

# LOCAL CLIMATOLOGICAL DATA

## Monthly Summary

### August 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
1	2	3	4A	4B	5	6	7	8		11	12	13	14	15	16	17	18	19	20	21	22	23		
1	80.1	53.9	67.0	66.6	61	84	0	2	.....	0	0.00	0.0	30.11	29.73	30.075	0.5	0.5	214	12	SW	7	219	226	
2	82.2	60.0	71.1*	68.8	64	85	0	6	..3.....	0	0.01	0.0	30.11	29.99	29.966	0.7	0.7	221	15	SW	8	211	209	
3	83.4	58.2	70.8	68.5	63	85	0	6	..3.....	0	0.47	0.0	30.05	29.93	30.006	0.3	0.2	214	13	SSE	6	146	234	
4	80.8	60.2	70.5	68.8	64	86	0	6	..3.....	0	0.32	0.0	30.38	29.91	29.953	0.0	0.0	283	10	SSW	4	302	211	
5	79.8	59.0	69.4	67.3	64	90	0	5	..3.....	0	0.66	0.0	29.96	29.85	29.906	0.4	0.4	215	14	WNW	6	232	201	
6	74.4	55.7	65.1	64.8	59	83	0	0	.....	0	0.04	0.0	29.87	29.80	29.826	0.5	0.5	304	15	W	7	287	244	
7	72.7	54.8	63.7	61.0	58	90	1	0	..3.....	0	0.20	0.0	29.93	29.82	29.856	0.4	0.4	307	17	WNW	9	302	184	
8	77.3	51.9	64.6	63.7	58	83	0	0	.....	0	0.00	0.0	30.01	29.91	29.974	0.5	0.5	304	15	WNW	7	299	274	
9	80.9	53.0	67.0	65.9	58	79	0	2	.....	0	0.00	0.0	30.07	29.99	30.029	0.1	0.1	308	10	NW	4	277	266	
10	82.1	54.0	68.0	66.5	59	80	0	3	.....	0	0.00	0.0	30.10	30.02	30.068	0.1	0.1	305	9	NW	4	305	242	
11	84.8*	54.0	69.4	68.4	61	79	0	5	.....	0	0.00	0.0	30.08	29.97	30.029	0.1	0.1	229	9	WSW	3	262	253	
12	79.6	59.4	69.5	69.5	59	70	0	5	.....	0	T	0.0	30.00	29.83	29.926	0.6	0.6	182	18	SSE	6	173	176	
13	69.2	58.5	63.8	64.2	61	89	1	0	.....	0	1.03	0.0	29.85	29.61	29.697	0.6	0.6	185	21	W	7	185	35	
14	64.5	51.5	58.0	57.5	52	83	6	0	.....	0	0.01	0.0	29.78	29.61	29.703	1.5	1.5	280	18	NNW	11	303	170	
15	64.8	50.9	57.9*	56.4	53	88	7	0	.....	0	0.07	0.0	29.83	29.76	29.789	0.9	0.9	225	17	SW	9	223	116	
16	63.0	53.6	58.3	57.9	56	92	6	0	.....	0	0.22	0.0	29.85	29.73	29.807	1.2	1.2	214	17	SSW	9	214	94	
17	69.0	56.7	62.9	60.2	57	90	2	0	.....	0	0.04	0.0	29.81	29.70	29.769	1.2	1.0	284	16	WNW	9	300	92	
18	68.7	49.1	58.9	58.0	53	85	6	0	.....	0	0.06	0.0	29.85	29.77	29.821	1.0	0.9	305	15	WNW	9	292	198	
19	74.9	45.5*	60.2	58.6	53	84	4	0	.....	0	0.00	0.0	29.90	29.83	29.866	0.0	0.0	290	5	WNW	1	306	217	
20	81.5	48.3	64.9	64.5	58	82	0	0	.....	0	0.00	0.0	29.96	29.87	29.887	0.0	0.0	214	7	S	3	245	224	
21	70.5	59.5	65.0	63.4	59	87	0	1	.....	0	0.05	0.0	30.00	29.94	29.909	0.2	0.2	164	15	SE	4	170	96	
22	66.4	58.7	62.6	62.1	59	91	2	0	.....	0	0.11	0.0	30.07	29.97	29.954	0.1	0.1	162	11	SE	3	140	78	
23	76.2	55.9	66.0	65.1	59	83	0	1	.....	0	0.00	0.0	30.10	30.04	29.974	0.1	0.0	37	18	N	3	15	225	
24	80.9	54.7	67.8	66.1	60	84	0	3	.....	0	0.00	0.0	30.13	30.05	29.994	0.1	0.1	300	9	WNW	4	273	245	
25	83.9	54.4	69.2	67.6	60	81	0	4	.....	0	0.01	0.0	30.14	30.03	30.084	0.0	0.0	277	6	W	2	294	239	
26	82.8	57.6	70.2	70.2	62	77	0	6	.....	0	0.01	0.0	30.07	29.87	29.999	0.5	0.5	219	14	S	6	224	239	
27	80.7	59.6	70.1	70.8	63	76	0	6	.....	0	T	0.0	29.89	29.80	29.842	0.5	0.3	248	12	SW	4	307	208	
28	69.3	54.5	61.9	61.2	55	82	3	0	.....	0	0.00	0.0	29.97	29.80	29.863	0.7	0.7	308	16	NW	6	290	165	
29	72.7	51.0	61.8	59.7	55	87	3	0	.....	0	0.00	0.0	30.15	29.97	30.091	0.1	0.1	305	10	NW	5	301	164	
30	76.5	53.4	65.0	65.6	58	78	0	0	.....	0	0.00	0.0	30.13	29.92	30.040	2.7	2.7	214	26	SW	11	215	176	
31	75.3	65.3	70.3	69.3	66	90	0	5	.....	0	0.06	0.0	29.93	29.81	29.850	2.3	2.3	213	22	SSW	11	224	85	
<b>Sum</b>	<b>Sum</b>	-----	-----	---	----		<b>Ttl</b>	<b>Ttl</b>					<b>For the month:</b>						---					
2349	1713						41	66	<b>Number of Days</b>	3.37	0.0	30.38	29.61	29.921	0.6	0.4	239	26	SW	11	215			
<b>Avg</b>	<b>Avg</b>	<b>Avg</b>	<b>Mean</b>	<b>Avg</b>	<b>Avg</b>	----	----		<b>Precip</b>	<b>Season Ttl</b>		<b>Date</b>	<b>Date</b>	-----	----	----	----	<b>Date</b>	<b>Date</b>	<b>Avg</b>				
75.8	55.3	65.5	64.5	59	83.9	----	----		≥.01 inch	17	31.62	0.0	4	14	-----	----	----	----	30	30	186			
<b>Number of Days</b>							<b>Season to Date</b>		<b>Snow, Ice ≥1.0 inch</b>	0	<b>Greatest in 24 Hours and Dates</b>				<b>Greatest Depth on Ground of Snow, Ice Pellets or Ice and Date</b>									
<b>Max Temperature</b>			<b>Min Temperature</b>			70	249	<b>Thunder</b>	5	<b>Precipitation</b>		<b>Snow, Ice Plts</b>												
≥ 90°F	≤ 32°F	≤ 32°F	≤ 0°F	----	----			<b>Heavy Fog</b>	0	1.04	13-14	0.0	-	0		-								
0	0	0	0	----	----			<b>Clear</b>	5	<b>Partly Cloudy</b>		15	<b>Cloudy</b>		11									

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<sup>2</sup> 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

## August 2014: Westford

Hour	AUG 19									AUG 20									AUG 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	29.85	0.00	49	48	97	30	0	0	0	29.90	0.00	52	51	97	00	0	0	0	29.94	0.00	61	58	91	15	0	0
04	0	29.83	0.00	46	46	98	30	0	0	0	29.89	0.00	50	49	98	36	0	0	0	29.94	0.00	64	60	89	16	0	0
07	30	29.87	0.00	47	46	98	30	0	0	26	29.92	0.00	49	48	98	00	0	0	19	29.97	0.00	62	61	95	20	0	1
10	448	29.89	0.00	64	57	77	30	0	0	566	29.93	0.00	69	61	77	02	0	4	93	29.97	0.00	63	61	93	14	0	0
13	250	29.87	0.00	69	57	67	30	0	0	596	29.96	0.00	77	64	64	21	0	4	279	29.98	0.00	68	63	85	17	0	6
16	559	29.86	0.00	70	60	70	30	0	0	169	32.12	0.00	78	67	71	07	0	0	371	29.97	0.00	68	59	73	13	1	9
19	33	29.86	0.00	66	59	76	36	0	0	42	29.91	0.00	71	64	81	17	0	0	33	29.97	0.00	64	58	80	12	0	0
22	0	29.89	0.00	54	53	96	00	0	0	0	29.94	0.00	65	60	85	15	0	0	0	30.00	0.00	60	58	91	16	0	0
AUG 22									AUG 23									AUG 24									
01	0	29.98	0.00	62	58	85	14	2	9	0	30.06	0.00	59	59	98	15	0	0	0	30.07	0.00	56	55	97	31	0	0
04	0	29.98	0.00	60	58	91	15	0	0	0	30.05	0.00	57	57	98	15	0	0	0	30.08	0.00	55	55	98	31	0	0
07	19	30.01	0.00	60	57	93	16	0	0	33	30.08	0.00	59	59	98	14	0	1	23	30.12	0.00	55	55	98	31	0	0
10	241	30.03	0.00	64	59	85	19	2	11	589	30.09	0.00	70	62	76	04	0	0	550	30.13	0.00	71	63	76	01	0	0
13	204	30.03	0.00	65	60	84	16	0	9	932	30.06	0.00	75	58	56	24	0	6	770	30.11	0.00	77	65	67	28	2	9
16	139	30.02	0.00	64	61	91	16	0	1	573	30.05	0.00	74	60	63	02	0	1	533	30.08	0.00	81	64	57	30	0	3
19	21	30.04	0.00	63	61	95	15	0	0	30	30.06	0.00	71	63	75	31	0	0	37	30.07	0.00	73	66	79	02	0	0
22	0	30.05	0.00	60	59	97	15	0	0	0	30.07	0.00	58	57	96	31	0	0	0	30.09	0.00	60	58	96	02	0	0
AUG 25									AUG 26									AUG 27									
01	0	32.32	0.00	57	56	97	02	0	0	0	30.05	0.00	60	59	97	21	0	0	0	29.87	0.00	69	60	74	21	1	7
04	0	30.09	0.00	56	55	98	02	0	0	0	30.05	0.00	59	58	97	21	0	1	0	29.84	0.00	70	60	73	21	1	9
07	26	30.13	0.00	57	56	98	02	0	0	23	30.06	0.00	59	58	98	21	0	3	47	29.85	0.00	68	62	80	22	0	7
10	475	30.14	0.00	75	66	73	21	0	0	550	30.05	0.00	75	65	72	20	1	6	364	29.85	0.00	74	66	77	23	0	6
13	754	30.11	0.00	80	63	57	28	0	4	740	30.00	0.00	80	65	62	27	2	9	800	29.82	0.00	77	67	70	30	0	9
16	561	30.07	0.00	83	59	44	18	0	3	519	29.95	0.00	82	63	53	20	1	11	519	29.80	0.00	78	67	68	30	0	7
19	33	30.03	0.00	74	67	81	26	0	0	25	29.90	0.00	77	64	65	20	0	5	19	29.83	0.00	68	61	80	01	0	1
22	0	30.04	0.00	61	60	96	21	0	0	0	29.90	0.00	69	61	77	21	0	4	0	29.84	0.00	62	60	91	00	0	0
AUG 28									AUG 29									AUG 30									
01	0	29.82	0.00	60	59	95	31	0	3	0	29.99	0.00	54	52	95	31	0	0	0	30.12	0.00	54	53	97	14	0	0
04	0	29.88	0.00	67	63	86	22	7	17	0	30.03	0.00	53	53	97	31	0	0	0	30.10	0.00	58	56	92	19	1	8
07	42	29.83	0.00	58	57	97	32	0	3	19	30.09	0.00	55	54	97	34	0	0	44	30.12	0.00	60	56	86	19	1	13
10	283	29.84	0.00	64	58	81	30	0	6	211	30.15	0.00	59	56	88	31	1	4	605	30.10	0.00	68	59	72	22	4	17
13	895	29.84	0.00	65	58	78	30	0	8	807	30.13	0.00	68	57	69	11	0	5	295	30.04	0.00	69	59	69	20	3	13
16	283	29.85	0.00	64	52	65	32	2	13	584	30.09	0.00	71	60	68	33	0	2	487	29.99	0.00	75	63	67	19	1	12
19	21	29.90	0.00	60	52	75	30	1	9	51	30.10	0.00	68	61	80	14	0	0	16	29.94	0.00	70	61	73	19	2	9
22	0	29.96	0.00	59	53	82	31	0	5	0	30.11	0.00	55	53	96	14	0	0	0	29.94	0.00	69	61	75	22	0	20
AUG 31																											
01	0	29.91	0.00	68	61	80	22	1	12																		
04	0	29.88	0.00	67	63	86	22	7	17																		
07	19	29.88	0.00	66	64	95	18	1	15																		
10	260	32.07	0.00	70	67	90	20	6	16																		
13	429	29.85	0.00	75	70	85	21	1	14																		
16	97	29.83	0.00	71	69	93	17	1	6																		
19	7	21.77	0.00	70	69	96	21	2	9																		
22	0	29.83	0.00	69	68	97	22	0	12																		

### 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

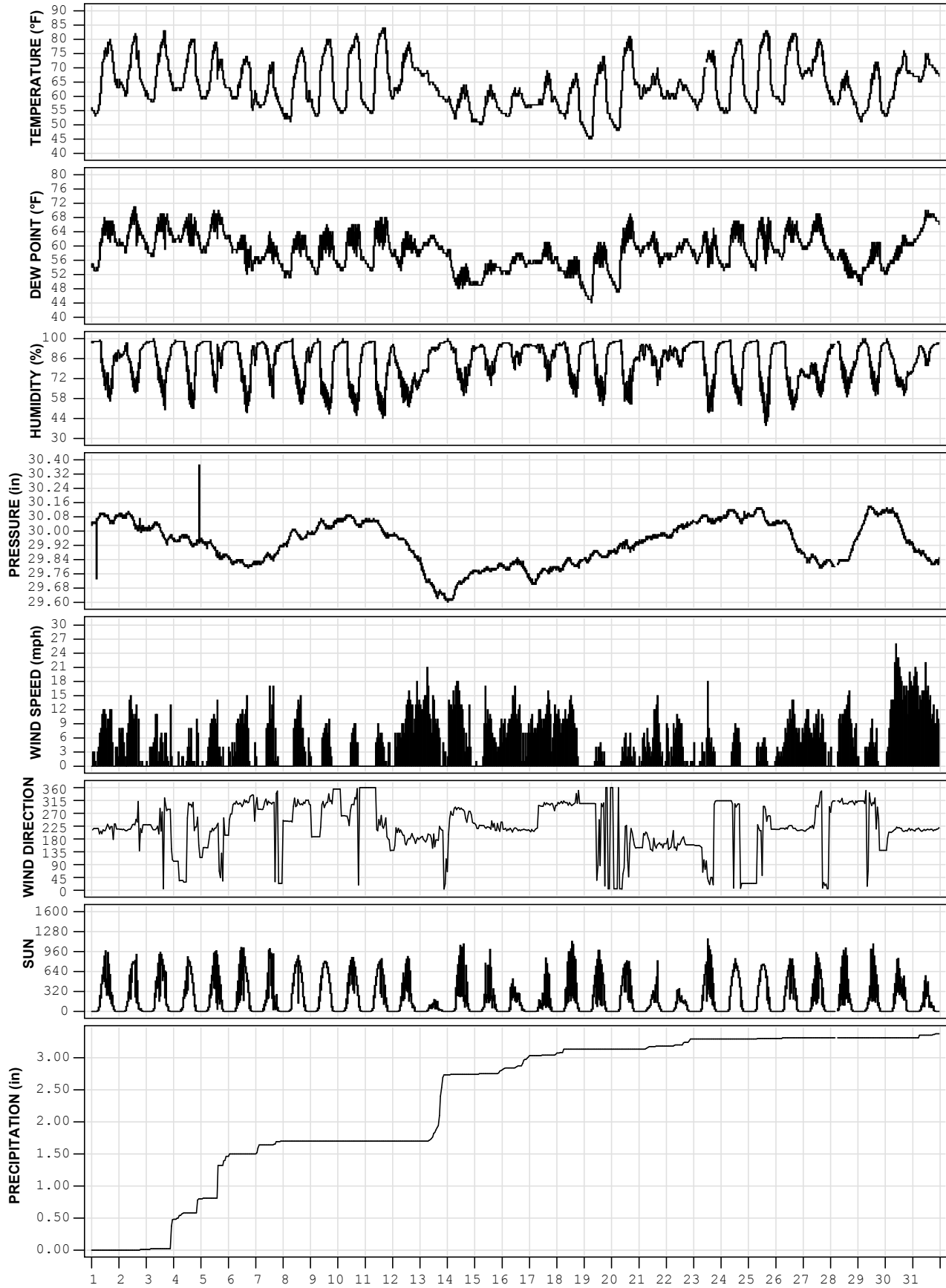
Hour	Averages						Resultant Wind	
	Sunshine	Pressure	Temperature	Dew Point	Humidity	Wind Speed	Direction	Speed
01	0	30.007	59	57	93	0.4	23	0.2
04	0	29.932	58	56	94	0.5	22	0.5
07	37	29.948	58	56	95	0.4	23	0.3
10	391	30.030	67	61	80	1.0	23	0.8
13	624	29.942	72	62	71	1.1	27	0.8
16	386	29.990	73	61	68	0.5	23	0.3
19	43	29.657	68	62	80	0.2	24	0.1
22	0	29.931	61	58	91	0.2	20	0.2

## HOURLY PRECIPITATION (Water Equivalent) August 2014: Westford

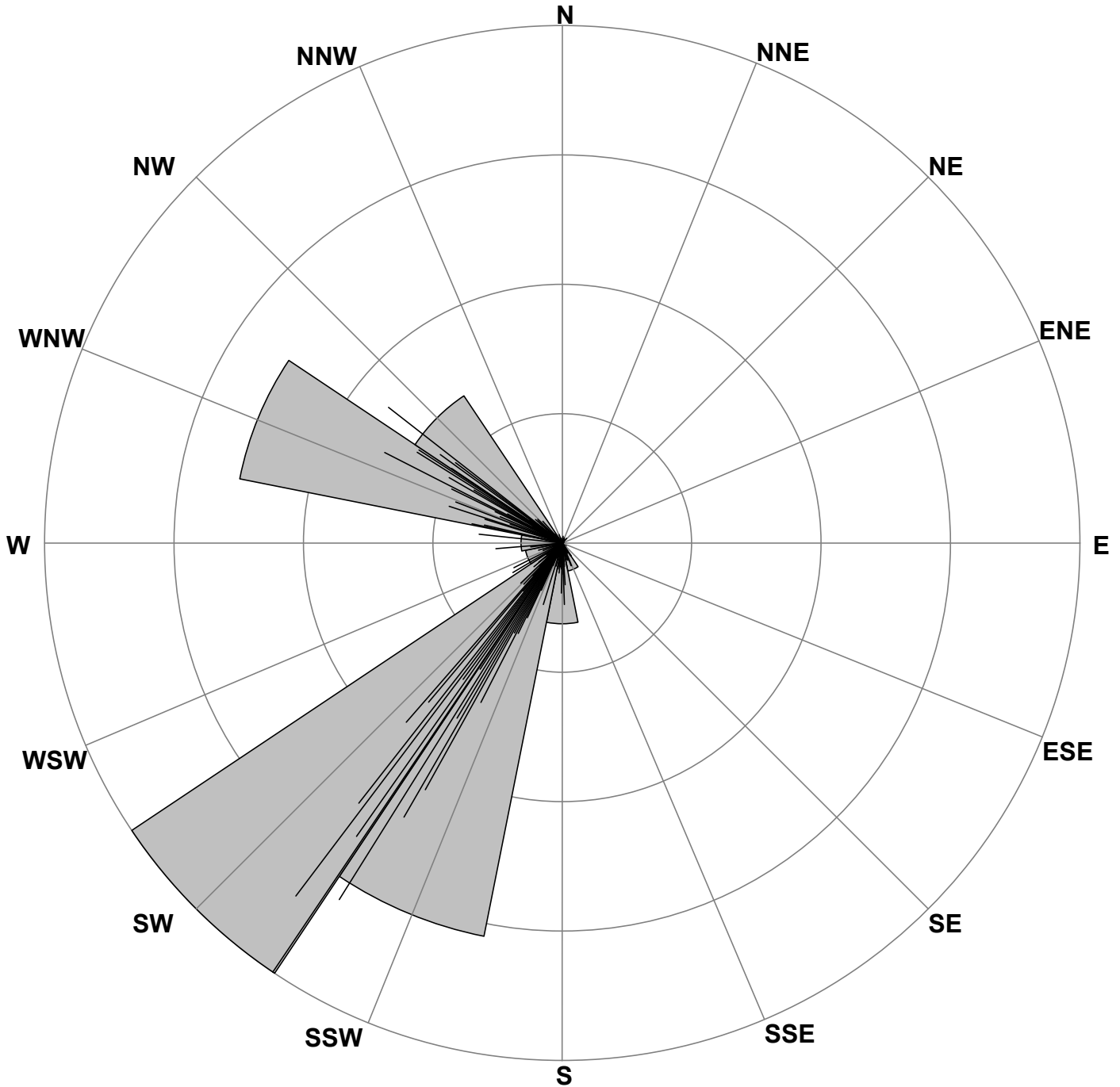
Date	A.M. Hour Ending at												P.M. Hour Ending at												Date
	01	02	03	04	05	06	07	08	09	10	11	12	01	02	03	04	05	06	07	08	09	10	11	12	
01																								01	
02																			0.01					02	
03				0.01																	0.35	0.10	0.01	03	
04			0.02		0.04		0.02	0.01	0.01												0.20			04	
05		0.01													0.51				0.07	0.01	0.06			05	
06	0.04																							06	
07	0.02	0.07	0.05												0.01		0.04				0.01			07	
08																								08	
09																								09	
10																								10	
11																								11	
12																								12	
13								0.01	0.01	0.02	0.02	0.06	0.01	0.04	0.04	0.03	0.16	0.30	0.13	0.16	0.04			13	
14			0.01																					14	
15				0.01																	0.01	0.03	0.01	0.01	15
16	0.01	0.01	0.01									0.01	0.01	0.01			0.04	0.05	0.01		0.02	0.02	0.02	16	
17										0.01												0.01	0.02	17	
18			0.01			0.05																		18	
19																								19	
20																								20	
21						0.01	0.01	0.01	0.01						0.01					0.02	0.03			21	
22							0.01	0.01							0.03	0.01								22	
23																								23	
24																								24	
25								0.01																25	
26						0.01																		26	
27																								27	
28																								28	
29																								29	
30																								30	
31						0.04											0.01		0.01					31	
<b>Sum</b>	0.07	0.09	0.10	0.02	0.04	0.11	0.04	0.05	0.03	0.02	0.03	0.07	0.02	0.05	0.59	0.05	0.16	0.39	0.19	0.27	0.29	0.49	0.14	0.06	<b>Sum</b>

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 August 2014: Westford



**Wind Rose: August 2014  
Westford**



**Maximum direction of wind: 26.6 miles from 214°  
Maximum sector of wind: 137.3 miles from SW  
432.9 total miles of wind**