**No. 3.** **April–June 1958**

GEODÆTISK INSTITUT

**Proviantgården · Copenhagen · Denmark**

Bulletin of the seismological station

# NORD

$\varphi = 81°36'$ N. $\lambda = 16°41'$ W. $h = 35$ m.

Lithologic foundation: marly shale

## Instruments

Willmore. $Z$. $T_p = 1$ sec, $T_g = {}^1/_4$ sec. No attenuation.

Strobach. $N$ and $E$. $T = 6$ sec, $v = 15:1$, $V_0 = 500$. (Belongs to Geophysikalisches Institut, Hamburg.)

## Seismological Readings

Phases are indicated by the symbols used in ISS. Times are given in GMT. Positions of epicenters are most often due to USCGS. The periods given are periods of full oscillations. For $N$ and $E$ the amplitudes given are single ground amplitudes. For $Z$ trace amplitudes are given. + indicates ground motion towards the north, towards the east, or upwards. — indicates the opposite direction.

## Microseismic Readings

For every group of figures the first one indicates the character of the microseisms. 1 is group microseisms, 2 is continuous microseisms, 3 is irregular or mixed microseisms. Thereafter the single ground amplitude in microns is given, and at last the period of a full oscillation is stated.

April

1 $eP \cdot Z$ $14^h17^m13^s$
$\Delta = 59°$. Honshu, Japan.

2 $iP \cdot Z$ 21 48 57
Near.

3 $eiP \cdot Z$ 07 27 25 1.5 mm.
$\Delta = 50°$. Crete.

3 $eP \cdot Z$ 08 38 20 $2^s.5$; 0.3 mm.
This phase has 4–5 equal waves.
$\Delta = 85°$. Equador.

4 $iP \cdot Z$ 13 53 04 $0^s.6$; 1.6 mm.
$eS \cdot Z$ 13 54 14
$\Delta = 6°$. Arctic Ocean; west of Svalbard.

5 $i \cdot Z$ 07 58 22 $0^s.3$.

6 $e \cdot Z$ 13 04 22 $0^s.3$.

6 $eP \cdot Z$ 15 01 58 $0^s.4$.

6 $iP \cdot Z$ 23 06 34 $0^s.8$.

7 $iP \cdot Z$ 04 57 02
$iS \cdot Z$ 58 59
$\Delta = 10°$. East of Jan Mayen.

7 $eP \cdot Z$ 11 50 40
$e(S) \cdot Z$ 51 18
Near.

7 $iP \cdot Z$ 12 03 55 +
$e(S) \cdot Z$ 04 11
$i(S) \cdot Z$ 04 17
Near.

7 $iP \cdot ZNE$ 15 37 02
$iS \cdot N$ 42 26
$\Delta = 32°$. Alaska.

7 $eP \cdot Z$ 16 12 30
$\Delta = 32°$. Alaska aftershock.

7 $eP \cdot Z$ 16 44 56
$\Delta = 32°$. Alaska aftershock.

7 $iP \cdot ZNE$ 18 15 09 $Z$: +
$eS \cdot NE$ 23 24
$\Delta = 59°$. Honshu, Japan.

7 $iP \cdot ZN$ 18 40 21
$\Delta = 59°$. Honshu aftershock.

7 $eP \cdot Z$ 18 46 46
$\Delta = 59°$. Honshu aftershock.

April

7 $iP \cdot ZNE$ $18^h48^m26^s$ $Z$: +
$\Delta = 59°$. Honshu aftershock.

7 $eP \cdot Z$ 18 57 20
$\Delta = 59°$. Honshu aftershock.

7 $eP \cdot Z$ 18 59 51 $1^s.2$.
$\Delta = 59°$. Honshu aftershock.

7 $iP \cdot Z$ 19 22 11
$eS \cdot NE$ 29 12
$L \cdot NE$ 40
$\Delta = 49°$. Outer Mongolia.

7 $eP \cdot Z$ 22 38 32 $T < 0^s.2$.
$eS \cdot Z$ 39 04
Near.

8 $iP \cdot Z$ 00 20 40
$\Delta = 31°$. Alaska.

8 $iP \cdot Z$ 04 47 25 $0^s.8$.
$\Delta = 78°$. Colombia.

8 $iP \cdot Z$ 07 20 47
$\Delta = 60°$. $h = 60$ km. Honshu, Japan.

8 $eP \cdot Z$ 10 09 02
$\Delta = 57°$. Afghanistan.

9 $iP \cdot Z$ 04 46 27 +
$\Delta = 58°$. Iran.

9 $iP \cdot ZNE$ 06 22 42
$iPPP \cdot NE$ 24 21
$\Delta = 39°$. Gulf of Alaska.

9 $e \cdot ZNE$ 06 36 54 $6^s$.

9 $eP \cdot Z$ 18 11 31
$\Delta = 95°$. Molucca Passage.

10 $e \cdot Z$ 00 15 24

10 $eP \cdot Z$ 01 14 56
$\Delta = 70°$. Ryukyu Islands.

10 $iP \cdot Z$ 01 52 56
$\Delta = 46°$. Kamchatka.

10 $iP \cdot Z$ 11 03 29 +
$\Delta = 43°$. Outer Mongolia.

10 $iP \cdot Z$ 12 00 11 +
$\Delta = 59°$. Honshu, Japan.

11 $iP \cdot Z$ 01 08 18
$\Delta = 59°$. Honshu, Japan.

April
11 *iP·Z* 08h34m27s
*iS·Z* 34 48
Near.

11 *iP·Z* 18 25 55 +
Near.

11 *iP·ZNE* 23 20 19 –
*L·E* 32
$\Delta = 51°$. $h = 100$ km. Kurile Islands.

12 *eP·Z* 11 57 40
*eS·NE* 12 06 19
*L·N* 18
*L·ZE* 22
$\Delta = 65°$. California.

12 *iP·Z* 13 36 48
$\Delta = 72°$. Ryukyu Islands.

12 *eP·Z* 22 46 08 0s.5
Near?

13 *eP·Z* 04 17 40
$\Delta = 48°$. Outer Mongolia.

13 *eP·Z* 09 13 47
*ePP·N* 14 44
*iS·E* 18 54
*L·NE* 23
$\Delta = 32^1/_2°$. Alaska.

13 *iP·ZNE* 12 37 31
*iS·NE* 44 14
*iScS·E* 47 26
*L·NE* 52
$\Delta = 45°$. Kamchatka.

14 *iP·Z* 00 19 00
*e(S)·Z* 19 17
Near.

14 *eP·Z* 18 17 03
$\Delta = 45°$. Kamchatka.

14 *iP·ZNE* 21 45 07
*ePP·NE* 48 27
*iSKS·NE* 55 36
*eSSS·N* 22 04
*L·E* 07.7 18s.
*L·N* 10
$\Delta = 85°$. Ecuador.

14 *eP·Z* 23 01 11 2s.6 and 0s.8.
$\Delta = 85°$. Ecuador aftershock.

15 *iP·Z* 01 43 23 + 2s.6 and 0s.8.
$\Delta = 85°$. Ecuador aftershock.

April
15 *eP·ZN* 04h04m40s
*iS·NE* 14 39
*L·NE* 27 45s.
$\Delta = 78°$. Off west coast of Costa Rica.

15 *iP·Z* 10 12 05 –
$\Delta = 82°$. $h = 100$ km. Philippines.

16 *iP·Z* 02 14 46
*i(S)·Z* 15 01
*i·Z* 15 07
Near.

16 *i·Z* 08 15 59
Seismic?

16 *iP·Z* 12 48 32
$\Delta = 82°$. $h = 150$ km. Philippines.

17 *eP·Z* 05 51 50
Aleutian Islands.

17 *iP·Z* 07 19 43
*iS·Z* 20 11
Near.

17 *eP·Z* 08 22 23
Near?

17 *iP·Z* 11 43 01 +
*e·Z* 43 20
$\Delta = 61°$. Honshu, Japan.

17 *iP·Z* 14 11 29
*i!S·Z* 11 33 +
Local shock.

17 *iP·Z* 16 32 47
*iS·Z* 32 57
Near.

19 *e·Z* 00 49 49

19 *eP·Z* 01 28 02

19 *iP·Z* 04 14 03 1s 5.
$\Delta = 64°$. California.

19 *iP·Z* 23 31 52
*eS·Z* 32 11
Near.

20 *iP·Z* 09 04 05
Near?

20 *e·Z* 09 05 55
Near?

April
20 *e·Z* 11h51m49s

20 *iPKP·Z* 21 34 22
*ePP·Z* 37 30
$\Delta = 141°$. Sandwich Group.

20 *iP·Z* 21 35 08
*iS·Z* 21 35 28
Near.

21 *iP·Z* 10 59 46
Near.

22 *iP·Z* 00 53 10
*iS·Z* 53 47
Near.

22 *iP·Z* 10 11 20
$\Delta = 48°$. Turkey.

22 *eP·Z* 11 22 23

23 *L·NE* 03 27
$\Delta = 53°$. Kurile Islands.

24 *eP·Z* 00 46 32

24 *iP·Z* 18 21 36
$\Delta = 82°$. Pacific Ocean.

25 *iP·Z* 06 29 40 –
Aleutian Islands.

25 *eP·Z* 08 43 38
$\Delta = 47°$. Aleutian Islands.

27 *iP·Z* 17 27 07
$\Delta = 55°$. Hokkaido, Japan.

27 *iP·Z* 19 12 09
*L·NE* 28
$\Delta = 46°$. Aleutian Islands.

28 *eP·Z* 12 01 11
*L·NE* 40
$\Delta = 96°$. Peru.

29 *iP·Z* 02 15 09 +
*eS·Z* 15 27
Near.

29 *iP·Z* 13 41 57
$\Delta = 36°$. Southeastern Alaska.

29 *iP·Z* 20 37 49
*iS·ZNE* 38 26
*i·N* 38 38
Near.

April
29 *e·Z* 22h32m54s

30 *iP·Z* 08 25 53
$\Delta = 54°$. Hindu Kush.

30 *iP·Z* 13 10 53
*iS·Z* 11 27
Near.

30 *iP·Z* 14 04 29
$\Delta = 57°$. China.

30 *iP·Z* 14 16 12
$\Delta = 44°$. Portugal.

30 *iP·Z* 14 58 55
*iS·Z* 59 34
Near.

30 *iP·Z* 16 38 51
*iS·Z* 39 29
Near.

May
1 *eP·Z* 00 43 27
*iPKP·Z* 47 29
*ePP·Z* 48 15
*ePPP·Z* 49 36
*ePKKP·Z* 58 21
*e(SKKP)·Z* 01 02 21
$\Delta = 112°$. $h = 200$ km. New Hebrides Islands.

2 *eP·Z* 20 40 49
$\Delta = 73°$. Mexico.

2 *eP·Z* 21 30 21
$\Delta = 59°$. Iran.

4 *e·Z* 08 54.1
Seismic?

5 *e·NE* 00 03 27
No *Z* record. Near.

6 *eP·Z* 00 00 46
$\Delta = 38°$. Alaska.

6 *eP·ZNE* 00 14 07
*e·N* 14 29
*e·E* 14 35

6 *e·Z* 01 10.5

7 *e·Z* 02 58 10

7 *eP·Z* 07 36 42
$\Delta$ abt. 30°. North Atlantic Ocean.

May
7 *eP·Z* 07h51m19s
*Δ* abt. 30°. North Atlantic Ocean.

7 *iP·Z* 10 23 05 +
*iS·Z* 23 24 +
Near.

7 *eP·Z* 14 57 13
*Δ* = 55°. Afghanistan.

7 *e·Z* 17 19 54
Seismic?

7 *iP·Z* 18 59 54
*iS·Z* 59 58 –
Near.

7 *iP·Z* 19 36 53
*iS·Z* 37 29
Near.

7 *iP·Z* 22 05 49
*Δ* = 48°. Kamchatka region.

7 *e·Z* 23 32 35
*i·Z* 32 37
Seismic?

8 *iP·Z* 02 54 20
*Δ* = 37°. North Atlantic Ocean.

8 *eP·Z* 12 59
*iSKS·NE* 13 05 16
*Δ* = 108°. Argentina.

9 *iP·Z* 02 49 25
*Δ* = 48°. Dodecanese Islands.

9 *eP·Z* 03 46.4
*e(S)·Z* 46 45
Near.

9 *iPKP·Z* 04 58 51
*Δ* = 115°. *h* = 100 km. Argentina.

9 *iP·ZE* 17 46 15 +
*i·Z* 46 17
*eS·Z* 46 30
*i·ZNE* 46 33
Near.

9 *i·Z* 17 49 19
*i·Z* 49 21
Near.

10 *iP·Z* 02 15 49
*iS·Z* 15 54
Near.

May
10 *eP·Z* 23h01m05s
*L·E* 09
*Δ* = 32°. Central Alaska.

11 *eP·Z* 05 30 20
*L·E* 41
*Δ* = 32°. Central Alaska.

11 *eP·Z* 05 43 26
*Δ* = 32°. Alaska aftershock.

11 *eP·Z* 21 10 24
Near.

12 *iP·Z* 05 46 38
*ePcP·Z* 48 27
*L·NE* 06 03
*Δ* = 46°. Aleutian Islands.

12 *iP·Z* 14 26 39
Near.

12 *iP·Z* 21 25 23 0s.8. –
*Δ* = 92°. *h* = 150 km. Peru.

12 *eP·Z* 22 24 14
*Δ* = 44°. Aleutian Islands.

12 *eP·Z* 22 48 21
Near?

13 *eP·Z* 06 08 12 0s.8.

13 *e·Z* 10 39 48
Seismic?

13 *eP·Z* 11 23 50
*Δ* = 30°. Alaska.

14 *iP·Z* 07 52 11
*e·ZNE* 52 31
Near.

14 *eP·Z* 12 47 59
*Δ* = 81°. Andaman Islands region.

15 *iP·Z* 04 33 18
*Δ* = 47°. Aleutian Islands.

15 *iP·Z* 04 48 07 +
*e·Z* 48 27

15 *eP·Z* 06 44.1
Near.

15 *eP·Z* 18 58 37

16 *e·Z* 01 42 48
*Δ* = 86°. Nuclear explosion, Marshall Islands.

| | | | | |
|---|---|---|---|---|
| May | | | | |
| 17 | *eP·Z* | 01h16m31s | | |
| 17 | *eP·Z* | 05 34 37 | | |
| | $\Delta = 51°$. Libya. | | | |
| 17 | *eP·Z* | 06 49 08 | | |
| 17 | *eP·Z* | 15 45 36 | | |
| 17 | *iP·Z* | 15 46 54 | | |
| | $\Delta = 48°$. Aleutian Islands. | | | |
| 17 | *e·Z* | 20 14.9 | | |
| 18 | *L·NE* | 03 27 | | |
| | $\Delta = 112°$. New Hebrides Islands. | | | |
| 18 | *eP·Z* | 22 06 15 | | |
| | *iS·Z* | 06 49 | | |
| | Near. | | | |
| 18 | *iP·Z* | 23 24 16 | | |
| | *iS·Z* | 24 31 | | |
| | Near. | | | |
| 19 | *iP·Z* | 01 44 04 | – | |
| | | 44 18 | | |
| | Near. | | | |
| 19 | *iP·ZNE* | 07 21 39 | | |
| | *iS·ZNE* | 21 52 | | |
| | *i·NE* | 21 54 | | |
| | Near. | | | |
| 19 | *i·Z* | 22 01 53 | | |
| | Seismic? | | | |
| 19 | *e·Z* | 22 33 17 | | |
| | *i·Z* | 33 22 | | |
| | Seismic? | | | |
| 20 | *iP·Z* | 15 55 40 | | |
| | *i·Z* | 55 42 | | |
| | *i·Z* | 55 45 | | |
| | *i·Z* | 55 49 | | |
| | Near. | | | |
| 22 | *eP·Z* | 11 41 26 | | |
| | $\Delta = 48°$. Aleutian Islands. | | | |
| 22 | *iP·Z* | 22 18 17 | | |
| | $\Delta = 45°$. Aleutian Islands. | | | |
| 23 | *eP·Z* | 02 26 07 | | |
| | Seismic? | | | |
| 24 | *iP·Z* | 07 47 09 | | |
| | Near. | | | |
| May | | | | |
| 25 | *eP·Z* | 00h43m.9 | | |
| | *L·NE* | 00.8 | | |
| 25 | *eP·Z* | 03 05 26 | | |
| 25 | *eP·Z* | 15 03 03 | | |
| | *L·N* | 10 | | |
| | *L·E* | 14 | | |
| | $\Delta = 47°$. Aleutian Islands. | | | |
| 25 | *iP·Z* | 17 51 35 | – | |
| | $\Delta = 66°$. Japan. | | | |
| 25 | *iP·Z* | 21 24 34 | | |
| | *i·ZNE* | 24 35 | *Z*: – | |
| | *iSKS·E* | 35 06 | 5s. | |
| | *iS·N* | 35 22 | 10s. | |
| | *i·NE* | 35 41 | | |
| | *SSS·NE* | 46 | 20s. | |
| | *L·NE* | 51 | 30s. | |
| | $\Delta = 89°$. $h = 100$ km. Ecuador-Peru border. | | | |
| 26 | *iP·Z* | 01 18 13 | | |
| | *iS·Z* | 18 37 | | |
| | Near. | | | |
| 26 | *e(P)·Z* | 07 52.9 | | |
| | *i(S)·Z* | 53 48 | | |
| | Near. | | | |
| 26 | *iP·Z* | 09 02 37 | + | |
| | $\Delta = 89°$. $h = 100$ km. Ecuador aftershock. | | | |
| 26 | *iP·Z* | 11 04 46 | | |
| | $\Delta = 45°$. Aleutian Islands. | | | |
| 26 | *i·Z* | 11 05 18 | | |
| 26 | *i·Z* | 11 10 08 | + | |
| 26 | *iP·Z* | 14 02 39 | | |
| | Near. | | | |
| 27 | *iP·Z* | 14 49 14 | | |
| | *e(S)·Z* | 49 37 | | |
| 27 | *iP·Z* | 18 36 04 | + | |
| | $\Delta = 48°$. Dodecanese Islands. | | | |
| 28 | *iP·Z* | 04 24 19 | | |
| | *i·Z* | 24 24 | | |
| | *eS·Z* | 24 58 | | |
| | Near. | | | |
| 29 | *iP·Z* | 05 32 01 | – | |
| | $\Delta = 71°$. $h = 450$ km. Bonin Islands. | | | |

May

| | | | | |
|---|---|---|---|---|
| 29 | $iP \cdot Z$ | 05h | 34m | 48s |
| | $iS \cdot Z$ | | 35 | 24 |
| | Near. | | | |
| 30 | $iP \cdot Z$ | 02 | 43 | 36 |
| | $e(S) \cdot Z$ | | 43 | 56 |
| | Near. | | | |
| 30 | $eP \cdot Z$ | 18 | 13 | 08 |
| | $L \cdot NE$ | | 18.5 | |
| | $\Delta = 45°$. Aleutian Islands. | | | |
| 31 | $eP \cdot Z$ | 19 | 51 | 10 |
| | $iPP \cdot ZNE$ | | 52 | 15 |
| | $eS \cdot E$ | | 59 | 56 |
| | $ePS \cdot N$ | 20 | 01 | 41 |
| | $e \cdot NE$ | | 03 | 11 |
| | $i \cdot N$ | | 04 | 43 |
| | $iSS \cdot E$ | | 08 | 01 |
| | $e(PSPS) \cdot N$ | | 08 | 13 |
| | $i \cdot N$ | | 09 | 46 |
| | $L \cdot NE$ | | 20.5 | |
| | $\Delta = 113°$. New Hebrides Islands. | | | |

June

| | | | | | |
|---|---|---|---|---|---|
| 4 | $iP \cdot Z$ | 14 | 38 | 07 | + |
| | $L \cdot NE$ | | 55 | | |
| | $\Delta = 45°$. Fox Islands. | | | | |
| 6 | $eP \cdot NE$ | 09 | 23 | 49 | |
| | $eS \cdot NE$ | | 33 | 19 | |
| | $e \cdot NE$ | | 33 | 59 | |
| | $L \cdot N$ | | 47 | | |
| | $\Delta = 79°$. Costa Rica. | | | | |
| 6 | $L \cdot NE$ | 19 | 53 | | |
| 8 | $L \cdot NE$ | 01 | 00 | | |
| 11 | $i \cdot Z$ | 10 | 27 | 53 | |
| | $Z$ | | 28 | 14 | |
| | Near. | | | | |
| 12 | $iP \cdot Z$ | 21 | 01 | 14 | |
| | $i \cdot Z$ | | 01 | 41 | |
| | $L \cdot NE$ | | 15 | | |
| | $\Delta = 45°$. Fox Islands. | | | | |
| 13 | $ePKP \cdot Z$ | 11 | 18 | 23 | |
| | $\Delta = 146$. Australia. | | | | |
| 15 | $iP \cdot Z$ | 03 | 54 | 41 | |
| | $Z$ | | 55 | 24 | |
| | Near. | | | | |

June

| | | | | | |
|---|---|---|---|---|---|
| 17 | $e \cdot Z$ | 13h | 07m | 50s | |
| | $Z$ | | 08 | 21 | |
| | Near. | | | | |
| 17 | $eP \cdot Z$ | 15 | 18 | 49 | |
| | $\Delta = 71°$. Bonin Islands. | | | | |
| 17 | $iP \cdot Z$ | 19 | 18 | 13 | + |
| | $\Delta = 73°$. Volcano Islands. | | | | |
| 18 | $i \cdot Z$ | 00 | 06 | 08 | |
| | $i \cdot Z$ | | 06 | 10 | |
| 18 | $eP \cdot ZN$ | 01 | 18 | 00 | |
| | $iS \cdot E$ | | 20 | 19 | |
| | $L \cdot NE$ | | 21 | | |
| | $\Delta = 13°$. Iceland. | | | | |
| 18 | $eP \cdot Z$ | 02 | 26 | 29 | |
| | $L$ | | 29 | | |
| | $\Delta = 13°$. Iceland. | | | | |
| 18 | $eP \cdot Z$ | 04 | 37 | 01 | |
| | $L \cdot E$ | | 40 | | |
| | $\Delta = 13°$. Iceland. | | | | |
| 18 | $i \cdot Z$ | 07 | 56 | 15 | |
| | $i \cdot Z$ | | 56 | 17 | |
| 18 | $eZ$ | 17 | 22 | 46 | |
| 18 | $eZ$ | 19 | 47 | 18 | |
| 19 | $eP \cdot Z$ | 05 | 26 | 48 | |
| | $e \cdot N$ | | 33 | 44 | |
| | $L \cdot E$ | | 40.5 | | |
| | $\Delta = 49°$. Kurile Islands. | | | | |
| 19 | $i \cdot Z$ | 05 | 59 | 50 | |
| | $i \cdot Z$ | 06 | 00 | 10 | |
| | Near. | | | | |
| 22 | $e \cdot Z$ | 05 | 07 | 09 | |
| | Near? | | | | |
| 23 | $eP \cdot Z$ | 05 | 18 | 27 | |
| | $L \cdot E$ | | 32 | | |
| | $\Delta = 47°$. Mongolia. | | | | |
| 24 | $eP \cdot Z$ | 04 | 57 | 21 | |
| | $eP \cdot Z$ | | 57 | 24 | |
| | $L \cdot E$ | 05 | 22 | | |
| | $\Delta = 51°$. China. | | | | |
| 24 | $eZ$ | 05 | 46 | 15 | |
| | $eZ$ | | 46 | 33 | |
| | Near. | | | | |

| | | | | |
|---|---|---|---|---|
| June | | | | |
| 25 | *iP·Z* | 01h23m09s | | |
| 25 | *iP·Z* | 01 59 56 | | |
| 25 | *eP·Z* | 09 50 23 | | |
| | $\Delta = 101°$. New Guinea. | | | |
| 26 | *eP·Z* | 04 46 25 | | |
| | *i·Z* | 48 06 | | |
| | *eS·E* | 52 46 | | |
| | *e·E* | 53 44 | | |
| | *i·E* | 56 09 | | |
| | *ei·E* | 57 09 | | |
| | $\Delta = 45°$. Kamchatka. | | | |
| 26 | *e·Z* | 07 26 36 | | |
| 26 | *i·Z* | 07 50 50 | | |
| 26 | *i·Z* | 23 09 02 | | |
| | *i·Z* | 09 04 | | |
| | *i·Z* | 09 22 | | |
| 27 | *iP·Z* | 05 56 04 | | |
| | *eipP·Z* | 56 22 | | |
| | *iS·E* | 06 05 34 | | |
| | $\Delta = 74°$. $h = 60$ km. El Salvador. | | | |
| 27 | *Z* | 21 39.5 | | |
| 28 | *Z* | 13 38 14 | | |
| | *Z* | 15 47 48 | | |
| | *Z* | 15 49 00 | | |
| | *Z* | 17 01 51 | | |
| | *Z* | 17 03 04 | | |
| | *Z* | 17 17 36 | | |
| | *Z* | 17 18 48 | | |
| | Swarm of "Near"s. | | | |
| June | | | | |
| 29 | *ePPP·Z* | 03h45m20s | | |
| | *eS·NE* | 49 40 | | |
| | $\Delta = 101°$. $h = 150$ km. Peru. | | | |
| 30 | *iP·ZNE* | 08 51 12 | + 3.9 mm. | |
| | *eScP·Z* | 56 22 | | |
| | *S·NE* | 58 00 | in the time break. | |
| | *eSS·N* | 58 39 | | |
| | $\Delta = 48°$. Dodecanese Islands. | | | |
| 30 | *eP·Z* | 14 05 15 | + | |
| | *iP·Z* | 05 16 | − | |
| | *i!·Z* | 05 23 | − | |
| | *iS·Z(NE)* | 07 37 | *Z*: + | |
| | *i!S·Z(NE)* | 07 39 | *Z*: − | |
| | $\Delta = 14°$. Baffin Bay. | | | |
| 30 | *iP·Z* | 18 37 13 | | |
| | *eS·NE* | 46 04 | *E*: + | |
| | *e·E* | 46 25 | | |
| | *e·E* | 47 09 | | |
| | *L·NE* | 59 | | |
| | $\Delta = 67°$. Honshu. | | | |
| 30 | Swarm of "Near"s 20h–21h | | | |
| 30 | *iP·Z* | 21 00 31 | + | |
| | *iZ* | 00 49 | + | |

*November 1959.*

Jørgen Hjelme
Erik Hjortenberg

# Microseisms. Nord

| 1958 April | *N* 0h | 6h | 12h | 18h | *E* 0h | 6h | 12h | 18h | 1958 April |
|---|---|---|---|---|---|---|---|---|---|
| 1 | .. .. | 1 1.1 5.4 | 1 0.8 5.4 | 3 0.4 5.– | .. .. | 1 0.7 5.3 | 1 0.5 5.– | 3 0.5 5.6 | 1 |
| 2 | 2 0.3 4.– | 2 0.4 4.9 | 3 0.3 5.3 | 3 0.2 5.– | 2 0.3 5.– | 2 0.4 4.8 | 2 0.4 5.6 | .. .. | 2 |
| 3 | 2 0.2 5.– | 3 0.4 8.– | 3 0.3 8.– | 3 0.4 8.0 | 2 0.3 5.0 | 2 0.3 5.2 | 3 0.6 8.– | 3 0.6 8.0 | 3 |
| 4 | 3 0.2 4.7 | 3 0.3 8.– | 3 0.2 7.– | 3 0.2 4.7 | 3 0.4 4.9 | 3 0.2 4.3 | 3 0.3 5.0 | 3 0.2 5.7 | 4 |
| 5 | 3 0.2 4.8 | 3 0.2 4.4 | 2 0.2 4.4 | 2 0.2 4.4 | 3 0.1 4.9 | 3 0.2 4.7 | 2 0.2 4.7 | 2 0.2 4.– | 5 |
| 6 | 2 0.1 5.0 | 2 0.2 4.3 | 2 0.2 4.2 | 2 0.2 4.9 | 2 0.1 4.9 | 2 0.2 4.7 | 2 0.2 4.7 | 2 0.2 5.2 | 6 |
| 7 | 2 0.2 5.0 | 2 0.2 5.4 | 2 0.2 5.5 | 2 0.2 5.– | 2 0.2 4.9 | 2 0.2 5.– | 2 0.2 4.9 | 2 0.2 4.– | 7 |
| 8 | 2 0.2 4.9 | 3 0.2 4.– | 3 0.2 4.6 | 3 0.2 4.0 | 2 0.2 5.0 | 2 0.2 5.0 | 3 0.2 4.7 | 3 0.2 4.7 | 8 |
| 9 | 2 0.2 5.2 | 3 0.2 5.0 | 2 0.3 5.– | 2 0.2 4.5 | 2 0.2 5.– | 3 0.2 4.4 | 2 0.2 4.6 | 2 0.2 4.8 | 9 |
| 10 | 2 0.3 4.7 | 2 0.3 4.6 | 2 0.3 4.9 | 2 0.4 5.0 | 2 0.2 4.8 | 3 0.2 4.4 | 2 0.2 5.3 | 2 0.3 4.8 | 10 |
| 11 | 2 0.4 5.– | 2 0.3 5.6 | 2 0.3 4.7 | 2 0.4 4.7 | 2 0.2 5.4 | 2 0.3 4.9 | 2 0.2 4.6 | 2 0.4 4.3 | 11 |
| 12 | 2 0.5 5.0 | 2 0.4 5.0 | 2 0.2 4.0 | 2 0.2 4.5 | 2 0.4 4.7 | 2 0.3 4.6 | 2 0.3 4.6 | 2 0.2 4.0 | 12 |
| 13 | 2 0.2 4.4 | 2 0.2 5.– | 3 0.1 4.– | 2 0.1 4.6 | 2 0.2 4.6 | 2 0.2 4.8 | 3 0.1 5.– | 2 0.1 4.7 | 13 |
| 14 | 2 0.2 4.– | 2 0.2 5.0 | 2 0.2 5.0 | 2 0.2 5.– | 2 0.1 4.5 | 2 0.1 5.0 | 2 0.1 5.0 | 2 0.1 4.6 | 14 |
| 15 | 2 0.2 5.0 | 2 0.2 4.4 | 2 0.2 5.– | 3 0.3 5.0 | 2 0.2 4.0 | 2 0.2 5.4 | 2 0.2 5.0 | 3 0.2 4.5 | 15 |
| 16 | 2 0.2 4.0 | 2 0.2 4.0 | 2 0.2 3.9 | 2 0.2 4.4 | 2 0.2 4.6 | 2 0.2 4.5 | 2 0.2 4.5 | 2 0 2 4 3 | 16 |
| 17 | 2 0.2 4.– | 2 0.2 5.1 | 2 0.3 5.– | 2 0.3 5.0 | 2 0.3 4.7 | 2 0.3 5.0 | 2 0.4 5.2 | 2 0.2 5.0 | 17 |
| 18 | 2 0.2 4.5 | 2 0.2 4.6 | 2 0.2 4.9 | 2 0.1 4.9 | 2 0.2 5.0 | 2 0.2 4.6 | 2 0.2 4.7 | 2 0.2 4.7 | 18 |
| 19 | 2 0.1 4.0 | 2 0.1 4.– | 2 0.1 4.8 | 2 0.1 4.8 | 2 0.2 4.7 | 2 0.1 4.9 | 2 0.1 4.6 | 2 0.1 4.7 | 19 |
| 20 | 2 0.1 4.8 | 2 0.2 4.5 | 2 0.2 4.6 | 2 0.3 5.2 | 2 0.1 4.7 | 2 0.1 4.5 | 2 0.2 4.6 | 2 0.4 5.2 | 20 |
| 21 | 1 0.7 5.9 | 1 1.6 6.0 | 1 1.5 7.0 | 3 1.0 7.– | 1 0.9 5.5 | 1 1.3 6.0 | 1 1.5 7.0 | 3 1.1 7.– | 21 |
| 22 | 3 0.6 6.0 | 3 0.8 5.– | 3 0.8 6.– | 1 0.6 6.0 | 3 0.7 6.– | 3 0.5 5.– | 3 0.7 6.– | 1 0.5 6.2 | 22 |
| 23 | 1 0.4 6.– | 3 0.3 6.– | 3 0.3 5.– | 2 0.5 5.– | 1 0.4 5.9 | 3 0.2 6.– | 3 0.5 6.– | 2 0.4 5.0 | 23 |
| 24 | 3 0.2 4.0 | 2 0.2 4.8 | 2 0.2 4.2 | 2 0.3 4.4 | 3 0.3 5.– | 2 0.3 5.1 | 2 0.2 4.7 | 2 0.3 4.6 | 24 |
| 25 | 2 0.4 5.6 | 1 0.6 5.6 | 1 0.5 5.4 | 3 0.5 5.4 | 2 0.4 5.7 | 1 0.6 5.4 | 1 0.5 5.7 | 3 0.3 5.0 | 25 |
| 26 | .. .. | 2 0.3 5.0 | 2 0.4 5.0 | 2 0.5 5.– | 2 0.3 4.9 | 2 0.3 5.0 | 2 0.3 5.0 | .. .. | 26 |
| 27 | 2 0.3 4.7 | 2 0.3 4.4 | 2 0.4 4.5 | 3 0.4 5.4 | 2 0.2 4.3 | 2 0.2 4.0 | 2 0.2 4.0 | 2 0.4 5.2 | 27 |
| 28 | 2 0.4 5.1 | 2 0.6 5.1 | 2 0.5 4.9 | 2 0.4 4.8 | 2 0.5 5.0 | 2 0.4 5.0 | 2 0.5 5.0 | 2 0.3 4.6 | 28 |
| 29 | 2 0.2 5.0 | 2 0.4 4.9 | 2 0.2 4.7 | 2 0.2 4.6 | 2 0.2 5.0 | 2 0.2 4.6 | 2 0.2 4.9 | 2 0.1 4.5 | 29 |
| 30 | 2 0.2 4.6 | 2 0.2 4.5 | 2 0.2 4.4 | 2 0.2 4.6 | 2 0.2 4.0 | 2 0.2 4.2 | 2 0.1 4.2 | 2 0.2 4.4 | 30 |
| May | | | | | | | | | May |
| 1 | 2 0.2 5.7 | .. .. | .. .. | .. .. | .. .. | .. .. | .. .. | .. .. | 1 |
| 2 | 2 0.2 5.0 | 2 0.2 4.9 | 2 0.2 4.9 | 2 0.2 4.7 | 2 0.2 5.3 | 2 0.1 4.6 | 2 0.1 4.3 | 2 0.1 4.7 | 2 |
| 3 | 2 0.2 5.4 | 2 0.2 5.6 | 2 0.1 4.9 | 2 0.1 4.9 | 2 0.2 5.3 | 2 0.2 5.– | 2 0.2 5.– | 2 0.1 5.0 | 3 |
| 4 | 2 0.1 5.0 | 2 0.1 4.7 | 2 0.1 4.9 | 2 0.1 5.1 | 2 0.1 4.9 | 2 0.1 5.1 | 2 0.1 4.9 | 2 0.1 4.8 | 4 |
| 5 | 2 0.2 4.7 | 2 0.1 4.9 | 2 0.1 5.0 | 2 0.1 5.2 | 2 0.1 5.0 | 2 0.1 4.6 | 2 0.1 4.7 | 2 0.1 5.0 | 5 |
| 6 | 2 0.1 4.5 | 2 0.1 4.7 | 2 0.1 4.8 | 2 0.1 4.7 | 2 0.1 4.7 | 2 0.1 4.9 | 2 0.1 4.7 | 2 0.1 4.8 | 6 |
| 7 | 2 0.1 5.1 | 2 0.2 5.3 | 2 0.1 5.1 | 2 0.1 5.1 | 2 0.2 4.8 | 2 0.1 5.0 | 2 0.2 4.8 | 2 0.2 5.0 | 7 |
| 8 | 2 0.1 4.8 | 2 0.1 5.0 | 2 0.2 4.8 | 2 0.1 5.– | 2 0.2 4.6 | 2 0.2 5.– | 2 0.2 4.6 | 2 0.1 4.7 | 8 |
| 9 | 2 0.2 5.3 | 2 0.2 4.9 | 2 0.2 4.9 | 2 0.1 4.6 | 2 0.1 4.8 | 2 0.1 4.8 | 2 0.1 5.0 | 2 0.1 5.– | 9 |
| 10 | 2 0.2 4.1 | 2 0.2 5.– | 2 0.2 4.8 | 2 0.2 5.0 | 2 0.2 4.6 | 2 0.1 4.4 | 2 0.1 4.7 | 2 0.1 4.8 | 10 |
| 11 | 2 0.2 4.6 | 2 0.2 4.7 | 2 0.2 4.1 | 2 0.2 4.4 | 2 0.2 4.6 | 2 0.2 5.0 | 2 0.2 4.3 | 2 0.2 4.4 | 11 |
| 12 | 2 0.2 4.6 | 2 0.2 4.6 | 2 0.2 4.8 | 2 0.2 4.5 | 2 0.2 4.3 | 2 0.2 4.8 | 2 0.2 4.6 | 2 0.1 4.6 | 12 |
| 13 | 2 0.2 4.3 | 2 0.1 4.8 | 2 0.2 5.– | 2 0.2 5.0 | 2 0.2 4.0 | 2 0.2 4.6 | 2 0.2 4.3 | 2 0.2 4.7 | 13 |
| 14 | 2 0.1 4.8 | 2 0.1 5.0 | 2 0.1 4.9 | 2 0.2 5.1 | 2 0.2 3.9 | 2 0.2 4.3 | 2 0.2 4.0 | 2 0.2 4.6 | 14 |
| 15 | 2 0.2 4.7 | 2 0.2 5.1 | 2 0.2 4.6 | 2 0.1 5.0 | 2 0.2 4.1 | 2 0.2 4.9 | 2 0.2 4.9 | 2 0.1 4.6 | 15 |
| 16 | 2 0.2 4.8 | 2 0.2 5.0 | 2 0.2 5.0 | 2 0.2 4.6 | 2 0.2 4.0 | 2 0.2 4.6 | 2 0.1 4.7 | 2 0.1 5.0 | 16 |
| 17 | 2 0.2 5.0 | 2 0.3 5.0 | 2 0.3 5.4 | 2 0.3 5.4 | 2 0.2 5.0 | 2 0.3 5.4 | 2 0.2 5.0 | 2 0.2 5.0 | 17 |
| 18 | 2 0.2 5.8 | 2 0.2 5.4 | 2 0.2 5.2 | 2 0.2 5.0 | 2 0.2 5.6 | 2 0.2 4.9 | 2 0.2 5.0 | 2 0.2 4.8 | 18 |
| 19 | 2 0.2 5.0 | 2 0.2 4.9 | 2 0.2 5.4 | 2 0.2 4.6 | 2 0.1 4.9 | 2 0.1 4.8 | 2 0.2 5.1 | 2 0.2 5.0 | 19 |
| 20 | 2 0.2 5.2 | 2 0.2 5.6 | 2 0.2 5.2 | 2 0.2 4.8 | 2 0.2 5.– | 2 0.1 5.3 | 2 0.2 5.3 | 2 0.2 4.9 | 20 |
| 21 | 2 0.2 4.5 | 2 0.2 4.6 | 2 0.2 5.0 | 2 0.1 4.8 | 2 0.2 4.7 | 2 0.2 4.8 | 2 0.2 4.9 | 2 0.2 4.6 | 21 |
| 22 | 2 0.2 4.5 | 2 0.2 5.0 | 2 0.2 5.0 | 2 0.1 4.9 | 2 0.1 4.6 | 2 0.1 4.5 | 2 0.1 4.5 | 2 0.1 4.3 | 22 |
| 23 | 2 0.2 4.5 | 2 0.3 5.1 | 2 0.2 4.9 | 2 0.2 5.1 | 2 0.1 4.5 | 2 0.2 4.9 | 2 0.2 5.8 | 2 0.3 5.3 | 23 |
| 24 | 2 0.2 4.6 | 2 0.2 4.8 | 2 0.1 4.6 | 2 0.1 4.9 | 2 0.3 5.6 | 2 0.1 4.7 | 2 0.1 4.8 | 2 0.1 5.– | 24 |
| 25 | 2 0.1 5.0 | 2 0.1 4.8 | 2 0.1 4.6 | 2 0.1 4.6 | 2 0.1 4.6 | 2 0.1 4.6 | 2 0.1 4.9 | 2 0.1 4.8 | 25 |
| 26 | 2 0.1 4.8 | 2 0.1 4.8 | 2 0.1 4.6 | 2 0.1 4.6 | 2 0.1 4.6 | 2 0.1 4.9 | 2 0.1 4.7 | 2 0.1 4.0 | 26 |
| 27 | 2 0.1 4.0 | 2 0.1 4.8 | 2 0.1 4.5 | 2 0.1 4.8 | 2 0.1 4.3 | 2 0.1 4.6 | 2 0.1 4.6 | 2 0.1 4.6 | 27 |
| 28 | 2 0.1 4.2 | 2 0.1 4.9 | 2 0.2 4.6 | 2 0.2 4.6 | 2 0.1 3.6 | 2 0.1 3.5 | 2 0.1 4.0 | 2 0.2 3.6 | 28 |
| 29 | 2 0.2 4.1 | 2 0.2 4.– | 2 0.2 4.3 | 2 0.1 4.2 | 2 0.2 3.9 | .. .. | 2 0.1 4.5 | .. .. | 29 |
| 30 | 2 0.1 4.0 | 2 0.1 4.7 | 2 0.1 4.8 | 2 0.1 5.0 | 2 0.1 3.9 | 2 0.1 4.6 | 2 0.1 4.6 | 2 0.1 4.9 | 30 |
| 31 | 2 0.1 4.6 | 2 0.1 4.9 | 2 0.2 5.5 | 2 0.2 4.6 | 2 0.1 5.0 | 2 0.1 4.9 | 2 0.2 5.5 | 2 0.2 5.3 | 31 |

## Microseisms. Nord

| 1958 June | *N* 0h | 6h | 12h | 18h | *E* 0h | 6h | 12h | 18h | 1958 June |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 0.2 4.9 | 2 0.1 4.6 | 2 0.1 4.7 | 2 0.1 4.8 | 2 0.2 4.8 | 2 0.1 4.2 | 2 0.1 4.7 | 2 0.1 4.6 | 1 |
| 2 | 2 0.1 4.8 | 2 0.1 4.8 | 2 0.1 4.9 | 2 0.1 4.7 | 2 0.1 4.1 | 2 0.1 5.2 | 2 0.1 4.6 | 2 0.1 4.9 | 2 |
| 3 | 2 0.1 4.9 | 2 0.1 4.7 | 2 0.1 4.9 | 2 0.1 4.9 | 2 0.1 5.0 | 2 0.1 4.6 | 2 0.1 4.6 | 2 0.1 4.6 | 3 |
| 4 | 2 0.1 4.8 | 2 0.1 4.7 | 2 0.2 4.8 | 2 0.1 4.8 | 2 0.1 4.6 | 2 0.1 4.8 | 2 0.2 4.8 | 2 0.1 4.8 | 4 |
| 5 | 2 0.1 4.8 | 2 0.1 5.2 | 2 0.1 4.6 | 2 0.1 4.9 | .. .. | .. .. | .. .. | 2 0.1 4.8 | 5 |
| 6 | 2 0.1 5.1 | 2 0.1 5.1 | 2 0.1 4.9 | 2 0.1 4.9 | 2 0.1 4.7 | 2 0.1 4.6 | 2 0.1 4.– | 2 0.1 4.6 | 6 |
| 7 | 2 0.1 3.5 | 2 0.1 4.6 | 2 0.1 4.4 | 2 0.1 4.7 | 2 0.1 3.8 | 2 0.1 4.5 | 2 0.1 4.6 | 2 0.1 4.7 | 7 |
| 8 | 2 0.1 4.9 | 2 0.1 5.1 | 2 0.2 5.3 | 2 0.4 5.3 | 2 0.1 4.7 | 2 0.2 4.8 | 2 0.3 4.9 | 2 0.4 5.6 | 8 |
| 9 | 2 0.3 5.2 | 2 0.2 4.9 | 2 0.2 5.3 | 2 0.1 4.9 | 2 0.2 5.2 | 2 0.2 4.6 | 2 0.2 4.7 | 2 0.1 4.9 | 9 |
| 10 | 2 0.2 4.7 | 2 0.2 4.7 | 2 0.1 4.8 | 2 0.1 5.0 | 2 0.1 5.0 | 2 0.1 4.5 | 2 0.1 4.6 | 2 0.2 4.4 | 10 |
| 11 | 2 0.2 5.– | 2 0.2 4.9 | 2 0.2 4.7 | 2 0.3 5.5 | 2 0.2 5.5 | 2 0.2 4.7 | 2 0.2 4.4 | 2 0.3 4.6 | 11 |
| 12 | 2 0.4 5.2 | 2 0.6 5.9 | 2 0.6 5.5 | 2 0.4 5.4 | 2 0.4 4.9 | 2 0.6 5.7 | 2 0.6 5.6 | 2 0.4 5.1 | 12 |
| 13 | 2 0.3 4.8 | 2 0.3 5.0 | 2 0.2 4.7 | 2 0.1 4.5 | .. .. | .. .. | .. .. | 2 0.2 4.9 | 13 |
| 14 | 2 0.1 4.6 | 2 0.1 4.4 | 2 0.1 4.0 | 2 0.1 4.6 | 2 0.2 4.5 | 2 0.1 4.3 | 2 0.1 4.6 | 2 0.1 4.5 | 14 |
| 15 | 2 0.1 4.6 | 2 0.1 5.0 | 2 0.1 4.8 | 2 0.1 4.6 | 2 0.2 4.0 | 2 0.1 4.6 | 2 0.1 4.2 | 2 0.1 4.7 | 15 |
| 16 | 2 0.1 4.6 | 2 0.1 4.6 | 2 0.1 4.9 | 2 0.1 4.8 | 2 0.1 4.1 | 2 0.1 3.9 | 2 0.1 3.5 | .. .. | 16 |
| 17 | .. .. | .. .. | 2 0.1 4.– | .. .. | .. .. | .. .. | 2 0.1 4.7 | 2 0.1 4.0 | 17 |
| 18 | 2 0.2 3.8 | .. .. | .. .. | .. .. | 2 0.2 4.– | 2 0.2 3.8 | 2 0.2 4.3 | 2 0.2 4.4 | 18 |
| 19 | 2 0.2 4.5 | 2 0.2 4.0 | 2 0.2 4.0 | 2 0.1 4.0 | 2 0.1 3.6 | 2 0.2 4.0 | 2 0.2 4.5 | 2 0.2 4.3 | 19 |
| 20 | 2 0.2 4.7 | 2 0.1 4.8 | 2 0.1 4.7 | 2 0.1 4.7 | 2 0.1 4.6 | 2 0.1 4.6 | 2 0.1 5.0 | .. .. | 20 |
| 21 | 2 0.1 4.9 | 2 0.1 5.0 | .. .. | 2 0.1 4.7 | 2 0.2 4.8 | .. .. | .. .. | 3 0.2 4.– | 21 |
| 22 | 2 0.1 4.7 | 2 0.1 4.8 | 2 0.1 4.8 | 2 0.1 5.2 | .. .. | .. .. | 3 0.2 5.– | 2 0.1 4.7 | 22 |
| 23 | 2 0.1 5.0 | 2 0.1 4.9 | 2 0.1 4.8 | 2 0.1 4.7 | 2 0.1 4.9 | 2 0.1 5.0 | 2 0.1 4.8 | 2 0.1 4.6 | 23 |
| 24 | 2 0.1 4.6 | 2 0.1 4.9 | 2 0.1 4.9 | 2 0.1 4.9 | 2 0.1 4.6 | 2 0.1 4.9 | 2 0.1 5.0 | 2 0.1 4.6 | 24 |
| 25 | 2 0.1 4.7 | 2 0.1 5.0 | 2 0.1 4.8 | 2 0.1 5.0 | .. .. | 2 0.1 4.7 | 2 0.1 4.8 | 2 0.1 4.9 | 25 |
| 26 | 2 0.1 4.8 | 2 0.1 5.0 | 2 0.1 4.9 | 2 0.1 4.7 | 2 0.1 4.6 | 2 0.1 4.6 | 2 0.1 4.8 | 2 0.1 4.8 | 26 |
| 27 | 2 0.1 4.6 | 2 0.1 4.6 | 2 0.1 5.0 | 2 0.1 5.0 | 2 0.2 5.0 | 2 0.1 5.2 | 2 0.1 4.6 | 2 0.1 4.7 | 27 |
| 28 | 2 0.1 4.8 | 2 0.1 4.9 | 2 0.1 4.8 | 2 0.1 5.0 | 2 0.1 5.3 | 2 0.1 4.– | 2 0.1 4.6 | 2 0.1 4.9 | 28 |
| 29 | .. .. | 2 0.1 4.7 | 2 0.1 4.8 | 2 0.1 5.0 | .. .. | 2 0.1 4.6 | 2 0.1 5.0 | 2 0.1 5.1 | 29 |
| 30 | .. .. | 2 0.1 4.7 | 2 0.1 4.7 | .. .. | 2 0.1 4.6 | 2 0.1 4.6 | 2 0.1 4.6 | 2 0.1 4.7 | 30 |