

LOCAL CLIMATOLOGICAL DATA

Monthly Summary

April 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 dust/stm 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		11	12	13	14	15	16	17	18	19	20	21	22	23		
1	46.1	21.8	33.9	34.0	23	64	31	0	.....	12	0.00	0.0	30.17	29.95	30.081	0.7	0.4	354	17	NNE	8	33	230
2	51.8	36.1	43.9	43.1	30	60	21	0	.....	9	0.00	0.0	30.04	29.91	29.961	2.9	2.5	223	15	S	9	253	199
3	38.6	26.5	32.5	32.3	23	68	32	0	.....	9	0.00	0.0	30.17	30.04	30.115	0.9	0.9	309	19	WNW	9	288	189
4	50.0	20.9	35.4	35.0	24	68	29	0	.....	8	0.21	0.0	30.16	29.69	29.942	1.9	1.9	180	26	S	12	169	178
5	41.3	32.0	36.6	35.4	30	80	28	0	.....	5	0.08	T	29.93	29.62	29.708	4.7	3.7	242	27	WNW	16	293	83
6	49.1	29.1	39.1	37.6	23	57	26	0	.....	2	0.00	0.0	30.13	29.92	30.056	2.6	2.5	296	24	W	14	291	226
7	57.9	30.5	44.2	44.7	26	50	20	0	.....	2	0.04	0.0	30.14	29.77	30.028	1.4	1.3	199	22	SW	11	192	166
8	53.1	34.3	43.7	43.7	40	86	21	0	.....	T	0.40	0.0	29.77	29.18	29.373	4.7	3.9	222	32	WSW	21	274	71
9	41.3	27.8	34.5	35.8	24	66	30	0	.....	T	T	T	29.91	29.50	29.704	3.1	3.1	318	24	WNW	14	331	220
10	59.2	26.4	42.8	44.8	25	48	22	0	.....	0	0.00	0.0	29.99	29.70	29.856	6.6	6.6	204	35	SSW	17	200	218
11	59.3	34.2	46.8	49.1	34	59	18	0	.....	0	0.06	0.0	29.98	29.73	29.886	3.0	2.6	254	28	SSE	15	214	193
12	59.6	33.2	46.4	46.3	31	57	18	0	.....	0	0.00	0.0	30.18	29.97	30.075	1.9	1.3	254	20	WNW	12	284	217
13	64.8	41.3	53.1	50.0	41	73	12	0	..3.....	0	0.22	0.0	30.17	29.78	29.971	2.3	2.1	184	22	SSE	11	194	110	
14	78.1*	44.0	61.0*	63.9	52	69	4	0	..3.....	0	0.23	0.0	29.87	29.51	29.679	6.6	6.3	209	35	SSE	18	214	177	
15	63.7	22.7	43.2	49.0	47	92	21	0	.....	3	1.35	2.6	29.88	29.33	29.555	3.6	2.3	224	33	W	22	283	29
16	31.8	16.9	24.3*	23.2	15	73	40	0	.....	2	0.21	3.2	30.63	29.84	30.301	3.2	3.2	323	22	WNW	13	315	216
17	46.8	15.3*	31.0	32.3	17	58	34	0	.....	T	0.05	0.0	30.75	30.55	30.657	1.0	1.0	200	15	SW	7	186	253
18	51.9	30.8	41.4	42.2	17	37	23	0	.....	0	0.00	0.0	30.55	30.13	30.326	3.3	3.2	203	20	SSE	11	220	194
19	48.4	34.8	41.6	40.7	31	70	23	0	.....	0	0.19	0.0	30.42	30.09	30.248	1.7	1.4	310	22	WNW	13	310	109
20	59.6	25.7	42.6	44.2	22	47	22	0	.....	0	0.00	0.0	30.47	30.15	30.355	1.1	1.1	214	15	SW	7	208	257
21	67.4	47.7	57.6	56.3	32	40	7	0	.....	0	T	0.0	30.16	29.72	29.930	4.0	4.0	208	24	SSE	13	213	171
22	62.6	48.6	55.6	55.0	41	63	9	0	.....	0	0.17	0.0	29.72	29.36	29.494	2.5	2.2	218	18	SW	10	204	64
23	48.6	39.3	43.9	41.8	37	83	21	0	.....	0	0.05	0.0	29.75	29.41	29.566	3.1	3.1	326	24	NW	14	315	44
24	51.4	31.9	41.7	40.8	25	54	23	0	.....	0	0.00	0.0	29.97	29.74	29.854	4.8	4.8	327	31	NW	16	311	267
25	54.7	30.7	42.7	43.6	27	52	22	0	.....	0	0.00	0.0	30.02	29.70	29.894	0.4	0.4	300	16	WNW	9	285	257
26	47.9	38.4	43.2	42.2	39	89	22	0	.....	0	0.36	0.0	29.80	29.65	29.692	1.0	0.8	226	16	SW	7	223	40
27	45.4	32.3	38.9	38.0	36	94	26	0	.....	0	0.14	T	30.11	29.81	29.975	0.8	0.7	322	16	N	8	288	62
28	54.4	34.2	44.3	44.3	37	78	21	0	.....	0	0.01	0.0	30.16	30.06	30.109	0.7	0.7	1	14	NW	8	323	170
29	60.6	42.0	51.3	49.7	34	58	13	0	.....	0	0.02	0.0	30.37	30.15	30.273	2.4	2.3	178	26	SSE	12	201	228
30	45.3	37.2	41.3	41.4	37	84	24	0	.....	0	0.58	0.0	30.40	29.98	30.238	3.7	3.7	182	23	SSE	11	177	73
Sum	Sum	-----	-----	---	----		Ttl	Ttl					For the month:										---	
1591	967						663	0	Number of Days	4.37	5.8	30.75	29.18	29.963	2.7	1.6	235	35	SSW	22	283			
Avg	Avg	Avg	Mean	Avg	Avg	----	----		Precip	Season Ttl		Date	Date	-----	----	----	----	Date	Date	Avg				
53.0	32.2	42.6	42.7	31	66.0	----	----		≥.01 inch	18	12.56	94.0	17	8	-----	----	----	----	10+	15	163			
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			7986	0	Thunder	2	Precipitation			Snow, Ice Plts											
≥ 90°F	≤ 32°F	≤ 32°F	≤ 0°F	----	----			Heavy Fog	0	1.51	14-15	3.2	16	12			1							
0	1	16	0	----	----			Clear	1	Partly Cloudy		16	Cloudy		13									

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

April 2014: Westford

Hour	APR 01												APR 02												APR 03											
	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	30.17	0.00	29	24	80	05	0	5	0	29.91	0.00	42	29	59	20	4	9	0	30.05	0.00	35	25	67	28	6	10									
04	0	30.14	0.00	28	20	73	35	0	7	0	29.93	0.00	41	28	59	19	1	8	0	30.08	0.00	31	23	72	31	0	8									
07	14	30.14	0.00	22	18	82	02	0	0	19	29.95	0.00	40	31	70	21	4	10	16	30.10	0.00	27	21	79	32	0	0									
10	538	30.13	0.00	35	23	61	33	0	0	364	29.97	0.00	44	33	66	20	4	12	726	30.13	0.00	33	23	68	30	3	12									
13	786	30.11	0.00	39	24	54	30	0	5	404	29.97	0.00	47	33	59	18	3	12	434	30.13	0.00	34	22	62	00	0	5									
16	483	30.03	0.00	46	22	39	32	0	0	541	29.94	0.00	51	33	50	25	2	11	540	30.13	0.00	38	22	53	00	1	4									
19	19	29.99	0.00	37	25	61	05	0	0	21	29.97	0.00	45	28	51	27	2	9	18	30.12	0.00	33	22	65	03	0	2									
22	0	29.99	0.00	33	26	76	20	0	0	0	30.01	0.00	38	26	61	29	0	4	0	30.16	0.00	27	20	76	02	0	0									

MAXIMUM SHORT DURATION PRECIPITATION

Time Period (minutes)	5	10	15	20	30	45	60	80	100	120	150	180
Precipitation	0.07	0.10	0.14	0.16	0.22	0.29	0.34	0.37	0.44	0.52	0.60	0.64
Ended: Date	15	15	15	15	15	15	15	15	15	15	15	15
Ended: Time	1351	1350	1353	1350	1356	1412	1426	1445	1506	1527	1554	1626

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

April 2014: Westford

Hour	APR 19									APR 20									APR 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	30.12	0.00	43	28	54	21	2	8	0	30.43	0.00	33	25	72	24	0	0	0	30.13	0.00	52	22	31	19	6	13
04	0	30.10	0.00	42	30	62	23	0	0	0	30.42	0.00	28	24	84	24	0	0	0	30.07	0.00	49	26	40	19	8	15
07	5	30.16	0.00	39	38	95	33	3	15	26	30.45	0.00	27	22	81	08	0	0	72	30.05	0.00	49	28	45	21	9	16
10	33	30.26	0.00	38	37	95	33	2	9	617	30.46	0.00	46	22	38	20	0	4	288	30.00	0.00	53	30	41	22	9	24
13	160	30.30	0.00	40	36	87	29	1	7	842	30.39	0.00	52	20	28	16	2	9	691	29.92	0.00	64	33	32	21	6	14
16	671	30.30	0.00	48	33	56	33	2	15	512	30.31	0.00	58	23	26	21	4	12	174	29.82	0.00	66	35	32	22	2	10
19	51	30.33	0.00	44	24	45	32	1	11	44	30.24	0.00	55	20	25	19	0	0	0	29.78	0.00	61	38	42	24	0	0
22	0	30.39	0.00	36	24	62	30	0	0	0	30.20	0.00	51	23	32	19	1	10	0	29.75	0.00	57	40	53	24	0	0
APR 22									APR 23									APR 24									
01	0	29.72	0.00	55	39	55	24	0	0	0	29.42	0.00	43	42	97	30	3	11	0	29.75	0.00	38	25	60	33	6	14
04	0	29.62	0.00	51	39	62	09	0	1	0	29.45	0.00	42	41	98	31	3	11	0	29.76	0.00	33	22	63	32	5	18
07	32	29.56	0.00	57	30	35	19	1	6	9	29.50	0.00	40	39	98	32	1	11	54	29.81	0.00	32	22	65	31	5	16
10	267	29.51	0.00	61	28	28	19	7	13	144	29.55	0.00	40	38	91	33	4	18	631	29.85	0.00	38	25	58	34	4	18
13	125	29.43	0.00	61	33	35	19	2	7	190	29.56	0.00	44	39	84	35	0	11	218	29.87	0.00	44	25	48	29	9	21
16	60	29.39	0.00	54	50	89	22	2	8	56	29.60	0.00	44	35	71	32	6	23	733	29.87	0.00	51	27	39	30	7	21
19	39	29.37	0.00	54	52	95	20	5	11	7	29.66	0.00	42	33	72	33	5	16	56	29.91	0.00	48	28	45	31	2	20
22	0	29.41	0.00	50	48	93	28	5	10	0	29.72	0.00	41	30	65	31	1	16	0	29.96	0.00	42	25	52	33	1	10
APR 25									APR 26									APR 27									
01	0	29.96	0.00	37	23	55	34	0	0	0	29.67	0.00	47	28	48	03	0	0	0	29.81	0.00	38	37	96	28	0	4
04	0	29.96	0.00	33	24	68	01	0	0	0	29.68	0.00	40	36	84	21	0	6	0	29.83	0.00	34	33	97	30	3	10
07	32	30.00	0.00	32	24	73	03	0	0	12	29.67	0.00	41	39	95	17	0	7	23	29.90	0.00	33	32	98	31	0	0
10	582	30.01	0.00	42	27	54	26	0	4	81	29.65	0.00	42	41	94	19	0	8	162	29.97	0.00	36	35	98	32	0	8
13	833	29.92	0.00	51	25	37	07	0	8	114	29.66	0.00	43	41	94	18	0	8	63	30.01	0.00	39	38	97	33	0	7
16	575	29.84	0.00	53	27	36	27	0	8	211	29.68	0.05	43	42	96	24	1	6	149	30.05	0.00	41	39	92	30	0	0
19	72	29.75	0.00	52	29	41	03	0	0	5	29.73	0.00	43	42	96	24	0	0	53	30.06	0.00	45	39	80	31	0	5
22	0	29.74	0.00	47	30	53	03	0	0	0	29.79	0.00	40	39	96	32	1	7	0	30.11	0.00	41	38	91	01	0	4
APR 28									APR 29									APR 30									
01	0	30.12	0.00	39	37	94	04	0	0	0	30.17	0.00	45	38	78	12	1	5	0	30.39	0.00	42	34	74	18	5	13
04	0	30.10	0.00	37	35	94	01	0	6	0	30.21	0.00	45	38	78	12	0	2	0	30.37	0.04	37	35	91	20	0	5
07	28	30.08	0.00	35	33	94	02	0	0	77	30.26	0.00	43	38	81	09	0	0	47	30.35	0.00	39	35	84	19	6	13
10	580	30.12	0.00	47	37	69	03	0	12	664	30.31	0.00	52	37	57	16	4	11	350	30.29	0.00	45	37	74	19	8	15
13	499	30.09	0.00	49	38	67	35	1	10	854	30.29	0.00	59	32	36	14	5	17	179	30.24	0.11	44	39	83	18	4	13
16	218	30.08	0.00	51	38	61	00	2	8	652	30.27	0.00	60	29	31	16	5	13	97	30.17	0.00	43	39	84	18	6	16
19	12	30.12	0.00	49	40	71	02	0	0	9	30.28	0.00	53	26	36	18	5	12	9	30.09	0.00	42	39	90	17	2	15
22	0	30.16	0.00	45	39	79	04	0	4	0	30.35	0.00	44	35	69	20	3	11	0	30.05	0.00	41	38	92	16	6	15

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	29.975	39	30	71	2.3	23	1.2
04	0	29.968	37	30	77	1.6	23	0.8
07	28	29.978	36	30	79	2.1	23	1.2
10	391	29.988	44	31	65	4.0	22	2.6
13	495	29.957	48	32	57	3.3	23	2.0
16	352	29.935	50	31	53	3.4	24	1.8
19	28	29.936	46	31	58	2.0	22	1.3
22	0	29.970	41	31	69	1.9	23	1.3

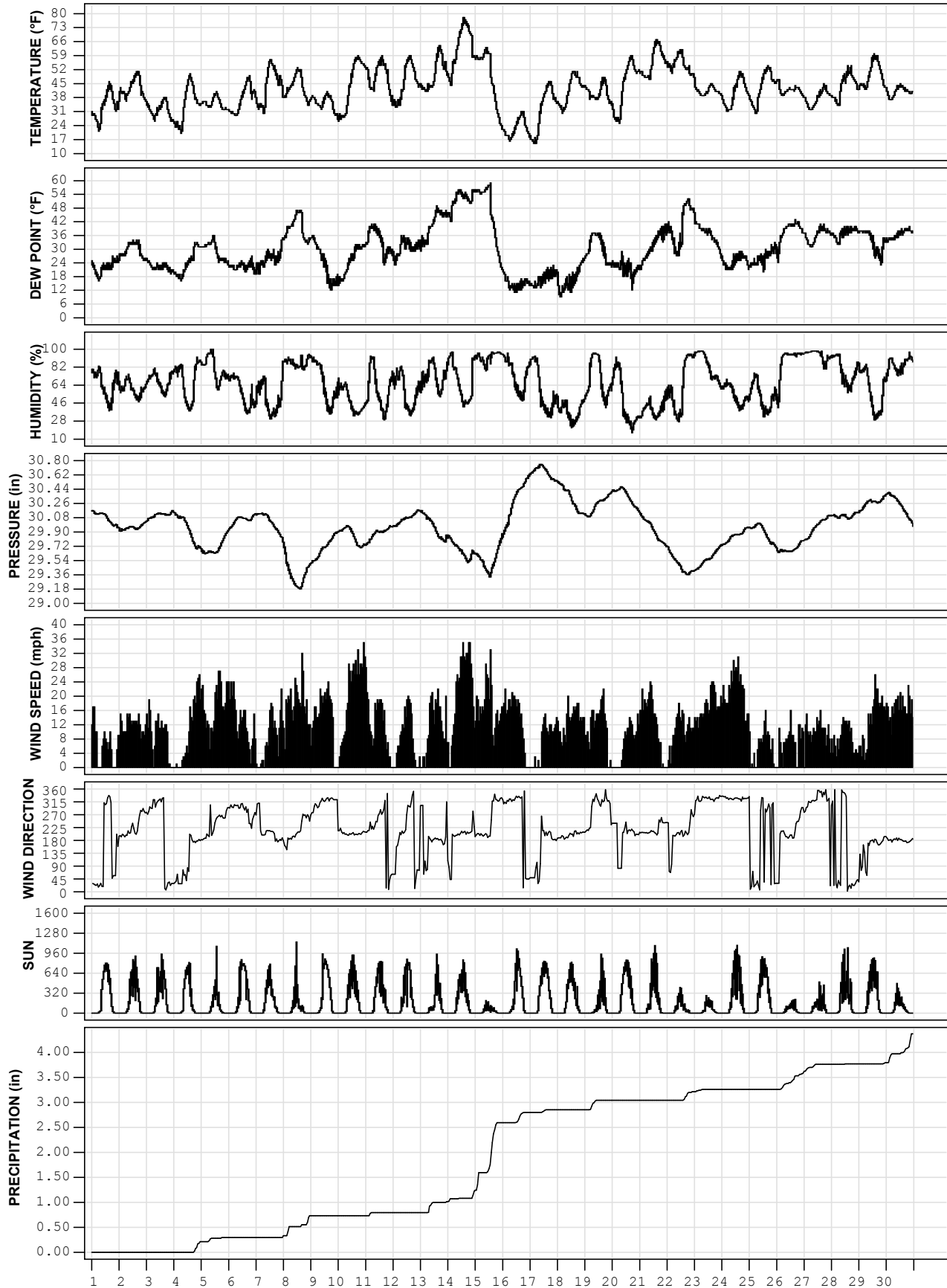
HOURLY PRECIPITATION (Water Equivalent) April 2014: Westford

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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30																									30
Sum	0.01	0.22	0.36	0.22	0.18	0.10	0.13	0.19	0.10	0.09	0.06	0.09	0.15	0.34	0.30	0.39	0.17	0.21	0.13	0.07	0.26	0.33	0.17	0.10	Sum

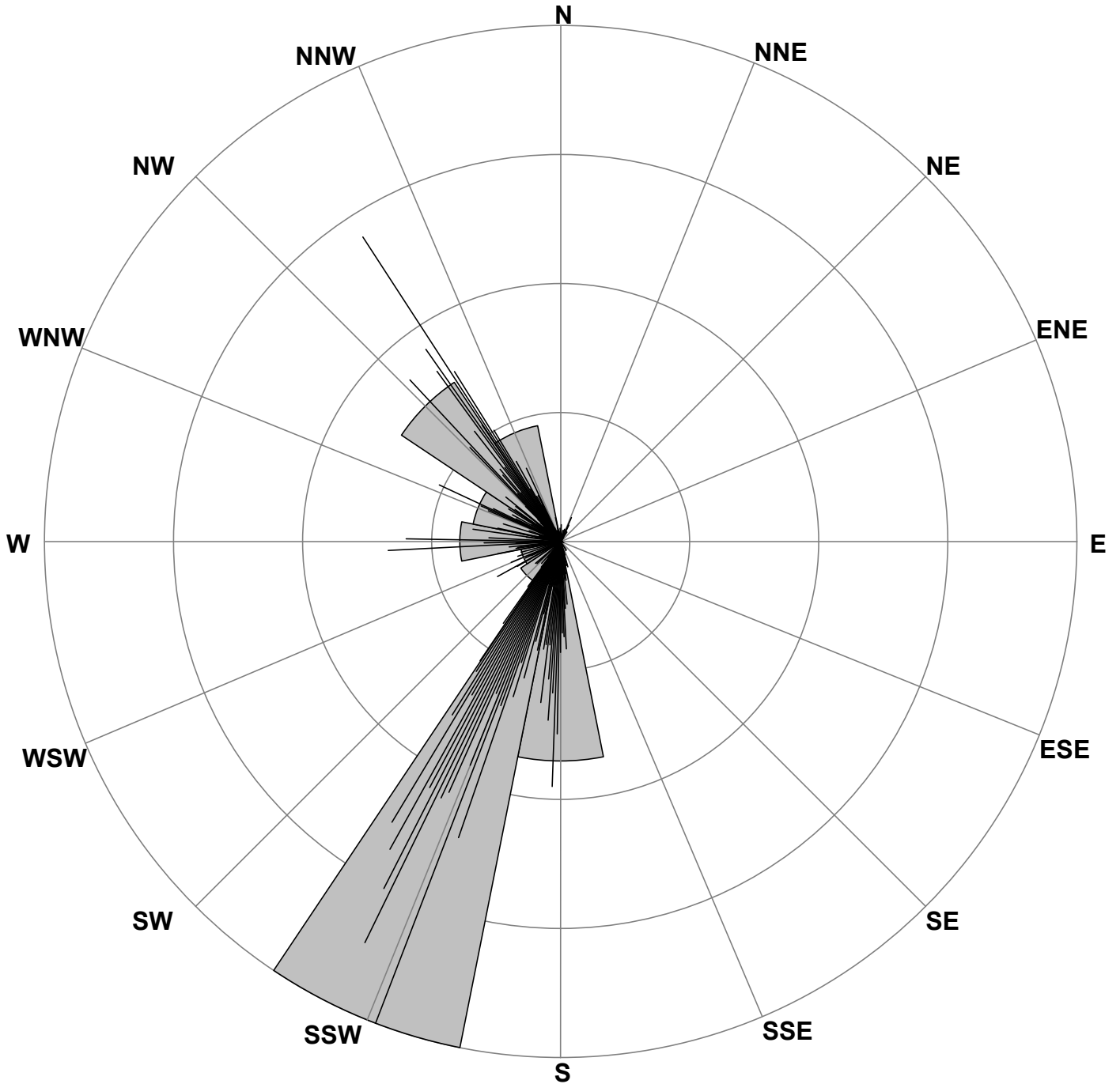
During a frozen precipitation event, hourly precipitation totals may not be recorded. In this case, daily amounts are typically entered in the last column (hour ending at 12 A.M.)

HOUR-BY-HOUR DATA

April 2014: Westford



**Wind Rose: April 2014
Westford**



**Maximum direction of wind: 75.3 miles from 201°
Maximum sector of wind: 738.8 miles from SSW
1938.7 total miles of wind**