

1999

LOCAL CLIMATOLOGICAL DATA
ANNUAL SUMMARY WITH COMPARATIVE DATA



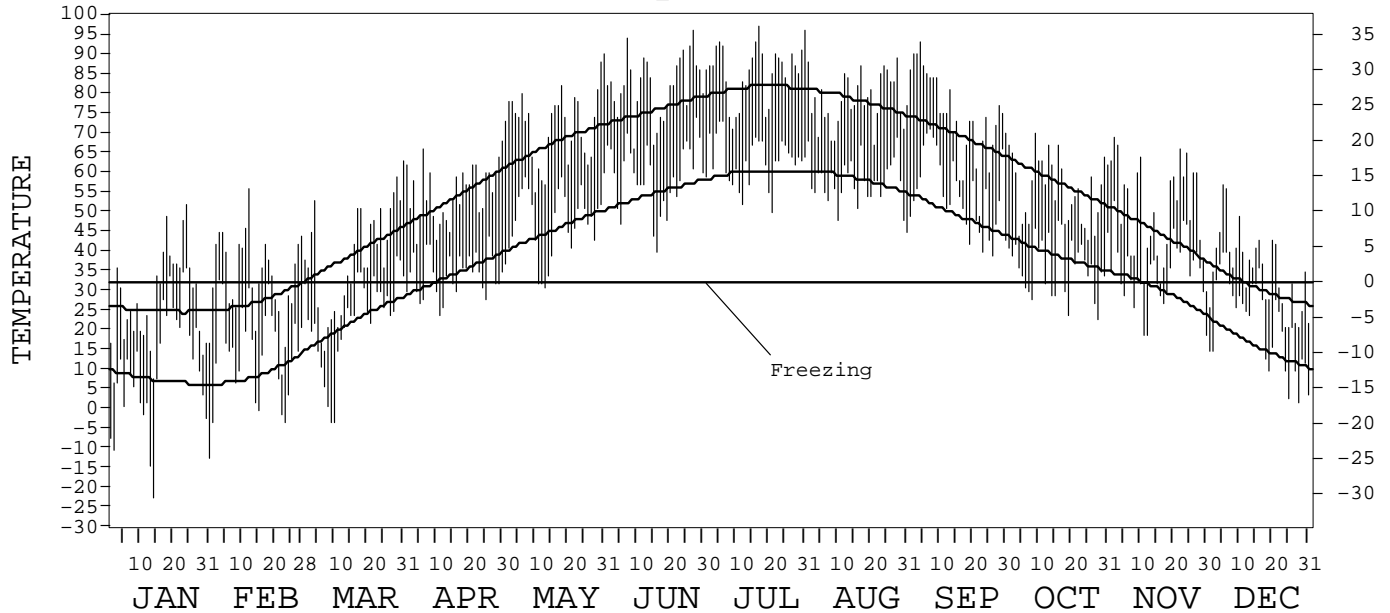
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BURLINGTON,
VERMONT (BTV)

Daily Data

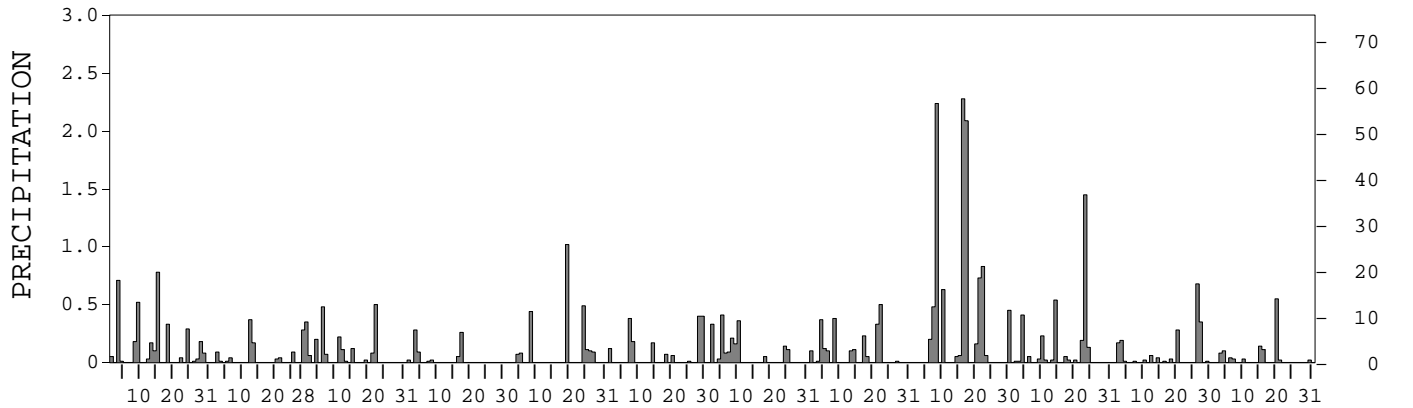
Fahrenheit

Celsius



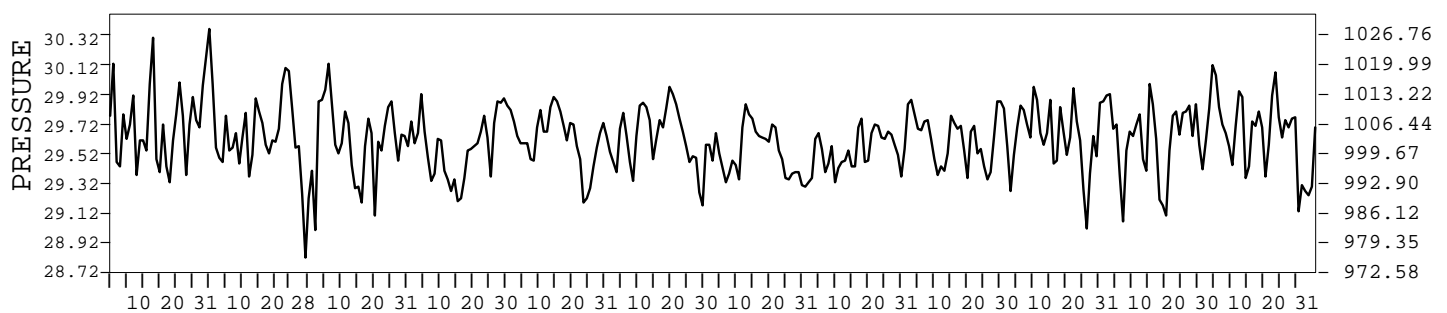
Inches

Millimeters



Inches of Mercury

Hectopascals



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Thomas R. Karl

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
 NATIONAL ENVIRONMENTAL AND INFORMATION SERVICE
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 ASHEVILLE, NORTH CAROLINA

METEOROLOGICAL DATA FOR 1999

BURLINGTON, VT (BTV)

LATITUDE: 44° 28' 05" N LONGITUDE: 73° 09' 01" W ELEVATION (FT): GRND: 346 BARO: 346 TIME ZONE: EASTERN (UTC + 5) WBAN: 14742

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	27.8	34.3	38.8	55.1	72.1	81.9	85.5	78.5	74.5	55.8	50.5	35.2	57.5	
	HIGHEST DAILY MAXIMUM	52	56	63	68	90	96	97	89	93	70	69	57	97	
	DATE OF OCCURRENCE	24	12	31	30	31	27	17	28	04	09	02	05	JUL 17	
	MEAN DAILY MINIMUM	10.3	15.3	22.9	34.2	47.4	59.1	62.9	57.6	54.4	36.5	34.6	22.2	38.1	
	LOWEST DAILY MINIMUM	-22	-3	-3	24	31	40	50	45	39	23	19	2	-22	
	DATE OF OCCURRENCE	14	23+	10+	11	13	16	21	31	26	28	30	28	JAN 14	
	AVERAGE DRY BULB	19.1	24.8	30.9	44.7	59.8	70.5	74.2	68.1	64.5	46.2	42.6	28.7	47.8	
	MEAN WET BULB	17.5	22.7	27.3	38.5	52.7	61.8	65.9	61.1	58.9	42.6	38.5	26.4	42.8	
	MEAN DEW POINT	11.6	15.6	19.8	29.4	44.9	54.9	60.8	56.3	54.8	36.8	31.5	20.0	36.4	
	NUMBER OF DAYS WITH:														
	MAXIMUM ≥ 90°	0	0	0	0	1	4	10	0	3	0	0	0	0	18
	MAXIMUM ≤ 32°	20	13	10	0	0	0	0	0	0	0	3	13	59	
	MINIMUM ≤ 32°	28	27	25	13	3	0	0	0	0	10	12	26	144	
MINIMUM ≤ 0°	7	4	2	0	0	0	0	0	0	0	0	0	13		
H/C	HEATING DEGREE DAYS	1418	1120	1053	606	184	31	1	20	113	578	666	1119	6909	
	COOLING DEGREE DAYS	0	0	0	0	29	207	295	125	106	0	0	0	762	
RH	MEAN (PERCENT)	72	68	65	58	60	60	66	69	74	69	65	69	66	
	HOUR 01 LST	75	74	74	70	77	73	82	83	83	79	70	73	76	
	HOUR 07 LST	76	77	73	70	69	69	75	79	86	81	68	75	75	
	HOUR 13 LST	65	57	56	42	44	44	48	53	57	56	57	61	53	
	HOUR 19 LST	72	68	60	49	53	53	58	62	70	66	66	70	62	
S	PERCENT POSSIBLE SUNSHINE	33	56	46	65	72	71	67	63	60			44		
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	5	3	3	0	2	0	0	2	2	0	0	1	18	
	THUNDERSTORMS	0	0	0	0	1	4	8	2	1	0	1	0	17	
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.)	29.76	29.69	29.59	29.58	29.65	29.65	29.54	29.58	29.62	29.69	29.64	29.66	29.64	
	MEAN SEA-LEVEL PRESS. (IN.)	30.14	30.07	29.97	29.95	30.02	30.01	29.90	29.95	29.98	30.07	30.02	30.05	30.01	
WINDS	RESULTANT SPEED (MPH)	2.4	1.2	3.5	4.5	1.3	3.4	0.4	1.0	2.2	3.6	4.0	2.4	1.4	
	RES. DIR. (TENS OF DEGS.)	23	35	32	33	20	18	19	29	18	21	23	25	25	
	MEAN SPEED (MPH)	8.5	7.2	9.4	9.2	7.5	8.0	7.1	6.1	7.8	9.4	11.1	9.0	8.4	
	PREVAIL. DIR. (TENS OF DEGS.)	19	36	34	35	19	18	18	18	18	18	18	18	18	
	MAXIMUM 2-MINUTE WIND:														
	SPEED (MPH)	34	32	31	31	23	31	34	23	36	31	33	32	36	
	DIR. (TENS OF DEGS.)	18	19	19	19	19	33	32	32	32	18	19	30	32	
	DATE OF OCCURRENCE	06	12	04	06	25+	08	07	08	17	13	14	11	SEP 17	
	MAXIMUM 5-SECOND WIND:														
	SPEED (MPH)	40	41	38	38	30	39	43	30	48	40	43	38	48	
DIR. (TENS OF DEGS.)	19	19	18	17	20	34	31	33	32	19	14	31	32		
DATE OF OCCURRENCE	06	12	22+	07+	18	08	07	01	17	13	02	11	SEP 17		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	3.51	1.13	2.22	0.73	2.40	1.79	1.97	2.41	10.26	3.18	1.86	1.12	32.58	
	GREATEST 24-HOUR (IN.)	0.81	0.46	0.63	0.36	1.02	0.40	0.52	0.83	3.96	1.45	0.89	0.57	3.96	
	DATE OF OCCURRENCE	14-15	12-13	28-01	03-04	19	29+	09-10	21-22	16-17	23	26-27	20-21	SEP 16-17	
	NUMBER OF DAYS WITH:														
	PRECIPITATION ≥ 0.01	16	10	12	7	8	9	11	13	13	15	13	10	137	
PRECIPITATION ≥ 0.10	9	3	7	2	5	6	7	10	10	6	5	4	74		
PRECIPITATION ≥ 1.00	0	0	0	0	1	0	0	0	3	1	0	0	5		
SNOWFALL	SNOW, ICE PELLETS, HAIL:														
	TOTAL (IN.)	30.4	10.8	22.7	T	0.0	0.0	0.0	0.0	0.0	T	0.7	2.3	66.9	
	GREATEST 24-HOUR (IN.)	7.0	5.3	12.2	T	0.0	0.0	0.0	0.0	0.0	T	0.4	1.9	12.2	
	DATE OF OCCURRENCE	09	12-13	06-07	17+	0	0	0	0	0	25+	18	15	MAR 06-07	
	MAXIMUM SNOW DEPTH (IN.)	17	8	12	0	0	0	0	0	0	0	T	2	17	
	DATE OF OCCURRENCE	16	01	13+								30	15	JAN 16	
NUMBER OF DAYS WITH:															
SNOWFALL ≥ 1.0	10	5	5	0	0	0	0	0	0	0	0	1	21		

NORMALS, MEANS, AND EXTREMES

BURLINGTON, VT (BTV)

LATITUDE: 44° 28' 05" N LONGITUDE: 73° 09' 01" W ELEVATION (FT): GRND: 346 BARO: 346 TIME ZONE: EASTERN (UTC + 5) WBAN: 14742

		POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	25.1	27.5	39.3	53.6	67.2	75.8	81.2	77.9	69.0	57.0	44.0	30.4	54.0
	MEAN DAILY MAXIMUM	52	26.3	28.6	38.4	53.4	66.9	76.3	81.0	78.1	69.0	57.4	44.3	31.7	54.3
	HIGHEST DAILY MAXIMUM	56	66	62	84	91	93	100	100	101	94	85	75	67	101
	YEAR OF OCCURRENCE		1995	1981	1998	1976	1977	1995	1995	1944	1945	1949	1948	1998	AUG 1944
	MEAN OF EXTREME MAXS.	52	48.1	46.8	61.1	74.8	84.8	90.4	92.5	89.9	84.6	74.9	64.5	51.8	72.0
	NORMAL DAILY MINIMUM	30	7.5	8.9	22.0	34.2	45.4	54.6	59.7	57.9	48.8	38.6	29.6	15.5	35.2
	MEAN DAILY MINIMUM	52	8.6	10.0	20.8	33.3	44.6	54.5	59.3	57.2	49.3	38.9	30.0	16.5	35.2
	LOWEST DAILY MINIMUM	56	-30	-30	-20	2	24	33	39	35	25	15	-2	-26	-30
	YEAR OF OCCURRENCE		1957	1979	1948	1972	1966	1986	1962	1976	1963	1972	1958	1980	FEB 1979
	MEAN OF EXTREME MINS.	52	-15.0	-13.8	-1.6	18.7	30.3	39.7	46.9	44.0	33.4	24.2	11.6	-8.2	17.5
	NORMAL DRY BULB	30	16.3	18.2	30.7	43.9	56.3	65.2	70.5	67.9	58.9	47.8	36.8	23.0	44.6
	MEAN DRY BULB	52	17.5	19.3	29.6	43.4	55.7	65.3	70.2	67.6	59.2	48.2	37.2	24.1	44.8
	MEAN WET BULB	16	18.1	19.0	27.0	39.3	50.1	59.1	63.8	62.3	55.0	44.2	34.1	24.0	41.3
	MEAN DEW POINT	16	12.1	12.3	19.7	31.4	43.0	53.4	59.3	58.1	51.0	38.9	28.3	18.3	35.5
	NORMAL NO. DAYS WITH:														
MAXIMUM ≥ 90°	30	0.0	0.0	0.0	0.1	0.5	1.2	2.9	1.0	0.1	0.0	0.0	0.0	5.8	
MAXIMUM ≤ 32°	30	21.3	18.3	8.6	0.6	0.0	0.0	0.0	0.0	0.0	*	4.3	17.4	70.5	
MINIMUM ≤ 32°	30	30.1	26.4	26.0	15.9	3.2	0.0	0.0	0.0	0.9	8.9	19.1	28.1	158.6	
MINIMUM ≤ 0°	30	10.3	8.7	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	26.0	
H/C	NORMAL HEATING DEG. DAYS	30	1510	1310	1063	633	282	58	6	29	199	533	846	1302	7771
	NORMAL COOLING DEG. DAYS	30	0	0	0	0	13	64	176	119	16	0	0	0	388
RH	NORMAL (PERCENT)														
	HOUR 01 LST	30	71	72	73	74	77	81	83	85	85	79	76	75	78
	HOUR 07 LST	30	72	74	75	73	74	77	79	83	86	81	78	76	77
	HOUR 13 LST	30	64	61	58	53	51	54	53	57	61	61	66	67	59
	HOUR 19 LST	30	68	65	63	58	57	60	61	67	73	71	72	72	66
S	PERCENT POSSIBLE SUNSHINE	56	41	48	51	49	54	59	64	60	54	47	31	33	49
W/O	MEAN NO. DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	56	1.0	1.1	1.3	1.3	0.9	1.1	0.8	1.4	2.4	1.9	1.2	1.1	15.5
	THUNDERSTORMS	56	0.0	0.0	0.4	1.0	2.4	5.0	6.0	5.0	2.1	0.6	0.3	0.0	22.8
CLOUDINESS	MEAN:														
	SUNRISE-SUNSET (OKTAS)	53	6.0	5.8	5.7	5.8	5.6	5.4	5.0	5.0	5.1	5.4	6.4	6.3	5.6
	MIDNIGHT-MIDNIGHT (OKTAS)	32	5.9	5.4	5.3	5.3	5.3	5.0	4.8	4.8	5.0	5.3	6.2	6.2	5.4
	MEAN NO. DAYS WITH:														
	CLEAR	54	4.6	4.5	5.8	5.0	4.9	4.8	5.1	5.9	5.9	5.9	2.5	2.9	57.8
PARTLY CLOUDY	54	6.4	6.9	6.9	7.5	9.3	10.8	12.7	11.6	9.8	7.6	5.2	5.7	100.4	
CLOUDY	54	20.1	16.9	18.3	17.5	16.7	14.4	12.7	13.1	13.8	17.1	21.7	21.7	204.0	
PR	MEAN STATION PRESSURE (IN)	27	29.61	29.70	29.60	29.60	29.59	29.59	29.60	29.70	29.68	29.70	29.69	29.69	29.65
	MEAN SEA-LEVEL PRES. (IN)	16	30.06	30.06	30.05	29.96	29.95	29.94	29.96	30.02	30.05	30.08	30.07	30.06	30.02
WINDS	MEAN SPEED (MPH)	45	9.9	9.4	9.6	9.5	9.0	8.6	8.1	7.8	8.5	8.9	9.9	10.0	9.1
	PREVAIL. DIR (TENS OF DEGS)	29	18	18	18	18	18	18	18	18	18	18	18	18	18
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	3	38	33	32	31	33	31	34	25	36	31	33	34	38
	DIR. (TENS OF DEGS)		18	18	18	19	19	19	32	31	32	29	19	32	18
	YEAR OF OCCURRENCE		1997	1997	1997	1999	1997	1997	1999	1998	1999	1998	1999	1997	JAN 1997
	MAXIMUM 5-SECOND:														
SPEED (MPH)	3	51	47	44	40	40	41	43	40	48	41	43	45	51	
DIR. (TENS OF DEGS)		19	19	19	11	19	28	31	36	32	27	18	18	19	
YEAR OF OCCURRENCE		1997	1997	1997	1998	1997	1998	1999	1998	1999	1998	1998	1998	JAN 1997	
PRECIPITATION	NORMAL (IN)	30	1.82	1.63	2.23	2.76	3.12	3.47	3.65	4.06	3.30	2.88	3.13	2.42	34.47
	MAXIMUM MONTHLY (IN)	56	5.15	5.38	3.81	6.55	6.31	8.66	9.31	11.54	10.26	6.22	6.85	5.95	11.54
	YEAR OF OCCURRENCE		1998	1981	1998	1983	1983	1998	1998	1955	1999	1959	1983	1973	AUG 1955
	MINIMUM MONTHLY (IN)	56	0.42	0.21	0.38	0.73	0.29	0.82	1.23	0.72	0.87	0.50	0.63	0.37	0.21
	YEAR OF OCCURRENCE		1989	1978	1965	1999	1977	1995	1979	1957	1948	1963	1952	1998	FEB 1978
	MAXIMUM IN 24 HOURS (IN)	56	2.11	1.93	1.62	2.16	2.26	2.83	2.69	3.62	3.96	2.17	2.48	2.60	3.96
	YEAR OF OCCURRENCE		1998	1981	1971	1968	1955	1972	1985	1998	1999	1983	1990	1950	SEP 1999
	NORMAL NO. DAYS WITH:														
PRECIPITATION ≥ 0.01	30	14.0	10.8	13.0	12.3	14.1	13.2	11.9	13.4	11.5	12.4	14.5	15.3	156.4	
PRECIPITATION ≥ 1.00	30	0.1	0.1	0.2	0.1	0.3	0.5	0.8	0.8	0.7	0.5	0.2	0.2	4.5	
SNOWFALL	NORMAL (IN)	30	19.0	15.1	13.0	4.8	0.3	0.0	0.0	0.0	0.3	7.4	21.3	81.2	
	MAXIMUM MONTHLY (IN)	56	42.4	34.3	39.9	21.3	3.9	0.0	T	0.0	0.1	5.1	19.2	56.7	
	YEAR OF OCCURRENCE		1978	1958	1993	1983	1966		1989		1992	1969	1971	1970	DEC 1970
	MAXIMUM IN 24 HOURS (IN)	56	14.5	17.7	22.4	15.6	3.5	0.0	T	0.0	0.1	5.1	10.1	17.0	22.4
	YEAR OF OCCURRENCE		1961	1995	1993	1983	1966		1989		1992	1969	1958	1978	MAR 1993
	MAXIMUM SNOW DEPTH (IN)	51	40	33	31	13	1	0	0	0	0	5	10	33	40
	YEAR OF OCCURRENCE		1964	1958	1993	1983	1967					1969	1958	1969	JAN 1964
NORMAL NO. DAYS WITH:															
SNOWFALL ≥ 1.0	30	5.2	4.3	3.9	1.5	0.1	0.0	0.0	0.0	0.0	0.1	2.2	5.8	23.1	

PRECIPITATION (inches) 1999 BURLINGTON, VT (BTV)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1970	0.65	1.95	2.01	2.78	3.14	4.38	1.92	3.44	3.93	2.66	2.35	3.77	32.98
1971	1.24	2.98	2.71	2.65	2.97	2.29	4.29	4.85	1.63	2.16	2.29	1.93	31.99
1972	0.93	1.69	3.58	2.26	2.83	6.52	6.12	2.35	1.69	2.60	4.10	3.43	38.10
1973	2.13	1.55	2.09	3.80	5.38	7.69	3.02	5.41	5.02	1.93	2.31	5.95	46.28
1974	1.90	1.54	2.73	3.47	4.61	4.45	3.70	2.60	3.23	0.78	3.60	2.08	34.69
1975	2.20	2.01	2.86	1.71	1.17	2.47	3.77	2.85	4.12	3.85	3.14	2.36	32.51
1976	2.99	2.85	2.35	2.54	5.86	4.04	3.05	4.69	3.77	4.34	1.63	1.97	40.08
1977	1.61	1.78	2.97	3.13	0.29	2.06	3.34	6.27	6.33	5.02	4.22	3.42	40.44
1978	4.69	0.21	2.98	2.51	2.16	4.36	3.50	1.82	2.07	3.72	0.95	2.11	31.08
1979	4.50	0.60	2.15	3.61	3.12	1.39	1.23	3.42	3.84	2.31	3.89	1.50	31.56
1980	0.61	0.67	2.44	2.39	1.61	1.92	6.11	3.83	4.41	2.48	2.92	1.50	30.89
1981	0.49	5.38	1.32	3.05	3.76	3.07	3.22	5.58	6.24	5.26	2.73	2.03	42.13
1982	2.74	1.43	2.31	2.63	1.95	4.95	3.07	3.55	2.12	2.31	3.59	1.69	32.34
1983	3.09	1.66	2.60	6.55	6.31	1.49	3.92	4.31	3.77	4.38	6.85	5.23	50.16
1984	0.81	2.73	1.72	4.25	5.27	1.70	5.11	3.30	2.81	1.89	3.08	3.14	35.81
1985	1.46	1.26	2.46	1.90	3.53	3.76	4.42	2.67	3.30	3.31	3.68	1.59	33.34
1986	3.69	1.68	3.17	0.95	4.11	4.40	4.53	5.82	4.86	2.50	2.99	1.32	40.02
1987	1.91	0.49	1.33	1.42	2.69	4.42	2.79	2.09	3.58	3.28	2.24	1.17	27.41
1988	0.69	1.69	1.55	1.91	1.80	3.26	2.55	4.27	1.50	2.05	4.51	0.90	26.68
1989	0.42	0.67	2.60	1.89	3.19	3.68	3.65	7.30	5.98	2.98	2.41	1.26	36.03
1990	2.36	2.82	1.81	2.97	3.66	3.08	5.12	4.85	2.03	5.99	3.91	3.58	42.18
1991	1.65	0.51	2.55	3.41	3.15	1.28	2.83	4.00	5.14	5.07	1.58	1.35	32.52
1992	1.65	1.56	2.13	2.58	2.38	1.72	4.58	1.89	4.73	3.00	3.67	0.96	30.85
1993	2.17	1.90	1.54	3.76	2.19	3.35	3.34	4.46	3.38	2.93	2.27	1.57	32.86
1994	2.19	1.21	2.93	3.37	4.58	3.65	5.30	4.50	1.74	1.25	2.48	1.66	34.86
1995	1.88	1.26	1.60	2.35	1.41	0.82	3.49	4.64	2.97	5.81	3.33	2.63	32.19
1996	3.91	0.83	0.80	6.12	5.33	4.54	4.74	1.47	2.75	3.64	3.30	0.64	38.07
1997	1.71	1.38	2.59	1.54	2.24	2.62	3.89	4.63	2.98	1.23	4.16	1.65	30.62
1998	5.15	1.84	3.81	1.79	3.61	8.66	9.31	6.80	5.64	2.42	1.02	0.37	50.42
1999	3.51	1.13	2.22	0.73	2.40	1.79	1.97	2.41	10.26	3.18	1.86	1.12	32.58
POR= 116 YRS	1.88	1.64	2.16	2.53	3.03	3.47	3.65	3.51	3.38	2.90	2.70	2.00	32.85

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AVERAGE TEMPERATURE (°F) 1999 BURLINGTON, VT (BTV)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1970	3.6	16.9	25.8	42.6	54.1	63.7	70.6	68.4	60.1	50.5	39.0	14.3	42.5
1971	9.7	20.0	24.1	37.3	54.5	64.9	68.9	67.1	63.5	53.8	33.5	24.3	43.5
1972	21.1	17.0	24.8	35.6	56.2	63.1	69.5	65.3	58.7	42.4	32.1	22.5	42.4
1973	21.5	14.6	37.1	44.6	53.6	66.9	70.6	72.1	58.5	49.3	37.2	27.4	46.1
1974	18.7	15.6	29.2	44.4	51.3	66.5	70.2	69.1	58.2	43.4	36.2	28.5	44.3
1975	23.6	20.7	28.0	37.1	62.3	66.4	74.6	69.1	58.0	50.4	42.1	20.1	46.0
1976	11.1	24.6	33.4	47.4	54.7	69.2	68.5	65.7	57.0	43.7	33.0	16.3	43.7
1977	11.1	20.5	37.6	45.3	60.0	64.7	69.6	67.5	58.7	46.6	40.0	22.4	45.3
1978	15.1	9.5	26.0	38.7	60.1	63.9	69.4	68.3	55.2	46.4	34.8	25.2	42.7
1979	18.0	7.5	36.9	43.5	58.5	65.3	72.2	65.9	58.6	48.1	41.3	29.0	45.4
1980	21.2	17.6	31.1	46.5	58.9	64.4	70.6	70.7	57.9	45.0	32.3	15.0	44.3
1981	8.9	32.9	33.5	46.7	58.2	66.1	71.1	67.1	59.3	44.9	36.9	25.3	45.9
1982	9.6	19.1	30.3	43.4	57.3	60.7	69.5	65.9	62.3	50.1	42.3	31.9	45.2
1983	21.0	22.3	33.0	42.3	52.9	66.3	71.3	68.6	62.9	48.2	38.1	22.4	45.8
1984	16.5	28.7	21.9	44.7	52.3	66.0	70.3	71.1	57.2	50.0	38.4	30.3	45.6
1985	13.4	22.5	31.6	44.3	55.8	61.7	69.6	67.5	60.3	49.1	36.9	21.3	44.5
1986	18.5	16.2	33.7	48.5	58.3	62.3	68.5	66.1	58.1	46.9	34.5	27.8	45.0
1987	18.1	15.0	33.3	48.6	55.5	66.3	71.5	66.7	59.5	45.9	37.0	28.5	45.5
1988	19.9	21.4	29.7	44.3	57.9	63.4	73.2	70.7	58.2	44.4	39.6	22.9	45.5
1989	23.7	19.7	28.4	41.6	59.6	67.2	71.7	67.7	61.4	50.3	36.4	7.6	44.6
1990	29.8	23.5	33.8	46.2	52.9	65.9	70.2	69.8	59.4	49.4	39.5	30.1	47.5
1991	18.9	26.5	34.0	49.1	59.3	65.9	70.4	70.5	57.8	50.4	37.6	24.0	47.0
1992	18.6	19.1	26.5	42.3	56.5	64.4	66.1	67.6	60.2	45.5	36.7	28.1	44.3
1993	21.7	10.6	27.4	45.3	56.6	64.7	72.2	70.8	59.1	46.1	36.8	24.7	44.7
1994	7.1	15.4	30.2	44.5	54.8	68.6	74.2	66.5	59.6	49.8	41.1	28.7	45.0
1995	27.9	19.0	35.0	40.4	56.4	69.6	74.7	70.0	57.5	54.1	35.2	22.0	46.8
1996	17.5	21.3	28.6	42.8	54.4	66.3	68.6	68.9	62.0	47.4	32.8	32.7	45.3
1997	19.1	25.0	26.9	41.4	51.4	67.3	68.7	66.8	58.6	46.6	35.1	25.8	44.4
1998	22.7	27.7	34.3	46.4	62.0	66.1	68.9	68.5	61.5	49.6	39.7	32.0	48.3
1999	19.1	24.8	30.9	44.7	59.8	70.5	74.2	68.1	64.5	46.2	42.6	28.7	47.8
POR= 107 YRS	17.9	18.9	29.6	43.0	55.6	65.0	69.9	67.5	59.6	48.5	36.8	23.7	44.7

HEATING DEGREE DAYS (base 65°F) 1999 BURLINGTON, VT (BTV)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1970-71	10	36	174	444	773	1567	1710	1257	1263	821	336	83	8474
1971-72	12	49	131	344	938	1254	1357	1387	1239	872	281	113	7977
1972-73	26	69	212	694	982	1310	1344	1410	855	608	345	86	7941
1973-74	10	17	256	480	825	1160	1431	1378	1101	618	430	37	7743
1974-75	2	6	224	665	858	1128	1276	1236	1141	831	152	82	7601
1975-76	0	45	208	448	681	1385	1669	1168	973	545	331	50	7503
1976-77	20	68	254	654	954	1505	1667	1240	842	590	223	89	8106
1977-78	24	53	207	564	740	1314	1539	1547	1202	781	225	90	8286
1978-79	49	38	295	571	897	1227	1452	1610	866	641	224	90	7960
1979-80	23	65	213	528	703	1107	1350	1371	1043	550	204	91	7248
1980-81	10	3	240	611	976	1545	1738	894	969	544	239	43	7812
1981-82	13	36	204	617	837	1224	1716	1277	1069	643	255	133	8024
1982-83	30	54	124	455	676	1021	1356	1188	983	675	367	77	7006
1983-84	19	36	148	518	803	1317	1500	1044	1331	602	395	68	7781
1984-85	6	24	241	460	792	1068	1592	1185	1029	615	296	118	7426
1985-86	11	42	169	489	835	1344	1436	1361	966	492	219	113	7477
1986-87	40	60	215	553	906	1144	1446	1397	975	488	328	48	7600
1987-88	19	66	185	584	833	1125	1389	1260	1088	614	236	136	7535
1988-89	15	52	212	635	755	1298	1273	1265	1128	691	188	45	7557
1989-90	2	43	164	451	849	1776	1084	1156	961	577	370	63	7496
1990-91	19	10	180	480	758	1074	1424	1072	954	475	206	59	6711
1991-92	7	11	240	451	813	1266	1434	1327	1187	674	277	83	7770
1992-93	49	33	197	597	843	1137	1335	1517	1159	584	256	80	7787
1993-94	3	12	211	579	839	1243	1793	1385	1073	609	328	48	8123
1994-95	1	57	168	467	711	1118	1145	1283	925	733	268	36	6912
1995-96	0	21	232	330	885	1326	1466	1262	1123	659	336	27	7667
1996-97	11	10	138	542	960	995	1416	1113	1173	701	412	31	7502
1997-98	17	20	205	564	889	1208	1306	1039	947	552	115	81	6943
1998-99	8	19	129	473	754	1017	1418	1120	1053	606	184	31	6812
1999-	1	20	113	578	666	1119							

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COOLING DEGREE DAYS (base 65°F) 1999 BURLINGTON, VT (BTV)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1970	0	0	0	0	11	75	189	150	36	1	0	0	462
1971	0	0	0	0	17	87	138	118	90	4	0	0	454
1972	0	0	0	0	14	64	169	81	30	0	0	0	358
1973	0	0	0	3	0	149	187	243	68	0	0	0	650
1974	0	0	0	5	9	89	171	140	27	1	0	0	442
1975	0	0	0	0	75	131	306	181	5	1	0	0	699
1976	0	0	0	24	19	185	135	97	23	0	0	0	483
1977	0	0	0	7	75	86	174	138	27	0	0	0	507
1978	0	0	0	0	79	64	194	146	6	0	0	0	489
1979	0	0	0	2	29	106	253	101	27	13	0	0	531
1980	0	0	0	0	24	78	189	184	34	0	0	0	509
1981	0	0	0	2	35	85	211	110	39	0	0	0	482
1982	0	0	0	1	24	11	179	90	51	0	0	0	356
1983	0	0	0	0	0	121	223	155	92	6	0	0	597
1984	0	0	0	0	7	106	175	217	15	3	0	0	523
1985	0	0	0	0	15	25	160	123	34	0	0	0	357
1986	0	0	0	4	19	38	156	104	14	0	0	0	335
1987	0	0	0	3	42	92	228	126	30	0	0	0	521
1988	0	0	0	0	19	96	274	238	15	3	0	0	645
1989	0	0	0	0	28	117	216	134	63	0	0	0	558
1990	0	0	0	16	1	95	189	165	18	6	0	0	490
1991	0	0	0	5	35	92	182	186	32	6	0	0	538
1992	0	0	0	3	21	71	91	121	61	0	0	0	368
1993	0	0	0	0	2	79	235	198	39	0	0	0	553
1994	0	0	0	2	17	165	293	110	14	0	0	0	601
1995	0	0	0	0	8	179	306	182	12	0	0	0	687
1996	0	0	0	0	17	72	124	139	56	0	0	0	408
1997	0	0	0	0	0	108	142	82	17	0	0	0	349
1998	0	0	2	0	27	121	141	134	33	1	0	0	459
1999	0	0	0	0	29	207	295	125	106	0	0	0	762

SNOWFALL (inches) 1999 BURLINGTON, VT (BTV)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1970-71	0.0	0.0	0.0	0.1	2.7	56.7	17.1	23.1	33.1	12.6	0.0	0.0	145.4
1971-72	0.0	0.0	0.0	0.0	19.2	19.3	14.3	25.1	21.8	9.2	0.0	0.0	108.9
1972-73	0.0	0.0	0.0	T	12.2	39.0	11.4	18.5	2.3	6.3	0.0	0.0	89.7
1973-74	0.0	0.0	0.0	0.1	2.6	24.1	21.5	9.9	20.9	16.8	0.0	0.0	95.9
1974-75	0.0	0.0	0.0	0.1	11.5	16.8	14.8	22.0	12.4	13.3	0.0	0.0	90.9
1975-76	0.0	0.0	0.0	T	5.3	16.0	28.3	20.4	18.8	0.9	T	0.0	89.7
1976-77	0.0	0.0	0.0	0.9	13.3	11.5	24.2	16.4	9.6	1.8	T	0.0	77.7
1977-78	0.0	0.0	0.0	0.0	16.0	22.6	42.4	4.0	12.5	1.9	T	0.0	99.4
1978-79	0.0	0.0	0.0	T	5.7	24.1	37.9	6.6	1.6	8.4	0.0	0.0	84.3
1979-80	0.0	0.0	0.0	1.5	0.4	6.0	3.0	11.6	16.8	0.3	0.0	0.0	39.6
1980-81	0.0	0.0	0.0	T	12.2	17.5	8.7	11.9	13.3	1.1	0.0	0.0	64.7
1981-82	0.0	0.0	0.0	T	3.9	32.8	19.4	8.3	13.0	4.1	0.0	0.0	81.5
1982-83	0.0	0.0	0.0	T	0.8	5.0	22.5	18.3	11.9	21.3	0.7	0.0	80.5
1983-84	0.0	0.0	0.0	T	4.7	14.4	15.2	13.7	16.1	0.4	T	0.0	64.5
1984-85	0.0	0.0	0.0	0.0	6.0	29.3	25.9	10.9	16.6	2.7	0.0	0.0	91.4
1985-86	0.0	0.0	0.0	T	4.6	21.3	33.6	18.3	8.4	T	T	0.0	86.2
1986-87	0.0	0.0	0.0	T	10.5	7.7	34.4	7.0	6.0	2.1	0.0	0.0	67.7
1987-88	0.0	0.0	0.0	0.6	6.5	12.4	9.2	26.9	6.4	2.4	0.0	0.0	64.4
1988-89	0.0	0.0	0.0	0.3	0.6	12.4	6.6	8.5	9.7	2.3	0.0	0.0	40.4
1989-90	T	0.0	0.0	0.0	5.6	20.7	17.6	20.5	10.2	2.1	0.0	0.0	76.7
1990-91	0.0	0.0	T	T	7.3	10.3	17.8	3.9	3.2	T	0.0	0.0	42.5
1991-92	0.0	0.0	T	T	2.3	14.9	12.2	27.2	14.0	8.6	0.0	0.0	79.2
1992-93	0.0	0.0	0.1	T	2.9	2.6	24.8	33.8	39.9	12.8	0.0	0.0	116.9
1993-94	0.0	0.0	0.0	1.3	7.9	9.1	38.6	15.9	26.6	7.8	T	0.0	107.2
1994-95	0.0	0.0	0.0	0.0	5.1	4.3	8.7	26.8	10.7	4.9	0.0	0.0	60.5
1995-96	0.0	0.0	0.0	0.1	7.3	44.0	19.0	4.5	11.5	12.4	0.3	0.0	99.1
1996-97	0.0	0.0	0.0	T	14.3	13.7	22.0	8.8	27.0	9.1	T	0.0	94.9
1997-98	0.0	0.0	0.0	0.6	15.5	20.6	25.1	10.3	21.5	0.3	0.0	0.0	93.9
1998-99	0.0	0.0	0.0	T	2.4	4.4	30.4	10.8	22.7	T	0.0	0.0	70.7
1999-	0.0	0.0	0.0	T	0.7	2.3							
POR= 55 YRS	T	0.0	0.0	0.2	6.6	17.8	19.0	16.4	13.1	4.0	0.5	0.0	77.6

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REFERENCE NOTES:

<p>PAGE 1: THE TEMPERATURE GRAPH SHOWS NORMAL MAXIMUM AND NORMAL MINIMUM DAILY TEMPERATURES (SOLID CURVES) AND THE ACTUAL DAILY HIGH AND LOW TEMPERATURES (VERTICAL BARS).</p> <p>PAGE 2 AND 3: H/C INDICATES HEATING AND COOLING DEGREE DAYS. RH INDICATES RELATIVE HUMIDITY W/O INDICATES WEATHER AND OBSTRUCTIONS S INDICATES SUNSHINE. PR INDICATES PRESSURE. CLOUDINESS ON PAGE 3 IS THE SUM OF THE CEILOMETER AND SATELLITE DATA NOT TO EXCEED EIGHT EIGHTHS(OKTAS).</p> <p>GENERAL: T INDICATES TRACE PRECIPITATION, AN AMOUNT GREATER THAN ZERO BUT LESS THAN THE LOWEST REPORTABLE VALUE. + INDICATES THE VALUE ALSO OCCURS ON EARLIER DATES. BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA. NORMALS ARE 30-YEAR AVERAGES (1961 - 1990). ASOS INDICATES AUTOMATED SURFACE OBSERVING SYSTEM. PM INDICATES THE LAST DAY OF THE PREVIOUS MONTH. POR (PERIOD OF RECORD) BEGINS WITH THE JANUARY DATA MONTH AND IS THE NUMBER OF YEARS USED TO COMPUTE THE MEAN. INDIVIDUAL MONTHS WITHIN THE POR MAY BE MISSING. WHEN THE POR FOR A NORMAL IS LESS THAN 30 YEARS, THE NORMAL IS PROVISIONAL AND IS BASED ON THE NUMBER OF YEARS INDICATED. 0.* OR * INDICATES THE VALUE OR MEAN-DAYS-WITH IS BETWEEN 0.00 AND 0.05. CLOUDINESS FOR ASOS STATIONS DIFFERS FROM THE NON-ASOS OBSERVATION TAKEN BY A HUMAN OBSERVER. ASOS STATION CLOUDINESS IS BASED ON TIME-AVERAGED CEILOMETER DATA FOR CLOUDS AT OR BELOW 12,000 FEET AND ON SATELLITE DATA FOR CLOUDS ABOVE 12,000 FEET. THE NUMBER OF DAYS WITH CLEAR, PARTLY CLOUDY, AND CLOUDY CONDITIONS FOR ASOS STATIONS IS THE SUM OF THE CEILOMETER AND SATELLITE DATA FOR THE SUNRISE TO SUNSET PERIOD.</p>	<p>GENERAL CONTINUED: CLEAR INDICATES 0 - 2 OKTAS, PARTLY CLOUDY INDICATES 3 - 6 OKTAS, AND CLOUDY INDICATES 7 OR 8 OKTAS. WHEN AT LEAST ONE OF THE ELEMENTS (CEILOMETER OR SATELLITE) IS MISSING, THE DAILY CLOUDINESS IS NOT COMPUTED. WIND DIRECTION IS RECORDED IN TENS OF DEGREES (2 DIGITS) CLOCKWISE FROM TRUE NORTH. "00" INDICATES CALM. "36" INDICATES TRUE NORTH. RESULTANT WIND IS THE VECTOR AVERAGE OF THE SPEED AND DIRECTION. AVERAGE TEMPERATURE IS THE SUM OF THE MEAN DAILY MAXIMUM AND MINIMUM TEMPERATURE DIVIDED BY 2. SNOWFALL DATA COMPRISE ALL FORMS OF FROZEN PRECIPITATION, INCLUDING HAIL. A HEATING (COOLING) DEGREE DAY IS THE DIFFERENCE BETWEEN THE AVERAGE DAILY TEMPERATURE AND 65° F. DRY BULB IS THE TEMPERATURE OF THE AMBIENT AIR. DEW POINT IS THE TEMPERATURE TO WHICH THE AIR MUST BE COOLED TO ACHIEVE 100 PERCENT RELATIVE HUMIDITY. WET BULB IS THE TEMPERATURE THE AIR WOULD HAVE IF THE MOISTURE CONTENT WAS INCREASED TO 100 PERCENT RELATIVE HUMIDITY.</p> <p>ON JULY 1, 1996, THE NATIONAL WEATHER SERVICE BEGAN USING THE "METAR" OBSERVATION CODE THAT WAS ALREADY EMPLOYED BY MOST OTHER NATIONS OF THE WORLD. THE MOST NOTICEABLE DIFFERENCE IN THIS ANNUAL PUBLICATION WILL BE THE CHANGE IN UNITS FROM TENTHS TO EIGHTHS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER.</p>
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1999
BURLINGTON,
VERMONT (BTV)

Burlington is located on the eastern shore of Lake Champlain at the widest part of the lake. About 35 miles to the west lie the highest peaks of the Adirondacks, while the foothills of the Green Mountains begin 10 miles to the east and southeast.

Its northerly latitude assures the variety and vigor of a true New England climate, while thanks to the modifying influence of the lake, the many rapid and marked weather changes are tempered in severity. Due to its location in the path of the St. Lawrence Valley storm track and the lake effects, the city is one of the cloudiest in the United States.

Lake Champlain exercises a tempering influence on the local temperature. During the winter months and prior to the lake freezing, temperatures along the lake shore are often 5-10 degrees warmer than at the airport 3 1/2 miles inland. At the airport the average occurrence of the last freeze in spring is around May 10th and that of the first in fall is early October, giving a growing season of 145 days. This location is justly proud of its delightful summer weather. On average, there are few days a year with maxima of 90 degrees or higher. This moderate summer heat gives way to a cooler, but none the less pleasant fall period, usually extending well into October. High pressure systems moving down rapidly from central Canada or Hudson Bay produce the coldest temperatures during the winter months, but extended periods of very cold weather are rare.

Precipitation, although generally plentiful and well distributed throughout the year, is less in the Champlain Valley than in other areas of Vermont due to the shielding effect of the mountain barriers to the east and west. The heaviest rainfall usually occurs during summer thunderstorms, but excessively heavy rainfall is quite uncommon. Droughts are infrequent.

Because of the trend of the Champlain Valley between the Adirondack and Green Mountain ranges, most winds have a northerly or southerly component. The prevailing direction most of the year is from the south. Winds of damaging force are very uncommon.

Smoke pollution is nearly non-existent since there is no concentration of heavy industry here, however, haze has been on the increase over the years due to the large increase in industry to the north and south. During the spring and fall months, fog occasionally forms along the Winooski River to the north and east and may drift over the airport with favorable winds. In spite of the high percentage of cloudiness, periods of low aircraft ceilings and visibilities are usually of short duration, allowing this area to have one of the highest percentages of flying weather in New England.

STATION LOCATION

BURLINGTON, VERMONT

LOCATION	OCCUPIED FROM	OCCUPIED TO	AIRLINE DISTANCES AND DIRECTIONS FROM PREVIOUS LOCATION	LATITUDE NORTH	LONGITUDE WEST	ELEVATION ABOVE										* Type	REMARKS	
						SEA LEVEL	GROUND											
							G	W	E	P	S	T	R	W	8			H
U. S. Custom House City Hotel Block, SE Corner Church & Main Sts.	5/24/71	6/8/71	NA	44° 29'	73° 12'	190	46	35	35									Station established by U.S. Signal Corps 5/24/71.
U. S. Custom House City Hotel Block, SE Corner Church & Main Sts.	6/8/71	4/1/73	NA	44° 29'	73° 12'	190	49	35	35									Anemometer and rain gage moved to center of building.
U. S. Custom House City Hotel Block, SE Corner Church & Main Sts.	4/1/73	8/4/74	NA	44° 29'	73° 12'	190	60	33	33									
Fisher's Block SE Corner Bank & Church Streets	8/4/74	12/1/78	0.2 mi. N	44° 29'	73° 12'	215	49	29	29									
Howard Opera House Block, SW Corner Bank & Church Streets	12/1/78	6/15/83	50 ft. W	44° 29'	73° 12'	213	80	56	56									Signal Corps Station closed 6/15/83.
COOPERATIVE City Hall Park	10/1883	3/1/06	0.1 mi. S	44° 29'	73° 12'	220		5										Observations made by Mr. W.B. Gates.
CITY W.B. Building 601 Main Street	3/29/06	6/4/43	1 mi. ESE	44° 29'	73° 11'	398	48	12	12			3						
AIRPORT Old Administration Bldg Municipal Airport	3/1/39	2/16/50	2.5 mi. ESE	44° 28'	73° 09'	331	51	5	4	NA a	4	NA	4	NA	NA	NA	NA	CAA to 6/4/43. a - Installed 1943.
Administration Building Municipal Airport+ International AP (Effective April 1969)	2/16/50	7/19/73	0.3 mi. N	44° 28'	73° 09'	331 f327 1332	55 c60 e20 g20	6	5	Unk b52 j28	3	NA	3	NA g4 h4	NA	NA	NA	b - Effective 6/1/51. c - Raised 11/5/53. d - Telepsychrometer (5') 2/15/55-11/1/59. Hygro. comm. 1300' NNW of thermometer site 11/1/59. e - Relocated to field 9/6/58. f - Effective 11/1/59. g - Moved to new location 1200' E of terminal building 11/16/64. h - Moved 2000' SE of previous location 11/16/64. i - Effective 11/16/64. j - Moved from tower to roof 8/21/67.
Terminal Building International Airport	7/19/73	02/01/96	75 feet NW	44° 28'	73° 09'	332	k20	33 q33	33 q33	k28 m34 r34	3 n31	NA p34	3 n31	k4 r4	NA	NA	NA	k - Not moved 7/19/73. m - Moved 125' NNW 7/20/73. n - Moved 50' SW to roof 11/19/73. p - Installed 12/6/73. q - Moved about 25' SE 6/1986. r - Type change 6/1986.
International Airport	02/01/96	Present	NA	44°28'	73°09'	346											S	ASOS Commissioned 02/01/96

SUBSCRIPTION: Price and ordering information available through: National Climatic Data Center, Federal Building, Asheville, North Carolina 28801. INQUIRIES/COMMENTS CALL: (828) 271-4800

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