



OCTOBER 1996

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

WILMINGTON, DE

GREATER WILMINGTON AIRPORT (ILG)

Lat: 39° 40' N Long: 75° 36' W Elev (Ground): 74 Feet

Time Zone: EASTERN WBAN: 13781 ISSN #: 0198-117X

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	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																																		
01	73	50	62	0	55	58	3	0	BR HZ				0.00	30.33	30.41	3.9	16	6.4	20	15	17	16	01																																		
02	66	60	63	1	61	62	2	0	RA BR				0.15	30.13	30.21	1.9	11	2.3	11	24	9	25	02																																		
03	64	41	53	-8	42	50	12	0	FG+ BR				0.00	30.12	30.20	11.0	34	12.4	31	36	26	01	03																																		
04	55	34	45*	-16	31	39	20	0					0.00	30.43	30.52	6.8	35	6.2	22	01	20	02	04																																		
05	59	35	47	-13	38	43	18	0					0.00	30.51	30.60	6.5	05	8.4	17	05	16	05	05																																		
06	62	37	50	-10	41	46	15	0					0.00	30.35	30.43	4.2	03	5.0	15	06	13	06	06																																		
07	67	39	53	-6	49	52	12	0					0.00	30.06	30.15	1.3	08	5.2	11	17	10	17	07																																		
08	59	55	57	-2	54	55	8	0	RA BR				1.44	29.62	29.70	13.3	01	15.5	37*	35	30*	01	08																																		
09	70	50	60	1	51	55	5	0	RA BR HZ				0.28	29.62	29.71	3.9	28	7.3	18	30	15	34	09																																		
10	61	43	52	-6	45	50	13	0	RA BR				0.07	29.77	29.86	12.0	29	11.8	33	30	26	30	10																																		
11	55	38	47	-11	36	42	18	0					0.00	30.17	30.25	8.7	30	8.0	20	31	17	31	11																																		
12	60	33*	47	-11	38	43	18	0	BR				0.00	30.28	30.36	3.6	27	4.5	13	28	10	27	12																																		
13	70	41	56	-1	48	51	9	0	BR				0.00	30.13	30.21	4.4	23	4.9	18	23	15	22	13																																		
14	77	51	64	8	49	56	1	0					0.00	29.91	29.99	7.3	28	8.6	24	31	22	28	14																																		
15	61	38	50	-6	38	45	15	0					0.00	30.10	30.18	4.1	29	4.8	11	35	10	34	15																																		
16	75	45	60	4	52	56	5	0	BR				0.00	29.94	30.02	4.8	23	4.8	15	21	14	22	16																																		
17	81*	53	67*	11	56	60	0	2	FG+ BR HZ				0.00	29.90	29.98	3.5	27	3.1	14	32	11	32	17																																		
18	65	53	59	4	59	60	6	0	RA BR HZ				0.32	29.77	29.85	11.4	09	12.0	29	09	24	09	18																																		
19	53	45	49	-6	45	47	16	0	RA BR				1.74	29.44	29.53	9.0	26	11.3	24	31	22	32	19																																		
20	51	46	49	-6	46	47	16	0	RA BR				0.41	29.63	29.71	5.8	12	6.2	16	10	14	10	20																																		
21	59	40	50	-4	46	49	15	0	RA FG+ BR				0.01	29.84	29.93	2.7	17	4.5	13	15	11	14	21																																		
22	59	50	55	1	51	53	10	0	RA BR				0.04	29.93	30.01	2.9	20	2.4	8	19	7	19	22																																		
23	75	52	64	10	58	60	1	0	RA BR				0.03	29.75	29.83	7.1	15	9.1	23	20	20	19	23																																		
24	67	48	58	5	46	52	7	0					0.00	29.81	29.89	8.5	25	8.0	23	27	20	28	24																																		
25	62	46	54	1	46	49	11	0					0.00	30.07	30.15	6.9	25	3.7	13	26	10	24	25																																		
26	68	46	57	4	50	53	8	0	BR				0.00	30.29	30.37	2.4	16	4.8	13	14	11	14	26																																		
27	69	53	61	9	56	58	4	0	BR HZ				0.00	30.19	30.28	1.9	20	4.4	14	16	11	20	27																																		
28	67	47	57	5	52	56	8	0	RA FG BR				0.21	29.84	29.93	7.8	27	8.8	24	29	20	29	28																																		
29	60	42	51	-1	37	45	14	0					0.00	29.95	30.03	7.3	29	6.7	16	32	15	31	29																																		
30	72	51	62	11	51	56	3	0	RA				T	29.61	29.70	7.8	19	11.5	25	16	22	16	30																																		
31	64	44	54	3	32	45	11	0					0.00	29.77	29.85	8.7	27	9.8	29	25	23	25	31																																		
64.7										45.4		55.1		■ ■		47.1		51.4		9.8		0.1		< MONTHLY AVERAGES		TOTALS-->		4.70		29.98		30.06		2.2		28		7.2		<- MONTHLY AVERAGES																	
-1.9										-3		-1.1		■ ■		<----- DEPARTURE FROM NORMAL ----->																				1.82		SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3																			
DEGREE DAYS										GREATEST 24-HR PRECIPITATION: 1.74										DATE: 19		SEA LEVEL PRESSURE										DATE		TIME																							
MONTHLY										SEASON TO DATE												MAXIMUM										:		05		1113																					
TOTAL DEPARTURE										TOTAL DEPARTURE												MINIMUM										:		19		0556																					
HEATING: 304										16												347												24																							
COOLING: 2										-13												1038												-8																							
NUMBER OF										MAXIMUM TEMP ≥ 90: 0												MINIMUM TEMP ≤ 32: 0												PRECIPITATION ≥ 0.01 INCH: 11																							
DAYS WITH										MAXIMUM TEMP ≤ 32: 0												MINIMUM TEMP ≤ 0: 0												PRECIPITATION ≥ 0.10 INCH: 7																							
										THUNDERSTORMS: 0												HEAVY FOG: 3												SNOWFALL ≥ 1.0 INCH: 0																							

OCTOBER 1996
WILMINGTON, DE

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

WILMINGTON, DE

OCTOBER 1996 ILG WBAN # 13781

DATE	FOR HOUR (LST) ENDING AT												DATE	FOR HOUR (LST) ENDING AT												DATE	Sum if Different (See Note 2)	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					0.01	0.02	T			0.01	0.02	0.06	02	0.01	0.01	0.01	T	T							02		0.15		
03													03												03		0.00		
04													04												04		0.00		
05													05												05		0.00		
06													06												06		0.00		
07													07												07		0.00		
08						T	T	T	0.02	0.06	0.07	0.10	08	0.17	0.17			0.18	0.06	T	T	0.07	0.05	0.12	08	0.83	1.44		
09													09							T	T	0.02	0.07	0.05	0.12	09	0.26	0.28	
10	0.06	0.02	0.01										10							T					10	0.09	0.07		
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												17		0.00		
18													18			0.03	0.01					0.01	0.05	0.11	18	0.21	0.32		
19	0.32	0.09	0.36	0.41	0.16	0.30	0.03	0.02	0.04	T	0.01		19												19		1.74		
20				T	0.07	0.11		0.04	0.01				20	0.03	0.06	0.06	0.03								20		0.41		
21					0.01								21								T				21		0.01		
22	0.01			0.01	0.01							T	22	T											22	0.03	0.04		
23													23			0.02	0.01	T							23		0.03		
24													24												24		0.00		
25													25												25		0.00		
26													26												26		0.00		
27													27												27		0.00		
28										T	T	0.10	28	0.10	0.01										28		0.21		
29													29												29		0.00		
30											T		30												30		T		
31													31												31		0.00		

MAXIMUM SHORT DURATION PRECIPITATION (See Note 1)

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 1: NCDC derives these data from one-minute ASOS values. The table is not printed when inconsistent with ASOS hourly totals.

Note 2: 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 1961–1990

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	PE Ice Pellets	HZ Haze	SQ Squalls
PR Partial	RA Rain	PY Spray	SS Sandstorm
SH Shower(s)	SG Snow Grains	SA Sand	
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 OCTOBER 1996

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 at constant pressure by evaporation of moisture into it, to 100% relative humidity.

ADDITIONAL NOTES:

DATE	SUNSHINE		CLOUDINESS (OKTAS)				VISIBILITY (MILES)		RESERVED
	TOTAL MINUTES	PERCENT POSSIBLE	SR–SS		MN–MN		MINIMUM	MAXIMUM	
			CEILOMETER	SATELLITE	CEILOMETER	SATELLITE			
01							3.00	10.00	
02							2.00	10.00	
03							.25	10.00	
04							10.00	10.00	
05							10.00	10.00	
06							10.00	10.00	
07							7.00	10.00	
08							1.50	10.00	
09							4.00	10.00	
10							2.50	10.00	
11							9.00	10.00	
12							6.00	10.00	
13							4.00	10.00	
14							7.00	10.00	
15							10.00	10.00	
16							2.50	10.00	
17							<.25	10.00	
18							.75	5.00	
19							2.50	10.00	
20							4.00	10.00	
21							.50	10.00	
22							3.00	10.00	
23							2.00	10.00	
24							7.00	10.00	
25							8.00	10.00	
26							5.00	10.00	
27							1.00	10.00	
28							2.00	10.00	
29							10.00	10.00	
30							8.00	10.00	
31							10.00	10.00	
MONTHLY AVGS							4.92	9.84	
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 2 14 12									

OBSERVATIONS AT 3-HOURLY INTERVALS

WILMINGTON, DE

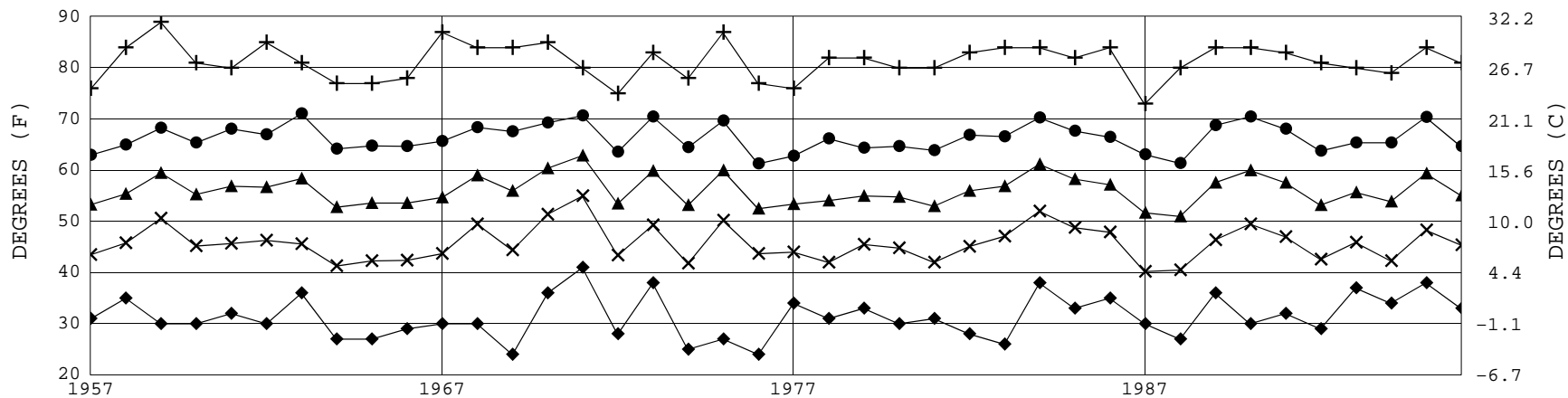
OCTOBER 1996

ILG

WBAN # 13781

HOUR (LST)	≤ 12K FEET		SATELLITE		WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)		HOUR (LST)	≤ 12K FEET		SATELLITE		WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)	
	SKY COVER	CEILING 100'S OF FT	OBSERVATION TIME (LST)	EFF CLD AMT Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT		WET BULB	SPEED (MPH)	DIRECTION TENS OF DEG	STATION		SEA LEVEL	SKY COVER	CEILING 100'S OF FT	OBSERVATION TIME (LST)		EFF CLD AMT Oktas	VISIBILITY (MILES)	DRY BULB		DEW POINT	WET BULB	SPEED (MPH)	DIRECTION TENS OF DEG
SUNRISE: 0624						OCT 25	SUNSET: 1709						SUNRISE: 0630						OCT 31	SUNSET: 1701							
01	CLR	NC			10.00	49	47	48	93	0	00	29.93	30.02	01	CLR	NC			10.00	57	42	50	58	5	27	29.67	29.76
04	CLR	NC			8.00	46	45	46	96	0	00	29.96	30.04	04	CLR	NC			10.00	52	40	46	64	6	23	29.71	29.80
07	CLR	NC			8.00	47	45	46	93	5	29	30.03	30.11	07	CLR	NC			10.00	44	36	41	73	7	30	29.79	29.88
10	CLR	NC			10.00	55	47	51	74	0	00	30.08	30.16	10	CLR	NC			10.00	58	28	45	32	17	26	29.83	29.92
13	CLR	NC			10.00	61	43	52	52	8	26	30.07	30.16	13	CLR	NC			10.00	63	26	47	25	16	27	29.77	29.86
16	CLR	NC			10.00	59	43	51	56	6	23	30.07	30.16	16	CLR	NC			10.00	64	24	47	22	16	25	29.74	29.83
19	CLR	NC			10.00	55	46	50	72	3	24	30.11	30.20	19	CLR	NC			10.00	57	32	46	39	5	19	29.76	29.85
22	CLR	NC			10.00	52	46	49	80	3	26	30.16	30.25	22	CLR	NC			10.00	57	26	44	30	15	30	29.78	29.87
SUNRISE: 0625						OCT 26	SUNSET: 1708						3-HOURLY OBSERVATION NOTES														
01	BKN	120			10.00	52	46	49	80	3	22	30.20	30.29	Sky Cover is the amount of the sky obscured. CLR = 0, FEW = 1/8-2/8, SCT = 3/8-4/8, BKN = 5/8-7/8, OVC = 8/8, VV = Vertical Visibility = 8/8. Ceiling is reported in hundreds of feet above ground level for clouds at or below 12,000 feet. NC = No ceiling detected. & = Original observation contained additional weather elements. See page 3 for additional notes.													
04	CLR	NC			10.00	46	45	46	96	3	30	30.21	30.30														
07	OVC	085			10.00	51	47	49	86	3	32	30.27	30.36														
10	OVC	065			10.00	61	47	54	60	7	05	30.32	30.40														
13	CLR	NC			10.00	66	49	57	54	6	15	30.28	30.37														
16	CLR	NC			10.00	63	50	56	63	8	16	30.29	30.38														
19	CLR	NC			10.00	59	53	56	81	6	16	30.32	30.41														
22	CLR	NC			7.00	57	56	56	96	5	13	30.33	30.42														
SUNRISE: 0626						OCT 27	SUNSET: 1706						SUMMARY BY HOUR														
01	CLR	NC			5.00	56	55	55	97	0	00	30.29	30.37	AVERAGES													
04	CLR	NC			5.00	55	54	54	96	0	00	30.27	30.36	HOUR (LST)	CEILOMETER	EFF CLD AMT	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY	PRESSURE (INCHES, HG)		VISIBILITY (MILES)	WIND SPEED (MPH)	RESULTANT WIND (MPH)		
07	OVC	047			2.50	55	55	55	100	0	00	30.27	30.36								STATION	SEA LEVEL			SPEED	DIRECTION	
10	OVC	045			5.00	62	56	59	81	7	22	30.27	30.36	03			51	47	49	87	29.98	30.07	8.16	5	2	30	
13	BKN	090			9.00	68	57	62	68	5	14	30.18	30.27	04			51	47	49	88	29.98	30.06	8.10	6	3	28	
16	OVC	095			10.00	68	56	61	66	7	24	30.12	30.21	05			50	47	48	89	29.97	30.06	7.56	6	3	27	
19	OVC	095			10.00	64	57	60	78	5	24	30.11	30.20	06			49	46	48	90	29.97	30.06	7.31	6	3	27	
22	OVC	050			9.00	63	57	60	81	7	24	30.07	30.16	07			49	46	48	91	29.98	30.07	7.15	6	2	27	
SUNRISE: 0627						OCT 28	SUNSET: 1705						08			49	46	48	90	29.99	30.07	7.48	6	2	27		
01	FEW	NC			6.00	60	57	58	90	6	23	29.98	30.07	09			49	46	48	90	30.00	30.08	7.01	6	2	27	
04	CLR	NC			2.50	57	57	57	100	5	23	29.92	30.01	10			52	48	50	85	30.01	30.10	7.23	7	1	27	
07	SCT	NC			2.00	59	58	58	96	7	20	29.87	29.96	11			55	47	51	76	30.01	30.10	7.85	9	2	27	
10	OVC	100			5.00	64	60	62	87	5	22	29.79	29.88	12			58	47	52	70	30.01	30.10	8.50	9	2	27	
13	BKN	110			3.00	64	62	63	93	12	28	29.75	29.84	13			60	47	53	64	30.00	30.09	8.98	9	1	27	
16	SCT	NC			10.00	65	50	57	59	14	30	29.75	29.84	14			61	47	54	62	29.98	30.07	9.21	9	3	27	
19	CLR	NC			10.00	58	41	50	54	13	29	29.82	29.91	15			63	47	54	59	29.96	30.05	9.02	9	3	26	
22	CLR	NC			10.00	53	38	46	57	9	27	29.85	29.94	16			63	46	54	57	29.95	30.04	9.20	9	3	19	
SUNRISE: 0628						OCT 29	SUNSET: 1704						17			63	47	55	57	29.94	30.03	9.10	9	3	27		
01	CLR	NC			10.00	48	37	43	66	10	29	29.88	29.97	18			63	47	54	59	29.93	30.02	9.12	9	3	27	
04	CLR	NC			10.00	44	37	41	76	8	30	29.92	30.01	19			61	47	54	63	29.94	30.02	9.13	8	2	27	
07	CLR	NC			10.00	43	37	40	80	8	28	29.99	30.07	20			59	48	53	73	29.95	30.04	9.34	6	1	27	
10	CLR	NC			10.00	54	34	45	47	9	32	30.00	30.09	21			56	48	52	76	29.96	30.04	9.21	7	1	27	
13	CLR	NC			10.00	59	35	48	41	9	30	29.94	30.03	22			55	47	51	77	29.97	30.05	9.32	7	1	28	
16	CLR	NC			10.00	59	35	48	41	9	27	29.92	30.01	23			54	47	51	80	29.97	30.06	8.87	7	2	27	
19	CLR	NC			10.00	51	39	45	64	6	20	29.93	30.01	24			53	47	50	83	29.97	30.06	8.65	6	2	27	
22	CLR	NC			10.00	50	42	46	74	5	14	29.93	30.02				52	47	49	84	29.96	30.05	8.53	5	2	27	
SUNRISE: 0629						OCT 30	SUNSET: 1703																				
01	OVC	075			10.00	51	42	47	71	0	00	29.89	29.98														
04	OVC	050			10.00	54	41	48	62	13	16	29.79	29.88														
07	OVC	040			10.00	56	49	52	77	18	16	29.70	29.78														
10	OVC	024			10.00	59	50	54	72	10	17	29.60	29.69														
13	OVC	020			10.00	66	58	61	75	16	18	29.45	29.53														
16	CLR	NC			8.00	72	62	66	71	10	21	29.41	29.50														
19	CLR	NC			8.00	66	61	63	84	6	24	29.48	29.57														
22	CLR	NC			10.00	63	45	54	52	13	30	29.60	29.69														

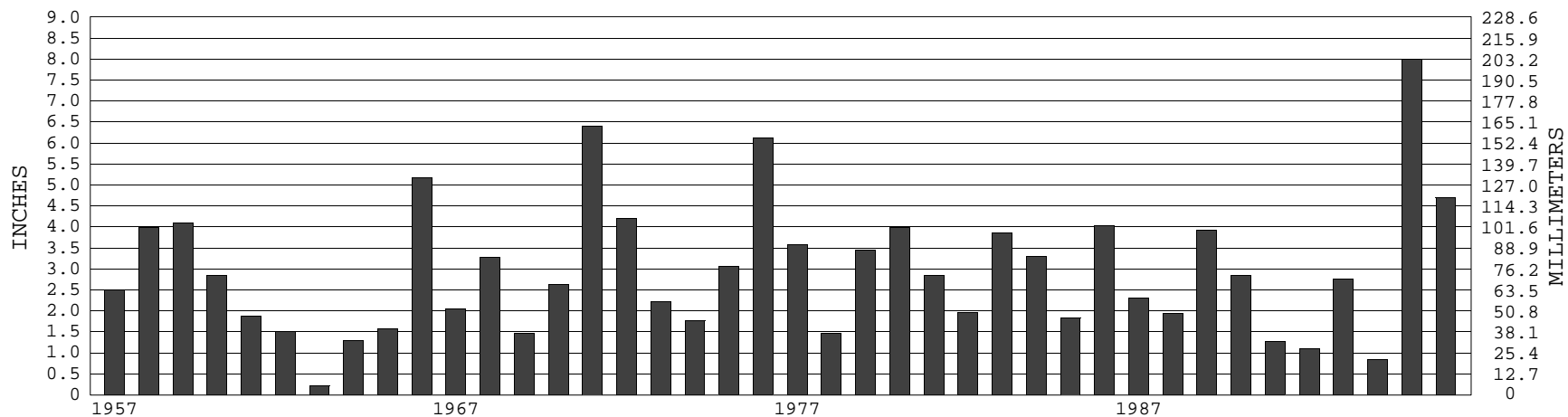
WILMINGTON, DE OCTOBER TEMPERATURES



+ Extreme Max. ● Mean Max. ▲ Mean × Mean Min. ◆ Extreme Min.

Long-Term (1957-1996) Mean: 56.1 1961-1990 Normal: 56.2

WILMINGTON, DE OCTOBER PRECIPITATION



Long-Term (1957-1996) Mean Monthly Total: 2.96

1961-1990 Normal: 2.88



**OCTOBER 1996
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.

Kenneth D Hadean

DIRECTOR

NOTICE

Effective July 1, 1996, the National Weather Service & Federal Aviation Administration began using the METAR format for Hourly Observations.

We welcome your questions or comments, please contact us at
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