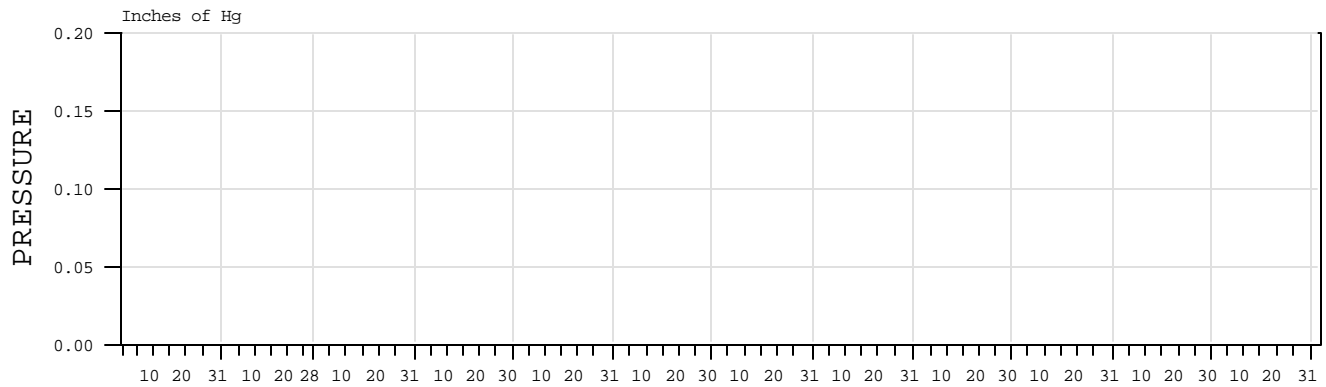
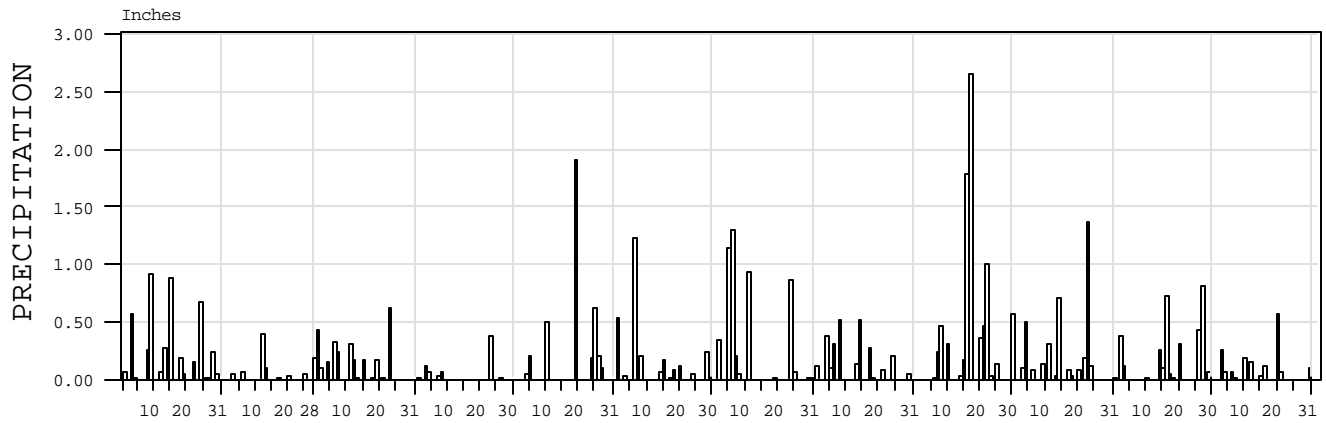
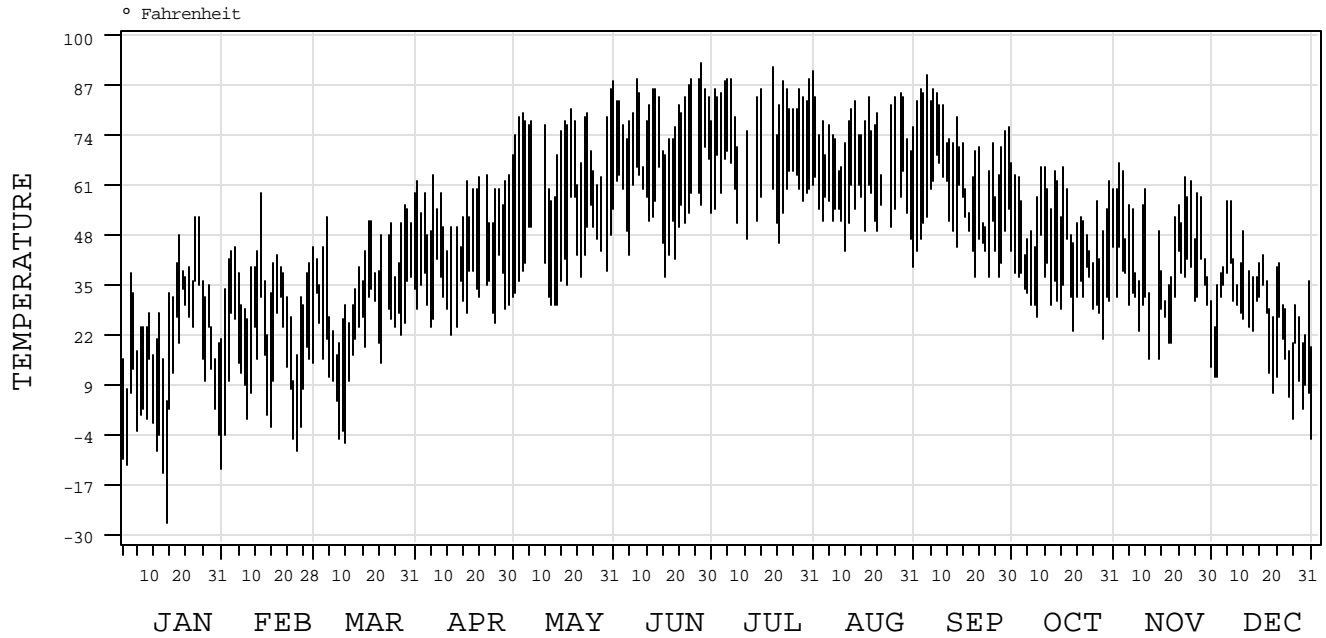


1999

LOCAL CLIMATOLOGICAL DATA

Annual Summary with Comparative Data
Westford
Daily Data



METEOROLOGICAL DATA FOR 1999

Westford

Latitude: 44° 37' 39" N Longitude: 73° 02' 29" W Elevation (Ground): 850 feet Time Zone: Eastern

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
TEMPERATURE													
Average													
-Daily Maximum	28.9	35.6	40.2	56.3	73.1	80.8	83.9	76.2	72.3	54.4	49.3	34.6	57.1
-Daily Minimum	8.3	12.5	20.6	32.3	42.7	55.6	59.1	54.4	50.7	33.8	31.4	20.0	35.1
-Monthly	18.6	24.0	30.4	44.3	57.9	68.2	71.5	65.3	61.5	44.1	40.4	27.3	46.1
-Monthly Dew Point	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Extremes													
-Highest	53.0	59.0	59.0	69.0	88.0	93.0	92.0	85.0	90.0	66.0	67.0	57.0	93.0
-Date	23	12	31	30	31	27	19	27	4	9	2	5	JUN 27
-Lowest	-27.0	-8.0	-6.0	22.0	30.0	37.0	46.0	40.0	37.0	21.0	14.0	-5.0	-27.0
-Date	14	23	10	11	12	16	21	31	19	28	30	31	JAN 14
DEGREE DAYS BASE 65°F													
Heating	1444	1154	1049	588	212	46	12	50	169	657	696	1139	7216
Cooling	0	0	0	0	15	132	164	52	56	0	0	0	419
SUNSHINE INDEX													
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NUMBER OF DAYS													
Sunrise to Sunset													
-Clear	31	28	30	28	27	29	24	28	30	31	28	30	344
-Partly Cloudy	0	0	0	0	0	0	0	0	0	0	0	0	0
-Cloudy	0	0	0	0	0	0	0	0	0	0	0	0	0
Precipitation													
.01 inches or more	17	10	13	8	10	13	13	13	15	14	14	14	154
Snow, Ice pellets													
1.0 inches or more	9	5	7	0	0	0	0	0	0	0	3	1	25
Thunderstorms													
	0	0	0	0	1	5	6	2	1	0	1	0	16
Heavy Fog, visibility													
¼ mile or less	0	0	0	0	0	0	0	0	0	0	0	0	0
TEMPERATURE:													
-Maximum													
90°F and above	0	0	0	0	0	1	2	0	1	0	0	0	4
32°F and below	18	10	8	0	0	0	0	0	0	0	2	12	50
-Minimum													
32°F and below	28	28	25	16	4	0	0	0	0	16	17	26	160
0°F and below	11	6	3	0	0	0	0	0	0	0	0	2	22
PRESSURE													
Average													
-Monthly	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Extremes													
-Highest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-Date	1	1	1	1	1	1	1	1	1	1	1	1	JAN 1
-Lowest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-Date	1	1	1	1	1	1	1	1	1	1	1	1	JAN 1
RELATIVE HUMIDITY (%)													
Average													
-Monthly	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Local Time													
Hour 01	0	0	0	0	0	0	0	0	0	0	0	0	0
Hour 07	0	0	0	0	0	0	0	0	0	0	0	0	0
Hour 13	0	0	0	0	0	0	0	0	0	0	0	0	0
Hour 19	0	0	0	0	0	0	0	0	0	0	0	0	0
PRECIPITATION													
Water Equivalent													
-Total	4.61	0.96	2.79	0.76	3.83	2.95	5.07	2.80	8.33	3.82	3.35	1.73	41.00
-Greatest (24 hrs)	0.91	0.41	0.63	0.39	1.91	1.22	1.30	0.53	2.65	1.37	0.81	0.57	2.65
-Date	9	12	23	23	19	6	6	13-14	17	23	27	20	SEP 17
Snow, Ice pellets													
-Total	34.3	9.8	25.2	T	0.0	0.0	0.0	0.0	0.0	T	10.3	2.5	82.1
-Greatest (day)	9.5	3.0	6.2	T	0.0	0.0	0.0	0.0	0.0	T	7.0	1.5	9.5
-Date	9	12	6	4	1	1	1	1	1	4	16	30	JAN 9
WIND													
Resultant													
-Direction	0	0	0	0	0	0	0	0	0	0	0	0	0
-Speed	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Average Speed	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum One-minute													
Average													
-Direction	N	N	N	N	N	N	N	N	N	N	N	N	N
-Speed	0	0	0	0	0	0	0	0	0	0	0	0	0
-Date	1	1	1	1	1	1	1	1	1	1	1	1	JAN 1
Peak Gust													
-Direction	N	N	N	N	N	N	N	N	N	N	N	N	N
-Speed	0	0	0	0	0	0	0	0	0	0	0	0	0
-Date	1	1	1	1	1	1	1	1	1	1	1	1	JAN 1

MEANS AND EXTREMES*

Westford

Latitude: 44° 37' 39" N Longitude: 73° 02' 29" W Elevation (Ground): 850 feet Time Zone: Eastern

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
TEMPERATURE													
Average													
-Daily Maximum	28.9	34.5	39.9	54.2	68.1	79.3	81.4	78.5	69.3	55.9	42.8	34.5	55.6
-Daily Minimum	8.1	13.9	19.2	31.7	42.9	54.4	57.7	54.8	48.0	37.2	28.2	18.7	34.6
-Monthly	18.5	24.2	29.6	42.9	55.5	66.8	69.5	66.6	58.7	46.5	35.5	26.6	45.1
-Monthly Dew Point	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Extremes													
-Record Highest	59.0	59.0	76.0	74.0	88.0	100.0	103.0	98.0	90.0	75.0	72.0	63.0	103.0
-Year	1996	1999	1998	1998	1998	1995	1995	1995	1999	1995	1996	1998	JUL 1995
-Record Lowest	-29.0	-13.0	-8.0	12.0	27.0	37.0	44.0	38.0	32.0	21.0	5.0	-11.0	-29.0
-Year	1997	1996	1997	1997	1997	1999	1997	1995	1995	1997	1995	1998	JAN 1997
MEAN DEGREE DAYS													
Heating (base 65°F)	1415	1162	1090	623	302	51	17	43	214	558	865	1168	7508
Cooling (base 65°F)	0	0	0	0	10	98	134	85	22	0	0	0	349
MEAN SUNSHINE INDEX													
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MEAN NUMBER OF DAYS													
Sunrise to Sunset													
-Clear	30.3	28.3	30.5	28.0	29.8	28.0	27.4	29.4	29.2	29.8	29.0	30.2	349.8
-Partly Cloudy	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Cloudy	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Precipitation ≥ .01"													
Snow, Ice plts. ≥ 1.0"	18.0	12.0	15.5	12.0	16.3	12.8	14.6	11.0	15.0	15.0	18.0	17.6	177.8
Thunderstorms	12.0	7.0	7.8	3.3	0.5	0.0	0.0	0.0	0.0	0.2	7.6	10.6	48.9
Heavy Fog, vis. ≤ ¼ mi	0.0	0.3	0.8	0.5	4.3	5.4	6.0	4.2	1.2	0.8	0.4	0.0	23.8
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2
TEMPERATURE:													
-Maximum													
90°F and above	0.0	0.0	0.0	0.0	0.0	2.6	2.8	2.6	0.2	0.0	0.0	0.0	8.2
32°F and below	16.8	10.5	7.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	3.6	11.8	49.9
-Minimum													
32°F and below	28.8	26.8	25.8	15.0	3.0	0.0	0.0	0.0	0.6	10.8	19.6	26.8	157.1
0°F and below	11.0	7.3	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	23.8
PRESSURE													
Average													
-Monthly	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Extremes													
-Record Highest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-Year	1996	1996	1996	1996	1996	1995	1995	1995	1995	1995	1995	1995	JUN 1995
-Record Lowest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-Year	1996	1996	1996	1996	1996	1995	1995	1995	1995	1995	1995	1995	JUN 1995
RELATIVE HUMIDITY (%)													
Average													
-Monthly	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Local Time													
Hour 01	0	0	0	0	0	0	0	0	0	0	0	0	0
Hour 07	0	0	0	0	0	0	0	0	0	0	0	0	0
Hour 13	0	0	0	0	0	0	0	0	0	0	0	0	0
Hour 19	0	0	0	0	0	0	0	0	0	0	0	0	0
PRECIPITATION													
Water Equivalent													
-Mean	4.35	1.81	2.74	2.26	3.02	4.07	5.99	5.46	5.01	3.85	3.65	3.07	45.26
-Maximum Monthly	6.88	2.22	3.78	6.03	5.01	12.15	7.65	10.18	8.33	6.48	4.41	5.13	12.15
-Year	1998	1998	1998	1996	1996	1998	1996	1995	1999	1995	1997	1996	JUN 1998
-Minimum Monthly	2.05	0.96	1.05	0.00	0.00	0.00	3.92	2.63	3.15	2.04	2.11	1.32	0.00
-Year	1997	1999	1996				1995	1996	1995	1997	1998	1998	
-Greatest (24 hrs)	2.85	0.73	0.97	0.91	1.91	3.08	2.58	6.05	2.65	1.42	1.56	2.24	6.05
-Year	1998	1998	1998	1997	1999	1998	1996	1995	1999	1995	1995	1996	AUG 1995
Snow, Ice pellets													
-Mean	25.9	11.6	21.8	7.9	0.6	0.0	0.0	0.0	0.0	1.0	12.7	22.4	163.7
-Maximum Monthly	34.3	15.3	25.2	21.7	2.2	0.0	0.0	0.0	0.0	4.7	19.8	46.0	46.0
-Year	1999	1996	1999	1996	1996	1995	1995	1995	1995	1997	1996	1995	DEC 1995
-Minimum Monthly	15.5	9.8	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.5	0.0
-Year	1996	1999	1996	1999	1997	1995	1995	1995	1995	1996	1998	1999	JUN 1995
-Greatest (day)	9.5	6.4	9.5	8.3	2.0	0.0	0.0	0.0	0.0	4.0	7.0	15.0	15.0
-Year	1999	1998	1997	1997	1996	1995	1995	1995	1995	1997	1999	1997	DEC 1997
WIND													
Resultant													
-Direction	0	0	0	0	0	0	0	0	0	0	0	0	0
-Speed	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Average Speed	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum One-minute													
Average													
-Direction	N	N	N	N	N	N	N	N	N	N	N	N	N
-Speed	0	0	0	0	0	0	0	0	0	0	0	0	0
-Year	1996	1996	1996	1996	1996	1995	1995	1995	1995	1995	1995	1995	JUN 1995
Peak Gust													
-Direction	N	N	N	N	N	N	N	N	N	N	N	N	N
-Speed	0	0	0	0	0	0	0	0	0	0	0	0	0
-Year	1996	1996	1996	1996	1996	1995	1995	1995	1995	1995	1995	1995	JUN 1995

* Length of record: June 1995 to December 1999

Westford

PRECIPITATION (inches)

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Annual
1995						1.36	3.92	10.18	3.15	6.48	4.24	3.39	32.72
1996	3.86	2.22	1.05	6.03	5.01	3.88	7.65	2.63	3.64	3.88	4.15	5.13	49.13
1997	2.05	1.82	3.34	0.00	0.00	0.00	6.06	5.47	4.28	2.04	4.41	3.78	33.25
1998	6.88	2.22	3.78	2.24	3.22	12.15	7.25	6.20	5.64	3.03	2.11	1.32	56.04
1999	4.61	0.96	2.79	0.76	3.83	2.95	5.07	2.80	8.33	3.82	3.35	1.73	41.00

SNOWFALL (inches)

Year	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	Total
1994-95												0.0	0.0
1995-96	0.0	0.0	0.0	0.1	13.9	46.0	15.5	15.3	13.0	21.7	2.2	0.0	127.7
1996-97	0.0	0.0	0.0	0.0	19.8	15.0	31.9	11.2	24.2	9.8	0.0	0.0	111.9
1997-98	0.0	0.0	0.0	4.7	17.3	40.9	21.9	9.9	24.6	0.2	0.0	0.0	119.5
1998-99	0.0	0.0	0.0	0.0	2.0	7.6	34.3	9.8	25.2	0.0	0.0	0.0	78.9
1999-00	0.0	0.0	0.0	0.0	10.3	2.5							

Westford

TEMPERATURE °F

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Annual
1995						69.5	74.0	70.9	56.3	51.1	33.4	19.6	53.5
1996	15.9	19.8	27.3	41.4	53.0	65.3	67.2	66.8	59.9	45.2	32.0	32.2	43.8
1997	18.0	25.6	27.1	41.1	50.4	65.0	66.8	64.1	56.7	44.6	33.4	23.0	43.0
1998	21.5	27.4	33.4	45.0	60.7	66.1	68.3	66.1	59.0	47.6	38.2	30.9	47.0
1999	18.6	24.0	30.4	44.3	57.9	68.2	71.5	65.3	61.5	44.1	40.4	27.3	46.1

HEATING DEGREE DAYS: Base 65°F

Year	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	Total
1994-95												33	33
1995-96	0	13	262	424	954	1416	1528	1320	1177	665	391	47	8197
1996-97	18	31	180	542	998	1027	1463	1112	1181	652	445	59	7708
1997-98	44	67	265	639	893	1227	1224	1060	954	588	158	69	7188
1998-99	13	53	196	528	784	1032	1444	1154	1049	588	212	46	7099
1999-00	12	50	169	657	696	1139							

Westford

COOLING DEGREE DAYS: Base 65°F

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total
1995						160	248	182	9	0	0	0	599
1996	0	0	0	0	10	52	74	78	23	0	0	0	237
1997	0	0	0	0	0	53	90	36	7	0	0	0	186
1998	0	0	0	0	16	93	92	78	14	0	0	0	293
1999	0	0	0	0	15	132	164	52	56	0	0	0	419

STATION LOCATION AND INSTRUMENTATION
Westford

Location	Occupied from	Occupied to	Latitude North	Longitude West	Elevation Above (ft)						
					Sea Level	Ground					
						Wind	Sun	Temp	Humidity	Rain	Barometer
22 Penny Ln Westford, VT 05494	Aug. 2001	Present	44° 37' 39"	73° 02' 29"	850	12	0	5	5	5	5

INSTRUMENTATION DETAIL

Units are: Temperature=°F, Wind=mph, Pressure=inches Hg, Precipitation=inches.

Davis VantagePro.

Wind:

Electronic sensors:

Instantaneous speed to 125 mph and direction to nearest 7°, greater of 2 mph or ±5%.

Temperature:

Electronic sensor: -40° to 140°F, ±1°F.

Humidity:

Electronic sensor: 0 to 100% RH, ±3%.

Barometer:

Electronic sensor: 26.00 to 32.00 inches Hg, ±0.05".

Rainfall:

4-inch diameter electronic tipping bucket rain gauge. Resolution 0.01", ±4%.

Sunshine:

Not recorded.

Snow, ice pellets, glaze and other meteorological phenomenon not recorded by the Weather Computer are manually observed and recorded in the station record.

OBSERVER NOTES