



Register of earthquakes—Continued.

No.	Date.	P		L		M		F	Maximum amplitude.	Remarks.	
		h	m	h	m	h	m				h
	1917.										
1958	Sept. 16	17	13.9	17	17.0	17	17.9	..	0.2		
1959	Sept. 17	..	..	14	47.0	14	51.0	14	55	0.1	
1960	Sept. 18	..	..	22	08.2	22	16.0	22	22	0.1	
1961	Sept. 20	2	58.3	3	17.4	3	23.0	4	19	1.5	S at 3:06.1.
1962	Sept. 23	..	..	16	15.5	16	22.2	16	29	0.1	
1963	Sept. 24	20	17.5	20	36.0	20	40.8	21	14	0.7	S at 20:24.9.
1964	Oct. 6	13	02.0	13	06.4	13	07.0	13	30	0.2	
1965	Oct. 7	15	21.9	15	49.0	15	57.2	16	09	0.2	
1966	Oct. 14	3	26.0	3	38.9	3	43.9	3	58	0.5	
1967	Oct. 17	..	..	15	09.6	15	18.7	15	37	0.4	
1968	Oct. 22	7	42.1	7	59.0	8	01.2	8	48	0.2	
1969	Oct. 23	1	21.1	1	24.0	1	24.5	1	49	0.3	
1970	Oct. 24	..	..	3	03.1	3	04.9	3	07	0.1	
1971	Oct. 25	20	06.0	20	15.3	20	24.3	20	51	0.2	
1972	Oct. 27	..	..	6	55.2	7	00.0	7	21	0.1	
1973	Oct. 28	..	..	13	57.6	14	02.4	14	35	0.2	
1974	Oct. 31	2	27.0	2	35.0	2	39.7	2	57	0.2	
1975	Nov. 4	..	..	12	22.0	13	01.6	14	46	0.3	
1976	Nov. 7	..	..	1	52.0	1	56.0	2	01	0.1	
1977	Nov. 8	..	..	18	46.5	18	50.2	18	54	0.1	
1978	Nov. 14	9	29.6	9	31.6	9	38.1	10	38	0.3	
1979	Nov. 15	..	..	1	30.9	1	37.5	1	43	0.1	
1980	Nov. 15	..	..	17	58.0	18	10.0	18	16	0.1	
1981	Nov. 16	3	28.3	3	49.5	3	51.8	7	21	5.2	S at 3:28.3.
1982	Nov. 16	..	..	22	51.6	22	58.9	23	30	0.6	S at 22:38.1.
1983	Nov. 17	8	34.9	..	..	8	49.2	9	05	0.1	
1984	Nov. 18	3	12.5	3	34.2	3	46.9	4	47	1.2	S at 3:21.0.
1985	Nov. 21	..	..	0	28.7	0	35.3	0	38	0.1	
1986	Nov. 22	6	30.0	..	..	6	44.0	6	47	0.1	
1987	Nov. 22	..	..	23	45.5	23	57.1	24	02	0.1	
1988	Nov. 24	11	20.8	11	36.3	11	43.0	12	15	0.3	S at 11:28.7.
1989	Nov. 24	..	..	20	10.5	20	16.9	20	21	0.2	
1990	Nov. 28	..	..	2	53.8	3	01.9	3	16	0.1	
1991	Nov. 29	..	..	22	35.3	22	45.0	23	00	0.4	
1992	Nov. 30	17	24.3	17	30.8	17	35.0	18	23	0.9	S at 17:28.0.
1993	Dec. 3	..	..	4	56.2	5	04.0	5	22	0.1	
1994	Dec. 9	..	..	2	44.0	2	45.0	2	43	0.1	
1995	Dec. 9	..	..	16	11.8	16	14.0	16	27	0.1	
1996	Dec. 11	..	..	13	32.2	13	36.8	13	44	0.1	
1997	Dec. 13	..	..	3	18.3	3	30.6	3	32	0.1	
1998	Dec. 15	..	..	16	03.7	16	08.0	16	10	0.1	
1999	Dec. 17	..	..	19	27.1	19	28.0	19	31	0.3	
2000	Dec. 21	18	03.3	..	..	..	..	..	..	..	
2001	Dec. 21	..	..	21	09.0	21	09.4	21	18	0.9	
	1918.										
2002	Jan. 4	4	52.0	5	04.3	5	07.3	5	43	0.5	
2003	Jan. 4	16	03.8	16	11.8	16	21.2	17	06	0.4	S at 16:08.9.
2004	Jan. 12	..	..	18	54.4	19	05.0	19	07	0.1	
2005	Jan. 15	..	..	16	04.6	16	13.0	16	21	0.3	
2006	Jan. 21	..	..	20	20.4	20	26.5	..	..	1.1	
2007	Jan. 24	..	..	15	08.5	15	13.0	15	40	0.2	
2008	Jan. 25	..	..	1	50.5	1	54.7	2	41	0.6	S at 1:39.9.
2009	Jan. 30	21	28.2	21	42.7	21	44.0	23	03	4.4	S at 21:36.0.
2010	Feb. 3	14	16.9	14	19.8	14	21.5	15	32	0.5	
2011	Feb. 6	3	24.0	3	27.7	3	35.1	4	23	0.1	
2012	Feb. 6	..	..	14	59.0	15	03.9	15	16	0.1	
2013	Feb. 7	5	31.5	5	54.2	6	05.0	7	23	1.0	S at 5:41.0.
2014	Feb. 9	..	..	21	11.4	21	11.9	21	16	0.1	
2015	Feb. 13	..	..	2	57.0	..	..	3	55	..	
2016	Feb. 13	6	29.1	6	43.0	6	53.3	9	44	4.0	
2017	Feb. 19	16	36.4	16	42.0	16	49.0	17	55	1.5	
2018	Feb. 24	..	..	23	23.9	23	26.5	23	30	0.1	
2019	Feb. 25	6	18.5	6	26.2	6	29.0	7	11	0.1	
2020	Feb. 27	3	29.0	3	39.0	3	42.1	4	09	0.2	
2021	May 20	14	56.4	15	06.0	15	12.7	16	51	1.7	S at 15:02.0.
2022	May 20	18	13.0	18	19.2	18	23.4	20	47	1.5	
2023	May 23	12	05.0	12	15.0	12	17.2	13	25	4.5	
2024	May 25	19	42.2	20	04.8	20	06.6	20	27	1.0	S at 19:52.8.
2025	May 31	9	01.2	9	05.7	9	08.6	9	25	0.2	

EARTHQUAKES.



Register of earthquakes—Continued.

No.	Date.	P	L	M	F	Maximum amplitude.	Remarks.
	1918.	<i>h m</i>	<i>h m</i>	<i>h m</i>	<i>h m</i>	<i>mm</i>	
2026	June 4	4 14.2	4 29.8	4 34.2	4 57	1.9	
2027	June 4	17 26.6	17 29.4	17 32.6	17 59	1.5	
2028	June 7	.. ..	21 50.8	21 52.1	21 56	0.1	
2029	June 14	.. ..	21 45.8	21 47.0	21 55	0.6	
2030	June 16	5 28.2	5 35.2	5 36.9	5 48	0.4	
2031	June 21	4 28.9	4 36.9	4 37.5	4 40	0.1	S at 4:34.2(?)
2032	June 24	14 56.3	15 11.5	15 14.0	15 37	0.5	S at 15:04.0.
2033	June 26	21 46.1	21 52.2	21 53.7	22 01	0.4	
2034	June 27	21 36.3	21 42.6	21 46.0	22 03	0.2	

No.	Date.	P	S	L	M	C	F	Maximum amplitude.
	1918.	<i>h m</i>	<i>h m</i>	<i>h m</i>	<i>h m</i>	<i>h m</i>	<i>h m</i>	<i>mm</i>
2035	July 1	6 19.2	6 29.3	6 41.9	6 44.0	6 48	7 39	1.5
2036	July 3	7 02.5	7 11.2	7 23.4	7 26.1	7 55	10 47	3.3
2037	July 6	20 29.0	.. ..	20 37.5	20 40.5	20 44	20 51	0.4
2038	July 8	5 54.2	.. ..	.. ..	11 18.0	11 22	19 30	6.5
2039	July 9	2 17.8	.. ..	2 31.0	2 33.0	.. ..	3 45	0.1
2040	July 11	.. ..	.. ..	22 07.0	22 09.0	22 10	22 16	0.1
2041	July 15	0 30.0	.. ..	0 37.1	0 40.0	0 43	1 54	1.0
2042	July 21	6 18.1	6 26.3	6 33.0	6 37.0	6 44	8 48	3.1
2043	July 21	10 01.2	.. ..	10 10.5	10 12.0	10 13	10 49	0.5
2044	July 23	13 39.4	.. ..	13 47.0	13 52.0	13 56	14 18	0.5
2045	July 29	11 32.1	.. ..	11 38.0	11 45.3	11 49	12 30	0.6
2046	July 29	17 00.7	17 09.0	17 19.0	17 34.2	17 42	19 30	1.0
2047	July 31	14 48.5	14 56.9	15 09.2	15 13.8	15 18	16 48	0.4
2048	July 31	22 14.0	.. ..	22 22.0	22 28.5	22 32	23 28	0.5
2049	Aug. 1	.. ..	.. ..	4 54.8	5 01.3	.. ..	5 05	0.1
2050	Aug. 1	11 55.4	.. ..	11 58.5	11 59.9	12 04	13 08	0.4
2051	Aug. 8	9 57.5	10 05.4	10 14.1	10 21.0	10 30	14 43	5.1
2052	Aug. 15	12 30.2	12 40.3	12 54.0	13 03.0	13 32	.. ..	17 +
2053	Aug. 15	17 42.2	17 51.6	18 05.1	18 20.0	18 27	.. ..	1.5
2054	Aug. 17	7 17.9	.. ..	7 38.0	7 49.5	7 51	8 42	0.1
2055	Aug. 22	8 48.8	.. ..	8 55.7	9 00.0	9 02	9 15	0.1
2056	Aug. 23	6 45.5	6 52.5	7 00.4	7 06.8	7 13	10 40	4.6
2057	Aug. 23	22 47.7	.. ..	22 49.8	22 50.2	22 56	23 48	1.3
2058	Sept. 2	14 25.0	14 32.5	14 41.0	14 49.0	14 55	15 50	0.5
2059	Sept. 5	7 45.3	.. ..	7 49.2	7 58.1	8 06	8 17	0.2
2060	Sept. 7	.. ..	.. ..	7 50.1	8 00.8	8 03	8 14	0.1
2061	Sept. 7	17 25.0	17 32.0	17 36.9	.. ..	19 30	22 30	17 +
2062	Sept. 8	0 25.8	0 32.4	0 36.1	0 41.0	0 45	1 30	1.1
2063	Sept. 8	5 49.0	5 55.7	6 04.7	6 07.5	6 12	7 07	0.3
2064	Sept. 8	12 02.5	.. ..	.. ..	12 07.0	12 10	12 19	0.1
2065	Sept. 11	4 17.8	4 27.8	4 46.0	4 55.0	5 07	7 16	0.3
2066	Sept. 12	13 31.5	.. ..	13 42.1	13 44.6	13 50	15 01	0.2
2067	Sept. 12	18 15.7	.. ..	18 17.4	18 18.4	18 21	.. ..	0.3
2068	Sept. 14	17 13.6	17 20.4	17 30.9	17 34.6	17 40	19 43	1.6
2069	Sept. 15	18 18.0	.. ..	18 31.5	18 38.0	18 42	19 03	0.2
2070	Sept. 16	13 26.0	.. ..	13 45.7	13 49.6	13 55	14 38	0.2
2071	Sept. 22	10 19.8	.. ..	10 54.0	11 03.8	11 11	14 48	0.4
2072	Sept. 25	10 09.0	.. ..	10 18.0	10 23.0	10 27	11 48	0.2
2073	Sept. 28	.. ..	.. ..	10 57.2	11 01.5	11 06	11 18	0.1
2074	Sept. 30	13 42.2	13 46.6	13 48.0	13 49.0	14 00	15 28	1.1
2075	Sept. 30	16 24.3	.. ..	16 34.7	16 38.0	16 41	.. ..	0.1
2076	Sept. 30	18 08.7	18 14.5	18 19.1	18 25.5	18 32	.. ..	3.6
2077	Sept. 30	18 55.5	.. ..	19 05.3	19 10.0	19 21	21 47	3.6
2078	Oct. 1	1 22.0	.. ..	1 23.3	1 32.8	1 37	2 47	0.3
2079	Oct. 2	0 31.8	0 38.7	0 45.9	0 56.5	1 02	1 34	0.1
2080	Oct. 6	20 21.0	.. ..	20 31.0	20 34.0	20 39	20 44	.. ..
2081	Oct. 9	9 40.8	.. ..	10 02.5	10 05.0	10 10	10 41	0.3
2082	Oct. 11	14 27.4	14 37.7	14 55.0	15 09.3	15 46	18 30	3.1
2083	Oct. 13	12 57.8	13 00.9	13 02.0	13 07.0	13 10	13 42	0.2
2084	Oct. 14	12 15.3	12 19.2	12 22.0	12 26.5	12 41	13 33	0.5
2085	Oct. 16	20 27.5	.. ..	20 46.0	20 53.8	21 04	22 20	0.1
2086	Oct. 19	3 34.1	3 42.8	3 55.0	3 57.7	4 04	5 41	1.0
2087	Oct. 21	.. ..	.. ..	23 09.0	23 15.0	.. ..	23 28	0.1
2088	Oct. 22	.. ..	.. ..	9 48.2	9 53.1	.. ..	9 57	0.1
2089	Oct. 22	10 28.4	.. ..	10 40.0	10 45.0	10 48	11 14	0.1



Register of earthquakes—Continued.

No.	Date.	P		S		L		M		C		F		Maximum amplitude. mm
		h	m	h	m	h	m	h	m	h	m	h	m	
2090	1918. Oct. 24	19	33.0	..	..	19	46.0	19	51.0	19	53	20	15	0.1
2091	Oct. 25	3	55.0	4	06.0	4	23.0	4	34.2	4	40	6	34	0.3
2092	Oct. 27	15	37.0	15	43.7	15	51.1	15	53.5	16	24	..	..	6.9
2093	Oct. 27	17	19.3	17	24.7	17	31.5	17	41.0	18	09	20	14	2.4
2094	Oct. 29	..	..	..	..	12	59.0	13	02.0	13	05	13	19	0.1
2095	Nov. 2	10	02.0	..	..	..	..	10	03.9	10	11	10	48	9.4
2096	Nov. 3	11	53.9	..	..	11	56.1	12	00.5	12	06	12	55	0.5
2097	Nov. 8	4	45.6	4	53.0	5	02.8	5	05.0	6	22	8	35	17 +
2098	Nov. 12	21	58.5	..	..	22	25.8	22	36.3	22	42	25	27	0.1
2099	Nov. 14	16	22.1	..	..	16	33.3	16	37.0	16	40	17	10	0.1
2100	Nov. 18	18	53.8	19	02.8	19	17.0	19	28.1	19	55	21	48	15.0
2101	Nov. 22	16	03.4	..	..	16	15.0	16	19.2	16	22	..	..	0.5
2102	Nov. 23	23	10.4	23	19.3	23	33.7	23	46.1	24	01	25	47	1.0
2103	Nov. 30	..	..	..	..	7	15.0	7	20.0	..	..	7	39	0.1
2104	Dec. 1	3	12.0	..	..	3	25.0	3	28.5	..	..	4	00	0.2
2105	Dec. 2	10	12.3	10	15.9	10	20.0	10	23.2	10	25	..	..	0.2
2106	Dec. 2	..	..	..	..	10	47.5	10	52.4	10	54	..	..	0.3
2107	Dec. 2	..	..	..	..	12	05.0	12	23.5	..	..	12	49	0.1
2108	Dec. 3	..	..	..	..	23	31.2	23	39.5	23	44	24	33	0.5
2109	Dec. 4	12	03.4	12	13.2	12	33.7	12	41.3	12	47	15	+	8.4
2110	Dec. 6	7	53.2	..	..	8	07.2	8	14.0	8	16	8	20	0.6
2111	Dec. 6	8	48.4	8	54.1	8	58.5	9	03.0	9	07	10	32	2.4
2112	Dec. 6	..	..	..	..	11	49.5	11	52.0	..	..	12	27	0.1
2113	Dec. 9	..	..	..	..	1	38.7	1	43.0	1	47	2	04	0.1
2114	Dec. 9	..	..	..	..	4	32.0	4	44.0	4	46	4	59	0.1
2115	Dec. 9	18	16.3	18	18.4	18	21.7	18	25.0	..	..	..	..	0.7
2116	Dec. 9	19	01.0	19	06.8	19	12.0	19	16.0	19	20	20	13	1.2
2117	Dec. 10	..	..	..	..	17	33.5	17	39.2	17	42	17	55	0.2
2118	Dec. 23	20	14.9	..	..	20	16.0	20	19.5	20	22	21	22	0.1
2119	Dec. 25	10	29.2	10	36.4	10	49.2	10	52.9	11	01	11	23	0.3
2120	Dec. 30	7	36.4	..	..	7	42.8	7	48.0	7	50	8	21	0.2

REMARKS.

A bug in the seismograph from January 21 to February 2 caused frequent disturbances on the pendulum.

Air tremors on January 8 to 14, 29, February 1, 15 to 17, 22, and 23 were of sufficient magnitude to conceal small seismic tremors.

No. 1876. No distinct phases; resembles air tremors.

No. 1877. Observer entered room at 0:31. Apparent maximum at 0:32.2 may have been due to that fact. S and L doubtful.

Nos. 1881 and 1884. Drum revolving irregularly. P and S doubtful.

No. 1882. P and S doubtful; may be artificial disturbance.

No. 1907. Observer entered room at time of maximum.

Nos. 1919, 1925, and 1930. No distinct phases.

No. 1928. Unable to determine time of L on account of amplitude of vibration, which exceeded the width of the trace from 6:07.6 to 6:12.5.

Nos. 1933 and 1934. Trace moving in jerks; phases indistinct.

Nos. 1935, 1950, 1952, 1953, 1959, 1960, 1962, 1970, 1975, 1976, 1977, 1979, 1980, 1983, 1985, 1989, 1990, 1993, 1994, and 1997. No distinct phases.

Light failed on July 7 from 13:40 to 18:33; no record.

No. 1942. Preliminary phases confused with end of preceding quake.

No. 1944. An amplitude of 0.6 mm. occurred during S at 14:50.

No. 1958. F lost in wind tremors.

No. 1998. Phases uncertain on account of wind tremors.

No. 2000. Impossible to determine phases on account of seismograph not operating properly.

No. 2006. Beginning and end phases lost in tremors due to rapid changes in temperature.

No. 2007. Five series of waves of small amplitude.

No. 2013. An amplitude of 1.8 mm. occurred during S at 5:42.2.

No. 2017. Preceded by a long period of slight tremors; probably air tremors.

No earthquakes were recorded between March 5 and April 2, although air tremors extended over half of this period.

No. 2021. Another maximum at 15:35, preceded by long waves.

No. 2022. Maximum at 18:35 of 1.1 mm. amplitude. Paper was being changed from 18:37.2 to 18:43.2. Series of long waves at 20:08 of 0.1 mm. amplitude.

No. 2029. Local shock; very irregular.

No. 2038. Probably only part of the disturbance is seismic. The maximum is well defined, but no other regular characteristics.

No. 2043. Probably a recurrence of No. 2042.

No. 2052. Maximum amplitude probably as much as 38 mm. Tremors continue up to the beginning of No. 2053.

No. 2057. Possibly artificial, or partly so.

Nos. 2037, 2039, 2041, 2044, 2045, 2046, 2050, and 2054. Phases not well defined.

No. 2059. P doubtful; faint waves as much as 18 m. earlier.

No. 2060. No distinct phases.

No. 2061. Maximum amplitude may be three or four times 17 mm. Record went beyond the limits of the paper continuously from 17:41 to 17:50. Tidal wave 5 feet high reported at Hilo. This tidal disturbance was recorded on the tide gauge at Honolulu, beginning about 23:55 G. M. T. and lasting for two days.

Nos. 2063, 2064, 2065, 2068, 2069, and 2070. P indefinite.

No. 2067. End occurred during daily care of instrument.

No. 2072. Preceded by faint tremors. The phase tabulated as P may be S.

Nos. 2075, 2076, and 2077. The end of one runs into the beginning of the next.

No. 2078. Phases ill-defined.

Nos. 2084 and 2085. Phases ill-defined because of irregular motion of the paper.

No. 2086. An abrupt change occurs at 3:53.2.

Nos. 2092 and 2093. Overlapping; beginning of latter confused by ending of former.

No. 2095. Sharp earthquake reported from the island of Hawaii, with renewed activity of Kilauea.

No. 2096. P probably obscured by the irregular motion of the paper.

No. 2097. Beyond the limits of the paper for two minutes at the time of maximum. Paper not moving at a uniform rate.

Nos. 2105, 2106, and 2107. End of one overlaps the beginning of the next.

No. 2109. Preceded and followed by five hours of microseisms.

Nos. 2115 and 2116. End of one overlaps the beginning of the other.

No. 2118. Pendulum not entirely free from the 16th to the 23d. Obstruction probably not sufficient to prevent the recording of a disturbance of considerable magnitude.