



# 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. 19. Jan.—Aug. 1939.

Instruments:

Galitzin-Wilip seismographs.

Constants:

Component	$l$	$A_1$	$T_1$		$T$	$k$
	cm	cm	sec		sec	
$N$	12.0	100	11.8	$\frac{1}{1} - \frac{8}{6}$	12	52
				$\frac{8}{6} - \frac{28}{8}$	11.8	103
$E$	12.0	100	11.9	$\frac{1}{1} - \frac{8}{6}$	11.6	50
				$\frac{8}{6} - \frac{28}{8}$	11.6	95
$Z$	14.9	100	10.0	$\frac{1}{1} - \frac{23}{3}$	8	59
				$\frac{23}{3} - \frac{8}{6}$	10	50
				$\frac{8}{6} - \frac{28}{8}$	10	98

Damping was approximately aperiodic.

Time corrections were determined daily by means of Nauen scientific time-signals.

Bulletin of the seismological station Scoresby-Sund

1938) follows later.



International  
Seismological  
Centre

From the ISC collection scanned by SISMOS

Scoresby-Sund.

No.	Date	Hour	Forerunners				L	△	Remarks
			P or P'	S					
1	1939 Jan. 25	3	m s 47 18 +	m s	m s 51 35	m s 52 4	h m	°	PPP 54 <sup>m</sup> 8 <sup>s</sup> . SKS 57 <sup>m</sup> 26 <sup>s</sup> ; SKKS 58 <sup>m</sup> 35 <sup>s</sup> . PS 61 <sup>m</sup> 11 <sup>s</sup> . e <sub>N</sub> 61 <sup>m</sup> 46 <sup>s</sup> . SS 67 <sup>m</sup> 11 <sup>s</sup> . Destructive in Chile.
2	30	2	33 30		i 38 19	44 4			36 <sup>m</sup> .9. 44 <sup>m</sup> 19 <sup>s</sup> . 45 <sup>m</sup> 20 <sup>s</sup> . 46 <sup>m</sup> 4 <sup>s</sup> . 48 <sup>m</sup> 0 <sup>s</sup> . 49 <sup>m</sup> 15 <sup>s</sup> . 54 <sup>m</sup> .9. △ = ca. 115°. Felt in New Guinea.
3	31	0			10 26	16 32			17 <sup>m</sup> 52 <sup>s</sup> . 19 <sup>m</sup> .3.
4	Febr. 3	5			46 33	52 17			53 <sup>m</sup> 36 <sup>s</sup> . 54 <sup>m</sup> 22 <sup>s</sup> . 56 <sup>m</sup> .1. 61 <sup>m</sup> .4. 62 <sup>m</sup> .9.
5	March 21	1			29.0	35 42			37 <sup>m</sup> .8. 38 <sup>m</sup> .1. 43 <sup>m</sup> .3. Indian Ocean.
6	April 5	17	1 49 +		3 51	5 11			8 <sup>m</sup> .2. 13 <sup>m</sup> .9. SS 22 <sup>m</sup> .0. △ = ca. 130°.
7	18	6			41.2	47.1			50 <sup>m</sup> .2. 54 <sup>m</sup> .5. 55 <sup>m</sup> .8. Masked by microseisms. Chile.
8	21	4	38 33 +	i 46 15	i 40 20	i 47 30			53 <sup>m</sup> .1. 53 <sup>m</sup> 56 <sup>s</sup> . Depth about 500 km. Sea of Okhotsk.
9	23	16		i 43 38	i 44 35		51		Atlantic Ocean.
10	30	3	11.2		14 21	15 55			SKS 21 <sup>m</sup> 37 <sup>s</sup> . 22 <sup>m</sup> .3. 23 <sup>m</sup> .3. PS 25 <sup>m</sup> 11 <sup>s</sup> . 25 <sup>m</sup> 34 <sup>s</sup> . 26 <sup>m</sup> 26 <sup>s</sup> . 27 <sup>m</sup> .9. SS 32 <sup>m</sup> .4. No time-marks on E. Solomon Islands region.
11	May 1	6	9 36	18 45				70	Japan.
12	1	6	i 11 21 +						"
13	1	6	14 0	23 3				69	"
14	1	16	17 0	26.2				70	"
15	2	13	25 26	33 54	37 4	37.8		63	40 <sup>m</sup> .2. California.
16	6	6	12 0	21 38				75	
17	8	1	i 53 35	58 59	54 43				P possibly earlier than read; no Z record. Azores.
18	9	7		44 22	39.3	47 9	52		SS 48 <sup>m</sup> .2. No Z record. South of Alaska.
19	10	7	i 54 6		57 32	62 38			South of Aleutian Islands.
20	14	18	31 50	i 31 52					
21	16	7	32 38					86	Pacific Ocean.
22	17	18	i 43 16	i 53 50	46.6	53.6			
23	19	18			49 49	50 39			
24	21	20			42 29				
25	26	18			19 17				
26	27	3		i 67 1	i 57 43	60 15			i 67 <sup>m</sup> 32 <sup>s</sup> . 72 <sup>m</sup> 13 <sup>s</sup> . Burma.
27	June 2	3			51 19	57 43	1.2		58 <sup>m</sup> 39 <sup>s</sup> . No Z record.
28	5	23	10 29	16 10			19	36	

Scoresby-Sund.

No.	Date	Hour	Forerunners				L	△	Remarks
			P or P'	S					
29	1939 June 8	21	m s 5 42	m s	m s 6 12	m s i 7 17	h m	°	SKS 12 <sup>m</sup> 37 <sup>s</sup> . SKKS 13 <sup>m</sup> 28 <sup>s</sup> . 15 <sup>m</sup> 8 <sup>s</sup> . SS 23 <sup>m</sup> .7. SSS 26 <sup>m</sup> 53 <sup>s</sup> . △ = ca. 120°. Depth about 100 km. Pacific Ocean.
30	12	4	14* 52—	22 42	17 7	18 10	29	57	
31	18	17		6 35	7 16		16		No Z record.
32	22	19	30 19 +	39 16	32 42	43.5		68	Atlantic Ocean.
33	27	23	18 4		22 10	28 45			31 <sup>m</sup> .3. 36 <sup>m</sup> .4. No Z record. East of Mindanao.
34	July 4	23			i 1 27	i 2 34			No records 13 <sup>h</sup> to 20 <sup>h</sup> . 6 <sup>m</sup> 9 <sup>s</sup> . 7 <sup>m</sup> 22 <sup>s</sup> . SS 18 <sup>m</sup> 2 <sup>s</sup> . sSS 21 <sup>m</sup> 50 <sup>s</sup> . △ = ca. 130°. Depth about 550 km. No Z record. No records July 7. 16 <sup>h</sup> to Aug. 10. 23 <sup>h</sup> .
35	Aug. 12	2	26 9		27 57	29 0			SKS 33 <sup>m</sup> 0 <sup>s</sup> . 34 <sup>m</sup> 42 <sup>s</sup> . 37 <sup>m</sup> 44 <sup>s</sup> . 38 <sup>m</sup> 39 <sup>s</sup> . [Deeper than normal. New Hebrides region.]
36	12	10	0 29	i 9 11	i 9 49		17	65	No Z record.
37	16	17	18 22—		37 7	38 23			South of Aleutian Islands.
38	18	22						58	No Z record.
39	21	15	28 55	36 53	32 31				No Z record.
40	22	0	17 45	26 57	20.3		.7	70	No Z record. Japan.

After April 9, 1940 station records could no longer be sent to Copenhagen. Those of Aug. 28. were the last ones received.

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**Scoresby-Sund.**

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**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).  
*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.  
*i* — sharply defined beginning of a phase.  
*e* — gradual beginning of a phase.  
 $\Delta$  — arcual distance from the station to the epicentre.  
\*) affixed to time of phase indicates that the beginning is in a time-mark.
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