TABLE II.—*Data furnished by the Canadian Meteorological Service, November, 1923.*

Stations.	Altitude above mean sea level, Jan. 1, 1919.	Pressure.			Temperature of the air.						Precipitation.		
		Station reduced to mean of 24 hours.	Sea level reduced to mean of 24 hours.	Departure from normal.	Mean max.+mean min.÷2.	Departure from normal.	Mean maximum.	Mean minimum.	Highest.	Lowest.	Total.	Departure from normal.	Total snowfall.
	Feet.	*In.*	*In.*	*In.*	° *F.*	° *F.*	° *F.*	° *F.*	° *F.*	° *F.*	*In.*	*In.*	*In.*
St. Johns, N. F	125	29.92	30.06	+0.12	42.5	+6.0	46.9	38.2	63	25	9.73	+4.16	T.
Sydney, C. B. I	48	30.04	30.09	+.14	42.8	+5.7	48.3	37.3	60	26	2.61	−2.83	0.0
Halifax, N. S	88	29.95	30.06	+.05	42.0	+4.7	48.4	35.5	59	22	3.97	−1.69	0.0
Yarmouth, N. S	65	29.94	30.01	−.01	41.7	+1.8	49.1	34.3	60	20	4.12	−0.44	0.4
Charlottetown, P. E. I	38	30.00	30.04	+.08	41.3	+5.8	47.6	35.0	60	18	2.11	−1.86	T.
Chatham, N. B	28	29.95	29.98	+.01	34.4	+3.4	42.2	26.5	58	13	4.45	+0.70	T.
Father Point, Que	20	30.01	30.03	+.07	30.1	+1.2	36.6	23.7	46	14	4.26	+1.15	3.6
Quebec, Que	296	29.72	30.06	+.04	33.2	+4.2	38.5	28.0	48	11	5.28	+1.52	6.1
Montreal, Que	187	29.82	30.03	.00	35.6	+3.8	41.0	30.3	54	18	6.28	+2.54	15.0
Stonecliffe, Ont	489												
Ottawa, Ont	236	29.77	30.04	+.02	35.8	+4.1	41.9	29.7	58	20	2.32	−0.22	4.1
Kingston, Ont	285	29.74	30.06	+.02	39.4	+4.4	44.8	34.0	54	19	4.15	+0.91	1.1
Toronto, Ont	379	29.64	30.06	+.02	39.0	+3.4	45.1	33.0	58	22	3.32	+0.18	2.2
Cochrane, Ont	930												
White River, Ont	1,244	28.61	29.96	−.02	28.8	+8.3	36.1	21.5	53	−2	0.63	−1.22	4.4
Port Stanley, Ont	592	29.43	30.09	+.04	39.1	+2.3	45.3	33.0	55	24	3.63	+0.26	0.3
Southampton, Ont	656	29.31			37.6	+2.6	44.1	31.1	58	23	2.21	−1.49	1.6
Parry Sound, Ont	688	29.32	30.03	+.02	34.0	+1.9	40.9	27.2	53	11	2.45	−1.92	5.0
Port Arthur, Ont	644	29.26	29.98	−.02	34.1	+10.1	40.5	27.8	52	12	0.67	−0.66	1.9
Winnipeg, Man	760	29.10	29.95	−.09	34.3	+16.3	42.5	26.2	64	2	0.90	−0.18	2.8
Minnedosa, Man	1,690	28.11	29.96	−.08	32.1	+14.8	42.3	22.0	60	5	0.43	−0.57	3.4
Le Pas, Man	860				27.2		37.6	16.8	55	−5	0.47		3.4
Qu'Appelle, Sask	2,115	27.64	29.92	−.08	32.6	+13.8	42.9	22.4	65	−2	1.72	+0.83	9.3
Medicine Hat, Alb	2,144												
Moose Jaw, Sask	1,759				34.3		45.4	23.3	66	10	2.35		8.0
Swift Current, Sask	2,392	27.36	30.03	+.01	34.5	+11.3	47.8	21.3	66	4	0.78	+0.09	5.1
Calgary, Alb	3,428												
Banff, Alb	4,521												
Edmonton, Alb	2,150												
Prince Albert, Sask	1,450	28.36	29.97	−.06	29.5	+14.1	40.1	18.9	61	−5	0.23	−0.60	2.3
Battleford, Sask	1,592	28.17	29.95	−.07	30.5	+14.2	42.8	18.1	64	0	T.	−0.58	T.
Kamloops, B. C	1,262												
Victoria, B. C	230	29.84	30.10	+.11	46.8	+3.6	50.7	42.9	57	36	2.90	−4.07	0.0
Barkerville, B. C	4,180												
Triangle Island, B. C	680												
Prince Rupert, B. C	170												
Hamilton, Ber	151												

SEISMOLOGICAL REPORT FOR NOVEMBER, 1923.

W. J. HUMPHREYS, Professor in Charge.

[Weather Bureau, Washington, January 3, 1924.]

TABLE 1.—*Noninstrumental earthquake reports, November, 1923.*

Day.	Approximate time, Greenwich civil.	Station.	Approximate latitude.	Approximate longitude.	Intensity Rossi-Forel.	Number of shocks.	Duration.	Sounds.	Remarks.	Observer.
		ARIZONA.								
	H. m.		° ′	° ′			*Sec.*			
Nov. 5	21 10	Yuma	32 40	114 35	4	1	12*ca*	None	Felt by many	J. H. Gordon.
7	24 00	do	32 40	114 35	4	1	8-10	do	do	Do.
		ARKANSAS.								
Nov. 26	23 25	Marianna	34 45	90 40	2				Felt by several	C. M. Houch.
	23 27	Wynne	35 15	90 45	5	1	3*ca*	Faint	Felt by many	E. O. Allen.
	23 30	Jonesboro	35 55	90 35	4			Rumbling	Felt by several	M. Modesta.
	.. ..	do	35 55	90 35	2				do	Benedictine Sisters.
	.. ..	Marked Tree	35 30	90 20	4?	1	30*ca*	Rumbling	Felt by many	C. W. Walton.
		CALIFORNIA.								
Nov. 5	22 07	Calexico	32 41	115 30	7	Several.		None	Felt by many	R. Bradley.
	22 08	San Diego	32 40	117 10	2	2	1*ca*	do	Felt by several	D. Blake.
7	23 50 *ca*	Chula Vista	32 30	117 00	3	1	20	do	do	N. D. Dittenhaver.
	23 56	San Diego	32 40	117 10	3	3	1½*ca*	do	Felt by many	D. Blake.
	24 00	Calexico	32 41	115 30	7	3		do	One fire caused	R. Bradley.
8	20 39	Santa Rosa	38 20	122 45	2-3	1	1	Faint	Felt by several	M. W. Allen.
9	5 *ca*	Los Angeles	34 03	118 15	Light.				Felt in near-by cities also	Press report.
28	3 50	Ojai	34 25	119 12	5	1	3	None	Felt by many	W. H. Duncan.
		ILLINOIS.								
Nov. 29	23 21	Cairo	37 00	89 10	3	1	15	Rumbling	Felt by many	W. E. Barron.
		KENTUCKY.								
Nov. 28	12 *or* 13	Calhoun	37 30	87 15	Light.					W. A. Taylor.
29	11 25	Wickliffe	37 00	89 05	4	1	15*ca*		Felt by several	J. A. Miller.
		TENNESSEE.								
Nov. 26	23 27	Memphis	35 10	90 00	4?	2	½*ca*		Felt by several	C. P. J. Mooney.
	.. ..	do	35 10	90 00	4	2		None	Felt by many	J. D. Blagden.
	23 27 22	do	35 10	90 00	4	1	45	Loud	Felt by several	J. P. Young.

TABLE 2.—*Instrumental seismological reports, November, 1923.*

Time used: Mean Greenwich, midnight to midnight. Nomenclature: International.

[For significance of symbols and description of stations, see REVIEW for January, 1923.]

ALASKA. *U. S. C. and G. S. Magnetic Observatory, Sitka.*

Date.	Character.	Phase.	Time.	Period T.	Amplitude. A_E	Amplitude. A_N	Distance.	Remarks.
1923.		*H. m. s.*	*Sec.*	μ	μ	*Km.*		
Nov. 2		O	21 08 49				9,230	
		P_E	21 21 13					
		e_E	21 30 44					
		S_E	21 31 35					
		PS_E	21 32 40	18				
		$SR1_E$	21 37 31	13				
		L_E	21 46 35	40				
		eL_N	21 43 20	15				
		M_E	22 01 20	20	*400			
		M_N	22 00 05	20		*200		
		C_E	22 17 42					
		F_E	22 37 ..					
		F_N	22 30 ..					
3		S_E	8 58 22					
		S_N	8 57 48					
		L_E	9 16 57	13				
		L_N	9 09 32	19				
		M_E	9 18 25	12	*100			
		M_N	9 11 35	15		*200		
		F	9 33 ..					
4		e_E	0 27 08	17				
		L_E	0 42 34	36				
		eL_N	0 40 08	24				
		M_E	0 44 17	28	*500			
		M_N	0 41 42	20		*100		
		F_E	1 03 ..	19				
		F_N	1 12 ..					
16		P_E	4 18 05	5				Recorded on the magnetograph. Severe wind tremors.
		L_E	4 18 40					
		L_N	4 18 18	20				
		M_E	4 18 54	14	*2,100			
		M_N	4 18 55	14		*600		
		F_E	4 34 ..	8				
		F_N	4 30 ..	10				

ARIZONA. *U. S. C. and G. S. Magnetic Observatory, Tucson.*

Date.	Character.	Phase.	Time.	Period T.	Amplitude. A_E	Amplitude. A_N	Distance.	Remarks.
1923.		*H. m. s.*	*Sec.*	μ	μ	*Km.*		
Nov. 1		e_E	9 10 45					
		L_E	9 13 09	8	*100			
		F_E	9 24 ..					
1		e_E	20 02 00	3				
		e_N	20 02 35					
		M_E	20 05 20	6	*200			
		M_N	20 06 53	6		*100		
		F_E	20 15 ..					
		F_N	20 09 ..					
2		O	21 08 48				10,040	N component not operating satisfactorily.
		P_E	21 21 52					
		PR^1_E	21 25 40	4				
		S_E	21 32 52					
		SR^2_E	21 44 12	36				
		iL_{E1}	21 52 36	40				
		L_{E2}	21 59 09	20				
		L_{E3}	22 01 45	19				
		M_E	22 04 00	19	*200			
		F_E	22 50 ..					
4		eP_E	0 22 04	5				
		e_E	0 29 45					
		eL_E	0 48 57	40				
		M_E	0 53 20	24	*300			
		F	1 18 ..	17				
5		P	22 09 58	3				Recorded on the magnetograph. e_E apparently another earthquake
		L_E	22 10 33					
		L_N	22 10 52	5				
		M_{E1}	22 11 28	3	*400			
		e_E	22 20 11					
		M_{E2}	22 22 09	20	*100			
		F_E	22 46 ..					
		F_N	22 22 ..					
7		P	23 57 58	2				Recorded on the magnetograph. Tremors superimposed on L_E.
		L_E	23 58 51	25				
		L_N	23 59 01	3				
		i_E	23 59 31					
		M_E	23 59 32	8	*5,400			
		M_N	23 59 07			*2,600		
		F	24 15 ..					
9		eL_E	3 27 11	11				No record on N.
		M_E	3 27 27	11	*200			
		F_E	3 48 ..	7				

*Trace amplitude.

CALIFORNIA. *Theosophical University, Point Loma.*

Date.	Character.	Phase.	Time.	Period T.	Amplitude. A_E	Amplitude. A_N	Distance.	Remarks.
1923.			*H. m. s.*	*Sec.*	μ	μ	*Km.*	
Nov. 5			22 09 *ca*		350	400		Light shock.
8			0 01 *ca*		300	300		Do.
9			15 00 00		50	100		Tremors during preceding 24 hours.
15					50	50		
20					50	50		
21					50	50		
22					50	50		

COLORADO. *Regis College, Denver.*

Date.	Character.	Phase.	Time.	Period T.	Amplitude. A_E	Amplitude. A_N	Distance.	Remarks.
1923.			*H. m. s.*	*Sec.*	μ	μ	*Km.*	
Nov. 2		P	21 53 ..	30	*1,500	*1,500		Perfect sinusoidal.
		F	22 07 ..					
4		L_E	24 51 ..	24	*2,000			Do.
		F_E	0 00 ..					
7		L	24 01 ..	8.5	*4,500	*6,000		No preliminaries.
		M	24 02 ..		*4,500	*6,000		
		F_N	24 19 ..					
		F_E	24 16 ..					
20		L	13 55 ..					Very small waves of short period vanishing and reappearing for 4 hours. *No quakes recorded in October.*
		F	17 50 ..					

DISTRICT OF COLUMBIA. *U. S. Weather Bureau, Washington.*

Date.	Character.	Phase.	Time.	Period T.	Amplitude. A_E	Amplitude. A_N	Distance.	Remarks.
1923.			*H. m. s.*	*Sec.*	μ	μ	*Km.*	
Nov. 1		e	20 15 00					
		F	20 30 ..					
2		e	21 28 30					
		eL	22 05 ..	40				
		L	22 10 ..	28				
		L	22 20 ..	18				
		F	23 40 ..					
3		P?	8 42 17				2,200	
		S	8 45 55					
		eL	8 48 00	20				
		L	8 53 ..	15				
		F	9 45 *ca*					
3		P?	16 38 ..					
		eL	17 18 ..	28				
		L	17 28 ..	16				
		F	17 40 ..					
4		e	0 42 ..					
		eL	0 54 ..	28				
		L	1 04 ..	28				
		L	1 08 ..	24				
		L	1 12 ..	20				
		L	1 20 ..	16				
		F	1 50 *ca*					
5		e	21 53 ..					
		eL	22 22 ..	32				
		L	22 28 ..	28				
		L	22 35 ..	20				
		F	23 10 *ca*					
8		e	0 09 20					
		F	0 30 *ca*					
9		P	3 31 30					
		F	3 50 *ca*					
16		e	4 32 30					
		F	5 *ca* ..					
16		e	7 25 30					
		F	7 40 ..					
17		P	3 04 02				7,100	
		S?	3 12 35					
		eL	3 32 30					
		L	3 35 30	15				
		F	3 55 *ca*					

*Trace amplitude.

TABLE 2.—*Instrumental seismological reports, November, 1923*—Continued.

HAWAII. *U. S. C. & G. S. Magnetic Observatory, Honolulu.*

1923.			H. m. s.	Sec.	μ	μ	Km.	
Nov. 2		O	21 08 53				5,510	Most of E record lost through overlapping of traces.
		iP_E	21 17 54	8				
		P_N	21 18 04					
		S_N	21 25 04	9				
		L_N1	21 30 40					
		iL_N2	21 31 25					
		M_N	21 37 20	12	155			
		C_N	21 51 ..					
		F_N	23 05 ..					
3		i_E	16 38 41	15				
		e_N	16 38 35					
		e_N	16 46 00					
		L_E	16 48 40	30				
		L_N	16 49 37	26				
		M_E	16 50 30	25	105			
		M_N	16 50 50	25		60		
		F_E	17 39 ..					
		F_N	17 16 ..					
4		O	0 04 18				6,050	
		P_E	0 13 52	3				
		eP_N	0 13 58					
		iS	0 21 31	12				
		$PS?_E$	0 22 04	11				
		$SR2_E$	0 27 20					
		$SR2_N$	0 27 00	15				
		L_E	0 29 35	30				
		L_N	0 30 20	25				
		M_E	0 32 05	20	225			
		M_N	0 31 28	25		300		
		F	1 31 ..					
4		e_E	20 29 ..					
		e_N	20 34 34					
		F	20 37 ..					
5		O	21 38 10				5,660	Do.
		P	21 47 21	20				
		iS_N	21 54 38	30				
		$SR1_N$	21 58 09	23				
		M_N	21 59 08	21		95		
		F_N	22 46 ..					
8		e_E	0 14 49					
		e_N	0 14 43	11				
		M_E	0 17 08	10	15			
		M_N	0 15 52	9		15		
		F_E	0 24 ..					
		F_N	0 21 ..					
9		e_E	3 41 45					
		e_E	3 43 56	10				
		e_N	3 41 10	15				
		M_E	3 47 20	7	15			
		M_N	3 43 10	9		10		
		F	3 53 ..					
10		e_E	4 23 16					Merely an irregularity in the microseisms.
		F_E	4 28 ..					
12		e_N	12 05 00					Activity on E barely perceptible.
		M_N	12 06 30	25		25		
		F_N	12 10 ..					
16		e_E	4 31 10					Nothing on N.
		M_E	4 32 50	10	20			
		F_E	4 47 ..					
17		e_E	3 05 15	7				
		e_N	3 05 20					
		e_N	3 06 23	5				
		L_E	3 07 15	14				
		L_N	3 07 35	11				
		M_E	3 12 28	9	25			
		M_N	3 11 27	16		65		
		F	3 33 ..					
18		e_E	22 04 45	21	15			No definite maximum.
		F_E	22 18 ..					
19		e_E	21 02 18					
		e_N	21 02 25					
		M_E	21 05 30	6	5			
		F_E	21 06 ..					
		F_N	21 05 30					..
25		e_E	17 38 ..	18				Very slight.
		F_E	17 48 ..					

Periods of pendulums: Before Nov. 15, 11.9 sec.; after Nov. 15, 12.0 sec.; Damping ratios: Near 30:1.
Sensitivities: Before Nov. 15; E., 0.168; N., 0.200; after Nov. 15: E., 0.174; N., 0.200. Multiplication: 150.

ILLINOIS. *U. S. Weather Bureau, Chicago.*

1923.		H. m. s.	Sec.	μ	μ	Km.	
Nov. 1	P	20 08 46					
	S?	20 10 41					
	L	20 11 53					
	M	20 13 15		*5,000			
	F	21 *ca* ..					
2	P	21 26 00				9,700	
	S	21 36 45					
	L?	21 56 00	60				
	L	22 01 30	40				
	L	22 10 ..	28				
	L	22 13 ..	18				
	L	22 20 ..	15				
3	F	0 50 *ca*					Continues.
3	e	3 35 ..					
	L	3 38 30	15				
	F	3 50 *ca*					
3	P	5 18 10				9,200	
	S?	5 28 30					
	eL	5 45 ..					
	L	5 48 ..	20				
	L	5 52 ..	18				
	F	7 *ca* ..					
3	P	8 43 23				2,600	
	S	8 47 38					
	L?	8 49 30					Jumbled.
	F	10 30 *ca*					
3	e	16 37 ..					
	eL	17 05 ..					
	L	17 13 ..	22				
	L	17 18 ..	18				
	L	17 25 ..	16				
	F	18 10 ..					
4	P	0 23 56				8,500	
	S	0 33 42					
	eL	0 52 ..					
	L	1 00 ..	30				
	L	1 05 ..	18				
	L	1 10 ..	16				
	F	3 *ca* ..					
4	eL	20 58 ..					
	L	21 02 ..	22				
	L	21 06 ..	15				
	F	21 35 *ca*					
5	P	21 45 48				6,000	
	S	21 53 22					
	eL	22 04 45					
	L	22 12 ..	38				
	L	22 21 ..	30				
	L	22 24 ..	22				
	L	22 30 ..	18				
6	F	1 00 ..					
6	P	17 27 26				9,000	
	S	17 37 35					
	eL	18 02 ..					
	L	18 06 ..	15				
	F	18 30 *ca*					
8	P?	0 04 05					
	L?	0 08 40					
	F	1 *ca* ..					
9	P	3 25 42				3,200	
	S	3 30 42					
	F	4 20 *ca*					
11	e	5 59 00					
	F	6 10 *ca*					
11	e	14 22 ..					
	F	14 40 *ca*					
12	P?	12 00 00					
	S?	12 08 35					
	eL	12 20 00	22				
	L	12 27 ..	15				
	F	13 10 *ca*					
16	e	4 27 ..					Phases indistinct.
	F	5 40 *ca*					
16	e	7 24 ..					
	F	7 40 *ca*					
17	P	3 02 22					
	S?	3 11 10					
	L?	3 21 ..					
	L	3 28 ..	16				
	F	5 50 *ca*					

TABLE 2.—*Instrumental seismological reports, November, 1923*—Continued.

ILLINOIS. *U. S. Weather Bureau, Chicago*—Continued.

1923.			H. m. s.	Sec.	μ	μ	Km.	
Nov. 18		P	21 45 44				11,300	
		S	21 57 36					
		eL	22 29 ..	22				
		L	22 39 ..	16				
		F	23 10 *ca*					
26		eL	13 40 ..					
		L	13 46 30	16				
		F	14 30 *ca*					

MARYLAND. *U. S. C. & G. S. Magnetic Observatory, Cheltenham.*

1923.			H. m. s.	Sec.	μ	μ	Km.	
Nov. 1		e_E	20 15 39	4	*100			
		i_N	20 15 29	4				
		e_N	20 17 03	10				
		M_N	20 17 20	10		*100		
		F_E	20 20 ..					
		F_N	20 22 ..					
2		e_E	22 00 16					e_E and e_N extremely weak.
		e_N	22 00 06					
		L_{E1}	22 05 57	28				
		L_{E2}	22 20 05	22				
		L_N	22 06 06					
		M_E	22 23 11	20	*500			
		M_{N1}	22 10 50	24		*200		
		M_{N2}	22 21 58	17		*200		
		F_E	22 45 ..					
		F_N	22 57 ..					
3		e_E	8 45 48					Nothing definite on E.
		P_N	8 42 56					
		e_E	9 04 05		*100			
		L_N	8 48 25	20				
		M_N	8 53 17	11		*100		
		F	9 14 ..					
4		e_E	0 42 07					
		e_N	0 58 07					
		L_E	1 05 09	28				
		M_E	1 08 12	26	*100			
		M_N	1 07 00	24		*200		
		F_E	1 22 ..					
		F_N	1 39 ..					
5		eP_N	22 16 56					
		eS_E	22 21 47					
		eL_E	22 28 42	24				
		eL_{N1}	22 27 52	30				
		eL_{N2}	22 33 27	17				
		M_E	22 30. 38	24	*100			
		M_N	22 38 27	17		*100		
		C_N	22 42 ..					
		F_E	22 50 ..					
		F_N	23 17 ..					
8		e_N	0 13 14	4				No record on E. Tremors superimposed on the long waves.
		M_N	0 14 09	12		*200		
		F	0 18 ..					
16		e	4 36 24	4				Tremors superimposed on the M_N waves.
		M_E	4 37 18	4	*200			
		M_N	4 37 18	13		*200		
		F_E	4 41 ..					
		F_N	4 43 ..					

PORTO RICO. *U. S. C. & G. S. Magnetic Observatory, Vieques*

1923.			H. m. s.	Sec.	μ	μ	Km.	
Nov. 2		e_E	21 50 59	48				
		e_N	22 17 01					
		L_E	22 13 49	38				
		L_N	22 19 35					
		M_E	22 15 57	28	*500			
		M_N	22 21 30	20		*100		
		F_E	22 32 ..					
		F_N	22 27 ..					
3		P	8 39 22	2				Tremors superimposed on the long waves.
		S_N	8 40 34					
		L	8 40 58	22				
		M_E	8 42 20	14	*2,400			
		M_N	8 41 54	16		*9,800		
		C_E	8 43 52	12				
		C_N	8 43 00					
		F_E	9 18 ..					
		F_N	8 57 ..					
4		eL_E	1 14 33	24	*200			Heavy wind tremors.
		eL_N	1 15 48	20		*100		
		F	1 28 ..					

* Trace amplitude.

VERMONT. *U. S. Weather Bureau, Northfield.*

1923.			H. m. s.	Sec.	μ	μ	Km.
Nov. 1		e	20 18 00				
		F	20 25 *ca*				
2		eL	22 07 ..				
		L	22 15 ..	24			
		L	22 18 ..	20			
		F	22 50 *ca*				
3		e	8 47 20				
		eL	8 55 30				
		F	9 20 *ca*				
4		eL	1 05 ..	24			
		L	1 10 ..	22			
		F	1 30 *ca*				
16		e	4 35 ..				
		F	4 50 *ca*				

CANAL ZONE. *Panama Canal, Balboa Heights.*

1923.			H. m. s.	Sec.	μ	μ	Miles.	
Nov. 2								Slight tremors from distant disturbance between 22h. and 23h.
5		P	14 23 16				300*ca*	Direction unknown.
		S_E	14 24 00					
		S_N	14 24 16					
		L_E	14 24 20					
		L_N	14 24 38					
		M_E	14 24 48		*1,400			
		M_N	14 24 40			*1,600		
		F_E	14 31 00					
		F_N	14 33 00					
12								Slight tremors from 6:24:12 to 6:29:00.
24		P_E	6 16 20				90*ca*	Direction unknown.
		P_N	6 16 18					
		F_E	6 17 36					
		F_N	6 17 14					
26								Very slight tremors between 7:56:20 and 7:57:20; apparently local.

CANADA. *Meteorological Service of Canada, Victoria.*

1923.			H. m. s.	Sec.	μ	μ	Km.	
Nov. 1		P	20 08 47	10				
		L	20 11 43	20				
E		M	20 14 10	18		10	1,700	
		F	20 21 56					
		P	20 08 49	10				
		L	20 11 43	20				
N		M	20 15 21	18	7		1,680	
		F	20 22 41					
2		P	21 21 10	10				
		S	21 31 20	20				
		L	21 49 20	25				
E		M	22 01 45	20		189	8,990	
		F	1 09 50					
		P	21 21 10	10				
		S	21 31 20	20				
		L	21 50 00	30				
N		M	21 51 41	25	93		8,990	
		F	0 33 50					
3		L	3 20 30	15				N-S too small to measure.
E		M	3 26 30	18		2		
		F	3 39 20					
3		P	5 14 00	8				
		?S	5 28 00	15				
		L	5 30 38	25				
E		M	5 44 12	18		6		
		F	6 15 45					
		L?	5 31 40	20				
N		M	5 37 19	14	3			
		F	5 49 50					
3		P	8 54 00	8				
		S	8 58 00	15				
		L?	9 05 40	20				
E		M	9 09 20	18		14	2,440	
		F	10 05 20					

* Trace amplitude.

TABLE 2.—*Instrumental seismological reports, November, 1923*—Continued.

CANADA. *Meteorological Service of Canada, Victoria*—Continued.

1923.			H. m. s.	Sec.	μ	μ	Km.	
Nov. 3		P	8 54 00	10				
		?S	8 56 40	15				
		L	9 02 48	20				
	N	M	9 06 40	14	24		1,530	
		F	10 19 20					
3		P	16 31 15	10				
		S	16 41 09	12				
		L	16 57 57	20				
	E	M	17 04 17	20		14	8,670	
		F	18 07 07					
		S	16 41 15					
		L	16 58 37	20				
	N	M	17 14 07	16	9			
		F	.. ? ..					
4		P	0 17 27	10				
		S	0 27 55	18				
		L	0 44 52	28				
	E	M	0 47 55	28		272	9,350	
		F	2 39 57					
		S?	0 28 15	20				
		L?	0 41 12	30				
	N	M	0 46 57	30	125			
		F	2 32 27					
4		P	20 28 16	8				N-S too small to measure.
		L	20 45 14	20				
	E	M	20 45 51	20		13		
		F	21 06 56					
4		P	22 57 21	6				N-S too small to measure.
		L	23 02 56	20				
	E	M	23 05 41	18		6		
		F?	23 09 56					
5		P	21 40 13	5				
		S	21 49 55	18				
		L	22 02 45	35				
	E	M	22 08 43	30	40		8,440	
		F	0 12 55					
		P	21 40 00	5				
		S	21 49 55	12				
		L	22 06 31	25				
	N	M	22 07 35	25		36	8,690	
		F	0 23 25					
6		L	18 04 20	20				
	E	M	18 09 55	15		4		
		F	18 25 20					
		L	18 04 30	25				
	N	M	18 06 40	20	7			
		F	18 22 00					
8		P	0 04 10	10				
		L	0 05 55	20				
	E	M	0 07 35	12		33		
		F	0 31 30					
		P	0 04 00	10				
		L	0 06 00	15				
	N	M	0 07 57	12	22			
		F	0 56 30					
9		P	3 32 29	8				
		L	3 37 57	20				
	E	M	3 40 54	18		14		
		F	4 23 59					
		P	3 32 29	8				
		L	3 37 52	20				
	N	M	3 41 08	15	16			
		F	4 12 00					
10		P	21 46 38	8				
		L	22 05 53	20				
	E	M	22 10 18	20		4		
		F	22 33 38					
	N	M	22 06 08	20	1			
11		L	5 55 33	4				
	E	M	5 57 08	10		2		
		F	6 02 48					
		L	5 55 28	20				
	N	M	5 56 48	10	2			
		F	6 01 48					
11		L	14 24 23	10				
	E	M	14 26 30	10		2		
		F	14 35 16					
		L	14 24 38	8				
	N	M	14 28 08	10	1			
		F	14 37 28					

CANADA. *Meteorological Service of Canada, Victoria*—Continued.

1923.			H. m. s.	Sec.	μ	μ	Km.	
Nov. 12		L	12 01 53	10				
	E	M	12 05 08	20		6		
		F	12 51 43					
		L	12 02 04	10				
	N	M	12 04 08	18	5			
		F	12 39 58					
16		P	4 17 15	5				
		L	4 18 47	12				
	E	M	4 19 23	10		67	850	Calif.
		F	4 54 55					
		P	4 17 15	5				
		L	4 18 50	12	100			
	N	M	4 19 25	10				
		F	4 56 15					
16		L	1 10 49	5				
	E	M	1 11 36	12		7		
		F	1 12 54					
		L	1 10 51	5				
	N	M	1 11 24	10	5			
		F	1 15 12					
17		P	3 00 08	4				
		S	3 05 35	8				
		L	3 10 08	20				
	E	M	3 10 14	20		17	3,660	
		F	4 19 13					
		P	3 00 08	4				
		S	3 05 34	8				
		L	3 10 44	20				
	N	M	3 10 44	20	20		3,630	
		F	4 19 53					
18		P	21 42 05	4				
		S	21 52 49	10				
		L	22 10 19	25				
	E	M	22 24 27	20		9	9,690	
		F	23 13 34					
		P	21 42 04	4				
		S	21 52 59	10				
		L	22 05 29	20				
	N	M	22 26 19	16	4		9,930	
		F	23 14 49					
19		L	9 20 58	12				
	E	M	9 25 09	12		4		
		F	9 30 23					
		L	9 20 28	15				
	N	M	9 26 58	12	4			
		F	9 31 48					
26		P	13 03 47	10				
		L	13 42 34	30				
	E	M	13 59 02	20		6		
		F	14 23 02					
		P	13 03 42	10				
		L	13 39 32	30				
	N	M	13 57 42	20	6			
		F	14 20 02					

The seismograph of Fordham University, New York City, was laid up for repairs from October 30 to November 19. On November 19 the machine was reassembled. Frequent shocks, probably of local origin, were recorded during that day; on November 20 the shocks were less numerous, but the record showed microseisms having trace amplitudes of 1 to 2 millimeters, and period of 10 seconds, lasting throughout the 24 hours. No earthquakes were recorded.

Reports for November, 1923, have not been received from the following stations:

ALABAMA. *Spring Hill College*, Mobile.
DISTRICT OF COLUMBIA. *Georgetown University*, Washington.
MASSACHUSETTS. *Harvard University*, Cambridge.
MISSOURI. *St. Louis University*, St. Louis.
NEW YORK. *Cornell University*, Ithaca.
CANADA. *Meteorological Service of Canada*, Toronto; *Dominion Observatory*, Ottawa.

TABLE 3.—*Late reports (instrumental).*

CANADA. *Dominion observatory, Ottawa.*

1923.			H. m. s.	Sec.	μ	μ	Km.	
Sept. 1		O	2 58 59				9,760	
		eP	3 11 49					
		iS	3 22 36					
		eL	3 37 ..	(60)				
		M	3 53 30	20	381			
		L	4 03 ..	17	171			
		L	4 30 ..	16	71			
		L	4 54 ..	14	37			
		L	5 16 ..	14	16			
		L	5 48 ..	14	9			
		L	6 05 ..	13				
		L	6 40 ..	13				
		L	7 05 ..					
		eL	8 20 ..					
		L	8 25 ..	28	15			
		L	8 34 ..	19	9			
		L	8 50 ..	13				
		F	9 50 ..					
		Saskatoon record.						
		O	2 58 35				8,520	
		P	3 10 25					
		S	3 20 09					Good record on both horizontal components.
		eL	3 31.5ca					
		Halifax record.						
		O	2 58 55				10,050	
		P	3 12 00					
		PR_1	3 15 50					
		S	3 23 00					
		SR_1?	3 29 18					
		eL	3 42 30					
2		O	2 47 11				9,560	
		P	2 59 52					
		PR_1	3 03 49					
		S	3 10 30					
		i	3 12 17					
		SR_1	3 17 30					
		eL	3 32 ..					
		M	3 48 ..	19	247			
		F	7 00 ..					
2		O	(9 24 06)				9,900	
		P	(9 37 0)					
		PR_1	(9 40 42)					
		S	(9 47 54)					Time marks failed on all seismographs.
		SR_1	(9 54 12)					
		SR_2	(9 58 18)					
		eL	(10 04) ..					
		M	(10 22) ..					
		F	(12 30) ..					
2		e	13 51 ..					Milne-Shaw only.
		eL	13 57 ..					
		L	14 02 to					
		L	14 07 ..					
		F	14 30 ca					
2		e	15 06 42					
		L	15 10 ..					
		F	15 21 ca					
2		O	(22 38 36)				6,340	
		P	(22 48 30)					
		S	(22 56 24)					
		SR_1?	(23 01 42)					Time marks uncertain.
		eL	(23 05) ..					Irreg.
		M	(23 09) ..					
		F	1 10 ca					
9		O	4 18 18					
		P	4 25 52				4,220	
		S	4 31 52					Very faintly defined.
		eL	4 36 30					
		F	5 05 ..					
9		eL	18 03 42					Faint traces on N-S only.
		L	18 08 ..					
		F	18 15 ..					
9		O	22 13 17					
		P	22 22 45				(5,960)	
		S	22 30 19					
		eL	22 38 08					
		M	23 00 ..	34				
		L	23 04 ..	(26)				
		L	23 18 ..	(16)				
		F	1 20 ..					
10		e?	9 51 30					
		eL	9 54 ..					
		L	9 59 ..					
		F	10 27 ca					
10		e?	12 52 30					
		eL	12 55 ..					
		F	13 05 ..					
11		e	9 15 52					
		i(S?)	9 20 08					
		eL	9 24 ..					
		L	9 27 ..					
		F	9 55 ca					
12		e?	(6 14) ..					Time marks uncertain.
		i	(6 20 30)					Slight traces. Only on M-S.
		e	(6 23) ..					
		L	6 55 ..	15				
		F	7 25 ..					

CANADA. *Dominion observatory, Ottawa*—Continued.

1923.			H. m. s.	Sec.	μ	μ	Km.	
Sept. 14		e						Lost in changing sheets.
		eL	13 48 to	15				
		F	14 10 ..					
16		e?	16 55 17					
		i	16 55 59					
		e	17 02 40					
		e	17 07 27					Sinusoidal L waves.
		e	17 13 40					
		eL	17 36 42					
		L	17 42 ..	19	8			M-S record only.
		L	18 01 ..	15				
		L	18 44 ..	18				
		F	19 25 ..					
17		e?	4 03 10					
		e	4 11 24					
		eL?	4 24 ..					
		L	4 32 ..					Faint traces only. M-S.
		F	4 50 ..					
17		i	7 32 45					
		eL	7 45 ..					
		M	7 52 ..	28	12			Sinusoidal L waves.
		L	8 01 ..	15	8			
		L	8 20 ..	12				
		F	9 hr ca					
18		L	4 38 to					Faint sinusoidal L waves on Milne-Shaw only.
		F	4 40 ..					
19		e	8 39 to					Irregular faint traces on Milne-Shaw only.
		F	8 52 ..					
19		e	19 47 to					Faint traces only.
		F	19 58 ..					
20		e	9 33 to					Faint irregular traces only.
		F	9 49 ..					
20		eL	(16 00) ..					Faint sinusoidal L waves. M-S only. Time uncertain.
		F	(16 02) ..					
21		ez	20 24 15					
		eL	20 49 to					
		L	20 54 ..	16	1			No. 17 only.
		L	21 00 to					
		L	21 06 ..	14				
		F	21 15 ..					Faint sinusoidal L waves.
22		e	(12 47) ..					
		i	12 50 30					
		F	13 10 ..					
22		eL	15 50 to	23				
		L	16 25 ..	17				Small amplitude—less than 1 μ.
		F	16 35 ..					
22		P?	21 04 20					
		e	21 11 24					
		i	21 15 28					
		eL?	21 26 ..					
		L	21 29 ..	50	70			
		L	21 45 ..	17	21			
		L	22 04 ..	14	3			
		L	23 05 ..	18				Very small trace at 23: 30:
		F	0 00 ca					
23		eL	4 04 to	9				Faint regular traces of small amplitude and short period.
		F	4 30 ..					
23		i	17 44 08					
		e	17 47 48					
		eL?	17 52 42					
		M	17 57 30	11	6			
		L	18 10 ..	10				
		F	18 35 ..					
23		e	21 31 30					
		eL	21 35 36					No. 17 only.
		F	21 52 ..					
24		eL	16 11 ..					Faint sinusoidal trace.
		F	16 13 ..					
26		e?	(2 43) ..					Time marks uncertain throughout.
		i	(2 47 42)					
		eL	(2 54 18)					
		L	3 10 ..	13				No definite phase markings.
		F	3 50 ..					
26		e	8 48 12					
		eL?	9 05 ..					
		L	9 11 ..					
		M	9 19 ..	20				No definite phases shown.
		L	9 26 ..	14				
		L	9 43 ..	14				
		L	10 03 ..	14				
		F	10 40 ca					
27		e	(7 36 48)					On M-S only. Faint traces.
		eL?	(7 41 36)					
		L	8 05 ..	16				Sinusoidal L waves.
		L	8 25 ..	16				
		F	9 hr. ca					

TABLE 3.—*Late reports (instrumental)*—Continued.

CANADA. *Dominion observatory, Ottawa*—Continued.

1923.			H. m. s.	Sec.	μ	μ	Km	
Sept. 28		e	21 15 10					Except for about 5 minutes at the maximum, the record is a faint trace of irreg. wavelets.
		eL	21 18 50					
		M	21 23 ..					
		F	22 05 ..					Irreg.
29		eL	7 46 to					Very faint sinusoidal trace of No. 17 only.
		F	7 58 ..					
30		O	1 20 56				3,040	
		P	1 26 56					
		S	1 31 42					
		eL?	1 34 *ca*					
		M_{17}	1 40 ..	12	300			
		L	1 50 ..	10				
		L	2 17 ..	10				
		L	2 44 ..	10				
		L	3 17 ..	11				
		L	4 45 ..	18				
		L	5 12 ..	10				
		L	5 30 *ca*					
Oct. 1		e?	8 55 ..					
		eL	9 04 ..	30				
		L	9 13 ..	19				
		L	9 19 ..	16				
		F	9 48 ..					
1		O	22 40 21				10,040	
		P	22 53 25					
		S	23 04 25					Well marked phases.
		eL	23 24 ..	31	5			Very small amplitudes.
		L	23 33 ..	16				
		L	23 43 ..	15				
		F	0 10 ..					
3		eL	16 35 ..					
		L	16 42 ..	18				
		F	16 55 ..					
4		i	17 50 40					Irregular traces preceded by a sharp impulse.
		L	18 03 ..					
		F	18 25 ..					
7		O	(3 26 06)				(12,140)	
		eP	3 51 09					
		S	(4 03 35)					
		e	4 08 30					
		e_1	4 13 48					Sinusoidal L waves.
		eL_1	4 31 ..					
		M	4 43 ..	19	70			
		L	4 50 ..	19	30			
		L	5 13 ..	16				
		L	5 35 ..	16				
		L	6 02 ..	15				
		L	6 35 ..	13				
		F	7 10 ..					
8		O	3 52 28				1,570	
		eP	3 55 49					
		eS	3 58 33					
		eL	3 59 30					
		M	4 03 ..	21	7			Very faint L waves after 4-06.
		L	4 06 ..	13				
		F	4 50 ..					
10		O	7 11 08				4,460	
		iP	7 18 59					
		iPR_1	7 20 30					
		iS	7 25 12					
		SR_1	(7 28 24)					
		SR_2	(7 29 12)					
		eL_{11}	7 31 30					
		M_{17}	7 33 ..	17	45			
		L_{17}	7 42 ..	9	10			
		L	7 55 ..					Irreg. small.
		F	9 hr. *ca*					
10		e	23 06 to					Faint traces of L waves on M-S only.
		F	23 30 ..					
11		e	12 41 30					
		eL?	12 45 ..	16				
		L	12 52 ..	13				
		L	13 00 ..	13	1			Small sinusoidal L waves.
		F	13 25 ..					
13		e	4 41 18					
		eL	4 46 ..					
		M	4 48 ..	12	13			
		L	5 01 ..	7				
		F	5 30 ..					
15		e	(8 25) ..					
		eL?	(8 48) ..					Horizontal slit on M-S was partially obscured by a bit of lint at light spot. No definite record.
		L	9 15 ..	19				
		L	9 33 ..	16				
		L	10 00 ..	16				
		F	10 15 *ca*					
15		eL	20 45 ..					Faint sinusoidal L waves.
		L	20 46 ..	12	1			
		F	20 55 ..					

CANADA. *Dominion observatory, Ottawa*—Continued.

1923.			H. m. s.	Sec.	μ	μ	Km.	
Oct. 17		e	6 54 to					Faint irregular traces, M-S.
		F	7 08 ..					
18		eL	22 13 ..					
		L	22 18 ..	20				Sinusoidal L waves.
		F	22 25 ..					
20		eL	4 06 ..	30				
		L	4 22 ..	16				Irregular to sinusoidal L waves.
		L	4 30 ..	14				
		F	4 40 ..					
21		e	19 16 38					Irregular small wavelets.
		F	19 35 ..					
22		e	16 22 48					Faint trace, M-S only. Lost in micros.
		F	16 33 ..					
26		e	19 39 to					Faint irregular traces on M-S only.
		F	19 49 ..					

CANADA. *Meteorological Service of Canada, Toronto.*

1923			H. m. s.	Sec.	μ	μ	Km.	
Oct. 1		i	?8 55 30					Preceded by micros.
		i	8 58 53					
		e	9 03 36					
W		L	9 11 42					
		L	9 12 38	25				
			Sinusoidal to					
			9 15 52			15		
		L	9 18 43					
		F	?10 00 00					
		i?	9 00 36					Preceded by micros.
		eL	9 12 20					
N			Very slow waves to					
			9 17 00					This component very little affected.
		eL	9 21 30					
		F	9 54 00					
1		e	22 53 21					
		e	23 04 26					
		i	23 05 40					
		L	23 18 23					
W		eL	23 24 00	30				
		L	23 30 58	23		6		
		L	23 39 43	19				
			to					
			23 42 38					
		F	Micros.					Marked micros going on.
N		i	23 05 39					N-S component very little affected.
		L	23 30 55					
		F	Micros.					
5		eL	1 35 30					N-S component M very slightly affected.
W		F	1 55 00					
7		P	3 51 00					
		PR1	3 52 11					Lines crowded.
		i	3 53 10					
		e	4 00 15					
		S	4 02 57					
W		iS	4 03 14					S waves very irregular.
		i	4 14 00	17				
		L	4 27 38	28				
		L	4 29 41	23			(11,410)	
							(11,830)	
			Sinusoidal to					
			4 49 34	20 to		108		
		M	3 38 47	23				
			4 39 02					
		L	4 49 52					
		P	3 50 55					
		PR1	3 52 15					
		i	4 01 15					
		S	4 02 52	12				S waves difficult to interpret.
			4 03 16					
		i	4 04 00	15				
N			Sinusoidal to					
			4 05 00				(11,410)	
		L?	4 24 00	22			(11,830)	
		L	4 30 45	45				
		L	4 37 45					
			Sinusoidal to					
			5 04 00					
		M	4 46 17	20	56			
		F	7 14 00					
7		e	7 27 02					May not be seismic.
		e	7 40 03					

TABLE 3.—*Late reports (instrumental)*—Continued.

CANADA. *Meteorological Service of Canada, Toronto*—Continued.

1923.			H. m. s.	Sec.	μ	μ	Km.	
Oct. 8		P	3 49 46					Crowding of line on E-W component.
		PR1	3 50 58					
		e	3 55 11					
		L	3 58 19 to 4 03 45					
N		eL	4 04 00 to 4 09 43	15	6			
		F	4 23 00					
		e	3 55 15					
		e	3 57 50					
		L	3 58 08					Lines crowded.
		L	4 00 00 Sinusoidal to 4 07 00	30		16		
W		L	4 07 23	23				
		F		15				
10		iP	7 19 17	7				
		PR1	7 21 05					Phases well defined.
		S	7 25 46					
		i	7 25 53					Six well defined M.
		iSR1	7 29 07					
		i	7 29 21	12				
		i	7 30 39				4,760	
W		L	7 32 37 Sinusoidal to 7 34 ..	23				
		L	7 42 ..	19				
		M	7 34 17	17		58		
		L	7 42 14					Irregular.
		F	9 28 00					
		iP	7 19 15	8 to 10				
		iPR1	7 21 08					
		iS	7 25 49	?12				Phases well defined.
		L	7 32 26	19			4850	
		L	7 33 38 to 7 45 50					
		M	7 38 55	12 to 13.	46			
		L	7 46 00					Waves became smaller.
		F	9 18 00					
10		eLm	23 01 38					
		em	23 27 45					
		eN	23 02 55					Undulatory.
11		e	12 57 08					
		L	13 03 25					Nothing definite.
		L	13 08 30					
		L	13 31 34					
		F	?13 41					
		L	12 59 06					
		L	13 08 38					Very small amplitude.
		F	13 24 00					
13		i?	4 32 45					
		e	4 43 29					P and S masked by micros.
		L	4 46 15					
W		L	4 46 39 Uniform waves to 4 48 38	23				
		L	4 49 00	13 to 8 and 10		8		
		M	4 48 00					
		F	5 31 00					
N		e?	4 40 55					
		e	4 45 30	9				
		L	4 46 32					
		iL	4 46 53					Micros masked early phases.
			Uniform to 4 48 38	11				
		M	4 47 38	14	12			
		F	?5 30 00					

CANADA. *Meteorological Service of Canada, Toronto*—Continued.

1923.			H. m. s.	Sec.	μ	μ	Km.	
Oct. 15		iP?	8 01 41					
		e?	8 07 09					
		e	8 13 45					No defined phases.
		L	8 28 00					
		L	8 44 52					
		eL	9 12 26					
W			Undulatory to 10 03 00	19 to 23		6		
		F	10 22 ..					
		iP	8 01 43					Nothing defined, micros going on.
		e	8 07 15					
		eL	8 24 53					
N			Undulatory to 8 38 38	15 to 18				
		L	8 42 15	15	4			
		F	10 16 ..					
15		L	?20 45 00					Small amplitude.
		L	20 53 41					
W		F	21 02 ..					N-S component only a very slight record.
17		L	6 01 06 Small sinusoidal to— 6 04 37	15				
W		F	Micros..					
18		L	22 13 36					
N		F	Micros..					Micros on E-W component.
19		L	23 02 08 Small sinusoidal waves to— 23 06 38					
N		F	Micros..					E-W component, micros.
20		L	18 32 34					
		L	18 43 40					
N		F	Micros..					E-W component, masked by micros.
21		i	19 16 48 Undulatory to 19 18 15	5 / 11				
W			19 18 49					
		L	19 20 53					
		F	19 27 00					
		i	19 16 49					
		i	19 17 07	5				
N		L?	19 20 40					Very small amplitude.
		F	?19 25 00					
26		e	19 40 15					Irregular and very small amplitude.
N		F	19 50 00					E-W component, micros.
26								Power off from 23h. 07m. 15s. to 12h. 51m. on the 27th.