



LOCAL CLIMATOLOGICAL DATA

MARCH 1996
WILMINGTON, DE
GREATER WILMINGTON AIRPORT

published by: National Climatic Data Center

LATITUDE: 39° 40' N

LONGITUDE: 75° 36' W

ELEVATION (GROUND): 74 FEET

TIME ZONE: EASTERN STANDARD

ISSN # 0198-117X
WBAN # 13781

DATE	TEMPERATURE °F						DEG DAYS BASE 65°		SIGNIFICANT WEATHER	SNOW/ICE ON GND(IN)				PRECIPITATION (INCHES)		PRESSURE (INCHES OF HG)		WIND SPEED = MPH DIR = TENS OF DEGREES					SUNSHINE		CLOUDINESS																																																																																																																												
	MAXIMUM	MINIMUM	AVERAGE	DEP FROM NORMAL	AVERAGE DEW PT	AVERAGE WET BULB	HEATING	COOLING		0700 LST		1300 LST		2400 LST		AVERAGE STATION	AVERAGE SEA LEVEL	RESULTANT WIND SPEED	RES DIR	AVERAGE SPEED	MAXIMUM				TOTAL MINUTES	PERCENT POSSIBLE	SR-SS		MN-MN																																																																																																																								
										DEPTH	WATER EQUIV	SNOW-FALL	WATER EQUIV	5-SEC	2-MIN						SPEED	DIR	SPEED	DIR			CEILOMETER TENTHS	SATELLITE TENTHS	CEILOMETER TENTHS	SATELLITE TENTHS																																																																																																																							
	1	2	3	4	5	6	7	8		9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29																																																																																																																							
01	37	20	29	-9	15	25	36	0	R				T	30.00	30.09	4.8	20	6.8	20	20	16	22			3	2	5	3																																																																																																																									
02	37	29	33	-5	29	31	32	0	SF			2.5	0.20	29.75	29.84	3.1	12	5.6	13	16	10	17			9	5	8	5																																																																																																																									
03	35	20	28	-10	10	24	37	0	SFH				0.01	29.96	30.05	16.8	28	18.6	56	27	45	28			4	1	4	1																																																																																																																									
04	38	17	28	-11	3	21	37	0					0.00	30.37	30.46	10.1	25	11.3	28	26	22	27			0	0	0	0																																																																																																																									
05	64	30	47	8	29	40	18	0	R				0.13	29.95	30.04	10.1	21	12.2	44	22	34	22			1			6																																																																																																																									
06	56	38	47	8	46	47	18	0	RF				0.33	29.67	29.75	3.6	6	6.3	28	06	20	04			10	9	10	8																																																																																																																									
07	38	27	33	-7	31	33	32	0	RSF				0.51	29.68	29.77	9.1	3	11.7	28	36	24	36			10	9	10	8																																																																																																																									
08	27	15	21	-19	11	18	44	0	SFHBS				0.07	29.77	29.86	21.3	30	21.7	41	29	34	29			10	3		3																																																																																																																									
09	23	11	17*	-23	2	14	48	0		3	02.5		0.00	30.35	30.44	13.5	29	14.0	30	30	26	30			6	0		3																																																																																																																									
10	33	11*	22	-19	9	20	43	0			0.6		0.00	30.76	30.85	1.2	29	4.4	16	36	13	36			0	0	0	0																																																																																																																									
11	43	17	30	-11	17	26	35	0					0.00	30.56	30.65	4.0	4	5.5	14	06	11	02			0	0	0	1																																																																																																																									
12	53	24	39	-3	14	30	26	0					0.00	30.12	30.21	8.5	36	9.0	23	01	17	01			0	0	0	0																																																																																																																									
13	62	30	46	4	18	35	19	0					0.00	30.00	30.08	3.2	32	4.8	13	04	10	30			0	1	0	2																																																																																																																									
14	61	33	47	5	32	40	18	0	FH				0.00	29.86	29.94	4.1	16	4.8	14	17	11	16			2	2		2																																																																																																																									
15	58	41	50	7	45	47	15	0	RFH				0.36	29.54	29.62	3.5	27	7.2	29	36	24	01			9																																																																																																																												
16	50	36	43	0	23	35	22	0		0		0.0	0.00	29.78	29.86	10.0	32	10.6	25	31	22	32																																																																																																																															
17	45	34	40	-3	21	33	25	0		0		0.0	0.00	29.83	29.92	2.6	6	4.5	11	05	9	06			10	3																																																																																																																											
18	58	38	48	5	31	40	17	0	H				0.00	29.78	29.86	0.8	24	3.8	16	31	13	31			2		3																																																																																																																										
19	54	36	45	1	40	43	20	0	RFH				0.85	29.44	29.53	10.5	7	14.2	48	07	37	07			9	4	7																																																																																																																										
20	48	40	44	0	31	37	21	0	R				T	29.29	29.37	11.0	20	11.5	30	20	23	20			10	6	10	6																																																																																																																									
21	44	35	40	-4	31	36	25	0	R				T	29.43	29.52	10.5	28	11.0	25	29	23	30			9	2	10	4																																																																																																																									
22	41	28	35	-10	20	29	30	0	S				T	29.63	29.71	14.4	29	14.7	30	26	25	27			7	2		2																																																																																																																									
23	47	29	38	-7	18	31	27	0					0.00	29.85	29.94	14.3	28	15.4	37	29	30	29			3	4	1	3																																																																																																																									
24	55	30	43	-2	19	34	22	0					0.00	30.14	30.23	5.6	28	9.0	24	32	22	31			0	0	0	0																																																																																																																									
25	70*	39	55*	9	40	47	10	0					0.00	29.96	30.04	11.3	18	12.5	39	22	30	21			1	3	2	2																																																																																																																									
26	62	40	51	5	25	41	14	0					0.00	30.10	30.19	12.6	29	14.2	30	30	25	30			1	4	3	4																																																																																																																									
27	45	30	38	-8	11	29	27	0					0.00	30.44	30.53	6.5	35	8.7	29	34	24	33			0	1	0																																																																																																																										
28	37	32	35	-12	27	32	30	0	RZRF				0.60	30.28	30.37	10.7	6	11.2	31	05	24	04			8	10	7	10																																																																																																																									
29	39	34	37	-10	34	36	28	0	RSF				0.57	29.98	30.07	10.5	2	11.6	29	04	21	05			10	7																																																																																																																											
30	55	30	43	-4	34	39	22	0	FH				0.00	30.07	30.16	1.3	18	7.1	18	36	15	36																																																																																																																															
31	59	34	47	0	36	42	18	0	FH				0.00	29.95	30.03	5.7	16	6.5	20	17	15	16							2																																																																																																																								
47.5										29.3										38.4										-4.3										24.1										33.4										<----- MONTHLY AVERAGES ----->										29.95										30.03										3.4										29										10.0										<- MONTHLY AVERAGES ->										5										3									
DEPARTURE										-4.6										-3.8										MONTHLY										DEGREE DAYS										SEASON TO DATE										TOTAL SNOWFALL:										3.63										TOTAL PRECIPITATION:										DATE										SUNSHINE TOTALS:										PERCENT POSSIBLE:																																							
HEATING:										816										125										4796										365										GREATEST 24-HR PRECIPITATION:										1.15										28-29										WIND										SPEED										DIRECTION										DATE																																							
COOLING:										0										0										0										0										GREATEST 24-HR SNOW DEPTH:																				MAXIMUM 5-SECOND										: 56										27										3																																																	
NUMBER OF DAYS WITH -->										CLEAR										PARTLY CLOUDY										CLOUDY										MAXIMUM TEMP ≥ 90 :										0										MINIMUM TEMP ≤ 32 :										18										PRECIPITATION ≥ 0.01 INCH										: 10										<-- NUMBER OF DAYS WITH																																																	
										6										6										11										MAXIMUM TEMP ≤ 32 :										2										MINIMUM TEMP ≤ 0 :										0										PRECIPITATION ≥ 0.10 INCH										: 8																																																											
																																								THUNDERSTORMS										: 0										HEAVY FOG										: 0										SNOWFALL ≥ 1.0 INCH										: 1																																																											

MARCH 1996
WILMINGTON, DE

HOURLY PRECIPITATION (WATER EQUIVALENT IN INCHES)

MARCH 1996
WILMINGTON, DE WBAN # 13781

DATE	A.M. HOUR (L.S.T.) ENDING AT												DATE	P.M. HOUR (L.S.T.) ENDING AT												DATE	
	1	2	3	4	5	6	7	8	9	10	11	12		1	2	3	4	5	6	7	8	9	10	11	12		
01													01											01			
02		T	0.02	0.04	0.06	0.03	0.01	0.02	0.02	T	T		02		T									02			
03							T	T	0.02	T	0.01		03											03			
04													04											04			
05													05					T	T	0.10	0.02	0.01	T	05			
06		T	0.01				T	0.04	0.04	0.02	0.01	0.04	06	0.02	0.02	0.02	0.06	0.04	0.01			T		06			
07							T	T	T	0.02	0.07	0.04	07	0.10	0.12	0.07	0.07	0.01	0.01					07			
08	T	0.03	0.02	0.01	T	T	T	T	0.01	T	T	T	08						T	T				08			
09													09											09			
10													10											10			
11													11											11			
12													12											12			
13													13											13			
14													14											14			
15			T				0.03	0.12	0.07	0.08	0.01	T	15				T	0.04	T		0.01	T		15			
16									0.01				16											16			
17													17											17			
18													18											18			
19										T			19				T	T	0.03	0.20	0.35	0.08	0.05	0.11	0.03	19	
20											T		20					T							20		
21													21	T	T		T								21		
22													22								T	T			22		
23													23												23		
24													24												24		
25													25												25		
26													26												26		
27													27												27		
28										T	T	0.01	0.02	28	0.02	0.02	0.02	0.01	0.04	0.06	0.09	0.09	0.06	0.05	0.04	0.07	28
29	0.06	0.07	0.06	0.04	0.03	0.06	0.04	0.01	0.09	0.09	0.01	T	29	0.01	T	T										29	
30													30													30	
31													31													31	

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* The sum of the hourly totals follows the * when it disagrees with the daily total on page 1. NWS does not edit ASOS hourly precipitation but may edit daily and monthly totals. Hourly, daily, and monthly totals are printed as reported by the ASOS site.

MAXIMUM SHORT DURATION PRECIPITATION (MSDP) **

TIME PERIOD (MINUTES)	5	10	15	20	30	45	60	80	100	120	150	180
PRECIPITATION (INCHES)												
ENDED: DATE												
ENDED: TIME												

** NCDC derives MSDP data from one-minute ASOS data. The MSDP data are not printed when inconsistent with ASOS hourly totals.

The time indicated is the ending time of the interval.
Date and time are not entered for trace amounts.

REFERENCE NOTES :

WFO = WEATHER FORECAST OFFICE.
 ASOS = AUTOMATED SURFACE OBSERVING SYSTEM.
 * = EXTREME FOR THE MONTH (LAST OCCURRENCE IF MORE THAN ONE).
 T = TRACE PRECIPITATION AMOUNT.
 + = ALSO OCCURS ON EARLIER DATES.
 F+ = HEAVY FOG, VISIBILITY .25 MILES OR LESS.
 BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA.
 THE HEATING DEGREE DAY SEASON BEGINS JULY 1.
 THE COOLING DEGREE DAY SEASON BEGINS JANUARY 1.
 CEILOMETER (30-SECOND) DATA ARE USED TO DERIVE CLOUDINESS AT OR BELOW 12,000 FEET. THIS CLOUDINESS IS THE MEAN CLOUD COVER DETECTED DURING THE TIME INTERVAL (HOUR, SUNRISE TO SUNSET, OR MIDNIGHT TO MIDNIGHT).
 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. 50 x 50 KM).
 SKY CONDITION IS BASED ON THE SUM (NOT TO EXCEED 10) 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 - 3 TENTHS, PARTLY CLOUDY = 4 - 7 TENTHS, AND CLOUDY = 8 - 10 TENTHS.
 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' INDICATES CALM.
 SR-SS = SUNRISE TO SUNSET. MN-MN = MIDNIGHT TO MIDNIGHT.
 SNOWFALL IS FOR THE 24-HOUR PERIOD ENDING AT THE TIME INDICATED IN COLUMN HEADING.
 WATER EQUIVALENT OF SNOW ON THE GROUND IS REPORTED ONLY WHEN THE DEPTH IS 2 OR MORE INCHES.
 H, F, F+, P-, R, S, AND ZR ARE REPORTED FROM ASOS AUTOMATED SENSORS. OTHER WEATHER TYPES MAY BE ADDED TO THE REPORT BY STATION PERSONNEL OR BE PROVIDED BY THE WEATHER FORECAST OFFICE (WFO).

A HAIL	GL GLAZE	SG SNOW GRAINS
BD BLOWING DUST	H HAZE	SP SNOW PELLETS
BN BLOWING SAND	IC ICE CRYSTALS	T THUNDER
BS BLOWING SNOW	IF ICE FOG	V VOLCANIC ASH
BY BLOWING SPRAY	IP ICE PELLETS	ZL FREEZING DRIZZLE
D DUST	K SMOKE	ZR FREEZING RAIN
F FOG	L DRIZZLE	& TORNADO
F+ HEAVY FOG	P- UNKN. PRECIP.	&C FUNNEL CLOUD
GF GROUND FOG	R RAIN	&W WATERSPOUT
	S SNOW	

NORMALS ARE FOR THE YEARS 1961 - 1990.
 A HEATING (COOLING) DEGREE DAY IS THE DIFERENCE BETWEEN THE AVERAGE DAILY TEMPERATURE AND 65°F.
 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 THE MOISTURE CONTENT WAS INCREASED TO 100% RELATIVE HUMIDITY.

TEMPERATURE - HUMIDITY INDEX (STEADMAN, 1979)

TEMPERATURE ° F	RELATIVE HUMIDITY (PERCENT)										
	0	10	20	30	40	50	60	70	80	90	100
120	107	116	130	148							
115	103	111	120	135	151					APPARENT TEMPERATURE	
110	99	105	112	123	137	150					
105	95	100	105	113	123	135	149				
100	91	95	99	104	110	120	132	144			
95	87	90	93	96	101	107	114	124	136		
90	83	85	87	90	93	96	100	106	113	122	
85	78	80	82	84	86	88	90	93	97	102	108
80	73	75	77	78	79	81	82	85	86	88	91
75	69	70	72	73	74	75	76	77	78	79	80
70	64	65	66	67	68	69	70	70	71	71	72

WIND CHILL EQUIVALENT TEMPERATURE (SIPLE & PASSEL, 1945)

TEMPERATURE ° F	WIND VELOCITY (MPH)									
	4	5	10	15	20	25	30	35	40	45
.45	45	43	34	29	26	23	21	20	19	18
40	40	37	26	23	19	16	13	12	11	10
35	35	32	22	16	12	8	6	4	3	2
30	30	27	16	9	4	1	-2	-4	-5	-6
25	25	22	10	2	-3	-7	-10	-12	-13	-14
20	20	16	3	-5	-10	-15	-18	-20	-21	-22
15	15	11	-3	-11	-17	-22	-25	-27	-29	-30
10	10	6	-9	-18	-24	-29	-33	-35	-37	-38
5	5	0	-15	-25	-31	-36	-41	-43	-45	-46
0	0	-5	-22	-31	-39	-44	-49	-52	-53	-54
-5	-5	-10	-27	-38	-46	-51	-56	-58	-60	-62
-10	-10	-15	-34	-45	-53	-59	-64	-67	-69	-70
-15	-15	-21	-40	-51	-60	-66	-71	-74	-76	-78
-20	-20	-26	-46	-58	-67	-74	-79	-82	-84	-85
-25	-25	-31	-52	-65	-74	-81	-86	-89	-92	-93
-30	-30	-36	-58	-72	-81	-88	-93	-97	-100	-102

ADDITIONAL INFORMATION :

OBSERVATIONS AT 3-HOURLY INTERVALS

MARCH 1996 WBAN # 13781
WILMINGTON, DE

HOUR (LST)	W 12K FEET		SATELLITE > 12K FT				VISIBILITY (MILES)	WEATHER	TEMPERATURE ° F				WIND		PRESSURE (INCHES, HG)		HOUR (LST)	W 12K FEET		SATELLITE > 12K FT				VISIBILITY (MILES)	WEATHER	TEMPERATURE ° F				WIND		PRESSURE (INCHES, HG)						
	CEILOMETER TENTHS	CEILING 100'S OF FT	OBSERVATION TIME (LST)	EFF CLD AMT TENTHS	100'S OF FT				DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL		CEILOMETER TENTHS	CEILING 100'S OF FT	OBSERVATION TIME (LST)	EFF CLD AMT TENTHS	100'S OF FT				DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL					
					LOWEST CLOUD TOP	HIGHEST CLOUD TOP																LOWEST CLOUD TOP	HIGHEST CLOUD TOP															
SUNRISE: 0616 MAR 13 SUNSET: 1808																																						
01	0	NC					10.00			32	15	27	50	6	32	30.02	30.11	01	0	NC					7.00						41	31	37	68	0	00	29.73	29.80
04	0	NC					10.00			30	16	26	56	8	33	30.00	30.09	04	0	NC					5.00	F					38	35	37	89	6	01	29.70	29.78
07	0	NC	0357	0	NT	NT	10.00			32	16	27	52	6	31	30.05	30.13	07	6	95				5.00	H					41	36	39	83	9	04	29.68	29.77	
10	0	NC	0657	0	NT	NT	10.00			49	13	36	23	3	02	30.05	30.13	10	10	17	0958	1	220	230	10.00				46	35	41	66	16	07	29.61	29.70		
13	0	NC	0957	0	NT	NT	10.00			56	16	41	21	7	28	30.00	30.08	13	10	21	1257	0	NT	NT	10.00				50	39	45	66	20	06	29.48	29.57		
16	0	NC	1257	0	NT	NT	10.00			59	18	43	20	0	00	29.95	30.03	16	10	5	1557	9	130	330	7.00				44	42	43	93	22	07	29.30	29.37		
19	0	NC	1557	0	NT	NT	10.00			53	21	40	29	5	28	29.98	30.06	19	10	8				2.00	RF					50	48	49	93	22	09	29.14	29.22	
22	0	NC	2157	7	190	260	10.00			46	21	37	37	3	27	29.98	30.06	22	10	38	2158	9	130	230	3.50	RF			49	47	48	93	13	19	29.14	29.22		
SUNRISE: 0615 MAR 14 SUNSET: 1809																																						
01	0	NC					10.00			40	31	36	70	0	00	29.98	30.06	01	10	48				10.00				46	36	42	68	17	20	29.18	29.27			
04	0	NC	0357	0	NT	NT	7.00			36	32	34	85	0	00	29.95	30.03	04	10	55	0358	7	130	300	10.00				42	30	37	63	17	19	29.21	29.30		
07	0	NC	0657	5	130	230	5.00	F		33	29	32	85	0	00	29.95	30.03	07	10	48	0657	9	130	380	10.00				41	29	36	62	14	20	29.27	29.35		
10	0	NC	0957	5	150	260	10.00			46	29	39	52	5	17	29.93	30.02	10	10	39	0957	9	130	210	10.00				42	29	37	60	17	20	29.30	29.38		
13	0	NC	1257	0	NT	NT	10.00			56	29	44	36	7	15	29.86	29.93	13	10	33	1257	9	150	300	10.00				40	31	36	70	15	22	29.30	29.39		
16	0	NC	1557	0	NT	NT	10.00			59	31	46	35	10	16	29.77	29.86	16	10	34	1557	2	130	230	10.00				41	33	38	73	7	19	29.32	29.39		
19	0	100					10.00			49	34	42	56	8	18	29.77	29.86	19	10	48				10.00				42	31	37	65	3	12	29.32	29.41			
22	0	NC	85 2157	2	130	150	10.00			45	37	41	74	7	19	29.77	29.85	22	10	95	2157	6	130	150	10.00				42	30	37	63	0	00	29.34	29.42		
SUNRISE: 0613 MAR 15 SUNSET: 1810																																						
01	0	NC					7.00			42	36	39	79	0	00	29.71	29.80	01	10	100				10.00				40	30	36	68	7	23	29.34	29.43			
04	0	NC	90 0357	8	190	260	7.00			44	39	42	83	3	16	29.64	29.73	04	10	55	0357	5	130	460	10.00				38	32	36	79	0	00	29.32	29.41		
07	0	NC	70 0657	10	260	310	3.00	RF		44	41	43	89	12	25	29.66	29.74	07	8	38	0657	3	130	460	10.00				37	32	35	82	8	27	29.36	29.45		
10	0	NC	50 0957	9	210	260	.75	RF		45	45	45	100	6	17	29.57	29.65	10	6	34	0957	1	130	180	10.00				41	32	37	70	8	29	29.39	29.47		
13	0	NC	11 1257	10	250	300	3.00	F		55	52	53	90	12	23	29.46	29.55	13	10	38	1257	2	130	260	10.00	R			42	35	39	76	10	27	29.41	29.49		
16	0	NC	38 1557	9	190	260	10.00			57	52	54	84	6	25	29.39	29.48	16	10	44				10.00				43	32	38	65	20	30	29.43	29.51			
19	9	100					4.00	F		53	52	53	96	7	31	29.41	29.49	19	10	45				10.00				41	29	36	62	13	29	29.52	29.61			
22	0	NC					5.00	F		49	43	46	80	10	31	29.48	29.57	22	10	49	2157	9	180	230	10.00				39	26	34	60	12	29	29.57	29.66		
SUNRISE: 0612 MAR 16 SUNSET: 1811																																						
01	0	NC					10.00			41	32	37	70	7	34	29.61	29.69	01	0	NC				10.00				33	21	29	61	14	30	29.59	29.67			
04	0	NC					10.00			37	29	34	73	12	30	29.64	29.73	04	0	NC	0357	0	NT	NT	10.00				30	21	27	69	13	29	29.57	29.67		
07	0	NC					10.00			37	26	33	65	15	32	29.73	29.81	07	0	NC	0657	0	NT	NT	10.00				30	15	25	54	14	29	29.61	29.70		
10	0	NC					10.00			44	24	36	45	15	32	29.80	29.88	10	2	NC	0958	0	NT	NT	10.00				35	18	29	50	15	29	29.61	29.70		
13	0	NC					10.00			48	21	38	34	13	33	29.80	29.89	13	9	49	1257	0	NT	NT	10.00				39	18	32	43	15	28	29.59	29.68		
16	0	NC	1557	0	NT	NT	10.00			50	18	38	28	13	33	29.80	29.88	16	10	55	1557	7	130	230	10.00				41	18	33	40	22	30	29.59	29.68		
19	0	NC					10.00			40	21	33	47	9	31	29.86	29.93	19	6	NC				10.00				36	21	31	55	9	29	29.66	29.74			
22	0	NC	2158	3	130	300	10.00			40	18	32	41	3	07	29.89	29.97	22	0	NC	2157	0	NT	NT	10.00				33	25	30	73	13	26	29.73	29.81		
SUNRISE: 0610 MAR 17 SUNSET: 1812																																						
01	0	NC					10.00			35	19	30	52	8	01	29.89	29.98	01	0	NC				10.00				31	21	28	67	12	26	29.75	29.83			
04	0	NC	70 0357	9	170	260	10.00			37	15	30	41	7	06	29.84	29.93	04	0	NC				10.00				30	19	26	64	9	24	29.75	29.85			
07	0	NC	50 0657	9	180	300	10.00			37	14	30	39	5	10	29.88	29.96	07	1	NC	0657	0	NT	NT	10.00				32	21	28	64	12	25	29.80	29.89		
10	10	50	0957	1	150	260	10.00			38	18	31	44	7	09	29.86	29.96	10	7	47	0957	3	170	300	10.00				39	21	33	49	21	28	29.84	29.92		
13	10	42	1257	1	130	130	10.00			43	23	35	45	0	00	29.84	29.92	13	5	NC	1257	10	170	260	10.00				42	20	34	41	20	30	29.84	29.93		
16	10	38	1557	4	130	230	10.00			45	24	37	44	5	35	29.79	29.87	16	0	NC	1557	1	130	260	10.00				46	17	36	31	24	29	29.84	29.93		
19	10	39					10.00			44	26	37	49	0	00	29.79	29.87	19	0	NC				10.00				44	14	34	30	16	29	29.91	29.99			
22	10	33					10.00			43	28	37	56	0	00	29.82	29.90	22	0	NC	2157	0	NT	NT	10.00				41	14	32	33	12	28	30.00	30.09		
SUNRISE: 0608 MAR 18 SUNSET: 1813																																						
01	10	43					10.00			43	30	38	60	0	00	29.80	29.88	01	0	NC				10.00				36	15	29	42	7	26	30.05	30.14			
04	9	49					10.00			40	31	36	70	3	23	29.80	29.88	04	0	NC	0357	0	NT	NT	10.00				32	11	26	42	7	26	30.10	30.19		
07	8	60					10.00			38	32	36	79	3	36	29.80	29.89	07	0	NC	0657	0	NT	NT	10.00				33	13	27	44	12	28	30.20	30.29		
10	0	NC					7.00			48	31	41	52	6	29	29.82	29.91	10	0	NC	0957	0																

OBSERVATIONS AT 3-HOURLY INTERVALS

MARCH 1996
WILMINGTON, DE WBAN # 13781

HOUR (LST)	12K FEET			SATELLITE > 12K FT			VISIBILITY (MILES)	WEATHER	TEMPERATURE ° F				WIND		PRESSURE (INCHES, HG)		HOUR (LST)	12K FEET			SATELLITE > 12K FT			VISIBILITY (MILES)	WEATHER	TEMPERATURE ° F				WIND		PRESSURE (INCHES, HG)			
	CEILOMETER TENTHS	CEILING	100'S OF FT	OBSERVATION TIME (LST)	EFF CLD AMT TENTHS	LOWEST CLOUD TOP			HIGHEST CLOUD TOP	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG	STATION		SEA LEVEL	CEILOMETER TENTHS	CEILING	100'S OF FT	OBSERVATION TIME (LST)	EFF CLD AMT TENTHS			LOWEST CLOUD TOP	HIGHEST CLOUD TOP	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL
SUNRISE: 0557 MAR 25 SUNSET: 1820																		SUNRISE: 0548 MAR 31 SUNSET: 1826																	
01	0	NC				10.00			39	31	36	73	5	12	30.09	30.18	01	NC				7.00			40	33	37	76	3	17	30.02	30.10			
04	0	NC	0357	0	NT	NT	10.00		39	31	36	73	7	14	30.05	30.13	04	NC	0358	0	NT	NT	10.00			38	34	36	86	5	18	30.00	30.08		
07	0	NC	0657	0	NT	NT	10.00		41	34	38	76	8	15	30.05	30.14	07	NC	0658	0	NT	NT	4.00	F		36	33	35	89	0	00	30.02	30.09		
10	0	NC	0957	1	130	380	10.00		59	40	50	50	13	20	30.02	30.10	10	NC	0958	1	150	460	7.00			51	41	46	69	3	14	29.98	30.07		
13	0	NC	1257	1	130	380	10.00		68	44	55	42	26	22	29.95	30.04	13	NC	1257	0	NT	NT	10.00			57	42	50	58	10	16	29.93	30.02		
16	0	NC	1557	0	NT	NT	10.00		69	45	56	42	17	20	29.89	29.96	16	44	1557	0	NT	NT	10.00			54	37	46	53	10	17	29.88	29.96		
19	10	70				10.00			56	46	51	69	12	15	29.86	29.94	19	NC				10.00			49	27	40	43	9	14	29.89	29.97			
22	8	65	2157	5	130	380	10.00		53	46	50	77	9	17	29.86	29.95	22	NC	2158	9	180	260	10.00			47	38	43	71	10	16	29.91	29.99		
SUNRISE: 0556 MAR 26 SUNSET: 1821																		HOURLY SUMMARY NOTES																	
01	7	50				10.00			61	50	55	67	18	21	29.86	29.95	<p>CEILING IS REPORTED IN HUNDREDS OF FEET (ABOVE GROUND LEVEL) FOR CLOUDS AT OR BELOW 12,000 FEET. CLOUD TOPS ARE REPORTED IN HUNDREDS OF FEET (ABOVE MEAN SEA LEVEL) FOR CLOUDS ABOVE 12,000 FEET. NC = A CEILING WAS NOT DETECTED AT OR BELOW 12,000 FEET. NT = CLOUD TOPS WERE NOT DETECTED ABOVE 12,000 FEET. SEE PAGE 3 FOR ADDITIONAL NOTES.</p>																		
04	10	50	0357	9	260	330	10.00		57	47	52	69	17	31	29.95	30.03																			
07	6	NC	0657	8	260	380	10.00		51	21	39	31	14	31	30.07	30.15																			
10	2	NC	0957	6	230	330	10.00		49	25	39	39	16	30	30.14	30.22																			
13	1	NC	1257	1	150	300	10.00		54	25	42	33	13	28	30.13	30.22																			
16	0	NC	1557	1	130	260	10.00		54	21	41	28	17	31	30.11	30.20																			
19	0	NC				10.00			46	19	36	34	8	28	30.18	30.26																			
22	0	NC	2157	0	NT	NT	10.00		44	12	33	27	14	30	30.23	30.32																			
SUNRISE: 0554 MAR 27 SUNSET: 1822																																			
01	0	NC				10.00			39	9	30	29	14	32	30.29	30.38																			
04	0	NC	0357	0	NT	NT	10.00		34	9	27	35	21	33	30.35	30.44																			
07	0	NC	0657	0	NT	NT	10.00		32	12	26	43	10	34	30.47	30.56																			
10	0	NC	0957	0	NT	NT	10.00		37	14	30	39	12	33	30.51	30.60																			
13	1	NC	1257	0	NT	NT	10.00		41	10	31	28	9	02	30.48	30.57																			
16	0	NC	1557	2	150	380	10.00		43	5	31	21	3	27	30.44	30.53																			
19	0	NC				10.00			42	5	31	21	0	00	30.45	30.54																			
22	0	NC				10.00			37	11	29	34	3	35	30.47	30.56																			
SUNRISE: 0552 MAR 28 SUNSET: 1823																																			
01	0	NC				10.00			32	24	29	72	7	02	30.46	30.55																			
04	0	NC	0357	8	210	300	10.00		34	25	31	70	6	07	30.42	30.51																			
07	1	NC	0657	10	240	300	10.00		35	15	29	44	10	07	30.44	30.53																			
10	4	NC				7.00	ZR		36	24	32	62	8	08	30.43	30.52																			
13	10	30	1257	10	280	300	7.00	R	36	30	34	79	12	07	30.33	30.42																			
16	10	13	1557	10	280	380	5.00	RF	34	31	33	89	12	06	30.21	30.30																			
19	10	34				4.00	RF		34	31	33	89	17	04	30.10	30.19																			
22	10	9	2157	9	140	260	7.00	R	34	31	33	89	15	05	30.02	30.11																			
SUNRISE: 0551 MAR 29 SUNSET: 1824																																			
01	10	6				3.00	RF		36	34	35	93	14	04	29.93	30.02																			
04	10	6	0358	9	180	300	5.00	RF	36	34	35	93	12	04	29.89	29.97																			
07	10	10	0657	9	210	330	2.00	RF	35	34	35	96	15	02	29.91	30.00																			
10	10	8	0957	10	180	300	7.00	R	38	35	37	89	14	03	29.95	30.04																			
13	10	13				10.00	R		39	35	37	86	14	04	29.98	30.06																			
16	10	15	1557	1	130	190	10.00		39	33	37	79	14	03	30.00	30.08																			
19		17				10.00			38	33	36	82	7	35	30.05	30.14																			
22		110	2157	1	150	260	10.00		37	33	35	86	6	30	30.09	30.18																			
SUNRISE: 0549 MAR 30 SUNSET: 1825																																			
01		60				4.00	F		34	32	33	92	6	27	30.08	30.17																			
04	NC	0358	0	NT	NT	3.00	F		34	32	33	92	6	27	30.08	30.17																			
07	NC					1.50	F		33	32	33	96	6	30	30.12	30.21																			
10	NC	0957	0	NT	NT	10.00			48	35	42	61	9	03	30.13	30.22																			
13	46	1257	0	NT	NT	10.00			52	34	44	51	7	11	30.09	30.18																			
16	NC	1557	0	NT	NT	10.00			55	34	46	45	6	14	30.04	30.12																			
19	NC					10.00			46	38	42	74	8	17	30.02	30.10																			
22	NC					10.00			42	36	39	79	5	18	30.05	30.14																			

SUMMARY BY HOURS

HOUR (LST)	AVERAGES											RESULTANT	
	CEILOMETER	EFF CLD AMT	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY	PRESSURE (INCHES, HG)		VISIBILITY (MILES)	WIND SPEED (MPH)	WIND (MPH)		
							STATION	SEA LEVEL			SPEED	DIRECTION	
01			35	24	31	67	29.95	30.04	8.90	8	2	27	
02			34	24	31	69	29.95	30.03	8.23	8	2	27	
03			34	24	30	71	29.94	30.03	8.33	7	3	29	
04			33	24	30	72	29.94	30.03	8.40	8	3	29	
05			33	23	30	70	29.95	30.04	7.99	8	3	29	
06			32	23	29	71	29.96	30.05	7.85	7	2	30	
07			33	29	23	70	29.97	30.06	7.87	8	4	30	
08			35	24	31	66	29.98	30.07	7.59	9	4	31	
09	4		37	24	33	61	29.98	30.07	8.19	12	5	31	
10			40	24	34	57	29.98	30.06	8.30	12	4	31	
11			41	24	35	53	29.97	30.06	8.57	12	4	30	
12			43	24	36	52	29.96	30.04	8.87	12	5	30	
13			44	25	37	52	29.94	30.03	8.90	13	5	29	
14			45	25	37	50	29.92	30.01	9.35	13	5	28	
15	3		45	25	38	49	29.91	30.00	8.98	13	5	29	
16	3		45	24	37	49	29.90	29.99	9.15	13	5	29	
17	3		44	24	37	50	29.91	29.99	9.06	12	4	29	
18			43	24	36	52	29.91	30.00	9.02	11	3	30	
19			41	24	35	56	29.93	30.01	9.26	9	2	31	
20			40	25	34	58	29.94	30.02	9.23	8	2	28	
21			39	25	34	60	29.95	30.03	9.26	9	3	28	
22			38	24	33	62	29.95	30.04	9.34	8	3	26	
23			37	24	32	62	29.95	30.04	9.15	7	2	27	
24			35	25	32	66	29.95	30.04	9.29	8	2	25	

SUPPLEMENTARY HOURLY PRECIPITATION
UNIVERSAL RAIN GAUGE (WATER EQUIVALENT IN INCHES)

MARCH 1996
WILMINGTON, DE

LATITUDE 39° 40'N
LONGITUDE 75° 36'W

DATE	A.M. HOUR (L.S.T.) ENDING AT												DATE	P.M. HOUR (L.S.T.) ENDING AT												DATE	DAILY TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12		1	2	3	4	5	6	7	8	9	10	11	12		
01													01											01	T		
02			0.02	0.05	0.05	0.03	0.01	0.01	0.03	0.01			02			T	T	T	T	T	T			02	0.21		
03													03											03	0.00		
04													04											04	0.00		
05													05					0.02	0.08	0.02	0.01			05	0.13		
06									0.02	0.05	0.01	0.02	0.04	06	0.02	0.02	0.02	0.06	0.05	0.01	0.01	T		06	0.33		
07													07	0.12	0.14	0.08	0.09	0.01	0.01					07	0.60		
08		0.01	0.02	0.01									08											08	0.04		
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								0.09	0.08	0.09			15			0.04			0.02			0.01	T	15	0.33		
16													16											16	0.00		
17													17											17	0.00		
18													18											18	0.00		
19													19			0.02	0.26	0.38	0.03	0.06	0.13	T	0.01	19	0.89		
20	T												20											20	T		
21													21											21	0.00		
22													22											22	0.00		
23													23											23	0.00		
24													24											24	0.00		
25													25											25	0.00		
26													26											26	0.00		
27													27											27	0.00		
28													28	0.04	0.04	0.02	0.01	0.04	0.07	0.11	0.11	0.08	0.06	0.08	28	0.72	
29	0.08	0.10	0.08	0.06	0.05	0.09	0.05	0.03	0.16	0.10	0.01	0.01	29											29	0.82		
30													30											30	0.00		
31													31											31	0.00		
PUBLISHED BY: NCDC, ASHEVILLE, NC.																							MONTHLY TOTAL		4.07		

SUPPLEMENTARY MAXIMUM SHORT DURATION PRECIPITATION (MSDP)

TIME PERIOD (MINUTES)	5	10	15	20	30	45	60	80	100	120	150	180
PRECIPITATION (INCHES)	0.11	0.16	0.20	0.23	0.30	0.37	0.41	0.54	0.58	0.64	0.64	0.64
ENDED: DATE	19	19	19	19	19	19	19	19	19	19	19	19
ENDED: TIME	1840	1845	1850	1854	1904	1916	1852	1912	1916	1916	1916	1916

The time indicated is the ending time of the interval.
Date and time are not entered for trace amounts.

The National Weather Service has determined that the ASOS Heated Tipping-Bucket (HTB) rain gauge may not measure water equivalent precipitation accurately during frozen precipitation events.

Precipitation data from a nearby site is provided on this page to supplement the ASOS HTB data.

M = Missing Data.

* = Data distribution unknown.

First HPD value that follows is the total accumulated amount.

I CERTIFY THAT THIS IS AN OFFICIAL PUBLICATION OF THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION,
AND IS COMPILED FROM RECORDS ON FILE AT THE NATIONAL CLIMATIC DATA CENTER.

Kenneth D Haden

NATIONAL NATIONAL NATIONAL
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ATMOSPHERIC ADMINISTRATION AND INFORMATION SERVICE ASHEVILLE, NORTH CAROLINA NATIONAL CLIMATIC DATA CENTER

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