

No. 18.

1938.

Geodætisk Institut

Proviantsgaarden, Copenhagen, Denmark.

Bulletin of the seismological station

SCORESBYSUND

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

Lithologic foundation: Gneiss

No. 18. Jan.—Dec. 1938

Instruments:

Galitzin-Wilip seismographs.

Constants:

| Component | l | A_1 | T_1 | | μ^2 | T | k |
|-----------|------|-------|-------|---------------|---------|------|-----|
| N | cm | cm | sec | | | sec | |
| | 12.0 | 100 | 11.8 | $1/1-23/5$ | 0.0 | 12.0 | 52 |
| | | | | $23/5-23/11$ | 0.0 | 12.6 | 104 |
| E | 12.0 | 100 | 11.9 | $23/11-31/12$ | 0.0 | 12.2 | 52 |
| | | | | $1/1-28/5$ | 0.0 | 11.6 | 49 |
| | | | | $28/5-23/11$ | 0.0 | 11.8 | 100 |
| Z | 14.9 | 100 | 10.0 | $23/11-8/12$ | 0.2 | 11.6 | 50 |
| | | | | $8/12-31/12$ | 0.0 | 11.7 | 50 |
| | | | | $1/1-21/5$ | 0.0 | 8 | 60 |
| | | | | $21/5-23/11$ | 0.1 | 8 | 106 |
| | | | | $23/11-31/12$ | 0.0 | 8 | 60 |

Scoresby-Sund.

| No. | Date | Hour | Forerunners | | | | L | △ | Remarks | | | | |
|-----|--------------|------|-------------|----------|----------|----------|-------------|----------|-------------|----------|-----|--|--|
| | | | P | | S | | | | | | | | |
| | | | <i>m</i> | <i>s</i> | <i>m</i> | <i>s</i> | <i>m</i> | <i>s</i> | <i>h</i> | <i>m</i> | ° | | |
| 1 | 1938 Jan. | 11 | | | | | 45 | 55 | | 58 | | | |
| 2 | 1 | 23 | <i>i</i> 40 | 26 | 50 | 47 | 51 | 4 | 56.1 | | 83 | Pacific Ocean. | |
| 3 | 2 | 22 | 38 | 34 | 47 | 51 | 52.1 | | | 64 | 71 | Mexico. | |
| 4 | 11 | 15 | | | 33 | 19 | | | | | | The onset of <i>P</i> uncertain. Japan. | |
| 5 | 22 | 2 | | | | | | | | 57 | | | |
| 6 | 22 | 4 | | | | | | | | 11 | | | |
| 7 | 23 | 8 | 45 | 15 | 55 | 35 | | | | 67 | 83 | | |
| 8 | 24 | 10 | | | | | 51 | 1 | 54 | 29 | | 54 ^m .8. 57 ^m .5. 68 ^m .2. | |
| 9 | Febr. | 19 | 19 | 17 | | | 23 | 57 | <i>i</i> 26 | 20 | | SKS 29 ^m 56 ^s . 30 ^m 7 ^s ; 30 ^m 56 ^s . PS 33 ^m 11 ^s . Later part of <i>N</i> and <i>E</i> records not readable. Banda Sea. | |
| 10 | 5 | 2 | 35 | 1 | 44 | 20 | 35 | 29 | 44 | 59 | | 45 ^m 4 ^s . 46 ^m 5 ^s . Deeper than normal. Colombia. | |
| 11 | 10 | 7 | | | | | | | | 6 | | | |
| 12 | 10 | 8 | | | | | | | | 42 | | | |
| 13 | 14 | 3 | <i>i</i> 2 | 53 | 9.8 | | <i>i</i> 4 | 43 | 10 | 10 | | 13 ^m 30 ^s . 14 ^m 46 ^s . Golf of Karabugas. | |
| 14 | 15 | 3 | 36 | 51 | 44 | 11 | | | | 49 | 52 | Atlantic Ocean. | |
| 15 | 15 | 7 | 6 | 17 | 13 | 38 | | | | 19 | 52 | » | |
| 16 | 24 | 17 | | | | | | | | 24 | | | |
| 17 | 24 | 17 | | | | | | | | 37 | | | |
| 18 | 24 | 20 | | | | | | | | 28 | | | |
| 19 | March | 5 | | | | | | | | | | No time-marks. | |
| 20 | 8 | 0 | 59 | 55 | | | | | | | | | |
| 21 | 14 | 5 | 25 | 35 | | | | | | | | | |
| 22 | 22 | 15 | 30 | 49 | 37 | 54 | 32 | 44 | 36 | 17 | 46 | 49 | SS 41 ^m 30 ^s . West of Queen Charlotte Islands. |
| 23 | April | 2 | <i>i</i> 52 | 32 | | | 53 | 57 | <i>i</i> 54 | 5 | | | |
| 24 | 13 | 1 | <i>i</i> 28 | 15 | 37 | 51 | <i>i</i> 30 | 12 | 38 | 49 | 75 | 55 ^m 20 ^s . Mediterranean Sea. Depth ca. 300 km. | |
| 25 | 14 | 14 | 53 | 0 | | | 56 | 49 | 63 | 53 | | Burma. | |
| 26 | 17 | 11 | 7 | 15 | 13 | 34 | 7 | 40 | 8 | 51 | 42 | Chile. | |
| 27 | 19 | 6 | | | | | 49 | 43 | | | | SS 16 ^m 35 ^s . Turkey. | |
| 28 | 20 | 4 | | | 31 | 53 | | | | | 1.5 | | |
| 29 | 22 | 0 | 40 | 1 | 50 | 4 | 43 | 14 | 55.3 | | 40 | 80 | Off Vancouver Island. East of Riukiu Islands. <i>P</i> and <i>S</i> small. |
| 30 | 23 | 9 | | | | | 6 | 48 | | | 9 | | |
| 31 | 25 | 11 | | | | | | | | | 42 | | |
| 32 | 25 | 17 | | | | | 28.2 | | | | 36 | | |
| 33 | 29 | 2 | | | | | | | | | 43 | | |
| 34 | 29 | 5 | | | | | | | | | 0 | | |
| 35 | May | 2 | <i>i</i> 26 | 25 | 35 | 25 | 26 | 45 | 35 | 53 | 50 | 68 | Mexico. |
| 36 | 3 | 19 | | | | | <i>i</i> 26 | 16 | | | | | |

Scoresby-Sund.

| No. | Date | Hour | Forerunners | | | | L | △ | Remarks |
|-----|-------------|------|----------------|------------|---------------|----------------|------------|----|---|
| | | | P | S | | | | | |
| | 1938 May | | <i>m s</i> | <i>m s</i> | <i>m s</i> | <i>m s</i> | <i>h m</i> | ° | |
| 36 | 30 | 9 | | | | | 16 | | 6d12h38m-28d17h37m no records. |
| 37 | 30 | 14 | <i>i</i> 48 55 | | <i>i</i> 51 3 | | | | PKS 52m17s. PS 61m8s. 62m45s. 64m45s. 65m21s, 43s. SS 69m.1; SSS 73m.5. New Hebrides Islands. |
| 38 | 30 | 23 | 38 25 | | | | .8 | | |
| 39 | June 9 | 5 | | | | | 19 | | |
| 40 | 9 | 19 | 29 40 | | 32.9 | 34 18 | | | 36m29s. 40m26s. 41m52s. PS 43m28s. 44m36s. SS 49m.3. SSS 53m.6. Banda Sea. |
| 41 | 10 | 10 | 5 56 | 16 8 | 6 2 | 6 14 | | 82 | PP 9m8s. 12m37s. 16m27s. 17m18s. 20m.0. SS 21m.3. SSS 25m.3. 27m.6. Pacific Ocean. |
| 42 | 10 | 18 | 17 14 | 26 29 | 30 22 | 34.3 | | 71 | Mexico. |
| 43 | 11 | 13 | | | | | .7 | | |
| 44 | 15 | 13 | | | 3.4 | | .8 | | |
| 45 | 16 | 2 | <i>i</i> 27 26 | 37 28 | 30 39 | 33 53 | | 80 | 37m47s. SS 42m.5. Riukiu Islands. |
| 46 | 16 | 21 | | | | | 49 | | |
| 47 | 18 | 9 | | | | | 9 | | |
| 48 | 20 | 23 | <i>i</i> 59 52 | 67 23 | 59 57 | <i>i</i> 60 5 | | 54 | |
| 49 | 23 | 13 | | | | <i>i</i> 17 56 | | 53 | PP 61m55s. 62m37s. 63m4s. 67m33s. SS 71m.3. 74m.6. Kirghiz ASSR. 26m.1. 26m.8. Recording interrupted 28m-38m. No Z record. East of Loyalty Islands. |
| 50 | 24 | 7 | | | | | 41 | | |
| 51 | 24 | 9 | | | 34 9 | | | | |
| 52 | 25 | 23 | 47 39 | 49 41 | 47 42 | 49 46 | | 11 | Greenland Sea. |
| 53 | 28 | 19 | 28 47 | 37 47 | | | 52 | 68 | Mexico. |
| 54 | 29 | 3 | | | 50 58 | | | | Small preceding movement. |
| 55 | 30 | 17 | | | 7 12 | | 46 | | |
| 56 | July 1 | 12 | | | | | 49 | | |
| 57 | 2 | 7 | 43 4 | 45 3 | | | | 11 | P quite small. Spitsbergen. |
| 58 | 4 | 21 | 31 47 | | 33 59 | 35 9 | 1.3 | | |
| 59 | 5 | 2 | | | 26 17 | | 1.2 | | Some preceding movement. No other clearly marked phases. |
| 60 | 5 | 22 | 26 24 | | 28 41 | <i>i</i> 29 52 | | | 38m.8. 40m.5. |
| 61 | 6 | 1 | 43 38 | | 45 55 | 47 6 | 1.4 | | 63m.6. 68m.0. |
| 62 | 6 | 10 | | | 2 11 | | | | |
| 63 | 7 | 17 | | | 51 7 | | | | |
| 64 | 8 | 14 | 11 14 | 21 30 | | | | 82 | |
| 65 | 8 | 22 | | | | | 52 | | |
| 66 | 9 | 9 | | | | | 22 | | |
| 67 | 12 | 12 | 55 59 | | 58 14 | 59 29 | 1.7 | | |
| 68 | 17 | 11 | | | 29 44 | | .6 | | |
| 69 | 19 | 9 | | | 19 7 | | | | |
| 70 | 19 | 10 | | | | | 46 | | |

No. 18.

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1938.

Scoresby-Sund.

| No. | Date | Hour | Forerunners | | | | L | △ | Remarks | | | | |
|-----|-------------|------|-------------|----|-------------|----|------|----|---------|----|----|---|---|
| | | | P | | S | | | | | | | | |
| | | | m | s | m | s | m | s | h | m | ° | | |
| 111 | 1938 Aug. 9 | 22 | | | | | | | | 15 | | | |
| 112 | 10 | 1 | | | | | | | | 2 | | | |
| 113 | 14 | 8 | 46 | 11 | | | | | | 47 | | | |
| 114 | 16 | 4 | 39 | 44 | 49 | 29 | 41 | 57 | 42 | 39 | 76 | <i>i</i> 49 ^m 33 ^s . 50 ^m .6. 53 ^m .5. 54 ^m .3. 57 ^m .9. Burma. | |
| 115 | 18 | 9 | | | | | 49 | 19 | 54 | 36 | | 55 ^m 19 ^s . 57 ^m 21 ^s . 58 ^m 17 ^s . 63 ^m .2. Sumatra. Depth about 100 km. No <i>E</i> record. | |
| 116 | 18 | 19 | | | | | 29 | 26 | | 48 | | | |
| 117 | 20 | 8 | | | | | 56 | 24 | 59.7 | 87 | | | |
| 118 | 25 | 1 | | | | | 46 | 5 | 46 | 45 | | 42 ^m .3 small, uncertain. 50 ^m 46 ^s . 52 ^m 55 ^s . 56 ^m .1. 57 ^m .0. Deeper than normal. Off Sumatra. | |
| 119 | 28 | 21 | 3 | 53 | | | | | | | | Greenland Sea. No records 15 ^h 27 ^m -21 ^h 40 ^m . | |
| 120 | 29 | 0 | | | | | | | | 10 | | | |
| 121 | 30 | 2 | | | | | | | | 42 | | | |
| 122 | 30 | 5 | | | | | | | | 6 | | | |
| 123 | 30 | 9 | | | | | | | | 3 | | | |
| 124 | 30 | 12 | | | | | 9 | 9 | 20 | 34 | | 24 ^m 39 ^s . North of New Guinea. | |
| 125 | 30 | 15 | | | | | | | | 6 | | | |
| 126 | 30 | 15 | | | | | | | | 12 | | | |
| 127 | 30 | 15 | | | | | | | | 26 | | | |
| 128 | 30 | 19 | | | | | 31 | 7 | | | | No records 0 ^m -23 ^m . | |
| | 31 | 18 | | | | | | | | | | | |
| 129 | Sept. 1 | 22 | 59 | 41 | 68 | 54 | 62 | 28 | 64 | 7 | 81 | 71 | 69 ^m 40 ^s . 73 ^m .4. 77 ^m .4. Off Guatemala. |
| 130 | 3 | 4 | | | | | 52 | 12 | | | | | |
| 131 | 3 | 6 | | | | | 42 | 18 | | | | | |
| 132 | 5 | 15 | | | | | 2 | 17 | 6 | 5 | .9 | | |
| 133 | 6 | 20 | 56 | 31 | | | | | | | 75 | | South of Kurile Islands. |
| 134 | 7 | 2 | 8 | 30 | | | 12 | 39 | 19 | 6 | 43 | | <i>P</i> small, uncertain. <i>E</i> of Mindanao. |
| 135 | 7 | 4 | <i>i</i> 15 | 40 | <i>i</i> 25 | 54 | 18 | 45 | 22 | 31 | 41 | 82 | 22 ^m 57 ^s . 26 ^m 54 ^s . 31 ^m 19 ^s . 37 ^m .3. Formosa. |
| 136 | 7 | 13 | | | | | 17 | 50 | 18.6 | | | | 23 ^m 28 ^s . 24 ^m 33 ^s . 27 ^m 30 ^s . |
| 137 | 18 | 1 | | | | | 48 | 27 | 49 | 49 | 56 | | |
| 138 | 18 | 3 | 58 | 7 | | | 59 | 45 | 63 | 53 | 71 | | 64 ^m 53 ^s . No well-defined <i>S</i> . Greece. |
| 139 | 21 | 19 | 3 | 25 | 12 | 51 | | | | | 73 | | Strong microseisms. Japan. |
| 140 | 22 | 5 | | | | | | | | 29 | | | |
| 141 | 22 | 5 | | | | | | | | 36 | | | |
| 142 | 22 | 6 | | | | | | | | 27 | | | |
| 143 | 27 | 2 | 43 | 12 | 52 | 37 | 45 | 44 | | | 73 | | Abyssinia. |
| 144 | 27 | 10 | | | | | 35.3 | | 41 | 35 | | | 42 ^m 46 ^s . 45 ^m 18 ^s . 46 ^m .4. 52 ^m .2. Solomon Islands region. |
| | 28 | 18 | | | | | | | | | | | No records 39 ^m -58 ^m . |
| | Oct. 7 | | | | | | | | | | | | No records 13 ^h 47 ^m -22 ^h 3 ^m . |

Scoresby-Sund.

| No. | Date | Hour | Forerunners | | | | L | △ | Remarks | | | |
|-----|-------------|------|-------------|----------|-------------|----------|-------------|----------|----------|----------|----|--|
| | | | P | | S | | | | | | | |
| | | | <i>m</i> | <i>s</i> | <i>m</i> | <i>s</i> | <i>m</i> | <i>s</i> | <i>h</i> | <i>m</i> | ° | |
| 145 | 1938 Oct. 9 | 17 | | | | | 1 | 57 | | 58 | | |
| 146 | 10 | 21 | 2 | 16 | 14 | 5 | 2 | 33 | 5 | 42 | | 6 ^m 35 ^s . 8 ^m 58 ^s . 12 ^m 49 ^s . 15 ^m 45 ^s . 16 ^m 30 ^s . 17 ^m 6 ^s . Celebes region. |
| 147 | 12 | 0 | 45 | 34 | 54 | 40 | 45 | 54 | 48 | 11 | 69 | East of Japan. |
| 148 | 19 | 4 | 22 | 35 | 29 | 48 | 24 | 38 | 33.2 | | 51 | Altai Mountains. |
| 149 | 20 | 2 | | | | | 39 | 2 | 40 | 38 | | 41 ^m 48 ^s . <i>i</i> SKS 44 ^m 38 ^s . 45 ^m 52 ^s . <i>i</i> PS 48 ^m 25 ^s . SS 55 ^m .3. Deeper than normal. Lesser Sunda Islands. |
| 150 | 29 | 13 | 20 | 3 | 29 | 29 | 34.4 | | | | 73 | Japan. |
| 151 | Nov. 5 | 8 | <i>i</i> 54 | 44 | <i>i</i> 64 | 5 | 57 | 27 | 59 | 23 | 72 | 64 ^m 32 ^s . 64 ^m 57 ^s . East of Japan. |
| 152 | 5 | 11 | <i>i</i> 1 | 37 | 10 | 59 | | | | | 72 | No <i>E</i> record. East of Japan. |
| 153 | 6 | 9 | 5 | 13 | 14 | 48 | 6 | 46 | 8.0 | | 75 | 10 ^m 6 ^s . 13 ^m .7. No <i>E</i> record. East of Japan. Very strong microseisms. |
| 154 | 6 | 21 | | | | | | | | | 53 | |
| 155 | 8 | 20 | | | | | | | | | 12 | |
| 156 | 9 | 9 | 27 | 21 | <i>i</i> 36 | 49 | 27 | 48 | 28 | 49 | | 37 ^m 32 ^s . 38 ^m 23 ^s . 41 ^m 42 ^s . Deeper than normal. East of Japan. |
| 157 | 10 | 10 | 58 | 40 | 68 | 12 | | | | | 74 | <i>P</i> small, uncertain. |
| 158 | 10 | 20 | 27 | 43 | | | <i>i</i> 27 | 50 | | | | Very large movement; later phases not readable. South of Alaska. |
| 159 | 11 | 1 | 6 | 45 | 14.3 | | | | | | 54 | South of Alaska. Very strong microseisms. |
| 160 | 13 | 22 | | | | | | | | | 49 | 15 ^d 12 ^h 50 ^m -16 ^d 2 ^h 48 ^m no records. 13 ^m .4. South of Alaska. |
| 161 | 17 | 4 | <i>i</i> 3 | 34 | 10 | 38 | 5 | 32 | 10 | 49 | | |
| 162 | 19 | 5 | | | | | 58.7 | | 1.2 | | | |
| 163 | 22 | 1 | 25 | 32 | 34 | 59 | 27 | 31 | 39.8 | | 74 | Japan. |
| 164 | 30 | 2 | | | 50 | 37 | | | 1.1 | | | » |
| 165 | Dec. 6 | 9 | 14 | 33 | | | 15 | 9 | | | | |
| 166 | 6 | 23 | 13 | 19 | | | | | .6 | | | Formosa. |
| 167 | 9 | 4 | | | 11 | 4 | 6.3 | 11 | 17 | 18 | | 14 ^m .1. |
| 167 | 23 | 18 | 23 | 48 | 31.1 | | | | 39 | | 51 | <i>P</i> and <i>S</i> small, uncertain. South of Alaska. |