

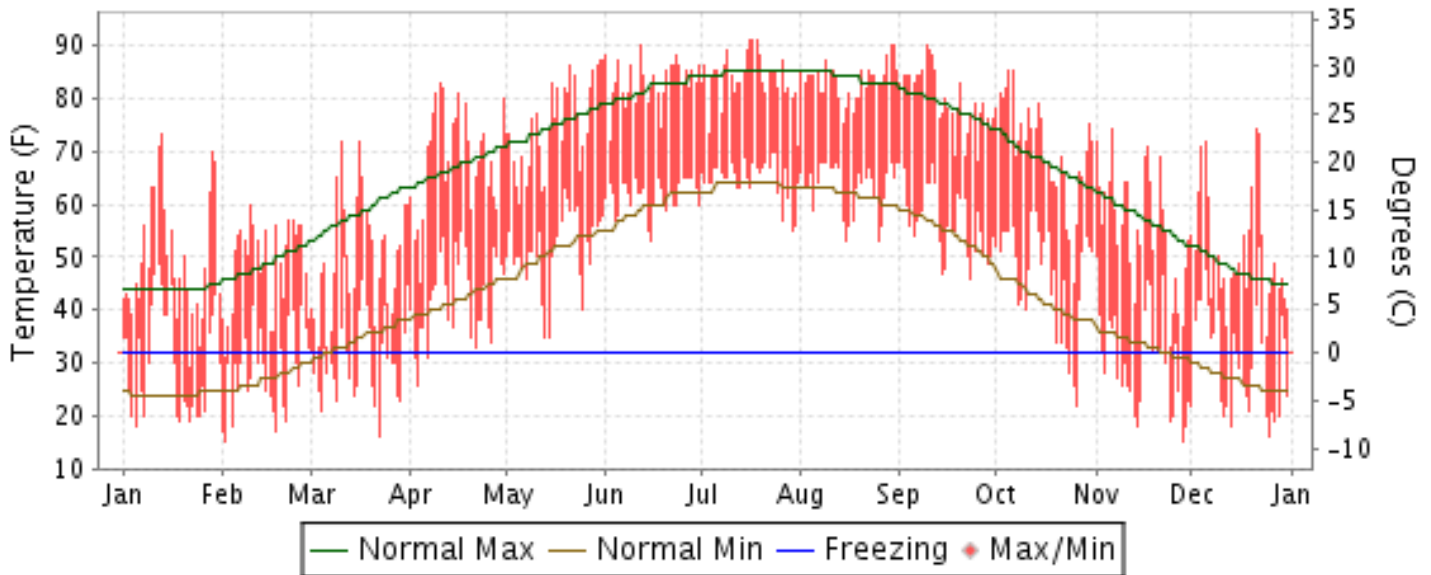


# 2013 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

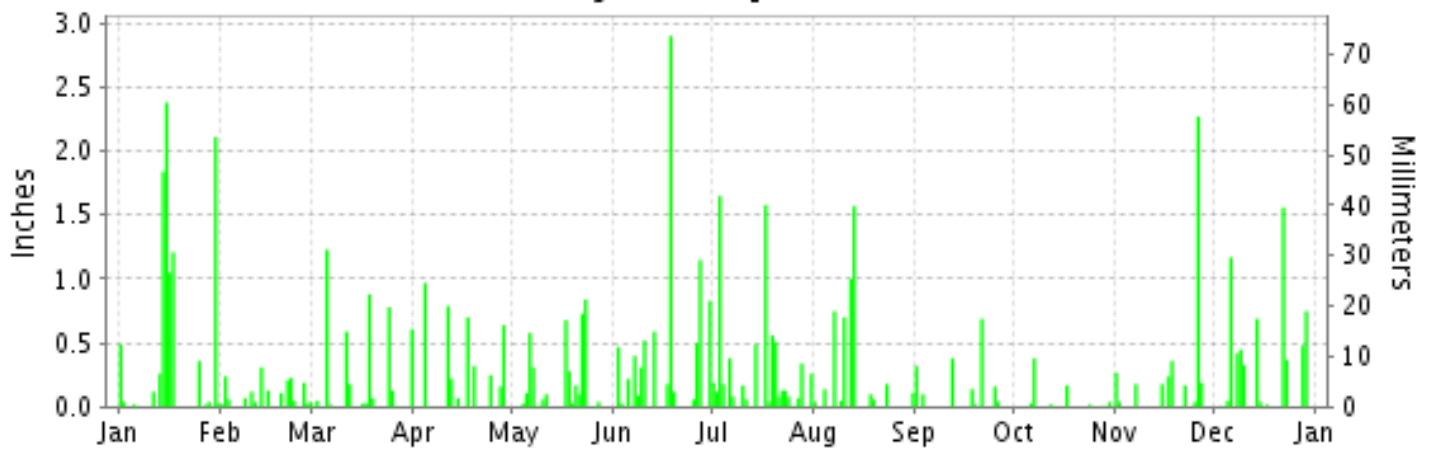
**BRISTOL/JHNSN CTY/KNGSPRT,  
TENNESSEE (KTRI)**

ISSN 0198-4764

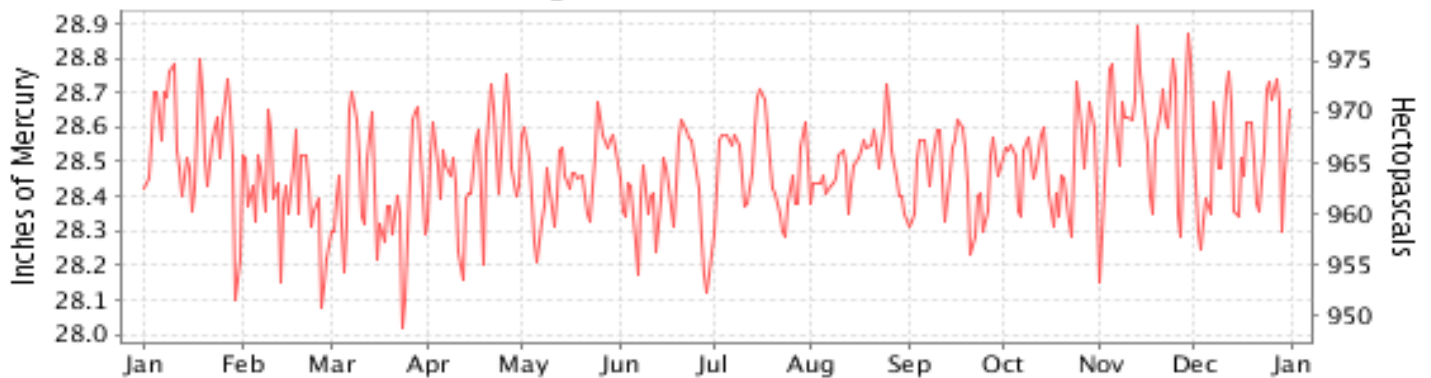
## Daily Max/Min Temperature



## Daily Precipitation



## Daily Station Pressure



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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NATIONAL ENVIRONMENTAL SATELLITE, DATA AND INFORMATION SERVICE

NATIONAL CLIMATIC DATA CENTER ASHEVILLE, NORTH CAROLINA

*Thomas R. Karl*  
DIRECTOR  
NATIONAL CLIMATIC DATA CENTER

# METEOROLOGICAL DATA FOR 2013

## BRISTOL/JHNSN CTY/KNGSPRT (KTRI)

LATITUDE: 36° 28'N      LONGITUDE: 82° 24'W      ELEVATION (FT): GRND: 1500 BARO: 1539      TIME ZONE: EASTERN (UTC -5)      WBAN: 13877

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	49.5	48.7	50.3	68.6	74.8	82.9	83.8	83.3	79.6	70.3	55.7	51.3	66.6	
	HIGHEST DAILY MAXIMUM	73	60	72	83	87	90	91	90	90	85	74	74	91	
	DATE OF OCCURRENCE	13	10	16+	10	31+	12	18+	30+	09	06+	06	21	JUL 18+	
	MEAN DAILY MINIMUM	30.3	28.5	31.1	42.4	51.5	61.6	64.8	63.4	56.7	46.4	30.6	30.5	44.8	
	LOWEST DAILY MINIMUM	18	15	16	26	35	53	55	53	46	22	15	16	15	
	DATE OF OCCURRENCE	05	02	22	03	14+	15	29	25+	23	26	28	25	NOV 28	
	AVERAGE DRY BULB	39.9	38.6	40.7	55.5	63.2	72.3	74.3	73.3	68.2	58.4	43.2	40.9	55.7	
	MEAN WET BULB	36.5	33.8	35.8	48.9	57.1	66.1	68.0	67.1	61.6	52.2	37.2	36.4	50.1	
	MEAN DEW POINT	31.8	26.9	28.5	41.9	52.3	62.7	65.3	64.1	58.2	47.5	29.2	30.8	44.9	
	NUMBER OF DAYS WITH:														
	MAXIMUM >= 90°	0	0	0	0	0	1	3	2	1	0	0	0	7	
	MAXIMUM <= 32°	1	1	0	0	0	0	0	0	0	0	0	0	2	
	MINIMUM <= 32°	18	19	20	3	0	0	0	0	0	3	19	17	99	
MINIMUM <= 0°	0	0	0	0	0	0	0	0	0	0	0	0	0		
H/C	HEATING DEGREE DAYS	771	731	746	286	113	0	0	0	19	222	650	740	4278	
	COOLING DEGREE DAYS	0	0	0	6	66	223	295	268	120	25	0	0	1003	
RH	MEAN (PERCENT)	77	67	66	64	71	75	78	77	76	72	63	71	71	
	HOUR 01 LST	83	74	75	78	87	91	91	91	91	85	74	79	83	
	HOUR 07 LST	83	81	77	76	80	82	86	86	89	87	78	82	82	
	HOUR 13 LST	65	54	52	47	50	58	61	55	53	49	43	55	54	
	HOUR 19 LST	77	64	63	55	68	71	77	79	80	73	62	71	70	
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	10	0	0	3	6	1	3	5	10	7	3	5	53	
	THUNDERSTORMS	1	0	1	2	8	10	13	6	3	0	0	1	45	
PR	MEAN STATION PRESS. (IN.)	28.54	28.40	28.41	28.48	28.46	28.40	28.49	28.49	28.46	28.48	28.61	28.52	28.48	
	MEAN SEA-LEVEL PRESS. (IN.)	30.15	30.02	30.01	30.06	30.03	29.94	30.04	30.04	30.02	30.07	30.21	30.14	30.06	
WINDS	RESULTANT SPEED (MPH)	1.9	3.8	4.3	1.8	0.8	2.0	0.7	1.0	0.5	1.4	1.6	1.9	1.7	
	RES. DIR. (TENS OF DEGS.)	27	25	26	24	21	25	22	26	28	27	31	26	26	
	MEAN SPEED (MPH)	4.2	6.5	6.7	4.7	4.6	3.7	3.1	2.8	2.3	3.1	3.9	3.9	4.1	
	PREVAIL.DIR.(TENS OF DEGS.)	26	26	26	23	22	23	24	25	35	28	35	23	26	
	MAXIMUM 2-MINUTE WIND														
	SPEED (MPH)	36	33	35	32	28	26	26	23	31	28	24	28	36	
	DIR. (TENS OF DEGS.)	25	28	23	28	22	23	22	35	35	26	25	29	25	
	DATE OF OCCURRENCE	30	01	24	24	17	13	26	10	12	23	01	22	JAN 30	
	MAXIMUM 3-SECOND WIND:														
	SPEED (MPH)	52	43	42	43	36	34	35	31	42	37	31	40	52	
DIR. (TENS OF DEGS.)	25	31	24	29	21	21	22	33	01	25	26	29	25		
DATE OF OCCURRENCE	30	01	25	24	17	13	26	10	12	23	01	22	JAN 30		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	9.99	1.86	4.62	4.13	4.09	8.37	7.11	4.70	1.85	0.68	3.94	6.34	57.68	
	GREATEST 24-HOUR (IN.)	2.60	0.44	1.23	1.01	1.15	2.90	1.73	2.57	0.69	0.41	2.32	1.89	2.90	
	DATE OF OCCURRENCE	14-15	21-22	05	11-12	22-23	18	03-04	12-13	21	06-07	26-27	22-23	JUN 18	
	NUMBER OF DAYS WITH:														
PRECIPITATION 0.01	16	16	14	10	17	15	21	11	8	8	10	13	159		
PRECIPITATION 0.10	9	8	7	8	10	12	14	8	6	2	8	9	101		
PRECIPITATION 1.00	5	0	1	0	0	2	2	2	0	0	1	2	15		
SNOWFALL	SNOW,ICE PELLETS,HAIL	3.5	3.6	1.5	T	0.0	0.0	0.0	0.0	0.0	T	1.4	T	10.0	
	TOTAL (IN.)	3.5	2.6	0.7	T	0.0	0.0	0.0	0.0	0.0	T	1.4	T	3.5	
	GREATEST 24-HOUR (IN.)	17	02	25	04						25	27	15	JAN 17	
	DATE OF OCCURRENCE	3	3	0	0	0	0	0	0	0	0	1	0	3	
	MAXIMUM SNOW DEPTH (IN.)	17	03+									28+		FEB 03+	
	DATE OF OCCURRENCE														
NUMBER OF DAYS WITH:															
SNOWFALL >= 1.0	1	1	0	0	0	0	0	0	0	0	1	0	3		

# NORMALS, MEANS, AND EXTREMES

## BRISTOL/JHNSN CTY/KNGSPRT (KTRI)

LATITUDE: 36° 28'N      LONGITUDE: 82° 24'W      ELEVATION (FT): GRND: 1500 BARO: 1539      TIME ZONE: EASTERN (UTC -5)      WBAN: 13877

ELEMENT		POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	45.3	49.9	59.0	68.0	75.9	83.0	85.5	85.1	79.2	69.2	58.7	48.0	67.2
	MEAN DAILY MAXIMUM	66	45.3	49.5	58.4	68.2	76.2	83.0	85.6	85.1	79.7	69.4	57.9	48.3	67.2
	HIGHEST DAILY MAXIMUM	68	79	80	85	89	94	103	102	101	100	90	81	78	103
	YEAR OF OCCURRENCE		1950	1977	2012	1995	2011	2012	1952	1988	1954	1954	2003	1951	JUN 2012
	MEAN OF EXTREME MAXS.	66	66.2	68.8	76.9	83.9	86.7	91.1	92.5	92.1	89.6	82.3	74.8	67.5	81.0
	NORMAL DAILY MINIMUM	30	25.0	28.1	34.4	42.4	51.1	60.0	63.8	62.5	55.1	43.4	34.6	27.6	44.0
	MEAN DAILY MINIMUM	66	26.0	28.4	35.1	43.5	52.3	60.3	64.5	63.2	56.4	44.5	34.9	28.4	44.8
	LOWEST DAILY MINIMUM	68	-21	-15	-2	21	30	38	45	43	34	20	5	-9	-21
	YEAR OF OCCURRENCE		1985	1996	1980	2007	1997	1966	1947	1986	1983	1962	1950	1962	JAN 1985
	MEAN OF EXTREME MINS.	66	5.8	10.0	18.5	27.7	37.4	48.3	55.4	53.8	42.7	29.0	19.3	10.5	29.9
	NORMAL DRY BULB	30	35.2	39.0	46.7	55.2	63.5	71.5	74.6	73.8	67.1	56.3	46.6	37.8	55.6
	MEAN DRY BULB	66	35.7	39.0	46.8	55.9	64.3	71.8	75.1	74.2	68.1	56.9	46.4	38.4	56.1
	MEAN WET BULB	30	31.1	33.2	39.8	47.4	56.5	64.0	67.6	66.5	60.3	49.5	40.2	33.6	49.1
	MEAN DEW POINT	30	28.5	30.6	36.5	44.4	54.5	62.6	66.4	65.2	58.7	47.5	37.7	31.2	47.0
	NORMAL NO. DAYS WITH: MAXIMUM >= 90	30	0.0	0.0	0.0	0.0	0.1	2.2	5.6	5.3	1.2	0.0	0.0	0.0	14.4
	MAXIMUM <= 32	30	3.9	1.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	8.1
	MINIMUM <= 32	30	22.9	18.8	12.9	3.8	0.2	0.0	0.0	0.0	0.0	3.8	13.4	21.4	97.2
	MINIMUM <= 0	30	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5
	H/C	NORMAL HEATING DEG. DAYS	30	925	728	568	304	109	11	0	1	52	282	551	843
NORMAL COOLING DEG. DAYS		30	0	0	1	10	62	206	299	274	116	12	1	0	981
RH	NORMAL (PERCENT)	30	73	70	65	64	72	75	77	78	77	73	71	74	72
	hour 01 LST	30	78	76	73	73	84	88	90	91	90	86	80	79	82
	hour 07 LST	30	82	81	81	82	89	90	92	94	94	91	85	83	87
	hour 13 LST	30	63	59	53	50	55	58	61	60	58	53	56	62	57
	hour 19 LST	30	67	62	56	52	61	64	67	69	70	66	65	68	64
S	PERCENT POSSIBLE SUNSHINE														
W/O	MEAN NO. DAYS WITH: HEAVY FOG (VISIB <= 1/4 MI)	50	3.3	2.3	1.6	1.9	4.1	4.3	5.2	6.7	5.9	5.9	3.1	3.4	47.7
	THUNDERSTORMS	66	0.3	0.8	1.9	3.6	6.7	8.2	9.4	7.1	2.9	0.7	0.5	0.3	42.4
CLOUDINESS	MEAN: SUNRISE-SUNSET (OKTAS)						4.8	4.0							
	MIDNIGHT-MIDNIGHT (OKTAS)							4.0							
	MEAN NO. DAYS WITH: CLEAR	1	2.0	2.0	3.0		10.0	10.0							
	PARTLY CLOUDY	1	1.0	2.0	2.0		5.0	7.0							
CLOUDY	1	1.0	6.0	10.0		6.0	5.0								
PR	MEAN STATION PRESSURE (IN)	30	28.53	28.46	28.43	28.39	28.42	28.43	28.46	28.46	28.48	28.49	28.50	28.50	28.46
	MEAN SEA-LEVEL PRES. (IN)	30	30.12	30.09	30.05	29.99	30.00	30.00	30.03	30.03	30.06	30.10	30.13	30.14	30.06
WINDS	MEAN SPEED (MPH)	30	5.6	5.8	6.1	5.8	4.6	4.0	3.6	3.2	3.3	3.7	4.3	4.8	4.6
	PREVAIL. DIR (TENS OF DEGS)	41	25	25	25	24	25	25	24	25	06	25	25	25	25
	MAXIMUM 2-MINUTE: SPEED (MPH)	18	40	37	39	46	43	40	36	37	32	36	37	46	46
	DIR. (TENS OF DEGS)		24	24	26	30	23	22	01	25	23	27	27	24	30
	YEAR OF OCCURRENCE		2009	2011	1998	2011	2008	2009	1998	2002	2009	2001	2005	2009	APR 2011
	MAXIMUM 3-SECOND SPEED (MPH)	18	52	52	49	63	62	55	52	54	44	48	47	58	63
	DIR. (TENS OF DEGS)		25	26	26	29	28	34	24	29	23	34	25	23	29
YEAR OF OCCURRENCE		2013	2011	2008	2011	2000	2009	1997	2000	2009	1999	2000	2009	APR 2011	
PRECIPITATION	NORMAL (IN)	30	3.37	3.45	3.44	3.33	3.80	3.90	4.69	3.47	2.99	2.10	3.10	3.37	41.01
	MAXIMUM MONTHLY (IN)	68	9.99	7.75	9.56	7.03	9.71	8.37	12.70	11.34	7.09	5.65	6.74	6.75	12.70
	YEAR OF OCCURRENCE		2013	1994	1955	1998	1950	2013	2012	2003	1972	1959	2003	1961	JUL 2012
	MINIMUM MONTHLY (IN)	68	1.37	0.75	1.31	0.21	0.76	0.75	0.67	0.37	0.50	0.02	0.50	0.21	0.02
	YEAR OF OCCURRENCE		1981	1968	1985	1976	2007	1986	1995	2007	1985	2000	2001	1965	OCT 2000
	MAXIMUM IN 24 HOURS (IN)	68	2.60	2.48	3.35	2.66	3.26	3.10	2.90	3.50	3.61	3.65	3.18	2.95	3.65
	YEAR OF OCCURRENCE		2013	1994	1973	1977	1984	1954	1946	2003	1972	1964	2003	1969	OCT 1964
	NORMAL NO. DAYS WITH: PRECIPITATION >= 0.01	30	12.3	11.9	12.6	11.9	12.2	12.2	12.3	10.1	8.4	8.6	10.0	11.9	134.4
	PRECIPITATION >= 1.00	30	0.7	0.6	0.5	0.4	0.6	0.8	1.2	1.0	0.7	0.2	0.6	0.4	7.7
SNOWFALL	NORMAL (IN)	30	4.7	3.4	1.4	1.1	0.0	0.0	0.0	0.0	0.0	0.1	0.2	2.4	13.3
	MAXIMUM MONTHLY (IN)	69	22.1	20.4	27.9	14.8	T	T	0.0	0.0	T	1.3	18.1	12.9	27.9
	YEAR OF OCCURRENCE		1966	1979	1960	1987	2011	1995			2009	1993	1952	1963	MAR 1960
	MAXIMUM IN 24 HOURS (IN)	63	13.0	11.5	14.2	10.0	T	T	0.0	0.0	T	1.3	16.2	9.6	16.2
	YEAR OF OCCURRENCE		1996	1996	1993	1987	2011	1995			2009	1993	1952	1969	NOV 1952
	MAXIMUM SNOW DEPTH (IN)	57	13	10	13	11	0	0	0	0	0	1	12	20	20
	YEAR OF OCCURRENCE		1966	1969	1960	1987						1993	1952	1948	DEC 1948
NORMAL NO. DAYS WITH: SNOWFALL >= 1.0	30	1.5	1.0	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	3.9	

**PRECIPITATION (inches) 2013 BRISTOL/JHNSN CTY/KNGSPRT (KTRI)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1984	1.79	4.50	2.73	2.85	7.42	3.86	4.63	1.23	1.43	1.14	2.61	1.76	35.95
1985	3.21	3.40	1.31	2.08	2.85	4.35	4.38	3.09	0.50	3.02	5.87	1.17	35.23
1986	1.55	4.11	1.56	0.51	4.16	0.75	5.50	3.40	3.93	1.69	2.67	3.66	33.49
1987	4.11	4.13	2.80	5.23	1.62	2.64	1.91	0.55	4.57	0.62	2.10	3.00	33.28
1988	2.74	3.20	1.54	2.69	2.48	0.89	3.20	2.78	3.20	1.79	3.44	2.73	30.68
1989	3.69	4.07	3.76	2.97	4.10	6.97	3.81	3.41	6.95	1.77	3.18	3.16	47.84
1990	3.23	5.06	4.00	2.44	6.57	2.90	3.78	3.51	1.47	5.23	1.32	4.85	44.36
1991	2.01	5.43	6.30	3.39	2.10	4.51	3.81	3.98	2.44	0.31	3.42	6.73	44.43
1992	2.42	3.52	2.62	1.53	5.46	3.44	5.11	2.41	1.49	3.42	2.25	5.05	38.72
1993	3.21	2.12	5.51	2.43	3.42	0.98	4.59	5.01	2.50	2.19	3.58	5.85	41.39
1994	4.52	7.75	7.46	4.26	3.90	4.63	4.95	4.63	1.30	2.68	2.37	1.38	49.83
1995	4.63	3.64	3.24	1.52	6.19	4.18	0.67	2.40	3.82	2.35	5.34	2.24	40.22
1996	6.51	2.51	4.10	3.54	6.76	3.36	5.74	3.64	3.79	.97	4.82	3.90	49.64
1997	3.91	4.25	5.92	3.78	4.80	4.45	4.25	1.53	3.02	1.70	1.71	2.17	41.49
1998	5.12	2.13	3.85	7.03	4.94	7.37	1.96	2.14	0.90	1.68	1.44	5.36	43.92
1999	4.40	2.91	2.64	2.47	2.37	4.30	5.79	2.01	1.09	2.17	3.29	1.38	34.82
2000	3.62	1.86	3.84	3.55	3.19	4.56	5.42	3.70	1.74	0.02	2.42	1.69	35.61
2001	2.56	4.58	3.69	1.82	4.05	4.41	8.73	4.96	2.20	0.84	0.50	3.42	41.76
2002	4.32	0.89	5.86	0.98	2.39	1.99	4.76	3.20	2.79	3.74	4.95	4.38	40.25
2003	2.47	6.32	2.83	6.66	5.32	6.40	7.52	11.34	5.29	1.55	6.74	3.20	65.64
2004	2.88	3.37	4.48	4.64	3.91	5.10	5.01	2.64	6.01	3.35	3.70	3.03	48.12
2005	2.91	2.77	2.85	5.44	2.26	4.93	5.80	3.21	0.76	1.45	2.46	2.71	37.55
2006	3.90	1.98	2.86	5.69	2.29	3.95	2.01	5.25	4.67	3.13	2.75	2.16	40.64
2007	1.60	1.02	2.27	2.64	0.76	2.96	3.97	0.37	0.74	1.58	1.41	3.07	22.39
2008	3.45	3.63	3.84	2.84	1.50	2.26	4.69	2.99	2.52	1.01	2.09	4.41	35.23
2009	5.67	2.24	2.21	2.72	4.58	3.57	8.51	1.52	4.98	4.02	3.00	5.64	48.66
2010	3.61	2.21	2.09	2.21	2.58	2.96	1.58	6.26	4.04	2.41	4.79	2.56	37.30
2011	1.88	4.53	6.37	4.57	5.93	3.40	3.85	2.47	3.14	2.84	4.60	4.10	47.68
2012	4.60	3.71	2.58	3.83	2.07	1.20	12.70	1.96	6.01	2.95	0.54	4.00	46.15
2013	9.99	1.86	4.62	4.13	4.09	8.37	7.11	4.70	1.85	0.68	3.94	6.34	57.68
POR= 66 YRS	3.60	3.46	3.91	3.44	3.77	3.71	4.71	3.44	3.01	2.29	3.06	3.53	41.93

WBAN : 13877

**AVERAGE TEMPERATURE (°F) 2013 BRISTOL/JHNSN CTY/KNGSPRT (KTRI)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1984	32.7	40.3	44.5	53.0	59.4	72.4	71.3	72.9	64.5	63.6	43.0	45.5	55.3
1985	27.6	35.5	48.2	57.0	63.8	69.5	73.2	71.2	66.1	61.4	55.3	33.9	55.2
1986	32.0	40.4	46.2	57.2	64.8	74.1	77.2	73.0	69.7	58.7	51.4	38.8	57.0
1987	34.7	39.9	47.8	52.0	69.3	73.5	77.0	77.5	68.2	50.8	48.5	41.6	56.7
1988	31.5	37.3	47.8	54.1	62.3	70.5	76.7	77.1	68.1	50.2	47.6	37.6	55.1
1989	42.3	39.5	51.2	54.7	59.8	71.9	75.1	73.3	67.8	56.6	45.6	28.1	55.5
1990	41.6	45.4	51.2	55.3	63.7	72.0	75.2	74.4	68.7	58.0	49.1	44.3	58.2
1991	38.8	41.2	49.2	59.7	69.6	72.0	76.6	73.2	67.7	58.1	46.1	40.6	57.7
1992	38.6	42.7	44.8	55.5	61.2	69.2	74.9	71.1	68.4	54.0	47.0	38.3	55.5
1993	41.7	37.4	43.6	53.2	64.7	72.7	79.6	73.8	67.1	55.3	46.8	38.3	56.2
1994	31.3	41.1	46.3	59.0	60.8	74.8	75.3	72.8	65.8	57.3	50.7	43.6	56.6
1995	38.1	37.5	50.1	57.1	64.7	71.3	77.2	78.4	67.7	56.1	41.0	34.4	56.1
1996	33.9	36.4	42.0	51.7	64.8	71.5	72.1	72.6	65.0	56.1	41.3	39.9	56.1
1997	35.8	43.1	50.6	50.7	58.3	68.6	74.6	70.7	65.9	55.4	41.5	36.6	54.3
1998	40.3	42.7	45.3	54.3	66.0	71.1	74.4	74.3	71.6	57.7	47.7	41.6	57.3
1999	39.9	40.3	42.7	58.2	63.3	72.2	76.7	74.3	66.5	55.5	49.4	39.1	56.5
2000	33.9	43.0	49.3	52.9	66.3	71.9	73.3	72.4	67.1	56.9	44.1	30.8	55.2
2001	33.2	43.4	43.0	58.0	65.2	70.8	73.2	74.5	64.5	53.6	50.2	42.8	56.0
2002	38.3	38.5	47.3	59.4	62.5	73.6	76.6	75.9	71.4	59.8	43.6	37.7	57.1
2003	30.6	37.2	50.3	56.6	64.2	69.0	73.7	74.9	65.9	55.7	50.6	36.1	55.4
2004	33.3	38.6	49.8	55.5	68.1	71.3	74.1	71.2	67.9	60.5	50.5	36.3	56.4
2005	39.5	41.0	44.6	55.0	60.8	71.9	75.8	76.7	70.3	58.5	48.2	35.0	56.4
2006	43.0	36.7	46.1	59.3	61.5	70.2	75.2	76.7	64.8	53.4	47.2	41.3	56.3
2007	38.3	34.2	52.5	53.5	66.0	72.9	73.2	79.0	71.3	62.5	45.6	42.6	57.6
2008	34.5	40.9	46.3	56.0	62.7	73.2	73.9	73.0	69.4	54.3	42.4	40.6	55.6
2009	34.3	38.7	48.2	55.4	64.8	72.7	71.3	73.5	68.5	55.6	48.2	36.7	55.7
2010	31.1	32.5	45.1	58.5	67.7	75.7	78.4	78.1	69.2	56.1	47.6	30.0	55.8
2011	32.8	42.1	49.2	59.5	65.0	74.1	78.6	75.8	68.7	55.0	48.8	42.8	57.7
2012	40.1	42.8	56.9	58.0	68.5	72.3	77.9	73.3	67.2	55.6	43.5	42.7	58.2
2013	39.9	38.6	40.7	55.5	63.2	72.3	74.3	73.3	68.2	58.4	43.2	40.9	55.7
POR= 66 YRS	35.7	39.0	46.8	55.9	64.3	71.8	75.1	74.2	68.1	56.9	46.4	38.4	56.0

**HEATING DEGREE DAYS (base 65°F) 2013 BRISTOL/JHNSN CTY/KNGSPRT (KTRI)**

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1984-85	0	0	91	73	652	599	1154	819	518	243	88	19	4256
1985-86	0	2	76	124	283	960	1015	681	577	240	80	0	4038
1986-87	0	19	2	227	402	804	932	698	527	393	30	0	4034
1987-88	0	0	24	436	489	718	1031	798	527	322	113	45	4503
1988-89	0	0	22	455	512	844	698	709	428	325	198	1	4192
1989-90	0	6	55	262	575	1139	718	540	423	303	93	0	4114
1990-91	0	0	48	225	474	636	806	659	483	175	32	2	3540
1991-92	0	0	68	224	562	750	813	638	617	293	148	22	4135
1992-93	0	3	32	337	532	820	714	767	657	346	65	10	4283
1993-94	0	0	59	298	537	823	1039	665	571	196	156	0	4344
1994-95	0	0	37	232	425	653	828	764	454	256	85	10	3744
1995-96	0	0	31	281	712	944	956	820	705	402	85	4	4940
1996-97	0	0	74		706	769	900	605	442	423	222	30	
1997-98	0	5	28	300	699	871	758	618	606	314	72	26	4297
1998-99	0	0	15	237	511	718	773	686	685	212	70	3	3910
1999-00	1	0	49	293	463	798	956	631	480	356	36	11	4074
2000-01	0	0	75	253	619	1053	979	602	675	232	56	0	4544
2001-02	0	0	101	348	435	678	822	737	541	215	143	1	4021
2002-03	0	0	4	201	635	841	1059	772	449	249	51	20	4281
2003-04	0	0	52	288	429	890	976	761	463	292	46	0	4197
2004-05	0	6	19	137	435	881	785	666	624	293	147	3	3996
2005-06	0	0	6	225	500	922	671	789	578	182	154	9	4036
2006-07	0	0	64	358	526	726	819	857	387	345	58	0	4140
2007-08	0	0	16	143	572	686	937	695	573	276	104	1	4003
2008-09	0	0	10	331	670	746	945	728	514	300	71	0	4315
2009-10	0	0	27	292	496	871	1041	903	611	200	35	0	4476
2010-11	0	0	14	273	515	1077	989	634	483	189	108	0	4282
2011-12	0	0	16	298	478	682	764	638	250	214	30	5	3375
2012-13	0	0	44	298	638	687	771	731	746	286	113	0	4314
2013-	0	0	19	222	650	740							

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**COOLING DEGREE DAYS (base 65°F) 2013 BRISTOL/JHNSN CTY/KNGSPRT (KTRI)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1984	0	0	0	2	35	236	202	253	83	38	0	0	849
1985	0	0	5	11	53	159	262	201	114	22	0	0	827
1986	0	0	0	14	78	278	385	275	149	38	3	0	1220
1987	0	0	0	11	171	259	378	395	126	0	0	0	1340
1988	0	0	0	4	32	214	369	383	120	2	0	0	1124
1989	0	0	5	24	42	218	322	268	144	11	0	0	1034
1990	0	0	3	20	62	217	325	299	161	17	0	0	1104
1991	0	0	0	23	180	218	367	258	157	20	2	0	1225
1992	0	0	0	14	36	155	312	199	143	0	0	0	859
1993	0	0	0	1	62	250	460	281	131	6	0	0	1191
1994	0	0	0	21	31	298	327	247	70	0	0	0	994
1995	0	0	0	25	81	204	387	423	117	11	0	0	1248
1996	0	0	0	7	84	205	227	244	80		1	0	
1997	0	0	3	2	17	144	303	190	65	9	0	0	733
1998	0	0	3	0	111	215	297	295	219	16	0	0	1156
1999	0	0	0	11	25	225	370	294	102	4	0	0	1031
2000	0	0	0	0	80	226	263	237	144	6	1	0	957
2001	0	0	0	25	67	187	262	300	92	2	0	0	935
2002	0	0	0	51	69	266	364	346	204	50	1	0	1351
2003	0	0	0	3	34	145	274	314	84	7	4	0	865
2004	0	0	0	15	150	196	288	206	111	6	4	0	976
2005	0	0	0	0	21	217	344	374	173	30	1	0	1160
2006	0	0	0	15	51	175	325	370	66	3	0	0	1005
2007	0	0	7	6	98	245	260	440	208	73	0	0	1337
2008	0	0	0	11	39	254	280	255	150	5	0	0	994
2009	0	0	0	18	71	234	202	271	137	8	0	0	941
2010	0	0	0	10	126	329	423	415	148	4	0	0	1455
2011	0	0	0	33	114	281	428	339	134	2	0	0	1331
2012	0	0	6	11	145	232	408	263	116	10	0	0	1191
2013	0	0	0	6	66	223	295	268	120	25	0	0	1003

**SNOWFALL (inches) 2013 BRISTOL/JHNSN CTY/KNGSPRT (KTRI)**

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1984-85	0.0	0.0	0.0	0.0	0.0	0.3	9.7	6.0	T	T	0.0	0.0	16.0
1985-86	0.0	0.0	0.0	0.0	0.0	3.2	10.5	7.7	T	T	0.0	0.0	21.4
1986-87	0.0	0.0	0.0	0.0	T	0.2	12.2	4.0	0.3	14.8	0.0	0.0	31.5
1987-88	0.0	0.0	0.0	0.0	0.8	0.2	7.6	T	0.4	0.0	0.0	0.0	9.0
1988-89	0.0	0.0	0.0	T	T	2.3	3.7	11.0	T	T	T	0.0	17.0
1989-90	0.0	0.0	0.0	0.1	0.9	6.9	0.7	0.4	0.5	T	0.0	0.0	9.5
1990-91	0.0	0.0	0.0	0.0	0.0	T	T	1.4	T	0.0	0.0	0.0	1.4
1991-92	0.0	0.0	0.0	0.0	T	T	0.2	T	0.1	0.4	T	0.0	0.7
1992-93	0.0	0.0	0.0	0.0	T	3.5	T	2.3	14.2	T	0.0	T	20.0
1993-94	0.0	0.0	0.0	1.3	T	1.9	3.8	0.1	0.3	T	0.0	0.0	7.4
1994-95	0.0	0.0	T	0.0	0.0	T	2.7	1.7	5.0	0.0	0.0	T	9.4
1995-96	0.0	0.0	0.0	0.0	T	3.6	17.4		3.2	0.2			
1996-97													
1997-98													
1998-99													
1999-00													
2000-01													
2001-02													
2002-03													
2003-04							2.2	6.7	T	T	0.0	0.0	
2004-05	0.0	0.0	0.0	0.0	T	0.1	0.1	0.8	0.8	2.4	0.0	0.0	4.2
2005-06	0.0	0.0	0.0	0.0	0.2	T	0.5	7.7	0.8	0.0	0.0	0.0	9.2
2006-07	0.0	0.0	T	0.0	0.0	T	1.5	2.0	0.2	0.6	0.0	0.0	4.3
2007-08	0.0	0.0	0.0	0.0	T	0.1	3.8	1.0	0.4	0.0	0.0	0.0	5.3
2008-09	0.0	0.0	0.0	T	1.9	1.4	2.0	2.5	T	0.5	0.0	0.0	8.3
2009-10	0.0	0.0	T	0.0	0.0	8.9	10.2	6.3	1.3	0.0	0.0	0.0	26.7
2010-11	0.0	0.0	0.0	0.0	T	7.2	6.5	0.6	1.3	T	T	0.0	15.6
2011-12	0.0	0.0	0.0	0.0	T	T	1.2	T	T	T	0.0	0.0	1.2
2012-13	0.0	0.0	0.0	T	0.0	0.6	3.5	3.6	1.5	T	0.0	0.0	9.2
2013-	0.0	0.0	0.0	T	1.4	T							
POR= 65 YRS	0.0	0.0	T	T	0.9	2.3	5.0	3.9	1.8	0.4	T	T	14.3

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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. 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 CLEAR INDICATES 0 - 2 OKTAS, PARTLY CLOUDY INDICATES 3 - 6 OKTAS, AND CLOUDY INDICATES 7 OR 8 OKTAS.</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</p>	<p>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 STATION HISTORY INFORMATION GO TO "Historical Observing Metadata Repository", URL IS: <a href="http://www.ncdc.noaa.gov/homr/">http://www.ncdc.noaa.gov/homr/</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 "Summary of the Day First Order Station" and "Cooperative Summary of the Day" archives.</p>
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# 2013

## BRISTOL/JOHNSON CITY/KINGSPORT

### TENNESSEE (KTRI)

The Weather Service Office is located an almost equal distance of 15 miles in the middle of a geographical triangle between the cities of Bristol, Tennessee-Virginia, Kingsport and Johnson City, Tennessee, and is more commonly known as the Tri-City Area. This location is situated in the extreme upper East Tennessee Valley. The terrain immediately surrounding the station ranges from gently rolling on the east and south to very hilly on the west and north. Mountain ranges begin about 10 miles to the southeast and about 15 miles to the west and north, with many peaks and ridges rising to 4,000 feet, and some to 6,000 feet toward the southeast.

This section does not lie directly within any of the principal storm tracks that cross the country, but comes under the influence of storm centers that pass along the Gulf Coast and then up the Atlantic Coast toward the northeast. Being quite varied, the topography has considerable influence on the weather. Moist air from the east is forced up the slopes of the mountains causing much of the moisture to be precipitated before the air mass reaches the Bristol area. The same process occurs to a lesser extent when air masses move over the smaller mountain ranges to the west and north. The maximum monthly precipitation occurs in July, usually from afternoon and early evening thunderstorms. A second maximum of precipitation occurs in the late winter months, due mainly to moist air associated with storm centers to the south or northeast. Annual precipitation amounts recorded in mountainous sections to the east and southeast are almost double what they are in the immediate vicinity.

Lowest temperatures normally occur during the early morning hours, but rise rapidly during the morning hours. Periods of cold weather are generally associated with air flow from winter storm centers near the northeast coast. Periods of unusually high temperatures occur most frequently when Gulf air associated with the Bermuda high pressure system dominates the area.

Snowfall seldom occurs before November and rarely remains on the ground for more than a few days. However, mountains to the east and south of the station are frequently well blanketed with snow for much longer periods of time.

Agricultural activities within this area include such staple crops as tobacco, beans, and hay which are raised in such amounts as to be important commercially. The last freezing temperature in spring normally occurs in late April, and the first in autumn around mid-October. The growing season of 180 days, usually coupled with ample sunshine and rainfall, permits a second planting and harvesting of some staple crops.

# Station History

BRISTOL/JHNSN CTY/KNGSPRT, TN

NAME	Begin Date	End Date	Latitude	Longitude	Elevation Feet	Relocation	Platform
BRISTOL TRI CITY AP	1969-01-01	1981-12-31	36° 28'	-82° 24'	1507		COOP, WXSVC
BRISTOL TRI CITY AP	1965-01-01	1969-01-01	36° 28'	-82° 24'	1507		AIRWAYS, COOP
BRISTOL TRI CITY AP	1989-07-01	1995-10-01	36° 28'	-82° 24'	1525		COOP
BRISTOL TRI CITY AP	1995-10-01	2006-09-20	36° 28'	-82° 24'	1500	.3 MI SE	ASOS, COOP
BRISTOL TRI CITY AP	1937-01-01	1948-08-01	36° 28'	-82° 24'			AIRWAYS
BRISTOL TRI CITY AP	2009-04-10	2011-04-05	36° 28'	-82° 24'	1500		AIRSAMPLE, ASOS, COOP
BRISTOL TRI CITY AP	2011-04-05	Present	36° 28'	-82° 24'	1500		AIRSAMPLE, ASOS, COOP
BRISTOL	1934-07-01	1936-12-31	36° 37'	-82° 7'			AIRWAYS
BRISTOL TRI CITY AP	2006-09-20	2008-04-15	36° 28'	-82° 24'	1500		AIRSAMPLE, ASOS, COOP
BRISTOL TRI CITY AP	1948-08-01	1965-01-01	36° 28'	-82° 24'	1565		AIRWAYS, COOP
BRISTOL TRI CITY AP	1981-12-31	1989-07-01	36° 28'	-82° 24'	1507		COOP
BRISTOL TRI CITY AP	2008-04-15	2009-04-10	36° 28'	-82° 24'	1500		AIRSAMPLE, AIRWAYS, ASOS, COOP

# Element History

Element	Begin Date	End Date	Frequency	Time Of Observation	Equipment *	Equipment * Modifications	Equipment Exposure
TEMP	1970-10-01	1989-07-01	DAILY	2400			
PRECIP	1995-07-01	1995-10-01	HOURLY	2400	UNIV	RCRD	
PRECIP	1989-07-01	1995-07-01	HOURLY	2400			
TEMP	1995-07-01	1995-10-01	DAILY	2400	HYGR		
TEMP	1995-10-01	2001-10-30	DAILY	2400	HYGR		
PRECIP	2008-04-15	2009-04-10	DAILY	2400	PCPN1		
TEMP	1989-07-01	1995-07-01	DAILY	2400	HYGR		
PRECIP	1995-10-01	2001-10-30	HOURLY	2400	TB	RCRD	
PRECIP	2006-09-20	2008-04-15	HOURLY	2400	AHTB	RCRD;HTD	
PRECIP	2006-09-20	2008-04-15	DAILY	2400	PCPNX		
TEMP	2008-04-15	2009-04-10	DAILY	2400	ATEMP		
TEMP	1934-07-01	1970-10-01	DAILY	2400			
PRECIP	1970-10-01	1989-07-01	DAILY	2400	UNIV	RCRD	
PRECIP	1995-10-01	2001-10-30	DAILY	2400	TB	RCRD	
PRECIP	2001-10-30	2006-09-20	DAILY	2400			
PRECIP	2008-04-15	2009-04-10	HOURLY	2400	AHTB	RCRD;HTD	
TEMP	2009-04-10	Present	DAILY	2400	ATEMP		
TEMP	2006-09-20	2008-04-15	DAILY	2400	ATEMP		
PRECIP	2001-10-30	2006-09-20	HOURLY	2400	AHTB	RCRD;HTD	
PRECIP	1934-07-01	1970-10-01	DAILY	2400	UNIV	RCRD	
PRECIP	1970-10-01	1989-07-01	HOURLY	2400			
PRECIP	1995-07-01	1995-10-01	DAILY	2400	UNIV	RCRD	
TEMP	2001-10-30	2006-09-20	DAILY	2400	ATEMP		
PRECIP	2009-04-10	Present	HOURLY	2400	AHTB	RCRD;HTD	
PRECIP	2009-04-10	Present	DAILY	2400	PCPNX		
PRECIP	1989-07-01	1995-07-01	DAILY	2400	UNIV	RCRD	

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

NOAA/National Climatic Data Center

Attn: User Engagement & Services Branch

151 Patton Avenue

Asheville, NC 28801-5001

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