

EARTHQUAKES.

In April, 1903, a Milne seismograph belonging to the Seismological Committee of the British Association was transferred from Oahu College to the magnetic observatory. The pendulum points north, thus recording east-west motion.

Trouble was experienced with excessive moisture in the seismograph house in the spring of 1918, and this may have had something to do with the absence of earthquake records during March, April, and the first half of May of that year.

	Period of pendulum.	Sensitive-ness.		Period of pendulum.	Sensitive-ness.
	s	"		s	"
January to December, 1917.....	18.5	0.52	July 3 to 23, 1918.....	25.5	0.46
January and February, 1918.....	18.9	0.37	July 23 to December 2, 1918.....	18.2	1.11
May and June, 1918.....	29.4	0.26	December 2 to 31, 1918.....	18.2	0.40

As there was no readjustment of the instrument between the determinations of sensitiveness on July 23 and December 2, 1918, this change seems doubtful.

In the following table the times of the phases are given in Greenwich mean time counted from midnight. It will be seen that many of the recorded disturbances are of short duration and small amplitude, in many cases a mere swelling of the line, without distinct phases. In these cases the beginning has been tabulated as the beginning of the long waves, L.

Register of earthquakes.

No.	Date.	P		L		M		F		Maximum amplitude.	Remarks.
		h	m	h	m	h	m	h	m			mm
	1917.										
1854.....	Jan. 4	..	....	17	25.7	17	36.2	17	46	0.4	
1855.....	Jan. 19	..	....	23	23.0	23	32.1	23	36	0.1	
1856.....	Jan. 20	23	35.7	23	53.9	24	10.1	24	56	0.3	
1857.....	Jan. 26	5	27.8	5	30.9	5	36.5	5	51	0.7	
1858.....	Feb. 4	..	....	11	06.5	11	08.0	11	19	0.1	
1859.....	Feb. 5	..	....	12	49.8	12	56.0	13	10	0.2	
1860.....	Feb. 10	..	....	17	28.0	17	29.4	17	31	0.1	
1861.....	Feb. 12	9	13.2	9	27.8	9	32.2	11	24	2.3	S at 9:20.9.
1862.....	Feb. 12	..	....	23	24.0	23	27.2	23	32	0.2	
1863.....	Feb. 15	1	07.0	1	33.5	1	38.5	3	32	1.9	S at 1:20.8.
1864.....	Feb. 18	..	....	1	44.0	1	45.3	1	50	0.1	
1865.....	Feb. 18	..	....	1	56.2	2	04.0	2	20	0.1	
1866.....	Feb. 20	..	....	3	32.2	3	37.9	3	42	0.2	
1867.....	Feb. 20	19	51.5	20	04.5	20	17.9	22	24	1.0	
1868.....	Feb. 21	10	14.0	10	26.5	10	31.5	10	48	0.3	
1869.....	Feb. 21	..	....	14	26.3	14	30.1	14	43	0.3	
1870.....	Feb. 22	9	36.5	9	56.7	10	01.4	11	15	0.5	S at 9:44.0.
1871.....	Feb. 25	5	41.4	6	00.5	6	03.3	..	..	0.4	
						6	27.0	..	..	0.4	
						6	32.7	6	56	0.4	
1872.....	Feb. 26	..	....	9	20.5	9	22.8	9	34	0.1	
1873.....	Mar. 1	..	....	5	40.4	5	43.3	5	50	0.1	
1874.....	Mar. 3	..	....	10	52.2	10	54.1	10	55	0.1	
1875.....	Mar. 4	..	....	6	20.7	6	23.8	6	37	0.1	
1876.....	Mar. 6	..	....	3	25.0	..	....	4	05	0.1	S at 3:17.0 possibly.
1877.....	Mar. 15	0	23.9	0	44.6	0	49.1	1	54	0.8	S at 0:31.3 possibly.
1878.....	Mar. 16	..	....	12	04.7	12	09.2	12	14	0.1	
1879.....	Mar. 21	..	....	8	16.4	8	20.4	8	23	0.1	
1880.....	Mar. 26	..	....	14	22.9	14	24.4	14	28	0.1	
1881.....	Mar. 28	5	20.2	5	30.2	5	33.3	5	43	0.2	S at 5:25.6 possibly.
1882.....	Mar. 29	2	20.7	2	42.3	2	46.0	2	57	0.2	S at 2:27.7 possibly.
1883.....	Apr. 3	13	25.3	13	37.6	13	46.6	14	04	0.5	
1884.....	Apr. 5	..	....	4	35.0	4	42.3	4	45	0.2	
1885.....	Apr. 12	3	40.8	3	50.1	3	56.0	4	08	0.4	
1886.....	Apr. 15	12	29.4	12	39.1	12	42.3	12	49	0.1	
1887.....	Apr. 16	19	30.8	19	42.9	19	49.0	19	53	0.1	
1888.....	Apr. 21	1	23.2	1	33.9	1	35.5	1	43	0.1	

Register of earthquakes—Continued.

No.	Date.	P		L		M		F		Maximum amplitude.	Remarks.
		<i>h</i>	<i>m</i>	<i>h</i>	<i>m</i>	<i>h</i>	<i>m</i>	<i>h</i>	<i>m</i>		
1889	1917. Apr. 23	..	..	0	46.0	0	46.6	1	43	0.1	
1890	Apr. 28	14	13.0	14	18.9	14	20.9	14	40	0.2	
1891	Apr. 29	12	27.8	..	..	12	42.0	13	25	0.1	
1892	Apr. 29	16	20.9	16	32.5	16	36.4	16	44	0.1	
1893	May 1	18	35.9	18	44.0	18	58.8	23	37	17 +	Off paper at M.
1894	May 2	1	38.2	1	48.0	1	52.3	..	..	0.4	Overlaps No. 1895.
1895	May 2	..	..	3	21.5	3	27.0	4	24	0.5	
1896	May 2	4	39.0	4	49.8	4	53.1	5	28	0.2	
1897	May 2	..	..	14	27.2	14	39.3	15	34	0.2	
1898	May 3	..	..	13	17.5	13	21.9	13	27	0.2	
1899	May 4	0	52.9	0	59.4	1	14.0	2	35	0.6	
1900	May 6	23	14.0	23	23.9	23	25.0	24	14	0.6	
1901	May 7	..	..	8	28.0	8	28.8	8	47	0.1	
1902	May 9	16	05.4	16	21.3	16	25.0	..	..	3.5	Overlaps No. 1903. S at 16:13.9.
1903	May 9	19	50.1	20	00.1	20	03.8	21	57	0.4	
1904	May 10	22	54.3	..	..	23	05.3	23	18	0.2	
1905	May 14	..	..	0	40.4	0	42.2	0	57	0.1	
1906	May 14	22	17.9	22	25.6	22	30.7	23	28	1.0	
1907	May 18	19	12.2	19	21.9	19	30.0	20	14	0.5	P doubtful.
1908	May 21	..	..	9	41.0	9	43.8	9	54	0.1	
1909	May 23	..	..	21	53.1	21	57.1	22	13	0.2	
1910	May 24	19	37.0	19	49.3	19	52.8	20	43	0.4	S at 19:43.0.
1911	May 24	..	..	23	50.5	23	56.2	24	05	0.1	
1912	May 26	..	..	4	29.0	4	36.0	4	41	0.1	
1913	May 29	6	19.4	6	26.9	6	31.1	7	09	1.0	S at 6:24.2.
1914	May 31	8	54.7	9	00.2	9	09.8	12	18	6.0	F doubtful.
1915	June 1	..	..	9	01.4	9	08.0	9	31	0.1	
1916	June 3	..	..	15	16.5	15	22.0	15	43	0.1	
1917	June 3	..	..	19	44.5	19	52.3	19	59	0.1	
1918	June 4	1	41.6	1	43.9	1	48.8	2	54	0.6	
1919	June 7	..	..	3	02.5	3	03.4	3	18	0.1	
1920	June 8	..	..	1	21.3	1	26.5	2	54	3.0	S at 1:10.6.
1921	June 10	4	37.8	4	45.2	4	52.4	6	18	3.6	
1922	June 13	6	51.0	7	09.9	7	13.9	10	40	3.0	S at 6:59.4.
1923	June 13	17	29.2	17	34.0	17	37.9	17	56	0.5	Phases doubtful.
1924	June 16	..	..	23	03.0	23	07.5	23	11	0.1	
1925	June 17	..	..	8	40.4	9	00.5	9	12	0.1	
1926	June 18	..	..	22	35.5	22	40.0	22	47	0.1	
1927	June 24	19	57.6	20	07.1	20	08.0	21	30	3.2	S at 20:03.5.
1928	June 26	5	57.0	..	..	..	..	10	39	17 +	S at 6:03.5.
1929	June 26	14	12.9	14	15.8	14	16.3	14	51	0.4	
1930	June 27	..	..	5	32.5	5	33.1	5	46	0.1	
1931	June 27	..	..	13	01.0	13	06.4	13	15	0.5	
1932	July 1	..	..	1	10.5	1	18.0	1	26	0.2	
1933	July 4	0	50.5	1	11.9	1	22.3	2	14	2.1	S at 0:58.8.
1934	July 4	5	57.0	6	11.2	6	20.2	6	56	0.6	
1935	July 4	..	..	22	57.7	23	12.0	23	19	0.1	
1936	July 11	..	..	22	59.0	23	05.3	23	29	0.7	
1937	July 12	11	51.8	12	09.5	12	13.2	13	50	0.8	
1938	July 18	8	08.8	8	16.9	8	24.2	9	15	0.3	
1939	July 25	..	..	3	31.1	3	37.0	5	12	0.4	
1940	July 25	..	..	22	46.0	22	54.8	23	03	0.1	
1941	July 27	1	13.9	1	41.3	1	49.7	..	..	1.6	S at 1:24.3.
1942	July 27	..	..	3	37.4	3	42.1	6	00	3.4	
1943	{ July 27 July 28 }	23	54.0	0	04.6	0	10.0	0	48	0.7	
1944	July 29	14	42.2	14	57.4	15	15.4	16	28	..	S at 14:49.7.
1945	July 29	22	03.9	22	22.5	22	29.0	26	15	13.0	S at 22:12.2.
1946	July 30	..	..	16	55.0	16	58.8	17	17	0.2	
1947	July 31	0	16.3	0	30.6	0	53.2	1	39	0.9	
1948	July 31	3	33.1	3	46.9	3	50.3	4	45	1.6	
1949	Aug. 5	16	01.3	16	23.7	16	30.5	17	54	0.7	S at 16:09.8.
1950	Aug. 14	..	..	8	39.9	8	42.8	9	01	0.1	
1951	Aug. 16	23	13.0	23	18.7	23	31.1	24	24	0.2	
1952	Aug. 21	..	..	23	00.0	23	02.5	23	06	0.1	
1953	Aug. 21	..	..	23	34.8	23	38.2	23	54	0.1	
1954	Aug. 30	3	47.1	4	02.9	4	08.7	4	14	0.5	
1955	Aug. 30	4	19.1	4	28.8	4	51.2	7	10	2.1	
1956	Aug. 31	11	48.0	12	14.8	12	20.0	14	34	3.0	S at 11:58.7.
1957	Sept. 5	16	42.6	16	49.5	16	51.1	17	25	0.1	

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Register of earthquakes—Continued.

No.	Date.	P		L		M		F		Maximum amplitude.	Remarks.
		h	m	h	m	h	m	h	m		
	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	33.3	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	48	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	



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