

LOCAL CLIMATOLOGICAL DATA

Monthly Summary

September 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		11	12	13	14	15	16	17	18	19	20	21	22	23			
1	59.4	43.2	51.3	49.6	42	77	14	0	0	0.00	0.0	30.13	29.97	30.046	1.4	1.4	304	24	WNW	8	W	5	294	159
2	68.9	39.3	54.1	52.5	45	78	11	0	.....	0	0.00	0.0	30.21	30.07	30.154	0.1	0.1	296	8	W	5	294	233	
3	54.5	43.8	49.1	51.4	50	94	15	0	.....	0	0.87	0.0	30.08	29.69	29.880	0.7	0.7	211	19	SW	7	219	45	
4	75.3	52.0	63.7	63.0	58	85	1	0	.....	0	0.30	0.0	29.78	29.60	29.696	2.3	2.2	221	20	S	10	219	170	
5	64.6	54.8	59.7	60.4	59	94	5	0	..3.....	0	0.60	0.0	29.78	29.51	29.647	1.8	1.7	218	22	S	10	202	13		
6	61.3	52.3	56.8	56.2	55	96	8	0	.....	0	0.16	0.0	29.90	29.77	29.855	0.1	0.1	226	8	SE	5	264	46	
7	67.1	50.7	58.9	56.8	55	94	6	0	.....	0	0.52	0.0	29.86	29.72	29.763	0.6	0.6	242	22	W	11	293	105	
8	62.6	50.4	56.5	54.5	52	93	8	0	.....	0	0.29	0.0	30.13	29.82	29.965	0.9	0.8	224	14	SSW	7	221	100	
9	60.6	50.0	55.3	53.6	52	95	9	0	.....	0	0.02	0.0	30.30	30.13	30.233	0.2	0.2	301	10	NW	6	299	66	
10	64.7	41.7	53.2	52.4	48	86	11	0	.....	0	0.00	0.0	30.41	30.29	30.350	0.2	0.2	318	11	NW	6	303	190	
11	72.8	41.9	57.4	55.7	50	83	7	0	.....	0	0.01	0.0	30.35	30.08	30.237	0.1	0.1	272	8	SE	6	293	198	
12	76.7	45.8	61.2	59.8	53	81	3	0	.....	0	0.00	0.0	30.09	29.83	29.944	0.2	0.2	242	9	S	5	224	203	
13	81.0	48.6	64.8	63.5	56	80	0	0	.....	0	0.00	0.0	29.87	29.74	29.802	0.4	0.4	222	12	SW	6	214	202	
14	78.8	54.5	66.7	64.8	62	90	0	2	.....	0	0.00	0.0	29.88	29.75	29.799	0.2	0.2	246	11	W	7	236	120	
15	80.6	56.7	68.6	66.7	62	87	0	4	.....	0	0.00	0.0	30.07	29.88	29.991	0.1	0.1	295	9	WNW	5	306	181	
16	81.2	56.3	68.7	66.7	62	87	0	4	.....	0	0.00	0.0	30.13	30.06	30.100	0.0	0.0	279	8	WNW	3	301	167	
17	81.6	55.0	68.3	66.0	61	87	0	4	.....	0	0.01	0.0	30.13	30.03	30.085	0.1	0.1	262	8	WNW	4	263	160	
18	84.7	58.2	71.4	68.6	63	85	0	7	.....	0	0.00	0.0	30.09	30.01	30.053	0.1	0.1	224	10	SSW	6	219	181	
19	79.7	56.0	67.8	66.8	61	82	0	3	.....	0	0.00	0.0	30.08	29.97	30.022	0.2	0.2	219	11	W	6	218	170	
20	80.5	53.5	67.0	65.3	61	88	0	3	.....	0	0.01	0.0	29.99	29.93	29.968	0.1	0.1	7	10	N	4	14	144	
21	79.3	52.3	65.8	63.4	59	86	0	1	.2.....	0	0.00	0.0	30.09	29.98	30.044	0.1	0.1	330	11	WNW	5	296	167		
22	79.6	46.5	63.0	60.0	53	80	1	0	.....	0	0.01	0.0	30.11	30.02	30.067	0.1	0.1	327	9	W	4	295	186	
23	82.1	48.7	65.4	63.3	57	82	0	1	.....	0	0.01	0.0	30.07	29.98	30.019	0.0	0.0	0	0	NNW	0	328	161	
24	88.2	58.9	73.5	71.0	65	84	0	9	.....	0	0.00	0.0	30.05	29.97	30.013	0.1	0.0	236	7	SSW	3	230	166	
25	89.7*	63.3	76.5*	72.9	67	85	0	12	.....	0	0.00	0.0	30.05	29.95	30.004	0.0	0.0	280	7	W	2	290	148	
26	88.7	62.0	75.3	72.1	67	85	0	11	.....	0	0.00	0.0	29.98	29.87	29.930	0.1	0.1	217	9	SW	5	211	153	
27	87.2	65.4	76.3	74.3	67	80	0	11	.....	0	0.41	0.0	29.87	29.64	29.751	1.8	1.6	225	20	SSW	10	302	155	
28	66.3	48.8	57.6	55.9	48	75	7	0	.....	0	0.01	0.0	29.94	29.68	29.822	1.5	1.4	307	20	NW	8	302	91	
29	58.0	39.3	48.6	48.2	42	79	16	0	.....	0	0.00	0.0	30.06	29.94	29.997	0.1	0.1	319	12	W	6	283	119	
30	59.7	36.6*	48.1*	46.3	41	83	16	0	.....	0	0.02	0.0	30.33	30.05	30.210	0.3	0.3	311	14	W	8	310	125	
Sum	Sum	-----	-----	---	----		Ttl	Ttl			Total	Total	For the month:										---		
2215	1527						138	72	Number of Days		3.25	0.0	30.41	29.51	29.982	0.5	0.3	246	24	WNW	11	293			
Avg	Avg	Avg	Mean	Avg	Avg		----	----	Precip		Season Ttl	Date	Date	-----	----	----	---	Date	Date	Avg					
73.8	50.9	62.4	60.7	56	85.3		----	----	≥.01 inch	15	32.92	0.0	10	5	-----	----	----	---	1	7	144				
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			231	336	Thunder	1	Precipitation			Snow, Ice Plts												
≥ 90°F	≤ 32°F	≤ 32°F	≤ 0°F	----	----			Heavy Fog	1	1.15	3- 4	0.0	-	0			-								
1	0	0	0	----	----			Clear	12	Partly Cloudy		11	Cloudy		7										

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

September 2017: 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						
SEP 19									SEP 20									SEP 21									
00	0	30.05	0.00	64	63	94	21	1	7	0	29.99	0.00	56	55	96	15	0	0	0	29.99	0.00	62	61	96	04	0	0
03	0	30.03	0.00	60	58	92	21	0	1	0	29.97	0.00	55	53	96	11	0	0	0	29.99	0.00	60	59	97	04	0	0
06	0	30.05	0.00	58	57	96	21	0	0	0	29.97	0.00	55	54	97	09	0	0	0	30.03	0.00	58	58	97	04	0	0
09	308	30.06	0.00	69	63	80	19	0	5	239	29.99	0.00	62	61	97	08	0	0	135	30.07	0.00	60	60	97	29	0	4
12	499	30.05	0.00	77	64	65	26	0	11	545	29.97	0.00	76	68	75	33	0	4	619	30.06	0.00	72	65	78	29	1	5
15	218	29.99	0.00	80	65	60	28	0	1	223	29.94	0.00	79	69	71	22	0	4	503	30.03	0.00	78	58	50	05	1	8
18	62	29.98	0.00	75	63	67	20	0	1	51	29.94	0.00	73	66	79	07	0	0	58	30.05	0.00	69	58	68	01	0	0
21	0	29.99	0.00	59	57	94	20	0	0	0	29.97	0.00	66	64	94	02	0	8	0	30.08	0.00	55	52	91	01	0	0
SEP 22									SEP 23									SEP 24									
00	0	30.09	0.00	53	52	95	11	0	0	0	30.04	0.00	51	49	95	31	0	0	0	30.02	0.00	60	59	95	08	0	0
03	0	30.08	0.00	49	48	95	11	0	0	0	30.01	0.00	51	50	96	31	0	0	0	30.02	0.00	60	58	96	08	0	0
06	0	30.09	0.00	47	46	96	11	0	0	0	30.02	0.00	49	48	97	31	0	0	0	30.03	0.00	60	59	97	13	0	0
09	316	30.11	0.00	56	55	97	05	0	0	269	30.06	0.00	59	58	97	31	0	0	269	30.05	0.00	69	65	86	15	0	0
12	629	30.09	0.00	73	54	52	32	1	3	592	30.04	0.00	77	60	56	24	0	0	571	30.03	0.00	82	69	66	25	0	6
15	510	30.05	0.00	77	60	56	29	1	8	450	30.01	0.00	81	61	51	06	0	0	455	29.99	0.00	86	71	60	30	0	2
18	26	30.02	0.00	73	58	59	31	0	0	35	29.99	0.00	74	65	73	08	0	0	28	29.98	0.00	83	73	72	31	0	0
21	0	30.03	0.00	55	52	92	31	0	0	0	30.01	0.00	62	60	94	08	0	0	0	30.01	0.00	67	66	95	31	0	0
SEP 25									SEP 26									SEP 27									
00	0	30.02	0.00	66	66	97	31	0	0	0	29.95	0.00	64	63	96	29	0	0	0	29.87	0.00	66	65	95	20	0	0
03	0	30.01	0.00	65	64	97	22	0	0	0	29.95	0.00	63	63	97	25	0	0	0	29.85	0.00	67	65	93	21	0	5
06	0	30.03	0.00	64	63	97	22	0	0	0	29.96	0.00	63	62	97	25	0	0	0	29.83	0.00	67	65	95	21	3	9
09	272	30.05	0.00	72	71	98	22	0	0	183	29.98	0.00	70	69	97	25	0	0	278	29.82	0.00	73	69	88	21	4	12
12	338	30.03	0.00	82	73	76	27	0	0	598	29.95	0.00	82	71	68	21	0	2	541	29.76	0.00	83	70	65	20	4	12
15	466	29.99	0.00	88	71	56	27	0	3	483	29.91	0.00	87	72	61	24	0	4	436	29.68	0.00	86	71	60	21	3	11
18	28	29.97	0.00	81	71	73	29	0	0	42	29.89	0.00	80	71	74	31	0	0	32	29.65	0.00	80	69	70	21	2	8
21	0	29.98	0.00	66	64	95	29	0	0	0	29.88	0.00	68	67	95	31	0	0	0	29.65	0.00	77	66	69	22	0	7
SEP 28									SEP 29									SEP 30									
00	0	29.68	0.00	66	65	94	30	5	9	0	29.94	0.00	49	42	77	31	1	6	0	30.05	0.00	44	41	88	02	0	0
03	0	29.73	0.00	60	54	79	29	1	10	0	29.95	0.00	47	43	85	32	0	6	0	30.07	0.00	45	41	87	02	0	0
06	0	29.77	0.00	58	53	83	30	6	12	0	29.97	0.00	42	41	94	31	0	0	0	30.13	0.00	43	41	94	03	0	0
09	54	29.82	0.00	53	47	79	31	2	12	267	30.01	0.00	45	44	96	31	0	0	69	30.20	0.00	44	42	92	02	0	0
12	141	29.83	0.00	55	48	75	31	0	15	318	30.02	0.00	53	43	70	32	0	5	258	30.26	0.00	50	43	78	28	0	6
15	183	29.83	0.00	57	46	67	28	0	6	478	29.98	0.00	58	41	55	32	0	1	476	30.25	0.00	58	43	57	32	1	10
18	46	29.86	0.00	54	43	67	32	0	13	21	30.00	0.00	50	41	71	02	0	2	21	30.28	0.00	51	41	68	32	0	0
21	0	29.92	0.00	51	42	70	31	2	12	0	30.04	0.00	45	40	84	01	0	6	0	30.31	0.00	38	36	94	32	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	29.973	56	54	94	0.5	27	0.3
03	0	29.968	54	53	94	0.4	23	0.3
06	0	29.985	53	52	95	0.5	26	0.4
09	235	30.011	59	57	93	0.8	24	0.6
12	445	30.001	68	59	74	1.1	26	0.8
15	416	29.967	72	59	65	0.8	27	0.5
18	57	29.962	68	60	75	0.1	23	0.1
21	0	29.982	57	55	91	0.3	25	0.2

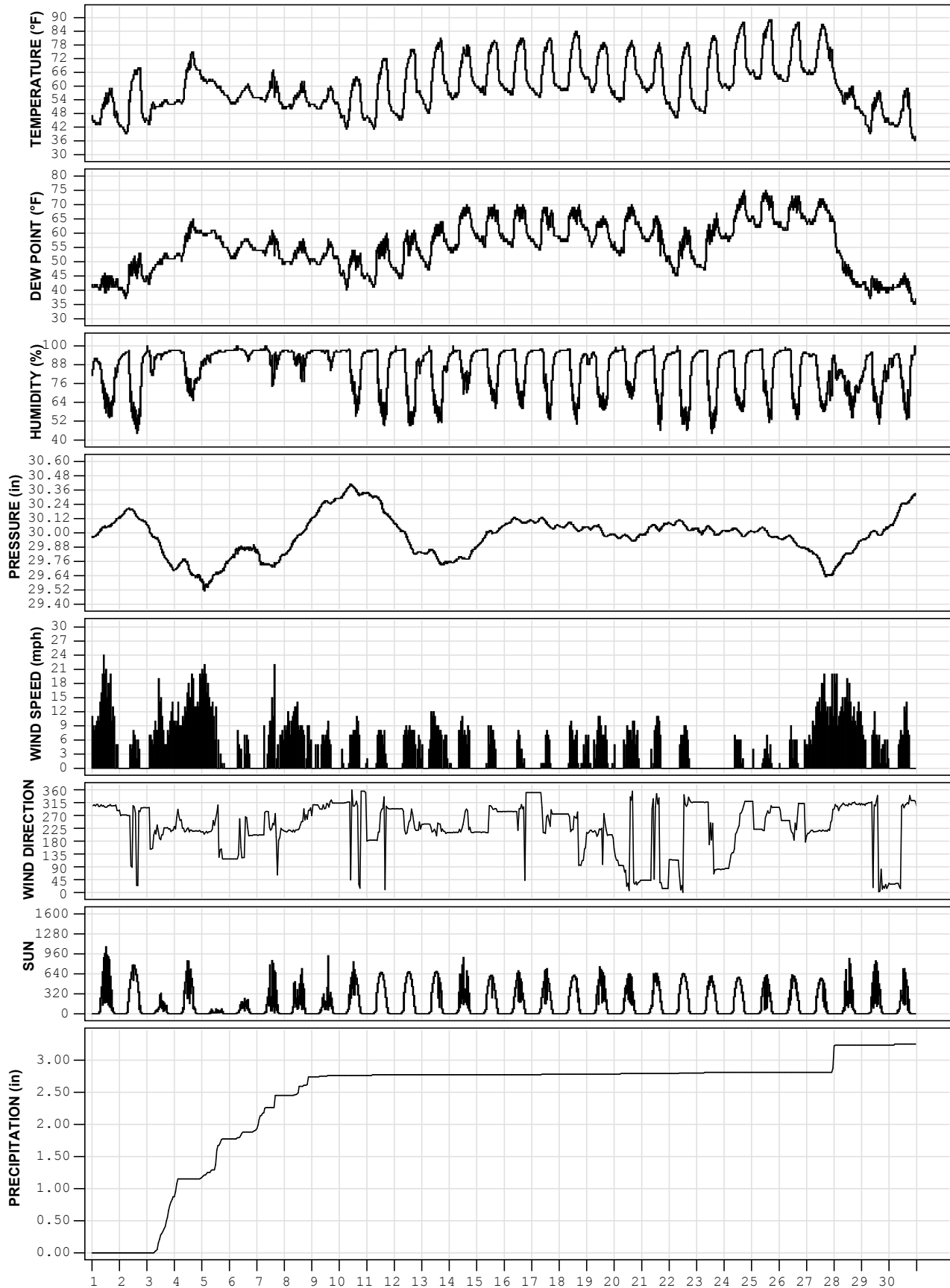
HOURLY PRECIPITATION (Water Equivalent) September 2017: Westford

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																									02
03																									03
04	0.08	0.12	0.08				0.02	0.01	0.02	0.10	0.06	0.07	0.02	0.03	0.04	0.04	0.09	0.05	0.11	0.08	0.05	0.04	0.04	04	
05	0.02	0.02		0.02	0.02			0.03	0.01			0.08	0.23	0.07		0.04	0.05	0.01				0.01	0.01	05	
06							0.02		0.01	0.03	0.03	0.02									0.01	0.01	0.01	0.02	06
07	0.06	0.08	0.06	0.01	0.03	0.01	0.07	0.01							0.19										07
08									0.01		0.01	0.02	0.10			0.02				0.01	0.12				08
09							0.01							0.01											09
10																									10
11					0.01																				11
12																									12
13																									13
14																									14
15																									15
16																									16
17									0.01																17
18																									18
19																									19
20						0.01																			20
21																									21
22									0.01																22
23							0.01			0.01															23
24																									24
25																									25
26																									26
27																									27
28	0.01																					0.06	0.35	28	
29																									29
30					0.02																				30
Sum	0.17	0.22	0.14	0.03	0.08	0.02	0.13	0.05	0.07	0.13	0.10	0.19	0.35	0.11	0.04	0.27	0.16	0.06	0.11	0.09	0.18	0.05	0.12	0.38	Sum

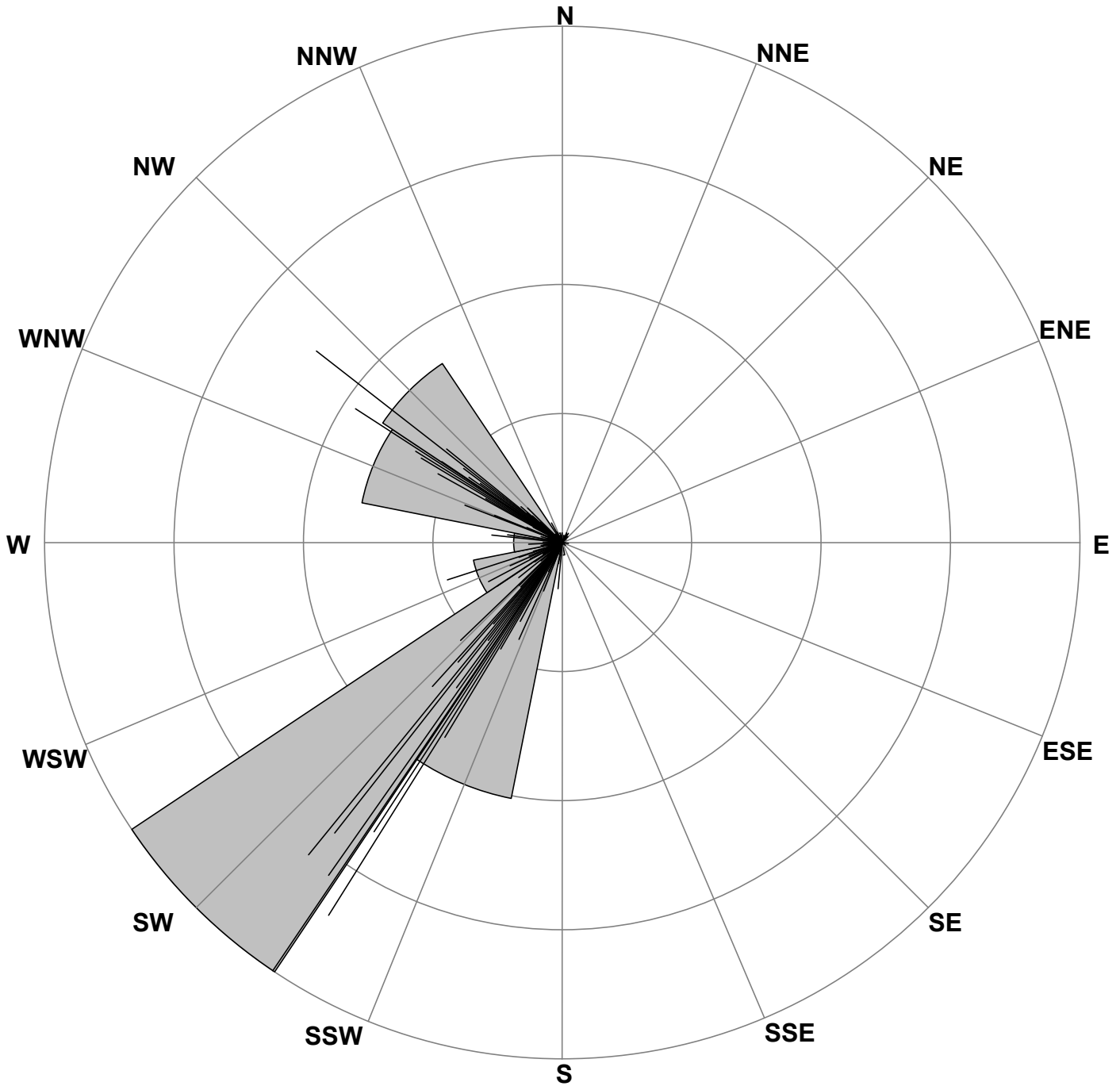
During a frozen precipitation event, hourly precipitation totals may not be recorded. In this case, daily amounts are typically entered in the last column (hour ending at 12 A.M.)

HOUR-BY-HOUR DATA

September 2017: Westford



**Wind Rose: September 2017
Westford**



**Maximum direction of wind: 21.6 miles from 214°
Maximum sector of wind: 123.1 miles from SW
328.4 total miles of wind**