WBO.,S.F.—1-29-32-1,000

U. S. DEPARTMENT OF AGRICULTURE
WEATHER BUREAU

# ANNUAL METEOROLOGICAL SUMMARY

WITH COMPARATIVE DATA

1931

San Francisco, California

Compiled by
E. H. BOWIE
Meteorologist in charge

SAN FRANCISCO, CALIF.
1931

## MISCELLANEOUS DATA FOR 1931

*Location of Office, 1500 Merchants Exchange Building, 465 California Street*
*Latitude 37° 48' North. Longitude 122° 26' West.*
*Standard of time in local use is 120th M.; local mean time is 10 minutes slower*

### Barometric Pressure (Sea Level)

[*Elevation of barometers above sea level, 206 feet; above ground, 189 feet*]

Mean, 29.997 inches; highest, 30.38-inches on November 19
lowest, 29.43 inches on April 22

### Temperature

[*Elevation of thermometers above ground, 208 feet*]

Greatest daily range, 37°; from 99° to 62°, on July 3
Least daily range, 4°; from 57° to 53°, on February 10
Greatest monthly range, 48°, in July
Least montly range 21°, in February

### Precipitation

[*Elevation of rain gage above ground, 202 feet*]

Longest period without .01 or more precipitation, 128 days, June 16 to October 21, inclusive.
Longest period with .01 or more precipitation, 14 days, December 20, 1931, to January 2, 1932, inclusive.
Greatest fall in 5 minutes, .28; 10 minutes, .36; 15 minutes, .38; 30 minutes, 43.; one hour, .70
Trace of snow December 13, melted as it fell

### Wind

[*Elevation of anemometer above ground, 243 feet*]

Southwest wind prevailed for total of 2,783 hours during the year, or 32 per cent of the time

## EXTREMES OF PRECIPITATION AND WINDS

Jan. 1, 1871 to Dec. 31, 1931

| MONTH | PRECIPITATION | | | §WIND | | | |
|---|---|---|---|---|---|---|---|
| | 24-hr. max. | Year | Day | Max. vel. | Direction | Year | Day |
| January | 4.67 | 1851 | 28-29 | 45 | se. | 1901 | 3 |
| February | 3.60 | 1887 | 4-5 | 41 | s. | 1917 | 24 |
| March | 3.31 | 1879 | 4-5 | 47 | s. | 1902 | 1 |
| April | 2.43 | 1896 | 23-24 | 38 | nw. | 1871 | 23 |
| May | †1.42 | 1906 | 27-28 | 36 | w. | 1897 | 11 |
| June | 1.23 | 1884 | 12-13 | 38 | sw. | 1873 | 30 |
| July | 0.23 | 1886 | 16 | ‡33 | w. | 1898 | 15 |
| August | 0.22 | 1916 | 13-14 | 34 | sw. | 1893 | 2 |
| September | 3.58 | 1904 | 23-24 | 37 | n. | 1923 | 17 |
| October | 2.03 | 1889 | 17-18 | 35 | ne. | 1906 | 20 |
| November | 3.98 | 1874 | 22-23 | 50 | ne. | 1906 | 30 |
| December | 3.44 | 1924 | 20-21 | 50 | ne. | 1923 | 1 |

§True values. †Also 1925, 11-12. ‡Also, 1899.

## TEMPERATURE EXTREMES

Mar. 1, 1871 to Dec. 31, 1931

| MONTH | Maximum | Year | Day | Minimum | Year | Day |
|---|---|---|---|---|---|---|
| January | 78 | 1899 | 26 | 29 | 1888 | 15 |
| February | 80 | 1899 | 18 | 33 | 1887 | 5 |
| March | 86 | 1914 | 18 | 33 | 1896 | 3 |
| April | 89 | 1926 | 25 | 40 | 1891 | 7 |
| May | 97 | 1887 | 28 | 42 | 1906 | 16 |
| June | 100 | 1891 | 29 | 46 | 1908 | 4 |
| July | 99 | 1931 | 3 | 47 | 1893 | 31 |
| August | 92 | 1891 | 22 | 46 | 1903 | 8 |
| September | *101 | 1913 | 16 | 47 | 1900 | 30 |
| October | 96 | 1917 | 3 | 45 | 1881 | 14 |
| November | 83 | 1895 | 16 | 38 | 1919 | 27 |
| December | 74 | 1929 | 5 | 34 | 1879 | 24 |

*101.0° in 1904; 101.2° in 1913.

## EXTREME TEMPERATURES BY YEARS

| Year | Absolute Maximum | Date | Absolute Minimum | Date |
|---|---|---|---|---|
| 1871 | 84 | October | ... | ..... |
| 1872 | 92 | June | 41 | December |
| 1873 | 79 | October | 40 | February |
| 1874 | 89 | September 14 | 39 | January |
| 1875 | 82 | September 20 | 39 | January 16 † |
| 1876 | 93 | June 12 | 36 | January 21 |
| 1877 | 92 | June 11† | 42 | January 13 † |
| 1878 | 78 | May 24† | 39 | January 4 |
| 1879 | 89 | August 30 | 34 | December 24 |
| 1880 | 84 | May 27 | 37 | January 23 |
| 1881 | 83 | July 4 | 40 | March 13 † |
| 1882 | 83 | September 21 | 34 | December 31 |
| 1883 | 95 | June 5 † | 35 | February 3 † |
| 1884 | 83 | July 10 | 35 | February 7 |
| 1885 | 87 | September 21 | 43 | January 3 |
| 1886 | 94 | September 8 | 41 | January 2 † |
| 1887 | 97 | May 28 | 33 | February 5 |
| 1888 | 93 | July 15 | 29 | January 15 |
| 1889 | 89 | September 24 | 39 | February 15 † |
| 1890 | 86 | October 27 † | 36 | January 5 † |
| 1891 | 100 | June 29 | 37 | December 25 |
| 1892 | 92 | August 17 | 38 | December 10 |
| 1893 | 90 | June 3 | 36 | January 24 |
| 1894 | 94 | September 22 | 36 | January 6 |
| 1895 | 89 | May 11 † | 38 | January 27 |
| 1896 | 91 | May 26 | 33 | March 3 |
| 1897 | 92 | September 16 | 38 | February 20 |
| 1898 | 89 | June 4 | 36 | January 25 |
| 1899 | 94 | October 8 | 34 | February 4 |
| 1900 | 92 | September 22 | 40 | December 31 |
| 1901 | 91 | October 12 | 37 | January 1 |
| 1902 | 83 | September 29 | 38 | January 14 |
| 1903 | 96 | June 6 | 37 | January 15 † |
| 1904 | 101 | September 8 | 38 | December 20 |
| 1905 | 98 | July 7 | 39 | December 31 |
| 1906 | 86 | October 5 | 40 | November 29 † |
| 1907 | 90 | October 4 | 36 | January 13 |
| 1908 | 89 | September 29 | 35 | December 20 |
| 1909 | 94 | June 23 | 38 | January 12 † |
| 1910 | 90 | May 30 | 36 | January 12 |
| 1911 | 87 | October 16 | 38 | February 27 |
| 1912 | 94 | September 18 | 40 | January 3 |
| 1913 | 101 | September 16 | 33 | January 6 |
| 1914 | 92 | September 10 | 41 | December 15 |
| 1915 | 86 | August 28 | 36 | December 30 |
| 1916 | 87 | September 27 | 37 | January 27 |
| 1917 | 96 | October 3 | 34 | January 16 |
| 1918 | 85 | October 12 | 38 | December 31 |
| 1919 | 93 | September 19 | 37 | January 1 |
| 1920 | 92 | June 19 | 38 | January 14 |
| 1921 | 94 | July 6 | 39 | January 8 |
| 1922 | 91 | September 8 | 32 | January 19 |
| 1923 | 87 | September 5 | 36 | January 30 |
| 1924 | 88 | September 11 † | 36 | December 18 † |
| 1925 | 95 | June 24 | 40 | January 9† |
| 1926 | 89 | April 25 | 36 | January 11 |
| 1927 | 93 | June 30 | 40 | April 10 |
| 1928 | 99 | September 21 | 36 | December 23 |
| 1929 | 95 | June 21 | 35 | February 7 |
| 1930 | 92 | October 6 | 37 | January 11 |
| 1931 | 99 | July 3 | 39 | November 23 |

† Also on other dates

## COMPARATIVE DATA AND EXTREMES

| Month | Temperature | | | | | | | Precipitation | | | | | | Relative humidity, per cent | | | Sunshine | | Wind (True Values) | | | | | Average number of days | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Average daily maximum | Average daily minimum | Average | Absolute highest | Year | Absolute lowest | Year | Average total | Greatest in 24 hours | Year | Average snowfall | Greatest snowfall in 24 hours | Year | 5 a. m. | Noon—local time | 5 p. m. | Total hours | Per cent | Average hourly velocity | Prevailing direction | Highest velocity | Direction highest velocity | Year | Clear | Partly cloudy | Cloudy | Rain, .01 or more | Snow (trace or more) | Thunderstorms | Dense fog | Max. temp. 90° or above | Minimum temp. 32° or below | Minimum temp. 0° or below |
| L'gth of record, years. | 57 | 57 | 61 | 61 | 61 | 61 | 61 | 82 | 61 | 61 | 61 | 61 | 61 | 41 | 14 | 41 | 41 | 41 | 41 | 40 | 61 | 61 | 61 | 47 | 47 | 47 | 61 | 61 | 41 | 41 | 61 | 61 | 61 |
| Jan..... | 55.0 | 44.7 | 49.8 | 78 | 1899 | 29 | 1888 | 4.71 | 4.67 | 1881 | T. | 0.1 | 1888 | 86 | 69 | 72 | 160 | 52 | 8.0 | n. | 45 | se. | 1901 | 11 | 8 | 12 | 11 | ‡ | ‡ | 3 | 0 | ‡ | 0 |
| Feb..... | 58.4 | 47.0 | 52.7 | 80 | 1899 | 33 | 1887 | 3.62 | 3.60 | 1887 | T. | 3.7 | 1887 | 84 | 66 | 69 | 175 | 58 | 8.2 | w. | 41 | s. | 1917 | 11 | 8 | 9 | 11 | ‡ | ‡ | 2 | 0 | 0 | 0 |
| March... | 60.5 | 48.0 | 54.2 | 86 | 1914 | 33 | 1896 | 3.08 | 3.31 | 1879 | T. | 0.5 | 1896 | 83 | 60 | 66 | 232 | 62 | 9.4 | w. | 47 | s. | 1902 | 13 | 9 | 9 | 8 | ‡ | ‡ | 1 | 0 | 0 | 0 |
| April.... | 62.1 | 49.2 | 55.6 | 89 | 1926 | 40 | 1891 | 1.51 | 2.43 | 1896 | 0.0 | 0.0 | .... | 83 | 60 | 67 | 277 | 70 | 10.7 | w. | 38 | nw. | 1871 | 14 | 10 | 6 | 6 | 0 | ‡ | 1 | 0 | 0 | 0 |
| May..... | 63.2 | 50.5 | 56.8 | 97 | 1887 | 42 | 1906 | 0.70 | 1.42 | * | 0.0 | 0.0 | .... | 85 | 62 | 69 | 310 | 70 | 11.8 | w. | 36 | w. | 1897 | 15 | 10 | 6 | 4 | 0 | ‡ | 1 | ‡ | 0 | 0 |
| June..... | 63.9 | 52.1 | 58.0 | 100 | 1891 | 46 | 1908 | 0.15 | 1.23 | 1884 | 0.0 | 0.0 | .... | 88 | 64 | 70 | 334 | 75 | 12.8 | w. | 38 | sw. | 1873 | 17 | 9 | 4 | 2 | 0 | ‡ | 1 | ‡ | 0 | 0 |
| July..... | 65.1 | 52.8 | 59.0 | 99 | 1931 | 47 | 1893 | 0.01 | 0.23 | 1886 | 0.0 | 0.0 | .... | 91 | 68 | 75 | 311 | 69 | 13.2 | sw. | 33 | w. | 1898 | 15 | 12 | 4 | 5 | 0 | ‡ | 1 | ‡ | 0 | 0 |
| August.. | 65.1 | 53.3 | 59.2 | 92 | 1891 | 46 | 1903 | 0.02 | 0.22 | 1916 | 0.0 | 0.0 | .... | 92 | 70 | 77 | 265 | 63 | 12.5 | sw. | 34 | sw. | 1893 | 13 | 13 | 5 | 4 | 0 | ‡ | 2 | ‡ | 0 | 0 |
| Sept..... | 68.2 | 54.6 | 61.4 | 101 | 1913 | 47 | 1900 | 0.30 | 3.58 | 1904 | 0.0 | 0.0 | .... | 88 | 62 | 70 | 262 | 70 | 10.4 | w. | 37 | n. | 1923 | 16 | 10 | 4 | 2 | 0 | ‡ | 1 | ‡ | 0 | 0 |
| October.. | 67.5 | 53.5 | 60.5 | 96 | 1917 | 45 | 1881 | 0.96 | 2.03 | 1889 | 0.0 | 0.0 | .... | 85 | 58 | 67 | 243 | 70 | 8.4 | w. | 35 | ne. | 1906 | 17 | 9 | 5 | 4 | 0 | ‡ | 2 | ‡ | 0 | 0 |
| Nov..... | 62.5 | 50.5 | 56.5 | 83 | 1895 | 38 | 1919 | 2.62 | 3.98 | 1874 | 0.0 | 0.0 | .... | 83 | 60 | 67 | 187 | 62 | 7.5 | w. | 50 | ne. | 1906 | 14 | 8 | 8 | 7 | 0 | ‡ | 3 | 0 | 0 | 0 |
| Dec..... | 56.1 | 45.9 | 51.0 | 74 | 1929 | 34 | 1879 | 4.46 | 3.44 | 1921 | T. | 3.5 | 1882 | 83 | 68 | 71 | 162 | 55 | 7.7 | n. | 50 | ne. | 1923 | 12 | 8 | 11 | 11 | ‡ | ‡ | 2 | 0 | 0 | 0 |
| Year.... | 62.3 | 50.2 | 56.2 | 101 | 1913 | 29 | Jan. 1888 | 22.04 | 4.67 | Jan. 1881 | T. | 3.7 | 1887 | 86 | 64 | 70 | 2,918 | 66 | 10.0 | w. | 50 | ne. | 1906 1923 | 168 | 114 | 83 | 75 | ‡ | 2 | 20 | 1 | ‡ | 0 |

‡Less than one-half. *1906 and other years.

# Annual Meteorological Summary

## SAN FRANCISCO, CAL., YEAR 1931

| MONTH | TEMPERATURE (Degrees Fahrenheit) | | | | | | | Relative humidity (per-cent) | PRECIPITATION (In. and hundredths) | | | | Percentage of sunshine | WIND (True Values) | | | | | NUMBER OF DAYS WITH— | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MEAN | | | EXTREMES | | | | | | | | | | | | MAXIMUM (For 5 Minutes) | | | | | | | | | | | MAX. TEMP. | | MIN. TEMP. | |
| | Maximum | Minimum | Monthly | Maximum | Date | Minimum | Date | | Total | Maximum in 24 hrs. | Date | Snowfall | | Average hourly velocity | Prevailing direction | Velocity | Direction | Date | Gales (32 miles per hour or over) | Clear | Partly cloudy | Cloudy | Precipitation (0.01 inch or over) | Thunderstorms | Fog, dense | Snow (0.1 in. or over) | 32° or below | 90° or above | 32° or below | 0° or below |
| January | 57.7 | 46.9 | 52.3 | 68 | 29 | 43 | 10 | 77 | 5.50 | 1.59 | 5 | 0 | 55 | 5.7 | se. | 18 | se. | 7 | 0 | 9 | 8 | 14 | 11 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| February | 62.2 | 51.2 | 56.7 | 69 | 28 | 48 | 23 | 72 | 1.10 | 0.41 | 18 | 0 | 53 | 6.0 | w. | 26 | w. | 25 | 0 | 8 | 10 | 10 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| March | 66.5 | 51.5 | 59.0 | 76 | 2 | 48 | 29 | 67 | 1.68 | 0.96 | 10-11 | 0 | 78 | 6.9 | w. | 25 | nw. | 28 | 0 | 9 | 15 | 7 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| April | 67.3 | 50.7 | 59.0 | 84 | 20 | 48 | 10 | 71 | 0.31 | 0.22 | 25-26 | 0 | 77 | 6.9 | w. | 25 | w. | 1 | 0 | 12 | 9 | 9 | 3 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| May | 69.5 | 54.2 | 61.8 | 90 | 19 | 50 | 5 | 72 | 1.10 | 1.08 | 24 | 0 | 70 | 8.2 | sw. | 28 | n. | 19 | 0 | 11 | 14 | 6 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| June | 68.0 | 56.0 | 62.0 | 84 | 25 | 52 | 4 | 74 | 0.32 | 0.19 | 15 | 0 | 76 | 9.0 | sw. | 27 | nw. | 27 | 0 | 10 | 12 | 8 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| July | 70.0 | 54.6 | 62.3 | 99 | 3 | 51 | 31 | 75 | T. | T. | 24 | 0 | 82 | 8.4 | sw. | 25 | nw. | 14 | 0 | 18 | 12 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 |
| August | 67.6 | 53.2 | 60.4 | 89 | 23 | 51 | 9 | 79 | 0 | 0 | ..... | 0 | 71 | 7.7 | sw. | 22 | w. | 17 | 0 | 12 | 16 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| September | 70.2 | 55.3 | 62.8 | 86 | 30 | 52 | 1 | 73 | T. | T. | †14 | 0 | 81 | 7.8 | w. | 24 | w. | 17 | 0 | 12 | 17 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| October | 66.5 | 53.0 | 59.8 | 83 | 1 | 49 | 26 | 76 | 0.68 | 0.45 | 22-23 | 0 | 70 | 6.5 | sw. | 22 | w. | 10 | 0 | 9 | 13 | 9 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| November | 61.1 | 47.8 | 54.4 | 80 | 6 | 39 | 23 | 70 | 2.93 | 2.05 | 13-14 | 0 | 73 | 7.1 | w. | 33 | n. | 21 | 1 | 16 | 6 | 8 | 10 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| December | 51.0 | 44.8 | 49.4 | 60 | 4 | 39 | 14 | 79 | 9.24 | 2.69 | 26-27 | T. | 34 | 6.6 | se. | 28 | s. | 23 | 0 | 4 | 9 | 18 | 20 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| Year | 65.0 | 51.6 | 58.3 | 99 | July 3 | 39 | Nov. 23 | 74 | 22.86 | 2.69 | Dec. 26-27 | T. | 70 | 7.2 | sw. | 33 | n. | Nov. 21 | 1 | 130 | 141 | 94 | 71 | 1 | 7 | 0 | 0 | 2 | 0 | 0 |

†Also other dates

## PRECIPITATION

Monthly, Seasonal and Annual, 1849-1931

| Season | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | March | April | May | June | Sensonal | Year | Annual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1849-50.. | 0.00 | 0.00 | 0.00 | 3.14 | 8.66 | 6.20 | 8.34 | 1.77 | 4.53 | 0.46 | 0.00 | 0.00 | 33.10 | 1850 | 17.40 |
| 1850-51.. | 0.00 | 0.00 | 0.33 | 0.00 | 0.92 | 1.05 | 0.72 | 0.54 | 1.94 | 1.23 | 0.67 | 0.02 | **7.42** | 1851 | 15.00 |
| 1851-52.. | 0.00 | 0.02 | 1.03 | 0.21 | 2.12 | 7.10 | 0.58 | 0.14 | 6.68 | 0.26 | 0.32 | 0.00 | 18.46 | 1852 | 27.29 |
| 1852-53.. | 0.00 | 0.00 | 0.00 | 0.80 | 5.31 | 13.20 | 3.92 | 1.42 | 4.86 | 5.37 | 0.38 | 0.00 | 35.26 | 1853 | 21.17 |
| 1853-54.. | 0.00 | 0.04 | 0.46 | 0.12 | 2.28 | 2.32 | 3.88 | 8.04 | 3.51 | 3.12 | 0.02 | 0.08 | 23.87 | 1854 | 22.45 |
| 1854-55.. | 0.00 | 0.01 | 0.15 | 2.43 | 0.34 | 0.87 | 3.67 | 4.77 | 4.64 | 4.99 | 1.88 | 0.00 | 23.75 | 1855 | 26.38 |
| 1855-56.. | 0.00 | 0.00 | 0.00 | 0.00 | 0.67 | 5.76 | 9.40 | 0.50 | 1.60 | 2.94 | 0.76 | 0.03 | 21.66 | 1856 | 22.31 |
| 1856-57.. | 0.02 | 0.00 | 0.07 | 0.45 | 2.79 | 3.75 | 2.45 | 8.59 | 1.62 | 0.00 | 0.05 | 0.12 | 19.91 | 1857 | 20.96 |
| 1857-58. | 0.00 | 0.05 | 0.00 | 0.93 | 3.01 | 4.14 | 4.36 | 1.83 | 5.55 | 1.55 | 0.34 | 0.05 | 21.81 | 1858 | 23.46 |
| 1858-59.. | 0.05 | 0.16 | 0.00 | 2.74 | 0.69 | 6.14 | 1.28 | 6.32 | 3.02 | 0.27 | 1.55 | 0.00 | 22.22 | 1859 | 21.39 |
| 1859-60.. | 0.00 | 0.02 | 0.03 | 0.05 | 7.28 | 1.57 | 1.64 | 1.60 | 3.99 | 3.14 | 2.86 | 0.09 | 22.27 | 1860 | 21.18 |
| 1860-61.. | 0.21 | 0.00 | 0.00 | 0.91 | 0.58 | 6.16 | 2.47 | 3.72 | 4.08 | 0.51 | 1.00 | 0.08 | 19.72 | 1861 | 25.52 |
| 1861-62.. | 0.00 | 0.00 | 0.02 | 0.00 | 4.10 | 9.54 | **24.36** | 7.53 | 2.20 | 0.73 | 0.74 | 0.05 | **49.27** | 1862 | 38.63 |
| 1862-63.. | 0.00 | 0.00 | 0.00 | 0.52 | 0.15 | 2.36 | 3.63 | 3.19 | 2.06 | 1.61 | 0.23 | 0.00 | 13.74 | 1863 | 15.10 |
| 1863-64.. | 0.00 | 0.00 | 0.03 | 0.00 | 2.55 | 1.80 | 1.83 | **0.00** | 1.52 | 1.57 | 0.78 | 0.00 | 10.08 | 1864 | 21.64 |
| 1864-65.. | 0.00 | 0.21 | 0.01 | 0.13 | 6.68 | 8.91 | 5.14 | 1.34 | 0.74 | 0.94 | 0.63 | 0.00 | 24.73 | 1865 | 14.06 |
| 1865-66.. | 0.00 | 0.00 | 0.24 | 0.26 | 4.19 | 0.58 | 10.88 | 2.12 | 3.04 | 0.12 | 1.46 | 0.04 | 22.93 | 1866 | 36.28 |
| 1866-67.. | 0.00 | 0.00 | 0.11 | 0.00 | 3.35 | **15.16** | 5.16 | 7.20 | 1.58 | 2.36 | 0.00 | 0.00 | 34.92 | 1867 | 30.64 |
| 1867-68.. | 0.00 | 0.00 | 0.04 | 0.20 | 3.41 | 10.69 | 9.50 | 6.13 | 6.30 | 2.31 | 0.03 | 0.23 | 38.84 | 1868 | 30.17 |
| 1868-69.. | 0.00 | 0.00 | 0.00 | 0.15 | 1.18 | 4.34 | 6.35 | 3.90 | 3.14 | 2.19 | 0.08 | 0.02 | 21.35 | 1869 | 22.59 |
| 1869-70.. | 0.00 | 0.00 | 0.12 | 1.29 | 1.19 | 4.31 | 3.89 | 4.78 | 2.00 | 1.53 | 0.20 | 0.00 | 19.31 | 1870 | 16.24 |
| 1870-71.. | 0.00 | 0.00 | 0.03 | 0.00 | 0.43 | 3.38 | 3.07 | 3.76 | 1.31 | 1.89 | 0.23 | 0.01 | 14.11 | 1871 | 27.53 |
| 1871-72.. | 0.00 | 0.02 | 0.00 | 0.07 | 2.81 | 14.36 | 4.00 | 6.90 | 1.59 | 0.81 | 0.18 | 0.04 | 30.78 | 1872 | 22.42 |
| 1872-73.. | 0.01 | 0.00 | 0.04 | 0.11 | 2.79 | 5.95 | 1.58 | 3.94 | 0.79 | 0.43 | 0.00 | 0.02 | 15.66 | 1873 | 18.56 |
| 1873-74.. | 0.01 | 0.08 | 0.00 | 0.83 | 1.16 | 9.72 | 5.66 | 2.21 | 3.36 | 0.90 | 0.66 | 0.14 | 24.73 | 1874 | 22.52 |
| 1874-75.. | 0.00 | 0.00 | 0.02 | 2.69 | 6.55 | 0.33 | 8.01 | 0.32 | 1.30 | 0.10 | 0.22 | 1.02 | 20.56 | 1875 | 22.63 |
| 1875-76.. | 0.00 | 0.00 | 0.00 | 0.24 | 7.27 | 4.15 | 7.55 | 4.92 | 5.49 | 1.29 | 0.24 | 0.04 | 31.19 | 1876 | 23.54 |
| 1876-77.. | 0.01 | 0.01 | 0.38 | 3.36 | 0.25 | **0.00** | 4.32 | 1.18 | 1.08 | 0.26 | 0.18 | 0.01 | 11.04 | 1877 | 11.93 |
| 1877-78.. | 0.02 | 0.00 | 0.00 | 0.65 | 1.57 | 2.66 | 11.97 | **12.52** | 4.56 | 1.06 | 0.16 | 0.01 | 35.18 | 1878 | 33.26 |
| 1878-79.. | 0.01 | T. | 0.55 | 1.27 | 0.57 | 0.58 | 3.52 | 4.90 | **8.75** | 1.89 | 2.35 | 0.05 | 24.44 | 1879 | 30.76 |
| 1879-80.. | 0.01 | 0.02 | T. | 0.78 | 4.03 | 4.46 | 2.23 | 1.87 | 2.08 | **10.05** | 1.12 | 0.00 | 26.66 | 1880 | 30.07 |
| 1880-81.. | 0.00 | 0.00 | 0.00 | 0.05 | 0.33 | 12.33 | 8.69 | 4.65 | 0.90 | 2.00 | 0.22 | 0.69 | 29.86 | 1881 | 23.73 |
| 1881-82.. | 0.00 | 0.00 | 0.25 | 0.54 | 1.94 | 3.85 | 1.68 | 2.96 | 3.45 | 1.22 | 0.21 | 0.04 | 16.14 | 1882 | 18.67 |
| 1882-83.. | 0.00 | 0.00 | 0.26 | 2.66 | 4.18 | 2.01 | 1.92 | 1.04 | 3.01 | 1.51 | 3.52 | 0.01 | 20.12 | 1883 | 15.43 |
| 1883-84.. | 0.00 | 0.00 | 0.42 | 1.48 | 1.60 | 0.92 | 3.94 | 6.65 | 8.24 | 6.33 | 0.23 | **2.57** | 32.38 | 1884 | **38.82** |
| 1884-85.. | T. | 0.04 | 0.33 | 2.55 | 0.26 | 7.68 | 2.53 | 0.30 | 1.01 | 3.17 | 0.04 | 0.19 | 18.10 | 1885 | 24.90 |
| 1885-86.. | 0.06 | T. | 0.11 | 0.72 | **11.78** | 4.99 | 7.42 | 0.24 | 2.07 | 5.28 | 0.37 | 0.01 | 33.05 | 1886 | 20.02 |
| 1886-87.. | **0.23** | T. | 0.01 | 1.48 | 0.84 | 2.07 | 1.96 | 9.24 | 0.84 | 2.30 | 0.06 | 0.07 | 19.04 | 1887 | 19.04 |
| 1887-88.. | T. | 0.01 | 0.29 | T. | 0.99 | 3.34 | 6.81 | 0.94 | 3.60 | 0.11 | 0.38 | 0.27 | 16.74 | 1888 | 23.03 |
| 1888-89.. | 0.01 | 0.01 | 0.98 | 0.13 | 3.99 | 5.80 | 1.28 | 0.72 | 7.78 | 0.96 | 2.17 | 0.03 | 23.86 | 1889 | 36.94 |
| 1889-90.. | 0.01 | T. | T. | **7.28** | 2.90 | 13.81 | 9.61 | 5.16 | 4.73 | 1.18 | 1.07 | 0.10 | 45.85 | 1890 | 25.43 |
| 1890-91.. | 0.02 | 0.00 | 0.31 | 0.00 | 0.00 | 3.25 | 0.98 | 7.26 | 1.96 | 2.44 | 1.25 | 0.11 | 17.58 | 1891 | 21.11 |
| 1891-92.. | 0.10 | 0.02 | 0.77 | 0.04 | 0.56 | 5.62 | 2.42 | 2.90 | 2.85 | 1.39 | 1.86 | T. | 18.53 | 1892 | 22.08 |
| 1892-93.. | 0.00 | 0.00 | 0.02 | 1.65 | 3.91 | 5.08 | 3.05 | 2.75 | 4.08 | 1.03 | 0.15 | 0.03 | 21.75 | 1893 | 17.91 |
| 1893-94.. | 0.02 | 0.00 | 0.21 | 0.16 | 4.18 | 2.25 | 5.99 | 2.69 | 0.60 | 0.50 | 1.31 | 0.56 | 18.47 | 1894 | 21.32 |
| 1894-95.. | T. | 0.00 | 1.05 | 1.73 | 0.88 | 9.01 | 6.99 | 2.31 | 1.89 | 1.24 | 0.60 | 0.00 | 25.70 | 1895 | 17.13 |
| 1895-96.. | 0.01 | 0.00 | 0.77 | 0.11 | 1.78 | 1.43 | 8.14 | 0.28 | 2.85 | 5.16 | 0.72 | 0.00 | 21.25 | 1896 | 28.25 |
| 1896-97.. | 0.04 | 0.09 | 0.52 | 1.55 | 4.56 | 4.34 | 2.26 | 4.41 | 4.58 | 0.27 | 0.61 | 0.22 | 23.43 | 1897 | 16.40 |
| 1897-98.. | T. | T. | 0.10 | 1.70 | 1.05 | 1.22 | 1.12 | 2.13 | 0.24 | 0.19 | 1.44 | 0.19 | 9.38 | 1898 | 9.31 |
| 1898-99.. | 0.00 | T. | 1.06 | 0.86 | 0.46 | 1.62 | 3.67 | 0.10 | 7.61 | 0.62 | 0.86 | 0.01 | 16.87 | 1899 | 23.23 |
| 1899-1900 | 0.00 | T. | 0.00 | 3.92 | 3.79 | 2.65 | 4.11 | 0.64 | 1.91 | 1.08 | 0.32 | 0.05 | 18.47 | 1900 | 15.33 |
| 1900-01.. | T. | T. | 0.46 | 1.48 | 3.91 | 1.37 | 5.79 | 5.03 | 0.80 | 1.64 | 0.69 | T. | 21.17 | 1901 | 19.75 |
| 1901-02.. | T. | T. | 0.78 | 0.64 | 3.48 | 0.90 | 1.23 | 7.27 | 2.65 | 0.98 | 1.05 | T. | 18.98 | 1902 | 19.18 |
| 1902-03.. | T. | T. | T. | 1.70 | 1.98 | 2.32 | 3.73 | 1.76 | 6.23 | 0.56 | T. | T. | 18.28 | 1903 | 18.33 |
| 1903-04.. | 0.00 | T. | T. | 0.17 | 4.25 | 1.63 | 1.05 | 5.89 | 6.01 | 1.29 | 0.30 | T. | 20.59 | 1904 | 24.72 |
| 1904-05.. | 0.02 | 0.06 | **5.07** | 2.37 | 1.07 | 1.59 | 4.04 | 2.70 | 3.15 | 1.33 | 2.05 | 0.00 | 23.45 | 1905 | 16.24 |
| 1905-06.. | 0.00 | T. | T. | T. | 0.92 | 2.05 | 3.90 | 4.30 | 5.02 | 0.92 | 2.75 | 0.56 | 20.42 | 1906 | 26.34 |
| 1906-07.. | 0.08 | 0.11 | 0.18 | 0.03 | 1.59 | 6.90 | 4.41 | 3.02 | 8.42 | 0.11 | 0.04 | 1.28 | 26.17 | 1907 | 22.47 |
| 1907-08.. | T. | 0.02 | 0.11 | 1.36 | 0.04 | 3.66 | 4.88 | 5.39 | 0.90 | 0.22 | 0.76 | 0.01 | 17.35 | 1908 | 16.42 |
| 1908-09.. | 0.02 | 0.01 | 0.13 | 0.61 | 1.34 | 2.15 | 10.51 | 7.55 | 3.27 | T. | T. | T. | 25.57 | 1909 | 31.36 |
| 1909-10.. | T. | 0.00 | 0.80 | 1.23 | 2.43 | 5.59 | 3.24 | 2.09 | 3.78 | 0.31 | 0.03 | 0.02 | 19.52 | 1910 | 12.38 |
| 1910-11.. | T. | 0.00 | 0.05 | 0.65 | 0.48 | 1.73 | 13.79 | 3.02 | 4.57 | 0.89 | 0.28 | 0.03 | 25.49 | 1911 | 26.00 |
| 1911-12.. | T. | 0.00 | T. | 0.28 | 0.60 | 2.54 | 2.47 | 0.41 | 4.10 | 1.38 | 1.47 | 0.81 | 14.06 | 1912 | 15.62 |
| 1912-13.. | T. | 0.00 | 1.25 | 0.49 | 1.94 | 1.30 | 3.84 | 0.43 | 1.47 | 0.60 | 0.63 | 0.02 | 11.97 | 1913 | 19.05 |
| 1913-14.. | 0.07 | 0.01 | 0.00 | 0.35 | 6.22 | 5.41 | 9.76 | 5.04 | 1.09 | 0.99 | 0.37 | 0.29 | 29.60 | 1914 | 24.04 |
| 1914-15.. | 0.02 | 0.00 | T. | 0.29 | 0.70 | 5.49 | 6.74 | 7.36 | 3.02 | 0.62 | 3.17 | 0.00 | 27.41 | 1915 | 28.27 |
| 1915-16.. | 0.01 | 0.00 | 0.00 | 0.01 | 0.92 | 6.42 | 14.59 | 3.77 | 1.33 | 0.00 | 0.07 | T. | 27.12 | 1916 | 28.09 |
| 1916-17.. | 0.03 | **0.29** | 1.20 | 0.52 | 1.50 | 4.79 | 1.83 | 3.81 | 1.42 | 0.38 | 0.06 | T. | 15.78 | 1917 | **9.00** |
| 1917-18.. | T. | T. | 0.02 | 0.00 | 0.81 | 0.72 | 0.81 | 5.79 | 2.73 | 0.60 | T. | T. | 11.48 | 1918 | 20.85 |
| 1918-19.. | T. | 0.00 | 2.53 | 0.17 | 5.60 | 2.62 | 2.57 | 9.31 | 2.74 | 0.10 | T. | T. | 25.64 | 1919 | 19.04 |
| 1919-20.. | 0.01 | T. | 0.39 | 0.27 | 0.44 | 3.21 | **0.26** | 1.23 | 3.25 | 1.36 | T. | 0.04 | 10.46 | 1920 | 18.28 |
| 1920-21.. | T. | 0.00 | 0.13 | 1.83 | 2.70 | 7.48 | 6.30 | 1.38 | 2.28 | 0.54 | 0.52 | T. | 23.16 | 1921 | 19.71 |
| 1921-22.. | 0.00 | 0.00 | 0.35 | 0.52 | 1.43 | 6.39 | 2.41 | 5.15 | 2.38 | 0.47 | 0.55 | 0.26 | 19.91 | 1922 | 25.71 |
| 1922-23.. | T. | T. | T. | 2.95 | 3.77 | 7.77 | 2.84 | 0.77 | **0.03** | 3.92 | 0.06 | 0.06 | 22.17 | 1923 | 10.99 |
| 1923-24.. | 0.00 | 0.01 | 0.44 | 0.46 | 0.49 | 1.91 | 2.75 | 3.30 | 1.96 | 0.30 | T. | 0.00 | 11.62 | 1924 | 20.17 |
| 1924-25.. | 0.00 | 0.01 | T. | 2.98 | 1.50 | 7.37 | 1.62 | 7.90 | 2.63 | 2.73 | **4.02** | 0.05 | 30.81 | 1925 | 23.10 |
| 1925-26.. | 0.06 | T. | 0.45 | 0.31 | 2.32 | 1.01 | 5.48 | 5.40 | 0.25 | 5.26 | 0.15 | T. | 20.69 | 1926 | 26.73 |
| 1926-27.. | 0 | 0.04 | T. | 1.90 | 7.21 | 1.04 | 3.77 | 6.85 | 2.19 | 1.95 | 0.10 | 0.38 | 25.43 | 1927 | 24.29 |
| 1927-28.. | T. | T. | T. | 1.93 | 3.18 | 3.94 | 2.40 | 1.97 | 4.65 | 1.31 | 0.26 | T. | 19.46 | 1928 | 18.99 |
| 1928-29.. | T. | T. | 0.03 | 0.13 | 3.35 | 4.89 | 1.32 | 2.14 | 1.56 | 1.01 | 0.01 | 0.86 | 15.30 | 1929 | 10.00 |

Continued on next page

## PRECIPITATION—Continued

Monthly, Seasonal and Annual, 1849-1931

| Season | July | Aug. | Sept. | Oct. | Nov | Dec. | Jan. | Feb. | March | April | May | June | Seasonal | Year | Annual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1929-30.. | T. | 0 | T. | 0.01 | 0.00 | 3.09 | 4.99 | 2.94 | 3.53 | 1.56 | 0.16 | T. | 16.28 | 1930 | 16.71 |
| 1930-31.. | 0 | 0 | 0.10 | 0.89 | 1.56 | 0.98 | 5.50 | 1.10 | 1.68 | 0.31 | 1.19 | 0.32 | 13.54 | 1931 | 22.86 |
| 1931..... | T. | 0 | T. | 0.68 | 2.93 | 9.24 | | | | | | | | | |
| Means.. | 0.01 | 0.02 | 0.30 | 0.96 | 2.52 | 4.46 | 4.70 | 3.62 | 3.08 | 1.51 | 0.70 | 0.15 | 22.01 | .... | 22.01 |

## MEAN TEMPERATURE

Monthly and Annual, 1871-1931

| Year | Jan. | Feb. | Mar. | Apr. | May. | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | An'l. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1871..... | .... | .... | 51.3 | 53.3 | 54.3 | 56.9 | 56.6 | 57.9 | 60.4 | 61.8 | 55.1 | 52.9 | ..... |
| 1872..... | 52.2 | 54.2 | 54.3 | 53.4 | 56.0 | 59.8 | 57.9 | 59.8 | 59.3 | 58.8 | 56.0 | 52.1 | 56.2 |
| 1873..... | 54.8 | 50.9 | 54.5 | 54.6 | 55.4 | 57.1 | 58.1 | 59.5 | 58.3 | 59.7 | 57.7 | 50.7 | 55.9 |
| 1874..... | 49.3 | 51.2 | 50.9 | 54.9 | 57.6 | 59.1 | 57.8 | 59.0 | 61.4 | 59.8 | 56.1 | 50.3 | 55.6 |
| 1875..... | 49.0 | 52.0 | 51.8 | 55.4 | 57.2 | 59.4 | 58.8 | 58.8 | 59.2 | 62.0 | 57.4 | 51.4 | 56.0 |
| 1876..... | 48.8 | 52.8 | 53.2 | 55.4 | 56.8 | 61.4 | 59.1 | 59.6 | 61.5 | 59.9 | 58.0 | 53.0 | 56.6 |
| 1877..... | 54.3 | 55.8 | 57.2 | 54.4 | 56.2 | 62.0 | 60.8 | 59.8 | 62.5 | 59.2 | 57.2 | 52.7 | 57.7 |
| 1878..... | 52.8 | 53.3 | 55.9 | 56.0 | 58.0 | 58.8 | 58.6 | 59.1 | 60.2 | 61.6 | 57.1 | 51.6 | 56.9 |
| 1879..... | 48.8 | 54.6 | 57.2 | 56.5 | 56.4 | 60.2 | 58.7 | 60.5 | 61.0 | 61.0 | 55.0 | 50.0 | 56.7 |
| 1880..... | 48.0 | 48.8 | 49.4 | 53.3 | 57.7 | 57.2 | 58.8 | 59.1 | 58.9 | 59.8 | 54.2 | 53.2 | 54.9 |
| 1881..... | 54.0 | 55.3 | 54.4 | 57.9 | 58.0 | 58.6 | 59.7 | 58.8 | 59.7 | 56.6 | 55.1 | 51.0 | 56.6 |
| 1882..... | 49.4 | 48.8 | 53.4 | 53.0 | 57.0 | 57.9 | 59.5 | 58.6 | 59.8 | 58.8 | 53.2 | 52.8 | 55.2 |
| 1883..... | 47.0 | 48.8 | 54.0 | 53.2 | 58.0 | 61.4 | 59.8 | 59.2 | 63.1 | 57.9 | 54.1 | 50.8 | 55.6 |
| 1884..... | 50.6 | 50.8 | 54.5 | 56.0 | 59.4 | 60.2 | 61.4 | 60.0 | 59.6 | 58.2 | 57.4 | 52.8 | 56.7 |
| 1885..... | 51.1 | 55.3 | 57.7 | 58.2 | 58.1 | 57.8 | 61.6 | 59.6 | 61.8 | 60.7 | 57.8 | 54.0 | 57.8 |
| 1886..... | 51.2 | 56.8 | 53.6 | 55.4 | 59.1 | 59.4 | 60.3 | 60.6 | 62.4 | 58.6 | 56.8 | 53.6 | 57.3 |
| 1887..... | 52.6 | 47.8 | 55.8 | 55.8 | 57.0 | 59.4 | 56.6 | 57.8 | 62.0 | 64.2 | 56.4 | 52.2 | 56.5 |
| 1888..... | 46.7 | 53.9 | 53.4 | 57.8 | 56.9 | 62.4 | 61.4 | 60.8 | 62.6 | 61.6 | 57.0 | 53.2 | 57.3 |
| 1889..... | 50.4 | 54.0 | 57.2 | 58.8 | 58.8 | 60.2 | 58.8 | 60.4 | 64.6 | 61.8 | 58.6 | 51.3 | 57.9 |
| 1890..... | 46.2 | 49.1 | 53.8 | 54.8 | 59.8 | 59.2 | 59.8 | 61.4 | 60.4 | 62.4 | 59.0 | 49.8 | 56.3 |
| 1891..... | 52.2 | 51.2 | 55.0 | 53.4 | 55.7 | 60.2 | 59.4 | 61.8 | 61.8 | 59.7 | 58.6 | 49.6 | 56.6 |
| 1892..... | 51.7 | 52.4 | 54.2 | 53.1 | 58.0 | 56.8 | 58.1 | 59.4 | 60.2 | 59.6 | 56.9 | 51.1 | 56.0 |
| 1893..... | 47.4 | 50.3 | 51.2 | 52.4 | 55.8 | 56.5 | 56.6 | 56.6 | 59.3 | 57.6 | 55.6 | 52.4 | 54.3 |
| 1894..... | 47.7 | 48.4 | 50.6 | 55.2 | 55.4 | 55.9 | 56.4 | 59.2 | 63.4 | 59.6 | 59.4 | 49.7 | 55.1 |
| 1895..... | 48.6 | 53.8 | 52.2 | 54.8 | 57.6 | 58.7 | 58.4 | 58.4 | 60.7 | 58.8 | 56.2 | 48.6 | 55.6 |
| 1896..... | 52.2 | 55.3 | 54.3 | 51.6 | 56.3 | 57.2 | 59.4 | 59.5 | 59.6 | 58.8 | 53.4 | 52.8 | 55.9 |
| 1897..... | 48.6 | 50.7 | 48.9 | 57.4 | 57.4 | 58.9 | 58.2 | 57.4 | 60.8 | 58.4 | 53.1 | 50.7 | 55.0 |
| 1898..... | 46.7 | 52.6 | 51.2 | 54.4 | 52.6 | 59.0 | 56.2 | 57.0 | 59.0 | 61.2 | 55.4 | 49.7 | 54.6 |
| 1899..... | 53.0 | 51.6 | 52.2 | 54.6 | 52.6 | 56.9 | 55.9 | 58.3 | 58.2 | 59.3 | 56.8 | 49.6 | 55.0 |
| 1900..... | 50.7 | 53.6 | 55.2 | 54.0 | 57.0 | 57.6 | 58.2 | 59.7 | 63.3 | 58.8 | 56.3 | 50.2 | 56.2 |
| 1901..... | 49.8 | 52.2 | 55.8 | 51.8 | 53.9 | 56.7 | 55.6 | 56.4 | 58.5 | 61.8 | 57.2 | 52.9 | 55.2 |
| 1902..... | 46.7 | 52.9 | 51.6 | 54.4 | 55.5 | 56.9 | 59.2 | 60.6 | 61.9 | 59.3 | 54.8 | 50.6 | 55.4 |
| 1903..... | 47.9 | 48.9 | 52.2 | 54.0 | 55.2 | 58.5 | 57.2 | 57.6 | 61.0 | 62.0 | 56.6 | 52.4 | 55.3 |
| 1904..... | 50.6 | 50.8 | 51.8 | 56.8 | 59.0 | 59.2 | 57.1 | 57.1 | 64.0 | 62.0 | 58.0 | 50.6 | 56.4 |
| 1905..... | 51.3 | 54.0 | 57.0 | 56.4 | 55.5 | 56.0 | 59.5 | 58.4 | 60.4 | 60.4 | 56.2 | 50.7 | 56.3 |
| 1906..... | 51.6 | 55.2 | 54.0 | 56.4 | 56.2 | 59.4 | 57.6 | 57.9 | 60.0 | 61.7 | 55.4 | 49.6 | 56.2 |
| 1907..... | 47.1 | 54.9 | 51.0 | 56.8 | 56.4 | 57.1 | 58.0 | 59.3 | 60.6 | 60.6 | 57.8 | 52.4 | 56.0 |
| 1908..... | 50.8 | 50.9 | 54.8 | 56.4 | 55.4 | 55.4 | 57.3 | 57.4 | 60.5 | 58.8 | 55.4 | 47.0 | 55.0 |
| 1909..... | 51.5 | 51.3 | 51.8 | 56.6 | 54.5 | 56.1 | 57.8 | 57.4 | 61.6 | 59.4 | 54.8 | 49.2 | 55.2 |
| 1910..... | 46.4 | 50.4 | 54.9 | 57.1 | 58.7 | 55.9 | 56.4 | 56.5 | 57.6 | 61.2 | 54.8 | 53.0 | 55.2 |
| 1911..... | 51.0 | 49.3 | 49.2 | 53.6 | 55.6 | 55.0 | 56.4 | 56.5 | 60.0 | 60.9 | 57.3 | 51.7 | 54.7 |
| 1912..... | 51.8 | 54.6 | 52.4 | 52.8 | 57.2 | 60.4 | 57.9 | 59.9 | 63.4 | 60.0 | 56.6 | 51.6 | 56.6 |
| 1913..... | 47.4 | 52.4 | 52.6 | 55.4 | 56.6 | 58.2 | 60.6 | 62.1 | 64.6 | 61.5 | 55.2 | 50.6 | 56.4 |
| 1914..... | 51.5 | 54.0 | 58.4 | 58.2 | 56.2 | 56.6 | 57.0 | 58.2 | 60.8 | 62.0 | 59.0 | 48.7 | 56.7 |
| 1915..... | 50.8 | 52.8 | 57.9 | 57.1 | 57.6 | 58.9 | 60.2 | 61.3 | 62.4 | 61.3 | 56.1 | 52.2 | 57.4 |
| 1916..... | 47.0 | 55.8 | 56.6 | 57.6 | 55.8 | 57.4 | 60.0 | 58.6 | 62.2 | 56.9 | 54.4 | 48.9 | 55.9 |
| 1917..... | 47.6 | 52.0 | 51.7 | 55.1 | 54.0 | 58.6 | 59.8 | 57.6 | 64.0 | 62.3 | 58.7 | 54.6 | 56.3 |
| 1918..... | 52.7 | 51.8 | 54.9 | 57.2 | 54.6 | 59.2 | 58.8 | 60.9 | 62.2 | 64.0 | 55.6 | 50.2 | 56.8 |
| 1919..... | 51.2 | 51.6 | 52.6 | 56.0 | 57.2 | 57.8 | 57.0 | 58.4 | 62.0 | 60.7 | 56.0 | 48.8 | 55.8 |
| 1920..... | 52.2 | 52.8 | 52.6 | 54.9 | 55.8 | 60.2 | 57.8 | 60.1 | 60.4 | 60.2 | 55.4 | 51.0 | 56.1 |
| 1921..... | 49.5 | 52.9 | 54.6 | 55.0 | 54.4 | 61.4 | 59.8 | 59.6 | 63.3 | 61.5 | 57.8 | 52.9 | 56.9 |
| 1922..... | 46.8 | 50.2 | 52.4 | 53.5 | 58.0 | 60.0 | 60.2 | 60.4 | 63.4 | 60.6 | 54.3 | 50.6 | 55.9 |
| 1923..... | 48.1 | 52.2 | 56.8 | 56.1 | 57.2 | 57.2 | 60.8 | 61.7 | 64.0 | 62.4 | 60.8 | 51.0 | 57.4 |
| 1924..... | 50.2 | 57.0 | 54.5 | 57.4 | 59.1 | 59.8 | 59.0 | 59.1 | 62.4 | 59.4 | 56.7 | 47.8 | 56.9 |
| 1925..... | 51.4 | 55.2 | 55.4 | 57.0 | 59.0 | 60.7 | 61.2 | 61.2 | 62.7 | 62.2 | 56.6 | 52.7 | 57.9 |
| 1926..... | 48.0 | 56.0 | 60.6 | 61.6 | 61.0 | 59.2 | 61.1 | 60.8 | 61.2 | 63.4 | 60.9 | 51.5 | 58.8 |
| 1927..... | 51.3 | 54.0 | 51.2 | 55.6 | 58.2 | 59.8 | 58.6 | 59.8 | 62.4 | 62.5 | 58.1 | 51.8 | 57.2 |
| 1928..... | 50.4 | 55.1 | 58.2 | 57.8 | 58.9 | 60.6 | 58.6 | 58.4 | 61.4 | 59.6 | 56.4 | 49.6 | 57.1 |
| 1929..... | 47.4 | 51.8 | 54.2 | 53.4 | 56.6 | 63.0 | 61.5 | 61.1 | 61.4 | 63.5 | 59.7 | 54.2 | 57.3 |
| 1930..... | 49.6 | 56.5 | 57.4 | 59.2 | 56.1 | 59.9 | 58.6 | 61.5 | 62.4 | 63.2 | 58.0 | 52.1 | 57.9 |
| 1931..... | 52.3 | 56.7 | 59.0 | 59.0 | 61.8 | 62.0 | 62.3 | 60.4 | 62.8 | 59.8 | 54.4 | 49.4 | 58.3 |
| Means..... | 50.0 | 52.7 | 54.1 | 55.6 | 56.8 | 58.7 | 58.8 | 59.2 | 61.3 | 60.5 | 56.6 | 51.2 | 56.3 |

## NORMAL DAILY PRECIPITATION

| Day. | Jan. | Feb. | Mar. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. ..... | .13 | .15 | .09 | .07 | .02 | .01 | 0 | 0 | 0 | .04 | .04 | .13 |
| 2..... | .13 | .16 | .10 | .07 | .02 | .01 | 0 | 0 | 0 | .04 | .05 | .14 |
| 3..... | .13 | .17 | .12 | .07 | .03 | .01 | 0 | 0 | 0 | .03 | .06 | .14 |
| 4..... | .12 | .16 | .14 | .08 | .03 | 0 | 0 | 0 | 0 | .03 | .07 | .15 |
| 5..... | .10 | .15 | .13 | .08 | .04 | .01 | 0 | 0 | .01 | .03 | .07 | .14 |
| 6..... | .10 | .16 | .13 | .09 | .04 | .01 | 0 | 0 | .01 | .03 | .07 | .13 |
| 7..... | .09 | .14 | .13 | .09 | .03 | .01 | 0 | 0 | .01 | .03 | .08 | .13 |
| 8..... | .09 | .13 | .12 | .10 | .03 | .01 | 0 | 0 | .01 | .04 | .08 | .13 |
| 9..... | .09 | .15 | .10 | .09 | .03 | .01 | .01 | 0 | .01 | .03 | .08 | .12 |
| 10..... | .10 | .16 | .10 | .08 | .03 | .02 | 0 | 0 | .01 | .03 | .07 | .11 |
| 11..... | .11 | .15 | .11 | .07 | .03 | .02 | 0 | 0 | .02 | .04 | .06 | .11 |
| 12..... | .12 | .16 | .10 | .05 | .03 | .02 | 0 | 0 | .02 | .04 | .05 | .10 |
| 13..... | .14 | .16 | .09 | .05 | .03 | .02 | 0 | 0 | .02 | .04 | .05 | .09 |
| 14..... | .17 | .16 | .10 | .04 | .03 | .01 | 0 | .01 | .02 | .04 | .06 | .10 |
| 15..... | .18 | .14 | .10 | .05 | .03 | .01 | 0 | 0 | .01 | .04 | .07 | .11 |
| 16..... | .17 | .15 | .10 | .05 | .03 | 0 | .01 | 0 | .01 | .04 | .08 | .11 |
| 17..... | .17 | .15 | .10 | .05 | .04 | 0 | 0 | 0 | 0 | .03 | .09 | .12 |
| 18..... | .18 | .16 | .10 | .05 | .03 | 0 | 0 | 0 | 0 | .03 | .10 | .13 |
| 19..... | .16 | .15 | .10 | .05 | .03 | 0 | 0 | 0 | .01 | .04 | .11 | .14 |
| 20..... | .15 | .14 | .10 | .04 | .02 | 0 | 0 | 0 | .01 | .04 | .12 | .15 |
| 21..... | .16 | .14 | .10 | .04 | .02 | 0 | 0 | 0 | .02 | .04 | .11 | .16 |
| 22..... | .17 | .13 | .09 | .04 | .02 | 0 | 0 | 0 | .03 | .04 | .10 | .16 |
| 23..... | .17 | .10 | .08 | .01 | .02 | 0 | 0 | 0 | .04 | .04 | .09 | .15 |
| 24..... | .18 | .10 | .08 | .03 | .01 | 0 | 0 | 0 | .04 | .01 | .09 | .14 |
| 25..... | .19 | .09 | .09 | .03 | .02 | 0 | 0 | 0 | .03 | .04 | .08 | .13 |
| 26..... | .18 | .08 | .09 | .03 | .03 | 0 | 0 | 0 | .02 | .04 | .08 | .12 |
| 27..... | .18 | .08 | .09 | .02 | .02 | 0 | 0 | 0 | .02 | .04 | .07 | .12 |
| 28..... | .17 | .08 | .10 | .02 | .02 | 0 | 0 | 0 | .02 | .04 | .08 | .12 |
| 29..... | .17 | ..... | .09 | .02 | .02 | 0 | 0 | 0 | .02 | .03 | .09 | .12 |
| 30..... | .17 | ..... | .09 | .02 | .01 | 0 | 0 | 0 | .03 | .03 | .10 | .12 |
| 31..... | .17 | ..... | .08 | ..... | .01 | 0 | 0 | 0 | ..... | .03 | ..... | .13 |
| Totals .. | 4.54 | 3.85 | 3.14 | 1.61 | 0.80 | 0.18 | 0.02 | 0.01 | 0.45 | 1.12 | 2.35 | 3.95 |

Annual 22.02.

## NORMAL DAILY MEAN TEMPERATURE

| Day. | Jan. | Feb. | Mar. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1..... | 50 | 51 | 54 | 55 | 56 | 58 | 59 | 58 | 60 | 61 | 59 | 53 |
| 2..... | 50 | 51 | 54 | 55 | 56 | 58 | 59 | 58 | 60 | 61 | 59 | 53 |
| 3..... | 50 | 51 | 54 | 55 | 56 | 58 | 59 | 59 | 60 | 61 | 58 | 53 |
| 4..... | 50 | 51 | 54 | 55 | 56 | 58 | 59 | 59 | 60 | 61 | 58 | 53 |
| 5..... | 50 | 51 | 54 | 55 | 56 | 58 | 59 | 59 | 60 | 61 | 58 | 53 |
| 6..... | 50 | 51 | 54 | 55 | 56 | 58 | 59 | 59 | 60 | 61 | 58 | 53 |
| 7..... | 50 | 51 | 54 | 55 | 56 | 58 | 59 | 59 | 60 | 61 | 58 | 52 |
| 8..... | 50 | 52 | 54 | 55 | 56 | 58 | 59 | 59 | 61 | 61 | 58 | 52 |
| 9..... | 50 | 52 | 54 | 55 | 56 | 58 | 59 | 59 | 61 | 61 | 58 | 52 |
| 10..... | 50 | 52 | 54 | 55 | 56 | 58 | 59 | 59 | 61 | 61 | 57 | 52 |
| 11..... | 50 | 52 | 54 | 55 | 56 | 58 | 58 | 59 | 61 | 61 | 57 | 52 |
| 12..... | 50 | 52 | 54 | 55 | 56 | 58 | 58 | 59 | 61 | 61 | 57 | 52 |
| 13..... | 50 | 52 | 54 | 55 | 56 | 58 | 58 | 59 | 61 | 61 | 57 | 52 |
| 14..... | 50 | 52 | 54 | 55 | 57 | 59 | 58 | 59 | 61 | 61 | 57 | 51 |
| 15..... | 50 | 52 | 54 | 55 | 57 | 59 | 58 | 59 | 61 | 61 | 56 | 51 |
| 16..... | 50 | 52 | 54 | 55 | 57 | 59 | 58 | 59 | 61 | 61 | 56 | 51 |
| 17..... | 50 | 52 | 54 | 55 | 57 | 59 | 58 | 59 | 61 | 61 | 56 | 51 |
| 18..... | 50 | 53 | 54 | 55 | 57 | 59 | 58 | 59 | 61 | 60 | 56 | 51 |
| 19..... | 50 | 53 | 54 | 55 | 57 | 59 | 58 | 59 | 61 | 60 | 56 | 51 |
| 20..... | 50 | 53 | 54 | 55 | 57 | 59 | 58 | 59 | 61 | 60 | 55 | 51 |
| 21..... | 50 | 53 | 54 | 55 | 57 | 59 | 58 | 59 | 61 | 60 | 55 | 50 |
| 22..... | 50 | 53 | 54 | 55 | 57 | 59 | 58 | 59 | 61 | 60 | 55 | 50 |
| 23..... | 50 | 53 | 54 | 55 | 57 | 59 | 58 | 60 | 61 | 60 | 55 | 50 |
| 24..... | 50 | 53 | 54 | 55 | 57 | 59 | 58 | 60 | 61 | 60 | 55 | 50 |
| 25..... | 50 | 53 | 54 | 55 | 58 | 59 | 58 | 60 | 61 | 60 | 55 | 50 |
| 26..... | 50 | 53 | 54 | 55 | 58 | 59 | 58 | 60 | 61 | 60 | 54 | 50 |
| 27..... | 50 | 53 | 55 | 55 | 58 | 59 | 58 | 60 | 61 | 60 | 54 | 50 |
| 28..... | 50 | 53 | 55 | 55 | 58 | 59 | 58 | 60 | 61 | 59 | 54 | 50 |
| 29..... | 51 | ..... | 55 | 56 | 58 | 59 | 58 | 60 | 61 | 59 | 54 | 50 |
| 30..... | 51 | ..... | 55 | 56 | 58 | 59 | 58 | 60 | 61 | 59 | 54 | 50 |
| 31..... | 51 | ..... | 55 | ..... | 58 | ..... | 58 | 60 | ..... | 59 | ..... | 50 |
| Means .. | 50 | 52 | 54 | 55 | 57 | 58 | 58 | 59 | 61 | 60 | 56 | 51 |

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