

# TORONTO

Seismographic Station, Meteorological Service of Canada

1935

LAT., 43° 39' 53" N. LONG., 79° 23' 46" W. H = 111m.

INSTRUMENTS—Two Milne-Shaw

SUBSOIL, Sand and Clay

1935 January.

1st.	eN	13-41-54	
	iN	13-46-03	
	iN	13-53-33	Microseisms mask.
	iN	13-58-10	
2nd	iN	22-53-07	
	LN	22-58-52	
	F	23-57	
4th	H	14-41-36	
	ePE	14-53-00	
	iE	14-53-50	72°7
	iSE	15-02-30	
	PSE	15-03-07	
	eLE	16-30	
4th	H	16-19-44	
	ePN	16-31-26	
	PR1N	16-34-28	
	iSN	16-41-11	75°6
	LN	16-56-23	
23rd	H	7-23-56	
	iPN	7-33-39	
	iPE	7-33-40	
	PREN	7-36	57°2
	iSE	7-41-41	
	iSN	7-41-42	
	L	7-52	

Minor quakes recorded on the 3rd, 17th(2), 19th, 20th, 22nd  
26th and 31st.

Microseismic storms on the 1st-2nd; 3rd-4th; 5th-6th; 13th-17th;  
and 24th.

Wm. G. Carroll.

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LAT., 43° 59' 53" N. LONG., 79° 23' 46" W. H = 111m.

INSTRUMENTS—Two Milne-Shaw

SUBSOIL, Sand and Clay

Period 12 seconds  
Damping 20-1  
Magnification 150

1935.

February.

4th	ePN	17-51-14		
	eL	18-07-30		
	F	19-30		
6th	H	1-53-56		
	iPE	2-00-29	±2 ±	3590 km.
	PR1E	2-01-20		
	iSE	2-05-51		
	LE	2-09		
13th	iN	17-41-43		
	eN	17-46-29		
	F	18-12		Small amplitude.
20th	iN	11-38-26		
	L?	11-45		
	F	12-19		
22nd	H	17-06-16		
	iPN	17-16-46		
	iPE	17-16-53		
	PR2N	17-20-27		
	iSN	17-25-31	7135	Moderate quake.
	L	17-37		
	F	21-27		
24th	eN	1-58		
	iN	2-01-24		
	F	2-28		
25th	H	2-51-50		
	iPE	3-03-11		
	iSE	3-12-38	8020	
	L	3-30		
	F	3-59		

Minor quakes recorded on the 2nd, 6th, 9th(2), 10th, 13th, 19th  
27th (2).

MARCH.

17th	H	21-31-38		
	iPN	21-39-19	-2	Microseisms and wind effects, mask earlier portions of record.
	iSN	21-45-38		
	iSR1N	21-48-17	4520	
	L	21-51-38		
	F	22-31		
26th	eN	21-42-43		
	eN	21-46-30		Microseisms mask.
	F	22-14		
29th	iN	12-51-12		
	eN	13-03-15		Identification difficult due to heavy micros.
	iN	13-16		
	F	14-34		

Smaller quakes on the 11th, 13th, 14th, 20th, 30th, 31st (2).

Heavy microseisms on the 5th, 15th & 16th; 17th, 19th-21st;  
26th; 28th-29th.

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SUBSOIL, Sand and Clay

Period 12 seconds.  
Damping 20-1  
Magnification 150.

## APRIL 1935

3rd	e	12-22-48	
	eL	12-34-55	
	F	13-35	
11th	H	23-14-54	
	ePN	23-27-30	
	iPR <sub>1</sub>	23-30-57	Distance 9510 km.
	iS	23-38-04	
	L	23-55-08	
	F	2-21	
18th	H	22-15-34	
	ePN	22-21-11	
	eSN	22-25-48	Distance 2910 km.
	L	22-28-18	
	F	23-00	
19th	H	15-23-24	Distance 8,000 km.
	iSE	15-44-11	Early phases lost
	SR <sub>1</sub> E	15-48-59	changing record.
	LE	15-58	
	F	19-20	
20th	H	5-11-29	
	ePN	5-22-27	7600 km.
	iSN	5-31-34	
	SR <sub>1</sub> N	5-36-27	
	LN	5-44-19	
	F	7-45	
20th	eE	22-26-33	
	eE	22-28-26	Formosa.
	iE	22-36-33	
	eE	22-49	
	F	0-40	
24th	eN	18-53-35	
	iN	19-02-16	
	L	19-08	
	F	19-58	

Quakes of minor intensity on the 1st (2); 3rd (2); 4th; 5th(4);  
9th (2); 10th; 11th (2); 12th; 15th; 19th (2); 21st;  
22nd; 28th; 29th.

## MAY 1935.

14th	eN	23-42-09	F at 2h 20m on 15th
	iN	23-48	
	i	23-52-11	
	iN	23-53-12	
	SR <sub>1</sub> N	23-59-22	
	LE	0-09	
23rd	iN	18-06-36	
	iN	18-08-48	F at 18h 59m.
	e	18-11-24	
	L	18-15-30	
24th	H	5-37-21	
	eN	5-56-41	13,145 km. from PS-PR <sub>1</sub>
	ePR <sub>1</sub>	5-57-20	Max. 6h 44m.
	PSN	6-07-17	F 8h 51m.
	iSR <sub>1</sub> N	6-13-44	
30th	H	21-32-57	11,400 km. From PS-P.
	ePEN	21-46-55	QUETTA INDIA.
	PR <sub>1</sub> N	21-51-03	iScPcS 21-57-29
	PSN	22-00-03	PPSN 22-00-49
	iSR <sub>1</sub> N	22-06-09	iSR <sub>2</sub> 22-09-56
	LN	22-21-48	F 3-20

Quakes of minor intensity, 2nd, 5th, 6th, 12th, 13th, 14th, 15th, 16th, 17th,  
18th (2), 19th, 20th, 25th, 26th, 27th, 31st. Wm. G. Carroll.

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INSTRUMENTS—Two Milne-Shaw

SUBSOIL, Sand and Clay

Date	Instrument	Time	Distance
1935			
HUNE.	eN	22-03-56	
11th	eN	22-09-25	
	L	22-12-26	
	F	23-04	
24th	H	23-23-14	
	PN?	23-38-04	
	PR1	23-42-47	
	ScPcPS	23-49-30	12,635 km.
	iSN	23-50-36	
	PSE	23-52-27	
	iPPSN	23-53-15	
	LE	0-17-48	
	F	2-25	
25th	eN	12-56	
	LN?	13-09	F 14h 32m.
28th	H	2-00-40	
	ePN	2-12-33	
	eSN	2-22-27	
	F	3-25	
29th	H	6-48-45	8600 km.
	iPN	6-55-21	Trace amplitudes:
	iPE	6-55-22	0.4 S., W., C.
	iPR1N	6-56-20	
	iPR2	6-56-44	F 9h 20m.
	iSN	7-00-45	
	LN	7-05	

Note: Trace amplitudes of iP will be given in mm, and marked N.S.E.W., C= up, D= down, according to direction of the earth thrust.

Minor quakes recorded on the 2nd, 8th, 12th, 15th, 16th, 18th, 19th, 22nd, 23rd, 28th.

Date	Instrument	Time	Distance
JULY	eN	18-16-38	
5th	eN	18-18-32	F 19h 45m.
	iN	18-30-30	
	L?	18-36	
6th	eN	3-50	
	iN	3-51-21	F 4h 20m.
13th	eN	15-42-14	
	iN	15-43-53	F 16h.
	iN	15-46-15	
16th	eN	16-38	
	e	16-46-44	
	eL?	17-14	F 18h 22
17th	eN	0-33	
	eN	0-40-45	F 2h 04m.
	eL	0-51	
17th	eN?	11-04-32	e 11-05-18
	eL?	11-33	i 11-11-28
19th	H	0-49-20	
	ePN	1-01-52	
	iSN	1-12-22	
	PSN	1-13-08	9420 km.
	L	1-30	
26th	H	4-43-09	F 3h 52m.
	ePN	4-50-23	
	PE1	4-51-39	
	S	4-56-20	4145 km.
	L	5-01-18	
29th	ePN	7-52-36	iN 8-04-17
	iE	7-54-21	iN 8-06-35
	iE	7-57-17	iN 8-12-03
	iEN	8-06-58	F 10-54

Minor quakes on the 6th, 7th, 9th(3), 10th, 11th(2), 13th, 15th(2), 17th, 20th, 21st, 26th(2), 29th, 30th, 31st.

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SUBSOIL, Sand and Clay

AUGUST 1935.		km.	PERIOD 12 seconds Magnification 150 Damping 20-1
1st	H	16-07-55	
	ePN	16-14-42	
	PP	16-16-13	
	iS	16-20-15	
	SS	16-22-19	
	L	16-24-31	
	M	16-27-36	
3rd	ePPN	1-31-33	
	i	1-32-35	
	i	1-34-33	
	iSN	1-39-40	
	e	1-49-11	
	i	1-54-32	
	eL	2-12-40	
7th	H	9-02-27	
	ePN	9-10-03	
	iS	9-16-18	
	eL	9-22	
	F	9-58	
17th	H	1-44-41	
	ePE	1-59-58	
	eP'E	2-03-33	
	eP'M	2-03-34	
	ePPE	2-04-51	
	iE	2-12-13	
	iSN	2-12-37	
	iN	2-13-16	
	iPSE	2-14-39	
	SSE	2-21-19	
	LE	2-41-42	
	F	5-12	
22nd	H	20-30-13	
	ePNE	20-36-31	
	ePPN	20-37-16	
	eSN	20-41-41	
	LN	20-45-17	
	M	20-48	
23rd	iN	14-20-07	
	eN	14-27	
	eN	14-33-31	
25th	H	5-08-32	
	ePE	5-16-06	
	ePN	5-16-16	
	eSE	5-22-29	
	eSN	5-22-37	
	eL	5-28-30	

3780

CSJSA gives,  
4.7 M  
97 E  
H, 1h 10m 9s.

4455

CSJSA gives,  
1°N;  
77.5 W  
H, 9h 02m 18s.

13,265

P not shown on NS.  
USCGS gives:  
20°S,  
172°E.  
0, 1h 44m.7

3400

4565

Minor records on the 1st, 4th (2); 5th; 6th (2); 10th; 11th;  
15th; 20th (2); 21st (2); 22nd; 23rd (3); 24th; 26th; 31st.

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1935.

SEPTEMBER.

			KM	
1st.	cN	1-00-46		
	c	1-04-44		
4th	H	1-27-43		
	cPN	1-35-55		
	PP	1-37-33		CSJSA gives:
	iS	1-42-37		63°N
	SS	1-45-41	4955	151°W
	L	1-49-32		H, 1h 27m 51s.
	F	5-20		
9th	cN?	6-38-31		
	c	6-42-24		
	i	6-45-35		
	i	6-46-50		
	i	6-49-13		
	L?	7-07		
10th	cN	6-43-19		
	c	6-45-33		
	L	6-48-26		
11th	H	14-04-13		CSJSA gives,
	iPN	14-16-30	-1.5	44.5 N; 147°E
	iPP	14-19-45		9100 H, 14h 04m 12.2s
	iS	14-26-45		
	iSS	14-32-15		
	L	14-43-45		
15th	H	?14-09-05		Time eclipse not
	PN	?14-20-47	8410	in order.
	iS	?14-30-32		CSJSA gives:
	L	?14-46		28°S; 113.3 W.
18th	H	4-57-51		
	iPEN	5-05-11		Small amplitude.
	iSN	5-11-13	4235	
	L	5-16-01		
18th	iN	8-46-55		
	cL	9-05		
20th	cPPN	2-07-23		Amplitude
	iSKS	2-12-52		770 microns.
	iN	2-14-56		Times doubtful.
	iPPS	2-18-58		
	iSS	2-24-42		
	L	2-45-37		
20th	iN	5-44-10		Preliminary
	i	5-54		in magnitudes
	i	6-01-06		mixed with
	L	6-22		previous eq.
23rd	iPPN	9-39-05		
	iPS	9-48-58		
	c	9-66-07		
	L	10-17-43		
23rd-24th,	Time eclipse not in operation after 16h30m of 23rd until			
	10h 30m of 24th.			
24th	H	22-12-14		P very small.
	cPN	22-19-01		SS, 22h 26m 25s
	cS	22-24-34	3780	
	L	22-29-29		

Minor quakes on 3rd, 10th (2); 11th; 12th; 14th (2); 15th (2); 19th; 20th; 25th; 26th (2); 27th; 30th.

Wm. G. Carroll.

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## SEISMOGRAPHIC STATION, METEOROLOGICAL SERVICE OF CANADA

LAT., 43° 39' 53" N. LONG., 79° 23' 46" W. H = 111m.

INSTRUMENTS—Two Milne-Shaw

SUBSOIL, Sand and Clay

No. AND DATE	PHASE	G. M. TIME			PERIOD s.	Δ	Period 12 seconds Damping 20-1 Magnification 150
		h.	m.	s.			
1935 October.							
2nd	H	5	33	03			
	iPN	5	45	23			
	iSN	5	55	41		9155	Micros mask small phases.
	eLN	6	12	31			
7th	eN	5	06	02			
	eN	5	10	32			
	eLN	5	15	49			
	F	6	10				
9th	eN	22	21	19			
	eN	22	22	15			
	eLN	22	26				
	F	23	24				
11th	eN	22	38				
	eL	23	08				
12th	eN	8	00	01			
	eN	8	02	11			
	iL	8	03				
12th	H	16	46	13			
	ePN	16	58	31			
	ePE	16	58	28			
	e(S)N	17	08	25			
	iSN	17	08	47			
	iSE	17	08	49			
	eLN	17	25	45			
	SSN	17	14	39		9116	
18th	H	0	12	28			
	ePNE	0	24	55			
	iSN	0	35	20			
	iSS	0	41	23		9310	
	eL	0	52	45			
18th	eE	11	24	47			
	eE	11	27	10			
	eE	11	34	12			NS time eclipse out of order.
	L	11	55	30			
18th	eE	15	17	12			
	iE	15	17	20			
	eL?	15	36	30			
19th	H	4	48	11 <del>1</del>			
	iPE	4	53	13			
	iSE	4	57	21		2520	
	eLE	4	59	41			
31st	H	18	37	53			
	iPEN	18	42	57			
	ePPN	18	43	13			
	iSEN	18	47	07		2545	
	iLN	18	49	20			

Quakes of minor intensity recorded on : 1st (3); 6th(2); 8th; 13th; 14th(2); 15th; 18th(2); 19th(2); 24th; 25th; 27th; 29th.

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NO. AND DATE	PHASE	G. M. TIME			PERIOD s.	Δ	REMARKS
		h.	m.	s.			
NOVEMBER 1935.							
1st	H	6-03-30					Couplor off EW at 6h05m06s.ca. A very definite move- ment on EW prior to the large swing. S is approximate, periods so rapid that vibs. not defined. NORTHERN ONTARIO, near Lake Timiskaming. Perceptible over a 500 mile radius.
	PE	6-04-22					
	iE	6-04-30				330	
	iSE	?6-05-03					
	iPN	6-04-26					
	iSN	?6-05-01					
	iN	6-05-09				292	
	F	8-31					
1st.	cN	16-51-16					
	cL	17-20-30					
	F	18-28					
2nd	H	14-31-45					After-shock of Nov. 1st quake. Folt by many people in Toronto. Small amp.
	iPEN	14-32-32					
	iSE	14-33-11					
	iSN	14-33-13				328	
	LE	14-33-21					
	F	14-35-45					
4th	cN?	14-02					
	c	14-07-31					
	cL	14-08-52					
10th	H	18-27-27					
	cPN	18-33-45					
	PP	18-34-37					
	cS	18-38-55				3400	
	SS	18-40-15					
	L	?18-42					
12th	i	21-58-10					Looks like after- shock of Nov.1st
	F	21-58-29					
23rd	H	7-52-28					
	ePN	8-00-18					
	cSN	8-06-43					
	cLN	8-12-45				4645	
30th	H	3-39-48					
	cPEN	3-46-27					
	SE	3-51-53				3655	
	SN	3-51-51					
	L	3-55					

Small records of earthquakes also shown on 4th(3); 5th(4);  
7th(2); 11th(3); 12th; 14th; 17th; 23rd; 25th.

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Period 12 seconds

Damping 20-1

Magnification 150

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1935  
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DECEMBER.

3rd.	eN	2-19-46	
	eN?	2-24-27	
	eL	2-33-33	
14th	H	1-31-38	Readings from NS component unless otherwise noted
	iP	1-39-42	
	iS	1-46-18	
	SS	1-50-04	
	L	1-53	4845 km.
	M	1-56-40	
	F	3-10	
14th	H	22-05-22	
	iP	22-11-35	
	iS	22-16-41	
	PP	22-12-23	3345
	PPP	22-12-53	
	L	22-20	
15th	eSKS	7-33-14	
	iPS	7-38-27	
	L	8-03	Microseisms mask phases.
	F	11-ca	
17th	PP	19-36-53	
	PS	19-46-16	
	iSS	19-52-10	
	L	20-11-45	
24th	iE	12-35-39	Micros mask P phase.
	iSE	12-38-13	
	iSSE	12-41-07	
	LE	12-44-45	
	F	13-54	
28th	H	2-55	
	e	2-52-12	
	eP'NE	2-54-16	
	iSKP	2-57-33	
	iPSKS	3-07-19	14,720 km. P masked by micros
	PPS	3-09-46	
	SS	3-15-23	
	SSS	3-20-30	
	LE	3-42-24	
	LN	3-44-30	

Minors records on the 2nd (2); 3rd, 5th, 9th, 16th, 17th, 18th, 20th (2), 21st (3), 26th (2), 28th, 29th.

Microseismic storms 4th to 9th.

21st to 25th.

27th 20 31st.

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