



SEISMOLOGICAL SERVICE OF CANADA

SEISMOLOGICAL BULLETIN

January, February
and March

1 9 4 7

DOMINION OBSERVATORY

OTTAWA - CANADA

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

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S T A T I O N S

OTTAWA

$\phi = 45^{\circ}23'38''$ N. $\lambda = 75^{\circ}42'57''$ W. $h = 83$ m.

Time correction within 0.10s.

Foundation: boulder clay over limestone

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

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

HALIFAX

Dalhousie University

$\phi = 44^{\circ}38'$ N. $\lambda = 63^{\circ}36'$ W. $h = 46$ m.

Time correction from recorded radio time signals

Foundation: Carbonaceous slate

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

SEVEN FALLS

Quebec Power Company

$\phi = 47^{\circ}07'4$ N. $\lambda = 70^{\circ}49'6$ W. $h = 232$ m. ca.

Time correction from recorded radio time signals

Foundation: Solid granite of Canadian Shield

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

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

VICTORIA

Dominion Astrophysical Observatory

$\phi = 48^{\circ}31'14''$ N. $\lambda = 123^{\circ}24'56''$ W. $h = 197$ m.

Time correction from recorded radio time signals

Foundation: rock

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

SHAWINIGAN FALLS

Shawinigan Water and Power Company

$\phi = 46^{\circ}33'11''$ N. $\lambda = 72^{\circ}45'18''$ W. $h = 60$ m. ca.

Time correction from recorded radio time signals

Foundation: solid granite of Canadian Shield

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

SASKATOON

University of Saskatchewan

$\phi = 52^{\circ}08'$ N. $\lambda = 106^{\circ}38'$ W. $h = 515$ m.

Time correction from radio time signals

Foundation: clay and sand

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

DETERMINED CONSTANTS

INSTRUMENT	T_0	V	ϵ	DISPLACEMENT FOR 1" ARC TILT	DISPLACEMENT FOR 10^{-6} g
17 (Ottawa)	12.0	300	20:1	50 mm.	
23 (Ottawa)	12.0	300	20:1	50 mm.	
BS (Ottawa)	1.0				5 mm.
BL (Ottawa)	1.0				16 mm.
HN (Halifax)	5.0	125	20:1		
HE (Halifax)	5.0	125	20:1		
SA (Shawinigan)	1.0	2500			
20 (Victoria)	12.0	300	20:1		
21 (Victoria)	12.0	300	20:1		
SF (Seven Falls)	1.0	2500			
SM (Seven Falls)	12.0	300	20:1	50 mm.	
18 (Saskatoon)	10.0	150	20:1	18 mm.	
22 (Saskatoon)	10.0	150	20:1	18 mm.	

NOTE:- Universal Time used throughout.

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, CANADA

FROM January 1, 1947 to January 3, 1947 No. 1

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
1 Jan. 1	H P _{2Z} S _{2Z} F	19 44.3 19 44 44 19 45 02 19 45.3	155	
		Ottawa		
4 Jan. 3	eZ iZ e L F	2 32 30 2 33 06 2 39 48 2 53 4 34		USCGS gives:- φ = 44° N. λ = 144° E.
		Saskatoon		
	H P _{NE} S e L F	2 17.6 2 27 54 2 36 28 2 39 50 2 48 3 26	6940	
		Seven Falls		
	H P S L F	2 17.3 2 29 32 2 39 51 2 57 4 58	9180	
		Shawinigan Falls		
	H P S e L F	2 17.2 2 29 31 2 39 47 2 43 26 3 12 3 29	9120	
		Ottawa		
6 Jan. 3	H P _{3Z} P _{2Z} S _{2Z} S _{1Z} F	20 16.7 20 17.5 20 17 19 20 17 46 20 17 49 20 18.5	235	

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM January 3, 1947 to January 21, 1947 No. 2

NO. AND DATE	PHASE	TIME	DISTANCE km.	REMARKS
		h m s		
		Ottawa		
8 Jan. 4	eZ L F	17 38 09 18 21 18 54		
		Ottawa		
13 Jan. 11	H P2Z S2Z F	21 05.9 21 06 19 21 06 26 21 07	150	
		Ottawa		
15 Jan. 13	H P2Z S2Z F	20 28.5 20 28 55.5 20 29 13 20 29.6	150	
		Ottawa		
19 Jan. 15	eZ L F	18 34 47 18 45 19 31		USCGS gives:- $\phi = 27^\circ \text{ N.}$ $\lambda = 111^\circ \text{ W.}$
		Saskatoon		
	e L F	18 38.0 18 41 19 25		
		Seven Falls		
	e e L F	18 35 22 18 41.2 18 47 19 43		
		Ottawa		
21 Jan. 19	H P2Z S2Z F	0 45.0 0 45 30 0 45 51.5 0 47	190	
		Ottawa		
27 Jan. 21	H PZ S SSS L F	20 06.9 20 17 52 20 27.0 20 33 20 39 21 03	7640	USCGS gives:- $\phi = 25^\circ \text{ S.}$ $\lambda = 70^\circ \text{ W.}$

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM January 21, 1947 to January 25, 1947 No. 3

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Seven Falls		
27 Jan. 21 (cont'd)	H P S L F	20 07.1 20 18 06 20 27 15 20 39 20 55	7660	
		Ottawa		
29 Jan. 23	eZ L F	16 07 06 16 25 17 05		USCGS prel location $\phi = 53^{\circ}$ N. $\lambda = 164^{\circ}$ W.
		Seven Falls		
	H P S L F	15 57.8 16 07 16 16 15.0 16 27 16 58	6080	
		Ottawa		
34 Jan. 25	H PZ S SS _E L F	3 52.6 3 59 19 4 04 47 4 07 4 09 5 00+	3690	USCGS prel: location $\phi = 13^{\circ}$ N. $\lambda = 88^{\circ}$ W.
		Halifax		
	e L F	4 05.4 4 08 4 42		
		Seven Falls		
	H P S L F	3 52.6 3 59 45 4 05 39 4 10 5 03+	4110	
		Shawinigan Falls		
	H P S L F	3 52.7 3 59 37 4 05 19 4 11 4 37	3910	

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM January 25, 1947 to January 26, 1947 No. 4

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
35 Jan. 25	eZ L F	4 53 41 5 00 5 43		
		Ottawa		
36 Jan. 26	H PZ iZ PPP S i SS _E L F	10 06.8 10 13 21 10 13 26 10 14 48 10 18 42 10 19 36 10 20 36 10 23 12 31	3580	Comp. N.M. USCGS Prel. Location $\phi = 13^{\circ} N.$ $\lambda = 86.5 W.$
		Ottawa		
		Victoria		
	H P PP S SS e L F	10 07.1 10 15 09 10 16 50 10 21 45 10 24 46 10 27.6 10 29 11 03	4850	
		Saskatoon		
	H iP PPP iS SSS L F	10 06.8 10 14 20 10 16 05 10 20 31 10 23 54 10 26 12 00	4380	
		Halifax		
	H iP PPP iS e SSS L F	10 06.6 10 13 28 10 15 02 10 19 03 10 20 08 10 22 16 10 24 11 21	3890	

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM January 26, 1947 to January 29, 1947 No. 5

NO. AND DATE	PHASE	TIME	DISTANCE km.	REMARKS	
		h m s			
36 Jan. 26 (cont'd)		Seven Falls			
	H	10 06.9	3870		
	P	10 13 46			
	PPP	10 15 22			
	e	10 16 16			
	S	10 19 25			
	e	10 20 27			
	SS	10 22 03			
	L	10 24			
	F	12 54			
			Shawinigan Falls		
	H	10 06.8	3790		
	P	10 13 38			
i	10 13 43				
PPP	10 15 13				
S	10 19 12				
L	10 22				
F	11 05				
		Ottawa			
42 Jan. 29	H	8 18.0	7030	USCGS Prel. Location $\phi = 27^{\circ} S.$ $\lambda = 63^{\circ} W.$	
	iP	8 28 21			
	PP	8 31 08			
	iS	8 37 00			
	SS	8 40 30			
	L	8 50			
	F	9 16			
		Saskatoon			
	H	8 17.9	8250		
	P	8 29 29			
	S	8 39 07			
	F	9 00			
		Seven Falls			
	H	8 18.0	7120		
	P	8 28 29			
	S	8 37 13			
	SS	8 42.1			
	L	8 49			
	F	9 15			

SEISMOLOGICAL SERVICE OF CANADA
 DOMINION OBSERVATORY, OTTAWA

FROM January 29, 1947 to January 31, 1947 No. 6

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Shawinigan Falls		
42 Jan. 29 (cont'd)	H P S F	8 17.9 8 28 25 8 37 09 8 44	7100	
		Ottawa		
43 Jan. 30	H P _{2Z} S _{2Z} F	18 38.6 18 39 00 18 39 18 18 39.7	155	

W. W. Doxsee.

CORRELATION TABLE

The numbered pages of the bulletin list only those earthquakes for which two or more phases are recorded. The tabulation which follows not only provides a yearly numbered list of all earthquakes recorded in Canada but also correlates the seismic registrations of the six Canadian stations. Entries for each station show in hours and minutes the time of beginning of the tremors in Greenwich Mean Time. The appearance of entries in two or more columns in the same line indicates that these are known to be concerned with the same earthquake even though the times of beginning may differ slightly. The figures after the plus sign show the duration of the record in hours and minutes. The earthquake number and the day of the month on which it occurred are listed in the first and second columns, respectively, while the extreme right hand column is reserved for index letters to a series of notes following the tabulation. Certain letters are reserved for the purpose of classifying the entries: these are as follows:-

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

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

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

EARTHQUAKE CORRELATION TABLE

January, 1947

No.	Date	Ottawa	Victoria	Saskatoon	Halifax	Seven Falls		Shawinigan	**
						M. S.	W. A.		
27	21	20 18+0 45u	.....	.....	.....	20 27+0 28u	20 18+0 04P	20 18+0 06P	G
28	22	.....	.....	.....	.....	19 45+0 18L	.....	.....	.....
29	23	16 07+0 58u	16 08+0 08L	.....	.....	16 15+0 43u	16 07+0 04P	16 07+0 10P	J
30	24	17 34+0 41L	.....	.....	.....	17 34+0 48L	.....	.....	.....
31	24	.....	.....	.....	.....	.....	.....	.....	.....
32	25	.....	.....	.....	.....	3 28+0 27L	.....	.....	.....
33	25	3 58+0 0.5P*	.....	.....	.....	.....	.....	.....	.....
34	25	3 59+1 01R	4 18+0 14L	4 14+0 24L	4 05+0 37R	4 01+1 02R	4 00+0 33R	4 00+0 37R	F
35	25	4 54+0 42R	.....	.....	4 56+0 15L	5 04+0 53L	5 04+0 07L	4 54+0 03P	.....
36	26	10 13+2 18R	10 15+0 48R	10 14+1 46R	10 13+1 08R	10 14+2 40R	10 14+0 58R	10 14+0 51R	W
37	26	10 46+0 0.6P*	.....	.....	.....	.....	.....	.....	.....
38	26	19 57+0 0.4P*	.....	.....	.....	.....	.....	.....	.....
39	27	1 23+0 11L	.....	.....	.....	.....	.....	.....	.....
40	27	.....	.....	.....	.....	1 27+0 11L	.....	.....	.....
41	28	.....	.....	.....	.....	19 51+0 11L	.....	.....	.....
42	29	8 28+0 48u	.....	.....	.....	11 34+0 17L	.....	.....	.....
43	30	18 39+0 0.7V*	.....	8 29+0 30u	.....	8 28+0 47u	8 28+0 15u	8 28+0 16u	N
44	30	.....	.....	.....	.....	19 08+0 20L	.....	.....	P

CORRELATION OF EARTHQUAKES

January, 1947

NOTES

A	: Ottawa	$\Delta = 155$ km.	H = 19 ^h 44 ^m .3 U.T.
B	: Saskatoon	$\Delta = 6,940$ km.	H = 2 ^h 17 ^m .6 U.T.
	Seven Falls	$\Delta = 9,180$ km.	H = 2 17.3 U.T.
	Shawinigan Falls	$\Delta = 9,120$ km.	H = 2 17.2 U.T.
C	: Ottawa	$\Delta = 235$ km.	H = 20 ^h 16 ^m .7 U.T.
D	: Ottawa	$\Delta = 150$ km.	H = 21 ^h 05 ^m .9 U.T.
E	: Ottawa	$\Delta = 150$ km.	H = 20 ^h 28 ^m .5 U.T.
F	: Ottawa	$\Delta = 190$ km.	H = 0 ^h 45 ^m .0 U.T.
G	: Ottawa	$\Delta = 7,640$ km.	H = 20 ^h 06 ^m .9 U.T.
	Seven Falls	$\Delta = 7,660$ km.	H = 20 07.1 U.T.
J	: Seven Falls	$\Delta = 6,080$ km.	H = 15 ^h 57 ^m .8 U.T.
K	: Ottawa	$\Delta = 3,690$ km.	H = 3 ^h 52 ^m .6 U.T.
	Seven Falls	$\Delta = 4,110$ km.	H = 3 52.6 U.T.
	Shawinigan Falls	$\Delta = 3,910$ km.	H = 3 52.7 U.T.
M	: Ottawa	$\Delta = 3,580$ km.	H = 10 ^h 06 ^m .8 U.T.
	Victoria	$\Delta = 4,850$ km.	H = 10 07.1 U.T.
	Saskatoon	$\Delta = 4,380$ km.	H = 10 06.8 U.T.
	Halifax	$\Delta = 3,890$ km.	H = 10 06.6 U.T.
	Seven Falls	$\Delta = 3,870$ km.	H = 10 06.9 U.T.
	Shawinigan Falls	$\Delta = 3,790$ km.	H = 10 06.8 U.T.
N	: Ottawa	$\Delta = 7,030$ km.	H = 8 ^h 18 ^m .0 U.T.
	Saskatoon	$\Delta = 8,250$ km.	H = 8 17.9 U.T.
	Seven Falls	$\Delta = 7,120$ km.	H = 8 18.0 U.T.
	Shawinigan Falls	$\Delta = 7,100$ km.	H = 8 17.9 U.T.
P	: Ottawa	$\Delta = 155$ km.	H = 18 ^h 38 ^m .6 U.T.

Dominion Observatory,

OTTAWA, CANADA

April 23, 1947.

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM February 1, 1947 to February 9, 1947. No. 7

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
45 Feb. 2	eZ L F	4 13 32 4 30 4 55		
		Ottawa		
46 Feb. 2	H P2Z S3Z S2Z F	16 50.5 16 51 46 16 52 28 16 52 41 16 54.7	490	
		Seven Falls		
	H P1 S1 F	16 50.6 16 50 41.5 16 50 49 16 53	63	
		Shawinigan Falls		
	H P2 S2 F	16 50.5 16 51 06.5 16 51 32 16 54	225	
		Ottawa		
51 Feb. 5	H P2Z S2Z F	19 58.2 19 58 39 19 58 57 19 59.4	155	
		Ottawa		
53 Feb. 7	eZ L F	8 59 22 9 34 10 07		
		Ottawa		
55 Feb. 7	H P2Z S2Z F	20 19.6 20 20 00 20 20 17.5 20 20.6	150	
		Ottawa		
62 Feb. 9	eZ eN L F	4 40 12 4 48.6 5 03 5 12		

SEISMOLOGICAL SERVICE OF CANADA
 DOMINION OBSERVATORY, OTTAWA

FROM February 9, 1947 to February 28, 1947 No. 8

NO. AND DATE	PHASE	TIME			DISTANCE km.	REMARKS
		h	m	s		
		Seven Falls				
62 Feb. 9 (cont'd)	e L F	4	48.	2		
		4	58			
		5	20			
		Ottawa				
66 Feb. 12	H P _{2Z} S _{2Z} F	21	09.	1	170	
		21	09	36.5		
		21	09	56		
		21	10.	1		
		Ottawa				
68 Feb. 15	eZ L F ^N	1	17	27		
		1	36			
		2	06			
		Ottawa				
75 Feb. 23	H P _{2Z} S _{2Z} eZ F	21	31.	0	150	
		21	31	23		
		21	31	40		
		21	31	49		
		21	32.	3		
		Ottawa				
76 Feb. 24	H P S SSN L F	17	31.	7	6570	
		17	41	41		
		17	49	54		
		17	54.	5		
		18	00			
		18	36			
		Saskatoon				
	i L F	17	52	48		
		18	05			
		18	37			
		Seven Falls				
	H P S SSS L F	17	31.	8	6720	
		17	41	51		
		17	50	13		
		17	56.	3		
		18	02			
		18	28			
		Ottawa				
77 Feb. 26	eZ L F	1	57	38		
		2	10			
		2	30			

W. W. Doyse

EARTHQUAKE CORRELATION TABLE
February, 1947

No.	Date	Ottawa	Victoria	Saskatoon	Halifax	Seven Falls		Shawinigan
						M. S.	W. A.	
45	2	4 14+0 41u		4 17+0 24L		4 31+0 30L		16 51+0 03V
46	2	16 52+0 03V*						16 52+0 07P
47	3	16 52+0 02P*						
48	4			7 11+0 09L		6 57+0 13L		
49	4							17 45+0 03P
50	4	23 51+0 01P*						23 51+0 03P
51	5	19 59+0 0.8V*						
52	7	2 16+0 0.8P						
53	7	8 59+1 07u		9 26+0 36L		9 38+0 40L		
54	7			10 56+0 11L		10 35+0 22L		
55	7	20 20+0 0.6V*						
56	8	10 58+0 06L	10 42+0 12L	10 47+0 08L		11 02+0 04L		
57	8	11 15+0 16L	10 57+0 20L	11 03+0 11L		11 17+0 18L		
58	8	11 56+0 08L	11 38+0 15L	11 45+0 06L				
59	8	12 10+0 08L	11 55+0 14L	12 00+0 05L		12 12+0 07L		
60	8	18 26+0 07L	18 10+0 16L	18 15+0 07L		18 30+0 04L		
61	8							
62	9	4 40+0 32u				4 49+0 31u		
63	10	4 52+0 46L		4 41+1 02L		4 43+1 07L		
64	10	20 06+0 0.2P*						
65	11					19 02+0 06L		
66	12	21 10+0 0.5V*						
67	13	0 24+0 01P*						
68	15	1 17+0 49u		1 23+0 30L		1 37+0 32L		
69	16	2 22+0 03P*						2 23+0 12P
70	20		18 23+0 07L	18 29+0 06L				
71	21	23 01+0 12L						
72	22	2 30+0 06L	2 12+0 13L	2 19+0 13L		2 32+0 05L		
73	22	4 21+0 13L		4 33+0 23L		4 23+0 18L		

A

B

C

D

CORRELATION OF EARTHQUAKES

February, 1947

NOTES

A	: Ottawa	$\Delta =$	490 km.	H =	16 ^h 50 ^m .5 U.T.
	Seven Falls	$\Delta =$	63 km.	H =	16 50.6 U.T.
	Shawinigan Falls	$\Delta =$	225 km.	H =	16 50.5 U.T.
B	: Ottawa	$\Delta =$	155 km.	H =	19 ^h 58 ^m .2 U.T.
C	: Ottawa	$\Delta =$	150 km.	H =	20 ^h 19 ^m .6 U.T.
D	: Ottawa	$\Delta =$	170 km.	H =	20 ^h 09 ^m .1 U.T.
E	: Ottawa	$\Delta =$	150 km.	H =	21 ^h 31 ^m .0 U.T.
F	: Ottawa	$\Delta =$	6,570 km.	H =	17 ^h 31 ^m .7 U.T.
	Seven Falls	$\Delta =$	6,720 km.	H =	17 31.8 U.T.

Dominion Observatory,

OTTAWA, CANADA

May 2, 1947.

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM March 1, 1947 to March 2, 1947 No. 9

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS	
		h m s	km.		
79 Mar. 2		Ottawa			
	H	19 09.3	14,100		
	P ₁	19 28 26			
	PPN	19 30			
	SKP	19 31 38			
	SKS	19 35 26			
	SKKS	19 37 15			
	PPS	19 41.8			
	SS	19 47.5			
	L	20 06			
	F	21 17			
			Victoria		
	e	19 26 28			
	i	19 32 26			
i	19 34 24				
L	19 52				
F	21 40				
		Saskatoon			
H	19 09.4	12,000			
PP	19 28.4				
SKS	19 34 34				
PS	19 37 27				
PPS	19 38 31				
SSS	19 48.0				
L	19 59				
F	20 50				
		Seven Falls			
H	19 09.3	14,450			
P ₁	19 28 30				
PP	19 30.7				
SKP	19 31.9				
SKS	19 35 32				
e	19 40 14				
SS	19 47 40				
SSS	19 52.7				
SSS ₁	19 59.7				
L	20 10				
F	21 35				



SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM March 2, 1947 to March 17, 1947 No. 10

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS		
		h m s	km.			
90 Mar. 17		Ottawa				
			11,000 ca	USCGS gives $\phi = 29^\circ$ N. $\lambda = 100^\circ$ E.		
	H	8 19.8				
	PZ	8 33 30				
	PP	8 37 30				
	SKS	8 44 06				
	SKKS	8 44 50				
	SN	8 45 16				
	PS	8 46 22				
	PPS	8 47.3				
	SS	8 52.0				
	SSS	8 55.8				
	e	8 58.5				
	L	9 07				
	F	11 12				
			Saskatoon			
					9,520 km.	
		H	8 20.0			
		P	8 32 37			
		S	8 43 11			
	PS	8 45 49				
	SS	8 49.8				
	L	8 57				
	F	11 00				
		Halifax				
	e	(8 48)		No time marks.		
	L	(9 02)				
	F	(10 10)				
		Seven Falls				
			11,300			
	H	8 19.4				
	P	8 33 19				
	PP	8 37 33				
	S	8 45 02				
	PS	8 46 30				
	SS	8 51 34				
	SSS	8 56.6				
	L	9 03				
	F	11 16				

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM March 17, 1947 to March 25, 1947 No. 11

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
90 Mar. 17 (cont'd)		Shawinigan Falls		
	H	8 19.6	11,100	
	P	8 33 21		
	PP	8 37 18		
	PPP	8 39 31		
	L	9 09		
	F	9 53		
		Ottawa		
92 Mar. 18	H	19 55.4	155	
	P2Z	19 55 48		
	S2Z	19 56 06		
	F	19 56.5		
		Ottawa		
98 Mar. 25	H	20 32.3	14,100	USCGS gives $\phi = 39^{\circ}$ S. $\lambda = 178^{\circ}5$ E.
	P ₁	20 51 22		
	e	20 54.0		
	SSIS	21 00		
	SS	21 10.6		
	SSS	21 15 12		
	L	21 28		
	F	23 39		
			Victoria	
H	S	20 32.4	11,100	
	SS	20 57 47		
	e	21 04 51		
	e	21 10.4		
	L	21 14		
	L	21 22		
	F	23 47		
		Saskatoon		
H	PP	20 33	12,200	
	S	20 52 00		
	SS	21 00.5		
	L	21 07.2		
	F	21 22		
		Halifax		
e	L	21 37		
	L	21 53		
	F	23 23		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM March 25, 1947 to March 28, 1947 No. 12

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
98 Mar. 25 (cont'd)		Seven Falls		
	H	20 31.7	14,000	
	SRP	20 53.8		
	PPP	20 55 11		
	SKKS	20 59 13		
	PPS	21 04.1		
	SSS	21 13 59		
	L F	21 29 23 50		
99 Mar. 26		Ottawa		
	H	18 43.6	270	
	P _{2Z}	18 44 23		
	S _{2Z}	18 44 53.5		
	i _{2Z}	18 44 56		
	F _{2Z}	18 45.4		
101 Mar. 26		Seven Falls		
	H	20 20.9	45	
	P ₁	20 21 02		
	S ₁	20 21 07.5		
	F ₁	20 22		
102 Mar. 26		Ottawa		
	H	23 06.2	105	
	P _{1Z}	23 06 30		
	i _{1Z}	23 06 34		
	S _{1Z}	23 06 42.5		
	i _{1Z}	23 06 47		
	F _{1Z}	23 07.2		
104 Mar. 28		Ottawa		
	H	21 11.5	155	
	P _{2Z}	21 12 00.5		
	P _{1Z}	21 12 02		
	S _{2Z}	21 12 18		
	S _{1Z}	21 12 20.5		
	i _{1Z}	21 12 27		
	F _{1Z}	21 12.7		



SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM March 28, 1947 to March 31, 1947 No. 13

NO. AND DATE	PHASE	TIME			DISTANCE km.	REMARKS	
		h	m	s			
105 Mar. 29		Ottawa			465		
	H	12	29	.1			
	P _{3Z}	12	30	12			
	e _{2Z}	12	30	55.5			
	S _{3Z}	12	31	02			
	S _{2Z}	12	31	07			
	F _{2Z}	12	33				
			Seven Falls			55	
	H	12	28	.9			
	P ₁	12	29	01.5			
	S ₁	12	29	08			
	F ₁	12	31				
			Saginaw Falls			260	
	H	12	28	.7			
	P ₃	12	29	22			
	P ₁	12	29	25			
	S ₃	12	29	51			
	S ₂	12	29	54			
F ₂	12	31	.5				

W. W. Doxsee.

EARTHQUAKE CORRELATION TABLE

March, 1947

No.	Date	Ottawa	Victoria	Saskatoon	Halifax	Seven Falls		Shawinigan	**
						M. S.	W. A.		
79	2	19 28+1 49u	19 26+2 14u	19 28+1 22u	19 41+0 21L	19 31+2 04u	19 28+0 05P	19 28+0 08P	A
80	7	4 51+0 09L	4 34+0 13L	4 40+0 09L	.....	4 53+0 07L	.....	.....	.....
81	7	21 46+0 0.1P*	.....	.....	.....	.....	.....	.....	.....
82	8	15 25+0 0.5P*	.....	.....	.....	2 29+0 07L	.....	.....	.....
83	10	2 05+0 0.5P*	.....	.....	.....	4 33+0 06L	.....	.....	.....
84	10	.....	.....	.....	.....	19 54+0 10L	.....	.....	.....
85	11	.....	.....	.....	.....	.....	.....	.....	.....
86	15	.....	.....	.....	.....	8 31+0 08L	.....	4.59+0.01d	B
87	15	8 29+0 05L	.....	.....	.....	.....	.....	14 18+0 11P	.....
88	15	14 17+0 05P	.....	.....	.....	.....	.....	.....	.....
89	16	10 42+0 09L	.....	.....	.....	.....	.....	.....	.....
90	17	8 33+2 39T	.....	8 33+2 27U	8 48+1 22U	8 38+2 38U	8 33+1 18U	8 33+1 20U	C
91	18	15 44+0 05L	.....	.....	.....	.....	.....	.....	.....
92	18	19 56+0 0.7V*	.....	.....	.....	.....	.....	.....	.....
93	21	.....	.....	.....	.....	.....	.....	.....	.....
94	21	23 11+0 02P	.....	.....	.....	.....	.....	.....	.....
95	22	9 52+0 03P	.....	.....	.....	20 09+0 14T	.....	.....	.....
96	23	1 24+0 03P*	.....	.....	.....	.....	.....	.....	.....
97	24	16 51+0 0.4P*	.....	.....	.....	.....	.....	.....	.....
98	25	20 51+2 48u	20 58+2 49u	20 52+3 08u	21 37+1 51u	20 54+2 56u	9 52+0 13P	23 11+0 09P	.....
99	26	18 44+0 01V*	.....	.....	.....	.....	.....	9 52+0 12P	.....
100	26	.....	.....	.....	.....	20 02+0 14I	.....	.....	.....
101	26	.....	.....	.....	.....	.....	.....	.....	.....
102	26	23 06+0 0.7V*	.....	.....	.....	.....	20 21+0 01d	.....	.....
103	27	.....	.....	.....	.....	19 42+0 52I	.....	23 07+0 01V	.....
104	28	21 12+0 0.7V*	.....	.....	.....	.....	.....	.....	.....
105	29	12 30+0 03V*	.....	.....	.....	12 29+0 0.5d	12 29+0 02d	.....	.....
106	30	.....	.....	.....	.....	.....	.....	12 29+0 02V	.....
107	31	.....	.....	.....	.....	20 28+0 07L	.....	20 16+0 01P	.....

CORRELATION OF EARTHQUAKES

March, 1947

N O T E S

A :	Ottawa	Δ = 14,100 km.	H = 19 ^h 09 ^m 3 U.T.
	Saskatoon	Δ = 12,000 km.	H = 19 09.4 U.T.
	Seven Falls	Δ = 14,450 km.	H = 19 09.3 U.T.
B :	May not be seismic.		
C :	Ottawa	Δ = 11,000 km.	H = 19 ^h 19 ^m 8 U.T.
	Saskatoon	Δ = 9,520 km.	H = 19 20.0 U.T.
	Seven Falls	Δ = 11,300 km.	H = 19 19.4 U.T.
	Shawinigan Falls	Δ = 11,100 km.	H = 19 19.6 U.T.
D :	Ottawa	Δ = 155 km.	H = 19 ^h 55 ^m 0 U.T.
E :	Ottawa	Δ = 14,100 km.	H = 20 ^h 32 ^m 3 U.T.
	Victoria	Δ = 11,100 km.	H = 20 32.4 U.T.
	Saskatoon	Δ = 12,200 km.	H = 20 33 U.T.
	Seven Falls	Δ = 14,000 km.	H = 20 31.7 U.T.
F :	Ottawa	Δ = 270 km.	H = 20 ^h 43 ^m 6 U.T.
G :	Ottawa	Δ = 45 km.	H = 20 ^h 20 ^m 9 U.T.
H :	Ottawa	Δ = 105 km.	H = 23 ^h 06 ^m 2 U.T.
J :	Ottawa	Δ = 155 km.	H = 21 ^h 11 ^m 5 U.T.
K :	Ottawa	Δ = 465 km.	H = 12 ^h 29 ^m 1 U.T.
	Seven Falls	Δ = 55 km.	H = 12 28.9 U.T.
	Shawinigan Falls	Δ = 260 km.	H = 12 28.7 U.T.

DOMINION OBSERVATORY,

OTTAWA, CANADA

May 3, 1947.

SEISMOLOGICAL BULLETINS RECEIVED

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

STATIONS	BULLETINS	RECEIVED
<u>January, 1947</u>		
Ksara	September, October, 1946	January 2
Pehpei	Year 1945	" 2
Moscow	August, 1946	" 2
Brisbane	October, 1946	" 3
Ksara	November, 1946	" 4
Bureau Central	August to November, 1946	
	Supplements to June, July, 1946	" 13
Santa Clara	December, 1946	" 13
Cartuja	Years 1941, 1942, 1943	" 11
Oxford	Year 1935	" 11
Istanbul	September, October, 1946	" 11
Stuttgart	November, 1946	" 20
De Bilt	Preliminaries October, 1946,	
	November, 1946	" 22
St. Louis and Auxiliary Stations	Preliminaries January to March, 1946, Supplement to February, 1946	" 27
Wellington	July to December 1941, January to December, 1942, October and November, 1946	" 30
<u>February, 1947</u>		
Stuttgart	December, 1946	February 1
La Paz	Year, 1944	" 1
Berkeley and Auxiliary Stations	July 1 to September 30, 1940	" 1
De Bilt	December, 1946	" 6
Trieste	October, November 1946	" 6
Florence	November, 1946	" 6
Santa Clara	January, 1947	" 8
Alcala	March, 1946	" 8
Zurich	November, December, 1946	" 8
Rio de Janeiro	Years 1933 to 1939	" 22
Bureau Central	September, December, 1946	
	Supplements to July, August 1946	" 22
Paris	January 1941	" 22
India Stations	October to December, 1941; January to March, 1942	" 26
St. Louis and Auxiliary Stations	Preliminaries Nov. 10, 11, 13, 14, 15, 16, 17.	
	Supplements to March, 1946	" 27
UCCLE	November, December, 1946	
	January, 1947	" 28

SEISMOLOGICAL BULLETINS RECEIVED

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

STATIONS	BULLETINS	RECEIVED
	<u>March, 1947</u>	
Stuttgart	January, 1947	March 5
Berkeley and Auxiliary Stations	October 1 to December 31, 1940	" 5
Harvard	January to December, 1945	" 5
Pasadena	Locals April to June, 1946	" 7
De Bilt	Preliminary January, 1947	" 7
Wellington	December, 1946	" 10
Rome	December, 1946	" 10
Weston	Preliminaries December, 1946, January, 1947	" 11
Pasadena	Preliminaries November, 1946 to February, 1947; April to June, 1946; Locals April to June, 1946	" 15
Ksara	December, 1946, January, 1947	" 15
Santa Clara	February, 1947	" 15
Almeria	January to June, 1942	" 15
Moscow	October, 1946	" 18
Paris	February, 1941	" 20
Strasbourg	October, 1946	" 20
Bureau Central	January, 1947	" 20
Wellington	Year, 1944	" 21
Ayia	July to December, 1946	" 21
S. Louis and Auxiliary Stations	Preliminaries October 4, 22, 30, November 1, 2, 3, 4, 12, 14, 1946	" 21
Wellington	Preliminary January, 1947	" 21
De Bilt	February, 1947	" 27
Pasadena	Locals July to September, 1946	" 28

DOMINION OBSERVATORY

OTTAWA - CANADA.



SEISMOLOGICAL SERVICE OF CANADA

SEISMOLOGICAL BULLETIN

April and May

1947

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DOMINION OBSERVATORY

OTTAWA - CANADA

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SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

C. S. Beals, Dominion Astronomer
Ernest A. Holmgren, Chief, Seismological Division
W. W. Doxsee, Seismologist in charge
W. G. Milne, Station Superintendent

S T A T I O N S

OTTAWA

$\phi = 45^{\circ}23'38''$ N. $\lambda = 75^{\circ}42'57''$ W. $h = 83$ m.

Time correction within 0.10s.

Foundation: boulder clay over limestone

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

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

HALIFAX

Dalhousie University

$\phi = 44^{\circ}38'$ N. $\lambda = 63^{\circ}36'$ W. $h = 46$ m.

Time correction from recorded radio time signals

Foundation: Carbonaceous slate

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

SEVEN FALLS

Quebec Power Company

$\phi = 47^{\circ}07'4''$ N. $\lambda = 70^{\circ}49'6''$ W. $h = 232$ m. ca.

Time correction from recorded radio time signals

Foundation: Solid granite of Canadian Shield

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

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

VICTORIA

Dominion Astrophysical Observatory
 $\phi = 48^{\circ}31'14''$ N. $\lambda = 123^{\circ}24'56''$ W. $h = 197$ m.
 Time correction from recorded radio time signals
 Foundation: rock

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

SHAWINIGAN FALLS

Shawinigan Water and Power Company
 $\phi = 46^{\circ}33'11''$ N. $\lambda = 72^{\circ}45'18''$ W. $h = 60$ m. ca.
 Time correction from recorded radio time signals
 Foundation: solid granite of Canadian Shield

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

SASKATOON

University of Saskatchewan
 $\phi = 52^{\circ}08'$ N. $\lambda = 106^{\circ}38'$ W. $h = 51.5$ m.
 Time correction from radio time signals
 Foundation: clay and sand

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

DETERMINED CONSTANTS

INSTRUMENT	To	V	ϵ	DISPLACEMENT FOR 1" ARC TILT	DISPLACEMENT FOR 10-6 g
17 (Ottawa)	12.0	300	20:1	50 mm.	5 mm. 16 mm.
23 (Ottawa)	12.0	300	20:1	50 mm.	
BS (Ottawa)	1.0				
BL (Ottawa)	1.0				
HN (Halifax)	5.0	125	20:1		
HE (Halifax)	5.0	125	20:1		
SA (Shawinigan)	1.0	2500			
20 (Victoria)	12.0	300	20:1		
21 (Victoria)	12.0	300	20:1		
SF (Seven Falls)	1.0	2500			
SM (Seven Falls)	12.0	300	20:1	50 mm.	
18 (Saskatoon)	10.0	150	20:1	18 mm.	
22 (Saskatoon)	10.0	150	20:1	18 mm.	

NOTE:- Universal Time used throughout.

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM April 1, 1947 to April 2, 1947 No. 14

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
108 Apr. 2		Ottawa		
	H	5 39.2	14,200	USCGS gives:- $\delta = 1^{\circ}$ S. $\lambda = 141^{\circ}$ E.
	PZ	5 58 21		
	PP	6 00 15		
	SKP	6 01 34		
	SKSN	6 05 24		
	SKKS	6 07 14		
	PS	6 10 25		
	PPSN	6 12.1		
	SS	6 17.6		
	SSSN	6 22		
	L	6 39		
F	9 00 ca.			
		Victoria		
	H	5 39.4	10,700	
	P	5 52 56		
	SKS	6 03 24		
	PS	6 05 24		
	SS	6 11 03		
	SSS	6 14 32		
	e	6 17 45		
	L	6 23.0		
	F	9 20		
		Saskatoon		
	H	5 39.3	11,900	
	PP	5 57 55		
	SKS	6 04 12		
	SKKS	6 05 03		
	PS	6 07 12		
	PPS	6 08 03		
	SS	6 13 03		
	SSS	6 16 56		
	L	6 25		
	F	9 05		
		Halifax		
	H	5 39.9	14,500	
	SKP	6 02 19		
	SKKS	6 08 05		
	PS	6 11.3		
	SS	6 19.1		
	SSS	6 24.1		
	L	6 40		
	F	8 09		

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM	April 2, 1947		to	April 10, 1947		No. 15
NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS		
		h m s	km.			
		Seven Falls				
108 Apr. 2 (cont'd)	H	5 39.4	14,300			
	P'	5 58.5				
	PP	6 00 32				
	SKKS	6 07 18				
	e	6 16.0				
	e	6 21.1				
	L F	6 45 7 45				
		Shawinigan Falls				
	H	5 39.3	14,000			
	P'	5 58 26				
	PP	6 00 11				
	SKP	6 01.7				
	SKKS	6 07 16				
	L	6 42				
	F	7 06				
		Ottawa				
109 Apr. 2	eN	21 10.2				
	eN	21 13.4				
	L	21 37				
	F	22 38				
		Ottawa				
110 Apr. 3	H	22 15.0	150			
	P ^{2Z}	22 15 24				
	S ^{2Z}	22 15 41				
	eZ	22 15 48				
	F	22 16.1				
		Ottawa				
111 Apr. 10	H	15 58.1	3,540	USCGS gives:- φ = 35° N. λ = 116°6 W.		
	PZ	16 04 37				
	PPP	16 06.0				
	S	16 09 55				
	SSN	16 11.6				
	SSS	16 12.3				
	L	16 14				
	F	18 00				
		Victoria				
H	15 58.0	1,740				
P	16 01 39					
S	16 04 41					
L	16 05 22					
F	17 38					

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM April 10, 1947 to April 14, 1947 No. 16

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS	
		h m s	km.		
Apr. 10 (cont'd)		Saskatoon			
	H	15 58.0	2,160		
	P	16 02 25			
	e	16 03 20			
	S	16 06 03			
	L	16 08			
	F	17 40			
		Halifax			
	e	16 12 10			
	eE	16 15 08			
	L	16 18			
	F	17 12			
		Seven Falls			
	H	15 58	4,200		
	P	16 05 11			
PP	16 06 29				
SSS	16 14 15				
L	16 16				
F	16 55				
	Shawinigan Falls				
H	15 58.2	3,660			
P	16 04 51				
PPP	16 06 10				
S	16 10 17				
SS	16 12 12				
L	16 15				
F	16 49				
	Ottawa				
114 Apr. 14	H	7 15.5	9,250	USCGS gives:- φ = 45° N. λ = 146.5 E.	
	PZ	7 27 56			
	PP	7 31.0			
	S	7 38 18			
	SS	7 44 08			
	SSS	7 47.3			
	L	7 56			
	F	11 22			
	Victoria				
	H	7 15.9			6,280
	P	7 25 35			
	S	7 33 31			
	SS	7 37 14			
	i	7 39 52			
	L	7 43			
	F	11 12			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM April 14, 1947 to April 24, 1947 No. 17

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS		
		h m s	km.			
114 Apr. 14 (cont'd)		Saskatoon				
	H	7 15.8	6,980			
	P	7 26 06				
	S	7 34 42				
	SS	7 39 04				
	SSS	7 41.3				
	L	7 47				
	F	11 08				
		Halifax				
	e	7 38 59				
	e	7 44.3				
	e	7 50.1				
	L	7 58				
	F	10 04				
	Seven Falls					
H	7 15.4	9,280				
P	7 27 50					
S	7 38 13					
e	7 50.1					
L	7 56					
F	8 52					
	Shawinigan Falls					
H	7 15.4	9,500				
P	7 27 59					
S	7 38 32					
L	7 59					
F	8 49					
	Ottawa					
122 Apr. 24	H	19 35.4	5,330	USCGS gives:- φ = 8° N. λ = 37°5 W.		
	P	19 44 02				
	PP	19 45 42				
	PPP	19 46 32				
	S	19 51 05				
	SS	19 54.5				
	SSS _N	19 55 44				
	e	19 56 24				
	L	19 58				
	F	22 00 ca.				
	Victoria					
	H	19 35.3			8,980	
	P	19 47 30				
	S	19 57 40				
	PS _E	19 58 16				
	L	20 13				
	F	21 30				

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM April 24, 1947 to April 30, 1947 No. 18

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h n s	km.	
122 Apr. 24 (cont'd)		Saskatoon		
	H	19 35.4	7,660	
	P	19 46 25		
	S	19 55 34		
	SS	20 00		
	L	20 06		
	F	21 52		
		Halifax		
	H	19 35.6	4,460	
	P	19 43 10		
	PPP	19 45.2		
	S	19 49 25		
	SSS	19 52.7		
	L	19 55		
	F	20 41		
	Seven Falls			
H	19 35.3	5,220		
P	19 43 50			
S	19 50 47			
L	19 56			
F	20 16			
	Shawinigan Falls			
H	19 35.4	5,240		
P	19 43 54			
PP	19 45.7			
S	19 50 52			
L	19 56			
F	20 17			
	Saskatoon			
125 Apr. 27	e	8 08 16		
	L	8 09.5		
	F	8 23		
	Shawinigan Falls			
128 Apr. 30	e	5 07 50		
	L	5 10		
	F	5 23		

CORRELATION OF EARTHQUAKES

April, 1947

NOTES

A :	Ottawa	$\Delta = 14,200$ km.	H = 5 ^h 39 ^m .2 U.T.
	Victoria	$\Delta = 10,700$ km.	H = 5 39.4 U.T.
	Saskatoon	$\Delta = 11,900$ km.	H = 5 39.3 U.T.
	Halifax	$\Delta = 14,500$ km.	H = 5 39.9 U.T.
	Seven Falls	$\Delta = 14,300$ km.	H = 5 39.4 U.T.
	Shawinigan Falls	$\Delta = 14,000$ km.	H = 5 39.3 U.T.
B :	Ottawa	$\Delta = 150$ km.	H = 22 ^h 15 ^m .0 U.T.
C :	Ottawa	$\Delta = 3,540$ km.	H = 15 ^h 58 ^m .1 U.T.
	Victoria	$\Delta = 1,740$ km.	H = 15 58.0 U.T.
	Saskatoon	$\Delta = 2,160$ km.	H = 15 58.0 U.T.
	Seven Falls	$\Delta = 4,200$ km.	H = 15 58 U.T.
	Shawinigan Falls	$\Delta = 3,660$ km.	H = 15 58.2 U.T.
D :	Ottawa	$\Delta = 9,250$ km.	H = 7 ^h 15 ^m .5 U.T.
	Victoria	$\Delta = 6,280$ km.	H = 7 15.9 U.T.
	Saskatoon	$\Delta = 6,980$ km.	H = 7 15.8 U.T.
	Seven Falls	$\Delta = 9,280$ km.	H = 7 15.4 U.T.
	Shawinigan Falls	$\Delta = 9,500$ km.	H = 7 15.4 U.T.
E :	Ottawa	$\Delta = 5,330$ km.	H = 19 ^h 35 ^m .4 U.T.
	Victoria	$\Delta = 8,980$ km.	H = 19 35.3 U.T.
	Saskatoon	$\Delta = 7,660$ km.	H = 19 35.4 U.T.
	Halifax	$\Delta = 4,460$ km.	H = 19 35.6 U.T.
	Seven Falls	$\Delta = 5,220$ km.	H = 19 35.3 U.T.
	Shawinigan Falls	$\Delta = 5,240$ km.	H = 19 35.4 U.T.

Dominion Observatory,

OTTAWA, CANADA.

June 27, 1947.



SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM May 1, 1947 to May 6, 1947 No.19

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS	
		h m s	km.		
131 May 2		Ottawa		USCGS gives:- φ = 54° N. λ = 164° W.	
	H	2 19.1	5,940		
	P	2 28 21			
	S	2 35 58			
	SS	2 40.0			
	L	2 46			
	F	3 43			
			Victoria		
	H	2 19.0	2,870		
	P	2 24 34			
	S	2 29 08			
	L	2 32			
	F	3 43			
			Saskatoon		
	e	2 26.2			
e	2 31.6				
L	2 35				
F	3 33				
		Saskatoon			
132 May 2	e	12 39.5			
	L	12 43			
	F	12 46			
		Ottawa			
134 May 5	e	5 11.3			
	L	5 14			
	F	5 30			
		Ottawa			
135 May 6	H	20 30.5	14,200	USCGS gives:- φ = 7° S. λ = 150° E.	
	P ₂	20 49 35			
	PF	20 51 24			
	SKP	20 52 50			
	PS	21 01 26			
	PPS	21 03.2			
	SS	21 08.7			
	SSS	21 13.4			
	e	21 17.3			
	L	21 23			
	F	23 48			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM May 6, 1947 to May 6, 1947 No. 20

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS	
		h m s	km.		
135 May 6 (cont'd)		Victoria			
	H	20 30.5	10,600		
	P	20 43 54			
	PP	20 47 42			
	SKS	20 54 27			
	SKKS	20 55.0			
	PS	20 56.2			
	PPS	20 56.9			
	SS	21 01.6			
	SSS	21 05.4			
	eN	21 09.2			
	L	21 14			
	F	22 43+			
			Saskatoon		
	H	20 30.7	11,500		
	PP	20 49.0			
	SKS	20 55 17			
	PS	20 58.1			
	SS	21 03.5			
	SSS	21 07.4			
	e	21 14.1			
	L	21 18.5			
	F	23 45			
			Halifax		
	H	20 31 ca.	14,500		
	SKP	20 53 28			
	PS	21 02.3			
PPS	21 04.3				
SS	21 10				
SSS	21 14				
e	21 19				
L	21 25				
F	22 55				
		Shawinigan Falls			
P'	20 49 37				
L	21 26				
F	22 04				
		Seven Falls			
H	20 30.5	14,500			
P'	20 49.7				
SKP	20 52.9				
PS	21 02.1				
PPS	21 03.4				
SS	21 09.0				
L	21 26				
F	22 12				

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM May 6, 1947 to May 17, 1947 No. 21

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
138 May 8	e L F	7 18 48 7 19.3 7 25		
		Victoria		
		Ottawa		
139 May 9	e L F	0 08.1 0 12 0 46		USCGS gives:- $\phi = 61^{\circ}$ N. $\lambda = 139^{\circ}$ W.
		Victoria		
	e L F	0 09.5 0 19 0 44		
		Ottawa		
144 May 11	e L F	19 08 19 53 20 48		
		Victoria		
	e L F	19 06 19 44 20 45		
		Victoria		
147 May 14	e L F	2 31 3 05 3 21		
		Ottawa		
151 May 17	H P _{1/2} PP _E SKP SKS _E SN PS SS L F	7 06.6 7 25 44 7 27.5 7 29.0 7 33 7 36 7 38 7 45 8 00 10 30	14,200	USCGS gives:- $\phi = 37.5^{\circ}$ S. $\lambda = 180^{\circ}$

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM May 17, 1947 to May 26, 1947 No. 22

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS	
		h m s	km.		
151 May 17 (cont'd)		Victoria			
	H	7 06.6	11,500		
	PP	7 24 43			
	SKS	7 31 24			
	SKKS	7 32.3			
	SE	7 32 43			
	PSN	7 34.2			
	SS	7 39 32			
	SSS	7 44.8			
	eE	7 47.3			
	L	7 56			
	F	10 32			
		Saskatoon			
	H	7 06.3	12,800		
PP	7 25.9				
SNW	7 33 35				
PSNE	7 35.4				
SS	7 41.8				
SSS	7 45.8				
L	7 59				
F	10 30				
	Halifax				
H	7 07ca.	15,000			
PP	7 29.0				
SS	7 47				
e	8 03				
L	8 11				
F	9 29				
	Seven Falls				
H	7 06.5	14,600			
P'	7 25.8				
SKP	7 29 02				
SS	7 46.1				
L	8 14				
F	9 26				
	Ottawa				
155 May 26	H	0 07.1	3,310		
	P	0 13 16			
	S	0 18 20			
	L	0 22			
	F	0 41			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM May 26, 1947 to May 27, 1947 No. 23

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS			
		h m s	km.				
157 May 26	e	20 06.5					
	L	20 12					
	F	20 19					
		Ottawa					
158 May 27	H	5 58.8	14,700	USCGS gives:- φ = 2° S. λ = 141° E.			
	P ₂	6 18 02					
	PP	6 20.2					
	SKP	6 21.6					
	PPS	6 33 07					
	SS	6 38.0					
	L	6 55					
	F	9 25					
					Victoria		
	H	5 59.0			11,450		
P	6 13.0						
PP	6 16.8						
SKS	6 23 30						
SKKS	6 24.2						
SE	6 24.9						
PPS	6 26.9						
SS	6 31.3						
L	6 43						
F	9 34						
		Saskatoon					
H	5 58.9	12,200					
PP	6 17 52						
i _{NW}	6 19 44						
SKKS	6 25.2						
S	6 25.6						
PS	6 27.3						
SS	6 33.3						
SSS	6 37.6						
L	6 46						
F	9 09						
		Halifax					
H	6 59.3	14,800					
PP	6 20.9						
SKP	6 21 49						
SKKS	6 27.5						
PPS	6 33.9						
SS	6 38.9						
SSS	6 45.2						
L	6 58						
F	8 32						

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM May 27, 1947 to May 31, 1947 No. 24

NO. AND DATE	PHASE	TIME	DISTANCE km.	REMARKS	
		h m s			
158 May 27 (cont'd)	e L F	Shawinigan Falls			
		6 20 25			
		6 54			
	8 13				
	P ¹ L F	Seven Falls			
		6 13 44			
6 54					
e L F	Saskatoon				
	17 45.1				
	17 46.5				
e L F	Victoria				
	21 00.4				
	21 03				
e L F	Saskatoon				
	21 05.8				
	21 08				
164 May 31	H P ₂ S ₂ e F	Ottawa		180	
		15 03.6			
		15 04 09			
		15 04 29.5			
		15 04 36			
		15 04.9			

W. W. Dore

CORRELATION OF EARTHQUAKES

May, 1947

.....
N O T E S
=====

A	: Ottawa Victoria	$\Delta = 5,940$ km. $\Delta = 2,870$ km.	H = $2^{\text{h}}19^{\text{m}}1$ U.T. H = 2 19.0 U.T.
B	: Ottawa Victoria Saskatoon Halifax Seven Falls	$\Delta = 14,200$ km. $\Delta = 10,600$ km. $\Delta = 11,500$ $\Delta = 14,500$ km. $\Delta = 14,500$ km.	H = $20^{\text{h}}30^{\text{m}}5$ U.T. H = 20 30.5 U.T. H = 20 30.7 U.T. H = 20 31 U.T. H = 20 30.5 U.T.
C	: Ottawa Victoria Saskatoon Halifax Seven Falls	$\Delta = 14,200$ km. $\Delta = 11,500$ km. $\Delta = 12,800$ km. $\Delta = 15,000$ km. $\Delta = 14,600$ km.	H = $7^{\text{h}}06^{\text{m}}6$ U.T. H = 7 06.6 U.T. H = 7 06.3 U.T. H = 7 07ca U.T. H = 7 06.5 U.T.
D	: Ottawa	$\Delta = 3,310$ km.	H = $0^{\text{h}}07^{\text{m}}1$ U.T.
E	: Ottawa Victoria Saskatoon Halifax	$\Delta = 14,700$ km. $\Delta = 11,450$ km. $\Delta = 12,200$ km. $\Delta = 14,800$ km.	H = $5^{\text{h}}58^{\text{m}}8$ U.T. H = 5 59.0 U.T. H = 5 58.9 U.T. H = 5 59.3 U.T.
F	: Ottawa	$\Delta = 180$ km.	H = $15^{\text{h}}03^{\text{m}}6$ U.T.

Dominion Observatory,

Ottawa, Canada.

July 10, 1947.

SEISMOLOGICAL BULLETINS RECEIVED

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

STATIONS	BULLETINS	RECEIVED
<u>April, 1947</u>		
Bogota	August, September, 1946	April 3
Moscow	October, November, 1946	" 3
Rome	January, 1947	" 3
San Fernando	Year, 1942	" 8
San Fernando	July to December, 1941	" 8
Berkeley	Preliminaries July to December, 1946	" 8
Santa Clara	March, 1947	" 8
Almeria	January to June, 1942	" 9
Almeria	October, 1945	" 9
La Paz	Year, 1945	" 10
Moscow	December, 1946	" 10
Almeria	November, December, 1945	" 10
Stuttgart	February, 1947	" 10
St. Louis and Auxiliary Stations	Preliminaries June 7, July 1, August 21, 28, September 12, 25, 29, 30, October 2, 1946	" 18
Harvard	January to December, 1946	" 19
Rome	February, 1947	" 21
Moscow	January to March, 1947	" 24
Moscow and Russian Stations	January, February, 1947	" 25
Bucarest	Year, 1946	" 25
Zarich	January to March, 1947	" 28
Perth	October to December, 1946	" 29

May, 1947

Stuttgart	March, 1947	May 2
Paris	April, 1941	" 5
Strasbourg	Supplement October, November, 1946	" 5
De Bilt	March, 1947	" 7
Helsinki	October to December, 1946	" 8
Wellington	Preliminary February, 1947	" 8
Ksara	February, March, 1947	" 12
Santa Clara	April, 1947	" 13
Rome	March, 1947	" 13
Triests	December, 1946, January, February, 1947	" 13
Firenze	December, 1946, January, February, March, 1947	" 13
Lima	Years 1944, 1945	" 20
Weston	Preliminary February, March, 1947	" 26
De Bilt	Preliminary April, 1947	" 28
Bogota	October, November, December, 1946	" 30
Belgrade	January, February, 1947	" 31

DOMINION OBSERVATORY

OTTAWA - CANADA.



DEPARTMENT OF MINES AND RESOURCES
SURVEYS AND ENGINEERING BRANCH
SEISMOLOGICAL SERVICE OF CANADA

SEISMOLOGICAL BULLETIN
June and July
1947

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DOMINION OBSERVATORY
OTTAWA - CANADA

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SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM June 1, 1947 to June 5, 1947 No. 25

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
165 June 1		Ottawa		
	H	11 19.0	7500	
	PZ	11 29 52		
	S	11 38.9		
	SSS	11 47		
	L	11 54		
	F	12 23		
		Ottawa		
171 June 2	H	6 40.7	9720	
	P	6 53 28		
	S	7 04 10		
	L	7 21		
	F	8 25		
		Seven Falls		
	H	6 40.3	9865	
	P	6 53 10		
	S	7 03 59		
	L	7 24		
	F	8 15		
		Ottawa		
173 June 3	H	0 29.9	7600	
	PZ	0 40 54		
	S	0 50 00		
	L	1 01		
	F	1 30		
		Ottawa		
178 June 5	H	20 14.7	275	
	P _{2Z}	20 15 26.5		
	S _{2Z}	20 15 57.5		
	e _Z	20 16 19		
	F	20 16.7		
		Ottawa		
179 June 5	H	22 58.4	3570	USCGS gives:- φ = 14° N. λ = 90° W.
	P	23 04 54		
	PPP	23 06 16		
	S	23 10 14		
	SS	23 12 30		
	L	23 15.5		
	F	23 45		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM June 5, 1947 to June 7, 1947 No. 26

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS	
		h m s	km.		
179 June 5 (cont'd)		Victoria			
	H	22 58.3	4900		
	P	23 06 25			
	S	23 13 04			
	SS	23 15 52			
	L	23 20			
	F	23 34			
			Seven Falls		
	e	23 06.9			
	L	23 11			
	F	23 45			
			Shawinigan Falls		
	H	22 58.5	3720		
	P	23 05 11			
	PPP	23 06 38			
S	23 10 41				
L	23 14				
F	23 20				
		Ottawa			
180 June 7	H	18 47.8	13500	USCGS gives:- φ = 11° N. λ = 127° E.	
	P ₂	19 06 41			
	PP	19 08 10			
	PS	19 18.0			
	SS	19 24 38			
	SSS	19 28.8			
	L	19 45			
	F	21 23			
					Victoria
	H	18 48.2	11100		
	PP	19 05 22			
	SKSE	19 11 55			
	SKSE _T	19 12 30			
	SN	19 13 03			
	PS	19 14.3			
SS	19 19				
SSS	19 24				
L	19 35				
F	21 23				
		Saskatoon			
e	19 14 16				
L	19 23				
F	20 38				

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM June 7, 1947 to June 12, 1947 No. 27

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS		
		h m s	km.			
182 June 10	eZ eN e L F	Ottawa				
		11 31.4				
		11 43.4				
		11 49				
		12 04				
183 June 10	H P S L F	Ottawa				
		19 40.5	3850			
		19 47 25				
		19 53 03				
		19 57				
	H P S L F	Seven Falls				
		19 40.5	3480			
		19 46 54				
		19 52 09				
		19 58				
184 June 12	H P ₁ PP SKP PPP SKKS PS SS L F	Ottawa				
		9 02.4	14500	USCGS gives:- φ = 1° N. λ = 127° E.		
		9 21 36				
		9 23 44				
		9 25.0				
		9 26.2				
		9 30.5				
		9 34.2				
		9 41.0				
		9 56				
		11 43				
		H P PP SKS S PS PPS SS SSS L F	Victoria			
			9 02.7		11100	
			9 16 30			
			9 20 54			
9 27.2						
9 28.3						
9 29.7						
9 30.2						
9 35.2						
9 39.2						
9 49						
11 39						

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM June 12, 1947 to June 12, 1947 No. 28

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Saskatoon		
184 June 12 (cont'd)	H	9 02.4	14000	
	PP	9 23.2		
	SKP	9 24 34		
	PS	9 33.5		
	SS	9 40.3		
	F	11 42		
		Halifax		
	H	9 02.3	14700	
	P'	9 21.7		
	SKP	9 25 17		
	SKKS	9 31.0		
	PPS	9 36.2		
	SS	9 42 00		
	SSS	9 47.2		
	L	10 02		
	F	11 05		
		Seven Falls		
	H	9 02.6	14300	
	P'	9 21 40		
	PP	9 23.8		
	SKP	9 25.1		
	S	9 31.6		
	PS	9 33.8		
	SS	9 41.2		
	L	9 59		
	F	11 48		
		Shawinigan Falls		
	H	9 02.4	14450	
	P'	9 21 35		
	PP	9 23 44		
	SKP	9 24 56		
	SKS	9 28.7		
	SKKS	9 30.7		
	PS	9 34.0		
	F	10 07		
		Ottawa		
185 June 12	H	18 14.6	160	
	P _{2Z}	18 15 02		
	S _{2Z}	18 15 20.5		
	e _Z	18 15 27		
	F	18 15.6		

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM June 12, 1947 to June 13, 1947 No. 29

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS	
		h m s	km.		
186 June 12		Ottawa			
	H	23 03.2	155		
	P _{2Z}	23 03 36			
	iZ	23 03 37.6			
	S _{2Z}	23 03 54			
	iZ	23 03 57			
	eZ F	23 04 03 23 04.2			
188 June 13		Ottawa			
	H	20 25ca	11800 ca	USCGS gives:- φ = 19° N. λ = 146° E.	
	P _Z	20 39.2			
	e _Z	20 42.1			
	PP	20 43 20			
	SKS	20 49 30			
	S _E	20 50 48			
	PS	20 52 24			
	SS	20 58 20			
	SSC _N	21 02			
	SSSS	21 06			
	L	21 13			
	F	23 56			
		Victoria			
	H	20 25.1	8250		
P	20 36 42				
S	20 46 20				
SS	20 51.4				
L	21 00				
F	23 40				
	Saskatoon				
H	20 25.0	9220			
P	20 37 27				
S	20 47.7				
PS	20 48.7				
SS	20 53.3				
L	21 05				
F	23 12				
	Halifax				
H	20 25.0	12100			
PP	20 43 56				
PPP	20 46 24				
SKS	20 50 08				
PS	20 53 20				
SS	20 59 23				
L	21 12				
F	22 30				

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM June 13, 1947 to June 13, 1947 No. 30

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
188 June 13 (cont'd)		Seven Falls		
	H	20 25.0	11700	
	PP	20 43 25		
	SKS	20 49 46		
	PS	20 52 31		
	SS	20 58 29		
	SSSS	21 07		
	L	21 17		
	F	23 52		
			Shawinigan Falls	
	e	20 42 41		
	e	20 49 40		
	e	20 52.3		
	F	22 03		
		Ottawa		
191 June 13	H	23 50	11800	
	PP	0 08 37		
	SKS	0 15.0		
	SS	0 18		
	e	0 23.5		
	L	0 33		
	F	2 12		
		Victoria		
	H	23 49.9	8520	
	P	0 01 42		
	S	0 11 32		
	PS	0 12.4		
	SS	0 16.8		
	L	0 25		
	F	2 15		
		Saskatoon		
	H	23 50.4	9280	
	P	0 02 50		
	S	0 13.2		
	SS	0 18.9		
	L	0 29		
	F	2 05		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM June 13, 1947 to June 19, 1947 No. 31

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
191 June 13 (cont'd)	H	23 50.5	11700	
	PP	0 08 51		
	SKS	0 15 16		
	PS	0 18.0		
	SS	0 21.8		
	L	0 41		
	F	2 36		
		Victoria		
194 June 14	e	16 52.2		
	L	17 05		
	F	18 00 ca		
		Seven Falls		
197 June 16	H	17 04.8	33	
	P ₁	17 04 53.5		
	S ₁	17 04 57.5		
	F ⁻	17 05.4		
		Ottawa		
200 June 18	e	22 06 30.8		Blast at Dibblee quarry, 3.5 miles south of Ottawa.
	e	22 06 32		
	F	22 07.3		
		Ottawa		
201 June 19	eZ	2 25 18		
	L	2 57		
	F	3 40		
		Victoria		
	e	2 35.9		
	L	2 46		
	F	3 06		
		Ottawa		
202 June 19	H	7 34.3	11800	USCGS gives:- φ = 22° N. λ = 146° E.
	PP	7 52 45		
	SKS	7 59 09		
	PS	8 02.1		
	SS	8 07.9		
	SSS	8 11.5		
	eE	8 17		
	L	8 21		
	F	10 05		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM June 19, 1947 to June 19, 1947 No. 32

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
202 June 19 (cont'd)		Victoria		
	H	7 34.8	8200	
	P	7 46 20		
	PP	7 49.1		
	S	7 55 56		
	SS	8 01		
	SSS	8 04		
	L	8 09		
	F	10 13		
		Saskatoon		
	H	7 34.3	9390	
	P	7 46 47		
	SKS	7 57 03		
	PS	7 58.2		
L	8 15			
F	10 49			
	Halifax			
H	7 34.4	12300		
SKS	7 59.2			
PS	8 02 39			
SS	8 08.8			
L	8 25			
F	9 20			
	Seven Falls			
H	7 34.7	11700		
PP	7 53 03			
PPP	7 54.8			
SKS	7 59.3			
SKKS	8 00.4			
PS	8 02.2			
SS	8 07.9			
L	8 23			
F	10 36			
	Shawinigan Falls			
e	7 52 51			
L	8 27			
F	8 47			
	Ottawa			
H	22 47.6	4940		
PZ	22 55 49			
S	23 02 30			
SS	23 05.7			
L	23 10			
F	23 30			
205 June 19				

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM June 19, 1947 to June 20, 1947 No. 33

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
205 June 19 (cont'd)		Seven Falls		
	H	22 47.5	5400	
	P	22 56 14		
	PPP	22 58.9		
	S	23 03 20		
	SS	23 06.2		
	L F	23 10 23 46		
207 June 20		Ottawa	3310	
	H	13 34.4		
	P	13 40 36		
	PP ^E	13 41.4		
	S	13 45 40		
	SSN	13 47.0		
	L F	13 49 14 16		
		Seven Falls		
	e	13 39 58		
	L F	13 46 14 20		
	208 June 20		Seven Falls	
e		17 10 51		
L F		17 16 17 30		
		Ottawa		
213 June 20	eZ	22 44 41		
	L F	22 56 23 09		
		Ottawa		
214 June 20	eZ	23 16 18		
	e ^E	23 21.8		
	L F	23 25 23 48		
		Seven Falls		
	e L F	23 15 47 23 21.0 23 26 23 39		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM		June 20, 1947		to	June 30, 1947		No. 34	
NO. AND DATE	PHASE	TIME			DISTANCE	REMARKS		
		h	m	s	km.			
		Ottawa						
219 June 22	eZ L F	23	36	38				
		23	48					
		0	12					
		Ottawa						
222 June 23	H P _{2Z} S _{2Z} eZ F	21	13.4		205			
		21	13	57.5				
		21	14	21				
		21	14	33				
		21	14.7					
		Ottawa						
223 June 24	H P _{2Z} S _{2Z} eZ F	21	28.8		150			
		21	29	16				
		21	29	33.5				
		21	29	42				
		21	30.1					
		Ottawa						
226 June 25	eZ L F	22	56	29				
		23	06					
		23	26					

W. W. Doxsee.

EARTHQUAKE CORRELATION TABLE

June, 1947

No.	Date	Ottawa	Victoria	Saskatoon	Halifax	Seven Falls		Shawinigan	**
						M. S.	W. A.		
165	1	11 30+0 53u	12 03+0 24L						A
166	1	17 34+0 01P*							
167	1	22 30+0 01P*						1 53+0 02P	
168	2								
169	2	4 10+0 01P*							
170	2		7 03+0 03L						
171	2	6 53+1 32u	7 26+0 35L			7 04+1 11u	6 53+0 02P		B
172	2	19 33+0 0.3P*							
173	3	0 41+0 49u	1 10+0 26L	0 54+0 21L					C
174	3								
175	3					4 59+0 21L			
176	4					6 06+0 12L			
177	5	2 58+0 01P*				1 00+0 27L	0 42+0 01P	2 59+0 01P	
178	5	20 15+0 01V*							D
179	5	23 05+0 40r	23 06+0 28r	23 16+0 16L	23 07+0 02P	23 07+0 38r			E
180	7	19 07+2 16U	19 05+2 18U	19 14+1 24U	19 43+0 36L				F
181	9	6 18+0 01P*						6 18+0 01P	
182	10	11 31+1 20u							
183	10	19 47+0 39r							
184	12	9 22+2 21U	9 16+2 23U	9 23+2 19U	9 22+1 43U			9 22+0 45U	G
185	12	13 15+0 0.6V*							H
186	12	23 04+0 0.6V*							J
187	13	18 26+0 0.3P*							K
188	13	20 39+3 17U	20 37+3 03U	20 37+2 35U	20 44+1 46U	20 43+3 09U	20 43+1 00U	20 43+1 20U	L
189	13	20 55+0 0.6P*							

EARTHQUAKE CORRELATION TABLE

June, 1947

No.	Date	Ottawa	Victoria	Saskatoon	Halifax	Seven Falls		Shawinigan	**
						M. S.	W. A.		
190	13	21 37+0 01P*	0 02+2 13u	0 03+2 02u	0 44+0 55L	0 09+2 27u	.....	.....	M
191	13	0 09+2 03u	.....	.....	.....	.....	.....	.....	.....
192	14	1 04+0 0.4P*	.....	.....	.....	.....	.....	.....	.....
193	14	1 50+0 0.1P*	.....	.....	.....	.....	.....	.....	.....
194	14	17 13+0 43L	16 52+1 08u	.....	.....	16 56+1 05L	.....	.....	.....
195	15	11 34+0 06L	11 17+0 15L	7 47+3 02u	.....	.....	.....	.....	.....
196	16	11 15+0 0.5P*	.....	.....	.....	.....	.....	.....	.....
197	16	.....	.....	.....	.....	.....	.....	.....	N
198	17	14 05+0 01P*	14 30+0 13L	.....	.....	17 05+0 0.5d	.....	.....	.....
199	18	11 07+0 01P*	.....	.....	.....	.....	.....	.....	.....
200	18	22 06+0 01d	.....	.....	.....	.....	.....	.....	.....
201	19	2 25+1 15u	2 36+0 30u	2 53+0 02L	.....	2 47+0 58L	.....	.....	.....
202	19	7 53+2 12u	7 46+2 27u	7 47+3 02u	7 59+1 21u	7 53+2 43u	7 59+0 41u	7 53+0 54u	P
203	19	8 05+0 0.7P*	.....	.....	.....	.....	.....	.....	.....
204	19	22 13+0 0.2P*	.....	.....	.....	.....	.....	.....	.....
205	19	22 56+0 34r	23 12+0 12L	23 09+0 20L	.....	.....	.....	.....	.....
206	20	.....	.....	.....	.....	.....	.....	.....	.....
207	20	13 41+0 35r	14 02+0 22L	13 53+0 15L	.....	.....	.....	.....	.....
208	20	.....	.....	.....	.....	.....	.....	.....	.....
209	20	18 39+0 0.5P*	.....	.....	.....	.....	.....	.....	.....
210	20	20 28+0 0.2P*	.....	.....	.....	.....	.....	.....	.....
211	20	20 45+0 0.1P*	.....	.....	.....	.....	.....	.....	.....
212	20	22 07+0 0.2P*	.....	.....	.....	.....	.....	.....	.....
213	20	22 45+0 24r	.....	.....	.....	.....	.....	.....	.....
214	20	23 16+0 32u	.....	.....	.....	.....	.....	.....	.....
						23 02+0 05L	.....	.....	.....
						23 21+0 18u	23 16+0 01P	.....	.....

EARTHQUAKE CORRELATION TABLE

June, 1947

No.	Date	Ottawa	Victoria	Saskatoon	Halifax	Seven Falls		Shawinigan	**
						M. S.	W. A.		
215	21	..	..	..	..	1	14+0 09L	..	..
216	21	22 10+0 0.3P*	..	..	..	..	..	..	..
217	22	11 50+0 01P*	..	..	..	..	..	..	..
218	22	..	..	..	..	19	10+0 04L	..	..
219	22	23 37+0 35R	23 36+0 12L	23 39+0 12L	..	23	50+0 12L	..	..
220	23	13 11+0 0.5P*	..	..	..	..	..	..	..
221	23	20 17+0 0.1P*	..	..	..	..	..	..	..
222	23	21 14+0 0.7V*	..	..	..	..	..	..	..
223	24	21 29+0 0.8V*	..	..	..	..	..	..	..
224	25	16 49+0 01P*	..	..	..	..	..	..	..
225	25	22 27+0 0.5P*	..	..	..	..	..	..	..
226	25	22 56+0 30R	23 15+0 19L	..	..	23	11+0 18L	..	..
227	26	..	..	4 54+0 32L	..	..	..	..	..
228	26	14 09+0 02P*	..	..	..	..	..	..	..
229	26	18 16+0 0.1P*	..	..	..	..	..	..	..
230	26	19 52+0 0.1P*	..	..	..	..	..	..	..
231	27	..	..	9 53+0 19L	..	..	..	..	..
232	27	12 06+0 0.2P*	..	12 40+1 07L	..	..	..	..	..
233	28	2 07+0 02P*	..	..	..	..	..	..	..
234	28	..	..	..	..	..	..	..	..
235	28	..	..	..	..	..	..	..	..
236	29	8 23+0 06L	8 10+0 07L	8 13+0 06L	..	8	24+0 05L	21 41+0 01P	..
237	30	4 29+0 04L	..	..	..	..	4 33+0 02L	8 24+0 03L	..
238	30	..	8 16+0 39L	..	..	8	53+0 32L	4 30+0 04L	..

CORRELATION OF EARTHQUAKES

June, 1947

NOTES

A	: Ottawa	$\Delta = 7,500$ km.	H = 11 ^h 19 ^m 0 U.T.
B	; Ottawa Seven Falls	$\Delta = 9,720$ km. $\Delta = 9,865$ km.	H = 6 ^h 40 ^m 7 U.T. H = 6 40.3 U.T.
C	: Ottawa	$\Delta = 7,600$ km.	H = 0 ^h 29 ^m 9 U.T.
D	: Ottawa	$\Delta = 275$ km.	H = 20 ^h 14 ^m 7 U.T.
E	: Ottawa Victoria Shawinigan Falls	$\Delta = 3,570$ km. $\Delta = 4,900$ km. $\Delta = 3,720$ km.	H = 22 ^h 58 ^m 4 U.T. H = 22 58.3 U.T. H = 22 58.5 U.T.
F	: Ottawa Victoria	$\Delta = 13,500$ km. $\Delta = 11,100$ km.	H = 18 ^h 47 ^m 8 U.T. H = 18 48.2 U.T.
G	: Ottawa Seven Falls	$\Delta = 3,850$ km. $\Delta = 3,480$ km.	H = 19 ^h 40 ^m 5 U.T. H = 19 40.5 U.T.
H	: Ottawa Victoria Saskatoon Halifax Seven Falls Shawinigan Falls	$\Delta = 14,500$ km. $\Delta = 11,100$ km. $\Delta = 14,000$ km. $\Delta = 14,700$ km. $\Delta = 14,300$ km. $\Delta = 14,450$ km.	H = 9 ^h 02 ^m 4 U.T. H = 9 02.7 U.T. H = 9 02.4 U.T. H = 9 02.3 U.T. H = 9 02.6 U.T. H = 9 02.4 U.T.
J	: Ottawa	$\Delta = 160$ km.	H = 18 ^h 14 ^m 6 U.T.
K	: Ottawa	$\Delta = 155$ km.	H = 23 ^h 03 ^m 2 U.T.
L	: Ottawa Victoria Saskatoon Halifax Seven Falls	$\Delta = 11,800$ km. $\Delta = 8,250$ km. $\Delta = 9,220$ km. $\Delta = 12,100$ km. $\Delta = 11,700$ km.	H = 20 ^h 25 ^m U.T. H = 20 25.1 U.T. H = 20 25.0 U.T. H = 20 25.0 U.T. H = 20 25.0 U.T.
M	: Ottawa Victoria Saskatoon Seven Falls	$\Delta = 11,800$ km. $\Delta = 8,520$ km. $\Delta = 9,280$ km. $\Delta = 11,700$ km.	H = 23 ^h 50 ^m U.T. H = 23 49.9 U.T. H = 23 50.4 U.T. H = 23 50.5 U.T.
N	: Seven Falls	$\Delta = 33$ km.	H = 17 ^h 04 ^m 8 U.T.
P	: Ottawa Victoria Saskatoon Halifax Seven Falls	$\Delta = 11,800$ km. $\Delta = 8,200$ km. $\Delta = 9,390$ km. $\Delta = 12,300$ km. $\Delta = 11,700$ km.	H = 7 ^h 34 ^m 3 U.T. H = 7 34.8 U.T. H = 7 34.3 U.T. H = 7 34.4 U.T. H = 7 34.7 U.T.
Q	: Ottawa Seven Falls	$\Delta = 4,940$ km. $\Delta = 5,400$ km.	H = 22 ^h 47 ^m 6 U.T. H = 22 47.5 U.T.
R	: Ottawa	$\Delta = 3,310$ km.	H = 13 ^h 34 ^m 4 U.T.
S	: Ottawa	$\Delta = 205$ km.	H = 21 ^h 13 ^m 4 U.T.
T	: Ottawa	$\Delta = 150$ km.	H = 21 ^h 28 ^m 8 U.T.

Dominion Observatory,
 OTTAWA - CANADA.
 August 15, 1947.

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM July 1, 1947 to July 10, 1947 No. 35

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS	
		h m s	km.		
240 July 3		Ottawa			
	H	2 35.4	4050		
	P	2 42 30			
	S	2 48 20			
	SS	2 50.6			
	L	2 56			
	F	3 19			
		Victoria			
	H	2 35.9	4350		
	P	2 43 24			
	S	2 49 34			
SSS	2 53.1				
L	2 57				
F	3 19				
	Ottawa				
247 July 6	eNS	23 45.4			
	L	23 51			
	F	23 58			
	Ottawa				
250 July 10	H	10 48.9	3000	USCGS gives:- φ = 73° N. λ = 70° W.	
	P	10 54 38			
	PP	10 55 13			
	S	10 59 21			
	iz	11 00 10			
	SS	11 00.6			
	L	11 03			
	F	12 00			
		Victoria			
	e	11 06.1			
	L	11 06.9			
	F	11 57			
		Saskatoon			
	H	10 48.7	3010		
P ^{NE}	10 54 25				
S	10 59 09				
L	11 02.1				
F	12 03				
	Seven Falls				
H	10 48.7	2990			
P	10 54 26				
S	10 59 09				
SS	11 00 06				
L	11 02.0				
F	12 12				

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM July 10, 1947 to July 12, 1947 No. 36

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS	
		h m s	km.		
250 July 10 (cont'd)		Shawinigan Falls			
	H	10 48.5	3120		
	P	10 54 25			
	PP	10 55 05			
	S	10 59 18			
	L	11 02.3			
		Kirkland Lake			
	H	10 48.8	2860		
	P	10 54 20			
	i	10 54 36			
	S	10 58 54			
SS	11 00 31				
L	11 02				
F	11 20				
	Ottawa				
251 July 10	ez	16 12.8		USCGS gives:- $\phi = 14^{\circ} \text{ N.}$ $\lambda = 93^{\circ} \text{ W.}$ $H = 16^{\text{h}}05^{\text{m}}1$	
	L	16 17			
	F	17 16			
		Victoria			
	e	16 13.0			
	L	16 28			
	F	17 00 ca.			
		Seven Falls			
	H	16 05.3	4110		
	PP	16 13 41			
	S	16 18 30			
L	16 23				
F	17 53				
	Shawinigan Falls				
e	16 13 37				
L	16 28.1				
F	16 38				
	Ottawa				
252 July 12	H	1 59.0	8900	USCGS gives:- $\phi = 45^{\circ} \text{ N.}$ $\lambda = 149^{\circ} \text{ E.}$	
	PZ	2 11 09			
	SE	2 21 16			
	L	2 43			
	F	3 14			
		Victoria			
	e	2 17.5			
	L	2 24			
	F	3 07			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM	July 12, 1947	to	July 13, 1947	No. 37	
NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS	
		h m s	km.		
252 July 12 (cont'd)		Saskatoon			
	H	1 59.1	6900		
	P	2 09 23			
	S	2 17 55			
	L	2 29.7			
	F	3 05			
		Seven Falls			
	i	2 21 19			
	L	2 38.8			
	F	3 35			
		Shawinigan Falls			
	e	2 11 11			
	L	2 22 09			
	F	2 23			
		Victoria			
253 July 12	H	12 30.4	9400	USCGS gives:- $\phi = 20^{\circ}$ S. $\lambda = 176^{\circ}$ W.	
	P	12 43.0			
	SKS	12 53 19			
	SSS	13 02.8			
	L	13 11			
	F	14 37			
		Saskatoon			
	H	12 30.0	10100		
	S	12 54 02			
	SS	13 00			
L	13 13.6				
F	14 33				
	Seven Falls				
254 July 13	H	12 29.7	12800		
	PP	12 49.2			
	SKS	12 55.1			
	SKKS	12 56.2			
	PS	12 58.7			
	PPS	13 00.0			
	L	13 24			
	F	15 33			
		Saskatoon			
	H	6 31.0	2400		
P	6 35 48				
S	6 39 46				
L	6 42.0				
F	6 54				

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM July 13, 1947 to July 23, 1947. No. 38

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
255 July 13	e L F	Victoria 13 10.4 13 21 14 06		
259 July 17	eZ eE L F	Ottawa 4 51 26 5 03 5 10 6 21		
260 July 17	H P ^{2Z} S ^{2Z} e F	Victoria 4 57.8 5 12 5 57 Ottawa 21 25.7 21 26 09 21 26 26.5 21 26 34 21 27	150	
268 July 23	e L F	Ottawa 5 24 26 5 38 5 49		USCGS gives:- $\phi = 17^\circ \text{ N.}$ $\lambda = 68.5^\circ \text{ W.}$ $H = 5^{\text{h}}13^{\text{m}}4$
270 July 23	H PP SKS PPS SS e L F	Ottawa 17 13.7 17 32 15 17 38.4 17 42.1 17 47.4 17 58 18 03 19 28	11800	USCGS gives:- $\phi = 54^\circ \text{ S.}$ $\lambda = 30^\circ \text{ W.}$
	e L F	Saskatoon 17 35.9 17 51.0 18 52		

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM July 23, 1947 to July 24, 1947 No. 39

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
270 July 23 (cont'd)		Halifax		
	H	17 13.6	11500	
	PP	17 31 51		
	SKS	17 38.1		
	SKKS	17 39.2		
	SS	17 46.5		
	L	18 05		
	F	18 31		
		Seven Falls		
	H	17 13.2	12100	
	PPP	17 34.4		
	SKS	17 38.1		
	SKKS	17 39 48		
	PS	17 41 48		
PPS	17 43.6			
SS	17 47.4			
SSS	17 51.9			
L	17 59			
F	20 14			
	Ottawa			
271 July 23	H	22 25.8	155	
	P ₂	22 26 14		
	S ₂	22 26 32		
	i	22 26 35		
	e	22 26 39		
	F	22 27		
		Ottawa		
272 July 24	e	9 05.3		
	e	9 13.8		
	L	9 36		
	F	10 07		
		Victoria		
e	9 01			
L	9 43			
F	10 28			
	Seven Falls			
e	9 06.3			
L	9 25			
F	10 34			

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM July 24, 1947 to July 24, 1947 No. 40

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS		
		h m s	km.			
273 July 24	ez e L F	Ottawa				
		10 58 46				
		11 07.2				
		11 37				
			Victoria			
	e L F	11 03.6				
		11 21				
		12 04				
	e L F	Seven Falls				
		11 11				
		11 24				
		12 26				
276 July 24	H P PP SKS SKKS PS SS L F	Ottawa	13700			
		12 16.8				
		12 35 42				
		12 37 08				
		12 42 48				
		12 44 16				
		12 47 00				
		12 53.7				
		13 13				
		15 10				
		H P S PS SS SSSS L F		Victoria	9700	
				12 17.2		
	12 29 54					
	12 40 34					
	12 41 50					
	12 47 02					
	12 53.4					
	12 57.8					
	H PP SKS SS SSS L F	Saskatoon	11100			
		12 17.2				
		12 35.0				
		12 40.9				
		12 49.0				
		12 53.8				
13 03						
14 04						

USCGS gives:-
 $\phi = 18^{\circ} 5' S.$
 $\lambda = 170^{\circ} E.$

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM July 24, 1947 to July 24, 1947 No. 41

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
276 July 24 (cont'd)		Halifax		
	e	12 39 26		
	L	13 16		
	F	14 26		
		Seven Falls		
	H	12 17.1	13700	
	P†	12 35.9		
	PP	12 37.6		
	SKP	12 39.1		
	SKS	12 43.0		
	SKKS	12 44.6		
	PS	12 47.5		
	SS	12 54.6		
	L	13 15		
	F	15 13		
	Kirkland Lake			
e	12 32.9			
e	12 33 54			
L	12 43.2			
F	13 12			
	Dane			
H	12 17.1	12900		
P†	12 35 44			
PP	12 37.0			
SKS	12 42.7			
PPS	12 47.8			
L	13 20			
F	13 50			
	Victoria			
277 July 24	H	22 10.7	1750	
	P	22 14 27		
	S	22 17 31		
	e	22 18 27		
	L	22 19.2		
	F	23 02		
	Saskatoon			
277 July 24	e	22 19 01		
	L	22 21.3		
	F	23 12		
	Shawinigan Falls			
	e	22 27 02		
	L	22 29		
	F	22 41		

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM July 24, 1947 to July 28, 1947 No. 42

NO. AND PHASE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Saskatoon		
281 July 25	e	6 28.4		
	L	6 30		
	F	6 46		
		Ottawa		
282 July 25	H	19 08.9	6880	USCGS gives:- φ = 21° S. λ = 67° W.
	P	19 19 11		
	S	19 27 42		
	SS	19 32		
	L	19 41		
	F	19 51		
		Seven Falls		
		Ottawa		
285 July 26	eZ	16 19 07	6940	
	L	17 01		
	F	17 30		
		Ottawa		
288 July 28	H	3 49.0	4740	USCGS gives:- φ = 62.5° N. λ = 151° W.
	PZ	3 56 55		
	PP	3 58 40		
	S	4 03 25		
	SS	4 06.5		
	L	4 09		
		Victoria		
		Ottawa		
288 July 28	H	3 48.9	2320	
	P	3 53 35		
	S	3 57 27		
	L	4 00		
	F	4 59		
		Saskatoon		
		Ottawa		
288 July 28	H	3 48.1	2600	Δt uncertain
	P	3 52 56		
	S	3 57 09		
	L	4 02		
	F	4 40		

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM July 28, 1947 to July 29, 1947 No. 43

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS		
		h m s	km.			
July 28 (cont'd)		Seven Falls				
	e	3 57 01				
	L	4 06.5				
	F	4 18				
		Shawinigan Falls				
	e	3 56 59				
L	4 13					
F	4 29					
	Ottawa					
292 July 29	H	13 43.2	12000	USCGS gives:- φ = 29° 5' S. λ = 106° E.		
	P	13 57 36				
	PP	14 01 52				
	SKS	14 08 09				
	S	14 09 32				
	PS	14 11.1				
	PPS	14 12 10				
	SS	14 17.0				
	e	14 23				
	e	14 31.5				
	L	14 36				
	F	18 10				
		Victoria				
	H	13 43.8			9800	
P	13 56 51					
PP	13 00 51					
SKS	13 06 55					
S	13 07 39					
PS	13 08 15					
PPS	13 09.4					
SS	13 13.6					
SSSS	13 20					
L	13 29					
F	18 10					
	Halifax					
H	13 43.5	11500				
PP	14 01.8					
SKS	14 08 00					
S	14 09.5					
PS	14 10 26					
SS	14 15.4					
SSS	14 19.9					
L	14 32					
F	17 12					

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM July 29, 1947 to July 31, 1947 No. 44

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
292 July 29 (cont'd)		Seven Falls		
	H	13 43.0	12100	
	P	13 57 26		
	PP	14 01 51		
	SKS	14 08 10		
	SKKS	14 09 11		
	PS	14 11.2		
	PPS	14 12 06		
	e	14 14.0		
	e	14 16.1		
	SSS	14 24		
	L	14 33		
	F	19 12		
		Shawinigan Falls		
H	13 43.2	11800		
P	13 57 28			
PP	14 01 50			
SKS	14 08 01			
SKKS	14 09.0			
F	16 03			
		Kirkland Lake		
H	13 43.7	11100		
P	13 57 29			
i	14 00 19			
SKS	14 01.1			
e	14 14.4			
L	14 21			
F	16 15			
		Dane		
H	14 43.5	11100		
P	13 57 23			
e	14 01 38			
PPP	14 03.7			
SKS	14 08.1			
S	14 11.2			
L	17 00			
		Ottawa		
299 July 31	H	14 13.4	4740	USCGS gives:- $\phi = 0^\circ$ $\lambda = 84^\circ W.$
	P	14 21 20		
	S	14 27 50		
	SSS	14 31 20		
	L	14 35		
	F	15 05		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM July 31, 1947 to July 31, 1947 No. 45

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
299 July 31 (cont'd)	H P PP S c L F	14 13.4 14 23 09 14 25.0 14 31 10 14 32.8 14 42 15 12	6350	
		Ottawa		
300 July 31	H P ₂ S ₂ F	15 51.8 15 51 39 15 51 56 15 52.4	150	

W. W. Doxsee.

CORRELATION OF EARTHQUAKES

June, 1947

NOTES

A	Ottawa Victoria	$\Delta = 4,050$ km. $\Delta = 4,350$ km.	H = 2 ^h 35 ^m .4 U.T. H = 2 35.9 U.T.
B	Ottawa Saskatoon Seven Falls Shawinigan Falls Kirkland Lake	$\Delta = 3,000$ km. $\Delta = 3,010$ km. $\Delta = 2,990$ km. $\Delta = 3,120$ km. $\Delta = 2,860$ km.	H = 10 ^h 48 ^m .9 U.T. H = 10 48.7 U.T. H = 10 48.7 U.T. H = 10 48.5 U.T. H = 10 48.8 U.T.
C	Seven Falls	$\Delta = 4,110$ km.	H = 16 ^h 05 ^m .3 U.T.
D	Ottawa Saskatoon	$\Delta = 8,900$ km. $\Delta = 6,900$ km.	H = 1 ^h 59 ^m .0 U.T. H = 1 59.1 U.T.
E	Victoria Saskatoon Seven Falls	$\Delta = 9,400$ km. $\Delta = 10,100$ km. $\Delta = 12,800$ km.	H = 12 ^h 30 ^m .4 U.T. H = 12 30.0 U.T. H = 12 29.7 U.T.
F	Saskatoon	$\Delta = 2,400$ km.	H = 6 ^h 31 ^m .0 U.T.
G	Ottawa	$\Delta = 150$ km.	H = 21 ^h 25 ^m .7 U.T.
H	Ottawa Halifax Seven Falls	$\Delta = 11,800$ km. $\Delta = 11,500$ km. $\Delta = 12,100$ km.	H = 17 ^h 13 ^m .7 U.T. H = 17 13.6 U.T. H = 17 13.2 U.T.
I	Ottawa	$\Delta = 155$ km.	H = 22 ^h 25 ^m .8 U.T.
J	Ottawa Victoria Saskatoon Seven Falls Dane	$\Delta = 13,700$ km. $\Delta = 9,700$ km. $\Delta = 11,100$ km. $\Delta = 13,700$ km. $\Delta = 12,900$ km.	H = 12 ^h 16 ^m .8 U.T. H = 12 17.2 U.T. H = 12 17.2 U.T. H = 12 17.1 U.T. H = 12 17.1 U.T.
K	Victoria	$\Delta = 1,750$ km.	H = 22 ^h 10 ^m .7 U.T.
L	Ottawa Seven Falls	$\Delta = 6,880$ km. $\Delta = 6,940$ km.	H = 19 ^h 08 ^m .9 U.T. H = 19 09.0 U.T.
M	Ottawa Victoria Saskatoon	$\Delta = 4,740$ km. $\Delta = 2,340$ km. $\Delta = 2,600$ km.	H = 3 ^h 49 ^m .0 U.T. H = 3 48.9 U.T. H = 3 48.1 U.T.
N	Ottawa Victoria Halifax Seven Falls Shawinigan Falls Kirkland Lake Dane	$\Delta = 12,000$ km. $\Delta = 9,800$ km. $\Delta = 11,500$ km. $\Delta = 12,100$ km. $\Delta = 11,800$ km. $\Delta = 11,100$ km. $\Delta = 11,100$ km.	H = 13 ^h 43 ^m .2 U.T. H = 13 43.8 U.T. H = 13 43.5 U.T. H = 13 43.0 U.T. H = 13 43.2 U.T. H = 13 43.7 U.T. H = 13 43.5 U.T.
O	Ottawa Victoria	$\Delta = 4,740$ km. $\Delta = 6,350$ km.	H = 14 ^h 13 ^m .4 U.T. H = 14 13.4 U.T.
P	Ottawa	$\Delta = 150$ km.	H = 15 ^h 51 ^m .8 U.T.

Dominion Observatory,

OTTAWA, CANADA.

October 6, 1947.

SEISMOLOGICAL BULLETINS RECEIVED

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

STATIONS	BULLETINS	RECEIVED
	<u>June, 1947</u>	
UCCLE	1941 - 1945; February, March, April, 1947	June 2
Wellington	Locals for 1945; March, 1947	" 2
Almeria	April - August, 1946	" 3
Stuttgart	August to December, 1939; 1940; 1941; January to June, 1942	" 7
Moscow	March, 1947	" 7
Pasadena	July to December, 1946, January to March, 1947;	" 16
Belgrade	Preliminaries - March to May, 1947	" 16
Strasbourg	March, April, 1947	" 17
	December, 1946, January, February, 1947	" 17
Perth	January to March, 1947	" 18
Helsinki	January to March, 1947	" 18
Brisbane	November, December, 1946, February, March, 1947	" 19
USCGS	April to June, 1944	" 20
Rome	April, 1947	" 20
Lima	Year 1946	" 20
St. Louis and Auxiliary Stations	Supplement for April, June, August, 1946; Preliminaries September 13, 18, 23	" 27
Apia	January to March, 1947	" 28
Santa Clara	May, 1947	" 28
Wellington	Year 1943, April, 1947	" 28
Brisbane	April, 1947	" 30
De Bilt	Years 1938 - 1941	" 30
	<u>July, 1947</u>	
De Bilt	May, 1947	July 4
UCCLE	May, June, 1947	" 4
Moscow	April, 1947	" 7
Weston	Preliminaries - April, May, 1947	" 10
St. Louis and Auxiliary Stations	Supplements for May, July, September, October, November, 1946	" 11
Santa Clara	June, 1947	" 14
India Stations	April - September, 1942	" 14
Trieste	March, April, 1947	" 17
Ksara	April, May, 1947	" 17
Rome	May, 1947	" 19
Pasadena	Preliminaries May 26 - July 6, 1947	" 21
Belgrade	May, 1947	" 22
Zurich	April, May, 1947	" 23
UCCLE	June, 1947	" 24
Batavia	Year, 1941	" 25
Bureau Central	March, 1947	" 28
Strasbourg	June, 1947	" 28

DOMINION OBSERVATORY

OTTAWA - CANADA



DEPARTMENT OF MINES AND RESOURCES
MINES, FORESTS AND SCIENTIFIC SERVICES BRANCH

SEISMOLOGICAL SERVICE OF CANADA

SEISMOLOGICAL BULLETIN

August and September
1947

0000

DOMINION OBSERVATORY
OTTAWA - CANADA

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SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

C. S. Beals, Dominion Astronomer
Ernest A. Hodgson, Chief, Seismological Division
W. W. Doxsee, Seismologist in charge
W. G. Milne, Station Superintendent

S T A T I O N S

OTTAWA

$\phi = 45^{\circ}23'38''$ N. $\lambda = 75^{\circ}42'57''$ W. $h = 83$ m.

Time correction within 0.10s.

Foundation: boulder clay over limestone

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

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

HALIFAX

Dalhousie University

$\phi = 44^{\circ}38'$ N. $\lambda = 63^{\circ}36'$ W. $h = 46$ m.

Time correction from recorded radio time signals

Foundation: Carbonaceous slate

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

SEVEN FALLS

Quebec Power Company

$\phi = 47^{\circ}07'14''$ N. $\lambda = 70^{\circ}49'16''$ W. $h = 232$ m. ca.

Time correction from recorded radio time signals

Foundation: Solid granite of Canadian Shield

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

STATIONS (Cont'd)

VICTORIA

Dominion Astrophysical Observatory

 $\phi = 48^{\circ}31'14''$ N. $\lambda = 123^{\circ}24'56''$ W. $h = 197$ m.

Time correction from recorded radio time signals

Foundation: rock

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

SHAWINIGAN FALLS

Shawinigan Water and Power Company

 $\phi = 46^{\circ}33'11''$ N. $\lambda = 72^{\circ}45'18''$ W. $h = 60$ m. ca.

Time correction from recorded radio time signals

Foundation: solid granite of Canadian Shield

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

SASKATOON

University of Saskatchewan

 $\phi = 52^{\circ}08'$ N. $\lambda = 106^{\circ}38'$ W. $h = 51.5$ m.

Time correction from radio time signals

Foundation: clay and sand

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

DETERMINED CONSTANTS

INSTRUMENT	To	V	ϵ	DISPLACEMENT FOR 1" ARC TILT	DISPLACEMENT FOR 10 ⁻⁶ g
17 (Ottawa)	12.0	300	20:1	50 mm.	
23 (Ottawa)	12.0	300	20:1	50 mm.	
BS (Ottawa)	1.0				5 mm.
BL (Ottawa)	1.0				16 mm.
HN (Halifax)	5.0	125	20:1		
HE (Halifax)	5.0	125	20:1		
SA (Shawinigan)	1.0	2500			
20 (Victoria)	12.0	300	20:1		
21 (Victoria)	12.0	300	20:1		
SF (Seven Falls)	1.0	2500			
SM (Seven Falls)	12.0	300	20:1	50 mm.	
18 (Saskatoon)	10.0	150	20:1	18 mm.	
22 (Saskatoon)	10.0	150	20:1	18 mm.	

NOTE:- Universal Time used throughout.

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM August 1, 1947 to August 5, 1947 No. 46

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS	
		h m s	km.		
302 Aug. 1	iZ ez e L F	Ottawa			
		1 00 48			
		1 01 30			
		1 10.1			
		1 19			
		1 24			
		Seven Falls			
		e	1 10 18		
		L	1 21		
		F	1 30		
305 Aug. 1	e L F	Victoria			
		14 34.8			
		14 37			
		15 30			
		Ottawa			
		19 56.9	150		
307 Aug. 2	H P ₂ S ₂ e ₂ F	19 57 18.5			
		19 57 36			
		19 57 44			
		19 58			
		Ottawa			
308 Aug. 4	H P ₁ S ₁ F	8 25.7	90	Cornwall?	
		8 26 01			
		8 26 12			
		8 27			
		Ottawa			
		7 57 03			
		8 07			
		8 09			
310 Aug. 5	iZ e L F	8 18			
		Ottawa			
		14 24.3	11,100	USCGS gives:-	
		14 38.1		$\phi = 25^\circ \text{ N.}$	
311 Aug. 5	H P e PP SKS PPS SS SSS L F	14 41.0		$\lambda = 62^\circ \text{ E.}$	
		14 42 08			
		14 48 35			
		14 51 20			
		14 56 45			
		15 00.4			
		15 13			
		18 23			

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM August 5, 1947 to August 5, 1947 No. 47

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS	
		h m s	km.		
311 Aug. 5 (cont'd)		Victoria			
	H	14 24.1	11,100		
	eN	14 38.6			
	PP	14 41 52			
	e	14 43 12			
	PPP	14 44.2			
	SKKS	14 49 05			
	PPS	14 51.6			
	SS	14 56.2			
	SSSS	15 03			
	L	15 09			
	F	17 18			
			Saskatoon		
	H	14 24.3	11,500		
	PP	14 42 32			
	SKS	14 48 52			
	PS	14 51 36			
	SS	14 56.3			
	L	15 11			
	F	17 40			
			Halifax		
	H	14 24.4	10,600		
	PP	14 41.7			
	SKS	14 48.3			
SS	14 55				
F	17 06				
		Seven Falls			
H	14 24.3	10,900			
P	14 37 50				
PP	14 41 51				
SKS	14 48 24				
SKKS	14 49.1				
PS	14 50.6				
SS	14 55.4				
SSS	15 00.1				
SSSS	15 05.6				
L	15 13				
F	18 56				
		'Shawinigan Falls			
H	14 24.4	10,900			
P	14 38 00				
PP	14 42 07				
SKS	14 48.3				
SS	14 56.2				
L	15 09				
F	16 23				



SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM August 5, 1947 to August 6, 1947 No. 48

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
311 Aug. 5 (cont'd)		Dane		
	H	14 24.4	10,900	
	P	14 38.0		
	PP	14 41.5		
	PPP	14 43.9		
	SKS	14 48.6		
	PS	14 50.9		
	L	15 07		
	F	15 58		
		Kirkland Lake		
	H	14 24.4	10,900	
	P	14 38.1		
	PP	14 42.0		
	e	15 03		
	F	16 21		
		Ottawa		
313 Aug. 5	H	21 56.5	150	
	P ₂	21 56 57.5		
	S ₂	21 57 15		
	e	21 57 23		
	F	21 57.6		
		Ottawa		
314 Aug. 6	H	5 47.2	5,110	USCGS gives:- φ = 9°5' S. λ = 72° W.
	P	5 55 33		
	e ₂	5 56 29		
	PP ₂	5 57 24		
	e _N	6 00 32		
	S _N	6 02 24		
	e	6 04 18		
	SS	6 05.8		
	F	6 28		
			Victoria	
	H	5 47.2	7,120	
	P	5 57 39		
	PP	5 59 46		
	S	6 06 23		
	SS	6 10 03		
	F	6 37		
		Saskatoon		
	H	5 47.0	4,780	
	S	6 01 32		
	SSS	6 05 13		
	L	6 08		
	F	6 30		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM August 6, 1947 to August 6, 1947 No. 49

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
314 Aug. 6 (cont'd)		Seven Falls		
	H	5 47.0	5,350	
	P	5 55 46		
	S	6 02 50		
	SS	6 06 14		
	L	6 10		
	F	6 47		
		Shawinigan Falls		
	H	5 47.2	5,220	
	P	5 55 41		
	PP	5 57 34		
	S	6 02 38		
	F	6 16		
		Dane		
H	5 47.2	5,400		
P	5 55 56			
S	6 03 03			
F	6 08			
	Kirkland Lake			
H	5 47.1	5,450		
P	5 55 55			
PP	5 57 50			
S	6 03 06			
F	6 08			
	Ottawa			
318 Aug. 6	e	20 16 27		
	L	20 19		
	F	20 35		
		Seven Falls		
	e	20 17.0		
	L	20 22		
F	21 03			
	Ottawa			
321 Aug. 6	eZ	23 38 30		
	L	23 43		
	F	23 48		

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM August 6, 1947 to August 7, 1947 No. 50

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
322 Aug. 7		Ottawa		
	H	0 40.5	2,760	Rarefaction USCGS gives:- φ = 19°8 N. λ = 75°8 W.
	P	0 45 50		
	PPP	0 48 33		
	S	0 50 16		
	SS	0 51 24		
	L	0 52 48		
	F	3 09		
		Victoria		
	H	0 40.5	5,240	
	P	0 49 02		
	PP	0 50 55		
	S	0 56 00		
	SS	0 59.0		
	L	1 04		
	F	2 52		
		Saskatoon		
	H	0 40.6	4,330	
	P	0 48 06		
	PP	0 49 40		
	S	0 54 14		
	SS	0 56.3		
	L	0 59		
	F	2 35		
	Halifax			
H	0 40.1	3,060		
P	0 45 59			
PPP	0 47 07			
S	0 50 47			
SS	0 51.9			
L	0 54			
F	2 11			
	Seven Falls			
H	0 40.4	3,040		
P	0 46 09			
S	0 50 55			
SS	0 52.0			
L	0 56			
F	3 02			
	Shawinigan Falls			
H	0 40.1	3,090		
P	0 46 01			
PPP	0 47 26			
S	0 50 51			
L	0 55			
F	1 32			

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM August 7, 1947 to August 9, 1947 No. 51

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
322 Aug. 7 (cont'd)	H	0 40.3	3,190	
	P	0 46 18		
	S	0 51 14		
	L	0 56		
	F	2 01		
		Dane		
329 Aug. 7	H	22 16.8	3,020	
	P	22 22 33		
	S	22 27 18		
	L	22 33		
	F	22 51		
		Ottawa		
330 Aug. 8	H	5 39.0	445	
	P ₃	5 40 04		
	S ₃	5 40 52		
	F ₃	5 42		
				Dane
331 Aug. 8	H	5 39.0	205	
	P ₂	5 39 39.5		
	S ₂	5 40 03		
	F ₂	5 40.5		
				Kirkland Lake
337 Aug. 9	H	5 39.0	210	
	P ₂	5 39 40.5		
	S ₂	5 40 04.3		
	F ₂	5 40.7		
				Ottawa
331 Aug. 8	H	6 39.3	2,900	
	P _Z	6 44 54		
	S	6 49.5		
	L	6 52		
	F	7 10		
		Ottawa		
337 Aug. 9	H	2 48.5	5,100	
	PP	2 58 32		
	SS	3 06 52		
	L	3 11		
	F	3 37		

USCGS gives:-
 $\varphi = 1^{\circ} \text{ N.}$
 $\lambda = 28^{\circ} \text{ W.}$



SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM August 9, 1947 to August 10, 1947 No. 52

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
337 Aug. 9 (cont'd)	e L F	Seven Falls		
		3 06.5		
		3 12		
338 Aug. 9	H P S L F	Ottawa	2,810	
		3 55.4		
		4 00 54		
		4 05.4		
		4 11		
339 Aug. 9	e L F	Seven Falls		
		4 07.0		
		4 12		
		4 22		
		Ottawa		
340 Aug. 10	e L F	5 52 26		
		6 45		
		7 09		
		Ottawa	860	
		2 46.6		
340 Aug. 10	H P iS iL F	2 48 30		
		2 50 00.5		
		2 50 36		
		2 55		
		Seven Falls		
		2 46.9	1,150	
		2 49 28		
		2 51 29		
		2 52 02		
		2 52.5		
3 03				
340 Aug. 10	H P S L F	Shawinigan Falls	1,055	
		2 46.7		
		2 49 04		
		2 50 55		
		2 51.8		
340 Aug. 10	H P S L F	Dane	705	
		2 46.8		
		2 48 24		
		2 49 39		
		2 50.4		
3 07				

USCGS gives:-
φ = 41° 9' N.
λ = 84° 5' W.

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM		August 10, 1947		to		August 17, 1947		No. 53	
NO. AND DATE	PHASE	TIME			DISTANCE	REMARKS			
		h	m	s	km.				
		Kirkland Lake							
340 Aug. 10 (cont'd)	H P S L F	2	46.	8	715				
		2	48	25					
		2	49	40					
		2	50.	1					
		3	02						
		Ottawa							
346 Aug. 14	H P ₁ S ₁ F ₁	2	18.	5	90	Cornwall?			
		2	18	48.5					
		2	18	59.5					
		2	22						
		Ottawa							
348 Aug. 15	e e L F	4	23	03					
		4	33.	0					
		4	53						
		5	20						
		Seven Falls							
	e e L F	4	22	42					
		4	32.	3					
		4	43						
		5	29						
		Victoria							
349 Aug. 15	e L F	9	30.	9					
		9	44						
		10	15						
		Seven Falls							
353 Aug. 16	e L F	18	58.	9					
		19	07						
		19	18						
		Ottawa							
355 Aug. 16	H P ₂ S ₂ e F	20	32.	6	150				
		20	33	03.5					
		20	33	21.5					
		20	33	30					
		20	34						
		Ottawa							
360 Aug. 17	H P ₂ S ₂ e F	20	21.	5	150				
		20	21	58.5					
		20	22	16					
		20	22	24					
		20	22.	6					

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
361 Aug. 18	e L F	6 18 50 6 26.5 6 39 7 31		
		Saskatoon		
	e L F	6 21.4 6 37 7 11		
		Seven Falls		
	e L F	6 27.4 6 39 7 48		
		Ottawa		
363 Aug. 19	H P ₂ S ₂ S ₁ L F	20 06.0 20 06 27.7 20 06 45.5 20 06 47.0 20 06 53 20 07.2	150	
		Ottawa		
364 Aug. 19	H P ₃ P ₂ S ₃ S ₂ L ₂ F	21 25.0 21 25 39.5 21 25 42 21 26 09.4 21 26 12.0 21 26 34 21 27	265	
		Ottawa		
365 Aug. 20	H P ₂ S ₂ e F	11 50.3 11 50 47 11 51 06 11 51 11 11 51.5	160	
		Ottawa		
366 Aug. 20	H P ₂ S ₂ e F	19 52.5 19 52 59 19 53 16.5 19 53 24 19 53.5	150	

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM August 20, 1947 to August 25, 1947 No. 55

NO. AND DATE	PHASE	TIME h m s	DISTANCE km.	REMARKS	
368 Aug. 22	eZ e L F	Ottawa	12,900		
		.2 51 06			
		3 07			
		3 31			
	e L F	Victoria			2 54 36
		3 07			
		3 48			
		Seven Falls			
	e L F	3 02.6			
		3 32			
		4 14			
	383 Aug. 24	H P ₁ P ₂ PPS SS SSS L F			Ottawa	12,900
11 31.5					
11 50 12					
12 00 46					
12 01 10					
12 07.2					
12 19					
12 29					
13 01					
e ^E L F		Victoria	12 00 27		
		12 25			
		12 51			
	Saskatoon				
e L F	12 00 13				
	12 26				
	12 52				
e L F	Seven Falls	12 01.5			
	12 19				
	13 06				
e L F	Saskatoon	5 44 52			
	5 46				
	5 53				
387 Aug. 25	e L F				



SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM August 25, 1947 to August 27, 1947 No.56

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS	
		h m s	km.		
390 Aug. 27		Ottawa			
	H	13 37.6	14,200	USCGS gives:- $\varphi = 42^{\circ}$ S. $\lambda = 179^{\circ}$ E.	
	P ₁	13 56 45			
	PP	13 58 48			
	PPP	14 01.3			
	S	14 06.1			
	SS	14 15 46			
	SSS	14 19.8			
	L	14 39			
	F	16 25			
		Victoria			
	H	13 37.6	11,800		
	P	13 51 54			
	PP	13 56 00			
	SKS	14 02 17			
	PS	14 05 10			
	L	14 23			
	F	16 19			
		Saskatoon			
H	13 38 ca	12,000			
PP	13 56 58				
S	14 04 39				
PPS	14 06.8				
SS	14 12				
L	14 28				
F	16 00				
	Halifax				
e	14 00.7				
L	14 34				
F	15 11				
	Seven Falls				
H	13 37.6	14,800			
P ₁	13 56 52				
PP	13 59 14				
PPP	14 01 14				
SS	14 17.3				
L	14 44				
F	16 50				
	Ottawa				
394 Aug. 27	H	20 03.1	150		
	P ₂	20 03 36			
	S ₂	20 03 54			
	S ₁	20 03 57			
	e	20 04 03			
	F	20 04.3			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM August 27, 1947 to August 28, 1947 No. 57

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS	
		h m s	km.		
398 Aug. 28		Ottawa			
	H	6 50.6	8,100	Compression USCGS gives:- φ = 49° N. λ = 155° E.	
	P	7 02 04			
	PP	7 04 34			
	S	7 11 36			
	SS	7 14.8			
	SSS	7 16.5			
	L	7 27			
	F	8 32			
		Victoria			
	H	6 50.6	5,500		
	P	6 59 23			
	PPP	7 01 47			
	S	7 06 36			
	SS	7 09 17			
	L	7 15			
	F	8 16			
		Saskatoon			
	H	6 50.4	6,290		
	P	7 00 05			
	S	7 08 02			
	SS	7 11.9			
	L	7 18			
	F	8 14			
		Halifax			
	H	6 50.5	8,780		
	P	7 02 30			
	S	7 12 32			
L	7 32				
F	7 58				
	Seven Falls				
H	6 50.4	8,220			
P	7 02 05				
S	7 11 42				
SS	7 16.7				
L	7 23				
F	9 00				
	Shawinigan Falls				
H	6 50.5	8,200			
P	7 02 03				
S	7 11 41				
PS	7 12 04				
F	7 18				



SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM August 28, 1947 to August 28, 1947 No. 58

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS	
		h m s	km.		
402 Aug. 28		Ottawa			
	H	14 29.7	7,770	Compression USCGS gives:- φ = 52° N. λ = 159° E.	
	P	14 40 49			
	PP	14 43 28			
	S	14 50 03			
	PS	14 50 24			
	SS	14 54.3			
	SSS	14 58			
	L	15 02			
	F	16 11			
		Victoria			
	H	14 29.9			4,940
	P	14 38 06			
	PPP	14 40 10			
	S	14 44 47			
SSS	14 48 00				
L	14 53				
F	15 29				
	Saskatoon				
H	14 29.5	5,880			
P	14 38 43				
S	14 46 17				
L	15 01				
F	16 06				
	Seven Falls				
H	14 29.5	7,920			
P	14 40 48				
PPP	14 45 20				
S	14 50 09				
SSS	14 58.5				
L	15 03				
F	16 18				
	Ottawa				
407 Aug. 28	H	19 48.2	8,150		
	P	19 59 43			
	S	20 09 17			
	PS	20 09 40			
	SS	20 17.2			
	L	20 20			
	F	20 42			
	Ottawa				
409 Aug. 28	H	22 12.4	150		
	P ₂	22 12 49.5			
	P ₁	22 12 51			
	S ₂	22 13 07.3			
	e ₂	22 13 15			
	F	22 13.5			

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM August 28, 1947 to August 31, 1947 No. 59

NO. AND DATE	PHASE	TIME			DISTANCE	REMARKS
		h	m	s		
422 Aug. 30	H P ₂ F ₁ S ₂ S ₁ e F	Ottawa			165	
		20	27.	9		
		20	28	25		
		20	28	26.3		
		20	28	44.5		
		20	28	46		
		20	28	51.5		
423 Aug. 30	H P S PS SS L F	Ottawa			7,900	
		22	21.	8		
		22	32	59		
		22	42	19		
		22	43.	1		
		22	47.	5		
	e L F	Victoria				
		22	45	24		
		23	03			
	H P S L F	Saskatoon			9,100	
		22	21.	7		
		22	33	59		
		22	44	14		
		23	04			
		23	56			
H P S SS L F	Seven Falls			7,400		
	22	21.	8			
	22	32	34			
	22	41	31			
	22	48.	5			
	23	59				
		23	57			

W. W. Doysee.

CORRELATION OF EARTHQUAKES

August, 1947

NOTES

A :	Ottawa	$\Delta = 150$ km.	H = 19 ^h 56 ^m .9 U.T.
B :	Ottawa	$\Delta = 90$ km.	H = 8 ^h 25 ^m .7 U.T.
C :	Ottawa	$\Delta = 11,100$ km.	H = 14 ^h 24 ^m .3 U.T.
	Victoria	$\Delta = 11,100$ km.	H = 14 24.1 U.T.
	Saskatoon	$\Delta = 11,500$ km.	H = 14 24.3 U.T.
	Halifax	$\Delta = 10,600$ km.	H = 14 24.4 U.T.
	Seven Falls	$\Delta = 10,900$ km.	H = 14 24.3 U.T.
	Shawinigan Falls	$\Delta = 10,900$ km.	H = 14 24.4 U.T.
	Dane	$\Delta = 10,900$ km.	H = 14 24.4 U.T.
	Kirkland Lake	$\Delta = 10,900$ km.	H = 14 24.4 U.T.
D :	Ottawa	$\Delta = 150$ km.	H = 21 ^h 56 ^m .5 U.T.
E :	Ottawa	$\Delta = 5,110$ km.	H = 5 ^h 47 ^m .2 U.T.
	Victoria	$\Delta = 7,120$ km.	H = 5 47.2 U.T.
	Saskatoon	$\Delta = 4,780$ km.	H = 5 47.0 U.T.
	Seven Falls	$\Delta = 5,350$ km.	H = 5 47.0 U.T.
	Shawinigan Falls	$\Delta = 5,220$ km.	H = 5 47.2 U.T.
	Dane	$\Delta = 5,400$ km.	H = 5 47.2 U.T.
	Kirkland Lake	$\Delta = 5,450$ km.	H = 5 47.1 U.T.
F :	Ottawa	$\Delta = 2,760$ km.	H = 0 ^h 40 ^m .5 U.T.
	Victoria	$\Delta = 5,240$ km.	H = 0 40.5 U.T.
	Saskatoon	$\Delta = 4,330$ km.	H = 0 40.6 U.T.
	Halifax	$\Delta = 3,060$ km.	H = 0 40.1 U.T.
	Seven Falls	$\Delta = 3,040$ km.	H = 0 40.4 U.T.
	Shawinigan Falls	$\Delta = 3,090$ km.	H = 0 40.1 U.T.
	Dane	$\Delta = 3,190$ km.	H = 0 40.3 U.T.
G :	Ottawa	$\Delta = 3,020$ km.	H = 22 ^h 16 ^m .8 U.T.
H :	Ottawa	$\Delta = 445$ km.	H = 5 ^h 39 ^m .0 U.T.
	Dane	$\Delta = 205$ km.	H = 5 39.0 U.T.
	Kirkland Lake	$\Delta = 210$ km.	H = 5 39.0 U.T.
J :	Ottawa	$\Delta = 2,900$ km.	H = 6 ^h 39 ^m .3 U.T.
K :	Ottawa	$\Delta = 5,100$ km.	H = 2 ^h 48 ^m .5 U.T.
L :	Ottawa	$\Delta = 2,810$ km.	H = 3 ^h 55 ^m .4 U.T.
M :	Ottawa	$\Delta = 860$ km.	H = 2 ^h 46 ^m .6 U.T.
	Seven Falls	$\Delta = 1,150$ km.	H = 2 46.9 U.T.
	Shawinigan Falls	$\Delta = 1,055$ km.	H = 2 46.7 U.T.
	Dane	$\Delta = 705$ km.	H = 2 46.8 U.T.
	Kirkland Lake	$\Delta = 715$ km.	H = 2 46.8 U.T.
N :	Ottawa	$\Delta = 90$ km.	H = 2 ^h 18 ^m .5 U.T.
O :	Ottawa	$\Delta = 150$ km.	H = 20 ^h 32 ^m .6 U.T.
P :	Ottawa	$\Delta = 150$ km.	H = 20 ^h 21 ^m .5 U.T.
Q :	Ottawa	$\Delta = 150$ km.	H = 20 ^h 06 ^m .0 U.T.
R :	Ottawa	$\Delta = 265$ km.	H = 21 ^h 25 ^m .0 U.T.
S :	Ottawa	$\Delta = 160$ km.	H = 11 ^h 50 ^m .3 U.T.
T :	Ottawa	$\Delta = 150$ km.	H = 19 ^h 52 ^m .5 U.T.

CORRELATION OF EARTHQUAKES

August, 1947

NOTES

U :	Ottawa	$\Delta = 12,900$ km.	H = 11 ^h 31 ^m 5 U.T.
V :	Ottawa	$\Delta = 14,200$ km.	H = 13 ^h 37 ^m 6 U.T.
	Victoria	$\Delta = 11,800$ km.	H = 13 37.6 U.T.
	Saskatoon	$\Delta = 12,000$ km.	H = 13 38 U.T.
	Seven Falls	$\Delta = 14,800$ km.	H = 13 37.6 U.T.
W :	Ottawa	$\Delta = 150$ km.	H = 20 ^h 03 ^m 1 U.T.
X :	Ottawa	$\Delta = 8,100$ km.	H = 6 ^h 50 ^m 6 U.T.
	Victoria	$\Delta = 5,500$ km.	H = 6 50.6 U.T.
	Saskatoon	$\Delta = 6,290$ km.	H = 6 50.4 U.T.
	Halifax	$\Delta = 8,780$ km.	H = 6 50.5 U.T.
	Seven Falls	$\Delta = 8,220$ km.	H = 6 50.4 U.T.
	Shawinigan Falls	$\Delta = 8,200$ km.	H = 6 50.5 U.T.
Y :	Ottawa	$\Delta = 7,770$ km.	H = 14 ^h 29 ^m 7 U.T.
	Victoria	$\Delta = 4,940$ km.	H = 14 29.9 U.T.
	Saskatoon	$\Delta = 5,880$ km.	H = 14 29.5 U.T.
	Seven Falls	$\Delta = 7,920$ km.	H = 14 29.5 U.T.
Z :	Ottawa	$\Delta = 8,150$ km.	H = 19 ^h 48 ^m 2 U.T.
AA :	Ottawa	$\Delta = 150$ km.	H = 22 ^h 12 ^m 4 U.T.
BB :	Ottawa	$\Delta = 165$ km.	H = 20 ^h 27 ^m 9 U.T.
CC :	Ottawa	$\Delta = 7,900$ km.	H = 22 ^h 21 ^m 8 U.T.
	Saskatoon	$\Delta = 9,100$ km.	H = 22 21.7 U.T.
	Seven Falls	$\Delta = 7,400$ km.	H = 22 21.8 U.T.

Dominion Observatory,

OTTAWA, CANADA.

November 7, 1947.

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, CANADA

FROM September 1, 1947 to September 4, 1947 No. 60

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
431 Sept. 1	H P ₂ S ₂ S ₁ F ₁	Ottawa	225	
		13 32.2		
		13 32 55.5		
		13 33 22		
		13 33 26.5		
433 Sept. 2	eZ L F	Ottawa		
		14 50 42		
		14 57		
		15 24		
		Victoria		
434 Sept. 2	e L F	Ottawa	145	
		14 54 32		
		15 06		
		15 20		
		Victoria		
437 Sept. 3	eZ eE L F	Ottawa		
		19 15 12		
		19 26.8		
		19 33		
		21 16		
438 Sept. 4	e L F	Victoria		
		19 19 38		
		19 33		
		20 06		
		Seven Falls		
438 Sept. 4	e L F	Ottawa		
		19 23 19		
		19 33.7		
		19 53		
		21 27		
438 Sept. 4	e L F	Ottawa		
		0 55.3		
		1 18		
		2 06		
		Victoria		

USCGS gives:-
 $\phi = 20^\circ \text{ S.}$
 $\lambda = 179^\circ \text{ W.}$

USCGS gives:-
 $\phi = 11^\circ \text{ S.}$
 $\lambda = 162^\circ \text{ E.}$

USCGS gives:-
 $\phi = 15^\circ \text{ S.}$
 $\lambda = 174^\circ \text{ W.}$

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM September 4, 1947 to September 6, 1947 No. 61

NO. AND DATE	PHASE	TIME	DISTANCE km.	REMARKS
		h m s		
438 Sept. 4 (cont'd)	e L F	Seven Falls		
		0 55 23		
		0 58 43		
		1 20		
444 Sept. 5	L F	Ottawa		
		5 48 31		
		5 54.5		
		6 08		
445 Sept. 5	e L F	Seven Falls		
		6 30 47		
		6 34		
		6 37		
447 Sept. 5	H P ₂ P ₁ S ₂ F ₂	Ottawa		
		20 52.2	200	
		20 52 47		
		20 52 48		
448 Sept. 5	H P ₂ S ₂ F ₂	Ottawa		
		20 53 10.5		
		20 53.6		
		21 31.0	160	
450 Sept. 6	H P ₂ S ₂ F ₂	Ottawa		
		21 31 29		
		21 31 48		
		21 32.1		
451 Sept. 6	H P ₁ S ₁ F ₁	Ottawa		
		17 59.0	145	
		17 59 24.5		
		17 59 41.5		
451 Sept. 6	H P ₁ S ₁ F ₁	Ottawa		
		18 00.5		
		21 35.1	100	Cornwall?
		21 35 24.5		
451 Sept. 6	H P ₁ S ₁ F ₁	Ottawa		
		21 35 36		
		21 36.1		
		21 36.1		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM September 6, 1947 to September 17, 1947 No. 62

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
459 Sept. 11	eZ L F	19 52 40 20 10 20 33		
		Ottawa		
460 Sept. 12	eZ L F	11 50 43 11 56 12 23		
		Seven Falls		
	e L F	11 53.2 12 05 12 20		
		Ottawa		
464 Sept. 14	H P ₃ P ₂ S ₃ S ₂ F	19 29.5 19 30 54.5 19 31 05.5 19 31 49 19 32 06.5 19 34.6	540	
		Ottawa		
467 Sept. 15	H P S SSS L F	14 56.6 15 03 58 15 10.0 15 13.2 15 15 15 29	4240	
		Ottawa		
469 Sept. 16	H P ₂ S ₂ F	20 45.9 20 46 18 20 46 35.5 20 47.2	150	
		Ottawa		
471 Sept. 17	H P ₂ S ₂ F	18 55.7 18 56 11 18 56 30 18 57.2	165	

SEISMOLOGICAL SERVICE OF CANADA
 DOMINION OBSERVATORY, OTTAWA

FROM September 17, 1947 to September 23, 1947 No. 63

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
472 Sept. 18	H P ₂ S ₂ F ₂	20 33.8 20 34 13 20 34 30.5 20 35.2	150	
		Ottawa		
478 Sept. 22	H P ₂ S ₂ F ₂	19 15.8 19 16 15 19 16 32.5 19 17.2	150	
		Ottawa		
479 Sept. 23	eZ L F	7 51 05 8 08 8 26		USCGS gives:- φ = 54° N. λ = 164° W.
		Ottawa		
480 Sept. 23	H PZ S SS L F	12 28.8 12 41 20 12 51 50 12 57.4 13 08 14 12+	9430	
		Victoria		
	e e L F	12 55 13 09 13 12 13 57+		
		Saskatoon		
	H SKS SKKS SS L F	12 29.1 12 52.2 12 52 52 12 53 52 13 10 13 57+	10000	
		Halifax		
	e L F	12 51 28 13 14 14 06		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM September 23, 1947 to September 26, 1947 No. 64

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
480 Sept. 23 (cont'd)		Seven Falls		
	H	12 28.7	9340	
	PP	12 44.4		
	S	12 51 36		
	PS	12 52 26		
	SS	12 57 22		
	SSS	13 03		
L	13 11			
F	16 30			
		Ottawa		
482 Sept. 23	iZ	14 00 07		USCGS gives:- φ = 41° N. λ = 125° W.
	LZ	14 12		
	F	15 17		
		Saskatoon		
	H	13 52.8		
	P	13 57 06		
	S	14 00 36		
	L	14 02.5		
	F	14 48+		
		Ottawa		
485 Sept. 25	eZ	23 50 16		
	eN	23 53.6		
	L	0 31		
	F	1 21		
		Victoria		
	e	23 54		
	L	0 03		
	F	1 16		
		Saskatoon		
	e	23 57.6		
	e	0 05.5		
	L	0 20		
	F	1 10		
		Seven Falls		
	e	0 10		
	L	0 23		
	F	0 46		
		Ottawa		
486 Sept. 26	eZ	3 17 42		
	LZ	3 50		
	F	4 09		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM September 26, 1947 to September 26, 1947 No. 65

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS	
		h m s	km.		
487 Sept. 26		Ottawa			
	H	16 01.7	12200	USCGS gives:- $\phi = 26^{\circ}$ N. $\lambda = 126^{\circ}$ E. d = 200 km.	
	Pz	16 16 13			
	PP	16 20 40			
	SKS	16 26 40			
	PS	16 30 08			
	SS	16 35.8			
	L	16 53			
	F	18 12			
			Victoria		
	H	16 02.3	9030		
	P	16 14.5			
	PP	16 17.8			
	S	16 24.7			
	SS	16 30.4			
	L	16 42			
	F	17 50			
			Saskatoon		
	H	16 02.5	9220		
	P	17 14 58			
	S	16 25 19			
	PS	16 25 49			
	L	16 41			
	F	18 hrs. ca.			
			Halifax		
	e	16 37			
	L	16 53			
	F	17 21			
		Seven Falls			
H	16 02.4	11300			
P	16 16.3				
PP	16 20 30				
e	16 24 56				
SKKS	16 27 33				
S	16 27 58				
PPS	16 29 58				
SSS	16 39.4				
L	16 48				
F	18 36				



SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM September 26, 1947 to September 30, 1947 No. 66

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
487 Sept. 26 (cont'd)		Shawinigan Falls		
	H	16 01.6	12100	
	P	16 15 54		
	e	16 25.1		
	SKS	16 26 35		
	PS	16 29 43		
	SS	16 41.4		
	F	17 01		
		Temiskaming		
	H	16 02.3	12900	
	P	16 17 21		
	P'	16 20 31		
	SKS	16 27 42		
	SKKS	16 28 38		
		Kirkland Lake		
	H	16 01.1	12550	
	P	16 15 56		
	PP	16 20 12		
S	16 28.3			
F	16 40			

W. W. Dwyer

CORRELATION OF EARTHQUAKES

September, 1947

N O T E S

A :	Ottawa	$\Delta =$	225 km.	H = 13 ^h 32 ^m .2 U.T.
B :	Ottawa	$\Delta =$	145 km.	H = 16 ^h 47 ^m .0 U.T.
C :	Ottawa	$\Delta =$	200 km.	H = 20 ^h 52 ^m .2 U.T.
D :	Ottawa	$\Delta =$	160 km.	H = 21 ^h 31 ^m .0 U.T.
E :	Ottawa	$\Delta =$	145 km.	H = 17 ^h 59 ^m .0 U.T.
F :	Ottawa	$\Delta =$	100 km.	H = 21 ^h 35 ^m .1 U.T.
G :	Ottawa	$\Delta =$	540 km.	H = 19 ^h 29 ^m .5 U.T.
H :	Ottawa	$\Delta =$	4,240 km.	H = 14 ^h 56 ^m .6 U.T.
J :	Ottawa	$\Delta =$	150 km.	H = 20 ^h 45 ^m .9 U.T.
K :	Ottawa	$\Delta =$	165 km.	H = 18 ^h 55 ^m .7 U.T.
L :	Ottawa	$\Delta =$	150 km.	H = 20 ^h 33 ^m .8 U.T.
M :	Ottawa	$\Delta =$	150 km.	H = 19 ^h 15 ^m .8 U.T.
N :	Ottawa	$\Delta =$	9,430 km.	H = 12 ^h 28 ^m .8 U.T.
	Saskatoon	$\Delta =$	10,000 km.	H = 12 29.1 U.T.
	Seven Falls	$\Delta =$	9,340 km.	H = 12 28.7 U.T.
O :	Saskatoon	$\Delta =$	2,060 km.	H = 13 ^h 52 ^m .8 U.T.
P :	Ottawa	$\Delta =$	12,200 km.	H = 16 ^h 01 ^m .7 U.T.
	Victoria	$\Delta =$	9,030 km.	H = 16 02.3 U.T.
	Saskatoon	$\Delta =$	9,220 km.	H = 16 02.5 U.T.
	Seven Falls	$\Delta =$	11,300 km.	H = 16 02.4 U.T.
	Shawinigan Falls	$\Delta =$	12,100 km.	H = 16 01.6 U.T.
	Temiskaming	$\Delta =$	12,900 km.	H = 16 02.3 U.T.
	Kirkland Lake	$\Delta =$	12,550 km.	H = 16 01.1 U.T.

Dominion Observatory,

OTTAWA, CANADA.

November 26, 1947.

SEISMOLOGICAL BULLETINS RECEIVED

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

STATIONS	BULLETINS	RECEIVED
	<u>August, 1947</u>	
Brisbane	May, 1947	August 6
La Paz	Year, 1946	" 6
Cartuja	January - March, 1944	" 9
De Bilt	June, 1947	" 13
Almeria	September, 1946	" 13
Ksara	June, 1947	" 13
Moscow	April - June, 1947	" 14
Russian Stations	May, 1947	" 14
Belgrade	Preliminary - June, 1947	" 19
Bureau Central	April, June, 1947	" 21
Strasbourg	July, 1947	" 21
Wellington	May, 1947	" 22
Mexico	January - June, 1945	" 22
Istanbul	Year 1940	" 22
Pasadena	Preliminaries - July 7, August 12, 1947	" 28
Riverview	Year 1945	" 29
	<u>September, 1947</u>	
UCCLE	July, 1947	September 2
De Bilt	July, 1947	" 2
Almeria	October - December, 1946	" 3
Rome	June, July, 1947	" 4
Helsinki	April, May, 1947	" 5
Tiflis	Year 1938, January - September, 1939	" 8
Pasadena	April - June, 1947	" 8
De Bilt	1937 - 1941	" 8
Upsala	July, 1939 - June, 1940; July, 1941 - June, 1942	" 8
Wellington	1944	" 15
Moscow	July, 1947	" 18
Strasbourg	July 21 - 31, 1947	" 18
Bureau Central	May, 1947; Supplements for March and April	" 18
Belgrade	July, 1947	" 20
Santa Clara	July, 1947; August, 1947	" 20
Brisbane	June, 1947	" 23
Zurich	June, 1947	" 23
Brisbane	July, 1947	" 24
St. Louis and Auxiliary Stations	Preliminaries - January 26, 29, February 16, 24, March 2, 17, 25, April 2; Supplement for January, 1947	" 24
St. Louis and Auxiliary Stations	Preliminaries - December 20, 21, 28, 1946, January 3, 15, 21, 23, 25, April 10, 14, 24, May 2, 6, June 12, 13, 19, May 8, 17, 27, June 5, 7, 19, July 10, 12, 13, 25, 1947; Supplement for November, December, 1946	" 27
Weston	June, July, 1947	" 27
De Bilt	August, 1947	" 30
Ksara	July, 1947	" 30
Wellington	June, 1947	" 30
USCGS	July, August, September, 1944	" 30
DOMINION OBSERVATORY OTTAWA - CANADA.		



DEPARTMENT OF MINES AND RESOURCES
MINES, FORESTS AND SCIENTIFIC SERVICES BRANCH

SEISMOLOGICAL SERVICE OF CANADA

SEISMOLOGICAL BULLETIN

October and November
1947

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DOMINION OBSERVATORY

OTTAWA - CANADA

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SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

C. S. Beals, Dominion Astronomer
Ernest A. Hodgson, Chief, Seismological Division
W. W. Doxsee, Seismologist in charge
W. G. Milne, Station Superintendent

S T A T I O N S

OTTAWA

$\phi = 45^{\circ}23'38''$ N. $\lambda = 75^{\circ}42'57''$ W. $h = 83$ m.

Time correction within 0.10s.

Foundation: boulder clay over limestone

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

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

HALIFAX

Dalhousie University

$\phi = 44^{\circ}38'$ N. $\lambda = 63^{\circ}36'$ W. $h = 46$ m.

Time correction from recorded radio time signals

Foundation: Carbonaceous slate

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

SEVEN FALLS

Quebec Power Company

$\phi = 47^{\circ}07'14''$ N. $\lambda = 70^{\circ}42'16''$ W. $h = 232$ m. ca.

Time correction from recorded radio time signals

Foundation: Solid granite of Canadian Shield

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

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

VICTORIA

Dominion Astrophysical Observatory
 $\phi = 48^{\circ}31'14''$ N. $\lambda = 123^{\circ}24'56''$ W. $h = 197$ m.
 Time correction from recorded radio time signals
 Foundation: rock
 Instruments: Milne-Shaw NS and EW components, designated 21 and 20, respectively, each with photographic registration, magnetic damping, paper speed of 8 mm. per min., mass 1 lb.

SHAWINIGAN FALLS

Shawinigan Water and Power Company
 $\phi = 46^{\circ}33'11''$ N. $\lambda = 72^{\circ}45'18''$ W. $h = 60$ m. ca.
 Time correction from recorded radio time signals
 Foundation: solid granite of Canadian Shield
 Instrument: Wood-Anderson NS component, designated SA, photographic registration, magnetic damping, paper speed of 60 mm. per min., mass 15g.

SASKATOON

University of Saskatchewan
 $\phi = 52^{\circ}08'$ N. $\lambda = 106^{\circ}38'$ W. $h = 515$ m.
 Time correction from radio time signals
 Foundation: clay and sand
 Instrument: Milne-Shaw NE and NW components, designated 18 and 22, respectively, each with photographic registration, magnetic damping, paper speed of 8 mm. per min., mass 1 lb.

DETERMINED CONSTANTS

INSTRUMENT	To	V	ϵ	DISPLACEMENT FOR 1" ARC TILT	DISPLACEMENT FOR 10-6 g
17 (Ottawa)	12.0	300	20:1	50 mm.	5 mm. 16 mm.
23 (Ottawa)	12.0	300	20:1	50 mm.	
BS (Ottawa)	1.0				
EL (Ottawa)	1.0				
HN (Halifax)	5.0	125	20:1		
HE (Halifax)	5.0	125	20:1		
SA (Shawinigan)	1.0	2500			
20 (Victoria)	12.0	300	20:1		
21 (Victoria)	12.0	300	20:1		
SF (Seven Falls)	1.0	2500			
SM (Seven Falls)	12.0	300	20:1	50 mm.	
18 (Saskatoon)	10.0	150	20:1	18 mm.	
22 (Saskatoon)	10.0	150	20:1	18 mm.	

NOTE:- Universal Time used throughout.

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM October 1, 1947 to October 3, 1947 No. 67

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km,	
		Ottawa		
505 Oct. 3	H	6 13.5	13600	
	PP	6 33 51		
	SKP	6 35 16		
	PS	6 43 50		
	L	7 04		
	F	7 28		
		Victoria		
	eE	6 33 07		
	i	6 40 35		
	L	7 11		
	F	7 33		
		Saskatoon		
	i	6 41 52		
	L	7 05		
	F	7 45		
		Seven Falls		
	H	6 13.3	14200	
	SKS	6 39 42		
	PS	6 44 38		
	PPS	6 45.9		
	SS	6 51.5		
	L	7 12		
	F	7 53		
		Ottawa		
507 Oct. 3	H	15 28.5	90	Cornwall?
	P ₁	15 28 47.5		
	S ₁	15 28 58		
	F	15 29.3		
		Ottawa		
508 Oct. 7	H	22 56.3	255	
	P ₂	22 57 02		
	S ₂	22 57 31		
	F ₂	22 58.3		
		Ottawa		
509 Oct. 3	H	23 32.5	3470	USCGS gives:-
	P	23 38 53		φ = 19° N.
	PPP	23 40 12		λ = 102° W.
	S	23 44 07		Tacubaya gives:-
	SS	23 46.7		φ = 18° 33' N.
	L	23 48		λ = 100° 33' W.
	F	0 34		

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM October 3, 1947 to October 3, 1947 No. 68

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
509 Oct. 3 (cont'd)		Victoria		
	H	23 32.3	3660	
	P	23 38 54		
	PP	23 39 54		
	S	23 44 20		
	L	23 47		
	F	0 31		
		Saskatoon		
	H	23 32.4	3480	
	P	23 38 50		
	PP	23 39 50		
	S	23 44 05		
	L	23 48		
	F	0 45		
		Halifax		
	e	23 49.5		
	L	23 54		
	F	0 08		
		Seven Falls		
	H	23 32.4	3950	
	P	23 39 25		
	PPP	23 40 55		
	S	23 45 09		
	SS	23 47 20		
L	23 50			
F	0 59			
	Shawinigan Falls			
H	23 32.4	3820		
P	23 39 16			
PPP	23 40 39			
S	23 44 52			
L	23 48			
F	0 07			
	Kirkland Lake			
H	23 32.3	3630		
P	23 38 52			
PP	23 40 00			
S	23 44 16			
SS	23 46 46			
F	0 18			

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM October 3, 1947 to October 5, 1947 No. 69

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS		
		h m s	km.			
509 Oct. 3 (cont'd)		Temiskaming				
	H	23 32.3	3545			
	P	23 38 47				
	PP	23 30 43				
	S	23 44 05				
SS	23 46 21					
		Ottawa				
510 Oct. 4	e _L	16 00.5				
	e _E	16 07.1				
	e	16 22				
	L	16 37				
	F	17 22				
		Ottawa				
513 Oct. 5	H	18 40.8	14700	USCGS gives:- φ = 3° S. λ = 140° E.		
	P _L	19 00 02				
	SKP	19 03 30				
	PPP	19 05.1				
	SKKS	19 09 10				
	PPS	19 14.3				
	SS	19 19.1				
	SSS	19 25.6				
	L	19 38				
	F	21 30				
					Victoria	
	e	19 06 13				
	e _E	19 07 39				
e _N	19 11 19					
L	19 25					
F	20 29					
		Saskatoon				
H	18 41.1	12100				
SKS	19 06 10					
PS	19 09 21					
SS	19 15 40					
L	19 30					
F	21 40					
		Seven Falls				
H	18 41.1	14500				
PP	19 01 06					
PPP	19 03 34					
S	19 09.4					
SS	19 18.9					
L	19 39					
F	21 53					

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM October 5, 1947 to October 6, 1947 No. 70

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
514 Oct. 5	H P ₂ S ₂ F ₂	19 57.6 19 58 01 19 58 18 19 59	150	
		Ottawa		
516 Oct. 6	eZ L F	18 53 10 19 01 19 18		
		Ottawa		
517 Oct. 6	H P PP S SS SSS L F	19 55.7 20 06 44 20 09 20 20 15 52 20 20 50 20 23 16 20 28 23 23	7640	USCGS gives:- φ = 37° N. λ = 21° E.
		Victoria		
	H P S PS SS L F	19 56.0 20 08 28 20 18 56 20 19 39 20 25.5 20 33 22 44	9380	
		Saskatoon		
	H P S SS L F	19 55.7 20 07 52 20 18 00 20 25.8 20 34 22 02	8940	
		Halifax		
	H P S SSS L F	19 55.9 20 05 58 20 14 20 20 21.1 20 26 21 20	6720	

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM October 6, 1947 to October 7, 1947 No. 71

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS	
		h m s	km.		
517 Oct. 6 (cont'd)		Seven Falls			
	H	19 56.0	7000		
	P	20 06 24			
	S	20 15 01			
	SS	20 19.3			
	SSS	20 22.2			
	L	20 28			
	F	23 53			
		Shawinigan Falls			
	H	19 56.0	7240		
	P	20 06 35			
	S	20 15 25			
	SSS	20 22.6			
	L	20 30			
	F	21 00			
	Kirkland Lake				
H	19 55.5	8000			
P	20 06 51				
PP	20 09 53				
S	20 16 17				
PS	20 16 52				
F	20 42				
	Ottawa				
518 Oct. 6	H	21 51.1	150		
	P ₂	21 51 34			
	S ₂	21 51 51.5			
	F	21 52.3			
	Ottawa				
519 Oct. 7	H	1 53.5	4720	USCGS gives:- φ = 64°5' N. λ = 146°8' W.	
	P	2 01 23			
	PP	2 03 00			
	S	2 07 52			
	SS	2 11 00			
	L	2 14.3			
	F	3 06			
		Victoria			
	H	1 53.3	2290		
	P	1 57 58			
S	2 01 47				
L	2 03				
F	2 55				

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM October 7, 1947 to October 7, 1947 No. 72

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
519 Oct. 7 (cont'd)	H P S L F	h m s	km.	
		Saskatoon		
		1 53.6	2600	
		1 58 46		
		2 03 00		
	H P S S L F	Seven Falls		
		1 53.5	4780	
		2 01 30		
		2 08 02		
		2 10 44		
	P L F	Shawinigan Falls		
		2 01 27		
		2 13		
	H P P S S L F	Temiskaming		
		1 53.4	4510	
2 01 06				
2 02 20				
2 07 24				
2 10 14				
2 14				
H P S L F	Ottawa			
	2 57.6	4720		
	3 05 29			
	3 15 05			
	3 19			
H P S L F	Victoria			
	2 57.7	2280		
	3 02 20			
	3 06 08			
e L F	Saskatoon			
	3 07.3			
	3 10 30			
	3 12			
3 50				

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM October 7, 1947 to October 10, 1947 No. 73

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS	
		h m s	km.		
520 Oct. 7 (cont'd)	e L F	Seven Falls			
		3 15.4			
		3 19			
	3 50				
	e L F	Shawinigan Falls			
		3 05 34			
3 19					
3 28					
531 Oct. 9	H P ₂ S ₂ F ₂	Ottawa		150	
		17 03.8			
		17 04 13			
		17 04 30			
		17 05			
534 Oct. 10	H PZ S SSS L F	Ottawa		9160	USCGS gives:- φ = 40° N. λ = 144° E. d = 300 km.
		7 32.2			
		7 44 32			
		7 54 50			
		8 04			
	8 11				
	9 12				
	H P S L F	Saskatoon		7020	
		7 32.5			
		7 42 54			
7 51 33					
8 05					
8 55					
536 Oct. 10	e L F	Seven Falls			
		7 54 49			
		8 05			
	8 13				
	9 47				
	e _E e _N L F	Ottawa			
		14 20			
		14 31			
		14 54			
16 20					
16 20					
e L F	Victoria				
	14 07 24				
	14 31				
	14 31				
	15 15				



SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM October 10, 1947 to October 15, 1947 No. 74

NO. AND DATE	PHASE	TIME			DISTANCE kn.	REMARKS
		h	m	s		
536 Oct. 10 (cont'd)	e L F	Saskatoon				
		14	14.4			
		14	35			
			15	27		
	e L F	Seven Falls				
		14	09			
14		52				
		16	41			
549 Oct. 13	eZ L F	Ottawa				
		1	14	12		
		1	27			
			1	42		
	e L F	Shawinigan Falls				
		1	14	15		
1		28				
		1	34			
551 Oct. 13	eZ L F	Ottawa				
		7	50	42		
		8	41			
			9	17		
	e L F	Seven Falls				
		7	54.4			
8		36				
		9	57			
553 Oct. 14	eZ eE eN L F	Ottawa				
		2	00	04		
		2	08.6			
			2	18		
			2	36		
			4	00		
558 Oct. 15	eN L F	Victoria				
		2	05	52		
		2	27			
			3	00		
	eZ L F	Ottawa				
		4	17	27		
4		31				
		4	40			

USCGS gives:-
φ = 32° S.
λ = 180°



SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM October 15, 1947 to October 16, 1947 No. 75

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
558 Oct. 15 (cont'd)	e L F	Shawinigan Falls		
		4 17 28		
		4 31		
		4 39		
		Ottawa		
559 Oct. 15	ez L F	9 02 56		
		9 15		
		9 25		
		Ottawa		
563 Oct. 15	iz e L F	19 42 38		
		19 52.5		
		19 56		
		20 15		
		Saskatoon		
	H P S L F	19 34.8	2720	
		19 40 10		
		19 44 33		
		19 47 37		
		20 00		
		Seven Falls		
	e L F	19 52 33		
		19 57		
		20 28		
		Shawinigan Falls		
	e L F	19 42 42		
		19 54		
		20 10		
		Ville Marie		
	i L F	19 42 16		
		19 58		
		20 15		
		Ottawa		
567 Oct. 16	H iP PPP S SSS L F	2 09.9	4660	
		2 17 46		
		2 19 33		
		2 24 12		
		2 27 42		
		2 31		
	6 00 ca.			
				USCGS gives:- φ = 64°5 N. λ = 148°8 W.

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM October 16, 1947 to October 16, 1947 No. 76

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
567 Oct. 16 (cont'd)		Victoria		
	H	2 09.7	2350	
	P	2 14 31		
	PPP	2 15 10		
	S	2 18 25		
	SS	2 19 00		
	L	2 20		
	F	4 20		
		Saskatoon		
	H	2 09.8	2750	
	P	2 15 08		
	PP	2 15 40		
	PPP	2 15 51		
	S	2 19 34		
	LM	2 26		
	F	5 51		
		Halifax		
	H	2 09.7	5460	
	P	2 18 30		
	PP	2 20 30		
	S	2 25 40		
	SS	2 29.0		
	SSS	2 30 10		
	L	2 34		
	F	4 31		
		Seven Falls		
	H	2 09.9	4800	
P	2 17 53			
PPP	2 19 31			
S	2 24 27			
SS	2 26 31			
L	2 29.9			
F	6 16			
	Shawinigan Falls			
H	2 09.9	4740		
P	2 17 49			
PP	2 19.6			
S	2 24.3			
SS	2 27.3			
L	2 31			
F	3 47			

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM October 16, 1947 to October 19, 1947 No. 77

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
567 Oct. 16 (cont'd)		Ville Marie		
	H	2 09.9	4420	
	P	2 17 25		
	PP	2 18 52		
	PPP	2 19 30		
	S	2 23 38		
	SS	2 26 27		
	SSS	2 28		
	L	2 30		
	F	3 45		
		Hamilton Courtesy of E. Mantle		
	H	2 10.0	4780	
	P	2 17 57		
	PP	2 19 33		
	S	2 40 29		
	SS	2 27 05		
	L	2 31		
	F	3 55		
		Ottawa		
577 Oct. 16	iZ	14 21 16		
	L	14 35		
	F	14 41		
		Ottawa		
582 Oct. 17	iZ	10 31 03		
	L	10 45		
	F	10 52		
		Ottawa		
585 Oct. 17	H	17 00.3	150	
	P ₂	17 00 41		
	S ₂	17 00 58		
	F ₂	17 01.5		
		Ottawa		
588 Oct. 18	H	18 25.6	200	
	P ₂	18 26 11		
	S ₂	18 26 34		
	F ₂	18 27		
		Ottawa		
592 Oct. 19	iZ	12 50 50		
	L	13 05		
	F	13 12		

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM October 19, 1947 to October 20, 1947 No. 78

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
595 Oct. 19	H	20 42.1	150	
	P ₂	20 42 32.5		
	S ₂	20 42 50		
	F ₂	20 43.3		
		Ottawa		
598 Oct. 20	H	1 43.4	4680	USCGS gives:- φ = 64°5 N. λ = 148°8 W.
	P	1 51 17		
	PP	1 53 02		
	S	1 57 44		
	SS	2 00 50		
	L	2 05		
	F	3 26		
		Victoria		
	H	1 43.3	2390	
	P	1 48 05		
	PP	1 48 30		
	iS	1 52 02		
	SS	1 53.0		
	L	1 54		
	F	3 35		
		Saskatoon		
	H	1 43.2	2810	
	P	1 48 39		
	PPP	1 49.5		
	S	1 53 09		
	L	1 56		
	F	3 55		
		Halifax		
	H	1 43.6	5200	
	P	1 52 06		
	PP	1 53 54		
	S	1 59 02		
	SS	2 02 40		
	L	2 08		
	F	3 00		
		Seven Falls		
	H	1 43.3	4850	
	P	1 51 23		
	PP	1 53 02		
	S	1 57 53		
	SS	2 00 49		
	L	2 04		
	F	4 58		

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM October 20, 1947 to October 22, 1947 No. 79

NO. AND DATE	PHASE	TIME			DISTANCE km.	REMARKS
		h	m	s		
598 Oct. 20 (cont'd)	Shawinigan Falls					
	H	1	43.	4	4720	
	P	1	51	19		
	PP	1	53	05		
	SSS	2	01.	4		
	L	2	04			
	F	2	44			
	Kirkland Lake					
	H	1	43.	1	4480	
	P	1	50	45		
PP	1	52	16			
S	1	57	01			
SS	1	59	17			
L	2	02				
F	2	33				
Ville Marie						
H	1	43.	3	4440		
P	1	50	53			
PP	1	52	23			
S	1	57	07			
SSS	2	00	17			
L	2	03				
F	2	46				
Ottawa						
e	3	06	34			
L	3	21				
F	3	26				
Ottawa						
605 Oct. 22	H	9	36.	5	490	
	P ₂	9	37	48		
	S ₃	9	38	30		
	S ₂	9	38	43.5		
	F ₂	9	41.	2		
Seven Falls						
H	9	36.	6	45		
P ₁	9	36	45.5			
S ₁	9	36	51.2			
F ₁	9	39				
Shawinigan Falls						
H	9	36.	5	205		
P ₂	9	37	09			
S ₂	9	37	33			
F ₂	9	39				

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM October 22, 1947 to October 31, 1947 No. 80

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
610 Oct. 22	H P ₂ S ₂ F ₂	20 09.3 20 09 46.5 20 10 04.5 20 10.5	155	
		Ottawa		
616 Oct. 23	H P ₂ S ₂ F ₂	21 02.2 21 02 35 21 02 52.5 21 03.2	150	
		Ottawa		
627 Oct. 25	H P ₂ S ₂ F ₂	22 32.5 22 33 01.5 22 33 25 22 33.8	205	
		Ottawa		
638 Oct. 29	H P ₁ S ₁ F ₁	15 45.5 15 45 50 15 46 01 15 46.3	95	Cornwall?

W. W. Doysee

EARTHQUAKE CORRELATION TABLE

October, 1947

No.	Date	Ottawa	Victoria	Saskatoon	Halifax	Seven Falls		Shawinigan	**
						M. S.	W. A.		
493	1	3 29+0 0.4P*	.....	.....	.....	.....	.....	.....	..
494	1	12 50+0 0.2P*	.....	.....	.....	.....	.....	.....	..
495	1	13 01+0 0.6F*	.....	.....	.....	.....	.....	.....	..
496	1	18 33+0 0.2P*	.....	.....	.....	.....	.....	.....	..
497	1	19 15+0 0.1P*	.....	.....	.....	.....	.....	.....	..
498	1	21 25+0 0.3P*	.....	.....	.....	.....	.....	.....	..
499	1	21 34+0 0.1P*	.....	.....	.....	.....	.....	.....	..
500	1	21 39+0 0.2P*	.....	.....	.....	.....	.....	.....	..
501	1	22 27+0 0.3P*	.....	.....	.....	.....	.....	.....	..
502	1	22 40+0 0.5P*	.....	.....	.....	.....	.....	.....	..
503	2	5 05+0 0.1P*	.....	.....	.....	.....	.....	.....	..
504	3	27+0 0.5P*	.....	.....	.....	.....	.....	.....	..
505	3	34+0 54u	6 33+1 00u	6 42+1 03u	.....	6 40+1 13u	.....	.....	..A
506	3	8 18+0 0.3P*	8 30+0 06L	8 29+0 07L	.....	.....	.....	.....	..
507	3	15 29+0 0.5d*	.....	.....	.....	.....	.....	.....	..B
508	3	22 57+0 0.1v*	.....	.....	.....	.....	.....	.....	..C
509	3	23 39+0 55r	23 39+0 52R	23 39+1 06R	23 49+0 19r	23 39+1 20r	23 39+0 30r	23 39+0 28r	..D
510	4	16 00+1 22u	.....	.....	.....	16 33+0 54L	.....	.....	..
511	4	19 42+0 0.1P*	.....	.....	.....	.....	.....	.....	..
512	5	6 36+0 0.1P*	.....	.....	.....	.....	.....	.....	..E
513	5	19 00+2 28u	19 06+1 23u	19 06+2 34u	19 50+0 20L	19 01+2 52u	.....	.....	..F
514	5	19 58+0 0.1v*	.....	.....	.....	.....	.....	.....	..
515	6	.....	.....	.....	.....	.....	.....	.....	..
516	6	18 53+0 25r	.....	.....	.....	16 08+0 25L	.....	.....	..
517	6	20 07+3 16U	20 08+2 36U	20 08+1 54U	20 06+1 14U	18 58+0 24L	.....	.....	..G
518	6	21 52+0 0.7v*	.....	.....	.....	20 06+3 47U	.....	20 07+0 53U	..H
519	7	2 01+1 05R	1 58+0 57R	1 59+1 01R	2 17+0 18L	2 02+1 08R	2 02+0 30R	2 01+0 30R	..J
520	7	3 05+0 36r	3 02+0 18r	3 07+0 43r	3 22+0 07L	3 15+0 35r	3 19+0 08L	3 06+0 22r	..K
521	7	.....	.....	3 50+0 12L	.....	.....	.....	.....	..
522	7	5 04+0 0.4L	.....	4 55+0 06L	.....	5 05+0 09L	.....	.....	..

EARTHQUAKE CORRELATION TABLE

October, 1947

No.	Date	Ottawa	Victoria	Saskatoon	Halifax	Seven Falls		Shawinigan	**
						M. S.	W. A.		
553	14	2 00+2 00u	2 06+0 54u	.....	.....	.....	.....	.....	..
554	14	17 30+0 0.2P*	.....	.....	.....	.....	.....	.....	..
555	14	19 30+0 0.3P*	.....	.....	.....	.....	.....	.....	..
556	14	22 43+0 0.2P*	.....	.....	.....	.....	.....	.....	..
557	14	23 14+0 0.1P*	.....	.....	.....	.....	.....	.....	..
558	15	4 17+0 23r	4 20+0 08L	.....	.....	4 32+0 14L	4 31+0 08L	4 17+0 22r	..
559	15	9 03+0 22r	9 00+0 11L	.....	.....	.....	.....	.....	..
560	15	18 42+0 0.1P*	.....	.....	.....	.....	.....	.....	..
561	15	19 03+0 0.3P*	.....	.....	.....	.....	.....	.....	..
562	15	19 33+0 0.4P*	.....	.....	.....	.....	.....	.....	..
563	15	19 43+0 32r	19 46+0 09L	19 40+0 20r	19 59+0 17L	19 53+0 35r	19 53+0 15r	19 43+0 27r	.. N
564	15	21 03+0 0.3P*	.....	.....	.....	.....	.....	.....	..
565	15	21 30+0 0.1P*	.....	.....	.....	.....	.....	.....	..
566	16	0 03+0 0.2P*	.....	.....	.....	.....	.....	.....	..
567	16	2 18+3 42R	2 15+2 05R	2 15+3 36R	2 18+2 13U	2 18+3 58R	2 18+1 30R	2 18+1 29R	.. P
568	16	3 10+0 0.2P*	.....	.....	.....	.....	.....	.....	..
569	16	3 35+0 0.1P*	.....	.....	.....	.....	.....	.....	..
570	16	3 40+0 0.4P*	.....	.....	.....	.....	.....	.....	..
571	16	4 34+0 0.1P*	.....	.....	.....	.....	.....	.....	..
572	16	5 20+0 0.6P*	.....	.....	.....	.....	.....	.....	..
573	16	8 34+0 0.4P*	.....	.....	.....	.....	.....	.....	..
574	16	9 30+0 0.3P*	9 35+0 06L	9 35+0 06L	.....	.....	9 45+0 04L	.....	..
575	16	11 31+0 0.1P*	.....	.....	.....	.....	.....	.....	..
576	16	12 38+0 0.2P*	.....	.....	.....	.....	12 45+0 03L	.....	..
577	16	14 21+0 20r	.....	.....	.....	14 36+0 06L	.....	.....	..
578	16	15 45+0 0.2P*	.....	.....	.....	.....	.....	.....	..
579	16	19 07+0 0.1P*	.....	.....	.....	.....	.....	.....	..
580	17	0 50+0 0.1P*	.....	.....	.....	.....	.....	.....	..
581	17	4 15+0 0.2P*	.....	.....	.....	.....	.....	.....	..
582	17	10 31+0 21r	.....	10 36+0 04L	.....	10 47+0 06L	10 46+0 03L	.....	..

CORRELATION OF EARTHQUAKES

October, 1947

N O T E S

A	: Ottawa	$\Delta = 13,600$ km.	H = 6 ^h 13 ^m 5 U.T.
	Seven Falls	$\Delta = 14,200$ km.	H = 6 13.3 U.T.
B	: Ottawa	$\Delta = 90$ km.	H = 15 ^h 28 ^m 5 U.T.
C	: Ottawa	$\Delta = 255$ km.	H = 22 ^h 56 ^m 3 U.T.
D	: Ottawa	$\Delta = 3,470$ km.	H = 23 ^h 32 ^m 5 U.T.
	Victoria	$\Delta = 3,660$ km.	H = 23 32.3 U.T.
	Saskatoon	$\Delta = 3,480$ km.	H = 23 32.4 U.T.
	Seven Falls	$\Delta = 3,950$ km.	H = 23 32.4 U.T.
	Shawinigan Falls	$\Delta = 3,820$ km.	H = 23 32.4 U.T.
	Kirkland Lake	$\Delta = 3,630$ km.	H = 23 32.3 U.T.
	Temiskaming	$\Delta = 3,545$ km.	H = 23 32.3 U.T.
E	: Ottawa	$\Delta = 14,700$ km.	H = 18 ^h 40 ^m 8 U.T.
	Saskatoon	$\Delta = 12,100$ km.	H = 18 41.1 U.T.
	Seven Falls	$\Delta = 14,500$ km.	H = 18 41.1 U.T.
F	: Ottawa	$\Delta = 150$ km.	H = 19 ^h 57 ^m 6 U.T.
G	: Ottawa	$\Delta = 7,640$ km.	H = 19 ^h 55 ^m 7 U.T.
	Victoria	$\Delta = 9,380$ km.	H = 19 56.0 U.T.
	Saskatoon	$\Delta = 8,940$ km.	H = 19 55.7 U.T.
	Halifax	$\Delta = 6,720$ km.	H = 19 55.9 U.T.
	Seven Falls	$\Delta = 7,000$ km.	H = 19 56.0 U.T.
	Shawinigan Falls	$\Delta = 7,240$ km.	H = 19 56.0 U.T.
	Kirkland Lake	$\Delta = 8,000$ km.	H = 19 55.5 U.T.
H	: Ottawa	$\Delta = 150$ km.	H = 21 ^h 51 ^m 1 U.T.
J	: Ottawa	$\Delta = 4,720$ km.	H = 1 ^h 53 ^m 5 U.T.
	Victoria	$\Delta = 2,290$ km.	H = 1 53.3 U.T.
	Saskatoon	$\Delta = 2,600$ km.	H = 1 53.6 U.T.
	Seven Falls	$\Delta = 4,780$ km.	H = 1 53.5 U.T.
	Temiskaming	$\Delta = 4,510$ km.	H = 1 53.4 U.T.
K	: Ottawa	$\Delta = 4,720$ km.	H = 2 ^h 57 ^m 6 U.T.
	Victoria	$\Delta = 2,280$ km.	H = 2 57.7 U.T.
L	: Ottawa	$\Delta = 150$ km.	H = 17 ^h 03 ^m 8 U.T.
M	: Ottawa	$\Delta = 9,160$ km.	H = 7 ^h 32 ^m 2 U.T.
	Saskatoon	$\Delta = 7,020$ km.	H = 7 32.5 U.T.
N	: Saskatoon	$\Delta = 2,720$ km.	H = 19 ^h 34 ^m 8 U.T.
P	: Ottawa	$\Delta = 4,660$ km.	H = 2 ^h 09 ^m 9 U.T.
	Victoria	$\Delta = 2,350$ km.	H = 2 09.7 U.T.
	Saskatoon	$\Delta = 2,750$ km.	H = 2 09.8 U.T.
	Halifax	$\Delta = 5,460$ km.	H = 2 09.7 U.T.
	Seven Falls	$\Delta = 4,800$ km.	H = 2 09.9 U.T.
	Shawinigan Falls	$\Delta = 4,740$ km.	H = 2 09.9 U.T.
	Ville Marie	$\Delta = 4,420$ km.	H = 2 09.9 U.T.
Q	: Ottawa	$\Delta = 150$ km.	H = 17 ^h 00 ^m 3 U.T.
R	: Ottawa	$\Delta = 200$ km.	H = 18 ^h 25 ^m 6 U.T.
S	: Ottawa	$\Delta = 150$ km.	H = 20 ^h 42 ^m 1 U.T.

CORRELATION OF EARTHQUAKES

October, 1947

NOTES

T	Ottawa	$\Delta = 4,680$ km.	H = 1 ^h 43 ^m .4 U.T.
	Victoria	$\Delta = 2,390$ km.	H = 1 43.3 U.T.
	Saskatoon	$\Delta = 2,810$ km.	H = 1 43.2 U.T.
	Halifax	$\Delta = 5,200$ km.	H = 1 43.6 U.T.
	Seven Falls	$\Delta = 4,850$ km.	H = 1 43.3 U.T.
	Shawinigan Falls	$\Delta = 4,720$ km.	H = 1 43.4 U.T.
	Kirkland Lake	$\Delta = 4,480$ km.	H = 1 43.1 U.T.
	Ville Marie	$\Delta = 4,440$ km.	H = 1 43.3 U.T.
U	Ottawa	$\Delta = 490$ km.	H = 9 ^h 36 ^m .5 U.T.
	Seven Falls	$\Delta = 45$ km.	H = 9 36.6 U.T.
	Shawinigan Falls	$\Delta = 205$ km.	H = 9 36.5 U.T.
V	Ottawa	$\Delta = 155$ km.	H = 20 ^h 09 ^m .3 U.T.
W	Ottawa	$\Delta = 150$ km.	H = 21 ^h 02 ^m .2 U.T.
X	Ottawa	$\Delta = 205$ km.	H = 22 ^h 32 ^m .5 U.T.
Y	Ottawa	$\Delta = 95$ km.	H = 15 ^h 45 ^m .5 U.T.

Dominion Observatory,

OTTAWA, CANADA.

December 9, 1947.

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM November 1, 1947 to November 1, 1947 No. 81

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS	
		h m s	km.		
646 Nov. 1		Ottawa			
	H	6 00 ca.	13,600		
	PZ	6 19 11			
	SKP	6 22 00			
	PPS	6 32			
	L	7 06.5			
	F	8 11			
		Saskatoon			
	e	6 22.1			
	e	6 30.8			
	e	6 38.5			
	e	6 43.7			
	L	7 05			
	F	8 20			
		Seven Falls			
e	6 30.6				
L	7 01				
F	8 32				
	Ottawa				
647 Nov. 1	H	14 59.0	6,150	Compression USCGS gives: $\phi = 11^\circ S.$ $\lambda = 75^\circ W.$	
	P	15 08 31			
	PP	15 10 36			
	PPP	15 11 40			
	iS	15 16 20			
	PS	15 16 52			
	SS	15 22 10			
	SSS	15 23.7			
	L	15 29			
	F	19 13			
		Victoria			
	H	14 59.0	8,120		
	P	15 10 26			
	PP	15 13 18			
	iS	15 19 58			
PS	15 20 39				
L	15 37				
F	18 36				
	Saskatoon				
H	14 58.9	7,650			
e	15 11.5				
iS	15 19 03				
SSS	15 28.5				
L	15 31				
F	18 58				

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM November 1, 1947 to November 1, 1947 No. 82

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
647 Nov. 1 (cont'd)		Halifax		
	H	14 59.0	6,040	
	P	15 08 26		
	PP	15 10.5		
	S	15 16 03		
	PS	15 16 40		
	SS	15 20.0		
	SSS	15 21.6		
	L	15 26		
	F	18 11		
		Seven Falls		
	H	14 59.1	6,350	
	P	15 08 47		
	S	15 16 47		
	PS	15 17 09		
	SS	15 20.6		
	SSS	15 23.3		
	L	15 29		
	F	19 26		
		Shawinigan Falls		
	H	14 59.0	6,320	
	P	15 08 41		
	PP	15 10 57		
	PPP	15 12 12		
	S	15 16 40		
	PS	15 17 06		
	SS	15 20.6		
	L	15 26		
	F	16 06		
		Temiskaming		
	H	14 58.9	6,500	
	P	15 08 46		
	PP	15 11.2		
	S	15 16 55		
	PS	15 17 07		
	SS	15 20 24		
	L	15 26		
	F	16 04		
		Kirkland Lake		
	H	14 59.0	6,445	
	P	15 08 52		
	PP	15 11 40		
	PPP	15 12 48		
	S	15 16 58		
	PS	15 17 30		
	SSS	15 23.6		
	L	15 29		
	F	16 02		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM November 1, 1947 to November 3, 1947 No. 83

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS	
		h m s	km.		
655 Nov. 2		Ottawa			
	H	7 00.6	4,010	USCGS gives:- $\varphi = 40^{\circ}$ N. $\lambda = 127^{\circ}$ W.	
	P	7 07 41			
	PPP	7 09 08			
	S	7 13 29			
	SSS	7 16			
	L	7 20			
	F	8 01			
		Victoria			
	H	7 00.4	900		
	P	7 02 24			
	S	7 03 58			
	L	7 05			
	F	8 07			
		Saskatoon			
H	7 00.3	2,050			
P	7 04 35				
S	7 08 05				
L	7 10				
F	8 00				
	Seven Falls				
H	7 00.6	4,400			
P	7 08 07				
PP	7 09 38				
S	7 14 18				
L	7 22				
F	8 36				
	Temiskaning				
663 Nov. 3	H	19 51.7	225		
	P ₃	19 52 17			
	S ₃	19 52 42.5			
	F ₃	19 53			
	Kirkland Lake				
H	19 51.8	320			
P ₃	19 52 32				
S ₃	19 53 07.5				
F ₃	19 54				
	Seven Falls				
664 Nov. 3	H	23 29.9	35		
	P ₁	23 30 02			
	S ₃	23 30 06			
	F ₃	23 30.5			

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM November 3, 1947 to November 4, 1947 No. 84

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS	
		h m s	km.		
666 Nov. 4		Ottawa			
	H	0 09.2	9,430	Rarefaction USCGS gives: $\varphi = 43^{\circ}$ N. $\lambda = 140^{\circ}$ E.	
	P	0 21 45			
	S	0 32 15			
	PS	0 33 13			
	L	0 54			
	F	2 33			
		Victoria			
	H	0 09.3	6,960		
	P	0 19 37			
	PP	0 22 03			
	PPP	0 23 12			
	S	0 29 12			
	L	0 40			
	F	1 55			
		Saskatoon			
	H	0 09.1	7,500		
	P	0 19 58			
	PP	0 22.5			
	S	0 29 00			
	L	0 41			
	F	2 12			
		Halifax			
	H	0 09.3	9,830		
	P	0 22 07			
	S	0 32 54			
	SSS	0 44.2			
L	0 51				
F	1 38				
	Seven Falls				
H	0 09.2	9,460			
P	0 21 55				
S	0 32 17				
SS	0 37.7				
SSS	0 42.8				
L	0 52				
F	2 45				
	Shawinigan Falls				
H	0 09.3	9,300			
P	0 21 45				
S	0 32 09				
L	0 58				
F	1 12				

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM November 4, 1947 to November 9, 1947 No. 85

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Ottawa		
678 Nov. 4	H	18 29.7	150	
	P ₂	18 30 06.5		
	S ₂	18 30 24		
	S ₁	18 30 27		
	F	18 31		
		Ottawa		
680 Nov. 4	H	20 34.7	150	
	P ₂	20 35 06		
	S ₂	20 35 23.5		
	F	20 35.9		
		Ottawa		
688 Nov. 6	H	21 04.1	265	
	P ₂	21 04 48		
	S ₂	21 05 18		
	F	21 06.1		
		Ottawa		
693 Nov. 7	H	16 29.9	150	
	P ₂	16 30 17		
	S ₂	16 30 34.5		
	F	16 31.1		
		Ottawa		
696 Nov. 7	H	21 53.0	215	
	P ₂	21 53 36		
	S ₂	21 54 00.5		
	F	21 54.5		
		Ottawa		
697 Nov. 7	H	23 00.6	6,200	USCGS gives:
	eP _Z	23 10 08		φ = 11° S.
	S	23 18.0		λ = 75° W.
	L	23 26		
	F	23 57		
		Ottawa		
705 Nov. 9	H	4 57.7	13,900	USCGS gives:
	P ₁	5 16 45		φ = 23° S.
	P ₂	5 18.5		λ = 171° E.
	S ₁	5 23 48		
	S ₂	5 25 20		
	P ₃	5 28.5		
	S ₃	5 35.6		
	S ₃	5 40		
	L	5 56		
	F	7 25		

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM November 9, 1947 to November 12, 1947 No. 86

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
705 Nov. 9 (cont'd)		Victoria		
	H	4 58.3	10,000	
	SKS	5 21 37		
	SKKS	5 22 09		
	PPS	5 23 39		
	SS	5 28.0		
	L	5 40		
	F	7 41		
		Saskatoon		
	H	4 57.9	11,500	
	SKS	5 22 28		
	S	5 23 39		
	PS	5 25 17		
	SS	5 31.2		
SSS	5 34 47			
L	5 46			
F	6 40			
	Halifax			
e	5 20 27			
e	5 37.6			
L	5 57			
F	6 35			
	Seven Falls			
H	4 57.8	14,200		
SKP	5 20 10			
SKS	5 23 58			
PS	5 29 00			
SS	5 36.5			
SSS	5 44.7			
L	5 57			
F	7 39			
	Seven Falls			
714 Nov. 12	e	2 00.8		USCGS gives: $\varphi = 29^{\circ}$ N. $\lambda = 114^{\circ}$ W.
	L	2 02.8		
	F	2 08		
		Seven Falls		
716 Nov. 12	e	3 04.2		USCGS gives: $\varphi = 29^{\circ}$ N. $\lambda = 114^{\circ}$ W.
	L	3 07		
	F	3 19		
		Ottawa		
717 Nov. 12	ez	10 58 06		
	L	11 36		
	F	12 00		

SEISMOLOGICAL SERVICE OF CANADA

DOMINION OBSERVATORY, OTTAWA

FROM November 12, 1947 to November 21, 1947 No. 87

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s			km.
720 Nov. 12	ez L F	Ottawa	10,600	USCGS gives: $\varphi = 23^{\circ}$ S. $\lambda = 171^{\circ}$ E.
		16 37 50		
		16 49		
	H P SKS PS SS L F	Victoria		
		16 18.8		
		16 32 13		
		16 42 47		
		16 44 26		
		16 49.9		
		17 01		
	e L F	Seven Falls		
		16 47.7		
		17 19		
	734 Nov. 17	ez L F			Ottawa	USCGS gives: $\varphi = 14^{\circ}$ N. $\lambda = 45^{\circ}$ W.
10 04 10				
10 13				
10 30				
735 Nov. 17	ez L F	Ottawa		
		11 24 45		
		11 54		
	12 04			
744 Nov. 20	iz LN F	Ottawa	USCGS gives: $\varphi = 47^{\circ}$ N. $\lambda = 153^{\circ}$ E.	
		8 31 19		
		8 57		
	9 20			
746 Nov. 20	H P ₂ S ₂ F ₂	Ottawa	150	
		19 37.2		
		19 37 31		
		19 37 48.5		
		19 38.4		
748 Nov. 21	H P PPP S SSS L F	Ottawa	4,080	Rarefaction USCGS gives: $\varphi = 19^{\circ}$ N. $\lambda = 107^{\circ}$ W.
		3 54.3		
		4 01 26		
		4 02 58		
		4 07 18		
		4 10 00		
		4 11.5		
		5 12		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM November 21, 1947 to November 21, 1947 No. 88

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
748 Nov. 21 (Cont'd)		Victoria		
	H	3 54.2	3,570	
	P	4 00 40		
	PPP	4 01 57		
	S	4 06 00		
	SS	4 08.2		
	L F	4 10 5 57		
		Saskatoon		
	H	3 54.4	3,550	
	P	4 00 54		
	PP	4 01 47		
	PPP	4 02 07		
	S	4 06 13		
	L F	4 11 4 36+		
		Halifax		
	H	3 54.6	4,740	
	P	4 02 32		
	PPP	4 04.3		
	S	4 09.0		
	SSS	4 12.5		
	L F	4 17 4 54		
		Seven Falls		
	H	3 54.5	4,420	
	P	4 02 04		
	PP	4 03 42		
	S	4 08 17		
	SS	4 11 04		
	L F	4 14 5 55		
		Shawinigan Falls		
	e	4 01 55		
	e	4 07 41		
	e	4 10 53		
	L	4 15		
	F	4 53		
		Ottawa		
755 Nov. 21	ez	19 21 00		
	L	19 38		
	F	20 54		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM November 21, 1947 to November 23, 1947 No. 89

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
755 Nov. 21 (cont'd)		Victoria		
	e	19 26		
	L	19 40		
	F	21 02		
		Seven Falls		
	e	19 32.4		
L	19 53			
F	21 07			
		Ottawa		
758 Nov. 22	H	8 00.8	4,880	
	PZ	8 08 54		
	SN	8 15 32		
	L	8 26		
	F	8 35		
		Ottawa		
760 Nov. 23	H	9 46.1	2,790	Compression USCGS gives: $\phi = 44^{\circ} 47' N.$ $\lambda = 112^{\circ} 02' W.$
	P	9 51 32		
	PP	9 52 09		
	S	9 56 00		
	L	9 59		
	F	10 48		
		Hamilton		
		Courtesy of E. Mantle		
H	P S L F	9 46.1	2,590	
		9 51 12		
		9 55 25		
		9 57		
		10 40		
		Victoria		
H	P S L F	9 46.1	985	
		9 48 15		
		9 49 58		
		9 50.5		
		10 35		
		Saskatoon		
H	P S LM F	9 46.2	955	
		9 48 20		
		9 50 00		
		9 51.6		
		10 40		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM November 23, 1947 to November 25, 1947 No. 90

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS	
		h m s	km.		
760 Nov. 23 (cont'd)	e L F	Halifax			
		9 58.2			
		6 01			
			Seven Falls		
	H P S L F	9 46.1	3,065		
		9 51 57			
		9 56 45			
		9 58 55			
		11 11			
			Shawinigan Falls		
	H P PP S SS L F	9 46.1	2,980		
		9 51 49			
		9 52 16			
		9 56 31			
		9 56 58			
9 58.4					
		10 29			
		Temiskaming			
H P S SS L F	9 46.1	2,500			
	9 51 07				
	9 55 13				
	9 56 20				
	9 58				
		10 32			
		Kirkland Lake			
H P S L F	9 46.0	2,550			
	9 51 01				
	9 55 11				
	9 57 12				
	10 26				
		Ville Marie			
H P S L F	9 46.0	2,580			
	9 51 07				
	9 55 19				
	9 57				
	10 37				
		Ottawa			
765 Nov. 25	eZ L F	18 24 43 18 45 18 55		USCGS gives: φ = 11° S. λ = 75° W.	

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM November 25, 1947 to November 30, 1947 No. 91

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
770 Nov. 25	H P ₂ S ₂ F	21 33.8 21 34 25 21 34 49 21 35.1	210	
		Ottawa		
775 Nov. 29	H P ₂ S ₂ F	15 57.6 15 57 59.5 15 58 17 15 58.8	150	
		Ottawa		
776 Nov. 29	H P ₂ S ₂ F	21 06.0 21 06 25.5 21 06 43 21 07.3	150	

W. W. Doxsee.

EARTHQUAKE CORRELATION TABLE
November, 1947

No.	Date	Ottawa	Victoria	Saskatoon	Halifax	Seven Falls		Shawinigan	**
						M. S.	W. A.		
678	4	18 30+0 01v*	.....	.....	.....	.....	.....	.....	G
679	4	20 10+0 0.4P*	.....	.....	.....	.....	.....	.....	H
680	4	20 35+0 0.8v*	.....	.....	.....	.....	.....	.....
681	5	1 23+0 0.7P*	.....	.....	.....	.....	.....	.....
682	5	2 22+0 0.7P*	.....	.....	.....	.....	.....	.....
683	5	14 11+0 0.1P*	.....	.....	.....	.....	.....	.....
684	5	7 45+0 0.5P*	.....	.....	.....	.....	.....	.....
685	6	16 29+0 0.1P*	.....	.....	.....	.....	.....	.....
686	6	17 44+0 0.4P*	.....	.....	.....	.....	.....	.....
687	6	17 57+0 0.1P*	.....	.....	.....	.....	.....	.....	J
688	6	21 05+0 0.1v*	.....	.....	.....	.....	.....	.....
689	6	22 37+0 0.1P*	.....	.....	.....	.....	.....	.....
690	7	3 12+0 0.1P*	.....	.....	.....	.....	.....	.....
691	7	5 25+0 0.2P*	.....	.....	.....	.....	.....	.....
692	7	15 45+0 0.1P*	.....	.....	.....	.....	.....	.....
693	7	16 30+0 0.1v*	.....	.....	.....	.....	.....	.....	K
694	7	21 17+0 0.3P*	.....	.....	.....	.....	.....	.....
695	7	21 39+0 0.3P*	.....	.....	.....	.....	.....	.....
696	7	21 54+0 0.1v*	.....	.....	.....	.....	.....	.....	L
697	7	23 10+0 47u	.....	.....	.....	23 27+0 20L	.....	23 11+0 10P	M
698	8	4 15+0 0.1P*	.....	.....	.....	.....	.....	.....
699	8	5 33+0 0.2P*	.....	.....	.....	.....	.....	.....
700	8	6 57+0 0.2P*	.....	.....	.....	.....	.....	.....
701	8	7 01+0 0.1P*	.....	.....	.....	.....	.....	.....
702	8	16 50+0 0.1P*	.....	.....	.....	.....	.....	.....
703	8	21 25+0 0.7P*	.....	.....	.....	.....	.....	.....
704	8	23 00+1 04u	.....	.....	.....	.....	.....	.....
705	9	5 17+2 08U	5 22+2 19U	5 22+1 18U	5 20+1 15U	23 52+0 07L	.....	21 25+0 01P	N
706	9	11 07+0 0.6P*	.....	.....	.....	5 20+2 19U	.....	.....
707	9	15 20+0 0.6P*	.....	.....	.....	.....	.....	.....
708	9	21 00+0 0.3P*	.....	.....	.....	.....	.....	.....
709	10	4 17+0 0.9L	.....	.....	.....	.....	.....	.....
710	10	6 46+0 0.6P*	.....	.....	.....	4 14+0 09L	.....	.....

CORRELATION OF EARTHQUAKES

November, 1947

N O T E S

A :	Ottawa	$\Delta = 13,600$ km.	H = 6 ^h 00 ^m U.T.
B :	Ottawa	$\Delta = 6,150$ km.	H = 14 ^h 59 ^m 0 U.T.
	Victoria	$\Delta = 8,120$ km.	H = 14 59.0 U.T.
	Saskatoon	$\Delta = 7,650$ km.	H = 14 58.9 U.T.
	Halifax	$\Delta = 6,040$ km.	H = 14 59.0 U.T.
	Seven Falls	$\Delta = 6,350$ km.	H = 14 59.1 U.T.
	Shawinigan Falls	$\Delta = 6,320$ km.	H = 14 59.0 U.T.
	Temiskaming	$\Delta = 6,500$ km.	H = 14 58.9 U.T.
	Kirkland Lake	$\Delta = 6,445$ km.	H = 14 59.0 U.T.
C :	Ottawa	$\Delta = 4,010$ km.	H = 7 ^h 00 ^m 6 U.T.
	Victoria	$\Delta = 900$ km.	H = 7 00.4 U.T.
	Saskatoon	$\Delta = 2,050$ km.	H = 7 00.3 U.T.
D :	Temiskaming	$\Delta = 225$ km.	H = 19 ^h 51 ^m 7 U.T.
	Kirkland Lake	$\Delta = 320$ km.	H = 19 51.8 U.T.
E :	Seven Falls	$\Delta = 35$ km.	H = 23 ^h 29 ^m 9 U.T.
F :	Ottawa	$\Delta = 9,430$ km.	H = 0 ^h 09 ^m 2 U.T.
	Victoria	$\Delta = 6,960$ km.	H = 0 09.3 U.T.
	Saskatoon	$\Delta = 7,500$ km.	H = 0 09.1 U.T.
	Halifax	$\Delta = 9,830$ km.	H = 0 09.3 U.T.
	Seven Falls	$\Delta = 9,460$ km.	H = 0 09.2 U.T.
	Shawinigan Falls	$\Delta = 9,300$ km.	H = 0 09.3 U.T.
G :	Ottawa	$\Delta = 150$ km.	H = 18 ^h 29 ^m 7 U.T.
H :	Ottawa	$\Delta = 150$ km.	H = 20 ^h 34 ^m 7 U.T.
J :	Ottawa	$\Delta = 265$ km.	H = 21 ^h 04 ^m 1 U.T.
K :	Ottawa	$\Delta = 150$ km.	H = 16 ^h 29 ^m 9 U.T.
L :	Ottawa	$\Delta = 215$ km.	H = 21 ^h 53 ^m 0 U.T.
M :	Ottawa	$\Delta = 6,200$ km.	H = 23 ^h 00 ^m 6 U.T.
N :	Ottawa	$\Delta = 13,900$ km.	H = 4 ^h 57 ^m 7 U.T.
	Victoria	$\Delta = 10,000$ km.	H = 4 58.3 U.T.
	Saskatoon	$\Delta = 11,500$ km.	H = 4 57.9 U.T.
	Seven Falls	$\Delta = 14,200$ km.	H = 4 57.8 U.T.
O :	Victoria	$\Delta = 10,600$ km.	H = 16 ^h 18 ^m 8 U.T.
P :	Ottawa	$\Delta = 150$ km.	H = 19 ^h 37 ^m 1 U.T.
Q :	Ottawa	$\Delta = 4,080$ km.	H = 3 ^h 54 ^m 3 U.T.
	Victoria	$\Delta = 3,570$ km.	H = 3 54.2 U.T.
	Saskatoon	$\Delta = 3,550$ km.	H = 3 54.4 U.T.
	Halifax	$\Delta = 4,740$ km.	H = 3 54.6 U.T.
	Seven Falls	$\Delta = 4,420$ km.	H = 3 54.5 U.T.
R :	Ottawa	$\Delta = 4,880$ km.	H = 8 ^h 00 ^m 8 U.T.

CORRELATION OF EARTHQUAKES

November, 1947

N O T E S

S :	Ottawa	$\Delta = 2,790$ km.	H = 9 ^h 46 ^m .1 U.T.
	Hamilton	$\Delta = 2,590$ km.	H = 9 46.1 U.T.
	Victoria	$\Delta = 985$ km.	H = 9 46.1 U.T.
	Saskatoon	$\Delta = 955$ km.	H = 9 46.2 U.T.
	Seven Falls	$\Delta = 3,065$ km.	H = 9 46.1 U.T.
	Shawinigan Falls	$\Delta = 2,980$ km.	H = 9 46.1 U.T.
	Temiskaming	$\Delta = 2,500$ km.	H = 9 46.1 U.T.
	Kirkland Lake	$\Delta = 2,550$ km.	H = 9 46.0 U.T.
	Ville Marie	$\Delta = 2,580$ km.	H = 9 46.0 U.T.
T :	Ottawa	$\Delta = 210$ km.	H = 21 ^h 33 ^m .8 U.T.
U :	Ottawa	$\Delta = 150$ km.	H = 15 ^h 57 ^m .6 U.T.
V :	Ottawa	$\Delta = 150$ km.	H = 21 ^h 06 ^m .0 U.T.

Dominion Observatory,
Ottawa, Canada.

December 20, 1947.

SEISMOLOGICAL BULLETINS RECEIVED

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

<u>STATIONS</u>	<u>BULLETINS</u>	<u>RECEIVED</u>
	<u>October, 1947</u>	
Helwan	Year 1939	October 4
Pasadena	August 15 - September 15 1947	" 6
Istanbul	May - July, 1947	" 6
Santa Clara	September, 1947	" 8
Rome	August, 1947	" 16
Belgrade	August, 1947	" 17
UCCLE	August, September, 1947	" 17
Zi-Ka-Wei	November 7 to December 23, 1943; February 5 to March 15, 1944; February 10 to December 9, 1945; January 11 to December 22, 1946	" 20
Pasadena	Preliminary - September 16 to October 7, 1947; October - December, 1946	" 20
Russian Stations	July, 1947	" 20
Ksara	August, 1947	" 20
Wellington	July, 1947	" 21
Istanbul	August, 1947	" 21
Perth	April - June, 1947	" 22
Brisbane	August, 1947	" 22
Zurich	July, August, 1947	" 22
Istanbul	July, August, 1947	" 25
Apia	April - June, 1947	" 29
Triests	May - August, 1947	" 30
Firenze	June, 1947	" 30
	<u>November, 1947</u>	
De Bilt	September, 1947	November 1
Pasadena	Locals for July, August, September, 1947	" 4
Rome	September, 1947	" 4
Bureau Central	June, 1947; Preliminary July 29, 1947	" 7
Strasbourg	August, September, 1947	" 7
St. Louis and Auxiliary Stations	Preliminaries July 23, 24, 28, 29; Supplement for February, March, April, 1947	" 12
Wellington	August, 1947	" 13
Zurich	September, 1947	" 14
Bureau Central	July, 1947	" 19
Strasbourg	October, 1947; Supplement June, 1947	" 19
Berkeley	January - March, 1941	" 19
St. Louis and Auxiliary Stations	Supplement May, June, 1947; Preliminaries July 31, August 5, 6, 1947	" 20
Pittsburg	Year, 1945	" 22
Richmond	I.S.S. April - June, 1947	" 24
Belgrade	September, 1947	" 25
Stuttgart	April to September, 1947	" 25
St. Louis and Auxiliary Stations	Preliminaries August 7, 9, 10, 27, 28, September 2, 3	" 25
Santa Clara	October, 1947	" 28
Richmond	January - September, 1947	" 28



DEPARTMENT OF MINES AND RESOURCES
MINES, FORESTS AND SCIENTIFIC SERVICES BRANCH

SEISMOLOGICAL SERVICE OF CANADA

SEISMOLOGICAL BULLETIN

December 1947 and ~~January 1948~~

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DOMINION OBSERVATORY
OTTAWA - CANADA

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SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

C. S. Beals, Dominion Astronomer
Ernest A. Hodgson, Chief, Seismological Division
W. W. Doxsee, Seismologist in charge
W. G. Milne, Station Superintendent

S T A T I O N S

OTTAWA

$\phi = 45^{\circ}23'38''$ N. $\lambda = 75^{\circ}42'57''$ W. $h = 83$ m.

Time correction within 0.10s.

Foundation: boulder clay over limestone

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

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

HALIFAX

Dalhousie University

$\phi = 44^{\circ}38'$ N. $\lambda = 63^{\circ}36'$ W. $h = 46$ m.

Time correction from recorded radio time signals

Foundation: Carbonaceous slate

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

SEVEN FALLS

Quebec Power Company

$\phi = 47^{\circ}07'14''$ N. $\lambda = 70^{\circ}49'16''$ W. $h = 232$ m. ca.

Time correction from recorded radio time signals

Foundation: Solid granite of Canadian Shield

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

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

VICTORIA

Dominion Astrophysical Observatory

$\phi = 48^{\circ}31'14''$ N. $\lambda = 123^{\circ}24'56''$ W. $h = 197$ m.

Time correction from recorded radio time signals

Foundation: rock

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

SHAWINIGAN FALLS

Shawinigan Water and Power Company

$\phi = 46^{\circ}33'11''$ N. $\lambda = 72^{\circ}45'18''$ W. $h = 60$ m. ca.

Time correction from recorded radio time signals

Foundation: solid granite of Canadian Shield

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

SASKATOON

University of Saskatchewan

$\phi = 52^{\circ}08'$ N. $\lambda = 106^{\circ}38'$ W. $h = 515$ m.

Time correction from radio time signals

Foundation: clay and sand

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

DETERMINED CONSTANTS

INSTRUMENT	To	V	ϵ	DISPLACEMENT FOR 1" ARC TILT	DISPLACEMENT FOR 10-6 g
17 (Ottawa)	12.0	300	20:1	50 mm.	5 mm. 16 mm.
23 (Ottawa)	12.0	300	20:1	50 mm.	
BS (Ottawa)	1.0				
BL (Ottawa)	1.0				
HN (Halifax)	5.0	125	20:1		
HE (Halifax)	5.0	125	20:1		
SA (Shawinigan)	1.0	2500			
20 (Victoria)	12.0	300	20:1		
21 (Victoria)	12.0	300	20:1		
SF (Seven Falls)	1.0	2500			
SM (Seven Falls)	12.0	300	20:1	50 mm.	
18 (Saskatoon)	10.0	150	20:1	18 mm.	
22 (Saskatoon)	10.0	150	20:1	18 mm.	

NOTE:- Universal Time used throughout.



SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM December 1, 1947 to December 15, 1947 No. 92

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s			km.
		Ottawa		
781 Dec. 3	H P ₂ S ₂ i ₂ F	16 59.2 16 59 37 16 59 54 16 59 57 17 00.4	150	
		Ottawa		
784 Dec. 4	H P ₂ S ₂ e ₂ F	20 33.4 20 33 48 20 34 06 20 34 15 20 34.6	150	
		Ottawa		
791 Dec. 9	H P ₂ S ₂ e ₂ F	20 41.5 20 41 52 20 42 09 20 42 18 20 42.7	150	
		Ottawa		
796 Dec. 10	H P ₂ S ₂ e ₂ F	22 54.5 22 55 01.5 22 55 25.5 22 55 37 22 55.9	210	
		Ottawa		
803 Dec. 14	eZ iZ FZ	2 27 48 2 28 17 2 30.6		USCGS gives:- φ = 26° S. λ = 63° W. d = 100 km.
		Ottawa		
806 Dec. 15	H P' PP PS L F	19 20.3 19 39 23 19 41 10 19 51 20 21 21 16	13,900	USCGS gives:- φ = 59° S. λ = 161° W. d = 100 km.
		Victoria		
806 Dec. 15	H P' SKS PS SS L F	(19 20.8) 19 39 30 19 45 38 19 49 08 19 55 20 20 11 21 55	12,800	No clock correction,

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM December 15, 1947 to December 26, 1947 No. 93

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
		Seven Falls		
806 Dec. 15 (cont'd)	e	19 42.3		
	L	19 54		
	F	21 32		
		Ottawa		
813 Dec. 17	H	19 19.8	150	
	P ₂	19 20 09.5		
	S ₂	19 20 26.5		
	e	19 20 34		
	F	19 20.8		
		Ottawa		
821 Dec. 23	H	1 56.2	3,540	
	P _Z	2 02 42		
	P ₁ P _Z	2 03 54		
	S _Z	2 08.0		
	L _Z	2 10		
	F	2 23		
		Ottawa		
823 Dec. 23	H	19 11.7	150	
	P ₂	19 12 05.5		
	S ₂	19 12 23		
	e	19 23 30		
	F	19 12.7		
		Ottawa		
825 Dec. 23	H	21 46.9	230	
	P ₂	21 47 31		
	S ₂	21 47 57		
	F	21 48.3		
		Ottawa		
826 Dec. 24	eZ	5 41 55		
	eZ	5 46 55		
	eN	5 53.0		
	L	6 49		
	F	7 17		
		Victoria		
829 Dec. 24	e	17 54		
	L	17 57		
	F	18 05		
		Ottawa		
833 Dec. 26	e	17 02 54		
	L	17 37		
	F	18 19		

USCGS gives:-
φ = 20° S.
λ = 168° E.

SEISMOLOGICAL SERVICE OF CANADA
 DOMINION OBSERVATORY, OTTAWA

FROM December 26, 1947 to December 30, 1947 No. 94

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
833 Dec. 26 (cont'd)	e	17 07.6		
	eN	17 14.0		
	eN	17 21.0		
	L	17 26		
	F	18 16		
		Victoria		
835 Dec. 26	e	20 16		
	L	20 33		
	F	21 05		
		Ottawa		
840 Dec. 28	H	19 58.3	475	
	P ₃	19 59 26		
	P ₂	19 59 37		
	S ₃	20 00 17		
	i	20 00 23		
	i	20 00 35		
	S ₁	20 00 42		
F	20 05			
		Shawinigan Falls		
	H	19 58.2	320	
	P ₂	19 59 06		
	e	19 59 37		
	S ₂	19 59 42.5		
	F	20 02		
		Seven Falls		
	H	19 58.3	255	
	P ₂	19 58 57		
	S ₃	19 59 22		
	S ₂	19 59 26		
	F	20 02		
		Ottawa		
841 Dec. 28	H	20 44.7	150	
	P ₂	20 45 09		
	S ₂	20 45 26.5		
	e	20 45 34		
	F	20 46		

SEISMOLOGICAL SERVICE OF CANADA
DOMINION OBSERVATORY, OTTAWA

FROM December 30, 1947 to December 31, 1947 No. 95

NO. AND DATE	PHASE	TIME	DISTANCE	REMARKS
		h m s	km.	
843 Dec. 30		Ottawa	4,280	USCGS gives:- φ = 9°5' N. λ = 84°5' W.
	H	1 54.9		
	P	2 02 20		
	PPP	2 03 54		
	S _N	2 08 25		
	SS	2 11		
	L	2 13.5		
	F	2 39		
		Victoria		
	e	2 04		
L	2 19			
F	3 18			
851 Dec. 31		Victoria		USCGS gives:- φ = 15° S. λ = 176° W.
	e	15 18 52		
	e(S)	15 28 00		
	e _E	15 31 00		
	L	15 41		
	F	16 25		

W. W. Doxsee.

EARTHQUAKE CORRELATION TABLE

December, 1947

No.	Date	Ottawa	Victoria	Saskatoon	Halifax	Seven Falls		Shawinigan	**
						M. S.	W. A.		
827	24	16 44+0 01P*	16 57+0 09L	.....	.....	.....	.....	.....	..
828	24	.. 43+0 01P*	17 42+0 04L	.....	.....	.....	.....	.....	..
829	24	17 43+0 01P*	17 54+0 11F	.....	.....	.....	.....	.....	..
830	25	6 08+0 0.6P*	.....	.....	.....	.....	.....	.....	..
831	25	18 28+0 0.4P*	.....	.....	.....	.....	.....	.....	..
832	26	2 15+0 0.7P*	.....	.....	.....	.....	.....	.....	..
833	26	17 03+1 16u	17 08+1 08u	.....	.....	17 47+0 29L	.....	.....	..
834	26	18 03+0 0.2P*	.....	.....	.....	20 54+0 20L	.....	.....	..
835	26	.. 26+0 0.3P*	20 16+0 49u	.....	.....	.....	.....	.....	..
836	27	3 26+0 0.3P*	.....	.....	.....	.....	.....	.....	..
837	27	16 21+0 0.1P*	.....	.....	.....	.....	.....	.....	..
838	28	2 59+0 0.6P*	.....	.....	.....	.....	.....	.....	..
839	28	4 23+0 0.3P*	.....	.....	.....	.....	.....	.....	..
840	28	19 59+0 0.6V*	.....	.....	.....	.....	.....	.....	..
841	28	20 45+0 0.1V*	.....	.....	.....	.....	.....	.....	..
842	29	.. 02+0 37F	19 01+0 23L	.....	.....	.....	.....	.....	..
843	30	7 06+0 0.7P*	2 04+1 14u	2 14+0 33L	2 14+0 11L	.....	.....	.....	..
844	30	7 40+0 0.6P*	.....	.....	.....	.....	.....	.....	..
845	30	7 40+0 0.6P*	.....	.....	.....	.....	.....	.....	..
846	30	14 07+0 0.2P*	.....	.....	.....	.....	.....	.....	..
847	30	17 00+0 0.6P*	.....	.....	.....	.....	.....	.....	..
848	30	17 33+0 0.8P*	.....	.....	.....	.....	.....	.....	..
849	30	18 03+0 0.4P*	.....	.....	.....	.....	.....	.....	..
850	31	.. 56+0 32L	5 57+0 10L	5 54+0 08L	.....	.....	.....	.....	..
851	31	15 56+0 32L	.....	.....	.....	15 58+0 44L	.....	.....	..

.. K L M ..

CORRELATION OF EARTHQUAKES

December, 1947

N O T E S

A	: Ottawa	$\Delta = 150$ km.	H = 16 ^h 59 ^m .2 U.T.
B	: Ottawa	$\Delta = 150$ km.	H = 20 ^h 33 ^m .4 U.T.
C	: Ottawa	$\Delta = 150$ km.	H = 20 ^h 41 ^m .5 U.T.
D	: Ottawa	$\Delta = 210$ km.	H = 22 ^h 54 ^m .5 U.T.
E	: Ottawa	$\Delta = 13,900$ km.	H = 19 ^h 20 ^m .3 U.T.
	Victoria	$\Delta = 12,800$ km.	H = 19 20.8 U.T.
F	: Ottawa	$\Delta = 150$ km.	H = 19 ^h 19 ^m .8 U.T.
G	: Ottawa	$\Delta = 3,540$ km.	H = 1 ^h 56 ^m .2 U.T.
H	: Ottawa	$\Delta = 150$ km.	H = 19 ^h 11 ^m .7 U.T.
J	: Ottawa	$\Delta = 230$ km.	H = 21 ^h 46 ^m .9 U.T.
K	: Ottawa	$\Delta = 475$ km.	H = 19 ^h 58 ^m .3 U.T.
	Shawinigan Falls	$\Delta = 320$ km.	H = 19 58.2 U.T.
	Seven Falls	$\Delta = 255$ km.	H = 19 58.3 U.T.
L	: Ottawa	$\Delta = 150$ km.	H = 20 ^h 44 ^m .7 U.T.
M	: Ottawa	$\Delta = 4,280$ km.	H = 1 ^h 54 ^m .9 U.T.

Dominion Observatory,

OTTAWA, CANADA.

January 22, 1948.

CORRELATION TABLE

The numbered pages of the bulletin list only those earthquakes for which two or more phases are recorded. The tabulation which follows not only provides a yearly numbered list of all earthquakes recorded in Canada but also correlates the seismic registrations of the six Canadian stations. Entries for each station show in hours and minutes the time of beginning of the tremors in Greenwich Mean Time. The appearance of entries in two or more columns in the same line indicates that these are known to be concerned with the same earthquake even though the times of beginning may differ slightly. The figures after the plus sign show the duration of the record in hours and minutes. The earthquake number and the day of the month on which it occurred are listed in the first and second columns, respectively, while the extreme right hand column is reserved for index letters to a series of notes following the tabulation. Certain letters are reserved for the purpose of classifying the entries: these are as follows:-

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

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

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