

GEODÆTISK INSTITUT

Proviantgården · Copenhagen · Denmark

Bulletin of the seismological station

SCORESBYSUND

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

Lithologic foundation : gneiss

Instruments

Galitzin-Wilip. *N* and *E*.  $T_p = T_g = 12 \text{ sec}$ ,  $\mu^2 = 0$ ,  $\frac{Ak}{\pi l} = 300$  or  $V_{\max}$  abt. 1000.

Galitzin-Wilip. *Z*.  $T_p = 9 \text{ sec}$ ,  $T_g = 10 \text{ sec}$ ,  $\mu^2 = 0$ ,  $\frac{Ak}{\pi l} = 200$  or  $V_{\max}$  abt. 600.

Grenet *Z'*.  $T_p = 1 \text{ sec}$ ,  $T_g = \frac{1}{4} \text{ sec}$ ,  $V_{\max}$  abt. 30000.

Seismological Readings

Phases are indicated by the symbols used in ISS. Times are given in GMT. Positions of epicenters are most often due to BCIS or USCGS. The periods given are periods of full oscillations. The amplitudes are single amplitudes of the ground in microns. + indicates ground motion towards the north, towards the east, or upwards. - indicates the opposite direction. Unless otherwise stated, the periods and amplitudes are due to readings on the Galitzin instruments.

### Scoresbysund 1956

#### January

3	<i>L·NE</i>	16.2	
3	<i>iP·Z'</i>	23 <sup>h</sup> 34 <sup>m</sup> 04 <sup>s</sup>	$\Delta = 53^\circ$ . Unimak Island, Alaska.
6	<i>eP·Z'</i>	12 23 11	dubious.
	<i>i·Z'</i>	23 14	
			$\Delta = 39^\circ$ . Aegean Sea.
7	<i>eP·Z'</i>	16 48 12	
	<i>ePP·Z'</i>	49 26	
	<i>L·NE</i>	59	
			$\Delta = 36^\circ$ . Yukon, Canada.
No time signals 7 d 20 h — 13 d 20 h.			
14	<i>iP·Z'</i>	14 18 27	
	<i>eS·NE</i>	26 24	
	<i>L·NE</i>	36	
			$\Delta = 57^\circ$ . Aleutian Islands.
14	<i>iP·Z'</i>	14 35 35	
			$\Delta = 66^\circ$ . Japan.
16	<i>eP·Z'ZE</i>	23 49 51	
	<i>i·Z'ZNE</i>	49 55	
	<i>i·Z'</i>	50 04	
	<i>ePP·NE</i>	52 47	
	<i>iS·NE</i>	24 00 00	
	<i>iScS·N</i>	00 16	
	<i>iPS·N</i>	00 34	
	<i>L·NE</i>	18	
			$\Delta = 81^\circ$ . Equador.
17	<i>eSS·N</i>	8 31.2	
	<i>L·NE</i>	48	
			$\Delta = 93^\circ$ . Eastern Pacific Ocean.
18	<i>L·NE</i>	9 01	
20	<i>L·NE</i>	5 38	
23	<i>iP·Z'</i>	0 55 18	
			$\Delta = 47^\circ$ . Kodiak Island.
23	<i>eP·Z'</i>	3 56 54	
	<i>eS·NE</i>	4 04 29	
	<i>L·NE</i>	13	
			$\Delta = 54^\circ$ . Kamchatka.

No time signals jan. 27—febr. 16.

#### February

17	<i>e·Z'</i>	9 <sup>h</sup> 14 <sup>m</sup> 57 <sup>s</sup>	
17	<i>e·Z'</i>	9 17 25	
17	<i>ePS·N</i>	10 23 56	
	<i>ePPS·N</i>	24 51	
	<i>eSSS·E</i>	33 51	
	<i>L·NE</i>	50	
			$\Delta = 117^\circ$ . South Atlantic Ocean.
18	<i>iP·Z'NE</i>	7 45 37	
	<i>i(PcP)·NE</i>	45 53	
	<i>ipP·Z'NE</i>	47 21	
	<i>ePP·NE</i>	48 40	
	<i>ePPP·N</i>	50 35	
	<i>i·NE</i>	52 53	
	<i>iS·NE</i>	54 55	10 <sup>s</sup> . N: 60 $\mu$ , E: 12 $\mu$ .
	<i>iSP·NE</i>	55 35	
	<i>i(sS)·NE</i>	57 59	
	<i>iSS·NE</i>	8 00 15	
	<i>ePKPPKP·Z'</i>	12 20	
	<i>eSKPPKP·Z'</i>	15 03	
			$\Delta = 78^\circ$ . $h = 450$ km. Japan.
19	<i>eP·Z'Z</i>	2 26 39	
	<i>ePP·ZN</i>	28 27	
	<i>ePPP·Z</i>	29 14	
	<i>eS·E</i>	33 39	
	<i>i·N</i>	33 44	
	<i>L·NE</i>	39	
	<i>M·NE</i>	42	15 <sup>s</sup> . N: 35 $\mu$ , E: 55 $\mu$ .
			$\Delta = 48^\circ$ . Queen Charlotte Islands.
19	<i>iP·Z'</i>	4 21 47	
	<i>iS·E</i>	28 38	
	<i>eSS·E</i>	31 38	
	<i>L·NE</i>	37	
			$\Delta = 47^\circ$ . Alaska Peninsula.
20	<i>e·Z'</i>	7 56 12	
20	<i>eP·Z'</i>	8 10 02	
	<i>L·NE</i>	42	
			$\Delta = 83^\circ$ . Ryukyu Islands.
20	<i>eP·Z'</i>	20 39 20	
	<i>i·ZN</i>	39 23	
	<i>ePP·ZNE</i>	40 53	
	<i>e(PcP)·ZNE</i>	41 23	
	<i>eS·E</i>	45 21	
	<i>e·NE</i>	45 37	
	<i>i·NE</i>	47 28	
	<i>eSSS·NE</i>	48 58	
	<i>iScS·N</i>	49 20	
	<i>L·NE</i>	51.2	
			$\Delta = 41^\circ$ . Turkey.

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#### February

21	<i>e·Z'</i>	20 <sup>h</sup> 23 <sup>m</sup> 10 <sup>s</sup>
	<i>i·Z'</i>	23 23
21	<i>eP·Z'</i>	23 01 52
	<i>eS·N</i>	03 34
	<i>L·E</i>	04.0
	$\Delta = 10^\circ$ . Arctic Ocean. Southwest of Svalbard.	
22	<i>eP·Z'</i>	0 09 57
	<i>eS·N</i>	11 48
	<i>L·E</i>	12.2
	$\Delta = 10^\circ$ . Arctic Ocean. Southwest of Svalbard.	
22	<i>L·N</i>	10 51
23	<i>eP·Z'</i>	1 28 49
	<i>i·Z'</i>	28 54
	<i>iS·N</i>	35 04
	$\Delta = 41^\circ$ . North Atlantic Ocean.	
24	<i>ePKP·Z'</i>	9 38 28
	<i>L·NE</i>	10 36
	$\Delta = 140^\circ$ . Kermadec Islands.	
26	<i>e·Z'</i>	16 09 52
	<i>e·Z'</i>	10 08
29	<i>eP·Z'</i>	7 10 02
	$\Delta = 80^\circ$ . Japan.	
29	<i>iP·Z'</i>	21 03 06
	$\Delta = 76^\circ$ . India-Burma border.	
29	<i>eP·Z'</i>	21 37 46
	Repetition.	

#### March

2	<i>iP·Z'</i>	12 04 09
	$\Delta = 42^\circ$ . Alaska.	
2	<i>iP·Z'</i>	14 59 47
	$\Delta = 64^\circ$ . Kurile Islands.	
3	<i>ePKP·Z'</i>	0 24 26
	<i>ePP·Z'</i>	25 58
	<i>L·NE</i>	1 02
	$\Delta = 122^\circ$ . Samoa Islands.	
3	<i>eP·Z'</i>	10 25 32
	<i>ePcP·Z'</i>	25 47
	$\Delta = 76^\circ$ . India-Burma border.	
3	<i>eP·Z'</i>	18 25 53
	Jan Mayen region.	

#### March

4	<i>eP·Z'</i>	3 <sup>h</sup> 23 <sup>m</sup> 33 <sup>s</sup>
	$\Delta = 24^\circ$ . Arctic Ocean.	
5	<i>L·NE</i>	4 16
5	<i>eP·Z'</i>	7 22 23
	<i>eS·N</i>	30 28
	<i>eSSS·E</i>	36 15
	<i>L·NE</i>	42
	$\Delta = 59^\circ$ . Sinkiang province, China.	
5	<i>iP·Z'</i>	23 40 27
	<i>eS·NE</i>	49 15
	<i>eSKS·NE</i>	50 25
	<i>L·NE</i>	24 02
	$\Delta = 66^\circ$ . Japan.	
6	<i>e·Z'</i>	0 09 07
6	<i>eP·Z'</i>	2 05 22
	South of Hondo, Japan.	
6	<i>eP·Z'</i>	9 05 33
	<i>L·NE</i>	9.4
	$\Delta = 59^\circ$ . Iran.	
6	<i>iP·Z'</i>	21 03 16
	Repetition.	
13	<i>iS·N</i>	13 34 13
	<i>L·NE</i>	48
	No vertical records.	
	$\Delta = 74^\circ$ . Panama.	
14	<i>iPKP·Z'</i>	15 58 19
	$\Delta = 145^\circ$ . New Zealand.	
14	<i>ePKP·Z'</i>	16 03 00
	Repetition.	
14	<i>iPKP·Z'</i>	16 33 33
	Repetition.	
16	<i>ePKP·Z'</i>	9 00 28
	Repetition.	
19	<i>eSS·N</i>	18 12.7
	<i>L·NE</i>	34
	$\Delta = 115^\circ$ . New Britain.	
21	<i>eP·Z'</i>	5 03 11
	<i>e·Z'</i>	04 56
	$\Delta = 47^\circ$ . Caucasia.	

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#### March

22 *iP·Z'Z* 6<sup>h</sup>46<sup>m</sup>14<sup>s</sup>  
*ipP·Z'Z* 46 39  
*isP·Z'Z* 46 53  
*iS·NE* 56 25  
*esS·N* 56 57  
*eSS·NE* 7 01 57  
*L·NE* 14  
 $\Delta = 83^\circ$ .  $h = 100$  km. Equador.

22 *e·Z'* 16 04 56

22 *L·NE* 17 02

23 *eP·Z'* 6 01 19  
 $\Delta = 70^\circ$ . Tibet.

23 *L·NE* 6 07

23 *e·Z'* 9 43 27  
*e·Z'* 44 02  
*e·Z'* 44 29

23 *e·Z'* 9 48 29  
*e·Z'* 49 15  
*e·Z'* 50 04

25 *eP·Z'* 23 37 28  
*L·NE* 56  
 $\Delta = 58^\circ$ . Kamchatka.

26 *L·NE* 5 24

30 *L·NE* 6 41

30 *L·NE* 8 17

#### April

1 *ePKP·Z'* 11 13 57  
*L·NE* 58  
 Eastern Pacific Ocean.

2 *eP·Z'* 11 03 39  
*ePP·E* 07 32  
*eSKKS·E* 14 40  
*e·E* 14 52  
*e(S)·N* 15 00  
*ePS·N* 16 26  
*eSS·NE* 21.8  
*L·NE* 38  
 $\Delta = 98^\circ$ . Sumatra.

2 *e·Z'* 11 07 06  
 Possibly phase in previous shock.

#### April

2 *eP·Z'* 11<sup>h</sup>15<sup>m</sup>27<sup>s</sup>  
*ipP·Z'* 15 49  
 $\Delta = 70^\circ$ .  $h = 100$  km. Tibet.

6 *eP·Z'Z* 7 21 02  
*i·E* 21 03  
*ePP·E* 23 11  
*e·E* 25 23  
*eS·E* 28 48  
*e(ScS)·E* 30 14

No N-record.  $\Delta = 57^\circ$ .  $h = 200$  km. Hindu Kush.

7 *L·E* 0 37

No N-record.

7 *ePKP·Z'* 18 19 39  
*ePKS·Z'* 22 46  
*e·Z'* 24 19

$\Delta = 140^\circ$ .  $h = 350$  km. Kermadec Islands.

9 *e(P)·Z'* 22 29 03  
*e(S)·Z'* 29 20  
*e(Rg)·Z'* 29 24  
 $\Delta = 1^\circ$ .

10 *ePP·Z'* 13 34 14  
*iSKS·NE* 40 18  
*iPS·ZNE* 43 53  
*L·NE* 14 08

$\Delta = 104^\circ$ .  $h = 150$  km. Sumatra.

11 *L·E* 2 17

11 *i·Z'* 14 45 49

12 *ePP·Z'* 5 23 22  
*eSKS·E* 29 35  
*eSKKS·NE* 30.1  
*ePS·E* 32.3  
*L·NE* 55  
 $\Delta = 102^\circ$ . Off northern Chile.

12 *eP·Z'* 22 43 46  
*i(PP)·Z'* 45 40  
*eS·N* 50 52  
*eSS·N* 54.3  
*L·NE* 23 00  
 $\Delta = 50^\circ$ . Northern Iran.

13 *eP·Z'* 7 13 59  
*e(pP)·Z'* 14 16  
 $\Delta = 46^\circ$ . Crete.

13 *iP·Z'* 8 05 06  
 $\Delta = 60^\circ$ . Kamchatka.

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April

- 16 *eP·Z'* 1<sup>h</sup>52<sup>m</sup>00<sup>s</sup>  
 $\Delta = 55^\circ$ . Kamchatka.
- 16 *ePP·Z'* 11 05 08  
 $\Delta = 104^\circ$ . Sumatra.
- 18 *iP·Z'Z* 11 10 04  
*e(PPP)·N* 13 42  
*iS·NE* 17 57  
*eSS·NE* 21.5  
*L·NE* 28  
 $\Delta = 57^\circ$ . Aleutian Islands.
- 18 *eP·Z'* 18 04 55  
 $\Delta = 57^\circ$ . Aleutian Islands.
- 20 *iPKP·Z'* 15 34 26  
*e·NE* 45 49  
*eSS·N* 51.3  
*L·NE* 16 10  
 $\Delta = 114^\circ$ .  $h = 150$  km. Banda Sea.
- 21 *e·Z'* 16 03 19  
*e·Z'* 03 47  
 Near shock.
- 22 *ePS·N* 5 10 32  
*eSS·N* 17.1  
*L·NE* 35  
 $\Delta = 115^\circ$ . New Britain.
- 22 *iP·Z'Z* 17 31 10  
*ePP·N* 33 23  
*ePPP·E* 34 06  
*iS·NE* 38 41  
*iPS·N* 38 46  
*eScS·E* 41 16  
*eSS·NE* 42.6  
*L·NE* 49  
 $\Delta = 53^\circ$ . Alaska Peninsula.
- 23 *iP·Z'Z* 3 42 30  
*e(pP)·Z'* 42 35  
*ePcP·N* 42 47  
*iS·NE* 51 22  
*ePS·E* 51 47  
*eSS·N* 55.8  
*L·NE* 4 03  
 $\Delta = 67^\circ$ .  $h = 60$  km. Japan.
- 25 *L·NE* 9 35
- 26 *iP·Z'* 11 49 59  
*ipP·Z'* 50 12  
 $\Delta = 72^\circ$ .  $h = 60$  km. Japan.

April

- 26 *e·Z'* 16<sup>h</sup>50<sup>m</sup>54<sup>s</sup>
- 29 *eP·Z'* 23 04 59  
*e(Pg)·Z'* 05 24  
*e(Sg)·Z'* 06 13  
*iRg·Z'E* 06 32  
 $\Delta = 4^\circ$ .
- May
- 1 *e·Z'* 2 00 16  
*e·Z'* 00 33  
 Near shock.
- 2 *eP·Z'* 6 45 42  
*epP·Z'* 47 28  
 $\Delta = 80^\circ$ .  $h = 500$  km. Bonin Islands.
- 2 *e(P)·Z'* 9 12 30  
*e(S)·Z'* 13 13  
 $(\Delta = 4^\circ)$ .
- 2 *e·Z'* 9 27.7
- 4 *e·Z'* 6 17 58
- 4 *e·Z'* 6 29 17
- 6 *iP·Z'* 21 06 32  
*i·Z'* 06 35  
*iS·E* 14 02  
*L·NE* 22  
 $\Delta = 53^\circ$ . Unimak Island.
- 6 *iP·Z'* 22 13 05  
 $\Delta = 64^\circ$ . Kurile Islands.
- 7 *eP·Z'* 8 27 53  
*e·Z'* 30 23  
*L·NE* 52  
 $\Delta = 69^\circ$ .  $h = 200$  km. Guatemala.
- 7 *ePKP·Z'* 11 17 46  
*eSS·N* 39.6  
*eSSS·E* 44.7  
*L·NE* 12 06
- 7 *e·Z'* 11 24 06
- 8 *e·Z'* 10 48 34  
*L·NE* 50.7  
 $\Delta = 8^\circ$ . Arctic Ocean. Disturbed by microseisms.
- 8 *eP·Z'* 21 00 04  
 $\Delta = 59^\circ$ . Iran.

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May

- 10 *iP·Z'* 16<sup>h</sup>45<sup>m</sup>53<sup>s</sup>  
 $\Delta = 53^\circ$ . Unimak Island.
- 10 *eP·Z'* 18 14 37  
 $\Delta = 11^\circ$ . Greenland Sea.
- 12 *eP·Z'* 9 56 03  
 $\Delta = 75^\circ$ . Japan.
- 13 *eP·Z'* 4 32 13  
 $\Delta = 21^\circ$ . North of Franz Josef Land.
- 13 *eP·Z'* 8 01 01  
*L·NE* 22  
 $\Delta = 63^\circ$ . Pakistan.
- 13 *eP·Z'* 9 01 31  
 $\Delta = 21^\circ$ . North of Franz Josef Land.
- 13 *eP·Z'* 14 38 58  
 $\Delta = 21^\circ$ . North of Franz Josef Land.
- 14 *e·Z'* 1 00 56  
*e·Z'* 01 28  
 Near shock.
- 15 *e(P)·Z'* 12 46 02  
*e·Z'* 46 08  
 Near shock? Or  $\Delta = 86^\circ$ , Peru?
- 15 *eP·Z'* 23 04 30  
 $\Delta = 40^\circ$ . Ionian Islands.
- 18 *e·Z'* 9 39 40
- 18 *e·Z'* 9 48 30
- 18 *e·Z'* 10 10 12
- 18 *eP·Z'* 22 15 56  
*L·NE* 29  
 $\Delta = 39^\circ$ . Greece.
- 19 *L·NE* 1 24
- 19 *ePP·ZN* 1 50.5  
*eSKS·N* 56 13  
*eSKKS·N* 57 32  
*e·N* 59 32  
*ePS·N* 2 00.3  
 $\Delta = 117^\circ$ . Solomon Islands.
- 19 *eP·Z'* 14 24 26  
 $\Delta = 59^\circ$ . Iran.

May

- 19 *ePKP·Z'* 20<sup>h</sup>21.0<sup>m</sup>  
*ePP·Z* 22 40  
*eSS·NE* 39.3  
*L·NE* 59  
 $\Delta = 120^\circ$ . Indian Ocean.
- 21 *e·Z'* 8 09.2
- 22 *ePKP·Z'* 3 20 00  
*ePP·NE* 21 44  
*e·N* 26 02  
*eSKS·N* 27 25  
*ePS·NE* 31 40  
*L·NE* 57  
 $\Delta = 122^\circ$ . Samoa Islands.
- 22 *ePP·Z'NE* 13 54 47  
*epPP·N* 56 32  
*esPP·N* 57 30  
*i(SKS)·N* 59 54  
*i·N* 14 01 05  
*iS·E* 01 48  
*ePS·N* 04 39  
*eSS·E* 09.7  
*esSS·E* 13 03  
*eSSS·N* 14.3  
 $\Delta = 113^\circ$ .  $h = 500$  km. New Ireland.
- 23 *e·Z'* 6 43 11  
 Near shock.
- 23 *e·Z'* 10 36 41  
 Near shock.
- 23 *iPKP·Z'Z* 21 06 38  
*iPP·Z'Z* 08 13  
*ipPP·Z'Z* 09 35  
*iSKS·N* 13 01  
*i·N* 14 48  
*iPKKP·Z* 16 11  
*i·N* 20 30  
*iSS·N* 24 39  
*isSS·N* 27 45  
*e·N* 39 08  
*i·N* 43 58  
 No E-record.  $\Delta = 123^\circ$ .  $h = 400$  km. Fiji Islands.
- 24 *L·N* 2 59

### Scoresbysund 1956

#### May

26 *ePKP·Z'* 20<sup>h</sup>39<sup>m</sup>18<sup>s</sup>  
*ipPKP·Z'Z* 41 21  
*iPP·Z* 41 42  
*i·Z'* 42 09  
*iSKKS·N* 47 20  
*i·N* 47 42  
 $\Delta = 127^\circ$ .  $h = 550$  km. Fiji Islands.

28 *eP·Z'* 1 52 45  
 $\Delta = 46^\circ$ . North Atlantic Ocean.

30 *eSKP·Z'* 16 03 15  
 $\Delta = 131^\circ$ .  $h = 350$  km. Tonga Islands.

#### June

1 *eP·Z'* 10 47 57  
*eP\*·Z'* 48 09  
*eS·Z'* 49 19  
*eSg·NE* 49.9  
 $\Delta = 6\frac{1}{2}^\circ$ . Iceland.

1 *eP·Z'* 12 11 58  
*eS·Z'E* 13 14  
 $\Delta = 6\frac{1}{2}^\circ$ . Iceland.

2 *e·Z'* 7 39 10  
*e·Z'* 40 00

3 *eP·Z'Z* 5 24 29  
*i·Z'NE* 24 31  
*ePP·NE* 24 57  
*e·Z'* 28 31  
*iS·ZNE* 28 46  
*L·NE* 31.6  
*M·NE* 34  $10^s$ .  $N: 5 \mu$ ,  $E: 12 \mu$ .  
 $\Delta = 24^\circ$ . Arctic Ocean, North of Parry Islands.

3 *eP·Z'* 13 41 14  
 $\Delta = 82^\circ$ . Bonin Islands.

3 *L·NE* 20 10

4 *eP·Z'ZN* 7 18 59  
*i·Z'* 19 01  
*eS·E* 26 51  
*e·N* 27 01  
*eScS·E* 28 51  
*eSS·N* 30 41  
*L·NE* 37  
*M·NE* 46  $N: 15^s$ ,  $8 \mu$ ,  $E: 15^s$ ,  $8 \mu$ .  
 $\Delta = 57^\circ$ . Aleutian Islands.

#### June

4 *ePKP·Z'* 12<sup>h</sup>25.4  
*ePKS·N* 28.9  
*eSKSP·N* 38<sup>m</sup>15<sup>s</sup>  
*eSS·NE* 46 37  
*L·NE* 13.2  
 $\Delta = 140^\circ$ . Kermadec Islands.

4 *e·Z'* 14 33 05

5 *L·NE* 6 57

5 *eP·Z'* 20 26 40  
 $\Delta = 56^\circ$ . Aleutian Islands.

8 *ePKP·Z'* 2 12 51  
 $\Delta = 122^\circ$ . Santa Cruz Islands.

8 *eP·Z'* 4 17 18  
*L·E* 39  
 $\Delta = 57^\circ$ . Afghanistan.

8 *L·NE* 14 47

9 *ePP·Z'ZNE* 10 27 07  
*e·Z'* 29 08  
*eSKS·NE* 33 27  
*iSKKS·NE* 33 42  
*eS·N* 35 04  
*iPS·E* 36 37  
*L·NE* 57  
 $\Delta = 107^\circ$ .  $h = 150$  km. Central Chile.

9 *iP·Z'ZNE* 23 23 39  $Z: 10^s$ ,  $-12 \mu$ .  
*iPeP·Z'ZNE* 24 34  
*iPP·Z'ZNE* 25 37  
*iPPP·Z'ZNE* 26 59  
*iS·NE* 31 51  $E: 10^s$ ,  $25 \mu$ .  
*L·E* 39  
*M·NE* 43  $E: 15^s$ ,  $140 \mu$ .  
 $\Delta = 57^\circ$ . Afghanistan.

10 *eP·Z'* 14 07 09  
*iL·NE* 08 35  
 $\Delta = 6^\circ$ . Iceland.

11 (*iP·Z'Z*) 8 26 33 in the time break.  
*iS·NE* 30 09  
*L·NE* 31.5  
*M·NE* 23  $E: 10^s$ ,  $14 \mu$ .  
 $\Delta = 20^\circ$ . North Atlantic Ocean.

11 *eP·Z'* 23 03 37  
 $\Delta = 50^\circ$ . Siberia.

12 *eP·Z'* 3 24 14  
*L·E* 55  
 $\Delta = 74^\circ$ . Assam.

### Scoresbysund 1956

June

12 *ePP·Z'Z* 9h11m38s  
*eSKS·E* 18 26  
*eS·N* 19.1  
*ePS·E* 20.7  
*eSS·NE* 25 45  
*L·NE* 40  
 $\Delta = 98^\circ$ . East Pacific Ocean.

12 *e·Z'* 14 45.2  
*e·Z'* 45 47

13 *iSKS·NE* 12 32 16  
*eSKKS·N* 33.1  
*ePS·NE* 35 21  
*L·NE* 59  
 $\Delta = 107^\circ$ .  $h = 200$  km. Celebes.

14 *eP·Z'* 12 22 55  
*i·Z'* 22 59  
 $\Delta = 65^\circ$ . Kurile Islands.

15 *ePP·Z* 15 57 09  
*ePKS·NE* 58 04  
*eSS·E* 16 14.9  
*L·NE* 45  
 $\Delta = 132^\circ$ . Tonga Islands.

16 *iP·Z'Z* 6 31 32  
*ipP·Z'* 31 44  
*eS·NE* 41 34  
*eSS·NE* 46.8  
*L·NE* 57  
 $\Delta = 78^\circ$ .  
 $\Delta = 78^\circ$ . Deeper than normal. Ryukyu Islands.

19 *L·NE* 1 17

19 *L·NE* 4 58.2 8<sup>s</sup>, 1  $\mu$ .  
*F·NE* 5 07

21 *L·E* 20 46 traces.

21 *L·E* 21 37 traces.

23 (*iP·Z'Z*) 2 27 25 in the time break.  
*iS·NE* 35 01  $E: 10^s, 10 \mu$ .  
*iScS·E* 37 16  
*eSS·NE* 38 41  
*L·NE* 44  
*M·NE* 50 18<sup>s</sup>.  $E: 35 \mu$ .  
 $\Delta = 54^\circ$ . Kamchatka.

26 *ePKP·Z'* 0 19 14  
*ePP·Z'* 21 19  
 $\Delta = 126^\circ$ . New Hebrides Islands.

June

27 *e·Z'* 3h25.5  
*e·Z'* 26<sup>m</sup>14<sup>s</sup>  
*L·E* 26.4

27 *iP·Z'* 19 10 03  
*L·NE* 46  
 $\Delta = 83^\circ$ . Formosa.

28 *L·NE* 4 58

28 *L·NE* 18 00

28 *eP·Z'* 23 07 48  
*eS·NE* 15 00  
*eSS·NE* 18 30  
*L·NE* 23  
*M·E* 26 20<sup>s</sup>, 35  $\mu$ .  
 $\Delta = 50^\circ$ . Vancouver Island.

29 *eP·Z'* 2 34 16  
*ePP·E* 37.5  
*eS·E* 44.5  
*L·NE* 3 04  
 $\Delta = 82^\circ$ . Formosa.

30 *eP·Z'* 1 57 34  
*L·NE* 2 11  
 $\Delta = 37^\circ$ . Black Sea.

July

3 *e(S)·NE* 16 07.4  
*L·NE* 23  
 $\Delta = 70^\circ$ . Guatemala.

3 *iP·Z'Z* 23 35 43  
*eS·NE* 43 24  
*eSSS·NE* 49 51  
 $\Delta = 57^\circ$ .  $h = 200$  km. Hindu Kush.

4 *iPKP·Z'* 0 58 09  
*epPKP·Z'* 1 00 06  
 $\Delta = 126^\circ$ .  $h = 450$  km. Fiji Islands.

4 *e(PS)·N* 3 33.9  
*eSS·NE* 40.3  
*L·NE* 59  
 $\Delta = 116^\circ$ . Solomon Islands.

6 *eP·Z'* 2 31 38  
*eS·NE* 39 23  
*eSS·E* 43.4  
*L·NE* 49  
 $\Delta = 56^\circ$ . Off coast of Oregon.



### Scoresbysund 1956

July			July		
6	<i>e</i> · <i>N</i> <i>e(L)</i> · <i>NE</i>	4h30m17s 36.0	11	<i>e(L)</i> · <i>NE</i>	5h00.3
8	( <i>L</i> )· <i>NE</i>	15 12.1	12	<i>iP</i> · <i>Z'</i> <i>eS</i> · <i>NE</i> <i>L</i> · <i>E</i> $\Delta = 76^\circ$ . Burma.	15 13m15s 22 58 42
9	<i>eP</i> · <i>Z'ZNE</i> <i>i</i> · <i>Z'Z</i> <i>iPP</i> · <i>NE</i> <i>iS</i> · <i>NE</i> <i>eNE</i> <i>L</i> · <i>NE</i> <i>M</i> · <i>NE</i> $\Delta = 42^\circ$ . Aegean Sea.	3 19 34 19 38 21 11 25 51 29.1 32.7 34 20s. <i>N</i> : 14 $\mu$ , <i>E</i> : 25 $\mu$ . 7s. <i>N</i> : 22 $\mu$ , <i>E</i> : 55 $\mu$ . 14s. <i>N</i> : 90 $\mu$ , <i>E</i> : 135 $\mu$ . 15s. <i>N</i> : 100 $\mu$ , <i>E</i> : 100 $\mu$ . 20s. <i>N</i> : 160 $\mu$ , <i>E</i> : 260 $\mu$ .	12	<i>e</i> · <i>NE</i>	17 05 20
9	<i>eP</i> · <i>Z'</i> <i>ePP</i> · <i>Z'</i> Repetition.	3 31 59 33 42	12	<i>L</i> · <i>NE</i>	18 02
9	<i>eP</i> · <i>Z'</i> Repetition.	4 41 19	15	<i>eP</i> · <i>Z'</i> <i>e(SKS)</i> · <i>E</i> $\Delta = 83^\circ$ . <i>h</i> = 500 km. Bonin Islands.	13 03 46 13 14
9	<i>eP</i> · <i>Z'</i> Repetition.	6 27 01	16	<i>e(L)</i> · <i>NE</i>	6 56.7
9	<i>eP</i> · <i>Z'</i> Repetition.	6 30 40	16	<i>e(L)</i> · <i>NE</i>	7 14.2
9	<i>iP</i> · <i>Z'ZNE</i> <i>epP</i> · <i>Z'Z</i> <i>ePP</i> · <i>E</i> <i>ePPP</i> · <i>NE</i> <i>eS</i> · <i>NE</i> <i>isS</i> · <i>NE</i> <i>L</i> · <i>NE</i> $\Delta = 58^\circ$ . <i>h</i> = 100 km. Haiti.	10 06 07 06 27 08 12 09 58 14 12 14 34 24	16	<i>iP</i> · <i>Z'</i> <i>ePP</i> · <i>E</i> <i>eS</i> · <i>NE</i> <i>isS</i> · <i>N</i> <i>iPS</i> · <i>NE</i> <i>L</i> · <i>NE</i> <i>M</i> · <i>NE</i> $\Delta = 78^\circ$ . <i>h</i> = 100 km. Burma.	15 19 05 22 09 29 01 29 21 29 50 45 57 20s. <i>N</i> : 30 $\mu$ , <i>E</i> : 45 $\mu$ .
9	<i>i</i> · <i>Z'</i>	10 34 10	17	<i>epP</i> · <i>Z'</i> <i>ePKP</i> · <i>Z'</i> <i>ePP</i> · <i>NE</i> <i>ipPP</i> · <i>Z'</i> <i>iSKS</i> · <i>NE</i> <i>iS</i> · <i>N</i> <i>esS</i> · <i>NE</i> $\Delta = 113^\circ$ . <i>h</i> = 450 km. Banda Sea.	7 49 50 51 59 53 00 54 53 58 02 59 57 8 03 00
9	<i>e(P)</i> · <i>Z'</i> <i>e(L)</i> · <i>Z'</i>	10 35 52 36 09	18	<i>eP</i> · <i>NE</i> <i>ePKP</i> · <i>Z'</i> <i>iPP</i> · <i>NE</i> <i>ipPP</i> · <i>NE</i> <i>iSKKS</i> · <i>NE</i> <i>i(S)</i> · <i>E</i> <i>ePS</i> · <i>NE</i> <i>ipPS</i> · <i>NE</i> <i>i</i> · <i>N</i> <i>iSS</i> · <i>NE</i> <i>iSSS</i> · <i>N</i> <i>L</i> · <i>NE</i> $\Delta = 112^\circ$ . <i>h</i> = 150 km. Banda Sea.	6 34 00 38 00 38 45 39 25 45 25 46 20 48 05 48 50 49 12 54 25 59 25 7 11 14s. <i>N</i> : 20 $\mu$ , <i>E</i> : 15 $\mu$ .
9	<i>e</i> · <i>Z'</i>	18 33 48	19	<i>eSKS</i> · <i>NE</i> <i>eSS</i> · <i>E</i> <i>L</i> · <i>E</i> $\Delta = 91^\circ$ . Philippine Islands.	21 04 29 11.2 26
9	<i>eP</i> · <i>Z'</i> Repetition, Aegean Sea.	20 21 51			
9	<i>e</i> · <i>Z'</i>	21 36 36			
10	<i>eP</i> · <i>Z'</i> <i>ePP</i> · <i>NE</i> <i>eS</i> · <i>E</i> <i>L</i> · <i>NE</i> Repetition. Aegean Sea.	3 09 20 10 59 15 50 22			

### Scoresbysund 1956

July	
19	<i>eP·Z'</i> 23 <sup>h</sup> 37 <sup>m</sup> 50 <sup>s</sup>
	<i>eS·E</i> 47.3
	<i>eSS·E</i> 52.7
	<i>eSSS·E</i> 55.7
	<i>L·NE</i> 24 01
	$\Delta = 72^\circ$ . Costa Rica.
21	<i>eP·Z'</i> 0 19 45
	<i>eS·NE</i> 28 57
	<i>eScS·N</i> 29 42
	<i>L·NE</i> 40
	$\Delta = 70^\circ$ . Mid-Atlantic Ocean.
21	<i>eP·Z'</i> 15 00 15
	<i>e·Z'</i> 03 53
	<i>eS·E</i> 07 37
	<i>eScS·E</i> 08 59
	$\Delta = 58^\circ$ . $h = 600$ km. Sea of Okhotsk.
21	<i>iP·Z'Z</i> 15 43 35
	<i>ePP·E</i> 46 08
	<i>eS·NE</i> 52 44
	<i>eSS·N</i> 57 04
	<i>L·NE</i> 16 05
	$\Delta = 70^\circ$ . India.
22	<i>eP·Z'</i> 3 36 53
	$\Delta = 42^\circ$ . Aegean Sea.
23	<i>L·E</i> 8 12
23	<i>ePP·Z'E</i> 19 45 15
	<i>ePS·E</i> 54.9
	<i>ePPS·E</i> 56 13
	<i>eSS·E</i> 20 01.3
	<i>L·NE</i> 19
	$\Delta = 112^\circ$ . Eastern Island region.
24	<i>e·N</i> 12 41 17
24	<i>iP·Z'</i> 13 11 32
	$\Delta = 78^\circ$ . $h = 500$ km. Japan.
26	<i>e(SK·P)·Z'</i> 18 10 02
	$\Delta = 135^\circ$ . $h = 650$ km. Kermadec Islands.
27	<i>L·NE</i> 7 43
27	<i>L·NE</i> 15 22.8
28	<i>L·NE</i> 0 14.0
28	<i>L·NE</i> 0 32
28	<i>L·NE</i> 1 18
28	<i>L·NE</i> 1 56
	Probably local shocks.
30	<i>e·NE</i> 5 58 49
	<i>L·NE</i> 6 05
	$\Delta = 43^\circ$ . Aegean Sea.

July	
30	<i>eP·Z'</i> 9 <sup>h</sup> 23 <sup>m</sup> 04 <sup>s</sup>
	<i>eS·NE</i> 29 26
	<i>L·NE</i> 35
	$\Delta = 43^\circ$ . Aegean Sea.
30	<i>L·NE</i> 11 01
31	<i>L·Z'</i> 23 03
	Very short period.
	<i>L·Z'</i> 23 39
	Very short period.
	Possibly calving of glaciers NE of the station.
August	
1	<i>L·NE</i> 21 37
2	<i>L·NE</i> 21 07
4	<i>e(P)·Z'</i> 5 23 19
	Local shock?
4	<i>eSKS·N</i> 10 14 29
	<i>ePS·NE</i> 18 16
	<i>e·N</i> 25 05
	<i>L·NE</i> 42
	$\Delta = 114^\circ$ . New Britain.
4	<i>L·NE</i> 17 06
8	<i>L·NE</i> 23 35
9	<i>L·NE</i> 17 41
9	<i>L·NE</i> 20 11
9	<i>eSS·E</i> 22 26 30
	<i>L·NE</i> 23 00
	$\Delta = 139^\circ$ . Kermadec Islands.
9	<i>iPKP·Z'</i> 23 19 11
	<i>epPKP·Z'</i> 20 30
	<i>e·N</i> 22 23
	<i>iSKS·NE</i> 25 51
	<i>e·E</i> 28 26
	<i>i·E</i> 36 36
	<i>eSS·E</i> 37 16
	<i>i·N</i> 40 16
	<i>eSSS·NE</i> 42.2
	$\Delta = 122^\circ$ . $h = 250$ km. Samoa Islands.
12	<i>ePKP·Z'</i> 0 44 24
	$\Delta = 126^\circ$ . $h = 200$ km. Tonga Islands.
12	<i>eP·Z'</i> 17 11 16
	<i>eS·N</i> 20 57
	<i>ePS·E</i> 21 16
	<i>e·N</i> 22 32
	<i>L·NE</i> 35
	$\Delta = 74^\circ$ . Japan.

### Scoresbysund 1956

August

- 14 *eSS*·*NE* 3<sup>h</sup>29.0  
*L*·*NE* 50<sup>m</sup>  
 $\Delta = 128^\circ$ . Indian Ocean.
- 15 *ePP*·*E* 5 38 15<sup>s</sup>  
*iSKS*·*NE* 44 06  
 $\Delta = 101^\circ$ .  $h = 300$  km. Sumatra.
- 15 *ePP*·*Z'* 11 09 49  
*iSKS*·*NE* 15 50  
*e*·*N* 18 58  
*e*·*E* 19 14  
*iPPS*·*E* 19 59  
*L*·*NE* 43  
 $\Delta = 106^\circ$ .  $h = 100$  km. Celebes.
- 15 *eP*·*Z'* 12 09 36  
*eS*·*N* 15 00  
*L*·*NE* 20  
 $\Delta = 34^\circ$ . Yugoslavia.
- 15 *eP*·*Z'* 13 22 47  
*i*·*Z'* 22 51  
*iS*·*NE* 31 26  
*ePS*·*E* 31 41  
*i*·*N* 31 47  
*iScS*·*E* 32 44  
*L*·*NE* 43  
 $\Delta = 65^\circ$ . Kurile Islands.
- 16 *eP*·*Z'* 0 46 26  
*eS*·*E* 52.8  
*L*·*NE* 59  
 $\Delta = 42^\circ$ . South of Greece.
- 17 (*iP*·*Z'*)·*NE* 1 27 17 in the time break.  
*e*·*N* 28 18  
*eS*·*E* 30 50  
*L*·*E* 33.0  
 $\Delta = 18^\circ$ . North Atlantic Ocean.
- 17 *iP*·*Z'*·*NE* 2 03 41  
*eS*·*E* 07 12  
*L*·*NE* 08.4  
 $\Delta = 18^\circ$ . North Atlantic Ocean.
- 17 *e(P)*·*Z'* 11 11 15  
*i(S)*·*N* 12 48  
 $(\Delta = 8^\circ)$ .
- 17 *L*·*NE* 15 12
- 19 *L*·*NE* 6 21

August

- 20 *eP*·*Z'Z* 5<sup>h</sup>45<sup>m</sup>17<sup>s</sup>  
*eS*·*E* 54 41  
*L*·*NE* 6 06  
 $\Delta = 73^\circ$ . Panama.
- 20 *L*·*NE* 7 46
- 23 *iP*·*Z'Z* 14 01 39  
*ePP*·*Z* 05 14  
*eSKS*·*NE* 11 59  
*eS*·*NE* 12 27  
*ePS*·*N* 13 34  
*eSS*·*E* 18.5  
*L*·*NE* 32  
 $\Delta = 92^\circ$ .  $h = 100$  km. Bolivia.
- 24 *iP*·*Z'Z* 4 37 19  
*iPPP*·*ZNE* 40 56  
*iS*·*E* 45 12  
*i*·*N* 45 33  
*eScS*·*E* 46 54  
*eSS*·*N* 49 10  
*L*·*NE* 55  
 $\Delta = 56^\circ$ . Aleutian Islands.
- 25 *e*·*Z'* 18 02 52  
*e*·*NE* 03.0  
*e*·*Z'* 06 11  
*e*·*N* 06 19  
 Possibly one or two local shocks.
- 25 *iP*·*Z'* 19 43 31  
*eS*·*E* 51 29  
*eScS*·*E* 53.3  
 $\Delta = 57^\circ$ . Aleutian Islands.
- 26 *eP*·*Z'* 16 58 06  
 $\Delta = 57^\circ$ . Aleutian Islands.
- 28 *e*·*NE* 16 01 40
- 30 *eP*·*Z'ZN* 4 33 44  
*eS*·*NE* 41 29  
*L*·*NE* 51  
 $\Delta = 56^\circ$ . Aleutian Islands.
- 30 *e(S)*·*N* 5 42 30  
*L*·*NE* 52  
 $\Delta = 56^\circ$ . California.

### Scoresbysund 1956

#### September

- 6 *L·NE* 12<sup>h</sup>05<sup>m</sup>
- 8 *eP·Z'NE* 18 10 42  
*eS·NE* 12 39  
*L·NE* 13.1  
 $\Delta = 10^\circ$ . West of Svalbard.
- 10 *L·NE* 3 23
- 10 *L·NE* 14 48
- 11 *L·NE* 10 32
- 11 *eS·N* 22 22 20 strong microseisms.  
*L·NE* 34  
 $\Delta = 60^\circ$ . Kurile Islands.
- 15 *eSKS·NE* 8 02 54  
*eS·NE* 03 42  
*eSS·N* 10 12  
 $\Delta = 96^\circ$ .  $h = 100$  km. Northern Chile.
- 16 *eP·Z'* 8 47 24  
*i·Z'Z* 47 27  
*iS·NE* 55 36  
*iScS·N* 57 18  
*eSSS·N* 9 01 40  
*L·NE* 08  
 $\Delta = 59^\circ$ . Pakistan-Afghanistan border.
- 19 *iP·Z'* 23 59 26  
*iS·NE* 24 09 03  
*e·E* 09 41  
*i·N* 09 56  
 $\Delta = 73^\circ$ .  $h = 150$  km? Central Burma.
- 20 *iP·Z'Z* 22 01 56  
*eS·N* 09 53  
*L·E* 21  
 $\Delta = 58^\circ$ . Kamchatka.
- 24 *L·NE* 7 02
- 24 *eP·Z'* 10 30 39  
*eS·NE* 38.8  
*L·NE* 52  
 $\Delta = 59^\circ$ . Pakistan-Afghanistan border.
- 28 *eP·Z'* 15 04 08  
Masked by strong microseisms.  
 $\Delta = 10^\circ$ . West of Svalbard.
- 29 *L·E* 9 58

#### September

- 29 *eP·Z'* 21<sup>h</sup>32<sup>m</sup>09<sup>s</sup>  
 $\Delta = 70^\circ$ . Japan.
- 29 *iP·Z'* 23 32 21  
 $\Delta = 73^\circ$ . Japan.

#### October

- 2 *iP·Z'* 15 06 08  
*eS·N* 13 53  
*L·NE* 27  
 $\Delta = 56^\circ$ . Kamchatka.
- 2 *L·E* 16 32
- 6 *eL·NE* 7 33.5  
 $\Delta = 9^\circ$ . Arctic Ocean.
- 8 *L·NE* 15 56
- 10 *eP·Z'* 15 42 32  
 $\Delta = 67^\circ$ . Northern India.
- 11 *iP·Z'Z* 2 34 59  $Z: 8^s, 25 \mu$ .  
*ipP·Z* 35 24  $8^s, 8 \mu$ .  
*iS·NE* 43 24  $10^s, N: 25 \mu, E: 25 \mu$ .  
*isS·E* 44 08  $10^s, 15 \mu$ .  
*L·NE* 54  
*M·N* 58  $30^s, 65 \mu$ .  
 $\Delta = 63^\circ$ .  $h = 100$  km. Kurile Islands.
- 11 *i·Z'* 3 03 53  
*i·Z'* 04 29  
*i·Z'* 04 33  
Possibly two quakes.
- 11 *eP·Z'* 16 58 31  
*i·Z'* 58 34  
*eS·NE* 17 06 35  
*i·N* 06 54  
*iSS·E* 10 29  
*L·NE* 13  
*M·NE* 18  $20^s, N: 35 \mu, E: 25 \mu$ .  
 $\Delta = 57^\circ$ . California.
- 12 *eP·Z'* 12 33 41  
*L·E* 59  
 $\Delta = 66^\circ$ . Japan.
- 13 *L·NE* 19 52
- 19 *iPKP·Z'* 12 18 38  
 $\Delta = 128^\circ$ .  $h = 650$  km. Fiji Islands.

### Scoresbysund 1956

October

- 19 *L*·*NE* 15<sup>h</sup>15<sup>m</sup>
- 19 *iP*·*Z* 20 57 22  
*iS*·*NE* 21 05 14  
*iScS*·*E* 07 14  
*eSS*·*NE* 08 51  
*iSSS*·*NE* 10 49  
*L*·*NE* 14  
 $\Delta = 57^\circ$ . Aleutian Islands.
- 23 *L*·*NE* 9 29
- 24 *iP*·*E* 14 53 29 *Z* out of order.  
*e*·*Z'* 54 06  
*iPPP*·*E* 57 59  
*eSS*·*NE* 07 27  
*iSSS*·*NE* 11 04  
*L*·*NE* 16  
*M* 24 20<sup>s</sup>. *N*: 125  $\mu$ , *E*: 150  $\mu$ .  
 Strong microseisms.  
 $\Delta = 71^\circ$ . Nicaragua.
- 25 *L*·*NE* 5 55
- 26 *L*·*NE* 23 46
- 28 *ePKP*·*Z'* 3 47 55 Strong microseisms.  
*L*·*NE* 4 37  
 $\Delta = 140^\circ$ . Kermadec Islands.
- 28 *eP*·*Z'* 10 58 23  
*L*·*NE* 11 40  
 Strong microseisms.  
 $\Delta = 92^\circ$ . Philippine Islands.
- 29 *iP*·*Z'* 13 49 26  
*eS*·*Z'* 50 08  
*(L)*·*NE* 50.4  
 $\Delta = 4^\circ$ . North of Iceland.
- 29 *iP*·*Z'* 15 54 50  
*ipP*·*Z'* 55 11  
 $\Delta = 88^\circ$ . *h* = 60 km. Peru.
- 29 *iP*·*Z'* 16 22 04  
*eS*·*Z'* 22 46  
*i(L)*·*E* 22 56  
*e(L)*·*N* 23 02  
 $\Delta = 4^\circ$ . North of Iceland.
- 29 *eP*·*Z'* 16 32 55  
*i*·*Z'* 33 00  
*iS*·*Z'* 33 43  
*(L)*·*NE* 33.9 In preceding shock.  
 $\Delta = 4^\circ$ . North of Iceland.

October

- 30 *iP*·*Z'ZN* 0<sup>h</sup>12<sup>m</sup>07<sup>s</sup>  
*eS*·*N* 12 46  
*eS*·*E* 12 50  
*i(L)*·*E* 13 10  
*i*·*N* 13 15  
 $\Delta = 4^\circ$ . North of Iceland.
- 31 *iP*·*Z'Z* 14 13 54  
*ePPP*·*NE* 17 37  
*iS*·*NE* 22 07  
*e*·*NE* 22 22  
*iSS*·*NE* 26 02  
*eSSS*·*NE* 28 07  
*L*·*NE* 32  
 $\Delta = 61^\circ$ . Iran.
- 31 *eP*·*Z'* 14 32 31  
 $\Delta = 61^\circ$ . Iran.
- November
- 1 *eP*·*Z'* 6 02 46  
 $\Delta = 61^\circ$ . Iran.
- 2 *iP*·*Z'* 16 12 01  
 $\Delta = 39^\circ$ . Greece.
- 4 *eP*·*Z'* 5 48 44  
 $\Delta = 74^\circ$ . Japan.
- 4 *iPKP*·*Z'* 7 24 52  
*iPKS*·*N* 28 29  
*iPS*·*N* 37 15  
*iSS*·*N* 44 20  
*i*·*N* 46 52  
*L*·*N* 8 06  
 $\Delta = 129^\circ$ . Tonga Islands.
- 9 *iP*·*Z'* 13 17 00  
*ipP*·*Z'* 17 26  
*isP*·*Z'* 17 46  
 Galitzin disturbed by strong microseisms.  
 $\Delta = 68^\circ$ . *h* = 150 km. Mexico.
- 11 *eP*·*Z'* 19 26 05  
 $\Delta = 65^\circ$ . Kurile Islands.
- 13 *e(L)*·*Z'* 15 20 13
- 14 *eP*·*Z'* 1 01 11  
*epP*·*Z'* 01 34  
*iS*·*NE* 09 02  
*eSS*·*E* 12.7  
*e*·*N* 14 12  
*L*·*E* 19  
 $\Delta = 58^\circ$ . *h* = 150 km. Hindu Kush.

### Scoresbysund 1956

#### November

15	<i>L·E</i>	15 <sup>h</sup> 11 <sup>m</sup>	
15	<i>L·NE</i>	18 17	
16	<i>L·NE</i>	3 54	
16	<i>eP·Z'</i>	12 05 11	
	<i>eS·N</i>	14.2	
	<i>L·NE</i>	28	
	$\Delta = 70^\circ$ . Venezuela.		
17	<i>iS·E</i>	20 42 27	
	<i>e·N</i>	42 56	
	<i>L·NE</i>	48.7	
	$\Delta = 46^\circ$ . Queen Charlotte Islands.		
18	<i>L·NE</i>	19 35	
21	<i>iP·Z'</i>	7 44 45	
	<i>ipP·Z'</i>	45 06	
	$\Delta = 70^\circ$ . $h = 60$ km. Japan.		
27	<i>i·Z'</i>	23 51 53	
28	<i>iP·Z'</i>	19 37 25	
	<i>iS·NE</i>	45 39	
	<i>i·N</i>	45 59	
	<i>eSSS·E</i>	52.3	
	<i>L·NE</i>	56	
	$\Delta = 61^\circ$ . Kurile Islands.		
29	<i>iPKP·Z'</i>	4 32 41	
	$\Delta = 130^\circ$ . South Orkney Islands.		
29	<i>iP·Z'</i>	9 27 43	
	<i>ipP·Z'</i>	27 51	
	<i>e(PS)·NE</i>	38 37	
	<i>L·NE</i>	55	
	$\Delta = 82^\circ$ . $h = 60$ km. Bonin Islands.		

#### December

2	<i>eP·Z'</i>	3 09 31	
	<i>L·NE</i>	31	
	$\Delta = 55^\circ$ . Aleutian Islands.		
2	<i>e·Z'</i>	9 04 24	
2	<i>e·Z'</i>	9 08.3	
	<i>e·Z'</i>	08 51	
3	<i>eP·Z'</i>	7 29 40	
	<i>L·NE</i>	48	
	$\Delta = 55^\circ$ . Aleutian Islands.		
4	<i>ePKP·Z'</i>	10 27 10	
	$\Delta = 130^\circ$ . South Pacific Ocean.		

#### December

4	<i>eP·Z'</i>	10 <sup>h</sup> 51 <sup>m</sup> 41 <sup>s</sup>	
	<i>L·NE</i>	11 14	
	$\Delta = 55^\circ$ . Aleutian Islands.		
4	<i>eP·Z'</i>	21 12 05	
	$\Delta = 82^\circ$ . $h = 100$ km. Ryukyu Islands.		
4	<i>L·NE</i>	23 32	
8	<i>eP·Z'Z</i>	16 20 12	
	<i>eS·N</i>	28 08	
	<i>L·NE</i>	38	
	$\Delta = 57^\circ$ . Aleutian Islands.		
9	<i>eP·Z'</i>	5 28 40	
	$\Delta = 55^\circ$ . Aleutian Islands.		
9	<i>e·Z'</i>	18 15.7	
	<i>i·Z'</i>	19 36	
	<i>i·Z'</i>	19 52	
10	<i>i·Z'</i>	1 05 49	
15	<i>iPKP·Z'</i>	15 43 07	
	$\Delta = 122^\circ$ . $h = 150$ km. New Hebrides.		
16	<i>eP·Z'</i>	1 53 26	
	$\Delta = 74^\circ$ . Columbia.		
18	<i>iSKKS·NE</i>	2 55 59	
	<i>ePS·NE</i>	58 14	
	<i>L·NE</i>	3 20	
	$\Delta = 102^\circ$ . Chile-Argentina border.		
18	<i>ePKP·Z'</i>	19 39 11	
	<i>ePP·Z'</i>	41 09	
	$\Delta = 127^\circ$ . South India Ocean.		
18	<i>iP·Z'</i>	21 24 19	
	$\Delta = 75^\circ$ . $h = 100$ km. Japan.		
19	<i>iP·Z'</i>	1 28 09	
	<i>iPcP·Z'</i>	28 59	
	$\Delta = 58^\circ$ . Kamchatka.		
19	<i>iP·Z'</i>	4 47 42	
	$\Delta = 79^\circ$ . $h = 450$ km. Bonin Islands.		
21	<i>eP·Z'</i>	9 07 42	
	<i>eScS·NE</i>	17 44	
	<i>L·NE</i>	23	
	$\Delta = 49^\circ$ . Queen Charlotte Islands.		

Scoresbysund 1956

Jan.—Dec. 1956

December

21 *eP·Z'* 20<sup>h</sup>21<sup>m</sup>49<sup>s</sup>  
*i·Z'* 21 56  
 $\Delta = 75^\circ$ . Japan.

22 *L·NE* 23 50

23 *eP·Z'* 8 50 09  
*epP·Z'* 50 34  
 $\Delta = 87^\circ$ .  $h = 100$  km. Mariana Islands.

25 *iP·Z'* 3 03 48 Strong microseisms.  
 $\Delta = 23^\circ$ . North Atlantic Ocean.

25 *eP·Z'* 9 38 33 Strong microseisms.  
*i·Z'* 38 45  
 $\Delta = 23^\circ$ . North Atlantic Ocean.

27 *ePKP·Z'* 0 33 00  
*epPKP·Z'* 34 23  
*iSKP·Z'ZN* 36 08  
*ipPP·Z'ZNE* 36 27  
*i·Z'* 36 40  
*ipPKS·NE* 37 54  
*i·NE* 42 00  
*i·N* 48 01  
*iSS·NE* 52 15  
*isSS·E* 54 29

$\Delta = 131^\circ$ .  $h = 300$  km. Tonga Islands.

December

27 *eP·Z'* 10<sup>h</sup>16<sup>m</sup>20<sup>s</sup>  
 $\Delta = 44^\circ$ . Turkey.

27 *e·Z'* 15 33.1  
*e·Z'* 33.3

28 *e·Z'* 3 01.4  
*e·Z'* 02.2

28 *iPKP·Z'* 14 44 09  
*ipPKP·Z'* 44 48  
*L·E* 15 35  
 $\Delta = 147^\circ$ .  $h = 150$  km. New Zealand.

March 1959.

HENRY JENSEN

Seismological Readings

Phases are indicated by the symbols used in ISS. Times are given in GMT. Positions of epicenters are most often due to BCIS or USCIS. The periods given are periods of full oscillations. The amplitudes are single amplitudes of the ground in microns. + indicates ground motion towards the north, towards the east, or upwards. - indicates the opposite direction. Unless otherwise stated, the periods and amplitudes are due to readings on the Galitzin instruments.