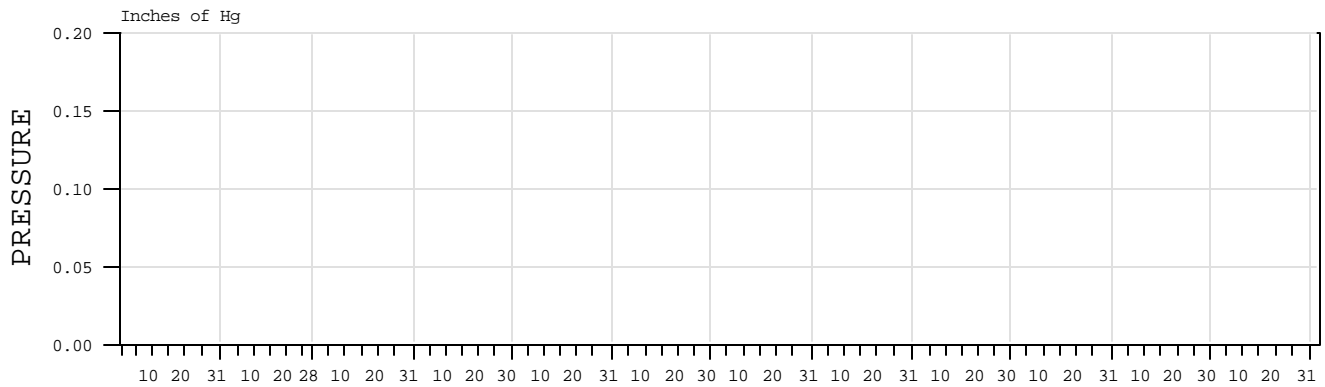
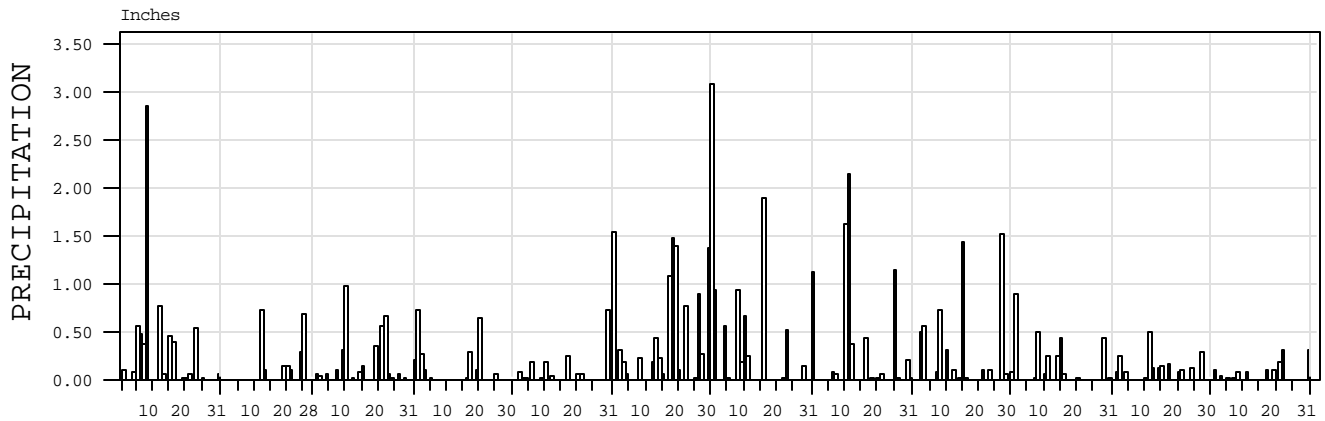
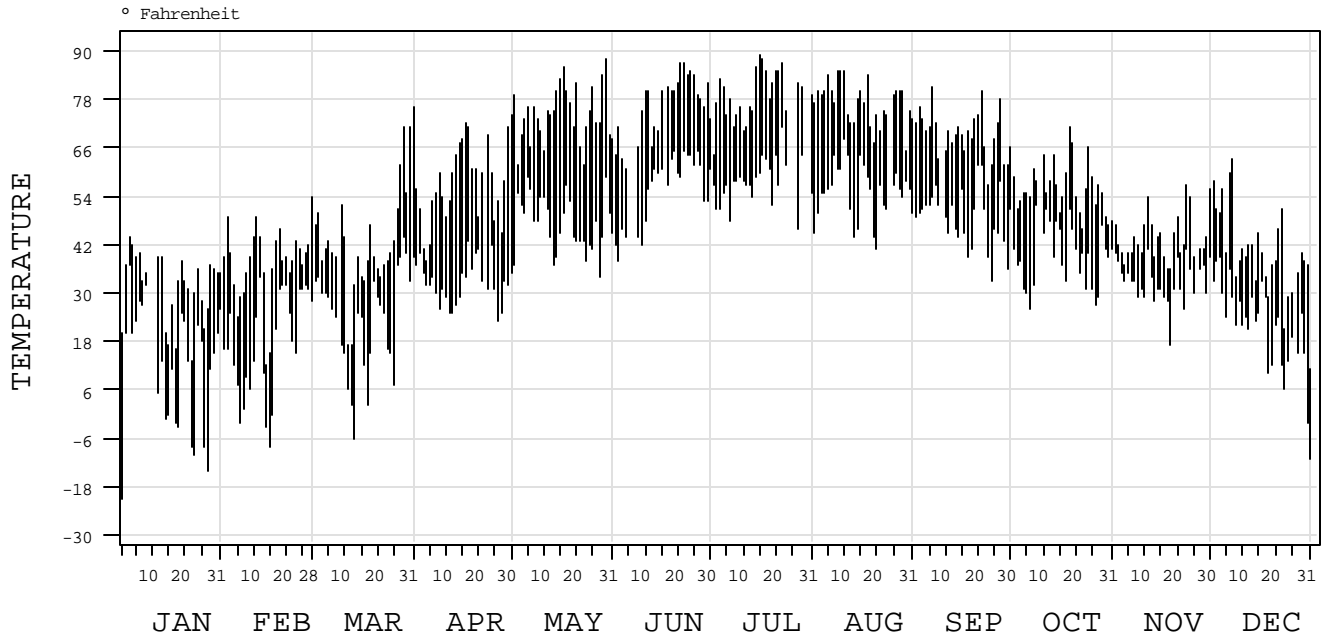


# 1998

## LOCAL CLIMATOLOGICAL DATA

Annual Summary with Comparative Data  
**Westford**  
Daily Data



# METEOROLOGICAL DATA FOR 1998

## 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
<b>TEMPERATURE</b>													
Average													
-Daily Maximum	31.4	37.4	43.5	57.3	74.2	76.3	78.9	77.1	69.4	56.2	43.7	40.3	57.1
-Daily Minimum	11.5	17.4	23.4	32.6	47.2	55.9	57.6	55.1	48.7	39.1	32.8	21.5	36.9
-Monthly	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
-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
<b>Extremes</b>													
-Highest	44.0	54.0	76.0	74.0	88.0	87.0	89.0	85.0	81.0	71.0	57.0	63.0	89.0
-Date	3	28	31	30	29	21	15	8	6	18	23	7	JUL 15
-Lowest	-21.0	-8.0	-6.0	23.0	34.0	38.0	46.0	41.0	33.0	26.0	17.0	-11.0	-21.0
-Date	1	15	13	26	27	2	27	20	24	6	18	31	JAN 1
<b>DEGREE DAYS BASE 65°F</b>													
Heating	1224	1060	954	588	158	69	13	53	196	528	784	1032	6659
Cooling	0	0	0	0	16	93	92	78	14	0	0	0	293
<b>SUNSHINE INDEX</b>													
	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
<b>NUMBER OF DAYS</b>													
<b>Sunrise to Sunset</b>													
-Clear	28	28	30	29	31	26	26	30	29	30	29	30	346
-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
<b>Precipitation</b>													
.01 inches or more	19	8	20	11	14	19	12	14	15	16	14	14	176
<b>Snow, Ice pellets</b>													
1.0 inches or more	14	3	8	0	0	0	0	0	0	0	1	3	29
<b>Thunderstorms</b>													
	0	0	3	0	8	12	5	5	3	1	0	0	37
<b>Heavy Fog, visibility</b>													
¼ mile or less	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>TEMPERATURE:</b>													
<b>-Maximum</b>													
90°F and above	0	0	0	0	0	0	0	0	0	0	0	0	0
32°F and below	11	6	3	0	0	0	0	0	0	0	0	5	25
<b>-Minimum</b>													
32°F and below	27	27	21	15	0	0	0	0	0	8	14	25	137
0°F and below	9	4	1	0	0	0	0	0	0	0	0	2	16
<b>PRESSURE</b>													
<b>Average</b>													
-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
<b>Extremes</b>													
-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
<b>RELATIVE HUMIDITY (%)</b>													
<b>Average</b>													
-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
<b>-Local Time</b>													
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
<b>PRECIPITATION</b>													
<b>Water Equivalent</b>													
-Total	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
-Greatest (24 hrs)	2.85	0.73	0.97	0.72	1.54	3.08	1.90	2.13	1.52	0.89	0.49	0.31	3.08
-Date	8	12	10	1	31	30	16	11	22	1	11	22	JUN 30
<b>Snow, Ice pellets</b>													
-Total	21.9	9.9	24.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	2.0	7.6	66.2
-Greatest (day)	6.5	6.4	7.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	2.0	3.5	7.7
-Date	15	25	22	5	1	1	1	1	1	1	17	30	MAR 22
<b>WIND</b>													
<b>Resultant</b>													
-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
<b>Maximum One-minute</b>													
<b>Average</b>													
-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
<b>Peak Gust</b>													
-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	34.2	39.8	53.4	66.4	78.9	80.7	79.0	68.5	56.3	41.2	34.5	55.2
-Daily Minimum	8.0	14.4	18.7	31.5	43.0	54.0	57.4	54.9	47.4	38.0	27.4	18.3	34.4
-Monthly	18.4	24.3	29.3	42.5	54.7	66.5	69.1	67.0	57.9	47.1	34.3	26.4	44.8
-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	58.0	76.0	74.0	88.0	100.0	103.0	98.0	87.0	75.0	72.0	63.0	103.0
-Year	1996	1997	1998	1998	1998	1995	1995	1995	1995	1995	1996	1998	JUL 1995
-Record Lowest	-29.0	-13.0	-8.0	12.0	27.0	38.0	44.0	38.0	32.0	21.0	5.0	-11.0	-29.0
-Year	1997	1996	1997	1997	1997	1998	1997	1995	1995	1997	1995	1998	JAN 1997
MEAN DEGREE DAYS													
Heating (base 65°F)	1405	1164	1104	635	331	52	19	41	226	533	907	1176	7593
Cooling (base 65°F)	0	0	0	0	9	90	126	94	13	0	0	0	331
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	30.0	28.3	30.7	28.0	30.7	27.8	28.3	29.8	29.0	29.5	29.3	30.3	351.4
-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"	18.3	12.7	16.3	13.3	18.3	12.8	15.0	10.5	15.0	15.3	19.0	18.5	185.0
Snow, Ice plts. ≥ 1.0"	13.0	7.7	8.0	4.3	0.7	0.0	0.0	0.0	0.0	0.3	8.8	13.0	55.7
Thunderstorms	0.0	0.3	1.0	0.7	5.3	5.5	6.0	4.8	1.3	1.0	0.3	0.0	26.1
Heavy Fog, vis. ≤ ¼ mi	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.3
TEMPERATURE:													
-Maximum													
90°F and above	0.0	0.0	0.0	0.0	0.0	3.0	3.0	3.3	0.0	0.0	0.0	0.0	9.3
32°F and below	16.3	10.7	6.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	4.0	11.8	49.8
-Minimum													
32°F and below	29.0	26.3	26.0	14.7	2.7	0.0	0.0	0.0	0.8	9.5	20.3	27.0	156.2
0°F and below	11.0	7.7	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	24.3
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	4.26	2.09	2.72	2.76	2.74	4.35	6.22	6.12	4.18	3.86	3.73	3.40	46.43
-Maximum Monthly	6.88	2.22	3.78	6.03	5.01	12.15	7.65	10.18	5.64	6.48	4.41	5.13	12.15
-Year	1998	1998	1998	1996	1996	1998	1996	1995	1998	1995	1997	1996	JUN 1998
-Minimum Monthly	2.05	1.82	1.05	0.00	0.00	0.00	3.92	2.63	3.15	2.04	2.11	1.32	0.00
-Year	1997	1997	1996				1995	1996	1995	1997	1998	1998	
-Greatest (24 hrs)	2.85	0.73	0.97	0.91	1.54	3.08	2.58	6.05	1.52	1.42	1.56	2.24	6.05
-Year	1998	1998	1998	1997	1998	1998	1996	1995	1998	1995	1995	1996	AUG 1995
Snow, Ice pellets													
-Mean	23.1	12.1	20.6	10.6	0.7	0.0	0.0	0.0	0.0	1.2	13.2	27.4	169.0
-Maximum Monthly	31.9	15.3	24.6	21.7	2.2	0.0	0.0	0.0	0.0	4.7	19.8	46.0	46.0
-Year	1997	1996	1998	1996	1996	1995	1995	1995	1995	1997	1996	1995	DEC 1995
-Minimum Monthly	15.5	9.9	13.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	2.0	7.6	0.0
-Year	1996	1998	1996	1998	1997	1995	1995	1995	1995	1996	1998	1998	JUN 1995
-Greatest (day)	9.4	6.4	9.5	8.3	2.0	0.0	0.0	0.0	0.0	4.0	5.2	15.0	15.0
-Year	1997	1998	1997	1997	1996	1995	1995	1995	1995	1997	1997	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 1998

## 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

### 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							

## 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

### 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							

# 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

**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**