

LJUBLJANAJan - March  
1965.

University of Ljubljana  
Astronomical and Geophysical  
Observatory,  
Ljubljana, Trg revolucije 11,  
P.O.B.01-20, Yugoslavia

1965

P R E L I M I N A R Y   S E I S M O L O G I C A L  
B U L L E T I N  
(January - March )  
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PRELIMINARY SEISMOLOGICAL BULLETIN  
from January 1 to March 31, 1965

Station: Ljubljana (LJU)- Coordinates:  $46^{\circ} 02.6' N$  Lat.  
 $14^{\circ} 32.0' E$  Long.

Geocentric direction cosines:  $a=+ 6743$ ,  $b=+1748$ ,  $c=+ 7175$ ,  
 $d=- 8$ ,  $h=- 4$ ;

Height above mean sea level: 396 m;  
Lithologic foundation: sandstone (carbon);

Instruments:

Wiechert, horizontal astatic seismograph,  $M=200$  kg, mechanical registration, 16 mm/min;

Constants (December 15, 1964):

Component	To	v:1	r/ $T_0^2$	V
N-S	4.9	2.2:1	0,0054	83
E-W	4.9	2.6:1	0.0047	86

Hiller-Stuttgart, vertical component Z with galvanometrical recording;  $To=1.5$  sec,  $Tg=1.5$  sec,  $D1=D2=1$ ,  $V_{max}=10$  150 x, registration speed: 60 mm/min.

Note: Periods of seismic waves are given in seconds, the amplitudes in microns; sign + means compression, movement of ground towards north or east, sign - means dilatation or movement towards south or west. All times are given in GMT. Time signals are received one or two times daily from Pontoise, Potsdam or Moscow and are registered on a chronograph. Wherever possible time readings up to one tenth of a second are given. Macroseismic data are given in Mercalli-Cancani-Sieberg (MCS) intensity scale, macroseismic rays in kilometers.

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1 eZ P 12 59 12, USCGS: H= 12 46 43.4, 23.5 N, 121.2 E, h=33 km, Taiwan. M=5.2 (CGS).

1 eZ Pn 19 09 24, iZ Pg 19 09 26.7, iZ Sn 19 09 49.6, iZ Sg 19 09 54.8, D=220 km. BCIS: H= 19 08 51, 47.7 N, 16.1 E, aftershock of the seism on October 27, 1964 at 19 h 46 m. Wien: Austria. Felt in Semmering and Retteneng (Steiermark),  $4^{\circ}$  MCS at Prein, Neukirchen, Edlitz (Lower Austria).

1 eZ P 21 41 36, iZ! 21 41 52.2, eZ S 21 43 52, D=1450 km,

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- 1 (cont.) BCIS: H= 21 38 32, 35.7 N, 4.4 E, M=5.5 (Strasbourg), 4.9 (Collmberg). Algeria; Hodna, around M'Sila; 4 killed, 40 injured, important damage. USCGS: H= 21 38 29.2, 35.7 N, 4.4 E, h=10 km. Algeria. 4 killed, 40 injured and major property damage at M'Sila. M=5 1/4-5 1/2 (PAL), 5.2 (CGS).
- 2 iZ Pg 10 40 46.7, iZ! Sg 10 40 48.6, D=15 km, not felt.
- 2 eZ P or PKP 17 37 56.
- 2 eZ Pn 18 15 38, eZ (Sn) 18 16 14 (D=330 km).
- 4 eZ PKP 07 26 21, USCGS: H= 07 07 31.1, 19.1 S, 177.5 W, h=570 km, Fiji Islands region. M=5.5 (CGS).
- 4 eZ(Pn) 16 33 17, iZ 16 34 14.5, traces.
- 5 iZ Pg 02 25 07.1, iZ Sg 02 25 09.3, D=20 km.
- 5 eZ PKP1 18 25 49, iZ! PKP2 18 26 00.5, USCGS: H= 18 05 58.6, 20.3 S, 174.1 W, h=33 km, Tonga Islands. M=6 3/4 (PAS), 6 1/4 (BRK), 6.0 (CGS).
- 6 eZ P 18 39 (00), eiZ! 18 39 23.7, USCGS: H= 18 27 34.0, 60.0 N, 151.8 W, h=53 km, Kenai Peninsula, Alaska. M=5.2 (CGS).
- 7 eZ PKP 06 00 29, USCGS: H= 05 40 41, 22.9 S, 171.5 W, h=33 km, Loyalty Islands region. M=4.5 (CGS).
- 7 eZ Pn 10 25 23, iZ 10 25 35.0, eZ 10 26 18, BCIS: H= 10 22 17 (Determination by electronic calculating machine), 36.7 N, 27.1 E, Aegean Sea, near Kos Island. USCGS: H=10 36.5 N, 26.9 E, h=45 km, Dodecanese Islands. M=5.1 (CGS).
- 7 eZ P or PKP 17 20 49.
- 9 eZ(P) 04 15 09, BCIS: H= 04 11 49, 36.3 N, 27.3 E, (Determination made by electronic calculating machine). Athens: Dodecanese Islands. Felt 4<sup>o</sup> MCS on the Island of Tilos.
- 9 eZ 05 21 45, eZ 05 22 20, traces.
- 9 eZ PKP 07 06 49, USCGS: H= 06 47 21.9, 18.0 S, 175.4 W, h=229 km, Tonga Islands. M=5.0 (CGS).
- 10 eiZ P 02 54 26, iZ!! 02 54 27.8, eZ! 02 57 20, BCIS: H= 02 52 25, 45.9 N, 26.6 E, h=125 km, (Determination made by electronic calculating machine); Deep focus in Vrancea, (Romania). USCGS: H= 02 53 23.9, 45.8 N, 26.6 E, h=128 km, Romania. Felt. M=5.3 (CGS).
- 10 iZ Pg 05 46 18.5, iZ Sg 05 46 21.3, D=20 km. Not felt.
- 10 Z 08 04 (00), eZ 08 05 38, traces.
- 10 eZ PKP 07 56 19, USCGS: H= 07 37 35.1, 5.8 S, 147.3 E, h=113 km, Eastern New Guinea region. Felt: Joma. M=6.5 (CGS).
- 10 eZ PKP1 13 55 50, iZ! PKP2 13 55 57, eZ PP 13 59 35, USCGS: H= 13 36 30.7, 13.5 S, 166.6 E, h=32 km, New Hebrides Islands. M=6 3/4 (PAS), 6.5 (CGS).
- 10 iZ+ Pn 20 10 57.5, iZ! 20 10 58.7, iZ Pg 20 11 06.5, iZXl

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- 10 (cont.) 20 11 18.3, iZ (Sn) 20 11 32.3, iZ (Sb) 20 11 37.1, iZ! Sg 20 11 45.3, iZ Rgl 20 11 52.4, iZ Rg2 20 12 04.6, eiN 20 12 18.6, D=320 km. BCIS: H= 20 10 20, 44.1 N, 16.2 E, (Determination by electronic calculating machine), Dalmatia, region of Split. USCGS: H= 20 10 04, 43.2 N, 16.8 E, h=11 km, Yugoslavia.
- 11 eZ 02 45 19, eZ (Sg) 02 45 35, traces.
- 11 eZ P 22 59 00, USCGS: H= 22 47 06.3, 48.8 N, 153.5 E, h=102 km, Kurile Islands. M=5.0 (CGS).
- 12 eZ 01 53 28, traces.
- 12 eZ+ P 13 42 27, iZ!! 13 42 29.2, iZ! 13 42 47.9, USCGS: H= 13 32 24.0, 27.6 N, 88.0 E, h=23 km, Nepal. M=6.1 (CGS).
- 14 eZ PKP 08 47 29, USCGS: H= 08 28 45.3, 6.2 S, 149.9 E, h=63 km, New Britain region. M=5.6 (CGS).
- 14 eiZ P or PKP 22 17 02.2.
- 15 eZ PKP 03 49 06, iZ! 03 49 14.9, USCGS: H= 03 30 22.2, 20.9 S, 177.8 W, h=597 km, Fiji Islands region. M=5.3 (CGS).
- 15 iZ+ P 06 07 54.6, iZ PP 06 09 30.8, BCIS: H= 06 00 00, 49 3/4 N, 78.0 E, Underground nuclear blast (Determination by electronic calculating machine); Uppsala: Kazakhstan, Semipalatinsk region, underground explosion. M=6.9, USCGS: H= 05 59 58.5, 49.9 N, 79.0 E, h=0 km, Eastern Kazakh SSR, M=5 1/2-5 3/4 (BRK), 5 3/4-6 (PAL), 6.0 (CGS).
- 15 eZ P 23 50 41, obscured by microseisms, BCIS: H= 23 47 29, 35.7 N, 4.4 E, (Determination by electronic calculating machine), M=5 1/4 (Strasbourg), Algeria. Strongly felt in the M'Sila region; aftershock of January 1, 1965 at 21.38, USCGS: H= 23 47 27.8, 35.7 N, 4.3 E, h=31 km, Algeria. Felt M'Sila. M=5.4 (CGS).
- 17 eZ PKP1 08 39 30, iZ! 08 39 30.5, iZ! PKP2 08 39 43.2, USCGS: H= 08 19 44.5, 15.1 S, 173.7 W, h=33 km, Tonga Islands. Felt: Samoa Islands. M=5.4 (CGS).
- 17 eiZ PKP 09 20 43.5, USCGS: H= 09 01 07.2, 15.1 S, 173.7 W, h=123 km, Tonga Islands. M=5.3 (CGS).
- 17 Z PKP 11 02 (00), USCGS: H= 10 43 17.5, 24.5 S, 178.4 E, h=568 km, South of Fiji Islands. M=5.5 (CGS).
- 17 eZ P 21 10 51, eZ 21 14 57, eZ 21 21 06, USCGS: H= 20 57 41.3, 6.8 S, 109.1 E, h=242 km, Java. M=6.5 (CGS).
- 20 iZ Pg 13 04 19.6, iZ Sg 13 04 44.0, D=120 km, Zagreb region, Yugoslavia.
- 21 eZ PKP 02 24 36, USCGS: H= 02 04 43.7, 15.9 S, 173.2 W, h=33 km, Tonga Islands. M=5.1 (CGS).
- 21 eiZ P or PKP 20 59 14.7,
- 23 iZ Pn 02 40 18.2, eiZ Pb 02 40 23.1, iZ! Pg 02 40 29.2 eEN 02 40 44, iZ Sn 02 40 57.9, iZ Sb 02 41 05.9, eNE

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- 23 (cont.) 02 41 07.5, iZ! Sg 02 41 13.8, D=360 km. BCIS: H= 02 39 34, 44.5 N, 17.9 E, Bosnia-Hercegovina. USCGS: H= 02 39 30.6, 44.2 N, 18.0 E, h=33 km, Yugoslavia. Felt: Bosnia and Hercegovina. M=5.0 (CGS).
- 23 iZ Pn 03 28 01.9, iZ Pg 03 28 13.5, iZ Sn 03 28 41.0, eIZ Sb 03 28 48.1, eIZ! Sg 03 28 56.8, D=360 km, BCIS: H= 03 27 16, aftershock;
- 24 eZ P 00 25 35, eZNE PKP 00 29 07, iZ! PP 00 29 50.4, eNE PP 00 30 07, iZ!! 00 30 11.8, eNE! 00 36 19, USCGS: H=00 11 12.1, 2.4 S, 126.0 E, h=6 km, Ceram Sea. Felt: Davao, Philippine Islands, Halmahera. M=6.6 (CGS).
- 25 eZ P 12 22 46, traces.
- 26 iZ+ PKP 11 01 27.7, USCGS: H= 10 42 35.4, 17.5 S, 178.7 W, h=504 km, Fiji Islands region. M=4.2 (CGS).
- 26 iZ Pn 11 57 30.8, iZ Pb 11 57 33.9, iZ Pg 11 57 37.8, eIZ Xl 11 57 49.5, iZ Sn 11 58 02.8, iZ Sb 11 58 07.1, iZ! Sg 11 58 13.1, iZ! 11 58 20.4, D=290 km. BCIS: H= 11 56 46, 45.1 N, 18.0 E, (Determination by electronic calculating machine), Ljubljana: Yugoslavia, strongly felt in the region of Slavonski Brod (45°15' N, 18° E).
- 26 eZ 17 40 54, eZ 17 41 24, traces.
- 27 eZ- P 00 00 00.5, USCGS: H= 23 47 38.2, 36.1 N, 139.5 E, h=104 km, Honshu, Japan. M=5.4 (CGS).
- 28 iZ+ P 02 47 04.4, eZ 02 47 46, eZ 02 48 04, USCGS: H= 02 34 03.0, 2.5 S, 102.5 E, h=33 km, Southern Sumatra, M=5.6 (CGS).
- 28 eZ Pn 23 12 26, eZ Sn 23 13 42, eZ! 23 14 34, D=730 km, BCIS: H= 23 10 45, 42.7 N, 23.3 E, (Determination by electronic calculating machine), Sofia: Bulgaria, slight damage at Radomir. USCGS: H= 23 10 44.2, 42.7 N, 23.2 E, h=33 km, Bulgaria, slight damage at Radomir, M=4.5 (CGS).
- 29 eIZ+ P 09 47 11.0, USCGS: H= 09 35 25.7, 54.8 N, 161.7 E, h=33 km, Near east coast of Kamchatka, M=5.8 (CGS).
- 29 iZ Pg 15 01 31.7, iZ Sg 15 01 40.1, D=70 km.
- 29 iZ 20 10 35.0, traces.
- 29 eZ P 20 14 15, USCGS: H= 20 06 02.4, 35.6 N, 73.6 E, h=33 km, Northwestern Kashmir. M=5.7 (CGS).
- 29 eZ P 23 42 32, eZ 23 44 10, BCIS: H= 23 39 06, 35.0 N, 26.7 E, h=60 km, (Determination made by electronic calculating machine), Mediterranean Sea, east of Crete Island. USCGS: H= 23 39 02.5, 34.8 N, 27.6 E, h=36 km, Eastern Mediterranean Sea. M=5.1 (CGS).
- 30 iZ- PKP 18 00 26.2, iZ! 18 00 34.6, eZ 18 03 10, USCGS: H= 17 42 12.3, 13.0 S, 169.4 E, h=647 km, Santa Cruz Islands region. M=5.2 (CGS).

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- 1 eIZ PKP 05 46 04, iZ! 05 46 05.3, iZ 05 46 21.9, eZ pPKP 05 47 58, USCGS: H= 05 27 04.5, 18.6 S, 178.1 W, h=472 km, Fiji Islands region. M=5.6 (CGS).
- 2 iZ Pg 12 05 08.3, iZ Sg 12 05 10.4, D=15 km, not felt.
- 2 iZ+ PKP1 10 17 49.5, eIZ PKP2 10 18 10.6, USCGS: H=09 58 17.7, 21.4 S, 176.2 W, h=171 km, Fiji Islands region, M=4-4 1/4 (BRK), 5.1 (CGS).
- 2 iZ Pg 14 29 56.4, iZ Sg 14 30 15.8, D=160 km.
- 2 eZ+ P 16 04 55, eZ PP 16 05 40, D=3000 km, USCGS: H=15 56 51.0, 37.5 N, 73.4 E, h=33 km, Tadzhik SSR, M=5.8 (CGS).
- 3 iZNE Pn 01 19 40.3, iZ Pg 01 19 54.0, iZ! 01 19 59.4, iZ! Sn 01 20 24.0, iZ(Sg) 01 20 47.8, D=410 km. BCIS: H= 01 18 46, 43.3 N, 17.8 E, (Determination made by electronic calculating machine), Mostar region, Bosnia and Hercegovina. USCGS: H= 01 18 43, 43.3 N, 17.9 E, h=33 km, Yugoslavia. M=4.4 (CGS).
- 4 eZ PKP 03 44 33, eZ 03 45 08, USCGS: H= 03 25 00.8, 51.8 S, 139.7 E, h=33 km, South of Australia, M=5.9 (CGS).
- 4 eZNE P 05 13 40, eZ PP 05 16 49, eNE S 05 24 04.5, D= 9050 km, USCGS: H= 05 01 21.8, 51.3 N, 178.6 E, h=40 km, Rat Islands, Aleutian Islands, M=7 3/4 (PAS), 7 3/4 (BRK), 7.5 (CGS).
- 4 eZ P 07 35 32, USCGS: H= 07 23 12.3, 51.9 N, 173.2 E, aftershock Rat Islands, Aleutian Islands, M=5.5 (CGS).
- 4 eZ+ P 08 18 29, USCGS: H= 08 06 16.6, 51.9 N, 174.3 E, h=40 km, aftershock Rat Islands, Aleutian Islands, M=5.6 (CGS).
- 4 eZ+ P 08 45 54, USCGS: H= 08 33 40.9, 51.9 N, 174.0 E, h=30 km, aftershock Rat Islands, Aleutian Islands, M=5.7 (CGS).
- 4 eZ P 08 52 59, iZ! 08 53 03, eNE S 09 03 18, USCGS: H= 08 40 40.9, 51.3 N, 179.5 E, h=40 km, aftershock Rat Islands, Aleutian Islands. M=6 3/4-7 (PAS), 6.4 (CGS).
- 4 iZ+ P 12 18 12.0, iZ! 12 18 14.1, iZ PP 12 21 16, D= 8800 km, USCGS: H= 12 06 04.3, 52.6 N, 172.1 E, h= 25 km, aftershock Rat Islands, Aleutian Islands. M= 6 1/2 (PAS), 5.8 (CGS).
- 4 eZ+ P 14 30 33, iZ! 14 30 35, eZ PP 14 33 33, eE S 14 40 32, D=8800 km, USCGS: H= 14 18 27.9, 53.0 N, 171.0 E, h=30 km, aftershock Rat Islands, Aleutian Islands. M= 6 1/4 (PAS), 5.7 (CGS).
- 4 eIZ+ P 16 03 29, eZ PP 16 06 29, D=8800 km, USCGS: H= 15 51 25.5, 53.1 N, 170.8 E, h=40 km, aftershock Rat Islands, Aleutian Islands. M=6 1/4 (PAS), 5.7 (CGS).

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- 4 eZ Pn 17 19 40, iZ (Sn) 17 20 13.5, traces, (D=300 km).  
 4 eZ P 19 06 35, USCGS: H= 18 56 27.7, 13.5 N, 44.8 W, h=33 km, North Atlantic Ridge. M=5.5 (CGS).  
 4 eZ P 19 54 07, USCGS: H= 19 44 05.6, 13.3 N, 44.8 W, h=33 km, North Atlantic Ridge, M=5.4 (CGS).  
 4 eZ P or PKP 20 44 40, traces.  
 4 eZ P or PKP 22 42 19, traces.  
 5 eZ P 00 43 48, eZ 00 43 21, USCGS: H= 00 31 35.5, 52.0 N, 176.6 E, h=40 km, aftershock Rat Islands, Aleutian Islands. M=4.9 (CGS).  
 5 eZ P or PKP 03 10 54, traces.  
 5 eZ P 06 52 04, iZ! 06 52 05.6, USCGS: H= 06 39 49.6, 51.8 N, 175.1 E, h=25 km, aftershock Rat Islands, Aleutian Islands, M=6 1/4-6 1/2 (PAS), 5 3/4 (PAL), 5.7 (CGS).  
 5 eZ+ P 09 44 18, iZ 09 44 36.8, USCGS: H= 09 32 09.3, 52.3 N, 174.3 E, h=41 km, aftershock Rat Islands, Aleutian Islands, M=5 1/2 (BRK), 6 1/2 (PAS), 5.9 (CGS).  
 5 iZ Pn 12 48 24.6, eZ 12 49 04, eZ (Sn) 12 49 20, eZ 12 50 11, traces, (D=500 km).  
 5 eZ P 13 50 58, USCGS: H= 13 38 46.7, 52.0 N, 174.0 E, h=35 km, aftershock Rat Islands, Aleutian Islands. M=5.5 (CGS).  
 5 eZ P 14 03 59, USCGS: H= 13 51 48.6, 52.1 N, 173.3 E, h=35 km, aftershock Rat Islands, Aleutian Islands. M=5.9 (CGS).  
 5 Z P 19 13 (00), eZ PP 19 16 04, D=8700 km, USCGS: H= 19 00 41.9, 52.0 N, 173.2 E, h=27 km, aftershock Rat Islands, Aleutian Islands, M=5.5 (CGS).  
 5 eZ+ P 20 59 26, eZ PP 21 02 34, USCGS: H= 20 47 13.3, 51.9 N, 174.6 E, h=35 km, aftershock Rat Islands, Aleutian Islands. M=5.7 (CGS).  
 5 eZ+ P 22 28 17, eZ PP 22 31 15, D=8700 km, USCGS: H= 22 15 59.5, 51.5 N, 176.7 E, h=25 km, aftershock Rat Islands, Aleutian Islands, M=5.6 (CGS).  
 6 iZ- P 01 52 46.9, eZ PP 01 55 50, eZ S 02 03 06, D=8800 km, USCGS: H= 01 40 33.2, 53.2 N, 161.9 W, h=33 km, South of Alaska. M=6.4 (CGS).  
 6 iZ Pn 03 51 19.0, eZ Sn 03 54 00, D=1550 km, BCIS: H= 03 47 55, 35.4 N, 26.3 E, (Determination by electronic calculating machine), Athens: felt on the Island of Crete, especially on the Lasithi region ( $3^{\circ}$  at Phourni), USCGS: H= 03 47 54.1, 35.1 N, 26.9 E, h=50 km, Crete, M=5.4 (CGS).  
 6 eZ+ P 04 15 05.0, eZ PP 04 18 09, D=8800 km, USCGS: H=04 02 53, 52.1 N, 175.7 E, h=35 km, aftershock Rat Islands, Aleutian Islands, M=6 (PAL), 5.9 (CGS).  
 6 eZ 06 35 51, iZ 06 36 07.1, traces.

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- 6 eZ P 07 26 56, USCGS: H= 07 14 45.1, 52.1 N, 173.0 E, h=35 km, aftershock Rat Islands, Aleutian Islands, M=5.4 (CGS).  
 6 eZ P or PKP 08 56 15, traces.  
 6 Z P 08 59 (00), USCGS: H= 08 46 51.2, 51.9 N, 174.0 E, h=30 km, aftershock Rat Islands, Aleutian Islands. M=6 (CGS).  
 6 eZ P 12 34 33, USCGS: H= 12 22 26.2, 51.8 N, 175.3 E, h=35 km, aftershock Rat Islands, Aleutian Islands. M=5.4 (CGS).  
 6 iZ+ P 17 02 44.1, iZ! 17 02 46.2, eZ PP 17 06 04.4, D= 9400 km, USCGS: H= 16 50 29, 53.3 N, 161.8 E, h=33 km, South of Alaska. M=6 1/2 (PAS), 6 1/4-6 1/2 (BRK), 6-6 1/4 (PAL), 6.1 (CGS).  
 6 eZ Pn 17 22 29, iZ 17 22 32.9, iZ 17 23 15.2, traces.  
 6 eZ P or PKP 18 22 46, obscured by microseisms.  
 7 iZ Pn 01 04 11.2, iZ 01 04 17.1, iZ 01 05 00, iZ! 01 05 06.  
 7 iZ Pg 01 06 56.9, iZ! 01 06 58.4, iZ! Sg 01 07 01.0, D=30 km, not felt.  
 7 eiz- P 02 29 23, iZ! 02 29 26.2, eZ PP 02 32 30, eZ 02 33 26, D=8800 km, USCGS: H= 02 17 09.2, 51.4 N, 173.4 E, h=40 km, aftershock Rat Islands, Aleutian Islands, M=6.0 (CGS).  
 7 eZ+ P 04 23 33, eZ PP 04 26 39, D=8900 km, USCGS: H=04 11 19.3, 51.9 N, 175.3 E, h=25 km, aftershock Rat Islands, Aleutian Islands. M=5.5 (CGS).  
 7 eZ P 09 38 10, USCGS: H= 09 25 51.1, 51.4 N, 179.1 E, h=30 km, aftershock Rat Islands, Aleutian Islands, M=5.3 (CGS).  
 7 eZ P 11 35 29, eZ PP 11 38 16, eZ 11 39 37, D=8700 km, USCGS: H= 11 23 14.8, 52.2 N, 172.4 E, h=35 km, aftershock Rat Islands, Aleutian Islands, M=5.3 (CGS).  
 7 iZ Pg 11 58 09.5, iZ(Sg) 11 58 13.1, (D=30 km).  
 7 eZ+ P 12 33 27, USCGS: H=12 21 21.1, 53.0 N, 171.7 E, h=25 km, aftershock Rat Islands, Aleutian Islands, M=5.3 (CGS).  
 7 eZ+ P 17 25 18, USCGS: H= 17 13 08.2, 52.2 N, 173.1 E, h=35 km, aftershock Rat Islands, Aleutian Islands, M=5.4 (CGS).  
 7 iZ Pg 22 36 59.7, iZ Sg 22 37 08.8, D=70 km.  
 8 iZ P 07 35 22.7, USCGS: H= 07 23 08.8, 51.8 N, 174.6 E, h= 33 km, aftershock Rat Islands, Aleutian Islands, M=5.4 (CGS).  
 8 eZ P 15 58 33, USCGS: H= 15 46 49.9, 55.1 N, 165.7 E, h=40 km, Komandorsky Islands region, M=5.8 (CGS).  
 8 iZNE Pg 16 18 51.3, iZNE Sg 16 18 53.9, iZ 16 18 57.9,

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- 8 (cont.) F 16 19 30 ca., D=24 km, Litija-Hotič region, Io=2-3<sup>0</sup> MCS. Felt in the valley of Sava, east from Ljubljana.
- 9 iZ Pg 01 11 25.2, iZ Sg 01 11 27.5, D=24 km, aftershock.
- 9 eiZ! PKP 06 01 30.6, USCGS: H= 05 42 06.8, 18.8 S, 169.2 E, h=223 km, New Hebrides Islands. M=5.5 (CGS).
- 9 eZ PKP 17 13 22, USCGS: H= 16 53 28.8, 22.2 S, 170.6 E, h=29 km, Loyalty Islands region, M=4.9 (CGS).
- 9 iZ+ P 17 49 22.1, USCGS: H= 17 37 15.9, 52.8 N, 171.9 E, h=41 km, aftershock, Rat Islands, Aleutian Islands, M=5.7 (CGS).
- 9 iZ- Pn 20 40 55.1, iZ Pb 20 41 12.3, iZ Sn 20 42 34.6, eNE Sn 20 42 44, iZ Sb 20 42 53, D=960 km, BCIS: H=20 38 48, 38.0 N, 20 1/2 E, (Determination by electronic calculating machine), Ionian Islands.
- 9 iZ+ Pn 23 35 08.1, iZ Sn 23 36 46.0, iZ Sx 23 36 04.7, BCIS: H= 23 33 01, aftershock.
- 10 eiZ P 16 15 20, BCIS: H= 16 09 54, 37.6 N, 47.0 E, h= 45 km, (Determ. by electr. calculating machine), Iran; Press: Azerbeidjan (Iran) around Bostanabad. Felt in northwestern Iran (Teheran), important damage in the region of Bostanabad, 20 killed, 100 injured. USCGS: H= 16 09 54.1, 37.6 N, 47.1 E, h=52 km, Northwestern Iran, 20 killed and 100 injured; heavy damage in Bostanabad region, M=5.1 (CGS).
- 11 eZ PKP 02 53 09, USCGS: H= 02 33 29.3, 21.8 S, 176.4 W, h=174 km, Fiji Islands region. M=5.8 (CGS).
- 11 eZ- P 04 51 21, iZ! 04 51 24.7, USCGS: H= 04 42 00.7, 1.3 S, 14.4 W, h=33 km, North of Ascension Island.
- 11 eZ 10 22 33, eZ 10 23 04, traces.
- 12 eZ P 01 07 18, USCGS: H= 00 55 06.2, 52.2 N, 172.8 E, h=25 km, aftershock, Rat Islands, Aleutian Islands, M= 6.0 (PAS), 5 1/2-5 3/4 (PAL), 5.5 (CGS).
- 12 iZ Pg 02 04 50.8, iZ Sg 02 04 55.1, D=30 km,
- 12 eZ 04 54 40, iZ 04 55 00.0, traces.
- 12 eZ Pn 21 58 59, eZ 22 00 21, traces.
- 13 eZ Pn 05 15 59, iZ(Sn) 05 17 27.4, (D=850 km).
- 14 eZ P 19 42 50, iZ! 19 43 09.3, BCIS: H= 19 37 16, 73.1 N, 5.8 E, (Determ. by electr. calculating machine), Arctic Ocean, southwest of Spitzbergen.
- 14 eZ Pn 20 56 47, eZ 20 57 23, traces.
- 15 eZ 05 13 38, traces.
- 15 iZ- P 10 57 14.5, eZ PKP 11 01 06, USCGS: H= 10 43 19.8, 3.0 N, 125.9 E, h=33 km, Taland Islands, M=6.0 (CGS).
- 15 eZ P 12 42 48, eZ PP 12 44 33, D=4660 km, USCGS: H=12 34 54.8, 53.6 N, 81.3 E, h=11 km, Central Russia. Felt: Novo-

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- 15 (cont.) -sibirsk, M=5.3 (CGS).
- 15 eZ Pn 23 01 28, iZ 23 01 58.2, iZ (Sn) 23 02 03.8, (D=320 km).
- 17 eZ 10 31 06, traces.
- 17 eZ P 19 44 59, USCGS: H= 19 35 30.3, 0.3 S, 19.0 W, h= 33 km, Central Mid-Atlantic Ridge, M=4.9 (CGS).
- 18 eZ P 04 37 16, iZ! 04 37 30.4, USCGS: H= 04 26 33.5, 25.0 N, 94.3 E, h=36 km, Burma-India border region, M=5.4 (CGS).
- 18 eZ+ P 23 25 55.5, USCGS: H= 23 13 36.3, 51.4 N, 179.1 E, h=28 km, aftershock, Rat Islands, Aleutian Islands, M= 6 (PAS), 5 (BRK), 5 1/2-5 3/4 (PAL), 5.4 (CGS).
- 20 iZ Pn 10 31 58.0, iZ 10 32 51.3, iZ 10 33 24.3, traces.
- 20 iZ Pn 22 49 24.9, iZ 22 50 02.9, iZ 22 51 15.7, iZ 22 51 35.5, traces.
- 21 iZ Pn 11 22 51.7, eZ (Sn) 11 23 29, (D=330 km).
- 21 eZ Pn 11 29 50, iZ 11 30 04.7, eZ 11 30 31.
- 21 eZ PKP 11 33 57, iZ! 11 34 (00), eZ 11 35 18, USCGS: H= 11 14 15.1, 15.1 S, 173.2 W, h=33 km, Tonga Islands, felt at Apia, M=6 (PAS), 5.7 (CGS).
- 22 eZ P 09 27 04, eZ PP 09 30 09, D=8800 km, USCGS: H= 09 14 51.3, 51.9 N, 173.4 E, h=35 km, aftershock, Rat Islands, Aleutian Islands, M=5 1/4-5 1/2 (PAL), 5.5 (CGS).
- 22 eZ PKP 21 57 51, USCGS: H= 21 38 15.5, 16.8 S, 175.7 E, h=73 km, Fiji Islands region, M=4.9 (CGS).
- 23 iZ+ Pn 02 31 59.5, iZ Pg 02 32 12.2, iZ Sn 02 32 35.6, iZ Sg 02 32 48.6, D=330 km, BCIS: H= 02 31 05, 43.0 N, 17 1/4 E, (Determ. made by electronic calculating machine), Yugoslavia, coast of Dalmatia.
- 23 eZ PKP 07 56 46, USCGS: H= 07 37 11, 18.3 S, 168.2 E, h=33 km, New Hebrides Islands, M=4.6 (CGS).
- 23 eiZ P or PKP 11 46 34
- 23 eZ Pn 19 56 15, eZ (Sn) 19 58 04, traces, (D=950 km).
- 23 eZ+ P 22 25 53, eiZ PKP 22 30 17, eiZ PP 22 31 02, eiZ 22 41 52, D=12200 km, USCGS: H= 22 11 50.2, 25.7 S, 70.5 W, h=80 km, Near coast of northern Chile. One killed, 5 injured and heavy damage. M=7 1/4 (PAS), 6 3/4 (BRK), 6 3/4-7 (PAL), 6.2 (CGS).
- 25 eiZ- PKP 05 10 26.6, eZ PP 05 12 16, D=13700 km, USCGS: H=04 51 27.8, 5.5 S, 152.0 E, h=35 km, New Britain region. M=6 1/2 (PAS), 6 1/4-6 1/2 (BRK), 5.9 (CGS).
- 25 eiZ+ P 05 34 24, USCGS: H= 05 22 14.5, 52.1 N, 173.2 E, h=35 km, aftershock, Rat Islands, Aleutian Islands. M= 5.6 (CGS).
- 25 eiZ P or PKP 10 44 50, obscured by microseisms.
- 25 eZ Pn 16 16 31, eZ 16 17 45, traces.

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- 25 iZ Pg 17 57 44.9, iZ Sg 17 57 46.8, D=20 km, not felt.
- 26 eZ P 01 43 50, iZ! 01 43 51.6, BCIS: H= 01 37 10, 35.6 N, 57.5 E, (Determ. by electronic calculating machine), Eastern Iran (Khorassan), USCGS: H= 01 37 05.6, 35.1 N, 57.6 E, h=33 km, Iran. M=5.2 (CGS).
- 26 eZ PKP1 05 02 22, iZ PKP2 05 02 26.3, USCGS: H= 04 42 28.3, 18.8 S, 176.1 W, h= 33 km, Fiji Islands region, M=5.3 (CGS).
- 26 eZ PKP 05 55 48, USCGS: H= 05 36 01.1, 18.9 S, 176.3 W, h=61 km, Fiji Islands region. M=5.4 (CGS).
- 26 eZ Pn 14 17 49, iZ (Sn) 14 18 18.1, traces, (D=240 km).
- 26 eZ+ P 23 48 25, eZ S 23 58 30, D=9000 km, USCGS: H= 23 36 12.2, 6.9 N, 73.0 W, h=146 km, Northern Colombia. Felt at Bogota, Bucaramanga and Cucuta. M=5 3/4-6 (BRK), 5.7 (CGS).
- 27 eZ P 02 14 21, USCGS: H= 02 01 36.3, 25.1 N, 128.2 E, h=33 km, Ryukyu Islands, M=5.2 (CGS).
- 27 eiZ P 11 35 07, iZ! 11 35 15.2, iZ PP 11 35 39.2, eZ S 11 39 12, D=2600 km. USCGS: H= 11 29 59.0, 24.2 N, 5.1 E, h=0 km, Southern Algeria. M=5.8 (CGS).
- 27 iZNE Pg 15 34 37.4, iNE Sg 15 34 39.5, D=24 km, felt in Litija-Hotič region, east from Ljubljana.
- 28 iZNE Pg 00 28 25.7, iNE Sg 00 28 28.2, D=24 km, Litija-Hotič region aftershock.
- 28 iZ Pg 20 34 07.0, iZ Sg 20 34 09.6, D=22 km, Litija-Hotič region.

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- 1 eiZ Pn 05 33 32.3, iZ Sn 05 33 52.6, D=170 km.
- 1 iZ PKP1 07 39 55.2, iZ PKP2 07 40 03.4, USCGS: H= 07 20 55.3, 5.5 S, 152.1 E, h=35 km, New Britain region. Felt at Rabant, Doilene and Karlai. M=5 1/4-5 1/2 (BRK), 5 3/4-6 (PAL), 5.7 (CGS).
- 1 eZ PKP1 09 27 45, eZ PKP2 09 27 51, USCGS: H= 09 08 45.0, 5.4 S, 152.0 E, h=29 km, New Britain region. Felt at Rabaul, Doilene and Karlai. M=5.6 (CGS).
- 1 eZ P 13 33 35, USCGS: H= 13 20 56.7, 21.2 N, 121.2 E, h=42 km, Taiwan region. M=5.5 (CGS).
- 1 eZ 19 34 14, traces, obscured by microseisms.
- 1 eZ (P) 21 45 07, USCGS: H= 21 32 11.8, 15.4 N, 92.5 W, h=93 km, Mexico-Guatemala border region. Felt at San Salvador. M=6 (PAS), 5 1/2 (BRK), 5 3/4-6 (PAL), 5.9 (CGS). Obscured by microseisms.
- 1 eiZ PKP 22 10 55, USCGS: H= 21 52 04.4, 23.5 S, 179.0 E, h=541 km, South of Fiji Islands, M=5.2 (CGS).

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- 2 eZ Pn 22 03 09, iZ 22 03 19.4, iZ 22 04 10.2, iZ 22 05 17.8, obscured by microseisms, BCIS: H= 22 00 05, 38.4 N, 28.4 E, M=5.8 (Pruhonice), 5.5 (Strasbourg). Istanbul-TU: Turkey, western Anatolia. Salihli and Odemis damaged. Istanbul-Kandilli: strongly felt in western Anatolia, 37 aftershocks registered within 24 hours. USCGS: H= 22 00 07.8, 38.6 N, 28.3 E, h=45 km, Turkey. Slight damage at Salihli and Odemis. M=5.2 (CGS).
- 3 iZ P or PKP 04 24 06.5, obscured by microseisms.
- 3 eZ PKP 15 33 07, iZ! 15 33 13.1, iZ! 15 33 21.2, eZ 15 36 35, USCGS: H= 15 14 09.7, 5.5 S, 151.9 E, h=44 km, New Britain region. Felt. M= 6 3/4-7 (PAS), 6 1/2 - 6 3/4 (BRK), 7 1/4-7 1/2 (PAL), 6.0 (CGS).
- 3 eiZ+ P 16 59 31, iZ PP 17 02 24.8, D=8700 km, USCGS: H= 16 47 25.7, 53.1 N, 171.2 E, h=23 km, aftershock, Rat Islands, Aleutian Islands, M=5.6 (CGS).
- 4 eZ+ P 06 42 29, USCGS: H= 06 30 16.2, 52.0 N, 175.0 E, h=40 km, aftershock Rat Islands, Aleutian Islands. M=5.5 (CGS).
- 4 iZ Pg 23 36 16.0, iZ Sg 23 36 28.2, D=100 km.
- 5 eZ 00 03 54, iZ(Sn) 00 04 09.8, traces.
- 5 eZ 08 24 27, iZ(Sn) 08 25 19.7, traces.
- 5 iZ Pn 06 43 52.6, iZ(Sn) 06 44 32.2, iZ Sg 06 44 46.1, D=280 km, Sl.Brod region, Vojilj Mountain, Levanjska varoš: I=5° MCS.
- 5 iZ P 13 54 55.4, USCGS: H= 13 42 44.1, 52.3 N, 174.9 E, h=35 km, aftershock, Rat Islands, Aleutian Islands. M=5.3 (CGS).
- 5 eiZ PP 14 49 23, USCGS: H= 14 32 19.2, 27.0 S, 63.3 W, h=573 km, Santiago del Estero Province, Argentina. M= 5 1/4-5 1/2 (BRK), 5.5 (CGS).
- 5 eiZ P 18 11 24, USCGS: H= 17 59 13.5, 52.3 N, 174.2 E, h=35 km, aftershock, Rat Islands, Aleutian Islands.
- 5 eZ P 23 41 25, USCGS: H= 23 29 23.2, 53.0 N, 171.1 E, h=45 km, aftershock, Rat Islands, Aleutian Islands, M= 5.4 (CGS).
- 6 iZ Pg 04 40 14.5, iZ (Sg) 04 40 28.9, (D=120 km).
- 6 eZ P 08 31 42, USCGS: H= 08 19 30.5, 52.4 N, 174.2 E, h=25 km, aftershock, Rat Islands, Aleutian Islands. M= 5.1 (CGS).
- 6 eZ Pg 08 50 23, iZ 08 50 32.6, iZ 08 50 42.1, traces.
- 6 eZ- PKP 10 40 04, USCGS: H= 10 21 17.9, 17.5 S, 178.7 W, h=573 km, Fiji Islands region. M=4.2 (CGS).
- 6 iZ PKP 11 30 20.1, USCGS: H= 11 10 53.1, 18.4 S, 132.9 W, h=35 km, South Pacific Ocean, M=5.5 (CGS).
- 6 eZ+ P 20 36 35, USCGS: H= 20 23 49.5, 20.1 N, 121.3 E, h= 8 km, Philippine Islands region. M=5.8 (CGS).

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- 7 eZ PKP 02 03 05, USCGS: H= 01 43 11.4, 30.3 S, 177.9 W, h=60 km, Kermadec Islands region. M=5 3/4 (BRK), 5.6 (CGS).
- 7 eZ P 07 40 38, USCGS: H= 07 32 38.1, 12.1 N, 46.3 E, h= 38 km, Western Gulf of Aden. M=4.9 (CGS).
- 7 eZ P 07 50 32, USCGS: H= 07 42 31.2, 12.1 N, 46.3 E, h= 33 km, Western Gulf of Aden. M=5.3 (CGS).
- 8 eZ P or PKP 00 35 30.
- 8 iZ(Sn) 16 35 13.8, traces.
- 8 iZ- PKP1 19 42 21.5, iZ PKP2 19 42 30.0, iZ pPKP 19 42 53.5, USCGS: H= 19 22 45.6, 22.3 S, 171.4 E, h=125 km, Loyalty Islands region. M=5 3/4-6 (BRK), 5.4 (CGS).
- 8 iZ Pn 23 05 09.5, eZ Sn 23 06 50, D=1170 km, USCGS: H= 23 02 26.0, 38.0 N, 21.2 E, h=55 km, Greece, M=4.2 (CGS).
- 9 eIZ PKP 01 55 50, USCGS: H= 01 36 45.4, 17.0 S, 177.4 W, h=386 km, Fiji Islands region. M=5 3/4-6 (BKS), 5.5 (CGS).
- 9 iZ P 18 00 12.9, eN 18 00 16.5, iZ! 18 01 07.1, eIZ! 18 01 26.8, iZNE S 18 02 10.4, iZ 18 02 52.6, iZ! (Rg1) 18 03 29.5, iZ! (Rg2) 18 04 32, D=1100 km, BCIS: H= 17 57 53, 39.1 N, 24.0 E, Press: Aegean Sea near Skopelos Island. Important damage on Alonissos, 2 killed, 165 buildings destroyed. Strongly felt at Athenes. Istanbul-Kandilli: Felt in Turkey at Canakkale and Edremit. M= 6 1/2 (Strasbourg), 6 1/4 (Uppsala), 6.2 (Pruhonice). USCGS: H= 17 57 53.7, 39.4 N, 24.0 E, h=18 km, Aegean Sea; 2 killed on Alonissos Island. Felt widely throughout Greece and in Canakkale and Edremit, Turkey. Seismic sea waves reported on Pelagos and Skiathos Islands. M=6 1/4-6 1/2 (BRK), 6 1/4-6 1/2 (PAL), 5.7 (CGS).
- 9 eIZ P 18 40 10.1, iZ S 18 42 02.0, D=1100 km, BCIS: H= 18 37 55, 39.0 N, 24.3 E, aftershock Aegean Sea. USCGS: H=18 37 54.4, 39.3 N, 24.0 E, h=33 km, Aegean Sea.
- 9 eIZ P 19 49 15.7, iZ S 19 51 05.4, D=1100 km, BCIS: H= 19 46 59, 39.0 N, 24.3 E, aftershock. USCGS: H= 19 46 58.2, 39.3 N, 23.9 E, h=19 km, Aegean Sea, M=4.7 (CGS).
- 9 iZ P 21 22 31.6, eIZ S 21 24 20, D=1100 km, aftershock, USCGS: H= 21 20 04.9, 39.2 N, 23.8 E, h=13 km, Aegean Sea, M=4.7 (CGS).
- 9 iZ P 22 37 09.9, eIZ S 22 38 59.5, D=1100 km, aftershock, USCGS: H= 22 35 16, 39.2 N, 23.7 E, h=31 km, Aegean Sea, M=4.8 (CGS).
- 10 eIZ P 01 38 22.8, eIZ! S 01 40 10, D=1100 km, BCIS: H= 01 36 05, 39.0 N, 24.2 E, aftershock, USCGS: H= 01 36 07, 39.2 N, 23.9 E, h=33 km, Aegean Sea. M=4.7 (CGS).
- 10 eZ P 05 51 07, eZ PP 05 52 22, eZ S 05 57 36, D=4900 km, BCIS: H= 05 44 31, 31.4 N, 50.7 E, Teheran: Southwest Iran. USCGS: H= 05 44 47.8, 32.8 N, 49.2 E, h=33 km, Western Iran, felt: Arak. M=5.4 (CGS).
- 10 eZ PKP1 16 12 24, iZ PKP2 16 12 33.2, USCGS: H= 15 35

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- 10 (cont.) 37.8, 21.9 S, 179.6 E, h=547 km, South of Fiji Islands. M=5.7 (CGS).
- 10 eZ P 21 52 36, eIZ S 21 54 32.5, D=1100 km, aftershock of March 9, 1965, Aegean Sea. USCGS: H= 21 50 17, 39.3 N, 23.9 E, h=16 km, Aegean Sea. M=4.9 (CGS).
- 11 iZ 21 53 46.1, iZ 21 54 13.9, traces.
- 12 iZ- Pn 20 20 48.8, iZ Sn 20 22 02.7, iZ Sg 20 22 46.8, D=680 km, USCGS: H= 20 19 07, 38.9 N, 17.7 E, h=73 km, Southern Italy. M=4.6 (CGS).
- 13 eZ 03 17 16, traces.
- 13 eZ Pn 04 11 03, iZ! NE Sn 04 12 34.9, eNE 04 14 05, D= 950 km, BCIS: H= 04 08 42, 39.2 N, 24.1 E, Greece. aftershock of the seism on March 9, 1965 at 17 h 57 m. M=5.9 (Sofia), 5.5 (Strasbourg). USCGS: H= 04 08 40.5, 39.1 N, 23.9 E, h=12 km, Aegean Sea. Slight damage on Alonissos Island. Also felt in Athens and in Central Greece. M=5.3 (CGS).
- 13 Z P 04 12 (00), BCIS: H= 04 09 33, 39.2 N, 24.1 E, Greece, aftershock of the seism on March 9, 1965 at 17h 57 m, USCGS: H= 04 09 38.5, 39.0 N, 23.4 E, h=33 km, Aegean Sea. Slight damage on Alonissos Island. Also felt in Athens and in Central Greece. M=5.3 (CGS).
- 13 eIZ P 07 45 37, USCGS: H= 07 33 23.0, 53.1 N, 162.2 W, h=37 km, South of Alaska. M=5.5 (CGS).
- 13 eZ PKP1 14 13 27, iZ PKP2 14 13 35.4, eZ pPKP1 14 15 30, eZ pPKP2 14 15 32, USCGS: H= 13 54 33.0, 20.4 S, 177.6 W, h=470 km, Fiji Islands region. M=5.7 (CGS).
- 13 eZ Pn 15 44 36, eZ 15 45 18, iZ Sn 15 46 39, USCGS: H= 15 42 16.8, 39.1 N, 24.1 E, h=34 km, Aegean Sea. M=4.5 (CGS). D=1100 km.
- 13 eZ 21 14 34, iZ (Sg) 21 14 49.7, traces.
- 14 eZ Pn 06 06 41, iZ 06 08 04.5, traces.
- 14 iZ Pg 10 07 37.5, iZ Sg 10 07 39.9, D=18 km, not felt.
- 14 iNE+ P 16 00 43, iZ+ P 16 00 43.9, iZ!! 16 00 51.0, iZ!! 16 01 32.0, iZ! 16 02 13.6, iZ!! S 16 06 52.7, iZNE ! SS 16 10 20.8, D=4800 km. BCIS: H= 15 53 05, 36.5 N, 70.5 E, h=220 km. Hindu-Kush. Slightly felt in Afghanistan, Pakistan and in India. M=7 3/4 (Strasbourg), USCGS: H= 15 53 06.6, 36.3 N, 70.7 E, h=219 km. Hindu-Kush region. Light damage in Afghanistan and western Pakistan. Felt in India. M=7 3/4 (BRK), 7 1/2-7 3/4 (P&S), 6.6 (CGS).
- 14 eZ P or PKP 22 31 40.
- 15 eZ P 02 14 47, USCGS: H= 02 02 08.9, 22.4 N, 121.4 E, h=33 km, Taiwan region. M=4.7 (CGS).
- 15 eZ PKP1 03 20 55, eZ PKP2 03 21 06, USCGS: H= 03 01 03, 15.0 S, 173.9 W, h=33 km, Tonga Islands. M=5.0 (CGS).
- 15 eZ P 08 38 21, USCGS: H= 08 25 54.5, 51.3 N, 174.1 E, h=

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15 (cont.) 33 km, Rat Islands, Aleutian Islands, M=5.3 (CGS).  
 15 iZ+ PKP1 14 21 24.6, eZ PKP2 14 21 54, USCGS: H= 14  
 02 42.1, 6.5 N, 153.2 E, h=38 km, New Britain region.  
 M=5.4 (CGS).  
 15 iZ Pn 15 02 56.8, iZ Pg 15 03 05.5, iZ PgPg 15 03 09,  
 iZ Sn 15 03 32.3, iZ SgSg 15 03 50.8, D=320 km.  
 15 Z Pn 21 14 (00), iZ Pb 21 14 06.3, iZ Sn 21 14 45.3,  
 D=410 km, BCIS: H= 21 12 50, 44.5 N, 8.9 E, (Determination  
 by electronic calculating machine), Italy, Ligurian  
 Apennins.  
 15 eZ Pn 21 37 34, eZ Sn 21 38 19.0, D=410 km, BCIS: H=21  
 36 24, aftershock.  
 15 eZ Pn 22 50 25, iZ PgPg 22 50 41.7, eiZ Sn 22 51 09,  
 D=410 km, BCIS: H= 22 49 14, aftershock Italy.  
 15 eiZ+ Pn 23 10 54.8, eZ 23 11 28, eZ 23 12 54, USCGS:  
 H= 23 08 30, 39.1 N, 24.2 E, h=33 km, Aegean Sea. M=  
 4.6 (CGS). D=1100 km.  
 16 eiZ+ P 02 22 49, USCGS: H= 02 11 18.9, 23.1 S, 13.5 W,  
 h=32 km, South Atlantic Ridge. M=5.3 (CGS).  
 16 eZ Pn 08 13 28, iZ Pb 08 13 33.5, iZ Pg 08 13 43.5,  
 iZ Sn 08 14 15.3, iZ Sb 08 14 21.4, D=430 km.  
 16 iZ+ P 16 58 34.2, iZ PP 17 01 45.5, eZ PPP 17 03 28,  
 eZ S 17 08 48, D=9500 km, USCGS: H= 16 46 15.5, 40.8 N,  
 142.9 E, h=34 km, Near east coast of Honshu, Japan. Felt  
 at Marioka and Omori. M=6 1/2 (PAS), 6 1/2-6 3/4 (PAL),  
 5.6 (CGS).  
 16 eZ(Pg) 22 17 38, eZ 22 17 52, traces.  
 16 eZ (Pg) 22 25 25, iZ 22 25 35.4, traces.  
 16 iZ Pg 22 29 05.5, iZ Sg 22 29 16.5, D=90 km.  
 17 iZ Pn 02 33 03.2, iZ Pb 02 33 10.6, iZ! Pg 02 33 14.3,  
 iZ! Sn 02 33 38.8, iZ Sb 02 33 46.4, iZ! Sg 02 33 53.5,  
 iZ! 02 34 06.3, D=360 km, BCIS: H= 02 32 11, 42.7 N,  
 13.6 E, (Determination by electronic calculating machine),  
 Italy, felt at Teramo. USCGS: H= 02 32 10, 43.0 N, 13.6  
 E, h=19 km, Central Italy. Felt at Piceno and Ascoli.  
 M=4.1 (CGS).  
 17 eZ P 07 26 07, USCGS: H= 07 18 55.9, 27.8 N, 56.5 E,  
 h=60 km, Southern Iran. M=4.9 (CGS).  
 17 eZ 09 13 45, iZ 09 13 54.3, iZ (Sn) 09 14 21.1, traces.  
 17 eZ P 13 21 47, USCGS: H= 13 14 20.2, 41.1 N, 69.7 E,  
 h=33 km, Kirghiz SSR, M=5.2 (CGS).  
 17 eZ+ P 14 39 20, eZ PP 14 42 19, D=8660 km, USCGS: H=  
 14 27 12.4, 52.8 N, 171.9 E, h=23 km, Near Islands,  
 Aleutian Islands, felt on Shemya. M=6.0 (CGS).  
 18 eiZ PKP 06 41 34.4, iZ! 06 41 41.2, iZpPKP 06 42 32.6,  
 USCGS: H= 06 22 02.9, 19.9 S, 176.1 W, h=151 km, Fiji  
 Islands region. M=5.5 (CGS).  
 18 iZ Pg 11 42 49.6, iZ Sg 11 42 53.5, D=23 km, traces.

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18 eZ 13 11 03, eZ 13 11 29, traces.  
 18 eZ PKP1 16 34 44, iZ! PKP2 16 34 49.8, USCGS: H= 16 15  
 56.1, 17.7 S, 178.9 W, h=507 km, Fiji Islands region.  
 M=5.1 (CGS).  
 19 eZ 01 45 15, traces.  
 19 iZ Pn 04 37 37.9, eZ Pg 04 38 11, eZ Sn 04 39 08, D=  
 840 km, BCIS: H=04 35 48, 41.4 N, 22.6 E, (Determination  
 made by electronic calculating machine), Bulgaria-  
 Greece-Yugoslavia border. Skopje: felt 5° in Gevgelia,  
 Valandovo, Strumica region (Macedonia). Sofia: felt 4°  
 in the Greece-Bulgaria border region. USCGS: H= 04 35  
 44.1, 41.4 N, 22.8 E, h=12 km, Yugoslavia. Felt in Gevgel-  
 ia, Valandovo and Strumica. M=4.3 (CGS).  
 19 eiZ Pn 09 10 36, BCIS: H=09 09.5, aftershock of preceding  
 earthquake.  
 19 eZ 16 37 59, eZ PKP 16 38 14, USCGS: H= 16 20 51.4, 02.0  
 S, 119.8 E, h=46 km, Celebes. M=5.0 (CGS).  
 19 eiZ PKP 17 56 05.0, eZ pPKP 17 58 29, USCGS: H= 17 37  
 18.6, 19.7 S, 178.7 W, h=617 km, Fiji Islands region.  
 M=5.5 (CGS).  
 19 eZ Pn 19 33 03, eZ 19 35 35, BCIS: H=19 31 15, aftershock  
 of the seism on March 19 at 04h 35m. Felt 4°.  
 19 eZ PKP 23 16 34, USCGS: H= 22 58 34.9, 0.0 N, 123.4 E,  
 h=173 km, Northern Celebes. M=5.6 (CGS).  
 19 eZ Pn 23 39 20, eiZ Pg 23 39 51, eZ Sn 23 40 45, iZ Sg  
 23 41 36, D=840 km, BCIS: H= 23 37 32, aftershock of  
 the seism on March 19, at 04h 35m. Felt 5°.  
 20 eZ 19 05 56, eZ 19 06 18, traces.  
 21 eZ P 11 22 39, eZ PKP 11 26 35, iZ 11 26 51.5, USCGS: H=  
 11 08 16.2, 1.5 S, 126.5 E, h=33 km, Molucca Sea. M=6 3/4  
 (PAS), 6 3/4 (BRK), 6 1/4-6 1/2 (PAL), 6.2 (CGS).  
 21 eZ 13 32 43, eZ PKP 13 32 51, USCGS: H= 13 15 24, 3.6  
 S, 124.4 E, h=36 km, Ceram Sea. M=5.3 (CGS).  
 21 eZ P 15 17 36, USCGS: H= 15 09 14.8, 40.4 N, 78.4 E,  
 h=33 km, Southern Sinkiang Province, China. M=5.1 (CGS).  
 22 eiZ PKP1 03 04 28.1, iZ! PKP2 03 04 33.8, iZpPKP 03 04  
 47.6, iZ 03 05 21.8, eZ PP 03 07 54, D=16 000 km,  
 USCGS: H=02 44 47.5, 15.3 S, 173.4 W, h=51 km, Tonga  
 Islands. Felt: Apia. M=6 1/2 (PAS), 6-6 1/4 (BRK), 6 1/2-  
 6 3/4 (PAL), 5.9 (CGS).  
 22 eZ Pn 03 24 46, iZ Pb 03 25 10.8, eZ Pg 03 25 40, eZ Sn  
 03 26 37, D=1100 km, USCGS: H= 03 22 25.9, 39.1 N, 24.2  
 E, h=33 km, Aegean Sea. M=4.5 (CGS).  
 22 eZ P 15 21 02, USCGS: H= 15 11 01.5, 8.8 N, 39.7 W,  
 h=28 km, Central Mid-Atlantic Ridge. M=4.5 (CGS).  
 22 eZ 23 14 19, eZ PP 23 15 16, eZ PPP 23 17 14, USCGS:  
 H=22 56 26.5, 31.9 S, 71.5 W, h=187 km, Near coast of  
 central Chile. Widely felt. M=6 (PAS), 6 (BRK), 5 1/4 (PAL),

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- 22 (cont.) 6.0 (CGS).
- 23 iZ- Pn 02 42 13.5, iZ Pb 02 42 19.9, iZ Sn 02 42 54.7, iZ Sg 02 43 09.1, D=360 km, BCIS: H= 02 41 26, 43 1/4 N, 16 E, Adriatic Sea.
- 23 eZ P 12 57 17, USCGS: H= 12 44 59.6, 51.2 N, 177.8 E, h=45 km, Rat Islands, Aleutian Islands. M=5.4 (CGS).
- 23 eZ P 16 06 56, USCGS: H= 15 56 58.3, 1.1 N, 29.3 W, h=33 km, Central Mid-Atlantic Ridge. M=4.7 (CGS).
- 23 iZ PKP1 18 35 49.6, iZ PKP2 18 35 57.7, iZ pPKP 18 36 09.5, USCGS: H= 18 16 08.4, 15.2 S, 173.5 W, h=75 km, Tonga Islands. Felt: Apia. M=5.4 (CGS).
- 24 eIZ PKP 00 13 50, obscured by microseisms, USCGS: H= 23 54 14.7, 15.2 S, 173.5 W, h=130 km, Tonga Islands. Felt: Apia. M=6 1/2 (PAS), 5.9 (BRK), 6 1/4-6 1/2 (PAL), 5.7 (CGS).
- 24 eZ P 08 18 49, USCGS: H= 08 08 05.2, 56.6 N, 152.4 W, h=30 km, Kodiak Island region. M=5 (BRK), 6 (PAL), 5.2 (CGS).
- 24 iZ P or PKP 08 22 12.7, iZ!! 08 22 14.5, obscured by microseisms.
- 25 iZ PKP1 07 36 23.6, iZ PKP2 07 36 28.5, USCGS: H= 07 17 21.4, 14.3 S, 167.4 E, h=205 km, New Hebrides Islands, M=5.8 (CGS).
- 25 eZ P 09 05 24, eZ PP 09 08 30, D=8800 km, USCGS: H= 08 53 13.6, 52.3 N, 172.6 E, h=31 km, Near Islands, Aleutian Islands. M=5.3 (CGS).
- 25 iZ Pg 12 54 52.9, iZ Sg 12 54 55.9, D=22 km, not felt.
- 26 iZ- PKP 00 39 25.8, USCGS: H= 00 20 56.3, 20.0 S, 178.1 W, h=567 km, Fiji Islands region. M=5.8 (CGS).
- 26 iZ P or PKP 12 23 33.6, traces.
- 26 eZ PKP 16 32 30, USCGS: H= 16 12 36.9, 22.2 S, 175.0 W, h=33 km, Tonga Islands region. M=5.2 (CGS).
- 26 eZ 20 32 55, eIZ! 20 32 58, BCIS: H= 20 29 25, 38.0 N, 30.9 E, Central Turkey. USCGS: H= 20 29 22.0, 36.8 N, 30.9 E, h=110 km, Turkey. M=5.3 (CGS).
- 27 eZ 03 13 13, eIZ (Sn) 03 14 05, BCIS: H= 03 11 58, (Determination by electronic calculating machine), h= 13 km, High Saute, near Salgan. Stuttgart:  $48^{\circ} 02.0' N$ ,  $9^{\circ} 28.5' E$ . Felt  $5^{\circ}$  at Salgan.
- 27 iZ Pn 22 36 44.0, iZ! Pg 22 36 45.2, iZ! Sg 22 37 01.8, iZ!! 22 37 05.1, D=140 km, BCIS: H= 22 36 24, 46.6 N, 13.0 E (Determination by electronic calculating machine), Carnian Alps.
- 28 iZ P or PKP 08 32 21, eIZ 08 32 36.
- 28 eZ P 13 34 40, eZ PP 13 37 35, D=8600 km, USCGS: H= 13 22 57.6, 55.1 N, 162.1 E, h=33 km, Near east coast of Kamchatka. M=5.9 (CGS).
- 28 eZ P 16 47 23, eZ 16 51 09, iZ PP 16 51 59, iZ! 16 52

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- 28 (cont.) 29.7, eZ PPP 16 53 51, eNE S 16 58 09, USCGS: H= 16 33 14.6, 32.4 S, 71.2 W, h=61 km, Near coast of central Chile. About 400 dead or missing, many injured and extensive property damage in central Chile. M=7-7 1/4 (PAS), 6.4 (CGS).
- 29 iZ+ P 10 59 56.3, eZ PP 11 03 00, eZ S 11 10 20, D= 9650 km, USCGS: H= 10 47 37.6, 40.8 N, 142.8 E, h=33 km, Near east coast of Honshu, Japan. M=6.1 (CGS).
- 29 eiZ (Pn) 14 56 10.7, iZ Sn 14 56 35.7, iZ Sg 14 56 44.1, (D=300 km).
- 29 eiZ PKP 15 39 50.9, USCGS: H= 15 20 15.8, 21.4 S, 170.2 E, h=100 km, Loyalty Islands region.
- 30 Z PKP 00 17 (00), USCGS: H= 23 57 33.5, 28.7 S, 178.4 W, h=228 km, Kermadec Islands, M=4.4 (BRK), 5.2 (CGS).
- 30 eZ PKP 00 40 49, USCGS: H= 00 21 00.2, 20.0 S, 173.9 W, h=33 km, Tonga Islands. M=5.5 (CGS).
- 30 iZNE- P 02 39 28, iZ!! 02 39 33.1, iZ 02 39 35.7, eNE S 02 49 52, D=8800 km, USCGS: H= 02 27 07.2, 50.6 N, 177.9 E, h=51 km, Rat Islands, Aleutian Islands. Felt at Amcitra. M=7-7 1/4 (PAS), 6 3/4-7 (BRK), 7 3/4 (PAL).
- 30 eZ P 03 05 32, USCGS: H= 02 53 15.5, 50.4 N, 177.5 E, h=33 km, Rat Islands, Aleutian Islands. M=5.1 (CGS).
- 30 eZ P 03 37 52, eZ 03 38 15, eZ 03 38 40.
- 30 iZ (Pg) 06 58 52.6, iZ 06 59 05.5, traces.
- 30 iZ Pg 13 14 34.2, iZ! Sg 13 14 38.3, D=31 km.
- 30 iZ P 16 11 51.0, eZ PP 16 14 59, D=8800 km, USCGS: H= 15 59 34.1, 41.0 N, 142.7 E, h=32 km, Near east coast of Honshu, Japan. M=5.7 (CGS).
- 30 eZ 17 36 15, eZ (Sn) 17 36 51, traces. BCIS: H= 17 34 46, High Saute near Salgan, aftershock of March 27.
- 31 eiZ Pn 08 28 18.3, iZ 08 28 22.5, iZ(Sn) 08 28 51.9, iZ! 08 28 59.3, (D=300 km).
- 31 iZ!NE Pn 09 49 42.3, iN Sn 09 51 30.3, D=1040 km, BCIS: H=09 47 29, (Determination by electronic calculating machine), 38.4 N, 22.2 E, h=100 km, Greece, near Gulf of Corinth, M=7.4 (Upsala), 6 3/4-7 (Strasbourg), 6.6 (Sofia), 6.4 (Pruhonice), Press: 4 killed, several dozens injured, important damage in Patras, Agrinion and Mesolongion regions. Skopje: felt largely in southern Macedonia. Ljubljana: felt 1-2°! USCGS: H= 09 47 30.7, 38.6 N, 22.4 E, h=78 km, Greece. 3 killed, 16 injured, major property damage at Patras and Agrinion. Felt in southern Italy. M=6 3/4 (PAS), 6 3/4-7 (BRK), 6 1/2-6 3/4 (PAL), 6.3 (CGS).
- 31 eiZ Pn 12 03 20.4, eZ Sn 12 05 03, D=1040 km, BCIS: H= 12 01 10, aftershock of preceding earthquake.
- 31 eiZ Pn 20 10 43.4, eZ 20 11 52, eZ 20 12 11, USCGS: H= 20 08 26, 39.4 N, 24.1 E, h=33 km, Aegean Sea, M=4.3 (CGS), D=1040 km.

Ljubljana, Nov. 15, 1965

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1965

PRELIMINARY SEISMOLOGICAL BULLETIN  
(April 1965- June 1965)

University of Ljubljana  
Astronomical and Geophysical  
Observatory,  
Ljubljana, Trg revolucije 11,  
P.O.B. 01-20, Yugoslavia

1965

PRELIMINARY SEISMOLOGICAL BULLETIN  
from April 1, 1965 to June 30, 1965

Station: Ljubljana (LJU) - Coordinates:  $46^{\circ} 02.6' N$  Lat.  
 $14^{\circ} 32.0' E$  Long.

Geocentric direction cosines:  $a=+ 6743$ ,  $b=+ 1748$ ,  $c=+ 7175$ ,  
 $d=- 8$ ,  $h=- 4$ ;

Height above mean sea level: 396 m;  
Lithologic foundation: sandstone (carbon);

Instruments:

Wiechert, horizontal astatic seismograph,  $M=200$  kg, mechanical  
registration, 16 mm/min;  
Constants (June 15, 1965):

Component	$T_0$	v:1	$r/T_0^2$	v
N-S	5.0	2.30	0.0030	67
E-W	4.9	2.42	0.0083	84

Hiller-Stuttgart, vertical component Z with galvanometrical  
recording;  $T_0=1.5$  sec,  $T_g=1.5$  sec,  $D_1=D_2=1$ ,  $V_{max}=$   
10 150 x, registration speed: 60 mm/min.

Note: Periods of seismic waves are given in seconds, the  
amplitudes in microns; sign + means compression, movement of  
ground towards north or east, sign - means dilatation or  
movement towards south or west. All times are given in GMT.  
Time signals are received one or two times daily from Ponto-  
ise, Potsdam or Moscow and are registered on a chronograph.  
Wherever possible time readings up to one tenth of a second  
are given. Macroseismic data are given in Mercalli-Cancani-  
Sieberg (MCS) intensity scale, macroseismic rays in kilome-  
ters. Abbreviation DECM means: Determination by electronic  
calculating machine.

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1 eZ P 01 15 55, eZ 01 16 08,  $D=2300$  km, BCIS:  $H= 01 11$   
 $37$  (DECM),  $36.0$  N,  $35.8$  E, Central Turkey, Antiochia  
region. USCGS:  $H= 01 11 36.4$ ,  $36.0$  N,  $35.8$  E,  $h=42$  km,  
Jordan-Syria region.  $M=4.3$  (CGS).

1 eZ PKP 21 40 22, USCGS:  $H= 21 20 43.8$ ,  $50.0$  S,  $114.1$   
W,  $h=33$  km, Easter Island Cordillera.  $M=5.3$  (CGS).

2 eZ P 13 17 21, USCGS:  $H= 13 04 01.8$ ,  $12.5$  N,  $123.5$  E,  
 $h=33$  km, Luzon, Philippine Islands,  $M=5.6$  (CGS).

2 eZ PKP 16 03 12, eZ 16 03 43, USCGS:  $H= 15 44 01.0$ ,  
 $27.1$  S,  $179.2$  W,  $h=382$  km, Kermadec Islands,  $M= 4.7$   
(CGS).

2 iZ P 22 34 17.6, eZ 22 35 02, eZ 22 36 08, USCGS:  $H=$

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- 2 (cont.) 22 26 47.3, 36.8 N, 66.6 E, h=38 km, Hindu Kush region. M=5.5 (CGS).
- 3 eIZ P 06 06 09, USCGS: H= 05 53 07, 3.9 S, 102.3 E, h=51 km, Southern Sumatra. M=4.9 (CGS).
- 3 eZ Pn 08 32 45, eZ (Sg) 08 34 01.
- 3 eZ P 11 34 (00), USCGS: H= 11 20 43.5, 16.0 N, 97.9 W, h=16 km, Near coast of Oaxaca, Mexico. Felt at Mexico City. M=6 (PAS), 5 1/2-5 3/4 (PAL), 5.5 (CGS).
- 3 eZ P 11 42 37, eZ 11 43 40, eZ PP 11 46 19, D=10100 km, USCGS: H= 11 29 13.0, 16.1 N, 97.8 W, h=45 km, Oaxaca, Mexico. Felt at Mexico City. M=6-6 1/4 (PAS), 5.5 (CGS).
- 3 iZ Pn 14 33 01.4, iZ Pb 14 33 23.2, iZ 14 33 52.4, iZ Sn 14 34 39.9, iZ Sb 14 35 03.2, BCIS: H= 14 30 53, 38.4 N, 20.6 E, h=60 km, Ionian Sea. USCGS: H= 14 30 47.7, 38.3 N, 20.4 E, h=22 km, Greece. M=5.0 (CGS). D=950 km.
- 3 iZ Pn 15 03 38.0, iZ Pb 15 03 52.4, iZ Sn 15 05 09.5, D=1000 km.  
 From April 3 at 15<sup>h</sup> 30<sup>m</sup> to April 4 at 09<sup>h</sup> 36<sup>m</sup> no Z records.
- 4 eZ P 13 42 51, eZ PP 13 45 50, D=8770 km, USCGS: H= 13 30 37.8, 51.9 N, 175.2 E, h=40 km, Rat Islands, Aleutian Islands. M=6 (PAS), 5.4 (BRK), 6-6 1/4 (PAL), 5.7 (CGS).
- 4 eZ PKP 15 56 07, USCGS: H= 15 36 11.9, 26.9 S, 176.1 W, h=33 km, South of Fiji Islands. M=6 (PAS), 5 1/2-5 3/4 (BRK), 5.6 (CGS).
- 4 iZ+ P 20 22 51.7, eZ pP 20 23 29, eZ 20 25 36, USCGS: H=20 09 41.1, 8.8 S, 74.5 W, h=143 km, Peru-Brazil border region. M=5.3 (CGS).
- 4 eZ P 20 44 11, USCGS: H= 20 31 35.0, 4.9 N, 76.1 W, h=102 km, Colombia. Felt at Bogota, Cali and Pereira. M=4.9 (CGS).
- 5 iZ+ P 03 15 15.0, iZ PP 03 15 23.2, iZ S 03 17 11.8, eNE S 03 17 15, D=1140 km, BCIS: H= 03 12 50 (DECM), 34.7 N, 21.9 E, Peloponnesos, Greece. M=6 1/4 (Athens, Uppsala), 6.0 (Strasbourg), 6 (Moxa), 5.3 (Pruhonice), Press: 11 killed, 50 injured, Apiditsa and Horemy completely destroyed, 70% buildings destroyed at Zevjolatio and Diavolitsi; 20% of buildings destroyed at Megalopolis. Panic in western region of Peloponnesos, especially at Patras. USCGS: H= 03 12 54.2, 37.7 N, 21.8 E, h=34 km, Southern Greece. 20 dead, 200 injured and 2000 homes destroyed in central Peloponnesos. M= 5 1/2-5 3/4 (PAL), 5.7 (CGS).
- 5 eZ P 14 04 26, eZ pP 14 04 49, eZ PP 14 07 34, D= 8990 km, USCGS: H= 13 52 13.4, 44.6 N, 151.1 E, h=81 km, Kurile Islands region. M=5 (BRK), 5 1/2-5 3/4 (PAL), 5.7 (CGS).
- 5 eZ 22 43 20, traces.
- 6 iZ+ P 05 44 26.2, eZ PP 05 47 19, D=8440 km, USCGS: H= 05 31 59.7, 36.1 N, 139.6 E, h=69 km, Honshu, Japan. M=5.7.

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- 6 From April 6, at 09<sup>h</sup> 02<sup>m</sup> to April 6, at 09<sup>h</sup> 26<sup>m</sup> no time marks.
- 6 eZ 09 55 30, eZ (Sn) 09 55 48.
- 6 eZ 09 59 15, eZ PKP 10 00 25, eZ PP 10 01 40, USCGS: H= 09 42 28.2, 0.5 S, 119.9 E, h=33 km, Northern Celebes. M=6 (PAL), 5.3 (CGS).
- 6 eZ P 13 31 21, USCGS: H= 13 19 02.2, 51.3 N, 179.8 W, h=46 km, Andreanoff Islands, Aleutian Islands. M=5.2 (CGS).
- 6 eZ Pg 17 00 43, iZ Sg 17 00 46.9, D=33 km.
- 6 eZ 20 33 40, eZ (S) 20 34 23, eZ 20 35 14, traces.
- 7 eZ 00 12 31, eZ (Sn) 00 13 03, traces.
- 7 eZ Pn 04 19 05, eZ Sn 04 21 06, D=1140 km, BCIS: H= 04 16 45, (DECM), 37.4 N, 22.5 E, h=95 km, Peloponnesos, USCGS: H= 04 16 47, 37.7 N, 22.5 E, h=70 km, Southern Greece, M=4.9 (CGS).
- 7 eZ Pn 07 53 41, eZ 07 53 56, traces.
- 7 iZ PKP 08 31 28.0, USCGS: H= 08 12 28, 16.7 S, 178.2 W, h=407 km, Fiji Islands region. M=4.4 (CGS).
- 7 iZ Pg 09 31 07.3, iZ Sg 09 31 27.2, D=170 km.
- 7 eZ PKP1 18 07 45, iZ PKP2 18 07 53.7, eZ pPKP 18 10 16, USCGS: H= 17 48 59.7, 21.0 S, 178.8 W, h=568 km, Fiji Islands region. M= 5.5 (CGS).
- 8 eZ 01 26 50, eZ 01 27 18, eZ 01 28 38, traces.
- 8 eZ PKP1 13 10 09, iZ PKP2 13 10 14.9, eZ pPKP 13 12 29, USCGS: H= 12 51 27.8, 17.6 S, 178.7 W, h=575 km, Fiji Islands region. M= 5 1/4-5 1/2 (BRK), 5.2 (CGS).
- 8 Z P 13 56 (00), eZ 13 56 07, eZ PP 13 59 06, D=8780 km, USCGS: H= 13 43 52.8, 52.2 N, 173.5 E, h=46 km, Near Islands, Aleutian Islands, felt on Shemya. M= 5 3/4 (PAS), 6 (PAL), 5.4 (CGS).
- 8 eZ P 14 43 22, eZ PP 14 46 25, D=8780 km, USCGS: H= 14 31 10.9, 52.0 N, 173.4 E, h=34 km, Near Islands, Aleutian Islands. M=5.3 (CGS).
- 10 iZ P 00 00 06.8, iZ! 00 00 08.8, iZNE! S 00 02 29.7, eNE M 00 05 46, D=1440 km, BCIS: H= 23 57 08 (DECM), 35.4 N, 24.1 E, h=80 km, Crete. M=6-6 1/4 (Strasbourg), 6,1 (Pruhonice), 6 (Moxa), USCGS: H= 23 57 03.2, 35.1 N, 24.3 E, h=51 km, Crete, felt on Crete and in Cairo, Egypt. M=5 3/4 (PAL), 6.0 (CGS).
- 10 iZ P 00 23 05.1, iZ S 00 25 20.6, D=1440 km, BCIS: H= 00 20 07, aftershock of preceding shock, USCGS: H= 00 20 01.1, 35.0 N, 24.2 E, h=59 km, Crete. M=4.5 (CGS).
- 10 eZ 13 53 (00), eiZ (Sn) 13 53 36.7, traces.
- 10 eiZ P 14 19 26.1, eZ PP 14 21 12, D=5440 km, USCGS: H= 14 11 22.0, 37.6 N, 73.4 E, h=33 km, Tadzhik SSR, M=5.5 (CGS).

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- 10 eIZ Pg 14 27 53, eZ Sg 14 28 12, traces, D=155 km.  
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 10 eIZ PKP 15 06 48, USCGS: H= 14 46 50.7, 20.2 S, 173.7 W, h=33 km, Tonga Islands, M=5.7 (CGS).  
 10 eZ P 17 07 03, eZ PP 17 10 04, D=8740 km, USCGS: H=16 54 55.8, 53.1 N, 170.9 E, h=8 km, Near Islands, Aleutian Islands. M=5.8 (CGS).  
 10 eZ PKP 20 03 10, USCGS: H= 19 43 23.2, 15.8 S, 172.0 W, h=43 km, Samoa Islands region. M=5.3 (CGS).  
 10 iZ P 21 29 15.1, USCGS: H= 21 21 27.3, 37.3 N, 71.9 E, h=136 km, Afghanistan-USSR border region. M=4.9 (CGS).  
 10 iZ PKP1 22 51 31.1, iZ!! PKP2 22 51 36.3, iZ pPKP 22 53 47.2, eZ PP 22 55 16, USCGS: H= 22 32 46.6, 17.8 S, 178.8 W, h=543 km, Fiji Islands region. M=6 SMALL SD, 5 1/2-5 3/4 (BRK), 5.9 (CGS).  
 10 eZ PKP 23 11 23, iZ pPKP 23 14 08.0, USCGS: H= 22 53 04.8, 13.4 S, 170.3 E, h=644 km, New Hebrides Islands region. M=6.2 (CGS).  
 11 iZ+ PKP1 00 31 11.9, iZ PKP2 00 32 09.8, iZ! 00 32 18.6, eZ PP 00 36 06.1, eZ PPP 00 39 50, D=18 870 km, USCGS: H= 00 11 08.8, 42.7 S, 173.9 E, h=7 km, South Island, New Zealand, M=6.2 (CGS).  
 11 eZ PKP 13 45 40, USCGS: H= 13 25 46.0, 22.0 S, 175.3 W, h=33 km, Tonga Islands region. M=4.7 (CGS).  
 11 eIZ PKF 17 23 40, USCGS: H= 17 03 45.8, 30.7 S, 178.1 W, h=67 km, Kermadec Islands region. M=5.3 SD 1.5 (CGS).  
 11 iZ PKP1 19 10 24.8, eZ PKP2 19 10 39, iZ 19 11 (00), eZ pPKP 19 12 37, USCGS: H= 18 51 38.1, 26.2 S, 178.5 E, h=581 km, South of Fiji Islands. M=5.6 (CGS).  
 11 eZ P 22 43 29, eZ 22 43 42, USCGS: H= 22 33 05.9, 26.7 N, 92.3 E, h=70 km, Eastern India. M=5.1 (CGS).  
 12 eZ F 04 11 33, USCGS: H= 03 59 40.2, 56.6 N, 152.7 W, h=33 km, Kodiak Island region. M=5.3 (CGS).  
 12 eZ PKP 09 11 20, USCGS: H= 08 51 16.7, 32.5 S, 178.1 W, h=22 km, South of Kermadec Islands, M=4.9 (CGS).  
 12 iZ- Pn 13 08 20.6, iZ Sn 13 09 47.6, D=830 km.  
 12 iZ- P 20 53 24.6, eZ 20 55 06, USCGS: H= 20 41 16.3, 30.2 N, 138.5 E, h=421 km, South of Honshu, Japan. M=5 3/4-6 (BRK), 5.8 (CGS).  
 13 From April 13,0531 to April 13,1310 no time marks.  
 14 Z 05 54 (00), iZ (Sn) 05 54 30.4, traces.  
 15 eZ PKP 23 59 43, USCGS: H= 23 39 55, 17.6 S, 173.4 W, h=45 km, Tonga Islands, M=4.8 (CGS).  
 16 eZ PKP 00 35 33, USCGS: H= 00 15 52.3, 22.3 S, 175.5 W, h=120 km, Tonga Islands region. M=4.8 (CGS).  
 16 eZ PKP 10 18 41, iZ! 10 18 42.6, USCGS: H= 09 59 06.2,

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- 16 (cont.) 20.1 S, 169.2 E, h=62 km, New Hebrides Islands M=5.0 (CGS).  
 16 eZ 21 23 05, eZ 21 23 25, traces.  
 16 eZ 22 13 39, traces.  
 16 eZ-P 23 33 30, eZ PP 23 36 21, D=8440 km, USCGS: H= 23 22 18.6, 64.7 N, 160.1 W, h=5 km, Central Alaska. Felt at Norton Sound vicinity. M=5 3/4-6 (PAS), 5 3/4-6 (BRK), 5.8 (CGS).  
 17 eZ+ P 00 12 37, USCGS: H= 00 00 29.7, 52.6 N, 173.1 E, h=43 km, Near Islands, Aleutian Islands, Felt on Shemya, M=5.1 (CGS).  
 17 eZ P 02 56 22, USCGS: H= 02 45 04.8, 7.2 S, 67.9 E, h=33 km, Mid-Indian Rise. M=5.2 (CGS).  
 17 eZ Pn 19 18 31, eiz (Pg) 19 19 04.5, eZ (Sb) 19 20 20.4, traces.  
 17 eZ 23 02 05, eZ 23 02 18, traces.  
 18 eZ Pg 05 57 37, eZ Sg 05 57 52, D=133 km.  
 18 eZ P 06 46 41, USCGS: H= 06 33 58.8, 41.5 N, 127.1 W, h=20 km, Off coast of Northern California. M=6 (BRK), 5 3/4-6 (PAL), 5.6 (CGS).  
 18 eZ PKP 08 25 23, eZ 08 25 48, USCGS: H= 08 06 39.5, 4.7 S, 151.7 E, h=142 km, New Britain region. Felt: Rabaul. M=5.2 (CGS).  
 18 eZ PP 09 58 26, USCGS: H= 09 39 18.7, 59.8 S, 26.8 W, h=29 km, South of Sandwich Islands region. M=5 1/2 (BRK), 5.9 (CGS).  
 18 eZ PKP 14 28 02, USCGS: H= 14 08 01.4, 26.9 S, 176.1 W, h=33 km, South of Fiji Islands. M=5.2 (CGS).  
 19 iZ- Pg 02 27 30.3, iZ 02 27 36.7, iZ 02 27 42.7, iZ! Sg 02 27 50.3, D=160 km, BCIS: H= 02 27 06, (DECM), 46.3 N, 12.7 E, Venetian Alps (Italy).  
 19 iZ P 08 18 29.7, eIZ 08 18 40, USCGS: H= 08 06 00, 1.8 N, 98.5 E, h=55 km, Northern Sumatra. M=5.5 (CGS).  
 19 eIZ+ P 23 54 31, USCGS: H= 23 41 58.8, 34.9 N, 138.0 E, h=36 km, Near south coast of Honshu, Japan. M=5.6 (CGS).  
 20 iZ P 05 24 31.2, USCGS: H= 05 15 24, 34.1 N, 82.0 E, h=33 km, Tibet.  
 20 eZ P 06 55 19, eZ PP 06 58 17, D=8740 km, USCGS: H= 06 43 08.8, 52.4 N, 172.0 E, h=35 km, Near Islands, Aleutian Islands. M=5-5 1/4 (PAL), 5.5 (CGS).  
 20 iZ- Pg 12 09 38.9, iZNE! Sg 12 09 40.8, D=18 km. Not felt.  
 20 iZ Pg 14 08 14.8, iZ Sg 14 08 17.2, D=20 km.  
 21 iZ Pg 09 44 28.0, iZ Sg 09 44 30.3, D=20 km.  
 22 iZ PKP 01 24 51.8, iZ PP 01 28 27.7, D=9770 km, USCGS:

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- 22 (cont.) H=01 05 50.2, 14.3 S, 167.3 E, h=204 km, New Hebrides Islands. Felt on Vanikoro. M=5.3 (CGS).
- 22 eZ P 18 48 15, eZ PP 18 51 00, D=7990 km, USCGS: H= 18 36 01.2, 51.8 N, 176.1 E, h=37 km, Rat Islands, Aleutian Islands. M=4 1/2 (BRK), 5.1 (CGS).
- 23 eZ 11 40 34, eZ 11 41 25, traces.
- 24 eZ PKF 00 24 46, USCGS: H= 00 04 33, 32.8 S, 178.4 W, h=33 km, South of Kermadec Islands. M=4.7 SD 0.1 (CGS).
- 24 eZ P 08 15 10, USCGS: H= 08 02 26.3, 19.2 N, 121.2 E, h=43 km, Philippine Islands region. M=5.0 (CGS).
- 24 iZ+ Pg 12 39 27.0, iZ Pg 12 39 36.9, iZ Sn 12 40 02.4, D=310 km, BCIS: H= 12 38 52, 44.0 N, 11 3/4 E, Etruscan Apennins.
- 24 eZ PKP 14 47 39, USCGS: H= 14 28 02.9, 19.4 S, 168.7 E, h=37 km, New Hebrides Islands. M=4.8 (CGS).
- 25 eZ PKP 00 45 20, USCGS: H= 00 25 14.8, 32.5 S, 177.9 W, h=33 km, South of Kermadec Islands. M=4.8 SD 1.3 (CGS).
- 25 eZ+ P 01 13 36, eZ PP 01 17 17, D=7940 km, USCGS: H= 01 00 11.6, 24.5 N, 142.7 E, h=15 km, Volcano Islands region. M=5 3/4-6 (PAS), 5.6 (CGS).
- 25 iZ+ P 05 50 06.5, USCGS: H=05 38 12.6, 6.5 N, 94.6 E, h=85 km, Nicobar Islands region. M=3.2 (CGS).
- 25 eZ PKP 07 11 40, USCGS: H= 06 52 43.1, 5.4 S, 151.8 E, h=49 km, New Britain region. Felt at Rabaul. M=5.4 (CGS).  
From April 25, 0947 to April 26, 1854 no time marks.
- 26 iZ+ P 20 41 13.4, eZ PP 20 44 12, D=8770 km, USCGS: H= 20 29 07.4, 54.5 N, 162.6 W, h=53 km, Alaska Peninsula, M=5.9 (CGS).
- 26 iZ- P 22 28 20.1, eZ PP 22 31 41, eZ PPP 22 33 37, D=9550 km, USCGS: H= 22 15 42.5, 21.1 N, 120.7 E, h= 33 km, Taiwan region. M=5.9 (CGS).
- 26 eZ P 22 35 48, USCGS: H= 22 23 10.9, 21.5 N, 120.9 E, h=33 km, Taiwan region. M=5.1 (CGS).
- 27 eZ 07 41 55, eZ (Sn) 07 42 38, eZ 07 42 45, traces.
- 27 iZ PKP 11 12 56.2, eZ PP 11 13 41, D=12540 km, USCGS: H= 10 54 28.0, 7.0 S, 129.5 E, h=67 km, Banda Sea, M= 5.9 (CGS).
- 27 iZ Pg 12 23 35.6, iZ Sg 12 23 38.5, D=23 km.
- 27 iZ Pn 14 11 58.6, iZ 14 12 20.8, iZNE Sn 14 14 10, iZ! 14 14 42, D=1450 km. BCIS: H= 14 09 06, 35.5 N, 23.6 E, h=50 km (DECM), West point of Crete. M=5 3/4 (Strasbourg), 5.3 (Pruhonice), USCGS: H= 14 09 07.1, 35.7 N, 23.5 E, h=50 km, Crete, M=5.5 (CGS).
- 28 eZ PKP 23 15 36, USCGS: H= 22 54 46, 17.1 S, 173.6 W, h=35 km, Tonga Islands. M=4.7 (CGS).
- 29 iZ Pn 09 49 59.2, iZ 09 50 19.6, obscured by microseisms.

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- 29 (cont.), BCIS: H= 09 47 02 (DECM), 37.1 N, 26.9 E, Dodecanese Islands. Felt at Izmir. USCGS: H= 09 46 57.7, 37.0 N, 26.9 E, h=30 km, Dodecanese Islands. Felt at Izmir, Turkey. M=4.9 (CGS).
- 29 iZ+ PKP 10 03 29.8, USCGS: H= 09 44 34.2, 22.1 S, 179.8 E, h=540 km, South of Fiji Islands.
- 29 eZ P or PKP 11 03 02.
- 29 eiZNE P 15 40 46.8, iZ! 15 40 55.5, eZNE S 15 50 48, D=8770 km, USCGS: H= 15 28 43.3, 47.4 N, 122.4 W, h= 57 km, Washington. Two killed, some injured, moderate property damage in Seattle area. Felt in Oregon, Idaho, Montana, British Columbia and on Vancouver. M=6.6 (PAS), 6 3/4-7 (BRK), 7 1/4 (PAL), 6.5 (CGS).
- 29 eiZ P or PKP 16 01 39.2, eZ 16 05 39.
- 29 eZ 18 21 17, eZ (Sn) 18 21 53, iZ 18 22 06, traces.
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- 1 eZ Pn 02 02 47, eZ 02 03 21, eZ 02 05 04, BCIS: H=01 59 44 (DECM), 37.0 N, 27.0 E, Dodecanese Islands. USCGS: H=01 59 47, 37.1 N, 27.0 E, h=33 km, Turkey. M=4.4 SD 1.5 (CGS).
- 1 eZ (Pn) 09 25 06, eZ (Sn) 09 27 15, (D=1280 km).
- 1 iZ Pg 15 39 20.8, iZ Sg 15 39 30.0, D=75 km.
- 1 iZ Pg 17 39 39.8, iZ Sg 17 39 55.2, D=124 km.
- 1 eZ P 21 39 21, eZ 21 42 04, USCGS: H= 21 27 54.4, 60.4 N, 146.0 W, h=33 km, Southern Alaska. M=5.3 (CGS).
- 2 eZ P 00 16 18, USCGS: H= 00 03 22.2, 30.9 N, 141.8 E, h=33 km, South of Honshu, Japan. M=4.9 (CGS).
- 2 eZ 01 47 22, eZ (Sg) 01 47 37, traces.
- 2 eZ P 07 26 19, USCGS: H= 07 13 42, 28.9 N, 128.9 E, h=30 km, Ryukyu Islands. M=5.0 SD 2.0 (CGS).
- 2 eZ Pn 22 36 18, eZ 22 36 37, eZ Sn 22 38 34, D=1400 km, BCIS: H= 22 33 26, 35.5 N, 23.6 E, h=50 km, (DECM), West point of Crete. Aftershock of April 27, at 14 09 06.
- 3 eZ P 04 07 35, USCGS: H=03 57 02, 12.1 S, 14.8 W, h= 33 km, South Atlantic Ridge, M=4.9 SD 1.5 (CGS).
- 3 eZ 04 57 50, eZ (Sn) 04 58 33, traces.
- 3 eZ 07 19 05, eZ 07 20 48, traces.
- 3 iNE Pg 14 27 18.1, iNE Sg 14 27 20.8, D=20 km, Litija-Hotič region, east from Ljubljana, Io=3-4° MCS, Ljubljana felt 3° MCS.  
From May 3, at 0910 to May 4, at 0557 no time marks on Z component.
- 4 eZ 07 25 21, eZ Sn 07 27 06, traces.

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- 4 eZ- P 08 43 05, iZ! 08 43 10.8, eZ PP 08 44 47, D= 4770 km.USCGS: H= 08 34 39.8, 41.7 N, 79.4 E, h=6 km, Kirghiz-Sinkiang border region. M=5.7 (CGS).
- 5 eZ P 23 14 11, obscured by microseisms,USCGS: H= 23 02 01.7, 52.6 N, 173.5 E, h=32 km,Near Islands,Aleutian Islands,M=5.6 (CGS).
- 7 eZ 08 18 24, eZ 08 19 36, traces.
- 7 eZ PKP 12 26 48, USCGS: H= 12 07 59, 17.5 S, 179.1 W, h=546 km, Fiji Islands region.M=4.1 SD 0.5 (CGS).
- 7 eZ 14 28 45, eZ (Sn) 14 29 52, traces.
- 7 eiZ P 14 45 23.6,BCIS: H= 14 42 21, 36.8 N,26.8 E, h= 150 km, Aegean Sea (DECM),USCGS: H= 14 42 21.8, 36.7 N, 26.9 E, h=162 km,Dodecanese Islands, M=4.6 (CGS).
- 7 eZ PKP 16 52 30, USCGS: H= 16 32 30.6, 32.4 S, 178.3 W, h=33 km,South of Kermadec Islands. M=5.1 SD 1.6 (CGS).
- 7 iZ Pn 23 50 39.0, iZ 23 51 36.5, traces.
- 8 eZ P 01 31 09, USCGS: H= 01 22 31.6, 80.2 N,122.9 E, h=33 km,East of Severnaya Zemlya,M=4.7 (CGS).
- 8 eZ P 03 18 21, USCGS: H= 03 05 38.5, 18.4 N, 120.4 E, h=56 km,Luzon,Philippine Islands, M=5.6 (CGS).
- 9 iZ Pg 16 00 22.6, eZ Sg 16 00 37, D=115 km.
- 10 eZ Pn 02 07 37, eZ 02 08 08, eZ (Sn) 02 08 18, (D= 380 km).
- 10 eZ Pn 04 27 24, eZ 04 27 59, BCIS: H= 04 26 30,(DECM), 44.3 N, 10.4 E,Toscan Apennins,Italy.Premonitory shock.
- 10 iZ Pn 04 29 40.7, iZ 04 29 59.4, iZ(Sn) 04 30 29.1, eZ 04 30 40, (D=about 400 km).
- 10 eZ Pn 04 42 11,iZ 04 42 23.8, iZ(Sn) 04 42 49.6,BCIS: H=04 41 17 (DECM), 44.3 N, 10.4 E,Toscan Apennin, Italy. D=360 km.
- 10 iZ+ Pn 04 56 07.0, iZ Sn 04 56 45.8, D=360 km,after-shock.BCIS: H= 04 55 13.
- 10 iZ+ Pn 05 03 56.4, iZ! 05 04 10.1, iZ Sn 05 04 36.6, eNE 05 05 (00), D=375 km.BCIS: H= 05 03 03 (DECM), 44.3 N, 10.4 E, Toscan Apennin,Italy,aftershock.
- 10 eZ Pn 05 11 26, eZ 05 11 43, eZ Sn 05 11 59, D=340 km.
- 10 iZ Pn 05 35 18.8, eZ 05 35 28, eZ Sn 05 35 51, D=340 km.
- 11 eZ Pn 06 12 14, eiZ Sn 06 12 52, D=360 km.
- 11 iZ Pn 16 37 48.7, eZ Sn 16 38 22, D=290 km.
- 11 eZ P 17 48 57, eZ 17 49 14, USCGS: H= 17 37 38.3, 61.4 N, 149.6 W, h=58 km,Southern Alaska.Felt widely in the Anchorage area. M=5.5 (CGS).
- 11 eZ 18 24 30,traces.

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- 11 iZ+ P 22 38 06.0, eZ 22 39 40,BCIS: H= 22 36 01, (DECM),45.8 N,26.9 E, h=100 km,Deep seism in Vrancea region,Romania.
- 12 iZ Pn 00 42 50.1, eZ Sn 00 43 24, D=360 km,BCIS: H= 00 41 56, aftershock of seisms of May 10,at 0441.
- 12 eZ Pn 12 00 46, iZ 12 01 04.6, iZ Sn 12 01 26.5,D= 370 km.
- 13 eZ P 02 35 48, USCGS: H=02 23 23, 19.3 S, 63.8 W, h= 589 km,Southern Bolivia. M=5.1 SD 0.7 (CGS).
- 13 iZ Pg 19 34 19.0, iZ Sg 19 34 32.5, D=110 km.
- 13 eZ Pn 21 11 11,eZ Pb 21 11 32, iZ Sn 21 12 50.3, D= 950 km, BCIS: H= 21 09.2, 39 1/4 N, 20 1/2 E,Greece.
- 14 eiZ PKP 02 46 10, USCGS: H= 02 27 00.2, 19.0 S, 169.5 E, h=259 km,New Hebrides Islands.M=4.6 SD 0.9 (CGS).
- 14 eZ 13 39 48, eZ 13 40 19,traces.
- 14 iZ PKP 23 47 17.4, USCGS: H= 23 28 13.7, 20.7 S, 177.7 W, h=467 km, Fiji Islands region.M=5.3 SD 1.6 (CGS).
- 15 eZ 13 38 56, eZ 13 39 11,traces.
- 15 eZ 14 46 10, eZ 14 46 33,traces.
- 15 eZ 17 14 11,eZ 17 14 46, eZ 17 15 19, eZ 17 18 36, traces.
- 15 eZ P 18 48 33, BCIS: H= 18 43 09 (DECM), 40.8 N,48.5 E, Caucasus.USCGS: H= 18 43 07, 40.6 N,48.3 E, h= 33 km,Eastern Caucasus.M=4.6 SD 1.7 (CGS).
- 15 eZ P 21 13 31, USCGS: H= 21 01 17.7, 52.3 N,173.2E, h=10 km,Near Islands,Aleutian Islands, M=5.2 SD 0.6 (CGS).
- 15 eZ PKP 23 52 28, iZ 23 52 32.8, USCGS: H= 23 33 12.4, 16.1 S, 174.7 W, h=253 km,Tonga Islands,M=4.8 SD 1.1 (CGS).
- 15 iZ Pn 23 54 44.6, eZ(Sn) 23 55 28,(D=380 km).
- 16 eZ PP 00 17 12, USCGS: H= 23 58 34.4, 4.1 S, 135.1 E, h=33 km,West New Guinea region.M=5.8 SD 1.4 (CGS).
- 16 eZ Pn 01 39 22, eZ Sn 01 42 25, D=1780 km,BCIS: H= 01 35 55 (DECM), 35.2 N, 27.9 E, h=40 km,Mediterranean Sea,east of Crete.USCGS: H= 01 35 55, 35.4 N, 28.0 E,h=34 km,Eastern Mediterranean Sea,M=4.6 SD 1.1 (CGS).
- 16 eZ F 11 34 11, BCIS: H= 11 29 45,(DECM),38.4 N,39.0 E,Turkey.USCGS: H= 11 29 41.5,38.2 N,38.9 E, h=28 km, Turkey.Felt at Malatya and Erzincan.M=4.9 SD 1.4 (CGS).
- 16 eZ P 11 49 29, eZ PP 11 53 15, eZ 11 53 40, D=10100 km, USCGS: H= 11 35 46.0, 5.3 N, 125.7 E, h=36 km, Mindanao,Philippine Islands,M=6.2 SD 1.2 (CGS).

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- 17 Z P 17 32 (00), iZ!! 17 32 02.7, iZ PP 17 35 36.4, eZ S 17 42 27, eNE 18 02 16, USCGS: H= 17 19 25.9, 22.5 N, 121.3 E, h=21 km, Taiwan region. Felt in Hong-kong. M=6 1/2 (PAS), 5 3/4-6 (BRK), 6.2 SD 1.2 (CGS).
- 17 eZ PKP 18 25 30, USCGS: H= 18 05 45.4, 21.1 S, 175.2 W, h=75 km, Tonga Islands. M=4.9 SD 1.3 (CGS).
- 18 eiZ P 01 15 30.5, USCGS: H= 01 04 14.6, 17.6 S, 49.9 E, h=33 km, Republic Malagassy. Felt in Tananarive and Tamatave. M=5.5 SD 0.9 (CGS).
- 18 eiZ PKP 09 11 21.2, USCGS: H= 08 52 01.5, 18.0 S, 168.5 E, h=143 km, New Hebrides Islands. M=5.0 SD 0.1 (CGS).
- 18 eZ P 22 58 43, eZ 22 59 12, USCGS: H= 22 46 31.7, 43.7 N, 146.5 E, h=45 km, Kurile Islands. M=5.4 SD 0.5 (CGS).
- 19 eZ PKP 03 20 09, eZ 03 23 33, USCGS: H= 03 00 59.0, 9.2 S, 159.0 E, h=50 km, Solomon Islands, felt on Honiara. M=5.6 SD 1.1 (CGS).
- 19 eiZ PKP 04 41 17, eZ 04 41 24, eZ 04 41 36, USCGS: H=04 21 26.7, 22.5 S, 176.3 W, h=33 km, South of Fiji Islands. Felt on Tonga. M=5.5 SD 1.2 (CGS).
- 19 Z PKP 23 51 (00), iZ!PKP2 23 51 10.3, eZ PP 23 53 24, D=16000 km, USCGS: H= 23 32 14.0, 20.8 S, 178.5 W, h=552 km, Fiji Islands region. M=5.4 SD 1.8 (CGS), 4-4 1/2 (BRK).
- 20 eZ PKP 00 59 40, eZ PP 01 02 46, eNE L 01 42 00, D= 15900 km, USCGS: H= 00 40 10.9, 14.7 S, 167.4 E, h= 16 km, New Hebrides Islands. Felt. M=6 3/4-7 (PAS), 7 (BRK), 5.6 SD 1.3 (CGS).
- 20 eZ P 14 13 20, USCGS: H= 14 00 50, 2.2 N, 99.6 E, h=75 km, Northern Sumatra.
- 20 eZ P 14 19 18, USCGS: H= 14 06 55.6, 1.8 N, 99.1 E, h=73 km, Northern Sumatra. M=4.8 SD 1.4 (CGS).
- 20 eZ PKP1 20 57 02, eZ PKP2 20 57 29, eZ pPKP 20 58 15, eZ 20 58 41, USCGS: H= 20 37 41.4, 45.1 S, 167.6 E, h=105 km, South Island, New Zealand. Felt in southern area of South Island. M=5.5 SD 1.1 (CGS).
- 20 eiZ Pn 22 43 22.0, iZ (Sn) 22 43 53.9, (D=280 km).
- 21 eZ 02 59 51, eZ Sn 03 00 41, traces.
- 22 iZ+ PKP 10 50 26.1, iZ! 10 50 35.3, iZ pPKP 10 52 38.8, USCGS: H= 10 31 39.5, 21.1 S, 178.7 W, h=578 km, Fiji Islands region. M=6 3/4-7 (BRK), 5.8 SD 1.2 (CGS).
- 22 eZ P 16 20 10, eZ 16 20 15, USCGS: H= 16 09 29.5, 14.1 S, 13.8 W, h=33 km, South Atlantic Ridge. M=5.5 SD 0.8 (CGS).
- 22 iZ Pn 20 08 36.0, iZ 20 08 37.3, iZ 20 08 56.7, iZ (Sn) 20 08 19.8, D=400 km, BCIS: H= 20 07 40, (DECM), 44.2 N, 10.3 E, Toscan Apennin, Italy.

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- 23 eZ P or PKP 11 38 49, traces.
- 23 iZ Pg 11 59 09.6, iZ(Sg) 11 59 13.5, (D=31 km).
- 23 eZ 17 21 26, eZ 17 21 58, traces.
- 23 eZ 19 50 47, eZ 19 51 18, traces.
- 23 eiZ+ P 23 58 26.3, eZ PP 00 01 36, USCGS: H= 23 46 12.0, 52.2 N, 175.0 E, h=22 km, Near Islands, Aleutian Islands, M=6 (PAS), 6.1 SD 0.9 (CGS).
- 24 eZ 01 39 08, eZ 01 39 31, traces.
- 24 eZ 04 14 54, eZ 04 15 20, traces.
- 24 eZ P 14 00 57, USCGS: H= 13 48 28.8, 38.0 N, 141.6 E, h=29 km, Near east coast of Honshu, Japan. M=5.0 SD 1.1 (CGS).
- 24 eZ 18 44 58, iZ 18 45 10, eZ 18 45 19, eZ 18 45 32, traces.
- 24 eZ+ P 23 34 28, iZ 23 34 39.6, eiZ PP 23 38 11, USCGS: H= 23 21 10.6, 13.0 N, 124.5 E, h=33 km, Samar, Philippine Islands, M=5 3/4-6 (PAL), 5.9 SD 0.5 (CGS).
- 25 eZ 03 30 47, iZ (Sn) 03 30 11.0, BCIS: H= 03 29 01, 48.0 N, 9.5 E, Germany, Hochschwab, Stuttgart: felt in Soultau; aftershock of March 27, 1965.
- 25 eZ 05 05 18, eZ 05 05 21, traces.
- 25 iZ Pg 05 37 33.5, iZ Sg 05 37 35.9, D=18 km.
- 25 eZ P or PKP 09 18 07.
- 25 eZ P 13 20 08, eZ PP 13 23 14, D=8770 km, USCGS: H=13 07 49.7, 51.3 N, 178.7 E, h=40 km, Rat Islands, Aleutian Islands. M=5 (BRK), 5 3/4-6 (PAL), 5.5 SD 0.9 (CGS).
- 25 eZ 16 07 27, eZ 16 07 55, eZ (Sn) 16 08 36, eZ 16 09 07.
- 25 eZ PKP 18 54 12, eZ 18 55 08, eZ PP 18 57 47, D= 16200 km, USCGS: H= 18 34 28.4, 17.0 S, 175.9 E, h=16 km, Fiji Islands region. M=5.2 SD 1.5 (CGS).
- 25 Z PKP 20 33 (00), USCGS: H= 20 13 19, 17.2 S, 175.9 E, h=33 km, Fiji Islands region. M=4.6 SD 1.3 (CGS).
- 25 eZ P or PKP 20 59 18.
- 26 eZ PKP 07 02 51, USCGS: H= 06 42 53.9, 35.7 S, 180.0 E, h=63 km, Off east coast of New Zealand, M=5.1 SD 0.9 (CGS).
- 26 eZ P 14 03 25, BCIS: H= 13 58 04, (DECM), 35.5 N, 44.4 E, Eastern Mesopotamia. USCGS: H=13 58 03.0, 35.3 N, 44.6 E, h=54 km, Iraq, M=4.7 SD 1.8 (CGS).
- 26 eZ PKP 20 02 26, eZ 20 02 46, USCGS: H= 19 44 10.9, 56.1 S, 27.6 W, h=120 km, South Sandwich Islands region. M=6.7 SD 0.7 (CGS).
- 27 eZ 21 42 20, eZ 21 42 31, traces.

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- 28 iZ PKP 01 11 49.1, USCGS: H= 00 53 01.4, 18.1 S, 177.9 W, h=571 km, Fiji Islands region.
- 28 eZ P 09 38 44, USCGS: H= 09 31 19.1, 36.7 N, 70.1 E, h= 286 km, Hindu Kush region. M=5.0 SD 0.5 (CGS).
- 29 eZ P 01 50 45, eZ S 01 52 55, D=1220 km, BCIS: H= 01 47 49, Premonitory shock.
- 29 eiZ P 04 17 50.0, iZ S 04 18 03.2, D=1220 km, BCIS: H= 04 14 58, (DECM), 35.2 N, 27.7 E, Mediterranean Sea, east of Crete. USCGS: H= 04 14 58.6, 35.4 N, 22.6 E, h=59 km, Mediterranean Sea. M=4.6 SD 1.4 (CGS).
- 29 eZ Pn 05 41 30, eZ 05 41 44, eZ (Sn) 05 42 09, (D=380 km).
- 29 iZ Pn 05 48 23.5, iZ 05 48 36.7, iZ 05 49 19.0.
- 29 eZ Pn 06 31 46, iZ 06 31 18.5.
- 29 iZ Pg 11 41 33.5, iZ Sg 11 41 38.7, D=44 km.
- 29 iZ Pn 13 22 21.8, iZ Pb 13 22 27.5, iZ Pg 13 22 36.7, iZ 13 23 00.5, iZ 13 23 17.5, BCIS: H= 13 21 27, (DECM), 42.9 N, 13.0 E, Abruzzi (Italy). USCGS: H= 13 21 28, 42.9 N, 12.8 E, h=33 km, Central Italy. M=3.7 SD 0.7 (CGS).
- 29 eZ (Pn) 13 36 20, eiZ 13 36 45, iZ 13 36 54.2, BCIS: H= 13 35 03, Abruzzi (Italy).
- 29 iZ Pn 13 40 41.7, iZ 13 40 49.6, iZ (Sn) 13 41 37.5, BCIS: H= 13 39 47, Abruzzi (Italy). USCGS: H= 13 39 48, 42.9 N, 13.0 E, h=33 km, Central Italy. M=3.9 SD 0.9 (CGS).
- 29 iZ Pn 14 42 22.6, iZ 14 42 30.9, iZ 14 43 07.5,
- 29 iZ (Sg) 17 00 19.9, traces.
- 29 eZ 17 08 42, eiZ 17 09 02, traces.
- 29 iZ Pn 17 09 53.5, iZ 17 10 15.6, obscured by preceding shock. BCIS: H= 17 08 47, Abruzzi (Italy).
- 29 eZ Pn 18 34 43, iZ 18 35 16.7.
- 29 eZ (Pn) 20 17 20, eZ 20 17 48, traces.
- 29 eZ Pn 21 03 07, iZ (Sn) 21 03 43.4, (D=310 km).
- 29 eZ 22 18 25, eZ 22 18 49, traces.
- 31 eZ- P 02 13 34, eZ PP 02 15 30, D=5880 km, USCGS: H= 02 04 42.9, 32.6 N, 78.2 E, h=33 km, Kashmir-Tibet border region. M=5.3 SD 1.1 (CGS).
- 31 eiZ+ P 08 50 29.0, USCGS: H= 08 38 07.5, 35.7 N, 139.6 E, h=124 km, Near south coast of Honshu, Japan. Felt. M=5.5 SD 0.7 (CGS).
- 31 eiZ Pn 09 23 14.6, iZ! 09 23 26.0, iZ Sn 09 23 53.6, D=370 km, BCIS: H= 09 22 19, (DECM), 42.9 N, 13.0 E, Abruzzi (Italy).
- 31 Z (Pn) 10 54 (00), eiZ 10 55 06, eZ 10 55 38.

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- 31 eiZ Pn 11 16 30.7, iZ (Sn) 11 17 08.2, D=370 km, BCIS: H= 11 15 36, (DECM), 42.9 N, 13.0 E, Abruzzi, Italy.
- 31 eZ Pn 11 56 43, eiZ 11 57 02, eZ 11 57 31.
- 31 eZ 15 53 06, iZ 15 43 18.2, obscured by microseisms.
- June 1965
- JUNE 1965
- 1 eZ 04 44 50, iZ PP 04 45 10.4, USCGS: H= 04 32 45.3, 20.2 N, 94.9 E, h=57 km, Burma. M=5.5 SD 1.1 (CGS).
- 1 eZ+ P 08 02 01, USCGS: H= 07 52 26.1, 28.5 N, 83.2 E, h=33 km, Nepal. M=5.2 SD 1.0 (CGS).
- 1 eZ PKP 18 44 51, USCGS: H= 18 25 06.1, 15.6 S, 173.5 W, h=33 km, Tonga Islands. Felt at Apia. M=4.9 SD 1.9 (CGS).
- 1 iZ Pg 19 08 00.1, iZ Sg 19 08 06.5, D=50 km.
- 2 eZ PKP 03 37 50, USCGS: H= 03 18 04.4, 14.9 S, 172.8 W, h=33 km, Samoa Islands. M=4.9 SD 1.3 (CGS).
- 2 eZ+ PKP 05 31 50, eZ pPKP 05 34 00, USCGS: H= 05 12 59.1, 23.5 S, 180.0 E, h=539 km, South of Fiji Islands. M=5 1/2 (BRK), 5.6 SD 1.2 (CGS).
- 2 iZ PKP 09 38 14.7, USCGS: H= 09 19 32.6, 18.2 S, 179.3 W, h=631 km, Fiji Islands region. M=5.4 SD 1.1 (CGS).
- 2 eZ PKP 12 59 48, USCGS: H= 12 40 00.8, 16.2 S, 172.9 W, h=33 km, Samoa Islands region. M=4.7 SD 1.1 (CGS).
- 2 eZ+ PKP 15 04 32, iZ! 15 04 38.2, eZ pPKP 15 07 01, USCGS: H= 14 45 55.8, 17.9 S, 179.5 W, h=637 km, Fiji Islands region. M=5.1 SD 0.8 (CGS).
- 2 eiZ+ PKP 15 17 09, iZ! 15 17 14.2, eZ 15 19 35, USCGS: H= 14 58 31.9, 18.0 S, 179.4 W, h=621 km, Fiji Islands region. M=4 1/2 (BRK), 5.1 SD 0.8 (CGS).
- 2 iZ- P 23 50 20.8, eZ PP 23 52 39, D=6200 km. USCGS: H=23 40 24.4, 16.0 N, 46.8 W, h=33 km, North Atlantic Ridge. M=5.6 SD 1.2 (CGS).
- 3 eZ 00 19 34, eZ 00 20 07, eZ 00 21 06, traces.
- 3 eZ 01 42 27, eZ 01 42 49, eZ 01 43 31, traces.
- 3 eZ PKP 05 04 32, USCGS: H= 04 45 13, 8.8 S, 157.1 E, h=50 km, Solomon Islands. M=5.3 SD 1.5 (CGS).
- 3 eZ P 07 55 50, eZ PP 07 58 38, D=8440 km, USCGS: H= 07 43 39.1, 51.9 N, 175.8 E, h=58 km, Rat Islands, Aleutian Islands, M= 5 (BRK), 5.5 SD 0.9 (CGS).
- 3 eZ P 10 52 27, USCGS: H= 10 42 29.1, 16.1 N, 46.7 W, h=33 km, North Atlantic Ridge, M=4.7 SD 0.8 (CGS).
- 3 eZ+ P 11 08 40, iZ 11 08 51.6, USCGS: H= 10 57 08.8, 18.5 N, 70.3 W, h=27 km, Dominican Republic region.

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- 3 eZ P 12 38 09, USCGS: H= 12 28 13.3, 16.3 N, 46.9 W,  
h=33 km, North Atlantic Ridge, M=4.8 SD 0.6 (CGS).
- 3 eZ 16 21 33, eIZ Sg 16 21 48.
- 3 Z Pn 18 34 (00), iZ Pb 18 34 20.6, iZNE Sn 18 35 29.5,  
eNE 18 36 48, D=980 km, BCIS: H= 18 31 52, (DECM), 39.7  
N, 23.3 E, h=40 km, Aegean Sea, M=5 1/4-5 1/2 (Strasbourg),  
USCGS: H= 18 31 50.5, 39.7 N, 23.2 E, h=33 km, Aegean  
Sea, M=4.7 SD 1.2 (CGS).
- 3 eZ P 21 48 43, USCGS: H= 21 38 45.5, 16.2 N, 46.2 W,  
h=33 km, North Atlantic Ridge, M=4.5 SD 0.7 (CGS).
- 4 eZ P 00 55 54, USCGS: H= 00 46 31.1, 0.8 S, 16.0 W,  
h=33 km, North of Ascension Island, M=5.0 SD 1.3 (CGS).
- 4 eZ PKP 15 46 28, iZ pPKP 15 46 11.2, USCGS: H= 15 26  
54.7, 29.9 S, 178.8 W, h=225 km, Kermadec Islands region,  
M=5.3 SD 0.9 (CGS).
- 4 eZ 21 36 08, eZ 21 36 32, traces.
- 5 eIZ PKP 11 32 01.8, USCGS: H= 11 13 47.7, 15.8 S,  
174.7 W, h=295 km, Tonga Islands region, M=5.0 SD 0.9  
(CGS).
- 6 eZ 15 51 48, eZ 15 52 08, obscured by microseisms,  
USCGS: H= 15 46 40, 35.6 N, 23.7 E, h=86 km, Crete,  
M=4.1 SD 1.0 (CGS).
- 7 eZ PKP 15 32 42, USCGS: H= 15 12 52.6, 17.7 S, 178.7  
W, h=546 km, Fiji Islands region, M=5.2 SD 1.3 (CGS).
- 7 eZ Pn 15 41 07, eZ 15 41 55, eZ 15 42 41, traces.
- 8 iZ 10 33 44.0, iZ 10 34 29.1, obscured by microseisms.
- 8 eZ Pn 21 56 57, iZ Pg 21 57 08.4, iZ Sn 21 57 37.3,  
BCIS: H=21 56 11 (DECM), 44.7 N, 9.0 E, Ligurian  
Apennines, D=370 km.
- 9 eIZ- PKP 17 18 13, eZ pPKP 17 19 16, USCGS: H= 16 58  
40.3, 19.0 S, 175.7 W, h=195 km, Tonga Islands, M=5.4  
SD 0.5 (CGS).
- 10 eZ P 05 56 46, eZ 05 57 07, USCGS: H= 05 49 00.0,  
35.9 N, 70.5 E, h=125 km, Hindu Kush region, M=5.8 SD  
0.9 (CGS).
- 10 eZ P 15 27 19, iZ! 15 27 25.8, eZ S 15 29 52, D=1440  
km, BCIS: H= 15 24 18, (DECM), 36.5 N, 26.7 E, h=150 km,  
Sea of Crete. USCGS: H= 15 24 18.4, 36.6 N, 26.7 E,  
h= 154 km, Dodecanese Islands, M=4.9 SD 1.2 (CGS).
- 11 eZ P 02 49 49, USCGS: H= 02 37 34.7, 51.8 N, 174.1 E,  
h=35 km, Near Islands, Aleutian Islands, M=5-5 1/4 (BRK),  
5.5 SD 0.6 (CGS).
- 11 iZ+ P 03 45 56.8, iZ!NE 03 46 18.8, eZ S 03 56 10,  
eNE L 04 05 30, USCGS: H= 03 33 44.9, 44.7 N, 148.7 E,  
h=42 km, Kurile Islands, M=6 3/4 (PAS), 6 1/2 (BRK),  
6.0 SD 1.2 (CGS).
- 11 eZ P 07 23 21, USCGS: H= 07 11 05.7, 44.4 N, 149.2 E,  
h=50 km, Kurile Islands, M=5.5 SD 1.0 (CGS).

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- 11 Z P 07 40 (00), eZ PP 07 42 48, D=8000 km, USCGS: H= 07 27 45.5, 44.1 N, 149.4 E, h=61 km, Kurile Islands,  
M=5.2 SD 0.3 (CGS).
- 11 eZ P 08 53 15, USCGS: H= 08 41 01.1, 44.3 N, 149.0 E,  
h=54 km, Kurile Islands, M=5.1 SD 0.5 (CGS).
- 11 eZ P 10 28 53, USCGS: H= 10 16 37.3, 44.4 N, 149.3 E,  
h=29 km, Kurile Islands, M=5.0 SD 1.2 (CGS).
- 11 eIz 10 44 23, iZ 10 44 44.3, iZ 10 44 53.4, F 10 49 -
- 11 eZ P 10 53 25, eZ 10 53 39, USCGS: H= 10 41 10.5,  
44.1 N, 149.3 E, h=64 km, Kurile Islands, M=4.8 SD 1.2  
(CGS).
- 11 eZ P 12 12 17, USCGS: H= 12 00 00.8, 44.2 N, 149.1 E,  
h=33 km, Kurile Islands, M=5.2 SD 0.9 (CGS).
- 11 eZ P 12 59 (00), USCGS: H= 12 47 03.6, 45.9 N, 149.5  
E, h=140 km, Kurile Islands, M=4.9 SD 0.9 (CGS).
- 11 eZ P or PKP 14 44 17.
- 11 eZ P 15 51 49, USCGS: H= 15 39 36.3, 44.5 N, 149.2 E,  
h=55 km, Kurile Islands, M=4.7 SD 0.6 (CGS).
- 11 eZ P or PKP 19 36 15.
- 12 eZ P 00 33 13, USCGS: H= 00 20 55.7, 44.2 N, 148.9 E,  
h=30 km, Kurile Islands, M=4.9 SD 0.5 (CGS).
- 12 eZ 02 20 27, traces.
- 12 eZ P 03 22 (00), USCGS: H= 03 09 44.6, 43.9 N, 149.1  
E, h=33 km, Kurile Islands region, M=4.9 SD 1.1 (CGS).
- 12 eIZ P 05 40 56, USCGS: H= 05 28 40.3, 44.2 N, 149.8  
E, h=41 km, Kurile Islands, M=5.7 SD 0.9 (CGS).
- 12 eZ P 05 53 14, USCGS: H= 05 41 00.3, 44.0 N, 149.1 E,  
h=64 km, Kurile Islands, M=5.6 SD 1.2 (CGS).
- 12 eZ P 06 15 49, USCGS: H= 06 03 34.8, 44.3 N, 149.0 E,  
h=48 km, Kurile Islands, M=5.2 SD 0.9 (CGS).
- 12 eZ P 06 58 44, USCGS: H= 06 46 26.4, 44.2 N, 149.1 E,  
h=40 km, Kurile Islands, M=5.0 SD 0.7 (CGS).
- 12 eZ PKP 07 11 31, USCGS: H= 06 51 33.2, 20.9 S, 173.8  
W, h=33 km, Tonga Islands, M=5.1 SD 0.9 (CGS).
- 12 eZ P or PKP 17 38 10.
- 12 eZ P 18 58 00, USCGS: H= 18 45 43.3, 44.1 N, 149.0 E,  
h=41 km, Kurile Islands, M=5.6 SD 1.0 (CGS).
- 12 eZ+ P 19 03 48, eZ PP 19 07 53, D=10880 km, USCGS: H= 18 50 11.3, 20.3 S, 68.9 W, h=103 km, Chile-Bolivia  
border region, M=6 1/2 (PAS), 5.8 SD 1.0 (CGS).
- 12 eZ P 22 29 00, USCGS: H= 22 16 46.3, 44.2 N, 149.0 E,  
h=48 km, Kurile Islands, M=5.3 SD 0.6 (CGS).
- 13 eZ P 02 33 06, USCGS: H= 02 20 52.0, 44.1 N, 149.3 E,  
h=50 km, Kurile Islands, M=5.3 SD 1.2 (CGS).
- 13 eZ P 04 29 28, USCGS: H= 04 21 29, 33.5 N, 69.5 E, h= 17 km, Afghanistan, M=4.8 SD 1.7 (CGS).

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- 13 iZ+ P 07 18 29.2, USCGS: H= 07 06 13.6, 41.9 N, 143.4 E, h=32 km, Hokkaido region, Japan. M=6-6 1/4 (BRK), 6 (PAL), 5.7 SD 0.6 (CGS).
- 13 eZNE P 20 05 04, ZNE S 20 07 30, eZ 20 08 05, eNE 20 09 12, D=1520 km, BCIS: H= 20 01 52, (DECM), 37.8 N, 29.4 E, Anatolia, Denizli region. Istanbul: 2 killed, 3 injured, M=5 3/4-6 (Strasbourg), 5.7 (Pruhonice), 5.5-5.7 (Moxa). USCGS: H= 20 01 48.1, 37.8 N, 29.4 E, h=18 km, Turkey. 2 killed, 3 injured in Denizli region. M=5.3 SD 0.7 (CGS).
- 14 eZ P 07 43 41, USCGS: H= 07 30 43.6, 39.8 S, 45.8 E, h=33 km, Atlantic-Indian Rise, M=5.0 SD 0.7 (CGS).
- 14 eZ P 09 52 48, USCGS: H= 09 40 09.5, 44.6 N, 129.5 W, h=33 km, Off coast of Oregon. M=5 1/2-5 3/4 (PAL), 5.2 SD 1.2 (CGS).
- 14 eZ P 13 26 44, USCGS: H= 13 17 01.7, 32.0 N, 87.7 E, h=37 km, Tibet. M=5.1 SD 0.5 (CGS).
- 14 eiZ- P 16 17 18.4, USCGS: H= 16 47 21.4, 08.0 N, 37.9 W, h=33 km, Central Mid-Atlantic Ridge, M=5.2 SD 0.4 (CGS).
- 15 iZ Pg 00 03 13.4, iZ Sg 00 03 16.4, D=23 km.
- 15 iZ- P or PKP 04 11 30.2.
- 15 eZ P 04 58 39, eZ PP 05 01 40, D=8660 km, USCGS: H=04 46 13.1, 50.1 N, 178.2 E, h=28 km, Rat Islands, Aleutian Islands. M=5.5 SD 0.8 (CGS).
- 15 eZ 07 13 18, eZ 07 13 26, eZ 07 14 38, traces.
- 15 eZ P 08 09 49, USCGS: H= 07 59 20.4, 29.7 N, 95.3 E, h=33 km, India-China border region.
- 15 eZ PKP1 09 40 26, eZ PKP2 09 41 24, USCGS: H= 09 20 29.8, 37.9 S, 177.5 E, h=58 km, Off eastern coast of New Island, New Zealand. Felt from Bay of plenty to Wellington. M=5 1/4 (PAL), 6.2 SD 1.1 (CGS).
- 15 eZ P 14 31 15, USCGS: H= 14 18 55.4, 44.2 N, 149.3 E, h=19 km, Kurile Islands. M=4.5 SD 0.5 (CGS).
- 15 eZ P 16 49 25, eZ PP 16 51 21, D=8650 km, BCIS: H= 16 41 13, (DECM), 14.7 N, 51.6 E, Gulf of Aden. USCGS: H= 16 41 12.5, 13.9 N, 51.7 E, h=33 km, Eastern Gulf of Aden. M=5.2 SD 1.0 (CGS).
- 15 eiZ PKP 23 30 14.2, USCGS: H= 23 10 25.2, 20.9 S, 173.7 E, h=22 km, New Hebrides Islands region. M=6 (BRK), 6 1/4 (PAS), 6 1/2 (PAL), 5.7 SD 1.3 (CGS).
- 16 eZ PKP 04 15 13, eZ PP 04 17 36, D=13900 km, USCGS: H= 03 55 17.6, 34.3 S, 11.2.2 W, h=33 km, Easter Island Cordillera. M=5.7 SD 1.0 (CGS).
- 16 eiZ P 05 10 31, eZ PP 05 13 43, D=8770 km, USCGS: H= 04 57 30.0, 29.5 N, 141.9 E, h=37 km, South of Honshu, Japan. M=5.0 SD 1.0 (CGS).
- 16 eZ(Pn) 14 28 05, eZ 14 28 22, eZ 14 28 54, traces.

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- 17 eZ Pn 03 01 44, eZ Sn 03 04 01, D=1520 km, BCIS: H= 02 58 22, (DECM), 37.7 N, 29.4 E, Anatolia, Honaz region, aftershock of June 13, 1965 at 20 01. Istanbul: felt at Denizli and Afyon. M=5.1 (Sofia). USCGS: H= 02 58 15, 37.7 N, 29.6 E, h=9 km, Turkey. M=4.8 SD 1.2 (CGS).
- 17 iZ P 03 52 49.5, BCIS: H= 03 45 00 (DECM), 50.2 N, 77.8 E, Semipalatinsk region (artificial?), USCGS: H= 03 44 58.2, 50.0 N, 78.1 E, h=0 km, Eastern Kazakh SSR, M=5.4 SD 0.9 (CGS).
- 17 eZ P 10 56 08, USCGS: H= 10 43 35.1, 23.9 N, 123.3 E, h=47 km, Southwestern Ryukyu Islands. M=5.3 SD 0.7 (CGS).
- 18 eiZ P 08 28 16.0, USCGS: H= 08 17 37.6, 25.0 N, 93.8 E, h=46 km, Eastern India. M=5.9 SD 0.6 (CGS).
- 18 eZ P 13 56 08, BCIS: H= 13 49 30, (DECM), 29.8 N, 51.4 E, Central Iran. USCGS: H= 13 49 34.3, 29.0 N, 51.3 E, h=45 km, Southern Iran.
- 18 eZ(P) 16 25 40, eZ 16 25 51, eZ 16 26 18, traces.
- 18 eiZ PKP 23 32 04, USCGS: H= 23 12 20, 18.9 S, 175.5 W, h=106 km, Tonga Islands, M=4.5 SD 0.7 (CGS).
- 19 eZ+ P 06 50 20, eZ PP 06 53 12, USCGS: H= 06 38 12.6, 52.3 N, 172.0 E, h=54 km, Near Islands, Aleutian Islands, M=5 1/4-5 1/2 (PAL), 5.5 SD 0.6 (CGS).
- 19 eZ P 12 37 02, BCIS: H= 12 31 58, 43.0 N, 46.3 E, Caucasus, USCGS: H= 12 31 59.9, 42.9 N, 46.5 E, h=33 km, Eastern Caucasus. M=4.6 SD 1.9 (CGS).
- 19 iZ Pg 13 46 39.1, iZ Sg 13 46 47.0, D=62 km.
- 20 eZ 00 44 28, eZ (Sn) 00 44 43, traces.
- 20 iZ+ P 02 09 38.1, USCGS: H= 01 57 24.8, 44.6 N, 149.2 E, h=40 km, Kurile Islands. M=5.4 SD 0.8 (CGS).
- 20 eZ P 16 39 30, USCGS: H= 16 31 19.5, 13.3 N, 50.4 E, h=33 km, Eastern Gulf of Aden. M=5.0 SD 1.1 (CGS).
- 20 eZ P 18 17 10, eZ 18 17 14, USCGS: H= 18 04 35.7, 42.8 N, 126.5 W, h=33 km, Off coast of Oregon. M=5 (BRK), 5 1/4 -5 1/2 (PAL), 5.6 SD 1.2 (CGS).
- 20 eZ 18 53 38, eZ 18 53 42, traces.
- 21 iZ+ P 00 28 24.2, iZ 00 28 27.9, iZ 00 29 41.4, eZ S 00 34 11, D=3885 km, BCIS: H= 00 21 13, (DECM), 28.1 N, 55.9 E, Central Iran. Press: important damage at Bandar Abbas. M=6.1 (Ifrane), 5.6 (Moxa), 5.4 (Pruhonice). USCGS: H=00 21 14.5, 28.1 N, 56.0 E, h=28 km, M=6.0 SD 1.2 (CGS).
- 21 eZ+ P 01 37 44, BCIS: H= 01 30 33; aftershock.
- 21 eZ 07 01 01, eZ 07 01 09, traces.
- 21 eZ 18 46 59, eZ 18 47 12, traces.
- 21 eZ(Pn) 23 19 27, eZ 23 20 02, eZ 23 20 15, traces.
- 22 eZ P 05 58 (00), USCGS: H= 05 49 18.9, 36.3 N, 77.7 E, h=28 km, Kashmir-Sinkiang border region. M=6.1 SD 0.6 (CGS).

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- 22 eZ P or PKP 12 17 10.
- 22 eZ PKP1 13 32 58, eZ PKP2 13 33 11, USCGS: H= 13 13 23.1, 20.9 S, 173.2 E, h=80 km, New Hebrides Islands region. M=4.7 SD 1.8 (CGS).
- 23 eiZ P 00 01 39.1, eZ PP 00 05 38, USCGS: H= 23 48 07.1, 7.1 N, 123.5 E, h=60 km, Mindanao, Philippine Islands, M=5.6 SD 0.5 (CGS).
- 23 eiZ P 11 21 09, eZ PP 11 24 10, eZ S 11 31 06, D=8770 km, USCGS: H= 11 09 15.3, 56.6 N, 152.9 W, h=36 km, Kodiak Island region. M=6 1/4-6 1/2 (PAS), 5 3/4 (BRK), 5.7 SD 1.2 (CGS).
- 24 eZ P 01 45 14, eZ 01 45 24, BCIS: H=01 39 44, 39.8 N, 49.0 E, Caucasus, plain of river Kura.
- 24 eZ P 05 00 47, eZ pP 05 02 13, USCGS: H= 04 48 59.8, 35.5 N, 135.4 E, h=356 km, Southern Honshu, Japan. M= 5.2 SD 0.7 (CGS).
- 24 eZ P 07 58 55, eZ PP 08 02 26, D=10880 km, USCGS: H= 07 45 13.6, 7.0 N, 126.2 E, h=50 km, Mindanao, Philippine Islands, M=6.0 SD 1.2 (CGS).
- 24 eZ P 11 00 31, USCGS: H= 10 53 49, 28.1 N, 51.5 E, h=33 km, Southern Iran.
- 24 eiZ PKP 14 28 15, iZ! pPKP 14 28 42.2, USCGS: H= 14 08 31.2, 23.6 S, 176.7 W, h=91 km, South of Fiji Islands, M=5.5 SD 0.9 (CGS).
- 24 eZ+ P 23 21 23, USCGS: H= 23 08 40.4, 20.1 N, 120.8 E, h=33 km, Philippine Islands region. M=5.0 SD 2.0 (CGS).
- 24 eZ Pn 23 38 21, iZ 23 38 33.5, eZ(Sn) 23 39 29, iZ 23 39 57.6, (D=630 km).
- 25 iZ 08 43 33.2, eZ 08 43 57, traces.
- 25 eZ P 09 33 35, eZ 09 34 (00), USCGS: H= 09 21 00, 1.2 N, 99.1 E, h=33 km, Northern Sumatra.
- 25 iZ Pg 10 57 20.3, iZ Sg 10 57 22.6, D=16 km.
- 25 eZ 21 28 06, eZ 21 28 40, traces.
- 26 eZ(Pn) 00 39 15, eZ 00 40 55, eZ 00 40 19, traces.
- 26 eZ P or PKP 03 18 28, eZ 03 19 53.
- 26 eZ P 17 00 23, USCGS: H= 16 47 50.7, 29.8 N, 130.4 E, h=34 km, Ryu-kyu Islands, M=4.8 SD 1.4 (CGS).
- 27 eZ P 01 15 08, USCGS: H=00 55 10.4, 33.7 S, 179.0 W, h=33 km, South of Kermadec Islands. M=4.8 SD 1.6 (CGS).
- 27 eZ P 01 16 14, eZ PP 01 19 19, D=8660 km, USCGS: H= 01 04 23.8, 9.2 N, 94.1 E, h=8 km, Nicobar Islands region, M=5.2 SD 1.1 (CGS).
- 27 eZ 01 46 38, eZ 01 46 45, traces.
- 27 eZ PP 10 03 13, eZ 10 03 34, USCGS: H= 09 45 48.0, 54.5 S, 5.6 E, h=33 km, Bouvet Islands region. M=5.9 SD 1.3 (CGS).

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- 27 eZ P 11 20 32, USCGS: H= 11 08 55.9, 60.3 N, 141.2 W, h=12 km, Southeastern Alaska. M=5.3 SD 1.3 (CGS).
- 27 eZ P 11 33 17, USCGS: H=11 20 39, 30.5 N, 132.7 E, h=26 km, Southeast of Shikoku, Japan. M=4.3 SD 0.8 (CGS).
- 27 iZ+ P 11 48 40.0, eZ PP 11 51 52, D=8770 km, USCGS: H= 11 36 08.6, 23.8 N, 121.5 E, h=24 km, Taiwan, M=5.6 SD 1.1 (CGS).
- 28 eZ PKP 03 52 35, iZ! 03 52 37.4, USCGS: H=03 33 36.5, 5.1 S, 153.0 E, h=50 km, New Ireland region. Felt at Rabaul and Sohano. M=5 1/4-5 1/2 (BRK), 6 1/4-6 1/2 (PAL), 6.1 SD 1.1 (CGS).
- 28 eZ 04 15 06, traces.
- 28 eiZ PKP 18 16 33, USCGS: H= 17 57 39.7, 21.0 S, 178.9 W, h=562 km, Fiji Islands region. M=5.3 SD 0.7 (CGS).
- 29 iZ Pn 00 44 40.2, iZ Pg 00 44 49.5, iZ Sn 00 45 19.9, D=362 km, BCIS: H= 00 43 46, (DECM), 47.3 N, 9.9 E, Vorarlberg (Austria), USCGS: H= 00 43 46, 47.2 N, 10.2 E, h=41 km, Austria. M=4.0 SD 1.2 (CGS).
- 29 eZ P 02 16 37, USCGS: H= 02 04 22.6, 44.4 N, 149.4 E, h=33 km, Kurile Islands, M=5.5 SD 1.1 (CGS).
- 29 iZ Pn 02 23 06.2, iZ 02 23 09.1, iZ 02 23 13.3, iZ 02 23 35.4, iZ Sn 02 23 43.8, F 02 27.5. BCIS: H= 02 22 18, (DECM), 43.4 N, 12.6 E, Roman Apennins (Central Italy). USCGS: H= 02 22 27, 44.3 N, 11.8 E, h=33 km, Northern Italy, D=340 km.
- 29 iZ P 04 32 53.5, iZ 04 33 02.0, iZ! 04 33 11.2, BCIS: H=04 27 54, (DECM), 36.6 N, 12.3 W, Atlantic Ocean, off of Portugal. USCGS: H= 04 27 57.4, 36.5 N, 12.2 W, h= 33 km, North Atlantic Ocean. M=4.8 SD 0.7 (CGS).
- 29 eiZ PKP 15 38 57.5, USCGS: H= 15 19 43.9, 18.5 S, 169.0 E, h=212 km, New Hebrides Islands, M=5.0 SD 1.0 (CGS).
- 29 eiZ P 15 44 06, eZ 15 44 56, eZ 15 46 41, obscured by microseisms, BCIS: H= 15 40 31, (DECM), 34.2 N, 26.3 E, Mediterranean Sea, southeast of Crete. USCGS: H= 15 40 28.7, 34.2 N, 26.3 E, h=16 km, Crete. M=4.5 SD 1.2 (CGS).
- 30 eZ P 03 11 38, USCGS: H= 02 53 14.0, 1.6 S, 126.7 E, h=33 km, Molucca Sea, M=5.2 SD 0.6 (CGS).
- 30 eZ+ P 08 45 44, eZ PP 08 48 51, D=8770 km, USCGS: H= 08 33 31.8, 51.7 N, 176.5 E, h=60 km, Rat Islands, Aleutian Islands, M=5 1/2-5 3/4 (PAS), 6.0 SD 0.6 (CGS).
- 30 eZ+ P 12 48 28, USCGS: H= 12 36 40.8, 53.7 N, 160.5 E, h=33 km, Near east coast of Kamchatka, M=5.2 SD 0.8 (CGS).
- 30 iZ Pg 19 18 37.4, iZ Sg 19 18 39.3, D=15 km, not felt.

LJUBLJANA

July 1965 - Sept. 1965.

University of Ljubljana  
Astronomical and Geophysical  
Observatory,  
Ljubljana, Trg revolucije 11,  
P.O.B. 01-20, Yugoslavia

1965

PRELIMINARY SEISMOLOGICAL BULLETIN  
(July 1965 - September 1965)

1965

University of Ljubljana  
Astronomical and Geophysical  
Observatory,  
Ljubljana, Trg revolucije 11,  
P.O.B. 01-20, Yugoslavia

PRELIMINARY SEISMOLOGICAL BULLETIN  
from July 1, 1965 to September 30,  
1965

Station: Ljubljana (LJU) - Coordinates:  $46^{\circ} 02.6' N$  Lat.  
 $14^{\circ} 32.0' E$  Long.

Geocentric direction cosines:  $a=+ 6743$ ,  $b=+ 1748$ ,  $c=+ 7175$   
 $d=- 8$ ,  $h=- 4$ ;

Height above mean sea level: 396 m;  
Lithologic foundation: sandstone (carbon);

Instruments:

Wiechert, horizontal astatic seismograph,  $M=200$  kg, mechanical registration,  $16-18$  mm/min;

Constants: (September 9, 1965)

Component	To	$V:1$	$r/T_0^2$	$V$
N-S	4.9	2.08	0.0134	70
E-W	4.9	1.28	0.0120	67

Hiller-Stuttgart, vertical component Z with galvanometrical recording;  $T_0=1.5$  sec,  $T_g=1.5$  sec,  $D_1=D_2=1$ ,  $V_{max}=10150$  x, velocity of registration: 60 mm/min.

Note: Periods of seismic waves are given in seconds, the amplitudes in microns; sign + means compression, movement of ground towards north or east, sign - means dilatation or movement towards south or west. All times are given in GMT. Time signals are received one or two times daily from Pontoise, Potsdam or Moscow and are registered on a chronograph. Wherever possible time readings up to one tenth of a second are given. Macroseismic data are given in Mercalli-Cancani-Sieberg (MCS) intensity scale, macroseismic rays in kilometers. Abbreviation DECM means: Determination by electronic calculating machine.

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- 1 eZ 10 07 06, eZ 10 07 14, iZ 10 07 25.4, traces.
- 1 eZ P 17 53 35, USCGS:  $H= 17 41 34.3$ ,  $50.0 N$ ,  $158.9 E$ ,  $h=66$  km, Kurile Islands region,  $M=5.0$  SD 0.6 (CGS).
- 2 iZ(Pn) 14 01 41.6, iZ(Sn) 14 01 56.8, weak traces.
- 2 eZ P or PKP 16 59 26, eZ 17 00 06,
- 2 eZ P 20 31 54, USCGS:  $H= 20 19 41.8$ ,  $52.0 N$ ,  $175.3 E$ ,  $h=40$  km, Rat Islands, Aleutian Islands,  $M=5 1/4-5 1/2$  (PAL), 5.3 SD 1.0 (CGS).

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- 2 eIZ+!! P 21 10 51, eNE P 21 10 53, iZ!! 21 11 06.2, iZ PP 21 13 50.7, eZNE S 21 20 54, D=8770 km, USCGS: H=20 58 40.0, 53.1 N, 167.7 W, h=59 km, Fox Islands, Aleutian Islands, slight damage on Umnak Island, M=6 3/4 -7 (PAS), 6 3/4-7 (BRK), 6 3/4 (PAL), 6.6 SD 0.9 (CGS).
- 3 eZ+ P 02 28 30, eIZ 02 28 40, eZ S 02 33 28, D=3440 km, BCIS: H= 02 22 10 (DECM), 53.1 N, 31.7 W, North Atlantic Ocean, M=5.6 (Pruhonice), USCGS: H= 02 22 18.6, 52.7 N, 32.1 W, h=36 km, North Atlantic Ocean, M=5.3 SD 1.1 (CGS).
- 3 eIZ P or PKP 11 26 47,
- 3 eZ P 11 37 34, USCGS: H= 11 26 11.6, 22.6 N, 101.6 E, h=33 km, Burma-China border region, M=5.2 SD 1.2 (CGS).
- 3 eZ PKP 21 08 09, USCGS: H= 20 48 24.2, 15.3 S, 176.3 W, h=33 km, Fiji Islands region, M=4.9 SD 1.8 (CGS).
- 4 iZ Pg 12 46 40.7, iZ Sg 12 46 43.2, D=18 km.
- 5 eZ P 08 38 22, BCIS: H= 08 32 07, aftershock of July 3 at 02 h 22 m, M=5.3 (Moxa), 4.6 (Collm). USCGS: H= 08 31 58.9, 52.9 N, 34.2 W, h=33 km, North Atlantic Ocean, M=5 1/2-5 3/4 (PAL), 5.7 SD 0.8 (CGS).
- 5 iZ Pn 19 37 32.3, iZ Sn 19 38 12.2, D=360 km, BCIS: H= 19 36 47, 47.4 N, 11.7 E, Tyrol, Austria.
- 6 iZNE Pn 03 21 00, iZ! 03 22 03.2, iZNE Sn 03 22 49.5, iZ!! 03 24 51, D=1060 km, BCIS: H= 03 18 45 (DECM), 38.4 N, 22.3 E, h=50 km, Press: felt in Greece. Damage at Patras and Amphissa, M=6.8 (Collm), 6 1/2-6 3/4 (Strasbourg), 6 1/2 (Uppsala), 6 1/2 (Pruhonice), 6.3 (Sofia), 6 1/4 (Athens), 5 3/4 (Moxa). USCGS: H= 03 18 44.6, 38.7 N, 22.6 E, h=28 km, Greece. One killed, six injured, considerable damage in northern Peloponessos. Seismic sea wave reported at Eratini. M=6 (BRK), 6-6 1/4 (PAL), 5.9 SD 0.5 (CGS).
- 6 eZ P 06 25 10, USCGS: H= 06 12 41, 54.3 N, 159.9 E, h=33 km, Near east coast of Kamchatka, M=4.2 SD 1.2 (CGS).
- 6 eZ (P) 13 37 36, eZ 13 38 20, eZ 13 39 29, eZ 13 40 33, BCIS: H= 13 34 11, (DECM), 34.4 N, 25.4 E, Mediterranean Sea, southwest of Crete.
- 6 iZ- PKP 18 54 53.1, iZpPKP 18 56 58.7, iZ PP 18 58 40.6, eZ PPP 19 01 13, D=16800 km, USCGS: H= 18 36 47.3, 4.5 S, 155.1 E, h=510 km, Solomon Islands, M=6-6 1/4 (PAS), 6 1/4 (BRK), 6.5 SD 0.8 (CGS).
- 7 eZ P or PKP 01 28 54,
- 7 eZ PKP 12 27 24, USCGS: H= 12 08 34.3, 49.7 N, 117.1 E, h=33 km, South of Australia, M=5.3 SD 1.5 (CGS).
- 7 eZ PKP 15 57 05, USCGS: H= 15 37 21.5, 15.0 S, 173.0 W, h=33 km, Samoa Islands region, M=4.9 SD 1.4 (CGS).
- 7 eiZ P 21 51 11.4, iZ pP 21 52 11.2, USCGS: H= 21 38 50.5, 32.7 N, 138.7 E, h=218 km, South of Honshu, Japan, M=5.6 SD 0.6 (CGS).

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- 7 eIZ P 23 13 21.3, eZ PP 23 17 15, D=10770 km, USCGS: H=23 00 06.8, 6.9 S, 105.6 E, h=109 km, Sunda Strait, felt in Djakarta, M=5.8 SD 0.8 (CGS).
- 7 eZ PKP 23 22 09, USCGS: H= 23 02 29.5, 14.1 S, 172.6 W, h=33 km, Samoa Islands, M=5.1 SD 0.8 (CGS).
- 7 eZ PKP 23 44 53, USCGS: H= 23 25 13, 14.4 S, 172.1 W, h=58 km, Samoa Islands, M=4.2 SD 0.8 (CGS).
- 8 eZ 02 15 06, eZ 02 15 45, traces.
- 8 Z 10 05 (00), eIZ 10 05 22, traces.
- 8 eZ PKP1 13 23 37, iZ PKP2 13 23 48.9, USCGS: H= 13 04 05.4, 15.8 S, 179.2 W, h= 33 km, Fiji Islands region, M=4.9 SD 1.1 (CGS).
- 8 iZ Pn 23 20 46.1, iZ! 23 20 51.8, iZ Sg 23 21 23.9, iZ!! 23 21 30.3, D=270 km, BCIS: H=23 20 04 (DECM), 47.3 N, 11.4 E, Austria. Wien: felt 6° MCS at Innsbruck. USCGS: H= 23 20 04.6, 47.3 N, 11.3 E, h=33 km, Austria. Felt at Innsbruck, M=4.4 SD 1.7 (CGS).
- 8 eIZ P 23 29 56.5, iZ 23 30 07.6, iZ 23 30 22.5.
- 9 eIZ- P or PKP 22 02 33, eIZ 22 03 20.
- 9 eZ Pn 22 49 21, iZ 22 49 32.5, iZ Sn 22 49 50.8, D=270 km, BCIS: H= 22 48 47, (DECM), 47.8 N, 12.9 E, Germany-Austria border. Wien: felt 4° MCS at Salzburg, Grob-Gmain and Berchtesgaden.
- 10 iZ Pn 06 28 15.9, iZ 06 28 23.0, iZ 06 28 32.4, iZ 06 29 24.5.
- 11 eZ PKP1 05 41 28, iZ PKP2 05 41 47.1, USCGS: H= 05 21 44.3, 15.3 S, 172.9 W, h=33 km, Samoa Islands region, M=4.9 SD 1.5 (CGS).
- 11 eZ 06 55 00, iZ 06 55 05.4, iZ Sn 06 55 45.5.
- 11 eZ 11 01 23, traces.
- 11 eZ Pn 18 03 48, eZ 18 04 28.2, eZ 18 04 37.4.
- 11 eZ PKP 20 32 07, eZ pPKP 20 33 12, USCGS: H= 20 12 40.1, 18.9 S, 175.5 W, h=229 km, Tonga Islands, M=4.7 SD 1.9 (CGS).
- 12 eZ PKP1 05 53 55, eZ PKP2 05 54 28, USCGS: H= 05 34 12.5, 16.5 S, 172.9 W, h=79 km, Samoa Islands region, M=5.0 SD 0.8 (CGS).
- 12 eZ PP 14 15 26, USCGS: H= 13 57 14.7, 28.4 S, 68.2 W, h=118 km, La Rioja Province, Argentina, M=5 1/2-5 3/4 (BRK), 5.7 SD 0.6 (CGS).
- 12 eZ P 18 52 49, USCGS: H= 18 39 46, 4.6 S, 103.2 E, h=70 km, Southern Sumatra, M=5.3 SD 0.7 (CGS).
- 13 eZ 04 19 10, traces.
- 13 eZ PKP 06 43 44, USCGS: H= 06 23 49.9, 20.2 S, 174.1 W, h=63 km, Tonga Islands, M=5.1 SD 1.5 (CGS).
- 13 eZ (P) 14 21 40, eZ 14 22 06, BCIS: H= 14 19 00, 37 3/4

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- 13 (cont.), N, 28.0 E, Southern Anatolia.USCGS: H= 14 18 58.2, 37.5 N, 27.8 E, h=16 km,Turkey.
- 13 eZ PKP1 19 55 50, eZ PKP2 19 56 20, USCGS: H= 19 37 11.3, 4.2 S, 143.3 E, h=101 km,New Guinea.Felt at Drekikir.M=6.0 SD 1.3 (CGS).
- 13 eZ PKP1 20 04 53, eZ PKP2 20 05 14, USCGS: H= 19 45 23.2, 21.0 S, 176.4 W, h=177 km,Fiji Islands region. M=4.5 SD 0.6 (CGS).
- 13 eZ 20 09 11,eZ 20 09 44, eZ 20 09 54, traces.
- 14 eZ Pn 15 48 30, eZ 15 48 48, iZ 15 50 13.2.
- 14 iZ Pg 17 43 06.4, iZ Sg 17 43 15.8, D=72 km.
- 14 eZ P 18 08 12, USCGS: H= 17 55 51.1, 52.6 N, 168.6 W, h=8 km, Fox Islands,Aleutian Islands.M=5.3 SD 1.2 (CGS).
- 14 eZ Pn 22 40 09, eZ 22 41 12, traces.
- 14 eZ (Sn) 23 40 06, eZ 23 40 22 ,traces.
- 15 iZ Pg 12 31 09.1, iZ Sg 12 31 12.4, D=22 km.
- 15 eZ P 14 26 42, USCGS: H= 14 16 07.1, 37.3 N, 74.3 W, h=0 km,Off east coast of United States.Planned detonation of surplus US Navy explosives aboard USS Mariner. M=5.1 SD 1.3 (CGS).
- 15 eZ 16 37 25, eZ 16 37 37.
- 15 eZ P 18 03 06, USCGS: H= 17 50 55.2, 30.0 N, 138.7 E, h=407 km,South of Honshu,Japan.M=4.7 SD 0.6 (CGS).
- 15 eZ P 18 45 17, eiZ! 18 46 04, eZ PP 18 50 12, D=10800 km, USCGS: H= 18 33 29.9, 7.7 N, 123.8 E, h=588 km,Mindanao,Philippine Islands.M=5.8 SD 1.4 (CGS).
- 16 eZ 01 44 42, eZ 01 45 08, eZ 01 45 34, traces.
- 17 iZ P or PKP 00 00 46.5, iZ 00 01 14.9.
- 17 iZ! Pg 08 41 47.4, iZ! Sg 08 41 49.8, F 08 45 - ; D= 15 km.BCIS: H= 08 41 45, Ljubljana: 46.1 N, 14.7 E, Dolsko-Laze region, valley of Sava,east from Ljubljana. Maximum intensity: 4° MCS, Ljubljana felt 3° MCS.
- 17 eZ PKP 13 06 54, obscured by microseisms, USCGS: H= 12 47 49.4, 7.2 S, 153.6 E, h=28 km,New Britain region. M=5.7 SD 1.4 (CGS).
- 17 eZ (PKP) 13 19 07, obscured by microseisms.USCGS: H= 12 59 10.7, 27.2 S, 177.6 W, h=27 km,Kermadec Islands, M=5.4 SD 0.9 (CGS).
- 18 eZ Pn 12 46 11, iZ 12 46 22.8, eZ 12 47 28, traces.
- 18 eZ Pn 13 32 45, iZ 13 32 58.8, iZ 13 33 20.1, traces.
- 18 eZ+ P 22 27 17, USCGS: H= 22 14 59.5, 45.4 N, 151.3 E, h=16 km, Kurile Islands.M=5.1 SD 0.7 (CGS).
- 19 eZ P 04 25 29, iZ! 04 25 29.5, USCGS: H= 04 13 20.4, 9.2 N, 70.4 W, h=33 km,Venezuela.Moderate property damage in Trujillo.Widely felt.M=5.4 SD 1.5 (CGS).

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- 19 eZ P 06 59 36, USCGS: H= 06 47 24.3, 28.0 N, 139.7 E, h=494 km, Bonin Islands region.M=4.4 SD 0.6 (CGS).
- 19 eZ P 09 19 32, USCGS: H= 09 07 16, 3.0 N, 97.1 E, h= 59 km,Northern Sumatra. M=4.9 SD 1.1 (CGS).
- 19 eZ P 09 21 03, USCGS: H= 09 09 40.3, 3.0 N, 97.1 E, h=33 km, Northern Sumatra. M=5.2 SD 1.9 (CGS).
- 19 iZ Pg 13 06 07.6, iZ Sg 13 06 10.9, D=25 km.
- 20 eZ P or PKP 07 51 09.
- 20 eZ P 11 31 57, USCGS: H= 11 19 47.3, 48.7 N, 155.6 E, h=4 km,Kurile Islands.M=5.4 SD 0.9 (CGS).
- 20 Z P 13 31 (00), eZ PP 13 34 58, eZ PPP 13 37 09, D= 10660 km.USCGS: H= 13 18 27.4, 7.5 N, 124.3 E, h=45 km,Mindanao,Philippine Islands.Felt at Cotabato,Malaybalay and General Santos. M=5.8 SD 0.7 (CGS).
- 21 eZ PKP1 03 11 24, eZ PKP2 03 11 38, USCGS: H= 02 51 39.0, 20.8 S, 175.8 W, h=57 km,Tonga Islands,M=5.7 SD 0.6 (CGS).
- 21 iZ Pg 04 13 15.4, iZ Sg 04 13 21.2, D=45 km.
- 21 eZ 11 21 24, eZ 11 22 33, eZ 11 24 03, eZ 11 25 18, eZ 11 25 55.
- 21 eZ+ P 18 04 33, eZ 18 04 45, eZ PP 18 07 35, D=8770 km, USCGS: H= 17 52 30.5, 53.3 N, 170.4 E, h=26 km, Near Islands, Aleutian Islands, M=5.7 SD 0.8 (CGS).
- 22 eZ P or PKP 17 03 06.
- 23 iZ Pn 23 15 23.7, iZ 23 15 36.5, iZ Sn 23 16 02.7, BCIS: H= 23 14 25, 45.1 N, 10.1 E, River Po valley, Italy. D=350 km.
- 23 eZ Pn 23 54 07, iZ 23 54 14.6, iZ (Sn) 23 54 33.5, BCIS: H= 23 53 37, 47.7 N, 13.9 E, Austrian Alps.
- 24 eZ P or PKP 10 07 13.
- 24 eZ P 18 05 19, eZ PP 18 06 04, D=3200 km,USCGS: H= 17 57 42.2, 36.4 N, 71.2 E, h=234 km,Afghanistan-USSR border region.M=4.9 SD 0.5 (CGS).
- 24 iZ Pn 23 06 48.6, iZ Pg 23 06 58.2, iZ (Sn) 23 07 27.4, iZ 23 07 30.2, (D=360 km).
- 25 eiZ P 03 53 07.8, iZ 03 53 25.6, eZ PP 03 57 14, D= 10660 km,USCGS: H= 03 40 40.4, 2.0 N, 99.3 E, h=98 km,Northern Sumatra. M=5.3 SD 1.1 (CGS).
- 25 eZ P 08 57 00, USCGS: H= 08 44 22.5, 41.7 N, 126.9 W, h=33 km,Off coast of northern California.M=4 1/2 (BRK),5 1/2 (PAL),5.3 SD 2.0 (CGS).
- 25 eZ Pn 09 07 09, iZ 09 07 25.2, eZ (Sn) 09 07 43, (D=310 km).
- 25 eiZ- P 13 45 29, eZ PP 13 48 45, D=8100 km,USCGS: H= 13 33 05.2, 41.3 N, 146.6 E, h=33 km,Off coast of Hokkaido,Japan.M=5.9 SD 0.7 (CGS).

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- 25 Z P 21 59 (00), eZ 22 02 03, USCGS: H= 21 46 45.3, 51.4 N, 176.0 E, h=37 km, Rat Islands, Aleutian Islands, M= 5 3/4 (PAS), 5.3 SD 0.8 (CGS).
- 26 eZ PKP 15 43 35, USCGS: H= 15 23 46.1, 15.8 S, 172.9 W, h=25 km, Samoa Islands region. M=5 1/4 (BRK), 4.9 SD 1.4 (CGS).
- 27 eZ P 11 31 58, eZ 11 32 31, obscured by microseisms, USCGS: H= 11 20 27.7, 51.2 N, 177.5 E, h=34 km, Rat Islands, Aleutian Islands. M=5.4 SD 0.7 (CGS).
- 27 eZ P or PKP 14 00 07, eZ 14 00 36, eZ 14 00 48, obscured by microseisms.
- 27 eZ PKP 16 12 42, USCGS: H= 15 53 44.1, 6.8 S, 155.1 E, h=86 km, Solomon Islands, M=5.5 SD 1.3 (CGS).
- 27 eZ P 21 27 57, USCGS: H= 21 16 02.9, 40.2 N, 139.2 E, h=199 km, Near west coast of Honshu, Japan. M=4.8 SD 0.8 (CGS).
- 28 eZ PKP 12 20 50, USCGS: H= 12 02 04.3, 17.8 S, 178.3 W, h=601 km, Fiji Islands region. M=4.0 SD 1.1 (CGS).
- 28 iZ 12 48 06.6, eZ 12 48 27, traces.
- 28 iZ+ P 22 41 53.2, eZ S 22 52 32, D=10980 km, USCGS: H= 22 29 04.9, 2.2 S, 101.8 E, h=110 km, Southern Sumatra, M=5.8 SD 0.5 (CGS).
- 29 eZNE P 08 41 48, iZ!! 08 41 54.0, eZ PP 08 44 45, eZNE S 08 52 07, D=9320 km, USCGS: H= 08 29 22.1, 51.2 N, 171.3 W, h=23 km, Fox Islands, Aleutian Islands, M=6 1/2-6 3/4 (PAS), 6 1/4-6 1/2 (BRK), 6 3/4-7 (PAL), 6.4 SD 1.4 (CGS).
- 29 eZ P 12 32 46, USCGS: H= 12 20 22.7, 51.0 N, 171.5 W, h=33 km, Aleutian Islands region. M=5.5 SD 1.2 (CGS).
- 29 eZ 22 40 08, eZ 22 40 44, eZ 22 41 08, traces.
- 30 eZ P or PKP 05 18 15.
- 30 iZ P 07 32 22.1, eZ PP 07 34 53, D=7550 km, USCGS: H= 07 20 10.3, 6.7 N, 73.0 W, h=174 km, Northern Colombia, felt at Bogota. M=5.3 SD 0.9 (CGS).
- 30 iZ Pn 07 45 56.9, iZ Sn 07 46 17.5, D=210 km.
- 31 eZ 04 05 53, eZ (Sn) 04 06 23, obscured by microseisms.
- 31 eIZ PKP 16 03 36, USCGS: H= 15 44 44.9, 19.2 S, 177.6 W, h=551 km, Fiji Islands region. M=4.1 SD 0.7 (CGS).
- 31 eZ P 21 54 53, USCGS: H= 21 44 47.8, 32.7 N, 93.1 E, h=21 km, Tibet. M=4.9 SD 1.5 (CGS).

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1 eZ P or PKP 02 09 27.

1 iZ P 15 14 08.9, USCGS: H= 15 02 56.1, 46.9 N, 143.8 E, h=400 km, Sakhalin Island. M=5.7 SD 0.9 (CGS).

1 iZ P 16 52 10.8, USCGS: H= 16 41 13.7, 52.7 N, 153.4 E,

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- 1 (cont.) h=462 km, Northwest of Kurile Islands. M=5.1 SD 0.8 (CGS).
- 2 eZ PKP 13 39 48, eZ PKP2 13 40 14, eZ PP 13 43 58, D=11100 km, USCGS: H= 13 19 54.7, 56.2 S, 158.2 E, h=33 km, Macquarie Island region. M=7-7 1/4 (PAS), 73/4 (BRK), 7 (PAL), 6.7 SD 1.3 (CGS).
- 2 eZ PP 14 47 07, eZ PPP 14 48 55, D=8880 km, USCGS: H= 14 34 21.6, 7.4 N, 78.7 W, h=22 km, Panama. M=5.6 SD 1.0 (CGS).
- 2 eZ PP 16 55 59, eZ PPP 16 57 24, D=8800 km, USCGS: H= 16 43 09.4, 7.4 N, 78.7 W, h=2 km, Panama. Felt at Balboa Heights, Canal Zone. M=5 1/4 (BRK), 4 3/4-5 (PAL), 5.4 SD 1.1 (CGS).
- 2 iZ PP 19 20 41.6, eZ 19 21 15, USCGS: H= 19 07 57.1, 7.4 N, 78.8 W, h=33 km, Panama. M=4 3/4 (BRK), 4 3/4 (PAL), 5.2 SD 1.0 (CGS).
- 2 eZ PP 20 56 11, USCGS: H= 20 43 30.6, 7.5 N, 78.4 W, h=33 km, Panama. M=4.7 SD 1.2 (CGS).
- 2 eZ PKP 23 07 22, USCGS: H= 22 48 00.9, 19.0 S, 169.1 E, h=151 km, New Hebrides Islands. M=4.3 SD 1.3 (CGS).
- 3 eZ P 02 15 34, USCGS: H= 02 01 52.2, 7.7 S, 81.3 W, h=49 km, Off coast of northern Peru. M=5 1/4-5 1/2 (BRK), 5 (PAL), 5.8 SD 0.9 (CGS).
- 3 iZ Pg 07 37 29.2, iZ Sg 07 37 31.7, D=23 km.
- 3 eZ P 07 45 11, USCGS: H= 07 35 22, 33.3 N, 91.1 E, h=442 km, Tsinghai Province, China. M=5.1 SD 0.7 (CGS).
- 3 eIZ PKP 18 19 52.5, eZ PP 18 23 19, USCGS: H= 18 00 32.4, 15.5 S, 167.5 E, h=126 km, New Hebrides Islands. M=4.9 SD 1.1 (CGS).
- 3 eZ (Pg) 20 32 15, eZ (Sn) 20 32 33, eZ 20 32 59, traces.
- 4 eZ P 01 18 44, iZ pP 01 19 10.3, USCGS: H= 01 05 53.0, 16.8 N, 94.5 W, h=117 km, Oaxaca, Mexico. M=5.2 SD 1.3 (CGS).
- 4 eIZ Pn 05 17 12, eZ Pg 05 17 19, eZ Sn 05 17 44, eZ Sg 05 17 52, D=290 km.
- 4 eZ PKP 09 06 08, eZ pPKP 09 07 07, eZ PP 09 09 33, D=16200 km, USCGS: H= 08 47 12.4, 13.2 S, 167.0 E, h=237 km, New Hebrides Islands. M=5.7 SD 0.6 (CGS).
- 4 iZ+ Pn 11 50 38.2, iZ! Pg 11 50 47.0, iZ! Sn 11 51 12.4, iZ! Sg 11 51 22.1, iZ!! 11 51 27.8, F 11 59 - ; D=300 km, BCIS: H= 11 49 53, (DECM), 43.6 N, 12.3 E, Central Apennins, north of Perugia. USCGS: H= 11 49 56.1, 43.9 N, 12.3 E, h=33 km, Central Italy. M=4.6 SD 1.4 (CGS).
- 4 eZ Pn 15 50 25, eZ 15 50 31, eZ (Sn) 15 50 55, traces.
- 4 eZ (Pn) 16 25 25, eZ 16 25 33, eZ (Sn) 16 26 12, traces.
- 4 eIZ+ Pn 19 18 22.2, iZ Pg 19 18 28.8, iZ Sn 19 18 55.6, iZ Sg 19 19 05.2, iZ! 19 19 10.2, F 19 25 - ; D= 300 km.

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- 4 (cont.) BCIS: H= 19 17 36, (DECM), aftershock of the seisms on August 4, 1965 at 11 h 49 m.
- 4 eZ 20 00 35, eZ (Sn) 20 00 58, eZ 20 01 18, traces.
- 4 eZ Pn 21 43 36, eZ 21 43 58, eZ 21 44 17, traces.
- 5 eZ PKP 00 26 46, iZ! 00 26 48.7, eZ PP 00 28 54, D= 13870 km, USCGS: H= 00 07 50.5, 5.3 S, 151.7 E, h=47 km, New Britain region. Felt on eastern New Britain. M= 6 1/2 (PAS), 5 3/4-6 (BRK), 6 1/2-6 3/4 (PAL), 6.3 SD 1.3 (CGS).
- 5 eZ 02 51 09, eZ 02 51 23, traces.
- 5 eZ PKP 11 21 22, USCGS: H= 11 02 20.1, 15.1 S, 176.9 W, h=378 km, Fiji Islands region. M=4.5 SD 0.7 (CGS).
- 5 eZ P 20 01 07, eZ 20 01 11, eZ PP 20 03 50, D=7990 km, USCGS: H= 19 49 48, 7.8 S, 68.1 E, h=33 km, Chagos Archipelago region. M=5.2 SD 1.0 (CGS).
- 6 eZ+ P 02 08 12, USCGS: H= 01 58 40.8, 0.5 S, 19.6 W, h=33 km, Central Mid-Atlantic Ridge, M=5.1 SD 0.9 (CGS).
- 6 eZ P 04 52 53, USCGS: H= 04 43 39.2, 8.7 N, 58.3 E, h=33 km, Carlsberg Ridge, M=4.1 SD 1.6 (CGS).
- 6 eZ P 06 03 17, USCGS: H= 05 54 01, 8.8 N, 58.5 E, h= 33 km, Carlsberg Ridge, M=4.1 SD 1.4 (CGS).
- 6 eZ 12 30 29, eiZ(Sg) 12 30 36, traces.
- 6 eZ+ PKP 12 35 42, USCGS: H=12 16 04.8, 18.4 S, 169.2 E, h=13 km, New Hebrides Islands. M=4.5 SD 1.8 (CGS).
- 6 eZ 13 29 46, traces.
- 6 eZ 15 21 52, eZ 15 22 39, eZ (Sn) 15 22 55, traces.
- 6 iZ- P 18 26 03.8, USCGS: H= 18 15 11.3, 41.4 N, 131.2 E, h=560 km, Sea of Japan. M=5.3 SD 0.9 (CGS).
- 6 eZ P or PKP 22 16 08.
- 7 eZ 10 46 06, eZ(Sn) 10 46 37, eZ 10 47 02, traces.
- 8 eZ 03 14 26, eZ 03 14 52, traces.
- 8 eZ P 05 31 34, USCGS: H= 05 19 26.2, 52.6 N, 173.4 E, h=35 km, Near Islands, Aleutian Islands, M=5.4 SD 0.7 (CGS).
- 8 eZ PKP 10 04 44, eZ PP 10 05 05, D=11430 km, USCGS: H= 09 46 29.6, 4.1 N, 128.6 E, h=51 km, North of Halmahera. M=5.5 SD 1.1 (CGS).
- 8 eZ P 16 25 15, USCGS: H= 16 16 53.8, 28.9 N, 69.1 E, h=36 km, West Pakistan. M=4.3 SD 0.5 (CGS).
- 8 eZ (P) 23 24 20, USCGS: H= 23 11 30, 39.9 S, 15.9 W, h=33 km, Tristan da Cunha region. M=4.4 SD 2.2 (CGS).
- 8 eZ Pn 23 29 31, eZ 23 30 17, BCIS: H= 23 28 20, 45.5 N, 9.5 E, Northern Italy. Traces.
- 9 eZ P 09 17 45, USCGS: H= 09 08 06.8, 5.1 S, 11.6 W, h=33 km, Ascension Island region. M=4.8 SD 1.1 (CGS).

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- 9 eZ P 09 32 27, USCGS: H= 09 22 49.9, 4.9 S, 11.9 W, h= 33 km, North of Ascension Island. M=4.7 SD 1.2 (CGS).
- 9 eZ 13 39 45, eZ (Sn) 13 40 02, traces.
- 9 eZ 14 11 25, eiZ (Sg) 14 11 27.9, traces.
- 9 iZ 21 26 27.6, iZ Sg 21 26 33.8, traces.
- 10 eZ PKP 00 41 07, USCGS: H= 00 21 15.3, 20.1 S, 170.1 E, h=3 km, New Hebrides Islands, M=4.5 SD 1.1 (CGS).
- 11 eZ PKP 04 00 22, iZ 04 00 25.3, iZ! 04 00 32.3, eZ PP 04 04 10, D=16650 km, USCGS: H= 03 40 56.2, 15.4 S, 166.9 E, h=26 km, New Hebrides Islands. M=6.3 SD 1.2 (CGS).
- 11 iZ Pg 18 40 43.8, iZ Sg 18 40 47.1, D=22 km,
- 11 eZ PKP 20 07 14, USCGS: H= 19 47 44.0, 15.8 S, 167.1 E, h=36 km, New Hebrides Islands. Felt at Norsup. M=5.2 SD 0.9 (CGS).
- 11 iZ PKP 20 11 58.4, iZ! 20 12 06.7, eZ PP 20 15 42, D= 16650 km, USCGS: H= 19 52 29.8, 15.7 S, 167.1 E, h=33 km, New Hebrides Islands, M=5.6 SD 1.4 (CGS), 6 1/2 (PAS).
- 11 eiZ P or PKP 20 33 25, eZ 20 37 06.
- 11 eZ P or PKP 21 14 51, eZ 21 17 26.
- 11 eZN PKP 22 51 14, iZ! 22 51 21.1, eZNE PP 22 54 44, USCGS: H= 22 31 48.9, 15.8 S, 167.2 E, h=33 km, New Hebrides Islands. Damage on Espiritu Santo. M=7 1/4 - 7 1/2 (PAS), 6.4 SD 0.9 (CGS). *10 06 40 27 S*
- 11 eZ P or PKP 23 18 25, eZ 23 22 03.
- 12 eZ 01 44 48, eZ 01 45 11.
- 12 eiZ P or PKP 04 58 38. *114 38*
- 12 eiZ PKP 08 21 12, iZ! 08 21 17.2, iZ PP 08 24 52.5, D=16400 km, USCGS: H= 08 01 43.3, 15.9 S, 167.5 E, h= 25 km, New Hebrides Islands. Felt at Port Vila. M=6 3/4 (PAS), 6 1/2 (PAL), 6.3 SD 1.0 (CGS).
- 12 eZ PKP 13 16 06, iZ! 13 16 20.6, USCGS: H= 12 57 09.7, 5.3 S, 152.2 E, h=41 km, New Britain region. Felt widely. M=6 1/2-6 3/4 (PAS), 7 1/4 (PAL), 5.9 SD 1.0 (CGS).
- 12 eZ PKP 18 24 22, iZ! 18 24 36.4, eZ PP 18 28 00, D= 16400 km. USCGS: H= 18 04 56.1, 16.0 S, 167.4 E, h=45 km, New Hebrides Islands. Felt at Port Vila. M=5.3 SD 1.1 (CGS).
- 12 eZ 22 52 56, iZ (Sg) 22 53 29.2, traces.
- 13 eZ PKP 05 00 23, eZ PP 05 04 00, D=16400 km, USCGS: H= 04 40 55.3, 15.9 S, 167.5 E, h=34 km, New Hebrides Islands, M=5.7 SD 1.1 (CGS).
- 13 eZ PKP 11 44 20, eZ 11 47 57, USCGS: H= 11 24 51.8, 16.0 S, 167.0 E, h=33 km, New Hebrides Islands, M=5.5 SD 1.1 (CGS).
- 13 eZ PKP 12 59 39, iZ 13 00 00.2, eZ PP 13 03 45, D=

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- 13 (cont.) 16650 km, USCGS: H= 12 40 08.3, 15.9 S, 166.8 E, h=33 km, New Hebrides Islands, M=7 (PAS), 7-7 1/4 (BRK), 5.6 SD 1.6 (CGS).
- 13 eZ 13 18 20, eZ (Sn) 13 18 40, traces.
- 13 eiZ P or PKP 13 33 05.3
- 13 eZ PP 13 45 13, USCGS: H= 13 29 06, 46.7 N, 146.0 E, h=281 km, Northwest of Kurile Islands. M=4.6 SD 0.7 (CGS).
- 13 eZ PKP 14 22 49, USCGS: H= 14 03 15, 15.8 S, 167.1 E, h=33 km, New Hebrides Islands. M=4.9 SD 0.9 (CGS).
- 13 eZ PKP 18 15 55, eZ PP 18 19 43, D=16650 km, USCGS: H= 17 56 27.6, 16.6 S, 167.6 E, h=39 km, New Hebrides Islands. M=5.4 SD 1.0 (CGS).
- 13 eZ PKP 18 26 52, eZ PP 18 30 32, D=16400 km, USCGS: H= 18 07 25, 15.7 S, 167.0 E, h=33 km, New Hebrides Islands. M=5.4 SD 0.6 (CGS).
- 13 eZ PKP 19 38 00, eZ PP 19 41 44, D=16400 km, USCGS: H= 19 18 27.9, 16.2 S, 167.0 E, h=33 km, New Hebrides Islands, M=5.2 SD 1.4 (CGS).
- 13 eZ PKP 22 16 33, eZ 22 20 06, USCGS: H= 21 57 38.7, 6.4 S, 148.5 E, h=51 km, New Britain region. M=5 1/2 (BRK), 5.2 SD 0.6 (CGS).
- 14 eZ 02 01 06, eZ (Sg) 02 01 12, traces.
- 14 iZ Pn 04 50 01.9, eiZ Pb 04 50 25.2, eiZ Sn 04 51 46.1 D=1010 km, USCGS: H= 04 47 55, 38.7 N, 21.8 E, h=56 km, Greece, M=4.1 SD 1.7 (CGS).
- 14 eZ PKP 07 55 24, USCGS: H= 07 35 54.7, 16.5 S, 167.7 E, h=28 km, New Hebrides Islands. Felt on Spiritu Santo, M=4.9 SD 1.3 (CGS).
- 14 eZ (Sn) 10 00 24, eZ 10 00 47, traces.
- 14 eZ PKP 11 27 19, eZ PP 11 30 58, D=16400 km, USCGS: H= 11 07 47.1, 15.8 S, 166.8 E, h=33 km, New Hebrides Islands. M=6 (PAL), 5.5 SD 1.7 (CGS).
- 14 eZ PKP 13 37 26, eZ 13 40 35, USCGS: H= 13 18 06.0, 11.5 S, 166.3 E, h=49 km, Santa Cruz Islands. M=5.6 SD 1.2 (CGS).
- 14 eZ PKP 14 34 12, USCGS: H= 14 13 50.1, 23.2 S, 175.3 W, h=27 km, Tonga Islands region. M=4.7 SD 1.7 (CGS).
- 14 eiZ PKP 16 25 35.3, USCGS: H= 16 06 45.9, 19.6 S, 178.2 W, h=581 km, Fiji Islands region. M=4.8 SD 0.8 (CGS).
- 16 iZ- P 12 29 41.0, eZ PP 12 32 25, D=16400 km, USCGS: H=12 19 35.5, 5.0 N, 77.6 W, h=33 km, Near west coast of Colombia. M=5.3 SD 0.9 (CGS).
- 16 iZ+ P 12 45 56.4, eZ PP 12 48 00, eZ PPP 12 49 10, eZ S 12 53 30, USCGS: H= 12 36 23.3, 0.6 S, 19.9 W, h=33 km, Central Mid-Atlantic Ridge, M=6.1 SD 1.2 (CGS). D=5880 km.

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- 16 eiZ PKP 13 57 43, USCGS: H= 13 38 48.6, 20.6 S, 178.8 W, h=553 km, Fiji Islands region. M=4.6 SD 1.4 (CGS).
- 16 eZ PP 15 04 27, USCGS: H= 14 43 48.0, 6.0 S, 153.9 E, h=78 km, New Ireland region. M=5.4 SD 1.0 (CGS).
- 16 eiZ- PKP 16 56 50.8, USCGS: H= 16 37 12.4, 19.0 S, 167.6 E, h=14 km, New Hebrides Islands region. M=5.0 SD 1.3 (CGS).
- 16 eZ PKP1 17 21 20, eZ PKP2 17 21 37, USCGS: H= 17 01 26.8, 61.4 S, 154.3 E, h=33 km, Balleny Islands region.
- 16 eZ PKP 18 11 08, eZ 18 11 19, eZ PP 18 14 50, D=16400 km, USCGS: H= 17 51 35.6, 17.3 S, 167.7 E, h=22 km, New Hebrides Islands. Felt at Port Vila. M=5.1 SD 1.6 (CGS).
- 16 eZ P 20 00 37, USCGS: H= 19 53 18, 35.9 N, 35.0 W, h=33 km, Azores Islands region. M=4.6 SD 1.9 (CGS).
- 16 eZ PKP 23 18 53, eZ PP 23 22 34, D=16400 km, USCGS: H= 22 59 22.9, 17.3 S, 167.8 E, h=33 km, New Hebrides Islands. Felt at Port Vila. M=5.3 SD 1.3 (CGS).
- 17 eZ P 00 30 14, USCGS: H= 00 22 23.9, 35.1 N, 35.2 W, h=33 km, North Atlantic Ridge, M=4.6 SD 1.9 (CGS).
- 17 eZ P 07 49 35, USCGS: H= 07 36 17, 12.4 N, 125.7 E, h=76 km, Samar, Philippine Islands. M=5.0 SD 1.7 (CGS).
- 17 eZ P 08 19 22, USCGS: H= 08 06 08, 12.4 N, 125.7 E, h=115 km, Samar, Philippine Islands. M=4.9 SD 1.5 (CGS).
- 17 eZ 09 15 39, eZ(Sn) 09 15 51, eZ 09 16 03, traces.
- 17 eiZ- P 10 47 13, eZ S 10 57 14, D=8770 km, USCGS: H= 10 35 04.1, 5.3 N, 96.2 E, h=33 km, Northern Sumatra. M=5.3 SD 2.0 (CGS).
- 17 eZ (Sg) 11 01 30, iZ 11 01 37.6
- 17 eZ PKP 11 33 08, USCGS: H= 11 14 10.4, 5.2 S, 152.6 E, h=47 km, New Britain region. M=5.8 SD 1.3 (CGS).
- 17 eZ PKP 12 33 23, USCGS: H= 12 14 30.9, 20.6 S, 177.8 W, h=501 km, Fiji Islands region. M=4.2 SD 1.1 (CGS).
- 17 iZ P 13 04 48.1, USCGS: H= 12 52 45, 5.3 N, 96.2 E, h=99 km, Northern Sumatra. M=4.9 SD 1.3 (CGS).
- 17 iZ PKP 13 23 18.9, USCGS: H= 13 04 30.4, 6.6 S, 147.2 E, h=89 km, East New Guinea region. M=5.5 SD 0.8 (CGS).
- 17 eiZ Pg 15 15 34.5, iZ Sg 15 15 41.4, D=56 km.
- 17 eZ PKP 16 37 08, eZ 16 40 52, USCGS: H= 16 17 41.5, 15.2 S, 166.6 E, h=19 km, New Hebrides Islands. M=5.8 SD 1.3 (CGS).
- 17 eZ PKP 22 27 19, USCGS: H= 22 07 28.8, 16.8 S, 173.1 W, h=33 km, Tonga Islands, M=4.4 SD 1.1 (CGS).
- 17 eZ+ PKP 22 38 31, USCGS: H= 22 18 52.5, 20.4 S, 168.8 E, h=33 km, Loyalty Islands. M=5.2 SD 1.0 (CGS).
- 18 iZ Pn 03 06 16.2, iZ Pg 03 06 24.1, iZ Sn 03 06 49.3,

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- 18 (cont.) iZ Sg 03 07 00, D=300 km.  
 18 eZ 04 51 49, eZ 04 53 12, traces.  
 18 eZ PKP 06 16 28, USCGS: H= 05 56 54.8, 17.4 S, 167.6 E, h=24 km, New Hebrides Islands. M=4.7 SD 1.1 (CGS).  
 18 eZ 09 01 43, eiZ (Sg) 09 01 55, eZ 09 02 06, traces.  
 18 eZ 13 59 32, iZ(Sg) 13 59 47.5, traces.  
 18 eZ PKP 14 34 33, USCGS: H= 14 14 28.6, 23.3 S, 175.3 W, h=20 km, Tonga Islands region. M=5.0 SD 1.0 (CGS).  
 18 eZ PKP 14 45 16, eZ PP 14 48 45, D=16200 km, USCGS: H= 14 25 20.2, 23.3 S, 175.3 W, h=20 km, Tonga Islands region. M=4.9 SD 1.0 (CGS).  
 18 eZ PKP 15 11 08, eZ PP 15 14 44, D=16400 km, USCGS: H= 14 51 29.3, 16.0 S, 167.0 E, h=5 km. M=5 3/4-6 (PAS), 6 (BRK), 5.7 SD 1.7 (CGS). New Hebrides Islands. Felt at Port Vila.  
 18 eZ PKP 16 16 16, USCGS: H= 15 54 17, 23.2 S, 175.5 W, h=93 km, Tonga Islands region. M=4.3 SD 0.5 (CGS).  
 18 eZ(Sg) 19 17 11, traces.  
 19 eZ Pg 19 14 47.4, iZ! 19 14 49.7, iZ!NE Sg 19 15 05.3, D=150 km, BCIS: H= 19 14 28, 46.3 N, 13.1 E, Venetian Alps (Italy).  
 19 eZ Pg 19 42 18.2, iZ! 19 42 20.4, iZ! Sg 19 42 36.6, D=150 km, BCIS: H= 19 41 58, aftershock of preceding shock.  
 20 eZ P 06 08 49, eiZ 06 12 47, eZ! PKP 06 13 18, iZ!! 06 13 31.7, USCGS: H= 05 54 50.0, 5.7 S, 128.6 E, h=326 km, Banda Sea. M=6 3/4 (PAS), 6.2 SD 0.8 (CGS).  
 20 eZ P 09 56 17, eZ 09 56 47, eZ PP 10 00 16, D=10770 km, USCGS: H= 09 42 48.5, 19.0 S, 69.1 W, h=129 km, Northern Chile. Felt at Arequipa, Peru and Arica, Iquique, Chile. M=6 1/2 (PAS), 5 3/4 (BRK), 6.0 SD 1.4 (CGS).  
 20 iZ Pg 10 56 02.3, iZ Sg 10 56 04.2, D=15 km, weak, not felt.  
 20 iZ(Sg) 13 45 50.2, traces.  
 20 eZ Pn 15 47 51, iZ(Pg) 15 47 56.5, iZ (Sn) 15 48 21.8.  
 20 eiZ PKP 21 41 37, iZpPKP 21 41 46.4, iZ! 21 41 56.2, USCGS: H= 21 21 50.9, 22.9 S, 176.3 W, h=77 km, South of Fiji Islands. M=5 3/4 (BRK), 6-6 1/4 (PAL), 6.2 SD 0.8 (CGS).  
 21 iZ Pn 00 43 05.9, iZ Pg 00 43 14.1, iZ Sn 00 43 36.4, iZ Sg 00 43 52.4, D=270 km.  
 21 iZ Pn 01 33 25.9, iZ Pg 01 33 34.4, iZ Sn 01 34 00.2, iZ Sg 01 34 12.2, D=280 km.  
 21 eZ 11 48 57, eZ(Sn) 11 49 28.  
 21 eZ Pn 13 16 38, eZ (Sn) 13 17 14, (D=320 km).  
 21 eZ P 15 17 35, eZ PP 15 21 11, D=10200 km, USCGS: H= 15

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- 21 (cont.) 04 17.6, 5.9 S, 104.2 E, h=33 km, Southern Sumatra. M=5.5 SD 1.2 (CGS).  
 22 eZ- PKP 10 59 41, USCGS: H= 10 39 41.9, 28.9 S, 175.9 W, h=15 km, Kermadec Islands. M=5.2 SD 1.5 (CGS).  
 22 iZ P or PKP 23 17 26.7, eZ 23 17 47.  
 23 eZ 08 27 11, eZ 08 28 35, obscured by microseisms.  
 23 iZ+NE Pn 14 11 22.7, iZ! 14 11 08.9, iZNE Sn 14 13 14.5, D=1100 km, BCIS: H=14 08 57, (DECM), 40.2 N, 26.2 E, Northwestern Turkey. Istanbul: Damage at Eceabat (40° 11' N, 26° 21' E). Felt at Canakkale, Bursa, Istanbul (3°+), Edirne, Bolu, Ismir, Balikesir, Tekirdag, Isparta, Ucak. Istanbul-Kandili: felt at Gelibolu, Canakkale in western Anatolia. M=5.8 (Collmberg), 5 3/4 (Uppsala), 5.6 (Moxa), 5.5 (Athens).  
 23 eiz-NE P 19 59 14.8, eiz PP 20 02 50.7, eNE S 20 09 46, D=9880 km, USCGS: H= 19 46 02.9, 16.3 N, 95.8 W, h=28 km, Oaxaca, Mexico. 5 killed in Mexico City and Oaxaca. Felt throughout southern Mexico. M= 7 1/4 (PAS), 7 1/2-7 3/4 (BRK), 7 1/4 (PAL), 6.7 SD 1.5 (CGS).  
 24 eZ P 01 13 12, eZ 01 13 56, eZ (PP) 01 16 08, D=9800 km, USCGS: H= 01 01 00.8, 16.2 N, 96.2 W, h=31 km, Oaxaca Mexico. M=5.6 SD 0.5 (CGS).  
 24 eZ PKP1 07 26 08, iZ! PKP2 07 26 16.5, eZ pPKP1 07 27 25, iZ pPKP2 07 27 32.6, USCGS: H= 07 06 50.0, 21.9 S, 177.3 W, h=290 km, Fiji Islands region. M=4 3/4 (BRK), 5.7 SD 1.3 (CGS).  
 24 Z 19 28 (00), eiZ 19 28 27, iZ (Sg) 19 28 51.8.  
 24 iZ Pn 19 31 20.1, iZ Pg 19 31 28.8, iZ Sg 19 32 07.5, D=340 km.  
 25 Z Pn 05 01 (00), iZ Sn 05 03 30.5, D=1550 km, BCIS: H= 04 57 56, (DECM), 35.1 N, 25.1 E, h=90 km. Crete. M=4.6 (Athens). USCGS: H= 04 57 47.5, 34.7 N, 25.1 E, h=26 km, Crete. M=4.7 SD 1.4 (CGS).  
 From August 26 at 0817 to August 28 at 0822 station not operating.  
 28 iZ 22 55 34.8, iZ 22 55 47.4, iZ(Sn) 22 55 56.3.  
 29 eZ P 01 57 56, eZ 01 58 37, eZ 01 59 15, USCGS: H= 01 45 57.3, 14.1 N, 90.5 W, h=107 km, Guatemala. M=4 1/2 (BRK), 5.0 SD 1.1 (CGS).  
 29 iZ PKP 02 54 37.5, USCGS: H= 02 35 01.7, 19.2 S, 167.7 E, h=33 km, New Hebrides Islands region. M=5.0 SD 0.8 (CGS).  
 29 eiZ Pn 06 42 47, iZ Pg 06 42 57.6, iZ Sn 06 43 27.2, iZ Sg 06 43 42.6, D=370 km.  
 29 eZ Pn 09 18 49, eZ (Sn) 09 19 12, (D=200 km).  
 29 eZ PKP 13 06 03, eZ(PP) 13 10 38, D=16400 km, USCGS: H= 12 46 30.1, 15.7 S, 167.6 E, h=10 km, New Hebrides Islands. Felt at Norsup. M=6.0 SD 1.8 (CGS).

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- 29 eZ PKP 13 15 (00), eZ 13 15 19, USCGS: H= 12 55 35.5, 15.7 S, 167.5 E, h=33 km, New Hebrides Islands. Felt at Norsup. M=5.7 SD 1.9 (CGS).
- 29 eZ 13 42 10, eZ 13 42 59, eZ (Sn) 13 43 31, USCGS: H= 13 39 19, 39.1 N, 23.9 E, h=22 km, Aegean Sea.
- 29 eZ PKP1 14 16 01, eZ! PKP2 14 16 06, eZ pPKP1 14 16 21, USCGS: H= 13 57 20.2, 17.7 S, 178.9 W, h=571 km, Fiji Islands region. M=5.4 SD 0.6 (CGS).
- 29 eZ 14 46 11, eZ 14 46 41, traces.
- 29 eZ PKP 17 44 44, USCGS: H= 17 25 25, 19.5 S, 176.2 W, h=316 km, Fiji Islands region. M=4.6 SD 0.5 (CGS).
- 30 eZ PKP 01 15 40, USCGS: H= 00 56 05.3, 16.9 S, 167.2 E, h=2 km, New Hebrides Islands, M=5.0 SD 1.2 (CGS).
- 30 eZ PKP 01 45 36, eZ PP 01 49 19, D=16400 km, USCGS: H= 01 26 03.5, 16.9 S, 167.4 E, h=22 km, New Hebrides Islands, M=4.7 SD 1.9 (CGS).
- 30 eZ PKP 02 36 14, USCGS: H= 02 16 39.9, 17.1 S, 167.2 E, h=18 km, New Hebrides Islands, M=4.9 SD 1.5 (CGS).
- 30 eZ PKP 03 51 34, eZ PP 03 55 19, D=16600 km, USCGS: H= 03 32 02.2, 16.9 S, 167.4 E, h=15 km, New Hebrides Islands. Felt at Norsup. M=5.5 SD 1.3 (CGS).
- 30 eZ PKP 06 04 23, USCGS: H= 05 44 56.1, 17.1 S, 167.3 E, h=33 km, New Hebrides Islands, M=4.5 SD 1.6 (CGS).
- From August 30 at 0819 to August 31 at 1308 station not operating.

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- 1 eiZ P 04 40 14, USCGS: H= 04 29 21.8, 51.3 N, 150.6 E, h=537 km, Sea of Okhotsk. M=5.1 SD 0.6 (CGS).
- 1 eiZ PKP 05 07 25, USCGS: H= 04 47 34.9, 34.6 S, 179.6 E, h=107 km, South of Kermadec Islands, M= 6 1/4 (BRK), 6.2 SD 0.2 (CGS).
- 1 eZ PKP 06 57 40, iZ! 06 57 45.6, eZpPKP 06 58 30, USCGS: H=06 38 36.2, 14.5 S, 167.4 E, h=189 km, New Hebrides Islands. Felt at Santo. M=4 3/4-5 (BRK), 5.6 SD 0.8 (CGS).
- 2 eZ PKP 00 11 19, USCGS: H= 23 52 35.7, 18.0 S, 178.1 W, h=620 km, Fiji Islands region. M=5.2 SD 0.7 (CGS).
- 2 eiZ P 04 38 52, USCGS: H= 04 26 37.3, 51.9 N, 175.5 E, h=31 km, Rat Islands, Aleutian Islands. M=4 1/2-5 (BRK), 5.6 SD 0.7 (CGS).
- 2 eZ 21 16 18, eZ 21 16 32, eZ(Sn) 21 18 19, eZ 21 18 46, traces.
- 3 eZ 12 59 44, eZ(Sn) 13 00 09, eZ 13 00 19, traces.
- 4 eZ P 10 32 (00), eZ 10 32 38, USCGS: H= 10 19 51.3, 46.6 N, 153.5 E, h=27 km, Kurile Islands. M=5.5 SD 0.7 (CGS).

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- 4 iZ Pg 13 28 09.1, iZ Sg 13 28 19.8, D=90 km.
- 4 eiZ+ P 14 44 32.6, eZ PP 14 47 29, eZ S 14 54 31, D= 8770 km, USCGS: H= 14 32 47.9, 58.2 N, 152.6 W, h=19 km, Kodiak Island region. Felt aboard USCGS ship Surveyor located at 58° 57' N, 151° 23' W and in a wide area of South Central Alaska. M=6 3/4-7 (PAS), 7 (BRK), 6 3/4-7 (PAL), 6.1 SD 0.7 (CGS).
- 7 eZ P 06 19 58, iZ! 06 20 04.5, BCIS: H= 06 16 47, (DECM), 35.2 N, 4.5 E, Algeria. Felt 7° at Bou Saada, Via Barika and M'Sila. USCGS: H= 06 16 48.4, 35.3 N, 4.4 E, h=33 km, Algeria. M=4.4 SD 1.7 (CGS).
- 7 eZ PKP 08 48 23, USCGS: H= 08 28 51.2, 15.6 S, 167.1 E, h=29 km, New Hebrides Islands. Felt on Espiritu Santo. M=4.7 SD 1.2 (CGS).
- 7 eiZ PKP 11 33 13.5, USCGS: H= 11 14 06.4, 18.5 S, 177.3 W, h=391 km, Fiji Islands region. M=5.3 SD 0.8 (CGS).
- 7 eZ 15 52 36, iZ 15 52 42.3, traces.
- 8 eZ P 03 38 07, USCGS: H= 03 26 20.7, 57.5 N, 152.1 W, h=25 km, Kodiak Island region. M=5 1/4-5 1/2 (PAL), 5.6 SD 1.0 (CGS).
- 8 eZ P 11 28 28, eZ 11 28 47, USCGS: H= 11 16 34.4, 55.7 N, 155.4 W, h=33 km, South of Alaska. M=5.4 SD 0.7 (CGS).
- 8 eZ P or PKP 12 14 56, eZ 12 15 05.
- 8 eZ 13 42 07, eZ 13 42 21, traces.
- 9 eZ(Pn) 00 06 13, eZ 00 07 09, eZ 00 09 20, BCIS: H= 00 03 42, aftershock of August 23, 1965 at 14<sup>h</sup> 08<sup>m</sup>, North-eastern Turkey.
- 9 eZ P 10 15 31, eZ PP 10 19 12, D=10100 km, USCGS: H= 10 02 25.4, 6.5 N, 84.4 W, h=27 km, Off coast of Central America. M=6 3/4 (PAS), 6 3/4 (BRK), 5.5 SD 1.5 (CGS).
- 9 eZ 19 55 22, eZ(Sn) 19 55 42, eZ 19 56 23, traces.
- 11 eZ P or PKP 02 55 28, eZ 02 57 30.
- 11 eZ Pn 04 51 19, iZ Pg 04 52 06.7, eZ Sn 04 53 10, USCGS: H= 04 49 16, 39.2 N, 22.4 E, h=66 km, Greece. M=4.1 SD 1.1 (CGS), D=1040 km.
- 11 eiZ PKP 07 11 58, USCGS: H= 06 53 01.5, 5.3 S, 153.0 E, h=67 km, New Britain region. Felt at Rabaul. M=6.3 SD 0.1 (CGS).
- 11 eZ 12 29 52, eZ 12 30 16, traces.
- 12 eZ 00 49 (00), eZ(Sn) 00 49 24, eZ 00 49 50, BCIS: H=00 47 49, preceding shock of September 12 at 05 h 12 m.
- 12 iZ- Pn 05 12 59.0, iZ 05 13 15.5, iZ 05 13 22.2, iZ! Sn 05 13 36.1, iZ! 05 14 08.4, iZ 05 15 17.1, F 05 17 -; BCIS: H= 05 12 02, (DECM), 44.4 N, 9.7 E, Toscan Apennins, M=3.2 (Pruhonice).

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- 12 eZ PKP 08 59 11, USCGS: H= 08 40 12.8, 6.3 S, 151.6 E, h=48 km, New Britain region. Felt at Rabaul. M=6-6 1/4 (BRK), 6.2 SD 1.2 (CGS).
- 12 iZ- P 22 13 57.9, eZ S 22 23 26, D=8200 km, USCGS: H= 22 02 34.3, 6.4 S, 70.8 E, h=33 km, Chagos Archipelago region. M=6.1 SD 0.7 (CGS).
- 13 eZ P 13 19 42, USCGS: H= 13 07 48.3, 55.5 N, 165.7 E, h=23 km, Komandorsky Islands region. M=5.4 SD 0.7 (CGS).
- 14 eZ PKP 07 46 57, eZ 07 47 23, USCGS: H= 07 27 16.1, 16.6 S, 173.3 W, h=95 km, Tonga Islands. M=4.8 SD 1.3 (CGS).
- 14 eZ 08 18 34, eZ (Sn) 08 19 15, USCGS: H= 08 15 04, 37.5 N, 19.6 E, h=33 km, Ionian Sea. M=4.2 SD 2.0 (CGS).
- 15 eZ 21 15 12, eZ 21 15 19, traces.
- 16 eZ+ P 14 03 38, eZ PP 14 08 14.7, D=11200 km, USCGS: H= 13 50 11.8, 7.1 N, 126.5 E, h=179 km, Mindanao, Philippines. M=6.0 SD 0.8 (CGS).
- 16 eZ PKP 16 39 17, USCGS: H= 16 20 19.8, 20.9 S, 178.7 W, h=525 km, Fiji Islands region. M=5.3 SD 0.6 (CGS).
- 16 eZ P 20 01 44, USCGS: H= 19 51 08.4, 37.2 N, 74.3 W, h=0 km, Off east coast of United States, planned detonation of surplus U.S. Navy explosives aboard SS Santiago Iglesias. M=5.1 SD 1.4 (CGS).
- 17 eiZ 09 57 32, iZ 09 57 40.8, traces.
- 17 eZ+ P 11 26 47, iZ! 11 26 49.6, iZ! pP 11 27 35.5, eZ (PP) 11 31 13, eZ S 11 37 07, D=10300 km, USCGS: H= 11 13 56.4, 1.4 S, 77.6 W, h=190 km, Ecuador. Felt at Guayaquil and Quito. M=6 1/2 (PAS), 5 1/2-6 (BRK), 6.0 SD 1.0 (CGS).
- 17 eZ P or PKP 11 52 07.
- 17 eZ P 13 11 48, USCGS: H= 12 59 19.3, 36.7 N, 141.2 E, h=57 km, Near east coast of Honshu, Japan. M=4.5 SD 1.2 (CGS).
- 17 eZ P 13 33 30, eZ PP 13 36 51, D=9550 km, USCGS: H= 13 20 58.3, 36.5 N, 141.4 E, h=45 km, Near east coast of Honshu, Japan. M=4.8 SD 1.9 (CGS).
- 17 eZ P 14 35 11, eZ PP 14 38 41, D=9550 km, USCGS: H= 14 22 36.5, 36.5 N, 141.4 E, h=23 km, Near east coast of Honshu, Japan. M=5.1 SD 0.7 (CGS).
- 17 eZ+ P 15 31 08, eZ PP 15 34 28, D=9550 km, USCGS: H= 15 18 38.4, 36.3 N, 141.2 E, h=66 km, Near east coast of Honshu, Japan. M=5.2 SD 0.5 (CGS).
- 17 iZ+ P 16 33 51.2, iZ! 16 34 04.3, eiZNE PP 16 37 11, eNE S 16 44 07, USCGS: H= 16 21 21.9, 36.3 N, 141.1 E, h=72 km, Near east coast of Honshu, Japan. M=5.8 SD 0.9 (CGS).
- 17 iZ Pg 18 52 26.5, iZ Sg 18 52 28.4, D=16 km.
- 17 eZ P 20 55 10, USCGS: H= 20 42 39.7, 36.5 N, 141.2 E,

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- 17 (cont.) h=56 km, Near east coast of Honshu, Japan. M=4.6 SD 0.5 (CGS).
- 17 eZ PKP 23 13 38, USCGS: H= 22 54 30.0, 12.7 S, 166.3 E, h=65 km, Santa Cruz Islands. M=5.1 SD 1.5 (CGS).
- 18 iZ Pg 12 04 23.9, iZ Sg 12 04 31.9, D=70 km.
- 18 eZ P 20 58 11, eZ PP 21 01 02, D=8440 km, USCGS: H= 20 46 39.2, 59.5 N, 145.1 W, h=22 km, Gulf of Alaska. M=6 (PAL), 5.3 SD 0.7 (CGS).
- 18 eZ P 22 16 52, USCGS: H= 22 03 18.8, 8.2 N, 126.8 E, h=85 km, Mindanao, Philippine Islands. M=5.6 SD 0.7 (CGS).
- 18 eZ Pn 22 25 54, eZ (Sn) 22 26 33.4, (D=330 km).
- 19 eZ PKP 01 28 06, USCGS: H= 01 08 26.1, 15.4 S, 173.1 W, h=33 km, Tonga Islands. M=4.7 SD 1.7 (CGS).
- 19 eZ PKP 01 46 43, USCGS: H= 01 26 52.5, 22.1 S, 174.9 W, h=33 km, Tonga Islands region. M=5.4 SD 0.7 (CGS).
- 19 eZ P 03 59 12, USCGS: H= 03 52 44.9, 53.1 N, 35.3 W, h=33 km, North Atlantic Ocean. M=4.7 SD 1.4 (CGS).
- 19 eZ Pn 08 12 03, iZ Pg 08 12 15.1, iZ Sn 08 12 57.4, iZ! 08 13 16.0, iZ!! 08 13 20.0, D=490 km. BCIS: H= 08 10 43, Stuttgart: 47° 50' N, 8° 18' E, Black Forest. Maximum intensity 6°. Felt in Southern Germany, Eastern France and in Switzerland. M=3.9 (Pruhonice), 4.1 (Bensberg). USCGS: H= 08 10 41.8, 48.0 N, 08.3 E, h=33 km, Switzerland. Felt in eastern France and in Freiburg, Germany. M=4.0 SD 1.1 (CGS).
- 19 iZ+ P 09 00 27.4, USCGS: H= 08 47 49.4, 0.9 S, 99.7 E, h=93 km, Southern Sumatra. M=5.3 SD 0.9 (CGS).
- 19 eZ 14 09 16, eZ 14 10 19, eZ 14 10 33, traces. BCIS: H= 14 03 34, (DECM), 38.8 N, 28.0 E, Western Turkey. Istanbul: strongly felt at Akhisar. Material damage on fundaments. USCGS: H= 14 03 34.6, 38.9 N, 27.9 E, h=33 km, Turkey. Moderate damage at Akhisar. M=4.5 SD 1.3 (CGS).
- 20 eZ 06 37 43, eZ(Sn) 06 38 10, obscured by microseisms.
- 20 eZ 14 18 39, traces.
- 21 eiZ- P 01 50 42, iZ! 01 50 42.8, eZ pP 01 51 32, eZ PP 01 54 00, D=9540 km, USCGS: H= 01 38 30.2, 29.1 N, 128.2 E, h=197 km, East China Sea. M=6 3/4 (PAS), 6-6 1/4 (BRK), 6.0 SD 1.2 (CGS).
- 21 eZ P 03 35 05, iZ 03 35 17.6, USCGS: H= 03 26 37.2, 40.7 N, 50.0 W, h=23 km, North Atlantic Ocean. M=5 (PAL), 5.3 SD 1.5 (CGS).
- 22 eZ P 04 36 12, USCGS: H= 04 24 47.8, 20.8 N, 99.3 E, h=35 km, Burma. M=5.5 SD 2.1 (CGS).
- 22 eZ P 13 02 22, USCGS: H= 12 49 42.9, 32.5 N, 131.4 E, h=6 km, Kyushu, Japan. M=5.0 SD 1.0 (CGS).
- 22 eZ P or PKP 17 56 20, eZ 17 57 50.
- 22 eZ PKP 20 20 44, iZ! 20 20 45.6, USCGS: H= 20 01 49.3,

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- 22 (cont.), 5.4 S, 151.5 E, h=57 km, New Britain region.  
Felt at Rabaul. M=5.5 1/2 (BRK), 6.5 SD 1.3 (CGS).
- 22 Z Pg 20 32 (00), iZ Sg 20 32 03.3, (D=20 km).
- 22 eZ+ P 22 20 32, eZ 22 20 45, eZ PP 22 23 49, D=9540 km, USCGS: H= 22 08 01.1, 36.4 N, 141.3 E, h=44 km, Near east coast of Honshu, Japan. Felt at Tokyo. M=6 3/4 (PAS), 6 1/4 (BRK), 5.6 SD 0.8 (CGS).
- 23 eZ P or PKP 02 03 56.
- 23 eZ 06 12 29, eZ(Sg) 06 12 33.
- 23 eZ Pn 09 53 10, eZ 09 53 20, eZ(Sn) 09 53 47, D=340 km. BCIS: H= 09 52 05, 43 3/4 N, 10 1/2 E, Italy, Pisa region.
- 23 eZ (Pn) 11 29 33, eZ 11 29 47, eiZ 11 30 18, traces.
- 23 eZ Pn 17 11 58, iZ Pg 17 11 06.0, iZ Sn 17 11 33.1, D=320 km.
- 23 eZ P or PKP 20 40 24, eZ 20 41 06, eZ 20 41 30, traces.
- 24 eiZ+ P 20 50 18.0, USCGS: H= 20 38 07.6, 5.2 N, 96.1 E, h=33 km, Northern Sumatra. M=5.2 SD 1.2 (CGS).
- 25 eiZ Pn 00 04 29.4, iZ Sn 00 05 04.1, D=310 km.
- 25 eZ PKP 02 21 12, USCGS: H= 02 01 17.2, 24.5 S, 175.9 W, h=22 km, South of Tonga Islands. M=6 1/2 (BRK), 5.2 SD 1.1 (CGS).
- 25 eiZ+ P 11 05 43, USCGS: H= 10 55 59.8, 1.0 S, 21.9 W, h= 33 km, Central Mid-Atlantic Ridge, M=5.3 SD 1.4 (CGS).
- 25 eZ P 14 49 39, eZ PP 14 52 36, D=8660 km, USCGS: H= 14 37 15.4, 39.7 N, 143.2 E, h=44 km, Off east coast of Honshu, Japan. M=5.3 SD 0.5 (CGS).
- 25 eiZ P 14 54 51, USCGS: H= 14 42 26.1, 39.8 N, 143.1 E, h=20 km, Off east coast of Honshu, Japan. M=5.0 SD 1.0 (CGS).
- 25 eiZ+ P 15 05 57.7, eZ PP 15 08 (00), D=9200 km, USCGS: H= 14 53 34.9, 39.6 N, 143.2 E, h=43 km, Off east coast of Honshu, Japan. M=5.5 SD 0.9 (CGS).
- 25 eiZ P 15 55 57, eZ (PP) 15 57 38, D=about 4660 km. USCGS: H=15 47 58.4, 41.3 N, 74.9 E, h=33 km, Kirghiz SSR, M=5.6 SD 1.2 (CGS).
- 25 eZ PKP 16 08 50, USCGS: H= 15 49 53.3, 9.9 S, 148.4 E, h=57 km, East New Guinea region. M=4.7 SD 0.7 (CGS).
- 25 eZ P 20 16 18, BCIS: H= 20 09 57, 54 3/4 N, 36 1/2 W, Atlantic Ocean, SE of Groenland. M=5.4 (Moxa), USCGS: H= 20 10 06.6, 54.1 N, 35.2 W, h=33 km, North Atlantic Ocean, M=4.8 SD 1.0 (CGS).
- 27 eZ P 05 21 25, obscured by microseisms. USCGS: H= 05 09 13.3, 51.9 N, 175.5 E, h=41 km, Rat Islands, Aleutian Islands, M=5.5 SD 0.8 (CGS).
- 28 eZ PKP 05 26 33, USCGS: H= 05 06 36.8, 28.0 S, 178.1 W, h=33 km, Kermadec Islands. M=6 1/2-6 3/4 (PAS), 6 1/4-

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- 28 (cont.) 6 1/2 (BRK), 6 1/2-6 3/4 (PAL), 5.2 SD 1.5 (CGS).
- 29 eZ 00 03 20, eZ (Sn) 00 04 28.
- 29 eZ 00 12 05, iZ(Sg) 00 12 57.4, obscured by microseisms,
- 29 eZ Pn 09 14 34, iZ 09 14 40.7, iZ(Sn) 09 15 11.1, (D=330 km).
- 29 iZ Pg 12 29 06.2, iZ Sg 12 29 10.0, D=31 km.
- 29 eZ P 23 26 23, BCIS: H= 23 19.8, aftershock of Sept. 25, at 2009. USCGS: H= 23 20 19.0, 45.1 N, 28.2 W, h=33 km, North Atlantic Ridge. M=5.4 SD 0.9 (CGS).
- 30 eZ PKP 07 26 29, USCGS: H=07 06 35.3, 21.1 S, 179.3 W, h=625 km, Fiji Islands region. M=5.2 SD 1.3 (CGS).
- 30 eZ PKP 07 27 49, USCGS: H= 07 07 44.3, 21.1 S, 179.2 W, h=604 km, Fiji Islands region. M=5.4 SD 0.8 (CGS).
- 30 eZ 15 00 40, iZ(Sg) 15 00 46.8.

Ljubljana, March 3, 1966

M. Hržič-Knafeljc

LJUBLJANA

Oct. - Dec. 1965

University of Ljubljana  
Astronomical and Geophysical  
Observatory,  
Ljubljana, Trg revolucije 11,  
P.O.B. 01-20, Yugoslavia

1965

PRELIMINARY SEISMOLOGICAL BULLETIN  
(from October 1, to December 31, 1965)

University of Ljubljana  
Astronomical and Geophysical  
Observatory,  
Ljubljana, Trg revolucije 11,  
P.O.B.01-20, Yugoslavia

1965

PRELIMINARY SEISMOLOGICAL BULLETIN  
from October 1, to December 31,  
1965

Station: Ljubljana (LJU)- Coordinates:  $46^{\circ} 02.6' N$  Lat.  
 $14^{\circ} 32.0' E$  Long.

Geocentric direction cosines:  $a=+ 6743$ ,  $b=+ 1748$ ,  $c=+ 7175$ ,  
 $d=- 8$ ,  $h=- 4$ ;

Height above mean sea level: 396 m;  
Lithologic foundation: sandstone (carbon);

Instruments:

Wiechert, horizontal astatic seismograph,  $M=200$  kg, mechanical registration,  $16-18$  mm/min;

Constants (September 6, 1965):

Component	$T_0$	$v:1$	$r/T_0^2$	$V$
N-S	4.9	2.08	0.0134	70
E-W	4.9	1.28	0.0120	67

Hiller-Stuttgart, vertical component Z with galvanometrical recording;  $T_0=1.5$  sec,  $T_g=1.5$  sec,  $D_1=D_2=1$ ,  $V_{max}=10150$  x, registration velocity: 60 mm/min.

Note: Periods of seismic waves are given in seconds, the amplitudes in microns; sign + means compression, movement of ground towards north or east, sign - means dilatation or movement towards south or west. All times are given in GMT. Time signals are received one or two times daily from Pontoise, Potsdam or Moscow and are registered on a chronograph. Wherever possible time readings up to one tenth of a second are given. Macroseismic data refer to Mercalli-Cancani-Sieberg scale (MCS), macroseismic rays are given in kilometers. Abbreviation DECM means: Determination was made by electronic computer.

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1 iZ- P 09 04 30.5, iZ 09 04 39.6, eZ PP 09 07 45, eZ PPP 09 09 37,  $D=9250$  km, USCGS: H= 08 52 05.8, 50.1 N, 178.3 E, h=32 km, Rat Islands, Aleutian Islands. M= 6 1/2 (PAS), 6 1/4-6 1/2 (ERK), 6 1/2-6 3/4 (PAL), 6.3 SD 1.0 (CGS).

1 eZ 12 52 22, iZ (Sg) 12 52 38.2, weak traces.

1 eiZ PKP1 13 41 11.0, iZ! PKIKP 13 41 15.8, iZ pPKP1

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- 1 (cont.) 13 43 24.4, iZ 13 43 33.9, USCGS: H= 13 22  
28.5, 20.0 S, 174.4 E, h=553 km, New Hebrides Islands  
region. M=5.9 (BRK), 6.2 SD 1.0 (CGS), D=16550 km.
- 1 eiZ 13 50 12.8, weak traces.
- 1 eiZ Pn 18 40 09.2, iZ 18 40 36.5, eZ Sn 18 41 24, D= 710 km, BCIS: H= 18 38.5, about 39 1/4 N, 16 1/4 E, Southern Italy. Felt: Calabria, especially in Cosenza (Press, Roma).
- 1 eZ PKP 20 03 48, USCGS: H= 19 44 14.2, 52.7 S, 140.0 E, h=33 km, West of Macquarie Island. M=4.9 SD 1.1 (CGS).
- 1 eiZ PP 22 53 29.7, USCGS: H= 22 34 25.5, 60.7 S, 24.9 W, h=33 km, South Sandwich Islands region. M=6.0 SD 1.8 (CGS).
- 2 Z 07 46-47 weak traces.
- 2 eZ P 08 45 11, eiZ 08 45 21.8, USCGS: H= 08 31 54, 5.9 S, 104.0 E, h=33 km, Southern Sumatra, M=5.2 SD 1.3 (CGS).
- 3 eZ P 05 25 17, eZ (pP) 05 25 21.1, USCGS: H= 05 12 22.5, 38.2 S, 48.4 E, h=20 km, Atlantic-Indian Rise, M=5.5 SD 1.6 (CGS).
- 3 eiZ Pn 06 40 26.1, iZ 06 42 19.1, eZ (SgSgSg) 06 43 11, weak traces.
- 3 eZ P 10 58 34, USCGS: H= 10 46 16.7, 52.6 N, 170.6 W, h=22 km, Fox Islands, Aleutian Islands. M=5.3 SD 1.0 (CGS).
- 3 iZ+ P 14 57 30.5, iZ 14 57 37.0, eZ 14 58 49, eZ PP 15 00 29, D=8780 km, USCGS: H= 14 45 26.8, 49.5 N, 156.5 E, h=33 km, Kurile Islands, M=6 (PAS), 5 1/2-5 3/4 (BRK), 5.9 SD 0.9 (CGS).
- 3 iZ 16 19 29.5, eiZ 16 19 40.6, traces.
- 3 eiZ 16 33 44.4, eZ PP 16 35 08, USCGS: H= 16 14 54.9, 42.9 S, 75.4 W, h=28 km, Off coast of southern Chile. M=6-6 1/2 (BRK), 6.0 SD 2.8 (CGS).
- 4 iZ PKP 00 32 16.3, eZ 00 32 45, USCGS: H= 00 13 25.8, 6.4 S, 147.4 E, h=75 km, East New Guinea region. Felt at Lae and Saidor. M=5.8 SD 0.7 (CGS).
- 4 iZ+ P or PKP 01 38 30.2, traces.
- 4 eiZ+ P or PKP 03 48 47.1.
- 5 Z P 00 28 (00), eZ 00 28 16, USCGS: H= 00 17 10.5, 65.4 N, 134.0 W, h=8 km, Northern Yukon Territory, Canada. M=5.2 SD 0.8 (CGS).
- 5 eZ (Sg) 02 01 26, weak traces.
- 5 eZ P 09 55 54, iZ 09 56 09.1, USCGS: H= 09 44 30.0, 9.3 S, 67.2 E, h=33 km, Mid Indian Rise, M=5.1 SD 1.7 (CGS).
- 5 eiZ 11 04 03.3, traces.

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- 5 iZ Pg 14 02 16.2, iZ Sg 14 02 19.1, D=22 km.
- 5 eiZ P 16 03 19.1, eZ 16 03 41, USCGS: H= 15 51 18, 5.2 N, 96.0 E, h=121 km, Northern Sumatra. M=4.6 SD 1.6 (CGS).
- 6 eZ P 15 42 38, USCGS: H= 15 35 04.1, 36.5 N, 70.2 E, h=203 km, Hindu-Kush region. M=5.2 SD 0.6 (CGS).
- 6 iZ Pg 20 11 07.6, iZ Sg 20 11 09.6, D=16 km, not felt.
- 7 eiZ P 03 48 50.7, Z! 03 49 (00), eZ PP 03 52 25, USCGS: H=03 35 59.6, 12.6 N, 114.5 E, h=17 km, South China Sea, M=5.9 SD 0.5 (CGS), D=9770 km.
- 7 iZ PKP 07 17 51.8, USCGS: H= 06 58 11.3, 24.5 S, 179.1 W, h=378 km, South of Fiji Islands. M=4.8 SD 1.1 (CGS).
- 7 iZ+ PKP 09 38 54.6, iZ 09 39 00.6, USCGS: H= 09 19 21.5, 17.5 S, 167.9 E, h=24 km, New Hebrides Islands. Felt at Port Vila. M=4.8 SD 0.9 (CGS).
- 7 eZ P or PKP 12 29 52.
- 7 Z 13 07-10, traces, near.
- 7 iZ Pn 23 15 30.4, eZ (Sn) 23 16 09, weak, (D=270 km).
- 8 eZ 00 06 52.
- 8 iZ+ P 06 07 49.9, BCIS: H= 06 00 00, 49.7 N, 78.0 E, M=5 1/2 (Uppsala), Kazakhstan, Semipalatinsk region. Possibly underground explosion (Uppsala). USCGS: H= 05 59 58.6, 49.9 N, 78.0 E, h=0 km, Eastern Kazakh SSR M=5.7 SD 0.9 (CGS).
- 8 iZ+ P or PKP 08 31 45.4.
- 8 eZ PKP 22 19 39, USCGS: H= 21 59 45.7, 25.7 S, 176.5 W, h=23 km, South of Fiji Islands. M=5.6 SD 1.8 (CGS).
- 10 eiZ 08 27 38.1, obscured by microseisms, weak trace.
- 11 eZ Pn 06 38 51, iZ 06 39 11.4, iZ 06 40 35.7, iZ 06 41 04.8, BCIS: H= 06 37 03, 42.1 N, 21.5 E, Felt 6° at Skopje (Skopje). Obscured by microseisms.
- 11 iZ (Pn) 18 10 13, iZ 18 10 57.5, iZ (Sn) 18 11 13.3, (D=550 km), Titograd region, Yugoslavia.
- 12 eZ PKP 07 47 26, iZ 07 47 29.6, eiZ! 07 47 34.6, USCGS: H=07 27 42.1, 22.9 S, 171.0 E, h=48 km, Loyalty Islands region. M=4.8 SD 1.2 (CGS).
- 13 eZ PKP 15 06 10, iZ 15 06 14.5, USCGS: H= 14 46 25.0, 22.6 S, 171.0 E, h=24 km, Loyalty Islands region. M=5 1/2-5 3/4 (BRK), 5.6 SD 1.5 (CGS).
- 13 iZ- P 15 57 24.4, USCGS: H=15 43 09.6, 36.5 N, 139.3 E, h=125 km, Honshu, Japan. Felt in Tokyo area. M=4.8 SD 0.5 (CGS).
- 13 iZ Pg 16 17 30.6, iZ(Sg) 16 17 36.6, D=46 km.
- 15 eZ+ PKP 07 53 46, iZ! 07 53 46.8, USCGS: H= 07 34 36.2, 18.0 S, 169.0 E, h=232 km, New Hebrides Islands, M=4.6 SD 0.6 (CGS).

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- 15 eZ P or PKP 09 55 05.
- 15 Z P 14 30 (00), eZ 14 30 19, USCGS: H= 14 18 39.8, 14.4 N, 93.7 E, h=33 km, Andaman Islands region. M=5.3 SD 1.0 (CGS).
- 16 iZ! (Pg) 12 07 45.5, near, explosion?
- 16 eZ P 14 35 47, eiZ 14 35 55.0, USCGS: H= 14 22 55.5, 9.0 N, 83.5 W, h=50 km, Costa Rica. M=5.0 SD 1.1 (CGS).
- 16 eiZ P 19 44 41.2, eZ 19 44 55, USCGS: H= 19 33 25.0, 17.5 N, 94.7 E, h=33 km, Burma. M=5.4 SD 1.0 (CGS).
- 16 eZ P 20 13 36, eiZ 20 13 45.3, eZ(P) 20 16 31, (D=8300 km), USCGS: H= 20 01 52.5, 56.2 N, 164.7 E, h=33 km, Komandorsky Islands region. M=5.3 SD 0.7 (CGS).
- 16 eZ PKP 22 33 55, eiZ 22 33 58.8, eiZ! 22 34 11.9, USCGS: H= 22 14 15.3, 15.1 S, 173.5 W, h=45 km, Tonga Islands. Felt at Apia. M=5.3 SD 0.7 (CGS).
- 17 eiZ PKP 02 12 43.8, eiZ! 02 12 50.9, USCGS: H= 01 53 42.7, 8.0 S, 155.9 E, h=93 km, Solomon Islands, M=5.5 SD 1.4 (CGS).
- 17 iZ PKP 04 14 58.9, eiZ 04 15 08.3, USCGS: H= 03 55 15.4 15.7 S, 173.8 W, h=51 km, Tonga Islands. Felt at Apia. M=5.5 SD 0.8 (CGS).
- 17 iZ P 11 27 36.4, weak traces, BCIS: H= 11 23.1, 38 1/2 N, 38 1/2 E, Turkey. Felt at Malatya (38° 20' N, 38° 23' E), (Istanbul).
- 18 iZ PKP 08 42 15.6, USCGS: H= 08 22 28.6, 22.5 S, 170.9 E, h=33 km, Loyalty Islands region, M=4.4 SD 1.9 (CGS).
- 18 eZ+ P 10 29 57, Z! 10 30 (00), USCGS: H= 10 21 47.5, 42.0 N, 77.7 E, h=33 km, Kirghiz-Sinkiang border region, M=5.1 SD 0.7 (CGS).
- 18 iZ P or PKP 16 54 17.3, weak, eiZ 16 54 31.1.
- 18 eZ 22 07 51, eiZ+ PKP 22 08 59, eiZ! 22 09 02.3, USCGS: H= 21 50 04.5, 1.1 S, 127.9 E, h=33 km, Halmahera. M=6 3/4 (PAS), 6 1/2-6 3/4 (PAL), 5.9 SD 1.9 (CGS).
- 18 eiZ P 22 59 28.8, USCGS: H= 22 48 37, 18.6 N, 61.1 W, Leeward Islands. h=33 km, M=5.3 SD 1.5 (CGS).
- 19 eiZ P 21 00 56.3, Z! 21 01 (00), eiZ 21 01 13.2, eZ PP 21 03 46.2, D=9050 km, USCGS: H=20 48 47.4, 52.3 N, 174.3 E, h=48 km, Near Islands, Aleutian Islands, M=5-5 1/4 (BRK), 5 3/4-6 (PAL), 5.6 SD 0.9 (CGS).
- 19 iZ- Pn 22 05 33.5, eiZ 22 06 45.0, eiZ Sn 22 07 10.7, eiZ 22 08 10.9, D=about 930 km.
- 20 Z 12 03-05, weak traces.
- 21 eiZ P 00 07 36.5, USCGS: H= 23 54 29.9, 12.5 N, 87.4 W, h=70 km, Near coast of Nicaragua. Felt at S. Salvador, M=5-5 1/2 (BRK), 5 3/4 (PAL), 5.4 SD 1.1 (CGS).
- 21 iZ(Sg) 13 52 21.3, weak traces, obscured by microseisms.

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- 24 iZ Pn o6 28 35.7, eiZ o6 29 27.7, weak traces.
- 24 eiZ-Pn 12 18 12.5, iZ Pb 12 18 21.1, iZ Pg 12 18 31.5 iZ(Sn) 12 19 08.9, eNE 12 19 13, iZ(Sb) 12 19 23.1, iZ(Sg) 12 19 33.4, iZ! 12 19 41.8, eNE 12 19 44, eNE 12 19 57, F 26 - ; (D=about 520 km). BCIS: H=12 16 57, 46.3 N, 7.4 E (DECM), Valais, Switzerland. Rockslide in the region of Col de Rawyl (46° 23' N, 7° 27' E). No victims (Press). M= 5.1 (Bensberg), 4.8 (Pruhonice). USCGS: H= 12 16 58.6, 46.4 N, 7.7 E, h= 33 km, Switzerland, Landslides near Rawyl Pass, M=4.7 SB 1.5 (CGS).
- 24 eiZ 16 43 30.9, eZ 16 44 12.6; BCIS: H= 16 41 05, 37 1/2 N, 20 1/2 E, Ionian Sea. USCGS: H= 16 41 11.4, 37.9 N, 20.6 E, h= 33 km, Ionian Sea, M=4.2 SD 0.9 (CGS).
- 24 iZ+ P 18 27 07.8, 18 27 11.1; USCGS: H= 18 15 04.9, 49.7 N, 156.1 E, h= 30 km, Kurile Islands, M=5.7 SD 0.8 (CGS).
- 24 eiZ PKP 21 28 36.8, eZ 21 28 43.7; USCGS: H= 21 09 44.3 17.7 S, 178.5 W, h=515 km, Fiji Islands region, M=4.7 SD 0.9 (CGS).
- 24 eiZ Pn 22 22 57.8, eiZ 22 24 39.7; BCIS: H= 22 21 18, 401/4 N, 21 1/4 E, Greece-Albania border region.
- 25 eiZ PKP 08 58 15.5, eZ 08 58 26; USCGS: H= 08 38 30.6 22 1/2 S, 170.3 E, h=33 km, Loyalty Islands region, M=5.0 SD 1.7 (CGS).
- 25 iZ+ P 22 46 15.3, eNE 22 46 15.8, iZ 22 46 17.5, iZNE pP 22 47 09.7, iZ PP 22 49 20.7, eZNE S 22 56 08; D=about 8860 km. USCGS: H 22 34 24.3, 44.2 N, 145.3 E, h=180 km Hokkaido, Japan. Felt in eastern and southern Hokkaido. M=6 1/2 (PAS), 6-6 1/2 (BRK), 7-7 1/4 (PAL), 6.2 SD 1.2 (CGS).
- 26 eiZ PKP 08 35 26.3, eiZ 08 35 34.4; USCGS: H=08 15 36.5 22.0 S, 175.1 W, h=33 km, Tonga Islands region, M=5.1 SD 1.1 (CGS).
- 26 eiZ PKP 10 41 22.7, iZ! 10 41 25.2, iZ PKP 10 41 37.6; USCGS: H= 10 21 46.1, 20.1 S, 168.8 E, h=37 km, Loyalty Islands region, M=5.2 SD 1.3 (CGS).
- 27 eZ- PKP 09 47 38, eiZ 09 47 45.1, eiZ 09 47 54.3; USCGS: H= 09 27 48.1, 18.9 S, 173.2 W, h=33 km, Tonga Islands, M=4.8 SD 1.8 (CGS).
- 27 eZ (PKP) 16 31 13, eiZ 16 31 19, 3;
- 27 iZ- PKP 18 12 47.4; USCGS: H= 17 53 59.8, 17.8 S, 178.7 W, h=566 km, Fiji Islands region, M=4.3 SD 1.3 (CGS).
- 27 eiZ P 22 51 49.9; USCGS: H= 22 40 17.1, 46.0 N, 142.9 E, h=230 km, Sakhalin Island, M=4 3/4- 5 (BRK), 5.1 SD 0.5 (CGS).
- 28 iZ Pn 04 29 30.2, iZ 04 29 52.4, eiZ (P P) 04 30 19.6 eiZ 04 31 35.4; BCIS: H= 04 27 13, 38.3 N, 22.4 E, Gulf of Corinth, Greece. Athens: felt in Corinth (5° at Dewem,

28 (cont.)  $4^{\circ}$  at Nemea). Fokis ( $5^{\circ}$  at Itea,  $4^{\circ}$  at St. Euphemia,  $4^{\circ}$  at Kastellia), Aetolia ( $4^{\circ}$  Palaechoraki), Beothia ( $4^{\circ}$  at Davila), M=4.1. USCGS: H= 04 27 10.6, 38.4 N, 22.3 E, h=15 km, Greece, M=4.5 SD 1.0 (CGS).

28 eZ PKP 06 04 54, eiZ 06 05 06.4, USCGS: H= 05 45 34.3, 12.7 S, 165.7 E, h=76 km, Santa Cruz Islands. M=4.7 SD 1.6 (CGS).

28 iZ 09 16 32.3, weak trace, eZ PP 09 17 10, USCGS: H= 08 58 25.9, 1.2 S, 127.7 E, h=33 km, Halmahera, M=5.8 SD 1.8 (CGS).

28 eiZ Pn 14 40 49.0, iZ Pg 14 41 08.9, iZ Sn 14 41 51.3, iZ(Sg) 14 42 22.2, iZ Rg 14 42 32.0, D=about 590 km, BCIS: H= 14 39 30, 41.9 N, 19.6 E, (DECM), Northern Albania. USCGS: H= 14 39 25, 41.7 N, 19.2 E, h=14 km, Albania. M=4.5 SD 1.5 (CGS).

28 iZ Pn 19 25 12.1, very weak, eZ 19 25 44.

28 iZ- Pn 19 44 44.1, iZ Pb 19 44 48.4, iZ Pg 19 44 54.1, iZ (Sn) 19 45 20.2, F: 19 48 -; D=about 320 km.

29 iZ 12 42 46.3, very weak traces, near, eiZ 12 43 05.2

29 eZ+ P 21 12 19, USCGS: H= 21 00 00.1,  $51^{\circ} 26' 17''$  N,  $179^{\circ} 10' 57''$  E, h=0 km, Rat Islands, Aleutian Islands, Amchitka Island. Operation "Longshot", Elevation: 660 m (DASA), M=5 1/2 (BRK), 5 1/2-5 3/4 (PAL), 6.1 (CGS).

30 eZ PKP 07 17 25, eiZ 07 17 29.0, USCGS: H= 06 57 39.7, 16.5 S, 173.3 W, h=33 km, Tonga Islands. M=5 3/4-6 (BRK), 5.3 SD 0.7 (CGS).

30 iZ Pg 07 20 23.1, iZ Sg 07 20 37.8, D=120 km.

30 iZ PKP 19 54 38.0, USCGS: H= 19 35 40.2, 15.8 S, 167.6 E, h=33 km, New Hebrides Islands. Felt on Espiritu Santo. M=4.9 SD 1.8 (CGS).

31 iZ- Pg 04 06 27.9, iZ 04 06 30.1, iZ Sg 04 06 36.8, eNE Sg 04 06 38, iZ 04 06 43.9, F: 04 09 -; D=70 km, Felt: Rijeka ( $45^{\circ} 20' N, 14^{\circ} 26' E$ ): 4-5 $^{\circ}$ , Yugoslavia. BCIS: H= 04 06 16, 45.4 N, 14.4 E, Yugoslavia.

31 eiZ P or PKP 10 01 36.5, weak trace.

31 eiZ PKP 15 22 38.2, iZ+! 15 22 44.9, eZ 15 23 07, USCGS: H= 15 02 51.9, 19.5 S, 176.3 W, h=34 km, Fiji Islands region. M=5.5 SD 0.9 (CGS).

31 eZ PP 17 41 07, traces. USCGS: H= 17 24 06.4, 14.2 S, 95.2 E, h=33 km, South Indian Ocean, M=5.4 SD 0.8 (CGS).

31 eiZ- P 23 20 21.3, eiZ 23 20 27.0, USCGS: H= 23 12 27.1, 38.0 N, 72.5 E, h=65 km, Tadzhik SSR, M=5.2 SD 0.6 (CGS).

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1 eiZ PKP 18 22 09.3, eiZ!pPKP 18 24 22.4, obscured by

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1 (cont.) microseisms, USCGS: H= 18 03 09.6, 24.1 S, 178.9 E, South of Fiji Islands, h=546 km, M=5.6 SD 0.8 (CGS).

2 eiZ- Pn 03 29 36.7, iZ 03 29 40.3, eZ(SgSg) 03 32 39, eiZ 03 32 57, BCIS: H= 03 27 12, 39.3 N, 25.5 E, Aegean Sea. Strongly felt at Imroz, felt at Akhisar, Ayvalik, Balikesir, Bursa and Dikili (Istanbul TU), M=5.2 (Athens), USCGS: H= 03 27 07.2, 39.6 N, 25.2 E, h=11 km, Aegean Sea. Felt in northwestern Turkey. M=4.6 SD 1.0 (CGS). D=1150 km.

2 iZ 16 00 29.6, iZ 16 00 37.5, traces.

3 eiZ- P 01 51 18.3, iZ! 01 51 19.9, iZpP 01 53 27.6, eiZ PP 01 55 09.5, eZ! 01 58 07, eZ S 02 01 38, USCGS: H= 01 39 02.5, 9.1 S, 71.4 W, h=583 km, Peru-Brazil border region. M=6 3/4 (PAS), 6 3/4-7 1/4 (BRK), 6 1/4-6 1/2 (PAL), 6.2 SD 0.9 (CGS), D=10300 km.

3 eiZ P or PKP 02 16 25.7, iZ! 02 16 33.7, traces.

3 eiZ 11 33 16.5, eiZ(Sn) 11 34 01.9, weak traces.

3 eZ PKP 18 40 21, eiZ 18 40 54, eZ PP 18 42 42, USCGS: H= 18 21 05.0, 22.3 S, 114.1 W, h=12 km, Easter Island region. M=6 1/4 (PAS), 5.9 (BRK), 6 (PAL), 5.8 SD 0.7 (CGS), D=14500 km.

4 Z (Sg) 10 15 (00), weak trace.

4 iZ 10 31 51.7, iZ (Sg) 10 33 38.0, weak trace.

5 iZ 05 56 18.1, traces.

7 iZ+ PKP 21 47 21.1, iZ 21 47 47.7, USCGS: H= 21 27 45.1, 22.4 S, 171.5 E, h=117 km, Loyalty Islands region, M=5.0 SD 0.8 (CGS).

8 eiZ+ P 02 04 40.6, iZ 02 04 48.5, USCGS: H= 01 57 25.0, 27.9 N, 57.0 E, h=38 km, Southern Iran. M=5.1 SD 0.7 (CGS), BCIS: H= 01 57 32, (DECM), 28.2 N, 56.7 E, Southern Iran.

8 iZ P or PKP 09 33 13.8.

9 eiZ P or PKP 11 10 44.4, traces.

9 iZ Pn 11 10 58.9, iZ Pg 11 11 15.0, eiZ Sn 11 11 51.1, eiZ Sg 11 12 13.6, D=475 km, BCIS: H= 11 09 55, (DECM), 44.0 N, 9 1/2 E, Gulf of Genua.

9 iZ 12 17 20.5, iZ(Sg) 12 17 53.9, weak trace.

9 iZ+ Pn 15 35 51.9, iZ! 15 35 53.8, eiZ Pb 15 35 57.0, iZ Pg 15 36 04.8, iZNE Sn 15 36 32.8, iZ!! 15 36 52.5, iZ! 15 37 13.8, F=15 46 -; D=375 km, BCIS: H= 15 35 01, 44.4 N, 10.3 E, Tuscan Apennines, M=4.2 (Moxa), USCGS: H= 15 35 00.2, 44.5 N, 10.6 E, h=33 km, Northern Italy, felt at Reggio Emilia, Lucca and Pisa. M=4.3 SD 1.9 (CGS).

10 eiZ 09 32 00.2, iZ 09 33 24.1, traces.

11 eiZ+ PKP 09 05 46.0, eiZ 09 07 20.8, USCGS: H= 08 46 35.1, 18.4 S, 177.7 W, h=350 km, Fiji Islands region, M=4.9 SD 1.1 (CGS).

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- 11 eZ 11 53 43, eiZ (Sg) 11 54 40.5, BCIS: H= 11 52 28, 46.3 N, 7.4 E, (DECM), Valais (Switzerland), Aftershock of seisms on October 24, 1965 at 12h 16 m 57s.
- 11 eiZ P or PKP 12 01 43.7.
- 11 eZ PKP 23 10 01, eiZ 23 10 34.4, USCGS: H= 22 49 57.8, 28.4 S, 176.5 W, h=47 km, Kermadec Islands, M=4.9 SD 0.6 (CGS).
- 12 eZ PKP 02 24 08.8, USCGS: H= 02 04 19.5, 56.0 S, 121.5 W, h=33 km, Eastern Island Cordillera, M=4.9 SD 0.8 (CGS).
- 12 eiZ Pn 07 17 49.6, iZ 07 18 07.5, iZ 07 18 17.6, iZ 07 18 22.6, BCIS: H= 07 16 56, 41.1 N, 13.5 E, Massive of Sirente, Abruzzi, Italy. Felt: 5-6 at Rocca di Cambio, Rocca di Mezzo and Ovindoli. Slight damage on buildings of poor construction (Roma).
- 12 eiZ 08 30 38.
- 12 eZ 08 37 43.
- 12 eZ Pg 13 07 29, iZ Sg 13 07 40.4, D=82 km.
- 12 iZ Pg 14 12 22.1, iZ Sg 14 12 37.8, D=127 km.
- 13 eIZNE P 04 42 44, iZ!! 04 42 48.5, eNE S 04 49 56, eNE! M 05 01 46, D=5550 km, USCGS: H= 04 33 53.0, 43.8 N, 87.8 E, h=59 km, Sinkiang Province, China. M=6 3/4 (PAS), 7 (BRK), 6 3/4-7 (PAL), 6.3 SD 0.6 (CGS).
- 13 eZ 04 46 13, aftershock?, obscured by preceding shock.
- 13 iZ- Pg 11 37 36.5, iZ(Sg) 11 37 49.2, iZ! 11 37 52.6, (D=95 km), BCIS: H= 11 37 23, (DECM), 46.4 N, 13.5 E, Julian Alps (border region Italy-Yugoslavia).
- 14 eiZ P 06 06 44, eZ 06 06 56, USCGS: H= 05 54 16.7, 36.8 N, 140.8 E, h=67 km, Near east coast of Honshu, Japan. Felt in Tokyo area. M=5.9 SD 0.5 (CGS).
- 15 iZP 11 28 19.3, iZ! 11 28 20.8, eZ PP 11 31 20, D= 8850 km, USCGS: H= 11 18 49.9, 0.3 S, 18.7 W, h=24 km, Central Mid-Atlantic Ridge, M=6 1/2 (PAS), 6 1/4 (PAL), 5.6 SD 0.9 (CGS).
- 16 eZ P 01 11 32, eZ pP 01 12 22, iZ PP 01 13 18.2, D= 5100 km, USCGS: H= 01 03 55.7, 36.4 N, 71.2 E, h=241 km, Afghanistan-USSR border region. M=5.5 SD 0.8 (CGS).
- 16 eiZ 08 27 30.0, eiZ 08 28 23.6, traces, obscured by microseisms.
- 16 eiZ P 15 33 02.7, iZ 15 33 09.1, iZ PP 15 34 48.8, eZ PPP 15 35 39, eZ S 15 39 46, D=5120 km, BCIS: H= 15 24 43, 31.3 N, 41.4 W, (DECM), Atlantic Ocean Middle Ridge. M=6.0 (Collm), 5.8 (Moxa). USCGS: H= 15 24 42.9, 31.0 N, 41.5 W, h=17 km, North Atlantic Ridge, M=6 1/2 (PAS), 6.4 (BRK), 6 (PAL), 6.0 SD 0.7 (CGS).
- 16 eiZ- P 17 18 07.0, eiZ 17 18 17.2, USCGS: H= 17 05 37.9, 25.4 N, 125.2 E, h=77 km, Southwestern Ryukyu Islands. M=6.0 SD 1.0 (CGS).

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- 18 eiZ PKP 20 19 19.3, iZ!! 20 19 25.5, iZ! 20 19 34.5, eZ pPKP 20 21 07.5, eiZ 20 21 10.8, eZ PP 20 23 06, D=16780 km, USCGS: H= 20 00 19.0, 18.8 S, 177.9 W, h=421 km, Fiji Islands region. M=5.6 SD 1.1 (CGS).
- 18 Z 22 10 (02), iZ 22 10 17.4, eiZ 22 10 36.8, USCGS: H= 21 58 12.4, 53.9 N, 160.7 E, h=12 km, Near east coast of Kamchatka. M=5 1/2 (PAL), 6.0 SD 0.9 (CGS).
- 19 eiZ P 07 26 30.7, weak trace, USCGS: H= 07 14 13.2, 45.3 N, 150.9 E, h=13 km, Kurile Islands. M=5.6 SD 0.8 (CGS).
- 20 eiZ 11 44 14.6, eiZ 11 44 27.7, eiZ 11 45 09.5, weak traces, obscured by microseisms.
- 20 eiZ P or PKP 12 14 53.5, weak trace.
- 20 eiZ 15 24 04.2, eiZ! PKP 15 24 53.6, USCGS: H= 15 05 39.0, 7.3 S, 129.2 E, h=132 km, Banda Sea, M=6.1 SD 1.5 (CGS).
- 20 iZ P or PKP 15 27 22.6.
- 20 eiZ 20 00 15.4, eiZ 20 00 39.3, eZ (SgSg) 20 02 28, obscured by microseisms.
- 21 iZ+ P 05 05 49.5, BCIS: H= 04 57 56, 50.0 N, 79.0 E, Kazakhstan, Semipalatinsk region. Probably underground explosion (Uppsala, Moxa). M=6.0 (Moxa), 5.7 (Uppsala). USCGS: H= 04 57 57.9, 49.8 N, 78.1 E, h=0 km, Eastern Kazakh SSR, M=5.8 SD 1.0 (CGS).
- 21 eiZ 05 59 15.8, eiZ! 05 59 29.4.
- 21 iZ PKP 10 50 16.9, eiZ pPKP 10 50 51.1, eiZ PP 10 50 57.2, eiZ! 10 51 07, USCGS: H= 10 31 49.7, 6.1 S, 130.4 E, h=93 km, Banda Sea, M=6 (PAS), 6-6 1/4 (PAL), 6.3 SD 1.2 (CGS). D=12400 km, obscured by microseisms.
- 22 eiZ+ P 20 37 49.2, eiZ 20 38 05.4, USCGS: H= 20 25 30.4, 51.3 N, 179.8 W, h=40 km, Andreanof Islands, Aleutian Islands. M=5.9 SD 0.6 (CGS).
- 25 eiZ+ PKP 22 53 42.5, eiZ 22 53 49.1, USCGS: H= 22 35 37.2, 3.9 S, 150.3 E, h=457 km, New Ireland region. M= 5.5 SD 0.6 (CGS).
- 27 iZ(Pn) 11 04 27.5, iZ 11 04 50.0, eZ 11 05 05, BCIS: H= 11 02 49, 35 1/2 N, 29 1/4 E, Off southern coast of Turkey. USCGS: H= 11 02 51, 35.6 N, 29.3 E, h=40 km, Eastern Mediterranean Sea. M=4.4 SD 1.9 (CGS).
- 27 eZ PKP 12 21 04, eZ (PP) 12 24 31, USCGS: H= 12 01 51.9, 9.7 S, 159.7 E, h=51 km, Solomon Islands. Felt at Honiara. M=6 3/4 (PAS), 5 3/4 (BRK), 6 3/4 (PAL), 6.3 SD 1.4 (CGS).
- 27 iZ Pn 13 53 39.8, iZ Pg 13 53 50.5, iZ(Sn) 13 54 21.0, eNE Sn 13 54 25.5, iZ! 13 54 56.0, D=380 km, BCIS: H= 13 52 40, 43 1/2 N, 18 3/4 E, Yugoslavia. Sarajevo: felt in Central Bosnia and at Sarajevo. USCGS: H= 13 52 38.8, 43.3 N, 18.5 E, h=29 km, Yugoslavia. Felt in Central Bosnia and at Sarajevo. M=3.7 SD 0.8 (CGS).

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- 28 eZ Pn 05 29 20, iZ! 05 29 23.8, iZ!! 05 29 51.9, iZ 05 31 55.5, obscured by strong microseisms, BCIS: H=05 26 05, (DECM), 36.1 N, 27.7 E, h=90 km, Mediterranean Sea, island Rhodes region. Strongly felt at Rhodes, material damage. M=5.2 (Pruhonice), 5.6 (Ksara), 5 1/4-5 1/2 (Strasbourg). USCGS: H= 05 26 05.6, 36.1 N, 27.7 E, h=89 km, Dodecanese Islands. Moderate damage at Rhodes, felt in western Turkey. M=5 1/4-5 1/2 (PAL), 5.9 SD 1.0 (CGS).
- 28 eZ+ P 21 44 51, eZpP 21 45 08, USCGS: H= 21 31 47.3, 4.9 S, 103.2 E, h=87 km, Southern Sumatra. M=5.9 SD 0.6 (CGS).
- 29 eZ PKP 05 07 20, USCGS: H= 04 48 31.7, 20.6 S, 178.7 W, h=605 km, Fiji Islands region. M=4.7 SD 0.7 (CGS).

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- 1 eZ(Pn) 10 35 08, iZ 10 35 16.3, traces.
- 1 eZ(Pn) 22 30 23, iZ Pg 22 30 31.3, iZ 22 30 50.4, iZ (Sg) 22 31 06.1, (D=480 km).
- 2 eZ 23 58 01, eZ 23 58 14, USCGS: H= 23 38 13.3, 51.3 S, 173.1 W, h=20 km, Tonga Islands. Felt at Apia. M=5.5 SD 0.4 (CGS).
- 3 eZ PKP 07 04 51, USCGS: H= 06 45 02.5, 20.4 S, 174.2 W, h=33 km, Tonga Islands. M=5.4 SD 1.1 (CGS).
- 3 eZ 09 05 47, iZ 09 05 50.7, iZ Pg 09 05 56.6, iZ(Sg) 09 06 36.2, (D=360 km).
- 3 eZ P 21 25 24, eZ PP 21 27 13, D=4770 km, USCGS: H= 21 17 33.6, 36.3 N, 69.5 E, h=19 km, Hindu Kush region. M=5.5 SD 0.4 (CGS).
- 4 eZ P 02 24 16, USCGS: H= 02 11 49.9, 51.3 N, 170.6 W, h=18 km, Fox Islands, Aleutian Islands. M=5.5 SD 0.8 (CGS).
- 4 eZ Pn 16 43 27, iZ 16 43 52.2, eZ Sn 16 45 49, D=1420 km, BCIS: H= 16 40 01, (DECM), 34.3 N, 26.2 E, Mediterranean Sea, southwest of Crete.
- 5 eZ P 03 54 33, BCIS: H= 03 50 11, (DECM), 34.8 N, 5.2 W, Morocco. Felt 6° MCS at Oueccane. USCGS: H= 03 50 14.3, 34.9 N, 5.5 W, h=33 km, Morocco. M=4.4 SD 1.2 (CGS).
- 5 eZ(P) 16 43 20, eZ 16 43 47, USCGS: H= 16 30 59.3, 23.9 N, 121.7 E, h=52 km, Taiwan. M=5.2 SD 1.7 (CGS).
- 5 eZ+ P 18 26 59, eZ PP 18 30 00, D=8660 km, USCGS: H= 18 14 50.2, 52.6 N, 173.2 E, h=36 km, Near Islands, Aleutian Islands. M=5 1/4-5 1/2 (PAL), 5.5 SD 0.6 (CGS).
- 5 eZ(P) 22 12 24, eZ 22 12 49, USCGS: H= 22 01 27.7, 23.3 N, 94.5 E, h=13 km, Burma-India border region. M=5.5 SD 0.4 (CGS).
- 6 eZ(P) 07 48 21, eZ 07 50 20, obscured by microseisms.

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- 6 eZ+ P 11 48 25, USCGS: H= 11 34 53.7, 18.9 N, 107.1 W, h=37 km, Off coast of Jalisco, Mexico. M=6 3/4 (PAS), 7-7 1/2 (Brk), 6 1/2-6 3/4 (PAL), 5.9 SD 1.5 (CGS).
- 7 eZ(Pg) 07 19 44, eZ Sg 07 19 57, (D=110 km).
- 7 eZ- PKP 21 25 33.2, USCGS: H= 21 05 51.6, 15.5 S, 173.4 W, h=66 km, Tonga Islands. M=4.8 SD 0.6 (CGS).
- 7 iZ PKP 22 37 59.5, USCGS: H= 22 19 14.8, 6.4 S, 146.3 E, h=109 km, Eastern New Guinea region. Felt. M=6.4 SD 0.8 (CGS).
- 8 eZ 18 25 50, iZ 18 26 07.3, obscured by strong microseisms. USCGS: H= 18 05 26.1, 37.1 S, 177.5 E, h=165 km, Off east coast of N. Island, New Zealand. Felt widely in North Island and extreme north of South Island. M=5 1/2-5 3/4 (PAL), 5.8 SD 1.6 (CGS).
- 9 eZ P 06 21 01, eZ PP 06 24 46, D=10430 km, USCGS: H= 06 07 48.6, 17.3 N, 100.0 W, h=57 km, Guerrero, Mexico. M=6 1/4 (PAS), 6 (BRK), 6 1/4-6 1/2 (PAL), 6.0 SD 1.1 (CGS).
- 9 eZ PKP 13 31 28, iZ! 13 31 30.1, iZ!! 13 31 35.5, eZ pPKP 13 34 01, USCGS: H= 13 12 55.5, 18.0 S, 178.2 W, h=650 km, Fiji Islands region. M=6 (BRK), 5.6 SD 0.7 (CGS).
- 9 eZ PKP 13 44 15, eZ! 13 44 20, USCGS: H= 13 25 40.7, 17.7 S, 178.3 W, h=650 km, Fiji Islands region. M=5 1/4 (BRK), 5.1 SD 0.6 (CGS).
- 9 eZ P 20 36 40, USCGS: H= 20 26 04.0, 27.5 N, 92.5 E, h=22 km, India-China border region. M=5.3 SD 0.8 (CGS).
- 11 eZ P or PKP 18 39 35, obscured by microseisms.
- 11 eZ P or PKP 20 36 13.
- 13 eZ P 05 57 52, eZ 05 58 20, eZ 05 59 51. USCGS: H= 05 45 12.7, 44.1 N, 150.2 E, h=33 km, Kurile Islands region. M=5.4 SD 1.2 (CGS).
- 13 eZ+ P 11 04 24, eZ PP 11 07 23, D=8660 km, USCGS: H= 10 52 08.5, 44.7 N, 150.1 E, h=35 km, Kurile Islands region. M=6 (PAL), 5.7 SD 1.8 (CGS).
- 13 eZ+ P 14 58 26, USCGS: H= 14 46 10.2, 44.7 N, 150.2 E, h=33 km, Kurile Islands region. M=5.4 SD 1.1 (CGS).
- 13 iZ Pn 17 45 53.2, eZ Pb 17 46 20, iZ Pg 17 46 28.6, iZ Sn 17 47 14.2, D=780 km. BCIS: H= 17 44 07 (DECM), 40.0 N, 19.3 E, Strait of Otranto, northeast of Corfu. USCGS: H= 17 44 12, 40.3 N, 20.0 E, h=33 km, Albania. M=4.5 SD 1.7 (CGS).
- 14 iZ(Sg) 05 48 10.9.
- 14 eZ(Pg) 10 40 27, iZ(Sg) 10 40 45.6, iZ 10 40 53.2, (D=150 km).
- 14 eZ 19 00 31, iZ Sg 19 00 41.1, traces.
- 15 eZ P 02 35 38, USCGS: H= 02 26 10.5, 3.3 S, 12.0 W,

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- 15 (cont.) h=33 km, North of Ascension Islands, M=4.8 SD 0.7(CGS).
- 15 eIZ- P 04 54 35, eZ pP 04 54 58; USCGS: H= 04 43 47, 22.2 N, 94.6 E, h=106 km, Burma, M=5.3 SD 0.6 (CGS).
- 15 eZ P 10 35 32; USCGS: H= 10 22 22.5, 44.8 N, 94.6 E, h=67 km, Kurile Islands region, M=5.3 SD 1.0 (CGS).
- 15 eZ (Pn) 12 09 38, eZ Pg 12 10 23, eZ Sn 12 11 12; D= about 900 km. BCIS: H= 12 07 17, 50.5 N, 4.1 E, Hainaut Province (Belgium). Slight damage in Houdeng-Aimezies, Peirones-lès-Binche, M=4.4 (Bensberg).
- 15 iZ Pg 18 44 09.9, iZ Sg 18 44 13.4; D= 27 km.
- 15 eZ PKP 19 39 49; USCGS: H= 19 19 51.0, 56.8 S, 142.0 W, h=33 km, South Pacific Cordillera, M=5.7 SD 0.9(CGS) &
- 15 iZ Pg 20 04 35.2, iZNE Sg 20 04 37.3, F 20 09; D=18 km. BCIS: H= 20 04 31, 45.8 N, 14.5 E, (DECM), Yugoslavia.  
Ljubljana: Macroseismic epicenter:  $45^{\circ}58'N, 14^{\circ}40'E$ . Felt IV<sup>o</sup>MCS in Grosuplje, III<sup>o</sup>-IV<sup>o</sup> in Šmarje, II<sup>o</sup> in Ljubljana. Maximum intensity: I<sup>o</sup> = IV<sup>o</sup>MCS. Macroseismic ray: 25 km.
- 15 eZ+ P 23 18 17, eZ PP 23 21 55; D=about 10200 km. USCGS: H= 23 05 20.7, 7.5 N, 82.2 W, h=15 km. South of Panama, M=6 3/4 (PAS), 6 1/4 - 6 1/2 (PAL), 6.0 SD 1.2 (CGS).
- 16 iZ (Sg) 02 02 52.9;
- 16 eZ 05 50 26, eZ 05 50 38; Traces.
- 16 eZ PKP 22 37 09; USCGS: H 22 17 19.8, 23.0 S, 171.8 E, h=24 km, Loyalty Islands region. M=4.6 SD 1.9 (CGS).
- 16 eZ PKP 23 25 25, iZI 23 25 30.4; USCGS: 23 06 42.4, 17.5 S, 179.1 W, h=573 km, Fiji Islands region. M=5.5 SD 1.4 (CGS).
- 17 eZ P 06 27 24; USCGS: 06 17 24.7, 8.6 N, 39.4 W, h=33 km, Central Mid-Atlantic ridge, M=5.3 SD 1.3 (CGS).
- 18 eZ P 08 43 01, USCGS: H=08 30 45.8, 44.7 N, 149.9 E, Kurile Islands, M=5.5 SD 1.0 (CGS).
- 18 iZ- Pn 09 23 06.2, iZ Pg 09 23 13.6, iZ Sn 09 23 38.4, iNE Sn 09 23 38.4, F 09 33; D=290 km. BCIS: H= 09 22 25, 44.2 N, 12.0 E, (DECM), Forli region (Romagna, Italy), M= 4.3 (Pruhonice).
- 18 eZ P 13 32 40; USCGS: H= 13 20 23.4, 44.3 N, 150.2 E, h=36 km, Kurile Islands region. M=5.1 SD 0.4 (CGS).
- 19 eZ P or PKP 03 12 35;
- 19 iZ!+ P or PKP 09 15 57.3, eZ 09 17 14;
- 19 eZ (Pg) 16 07 13; eZ Sg 16 07 20; (D=60 km).
- 19 eZ P 22 20 07, eZPP 22 24 11; D=about 10760 km. USCGS: H= 22 06 32.7, 32.2 S, 78.8 E, h=33 km, Mid-Indian Rise, M=5.8 SD 1.6 (CGS).
- 19 eZ 23 20 07, eZ (Sn) 23 20 59; Traces.
- 20 iZNE P 00 10 31.2, eNE 00 11 18, iZ 00 12 56.8, iZNE-

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- 20 (cont.) (S) 00 13 29.6, D=1080 km, BCIS: H= 00 08 11, (DECM), 39.9 N, 25.0 E, Aegean Sea, near Island of Lemnos. M=6.0 (Moxa), 5.9 (Athenes, Collm), 5 3/4-6 (Strasbourg), 5.7 (Pruhonice), 5.6 (Roma), USCGS: H=00 08 15.2, 40.2 N, 24.8 E, h=33 km, Aegean Sea. Felt in northern Greece. M=5.3 SD 1.9 (CGS).
- 20 iZ P 00 33 13.1, eZ(S) 00 36 15, D=1080 km. BCIS: H= 00 30 55, aftershock of preceding shock. USCGS: H= 00 30 56, 40.2 N, 24.9 E, h=33 km, Aegean Sea, M=4.3 SD 1.4 (CGS).
- 20 eZ (P) 01 07 27, eZ (S) 01 10 12, (D=1080 km).
- 20 eZ(P) 06 11 54, eZ 06 12 24, eZ 06 14 06.
- 20 iZ(Sg) 06 22 18.6, traces.
- 20 eIZ+ P 07 24 34, USCGS: H= 07 12 33.7, 50.4 N, 156.6 E, h=33 km, Kurile Islands. M=5.1 SD 1.0 (CGS).
- 20 eZ 10 04 27, eZ(Pg) 10 04 38, eZ 10 05 36, iZ 10 06 14.5.
- 20 eZPg 23 44 24, iZ(Sg) 23 44 33.0, (D=70 km), traces.
- 21 eZ P 00 43 48, USCGS: H= 00 32 00.7, 52.6 N, 158.8 E, h=67 km, Near east coast of Kamchatka. M=5.0 SD 0.7 (CGS).
- 21 eZ Pn 10 02 00, eZ 10 02 11, eZ(Sn) 10 03 23, eZ 10 03 45, (D=790 km), BCIS: H= 10 00 02 (DECM), 50° 40' N, 05° 31' E, Belgium, Liège region. Slight damage. Felt in Germany to Köln region, Düsseldorf (2-3<sup>o</sup>). The shock was felt locally at Boulogne-sur-Seine. M=4.4 (Bensberg). USCGS: H= 10 00 05, 50.5 N, 5.7 E, h=33 km, Belgium. Slight damage in Liège area. M=4.3 SD 0.7 (CGS).
- 21 eZ PKP 10 57 49, eZ pPKP 10 58 32, USCGS: H= 10 38 23.7, 30.0 S, 179.3 W, h=288 km, Kermadec Islands. M= 5.4 SD 1.3 (CGS).
- 21 eZ- Pn 16 06 47, iZ Pg 16 07 10.5, iZ(Sn) 16 07 50.7, iZ (Sb) 16 08 12.2, (D=600 km).
- 21 eIZ PKP 18 09 21.5, USCGS: H= 17 50 10.2, 19.1 S, 177.6 W, h=366 km, Fiji Islands region. M=5.1 SD 1.3 (CGS).
- 22 eZ P 00 40 43, USCGS: H= 00 28 46.2, 52.4 N, 160.5 E, h=5 km, Off east coast of Kamchatka. M=5 (BRK), 5.1 SD 0.5 (CGS).
- 22 iZ (Sg) 05 48 31.1, traces.
- 22 eZ Pn 11 56 53, iZ Pg 11 57 06.9, iZ(Sn) 11 57 36.9, D=400 km.
- 22 Z P 19 53 (00), eZ PP 19 55 55, D=8200 km, USCGS: H=19 41 23.0, 58.4 N, 153.4 W, h=50 km, Kodiak Island region, minor damage at Kodiak. Widely felt. M=6 3/4-7 (PAS), 6 3/4-7 (BRK), 6.5 SD 0.9 (CGS).
- 22 iZ 21 41 08.3, iZ 21 41 42.6, traces.
- 22 iZ 21 43 12.1, iZ(Sg) 21 43 31.6, traces.

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- 23 eiZ(Pn) 07 30 12, iZ Sg 07 30 42.8.  
23 iZ 10 14 28.7, iZ 10 14 42.6, traces.  
23 Z 11 16 (00), USCGS: H= 11 10 00.7, 27.7 N, 54.6 E, h=40 km, Southern Iran. M=4.8 SD 1.4 (CGS).  
23 iZ!+ P 15 30 31.6, iZ! S 15 31 38.0, D=620 km, USCGS: H= 15 29 07, (DECM), 40.5 N, 14.9 E, h=320 km, Tyrrhenian Sea, near coast of Italy. USCGS: H= 15 29 07.0, 40.6 N, 14.9 E, h=313 km, Southern Italy. M=4.4 SD 1.5 (CGS).  
23 iZ+ P 20 58 59.4, USCGS: H= 20 47 37.5, 60.5 N, 141.0 W, h=33 km, Southeastern Alaska. M=5.4 SD 0.8 (CGS).  
25 eZ PKP1 03 16 35, iZ! PKP2 03 16 40.4, USCGS: H= 02 57 57.9, 18.0 S, 179.2 W, h=625 km, Fiji Islands region. M=6 (PAS), 5 3/4-6 (BRK), 5.5 SD 0.7 (CGS).  
25 iZ Pn 10 19 19.5, iZ Pg 10 19 35.0, iZ Sn 10 20 11, D=480 km, BCIS: H= 10 18 12 (DECM), 43.8 N, 20.1 E, Yugoslavia. USCGS: H= 10 17 58, 43.3 N, 21.1 E, h=33 km, Yugoslavia. M=4.5 SD 0.4 (CGS).  
25 eZ 12 17 53, iZ(Pg) 12 17 08.7, obscured by strong microseisms. BCIS: H= 12 15 28, (DECM), 39.8 N, 24.8 E, Aegean Sea, USCGS: H= 12 15 28, 40.0 N, 24.8 E, h=8 km, Aegean Sea, M=4.0 SD 0.9 (CGS).  
25 eZ Pn 15 12 56, eiZ 15 13 56, eZ(Sn) 15 14 50.0, D= 1100 km, BCIS: H= 15 10.6, 37 1/2 N, 21 1/2 E, East coast of Peloponnesos, Greece.  
25 eZ P 17 51 14, USCGS: H= 17 43 27.8, 36.9 N, 71.6 E, h=156 km, Afghanistan-USSR border region. M=5.0 SD 0.7 (CGS).  
25 iZ PKP 18 36 29.3, USCGS: H= 18 17 47, 18.1 S, 179.2 W, h=625 km, Fiji Islands region. M=5.5 SD 0.8 (CGS).  
25 eiZ Pg 19 20 59.0, iZ Sg 19 21 15.2, D=133 km.  
25 eiZ- PKP1 19 39 22, iZ! PKP2 19 39 28.2, eZ pPKP 19 41 53, USCGS: H= 19 20 45.1, 18.1 S, 179.2 W, h=620 km, Fiji Islands region. M=5.4 SD 0.7 (CGS).  
25 eZ PKP1 21 05 20, eZ PKP2 21 05 26, USCGS: H= 20 46 43.6, 18.1 S, 179.1 W, h=620 km, Fiji Islands region. M=4.4 SD 0.8 (CGS).  
26 eZ 02 42 30, eiZ (Sg) 02 42 47, traces.  
26 eZ PKP 04 12 04, iZ! 04 12 05.0, eZ PP 04 15 32, D= 14700 km, USCGS: H= 03 53 16.6, 5.5 S, 151.4 E, h=133 km, New Britain region. M=6.0 SD 1.1 (CGS).  
28 iZ(Sg) 13 47 52.9.  
28 eZ PKP 16 31 19, USCGS: H= 16 12 29, 17.6 S, 178.8 W, h=540 km, Fiji Islands region. M=4.1 SD 1.5 (CGS).  
28 iZ+ P 20 45 32.5, eZ(PP) 20 49 23, D=11.300 km, USCGS: H= 20 32 24.7, 27.8 N, 141.8 E, h=117 km, Bonin Islands region. M=6 (PAS), 5.9 SD 0.5 (CGS).  
29 eZ 02 17 31, eZ (Sn) 02 17 57, traces.

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- 29 eZ 13 38 28, eZ (Sg) 13 38 30, traces.  
29 eZ Pn 15 11 27, eiZ Pg 15 11 37, iZ(Sn) 15 12 02.0, iZ (Sg) 15 12 11.7, (D=315 km).  
30 eZ (Pg) 00 52 13, iZ Sg 00 52 16.2, (D=25 km).  
30 eZ P 02 18 41, USCGS: H= 02 06 31.1, 54.1 N, 164.3 W, h=28 km, Unimak Islands region. M=5 3/4 (BRK), 5 3/4 (PAL), 5.6 SD 1.0 (CGS).  
30 eZ PKP 06 50 38, USCGS: H= 06 31 52.8, 17.9 S, 178.4 W, h=508 km, Fiji Islands region. M=4.8 SD 1.1 (CGS).  
30 eZ (Pg) 10 19 46, iZ Sg 10 20 (00), (D=110 km).  
30 eZ(Pg) 23 42 18, iZ Sg 23 42 22.8, (D=33 km).  
31 eZ Pn 22 45 35, eZ 22 48 08, eZ 22 48 18.

Ljubljana, March 16, 1966

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