

No. 2

1931

## GEODETISK INSTITUT

Copenhagen, Denmark.

Bulletin of the Seismological Station

IVIGTUT

$$\Phi = 61^\circ 12' \text{ N. } \lambda = 48^\circ 11' \text{ W. } h = 20 \text{ m.}$$

Lithologic Foundation: Gneiss.

Instruments: WIECHERT 1000 Kg. Horizontal Seismograph  
 WIECHERT 1300 Kg. Vertical Seismograph.

## Constants (Mean Values):

Component	T	v	r	v
	sec.		mm	
N	12.2	2.7	0.8	160
E	12.2	4.5	1.4	205
Z	5.1	4	0.2	190

No.	Date	Hour	Forerunners						L	Undef.	△	Remarks	
			P		S		h	m	s				
	1931												
	Jan.		m	s	m	s	h	m	s	h	m	o	
1 <sup>x</sup>	12 <sup>x</sup>	20	44	32									No records 1 <sup>d</sup> 13 <sup>h</sup> - 2 <sup>d</sup> 13 <sup>h</sup> .
2 <sup>x</sup>	15 <sup>x</sup>	2	0	27	8	14							Kamtchatka.
	15	19											Mexico.
4	15	21											
5	16	19	29	51									Some preceding movement masked by microseisms.
6	17	3	0	9	9	24							Mexico.
7	17	6											Mexico.
8 <sup>x</sup>	27 <sup>x</sup>	20					32	38	38.9				Faint.
9 <sup>x</sup>	28 <sup>x</sup>	21					43	2	49.3	68			Burma.
													Caroline Islands.
10 <sup>x</sup>	Febr. <sup>x</sup>	23					6	15	9	44			New Zealand.
11	8	2			i	3	23						" "
12	10	7					4.6						
13 <sup>x</sup>	12 <sup>x</sup>	6											Sumatra. Small preceding movement masked by microseisms.
14 <sup>x</sup>	13 <sup>x</sup>	1					46	51					New Zealand.
15	14	14											
16	16	19											
17	19	18											
18 <sup>x</sup>	20 <sup>x</sup>	5	i44	28	i53	34	45	47	54	7			Siberia.
19	27	9					57.5						
	March												
20	2	2					58						
21	7	0											
22	7	1											
23 <sup>x</sup>	8 <sup>x</sup>	1	i58	43	65	27 <sup>x</sup>	68	53					
24 <sup>x</sup>	9 <sup>x</sup>	4	i0	56	10	46	51	19					Yugoslavia.
25	11	12											Japan.

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			P		S		m	s	m	s	h	m	h
	1931												
	March												
26 <sup>x</sup>	12 <sup>x</sup>	11									.5		
27	18 <sup>x</sup>	8					26.0		29.1				Chile.
28	18	20					38	44	40.6				SE of Mindanao.
29	19	6					49.3		50	15	1.1		e57 <sup>m</sup> 7 <sup>s</sup> Near Luzon.
30	28	13									55		No records 24 <sup>d</sup> 13 <sup>h</sup> - 28 <sup>d</sup> 13 <sup>h</sup> 55 <sup>m</sup> .
31	29	17										.9	
32	31	16					24.8				28		
	April												
33	1	13										.8	Faint.
34	3	23											No records 1 <sup>d</sup> 17 <sup>h</sup> - 3 <sup>d</sup> 13 <sup>h</sup> .
35	6	7					i36	15	39.6				
36	19	2										.6	
37	22	1										.0	
38	24	18										.2	
39	27	17	i0	38			8	42					Until May 3. recording frequently interrupted.
	May												
40	9	11											
41	12	1											Kamtchatka.
42	16	20	57	18	56	21							Mexico.
43 <sup>x</sup>	20 <sup>x</sup>	2	29	8	65	7							Azores.
44	28	5											
45	28	19											Faint.
	June												
46	2	2					59.7						
47	9	14											
48	9	17											
49	13	16											
50	17	12											
51	20	15											
52	21	12											
53	23	6			37	35	41.3						
54	28	16	i37	18									
55	29	16	i55	14	65.0								
	July												
56	5	4											
57	5	7											
58	5	7											
59	5	7					43						
60	5	7											
61	9	12	5	28									
62	12	17					10.2						Pacific Ocean.
63	15	16											
64	17	9	23.5		31	24							
65	18	5					40.0		49.8				Central America. No Z record.
66	18	8											Chile.
67	18	11	i34	9	42	32							Small.
68	19	20											Kamtchatka.
69	20	9											
70	21	3											
71	27	7					57	44	58	33			e58 <sup>m</sup> 47 <sup>s</sup> .60 <sup>m</sup> 3. No Z record.

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No.	Date	Hour	Forerunners						L	Undef.	△	Remarks	
			P		S		m	s	h	m	h	m	
	1931												
	Aug.												
72	6	18	126	28									
73 <sup>x</sup>	7 <sup>x</sup>	2					32.1		41.7		.9		N. of Lake Baikal.
74 <sup>x</sup>	10 <sup>x</sup>	21	29	37							1.1		Pacific Ocean.
75	13	22					32				1.3		Altai.
76	14	16									.7		
77 <sup>x</sup>	16 <sup>x</sup>	2									.5		
78 <sup>x</sup>	16 <sup>x</sup>	11	49	0	55	56	50	53	59.2		63		Faint.
79 <sup>x</sup>	18 <sup>x</sup>	14	31	54	40	46	44	59			.8	48	Mexico.
80	23	16									0	67	Mongolia.
81	23	18									.5		
82	24	21	47	1	56	48	57.4					77	Baluchistan. The beginning of P small, uncertain.
83 <sup>a</sup>	27 <sup>x</sup>	15	38	6	47	48	41.0		53.3			76	Baluchistan. Time-correction wrong by 1 min?
	Sept.												
84	6	7									18		
85	6	8					i 4	26			7		
86	8	19									.8		SE of Greenland.
87 <sup>x</sup>	9 <sup>x</sup>	14									.1		
88 <sup>x</sup>	9 <sup>x</sup>	20	51	49			i 55	50	62	9 <sup>x</sup>			Marianne Islands region.
89	19	9									33		
90	21	3									.0		
91	21	11									.3		
92	25	6											
93	26	20											Sumatra. Masked by microseisms.
	Oct.												
94 <sup>x</sup>	1 <sup>x</sup>	12									.2		
95 <sup>x</sup>	3 <sup>x</sup>	19					34.1						Salomon Islands.
96	3	22									.4		
97	3	22									.9		
98	3	23									.7		
99 <sup>x</sup>	5 <sup>x</sup>	22											
100 <sup>x</sup>	10 <sup>x</sup>	0			51	22	40	58	50	40			Turkestan.
101	10	17									.1		Pacific Ocean.
102	12	4									.0		
103	13	5									.6		
104	21	1											No records 17 <sup>d</sup> 15 <sup>h</sup> - 19 <sup>d</sup> 15 <sup>h</sup>
105	23	21									.1		
106	28	6									.5		No records 25 <sup>d</sup> 19 <sup>h</sup> - 26 <sup>d</sup> 15 <sup>h</sup>
107	28	7									51		Small. Not very distant.
	Nov.												
108	1	19									.6		
109 <sup>x</sup>	2 <sup>x</sup>	0	41	48 <sup>x</sup>	49	41	55				1.0		
110 <sup>x</sup>	2 <sup>x</sup>	10	15	44 <sup>x</sup>			26	28	27	27			Mexico.
111	2	18									.1		China Sea.
112	2	19									.0		Small preceding movement.
113	4	18									.4		
114	5	12									.8		Faint.
115	18	4					39.3				.7		
116	20	14									1.1		Faint.
													Small preceding movement.

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			P	S	m	s	m	h	m	s	m	s	
117	1931 Dec:	1 4									.6		
118		1 19									.6		
119		18 10									.9		Faint.
120		24 3											Time-correction
121		25 4						55					uncertain.

<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.

Notes

- No. 2. Jan. 15. 2<sup>h</sup>. Mexico. Strong record. The beginning of P small, increasing oscillations. Continued strong oscillatory movement. PPP 3<sup>m</sup>.9. S very large. SS 12<sup>m</sup>.2, not large, e<sub>E</sub> 12<sup>m</sup>.9; e<sub>N</sub> 13<sup>m</sup> 51<sup>s</sup>, large. M large, regular.
- No. 8. Jan. 27. 20<sup>h</sup>, Burma; △ = ca. 90°. Strong microseismic movement. Parts of E record unreadable owing to unsuccessful smoking. P not discernible. (S<sub>c</sub> P<sub>c</sub> S) 32<sup>m</sup> 38<sup>s</sup>, clearly marked; increase of movement, (S), 33<sup>m</sup>.0. M large.
- No. 9. Jan. 28. 21<sup>h</sup>. Caroline Islands; △ = ca. 110°. PP<sub>Z</sub> 43<sup>m</sup> 2<sup>s</sup>, not very clearly marked, small preceding movement masked by microseisms. S<sub>c</sub> P<sub>c</sub> S 49<sup>m</sup>.3 clearly marked on N. (S)<sub>E</sub> 50<sup>m</sup>.6. PS<sub>N</sub> 52<sup>m</sup>.3. SS 58<sup>m</sup>.0. L begins earliest on E with some waves of long period.
- No. 10. Febr. 2. 23<sup>h</sup>. New Zealand; △ = ca. 150°. Beginning of P' small; increase 6<sup>m</sup> 22<sup>s</sup> and 6<sup>m</sup> 31<sup>s</sup>, very large on Z. PP 9<sup>m</sup> 44<sup>s</sup>. Later phases not clearly marked.
- No. 14. Febr. 13. 1<sup>h</sup>. New Zealand. Beginning of P' small, on Z only, reading not quite certain; increasing oscillations, large on Z. Later phases not clearly marked; e 60<sup>m</sup>.3, 61<sup>m</sup>.7; 68<sup>m</sup>.9.
- No. 18. Febr. 20. 5<sup>h</sup>. Siberia. Deep focus. △ = ca. 70°. Forerunners large and clearly marked. L small. S largest on E. e 54<sup>m</sup> 7<sup>s</sup> and e 56<sup>m</sup> 1<sup>s</sup> on N only.
- No. 24. March 9. 4<sup>h</sup>. Japan. The time of P not certain owing to irregular rotation of the Z drum. iS<sub>E</sub> 10<sup>m</sup> 50<sup>s</sup> followed by large movement. L earliest on E. M large.
- No. 27 March 18. 8<sup>h</sup>. Chile. △ = ca. 100°. Z record unreadable. S<sub>c</sub> P<sub>c</sub> S 26<sup>m</sup>.0. PS 29<sup>m</sup>.1.
- No. 43. May 20. 2<sup>h</sup>. Atlantic Ocean between Azores and Portuguese coast; △ = 31°. e<sub>N</sub>(S) 33<sup>m</sup> 53<sup>s</sup>; a clearly marked onset 34<sup>m</sup> 12<sup>s</sup>.

Notes

- No. 73. Aug. 7. 2<sup>h</sup>. Pacific Ocean.  $\Delta$  = ca. 115°. On Z, some movement previous to PP, 32<sup>m</sup>.1. PS 41<sup>m</sup>.7. SS 48<sup>m</sup>.8.
- No. 74. Aug. 10. 21<sup>h</sup>. Altai.  $\Delta$  = ca. 68°. Very strong record. Beginning of P quite small, on Z only; some movement previous to first pulse read, P<sub>N,E</sub> 29<sup>m</sup> 48<sup>s</sup>. Larger movement follows e 30<sup>m</sup> 6<sup>s</sup>. PP 32<sup>m</sup>.6, some preceding increase of movement. e<sub>N</sub> 34<sup>m</sup>.5. eS 38<sup>m</sup>.6; i<sub>N</sub> 39<sup>m</sup> 1<sup>s</sup> and i<sub>E</sub> 39<sup>m</sup> 6<sup>s</sup> very large e<sub>E</sub> 40<sup>m</sup>.2 e<sub>E</sub> 45<sup>m</sup>.1. Some large waves of very long period in first part of L. M very large.
- No. 78. Aug. 16. 11<sup>h</sup>. Mexico. Phases clearly marked. PP about as big as P. eS<sub>E</sub> 55<sup>m</sup> 56<sup>s</sup>; eS<sub>N</sub> 56<sup>m</sup> 1<sup>s</sup>; e<sub>E</sub> 56<sup>m</sup> 12<sup>s</sup>. One M group on N about 73<sup>m</sup>, on E about 76<sup>m</sup>; later L not large. (L') 13<sup>h</sup>.9.
- No. 79. Aug. 18. 14<sup>h</sup>. Mongolia. The beginning of P small, e 32<sup>m</sup> 1<sup>s</sup> larger. S large and exceptionally well defined.
- No. 83. Aug. 27. 15<sup>h</sup>. Baluchistan. The beginning of P small, not quite certain; followed by much oscillatory movement; i<sub>Z</sub> 38<sup>m</sup> 48<sup>s</sup> large. PP not very clearly marked. S large on E. e 48<sup>m</sup> 32<sup>s</sup>; e 49<sup>m</sup>.0 large. L' 17<sup>h</sup>.9.
- No. 88. Sept. 9. 20<sup>h</sup>. Marianne Islands region;  $\Delta$  = ca. 100°. 2 shocks according to observations of other stations. P quite small. i 55<sup>m</sup> 50<sup>s</sup> and 62<sup>m</sup> 9<sup>s</sup> large, on N only. e<sub>E</sub> 63<sup>m</sup> 6<sup>s</sup>.
- No. 95. Oct. 3. 19<sup>h</sup>. Salomon Islands;  $\Delta$  = ca. 130°. Small beginning about 34<sup>m</sup>.1, masked by microseisms. e 44<sup>m</sup> 25<sup>s</sup>; 46<sup>m</sup>.8. e 51<sup>m</sup>.3; 51<sup>m</sup>.8 large. About 66<sup>m</sup> a very large wave of long period.
- No. 100. Oct. 10. 0<sup>h</sup>. Pacific Ocean;  $\Delta$  = ca. 120°. No E record. On Z, quite small movement about 38<sup>m</sup>.9. e<sub>N</sub> 47<sup>m</sup>.7. 57<sup>m</sup>.6 large. L large, of long duration.
- No. 110. Nov. 2. 10<sup>h</sup>. China Sea;  $\Delta$  = ca. 90°. Z not in good working order. PP 18<sup>m</sup>.9. Some increase of movement about 25<sup>m</sup>.7. 26<sup>m</sup> 28<sup>s</sup> and 27<sup>m</sup> 27<sup>s</sup> well marked phases. SS 32<sup>m</sup>.