

No. 39.

1936.

Geodætisk Institut
 Proviantgaarden, Copenhagen, Denmark.

Bulletin
 of the seismological station

KØBENHAVN

$\varphi = 55^{\circ}41' N.$ $\lambda = 12^{\circ}27' E.$ $h = 13$ m.

Lithologic foundation: chalk.

No. 39. July—Sept. 1936.

Instruments:

Galitzin-Wilip seismographs.

Constants:

Component	l	A_1	T_1	μ^2	T	k
N	cm 12.5	cm 100	sec 12.61	-0.06	sec 12.5	102
E	12.5	100	12.65	0.08	12.4	102
Z	14.5	100	11.55	0.3	11	94

Wiechert 1000 kg. horizontal seismograph.

Wiechert 1300 kg. vertical seismograph.

Constants:

Component	T	ν	ρ	V
N	sec 9.7	4.4	mm 0.7	215
E	9.8	4.3	0.8	195
Z	5.9	4.6	0.2	155

Milne-Shaw seismograph, N (from $29/8$) and E components, with the approximate constants $T = 12^s$ $\nu = 20$ $V = 300$.

Wood-Anderson torsion seismometer, E component, $T = 2^s.7$.

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No.	Date	Hour	Forerunners				L	Un-defined	△	Remarks
			P	S						
	1936		m s	m s	h m s	m s	h m	h m	°	
1	July 1	17					.4			Seismic?
2	2	13					.3			
3	2	14					.9			
4	2	23					.9			
5	3	3			17 55	19.9	.9			PKS 21 ^m 18 ^s . SKKS 26 ^m .7.
6	3	21					.8	43		
7	4	9			16.7	17 37	.8			No G. records. Disturbed.
8	4	9	9 27	19.6						» » » »
9	5	15					.2			
10	5	17					.8			
11*	5*	19	8 49		12 51	19.4	.7			Celebes Sea.
12	6	2					.8			
13	6	18			45.8	54.0	1.2			
14	8	20					.5			
15	9	3						1		
16	9	17					.7			
17	10	3			15 20			17		
18	10	19			57.4		1.4			
19	11	18					.7			
20	12	3			1 48	12.5	1.0			
21*	13*	11	26 27		30.7	37 15		56		Chile.
22	13	20					.2			
23	14	11					.2			
24	14	18						48		Iceland.
25	14	23					.2			
26	15	2	6.9	17 1*			.6			P uncertain. Japan.
27	15	12		13.1			.6			
28	16	7					.8			
29	18	18					.5			
30	19	3			0.6		.4			
31	21	0			19 4		.6			
32	21	5						.0		
33	22	6			38 19		1.7			
34	22	9					.4			Preceding movement disturbed.
35	23	6			39 37	40 14			83	
36	23	7	17 54	28 13						East of Japan. Superposed on preceding shock.
37	23	19					.8			
38*	26*	7	51 8		55 26	57 49	1.3			Chile.
39	27	10					.4			
40	27	21					.0			
41*	28*	5			38 0*	40 31	1.2			Off New Guinea.
42*	28*	8			12 12	14 46	.9			» » »
43	30	15					.3			
44	30	19						40		
45	31	18			4 36		.4			
46	Aug. 1	6		43.7	47.7	51.0		56		Kansu.

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No.	Date	Hour	Forerunners				L	Un-defined	△	Remarks
			P	S						
	1936 Aug.		m s	m s	h m s	m s	h m	h m	°	
47	1	8					.8			
48	2	1						11		
49	2	18	25 48	29.9			34		23	Asia Minor.
50	2	20					33			
51	2	22	45 46	49.5			52		21	Aegean Sea.
52	3	4		10.6			14			Asia Minor.
53	4	14		32 31			.8			North of Luzon.
54	7	22			12.1		.5			
55	8	4	17 54	22 0*			24		23	Creete.
56	8	12					.0			
57	9	16					.8			
58	10	6			40 46		46			
59	12	22	29 4	33 6	32.5		36		23	Aegean Sea.
60	13	11					.3			
61	13	16					55			
62*	13*	20	16 6		20 2*	26 39	.8			Mindanao.
63	14	12					.8			
64	14	20					.8			
65	14	21						54		
66	14	22	48.4		58 54	59.8	1.4			PS 60 ^m .9. Pacific Ocean.
67	15	2			47 58	54.0	1.6			
68	15	5			49.4		1.7			
69	16	8						52		
70	16	14					.7			
71	16	17					.3			
72	16	21		51 17			1.1			Persia.
73	17	6			18 10		22			
74	17	6			34 3		1.6			
75	17	14			20		1.0			No time-marks.
76	17	18					.0			
77	17	18					.8			
78	18	3					.0			
79	18	7	20 8	31.1	23 36		.8		91	Pacific Ocean off Mexico.
80	20	2					26			
81	20	23	40 38	47 5	42.4	50.5			43	Fergana.
82	21	13					.2			
83	21	15					.6			
84*	22*	7	3 53	14 1*	7.0	20.1	32		81	Formosa.
85	22	11	21 37	31.8			.9		81	Formosa.
86	23	20	57 38	67.1					73	P+. Indian Ocean.
87*	23*	21	i24 26	34 29	i24 48	35 30			80	Sumatra.
88	24	22			41.6	42 27				PP 45 ^m 33 ^s . SS 64. ^m 6. West of New Zealand.
89	25	20					.1			
90	26	11		56.1			1.3			Kurile Islands region.
91	26	21			48.1	54.1	1.1			
92	27	3						27		Faint.
93	28	0		31.4			.6			Persia.
94	28	2					.9			Faint.

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			P		S										
			m	s	m	s	h	m	s	m	s	h	m	°	
	1936														
	Aug.														
95	28	6					59	33				1.7			
96	28	22										25			
97	29	2					31	1				34			
98	29	13										.1			Disturbed.
99	29	20										.2			
100	29	22			39	43						.9			No Z record. Arabian Sea.
101	30	17										.9			
	Sept.														
102	2	9										.9			Disturbed.
103	2	12										13			
104	2	13	17	51	22.7							27			Caucasus. P and S uncertain, [masked by microseisms.
105	3	5					29.5					51			
106	3	12					42	21	45	54		1.6			
107	3	15										.6			
108	3	20					14	38				.6			
109	3	22										9			
110	4	8	22	6	32	24	33	34	37.4			.9	83		Pacific Ocean southeast of Tokyo.
111	5	5										.2			Faint.
112	5	22										.7			Small preceding movement.
113	6	4					55.3					56			Rumania.
114	6	6					3.7					7			
115*	6*	17					59	12	69	24		1.9			Pacific Ocean.
116	7	3										3			
117	7	8										.1			
118	7	9										.3			
119	7	12					46	35	52.5			1.3			
120	8	17										.2			Strong microseisms.
121	12	16										12			
122	12	18					21.4					39			
123	13	4											6		
124	14	14										16			
125	15	14										4			
126	16	9					42	0				.7			Forerunners disturbed.
127	17	8										.3			
128	17	18										.6			
129	18	18	50	59	61	20*	62	51	66.7			81	83		Japan.
130	19	1	i 14	16	i 24	40	25	23*	25	45		.6	84		(P—) SS 30 ^m 1. Sumatra. P +
131	19	6			53	16						1.2			Sumatra.
132	19	15					4	11				33			
133	20	11										8			
134	21	11	45	55	49	30	i 49	40	52.5			54	20		Black Sea.
135	21	12	31	40	35	15	i 35	25				40	20		» »
136	21	13										22			
137	21	16										21			Iceland.
138	21	16										35			»
139	21	17										38			
140	21	18										19			Iceland.

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			P		S									
			m	s	h	m	s	m	s	h	m	h	m	°
	1936													
	Sept.													
141	21	20								39				Iceland.
142	22	12	1.6		5	1				9				Black Sea. P quite small, uncertain.
143	24	20								14				Faint.
144	24	21								.5				»
145	25	1								.5				»
146	25	13	5	29	15	10				24				Pacific Ocean. Pand S small un-
147	29	16								1.7				[certain.

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NOTES

- No. 11. July 5. 19^h. Celebes Sea; $\Delta = \text{ca. } 100^\circ$. P 8^m49^s, condensation. PP 12^m51^s. e_E 17^m.1. SKS not very well defined, 19^m.4. 19^m55^s a large oscillation. PS 22^m.0.
- No. 21. July 13. 11^h. Chile; $\Delta = \text{ca. } 105^\circ$. No Galitzin Z record; the beginning of other records slightly disturbed. P 26^m27^s, small. PP 30^m.7; increase of movement 30^m59^s. SKS 37^m15^s; e 37^m27^s larger. e 38^m15^s; e_N 38^m48^s. PS_E 40^m8^s; $e_N i_E$ 40^m31^s, large on E . SS 40^m.2.
- No. 38. July 26. 7^h. Chile; $\Delta = \text{ca. } 105^\circ$. P 51^m8^s, dilatation. PP 55^m26^s; PPP 57^m49^s. e_E 59^m.3. SKS_E 61^m47^s; $SKKS_E$ 62^m46^s. S_N 63^m3^s. PS 64^m45^s, large on E . PPS_E 65^m42^s. SS 70^m37^s.
- No. 41. July 28. 5^h. Off New Guinea; $\Delta = \text{ca. } 115^\circ$. PP 38^m0^s; PPP 40^m31^s. SKS_E 43^m.6. S_E 45^m45^s. PS 47^m39^s. SSS 58^m.5.
- No. 42. July 28. 8^h. Off New Guinea; $\Delta = \text{ca. } 115^\circ$. PP 12^m12^s; PPP 14^m46^s. SKS 18^m9^s. S 20^m4^s. PS 21^m54^s.
- No. 62. Aug. 13. 20^h. Mindanao; $\Delta = \text{ca. } 100^\circ$. No Galitzin records. P 16^m6^s, small. PP 20^m2^s. e_E 23^m44^s; 24^m40^s. SKS 26^m39^s; (S) 27^m27^s. PS 28^m36^s; PPS 29^m.3.
- No. 84. Aug. 22. 7^h. Formosa. P 3^m53^s, dilatation. e 4^m11^s; 4^m48^s. PP 7^m.0; PPP 9^m.0; $PPPP$ 10^m.2. S_E 14^m1^s, S_N 14^m6^s. e 15^m9^s. SS 19^m.0; e_E 20^m.1 larger. $SSSS$ 25^m.4.
- No. 87. Aug. 23. 21^h. Sumatra. Some depth of focus. No Galitzin Z record. iP large on E and Z , condensation. $i(pP)$ 24^m48^s. e 29^m.6; 30^m.3; 31^m.0. S very large on N . e_E 35^m30^s large. SS 39^m.5. L not very large, the beginning uncertain.
- No. 115. Sept. 6. 17^h. Pacific Ocean; $\Delta = \text{ca. } 150^\circ$. P_1' 59^m12^s, large on Z ; e_N 59^m24^s. e 65^m42^s. $SKKS$ 69^m24^s. $SKSP$ 72^m46^s. SS 81^m.0. SSS 86^m.2.