

LOCAL CLIMATOLOGICAL DATA

Monthly Summary

June 2017

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			2 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	68.3	50.2	59.3	58.0	48	71	6	0	.....	0	0.00	0.0	29.86	29.76	29.797	3.0	2.6	261	25	W	13	303	229
2	57.0	43.9	50.5	50.2	44	79	14	0	.....	0	0.08	0.0	29.90	29.82	29.854	1.5	1.4	279	15	NW	8	281	116
3	53.7	46.1	49.9*	49.4	48	95	15	0	.....	0	0.17	0.0	29.95	29.84	29.891	1.4	1.3	304	14	WNW	7	308	83
4	69.7	47.3	58.5	58.0	51	80	6	0	.....	0	0.00	0.0	29.94	29.80	29.872	1.7	1.6	230	15	SSW	9	252	234
5	58.0	50.4	54.2	55.0	51	88	11	0	.....	0	0.07	0.0	29.80	29.73	29.754	1.4	1.4	156	19	SSE	8	168	48
6	54.2	45.6	49.9	49.3	48	95	15	0	.....	0	0.78	0.0	29.95	29.79	29.852	0.5	0.3	26	18	SSW	8	176	46
7	75.6	37.8*	56.7	56.5	48	77	8	0	.....	0	0.00	0.0	30.02	29.92	29.961	0.6	0.5	306	10	WNW	8	297	303
8	82.2	47.9	65.0	64.5	53	70	0	0	.....	0	0.00	0.0	29.98	29.74	29.887	0.8	0.8	242	12	SW	7	218	267
9	74.4	53.4	63.9	61.9	55	79	1	0	.....	0	0.04	0.0	29.75	29.57	29.639	1.4	1.2	258	15	WNW	9	222	132
10	78.7	46.7	62.7	64.5	56	77	2	0	.....	0	0.00	0.0	29.89	29.75	29.830	0.5	0.5	219	13	W	7	230	255
11	88.8	64.0	76.4	75.9	62	64	0	12	.....	0	0.00	0.0	29.85	29.76	29.809	3.0	2.8	240	23	WSW	11	216	277
12	88.9*	69.4	79.2*	78.0	64	63	0	14	.....	0	0.00	0.0	29.88	29.77	29.821	1.9	1.7	240	19	W	8	220	234
13	80.6	57.0	68.8	71.1	61	71	0	4	.....	0	T	0.0	29.90	29.76	29.818	0.7	0.6	291	16	W	7	311	156
14	68.7	44.1	56.4	57.9	45	63	8	0	.....	0	0.00	0.0	30.07	29.90	30.012	0.5	0.4	352	14	N	6	304	295
15	77.8	40.1	59.0	60.1	48	68	6	0	.....	0	0.00	0.0	30.06	29.87	29.977	0.4	0.2	235	25	SSW	7	108	289
16	67.0	54.4	60.7	59.9	55	85	4	0	.....	0	0.42	0.0	29.90	29.84	29.866	4.4	4.4	209	31	SSW	15	206	125
17	83.6	55.2	69.4	70.0	63	79	0	5	.....	0	0.00	0.0	29.89	29.73	29.817	1.8	1.8	215	19	WSW	9	213	287
18	85.3	66.5	75.9	75.9	69	80	0	11	..3.....	0	0.42	0.0	29.77	29.55	29.661	4.3	4.3	213	33	SSW	11	231	270	
19	80.0	63.4	71.7	68.7	67	94	0	7	..3.....	0	0.52	0.0	29.70	29.61	29.657	1.4	1.2	224	20	W	12	280	93	
20	72.8	62.2	67.5	66.1	61	86	0	3	..3.....	0	0.21	0.0	29.81	29.65	29.716	2.3	2.2	236	18	S	9	256	191	
21	72.4	56.8	64.6	62.6	56	79	0	0	.....	0	0.04	0.0	29.86	29.75	29.796	1.8	1.7	268	20	W	9	285	188
22	76.1	52.9	64.5	64.5	57	78	0	0	.....	0	0.01	0.0	29.92	29.78	29.855	0.8	0.8	255	16	WNW	8	288	263
23	79.1	60.5	69.8	68.1	65	91	0	5	..3.....	0	1.00	0.0	29.78	29.43	29.592	1.4	1.4	212	20	SSW	9	219	105	
24	79.8	57.7	68.8	69.4	62	80	0	4	..3.....	0	0.72	0.0	29.78	29.40	29.549	1.8	1.7	279	19	NW	10	288	222	
25	75.6	51.0	63.3	62.4	55	78	1	0	.....	0	0.00	0.0	29.87	29.78	29.828	0.7	0.6	253	20	WNW	9	299	295
26	71.5	50.9	61.2	60.9	52	74	3	0	.....	0	0.00	0.0	29.93	29.84	29.889	0.7	0.7	277	14	WNW	9	275	256
27	71.1	49.8	60.4	57.2	54	88	4	0	.....	0	0.38	0.0	29.94	29.82	29.880	0.7	0.6	239	18	SSW	10	244	181
28	72.6	49.7	61.1	59.4	54	84	3	0	.....	0	0.02	0.0	29.99	29.90	29.949	0.9	0.8	267	26	W	11	259	235
29	66.0	50.0	58.0	57.8	55	91	7	0	..3.....	0	1.65	0.0	30.04	29.85	29.973	0.4	0.4	216	16	SSW	7	213	79	
30	78.1	60.2	69.1	68.3	66	93	0	4	..3.....	0	0.85	0.0	29.87	29.79	29.832	1.0	1.0	217	19	SSW	10	220	143	
Sum	Sum	-----	-----	---	----	Ttl	Ttl						Total	Total	For the month:						---			
2208	1585					114	69		Number of Days				7.38	0.0	30.07	29.40	29.821	1.5	1.1	240	33	SSW	15	206
Avg	Avg	Avg	Mean	Avg	Avg	----	----		Precip				Season Ttl	Date	Date	-----	----	---		Date	Date	Avg		
73.6	52.8	63.2	62.7	56	80.0	----	----		≥.01 inch	17			24.40	108.4	14	24	-----	----	---		18	16	196	
Number of Days						Season to Date	Snow, Ice ≥1.0 inch	0	Greatest in 24 Hours and Dates						Greatest Depth on Ground of Snow, Ice Pellets or Ice and Date									
Max Temperature		Min Temperature		7277	90	Thunder	7	Precipitation		Snow, Ice Plts														
≥ 90°F	≤ 32°F	≤ 32°F	≤ 0°F	----	----	Heavy Fog	0	1.69	29-30	0.0	-													
0	0	0	0	----	----	Clear	4	Partly Cloudy		14	Cloudy		12											

NOTES:
 Units: 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/m^2 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

June 2017: Westford

Hour	JUN 19									JUN 20									JUN 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
00	0	29.64	0.17	67	65	95	19	0	9	0	29.70	0.00	64	63	97	20	1	5	0	29.80	0.00	63	55	75	24	0	6
03	0	29.62	0.00	67	66	96	20	1	8	0	29.68	0.00	64	63	97	20	0	4	0	29.78	0.00	58	54	86	21	0	0
06	21	29.65	0.00	68	67	96	19	3	7	18	29.67	0.00	64	64	98	19	0	0	18	29.77	0.00	59	56	90	21	0	0
09	83	29.68	0.00	70	69	95	21	2	8	297	29.70	0.00	67	65	95	23	1	8	185	29.80	0.00	62	56	81	23	5	13
12	336	29.65	0.00	76	71	85	20	5	18	499	29.71	0.00	64	61	91	21	4	13	243	29.80	0.00	64	54	70	23	3	10
15	19	29.66	0.99	68	67	95	26	4	10	385	29.71	0.00	70	62	76	22	2	14	867	29.77	0.00	72	59	64	23	3	14
18	56	29.67	0.00	68	67	96	19	0	0	81	29.72	0.00	67	62	85	22	4	8	113	29.79	0.00	66	58	74	28	1	9
21	0	29.67	0.00	66	65	96	19	0	0	0	29.77	0.00	63	56	78	26	1	9	0	29.83	0.00	60	56	89	25	1	11
JUN 22									JUN 23									JUN 24									
00	0	29.86	0.00	57	55	92	22	0	0	0	29.78	0.00	62	57	86	25	0	0	0	29.43	0.00	70	69	97	21	4	8
03	0	29.87	0.00	55	53	93	24	0	0	0	29.73	0.24	63	59	87	20	0	0	0	29.42	0.00	66	65	97	28	1	6
06	18	29.90	0.00	53	52	95	24	0	0	0	29.70	0.21	61	60	96	21	3	10	0	29.43	0.00	66	66	97	27	0	0
09	550	29.91	0.00	67	60	77	27	1	8	81	29.67	0.06	63	63	97	19	0	10	341	29.49	0.00	67	66	97	31	4	8
12	830	29.89	0.00	74	59	59	28	6	10	366	29.59	0.00	74	69	87	22	1	11	867	29.56	0.00	73	63	72	29	8	12
15	744	29.85	0.00	75	58	54	26	2	10	229	29.53	0.00	79	72	80	21	7	13	814	29.58	0.00	78	64	62	29	0	8
18	105	29.81	0.00	72	62	70	25	0	0	19	29.47	0.00	74	69	86	21	3	8	142	29.62	0.00	73	60	64	21	3	11
21	0	29.80	0.00	61	56	85	26	0	0	0	29.45	0.00	69	68	96	21	0	9	0	29.70	0.00	66	55	67	28	2	9
JUN 25									JUN 26									JUN 27									
00	0	29.78	0.00	58	53	85	30	0	0	0	29.84	0.00	51	49	93	12	0	0	0	29.90	0.00	53	51	93	21	0	4
03	0	29.81	0.00	56	53	88	23	0	5	0	29.86	0.00	55	50	85	25	0	10	0	29.89	0.00	53	52	96	20	1	6
06	18	29.84	0.00	52	51	96	30	0	0	18	29.88	0.00	54	50	86	28	2	7	18	29.91	0.00	51	50	97	20	0	5
09	550	29.86	0.00	67	58	74	31	0	9	555	29.91	0.00	62	54	76	25	1	6	538	29.92	0.00	62	56	82	21	4	9
12	944	29.85	0.00	73	59	61	28	0	8	360	29.93	0.00	64	54	69	28	0	7	1009	29.86	0.00	71	55	57	21	3	11
15	925	29.79	0.00	75	60	60	20	4	15	202	29.90	0.00	70	52	53	29	0	9	86	29.86	0.15	55	52	90	26	0	6
18	162	29.82	0.00	65	57	75	32	0	2	116	29.88	0.00	67	51	56	23	0	7	97	29.84	0.00	59	55	89	31	2	11
21	0	29.85	0.00	58	51	80	11	0	1	0	29.89	0.00	58	54	84	10	0	0	0	29.85	0.00	53	52	95	21	0	5
JUN 28									JUN 29									JUN 30									
00	0	29.90	0.00	52	51	96	21	0	0	0	29.98	0.00	52	51	95	30	0	0	0	29.87	0.00	60	59	97	21	0	0
03	0	29.90	0.00	50	49	97	22	0	0	0	29.99	0.00	52	50	93	22	0	0	0	29.83	0.00	62	62	98	22	2	11
06	12	29.93	0.00	51	51	97	20	0	7	54	30.01	0.00	55	51	88	22	0	4	14	29.84	0.00	64	63	98	20	1	13
09	294	29.97	0.00	60	56	88	25	5	11	225	30.02	0.00	63	57	81	21	1	11	401	29.84	0.00	70	68	93	22	2	8
12	304	29.97	0.00	65	57	76	25	1	11	181	29.99	0.00	66	59	80	28	1	7	571	29.84	0.00	78	70	77	24	4	11
15	782	29.96	0.00	71	58	64	29	3	12	183	30.01	0.08	58	56	93	15	0	0	185	29.83	0.00	74	71	91	21	0	0
18	287	29.95	0.00	71	56	58	28	3	7	46	29.95	0.05	59	57	95	22	0	0	148	29.80	0.00	72	68	89	21	1	9
21	0	29.98	0.00	59	54	85	29	0	0	0	29.90	0.48	58	56	96	02	1	6	0	29.82	0.31	67	65	85	18	0	0

WEATHER NOTES

NOTES:
 Units: 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
00	0	29.830	58	54	87	0.7	22	0.6
03	0	29.820	57	53	89	0.7	23	0.6
06	22	29.829	56	53	91	0.8	23	0.6
09	348	29.845	63	57	82	1.9	22	1.5
12	560	29.829	69	58	71	3.0	24	2.4
15	456	29.807	70	58	68	2.6	24	2.0
18	131	29.797	68	58	70	1.9	26	1.4
21	0	29.814	61	55	82	0.4	23	0.2

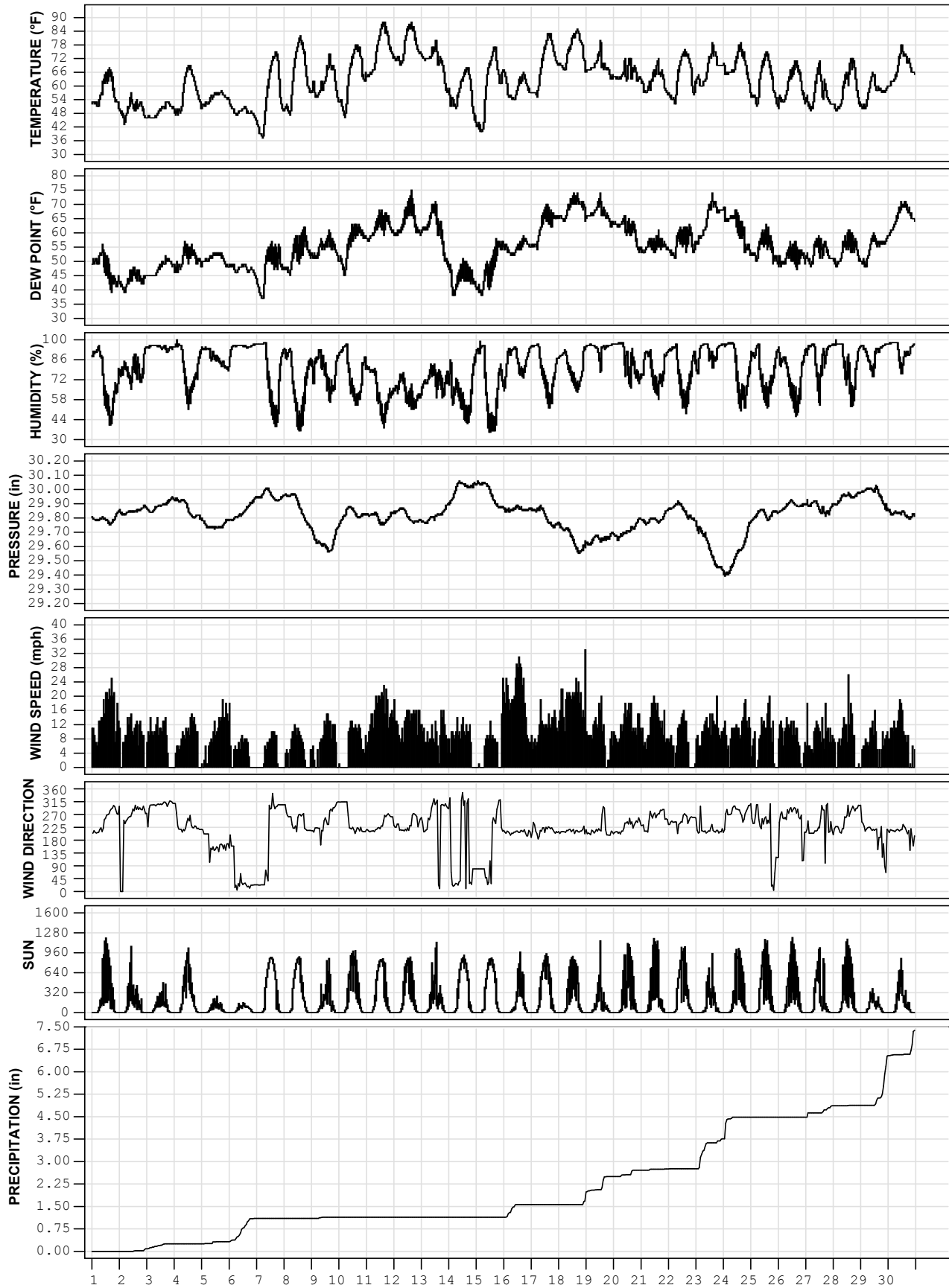
HOURLY PRECIPITATION (Water Equivalent) June 2017: Westford

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													0.01	0.01								0.03	0.03		02
03		0.02	0.02		0.02		0.02		0.01	0.02		0.01	0.01	0.02	0.02	0.01									03
04																									04
05			0.01							0.05			0.01												05
06	0.01	0.03	0.02			0.04	0.06	0.02	0.04	0.08	0.11	0.04	0.02	0.06	0.05	0.08	0.04	0.06	0.01			0.01			06
07																									07
08																									08
09							0.02		0.01	0.01															09
10																									10
11																									11
12																									12
13																									13
14																									14
15																									15
16			0.02	0.10	0.04		0.11	0.06	0.02	0.06	0.01														16
17																									17
18																						0.10	0.02	0.30	18
19	0.02	0.02		0.01	0.01			0.01		0.01				0.06	0.26	0.11		0.01							19
20							0.04	0.01			0.01				0.12	0.03									20
21								0.03													0.01				21
22	0.01																								22
23			0.04	0.34	0.10	0.10	0.04	0.11	0.11	0.02								0.07				0.05	0.02		23
24		0.52	0.12	0.01	0.01		0.02	0.04																	24
25																									25
26																									26
27		0.14																0.05	0.03			0.04	0.02		27
28													0.01	0.01	0.04	0.06									28
29													0.04	0.12	0.07	0.01		0.04	0.10	0.26	0.40	0.26	0.34	0.01	29
30		0.01	0.01	0.01	0.01									0.01	0.01					0.12	0.20	0.44	0.04		30
Sum	0.04	0.74	0.24	0.47	0.19	0.14	0.31	0.28	0.19	0.25	0.13	0.05	0.09	0.29	0.44	0.39	0.07	0.11	0.23	0.41	0.61	0.93	0.47	0.31	Sum

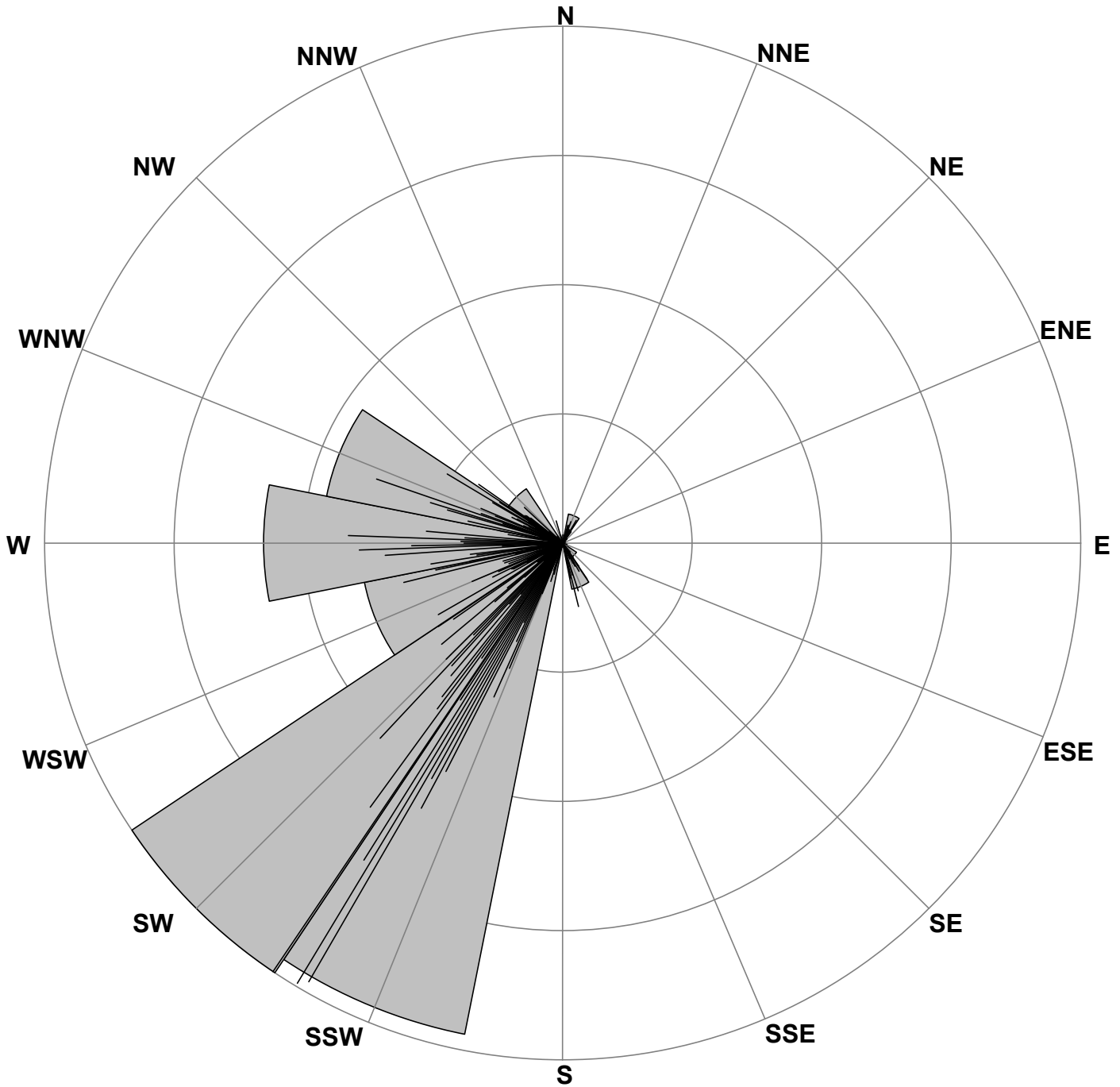
During a frozen precipitation event, hourly precipitation totals may not be recorded. In this case, daily amounts are typically entered in the last column (hour ending at 12 A.M.)

HOUR-BY-HOUR DATA

June 2017: Westford



**Wind Rose: June 2017
Westford**



**Maximum direction of wind: 45.3 miles from 214°
Maximum sector of wind: 279.5 miles from SW
1044.5 total miles of wind**