

No. 14

GEODÆTISK INSTITUT

Jan.-Jul. 1963

Proviantgården · Copenhagen · Denmark

Bulletin of the seismological station

NORD

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

Lithologic foundation: calcareous greywacke

Instruments.

Willmore. Z. $T_p = 1$ sec, $T_g = 1/4$ sec. No attenuation.
Strobach. N and E. $T = 6$ sec, damping ratio = 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 those given by BCIS. The periods given are periods of full oscillations. For Z trace amplitudes are given. C means compression, D dilatation. Small local shocks are given on a separate list. Their estimated epicentral distance is less than 5 degree.

Note on the continuation of the station

The operation of the station was stopped on July 27, 1963, but the seismic station Nord continued its operation on October 27, 1963. The continuation took place in a new building, only 60 meters from the old one, and with new instruments, the World-Wide Standardized Seismographs.

Nord 1963

January

1 iP Z 4 17 13
 1 iP ZNE 23 46 41 C
 eS NE 52 30
 D = 40 h = 50 km
 Alaska Peninsula
 2 e Z 7 13 11
 3 e Z 2 02 30
 4 eP Z 0 36 04
 D = 81 h = 33 km
 Central Mid-Atlantic Ridge
 6 eP Z 17 32 27
 D = 34 h = 116 km
 Central Alaska
 6 eP Z 21 29 57
 D = 51 h = 33 km
 Kurile Islands Region
 7 eP Z 12 01 47
 D = 96 h = 42 km
 Molucca Passage
 8 eP Z 15 57 13
 D = 66 h = 177 km
 Kyushu Japan
 9 eP Z 3 25 13
 D = 79 h = 193 km
 Mariana Islands
 11 e Z 8 40 33
 11 ePKP Z 12 31 22
 D = 130 h = 33 km
 Off Coast of Southern Chile
 12 iP Z 3 52 39
 D = 81 h = 102 km
 Colombia
 13 e Z 1 10 22
 13 e Z 2 51 06
 15 eP Z 1 35 12
 eS NE 37 46
 iRg N 40 13
 D = 13 h = 33 km
 Iceland Region
 15 eP Z 2 45 10
 D = 85 h = 38 km
 Mariana Island

January

15 eP Z 5 26 06
 eS NE 28 20
 eRg N 30 58
 D = 13 h = 33 km
 Jan Mayen Island Region
 16 iPKP Z 3 33 44
 D = 147 h = 33 km
 South Pacific Cordillera
 16 iP Z 5 53 22
 D = 47 h = 38 km
 Adreanof Islands Aleutian Islands
 16 eP Z 6 50 46
 D = 28 h = 33 km
 North Atlantic Ocean
 16 eP Z 12 38 26
 D = 28 h = 33 km
 North Atlantic Ocean
 16 e Z 17 25 40
 17 iP Z 6 08 54
 D = 82 h = 207 km
 Luzon Philippine Islands
 17 eP Z 20 52 19
 18 iP Z 3 22 00
 D = 64 h = 425 km
 Near S. Coast of Southern Honshu
 18 e Z 11 39 42
 18 e Z 18 03 55
 21 e Z 4 18 08
 e Z 19 55
 24 eP Z 22 40 20
 D = 89 h = 67 km
 Mindanao Philippine Islands
 25 e Z 12 04 38
 25 eP Z 13 01 10
 D = 76 h = 190 km
 Mariana Islands Region
 26 eP Z 4 00 31
 eS Z 02 23
 D = 10 h = 33 km
 Jan Mayen Island Region
 27 e Z 2 21 59
 27 eP Z 19 43 33
 D = 46 h = 33 km
 Caspian Sea
 28 e Z 00 33 37

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January

- 28 iP ZNE 13 08 46 C
D = 42 h = 33 km
Alaska Peninsula
- 30 i Z 4 47 52
D = 42 h = 33 km
Alaska Peninsula
- 30 ePKP Z 10 29 16
D = 137 h = 33 km
South Sandwich Islands Region
- 30 iP Z 10 44 13
D = 62 h = 57 km
Nepal India Border Region
- 31 iP Z 15 15 36
D = 48 h = 33 km
Mediterranean Sea
- 31 eP Z 17 14 25
D = 46 h = 33 km
Caspian Sea

February

- 2 e Z 7 13 30
- 3 iP Z 14 26 10 C 8 mm
iS Z 26 38 21 mm
D = 3 h = 33 km
Eastern Greenland
- 3 iP Z 15 37 25 C 3 mm
eS Z 37 52 6 mm
- 4 e Z 16 35 22
- 4 eP Z 23 29 55
D = 50 h = 85 km
Kurile Islands
- 8 eP Z 10 10 25
D = 44 h = 33 km
East Coast of Kamchatka
- 13 eP Z 0 34 19
D = 74 h = 116 km
Near Coast of Guatemala
- 13 e Z 1 46 18
D = 75 h = 33 km
Arabian Sea
- 14 e Z 6 57 58
- 14 e Z 7 12 45
- 14 eP Z 7 18 23
D = 104 h = 197 km
Banda Sea

February

- 14 eP Z 12 21 24
D = 81 h = 33 km
Central Mid-Atlantic Ridge
- 14 eP Z 13 26 18
D = 39 h = 36 km
Yugoslavia
- 14 e Z 21 02 03
- 15 eP Z 10 26 24
D = 43 h = 33 km
Albania
- 15 iP Z 16 42 12
D = 89 h = 33 km
Northern Sumatra
- 16 e Z 4 51 06
- 16 eP Z 12 28 32
D = 54 h = 216 km
Hindu Kush Region
- 18 eP Z 14 34 19
D = 54 h = 225 km
Hindu Kush Region
- 21 eP Z 2 43 56
D = 64 h = 168 km
South of Honshu Japan
- 21 eP Z 17 23 35
D = 51 h = 33 km
Near Coast of Libya
- 21 e Z 20 35 43
D = 51 h = 33 km
Near Coast of Libya
- 22 eP ZNE 7 13 16
eLg NE 16 27
D = 11 h = 33 km
North of Severnaya Zemlya
- 22 eP Z 7 26 03
D = 12 h = 33 km
North of Severnaya Zemlya
- 22 e Z 10 21 02
- 22 eP Z 14 20 52
D = 43 h = 33 km
Greece Albania Border Region
- 23 e Z 15 14 29
- 23 eP Z 17 21 33
D = 49 h = 50 km
Kurile Islands Region

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February

- 24 iP Z 13 45 34 C
D = 73 h = 135 km
Guatemala
- 24 eP Z 22 44 40
D = 56 h = 33 km
North Atlantic Ridge
- 25 e Z 1 07 45
- 25 eP Z 17 22 23
D = 72 h = 33 km
South Western Ryu Kyu Islands
- 26 e Z 4 48 07

March

- 3 iP Z 23 09 48 C
D = 67 h = 491 km
Southeast of Shikoku Japan
- 4 iP ZNE 7 42 21 C 11 mm
D = 2 h = 33 km
North of Svalbard
- 4 e Z 8 50 36
- 4 e Z 8 55 00
- 4 eP Z 13 50 04
D = 72 h = 33 km
Taiwan
- 4 eP Z 15 19 02
D = 49 h = 42 km
Crete
- 4 eP Z 15 56 05
D = 91 h = 33 km
Peru Ecuador Border Region
- 5 i Z 05 56 44
D = 17
Possibly explosion Western Russia
- 5 eP Z 07 18 03
D = 91 h = 31 km
Near Coast of Northern Peru
- 7 e Z 6 43 16
- 7 ePKP Z 12 35 30
D = 130 h = 45 km
Off Coast of Southern Chile
- 8 eP Z 0 17 33
D = 14 h = 33 km
Queen Elisabeth Islands

March

- 8 eP Z 15 18 16
D = 81 h = 33 km
Central Mid-Atlantic Ridge
- 9 eP Z 6 53 34
D = 52 h = 31 km
Near E. Coast of Eastern Russia
- 9 e Z 9 02 20
- 10 iP Z 1 33 40
D = 40 h = 33 km
Kodiak Island Region
- 10 eP Z 3 04 54
D = 72 h = 33 km
Taiwan
- 10 i Z 7 31 44 C 4 mm
Near
- 10 eP Z 14 04 20
D = 94 h = 41 km
Molucca Passage
- 11 e Z 4 59 01
- 11 eP Z 7 35 47
D = 46 h = 33 km
Turkey
- 12 eP Z 15 20 25
D = 10 h = 33 km
Jan Mayen Island Region
- 12 eP Z 16 05 21 0.1 mm
eS Z 05 50 0.2 mm
D = 4
Greenland Sea
- 12 e Z 19 21 01
- 14 eP Z 8 12 05
D = 77 h = 51 km
Philippine Islands Region
- 14 eP Z 18 21 40
D = 44 h = 33 km
Unimak Region
- 15 eP Z 0 28 41
D = 88 h = 117 km
Mindanao Philippine Islands
- 16 eP ZNE 8 53 56
iS NE 9 01 23
D = 52 h = 26 km
Kurile Islands Region
- 16 e Z 15 24 43

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March

- 16 eP Z 22 37 56
D = 51 h = 73 km
West Pakistan
- 17 eP Z 14 25 29
D = 44 h = 78 km
Greece
- 19 eP Z 4 53 35 0.2 mm
D = 4 h = 33 km
Greenland Sea
- 21 eP Z 4 10 24
D = 61 h = 50 km
Honshu Japan
- 24 eP Z 2 21 21
D = 106 h = 33 km
Sumba Island Region
- 24 eP Z 9 56 04
D = 88 h = 51 km
Mindanao Philippine Islands
- 24 eP Z 12 53 14
D = 53 h = 33 km
Western Iran
- 24 eP Z 21 43 47
D = 47 h = 57 km
Andreanof Islands Aleutian Islands
- 25 ePKP Z 20 36 56
D = 154 h = 39 km
West of Macquarie Islands
- 25 eP Z 22 59 24
D = 93 h = 30 km
Off W. Coast of Northern Sumatra
- 25 e Z 23 12 20
- 26 ePKP Z 10 07 18
iPKS Z 10 44
D = 128 h = 45 km
Kermadec Islands
- 26 ePKP Z 13 44 01
D = 128 h = 42 km
Kermadec Islands
- 26 eP Z 19 56 58
D = 54 h = 110 km
Kurile Islands
- 26 eP Z 21 44 57
D = 62 h = 33 km
Sea of Japan
- 27 eP Z 12 43 35
D = 79 h = 176 km
Northern Colombia

March

- 28 eP ZNE 0 19 23
D = 15 h = 15 km
Iceland Region
- 28 eP Z 0 30 43
D = 15
Iceland Region
- 28 eP Z 1 03 14
D = 15 h = 33 km
Iceland Region
- 28 ePKP Z 11 31 30
D = 129 h = 38 km
Kermadec Islands
- 29 e Z 17 28 28
- 30 eP Z 17 01 18
D = 55 h = 33 km
Kurile Islands
- 31 ePKP Z 5 49 47
D = 128 h = 48 km
Kermadec Islands
- 31 e Z 6 57 04
D = 18
Possibly explosion Western Russia
- 31 eP Z 17 42 01
D = 93 h = 33 km
Off W. Coast of Northern Sumatra
- 31 ePKP Z 19 41 52
D = 128 h = 50 km
Kermadec Islands

April

- 1 eP Z 4 37 36
D = 53 h = 225 km
Eastern Sea of Japan
- 2 iP Z 16 26 57 D
epP Z 27 35
D = 45 h = 140 km
Fox Islands Aleutian Islands
- 3 eP Z 1 24 00
D = 66 h = 33 km
North Atlantic Ridge
- 3 e Z 5 37 13
e Z 38 26
- 3 ePKP Z 15 07 33
D = 147 h = 33 km
South Pacific Cordillera

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April

- 6 eP Z 11 25 57
D = 33 h = 39 km
Central Alaska
- 7 e Z 10 52 04
e Z 53 48
- 7 e Z 11 05 49
e Z 07 48
- 7 eP Z 11 18 25
eS Z 20 13
D = 10 h = 33 km
Jan Mayen Island Region
- 7 e Z 14 40 38
- 7 eP Z 15 18 45
D = 70 h = 33 km
Ryu Kyu Islands
- 7 eP Z 15 35 52
D = 45 h = 202 km
Fox Islands Aleutian Islands
- 8 eP Z 14 47 55
D = 55 h = 33 km
North Atlantic Ridge
- 11 e Z 13 20 09
- 12 iP Z 0 51 28
D = 60 h = 33 km
Tibet India Border Region
- 12 eP Z 19 48 53 0.2 mm
D = 4 h = 33 km
Greenland Sea
- 13 iP Z 2 33 53 D
D = 92 h = 125 km
Northern Peru
- 19 e Z 2 23 51
- 19 ePNE Z 7 45 14
IS N 53 18
D = 58 h = 33 km
Tsinghai Province China
- 19 ePKP Z 16 37 05
D = 140 h = 35 km
South Sandwich Islands Region
- 21 eP Z 4 49 44
D = 72 h = 35 km
Taiwan Region
- 23 e Z 2 59 52
D = 110 h = 141 km
Santa Cruz Islands

April

- 23 eP Z 10 06 09
D = 68 h = 30 km
Yunan Province China
- 23 eP Z 14 10 37
D = 42 h = 38 km
Albania
- 24 eP Z 13 43 23
D = 71 h = 10 km
Ryu Kyu Islands
- 26 e Z 3 50 50
- 27 eP Z 3 46 08
D = 14 h = 33 km
Iceland Region
- 28 eP Z 19 59 22
D = 54 h = 123 km
Afghanistan USSR Border Region
- 29 eP Z 21 52 43
D = 47 h = 56 km
Rat Islands Aleutian Islands
- 30 e Z 01 11 55
- May
- 1 e Z 5 24 42
- 2 e Z 23 06 12
- 4 eP Z 6 04 25
D = 46 h = 41 km
Andreanof Islands Aleutian Islands
- 10 eP Z 22 35 31
D = 88 h = 30 km
Ecuador
- 11 eP Z 18 01 06
D = 73 h = 33 km
Taiwan Region
- 12 iP Z 20 16 07 D
D = 40 h = 60 km
Kodiak Island Region
- 13 eP Z 12 55 29
D = 74 h = 60 km
Near Coast of Chiapas Mexico
- 15 eP Z 11 23 28
D = 42 h = 33 km
Albania
- 15 e Z 11 57 29

Nord 1963

May

15 eP Z 12 16 12
D = 43 h = 33 km
Azores Islands

17 iP Z 4 15 52
D = 53 h = 51 km
Kurile Islands

17 iP Z 6 21 24 D
D = 81 h = 99 km
Luzon Philippine Islands

17 e Z 17 23 19

19 ePKP Z 1 22 08
D = 131 h = 48 km
Near Coast of Southern Chile

19 iP Z 21 45 48
D = 59 h = 10 km
North Atlantic Ridge

19 e Z 22 15 22

20 ePKP Z 11 57 05
D = 129 h = 68 km
Kermadec Islands

22 eP Z 14 05 35
D = 50 h = 54 km
Kurile Islands

22 iP Z 15 55 54
D = 92 h = 82 km
Talaud Islands

22 e Z 16 03 43

22 eP Z 16 33 55
D = 46 h = 33 km
Aleutian Islands Region

23 eP Z 1 05 01
D = 95 h = 10 km
Molucca Passage

23 iP Z 15 25 01 C
D = 91 h = 124 km
Mindanao Philippine Islands

25 iP Z 8 50 37
D = 55 h = 88 km
Hokkaido Japan Region

25 e Z 22 32 50

26 eP Z 23 14 55
D = 43 h = 34 km
Kamchatka

27 e Z 0 31 59
e Z 32 23

May

27 eP Z 4 06 45
D = 43 h = 49 km
Kamchatka

29 iP Z 0 57 48
D = 59 h = 7 km
Southern Iran

29 eP Z 8 45 15
e Z 45 33
D = 61 h = 52 km
Southern Iran

30 eP Z 3 53 31
D = 49 h = 36 km
Kurile Islands

30 ePKP Z 7 16 03
D = 152 h = 33 km
West of Macquarie Island

June

8 e Z 19 01 48

8 i Z 21 04 21

8 i Z 21 42 55

8 e Z 21 49 49

8 eP Z 21 57 04
eS Z 58 07
D = 6 h = 33 km
Svalbard Region

9 e Z 0 37 00

9 e Z 9 40 12
D = 6 h = 63 km
Svalbard Region

10 ePKP Z 4 36 23
D = 154 h = 33 km
West of Macquarie Island

10 ePKP Z 6 58 51
D = 154 h = 19 km
West of Macquarie Island

11 eP Z 3 34 56
D = 53 h = 44 km
Afghanistan USSR Border Region

11 e Z 12 23 42

15 e Z 16 51 02

17 eP Z 18 39 07
D = 35 h = 28 km
Northeastern Alaska

Nord 1963

June

- 18 IP Z 4 13 30 C
D = 68 h = 53 km
Ryu Kyu Islands
- 19 IP Z 9 22 06 C
D = 92 h = 83 km
Talaud Islands
- 19 IP Z 10 58 20 C
D = 68 h = 51 km
India Eastpakistan Border Region
- 24 eP Z 4 33 45
D = 37 h = 52 km
Kenai Peninsula Alaska
- 24 eP Z 16 25 35
D = 46 h = 36 km
Fox Islands Aleutian Islands
- 26 eP Z 9 54 38
D = 92 h = 94 km
Talaud Islands
- 26 eP Z 17 54 47
D = 79 h = 34 km
South of Panama
- 27 eP Z 7 14 55
D = 35 h = 31 km
Southeastern Alaska
- 27 IP Z 15 44 54 C
D = 79 h = 33 km
Andaman Islands Region
- 28 eP ZNE 22 04 45
eS NE 12 09
D = 52 h = 12 km
Kurile Islands
- 28 eP Z 23 06 11
D = 52 h = 11 km
Kurile Islands
- 29 eP Z 00 03 02
D = 52 h = 33 km
Kurile Islands
- 30 e Z 22 13 59
D = 52 h = 22 km
Kurile Islands

July

- 4 ePKP Z 11 16 51
D = 124 h = 158 km
South of Fiji Islands
- 12 eP Z 15 37 14
D = 52 h = 33 km
Kurile Islands
- 13 IP Z 8 34 12
D = 58 h = 44 km
Southern Iran
- 14 eP Z 5 53 16
D = 74 h = 24 km
Near Coast of Venezuela
- 14 eP Z 17 29 18
D = 70
Ethiopia
- 16 eP ZNE 18 35 16
D = 43 h = 33 km
Western Caucasus
- 17 eP Z 12 05 04
D = 43 h = 33 km
Western Caucasus
- 17 e Z 17 23 58
- 18 ePKP Z 5 17 32
D = 142 h = 33 km
South Sandwich Islands Region
- 19 eP Z 5 52 54
i Z 53 32
D = 39 h = 33 km
Corsica
- 19 eP Z 9 10 57
D = 62 h = 70 km
Near Coast of Honshu Japan
- 20 e Z 0 17 40
D = 32 h = 33 km
Southern Yukon Territory Canada
- 20 ePKP Z 6 56 03
D = 155 h = 33 km
West of Macquarie Island
- 20 eP Z 15 11 04
D = 14 h = 49 km
Norwegian Sea
- 23 IP Z 6 27 27
D = 56 h = 91 km
Hokkiado Japan Region
- 24 eP Z 11 43 38
D = 72 h = 33 km
Taiwan

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July
 24 e Z 15 00 04
 25 iP Z 7 16 07 C
 D = 79 h = 152 km
 Northern Colombia
 25 e Z 7 50 24
 26 eP Z 4 25 03
 D = 42 h = 5 km
 Yugoslavia
 27 eP Z 6 05 49
 D = 39 h = 33 km
 Near South Coast of France

Comment.

Closed down on July 27, 1963,
 for later reopening.
 See frontpage.

Nord 1963
Local shocks

January

7	4	e	38	52		
11	12	e	40	50	e	41 25
14	18	i	19	08	i	19 27
16	18	i	22	58	e	23 24
19	6	e	20	40		
21	5	e	22	00		
23	1	i	07	05		
24	2	e	39	52	e	40 27
	6	e	47	24		
25	20	e	59	41		
28	11	e	11	27	e	12 01
31	13	e	31	07		

February

2	4	e	29	05	e	29 20	
3	14	i	26	10	i	26 38	8 mm, 21 mm
	15	e	10	06	e	10 34	
	15	i	37	25	e	37 52	3 mm, 6 mm
6	13	e	13	45	e	14 11	
7	4	e	58	14			
8	18	i	13	42			
12	17	i	34	16			
14	12	e	35	22	e	36 03	
	16	e	06	28			
15	4	e	52	43	e	53 09	
17	19	e	58	51	i	59 13	
19	10	e	04	23	e	04 42	
	13	e	21	35			
21	0	e	42	53	e	43 35	
	12	e	32	11			
22	4	e	08	57			
	7	e	42	41			
	8	e	11	38			
26	3	e	56	09			

March

4	7	i	42	21			11 mm
	7	e	59	36	e	59 58	
	11	i	01	23	i	01 41	
	16	e	05	03			
	16	e	11	40			
5	0	e	01	54	e	02 14	
	3	e	53	24			
6	1	e	26	14			
	8	e	39	06			
	8	e	49	26			
	22	e	16	42			
8	16	e	34	39			
	18	e	22	54	e	23 49	
10	7	i	31	44			4 mm
12	16	e	05	21	e	05 50	0.1 mm, 0.2 mm
16	4	e	41	34			
	8	e	06	29			
19	4	e	53	35			0.2 mm
22	15	i	12	23			
	23	e	33	35			
26	7	e	48	59	e	49 33	
30	22	e	50	08			

April

3	1	e	36	49			
	8	i	54	05	e	54 25	
5	17	e	08	56			
6	19	e	46	02			
7	6	e	32	26	e	34 14	
9	15	e	24	31			
10	2	i	57	21	e	57 40	3 mm, 6 mm
	15	i	37	09			
12	4	e	53	18	e	53 57	
	19	e	48	53			0.2 mm
18	19	e	12	46	e	13 22	
19	12	e	23	00			
	21	e	25	21	e	25 41	
24	18	e	38	38	e	39 13	
27	0	e	47	58			
	14	i	58	58			
28	7	e	55	28			
	12	e	30	07	e	30 32	
29	4	i	46	58			
	12	e	56	07			

May

3	8	e	16	47			
	14	e	06	31			
11	15	i	15	52	e	16 21	
13	7	i	36	43			
	7	e	51	01	e	51 28	
16	6	i	43	24			
	10	i	09	30	e	09 49	
19	12	e	26	38	e	27 15	
20	1	e	00	30	e	00 46	
	1	e	41	01	e	41 42	
22	23	e	20	47	e	21 07	
24	5	e	45	01	e	45 27	
	12	i	06	02	e	06 35	
	12	i	38	25	e	38 42	
25	4	e	50	28			
27	20	e	50	50	i	51 12	
29	22	i	17	04	i	17 32	

June

9	0	e	51	27	e	52 08	
	4	i	43	27	e	43 48	
12	6	e	19	40	i	20 05	
14	0	e	40	37	e	41 03	
	10	e	01	04	e	01 36	
24	18	e	28	51	e	29 10	
25	8	e	47	48	e	48 27	

July

5	6	e	08	48	e	09 18	
12	7	e	33	18	e	33 53	
17	23	e	31	04	e	31 26	
22	5	e	09	32			
	5	e	15	38			
23	10	e	45	16	e	45 42	
26	17	e	26	04	e	26 45	