No. 8. 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. 8. July—Dec. 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	$^1/_7$—$^8/_{10}$	0.0	12.5	89
				$^8/_{10}$—$^7/_{11}$	—0.06	12.4	46
				$^7/_{11}$—$^{31}/_{12}$	0.0	12.4	46
E	12.0	11.9	100	$^1/_7$—$^{14}/_{10}$	0.0	12.1	88
				$^{14}/_{10}$—$^{16}/_{12}$	0.0	12.0	44
				$^{16}/_{12}$—$^{31}/_{12}$	0.1	12.1	45
Z	14.1	10.1	100			ca. 8	

On Aug. 5th the time-marking pendulum clock was replaced by a first-class marine chronometer (Ulysse Nardin).

Time-corrections have been determined daily by means of Nauen scientific time-signals and time is known with an accuracy of about $^1/_{10}$ sec.

Scoresby-Sund.

No.	Date	Hour	Forerunners P	Forerunners S	L	Undefined	△	Remarks
	1931 July		*m s*	*m s*	*h m s* *m s*	*h m*	*h m*	°	
1	2	3			61 39 62 3	1.3			Faint beginning ca. 52 m. No time-marks 4^d21^h – 5^d14^h.
2	5	18			12.6 16.0				
3	7	4	5 37	14 54		.6		71	
4	8	20				.8			
5	9	12			6.6 7.5	13			
6	9	21				.5			
7	10	21				.5			
8	11	6			8 48 19 16	.6			
9*	12*	16			58 52 69.1				Pacific Ocean.
10	12	22			34	.7			
11	14	3				.5			Faint.
12	14	8				.5			
13	14	13				.8			
14	14	16			.0				
15	15	16	36.0	43 13		50		51	
16	15	19				.2			
17	16	20				.1			
18	17	9	24 58	34 9		.8		70	
19	18	5			54.1	1.3			
20	18	8			*i* 28 33 31.7				Small. 28^m33^s read on *Z*.
21	18	11	*i* 33 23		34 22				*Z* record only.
22	19	20			.4	.7			
23	20	8			51.0 56.2	86			*e* $60^m.7$. No time-service 21^d—24^d.
24	25	8				.1			
25	25	13				.3			Disturbed.
26	27	7			35 39	.7			
27	27	16			51.5	1.1			
28	28	4				.7			
29	28	6					33		Small.
30	28	17				.9			
31	28	23				.8			
32	29	6				.9			
33	29	17			31				
34	29	18				.3			
35	31	0			43				
36	31	23				.1			
	Aug.								
37	1	0				.8			
38	1	19			.6	1.5			
39	1	23				.8			Faint.
40	2	4				48			Not very distant.
41	2	12				.4			Disturbed.
42	2	18				.7			Faint preceding movement.
43	2	20			27.5 33.7				*e* $34^m.5$.
44	2	23	39 2	46 34				54	
45	6	1					22		Small.
46	6	15			46.3 49.8	1.3			

Scoresby-Sund.

No.	Date	Hour	Forerunners P	Forerunners S			L	Undefined	△	Remarks
	1931 Aug.		*m s*	*m s*	*h m s*	*m s*	*h m*	*h m*	°	
47	6	18	24 59	32 7	26.9		42		50	
48*	7*	2	26.4		30 55	37.0				Pacific Ocean.
49	7	11			.1		.3			
50	8	1			22.2	30.4	.9			
51	8	4			20.1	30.6	.8			
52	8	9			11.0		.3			
53	8	13					.4			
54	8	21			14.7	24.6	.9			$32^m.7$.
55	8	23						51		Small.
56	9	0						52		$66^m.6$ } Same or different
57	9	1			30.7		1.1			shocks?
58	9	23						22		Small.
59	10	8					.3			
60	10	10			.1		1.0			
61	10	15					.2			
62*	10*	21	27 58							Altaï.
63	11	3					.9			
64	11	7		20 16						12^m47^s possibly P_z; quite small.
65	11	13					.1			
66	11	18					.4			Faint.
67	12	4					.4			»
68	12	7					.0			»
69	12	7					.5			»
70	12	15					.6			
71	13	22			28.5	32 7	1.2			$31^m.3$.
72	14	5					.7			Faint.
73	14	13					.2			
74	14	16	21.5	29 19			.7		56	
75	15	4	10.4	18.2	11 46	19.7				$14^m.8$; $24^m.5$. Deep focus.
76	16	2	10 12	17 46	21.5				54	Altaï.
77	16	8			21.9	25.6	.5			
78*	16*	11	50 23	58 32*	53 55	62.4			60	Mexico.
79	17	9					.6			
80	17	13					.9			
81	17	18	*i* 0 57	10.9			.5		79	China Sea.
82	18	5	51 41	61.1			1.3		73	*P* and *S* quite small.
83	18	9			56 6		1.1			Macedonia.
84*	18*	14	30 22	*i* 37 52	32.4	41.7			53	Mongolia.
85	18	18			12.1					Superposed on preceding shock.
86	18	20						.1		
87	19	2					.0			19^d12^h—21^d12^h no time-marks.
88	21	19					.3			Faint.
89	22	17					.4			
90	22	22			.9		1.4			
91	23	10						9		Small.
92	23	15					56			
93	23	18			19 23		27			
94	24	3						22		
95*	24*	21	45 44	54 12	49 28				63	Baluchistan.

Scoresby-Sund.

No.	Date	Hour	Forerunners P	Forerunners S	Forerunners	Forerunners	L	Un-defined	△	Remarks
	1931 Aug.		*m s*	*m s*	*h m s*	*m s*	*h m*	*h m*	°	
96	25	3			29					
97	25	19					.5			
98	25	21						13		Small.
99	25	22					.9			
100	26	1					.5			Faint.
101	26	6						6		Small.
102	26	11			6.9		.3			
103	26	19					1.1			Small preceding movement.
104*	27*	15	37 43	46 20	41 32	53.0			64	Baluchistan.
105	28	1		1.5						
106	28	19			.9					
107	29	4						0		Small.
108	29	17					.6			
109	30	7			56.8		1.2			
110	31	3					5			Near shock.
111	31	3					36			„ „
112	31	4					0			Small.
113	31	6			.9					
	Sept.									
114	2	15			52		1.0			
115	2	20					59			Small.
116	3	17						.6		
117	5	1						40		
118	5	2					59			Near shock.
119	6	6			0.7					
120	6	7					20			
121*	6*	8	*i* 6 2	9 17			10		18	Atlantic Ocean.
122	6	14			51.8					
123	8	19	20.5				.8			
124	9	13			58.4		1.1			
125*	9*	20	*i* 51 9							Marianne Islands region.
126*	9*	20								„ „ „
127	10	1					19			Near shock.
128	11	14						.8		Faint.
129	11	16			33	39.9				
130	11	23					.6			
131	12	0						.9		Faint.
132	12	2		1 57			9			Kamtchatka.
133	12	7					3			
134	14	3			49.5					
135	15	21			52.5		1.4			
136	16	12					111			No records 12^h2^m—13^h51^m.
137	16	19					.8			
138	17	2					.9			
139	19	9					27			Near shock.
140	19	10					5			„ „
141	19	22					35			„ „
142	21	2	31.4	*i* 40 56			.9			Japan. *P* small, uncertain.
143	21	10	39 59	50 24	51.5		1.1			Annam. *P* small, uncertain.

Scoresby-Sund.

No.	Date	Hour	Forerunners P	Forerunners S			L	Undefined	△	Remarks
	1931 Sept.		*m s*	*m s*	*h m s*	*m s*	*h m*	*h m*	°	
144	21	13			*i* 54 0	54 54				e_Z 53^m57^s.
145*	25*	6	14.1	26 17	*i* 24 42	*i* 27 57				Sumatra.
146	26	20			14.5	19.6				$28^m.4$.
147	28	18					.4			
148	29	6					.2			
149	29	10						.1		
150	30	11					.8			
	Oct.									
151	1	12					.3			Strong microseisms.
152	3	19			34 6	39 58				Salomon Islands.
153	5	22		48 36						Strong microseisms.
154	7	10						.0		
155	9	3			22.5		.8			
156	9	7					.0			Faint.
157*	10*	0			40 10	45 46				Pacific Ocean.
158	10	8					.2			
159	10	17					.0			Strong microseims.
160	17	12						49		
161	17	16			56 9					
162	18	1			.0		.3			
163	18	4			52.7	68 42				
164	18	7					.9			Faint.
165	21	1						51		
166	23	20			.6		1.1			*N* disturbed.
167	26	4					59			Disturbed.
	26									No records 12^h3^m—13^h23^m.
168	28	3						21		Small.
169	28	5			59		1.3			
170	28	7					48			Near shock.
171	29	9						3		Faint.
	Nov.									
172	1	19					.6			
173	2	0	43.5	52.5			1.1			Mexico.
174*	2*	10	14 47	24 31	17 39	29.3			76	China Sea.
175	2	17			23		1.0			
176	2	19					.1			
177	4	18					.4			Faint preceding movement.
178	5	12					66			No Records 12^h2^m—13^h6^m.
179	18	4					.7			
180	20	14			.6	46.9	1.1			
	Dec.									
181	1	4			12		.8			
182	1	18			58		1.6			Possibly 2 shocks.
183	14	19					.8			
184	18	10			15		.8			
185	24	3			55 35					

Scoresby-Sund.

NOTES

No. 9. July 12. 16^h. Pacific Ocean. Phases not clearly marked. *P* quite small, e_Z 58^m52^s, possibly an earlier beginning. e_E $69^m.1$; e_N 69^m19^s. e_N $76^m.4$.

No. 48. Aug. 7. 2^h. Pacific Ocean. $\triangle$ = ca. 110°. *P* small; *P'* small, ca. $30^m.3$. *PP* 30^m55^s; $\overline{S_cP_cS}$ $37^m.0$, *PS* $40^m.4$, well defined phases. *SS* $46^m.7$. e_N $52^m.6$; e_E (*L*) $57^m.8$.

No. 62. Aug. 10. 21^h. Altaï; $\triangle$ = ca. 53°. Very strong shock. *N* and *E* records hardly readable. *P* begins quite faintly, increases gradually to very large movement; on *Z*, largest oscillations begin about 28^m39^s. PP_Z 30^m4^s; $e_{N,E}$ $30^m.6$; PPP_Z 31^m8^s, followed by increasing, large oscillations; e_N 31^m21^s. S_N 35^m23^s; e_Z 35^m30^s; e_Z 36^m1^s, large. *M* very large.

No. 78. Aug. 16. 11^h. Mexico. Records slightly disturbed. Phases very clearly marked. Additional readings: $59^m.0$; e_N $65^m.0$. *M* large.

No. 84. Aug. 18. 14^h. Mongolia. The beginning of *P* small; *iP* 30^m27^s, large; *PP* $32^m.4$, smaller. e_E 33^m34^s. *S* large. e_N $39^m.8$, a well-defined phase. *SS* large, but the beginning not clearly marked; on *N*, larger movement about $43^m.0$ (*SSS*). *L* shortly afterwards.

No. 95. Aug. 24. 21^h. Baluchistan. No *E* record, *N* partly unreadable. *S* not clearly marked.

No. 104. Aug. 27. 15^h. Baluchistan. Strong shock. *P*, condensation, followed by a large group of oscillations; e_Z 38^m12^s. *PP* not large, $40^m.5$; *PPP* 41^m32^s, followed by large oscillations. *S* large. $i_{N,E}$ 47^m12^s, very large. *SS* $50^m.4$; SSS_N $53^m.0$, large; *L* shortly afterwards. Large *L'* about $18^h.0$.

No. 121. Sept. 6. 8^h. Atlantic Ocean SE of Greenland. No *E* record. *P* very large, dilatation. *S* not clearly marked.

Nos. 125-126. Sept. 9. 20^h. Marianne Islands region. iP_Z 51^m9^s, dilatation. e_Z 51^m49^s; i_Ne_E 52^m7^s. e_Z $54^m.6$; $e_{N,E}$ 54^m48^s; $i_Ne_{E,Z}$ 55^m27^s. i_N 61^m22^s, no corresponding pulse on *E*. e_Ni_E 61^m47^s; e_E $62^m.5$; i_N 62^m36^s; e_N $62^m.9$; $e_{E,Z}$ 62^m58^s. e_N $67^m.3$; e_N $69^m.1$. *L* irregular, small.

No. 145. Sept. 25. 6^h. Sumatra; $\triangle$ = ca. 100°. *P* small, uncertain. PP_Z 18^m15^s; $e_{N,E}$ $18^m.5$. *e* $20^m.5$. *SS* $33^m.5$.

No. 157. Oct. 10. 0^h. Pacific Ocean; $\triangle$ = ca. 115°. Phases best marked on *N*; on *E*, increasing movement without clearly marked phases. *PP* 40^m10^s, faint preceding movement. *PPP* $42^m.5$. $\overline{S_cP_cS}$ 45^m46^s; $\overline{S_cP_c}\overline{P_cS}$ 47^m8^s. *PS* $49^m.9$. *e* $52^m.7$; $54^m.4$. *SS* $56^m.7$; *SSS* $61^m.3$. e_E $70^m.1$ followed by large oscillations of long period, the beginning of *L*?

No. 174. Nov. 2. 10^h. China Sea. $eP_{N,Z}$ 14^m47^s; $i_{N,E}$ 14^m52^s. e_N $20^m.5$. S_E 24^m31^s, no corresponding pulse on *N*; i_N 25^m15^s.

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