

LOCAL CLIMATOLOGICAL DATA

Monthly Summary

April 2016

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	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				
	1	2	3	4A	4B	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	62.5	42.7	52.6	56.3	48	74	12	0	.....	0	0.18	0.0	29.56	29.32	29.415	5.8	5.0	228	34	W	19	288	40
2	49.8	29.4	39.6	38.7	31	75	25	0	.....	0	0.08	0.0	29.58	29.27	29.409	2.4	1.9	248	28	W	14	289	143
3	30.9	14.0	22.4	21.6	10	60	42	0	.....	0	T	T	30.00	29.31	29.639	5.7	5.6	317	31	W	19	306	171
4	28.7	10.5	19.6	18.1	5	58	45	0	.....	0	0.00	0.0	30.16	29.99	30.036	0.4	0.4	4	15	NNE	7	330	160
5	30.7	8.0	19.4*	20.1	5	55	45	0	.....	0	0.00	0.0	30.38	30.16	30.285	0.8	0.8	342	19	W	12	312	246
6	37.3	16.9	27.1	26.7	16	66	38	0	.....	1	0.16	1.0	30.31	29.84	30.133	3.0	3.0	205	26	SSW	13	206	140
7	58.4	31.6	45.0	43.6	37	78	20	0	.....	0	0.28	0.0	29.85	29.16	29.488	3.6	3.0	197	26	S	13	268	76
8	39.0	22.8	30.9	32.1	29	90	34	0	.....	1	0.24	1.6	29.71	29.26	29.438	2.7	2.5	274	24	W	15	294	55
9	32.5	17.4	24.9	25.4	19	78	40	0	.....	0	0.03	T	30.03	29.71	29.836	0.8	0.7	330	16	N	10	313	185
10	38.1	17.2	27.6	27.3	15	62	37	0	.....	0	T	T	30.27	30.03	30.188	0.6	0.5	310	16	W	7	18	243
11	45.8	28.2	37.0	38.4	34	85	28	0	.....	0	0.19	0.4	30.19	29.84	29.970	5.9	5.9	198	32	S	15	194	30
12	47.0	34.6	40.8	40.4	35	82	24	0	.....	0	0.40	0.0	30.23	29.75	29.974	3.1	2.4	248	24	S	12	205	79
13	44.5	26.7	35.6	34.7	24	67	29	0	.....	0	0.00	0.0	30.45	30.23	30.376	0.8	0.8	329	16	W	7	320	258
14	51.7	23.4	37.6	37.7	24	61	27	0	.....	0	0.00	0.0	30.45	30.36	30.399	0.5	0.4	358	18	N	8	325	265
15	59.9	29.1	44.5	44.0	23	47	20	0	.....	0	0.00	0.0	30.48	30.41	30.438	0.4	0.3	32	15	N	6	39	265
16	61.4	31.9	46.7	46.6	23	43	18	0	.....	0	0.00	0.0	30.50	30.40	30.452	0.4	0.4	347	15	N	8	315	263
17	71.5	34.6	53.0	53.0	28	42	11	0	.....	0	0.00	0.0	30.42	30.23	30.341	0.4	0.3	330	14	W	7	297	266
18	59.9	40.8	50.4	48.9	35	61	14	0	.....	0	0.02	0.0	30.26	30.04	30.181	0.4	0.4	327	11	N	7	303	138
19	56.2	37.6	46.9	45.5	34	68	18	0	.....	0	0.18	0.0	30.12	29.99	30.055	2.9	2.8	326	23	N	12	309	262
20	54.0	30.2	42.1	41.8	23	49	23	0	.....	0	0.00	0.0	30.32	30.12	30.220	0.7	0.6	6	19	N	10	14	275
21	74.4*	32.3	53.4	54.3	23	35	12	0	.....	0	0.00	0.0	30.15	29.84	29.980	1.0	1.0	214	25	SSW	8	212	272
22	72.6	45.8	59.2*	56.7	51	82	5	0	.....	0	0.28	0.0	29.87	29.73	29.799	2.8	1.8	229	20	S	11	207	114
23	52.3	34.7	43.5	42.5	32	69	21	0	.....	0	0.01	0.0	30.03	29.85	29.946	1.3	1.3	351	20	W	9	324	206
24	50.9	27.3	39.1	37.9	18	46	26	0	.....	0	0.00	0.0	30.13	30.00	30.056	0.7	0.5	330	12	N	7	297	282
25	50.3	28.3	39.3	39.2	19	45	26	0	.....	0	0.00	0.0	30.08	29.92	30.000	1.0	0.6	327	14	N	8	303	268
26	41.6	29.2	35.4	34.4	27	77	29	0	.....	T	0.31	T	29.92	29.77	29.824	0.7	0.3	229	10	NNE	6	212	90
27	48.4	26.9	37.7	35.7	20	57	27	0	.....	0	0.01	0.0	29.93	29.82	29.874	1.7	1.1	290	16	W	9	299	284
28	44.1	22.9	33.5	33.7	19	55	31	0	.....	0	0.00	0.0	30.13	29.92	30.048	0.9	0.8	2	14	N	9	295	258
29	57.0	23.9	40.4	41.1	22	48	24	0	.....	0	0.00	0.0	30.14	30.04	30.099	0.7	0.4	307	14	N	7	296	274
30	59.4	30.7	45.1	46.4	23	41	20	0	.....	0	0.00	0.0	30.22	30.12	30.166	0.8	0.8	343	15	W	8	308	292
Sum	Sum	-----	-----	---	----	Ttl	Ttl		Number of Days		Total	Total	For the month:						---					
1511	830					771	0				2.37	3.0	30.50	29.16	30.002	1.8	0.9	264	34	W	19	306		
Avg	Avg	Avg	Mean	Avg	Avg	----	----		Precip		Season Ttl	Date	Date	-----	----	----	---	Date	Date	Avg				
50.4	27.7	39.0	38.8	25	61.8	----	----		≥.01 inch 14		10.96	38.7	16	7	-----	----	----	---	1	3	196			
Number of Days								Season to Date	Snow, Ice ≥1.0 inch 2	Greatest in 24 Hours and Dates					Greatest Depth on Ground of Snow, Ice Pellets or Ice and Date									
Max Temperature			Min Temperature			6706	0	Thunder 0	Precipitation		Snow, Ice Plts													
≥ 90°F	≤ 32°F	≤ 32°F	≤ 0°F	----	----	Heavy Fog 0	0.58	11-12	1.6	8														
0	3	23	0	----	----	Clear 11	Partly Cloudy 10		Cloudy 9															

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/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

April 2016: Westford

Hour	Sunshine	Pressure	Rainfall rate	Temperature	Dew Point	Humidity	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
APR 19									APR 20									APR 21									
01	0	30.02	0.12	41	40	96	32	0	2	0	30.13	0.00	41	25	53	01	2	16	0	30.13	0.00	34	23	66	05	0	0
04	0	29.99	0.00	39	38	97	33	0	7	0	30.20	0.00	34	22	61	02	1	9	0	30.10	0.00	34	20	58	19	0	2
07	25	30.05	0.00	38	37	97	00	0	10	25	30.27	0.00	31	20	65	03	1	8	25	30.08	0.00	40	16	38	19	1	4
10	612	30.09	0.00	45	37	73	34	0	9	621	30.31	0.00	42	23	47	02	0	6	638	30.04	0.00	57	22	25	21	6	15
13	833	30.08	0.00	50	32	50	32	10	22	824	30.27	0.00	48	26	43	30	1	11	759	29.95	0.00	68	20	16	22	3	9
16	589	30.05	0.00	55	31	40	32	6	18	585	30.22	0.00	52	26	36	28	1	4	601	29.86	0.00	73	21	14	22	1	10
19	49	30.05	0.00	52	28	40	35	4	22	51	30.19	0.00	52	21	29	01	0	0	32	29.84	0.00	64	31	29	26	0	0
22	0	30.10	0.00	46	29	52	32	4	16	0	30.18	0.00	38	23	55	05	0	0	0	29.86	0.00	57	33	40	08	0	0
APR 22									APR 23									APR 24									
01	0	29.87	0.00	58	32	38	23	2	7	0	29.86	0.00	45	44	96	35	1	9	0	30.03	0.00	33	20	57	02	0	2
04	0	29.84	0.00	50	48	92	20	0	0	0	29.88	0.00	39	38	96	00	0	5	0	30.05	0.00	29	19	65	01	0	6
07	18	29.82	0.11	53	52	94	16	1	7	19	29.92	0.00	37	35	91	02	0	8	30	30.10	0.00	28	17	64	01	1	4
10	223	29.78	0.00	58	54	88	19	4	11	142	29.98	0.00	37	34	87	01	2	10	633	30.13	0.00	38	16	41	01	1	8
13	341	29.75	0.00	65	53	67	20	6	12	963	29.97	0.00	46	35	65	33	1	15	844	30.09	0.00	44	16	33	01	0	12
16	635	29.75	0.00	62	58	89	22	5	10	605	29.96	0.00	51	26	38	00	2	12	610	30.04	0.00	47	8	20	30	2	10
19	39	29.77	0.00	59	55	88	35	0	10	56	29.96	0.00	49	22	35	35	0	8	44	30.01	0.00	46	16	29	01	0	0
22	0	29.83	0.07	51	49	95	33	6	16	0	30.01	0.00	37	23	55	36	0	0	0	30.02	0.00	35	18	49	28	0	0
APR 25									APR 26									APR 27									
01	0	30.01	0.00	33	17	52	20	3	5	0	29.91	0.00	38	21	51	03	0	0	0	29.83	0.00	30	27	89	20	4	8
04	0	30.02	0.00	34	22	62	32	0	4	0	29.87	0.00	36	21	54	04	0	0	0	29.89	0.00	29	25	84	20	0	0
07	32	30.07	0.00	30	19	64	01	0	0	16	29.84	0.00	32	29	88	23	0	0	28	29.90	0.00	28	20	72	27	0	0
10	650	30.06	0.00	41	19	40	06	1	10	30	29.79	0.00	30	28	94	01	0	7	654	29.91	0.00	35	21	56	30	1	8
13	758	30.02	0.00	46	21	36	00	2	10	236	29.78	0.00	33	31	92	01	1	7	856	29.87	0.00	42	20	41	30	3	8
16	432	29.96	0.00	49	18	29	02	3	10	243	29.78	0.11	38	32	78	00	0	6	619	29.83	0.00	48	15	27	32	0	7
19	58	29.95	0.00	43	17	35	35	0	7	72	29.80	0.00	41	24	51	36	0	0	30	29.85	0.00	41	17	37	03	2	10
22	0	29.95	0.00	35	18	49	03	0	0	0	29.82	0.00	30	25	82	20	3	6	0	29.90	0.00	34	17	49	02	0	0
APR 28									APR 29									APR 30									
01	0	29.93	0.00	26	17	68	02	0	0	0	30.13	0.00	27	18	68	03	0	0	0	30.13	0.00	40	22	47	35	0	0
04	0	29.95	0.00	24	15	67	02	0	0	0	30.12	0.00	27	17	67	05	0	0	0	30.12	0.00	34	22	61	01	0	0
07	28	30.04	0.00	28	19	69	32	0	2	28	30.13	0.00	27	17	68	07	0	0	30	30.18	0.00	34	20	58	01	0	0
10	895	30.10	0.00	36	22	57	00	3	9	652	30.14	0.00	45	19	36	27	2	7	654	30.22	0.00	51	22	32	35	0	6
13	849	30.09	0.00	40	23	50	34	1	9	798	30.08	0.00	53	25	34	31	2	7	853	30.18	0.00	56	24	29	34	2	10
16	258	30.06	0.00	42	17	36	01	2	8	631	30.05	0.00	55	27	34	01	4	11	608	30.16	0.00	58	25	28	01	1	6
19	107	30.08	0.00	43	20	41	03	1	7	58	30.05	0.00	50	26	39	34	1	6	56	30.15	0.00	56	25	30	01	1	5
22	0	30.13	0.00	33	19	58	03	0	0	0	30.10	0.00	41	20	42	36	0	3	0	30.17	0.00	44	25	46	01	0	2

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	29.996	34	25	70	1.5	23	0.9
04	0	29.988	32	25	75	0.4	19	0.3
07	24	30.020	31	24	75	1.0	26	0.4
10	444	30.034	40	25	59	2.6	25	1.0
13	632	30.004	45	26	51	3.0	28	1.7
16	426	29.973	47	25	48	3.2	29	1.7
19	36	29.983	44	25	51	1.7	27	0.8
22	0	30.018	36	25	64	1.6	27	0.9

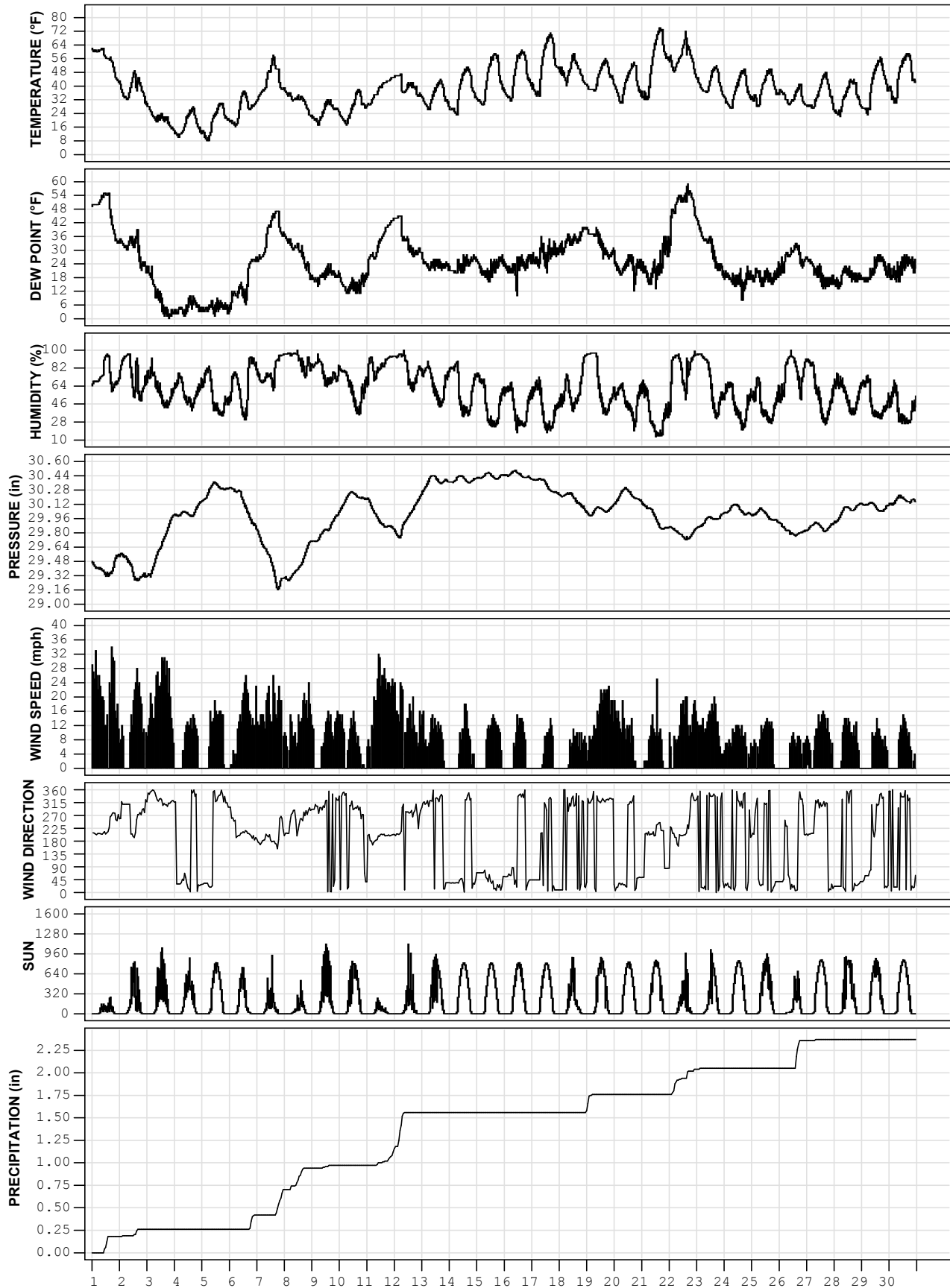
HOURLY PRECIPITATION (Water Equivalent) April 2016: Westford

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								0.04	0.02	0.06	0.06											02	
03													0.01		0.04	0.02									03	
04																									04	
05																									05	
06																		0.01	0.08	0.05	0.01	0.01			06	
07																		0.05	0.05	0.04	0.03	0.05	0.04		07	
08						0.04				0.01	0.03	0.03	0.04	0.01	0.04	0.03	0.02								08	
09									0.01		0.01						0.01								09	
10																									10	
11									0.01	0.02				0.01		0.01				0.02	0.02	0.01	0.01	0.04	0.04	11
12	0.02			0.07	0.11	0.06	0.10	0.03	0.01																12	
13																									13	
14																									14	
15																									15	
16																									16	
17																									17	
18																								0.02	18	
19	0.08	0.08	0.01		0.01																				19	
20																									20	
21																									21	
22			0.02	0.02	0.08	0.02	0.02		0.01		0.01				0.07	0.01						0.02			22	
23			0.01																						23	
24																									24	
25																									25	
26																									26	
27								0.01							0.13	0.08	0.06	0.04							27	
28																									28	
29																									29	
30																									30	
Sum	0.10	0.08	0.05	0.09	0.20	0.12	0.12	0.04	0.03	0.04	0.08	0.06	0.11	0.08	0.22	0.21	0.10	0.10	0.15	0.11	0.05	0.09	0.08	0.06	Sum	

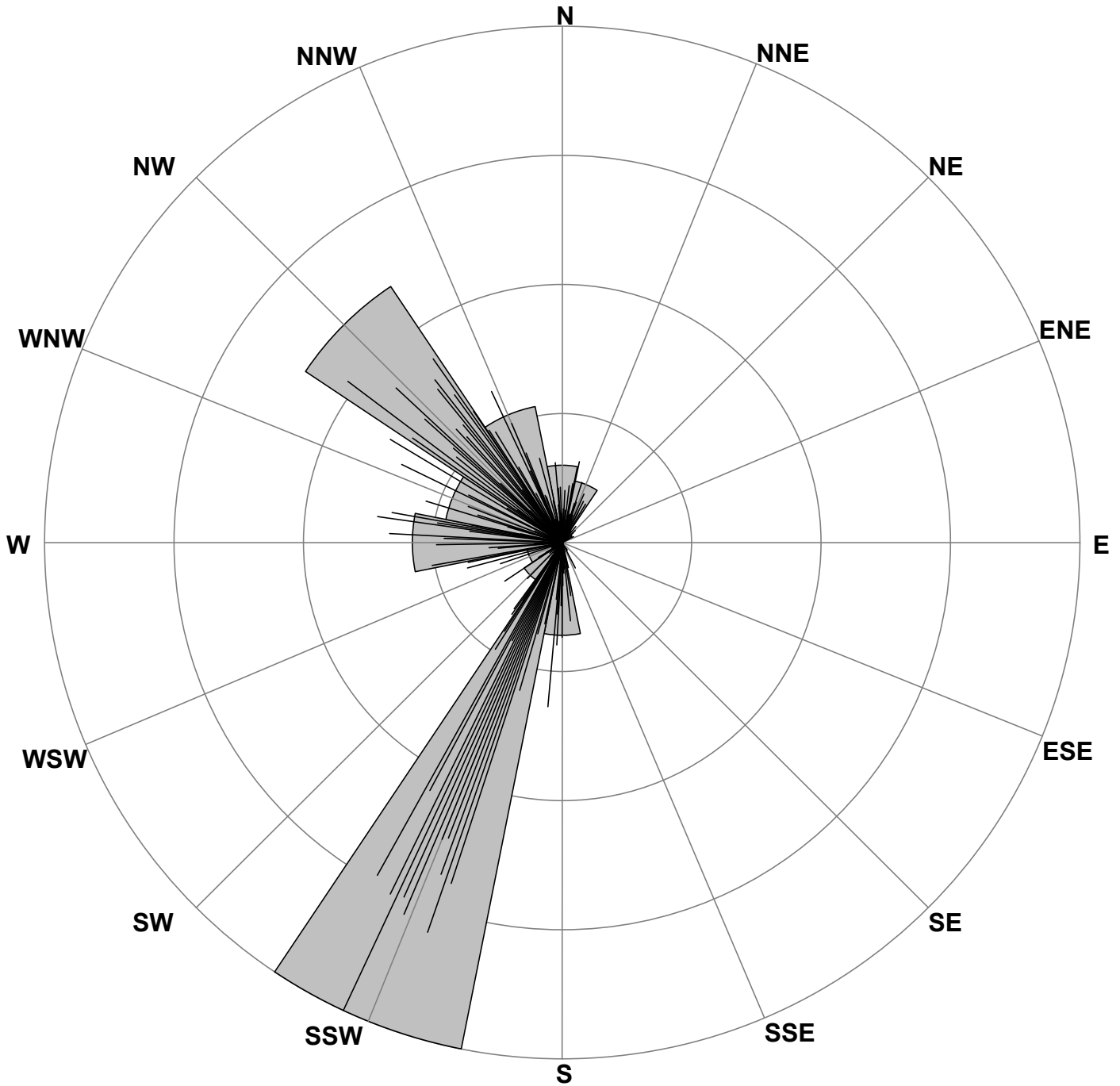
During a frozen precipitation event, hourly precipitation totals may not be recorded. In this case, daily amounts are typically entered in the last column (hour ending at 12 A.M.)

HOUR-BY-HOUR DATA

April 2016: Westford



**Wind Rose: April 2016
Westford**



**Maximum direction of wind: 45.0 miles from 205°
Maximum sector of wind: 418.4 miles from SSW
1269.2 total miles of wind**