

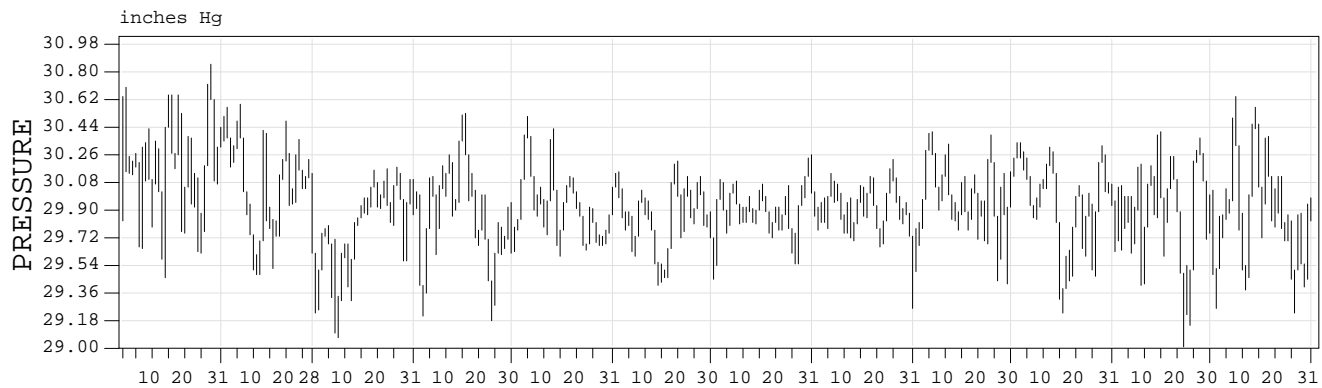
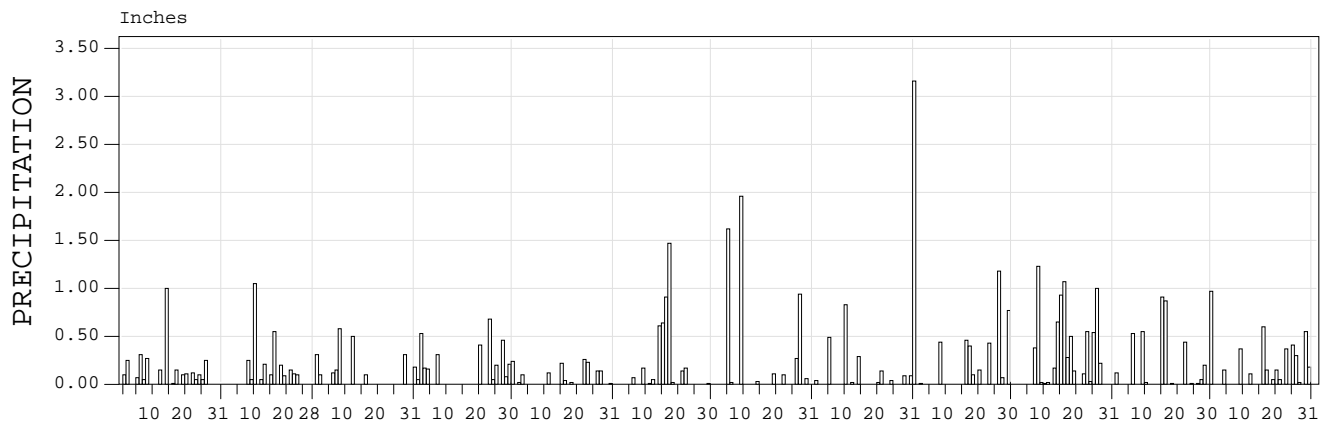
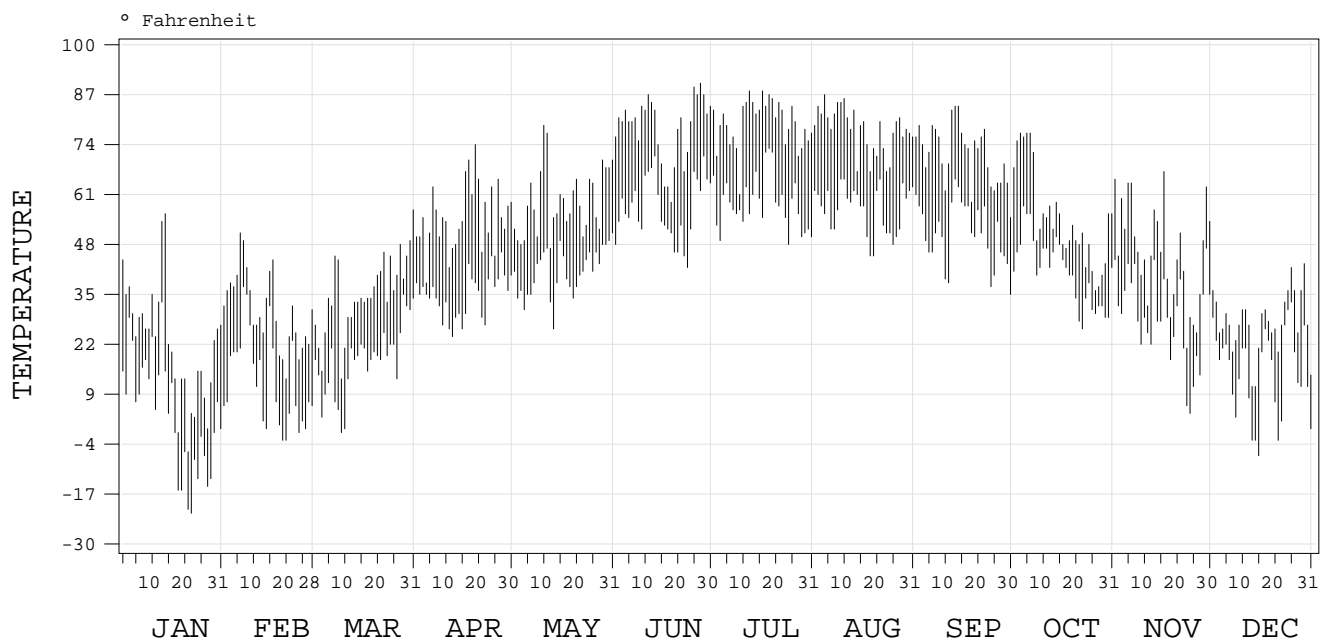
2005

LOCAL CLIMATOLOGICAL DATA

Annual Summary with Comparative Data

Westford

Daily Data



METEOROLOGICAL DATA FOR 2005

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	22.7	31.2	35.6	55.7	59.7	78.8	80.0	78.3	72.0	55.4	46.3	28.0	53.6
-Daily Minimum	3.7	12.7	18.1	35.1	41.2	57.7	59.1	57.5	51.2	41.3	29.3	15.2	35.2
-Monthly	13.2	21.9	26.8	45.4	50.5	68.3	69.6	67.9	61.6	48.4	37.8	21.6	44.4
-Monthly Dew Point	5.7	11.1	15.2	29.9	39.9	60.7	62.2	61.0	54.5	43.3	29.7	16.2	35.8
Extremes													
-Highest	56.9	51.6	57.2	74.9	79.2	90.7	88.6	87.2	84.3	77.7	67.9	43.1	90.7
-Date	14	6	31	19	10	27	12	4	13	5	16	29	JUN 27
-Lowest	-22.3	-3.5	-1.0	24.2	26.4	42.3	48.2	45.2	35.0	26.6	4.5	-7.0	-22.3
-Date	22	20	9	12	13	23	24	18	30	22	24	15	JAN 22
DEGREE DAYS													
Heating Base 65°F	1614	1220	1198	604	466	59	21	36	153	534	833	1351	8089
Cooling Base 65°F	0	0	0	0	0	143	150	110	37	5	0	0	445
SUNSHINE													
NUMBER OF DAYS													
Sunrise to Sunset													
-Clear	9	14	9	8	6	5	11	9	11	7	4	4	97
-Partly Cloudy	7	5	12	11	11	19	15	13	12	4	13	6	128
-Cloudy	15	9	10	11	14	6	5	9	7	20	13	21	140
Precipitation													
.01 inches or more	17	14	10	14	12	13	11	15	10	19	15	14	164
Snow, Ice pellets													
1.0 inches or more	11	8	6	0	0	0	0	0	0	2	1	12	40
Thunderstorms													
	0	0	0	0	0	8	5	2	1	0	1	0	17
Heavy Fog, visibility													
¼ mile or less	0	0	1	0	0	1	1	0	0	1	0	0	4
TEMPERATURE:													
-Maximum													
90°F and above	0	0	0	0	0	2	0	0	0	0	0	0	2
32°F and below	24	16	8	0	0	0	0	0	0	0	6	23	77
-Minimum													
32°F and below	30	25	29	10	2	0	0	0	0	6	18	30	150
0°F and below	13	4	2	0	0	0	0	0	0	0	0	4	23
PRESSURE													
Average													
-Monthly	30.202	30.070	29.783	29.878	29.930	29.865	29.905	29.915	29.987	29.959	29.909	29.901	29.942
Extremes													
-Highest	30.85	30.59	30.18	30.53	30.52	30.23	30.27	30.23	30.42	30.35	30.41	30.65	30.85
-Date	28	6	26	16	5	20	31	25	6	2	15	8	JAN 28
-Lowest	29.47	29.48	29.08	29.18	29.60	29.41	29.46	29.26	29.42	29.24	29.01	29.24	29.01
-Date	14	11	8	24	15	14	1	31	29	16	22	26	NOV 22
RELATIVE HUMIDITY (%)													
Average													
-Monthly	72.0	65.7	63.8	60.4	70.1	79.8	79.9	80.8	80.8	85.2	72.7	78.1	74.1
-Local Time													
Hour 01	76	72	69	67	80	89	90	90	89	90	78	79	81
Hour 07	76	74	71	70	78	89	91	92	90	92	76	81	82
Hour 13	64	54	54	52	60	67	67	67	67	76	62	72	63
Hour 19	75	68	64	55	63	74	74	78	83	86	76	80	73
PRECIPITATION													
Water Equivalent													
-Total	3.25	2.99	2.41	3.68	1.40	4.38	5.22	5.35	4.09	8.00	4.80	3.54	49.11
-Greatest (24 hrs)	0.00	0.00	0.32	0.70	0.27	2.00	1.97	3.17	1.21	1.61	1.01	0.00	3.17
-Date	1	1	27-28	23-24	22	16-17	9	31	26-27	7- 8	15-16	1	AUG 31
Snow, Ice pellets													
-Total	27.5	28.4	24.0	T	0.0	0.0	0.0	0.0	0.0	6.5	5.2	30.1	121.7
-Greatest (day)	3.7	9.9	7.7	T	0.0	0.0	0.0	0.0	0.0	4.5	4.5	4.5	9.9
-Date	14	10	8	4	1	1	1	1	1	25	22	16	FEB 10
WIND													
Resultant													
-Direction	220	221	266	236	276	199	203	212	209	243	211	222	224
-Speed	1.2	1.0	1.6	1.0	0.8	1.2	0.9	1.0	1.5	1.3	2.9	1.9	1.3
Average Speed	3.0	2.6	3.3	3.1	2.3	1.8	1.7	1.6	2.3	2.4	4.7	3.2	2.7
Maximum One-minute													
Average													
-Direction	N	N	N	N	W	N	E	W	N	S	S	WSW	W
-Speed	0	0	0	0	11	0	4	1	0	8	6	1	11
-Date	1	1	1	1	1	1	5	1	1	1	13	16	MAY 1
Peak Gust													
-Direction	S	SSE	WNW	S	W	S	E	S	S	W	S	W	S
-Speed	40	31	33	30	25	29	29	30	35	33	34	31	40
-Date	13	14	8	26	1	6	1	28	29	16	16	3	JAN 13

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	25.9	32.5	40.0	53.4	66.4	76.8	79.5	78.1	69.7	55.7	43.7	32.6	54.5
-Daily Minimum	7.2	12.2	20.3	32.4	43.4	53.2	57.5	56.2	48.7	37.7	28.9	17.1	34.6
-Monthly	16.6	22.4	30.1	42.9	54.9	65.0	68.5	67.1	59.2	46.7	36.3	24.9	44.5
-Monthly Dew Point	0.3	2.4	5.7	8.6	13.0	15.1	16.6	16.5	14.7	11.0	8.0	4.4	9.7
Extremes													
-Record Highest	59.0	59.0	76.0	86.0	88.0	100.0	103.0	98.0	91.0	77.7	72.0	63.0	103.0
-Year	1996	1999	1998	2002	1998	1995	1995	1995	2002	2005	1996	1998	JUL 1995
-Record Lowest	-29.0	-18.1	-15.3	0.0	26.4	0.0	43.0	38.0	25.0	19.0	0.0	-18.4	-29.0
-Year	1997	2003	2003	2004	2005	2004	2000	1995	2000	2002	2000	2004	JAN 1997
MEAN DEGREE DAYS													
Heating Base 65°F	1490	1173	1084	638	322	84	23	45	198	560	848	1223	7690
Cooling Base 65°F	0	0	0	2	8	77	112	100	23	1	0	0	322
MEAN SUNSHINE													
MEAN NUMBER OF DAYS													
Sunrise to Sunset													
-Clear	24.5	22.4	23.7	21.4	21.8	21.9	21.2	22.9	23.3	23.2	22.3	23.0	271.5
-Partly Cloudy	2.1	2.0	3.1	3.5	4.1	4.4	4.8	4.5	4.0	2.6	2.5	1.8	39.4
-Cloudy	4.0	2.9	4.0	3.5	4.0	1.5	2.1	2.2	1.6	4.2	4.5	5.4	39.9
Precipitation > .01"													
Snow, Ice plts. > 1.0"	17.4	12.3	14.6	12.9	15.9	12.9	14.4	12.4	12.2	15.1	17.0	16.9	173.9
Thunderstorms	10.5	6.2	6.0	2.3	0.3	0.0	0.0	0.0	0.0	0.4	4.7	9.8	40.2
Heavy Fog, vis. ≤ ¼ mi	0.0	0.1	0.4	1.0	2.8	4.5	5.8	4.5	1.4	0.5	0.5	0.1	21.5
	0.0	0.0	0.3	0.0	0.0	0.2	0.1	0.3	0.1	0.4	0.1	0.0	1.4
TEMPERATURE:													
-Maximum													
90°F and above	0.0	0.0	0.0	0.0	0.0	1.8	1.5	1.6	0.2	0.0	0.0	0.0	5.2
32°F and below	19.3	12.3	6.4	0.7	0.0	0.0	0.0	0.0	0.0	0.0	3.4	14.7	56.8
-Minimum													
32°F and below	29.7	25.5	26.1	14.9	2.3	0.1	0.0	0.0	0.5	10.0	18.5	27.5	155.0
0°F and below	10.6	6.2	2.0	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.1	3.0	22.2
PRESSURE													
Average													
-Monthly	9.011	9.017	8.982	8.982	8.982	8.150	8.151	8.163	8.195	8.169	8.177	8.168	8.512
Extremes													
-Record Highest	30.85	30.89	30.49	30.69	30.52	30.28	30.34	30.34	30.45	30.39	30.67	30.65	30.89
-Year	2005	2003	2004	2003	2005	2003	2004	2003	2003	2004	2003	2005	FEB 2003
-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	19.7	19.1	20.1	18.9	21.6	20.8	21.9	22.6	22.1	22.3	20.7	21.0	20.9
-Local Time													
Hour 01	22	21	21	21	24	23	24	25	24	24	22	21	23
Hour 07	22	21	22	21	24	23	25	25	25	24	22	22	23
Hour 13	18	16	17	16	18	18	18	19	18	19	18	19	18
Hour 19	21	20	20	18	20	19	20	22	23	23	21	21	21
PRECIPITATION													
Water Equivalent													
-Mean	3.12	2.04	3.03	2.85	3.62	4.14	5.25	5.58	4.37	4.00	3.71	3.73	45.44
-Maximum Monthly	6.88	3.16	4.84	6.05	7.29	12.15	7.65	11.43	8.87	8.00	4.80	7.77	12.15
-Year	1998	2000	2001	2000	2000	1998	1996	2004	2002	2005	2005	2003	JUN 1998
-Minimum Monthly	1.28	0.83	1.05	0.00	0.00	0.00	3.24	1.54	1.65	1.45	2.11	0.00	0.00
-Year	2004	2004	1996	2002	2002	2002	2001	2004	1998	1998	1997	1970	
-Greatest (24 hrs)	2.85	0.95	1.23	1.34	2.33	3.08	2.58	6.05	2.65	1.71	1.66	2.24	6.05
-Year	1998	2000	2001	2000	2000	1998	1996	1995	1999	2003	2003	1996	AUG 1995
Snow, Ice pellets													
-Mean	26.9	15.8	20.6	6.8	0.4	0.0	0.0	0.0	0.0	1.5	10.2	28.6	110.7
-Maximum Monthly	34.3	28.4	41.6	21.7	2.2	0.0	0.0	0.0	0.0	6.5	20.5	69.8	69.8
-Year	1999	2005	2001	1996	1996	1995	1995	1995	1995	2005	2002	2003	DEC 2003
-Minimum Monthly	15.5	9.8	9.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0
-Year	1996	1999	2000	1999	1997	1995	1995	1995	1995	1996	1998	2033	JUN 1995
-Greatest (day)	11.0	9.9	14.0	13.4	2.0	0.0	0.0	0.0	0.0	4.5	9.8	15.0	15.0
-Year	2000	2005	2001	2000	1996	1995	1995	1995	1995	2005	2002	1997	DEC 1997
WIND													
Resultant													
-Direction	239	227	236	234	237	209	203	211	205	226	213	218	221
-Speed	1.2	1.2	1.5	1.1	0.8	1.1	0.9	0.9	1.2	1.1	2.3	1.7	1.2
Average Speed	1.0	0.9	1.1	1.1	0.8	0.6	0.5	0.5	0.5	0.7	1.2	1.0	0.8
Maximum One-minute													
Average													
-Direction	SW	WSW	S	SE	W	SE	W	WNW	S	SW	W	WNW	WSW
-Speed	19	25	24	12	11	6	9	10	13	21	23	10	25
-Year	2003	2003	2003	2003	2005	2004	2003	2003	2003	2003	2003	2003	FEB 2003
Peak Gust													
-Direction	S	WSW	S	S	SSW	W	S	S	S	SW	W	S	W
-Speed	40	35	40	39	39	44	33	30	35	40	39	45	44
-Year	2005	2003	2003	2004	2004	2004	2004	2005	2005	2003	2003	2004	JUN 2004

* Length of record: June 1995 to December 2005

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
2000	2.92	3.16	3.01	6.05	7.29	2.94	3.24	3.48	3.04	2.48	3.16	4.43	45.20
2001	1.98	2.27	4.84	0.65	2.63	2.20	4.04	6.07	1.65	2.39	2.72	2.35	33.79
2002	2.80	2.35	2.46	3.79	4.49	9.09	4.92	1.54	8.87	3.97	4.21	2.69	51.18
2003	1.52	1.56	3.72	2.82	4.75	2.76	3.67	6.26	2.81	6.46	4.52	7.77	48.62
2004	1.28	0.83	2.94	2.45	3.59	3.86	6.66	11.43	2.58	1.45	3.09	4.94	40.16
2005	3.25	2.99	2.41	3.68	1.40	4.38	5.22	5.35	4.09	8.00	4.80	3.54	49.11

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	27.8	23.5	9.3	18.9	0.0	0.0	92.3
2000-01	0.0	0.0	0.0	4.3	13.4	40.8	30.9	18.4	41.6	0.0	0.0	0.0	149.4
2001-02	0.0	0.0	0.0	0.9	3.3	17.8	30.0	17.1	20.0	5.0	0.0	0.0	94.1
2002-03	0.0	0.0	0.0	0.0	20.5	15.4	26.3	12.8	13.4	8.4	0.0	0.0	96.8
2003-04	0.0	0.0	0.0	T	4.3	69.8	22.5	12.0	10.5	3.9	1.5	0.0	124.5
2004-05	0.0	0.0	0.0	0.0	2.5	28.4	27.5	28.4	24.0	T	0.0	0.0	110.8
2005-06	0.0	0.0	0.0	6.5	5.2	30.1							

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
2000	16.4	22.9	35.5	41.8	55.8	62.9	65.6	65.5	55.2	47.4	36.0	18.8	43.6
2001	20.0	22.6	28.4	43.1	58.2	65.4	66.3	70.1	59.6	49.6	40.5	32.6	46.4
2002	26.4	25.2	31.6	46.5	52.5	61.7	68.5	68.6	61.9	44.0	34.9	22.9	45.4
2003	10.1	15.0	28.4	39.9	53.8	62.8	68.1	68.3	60.4	45.3	37.2	23.5	42.7
2004	5.8	19.4	32.4	40.9	55.9	59.9	67.3	65.0	59.3	46.5	35.1	21.0	44.3
2005	13.2	21.9	26.8	45.4	50.5	68.3	69.6	67.9	61.6	48.4	37.8	21.6	44.4

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	1466	1147	923	634	299	99	7291
2000-01	45	58	260	537	877	1395	1403	852	1143	643	190	62	7465
2001-02	27	19	189	422	743	917	1206	1122	1044	504	388	123	6704
2002-03	30	38	148	662	790	1270	1710	1408	1148	767	363	135	8469
2003-04	19	59	170	629	848	1303	1841	1337	1024	738	312	187	8467
2004-05	26	75	191	589	910	1377	1614	1220	1198	604	466	59	8329
2005-06	21	36	153	534	833	1351							

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
2000	0	0	0	0	7	40	54	64	8	0	0	0	173
2001	0	0	0	0	6	67	52	164	27	1	0	0	317
2002	0	0	0	16	7	30	125	128	55	4	0	0	365
2003	0	0	0	0	1	56	99	144	16	0	0	0	316
2004	0	0	0	4	15	22	82	59	2	0	0	0	184
2005	0	0	0	0	0	143	150	110	37	5	0	0	445

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	7/2001	Present	44° 37' 39"	73° 02' 29"	850	10	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