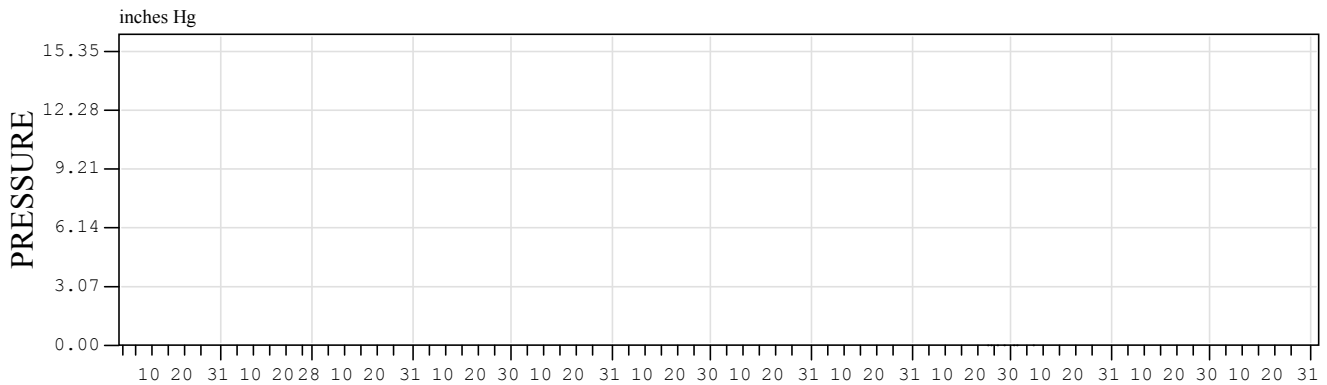
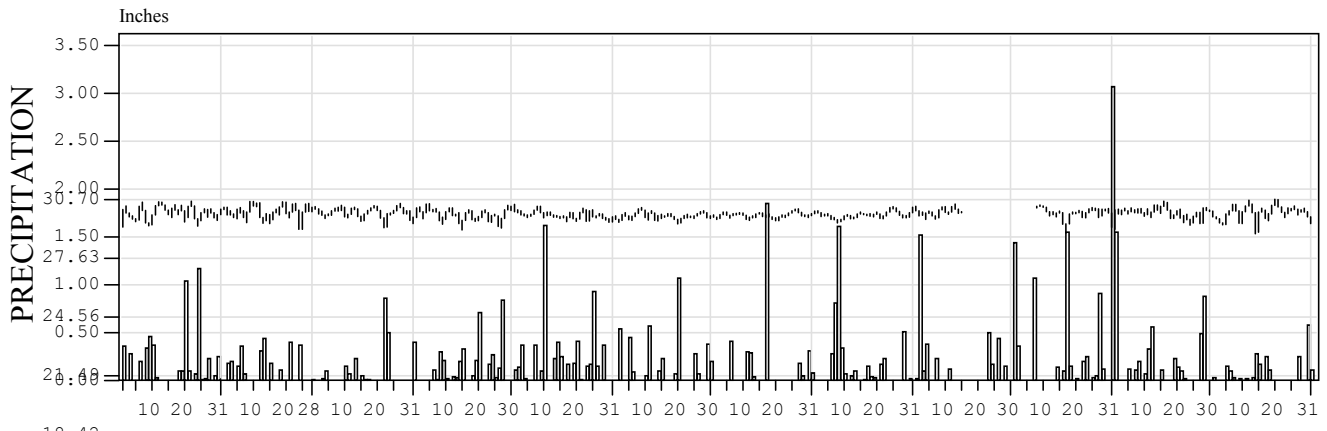
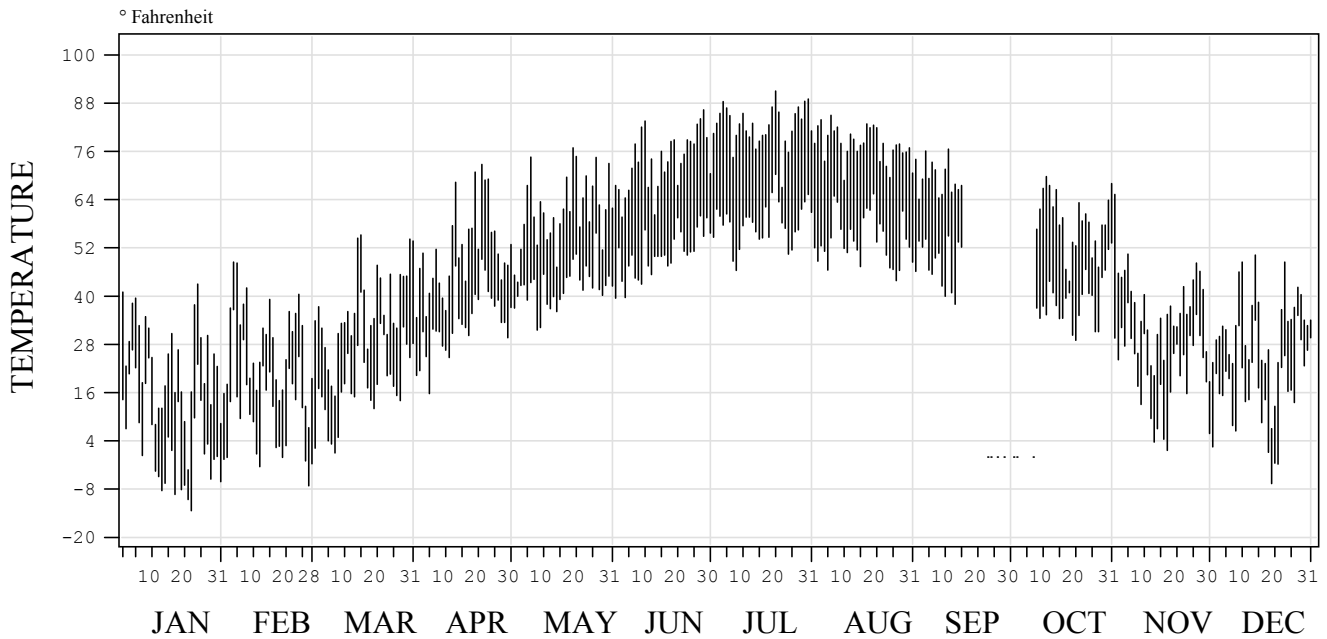


2019

LOCAL CLIMATOLOGICAL DATA

Annual Summary with Comparative Data
Westford
Daily Data



METEOROLOGICAL DATA FOR 2019

Westford

Latitude: 44° 37' 38" 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	23.5	28.1	36.8	51.5	61.3	73.8	82.5	77.9	54.9	52.0	37.0	32.0	50.9
-Daily Minimum	4.5	10.8	18.4	33.3	42.2	50.4	58.0	53.9	38.0	34.7	21.3	16.8	31.9
-Monthly	14.0	19.4	27.6	42.4	51.7	62.1	70.2	65.9	46.4	43.4	29.2	24.4	41.4
-Monthly Dew Point	9.9	13.2	18.3	32.6	44.0	53.6	62.9	58.5	46.0	37.0	23.0	19.7	34.9
Extremes													
-Highest	43.1	48.6	55.3	72.8	76.9	86.3	91.0	85.1	76.7	69.8	65.3	50.2	91.0
-Date	24	4	15	21	19	28	20	6	11	11	1	14	Jul 20
-Lowest	-13.4	-7.2	1.0	15.9	31.6	39.6	46.4	43.9	0.0	0.0	1.8	-6.7	-13.4
-Date	22	27	7	5	8	1	8	26	23	1	17	19	Jan 22
DEGREE DAYS													
Heating Base 65°F	1571	1267	1152	672	401	108	8	36	350	574	1066	1250	8455
Cooling Base 65°F	0	0	0	0	1	31	181	74	1	0	0	0	288
SOLAR RADIATION (W/m²)													
	39.9	76.9	129.4	145.6	165.1	221.5	234.9	207.7	159.2	72.9	39.6	33.1	127.2
NUMBER OF DAYS													
Sunrise to Sunset													
-Clear	5	7	7	2	1	8	10	12	3	3	2	2	62
-Partly Cloudy	7	6	9	12	10	12	16	15	6	10	8	13	124
-Cloudy	19	15	14	15	20	10	5	2	5	10	20	15	150
Precipitation													
.01 inches or more	18	15	15	20	19	18	13	15	12	16	17	17	195
Snow, Ice pellets													
1.0 inches or more	11	5	4	1	0	0	0	0	0	0	7	6	34
Thunderstorms	0	1	1	0	3	5	7	6	2	0	0	0	25
Heavy Fog, visibility													
¼ mile or less	0	1	0	3	3	1	0	0	0	0	0	0	8
TEMPERATURE:													
-Maximum													
90°F and above	0	0	0	0	0	0	1	0	0	0	0	0	1
32°F and below	24	17	10	0	0	0	0	0	4	3	9	14	81
-Minimum													
32°F and below	31	27	29	15	2	0	0	0	4	7	28	28	171
0°F and below	14	7	0	0	0	0	0	0	4	3	0	3	31
PRESSURE													
Average													
-Monthly	29.999	30.072	30.021	29.926	29.909	29.842	29.879	29.898	30.055	26.675	30.014	30.003	29.691
Extremes													
-Highest	30.63	30.60	30.50	30.49	30.46	30.28	30.21	30.34	30.47	30.42	30.61	30.72	30.72
-Date	22	9	27	5	1	9	27	25	13	9	16	20	Dec 20
-Lowest	29.26	29.14	29.24	29.13	29.52	29.43	29.59	29.48	0.00	0.00	29.16	28.92	0.00
-Date	1	24	22	15	30	20	21	8	23	1	1	14	Sep 23
RELATIVE HUMIDITY (%)													
Average													
-Monthly	81.6	75.1	68.3	72.7	77.3	76.9	79.8	80.9	65.6	71.4	77.9	80.0	75.6
Local Time													
Hour 00	83	79	74	80	86	87	90	91	66	88	81	82	82
Hour 06	84	82	76	81	88	92	93	94	63	90	83	83	84
Hour 12	78	67	61	64	70	65	67	66	67	65	72	75	68
Hour 18	81	74	63	64	68	65	69	71	70	79	77	80	72
PRECIPITATION													
Water Equivalent													
-Total	5.28	2.85	2.49	3.84	6.22	4.20	3.62	4.50	2.44	9.55	5.00	2.26	52.25
-Greatest (24 hrs)	0.00	0.00	0.41	0.94	1.72	1.11	1.85	2.29	1.56	3.08	1.56	0.00	3.08
-Date	1	1	31	19-20	9-10	19-20	17	7- 8	1- 2	31	1	1	Oct 31
Snow, Ice pellets													
-Total	47.8	15.9	19.2	1.9	0.0	0.0	0.0	0.0	0.0	0.0	15.6	14.6	115.0
-Greatest (day)	12.0	4.6	7.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	4.5	4.2	12.0
-Date	20	13	22	1							12	17	Jan 20
WIND													
Resultant													
-Direction	259	260	244	253	254	256	243	247	222	202	215	204	233
-Speed	1.3	1.9	1.6	1.6	0.7	0.4	0.2	0.3	0.7	1.4	2.1	2.2	1.1
Average Speed	2.3	2.7	2.4	2.5	1.2	0.6	0.3	0.3	0.9	2.1	3.3	3.3	1.8
Maximum Two-minute													
Average													
-Direction	NW	WNW	WNW	WNW	W	WNW	W	WNW	SSW	S	SW	S	WNW
-Speed	19	24	17	22	20	14	15	13	17	18	24	19	24
-Date	1	25	16	4	10	3	30	9	14	29	1	13	Feb 25
Peak Gust													
-Direction	S	W	SE	W	WNW	SSW	WSW	NNW	S	SSE	SW	SSE	W
-Speed	39	41	32	36	32	28	30	25	37	32	41	37	41
-Date	8	8	10	3	10	15	30	9	14	31	1	13	Feb 8

MEANS AND EXTREMES*

Westford

Latitude: 44° 37' 38" 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	24.4	32.4	36.3	48.7	66.1	73.6	83.3	78.7	63.3	52.0	36.6	32.3	52.3
-Daily Minimum	6.7	14.3	20.2	31.1	44.4	50.2	58.0	56.1	44.3	35.9	22.8	15.4	33.3
-Monthly	15.6	23.3	28.2	39.9	55.2	61.9	70.7	67.4	53.8	44.0	29.7	23.9	42.8
-Monthly Dew Point	11.1	17.1	19.9	30.4	45.0	53.5	62.3	60.6	50.7	38.2	24.7	19.9	36.1
Extremes													
-Record Highest	57.3	65.7	55.3	72.8	84.2	88.9	93.5	90.8	89.0	79.6	65.3	54.8	93.5
-Year	2018	2018	2019	2019	2018	2018	2018	2018	2018	2018	2019	2018	Jul 2018
-Record Lowest	-19.2	-9.1	1.0	15.1	31.6	37.7	46.4	43.1	0.0	0.0	-2.7	-6.7	-19.2
-Year	2018	2018	2019	2018	2019	2018	2019	2018	2019	2019	2018	2019	Jan 2018
MEAN DEGREE DAYS													
Heating Base 65°F	1526	1158	1132	744	299	122	8	26	262	601	1052	1265	8193
Cooling Base 65°F	0	0	0	0	9	40	172	105	35	2	0	0	362
MEAN SOLAR RADIATION	19.9	38.5	64.7	72.8	82.5	110.8	117.4	190.3	149.0	66.4	35.1	32.8	81.7
MEAN NUMBER OF DAYS													
Sunrise to Sunset													
-Clear	2.5	3.5	3.5	1.0	0.5	4.0	5.0	9.0	4.0	2.5	2.0	2.5	40.0
-Partly Cloudy	3.5	3.0	4.5	6.0	5.0	6.0	8.0	14.5	10.0	8.5	6.0	11.5	86.5
-Cloudy	9.5	7.5	7.0	7.5	10.0	5.0	2.5	4.5	7.5	15.0	22.0	16.5	114.5
Precipitation ≥ .01"													
Snow, Ice plts. ≥ 1.0"	9.0	7.5	9.0	21.5	15.0	15.0	10.5	17.0	11.0	17.5	19.0	18.0	170.0
Thunderstorms	5.5	2.5	2.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	6.5	4.5	21.5
Heavy Fog, vis. ≤ ¼ mi	0.0	0.5	0.5	0.0	1.5	2.5	3.5	6.5	1.5	0.0	0.0	0.0	16.5
	0.0	0.5	0.0	1.5	1.5	0.5	0.0	0.5	0.0	0.0	1.5	0.5	6.5
TEMPERATURE:													
-Maximum													
90°F and above	0.0	0.0	0.0	0.0	0.0	0.0	3.0	1.0	0.0	0.0	0.0	0.0	4.0
32°F and below	22.5	14.0	10.5	1.0	0.0	0.0	0.0	0.0	2.0	1.5	10.0	16.5	78.0
-Minimum													
32°F and below	30.0	26.0	29.0	19.0	1.5	0.0	0.0	0.0	2.0	9.0	25.0	29.0	170.5
0°F and below	11.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0	2.0	1.5	0.5	3.0	22.5
PRESSURE													
Average													
-Monthly	30.043	30.098	29.969	29.921	29.922	29.856	29.938	29.916	30.087	28.315	30.001	30.023	29.841
Extremes													
-Record Highest	30.83	30.81	30.74	30.49	30.46	30.28	30.31	30.34	30.54	30.43	30.62	30.72	30.83
-Year	2018	2018	2018	2019	2019	2019	2018	2019	2018	2018	2018	2019	Jan 2018
-Record Lowest	29.26	29.14	29.24	29.13	29.37	29.43	29.59	29.48	0.00	0.00	29.16	28.92	0.00
-Year	2019	2019	2019	2019	2018	2019	2019	2019	2019	2019	2019	2019	Sep 2019
RELATIVE HUMIDITY (%)													
Average													
-Monthly	80.8	76.4	72.6	72.9	71.6	76.2	77.2	82.3	74.7	77.6	81.0	82.4	77.1
-Local Time													
Hour 00	41	39	37	40	43	43	45	91	79	87	84	85	60
Hour 06	42	41	38	41	44	46	47	94	77	89	85	86	61
Hour 12	39	33	31	32	35	33	34	68	69	71	76	76	50
Hour 18	41	37	31	32	34	33	35	73	74	80	80	82	53
PRECIPITATION													
Water Equivalent													
-Mean	2.64	1.42	1.67	4.52	4.38	3.84	2.56	3.59	2.85	7.70	5.22	2.97	43.38
-Maximum Monthly	5.28	2.85	2.49	5.20	6.22	4.20	3.62	4.50	3.26	9.55	5.45	3.68	9.55
-Year	2019	2019	2019	2018	2019	2019	2019	2019	2018	2019	2018	2018	Oct 2019
-Minimum Monthly	0.00	0.00	0.85	3.84	2.54	3.48	1.51	2.68	2.44	5.85	5.00	2.26	0.00
-Year			2018	2019	2018	2018	2018	2018	2019	2018	2019	2019	
-Greatest (24 hrs)	0.00	0.00	0.41	0.94	1.72	1.11	1.85	2.29	1.56	3.08	1.56	0.00	3.08
-Year			2019	2019	2019	2019	2019	2019	2019	2019	2019		Oct 2019
Snow, Ice pellets													
-Mean	23.9	7.9	9.6	1.0	0.0	0.0	0.0	0.0	0.0	T	21.6	12.3	76.2
-Maximum Monthly	47.8	15.9	19.2	1.9	0.0	0.0	0.0	0.0	0.0	T	27.5	14.6	47.8
-Year	2019	2019	2019	2019						2018	2018	2019	Jan 2019
-Minimum Monthly	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.6	9.9	0.0
-Year										2019	2019	2018	
-Greatest (day)	12.0	4.6	7.0	1.2	0.0	0.0	0.0	0.0	0.0	T	9.0	4.2	12.0
-Year	2019	2019	2019	2019						2018	2018	2019	Jan 2019
WIND													
Resultant													
-Direction	258	259	243	252	253	255	242	246	223	224	233	215	236
-Speed	0.7	1.0	0.8	0.8	0.4	0.2	0.1	0.3	0.6	1.2	1.6	1.6	0.7
Average Speed	1.1	1.4	1.2	1.3	0.6	0.3	0.1	0.3	0.8	1.9	2.6	2.5	1.2
Maximum Two-minute													
Average													
-Direction	N	N	N	N	N	N	N	WNW	SSW	WNW	SW	S	N
-Speed	35	33	30	38	41	24	24	13	17	19	24	19	41
-Year	2018	2018	2018	2018	2018	2018	2018	2019	2019	2018	2019	2019	May 2018
Peak Gust													
-Direction	S	W	SE	N	N	SSW	WSW	W	S	WNW	SW	SSE	N
-Speed	39	41	32	38	41	28	30	27	37	32	41	37	41
-Year	2019	2019	2019	2018	2018	2019	2019	2018	2019	2018	2019	2019	May 2018

* Length of record: January 2018 to December 2019

Westford

PRECIPITATION (inches)

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Annual
2018	0.00	0.00	0.85	5.20	2.54	3.48	1.51	2.68	3.26	5.85	5.45	3.68	34.50
2019	5.28	2.85	2.49	3.84	6.22	4.20	3.62	4.50	2.44	9.55	5.00	2.26	52.25

SNOWFALL (inches)

Year	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	Total
2017-18							0.0	0.0	0.0	0.0	0.0	0.0	0.0
2018-19	0.0	0.0	0.0	T	27.5	9.9	47.8	15.9	19.2	1.9	0.0	0.0	122.2
2019-20	0.0	0.0	0.0	0.0	15.6	14.6							

Westford

TEMPERATURE °F

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Annual
2018	17.2	27.2	28.9	37.4	58.8	61.8	71.1	68.9	61.2	44.6	30.2	23.3	44.2
2019	14.0	19.4	27.6	42.4	51.7	62.1	70.2	65.9	46.4	43.4	29.2	24.4	41.4

HEATING DEGREE DAYS: Base 65°F

Year	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	Total
2017-18							1481	1049	1112	816	197	135	4790
2018-19	8	15	174	627	1037	1280	1571	1267	1152	672	401	108	8312
2019-20	8	36	350	574	1066	1250							

Westford

COOLING DEGREE DAYS: Base 65°F

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total
2018	0	0	0	0	16	48	163	136	69	4	0	0	436
2019	0	0	0	0	1	31	181	74	1	0	0	0	288

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	2001		44° 37' 38"N	73° 02' 29"W	850	22	5	5	5	5	5

INSTRUMENTATION DETAIL

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

The following equipment is used for measuring meteorological data at this station:

Davis Vantage Pro

OBSERVER NOTES

None.