

Meteorological Records.
A fifty year summary 1883-1938

MASSACHUSETTS
AGRICULTURAL EXPERIMENT STATION

Bulletin No. 367

December 1939

Meteorological Records

A Fifty-Year Summary

1889-1938

By C. I. GUINNESS

OBSERVATORY

Latitude $42^{\circ} 23' 48.5''$ N.

Longitude $72^{\circ} 31' 10''$ W.

Height of barometer above ground, 36 ft.; above sea level, 262.3 ft.

Height of wind instruments, 67 ft. Time used, 73rd Mer.

MASSACHUSETTS STATE COLLEGE
AMHERST, MASS.

CONTENTS

Location and equipment.....	3
Mean barometer.....	4
Range of barometer.....	5
Maximum barometer.....	6
Minimum barometer.....	7
Mean temperature.....	8
Range of temperature.....	9
Highest temperature.....	10
Lowest temperature.....	11
Mean relative humidity.....	12
Mean percent of cloudiness.....	13
Hours of bright sunshine.....	14
Precipitation	15
Snowfall	16
Wind movement.....	17
Maximum velocity of wind.....	18
Snow, frost, and weather.....	19
Summary for the Fifty Years.....	20
The Hurricane of September 1938.....	22

METEOROLOGICAL RECORDS

A FIFTY-YEAR SUMMARY, 1889-1938

By C. I. GUINNESS, Professor of Engineering,

Location and Equipment

The meteorology observatory is located on the third floor of Stockbridge Hall. It was moved to this location from South College on June 12, 1928, where it had been located since 1889. The records up to June 12, 1928, therefore, were taken at the old location; since June 12, 1928, they have been taken at the new location.

In the old location the observatory was in the tower of South College, about 50 feet above the ground. The base of the tower is 237 feet above sea level and the top of the tower is 72 feet above the ground. The exposure is good in all directions. The anemometer, wind vane, and sunshine recorder were mounted from 3 to 7 feet above the tower, with the recording apparatus in the room below. The thermometer shelter and rain gauges were on the campus about 300 feet southwest from the tower and on slightly lower ground. The rain gauges were about 2 feet above ground and 232 feet above sea level.

In the present location the anemometer, wind vane, and sunshine recorder are located from 4 to 7 feet above the roof of Stockbridge Hall. The roof is 60 feet above the ground with good exposure. The thermometer shelter and rain gauges are about 300 feet west from Stockbridge Hall.

The same equipment is used in the new location as was used in the old, except as noted below. The standard barometer is of United States Weather Bureau pattern. A Draper mercury-column type recording barometer and a Fries electrical sunshine recorder are used. A four-cup anemometer was used until January 1, 1930, when a three-cup anemometer was installed. The records of sunshine, wind velocity, and rainfall are recorded on a triple register. A United States Weather Bureau gauge is used in determining precipitation; and a tipping-bucket electrical-recording gauge, in determining the time and rate. The latter gauge is now located on the roof of the Engineering building, and serves to measure packed snow as well as rain. The wind direction is recorded on a Draper anemocope. A Fries hygro-thermograph was installed in April 1929, in place of the Draper recording thermometer used until that time.

On January 1, 1904, the time of making observations was changed from 7 a.m., 2 p.m. and 9 p.m. to 8 a.m. and 8 p.m., so as to conform with the practice of the United States Weather Bureau. This change should be noted in comparing the dew point and relative humidity before and after that date. Other data are probably not affected by the change.

MASS. EXPERIMENT STATION BULLETIN 367

MEAN BAROMETER

(Readings are reduced to freezing and sea level)

YEAR	January	February	March	April	May	June	July	August	September	October	November	December	Average
1890	30.11	30.20	29.94	29.80	29.97	29.94	29.91	30.01	30.00	30.04	30.04	30.14	29.90
1891	30.15	30.10	29.95	29.90	29.95	29.95	29.97	30.00	30.12	30.01	30.01	30.03	29.93
1892	30.20	30.10	29.92	29.92	29.92	29.92	29.92	29.95	30.11	30.03	30.12	30.08	29.92
1893	30.14	30.11	29.97	29.94	29.92	29.92	29.92	30.02	30.10	29.90	29.90	30.01	29.98
1894	30.03	30.11	30.06	29.95	29.95	29.95	29.97	30.00	30.13	30.12	30.12	30.12	30.06
1895	30.18	30.16	30.09	30.03	30.07	30.01	30.03	30.14	30.02	30.08	30.15	30.08	30.08
1896	30.03	30.07	30.01	30.12	30.10	30.17	30.07	30.02	30.10	30.08	30.19	30.15	30.08
1897	30.10	30.02	29.97	30.10	29.95	29.97	29.97	29.97	30.14	30.10	30.14	30.14	30.08
1898	30.04	30.01	30.04	30.04	29.92	29.90	29.94	30.00	30.12	30.03	30.04	30.01	30.01
1899	30.08	30.03	30.20	30.02	29.94	29.94	30.02	29.90	30.01	30.09	30.01	29.90	30.01
1900	30.11	30.02	29.94	30.04	30.00	29.94	29.93	29.94	30.02	30.19	30.01	30.03	30.02
1901	30.03	30.07	29.93	29.96	29.91	29.91	29.91	29.95	30.10	30.13	29.95	30.03	29.98
1902	30.03	30.07	29.95	29.97	29.95	29.95	29.95	30.07	30.03	30.03	29.93	30.03	29.98
1903	30.04	29.78	29.91	29.82	29.84	29.84	29.87	29.92	30.04	30.03	30.06	29.95	29.95
1904	30.01	30.05	30.24	30.07	29.94	29.94	30.00	30.10	30.00	30.01	29.97	30.00	30.00
1905	30.08	30.11	30.11	29.97	30.07	30.07	29.98	30.03	30.08	30.03	30.02	30.03	30.08
1906	30.07	30.12	30.24	30.03	29.93	29.93	29.93	30.07	30.07	30.10	30.01	30.08	29.94
1907	30.07	30.24	30.03	29.92	29.94	29.94	29.94	30.07	30.09	30.09	30.12	30.08	30.08
1908	30.07	30.22	30.05	30.01	29.93	29.93	29.93	30.07	30.03	30.03	30.02	30.02	30.08
1909	30.07	30.08	30.10	30.01	29.92	30.02	30.02	30.00	30.17	30.01	30.04	30.04	30.04
1910	30.14	30.04	29.97	30.05	30.07	29.98	29.98	30.03	30.08	30.16	29.80	30.01	30.01
1911	30.11	30.07	30.10	30.02	29.92	29.94	29.94	30.02	30.09	30.10	30.03	30.03	30.00
1912	30.12	30.17	30.13	30.14	30.20	30.04	30.04	30.09	30.07	30.11	30.01	30.16	30.06
1913	30.07	30.13	30.13	29.99	29.99	29.99	29.99	30.07	30.09	30.09	30.01	30.01	30.01
1914	30.10	30.01	30.11	30.07	29.98	30.00	29.94	30.03	20.13	29.97	30.13	30.01	30.04
1915	30.04	30.12	30.07	30.03	30.04	29.91	29.93	30.01	30.13	30.10	30.07	30.14	30.06
1916	30.10	30.17	30.03	30.03	29.91	29.91	29.92	30.03	30.03	30.08	29.99	29.98	30.01
1917	30.10	30.01	29.93	30.05	29.92	29.91	29.91	30.07	30.04	30.13	30.10	30.01	30.01
1918	30.04	30.02	30.05	30.06	30.06	30.02	30.07	30.03	30.03	30.12	30.03	30.13	30.02
1919	30.01	30.04	30.12	30.03	30.03	29.91	29.93	30.01	30.13	30.10	30.06	30.11	30.08
1920	30.12	30.17	30.03	30.03	29.91	29.91	29.92	30.07	30.07	30.13	30.04	30.06	30.00
1921	30.11	30.08	30.12	30.04	30.01	29.94	29.94	30.07	30.03	30.03	30.04	30.01	30.04
1922	30.12	30.17	30.10	30.04	30.04	29.93	29.93	30.07	30.03	30.11	30.04	30.12	30.08
1923	30.09	30.12	30.07	30.08	30.08	30.08	30.08	30.09	30.10	30.10	30.07	30.04	30.02
1924	30.14	30.07	29.77	29.91	29.83	29.93	29.93	29.97	29.94	30.02	30.12	30.06	30.08
1925	30.16	30.01	30.07	30.21	30.21	30.03	29.93	30.05	29.97	30.07	30.13	30.04	30.01
1926	30.12	30.04	30.07	30.07	30.02	29.93	29.93	30.05	30.06	30.13	30.10	30.08	30.03
1927	30.12	30.07	30.07	30.07	30.02	29.92	29.92	30.07	30.08	30.07	30.00	30.04	30.08
1928	30.14	30.07	29.98	30.08	30.03	29.98	29.98	30.03	30.03	30.11	30.00	30.10	30.00
1929	30.17	30.01	30.07	30.04	30.04	29.91	29.91	30.07	30.11	30.06	30.04	30.14	30.04
1930	30.07	30.07	29.74	29.74	29.63	29.63	29.63	29.63	29.63	29.63	29.71	29.71	29.98
1931	30.07	30.07	29.74	29.74	29.63	29.63	29.63	29.63	29.71	29.71	29.86	29.86	29.98
1932	30.12	30.03	29.74	29.63	29.63	29.63	29.63	29.63	29.63	29.63	29.71	29.71	29.98
1933	30.01	30.03	29.93	29.93	29.93	29.93	29.93	29.93	29.93	29.93	30.21	30.21	30.00
1934	30.20	30.17	30.14	30.07	29.98	29.98	29.98	29.93	30.13	30.02	30.13	30.26	30.04
1935	30.01	30.03	29.98	29.98	29.91	29.91	29.91	29.91	30.03	30.03	30.15	30.15	30.03
1936	30.14	30.14	30.04	30.01	29.95	29.95	29.95	29.95	30.07	30.10	30.03	30.03	30.03
1937	30.03	30.03	29.97	30.01	30.02	29.94	29.94	30.03	30.07	30.03	30.04	30.10	30.03
1938	30.07	30.10	30.01	30.02	29.94	29.94	29.94	29.94	30.04	30.17	30.06	30.06	30.06
Mean	30.07	30.04	30.00	30.07	30.04	30.04	30.04	30.05	30.05	30.05	30.05	30.05	30.01

METEOROLOGICAL RECORDS

9

RANGE OF BAROMETER (in INCHES)

YEAR	RANGE OF BAROMETER (in INCHES)											
	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
1899	1.88	1.81	1.25	1.05	.75	.57	.57	.57	.57	.57	.57	.57
1900	1.83	1.25	1.21	1.02	.78	.57	.57	.57	.57	.57	.57	.57
1901	1.83	1.25	1.16	1.02	.78	.57	.57	.57	.57	.57	.57	.57
1902	1.83	1.25	1.27	1.28	.78	.57	.57	.57	.57	.57	.57	.57
1903	1.83	1.25	1.27	1.27	.78	.57	.57	.57	.57	.57	.57	.57
1904	1.89	1.65	1.04	.85	.65	.57	.57	.57	.57	.57	.57	.57
1905	1.45	1.25	1.24	1.00	.75	.57	.57	.57	.57	.57	.57	.57
190697	1.77	1.32	1.05	.75	.57	.57	.57	.57	.57	.57	.57
1907	1.57	1.15	1.74	1.10	.75	.57	.57	.57	.57	.57	.57	.57
1908	1.43	1.63	1.17	.86	.78	.57	.57	.57	.57	.57	.57	.57
1909	1.70	1.41	1.34	.80	.60	.57	.57	.57	.57	.57	.57	.57
1910	1.55	1.70	1.32	1.01	.80	.57	.57	.57	.57	.57	.57	.57
1911	1.66	.97	1.17	1.19	.77	.57	.57	.57	.57	.57	.57	.57
1912	1.49	1.41	1.35	1.04	.84	.57	.57	.57	.57	.57	.57	.57
1913	1.49	1.26	1.19	1.18	.85	.57	.57	.57	.57	.57	.57	.57
1914	1.85	1.26	1.35	1.00	.75	.57	.57	.57	.57	.57	.57	.57
1915	1.27	1.25	1.24	1.05	.75	.57	.57	.57	.57	.57	.57	.57
1916	1.52	1.25	1.24	1.05	.75	.57	.57	.57	.57	.57	.57	.57
1917	1.34	1.27	1.29	1.02	.75	.57	.57	.57	.57	.57	.57	.57
1918	1.73	1.59	1.23	1.25	1.11	.57	.57	.57	.57	.57	.57	.57
1919	1.64	1.63	1.32	1.14	.82	.57	.57	.57	.57	.57	.57	.57
1920	1.76	1.40	1.11	.80	.62	.57	.57	.57	.57	.57	.57	.57
1921	1.50	1.09	1.77	1.14	.97	.57	.57	.57	.57	.57	.57	.57
1922	1.60	1.76	1.43	1.23	.95	.57	.57	.57	.57	.57	.57	.57
1923	2.18	.95	1.82	1.08	.87	.57	.57	.57	.57	.57	.57	.57
1924	1.45	1.30	2.10	1.08	1.01	.85	.85	.85	.85	.85	.85	.85
1925	1.26	1.21	1.25	.90	.75	.57	.57	.57	.57	.57	.57	.57
1926	1.17	1.34	1.23	.94	1.10	.57	.57	.57	.57	.57	.57	.57
1927	1.26	1.20	1.09	1.09	.80	.57	.57	.57	.57	.57	.57	.57
1928	1.70	1.07	1.01	.86	.80	.57	.57	.57	.57	.57	.57	.57
1929	1.26	1.16	1.72	.72	.72	.57	.57	.57	.57	.57	.57	.57
1930	1.54	1.44	1.02	1.01	1.03	.72	.72	.72	.72	.72	.72	.72
1931	1.50	1.09	1.01	1.03	1.03	.72	.72	.72	.72	.72	.72	.72
1932	1.78	1.25	1.31	1.03	1.03	.72	.72	.72	.72	.72	.72	.72
1933	1.41	1.10	1.03	.72	.72	.57	.57	.57	.57	.57	.57	.57
1934	1.44	1.12	1.12	.72	.72	.57	.57	.57	.57	.57	.57	.57
1935	1.57	1.22	1.41	1.01	1.03	.72	.72	.72	.72	.72	.72	.72
1936	1.22	1.20	1.58	1.01	1.03	.72	.72	.72	.72	.72	.72	.72
1937	1.70	1.58	1.01	1.03	1.03	.72	.72	.72	.72	.72	.72	.72
1938	1.71	1.60	1.24	1.03	1.03	.72	.72	.72	.72	.72	.72	.72
1939	1.61	1.24	1.24	1.03	1.03	.72	.72	.72	.72	.72	.72	.72
1940	1.63	1.24	1.24	1.03	1.03	.72	.72	.72	.72	.72	.72	.72
1941	1.52	1.24	1.24	1.03	1.03	.72	.72	.72	.72	.72	.72	.72
1942	1.24	1.24	1.24	1.03	1.03	.72	.72	.72	.72	.72	.72	.72
1943	1.23	1.24	1.24	1.03	1.03	.72	.72	.72	.72	.72	.72	.72
1944	1.66	1.72	1.21	1.21	1.03	.72	.72	.72	.72	.72	.72	.72
1945	1.20	1.20	1.23	1.03	1.03	.72	.72	.72	.72	.72	.72	.72
1946	1.27	1.27	1.14	1.03	1.03	.72	.72	.72	.72	.72	.72	.72
1947	1.20	1.20	1.20	1.03	1.03	.72	.72	.72	.72	.72	.72	.72
1948	1.19	1.43	1.24	1.03	1.03	.72	.72	.72	.72	.72	.72	.72
Mean	1.61	1.26	1.24	1.03	1.03	.72	.72	.72	.72	.72	.72	.72

MASS. EXPERIMENT STATION BULLETIN 367

MAXIMUM BAROMETER

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	ANNUAL
1880	30.83	30.87	30.86	30.84	30.89	30.84	30.83	30.85	30.80	30.82	30.87	30.94	30.97
1881	30.84	30.73	30.80	30.87	30.82	30.74	30.77	30.84	30.82	30.83	30.83	30.81	30.94
1882	30.82	30.73	30.83	30.83	30.81	30.72	30.77	30.81	30.87	30.87	30.83	30.83	30.74
1883	30.87	30.81	30.82	30.82	30.82	30.86	30.85	30.86	30.85	30.83	30.84	30.83	30.72
1884	30.81	30.80	30.87	30.82	30.89	30.83	30.81	30.84	30.82	30.83	30.87	30.92	30.92
1885	30.77	30.89	30.87	30.82	30.89	30.83	30.81	30.84	30.83	30.83	30.83	30.83	30.88
1886	30.81	30.84	30.82	30.87	30.80	30.81	30.83	30.84	30.87	30.87	30.83	30.83	30.85
1887	30.86	30.89	30.87	30.87	30.89	30.88	30.87	30.89	30.89	30.88	30.86	30.84	30.94
1888	30.87	30.76	30.85	30.81	30.85	30.84	30.82	30.85	30.85	30.87	30.86	30.86	30.86
1889	30.81	30.84	30.86	30.84	30.84	30.83	30.83	30.84	30.84	30.84	30.83	30.83	30.86
1890	30.87	30.83	30.89	30.86	30.89	30.83	30.84	30.81	30.87	30.80	30.84	30.86	30.92
1891	30.87	30.73	30.86	30.84	30.84	30.88	30.86	30.85	30.83	30.82	30.84	30.81	30.78
1892	30.86	30.84	30.84	30.83	30.82	30.80	30.84	30.84	30.86	30.86	30.84	30.86	30.86
1893	30.89	30.84	30.87	30.87	30.86	30.84	30.87	30.89	30.88	30.88	30.87	30.87	30.87
1894	30.82	30.84	30.84	30.84	30.84	30.83	30.84	30.84	30.84	30.84	30.84	30.84	30.84
1895	30.87	30.87	30.86	30.85	30.87	30.83	30.85	30.87	30.87	30.87	30.87	30.87	30.86
1896	30.80	30.82	30.82	30.82	30.82	30.80	30.82	30.82	30.82	30.82	30.82	30.82	30.82
1897	30.87	30.79	30.85	30.81	30.85	30.82	30.83	30.85	30.85	30.85	30.85	30.85	30.85
1898	30.87	30.84	30.86	30.84	30.84	30.83	30.84	30.84	30.84	30.84	30.84	30.84	30.84
1899	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1900	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1901	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1902	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1903	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1904	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1905	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1906	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1907	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1908	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1909	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1910	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1911	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1912	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1913	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1914	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1915	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1916	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1917	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1918	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1919	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1920	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1921	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1922	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1923	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1924	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1925	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1926	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1927	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1928	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1929	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1930	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1931	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1932	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1933	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1934	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1935	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1936	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1937	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
1938	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87	30.87
Mean . . .	30.79	30.82	30.87	30.85	30.89	30.82	30.87	30.82	30.83	30.83	30.83	30.86	30.81
Maximum . . .	31.80	31.88	31.93	31.71	31.67	31.84	31.80	31.80	31.85	31.85	31.85	31.94	31.66

METEOROLOGICAL RECORDS

7

MINIMUM BAROMETER

YEAR	Barometric Pressure												Mean	Minimum
	1	2	3	4	5	6	7	8	9	10	11	12		
1890	29.30	29.46	29.04	29.34	29.43	29.57	29.67	29.70	29.42	29.34	29.31	29.08		
1891	29.44	29.27	29.45	29.40	29.51	29.59	29.63	29.64	29.14	29.37	29.61	29.18		
1892	29.59	29.17	29.31	29.14	29.63	29.60	29.61	29.62	29.36	29.18	29.51	29.09		
1893	29.70	29.07	29.29	29.51	29.47	29.53	29.51	29.40	29.45	29.64	29.24	29.34		
1894	29.58	29.00	29.26	29.43	29.16	29.60	29.57	29.37	29.24	29.24	29.34	29.00		
1895	29.54	29.24	29.53	29.60	29.57	29.48	29.42	29.74	29.87	29.42	29.31	29.51		
1896	29.56	29.36	29.28	29.40	29.42	29.43	29.42	29.76	29.73	29.36	29.26	29.03		
1897	29.50	29.72	29.10	29.64	29.73	29.39	29.70	29.81	29.53	29.32	29.61	29.57		
1898	29.30	29.53	29.14	29.51	29.63	29.61	29.57	29.67	29.31	29.17	29.47	29.12		
1899	29.18	29.01	29.49	29.48	29.57	29.40	29.63	29.64	29.37	29.26	29.13	29.01		
1900	29.22	29.12	29.84	29.49	29.60	29.66	29.63	29.73	29.84	29.74	29.44	29.10		
1901	29.08	29.86	29.06	29.47	29.30	29.51	29.42	29.72	29.32	29.12	29.03	29.01		
1902	29.01	29.37	29.26	29.33	29.41	29.63	29.70	29.78	29.51	29.44	29.23	29.05		
1903	29.17	29.80	29.95	29.24	29.61	29.76	29.61	29.50	29.69	29.77	29.34	29.41		
1904	29.13	29.83	29.44	29.31	29.69	29.42	29.60	29.64	29.43	29.26	29.34	29.06		
1905	29.40	29.21	29.39	29.50	29.62	29.54	29.51	29.69	29.42	29.26	29.73	29.11		
1906	29.23	29.34	29.71	29.22	29.51	29.36	29.37	29.51	29.51	29.47	29.27	29.26		
1907	29.29	29.67	29.67	29.41	29.50	29.69	29.51	29.42	29.46	29.45	29.10	29.06		
1908	29.41	29.51	29.20	29.50	29.69	29.51	29.42	29.64	29.43	29.36	29.12	29.07		
1909	29.36	29.94	29.37	29.77	29.30	29.73	29.60	29.66	29.42	29.31	29.21	29.06		
1910	29.11	29.97	29.64	29.44	29.47	29.58	29.36	29.47	29.51	29.77	29.59	29.04		
1911	29.11	29.49	29.20	29.37	29.36	29.61	29.61	29.41	29.37	29.42	29.39	29.11		
1912	29.16	29.53	29.05	29.57	29.43	29.65	29.52	29.54	29.34	29.11	29.17	29.07		
1913	29.00	29.72	29.77	29.30	29.30	29.67	29.67	29.51	29.31	29.50	29.13	29.05		
1914	29.53	29.56	29.20	29.39	29.45	29.62	29.62	29.69	29.49	29.37	29.14	29.07		
1915	29.04	29.14	29.47	29.37	29.49	29.64	29.64	29.71	29.69	29.47	29.34	29.01		
1916	29.30	29.77	29.52	29.52	29.45	29.60	29.66	29.64	29.34	29.34	29.41	29.05		
1917	29.47	29.76	29.19	29.34	29.27	29.61	29.51	29.51	29.49	29.40	29.37	29.76		
1918	29.36	29.81	29.44	29.34	29.47	29.75	29.60	29.59	29.49	29.49	29.37	29.33		
1919	29.34	29.86	29.43	29.36	29.51	29.41	29.69	29.72	29.69	29.44	29.33	29.51		
1920	29.22	29.27	29.39	29.63	29.71	29.78	29.50	29.64	29.56	29.37	29.61	29.20		
1921	29.41	29.21	29.03	29.29	29.72	29.54	29.57	29.62	29.51	29.31	29.37	29.12		
1922	29.47	29.43	29.61	29.51	29.70	29.51	29.63	29.64	29.61	29.47	29.39	29.62		
1923	29.92	29.33	29.35	29.34	29.43	29.43	29.61	29.67	29.47	29.34	29.47	29.20		
1924	29.43	29.46	29.14	29.34	29.44	29.23	29.67	29.67	29.44	29.71	29.34	29.20		
1925	29.22	29.62	29.27	29.43	29.26	29.56	29.51	29.45	29.45	29.35	29.37	29.10		
1926	29.19	29.29	29.42	29.27	29.47	29.61	29.51	29.54	29.49	29.73	29.70	29.07		
1927	29.31	29.37	29.19	29.35	29.43	29.56	29.50	29.51	29.71	29.73	29.13	29.15		
1928	29.30	29.24	29.30	29.24	29.34	29.50	29.47	29.67	29.44	29.44	29.44	29.30		
1929	29.13	29.50	29.01	29.39	29.23	29.49	29.49	29.51	29.42	29.71	29.15	29.47		
1930	29.74	29.62	29.09	29.07	29.57	29.55	29.51	29.43	29.67	29.26	29.37	29.47		
1931	29.94	29.63	29.23	29.37	29.55	29.51	29.50	29.47	29.67	29.41	29.51	29.49		
1932	29.27	29.45	29.64	29.17	29.73	29.43	29.43	29.47	29.71	29.69	29.44	29.37		
1933	29.34	29.31	29.49	29.39	29.23	29.61	29.43	29.47	29.13	29.43	29.11	29.31		
1934	29.04	29.11	29.67	29.20	29.44	29.57	29.71	29.71	29.70	29.51	29.57	29.04		
1935	29.41	29.49	29.45	29.14	29.51	29.44	29.41	29.37	29.49	29.17	29.34	29.41		
1936	29.17	29.67	29.74	29.61	29.51	29.41	29.47	29.49	29.17	29.71	29.47	29.16		
1937	29.53	29.23	29.29	29.49	29.64	29.44	29.47	29.47	29.71	29.47	29.34	29.15		
1938	29.31	29.23	29.24	29.10	29.10	29.43	29.43	29.43	29.67	29.61	29.37	29.41		
Mean	29.30	29.24	29.24	29.24	29.41	29.34	29.34	29.31	29.47	29.42	29.20	29.27	29.00	
Minimum	29.35	29.34	29.47	29.30	29.30	29.34	29.37	29.37	29.41	29.40	29.72	29.34	29.41	

MEAN TEMPERATURE (IN DEGREES F.)

YEAR	January	February	March	April	May	June	July	August	September	October	November	December	Annual	
1890	32.9	22.9	17.9	31.1	51.2	67.9	80.5	85.9	82.1	66.4	41.4	34.5	49.5	
1891	31.0	21.6	16.9	31.8	51.3	67.2	80.4	85.2	82.6	65.9	31.8	21.8	46.8	
1892	29.4	21.6	17.7	37.8	53.6	72.2	85.2	89.0	84.9	64.7	34.1	30.9	44.2	
1893	21.6	20.1	16.6	41.2	54.6	70.3	80.0	85.9	82.3	65.6	37.8	26.3	46.7	
1894	19.1	21.9	20.6	43.0	53.8	66.9	80.1	89.1	85.8	52.6	38.2	25.5	46.2	
1895	26.8	21.8	19.6	44.7	57.3	77.8	82.9	87.9	83.4	51.6	34.8	26.9	44.2	
1896	21.8	19.3	17.1	43.6	50.7	69.1	87.8	89.7	84.1	43.6	31.6	21.6	47.0	
1897	21.7	20.0	17.2	42.9	51.0	64.0	71.3	81.8	82.5	47.1	42.2	25.6	47.0	
1898	26.7	21.6	17.1	47.0	55.7	62.0	71.6	85.8	81.1	49.8	36.2	24.8	46.8	
1899	21.8	20.0	19.7	42.6	53.2	66.1	70.9	70.3	62.6	51.1	37.5	23.8	47.8	
1900	22.9	21.2	17.6	45.8	57.6	67.8	80.8	85.6	80.4	51.9	37.3	31.0	47.2	
1901	24.6	21.8	20.1	42.8	53.1	67.1	71.5	72.6	64.5	55.4	40.8	29.4	46.1	
1902	21.6	19.2	17.8	46.6	55.7	65.7	73.3	70.4	62.7	50.7	32.6	25.7	46.8	
1903	22.2	21.3	16.5	47.2	56.6	62.1	68.3	66.2	61.9	50.3	42.4	23.7	47.2	
1904	26.2	27.3	42.9	67.1	59.8	69.3	69.3	61.4	61.4	51.4	35.1	22.1	47.0	
1905	14.2	17.3	19.3	43.2	60.3	63.2	70.4	85.9	80.2	46.0	34.0	19.4	44.0	
1906	21.6	17.6	19.8	46.1	57.0	64.3	71.8	70.2	56.2	50.8	36.5	21.6	46.1	
1907	21.2	21.3	20.0	45.9	56.9	65.1	71.1	71.2	61.8	51.4	34.7	24.1	47.6	
1908	22.1	16.1	17.5	41.7	51.7	61.7	70.4	65.5	62.0	45.7	34.6	31.2	43.4	
1909	23.9	20.6	18.8	45.9	56.9	67.3	72.8	67.0	64.0	52.8	38.8	27.6	44.0	
1910	23.4	20.3	17.2	43.1	53.7	66.1	68.9	65.8	60.7	48.7	42.0	25.8	47.3	
1911	26.2	21.6	16.3	41.6	57.0	63.7	72.2	67.1	61.7	52.3	37.1	21.9	47.8	
1912	27.3	22.3	17.7	42.3	52.8	62.3	74.6	68.8	61.4	50.0	37.2	33.8	46.0	
1913	14.7	21.4	19.9	41.9	54.2	55.8	64.9	71.9	65.4	61.6	53.2	40.8	33.1	46.9
1914	24.2	22.7	18.3	48.0	53.8	66.0	71.6	69.9	63.0	53.5	41.8	32.0	49.6	
1915	22.6	17.9	17.7	42.6	54.9	64.8	64.6	69.7	61.0	54.2	37.6	24.7	46.3	
1916	27.1	25.9	12.8	51.1	53.8	64.5	69.9	67.0	60.0	52.6	40.8	27.0	46.4	
1917	27.7	21.1	19.8	44.6	55.2	61.3	72.8	70.8	61.3	51.7	39.1	26.5	46.4	
1918	22.3	19.9	19.9	42.1	69.3	65.3	72.3	58.4	47.4	34.6	17.1	44.8		
1919	12.9	19.6	17.6	44.2	62.3	62.0	71.1	71.6	58.0	52.1	40.0	29.3	46.9	
1920	22.7	21.7	18.3	45.7	57.6	68.3	71.8	63.8	61.9	51.6	40.1	23.2	46.5	
1921	21.2	21.3	24.3	41.2	54.3	64.7	69.7	71.8	64.1	56.4	35.9	31.0	46.8	
1922	20.9	21.3	42.8	51.0	59.0	64.4	74.7	67.2	65.6	50.9	37.9	25.8	46.8	
1923	20.1	21.6	15.2	43.8	52.0	67.4	70.6	65.2	64.0	31.7	30.8	25.1	47.8	
1924	19.7	17.9	17.9	43.9	56.6	63.6	67.9	68.8	67.6	51.9	31.1	30.8	46.8	
1925	23.6	20.7	18.3	45.7	57.6	68.3	71.6	70.3	59.2	51.8	40.5	25.8	46.7	
1926	14.2	21.3	24.3	41.2	54.3	64.7	69.7	71.8	64.1	56.4	35.9	31.0	46.8	
1927	20.9	21.3	42.8	51.0	59.0	64.4	74.7	67.2	65.6	50.9	37.9	25.8	46.8	
1928	20.1	21.6	15.2	43.8	52.0	67.4	70.6	65.2	64.0	31.7	30.8	25.1	47.8	
1929	19.7	17.9	17.9	43.9	56.6	63.6	67.9	68.8	67.6	51.9	31.1	30.8	46.8	
1930	23.6	20.7	18.3	45.7	57.6	68.3	71.6	70.3	59.2	51.8	40.5	25.8	46.7	
1931	21.4	19.1	17.1	47.3	54.0	62.2	69.1	63.0	61.0	43.5	35.0	29.0	47.6	
1932	21.3	20.5	19.4	47.2	54.5	61.6	70.3	62.0	58.5	47.8	39.8	30.1	47.2	
1933	21.7	21.3	17.7	45.0	51.9	61.9	70.6	64.9	61.3	54.0	43.9	39.7	47.9	
1934	21.6	21.3	17.1	45.9	52.3	62.3	69.9	63.3	61.9	51.8	40.0	32.4	47.8	
1935	22.8	22.3	17.8	45.3	54.6	67.1	70.1	65.5	63.1	49.0	39.6	28.1	47.6	
1936	20.0	20.2	15.0	44.1	50.1	60.1	70.6	69.9	67.8	64.0	49.8	40.2	34.1	
1937	21.9	22.6	17.3	45.7	54.7	66.7	72.1	69.6	64.8	53.6	44.1	21.6	46.4	
1938	21.9	22.3	17.3	45.3	54.3	65.7	72.1	69.7	64.9	52.5	35.5	31.2	46.2	
1939	22.8	22.3	17.8	45.3	54.6	67.1	70.1	65.5	63.1	49.0	39.6	28.1	47.6	
1940	20.0	21.6	17.8	45.2	54.6	67.6	72.4	65.0	64.6	47.7	42.8	26.4	46.7	
1941	19.0	20.0	17.8	45.0	54.6	65.6	72.2	64.6	62.1	50.4	43.4	34.9	47.1	
1942	21.8	19.1	16.9	43.8	52.6	59.3	67.0	70.8	69.7	59.6	39.6	31.8	47.9	
1943	21.7	20.0	17.3	45.0	54.3	65.3	69.9	71.6	71.3	61.0	49.6	39.9	49.0	
1944	21.8	20.8	17.4	45.3	55.6	67.1	71.7	72.4	70.6	59.6	51.2	41.3	46.2	
Mean	24.2	21.7	16.4	45.7	57.1	63.7	70.8	68.6	61.7	50.5	39.9	27.8	47.4	

METEOROLOGICAL RECORDS

9

RANGE OF TEMPERATURE (IN DEGREES F.)

YEAR	January	February	March	April	May	June	July	August	September	October	November	December	Avg.
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1940	48.0	60.0	55.0	65.0	70.0	64.0	71.0	77.0	61.0	61.0	51.0	37.5	57.5
1941	37.0	44.5	50.0	57.5	65.5	47.5	54.0	67.0	52.0	52.0	51.0	44.5	51.0
1942	32.5	43.5	57.5	62.0	67.0	49.5	54.5	67.5	51.5	52.0	51.5	40.5	51.5
1943	35.5	51.5	54.5	58.5	65.0	54.0	58.0	64.0	54.5	51.0	52.0	47.0	51.5
1944	63.0	74.5	68.0	74.5	87.0	72.5	79.5	87.0	81.0	87.0	82.0	64.0	76.0
1945	57.0	69.0	64.0	71.0	86.0	55.5	65.5	86.0	54.0	63.0	51.0	45.0	61.5
1946	51.0	65.0	64.0	75.0	86.0	62.5	71.0	84.0	52.0	64.0	51.0	45.0	63.0
1947	57.0	67.0	52.0	67.5	82.5	51.0	61.0	85.0	57.5	62.0	54.0	47.0	61.0
1948	51.0	69.0	60.5	70.0	84.0	47.5	57.0	81.0	50.5	61.5	54.0	42.5	60.5
1949	63.5	72.0	65.5	74.0	86.0	59.0	66.5	86.5	56.5	68.5	56.0	49.0	63.5
1950	70.5	81.0	72.0	81.0	92.5	51.5	67.0	91.0	51.5	61.5	57.5	50.0	71.5
1951	86.0	94.0	85.0	95.0	97.5	84.0	91.0	93.0	83.5	81.0	85.0	77.5	90.5
1952	55.0	68.5	57.0	54.5	59.5	47.5	52.0	51.5	50.0	51.0	51.0	70.5	51.5
1953	47.5	50.0	50.5	57.0	61.0	49.0	53.0	64.0	51.5	51.5	47.5	44.0	50.5
1954	57.5	68.0	57.0	62.0	69.0	58.5	62.5	62.0	60.5	63.0	68.5	61.5	60.0
1955	65.0	76.0	64.0	70.5	80.5	51.5	64.0	89.5	54.5	59.5	50.0	47.0	65.5
1956	64.0	79.5	76.0	87.0	91.5	54.0	67.0	87.5	51.0	59.0	51.0	51.5	76.5
1957	55.5	57.5	50.5	53.5	58.5	50.5	57.5	57.0	51.0	51.5	51.5	48.5	51.5
1958	78.0	81.5	74.0	80.0	85.0	57.0	63.0	85.0	52.0	52.5	50.5	52.5	71.5
1959	58.5	68.0	62.0	66.0	73.0	53.5	59.5	70.5	51.5	55.0	57.5	63.5	60.0
1960	61.0	77.5	61.0	61.0	79.0	51.5	51.0	56.0	48.0	61.0	51.5	47.0	57.5
1961	65.0	78.0	65.5	75.0	85.0	51.0	51.0	55.0	48.5	54.0	54.0	44.0	56.0
1962	49.0	54.5	51.5	54.0	64.0	47.5	52.0	55.0	50.0	49.5	51.0	52.0	50.5
1963	64.0	69.0	50.5	54.0	55.5	51.0	57.5	51.0	51.0	56.5	54.5	42.0	51.5
1964	65.5	70.5	62.0	66.0	73.0	53.5	59.5	70.5	50.5	55.0	56.5	44.0	54.5
1965	61.0	77.5	61.0	61.0	79.0	51.5	51.0	56.0	48.0	61.0	51.5	47.0	57.5
1966	65.0	78.0	65.5	75.0	85.0	51.0	51.0	55.0	48.5	54.0	54.0	44.0	56.0
1967	51.0	54.5	51.5	54.0	64.0	47.5	52.0	55.0	50.0	49.5	51.0	52.0	50.5
1968	61.0	77.5	61.0	61.0	79.0	51.5	51.0	56.0	48.0	61.0	51.5	47.0	57.5
1969	66.0	70.5	66.0	70.5	74.0	51.5	64.0	72.0	52.5	57.0	57.0	77.0	55.0
1970	58.0	69.0	44.5	49.5	54.5	42.0	43.0	44.0	44.5	51.5	51.5	51.0	57.5
1971	62.5	63.5	59.0	63.5	65.5	45.5	46.0	47.0	39.5	51.0	54.5	51.5	51.5
1972	51.0	62.0	50.5	65.0	52.5	39.5	47.0	52.0	42.5	54.5	51.0	51.0	52.5
1973	64.0	73.5	60.5	63.5	68.0	53.5	54.5	56.0	54.5	51.0	53.5	53.5	52.5
1974	66.0	70.5	67.5	71.5	74.5	51.5	66.0	72.0	52.5	57.0	57.0	77.0	55.0
1975	58.0	69.0	44.5	49.5	54.5	42.0	43.0	44.0	44.5	51.5	51.5	51.0	57.5
1976	62.5	63.5	59.0	63.5	65.5	45.5	46.0	47.0	39.5	51.0	54.5	51.5	51.5
1977	51.0	62.0	50.5	65.0	52.5	39.5	47.0	52.0	42.5	54.5	51.0	51.0	52.5
1978	64.0	73.5	60.5	63.5	68.0	53.5	54.5	56.0	54.5	51.0	53.5	53.5	52.5
1979	42.5	57.5	56.0	56.0	56.0	39.5	49.0	45.0	51.0	54.5	57.0	47.0	51.0
1980	47.5	61.0	71.5	52.5	51.0	43.0	42.5	41.5	41.0	42.0	45.0	51.0	51.0
1981	55.0	59.0	61.5	59.5	56.0	55.5	56.0	56.0	56.0	56.0	56.0	54.0	57.0
1982	51.0	61.0	51.0	61.0	57.0	50.5	51.0	45.0	45.5	49.0	51.5	51.5	51.5
1983	62.5	56.5	61.0	77.5	87.5	52.5	59.5	56.5	56.5	56.5	56.5	51.0	59.5
1984	62.0	67.0	50.0	49.0	41.0	47.5	48.5	55.0	54.0	50.0	50.0	50.0	50.0
1985	51.5	53.0	47.0	51.5	56.5	52.0	54.0	54.0	51.5	54.0	51.5	51.0	51.0
1986	49.0	50.0	17.5	37.5	50.0	51.5	51.0	45.5	45.5	50.0	50.0	51.0	51.0
1987	36.0	49.0	64.0	41.0	44.0	51.5	47.5	35.5	35.5	41.0	41.0	51.0	51.0
1988	36.0	54.0	60.0	62.0	69.5	42.5	48.5	56.0	50.0	58.0	58.0	47.5	58.5
1989	47.0	50.0	64.0	44.0	41.0	37.0	46.0	47.0	46.0	54.0	54.0	47.0	54.0
1990	47.0	71.0	42.0	50.0	57.0	35.0	45.0	49.0	45.0	51.0	51.0	44.0	51.0
1991	34.0	51.0	51.0	52.0	41.0	49.0	41.0	29.0	24.0	51.0	51.0	47.0	51.0
1992	34.0	61.0	64.0	51.0	61.0	51.0	61.0	61.0	60.0	54.0	54.0	51.0	54.0
1993	44.0	61.0	50.0	54.0	62.0	41.0	46.0	51.0	46.0	51.0	51.0	51.0	51.0
1994	39.0	59.0	59.0	59.0	59.0	54.0	54.0	54.0	51.0	51.0	51.0	51.0	51.0
1995	47.0	50.0	50.0	50.0	50.0	47.0	47.0	47.0	47.0	51.0	51.0	47.0	51.0
1996	47.0	51.0	41.0	61.0	51.0	47.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0
1997	37.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0
1998	49.0	49.0	49.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0
1999	70.0	61.0	70.0	70.0	61.0	69.0	61.0	61.0	51.0	51.0	51.0	51.0	51.0
Mann	54.2	54.0	57.6	57.4	54.9	51.3	57.7	61.1	54.8	54.8	54.8	54.2	57.8

HOOTON TEMPERATURES (in Degrees F.)

YEAR	HOOTON												Annual
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	
1890	55.0	57.0	61.0	70.0	80.0	84.0	92.0	81.0	68.0	61.0	52.0	51.0	51.0
1891	61.5	57.5	62.5	70.5	80.5	84.5	92.5	72.0	62.5	54.5	49.0	49.0	49.0
1892	52.0	54.0	54.5	70.5	80.5	84.0	92.0	80.0	68.0	60.5	50.5	49.0	49.0
1893	57.0	49.5	50.5	70.5	84.0	85.0	94.0	80.0	77.5	67.0	46.0	36.0	36.0
1894	50.0	50.0	52.0	67.5	70.0	84.0	94.0	81.0	60.0	53.0	52.0	52.0	52.0
1895	52.0	50.0	70.0	70.0	81.0	83.0	91.0	91.0	73.0	65.0	51.0	51.0	51.0
1896	44.5	41.0	49.0	51.0	62.0	80.0	90.0	80.0	67.0	71.0	72.0	66.0	67.0
1897	41.0	41.0	47.0	58.5	64.5	81.0	97.0	88.5	72.0	69.0	42.5	37.0	37.0
1898	51.0	51.0	52.0	50.5	70.5	70.5	91.0	82.0	61.0	59.0	50.0	51.5	51.5
1899	50.0	44.0	50.0	71.0	70.5	88.0	91.0	88.0	83.0	83.0	48.0	48.0	48.0
1900	48.0	51.0	52.0	62.0	68.5	83.0	95.0	93.0	84.0	82.0	68.0	61.0	68.0
1901	51.5	54.0	49.0	51.0	91.5	94.0	98.5	98.0	92.0	87.0	84.0	94.0	94.0
1902	47.0	44.0	54.5	52.0	81.5	84.0	90.0	88.0	82.0	73.0	60.0	100.5	100.5
1903	47.0	44.0	51.0	52.0	91.0	95.0	98.0	97.0	98.5	74.0	65.0	91.0	91.0
1904	44.5	57.0	70.0	84.0	92.5	94.0	97.0	94.0	81.0	77.5	74.5	82.0	97.0
1905	50.0	48.0	51.0	70.5	81.0	92.0	94.0	98.0	84.5	77.5	64.5	48.5	94.5
1906	51.0	44.5	77.0	70.0	87.5	90.0	93.0	90.0	85.0	81.0	54.5	93.0	93.0
1907	50.0	42.5	52.0	74.5	80.0	87.5	93.0	90.0	81.0	77.5	62.0	45.5	91.0
1908	51.0	54.0	67.0	70.5	80.0	84.0	90.0	92.0	88.0	80.5	68.0	68.0	94.0
1909	54.0	44.5	54.0	50.0	61.5	91.0	92.0	94.0	88.0	85.0	73.0	51.5	94.0
1910	50.0	43.5	78.0	80.0	92.0	94.0	95.0	94.0	92.0	84.0	61.0	47.0	97.0
1911	50.5	41.5	50.0	52.0	94.5	98.0	100.0	94.0	94.0	72.5	66.5	62.0	104.0
1912	44.0	41.0	50.5	70.5	80.0	94.0	98.0	90.0	81.0	70.0	65.0	49.5	94.0
1913	50.0	54.0	67.0	84.0	98.5	91.0	98.0	98.0	97.0	87.0	78.0	68.0	100.0
1914	53.0	46.5	54.0	50.0	62.5	91.0	92.0	94.0	88.0	85.0	71.5	59.5	94.5
1915	44.0	41.0	57.5	50.0	80.0	91.0	97.0	95.0	92.0	84.0	64.0	53.0	93.0
1916	57.5	47.5	65.0	72.5	81.5	94.0	98.0	92.0	92.0	84.0	64.0	54.5	93.5
1917	47.5	46.0	54.0	71.0	81.0	90.0	98.0	90.0	85.0	70.0	62.0	40.5	94.5
1918	44.0	51.0	68.0	74.0	94.0	98.0	100.0	97.0	97.0	87.0	78.0	63.0	100.0
1919	53.0	46.5	68.0	62.5	91.0	92.0	98.0	98.0	98.0	94.5	71.5	59.5	94.5
1920	44.0	41.0	37.5	50.0	80.0	91.0	98.0	91.0	86.0	76.0	69.0	53.0	93.0
1921	57.5	47.5	65.0	72.5	81.5	94.0	98.0	92.0	92.0	84.0	64.0	54.5	93.5
1922	47.5	46.0	54.0	71.0	81.0	90.0	98.0	90.0	85.0	70.0	62.0	40.5	94.5
1923	44.0	51.0	68.0	74.0	94.0	98.0	100.0	97.0	97.0	87.0	78.0	63.0	100.0
1924	54.0	45.0	68.0	71.0	74.0	97.0	98.0	97.0	97.0	95.0	78.0	58.0	97.0
1925	41.5	41.0	70.5	74.5	81.5	90.0	97.0	91.0	82.0	72.0	62.0	54.0	92.0
1926	50.0	41.0	78.0	80.0	92.0	98.0	100.0	91.0	97.0	81.0	66.0	57.0	94.0
1927	41.0	40.0	74.0	71.0	80.0	91.0	92.0	92.0	94.5	89.0	70.0	61.5	91.0
1928	44.0	50.0	62.5	62.5	80.5	92.0	93.0	92.0	94.0	88.0	72.0	64.0	93.0
1929	50.0	54.0	67.0	70.0	82.0	92.0	94.0	94.0	97.0	78.0	74.0	46.0	97.0
1930	50.0	51.0	54.0	71.0	82.0	94.0	98.0	94.0	98.0	92.0	84.0	43.0	94.0
1931	50.0	45.0	54.0	70.0	81.0	94.0	98.0	94.0	94.0	92.0	72.0	54.0	94.0
1932	50.0	44.0	51.0	71.0	81.0	94.0	98.0	94.0	94.0	92.0	70.0	52.0	92.0
1933	50.0	51.0	57.0	70.0	87.0	97.0	97.0	97.0	98.0	92.0	92.0	92.0	92.0
1934	41.0	37.0	61.0	71.0	84.0	92.0	93.0	93.0	92.0	72.0	67.0	64.0	92.0
1935	44.0	42.0	54.0	54.0	71.0	92.0	98.0	92.0	92.0	81.0	70.0	44.0	94.0
1936	44.0	44.0	72.0	75.0	91.0	92.0	98.0	92.0	92.0	81.0	73.0	53.0	94.0
1937	44.0	41.0	54.0	71.0	82.0	92.0	98.0	92.0	92.0	81.0	74.0	61.0	94.0
1938	50.0	49.0	58.0	62.0	77.0	91.0	92.0	92.0	92.0	87.0	83.0	56.0	94.0
Mean . . .	51.1	49.5	62.5	70.4	84.1	91.2	98.2	91.0	87.7	79.4	64.0	54.3	94.7
Highest . . .	61.0	61.0	61.0	70.5	84.5	90.5	101.0	104.0	102.0	97.0	90.5	75.0	104.0

METEOROLOGICAL RECORDS

11

LOWEST TEMPERATURES (in Degrees F.)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	AVERAGE
1898	-8.0	-4.0	21.0	22.0	26.0	32.0	46.0	54.0	62.0	65.0	69.0	72.0	51.4
1899	-4.5	-3.0	-4.5	-1.0	18.0	21.5	30.5	39.0	46.0	51.0	54.5	59.0	11.5
1900	-0.4	-4.0	-1.0	1.0	18.0	22.0	34.0	41.0	48.0	50.0	52.0	55.0	10.5
1901	-8.5	-7.0	6.0	10.5	24.0	41.0	42.0	45.0	51.0	52.0	54.0	59.0	-1.0
1902	-13.0	-4.5	4.0	19.0	30.0	41.0	41.0	45.0	51.0	52.0	54.0	59.0	-12.5
1903	-1.0	-17.0	17.0	16.0	29.0	37.0	48.0	57.0	64.0	65.0	69.0	72.0	-4.0
1904	-4.5	-10.0	8.0	22.0	29.0	44.0	44.0	50.0	55.0	56.0	59.0	62.0	-10.0
1905	-12.0	-14.0	8.0	21.0	22.0	30.0	35.0	42.0	51.0	52.0	54.0	59.0	-6.5
1906	0.0	-11.0	-1.0	18.0	28.0	31.0	36.0	45.0	52.0	53.0	54.0	58.0	-11.0
1907	-18.0	-19.0	16.0	17.0	22.0	28.0	40.0	45.0	52.0	53.0	54.0	59.0	-19.0
1908	-21.0	-10.0	10.0	21.0	23.0	42.0	42.0	47.0	52.0	53.0	57.0	62.0	-6.5
1909	-4.5	-4.0	3.0	21.0	24.0	40.0	44.0	42.0	45.0	46.0	47.0	50.0	0.5
1910	-0.0	-4.0	-0.5	22.0	28.0	41.0	42.0	48.0	52.0	53.0	54.0	59.0	-10.5
1911	-0.0	-4.0	-0.5	18.0	21.0	31.0	37.0	44.0	47.0	48.0	49.0	52.0	-1.5
1912	-0.5	-8.0	18.0	22.0	29.0	40.0	44.0	45.0	48.0	49.0	51.0	54.0	-1.5
1913	-12.0	-11.0	18.0	22.0	24.0	32.0	44.0	42.0	50.0	52.0	54.0	59.0	-9.5
1914	-20.0	-4.0	-8.0	20.0	27.0	44.0	48.0	50.0	52.0	53.0	56.0	7.0	-8.5
1915	-12.0	-11.0	1.0	22.0	22.0	35.0	45.0	52.0	54.0	55.0	57.0	61.0	-3.0
1916	1.0	-4.0	-7.0	21.0	21.0	31.0	37.0	44.0	47.0	48.0	51.0	54.0	-7.5
1917	-22.0	-18.0	8.0	20.0	23.0	32.0	44.0	41.0	49.0	50.0	51.0	55.0	-18.5
1918	-4.0	-12.0	8.0	18.0	23.0	38.0	48.0	57.0	51.0	52.0	53.0	58.0	-12.0
1919	-7.0	-2.0	12.0	19.0	22.0	40.0	42.0	50.0	52.0	53.0	54.0	58.0	-6.5
1920	-0.0	-7.0	12.0	24.0	31.0	44.0	45.0	51.0	52.0	53.0	54.0	59.0	-2.0
1921	1.0	-3.0	12.0	18.0	27.0	44.0	49.0	44.0	49.0	50.0	54.0	59.0	-4.0
1922	-19.0	-16.0	1.0	24.0	22.0	36.0	41.0	39.0	45.0	46.0	48.0	51.0	-16.0
1923	11.0	-4.0	1.0	22.0	28.0	37.0	41.0	41.0	41.0	42.0	44.0	50.0	-4.0
1924	-14.0	-17.0	8.0	22.0	27.0	39.0	42.0	47.0	50.0	51.0	52.0	54.0	-18.5
1925	-4.0	-2.0	12.0	21.0	24.0	37.0	44.0	42.0	45.0	46.0	48.0	52.0	-1.0
1926	-4.0	-16.0	0.0	24.0	26.0	40.0	44.0	48.0	51.0	52.0	54.0	58.0	-14.0
1927	-3.0	-16.0	-6.0	24.0	28.0	41.0	51.0	44.0	46.0	47.0	48.0	52.0	-16.0
1928	-21.0	-22.0	8.0	24.0	28.0	42.0	44.0	44.0	45.0	46.0	47.0	52.0	-22.0
1929	-8.5	8.5	12.0	12.0	22.0	41.0	49.0	42.0	51.0	52.0	57.0	17.0	-9.0
1930	-16.0	-18.0	-1.0	22.0	28.0	44.0	44.0	44.0	45.0	47.0	50.0	55.0	-4.0
1931	-4.0	-4.0	16.0	25.0	25.0	40.0	44.0	44.0	45.0	46.0	47.0	52.0	-1.0
1932	-12.0	-12.0	7.0	24.0	24.0	42.0	42.0	43.0	44.0	45.0	46.0	51.0	-12.0
1933	-12.0	-10.0	-4.0	8.0	22.0	42.0	42.0	47.0	47.0	48.0	50.0	55.0	-7.0
1934	-8.0	-6.0	8.0	22.0	22.0	39.0	47.0	42.0	42.0	43.0	45.0	48.0	-6.0
1935	-12.0	-4.0	7.0	24.0	24.0	42.0	47.0	42.0	43.0	45.0	47.0	51.0	-13.0
1936	0.0	-7.0	-0.5	24.0	26.0	42.0	47.0	42.0	43.0	45.0	46.0	51.0	-10.0
1937	-12.0	7.0	8.0	22.0	21.0	37.0	42.0	44.0	44.0	45.0	46.0	51.0	-12.0
1938	-1.0	-8.0	8.0	21.0	21.0	41.0	47.0	42.0	43.0	45.0	46.0	51.0	-8.0
1939	-11.0	-1.0	3.0	27.0	31.0	44.0	44.0	41.0	42.0	43.0	45.0	49.0	-11.0
1940	-4.0	-6.0	14.0	23.0	25.0	44.0	44.0	42.0	43.0	45.0	46.0	51.0	-10.0
1941	-0.0	-11.0	14.0	27.0	32.0	44.0	44.0	42.0	43.0	45.0	46.0	51.0	-11.0
1942	10.0	2.0	9.0	24.0	21.0	39.0	44.0	42.0	43.0	45.0	46.0	51.0	0.5
1943	9.0	-7.0	7.0	22.0	22.0	39.0	47.0	47.0	48.0	49.0	50.0	54.0	-9.0
1944	-4.0	-27.0	8.0	24.0	22.0	39.0	44.0	42.0	43.0	45.0	46.0	51.0	-27.0
1945	-8.0	-12.0	7.0	22.0	22.0	44.0	51.0	44.0	45.0	46.0	47.0	52.0	-11.0
1946	-4.0	-12.0	1.0	24.0	22.0	42.0	44.0	42.0	43.0	45.0	46.0	51.0	-12.0
1947	9.0	6.0	12.0	24.0	24.0	44.0	44.0	42.0	43.0	45.0	46.0	51.0	0.5
1948	-12.0	4.0	9.0	18.0	24.0	42.0	47.0	42.0	43.0	45.0	46.0	51.0	-12.0
Mean	-7.1	-7.4	8.1	22.0	21.2	40.0	44.4	42.4	41.3	42.4	42.0	47.0	-12.3
Lowest	24.0	22.0	-7.0	8.0	21.0	34.0	42.0	37.0	31.0	37.0	40.0	42.0	-24.0

MEAN RELATIVE HUMIDITY^a

Year	Mean Relative Humidity ^a												
	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1890	79.0	80.0	75.0	78.2	72.8	70.1	74.2	80.4	83.3	75.7	75.4	75.2	78.6
1891	74.3	74.6	77.3	84.7	67.1	71.3	70.1	74.9	80.9	64.2	67.8	67.2	71.1
1892	72.4	72.4	81.7	80.1	75.3	75.3	75.1	70.3	72.1	63.5	64.7	64.7	66.8
1893	71.7	72.8	84.1	84.8	76.3	75.9	65.6	74.9	70.7	63.5	71.0	70.3	67.7
1894	80.2	76.7	71.4	84.8	86.0	71.1	64.8	70.7	72.8	67.0	68.8	80.9	71.1
1895	78.8	77.8	87.8	87.8	85.8	86.1	88.2	80.9	74.4	82.7	70.8	79.0	71.9
1896	82.8	82.9	80.6	80.6	81.1	83.0	85.5	72.7	72.7	73.7	80.2	80.5	75.4
1897	71.3	77.8	85.3	82.0	82.8	67.3	73.1	72.9	84.0	83.0	82.3	79.8	76.9
1898	77.1	75.7	79.9	84.2	71.8	73.2	80.1	79.6	76.6	84.7	83.2	83.9	76.4
1899	83.2	84.1	71.6	72.1	78.4	77.1	79.3	82.1	80.0	83.6	83.4	80.2	79.8
1900	77.7	75.3	79.1	80.2	70.3	74.0	78.2	74.1	74.0	75.9	76.2	79.4	75.6
1901	73.1	77.6	87.3	84.7	85.5	88.3	71.1	73.9	73.1	77.0	73.9	74.9	72.3
1902	74.3	85.3	70.8	84.1	85.1	83.8	72.3	76.3	76.8	70.8	71.1	82.8	71.0
1903	85.2	77.8	77.3	87.1	83.4	70.8	77.2	76.3	79.1	70.9	73.6	72.5	71.6
1904	72.0	77.7	76.4	84.7	81.3	71.1	71.4	78.2	78.0	74.8	73.8	76.8	73.5
1905	85.3	77.7	76.4	70.8	88.7	77.0	77.7	80.8	81.8	74.0	77.8	77.8	77.0
1906	77.2	75.1	76.7	85.7	85.2	78.8	79.1	82.5	82.2	75.9	73.5	80.6	76.5
1907	74.8	77.4	79.9	70.3	70.9	70.1	82.4	83.9	81.1	84.1	72.2	77.0	77.1
1908	78.1	80.2	72.4	74.1	73.3	78.9	80.2	74.9	83.0	77.7	83.9	80.4	77.9
1909	73.8	84.8	77.9	84.3	74.3	74.8	88.2	76.6	79.0	79.1	79.0	79.6	78.8
1910	78.9	81.3	72.8	80.1	71.6	73.4	70.3	76.3	82.7	73.0	74.7	78.4	76.0
1911	78.1	77.6	73.2	83.2	72.2	74.8	70.7	77.5	82.4	72.0	73.5	77.3	75.2
1912	81.3	78.4	80.3	77.2	78.5	70.0	71.8	78.3	84.0	74.9	77.2	78.4	77.3
1913	79.0	76.8	79.8	74.4	73.0	80.4	70.8	74.2	80.2	79.2	74.0	81.2	76.7
1914	81.4	77.0	78.4	73.3	74.3	76.1	80.7	80.8	74.2	75.3	80.6	73.2	78.8
1915	80.9	79.9	83.4	67.8	65.8	71.6	82.1	83.0	81.8	81.6	74.7	71.6	75.6
1916	82.1	77.6	72.7	81.2	71.9	73.7	81.8	81.7	81.3	78.4	82.3	81.7	80.3
1917	78.7	72.7	77.8	74.6	70.6	78.3	79.4	80.0	83.3	79.6	71.1	76.9	78.1
1918	77.1	78.0	71.9	88.2	72.2	72.9	74.8	78.8	81.3	80.5	81.3	84.3	76.4
1919	78.7	78.6	78.6	84.1	70.8	73.9	77.1	77.8	84.2	83.8	79.1	87.1	77.5
1920	75.7	75.4	77.4	75.9	71.1	77.5	84.3	84.3	83.9	86.7	73.9	73.7	79.2
1921	75.4	75.4	77.4	76.9	73.2	70.9	83.6	77.8	79.5	76.3	80.3	78.5	76.0
1922	75.1	75.3	77.6	72.2	72.2	83.2	84.6	84.6	84.6	73.5	73.4	81.8	78.7
1923	80.1	78.2	78.2	63.8	68.9	70.2	75.2	77.0	81.5	81.5	81.5	77.4	78.8
1924	79.9	77.8	79.2	84.9	70.3	72.8	72.8	78.2	80.1	72.9	70.9	74.6	73.9
1925	81.3	72.8	78.4	78.2	79.2	78.1	81.6	84.2	82.9	80.0	77.8	79.9	80.5
1926	79.6	78.1	78.6	73.0	81.6	79.9	74.1	82.7	84.2	80.8	79.9	79.6	79.4
1927	81.3	72.5	73.3	85.7	81.9	81.2	85.8	87.3	85.0	73.3	84.3	81.3	82.9
1928	78.9	72.6	80.2	76.8	77.1	82.6	80.6	86.3	85.2	79.2	78.1	77.0	79.9
1929	71.1	77.3	71.8	88.0	81.8	85.3	85.0	83.0	72.4	84.0	71.6	76.0	80.3
1930	71.1	76.6	81.6	82.0	87.8	81.9	70.4	71.6	74.8	72.9	73.0	72.0	80.0
1931	73.4	73.2	87.4	82.0	82.0	84.9	70.9	72.9	70.6	85.4	71.7	63.0	87.8
1932	79.6	88.6	88.3	81.1	81.8	82.2	83.9	87.0	85.0	70.0	83.2	81.6	84.9
1933	82.6	81.0	83.2	82.8	83.9	81.3	88.0	74.1	78.8	88.0	83.0	87.4	86.0
1934	84.3	85.0	87.7	84.9	88.6	85.9	83.9	88.6	77.7	72.7	74.3	72.7	86.5
1935	73.2	77.4	87.8	82.7	82.0	85.0	72.7	88.7	73.0	64.9	74.3	64.7	88.2
1936	82.3	84.1	71.2	83.7	81.8	83.6	81.7	87.9	78.2	74.2	84.0	80.7	85.0
1937	72.5	84.0	81.1	81.6	83.8	79.8	88.8	73.1	74.8	88.6	80.8	83.1	85.2
1938	88.9	81.8	81.7	88.3	81.6	88.0	71.8	70.0	72.7	87.1	74.8	72.3	87.8
Mean	70.1	84.6	84.2	81.6	80.7	84.9	84.6	70.2	72.6	88.0	70.6	88.4	87.6

These relative humidity records are based on readings taken at 7 a.m., 2 p.m. and 8 p.m. from 1890 to 1913, and at 8 a.m. and 8 p.m. from 1914 to 1928. From 1929 to 1938 they are based on readings taken at 8 a.m., noon, and 8 p.m. The means are based on the last 10 years.

METEOROLOGICAL RECORDS

13

MEAN PERCENT OF CLOUDINESS

Year	Mean Percent of Cloudiness												Average
	January	February	March	April	May	June	July	August	September	October	November	December	
1890	55	53	53	53	54	53	53	53	53	53	53	53	53
1891	53	53	53	53	53	53	53	53	53	53	53	53	53
1892	53	53	53	53	53	53	53	53	53	53	53	53	53
1893	53	53	53	53	53	53	53	53	53	53	53	53	53
1894	53	53	53	53	53	53	53	53	53	53	53	53	53
1895	53	53	53	53	53	53	53	53	53	53	53	53	53
1896	53	53	53	53	53	53	53	53	53	53	53	53	53
1897	53	53	53	53	53	53	53	53	53	53	53	53	53
1898	53	53	53	53	53	53	53	53	53	53	53	53	53
1899	53	53	53	53	53	53	53	53	53	53	53	53	53
1900	53	53	53	53	53	53	53	53	53	53	53	53	53
1901	53	53	53	53	53	53	53	53	53	53	53	53	53
1902	53	53	53	53	53	53	53	53	53	53	53	53	53
1903	53	53	53	53	53	53	53	53	53	53	53	53	53
1904	53	53	53	53	53	53	53	53	53	53	53	53	53
1905	53	53	53	53	53	53	53	53	53	53	53	53	53
1906	53	53	53	53	53	53	53	53	53	53	53	53	53
1907	53	53	53	53	53	53	53	53	53	53	53	53	53
1908	53	53	53	53	53	53	53	53	53	53	53	53	53
1909	53	53	53	53	53	53	53	53	53	53	53	53	53
1910	53	53	53	53	53	53	53	53	53	53	53	53	53
1911	53	53	53	53	53	53	53	53	53	53	53	53	53
1912	53	53	53	53	53	53	53	53	53	53	53	53	53
1913	53	53	53	53	53	53	53	53	53	53	53	53	53
1914	53	53	53	53	53	53	53	53	53	53	53	53	53
1915	53	53	53	53	53	53	53	53	53	53	53	53	53
1916	53	53	53	53	53	53	53	53	53	53	53	53	53
1917	53	53	53	53	53	53	53	53	53	53	53	53	53
1918	53	53	53	53	53	53	53	53	53	53	53	53	53
1919	53	53	53	53	53	53	53	53	53	53	53	53	53
1920	53	53	53	53	53	53	53	53	53	53	53	53	53
1921	53	53	53	53	53	53	53	53	53	53	53	53	53
1922	53	53	53	53	53	53	53	53	53	53	53	53	53
1923	53	53	53	53	53	53	53	53	53	53	53	53	53
1924	53	53	53	53	53	53	53	53	53	53	53	53	53
1925	53	53	53	53	53	53	53	53	53	53	53	53	53
1926	53	53	53	53	53	53	53	53	53	53	53	53	53
1927	53	53	53	53	53	53	53	53	53	53	53	53	53
1928	53	53	53	53	53	53	53	53	53	53	53	53	53
1929	53	53	53	53	53	53	53	53	53	53	53	53	53
1930	53	53	53	53	53	53	53	53	53	53	53	53	53
1931	53	53	53	53	53	53	53	53	53	53	53	53	53
1932	53	53	53	53	53	53	53	53	53	53	53	53	53
1933	53	53	53	53	53	53	53	53	53	53	53	53	53
1934	53	53	53	53	53	53	53	53	53	53	53	53	53
1935	53	53	53	53	53	53	53	53	53	53	53	53	53
1936	53	53	53	53	53	53	53	53	53	53	53	53	53
1937	53	53	53	53	53	53	53	53	53	53	53	53	53
1938	53	53	53	53	53	53	53	53	53	53	53	53	53
Mean	53.3	53.9	51.9	51.9	52.1	51.1	50.9	51.7	51.7	51.7	51.7	51.7	51.7

Hours of Bright Sunshine

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	ANNUAL	
1890	264	266	271	403	423	457	463	459	373	341	303	263	4,454	
1891	124	120	126	191	270	277	182	194	130	129	84	108	2,010	
1892	112	121	160	245	225	264	268	198	126	129	143	131	2,194	
1893	124	124	164	210	226	244	223	204	224	150	141	143	2,343	
1894	128	128	166	244	182	218	237	201	224	178	110	144	2,261	
1895	111	173	185	185	185	205	210	223	185	183	123	112	2,073	
1896	120	121	120	174	278	180	237	238	176	160	138	150	2,061	
1897	125	125	173	243	244	192	251	254	197	111	109	109	2,263	
1898	127	127	210	224	297	263	260	254	189	118	108	172	2,448	
1899	124	124	188	226	226	248	214	274	221	208	90	108	2,325	
1900	128	128	200	168	200	270	236	201	218	157	136	112	2,160	
1901	121	127	124	280	221	225	226	208	210	146	120	142	2,245	
1902	147	128	214	255	223	223	200	226	177	136	86	108	2,217	
1903	117	172	93	188	130	210	179	180	218	178	100	107	1,890	
1904	130	128	143	128	224	224	143	149	164	164	100	119	1,804	
1905	114	145	128	128	211	182	247	188	226	184	182	128	2,130	
1906	144	128	173	173	182	216	216	226	204	193	148	118	2,401	
1907	119	178	216	224	247	208	247	203	242	186	209	128	2,477	
1908	128	128	123	224	224	216	216	216	254	118	135	111	2,600	
1909	128	128	200	220	227	202	202	207	217	110	177	128	2,317	
1910	127	127	127	223	223	208	208	208	208	242	186	111	2,748	
1911	119	128	128	128	247	247	208	208	210	192	194	146	2,310	
1912	123	123	123	123	224	224	224	224	224	224	124	124	2,431	
1913	129	129	124	124	211	188	211	211	214	163	146	148	2,300	
1914	98	127	127	223	220	203	203	208	241	192	184	113	2,377	
1915	144	124	114	170	223	184	224	224	191	132	181	118	2,224	
1916	120	120	217	223	224	181	181	184	236	234	141	127	2,181	
1917	121	121	124	223	223	217	217	224	227	142	170	156	2,084	
1918	173	124	224	223	223	224	224	226	278	187	180	158	2,532	
1919	128	216	220	220	246	202	202	228	228	170	148	132	2,628	
1920	214	214	243	218	214	224	214	241	223	243	126	123	2,602	
1921	167	177	207	228	214	224	214	216	203	217	97	123	2,603	
1922	150	147	178	228	228	224	224	207	228	150	126	126	2,522	
1923	79	128	193	193	230	230	230	209	234	234	123	123	2,773	
1924	175	221	202	208	268	268	213	213	226	128	125	120	2,356	
1925	124	141	191	260	242	242	207	207	205	182	125	127	2,361	
1926	145	145	219	193	224	213	213	246	202	139	129	130	2,193	
1927	121	110	188	208	137	201	201	216	197	223	214	94	1,964	
1928	122	122	175	214	226	227	171	200	128	167	121	124	2,301	
1929	129	129	127	127	162	162	162	162	128	128	119	93	2,010	
1930	117	124	124	206	223	223	213	213	224	241	124	127	2,227	
1931	122	122	124	124	188	188	213	213	201	180	114	115	2,155	
1932	74	121	121	121	178	178	213	213	201	178	148	105	2,304	
1933	98	121	121	121	121	121	121	121	216	216	71	122	2,204	
1934	127	128	128	128	128	128	128	128	217	217	62	122	2,220	
1935	127	128	128	128	128	128	128	128	217	217	71	121	2,220	
1936	119	119	119	119	119	119	119	119	216	216	122	122	2,431	
Mean	137	148	150	229	229	229	229	229	227	227	121	128	2,323	
Mean person	68.6	52.4	52.6	84.7	68.6	64.6	58.0	63.3	34.9	51.3	41.3	45.3	52.8	
Extreme	214	221	110	93	208	158	157	157	159	217	91	102	172	2,026

METEOROLOGICAL RECORDS

1

Precipitation (in Inches)

Year	Average											
	January	February	March	April	May	June	July	August	September	October	November	December
1880	3.20	1.43	1.46	2.42	4.71	8.01	10.25	2.72	2.17	4.26	8.01	2.37
1881	2.61	4.19	4.37	1.73	4.38	1.43	4.41	4.82	5.21	7.13	4.52	3.64
1882	3.72	2.23	3.93	2.84	1.97	4.72	6.39	4.12	3.93	2.91	2.93	3.64
1883	4.83	1.89	2.47	7.76	6.36	2.44	6.41	2.47	2.16	4.93	1.01	6.24
1884	3.33	4.78	3.93	4.41	6.02	3.22	3.49	3.49	3.27	6.28	2.81	4.94
1885	2.16	1.74	1.77	1.83	4.03	2.13	1.85	.31	4.82	4.25	2.14	2.81
1886	3.77	1.03	2.71	6.34	2.07	2.76	3.87	3.44	3.24	4.77	3.36	3.81
1887	1.07	4.67	6.11	1.25	3.54	3.47	4.93	3.41	4.41	3.21	3.87	3.81
1888	2.00	3.37	2.53	2.43	4.34	6.03	14.51	4.79	1.94	7.21	5.41	37.04
1889	7.18	3.83	1.83	3.73	6.61	3.63	6.09	6.03	6.03	6.77	6.43	2.81
1890	2.80	3.84	7.13	1.79	1.29	4.12	4.89	2.07	7.97	1.84	2.17	2.07
1891	4.07	8.17	8.71	1.81	3.78	6.11	4.47	4.11	7.73	3.02	7.77	3.78
1892	1.81	8.42	6.66	6.21	6.91	3.77	3.84	6.14	6.17	3.84	7.77	3.81
1893	1.73	3.54	8.20	3.31	3.22	4.84	4.66	4.63	3.83	3.83	1.77	4.77
1894	3.28	4.77	6.44	2.81	.44	7.79	6.64	6.04	1.66	2.79	2.04	4.48
1895	6.74	2.43	4.48	5.72	4.25	2.83	2.63	4.08	6.45	1.24	1.24	2.71
1896	3.90	1.79	3.66	2.36	1.29	3.24	3.63	6.47	6.29	2.77	3.04	3.12
1897	2.16	2.72	4.93	3.23	4.93	2.27	3.13	6.47	3.30	4.29	1.93	4.43
1898	2.73	1.97	1.82	4.03	4.03	2.61	2.87	1.44	2.74	4.31	2.49	2.49
1899	2.25	3.43	2.86	1.97	6.32	.76	3.26	6.27	1.72	1.87	1.04	2.03
1900	2.86	8.16	2.01	5.83	2.36	2.24	2.21	3.79	6.00	1.27	1.26	2.86
1910	6.14	8.04	1.27	3.17	2.67	3.21	1.81	4.03	3.94	8.45	3.80	1.75
1911	2.35	2.14	2.81	1.87	1.27	2.07	4.21	8.71	3.01	8.41	4.41	6.17
1912	3.14	8.16	5.70	1.87	4.24	.77	3.41	3.25	3.25	3.07	6.16	2.81
1913	2.99	2.94	6.28	2.21	4.94	.30	1.59	2.26	2.46	8.18	2.11	2.85
1914	3.72	2.26	8.12	6.38	3.54	2.23	3.53	8.11	.27	2.70	2.40	2.82
1915	6.32	7.07	.12	3.09	1.29	3.03	6.12	8.24	1.27	2.26	3.42	2.16
1916	2.36	2.77	3.97	2.20	2.21	3.24	6.21	3.24	3.24	3.01	3.20	3.61
1917	3.64	1.94	4.04	1.41	4.13	8.27	3.30	7.21	2.42	6.61	2.13	3.26
1918	4.11	2.93	2.91	2.72	2.47	6.01	1.24	2.22	7.04	1.22	2.87	2.92
1919	2.07	2.81	4.22	2.37	6.20	1.08	4.17	6.61	4.44	3.81	8.27	1.68
1920	2.74	4.45	3.43	7.11	2.63	2.00	3.20	3.22	6.73	3.44	4.20	5.76
1921	2.00	2.26	2.27	6.67	4.34	2.47	6.21	2.21	1.24	1.24	6.21	3.22
1922	1.56	2.02	5.24	2.81	6.47	9.04	6.26	4.21	2.27	2.21	1.24	3.22
1923	6.07	1.81	1.96	2.19	2.26	2.24	1.77	2.24	1.26	8.25	4.24	2.24
1924	2.83	2.26	1.06	6.54	2.21	1.26	1.75	8.11	8.07	.21	2.87	2.16
1925	3.42	2.84	4.12	2.10	2.52	4.24	6.27	1.21	3.20	2.21	3.24	3.22
1926	2.23	5.01	2.03	3.42	1.19	2.03	2.24	3.07	1.21	8.23	2.74	3.22
1927	2.30	2.22	1.96	1.67	4.23	2.27	2.27	6.01	2.76	4.26	8.24	3.22
1928	2.18	2.81	1.17	4.16	8.24	6.27	6.22	8.41	2.07	.27	1.26	2.27
1929	4.22	3.92	3.20	6.39	4.17	2.08	.79	1.24	3.20	2.76	3.75	6.06
1930	2.57	3.29	2.61	1.41	3.24	4.17	4.27	1.21	3.20	3.23	1.21	3.22
1931	2.54	1.81	2.76	2.92	7.41	2.27	3.27	3.27	3.21	3.20	1.21	3.21
1932	2.67	2.71	4.24	2.22	1.27	3.22	2.21	2.27	3.20	3.24	1.21	3.22
1933	2.44	2.34	4.79	8.12	1.00	3.08	2.23	6.03	12.24	8.23	1.19	3.21
1934	2.97	2.22	3.67	4.44	2.13	4.67	1.72	2.07	6.24	2.27	2.24	3.22
1935	4.94	2.24	1.04	3.34	2.17	4.27	2.10	4.27	4.27	4.27	4.21	24.02
1936	6.47	3.64	7.04	4.17	1.76	2.29	1.21	6.24	3.27	3.22	6.21	3.24
1937	2.29	2.22	2.20	4.03	6.06	5.73	2.24	4.21	3.24	4.24	3.24	3.22
1938	6.61	1.77	2.82	2.07	2.01	4.14	7.44	2.04	14.23	3.24	3.23	3.22
Mann	2.61	2.19	2.70	2.21	2.81	2.72	6.24	6.24	6.24	2.21	2.41	2.21
Extreme	7.18	8.17	7.13	8.20	7.44	9.09	16.83	8.27	14.24	8.21	8.24	7.77
Min.	1.07	4.21	.12	3.74	4.41	7.24	.21	3.21	2.21	2.21	4.21	3.22

SNOWFALL (IN INCHES)

YEAR	JANUARY	FEBRUARY	MARCH	APRIL	NOVEMBER	DECEMBER	ANNUAL
1880	6.50	7.75	4.50	.50	T	4.75	26.00
1881	4.25	5.00	17.00	T	1.50	18.75	43.75
1882	17.75	14.00	9.00	11.00	.25	T	64.00
1883	13.00	14.00	8.00	T	4.50	3.00	42.50
1884	18.25	14.75	8.25	7.00	T	14.75	89.00
1885	19.50	14.75	9.00	6.00	4.25	21.00	71.50
1886	21.75	14.50	12.00	6.50	3.00	8.00	60.75
1887	4.50	14.50	17.00	6.50	1.75	3.00	44.25
1888	21.00	11.00	8.00	T	4.25	9.50	53.75
1889	22.00	14.00	1.00	1.00	8.00	11.00	69.50
1890	2.00	21.00	27.00	1.00	.50	.50	52.00
1891	12.50	6.50	12.50	T	1.50	3.00	37.00
1892	12.00	6.50	6.25	T	.50	26.50	52.50
1893	11.25	9.25	9.75	T	1.50	21.50	57.00
1894	8.50	12.00	1.00	T	T	12.00	33.50
1895	25.50	10.00	11.00	2.00	2.00	11.00	59.50
1896	21.50	11.00	1.50	T	.50	2.50	40.50
1897	8.50	13.00	20.25	2.00	4.00	12.00	56.25
1898	1.50	20.00	4.00	T	2.00	9.00	38.50
1899	8.50	8.00	3.50	T	2.50	12.00	31.00
1900	18.25	14.50	T	.50	4.00	1.50	44.50
1901	1.75	11.00	10.50	6.50	1.50	4.50	35.25
1902	12.50	7.50	12.50	1.00	T	4.00	32.50
1903	4.50	11.00	6.00	T	2.50	4.00	26.50
1904	9.50	24.50	6.25	5.25	8.75	8.50	58.75
1905	11.50	6.50	6.50	9.50	.50	11.50	40.00
1906	8.50	14.75	22.50	4.75	1.50	9.50	59.50
1907	13.00	11.00	17.00	T	.75	14.25	54.00
1908	14.50	11.00	9.50	4.50	T	7.25	50.75
1909	6.25	11.50	2.50	T	T	4.75	24.50
1910	22.25	31.00	9.75	1.50	8.50	7.00	78.00
1911	7.25	30.50	0	1.00	2.00	5.50	27.50
1912	14.75	12.50	9.25	2.75	T	18.25	58.75
1913	22.50	12.50	8.00	T	1.00	9.25	63.75
1914	10.50	12.75	2.25	8.00	8.00	2.00	45.00
1915	22.50	1.25	1.00	.75	.75	8.75	34.50
1916	8.50	22.75	9.00	2.25	.25	22.25	76.00
1917	11.75	12.00	2.50	2.00	T	2.25	31.50
1918	6.50	12.50	2.50	2.50	2.00	.25	30.00
1919	6.25	11.50	2.50	T	T	4.75	24.50
1920	22.25	31.00	9.75	1.50	8.50	7.00	78.00
1921	7.25	30.50	0	1.00	2.00	5.50	27.50
1922	14.75	12.50	9.25	2.75	T	18.25	58.75
1923	22.50	12.50	8.00	T	1.00	9.25	63.75
1924	10.50	12.75	2.25	8.00	8.00	2.00	45.00
1925	22.50	1.25	1.00	.75	.75	8.75	34.50
1926	8.50	22.75	9.00	2.25	.25	22.25	76.00
1927	11.75	12.00	2.50	2.00	T	2.25	31.50
1928	6.50	12.50	2.50	2.50	2.00	.25	30.00
1929	18.00	11.00	4.50	5.25	2.00	8.00	54.00
1930	9.50	6.50	T	T	.75	12.75	29.50
1931	21.75	9.50	7.50	2.00	1.00	3.25	44.00
1932	7.25	21.25	8.75	T	T	8.50	41.25
1933	9.50	19.00	6.00	6.00	7.75	16.00	62.50
1934	4.25	24.50	8.50	0	T	2.50	39.00
1935	24.25	9.25	6.00	1.50	2.00	2.00	47.75
1936	25.50	14.00	4.75	.50	2.75	2.00	67.50
1937	9.75	14.50	6.75	.50	2.00	8.00	35.50
1938	11.50	6.50	1.50	.50	13.50	2.00	62.50
Mean	13.25	13.00	7.47	2.17	2.24	8.39	47.75
Extremes	22.50	44.75	27.00	11.00	22.50	24.50	89.50
	1.50	.50	0	0	T	34.00	

Season extremes 1880-1932 81.75
1889-1937 23.50

METEOROLOGICAL RECORDS

17

Wind Movement (in Miles)

YEAR	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
1890 . . .	2,101	4,029	7,068	5,049	4,064	4,066	4,072	3,811	4,310	4,782	2,589	4,617	30,708
1890 . . .	4,914	4,616	4,264	4,029	4,294	4,774	4,976	4,116	2,397	4,143	4,274	4,873	34,646
1891 . . .	4,884	4,739	6,261	4,641	6,010	5,713	5,917	3,274	5,301	6,319	4,312	4,947	34,213
1892 . . .	5,010	2,439	7,046	5,377	5,034	4,920	5,014	2,860	4,677	4,071	4,231	6,327	34,730
1893 . . .	4,086	5,242	6,787	4,284	4,833	3,877	3,662	6,126	4,192	6,179	3,816	4,611	34,611
1894 . . .	4,193	4,295	4,476	4,106	2,187	1,879	1,109	1,937	1,614	2,847	4,179	2,874	26,367
1895 . . .	2,869	3,829	4,261	4,059	4,071	3,031	2,934	3,327	2,644	3,124	4,154	3,334	36,361
1896 . . .	4,943	5,643	5,107	4,674	4,879	5,734	6,044	4,864	4,846	4,654	5,381	5,181	36,188
1897 . . .	5,301	4,403	5,367	5,522	4,613	4,834	4,007	2,621	3,346	4,354	4,024	4,232	44,232
1898 . . .	3,694	3,889	3,864	4,477	4,706	4,162	4,277	2,111	2,767	4,880	4,884	4,884	44,446
1899 . . .	4,936	4,277	5,275	2,984	4,219	3,814	3,981	2,822	3,067	2,982	2,361	4,143	37,110
1900 . . .	4,804	5,016	4,802	4,030	4,101	2,701	2,022	2,042	3,114	4,477	4,211	37,388	
1901 . . .	5,224	5,484	5,402	6,211	4,423	2,647	2,762	2,144	2,214	4,317	4,362	4,726	47,246
1902 . . .	4,074	5,100	6,001	4,647	4,279	6,102	2,954	2,361	2,061	4,814	2,077	4,014	44,436
1903 . . .	4,284	4,839	4,109	4,125	3,908	3,120	3,087	2,024	2,880	6,704	4,892	4,894	44,266
1904 . . .	4,117	4,910	4,446	4,077	5,937	2,127	2,308	2,279	2,077	4,167	2,970	2,967	46,984
1905 . . .	5,180	4,873	2,938	6,155	4,036	2,624	2,644	2,081	2,367	4,217	4,031	5,443	
1906 . . .	4,706	4,861	5,064	4,777	2,764	1,619	2,773	2,412	4,249	4,264	3,073	4,154	41,278
1907 . . .	4,987	4,272	5,711	7,006	5,946	4,223	4,714	4,924	3,342	4,773	3,397	41,016	
1908 . . .	7,770	5,811	5,750	5,339	6,818	4,871	5,214	5,247	3,943	4,844	4,444	4,871	
1909 . . .	5,961	5,855	7,064	6,879	4,371	4,225	4,007	2,443	4,074	4,970	5,798	5,841	58,818
1910 . . .	5,796	5,434	5,879	5,823	4,390	4,063	4,612	4,271	2,134	4,047	4,313	4,441	50,348
1911 . . .	6,043	5,513	7,423	5,739	4,830	5,844	3,879	2,208	3,894	4,311	4,917	46,382	
1912 . . .	4,872	4,799	5,391	4,004	4,811	4,333	3,997	2,099	2,097	4,013	4,117	4,117	44,917
1913 . . .	4,380	4,194	4,413	4,644	2,672	2,744	4,214	2,441	2,220	4,090	4,090	4,091	44,120
1914 . . .	4,442	5,855	5,892	6,194	4,691	4,468	3,884	2,186	2,907	2,812	3,287	4,796	46,628
1915 . . .	2,996	4,341	6,194	5,195	4,087	2,486	2,406	2,169	3,112	2,786	4,872	4,917	30,646
1916 . . .	6,341	5,004	5,559	4,820	4,843	5,120	5,129	2,129	2,129	4,179	4,934	4,420	44,420
1917 . . .	4,701	4,445	5,014	2,853	4,610	2,761	2,131	2,549	1,707	4,119	4,721	4,097	44,413
1918 . . .	4,891	4,832	5,791	4,644	4,838	3,859	4,082	2,884	2,271	4,397	2,721	3,224	50,426
1919 . . .	4,854	5,001	7,261	5,274	4,200	4,346	2,719	2,210	2,364	2,914	3,277	4,977	50,388
1920 . . .	4,724	4,701	5,293	5,154	2,763	3,033	3,817	2,972	2,613	2,186	4,394	4,170	
1921 . . .	5,816	3,833	4,069	4,867	4,837	2,612	2,421	2,709	2,594	4,064	4,641	4,744	42,378
1922 . . .	4,333	1,934	4,623	4,661	4,314	3,274	2,847	2,777	2,774	4,344	4,344	4,344	49,970
1923 . . .	4,262	4,012	4,064	4,829	4,819	2,814	2,857	2,212	2,704	4,084	4,379	4,427	44,424
1924 . . .	6,162	2,971	5,020	3,039	5,125	2,197	2,612	2,302	2,274	2,642	2,774	4,397	50,346
1925 . . .	5,042	4,281	4,982	5,294	4,013	4,072	2,207	2,270	2,124	4,221	4,173	4,364	51,313
1926 . . .	4,902	4,277	4,904	4,048	4,180	3,651	2,264	2,275	2,614	4,084	4,084	4,084	49,340
1927 . . .	4,415	4,266	4,562	3,274	2,813	2,675	2,626	2,124	2,124	4,073	4,344	4,344	49,970
1928 . . .	6,419	5,277	6,612	5,770	2,714	2,602	2,643	2,084	2,764	4,612	4,724	4,691	57,313
1929 . . .	7,279	4,004	6,059	5,770	5,417	3,839	3,799	2,020	2,164	4,794	4,820	4,827	58,386
1930 . . .	4,227	3,864	6,059	4,821	4,382	4,180	2,453	2,307	2,307	4,774	4,354	4,354	50,346
1931 . . .	4,224	4,377	4,122	4,676	4,154	2,704	2,154	2,027	2,027	4,761	4,351	4,351	50,346
1932 . . .	4,370	4,131	7,429	5,914	4,594	2,471	2,942	2,811	2,811	4,667	4,344	4,344	54,343
1933 . . .	4,981	4,639	6,994	5,887	4,884	2,874	2,862	2,260	2,260	4,644	4,644	4,644	56,706
1934 . . .	4,734	4,143	4,970	4,768	4,267	3,847	2,087	2,027	2,044	4,676	4,119	4,264	57,384
1935 . . .	4,257	3,964	6,042	4,197	4,425	2,197	2,222	2,231	2,177	4,761	4,351	4,351	50,346
1936 . . .	4,199	4,144	4,822	4,115	4,399	2,732	2,171	2,843	2,877	4,614	4,624	4,624	51,322
1937 . . .	4,339	4,743	5,974	4,899	3,267	2,894	2,724	2,079	2,394	4,626	2,764	4,619	54,413
1938 . . .	3,967	4,924	5,117	4,619	2,707	2,819	2,802	2,087	2,071	2,814	4,682	4,682	56,746
Mean . . .	4,064	4,776	6,764	5,304	4,824	4,022	2,157	2,271	4,674	4,681	4,714	46,328	

MAXIMUM VELOCITY OF WIND (IN MILES PER HOUR)

Year	January	February	March	April	May	June	July	August	September	October	November	December	January
1906	22	22	22	22	22	22	22	22	22	22	22	22	22
1907	22	22	22	22	22	22	22	22	22	22	22	22	22
1908	22	22	22	22	22	22	22	22	22	22	22	22	22
1909	22	22	22	22	22	22	22	22	22	22	22	22	22
1910	22	22	22	22	22	22	22	22	22	22	22	22	22
1911	22	22	22	22	22	22	22	22	22	22	22	22	22
1912	22	22	22	22	22	22	22	22	22	22	22	22	22
1913	22	22	22	22	22	22	22	22	22	22	22	22	22
1914	22	22	22	22	22	22	22	22	22	22	22	22	22
1915	22	22	22	22	22	22	22	22	22	22	22	22	22
1916	22	22	22	22	22	22	22	22	22	22	22	22	22
1917	22	22	22	22	22	22	22	22	22	22	22	22	22
1918	22	22	22	22	22	22	22	22	22	22	22	22	22
1919	22	22	22	22	22	22	22	22	22	22	22	22	22
1920	22	22	22	22	22	22	22	22	22	22	22	22	22
1921	22	22	22	22	22	22	22	22	22	22	22	22	22
1922	22	22	22	22	22	22	22	22	22	22	22	22	22
1923	22	22	22	22	22	22	22	22	22	22	22	22	22
1924	22	22	22	22	22	22	22	22	22	22	22	22	22
1925	22	22	22	22	22	22	22	22	22	22	22	22	22
1926	22	22	22	22	22	22	22	22	22	22	22	22	22
1927	22	22	22	22	22	22	22	22	22	22	22	22	22
1928	22	22	22	22	22	22	22	22	22	22	22	22	22
1929	22	22	22	22	22	22	22	22	22	22	22	22	22
1930	22	22	22	22	22	22	22	22	22	22	22	22	22
1931	22	22	22	22	22	22	22	22	22	22	22	22	22
1932	22	22	22	22	22	22	22	22	22	22	22	22	22
1933	22	22	22	22	22	22	22	22	22	22	22	22	22
1934	22	22	22	22	22	22	22	22	22	22	22	22	22
1935	22	22	22	22	22	22	22	22	22	22	22	22	22
1936	22	22	22	22	22	22	22	22	22	22	22	22	22
1937	22	22	22	22	22	22	22	22	22	22	22	22	22
1938	22	22	22	22	22	22	22	22	22	22	22	22	22
Mean	22.7	22.7	22.2	22.4	22.8	22.7	22.7	22.7	22.7	22.7	22.7	22.4	22.6
Maximum	67	62	65	60	65	60	64	64	60	64	64	62	60

METEOROLOGICAL RECORDS

19

SNOW, FROST, AND WEATHER

YEAR	Last Snow	First Snow	Last Frost	First Frost	Number of Days of Precipi- tation	Number of Clear Days	Number of Fair Days	Number Cloudy Days
1880 . . .	April 21	Oct. 13	May 26	Sept. 21	119	94	110	161
1890 . . .	April 21	Oct. 19	May 12	Sept. 23	141	127	105	128
1891 . . .	May 1	Nov. 26	May 19	Oct. 13	112	145	108	117
1892 . . .	April 10	Nov. 6	May 10	Sept. 20	108	129	109	124
1893 . . .	April 21	Nov. 6	May 8	Sept. 8	143	101	98	128
1894 . . .	April 12	Nov. 8	May 22	Aug. 23	129	107	98	125
1895 . . .	April 3	Oct. 20	May 17	Sept. 23	119	118	110	127
1896 . . .	April 7	Nov. 14	May 1	Sept. 24	102	122	103	123
1897 . . .	April 27	Nov. 13	May 8	Sept. 23	127	108	108	128
1898 . . .	April 6	Nov. 24	April 27	Sept. 21	126	78	126	120
1899 . . .	April 16	Oct. 12	May 4	Sept. 14	110	91	120	126
1900 . . .	April 9	Nov. 9	May 20	Sept. 18	121	83	144	128
1901 . . .	April 3	Oct. 18	May 6	Sept. 26	128	81	124	129
1902 . . .	April 2	Oct. 20	May 14	Sept. 6	144	73	112	129
1903 . . .	April 4	Oct. 20	May 2	Sept. 23	116	119	98	128
1904 . . .	April 20	Oct. 13	April 23	Sept. 22	126	103	98	128
1905 . . .	May 1	Nov. 9	May 24	Sept. 13	123	120	126	127
1906 . . .	April 22	Nov. 11	May 20	Sept. 25	121	120	116	124
1907 . . .	May 11	Nov. 24	May 22	Sept. 27	123	86	125	124
1908 . . .	April 20	Nov. 8	June 3	Sept. 16	108	142	120	128
1909 . . .	April 9	Oct. 17	May 12	Oct. 18	128	113	121	128
1910 . . .	March 14	Oct. 27	May 6	Sept. 22	117	143	127	71
1911 . . .	April 19	Nov. 14	May 8	Sept. 14	120	121	121	128
1912 . . .	April 9	Nov. 3	May 1	Aug. 31	117	120	113	118
1913 . . .	April 9	Oct. 31	May 18	Sept. 10	126	106	144	116
1914 . . .	April 18	Oct. 27	May 18	Sept. 26	118	100	120	126
1915 . . .	April 3	Nov. 17	May 20	Sept. 23	122	83	124	127
1916 . . .	April 14	Nov. 18	May 19	Sept. 17	126	121	129	126
1917 . . .	May 5	Nov. 24	May 18	Sept. 11	117	129	127	99
1918 . . .	April 13	Nov. 4	April 26	Sept. 11	123	108	141	120
1919 . . .	April 25	Nov. 8	May 1	Sept. 18	122	100	121	124
1920 . . .	April 8	Nov. 13	May 8	Oct. 7	135	118	126	93
1921 . . .	April 18	Nov. 7	May 12	Oct. 9	121	126	141	121
1922 . . .	April 23	Nov. 24	May 12	Sept. 19	120	117	127	121
1923 . . .	April 15	Nov. 8	May 24	Sept. 18	126	101	123	128
1924 . . .	April 8	Nov. 9	May 2	Sept. 24	98	143	148	82
1925 . . .	April 30	Oct. 10	May 28	Sept. 23	120	95	125	128
1926 . . .	April 7	Oct. 18	May 6	Oct. 9	117	123	142	120
1927 . . .	April 6	Nov. 10	May 3	Oct. 11	127	86	126	128
1928 . . .	April 28	Nov. 8	May 14	Sept. 26	123	82	116	147
1929 . . .	April 22	Nov. 21	May 23	Sept. 19	129	98	127	129
1930 . . .	April 24	Oct. 26	May 31	Oct. 1	120	125	120	125
1931 . . .	April 29	Nov. 27	May 4	Oct. 10	124	126	120	128
1932 . . .	April 27	Nov. 28	June 8	Sept. 11	125	120	127	119
1933 . . .	April 26	Nov. 6	June 3	Sept. 12	124	126	126	124
1934 . . .	March 24	Oct. 13	May 13	Oct. 2	119	128	101	128
1935 . . .	April 17	Nov. 17	May 23	Sept. 17	116	127	84	123
1936 . . .	April 21	Nov. 24	May 22	Sept. 26	142	103	126	121
1937 . . .	April 9	Nov. 19	April 26	Oct. 9	125	120	126	121
1938 . . .	April 10	Nov. 14	May 31	Sept. 10	126	125	97	128
Mean . . .	April 15	Nov. 8	May 14	Sept. 21	124	116	125	126
Extreme	March 14	Oct. 10	April 22	Oct. 13				
	May 31	Nov. 27	June 8	Aug. 23				

Summary for the Fifty Years 1889 - 1938, Inclusive

BAROMETER (PRESSURE IN INCHES)

(Readings reduced to sea level)

Maximum, Feb. 1, 1920, 10 a.m.	31.050
Minimum, Sept. 21, 1938, 7:05 p.m.	28.410
Mean	30.014
Total range	2.640
Greatest annual range, 1938	2.470
Least annual range, 1913	1.380
Mean annual range	1.890
Greatest monthly range, January 1913	2.180
Least monthly range, August 1894	.440
Mean monthly range	1.087

AIR TEMPERATURE (IN DEGREES F.)

Highest, July 4, 1911, 3:30 p.m.	104.0
Lowest, Jan. 5, 1904, 7:30 a.m.	-26.0
Mean	47.4
Total range	130.0
Greatest annual range, 1918	122.5
Least annual range, 1917	90.0
Mean annual range	107.8
Greatest monthly range, Mar. and Nov. 1938	79.0
Least monthly range, July 1889	31.0
Mean monthly range	54.4
Greatest daily range, Dec. 10, 1902	54.0
Least daily range, Nov. 20, 1937	1.0

HUMIDITY

Mean relative humidity, percent	67.6
---------------------------------	------

PRECIPITATION (IN INCHES)

Greatest annual precipitation, 1938	59.00
Least annual precipitation, 1908	30.68
Mean annual precipitation	43.70
Greatest monthly precipitation, September 1938	14.55
Least monthly precipitation, October 1924	.01
Mean monthly precipitation	3.64
Greatest annual snowfall, 1891	89.00
Least annual snowfall, 1919	24.50
Mean annual snowfall	47.78

WIND (IN MILES)

Greatest annual movement, 1908	63,571
Least annual movement, 1894	36,257
Mean annual movement	52,223

METEOROLOGICAL RECORDS

21

Wind (in Miles)--Continued

Greatest monthly movement, April 1908.....	8,208
Least monthly movement, July 1894.....	1,109
Mean monthly movement	4,392
Greatest daily movement, April 8, 1909.....	701
Least daily movement, Sept. 29, 1894; Mar. 7, 1890; Jan. 6, 1904; Dec. 4, 1916; Oct. 6, 1920.....	0
Mean daily movement.....	146
Maximum velocity for 5 minutes, Sept. 21, 1938, 5:17 p.m.....	80

WEATHER

Mean cloudiness observed, percent.....	51.7
Percent of possible hours bright sunshine.....	53
Mean annual number of clear days.....	116
Mean annual number of fair days.....	123
Mean annual number of cloudy days.....	126
Mean annual number of days of precipitation.....	124
Mean date of last snow.....	April 15
Mean date of first snow.....	Nov. 6
Mean date of last frost.....	May 14
Mean date of first frost.....	Sept. 21

The Hurricane of September 1938

The hurricane on September 21, 1938, was the most disastrous storm during the 70-year period covered by this summary. A reprint of the "Remarks" in the monthly bulletin is given below. The accompanying graph shows barometric pressure and wind velocity in the afternoon of that day.

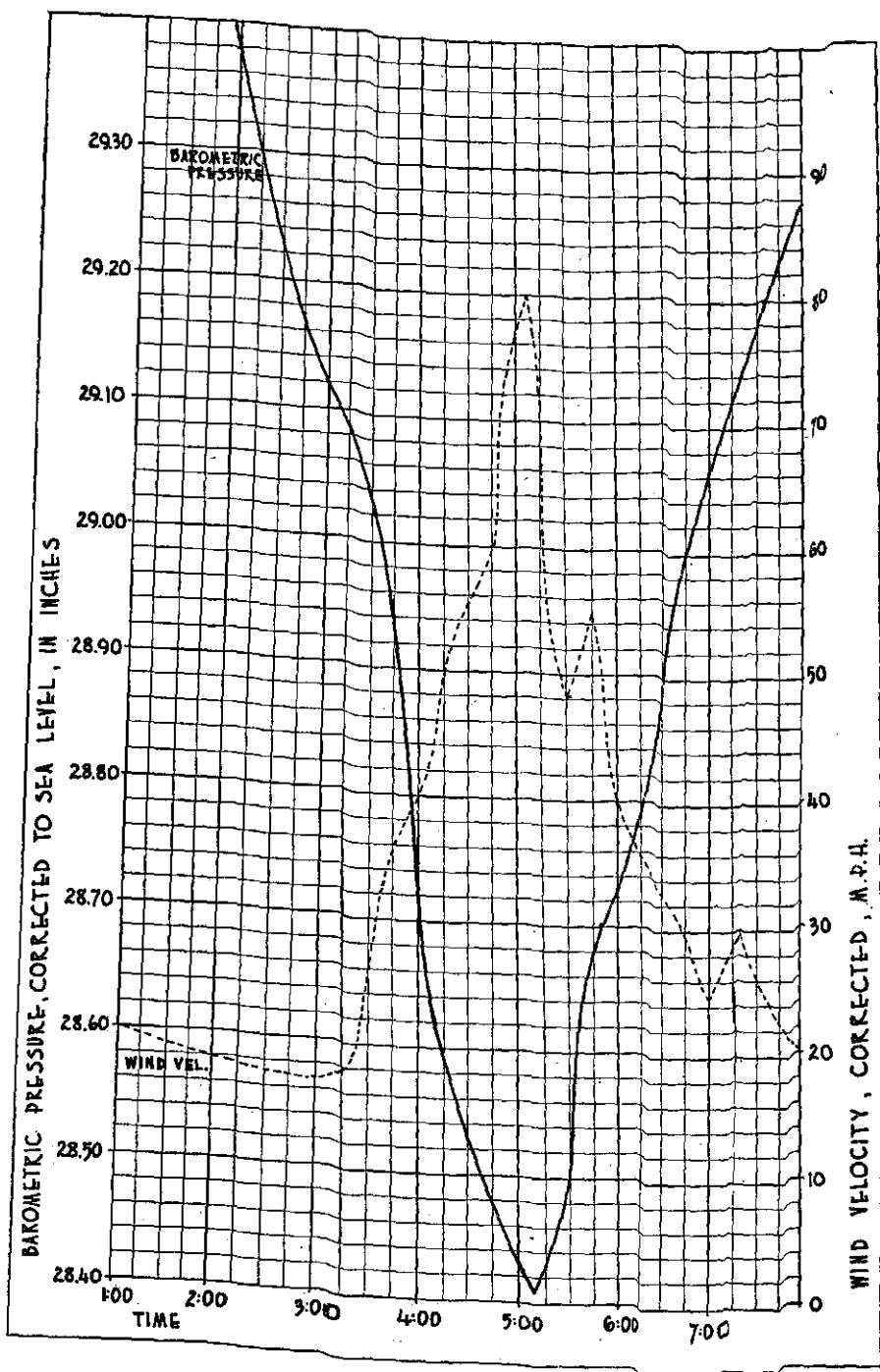
The outstanding feature of the weather during September was the heavy rainstorm from the 17th to the 21st, terminating with the hurricane on the 21st. A total of 11.96 inches of rain fell between 6 p.m. on the 17th and 9 p.m. on the 21st. This storm brought the Connecticut River to a height of 14.9 feet over the Holyoke dam. This is .1 foot higher than in November, 1927, and 1.7 feet lower than in March, 1936. The total rainfall during the month was 14.75 inches. This is the greatest rainfall in Amherst during any month since 1836, the year records were first taken in Amherst. The nearest approach to this heavy rainfall was in July, 1897 when 14.51 inches were recorded. The total rainfall since January 1 is now 49.74 inches, as compared with a normal of 33.25 inches for this period.

The barometer continued high during the rain on the 17th and 18th and until noon on the 19th, reading approximately 30.15 inches when reduced to sea level. At noon (E. S. T.) on the 19th the barometer commenced falling slowly and reached 29.70 by 12 p.m. on the 20th. On the 21st the fall of the barometer was accelerated but did not become unusual until noon when it had fallen to 29.58. Between 12 noon and 2 p.m. it fell .15 inches and by 3 p.m. it reached 29.12. By 4 o'clock the barometer had dropped to 28.73 inches and reached the minimum of 28.41 at 9:05 p.m. During this time the wind rose from 20 miles per hour at 3 p.m. to 38 at 4 p.m., and about 50 at 4:30, and reached 80 miles per hour at 9:17. An average velocity of 57 miles per hour was maintained for 5 minutes beginning at 5:10. After 9:05 p.m. the barometer rose at about the same rate at which it had dropped. The wind gradually decreased in velocity to 65 miles per hour at 9:30 and fell to 22 miles per hour at 7 p.m.

On March 1, 1914 there was a sudden drop in the barometer quite similar to that which occurred on the 21st. The lowest reading at that time was 28.47 inches when reduced to sea level. The wind velocity accompanying that storm was only 45 miles per hour.

The wind blew from the north during the rain on the 17th, 18th, 19th and 20th, except from 9 p.m. on the 19th to 6 a.m. on the 20th when it blew from the south. It continued from the north until noon on the 21st when it shifted to southeast and continued from that direction during the storm. After the storm it shifted to south and continued from that direction on the following day.

A large number of trees was uprooted and others were snapped off by the force of the wind, both on the College campus and in the town. Many tobacco barns and poultry buildings were overturned and collapsed. Many roofs were damaged, some blowing off completely. Few substantial buildings were damaged except from falling trees.



Barometric Pressure and Wind Velocity
September 21, 1938