

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. 21. Sept. 1946-Dec. 1947

Instruments:

Galitzin-Wilip seismographs.

Constants:

Component	$l$	$A_1$	$T_1$		$T$	$k$
	cm	cm	sec		sec	
$N$	12.0	100	11.91		12.0	102
$E$	12.0	100	13.00	$11/9$ 46- $11/10$ 46	14.2	103
				$11/10$ 46- $31/12$ 47	12.9	95
$Z$	14.9	100	10.02	$11/9$ 46- $10/6$ 47	$9^{1/2}$	100
				$10/6$ 47- $31/12$ 47	10	100

Damping was approximately aperiodic.

Time corrections were determined daily by means of Rugby scientific time signals. Until September 6, 1947 time is known with an accuracy of about  $1/10$  sec. From that date onwards there is possibly a systematic error of + 1 sec. or - 1 sec. in time determinations.

Recording that was stopped on July 1, 1944 was resumed on September 11, 1946.

## Scoresby-Sund.

No.	Date	Hour	Forerunners				L	△	Remarks
			P	S					
1	1946 Sept. 29	3	m s 17 1	m s	m s 20.5	m s i 21 48	h m	°	22 <sup>m</sup> 33 <sup>s</sup> . 23 <sup>m</sup> 30 <sup>s</sup> . <i>i</i> SKS 27 <sup>m</sup> 47 <sup>s</sup> . <i>i</i> SKKS <sub>N</sub> 28 <sup>m</sup> 54 <sup>s</sup> . <i>e</i> S <sub>E</sub> 29 <sup>m</sup> 38 <sup>s</sup> . PS 31 <sup>m</sup> .0. PPS 32 <sup>m</sup> .3. 34 <sup>m</sup> .5. 38 <sup>m</sup> .0. Solomon Islands region.
2	Oct. 2	1					36		
3	2	4	56 0	63 56	64 17		70	57	South of Kamchatka. No Z record.
4	2	6	<i>i</i> 53 9	61 4	61 29		68	57	" " " " " "
5	14	5			25.2		57		
6	22	10			<i>i</i> 20 37	22 50			25 <sup>m</sup> 41 <sup>s</sup> . 27 <sup>m</sup> 14 <sup>s</sup> . 29 <sup>m</sup> 40 <sup>s</sup> 30 <sup>m</sup> .2. Kamchatka. Deep.
7	25	21	<i>i</i> 59 44 +	<i>i</i> 67 21	63 14	67 56			43 <sup>m</sup> 30 <sup>s</sup> . PKS 43 <sup>m</sup> 45 <sup>s</sup> , large. 49 <sup>m</sup> 39 <sup>s</sup> . 54 <sup>m</sup> .4. 60 <sup>m</sup> .4.
8	26	0	40 17 +		40 56	42 31			S <sub>E</sub> S 66 <sup>m</sup> 43 <sup>s</sup> . 68 <sup>m</sup> .3. Aleutian Islands.
9	30	7	<i>i</i> 56 55	64 23	59 57	62 6	72	53	
10	Nov. 1	11		31 43	32 3	36 25			Aleutian Islands. Strong microseisms.
11	2	14			28 28		.9		
12	2	18	<i>i</i> 37 46	45 15	39 46	40 56		53	Movement very large, the reading of S not certain. P (-1.9, -6.8, +5.0; +3.9, +12.0, -11.0). Turkestan.
13	4	21	<i>i</i> 56 32	<i>i</i> 63 25	58 24	<i>i</i> 63 41		47	66 <sup>m</sup> .4. 67 <sup>m</sup> .2. P(x, -11, +5; x, +21, -17). East coast of Caspian Sea.
14	6	20	6 42 +	15 11	21.2			63	Karakoram.
15	10	18					14		Recording interrupted 10 <sup>h</sup> 39 <sup>m</sup> -18 <sup>h</sup> 14 <sup>m</sup> .
16	12	15					0		
17	12	17			49 44	50.5			PPP 52 <sup>m</sup> .9. 55 <sup>m</sup> 6 <sup>s</sup> . PS 59 <sup>m</sup> 31 <sup>s</sup> . 61 <sup>m</sup> 17 <sup>s</sup> . 64 <sup>m</sup> 8 <sup>s</sup> . SS 65 <sup>m</sup> .4. Tonga region.
18	17	3			42.2	46.0		62	
19	28	16			19.5	23 2			28 <sup>m</sup> 22 <sup>s</sup> . 29 <sup>m</sup> .1.
20	Dec. 8	23			34 44		35		
21	19	3	9 29	19 39	16 3	25.0	36		31 <sup>m</sup> .0. East of Formosa.
22	20	19	<i>i</i> 30 51 +	40 42					Movement very large, the reading of S not certain. Strong microseisms. Japan.
23	21	10	29 31	38 16	39 10			66	Japan.
24	1947 Jan. 23	16	7 6 +				.4		Aleutian Islands.
25	24	16	59 50	69 21			.4	74	
26	25	4			12 54	17.6	.4		E record only.
27	25	5					23		E record only. Superposed on pre- ceding shock.

## Scoresby-Sund.

No.	Date	Hour	Forerunners				L	△	Remarks
			P	S					
28	1947 Jan. 26	10	m s <i>i</i> 17 47	m s <i>i</i> 26 44	m s 18 12	m s 20 10	h m	°	PP 20 <sup>m</sup> 23 <sup>s</sup> . <i>i</i> PPP 22 <sup>m</sup> 13 <sup>s</sup> . <i>e</i> 24 <sup>m</sup> 40 <sup>s</sup> . S <sub>E</sub> S 27 <sup>m</sup> 58 <sup>s</sup> . No Z record. P (+2 <sup>1</sup> / <sub>2</sub> , +9, x; -4 <sup>1</sup> / <sub>2</sub> , -10, x). Depth about 100 km. Nicaragua. PS 44 <sup>m</sup> 29 <sup>s</sup> . Argentina. Depth ca. 600 km.
29	29	8	30 41 -		<i>i</i> 34 56	40 28			
30	Febr. 7	9			1.1	8 14			PS 10 <sup>m</sup> 40 <sup>s</sup> . SS 17 <sup>m</sup> 34 <sup>s</sup> .
31	8	11					7		Recording interrupted 11 <sup>h</sup> 0 <sup>m</sup> -11 <sup>h</sup> 7 <sup>m</sup> .
32	9	4			54 30		1.3		
33	10	4		21 40	15.2	28 36			Himalaya.
34	18	13	<i>i</i> 41 27 +	<i>i</i> 50 37	51 4	53 28			Japan. Depth ca. 450 km.
35	21	22			22 20		.8		
36	24	17	<i>i</i> 44 47	55 33	55 5			88	Bolivia.
37	March 2	19			29 5	34 47			35 <sup>m</sup> .8. 38 <sup>m</sup> 27 <sup>s</sup> . 44 <sup>m</sup> .2. P possibly earlier than read. New Guinea.
38	17	8	<i>i</i> 30 37	39 42	32 59	44.2		69	No Z record. China.
39	25	20	51 58		52 13	52 32			65 <sup>m</sup> .9. 74 <sup>m</sup> 28 <sup>s</sup> . New Zealand.
40	29	7	52 17	53 35			54		P quite small, the reading uncertain.
41	April 2	5			58 14	64 24			Small movement precedes PP 58 <sup>m</sup> 14 <sup>s</sup> . 65 <sup>m</sup> .0. 66 <sup>m</sup> .0. PS 67 <sup>m</sup> 34 <sup>s</sup> . 68 <sup>m</sup> .9. 71 <sup>m</sup> .5. 73 <sup>m</sup> .7. New Guinea.
42	2	20	57 29	67 49	64.4	68 5		83	P quite small, the reading uncertain. Formosa.
43	8	19			50				
44	10	16	8 7 +	16 18	20.2		26	60	California.
45	11	14	42 15	52 33	45.7	58.2	69	83	Between Formosa and Luzon.
46	14	7	26 22	35 8	35 29	35.9	43	66	36 <sup>m</sup> 31 <sup>s</sup> . Japan.
47	16	18			52 16	52 33			Movement small.
48	24	19	45 41	54 15	55 21		61	64	Atlantic Ocean.
49	25	20					39		
50	28	13			47				Forerunners or L?
51	29	8			6				Forerunners or L?
52	May 2	2					.7		Preceding movement disturbed.
53	6	20	45.6		49.4	50 28			SKS 56 <sup>m</sup> 10 <sup>s</sup> . SKKS 57 <sup>m</sup> 24 <sup>s</sup> . PS 60 <sup>m</sup> 4 <sup>s</sup> . 61 <sup>m</sup> 13 <sup>s</sup> . SS 66 <sup>m</sup> .9. South of New Britain.
54	8	19			6.7		.4		
55	9	0			15 35		27		
56	11	6			41 10	46.3	53		Italy.
57	11	18			59.1	65 17	1.6		
58	14	2			30 22				

## Scoresby-Sund.

No.	Date	Hour	Forerunners				L	△	Remarks
			P	S					
59	1947 May 17	7	m s 26 11	m s	m s 26 22	m s i26 36	h m	°	<i>i<sub>E</sub></i> 26 <sup>m</sup> 45 <sup>s</sup> . 40 <sup>m</sup> .2. 49 <sup>m</sup> .0. First movement quite small, reading of onset (26 <sup>m</sup> 11 <sup>s</sup> ) uncertain. 26 <sup>m</sup> 36 <sup>s</sup> onset of large swing.
60	19	7					0		
61	19	11					46		
62	25	4					4		
63	25	12			10 41				
64	25	23			23.0		43		
65	26	20			9 10	10 42			
66	27	3			55.1	63.9			
67	27	6			18 6	19 56			
68	28	15			10 43		.9		Small movement precedes <i>PP</i> (18 <sup>m</sup> 6 <sup>s</sup> ). 20 <sup>m</sup> 48 <sup>s</sup> . 24 <sup>m</sup> 58 <sup>s</sup> . 25 <sup>m</sup> 59 <sup>s</sup> . 27 <sup>m</sup> 32 <sup>s</sup> . 28 <sup>m</sup> 37 <sup>s</sup> . 31 <sup>m</sup> .2. 32 <sup>m</sup> .4. <i>SS</i> 33 <sup>m</sup> 44 <sup>s</sup> . Off north coast of New Guinea.
69	June 1	11		32 36	28.3	35.7			Southwest of Greece.
70	2	6	<i>i</i> 49 54 +	57 33	51.9	52 50		55	53 <sup>m</sup> 18 <sup>s</sup> . Turkestan.
71	4	0	37 16	43 13	38 48	39 16	49		<i>SS</i> 46 <sup>m</sup> 4 <sup>s</sup> . Deeper than normal. No <i>Z</i> record.
72	5	23	9 23	18.4			31		<i>P</i> quite small, the reading uncertain.
73	7	19			6.0	9 58			12 <sup>m</sup> 26 <sup>s</sup> . 13 <sup>m</sup> .0. 19 <sup>m</sup> .5. No <i>Z</i> record. Philippine Islands.
74	10	12					34		Recording interrupted 10 <sup>h</sup> 40 <sup>m</sup> -12 <sup>h</sup> 34 <sup>m</sup> .
75	10	19		52 24	48 23		55		Azores.
76	12	9	16 37	28 28	20 4	21 1	.8		<i>SKS</i> 27 <sup>m</sup> 18 <sup>s</sup> . <i>SKKS</i> 28 <sup>m</sup> 3 <sup>s</sup> . <i>PS</i> 30 <sup>m</sup> .1. <i>e<sub>N</sub></i> 34 <sup>m</sup> .1. <i>SS</i> 36 <sup>m</sup> 4 <sup>s</sup> . Molucca Islands.
77	13	20	37 43	<i>i</i> 48 24	<i>i</i> 37 48	41 18		88	<i>SKS</i> 48 <sup>m</sup> 8 <sup>s</sup> . <i>PS</i> 49 <sup>m</sup> 32 <sup>s</sup> . <i>SS</i> 54 <sup>m</sup> .3. <i>e<sub>E</sub></i> 61 <sup>m</sup> 13 <sup>s</sup> .
78	14	0	3 13		6 38	13 36			( <i>S</i> ) <sub>N</sub> 14 <sup>m</sup> 2 <sup>s</sup> . <i>PS</i> 14 <sup>m</sup> 57 <sup>s</sup> . <i>e<sub>E</sub></i> 26 <sup>m</sup> .7.
79	14	0	<i>i</i> 43 37		54				Superposed on preceding shock.
80	14	16	42 57 +		53 42				
81	15	8			9.4				
82	16	0			39.2		1.0		
83	19	2			37 48	38 4	1.0		Small preceding movement.
84	19	7	<i>i</i> 47 27 -		<i>i</i> 47 36	51 2			<i>SKS</i> 57 <sup>m</sup> 47 <sup>s</sup> . 58 <sup>m</sup> 8 <sup>s</sup> . <i>i<sub>E</sub></i> 58 <sup>m</sup> 22 <sup>s</sup> . <i>PS</i> 59 <sup>m</sup> 18 <sup>s</sup> . <i>e<sub>E</sub></i> 70 <sup>m</sup> .8.
85	19	22	59 48	69 56	75.3		81		No <i>Z</i> record.
86	20	13	42 27	49 2			44		Atlantic Ocean. No <i>Z</i> record.
87	20	23		13 21					
88	28	2			12 16		.7		
89	28	17					26		
90	28	19					19		Small preceding movement on <i>N</i> .

## Scoresby-Sund.

No.	Date	Hour	Forerunners				L	△	Remarks
			P	S					
91	1947 June 28	22					23		
92	30	8			10.3	16 24			
93	July 1	13					30		
94	9	18			20 46	26.6			
95	10	10	29 44 +	38 5			61		
96	10	10	52 12						Superposed on preceding shock.
97	10	16	16 24	25 44			.7	72	No <i>Z</i> record. Off Guatemala.
98	12	2	9 31	18 10			28	65	No <i>Z</i> record. Kurile Islands.
99	12	12			70.5				No records 10 <sup>h</sup> 59 <sup>m</sup> - 13 <sup>h</sup> 9 <sup>m</sup> .
100	13	13			19.8	26 24			35 <sup>m</sup> .3. No <i>Z</i> record. East of Fiji Islands.
101	16	19	32 24	42 2	37.1	42 40	1.0	75	East of Japan.
102	16	21					51		
103	21	21					11		
104	23	17	32 27		34 14	42 24			<i>SS</i> 51 <sup>m</sup> .3. 54 <sup>m</sup> .2. South Atlantic.
105	24	12	36 1 +		38 0	39 22			<i>PPS</i> 49 <sup>m</sup> 56 <sup>s</sup> . <i>SS</i> 54 <sup>m</sup> .9. New Hebrides Islands.
106	24	22		29 13			40		California.
107	25	19		32 18	31 20				Northern Argentina. Depth ca. 600 km.
108	26	12	5 53	14 16				62	
109	26	16			17.3	33.0			
110	28	3	56 41	62 56	58 21	66.1		41	Alaska.
111	29	6			51 28		1.3		
112	29	13	<i>i</i> 54 43	<i>i</i> 64 4	59.0			72	<i>P</i> (-2.5, -4.6, +5.8).
113	29	23			56.4				
114	30	22					37		
115	31	14		35 14			.8		Off Ecuador.
116	Aug. 1	1			13 40				
117	1	3					15		
118	2	1					44		
119	2	2					40		
120	4	18			7.1		26		
121	5	14	<i>i</i> 34 54	43 29	<i>i</i> 35 0	43 41		64	<i>PPP</i> 38 <sup>m</sup> 54 <sup>s</sup> . <i>SSS</i> 50 <sup>m</sup> .6.
122	6	5	<i>i</i> 58 41	68 25	60 49	<i>i</i> 68 10		86	<i>P</i> (x, -2.6, +2.2). Arabian Sea.
123	7	0	50 26	58 30	50 34	51.1		59	<i>SP</i> 69 <sup>m</sup> 26 <sup>s</sup> . <i>sS</i> 72 <sup>m</sup> .1. Depth about 600 km.
124	9	3		8 39					<i>PPP</i> 54 <sup>m</sup> .1. <i>PS</i> 58 <sup>m</sup> 42 <sup>s</sup> . 61 <sup>m</sup> .6.
125	12	13					16		<i>SSS</i> 65 <sup>m</sup> .2. Off Cuba.
126	12	16					29		Atlantic Ocean.
127	15	4	19 6	25 40	20 44		33	44	<i>S</i> possibly earlier than read. Caucase.
128	15	9	26 51 +	36 58			1.0	81	South of Japan.
129	16	6			10.7		.4		

Scoresby-Sund.

No.	Date	Hour	Forerunners				L	△	Remarks
			P	S	m s	m s			
130	1947 Aug. 17	9	m s	m s	m s	m s	h m	°	
131	22	2			51.6	61.3	1.4		68 <sup>m</sup> .1. No Z record.
132	23	4			55.8		1.2		
133	24	11		54 35	46.8	49 51			56 <sup>m</sup> 36 <sup>s</sup> . No Z record. China.
134	27	13	i 57 25		i 57 43	60 57			62 <sup>m</sup> 21 <sup>s</sup> . 79 <sup>m</sup> .9. New Zealand.
135	28	7	0 31	8 43	4 20	9 6		60	No Z record.
136	28	14	39 19	47 14			57	57	» » »
137	28	20			14.2	20 40	46		Chile.
138	30	22	29 35	35 57	i 29 55	31 16			Aegean Sea. Deeper than normal.
139	Sept. 2	14			53 12	62 48			69 <sup>m</sup> 54 <sup>s</sup> . 71 <sup>m</sup> 41 <sup>s</sup> . 72 <sup>m</sup> 44 <sup>s</sup> . 74 <sup>m</sup> .6.
140	3	15	i 37 9	46 10					Deep focus. West of Tonga Islands.
141	3	19			26.7		.8		
142	4	0			56 25	60 36	1.4		
143	5	7						56	
144	23	12	37 57	45 44	41 14	45 54		56	46 <sup>m</sup> 27 <sup>s</sup> . 49 <sup>m</sup> 19 <sup>s</sup> . 50 <sup>m</sup> 27 <sup>s</sup> . 51 <sup>m</sup> 17 <sup>s</sup> .
145	25	23			49 54	56 59			Strong microseisms. Iran.
146	26	16	14 8	24 15	17 17	20 32			59 <sup>m</sup> 58 <sup>s</sup> .
147	30	18						50	Off east-coast of China, Deep. Strong microseisms, the readings uncertain.
148	Oct. 1	13			1 38				
149	3	23			52 20		1.1		
150	5	19			10 21				Small preceding movement.
151	6	20	3 19	9 29	4 5	5 3			Strong microseisms.
152	10	7			59.1				
153	16	2	17 26 +	23 38	17 39	23 53		41	19 <sup>m</sup> 1 <sup>s</sup> . 19 <sup>m</sup> 17 <sup>s</sup> . 26 <sup>m</sup> 36 <sup>s</sup> . 26 <sup>m</sup> 49 <sup>s</sup> .
154	20	1	50 59 +	57 2	52 43	53 10		39	Alaska.
155	21	10			12 51		.3		57 <sup>m</sup> 19 <sup>s</sup> . 59 <sup>m</sup> .6. Alaska.
156	22	17			52.6		1.3		
157	29	14						6	
158	Nov. 1	15	11 48	i 22 36	12 38	15 27		89	SKS 22 <sup>m</sup> 20 <sup>s</sup> . 23 <sup>m</sup> 1 <sup>s</sup> . 23 <sup>m</sup> 38 <sup>s</sup> . 24 <sup>m</sup> 3 <sup>s</sup> .
159	4	0	19 54	28 31	29 9	29 47		64	26 <sup>m</sup> 20 <sup>s</sup> . 28 <sup>m</sup> 29 <sup>s</sup> . 29 <sup>m</sup> .3. P (+ 0.9, + 2.0, + 1.5; - 4.1, - 6.9, - 8.6).
160	8	14					5		Peru.
161	9	5			20 35				Japan.
162	12	16			41 39				Strong microseisms.
163	14	11	0 44	9 15				63	Japan.
164	21	4	5 46	14 43	16 2	19.4		68	Pacific Ocean off Mexico.

Scoresby-Sund.

No.	Date	Hour	Forerunners				L	△	Remarks
			P	S	m s	m s			
165	1947 Nov. 21	19	m s	m s	m s	m s	h m	°	
166	23	10			41.5		9		Strong microseisms.
167	25	18			5 32	40 0	59		
168	Dec. 15	19	40 20		40 59	44 42			57 <sup>m</sup> 57 <sup>s</sup> .
169	19	16			59 31	65.5	81		
170	19	17			42 33				
171	29	18					16		
172	30	0					9		Records not readable.
173	30	2					58		
174	30	16					31		
175	31	5			35 49		37		
176	31	15			32 59	37.0	62		

Phases are denoted by the symbols used in the International Seismological Summary. The signs + or - after the time of a P phase mean that the initial motion is upwards or downwards respectively. In P(± a, ± b, ± c) a, b and c are trace amplitudes in mm. of first swing on NS, EW and vertical component records respectively; + means that ground motion is directed to N, E or up, - that it is S, W or down. When a second set of amplitudes is given, it is those of the second swing. An x replaces a small amplitude that cannot be measured accurately.