



Geodætisk Institut

Proviantgaarden, Copenhagen, Denmark.

Bulletin of the seismological station

SCORESBY-SUND

$\varphi = 70^{\circ}29' N.$ $\lambda = 21^{\circ}57' W.$ $h = 69$ m.

Lithologic foundation: Gneiss.

No. 14. Jan.—June 1936.

Instruments:

Galitzin-Wilip seismographs:

Constants:

Component	l	A_1	T_1		μ^2	T	k
	cm	cm	sec			sec	
N	12.0	100	11.8	$\frac{1}{1}-\frac{15}{4}$	-0.06	12.0	51
				$\frac{15}{4}-\frac{30}{6}$	0.02	12.0	99
E	12.0	100	11.9	$\frac{1}{1}-\frac{14}{2}$	0.0	10.5	49
				$\frac{14}{2}-\frac{15}{4}$	0.07	11.8	51
				$\frac{15}{4}-\frac{30}{6}$	-0.01	11.9	102
Z	14.9	100	10.02	$\frac{1}{1}-\frac{2}{5}$	0.1	8	62
				$\frac{2}{5}-\frac{30}{6}$	0.1	8	110

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

Scoresby-Sund.

No.	Date	Hour	Forerunners				L	Un- defined	△	Remarks
			P	S	h m s	m s				
1	1936 Jan.	0	m s	m s	h m s	m s	h m	h m	°	P—, Spitsbergen. <i>e</i> 58 ^m 54 ^s ; 59 ^m 23 ^s ; 60 ^m 6 ^s . Sumatra.
2	2	22	39 48	41 48	52 26	66.9	42		11	
3	4	15							3	
4	6	11					35			
5	14	0					38			
6	14	5			57 56	58 11	1.5			
7	14	7					.4			
8	14	13					.3			
9*	14*	14			27 29	i 35 0				
10	14	18			2 10	3 31	.7			
11*	15*	15			4.7	6 12	.8			Argentina. <i>e</i> 5 ^m .9; 11 ^m .3. South Pacific.
12	18	1			29.8	40.4				
13	20	8			19.8		.4			
14*	20*	17			14 10	i 21 10				
15	21	4						55		
16	21	5					.7			
17	Febr.	9		16 23			.5			
18	10	0					42			
19*	15*	13			6.2	15 43	.7			
20	16	15					31			
21	18	2					.7			Southeast of Philippines.
22	18	15					.2			
23	18	20						34		
24	21	1					.8			
25	21	6		42 29			1.1			
26	21	17			16 57	23 42	.9			
27*	22*	15			51 58	56 13	1.7			
28	22	19			43.4	54.4				
29	27	10			.5					
30	28	3					.5			
31	28	17					.4			China. <i>PS</i> 26 ^m .0, <i>SS</i> 32 ^m . New Guinea. Pacific Ocean. <i>e</i> 57 ^m .2. Masked by strong microseisms.
32	March	10		39 25	42.1	43.6				
33	1	11			8.6		.5			
34	2	3	29 59	38 50	30 14	39 14*	.8		67	
35	6	14			48.1		1.5			
36	10	12			22.7		.6			
37	10	20		55.6			1.2			
38	11	13						57		
39	14	10					.1			
40	17	20					.8			
41	20	19					.3			Sea of Okhotsk. Superposed on preceding shock. P—, <i>SS</i> 43 ^m .5. Yeso.
42	21	0					.9			
43	21	2					.6			
44	22	12			46 10		1.1			
										Small preceding movement.

Scoresby-Sund.

No.	Date	Hour	Forerunners				L	Un- defined	△	Remarks
			P	S	h m s	m s				
45	1936 March	23	m s	m s	h m s	m s	h m	h m	°	North Atlantic Ocean. Forerunners masked by preceding [shock]. Faint.
46	22	23					.5			
47	25	8					49			
48	25	9			1.9		5			
49	25	11					39			
49	25	23					59			
50	26	9					.9			
51	27	3					.1			
52	28	4						9		
53*	April	2	23 23		i 27 40	33 58				
54	1*	20			29.5	35 40	1.0			
55	2	6			46.0	52.3	1.2			
56	8	4						.6		
57	9	8					.3			
58	9	16			28 5	44	1.1			
59	12	0					.5			
60*	12*	21	4.9		8.4	15 34	.7			
61	14	20					.2			
62	15	19					.9			
63	16	1			22.6		.9			
64	16	10					.0			
65	16	21					.0			
66	17	22					.8			
67	18	1					.7			
68*	19*	5	22 16		27 11	37.0	.9			
69	19	9	16 57	27.9	27 37	33.9	.45			
70	21	2			31					
71	22	10					.5			Solomon Islands. <i>P+</i> , <i>e</i> _B 40 ^m .0. Andaman Islands.
72	23	23	i 24 22	19 26			.7			
73	26	9			13	20	.7			
74	27	0	10 41	20 15	25.1		.6			
75	27	3						.9	73	
76	27	6	41.9	50.9	55.0		1.0			
77	28	6			9.0	15.4	.5			
78	28	28								
78	29	9					.9			
79	May	20					.7			
80	6	4			1.6					
81	7	2						28		
82	7	10					38			
83*	8*	9			31 40	34 37				
84	8	15			45.5		1.1			
85	8	17			37.1	32 11	40.2			
86	9	6					.5			
87	9	7					.7			
										Borneo.
										Alaska.
										Faint.

Scoresby-Sund.

No.	Date	Hour	Forerunners				L	Un- defined	△	Remarks
			P	S						
	1936									
	May		<i>m s</i>	<i>m s</i>	<i>h m s</i>	<i>m s</i>	<i>h m</i>	<i>h m</i>	°	
88	10	6					.6			
89*	11*	17			47 3	56 50	1.3			
90	16	7	17 20	<i>i</i> 26 55	20 8	31 41	.7	75	East of New Guinea. <i>P</i> —, <i>e</i> _Z 19 ^m 33 ^s , <i>iPS</i> 27 ^m 28 ^s . China.	
91	18	10			43.1		45			
92	19	7			40 38	43 37			46 ^m .6; 49 ^m .2.	
93	19	21			9.7	15 25			19 ^m .2. Record confused by two [other shocks.]	
94	20	0			39.3					
95*	20*	3	20.6		25 22	35.1	.9		Solomon Islands.	
96	21	3			15 34	19.5	.8		<i>SS</i> 25 ^m .7.	
97	22	0						29	Small.	
98	22	0			41 0	42 21	1.2		<i>PS</i> 44 ^m .0. Argentina.	
99	22	23			43 40		1.4		Small preceding movement.	
100	24	17						.4	Seismic?	
101	24	20			23.3	37.7	.4			
102	25	3						25	Small.	
103	25	8								
104	25	14					.4			
105	26	14					.0		Faint.	
106*	27*	6	<i>i</i> 30 18	<i>i</i> 39 18	32 57	34.3		68	Himalaya.	
107	28	12			51 20		1.2		Beginning lost by change of sheets.	
108	28	19	0 56	10 50	3.9	15 55	.4	78	<i>P</i> +, small. Pacific Ocean off Mexico.	
109	29	15			1.6			8		
110	30	15					.9			
111	30	16					.8			
	June									
112	1	11			42.1	43 24			<i>L</i> small.	
113	3	3	6 29	15 29	15 59		27	68	<i>P</i> —, Kurile Island.	
114	3	9	25 0	32 55*	28 33	37.4	.7	57	<i>P</i> —, California.	
115	5	14			58.0	61 46			<i>e</i> 64 ^m .8.	
116	6	15					55		Small.	
117	6	17					28		"	
118	7	4			1.0		3		"	
119	7	4					42		<i>e</i> 40 ^m .5, forerunners or <i>L</i> ?	
120	7	11					26			
121	7	18						2		
122	9	0					.8		Faint.	
	9								No records 12 ^h 50 ^m —19 ^h 33 ^m .	
123	10	3					.6			
124	10	3		48.4	52.9	55.9	62		Superposed on preceding shock. No <i>Z</i> record. Baluchistan.	
125*	10*	8			42 42	48 16	1.2		New Guinea.	
126	10	17			38.1		45			
127	10	19			6 27		9			
128	11	4					.1			
129	11	10					.2			
130	12	16					.5			
131	13	0		47 36	50.6				Mediterranean Sea.	

Scoresby-Sund.

No.	Date	Hour	Forerunners				L	Un- defined	△	Remarks
			P	S						
	1936									
	June		<i>m s</i>	<i>m s</i>	<i>h m s</i>	<i>m s</i>	<i>h m</i>	<i>h m</i>	°	
132	13	21					.0			
133	14	2	37 14	44 54			54	55	No <i>Z</i> record.	
134	14	10			6 50		9		<i>P</i> —, Kamchatka.	
135	14	17	9 50	16.7	11 33	20.0	26	47	Greenland Sea.	
136	14	22					.0		<i>P</i> —, Asia Minor.	
137	15	8					.5		Faint.	
138	16	0			55.2	65.7	1.4			
139	16	19					.4			
140	19	17					.3			
141	20	2						36		
142	20	6					47			
143	20	7					.5		Superposed on preceding shock.	
144	20	8			31.5		40		Forerunners small, uncertain.	
145	20	14					.3		Faint.	
146	21	15					.6			
147	22	19	37 1	45 11			.9	60	<i>P</i> —, Atlantic Ocean.	
148	22	23					.2		Faint.	
149*	23*	17					35			
150	23	17					37			
151	23	17					44			
152	23	18					47			
153	23	18					51			
154	23	20					0			
155	25	17			12 17	14 52	5		Small.	
156	26	5					59		"	
157	26	20					25		Off Iceland.	
158	27	3					28		" "	
159	27	3							" "	
160	27	21	24 13	33.0			.7	66	Japan.	
161	28	8					.3		Faint.	
162	28	8	22 20	32 10	37.2			77	<i>P</i> uncertain, masked by preceding disturbance. Japan.	
163	28	8	44 11	53 59				77	<i>P</i> quite small, uncertain. Superposed [on preceding shock.]	
164	28	17						44		
165*	29*	14	<i>i</i> 39 35	47 16	40 54	41 44		55	Afghanistan.	
166*	30*	15	<i>i</i> 16 39	<i>i</i> 24 43	19.0	28.6		59	Off Kamchatka.	
167	30	19	35 46	43 38	48.2			57	Afghanistan.	

Scoresby-Sund.

NOTES

- No. 9. Jan. 14. 14^h. Argentina; $\Delta = \text{ca. } 100^\circ$. Deep focus. (PP) 27^m29^s, small. e 31^m33^s. $i(S)$ 35^m0^s large on N . e 35^m43^s. (PS) 37^m48^s. $e(SS)_N$ 41^m.7. L small.
- No. 11. Jan. 15. 15^h. South Pacific near New Hebrides Islands; $\Delta = \text{ca. } 130^\circ$. PP 4^m.7. PKS 6^m12^s. PS 15^m.3. e 18^m.3. SSS 27^m.
- No. 14. Jan. 20. 17^h. Southeast of the Philippines; $\Delta = \text{ca. } 100^\circ$. E record only. PP 14^m10^s, not clearly marked; small preceding movement. SKS 20^m42^s; $iSKKS$ 21^m10^s; eS 22^m4^s. (PPS) 24^m17^s.
- No. 19. Febr. 15. 13^h. Banda Sea; $\Delta = \text{ca. } 110^\circ$. PP 6^m.2. SKS 12^m20^s; SKKS 13^m26^s. PS 15^m43^s, large; PPS 16^m.9. SS 22^m.5.
- No. 27. Febr. 22. 15^h. Pacific Ocean south of New Zealand; $\Delta = \text{ca. } 160^\circ$. P' 51^m58^s; P'' 52^m.6; PP 56^m13^s. (SKS) 58^m.2. PPP 59^m58^s. (SKKS) 62^m.8. e 65^m10^s. SKSP 66^m30^s. PPS 69^m.4; e 71^m.4. SS 76^m.
- No. 53. April 1. 2^h. Pacific Ocean east of Philippine Islands. $\Delta = \text{ca. } 100^\circ$. No E record. P 23^m24^s, rather large; dilatation. P' 27^m.0, small. iPP 27^m40^s, large; PPP 29^m42^s. SKS 33^m58^s followed by large oscillations, but phases not clearly separated.
- No. 60. April 12. 21^h. Marianne Islands; $\Delta = \text{ca. } 100^\circ$. P small. e 8^m.4; 9^m.0. PPP 11^m.1. SKS 15^m34^s; PS 18^m.1. SS 23^m.5.
- No. 68. April 19. 5^h. Solomon Islands; $\Delta = \text{ca. } 120^\circ$. P small, but clearly marked; dilatation. iPP 27^m10^s. $e_{N,Z}$ 28^m34^s; 29^m.4. e_N 32^m32^s. e 33^m.7. e_Z 35^m.9. PS 37^m.0, large on N ; PPS 38^m12^s. SS 43^m.9; SSS 48^m.0.
- No. 83. May 8. 9^h. Borneo; $\Delta = \text{ca. } 100^\circ$. Deep focus. Small, but rather clearly marked phases: 31^m40^s; 34^m37^s; 35^m38^s; 37^m52^s; 38^m10^s; 39^m31^s. L quite small.
- No. 89. May 11. 17^h. East of New Guinea. $\Delta = \text{ca. } 115^\circ$. Phases clearly marked on N . PP 47^m3^s. e 48^m49^s, SKS 52^m53^s; (SKKS) 54^m7^s. PS 56^m50^s; i_Z 57^m5^s; PPS 57^m.9. SS 62^m.9; 63^m.7. SSS 67^m52^s.
- No. 95. May 20. 3^h. Solomon Islands; $\Delta = \text{ca. } 120^\circ$. P small. PP 25^m22^s; PPP 28^m.2. SKS 31^m.2; (S) 33^m23^s. PS 35^m.1. SS 41^m.8. e_N 44^m.5; e_E 45^m.2. e_N 46^m.8.
- No. 106. May 27. 6^h. Himalaya. $P(+0.8, +1.8, -1.9; -2.1, -4.3, +4.0)$. $P_e P$ 31^m13^s. PP 32^m57^s clearly marked on N ; on E some earlier movement. PPP_E 34^m.3. ($P_e S$)_N 35^m.6. iS_N 39^m18^s, large and well defined; eS_E 39^m28^s, smaller. $e(S_e S)$ 40^m14^s large on E . SS 43^m.7. 46^m.8 large oscillations on N ; SSS or L ?
- No. 125. June 10. 8^h. New Guinea; $\Delta = \text{ca. } 115^\circ$. Some depth of focus. No Z record. Quite small beginning about 41^m.6. e_N 42^m42^s. e 43^m24^s. e_N 48^m16^s; 49^m25^s; 50^m49^s. e_E 51^m29^s. $e_{N,E}$ 53^m31^s. e_E 58^m.7. e 59^m.5.
- No. 149. June 23. 17^h and succeeding 5 readings are of L waves of rather near shocks. The largest are the second and the fifth. The shocks are evidently repetitions from the same epicentre, the records being quite similar.
- No. 165. June 29. 14^h. Afghanistan. Deep focus. $P(+0.3, +1.5, -1.7; -0.7, -3.0, +3.3)$. $e_{N,E,Z}$ 40^m54^s. PP 41^m44^s; PPP_E 42^m.8. e_E 43^m58^s, rather large. S_N 47^m16^s; e_E 47^m32^s. e_E 48^m38^s, rather large; e_N 48^m59^s. SS 50^m.8; SSS 52^m.7. L small.
- No. 166. June 30. 15^h. Off Kamchatka. Strong record. $P(+5.2, -1.1, -15.0; -9.2, +2.9, +13.1)$. $e_{N,Z}$ 17^m.0. PP 19^m.0; PPP 20^m.4. ($P_e S$)_E 21^m.9. iS 24^m43^s very large, amplitudes of first two swings on Galitzin E component record: +27.5, -51.9; trace too faint for N to be measurable. ($S_e S$)_E 26^m.6. SS_N 28^m.6. 31^m.0 large swings on E , SSS or L ?

Scoresby-Sund.

Seismometric readings: Notation

- P — normal first preliminary tremors, longitudinal waves.
 $P+$ — first wave condensational (away from the epicentre).
 $P-$ — first wave dilatational (towards the epicentre).
 $P(\pm a, \pm b, \pm c)$ — a , b and c are trace amplitudes in mm. of first swing on NS, EW and vertical component Galitzin records respectively. $+$ indicates ground motion directed to N, to E or up, $-$ indicates ground motion to S, to W or down. When a second set of amplitudes is given it refers to the second swing. If an amplitude is not measurable the number is replaced by x .
- PP... — longitudinal waves reflected at the earth's surface.
 S — normal second preliminary tremors, transverse waves.
SS... — transverse waves reflected at the earth's surface.
PS; PPS;... — waves reflected at the earth's surface which travel partly as longitudinal, partly as transverse waves.
SKS — waves which traverse the mantle as transverse waves but are refracted through the core with longitudinal oscillation.
PKS — waves which pass the mantle on one side of the core as longitudinal waves, on the other side as transverse waves and are refracted through the core with longitudinal oscillation.
SKKS — waves which traverse the mantle as transverse waves, are refracted through the core with longitudinal vibration and are reflected on its inner boundary.
- L — long, or surface, waves; main phase.
 M — waves of greatest amplitude in the surface waves.
 i — sharply defined beginning of a phase.
 e — gradual beginning of a phase.
 Δ — arcual distance from the station to the epicentre.
*) affixed to time of phase indicates that the beginning is in a time-mark.
*) affixed to number and date refers to Notes.

Geodætisk Institut

Proviantgaarden, Copenhagen, Denmark.

Bulletin

of the seismological station

SCORESBY-SUND

$\varphi = 70^{\circ}29' N.$ $\lambda = 21^{\circ}57' W.$ $h = 69$ m.

Lithologic foundation: Gneiss.

No. 15. July—Dec. 1936.

Instruments:

Galitzin-Wilip seismographs.

Constants:

Component	l	A_1	T_1		μ^2	T	k
	cm	cm	sec			sec	
N	12.0	100	11.8	$\frac{1}{7} - \frac{13}{10}$	0.01	12.0	97
				$\frac{13}{10} - \frac{31}{12}$	0.1	11.9	53
E	12.0	100	11.9	$\frac{1}{7} - \frac{13}{10}$	0.0	11.9	100
				$\frac{13}{10} - \frac{31}{12}$	0.0	12.0	50
Z	14.9	100	10.0	$\frac{1}{7} - \frac{13}{10}$	0.2	$8\frac{1}{2}$	107
				$\frac{13}{10} - \frac{31}{12}$	0.1	$8\frac{1}{2}$	58

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

Scoresby-Sund.

No.	Date	Hour	Forerunners				L	Un-defined	△	Remarks
			P	S	h m s	m s				
1	1936 July 3	3	m s	m s	h m s	m s	h m	h m	°	<i>e</i> 25 ^m .9. <i>PS</i> 28 ^m .8. Solomon Islands. No records 13 ^h 8 ^m —22 ^h 0 ^m . <i>SS</i> 29 ^m .5. <i>E</i> record only. North of [Sumatra. No records 12 ^h 29 ^m —16 ^h 4 ^m . <i>e</i> 20 ^m 5 ^s . <i>SS</i> 28 ^m .0. Celebes Sea. <i>E</i> [record only. Small preceding movement. Faint. Small.
2	3			19 3	24.5	.9				
3	4	9			16 15	16 50				
4	5	10					54			
5	5	17						.7		
6	5	19	8 59		13.1	19 37		.7		
7	6	2					1.0			
8	6	5							52	
9	6	18			47	59.5				
10	7	10						48		
11	8	20						.5		
12	9	20					.0			
13	10	3					11			
14*	12	3	26 3		3.6		.7			
15	13*	11			30 24	39.3				
16	14	10			.4		.7			
17	14	18					40			
18	14	23					.0			
19	15	2			16 9		.6			
20	16	7			23 35	27.6		33		
21	17	3					.2			
22	21	0			18.1	23 11	.6			
23	22	6			57.2		89			
24	23	6			41.3	42.8	1.3			
25	23	7			27 20					
26	23	18					.7			
27	23	19					.5			
28	24	2							14	
29*	24	14							35	
30	26*	7	50 42		61.5	65 57	1.2			
31	27	10					.2			
32	28	5			37 41	47 18	1.1			
33	28	8			11 52	21 28	.8			
34	30	15							.1	
35	31	18			0 57	5.0		14		
36	Aug. 1	6			44 43		1.0			
37	1	8					.2			
38	1	8					40			
39	1	15					.4			
40	4	2					15			
41	4	4					.6			
42	4	6						44		
43	7	6					8			
	8	4			31.5		36			

Scoresby-Sund.

No.	Date	Hour	Forerunners				L	Un-defined	△	Remarks
			P	S	h m s	m s				
44	1936 Aug. 9	16	m s	m s	h m s	m s	h m	h m	°	Phases not clearly marked. [Mindanao. Disturbed. Faint. Persia.
45	13	20	16 24		30 15	36.0	.8			
46	14	22			20.2	27 42	.8			
47	15	3					1.5			
48	15	6			5 8		.5			
49	15	6					.6			
50	16	14					.6			
51	16	21			55.8		1.2			
52	17	6								
53	17	6			12.1		14			
54	17	14					1.4			
55	17	17			19.8	29 22	.9			
56	17	17					.9			
57	17	18					.9			
58	18	7	18 26				.7		14	
59	18	7								
60*	18	16					13			
61	18	17					10			
62*	22*	7	i 4 5	i 14 24	7 18	20.3			83	
63	22	11					.9			
64	22	21	i 25 27		i 29 14	i 36 24	1.5			
65	23*	22					.8		34	
66	24	21					1.2			
67	25	6					.8			
68	25	19					1.0			
69	26	11	45 29	54 8			.6		65	
70	26	21			43 53	45.0	1.0			
71	26	21			8.6		.6			
72	28	7					.1			
73	29	13					.1			
74	29	20								
75	29	22					1.1			
76	29	22			43 46					
77	29	22								
78	Sept. 2	13					.6			
79	3	5			31.0		44			
80	3	13					.4			
81	4	8	21.8	31 35	25 29	36.7	.8		77	
82	4	8					.1			
83	5	5					41			
84	5	19					.9			
85	6	18					.0			
86	8	17							40	
87	8	17								
88	9	9								
89	12	18					.7			
90	12	18			60 50	61 46	1.3			
91	18	18			25 57*	i 26 51				
92	19*	1	15.6	60 26	55.4	69				
93	19	6								
94	19	6								
95	19	15					15			
96	19	15					37			
97	21	9								
98	21	11	49 2	55 19	50 37	58.3	62		42	

Scoresby-Sund.

No.	Date	Hour	Forerunners				L	Un- defined	△	Remarks
			P	S						
88	1936 Sept. 21	12	<i>m s</i> 34.8	<i>m s</i> 41 12	<i>h m s</i> 36.3	<i>m s</i> 44.1	<i>h m</i> 50			Black Sea. Forerunners small, [readings not certain. No records 13 ^b 7 ^m —13 ^b 40 ^m . Iceland.
89	21	15					29			"
90	21	15					36			"
91	21	15					43			Iceland.
92	21	16					15			"
93	21	16					28			"
94	21	17					11			"
95	21	17					18			"
96	21	17					28			"
97	21	18					13			Iceland.
98	21	18					57			"
99	21	20					32			"
100	21	23					3			"
101	25	13					27			No records 13 ^b 6 ^m —13 ^b 27 ^m .
102	28	13					.3			
103	29	15						3		
104	29	16			58 33		1.7			
105	Oct. 3	16						7		
106*	3*	22			14 58*	17 41	.7			East of Mindanao.
107	4	7			<i>i</i> 1 6					Pacific Ocean.
108*	5*	0			13 0	16 6				
109	5	6			32 47		1.0			
110*	5*	9	58 29	70 22	62 52	71 53		88		East Indies.
111	9	16						28		
112	10	1			.7		.9			
113	10	3			32 42		1.1			
114	16	12					.9			Strong microseisms.
115	18	3					.0	25		
116	18	17								Small.
117	19	6					50			"
118	19	7					27			"
119	19	7					55			"
120*	19*	12			<i>i</i> 23 24	29 22	57			Moluccas.
121	21	14					.7			Faint.
122	22	23	50 35	51 24			52	4		Felt in North Iceland.
123	23	0	1 25	2 14			3	4		" " " "
124	23	6	32 29	39 17	<i>i</i> 34 20	42.6	.7	47		Alaska. Strong microseisms; <i>P</i> pos- sibly a few seconds earlier.
125	26	20								Greenland Sea.
126*	26*	23	<i>i</i> 6 58							Very strong microseisms.
127	29	6					33			Strong microseisms.
128	29	18			58		1.4			
129	Nov. 2	15	8 13				.5			Sea of Okhotsk. Very strong [microseisms.

Scoresby-Sund.

No.	Date	Hour	Forerunners				L	Un- defined	△	Remarks
			P	S						
130	1936 Nov. 2	20	<i>m s</i> 57 19	<i>m s</i>	<i>h m s</i>	<i>m s</i>	<i>h m</i> 1.4			Japan. Very strong microseisms.
131	11	1					.3			
132	11	17					.6			Faint.
133	12	2			39.2	46.1	1.0			
134	12	4			48 25	53.5	1.1			
135	12	9			0		.3			
136	12	20	15 7	23 39	25 0					
137*	13*	12	40 52	48 35*	43.0	43 56	55		55	Kurile Islands. Deep focus. Pacific Ocean off Kamchatka.
138	15	22			39 3	42.5	50			
139	19	13					37			
140	19	21	21.5	30.6	27.0	35.5	43			SSS 38 ^m .5. Guatemala. Strong [microseisms.
141	22	18	30.7	39 46	44.7	48.0	.9			<i>P</i> quite small, uncertain. Guate- [mala. Strong microseisms.
142	23	20					.5			Faint.
143	25	12					.4			
144	26	2		32.4	37.6		.7			Costa Rica.
145	27	2					.8			
146	27	6					.8			Faint. 28 ^d 12 ^h —30 ^d 15 ^h no records.
147	Dec. 1	0			.2		.7			
148	1	6					.6			Faint.
149	13	21			48.1	56.9	1.3			Marianne Islands.
150	14	4			27		.9			
151	20	3					.3			Strong microseisms.
152	21	19			22.4		26			" "
153	21	19					52			Strong microseisms. Superposed [on preceding shock.
154	25	20			24.7		38			
155	26	23			11 57	15 32	.9			<i>e</i> 26 ^m .5. Kermadec Islands.
156	27	0	26 25				.8			Japan. Superposed on preceding [shock.
157	29	14					39			
158*	29*	15			7 22	16 58	41			East Indies.

Scoresby-Sund.

NOTES

- No. 14. July 13. 11^h. Chile; $\Delta = \text{ca. } 100^\circ$. Focus deeper than normal. No Z record. P 26^m3^s, rather large. e 29^m40^s; PP 30^m24^s large. e 36^m58^s. PS 39^m.3. Part of the records not readable because the trace is too faint.
- No. 29. July 26. 7^h. Chile; $\Delta = \text{ca. } 105^\circ$. Phases not very clearly marked. P 50^m42^s, quite small. (PP) 54^m.7, 55^m.2. e_E 58^m.5; e_Z 59^m.0. SKS 61^m.5; $SKKS$ 62^m18^s. PS 65^m57^s.
- No. 60. Aug. 22. 7^h. Formosa. iP ($\div 1.7, \div 1.0, + 3.0, + 2.4, + 1.9, \div 6.6$); followed by several oscillations, possibly other phases. PP 7^m18^s, iS 14^m24^s. PS 15^m16^s; PPS 15^m35^s. SS 20^m.3.
- No. 62. Aug. 23. 21^h. Sumatra; $\Delta = \text{ca. } 95^\circ$. Some depth of focus. iP ($+ 1.1, + 1.9, \div 3.2$). i_Z 25^m51^s (not quite certain; the trace is too faint). e 28^m54^s; iPP 29^m14^s large. e 35^m58^s; i 36^m24^s; e 36^m.8. PS 37^m28^s; PPS 38^m.4 very large. SS 42^m50^s. L not large.
- No. 83. Sept. 19. 1^h. Sumatra; $\Delta = \text{ca. } 100^\circ$. eP_Z 15^m.6, small. PP 19^m.7; 20^m3^s. PPP 21^m37^s. e_E 23^m12^s. $e_{E,Z}$ 24^m8^s. SKS 25^m57^s (in time-break); i ($SKKS$) 26^m51^s. e_E 27^m34^s. PS 28^m.2; PPS 28^m57^s (in time-break). SS 33^m.1. e 35^m55^s. SSS 37^m58^s. i_N 40^m43^s.
- No. 106. Oct. 3. 22^h. East of Mindanao; $\Delta = \text{ca. } 105^\circ$. PPP 10^m.7; faint preceding movement. SKS 14^m58^s, in time-break. PS 17^m41^s; $iPPS$ 18^m41^s. e_N 20^m.1.
- No. 108. Oct. 5. 0^h. Pacific Ocean, P'_Z 13^m0^s. PP 16^m6^s. PKP 16^m31^s. SS 34^m. $e(L)_N$ 50^m; eL 59^m.
- No. 110. Oct. 5. 9^h. East Indies; $\Delta = \text{ca. } 105^\circ$. P 58^m29^s, dilatation. PP 62^m52^s; PPP 64^m53^s. SKS 69^m5^s; $SKKS$ 69^m50^s; S 70^m22^s. PS 71^m53^s; PPS 72^m38^s. e_E 76^m54^s; SS 77^m44^s. SSS 81^m.5.
- No. 120. Oct. 19. 12^h. Moluccas; $\Delta = \text{ca. } 110^\circ$. iPP 23^m24^s; PPP 25^m34^s; SKS 29^m22^s; PS 32^m.7. SS 38^m.8.
- No. 126. Oct. 26. 23^h. Greenland Sea. iP , condensation, followed by large movement on E . $e_N(S)$ 7^m35^s; iL_N 7^m48^s.
- No. 137. Nov. 13. 12^h. Pacific Ocean off Kamchatka. Masked by increasing microseismic movement. P 40^m52^s, dilatation, large on N and Z . e_N 42^m1^s. PP_N 43^m.0; PPP 43^m56, large on N and Z . e_N 44^m20^s. P_cS_N 45^m.5. S 48^m35^s (in time-break), large on E . e_E 49^m11^s. S_cS 50^m.2. e 50^m56^s. SS 52^m.4. SSS 53^m.2. L_Q 55^m; L_R 60^m.
- No. 158. Dec. 29. 15^h. East Indies; $\Delta = \text{ca. } 115^\circ$. Deeper than normal. PP 7^m22^s; e 8^m.4. SKS 13^m4^s. PS 16^m58^s followed by a group of rather large oscillations. SS 23^m.5. SSS 27^m.8.