

U. S. DEPARTMENT OF COMMERCE
WEATHER BUREAU

LOCAL CLIMATOLOGICAL DATA

WITH COMPARATIVE DATA

1965

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.

AVERAGE TEMPERATURE

TOTAL PRECIPITATION

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	An. l.
1930	33.4	37.8	42.4	49.9	64.7	73.0	76.7	73.9	72.3	53.8	45.2	34.2	54.8
1931	33.6	35.0	39.2	50.5	61.7	71.0	77.2	74.2	72.1	59.2	52.0	42.2	55.7
1932	44.2	38.3	37.6	50.2	62.0	70.7	75.0	74.6	68.8	57.6	44.1	38.4	55.0
1933	40.4	35.6	39.6	52.1	64.7	72.4	74.3	74.4	69.7	55.8	42.4	34.1	54.6
1934	36.2	40.2	38.0	51.0	64.2	74.0	77.4	71.3	68.8	54.0	48.0	34.4	53.1
1935	30.0	32.0	45.8	50.1	59.1	70.1	76.6	74.0	65.2	56.4	49.0	29.7	53.2
1936	28.2	25.0	46.8	49.6	65.0	70.8	75.9	75.8	68.8	57.5	43.0	38.3	53.7
1937	41.0	35.2	37.6	51.0	63.8	72.0	75.7	75.8	65.1	54.4	44.6	34.2	54.2
1938	32.8	36.4	45.0	54.1	60.9	74.4	75.9	76.5	66.0	57.6	47.8	35.8	54.9
1939	32.6	38.6	42.2	50.2	64.2	72.4	74.6	76.0	68.4	57.0	42.8	36.8	54.6
1940	22.9	33.0	36.4	46.8	61.2	70.3	75.4	70.8	64.8	52.1	44.8	39.0	51.5
1941	30.8	30.2	35.6	56.3	64.9	70.7	75.0	73.0	70.2	61.4	48.0	38.8	54.6
1942	31.0	30.7	43.8	54.8	65.6	71.4	75.4	72.6	67.9	57.4	46.2	31.3	54.0
1943	31.9	34.8	42.6	47.4	63.4	75.4	75.0	75.2	67.0	54.5	44.3	33.6	53.8
1944	34.4	34.2	38.9	50.0	67.3	71.7	75.8	74.7	71.2	55.2	45.6	31.6	54.2
1945	26.1	33.4	51.6	55.4	60.2	71.0	74.2	71.6	70.2	54.7	47.3	30.0	53.8
1946	34.2	35.0	50.4	50.2	61.6	67.4	73.4	69.6	68.4	59.1	47.8	37.4	54.5
1947	37.8	27.8	36.5	51.4	60.9	68.0	73.8	75.2	67.5	62.2	42.9	33.4	53.1
1948	25.5	31.0	43.4	51.0	61.4	70.6	75.7	73.6	66.8	54.2	49.4	36.3	53.2
1949	39.2	38.6	43.2	52.0	62.9	72.9	78.7	75.1	64.2	60.4	44.5	37.5	55.8
1950	42.7	33.6	37.6	48.3	60.1	69.7	74.0	72.5	63.4	57.6	45.0	32.4	53.1
1951	34.2	34.8	41.5	51.6	61.9	73.8	75.9	73.8	67.0	59.1	41.5	37.6	54.1
1952	37.0	37.6	40.5	54.6	61.0	73.4	78.4	74.3	67.4	52.4	45.3	37.4	55.0
1953	37.6	38.4	44.4	52.3	65.0	72.2	77.0	74.5	68.2	58.0	45.2	38.7	56.0
1954	31.3	40.4	41.5	55.6	60.6	68.6	72.0	76.2	72.9	68.3	59.6	43.8	55.1
1955	31.5	34.1	43.5	54.8	64.8	68.7	81.2	77.9	67.2	58.1	43.3	29.9	54.6
1956	31.8	37.5	38.6	49.9	59.9	71.7	73.4	73.4	64.6	56.8	45.2	41.3	53.7
1957	28.6	37.4	42.2	54.2	62.9	74.2	75.9	73.2	68.7	53.3	46.6	37.9	54.6
1958	30.8	27.3	39.0	53.4	60.7	67.4	76.5	73.0	65.8	55.4	45.8	28.6	52.0
1959	30.9	33.0	41.1	54.3	65.6	72.0	75.4	76.0	70.4	59.5	44.7	38.0	55.1
1960	35.1	35.9	32.8	56.4	60.8	71.0	73.1	74.9	68.0	55.3	45.9	28.4	53.1
1961	25.6	34.7	42.6	48.9	58.9	70.5	75.6	74.0	72.5	56.9	46.7	32.2	53.3
1962	31.2	31.3	41.2	52.2	64.2	71.5	72.6	72.9	63.6	56.7	42.5	30.3	52.5
1963	28.4	27.5	44.1	52.6	60.3	70.8	76.3	71.7	63.7	58.4	48.0	28.4	52.5
1964	33.2	31.6	43.1	49.4	64.3	72.1	75.8	71.5	67.2	52.8	47.6	37.3	53.8
1965	29.0	33.6	38.4	49.3	66.0	70.2	74.5	73.3	69.4	53.6	45.0	37.7	53.3

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1930	3.36	3.04	2.71	1.75	3.13	2.09	2.72	1.86	5.45	1.14	1.80	2.50	31.55
1931	2.35	1.80	4.26	2.65	4.54	4.80	5.59	9.07	1.29	2.09	1.07	2.29	41.60
1932	6.02	2.15	6.87	1.48	4.02	4.91	1.55	3.90	2.97	6.21	7.14	3.18	50.00
1933	2.86	3.59	5.14	5.75	6.16	1.49	6.12	11.10	3.46	1.79	1.04	2.98	51.46
1934	2.83	2.83	3.60	4.00	4.16	4.78	4.32	5.39	6.98	1.64	4.38	2.45	47.50
1935	5.04	3.48	2.73	3.68	3.40	5.20	4.23	4.60	6.60	3.09	6.25	2.53	50.83
1936	7.45	2.72	5.97	2.98	2.90	3.39	2.71	7.01	3.47	3.11	0.78	5.46	47.95
1937	6.36	2.30	2.09	4.41	2.37	5.48	2.58	6.57	2.69	5.29	3.19	1.38	44.71
1938	2.40	2.52	2.41	2.02	4.05	8.37	6.94	5.24	8.10	1.91	2.80	3.48	50.24
1939	3.57	5.90	3.85	6.47	0.35	5.59	1.67	6.78	0.87	5.68	0.72	1.90	43.35
1940	1.51	2.87	5.64	6.47	4.88	2.04	1.87	5.33	2.99	2.67	4.58	2.62	43.47
1941	3.17	1.88	1.99	2.90	1.42	3.61	5.66	3.21	0.73	1.94	2.91	3.78	33.20
1942	2.89	2.67	5.60	1.12	2.49	2.41	9.05	9.54	2.14	3.98	3.08	4.37	49.34
1943	2.73	1.88	2.76	3.56	6.18	4.05	3.87	1.12	0.45	6.20	3.54	1.45	37.79
1944	3.39	2.00	6.02	5.20	2.31	5.06	1.31	3.53	6.58	2.14	4.60	3.35	45.49
1945	4.27	3.15	2.73	4.32	5.17	4.80	9.94	10.67	4.41	1.85	5.70	4.04	61.05
1946	1.76	1.95	3.29	1.88	7.12	6.42	4.76	6.26	3.91	2.11	1.38	2.25	43.09
1947	3.72	1.47	2.39	6.20	7.24	4.27	2.99	2.31	2.19	2.23	8.11	1.80	44.92
1948	4.05	2.66	3.76	3.07	7.35	5.25	1.15	4.58	1.87	1.25	4.82	5.25	45.06
1949	5.55	4.18	3.00	2.69	4.10	0.96	6.16	3.55	3.08	3.63	1.15	2.90	40.97
1950	1.97	3.11	4.74	1.81	3.32	2.45	4.35	3.05	7.06	2.46	4.22	1.95	40.49
1951	3.64	2.96	3.76	2.56	3.56	2.47	3.84	3.23	1.16	3.17	7.32	5.79	45.28
1952	5.08	2.73	5.35	5.87	4.61	2.52	7.40	3.09	3.12	0.46	5.40	3.81	48.95
1953	5.14	2.69	5.72	4.76	5.39	2.52	9.21	1.89	3.94	3.87	2.19	4.13	45.15
1954	1.71	1.82	4.03	2.84	2.38	0.44	1.93	5.82	3.39	2.08	4.14	3.14	33.72
1955	0.59	2.93	4.86	2.55	1.18	6.34	0.16	12.09	2.27	2.62	1.36	0.19	37.14
1956	2.61	4.21	5.18	2.80	2.12	3.58	7.39	3.58	2.77	3.58	5.94	4.09	47.85
1957	2.30	3.76	2.64	3.73	2.36	3.45	1.33	2.61	6.55	2.51	3.11	4.74	39.09
1958	3.63	4.14	5.39	4.62	3.89	5.17	7.51	7.00	2.91	3.99	2.97	1.25	51.87
1959	1.89	1.80	2.97	2.15	1.34	2.34	5.21	5.75	2.29	4.11	2.39	3.46	38.19
1960	2.86	3.69	1.71	2.93	5.12	1.37	6.18	5.08	9.53	2.85	2.04	2.67	46.03
1961	2.84	3.74	5.19	4.88	2.45	1.30	4.84	3.75	2.33	1.88	2.41	3.03	40.44
1962	2.51	3.26	4.30	3.50	1.61	3.05	1.78	1.87	3.65	1.51	4.87	2.50	34.41
1963	2.05	2.09	4.24	1.12	1.23	3.26	1.65	4.03	3.50	0.21	6.87	1.85	32.10
1964	4.13	3.37	2.20	5.97	0.22	1.02	3.70	1.83	2.77	1.29	1.62	4.70	32.82
1965	2.38	2.17	3.20	1.76	1.41	1.62	3.84	2.04	2.41	1.59	0.94	1.54	24.90

RECORD MEAN TEMP MAX MIN	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	An. l.
MEAN	32.7	33.1	41.9	52.2	62.8	71.3	75.9	74.0	67.8	56.7	45.6	34.9	54.1
MAX	40.5	41.3	51.3	62.7	73.6	81.7	85.7	83.5	77.6	66.6	54.2	42.6	63.4
MIN	24.9	24.9	32.5	41.7	52.0	60.8	66.1	64.4	58.0	46.8	36.9	27.2	44.7

RECORD MEAN	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
MEAN	3.38	3.13	3.74	3.55	3.47	3.76	4.60	4.88	3.62	2.97	3.25	3.35	43.70

Record mean values above (not adjusted for instrument location changes listed in the Station Location table) are means for the period beginning in 1895 for temperature and 1894 for precipitation.

TOTAL HEATING DEGREE DAYS

TOTAL SNOWFALL

Season	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total
1925-26	1	10	29	440	651	924	1027	909	857	482	131	54	5515
1926-27	4	5	60	334	642	1057	1046	746	651	476	167	49	5237
1927-28	1	20	44	247	481	859	959	896	752	480	159	14	4912
1928-29	0	0	114	247	523	850	1006	896	533	344	175	31	4719
1929-30	3	0	56	347	558	909	975	757	693	444	97	3	4842
1930-31	0	3	7	340	589	947	964	834	794	422	155	9	5064
1931-32	0	1	25	208	385	697	641	770	843	440	135	15	4150
1932-33	0	0	37	235	619	859	753	820	781	378	88	30	4600
1933-34	0	0	22	292	671	951	888	1246	828	409	104	1	5412
1934-35	0	12	21	333	504	944	1080	919	587	448	220	12	5080
1935-36	0	3	55	264	474	1086	1133						

STATION LOCATION

WILMINGTON, DELAWARE
GREATER WILMINGTON AIRPORT

Location	Occupied from	Occupied to	Airline distance and direction from previous location	Latitude North	Longitude West	Elevation above								Remarks
						Sea level	Ground							
							Ground at temperature site	Wind instruments	Extreme thermometers	Psychrometer	Telepsychrometer	Tipping bucket rain gage	Weighing 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 STATION														
Bellanca Field New Castle, Delaware 6.1 miles SSW Wilmington Post Office	4-20-31	6- ?-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'	78	20	5	5		5	4		Exposure of instruments excellent. *Name changed to Greater Wilmington Airport, May 1961.

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