

GEODÆTISK INSTITUT

Proviantgården · Copenhagen · Denmark

Bulletin of the seismological station

NORD

$\varphi = 81^{\circ}36' \text{ N.}$ $\lambda = 16^{\circ}41' \text{ W.}$ $h = 35 \text{ m.}$

Lithologic foundation: marly shale

Instruments

Willmore. $Z.$ $T_p = 1 \text{ sec.}$ $T_g = 1/4 \text{ sec.}$ No attenuation.

Strobach. N and $E.$ $T = 6 \text{ sec.}$ $\nu = 4:1,$ $V_0 = 500.$ (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

The microseismic readings will be published in a later bulletin.

Nord 1957

August

30 *e*·*Z* 00^h44^m33^s
i·*Z* 44 35
i·*Z* 44 43
 Near.

30 *iP*·*Z* 16 27 03
 No *N* and *E* records.
 $\Delta = 52^\circ$. Tadzhik SSR.

September

2 *eP*·*Z* 00 12 07 -
 No *N* and *E* records.
 $\Delta = 80^\circ$. Mariana Islands.

2 *iP*·*Z* 07 01 39
 $\Delta \sim 2^\circ$. Greenland Sea.
 H: 07^h01^m10^s
 82°N 0°

2 *iP*·*Z* 21 36 40 +
 No *N* and *E* records.
 $\Delta = 53^\circ$. $h = 200$ km. Hindu Kush.

5 *eP*·*Z* 11 46 06 +
 $\Delta = 60^\circ$. Iran.

7 *ePP*·*N* 10 16 27
iPPP·*N* 17 20
eS·*N* 22 16
eSSS·*N* 26 00
L·*N* 30
 No *Z* record.
 $\Delta = 47^\circ$. Aleutian Islands.

7 *eP*·*Z* 23 25 29
iS·*Z* 26 01
 Near.

8 *iP*·*Z* 10 28 13 -
L·*N* 48
 $\Delta = 43^\circ$. Aleutian Islands.

9 *L*·*N* 01 34.6

10 *eP*·*Z* 03 13 48
e(S)·*Z* 14 15
 Near?

12 *eP*·*Z* 00 39 15
i·*Z* 39 28
iS·*N* 48 22
L·*N* 01 05
L·*E* 11
 $\Delta = 70^\circ$. Honduras.

September

15 *eP*·*Z* 03^h55^m23^s Seismic? y

15 *eP*·*Z* 04 35 49
ePP·*Z* 40 04
 $\Delta = 101^\circ$. $h = 300$ km. Java.

15 *iP*·*Z* 06 31 43

16 *eP*·*Z* 01 38 20
 $\Delta = 16^\circ$. Arctic Ocean.

17 *e*·*Z* 23 21 18 5

18 *eP*·*Z* 01 07 45
 $\Delta = 46^\circ$. Kamchatka.

18 *iP*·*Z* 07 31 50
 Near? 6

18 *e*·*Z* 10 21 00 7

19 *iP*·*Z* 13 50 31
 $\Delta = 46^\circ$. Aleutian Islands.

19 *iP*·*Z* 17 30 03
iS·*Z* 30 42
 $\Delta = 4^\circ$. West of Svalbard. 8

20 *iP*·*ZE* 06 28 40 Track disappeared.
 $\Delta \sim 0^\circ$. 9

20 *eP*·*Z* 07 22 00 10

20 *eP*·*Z* 07 48 37 11

20 *eP*·*Z* 08 30 35 12

20 *eP*·*Z* 08 47 06 13

20 *eP*·*Z* 11 34 55 14

20 *eP*·*Z* 14 08 43
 Svalbard repetition? 15

28 *iS*·*EN* 00 45 56
iSeS·*EN* 46 49
eSS·*E* 50 32
 No *Z* record.
 $\Delta = 67^\circ$. $h = 500$ km. Japan.

28 *eP*·*Z* 07 06 23
iP_g·*Z* 06 26
eS·*Z* 06 48
 Near. 16

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September

28 *iPKP·Z* 14^h37^m42^s
ePP·ZNE 39 07
epPP·Z 41 20
iPPP·E 41 47
eSKS·N 43 41
i·NE 46 07
ePS·N 49 02 in the time-break.
isPS·NE 51 50
e·N 54 12
iSS·E 54 38
eSSS·E 57 52
e·N 58 12
 $\Delta = 118^\circ$. $h = 650$ km. Fiji Islands.

28 *eP·Z* 16 38 49
i·Z 38 54
 Near.

29 *iPKP·Z* 08 31 16
 $\Delta = 122^\circ$. $h = 600$ km. Fiji Islands.

29 *iP·Z* 08 45 30
i·N 45 58
 Near.

October

1 *eP·Z* 03 12 47
iP·Z 12 48
iS·Z 14 43
iS·Z 14 48
 $\Delta = 11^\circ$. Jan Mayen.
H: 03 10 13
 71°N 8°W

1 *iP·Z* 05 23 55
i(S)·NE 24 23
 Near.

2 *iP·Z* 12 39 29
L·N 13 06
 $\Delta = 74^\circ$. Venezuela.

3 *i·Z* 15 43 20 Seismic?

4 *iP·Z* 00 30 17
 $\Delta = 52^\circ$. Atlantic Ocean.

4 *iP·Z* 05 37 41
iSKS·N 47 43
iPPS·N 48 20
L·NE 06 03.5
 $\Delta = 73^\circ$. $h = 60$ km. Venezuela.

5 *iP·Z* 00 04 10
 $\Delta = 46^\circ$. Aleutian Islands.

October

5 *iP·Z* 03^h52^m12^s
 Near.

5 *iP·Z* 11 45 38
 $\Delta = 50^\circ$. Crete.

5 *iP·Z* 21 07 30
iS·Z 07 43
 Near.

5 *iP·Z* 22 49 58
 $\Delta = 53^\circ$. Afghanistan-Tadzhik border.

9 *iP·Z* 14 52 37
 Near.

9 *i·Z* 15 42 42 Instrumental?

9 *iP·Z* 20 21 20
 Near.

10 *iP·Z* 01 51 23
 $\Delta = 46^\circ$. Aleutian Islands.

10 *iP·Z* 06 58 57 -
iPP·Z 59 04 +
 $\Delta = 18^\circ$. Novaya Zemlya.

10 *iP·Z* 07 46 46 +
iPP·Z 48 20 -
 $\Delta = 46^\circ$. Aleutian Islands.

10 *eP·Z* 19 02 05 - 0.2 mm.
i·Z 02 08 - 1.5 mm.
i·Z 02 09 - 1.5 mm.
iPP·Z 03 52 +
L·NE 17.5
 $\Delta = 45^\circ$. Aleutian Islands.

13 *eP·Z* 04 27 53
L·NE 45
 $\Delta = 46^\circ$. Kamchatka.

15 *iP·Z* 13 37 15
 Near.

15 *iP·Z* 22 59 47
i·Z 59 49
 Near.

16 *eP·Z* 09 46 27
i·Z 47 17
 Near.

16 *i·NE* 18 15 20
 Near. No Z record.

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October

17 *iP·Z* 15^h33^m10^s
i·Z 33 21
 $\Delta = 87^\circ$. Philippine Islands.

18 *iP·Z* 01 59 09
 Central Greece.

19 *iP·Z* 18 40 20 +
 $\Delta = 73^\circ$. Formosa.

19 *iP·Z* 21 51 08 +
i·Z 51 20 +

20 *eP·Z* 12 15 47 +
eS·E 25 15
L·NE 36
 $\Delta = 71^\circ$. Atlantic Ocean.

21 *iP·Z* 12 24 54
iS·Z 25 18
 Near.

21 *iP·Z* 14 34 31 +
 $\Delta = 49^\circ$. Atlantic Ocean.

21 *eP·Z* 17 52 36
 Greenland Sea?

21 *iP·Z* 23 33 32
i·Z 35 21
 Near. (Possibly two shocks.)

22 *iP·Z* 20 54 08
 $\Delta = 56^\circ$. Japan.

23 *iP·Z* 06 05 12
L·NE 19
 $\Delta = 46^\circ$. Aleutian Islands.

23 *iP·Z* 11 39 13
i·Z 39 50
 Near.

23 *i·Z* 17 50 53 Instrumental?

24 *eP·Z* 02 41 24
 $\Delta = 45^\circ$. Turkey.

24 *eP·Z* 21 55 22
ePPP·Z 22 00 14
LQ·N 19.5
LR·E 24
 $\Delta = 66^\circ$. Gulf of California.

24 *e·Z* 22 32 43

25 *iP·Z* 06 30 48 +
 $\Delta = 75^\circ$. Formosa.

October

25 *eP·Z* 10^h12^m13^s
iS·N 19 10
L·N 28
 $\Delta = 48^\circ$. Kamchatka.

25 *iP·Z* 22 56 58 +
 $\Delta = 83^\circ$. $h = 200$ km. Luzon.

26 *eP·Z* 04 44 36
 $\Delta = 97^\circ$. Molucca Passage.

26 *eP·Z* 14 30 33
 $\Delta = 97^\circ$. Borneo.

27 *e·Z* 13 19 15

27 *iP·Z* 22 40 24
i·N 42 57
eS·E 46 35
 $\Delta = 43^\circ$. Kamchatka.

31 *eP·Z* 10 20 07
iPcP·Z 20 20
L·N 41.5 12^s. 15 μ .
L·E 56 10^s. 6 μ .
 $\Delta = 80^\circ$. Panama.

31 *ePKP2·Z* 15 20 11
 $\Delta = 154^\circ$. Tasmania.

31 *eP·Z* 16 36 57
 $\Delta = 86^\circ$. Galapagos Islands.

31 *iP·Z* 19 40 26
 Near.

November

2 *iP·Z* 01 26 39 -
 $\Delta = 47^\circ$. Aleutian Islands.

2 *iP·Z* 07 32 24
 $\Delta = 74^\circ$. $h = 100$ km. Mexico.

2 *iP·Z* 10 34 07
i·Z 34 27
 Near.

2 *i·Z* 23 07 48 Instrumental?

3 *i·Z* 09 48 33
 Near.

4 *e·Z* 04 36 17

4 *iP·Z* 09 10 02
 Near.

4 *iP·Z* 13 37 45
 Near.

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November

4 *e*·*Z* 20^h25^m06^s
 4 *i*·*Z* 22 25 10
 Near?
 5 *iP*·*Z* 04 33 25
iS·*Z* 33 47
 Near.
 7 *ePKP*·*Z* 06 41 48
ePP·*Z* 45 51
 $\Delta = 152^\circ$. South Pacific Ocean.
 7 *iP*·*Z* 19 37 41 +
 Near.
 8 *e*·*Z* 16 22 17
 9 *e*·*Z* 03 42 31
i·*Z* 42 40
 9 *eP*·*Z* 22 15 37
eS·*Z* 17 28
 $\Delta = 10^\circ$. Jan Mayen (given by Uppsala).
 10 *eP*·*Z* 00 04 12
 $\Delta = 45^\circ$. Greece.
 10 *eP*·*Z* 10 33 11
 $\Delta = 78^\circ$. Colombia.
 10 *iP*·*Z* 19 30 39 +
 $\Delta = 64^\circ$. Japan.
 11 *iP*·*Z* 02 38 57
iS·*Z* 39 18
 Near.
 11 *e*·*Z* 11 24 51
 11 *e*·*Z* 17 27 21
 11 *iP*·*Z* 18 32 12 +
iPcP·*Z* 32 19 +
 Mexico.
 13 *iPKP*·*Z* 17 41 52 +
 $\Delta = 131^\circ$. Kermadec Islands.
 14 *iP*·*Z* 03 00 39
iS·*Z* 01 05
 Near.
 15 *e*·*Z* 03 59 27
 15 *iP*·*Z* 06 15 24
L·*N* 35
 $\Delta = 47^\circ$. Aleutian Islands.

November

15 *iP*·*Z* 07^h57^m44^s
iS·*Z* 58 16
 Near.
 15 *eP*·*Z* 08 05 19
 $\Delta = 89^\circ$. Mindanao Island.
 15 *iP*·*Z* 16 39 03
 $\Delta = 48^\circ$. Kamchatka.
 16 *iP*·*Z* 22 44 48
iS·*Z* 45 13
 Near.
 17 *iP*·*Z* 06 06 10 +
 $\Delta = 50^\circ$. *h* = 350 km. Sea of Okhotsk.
 17 *iP*·*Z* 18 05 17 +
 $\Delta = 68^\circ$. *h* = 450 km. Japan.
 18 *eP*·*Z* 10 20 34
 $\Delta = 48^\circ$. Aleutian Islands.
 18 *iP*·*Z* 15 22 22 -
 $\Delta = 55^\circ$. Kurile Islands.
 19 *eP*·*Z* 16 22 25
e·*Z* 30 14
 $\Delta = 52^\circ$. Kurile Islands.
 23 *eP*·*Z* 01 06 52
 $\Delta = 46^\circ$. Aleutian Islands.
 23 *eP*·*Z* 18 25 42
eS·*Z* 26 09
 Near.
 23 *e*·*Z* 18 49 14
 24 *iP*·*NE* 09 44 32
iS·*NE* 45 04
iS·*NE* 45 11
i·*E* 45 59
 $\Delta = 4^\circ$. Eastern Greenland.
 26 *eP*·*Z* 05 23 38
 $\Delta = 98^\circ$. Borneo.
 26 *eP*·*Z* 08 23 37
 $\Delta = 44^\circ$. Greece.
 26 *i*·*Z* 11 10 31 Instrumental?
 26 *eP*·*Z* 11 44 17
 $\Delta = 46^\circ$. Aleutian Islands.
 26 *eP*·*Z* 11 58 17
 $\Delta = 44^\circ$. Greece.

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November

27 *iP·Z* 03^h16^m18^s -
 $\Delta = 44^\circ$. Greece.

27 *e·Z* 03 49 44
e·Z 50 24
 Near.

28 *eP·Z* 05 22 29 -
 $\Delta = 89^\circ$. Mindanao.

28 *eP·Z* 07 11 25
eS·Z 11 58
 Near.

28 *e·Z* 11 28 10

29 *e·Z* 15 07 00
 Near.

29 *eiPKP·Z* 18 03 15
i·Z 03 23
 $\Delta = 144^\circ$. South India Ocean.

29 *eP·Z* 22 33 32
epP·Z 34 32
iPP·Z 37 47
ipPP·Z 38 44 -
isPP·Z 39 02 +
 $\Delta = 106^\circ$. $h = 200$ km. Bolivia.

30 *iP·Z* 07 18 59
iS·Z 19 19
 Near.

30 *iP·Z* 17 18 46
i·Z 18 53
iS·Z 19 06
 $\Delta = 14^\circ$. Arctic Ocean.

30 *eP·Z* 22 03 17
 $\Delta = 52^\circ$. Kurile Islands.

December

1 *eP·Z* 01 18 07
 $\Delta = 52^\circ$. Kurile Islands.

1 *eiP·Z* 04 43 49

1 *eP·Z* 19 13 54
e·Z 14 29
 $\Delta = 46^\circ$. Aleutian Islands.

2 *iP·Z* 07 35 52
iS·Z 36 13
 Near.

2 *i·Z* 22 30 20 +

December

2 *iP·ZE* 23^h59^m29^s Z: + track disappeared.
iS·E 59 56
 $\Delta = 2^\circ$. $h = 100$ km. Northern Greenland.

3 *iP·Z* 08 13 14
iS·ZN 13 42
e·NE 14 10
 Aftershock?

3 *iP·Z* 15 33 28
iS·Z 33 57
 Aftershock?

3 *iP·Z* 21 54 40 -
 $\Delta = 46^\circ$. Aleutian Islands.

4 *iP·Z* 00 40 33 +
 $\Delta = 97^\circ$. Molucca Passage.

4 *iP·Z* 03 46 34
iP·ZNE 46 40
iS·NE 53 56
iSS·N 57 56
M·ZNE 04 08 16^s, Z: 2 mm. N: 1000 μ , E: 700 μ
 $\Delta = 50^\circ$. Outer Mongolia.

4 *iP·Z* 04 27 45

4 *iP·Z* 04 37 42

4 *iP·Z* 05 09 40
 Mongolia aftershock.

4 *iP·Z* 08 02 06

4 *iP·Z* 08 17 56

4 *iP·Z* 09 09 08

4 *eP·Z* 10 51 33

4 *iP·Z* 11 28 20
 Mongolia aftershock.

4 *iP·Z* 13 29 01
iP·Z 29 07
 $\Delta = 50^\circ$. Mongolia.

4 *eP·Z* 18 41 43
iS·Z 42 10
 Near.

4 *iP·Z* 18 54 03

4 *iP·Z* 22 25 49 +
 $\Delta = 50^\circ$. Mongolia.

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December

4 *eP* 23^h50^m46^s
 $\Delta = 50^\circ$. Mongolia.

5 *iP·Z* 08 26 31

5 *iP·Z* 14 04 10 foreshock?
iP·Z 07 00
eS·Z 08 47
 $\Delta = 10^\circ$. Jan Mayen.

5 *iP·Z* 18 18 22
 $\Delta = 50^\circ$. Mongolia.

6 *iP·Z* 00 04 34 +
Near.

6 *iP·Z* 03 58 49 +
 $\Delta = 53^\circ$. Kurile Islands.

6 *iP·Z* 08 45 43 +
 $\Delta = 54^\circ$. Kurile Islands.

7 *eP·Z* 08 35 31
 $\Delta = 73^\circ$. Guatemala.

7 *iP·Z* 13 22 15 +

7 *iP·Z* 14 20 19 +
 $\Delta = 52^\circ$. Mongolia.

7 *iP·Z* 19 58 50
i·Z 58 59
iS·Z 59 18
Near.

8 *eP·Z* 06 21 53 -
 $\Delta = 50^\circ$. Mongolia.

8 *iP·Z* 12 04 08
iS·Z 04 40
Near.

8 *iP·Z* 12 26 59
 $\Delta = 63^\circ$. Honshu, Japan.

8 *iP·Z* 14 52 04
 $\Delta = 63^\circ$. Honshu, Japan.

8 *eP·Z* 15 38 06
 $\Delta = 50^\circ$. Mongolia.

8 *eP·Z* 16 35 35
Mongolia.

8 *iP·Z* 21 37 37 +
 $\Delta = 50^\circ$. Mongolia.

9 *eP·Z* 08 06 19
 $\Delta = 17^\circ$. Iceland.

December

9 *iP·Z* 22^h13^m49^s
 $\Delta = 30^\circ$. Yukon, Alaska.

11 *iP·Z* 22 04 06
i·Z 04 13
 $\Delta = 51^\circ$. Mongolia.

11 *iP·Z* 22 36 48 +
Near?

13 *iP·Z* 01 43 57 -
 $\Delta = 79^\circ$. $h = 100$ km. Colombia.

13 *eP·ZNE* 01 54 15
iS·N 02 01 45 -
L 05
 $\Delta = 53^\circ$. Iran.

13 *iP·Z* 20 34 44
 $\Delta = 46^\circ$. Aleutian Islands.

16 *L·NE* 17 51

17 *L·NE* 05 37

17 *eP·Z* 06 54 17
iS·ZNE 55 00

17 *ePP·NE* 14 09 22
isS·E 17 42
eSS·NE 25 55
 $\Delta = 112^\circ$. $h = 100$ km. Santa Cruz Islands.

18 *iP·Z* 20 48 07
iS·ZNE 48 34

23 *eP·Z* 12 42 35
 $\Delta = 47^\circ$. Atlantic Ocean.

24 *iP·Z* 01 05 02
iS·Z 05 30
Near.

25 *e·Z* 10 12 35

25 *iP·Z* 16 37 36
 $\Delta = 74^\circ$. Venezuela.

25 *e·Z* 20 55 37

26 *iP·Z* 10 32 30
i·Z 32 43
iS·Z 32 45

26 *ePKP·Z* 12 28 23
iSKP·Z 31 43
 $\Delta = 131^\circ$. Kermadec Islands.

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December

27 *iP·Z* 05^h11^m08^s
eS·Z 12 59
 $\Delta = 10^\circ$. Greenland Sea.
H: 05 08 46
 72°N 03°E

27 *eP·Z* 07 52 09 weak.

28 *iP·Z* 11 10 31
 Near.

29 *iP·Z* 04 26 46
iS·Z 27 12
 Near.

30 *eP·Z* 10 04 52

30 *iP·Z* 18 46 12
 $\Delta = 45^\circ$. Aleutian Islands.

30 *eP·Z* 18 50 51
iP·Z 51 35
i·Z 53 21
eS·Z 53 26
 Near.

December

31 *iP·Z* 00^h26^m34^s
iS·Z 28 32
 Near.

31 *e·Z* 00 56 48

31 *e·Z* 07 02 00

31 *eP·Z* 10 26 49
eS·N 31 01
L·NE 34
 $\Delta = 24^\circ$. Atlantic Ocean.

31 *eP·Z* 13 12 14
 $\Delta = 58^\circ$. Atlantic Ocean.

31 *ePKP·Z* 14 47 47 2^s; 1.1 mm.
 $\Delta = 144^\circ$. New Zealand.

31 *iP·Z* 22 30 45
iS·Z 31 05
 Near.

July 1958.

JØRGEN HJELME