TABLE II.—*Data furnished by the Canadian Meteorological Service, January, 1922.*

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.	*Inches.*	*Inches.*	*Inches.*	°*F*	°*F*	°*F*	°*F*	°*F*	°*F*	*Inches.*	*Inches.*	*Inches.*
St. Johns, N. F.	125												
Sydney, C. B. I.	48	29.92	29.97	+0.04	20.5	0.0	28.4	12.7	46	−12	5.80	+0.70	52.0
Halifax, N. S.	88	29.91	30.02	+ .05	21.1	− 0.7	29.7	12.4	46	−11	2.96	−2.81	17.3
Yarmouth, N. S.	65	29.97	30.04	+ .04	25.3	− 1.0	31.5	19.1	48	0	2.81	−2.60	13.2
Charlottetown, P. E. I.	38	29.95	29.99	+ .03	16.8	− 0.2	24.7	9.0	42	−14	3.59	−0.37	20.7
Chatham, N. B.	28	30.01	30.05	+ .08	11.0	+ 1.2	22.8	− 0.8	38	−27	2.36	−1.23	22.6
Father Point, Que.	20	30.10	30.13	+ .13	8.4	+ 0.4	17.5	− 0.6	32	−18	2.78	−0.07	27.8
Quebec, Que.	296	29.78	30.13	+ .11	9.4	+ 0.3	17.6	1.3	36	−19	2.44	−1.57	23.4
Montreal, Que.	187	29.92	30.15	+ .11	12.8	+ 1.1	19.7	5.9	39	−12	2.36	−1.37	20.6
Stonecliffe, Ont.	489												
Ottawa, Ont.	236	29.89	30.18	+ .15	11.9	+ 2.3	22.7	1.1	40	−19	1.81	−1.18	18.1
Kingston, Ont.	285	29.83	30.17	+ .12	17.2	+ 0.1	25.2	9.3	42	−11	1.21	−2.24	5.4
Toronto, Ont.	379	29.74	30.17	+ .12	23.2	+ 1.8	30.1	16.4	46	− 1	1.38	−1.54	9.0
Cochrane, Ont.	930												
White River, Ont.	1,244	28.68	30.08	+ .07	1.1	+ 1.5	15.2	−13.0	35	−47	1.24	−0.45	12.4
Port Stanley, Ont.	592	29.52	30.19	+ .12	22.6	+ 0.4	31.6	13.7	48	− 6	1.93	−1.06	1.4
Southampton, Ont.	656	29.39			19.6	− 0.8	27.1	12.0	37	− 7	2.97	−1.08	26.3
Parry Sound, Ont.	688	29.38	30.12	+ .11	15.2	+ 1.4	25.4	5.1	40	−14	4.80	+0.72	45.8
Port Arthur, Ont.	644	29.38	30.13	+ .06	7.3	+ 4.2	16.8	− 2.2	31	−27	0.45	−0.37	4.5
Winnipeg, Man.	760	29.23	30.13	+ .02	3.0	+ 9.8	12.0	− 6.0	35	−38	0.27	−0.61	2.7
Minnedosa, Man.	1,690	28.16	30.10	.00	0.6	+ 7.8	11.1	− 9.8	32	−41	0.28	−0.52	2.8
Le Pas, Man.	860												
Qu'Appelle, Sask.	2,115	27.67	30.05	− .03	3.8	+ 7.6	14.0	− 6.3	39	−40	0.43	−0.07	4.3
Medicine Hat, Alb.	2,144	27.66	30.02	− .05	15.6	+10.1	25.0	6.2	45	−24	0.53	−0.04	5.3
Moose Jaw, Sask.	1,759												
Swift Current, Sask.	2,392	27.41	30.18	+ .09	10.8	+ 7.7	20.7	1.0	41	−48	0.81	+0.17	8.1
Calgary, Alb.	3,428												
Banff, Alb.	4,521	25.30	30.14	+ .14	8.7	− 3.4	18.5	− 1.2	39	−36	0.97	−0.22	9.7
Edmonton, Alb.	2,150	27.60	30.00	+ .03	10.1	+ 8.3	20.0	0.4	47	−50	0.75	−0.07	7.4
Prince Albert, Sask.	1,450	28.39	30.06	− .03	2.0	+10.4	11.7	− 7.6	42	−40	0.64	−0.33	6.4
Battleford, Sask.	1,592	28.20	30.05	− .03	2.5	+ 8.4	12.9	− 7.8	43	−43	0.20	−0.20	2.0
Kamloops, B. C.	1,262												
Victoria, B. C.	230	29.89	30.15	+ .18	36.3	− 2.2	39.9	32.7	47	21	2.77	−2.62	7.7
Barkerville, B. C.	4,180												
Triangle Island, B. C.	680												
Prince Rupert, B. C.	170												
Hamilton, Ber.	151	29.98	30.15	+ .02	61.7	− 0.3	67.6	55.9	76	45	5.95	+1.01	0.0

SEISMOLOGICAL REPORTS FOR JANUARY, 1922.

W. J. HUMPHREYS, Professor in Charge.

[Weather Bureau, Washington, March 3, 1922.]

SEISMOLOGICAL ABBREVIATIONS USED IN THE INSTRUMENTAL REPORTS.

CHARACTER OF THE EARTHQUAKE.

I=noticeable.
II=conspicuous.
III=strong.
d=(terræ motus domesticus)=local earthquake (sensible or felt).
v=(terræ motus vicinus)=near-by earthquake (within 1,000 km).
r=(terræ motus remotus)=distant earthquake (1,000 to 5,000 km. distant).
u=(terræ motus ultimus)=very distant earthquake (beyond 5,000 km.).
Δ=distance to epicenter.

PHASES.

P=(undæ primæ)=first preliminary tremors.
PR_n=P waves reflected *n* times at the earth's surface.
S=(undæ secundæ)=second preliminary tremors.
SR_n=S waves reflected *n* times at the earth's surface.
PS=transformed waves; longitudinal (P) to transverse (S) or vice versa.
L=(undæ longæ)=long waves in the principal portion.
M=(undæ maximæ)=greatest motion in the principal portion.
C=(coda)=trailers.
O=time at epicenter.
L_{rep_1}=long waves reaching the station from the antiepicenter (40,000 km.−Δ).
L_{rep_2}=long waves again reaching the station from the antiepicenter (40,000 km.+Δ).
F=(finis)=end of perceptible trace.

NATURE OF THE MOTION.

i=(impetus)=abrupt beginning.
e=(emersio)=gradual appearance.
T=(period)=twice time of oscillation.
A=amplitude of earth's movement, reckoned from the zero line. E, N, or Z attached to a symbol signifies the E–W, the N–S, or the vertical component, respectively, thus:
P_E is the E–W component of P.
P_N is the N–S component of P.
P_Z is the vertical component of P.
μ=micron, $\frac{1}{1000}$ mm.

INSTRUMENTAL CONSTANTS.

T_0=period of instrument.
V=magnification of instrument.
ϵ=damping ratio.

List of instrumental stations from which reports are received.

Location.	Latitude, N.	Longitude, W.	Elevation, meters.	Description of instruments.	Instrumental constants. E-W. V	E-W. T_0	E-W. ε	N-S. V	N-S. T_0	N-S. ε	Institution.	Director.
ALABAMA.	° ′ ″	° ′ ″										
Mobile	30 41 44	88 08 46	60	Wiechert 80-kg., two comp., inverted pendulum.	.....	.....	.....	.....	.....	.....	Spring Hill College, Seismic Observatory.	Cyril Ruhlmann, S. J.
ALASKA.												
Sitka	57 03	135 20 06	15.2	Bosch-Omori 10-kg., horizontal pendulum, two comp.	10	22	.....	10	17.7	.....	U. S. Coast and Geodetic Survey, Magnetic Observatory.	A. K. Ludy.
ARIZONA.												
Tucson	32 14 48	110 50 06	769.6	.....do.....	10	17	.....	10	17	.....	.....do.....	Wm. H. Cullum.
CALIFORNIA.												
Point Loma	32 43 03	117 15 10	91.4	Two-component C. D. West seismoscope.	.....	.....	.....	.....	.....	.....	Theosophical University, Meteorological Station.	F. J. Dick.
COLORADO.												
Denver	39 40 36	104 56 54	1,655	Wiechert 80-kg., inverted pendulum.	.....	.....	.....	.....	.....	.....	Regis College, Earthquake Station.	A. W. Forstall, S. J.
DISTRICT OF COLUMBIA.												
Washington	38 54 25	77 04 24	42.4	Wiechert 200-kg., inverted pendulum; *80-kg. vertical.*	165	5.4	0	142	5.2	0	Georgetown University, Seismological Station.	F. A. Tondorf, S. J.
					VERTICAL: *V, 80; T_0, 5.0.*							
				Bosch photographic pendulums (horizontal), 200 g.	133	5.0	.....	133	5.0	.....		
				Mainka bifilar pendulums, 135-kg., horizontal.	47	9.0	.....	59	9.0	.....		
				Bosch-Omori 25-kg., horizontal.	13.7	8.8	.....	13.5	8.6	.....		
Washington	38 54 12	77 03 03	21	Marvin, inverted pendulum, undamped, mechanical registration.	110	6.4	(3)	110	6.4	.....	U. S. Weather Bureau	W. J. Humphreys.
HAWAII.												
Honolulu	21 19 12	158 03 48	15.2	Milne-Shaw	150	12	.....	150	12	.....	U. S. Coast and Geodetic Survey, Magnetic Observatory.	H. E. McComb.
ILLINOIS.												
Chicago	41 47	87 37	180.1	Two Milne-Shaw horizontal pendulums, 0.45-kg.	150	12	[2] 20:1	150	12	[2] 20:1	U. S. Weather Bureau, University of Chicago.	H. J. Cox.
MARYLAND.												
Cheltenham	38 44	76 50 30	*ca.* 71.6	Two Bosch-Omori 10-kg.	10	15	.....	10	15	.....	U. S. Coast and Geodetic Survey, Magnetic Observatory.	George Hartnell.
MASSACHUSETTS.												
Cambridge	42 22 36	71 06 59	5.4	Two Bosch-Omori 100-kg., horizontal pendulum, mechanical registration.	80	23	1.5	50	25	[4] 1.5	Harvard University Seismographic Station.	J. B. Woodworth.
MISSOURI.												
St. Louis	38 38 17	90 13 58.3	160.4	Wiechert 80-kg., inverted pendulum.	80	7	5:1	.....	.....	.....	St. Louis University, Geophysical Observatory, Earthquake Station.	Geo. E. Rueppel.
NEW YORK.												
Ithaca	42 26 58	76 29 09	242.6	Bosch-Omori 25-kg., horizontal pendulum, mechanical registration.	12	21	4:1	13	24	4:1	Cornell University, Department of Geology, Seismograph Station.	P. S. Sheldon.
New York	40 51 47	73 53 08	23.9	Wiechert 80-kg., inverted pendulum.	80	70	5	80	70	5	Fordham University, Seismologic Station.	J. J. Lynch, S. J.
CANAL ZONE.												
Balboa Heights	8 57 39	79 33 29	*ca.* 36	Two Bosch-Omori 100-kg. and 25-kg.	{35 / 10}	}20	.....	{35 / 10}	}20	.....	Panama Canal, Department Operation and Maintenance, section of meteorology and hydrography, Seismologic Station.	R. Z. Kirkpatrick, chief hydrographer.
PORTO RICO.												
Vieques	18 08 50	65 26 50	19.1	Bosch-Omori 10-kg.	10	12.7	.....	10	15.8	.....	U. S. Coast and Geodetic Survey, Magnetic Observatory.	R. R. Bodle.
VERMONT.												
Northfield	44 10	72 41	256	Bosch-Omori, mechanical registration, 25 kg.	10	15	.....	10	16	.....	Local office, U. S. Weather Bureau.	Wm. A. Shaw.
CANADA.												
Ottawa	45 23 38	75 42 57	83	Two Bosch photographic horizontal pendulums, one Spindler & Hoyer 80-kg. vertical seismograph.	120	26	.....	.....	.....	.....	Dominion Observatory, Earthquake Station.	E. A. Hodgson.
Toronto	43 40 01	79 23 54	113.7	Milne horizontal pendulum, North, in the meridian.	.....	18	10″.45	.....	.....	.....	Dominion Meteorological Service.	
Victoria	48 24	123 19	67	Milne horizontal pendulum, North, in meridian.	.....	18	10″.54	.....	.....	.....	.....do.....	

[1] Pillar inclination, 1 mm. [2] 1″ arc tilt, 26.6 mm. [3] 1 mm.=4″. [4] 15 mm.=60 sec.

For the reports of the stations at the University of California, Berkeley, Calif., and at the Lick Observatory, Mount Hamilton, Calif., see *Bulletin of the Seismographic Stations, University of California;* for the report of the station at the University of Santa Clara, Santa Clara, Calif., see *Record of the Seismographic Station, University of Santa Clara.*

SEISMOLOGICAL REPORTS FOR JANUARY, 1922.

W. J. HUMPHREYS, Professor in Charge.

[Weather Bureau, Washington, Mar. 3, 1922.]

TABLE 1.—*Noninstrumental earthquake reports, January, 1922.*

Day.	Approximate time, Greenwich civil.	Station.	Approximate latitude.	Approximate longitude.	Intensity Rossi-Forel.	Number of shocks.	Duration.	Sounds.	Remarks.	Observer.
		CALIFORNIA.								
1922.	*H.* m.		° ′	° ′			*Sec.*			
Jan. 1	1 10	Petaluma	38 15	122 38	5	3		None	Felt by many	John Landis.
26	5 25	Calexico	32 41	115 30	3	1	½	Faint	Felt by several	W. S. Pratt.
27	5 25	do	32 41	115 30	3	1	2	Rumbling	do	Do.
27	7 50	do	32 41	115 30	4	1	3	Loud	Awakened sleepers	Do.
27	18 11	do	32 41	115 30	3	1	1	None	Felt by many; abrupt	Do.
27	8 03	do	32 41	115 30	2	1	1	Very loud	Felt by several	Do.
30	7 55	Brawley	32 59	115 40		1		None		M. D. Witter.
31	1 03	Calexico	32 41	115 30	3	2	½	Faint	Felt by several	W. S. Pratt.
31	13 15	Redding	40 35	122 25	4	1		None	do	Parker Talbot.
		San Francisco	37 48	122 26	3	2		do	do	U. S. Weather Bureau.
		Willows	34 03	118 15					Felt by few	J. T. McLenon.
	13 17	Eureka	40 48	124 10	6	4	40, 1, 1, 1	None	Stopped clocks	J. M. Jones.
	13 20	Fort Bragg	39 30	123 50	3	2	5–6	do	Felt by several	N. F. Fuller.
		Grass Valley	39 15	121 00	3	2		do	do	Mrs. L. M. Wentworth.
		McCloud	41 15	122 10	3	1		do	do	M. C. Gerlicher.
	13 25	Red Bluff	40 10	122 15	5?	3		Faint	Felt by many	H. J. Andree.
	13 40?	Cloverdale	38 45	123 00		1			Slight	J. O. Ogle.
		IDAHO.								
24	17 ..	Bennett	43 20	115 30	1	1	1	None	Felt by one	Mrs. R. Baxter.
		INDIANA.								
11	3 42	Mount Vernon	38 00	88 00	5	1	15–20	do	Felt by many	G. B. Green
		SOUTH DAKOTA.								
2	14 50	Chamberlain	43 45	99 20	5					United Press.
		WASHINGTON.								
31	14 30	Tonasket	48 45	119 30	3?			Faint	Felt by several	G. A. Wallace.
	19 *ca?*	Republic	48 40	118 40	2	1	Brief.	None	do	W. G. C. Lanskail.
		Clearbrook	49 00	122 10					Felt by two	R. D. Perry.

LATE REPORTS.

		CALIFORNIA.								
Dec. 4	16 57	Lakeport	39 00	123 00	3	1	1	None	Felt by several	J. Overholser.
		TENNESSEE.								
15	14 30	Rockwood	35 50	84 40	4–5	2	30	Loud	Felt by many	H. F. Ruter.
	14 50	Athens	35 20	84 35	4–5	1	180 *ca.*	Rumbling	do	J. B. Elliott.
		Decatur	35 32	84 50	4	2–3	2	do	do	J. W. Linord.
	15 *ca.*	Dayton	35 20	85 00	4	1	Few.	do	do	W. F. Weir.
		Spring City	35 40	84 50	4			do	Felt by several	H. M. Broyle.

TABLE 2.—*Instrumental seismological reports, January, 1922.*

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

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

Date.	Character.	Phase.	Time.	Period T	Amplitude. A_E	Amplitude. A_N	Distance.	Remarks.
1922.			*H. m. s.*	*Sec.*	*μ*	*μ*	*Km.*	
Jan. 5	.....	L_E	9 08 27	13	.....	.....	.....	No record on N.
		M_E	9 09 06	10	10	.....	.....	
		C_E	9 09 19	.....	.....	.....	.....	
		F_E	9 13 ..	.....	.....	.....	.....	
17	.....	e_E	4 03 47	.....	.....	.....	.....	
		e_N	4 01 56	.....	.....	.....	.....	
		iS	4 10 51	.....	.....	.....	.....	
		M	4 10 55	.....	150	200	.....	
		C_E	4 15 ..	.....	.....	.....	.....	
		C_N	4 12 ..	.....	.....	.....	.....	
		F_N	4 22 ..	.....	.....	.....	.....	
		F_E	4 42 ..	.....	.....	.....	.....	
22	.....	L_E	4 00 46	28	.....	.....	.....	Do.
		M_E	4 10 00	15	20	.....	.....	
		C_E	4 16 ..	.....	.....	.....	.....	
		F_E	4 21 ..	.....	.....	.....	.....	
26	.....	eL_E	9 38 07	24	.....	.....	.....	Do.
		M_E	9 38 44	16	10	.....	.....	
		F_E	9 46 ..	.....	.....	.....	.....	
31	.....	iP	13 21 30	.....	.....	.....	.....	
		L_E	13 24 52	.....	.....	.....	.....	
		L_N	13 24 58	24	.....	.....	.....	
		M_E	13 26 02	17	3,040	.....	.....	
		M_N	13 26 41	12	.....	440	.....	
		M_N	13 29 14	.....	.....	450	.....	
		C_E	13 27 ..	.....	.....	.....	.....	
		C_N	13 33 ..	.....	.....	.....	.....	
		F_E	14 40 ..	.....	.....	.....	.....	
		F_N	14 24 ..	.....	.....	.....	.....	

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

Date.	Character.	Phase.	Time.	Period T	Amplitude. A_E	Amplitude. A_N	Distance.	Remarks.
1922.			*H. m. s.*	*Sec.*	*μ*	*μ*	*Km.*	
Jan. 17	.....	P_E	3 58 53	3	.....	.....	.....	N not in operation during January.
		L_E	4 07 30	26	.....	.....	.....	
		M_E	4 07 45	24	250	.....	.....	
		C_E	4 10 ..	.....	.....	.....	.....	
		F_E	5 01 ..	.....	.....	.....	.....	
20	.....	e_E	2 14 47	.....	.....	.....	.....	
		M_E	2 15 35	10	10	.....	.....	
		C_E	2 16 33	.....	.....	.....	.....	
		F_E	2 23 ..	.....	.....	.....	.....	
20	.....	C_E	4 31 23	3	.....	.....	.....	
		L_E	4 31 36	11	.....	.....	.....	
		M_E	4 31 54	8	50	.....	.....	
		C_E	4 33 ..	7	.....	.....	.....	
		F_E	4 43 ..	.....	.....	.....	.....	
22	.....	L_E	.....	23	.....	.....	.....	Record lost from 3:55 to 4:02.
		C_E	4 08 ..	.....	.....	.....	.....	
		F_E	4 31 ..	.....	.....	.....	.....	
22	.....	L_E	21 21 19	29	.....	.....	.....	
		M_E	21 26 16	18	20	.....	.....	
		C_E	21 43 ..	17	.....	.....	.....	
		F_E	21 48 ..	.....	.....	.....	.....	
26	.....	iP_E	9 35 03	4	.....	.....	.....	A series of L waves, period 10 sec., begins at 9:26:47.
		S_E	9 38 31	.....	.....	.....	.....	
		eL_E	9 40 04	18	.....	.....	.....	
		M_E	9 46 55	9	30	.....	.....	
		C_E	9 48 35	7	.....	.....	.....	
		F_E	10 02 ..	.....	.....	.....	.....	
31	.....	iP_E	13 20 59	.....	.....	.....	.....	*Stylus off paper from 13:26:03 to 13:29:39.
		S_E	13 24 07	.....	.....	.....	.....	
		L_E	13 24 41	30	.....	.....	.....	
		M_E	(*)	16	4,200+	.....	.....	Recorded on magnetograph from 13:22 to 13:35.
		C_E	13 34 27	10	.....	.....	.....	
		F_E	15 88 ..	.....	.....	.....	.....	

COLORADO. *Regis College, Denver.*

Date.	Character.	Phase.	Time.	Period T	Amplitude. A_E	Amplitude. A_N	Distance.	Remarks.
1922.			*H. m. s.*	*Sec.*	*μ*	*μ*	*Km.*	
Jan. 31	.....	P	13 20 ..	.....	.....	.....	.....	Second preliminaries not visible.
		L	13 25 ..	3-7	.....	.....	.....	
		M	13 27 ..	10	*67,000	*59,000	.....	
		C	13 43 ..	8	.....	.....	.....	
		F	14 29 ..	.....	.....	.....	.....	

* Trace amplitude.

DISTRICT OF COLUMBIA. *Georgetown University, Washington.*

Date.	Character.	Phase.	Time.	Period T.	Amplitude. A_E	Amplitude. A_N	Distance.	Remarks.
1922.			*H. m. s.*	*Sec.*	*μ*	*μ*	*Km.*	
Jan. 1	.....	L_E	20 40 36	22	.....	.....	.....	Very heavy microseisms.
		L_N	20 45 26	.....	.....	.....	.....	
		L_E	20 50 00	.....	.....	.....	.....	
		F	21 20 ..	.....	.....	.....	.....	
6	.....	P_E?	14 20 43	.....	.....	.....	.....	Microseisms. No distinct *M*.
		P_N	14 20 43	.....	.....	.....	.....	
		S_E	14 20 32	.....	.....	.....	.....	
		S_N	14 28 31	.....	.....	.....	.....	
		eL_E	14 37.00	30	.....	.....	.....	
		L_E	14 45 ..	22	.....	.....	.....	
		L_N	14 46 06	16	.....	.....	.....	
		F	15 30 ..	.....	.....	.....	.....	
9	.....	eP_E	5 15 47	.....	.....	.....	.....	Do.
		eP_N	5 15 47	.....	.....	.....	.....	
		iS_E	5 21 05	.....	.....	.....	.....	
		eS_N	5 21 05	.....	.....	.....	.....	
		eL_E	5 24 12	21	.....	.....	.....	
		F	6 (*ca*)	.....	.....	.....	.....	
17	.....	eP_E	3 57 37	.....	.....	.....	.....	
		iP_N	3 57 40	.....	.....	.....	.....	
		i_E	3 59 33	.....	.....	.....	.....	
		i_E	4 00 51	.....	.....	.....	.....	
		iS_E	4 03 26	.....	.....	.....	.....	
		iS_N	4 03 28	.....	.....	.....	.....	
		eL_E	4 07 24	7	.....	.....	.....	
		eL_N	4 07 36	6	.....	.....	.....	
		M_{E1}	4 08 31	.....	.....	*6,700	.....	
		M_{N1}	4 08 45	.....	*1,300	.....	.....	
		M_{E2}	4 09 34	.....	.....	*5,000	.....	
		M_{N2}	4 09 40	.....	*4,600	.....	.....	
		M_{E3}	4 10 40	.....	.....	*4,100	.....	
		M_{N3}	4 10 54	.....	*3,900	.....	.....	
		M_{E4}	4 11 07	.....	.....	*5,500	.....	
		M_{N4}	4 13 02	.....	*1,900	.....	.....	
		M_{E5}	4 12 12	.....	.....	*3,800	.....	
		F	4 50 ..	.....	.....	.....	.....	
			VERTICAL.					
		iP_Z	*3 57 40*	.....	.....	.....	.....	
		i_Z	*3 59 27*	.....	.....	.....	.....	
		S_Z	*4 03 25*	.....	.....	.....	.....	
		eL_Z	*4 07 24*	*17*	.....	.....	.....	
		L_Z	*4 19* ..	*17*	.....	.....	.....	
		F	*4 44* ..	.....	.....	.....	.....	
19	.....	L_E	23 16 23	18	.....	.....	.....	Very heavy microseisms; N.-S. component does not show.
		F_E	23 23 ..	.....	.....	.....	.....	
22	.....	eL_E	4 16 ..	.....	.....	.....	.....	N.-S. component barely shows.
		L_E	4 18 ..	23	.....	.....	.....	
		L_E	4 27 ..	20	.....	.....	.....	
		F	4 30 ..	.....	.....	.....	.....	
22	.....	L_N	21 38 20	.....	.....	.....	.....	Heavy microseisms; E.-W. comp. does not show.
		F	22 10(*ca*)	.....	.....	.....	.....	
26	.....	e_E	9 37 27	.....	.....	.....	.....	Heavy microseisms
		e_N	9 37 27	.....	.....	.....	.....	
		eL_E	9 42 00	13	.....	.....	.....	
		eL_N	9 41 36	13	.....	.....	.....	
		L_E	9 51 25	15	.....	.....	.....	
		L_N	9 51 ..	15	.....	.....	.....	
		F	10 15 ..	.....	.....	.....	.....	
31	.....	iP_E	13 24 36	.....	.....	.....	.....	Time evaluation very difficult because of severity of quake.
		iP_N	13 24 36	.....	.....	.....	.....	
		iS_E	13 30 28	.....	.....	.....	.....	
		iS_N	13 30 28	.....	.....	.....	.....	
		eL_E	13 36 00	11	.....	.....	.....	
		eL_N	13 36 00	11	.....	.....	.....	
		M_{E1}	13 38 18	.....	.....	*24,500	.....	
		M_{N1}	13 38 35	.....	*24,300	.....	.....	
		M_{E2}	13 43 02	.....	.....	*19,000	.....	
		M_{N2}	13 39 42	.....	*18,700	.....	.....	
		M_{E3}	13 44 10	.....	.....	*20,500	.....	
		M_{N3}	13 41 42	.....	*15,600	.....	.....	
		M_{N4}	13 43 16	.....	*15,500	.....	.....	
		F	17 (*ca*)	.....	.....	.....	.....	
			VERTICAL.					
		iP_Z	*13 24 35*	.....	.....	.....	.....	
		eS_Z	*13 30 36*	.....	.....	.....	.....	
		eL_Z	*13 34 24*	14	.....	.....	.....	
		M_Z	*13 40 39*	.....	.....	.....	.....	

* Trace amplitude.

TABLE 2—*Instrumental seismological reports, January, 1922*—Continued.

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

1922.		*H. m. s.*	*Sec.*	μ	μ	*Km.*	
Jan. 1	eL	20 39 ..	22				
	L	20 50 ..	16				
	F	21 05 *ca.*					
6	P	14 20 35				6,200	
	S	14 28 24					
	eL	14 37 45	30				
	L	14 44 30	18				
	F	15 20 ..					
9	P	5 15 50				3,400	
	S	5 21 00					
	L	5 24 27	20				
	F	6					
17	P	3 57 39				4,000	
	S	4 03 26					
	L	4 07 48					
	M_E	3 40 ..		*45,000			
	F	5 40 *ca.*					
20	e	4 45 00					
	F	4 51 ..					
22	eL	4 17 30	24				
	L	4 27 ..	16				
	F	4 40 *ca.*					
22	eL	21 38 ..					
	F	21 47 ..					
26	e	9 38 15					
	L	9 50 45	16				
	F	10 20 ..					Micros.
31	iP	13 24 35				4,000	
	iS	13 30 23					
	L	13 34 45					
	M_E	13 44 ..		*45,000			
	F	16 20 *ca.*					

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

1922.		*H. m. s.*	*Sec.*	μ	μ	*Km.*	
Jan. 1	P	20 11 07				6,500	
	PR1	20 13 24					
	S	20 19 05					
	eL	20 31 30					
	L	20 38 ..	22				
	L	20 42 ..	18				
	F	21 40 *ca.*					
6	P	14 21 08				6,500	L lost in changing sheets.
	S	14 29 12					
	F	16 40 *ca*					
6	eL	19 52 30					
	L	19 57 ..	16				
	F	20 30 *ca.*					
8	eL	2 32 30	18				
	F	3 *ca.* ..					
9	P	5 17 00				4,200	
	S	5 23 00					
	L	5 27 44	30				
	L	5 41 ..	15				
	F	7 20 *ca.*					
17	P	3 58 22					S and L indistinguishable owing to faintness of record.
	F	7 50 *ca.*					
19	L	23 00 10					
	L	23 03 20	22				
20	F	0 30 ..					Lost in micros.
20	eL	4 42 ..	16				
	F	5 *ca.* ..					
22	S?	3 56 15					
	L	4 11 ..	22				
	L	4 18 ..	16				
	F	6 20 *ca.*					Do.
22	e	21 11 30					
	L	21 32 00	25				
	L	21 40 ..	16				
	F	23 *ca.* ..					
26	e	9 30 10					
	S?	9 34 30					
	L	9 45 45					
	F	10 30 *ca.*					Do.
31	P	13 23 15				3100	L lost through faintness of record.
	S	13 28 07					
	F	17 30 *ca.*					

*Trace amplitude.

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

1922.		*H. m. s.*	*Sec.*	μ	μ	*Km.*	
Jan. 6	eP_N	14 20 56			2		
	S_E	14 28 39					
	S_N	14 28 19					
	L_E	14 36 34	34				
	L_N	14 38 36	15				
	M_E	14 45 19	18	20			
	M_N	14 46 41	18		10		
	F_E	15 06 ..					
	F_N	15 15 ..					
9	P_E	5 15 45	3				
	P_N	5 15 52	3				
	S_E	5 20 48	13				
	L_E	5 23 46					
	L_N	5 22 19	28				
	M_E	5 24 38	18	10			
	M_N	5 23 14	20		20		
	C_E	5 32 ..					
	C_N	5 24 ..					
	F_E	5 47 ..					
	F_N	5 56 ..					
17	ePE	3 57 55					
	iP_N	3 57 43	3				Recorded on magnetograph (U) from 4:03 to 4:21. Actual maximum at 4:03:46 on E (960) and 4:03:44 on N (340).
	L	4 03 31	12				
	L_E	4 06 43	20				
	M_E	4 07 07	20	380			
	M_N	4 07 07	15		150		
	C_E	4 07 38					
	C_N	4 07 56					
	F_E	4 44 ..					
	F_N	4 42 ..					
22	e_E	4 17 16	17				
	e_N	4 17 59					
	e_N	4 20 28	9				
	L_N	4 23 45	20		10		
	M_E	4 20 52	15	20			
	C_E	4 25 ..	16				
	F_E	4 41 ..					
	F_N	4 30 ..					
26	e_N	9 41 39					Preliminary phases hidden by microseisms.
	eL	9 51 02	20				
	M_E	9 54 20	13	30			
	M_N	9 51 58	14		20		
	C_E	9 54 38					
	C_N	9 54 43	9				
	F_E	10 03 ..					
	F_N	10 00 ..					
31	iP_E	13 24 32	6				*N stylus off sheet from 13:38:30 to 13:39:00.
	eP_N	13 24 37	2				
	iS	13 30 20	10				
	L_E	13 36 41	32				
	L_N	13 34 41	35				
	L_N	13 35 50	35				
	M_E	13 41 14	14	1,600			
	M_N	*	14		4,100+		
	C_E	13 44 ..	14				
	C_N	13 44 ..	15				
	F_E	15 25 ..	10				
	F_N	15 12 ..	11				

MISSOURI. *St. Louis University, St. Louis.*

1922.		*H. m. s.*	*Sec.*	μ	μ	*Km.*	
Jan. 9	iP	5 17 18				3,500?	
	S	5 23 30?					
	L	5 26 12					
	M	5 27 42	30		*18,000		
	F	5 45 ..					
17	iP	3 58 03				2,100	
	S	4 00 00					
	L	4 01 18					
	M_E	4 04 06	6	*52,000			
	M_N	4 04 12	6		*37,000		
	F	4 46 ..					
31	iP	13 23 12				3,000	
	S	13 27 54					
	L	13 29 42					
	M_E	13 35 30	12	*56,000			
	M_N	13 35 30	12		*68,000		Continuing for 3 min.
	F	15 22 ..					

*Trace amplitude.

TABLE 2.—*Instrumental seismological reports. January, 1922*—Continued.

NEW YORK. *Cornell University, Ithaca.*

1922.		*H. m. s.*	*Sec.*	μ	μ	*Km.*	
Jan. 1	eL	20 39 30					
	L	20 41 ..	20				
	L	20 46 ..	18				
	F	21 08 ..					
5	eL	9 29 ..	12				Obscured by micros.
	F	9 35 ..					
6	eP_N	14 21 04	4				S about 14:29:18, obscured by local disturbance.
	L	14 38 18	40				
	L	14 45 ..	20				
	L	14 56 ..	16				
	F	15 13 ..					
9	P	5 15 58	3				
	PR1	5 15 55	4				
	S	5 21 19	5				
	L_N	5 22 50	35				
	L_E	5 23 20	24				
	F	6 18 ..					
17	P	3 58 10	2				
	S	4 04 13					
	M_E	4 04 25	5	*8,500			
	i_E	4 07 00	6	*6,500			
	L_N	4 08 ..	32				
	F	5 18 ..					
20	eL	4 45 ..	10				May not be seismic.
	F	4 55 ..					
22	L	4 18 30	22				
	F	4 38 ..					
26	L	9 50 47	21				
	F	10 05 ..					
31	P_E	13 24 31	5				
	S_N	13 30 13	9				
	eL	13 33 30	60				
	F	16 18 ..					

*Trace amplitude.

NEW YORK. *Fordham University, New York.*

1922.		*H. m. s.*	*Sec.*	μ	μ	*Km.*	
Jan. 6	e_E	14 28 04					
	L_E	14 50 ..					
9	$eP?_E$	5 15 37					
	M_E	5 22 *ca*					
21	L	16 24 ..					Long waves of small amplitude.
31	P_N	13 24 56				4,300	Clock marks obscured.
	P_E	13 24 50					
	S_N	13 30 47					
	S_E	13 30 44					
	L_N	13 37 *ca*					
	L_E	13 37 *ca*					
	M	13 41 *ca*		*23,360			

*Trace amplitude.

CANAL ZONE. *Panama Canal, Balboa Heights.*

1922.		*H. m. s.*	*Sec.*	μ	μ	*Km.*	
Jan. 1	P_E	11 55 52				320*ca.*	Probably SW.
	S_E	11 56 58					
	S_N	11 56 26					
	L_E	11 56 58					
	L_N	11 56 54					
	M_E	11 57 00		*400			
	M_N	11 57 00			*800		
	F_E	12 00 00					
	F_N	12 00 30					
2	P	6 24 02				70*ca.*	Probably SW.
	S	6 24 10					
	M_E	6 24 12		*4000			
	M_N	6 24 16			*13000		
	F_E	6 25 20					
	F_N	6 25 15					
6	P_N	14 16 46				3100*ca.*	Probably NW. Time of phases on EW not clearly marked.
	S_N	14 21 36					
	L_N	14 25 12					
	M_N	14 28 00		*600	*1200		
	F_N	15 17 20					
8	P_E	13 45 12				265*ca.*	Probably SW. NS pen off sheet, no record.
	S_E	13 45 41					
	L_E	13 45 56					
	M_E	13 45 54		*2000			
	F_E	13 48 15					
9							Very slight tremors between 5:17 and 5:35, and 22:09:25 and 22:14:0. Probably local shock; direction and distance unknown.
10							Very slight tremor between 23:04 and 23:06, probably local, distance and direction unknown.
17	P_E	3 53 42				720*ca.*	Probably SW.
	P_N	3 53 44					
	S_E	3 54 52					
	S_N	3 54 56					
	L_E	3 56 06					
	L_N	3 56 08					
	M_E	3 56 38		*73000			Damper thrown off on NS.
	F_E	4 31 00					
31							Slight tremor from distant disturbance between 13:30 and 14:30; newspaper reports quake off coast of Oregon.

*Trace amplitude.

TABLE 2.—*Instrumental seismological reports, January, 1922*—Continued.

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

1922.			*H. m. s.*	*Sec.*	μ	μ	*Km.*	
Jan. 3		eP_E	1 12 42	4				Local shock. Recorded by magnetograph, 1:11 to 1:12:30.
		L_E	1 13 04	14				
		L_N	1 12 48	10				
		M_E	1 13 20	12	80			
		M_N	1 13 18	9		30		
		F_E	1 27 ..					
		F_N	1 19 ..					
6		eL_E	14 35 13					
		eL_N	14 34 42	16				
		M_E	14 37 46	15	50			
		M_N	14 37 50	16		50		
		e_E	14 42 10	18				
		F_E	14 56 ..					
		F_N	14 49 ..					
9		iP	5 14 10	4				L not clear. Recorded by magnetograph, 5:15 to 5:18.
		S_N	5 17 51					
		eL_E	5 18 38					
		L_N	5 19 13					
		M_E	5 18 45	14	220			
		M_N	5 19 33	6		140		
		C	5 23 ..	6				
		F_E	6 23 ..					
		F_N	5 55 ..					
17		P	3 55 08	3				Recorded by magnetograph: P, 3:55; L, 3:58; F, 4:11.
		L	3 57 45	19				
		e_E	3 58 39	15				
		M_E	3 58 52	16	1,280			
		M_N	3 59 00	18		670		
		C	4 05 ..	15				
		F_E	4 37 ..					
		F_N	4 32 ..					
31		P	13 27 13	7				
		S_E	13 35 03					
		S_N	13 35 16					
		L_E	13 46 29	20				
		L_N	13 44 55	40				
		M_E	13 47 51	18	60			
		M_N	13 51 20	21		200		
		C_E	13 50 33	13				
		C_N	13 53 23					
		F_E	14 26 ..					
		F_N	14 23 ..					

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

1922.			*H. m. s.*	*Sec.*	μ	μ	*Km.*	
Jan. 1		eL	20 45 ..	18				
		F	21 *ca* ..					
6		eL	14 46 ..					
		F	14 58 ..					
9		e	5 16 15					
		L	5 23 40	20				
		F	5 40 ..					
17		P	3 58 22				4,400	L indistinguishable.
		S	4 04 32					
		F	5 *ca*...					
26		e	9 44 ..					
		L	9 52 ..	16				
		F	10 15 ..					
31		P	13 24 47				4,300	
		S	13 30 50					
		L	13 35 50	24				
		M_E	13 43 ..		*35,000			
		F	16 10 ..					

* Trace amplitude.

CANADA. *Dominion Observatory, Ottawa.*

1922.			*H. m. s.*	*Sec.*	μ	μ	*Km.*	
Jan. 6		P						Lost in micros.
		S_E	14 29 41					
		eL_E	14 36 ..					
		L_E	14 39 ..	40				
		L_E	14 44 ..	20				
		L_E	14 52 ..	15				
		F	15 45 ..					
9		O	5 09 32				3,440	
		P	5 16 08					
		S_E	5 21 21					
		eL_E	5 23 30					
		L_E	5 26 ..	19				
		L_E	5 29 ..	15				
		L_E	5 40 ..	11				
		F	6 40 ..					
17		O	3 50 17				4,780	
		P_N	3 58 30					EW component not working.
		$PR2_N$?	4 00 32					
		S_N	4 05 00					
		eL_N	(4 11 40)					
		F	5 00 *ca.*					
		SASKATOON RECORD.						
		O	3 50 22				6,160	
		iP	4 00 02					Sharp, well-defined record, yielding very good value for distance.
		$PR1_N$	4 02 30					
		iS	4 07 47					
		L?	4 16 30					
		F	4 50 ..					
19		eL_E	23 03 ..	27				
		L_E	23 17 30	15				
		F	23 32 *ca.*					
22		eS_E?	3 52 22					
		$eSR1_E$?	3 58 30					
		eL_E	4 15 ..	26				
		L	4 21 ..	19				
		L	4 26 ..	17				
		L_E	4 33 ..	15				
		L_E	4 37 ..	17				
		L_E	4 44 ..	15				
		L_E	4 52 ..	15				
		F	5 10					
22		e_E	21 12 56					
		e_E	21 19 15					
		L_E	21 36 ..	26				
		L_E	21 42 30	19				
		L_E	21 48 ..	15				Sinusoidal L waves of small amplitude well defined. Preliminary phases only faintly shown.
		L_E	21 59 ..	15				
		L_E	22 05 ..	19				
		L_E	22 09 ..	19				
		L_E	22 14 ..	15				
		F	22 30 ..					
26		e	9 38 30					
		eS_E?..	9 41 22					
		eL	9 49 30					
		L	9 51 ..	15				
		L_E	9 53 30					
		F	10 17 ..					
31		O	13 17 19				3,900	
		iP	13 24 30					
		iS	13 30 11					
		eL	13 34 ..					
		M_N	13 37 54					
		M_E	13 40 07					
		F	17 05 ..					
		SASKATOON RECORD.						
		O	13 17 06				2,000	
		iP	13 21 18					
		iS_E	13 24 40					
		M	13 28 26					
		F	14 58 ..					
		HALIFAX RECORD.						
		O	13 17 19				4,900	
		P_E	13 25 43					
		S_E	13 32 22					
		$SR1_E$	13 35 47					
		eL	13 38 47					
		M_N	13 41 07					
		F	15 *ca.*..					

TABLE 2.—*Instrumental seismological reports, January, 1922*—Continued.

CANADA. *Dominion Meteorolgical Service, Toronto.*

				H. m. s.	Sec.	μ	μ	Km.	
Jan.	1		e?	20 16 30?					
			e	20 20 24?					Early phases masked by micros.
			eL	20 43 06					
			M	20 51 42			*1,300		
			F	Micros.					
			L	9 27 24			*50		Thickening.
	1		F	9 31 36					
	6		P	Micros.					
			S	14 30 30					
			eL	14 38 06					
			eL	14 42 12					
			eL	14 45 54			*1,300		
			M	14 48 54					
			eL	14 55 18					
			eL	15 30 12					
			F	Micros.					
	9		iP	5 16 24					
			iS	5 21 30					All phases well defined.
			eL	5 26 12					
			iL	5 29 12					
			M	5 31 12			*2,000	3,330	
			eL	5 35 30					
			eL	5 57 12					
			F	6 43 30					
	17		?PR	4 00 00					May be a dual earthquake.
			i	4 04 06					
			M	4 04 36			*13,000		Characteristics very abnormal. S waves should come in when Max. movement took place.
			iL	4 10 12?					
			eL	4 14 24					
			eL	4 44 12					
			eL	5 00 00					
			eL	5 44 12					
			F	6 10 42					
	19		L	23 03 30					
			eL	23 12 18					
			M	23 24 00			*300		
	19		eL	0 06 12					A dual eq.
			M	0 12 30			*500		
			F	Micros.					
	22		eL	4 15 24					P & S masked by micros.
			eL	4 19 12					
			M	4 27 54			*1,300		
			F	5 14 18					
	22		E or L.	21 18 48					Micros masked preliminary phases.
			eL	21 38 48					
			M	21 47 54			*1,300		
			F	Small micros.					
	26		S?	9 41 18					
			eL	9 50 12					
			iL	9 52 48					
			M	9 53 12			*300		
			F	10 20 48					
	31		iP	13 24 30					
			e	13 29 42					
			iS	13 30 12					
			iL?	13 35 30					Well defined seismogram.
			iL?	13 37 30					
			M	13 39 54			*16,000	3,910	
			eL	14 15 42					
			eL	15 15 30					
			eL	15 24 48					
			eL?	15 52 48?					
			F	Micros.					

*Trace amplitude.

CANADA. *Dominion Meteorological Service, Victoria.*

				H. m. s.	Sec.	μ	μ	Km.	
Jan.	1		P	20 02 19					
			L	20 15 35					
			M	20 27 53			*1,500		
			F	21 52 57					
	5		L	9 09 12					
			M	9 11 11			*400		
			F	9 21 36					
	6		P	14 24 02					
			S	14 33 23?					
			L	14 43 42					
			M	14 56 59			*4,000		
			F	17 05 51					
	6		L	20 02 28					
			M	20 06 58			*300		
			F	20 12 28					
	6		M	20 24 28			*250		
			F	20 28 58					
	9		iS	5 27 54					Initial S movement sharply to the West, and S. & L. waves beautifully defined.
			L	5 38 22					
			M	5 45 18			*2,250		
			F	7 53 02					
	17		iP?	4 00 39					
			eS?	4 02 08					
			L?	4 07 05					P may be PR.
			i	4 08 57					Abnormal seismogram.
			M	4 09 35			*4,500	?660	
			eL	5 02 21					
			eL	5 50 00					
			F	6 53 12					
	19		P	22 24 50					
			L	22 43 31					
			M	22 55 49			*500		
			F	0 39 35					
	20		L	4 41 26					
			M	4 44 24			*400		
			F	4 56 16					
	22		P	3 46 07					
			S	3 50 03?					
			L	3 57 55					
			M	4 06 56			*1,500	2,390?	
			F	5 15 08					
	22		P	21 07 38					
			L	21 21 04					
			M	21 26 44			*700		
			F	22 26 14					
	26		P	9 20 45					Probably off the north coast of California.
			L	9 22 33					
			M	9 23 05			*500	800	
			F	9 31 04					
	26		P	9 32 33					Probably north of former quake.
			L	9 34 01					
			M	9 34 41			*2,500	660	
			F	9 51 23					
	31[1]								
			VERTICAL SEISMOGRAM.						
	6		P	14 23 30	2.5				
			M	14 58 00	20		6		
	17		P	4 00 40	2.5				
			S	4 02 45	4				
			L	4 08 50	5				
			M	4 09 05	5		30	925	
	26		P	9 21 00	2				
			L.&M.	9 23 00	12		2	840	Probably off north coast of California.
	26		P	9 32 30	2				
			L.&M.	9 34 30	15		6	840	Do.
	31		P	13 18 00	3				
			L	13 20 00	7				
			M	12 22 55	7		119	880	Off north coast of California.

* Trace amplitude. [1] Record lost; clock stopped.

No earthquakes were recorded at the following stations during January, 1922:

CALIFORNIA. *Theosophical University*, Point Loma.

No reports for January, 1922, have been received from the following stations:

ALABAMA. *Spring Hill College*, Mobile.
HAWAII. *U. S. C. & G. S. Magnetic Observatory*, Honolulu.
MASSACHUSETTS. *Harvard University*, Cambridge.

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

CALIFORNIA. *Theosophical University, Point Loma.*

1921.			H. m. s.	Sec.	μ	μ	Km.	
Sept. 3					50	50		Tremors.
6					100	100		Do.
8			19 54 00		600	550		Light shock.
10					200	200		Tremors.
11					250	250		
13					200	200		
14					50	100		
17					100	100		
Oct. —								No records kept.
Nov. —								Do.
Dec. —								Do.

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

1921			H. m. s.	Sec.	μ	μ	Km.	
Oct. 5		e_N	1 57 45	20				Very slight.
		F_N	2 01 25					
10		iP	2 25 45	11	*2,500	*3,000		Maximum amplitude occurs at iP; no definite M during L.
		S_N	2 33 02					
		SRl$_N$	2 37 07					
		L	2 41 30	19				
		C	2 48 ..					
		F_E	2 55 ..					
		F_N	2 53 ..					
15		e	5 07 11					e may not be seismic; S may be an L phase.
		P	5 14 11	16				
		S_E	5 18 25	18				
		S_N	5 18 50	18				
		L_E	5 21 05	26				
		L_N	5 20 50	25				
		M_E	5 26 35	20	*5,200			
		M_N	5 25 10	20		*5,000		
		C_E	5 37 ..	16				
		C_N	5 36 ..	15				
		F_E	6 05 ..					
		F_N	6 03 ..					
18		e	0 53 ..	20				Very slight.
		F_E	0 58 ..					
		F_N	0 56 ..					
Nov. 2		e_E	8 37 ..	20				Almost hidden by micros.
		e_N	8 33 ..					
		F_E	9 08 ..					
		F_N	9 23 ..					
6		e	17 13 50					Very faint record: beginning lost in changing paper, from 17h 06m 50s to 17h 13m 50s.
		F	17 42 ..					

* Trace amplitude.

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

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

1921			H. m. s.	Sec.	μ	μ	Km.	
Nov. 7		P_E	16 11 32	7				
		S_E	16 20 43	9				
		S_N	16 20 48					
		L_E	16 34 16	24				
		M_E	16 34 30		*3,000			
		C_E	16 48 34	20				
11		e	14 45 44	12				Phases indistinct.
		e_N	14 48 02					
		L	14 48 51	23?				
		M_E	14 49 00		*2,000			
		M_N	14 49 45			*2,100		
		C_E	14 51 ..					
		C_N	14 53 ..					
		F_E	14 58 ..					
		F_N	15 07 ..					
11		P_E	18 47 55					Actual maximum amplitude occurs during S: 9.0 mm. at 18h 58m 20s on E and 7.0 mm. at 18h 57m 30s on N.
		P_N	18 47 37					
		S	18 57 22	20				
		L_E	19 10 08	33				
		M_E	19 22 ..	22	*8,000			
		M_N	19 19 20	20		*3,200		
		C_E	19 45 ..	15				
		C_N	19 55 ..	15				
		F_E	20 27 ..					
		F_N	20 46 ..					
13		e_E	14 07 55					Very slight.
		L_N	14 12 05	22		*500		
		F_E	14 18 ..					
		F_N	14 21 ..					
14		P_E	7 08 12					
		P_N	7 08 00					
		S	7 11 50					
		L_E	7 13 58	20				
		L_N	7 14 11	22				
		M_E	7 16 30	20	*1,500			
		M_N	7 16 55	15		*2,000		
		C_E	7 21 ..					
		C_N	7 19 ..					
		F_E	7 32 ..					
		F_N	7 35 ..					
15		P_N	20 54 47	8				Actual maximum occurs during S, 3.0 mm. at 21h 12m. E record hidden by overlapping traces.
		S_N	21 04 51	14				
		L_N	21 21 05	35				
		M_N	21 22 ..	30		*1,200		
		F_N	22 11 ..	15				
29		e_E	21 03 52					
		e_N	21 05 25					
		M_E	21 05 45	14	*1,500			
		M_N	21 13 35	15		*1,500		
		F_E	21 14 ..					
		F_N	21 20 ..					

NEW YORK. *Cornell University, Ithaca.*

1921.			H. m. s.	Sec.	μ	μ	Km.	
Nov. 2		L	8 31 30	20				
		F	8 35 ..					
11		eP_E	18 56 48	4				
		e_E	19 08 ..	6				
		e_N	19 13 ..	6				
		eL_E	19 30 ..	20				
		L	19 45 ..	24				
		e	19 56 18	5				
		F	20 47 ..					
15		eP	20 49 30	4				
		PRl	20 53 34	5				
		e_N	20 55 30	4				
		iS	20 59 53	6				
		eL	21 24 ..	20				
		F	21 47 ..					
Dec. 18		P	15 37 20	4				
		S_E	15 43 18					
		M_E	15 43 33	7	*4,400			
		M_N	15 46 13	7	*3,700			
		F	16 13 ..					

* Trace amplitude.