

LOCAL CLIMATOLOGICAL DATA

Monthly Summary

June 2012

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	Res	Res	Peak			Minute	
																				Speed	Speed		Dir	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	70.4	41.6*	56.0	57.6	44	65	9	0	.....	0	T	0.0	30.05	29.87	29.971	0.2	0.1	113	12	NNE	5	43	232
2	60.9	51.1	56.0	54.9	47	77	9	0	.....	0	0.47	0.0	29.88	29.72	29.754	1.1	1.1	185	22	SSE	9	143	67
3	69.3	48.7	59.0	57.6	51	81	6	0	.....	0	0.03	0.0	29.72	29.60	29.664	0.3	0.3	77	12	ESE	5	81	198
4	55.8	45.8	50.8*	51.2	47	85	14	0	.....	0	0.16	0.0	29.85	29.65	29.745	0.9	0.9	33	15	ENE	6	21	126
5	67.3	45.4	56.4	55.4	48	78	9	0	.....	0	0.01	0.0	29.91	29.82	29.867	0.9	0.8	29	18	NNE	9	29	218
6	69.2	45.0	57.1	55.5	51	86	8	0	..3.....	0	0.44	0.0	29.95	29.88	29.914	0.2	0.2	317	10	NNE	6	286	175	
7	73.1	49.9	61.5	60.1	51	74	3	0	.....	0	0.00	0.0	29.95	29.84	29.898	0.2	0.2	313	11	WNW	6	309	284
8	71.8	50.8	61.3	60.2	53	77	3	0	..3.....	0	0.28	0.0	29.86	29.67	29.770	1.1	1.0	233	19	W	10	308	168	
9	75.1	46.4	60.8	60.5	52	75	4	0	.....	0	0.01	0.0	29.94	29.77	29.842	0.5	0.4	275	13	WNW	7	291	304
10	81.3	48.1	64.7	64.6	55	73	0	0	.....	0	0.00	0.0	30.09	29.95	30.028	0.0	0.0	304	8	WNW	2	285	250
11	83.6	57.3	70.4	71.6	62	72	0	6	.....	0	0.00	0.0	30.12	30.01	30.063	3.4	3.4	213	22	S	11	209	278
12	75.2	61.9	68.5	66.1	57	74	0	4	.....	0	0.35	0.0	30.01	29.79	29.901	5.3	5.3	211	30	WSW	17	213	182
13	70.2	53.2	61.7	62.4	57	83	3	0	.....	0	0.22	0.0	30.12	29.77	29.955	1.7	1.2	272	18	SW	10	306	182
14	74.8	45.9	60.4	60.2	48	68	4	0	.....	0	0.00	0.0	30.28	30.12	30.232	0.4	0.4	31	16	NE	7	16	321
15	77.5	44.9	61.2	62.3	50	68	3	0	.....	0	0.00	0.0	30.32	30.22	30.260	0.3	0.2	305	12	WNW	9	294	316
16	82.8	49.6	66.2	65.5	56	73	0	2	.....	0	0.00	0.0	30.28	30.11	30.199	0.4	0.4	215	12	S	5	213	278
17	79.7	58.9	69.3	68.1	58	71	0	5	.....	0	0.00	0.0	30.12	29.93	30.037	2.2	2.1	216	19	S	9	223	306
18	75.2	58.3	66.7	66.3	56	70	0	2	.....	0	0.00	0.0	30.01	29.93	29.979	2.9	2.9	213	23	WSW	11	215	276
19	77.6	60.1	68.8	68.9	61	75	0	4	.....	0	0.00	0.0	30.01	29.90	29.962	4.1	4.1	213	23	S	11	237	231
20	90.4	69.2	79.8	78.9	68	72	0	15	..3.....	0	0.00	0.0	29.97	29.82	29.903	1.9	1.4	255	17	NW	8	310	292	
21	92.3*	71.9	82.1*	80.9	67	63	0	17	.....	0	0.00	0.0	29.83	29.66	29.753	1.2	1.1	268	15	WSW	7	301	270
22	80.8	64.7	72.8	73.7	62	68	0	8	.....	0	0.00	0.0	29.77	29.66	29.721	1.7	1.7	294	15	WSW	8	309	244
23	76.6	52.4	64.5	66.2	57	73	0	0	.....	0	T	0.0	29.92	29.76	29.838	0.9	0.8	313	16	NNW	9	302	211
24	81.2	49.1	65.1	64.7	53	70	0	0	.....	0	0.06	0.0	29.94	29.80	29.887	0.6	0.6	294	17	NW	11	284	282
25	70.0	54.1	62.0	60.4	56	86	3	0	.....	0	0.38	0.0	29.80	29.64	29.690	0.7	0.6	299	18	WNW	8	312	154
26	57.3	50.6	53.9	54.9	53	94	11	0	.....	0	1.14	0.0	29.68	29.56	29.629	2.3	2.3	308	19	NNW	12	289	38
27	64.3	55.5	59.9	59.4	56	89	5	0	.....	0	0.50	0.0	29.70	29.53	29.610	2.9	2.9	304	20	WNW	11	307	88
28	80.2	57.8	69.0	66.1	59	78	0	4	.....	0	0.07	0.0	29.73	29.63	29.682	0.5	0.5	284	9	W	6	307	242
29	86.2	56.8	71.5	72.6	61	68	0	7	.....	0	0.03	0.0	29.63	29.47	29.545	2.6	2.1	252	21	NW	13	299	304
30	85.8	62.9	74.4	74.9	57	55	0	10	.....	0	0.00	0.0	29.65	29.54	29.582	2.2	2.0	259	19	NNW	12	280	312
Sum	Sum	-----	-----	---	----		Ttl	Ttl	Number of Days				For the month:										---	
2256	1608						94	84			4.15	0.0	30.32	29.47	29.863	1.4	0.9	247	30	WSW	17	213		
Avg	Avg	Avg	Mean	Avg	Avg	----	----	Precip		Season Ttl		Date	Date	-----	----	----	---	Date	Date	Avg				
75.2	53.6	64.4	64.1	55	74.7	----	----	≥.01 inch	15	20.87	67.1	15	29	-----	----	----	---	12	12	227				
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			6498	126	Thunder	3	Precipitation			Snow, Ice Plts											
≥ 90°F	≤ 32°F	≤ 32°F	≤ 0°F	----	----	----	----	Heavy Fog	0	1.56	26-27	0.0	-	0			-							
2	0	0	0	----	----	----	----	Clear	4	Partly Cloudy		19	Cloudy		7									

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

June 2012: 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						
JUN 01																											
01	0	29.96	0.00	45	41	86	35	0	0	0	29.86	0.00	61	40	46	14	3	17	0	29.71	0.00	53	51	95	17	0	0
04	0	29.99	0.00	42	40	92	35	0	0	0	29.77	0.00	59	41	52	20	2	11	0	29.69	0.00	52	51	96	17	0	0
07	90	30.03	0.00	46	45	95	35	0	0	47	29.74	0.00	52	45	77	18	4	18	116	29.70	0.00	53	52	96	18	0	1
10	828	30.05	0.00	62	45	53	05	2	7	83	29.75	0.00	53	47	79	20	0	6	816	29.68	0.00	60	56	87	09	0	1
13	861	30.00	0.00	68	45	43	34	0	5	135	29.74	0.29	54	50	85	20	0	8	990	29.64	0.00	67	53	61	31	0	6
16	343	29.94	0.00	69	46	43	18	0	7	91	29.73	0.00	54	51	89	20	0	6	213	29.60	0.00	64	53	67	14	0	9
19	37	29.91	0.00	63	51	65	15	0	1	23	29.73	0.00	55	52	90	18	0	0	56	29.63	0.00	60	49	68	12	0	4
22	0	29.89	0.00	62	45	53	17	0	6	0	29.73	0.00	53	51	94	18	0	0	0	29.66	0.00	53	46	77	04	0	4
JUN 02																											
JUN 03																											
JUN 04																											
JUN 05																											
JUN 06																											
JUN 07																											
JUN 08																											
JUN 09																											
JUN 10																											
JUN 11																											
JUN 12																											
JUN 13																											
JUN 14																											
JUN 15																											
JUN 16																											
JUN 17																											
JUN 18																											

MAXIMUM SHORT DURATION PRECIPITATION

Time Period (minutes)	5	10	15	20	30	45	60	80	100	120	150	180
Precipitation	0.22	0.28	0.31	0.33	0.33	0.33	0.34	0.34	0.34	0.36	0.36	0.44
Ended: Date	06	06	06	06	06	06	06	06	06	06	06	26
Ended: Time	1329	1333	1334	1338	1338	1338	1408	1408	1408	1509	1509	2334

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

June 2012: 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
01	0	30.01	0.00	64	56	75	19	6	16	0	29.94	0.00	70	65	83	23	2	9	0	29.83	0.00	76	66	71	21	2	8
04	0	29.98	0.00	62	55	78	20	4	20	0	29.92	0.00	69	65	86	21	5	8	0	29.81	0.00	72	64	76	23	0	3
07	118	30.00	0.00	63	56	79	22	5	12	58	29.95	0.00	72	67	85	19	0	4	56	29.81	0.00	74	65	74	24	0	5
10	526	29.97	0.00	71	62	73	20	4	14	838	29.96	0.00	79	69	71	30	4	9	315	29.79	0.00	82	70	68	24	1	8
13	724	29.96	0.00	74	63	70	21	7	14	872	29.92	0.00	86	74	66	30	2	8	868	29.75	0.00	88	71	57	30	5	12
16	313	29.94	0.00	74	65	73	19	5	10	642	29.87	0.00	90	69	50	31	3	7	315	29.70	0.00	91	70	51	31	0	2
19	142	29.92	0.00	75	66	72	21	1	12	156	29.85	0.00	90	72	57	30	0	1	178	29.66	0.00	89	73	60	23	0	6
22	0	29.90	0.00	70	64	81	19	3	9	0	29.84	0.00	76	70	81	16	0	1	0	29.69	0.00	79	62	56	25	5	12
JUN 22									JUN 23									JUN 24									
01	0	29.67	0.00	75	62	64	22	2	6	0	29.77	0.00	64	57	79	25	0	1	0	29.91	0.00	53	48	83	31	0	0
04	0	29.66	0.00	72	61	70	22	0	6	0	29.78	0.00	60	55	86	21	0	0	0	29.93	0.00	50	47	89	19	0	0
07	114	29.71	0.00	72	62	72	27	2	8	44	29.82	0.00	60	58	93	21	0	1	35	29.94	0.00	56	54	95	19	0	1
10	246	29.74	0.00	74	65	74	30	3	9	274	29.85	0.00	70	61	74	32	0	6	680	29.93	0.00	72	55	54	25	0	1
13	360	29.75	0.00	77	64	66	30	4	8	601	29.84	0.00	72	61	68	05	0	6	889	29.89	0.00	79	54	43	30	2	9
16	404	29.73	0.00	77	64	65	29	3	9	504	29.86	0.00	74	58	56	30	8	14	135	29.83	0.00	80	53	40	30	1	4
19	132	29.73	0.00	79	65	61	36	0	0	111	29.86	0.00	71	53	53	31	0	4	26	29.84	0.00	69	54	59	29	10	15
22	0	29.76	0.00	67	60	77	31	5	14	0	29.90	0.00	54	48	79	31	0	0	0	29.85	0.00	59	57	91	16	0	0
JUN 25									JUN 26									JUN 27									
01	0	29.80	0.00	59	58	95	15	0	2	0	29.67	0.00	54	49	86	30	0	1	0	29.54	0.25	57	55	96	31	5	14
04	0	29.72	0.00	58	56	95	18	0	4	0	29.64	0.00	52	50	92	30	0	0	0	29.53	0.00	57	55	96	31	0	10
07	130	29.70	0.00	59	58	96	19	0	1	35	29.65	0.11	54	52	95	30	0	0	60	29.57	0.00	56	54	96	30	4	10
10	304	29.67	0.00	63	60	88	18	0	3	84	29.64	0.00	57	55	95	29	1	10	84	29.61	0.00	58	54	88	29	3	9
13	299	29.65	0.00	69	58	68	28	0	4	141	29.64	0.00	57	55	95	31	2	10	214	29.62	0.00	61	57	88	29	0	6
16	788	29.64	0.00	67	59	76	30	0	11	56	29.61	0.00	57	55	94	30	4	13	183	29.64	0.00	64	58	81	30	4	19
19	86	29.67	0.00	58	52	80	29	3	9	11	29.61	0.00	56	54	95	30	8	15	84	29.66	0.00	64	58	80	30	2	9
22	0	29.70	0.00	56	51	83	30	0	0	0	29.58	0.07	56	55	96	31	2	10	0	29.70	0.00	61	57	85	28	3	8
JUN 28									JUN 29									JUN 30									
01	0	29.69	0.00	60	56	86	28	1	4	0	29.61	0.00	57	54	90	24	0	1	0	29.56	0.00	70	57	62	20	1	8
04	0	29.69	0.00	59	56	92	25	0	6	0	29.57	0.00	63	57	80	20	0	0	0	29.55	0.00	68	54	61	21	1	6
07	144	29.72	0.00	60	58	93	25	2	6	58	29.59	0.00	62	59	92	18	0	1	42	29.61	0.00	65	55	70	23	1	7
10	406	29.72	0.00	66	60	81	30	0	5	635	29.55	0.00	75	65	71	20	4	11	675	29.60	0.00	76	59	55	21	6	14
13	504	29.71	0.00	73	62	70	02	0	5	867	29.49	0.00	82	71	70	20	4	14	875	29.58	0.00	82	57	42	27	4	14
16	679	29.67	0.00	79	62	56	30	2	8	670	29.50	0.00	84	64	50	30	4	11	677	29.55	0.00	85	57	39	28	5	11
19	53	29.64	0.00	78	59	53	28	0	1	202	29.52	0.00	81	61	51	27	2	10	199	29.57	0.00	82	58	44	29	0	8
22	0	29.65	0.00	58	55	88	28	0	0	0	29.55	0.00	74	58	58	22	1	10	0	29.62	0.00	76	57	52	22	0	5

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

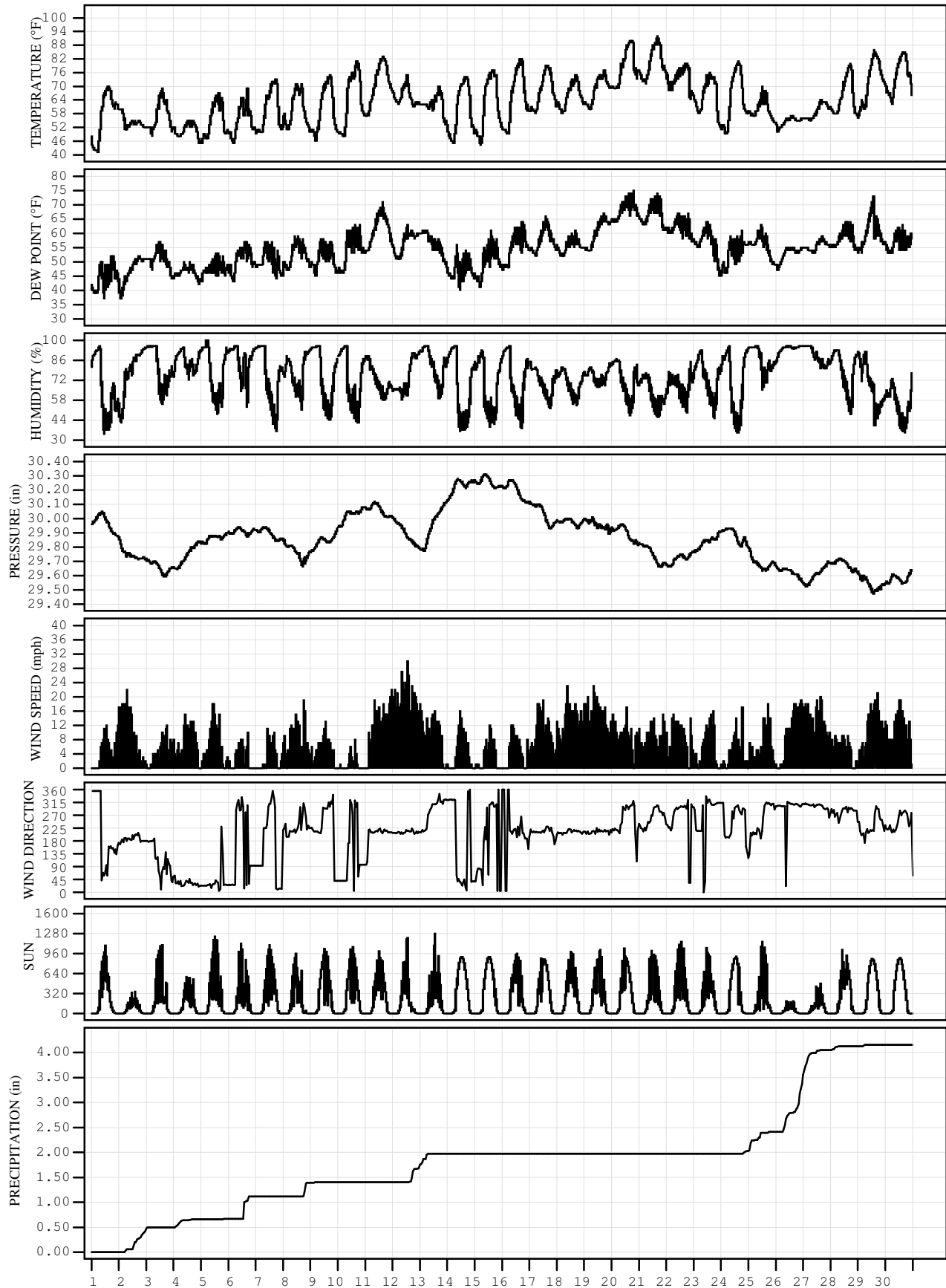
Hour	Averages						Resultant Wind	
	Sunshine	Pressure	Temperature	Dew Point	Humidity	Wind Speed	Direction	Speed
01	0	29.868	58	52	83	1.4	22	1.0
04	0	29.854	56	52	86	0.7	21	0.6
07	77	29.882	58	54	88	1.4	23	1.1
10	522	29.887	67	57	71	2.1	24	1.1
13	653	29.869	71	58	64	2.1	24	1.1
16	468	29.844	73	58	61	2.1	28	1.3
19	118	29.841	70	57	65	1.6	28	1.3
22	0	29.860	60	54	80	1.1	25	0.8

HOURLY PRECIPITATION (Water Equivalent) June 2012: Westford

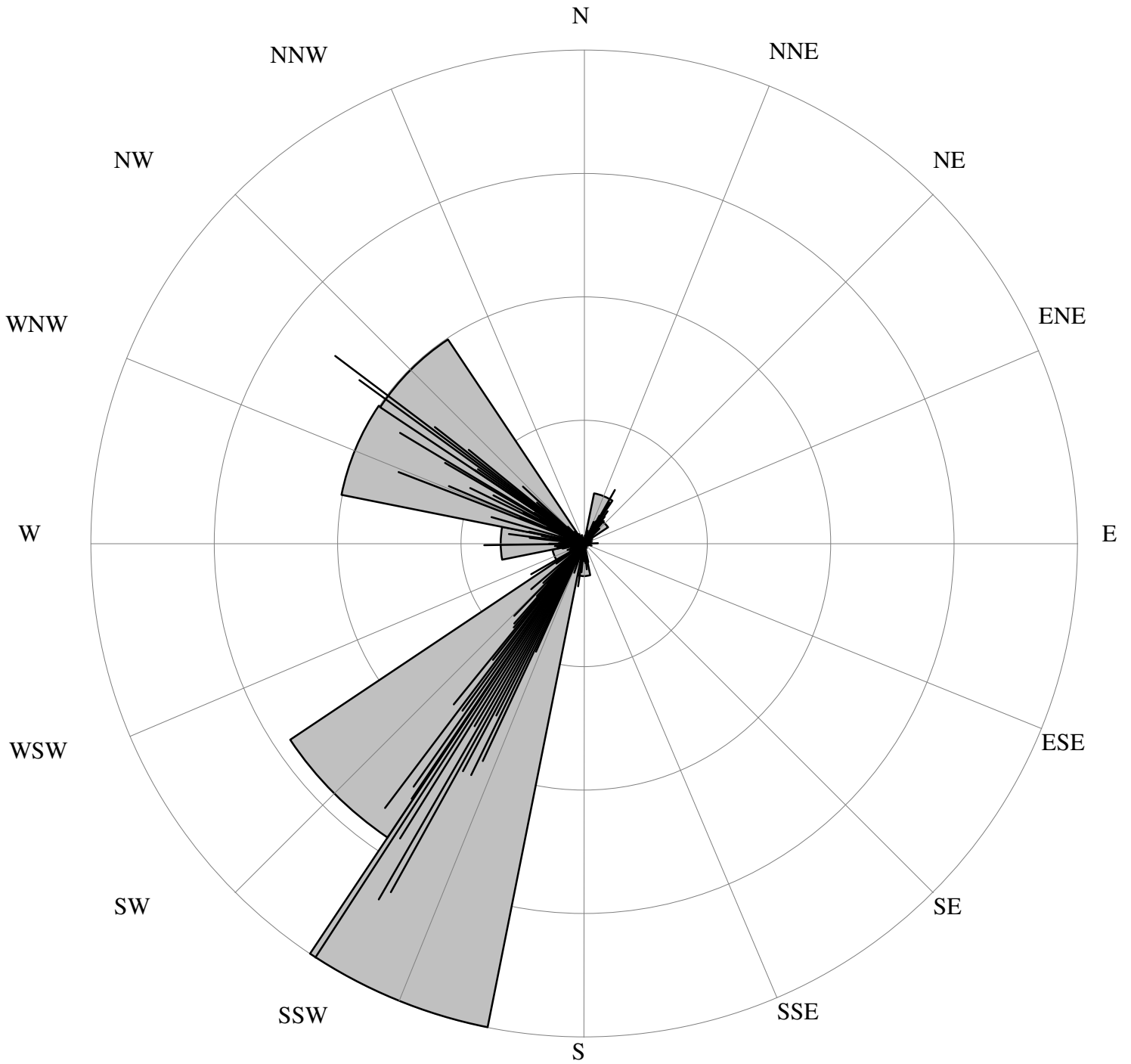
Date	A.M. Hour Ending at												P.M. Hour Ending at												Date
	01	02	03	04	05	06	07	08	09	10	11	12	01	02	03	04	05	06	07	08	09	10	11	12	
01																								01	
02						0.04	0.02						0.05	0.09		0.06	0.01	0.01	0.01	0.04	0.04	0.02	0.02	0.06	02
03	0.02					0.01																			03
04		0.01	0.02	0.02	0.03	0.03	0.02	0.01						0.01	0.01										04
05																			0.01						05
06														0.33	0.01	0.02		0.08							06
07																									07
08																		0.01	0.09	0.16	0.02				08
09				0.01																					09
10																									10
11																									11
12																									12
13	0.01	0.04	0.07			0.08	0.02								0.01	0.01	0.07	0.13	0.05			0.01		0.07	13
14																									14
15																									15
16																									16
17																									17
18																									18
19																									19
20																									20
21																									21
22																									22
23																									23
24																				0.02	0.02	0.01	0.01		24
25	0.01	0.15	0.05			0.01			0.04		0.10						0.02								25
26							0.05	0.09	0.12	0.06	0.02	0.03	0.01		0.02		0.06	0.02	0.08	0.20	0.09	0.11	0.18	26	
27	0.11	0.06	0.05	0.11	0.05	0.04	0.01	0.01				0.04	0.01		0.01										27
28		0.02		0.03	0.01	0.01																			28
29					0.01	0.02																			29
30																									30
Sum	0.15	0.28	0.19	0.17	0.10	0.23	0.13	0.11	0.16	0.06	0.12	0.07	0.07	0.43	0.03	0.12	0.08	0.31	0.17	0.31	0.28	0.13	0.14	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 2012: Westford



Wind Rose: June 2012
Westford



Maximum direction of wind: 52.6 miles from 213°
Maximum sector of wind: 321.6 miles from SSW
1042.0 total miles of wind