

HARVARD UNIVERSITY
 SEISMOGRAPH STATION---DEPARTMENT OF GEOLOGY AND GEOGRAPHY

CAMBRIDGE, MASSACHUSETTS, USA

Latitude 42° 22' 36" North

Longitude 71° 06' 59" West

Height 5.367 Meters

Foundation: Glacial sand over clay

Time: Mean Greenwich, midnight to midnight

Time correction: .5 second

INSTRUMENTS---FIXED CONSTANTS

Instrument	Symbol	Registration	Damping	Paper Speed	Mass
Milne-Shaw	43	Photographic	Magnetic	8 mm/minute	1 pound
Milne-Shaw	44	Photographic	Magnetic	8 mm/minute	1 pound

INSTRUMENTS--DETERMINED CONSTANTS

T ₀	V	Damping Ratio	Component	Deflection per second arc tilt	Date Determined
secs				mm	
43	12.0	250	20:1	EW 44	1928 November 28
					1932 October 15
44	12.0	250	20:1	NS 44	1928 November 28
				50	1932 October 15

Owing to location in the basement of the Geological Museum, the instruments are subject to local artificial disturbances which obscure small traces from 12h to 23h on week-days.

The following scale, designed by E. A. Hodgson at Ottawa, is used in evaluating records on the basis of ten for a "perfect" record:

Epoch (s)	None--poor	Unidentified but distinct	Identified & distinct	
No time	0	1	2	} According to quality of focus and absence of fog, add: 0, 1, or 2
Fair time	0	2	4	
Good time	0	4	8	

BULLETIN NO. 14
 1929 Nov. 25 to 1932 Nov. 30

DATE	DURATION	VALUE	PHASE	TIME	DIST.	REMARKS	
1929 Dec 6	1/4h	5	eL	12-30 1/2		T = 19 s	
	1h	3	i(?)	17-20		Greater on EW--lines tangled	
			L	17-40			
	2h	3	e	20-45-41			
			i	20-54-10			
			eL	21-04		Greater on EW	
	2 1/4h	7	(e)	07-10-08		Microseisms confuse	
			iN	07-11-33			
			iN	07-12-40			
			iEN	07-29-11			
			eLE	07-50 ca			T = 41 s
			L	08-03			T = 25 s
			L	08-16			T = 15 s

DATE	DURATION	VALUE	PHASE	TIME	DIST	REMARKS
1929 Dec 13	$\frac{1}{4}$ h	3	eL	09-23		T = 22-15 s
14	$\frac{1}{4}$ h	2	eL	05-03		T = 15 s
14	$\frac{1}{4}$ h	2	eL	22-38		
14	2m	2	e	23-03		
15	$\frac{1}{2}$ h	7	(eP)N	01-39-28	(27.6°)	(0--01-33-28)
			i(S)	01-44-14		
			eLE	01-48		T = 17 s
16	$\frac{3}{4}$ h	2	eL	12-17		T = 45 s
17	$3\frac{1}{2}$ h	10	0	10-58-42	68.7°	CS gives 0=10-58.7
			eP	11-09-52		53° N 171° E
			iPP	11-14-18		
			iS	11-19-02		
			iSS	11-23-48		
			iSSS	11-27-15		
			eL	11-30 ca		
18	$\frac{1}{2}$ h	3	eL	08-00		
18	$\frac{1}{2}$ h	1	eL	13 $\frac{1}{2}$ h		
19	$\frac{3}{4}$ h	2	eL	10-58		
20	$\frac{1}{4}$ h	5	iE	10-38-46		Nearby (?)
			iE	10-40-01		
24	$\frac{1}{2}$ h	5	eL	05-31		A _E :A _N :::3:2
28	$\frac{1}{2}$ h	2	eL	12-51		
=====						
1930 Jan 5	$\frac{3}{4}$ h	5	i	01-41-37		An unusual, sharp, isolated phase
			irr. low-amp. L	from about 01-55		
7	$\frac{1}{4}$ h	2	eL	00-42		
12	$\frac{1}{4}$ h	5	eE	05-37 $\frac{1}{2}$		
			eLN	05-39 $\frac{1}{2}$		T = 10s A _N :A _E :::2:1
13	$\frac{1}{4}$ h	2	e	05-49		
			eL	05-51		A _E > A _N
14	1h	3	eL	22-52		T = 30-15s A _E :A _N :::2:1
15	$\frac{1}{4}$ h	5	eLN	00-42-14		nearby--almost entirely on NS
			iLN	00-43-00		
15	5m	4	eLN	00-52.0		nearby--almost entirely on NS
			iLN	00-52 $\frac{3}{4}$		
18	$1\frac{1}{2}$ h	3	e	07-30 ca		
			e	07-40		
			eL	07-55		
20	$\frac{1}{2}$ h	5	eL	08-12		T = 30-22s
21	$\frac{1}{4}$ h	0	nearby	type record with greatest amplitudes on NS, at about 4h. n.g. a/c no timing marks		
20 to 22				09h 15h no timing marks		
28	$\frac{3}{4}$ h	6	eL	07-16.0		
			L	07-21.5		T = 22s; A = 7 μ

Feb 1	$\frac{1}{4}$ h	8	eS	19-15-55		P lost in microseisms
			eL ₂₆	19-20.0		Ottawa gives 0=19-02-58
			L ₁₇	19-23 A = 22 μ		Distance 4040 km.
2	1h	6	e	15-20-55		Beginning lost in changing records
			eL ₃₈	15-27		
						A _{L19E} = 32 μ
7	$\frac{3}{4}$ h	4	eL ₂₆	07-14.0		A _{L17E} = 6 μ
8				20h		
to 9				20h		Heavy microseisms

DATE	DURATION	VALUE	PHASE	TIME	DIST	REMARKS
1930 Feb 12	1h	4	eE	07-00.5		
			eL	07-25.0		$A_{L17E} = 9\mu$
14	1½h	3	eLE	21-40-00		$T = 23s$ $A = 21\mu$
15				12h ca		
to 16				08h ca		Microseism storm
26	½h	5	(eE?)	02-41-28		
			eL	02-48.0		$T = 8s$ $A_N = 14\mu$ $A_E = 3\mu$
26	5m	5	eN	03-40.0		on NS only
26	5m	5	eN	04-42.0		on NS only
27	¼h	3	e	07-31		
28	½h	3	e	01-10½		$A_{L19} = 5\mu$
<hr/>						
1930 Mar 1	5m	5	e	00-02-08		
			eL	00-03		$T = 11s$ $A_N = 9\mu$
6	1h	0	L	16½h ca		$A_E < 1\mu$ vitiated by artificial disturbances
8	1h	4	eN	03-52-12		
			iN	03-53-01		
			iE	03-57-25		
			L?	04-01½		$T = 15s$; $A = 4\mu$
8				19h ca		Heavy microseisms
to 10				03h ca		
20				09h ca		Heavy microseisms
to 22				14h ca		
26	2½h	8	eEN	07-31-37		CS gives $O = 07-12-07$
			e	07-34-50		$80^{\circ}S$; $125^{\circ}E$
			e	07-47-13		
			e	07-53-05		Underlain by a wave of 60s period ca. decreasing to 30s and continuing for about 10 mins. Beginning uncertain a/c above wave
			iN	07-59.0		
30	2h	6	eL	08-10.0 ca		Irregular character
			eN	08-44-21		no trace on EW
			eN	08-47-21		Faint trace on EW
			eN	08-53-29		Very faint trace on EW
			eN	08-58-55		" " " " "
						$T = 24s$; $A = 16\mu$
30	2h	1	eL	09-19-35		$T = 20s$; $A = 6\mu$
			betw	15-17h		Faint record obscured by artificial disturbances.
31	1h	1	e?	12-53½		Obscured by " "
			L?	13-04 ca		$A < 1\mu$
<hr/>						
1930 Apr 13	7m	8	eLN	03-52-07		$T = 7s$ $A = 4\mu$
16	½h	3	eL	14-49½		practically no trace on EW
						$T = 7s$; $A_N = 10\mu$ Earlier phases, if present, obscured by artificial disturbances.
21	1½h	5	e	12-07½ ca		
			e	12-18½		
			e	12-24		
			eLN	12-42½		
22	5m	2	eLN	13-35		$T = 18s$; $A = 9\mu$ no trace on EW

DATE	DURATION	VALUE	PHASE	TIME	DIST	REMARKS
1930 Apr 26	1h	2	e	07-11 ca		Irregular; low amplitude; probably L
	26 2h	9	0	16-18-00	68.2°	CS gives 0=16-18-13 50.5°N; 179.5°E
			eP	16-29-07		Ground moved SE
			iS	16-38-14		
			iN	16-39-00		
			(SSS)	(16-45-45)		
			eLE	16-48 $\frac{1}{4}$		T = 38s
			LN	16-53		T = 19s; A = 74 μ
	26 1h	1		between 15-16h		vitiated by artificial disturbances
	28 1 $\frac{1}{2}$ h	1	"	19-20 $\frac{1}{2}$ h		" " "
	29 $\frac{1}{2}$	2	e	09-02		" " "
<hr/>						
1930 May 1	1h	4	eN	01-23-00		
	2 2h	4	eL	01-45		A = 2 μ
			eE	02-11 $\frac{1}{2}$		
			e(L?)	03-37 $\frac{1}{2}$		
			e	04-01		
	2 2h	4	e	06-23		
			e	06-32		
			e	06-39 $\frac{1}{4}$		
			eL	07-00		
	5 3 $\frac{1}{2}$ h	2		beginning about 14-03		T=38s; A _{L15} = 5 μ epochs obscured by artificial disturbances
						CS gives 0=13-45-32 17°N 95°E
	6 4h	0		no time service		CS gives 0=22-34-24
	8 1h	5	eL	14-36		T = 20s; A _F = 17 μ beginning lost in changing records
	8 1h	5	eN	15-57-44		
			L	16-15		Irregular low amplitude
	8 $\frac{1}{4}$ h	5	e	23-01-07		
			eL	23-06-20		Irr. low amplitude
	9 $\frac{1}{4}$ h	2	e	07-29-15		Irr.
	9 $\frac{1}{4}$ h	2	L	07-54		T = 16s
	9 $\frac{1}{2}$ h	2		begins 14-24 ca		artificial disturbances
						T _{LE} = 7s; A = 4 μ
	10 1h	5	eN	22-23-42		
			eN	22-26.0		
			eLN	22-29		T = 7s; A = 8 μ
	11 $\frac{1}{2}$ h	1	L	23-33		< 1 μ
	12 1h	4	e	08-43.5		
			eL	08-55		Irregular
	16 1h	2	eL?	03-15		Irr. low amplitude
	19 1h	5	eN	03-30-21		
			eN	03-33-16		
			eN	03-33-50		
			eN	03-39 $\frac{1}{2}$		
			eN	03-45-27		
			e	04-01 $\frac{1}{2}$		
			eL	04-05		
	19 $\frac{1}{2}$ h	2	eL	08-48		

DATE	DURATION	VALUE	PHASE	TIME	DIST	REMARKS
1930 May 20	2h	9	0	11-14-47	68.3°	CS gives 0=11-14-59
			eP	11-25-55		51°N 180°W
			e ^c	11-35-03		cf 1930 Apr 26
			eL	11-44½		
20				12h		
to 21				13h		no records
21	1h	3	eLE	22-24		T = 22s; A = 3.5 μ
			eLN	22-25		T = 17s; A = 4 μ
23				13½h		
to 24				15h		no records
29	½h	5	eN	08-38.1		
			iEN	08-42-54		
			iE	08-47-29		
			eL?N	08-50		
30				14h		
to 31				17h		no records
<hr/>						
1930 June 1	¼h	0	L?	03¼h-03½h	ca	faint trace--time marks failed
1	3h	0		13½h-16½h	ca	no time marks
4	1h	3	eEN	10-12-15		
			eE	10-14-26		
			eEN	10-15		
			eE	10-30¼		
5				06h		
to 6				14h		no records
11	2½h	7	eEN	01-11-13		absolute time ±10s
			eE	01-12-17		
			eN	01-12-21		
			e	01-23¾		
			eN	01-26		
			iN	01-29-06		
			eL	01-43½		T = 60s; A = 50 μ
			eL	01-48		
12	5m	2	eN	09-27¼		on NS only
12	½h	5	eE	09-53½		
			eE	09-57-23		
			eN	09-58-38		
			eL	10-01-03		A _N > A _E
			eN	10-03-53		
			eE	10-04-23		A _E > A _N
12	5m	1	e	10-54	ca	
13	2h	7	0	00-53-49	60.8°	CS gives 0=00-53-53
			ePE	01-04-11		52°N 172°W
			eSE	01-12-35		(No NS record)
			eE	01-19½		
			eL	01-26½		
15	½h	2	eL	08-28		T = 26, 17, 15
21	5m	1	e	07-13¾		A _E > A _N
			e	07-15¼		
22	¼h	1	e	02-57		trace only
23	½h	1	eL	20-37		

DATE	DURATION	VALUE	PHASE	TIME	DIST	REMARKS								
1930 Jun 25	2h	7	0	10-17-37	55.4°	CS gives 0=10-17-38 16°S 75°W								
			ePN	10-27-24										
			eSE	10-35-15										
				10-37-15										
			eE	10-39-07										
			eN	10-45										
			eN	10-48										
			eL	10-50 $\frac{1}{2}$										
			iS	12-15-36			CS gives 0=12-05-45 18°N 63°W							
			e	12-17 $\frac{1}{2}$										
			25	2 $\frac{1}{2}$ h			10	0	21-21-23	56.7°	CS gives 0=21-21-31 16°S 79°W			
								iPN	21-31-26					
								iSE	21-39-23					
								iE	21-41-14					
								eN	21-43 $\frac{1}{4}$					
eL	21-52	T=20-16s												
eN	05-18 $\frac{3}{4}$													
27	$\frac{1}{4}$ h	3	eN	10-26	on NS ^E only									

1930 July 1	1 $\frac{1}{2}$ h	8	0	01-09-18	39.1°	CS gives 0=01-08-55 52°N 137°W								
			ePE	01-17-03										
			e	01-18-36										
			e(S)E	01-23-09										
			e	01-26-12										
			eLN	01-29 $\frac{1}{2}$) Very well defined groups							
			iL	01-30										
			iL	01-33 $\frac{3}{4}$										
			(eN	21-18-08)										
			2	2 $\frac{1}{2}$ h			9	e	21-22-45	CS gives 0=21-03.4 21°N 87°E				
								eN	21-24-24					
								eN	21-29					
								i	21-32-28					
								eN	21-33-38					
								eN	21-38					
								eN	21-45 $\frac{1}{2}$					
								eLE	21-49		T = 80-40-19			
								5	$\frac{1}{4}$ h		1	L	19-09 $\frac{1}{2}$	Obscured by artificial disturbances
								7	1h		3	eE	13-44-16	
												L	13-49	
								7	?		1	e	20-58	Irregular
			13	1h			3	e(S)	01-10-26	T=6.8s; an outstanding, regular, maximum Regular, T=20s; A=6 μ trace only				
								e(L)	01-14					
								e	01-15-43					
								e	01-17 $\frac{1}{2}$					
			13	1h			3	eL	02.0h	CS gives 0=22-40.2 13°N 88°W				
			13	3m			1	eE	09-41					
			13	1h			2	L	20-15					
			14	3 $\frac{1}{2}$ h			10	0	22-40-31					
								iP	22-47-13					
			ePPP	22-48 $\frac{1}{4}$										
			i	22-51-23										
			iS	22-52-31										
			L	22-54										
15	$\frac{1}{4}$ h	1	L	09-20	irr. trace, A<1 μ followed by irr. trace									
20	1h	2	e	11-19 \pm 20s										

- 7 -

DATE	DURA TICN	VALUE	PHASE	TIME	DIST	REMARKS
1930 July 23	1h	8	0	19-26-25	80.9°	St. L. gives 0-19-26,0
			eP	19-38-38		46.5°N 152.5°E
			iS	19-48-48		
			i(PS)	19-49-58		
			L	20-05 ca		irr. small amp
23	1½h	8	0	00-08-50	59.9°	CS gives 0=00-09.1
			ePE	00-19-07		41°N 14.5°E
			eSN	00-27-25		
			eE	00-32		
			eE	00-34		
			eL	00-38		T=17-15 A=32μ
25	1h	0	e	21-47½	1lm	abs. time unknown
26	5m	1	eN	18-04½		trace only
27	1h	1	e	08-37½		
27	1h	1	e	12-36¼		
27	3m	1	e	14-35 ca		trace only
27	1h	4	eNP	(15-08-11)		abs. time unknown
			e	(15-09-38)		
			e(S)	(15-13-41)		
			e(L)	(15-20)		

July 27	to	October 3	no time service			

Oct 8	3h	10	i(P')	10-39-41	114°	CS gives 0=10-19.3
			e(PP)	10-40-38		14° S 169°E
			e(PPS)	10-51-09		
			e(SS)	10-55-45		well marked T=22S A=7μ
			e(SSS)	11-00.5		
			e(SSSS)	11-05.5		
			iLE	11-16.0		Beginning with well marked T=46S A=75μ
			grading down to T=20S A=67μ L on EW regular and much greater amp than on NS			
11	¾h	8	0	03-06-07	38.8°	
			ePE	03-13-58		
			iSN	03-20-12		
			eL	03-25.5		
17	1h	8	iE(S)	09-07-42		CS gives 0=08-46.5
			iE	09-08-18		33°S 72°W
			sharp i's followed by irr. trace.			
			Only faint trace on NS			
23	¼h	5	eL	09-11½		sinusoidal L T=20S
23	2h	5	eE(?)	09-15½		superimposed on previous record small irr. trace
			no identifiable phases			
24	3h	9	eLE	09-54		
			e(P)	20-30	108°	CS gives 0=20-15.0
			(Probably earlier 24°N 145°E but uncertain a/c art. dist.			

- 8 -

DATE	DURA TICN	VALUE	PHASE	TIME	DIST	REMARKS
1930 Oct 24	(cont.)		iPP	20-34-09		
			iScPcS	20-40-19		
			iS	20-41-57		
			iPS	20-43-39		
			eSS	20-49 $\frac{1}{2}$		
			eSSS	20-53 $\frac{1}{4}$		
			eL	21-00		irr.
			eL	21-04 $\frac{1}{2}$		T=30S
25	1h	8	eS	12-19-26		CS gives 0=12-03.
			eSS	12-23-00		59°N 154°SW
			eL	12-28 $\frac{1}{2}$		T=9S
25	h e a v y m i c r o s e i s m s					
28	1 $\frac{1}{2}$ h	5	e	21-36.9		confused by microseisms
			e	21-49.7		and art. dist.
			e	21-57.3		
			e(L)	22-06 ca		
30	1h	5	e	07-25-16		
			eN	07-31-09		
			eN	07-32-57		
			eLN	07-39.0		T=38S
			eLEN	07-43 $\frac{1}{4}$		T=19S
31	2h	6	eE	10-45-49		
			eE	10-55-53		
			eE	11-03-16		
			eE	11-19 $\frac{3}{4}$		
			eLEN	11-25 ca		T=20S
31	$\frac{1}{4}$ h	1	eL	19-42		T=17S

1930 Nov 1	$\frac{1}{4}$ h	1	eL	13-45		T=17S
	$\frac{1}{4}$ h	1	e	17-07 ca		irr. trace
	6 to 8	m i c r o s t o r m				
	9	3 $\frac{1}{2}$ h	7	e(P'?)	19-31-25	
				eN	19-31-27	
				e(SS?)	19-48-25	
				e(L?)	20-14	
	10	0		14-15 h		record lost in art. dist.
	12	1h	1	eL	19-42 $\frac{1}{2}$	earlier phases, if any, lost in art. dist. T=20S
	17 to 19	l a r g e m i c r o s t o r m				
	20	10m	2	e	02-01	
	20	$\frac{1}{4}$ h	2	e	02-32	
	20	$\frac{1}{4}$ h	2	e	04-08	T=20S
	22	1h+	0		15-16 h	
	24	$\frac{1}{4}$ h	1	eL	02-15	
	24	1 $\frac{1}{2}$ h	5	eE	03-19	
				eL	03-52	
	24	$\frac{3}{4}$ h	5	eE	06-14-57	
				e	06-20-36	
				iE	06-21-36	
				eN	06-25 $\frac{1}{2}$	

DATE	DURATION	VALUE	PHASE	TIME	DIST	REMARKS	
1930 Nov 25	½h	4	e	08-50-46			
			eL?	08-54			
25	2½h	2	P	lost in a.d.		CS gives O=19-03.0	
			eS	19-28 ca		31.5°N 138.8°E	
			eL	19-46			
28	1½h	10	O	07-32-51	37.3°	CS gives C=07-32.5	
			eP	07-40-18		18.5°N 107.7°W	
			iS	07-46-12			
			eL	07-50		T=15S A=21/1	
30	½h	2	eL	21-51¼		A _N :A _E ::3;1	
			earlier phases lost in a.d. (wind)				CS gives C=21-30.5
						18°N 108°W	

Dec 2 - 4			micro storm				
3	2½h	4	early phases lost in a.d. and micros			(18.7°N 96°E) ca	
			e	19-28		CS gives O=18-52.5 ca	
			iLE	19-44			
			iLN	19-54		T=30-20	
						A=155/1	
6	1½h	7	(O)	07-03-33)			
			e(P)	07-13-54			
			iS	07-2-17			
			eL	07-35.0		T=19 A=21/1	
8	½h	1	eL	09h			
8	1h	1	e	18-25½			
9	½h	2	eLN	19-34¼		A _N :A _E ::2:1	
10	¼h	2	e	04-21			
			e	04-23¾			
10	¼h	1	e	11-10 ca			
14-17			large micro storm				
21	1h	1	e	15-20¾			
			e	15-52¼			
22	½h	1	e	01-00			
22	¼h	1	e	05-23¾			
24	1h	2	e	06-22½			
			eL	06-36¼			
25	¾h	2	e	09-09¼			
25	¼h	2	eL	13-49			
25	2m	7	e	22-09-29		Local. Reported felt at Baie, St. Paul, Que. Canada	
			e	22-09-53			
			iL	22-10-06			
27-29			large micro storm				
31			micro storm				

1931 Jan 2	½h	1	eE	00-45		sin trace	
2	3h	10	O	09-48-50		CS gives C=9-48.6	
			iP	09-56-23		16.4°N 108.2°W	
			iPPP	09-57-53		△ Klotz 4210 km.	
			iSN	10-02-22			
			eLN	10-02.5		(Q?)	
			eLE	10-09		(R?) T=15S	

- 11 -

DATE	DURATION	VALUE	PHASE	TIME	DIST	REMARKS	
1931 Feb 2	3½h	10	iP'E	23-03-04	II 129.920		
			iP'N	23-03-12	III		
			ePPE	23-03-07	II		
			iPPE	25-02-15	III		
			i?E	23-09-04			
			iScPcP	23-09-21	II	St. Louis gives	
			iScPcP	23-09-29	III	39029.3 178°56'E	
			iPPPE	23-10-53	III	I 0=22-46-44	
			iE	23-11-23		II 0=22-46-50	
			iScPcPcS	23-15-11	III	III 0=22-46-58	
			eS?N	23-16-53	III	(Readings by C. G. Dahm)	
			iScPcSP	23-18-17	III		
			iSS	23-25-39	III		
			iPPSS	23-26-50	III		
			i	23-30-16			
	7 10m	2	iLN	01-18-41		Practically no trace on E-W	
	7 ½h	4	e	03-38-25			
			e	03-43-07			
			eL	03-48¼			
	8 ¼h	3	eL	02-47 ca			
	9		eN	02-42		No trace on E-W	
	10 ?	?	O	06-34-ca			
			eP'E	06-53-59			
			iP'N	06-54-01		CS gives C=06-33.8	
			ePPM	06-57-16		50S 1010E	
			ePPE	06-57-39			
			eSS	07-16-20			
			eSSS	07-20 ca			
			eLN	07-33+			
			eLE	07-35			
	11		m i c r o s t o r m				
	12 1½h	2	e	06-25-		CS gives "South of Sumatra"	
			eL	06-46			
	12	5	e(S?)	08-17-51		CS gives "Probably Acapulco Deep off W. coast of Mexico"	
			eL	08-23		CS gives 420S 1780E	
	13 3½h	7	eE	01-47-39		O=01-27.1	
			ePP	01-50-28			
			ePS	01-59-51			
			eSS	02-06-43			
			eSSS	02-11-28			
			iL(Q?)	02-24-07			
			eL(R?)	02-30			
	14 1h	1	(e	14-41)		uncertain	
			(L?	15-51)			
	17 ¼h	2	eL	02-49			
	19 ½h	1	e	18-39			
			e	19-03			

- 12 -

DATE	DURATION	VALUE	PHASE	TIME	DIST	REMARKS	
1931 Feb 20	1½h	10	iE(P)	05-47-02		NW (rarefaction)	
			iN(P)	05-47-03			
			eN	05-49-27		St. Louis 44°N 135°E	
			eN	05-50-35		O=05-33½ ca	
			iN	05-51-30		Dist (92°) meas'd.	
			iN	05-55-41		probably deep focus	
			iE	05-55-43			
			i	05-56-11			
			iE	05-57-58			
			iN	05-58-01			
			iE	05-58-37			
			iN	05-58-39			
			e	06-02			
			no normal type surface waves				
			L	06-08 ca			
----- 24 micro storm -----							
Mar 2	1½h	8	eE	02-39-09		no trace on NS	
			eN	02-47-00			
			eN	02-48-00			
			eE	02-50-00		only faint trace EW	
			eN	02-55-43			
			iN	02-56-45			
			e	02-59-51			
			eN	03-10			
			eN	03-15			
			eLE	03-17			
3 - 6	exceptionally large micro storm			T=7S		T=60 T _m =17 A=12μ	
7	1h	7	e(P)N	00-47-10		CS gives O=00-41.6	
			eN	00-49-28		10°N 87.0°W	
			e(S)N	00-54-00			
			L	00-58			
8	1½h	6	O	01-49-57	68.1°	CS gives O=01-50.2	
			eP	02-01-04		42°N 23°E	
			iS	02-10-11			
			iSS	02-14-38		absolute time uncertain	
			iSSS	02-17		±20S	
			eL	02-20			
9	2½h	6	iS	04-13		CS gives O=03-48.7	
			eE	04-19½		44°N 141°E	
			eE	04-22¾		absolute time ±20S	
			eL	04-28½			
11	1½h	6	i	12-51-37		CS gives O=12-26.3	
			e	12-55.0		19°N 145°E	
			e	13-00.0			
			eN	13-05-18			
			eN	13-08-03			
			e(L?)	13-14 ca			
12	½h	2	e(L?)	11-37			

DATE	DURATION	VALUE	PHASE	TIME	DIST	REMARKS
1931 Mar 18	3h	0		8h + no time ser.		CS gives 08-02.3 33°S
18	2h	0		20h + "	" "	CS gives 20-13.5 72°W 6°N 127°E
19	1½h	0		6h + "	" "	CS gives 06-24.8 20°N 120°E
28	2½h	5	e	12-58-00		CS gives 12-32.2
			e	13-01-27		18°N 137°E
			i	13-07-35		(uncertain)
			e	13-11-0		
			e	13-14½		
			i	13-19-27		
			e	13-24-20		
			i	13-29-01		
			L	lost in changing of records		
29	1h	2	e	17-43-41		
			eL	17-58		
31	1h	2	i(S?)	16-13-19		CS gives 16-01.9
			eL	16-17½		11.9°N 86°W Managua, Nicaragua
<hr/>						
1931 Apr 2	1h	5	iE	02-12-54		
			iE	02-15-11		
			eN	02-16-48		
6	2½h	9	e(L?)E	02-23		
			eE	07-10-28		CS gives 06-49.5
			eE	07-11-58		"Possibly Solomon
			eE	07-22-24		Is."
			eEN	07-23-32		
			eE	07-27-38		
9	½h	3	eL	07-47½		A _E > A _N
15	?	0		23-44.0		
				17h ca lost in tangled lines		
						CS gives 16-58.7
16	¼h	2	eN	22-56-43		46°N 29°W
			eLE	22-59-22		
17	¼h	2	eL	06-24		A _E > A _N
19	1h	7	e	02-09 ca		on EW only
			eSN	02-13-25		CS gives 02-00.0
			eE	02-15-29		19°N 109°W
			eN	02-15-54		
			eLN	02-20		
20	2m	5	e(P)	19-55-09		A _N : A _E :: 5:2
			e(S)	19-55-32		CS gives 19-54.6 local
						43.4°N 73.29°W
						Felt in Lake George,
22	2h	6	e	00-19-09		N.Y. region
			eN	00-21-34		
			e	00-29-13		
			e	00-37-35		
			e(L?)	00-48 ca		

- 14 -

DATE	DURA VALUE	PHASE	TIME	DIST	REMARKS
1931 Apr 24	$\frac{1}{4}$ h	2	eL	00-13 $\frac{1}{2}$	
24	$\frac{1}{4}$ h	2	eL	02-42 $\frac{1}{2}$	
24	0	lost in	tangled lines		CS gives 17-22.1 1°N 151°E
<hr/>					
1931 May 1	1h	8	O	22-36-50	CS gives 22-36.6
			ePN	22-43-45	8°N 70°W
			eN	22-44-53	
			eSE	22-49-11	
			e	22-51-13	
8	$\frac{1}{4}$ h	1	e	00-41 $\frac{1}{2}$	trace only
9	1h	5	eSN	10-47-12	CS gives 10-34
			eSS	10-49-44	23.4°N 108.2°W
			eLN	10-52	
			eLE	10-53 $\frac{1}{2}$	Δ S-O = 4060km
12	1h	5	O	01-37-29	73.1° CS gives 01-37.4
			eP	01-49-03	54°N 161°E "approximate"
			iSE	01-58-35	
			eL	02-18 ca	
16	1 $\frac{1}{2}$ h	8	O	20-47-17	34.3° CS gives 20-47.2
			iPN	20-54-20	15.4°N 93.8°W
			iS	20-59-45	
			eL	21-06	
20	3 $\frac{1}{2}$ h	10	O	02-22-48	40° CS gives 02-22.9
			iPE	02-30-39	37.6°N 16.8°W
			iSN	02-36-52	
			iN	02-40-04	
			eL	02-41	
20	?	0	lost in	a.d.	CS gives 21-54.0 27.45°S 73.2°W
23	$\frac{1}{4}$ h	1	eL	03-36	
27	$\frac{1}{2}$ h	1	eN	06-23	
27	1h	2	e(S)	06-55 $\frac{1}{2}$	CS gives 06-34.7
			eL	07-10	56°N 168°E
27	1h	4	e(S)	10-33-39	CS gives 10-20.9
			eL	10-42	18°N 102°W
29	$\frac{1}{2}$ h	4	eS	05-32-41	CS gives 05-15.8
			eL	05-38 $\frac{3}{4}$	57°N 157°W
			i	05-41-45	short-period activity may be nearby ouake superposed
<hr/>					
1931 June 2	$\frac{1}{4}$ h	1	eL	06-37	
9	1h?	0	activity lost in	ad.	
			around 15 h and 16 h		
13	1 $\frac{1}{2}$ h	2	eL	16-33	earlier activity lost in a.d.
15	1h	6	O	11-19-57	64.7°
			ePN	11-30-44	
			eSE	11-37-31	
			eL	11-50 $\frac{1}{2}$	

- 15 -

DATE	DURATION	VALUE	PHASE	TIME	DIST	REMARKS
1931 June 18	$\frac{1}{4}$ h	2	eN	00-32-20		
			eL	00-38 $\frac{1}{2}$		
21	1h	8	e(PP)	12-32-03		CS gives 0=13-23-48
			e(S)	12-36-29		18°N 102°W
			eL	12-43		
23	1h	1	Labout	07-05		no min. marks
29	1h	0	activity around	21h		lost in a.d.
						CS gives 0=20-24.3
						29°S 72°W
<hr/>						
1931 July 5	1h	2	eN	07-19-12		
			eN	07-27-53		
			eL	07-32		
7	1h	4	eN	04-06-25		
			eN	04-11-28		
			e(L)	04-16 $\frac{3}{4}$		
12	1 $\frac{1}{2}$ h	4	eN	17-06-37		
			eN	17-18-03		
			e(L?)	17-40 ca		
15	1h	3	eL	17-06		
17	1h	10	0	09-13-38	33.1°	CS gives 09-13.4
			ePN	09-20-31		14°N 96°W
			eSE	09-25-58		
			eL	09-32		
18	$\frac{1}{2}$ h	4	eE	05-45-53		CS gives 05-27.1
			iE	05-46-48		21°S 69°W
			eE	05-48-01		
			eL	(05-56)?		
18	1 $\frac{1}{2}$ h	7	0	11-23-31	76.5°	CS gives 11-23.9
			ePE	11-35-21		53°N 162°E
			eSE	11-45-09		
			eSS	11-49-36		
			eL	12-03		
20	$\frac{3}{4}$ h	1	eL	09-21 $\frac{1}{2}$		
21	1h	0	iE	03-56-57		disturbance caused by
			eE	04-01-57		high wind
			eL	04-39		CS gives 03-36-01
						22°S 174°E
23	?	0	activity around			CS gives 14-20.6
			16h lost in arti-			0°N 155°E
			ficial disturbances			
27	1h	10	0	07-16-12	28.3°	CS gives 07-15-08
			eP	07-22-19		15.4°N 85.6°W
			iS	07-27-10		
			eL	07-30 $\frac{1}{2}$		
<hr/>						
1931 Aug 1	$\frac{1}{4}$ h	2	eL	00-42 $\frac{1}{2}$		
7	$\frac{3}{4}$ h	10	eP'N	02-30-52		CS gives 02-12
			eN	02-32-48		2°S? 141°E?
			i	02-34-11		
			iPS	02-34-17		
			e	02-45 $\frac{3}{4}$		
			eSS	02-50-22		
			e	02-58 $\frac{1}{2}$		
			e	03-02 $\frac{1}{2}$		
			eL(?)	03-09 $\frac{1}{2}$		

- 16 -

DATE	DURATION	VALUE	PHASE	TIME	DIST	REMARKS
1931 Aug 10	4½h	10	O	21-18-48	88.4°	CS gives 21-18.2
			eP	21-31-39		46°N 89.5°E
			i	21-33-03		
			eS	21-42-27		
			eSS	21-49½		
			eL	21-55		T-30 A-1050 μ
13	1h	2	eL	23-07		
18	3h	10	O	14-21-04	86.6°	(s-p)
			eP	14-33-46		CS gives 14-21.3
			iS	14-44-25		49°N 90°E
			ePS	14-45-34		
			eSS	14-51¼		
			eLE	14-57¼		
18	5m	3	eN	19-51-19		short-period. Only faint trace on EW
23	¾h	2	eL	18-22		CS gives 18-01.4 42°N 126.5°W
24	3h	7	ePP	21-52-54		CS gives 21-35.3
			eScPcS	21-59-37		33°N 69°E
			eS	22-00-52		
			ePS	22-02-09		
			eL	22-23½		
25	½h	2	eL	22-40½		
27	3½h	8	eP	lost in a.d. between 15-41 and 42 m.		
			ePP	15-44-57		CS gives 15-27.2
			eScPcS	15-51-38		29.5°N 67.5°E
			ePS	15-54-08		
			eSS	16-04		
			eL(?)	16-14		
30	¼h	1	e	07-48-06		
			eL	07-55		
<hr/>						
1931 Sept 6	1h	5	e	08-08 ca		
			e(S?)	08-11-57		
			eL	08-15		
9		0	lost a/c observer in room			CS gives 13-40.4 41°N 126°W
9	2h	8	eP'	20-56-36		CS gives 20-38
			iPP	20-57-08		20°N 144°E
			i	20-57-47		
			iScPcS	21-02-59		
			iS	21-03-59		
			ePS	21-06-29		
			eSS	21-13-09		
			eL	21-23		
11	10m	1	eN	23-35½		
12	½h	2	eN	02-05-43		
			eL	02-22½		
20	0	0	no trace			CS gives 0=23-05.1 40°N 84°W Western Ohio (Anna)

- 17 -

DATE	DURATION	VALUE	PHASE	TIME	DIST	REMARKS
1931 Sept 21	1½h	5	e(ScPcS)	02-44-08		CS gives 02-19.8
			e(S)	02-44-47		36°N 140°E
			e(PS)	02-46-12		
			eL	03-02		
			eL	03-10		T=24S A _E > A _N
21	1h	2	eL	11-16		
22	1h	1	e	10-15		
26	1½h	3	eL _I	20-08		CS I 0=19-49.9
			eL _{II}	20-20		II 0=20-02.7
						12°N 91°W
30 to Oct 1			n o r e c o r d s			
1931 Oct 3	4h	10	ePPE	19-34-15		CS gives 19-12.8
			ePS	19-44-04		14°S 160°E
			iSS	19-52-02		
			eE	19-54¾		
			i	20-05-25		
			i(L?)	20-12		
			eL	20-15		
5	1 h	5	i	22-54-34		
			i	22-56-29		
			i	22-57-58		
9	¼h	2	e	23-47		
10	6¼h	10	ePE	00-35-45		CS gives 0=00.19.8
			eP'E	00-39-14		8°S 160°E
			iPP	00-40-45		
			e	00-45-49		
			eScPcS	00-47-15		
			iPS	00-50-51		
			iE	00-52-09		
			eSS	00-57-53		
			eSSS	01-02-30		
			e	01-07½		
			eL	01-17 ca		
10	1h	3	eL	08-09		
10	1h	1	eL	17-15 ca		
12	1h	1	eN	04-02½		
			e(L?)E	04-10½		
13	1½h	1	eL	05-43		
18	1h	2	eL	01-30 ca		
18	1h	1	i	04-57½		(abs. time ±5)
			i	05-06¼		
			i	05-09¼		
			e	05-10		
26	1h	5	iS	04-37-56		CS gives 04-24.6
			eSS	04-40-40		20°N 107°W
			eL	04-43		
1931 Nov 2	1¼h	10	0	00-31-32		CS gives 00-31.8
			eP	00-38-46		15°N 96°W
			iS	00-44-16		
			eL	00-48		

- 18 -

DATE	DURA VALUE	PHASE	TIME	DIST	REMARKS
	TION				
1931 Nov 2	3h + 10	0	10-03-01		CS gives 10-03.0
		iPN	10-16-56		32°N 132°E
		iPP	10-21-17		
		ePPP	10-25-10		=100°
		eScPcS	10-26-17		
		iSE	10-28-40		
		ePSN	10-30-17		
		iSSN	10-36-09		
		eSSSN	10-43-17		
		eL	10-48		
	2 ? 0		activity between		
			18-20h lost in ad.		
	5 1/4h 5	eLN	02-09-34		T=9S only faint trace on EW
	5 3/4h 5	0	07-01-01	24.5°	
		eN(P)	07-06-26		
		eN(S)	07-10-46		
		eLN	07-13 1/2		
	5 3/4h 2	eL	08-26		
	5 ? 0		activity between		
			13-14 h lost in		
			changing records and		
			tangled lines		
	11 1/4h 1	eL	04-55		
	16 1/4h 1	eL	10-19		
	18 1 1/2h 4	eN	03-59-30		
		eN	04-07-31		
		eN	04-25-10		
		eL	04-31 1/2		
	20 10m 1	e	10-55 1/2		short-periods
	20 1h 1	eL	15-16 ca		earlier activity lost in a.d. and changing records
					CS gives 14-16.8
					8°S 161°E

1931 Dec 1	1 1/4h 2	eLN	04-32		
	3 1/4h 1	eE	10-39-33		
	5 - 7	m i c r o s t o r m			
	18 1/4h 1	eL	11-03 1/4		
	24 5	eE(S)	03-57-27		
		e	04-01		
		eL	04-06 1/2		
	29 - 30	m i c r o s t o r m			
	31 1h 1	eLN	01-18		
=====					
1932 Jan 3	m i c r o s t o r m				
	5 1 1/2h 10	0	01-54-04	78° .5	CS gives 01-54
		ePN	02-06-11		26°S 113.5°W
		iSN	02-16-09		
		eSS	02-21-16		
		eL	02-27		

DATE	DURATION	VALUE	PHASE	TIME	DIST	REMARKS
1932 Jan 9	2½h	10	e	10-40-08		New Hebrides?
			e	10-42-00		
			e	10-43-18		
			e	10-46-26		Deep focus
			eL(?)	10-53½		
10	m i c r o s t o r m					
17	1h	3	eL	08-43		
20	¾h	3	e	02-47-36		
			eL	03-02		
22	¼h	1	e(L?)	00-53		
24	2½h	7	eE	04-05-08		
			e	04-06-27		
			e	04-10-19		
			e	04-14-48		
			e	04-17-48		
			eL	04-45		
24	¼h	1	e	11-00		
25	¾h	2	eL	02-55		
29	4½h	5	e	14-13-45		(126°)
			eSS	14-19-30		(7S 155.5°E)
			eSSS	14-23-57		CS gives 13-40-09
			eL	14-40		T=21 A=290 μ
			eL	15-08		
			e(W₂?)	15-40		
			eL	16-40		(second quake?)
30	1½h	1	eL	04-03		
30	1h	1	eL	08-15		

1932 Feb 3	2½h	10	O	06-15-43	23.4°	..43
			iPN	06-21-03		CS gives 06-15.8
			iSE	06-25-16		19.3°N 76.0°W
			e(L?)	06-26½		
			e(W₃?)	09-37		
5 - 6	m i c r o s t o r m					
16	1h	2	eL	14-42		CS gives 13-48.9
						13.5°S 179.5°W
17	1h	1	e(L?)	16-21 ca		CS gives 16-08.6
						13°N 71°W
23	2h	5	i	00-42-36		
			i	00-43-44		
			e(SS)	00-48-32		
			e	00-51-46		
			eL	01-05½		

1932 Mar 7 - 10	m i c r o s t o r m					
14	1h	5	eN	04-18-56		CS gives 04-05.7
			eN	04-21-46		20.5°N 109.5°W
			eL	04-25		
14	1½h	5	O	22-42-43	34.2°	..9
			eP	22-49-38		CS gives 22-42.8
			ePP	22-50-46		8.2°N 73.5°W
			eS	22-55-12		
			eL	23-00		

- 20 -

DATE	DURATION	VALUE	PHASE	TIME	DIST	REMARKS
1932 Mar	19	2h 3	eL	11-50 ca		
	25-26	3h 10	C	23-58-38	49°	
			iP	00-07-31		CS gives 23-58.5
			iS	00-14-42		62.0°N 153.0°W
			iSS	00-18-16		
			eL	00-19 $\frac{1}{2}$		T-11S
	26	2 $\frac{1}{2}$ h 7	e	10-10-16		
			e	10-15-16		
			eL	10-50		
	29	m i c r o s t o r m				
1932 Apr	8	1h 2	eLN	13-46		
	13	1h 2	eLN	00-48		
	14	$\frac{1}{4}$ h 2	e(L?)E	01-49 $\frac{1}{2}$		T=15S
	16	$\frac{3}{4}$ h 3	eN	03-10-59		
			eL	03-17 $\frac{1}{2}$		
	22	1 $\frac{3}{4}$ h 7	eN	05-20-42		
			eL	06-09 $\frac{1}{2}$		
	22	10m 1	eN	08-08-43		on NS only
	24	1 $\frac{1}{2}$ h 5	eS	06-24-01	36.3°	CS gives 06-11.0
			e(SS)	06-26-42		26°N 112°W
			eL	06-29		
	25	$\frac{1}{2}$ h 2	eL	08-08		
	26		3	iW	08-14-31	
			e(L?)	08-22 $\frac{1}{4}$		
29	1h 1	eL	18-50 ca		CS gives 18-18.5	
					49°N 175°W	
30	$\frac{1}{2}$ h 2	eL	01-39		no trace on NS	
1932 May	1	$\frac{1}{2}$ h 3	e	19-25-23		
			eL	19-26-26		T=9 ca
	4	$\frac{1}{4}$ h 1	eE	07-08 $\frac{3}{4}$		
	5	$\frac{1}{4}$ h 1	eL	09-30 $\frac{1}{4}$		
	6	$\frac{1}{2}$ h 1	eL	04-55		
	14	3h 0	iE	13-30-34		NS out of order
						bal of rec lost a/c
						tangled lines
						CS gives 13-11.3
						2°N 126.5°E
	21	2h 10	0	10-10-19	30.5°	
		iP	10-16-41		trace A 4 mm	
		iPP	10-17-42		max. . A 7 $\frac{1}{2}$ mm	
		i	10-19-16		CS gives 10-10.2	
		e	10-19-46		13.4°N 88.2°W	
		iS	10-21-50			
		iSS	10-22-33			
		eL	10-23 ca			
22	2h 4	e	11-54-44			
		e	12-22			
		e	12-25			
		e	12-30			

DATE	DURATION	VALUE	PHASE	TIME	DIST	REMARKS
1932 May 22	1h	7	0	22-39-39	32.7°	
			eP	22-36-21		CS gives 22-40.1
			ePP	22-47-25		14°N 88.5°W
			eS	22-51-45		
			eL	22-56 $\frac{1}{2}$		
	26 2h	8	eP'	16-27-04		CS gives 16-09.5
			ePP	16-29-18		20°S 176°E
			eScPcS	16-36-03		
			eS	16-38.0		
			ePS	16-39 $\frac{1}{4}$		
			iE	16-40 $\frac{1}{2}$		
			iE	16-41 $\frac{3}{4}$		
			iSS	16-48		
			eL	?		
	28 1 $\frac{1}{2}$ h	3	eN	02-40-26		
			eN	02-42-50		
			e	02-46-04		
			e	02-47-35		
			e	02-49-04		
			eL	03-15		
	31 $\frac{1}{2}$ h	3	e	08-52-17		
			e(L?)	08-56		
<hr/>						
1932 June 3	5h	7	0	10-36-00	41.1°	
			ePE	10-43-52		compression
			ePN	10-43-55		"
			iP	10-44-15		"
			iS	10-50-13		amps. so great phase
			eL	10-53 ca		times difficult to
						read accurately.
						CS gives 0=10-36.5
						6.5°N 104°W
	3 $\frac{1}{2}$ h	3	eL	16-47 $\frac{1}{4}$		
	3 1h	4	eL	17-59		
	3 $\frac{1}{4}$ h	3	e	20-21		
	4 $\frac{1}{4}$ h	1	e	00-26 $\frac{1}{2}$		
	4 $\frac{1}{4}$ h	1	e	00-36		
	4 $\frac{1}{4}$ h	1	e	00-48 $\frac{3}{4}$		
	4 $\frac{1}{4}$ h	1	e	02-52 $\frac{1}{2}$		
	4 $\frac{1}{2}$ h	2	e	05-40 $\frac{1}{2}$		
	4 $\frac{1}{2}$ h	1	e	10-56		
	4 $\frac{3}{4}$ h	1	e	14-09		
	4 $\frac{1}{4}$ h	1	e	19-22 $\frac{1}{4}$		
	4 1h	1	e	21-52 $\frac{1}{4}$		
			eL	22-00		
	5 1 $\frac{1}{2}$ h	7	0	09-03-41	39.9°	
			e(P)	09-11-23		
			e(PP)	09-13-16		
			e(S)	09-17-35		
			eL	09-23		

- 22 -

DATE	DURA VALUE	PHASE	TIME	DIST	REMARKS
	TION				
1932 June 6	2h 10	O	08-44-33	37.9°	CS gives 08-44.2
		ePE	08-51-59		41.6°N 123.5°W
		iSN	08-57-57		
		eN	09-00-40		
		eL	09-03		
6	1h 10	O	11-49-47	23.6°	CS gives 11-49.8
		ePN	11-55-03		18.5°N 76.6°W
		eSE	11-59-16		
		e(L?)	12-03		small irr. ... deep focus?
8	$\frac{1}{2}$ h 2	eL	05-19		
8	$\frac{3}{4}$ h 4	(O	08-05-14)	(19.5°)	
		e(P)	08-09-45		
		e(S)	08-13-21		
		eL	08-18		
8 - 15h					
to					
9 - 15h					
14	$\frac{1}{2}$ h 3	e	(06-18-40)		
		e	(06-23-02)		abs. time \pm 5s
18	4 $\frac{1}{2}$ h 10	O	10-12-01	34.9°	
		eP	10-19-02		
		iP	10-19-36		
		iPP	10-21-02		
		eS	10-24-40		uncertain a/c large amps
		eL	10-27		
18	$\frac{1}{2}$ h 2	e	22-14-32		
		e	22-18- $\frac{3}{4}$		
19	$\frac{1}{4}$ h 1	e	09-00- $\frac{3}{4}$		
20	? 5	eN	09-08-17		CS gives 09-01.9
		e	09-09-36		13°N 88.7°W
		e(L?)	09-13-55		
20	1h 2	eL	09-46 $\frac{1}{2}$		
21	1h 2	e	04-40-29		
		eL	04-55 $\frac{1}{2}$		
22	3h 10	O	12-59-13	37.1°	(S-P)
		eP	13-06-33		CS gives 12-59.0
		ePP	13-08-08		19.5°N 104°W
		eS	13-12-26		
		eL	13-17		
22	$\frac{1}{2}$ h 1	e	17-09		
23	$\frac{3}{4}$ h 1	eL	03-15		
<hr/>					
1932 July 7	2 $\frac{1}{2}$ h 8	O	16-15-52	35.3°	CS gives 16-15.9
		eP	16-23-57		27.4°N 113°W
		iS	16-28-38		
		eL	16-30 $\frac{1}{2}$		
12	3h 10	O	19-24-00	35.7°	CS gives 19-24.1
		ePE	19-31-08		25 N 110 W
		iSN	19-36-52		
		eL	19-39		
13	$\frac{1}{4}$ h 2	e(L)	02-46		

- 23 -

DATE	DURATION	VALUE	PHASE	TIME	DIST	REMARKS
1932 July 13	$\frac{1}{4}$ h	5	e	04-21-12		
			eL	04-24		
13	$\frac{1}{4}$ h	1	e	07-22		
14	1h	2	eE	09-13-54		
			eN	09-23-36		
			eL	10-01		
20	$\frac{1}{4}$ h	1	(e	08-07-40)		
			e	08-11-33		
			eL	08-12		
21	$\frac{1}{2}$ h	1	eL	13-45		
25	$3\frac{1}{2}$ h	10	O	09-12-43	35.9°	CS gives 09-12-40
			iP	09-19-52		18.5°N 103.5°W
			iPP	09-21-22		
			eS	09-25-37		
			eL	09-29		
31	$\frac{1}{2}$ h	1	eL	06-38		

1932 Aug 2	$1\frac{1}{2}$ h	4	e	04-47-15		
			e	04-48-13		
			eL	05-30		
11	1h	2	e	10-11		
12	3h	10	O	03-24-01	60.7°	CS gives 03-23-57
			eP	03-34-17		53°N 169°W
			iS	03-42-40		
			eL	03-55		
13	2h	2	e	21-21-20		
			eL	21-59		
14		7	(ePN	04-54-17)		CS gives 04-39.5
			ePE	04-58-21		27°N 103°E
			ePP	04-59-13		
			iN	05-04-26		
			eN	05-05-01		
			iE(ScPcS)	05-06-01		
			e(S)	05-06-50		
			eN	05-07-47		
			e(PS)	05-08		
			eLE	05-26		
17	$\frac{1}{2}$ h	4	(O	08-46-48)	(31.4°)	
			e(P)	08-53-19		
			e(S)	08-58-35		
			eL	09-03 $\frac{1}{2}$		
20				18h		
to 21				19h		no records
22	$\frac{3}{4}$ h	1	eL	12-02		
24	$\frac{1}{4}$ h	2	eN	03-57-40		
			eL	04-01		
25	1h	7	ePP	08-14-23		St. Louis 08-05-48
			e(S)	08-18-55		18°N 106°W
			eL	08-25		

1932 Sept 3	?	0		12-13h		activity lost a/c observer in room and a.d.

- 24 -

DATE	DURA VALUE	PHASE	TIME	DIST	REMARKS
	TION				
1932 Sept 5			11h		
to 9			20h		no records
9 - 10	micro storm				
14	1h 8	eE	08-52-19		St. Louis interprets
		eN	00-52-40		as two quakes
		eN	08-54		I 08-43-29
		iE	03-58-57		II 08-43-41
		eN	08-59-03		60.8°N 145.6°W
		eL	09-04		If two quakes, record character indicates diff. epicentres.
15	? 0		14-16h		
16-17	micro storm				
23	? 0		14-16h		St. Louis gives
					0=14-23-13
					43.9°N 138°E
26	2h 9	O	19-20-47	66.6°	CS gives 19h 20.8m
		ePE	19-31-44		39.5°N 24°E
		iSN	19-40-42		Damage and fatalities in Greece
		eN	19-44-48		
		eL	19-51		
29	1½h 10	O	04-57-26	66.0°	St. Louis gives
		eP	04-08-17		04-57-27
		iSN	04-17-12		40°N 24°E
		eL	04-27		
1932 Oct 1	½h 1	eL	09-08½		
2	2h 10	O	02-59-59	27.6°	CS gives 02-59.3
		eP	03-05-54		12°N 86°W
		ePP	03-07-06		Dist. interpretation doubtful a/c unusual character of S
		eSN	03-10-50		
		iSE	03-11-36		
		eL	03-13½		
		iL	03-16		
9	¼h 1	eL	01-14½		
9	¼h 1	eL	23-10		
11	1h 2	eL	19-26		CS gives 19-08.2
					24°N 110°W
16	2h 5	O	12-08-05	54.9°	CS gives 12-08.1
		iP	12-17-40		54°N 158°W
		iS	12-25-27		
		eL	12-30		
23	micro storm				
29	½h 3	eL	03-55¾		CS gives 03-36.3
					19°N 105°W
29	¼h 1	eL	02-01		
30	1½h 3	(eS	21-04-31)		uncertain a/c a.d.
		eL	21-14		CS gives 20-47.3
					54°N 156°W
31	micro storm				

- 25 -

DATE	DURATION	VALUE	PHASE	TIME	DIST	REMARKS
1932 Nov 2	1h	7	0	11-02-44	78.9°	CS gives 11-03.4
			eP	11-14-53		23°S 111°W
			iS	11-24-53		
			i(PS)	11-25-22		
			eSS	11-29-40		
			eL	11-34 $\frac{3}{4}$		
	4-5 micro storm					
	8-10 micro storm AN>AE T=4S (shorter than normal)					
			T increased to 6s			
13	1 $\frac{1}{2}$ h	7	0	04-46-33	85.8°	CS gives 04-46-31
			eP	04-59-19		45°N 137°E
			iS	05-09-54		
			eSS	05-15 $\frac{1}{4}$		
			eL	05-19 $\frac{1}{4}$		
13	$\frac{3}{4}$ h	2	eLE	16-55		
17	2h	7	ePP	06-11-18		CS gives 06-02-46
			eS	06-15-59		18°N 103.6°W
			eL	06-23		
19	$\frac{1}{4}$ h	1	eN	09-19-46		
			eE	09-22		