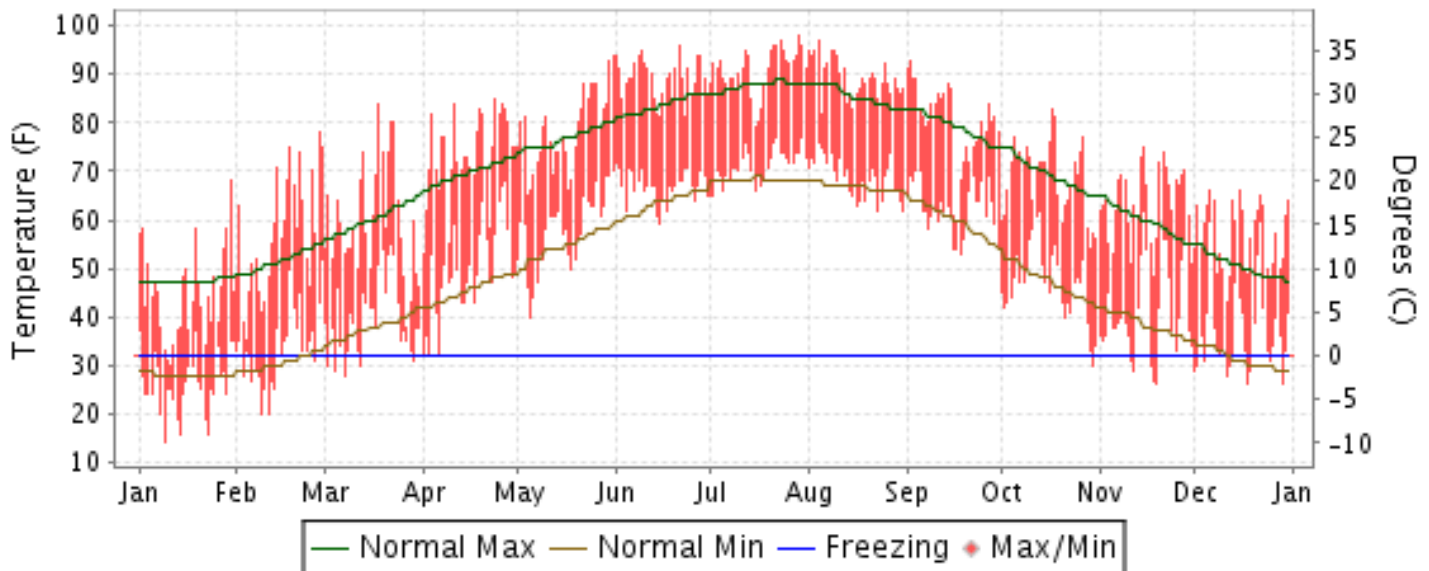




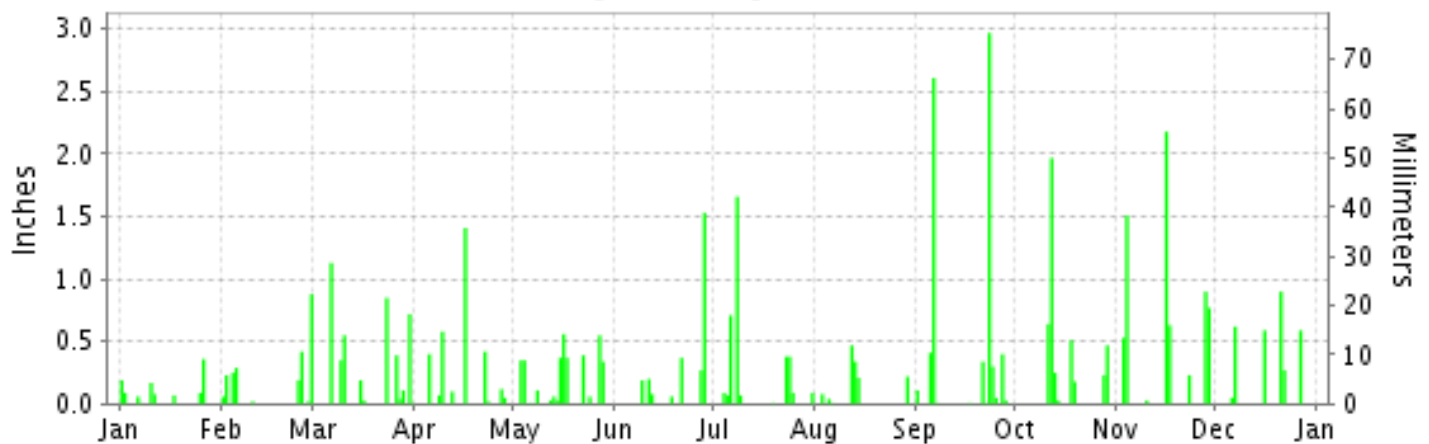
# 2011 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

ISSN 0198-375X

## GREENSBORO, NORTH CAROLINA (KGSO) 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

## GREENSBORO (KGSO)

LATITUDE: 36° 5'N      LONGITUDE: -79° 56'W      ELEVATION (FT): GRND: 890 BARO: 907      TIME ZONE: EASTERN (UTC -5)      WBAN: 13723

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	44.7	57.0	59.7	73.5	78.3	89.1	90.9	89.4	80.0	68.6	63.5	56.6	70.9	
	HIGHEST DAILY MAXIMUM	68	78	84	85	94	96	98	97	93	83	75	66	98	
	DATE OF OCCURRENCE	30	27	18	24	31	21	29	04	02	17	15	15+	JUL 29	
	MEAN DAILY MINIMUM	26.2	33.6	39.7	49.5	57.9	67.0	71.2	68.8	62.4	46.9	40.9	36.8	50.1	
	LOWEST DAILY MINIMUM	14	20	28	32	40	59	65	62	53	30	26	26	14	
	DATE OF OCCURRENCE	09	11+	07	06+	05	15	02+	31+	18	30	19	29+	JAN 09	
	AVERAGE DRY BULB	35.5	45.3	49.7	61.5	68.1	78.1	81.1	79.1	71.2	57.8	52.2	46.7	60.5	
	MEAN WET BULB	31.0	38.4	43.3	53.3	61.1	67.3	71.6	68.9	64.2	50.8	46.4	41.5	53.2	
	MEAN DEW POINT	22.3	27.6	34.7	45.3	56.2	61.4	67.5	63.7	60.3	44.4	39.8	34.9	46.5	
	NUMBER OF DAYS WITH:														
	MAXIMUM >= 90°	0	0	0	0	2	14	20	13	2	0	0	0	0	51
	MAXIMUM <= 32°	2	0	0	0	0	0	0	0	0	0	0	0	0	2
	MINIMUM <= 32°	25	12	5	3	0	0	0	0	0	1	5	11	62	
MINIMUM <= 0°	0	0	0	0	0	0	0	0	0	0	0	0	0		
H/C	HEATING DEGREE DAYS	910	543	470	162	48	0	0	0	20	222	380	557	3312	
	COOLING DEGREE DAYS	0	0	8	63	152	397	505	447	213	9	4	0	1798	
RH	MEAN (PERCENT)	62	55	60	59	69	60	67	64	73	65	65	66	64	
	HOUR 01 LST	71	63	68	73	82	75	79	79	84	78	75	72	75	
	HOUR 07 LST	73	68	70	70	76	65	71	72	79	76	78	77	73	
	HOUR 13 LST	48	40	47	43	53	41	49	44	57	46	48	51	47	
	HOUR 19 LST	60	53	57	52	66	57	68	62	72	66	65	66	62	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	2	0	1	2	1	0	1	1	2	1	0	0	11	
	THUNDERSTORMS	0	1	1	6	10	8	11	8	6	1	1	0	53	
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.)	29.07	29.13	29.15	29.03	29.03	29.04	29.05	28.98	29.06	29.08	29.18	29.24	29.09	
	MEAN SEA-LEVEL PRESS. (IN.)	30.03	30.08	30.10	29.96	29.96	29.96	29.97	29.89	29.99	30.03	30.13	30.20	30.03	
WINDS	RESULTANT SPEED (MPH)	2.5	3.9	0.2	5.9	2.1	2.1	2.0	1.7	0.5	1.4	3.2	2.8	2.0	
	RES. DIR. (TENS OF DEGS.)	30	25	02	22	21	27	25	30	20	29	23	23	25	
	MEAN SPEED (MPH)	6.7	8.3	8.1	10.4	5.8	5.5	5.2	6.5	5.2	6.7	7.3	6.5	6.9	
	PREVAIL.DIR.(TENS OF DEGS.)	22	22	06	21	21	24	23	30	22	22	21	22	21	
	MAXIMUM 2-MINUTE WIND														
	SPEED (MPH)	32	37	29	43	35	39	36	28	26	31	32	37	43	
	DIR. (TENS OF DEGS.)	27	29	23	26	25	29	23	33	21	22	06	25	26	
	DATE OF OCCURRENCE	08	25	23	05	27	18	08	27	06	19	04	07	APR 05	
	MAXIMUM 3-SECOND WIND:														
	SPEED (MPH)	38	51	37	59	51	54	48	38	36	41	39	47	59	
DIR. (TENS OF DEGS.)	29	30	23	26	23	28	30	33	21	21	31	26	26		
DATE OF OCCURRENCE	08	25	23	05	27	18	24	27	06	19	23	07	APR 05		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	1.12	2.36	4.37	3.17	3.58	2.70	3.55	1.37	7.25	4.28	6.78	3.02	43.55	
	GREATEST 24-HOUR (IN.)	0.45	0.88	1.13	1.41	0.92	1.53	1.73	0.79	2.97	2.58	2.59	0.90	2.97	
	DATE OF OCCURRENCE	25-26	28	06	16	16-17	28	08-09	12-13	23	11-12	16-17	21	SEP 23	
	NUMBER OF DAYS WITH:														
	PRECIPITATION 0.01	9	9	11	9	14	7	10	7	12	8	8	6	110	
PRECIPITATION 0.10	3	6	8	6	9	5	4	4	7	7	7	5	71		
PRECIPITATION 1.00	0	0	1	1	0	1	1	0	2	1	2	0	9		
SNOWFALL	SNOW,ICE PELLETS,HAIL														
	TOTAL (IN.)	1.4	0.3	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	
	GREATEST 24-HOUR (IN.)	1.2	0.3	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	
	DATE OF OCCURRENCE	10	10	28										JAN 10	
	MAXIMUM SNOW DEPTH (IN.)	1	0	0	0	0	0	0	0	0	0	0	0	1	
	DATE OF OCCURRENCE	13+												JAN 13+	
NUMBER OF DAYS WITH:															
SNOWFALL >= 1.0	1	0	0	0	0	0	0	0	0	0	0	0	1		

# NORMALS, MEANS, AND EXTREMES GREENSBORO (KGSO)

**LATITUDE:** 36° 5'N      **LONGITUDE:** -79° 56'W      **ELEVATION (FT):** GRND: 890 BARO: 907      **TIME ZONE:** EASTERN (UTC -5)      **WBAN: 13723**

ELEMENT		POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
<b>TEMPERATURE °F</b>	NORMAL DAILY MAXIMUM	30	47.2	51.7	60.3	69.7	76.9	83.8	87.6	85.7	79.4	69.6	59.9	50.6	68.5
	MEAN DAILY MAXIMUM	109	48.8	49.7	60.4	69.4	78.4	84.0	87.8	86.5	79.7	71.0	59.6	50.5	68.8
	HIGHEST DAILY MAXIMUM	83	78	81	90	94	98	102	102	103	100	95	85	78	103
	YEAR OF OCCURRENCE		2002	1977	1945	1930	1941	1954	1977	1988	1954	1954	1974	2007	AUG 1988
	MEAN OF EXTREME MAXS.	110	68.0	70.4	78.8	85.9	89.2	94.1	95.5	94.5	90.9	83.8	76.4	68.7	83.0
	NORMAL DAILY MINIMUM	30	28.2	30.6	37.8	45.5	54.7	63.5	68.1	66.8	60.1	47.5	38.6	31.4	47.7
	MEAN DAILY MINIMUM	109	29.1	29.4	37.5	45.4	55.1	62.6	67.4	66.4	59.0	47.5	37.2	30.8	47.3
	LOWEST DAILY MINIMUM	83	-8	-4	5	21	32	42	48	45	35	20	10	0	-8
	YEAR OF OCCURRENCE		1985	1936	1960	1943	1989	1977	1933	1986	1942	1962	1970	1962	JAN 1985
	MEAN OF EXTREME MINS.	110	10.6	14.8	21.2	30.4	40.6	51.8	58.5	57.0	45.8	32.1	22.3	14.4	33.3
	NORMAL DRY BULB	30	37.7	41.2	49.1	57.6	65.8	73.6	77.9	76.2	69.8	58.5	49.2	41.0	58.1
	MEAN DRY BULB	109	39.0	39.5	49.0	57.4	66.8	73.4	77.6	76.4	69.4	59.3	48.4	40.7	58.1
	MEAN WET BULB	28	32.3	34.5	41.0	49.2	58.2	65.8	69.4	68.7	62.6	52.2	43.1	35.0	51.0
	MEAN DEW POINT	28	28.2	30.3	36.4	45.0	55.4	63.7	67.8	67.2	60.9	49.7	39.8	31.0	48.0
	NORMAL NO. DAYS WITH: MAXIMUM >= 90	30	0.0	0.0	0.0	0.3	0.8	5.6	11.8	8.4	2.2	0.2	0.0	0.0	29.3
	MAXIMUM <= 32	30	2.6	1.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	5.4
MINIMUM <= 32	30	21.3	17.6	9.2	2.0	*	0.0	0.0	0.0	0.0	1.1	9.5	18.4	79.1	
MINIMUM <= 0	30	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	
<b>H/C</b>	NORMAL HEATING DEG. DAYS	30	851	679	501	245	77	8	0	1	32	232	480	742	3848
	NORMAL COOLING DEG. DAYS	30	0	0	4	25	97	263	398	345	172	24	3	1	1332
<b>RH</b>	NORMAL (PERCENT)	30	67	64	62	61	70	72	74	76	77	73	69	68	69
	HOURLY 01 LST	30	74	70	70	71	81	84	86	87	88	84	78	75	79
	HOURLY 07 LST	30	78	77	77	77	82	84	87	90	91	88	83	79	83
	HOURLY 13 LST	30	56	53	50	47	54	56	58	59	60	54	54	56	55
	HOURLY 19 LST	30	64	57	54	52	61	65	67	69	73	72	66	65	64
<b>S</b>	PERCENT POSSIBLE SUNSHINE	67	51	56	60	63	63	64	62	61	62	64	57	53	60
<b>W/O</b>	MEAN NO. DAYS WITH: HEAVY FOG(VISBY <= 1/4 MI)	48	4.2	2.9	2.7	1.5	1.7	1.3	1.4	2.1	2.6	2.4	2.9	3.5	29.2
	THUNDERSTORMS	64	0.5	0.5	2.0	3.5	6.4	7.7	9.9	7.4	3.0	1.0	0.6	0.2	42.7
<b>CLOUDINESS</b>	MEAN: SUNRISE-SUNSET (OKTAS)														
	MIDNIGHT-MIDNIGHT (OKTAS)														
	MEAN NO. DAYS WITH: CLEAR	1	1.0	2.0	6.0		10.0	12.0							
	PARTLY CLOUDY	1	1.0	3.0	3.0		4.0	3.0							
CLOUDY	1	3.0	4.0	8.0		6.0	4.0								
<b>PR</b>	MEAN STATION PRESSURE(IN)	28	29.16	29.13	29.10	29.06	29.08	29.08	29.10	29.11	29.14	29.16	29.18	29.18	29.12
	MEAN SEA-LEVEL PRES. (IN)	28	30.12	30.09	30.05	29.99	30.01	30.00	30.02	30.03	30.07	30.10	30.13	30.14	30.06
<b>WINDS</b>	MEAN SPEED (MPH)	28	7.8	8.0	8.5	8.6	7.4	6.7	6.3	5.9	6.2	6.2	6.8	7.1	7.1
	PREVAIL.DIR(TENS OF DEGS)	42	22	22	22	22	22	24	23	23	03	03	22	22	22
	MAXIMUM 2-MINUTE: SPEED (MPH)	16	41	43	49	43	62	43	41	40	46	33	38	39	62
	DIR. (TENS OF DEGS)		19	26	30	26	27	27	10	12	26	28	02	27	27
	YEAR OF OCCURRENCE		1996	2008	1997	2011	2000	2002	2004	2006	2000	2006	2006	2007	MAY 2000
	MAXIMUM 3-SECOND SPEED (MPH)	16	54	53	60	62	82	59	53	52	60	41	48	51	82
	DIR. (TENS OF DEGS)		22	26	24	28	26	25	11	12	25	21	24	23	26
	YEAR OF OCCURRENCE		1996	2008	2008	2007	2000	2002	2004	2006	2000	2011	2003	2009	MAY 2000
<b>PRECIPITATION</b>	NORMAL (IN)	30	3.54	3.10	3.85	3.43	3.95	3.53	4.44	3.71	4.30	3.27	2.96	3.06	43.14
	MAXIMUM MONTHLY (IN)	83	8.24	7.04	8.76	8.03	8.35	10.50	12.72	12.53	13.26	12.59	8.26	6.44	13.26
	YEAR OF OCCURRENCE		1937	1929	1975	1987	1982	2006	1984	1939	1947	1990	1985	1973	SEP 1947
	MINIMUM MONTHLY (IN)	83	0.66	0.73	0.67	0.41	0.37	T	0.98	0.71	T	0.26	0.34	0.33	0.26
	YEAR OF OCCURRENCE		1981	1978	1985	1995	1936	1990	1953	1972	1985	2000	2001	1955	OCT 2000
	MAXIMUM IN 24 HOURS (IN)	83	3.06	3.00	3.62	4.42	3.25	4.91	4.43	5.14	7.49	6.24	3.32	3.60	7.49
	YEAR OF OCCURRENCE		1936	1934	1991	1987	1989	1972	1944	2008	1947	1954	1962	1958	SEP 1947
	NORMAL NO. DAYS WITH: PRECIPITATION >= 0.01	30	10.6	9.3	10.9	9.3	10.0	9.9	11.1	9.5	7.9	7.1	8.1	10.0	113.7
	PRECIPITATION >= 1.00	30	0.8	0.7	0.7	0.6	1.0	0.8	1.2	1.2	1.4	1.1	0.8	0.7	11.0
<b>SNOWFALL</b>	NORMAL (IN)	30	3.0	3.5	1.4	0.*	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.9	8.9
	MAXIMUM MONTHLY (IN)	83	22.9	16.3	21.3	T	T	T	T	T	0.0	0.0	5.9	14.3	22.9
	YEAR OF OCCURRENCE		1966	1979	1960	2008	2006	2001	1995	2006			1968	1930	JAN 1966
	MAXIMUM IN 24 HOURS (IN)	83	14.0	9.3	11.1	T	T	T	T	T	0.0	0.0	5.0	14.3	14.3
	YEAR OF OCCURRENCE		1940	1979	1960	1993	1993	2001	1995	2006			1968	1930	DEC 1930
	MAXIMUM SNOW DEPTH (IN)	63	15	13	14	0	0	0	0	0	0	0	4	6	15
	YEAR OF OCCURRENCE		1966	1966	1960								1968	1973	JAN 1966
NORMAL NO. DAYS WITH: SNOWFALL >= 1.0	30	0.8	1.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	2.5	

**PRECIPITATION (inches) 2011 GREENSBORO (KGSO)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1982	2.91	4.64	2.39	2.72	8.35	7.28	3.46	1.46	1.22	4.65	2.73	3.56	45.37
1983	1.31	3.82	5.75	5.16	4.12	5.15	2.78	1.44	2.68	4.09	5.37	4.38	46.05
1984	3.51	5.25	5.31	2.77	5.83	3.10	12.72	5.55	1.12	1.16	2.02	1.90	50.24
1985	4.34	3.77	0.67	0.94	4.32	2.25	4.31	4.86	T	1.92	8.26	1.46	37.10
1986	0.74	1.61	2.00	0.47	1.12	1.10	3.21	8.03	1.05	3.24	3.50	3.60	29.67
1987	3.77	4.72	3.24	8.03	2.48	1.20	5.80	3.55	7.22	0.71	3.66	3.38	47.76
1988	2.35	1.27	1.86	2.55	3.97	3.19	4.47	3.50	3.24	4.09	3.55	1.19	35.23
1989	0.93	4.48	5.71	3.23	6.36	7.09	2.96	2.31	6.08	5.04	2.92	3.53	50.64
1990	3.76	4.32	2.64	2.90	6.54	T	1.50	2.01	1.16	12.59	1.93	4.17	43.52
1991	4.53	1.15	7.75	6.66	3.89	1.96	3.95	1.91	3.66	1.90	1.67	2.80	41.83
1992	3.54	3.02	2.74	5.83	2.34	2.92	5.43	2.97	3.06	3.66	6.05	2.48	44.04
1993	3.65	3.40	7.61	6.08	2.95	3.14	3.28	2.31	2.82	1.25	2.58	3.28	42.35
1994	3.66	2.49	5.04	1.45	1.71	3.92	4.51	5.84	1.61	1.13	2.55	0.60	34.51
1995	2.94	3.59	1.84	0.41	2.15	9.53	2.39	5.41	2.26	5.98	3.49	1.36	41.35
1996	4.49	2.38	4.29	3.67	3.84	1.93	4.71	5.22	10.82	4.21	2.57	3.87	52.00
1997	2.89	3.43	4.06	7.22	1.79	3.33	3.03	1.97	3.88	2.38	2.65	2.17	38.80
1998	6.88	4.39	3.65	5.52	5.04	3.53	3.86	5.63	2.34	0.62	1.55	5.22	48.23
1999	5.39	1.50	1.96	4.37	1.00	4.26	4.14	5.00	8.62	2.32	1.28	2.04	41.88
2000	4.03	1.54	2.95	4.47	2.31	4.05	2.18	3.97	9.98	T	1.95	1.14	38.57
2001	2.53	2.51	5.05	1.81	2.69	3.09	4.06	3.08	2.05	0.41	0.34	2.21	29.83
2002	4.47	1.05	3.13	0.55	2.99	3.73	3.10	4.42	3.75	5.75	4.29	4.45	41.68
2003	2.35	4.91	6.69	6.39	6.83	4.39	7.64	9.22	7.90	1.72	1.63	2.65	62.32
2004	0.89	2.41	1.61	2.53	2.00	2.35	7.13	2.09	8.79	0.61	4.59	2.85	37.85
2005	1.81	2.66	3.18	2.24	1.83	3.91	5.33	1.84	0.23	2.92	3.63	4.08	33.66
2006	2.38	1.54	0.95	2.71	2.44	10.50	6.72	5.29	7.19	2.95	5.95	1.73	50.35
2007	2.92	2.27	3.31	4.97	0.54	2.20	2.38	1.36	0.88	6.61	0.84	3.19	31.47
2008	0.95	2.65	4.31	5.45	1.60	2.58	1.86	7.08	4.88	1.33	2.80	3.30	38.79
2009	2.58	1.58	4.59	3.02	3.59	5.67	1.11	3.12	4.07	3.82	7.86	5.03	46.04
2010	4.73	2.87	4.83	1.71	3.98	1.62	7.33	3.27	6.74	2.63	0.80	2.20	42.71
2011	1.12	2.36	4.37	3.17	3.58	2.70	3.55	1.37	7.25	4.28	6.78	3.02	43.55
POR= 109 YRS	3.41	3.25	3.89	3.40	3.56	3.99	4.71	4.44	3.80	2.96	2.81	3.30	43.52

WBAN : 13723

**AVERAGE TEMPERATURE (°F) 2011 GREENSBORO (KGSO)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1982	32.7	42.8	49.2	54.9	70.1	72.1	77.1	75.0	68.0	57.6	49.1	45.5	57.8
1983	36.0	38.6	48.4	53.0	63.8	71.6	78.0	78.2	69.1	58.3	48.7	36.5	56.7
1984	35.2	44.1	46.0	54.3	63.5	75.0	74.2	75.4	65.7	65.5	45.5	48.3	57.7
1985	32.8	40.6	51.7	61.0	66.8	73.1	75.7	73.4	67.9	61.1	56.2	37.6	58.2
1986	37.1	42.3	49.7	60.5	66.5	77.3	80.8	73.6	71.1	61.3	50.7	40.2	59.3
1987	36.4	38.8	47.9	55.6	68.9	75.9	80.1	78.9	71.6	53.1	50.6	42.2	58.3
1988	33.0	40.4	49.4	57.0	65.2	72.4	78.1	79.7	68.5	53.2	49.6	39.5	57.2
1989	42.2	40.4	49.4	56.8	63.2	75.4	77.5	74.8	69.5	59.4	48.8	32.7	57.5
1990	45.3	48.5	52.7	58.1	66.0	75.2	79.3	77.3	70.5	61.2	52.4	46.3	61.1
1991	40.8	45.2	52.4	60.7	71.5	75.0	79.5	76.2	70.6	60.3	48.5	44.9	60.5
1992	42.1	45.2	48.5	57.5	62.4	71.1	79.5	73.0	69.3	56.6	48.9	39.7	57.8
1993	40.4	38.2	45.4	56.9	69.1	75.5	82.0	78.2	72.2	58.3	49.0	39.0	58.7
1994	34.2	42.3	50.2	61.2	63.1	75.5	77.7	74.1	67.5	57.8	51.6	45.2	58.4
1995	40.0	39.5	51.9	60.1	67.3	72.9	79.4	79.4	68.8	60.1	44.5	36.9	58.4
1996	35.5	40.4	44.2	56.3	66.4	74.7	77.0	74.3	68.5	58.4	43.9	41.9	56.8
1997	37.1	43.9	53.0	53.2	62.0	70.3	77.8	74.7	68.9	58.3	45.0	38.9	56.9
1998	42.6	44.2	47.9	57.7	68.3	75.5	78.7	76.6	73.3	60.5	50.8	45.0	60.1
1999	42.7	43.3	45.5	59.9	66.1	72.8	78.6	77.5	67.9	57.5	53.4	43.2	59.0
2000	37.2	44.9	53.6	56.2	68.8	75.0	75.5	75.4	67.2	60.3	46.6	33.0	57.8
2001	38.7	45.1	45.9	59.8	66.3	75.3	74.6	77.0	67.3	57.4	54.8	46.1	59.0
2002	41.5	42.5	49.6	62.1	65.5	75.6	78.9	76.9	71.8	60.2	48.2	39.5	59.4
2003	36.4	40.0	53.0	58.5	64.3	71.9	76.1	77.4	68.8	58.3	54.4	39.2	58.2
2004	36.7	38.7	51.2	58.7	71.7	74.7	78.1	74.9	70.4	61.4	52.4	41.5	59.2
2005	42.5	43.7	46.9	58.3	64.2	74.5	79.8	79.3	73.9	61.6	51.7	39.3	59.6
2006	46.5	42.4	51.3	62.4	65.0	74.3	78.8	79.4	68.2	57.3	51.5	46.3	60.3
2007	43.3	38.7	55.7	58.4	67.9	75.3	77.0	83.2	73.9	66.0	50.3	47.0	61.4
2008	39.8	45.1	51.5	58.2	66.3	78.9	78.3	76.7	71.0	57.8	46.6	44.5	59.6
2009	37.7	43.2	49.0	59.4	68.3	76.0	76.6	78.7	70.0	58.7	52.3	39.0	59.1
2010	36.0	36.6	51.1	62.9	70.6	79.9	80.9	79.7	74.6	62.1	49.8	33.1	59.8
2011	35.5	45.3	49.7	61.5	68.1	78.1	81.1	79.1	71.2	57.8	52.2	46.7	60.5
POR= 109 YRS	39.0	39.5	49.0	57.4	66.8	73.4	77.6	76.4	69.4	59.3	48.4	40.7	58.1

**HEATING DEGREE DAYS (base 65°F) 2011 GREENSBORO (KGSO)**

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1982-83	0	0	38	253	467	602	894	734	505	358	97	9	3957
1983-84	0	0	74	222	482	876	913	600	580	331	107	4	4189
1984-85	0	0	96	53	580	512	992	679	425	160	50	6	3553
1985-86	1	0	65	151	263	843	857	629	472	176	68	0	3525
1986-87	0	17	13	174	426	761	880	724	524	291	34	0	3844
1987-88	0	0	4	361	422	699	984	705	478	241	56	23	3973
1988-89	0	0	24	368	455	781	702	685	492	279	133	0	3919
1989-90	0	1	48	206	481	994	601	458	397	237	51	4	3478
1990-91	0	0	31	161	371	573	739	546	391	167	24	2	3005
1991-92	0	0	29	171	495	619	703	567	505	255	132	8	3484
1992-93	0	0	38	258	474	777	756	746	600	244	18	0	3911
1993-94	0	0	23	232	482	803	949	630	452	154	125	0	3850
1994-95	0	0	19	227	392	608	769	709	397	182	47	0	3350
1995-96	0	0	33	185	609	863	904	705	636	266	86	2	4289
1996-97	0	0	18	208	628	709	856	584	365	351	124	53	3896
1997-98	0	0	23	241	593	799	686	575	533	225	33	13	3721
1998-99	0	0	7	153	420	617	684	601	596	187	38	6	3309
1999-00	6	0	31	236	341	671	856	575	354	264	29	5	3368
2000-01	0	0	62	165	546	984	809	553	584	209	39	0	3951
2001-02	0	0	61	248	303	582	720	624	471	162	105	0	3276
2002-03	0	0	1	217	495	782	877	692	369	207	85	5	3730
2003-04	0	0	22	206	331	792	871	758	428	224	32	0	3664
2004-05	0	1	7	131	379	720	690	590	553	212	78	10	3371
2005-06	0	0	3	162	397	791	568	629	428	135	90	0	3203
2006-07	0	0	31	253	398	574	663	729	319	239	64	3	3273
2007-08	0	0	7	91	437	556	775	570	414	214	39	0	3103
2008-09	0	0	14	239	543	626	837	604	497	199	47	0	3606
2009-10	0	0	14	205	375	800	890	791	421	109	35	0	3640
2010-11	0	0	4	123	449	980	910	543	470	162	48	0	3689
2011-	0	0	20	222	380	557							

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**COOLING DEGREE DAYS (base 65°F) 2011 GREENSBORO (KGSO)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1982	0	0	0	7	179	216	382	317	136	33	0	2	1272
1983	0	0	0	5	68	210	409	415	202	20	0	0	1329
1984	0	0	0	16	66	309	292	328	122	79	0	0	1212
1985	0	1	18	47	109	259	339	268	159	36	7	0	1243
1986	0	0	3	49	123	376	496	291	202	67	5	0	1612
1987	0	0	0	13	162	333	473	438	212	0	0	0	1631
1988	0	0	2	10	71	249	411	461	137	8	0	0	1349
1989	0	3	13	39	79	320	392	313	189	40	0	0	1388
1990	0	0	23	37	86	317	451	390	202	47	0	0	1553
1991	0	0	9	46	232	310	454	352	202	33	5	5	1648
1992	0	0	0	37	58	198	457	252	175	6	0	0	1183
1993	0	0	0	9	154	321	530	414	247	34	10	0	1719
1994	0	0	1	47	71	326	399	292	101	11	0	0	1248
1995	0	0	0	41	128	244	454	451	153	39	0	0	1510
1996	0	0	0	13	140	301	378	294	132	11	0	0	1269
1997	0	0	2	2	39	219	406	306	146	38	0	0	1158
1998	0	0	9	14	144	332	432	363	265	18	0	6	1583
1999	0	0	0	40	79	251	434	396	124	13	0	0	1337
2000	0	0	6	9	152	314	329	331	134	24	2	0	1301
2001	0	0	0	57	87	315	304	379	137	18	5	0	1302
2002	1	0	2	82	127	325	440	375	214	72	0	0	1638
2003	0	0	6	18	69	221	350	394	142	6	17	0	1223
2004	0	0	7	42	245	298	415	316	173	28	10	0	1534
2005	0	0	0	17	58	299	468	453	274	62	4	0	1635
2006	0	0	10	64	98	284	434	455	135	21	2	0	1503
2007	0	0	38	48	162	319	381	572	279	131	0	3	1933
2008	0	0	1	17	84	424	420	368	198	23	0	0	1535
2009	0	0	8	36	158	336	368	432	169	14	0	0	1521
2010	0	0	0	52	215	449	500	463	296	38	0	0	2013
2011	0	0	8	63	152	397	505	447	213	9	4	0	1798

**SNOWFALL (inches) 2011 GREENSBORO (KGSO)**

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	0.2	0.4	5.7	T	T	0.0	0.0	6.3
1983-84	0.0	0.0	0.0	0.0	0.0	T	T	3.8	T	0.0	0.0	0.0	3.8
1984-85	0.0	0.0	0.0	0.0	0.0	0.0	5.1	T	0.0	0.0	0.0	0.0	5.1
1985-86	0.0	0.0	0.0	0.0	0.0	0.3	T	1.1	0.0	0.0	0.0	0.0	1.4
1986-87	0.0	0.0	0.0	0.0	0.0	0.0	14.2	9.0	0.2	T	0.0	0.0	23.4
1987-88	0.0	0.0	0.0	0.0	0.3	0.0	8.6	0.0	0.0	0.0	0.0	0.0	8.9
1988-89	0.0	0.0	0.0	0.0	0.0	0.3	T	13.3	T	T	0.0	0.0	13.6
1989-90	0.0	0.0	0.0	0.0	0.0	2.5	0.0	T	T	0.0	0.0	0.0	2.5
1990-91	0.0	0.0	0.0	0.0	0.0	T	T	T	T	0.0	0.0	0.0	T
1991-92	0.0	0.0	0.0	0.0	T	0.0	0.0	T	0.0	T	0.0	0.0	T
1992-93	0.0	0.0	0.0	0.0	0.0	T	T	1.2	5.7	T	T	0.0	6.9
1993-94	0.0	0.0	0.0	0.0	0.0	1.0	1.1	1.2	0.2	0.0	0.0	0.0	3.5
1994-95	0.0	0.0	0.0	0.0	0.0	0.0	0.1	T	0.4	0.0	0.0	0.0	0.5
1995-96	T	0.0	0.0	0.0	0.0	T	13.4	T	T	T	T	T	T
1996-97					T		2.0	1.8	0.0	T	0.0	0.0	
1997-98	0.0	0.0	0.0	0.0	0.0	5.2	0.3	0.0	T	0.0	0.0	0.0	5.5
1998-99	0.0	0.0	0.0	0.0	0.0	0.6	0.6	1.1	T	0.0	0.0	0.0	2.3
1999-00	0.0	0.0	0.0	0.0	0.0	T	15.3	T	0.0	0.0	0.0	0.0	15.3
2000-01	0.0	0.0	0.0	0.0	1.7	0.3	0.1	2.4	T	T	0.0	T	4.5
2001-02	0.0	0.0	0.0	0.0	0.0	0.0	8.2	T	0.0	0.0	0.0	0.0	8.2
2002-03	0.0	0.0	0.0	0.0	0.0	4.7	5.3	4.0	1.2	0.0	T	0.0	15.2
2003-04	0.0	0.0	0.0	0.0	0.0	1.0	6.5	11.0	0.0	0.0	0.0	0.0	18.5
2004-05	0.0	0.0	0.0	0.0	0.0	0.0	0.7	T	1.0	0.0	0.0	0.0	1.7
2005-06	0.0	0.0	0.0	0.0	0.0	T	0.0	1.3	T	0.0	T	0.0	1.3
2006-07	0.0	T	0.0	0.0	0.0	0.0	0.7	0.1	0.0	T	0.0	0.0	0.8
2007-08	0.0	0.0	0.0	0.0	0.0	T	1.5	2.5	T	T	0.0	0.0	4.0
2008-09	0.0	0.0	0.0	0.0	0.6	0.0	0.5	0.1	5.7	0.0	0.0	0.0	6.9
2009-10	0.0	0.0	0.0	0.0	0.0	3.0	6.4	4.2	3.0	0.0	0.0	0.0	16.6
2010-11	0.0	0.0	0.0	0.0	0.0	8.2	1.4	0.3	T	0.0	0.0	0.0	9.9
2011-	0.0	0.0	0.0	0.0	0.0	0.0							
POR= 93 YRS	T	T	0.0	0.0	0.2	1.3	3.3	2.4	1.7	0.1	T	T	9.0

WBAN : 13723

**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 EIGHTS(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: <a href="https://mi3.ncdc.noaa.gov/mi3qry/login.cfm">https://mi3.ncdc.noaa.gov/mi3qry/login.cfm</a> SNOWFALL STOPPED MONTH &amp; YEAR INDICATED ABOVE. NO FURTHER YEARS INCLUDED UNLESS RESTARTED.</p> <p><b>NOTE:</b> 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 GREENSBORO NORTH CAROLINA (KGSO)

The Greensboro-High Point-Winston-Salem Regional Airport is located in the west-central part of Guilford County, in the northern Piedmont section of North Carolina. The location is near the headwaters of the Haw and Deep Rivers, both branches of the Cape Fear River system. A few miles west is a ridge beyond which lies the Yadkin River Basin. To the north, across a similar ridge, the waters of the Dan River flow northeastward into the Roanoke. West, beyond the Yadkin River Basin, the land gradually rises into the Brushy Mountains. To the northwest, other outcroppings southeast of the Blue Ridge rise into peaks occasionally exceeding 2,500 feet. The Blue Ridge proper forms a northeast-southwest barrier with heights occasionally exceeding 3,000 feet.

Winter temperatures and rainfall are both modified by the mountain barrier, but to a lesser extent than in areas closer to the Appalachian Range. Shallow cold air masses from the west tend to be stopped or turned aside by the mountains, while deeper masses are lifted over the range, losing moisture and warming during the passage. For this reason the lowest temperatures recorded in Forsyth and Guilford Counties usually occur when clear, cold air drifts southward, east of the Appalachian Range. The summer temperatures vary with the cloudiness and shower activity, but are generally mild.

Northwesterly winds seldom bring heavy or prolonged winter rain or snow. Flurries of light snow may fall when cold air blows across the mountains, but the heavier winter precipitation comes with winds blowing from northeast through east and south to southwest. When moist winds blowing from an easterly or southerly direction meet cold air moving out of the north or northwest in the vicinity of North Carolina, snow, sleet, or glaze may occur. Glazing is more common here than in most of North Carolina, but only occasionally becomes severe enough to do much damage in the northern Piedmont area.

Seasonal snowfall has a wide range and there have been a few winters with only a trace of snow. Snow seldom stays on the ground more than a few days.

Summer precipitation is largely from thunderstorms, mostly local in character. The frequency of these showers and the amount of rain received varies greatly from year to year and from place to place. Sizeable areas are sometimes without significant rain in late spring or early summer for two or more weeks, while other areas in the vicinity may be well watered.

Damaging storms are infrequent in the Northern Piedmont area. The highest winds to occur have been associated with thunderstorms, and were of brief duration. Hail is reported within Guilford and Forsyth Counties each year. The occurrence of tornadoes is rare. Hurricanes have produced heavy rainfall here, but no winds of destructive force.

Based on the 1951-1980 period, the average first occurrence of 32 degrees Fahrenheit in the fall is October 27 and the average last occurrence in the spring is April 11.

# Station History

GREENSBORO, NC

NAME	Begin Date	End Date	Latitude	Longitude	Elevation Feet	Relocation	Platform
GREENSBORO PIEDMONT TRIAD INTL AP	2011-06-22	Present	36° 5'	-79° 56'	890		ASOS, COOP
GREENSBORO REGIONAL AP	1974-07-31	1977-01-01	36° 4'	-79° 57'	902		COOP, WXSVC
GREENSBORO PIEDMONT TRIAD INTL AP	1988-08-31	1995-10-01	36° 4'	-79° 57'	897		COOP
GREENSBORO HIGH POINT AP	1948-08-01	1969-01-01	36° 4'	-79° 57'	902		AIRWAYS, COOP
GREENSBORO PIEDMONT TRIAD INTL AP	1995-10-01	2009-03-27	36° 5'	-79° 56'	897		ASOS, COOP
GREENSBORO REGIONAL AP	1977-01-01	1981-12-31	36° 4'	-79° 57'	897		COOP, WXSVC
GREENSBORO HIGH POINT AP	1928-11-01	1928-12-31	36° 4'	-79° 57'			AIRWAYS
GREENSBORO HIGH POINT AP	1930-01-01	1948-08-01	36° 4'	-79° 57'			AIRWAYS
GREENSBORO HIGH POINT AP	1969-01-01	1974-07-31	36° 4'	-79° 57'	902		COOP, WXSVC
GREENSBORO HIGH POINT AP	1929-04-01	1929-10-31	36° 4'	-79° 57'			AIRWAYS
GREENSBORO PIEDMONT TRIAD INTL AP	2009-03-27	2011-06-22	36° 4'	-79° 57'	890		ASOS, COOP
GREENSBORO REGIONAL AP	1981-12-31	1988-08-31	36° 4'	-79° 57'	897		COOP

# Element History

Element	Begin Date	End Date	Frequency	Time Of Observation	Equipment *	Equipment * Modifications	Equipment Exposure
TEMP	1928-11-01	1974-07-01	DAILY	2400			
PRECIP	1991-08-19	1995-07-01	DAILY	2400	UNIV	RCRD	
TEMP	1991-08-19	1995-07-01	DAILY	2400	HYGR		
TEMP	1995-07-01	2009-03-27	DAILY	2400	HYGR		
PRECIP	1974-07-01	1991-08-19	DAILY	2400	UNIV	RCRD	
PRECIP	2009-03-27	Present	HOURLY	2400	AHTB	RCRD;HTD	
PRECIP	1928-11-01	1974-07-01	DAILY	2400	UNIV	RCRD	
PRECIP	1974-07-01	1991-08-19	HOURLY	2400			
PRECIP	2009-03-27	Present	DAILY	2400	PCPNX		
TEMP	1974-07-01	1991-08-19	DAILY	2400			
PRECIP	1995-07-01	2009-03-27	DAILY	2400	UNIV	RCRD	
PRECIP	1991-08-19	1995-07-01	HOURLY	2400			
PRECIP	1995-07-01	2009-03-27	HOURLY	2400	UNIV	RCRD	
TEMP	2009-03-27	Present	DAILY	2400	ATEMP		

\* 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](mailto:ncdc.info@noaa.gov)

NOAA/National Climatic Data Center

Attn: User Engagement & Services Branch

151 Patton Avenue

Asheville, NC 28801-5001

Visit our Web Site for other weather data: [www.ncdc.noaa.gov](http://www.ncdc.noaa.gov)