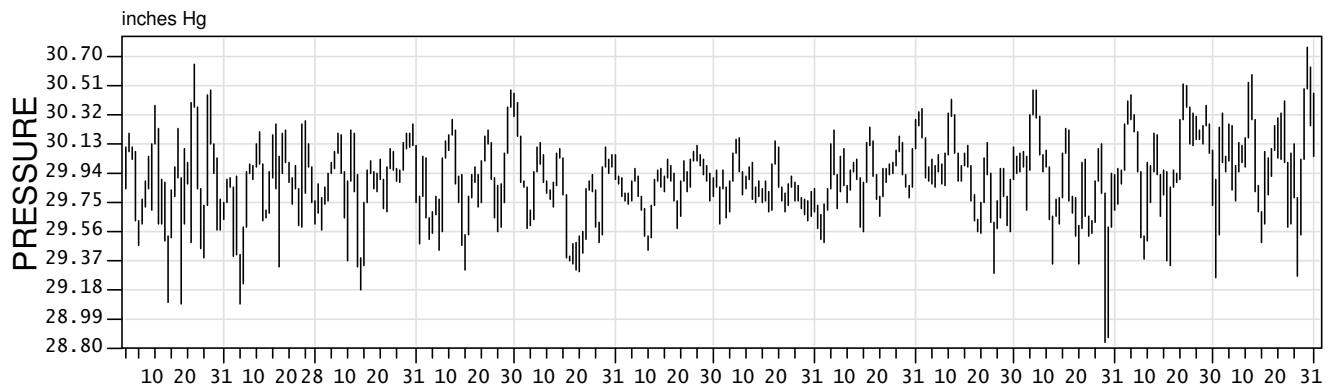
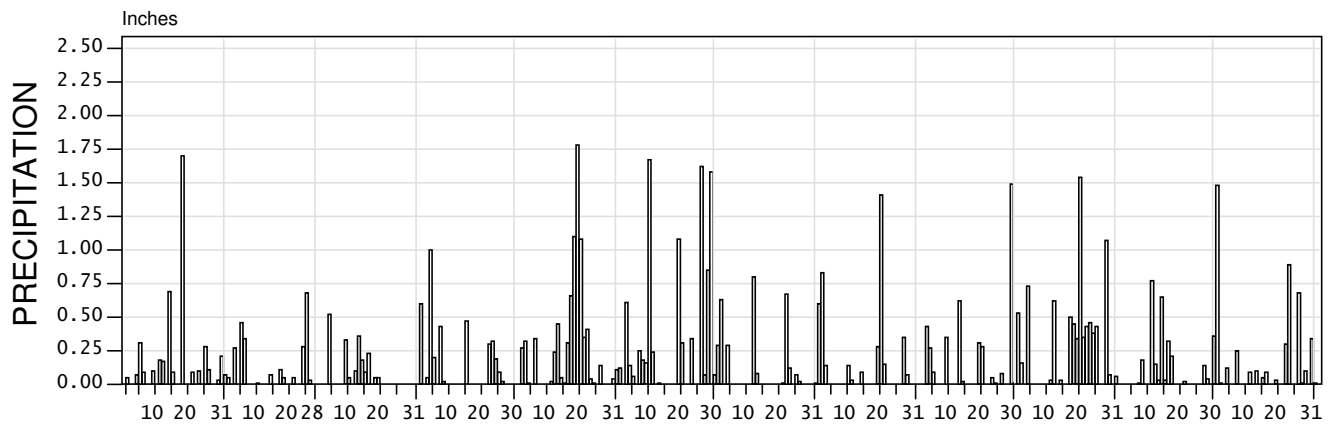
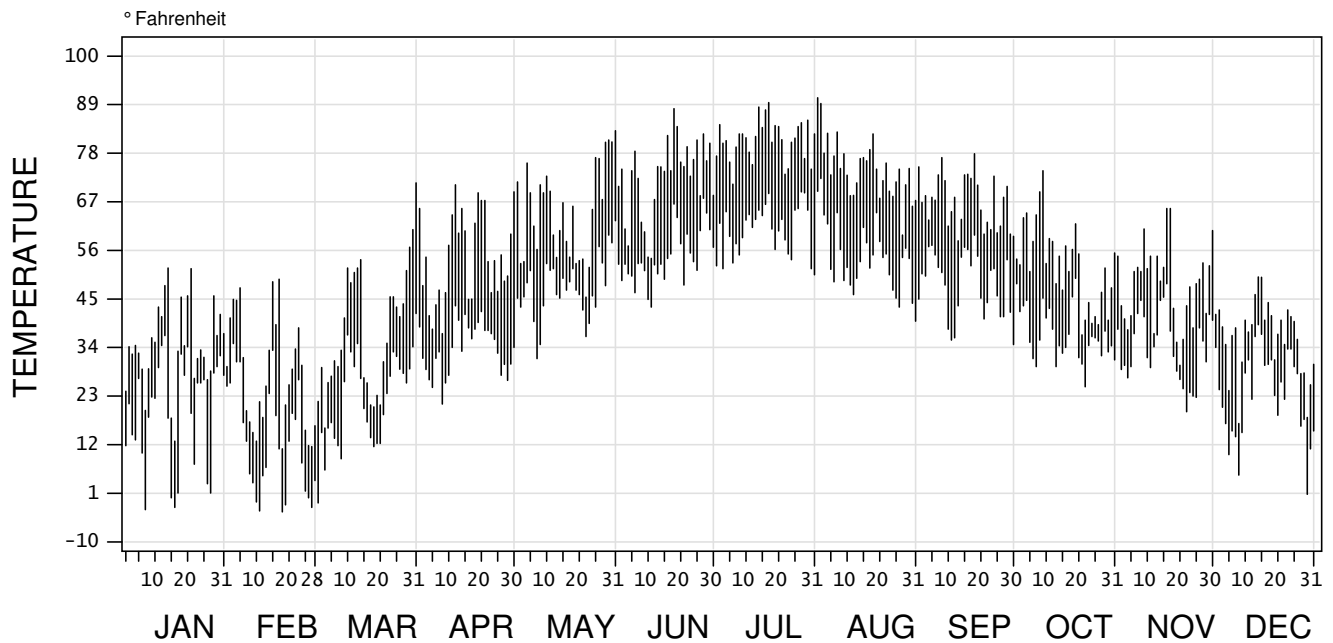


2006

LOCAL CLIMATOLOGICAL DATA

Annual Summary with Comparative Data

Westford Daily Data



METEOROLOGICAL DATA FOR 2006

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	34.7	28.0	38.0	54.7	65.0	72.5	80.9	74.6	67.1	52.8	48.2	36.4	54.4
-Daily Minimum	19.3	13.0	22.1	33.6	47.4	54.3	60.5	54.3	48.2	36.8	33.9	23.2	37.2
-Monthly	27.0	20.5	30.1	44.2	56.2	63.4	70.7	64.4	57.7	44.8	41.0	29.8	45.8
-Monthly Dew Point	21.2	11.1	18.8	30.4	46.6	57.0	63.2	57.4	51.5	38.1	34.1	24.1	37.8
Extremes													
-Highest	52.0	49.6	71.3	70.9	83.2	88.2	89.5	90.7	77.9	74.0	65.6	50.1	90.7
-Date	14	17	31	12	31	18	17	1	18	9	16	14	AUG 1
-Lowest	-2.8	-3.3	-1.2	21.3	31.5	43.3	50.5	40.1	34.7	25.1	19.5	0.9	-3.3
-Date	7	18	1	8	7	11	31	31	30	22	22	29	FEB 18
DEGREE DAYS													
Heating Base 65°F	1184	1250	1092	632	296	105	5	93	217	634	724	1086	7318
Cooling Base 65°F	0	0	0	0	19	52	176	65	4	0	0	0	316
SUNSHINE													
NUMBER OF DAYS													
Sunrise to Sunset													
-Clear	5	2	9	11	5	3	8	5	3	4	1	4	60
-Partly Cloudy	10	11	7	9	11	14	19	20	16	7	9	8	141
-Cloudy	16	15	15	10	15	13	4	6	11	20	20	19	164
Precipitation													
.01 inches or more	17	13	12	13	23	19	14	16	16	21	17	17	198
Snow, Ice pellets													
1.0 inches or more	10	4	4	1	0	0	0	0	0	1	0	6	26
Thunderstorms	0	0	0	1	2	5	6	5	0	0	0	1	20
Heavy Fog, visibility													
¼ mile or less	0	0	2	0	3	0	0	1	0	0	4	0	10
TEMPERATURE:													
-Maximum													
90°F and above	0	0	0	0	0	0	1	1	0	0	0	0	2
32°F and below	11	18	14	0	0	0	0	0	0	0	1	9	53
-Minimum													
32°F and below	27	26	25	12	1	0	0	0	0	8	15	25	139
0°F and below	3	6	1	0	0	0	0	0	0	0	0	0	10
PRESSURE													
Average													
-Monthly	29.896	29.863	29.904	29.903	29.812	29.861	29.857	29.918	29.923	29.867	30.051	30.047	29.908
Extremes													
-Highest	30.66	30.29	30.27	30.49	30.40	30.12	30.18	30.29	30.43	30.49	30.52	30.76	30.76
-Date	22	25	30	29	1	25	8	31	11	6	21	29	DEC 29
-Lowest	29.09	29.10	29.19	29.31	29.31	29.45	29.61	29.50	29.29	28.85	29.35	29.27	28.85
-Date	18	5	14	15	20	10	2	3	24	28	17	1	OCT 28
RELATIVE HUMIDITY (%)													
Average													
-Monthly	78.8	67.4	65.4	61.7	75.7	82.9	79.8	81.5	83.4	79.4	78.3	78.4	76.1
Local Time													
Hour 01	83	72	72	69	82	91	89	92	90	85	83	81	82
Hour 07	81	74	70	72	83	91	88	93	94	85	83	82	83
Hour 13	73	60	56	51	66	71	68	67	69	68	68	73	66
Hour 19	79	67	65	57	72	78	76	76	83	83	79	79	74
PRECIPITATION													
Water Equivalent													
-Total	4.44	2.48	2.02	3.82	7.92	9.50	3.10	4.24	4.15	8.38	3.06	4.67	57.78
-Greatest (24 hrs)	0.00	0.00	0.00	1.06	2.15	1.72	0.93	1.68	1.50	1.86	0.89	1.49	2.15
-Date	1	1	1	3- 4	18-19	9-10	1- 2	19-20	29	19-20	11-12	1	MAY 18-19
Snow, Ice pellets													
-Total	23.9	15.5	21.5	3.2	0.0	0.0	0.0	0.0	0.0	3.0	0.1	14.1	81.3
-Greatest (day)	4.7	4.6	16.2	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.1	4.4	16.2
-Date	6	6	4	4	1	1	1	1	1	20	19	7	MAR 4
WIND													
Resultant													
-Direction	209	240	270	224	231	230	215	230	215	234	211	219	227
-Speed	2.3	2.6	2.1	1.2	1.0	0.9	1.2	0.9	1.2	1.8	1.8	2.6	1.5
Average Speed	3.9	4.2	3.5	3.7	2.2	1.7	1.7	1.6	1.9	3.2	2.9	4.0	2.9
Maximum One-minute													
Average													
-Direction	SSE	S	N	WNW	NE	N	N	SSW	S	SSE	S	W	S
-Speed	4	9	5	9	5	4	0	5	4	1	19	13	19
-Date	17	3	2	1	1	3	1	1	23	1	11	2	NOV 11
Peak Gust													
-Direction	SSE	W	WSW	SSW	WNW	WNW	SSW	W	W	SW	SSW	WSW	W
-Speed	41	47	35	34	29	33	27	26	30	38	32	36	47
-Date	18	17	14	13	6	19	25	2	24	29	11	2	FEB 17

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	26.7	32.1	39.8	53.6	66.2	76.5	79.6	77.8	69.5	55.4	44.0	32.9	54.5
-Daily Minimum	8.3	12.3	20.5	32.5	43.7	53.3	57.7	56.1	48.7	37.7	29.3	17.6	34.8
-Monthly	17.5	22.2	30.1	43.0	55.0	64.9	68.7	66.9	59.1	46.6	36.7	25.3	44.7
-Monthly Dew Point	2.2	3.2	6.9	10.6	16.0	18.6	20.5	20.0	17.7	13.3	10.2	6.0	12.1
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	2002	2005	1996	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	1462	1180	1085	638	320	85	22	49	200	566	838	1212	7657
Cooling Base 65°F	0	0	0	2	9	75	117	97	22	1	0	0	322
MEAN SUNSHINE													
MEAN NUMBER OF DAYS													
Sunrise to Sunset													
-Clear	22.7	20.5	22.4	20.5	20.3	20.3	20.1	21.4	21.6	21.6	20.5	21.4	253.3
-Partly Cloudy	2.8	2.8	3.5	4.0	4.7	5.2	6.0	5.8	5.0	3.0	3.0	2.3	48.2
-Cloudy	5.1	4.0	5.0	4.1	5.0	2.5	2.3	2.5	2.4	5.5	5.8	6.5	50.6
Precipitation ≥ .01"	17.4	12.4	14.4	12.9	16.5	13.4	14.3	12.7	12.5	15.6	17.0	16.9	176.0
Snow, Ice plds. ≥ 1.0"	10.5	6.0	5.8	2.2	0.3	0.0	0.0	0.0	0.0	0.4	4.3	9.5	39.0
Thunderstorms	0.0	0.1	0.4	1.0	2.7	4.5	5.8	4.5	1.3	0.5	0.4	0.2	21.3
Heavy Fog, vis. ≤ ¼ mi	0.0	0.0	0.5	0.0	0.3	0.2	0.1	0.3	0.1	0.3	0.4	0.0	2.1
TEMPERATURE:													
-Maximum													
90°F and above	0.0	0.0	0.0	0.0	0.0	1.7	1.5	1.6	0.2	0.0	0.0	0.0	4.9
32°F and below	18.5	12.8	7.1	0.6	0.0	0.0	0.0	0.0	0.0	0.0	3.2	14.3	56.5
-Minimum													
32°F and below	29.5	25.5	26.0	14.6	2.2	0.1	0.0	0.0	0.4	9.8	18.2	27.3	153.7
0°F and below	9.9	6.2	1.9	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.1	2.8	21.1
PRESSURE													
Average													
-Monthly	10.910	10.912	10.884	10.884	10.876	9.959	9.960	9.976	10.006	9.977	10.000	9.991	10.361
Extremes													
-Record Highest	30.85	30.89	30.49	30.69	30.52	30.28	30.34	30.34	30.45	30.49	30.67	30.76	30.89
-Year	2005	2003	2004	2003	2005	2003	2004	2003	2003	2006	2003	2006	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	25.1	23.5	24.2	22.8	26.5	26.0	26.7	27.5	27.2	27.0	25.5	25.8	25.7
-Local Time													
Hour 01	27	25	26	25	29	29	30	30	30	29	27	26	28
Hour 07	27	26	26	26	30	29	30	31	31	29	27	27	28
Hour 13	23	20	21	19	23	22	22	23	22	23	23	24	22
Hour 19	26	24	24	21	24	24	25	27	28	28	26	26	25
PRECIPITATION													
Water Equivalent													
-Mean	3.24	2.08	2.94	2.94	4.01	4.59	5.07	5.47	4.35	4.36	3.65	3.81	46.51
-Maximum Monthly	6.88	3.16	4.84	6.05	7.92	12.15	7.65	11.43	8.87	8.38	4.80	7.77	12.15
-Year	1998	2000	2001	2000	2006	1998	1996	2004	2002	2006	2005	2003	JUN 1998
-Minimum Monthly	1.28	0.83	1.05	0.00	0.00	0.00	3.10	1.54	1.65	1.45	2.11	0.00	0.00
-Year	2004	2004	1996				2006	2002	2001	2004	1998	1970	
-Greatest (24 hrs)	2.85	0.95	1.23	1.34	2.33	3.08	2.58	6.05	2.65	1.86	1.66	2.24	6.05
-Year	1998	2000	2001	2000	2000	1998	1996	1995	1999	2006	2003	1996	AUG 1995
Snow, Ice pellets													
-Mean	26.6	15.8	20.7	6.5	0.3	0.0	0.0	0.0	0.0	1.6	9.4	27.4	108.2
-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	0.1	0.0	0.0
-Year	1996	1999	2000	1999	1997	1995	1995	1995	1995	1996	2006	2033	JUN 1995
-Greatest (day)	11.0	9.9	16.2	13.4	2.0	0.0	0.0	0.0	0.0	4.5	9.8	15.0	16.2
-Year	2000	2005	2006	2000	1996	1995	1995	1995	1995	2005	2002	1997	MAR 2006
WIND													
Resultant													
-Direction	219	235	255	228	233	218	209	220	209	230	212	218	224
-Speed	1.7	1.9	1.7	1.2	0.9	1.0	1.0	0.9	1.2	1.4	2.0	2.2	1.4
Average Speed	1.2	1.2	1.4	1.4	0.9	0.7	0.6	0.6	0.7	0.9	1.3	1.3	1.0
Maximum One-minute													
Average													
-Direction	SW	WSW	S	SE	W	SE	W	WNW	S	SW	W	W	WSW
-Speed	19	25	24	12	11	6	9	10	13	21	23	13	25
-Year	2003	2003	2003	2003	2005	2004	2003	2003	2003	2003	2003	2006	FEB 2003
Peak Gust													
-Direction	SSE	W	S	S	SSW	W	S	S	S	SW	W	S	W
-Speed	41	47	40	39	39	44	33	30	35	40	39	45	47
-Year	2006	2006	2003	2004	2004	2004	2004	2005	2005	2003	2003	2004	FEB 2006

* Length of record: June 1995 to December 2006

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
2006	4.44	2.48	2.02	3.82	7.92	9.50	3.10	4.24	4.15	8.38	3.06	4.67	57.78

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	23.9	15.5	21.5	3.2	0.0	0.0	105.9
2006-07	0.0	0.0	0.0	3.0	0.1	14.1							

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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
2006	27.0	20.5	30.1	44.2	56.2	63.4	70.7	64.4	57.7	44.8	41.0	29.8	45.8

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	1184	1250	1092	632	296	105	7487
2006-07	5	93	217	634	724	1086							

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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
2006	0	0	0	0	19	52	176	65	4	0	0	0	316

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	07/2001	Present	44° 37' 39"	73° 02' 29"	850	12	0	5	5	6	5

INSTRUMENTATION DETAIL

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

Davis Vantage Pro, Vantage Pro Plus, Vantage Pro2, Vantage Pro2 Plus

Wind:

Electronic sensors:

Large cups: Instantaneous speed to 120 mph and direction to nearest 7°, greater of 2 mph or ±5%.

Small cups: Instantaneous speed to 175 mph and direction to nearest 7°, greater of 3 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:

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

Sunshine:

Electronic sensor: 0 to 1600 W/m², 5%.

UV:

Electronic sensor: 0 to 16 Index, 8%.

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