



AUGUST 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

AUGUST 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			
																			SPEED	DIR	SPEED	DIR		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
01	98	70	84	7	65	71	0	19	RA			0.0	0.02	29.83	29.91	3.4	35	6.7	36*	33	30*	31	01	
02	97	70	84	7	70	74	0	19	RA			0.0	T	29.91	29.99	5.4	14	7.1	28	08	24	08	02	
03	92	72	82	5	70	74	0	17	VCTS			0.0	0.00	30.05	30.13	3.1	17	6.0	18	17	16	17	03	
04	95	72	84	7	71	75	0	19	BR HZ			0.0	0.00	30.05	30.13	5.3	21	6.8	18	25	16	16	04	
05	91	75	83	7	70	74	0	18	RA			0.0	T	29.88	29.96	6.4	24	6.9	20	25	16	25	05	
06	83	60	72	-4	53	63	0	7	RA			0.0	T	29.86	29.95	12.8	34	13.4	32	01	25	32	06	
07	82	57*	70	-6	49	58	0	5				0.0	0.00	29.99	30.07	8.4	32	9.2	30	34	20	34	07	
08	85	59	72	-4	50	59	0	7				0.0	0.00	30.04	30.13	7.0	34	7.5	20	32	16	32	08	
09	85	59	72	-4	53	61	0	7				0.0	0.00	30.11	30.19	2.3	10	7.4	21	16	18	15	09	
10	87	63	75	-1	57	64	0	10				0.0	0.00	30.09	30.18	7.0	17	8.6	23	15	18	15	10	
11	88	63	76	0	63	68	0	11				0.0	0.00	30.02	30.10	7.2	16	7.6	22	16	20	16	11	
12	94	69	82	6	68	72	0	17				0.0	0.00	29.97	30.05	6.5	16	6.9	23	16	20	16	12	
13	98*	71	85	9	69	74	0	20	BR HZ			0.0	0.00	29.98	30.06	4.5	15	6.5	25	16	22	16	13	
14	96	75	86	10	70	74	0	21	HZ			0.0	0.00	29.99	30.07	9.0	15	9.5	24	15	21	15	14	
15	91	73	82	7	65	71	0	17				0.0	0.00	30.03	30.12	9.2	16	9.9	23	16	21	15	15	
16	94	78	86	11	66	73	0	21				0.0	0.00	30.02	30.10	7.1	23	7.9	25	25	21	24	16	
17	94	76	85	10	68	73	0	20	RA			0.0	T	29.93	30.01	4.8	25	6.4	21	31	18	31	17	
18	96	76	86*	11	72	76	0	21	RA			0.0	T	29.81	29.89	3.6	23	5.6	18	26	15	26	18	
19	95	74	85	10	67	73	0	20				0.0	0.00	29.80	29.88	1.1	20	6.9	20	24	16	23	19	
20	91	73	82	7	66	71	0	17	RA			0.0	T	29.90	29.99	6.2	35	9.0	20	36	16	01	20	
21	88	65	77	3	62	67	0	12				0.0	0.00	30.15	30.23	3.9	12	8.0	23	16	20	16	21	
22	87	68	78	4	65	70	0	13	RA			0.0	T	30.03	30.11	8.7	18	10.0	23	15	18	15	22	
23	87	72	80	6	69	72	0	15	RA BR HZ			0.0	T	29.87	29.95	2.3	01	8.2	18	10	15	11	23	
24	83	69	76	2	70	72	0	11	TS TSRA RA BR VCTS			0.0	0.66	29.75	29.83	4.8	15	7.2	29	30	25	30	24	
25	87	68	78	4	62	67	0	13	BR HZ			0.0	0.00	29.81	29.89	4.2	33	4.9	16	30	13	31	25	
26	84	65	75	1	66	69	0	10	BR HZ			0.0	0.00	29.91	29.99	2.6	11	5.1	15	15	14	14	26	
27	85	64	75	2	66	69	0	10	BR			0.0	0.00	30.00	30.08	2.1	03	5.7	16	10	14	11	27	
28	74	60	67	-6	66	67	0	2	RA			0.0	0.41	30.14	30.22	13.7	05	14.2	29	06	23	06	28	
29	68	60	64*	-9	61	62	1	0	RA BR			0.0	0.93	30.04	30.13	8.9	35	9.5	26	36	21	02	29	
30	70	61	66	-7	60	62	0	1				0.0	0.00	30.16	30.24	4.9	33	5.1	15	33	13	32	30	
31	81	59	70	-2	61	64	0	5	RA BR			0.0	0.01	30.31	30.39	11.0	05	12.4	31	07	24	06	31	
MONTHLY AVERAGES										TOTALS-->		0.0	2.03	29.98	30.06	0.5	07	7.9	-- MONTHLY AVERAGES					
DEPARTURE FROM NORMAL												-1.48		SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3										
DEGREE DAYS										GREATEST 24-HR PRECIPITATION: 1.34 DATE : 28-29				SEA LEVEL PRESSURE				DATE		TIME				
MONTHLY TOTAL DEPARTURE										GREATEST 24-HR SNOWFALL: 0.0 DATE :				MAXIMUM				: 30.44		31 1951				
SEASON TO DATE TOTAL DEPARTURE										GREATEST SNOW DEPTH: DATE :				MINIMUM				: 29.73		24 1651				
HEATING:		1		-1		1		-2		NUMBER OF DAYS WITH		MAXIMUM TEMP ≥ 90: 14		MINIMUM TEMP ≤ 32: 0		PRECIPITATION ≥ 0.01 INCH : 5								
COOLING:		405		88		1125		152		MAXIMUM TEMP ≤ 32 : 0		MINIMUM TEMP ≤ 0 : 0		PRECIPITATION ≥ 0.10 INCH : 3										
										THUNDERSTORMS : 1		HEAVY FOG : 0		SNOWFALL ≥ 1.0 INCH : 0										

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

WILMINGTON, DE

AUGUST 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						0.02	T					01		0.02		
02													02												02		T		
03													03												03		0.00		
04													04	T	T										04		0.00		
05													05									T	T		05		T		
06			T	T	T								06												06		T		
07													07												07		0.00		
08													08												08		0.00		
09													09												09		0.00		
10													10												10		0.00		
11													11												11		0.00		
12													12												12		0.00		
13													13												13		0.00		
14													14												14		0.00		
15													15												15		0.00		
16													16												16		0.00		
17													17			T									17		T		
18				T	T								18												18		T		
19			T										19												19		0.00		
20													20												20		T		
21													21												21		0.00		
22		T											22												22		T		
23			T	T	T								23		T	T			T	T					23		T		
24								0.05	T	0.01	0.01		24	T		T		T		0.53	0.01			24	0.61	0.66			
25													25												25		0.00		
26													26												26		0.00		
27													27												27		0.00		
28							T	0.01	0.02	0.01	T	T	28	0.01	T	0.02	0.03	0.02	0.01	0.06	0.05	0.03	0.05	0.03	0.06	28		0.41	
29	0.04	0.11	0.07	0.20	0.46	0.05	T						29												29		0.93		
30													30					T	T						30		0.00		
31													31										T	0.01	31		0.01		

MAXIMUM SHORT DURATION PRECIPITATION (See Note)

Time Period (Minutes)	5	10	15	20	30	45	60	80	100	120	150	180
Precipitation (Inches)	.22	.37	.42	.47	.52	.53	.54	.57	.64	.67	.71	.74
Ending Date	24	24	24	24	24	24	24	29	29	29	29	29
Ending Time (Hour/Min)	1917	1920	1925	1930	1937	1942	2007	0433	0438	0447	0517	0517

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	SQ Squalls
PR Partial	RA Rain	PY Spray	SS Sandstorm
SH Shower(s)	SG Snow Grains	SA Sand	GL Glaze
TS Thunderstorm	SN Snow	VA Volcanic Ash	
VC In the Vicinity	UP Unknown Precipitation		

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

WILMINGTON, DE AUGUST 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:

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							7.00	10.00	
03							9.00	10.00	
04							4.00	10.00	
05							8.00	10.00	
06							8.00	10.00	
07							10.00	10.00	
08							10.00	10.00	
09							10.00	10.00	
10							10.00	10.00	
11							10.00	10.00	
12							8.00	10.00	
13							5.00	10.00	
14							5.00	10.00	
15							10.00	10.00	
16							10.00	10.00	
17							10.00	10.00	
18							10.00	10.00	
19							10.00	10.00	
20							8.00	10.00	
21							9.00	10.00	
22							10.00	10.00	
23							4.00	10.00	
24							1.50	10.00	
25							5.00	10.00	
26							4.00	10.00	
27							5.00	10.00	
28							7.00	10.00	
29							2.50	10.00	
30							10.00	10.00	
31							6.00	10.00	
MONTHLY AVGS							7.81	10.00	
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 0 21									

OBSERVATIONS AT 3-HOURLY INTERVALS

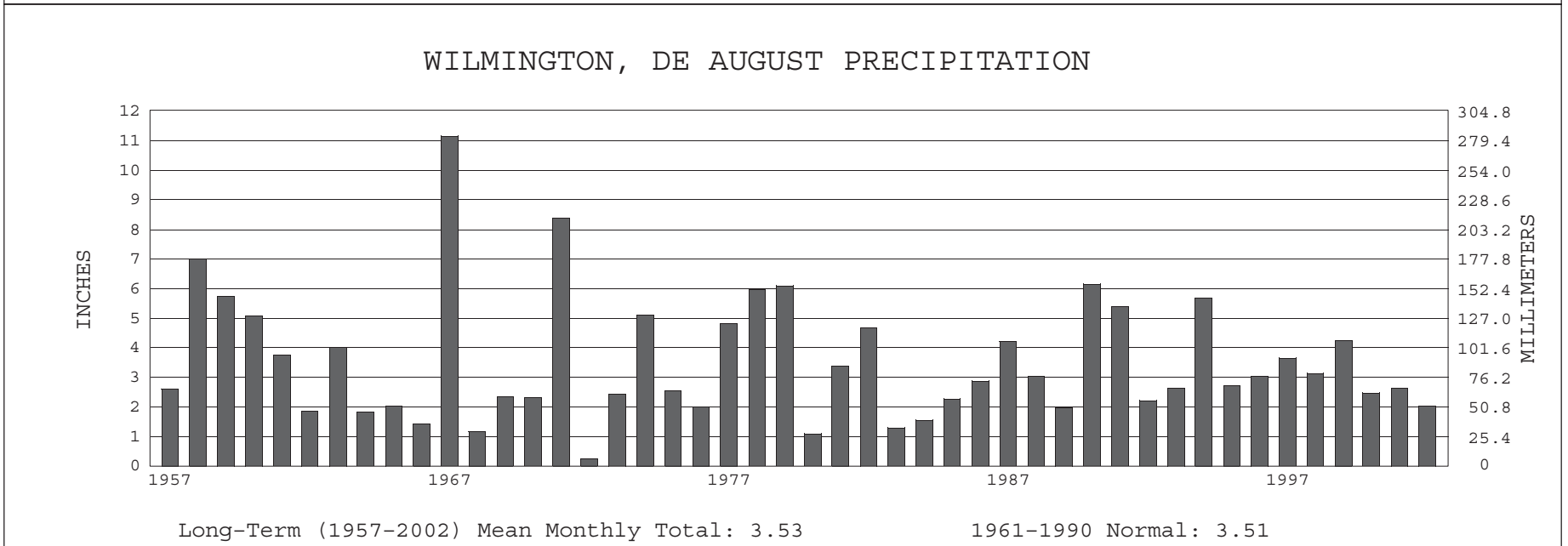
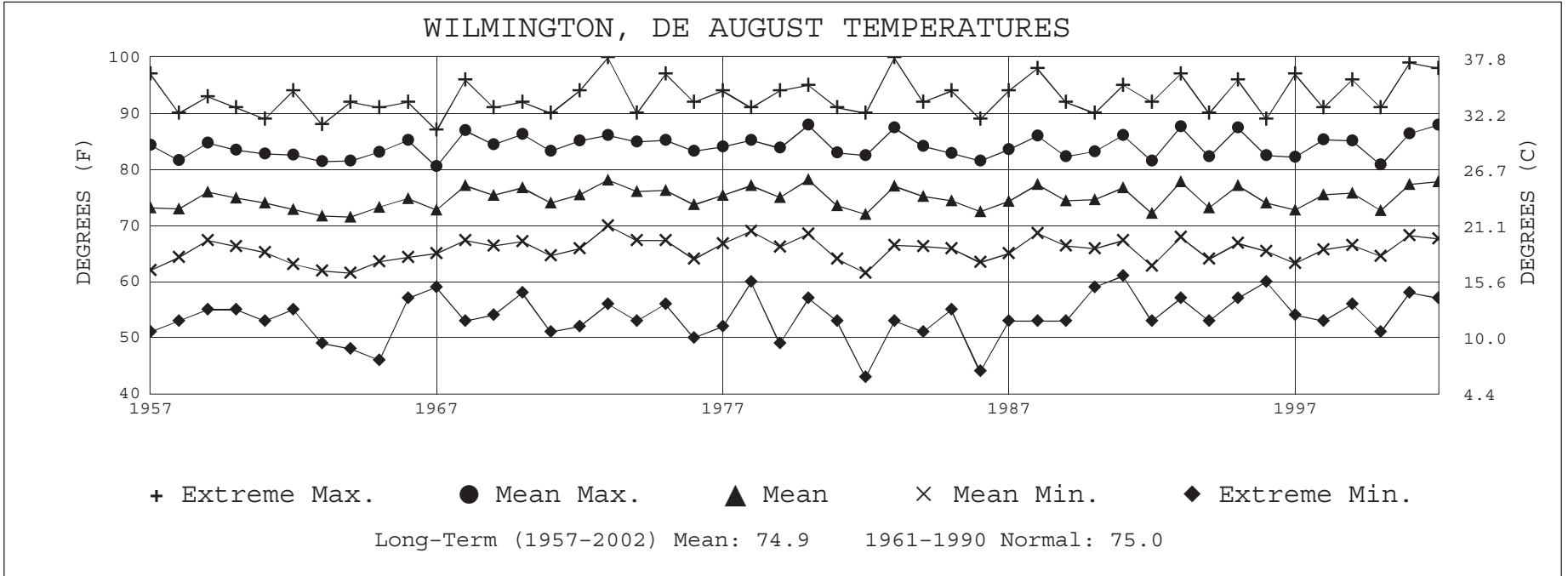
WILMINGTON, DE

AUGUST 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: 0524								AUG 25								SUNSET: 1844								SUNRISE: 0529								AUG 31								SUNSET: 1835							
01	CLR	NC				6.00	BR	70	69	69	97	7	28	29.73	29.82	01	CLR	NC				10.00			61	60	60	97	5	31	30.24	30.33															
04	OVC	080				6.00	HZ	70	57	62	64	3	33	29.73	29.82	04	CLR	NC				10.00			60	59	59	96	6	32	30.23	30.32															
07	BKN	032				7.00		71	68	69	90	0	00	29.79	29.88	07	CLR	NC				10.00			64	61	62	90	5	35	30.29	30.37															
10	FEW	NC				10.00		80	66	71	62	12	36	29.82	29.91	10	CLR	NC				10.00			75	59	65	58	15	07	30.32	30.41															
13	FEW	NC				10.00		84	58	68	41	9	32	29.81	29.90	13	FEW	NC				10.00			80	59	67	49	17	07	30.32	30.41															
16	FEW	NC				10.00		83	54	65	37	7	32	29.80	29.88	16	BKN	055				10.00			75	62	67	64	16	05	30.33	30.41															
19	CLR	NC				10.00		79	55	65	44	3	34	29.83	29.91	19	OVC	026				10.00			68	64	66	87	20	06	30.34	30.43															
22	CLR	NC				10.00		74	60	65	62	6	12	29.86	29.95	22	OVC	038				10.00			66	60	62	81	15	05	30.34	30.43															
SUNRISE: 0525								AUG 26								SUNSET: 1843								3-HOURLY OBSERVATION NOTES																							
01	CLR	NC				9.00		68	64	66	87	5	02	29.87	29.95	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	CLR	NC				7.00		67	66	66	97	0	00	29.90	29.98	Ceiling is reported in hundreds of feet above ground level for clouds at or below 12,000 feet.																															
07	CLR	NC				4.00	BR	71	68	69	90	6	36	29.93	30.01	NC = No ceiling detected.																															
10	CLR	NC				10.00		80	64	70	58	7	08	29.93	30.02	& = Original observation contained additional weather elements.																															
13	CLR	NC				10.00		81	64	70	57	6	12	29.91	30.00	See page 3 for additional notes.																															
16	CLR	NC				10.00		81	70	74	69	9	15	29.87	29.96																																
19	CLR	NC				10.00		78	66	70	67	5	17	29.89	29.98																																
22	CLR	NC				10.00		73	69	70	87	5	23	29.92	30.01																																
SUNRISE: 0526								AUG 27								SUNSET: 1841								SUMMARY BY HOUR																							
01	CLR	NC				10.00		69	67	68	93	0	00	29.92	30.00	AVERAGES																															
04	CLR	NC				8.00		65	65	65	100	3	30	29.93	30.01	RESULTANT WIND (MPH)																															
07	CLR	NC				7.00		69	67	68	93	5	31	29.97	30.06	HOUR (LST)																															
10	CLR	NC				10.00		81	62	69	53	9	36	30.00	30.08	CEILOMETER																															
13	SCT	NC				10.00		84	62	70	48	6	VR	29.99	30.07	EFF CLD AMT																															
16	FEW	NC				10.00		84	64	71	51	5	08	29.99	30.08	DRY BULB																															
19	FEW	NC				10.00		79	71	74	77	12	13	30.03	30.11	DEW POINT																															
22	CLR	NC				10.00		75	69	71	82	5	12	30.08	30.16	WET BULB																															
SUNRISE: 0527								AUG 28								SUNSET: 1840								PRESSURE (INCHES, HG)																							
01	BKN	065				10.00		73	67	69	81	7	05	30.08	30.17	STATION																															
04	FEW	NC				10.00		73	67	69	81	12	06	30.09	30.17	SEA LEVEL																															
07	OVC	014				10.00	-RA	72	71	71	97	14	07	30.13	30.22	VISIBILITY (MILES)																															
10	SCT	NC				10.00	-RA	70	67	68	90	15	06	30.16	30.25	WIND SPEED (MPH)																															
13	OVC	065				10.00	-RA	70	65	67	84	18	06	30.16	30.25	SPEED																															
16	OVC	070				10.00	-RA	68	67	67	96	17	05	30.15	30.24	DIRECTION																															
19	OVC	060				8.00	-RA	63	62	62	97	14	02	30.16	30.25																																
22	OVC	042				10.00	-RA	62	62	62	100	12	02	30.13	30.22																																
SUNRISE: 0528								AUG 29								SUNSET: 1838																															
01	OVC	016				6.00	RA BR	61	61	61	100	17	02	30.07	30.16																																
04	OVC	012				7.00	RA	61	61	61	100	16	36	30.01	30.09																																
07	OVC	013				10.00		61	61	61	100	9	36	30.02	30.11																																
10	OVC	011				10.00		62	61	61	96	10	34	30.03	30.12																																
13	OVC	013				10.00		66	62	64	87	9	35	30.02	30.11																																
16	OVC	017				10.00		67	62	64	84	10	33	30.03	30.11																																
19	OVC	024				10.00		65	61	63	87	7	34	30.04	30.13																																
22	OVC	026				10.00		64	60	62	87	7	33	30.06	30.15																																
SUNRISE: 0528								AUG 30								SUNSET: 1837																															
01	OVC	026				10.00		64	59	61	84	5	36	30.07	30.16																																
04	OVC	024				10.00		63	59	61	87	3	34	30.08	30.17																																
07	OVC	026				10.00		64	60	62	87	0	00	30.14	30.22																																
10	OVC	020				10.00		65	59	61	81	8	34	30.16	30.25																																
13	OVC	024				10.00		68	58	62	70	9	31	30.17	30.26																																
16	OVC	030				10.00		70	59	63	68	6	31	30.17	30.26																																
19	OVC	040				10.00		67	61	63	81	3	32	30.19	30.28																																
22	CLR	NC				10.00		64	61	62	90	3	31	30.22	30.31																																





AUGUST 2002

WILMINGTON, DE

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

I certify that this is an official publication of the National Oceanic and Atmospheric Administration (NOAA). It is compiled using information from weather observing sites operated by NOAA – National Weather Service / Department Of Transportation – Federal Aviation Administration and received at the National Climatic Data Center (NCDC), Asheville, North Carolina 28801.

DIRECTOR

NCDC now offers an annual online subscription for the **Edited Local Climatological Data Publication**. When you purchase this subscription service, you will have **immediate online access** to all previous publications back to July 1996 and all publications thereafter until the expiration of the subscription. Your subscription is valid for one year after purchase. **The total cost is \$29 for online delivery (including back issues) compared to \$34 for offline delivery.** To order this and other subscriptions on-line with your credit card, go to: www.ncdc.noaa.gov and choose subscriptions.

We welcome your questions or comments, please contact us at
Toll Free Number (866) 742-3322 (voice)
Fax Number :(304) 726-4409
TDD : 828-271-4010
or Email : ncdc.info@noaa.gov
Local Climatological Data is available at www.ncdc.noaa.gov

For address correction, please return a photocopy of this page to Subscription Services indicating changes

NCDC Subscription Services Center
310 State Route 956 Building 300
Rocket Center, WV 26726

OFFICIAL BUSINESS. PENALTY FOR PRIVATE USE \$300

FIRST CLASS
POSTAGE AND FEES PAID
NOAA
PERMIT G-19