550,34

SECTION V.—SEISMOLOGY.

SEISMOLOGICAL REPORTS FOR MARCH, 1917.

W. J. HUMPHREYS, Professor in Charge.

[Dated: Weather Bureau, Washington, D. C., May 1, 1917.]

TABLE 1.—*Noninstrumental earthquake reports, March, 1917.*

Day.	Approximate time, Greenwich Civil.	Station.	Approximate latitude.	Approximate longitude.	Intensity Rossi-Forel.	Number of shocks.	Duration.	Sounds.	Remarks.	Observer.
		CALIFORNIA.								
	H. m.		° ′	° ′			*M. s.*			
8	16 00	Table Bluff	40 39	124 15	6	1	11	None	Broke mantle in lighthouse tower.	A. F. Petters.
13	15 15	Salinas	36 36	122 40	3	1		None		Dr. E. D. Eddy
18	12 30	Lone Pine	36 37	118 01	4	1		None		G. F. Marsh.
19	8 50	Lone Pine	36 37	118 01	4	1		None	Windows rattled	Do.
21	17 10	Bishop	37 22	118 24	4	1	25	Rumbling		E. L. Herzinger.
29	8 06	Fillmore	34 23	118 54	4	1			People awakened	Press report.
29	12 59	Stanford University	37 27	122 09	3	1	2	None		Lucile Townley.
		NEVADA.								
28	11 13	Rebel Creek	41 39	117 45	3-4	1	2	None	Buildings shaken	F. Whitaker.
	11 13	Winnemucca	40 58	117 43	3	1	3	None		U. S. Weather Bureau.
		TENNESSEE.								
5	3 07	Knoxville	35 56	83 58	3	1				Press report.
25	22 15	Jefferson City	36 08	83 30	3	1				C. C. Maddox.
	22 15	Talbott	36 08	83 24	3	1	2	Rumbling		M. A. Roberts.
26	13 50	Talbott	36 08	83 24	3	1	2	....do		Do.
27	21 00	Jefferson City	36 08	83 30	5	1			Shook buildings	C. C Maddox.
		TEXAS.								
28	19 56	Panhandle	35 20	101 20	6	2	20	Rumbling	Caused considerable alarm	G. F. L. Bishop.
	19 56	....do	35 20	101 20	6	2	8	....do	Plaster cracked	J. Sid O'Keefe.
		WASHINGTON.								
28	17 05	Ashford	46 48	121 56	5	2	2	Rumbling	Shook buildings	J. B. Flett.
		WYOMING.								
10	14 34	Rawlins	41 47	107 15	4	2	20	Rumbling	Some ran out of houses	C. J. Ehrenfeld.
	14 34	Rock River	41 34	105 59	2	1		....do		M. W. Gordon.

TABLE 2.—*Instrumental seismological reports, March, 1917.*

Alaska. *Sitka. Magnetic Observatory.* U. S. Coast and Geodetic Survey. J. W. Green.

Lat. 57° 03′ 00″ N.; long., 135° 30′ 06″ W. Elevation, 15.2 meters.

Instruments: Two Bosch-Omori, 10 and 12 kg.

Instrumental constants: $\begin{cases} E & V\ 10 & T_0\ 16 \\ N & 10 & 15 \end{cases}$

Date.	Character.	Phase.	Time.	Period. T.	Amplitude. A_E	Amplitude. A_N	Distance.	Remarks.
1917.			*H. m. s.*	*Sec.*	μ	μ	*km.*	
Mar. 6		eP_N	2 13 26					P and S confused by microseisms. Only a few long waves certain on E-W.
		S_E?	2 22 44	8				
		S_N?	2 22 46					
		L_N	2 34 16	18				
		L_E	2 35 14					
		M_E	2 36 02	13	10			
		M_N	2 39 22	13		40		
		F_E	2 41 ..					
		F_N	2 54 ..					

Arizona. *Tucson. Magnetic Observatory.* U. S. Coast and Geodetic Survey. F. P. Ulrich.

Lat., 32° 14′ 48″ N.: long., 110° 50′ 06″ W. Elevation, 769.6 meters.

Instruments: Two Bosch-Omori, 10 and 12 kg.

Instrumental constants: $\begin{cases} E & V\ 10 & T_0\ 13.9 \\ N & 10 & 19.1 \end{cases}$

Date.	Character.	Phase.	Time.	Period T.	Amplitude. A_E	Amplitude. A_N	Distance.	Remarks.
1917.			*H. m. s.*	*Sec.*	μ	μ	*km.*	
Mar. 6		P	3 11 10	4				
		S_E	3 15 23	6				
		S_N	3 15 23	7				
		L_N	3 18 36					
		L_E	3 18 42	15				
		M_E	3 19 30	13	730			
		M_N	3 20 50	15		230		
		C	3 23 ..	11				
		F	3 59 ..					
26		e_E	14 04 09	4				
		e_N	14 04 16	3				
		M_E	14 05 04	8	80			
		M_N	14 05 20	7		20		
		F_N	14 13 ..					
26		e_E	14 28 47	3				
		e_N	14 28 58	2				
		M_N	14 29 54	6		10		
		M_E	14 29 56	8	20			
		F_E	14 38 ..					
		F_N	14 40 ..					

TABLE 2.—*Instrumental seismological reports, March, 1917*—Continued.

California. *Berkeley. University of California.*

Lat., 37° 52′ 16″ N.; long., 122° 15′ 37″ W. Elevation, 85.4 meters.

(See Bulletin of the Seismographic Stations, University of California.)

California. *Mount Hamilton. Lick Observatory.*

Lat., 37° 20′ 24″ N.; long., 121° 38′ 34″ W. Elevation, 1,281.7 meters.

(See Bulletin of the Seismographic Stations, University of California.)

California. *Point Loma. Raja Yoga Academy.* F. J. Dick.

Lat., 32° 43′ 03″ N.; long., 117° 15′ 10″ W. Elevation, 91.4 meters.

Instrument: Two-component, C. D. West seismoscope.

Date.	Character.	Phase.	Time.	Period T.	Amplitude. A_E	Amplitude. A_N	Distance.	Remarks.
1917.			*H. m. s.*	*Sec.*	*μ*	*μ*	*km.*	
Mar. 2					*250	*300		Tremors recorded during 24 hours preceding 15h on dates given.
9					*400	*400		
20					*200	*250		
22					*200	*300		
24					*400	*400		
25					*100	*100		
26					*300	*400		
27					*200	*200		
28					*300	*400		
29					*100	*200		
30					*100	*100		
31					*200	*400		

* Amplitude on instrument.

California. *Santa Clara. University of Santa Clara.* J. S. Ricard, S. J.

Lat., 37° 26′ 36″ N.; long., 121° 57′ 03″ W. Elevation, 27.43 meters.

(See record of the Seismographic Station, University of Santa Clara.)

Colorado. *Denver. Sacred Heart College.* Earthquake Station.

A. W. Forstall, S. J.

Lat., 39° 40′ 36″ N.; long., 104° 56′ 54″ W. Elevation, 1,655 meters.

Instrument: Wiechert 80 kg., astatic, horizontal pendulum.

Date.	Character.	Phase.	Time.	Period T.	Amplitude. A_E	Amplitude. A_N	Distance.	Remarks.
1917.			*H. m. s.*	*Sec.*	*μ*	*μ*	*km.*	
Mar. 5-6								Evident activity at intervals during day, especially on N-S.
6		L_N	3 16 ..					Quite discernible but phases obscure. Hardly any record on E-W.
		M_N	3 17 ..	4-8		*500		
		F_N	3 19 ..					
6		L	3 22 ..			*500		Clearer and stronger than preceding. Probably new quake. No preliminaries can be seen.
		M_E	3 23 ..	4-8				
		M_N	3 23 ..	10		*750		
		F_E	3 26 ..					
		F_N	3 28 ..					
30		L_N	22 22 ..					Wavelets and thickening of penmarks. Maximum rather doubtful.
		M_N	22 26 ..					
		F_N	22 55 ..					

* Trace amplitude.

District of Columbia. *Washington. U. S. Weather Bureau.*

Lat., 38° 54′ 12″ N.; long., 77° 03′ 03″ W. Elevation, 21 meters.

Instrument: Marvin (vertical pendulum, undamped. Mechanical registration).

Instrumental constants: V 110, T_0 6.4

Date.	Character.	Phase.	Time.	Period T.	Amplitude. A_E	Amplitude. A_N	Distance.	Remarks.
1917.			*H. m. s.*	*Sec.*	*μ*	*μ*	*km.*	
Mar. 3	I_r	P_N?	10 19 51				3,810?	
		S?	10 25 27					
		L	10 30 20	20				
		F	11 00 00					
6	I_r	P_N?	3 12 17				3,515?	All phases masked by microseisms. F lost in microseisms.
		S	3 17 35					
		L	3 23 50	15				
15		S?	0 54 12					Phases indeterminate; small amplitude.
		eL	1 01 27					
		L	1 05 08	16				
		L	1 08 00	20				
		L	1 13 30	20				
		L	1 18 40	16				
		F	1 45 00					
26	I_r	P	14 12 21				2,510	
		S	14 16 27					
		L	14 19 00					F in succeeding quake.
26	I_r	P?	14 37 30				2,330?	
		S	14 41 21					
		L?	14 44 40					
		F	14 55 00					
29	I_u	P	2 08 05				6,240	
		PR?	2 11 11					
		S	2 15 54					
		L	2 24 52	20				
		F	2 40 00					

District of Columbia. *Washington. Georgetown University.* F. A. Tondorf, S. J.

Lat., 38° 54′ 25″ N.; long., 77° 04′ 24″ W. Elevation, 42.4 meters. Subsoil: decayed diorite.

Instruments: Wiechert 200 kg. astatic horizontal pendulums, 80 kg. vertical.

Instrumental constants:

	V	T_0	ϵ
E	165	5.4	0
N	143	5.2	0
Z	*80*	*5.0*	*0*

Date.	Character.	Phase.	Time.	Period T.	Amplitude. A_E	Amplitude. A_N	Distance.	Remarks.
1917.			*H. m. s.*	*Sec.*	*μ*	*μ*	*km.*	
Mar. 3		e	10 23 36					Gram very doubtful because of microseisms, especially on E-W.
		S_N?	10 29 12					
		S_E?	10 29 32					
		L_N	10 34 12					
		L_E	10 34 15					
		F	10 57 00					
6		e?	3 12 24					Heavy microseisms present.
		S_E?	3 18 45					
		S_N?	3 18 49					
		eL_E	3 26 20					
		eL_N	3 26 26					
14								Very heavy thickening of tracing from 23h 24m to 23h 39m. Quite certain of seismic origin. Phases not discernible.
15		e	1 01 21					Heavy microseisms present. Phases difficult to discern.
		eL	1 12 03					
		F	1 22 00					
26		e_E	14 12 20					Confused by heavy local disturbance. Phases on E-W less distinct. F lost in second quake.
		e_N	14 12 40					
		S	14 16 46					
		L_E	14 19 32					
		L_N	14 19 40					
26		e	14 36 42					Phases difficult to discern; microseism present.
		S_E	14 41 22					
		S_N	14 41 30					
		F	15 00 00					
29		e	2 08 23					Microseisms present. E-W very difficult. All phases doubtful.
		S?	2 11 23					
		eL?	2 16 23					
		F	2 36 —					

TABLE 2.—*Instrumental seismological reports, March, 1917*—Continued.

Hawaii. *Honolulu.* *Magnetic Observatory.* U. S. Coast and Geodetic Survey. Frank Neuman.

Lat., 21° 19′ 12″ N.; long., 158° 03′ 48″ W. Elevation, 15.2 meters.

Instrument: Milne seismograph of the Seismological Committee of the British Association.

Instrumental constant.. T_0 18.5

Date.	Character.	Phase.	Time.	Period T.	Amplitude. A_E	Amplitude. A_N	Distance.	Remarks.
1917.			*H. m. s.*	*Sec.*	*μ*	*μ*	*km.*	
Mar. 1		e	5 40 24					
		M	5 43 18		*100			
		F	5 50 00					
3		e	10 52 12					
		M	10 54 06		*100			
		F	10 55 24					
4		e	6 20 42					
		M	6 23 48		*100			
		F	6 37 12					
6		eS?	3 17 00					No distinct phases; resembles air tremors.
		L	3 25 00		*50			
		F	4 05 00					
15		P	0 23 54					Actual maximum at 0h 32m 12s (*1300); probably caused by observer entering room to observer time break.
		S?	0 31 18					
		L?	0 44 36					
		M	0 49 06		*800			
		C	1 05 24					
		F	1 54 00					
16		e	12 04 42					
		M	12 09 12		*100			
		F	12 14 00					
21		e	8 16 24					
		M	8 20 24		*100			
		F	8 23 06					
26		e	14 22 54					
		M	14 24 24		*100			
		F	14 27 42					
28		P?	5 20 12					
		S?	5 25 36					
		L	5 30 12					
		M	5 33 18		*200			
		C	5 35 24					
		F	5 43 —					
29		P?	2 20 42					P and S doubtful; may be artificial disturbance.
		S?	2 27 42					
		L	2 42 18					
		M	2 46 00		*200			
		C	2 47 42					
		F	2 57 —					

* Trace amplitude.

Kansas. *Lawrence.* *University of Kansas.* Department of Physics and Astronomy. F. E. Kester.

Lat., 38° 57′ 30″ N.; long., 95° 14′ 58″ W. Elevation, 301.1 meters.

Instrument: Wiechert.

Instrumental constants.. E: V 177, T_0 3.4, ϵ 4.1; N: V 205, T_0 3.4, ϵ 4.1

Date.	Character.	Phase.	Time.	Period T.	Amplitude. A_E	Amplitude. A_N	Distance.	Remarks.
1917.			*H. m. s.*	*Sec.*	*μ*	*μ*	*km.*	
Mar. 6		iP	3 11 17		2	4		P and S unusually prominent.
		iS_E	3 15 30		6			
		iS_N	3 15 31			11		
		eL?	3 20 37					L almost insignificant.
		M_E	3 24 50		2			
		M_N	3 26 17	8–10		2		F lost in microseisms.
26		P	14 05 02					S indeterminable.
		L	14 10 27					
		M_E	14 11 33			4		
		M_E	14 11 42		4			
		F	14 28 00					
26		P	14 29 43					S indeterminable.
		L_E	14 35 02					
		L_N	14 35 03					
		M_N	14 35 18			3		
		M_E	14 36 16		2			
28		L?	19 55 24					Isolated phase.
28		P	19 56 11					
		L	19 56 44					
		M	19 57 02		2	2		
		F	20 02 —					

Maryland. *Cheltenham.* *Magnetic Observatory.* U. S. Coast and Geodetic Survey. George Hartnell.

Lat., 38° 44′ 00″ N.; long., 76° 50′ 30″ W. Elevation, 71.6 meters.

Instruments: Two Bosch-Omori, 10 and 12 kg.

Instrumental constants.. E: V 10, T_0 32; N: V 10, T_0 27

Date.	Character.	Phase.	Time.	Period T.	Amplitude. A_E	Amplitude. A_N	Distance.	Remarks.
1917			*H. m. s.*	*Sec.*	*μ*	*μ*	*km.*	
Mar. 6		P_N	3 12 25	4				Phases obscured by miseismic tremors.
		S_N	3 17 09	6				
		S_E	3 17 54					
		L_N	3 23 37	13				
		L_E	3 24 20	15				
		M_N	3 27 34	12		40		
		M_E	3 27 55	10	15			
		C	3 31 ..	10				
		F_E	3 41 ..					
		F_N	3 53 ..					
26		e_N	14 17 05	4				Barely perceptible.
		e_E	14 17 37	4				
		F	14 21 ..					

Massachusetts. *Cambridge.* *Harvard University Seismographic Station.* J. B. Woodworth.

Lat., 42° 22′ 36″ N.; long., 71° 06′ 59″ W. Elevation, 5.4 meters. Foundation: Glacial sand over clay.

Instruments: Two Bosch-Omori 100 kg. horizontal pendulums (mechanical registration)

Instrumental constants.. E: V 80, T_0 23, ϵ 0; N: V 50, T_0 25, ϵ 4.1

Date.	Character.	Phase.	Time.	Period T.	Amplitude. A_E	Amplitude. A_N	Distance.	Remarks.
1917			*H. m. s.*	*Sec.*	*μ*	*μ*	*km.*	
Mar. 3		*O?*	*10 13 58*				2,930	Distance from N-S= 2,880 *km.* N-S*O*= 10h 13m 47s.
		eP_E?	10 19 38					
		eP_N	10 19 42	2				
		S_E	10 24 16	6				
		S_N?	10 24 42					
		eL_E	10 27 16	20				
		L_N	10 28 00					
		L_E	10 28 34	14				
		L_E	10 31 06	12				
		C	10 33 14	10				
		F	11 18 ..					
6		*O*	*3 05 19*				3,680	Masked by microseisms of 4.8 seconds period. N–S record illegible.
		P_E?	3 12 13					
		S_E	3 17 41					
		eL_E	3 22 02	20				
		L	3 26 43	12				
		C?	3 31 29					
		F?	4 01 ..					
15		eL_E	1 01 43	14				*O*? P and S lost in tangled lines of diurnal waves. Maximum weak. N–S too faint.
		L_E	1 05 37	20				
		M_E?	1 09 10	18				
		F?	1 24 ..					
26		e_N	14 19 30	3				*O*?
		e_E	14 19 40	4				
		L_E?	14 20 37	10				
		L_E	14 22 30	10				
		L_N?	14 23 21	6				
		L_E?	14 29 11	6				
		L_E	14 32 14	6				
		F?	14 40 ..					
26		L_E?	14 44 44	13–10				
		F	14 51 ..					
29		e_E?	2 17 53	6				Not recognizable on N–S.
		eL_E	2 20 11	24				
		L	2 28 04	20				
		L	2 46 59	10				
		F?	3 00 00					

TABLE 2.—*Instrumental seismological reports, March, 1917*—Continued.

Missouri. *Saint Louis. St. Louis University.* Geophysical Observatory. J. B. Goesse, S. J.

Lat., 38° 38′ 15″ N.; long., 90° 13′ 58″ W. Elevation, 160.4 meters. Foundation: 12 feet of tough clay over limestone of Mississippi system, about 300 feet thick.

Instrument: Wiechert, 80 kg. astatic, horizontal pendulum.

Instrumental constants.. V 80, T_0 7, ϵ 5:1

Date.	Character.	Phase.	Time.	Period T.	Amplitude. A_E	Amplitude. A_N	Distance.	Remarks.
1917.			*H. m. s.*	*Sec.*	μ	μ	*km.*	
Mar. 6	II_F	P	3 11 18				2,100	
		S	3 14 48					
		L	3 15 36					
		F	3 41 00					
26								Two quakes registered between 14h and 15h. Times wanting owing to contacts not working.

New York. *Buffalo. Canisius College.* John A. Curtin, S. J.

Lat., 42° 53′ 02″ N.; long., 78° 52′ 40″ W. Elevation, 190.5 meters.

Instrument: Wiechert 80 kg. horizontal.

Instrumental constants.. V 80, T_0 7, ϵ:1 5:1

(Report for March, 1917, not received.)

New York. *Fordham. Fordham University.* Daniel H. Sullivan, S. J.

Lat., 40° 51′ 47″ N.; long., 73° 53′ 08″ W. Elevation, 23.9 meters.

Instrument: Wiechert, 80 kg.

Instrumental constants.. E: V 72, T_0 6.6, ϵ 1.5:1; N: V 72, T_0 7.1, ϵ 3.8:1

(Report for March, 1917, not received.)

New York. *Ithaca. Cornell University.* Heinrich Ries.

Lat., 42° 26′ 58″ N.; long., 76° 29′ 09″ W. Elevation, 212.6 meters.

Instruments: Two Bosch-Omori, 25 kg., horizontal pendulums (mechanical registration).

Instrumental constants.. E: V 13, T_0 22, ϵ 4:1; N: V 14, T_0 25, ϵ 4:1

Date.	Character.	Phase.	Time.	Period T.	Amplitude. A_E	Amplitude. A_N	Distance.	Remarks.
1917.			*H. m. s.*	*Sec.*	μ	μ	*km.*	
Mar. 3		e_E	10 27 43	5				
		e_N	10 27 46	4				
		L_E	10 29 48	20				
		L_N	10 29 57	16				
		F_E	10 43 ..					
		F_N	10 49 ..					
15		eL_E	1 06 59	22				
		eL_N	1 08 13	20				
		F_E	1 26 00					
		F_N	1 38 00					

Panama Canal Zone. *Balboa Heights.* Isthmian Canal Commission.

Lat., 8° 57′ 39″ N.; long., 79° 33′ 29″ W. Elevation, 27.6 meters.

Instruments: Two Bosch-Omori, 100 kg.

Instrumental constants.. V 10, T_0 20

Date.	Character.	Phase.	Time.	Period T.	Amplitude. A_E	Amplitude. A_N	Distance.	Remarks.
1917.			*H. m. s.*	*Sec.*	μ	μ	*km.*	
Mar. 6		P_N	3 09 40				1,080	Direction?
		P_E	3 09 44					
		S_N	3 10 26					
		S_E	3 10 48					
		L_N	3 12 50					
		M_N	3 12 57			100		
		L_E	3 13 04					
		M_E	3 13 06		50			
		F_E	3 36 12					
		F_N	3 43 02					
13		P_E	9 45 02				185	Direction?
		P_N	9 45 04					
		L_N	9 45 32					
		L_E	9 45 34					
		M_N	9 45 34			100		
		M_E	9 45 36					
		F_N	9 47 04					
		F_E	9 47 12					
29		P_N	2 05 00				1,225	Direction?
		P_E	2 05 01					
		L_E	2 07 29					
		M_E	2 07 49		20			
		L_N	2 09 04					
		M_N	2 09 44			160		
		F_N	2 23 04					

Porto Rico. *Vieques. Magnetic Observatory.* U. S. Coast and Geodetic Survey. F. L. Adams.

Lat., 18° 08′ 48″ N.; long., 65° 26′ 54″ W. Elevation, 19.8 meters.

Instruments: Two Bosch-Omori.

Instrumental constants.. E: V 10, T_0 17.5; N: V 10, T_0 18

Date.	Character.	Phase.	Time.	Period T.	Amplitude. A_E	Amplitude. A_N	Distance.	Remarks.
1917.			*H. m. s.*	*Sec.*	μ	μ	*km.*	
Mar. 6		P_E	3 12 36	5				Initial phases obscured by wind tremors.
		L_N	3 20 24	14				
		L_E	3 20 34	19				
		M_N	3 23 58	16		30		
		M_E	3 24 26	16	20			
		F	4 13 ..					
29		P_N	2 07 05	8				Initial phases obscured by wind tremors. Barely perceptible on E-W.
		S_N	2 11 50	9				
		L_N	2 16 00	20				
		M_N	2 21 30	15		30		
		F	2 51 ..	13				

Vermont. *Northfield. U. S. Weather Bureau.* Wm. A. Shaw.

Lat., 44° 10′ N.; long., 72° 41′ W. Elevation, 256 meters.

Instruments: Two Bosch-Omori, mechanical registration.

Instrumental constants.. E: V 10, T_0 15; N: V 10, T_0 16

Date.	Character.	Phase.	Time.	Period T.	Amplitude. A_E	Amplitude. A_N	Distance.	Remarks.
1917.			*H. m. s.*	*Sec.*	μ	μ	*km.*	
Mar. 6		S?	3 18 24					Very feeble record. F lost during changing of sheets.
		L	3 27 16	22				
15		L_E	1 07 00	20				Other phases indistinguishable.
		F	1 20 00					
26		e	14 19 18					
		F	14 30 00					
26		e	14 44 00					
		F	14 52 00					

TABLE 2.—*Instrumental seismological reports, March, 1917*—Continued.

Canada. *Ottawa. Dominion Astronomical Observatory.* Earthquake Station. Otto Klotz.

Lat., 45° 23′ 38″ N.; long., 75° 42′ 57″ W. Elevation, 83 meters.

Instruments: Two Bosch photographic horizontal pendulums, one Spindler & Hoyer 80kg. vertical seismograph.

Instrumental constants.. V 120 T_0 26

Date.	Character.	Phase.	Time.	Period T.	Amplitude. A_E	Amplitude. A_N	Distance.	Remarks.
1917.			*H. m. s.*	*Sec.*	μ	μ	*km.*	
Mar. 3		*O*	*10 14 20*				2,840	
		P_N	10 20 01					
		P_E	10 20 04					
		S_N	10 24 32					
		S_E	10 24 37					
		eL	10 27 18	20				
		L	10 31 00	14				
		L	10 40 00	10				
		F	11 10 00					
6		*O*	*3 05 18*				4,000	Distance approximate. Seismograph clock stopped. Record from deformation instrument where 17 mm.=1 hour.
		P	3 12 36					
		S	3 18 24					
		L	3 22 18					
		F	4 20 ..					
15		P_N?	0 41 14				7,100?	
		P_E?	0 41 16					
		S_E?	0 49 50					
		S_N?	0 49 51					
		L	1 02 00	20				
		L	1 06 00	20				
		L	1 11 00	19				
		F	1 30 00					
26		e	14 18 14					
		i	14 18 34					
		eL_E?	14 19 37	8				
		L_E?	14 23 00	8				
		F	14 35 00					
26		e_E	14 42 48					
		i_N	14 43 07					
		i_E	14 43 08					
		eL_E?	14 44 09	8				
		L_E?	14 46 00	8				
		F	14 57 ..					

Canada. *Toronto. Dominion Meteorological Service.*

Lat., 43° 40′ 01″ N.; long., 79° 23′ 54″ W. Elevation, 113.7 meters. Subsoil: Sand and clay.

Instrument: Milne horizontal pendulum, North; in the meridian.

Instrumental constant.. T_0 18. Pillar deviation, 1 mm. swing of boom=0.50″.

Date.	Character.	Phase.	Time.	Period T.	Amplitude. A_E	Amplitude. A_N	Distance.	Remarks.
1917.			*H. m. s.*	*Sec.*	μ	μ	*km.*	
Mar. 3		eL	10 26 54					P and S not recorded.
		L	10 29 54					
		M	10 32 06					
		M	10 34 30		*800			
		F	10 44 30					
6		e	3 16 00					
		L	3 25 18					
		M	3 26 18		*1200			
		F?	4 44 48					
15		iP	0 37 30		*200			Movements gradually increased from first *L* to M.
		S	0 49 48					
		eL	0 59 18					
		M	1 11 48		*800			
		L	1 34 12					
		L	2 18 42					
		L	2 20 54					
		F	2 25 00					
16		eL	10 42 00					Gradual thickening.
		M	10 44 48		*200			
		F	10 50 36					
26		L	14 17 24		*200			
		F	14 27 00					
29		P	2 21 00					
		S	2 25 42					
		L	2 27 24					
		L	2 30 18					
		M	2 31 18		*300			
		F	2 59 36					

* Trace amplitude.

Canada. *Victoria, B. C. Dominion Meteorological Service.*

Lat., 48° 24′ N.; long., 123° 19′ W. Elevation, 67.7 meters. Subsoil: Rock.

Instruments: Wiechert, vertical. Milne horizontal pendulum, North; in the meridian.

Instrumental constant.. T_0 18. Pillar deviation: 1 mm. swing of boom =0.54″.

Date.	Character.	Phase.	Time.	Period T.	Amplitude. A_E	Amplitude. A_N	Distance.	Remarks.
1917.			*H. m. s.*	*Sec.*	μ	μ	*km.*	
Mar. 3		L	10 25 06					
		M	10 42 27		*200			
		F	10 53 52					
6		P?	3 19 42					
		S?	3 23 10					
		L	3 27 38					
		M	3 33 05		*1500			F uncertain.
		VERTICAL			A_Z			
		P	*3 14 00*	*5*				*S?*
		L	*3 28 00*	*7–8*				
		M	*3 33 00*	*11*	*60*			
		F	*3 42 30*					
15		L	0 32 43					
		M	0 59 00		*200			
		F	1 36 42					
16		M?	10 57 34					May be M part of long-distance quake.
26		*P*?	14 10 37					
		L	14 13 30					
		M	14 15 58		*400			
		F	14 21 52					
29		P?	2 33 27					
		S?	2 35 56					
		L	2 38 59					
		M	2 41 53		*500			
		F	2 57 45					

* Trace amplitude. A_Z=true earth movement in μ.

SEISMOLOGICAL DISPATCHES.[1]

Knoxville, Tenn., March 5, 1917.

A shock was felt here last evening (Mar. 4) at 9:07 o'clock. This is the second seismic disturbance felt in Knoxville and vicinity within the past 10 days. No damage resulted from the slight quake of Sunday evening. (Assoc. Press.)

[1] Reported by the organization indicated and collected by the seismological station of Georgetown University, Washington, D. C.