

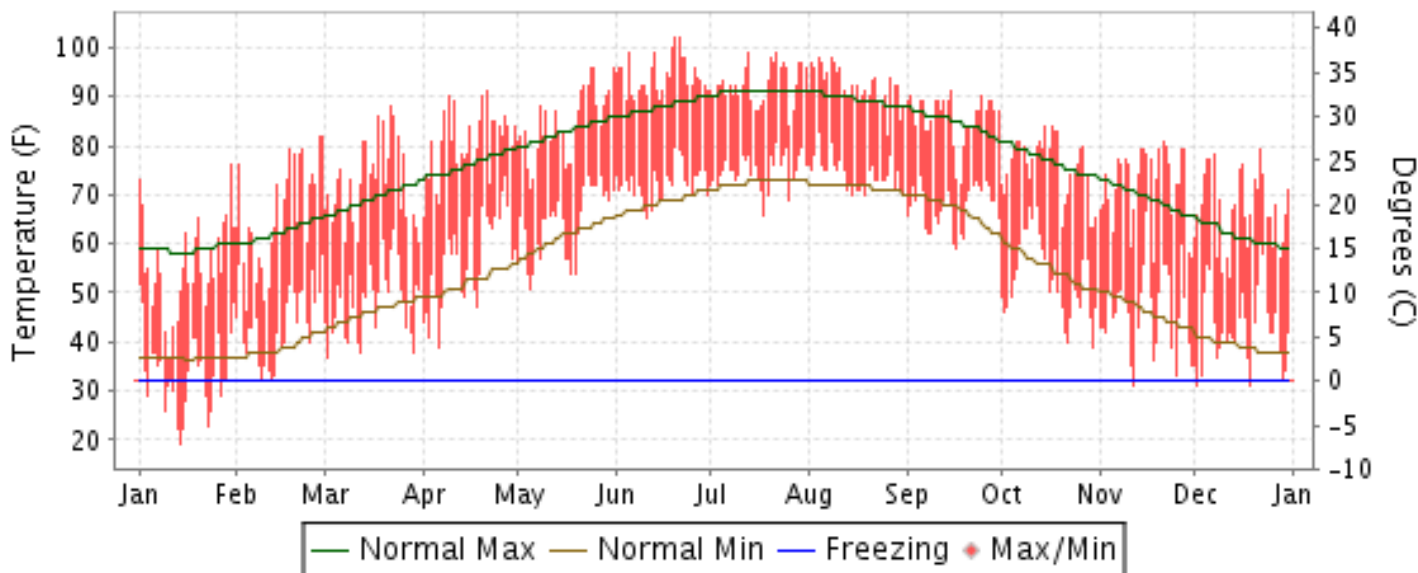


2011 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

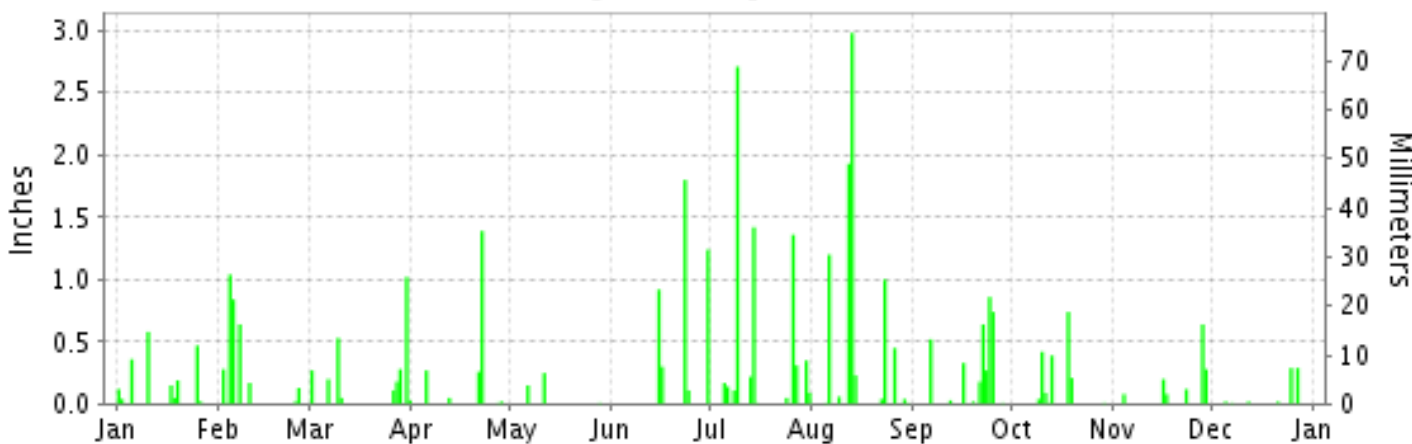
ISSN 0198-4616

CHARLESTON, SOUTH CAROLINA (KCHS)

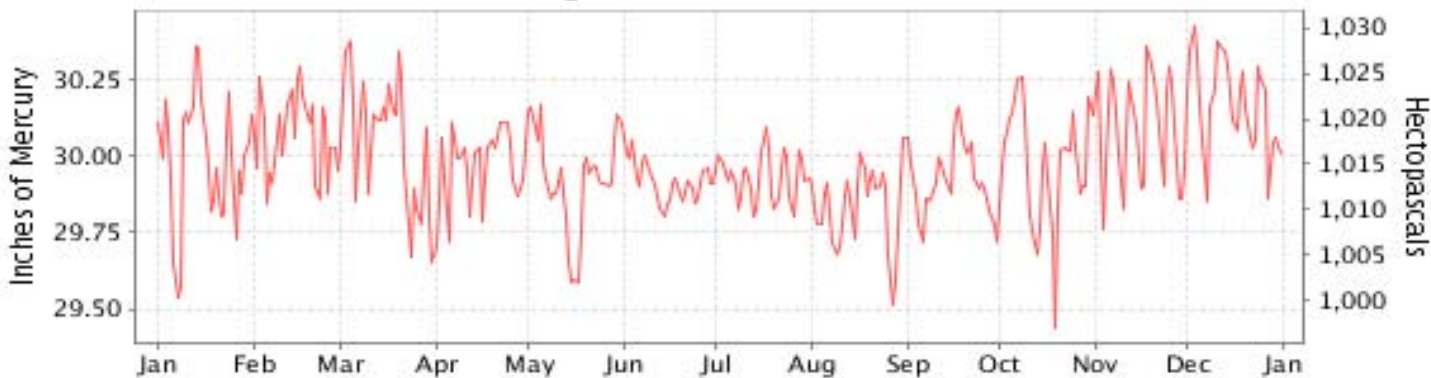
Daily Max/Min Temperature



Daily Precipitation



Daily Station Pressure



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NATIONAL
CLIMATIC DATA CENTER
ASHEVILLE, NORTH CAROLINA

Thomas R. Karl
DIRECTOR
NATIONAL CLIMATIC DATA CENTER

METEOROLOGICAL DATA FOR 2011

CHARLESTON (KCHS)

LATITUDE: 32° 53'N LONGITUDE: -80° 2'W ELEVATION (FT): GRND: 40 BARO: 48 TIME ZONE: EASTERN (UTC -5) WBAN: 13880

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	55.2	66.0	71.6	80.5	84.5	94.1	92.5	92.1	85.8	75.5	71.9	66.9	78.1	
	HIGHEST DAILY MAXIMUM	76	82	88	91	96	102	99	98	91	84	81	79	102	
	DATE OF OCCURRENCE	30	28+	22	21	31+	21+	22	08+	15	17+	21	22	JUN 21+	
	MEAN DAILY MINIMUM	33.6	43.6	48.3	57.0	64.3	72.4	74.9	74.2	67.7	53.0	46.3	42.9	56.5	
	LOWEST DAILY MINIMUM	19	32	37	39	51	65	66	70	59	39	31	31	19	
	DATE OF OCCURRENCE	14	12+	02	06	05	11	18	31+	17	31+	12	19+	JAN 14	
	AVERAGE DRY BULB	44.4	54.8	60.0	68.8	74.4	83.3	83.7	83.2	76.8	64.3	59.1	54.9	67.3	
	MEAN WET BULB	40.4	48.9	53.5	62.0	67.1	74.0	76.4	76.0	70.9	58.0	53.5	49.8	60.9	
	MEAN DEW POINT	34.5	43.0	48.2	57.0	62.7	70.3	73.6	73.5	68.2	53.3	48.8	45.1	56.5	
	NUMBER OF DAYS WITH:														
	MAXIMUM >= 90°	0	0	0	3	8	27	24	25	3	0	0	0	0	90
	MAXIMUM <= 32°	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MINIMUM <= 32°	15	2	0	0	0	0	0	0	0	0	1	3	21		
MINIMUM <= 0°	0	0	0	0	0	0	0	0	0	0	0	0	0		
H/C	HEATING DEGREE DAYS	632	288	184	46	5	0	0	0	0	92	191	315	1753	
	COOLING DEGREE DAYS	0	8	36	167	302	554	590	571	359	77	23	9	2696	
RH	MEAN (PERCENT)	72	71	71	71	71	70	76	78	80	73	73	74	73	
	HOUR 01 LST	83	84	85	88	87	88	90	90	92	89	86	87	87	
	HOUR 07 LST	85	81	82	79	74	72	80	82	86	81	85	87	81	
	HOUR 13 LST	54	49	49	48	49	46	56	61	61	48	49	50	52	
	HOUR 19 LST	74	75	75	72	73	75	79	82	82	79	79	76	77	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	4	2	0	0	2	0	1	0	0	0	1	1	11	
	THUNDERSTORMS	0	0	3	4	3	6	11	12	9	0	2	0	50	
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.)	29.99	30.07	30.05	29.96	29.92	29.92	29.93	29.83	29.93	29.96	30.09	30.17	29.99	
	MEAN SEA-LEVEL PRESS. (IN.)	30.05	30.12	30.10	30.02	29.98	29.97	29.98	29.88	29.98	30.02	30.15	30.22	30.04	
WINDS	RESULTANT SPEED (MPH)	2.9	1.6	0.6	5.0	4.2	3.8	4.1	0.9	1.0	2.5	0.8	0.5	1.4	
	RES. DIR. (TENS OF DEGS.)	30	24	18	20	19	20	19	25	16	36	34	29	22	
	MEAN SPEED (MPH)	7.0	8.5	9.0	9.3	7.8	7.6	7.2	6.7	6.3	7.3	7.5	6.7	7.6	
	PREVAIL.DIR.(TENS OF DEGS.)	27	06	26	19	16	20	20	20	19	04	03	03	20	
	MAXIMUM 2-MINUTE WIND														
	SPEED (MPH)	30	28	29	36	31	32	45	35	31	28	30	37	45	
	DIR. (TENS OF DEGS.)	25	22	15	21	35	28	22	07	18	27	17	28	22	
	DATE OF OCCURRENCE	26	28	09	16	11	23	13	26	06	19	28	07	JUL 13	
	MAXIMUM 3-SECOND WIND:														
SPEED (MPH)	43	37	37	46	37	43	59	43	49	38	36	52	59		
DIR. (TENS OF DEGS.)	27	24	23	21	35	28	23	18	22	10	17	27	23		
DATE OF OCCURRENCE	26	21	23	16	11	23	09	12	06	10	28	07	JUL 09		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	1.98	3.13	2.67	2.00	0.41	4.37	6.94	7.95	3.60	1.91	1.40	0.65	37.01	
	GREATEST 24-HOUR (IN.)	0.58	1.04	1.02	1.64	0.25	1.80	2.71	2.98	0.86	0.95	0.92	0.29	2.98	
	DATE OF OCCURRENCE	10	04	30	21-22	11	23	09	13	24	18-19	28-29	27	AUG 13	
	NUMBER OF DAYS WITH:														
PRECIPITATION 0.01	9	8	9	6	3	5	12	11	10	8	6	6	93		
PRECIPITATION 0.10	6	6	7	3	2	5	9	6	7	4	4	2	61		
PRECIPITATION 1.00	0	1	1	1	0	2	3	4	0	0	0	0	12		
SNOWFALL	SNOW,ICE PELLETS,HAIL														
	TOTAL (IN.)	T	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	
	GREATEST 24-HOUR (IN.)	T	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	
	DATE OF OCCURRENCE	10			21									APR 21	
	MAXIMUM SNOW DEPTH (IN.)	0	0	0	0	0	0	0	0	0	0	0	0	0	
DATE OF OCCURRENCE															
NUMBER OF DAYS WITH:															
SNOWFALL >= 1.0	0	0	0	0	0	0	0	0	0	0	0	0	0		

NORMALS, MEANS, AND EXTREMES CHARLESTON (KCHS)

LATITUDE:
32° 53'N

LONGITUDE:
-80° 2'W

ELEVATION (FT):
GRND: 40 BARO: 48

TIME ZONE:
EASTERN (UTC -5)

WBAN: 13880

	ELEMENT	POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	58.9	62.3	69.3	76.1	82.9	87.9	90.9	89.4	85.0	77.0	69.6	61.6	75.9
	MEAN DAILY MAXIMUM	82	59.2	60.7	68.2	75.2	82.5	87.1	89.9	88.8	84.1	76.7	68.3	60.9	75.1
	HIGHEST DAILY MAXIMUM	69	83	87	90	95	98	103	104	105	99	94	88	83	105
	YEAR OF OCCURRENCE		1950	1989	1974	2002	1989	1944	1986	1999	1944	1986	1961	1972	AUG 1999
	MEAN OF EXTREME MAXS.	82	75.7	77.9	83.1	88.3	92.7	96.5	96.8	96.0	92.3	87.1	81.7	76.6	87.1
	NORMAL DAILY MINIMUM	30	36.9	39.1	46.0	52.2	61.3	68.5	72.5	71.6	67.1	55.3	46.4	39.3	54.7
	MEAN DAILY MINIMUM	82	39.0	40.0	47.0	53.7	62.7	69.3	73.0	72.4	67.5	56.9	46.7	40.2	55.7
	LOWEST DAILY MINIMUM	69	6	12	15	29	36	50	58	56	42	27	15	8	6
	YEAR OF OCCURRENCE		1985	1973	1980	1944	1963	1972	1952	1979	1967	1976	1950	1962	JAN 1985
	MEAN OF EXTREME MINS.	82	21.0	24.3	29.5	37.7	48.5	59.1	65.7	64.8	55.7	39.5	29.8	23.0	41.6
	NORMAL DRY BULB	30	47.9	50.7	57.7	64.2	72.1	78.2	81.7	80.5	76.1	66.2	58.0	50.5	65.3
	MEAN DRY BULB	82	49.1	50.4	57.6	64.5	72.6	78.3	81.4	80.6	75.8	66.8	57.5	50.6	65.4
	MEAN WET BULB	28	42.7	45.3	50.9	56.9	65.0	71.8	74.8	74.4	69.8	60.7	52.7	45.3	59.2
	MEAN DEW POINT	28	39.5	42.2	47.5	53.8	62.8	70.3	73.5	73.2	68.3	58.7	50.3	42.2	56.9
	NORMAL NO. DAYS WITH: MAXIMUM >= 90	30	0.0	0.0	*	0.9	3.8	11.5	19.8	15.6	6.1	0.4	0.0	0.0	58.1
	MAXIMUM <= 32	30	0.2	0.1	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4
MINIMUM <= 32	30	9.8	6.5	1.8	0.1	0.0	0.0	0.0	0.0	0.0	0.1	1.7	7.5	27.5	
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	523	394	242	95	11	1	0	0	2	69	229	439	2005
	NORMAL COOLING DEG. DAYS	30	3	7	29	84	242	408	532	494	348	121	34	4	2306
RH	NORMAL (PERCENT)	30	71	69	68	68	73	76	77	79	79	75	74	73	74
	HOURLY 01 LST	30	79	78	80	82	87	88	89	90	89	87	85	81	85
	HOURLY 07 LST	30	81	81	83	84	85	86	87	90	90	88	86	84	85
	HOURLY 13 LST	30	57	53	50	47	53	58	60	62	62	56	54	57	56
	HOURLY 19 LST	30	70	66	64	63	68	72	74	77	78	76	75	72	71
S	PERCENT POSSIBLE SUNSHINE	39	56	60	66	71	70	66	67	64	61	63	59	56	63
W/O	MEAN NO. DAYS WITH: HEAVY FOG (VISIB <= 1/4 MI)	48	4.0	2.0	2.2	1.8	2.0	1.1	0.7	1.0	1.6	2.2	3.3	3.7	25.6
	THUNDERSTORMS	66	0.8	1.0	2.5	3.2	6.3	10.1	13.4	11.5	5.2	1.6	0.8	0.6	57.0
CLOUDINESS	MEAN: SUNRISE-SUNSET (OKTAS)	1			5.6		2.4	4.0							
	MIDNIGHT-MIDNIGHT (OKTAS)	1			5.6		4.0								
	MEAN NO. DAYS WITH: CLEAR	1	3.0	4.0	11.0		13.0	9.0							
	PARTLY CLOUDY	1	1.0	2.0	3.0		4.0	11.0							
	CLOUDY	1	4.0	3.0	9.0		3.0	2.0							
PR	MEAN STATION PRESSURE (IN)	28	30.09	30.06	30.02	29.97	29.97	29.95	29.98	29.97	29.98	30.02	30.07	30.10	30.02
	MEAN SEA-LEVEL PRES. (IN)	28	30.14	30.11	30.07	30.02	30.02	30.01	30.03	30.02	30.03	30.08	30.12	30.15	30.07
WINDS	MEAN SPEED (MPH)	28	8.3	8.7	9.2	9.2	8.3	7.7	7.4	7.0	7.4	7.2	7.4	7.7	8.0
	PREVAIL. DIR. (TENS OF DEGS)	40	27	28	21	20	20	20	20	20	03	04	02	03	03
	MAXIMUM 2-MINUTE: SPEED (MPH)	16	39	38	40	43	47	44	45	47	51	39	36	38	51
	DIR. (TENS OF DEGS)		20	19	24	20	30	17	22	20	36	21	22	26	36
	YEAR OF OCCURRENCE		2010	2007	2008	2007	2006	1997	2011	2010	1999	1996	2006	2000	SEP 1999
	MAXIMUM 3-SECOND SPEED (MPH)	16	52	47	52	53	54	59	59	61	67	56	44	52	67
	DIR. (TENS OF DEGS)		19	19	24	19	30	08	23	20	36	21	19	27	36
YEAR OF OCCURRENCE		2010	2007	1997	2007	2006	2010	2011	2010	1999	1996	2006	2011	SEP 1999	
PRECIPITATION	NORMAL (IN)	30	4.08	3.08	4.00	2.77	3.67	5.92	6.13	6.91	5.98	3.09	2.66	3.24	51.53
	MAXIMUM MONTHLY (IN)	69	8.92	10.17	11.11	9.50	9.28	27.24	18.46	16.99	17.31	12.11	7.35	10.06	27.24
	YEAR OF OCCURRENCE		1993	1998	1983	1958	1957	1973	1964	1974	1945	1994	1972	2009	JUN 1973
	MINIMUM MONTHLY (IN)	69	0.63	0.33	0.36	0.01	0.41	0.96	1.76	0.73	0.18	0.08	0.03	0.35	0.01
	YEAR OF OCCURRENCE		1950	1947	2004	1972	2011	1970	1972	1980	1990	2000	2007	2008	APR 1972
	MAXIMUM IN 24 HOURS (IN)	69	3.90	5.93	6.63	4.10	6.23	10.10	5.81	5.77	10.52	6.57	5.24	3.40	10.52
	YEAR OF OCCURRENCE		1993	1998	1959	1958	1967	1973	1960	1964	1998	2008	1969	1978	SEP 1998
	NORMAL NO. DAYS WITH: PRECIPITATION >= 0.01	30	10.4	8.6	8.9	7.2	8.5	11.2	12.3	13.0	10.3	6.2	7.2	8.7	112.5
	PRECIPITATION >= 1.00	30	0.9	0.6	1.2	0.7	0.9	1.7	1.8	2.1	1.9	0.9	0.8	0.8	14.3
SNOWFALL	NORMAL (IN)	30	0.1	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.1
	MAXIMUM MONTHLY (IN)	64	1.0	7.1	2.0	T	T	T	T	T	0.0	0.0	0.0	8.0	8.0
	YEAR OF OCCURRENCE		1977	1973	1969	2011	2006	2006	2006	1993			2006	1989	DEC 1989
	MAXIMUM IN 24 HOURS (IN)	64	0.8	5.9	2.0	T	T	T	T	0.0	0.0	0.0	T	6.6	6.6
	YEAR OF OCCURRENCE		1966	1973	1969	2011	2006	1995	1993				1995	1989	DEC 1989
	MAXIMUM SNOW DEPTH (IN)	58	1	7	1	0	0	0	0	0	0	0	0	8	8
	YEAR OF OCCURRENCE		1966	1973	1980									1989	DEC 1989
NORMAL NO. DAYS WITH: SNOWFALL >= 1.0	30	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	

PRECIPITATION (inches) 2011 CHARLESTON (KCHS)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1982	2.18	3.64	1.26	6.51	3.04	9.16	5.40	4.10	3.92	2.42	1.19	4.20	47.02
1983	4.86	6.35	11.11	3.57	0.75	2.37	8.89	2.90	3.50	2.36	3.08	4.35	54.09
1984	5.12	3.51	5.63	6.30	6.89	2.96	4.87	1.96	5.27	1.67	1.39	0.66	46.23
1985	0.87	2.70	1.50	1.12	2.79	7.02	12.06	8.48	2.53	4.58	5.49	1.21	50.35
1986	2.05	4.17	2.67	0.83	0.93	2.51	5.07	13.41	4.60	2.95	4.03	5.21	48.43
1987	7.17	4.58	5.55	1.31	2.29	5.64	2.92	6.97	14.49	0.56	3.65	1.57	56.70
1988	2.76	2.38	1.78	3.21	1.86	2.32	4.13	11.88	9.72	0.73	1.08	0.72	42.57
1989	2.31	1.17	2.87	4.84	2.14	7.26	1.93	9.18	13.35	4.08	1.85	4.74	55.72
1990	3.96	1.68	6.63	1.65	1.91	3.12	5.95	6.32	0.18	7.29	3.75	2.69	45.13
1991	7.78	0.94	4.66	4.59	5.37	4.54	7.38	8.09	2.29	0.77	1.64	1.62	49.67
1992	4.93	2.23	3.59	2.75	5.07	6.22	4.36	9.55	3.04	4.87	5.76	1.50	53.87
1993	8.92	3.08	5.80	2.72	2.67	3.70	4.21	7.69	5.01	3.00	3.59	2.30	52.69
1994	7.50	1.23	4.44	0.39	2.35	11.71	8.07	5.39	8.08	12.11	2.92	6.35	70.54
1995	3.94	3.73	0.70	1.77	1.31	6.72	5.81	11.07	7.98	3.52	2.02	1.02	49.59
1996	1.05	1.36	4.04	2.70	1.72	4.04	7.34	5.73	8.77	5.07	1.74	2.14	45.70
1997	2.68	2.86	1.81	6.61	2.04	13.76	8.51	2.15	9.58	4.12	3.26	5.19	62.57
1998	7.58	10.17	5.51	4.01	4.63	3.41	6.74	4.44	14.74	1.99	0.16	4.34	67.72
1999	4.96	2.01	2.15	2.90	3.95	2.32	3.19	3.68	10.81	6.20	1.70	2.54	46.41
2000	4.04	2.01	3.66	1.78	0.57	4.35	10.81	4.47	8.88	T	2.72	2.65	45.94
2001	1.07	2.31	6.30	0.94	1.36	8.83	9.73	1.65	4.90	0.65	0.53	1.71	39.98
2002	2.42	2.19	4.48	1.57	2.39	5.89	6.55	11.37	4.92	8.44	5.66	5.09	60.97
2003	1.04	2.46	7.20	5.17	4.79	6.58	9.10	3.83	4.46	3.68	0.82	1.86	50.99
2004	1.57	4.40	0.36	4.10	3.04	3.50	3.77	10.99	3.71	1.38	1.37	1.04	39.23
2005	1.70	3.07	4.31	1.73	5.17	4.68	3.22	9.30	0.97	5.42	3.34	3.25	46.16
2006	2.93	3.30	0.44	2.99	2.72	10.72	3.87	9.11	4.31	2.39	4.18	2.33	49.29
2007	3.83	2.47	0.79	0.88	0.93	4.33	6.17	5.28	7.29	5.66	0.03	4.39	42.05
2008	3.07	2.72	2.41	2.49	3.66	2.61	4.97	5.99	5.68	11.10	2.27	0.35	47.32
2009	1.29	1.33	2.84	5.24	6.45	5.04	8.16	10.12	0.48	2.71	2.25	10.06	55.97
2010	6.46	2.61	4.53	0.70	3.67	7.94	9.86	10.07	8.12	0.83	0.30	2.48	57.57
2011	1.98	3.13	2.67	2.00	0.41	4.37	6.94	7.95	3.60	1.91	1.40	0.65	37.01
POR= 82 YRS	3.20	3.14	3.93	2.71	3.57	5.68	7.23	6.79	5.47	3.12	2.26	2.96	50.06

WBAN : 13880

AVERAGE TEMPERATURE (°F) 2011 CHARLESTON (KCHS)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1982	45.1	51.5	59.2	61.8	72.2	78.8	81.2	80.0	74.5	65.1	60.9	57.0	65.6
1983	45.6	49.0	56.4	61.0	71.7	76.9	82.8	82.9	75.5	68.9	57.4	48.8	64.7
1984	46.1	52.8	57.6	64.0	71.7	78.8	79.9	81.1	73.0	71.3	54.2	57.2	65.6
1985	42.6	50.5	60.7	67.8	73.6	79.6	80.9	79.9	75.8	72.2	67.3	47.9	66.6
1986	45.8	55.5	58.0	66.1	74.3	81.4	86.1	79.9	78.6	68.8	63.1	52.8	67.5
1987	47.2	48.8	56.8	62.6	73.3	80.1	83.0	83.5	77.8	61.0	60.1	53.5	65.6
1988	43.2	49.2	57.4	64.4	71.9	76.7	81.8	82.0	76.3	62.7	61.0	50.6	64.8
1989	55.6	55.0	59.7	65.3	72.3	80.4	82.8	80.7	76.6	68.7	60.6	43.2	66.7
1990	55.4	59.2	62.5	66.0	74.4	81.0	83.6	82.5	79.2	70.5	60.4	56.4	69.3
1991	50.8	54.9	60.5	67.6	76.3	78.9	83.6	82.0	77.4	67.6	56.0	54.3	67.5
1992	49.5	55.0	57.9	63.6	70.3	77.5	83.9	80.6	76.2	65.1	60.4	51.0	65.9
1993	53.7	49.7	55.9	61.6	72.5	79.5	85.5	82.0	78.3	67.3	59.3	48.5	66.2
1994	46.5	53.4	61.3	68.3	71.1	79.8	82.0	80.0	75.7	66.4	62.5	54.4	66.8
1995	49.7	50.2	60.4	68.5	76.0	78.5	83.4	82.5	75.6	69.8	53.8	47.5	66.3
1996	48.0	51.8	53.7	64.2	74.4	78.3	81.9	78.7	75.4	65.8	54.6	52.3	64.9
1997	49.7	55.1	64.3	63.1	69.2	74.8	80.8	79.0	76.0	66.0	55.2	49.9	65.3
1998	52.5	53.7	56.2	65.2	75.1	82.8	83.8	81.2	77.3	68.6	62.4	55.7	67.9
1999	53.6	53.6	54.9	67.8	70.4	76.4	82.5	83.2	74.7	66.4	59.8	50.5	66.2
2000	47.4	53.2	60.9	62.8	75.6	79.7	81.5	80.3	75.2	64.9	55.3	42.6	65.0
2001	46.4	54.6	56.6	65.2	72.6	79.0	79.8	80.9	73.6	64.8	63.6	56.4	66.1
2002	51.3	51.8	60.5	69.6	71.4	78.7	82.7	79.6	79.0	70.7	56.0	48.3	66.6
2003	44.7	50.9	61.2	64.7	74.0	78.7	81.3	81.6	74.6	66.9	62.1	47.1	65.7
2004	46.3	47.8	59.7	64.9	75.8	80.4	82.7	79.3	76.4	69.0	59.9	49.7	66.0
2005	50.8	51.7	55.9	63.2	69.9	78.6	83.5	82.1	79.2	67.8	60.0	49.2	66.0
2006	54.1	50.0	57.2	68.1	72.2	78.5	82.2	82.6	75.5	65.0	57.6	56.4	66.6
2007	52.4	49.8	60.9	64.2	71.4	78.5	80.7	83.8	77.5	71.6	57.5	57.0	67.1
2008	48.9	55.3	58.6	65.0	71.8	81.2	81.2	81.3	76.2	64.5	54.5	56.0	66.2
2009	48.2	49.8	58.0	64.5	73.4	80.9	80.9	81.6	76.6	67.5	58.8	51.0	65.9
2010	44.5	45.9	55.9	66.9	75.5	83.4	82.7	83.3	78.8	68.4	58.2	42.7	65.5
2011	44.4	54.8	60.0	68.8	74.4	83.3	83.7	83.2	76.8	64.3	59.1	54.9	67.3
POR= 82 YRS	49.1	50.4	57.6	64.5	72.6	78.3	81.4	80.6	75.8	66.8	57.5	50.6	65.4

HEATING DEGREE DAYS (base 65°F) 2011 CHARLESTON (KCHS)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1982-83	0	0	0	102	154	276	596	440	264	146	2	0	1980
1983-84	0	0	4	24	230	500	578	347	240	92	16	0	2031
1984-85	0	0	9	13	337	249	692	418	183	47	4	0	1952
1985-86	0	0	2	16	54	526	586	261	244	74	4	0	1767
1986-87	0	6	0	56	128	376	545	446	272	131	7	0	1967
1987-88	0	0	0	135	188	358	669	458	239	85	7	2	2141
1988-89	0	0	0	107	145	442	286	312	220	121	14	0	1647
1989-90	0	0	1	50	169	669	294	189	137	67	0	0	1576
1990-91	0	0	0	65	152	280	432	293	185	34	0	0	1441
1991-92	0	0	0	41	281	349	472	293	234	119	28	0	1817
1992-93	0	0	3	70	197	430	353	421	279	132	1	0	1886
1993-94	0	0	3	49	206	504	568	327	152	30	11	0	1850
1994-95	0	0	0	46	119	338	468	414	167	35	1	0	1588
1995-96	0	0	8	44	357	535	518	383	350	107	15	0	2317
1996-97	0	0	0	54	323	391	467	288	94	106	20	9	1752
1997-98	0	0	0	87	293	463	391	318	288	66	0	0	1906
1998-99	0	0	0	38	113	306	358	315	314	61	20	0	1525
1999-00	0	0	4	71	175	446	543	339	148	96	0	0	1822
2000-01	0	0	1	80	306	687	571	300	272	94	1	0	2312
2001-02	0	0	8	110	94	277	428	368	195	38	21	0	1539
2002-03	0	0	0	17	276	510	619	393	145	69	0	0	2029
2003-04	0	0	4	26	151	551	576	493	186	83	5	0	2075
2004-05	0	0	0	25	205	482	442	369	290	92	25	0	1930
2005-06	0	0	0	89	179	485	334	409	261	46	8	0	1811
2006-07	0	0	0	98	228	269	390	421	157	109	3	0	1675
2007-08	0	0	0	18	231	253	497	285	212	80	5	0	1581
2008-09	0	0	2	109	320	292	513	418	236	75	16	0	1981
2009-10	0	0	0	59	189	436	628	528	276	27	0	0	2143
2010-11	0	0	0	32	218	687	632	288	184	46	5	0	2092
2011-	0	0	0	92	191	315							

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COOLING DEGREE DAYS (base 65°F) 2011 CHARLESTON (KCHS)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1982	0	2	42	42	232	420	510	475	293	111	36	34	2197
1983	0	0	6	32	217	362	559	567	322	149	10	4	2228
1984	0	1	19	67	228	420	471	509	254	212	21	10	2212
1985	7	17	57	136	276	445	501	470	332	245	129	5	2620
1986	0	2	36	114	300	499	662	474	414	182	78	5	2766
1987	0	0	26	62	269	459	567	580	389	18	48	9	2427
1988	0	2	12	74	229	359	529	534	349	43	30	4	2165
1989	5	37	64	136	246	470	561	493	358	173	44	0	2587
1990	4	34	65	105	302	487	583	548	430	238	24	21	2841
1991	0	20	52	118	356	426	584	531	379	128	18	25	2637
1992	0	7	20	83	199	381	592	495	345	79	68	5	2274
1993	7	0	4	37	241	440	644	536	410	127	42	0	2488
1994	0	7	42	133	210	449	537	473	327	93	53	17	2341
1995	1	6	29	146	349	410	577	552	334	198	26	0	2628
1996	0	8	6	88	313	405	531	432	320	87	18	6	2214
1997	0	17	77	56	158	309	496	444	336	124	7	0	2024
1998	10	6	23	77	320	542	592	509	378	158	43	26	2684
1999	10	1	6	153	193	351	548	571	303	122	25	1	2284
2000	1	2	29	36	336	448	522	481	315	84	25	0	2279
2001	0	13	16	107	242	423	467	499	269	114	58	17	2225
2002	10	7	62	182	228	419	555	461	428	199	16	0	2567
2003	0	1	35	67	284	417	513	520	300	89	67	0	2293
2004	6	3	32	86	348	470	557	450	351	155	57	14	2529
2005	8	3	13	47	184	416	583	535	433	183	36	0	2441
2006	0	0	24	148	240	411	539	554	323	108	13	10	2370
2007	6	0	34	92	206	414	492	587	381	231	14	12	2469
2008	6	11	19	85	221	491	508	510	346	102	13	20	2332
2009	0	0	26	64	282	485	501	523	357	144	14	7	2403
2010	0	0	1	94	334	558	557	576	424	143	19	0	2706
2011	0	8	36	167	302	554	590	571	359	77	23	9	2696

SNOWFALL (inches) 2011 CHARLESTON (KCHS)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1982-83	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	T
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	0.0	T	0.0	0.0	T	0.0	0.0	T
1985-86	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	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	T	0.0	0.0	0.0	T
1987-88	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.4
1988-89	0.0	0.0	0.0	0.0	0.0	T	0.0	0.9	T	0.0	0.0	T	0.9
1989-90	0.0	0.0	0.0	0.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1992-93	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	T
1993-94	T	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	T
1994-95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	T
1995-96	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T
1996-97													
1997-98													
1998-99													
1999-00													
2000-01													
2001-02				0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	
2002-03	0.0	0.0	0.0	0.0		0.0	T	0.0	0.0	0.0	0.0	0.0	
2003-04	0.0	0.0	0.0	0.0	0.0	0.0	T	T	0.0	0.0	0.0	0.0	T
2004-05	0.0	0.0	0.0	0.0	0.0	T	T	0.0	0.0	0.0	0.0	0.0	T
2005-06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	T	T
2006-07	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T
2007-08	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	T
2008-09	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	T
2009-10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	3.4
2010-11	0.0	0.0	0.0	0.0	0.0	0.2	T	0.0	0.0	T	0.0	0.0	0.2
2011-	0.0	0.0	0.0	0.0	0.0	0.0							
POR= 76 YRS	T	0.0	0.0	0.0	T	0.2	T	0.2	0.1	T	T	T	0.5

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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 (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. 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.</p>	<p>GENERAL CONTINUED: 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. 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. STATION HISTORY STOPPED WITH THE 2009 ANNUAL. IF YOU NEED HISTORY GO TO "MULTI-NETWORK MEDADATA SYSTEM", URL IS: https://mi3.ncdc.noaa.gov/mi3qry/login.cfm SNOWFALL STOPPED MONTH & YEAR INDICATED ABOVE. NO FURTHER YEARS INCLUDED UNLESS RESTARTED.</p> <p>NOTE: The "Period of Record:(POR) for all "averages" is based on the "Summary of the Day First Order Station" and "Cooperative Summary of the Day" archives.</p>
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2011 CHARLESTON SOUTH CAROLINA (KCHS)

Charleston is a peninsula city bounded on the west and south by the Ashley River, on the east by the Cooper River, and on the southeast by a spacious harbor. Weather records for the airport are from a site some 10 miles inland. The terrain is generally level, ranging in elevation from sea level to 20 feet on the peninsula, with gradual increases in elevation toward inland areas. The soil is sandy to sandy loam with lesser amounts of loam. The drainage varies from good to poor. Because of the very low elevation, a considerable portion of this community and the nearby coastal islands are vulnerable to tidal flooding.

The climate is temperate, modified considerably by the nearness to the ocean. The marine influence is noticeable during winter when the low temperatures are sometimes 10-15 degrees higher on the peninsula than at the airport. By the same token, high temperatures are generally a few degrees lower on the peninsula. The prevailing winds are northerly in the fall and winter, southerly in the spring and summer.

Summer is warm and humid. Temperatures of 100 degrees or more are infrequent. High temperatures are generally several degrees lower along the coast than inland due to the cooling effect of the sea breeze. Summer is the rainiest season with 41 percent of the annual total. The rain, except during occasional tropical storms, generally occurs as showers or thunderstorms.

The fall season passes through the warm Indian Summer period to the pre-winter cold spells which begin late in November. From late September to early November the weather is mostly sunny and temperature extremes are rare. Late summer and early fall is the period of maximum threat to the South Carolina coast from hurricanes.

The winter months, December through February, are mild with periods of rain. However, the winter rainfall is generally of a more uniform type. There is some chance of a snow flurry, with the best probability of its occurrence in January, but a significant amount is rarely measured. An average winter would experience less than one cold wave and severe freeze. Temperatures of 20 degrees or less on the peninsula and along the coast are very unusual.

The most spectacular time of the year, weatherwise, is spring with its rapid changes from windy and cold in March to warm and pleasant in May. Severe local storms are more likely to occur in spring than in summer.

The average occurrence of the first freeze in the fall is early December, and the average last freeze is late February, giving an average growing season of about 294 days.

Station History

CHARLESTON, SC

NAME	Begin Date	End Date	Latitude	Longitude	Elevation Feet	Relocation	Platform
CHARLESTON MUNICIPAL AP	1939-07-01	1948-07-01	32° 54'	-80° 1'			AIRWAYS,UPPERAIR
CHARLESTON INTL AP	1974-07-01	1981-12-31	32° 54'	-80° 1'	40		COOP,UPPERAIR,WXSVC
CHARLESTON INTL AP	2002-10-01	Present	32° 53'	-80° 2'	40		ASOS,COOP,UPPERAIR
CHARLESTON MUNICIPAL AP	1950-01-01	1969-01-01	32° 54'	-80° 1'	40		AIRWAYS,COOP,UPPERAIR
CHARLESTON INTL AP	1981-12-31	1995-10-01	32° 54'	-80° 1'	40		COOP,UPPERAIR
CHARLESTON INTL AP	1995-10-01	2002-10-01	32° 53'	-80° 2'	40		ASOS,COOP,UPPERAIR
CHARLESTON MUNICIPAL AP	1931-08-01	1939-07-01	32° 54'	-80° 1'			AIRWAYS
CHARLESTON MUNICIPAL AP	1948-07-01	1950-01-01	32° 54'	-80° 1'	46		AIRWAYS,COOP,UPPERAIR
CHARLESTON MUNICIPAL AP	1969-01-01	1974-07-01	32° 54'	-80° 1'	40		COOP,UPPERAIR,WXSVC

Element History

Element	Begin Date	End Date	Frequency	Time Of Observation	Equipment *	Equipment * Modifications	Equipment Exposure
PRECIP	2002-10-01	2011-10-24	DAILY	2400	PCPNX		
EVAP	1952-07-01	1987-11-10	DAILY	1600			
PRECIP	1952-07-01	1987-11-10	DAILY	2400			
EVAP	1931-08-01	1952-07-01	DAILY	1600			
EVAP	1995-07-01	2002-10-01	DAILY	0800	SIXS		
EVAP	1995-07-01	2002-10-01	DAILY	0800	PAN-LEVEL		
EVAP	1995-07-01	2002-10-01	DAILY	0800	WIND		
PRECIP	2011-10-24	Present	HOURLY	2400	AWPAG	RCRD;HTD	
TEMP	2011-10-24	Present	DAILY	2400	ATEMP		
EVAP	1987-11-10	1995-07-01	DAILY	0800	SIXS		
PRECIP	1995-07-01	2002-10-01	HOURLY	2400	UNIV	RCRD	
MAX/MINTEM	2002-10-01	2011-10-24	DAILY	0700	PALMER		
PRECIP	1987-11-10	1995-07-01	DAILY	2400			
PRECIP	2002-10-01	2011-10-24	HOURLY	2400	AHTB	RCRD;HTD	
TEMP	2002-10-01	2011-10-24	DAILY	2400	ATEMP		
PRECIP	1952-07-01	1987-11-10	HOURLY	2400			
EVAP	1987-11-10	1995-07-01	DAILY	0800	WIND		
TEMP	1987-11-10	1995-07-01	DAILY	2400	MXMN		
PRECIP	2011-10-24	Present	DAILY	2400	PCPNX		
PRECIP	1931-08-01	1952-07-01	DAILY	2400			
TEMP	1952-07-01	1987-11-10	DAILY	2400			
TEMP	1995-07-01	2002-10-01	DAILY	2400	MXMN		
EVAP	1987-11-10	1995-07-01	DAILY	0800	PAN-LEVEL		
MAX/MINTEM	2011-10-24	Present	DAILY	0700	PALMER		
TEMP	1931-08-01	1952-07-01	DAILY	2400			
PRECIP	1987-11-10	1995-07-01	HOURLY	2400			
PRECIP	1995-07-01	2002-10-01	DAILY	2400			

* For explanation of codes and abbreviations see Station Metadata link below.

Other Station Information can be found at:

ASOS Implementation by NWS: <http://www.nws.noaa.gov/ops2/Surface/asosimplementation.htm>

Station Metadata website: <http://www.ncdc.noaa.gov/homr>

INQUIRES/COMMENTS CALL: (828) 271-4800, option 2

Fax Number : (828) 271-4876

TDD : (828) 271-4010

Email : ncdc.info@noaa.gov

NOAA/National Climatic Data Center

Attn: User Engagement & Services Branch

151 Patton Avenue

Asheville, NC 28801-5001

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