

U. S. DEPARTMENT OF COMMERCE
WEATHER BUREAU

LOCAL CLIMATOLOGICAL DATA

WITH COMPARATIVE DATA

1963

WILMINGTON, DELAWARE



NARRATIVE CLIMATOLOGICAL SUMMARY

Delaware is part of the Atlantic Coastal Plain consisting mainly of flat low land with many marshes. Small streams and tidal estuaries comprise the drainage of the State. Wilmington, at the northern end of the State, marks the beginning of low rolling hills extending northward and northwestward into Pennsylvania. The Delaware River, the Delaware Bay, and the Atlantic Ocean are along the eastern boundary of the State. The broad Chesapeake Bay lies thirty-five miles, or less, to the west of the western boundary of nearly the entire State. These large water areas influence to a considerable extent the climate of the Wilmington, Delaware, region.

Summers are warm and humid and winters are usually mild. During the summer maximum temperatures are usually in the eighties. The maximum temperature reaches 100° on the average of one year in six. During the coldest part of the year, mid-January, the normal daily average temperature is 33°. On the average zero temperatures may be expected one year in three. Most of the winter precipitation falls as rain. Seasonal snowfall has been as little as one inch, and there has been a season with nearly fifty inches snowfall. Snow is frequently mixed with rain and sleet. Snow seldom remains on the ground more than a few days.

The average date for the last occurrence in spring of temperature as low as 32° F. is mid-April. The average date for the first occurrence in fall of temperature as low as 32° F. is late October.

The average freeze-free period is approximately 200 days.

The proximity of large water areas and the inflow of southerly winds cause the relative humidity to be quite high all year. During the summer months the average relative humidity is approximately 75 percent. Fog is relatively frequent and may occur in any month. Light southeast winds blowing up the Delaware Bay favor the formation of fog. Light north-northeast winds bring in smoke from Philadelphia and from the heavy industry area located along the Delaware River north of Wilmington.

Rainfall distribution throughout the year is fairly uniform; however, the greatest amounts normally come during the summer months. Mostly, the summer rainfall comes in the form of thunderstorms. Moisture deficiencies for crops occur occasionally but severe droughts are rare. During the fall, winter, and spring seasons, much of the rainfall comes as a result of storms forming over the southern states, or the south Atlantic and then moving northward along the Atlantic Coast. During the late summer and early fall, hurricanes occasionally cause heavy rainfall but winds seldom reach hurricane force in Wilmington. Heavy rains occasionally cause minor flash flooding, but the streams and rivers of northern Delaware are not subject to major flooding. Strong easterly and southeasterly winds sometimes cause high tides in the Delaware Bay and the Delaware River resulting in the flooding of lowlands and damage to bay front and river front properties.

MONTHLY AND SEASONAL SNOWFALL

WILMINGTON, DELAWARE
GREATER WILMINGTON AIRPORT
1963

Season	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total
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	8.0	0.8	0	0	0	35.1
1922-23	0	0	0	0	T	2.2	5.0	7.0	8.0	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	8.0	12.0	0.7	2.0	0.8	0	0	21.5
1928-29	0	0	0	0	T	8.0	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	T	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	0	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
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	8.6	9.0	0	0	0	28.1
1941-42	0	0	0	0	0	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	18.7
1944-45	0	0	0	0	T	4.9	7.0	8.5	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	8.0	13.0	14.8	1.8	0	0	0	35.4
1948-49	0	0	0	0	0	8.4	4.2	10.1	T	0	0	0	20.7

Season	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total
1949-50	0	0	0	0	T	T	0.8	0.4	T	T	0	0	1.0
1950-51	0	0	0	0	0.8	0.7	2.6	0.7	T	T	0	0	4.8
1951-52	0	0	0	0	T	8.6	4.0	T	6.8	0	0	0	17.4
1952-53	0	0	0	0	2.0	2.8	5.2	1.0	5.5	T	0	0	18.5
1953-54	0	0	0	0	11.9	T	11.5	0.8	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	T	T	11.2	3.5	14.5	20.3	T	0	0	49.5
1958-59	0	0	0	0	T	0.6	3.3	0.4	1.9	1.1	0	0	7.3
1959-60	0	0	0	0	T	3.1	0.2	5.1	13.4	T	0	0	21.8
1960-61	0	0	0	T	T	13.2	16.5	13.3	1.1	T	0	0	44.1
1961-62	0	0	0	0	3.3	6.4	1.2	8.0	5.2	T	0	0	24.1
1962-63	0	0	0	0.3	T	8.6	5.2	4.6	0.3	0	T	0	19.0
1963	0	0	0	0	T	8.0							

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). Data for the period January 1, 1948 through present, when both Cooperative Station and Airport offices were in operation, are for the Airport location.

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	Tipping 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. Pcpn. readings began 7-12-12.	
Wilmington, Delaware 10th & King Streets 1 block S of P.O.	*7-12-16	10-31-58	1.9 mi. SSW	39° 45' N	75° 33' W	99						47'	During most of the time this station was 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									
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									
New Castle County Air- port Tower, Wilmington, Delaware. 5.6 miles SW of P.O.	5-19-47	11- 6-47	5.6 mi. SSW	39° 40' N	75° 36' W			75					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 observations made at this location.	
New Castle County Air- port, Terminal Building Wilmington, Del. 5.6 miles SW of P.O.	12- 5-47	7-16-56	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	20	5	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.

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