

2003

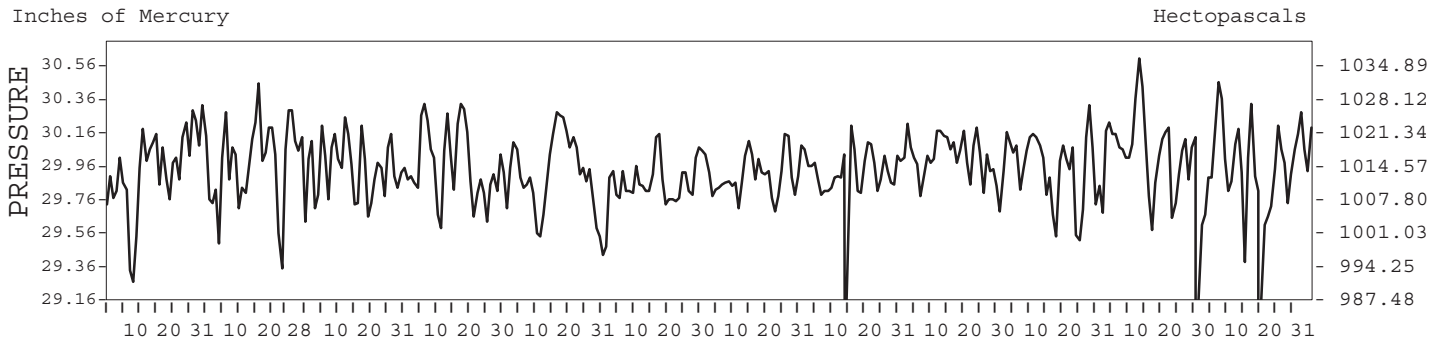
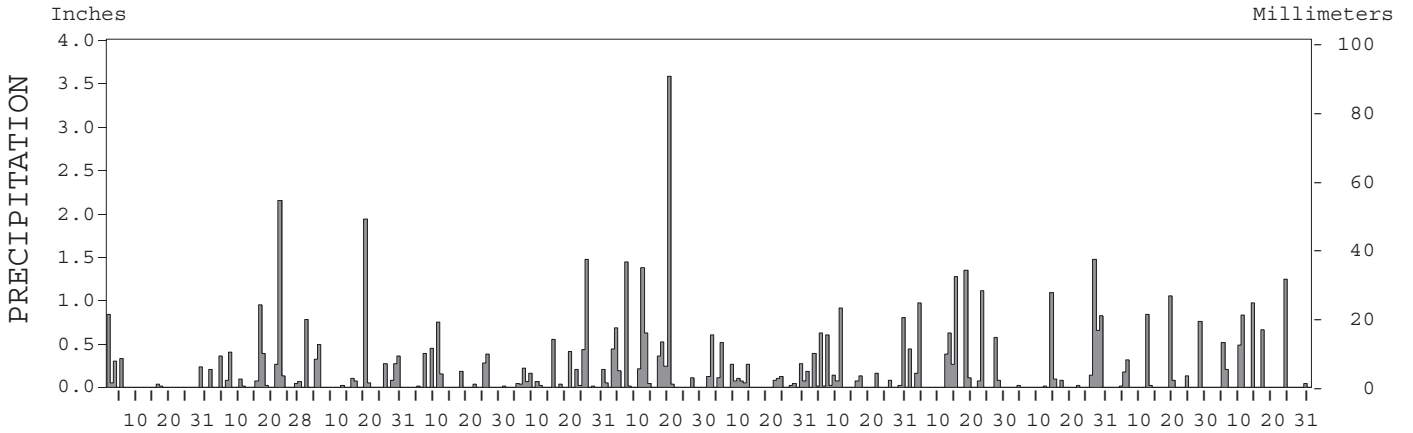
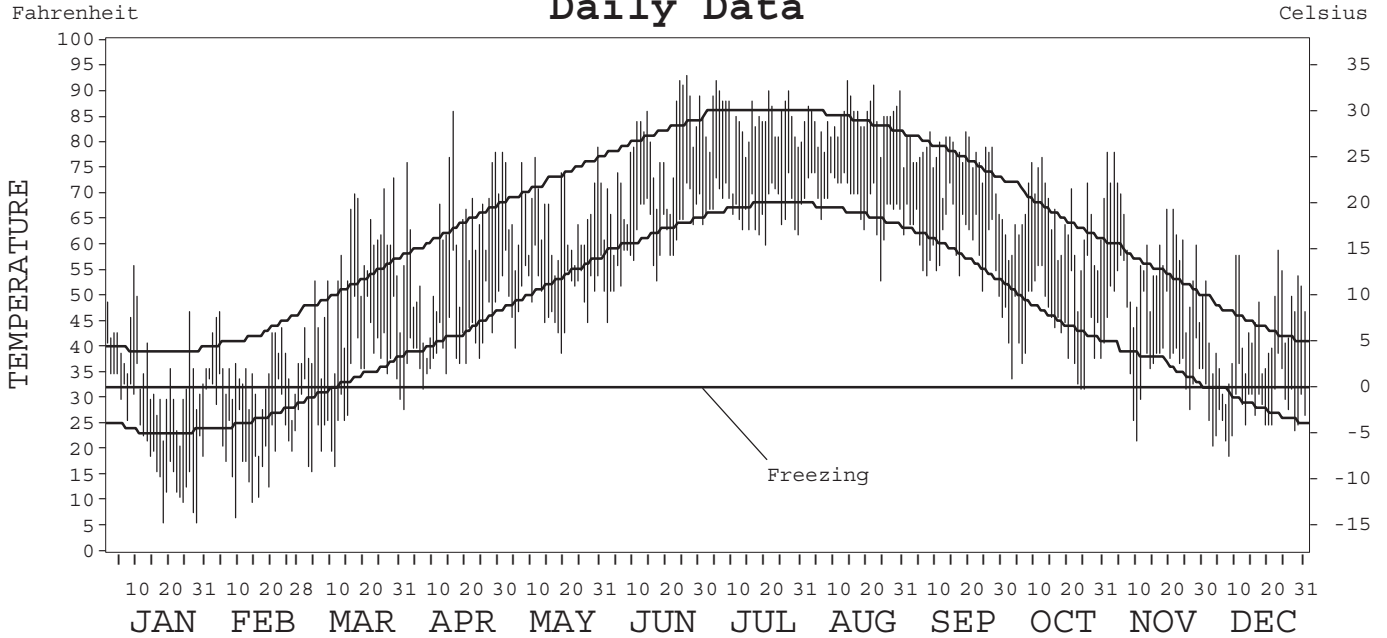
LOCAL CLIMATOLOGICAL DATA
ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0198-1145

WILMINGTON,
DELAWARE (ILG)

Daily Data



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Thomas R. Karl

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METEOROLOGICAL DATA FOR 2003

WILMINGTON, DE (ILG)

LATITUDE: 39° 40' 22" N LONGITUDE: 75° 36' 03" W ELEVATION (FT): GRND: 92 BARO: 95 TIME ZONE: EASTERN (UTC + 5) WBAN: 13781

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	35.5	35.3	52.7	60.8	65.9	76.9	84.2	84.5	76.9	64.1	58.2	43.5	61.5	
	HIGHEST DAILY MAXIMUM	56	47	73	86	79	93	92	92	82	77	78	59	93	
	DATE OF OCCURRENCE	09	04	29	16	30	26	05	14	19+	12	03+	23	JUN 26	
	MEAN DAILY MINIMUM	21.9	22.0	32.8	41.2	50.3	60.7	67.1	68.4	60.1	44.3	40.4	28.1	44.8	
	LOWEST DAILY MINIMUM	6	7	16	28	39	45	60	53	46	32	22	19	6	
	DATE OF OCCURRENCE	28+	09	04	01	19	02	20	24	30	25+	10	08	JAN 28+	
	AVERAGE DRY BULB	28.7	28.7	42.8	51.0	58.1	68.8	75.7	76.5	68.5	54.2	49.3	35.8	53.2	
	MEAN WET BULB		26.9	38.5	44.9	54.3	64.3	70.1	72.0	64.8	51.0	46.1	32.4		
	MEAN DEW POINT		19.9	32.8	37.9	50.9	61.1	67.0	69.8	62.3	47.6	41.2	25.6		
	NUMBER OF DAYS WITH:														
	MAXIMUM ≥ 90°	0	0	0	0	0	3	4	3	0	0	0	0	0	10
MAXIMUM ≤ 32°	14	9	1	0	0	0	0	0	0	0	0	2	26		
MINIMUM ≤ 32°	24	24	15	2	0	0	0	0	0	2	5	27	99		
MINIMUM ≤ 0°	0	0	0	0	0	0	0	0	0	0	0	0	0		
H/C	HEATING DEGREE DAYS	1118	1011	683	419	215	49	0	0	21	330	466	898	5210	
	COOLING DEGREE DAYS	0	0	0	8	10	169	337	362	133	3	0	0	1022	
RH	MEAN (PERCENT)	61	69	72	66	79	79	76	83	82	80	76	68	74	
	HOUR 01 LST	65	72	77	74	86	91	89	94	93	90	84	70	82	
	HOUR 07 LST	69	76	79	75	85	85	87	94	92	94	84	78	83	
	HOUR 13 LST	53	61	59	55	69	67	60	67	67	60	61	59	62	
	HOUR 19 LST	59	66	70	59	76	76	70	80	80	78	75	65	71	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	0	3	7	1	3	0	0	2	1	2	8	5	32	
	THUNDERSTORMS	0	0	0	1	0	5	4	6	5	0	0	0	21	
CLOUDINESS	SUNRISE-SUNSET: (OKTAS)														
	CEILOMETER (≤ 12,000 FT.)														
	SATELLITE (> 12,000 FT.)														
	MIDNIGHT-MIDNIGHT: (OKTAS)														
	CEILOMETER (≤ 12,000 FT.)														
SATELLITE (> 12,000 FT.)															
NUMBER OF DAYS WITH:															
CLEAR															
PARTLY CLOUDY															
CLOUDY															
PR	MEAN STATION PRESS. (IN.)	29.94	29.97	29.94	29.96	29.89	29.85	29.90		30.00	29.94				
	MEAN SEA-LEVEL PRESS. (IN.)		30.05	30.02	30.04	29.98		29.98		30.08	30.02				
WINDS	RESULTANT SPEED (MPH)	6.7	3.9	0.7	3.3	1.7	0.8	2.2	1.1	2.4	2.6	2.9	5.1	1.5	
	RES. DIR. (TENS OF DEGS.)	30	32	33	03	09	35	20	21	06	27	27	28	30	
	MEAN SPEED (MPH)	10.6	9.8	8.9	10.7	8.1	7.5	7.9	6.6	9.1	7.7	8.2	10.3	8.8	
	PREVAIL. DIR. (TENS OF DEGS.)	30	28	15	05	05	31	22	16	05	31	29	29	30	
	MAXIMUM 2-MINUTE WIND:														
	SPEED (MPH)	38	40	31	30	32	30	31	30	43	38	47	43	47	
	DIR. (TENS OF DEGS.)	28	27	30	06	25	22	23	15	13	28	29	29	29	
	DATE OF OCCURRENCE	20	04	03	17+	12	12	06	03	19	15	13	11	NOV 13	
	MAXIMUM 5-SECOND WIND:														
	SPEED (MPH)	44	48	37	38	41	40	46	35	53	45	59	51	59	
DIR. (TENS OF DEGS.)	29	28	30	29	24	22	22	14	12	29	27	28	27		
DATE OF OCCURRENCE	20	04	03	23	12	12	06	03	19	15	13	11	NOV 13		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	1.79	5.21	4.75	2.62	3.92	9.90	2.85	4.21	7.39	4.39	3.37	4.93	55.33	
	GREATEST 24-HOUR (IN.)	0.89	2.35	1.95	0.75	1.87	3.73	0.72	0.91	1.51	1.61	1.13	1.31	3.73	
	DATE OF OCCURRENCE	01-02	21-22	20-21	11	25-26	19-20	02-03	11	14-15	26-27	19-20	10-11	JUN 19-20	
	NUMBER OF DAYS WITH:														
	PRECIPITATION ≥ 0.01	7	15	12	9	17	16	17	16	13	10	9	8	149	
PRECIPITATION ≥ 0.10	4	8	8	7	8	12	10	9	11	5	6	7	95		
PRECIPITATION ≥ 1.00	0	1	1	0	1	3	0	0	3	2	1	1	13		
SNOWFALL	SNOW, ICE PELLETS, HAIL:														
	TOTAL (IN.)	5.4	31.6	T	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.5	43.5	
	GREATEST 24-HOUR (IN.)	3.3	17.0	T	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	17.0	
	DATE OF OCCURRENCE	05	16	31+	07								05	FEB 16	
	MAXIMUM SNOW DEPTH (IN.)	3	25	4	0	0	0	0	0	0	0	0	5	25	
	DATE OF OCCURRENCE	08+	18	01									07+	FEB 18	
	NUMBER OF DAYS WITH:														
SNOWFALL ≥ 1.0	2	5	0	0	0	0	0	0	0	0	0	3	10		

NORMALS, MEANS, AND EXTREMES

WILMINGTON, DE (ILG)

LATITUDE: 39° 40' 22" N LONGITUDE: 75° 36' 03" W ELEVATION (FT): GRND: 92 BARO: 95 TIME ZONE: EASTERN (UTC + 5) WBAN: 13781

ELEMENT		POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	39.3	42.5	51.9	62.6	72.5	81.1	86.0	84.1	77.2	65.9	55.0	44.4	63.5
	MEAN DAILY MAXIMUM	47	39.3	42.4	51.5	63.1	72.7	81.4	85.5	84.2	77.6	66.2	55.4	44.0	63.6
	HIGHEST DAILY MAXIMUM	56	75	78	86	94	96	100	102	101	100	91	85	75	102
	YEAR OF OCCURRENCE		1950	1985	1998	1985	1996	1994	1966	1955	1983	1951	1950	1998	JUL 1966
	MEAN OF EXTREME MAXS.	56	59.9	62.3	73.0	82.2	88.2	93.3	95.3	93.6	89.9	81.8	72.7	63.7	79.7
	NORMAL DAILY MINIMUM	30	23.7	25.8	33.4	42.1	52.4	61.8	67.3	65.8	58.1	45.6	36.9	28.4	45.1
	MEAN DAILY MINIMUM	47	23.3	25.4	32.9	42.1	52.2	61.6	66.9	65.7	57.9	45.6	37.0	27.8	44.9
	LOWEST DAILY MINIMUM	56	-14	-6	2	18	30	41	48	43	36	24	14	-7	-14
	YEAR OF OCCURRENCE		1985	1979	1984	1982	1978	1972	1988	1982	1974	1976	1955	1983	JAN 1985
	MEAN OF EXTREME MINS.	56	7.2	9.6	18.0	28.7	38.4	48.9	55.8	53.5	42.7	31.8	22.3	12.6	30.8
	NORMAL DRY BULB	30	31.5	34.2	42.7	52.4	62.5	71.5	76.6	75.0	67.7	55.8	45.9	36.4	54.4
	MEAN DRY BULB	56	32.0	34.1	42.2	52.7	62.3	71.5	76.3	74.8	67.6	56.4	46.1	36.0	54.3
	MEAN WET BULB	49	29.0	30.4	37.3	46.2	55.7	64.2	68.7	67.9	61.8	51.3	41.6	32.6	48.9
	MEAN DEW POINT	49	22.2	23.2	29.4	38.8	50.2	60.0	64.6	64.3	57.9	47.3	35.8	26.3	43.3
	NORMAL NO. DAYS WITH:														
MAXIMUM ≥ 90°	30	0.0	0.0	0.0	0.2	1.0	3.5	9.0	5.4	1.5	0.0	0.0	0.0	20.6	
MAXIMUM ≤ 32°	30	7.7	5.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	3.5	17.0	
MINIMUM ≤ 32°	30	24.9	21.0	13.7	2.8	*	0.0	0.0	0.0	0.0	1.3	9.8	21.2	94.7	
MINIMUM ≤ 0°	30	0.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.9	
H/C	NORMAL HEATING DEG. DAYS	30	1029	864	687	376	132	15	1	2	49	297	564	872	4888
	NORMAL COOLING DEG. DAYS	30	0	0	2	9	62	215	368	317	135	16	1	0	1125
RH	NORMAL (PERCENT)	30	68	65	63	63	68	69	70	72	73	72	69	69	68
	HOUR 01 LST	30	73	71	70	71	79	81	81	83	84	82	76	74	77
	HOUR 07 LST	30	76	74	73	72	76	77	79	83	85	85	80	76	78
	HOUR 13 LST	30	60	55	51	50	54	55	55	57	55	55	56	59	55
	HOUR 19 LST	30	67	62	59	57	63	64	64	68	70	69	66	67	65
S	PERCENT POSSIBLE SUNSHINE														
W/O	MEAN NO. DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	56	4.1	3.5	2.8	2.1	2.2	1.7	1.6	2.3	2.4	3.7	3.4	3.4	33.2
	THUNDERSTORMS	56	0.2	0.3	1.1	2.3	3.7	5.5	6.0	5.3	2.4	0.9	0.6	0.2	28.5
CLOUDINESS	MEAN:														
	SUNRISE-SUNSET (OKTAS)	1		6.0			5.0								
	MIDNIGHT-MIDNIGHT (OKTAS)														
	MEAN NO. DAYS WITH:														
CLEAR	1	2.0	2.0	6.0		8.0	9.0	3.0	7.0	5.0	9.0		5.0		
PARTLY CLOUDY	1	1.0	1.0	6.0		4.0	5.0	1.0	4.0	3.0	2.0		2.0		
CLOUDY	1	4.0	5.0	11.0		6.0	8.0		2.0	7.0	3.0		8.0		
PR	MEAN STATION PRESSURE (IN)	31	30.00	29.99	29.94	29.90	29.90	29.90	29.92	29.96	29.99	30.02	30.02	30.01	29.96
	MEAN SEA-LEVEL PRES. (IN)	50	30.08	30.07	30.02	29.99	30.00	29.98	30.00	30.02	30.08	30.10	30.07	30.10	30.04
WINDS	MEAN SPEED (MPH)	44	9.8	10.1	11.0	10.4	8.8	8.2	7.7	7.3	7.7	8.0	9.0	9.1	8.9
	PREVAIL. DIR (TENS OF DEGS)	28	30	30	30	30	30	18	30	18	32	31	30	30	30
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	9	51	43	45	46	48	41	45	40	43	38	47	43	51
	DIR. (TENS OF DEGS)		15	29	28	33	24	27	32	14	13	28	29	29	15
	YEAR OF OCCURRENCE		1999	1996	1996	1995	1999	1998	1995	1997	2003	2003	2003	2003	JAN 1999
	MAXIMUM 5-SECOND:														
SPEED (MPH)	9	61	54	56	53	61	52	55	53	53	46	59	53	61	
DIR. (TENS OF DEGS)		23	29	27	33	23	27	32	15	12	26	27	28	23	
YEAR OF OCCURRENCE		1999	1996	1996	1995	1999	1998	1995	1997	2003	1999	2003	2000	MAY 1999	
PRECIPITATION	NORMAL (IN)	30	3.43	2.81	3.97	3.39	4.15	3.59	4.28	3.51	4.01	3.08	3.19	3.40	42.81
	MAXIMUM MONTHLY (IN)	56	8.41	7.02	9.17	6.80	7.38	9.90	12.63	12.09	12.68	8.01	7.84	7.96	12.68
	YEAR OF OCCURRENCE		1978	1979	2000	1983	1983	2003	1989	1955	1999	1995	1972	1996	SEP 1999
	MINIMUM MONTHLY (IN)	56	0.52	0.43	0.81	0.35	0.22	0.21	0.16	0.25	0.82	0.08	0.49	0.19	0.08
	YEAR OF OCCURRENCE		1981	2002	1966	1985	1964	1988	1955	1972	1970	2000	1976	1955	OCT 2000
	MAXIMUM IN 24 HOURS (IN)	56	2.53	2.35	4.87	2.56	2.72	4.35	6.83	4.11	8.43	3.88	3.83	2.33	8.43
	YEAR OF OCCURRENCE		1998	2003	2000	1961	1990	1972	1989	1971	1999	1966	1956	1996	SEP 1999
	NORMAL NO. DAYS WITH:														
PRECIPITATION ≥ 0.01	30	10.9	9.5	10.5	10.7	11.5	10.4	9.3	8.5	9.0	8.0	9.2	10.3	117.8	
PRECIPITATION ≥ 1.00	30	1.0	0.6	1.1	0.8	0.9	0.8	1.2	1.1	1.2	0.8	0.8	1.0	11.3	
SNOWFALL	NORMAL (IN)	30	7.5	6.3	2.2	0.3	0.0	0.0	0.0	0.0	0.1	0.6	1.9	18.9	
	MAXIMUM MONTHLY (IN)	52	26.2	31.6	20.3	2.6	T	T	T	0.0	0.0	2.5	11.9	21.5	31.6
	YEAR OF OCCURRENCE		1996	2003	1958	1982	1991	1992	1990		1979	1953	1966	FEB 2003	
	MAXIMUM IN 24 HOURS (IN)	52	22.0	17.0	15.6	2.4	T	T	T	0.0	0.0	2.5	11.9	12.4	22.0
	YEAR OF OCCURRENCE		1996	2003	1958	1987	1991	1992	1990		1979	1953	1966	JAN 1996	
	MAXIMUM SNOW DEPTH (IN)	47	13	25	8	2	0	0	0	0	0	T	9	12	25
	YEAR OF OCCURRENCE		1987	2003	1956	1987					1962	1953	1966	FEB 2003	
NORMAL NO. DAYS WITH:															
SNOWFALL ≥ 1.0	30	2.2	1.4	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.7	5.2	

PRECIPITATION (inches) 2003 WILMINGTON, DE (ILG)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1974	2.92	1.73	4.56	3.08	3.96	3.97	1.49	5.11	5.65	1.77	1.19	4.18	39.61
1975	4.23	2.95	4.63	3.03	5.65	6.16	5.53	2.55	6.19	3.06	2.63	3.00	49.61
1976	4.21	1.70	2.25	1.40	5.05	2.14	4.33	2.00	2.11	6.12	0.49	1.79	33.59
1977	2.18	1.09	4.55	3.91	0.96	4.41	1.38	4.82	1.29	3.59	6.14	5.81	40.13
1978	8.41	1.77	5.59	2.16	6.94	3.00	5.53	5.97	2.18	1.48	2.69	5.56	51.28
1979	7.61	7.02	2.61	4.03	3.10	4.01	4.76	6.11	5.94	3.45	3.23	1.44	53.31
1980	2.44	0.83	6.22	4.55	2.40	4.23	3.49	1.09	1.44	3.99	2.41	0.83	33.92
1981	0.52	3.23	1.26	3.54	5.05	4.50	2.52	3.38	3.82	2.84	0.67	3.95	35.28
1982	3.75	2.71	2.87	5.41	3.72	4.70	2.70	4.68	2.30	1.97	3.87	2.39	41.07
1983	2.98	3.55	6.84	6.80	7.38	3.94	2.33	1.29	3.44	3.87	5.48	6.80	54.70
1984	1.25	4.27	5.40	4.24	5.03	4.54	6.53	1.56	2.02	3.31	1.63	1.94	41.72
1985	1.56	2.05	2.03	0.35	5.52	1.37	6.91	2.28	4.56	1.84	4.46	0.80	33.73
1986	4.21	2.77	1.19	2.77	1.69	4.05	3.99	2.88	2.75	4.04	6.42	6.11	42.87
1987	4.35	1.52	1.16	2.63	3.15	2.31	4.09	4.21	4.85	2.31	3.50	1.90	35.98
1988	2.46	4.14	1.82	2.59	4.95	0.21	8.29	3.03	2.18	1.94	5.29	0.90	37.80
1989	2.48	2.75	3.69	2.76	6.57	5.43	12.63	1.97	4.31	3.92	1.99	1.27	49.77
1990	3.56	1.35	2.15	3.42	7.03	3.94	4.27	6.15	2.64	2.85	1.61	5.16	44.13
1991	4.30	0.97	4.64	3.28	1.98	3.41	3.71	5.38	5.36	1.27	1.26	4.26	39.82
1992	1.05	1.81	4.36	1.76	4.48	3.14	4.34	2.21	4.30	1.11	4.27	4.21	37.04
1993	2.64	3.11	7.50	5.87	3.95	1.60	4.04	2.65	6.26	2.77	2.85	3.51	46.75
1994	5.00	3.55	7.36	2.85	3.69	2.11	7.01	5.68	2.10	0.85	2.96	2.24	45.40
1995	3.08	2.28	2.47	2.10	3.50	1.26	2.89	2.03	5.17	8.01	4.31	2.17	39.27
1996	4.58	1.19	3.63	4.98	3.27	5.00	6.25	3.04	4.05	4.70	3.25	7.96	51.90
1997	1.83	1.83	3.49	1.49	0.82	1.75	3.08	3.66	1.93	2.33	3.24	2.57	28.02
1998	4.80	2.95	4.86	2.91	4.13	4.66	2.18	3.14	1.76	2.80	1.26	1.01	36.46
1999	5.41	3.51	3.96	3.36	3.56	1.62	0.89	4.24	12.68	3.42	2.09	2.94	47.68
2000	3.83	2.00	9.17	3.43	2.94	4.83	4.64	2.47	7.30	0.08	2.54	2.80	46.03
2001	3.13	2.81	5.62	1.43	5.33	4.28	2.35	2.65	2.57	0.74	0.99	1.95	33.85
2002	2.72	0.43	4.05	2.26	3.40	4.96	1.40	2.03	3.42	6.16	4.47	4.50	39.80
2003	1.79	5.21	4.75	2.62	3.92	9.90	2.85	4.21	7.39	4.39	3.37	4.93	55.33
POR= 110 YRS	3.33	3.02	3.83	3.45	3.68	3.78	4.47	4.42	3.76	3.04	3.22	3.45	43.45

WBAN : 13781

AVERAGE TEMPERATURE (°F) 2003 WILMINGTON, DE (ILG)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1974	36.2	33.1	44.3	55.5	62.4	70.4	76.7	76.1	66.5	53.2	46.6	38.9	55.0
1975	37.5	35.9	40.6	47.5	65.2	71.5	75.7	76.3	65.4	60.0	51.0	36.2	55.2
1976	27.7	41.2	46.5	54.7	59.9	72.4	74.2	73.7	66.9	52.5	40.4	31.0	53.4
1977	20.8	33.3	47.2	54.4	63.9	68.9	76.4	75.4	69.3	53.4	46.6	33.4	53.6
1978	27.2	22.8	37.6	50.3	60.3	70.6	73.4	77.1	66.7	54.1	46.8	37.2	52.0
1979	31.4	22.1	45.4	50.6	63.8	67.9	75.3	75.0	68.2	55.0	49.6	38.1	53.5
1980	32.4	29.9	40.0	54.6	64.9	68.9	77.7	78.2	71.3	54.8	43.3	33.1	54.1
1981	25.4	37.9	40.2	55.0	62.5	72.3	77.1	73.5	66.9	53.0	45.3	34.2	53.6
1982	24.2	34.2	41.8	50.6	65.0	69.9	77.3	72.0	67.4	56.0	47.5	41.3	53.9
1983	35.2	35.3	45.9	53.1	61.0	71.8	77.6	77.0	69.3	56.9	46.7	32.1	55.2
1984	24.8	38.6	35.6	50.7	61.2	73.8	75.2	75.2	63.7	61.2	43.3	42.1	53.8
1985	27.5	37.4	47.1	58.0	65.9	70.6	76.6	74.4	69.1	58.3	51.0	32.9	55.7
1986	32.2	31.6	43.6	52.4	65.7	72.1	77.1	72.5	67.5	57.2	44.1	37.3	54.4
1987	31.4	31.9	44.6	52.3	63.1	73.5	79.1	74.3	68.3	51.7	47.4	38.6	54.7
1988	27.4	34.8	44.2	50.8	62.9	71.6	79.4	77.3	65.8	51.0	46.7	35.1	53.9
1989	36.0	34.3	42.1	51.6	62.1	74.3	75.9	74.4	68.4	57.6	44.6	25.0	53.9
1990	40.5	41.1	46.0	53.7	61.5	72.1	77.4	74.6	66.7	60.0	48.4	41.0	56.9
1991	34.3	39.7	44.9	54.7	69.1	73.6	77.3	76.7	67.2	57.6	46.8	39.5	56.8
1992	35.2	37.2	41.5	52.0	60.7	69.6	76.3	72.2	67.3	53.2	47.2	38.3	54.2
1993	37.6	31.0	39.0	52.8	65.3	72.8	79.4	77.8	68.7	55.7	47.4	36.4	55.3
1994	26.3	31.6	41.8	58.4	60.0	75.8	79.8	73.2	67.2	53.9	49.7	40.0	54.8
1995	36.6	30.3	45.3	51.5	62.2	72.0	78.7	77.1	68.2	59.3	41.3	31.3	54.5
1996	29.9	33.3	38.4	52.6	60.1	73.0	74.1	74.0	67.7	55.1	40.1	39.2	53.1
1997	31.8	38.9	43.2	50.3	58.6	69.6	75.9	72.8	65.5	55.6	43.6	37.6	53.6
1998	39.8	41.0	44.7	54.2	65.3	70.5	75.1	75.5	70.9	57.0	46.9	41.0	56.8
1999	34.8	36.9	41.7	52.7	62.9	71.6	80.0	75.8	68.1	53.8	49.4	38.8	55.5
2000	31.5	36.6	47.3	51.9	63.8	72.0	72.9	72.7	65.0	56.4	44.2	30.1	53.7
2001	31.6	36.2	39.8	53.3	62.7	73.0	72.7	77.3	65.6	56.7	50.8	42.5	55.2
2002	37.8	39.4	44.3	55.7	61.4	71.8	77.5	77.8	69.3	55.5	43.6	34.3	55.7
2003	28.7	28.7	42.8	51.0	58.1	68.8	75.7	76.5	68.5	54.2	49.3	35.8	53.2
POR= 109 YRS	32.4	33.6	42.2	52.3	62.7	71.4	76.1	74.3	67.8	56.5	45.8	35.5	54.2

HEATING DEGREE DAYS (base 65°F) 2003 WILMINGTON, DE (ILG)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1974-75	0	0	65	362	553	805	847	808	753	520	84	5	4802
1975-76	0	0	56	177	418	888	1149	681	567	341	178	31	4486
1976-77	0	4	44	387	734	1047	1361	884	546	333	107	32	5479
1977-78	0	1	31	353	550	975	1165	1179	842	433	191	17	5737
1978-79	6	0	60	337	542	854	1037	1197	605	424	89	28	5179
1979-80	4	7	31	318	458	827	1004	1009	768	307	83	35	4851
1980-81	0	0	20	322	645	985	1222	752	763	299	135	4	5147
1981-82	0	0	57	370	585	947	1259	855	715	426	69	12	5295
1982-83	0	14	29	305	519	724	919	822	587	368	163	7	4457
1983-84	0	0	74	275	542	1013	1240	758	904	422	162	5	5395
1984-85	0	2	113	149	641	701	1154	766	550	248	73	7	4404
1985-86	0	0	45	213	411	986	1011	930	653	373	99	11	4732
1986-87	0	27	36	276	619	848	1032	923	628	374	143	2	4908
1987-88	0	2	22	406	521	811	1159	869	637	419	121	38	5005
1988-89	3	0	52	434	541	923	893	854	710	395	142	0	4947
1989-90	0	2	54	236	605	1231	749	661	593	368	127	6	4632
1990-91	2	1	69	214	494	734	943	700	617	320	61	5	4160
1991-92	0	0	64	244	541	785	914	799	723	386	169	12	4637
1992-93	0	1	57	363	527	817	843	945	799	360	64	12	4788
1993-94	0	0	55	286	526	879	1193	929	715	223	189	2	4997
1994-95	0	0	29	343	454	770	875	967	598	401	122	0	4559
1995-96	0	0	41	208	703	1033	1083	912	816	378	206	10	5390
1996-97	0	0	43	304	741	794	1025	729	672	436	201	56	5001
1997-98	2	0	71	324	635	844	775	667	645	317	89	27	4396
1998-99	0	0	22	241	536	738	926	782	715	362	95	7	4424
1999-00	0	1	36	340	462	807	1032	816	544	390	117	15	4560
2000-01	0	2	99	274	619	1074	1029	801	776	361	110	10	5155
2001-02	1	0	73	271	418	691	836	712	633	324	159	7	4125
2002-03	0	1	11	325	636	945	1118	1011	683	419	215	49	5413
2003-	0	0	21	330	466	898							

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COOLING DEGREE DAYS (base 65°F) 2003 WILMINGTON, DE (ILG)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1974	0	0	0	24	64	175	370	355	113	2	6	0	1109
1975	0	0	0	0	97	207	337	355	73	27	5	0	1101
1976	0	0	0	37	25	260	291	278	106	6	0	0	1003
1977	0	0	5	20	80	156	360	328	166	0	5	0	1120
1978	0	0	0	0	48	188	273	383	117	7	0	0	1016
1979	0	0	4	1	57	123	327	324	138	16	0	0	990
1980	0	0	0	0	83	159	400	417	214	10	0	0	1283
1981	0	0	0	9	62	228	381	270	120	3	0	0	1073
1982	0	0	0	2	75	163	391	238	107	32	1	0	1009
1983	0	0	0	17	47	218	398	378	209	29	0	0	1296
1984	0	0	0	0	50	276	321	327	80	34	0	0	1088
1985	0	0	4	47	106	181	366	300	174	13	0	0	1191
1986	0	0	0	0	129	227	379	267	116	40	0	0	1158
1987	0	0	0	3	91	264	446	295	129	0	0	0	1228
1988	0	0	0	0	62	242	455	389	80	5	0	0	1233
1989	0	0	6	0	61	287	345	299	162	17	0	0	1177
1990	0	0	10	36	23	227	395	304	127	66	0	0	1188
1991	0	0	1	18	197	271	390	371	135	23	2	0	1408
1992	0	0	0	3	39	156	358	230	134	3	0	0	923
1993	0	0	0	1	79	252	452	405	176	3	4	0	1372
1994	0	0	0	32	41	334	466	260	99	4	0	0	1236
1995	0	0	0	4	42	218	434	381	148	39	1	0	1267
1996	0	0	0	13	64	254	291	285	129	2	0	0	1038
1997	0	0	0	0	9	204	348	248	92	40	0	0	941
1998	0	0	22	0	106	195	320	337	204	2	0	0	1186
1999	0	0	0	0	40	211	476	342	139	1	0	0	1209
2000	0	0	0	3	89	230	253	247	106	11	0	0	939
2001	0	0	0	16	46	257	247	388	100	21	0	0	1075
2002	0	0	0	51	53	219	397	405	147	39	0	0	1311
2003	0	0	0	8	10	169	337	362	133	3	0	0	1022

SNOWFALL (inches) 2003 WILMINGTON, DE (ILG)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1974-75	0.0	0.0	0.0	0.0	T	T	5.1	4.8	1.1	T	0.0	0.0	11.0
1975-76	0.0	0.0	0.0	0.0	0.0	0.3	4.5	1.7	6.7	T	0.0	0.0	13.2
1976-77	0.0	0.0	0.0	0.0	0.1	3.2	14.5	T	0.0	T	0.0	0.0	17.8
1977-78	0.0	0.0	0.0	0.0	0.4	0.9	16.0	18.4	9.9	T	0.0	0.0	45.6
1978-79	0.0	0.0	0.0	0.0	4.5	T	12.0	27.5	0.2	T	0.0	0.0	44.2
1979-80	0.0	0.0	0.0	2.5	0.0	1.4	6.1	0.8	5.1	0.0	0.0	0.0	15.9
1980-81	0.0	0.0	0.0	0.0	0.5	1.4	6.5	T	3.7	0.0	0.0	0.0	12.1
1981-82	0.0	0.0	0.0	0.0	T	2.8	14.6	4.5	0.4	2.6	0.0	0.0	24.9
1982-83	0.0	0.0	0.0	0.0	T	5.8	T	18.5	0.3	0.5	0.0	0.0	25.1
1983-84	0.0	0.0	0.0	0.0	T	T	9.7	T	5.2	T	0.0	0.0	14.9
1984-85	0.0	0.0	0.0	0.0	T	0.3	14.2	0.7	T	0.4	0.0	0.0	15.6
1985-86	0.0	0.0	0.0	0.0	0.0	1.4	3.1	9.7	T	T	0.0	0.0	14.2
1986-87	0.0	0.0	0.0	0.0	T	0.3	21.4	15.7	0.2	2.4	0.0	0.0	40.0
1987-88	0.0	0.0	0.0	0.0	0.7	2.1	10.8	1.1	T	T	0.0	0.0	14.7
1988-89	0.0	0.0	0.0	0.0	T	0.2	6.7	2.9	1.2	0.0	0.0	0.0	11.0
1989-90	0.0	0.0	0.0	0.0	5.6	8.9	1.5	1.0	1.3	1.6	0.0	0.0	19.9
1990-91	T	0.0	0.0	0.0	0.0	6.4	5.2	0.6	0.9	T	T	0.0	13.1
1991-92	0.0	0.0	0.0	0.0	T	0.2	1.5	1.3	0.5	T	0.0	T	3.5
1992-93	0.0	0.0	0.0	0.0	T	0.1	1.4	10.0	13.9	0.0	0.0	0.0	25.4
1993-94	0.0	0.0	0.0	0.0	T	2.4	2.7	9.2	3.4	0.0	0.0	0.0	17.7
1994-95	0.0	0.0	0.0	0.0	T	0.0	T	8.3	T	0.0	0.0	0.0	8.3
1995-96	0.0	0.0	0.0	0.0	3.2	7.1	26.2	7.5	6.0	5.9	T	0.0	55.9
1996-97	0.0	0.0	0.0	0.0	0.0	T	0.8	5.6	6.5	2.8	0.0	0.0	15.7
1997-98	0.0	0.0	0.0	0.0	0.0	T	T	0.0	T	0.0	0.0	0.0	T
1998-99	0.0	0.0	0.0	0.0	0.0	2.0	4.5	0.0	2.0	0.0	0.0	0.0	8.5
1999-00	0.0	0.0	0.0	0.0	0.0	0.0	14.2	4.0	0.0	2.1	0.0	0.0	20.3
2000-01	0.0	0.0	0.0	0.0	0.0	2.1	4.8	5.0	0.7	T	0.0	0.0	12.6
2001-02	0.0	0.0	0.0	0.0	0.0	0.0	2.4	T	T	T	0.0	0.0	2.4
2002-03	0.0	0.0	0.0	T	T	9.0	5.4	31.6	T	T	0.0	0.0	46.0
2003-	0.0	0.0	0.0	0.0	0.0	6.5							
POR= 53 YRS	T	0.0	0.0	0.1	0.9	3.3	6.8	6.4	2.9	0.2	T	T	20.6

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REFERENCE NOTES:

<p>PAGE 1: THE TEMPERATURE GRAPH SHOWS NORMAL MAXIMUM AND NORMAL MINIMUM DAILY TEMPERATURES (SOLID CURVES) AND THE ACTUAL DAILY HIGH AND LOW TEMPERATURES (VERTICAL BARS).</p> <p>PAGE 2 AND 3: H/C INDICATES HEATING AND COOLING DEGREE DAYS. RH INDICATES RELATIVE HUMIDITY W/O INDICATES WEATHER AND OBSTRUCTIONS S INDICATES SUNSHINE. PR INDICATES PRESSURE. CLOUDINESS ON PAGE 3 IS THE SUM OF THE CEILOMETER AND SATELLITE DATA NOT TO EXCEED EIGHT EIGHTHS(OKTAS).</p> <p>GENERAL: T INDICATES TRACE PRECIPITATION, AN AMOUNT GREATER THAN ZERO BUT LESS THAN THE LOWEST REPORTABLE VALUE. + INDICATES THE VALUE ALSO OCCURS ON EARLIER DATES. BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA. NORMALS ARE 30-YEAR AVERAGES (1971 - 2000). ASOS INDICATES AUTOMATED SURFACE OBSERVING SYSTEM. PM INDICATES THE LAST DAY OF THE PREVIOUS MONTH. POR (PERIOD OF RECORD) BEGINS WITH THE JANUARY DATA MONTH AND IS THE NUMBER OF YEARS USED TO COMPUTE THE MEAN. INDIVIDUAL MONTHS WITHIN THE POR MAY BE MISSING. WHEN THE POR FOR A NORMAL IS LESS THAN 30 YEARS, THE NORMAL IS PROVISIONAL AND IS BASED ON THE NUMBER OF YEARS INDICATED. 0.* OR * INDICATES THE VALUE OR MEAN-DAYS-WITH IS BETWEEN 0.00 AND 0.05. CLOUDINESS FOR ASOS STATIONS DIFFERS FROM THE NON-ASOS OBSERVATION TAKEN BY A HUMAN OBSERVER. ASOS STATION CLOUDINESS IS BASED ON TIME-AVERAGED CEILOMETER DATA FOR CLOUDS AT OR BELOW 12,000 FEET AND ON SATELLITE DATA FOR CLOUDS ABOVE 12,000 FEET. THE NUMBER OF DAYS WITH CLEAR, PARTLY CLOUDY, AND CLOUDY CONDITIONS FOR ASOS STATIONS IS THE SUM OF THE CEILOMETER AND SATELLITE DATA FOR THE SUNRISE TO SUNSET PERIOD.</p>	<p>GENERAL CONTINUED: CLEAR INDICATES 0 - 2 OKTAS, PARTLY CLOUDY INDICATES 3 - 6 OKTAS, AND CLOUDY INDICATES 7 OR 8 OKTAS. WHEN AT LEAST ONE OF THE ELEMENTS (CEILOMETER OR SATELLITE) IS MISSING, THE DAILY CLOUDINESS IS NOT COMPUTED. WIND DIRECTION IS RECORDED IN TENS OF DEGREES (2 DIGITS) CLOCKWISE FROM TRUE NORTH. "00" INDICATES CALM. "36" INDICATES TRUE NORTH. RESULTANT WIND IS THE VECTOR AVERAGE OF THE SPEED AND DIRECTION. AVERAGE TEMPERATURE IS THE SUM OF THE MEAN DAILY MAXIMUM AND MINIMUM TEMPERATURE DIVIDED BY 2. SNOWFALL DATA COMPRISE ALL FORMS OF FROZEN PRECIPITATION, INCLUDING HAIL. A HEATING (COOLING) DEGREE DAY IS THE DIFFERENCE BETWEEN THE AVERAGE DAILY TEMPERATURE AND 65° F. DRY BULB IS THE TEMPERATURE OF THE AMBIENT AIR. DEW POINT IS THE TEMPERATURE TO WHICH THE AIR MUST BE COOLED TO ACHIEVE 100 PERCENT RELATIVE HUMIDITY. WET BULB IS THE TEMPERATURE THE AIR WOULD HAVE IF THE MOISTURE CONTENT WAS INCREASED TO 100 PERCENT RELATIVE HUMIDITY.</p> <p>ON JULY 1, 1996, THE NATIONAL WEATHER SERVICE BEGAN USING THE "METAR" OBSERVATION CODE THAT WAS ALREADY EMPLOYED BY MOST OTHER NATIONS OF THE WORLD. THE MOST NOTICEABLE DIFFERENCE IN THIS ANNUAL PUBLICATION WILL BE THE CHANGE IN UNITS FROM TENTHS TO EIGHTS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER.</p>
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2003 WILMINGTON, DELAWARE (ILG)

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 35 miles, or less, to the west of the western boundary of nearly the entire State. These large water areas considerably influence the climate of the Wilmington, Delaware region.

Summers are warm and humid, winters are usually mild. During the summer maximum temperatures are usually in the 80s. The temperature reaches 100 degrees on the average once in six years. During January, the coldest month of the year, the daily average temperature is 32 degrees. Temperatures of zero may be expected once in four years. Most of the winter precipitation falls as rain. Seasonal snowfall has been as little as 1 inch, and as much as 50 inches. Snow is frequently mixed with rain and sleet, and seldom remains on the ground more than a few 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 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 from storms forming over the southern states or the South Atlantic and moving northward along the 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 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.

Based on the 1951-1980 period, the average first occurrence of 32 degrees Fahrenheit in the fall is October 29 and the average last occurrence in the spring is April 13.

STATION LOCATION

WILMINGTON, DELAWARE

LOCATION	Occupied From	Occupied To	Airline Distances and Directions from previous Location	LATITUDE NORTH	LONGITUDE WEST	ELEVATION ABOVE										AUTOMATIC OBSERVING EQUIPMENT * REMARKS	
						SEA LEVEL	GROUND										HYGROMETER
							GROUND	WIND INSTRUMENT	EXTREME THERMOMETER	PSYCHROMETER	SUNSHINE SWITCH	TIPPING BUCKET	RAIN GAUGE	WINDHOLE	8 INCH RAIN GAUGE		
*NOTE: <u>AIRPORT</u>																	
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 + + Greater Wilmington Airport eff. 5/1961	7/16/56	10/01/94	7/8 mi. SE	39°40'	75°36'	78 b74	20	s5	s5	NA	A	5	4	NA a4 c4	NA	Exposure of instruments excellent. a. Commissioned 1000 feet from thermometer site 4/11/67. b. Lowered 4/11/67. s. Standby after 4/11/67. c. Type change 8/12/85.	
New Castle County AP	10/01/94	Present	NA	39°40'	75°36'	d92									S	ASOS commissioned 10/1/94. d. Ground elevation.	

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* NOTES: For earlier station history see previous edition.