.	DISPLACEMENT FOR 1" ARC TILT
I	5.3		120	2:1	NS	
	6.6		120	15:1	EW	
II	12.0		250	20:1	EW	44 mm.
17	12.0		250	20:1	NS	44 mm.
23	5.6		160	10:1	Vert.	
W	9.8		110	Aperiodic	NS	
HN	7.1		147	"	EW	
HE	9.0		61	"	NS	
SN	9.0		44 ?	"	EW	
SE	0.9		2000		NS	
SA	1.1		1750		EW	
SF	12.0		250	20:1	EW	43 mm.
SM						

DOM. OBS. No. 67

Req. 6041—5,000—5-33

OTTAWA, CANADA

SEISMOLOGICAL STATION, DOMINION OBSERVATORY

FROM December 1, 1934 to December 22, 1934 No. 51.

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
5546 Dec. 3	H	2 - 38.6	3490	Saskatoon Record:
	iP	2 - 45 - 01		H = 2-38.3
	S	2 - 50 - 16		eP = 2-45-30
	eL	2 - 54.4		PR_1 = 2-47-00
	F	4 - 12		S = 2-51-24
				Δ = 4100 km.
5547 Dec. 4	H	17 - 24.8	6950	USCGS. gives:
	eP	17 - 35 - 08		φ = 19° S.
	iS	17 - 43 - 43		λ = 70° W.
	PS	17 - 44 - 12		approximately.
	eL	17 - 55		
	F	18 - 56		
5550 Dec. 15	e_N?	2 - 15 - 48		
	e	2 - 22.3		
	e	2 - 29.4		
	e_E	2 - 39.7		
	e	2 - 42		
	eL	2 - 48		
	F	4 - 50		
5556 Dec. 17	e	16 - 20		
	e	16 - 30.2		
	eL	16 - 43		
	F	18 - 21		
5560 Dec. 22	H	14 - 29.1	4300	
	eP	14 - 36.5		
	ePR_{2N}	14 - 38.1		
	eS	14 - 42.6		
	eL	14 - 45		
	F	16-- 03		

OTTAWA, CANADA

SEISMOLOGICAL STATION, DOMINION OBSERVATORY

FROM December 23, 1934 to December 31, 1934 No. 32

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
5561 Dec. 23	e_N?	10 - 03.7		
	i	10 - 11 - 55		
	i	10 - 12 - 50		
	e	10 - 17.5		
	eL	10 - 21		
	F	10 - 57		
5563 Dec. 24	e	14 - 42.6		
	e	14 - 47.6		
	e_E	14 - 49.6		
	eL	14 - 52		
	F	15 - 24		
5567 Dec. 28	e_E?	11 - 52.6		
	e_E	11 - 59		
	eL	12 - 14		
	F	13 - 20		
5569 Dec. 30	e_{EZ}	13 - 58 - 55		USCGS. gives:
	eS?	14 - 04 - 12		ϕ = 31° N.
	eL	14 - 09		λ = 116° W.
	F	15 - 57		
5570 Dec. 31	H	18 - 45.8	3850	Saskatoon Record:
	iP	18 - 52 - 44		eP = 18-50-20
	PR_2	18 - 54.1		iS = 18-54-20
	S_N	18 - 58 - 22		Δ = 2420
	SR_1	19 - 00.4		H = 18-45.5
	eL	19 - 02.7		
	F	22 - 28		

W W Doxsee

SEISMOLOGICAL BULLETINS RECEIVED

December,

1934.

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

STATIONS	BULLETINS	RECEIVED
Pasadena	October, 1934	December 3
"	Local Shocks for October/34	" 3
Manila	September, 1934	" 3
Zi-Ka-Wei	August 14 - 31, 1934	" 3
Riverview	October, 1934	" 5
Rome	November 5 - 18, 1934	" 6
Perth	July 25 to September 8, 1934	" 6
St. Louis	Preliminary for November 5/34	" 7
St. Louis	October 10 - 31, 1934	" 7
Florissant	September, 1934	" 7
Little Rock	October, 1934	" 7
Denver	March 24 to July 30, 1934	" 7
Chiufeng	October, 1934	" 10
Algiers	September and October, 1934	" 10
Osaka	September 11 to November 8, 1934	" 12
Cape Town	July 18 to October 31, 1934	" 14
Taihoku	Preliminary for October, 1934	" 14
Strasbourg, Paris, Bureau Central	October, 1934	" 15
Helwan	October, 1934	" 17
Wellington	October, 1934	" 20
Sydney	August and September, 1934	" 21
Rome	November 19 to December 2, 1934	" 22
Zurich	October and November, 1934	" 22
Gottingen	July to September, 1934	" 24
Richmond	November, 1934	" 24
Georgetown	November, 1934 and Seismological Despatches	" 26
Zagreb	January to March, 1934	" 27
Manila	October, 1934	" 28
Taihoku	Preliminary for November, 1934	" 29
Wien	January to June, 1934	" 31
Mizusawa	Year 1933	" 31
Lemberg	September 27 to December 31, 1933	" 31
Victoria	October and November, 1934	" 31
Graz	May 14 to August 30, 1934	" 31
Toronto	October and November, 1934	" 31

DOMINION OBSERVATORY,
OTTAWA - CANADA.

R. Meldrum Stewart,
Director.

Ernest A. Hodgson,
Seismologist.
W. W. Doxsee,
Assistant Seismologist.

EARTHQUAKE CORRELATION TABLE
December, 1934.

No.	Date	Ottawa	Shawinigan	Seven Falls		**
				W. A.	M. S.	
5541	1	0-09+0-24L	.....	.....	.....	..
5542	1	12-03+0-22L	.....	.....	.....	..
5543	1	19-59+0-22L	.....	.....	19-58+0-07I	..
5544	2	15-15+0-15L	.....	.....	15-15+0-19L	..
5545	3	1-47+0-41L	.....	.....	1-49+0-34L	..
5546	3	2-45+1-27R	2-45+0-33R	2-45+0-30R	2-45+1-24R	A
5547	4	17-35+1-21U	17-35+0-28U	17-35+0-13U	17-44+0-49U	B
5548	8	9-50+0-27L	.....	.....	9-50+0-18L	..
5549	14	20-55+0-13L	.....	.....	.....	..
5550	15	2-16+2-34U	2-48+0-32U	2-46+0-33U	.....	..
5551	15	19-00+0-15L	.....	.....	.....	..
5552	15	19-41+0-26L	.....	.....	.....	..
5553	17	3-22+0-11L	.....	.....	.....	..
5554	17	5-05+0-11L	.....	.....	.....	..
5555	17	9-00+0-09L	.....	.....	.....	..
5556	17	16-20+2-01u	.....	.....	16-21+1-55u	..
5557	18	12-08+0-24L	.....	.....	12-26+0-10L	..
5558	19	12-54+0-04L	.....	.....	.....	..
5559	21	19-02+0-12L	.....	.....	.....	..
5560	22	14-37+1-26R	14-42+0-14R	14-37+0-19R	14-37+1-00R	C
5561	23	10-04+0-53u	10-04+0-04P	10-04+0-03P	10-12+0-30u	..
5562	23	23-57+0-08L	.....	.....	.....	..
5563	24	14-43+0-41u	.....	.....	14-48+0-24u	..
5564	24	15-28+0-15L	.....	.....	15-30+0-12L	..
5565	24	16-09+0-41L	.....	.....	16-01+0-30L	..
5566	25	2-01+1-20u	.....	.....	.....	..
5567	28	11-53+1-27u	.....	.....	12-26+0-34u	..
5568	29	4-56+0-15L	.....	.....	.....	..
5569	30	13-59+1-58R	14-03+0-45R	13-59+0-42R	14-11+1-21R	..
5570	31	18-53+3-36R	18-53+1-20R	18-53+1-05R	18-54+2-00R	E

CORRELATION OF EARTHQUAKES
December, 1934.

N O T E S

		Δ (km.)	H (G.M.T.)
A :	Ottawa	3490	2 - 38.6
	Shawinigan Falls	3870	2 - 38.4
	Seven Falls	3800	2 - 38.6
B :	Ottawa	6950	17 - 24.8
	Shawinigan Falls	7100	17 - 24.8
	Seven Falls	7160	17 - 24.7
C :	Ottawa	4300	14 - 29.1
	Seven Falls	4300	14 - 29.5 ca
E :	Ottawa	3850	18 - 45.8

Dominion Observatory,
Ottawa, Canada,
January 19, 1935.