

2003

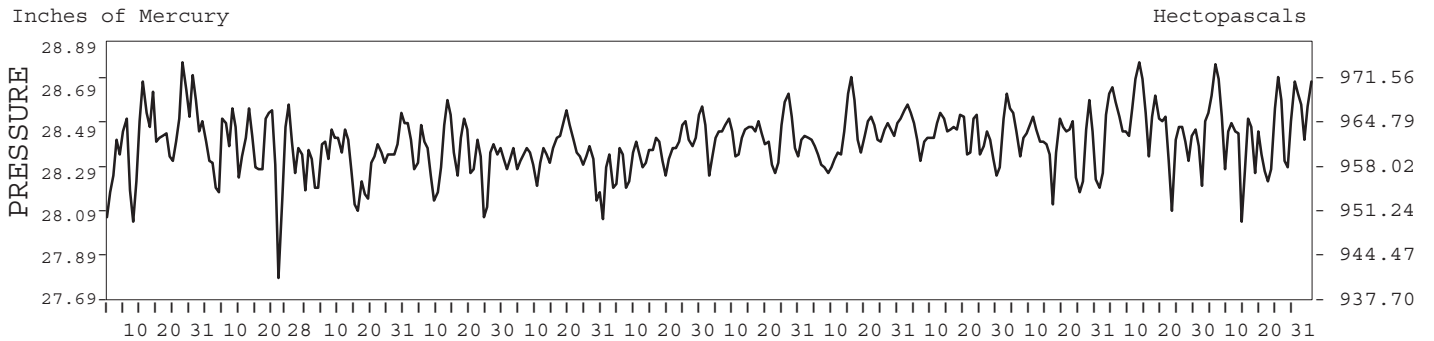
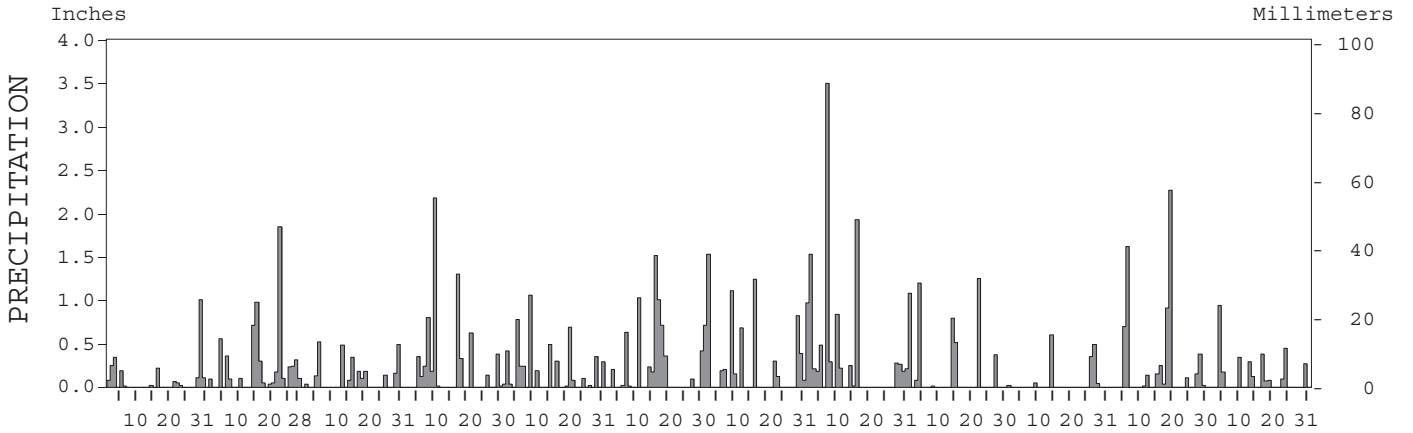
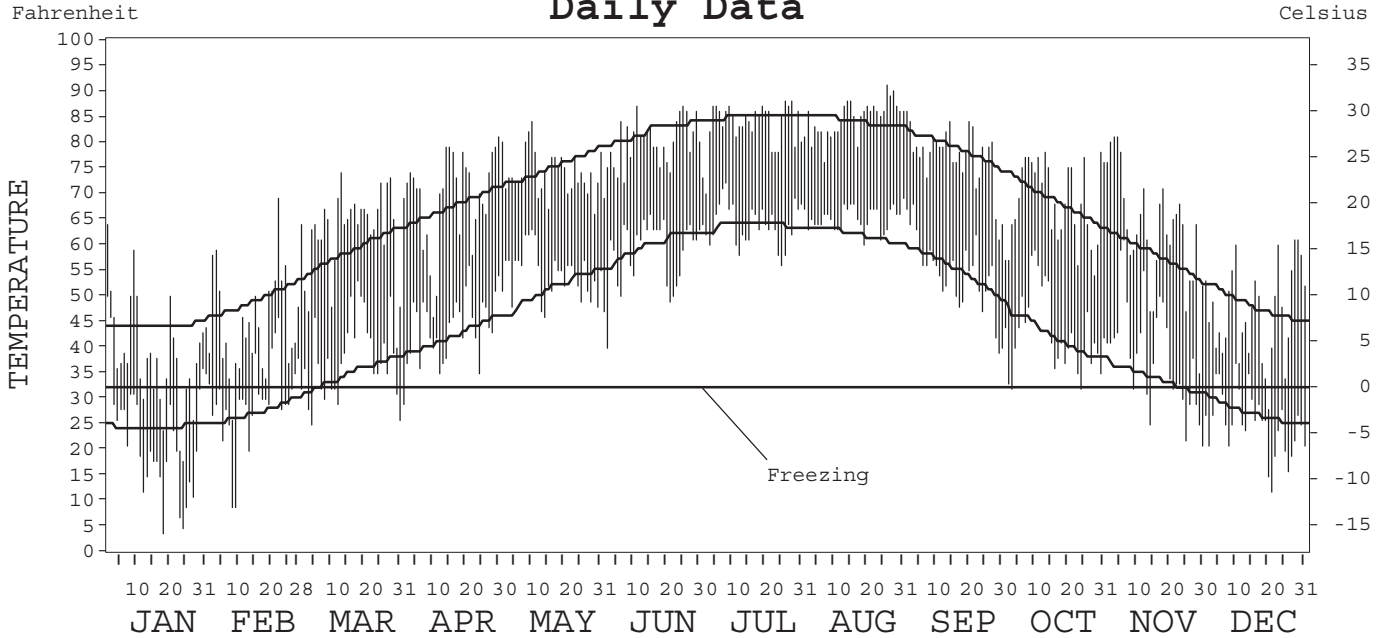
LOCAL CLIMATOLOGICAL DATA
ANNUAL SUMMARY WITH COMPARATIVE DATA



BRISTOL, JOHNSON CITY, KINGSPORT,
TENNESSEE (TRI)

ISSN 0198-4764

Daily Data



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

BRISTOL/JHNSN CTY/KNGSPRT, TN (TRI)

LATITUDE: 36° 28' 47" N LONGITUDE: 82° 23' 56" W ELEVATION (FT): GRND: 1536 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	38.5	44.8	62.6	69.3	74.1	79.8	83.3	84.6	77.2	68.5	62.8	46.8	66.0	
	HIGHEST DAILY MAXIMUM	64	69	74	81	84	87	88	91	86	78	81	61	91	
	DATE OF OCCURRENCE	01	22	13	30	10	25+	28+	26	01	30+	04+	29+	AUG 26	
	MEAN DAILY MINIMUM	22.6	29.6	37.9	43.9	54.3	58.2	64.0	65.2	54.5	42.9	38.4	25.3	44.7	
	LOWEST DAILY MINIMUM	4	9	25	29	46	40	56	60	39	32	21	12	4	
	DATE OF OCCURRENCE	18	09+	04	01	14	02	25	19	29	24+	30	21	JAN 18	
	AVERAGE DRY BULB	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	
	MEAN WET BULB	27.7	34.4	45.0	51.0		63.3	68.1	69.1	60.4	50.3	45.5	32.0		
	MEAN DEW POINT	21.3	30.0	39.2	46.0		59.9	65.8	66.9	57.5	45.8	40.8	26.8		
	NUMBER OF DAYS WITH:														
	MAXIMUM ≥ 90°	0	0	0	0	0	0	0	2	0	0	0	0	0	2
	MAXIMUM ≤ 32°	8	1	0	0	0	0	0	0	0	0	0	1	10	
MINIMUM ≤ 32°	27	21	10	1	0	0	0	0	0	2	10	27	98		
MINIMUM ≤ 0°	0	0	0	0	0	0	0	0	0	0	0	0	0		
H/C	HEATING DEGREE DAYS	1059	772	449	249	51	20	0	0	52	288	429	890	4259	
	COOLING DEGREE DAYS	0	0	0	3	34	145	274	314	84	7	4	0	865	
RH	MEAN (PERCENT)	70	79	70	72	77	77	80	82	79	74	74	74	76	
	HOUR 01 LST	76	84	81	82	88	91	92	94	93	87	84	82	86	
	HOUR 07 LST	79	86	88	90	90	90	93	95	96	92	84	84	89	
	HOUR 13 LST	61	70	54	55	61	60	65	65	57	53	58	60	60	
	HOUR 19 LST	67	74	58	60	71	65	72	77	76	68	71	70	69	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	2	4	3	3	7	5	7	17	9	6	3	2	68	
	THUNDERSTORMS	0	1	2	5	10	5	9	18	2	0	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.)	28.47	28.40	28.35	28.39	28.37	28.39	28.46	28.48	28.48	28.44	28.52	28.50	28.44	
	MEAN SEA-LEVEL PRESS. (IN.)	30.12	30.03		29.99		29.97	30.03	30.05	30.07		30.14	30.15		
WINDS	RESULTANT SPEED (MPH)	4.6	3.0	1.5	0.4	2.4	0.9	0.8	0.4	0.9	1.5	2.0	3.2	1.7	
	RES. DIR. (TENS OF DEGS.)	26	26	26	02	26	25	25	26	27	27	26	26	26	
	MEAN SPEED (MPH)	6.3	6.0	5.4	4.6	5.2	3.4	3.6	2.2	2.8	3.1	4.0	5.0	4.3	
	PREVAIL. DIR. (TENS OF DEGS.)	24	25	26	23	24	25	23	24	23	27	24	26	24	
	MAXIMUM 2-MINUTE WIND:														
	SPEED (MPH)	28	35	30	26	30	35	29	25	29	35	31	36	36	
	DIR. (TENS OF DEGS.)	26	27	30	24	28	22	35	22	28	28	24	30	30	
	DATE OF OCCURRENCE	19	04	13	01	31	11	09	29	27	14	12	30	DEC 30	
	MAXIMUM 5-SECOND WIND:														
	SPEED (MPH)	32	45	37	31	38	43	39	31	39	44	36	48	48	
DIR. (TENS OF DEGS.)	24	26	29	32	29	22	36	22	30	28	23	29	29		
DATE OF OCCURRENCE	20+	04	13	05+	31	11	09	29	27	14	12	30	DEC 30		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	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	
	GREATEST 24-HOUR (IN.)	1.11	1.91	0.60	2.19	1.06	1.68	2.15	3.50	1.30	0.83	3.18	0.94	3.50	
	DATE OF OCCURRENCE	28-29	21-22	29-30	09-10	09	17-18	01-02	07	14-15	26-27	18-19	04	AUG 07	
	NUMBER OF DAYS WITH:														
	PRECIPITATION ≥ 0.01	13	18	12	13	17	13	13	16	8	6	13	11	153	
PRECIPITATION ≥ 0.10	7	13	10	11	12	10	12	15	6	3	10	8	117		
PRECIPITATION ≥ 1.00	1	1	0	2	1	3	3	3	3	0	2	0	19		
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

BRISTOL-JHNSN CTY-KN, TN (TRI)

LATITUDE: 36° 28' 47" N LONGITUDE: 82° 23' 56" W ELEVATION (FT): GRND: 1536 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	44.1	48.9	58.4	67.1	74.9	81.8	84.8	83.9	78.5	68.2	57.4	47.8	66.3
	MEAN DAILY MAXIMUM	56	45.2	49.5	58.1	67.9	76.1	82.8	85.6	84.9	79.5	68.2	57.8	48.3	67.0
	HIGHEST DAILY MAXIMUM	58	79	80	85	89	92	97	102	101	100	90	81	78	102
	YEAR OF OCCURRENCE		1950	1977	1954	1995	1969	1952	1952	1988	1954	1954	2003	1951	JUL 1952
	MEAN OF EXTREME MAXS.	56	66.0	69.1	76.8	83.8	86.5	90.8	92.3	92.1	89.5	80.5	75.0	67.3	80.8
	NORMAL DAILY MINIMUM	30	24.3	27.0	34.6	42.0	51.0	59.5	63.5	61.7	54.7	41.8	33.6	26.8	43.4
	MEAN DAILY MINIMUM	56	25.9	28.5	35.0	43.5	52.2	60.5	64.6	63.2	56.4	43.7	35.1	28.5	44.8
	LOWEST DAILY MINIMUM	58	-21	-15	-2	21	30	38	45	43	34	20	5	-9	-21
	YEAR OF OCCURRENCE		1985	1996	1980	1982	1997	1966	1947	1986	1983	1962	1950	1962	JAN 1985
	MEAN OF EXTREME MINS.	56	5.1	9.4	18.3	27.5	37.8	48.2	55.5	53.7	42.5	28.8	19.3	10.2	29.7
	NORMAL DRY BULB	30	34.2	38.0	46.5	54.6	63.0	70.7	74.2	72.8	66.6	55.0	45.5	37.3	54.9
	MEAN DRY BULB	56	35.6	39.2	46.6	55.6	64.1	71.6	75.0	73.9	68.1	55.9	46.5	38.4	55.9
	MEAN WET BULB	19	32.4	35.7	41.3	49.1	57.7	65.1	68.8	63.9	61.3	48.3	40.2	33.3	49.8
	MEAN DEW POINT	19	26.9	29.4	34.2	42.5	53.1	61.7	65.7	61.1	57.9	43.6	35.0	28.3	45.0
NORMAL NO. DAYS WITH:	MAXIMUM ≥ 90°	30	0.0	0.0	0.0	0.0	0.0	1.9	5.9	4.2	1.4	0.0	0.0	0.0	13.4
	MAXIMUM ≤ 32°	30	4.7	2.9	0.4	*	0.0	0.0	0.0	0.0	0.0	0.0	0.1	2.4	10.5
	MINIMUM ≤ 32°	30	22.4	18.9	12.5	4.0	0.2	0.0	0.0	0.0	0.0	3.1	13.0	20.3	94.4
	MINIMUM ≤ 0°	30	0.6	0.3	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.1
H/C	NORMAL HEATING DEG. DAYS	30	939	745	561	306	110	11	3	2	52	303	570	843	4445
	NORMAL COOLING DEG. DAYS	30	0	0	1	10	61	198	304	260	116	6	0	0	956
RH	NORMAL (PERCENT)	30	72	70	65	64	72	75	77	78	77	73	71	74	72
	HOUR 01 LST	30	78	76	73	73	84	88	90	90	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 (VISBY ≤ 1/4 MI)	61	3.3	2.5	1.4	1.6	3.8	4.0	4.8	7.2	5.4	5.1	2.9	3.2	45.2
	THUNDERSTORMS	61	0.3	0.9	2.0	3.5	6.6	8.1	9.0	7.3	3.3	0.8	0.4	0.2	42.4
CLOUDINESS	MEAN: SUNRISE-SUNSET (OKTAS)	1					4.8	4.0							
	MIDNIGHT-MIDNIGHT (OKTAS)	1						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)	31	28.50	28.49	28.40	28.40	28.40	28.40	28.50	28.50	28.50	28.50	28.49	28.46	
	MEAN SEA-LEVEL PRES. (IN)	20	30.13	30.11	30.04	30.00	30.00	30.01	30.04	30.05	30.07	30.13	30.13	30.16	
WINDS	MEAN SPEED (MPH)	40	6.2	6.4	7.2	6.7	5.4	4.7	4.3	3.9	4.3	4.2	5.4	5.8	5.4
	PREVAIL. DIR (TENS OF DEGS)	31	24	24	24	24	24	24	23	06	06	06	24	24	24
	MAXIMUM 2-MINUTE: SPEED (MPH)	8	40	37	39	39	36	39	36	37	29	36	36	36	40
	DIR. (TENS OF DEGS)		24	24	26	25	24	31	01	25	28	27	25	30	24
	YEAR OF OCCURRENCE		1996	2000	1998	1996	2002	1998	1998	2002	2003	2001	2000	2003	JAN 1996
	MAXIMUM 5-SECOND: SPEED (MPH)	8	51	45	46	54	62	52	52	54	39	48	47	48	62
	DIR. (TENS OF DEGS)		26	26	26	27	28	33	24	29	30	34	25	29	28
YEAR OF OCCURRENCE		1996	2003	1996	1996	2000	1997	1997	2000	2003	1999	2000	2003	MAY 2000	
PRECIPITATION	NORMAL (IN)	30	3.52	3.40	3.91	3.23	4.32	3.89	4.21	3.00	3.08	2.30	3.08	3.39	41.33
	MAXIMUM MONTHLY (IN)	58	9.18	7.75	9.56	7.03	9.71	7.37	9.73	11.34	7.09	5.65	6.74	6.75	11.34
	YEAR OF OCCURRENCE		1957	1994	1955	1998	1950	1998	1949	2003	1972	1959	2003	1961	AUG 2003
	MINIMUM MONTHLY (IN)	58	1.37	0.75	1.31	0.21	1.31	0.75	0.67	0.55	0.50	0.02	0.50	0.21	0.02
	YEAR OF OCCURRENCE		1981	1968	1985	1976	1966	1986	1995	1987	1985	2000	2001	1965	OCT 2000
	MAXIMUM IN 24 HOURS (IN)	58	2.34	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		1950	1994	1973	1977	1984	1954	1946	2003	1972	1964	2003	1969	OCT 1964
NORMAL NO. DAYS WITH:	PRECIPITATION ≥ 0.01	30	13.3	11.9	13.0	11.3	12.3	11.9	11.5	10.0	8.8	8.4	10.2	12.0	134.6
	PRECIPITATION ≥ 1.00	30	0.5	0.6	0.6	0.3	0.9	0.7	0.9	0.8	0.7	0.5	0.5	0.5	7.5
SNOWFALL	NORMAL (IN)	30	5.5	4.1	1.9	0.9	0.*	0.0	0.0	0.0	0.0	0.1	0.3	2.2	15.0
	MAXIMUM MONTHLY (IN)	59	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	1992	1995			1994	1993	1952	1963	MAR 1960
	MAXIMUM IN 24 HOURS (IN)	53	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	1992	1995			1994	1993	1952	1969	NOV 1952
	MAXIMUM SNOW DEPTH (IN)	47	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	1.9	1.0	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.8	4.6	

PRECIPITATION (inches) 2003 BRISTOL, JOHNSON CITY, KINGSPORT, TN (TRI)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1974	5.33	4.07	4.34	3.96	8.66	4.01	1.78	1.95	3.12	2.34	3.29	3.53	46.38
1975	4.19	3.13	9.22	3.67	4.29	3.19	2.46	3.87	5.02	1.54	3.14	3.33	47.05
1976	2.60	3.07	3.24	0.21	3.31	5.62	2.14	2.27	4.44	5.30	1.41	3.80	37.41
1977	1.90	1.01	4.86	5.43	1.91	3.77	2.13	3.09	2.36	4.89	4.91	2.72	38.98
1978	4.22	0.89	3.18	2.44	4.50	5.67	4.78	3.71	3.04	0.58	2.64	4.89	40.54
1979	5.29	3.58	3.16	3.68	3.35	3.55	6.12	2.80	3.89	2.19	4.44	1.66	43.71
1980	3.91	1.39	5.68	3.56	2.69	1.10	3.82	2.54	3.01	2.09	2.10	1.38	33.27
1981	1.37	2.59	1.94	5.10	4.51	4.28	6.24	3.05	4.17	2.51	1.95	3.20	40.91
1982	4.07	5.07	3.35	2.30	2.55	5.52	9.14	4.70	5.53	2.54	4.12	2.89	51.78
1983	1.67	2.14	1.73	4.44	4.83	4.60	3.29	5.05	1.88	2.18	2.74	4.15	38.70
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	0.97	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
POR= 66 YRS	3.54	3.50	3.92	3.21	3.79	3.69	4.82	3.50	2.88	2.14	2.97	3.40	41.36

WBAN : 13877

AVERAGE TEMPERATURE (°F) 2003 BRISTOL, JOHNSON CITY, KINGSPORT, TN (TRI)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1974	47.0	39.8	51.2	56.4	64.3	67.7	74.0	73.0	64.8	54.5	47.2	39.5	56.6
1975	40.4	42.8	44.7	54.2	67.1	71.1	74.8	76.1	67.8	59.0	49.8	40.0	57.3
1976	33.5	47.3	51.9	55.3	61.2	70.7	73.2	71.6	65.1	51.6	38.8	33.3	54.5
1977	22.1	34.5	50.0	59.4	66.8	71.2	76.8	74.8	69.6	53.3	49.9	35.3	55.3
1978	25.8	28.8	44.8	55.5	62.3	71.5	74.4	74.5	72.3	56.3	51.0	39.5	54.7
1979	30.4	31.9	48.3	55.4	63.8	68.2	70.9	73.1	66.8	54.6	48.7	38.8	54.2
1980	37.9	30.6	43.2	55.4	64.2	70.6	76.4	76.9	70.9	54.1	45.3	36.3	55.2
1981	29.3	37.9	42.6	60.4	61.3	75.1	75.3	72.1	65.0	53.7	45.8	34.5	54.4
1982	31.2	40.2	49.8	53.1	68.2	71.4	75.1	72.3	65.7	57.6	48.3	43.3	56.4
1983	35.1	38.2	46.4	50.5	60.9	69.5	74.2	74.7	65.9	57.1	45.3	34.8	54.4
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	51.4	41.3	39.9	57.0
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
POR= 66 YRS	35.8	39.3	46.6	55.6	64.2	71.9	75.0	73.9	68.1	56.3	46.5	38.4	56.0

HEATING DEGREE DAYS (base 65°F) 2003 BRISTOL, JOHNSON CITY, KINGSPORT, TN (TRI)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1974-75	0	0	72	326	527	785	755	616	621	328	29	1	4060
1975-76	0	0	46	188	451	768	970	509	402	297	134	9	3774
1976-77	0	0	46	409	776	973	1321	845	459	184	61	21	5095
1977-78	0	0	19	359	455	913	1207	1005	620	286	130	4	4998
1978-79	0	0	0	268	411	786	1065	920	511	283	88	11	4343
1979-80	3	3	23	323	483	804	832	990	670	285	76	4	4496
1980-81	0	0	31	337	586	882	1099	752	686	161	137	0	4671
1981-82	0	0	83	346	570	942	1042	687	465	351	32	0	4518
1982-83	0	0	66	256	494	667	922	745	570	436	140	19	4315
1983-84	0	0	98	242	583	928	995	709	627	357	199	8	4746
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	769	900	605	442	423	222	30	4034
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-	0	0	52	288	429	890							

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COOLING DEGREE DAYS (base 65°F) 2003 BRISTOL, JOHNSON CITY, KINGSPORT, TN

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1974	0	0	0	9	73	102	286	254	73	5	1	0	803
1975	0	0	0	12	101	190	310	353	136	7	0	0	1109
1976	0	0	2	14	24	185	262	212	54	0	0	0	753
1977	0	0	1	23	124	213	374	309	163	2	8	0	1217
1978	0	0	0	6	53	204	299	302	224	4	0	0	1092
1979	0	0	0	1	59	113	194	259	85	9	0	0	720
1980	0	0	0	6	61	179	359	377	215	5	0	0	1202
1981	0	0	0	27	30	309	325	226	87	1	0	0	1005
1982	0	0	0	0	136	199	322	232	93	36	0	0	1018
1983	0	0	2	5	21	163	294	307	131	3	0	0	926
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

SNOWFALL (inches) 2003 BRISTOL, JOHNSON CITY, KINGSPORT, TN (TRI)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1974-75	0.0	0.0	0.0	0.0	0.5	3.1	1.8	0.3	3.4	T	0.0	0.0	9.1
1975-76	0.0	0.0	0.0	0.0	T	T	0.5	3.2	T	0.0	0.0	0.0	3.7
1976-77	0.0	0.0	0.0	0.0	1.2	6.2	12.7	2.4	0.4	T	0.0	0.0	22.9
1977-78	0.0	0.0	0.0	T	1.6	0.4	13.6	6.7	3.9	T	0.0	0.0	26.2
1978-79	0.0	0.0	0.0	0.0	0.0	T	9.2	20.4	0.8	0.0	0.0	0.0	30.4
1979-80	0.0	0.0	0.0	0.0	T	0.4	7.8	5.4	3.6	0.0	0.0	0.0	17.2
1980-81	0.0	0.0	0.0	0.0	T	T	7.3	1.1	1.1	0.0	0.0	0.0	9.5
1981-82	0.0	0.0	0.0	0.0	T	7.3	3.6	2.3	2.6	0.6	0.0	0.0	16.4
1982-83	0.0	0.0	0.0	0.0	0.0	6.3	3.4	5.5	1.1	5.6	0.0	0.0	21.9
1983-84	0.0	0.0	0.0	0.0	T	0.3	4.6	3.8	1.2	T	0.0	0.0	9.9
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-													
POR= 58 YRS	0.0	0.0	T	0.0	0.9	2.6	5.2	4.1	2.3	0.4	T	T	15.5

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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.</p>	<p>GENERAL CONTINUED: CLEAR INDICATES 0 - 2 OKTAS, PARTLY CLOUDY INDICATES 3 - 6 OKTAS, AND CLOUDY INDICATES 7 OR 8 OKTAS. WHEN AT LEAST ONE OF THE ELEMENTS (CEILOMETER OR SATELLITE) IS MISSING, THE DAILY CLOUDINESS IS NOT COMPUTED. WIND DIRECTION IS RECORDED IN TENS OF DEGREES (2 DIGITS) CLOCKWISE FROM TRUE NORTH. "00" INDICATES CALM. "36" INDICATES TRUE NORTH. RESULTANT WIND IS THE VECTOR AVERAGE OF THE SPEED AND DIRECTION. AVERAGE TEMPERATURE IS THE SUM OF THE MEAN DAILY MAXIMUM AND MINIMUM TEMPERATURE DIVIDED BY 2. SNOWFALL DATA COMPRISE ALL FORMS OF FROZEN PRECIPITATION, INCLUDING HAIL. A HEATING (COOLING) DEGREE DAY IS THE DIFFERENCE BETWEEN THE AVERAGE DAILY TEMPERATURE AND 65° F. DRY BULB IS THE TEMPERATURE OF THE AMBIENT AIR. DEW POINT IS THE TEMPERATURE TO WHICH THE AIR MUST BE COOLED TO ACHIEVE 100 PERCENT RELATIVE HUMIDITY. WET BULB IS THE TEMPERATURE THE AIR WOULD HAVE IF THE MOISTURE CONTENT WAS INCREASED TO 100 PERCENT RELATIVE HUMIDITY.</p> <p>ON JULY 1, 1996, THE NATIONAL WEATHER SERVICE BEGAN USING THE "METAR" OBSERVATION CODE THAT WAS ALREADY EMPLOYED BY MOST OTHER NATIONS OF THE WORLD. THE MOST NOTICEABLE DIFFERENCE IN THIS ANNUAL PUBLICATION WILL BE THE CHANGE IN UNITS FROM TENTHS TO EIGHTS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER.</p>
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2003
BRISTOL, JOHNSON CITY, KINGSPORT,
TENNESSEE (TRI)

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 LOCATION

BRISTOL, JOHNSON CITY,
KINGSPORT, TENNESSEE

LOCATION	Occupied From	Occupied To	Airline Distances and Directions from previous Location	LATITUDE		ELEVATION ABOVE											AUTOMATIC OBSERVING EQUIPMENT *	REMARKS
				NORTH	WEST	SEA LEVEL	GROUND											
							GROUND	WIND	EXTREME	PSYCHROMETER	SUNSHINE	TIPPING GAUGE	WEIGHING	8 INCH	HYGROMETER			
AIRPORT																		
Bristol Airport 3-1/3 miles ENE Bristol, Virginia Post Office	6/23/34	9/30/37	NA	36°37'	82°08'	1900												No instrument records.
Tri-City Airport Administration Bldg. 7 miles WSW of P.O. at Blountville, Tenn.	10/1/37	4/10/45	18 mi. WSW	36°29'	82°24'	1519	68	60	60	NA	NA	58	58	NA	NA			Change in status from CAA to WBAS 3/17/44.
Tri-City Airport Administration Bldg. 7 miles WSW of P.O. at Blountville, Tenn.	4/10/45	2/2/65	No Chang	36°29'	82°24'	1519 a1507	61 a20	5	5	NA	NA	3	3	NA b5	NA			a. Effective 5/1/61. b. Commissioned 2900' SSE of thermometer site 5/6/61.
FAA/Weather Bureau + Building, Tri-City Airport + NWS/FAA Building effective 1970.	2/2/65	10/01/95	150 ft. NW	36° 29'	82°24'	1507	c20	NA e6	NA f6	NA	NA g20	4 d4	4 d4	c5 h5 i5	NA			c. Not moved 2/2/65. d. Moved 65' SSE 5/15/71. e. Installed 12/20/72. f. Installed 5/10/74. g. Installed 8/19/74. h. Type change 11/5/82. i. Type change 3/24/86.
Tri-City Airport	10/01/95	Present	NA	36°29'	82°24'	j1536										S		ASOS Commissioned 10/01/95 j. Ground elevation.

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