

BULLETIN OF THE SEISMOLOGICAL STATION

L U N D



$\phi = 55^{\circ} 42' N$ ;  $\lambda = 13^{\circ} 11' E$ ;  $h = 32 m$   
 Sub-soil: Glacial moraines, depth about 100 m, on cretaceous limestone.

Observatory · Lund · Sweden

Instrument: WIECHERT 1000 Kg. horizontal seismograph.  
 Constants:

Component	T sec.	v	r mm.	V
NE	11.7	5	0.7	195
NW	12.1	5½	0.6	190

SIEMENS clock controlled daily by NAUEN ONOGO signals.  
 The seismographic records are read in the GEODETIC INSTITUTE,  
 Copenhagen, Denmark.

No.	Date	Hour	Forerunners				L	Undef.	△	Remarks		
			P		S						h	m
			m	s	m	s	h	m	h	m	o	
	1930											
	Jan.											
1	5	1			39.7		35.1					
2	5	19						.9				Sea of Okhotsk
3	7	17						.5				Some preceding
4	23	11						.9				movement.
5	25	2							.1			Faint
6	28	7						.5				
								.3				
	Febr.											
7	1	19						.8				
8	2	15			16 44		12.0	21.7				Aleutian Islands
9	7	7						.5				Faint preceding
10	7	16				58 14		.7				movement.
11	8	5						1.4				
12	8	6						.6				
13	12	7						.9	51			Faint preceding
14 <sup>x</sup>	14 <sup>x</sup>	18	42	56	46	41	43.5	47	18			Aegean Sea
15 <sup>x</sup>	23 <sup>x</sup>	18	23	15	26	37	26 47		28		19	" "
16	24	21						.7				
17	28	1			16	22 <sup>x</sup>		.4				Atlantic Ocean
	Mar											
18	5	23					59.3					Not very distant.
19	6	8							31			
20	6	9			27	16	23.3	27	51			Archipelago
21	6	16					25		.8			
22	7	11							.7			
23	10	14							.5			
24 <sup>x</sup>	10 <sup>x</sup>	16			145	39	39 39	46	26			Sea of Okhotsk
25 <sup>x</sup>	26 <sup>x</sup>	7					31 14 <sup>x</sup>					Timor
26	30	9							1.0			
27	30	15					47.8		.6			
28 <sup>x</sup>	31 <sup>x</sup>	12	137	56	41	12			1.3			
									43		18	Aegean Sea
	April											
29	10	14									46	
30	16	13					54.9		58			
31	16	15							.2			
32	17	20	11	6	14	34			17		19	Greece
33	21	11							o			



No.	Date	Hour	Forerunners				L	Undef.	△	Remarks			
			F		S						h	m	h
			m	s	m	s	h	m	h	m	o		
34	April 21	12					.3						
35	23	22	0	26			10.6						
36	24	1											
37	25	15											
38	26	7											
39	26	16	29	45	39	5	34	13			72	Aleutian Islands	
40	27	15											
41	28	13											
42	28	18	45.5		54	15	58.6		71		30	66	China
43	30	16								.4			
May													
44	1	1	9.9		19	46						77	Japan
45	2	2					4.4						
46	2	6					23.7	24	53	1.1			
47	5 <sup>x</sup>	13	57	19 <sup>x</sup>	66	36						71	Small preceding movement Burma
48	6 <sup>x</sup>	7					9			19			Armenia. Beginning
49	6 <sup>x</sup>	22	140	11	44	56 <sup>x</sup>						28	Persia not certain
50	7	14					37	2					
51	8	5								.8			
52	8	14								.8			Small preceding movement
53	8	15									.3		
54	8 <sup>x</sup>	15	41	14	145	53	46	17				27	Armenia
55	9	7	12	41	17	2			23			25	Mediterranean Sea
56	11	22	43	30	49	44			.9			41	Persia
57	12	0	28	55	35	8						41	"
58	13	22					12	57 <sup>x</sup>					Small, of short period. (Copenhagen 13 <sup>m</sup> 0 <sup>s</sup> previously overlooked)
59	14	0									6		Italy
60	14	20								.3			
61	16	20								.9			
62	18	1								.1			
63	19	4								.2			
64	19	15			26.1		16.8	19.2		.3			
65	20	8								.8			
66	20	11	26.6		35.8					.8			
67	21	22	15.3		20	28			24			31	
68	23	9					54.9	59.7		64			
69	23	16	50.1		59	48	59	52	60	6	1.3		76
70	24	22										8	Italy
71	29	17										26	Armenia
72	31	18	10	15	20	5 <sup>x</sup>			.6			77	Japan. S small uncertain
June													
73	1	13					37			1.4			
74	4	7	33.8		38.6								
75	4	10					9.0	14.3		.7			Persia e 17 <sup>m</sup> 0 <sup>s</sup> .
76	5	12					5.3			.7			
77	5	22										11	
78	9	4										48	
79	11 <sup>x</sup>	1					9	58 <sup>x</sup>	19	36	.7		Salomon Islands
80	13	1			15.1					.6			
81	15	22								.4			
82	17	20										36	
83	19	13					53			1.0			
84	23	20								.6			
85	25	10			43.3		42.2			1.1			Peru
86	25	12								.7			Small preceding movement
87	25	13								.8			
88	25	21			47.3		46	8	48.8	1.1			Peru. e 36 <sup>m</sup> 5 <sup>s</sup> .



No.	Date	Hour	Forerunners				L	Undef.	△	Remarks		
			P		S						h m s	m s
	July		m	s	m	s	h m s	m s	h m	h m	o	
89	1	1							.8			
90 <sup>x</sup>	2 <sup>x</sup>	21	14	0	22	21	26.5		32		61	Tibet
91	5	19							.0			
92	5	23					21					
93	7	14							.3			
94	13	2							.3			
95	13	19	37	5	44	59					57	China
96	14	22	53.3				63 51	56.6	1.3			Central America
97	22	19	37	9 <sup>x</sup>	46	23	42.1	47 6			71	Kurile Islands.e <sup>m</sup>
98 <sup>x</sup>	23 <sup>x</sup>	0	12	4 <sup>x</sup>	15	4 <sup>x</sup>					16	Italy <sup>NE</sup> 48.0
99	23	14								2		" . Small
100	25	20							.0			
101	27	19					12					
	Aug.											
102	2	16					30.6		1.5			
103	3	22					12					
104	4	5					19 6	26 23				27 <sup>m</sup> 4;31 <sup>m</sup> 2. Deep focus
105	5	23							.6			
106	8	0							.5			
107	9	18					14.9			23		
108	9	23							.1			
109	17	12										No time-marks No records 17 <sup>d</sup> 15 <sup>h</sup> -29 <sup>d</sup> 7 <sup>h</sup> .
110	29	8					40 16					
	Sept.											
111	1	5							.9			
112	1	17			59	17				69		Himalaya
113	2	19			11	47				20		Persia
114	5	16							.8			
115	11	12	41	38	45	43	45 52			49	23	Asia Minor
116	11	17					30 1	37.4				Hindu Kush
117	12	8								30		
118	12	9								33		
119	13	20								17		
120	14	4							.4			
121	14	17					35 30					
122	21	23	15	6	23	57	28.2	31.5	.6		67	China.P not quite certain.e <sup>m</sup> 25.1
123	22	1					.9	62.3	1.9			
124	22	5							.5			
125	22	14	29	48	38	20	38 49		.9		63	Assam
126	22	16			40	32	35.9		.8			Turkestan
127	24	12							.9			
128	25	19							.2			
129	29	13							.9			
130	30	21					.8		1.3			
	Oct.											
131	2	15			45.1				.9			Persia
132	7	23					30 5					The Alps
133	8	10					41		1.3			
134	9	22							.0			
135	10	1							.2			
136 <sup>x</sup>	11 <sup>x</sup>	3	110	51	14.5		14 46			16	20	Greenland Sea
137	16	22							.3			
138	17	9					6.1		.7			
139	23	9							1.1			Small preceding movement
140 <sup>x</sup>	24 <sup>x</sup>	20	28	45	39	48	32 31	139 10				Marianne Islands
141	26	7								21		Italy
142	26	7								37		"



No.	Date	Hour	Forerunners				L	Undef.	△	Remarks		
			P		S							
			m	s	m	s	h	m	h	m	o	
143	Oct. 28	21					.7		1.0			Disturbed
144	30	7	16.1						19			Italy. P faint, not
145	30	8								19		" quite certain
146 <sup>x</sup>	31 <sup>x</sup>	25	116	49								Sweden and Denmark
	Nov.											
147	4	16							.2			
148	7	6	1.8		6.0							Caucasia. Quite small
149	8	3			144	43						marked by microseisms
150	9	19					27	34.7	.9			36 <sup>m</sup> .4; 42 <sup>m</sup>
151	10	14					2.1	12.9	.7			
152	17	13							.1			
153	21	2	4	16	7	29				9	18	Adriatic Sea
154	22	15							.5			
155 <sup>x</sup>	25 <sup>x</sup>	19	14.9		124	45	17	58	.7		78	Japan
156	28	7					.9		1.4			
157	30	22							.4			Faint
	Dec.											
158	2	7							.6			Burma
159 <sup>x</sup>	3 <sup>x</sup>	19	3.2		12	24					71	"
160	20	14							.7			No records 5 <sup>A</sup> - 15 <sup>A</sup>
161	21	15	1	3	37	13	40				80	Faint
162	22	0							.6			Force. Possibly
163	22	0							.8			a small carrier
164	22	5							.0			beginning of P.

<sup>x</sup> affixed to number and date refers to Notes.

<sup>x</sup> affixed to time of phase indicates that beginning of phase is in time-mark.



- | No.  | Notes  |
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| 14.  | Febr. 14. 18 <sup>h</sup> . Aegean Sea. Deep focus. P begins quite faintly, increases; $e_{NW} 43^m 5$ , followed by large movement. S very large.   |
| 15.  | Febr. 23. 18 <sup>h</sup> . Aegean Sea. The early S clearly marked on NE; no corresponding movement on NW, on which S appears to begin $26^m 47^s$ .   |
| 24.  | March 10. 16 <sup>h</sup> . Sea of Okhotsk. P not discernible; PP quite small. S and following phase large and very clearly marked. L quite small.   |
| 25.  | March 26. 7 <sup>h</sup> . Timor. $\Delta = \text{ca. } 110^\circ$ . Quite small movement precedes PP, $31^m 14^s$ (in time-mark). $e 32^m 6^s$ ; PPP $33^m 5$ ; $\overline{S_c P_c S} 37^m 4$ ; S $38^m 53^s$ . PS $40^m 3$ , followed by increasing movement. SS $46^m$ ; SSS $50^m 7$ .   |
| 28.  | March 31. 12 <sup>h</sup> . Aegean Sea. Possibly a small beginning of P previous to the pulse read. P and S large. L irregular.  |
| 47.  | May 5. 13 <sup>h</sup> . Burma. Strong record. P not quite certain, disturbed by minute break. P reflections not clearly marked. $S_{NE} 66^m 41^s$ . Strong oscillatory movement continues after S; $e_{NE} 66^m 53^s$ ; $e_{NW} 67^m 22^s$ ; $e_{NE} 68^m 13^s$ ; $e_{NW} 68^m 4$ ; $e_{NE} 69^m 2$ ; $e_{NW} 69^m 36^s$ ; $e_{NW} 70^m 38^s$ ; $e_{NE} 70^m 9$ ; $e 73^m 6$ . |
| 49.  | May 6. 22 <sup>h</sup> . Persia. Very strong record. The beginning of P small, increase 3 sec. later; $e_{NW} 40^m 41^s$ , followed by a group of large oscillations. $e_{NE} 41^m 0$ . S followed by very large oscillations; $e_{NE} 46^m 6$ ; $e_{NE} (L) 47^m 8$ . Very large M group begins $49^m 9$ .  |
| 54.  | May 8. 15 <sup>h</sup> . Armenia. The beginning of P small, not quite certain. $iS_{NW}$ ; on NE increase of movement $46^m 17^s$ . After S, rather long-period waves of the appearance of L.  |
| 79.  | June 11. 1 <sup>h</sup> . Salomon Islands; $\Delta = \text{ca. } 120^\circ$ . Phases clearly marked on NW: PP $9^m 58^s$ ; PPP $12^m 6$ , small; PS $19^m 36^s$ ; SS $27^m 0$ . About $30^m$ a series of regular waves of the appearance of L. L begins earliest on NE with waves of long period.  |
| 90.  | July 2. 21 <sup>h</sup> . Tibet. The beginning of P quite small, uncertain; increase $14^m 10^s$ and again $14^m 15^s$ ; followed by much oscillatory movement. $e 22^m 35^s$ . Long period waves in first part of L.  |
| 98.  | July 23. 0 <sup>h</sup> . Italy. Both P and S in time-break; first P waves small. L seems to begin almost immediately after S. A group of very large M.  |
| 136. | Oct. 11. 3 <sup>h</sup> . Greenland Sea. P large on NW. The pulse read for S quite small; $14^m 46^s$ large. L regular, of rather long period, as in a more distant shock.   |
| 140. | Oct. 24. 20 <sup>h</sup> . Marianne Islands; $\Delta = 96^\circ 2$ . P quite small. PP large and clearly marked on NW. $e 39^m 31^s$ ; $e 40^m 16^s$ ; PS $41^m 13^s$ ; SS $46^m 16^s$ .   |
| 146. | Oct. 31. 23 <sup>h</sup> . $55^\circ 17' N 12^\circ 46' E$ . Felt in Denmark and Sweden. $\bar{S}$ in minute break, probably $16^m 57^s$ or $16^m 58^s$ .  |
| 155. | Nov. 25. 19 <sup>h</sup> . Japan. The beginning of P small, uncertain; $e_{NW} 15^m 0^s$ . PP clearly marked on NE. L earliest and largest on NW.  |
| 159. | Dec. 3. 19 <sup>h</sup> . Burma. The beginning of P not quite certain. S large and followed by large, irregular movement. Between $30^m$ and $40^m$ very large M.  |