

1999

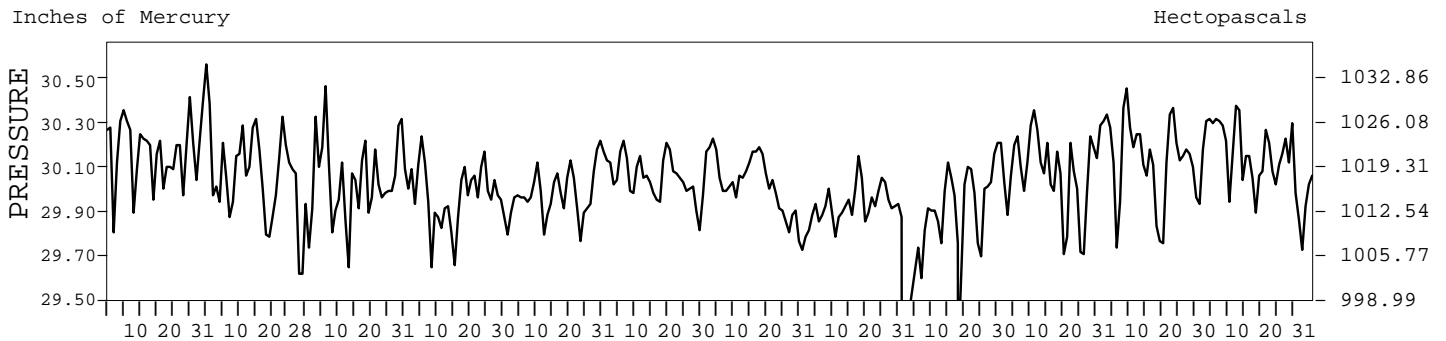
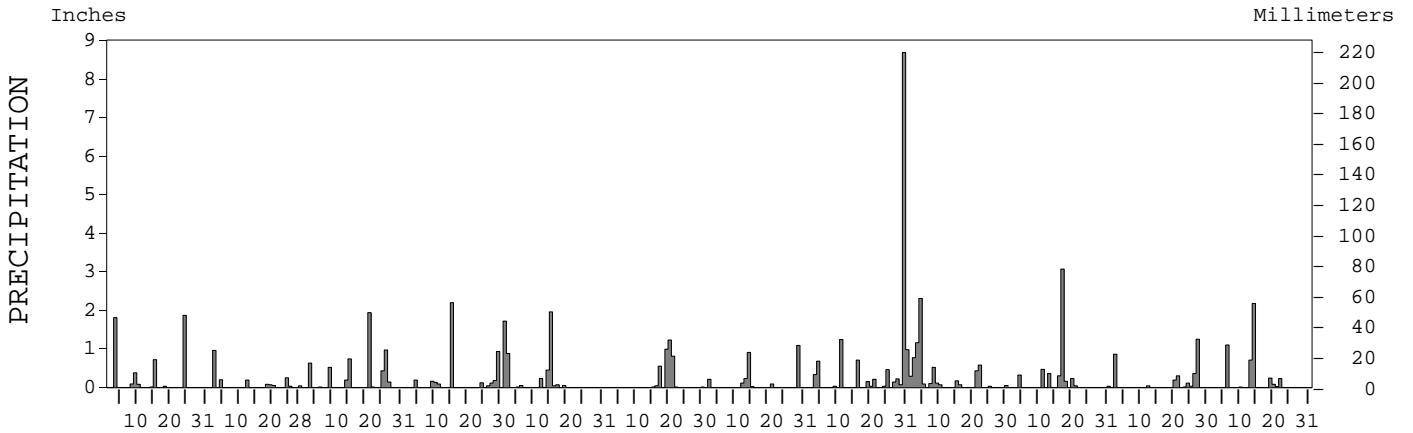
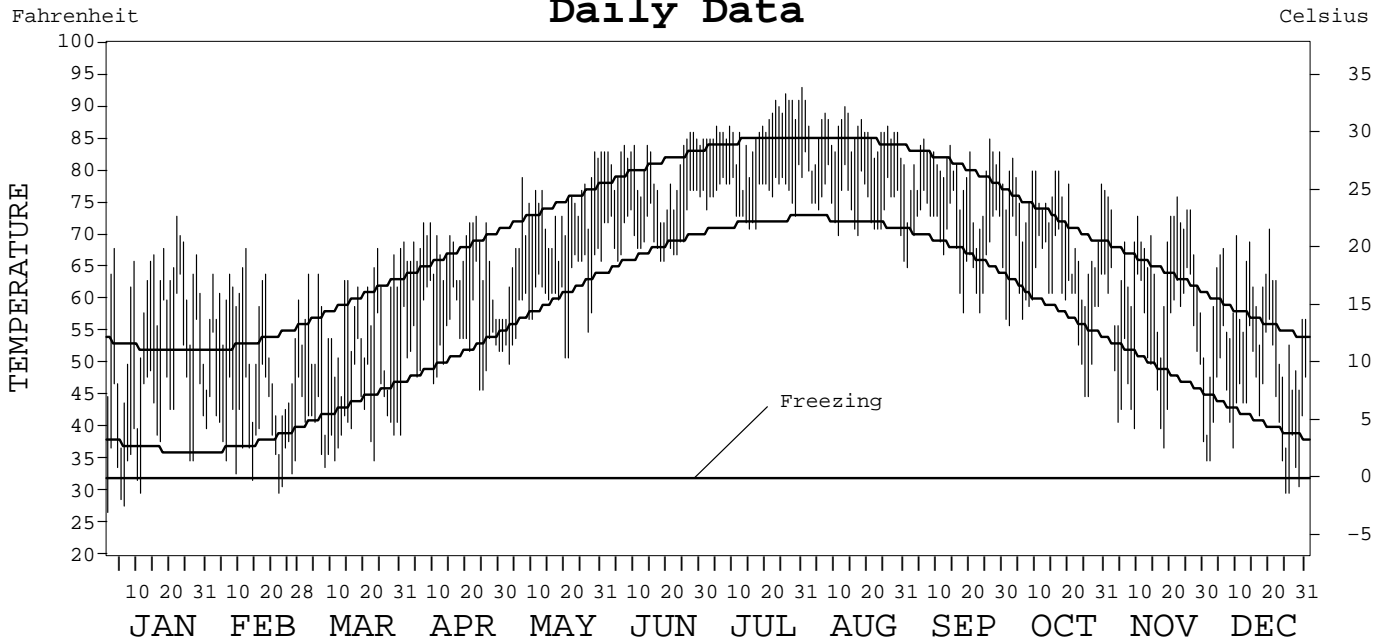
LOCAL CLIMATOLOGICAL DATA
ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0198-3717

CAPE HATTERAS,
NORTH CAROLINA (HSE)

Daily Data



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Thomas R. Karl

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
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 ASHEVILLE, NORTH CAROLINA

METEOROLOGICAL DATA FOR 1999

CAPE HATTERAS, NC (HSE)

LATITUDE: 35° 13' 56" N LONGITUDE: 75° 37' 21" W ELEVATION (FT): GRND: 11 BARO: 11 TIME ZONE: EASTERN (UTC + 5) WBAN: 93729

	ELEMENT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	58.6	54.4	56.7	67.0	72.4	80.4	86.6	85.6	79.3	72.9	65.9	57.1	69.7	
	HIGHEST DAILY MAXIMUM	73	68	68	73	83	86	94	91	85	82	76	71	94	
	DATE OF OCCURRENCE	22	12	31+	23	31+	28+	31	01	26+	03	22	20	JUL 31	
	MEAN DAILY MINIMUM	42.5	40.2	42.0	54.3	59.9	70.6	76.2	75.0	69.0	60.7	52.4	43.7	57.2	
	LOWEST DAILY MINIMUM	27	30	34	46	50	66	71	66	58	45	37	30	27	
	DATE OF OCCURRENCE	01	22	08	25+	03	19+	17+	31	23+	26	18	26+	JAN 01	
	AVERAGE DRY BULB	50.6	47.3	49.4	60.7	66.2	75.5	81.4	80.3	74.2	66.8	59.2	50.4	63.5	
	MEAN WET BULB		44.8	44.9	55.9	62.8	71.2	76.6			61.5	55.4	47.6		
	MEAN DEW POINT		39.8	38.8	51.4	60.7	69.3	74.7			57.6	51.0	43.3		
	NUMBER OF DAYS WITH:														
	MAXIMUM ≥ 90°	0	0	0	0	0	0	7	2	0	0	0	0	0	9
	MAXIMUM ≤ 32°	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIMUM ≤ 32°	5	3	0	0	0	0	0	0	0	0	0	3	11	
MINIMUM ≤ 0°	0	0	0	0	0	0	0	0	0	0	0	0	0		
H/C	HEATING DEGREE DAYS	447	489	478	134	50	0	0	0	0	53	200	443	2294	
	COOLING DEGREE DAYS	4	0	0	12	94	324	515	484	282	117	33	0	1865	
RH	MEAN (PERCENT)	75	73	68	74	84	83	82	83	81	73	75	76	77	
	HOUR 01 LST	77	77	75	81	90	88	89	87	87	77	81	81	82	
	HOUR 07 LST	79	81	73	77	86	85	85	87	86	77	80	82	82	
	HOUR 13 LST	68	66	59	65	75	75	72	76	73	63	64	67	69	
	HOUR 19 LST	79	74	73	76	87	85	84	84	79	77	77	79	80	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	3	1	1	4	4	0	1	1	0	0	1	1	18	
	THUNDERSTORMS	0	0	0	0	0	0	0	0	0	0	0	0	0	
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.)	30.19	30.08	30.03	29.98	29.99	30.06	30.02			30.11	30.14	30.13		
	MEAN SEA-LEVEL PRESS. (IN.)	30.20	30.09	30.04	29.99	30.00	30.07	30.03			30.12	30.15	30.14		
WINDS	RESULTANT SPEED (MPH)	2.2	2.6	3.2	2.3	2.8	1.7	1.8			2.9	1.9			
	RES. DIR. (TENS OF DEGS.)	24	31	31	29	02	06	07			03	33			
	MEAN SPEED (MPH)	10.2	9.8	11.2	11.8	9.8	10.5	9.6	9.6	11.0	8.8	9.3	8.6	10.0	
	PREVAIL. DIR. (TENS OF DEGS.)	24	01	01	23	03	23	23	21	04	02	02	26	23	
	MAXIMUM 2-MINUTE WIND:														
	SPEED (MPH)	39	26	51	36	31	26	22	49	59	38	36	31	59	
	DIR. (TENS OF DEGS.)	20	21	21	21	05	21	30	04	20	15	20	23	20	
	DATE OF OCCURRENCE	03	02	03	15	14	30+	29+	31	16	17	02	26	SEP 16	
	MAXIMUM 5-SECOND WIND:														
	SPEED (MPH)	51	37	70	56	44	36	30	68	70	47	52	39	70	
DIR. (TENS OF DEGS.)	16	32	21	17	36	23	31	06	17	15	20	23	17		
DATE OF OCCURRENCE	03	04	03	15	15	29	29	31	16	17	02	26	SEP 16		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	4.99	1.87	5.58	4.15	5.46	3.65	2.66	13.97	6.75	4.98	3.15	4.57	61.78	
	GREATEST 24-HOUR (IN.)	1.87	0.96	1.95	2.20	2.54	2.21	1.09	8.69	2.31	3.19	1.54	2.89	8.69	
	DATE OF OCCURRENCE	24-25	02	21-22	15	01-02	19-20	29	30	04	17-18	26-27	13-14	AUG 30	
	NUMBER OF DAYS WITH:														
	PRECIPITATION ≥ 0.01	8	9	10	10	10	8	7	15	15	9	9	8	118	
PRECIPITATION ≥ 0.10	4	4	8	8	5	4	5	11	10	7	6	5	77		
PRECIPITATION ≥ 1.00	2	0	1	1	2	1	1	2	2	1	1	2	16		
SNOWFALL	SNOW, ICE PELLETS, HAIL:														
	TOTAL (IN.)														
	GREATEST 24-HOUR (IN.)														
	DATE OF OCCURRENCE														
	MAXIMUM SNOW DEPTH (IN.)														
	DATE OF OCCURRENCE														
NUMBER OF DAYS WITH:															
SNOWFALL ≥ 1.0															

NORMALS, MEANS, AND EXTREMES

CAPE HATTERAS, NC (HSE)

LATITUDE: 35° 13' 56" N LONGITUDE: 75° 37' 21" W ELEVATION (FT): GRND: 11 BARO: 11 TIME ZONE: EASTERN (UTC + 5) WBAN: 93729

ELEMENT		POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	52.4	53.4	59.6	67.0	74.4	80.8	84.6	84.7	80.7	72.4	64.7	56.8	69.3
	MEAN DAILY MAXIMUM	42	53.0	52.4	59.1	67.4	74.5	79.2	85.1	84.8	80.9	72.3	64.5	56.8	69.2
	HIGHEST DAILY MAXIMUM	42	75	76	81	89	91	95	96	94	92	89	81	78	96
	YEAR OF OCCURRENCE		1985	1971	1990	1990	1991	1978	1992	1968	1978	1986	1986	1991	JUL 1992
	MEAN OF EXTREME MAXS.	42	69.5	67.5	71.4	79.0	83.6	86.7	90.4	90.1	87.6	82.2	76.9	71.2	79.7
	NORMAL DAILY MINIMUM	30	36.7	37.6	43.6	50.8	59.6	67.5	71.8	72.0	67.6	58.3	49.3	41.1	54.7
	MEAN DAILY MINIMUM	42	37.7	37.3	42.3	51.4	59.7	66.0	72.4	72.2	67.9	58.6	49.7	41.7	54.7
	LOWEST DAILY MINIMUM	42	6	14	0	26	39	44	54	56	45	32	22	12	0
	YEAR OF OCCURRENCE		1985	1958	1997	1972	1971	1966	1972	1979	1970	1979	1967	1983	MAR 1997
	MEAN OF EXTREME MINS.	42	22.5	23.0	27.8	35.5	45.8	54.5	61.9	62.5	55.3	42.6	33.3	25.9	40.9
	NORMAL DRY BULB	30	44.6	45.5	51.6	58.9	67.0	74.2	78.3	78.4	74.2	65.4	57.0	49.0	62.0
	MEAN DRY BULB	42	45.3	44.9	51.3	59.3	67.2	72.6	78.8	78.4	74.4	65.4	57.1	49.2	62.0
	MEAN WET BULB	14	43.1	44.5	48.1	55.2	62.9	70.6	70.5	73.9	69.8	61.6	54.7	46.7	58.5
	MEAN DEW POINT	14	38.2	39.8	43.1	50.7	59.3	67.9	68.6	71.6	66.8	57.9	50.4	42.2	54.7
	NORMAL NO. DAYS WITH:														
MAXIMUM ≥ 90°	30	0.0	0.0	0.0	0.0	*	0.5	2.0	1.8	0.5	0.0	0.0	0.0	4.8	
MAXIMUM ≤ 32°	30	0.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.4	
MINIMUM ≤ 32°	30	10.9	8.9	3.4	0.4	0.0	0.0	0.0	0.0	0.0	*	1.2	6.4	31.2	
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	0.0	
H/C	NORMAL HEATING DEG. DAYS	30	639	546	421	196	38	0	0	0	0	90	265	503	2698
	NORMAL COOLING DEG. DAYS	30	6	0	6	13	100	276	412	415	276	102	25	7	1638
RH	NORMAL (PERCENT)	30	75	74	74	72	77	79	81	81	78	76	75	75	76
	HOUR 01 LST	30	78	79	80	81	86	87	89	88	85	82	80	78	83
	HOUR 07 LST	30	80	80	80	78	82	83	85	86	84	82	82	80	82
	HOUR 13 LST	30	68	64	63	59	65	68	70	69	67	65	64	66	66
	HOUR 19 LST	30	78	77	77	75	79	80	82	82	81	79	78	78	79
S	PERCENT POSSIBLE SUNSHINE	33	48	52	60	67	65	65	65	65	64	60	56	48	60
W/O	MEAN NO. DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	42	2.8	2.6	2.4	1.3	1.1	0.3	0.2	0.3	0.3	0.7	1.1	2.1	15.2
	THUNDERSTORMS	41	0.8	1.5	2.0	2.9	4.6	5.1	8.1	7.1	2.8	1.8	1.5	0.9	39.1
CLOUDINESS	MEAN:														
	SUNRISE-SUNSET (OKTAS)														
	MIDNIGHT-MIDNIGHT (OKTAS)														
	MEAN NO. DAYS WITH:														
	CLEAR														
	PARTLY CLOUDY														
	CLOUDY														
PR	MEAN STATION PRESSURE (IN)	26	30.09	30.08	30.04	30.01	30.00	30.01	30.03	30.04	30.06	30.08	30.09	30.11	30.05
	MEAN SEA-LEVEL PRES. (IN)	16	30.12	30.08	30.06	30.01	30.03	30.01	30.05	30.04	30.06	30.09	30.12	30.12	30.07
WINDS	MEAN SPEED (MPH)	24	11.4	11.6	11.7	11.6	10.6	10.4	9.8	9.6	10.5	10.7	10.6	11.0	10.8
	PREVAIL. DIR (TENS OF DEGS)	18	36	02	02	23	23	23	23	23	04	03	02	36	04
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	4	44	37	51	37	32	28	52	56	59	47	37	33	59
	DIR. (TENS OF DEGS)		24	10	21	20	17	29	15	17	20	22	22	17	20
	YEAR OF OCCURRENCE		1996	1998	1999	1998	1998	1998	1996	1998	1999	1996	1996	1996	SEP 1999
	MAXIMUM 5-SECOND:														
SPEED (MPH)	4	55	43	70	56	46	36	64	72	70	74	52	43	74	
DIR. (TENS OF DEGS)		24	13	21	17	22	23	14	18	17	18	20	33	18	
YEAR OF OCCURRENCE		1996	1998	1999	1999	1998	1999	1996	1998	1999	1996	1999	1997	OCT 1996	
PRECIPITATION	NORMAL (IN)	30	5.30	4.12	4.29	3.53	4.00	4.11	4.98	6.00	5.27	4.98	4.97	4.54	56.09
	MAXIMUM MONTHLY (IN)	42	12.45	8.45	11.20	9.57	11.44	10.80	10.85	16.10	20.00	15.05	16.20	8.63	20.00
	YEAR OF OCCURRENCE		1991	1983	1989	1989	1972	1962	1998	1986	1989	1985	1985	1962	SEP 1989
	MINIMUM MONTHLY (IN)	42	1.75	1.06	0.98	0.44	0.35	0.38	0.45	0.99	0.08	0.53	0.85	0.64	0.08
	YEAR OF OCCURRENCE		1981	1991	1967	1995	1987	1978	1958	1983	1986	1984	1998	1985	SEP 1986
	MAXIMUM IN 24 HOURS (IN)	42	5.95	2.92	5.94	5.60	3.55	6.63	5.53	8.69	5.72	8.45	7.69	3.59	8.69
	YEAR OF OCCURRENCE		1991	1970	1989	1963	1984	1962	1967	1999	1994	1994	1985	1979	AUG 1999
	NORMAL NO. DAYS WITH:														
PRECIPITATION ≥ 0.01	30	11.2	10.3	10.3	8.5	10.1	9.5	12.0	11.1	9.1	8.9	9.0	10.1	120.1	
PRECIPITATION ≥ 1.00	30	1.6	1.3	1.2	1.0	1.0	0.9	1.3	1.9	1.8	1.6	1.3	1.3	16.2	
SNOWFALL	NORMAL (IN)	30	0.5	0.5	0.2	T	0.0	0.0	0.0	0.0	0.0	0.0	T	0.7	1.9
	MAXIMUM MONTHLY (IN)	38	3.5	4.4	8.5	T	0.0	0.0	0.0	0.0	0.0	0.0	T	13.5	13.5
	YEAR OF OCCURRENCE		1962	1978	1960	1989							1987	1989	DEC 1989
	MAXIMUM IN 24 HOURS (IN)	38	3.5	4.4	7.3	T	0.0	0.0	0.0	0.0	0.0	0.0	T	8.2	8.2
	YEAR OF OCCURRENCE		1962	1978	1980	1989							1987	1989	DEC 1989
	MAXIMUM SNOW DEPTH (IN)	38	3	3	7	0	0	0	0	0	0	0	0	5	7
	YEAR OF OCCURRENCE		1981	1980	1980									1989	MAR 1980
NORMAL NO. DAYS WITH:															
SNOWFALL ≥ 1.0	30	0.2	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.7	

PRECIPITATION (inches) 1999 CAPE HATTERAS, NC (HSE)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1970	5.61	5.92	5.31	4.25	2.86	4.66	6.16	4.21	4.07	2.94	8.28	2.44	56.71
1971	4.53	3.76	4.70	3.73	5.52	1.58	6.48	9.74	8.59	11.24	2.40	2.07	64.34
1972	6.42	5.66	2.96	0.72	11.44	1.83	8.62	1.78	2.74	7.26	7.29	4.84	61.56
1973	3.99	4.75	6.15	3.35	4.79	4.29	2.56	3.02	3.04	1.34	1.23	8.52	47.03
1974	2.02	4.07	3.48	2.38	4.31	8.31	2.49	11.04	2.94	8.99	1.72	5.14	56.89
1975	4.38	2.95	1.89	4.37	4.05	4.40	6.69	1.91	5.21	4.04	3.71	4.87	48.47
1976	3.22	1.42	2.73	0.59	5.20	4.71	4.31	11.73	8.58	4.62	3.08	6.90	57.09
1977	4.53	1.64	4.01	1.89	1.81	3.07	2.48	2.74	2.70	9.13	12.00	5.99	51.99
1978	7.61	2.85	5.70	5.73	6.04	0.38	4.47	1.04	0.73	3.15	6.77	3.32	47.79
1979	9.72	4.67	2.96	2.68	6.66	4.04	6.30	3.33	12.78	2.04	8.46	5.19	68.83
1980	7.76	2.38	8.94	4.03	0.87	5.49	3.47	1.48	5.09	2.58	5.29	4.48	51.86
1981	1.75	1.99	2.36	1.84	4.90	3.91	9.32	11.34	1.31	2.69	2.93	7.20	51.54
1982	5.85	7.03	6.04	5.85	0.90	5.50	6.76	2.14	4.53	3.90	2.50	5.84	56.84
1983	9.27	8.45	9.29	3.40	0.81	4.87	1.75	0.99	6.15	9.46	4.58	6.10	65.12
1984	2.34	4.28	2.99	4.26	7.27	3.12	5.23	4.73	3.81	0.53	4.95	1.69	45.20
1985	3.67	6.28	2.28	0.67	3.77	3.92	3.46	7.17	4.06	15.05	16.20	0.64	67.17
1986	5.75	1.38	1.22	1.93	3.19	3.17	3.10	16.10	0.08	2.09	4.21	6.64	48.86
1987	10.56	4.32	9.56	5.33	0.35	2.94	4.80	6.91	7.61	1.19	5.16	2.23	60.96
1988	5.81	3.98	3.08	3.77	3.62	2.33	1.88	7.42	2.15	3.53	3.95	0.75	42.27
1989	4.30	2.13	11.20	9.57	5.36	4.12	5.16	9.07	20.00	8.29	5.17	6.47	90.84
1990	4.66	4.13	6.92	3.46	5.75	1.80	4.23	3.23	0.59	3.97	3.82	5.13	47.69
1991	12.45	1.06	6.57	1.96	0.49	5.33	8.58	13.19	4.41	4.86	1.15	4.46	64.51
1992	4.40	4.25	7.76	0.71	4.17	0.94	5.28	13.89	6.14	4.03	4.85	5.66	62.08
1993	5.96	5.15	6.67	3.96	0.63	3.15	2.03	9.00	2.99	11.54	4.04	4.14	59.26
1994	7.44	3.13	7.08	1.26	4.66	2.26	3.93	4.00	9.67	9.47	5.57	4.90	63.37
1995	8.90	5.87	1.81	0.44	1.85	9.14	1.08	7.39	8.25	8.47			
1996	3.89		5.06	3.28	2.43	4.99	9.54	5.04	3.80	4.79	4.96	4.28	
1997	3.83	3.66	4.52	4.23	3.17	2.74	4.94	2.30	8.16	3.29	5.89	5.63	52.36
1998	9.34	8.13	2.14	3.92	5.60	3.66	10.85	3.23	8.37	1.00	0.85	4.72	61.81
1999	4.99	1.87	5.58	4.15	5.46	3.65	2.66	13.97	6.75	4.98	3.15	4.57	61.78
POR= 125 YRS	4.65	4.10	4.37	3.46	3.76	4.32	5.55	6.10	5.54	4.86	4.08	4.61	55.40

WBAN : 93729

AVERAGE TEMPERATURE (°F) 1999 CAPE HATTERAS, NC (HSE)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1970	37.7	44.2	49.5	59.5	67.5	75.2	77.5	78.5	74.9	67.5	54.8	48.2	61.3
1971	42.5	47.3	49.4	54.7	64.9	74.6	78.3	77.7	75.6	70.9	56.0	56.2	62.3
1972	52.9	47.0	52.2	56.3	66.0	71.5	77.9	78.3	73.8	64.8	56.7	54.2	62.6
1973	46.1	43.4	55.2	60.5	67.3	76.5	77.4	78.8	75.9	67.8	57.4	52.6	63.2
1974	55.5	47.8	56.3	61.8	68.5	74.2	77.3	77.6	75.2	61.5	55.2	49.9	63.4
1975	51.1	51.5	52.5	55.9	69.1	76.5	77.6	80.2	76.2	68.3	59.0	48.7	63.9
1976	43.7	51.7	57.3	60.0	67.2	73.6	77.7	75.9	71.8	62.2	49.9	46.5	61.5
1977	35.8	44.3	55.2	62.9	69.6	74.6	80.8	79.5	77.3	63.4	59.4	48.8	62.6
1978	42.0	35.7	50.1	60.2	65.1	73.8	78.0	80.6	76.3	63.5	61.3	51.2	61.5
1979	45.4	41.0	50.7	58.9	67.6	71.6	77.4	77.9	75.2	63.4	58.6	49.1	61.4
1980	45.8	39.0	49.3	61.1	68.6	73.1	79.3	79.1	76.0	62.2	52.0	47.1	61.1
1981	36.2	46.1	45.4	62.6	65.4	78.3	78.6	76.5	71.5	62.9	52.9	44.4	60.1
1982	41.3	47.6	52.1	57.4	68.8	73.3	78.3	77.4	72.8	63.7	59.7	54.1	62.2
1983	44.9	45.4	52.7	57.4	66.8	72.6	79.5	78.7	74.3	66.7	55.9	47.5	61.9
1984	41.7	48.8	48.5	57.7	68.2	75.5	77.8	79.4	72.9	68.8	55.4	55.7	62.5
1985	41.0	45.3	55.1	63.7	69.8	75.2	79.6	78.2	75.8	71.4	66.6	47.7	64.1
1986	44.7	49.3	51.8	60.2	68.1	75.9	80.9	77.0	75.1	68.5	62.8	51.6	63.8
1987	46.0	44.3	48.4	56.4	67.8	75.6	80.1	80.1	75.6	61.7	57.8	48.8	61.9
1988	43.4	46.0	52.3	58.0	66.7	72.2	78.3	80.8	74.5	61.5	60.9	47.9	61.9
1989	50.8	50.1	54.8	59.6	67.2	77.3	79.1	79.3	75.0	66.7	59.6	41.3	63.4
1990	52.2	54.4	56.7	61.3	68.0	74.4	79.7	79.7	74.5	69.5	57.8	56.1	65.4
1991	50.0	50.3	56.4	64.1	73.4	76.6	81.7	80.0	75.6	66.6	57.4	52.8	65.4
1992	48.3	49.3	52.6	59.4	64.3	73.5	80.3	78.0	75.9	63.4	60.2	51.1	63.0
1993	51.4	44.4	50.5	57.2	68.3	75.6	81.9	78.1	76.4	68.9	60.7	47.7	63.4
1994	45.6	48.7	53.7	65.7	67.2	77.8	81.3	78.7	73.4	66.1	62.0	56.3	64.7
1995	48.5	45.3	53.8	63.6	69.0	77.3			75.2	69.9			
1996	45.2						78.0	77.1	74.9	65.1	52.2	50.3	
1997	45.7	49.4		56.8	65.8	70.2	78.1	77.0	74.2	65.7	54.7	47.7	
1998	49.2	49.6	51.1	58.8	66.3	77.3	79.5	79.4	75.4	65.5	57.6	54.2	63.7
1999	50.6	47.3	49.4	60.7	66.2	75.5	81.4	80.3	74.2	66.8	59.2	50.4	63.5
POR= 118 YRS	46.2	46.5	51.3	59.1	67.6	74.6	78.4	78.3	74.6	65.8	56.7	49.0	62.3

HEATING DEGREE DAYS (base 65°F) 1999 CAPE HATTERAS, NC (HSE)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1970-71	0	0	10	40	299	515	690	486	476	300	65	0	2881
1971-72	0	0	0	6	289	278	379	517	393	267	39	16	2184
1972-73	0	0	0	61	257	335	578	597	302	151	50	0	2331
1973-74	0	0	0	31	246	389	293	476	276	143	28	0	1882
1974-75	0	0	3	141	306	459	425	378	383	289	26	0	2410
1975-76	0	0	0	32	206	498	653	379	244	190	52	4	2258
1976-77	0	0	1	135	448	566	900	575	309	104	27	0	3065
1977-78	0	0	0	103	196	504	704	813	455	152	60	0	2987
1978-79	0	0	0	90	123	426	601	663	439	198	32	0	2572
1979-80	0	0	0	112	208	487	587	750	477	145	33	0	2799
1980-81	0	0	0	132	385	549	884	524	600	109	82	0	3265
1981-82	0	0	15	104	360	630	727	482	392	237	44	0	2991
1982-83	0	0	0	86	176	341	613	544	373	238	50	2	2423
1983-84	0	0	10	55	272	535	715	466	507	215	47	0	2822
1984-85	0	0	2	22	296	282	736	547	305	113	19	0	2322
1985-86	0	0	0	1	48	532	618	435	408	156	48	0	2246
1986-87	0	0	0	49	116	411	581	575	508	255	42	0	2537
1987-88	0	0	0	118	226	495	664	544	386	214	52	22	2721
1988-89	0	0	0	144	150	525	432	421	325	192	38	0	2227
1989-90	0	0	0	39	200	728	398	300	289	159	30	0	2143
1990-91	0	0	13	70	221	288	460	408	281	81	0	0	1822
1991-92	0	0	0	49	248	394	511	449	381	200	73	3	2308
1992-93	0	0	2	91	182	426	413	570	442	237	16	0	2379
1993-94	0	0	2	22	150	529	595	448	353	74	45	0	2218
1994-95	0	0	0	29	130	271	511	544	341	98	35	0	1959
1995-96			0	32			605		535	188	30		
1996-97	0	0	0	53	394	448	592	430		243	42	27	
1997-98	0	0	0	84	310	528	483	421	427	187	51	0	2491
1998-99	0	0	0	64	217	344	447	489	478	134	50	0	2223
1999-	0	0	0	53	200	443							

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COOLING DEGREE DAYS (base 65°F) 1999 CAPE HATTERAS, NC (HSE)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1970	0	0	0	7	127	314	393	422	313	122	0	0	1698
1971	0	0	0	1	67	294	419	402	325	194	26	10	1738
1972	7	0	2	12	74	218	406	422	271	63	17	8	1500
1973	0	1	5	25	128	352	394	434	334	126	25	9	1833
1974	7	0	13	54	146	283	390	399	318	42	20	0	1672
1975	1	7	3	20	160	353	398	479	345	142	32	0	1940
1976	0	0	11	48	127	268	401	344	214	53	0	0	1466
1977	0	1	10	49	177	295	499	453	374	57	37	6	1958
1978	0	0	0	13	68	271	411	493	345	48	21	7	1677
1979	0	0	2	23	121	203	394	407	313	69	24	0	1556
1980	0	0	0	35	153	252	449	445	335	54	3	0	1726
1981	0	0	1	45	104	406	429	361	218	46	1	0	1611
1982	0	0	1	15	168	259	419	393	239	53	24	8	1579
1983	0	1	0	18	110	236	458	433	295	112	8	0	1671
1984	0	0	0	6	153	323	403	452	244	146	13	2	1742
1985	0	2	4	82	176	317	461	418	330	207	104	3	2104
1986	0	0	7	19	151	335	497	379	308	165	58	2	1921
1987	0	0	0	4	137	323	475	475	325	20	17	0	1776
1988	0	2	3	10	114	245	419	497	292	41	33	0	1656
1989	0	11	16	36	115	376	443	450	307	98	43	0	1895
1990	4	9	40	56	127	288	463	462	308	218	10	20	2005
1991	0	2	22	59	267	354	525	469	324	106	25	25	2178
1992	1	0	2	42	56	267	483	414	334	46	45	0	1690
1993	0	0	0	12	123	323	532	413	351	151	30	0	1935
1994	0	0	8	104	119	392	516	432	256	71	45	7	1950
1995	6	0	1	64	167	375			313	188			
1996							414	382	304	61	16	0	
1997	0	2		6	73	190	412	381	284	116	7	0	
1998	0	0	1	10	99	377	455	454	322	89	3	15	1825
1999	4	0	0	12	94	324	515	484	282	117	33	0	1865

SNOWFALL (inches) 1999 CAPE HATTERAS, NC (HSE)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1970-71	0.0	0.0	0.0	0.0	T	2.5	T	0.0	0.0	0.0	0.0	0.0	2.5
1971-72	0.0	0.0	0.0	0.0	0.0	0.0	T	T	0.0	0.0	0.0	0.0	T
1972-73	0.0	0.0	0.0	0.0	0.0	0.0	1.9	3.3	0.0	0.0	0.0	0.0	5.2
1973-74	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	T
1974-75	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	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	0.0	T	0.0	1.0	0.0	0.0	0.0	0.0	1.0
1977-78	0.0	0.0	0.0	0.0	0.0	0.0	T	4.4	T	0.0	0.0	0.0	4.4
1978-79	0.0	0.0	0.0	0.0	0.0	0.0	T	1.1	0.0	0.0	0.0	0.0	1.1
1979-80	0.0	0.0	0.0	0.0	0.0	0.0	3.0	T	7.3	0.0	0.0	0.0	10.3
1980-81	0.0	0.0	0.0	0.0	0.0	T	2.9	0.0	0.0	0.0	0.0	0.0	2.9
1981-82	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	T
1982-83	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	T
1983-84	0.0	0.0	0.0	0.0	0.0	0.2	0.0	T	0.0	0.0	0.0	0.0	0.2
1984-85	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
1985-86	0.0	0.0	0.0	0.0	0.0	T	0.3	0.2	T	0.0	0.0	0.0	0.5
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	T	0.0	0.7	T	0.0	0.0	0.0	0.0	0.7
1988-89	0.0	0.0	0.0	0.0	0.0	4.4	0.0	0.3	0.0	T	0.0	0.0	4.7
1989-90	0.0	0.0	0.0	0.0	0.0	13.5	0.0	0.0	0.0	0.0	0.0	0.0	13.5
1990-91	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	T
1991-92	0.0	0.0	0.0	0.0	0.0	T	0.5	0.0	T	0.0	0.0	0.0	0.5
1992-93	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	T	0.0	0.0	0.0	0.1
1993-94	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.6
1994-95	0.0	0.0	0.0	0.0	0.0	0.0	T	0.3	0.0	0.0	0.0	0.0	0.3
1995-96	0.0	0.0	0.0	0.0									
1996-97													
1997-98													
1998-99													
1999-													
POR= 38 YRS	0.0	0.0	0.0	0.0	T	0.6	0.4	0.5	0.4	T	0.0	0.0	1.9

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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 (1961 - 1990). 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 EIGHTHS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER.</p>
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1999
CAPE HATTERAS,
NORTH CAROLINA (HSE)

Hatteras Island is the largest and easternmost Island in North Carolina. The average elevation of the Island is less than 10 feet above mean sea level. It is separated from the mainland by the Pamlico Sound and is part of a chain of islands known as the Outer Banks. The Island is narrow, ranging from a few hundred yards wide to a few miles wide and is about 54 miles long. Much of the island is a National Park and waterfowl reserve.

The Weather Office is located in the village of Buxton about 1 mile west-northwest of the famous Cape Hatteras Lighthouse. Weather observations have been taken continuously since 1874 from locations all within 10 miles of the present stations location.

With its maritime climate, Cape Hatteras is very humid, with cooler summers and warmer winters than mainland North Carolina. Ninety degree temperatures are rare in summer, as are the teens in winter. The average first occurrence of freezing temperatures is early December, and the average last occurrence is late February.

Average rainfall is greater than any other coastal station in the state. Rainfall is rather evenly distributed throughout the year, with the maximum during July, August, and September. Snowfall is rare and generally light, usually melting as it falls.

Winter storms frequently breed offshore where the warm waters of the Gulf Stream and the southermost penetration of the Labrador Current meet some 20 to 50 miles off the coast. Late summer and fall tracks of tropical cyclones occasionally threaten the island. These storms produce strong winds, heavy rains and tidal flooding from both the ocean and Pamlico Sound. Many ships have been lost near, or wrecked on, the beaches of the island and attest to the fury of wind and wave.

More than a million tourists visit the island each year. The proximity of the gulfstream, natural beaches, excellent surf, and offshore fishing make Cape Hatteras a preferred place for vacationers, sportsmen, and campers. The surfing conditions are said to be the best on the east coast.

