

Earthquake Records by Milne Seismograph Meridian Boom. Stonyhurst College Observatory.

Lat. $53^{\circ} 50'.7$ N., Long $2^{\circ} 28'.2$ W., Above Sea, 363 feet.

Time, Greenwich, 0 or 24 = Midnight.

Abbreviations on the other side
International
Seismological
Centre

Date	P ₁		P ₂		P ₃		Maximum		2 A	End		Boom Deviation, 1 mm = 220" arc
1913	H.	M.	H.	M.	H.	M.	H.	M.	mm	H.	M.	Boom Period = 18.5 sec
												Pillar Inclination 1 mm = 0.43" arc
Jan.												January
5	17	43.6 e	-		18	10.5 i	18	20.5	.5	18	56.	
7	23	9.5 e	-		23	42.5 e	23	43.8	1.6			
"	-	-	-		-			50.8	2.0		25 18.	
8	-	-	-		20	7.5 e	20	9.7	.5	20	23.	
9	3	19.8 e	-		3	41.5 e	3	48.3	2.0	5	15.	
10	6	5.5 e	-		-		-		-	6	15.	Small tremors.
"	8	16.6 e	-		8	24.1 e	8	26.	.3	8	40.	
11	13	14.2 e	13	29.2 i	13	42.0 i	14	26.7	3.8			
"	-	-	-		-			29.7	4.0		16 42.	
15	9	4.1 e	19	13.9 i	-		19	40.	.5	20	37.	
19	17	18.6 e	17	30. i	-		18	2.5	1.2			
"	-	-	-		-		18	6.0	1.2			
"	-	-	-		-		19	35.	.4		20 31.	
"	23	50. e	-		-		24	42.2	.4			
"	-	-	-		-		24	51.	.4		25 25.	
20	15	42.2 e	16	2.5 i	16	24.2 e	16	26.	.3			
"	-	-	-		-		16	34.	.4		17 3.	

Feb.

15	21	44.4 e	-		-		21	53.6	< .1	22	20.
20	9	12.4 e	9	21. i	-		9	48.	.6	11	41.
23	3	16.4 i	-		3	40.	3	46.	.2	4	39.

February

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Date	P ₁		P ₂		P ₃		Maximum		2 A	End		Boom Deviation, 1 mm = 220" arc Boom Period = 18 sec Pillar Inclination 1 mm = .44" arc
	H.	M.	H.	M.	H.	M.	H.	M.	mm	H.	M.	
1913												
March												March
1	15	7.7 i	—		15	22.4 i	15	32.3	.2		?	In tremors
6		Tremors	—		2	44.9 i	2	48.5	.6			
"		—	—		—		2	52.5	.5		?	"
8		Tremors	16	19.5 i	16	38.5 e	16	50.	.6		?	"
14	9	0.9 i	9	9.8 i	9	31.8 i	9	48.7	8.0			
"		—	—		—		10	2.3	7.1	12	47	
19	18	58. e	—		—		19	45.	.1		?	Tremors
23	21	12 i	—		—		21	48.9	.5	23	22.	
26	22	35 e	—		—		22	56.	< .1	23	10.	
27	3	38.3 e	—		—		3	43.4	< .1	4	34.	
31	4	1.5 i	—		4	24.9 ?	4	29.7	1.5			
"		—	—		—			34.4	1.4			
"		—	—		—			40.6	1.4	7	37.	
"	23	7.6 e	—		—		23	30.5	< .1	23	48.	
Apr.												April
3	—		—		0	34.8 e	0	49.5	.3	1	20.	
7	—		14	36.6 i	—		14	49.	.5	15	42.	
8	3	8.4 e	—		—		3	21.7	.1	3	36.	
9	18	19. e	—		—		18	53.5	.5			
"	—		—		—		19	5.8	.5	20	28.	
11	0	12. e	—		—		0	22.7	< .1	0	42.	
13	7	4.2 i	—		7	26.4 i	7	31.	.9			
"	—		—		—			36.8	1.6	10	13.	
14	8	13.2 e	—		8	34.5 ?	8	40.8	1.0			
"	—		—		—			48.0	.7	9	20.	
18	—		—		—		14	22.0	.5	—		In tremors
"	19	19.5 e	19	30.4 e	19	54.0 ?	20	11.5	1.9		?	
20	3	27.6 e	—		—		3	36.5	.2	4	1.	
24		Tremors	—		13	12. e			.3			
"	—		—		—		13	16.	.1			
"	—		—		—			24.	.2	14	49.	
25	18	21. x i	—		—		19	36.				* May be P ₂
"	—		—		—			0.	2.9	22	21.	
"	—		—		—			6.6	3.0			
26	4	34.5 e	4	46.2 e	5	5. e	5	21.5	.5	6	7.	Gale of wind
28	4	20.7 e	—		—		4	29.2	.5	5	5.	
"	19	21. e	—		—		19	38.5	.3	20	18.	Times approximate, shutter failing.
29	—		—		4	2.5 e	4	6.	.2	4	32.	
30		Tremors	0	0.7 e	—		0	15.5	.2			
"	"		—		—			28.4	.1	1	33.	
"	At change		—		—		12	20.2	.5			
"	—		—		—			32.	.6			
"	—		—		—			36.4	.6	13	54.	

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Date 1913	P ₁		P ₂		P ₃		Maximum		2 A	End		Boom Deviation, 1 mm = 220 " arc Boom Period = 18.5 sec Pillar Inclination 1 mm = .42 " arc
	H.	M.	H.	M.	H.	M.	H.	M.	mm	H.	M.	
May												
6	-		2	17.5 e	-		2	21.5	.1	2	55.	
7	-		-		0	50. e	0	53.5	.1 x			
8	19	0.8 e	-		-		19	59.6	.4			
"	-		-		-		20	6.2	.4			
"	-		-		-		20	33.	.4	21	48.	
9	-				17	18.5 e	17	26.5	.2	17	41.	
"	?		22	19.0 i	-		23	27.	.1	23	41.	
18	2	28.6 e	-		-		3	12.7	1.0			
"	-		-		-			24.5	.9			
"	-		-		-			28.5	.9	4	48.	
20	4	42.5 e	-		-		4	53.0	.2	5	0.	
23	14	32. e	-		-		15	12.	.5	16	0.	
24	-		23	50.4	-		24	23.	1.2			
-	-		-		-			28.	1.2	25	55	
29	13	53.5 e	-		-		14	27.	.5			
"	-		-		-			33.	.6	14	57	
30	-		12	13.5	-		13	10.1	4.8			
"	-		-		-			17.2	2.9	15	37	

May
for 10 minutes

June												
4	1	38.2 e	-		-		1	52.	.1	2	5.	
"	10	26. e	-		-		11	15.8	.7	12	58.	
13	?		-		-		3	51.	.1	5	26.	
14	9	0.2	-		-		-	-	-	9	25.	
"	9	25. i	9	40. i	9	46.	9	47.1	8.0			
"	-		-		-			51.5	8.0			
"	-		-		-			52.8	6.2	after		
"	-		-		-			54.0	5.0	11	0.	
22	14	51. e	14	14.2 i	14	24.2 i	14	43.	1.2			
"	-		-		-			59.	1.2	17	31.	
26	5	20.7 i	5	42.3 i	?		6	27.7	7.3			
"	-		-		-			36.7	5.0			
"	-		-		-			44.4	4.5			
"	-		-		-			47.2	4.2			
"	-		-		-			51.0	6.7			
"	-		-		-			56.2	7.1			
"	-		-		-		7	2.6	8.2	after		
"	-		-		-			15.4	4.9	11	50.	
"	-		-		-							
28	9	4.6	-		-		9	9.7	.5	9	58.	

see following

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							Pillar Inclination 1 mm = .44 arc

July

1	5 14.5	—	—	5 20.	< .1	5 37.
5	20 39.5i	—	—	20 46.6	< .1	21 10.5
6	—	—	8 16.5i	8 18.0	.2	8 53.
"	16 44.i	—	—	17 20.8	.5	18 53.
7	15 19.2	—	—	—	—	15 54.
"	18 0.8i	—	—	19 0.	.6	} 20 27.
"	—	—	—	49.5	.4	
8	—	—	9 16.i	9 16.5	.1	
"	22 39.7e	—	—	23 32.5	.1	} 10 45.
"	—	—	—	24 46.6	.5	
12	10 47.e	—	—	11 35.	.5	13 45.?
22	—	7 10.6	7 47.e	7 53.	.2	} 9 52.
"	—	—	—	8 5.	.2	
25	13 1.4e	13 5.4e	13 17.e	13 22.	.5	14 2.
26	—	20 58.3e	21 0.e	21 1.3	1.2	21 39.
28	6 0.e	—	6 29.8e	6 34.1	2.1	8 27.
"	—	—	—	—	—	—
"	13 26.6e	13 33.1	13 36.5e	13 39.8	1.0	14 20.

July

Two quakes
together

followed by small
tremors till noon.
Preceded by tremors
beginning 12 45.

Aug.

1	17 33.i	—	—	17 59.	2.0	} 20 38.
"	—	—	—	18 5.	2.2	
5	2 23.7e	—	—	2 35.5	< .1	3 12.
6	22 27.4i	22 38.i	23 3.5i	23 5.5	9.0	} 27 35.
"	—	—	—	12.7	13.5	
13	4 45.e	—	—	5 41.5	.8	7 38.
15	19 28.e	—	—	20 17.5	.4	21 8.
31	0 13.e	—	—	0 17.	.5	0 44.
"	7 14.3e	—	—	7 35.5	.1	} 8 7.
"	—	—	—	49.	.1	
"	—	—	—	58.	.1	
"	17 56.e	—	—	18 32.	.5	19 45.

August

Followed by small
tremors till 28 47.

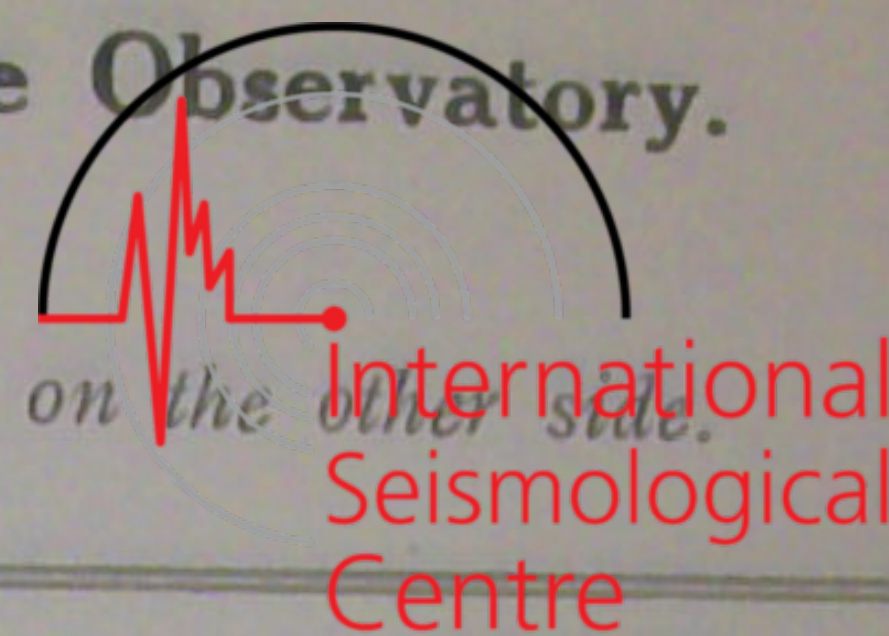
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1913	H.	M.	H.	M.	H.	M.	H.	M.	H.	M.	Boom Period = 18 sec
											Pillar Inclination 1 mm = .44 " arc

Sept

1	22	2.0 e					22	14.0	0.2	22	52.
2	20	5.8 e	{ Preceded by tremors				20	27.	.1	21	27.
3	21	14.5 e					22	8.5	.4		
"	-	-					"	14.8	.6		
"	-	-					"	19.2	.6		
"	-	-					"	31.7	.5		
"	-	-					"	40.6	.4	24	6.
10	8	11.0 e					8	14.7	<.1	8	36.
16	-	-					12	32.	.2		
"	-	-					"	35.5	.2	13	23.
26	23	1. e					23	10.5	.1	24	2.
30	7	47. e					7	53.5	.5	8	36.

September

P, during change

Oct.

2	4	38.9 e	4	46.6 i	5	3.8 i	5	10.7	2.0	7	15.
"	17	42.1 e					17	46.2	<.1	17	49.
3	1	2.5 e					1	20.	<.1	1	33.5
"	10	20.2 e					10	36.	.5	10	53.
4	22	23.5 e					22	52.	.1	23	28.5
9	19	1.6					19	25.	.1	19	47.5
"	22	34.2					22	46.4	.1	23	21.
"	23	44.					24	16.7	<.1	25	3.
11	2	5. ? e					2	53.7	1.3	?	
"	?						5	28.2	1.5	?	
"	?						10	5.1	1.5	after 11 ^h	
12	17	27.4 e					17	54.	.3	19	10.
14	6	58. e					7	31.5	.2		
"							"	37.5	.1	8	0.
"	8	29. e					9	13. ?	1.1	11	34.
"	22	30.2 e					22	49.5	<.1	23	25.

Amongst tremors do.

Very irregular

Instrument out of action from 19th to 29th

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