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Geophysical Institute
 at the AG Observatory Golovec
 University of Ljubljana
 Trg revolucije 11
 Yugoslavia

1959

LJUBLJANA

PRELIMINARY SEISMOLOGICAL BULLETIN
 from June 20th to September 30th 1959

Station Ljubljana (ex Laibach) - Coordinates: $46^{\circ} 2' 6''$ N Lat.,
 $14^{\circ} 32' 0''$ E Long.
 Geocentric direction cosines: $a=+ 6743$, $b=+ 1748$, $c=+ 7175$,
 $d=-8$, $h=-4$;

Height: 396 m

Lithologic foundation: sandstone (carbon);

Instruments:

Wiechert, horizontal astatic seismograph, $M=200$ kg, mechanical registration, 15 mm/min;

Constants:	To	v	r/T θ	V
NS	5.0	2,5:1	0,011	69
EW	5.0	2,6:1	0,012	66

Hiller, "Stuttgart" vertical (Z) with galvanometrical recording
 $T_0=1,3$ sec, $T_g=1,5$ sec, $D_1 = D_2 = 1$, $V_{max}= 10.150$ x,
 velocity of registration: 60 mm/min;

Note: The periods of seismic waves are given in seconds, the amplitudes in microns, sign (+) means compression, (-) dilatation. K

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June

- 20 eiZ Pn 16 19 50.2, iZ (Sn) 16 20 36, eZ (Sb) 16 20 43, F 16 22 - ; D= 330 km, at Zenica ($44^{\circ} 12' N, 17^{\circ} 54' E$) IV: M.C.S., Bosnia-Yugoslavia ---
- + 20 eZ 14 24 32.5 (+), eiZ 14 24 37.7, F appr. 14 27 - . ---
- + 20 eZ P 16 50 34.9, (-), eZ 16 50 45, USCGS: H= 16 42 25, $32^{\circ} N, 40^{\circ} W$, Atlantic Ocean, D=4900 km. ---
- 21 eZ 11 32 43.2, eZ 11 32 48.6 . ---
- 22 eiZ 05 30 12.0 . ---
- 22 eiZ 14 26 33.8 . ---
- 23 eZ 11 58 18.6, iZ 18 58 36.4. ---
- + 23 eiZ 14 47 43.4 (+), USCGS: H=14 35 02, $39^{\circ} N, 119^{\circ} W$; Western Nevada; M=6-1/4 (Pas), 6-6-1/4 (Berk). ---
- 24 iZ 13 02 50.7, iZ 13 02 53.9, seismic? . ---
- + 25 eZ 03 20 38.0, eZ 03 21 10.7, eZ 03 21 45.3. ---
- + 25 iZ P 06 52 51.3 (+), eZ 06 52 53.2, eZ 06 52 56.3, eZ 06 53 12.0, ei PcP 06 56 02.4 . USCGS: H=06 46 55, $62^{\circ} N, 27 1/2^{\circ} W$, South of Iceland, D=3150 km. ---
- 25 eZ 18 13 01.3, traces after the minute interruption. ---
- 26 eZ 01 47 46, traces. ---
- 26 eZ 03 05 08.5 . ---
- 26 eiZ 04 57 17.4, seismic? ---
- + 26 eiZ 05 15 27.7 (+).
- + 26 eZ 05 44 14, traces, USCGS: H=05 26 12, $30 1/2^{\circ} S, 177^{\circ} 1/2^{\circ} W$, Kermadec Islands, D=appr. 19.000 km. ---

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- * 26 eZ 13 46 43.7 (-), eZ 13 46 55, eZ 13 49 21, F= 13 53 -.
- 26 iZ 19 38 14.0, iZ 19 38 21.1, iZ 19 38 34.0. ---
- 26 eiZ PKP 22 44 08.1 (-). USCGS: 22 24 54, 17°S, 176°1/2 W, Fidji Islands, h=350 km, D=16.750 km. ---
- 27 eZ 10 15 15.4 (+), Explosion at Eschenlohe, Germany, 47°37,93 N, 11° 08,94 E, D=310 km. ---
- * 27 eiZ P 19 19 52.1 (+), iZ 19 20 04.5, eZ 19 20 15, eZ 19 22 08, eiZ 19 25 11.1. USCGS: H=19 11 23, 42°N, 80°E, frontier SSSR-China; D= 5100 km. ---
- * 27 iZ 19 24 21 (PKP) (+), iZ 19 24 40, iZ 19 25 13, eZ 19 25 36, eZ 19 26 32, eZ 19 27 09. USCGS: H=19 04 27, 33°S 179° W, h= 100 km, South from Kermadec Islands, Mag.=6 3/4 (Pas), 6 1/2 (Berk), D= appr. 18.500 km. ---
- * 28 eZ P 04 29 07, eZ 04 29 13; USCGS: H=04 23 28, 63° 1/2 N, 20° W, near south coast of Iceland, D=2750 km. ---
- 28 iZ P 06 04 33.4, eiZ 06 04 48.4, eiZ 06 06 23.4, eiZ 06 06 43.5, eZ 06 07 20.6. ---
- 28 eiZ 06 43 24.9 (-). ---
- * 28 eZ 19 57 51.6. ---
- * 28 eZ 20 01 24, eZ 20 01 56.1, eZ 20 02 10, eZ 20 02 32. USCGS: H=19 43 22, 9°1/2 S, 126°1/2 E, Sawoe Sea, D=12.300 km.
- * 29 eZ PKP 07 35 19.3, eZ 07 35 28.0, USCGS: H=07 16 07, 7°S, 155° 1/2 E, Salomon Islands, Mag.=6 1/4 (Pas), D=14.450 km.
- * 30 iZ 07 28 35. ---
- * 30 eZ 10 43 24. (disturbed by microseisms)
- * 30 eiZ 13 51 23.4, eiZ 13 51 29.3, ei Z 13 52 24.2. ---
- * 30 eZ 16 48 35. traces.

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- 1 iZ P 03 29 54.1(+), USCGS: H=02 27 46, 28°N, 139° 1/2 E, h= 550 km, Bonin Islands, D= 10.150 km. ---
- 1 eZ 04 01 23, traces. ---
- 1 eZ 11 19 25.7, eiZ 11 21 54.3, eiZ 11 22 15.2. ---
- * 2 eZ 11 46 27, iZ PKP1 11 46 34, iZ PKP2 11 46 46, eZ 11 47 20, USCGS: H=11 27 45, 20°S, 178°1/2 W, h about 650 km, Fidji Islands. ---
- * 2 iZ (PKP1) 11 53 09.9, eZ (PKP2) 11 53 22, Fidji Isl. after-shock. ---
- 3 eZ Pn 04 59 29.0, eiZ (Pg) 04 59 42, eiZ 05 00 13, iZ Sg 05 00 21.3, F=05 02 - . BCIS: H=04 58.6, Mt. Grisons (Switzerland, felt: Bergün, Davos, St. Moritz, Andeer, Chur), D=380 km. 05 33 - , traces. ---
- * 3 iZ PKP 18 14 49.8 (-), Az=1.2, T=2; iZ pPKP 18 15 32.0, eiZ 18 15 47.0 (sPKP), eiZ 18 16 19, eZ 18 17 53, F=18 32 USCGS: H=17 55 29, 16°S, 172°1/2 E, h=200 km, New Hebrides, Mag.=6 1/4 (Pas.), (Berk.), D=16.300 km. ---
- * 3 eZ 20 07 21.5. ---
- * 4 eZ 05 14 (oo), eZ PKP1 05 14 11, eZ PKP2 05 14 32. USCGS: H=04 54 14, 24°1/2 S, 177° W, h=100 km, Tonga Isl., D=14.500 km. ---
- * 6 eiZ P 09 23 06.4 (-), eiZ pP 09 25 22.8, eiZ PP 09 27 17, eZ PPP 09 26 16, eNE 09 32 45.5, eZ 09 33 06, USCGS: H=09 10 17, 26°1/2 S, 61° 1/2 W, h=600 km, Chaco, Argentina, Mag.=6-6 3/4 (Pas.), 6 1/4-6 1/2 (Berk.) D=appr. 10.800 km.
- * 6 eZ 09 38 09, e(SP)Z 09 39 27, eZNE PP 09 40 27, eZ 09 41 18, eZ 09 42 34, eiZNE SKS 09 45 55, F= 09 56. --- Chaco, Argentina, aftershock. ---

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- 6 eZ 18 32 18 (+), eZ 18 32 35 (-), eZ 18 35 26. ---
- 6 18 43 - , traces;
- 7 iZ 16 21 22.0, near explosion;
- * 8 eZ 02 10 05, eZ 02 10 17, USCGS: H=02 04 00, 71°1/2 N, 19° W, D=appr. 3.400 km. --- off east coast of Greenland ---
- 9 eZ 09 27 04, eZ 09 27 11, USCGS: H=09 07 12, 15°S, 173° W Samoa Islands, D=16.550 km. ---
- * 9 eZ P 16 19 (oo) in the minute interruption, eZ pP 16 19 30, eZ sP 16 19 45, eZ 16 20 06, eiZ 16 23 02.4, eZ 16 23 22, eZ 16 23 57, eZ 16 43 22. USCGS: H=16 05 18, 20°1/2S 68°W, h=100 km, Chile-Bolivia frontier, Mag.=6 3/4 (Pas.), D=appr. 11.000 km. ---
- 10 eZ 17 49 44, traces. ---
- 10 eZ 20 31 29, eZ 20 31 35, eZ 20 31 50, ; ---
- 11 eiZ PKP 03 26 43.2 (-),
- * 11 eiZ PKP1 05 11 12, iZ PKP2 05 11 15, eZ 05 11 42, eZ 05 15 50, USCGS: H=04 51 30, 18°1/2S, 169°E, New Hebrides, D=16.200
- * 11 eZ 12 16 35, 12 20-22 traces, H= 12 01 36, 36°S, /km 78°E, Mag.=6 1/4-6 1/2 (Pas.), Indian Ocean; ---
- * 11 iZ 18 35 18.5 (+), eZ 18 35 32, USCGS: H=18 23 00, 44°1/2 N, 148°1/2 E, Kurile Islands, D=appr. 9.000 km. ---
- * 12 eiZ PKP1 00 43 29.2 (+), iZ PKP2 00 43 36.4 (+) T=1, Az= 0.3, USCGS: H=00 2422, 19°1/2 S, 177° 1/2 W, h=400 km, Fidji Islands, Mag.=6 1/4 (Pas.), D= 17.800 km. ---
- 12 eZ Pn 05 19 03.0, eZ (Pb) 05 19 08.4, eiZ Pg 05 19 14.1, iZ Sn 05 19 44, eiZ Sg 05 19 56.0, eiZ 05 20 17.3, F=05 23 - . D=370 km. ---
- 12 16 55 40 traces, eZ 16 57 56, eZ 16 58 20. ---
- * 12 eZ 19 29 47
- * 13 eZ 12 41 08 (-), eZ 12 41 20, eZ 12 41 45, USCGS: H=12 28 45 52°N, 172°1/2 W, Andreanoff-Aleutian Isl. Mag.=6 1/2 (Pas.) 5 3/4-6 (Berk.), D= appr. 9000 km. ---
- 13 eZ 22 13 23, traces. ---
- * 14 eZ PKP 13 19 57.0 (-), eZ 13 20 04.0, USCGS: H=13 00 24, 16°1/2 N, 173°E, h=100 km, New Hebrides, D=16.100 km. ---
- 14 eZ 16 34 33, eZ 16 35 04, eZ 16 35 36, eZ 16 36 15, eZ 16 36 27, eZ 16 36 46, F=16 40 - . ---
- 14 eiZ 20 27 05.1(+), eiZ 20 27 10, eiZ 20 27 20.0, eiZ 20 28 40, eiZ 20 29 04, eiZ 20 29 28, eiZ 20 30 09. ---
- 15 eiZ (P) 23 26 38.0, iZ 23 26 42.8, iZ (S) 23 26 57.0, iZ 23 27 02. near, D=1.4°. ---
- * 16 eZ 15 29 56. ---
- * 16 eiZ PKP 19 33 41, iZ 19 33 44, eZ 19 33 53. USCGS: H=19 13 52, 21°1/2 S, 169° E, Loyauté Isl., D=16.350 km. ---
- 17 eZ Pn 13 18 01, eZ Po 13 18 11, eZ (Sn) 13 19 05, eZ (Sg) 13 19 37, eZ 13 19 54, eZ 13 20 11. BCIS: H=13 16 36, 46°6 N 60.8 E, Haute Ubaye, France, D=630 km. ---
- 18 eZ 03 58 31, eZ 03 58 34, eZ 03 58 40. ---
- * 18 eZ 07 21 48, eZ 07 21 54. ---
- * 18 iZ P 20 07 44 (-), iZ 20 08 02, eZ 20 08 15, eZ 20 08 56, eZ 20 11 01, eiZ PP 20 11 25, eZ 20 11 57, eZ 20 12 33, eiZ 20 13 11, eZ 20 13 34, Z 20 18 (01), ZNE 20 18 02, eiZNE 20 18 23, eZ 20 19 21, eZ 20 20 21, eNE L 20 31 - . ---
- * 19 USCGS: H=19 54 45, 15°1/2 N, 120°1/2 E, Luzon, Philippines, Mag.=6 1/2-6 3/4 (Pas.), D=appr. 10.100 km. ---
- * 19 eZ P 03 55 30 (+), eZ 03 55 49, eZ (PP) 03 59 23, USCGS: H=03 42 02, 6°1/2 S, 105°E, Sunda Str. D= 10.600 km. ---

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- *19 eZ P 15 19 24, eiZ pP 15 20 17, eiZ sP 15 20 40, eiZNE 15 23 16, eZ 15 24 11, ei NE M 15 29 (40), eZ 15 36 42, eiZ 15 44 17, eZ 15 47 35, USCGS: H=15 06 10, 15°S, 70°1/2 W, h=200 km, Peru, M=7 (Pas.), D= appr. 10.800 km. ---
- 20 eiZ o2 53 52. ---
- *20 eZ o2 55 47, eZ o2 57 54, eZ o2 59 40, eZ o3 03 42, eZ o3 10 50, USCGS: H=02 41 13, 6°S, 110°E, Java Sea, D=appr. 11.000 km. ---
- *20 eZ PKP 17 12 27, eZ 17 12 39, eZ 17 12 52, USCGS: H=1653 38, 23°1/2 S, 179°E, Fidji Isl. h about 600 km, D=18.250 km. ---
- *21 eZ PKP o8 o2 41, eZ o8 o2 44, eZ o8 o2 54. USCGS: H=07 43 13, 14°1/2 S, 167° 1/2 E, New Hebrides, Mag.=6 1/4 (Pas.), D= 16.400 km. ---
- *21 eZ P o9 29 12, eZ PcP o9 29 33, USCGS: H=09 17 51, 19°N, 68° 1/2 W, Near north coast of Dominican Republic, M=6 (Pas.) D=appr. 7.900 km. ---
- *21 eZ 13 20 31. ---
- 21 iZ Pn 14 54 42.8, iZ Pb 14 54 49.0, eiZ 14 55 08.6, eiZ Sn 14 55 28, eiZ So 14 55 34, eZ Sg 14 54 42. D=appr. 3.7°= 400 km. ---
- 21 eZ 15 23 51, eZ 15 26 51, eZ 15 28 13, eiZ 15 28 32, traces.
- *22 eZ P 11 29 34 (-), eZ 11 29 46, eZ 11 31 08, USCGS: H=11 15 33, 2°N, 126°1/2 E, Molucca Passage, D=11.800 km. ---
- *22 iZ P 19 34 57 (-), iZ PcP 19 35 12, iZ pP 19 37 08, eZ 19 38 02, eZ ScS 19 44 24, USCGS: H=19 24 17, 53°N, 153°E, Sea of Okhotsk, h about 650 km, D= 8.650 km. ---
- *22 eZ PKP 23 21 26 (+), eiZ 23 21 28, iZ pPKP 23 21 42, eZ 23 21 51, eZ (PP) 23 23 19. USCGS: H=23 02 27, 5°S, 152°1/2 E, New Britain, n about 60 km, M=5 3/4 (Berk.), D= 13.900 km. ---
- 23 eZ o4 01 02, traces
- 23 eZ o6 11 41, eZ o6 11 56, eZ o6 12 05. near. ---
- 23 eZ o9 19 20, eZ o9 19 39, eZ o9 20 31, eZ o9 20 53, eZ o9 21 02, eZ o9 21 39. seismic?
- 23 eZ lo 25 40, eZ lo 26 56, eZ lo 27 05, eZ lo 27 30, eZ lo 27 49. -seismic? -
- *23 eZ PKP 15 16 39(+), eiZ 15 16 49, eZ 15 16 57, eZ PKP 2 15 17 09, eZ 15 17 37. USCGS: H=14 56 45, 24°1/2 S, 176° W, n about 60 km, M=5 3/4 (Berk.) D= 16.900 km. Tonga Isl.
- 24 eZ P o1 35 54 (-), iZ o1 35 59, eiZ o1 36 33, USCGS: H= o1 23 09, 41°N, 125°1/2 W. Off coast of northern California, M=5 3/4 (Pas.), 5 3/4-6 (Berk.), D= 9.650 km. ---
- 24 eZ o7 26 07 (+). ---
- *24 eiZ P 16 28 21.5 (+) T=1, Az=o.1, eZ PcP 16 28 40, USCGS: H=16 17 30, 24°1/2 N, 94°1/2 E, India-Burma frontier, D= 7.400 km. ---
- 24 eZ 23 22-23 traces. ---
- 25 eZ 18 16 26 (-). ---
- *25 eZ 21 32 56 (-). -USCGS: H=21 20 35, 37°N, 140°1/2 E, h about 100 km, Honshu, Japan, D=9.400 km.
- *26 eZ P 17 09 40.5 (-), eZ (PP) 17 09 48, eZ (PPP) 17 09 55, eZ 17 10 12, eZ 17 10 37, iZ 17 11 20, eZ (S) 17 11 50, eZ G 17 12 55, eNE 17 13 53, eZNE M 17 14 (10), F=4, Az=2, eZNE 17 16 -, F=17 21. -USCGS: H=17 07 03, 41°N, 27°1/2 E, Northwestern Turkey, D= 1200 km. ---
- 26 eZ 17 22 27, eZ 17 22 42, eiZ 17 23 18, eZ 17 23 32. ---
- 26 eZ P 19 49 32 (+) T=1.3, USCGS: H=19 37 40, 56°N, 160°E, Kamchatka, D=appr. 9.600 km. ---
- 27 eZ o5 51 50 traces; ---

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- 27 eZ o6 14 35, eZ o6 14 43; near. ---
- 28 eZ 21 23 23 (-), traces. ---
- 29 eZ PKP oo 49 42 (-), traces, USCGS: H=oo 30 54, 18° 1/2 S, 178°W, h about 650 km, Fidji Islands, D=16.800 km. ---
- 30 eZ 18 04 41.0, iZ 18 04 58.0, eZ 18 05 11.0, disturbed by microseisms. ---
- *31 eZ lo 33 45, eZ lo 34 09; disturbed by microseisms. ---
- 31 eiZ 14 30 26.6, eZ 14 30 44, eZ 14 32 20, eZ 14 32 35, iZ 14 32 43.0, iZ 14 33 08. ---
- 31 eZ Pn 15 30 03.0, eZ Pg 15 30 37.0, eZ Sn 15 31 25, eiZ (Sb) 15 31 46, eZ 15 32 33, D=830 km =7°5. ---
- *31 eZ P 20 00 54 (-) T=1.8, iZ 20 01 08, eZ PP 20 02 35 T=1.4 continuation dist. by microseisms, USCGS: H=19 53 02, 38° 1/2 N, 70°E, Tadzik SSR, D=4600 km. ---
- August 1959
- 2 eZ 12 17 06 (-) T=1.1, eZ 12 17 18, ---
- 3 eZ 11 48 18, seismic? ---
From 17h G.M.T. to 08h 48m on August 4th no registrations because of falling out of current.
- 5 o6 58 -60, o7 00-02, traces. ---
- 5 eZ 11 54 39. ---
- 6 iZ Pn 16 11 06.3 (+), iZ Pb 16 11 13.1, iZ 16 11 15.8, iZ Pg 16 11 20.6, eiZ Sn 16 11 49.2, iZ Sg 16 12 05, eZ 16 12 16, eZ 16 12 32, eZ 16 13 07, eZ 16 13 43, eZ 16 14 26, F= 16 17. Epicenter: Zenica (44°12'N, 17°54'E), VI° M.C.S., Bosnia-Yugoslavia, D=340 km. ---
- 7 eZ Pn o1 55 39, eiZ o1 55 48, iZ (S) o1 56 29, (e)Z o1 56 (42), eiZ o1 56 51, eZ o1 57 10, eiZ o1 57 57, F=o2 o1 -. eZ P lo 55 29(+), eZ lo 55 37, USCGS: H=10 43 32, 56°N, 154° W, Kodiak Isl. M.=5 (Berk.), 5 3/4 (Pas.), D=appr. 8500 km. -
- *7 eZ P 21 57 22 (+), eZ 21 57 32, eZ 21 57 47, eZ 21 58 08. USCGS: H=21 45 26, 56°1/2 N, 154°W, Kodiak Isl., D=8.450 km.
- *8 eZ P oo 59 26 (+) T=1, eiZ oo 59 40, eZ oo 59 46, eZ o1 oo 15. USCGS: H=oo 47 38, 55°N, 162°1/2 E, near the coast of Kamchatka, M=6 1/2 (Pas.), D= 8.400 km. ---
- *9 eZ o4 59 17, eZ o4 59 26. ---
- 9 iZ 21 36 50.5, iZ 21 37 39.5, eZ 21 37 51.5. ---
- *10 eZ oo 40 13.5. ---
- *10 eZ oo 56 25.5 (+), eZ oo 56 39, eZ oo 57 08. ---
- 10 eZ o4 34 08, eZ o4 34 22. ---
- *11 eiZ Pn 23 29 59.0, iZ 23 30 05.5, eZ Pb 23 30 18.5, iZ! Pg 23 30 35.1, iZ 23 30 58.8, eZ (Sn) 23 31 27, eZ 23 31 32, eZ 23 32 07, eZ (Sg) 23 32 17, eZNE 23 32 35 Az=o.3, T=1.6, eZ L 23 33 14 - T=6. F=23 38 - Epicenter Gabrovo (41°16'N, 22° 45'E) P.R. Makedonia-Yugoslavia, V° M.C.S., felt: Strumica, Novo Selo, Sušica; D=7°6 = 840 km. -
- *12 eZ PKP lo 18 13.4 (+) T=1.5, eZ lo 18 17.6, eiZ lo 18 31.5, eiZ lo 19 07.4, eZ lo 19 45, eZ lo 21 21, eZ lo 23 11. USCGS: H=09 58 22, 16°1/2 S, 177°1/2 W, Fidji Islands region, M.=6 1/2 (Pas., Berk.), D= appr. 16.500 km. ---
- *13 eZ P oo 38 38.3 (-) T=1.4, iZ oo 38 46.6, iZ oo 38 56, iZ (PP) oo 39 33. D=25.8°=2.870 km. ---
- *15 e ZNE P o9 09 38.6 (+) T=1.3-Az=o.4, eiZ o9 09 42, iZNE o9 10 14, eZ o9 10 24, eiZ o9 10 48, iZ PP o9 13 11, eiZ PPP o9 15 09, eZNE o9 20 09, eZ L o9 35 - T=12, Az= 12, eNE M o9 44 - T=24, Az=110. -F= appr. 10 30 -D=9400km USCGS: H=08 57 04, 23°N, 121°E, Formosa, M.=6 3/4-7 (Pas.)

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- 15 Z 18 03 (oo), iZ 18 03 46, iZ 18 04 04.2, iZ 18 04 17.2.-
- *15 eZ 13 34 22, eZ 13 34 40, eZ 13 35 32. USCGS: H=13 14 26, 21°S, 174°W, Tonga Isl. D=appr. 17.100 km.---
- *15 iZ 18 53 44.6(+). USCGS: H=18 41 56, 55°N, 162°1/2 E, near the coast of Kamchatka, D= 8.450 km.---
- 15 iZ 21 49 27 (-) T=0.9 . ---
- *16 eZ PKP ol 11 27 (+), eZ ol 11 43, iZ ol 11 49, eiZ ol 12 06, eZ ol 12 26. USCGS: H=00 51 40, 21°S, 169°E, Loyauté Isl. M.=6 (Berk.), D=16.400 km. ---
- *16 eZ P ol 33 45. USCGS: H=01 21 05, 22°N, 121°E, Formosa, D=9.450 km.---
- *16 iZ PKP lo 12 50.2 (-) T=1.2, eZ lo 14 20.3. USCGS: H=09 53 52, 18°S, 178°W, Fidji Islands, D=appr. 16.600 km.---
- *16 eZ Pn 18 44 30.1, iZ Pb 18 44 51.0, eiZ 18 45 49, iZ Sn 18 45 59.3, eiZ 18 46 36.5, iZ Sg 18 46 49.0, iZ 18 47 07, F=18 54 -. D=appr. 8°=890 km.---
- Additional reading: eZ 18 48 18;
- *17 eiZ P ol 15 13.9 (+) T=2, eZ ol 15 37. USCGS: H=01 02 37, 22°1/2 N, 121°E, Formosa, D=appr. 9.400 km.---
- *17 eiZNE ol 34 50.3 (+), iZ(Pb) ol 35 05, eiNE ol 35 41, eiNE ol 36 15.9, eiNE Sg ol 36 37, eiNE ol 36 51, iNE ol 37 04.1 - T=4.2, iNE ol 37 48 - T=4, iNE ol 38 11, eZ L ol 39 - T=2, Az=2.5, F= ol 50 - . Remark: Z-component records after P waves underexposed. BCIS: H=01 33 14, 41°N, 19°3/4 E, Albania, D=6.26°=695 km.---
- *17 iZ Pn 04 30 37.9 (-), iZ Pb 04 30 49.5, iZ Pg 04 31 04.4, iZ 04 31 17, iZNE 04 31 51.3, eiZ Sb 04 32 12, eiZ Sg 04 32 31, eiZNE 04 32 45.7 - T=1.8, eiNE 04 33 06, eZ 04 34 16, eZ 04 35 10, F= 04 38 - disturbed by microseisms. aftershock Albania.---
- 17 iZ Pn 05 30 07.5, eZ 05 30 48.3, eZ 05 31 08, iZ Sn 05 31 20.1, eZ 05 32 21 - T=1.3, F=05 34 -. aftershock Albania.---
- 17 lo 30-31 traces.---
- 17 eZ 15 18 33, eZ 15 18 48.---
- 17 eZ 21 22 37 (+).---
- *17 eZ PKP 21 23 53.2(+), eiZ 21 23 57.1, eiZ 21 24 09, eZ PP 21 26 17, eZ 21 27 22, eZ 21 27 43, eZNE 22 15 - T=18 USCGS: H=21 04 40, 7°1/2 S, 156° E, Salomon Isl. M.=7 1/4 (Pas.) D= 14.600 km. ---
- *18 eiZ P oo 46 21.4(-), iZ oo 46 23.3, eiZ oo 47 12, iZ oo 47 26, eZ oo 47 54. - USCGS: H=00 33 43, 23°N, 121°1/2 E, near south coast of Formosa, D=85°=appr. 9.500 km.---
- 18 eiZ PKP 05 58 33.9 (-), eZ (PKP2) 05 58 45.4, USCGS: H=05 38 39, 22°1/2 S, 172°E, Loyauté Isl. region, D=appr. 17.200 km. ---
- *18 eiZ P 06 49 17.2, iZNE 06 49 19.3 - T=3.3 Az=2, iZ 06 49 27, iZ 06 49 42, iZNE 06 50 17, iZ 06 51 45, eZ PP 06 51 56, iZ 06 52 27, eiZ (S) 06 58 49, eNE 06 59 08, eNE LQ 07 05 -, eZNE M 07 25 - TZN= 17, Az=150, An=320, Ae=450. USCGS: H=06 37 13, 44°1/2 N, 111°W, Yellowstone Park, Wyoming (USA), M.=7.1 (Pas.), 7.4 (BCIS) D=8.450 km.---
- *18 eiZ P 15 38 04.3(-), eiZ 15 38 11.9, eiZ 15 39 25.4, eiZ 15 39 13, eZ 15 40 37, eNE L 16 06 traces. USCGS: H=15 26 06, Yellowstone Park, aftershock, M=6 1/2 (Pas.), 6 3/4-7 (Berk.), D=8.450 km. ---
- Remark: August 18th, 21h - August 19th 09 30 no registrations.

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- 19 eiZ 16 45 32, iZ 16 45 43, eiZ 16 48 38, iZ 16 46 50, eiZ 16 46 59, iZ 16 47 32. seismic?
- 20 eZ Pn 03 12 40.7, eZ 03 12 52, eZ 03 13 08.5, eiZ 03 13 53, iZ 03 14 12, iZ 03 14 28, eZ 03 14 36, eZ 03 14 53, eiZ 03 15 33. D=appr. 680 km. ---
- 21 ol 24-25, traces. ---
- *21 eZ PKP1 08 22 46.4(+), eiZ PKP2 08 22 53.1, eiZ 08 23 06, eZ 08 25 13, eZ 08 25 32, eiZ 08 25 40, eZ 08 26 10, eiZ 08 26 31. USCGS: H=08 03 15, 50°1/2 S, 139° 1/2 E, Indian Ocean, M.=5 3/4-6 (Pas.), D=16.050 km. ---
- *21 eZ PKP 09 57 24 (+), eZ 09 57 32.4, eZ 09 58 46.6. USCGS: H=09 37 49, 50° 1/2 S, 140° E, Indian Ocean, D=16.100 km.---
- 22 eZ 20 38 54.2 .---
- 22 21 14-16 traces; ---
- 23 02 28-29 traces; ---
- *23 eZ 03 21 22.---
- 23 eZ 20 35 29.1, eZ 20 35 34.4, eZ 20 35 45.2. ---
- *23 eiZ Pn 22 25 27.3(+), iZ 22 25 31.8 -T=1.8, Az =0.7, eiZ 22 25 50.5, eZ 22 26 17, eZ 22 26 39. USCGS: H=22 21 30, 35°1/2 N, 3°W, BCIS: H=22 21 35, 36°N, 3°1/2 W. Mediterranean Sea, N of Spanish Morocco, D= appr. 1.900 km. ---
- 24 iZ Pn 07 22 38.1, iZ Pb 07 22 43.2, iZ (Pg) 07 22 50.1, eiZ 07 22 56.3, iZ 07 23 07.2, iZ Sn 07 23 17.2, iZ Sb 07 23 23.7, eiZ Sg 07 23 29.3, iZ! 07 23 39.0, eZ 07 24 32.- D=3.2°=357 km.---
- 24 lo 34-36 traces, seismic?
- *24 eiZ 12 33 23, eiZ 12 33 45.---
- *24 eiZ P 12 41 13.4 (+), USCGS: H=12 29 30, 53°N, 159°1/2 E, Kamchatka, D=appr. 8.800 km.---
- 24 16 05 - .traces.
- *24 eZ PKP 21 50(11), eiZ 21 50 19.2, eiZ 21 50 31.5, eZ 21 53 55, eZ 21 55 25, eZ 21 56 29, eNE L 22 43 - . USCGS: H=21 30 46, 10°1/2 S, 161° E, Salomon Islands, M.=7 (Pas.) D=14.920 km.---
- 25 eiZ Pn 11 59 22.5(+), eiZ 11 59 31.2, eiZ Pb 11 59 39.8, iZ 11 59 45.9, iZ Pg 11 59 57.2, iZ (Sn) 12 00 36, iZ 12 00 53, iZ! Sg 12 01 19.5, eiZ 12 01 31, iZ!! 12 01 37.5, eiZ 12 02 15.1, F=12 06 - . D=6.75°=appr. 750 km.--
- 26 eZ 02 48 24. --
- *26 eiZ P 08 38 31.7 (+) T=1.2, iZ 08 38 37.4, iZ 08 38 44.4, iZ 08 38 52.8, iZ 08 39 30, 08 42 (02), USCGS: H=08 25 30 18°N, 94°1/2 W, Vera Cruz, Mexico, M.=6 3/4 (Pas.) D=9.900 km
- *26 eZ P lo 39 48.7 (-), USCGS: H= lo 27 41, 51°N, 132°W, south of Queen Charlotte Islands, D=appr. 8.850 km. ---
- 26 eZ 11 05 23.5 (-), eZ 11 05 37.---
- 27 03 17-19 traces; --
- 27 14 32-34 traces; --
- 27 19 03-04 traces; --
- *28 eZ P ol 04 06 (+) T=1.1, eiZ ol 04 08, eZ ol 04 24, eZ ol 05 06, eZ ol 06 37.---
- *28 eZ P 12 18 56. USCGS: H=12 07 44, 63°1/2 N, 149°W, Alaska, D=7.800 km.---
- *28 eZ PKP 16 11 47 (+), eZ 16 11 49, eZ 16 11 56, eZ 16 12 28.---
- 29 iZ p 09 28 33.3, iZ S 09 28 37.2, explosion, near; ---
- 29 lo 45 (oo), eZ lo 45 09 . ---

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29 eZ 13 55 54 (+), eZ 13 56 24, eZ 13 56 33. ---
 29 eZ 13 48 48.6 (+), eZ 13 49 48. ---
 29 eZ 15 37 02. ---
 *29 iZ p 17 03 (oo), iZ S 17 03 04.8, explosion, near; ---
 *29 eZ P 17 12 56.7 (-), iZ 17 13 06.4, eiZ 17 13 42.5, eiZ 17 15 09.4, eiZ 17 16 37, eNE L 17 25 -, eZNE 17 40 - M, T=12, Az=33. ---USCGS: H=17 03 10, 52°N, 106°1/2 E, Lake Baikal, Sibiria, M.=6 1/2 - 6 3/4 (Pas.), 6 3/4 (Berk.) D=6.300 km. ---
 29 eZ Pn 19 35 26, eiZ 19 35 37.7, eiZ 19 35 44.7, eZ Sn 19 36 22.4, eiZ 19 36 33.3, eiZ 19 36 47.2; T=1.1 - Az=0.06, iZ 19 37 29.2, F=19 41 -. P.R. Serbia-Yugoslavia. ---
 29 Z 20 50-52 traces; ---
 29 Z 21 40-42 traces; ---
 29 eZ 23 52 01.5, eZ 23 52 24.8, eiZ 23 53 14.8, eZ 23 53 34, eiZ 23 54 14.2, eZ 23 54 27, F=23 57 - . ---
 *30 eZ P 03 28 52.8, eZ 03 28 56, eiZ 03 29 04.5, eZ 03 29 15, USCGS: H=03 24 54, 35°1/2 N, 3°W, Mediterranean Sea, north of Spanish Morocco, felt at Melilla, D=1.870 km. ---
 30 eZ PKP1 19 08 30, eZ PKP2 19 08 40.5, USCGS: H=18 48 34, 23°S, 171°1/2 E, Loyauté Isl. region, D=appr. 16.600 km. ---
 *30 Z 23 05-06 traces; ---
 31 eiZ P 19 02 01.8, iZ 19 02 52, iZ (S) 19 03 22.2. ---

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*1 eZ P 11 01 54 (+), eZ 11 02 05, USCGS: H=10 49 43, 20°N, 64°1/2 W, north of Puerto Rico, D=appr. 7.500 km. ---
 *1 ei ZNE Pn 11 39 17.1 (-), iZ 11 39 29.3, iZ 11 39 43.9, (cont. Z underexposed), eiNE 11 40 10.5, eiNE Sn 11 40 31, eiN 11 40 37.7, eiNE Sg 11 41 07, eiNE (Lg) 11 41 28, eiNE 11 41 41, eiNE 11 42 18, eiN 11 43 57, eZ 11 45 15 - T=2.5 - Az=2.4. ---USCGS: H=11 37 42, 41°1/2 N, 20° E, Albania, D=appr. 6°=670 km. ---
 1 Z 13 10-14 traces;
 1 Z 16 01-02 traces;
 1 Z 19 48-49 traces, eiZ 19 49 15, eZ 19 49 46, eZ 19 50 21.
 *3 iZ! Pn 04 03 40.1 (+), iZ 04 03 43.8, eiZ Pb 04 03 54.4, iZ Pg 04 04 10.9, iZ!! 04 04 24.3, iZ Sn 04 04 54.2, iZ (ob) 04 05 18.8, iZ Sg 04 05 34.9, iZNE 04 05 48.9, eZNE M 04 06 20 - Tz=2.5, Az=3. ---USCGS: H=04 02 00, 41°N, 20° E, Albania, D=appr. 6.30=700 km. ---
 Additional readings: eZ 04 07 21, eZ 04 07 45, F=05 15 - .
 *3 eZ 02 58 03.7, eZ 02 58 15.8, USCGS: H=02 39 04, 20°1/2 S, 178°1/2 W, Tonga-Fidji Isl. region, h about 550 km, D = appr. 17.000 km. ---
 *3 Z 06 45-46 traces, eZ 06 46 09, eZ 06 46 37, USCGS: H=06 27 30, 4°1/2 S, 123°E, Celebes Isl. ---
 3 eZ 19 14 28.8, eiZ 19 14 34.8. ---
 4 eZ 08 38 (o8), iZ 08 38 31.2, iZ 08 38 48.3, iZ 08 39 41.1
 4 eiZ Pn 11 00 12.6 (+), iZ 11 00 21.5, eiZ Pb 11 00 26.5, eiZ Pg 11 00 40.4, iZ 11 00 54.0, iZ 11 01 07.6, iZ Sn 11 01 19.8, iZ 11 01 32.3, iZ Sb 11 01 36.9, iZ! 11 01 54, eiZ 11 02 05.7, iZ 11 02 39, iZ 11 03 35, F=appr. 11 08 -. D= 670 km. ---
 4 eZ Pn 16 17 55.1, iZ Pb 16 18 05.3, iZ Pg 16 18 21.3, iZ 16 18 47.9, eiZ Sn 16 19 05.2, iZ 16 19 14.2, eiZ Sb 16 19 23.6, iZ 16 19 37.7, eiZ Sg 16 19 42.3, iZ! 16 19 49.0 D=655 km. ---

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*4 eZ P 18 36 35.9 (-), eZ 18 38 49, USCGS: H=18 26 41, 1°S, 24°W, Atlantic Ocean, D=6.350 km. ---
 *8 eZ P 10 15 57.1 (+) T=1.1, USCGS: H=10 03 27, 36°1/2 N, 140° E, Honshu, Japan, h about 100 km, D=appr. 9550 km. ---
 *8 eZ 19 36 45 -USCGS: H=19 19 39, 42°1/2 N, 142°1/2 E, Hokkaido, Japan, h about 100 km, ---
 *9 eZ P 05 52 22.6 (-) -T=1.0, eZ 05 52 48.1, USCGS: H=05 44 38, Hindu Kush, h about 200 km, D=appr. 4.900 km. ---
 10 eZ P 00 04 12.5, eZ 00 05 12.9, eZ 00 05 30.5. ---
 *10 eiZ PKP 05 54 12.0 (+) -T=1.1, eZ 05 54 25.6, USCGS: H=05 35 04, 6°1/2 S, 154°1/2 E, Salomon Islands, D=14.100 km. -
 10 eZ (P) 13 24 53, eZ 13 25 23, eZ 13 25 53, eZ (S) 13 26 25, eZ 13 27 08, eZ 13 27 47. ---
 10 eZ 14 03 57.0 (-), eZ 14 04 14.1. ---
 10 eZ 23 07-09, traces; USCGS: H=22 56 34, 47°N, 152°E, Kurile Islands;
 12 eZ 02 12 (40) traces, eZ 02 14 -, T=3. ---
 12 iZ (P) 04 48 10.6 (+), iZ (S) 04 48 36.2, D=appr. 2°=225 km. ---
 12 eZ 08 02 26; ---
 *12 eZ PKP 11 43 43.4 (+), eZ 11 43 58, USCGS: H=11 24 27, 9°1/2 S, 156° E, Coral Sea, D=appr. 14.800 km. ---
 *12 eiZ P 21 27 39.9 (+) T=1.1, iZ 21 27 48, eiZ pP 21 28 24.8, USCGS: H=21 19 57, 36°N, 71°E, Hindu Kush, h about 200 km, D=4.650 km. --- Additional readings: eiZ PP 21 29 11.5, eiZ (PcP) 21 29 19.8, eZ 21 30 27.6. ---
 13 eZ (p) 11 02 22, eZ (S) 11 02 28; near. ---
 13 Z 15 01-03 traces-seismic?
 13 eZ 18 24 19;
 *13 eZ 19 23 59;
 *13 Z 22 59-23 00 - traces;
 14 eZ 01 43 59 (+), eZ 01 44 17; ---
 *14 eZ (PKP) 13 35 45 (-), eZ 13 35 58, eZ 13 36 25, USCGS: H=13 15 49, 24°S, 176°1/2, Tonga Isl. region, M.=5 3/4-6 (Pas.), D=appr. 17.400 km. ---
 *14 eZ PKP 14 29 40, eiZ 14 29 50, eiZNE 14 30 17, iZ 14 30 37.5, eZ (PP)1 14 34 16, eiNE 14 34 47.6, eZ (PP)2 14 37 29, eZ 14 38 38, eNE M 15 48 - T=16, Az=35, AN=30, eZ M2 16 07 T=17 Az=25, F=appr. 16 30 -. USCGS: H=14 09 39, 28° 1/2 S, 177°W, Kermadec Isl., M.=7 3/4 (Pas.), 7 3/4-8 (Berk.), D=17.900 km. ---
 14 eiZ 15 18 41.7 (+), iZ 15 19 01.8, eZ 15 19 22.6. ---
 *14 eZ (PKP1) 17 26 15 (+), eiZ 17 26 34, iZ 17 26 58, eZ (PKP2) 17 27 09, USCGS: H=17 06 15, 29° S, 176° 1/2 W.
 *14 eZ PKP 22 43 54.0 (-), iZ 22 44 09.7, USCGS: H=22 23 53, 29°S, 177°W, Kermadec aftershock, as previous; ---
 *15 eZ PKP1 06 19 40.9 (+), iZ 06 20 21, iZ (PKP2) 06 20 36, eZ (PP) 06 24 15, eZ 06 37 31, eZ 06 38 31, USCGS: H=05 59 42, 28° 1/2 S, 177°W, Kermadec aftershock, M.=6 1/2-6 3/4 (Pas.), 7 1/4-7 1/2 (Berk.). ---
 *15 eZ PKP 08 20 23.9 (-), USCGS: H=08 00 23, 28°1/2 S, 177°W, Kermadec Islands. ---
 *15 eiZ 11 24 20 (-), eiZ 11 24 50, iZ 11 25 13.5, iZ! 11 26 49, USCGS: H= 11 05 33, 21°1/2 S, 179° 1/2 W, Fidji Isl., h about 600 km, M.=6 1/2 (Berk.), D= 16.950 km. ---
 *15 eZ PKP 14 06 18.7, eZ 14 07 12.7, USCGS: H=13 46 17, 29°S,

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- 15 (continuation): 177° W, Kermadec Islands; ---
 *16 eZ PKP o2 56 o2, USCGS:H=o2 35 59, 29° S, 176° 1/2 W, Kermadec Islands; ---
 *16 eZ P o5 17 o7.2, iZ PP o5 17 19.4, iZ (PPP) o5 17 30.9, eZ o5 18 32.3, eZ o5 18 42.2, eZ S o5 19 36.8, iZ!! o5 19 58.2, iZ! o5 20 40.7, F=o5 24 -. USCGS:H=o5 13 50, 35° 1/2 N, 26° E, near coast of Crete, D=appr. 1500 km. ---
 -16 Z 16 17-20 traces;
 -16 Z 17 27 55.4 (+) e; ---
 16 Z 18 o4-o5 traces;
 17 eZ P o6 29 o2.4, eiZ (S) o6 29 26.6, iZ o6 29 40.9, near, D=appr. 1.9°=210 km. ---
 *17 eZ PKP 14 56 14 (-), USCGS:H=14 36 11, 28° 1/2 S, 176° W, Kermadec Islands, M= 5 3/4-6 (Berk.). ---
 19 eZ 16 o8 57 (+). ---
 20 iZ 12 30 12.4 (-), explosion, T=0.7. ---
 20 eZ 19 18 59.1 (+), eiZ 19 19 24.5, near; ---
 *21 eZ PKP o2 27 34.7 (-) T=1.0, USCGS:H=o2 o8 28, 9° 1/2 S, 149° E, near coast of New Guinea, D=appr. 14.100 km. ---
 *21 eZ P 12 27 38.8 (+), USCGS:H= 12 19 30, 40° N, 74° 1/2 E, Kirghiz SSR-China border, D=appr. 4.700 km. ---
 22 eZ 12 o4 o5.7 (+) T=0.9, eZ 12 o4 19.0. ---
 22 eZ P 23 o9 58.0, iZ 23 10 oo.4, eiZ 23 10 18, eZ 23 10 37.6, eiZ 23 10 46.7, eiZ! 23 10 56.1, eZ 23 11 o5.8. ---
 *23 eZ P 10 47 23 (-), eZ 10 47 44.5, USCGS: H=10 38 59, 83° 1/2 N, 113° 1/2 E, north polar region, D=appr. 4.900 km. ---
 *23 eZ P 22 35 42.6 (-), USCGS:H= 22 23 11, 35° 1/2 N, 138° 1/2 E, Honshu, Japan; ---
 24 eZ o3 16 o3, eZ o3 16 13; ---
 *24 eZ o5 51 57 (-), o5 52 o5, eZ o5 53 53. ---
 24 eZ (P) 16 o1 17.1 (+), eZ 16 o1 29.4, eZ 16 o1 46.0, eZ 16 o2 26.2, eZ 16 o2 47.0, eZ 16 o3 o3.6, eZ 16 o3 o9.3, eZ (S) 16 o3 20.3, eiZ! 16 o3 25.9, eZ 16 o3 34.3, F=appr. 16 o6 -. ---
 *25 iZ! o2 49 28.1 (+) T=1.7, Az=0.4, eiZ o2 49 39, eiZ o2 49 54.6, eiZ o2 50 o6.8, eZ o2 50 23, eiZ o2 50 36, eiZ o2 50 44.2, eZ o2 51 34, eiZ o2 52 49.3, eiZ o2 53 12.8, eZ o2 59 58, eN L o3 26 traces. ---
 *25 o7 22 45.4 (e) Z; ---
 26 Z o4 o3-o5 traces;
 26 eZ o6 42 10.2, eZ o6 42 33.2, eiZ o6 42 39.0, eZ o6 42 46.9. ---
 *26 eZ o8 33 33.3 (+), eiZ o8 33 41.9, eZ o8 33 47.0. ---
 -26 Z 10 46-48, traces, seismic?
 26 Z 10 59 - , traces, seismic?
 26 Z 11 01 - , traces;
 26 eZ Pn 15 59 50.1, iZ 15 59 55.4, iZ 15 59 59.2, iZ Pg 16 oo o4.2, eiZ 16 oo 22.0, eiZ Sn 16 oo 37.1, iZ! Sg 16 oo 58.2, iZ 16 o2 23.8, D=4°=450 km. ---
 26 eZ 18 48 36.1, eZ 18 48 50.2. ---
 27 iZ p 13 11 21.7, iZ (Sg) 13 11 27.1, local, D=less than 0.4°=45 km. --- not felt. ---
 27 iZ p 14 19 40.3 (-) T=0.5, Az=1, eNE 14 19 44.8, iZNE! Sg 14 19 45.5, iZ 14 20 18.3, D=45 km., not felt. ---
 The period and the amplitude above is related to the Sg wave.

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- *28 eZ P o4 33 19.9 -USCGS:H= o4 20 27, 26° 1/2 N, 128° E, Okinawa Isl., D=9.750 km. ---
 28 eZ p o7 01 41.8, eiZ Sg o7 01 47.3, eZ (S) o7 01 50.2, D=45 km, weak, not felt; ---
 28 Z 18 35-37 traces, seismic? ---
 28 eZ (Pg) 21 o6 52.9, eZ (Sg) 21 o7 o8.9, iZ 21 o7 13.6, iZ 21 o7 16.1, eiZ 21 o7 21.1, eiZ 21 o7 27.2, D=1.2° =130 km. ---
 29 iZ p o9 30 34.8, iZ (S) o9 30 36.2, ; quarry blast, D=7.15 km. ---
 *29 eZ 15 51 59, eiZ 15 52 29, eiZ 15 52 46, eZ 15 53 o5. ---
 29 eiZ 22 43 37, iZ 22 44 17.6, iZ 22 44 31.8. ---
 30 eZ 17 01 (39), eiZ 17 o2 16.0, disturbed by microseisms.
 *30 iZ 20 45 38.4 (+) T=1.1 - Az=0.15, iZ 20 45 46.5, iZ 20 45 51.7, eiZ 20 46 10.9, eZ 20 46 29.7, eZ 20 46 38.1, eZ 20 47 27.5, eZ 20 48 13. ---
 30 iZ 21 19 23.1, iZ 21 19 29.0. ---

Ljubljana, October 30th, 1959

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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

(Oct. - Dec. 1959)



Geophysical Institute
at the AG Observatory Golovec
University of Ljubljana
Trg revolucije 11
Yugoslavia

1959

PRELIMINARY SEISMOLOGICAL BULLETIN
from October 1 to December 31, 1959

Station Ljubljana - Coordinates: $46^{\circ} 2.6' N$ Lat.
 $14^{\circ} 32.0' E$ Long.

Geocentric direction cosines:

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

Height: 396 m

Lithologic foundation: sandstone (carbon);

Instruments:

Wiechert, horizontal astatic seismograph, $M=200$ kg, mechanical registration, 15 mm/min;

Constants:	T_0	v	r/T_0^2	V
NS	4.7	2.3:1	0.015	81
EW	4.7	2.5:1	0.020	83

Hiller, "Stuttgart", vertical component Z with galvanometrical recording; $T=1.5$ sec, $T_g=1.5$ sec, $D_1=D_2=1$, $V_{max}=10$ 150, velocity of registration: 60 mm/min;

Note: Periods of seismic waves are given in seconds, the amplitudes in microns, sign (+) means compression, (-) dilatation.

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- 1 eZ 04 40 19, eZ 04 40 29.9, eZ 04 40 48.6, eZ 04 41 18.8, eiZ 04 42 43.6, Z 04 44 (00), eZ 04 44 14.4, eZ 04 44 39.---
- 3 eZ P 20 15 04.9. USCGS: H= 20 02 40, $42^{\circ} N$, $146^{\circ} E$, Off coast of Hokkaido, Japan. ---
- 4 eZ 12 03 17, eZ 12 04 12.7, eZ 12 05 21. ---
- 5 eZ 04 24 38.6 . ---
- 5 eZ Pn 10 20 58.9, eiZ Pb 10 21 06, eiZ 10 21 34, iZ Sn 10 21 51, iZ Sg 10 22 10, iZ! 10 22 58.8 .---D=490 km.
- 5 eZ 18 36 11 (disturbed by microseisms); USCGS: H=18 27 47, $83^{\circ} 1/2 N$, $112^{\circ} 1/2 E$, Arctic Ocean, Mag.=5 3/4-6 (berk).---
- 5 iZ! Pn 20 35 41.1 (-), iZ Pb 20 35 54, iZNE Pg 20 36 10, eiZNE Sn 20 36 53, cont. Z underexposed, eNE 20 37 41.7, eNE M 20 38 29, eiZ 20 40 22 -T=2, az=1.0,

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F= 20 47 -; USCGS:H= 20 34 04, 41°N, 20°E, Albania, D=680 km.---

6 eZ 10 38 (22), eZ 10 40 21, eZ 10 40 41.6, eZ 10 41 17.

7 iZ Pn 08 32 16.6, eNE 08 32 19.4, eiNE 08 33 36.6, eiNE 08 34 15.3, iNE M 08 34 46, $T_N = 4$, $A_N = 36$, $A_e = 62$; eiZ 08 37 16, eZ 08 38 30- $T_z = 4$, $A_z = 4.5$, F=08 51 - . USCGS:H=08 30 41, 41°N, 20°E, Albania, D=680 km.---

7 iZ Pn 09 36 30.7 (-), eZ Pb 09 36 44.1, eiZ Pg 09 36 56.3, eZ 09 37 06.2, eZ 09 37 34.4, eiZ Sn 09 37 43.6, iZ 09 38 10, eiZ Sg 09 38 19.5, eiZ 09 38 34, iZ! 09 38 45.0- $T_z = 1.1$, $A_z = 0.25$, iZ! 09 38 58.6, eiZ 09 39 36. Albania aftershock, D=680 km.---

7 Z 15 19 45 traces, eZ 15 19 58.7, eZ 15 20 33.5.---

7 Z 13 43-45 traces.---

7 eZ Pn 21 20 34.5, eZ 21 21 07.2, eZ (S) 21 21 48, eZ 21 22 09, eiZ! 21 22 41.3!, eiZ! 21 22 48, eiZ 21 23 29, F=21 26 -. --- Albania aftershock?

8 eiZ PKP 00 23 12.2 (-) $T_z = 1.1$, eZ PKP2 00 23 18.0, iZ! 00 23 26.2- $T_z = 1.2$, $A_z = 0.3$, eiZ 00 23 38.3; USCGS: H=00 03 28, 19°S, 169°E, New Hebrides, D=16 200 km.---

8 iZ Pn 07 22 26.4, iZ 07 22 32.3, eZ Pb 07 22 39.5, eZ Pg 07 22 51.0, eiZ 07 23 03.2, eiZ 07 23 12.5, eiZ 07 23 27.6, eiZ Sn 07 23 44.8, eiZ Sg 07 24 05.2, iZ! 07 24 13.7, eiZ 07 24 22.4, iZ! 07 24 32, iZ! M 07 24 51- $T_z = 1.8$, $A_z = 0.7$, eZ 07 25 traces, eZ 07 25 39, F=07 27 -. Aftershock Albania, D= 680 km.

8 Z 11 07 traces.---

10 iZ P 16 12 31.8, iZ 16 12 35.4, eiZ 16 12 48.7, iZ! 16 13 08.9, eZ (S) 16 13 43.4, eiZ 16 14 06.3, eiZ (Sg) 16 14 20.7, eiZ 16 14 42.6, iZ! 16 14 57.7, F= 16 18 - . ---

10 Z 19 22-24 traces.---

11 eZ 01 13 17.3 . ---

11 Z 03 10-14 traces.---

11 eZ 09 46 03.3, USCGS:H= 09 33 44, 41°1/2 N, 142°E, Near coast of northern Honshu, Japan. ---

12 eiZ P 03 34 26.2, eZ 03 34 30.7, eiZ 03 34 48.0, eiZ 03 34 59, eZ 03 35 19.5, cont.disturbed by microseisms. USCGS:H=03 21 52, 2°N, 98°1/2 E, near the coast of Sumatra.---

12 Z 22 03 45 traces.---

13 iZ 00 34 (00) in the minute interruption, eZ 00 34 10, eZ 00 34 33, eiZ 00 34 55, iZ! 00 35 03.0, iZ! 00 35 08.5, eiZ 00 35 18.1, eiZ 00 35 38.8, F= 00 37 -. ---

14 eZ PKP1 20 53 48.9, eZ (PKP2) 20 53 51.4, eZ 20 54 03.4 USCGS:H=20 33 59, 15°S, 177°W, Fiji Islands region, D=appr.16 200 km.---

15 eZ 01 57 15.5, eZ 01 57 28.5 . near.---

15 eZ P 06 29 26, eZ PP 06 33 35, eZ 06 34 47, eZ 06 35 35, eNE L 06 40 -. USCGS:H=06 15 32, 1/2°N, 120°1/2 E, Celebes, Mag.=6 1/2 (Pas), D=11 150 km.---

15 iZ P 07 52 43.8 (+), $T_z = 0.6$, USCGS:H=07 40 20, 44°N, 148°E, Kurile Islands. ---

16 iZ P 01 09 51.1, iZ 01 09 55.8, iZ S 01 10 10.8, iZ 01

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16 (cont.) iZ 01 10 15.0- near, D=170 km. ---

18 eZ P 17 18 21 (+), USCGS:H=17 06 13, 50°1/2 N, 156° E, Off south coast of Kamchatka.---

18 Z 19 48-49 traces.---

18 eZ 23 37 23.7, eZ 23 37 45, USCGS:H= 23 25 13, 6°S, 105°E, Sunda Strait, h about 150 km. ---

19 Z 02 31-33 traces.---

19 eiZ P 02 59 07.0 (+), eZ 02 59 23.5, eZ 02 59 40.5, USCGS:H= 02 46 49, 44°1/2 N, 148° E, Kurile Islands.---

19 eZ PKP1 08 47 (22), eZ 08 47 35, eZ PKP2 08 48 03.3, eZ 08 48 14, USCGS:H=08 27 21, 27°1/2S, 177°W, Kermadec Islands, Mag.=6 1/4 (Pas)(Berk).-D=17 720 km.---

19 Z 14 11-12 traces.---

19 eZ (P) 16 09 58, eZ PP 16 14 11; USCGS:H=15 55 30, 54° 1/2S, 29°W, Sandwich Islands region, D=11 780 km. ---

20 eZ 21 41 10.1(-) ---

22 iZ 00 44 32, eZ 00 45 25, eZ 00 46 15, eZ 00 46 33, eZ 00 46 43.---

22 iZ 00 52 39.4, eiZ 00 52 44.0.---

22 eiZ 09 43 43.2, eZ 09 44 (03).---

23 eiZ 04 02 20.5 (-).---

23 iZ Pn 10 46 44.1, iZ Pg 10 46 49.0, iZ 10 47 05.5, iZ Sn 10 47 15.7, iZ Sg 10 47 23.6, iZ! 10 47 33.7I, D=275km.

24 iZ P 14 30 37.9, iZ 14 30 50.1, eiZ S 14 30 54.9, eiZ 14 30 58.0, iZ 14 31 08.-D= 140 km.---

24 eiZ P 23 48 09.1 (+) $T_z = 1.9$, $A_z = 0.18$, iZ 23 48 14.1, eZ 23 48 29.6, eZ 23 48 40.4, eZ 23 49 15, eZ PP 23 49 47.0, eZ PPP 23 50 13.6, eZ! 23 50 24, eZ 23 51 31.- USCGS:H=23 40 34, 41°1/2 N, 70°E, Kazakh S.S.R., D=4 450 km.

25 Z 00 08 (00) in the minute interruption, iZ S 00 08 16.3 iZ 00 08 35.7, D=appr.140 km, aftershock of Oct.24, 14h 30m.---

25 eZ 06 13 35.8 .---

25 eZ (P) 06 57 (33), eZ 06 57 37.8, eZ 06 57 56. Strasbourg: H=06 51.2, the middle ridge of Atlantic ocean, near 500 km north from Azores Isl.---

25 eZ P 16 02 38.0, eiZ 16 02 42.6, iZ! 16 02 46.1, iZ 16 02 55.4, eZ 16 03 04.2, eZ 16 03 19.5, eZ 16 03 49.0, eZ 16 04 29.8.- USCGS:H=15 57 51, 39°N, 42°E, Eastern Turkey (Hinnis).---

26 eZ 05 02 57.2, eZ 05 03 36.0, iZ! 05 04 17.6, eiZ 05 04 20.2, eZ 05 04 31.6, eZ 05 04 52.2, eZ 05 05 11.---

26 eZ 05 49 25, eiZ 05 50 35.1, eiZ 05 50 46.%.---

26 eZ P 07 47 43.7, iZ 07 47 45.0, eiZ pP 07 47 52.4, eZ 07 48 49, eZ 07 50 43.5, eZ PP 07 50 51, eNE L 08 21 - USCGS:H= 07 35 12, 37°1/2 N, 142°1/2 E, Near east coast of Honshu, Japan. h about 60 km. Mag.=6 1/2 (Pas), 6 (Berk). D=9 450 km. ---

26 Z 10 55-11 00 traces.---

26 eZ 19 22 50.6, eZ 19 24 10.8.---

27 iZ! P 07 04 58.9! (+), iZ! 07 05 04.5, iZ 07 05 14.5, iZ pP 07 05 20.1, eZ 07 05 51.0, iZ 07 06 06, eZ 07 06 14, eZ 07 06 40, eZ 07 07 06. eNE L 07 45- .

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 27 (cont.),USCGS:H=06 52 50, 45°1/2 N,151°E,Kurile Islands, h about 100 km, Mag.=6 1/4-6 1/2 (Berk), D= appr.9 100 km.---
 29 eZ P 10 47 37.1 - disturbed by strong microseisms.---
 29 eZ P 14 41 12.5, eZ 14 41 36.9, eiZ!pP 14 43 10.7, disturbed by microseisms,USCGS:H= 14 30 24, 43°N, 131°E,China-Korea border, h about 550 km,Mag.=6 1/4 (Pas).---
 30 eZ 04 10 35.7 (-), eZ 04 10 40; USCGS:H=04 00 26, 66°N,136°1/2 E, Yakutsk A.S.S.R. ---
 30 eiZ PKP 07 23 55.7 (-),USCGS:H=07 04 48,19°S,177°1/2 W Fiji Islands, h about 450 km.---
 30 Z 11 59 40-55 traces.---
 30 iZ!PKP 21 56 29.1,Tz=0.9,Az=0.2,USCGS:H=21 37 35, 19°S,177°1/2 W,Fiji Islands, h about 600km.---
 31 eZ P 02 25 10.9,iZ! 02 25 13.5,iZ 02 25 15.5,eZ 02 25 19.7,eiZ S 02 25 27, iZ! 02 25 30.4, D=130 km.---
 31 eiZ PKP 04 46 07.9 (-), eZ 04 46 10, iZ! 04 46 12.1, iZ! PKP2 04 46 13.6, eZ 04 46 35, eZ pPKP 04 47 53, eZ 04 48 05, eZ sPKP 04 48 34 . USCGS:H=04 27 12, 16°1/2 S,178°W,h about 450 km,Fiji Islands,Mag.=6 1/2-6 3/4 (Pas),D= appr. 16 500 km. ---
 31 eZ 13 20 17.4 ---

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2 Z 03 35 50-36 30 traces
 2 eZ 13 26 26.9, iZ 13 26 40.0 ---
 2 eiZ PKP 20 22 29.8 (-), USCGS:H=20 03 32, 51°1/2 S, 151°1/2 E, h about 60 km,New Britain,Mag.=6 3/4(Pas).
 3 eZ P 09 53 (55),iZ 09 54 04, eZ 09 55 24.5, eiZ PP 09 58 13.8, eiZ 09 58 23, eZ PPP 10 00 10.4, USCGS: H=09 40 05, 10°1/2 S,111°E, South of Java.---
 4 eZ 15 44 47, eZ 15 45 10, eiZ 15 46 07.---
 4 iZ PKP 19 27 21.4 (-),eZ 19 27 31.2,USCGS:H=19 07 36, 20°S,169°1/2 E, Loyalty Islands. ---
 5 06 03-05 traces.---
 5 12 09-12 traces.---
 5 eiZ 15 11 41.5(-),USCGS:H=14 59 37,30°N,129°E,Ryukyu Islands region, h about 250 km. ---
 6 iZ Pn 07 38 46.7 (+) Tz=1.1,Az=0.2,iZ! 07 38 51.9 iZNE Pg 07 39 09.6, iZ Sg 07 39 58, eNE 07 40 23,iNE M 07 40 40; Albania, D=appr.680 km.---
 6 iZ PKP 12 03 06.1 (+),dist.by microseisms,USCGS:H= 11 43 06,24°S,174°1/2W,Tonga Islands region.---
 7 eZ P 04 01 49.5,iZ 04 01 53.8,iZ 04 01 59.4,iZ S 04 02 08.9, iZ 04 02 13.3; D= appr.160 km.---
 7 eZ 06 29 35 ;---
 7 eZ Pn 07 00 40.8, eZ Pb 07 00 45.4, eiZ Pg 07 00 48.2, eZ 07 00 55.6, iZ Sn 07 01 15.5,iZ 07 01 27.9, iZ 07 01 37.6.-D= 310 km. ---
 7 eZ (PKP1) 22 36 (15) dist.by microseisms,eZ 22 36 35.5, eiZ PKP2 22 36 45.2, eZ 22 36 53.0,USCGS:H=22 16 15, 23°1/2 S,175°1/2 W,Tonga Islands region,Mag.=6 1/4 (Pas),D= appr. 17 300 km.---
 8 eZ P 14 07 (01),eZ 14 07 09,eiZ 14 07 25.5,eiZ 14 07

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 8 (cont.)31.2, eiZ 14 07 54.3,eiZ 14 08 12.5, eZ 14 08 19.7, eZ (PP) 14 09 53; USCGS:H=13 54 55, 44°N,140°1/2 E, Near west coast of Hokkaido,Japan,Mag.=6 1/2 (Pas) D=appr. 8 800 km.---
 8 17 01-03 traces.---
 10 eZ PKP 16 59 52.6 (-),USCGS:H=16 40 45,7°S,156°E, Solomon Islands.---
 10 eiZ 18 04 30.5(-),eZ 18 04 42.4; ---
 10 eZ 20 26 51, eiZ 20 27 32, eZ 20 29 40, eZ 20 29 58, eZ 20 30 21.5.---
 10 eZ P 21 05 47.2 (-),eiZ 21 05 54.6,USCGS:H=20 56 12, 36°N,89°E, Northern Tibet.---
 13 eZ 18 33 14.5, iZ 18 33 28.9.---
 15 iZ P 10 33 25.8, eiZ 10 33 32.9, iZ 10 33 57, iZ 10 34 04.2, iZ 10 34 16.4, iZ 10 34 28.4, iZ 10 34 42.8,iZ PP 10 35 08.0,eiZ PcP 10 35 11.0, eZ 10 35 31.0, eZ PPP 10 35 46.4, eZ 10 36 24.8, eZ ScP 10 39 06-USCGS: H=10 25 03,38°N, 74°1/2 E,Tadzhik S.S.R.,D=4.880 km.-
 15 eiZ Pn 17 10 58.6 (+),cont.Z underexposed, eNE 17 11 05.1, eNE 17 11 10.0,eN 17 11 21, iNE 17 12 42, iNE! S 17 12 57!, iNE M1 17 14 18, iNE M2 17 14 32 :T_N=4.0, A_N=108, T_E=5.7, A_E=142, iE M3 17 16 02, iNE M4 17 18 -, F=appr. 18 00-. BCIS:H=17 08 41, 37°8N,20°5 E,Ionian Islands.---
 15 eZ 21 00 43, eiZ 21 00 53, eZ S 21 01 08, D=220 km.---
 16 eiZ P 10 31 10.2 (-),iZ 10 31 16.4, eZ 10 31 35.2, eZ 10 31 48.5, eZ PcP 10 32 13.2, eZ 10 32 23,eZ 10 32 45.6, eiZ PP 10 33 13, eiZ 10 33 23.3; USCGS: H=10 21 17, 1°N, 26°1/2 W, Mid Atlantic Ocean.Mag.=6 1/4-6 1/2 (Pas),D= 6 320 km.---
 17 eZ P 02 44 12.2 (+),eZ 02 44 35.8,USCGS:H=02 32 37,11° S,66°1/2 E, Indian Ocean.---
 17 Z 06 30-33, traces.---
 19 eZ PKP 11 27 29.9,(-),eZ 11 27 32.3, eiZ 11 28 23.4, eZ (PP) 11 29 (00), eiZ 11 29 12.2, eiZ 11 29 25.3, eiZ 11 29 55.6, eZ 11 30 14, eiZ 11 30 26.5.USCGS:H= 11 08 32,5°1/2 S,146°E, near north coast of New Guinea. Mag.=7 (Pas). D=13 330 km.
 19 eiZ 14 03 14.2 (+),iZ 14 03 15.5, iZ 14 03 21.0, iZ 14 03 29.7, eiZ 14 03 47.6, eiZ 14 04 06.0, eZ 14 05 13, eZ S 14 05 28, eZNE L 14 06 40, F=appr. 14 11 -.USCGS: H=14 00 24,38°1/2 N, 26°E,Off west coast of Turkey. D=appr.1320 km.---
 20 eiZ PKP 15 36 34.8(+),eiZ 15 36 42.6,USCGS:H=15 16 45, 15°1/2S,174°W,Samoa Islands region.---
 20 eZ P 19 39 31.6 (+), eZ 19 39 38.6, USCGS:H=19 29 38, 1°N,26°1/2 W,Mid-Atlantic Ocean.---
 22 eZ 13 55 (13)weak,iZ 13 55 24.4, eiZ 13 55 56, eZ 13 56 32, eZ 13 57 08; near.---
 22 eiZ PKP1 19 53 28.2, iZ 19 53 36, iZ PKP2 19 53 50.2, iZ 19 54 (00), eZ! 19 55 34.8!, eiZ 19 55 41.9, eZ 19 56 36;USCGS:H=19 34 35, 21°1/2 S,178°1/2 W,Fiji Islands region, h about 550 km, D=appr. 17 000 km. ---
 22 eZ PKP 23 02 49,USCGS:H= 22 42 49,19°1/2 S,175°E,Fiji islands region.---

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- 23 eZ PKP₁ 16 34 42.7 (-), eiZ 16 34 50.7, eiZ PKP₂ 16 35 01.5; USCGS: H=16 14 47, 20°S, 174°1/2 E, Fiji Islands region, D=16 980 km.---
- 24 Z 20 16-18 traces.---
- 25 iZ p 10 16 27.7, iZNE S 10 16 33; weak; felt at Kočevje (45°38'N, 14° 42' E) III^oMCS, D=45 km.---
- 26 eiZ P 07 19 33.8 (+), iZ 07 19 47.7, iZ 07 20 04.5, iZ 07 20 15.7, iZ PP 07 23 18.9; USCGS: H=07 06 19, 5°1/2 S, 102°1/2 E, Near coast of Sumatra, Mag.=6 1/2 (Pas), D=10 350 km.---
- 26 iZ P 23 22 40.1 (-), iZ 23 22 48.7, iZ 23 23 10.9, iZ 23 23 21.9, iZ 23 23 41, iZ! 23 25 52.4!, eZ PP 23 26 10, iZ 23 26 41; USCGS: H=23 09 23, 5°1/2 S, 103°E, Near coast of Sumatra, Mag.=6 3/4 (Pas), D=10 300 km.---
- 27 iZ P 00 24 38.0(-), iZ! 00 24 47.5!, iZ 00 25 22.2, eiZ 00 26 07, iZNE! S 00 26 21.5, iZ! 00 26 34, eiZNE 00 28 25.9; USCGS: H=00 22 30, 38°1/2 N, 20°1/2 E, Greece, D=940 km.---
- 27 iZ P 00 29 47, iZ 00 29 58.8, iZ! 00 30 31.2, iZ 00 31 17, eiZ 00 31 33, 6, eiZ 00 31 45, iZ! 00 32 49; BCIS: H=00 26 10, aftershock Greece.---
- 27 eZ 06 40 56, iZ 06 41 16.4, eiZ 06 41 38.5, eZ 06 42 43, eiZ 06 43 24, iZ 06 44 15.7.---
- 27 Z 23 10-16, traces.---
- 28 Z 00 28-31, traces.---
- 28 eZ PKP₁ 03 05 38.2 (-), iZ PKP₂ 03 05 54.6, eZ 03 05 07.9, USCGS: H=02 45 45, 19°1/2 S, 174°1/2 E, Fiji Isl. region, D=appr. 16 650 km.---
- 28 Z 10 49-51, traces.---
- 28 eZ 12 53 37, USCGS: H=12 34 53, 28°1/2 S, 71°W, Chile, Mag.=6 1/2 (Pas).---
- 28 eZ PKP 22 58 42.4, eZ PP 23 01 41.7, eZ PKS 23 02 07.2, eZ 23 04 20, USCGS: H=22 39 13, 13°S, 167°1/2 E, New Hebrides, D=appr. 15 550 km.---
- 29 eiZ P 00 39 54.2, iZ 00 39 56.7, iZ S 00 40 09.7, iZ! 00 40 16.6, iZ 00 40 27.8, D=appr. 130 km.---
- 29 Z 22 34-35, traces.---
- 29 eZ 23 52 38.4, eZ 23 53 12, eZ 23 53 34.5, eiZ! 23 55 09.0, eiZ! 23 55 16, eiZ 23 55 27.5, eZ 23 55 54.0.---
- 30 eZ 15 30 13, USCGS: H=15 18 37, 59°1/2 N, 152°W, Kenai Peninsula, Alaska.---

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- 1 eZNE P 12 41 10.6, iZ! 12 41 32, iZ 12 41 54, iZ 12 42 46, iZNE S 12 43 08, eNE 12 44 04, eZ 12 44 09, eZ L 12 46 -, USCGS: H=12 38 46, 38°N, 21°1/2 E, Near west coast of Greece, D=1050 km.---
- 1 eZ P 12 54 14.7 (+), eiZ 12 54 24, eZ 12 54 34, eiZ 12 55 49, eZ S 12 56 12.2, eiZ 12 56 26, eZ (L) 12 57 25, eNE 12 58 -. Greece aftershock?, D=1050 km.---
- 1 Z 19 26-27, traces.---
- 2 eZ PP 09 52 (30) dist. by microseisms, eiZ 09 52 36.6, eiZ 09 52 56.6, eZ 09 53 08.7, USCGS: H=09 34 00, 1°S, 123°E, Celebes, Mag.=6 1/2-6 3/4 (Pas).---

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- 2 Z 18 10 (00), eiZ 18 10 24.6; ---
- 2 eiZNE P 18 20 36.1 (+), cont. Z underexposed, iNE S 18 20 57, iNE L_g 18 21 08.5, eiZ 18 25 09.0, eiZ 18 25 23.5, eZ 18 25 50.5, eNE L 18 25-26; BCIS: H=18 20 00, 44°3N, 15°3E, Yugoslavia; felt VII^oMCS at Perušić (P.R. Croatia), felt Ljubljana III^oMCS. Azimuth: 157°, D=170 km.---
- 3 Z 13 08-09, traces.---
- 3 eiZ P 19 51 36.0(+), iZ 19 51 43.5, iZ 19 51 51.6, iZ ! S 19 51 56.7, eiZ 19 52 25.2; Yugoslavia, aftershock, D=170 km.---
- 4 eiZ PKP₁ 01 25 47.3 (+), USCGS: H=01 06 00, 15°S, 174°W, Samoa Islands region.---
- 4 Z 09 06-07 seismic?---
- 4 iZ PKP 09 42 58 (-), USCGS: H=09 24 04, 21°S, 178°1/2 W, Fiji Islands region, h about 650 km.---
- 5 eZ 16 05 39, eZ 16 06 06.7, eiZ 16 07 33.4, eZ 16 07 57, eiZ 16 08 09.1, eiZ 16 08 58.3; ---
- 7 eiZ (PKP) 03 20 33.7(-), iZ 03 20 40.2; ---
- 8 eZ 12 29 04.9 (-), USCGS: H=12 20 55, 37°1/2 N, 72°1/2 E, Afghanistan-Tadzhik border;---
- 8 eiZ P 13 38 52.9 (-), eZ 13 39 14.7, eiZ PP 13 39 20, eiZ 13 39 24.5, eZ 13 40 12; USCGS: H=13 33 59, 42°N, 44°1/2 E, Georgia S.S.R., D=2450 km;---
- 9 Z 06 21-24, traces;---
- 9 eiZ PKP 14 23 32.4, USCGS: H=14 04 28, 17°S, 177°1/2 W, Fiji Islands, h about 450 km.---
- 9 eZ 16 58 22.3, iZ 16 58 38.9, eZ 16 59 08;---
- 9 eZ 19 23 24, eZ 19 24 30, eZ 19 25 27;---
- 10 Z 02 08-09, traces;---
- 10 eZ 13 05 40.7, eZ 13 05 45.6, eZ 13 07 10.2, iZ 13 07 26.0, eiZ 13 08 29.3;---
- 11 Z 20 13-14, traces;---
- 12 eZ 15 08 20.6, eZ 15 08 49.8, eZ 15 09 15, eiZ 15 09 49.9, eiZ 15 10 19.0, iZ 15 10 36.5, iZ! 15 10 49.4, F=15 14-. D=130 km.---
- 12 eZ P 22 05 11.5, eiZ 22 05 17.0, iZ S 22 05 26.7, weak, D=130 km.---
- 13 eiZ Pn 19 20 40.3, eZ Sn 19 21 12.9, D=appr. 300 km;---
- 14 Z 18 17-20, traces, disturbed by microseisms;---
- 14 eZ 18 39 52.9, eZ 18 40 15.6, iZ 18 40 18.6, eiZ 18 40 29.5.
- 14 eZ P 22 13 13.6 (+), eiZ 22 13 19.7, eiZ 22 13 46.5, USCGS: H=22 00 50, 58°1/2 N, 168°W, Fox Islands, Aleutian Islands, Mag.=6 (Pas), 6 1/4 (Berk);---
- 14 eZ (P) 23 36 51.1 (+), eZ PKP 23 40 32.0, eiZ PP 23 41 14.6, eZ 23 42 09, eNE L 00 21 -; ---USCGS: H=23 21 56, 59°1/2 S, 31°W, Sandwich Islands, Mag.=7 (Pas), D=12 320 km.
- 15 eZ P 10 55 42.6, eZ PP 10 57 26, USCGS: H=10 47 42, 37°N, 70°E, Hindu Kush, D=4750 km.---
- 15 eZ 14 14 43;---
- 15 iZ Pn 23 02 43.8 (-) T_Z=0.9, A_Z=0.3, iZ Pb 23 02 49.6, iZIPg 23 02 55.3!, iZ !! 23 03 03.9, iZ 23 03 14.8, iZ Sn 23 03 19.7, iZ Sb 23 03 27.8, iZ Sg 23 03 34.3, iZ 23 04 12, eiZ 23 04 32, eiZ 23 04 46, F=23 09 -; USCGS: H=23 01 56, 44°N, 11°E, Italy, D=370 km.---
- 16 eZ 11 31 38.1, eZ 11 32 17.6, eiZ 11 32 32.1, near;---

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17 eZ 01 53 14.2, eiZ 01 54 10.8, eiZ 01 54 21.9; ---

17 eZ P 02 43 43.0 (+), USCGS: H=02 31 02, 21°1/2 N, 121°E, Off south coast of Formosa; ---

17 eZ 04 17 53, eZ 04 18 34, eiZ 04 18 38.7, eiZ 04 18 48.3, eiZ! 04 18 53.9; ---

17 eZ P 05 17 09.5 (-), USCGS: H=05 04 46, 40°1/2 N, 142°1/2 E, Near east coast of Honshu, Japan. ---

17 Z 06 22-27, traces; ---

17 eZ 10 06 54.9 (+); ---

17 eZ 18 23 11, eZ 18 24 00.3, eZ 18 24 06, eZ 18 24 21.2;

17 Z 20 06-10 and 20 13-18 traces; ---

18 Z 00 26-27 traces; ---

18 eiZ P 16 37 11.7 (+), eiZ 16 37 17.3, eiZ PcP 16 37 24.1, eiZ 16 37 31.0, eiZ 16 37 44.9, iZ 16 38 04.1, eiZ 16 38 48.3, USCGS: H=16 24 50, 53°N, 168°1/2 W, Fox Islands, Aleutian Islands, Mag.=6 1/2 (Pas). ---

18 eZ 18 30 19.0, eiZ 18 30 24.0, eiZ 18 30 38.1; ---

19 eZ 23 01 23, eZ 23 02 38, eiZ 23 03 19.8, eiZ 23 03 33.9. ---

20 Z 00 32 (00), traces; ---

20 eZ 21 13 33.5, eZ 21 13 39.8; ---

21 Z 10 40-42, traces, disturbed by microseisms; ---

21 eZNE PKP₁ 11 27 31.6 (+), T_{ZNE}=2.0, Az=1, iZ! 11 27 44.6, iZ!! 11 27 55.9, iZ 11 28 07.5, iZ! PKP₂ 11 28 17.0, iZ! 11 28 21.2, eZ 11 29 11, eZ 11 30 42, eNE 11 34 21, eZ M 11 38 -, T_Z=12, Az=15, eNE 11 46 -, F=12 09 -. USCGS: H= 11 14 17, 27°1/2 S, 176° W, Kermadec Islands region, Mag.=6 1/2 (Pas), D= appr. 17 700 km. ---

22 eZ 00 54 (13), eiZ 00 54 30, near; ---

23 Z 09 31 (02) in the minute interruption, iZ 09 31 13.4, iZ 09 31 20.7, iZ! 09 31 25.0, iZ! 09 31 40.5, iZ 09 31 58.2, eiZ 09 32 20.1, eiZ 09 33 12.7, eiZ 09 34 22.-

23 eiZ 21 41 53.5 (-), eiZ 21 41 59.9, eZ 21 42 44.8, iZ 21 43 19.8, eiZ! 21 43 49.7, iZ! 21 44 13.5, eiZ 21 44 22.9, F=21 50 -. ---

24 eiZ 05 39 26.1, eiZ 05 40 47.3; ---

24 eZ 09 38 24, eiZ 09 39 26.3; ---

25 Z 10 36 (54) - 10 37 (20) traces; ---

25 eZ 12 52 30.9, eiZ 12 53 22; ---

25 eZ 14 00 40.1, Z 14 01 (00), iZ 14 01 25.1; ---

25 Z 14 46 (15), traces; ---

26 eZ 22 14 30.6, eZ 22 14 46.7; ---

27 eZ 05 26 06.5, eiZ 05 26 43.6, iZ 05 27 11.5, eiZ 05 29 08.4; ---

27 eiZ P 16 04 36.5(+), eiZ 16 04 44.1, eiZ PcP 16 04 52.6, eiZ! 16 05 16.7, eZ 16 05 34.8, eZ 16 05 51, eiZ 16 06 24.5, eZ PP 16 07 26.6, USCGS: H= 15 52 55, 56°N, 162°1/2 E, Kamchatka. D=8 180 km. ---

28 eZ 07 32 31.4, eiZ! 07 32 44.9, eZ 07 33 14; ---

28 eZ 15 53 35, eZ 15 54 18.5, eiZ 15 54 40.9, eiZ 15 55 25.5, iZ 15 55 45.6, eZ 15 56 (13), eZ 15 56 36; ---

29 eZ 17 34 35.3(+), eZ 17 35 09.3;

29 eZ 20 02 21.4 (+); ---

29 Z 20 52-54, traces; ---

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30 Z 15 39-40, traces; ---

31 Z 19 43-44, traces; ---

31 eZ 20 59 10.2, eiZ! 20 59 19.6!, eZ 20 59 35.0; ---

Ljubljana, January 29, 1960

V. Ribarič