



MARCH 2002

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

WILMINGTON, DE

NEW CASTLE COUNTY AP (ILG)
 Lat: 39° 40' N Long: 75° 36' W Elev (Ground): 92 Feet
 Time Zone: EASTERN WBAN: 13781 ISSN #: 0198-117X

MARCH 2002
WILMINGTON, DE

DATE	TEMPERATURE °F						DEG DAYS BASE 65°		WEATHER	SNOW/ICE ON GND (IN)		PRECIPITATION (INCHES)		PRESSURE (INCHES OF HG)		WIND SPEED = MPH DIR = TENS OF DEGREES						DATE																																																									
	MAXIMUM	MINIMUM	AVERAGE	DEP FROM NORMAL	AVERAGE DEW PT	AVERAGE WET BULB	HEATING	COOLING		0700 LST	1300 LST	2400 LST	2400 LST	AVERAGE STATION	AVERAGE SEA LEVEL	RESULTANT SPEED	RES DIR	AVERAGE SPEED	MAXIMUM																																																												
																			5-SEC		2-MIN																																																										
1	2	3	4	5	6	7	8	9	11	12	13	14	15	16	17	18	19	20	21	22	23	24																																																									
01	48	23	36	-2	22	31	29	0			0.0	0.00	30.36	30.45	5.6	23	7.1	25	19	17	24	01																																																									
02	53	27	40	2	37	40	25	0	RA BR		0.0	0.72	30.31	30.40	7.4	12	8.7	25	11	21	10	02																																																									
03	59	36	48	9	48	50	17	0	RA BR		0.0	0.25	29.63	29.71	8.2	24	14.9	45	15	38*	15	03																																																									
04	36	20	28*	-11	11	24	37	0			0.0	0.00	29.97	30.06	17.5	29	17.7	35	30	29	29	04																																																									
05	39	18*	29	-10	13	24	36	0			0.0	0.00	30.28	30.37	8.1	24	9.6	25	23	21	24	05																																																									
06	60	27	44	5	32	39	21	0			0.0	0.00	30.20	30.28	9.8	20	10.2	30	21	23	20	06																																																									
07	67	39	53	13	38	45	12	0			0.0	0.00	30.19	30.27	5.5	20	6.1	20	19	16	21	07																																																									
08	66	34	50	10	45	48	15	0			0.0	0.00	30.33	30.41	5.3	14	6.3	22	15	17	14	08																																																									
09	65	46	56	16	53	54	9	0	RA BR		0.0	0.02	30.16	30.25	10.6	15	11.5	30	17	24	18	09																																																									
10	66	29	48	7	18	34	17	0	TSRA RA BR		0.0	0.10	30.03	30.11	20.7	27	21.9	44	29	35	27	10																																																									
11	44	24	34	-7	19	29	31	0			0.0	0.00	30.32	30.41	6.0	27	9.2	25	29	18	31	11																																																									
12	50	31	41	0	36	40	24	0	RA		0.0	0.03	30.12	30.21	2.0	18	3.0	13	17	10	15	12																																																									
13	47	44	46	4	46	46	19	0	RA BR		0.0	0.39	29.84	29.92	8.8	03	9.9	22	04	18	04	13																																																									
14	65	43	54	12	47	49	11	0	BR		0.0	0.00	29.93	30.01	3.1	23	7.0	16	31	14	31	14																																																									
15	72	45	59	17	53	55	6	0	BR		0.0	0.00	29.88	29.97	8.1	16	8.9	23	18	17	18	15																																																									
16	72*	37	55	12	50	53	10	0	RA		0.0	T	29.90	29.99	6.5	31	11.8	26	36	22	36	16																																																									
17	40	35	38	-5	33	35	27	0	RA PL BR VCTS		T	0.18	30.34	30.43	11.5	05	12.4	23	04	20	04	17																																																									
18	44	36	40	-3	41	41	25	0	RA BR		0.0	0.37	30.18	30.26	8.6	04	10.0	22	10	18	11	18																																																									
19	50	39	45	1	39	42	20	0			0.0	0.00	30.26	30.34	3.4	05	7.9	22	15	18	15	19																																																									
20	49	40	45	1	44	44	20	0	RA BR		0.0	0.93	29.97	30.05	2.4	06	9.7	23	30	20	29	20																																																									
21	56	32	44	0	37	42	21	0	SN BR		T	T	29.83	29.91	7.2	27	11.6	45*	28	36	30	21																																																									
22	35	22	29	-16	8	23	36	0			0.0	0.00	30.02	30.11	17.6	30	18.2	43	31	36	31	22																																																									
23	48	26	37	-8	21	32	28	0			0.0	0.00	30.00	30.09	13.1	22	13.5	36	25	26	24	23																																																									
24	56	36	46	1	30	39	19	0			0.0	0.00	30.02	30.10	5.4	22	7.4	23	21	20	21	24																																																									
25	50	38	44	-2	36	41	21	0			0.0	0.00	30.16	30.25	11.6	05	13.2	26	10	22	10	25																																																									
26	47	39	43	-3	43	43	22	0	RA DZ FG BR		0.0	0.57	30.04	30.13	9.6	06	11.3	32	29	26	29	26																																																									
27	49	40	45	-1	36	41	20	0	RA BR		0.0	0.04	29.93	30.01	14.9	30	15.2	30	30	25	30	27																																																									
28	53	31	42	-5	30	38	23	0			0.0	0.00	30.06	30.14	4.1	29	6.6	17	23	14	29	28																																																									
29	61	41	51	4	42	46	14	0			0.0	0.00	29.98	30.06	11.2	16	11.9	26	15	22	15	29																																																									
30	69	50	60*	12	47	53	5	0			0.0	0.00	29.84	29.93	3.2	25	9.1	24	27	20	30	30																																																									
31	55	48	52	4	47	49	13	0	RA BR		0.0	0.45	29.93	30.02	2.5	32	5.5	10	01	9	01	31																																																									
53.9										34.7		44.3		■ ■		35.6		41.0		20.4		0.0		< MONTHLY AVERAGES		TOTALS-->		T		4.05		30.06		30.15		2.2		26		10.6		<- MONTHLY AVERAGES																																					
2.0										1.3		1.6		■ ■		<-----DEPARTURE FROM NORMAL----->																				0.08		SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3																																									
DEGREE DAYS										GREATEST 24-HR PRECIPITATION: 0.96 DATE :02-03										SEA LEVEL PRESSURE										DATE		TIME																																															
MONTHLY TOTAL DEPARTURE										SEASON TO DATE TOTAL DEPARTURE										GREATEST 24-HR SNOWFALL: T DATE :21+										MAXIMUM										:		30.59		02		0551																																	
HEATING: 633										-58										3635										-796										MINIMUM										:		29.60		03		1451																							
COOLING: 0										-2										0										-2										NUMBER OF DAYS WITH →										MAXIMUM TEMP ≥ 90: 0										MINIMUM TEMP ≤ 32: 12										PRECIPITATION ≥ 0.01 INCH : 12									
																																								MAXIMUM TEMP ≤ 32 : 0										MINIMUM TEMP ≤ 0 : 0										PRECIPITATION ≥ 0.10 INCH : 9																			
																																																		THUNDERSTORMS : 1										HEAVY FOG : 0										SNOWFALL ≥ 1.0 INCH : 0									

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

WILMINGTON, DE

MARCH 2002

ILG

WBAN # 13781

DATE	FOR HOUR (LST) ENDING AT												DATE	FOR HOUR (LST) ENDING AT												DATE	Sum if Different (See Note)	2400 LST		
	1	2	3	4	5	6	7	8	9	10	11	12		13	14	15	16	17	18	19	20	21	22	23	24			Water	Equiv.	
01													01												01			0.00		
02													02												02			0.72		
03	0.16	0.03	0.01	0.01							T	0.02	03	0.01				0.02	0.06	0.08	0.07	0.13	0.14	0.22	03			0.25		
04													04					0.01							04			0.00		
05													05												05			0.00		
06													06												06			0.00		
07													07												07			0.00		
08													08												08			0.00		
09													09	0.01				T	T	0.01					09			0.02		
10			0.09	0.01									10												10			0.10		
11													11												11			0.00		
12													12			T					T	T	0.01	0.02	12			0.03		
13	0.05	0.05	0.01	0.07	0.03	0.03	0.05	T	0.01	0.03	0.03	T	13			T									13			0.39		
14													14												14			0.00		
15													15												15			0.00		
16													16			T									16			T		
17													17												17			0.18		
18	0.02	0.02	0.03	0.05	0.05	0.02	T	0.03	0.07	0.06	0.02		18	T	T	T	0.01	T	T	0.06	0.06	0.01	0.02	T	0.02	18		0.37		
19													19							T					19			0.00		
20	T	0.02	0.04	0.06	0.03	0.04	0.05	0.08	0.07	0.12	0.08	0.06	20	0.15	0.04	0.04	0.04	T		0.01				20			0.93			
21													21												21			T		
22													22												22			0.00		
23													23												23			0.00		
24													24												24			0.00		
25													25												25			0.00		
26	T	T						0.01	T	T	T		26		T	0.01								0.10	0.09	0.16	0.20	26		0.57
27	0.02	T	0.02										27												27			0.04		
28													28												28			0.00		
29													29												29			0.00		
30													30												30			0.00		
31			T	0.03	0.02	T	0.01						31	0.02	0.02	0.01				0.08	0.13	0.03		0.04	0.06	31		0.45		

MAXIMUM SHORT DURATION PRECIPITATION (See Note)

Time Period (Minutes)	5	10	15	20	30	45	60	80	100	120	150	180
Precipitation (Inches)												
Ending Date												
Ending Time (Hour/Min)												

Date and time are not entered for TRACE amounts.

Note : The sum of the hourly totals is given when it differs from the daily total. NWS does not edit ASOS hourly values but may edit daily and monthly totals. Hourly, daily, and monthly totals are printed as reported by the ASOS site.

REFERENCE NOTES & SUPPLEMENTAL SUMMARIES

* = Extreme for the month (last occurrence if more than one)

T = Trace precipitation amount

+ = also occurs on earlier date

FG+ = Heavy fog, visibility .25 miles or less
BLANK entries denote missing or unreported data

Resultant wind is the vector sum of the wind speeds and directions divided by the number of observations.

Wind direction is recorded in tens of degrees (2 digits) clockwise from true north. '00' = calm, 'VR' = variable.

Precipitation is for the 24-hour period ending at the time indicated in the column heading.

Water Equivalent of snow on the ground is reported only when the depth is 2 or more inches.

NORMALS ARE FOR THE YEARS 1971–2000

WEATHER NOTATIONS

QUALIFIER	WEATHER PHENOMENA		
	PRECIPITATION	OBSCURATION	OTHER
BC Patches	DZ Drizzle	BR Mist	DS Duststorm
BL Blowing	GR Hail	DU Widespread Dust	FC Funnel Cloud
DR Low Drifting	GS Small Hail and/or Snow Pellets	FG Fog	+FC Tornado Waterspout
FZ Freezing	IC Ice Crystals	FU Smoke	PO Well-Developed Dust/Sand Whirls
MI Shallow	PL Ice Pellets	HZ Haze	
PR Partial	RA Rain	PY Spray	SQ Squalls
SH Shower(s)	SG Snow Grains	SA Sand	SS Sandstorm
TS Thunderstorm	SN Snow	VA Volcanic Ash	GL Glaze
VC In the Vicinity	UP Unknown Precipitation		

Intensity (as indicated on pages 4 to 6):
'+' = Heavy ' ' = Moderate '-' = Light

WILMINGTON, DE MARCH 2002

Ceilometer (30-second) data are used to derive cloudiness at or below 12,000 feet. This cloudiness is the mean cloud cover detected during sunrise to sunset (SR–SS), or midnight to midnight (MN–MN).

Satellite data are used to derive cloudiness above 12,000 feet. Effective Cloud Amount is based on the cloud cover and the transparency of the clouds within the satellite field of view (approx. 31x31 miles).

Sky Condition is based on the sum (not to exceed 8) of the sunrise to sunset cloud cover below and above 12,000 feet. Both ceilometer and satellite data must be present to compute Sky Condition. Clear = 0–2 oktas, Partly Cloudy = 3–6 oktas, Cloudy = 7–8 oktas.

A Heating (Cooling) Degree Day is the difference between the average daily temperature and 65 degrees F. The HDD season begins July 1, the CDD season begins January 1.

Dew Point is the temperature to which the air must be cooled to achieve 100% relative humidity. Wet Bulb is the temperature the air would have if cooled to saturation at constant pressure by evaporation of water into it.

Snow Depth, Snowfall, and Sunshine data may come from nearby sites that the National Weather Service deems Climatologically representative of this site.

ADDITIONAL NOTES:

ERRATA for Jan & Feb 2002 LCD's: To stay consistent with the Heating Degree Day Season (July 2001–June 2002), NCDC reinstalled the 1961–1990 Heating Degree Day Normals and corrected the Jan & Feb 2002 LCD's. The corrected LCD's are available on NCDC's Website. The 1971–2000 Heating Degree Day Normals will go into effect with the July 2002 LCD. The new Cooling Degree Day Normals went into effect with the Jan 2002 LCD.

DATE	SUNSHINE		CLOUDINESS (OKTAS)				VISIBILITY (MILES)		RESERVED
	TOTAL MINUTES	PERCENT POSSIBLE	SR–SS		MN–MN		MINIMUM	MAXIMUM	
			CEILOMETER	SATELLITE	CEILOMETER	SATELLITE			
01							10.00	10.00	
02							4.00	10.00	
03							3.00	10.00	
04							10.00	10.00	
05							10.00	10.00	
06							10.00	10.00	
07							10.00	10.00	
08							7.00	10.00	
09							5.00	10.00	
10							4.00	10.00	
11							10.00	10.00	
12							8.00	10.00	
13							1.00	7.00	
14							1.00	10.00	
15							2.50	10.00	
16							8.00	10.00	
17							4.00	10.00	
18							2.00	10.00	
19							9.00	10.00	
20							2.00	10.00	
21							2.50	10.00	
22							10.00	10.00	
23							10.00	10.00	
24							10.00	10.00	
25							10.00	10.00	
26							.50	10.00	
27							2.50	10.00	
28							10.00	10.00	
29							7.00	10.00	
30							8.00	10.00	
31							4.00	10.00	
MONTHLY AVGS							6.58	9.87	
SUNSHINE (MINUTES)									
Total:					Possible:				
					Percent Possible:				
NUMBER OF DAYS WITH:									
SKY CONDITION									
CLR PTLY CLDY CLOUDY MISSING									
31									
MINIMUM VISIBILITY (MILES)									
<=0.25 <=3.0 >=7.0									
0 7 18									

OBSERVATIONS AT 3-HOURLY INTERVALS

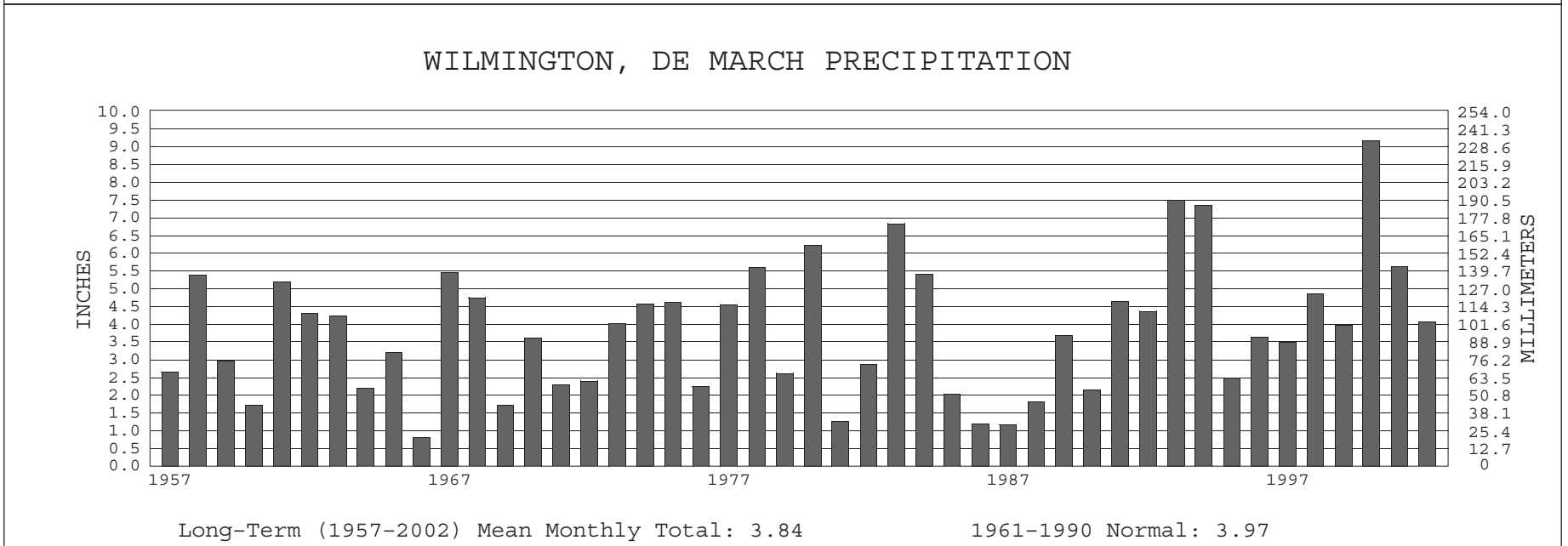
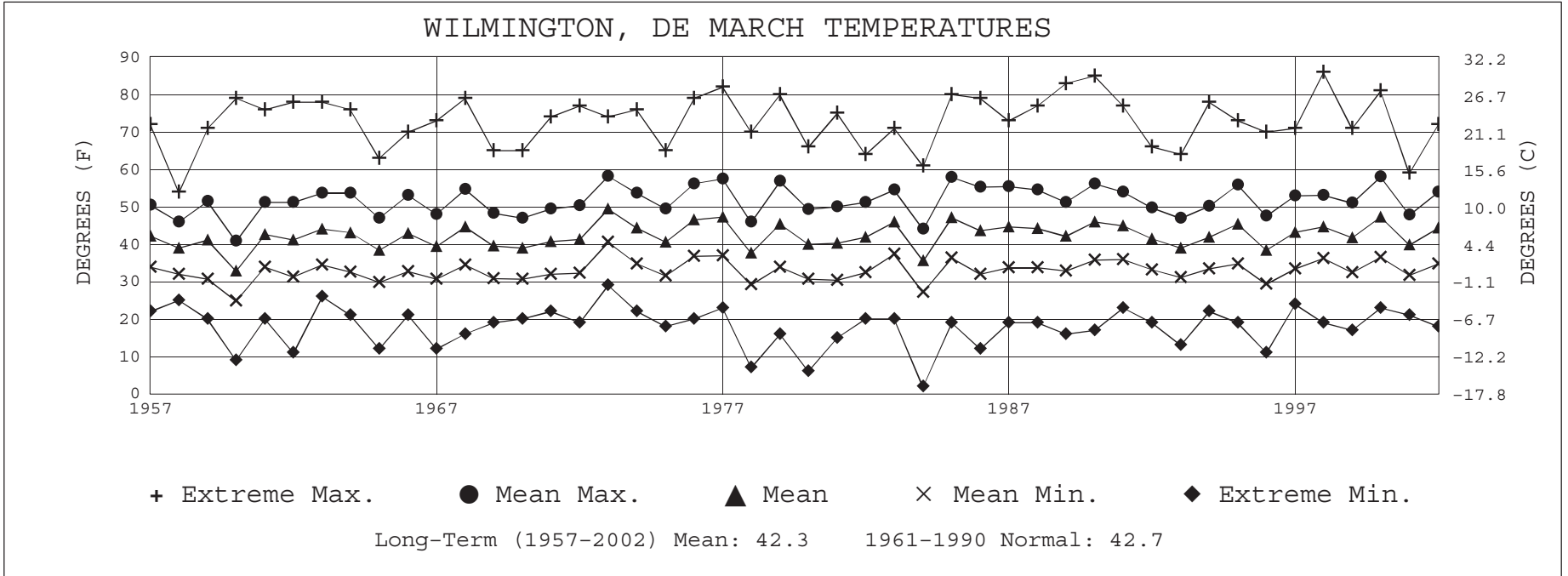
WILMINGTON, DE

MARCH 2002

ILG

WBAN # 13781

HOUR (LST)	SKY COVER		CEILING 100'S OF FT	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F				WIND		PRESSURE (INCHES, HG)		HOUR (LST)	SKY COVER		CEILING 100'S OF FT	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F				WIND		PRESSURE (INCHES, HG)																	
	DRY BULB	DEW POINT		WET BULB	RELATIVE HUMIDITY (PCT)			SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)		SPEED (MPH)	DIRECTION TENS OF DEG		STATION	SEA LEVEL																										
SUNRISE: 0558								MAR 25								SUNSET: 1819								SUNRISE: 0548								MAR 31								SUNSET: 1825							
01	CLR	NC				10.00		43	38	41	82	5	03	29.99	30.08	01	FEW	NC				10.00		51	45	48	80	5	31	29.95	30.03																
04	BKN	100				10.00		42	34	39	73	8	01	30.02	30.11	04	OVC	060				9.00	-RA	50	45	48	83	8	32	29.97	30.06																
07	CLR	NC				10.00		45	38	42	77	12	02	30.11	30.20	07	OVC	065				10.00	-RA	50	47	48	89	3	08	30.01	30.10																
10	BKN	090				10.00		46	38	42	73	16	05	30.19	30.27	10	OVC	085				10.00		54	47	50	77	0	00	30.01	30.10																
13	SCT	NC				10.00		46	34	41	63	12	05	30.20	30.29	13	OVC	020				10.00	-RA	53	49	51	86	6	19	30.00	30.09																
16	CLR	NC				10.00		50	35	43	57	15	03	30.19	30.28	16	OVC	065				10.00		51	51	51	100	9	31	29.92	30.01																
19	FEW	NC				10.00		42	36	39	79	15	10	30.21	30.29	19	OVC	055				4.00	RA BR	50	50	50	100	5	32	29.85	29.93																
22	OVC	027				10.00		41	34	38	76	16	07	30.27	30.35	22	OVC	024				5.00	-RA BR	48	48	48	100	0	00	29.81	29.90																
SUNRISE: 0556								MAR 26								SUNSET: 1820								3-HOURLY OBSERVATION NOTES																							
01	OVC	020				10.00	-RA	40	37	39	89	12	07	30.24	30.33	Sky Cover is the amount of the sky obscured. CLR or SKC = 0, FEW = 1/8-2/8, SCT = 3/8-4/8, BKN = 5/8-7/8, OVC = 8/8, VV = Vertical Visibility = 8/8.																															
04	OVC	018				10.00		40	39	40	97	12	05	30.21	30.30	Ceiling is reported in hundreds of feet above ground level for clouds at or below 12,000 feet.																															
07	OVC	006				2.00	BR	40	40	40	100	14	06	30.21	30.30	NC = No ceiling detected.																															
10	OVC	004				1.50	DZ BR	41	41	41	100	15	06	30.17	30.26	& = Original observation contained additional weather elements.																															
13	OVC	004				2.50	BR	43	43	43	100	14	08	30.06	30.15	See page 3 for additional notes.																															
16	OVC	002				1.50	BR	45	45	45	100	9	06	29.96	30.05																																
19	OVC	002				0.75	BR	46	46	46	100	9	05	29.82	29.91																																
22	OVC	060				10.00	-RA	46	46	46	100	0	00	29.81	29.90																																
SUNRISE: 0555								MAR 27								SUNSET: 1821																															
01	OVC	001				5.00	-RA BR	48	48	48	100	5	20	29.81	29.89																																
04	SCT	NC				10.00		47	44	46	90	16	30	29.80	29.89																																
07	CLR	NC				10.00		41	34	38	76	10	32	29.90	29.99																																
10	OVC	027				10.00		43	35	40	74	20	30	29.93	30.02																																
13	OVC	031				10.00		46	35	41	66	21	30	29.93	30.02																																
16	OVC	039				10.00		46	34	41	63	18	30	29.93	30.02																																
19	OVC	043				10.00		43	31	38	63	13	32	29.98	30.07																																
22	OVC	049				10.00		42	31	38	65	14	30	30.01	30.10																																
SUNRISE: 0553								MAR 28								SUNSET: 1822																															
01	OVC	043				10.00		38	31	35	76	8	30	30.04	30.13																																
04	CLR	NC				10.00		34	27	31	76	3	33	30.05	30.14																																
07	CLR	NC				10.00		35	27	32	72	9	30	30.11	30.20																																
10	CLR	NC				10.00		44	30	38	58	5	VR	30.12	30.21																																
13	CLR	NC				10.00		50	30	41	46	6	24	30.06	30.15																																
16	CLR	NC				10.00		53	31	43	43	7	27	30.00	30.09																																
19	CLR	NC				10.00		48	32	41	54	7	21	30.01	30.10																																
22	CLR	NC				10.00		43	37	40	80	3	17	30.02	30.11																																
SUNRISE: 0552								MAR 29								SUNSET: 1823																															
01	BKN	120				10.00		41	31	37	67	6	19	30.07	30.16																																
04	OVC	090				10.00		42	37	40	82	6	15	30.02	30.11																																
07	BKN	120				7.00		43	41	42	93	5	18	30.07	30.15																																
10	BKN	100				10.00		50	43	47	77	12	18	30.07	30.15																																
13	FEW	NC				10.00		58	46	52	65	16	14	29.99	30.07																																
16	CLR	NC				10.00		60	47	53	62	15	15	29.92	30.01																																
19	CLR	NC				10.00		52	44	48	75	12	14	29.89	29.98																																
22	CLR	NC				10.00		49	46	47	90	18	15	29.86	29.95																																
SUNRISE: 0550								MAR 30								SUNSET: 1824																															
01	SCT	NC				10.00		50	46	48	86	14	14	29.77	29.86																																
04	OVC	022				8.00		53	51	52	93	8	17	29.71	29.80																																
07	CLR	NC				9.00		59	57	58	93	13	19	29.75	29.83																																
10	OVC	025				10.00		60	52	56	75	14	31	29.85	29.93																																
13	FEW	NC				10.00		67	46	56	47	12	27	29.86	29.95																																
16	CLR	NC				10.00		67	42	54	41	12	32	29.86	29.95																																
19	CLR	NC				10.00		59	42	51	54	3	33	29.91	29.99																																
22	CLR	NC				10.00		57	42	50	58	0	00	29.96	30.04																																





MARCH 2002

WILMINGTON, DE

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

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