No. 80 **Jan.-June 1960**

GEODÆTISK INSTITUT

Proviantgården · Copenhagen · Denmark

Bulletin of the seismological station

KØBENHAVN

$\varphi = 55°41'$ N. $\lambda = 12°26'$ E. $h = 13$ m.

Lithologic foundation: chalk

Instruments

Galitzin-Wilip. *N*, *E*, and *Z*. $T_p = T_g = 12^1/_2$ sec, $\mu^2 = 0$, $\frac{Ak}{\pi l} = 260$ sec.$^{-1}$ or V_{max} = abt. 1000.

Benioff. *Z'*. $T_p = 1$ sec, $T_g = ^1/_4$ sec, V_{max} = abt. 30 000.

Wiechert 1000 kg. *N* and *E*. $T = 8^1/_2$ sec, $\nu = 6{:}1$, $\varrho = 0.3$ mm, $V_0 = 210$.

Wiechert 1300 kg. *Z*. $T = 6$ sec, $\nu = 4{:}1$, $\varrho = 0.3$ mm, $V_0 = 150$.

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. C means compression and D dilatation. The magnitudes given (M) are computed from the readings. Unless otherwise stated, the periods and amplitudes are due to readings on the Galitzin instruments.

København 1960

January

2 $eP \cdot Z'$ $5^h19^m30^s$
$\Delta = 85°$. Sumatra.

2 $L \cdot NE$ 13 17

3 $iP \cdot Z'$ 11 32 35 C
$L \cdot NE$ 47.5
$\Delta = 46°$. Sinkiang Province, China.

3 $iP \cdot Z'Z$ 20 23 11 D
$iS \cdot NE$ 26 10 N: –, E: –.
$\Delta = 16°$. $h = 250$ km. Tyrrhenian Sea.

4 $L \cdot NE$ 6.7

4 $eP \cdot Z'$ 12 55 03
$L \cdot NE$ 59.2
$iLg \cdot Z'N$ 13 00 16
$\Delta = 14°$. Rumania.

7 $L \cdot NE$ 14 30

8 $L \cdot NE$ 15 46

9 $eS \cdot ZNE$ 4 07.8
$L \cdot NE$ 11
$\Delta = 22°$. Turkey.

9 $iP \cdot Z'Z$ 7 31 41 C
$\Delta = 43°$. $h = 150$ km. Hindu Kush.

11 $L \cdot NE$ 3 13

11 $L \cdot NE$ 3 50

12 $L \cdot NE$ 2 34

12 $L \cdot NE$ 4 07

13 $iP \cdot Z'Z$ 15 54 11 C
$iSKS \cdot E$ 16 04 43 –
$iS \cdot N$ 05 39 –
$iSS \cdot NE$ 12 39 N: +, E: –.
$L \cdot NE$ 22
$M \cdot NE$ 26 20^s. N: 110 μ, E: 50 μ.
$iG2 \cdot ZN$ 17 23 48 N: 25^s, 85 μ.
$\Delta = 100°$. $h = 100$ km. $M = 7.6$. Peru.

13 $iP \cdot Z'$ 16 41 13 C
$\Delta = 73°$. Aleutian Islands.

14 $L \cdot NE$ 21 55

15 $iP \cdot Z$ 9 44 03 C
$iSKS \cdot E$ 54 22
$iS \cdot N$ 55 41
$L \cdot NE$ 10 12
$\Delta = 101°$. $h = 150$ km. Peru.

January

16 $iPKP \cdot Z'$ $12^h49^m28^s$ D
$\Delta = 144°$. $h = 600$ km. Fiji Islands.

16 $iP \cdot Z'$ 20 59 31 C
$\Delta = 61°$. $h = 150$ km. Alaska.

23 $L \cdot NE$ 5 32

23 $L \cdot NE$ 8 26

23 $L \cdot NE$ 18 50

24 $L \cdot NE$ 5 28

25 $L \cdot NE$ 17 39

26 $eP \cdot Z'$ 9 48 41
$iPcP \cdot Z'$ 48 53 C
$\Delta = 75°$. Kurile Islands.

26 $eP \cdot Z'$ 9 57 21
$i \cdot Z$ 57 26 D
$eS \cdot NE$ 10 01 40
$L \cdot NE$ 04.5
$\Delta = 25°$. Turkey.

26 $eP \cdot Z'$ 13 10 30
$L \cdot NE$ 17
$\Delta = 22°$. Turkey.

26 $iP \cdot Z'$ 20 30 04 C
$\Delta = 13°$. $h = 150$ km. Rumania.

26 $e(PKP) \cdot Z'$ 22 41 20

31 $iP \cdot Z'Z$ 5 20 22
$e \cdot Z'Z$ 20 39
$eS \cdot NE$ 30 17
$e(ScS) \cdot N$ 30 41
$eSS \cdot NE$ 35.5
$L \cdot NE$ 48
$\Delta = 79°$. Japan.

February

1 $iP \cdot Z'Z$ 12 04 32 C
$i \cdot Z'$ 04 34 D
$eS \cdot NE$ 08 38
$L \cdot NE$ 11
$\Delta = 23°$. Crete.

2 $e \cdot Z'$ 12 39 30
$i(S) \cdot Z'NE$ 39 53
$\Delta = 14^1/_2°$. Karelia, Finland.

3 $L \cdot NE$ 0 26

4 $L \cdot NE$ 4 43

February

4 *eP·Z′Z* 17h02m19s
eS·NE 12 15
L·NE 29
Z′ masked by strong microseisms.
$\Delta = 77°$. Japan.

4 *L·NE* 21 39

8 *L·NE* 13 46

18 *iP·Z′* 21 46 18
L·NE 22 15
$\Delta = 69°$. Kamchatka.

19 *iP·Z′Z* 10 44 37 *C*
ipP·Z′Z 45 23
isP·ZE 45 47 *C*
ePP·Z 46 22
ipPP·Z 46 55 *D*
isPP·ZE 47 24 *D* *Z*: 8s, 20 μ.
iS·ZNE 50 50 *Z*: +, *N*: +, *E*: 10s, − 40 μ.
esS·NE 52 01
iSS·ZNE 54 04 10s. *Z*: 35 μ, *E*: 75 μ.
$\Delta = 43°$. *h* = 200 km. Hindu Kush.

21 *eS·NE* 8 22.2
L·NE 24
$\Delta = 21°$. Algeria.

21 *L·NE* 21 46

22 *L·NE* 21 13

23 *L·NE* 0 40

23 *iP·Z′* 2 17 35
$\Delta = 43°$. *h* = 200 km. Hindu Kush.

23 *eP·Z* 7 38 38
eS·NE 42 00
L·NE 43.4
$\Delta = 18°$. Greece.

23 *L·NE* 7 57

23 *L·NE* 8 57

24 *L·NE* 22 33

26 *eP·Z* 23 41 03
L·NE 24 05

27 *L·NE* 8 54

February

29 *eP·Z* 23h46m27s
eS·NE 51 27
L·NE 55.3
M 57 20s. *N*: 18 μ, *E*: 30 μ.
$\Delta = 30°$. Extremely surfacenear. *M* = 6.0.
Agadir, Marocco.

March

2 *eP·Z′* 22 01 54
e·Z 02 01
L·NE 09
$\Delta = 26°$. Mid Atlantic Ridge.

2 *e(P)·Z′* 23 31 58

4 *iP·Z′* 2 27 37 *C*
e·Z′ 27 44
i·Z′ 27 49 *D*
$\Delta = 75°$. Aleutian Islands.

4 *iP·Z′Z* 4 04 59 *C*. *Z*: 5s, 2.6 μ.
eS·E 14 41
ePS·NE 15 41
eSS·NE 19.8
L·NE 31
$\Delta = 78°$. *h* = 100 km. Japan.

4 *eP·Z′Z* 16 29 29
L·NE 34.4
$\Delta = 17°$. Jan Mayen.

4 *iP·Z′* 21 17 56
$\Delta = 79°$. Nicobar Islands.

5 *eP·Z′* 11 34 33
L·NE 58
$\Delta = 55°$. Nepal.

5 *ePP·Z* 14 08.0
ePPP·ZE 10.0
e·NE 14.8
e·E 21.6
L·NE 37
$\Delta = 104°$. Halmahera.

6 *L·NE* 3 15

6 *L·NE* 4 53

7 *L·NE* 12 18

8 *iPKP·Z* 16 52 36 5s, − 17 μ.
epPKP·Z 53 39
iPP·Z 55 25 5s, − 6 μ.
iSKP·Z 55 47 7s, + 13 μ.
iPKS·NE 56 12 7s, *N*: − 7 μ, *E*: − 7 μ.
$\Delta = 137°$. *h* = 250 km. New Hebrides Islands.

March				
10	*L·NE*	0h36m		
12	*eP·ZNE*	11 57 38		
	i·Z′	57 50	*C*	
	eS·NE	12 00 21		
	L·NE	01.5		
	i·Z	02 46		
	Δ = 15°. Yugoslavia.			
12	*ePKP·Z′Z*	20 49 37		
	ePP·ZNE	51 06		
	eSKS·E	56 46		
	eSKKS·NE	58 12		
	ePS·E	21 00 34		
	e·E	01 06		
	ePPS·ZNE	02 18		
	eSS·NE	08.2		
	L·NE	28		
	Δ = 120°. New Britain.			
14	*iP·Z′*	1 04 33	*D*	
	epP·Z′	04 50		
	Δ = 73°. *h* = 60 km. Japan.			
14	*iP·Z′*	20 21 59	*D*	
	i·Z′	22 11		
	Δ = 38°. Persian Gulf.			
15	*eP·Z′*	9 32 34		
	e·Z′	32 47		
	eS·NE	42 08		
	L·NE	59		
	Δ = 74°. Aleutian Islands.			
16	*ePP·ZN*	18 01 44		
	ePKS·NE	02 32		
	L·NE	53		
	Δ = 139°. Samoa Islands.			
20	*L·NE*	14 17		
20	*iP·Z′ZNE*	17 19 18	*C*	
	i·Z	19 25	*D*, 12s, 24 μ.	
	iS·NE	29 01	*N*: +, *E*: +.	
	iSKS·N	29 25	+	
	iScS·NE	29 31	*N*: −, *E*: −	
	L·NE	41		
	M·NE	50	20s, *N*, *E* ∾ 340 μ.	
	Δ = 76°. *M* = 8. Japan.			
21	*iP·Z′Z*	0 46 41	*C*	
	L·NE	1 13		
	Δ = 76°. Japan.			
21	*eP·Z′*	9 30 13		
	eS·NE	40.0		
	L·NE	57		
	Δ = 76°. Japan.			
March				
23	*eP·Z′Z*	0h35m12s		
	iS·NE	45 07	*E*: +.	
	L·NE	1 01		
	M·NE	07	20s. *N*: 90 μ, *E*: 110 μ.	
	Δ = 76°. *M* = 7¼. Japan.			
23	*iP·Z′*	1 19 08	*D*	
	Δ = 76°. Japan.			
23	*eP·Z′*	2 03 31		
	Δ = 76°. Japan			
23	*iP·Z′*	2 21 00	*D*	
	Δ = 76°. Japan.			
23	*eP·Z′*	8 58 34		
	Δ = 76°. Japan.			
23	*eP·Z′*	22 34 29		
	eS·E	44 16	Wiechert	
	L·NE	23 03	–	
	No Gal.-records.			
	Δ = 76°. Japan.			
23	*ePn·Z′*	23 11 13		
	iP·Z′*	11 33		
	iPg·Z′	12 01		
	i·Z′	12 04		
	i·Z′	12 05		
	iRg·Z′	14 34		
	Δ = 9½°. Switzerland.			
24	*eP·Z′*	6 05 57		
	Δ = 73°. Kurile Islands.			
27	*ePP·ZN*	4 10 15		
	ePKS·ZNE	11 18		
	i·E	11 37		
	eSKS·E	14 40		
	L·NE	55		
	Δ = 133°. New Hebrides Islands.			
27	*iPP·ZN*	9 19 47	*C*	
	iPKS·ZNE	20 50	*Z*: −, *N*: −, *E*: −.	
	L·NE	10 01		
	Δ = 133°. New Hebrides Islands.			
27	*iPKP2·Z′*	23 48 38	*D*	
	e·Z′	49 16		
	Δ = 159°. *h* = 250 km. New Zealand.			
28	*iP·Z′Z*	0 26 23	*C*	
	i·Z′Z	26 30		
	eSKS·E	36 47		
	iS·NE	37 08	*E*: +	
	ePS·E	38 04		
	L·NE	53		
	Δ = 87°. Panama.			

March

28 *iPKP·Z′* 12h57m34s *C*

28 *L·ZNE* 21 01

29 *ePKP·Z′Z* 6 50 27
ePKS·NE 54.0
L·NE 7 33
Δ = 137°. New Hebrides Islands.

29 *L·NE* 23 11

30 *ePKP·Z′* 11 09 12
ePP·Z 11 36
ePKS·NE 12 40
L·NE 53
Δ = 133°. New Hebrides Islands.

30 *eP·Z′Z* 13 03 19
L·NE 07
Δ = 19°. Greenland Sea.

30 *ePKP·Z′Z* 15 39 06
ePP·Z 42 24
L·NE 16 32
Δ = 144°. Loyalty Islands.

31 *iP·Z′* 3 13 56 *D*
L·NE 45
Δ = 76°. Japan.

31 *e(S)·NE* 20 19 24 *N*: 10s, 3 μ.
L·NE 32
Δ = 85°. Gulf of California.

April

1 *ePKP·Z′* 3 13 39
Δ = 145°. h = 650 km. Fiji Islands.

1 *L·NE* 14 42

2 *iP·Z′* 22 42 32 *D*
L·NE 54
Δ = 32°. Iran.

2 *eP·Z′* 23 39 48
L·NE 53
Δ = 33°. Iran.

7 *iPKP·Z′* 14 06 19
Δ = 147°. h = 500 km. Fiji Islands.

8 *iPKP·Z′* 0 15 12 *D*
Δ = 144°. h = 200 km. Tonga Islands.

10 *L·NE* 0 49

13 *L·NE* 8 33

April

13 *L·NE* 13h20m

15 *ePKS·ZNE* 22 28 01
L·NE 23 15
Δ = 133°. New Hebrides Islands.

17 *iPKP·Z′* 22 08 08 *D*
Δ = 143°. h = 500 km. Fiji Islands.

20 *iP·Z′* 19 30 55 *D*
Δ = 44°. h = 200 km. Hindu Kush.

24 *ePPP·ZE* 3 42 33
iSKS·E 45 00
ePS·E 49 04
Δ = 102°. h = 600 km. Java Sea.

24 *iP·Z′Z* 12 22 15 *D*
eS·E 28 21
L·NE 34
Δ = 41°. Lar, Iran.

26 *L·NE* 7 20

28 *L·NE* 19 54.8

29 *iP·Z′Z* 19 46 03 *C*
iPP·Z′ZE 50 16
iSKS·E 56 41
L·NE 20 21
Δ = 102°. Celebes.

30 *ePP·Z′ZE* 4 19 36
iSKS·E 26 03
ePS·ZE 28.5
L·NE 53
Δ = 102°. Celebes.

30 *L·NE* 10 25

30 *iPKP·Z′* 15 31 57
Δ = 137°. Fiji Islands.

Maj

2 *L·NE* 18 49

3 *L·NE* 8 25.3

3 *iP·Z′* 22 34 48
epP·Z′ 35 28
Δ = 82°. h = 150 km. Japan.

5 *eP·Z′* 11 37 07
L·NE 12 02
Δ = 69°. Kamchatka.

6 *iP·Z′* 18 58 26 *D*
Δ = 68°. Kamchatka.

May				
11	*ePP·Z*	18h55m0		
	e·E	19 02 09		
	eSS·N	10.2		
	L·NE	30		
	$\Delta = 108°$. Ceram Sea.			
12	*eP·Z'Z*	22 45 09		
	eSKS·NE	55 39		
	eS·NE	55 52		
	L·NE	23 08		
	$\Delta = 86°$. Panama.			
13	*iP·Z'ZN*	16 18 25	*C. Z*: 6s, 2.6 μ.	
	iPcP·ZN	18 40		
	eS·NE	27 30		
	eScS·NE	28 21		
	L·NE	38		
	$\Delta = 70°$. $M = 6^1/_4$. Alaska Peninsula.			
13	*e·ZN*	16 46 41		
14	*iP·Z'Z*	22 30 57	*Z'*: *D*. *Z*: *C*.	
	ePcP·Z	31 20		
	L·NE	56		
	$\Delta = 68°$. Kamchatka.			
15	*L·NE*	14 13		
18	*iP·Z'ZNE*	6 47 14	*C*	
	epP·Z	47 35		
	e·ZNE	53 29	10s, very regular.	
	eS·NE	57.2		
	iSKS·E	57 29		
	L·NE	7 15		
	$\Delta = 80°$. $h = 100$ km. Ryukyu Islands.			
18	*eP·Z'Z*	8 48 46		
	eS·NE	54 55		
	L·NE	9 04		
	$\Delta = 41°$. Persian Gulf.			
19	*iP·Z'ZE*	2 14 52	*C*	
	epP·ZE	15 27		
	ePP·E	16 59		
	iS·NE	21 19		
	eSS·NE	24 35		
	$\Delta = 43°$. $h = 200$ km. Hindu Kush.			
19	*eP·Z'Z*	10 24 49		
	eSKS·E	35 25		
	$\Delta = 85°$. Mascarene Islands.			
20	*iP·Z'*	4 22 07		
	eS·E	28 17		
	L·N	35.3		
	$\Delta = 41°$. Persian Gulf.			
May				
20	*ePKP·Z'Z*	11h32m19s		
	i·ZNE	32 23	*D*	
	iPP·N	35 53		
	L·NE	12 22		
	$\Delta = 148°$. Norfolk Island.			
21	*eS·E*	6 49 06		
	L·NE	52		
	$\Delta = 19°$. Greece.			
21	*eP·Z*	10 18 00		
	ePKP·Z'Z	21 41		
	iPP·ZNE	22 47		
	eSKS·NE	28 43		
	eSKKS·N	30 07		
	ePS·NE	32 42		
	i·Z	32 54		
	ePKPPKP·Z	40 38		
	L·NE	53		
	$\Delta = 118°$. $M = 8^1/_4$. Chile.			
22	*L·NE*	4 52		
22	*L·NE*	7 05		
22	*eP·Z*	10 45 50		
	ePP·Z	50 27		
	eSKS·N	56 34		
	ePS·NE	11 00 10		
	L·NE	20		
	$\Delta = 118°$. Chile.			
22	*eP·Z*	10 47 51		
	ePKP·Z'	51 32		
	ePP·ZNE	52 37		
	eSKS·NE	58 42		
	ePS·ZNE	11 02 44		
	$\Delta = 118°$. Chile.			
22	*iP·Z*	19 11 09	*C*	
	ePKP·Z'Z	14 44		
	iPP·Z'Z	15 49		
	i·Z	16 15	*D*	
	eSKS·NE	21 42		
	ePS·NE	25 56		
	$\Delta = 118°$. Chile.			
22	*eP·Z*	19 25 47		
	$\Delta = 118°$. Chile.			
22	*eP·Z*	19 26 27		
	ePKP·Z'Z	29 59		
	ePP·NE	31 24		
	L_R 20s. *Z'*	20 33	abt. 700 μ.	
	$\Delta = 118°$. $M = 8.4$. Chile.			
22	*ePKP·Z'*	22 32 50		
	$\Delta = 119°$. Chile.			

May				
23	*iPKP·Z′*	0h15m00s	*D*	
	$\Delta = 122°$. Chile.			
23	*ePP·Z*	0 45	52	
	e·Z′Z	47	43	
	L·NE	1 20		
	$\Delta = 120°$. Chile.			
23	*ePP·Z*	3 06	57	
	ePS·ZE	17.0		
	L·NE	46		
	$\Delta = 120°$. Chile.			
23	*ePP·Z*	5 33	36	
	iSKS·NE	39	37	
	ePS·E	43	31	
	L·NE	6 12		
	$\Delta = 118°$. Chile.			
23	*ePP·Z*	7 30	20	
	eSKP·ZE	31	40	
	eSKKS·E	37	24	
	e·N	38	34	
	ePPS·NE	42	02	
	L·NE	8.2		
	$\Delta = 128°$. Chile.			
23	*eSKS·E*	10 18.1		
	ePS·E	22.2		
	L·NE	53		
	$\Delta = 118°$. Chile.			
23	*L·NE*	11 42		
23	*L·NE*	15 06		
23	*L·NE*	21 13		
24	*ePKP1·Z*	15 06	42	
	ePKP2·Z	07	29	
	eSS·N	31	19	
	L·NE	55		
	$\Delta = 160°$. New Zealand.			
24	*L·NE*	21 36		
25	*L·NE*	5 43		
25	*L·NE*	9 28		
	Forerunners in the papershift.			
26	*iP·ZNE*	5 14	02	*C*
	iS·ZE	16	57	
	L·NE	18.8		
	$\Delta = 16^1/_2°$. Albania.			
26	*iP·Z′Z*	20 15	37	*Z′*: −, *Z*: +.
	i·Z′Z	15	57	*Z′*: +, *Z*: −.
	$\Delta = 63°$. Two shocks? Assam.			
May				
26	*L·NE*	21h03m		
28	*L·NE*	0 09		
28	*L·NE*	4 17		
28	*L·NE*	12 56		
29	*ePP·ZNE*	7 59	16	
	ePPP·ZE	8 01	57	
	eSKS·NE	05	18	
	eSKKS·E	06	50	
	ePS·ZNE	09	27	
	L·NE	38		
	$\Delta = 118°$. Chile.			
29	*L·N*	22 28		
31	*eP·Z′Z*	0 33	02	
	eS·NE	40	32	
	$\Delta = 53°$. Deeper than normal. Gulf of Aden.			
31	*ePKP·Z′*	2 58	55	
	ePPP·ZE	3 03	09	
	ePS·ZE	10	21	
	L·NE	36		
	$\Delta = 120°$. Chile.			
31	*eP·Z′ZE*	11 13	11	
	i·ZNE	13	19	
	iS·NE	21	59	
	ePS·NE	22	15	
	eSKS·NE	23	04	
	L·ZNE	34		
	$\Delta = 66°$. Leeward Islands.			
June				
1	*L·NE*	6 03		
2	*ePKP·Z*	6 17	10	
	L·NE	57		
	$\Delta = 125°$. Chile.			
2	*ePP·ZNE*	8 07	29	
	ePS·NE	17.2		
	L·NE	45		
	$\Delta = 120°$. New Britain.			
2	*L·NE*	18 42		
2	*iPKP·Z*	19 17	41	*D*
	$\Delta = 144°$. $h = 550$ km. Fiji Islands.			
2	*iPKP·Z′*	20 07	05	
	$\Delta = 144°$. $h = 550$ km. Fiji Islands.			

June				
3	*eP·Z′Z*	16h29m36s		
	ePP·Z	32 23		
	eS·N	39 03		
	L·NE	55		
	Δ = 73°. Japan.			
4	*L·NE*	3 13		
4	*L·NE*	8 25		
4	*L·NE*	11 20		
5	*ePP·Z*	19 54 34		
	L·NE	20 55		
	Δ = 155°. Kermadec Islands.			
6	*iP·Z′Z*	1 29 47	*D*	
	eS·NE	39 40		
	L·NE	57		
	Δ = 77°. California.			
6	*ePKP·Z′*	6 14 44		
	i·Z	14 50		
	i·Z	17 51		
	iPPP·ZE	19 06		
	iPPS·NE	27 37		
	M·NE	7 09	20s. *N*: 80 *μ*, *E*: 180 *μ*.	
	Δ = 124°. *M* = 7¾. Chile.			
6	*L·NE*	18 21		
6	*ePKP·Z′*	23 48 53		
	Δ = 147°. *h* = 600 km. Fiji Islands.			
7	*iP·Z′Z*	13 08 17	*C*	
	Δ = 67°. Kamchatka.			
7	*eP·Z*	15 44 17		
	Δ = 53°. Arabian Sea.			
8	*iP·Z′Z*	16 27 10	*D*	
	ePP·ZE	28 29		
	eS·E	33 08	+	
	L·NE	38		
	Δ = 39°. North Atlantic Ocean.			
8	*L·NE*	22 50		
9	*L·NE*	2 57		
9	*L·NE*	8 32		
9	*iPKP·Z*	11 43 26	*D*	
	ePP·ZNE	46 16		
	ePKS·NE	47 02		
	ePPP·E	49 45		
	L·NE	12 34		
	Δ = 139°. New Hebrides Islands.			

June				
9	*iP·Z*	17h54m07s	*D*	
	eS·E	59 14		
	L·NE	18 02		
	Δ = 31°. Azores Islands.			
10	*ePKP·Z*	21 31 39		
	ePP·Z	34 32		
	ePKS·ZN	35 13		
	eSS·E	52.7		
	L·NE	22 27		
	Δ = 140°. Samoa Islands.			
11	*ePKP·Z*	15 33 13		
	ePP·ZNE	34 58		
	L·NE	16 12		
	Δ = 129°. New Guinea.			
11	*ePKP·Z*	16 56 44		
	L·NE	17 38		
	Δ = 129°. New Guinea.			
12	*L·NE*	23 18.5		
13	*L·NE*	6 52		
15	*iP·Z*	15 48 36	*C*	
	ipP·ZE	48 49		
	iPP·ZN	51 25		
	eS·N	58 15		
	L·NE	16 13		
	Δ = 76°. *h* about 50 km. Japan.			
15	*ePKP·Z*	23 51 21		
	ePP·Z	55 21		
	Δ = 149°. *h* = 600 km. Fiji Islands.			
16	*L·NE*	0 14		
16	*L·NE*	0 21		
17	*iP·Z′Z*	16 47 06	*Z′*: *D*, *Z*: *C*.	
	i·Z′	49 09		
	eS·N	56 31		
	L·NE	17 12		
	Δ = 73°. Aleutian Islands.			
20	*eP·Z*	2 16 16		
	ePP·ZE	21 12		
	ePPP·Z	23.5		
	eSKS·E	27 01		
	eSKKS·E	28 20		
	iPS·ZE	31 06		
	ePPS·ZN	32.4		
	L·NE	55		
	M·NE	3 10	20s. *N*: 35 *μ*, *E*: 80 *μ*.	
	Δ = 118°. *M* = 7½. Chile.			

June

20 *ePKP·Z* 13h18m32s
iPP·ZNE 19 47
iPPP·ZNE 22 23
iSKS·E 25 31
iPS·E 29 43
L·NE 56
M·NE 14 10 20s. *N*: 18 μ, *E*: 40 μ.
$\Delta = 119°$. $M = 7$. Chile.

21 *L·NE* 22 33

22 *e(P)·ZNE* 14 02 53
L·NE 10
$\Delta = 18°$. Denmark Strait.

22 *iP·Z'Z* 16 21 44 *Z'*: *D*, *Z*: *C*.
eS·NE 29 30
L·NE 46
$\Delta = 57°$. Arabian Sea.

23 *e·Z'* 23 41 59
Kamchatka?

24 *i·Z'* 3 50 03
Possibly earlier phases in the microseisms.
$\Delta = 6°$. Sweden.

June

25 *ePKP·Z'* 2h22m38s
$\Delta = 154°$. Kermadec Islands.

25 *eP·Z'* 14 06 01
$\Delta = 83°$. Columbia.

25 *e(S)·Z'* 14 31 45
i·Z' 31 52
L·NE 33.2
$\Delta = 6°$. Belgian–Netherlands border.

25 *ePKP·Z'Z* 15 01 48 *C*
ePP·ZN 15 34
L·NE 53
$\Delta = 154°$. Kermadec Islands.

25 *L·NE* 20 21

27 *ePP·Z* 17 14 27
L·NE 18 17
$\Delta = 155°$. Kermadec Islands.

29 *L·NE* 3 00

29 *L·NE* 10 36

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