

Local Climatological Data

Annual Summary With Comparative Data

1983



WILMINGTON, DELAWARE

Narrative Climatological Summary

Delaware is part of the Atlantic Coastal Plain consisting mainly of the 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 35 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, January, the normal daily average temperature is 32°. On the average, zero temperatures may be expected one year in four. Most of the winter precipitation falls as rain. Seasonal snowfall has been as little as 1 inch, and there has been a season with nearly 50 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° 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.

STATION LOCATION

WILMINGTON, DELAWARE

| Location | Occupied from | Occupied to | Airline distance and direction from previous location | Latitude North | Longitude West | Elevation above | | | | | | | | Automatic Observing Equipment * | Remarks | |
|---|---------------|-------------|---|----------------|----------------|----------------------------|----|------------------|----------------------|--------------|-----------------|--------------------------|--------------------|---------------------------------|---|--|
| | | | | | | Sea level | | Ground | | | | | | | | |
| | | | | | | Ground at temperature site | | Wind instruments | Extreme thermometers | Psychrometer | Sunshine Switch | Tipping bucket rain gage | Weighing rain gage | | | 8" rain gage |
| COOPERATIVE | | | | | | | | | | | | | | | | |
| Wilmington, Delaware 6th and King Streets | 4- 1-94 | 7-12-16 | | 39° 45' | 75° 33' | 86 | | | | | | | 35' | | Ordinary thermometer exposed outside N window; Sept. '09 max. and min. in use, exposure of thermometers poor. | |
| Porter Reservoir Wilmington, Delaware 1.9 miles NNE of P. O. | 3- 1-12 | Present | | 39° 46' | 75° 33' | 260 | | 3' | | | | | 3' | | Home made shelter in use; C. R. shelter September 1936, good exposure over sod. Precipitation record began 7-12-12. | |
| Wilmington, Delaware 10th and King Streets 1 block S of P. O. | 7-12-16 | 10-31-58 | 1.9 mi. SSW | 39° 45' | 75° 33' | 99 | | | | | | | 47' | | Precipitation only most of time. | |
| AIRPORT | | | | | | | | | | | | | | | | |
| Bellanca Field New Castle, Delaware 6.1 miles SSW Wilmington Post Office | 4-20-31 | 6- 7-34 | | 39° 40' | 75° 36' | | | | | | | | | | | |
| DuPont Airport Wilmington Delaware 3 miles WNW Wilmington Post Office | 4-27-42 | 12- 8-42 | 6.8 mi. N | 39° 46' | 75° 36' | | | | | | | | | | | |
| New Castle County Airport Tower, Wilmington, Delaware, 5.6 miles SW of Post Office | 5-19-47 | 11- 6-47 | 5.6 mi. SSW | 39° 40' | 75° 36' | | 75 | | | | | | | | Airway Observation by County Tower employees. | |
| New Castle County Airport, Admn. Bldg. | 11- 7-47 | 12- 5-47 | 125 yds. SW | 39° 40' | 75° 36' | 73 | 75 | 5 | 5 | | | | 3 | | Wind instruments of previous location used. | |
| New Castle County Airport, Terminal Bldg. | 12- 5-47 | 7-16-56 | 150 ft. NE | 39° 40' | 75° 36' | 73 | 34 | 5 | 5 | | | | 4 | | Exposure of instruments good. | |
| New Terminal Building New Castle County AP * | 7-16-56 | Present | 7/8 mi. SE | 39° 40' | 75° 36' | b74 | 20 | s5 | s5 | NA | NA | 5 | 4 | a4 | NA | Exposure of instruments excellent. * Name changed to Greater Wilmington Airport in May 1961. a - Commissioned 1,000 feet from thermometer site 4-11-67. b - 78 feet to 4-11-67. s - Standby after 4-11-67. |

SUBSCRIPTION:

Price and ordering information available through: National Climatic Data Center, Federal Building, Asheville, North Carolina 28801, ATTN: Publications.

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