

LOCAL CLIMATOLOGICAL DATA

Monthly Summary

February 2014

Station: Westford
 Latitude: 44° 37' 39" N Longitude: 73° 02' 29" W Elevation (Ground): 850 feet Time Zone: Eastern

Date	Temperature					Humidity	Deg. Days		Precip Ty 1 fog 2 hvy fog 3 thunder 4 ice plt 5 hail 6 glaze 7 duststm 8 smk, hz 9 blw snw	Snow Cvr	Precip		Pressure Adj. to Sea Level			Wind						Solar Radiation		
	Maximum	Minimum	Average	Mean	Dew Point		Mean	Heating Base 65°F			Cooling Base 65°F	Water Equivalent	Ice Pellets Snow	Maximum	Minimum	Mean	Avg Speed	Res Speed	Res Dir	Peak			Minute	
																				Speed	Dir		Speed	Dir	Speed	Dir
1	2	3	4A	4B	5	6	7	8	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
1	35.2	17.2	26.2	28.8	23	80	39	0	.....	4	0.16	1.3	30.26	29.84	30.114	2.8	2.7	208	28	SSW	13	213	65
2	36.2	23.9	30.1	31.7	28	85	35	0	.....	4	T	0.1	30.12	29.79	29.907	1.5	1.2	216	27	W	11	210	12
3	25.4	8.9	17.1	18.7	13	79	48	0	.....	4	T	T	30.31	30.11	30.211	0.2	0.2	337	10	N	4	312	79
4	25.5	10.6	18.1	17.5	10	72	46	0	.....	4	T	T	30.45	30.30	30.380	0.5	0.5	298	11	W	7	280	94
5	22.5	6.0	14.3	15.8	13	88	50	0	.....	13	0.53	9.0	30.31	29.78	30.015	0.4	0.4	8	11	NW	6	313	9
6	15.4	-2.1	6.6	8.0	2	77	58	0	.....	11	0.01	0.6	30.27	30.07	30.184	0.8	0.6	211	12	S	5	197	46
7	21.8	8.5	15.1	14.5	7	73	49	0	.....	10	T	T	30.15	30.07	30.118	2.4	2.2	236	20	W	9	270	69
8	20.8	10.0	15.4	14.8	6	67	49	0	.....	9	0.00	0.0	30.22	30.13	30.170	1.8	1.8	265	23	W	14	291	111
9	21.7	9.6	15.7	15.7	10	78	49	0	.....	9	0.04	0.4	30.14	29.92	30.048	0.1	0.1	213	8	SSE	4	201	67
10	19.1	9.0	14.1	13.2	9	83	51	0	.....	10	0.07	1.3	30.18	29.92	30.051	0.4	0.4	311	11	WNW	6	301	31
11	12.7	-1.5	5.6	6.5	-0	75	59	0	.....	10	0.02	0.2	30.49	30.18	30.316	0.7	0.6	325	15	WNW	8	313	114
12	20.9	-7.7*	6.6	8.3	-3	62	58	0	.....	9	0.00	0.0	30.57	30.27	30.443	0.8	0.7	206	14	SSW	7	216	130
13	26.3	14.0	20.1	21.2	14	75	45	0	.....	10	0.06	1.1	30.27	29.29	29.945	1.2	0.1	189	18	SSW	10	213	40
14	24.3	17.9	21.1	21.3	20	93	44	0	.....	17	0.71	9.9	29.66	29.04	29.271	3.2	2.9	328	27	WNW	16	328	30
15	30.1	16.1	23.1	23.3	21	90	42	0	.....	17	0.04	0.4	29.79	29.66	29.745	0.2	0.1	347	13	N	3	8	53
16	21.1	4.7	12.9	11.6	3	69	52	0	.....	16	0.00	0.0	30.06	29.72	29.839	1.7	1.7	302	19	W	11	301	127
17	17.0	-1.8	7.6	6.1	-7	56	57	0	.....	16	0.00	0.0	30.39	30.06	30.295	1.2	1.1	322	17	WNW	9	319	143
18	27.5	-2.5	12.5	16.9	10	74	52	0	.....	15	0.05	0.5	30.28	29.96	30.060	2.3	2.3	191	19	SSE	10	191	72
19	32.7	15.3	24.0	27.4	23	85	41	0	.....	15	0.06	0.4	30.00	29.65	29.799	3.3	3.3	199	23	S	11	173	31
20	41.4	25.3	33.4	33.8	27	77	32	0	.....	14	0.12	0.5	30.12	29.86	30.044	1.8	1.6	241	16	SSW	8	215	106
21	39.5	29.0	34.3	34.8	33	92	30	0	.....	13	0.56	T	30.03	29.56	29.773	2.6	2.2	189	28	S	14	183	26
22	42.9*	29.1	36.0*	35.2	23	64	29	0	.....	11	0.00	0.0	29.85	29.67	29.737	5.7	5.2	238	45	WSW	21	277	49
23	42.5	26.3	34.4	33.8	16	49	30	0	.....	10	0.00	0.0	29.88	29.74	29.807	3.3	3.2	268	25	W	13	279	132
24	26.5	13.0	19.8	19.4	8	62	45	0	.....	10	T	T	29.92	29.73	29.792	5.5	5.4	285	30	W	16	268	75
25	15.2	5.3	10.3	11.4	7	80	55	0	.....	11	0.06	1.0	29.94	29.86	29.902	1.3	1.2	300	17	NW	10	297	73
26	16.7	2.0	9.4	10.1	-2	61	55	0	.....	11	T	T	29.86	29.72	29.780	3.9	3.6	255	31	WSW	18	280	123
27	21.1	3.0	12.1	10.8	-0	62	53	0	.....	11	0.02	0.5	29.88	29.51	29.650	3.8	3.3	236	26	SW	17	259	117
28	14.0	-3.9	5.0*	4.3	-8	58	60	0	.....	11	0.00	0.0	30.40	29.88	30.233	3.4	3.3	271	18	W	13	282	166
Sum	Sum	-----	-----	---	----		Ttl	Ttl					For the month:										---	
716	285						1313	0	Number of Days	2.51	27.2	30.57	29.04	29.987	2.0	1.4	250	45	WSW	21	277			
Avg	Avg	Avg	Mean	Avg	Avg	----	----		Precip	Season Ttl		Date	Date	-----	----	----	----	Date	Date	Avg				
25.6	10.2	17.9	18.4	11	73.7	----	----		≥.01 inch	15	5.65	63.6	12	14	-----	----	----	----	22	22	78			
Number of Days							Season to Date	Snow, Ice ≥1.0 inch	6	Greatest in 24 Hours and Dates					Greatest Depth on Ground of Snow, Ice Pellets or Ice and Date									
Max Temperature			Min Temperature			59	68	0	Thunder	0	Precipitation		Snow, Ice Plts											
≥ 90°F	≤ 32°F	≤ 32°F	≤ 0°F	----	----			Heavy Fog	0	0.00	-	9.9	14	17			14+							
0	21	28	6	----	----			Clear	3	Partly Cloudy		9	Cloudy		16									

NOTES:
 Units are: Temperature=°F, Wind=mph, Pressure=Inches Hg, Precipitation=inches.
 Data in column 4A are (MAX+MIN) ÷ 2, whereas columns 4B, 5, 6, 15, 16, 23 are means via continuous observations for 24 hours.
 Column 5: Dew point is calculated from temperature and humidity and is continuously averaged for 24 hours.
 Data in columns 9, 10, 12 are entered manually by the station observer.
 Columns 17-18: Resultant wind is calculated by the vector sum of continuous wind observations.
 Column 23: Solar Radiation is measured in Watts/m² and is continuously averaged for 24 hours.
 Data in columns 4B, 5, 6, 15, 16, 23 are updated continuously, there by achieving a "true" mean.

OBSERVATIONS AT 3-HOUR INTERVALS

February 2014: Westford

Hour	Wind			Sunshine	Pressure	Rainfall rate	Temperature	Dew Point	Humidity	Wind			Sunshine	Pressure	Rainfall rate	Temperature	Dew Point	Humidity	Wind								
	Direction	Speed	Gust							Direction	Speed	Gust							Direction	Speed	Gust						
FEB 01									FEB 02									FEB 03									
01	0	30.16	0.00	28	20	73	26	0	6	0	29.84	0.00	34	29	84	19	8	21	0	30.12	0.00	24	21	88	01	1	5
04	0	30.20	0.00	20	16	83	26	0	0	0	29.80	0.00	34	31	87	21	4	12	0	30.14	0.00	21	19	90	02	1	6
07	0	30.24	0.00	19	16	88	29	0	0	0	29.82	0.00	36	31	81	21	2	9	0	30.18	0.00	16	14	90	02	0	0
10	276	30.24	0.00	30	21	71	21	0	8	49	29.86	0.00	34	31	89	32	0	2	162	30.24	0.00	18	12	79	32	0	5
13	236	30.17	0.00	35	23	62	21	4	10	91	29.86	0.00	32	30	92	33	0	5	323	30.19	0.00	22	13	68	27	2	4
16	14	30.10	0.00	34	26	75	20	7	13	18	29.93	0.00	31	28	90	03	0	0	97	30.21	0.00	25	12	59	02	0	0
19	0	29.98	0.00	31	30	95	20	3	7	0	30.02	0.00	27	24	87	36	0	5	0	30.25	0.00	16	10	75	03	0	0
22	0	29.89	0.00	34	31	89	20	9	22	0	30.08	0.00	25	19	79	33	0	5	0	30.30	0.00	12	6	77	03	0	0
FEB 04									FEB 05									FEB 06									
01	0	30.33	0.00	11	5	75	03	0	0	0	30.28	0.00	17	11	79	03	0	0	0	30.10	0.00	5	1	85	01	0	4
04	0	30.35	0.00	14	9	81	03	0	0	0	30.21	0.00	16	13	89	05	0	0	0	30.17	0.00	2	-2	83	34	0	0
07	0	30.39	0.00	16	11	78	33	0	0	0	30.15	0.00	17	15	91	04	0	0	0	30.23	0.00	-1	-4	86	08	0	0
10	320	30.45	0.00	20	12	69	31	1	8	25	30.03	0.00	19	16	90	05	0	0	74	30.26	0.00	9	2	74	19	0	0
13	457	30.41	0.00	23	12	62	27	1	8	49	29.82	0.00	22	19	89	35	0	4	244	30.22	0.00	15	3	60	27	1	4
16	72	30.37	0.00	25	11	55	01	0	1	7	29.79	0.00	18	16	91	31	0	0	69	30.18	0.00	14	5	68	22	2	6
19	0	30.39	0.00	16	9	75	05	0	0	0	29.86	0.00	13	10	90	05	0	5	0	30.17	0.00	9	4	80	21	0	0
22	0	30.38	0.00	16	10	79	05	0	0	0	29.98	0.00	8	5	88	01	2	8	0	30.14	0.00	12	7	79	20	3	7
FEB 07									FEB 08									FEB 09									
01	0	30.12	0.00	13	8	78	21	3	8	0	30.16	0.00	13	5	69	27	1	6	0	30.14	0.00	14	8	77	28	0	0
04	0	30.12	0.00	11	7	83	20	2	6	0	30.18	0.00	13	7	78	32	0	1	0	30.13	0.00	13	8	81	28	0	0
07	0	30.12	0.00	10	7	87	20	3	7	0	30.19	0.00	12	5	73	22	2	11	0	30.13	0.00	10	6	85	28	0	0
10	218	30.14	0.00	17	11	76	22	8	14	176	30.21	0.00	15	6	67	27	3	11	359	30.13	0.00	16	10	78	21	0	3
13	352	30.11	0.00	19	10	68	29	3	10	476	30.16	0.00	18	6	58	29	6	15	288	30.03	0.00	22	9	59	21	3	8
16	47	30.08	0.00	20	8	59	28	1	7	135	30.15	0.00	20	7	56	25	1	5	56	29.97	0.00	20	8	59	23	0	0
19	0	30.12	0.00	14	6	68	27	0	0	0	30.17	0.00	15	6	68	27	1	4	0	29.97	0.00	17	13	87	30	0	0
22	0	30.12	0.00	15	4	62	26	4	10	0	30.15	0.00	15	7	70	29	0	0	0	29.93	0.00	16	13	91	05	0	0
FEB 10									FEB 11									FEB 12									
01	0	29.92	0.00	15	12	91	31	0	0	0	30.18	0.00	11	7	85	28	0	3	0	30.50	0.00	-2	-6	80	30	0	0
04	0	29.95	0.00	11	9	91	02	0	3	0	30.19	0.00	6	3	87	30	0	0	0	30.52	0.00	-5	-9	81	30	0	0
07	0	30.00	0.00	11	9	91	30	0	0	0	30.25	0.00	2	-1	88	32	0	0	5	30.53	0.00	-7	-10	84	30	0	0
10	65	30.05	0.00	14	10	83	33	0	0	343	30.31	0.00	8	1	72	32	4	10	403	30.56	0.00	8	-2	62	19	1	4
13	70	30.05	0.00	18	11	76	32	0	6	501	30.31	0.00	11	1	62	31	3	15	524	30.48	0.00	18	1	45	21	0	5
16	95	30.08	0.00	17	10	71	31	0	6	151	30.34	0.00	11	-1	56	34	1	4	151	30.39	0.00	21	5	49	21	3	7
19	0	30.13	0.00	10	4	77	30	0	0	0	30.42	0.00	6	-2	67	33	0	12	0	30.34	0.00	17	-2	42	21	3	11
22	0	30.16	0.00	13	7	77	28	4	10	0	30.47	0.00	1	-5	75	33	0	0	0	30.30	0.00	14	0	54	19	1	6
FEB 13									FEB 14									FEB 15									
01	0	30.25	0.00	17	-2	44	20	8	18	0	29.20	0.00	22	20	93	01	2	13	0	29.67	0.00	20	18	93	34	0	0
04	0	30.21	0.00	14	2	58	19	0	0	0	29.07	0.00	21	19	93	35	2	15	0	29.73	0.00	21	19	94	22	0	0
07	0	30.19	0.00	16	9	72	20	0	0	0	29.05	0.00	20	18	93	34	0	11	0	29.76	0.00	21	19	93	20	0	0
10	130	30.11	0.00	20	11	67	07	1	5	62	29.10	0.00	23	22	94	32	10	20	114	29.78	0.00	27	24	86	20	0	0
13	146	29.99	0.00	26	18	72	03	1	4	111	29.20	0.00	23	23	100	30	13	19	193	29.76	0.00	30	25	83	22	0	0
16	35	29.84	0.00	25	21	87	03	0	7	42	29.34	0.00	22	20	93	31	1	14	98	29.73	0.00	29	26	89	01	0	0
19	0	29.67	0.00	24	22	93	03	1	7	0	29.51	0.00	21	18	90	29	0	0	0	29.76	0.00	22	20	92	01	0	4
22	0	29.44	0.00	25	23	94	04	1	9	0	29.63	0.00	18	16	93	32	0	0	0	29.74	0.00	17	14	90	00	0	6
FEB 16									FEB 17									FEB 18									
01	0	29.74	0.00	15	14	93	31	1	5	0	30.09	0.00	5	-6	60	32	0	2	0	30.25	0.00	1	-8	67	21	0	0
04	0	29.73	0.00	10	6	86	31	1	15	0	30.18	0.00	3	-6	64	31	1	11	0	30.18	0.00	10	-4	54	20	1	4
07	5	29.77	0.00	7	3	84	33	2	14	7	30.28	0.00	1	-7	68	32	4	12	0	30.12	0.00	18	-3	38	21	2	8
10	341	29.81	0.00	12	4	68	29	4	15	434	30.36	0.00	8	-5	55	35	2	11	190	30.05	0.00	19	10	69	19	4	14
13	598	29.83	0.00	17	6	61	30	2	11	557	30.37	0.00	13	-7	39	01	0	4	253	29.97	0.00	24	18	76	20	5	18
16	95	29.85	0.00	19	3	49	33	1	4	169	30.38	0.00	17	-7	34	02	0	2	58	29.98	0.00	23	19	87	17	2	10
19	0	29.94	0.00	12	-2	54	31	4	14	0	30.37	0.00	4	-8	58	07	0	0	0	30.00	0.00	22	19	89	20	1	5
22	0	30.00	0.00	7	-4	60	26	0	2	0	30.28	0.00	1	-8	64	09	0	0	0	30.02	0.00	22	20	92	21	4	10

MAXIMUM SHORT DURATION PRECIPITATION

Time Period (minutes)	5	10	15	20	30	45	60	80	100	120	150	180
Precipitation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ended: Date	00	00	00	00	00	00	00	00	00	00	00	00
Ended: Time	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000

The precipitation amounts may occur at any time during the month. The time indicated is the ending time of the interval. Date and time are not entered for trace amounts.

OBSERVATIONS AT 3-HOUR INTERVALS

February 2014: Westford

Hour	FEB 19									FEB 20									FEB 21								
	Sunshine	Pressure	Rainfall rate	Temperature	Dew Point	Humidity	Direction	Speed	Gust	Sunshine	Pressure	Rainfall rate	Temperature	Dew Point	Humidity	Direction	Speed	Gust	Sunshine	Pressure	Rainfall rate	Temperature	Dew Point	Humidity	Direction	Speed	Gust
01	0	30.00	0.00	19	17	94	21	3	5	0	29.89	0.00	30	29	93	24	0	0	0	30.00	0.00	32	31	95	10	0	0
04	0	29.96	0.00	19	17	91	20	0	2	0	29.97	0.00	31	27	85	27	7	12	0	29.95	0.00	34	32	94	13	0	0
07	5	29.86	0.00	24	19	81	18	9	17	0	30.05	0.00	29	22	75	22	2	6	0	29.86	0.00	35	33	94	17	0	11
10	151	29.76	0.00	29	20	70	21	4	12	425	30.11	0.00	35	24	64	25	6	11	127	29.76	0.00	38	34	86	17	6	20
13	88	29.70	0.00	33	22	65	20	2	8	339	30.08	0.00	40	24	54	29	3	12	130	29.62	0.00	39	34	83	17	8	21
16	16	29.66	0.00	31	28	89	20	5	11	60	30.08	0.00	39	25	58	21	1	8	19	29.65	0.00	37	35	94	26	2	10
19	0	29.70	0.00	32	29	89	20	6	11	0	30.08	0.00	37	28	69	19	5	11	0	29.70	0.00	33	31	96	11	0	0
22	0	29.77	0.00	32	31	94	20	0	7	0	30.05	0.00	33	32	95	14	0	4	0	29.69	0.00	31	31	97	18	0	0
FEB 22									FEB 23									FEB 24									
01	0	29.71	0.00	33	32	96	20	2	7	0	29.86	0.00	30	12	47	24	2	7	0	29.76	0.00	26	14	62	27	8	15
04	0	29.72	0.00	32	29	91	22	4	8	0	29.86	0.00	32	16	51	24	1	11	0	29.76	0.00	22	10	61	29	9	19
07	5	29.75	0.00	29	25	86	20	2	6	18	29.86	0.00	30	18	61	24	0	0	14	29.75	0.00	18	9	69	21	0	0
10	77	29.74	0.00	35	27	72	21	6	12	475	29.86	0.00	37	20	50	22	1	3	443	29.77	0.00	21	6	53	25	10	26
13	79	29.69	0.00	40	27	60	23	8	15	606	29.78	0.00	42	17	37	21	3	14	264	29.73	0.00	21	6	51	31	8	19
16	56	29.68	0.00	41	23	49	23	7	16	95	29.75	0.00	39	16	39	28	5	16	62	29.76	0.00	19	5	53	29	9	22
19	0	29.74	0.00	37	11	33	25	8	22	0	29.75	0.00	34	15	45	26	3	11	0	29.85	0.00	16	6	62	27	7	16
22	0	29.83	0.00	32	14	47	26	2	9	0	29.76	0.00	29	14	53	27	6	24	0	29.90	0.00	15	9	75	34	1	10
FEB 25									FEB 26									FEB 27									
01	0	29.93	0.00	12	7	80	33	5	14	0	29.84	0.00	7	3	83	26	0	0	0	29.77	0.00	3	-6	65	19	0	0
04	0	29.93	0.00	11	5	77	31	3	12	0	29.77	0.00	9	4	81	21	0	0	0	29.70	0.00	6	-3	66	19	0	4
07	12	29.93	0.00	9	6	85	28	0	0	7	29.72	0.00	11	7	82	18	3	7	19	29.61	0.00	6	-4	61	19	0	3
10	167	29.92	0.00	13	6	72	24	3	8	206	29.75	0.00	16	8	70	24	7	12	408	29.56	0.00	13	-3	48	22	7	21
13	232	29.88	0.00	14	9	79	30	3	9	448	29.77	0.00	15	-5	41	26	6	27	452	29.51	0.00	19	1	46	20	8	20
16	63	29.87	0.00	14	9	83	33	0	7	176	29.77	0.00	14	-9	36	25	5	21	114	29.56	0.00	16	12	82	27	0	7
19	0	29.89	0.00	11	7	83	30	0	0	0	29.82	0.00	8	-8	47	25	2	9	0	29.66	0.00	13	7	75	28	4	15
22	0	29.89	0.00	8	3	81	26	0	0	0	29.81	0.00	4	-10	53	21	0	1	0	29.80	0.00	8	-7	48	25	6	20
FEB 28																											
01	0	29.92	0.00	4	-4	69	25	5	16																		
04	0	30.03	0.00	2	-6	69	26	5	12																		
07	14	30.16	0.00	-1	-8	70	26	7	16																		
10	496	30.27	0.00	4	-7	58	28	10	16																		
13	621	30.32	0.00	11	-6	44	27	4	12																		
16	248	30.33	0.00	13	-7	39	02	0	5																		
19	0	30.36	0.00	2	-10	55	02	0	0																		
22	0	30.40	0.00	-1	-11	62	12	0	0																		

WEATHER NOTES

NOTES:
 Units are: Temperature=°F, Wind=mph, Pressure=Inches Hg, Precipitation=inches.
 Wind Direction: Directions are those from which the wind is blowing, indicated in tens of degrees from true north: i.e., 09 for East, 18 for South, 27 for West, and 00 or 36 for North.
 Wind Speed: The observed one-minute average speed in miles-per-hour.
 Wind Gust: The maximum instantaneous wind speed for the 10-minute period preceding the observation.
 Rainfall Rate: The instantaneous rainfall rate at the time of observation, calculated by timing consecutive 0.01" pulses from the electronic rain gauge and interpolating this rate for one hour.

SUMMARY BY HOUR

Hour	Averages						Resultant Wind	
	Sunshine	Pressure	Temperature	Dew Point	Humidity	Wind Speed	Direction	Speed
01	0	29.990	16	10	79	1.8	24	1.2
04	0	29.990	15	10	80	1.4	27	1.1
07	4	29.999	15	9	80	1.4	23	0.9
10	240	30.006	20	12	71	3.5	25	2.4
13	312	29.965	24	13	64	3.5	26	2.3
16	83	29.957	23	13	66	2.0	25	1.4
19	0	29.987	19	11	73	1.7	25	1.2
22	0	29.997	16	10	76	1.6	25	1.1

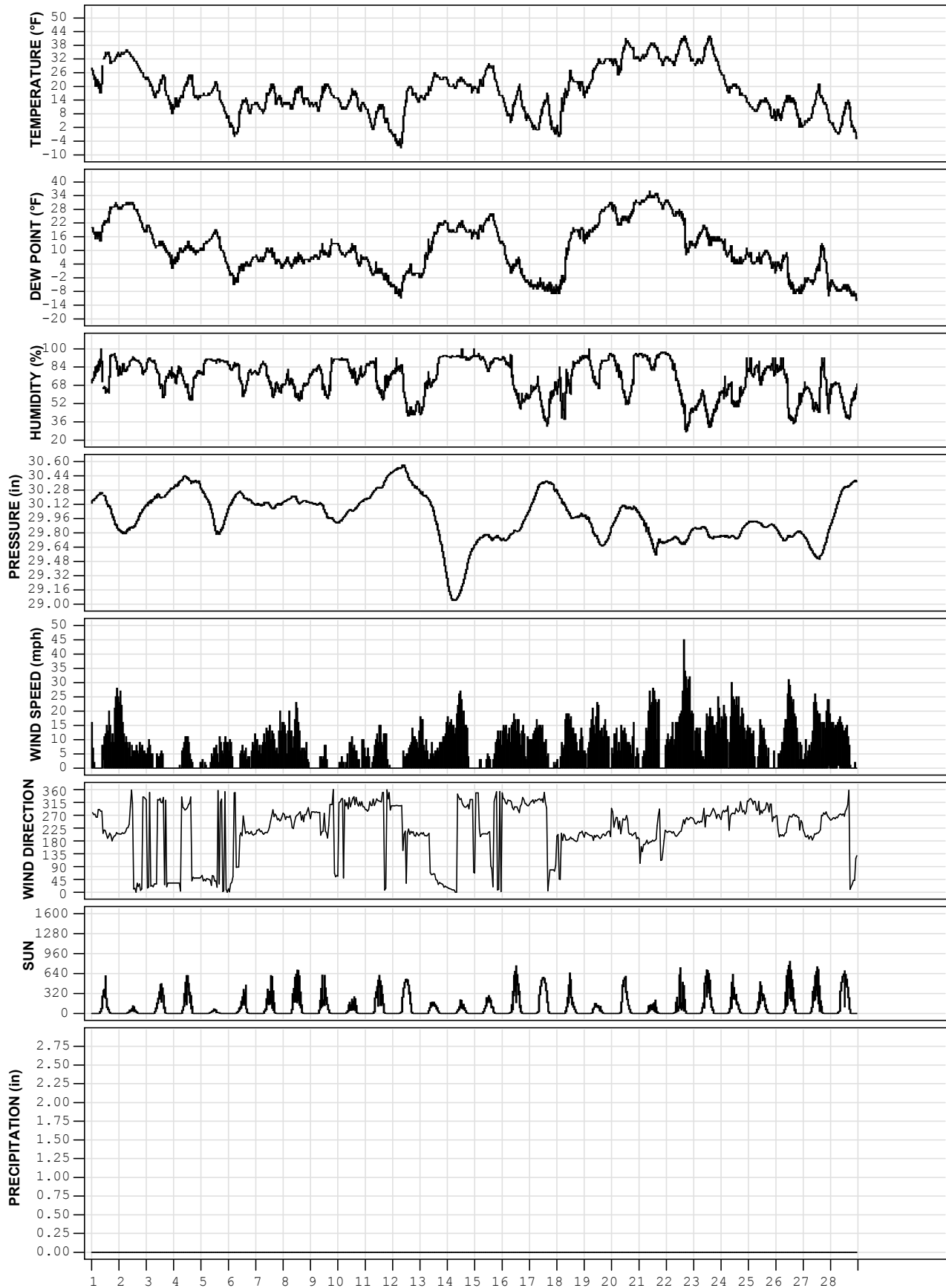
HOURLY PRECIPITATION (Water Equivalent) February 2014: Westford

Date	A.M. Hour Ending at												P.M. Hour Ending at												Date
	01	02	03	04	05	06	07	08	09	10	11	12	01	02	03	04	05	06	07	08	09	10	11	12	
01																								01	
02																									02
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26																									26
27																									27
28																									28
Sum	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Sum

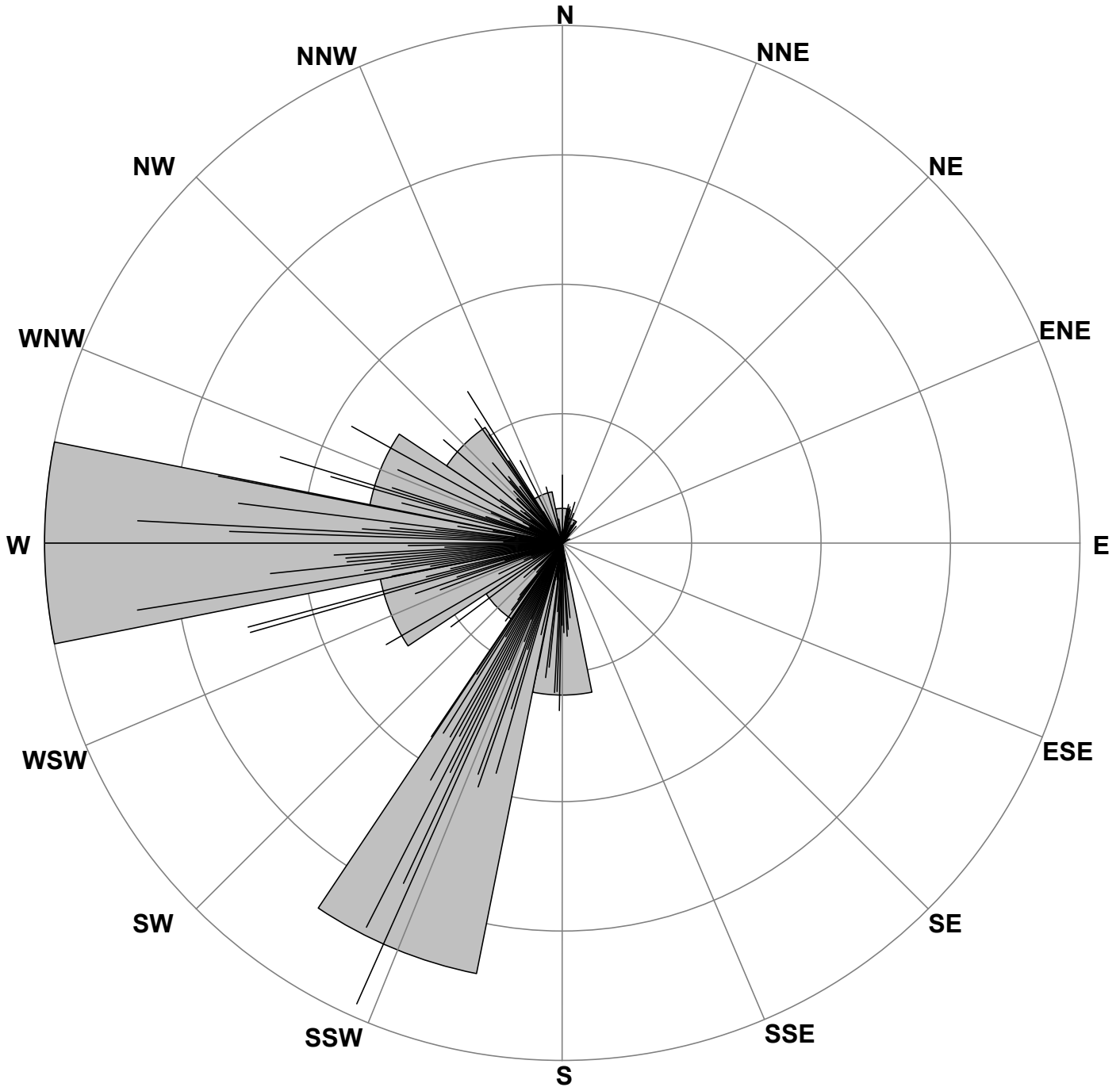
During a frozen precipitation event, hourly precipitation totals may not be recorded. In this case, daily amounts are typically entered in the last column (hour ending at 12 A.M.)

HOURLY-BY-HOURLY DATA

February 2014: Westford



**Wind Rose: February 2014
Westford**



**Maximum direction of wind: 39.0 miles from 270°
Maximum sector of wind: 382.2 miles from W
1360.4 total miles of wind**