

U. S. DEPARTMENT OF COMMERCE
WEATHER BUREAU

LOCAL CLIMATOLOGICAL DATA

WITH COMPARATIVE DATA

1958

WILMINGTON, DELAWARE



NARRATIVE CLIMATOLOGICAL SUMMARY

Delaware is part of the Atlantic Coastal Plain consisting mainly of flat low land with many marshes. Wilmington, at the northern end of the State, marks the beginning of low rolling hills extending northward into Pennsylvania. The Delaware River and Delaware Bay constitute the eastern boundary of the State while the broad Chesapeake Bay lies twenty-five miles, or less, to the west of the western boundary. These large water areas influence the climate of Delaware to a considerable extent.

The year-round climate of the Wilmington vicinity is mild and favorable for agriculture and manufacture. Winters are seldom severe. January is the coldest month with an average temperature of 33.3° and zero temperatures are infrequent. Since 1894 only 37 days with zero or below have occurred in the Wilmington area. The average date of the first snow is December 4th and the average annual fall amounts to 21.4 inches. As a rule snow does not remain on the ground more than a few days at a time.

Spring comes early in northern Delaware. The average date of the last killing freeze is April 14th. The average maximum temperature for March and April is 53.0 and 63.2 degrees, respectively. And, considering the latitude, the growing season of 197 days is quite long: the average date of the first killing freeze is October 29th.

The warmest month of the year is July with an average temperature of 75.9°, an average maximum temperature of 86.7° and an average minimum of 65.0°. During the past 65 years there have been 33 days with a temperature of 100° or over. The average number of days with 90° or over is 20. The proximity of large water areas and the inflow of moist southerly winds cause the relative humidity to be quite high all year. During the summer the average is 75%. Thunderstorms, frequent during the summer, usually occur during the late afternoons of hot humid days, with the effect of welcome relief.

The average number of days with heavy fog is 45; they occur in every month of the year, but with the maximum number in the Fall and Winter seasons. Light SE winds blowing up Delaware Bay favor the formation of heavy fog.

The average annual precipitation of 44.50 inches occurs in monthly falls ranging from 2.98 inches in February to 5.28 inches in August. Long droughts are uncommon. Tropical hurricanes moving northward along the Atlantic Coast occasionally cause heavy rain in northern Delaware but Wilmington winds seldom reach hurricane force. There is almost a complete freedom from tornadoes. Strong easterly and southeasterly winds occasionally cause high tides resulting in the flooding of lowlands and damage to beach front homes.

LATITUDE 39° 40' N
 LONGITUDE 75° 36' W
 ELEVATION (ground) 78 Feet

METEOROLOGICAL DATA FOR THE CURRENT YEAR

WILMINGTON, DELAWARE
 NEW CASTLE COUNTY AIRPORT
 1958

Month	Temperature							Degree days	Precipitation						Relative humidity				Wind			Percent of possible sunshine	Average sky cover sunrise to sunset	Number of days													
	Averages			Extremes					Total	Greatest in 24 hrs.	Date	Snow, Sleet			EST	EST	EST	EST	Average hourly speed	Prevailing direction	Fastest mile			Sunrise to sunset			Temperatures										
	Daily maximum	Daily minimum	Monthly	Highest	Date	Lowest	Date					Total	Greatest in 24 hrs.	Date							1:00 a.m., EST			7:00 a.m., EST	1:00 p.m., EST	7:00 p.m., EST	Speed	Direction	Date	Precipitation .01 inch or more	Snow, Sleet 1.0 inch or more	Thunderstorms	Heavy fog	90° and above	32° and below	32° and below	0° and below
Jan.	37.7	23.8	30.8	53	22	24.9	10	1056	3.63	1.12	25	3.5	2.5	7	75	75	65	71	10.7	WNW	43	NE	14	6.0	11	4	16	9	0	0	0	0					
Year	60.8	43.1	52.0	91	July 31+	4	Feb. 17	5482	51.87	2.75	Mar. 19-20	38.9	15.6	Mar. 19-20	80	79	58	70	9.2	WNW	43	NE	Jan 14	6.1	102	106	157	116	8	33	33	5	32	109	0		

NORMALS, MEANS, AND EXTREMES

Month	Temperature							Normal degree days	Precipitation						Relative humidity				Wind			Pct. of possible sunshine	Mean sky cover sunrise to sunset	Mean number of days																						
	Normal			Extremes					Normal total	Maximum monthly	Year	Snow, Sleet			EST	EST	EST	EST	Mean hourly speed	Prevailing direction	Fastest mile			Sunrise to sunset			Temperatures																			
	Daily maximum	Daily minimum	Monthly	Record highest	Year	Record lowest	Year					Normal total	Maximum monthly	Year							Minimum monthly			Year	Maximum in 24 hrs.	Year	Mean total	Maximum monthly	Year	Maximum in 24 hrs.	Year	1:00 a.m., EST	7:00 a.m., EST	1:00 p.m., EST	7:00 p.m., EST	Speed	Direction	Year	Precipitation .01 inch or more	Snow, Sleet 1.0 inch or more	Thunderstorms	Heavy fog	90° and above	32° and below	32° and below	0° and below
	(b)	(b)	(b)	11	11	(b)	(b)					11	11	11							11			11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
(a)	(b)	(b)	(b)	11	11	(b)	(b)	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11											
Year	64.6	43.8	54.2	102	July 1957+	-4	Jan. 1957	4910	44.50	12.09	Aug. 1955	0.16	July 1955	6.24	July 1952	19.5	20.3	Mar. 1958	15.6	Mar. 1958	81	79	56	70	8.6	NW																				

Means and extremes in the above table are from the existing or comparable location(s). Annual extremes have been exceeded at prior locations as follows: Highest temperature 107 in August 1918; lowest temperature -15 in February 1934; maximum monthly precipitation 14.91 in August 1911; minimum monthly precipitation 0.06 in October 1924; maximum precipitation in 24 hours 6.53 in August 1945; maximum monthly snowfall 27.0 in January 1935; maximum snowfall in 24 hours 22.0 in December 1909.

REFERENCE NOTES

- (a) Length of record, years.
- (b) Normal values are based on the period 1951-1950, and are means adjusted to represent observations taken at the present standard location.
- * Less than one half.
- No record.
- † Airport data.
- ‡ City Office data.
- § Also on earlier dates, months, or years.
- T Trace, an amount too small to measure.

Mean values at the end of the Average Temperature and Total Precipitation tables are long-term means based on the period of record beginning in 1948. Values have not been corrected for changes in instrument location listed in the Station Location Table.

Unless otherwise indicated, dimensional units used in this bulletin are: temperature in degrees F.; precipitation and snowfall in inches; wind movement in miles per hour; and relative humidity in percent.

Sky cover is expressed in a range of 0 for no clouds or obscuring phenomena to 10 for complete sky cover. The number of clear days is based on average cloudiness 0-3 tenths; partly cloudy days on 4-7 tenths and cloudy days on 8-10 tenths. Monthly degree day totals are the sum of the negative departures of average daily temperatures from 65° F. Sleet was included in snowfall totals beginning with July 1948.

Data for earlier years may be obtained by contacting the Weather Bureau Office for which this summary was issued.

Heavy fog in the Means and Extremes Table also includes data referred to at various times in the past as "Dense" or "Thick". The upper visibility limit for heavy fog is 1/4 mile.

Below zero temperatures are preceded by a minus sign.

Data entered in the column headed "Fastest Mile" in the first table are the fastest observed 1-minute speed and its direction. This station is not equipped with automatic recording wind instruments.

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AVERAGE TEMPERATURE

TOTAL PRECIPITATION

Table with columns: Year, Jan, Feb, Mar, Apr, May, June, July, Aug, Sept, Oct, Nov, Dec, An l. Contains monthly average temperature data from 1910 to 1958, including a RECORD MEAN TEMP, MAX, and MIN section at the bottom.

Table with columns: Year, Jan, Feb, Mar, Apr, May, June, July, Aug, Sept, Oct, Nov, Dec, Annual. Contains monthly total precipitation data from 1910 to 1958, including a RECORD MEAN section at the bottom.

MONTHLY AND SEASONAL DEGREE DAYS

Table with columns: Season, July, Aug, Sept, Oct, Nov, Dec, Jan, Feb, Mar, Apr, May, June, Total. Shows monthly and seasonal degree days from 1920-21 to 1939-40.

Table with columns: Season, July, Aug, Sept, Oct, Nov, Dec, Jan, Feb, Mar, Apr, May, June, Total. Shows monthly and seasonal degree days from 1940-41 to 1958-59.

MONTHLY AND SEASONAL SNOWFALL

Season	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total
1909-10	0	0	0	0	0.5	23.5	11.0	2.0	1.0	T	0	0	38.0
1910-11	0	0	0	0	0	12.5	4.0	6.5	3.5	T	0	0	26.5
1911-12	0	0	0	0	0	T	16.5	0.8	7.0	0	0	0	24.3
1912-13	0	0	0	0	0.5	12.0	T	1.5	0	0	0	0	14.0
1913-14	0	0	0	0	0	0	0.7	13.0	13.3	0	0	0	27.0
1914-15	0	0	0	0	0	1.5	2.0	2.1	10.2	12.0	0	0	27.8
1915-16	0	0	0	0	T	6.0	1.4	5.7	6.0	6.7	0	0	25.8
1916-17	0	0	0	0	T	14.0	4.3	7.4	0.7	5.5	0	0	32.1
1917-18	0	0	0	0	1.5	3.7	24.0	2.7	0	T	0	0	31.9
1918-19	0	0	0	0	0	0.8	0.5	2.0	1.0	T	0	0	4.3
1919-20	0	0	0	0	0	6.2	2.5	11.2	4.5	T	0	0	24.4
1920-21	0	0	0	0	0	0.5	1.0	8.2	2.0	3.0	0	0	14.7
1921-22	0	0	0	0	0	8.0	20.3	6.0	0.8	0	0	0	35.1
1922-23	0	0	0	0	T	2.2	5.0	7.0	6.0	0.5	0	0	20.7
1923-24	0	0	0	0	0	1.5	0.2	12.2	1.5	8.0	0	0	23.4
1924-25	0	0	0	0	0.5	0.5	13.5	T	T	0	0	0	14.5
1925-26	0	0	0	3.0	0.8	T	3.0	17.9	T	T	0	0	24.7
1926-27	0	0	0	0	0	4.5	6.7	6.3	T	1.2	0	0	18.7
1927-28	0	0	0	0	T	6.0	12.0	0.7	2.0	0.8	0	0	21.5
1928-29	0	0	0	0	T	6.0	1.0	8.7	T	0	0	0	15.7
1929-30	0	0	0	0	0.2	2.5	7.0	1.5	T	T	0	0	11.2
1930-31	0	0	0	0	T	1.2	1.0	0.5	3.0	0	0	0	5.7
1931-32	0	0	0	0	0.5	T	1.0	T	7.0	T	0	0	8.5
1932-33	0	0	0	0	T	13.0	T	13.0	4.0	0	0	0	30.0
1933-34	0	0	0	0	0.5	5.5	T	26.2	12.5	T	0	0	44.7
1934-35	0	0	0	T	T	0.2	27.0	7.4	1.0	T	0	0	35.6
1935-36	0	0	0	0	0.8	14.5	4.7	11.0	T	0	0	0	31.0
1936-37	0	0	0	0	T	0.5	T	5.0	7.5	T	0	0	13.0
1937-38	0	0	0	T	T	1.0	3.5	3.0	T	0	0	0	7.5
1938-39	0	0	0	0	8.5	0.3	12.0	T	2.5	T	0	0	23.3

Season	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total
1939-40	0	0	0	0	T	1.5	4.7	8.1	2.8	2.5	0	0	19.6
1940-41	0	0	0	2.0	T	5.0	5.5	6.6	9.0	0	0	0	28.1
1941-42	0	0	0	0	T	3.5	2.3	2.2	0	0	0	0	8.0
1942-43	0	0	0	0	0	5.0	5.1	1.0	8.0	T	0	0	19.1
1943-44	0	0	0	0	T	0	2.5	3.7	9.5	1.0	0	0	16.7
1944-45	0	0	0	0	T	4.9	7.0	6.5	0	0	0	0	18.4
1945-46	0	0	0	0	T	10.5	1.0	2.0	0	0	0	0	13.5
1946-47	0	0	0	0	0	0.5	4.3	13.5	2.2	0	0	0	20.5
1947-48	0	0	0	0	T	6.0	13.0	14.8	1.6	0	0	0	35.4
1948-49	0	0	0	0	0	6.4	4.2	10.1	T	0	0	0	20.7
1949-50	0	0	0	0	T	T	0.6	0.4	T	T	0	0	1.0
1950-51	0	0	0	0	0.8	0.7	2.6	0.7	T	0	0	0	4.8
1951-52	0	0	0	0	T	6.6	4.0	T	6.8	0	0	0	17.4
1952-53	0	0	0	0	2.0	2.8	5.3	1.0	5.5	T	0	0	16.5
1953-54	0	0	0	0	11.9	T	11.5	0.6	0.3	T	0	0	24.3
1954-55	0	0	0	0	T	0.9	3.8	8.5	2.0	0	0	0	15.2
1955-56	0	0	0	0	4.3	0.9	8.7	1.1	12.3	T	0	0	27.3
1956-57	0	0	0	0	T	T	6.5	1.3	1.2	T	0	0	9.0
1957-58	0	0	0	0	0	11.2	3.5	14.5	20.3	T	0	0	49.5
1958-59	0	0	0	0	T	0.6							

The horizontal lines drawn on the Average Temperature, Total Precipitation, Monthly and Seasonal Degree Days, and Monthly and Seasonal Snowfall tables separate the data according to station location (see Station Location table).

STATION LOCATION

Location	Occupied from	Occupied to	Airline distance and direction from previous location	Latitude	Longitude	Elevation above							REMARKS	
						Sea level		Ground						
						Ground	Actual barometer elevation (ft.)	Wind instruments	Extreme thermometers	Psychrometer	Telepsychrometer	Typing bucket rain gage		Weighing rain gage
COOPERATIVE STATIONS														
Wilmington, Delaware 6th & King Streets	4- 1-94	*7-12-16		39° 45' N	75° 33' W	86							35'	Ordinary thermometer exposed outside N window; Sept. '09 max. and min. in use, Exposure thermometers "poor".
Porter Reservoir Wilmington, Delaware 1.9 miles NNE of P.O.	3- 1-12	Present	2.2 mi. NNE	39° 46' N	75° 33' W	260			3'				3'	Home made shelter in use; C.R. shelter Sept. 1936, good exposure over sod. Feqn. readings began 7-12-12.
Wilmington, Delaware 10th & King Streets 1 block S of P.O.	*7-12-16	Present	1.9 mi. SSW	39° 45' N	75° 33' W	99							47'	During most of the time this station has been precipitation only.
AIRPORT STATION														
Bellanca Field, New Castle, Delaware. 6.1 miles SSW Wilming- ton P.O.	*4-20-31	*6- 1934	6 mi. SSW	39° 40' N	75° 36' W									Airway Observations telephoned to WBAS, Camden, New Jersey. Observational records not available.
DuPont Airport, Wilmington, Delaware 3 miles WNW Wilmington P.O.	4-27-42	12- 8-42	6.8 mi. N	39° 46' N	75° 36' W									WBAS 7-9-42 to 12-8-42. Ob- servational records not avail- able.
New Castle County Air- port Tower, Wilmington, Delaware. 5.6 miles SW of P.O.	5- 9-47	11- 6-47	5.6 mi. SSW	39° 40' N	75° 36' W		80	75	5	5				Airway Obs. by County Tower employees. Ceiling, visibility and wind only.
New Castle County Air- port, Administration Bldg. Wilmington, Del. 5.6 miles SW of P.O.	11- 7-47	12- 5-47	125 yds. SW	39° 40' N	75° 36' W	73	80	75	5	5			3	Wind instruments of location No. 6 used. No barometer ob- servations made at this lo- cation.
New Castle County Air- port, Terminal Building Wilmington, Del. 5.6 miles SW of P.O.	12- 5-47	7-16-58	150 ft. NE	39° 40' N	75° 36' W	73	80	34	5	5			4-	Barometer readings started January 16, 1948. Exposure of instruments good.
New Castle County Air- port, New Terminal Building, Wilmington, Del. 5.5 miles SW of P. O.	7-16-56	Present	7/8 Miles SE	39° 40' N	75° 36' W	78	96	72	5	5			4	Exposure of instruments excellent.

* Exact dates doubtful
Through December 1931, WBO Baltimore, the Section Center, combined the temperature records at Porter Reservoir and the precipitation records from location No. 3 into a Wilmington report. WBAS, Wilmington has used data from locations No. 1, No. 2, No. 8 and No. 9 as official Wilmington data.

Data considered official for local records and for the Local Climatological Summary obtained as follows:
Location No. 1 - Temperature April 1894 - February 1912, Precipitation April 1894 - July, 1912.
Location No. 2 - Temperature March 1912 - December 1947, Precipitation July 1912 - December 1947.
Location No. 8 - All elements January 1, 1948 - July 15, 1956.
Location No. 9 - All elements beginning July 16, 1956.