

2003

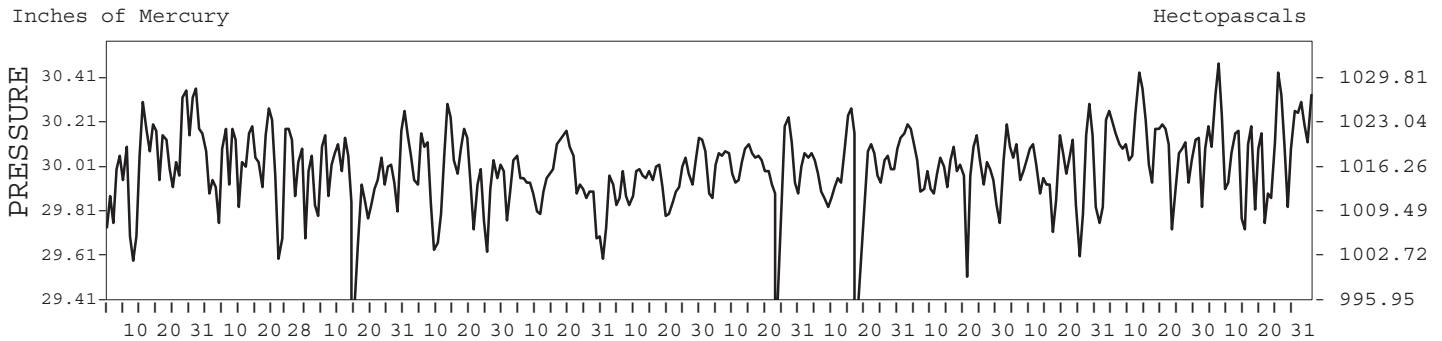
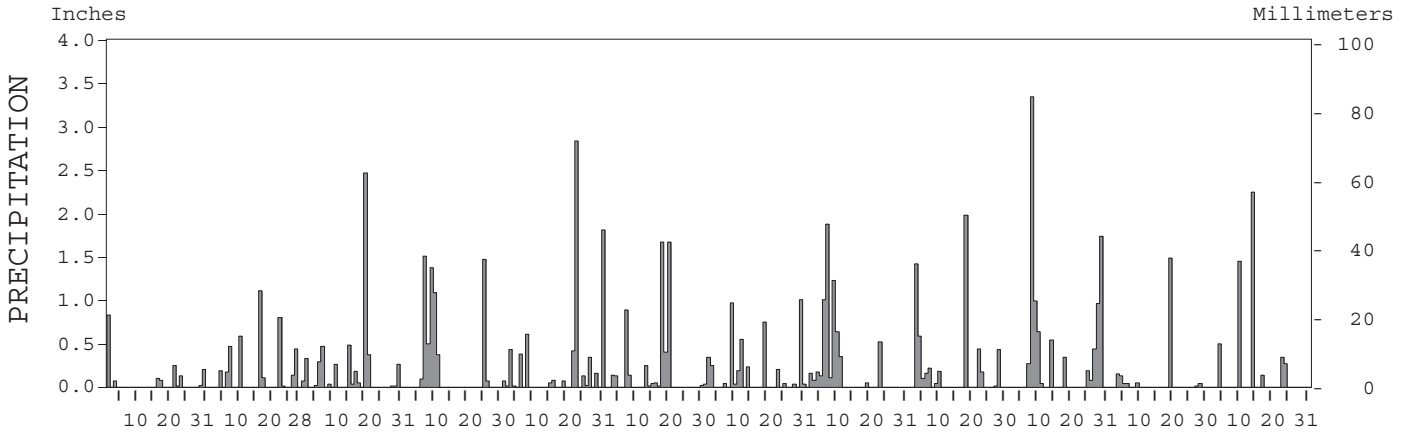
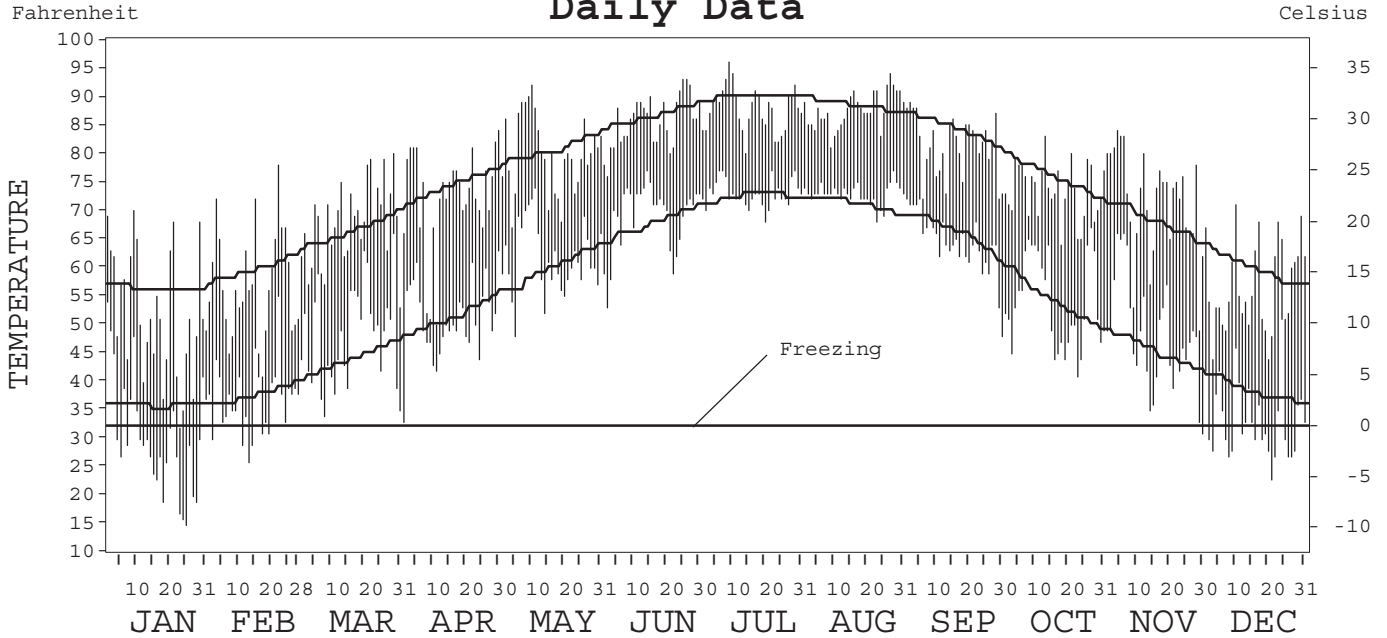
LOCAL CLIMATOLOGICAL DATA
ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0198-3792

WILMINGTON,
NORTH CAROLINA (ILM)

Daily Data



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Thomas R. Karl

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	NATIONAL ENVIRONMENTAL SATELLITE, DATA, AND INFORMATION SERVICE	NATIONAL CLIMATIC DATA CENTER ASHEVILLE, NORTH CAROLINA	DIRECTOR NATIONAL CLIMATIC DATA CENTER
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METEOROLOGICAL DATA FOR 2003

WILMINGTON, NC (ILM)

LATITUDE: 34° 16' 06" N LONGITUDE: 77° 54' 22" W ELEVATION (FT): GRND: 30 BARO: 33 TIME ZONE: EASTERN (UTC + 5) WBAN: 13748

	ELEMENT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	51.8	57.2	67.9	72.2	79.9	85.7	87.7	87.6	81.4	73.5	71.5	56.7	72.8	
	HIGHEST DAILY MAXIMUM	70	78	80	84	92	93	96	94	89	83	84	71	96	
	DATE OF OCCURRENCE	09	22	29	30	10	26+	09	27	02	13	04	10	JUL 09	
	MEAN DAILY MINIMUM	30.5	36.8	48.0	50.9	61.7	68.8	73.0	72.9	64.4	53.8	48.1	33.3	53.5	
	LOWEST DAILY MINIMUM	15	26	34	33	48	53	68	68	48	41	31	23	15	
	DATE OF OCCURRENCE	25	13	08	01	05	02	20	23	30	23	30	21	JAN 25	
	AVERAGE DRY BULB	41.2	47.0	58.0	61.6	70.8	77.3	80.4	80.3	72.9	63.7	59.8	45.0	63.2	
	MEAN WET BULB		43.7	54.7	56.8	66.0	72.2			68.5	59.7	55.4	41.4		
	MEAN DEW POINT		39.4	52.3	53.1	63.2	69.6			66.1	56.6	51.4	36.8		
	NUMBER OF DAYS WITH:														
	MAXIMUM ≥ 90°	0	0	0	0	2	5	11	9	0	0	0	0	0	27
	MAXIMUM ≤ 32°	1	0	0	0	0	0	0	0	0	0	0	0	0	1
	MINIMUM ≤ 32°	21	6	0	0	0	0	0	0	0	0	1	16	44	
MINIMUM ≤ 0°	0	0	0	0	0	0	0	0	0	0	0	0	0		
H/C	HEATING DEGREE DAYS	732	499	227	134	11	0	0	0	6	88	189	610	2496	
	COOLING DEGREE DAYS	0	2	15	39	197	375	483	483	251	53	42	0	1940	
RH	MEAN (PERCENT)	66	78	84	77	80	80	83	85	83	81	78	77	79	
	HOUR 01 LST	79	88	95	91	93	93	92	94	91	92	88	87	90	
	HOUR 07 LST	74	91	94	90	90	88	91	95	93	93	90	87	90	
	HOUR 13 LST	48	63	69	59	62	64	68	69	67	61	57	59	62	
	HOUR 19 LST	66	76	84	74	80	75	81	84	84	87	82	80	79	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	2	2	5	5	3	1	3	2	5	2	6	0	36	
	THUNDERSTORMS	0	0	5	0	8	5	10	6	3	0	0	0	37	
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.)	30.04	30.01		29.98	29.93	29.93			29.97	29.99	30.09	30.09		
	MEAN SEA-LEVEL PRESS. (IN.)	30.08	30.05		30.02	29.96	29.97			30.01	30.02	30.13	30.13		
WINDS	RESULTANT SPEED (MPH)	3.8	1.8	1.3	1.7	0.6	2.1			3.2	1.8	1.3	3.1		
	RES. DIR. (TENS OF DEGS.)	28	27	06	36	33	28			01	36	29	29		
	MEAN SPEED (MPH)	7.8	8.2	8.3	8.1	8.2	7.0	7.9	6.0	7.8	5.8	7.0	7.1	7.4	
	PREVAIL. DIR. (TENS OF DEGS.)	23	21	04	22	21	21	22	19	01	03	03	32	22	
	MAXIMUM 2-MINUTE WIND:														
	SPEED (MPH)	26	38	31	25	37	28	32	25	45	32	37	28	45	
	DIR. (TENS OF DEGS.)	01	23	15	07	30	28	22	23	26	30	26	30	26	
	DATE OF OCCURRENCE	23	23	20+	10+	31	13	23+	23	18	29	28	17	SEP 18	
	MAXIMUM 5-SECOND WIND:														
	SPEED (MPH)	33	46	43	35	47	31	39	39	59	40	44	39	59	
DIR. (TENS OF DEGS.)	32	23	16	03	29	27	30	23	26	29	26	19	26		
DATE OF OCCURRENCE	06	22	20	10	31	13	09	23	18	29	28+	10	SEP 18		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	1.69	4.03	5.33	6.48	7.43	5.42	4.69	6.33	5.74	9.58	1.95	4.95	63.62	
	GREATEST 24-HOUR (IN.)	0.83	1.21	2.84	2.16	3.25	1.96	1.04	2.89	1.98	3.55	1.49	2.25	3.55	
	DATE OF OCCURRENCE	01	16-17	20-21	09-10	22-23	18-19	30-31	06-07	18	08-09	19	14	OCT 08-09	
	NUMBER OF DAYS WITH:														
	PRECIPITATION ≥ 0.01	9	10	16	8	16	13	15	12	12	12	8	6	137	
PRECIPITATION ≥ 0.10	5	9	9	6	9	8	9	10	10	10	3	6	94		
PRECIPITATION ≥ 1.00	0	1	1	4	2	2	1	3	2	2	1	2	21		
SNOWFALL	SNOW, ICE PELLETS, HAIL:														
	TOTAL (IN.)	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	3.0	
	GREATEST 24-HOUR (IN.)	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	3.0	
	DATE OF OCCURRENCE	23											20	JAN 23	
	MAXIMUM SNOW DEPTH (IN.)	1	0	0	0	0	0	0	0	0	0	0	0	1	
	DATE OF OCCURRENCE	24												JAN 24	
NUMBER OF DAYS WITH:															
SNOWFALL ≥ 1.0	1	0	0	0	0	0	0	0	0	0	0	0	1		

NORMALS, MEANS, AND EXTREMES

WILMINGTON, NC (ILM)

LATITUDE: 34° 16' 06" N LONGITUDE: 77° 54' 22" W ELEVATION (FT): GRND: 30 BARO: 33 TIME ZONE: EASTERN (UTC + 5) WBAN: 13748

ELEMENT		POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	56.3	59.5	66.2	74.1	80.6	86.4	89.9	88.3	84.1	75.6	67.8	59.6	74.0
	MEAN DAILY MAXIMUM	56	56.5	59.4	65.5	74.1	80.7	86.5	89.4	88.4	83.8	75.4	67.2	59.1	73.8
	HIGHEST DAILY MAXIMUM	52	82	85	89	95	98	104	102	103	98	95	87	82	104
	YEAR OF OCCURRENCE		1975	1962	1974	1967	1953	1952	1977	1999	1975	1986	1974	1998	JUN 1952
	MEAN OF EXTREME MAXS.	56	73.8	76.5	81.6	87.9	91.9	96.0	96.6	95.6	92.2	86.1	81.0	75.3	86.2
	NORMAL DAILY MINIMUM	30	35.8	37.5	43.7	51.2	59.8	67.6	72.3	71.0	65.9	53.9	45.1	38.1	53.5
	MEAN DAILY MINIMUM	56	35.7	37.7	43.6	51.5	59.9	67.6	71.9	70.9	65.4	54.1	44.7	37.4	53.4
	LOWEST DAILY MINIMUM	52	5	11	9	30	38	48	55	55	44	27	20	0	0
	YEAR OF OCCURRENCE		1985	1996	1980	1983	1989	1983	1988	1982	1981	1962	1970	1989	DEC 1989
	MEAN OF EXTREME MINS.	56	19.7	22.3	28.2	36.4	46.0	56.0	64.0	62.2	52.9	38.2	28.3	21.3	39.6
	NORMAL DRY BULB	30	46.1	48.5	55.0	62.7	70.2	77.0	81.1	79.7	75.0	64.8	56.5	48.9	63.8
	MEAN DRY BULB	56	46.1	48.6	54.6	62.9	70.3	77.0	80.7	79.6	74.5	64.9	56.0	48.2	63.6
	MEAN WET BULB	19	42.4	44.7	49.9	56.5	64.1	71.2	75.0	73.5	69.1	59.8	52.4	44.2	58.6
	MEAN DEW POINT	19	36.5	38.7	43.9	50.9	60.2	68.3	72.6	71.4	66.4	55.9	47.5	38.8	54.3
	NORMAL NO. DAYS WITH:														
MAXIMUM ≥ 90°	30	0.0	0.0	0.0	0.9	2.3	8.8	17.1	12.2	4.8	0.2	0.0	0.0	46.3	
MAXIMUM ≤ 32°	30	0.3	0.2	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6	
MINIMUM ≤ 32°	30	12.4	9.5	3.7	0.3	0.0	0.0	0.0	0.0	0.0	0.1	3.1	10.2	39.3	
MINIMUM ≤ 0°	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*	0.0	
H/C	NORMAL HEATING DEG. DAYS	30	589	474	331	134	28	1	0	0	3	95	277	497	2429
	NORMAL COOLING DEG. DAYS	30	3	4	17	65	187	361	501	455	304	90	25	5	2017
RH	NORMAL (PERCENT)	30	71	69	69	68	73	76	78	80	79	76	74	72	74
	HOUR 01 LST	30	79	78	80	81	88	89	90	91	91	88	84	81	85
	HOUR 07 LST	30	81	80	82	81	85	86	87	90	91	89	86	83	85
	HOUR 13 LST	30	57	53	52	48	55	59	63	64	62	56	54	56	57
	HOUR 19 LST	30	72	68	67	64	71	74	76	80	81	81	78	75	74
S	PERCENT POSSIBLE SUNSHINE	51	56	59	64	70	67	66	64	62	61	64	63	59	63
W/O	MEAN NO. DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	52	2.5	1.7	2.3	1.6	2.1	1.7	1.0	1.4	2.6	2.5	2.9	2.6	24.9
	THUNDERSTORMS	52	0.6	1.1	2.5	3.1	5.5	7.6	11.5	9.3	4.1	1.3	0.8	0.5	47.9
CLOUDINESS	MEAN:														
	SUNRISE-SUNSET (OKTAS)	1			5.6		3.2	4.8							
	MIDNIGHT-MIDNIGHT (OKTAS)														
	MEAN NO. DAYS WITH:														
CLEAR	1	2.0	2.0	8.0		10.0	6.0								
PARTLY CLOUDY	1		1.0	4.0		7.0	8.0								
CLOUDY	1	5.0	3.0	9.0		2.0	7.0								
PR	MEAN STATION PRESSURE (IN)	31	30.08	30.05	30.01	29.98	29.97	29.98	30.00	30.01	30.02	30.06	30.08	30.09	30.03
	MEAN SEA-LEVEL PRES. (IN)	20	30.13	30.12	30.06	30.03	30.01	30.00	30.04	30.03	30.03	30.10	30.13	30.15	30.07
WINDS	MEAN SPEED (MPH)	37	8.8	9.0	9.7	9.7	8.7	8.3	7.8	7.1	7.6	7.4	7.7	8.1	8.3
	PREVAIL. DIR (TENS OF DEGS)	27	23	22	22	22	22	22	22	22	03	03	02	02	22
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	8	38	44	38	47	44	46	53	56	67	33	38	43	67
	DIR. (TENS OF DEGS)		26	25	30	28	27	28	04	06	07	21	24	26	07
	YEAR OF OCCURRENCE		2000	2000	2001	2001	2002	2001	1996	1998	1996	1996	2002	2000	SEP 1996
	MAXIMUM 5-SECOND:														
SPEED (MPH)	8	48	62	47	56	54	71	69	74	86	48	45	54	86	
DIR. (TENS OF DEGS)		20	24	31	27	27	28	05	07	08	22	20	27	08	
YEAR OF OCCURRENCE		2002	2000	2001	2001	2002	2001	1996	1998	1996	1996	1999	2000	SEP 1996	
PRECIPITATION	NORMAL (IN)	30	4.52	3.66	4.22	2.94	4.40	5.36	7.62	7.31	6.79	3.21	3.26	3.78	57.07
	MAXIMUM MONTHLY (IN)	52	10.22	11.22	8.27	8.21	9.12	12.87	15.12	14.06	23.41	9.81	7.87	7.06	23.41
	YEAR OF OCCURRENCE		1991	1998	1994	1961	1956	1962	1966	1981	1999	1964	1972	1989	SEP 1999
	MINIMUM MONTHLY (IN)	52	0.68	1.01	0.93	0.16	0.95	0.89	1.65	1.66	0.70	0.17	0.49	0.48	0.16
	YEAR OF OCCURRENCE		2001	1976	1967	1995	1987	1984	1961	1968	1986	1953	1973	1955	APR 1995
	MAXIMUM IN 24 HOURS (IN)	52	3.08	5.00	4.81	3.52	5.02	7.73	6.58	9.06	14.84	7.01	4.82	3.88	14.84
	YEAR OF OCCURRENCE		1982	1998	1994	1961	1999	1966	1988	1998	1999	1994	1969	1980	SEP 1999
	NORMAL NO. DAYS WITH:														
PRECIPITATION ≥ 0.01	30	11.3	9.4	9.9	7.5	9.5	10.0	12.8	12.7	10.2	6.8	8.5	9.5	118.1	
PRECIPITATION ≥ 1.00	30	1.2	1.0	1.3	0.9	1.0	1.7	2.4	2.1	2.1	0.9	1.1	1.0	16.7	
SNOWFALL	NORMAL (IN)	30	0.6	0.5	0.4	0.*	0.0	0.0	0.0	0.0	0.0	0.0	0.*	0.6	2.1
	MAXIMUM MONTHLY (IN)	52	6.1	12.5	6.6	T	T	T	0.0	0.0	0.0	0.0	T	15.3	15.3
	YEAR OF OCCURRENCE		2000	1973	1980	1996	1998	1995					1976	1989	DEC 1989
	MAXIMUM IN 24 HOURS (IN)	52	5.0	11.7	5.7	T	T	T	0.0	0.0	0.0	0.0	T	9.7	11.7
	YEAR OF OCCURRENCE		1988	1973	1980	1996	1998	1995	1996				1976	1989	FEB 1973
	MAXIMUM SNOW DEPTH (IN)	55	5	8	7	0	0	0	0	0	0	0	0	13	13
	YEAR OF OCCURRENCE		2000	1973	1980									1989	DEC 1989
	NORMAL NO. DAYS WITH:														
SNOWFALL ≥ 1.0	30	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	

PRECIPITATION (inches) 2003 WILMINGTON, NC (ILM)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1974	2.81	4.23	2.30	2.18	5.15	5.37	8.36	13.33	5.09	1.12	3.14	3.72	56.80
1975	5.06	5.09	3.15	3.90	3.11	7.11	9.76	4.52	6.06	3.14	3.00	5.20	59.10
1976	2.93	1.01	2.57	0.91	4.33	12.74	8.28	9.53	4.79	3.31	2.14	5.37	57.91
1977	2.94	1.83	5.66	1.43	6.75	4.26	3.25	5.85	4.88	5.73	6.33	2.83	51.74
1978	6.68	1.33	2.94	3.82	3.46	2.34	7.38	4.77	1.58	1.01	3.71	4.68	43.70
1979	6.23	4.21	4.82	5.60	5.27	4.74	2.82	2.48	15.17	0.38	2.01	2.35	56.08
1980	4.16	1.52	6.03	1.33	4.65	2.46	5.95	3.21	5.97	1.62	1.87	5.81	44.58
1981	1.09	3.08	3.02	1.43	5.02	2.45	5.23	14.06	1.07	1.39	0.78	5.76	44.38
1982	5.50	6.67	1.84	4.03	2.04	7.59	8.59	3.67	7.08	2.56	1.32	6.57	57.46
1983	4.90	8.74	8.09	2.09	1.13	6.71	5.53	5.63	5.59	1.02	4.49	5.20	59.12
1984	2.58	4.82	4.43	3.23	6.45	0.89	9.01	4.79	18.94	0.49	1.16	1.32	58.11
1985	2.01	5.08	1.66	0.71	2.76	4.56	10.34	3.63	2.75	2.43	6.74	1.35	44.02
1986	2.12	2.52	4.13	0.48	7.09	5.58	11.28	11.44	0.70	3.35	4.44	6.28	59.41
1987	6.49	4.42	2.70	2.96	0.95	5.24	5.19	9.35	6.42	0.51	5.67	1.35	51.25
1988	5.41	2.00	4.05	3.56	7.54	2.93	14.49	9.61	2.80	1.81	3.14	0.59	57.93
1989	1.60	2.64	6.70	7.60	3.58	7.55	9.93	3.93	9.54	4.61	1.91	7.06	66.65
1990	2.34	2.31	5.11	2.21	8.04	2.17	6.59	11.42	1.40	7.10	2.09	2.65	53.43
1991	10.22	1.65	6.52	3.35	1.75	2.57	13.35	8.65	3.31	4.19	2.98	2.17	60.71
1992	5.75	3.45	5.65	3.12	7.55	7.00	3.18	13.56	2.23	3.09	7.14	4.48	66.20
1993	5.83	2.96	6.34	5.78	2.82	3.70	7.04	5.66	8.09	8.29	2.58	2.67	61.76
1994	7.03	3.26	8.27	0.80	2.67	2.75	4.76	6.03	7.09	8.53	3.27	6.91	61.37
1995	4.93	4.47	4.35	0.16	6.47	12.03	8.74	4.08	6.92	9.31	1.56	2.09	65.11
1996	3.09	1.12	4.70	2.50	3.00	8.02	13.42	5.19	13.35	6.06	1.22	2.75	64.42
1997	3.38	3.86	2.55	3.02	1.61	5.81	6.15	2.86	8.94	1.33	5.25	4.83	49.59
1998	7.29	11.22	2.06	2.80	7.58	4.31	3.79	13.48	5.38	1.36	0.97	3.96	64.20
1999	4.80	2.00	3.07	5.02	8.16	3.91	4.54	8.35	23.41	3.81	3.58	1.41	72.06
2000	4.66	1.31	2.61	4.64	3.70	6.23	7.83	8.38	7.77	0.38	4.67	1.64	53.82
2001	0.68	2.28	8.26	0.90	3.08	4.15	7.26	5.62	3.04	0.45	0.95	1.31	37.98
2002	1.82	1.97	5.62	0.53	2.42	4.21	7.78	12.09	4.95	2.34	3.06	2.53	49.32
2003	1.69	4.03	5.33	6.48	7.43	5.42	4.69	6.33	5.74	9.58	1.95	4.95	63.62
POR= 132 YRS	3.51	3.50	3.81	2.88	3.89	5.23	7.29	6.89	5.64	3.20	2.63	3.31	51.78

WBAN : 13748

AVERAGE TEMPERATURE (°F) 2003 WILMINGTON, NC (ILM)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1974	58.8	49.5	59.7	64.4	70.7	75.5	79.1	79.3	74.4	61.7	54.8	49.5	64.8
1975	51.0	52.1	54.4	62.3	73.8	78.7	79.9	82.4	77.0	68.2	59.7	49.4	65.7
1976	45.1	55.3	60.8	63.9	69.6	76.0	81.7	77.7	74.0	60.5	49.7	46.4	63.4
1977	35.8	45.6	57.9	65.9	71.4	77.7	82.6	80.5	77.8	62.0	58.8	47.6	63.6
1978	41.9	38.5	51.3	64.2	69.8	77.1	80.3	82.1	76.8	63.8	60.2	49.4	63.0
1979	43.7	43.2	53.9	65.6	71.4	74.7	80.4	80.6	74.5	63.3	57.8	47.8	63.1
1980	47.2	41.7	50.4	63.2	70.5	76.9	82.9	82.2	78.7	62.9	51.9	45.0	62.8
1981	37.5	46.6	49.9	63.9	66.9	79.8	80.7	76.9	71.4	60.9	52.3	44.4	60.9
1982	41.5	50.7	55.8	58.6	71.1	75.8	79.1	77.7	72.0	62.0	57.5	52.6	62.9
1983	42.6	45.1	53.7	57.4	67.3	75.0	82.8	81.5	74.8	66.1	55.1	46.9	62.4
1984	42.1	50.4	52.9	61.0	70.0	77.3	77.9	78.3	71.0	68.7	55.0	57.5	63.5
1985	43.2	50.4	59.1	66.3	71.8	78.7	81.4	78.9	75.0	71.1	66.6	47.0	65.8
1986	44.2	51.6	55.6	64.3	71.9	79.4	84.0	78.8	76.5	67.3	59.7	49.9	65.3
1987	45.0	45.5	52.4	59.7	70.6	78.6	81.9	81.4	76.6	60.3	57.6	50.0	63.3
1988	41.2	46.4	54.2	61.5	68.8	74.3	79.9	81.1	74.4	59.2	58.0	46.6	62.1
1989	51.7	50.7	55.5	61.3	68.7	79.6	80.5	78.8	75.3	65.8	57.1	38.6	63.6
1990	52.6	55.5	58.5	63.5	71.2	77.9	81.7	80.2	75.2	68.8	57.7	54.8	66.5
1991	48.3	51.4	57.5	66.5	74.9	77.8	82.9	80.2	75.0	64.9	54.0	51.0	65.4
1992	47.0	51.6	53.9	61.5	66.9	74.3	83.0	78.5	75.0	62.2	58.7	48.3	63.4
1993	50.5	45.8	52.7	59.8	71.2	78.1	84.1	79.8	77.7	66.5	57.6	46.1	64.2
1994	44.0	50.0	57.0	65.9	67.7	79.3	81.7	78.8	72.7	64.4	60.0	52.8	64.5
1995	47.0	46.4	55.6	65.1	71.2	75.5	81.1	79.8	73.4	67.5	51.4	43.9	63.2
1996	45.1	46.9	50.2	62.3	71.9	77.1	80.3	78.2	74.8	65.0	50.9	50.5	62.8
1997	45.8	51.0	59.1	59.8	66.9	73.2	79.7	77.7	73.8	63.9	53.1	47.3	62.6
1998	49.7	50.9	54.7	63.1	72.1	80.9	81.8	79.8	76.9	66.0	57.7	53.1	65.6
1999	51.6	50.9	51.8	65.5	70.5	77.1	83.4	82.6	74.3	65.4	60.2	49.8	65.3
2000	44.8	52.1	58.3	61.3	72.5	77.6	78.0	77.9	73.4	62.7	52.5	41.4	62.7
2001	45.6	51.4	53.0	63.9	70.1	79.0	78.3	79.6	71.4	62.7	60.6	53.9	64.1
2002	48.9	48.9	56.7	67.0	69.0	77.1	81.5	79.3	76.6	67.6	53.3	45.6	64.3
2003	41.2	47.0	58.0	61.6	70.8	77.3	80.4	80.3	72.9	63.7	59.8	45.0	63.2
POR= 129 YRS	47.0	48.5	54.6	62.1	70.1	76.7	79.3	79.0	74.5	64.8	55.6	48.4	63.4

HEATING DEGREE DAYS (base 65°F) 2003 WILMINGTON, NC (ILM)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1974-75	0	0	5	149	333	473	429	362	338	160	0	0	2249
1975-76	0	0	0	40	199	478	613	294	183	122	32	0	1961
1976-77	0	0	0	172	455	569	899	541	241	78	27	1	2983
1977-78	0	0	0	144	231	537	709	736	419	89	30	0	2895
1978-79	0	0	0	91	154	489	653	606	346	60	5	0	2404
1979-80	0	0	2	110	239	525	543	670	445	120	21	0	2675
1980-81	0	0	0	128	388	613	846	510	465	101	64	0	3115
1981-82	0	0	13	149	374	630	726	396	290	204	17	0	2799
1982-83	0	0	3	145	241	386	688	552	345	231	46	2	2639
1983-84	0	0	12	66	299	551	703	417	371	147	37	1	2604
1984-85	0	0	16	18	306	243	682	420	228	80	11	0	2004
1985-86	0	0	4	17	60	559	637	371	307	92	24	0	2071
1986-87	0	0	0	79	199	469	615	542	395	181	25	0	2505
1987-88	0	0	0	152	230	461	730	537	330	139	38	7	2624
1988-89	0	0	0	202	225	563	406	415	312	187	44	0	2354
1989-90	0	0	4	74	259	810	378	282	233	114	7	0	2161
1990-91	0	0	6	77	223	327	513	382	265	63	0	0	1856
1991-92	0	0	0	78	336	447	548	383	343	167	45	0	2347
1992-93	0	0	4	126	238	509	449	530	378	169	5	0	2408
1993-94	0	0	4	57	244	580	641	415	255	62	47	0	2305
1994-95	0	0	0	73	172	375	552	513	290	88	10	0	2073
1995-96	0	0	6	58	427	648	612	521	452	148	39	0	2911
1996-97	0	0	0	61	427	442	588	398	210	178	40	20	2364
1997-98	0	0	2	118	358	542	478	390	339	112	5	0	2344
1998-99	0	0	0	59	225	384	416	389	408	79	26	0	1986
1999-00	0	0	8	77	184	465	619	369	232	141	7	0	2102
2000-01	0	0	5	111	383	728	596	379	372	134	14	0	2722
2001-02	0	0	15	136	158	354	501	448	279	86	47	0	2024
2002-03	0	0	0	58	356	595	732	499	227	134	11	0	2612
2003-	0	0	6	88	189	610							

WBAN : 13748

COOLING DEGREE DAYS (base 65°F) 2003 WILMINGTON, NC (ILM)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1974	25	0	52	101	208	321	443	449	294	53	32	0	1978
1975	1	5	17	84	276	417	469	545	369	145	45	0	2373
1976	2	17	58	94	183	336	525	403	277	39	2	0	1936
1977	0	4	28	114	234	387	553	487	391	56	53	3	2310
1978	0	0	0	68	187	372	482	536	359	63	17	13	2097
1979	0	2	9	84	210	298	487	490	293	65	28	0	1966
1980	0	1	0	71	198	364	560	540	419	70	2	0	2225
1981	0	0	3	74	131	449	491	375	213	32	2	0	1770
1982	0	3	11	18	211	331	445	400	218	58	24	9	1728
1983	0	0	2	10	122	307	560	517	313	107	10	0	1948
1984	0	0	4	35	201	378	405	418	204	138	12	18	1813
1985	11	17	57	126	229	420	513	437	309	211	112	10	2452
1986	0	4	22	79	247	436	599	435	353	158	47	8	2388
1987	0	0	11	32	205	419	529	516	354	15	16	3	2100
1988	0	4	2	43	164	293	466	505	289	26	20	0	1812
1989	1	20	25	80	167	443	489	432	321	104	29	0	2111
1990	4	20	42	74	206	394	525	480	317	201	8	13	2284
1991	0	7	36	118	311	392	565	478	306	82	11	20	2326
1992	0	2	5	67	108	286	563	427	314	47	57	0	1876
1993	6	0	2	20	206	399	600	467	392	109	29	0	2230
1994	0	4	13	94	136	436	525	434	239	62	28	3	1974
1995	3	2	7	99	210	321	505	467	264	141	22	0	2041
1996	0	4	2	73	260	368	483	416	304	68	11	1	1990
1997	0	11	35	29	110	276	464	401	271	94	7	0	1698
1998	11	2	26	61	236	486	528	466	366	98	13	21	2314
1999	7	0	4	101	205	369	577	555	298	97	45	2	2260
2000	2	1	30	35	247	381	409	410	265	50	14	0	1844
2001	0	5	6	106	178	430	419	458	214	73	32	15	1936
2002	9	6	26	151	179	373	519	450	353	146	10	0	2222
2003	0	2	15	39	197	375	483	483	251	53	42	0	1940

SNOWFALL (inches) 2003 WILMINGTON, NC (ILM)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1974-75	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	T
1975-76	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	T
1976-77	0.0	0.0	0.0	0.0	T	T	0.6	0.3	0.0	0.0	0.0	0.0	0.9
1977-78	0.0	0.0	0.0	0.0	0.0	T	T	T	T	0.0	0.0	0.0	T
1978-79	0.0	0.0	0.0	0.0	0.0	0.0	T	0.2	0.0	0.0	0.0	0.0	0.2
1979-80	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	6.6	0.0	0.0	0.0	6.9
1980-81	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0
1981-82	0.0	0.0	0.0	0.0	0.0	0.0	T	0.1	0.0	0.0	0.0	0.0	0.1
1982-83	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	0.0	0.0	0.0	4.2
1983-84	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	T
1984-85	0.0	0.0	0.0	0.0	0.0	T	T	0.0	0.0	0.0	0.0	0.0	T
1985-86	0.0	0.0	0.0	0.0	0.0	0.0	T	T	0.0	0.0	0.0	0.0	T
1986-87	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	T
1987-88	0.0	0.0	0.0	0.0	0.0	0.0	5.4	0.0	0.0	0.0	0.0	0.0	5.4
1988-89	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.8	T	T	0.0	0.0	2.5
1989-90	0.0	0.0	0.0	0.0	0.0	15.3	0.0	0.0	0.0	0.0	0.0	T	15.3
1990-91	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	T
1991-92	0.0	0.0	0.0	0.0	0.0	0.0	1.4	T	T	0.0	0.0	0.0	1.4
1992-93	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	T	0.0	0.0	T	T
1993-94	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.7
1994-95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	T	T
1995-96	0.0	0.0	0.0	0.0	0.0	0.0	T	0.6	0.0	T	0.0	0.0	0.6
1996-97	T	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	T	1.2
1997-98	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	T	T
1998-99	0.0	0.0	0.0	0.0	0.0	T	0.0	T	0.0	0.0	0.0	0.0	T
1999-00	0.0	0.0	0.0	0.0	0.0	T	6.1	0.0	0.0	0.0	0.0	0.0	6.1
2000-01	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	T	T	0.2
2001-02	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	1.8
2002-03	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0
2003-	0.0	0.0	0.0	0.0	0.0	T							
POR= 51 YRS	0.0	0.0	0.0	0.0	T	0.6	0.5	0.5	0.4	T	0.0	T	2.0

WBAN : 13748

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,
NORTH CAROLINA (ILM)

Wilmington is located in the tidewater section of southeastern North Carolina, near the Atlantic Ocean. The city proper is built adjacent to the east bank of the Cape Fear River. Because of the curvature of the coastline in this area, the ocean lies about 5 miles east and about 20 miles south. The surrounding terrain is typical of coastal Carolina. It is low-lying with an average elevation of less than 40 feet, and is characterized by level to gently rolling land with rivers, creeks, and lakes that frequently have considerable swamp or marshland adjoining them. Large wooded areas alternate with cultivated fields.

The maritime location makes the climate of Wilmington unusually mild for its latitude. All wind directions from the east-northeast through southwest have some moderating effects on temperatures throughout the year, because the ocean is relatively warm in winter and cool in summer. The daily range in temperatures is moderate compared to a continental type of climate. As a rule, summers are quite warm and humid, but excessive heat is rare. Sea breezes, arriving early in the afternoon, tend to alleviate the heat further inland. Long-term averages show afternoon temperatures reach 90 degrees or higher on one-third of the days in midsummer, but several years may pass without 100 degree weather. During the colder part of the year, numerous outbreaks of polar air masses reach the Atlantic Coast, causing sharp drops in temperatures. However, these cold outbreaks are significantly moderated by the long trajectories from the source regions, the effects of passing over the Appalachian Range, and the warming effects of the ocean air. As a result, most winters are short and quite mild. Even in the most severe cold spells, the temperature usually remains above zero. Normally, the temperature fails to rise above the freezing point during a 24-hour period only once each winter.

Rainfall in this area is usually ample and well-distributed throughout the year, the greatest amount occurring in the summer. Summer rainfall comes principally from thunderstorms, and is therefore usually of short duration, but often heavy and unevenly distributed. Thunderstorms occur about one out of three days from June through August. Winter rain is more likely to be of the slow, steady type, lasting one or two days. Generally, the winter rain is evenly distributed and associated with slow-moving, low-pressure systems. Seldom is there a winter without a few flakes of snow, but several years may pass without a measurable amount, and appreciable accumulation on the ground is rare. Hail occurs less than once a year. Sunshine is abundant, with the area receiving about two-thirds of the sunshine hours possible at its latitude.

Because of these many factors, the growing season is long, averaging 244 days, but records show the range is from 180 days to as long as 302 days. This area is exceptionally good for floriculture. Agricultural pursuits, principally field-grown flowers, nursery plantings, and vegetables, are an important part of the economy. Some types of plants continue to grow throughout the year.

In common with most Atlantic Coastal localities, the area is subject to the effects of coastal storms and occasional hurricanes which produce high winds, above normal tides, and heavy rains.

STATION LOCATION

WILMINGTON, NORTH CAROLINA

LOCATION	Occupied From	Occupied To	Airline Distances and Directions from previous Location	LATITUDE NORTH	LONGITUDE WEST	ELEVATION ABOVE										AUTOMATIC OBSERVING EQUIPMENT *	* TYPE M = AMOS T = AUTOB S = ASOS W = AWOS	REMARKS
						GROUND												
						SEA LEVEL	GROUND	WIND INSTRUMENT	EXTREME THERMOMETERS	PSYCHROMETER	SUNSHINE SWITCH	TIPPING BUCKET	RAIN GAUGE	WINDHOLE	8 INCH RAIN GAUGE			
*NOTE: <u>AIRPORT</u> Terminal Building New Hanover County AP	10/2/51	7/24/79	4 mi. NE	34°16'	77°55' 77°54'	30 b28 g30	43 a20	6 d e5	5 d e5	32	3	5	3	NA c4	NA	a. Effective 3/5/63. b. Effective 6/29/63. c. Commissioned 2750' SSE of thermometer site 7/1/63. d. Removed 3/28/66. e. Added 10/24/74. f. Corrected due to resurvey in 1975. g. Effective 3/21/79.		
NWS Building New Hanover County AP	7/24/79	11/01/95	0.2 mi. SW	34°16'	77°54'	30	h20 i33	5		7 k15	3	5	3	h4 i4 j5	NA	h. Not moved 7/24/79. i. Moved 1000' NNE 1/23/80. j. Relocated and type change 8/9/85. k. Moved 45' E to roof 1/15/87.		
New Hanover County Airport	11/01/95	Present	NA	34°16'	77°54'	130									S	ASOS Commissioned 11/01/95 l. Ground elevation.		

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* NOTES: For earlier station history see previous edition.