

OTTAWA

No.

Earthquake Station, Dominion Astronomical Observatory

LATITUDE 45° 23' 38", LONGITUDE 75° 42' 57" or 5^h 02^m 51^s.8 W. Greenwich, ALTITUDE 83m.



TIME: Mean Greenwich, midnight to midnight.

INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From January 1st., 1919. *to* January 8th., 1919. No. 1.

No.	DATE	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE	REMARKS
					A _E	A _N	A _Z		
			h. m. s.	s.	μ	μ	μ	km.	
958	Jan 1	i _N	1-54-27	9					The source lay nearer to Ottawa than to Halifax and was probably at least 15000 Km away from the former.
		e _N	2-03-44	12					
		eL?	2-26	60					
		L	2-36	30					
		L	2-40	26					
		F	Lost in next earthquake.						
959	" 1	O?	3-12-55					3200?	Record very confusing especially due to the fact that the 1 records on the NS were not recorded on the NW and the regular phases appearing on the latter were not visible on the former. The same phenomenon was present on the Halifax record.
		eP _E ?	3-19-10						
		eS _L ?	3-24-08						
		i _N	3-26-37						
		eL _E ?	3-28-5						
		i _N	3-29-24						
		i _N	3-34-38						
		i _N	3-38-40						
		L	3-40	30					
		L	3-50	30					
		L	4-05	18					
		L _N	4-10	44					
		L	4-20	14					
L	4-35	14							
L _N	4-45	40							
L _N	5-15	35							
F	6-hr								
960	" 5	i	20-13-07	8					
		eL	20-35	19					
		F	20-50						
961	" 6	eL	23-26 to					Heavy micros.	
			23-40	19					
" 7	" 7	L	23-50	17					
		L	0-05	15					
962	" 8	F	0-20						
		e	1-58.3						Heavy micros.
		eL	2-01	19					
		F	2-20						

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International
Seismological
Centre

TIME: Mean Greenwich, midnight to midnight.

INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From January 8th., 1919. *to* January 31st., 1919. No.2.

No.	DATE	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE	REMARKS
					A_E	A_N	A_Z		
			h. m. s.	s.	μ	μ	μ	km.	
963	Jan.17	O?	11-49-44					3840?	Short choppy irregular L waves, the beginning of which cannot be accurately determined.
		i.P?	11-56-50						
		e?N	12-02-05						
		eS?	12-02-28						
		eL	??	10					
		L	12-16	8					
		L	12-23	7					
		L _N	12-34						
		F	13 hr.						
964	" 18	eL	7-12 to 7-30						Very small amplitudes, - barely discernible. Heavy micros.
965	" 27	e	22-03.5						irregular. Heavy micros.
		eL	22-09						
		L	22-11 to 22-25						
		F	22-40						

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TIME: Mean Greenwich, midnight to midnight.

INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From February 1st., 1919. to February 28th., 1919. No. 3.

No.	DATE	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE	REMARKS
					A_E	A_N	A_Z		
			h. m. s.	s.	μ	μ	μ	km.	
966	Feb. 1	e	0-00-40						Heavy micros.
		I	0-01.5	14					
		F	0-15	8					
967	" 2	F	0-20						
		e	20-17.2						
		c	20-20	12					
		eL	20-24	20					
		L	20-36	12					
968	" 15	F	20-45						
		e?	2-37						
		e ^N	2-34.6						
		eL	2-38 to						
		L	2-43	20					
969	" 16	F	2-45	12					
		F	2-53						
		eE	16-16-16						
970	" 22	i	16-16-39	7					
		F	16-21						
970	" 22	e	5-00						
		eL?	5-06	20					
		L	5-11	18					

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TIME: Mean Greenwich, midnight to midnight.

INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From March 1st., 1919. to March 9th., 1919. No. 4.

No.	DATE	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE	REMARKS
					A _E	A _N	A _Z		
			h. m. s.	s.	μ	μ	μ	km.	
971	Mar. 2	O	3-27-11					9260	
		iPN	3-39-36						
		eSN	3-49-59						
		eSE	3-50-14						
		cL	4-10	40					
		L	4-15	25					
		L	4-25	17					
		L	4-30	19					
		L	4-40	17					
F	5-hr. ca.	lost in micros.							
972	" 2	O	11-45-21					9520	
		ePN	11-58-00						
		S	12-08-36						
		SR ₁	12-24.7						
		L	12-27						
		L	12-30	30					
		L	12-40	20					
		L	12-50	17					
		L	13-00	14					
		L	13-15	13					
L _N	13-40	16							
F	14-00	lost in macros.							
973	" 9	O	3-17-10					9380	
		PN	3-27-42						
		PR ₁ N	3-33.2						
		SN	3-40-11						
		SE	3-40-25						
		eLE	4-00	24					
		L	4-12	20					
		L	4-20	18					
		L	4-27	15					
		L	4-35	16					
F	5-hrs. ca.	lost in micros.							

The above three earthquakes bear a remarkable resemblance to one another in general appearance in all phases. The readings are given as read but the exact second for S is difficult to determine and the difference in Δ is probably due to this.

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INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From March 9th., 1919. *to* March 31st., 1919. No. 5.

No.	DATE	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE	REMARKS
					A_E	A_N	A_Z		
			h. m. s.	s.	μ	μ	μ	km.	
974	Mar. 16	e? eL _E F	8-10.3 8-30 to 8-55 9-00	30 20					Heavy Micros.
975	" 17	eL	8-30 to 8-37	20					
976	" 21	eL	17-02 to 17-25	18					Heavy wind tremors and micros. L waves small amplitude.
977	" 22	eL	17-24 to 17-30	18					Barely discernible.
978	" 25	i e	3-51-24 3-52 to 4-00	irreg.					May not be seismic.
979	" 26	eL	10-48 to 10-59	28					Very small barely discernible.

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TIME : Mean Greenwich, midnight to midnight.

INSTRUMENTS : Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From April 1st., 1919.

to April 18th., 1919. No. 6.

No.	DATE	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE	REMARKS
					A_E	A_N	A_z		
			h. m. s.	s.	μ	μ	μ	km.	
980	Apr. 2	e? eL	0-57-22 1-46 to 2-05	irregular. 26					o. may be local. eL are regular sinusoidal waves of small amplitude.
981	" 16	eL	4-00 to 4-20	15					Very small amplitude. Barely discernible.
982	" 17	O P? SE? L L L L L F	11-28-35 11-41-25 11-52-12 12-11.9 12-20 12-35 13-05 13-30 14 hr. ca	48 36 16 16 22				9760	
983	" 17	O iP eS eL? M L L F	20-53-02 20-59-49 21-05-12 21-08.5 21-15 21-36 21-55 22-30	17 15 14				3590	
984	" 18	O P PR S eL L L L L F	21-01-02 21-08-16 21-09.5 21-14-00 21-20.3 21-22 21-35 21-43 22-06 22-30	8 8 8 8				3940	

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INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From April 18th., 1919.

to April 23rd., 1919. No: 7.

No.	DATE	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE	REMARKS
					A_E	A_N	A_z		
			h. m. s.	s.	μ	μ	μ	km.	
985	Apr. 19	P iS eL L F	lost in microseisms. 3-09-38 ? 3-19.5 to 3-33 3-50	8					
986	" 21	eL	15-55 to 16-10	17					
987	" 22	eL F	3-11 to 3-25 merges into the next quake.	13					
988	" 22	e eL F	lost in coda of preceeding quake. 3-38 to 4-05 4-30	18					Amplitudes are very small.
989	" 23	e e eLN L L LE LE F	7-35 7-44 7-53 8-02 8-19 8-26 8-32 8-45	8 36 ? ? 16 14					

This bulletin is complete up to April 23rd; the next bulletin will be issued about July 1st. and will cover the time, - April 23- July 1.

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TIME: Mean Greenwich, midnight to midnight.

INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From April 23rd., 1919. *to* April 30th., 1919. No. 8.

No.	DATE	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE	REMARKS
					A_E	A_N	A_z		
			h. m. s.	s.	μ	μ	μ	km.	
990	Apr. 27	e ^{?N}	0-52-07		Amplitudes very small. Preliminary waves very irregular.				
		eL [?]	1-26	28					
		L	1-32	24					
		L	1-45	15					
		F	2 hr. ca.						
991	" 28	e ^N	6-53-52						
		e ^E	6-58-08						
		eL ^E	7-02	20					
		L	7-12	12					
		L	7-30	12					
		L	7-40	12					
		F	8 hr.						
992	" 30	O	7-16.5					12600 ca.	All phases difficult to read with precision, but all are readily determined as to character.
		eP	7-31.5						
		ePR ₁	7-36.3						
		eS [?]	7-44.2						
		eL	8-01	55					
		L	8-20	25					
		L	8-35	18					
		L	8-50	15					
		L	9-10	14					
		LR ₁	9-20	18					
		L	9-35	20					
		L	10-00	16					
		L	10-20	18					
		L	10-35	16					
		L	11-05	16					
L	11-30	16							
L	12-00	16							
F	12-30								

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INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From **May 1st., 1919.** to **May 3rd., 1919.** No. **9.**

No.	DATE	PHASE	TIME			PERIOD	AMPLITUDE			DISTANCE
							A_E	A_N	A_Z	
							μ	μ	μ	
			h.	m.	s.	s.				km.
993	May 1.	eLN	5	59		25				
		L	6	10		20				
		L	6	22		15				
		F	6	40						
994	" 2.	e	2	32						
		e	2	34						
		eL?E	2	41.8						
		L _N	2	52		25				
		L _N	2	57		21				
		L	3	05		21				
		L	3	12		17				
		L	3	24		16				
		L	3	40		16				
		L	3	57		16				
		L	4	20		15				
		F	4	40						
995	" 3. ² ///	e	6-15.4 to 6-22			7	May not be seismic.			
996	" 3.	O	0-52-10							9460
		iP	1-04-46							
		iS	1-15-20							
		L?E	1-30.5							
		L	1-34			34				
		L	1-45			20				
		L	2-00			18				
		L	2-10			16				
		L	2-25			13				
		L	2-40			11				
		L	3-00			11				
		L	3-19			12				
		L	3-40			9				
		L	4-08			10				
		F	4-15							

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INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From May 3rd., 1919.

to May 8th., 1919.

No. 10.

No.	DATE	PHASE	TIME			PERIOD	AMPLITUDE			DISTANCE
							A_E	A_N	A_Z	
			h.	m.	s.		s.	μ	μ	
997	May 6.	O	19	48	19				9700	
		eP	20	01	06					
		S	20	11	51					
		L	20	31		50				
		L	20	45		22				
		L	20	55		18				
		L	21	05		17				
		L	21	15		17				
		L	21	30		15				
		L	21	44		18				
		L	22	05		18				
		L	22	30		15				
		L	22	50		12				
		F	23	05						
998	" 7.	O	5	21	58				9020	
		eP	5	34	12					
		eS?	5	44	24					
		eSR ₁ ?	5	51	00					
		eL	6	04		40				
		L	6	22		18				
		L	6	30		17				
		L	6	50		15				
F	7	15								
999	" 8.	eLE	11	05	to				NS lost in micros.	
			11	15		18				
1000	" 8	L	21	20	to				Rather irregular. May not be seismic.	
			21	32						

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TIME: Mean Greenwich, midnight to midnight.

INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From **May 8th.**, 1919. to **May 31st.**, 1919. No. 11.

No.	DATE	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE
					A_E	A_N	A_z	
			h. m. s.	s.	μ	μ	μ	km.
1001	May. 20.	O	4-19-54					3980
		P _E	4-27-11					
		S	4-32-57					
		L _H	4-37.5					
		L	4-40	15				
		L	4-46	7				
		F	5-05					
1002	" 22.	O	11-52-48					6760
		P	12-03-02					
		S	12-11-19					
		eL	12-22					
		L	12-26	20				
		L	12-30	18				
		L	12-42	13				
		L	12-50	12				
F	Lost in changing the sheets at 13-15							
1003	" 23	i	3-16-03					Very irregular periods on NS. Amplitudes very small throughout.
		i	3-24-42					
		eL _E	3-32	22				
		L	3-45	22				
		F	4-05					
1004	" 29	eL	11-55 to 12-20				Very faint. Barely discernible.	

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TIME: Mean Greenwich, midnight to midnight.

INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From June 1st., 1919.

to June 30th., 1919.

No.12,

No.	DATE	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE
					A_E	A_N	A_Z	
			h. . m. . s.	s.	μ	μ	μ	km.
1005	June 29	i e F	0-57-54 1-07.3 to 1-20 1-40	7.5	Very small amplitudes. Small micros prevent the reading of P.			
1006	June 29	O P _H eP _H eS _N eL _N F	15-06-05 15-16-10 15-18-40 15-24-18 15-34.5 15-50	22	Italian quake. Reported in press.			6600
1007	June 29	O iP iS L L L L F	23-14-14 23-21-01 23-26-24 23-31.5 23-35 23-46 0-15 0-35	20 12 12	Very sharp offsets mark P and S. eL is difficult to determine. Amplitudes small.			3590
1008	June 30	eN? e oL F	7-48.5 7-51.3 8-15 to 9-00 9-05	20 15	Very small amplitudes. L waves regular and sinusoidal throughout.			

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TIME: Mean Greenwich, midnight to midnight.

INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From July 1st., 1919

to July 8th., 1919.

No. 13

No.	DATE	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE			
					A_E	A_N	A_Z				
			h. m. s.	s.	μ	μ	μ	km.			
1009	July 1	e	21-37-35		Amplitudes small. Note small periods of the L waves.						
		i	21-43-16								
		eL?N	21-52-40								
		L	21-54.2 to	8							
		L	22-22	7.5							
		F	22-40								
1010	" 2	e?N	7-54								
		e N	8-09.5								
		eL?	8-14	7							
		L	8-18	17							
		L	8-30	8							
		F	8-45								
1011	" 6	O	7-04-17					3460			
		P	7-10-54								
		S	7-16-08								
		eL _E	7-19.4	22							
		L	7-25	20							
		L	7-45	8							
1012	" 7	eL	14-50 to 15-00								
1013	" 8	O?	21-13.7		(8080)						
		iP?	21-25-04								
		e?	21-31.9								
		eS?	21-34.5	10					After 23 hrs. the amplitudes are so small as to be barely readable.		
		e	21-40.4								
		eL?N	21-55								
		eL N	21-58	35							
		L	22-10	18							
		L	22-21	16							
		L _N	22-41	17							
		L	23-03	15							
F	23-40										

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TIME: Mean Greenwich, midnight to midnight.

INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From July 8th., 1919. to July 17th., 1919. No. 14.

No.	DATE	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE
					A_E	A_N	A_Z	
			h. m. s.	s.	μ	μ	μ	km.
1014	July 9	i	19-28-16		End of record very faintly marked, irregular periods.			
		i	19-32-44					
		i _N	19-35-34					
		eL?	19-39.8					
		L	19-42	9				
		L	20-00	8				
		F	20-30					
1015	" 10	eL? _N	2-38.8		8			
		L	2-40.5					
		L _I	2-44	8				
		F	3-05					
1016	" 11	i _N	0-38-11		Very irregular. Wind tremors make record difficult to read.			
		i _N	0-39-33					
		i	0-44-20					
		eL?	0-50.5					
		L	0-58	15				
		F	1-20					
1017	" 12	e	22-38.5		18	Very small amplitudes. Barely discernible.		
		eL	22-43.5					
		F	22-55					
1018	" 14	eL?	14-16	28	No indication of P or S. Local blasting interferes on 14 during this record.			
		L	14-25	15				
		F	14-50					
1019	" 17	L	10-52 to 11-10	16				
1020	" 17	O	16-19-46		23			3840
		i _{P_N}	16-26-52					
		PR _{1_N}	16-28-04					
		PR _{2_N}	16-28-24					
		S	16-32-40					
		eL	16-38					
		L	16-40					
		F	17-00					

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TIME: Mean Greenwich, midnight to midnight.

INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From July 17th., 1919. to July 31st., 1919. No. 15.

No.	DATE	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE
					A_E	A_N	A_Z	
			h. m. s.	s.	μ	μ	μ	km.
1021	July 22	O	22-01-25					3500
		iP?	22-08-05					
		i	22-08-37					
		e	22-09-10					
		iS?	22-13-22					
		e	22-14-20					
		i	22-16-06					
		eL?	22-17.5 to 22-25		6			
F	22-40							
1022	" 24	eN	2-16-38					
		eN	2-20-24					
		eN	2-27-12					
		eL?E	2-45.5					
		LE	2-50					
		L	2-55	23				
		L	3-00	18				
1023	" 31	e	22-05.2		May not be seismic.			
		iN	22-06-17					
		e	22-09.4					
		eL?	22-12.0					
		F	22-25					
CORRECTION								
Earthquake No. 995 occurred on May 2nd., not May 3rd.								

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Earthquake Station, Dominion Astronomical Observatory



LATITUDE 45° 23' 38", LONGITUDE 75° 42' 57" or 5^h 02^m 51^s.8 W. Greenwich, ALTITUDE 83m.

TIME: Mean Greenwich, midnight to midnight.

INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From August 1st, 1919 to August 27th, 1919 No. 16

No.	DATE	PHASE	TIME			PERIOD	AMPLITUDE			DISTANCE
							A_E	A_N	A_Z	
			h.	m.	s.	s.	μ	μ	μ	km.
1024	Aug. 18	iN	5	16	18		May not be seismic.			
		eE	5	16	20					
		iE	5	21	32					
		iN	5	33	28					
		iE	5	39	34					
		iW	5	39	58					
		eL	5	42	40	to 30				
			5	52						
		eE	6	00		to 16				
		F	6	04						
		F	6	05						
1025	" 24	e	5	31		to 6				
			5	55						
		e	5	57		to 1.5				
			6	25						
1026	" 27	eE	5	39	44					
		iM	5	50	45					
		iM	5	46	10					
		eE	5	48	54					
		eW	5	49	00					
		eL	6	12	10	to 12.5				
			6	26						
		eL	6	27	04	to 17				
			6	37						
		eL	6	39	30	to 20				
F	6	50								

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LATITUDE 45° 23' 38", LONGITUDE 75° 42' 57" or 5^h 02^m 51^s.8 W. Greenwich, ALTITUDE 83m.

TIME: Mean Greenwich, midnight to midnight.

INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From August 27th., 1919. to August 31st., 1919. No. 17.

No.	DATE	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE
					A_E	A_N	A_Z	
			h. m. s.	s.	μ	μ	μ	km.
1027	Aug. 29	i	6-06-47		Record of a distant earthquake. The first phases are lost in small micros.			
		e ^N	6-12-33					
		e	6-15-52					
		e ^N	6-23-50					
		eL?	6-46	23				
		L	6-52	30				
		L	7-05	20				
		L	7-15	18				
		L ^E	7-25	17				
		L	7-40	18				
L ^N	7-45	24						
L ^E	7-45	18						
F	8-10							
1028	" 31	O?	17-28-47		N.S. and E.W. records very dissimilar. P and S appear on E.W. and eL on N.S. Very difficult to read.			(8540)
		eP?N	17-39-20					
		iP ^E	17-40-36					
		e ^E	17-47-08					
		eS?E	17-50-23					
		e	17-48-30					
		e	17-51-10					
		eL?N	18-07					
		eL ^N	18-10.5	40				
		L	18-30	18				
		L	18-40	16				
		L	18-48	16				
		L ^E	19-30	16				
F	20 hrs.							

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LATITUDE 45° 23' 38", LONGITUDE 75° 42' 57" or 5^h 02^m 51.8 W. Greenwich, ALTITUDE 83m.

TIME: Mean Greenwich, midnight to midnight.

INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From September 1st 1919 to September 26th 1919 No. 13

No.	DATE	PHASE	TIME			PERIOD	AMPLITUDE			DISTANCE
							A_E	A_N	A_Z	
			h.	m.	s.		s.	μ	μ	
1029	Sep 1	eN eL _E eL _N	19-30.6	to						
			20-00							
			20-06							
			20-10	to	18					
			20-25							
1030	" 6	eL? L? F	9-40.3	to	11					Early phases lost in micros L waves very irregular.
			10 hrs.							
			10-16	to	13					
			10-40							
1031	" 13	iV iN iE eL?E L _E L F	12-21-40							Character of L waves not sinusoidal. Very irregular. Do not resemble usual earth- quake records.
			12-29-40		5					
			12-38-04		9					
			12-45							
			12-50		28					
			12-56		18					
			13-30							
1032	" 15	iE eN F	17-39-14							Heavy micros.
			17-49-20	to	6					
			18-00							
			18-15							
1033	" 19	e _E e _N	3-29							Small waves resembling large micros.
			3-40	to						
			4 hrs.							
1034	" 26	i?N eL?E L	9-26-20							The first impulse may not be due to the earthquake. It appears isolated from the L waves.
			10-06	to						
			10-10							
			10-16	to	18					
			10-25							

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LATITUDE 45° 23' 38", LONGITUDE 75° 42' 57" or 5^h 02^m 51.8 W. Greenwich, ALTITUDE 83m.

TIME: Mean Greenwich, midnight to midnight.

INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From September 26th 1919 to September 30th 1919 No. 19

No.	DATE	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE	
					A_E	A_N	A_Z		
			h. m. s.	s.	μ	μ	μ	km.	
1035	Sep 26	eL	20-36	to	30	Preceded by slight tremblings extending over several hours. No trace of phase. May be micros. L waves are certainly seismic.			
			20-42						
		L	20-47	to	25				
			20-55						
		L	21-00	to	22				
			21-05						
		L	21-07	to	17				
			21-16						
		L	21-20	to	17				
			21-25						
		F	21-50						
1036	" 27	O?	3-34		32				(4030)
		eP?	3-41		56				
		PR?	3-43		36				
		eS?	3-47		8				
		eL	3-55			22			
		L _E	4-00	to	20				
			4-05						
		L	4-20	to	17				
	4-25								
		F	4-30						

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Earthquake Station, Dominion Astronomical Observatory



LATITUDE 45° 23' 38", LONGITUDE 75° 42' 57" or 5^h 02^m 51^s.8 W. Greenwich, ALTITUDE 83m.

TIME: Mean Greenwich, midnight to midnight.

INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From October 1st, 1919. to October 1st, 1919. No. 20

No.	DATE	PHASE	TIME		PERIOD	AMPLITUDE			DISTANCE
						A_E	A_N	A_Z	
						μ	μ	μ	
			h. m. s.	s.				km.	
1037	Oct. 1	iN	19-49-11 to 19-54			Irregular waves mixed with heavy micros.			
1038	" 3	eE iE iLN? eLE LE L LE LE LE F	10-06.5 10-12-40 10-30-23 10-31 10-35 10-40 10-49 11-00 11-11 11-25			Heavy micros.			
1039	" 8	eLE	5-40 to 5-55			Very faint traces of sinusoidal L waves. Heavy micros.			
1040	" 10	O PE SE eLE L LE LE F	1-10-07 1-15-20 1-19-30 1-24.8 1-29 1-30 2-15 2-29			Very irregular and small waves after 1-30.			2560
1041	" 12	iN iE eLE LE F	22-10-55 22-11-46 22-55 23-05 to 23-40			Heavy micros obscure all earlier phases.			
1042	" 14	e F	17-13 to 17-25			Irregular small waves.			
1043	" 21	eL F	22-25 to 22-50			Very faint sinusoidal L waves. Barely discernible.			

Handwritten signature: G. Hodgson

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LATITUDE 45° 23' 38", LONGITUDE 75° 42' 57" or 5^h 02^m 51^s.8 W. Greenwich, ALTITUDE 83m.

TIME: Mean Greenwich, midnight to midnight.

INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From October 21st, 1919. to October 31st, 1919. No. 21.

No.	DATE	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE
					A_E	A_N	A_Z	
			h. m. s.	s.	μ	μ	μ	km.
1044	Oct. 27	O	3-40-47					6560
		P _N	3-50-50					
		S	3-58-56					
		eL?E	4-08					
		L _E	4-10					
		F	4-25					
1045	" 28	e?E	7-36-24 to					Very faint record. Barely discernible.
		eL?E	7-40-17					
		F	7-50					

Ernest A. Johnson

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LATITUDE 45° 23' 38", LONGITUDE 75° 42' 57" or 5^h 02^m 51^s.8 W. Greenwich, ALTITUDE 83m.

TIME: Mean Greenwich, midnight to midnight.

INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From November 1st., 1919. to November 30th., 1919. No. 22

No.	DATE	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE
					A_E	A_N	A_Z	
			h. m. s.	s.	μ	μ	μ	km.
1046	Nov. 6	L _E	7-27 to		N.S. masked by micros.			
			7-27	15				
		I _E	7-33	15				
		F	7-40	15				
1047	" 18	i	4-21-27		L waves sinusoidal but so small in amplitude as to be barely visible.			
		I _E	4-38 to					
			5-15					
		F	5-25					
1048	" 18	iS?	22-15-23		Micros interfere with any preceding phases. Sinusoidal L waves which are remarkable for their similarity in both components.			
		eL	22-26.4	40				
		L	22-36	25				
		L	22-39	16				
		L _E	22-58	9				
		F	23-10					
1049	" 20	e?E	14-41-09					
		eL?	15-05					
		L	15-14					
		L _E	15-18 to	18				
			15-30					
		F	15-36					
1050	" 23	L _E	6-58 to					
			7-11	24				
		L _E	7-13 to					
			7-18					
		L _E	7-23					
		F	7-28					
1051	" 28	iS?N	14-12-18		This quake though smaller bears a striking resemblance to No. 1046.			
		iS?E	14-19-24					
		eL	14-23-40	15				
		L _E	14-28 to					
			14-32	13				
		F	14-35					

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TIME: Mean Greenwich, midnight to midnight.

INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From December 1st, 1919 to December 31st, 1919 No. 23.

No.	DATE	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE
					A_E	A_N	A_Z	
			h. m. s.	s.	μ	μ	μ	km.
1052	Dec. 5	O? P? PRIN? S _{Def} I _{Def} F	0-14-33 0-22-20 0-23-38 0-28.5 0-34.2 0-50					4400?
					S and L from the Deformation instrument with a scale of 18 mm to the hour.			
1053	" 14	L _E F	2-17 to 2-30 2-40	16				NS masked by micros.
1054	" 20	L _E L _E L _E L _E F	21-28 to 21-40 21-42 21-50 21-59 22-25	40 to 20 17 15 12				NS masked by very heavy micros. The record appears to be that of a reverse earthquake at a distant epicentre.

CORRECTION-----

In the record for August 18th, 1919, No. 1024 should be reported from 17 to 18 hrs ca instead of from 5 to 6 hrs.

Ernest A. Hodgson