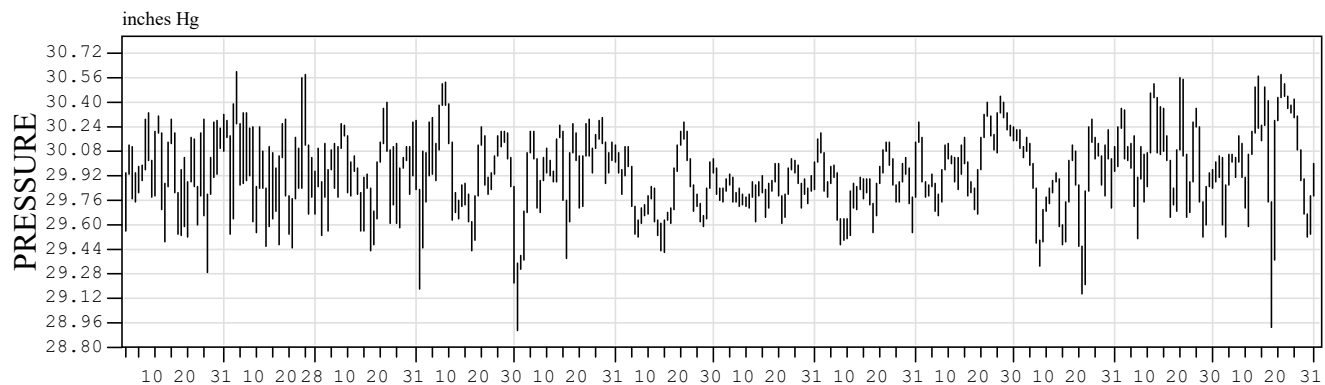
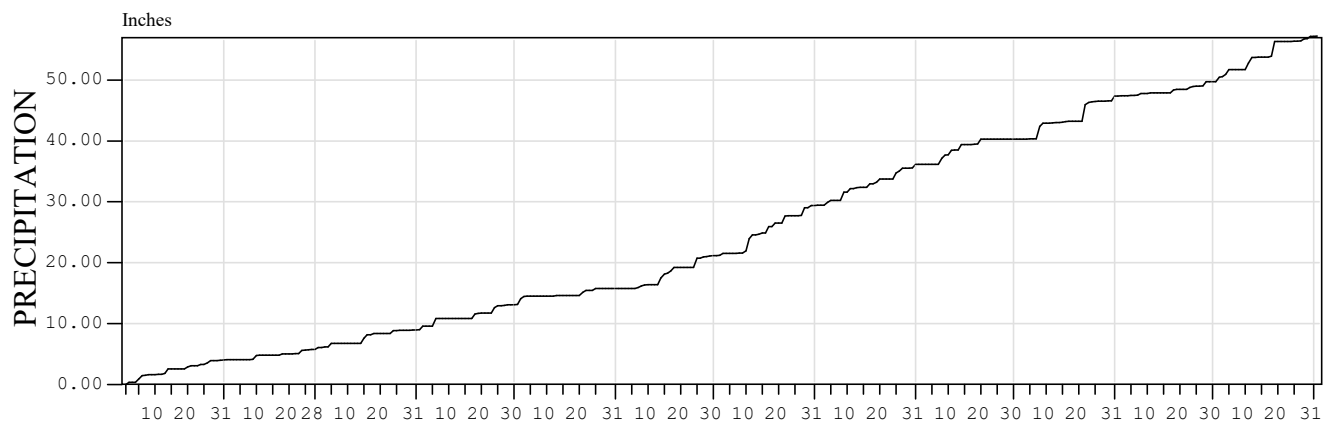
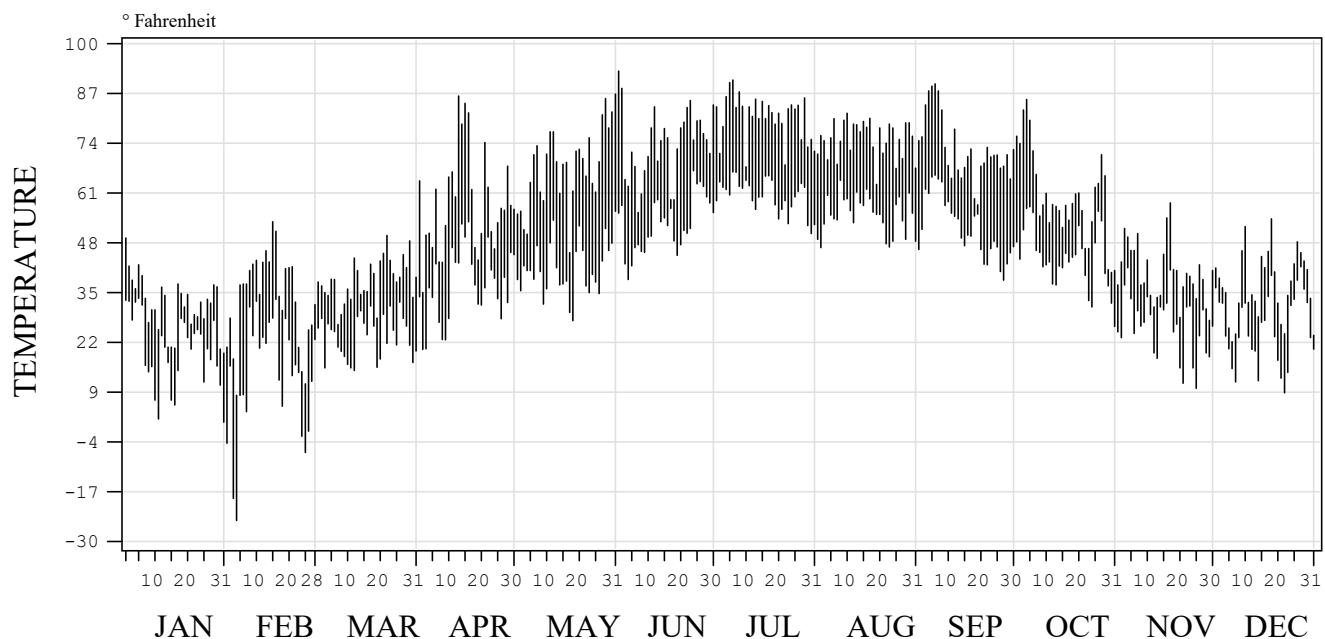


LOCAL CLIMATOLOGICAL DATA

Westford Daily Data



METEOROLOGICAL DATA FOR 2023

Westford

Latitude: 43° 37' 38" N Longitude: 73° 02' 30" 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	31.9	33.4	38.2	58.5	67.9	74.0	80.8	75.1	72.7	60.2	40.3	36.8	55.8
-Daily Minimum	19.8	13.1	23.4	36.9	41.2	52.8	60.2	55.3	51.8	44.0	26.3	25.7	37.5
-Monthly	25.8	23.2	30.8	47.7	54.6	63.4	70.5	65.2	62.2	52.1	33.3	31.2	46.7
-Monthly Dew Point	22.9	16.2	23.9	35.4	42.2	57.2	65.2	60.0	57.0	47.2	27.5	28.2	40.2
Extremes													
-Highest	49.3	53.5	49.9	86.3	86.8	92.8	90.5	81.8	89.5	85.4	58.4	54.3	92.8
-Date	1	15	22	13	31	1	6	10	6	4	17	18	Jun 1
-Lowest	1.1	-24.5	14.6	20.1	27.6	38.4	50.4	46.7	38.2	26.1	10.0	8.8	-24.5
-Date	31	4	12	2	18	4	30	2	27	31	25	22	Feb 4
DEGREE DAYS													
Heating Base 65°F	1205	1164	1051	517	329	105	7	43	137	404	945	1040	6947
Cooling Base 65°F	0	0	0	6	12	67	188	53	67	12	0	0	405
SOLAR RADIATION (W/m²)	25.4	69.3	106.7	167.2	245.3	197.8	196.0	171.5	135.0	72.5	44.6	27.6	121.6
NUMBER OF DAYS													
Sunrise to Sunset													
-Clear	1	3	5	9	18	4	6	7	9	4	2	3	71
-Partly Cloudy	4	11	10	7	5	13	16	12	14	6	14	4	116
-Cloudy	26	14	16	13	8	12	7	11	7	21	14	24	173
Precipitation													
.01 inches or more	19	12	13	12	9	18	21	21	15	22	17	17	196
Snow, Ice pellets													
1.0 inches or more	7	4	5	0	0	0	0	0	0	0	1	1	18
Thunderstorms	0	0	0	1	0	4	7	8	3	1	0	0	24
Heavy Fog, visibility													
¼ mile or less	0	0	0	0	0	0	0	0	0	0	0	4	4
TEMPERATURE:													
-Maximum													
90°F and above	0	0	0	0	0	1	2	0	1	0	0	0	4
32°F and below	15	11	4	0	0	0	0	0	0	0	4	10	44
-Minimum													
32°F and below	27	26	30	10	3	0	0	0	0	3	25	23	147
0°F and below	0	6	0	0	0	0	0	0	0	0	0	0	6
PRESSURE													
Average													
-Monthly	29.960	29.982	29.947	29.957	29.957	29.816	29.838	29.859	30.049	29.879	30.039	30.055	29.945
Extremes													
-Highest	30.33	30.60	30.40	30.54	30.30	30.27	30.03	30.20	30.44	30.29	30.56	30.59	30.60
-Date	8	4	22	9	27	21	24	2	26	24	20	21	Feb 4
-Lowest	29.30	29.45	29.43	29.18	28.91	29.42	29.61	29.47	29.66	29.15	29.51	28.93	28.91
-Date	26	21	17	1	1	15	21	8	7	21	7	18	May 1
RELATIVE HUMIDITY (%)													
Average													
-Monthly	87.4	74.9	76.3	66.2	65.8	84.0	87.2	87.3	88.5	85.8	79.4	87.2	80.8
-Local Time													
Hour 00	90	79	80	75	75	92	94	94	95	91	83	89	86
Hour 06	91	82	84	78	82	95	96	96	96	91	85	89	89
Hour 12	83	66	69	57	56	74	77	78	76	78	71	83	72
Hour 18	87	74	74	56	52	76	80	81	85	85	79	88	76
PRECIPITATION													
Water Equivalent													
-Total	4.01	1.69	2.91	4.15	2.63	5.39	8.28	6.72	4.18	7.07	2.36	7.42	56.81
-Greatest (24 hrs)	0.00	0.00	0.02	1.21	0.96	1.55	2.17	1.34	1.05	2.70	0.75	0.74	2.70
-Date	1	1	31	5	1	24-25	10-11	8	7- 8	21	26-27	1	Oct 21
Snow, Ice pellets													
-Total	20.3	12.8	21.8	T	T	0.0	0.0	0.0	0.0	T	2.8	10.0	67.7
-Greatest (day)	3.1	4.8	8.4	T	T	0.0	0.0	0.0	0.0	T	1.5	6.0	8.4
-Date	26	23	14	1	17					29	27	11	Mar 14
WIND													
Resultant													
-Direction	220	205	236	207	237	251	205	215	232	196	202	194	211
-Speed	0.9	2.5	1.7	1.9	1.3	0.3	0.5	0.7	0.3	1.3	2.3	1.4	1.2
Average Speed	1.8	3.7	2.7	3.1	2.1	0.7	0.7	1.0	0.5	1.8	3.3	2.1	2.0
Maximum Two-minute													
Average													
-Direction	WSW	S	SW	S	WSW	W	W	W	WSW	S	S	S	S
-Speed	16	17	19	22	14	13	10	10	15	13	18	15	22
-Date	28	19	29	3	1	15	21	13	7	8	7	10	Apr 3
Peak Gust													
-Direction	WSW	S	W	SSE	SSW	W	SSE	WSW	S	ESE	S	SSW	S
-Speed	35	34	37	36	29	23	22	23	30	28	39	27	39
-Date	27	19	29	3	19	15	1	3	7	8	7	10	Nov 7

MEANS AND EXTREMES*

Westford

Latitude: 43° 37' 38" N Longitude: 73° 02' 30" 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	26.6	31.3	39.9	52.6	67.5	75.0	81.1	78.5	67.9	57.1	42.2	34.4	54.5
-Daily Minimum	10.2	12.3	22.2	33.1	44.0	52.4	58.5	56.8	47.8	39.2	27.1	19.9	35.3
-Monthly	18.4	21.8	31.0	42.9	55.7	63.7	69.8	67.7	57.9	48.2	34.7	27.2	44.9
-Monthly Dew Point	14.3	15.6	22.3	31.5	43.9	55.8	62.8	61.5	53.3	42.3	28.7	22.8	37.9
Extremes													
-Record Highest	57.3	65.7	71.2	86.3	91.8	92.8	93.5	90.8	89.5	85.4	71.4	62.1	93.5
-Year	2018	2018	2021	2023	2020	2023	2018	2023	2023	2022	2020	2020	Jul 2018
-Record Lowest	-19.2	-24.5	-5.1	15.1	27.6	33.2	45.2	43.1	0.0	0.0	-2.7	-6.7	-24.5
-Year	2018	2023	2022	2018	2023	2020	2022	2018	2019	2019	2018	2019	Feb 2023
MEAN DEGREE DAYS													
Heating Base 65°F	1437	1209	1045	657	303	98	13	27	204	502	901	1164	7560
Cooling Base 65°F	0	0	0	1	27	69	164	117	33	3	0	0	413
MEAN SOLAR RADIATION	28.3	60.6	104.5	131.4	181.2	182.7	175.7	185.4	137.2	77.8	43.8	30.4	111.6
MEAN NUMBER OF DAYS													
Sunrise to Sunset													
-Clear	3.3	4.0	5.5	5.0	7.5	6.2	5.8	8.5	6.2	4.8	3.2	2.8	62.8
-Partly Cloudy	4.5	6.8	7.5	7.3	8.7	11.0	13.5	14.2	11.8	8.8	8.0	8.8	111.0
-Cloudy	18.0	12.5	12.5	12.3	9.5	7.7	5.8	7.2	8.8	15.3	18.8	19.2	147.7
Precipitation ≥ .01"	14.2	10.2	11.8	16.7	13.2	15.2	14.8	16.7	13.2	17.8	17.0	17.0	177.7
Snow, Ice plts. ≥ 1.0"	6.3	4.3	2.3	1.0	0.2	0.0	0.0	0.0	0.0	0.0	3.2	4.2	21.5
Thunderstorms	0.0	0.2	0.3	0.5	1.8	3.0	4.2	5.8	2.2	0.8	0.0	0.0	18.8
Heavy Fog, vis. ≤ ¼ mi	0.3	0.2	0.2	0.5	0.7	0.3	0.3	0.3	0.2	0.2	0.5	1.0	4.7
TEMPERATURE:													
-Maximum													
90°F and above	0.0	0.0	0.0	0.0	0.3	1.3	1.8	0.8	0.2	0.0	0.0	0.0	4.5
32°F and below	21.5	14.7	7.7	0.5	0.0	0.0	0.0	0.0	0.7	0.5	5.8	13.7	65.0
-Minimum													
32°F and below	29.7	26.7	26.0	15.2	3.0	0.0	0.0	0.0	1.3	7.0	21.8	27.0	157.7
0°F and below	8.8	6.2	0.5	0.0	0.0	0.0	0.0	0.0	0.7	0.5	0.2	1.3	18.2
PRESSURE													
Average													
-Monthly	30.022	30.050	29.988	29.897	29.955	29.866	29.890	29.914	30.023	29.419	30.018	30.011	29.921
Extremes													
-Record Highest	30.83	30.81	30.75	30.54	30.46	30.45	30.31	30.34	30.62	30.62	30.68	30.72	30.83
-Year	2018	2018	2020	2023	2019	2020	2018	2019	2020	2022	2022	2019	Jan 2018
-Record Lowest	28.93	28.90	29.20	29.01	28.91	29.39	29.41	29.28	0.00	0.00	29.16	28.76	0.00
-Year	2022	2020	2020	2020	2023	2021	2020	2020	2019	2019	2019	2022	Sep 2019
RELATIVE HUMIDITY (%)													
Average													
-Monthly	82.4	76.0	71.6	68.7	68.0	78.2	81.4	84.5	82.7	81.4	79.0	82.3	78.0
-Local Time													
Hour 00	71	66	63	62	65	74	76	93	89	88	82	84	76
Hour 06	72	68	66	66	69	77	79	95	89	90	84	85	78
Hour 12	65	56	53	50	48	56	60	73	74	73	72	77	63
Hour 18	69	62	54	49	47	56	61	76	80	81	78	83	66
PRECIPITATION													
Water Equivalent													
-Mean	2.84	2.15	2.25	4.16	4.11	4.11	4.61	5.31	4.32	6.04	4.02	3.41	47.33
-Maximum Monthly	5.28	3.31	3.34	5.64	6.22	5.39	8.28	6.88	8.74	9.55	5.45	7.42	9.55
-Year	2019	2022	2022	2022	2019	2022	2023	2020	2022	2019	2018	2023	Oct 2019
-Minimum Monthly	0.00	0.00	0.85	2.13	2.08	2.67	1.51	2.68	2.44	3.58	2.36	1.36	0.00
-Year			2018	2020	2021	2020	2018	2018	2019	2022	2023	2020	
-Greatest (24 hrs)	0.00	0.00	0.71	1.23	2.53	1.55	2.17	2.51	3.17	3.08	1.56	0.74	3.17
-Year			2021	2022	2020	2023	2023	2020	2022	2019	2019	2023	Sep 2022
Snow, Ice pellets													
-Mean	21.8	17.7	10.1	3.0	0.5	0.0	0.0	0.0	0.0	T	10.0	12.2	75.4
-Maximum Monthly	47.8	28.1	21.8	9.3	3.0	0.0	0.0	0.0	0.0	T	27.5	14.6	47.8
-Year	2019	2022	2023	2021	2020					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	2.6	9.9	0.0
-Year											2022	2018	
-Greatest (day)	12.0	15.0	8.4	4.7	2.5	0.0	0.0	0.0	0.0	T	9.0	6.0	15.0
-Year	2019	2020	2023	2022	2020					2018	2018	2023	Feb 2020
WIND													
Resultant													
-Direction	212	204	223	223	231	219	209	211	218	196	203	195	210
-Speed	1.1	2.3	2.0	1.7	1.2	0.6	0.7	0.6	0.5	1.3	2.5	1.9	1.3
Average Speed	1.9	2.8	2.9	2.5	1.7	0.9	0.7	0.7	0.9	1.9	3.3	3.0	1.9
Maximum Two-minute													
Average													
-Direction	N	N	N	N	N	N	N	WSW	SSW	WNW	SW	WSW	N
-Speed	35	33	30	38	41	24	24	19	17	19	24	22	41
-Year	2018	2018	2018	2018	2018	2018	2018	2020	2019	2018	2019	2021	May 2018
Peak Gust													
-Direction	S	S	SW	SSE	N	WNW	WSW	SW	S	SSE	SW	S	S
-Speed	41	46	39	39	41	44	30	30	37	37	41	49	49
-Year	2020	2022	2022	2022	2018	2020	2019	2020	2019	2020	2019	2022	Dec 2022

* Length of record: January 2018 to December 2023

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
2020	4.50	2.81	2.46	2.13	4.99	2.67	4.79	6.88	3.55	3.69	2.50	1.36	42.33
2021	2.01	2.23	1.43	4.02	2.08	3.55	4.84	4.34	3.72	6.52	4.29	2.62	41.65
2022	1.24	3.31	3.34	5.64	6.22	5.39	4.60	6.74	8.74	3.58	4.54	3.11	56.45
2023	4.01	1.69	2.91	4.15	2.63	5.39	8.28	6.72	4.18	7.07	2.36	7.42	56.81

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	23.7	22.4	4.8	0.6	3.0	0.0	84.7
2020-21	0.0	0.0	0.0	T	4.1	10.4	22.9	27.1	2.9	9.3	T	0.0	76.7
2021-22	0.0	0.0	0.0	0.0	7.7	14.6	16.3	28.1	11.8	6.1	0.0	0.0	84.6
2022-23	0.0	0.0	0.0	0.0	2.6	13.9	20.3	12.8	21.8	T	T	0.0	71.4
2023-24	0.0	0.0	0.0	T	2.8	10.0							

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
2020	23.0	21.7	34.5	40.5	55.1	64.7	72.0	66.6	58.2	46.6	40.5	27.8	45.9
2021	19.6	19.5	32.5	45.9	55.1	67.6	65.9	70.4	60.5	52.4	35.2	28.0	46.1
2022	10.7	19.7	31.8	43.3	59.2	62.7	69.1	69.1	58.6	49.8	39.7	28.2	45.2
2023	25.8	23.2	30.8	47.7	54.6	63.4	70.5	65.2	62.2	52.1	33.3	31.2	46.7

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	1289	1253	936	725	343	104	7934
2020-21	0	41	217	563	725	1145	1397	1264	1000	566	330	49	7297
2021-22	42	19	142	383	884	1134	1679	1259	1018	643	219	87	7509
2022-23	13	9	206	462	750	1132	1205	1164	1051	517	329	105	6943
2023-24	7	43	137	404	945	1040							

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
2020	0	0	0	0	49	103	225	99	23	0	0	0	499
2021	0	0	0	0	35	136	81	196	14	0	0	0	462
2022	0	0	0	0	48	28	147	144	21	1	0	0	389
2023	0	0	0	6	12	67	188	53	67	12	0	0	405

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
			43° 37' 38"N	73° 02' 30"W	850	0	0	0	0	0	0

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.