No. 7. 1931.

Geodætisk Institut
Proviantgaarden, Copenhagen, Denmark.

Bulletin
of the seismological station

SCORESBY-SUND

$\varphi = 70°29'$ N. $\lambda = 21°57'$ W. $h = 69$ m.

Lithologic foundation: Gneiss.

No. 7. Jan.—June 1931.

Instruments:

Galitzin pendulums with galvanometric registration.

Constants:

Component	l	T_1	A_1		μ^2	T	k
	cm	sec	cm			sec	
N	12.0	12.4	100	$^1/_1$—$^{21}/_4$	0.05	12.6	46
				$^{21}/_4$—$^{25}/_6$	0.2	12.6	89
				$^{25}/_6$—$^{30}/_6$	0.0	12.5	88
E	12.0	11.9	100	$^1/_1$—$^{21}/_4$	0.0	12.1	53
				$^{21}/_4$—$^{30}/_6$	0.0	12.1	86
Z	14.1	10.1	100			ca. 8	

Time-corrections have been determined daily by means of Nauen scientific time-signals and time is, as a rule, known with an accuracy of about $^1/_2$ sec.

Scoresby-Sund.

No.	Date	Hour	Forerunners P	Forerunners S	Forerunners	Forerunners	L	Undefined	△	Remarks
	1931 Jan.		*m s*	*m s*	*h m s*	*m s*	*h m*	*h m*	°	
1	2	0			11.4		.5			
2*	2*	10	0.4	9 35	10 24	13.6	20		70	Pacific Ocean.
3	4	0			17		.4			
4	12	15			24		.5			
5	12	20	43.7	51.3	55.2		1.0			Kamtchatka. *P* uncertain.
6*	15*	2	*i* 1 53	11 3	15.6	18.8			70	Mexico.
7	15	21			28.9		.7			
8	15	23			10	18	.6			
9	16	19			31.1	40.6	.9			Mexico.
10	17	3		9.6	14		20			„
11	17	6					.2			
12	23	6					.5			
13	24	14					42			Recording interrupted 12^h42^m—
14	25	13					.2			[14^h42^m.
15*	27*	20	*i* 21 2	30 34	23.9	25.6			74	Burma.
16	28	6						.3		
17*	28*	21			41 50	49 21				Caroline Islands.
18	29	17					.8			
	Febr.									
19*	2*	23			6 25	*i* 6 38				New Zealand.
20	8	2			3 31		.9			„ „
21*	10*	6			52.8	59.3				Sumatra.
22	12	6					.7			„ Forerunners masked by
23*	13*	1			47 1	47 12				New Zealand. [microseisms.
24	14	14			.4					
25	16	19					.4			Small preceding movement masked
26	19	18			8		.4			[by microseisms.
27*	20*	5	*i* 43 36	*i* 51 36	44 44	*i* 52 43				Siberia.
28	27	9			56.2	62 22	1.5			
	March									
29*	2*	2			39 52	*i* 41 3	1.3			New Caledonia.
30	5	18					.9			
31*	7*	0			25 21	32 29				Yugoslavia.
32	7	1					.2			
33*	8*	1	*i* 57 31	63 22	*i* 58 58	65.9			38	Yugoslavia.
34	8	13					.2			
35*	9*	3	59 58	69 7	62 31	69 47			70	Japan.
36	10	4					.0			
37	11	6			27		1.0			
38*	11*	12	39.5	49 48	55.4		1.2			Marianne Islands region.
39	12	10			53.5	63.7	1.4			
40	12	19			32.3		.9			
41	12	21					.8			Faint.
42*	18*	8			21.4	30 56				Chile.
43*	18*	20		38 45	38 1	44.9	1.0			SE of Mindanao.
44	19	5					.7			Faint.
45*	19*	6	37 49		48 14	54 19	70			Near Luzon.
46	22	21					27			

Scoresby-Sund.

No.	Date	Hour	Forerunners P	Forerunners S			L	Undefined	△	Remarks
	1931 March		*m s*	*m s*	*h m s*	*m s*	*h m*	*h m*	°	
47	24	13						19		
48*	28*	12	53.3		58 9	64 2				South Moluccas.
49	29	17			42.5		.9			
50	29	18	2 30		*i* 2 51	11 11				Superposed on preceding shock.
51	29	19					.7			
52	30	8					.3			
53	30	14			3		.5			
54	30	15					.8			Faint.
55	31	16			22.9		.6			
	April									
56	1	13					.7			
57	3	2			19.9	21.2				
58	3	6					.3			Small.
59	3	22						.1		
60	3	23			37.3	39.7				*e* 40m.7. *e* 48m.4.
61	5	22						.0		Faint.
62	6	7			9 29*	19.2				
63	6	12			32.3		1.0			Faint.
64	7	8					.7			
65	8	19			31.8		1.0			
66	9	23	12.0	20.7	28.8		.6			*P* quite small, uncertain.
	11									No records 13h19m—16h43m.
67	12	2			23.3		1.0			
68*	15*	17		9 3						Atlantic Ocean.
69	16	23					.0			
70	18	13					44			
71	19	2			20.9	28.5	.6			
72	19	3					.3			
73	20	20						.9		
74	21	0			21.3					Faint.
75	22	0			0.1					»
76	22	0			22.8	40.3	.9			
77	24	0			10.3		.6			
78	24	2			39.2		1.0			
79*	24*	17	37 17		42 4	51 39	70			Salomon Islands.
80	25	11					.7			
81	25	19			.6		1.1			
82	25	23					.1			Faint.
83	26	4	31 50	39.7	44.6		50		57	Kamtchatka.
84	26	6					.8			
85	26	7					.9			
86*	27*	16	*i* 59 10	66 2	60 57	69 17			47	Armenia.
87	27	19	28 56							
	May									*P* faint, not quite certain.
88	1	22	48.0	57 9						
89	4	17			.2		1.2			
90	6	15	15.5		39.6		1.1			
91	6	20						41		

Scoresby-Sund.

No.	Date	Hour	Forerunners P	Forerunners S	Forerunners	Forerunners	L	Undefined	△	Remarks
	May 1931		*m s*	*m s*	*h m s*	*m s*	*h m*	*h m*	°	
92	7	1			4.6		.3			
93	7	6					.2			
94	8	0					.9			
95	9	10			54 24	62.1	69			
96	10	19			.9		80			
97	11	4						.5		
98	12	1	46 55	54 50	47 13*	50.7	1.1		57	Kamtchatka.
99	12	10			34		.9			
100	13	9					.3			Faint preceding movement.
101	13	23			26		.8			
102	15	0					.0			
										15^d12^h—19^d18^h time-service failing.
103*	20*	2	29 30	*i* 34 50					33	Atlantic Ocean.
104	20	22			.3					
105	22	1					.8			
106	22	8					.1			
107	22	20					58			
108	23	3					.9			
109	24	0			31	37.3	1.0			
110	24	21			42	51.1				
111	26	3						47		Small.
112	27	6			17 16		29			
113	27	7					.5			Faint preceding movement.
114	27	10					.9			
115	28	3						39		
116	28	5			26 28		27			
117	28	18	43 58	51 57			1.0		58	Kurile Islands.
118	29	5		30 38	26.3					Alaska.
119	29	8			50					
120	30	11	43.8	51 50			1.0		58	
121	30	19			7					
122	30	20						46		Small.
	June									
123	1	12			14.2	23 58	.8			
124	1	14			25.7	29.8				
125	2	2		58 3	50.3	59 48				*P* quite small, about $49^m.1$.
126	2	4			40 29		1.0			
127	2	5			57.7		1.8			
128	2	18					.0			
129	4	10			9.8	19 0				New Guinea.
130	7	0	29.7	33 23	29 54				20	North Sea. *N* record only.
131	9	5	19 0	28.8			.7			
132	9	12					81			No Records 12^h8^m—13^h21^m.
133	9	16					147			No Records 14^h3^m—18^h27^m.
134	11	5						25		
135	11	6					.9			
136	11	19						.9		
137	12	1					24			Small.
138	12	2						6		„

Scoresby-Sund.

No.	Date	Hour	Forerunners P	Forerunners S			L	Undefined	△	Remarks
	1931 June		*m s*	*m s*	*h m s*	*m s*	*h m*	*h m*	°	
139	13	15			55.9	56 39	1.7			*e* 65m.9; *e* 69m.4.
140	14	7						23		Not very distant.
141	15	10					.3			
142	15	11	33 14		44 16	50.5	1.1			
143	17	12	21 9	30 31	34.8		45		72	Japan.
144	17	17			21.9	31.1	1.0			
145	18	13	9.5	18 21	26.2		.6		67	Tibet.
146	20	0						12		Small.
147	20	1			34		.7			
148	20	15	9 51	13 36*			15		21	Arctic Sea.
149	21	12			43.9		58			
150	22	10					.3			
151	22	16					.7			Recording interrupted 13h59m—16h
152	23	6	26 27	35 52	29 7	40.6	.9		73	Japan. [40m
153	24	23	58.7	68 10					73	Arabian Sea.
154	27	18			.5		1.0			
	28									No records 12h7m—17h59m.
155	28	21	36 38	44.7			1.0		59	
156	29	16	*i* 54 19	*i* 63 27					72	
157	29	20			42 44	49 20				*e* 52m.0.
158	29	21					.3			
159	30	10						38		Small.
160	30	22						2		

Scoresby-Sund.

NOTES

No. 2. Jan. 2. 10^h. Pacific Ocean near Mexico. *P* quite small; *S* clearly marked on *N*. Some large *M* groups.

No. 6. Jan. 15. 2^h. Mexico. Strong record. iP_Z, dilatation. Strong variable movement between *P* and S but phases not clearly marked. *S* large, followed by very large movement of long period. *SS* $15^m.6$ and SSS_N $18^m.8$ followed by large oscillations. *L* shortly after *SSS*; *M* very large.

No. 15. Jan. 27. 20^h. Burma. Much microseismic movement. iP_Z, dilatation. *S* large, followed by large movement. *SS* $34^m.9$; *SSS* $38^m.6$. Strong movement continues into *L*.

No. 17. Jan. 28. 21^h. Caroline Islands. No *N* record. Additional readings: $(\overline{S_cP_cS})$ 48^m42^s; *SS* 56^m6^s.

No. 19. Febr. 2. 23^h. New Zealand. eP' 6^m25^s; *i* 6^m38^s followed by large oscillations. Later strong, irregular movement but phases not clearly marked. e_Z 7^m47^s; e_Z 8^m36^s. PP_N $9^m.9$. *e* $14^m.9$; e_N $17^m.8$. $(\overline{S_cP_cS}\,P)_N$ 20^m23^s; e_E $22^m.0$; PPS_N $23^m.5$. *SS* $29^m.0$.

No. 21. Febr. 10. 6^h. Sumatra. Masked by microseisms. Additional readings: e_N $63^m.0$; *SS* $68^m.4$. The beginning of *L* uncertain; *L* not large but of long duration. *L'* ca. $8^h.7$.

No. 23. Febr. 13. 1^h. New Zealand. P'_Z 47^m1^s; $e_{N,E}$ 47^m12^s. In following movement phases not clearly marked. e_N $50^m.4$; e_E $59^m.8$; e_N $65^m.9$. e_E $69^m.1$.

No. 27. Febr. 20. 5^h. Siberia. Deep focus. *S* large, on *E* only; the following phase large on *N*. e_E $55^m.0$; *e* $59^m.1$. *L* small.

No. 29. March 2. 2^h. New Caledonia. $\triangle$ = ca. 130°. The clearest marked phase i_N 41^m3^s, probably $\overline{P_cP_cS}$. (*PPS*) $52^m.2$; *SS* $57^m.2$.

No. 31. March 7. 0^h. Yugoslavia. *PP* 25^m21^s; SS_N 32^m29^s; e_E $33^m.0$. *M* from about 39^m.

No. 33. March 8. 1^h. Yugoslavia. Phases well defined. *PP* and *SS* large.

No. 35. March 9. 3^h. Japan. The beginning of *P* small, read on *Z*. *S* large, well defined on *E*. e_E $11^m.8$. *SS* $13^m.9$. SSS_E (or *L*?) $16^m.9$. *M* large.

No. 38. March 11. 12^h. Marianne Islands region. No *Z* record. *P* quite small, possibly 39^m27^s. *S* well defined.

No. 42. March 18. 8^h. Chile; $\triangle$ = ca. 110°. *PP* $21^m.4$; $\overline{S_cP_cS}$ $27^m.4$; *PS* 30^m56^s; *SS* $36^m.9$; *SSS* $40^m.9$. *M* regular.

No. 43. March 18. 20^h. SE of Mindanao; $\triangle$ = ca. 100°. First forerunners quite faint, first discernible movement $28^m.1$. $\overline{S_cP_cS}$ 38^m1^s, well defined on *N* and *E*. S_N 38^m45^s. PS_N $39^m.7$. *SS* 45^m.

No. 45. March 19. 6^h. Near Luzon. *P* small, read on *Z*. Later phases very clearly marked. Additional readings: e_N 41^m18^s; $e_{E,Z}$ 41^m32^s. PS_N $50^m.0$. $e_{N,E}$ $61^m.1$.

No. 48. March 28. 12^h. South Moluccas; $\triangle$ = ca. 110°. *P* quite small. Later phases clearly marked. *PP* 58^m9^s; $\overline{S_cP_cS}$ 64^m2^s; S_N $65^m.8$; *PS* $67^m.8$; *PPS* 68^m46^s; *SS* $74^m.1$; e_Z $75^m.8$; *SSS* $77^m.8$.

No. 68. April 15. 17^h. Atlantic Ocean. *P* quite small, possibly $4^m.2$. 9^m3^s a clearly marked phase on *E*; on *N* earlier increase of movement but no marked phase. *L* small, irregular.

No. 79. April 24. 17^h. Salomon Islands; $\triangle$ = ca. 115°. *P* quite small, on *N* only. Later phases in forerunners clearly marked on *N*: *PP* 42^m4^s, large; $\overline{S_cP_cS}$ $47.^m8$; *PS* 51^m39^s and *SS* $58^m.2$, large; *SSS* $62^m.2$. On *E*, *L* begins distinctly 70^m.

No. 86. April 27. 16^h. Armenia. iP_Z, dilatation, large; *PP* slightly smaller, clearly marked. The beginning of *S* not well defined, followed by a group of oscillations. *SS* clearly marked. On *N*, *SSS* $70^m.1$ very large; large movement continues; no distinct beginning of *L*. On *E* smaller movement follows *SSS* and *L* begins distinctly 77^m. $19^h.6$ *L'* or *L* of a following shock.

No. 103. May 20. 2^h. Atlantic Ocean. Small beginning of *P* 29^m30^s; $i_{N,Z}$ 29^m33^s. $e_{N,Z}$ $30^m.4$, increase of movement $30^m.7$; e_E 30^m50^s. In following movement several pulses; strongest on *N*. iS_E 34^m50^s, large. On *N*, preceding large oscillations and no corresponding pulse; increase of movement about 34^m59^s. i_E 36^m49^s followed by very large oscillations. *M* large.

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