

LOCAL CLIMATOLOGICAL DATA

Monthly Summary

April 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	37.1	30.3	33.7	32.8	31	94	31	0	.....	8	0.50	1.9	30.01	29.87	29.934	0.4	0.1	228	12	SW	6	197	25
2	47.6	31.2	39.4	37.9	31	78	25	0	.....	4	0.00	0.0	30.05	29.98	30.019	1.4	1.0	264	16	WNW	11	285	211
3	51.2	26.2	38.7	39.0	24	59	26	0	.....	3	0.00	0.0	30.10	29.85	30.010	0.1	0.1	321	7	NW	5	301	238
4	46.3	36.4	41.4	40.6	34	77	24	0	.....	2	0.29	0.0	29.85	29.54	29.632	4.5	4.4	182	29	S	14	186	51
5	45.4	35.1	40.3	38.8	36	90	25	0	.....	1	0.06	0.0	30.01	29.63	29.836	1.6	1.2	210	15	S	9	192	64
6	40.5	36.4	38.5	38.1	36	92	26	0	.....	T	0.71	0.0	29.98	29.13	29.617	1.1	1.0	167	15	S	8	140	32
7	40.0	31.5	35.8	36.8	36	96	29	0	.....	T	0.54	0.0	29.43	29.07	29.199	3.8	2.9	264	25	WNW	13	308	54
8	38.6	28.5	33.5*	32.2	29	87	31	0	.....	1	0.20	0.0	29.89	29.43	29.673	4.6	4.6	307	24	WNW	15	285	59
9	61.6	26.0*	43.8	44.9	29	58	21	0	.....	0	0.02	0.0	30.06	29.89	29.989	1.4	1.4	208	16	SSW	7	229	226
10	76.2	51.3	63.7	63.9	36	35	1	0	.....	0	0.00	0.0	30.00	29.81	29.931	5.4	5.4	205	28	S	15	207	197
11	76.1	47.0	61.5	60.3	49	68	3	0	.....	0	0.14	0.0	30.08	29.92	29.983	1.3	0.9	253	15	SSW	11	230	155
12	54.4	41.9	48.2	48.2	43	82	17	0	.....	0	0.06	0.0	30.20	29.99	30.079	3.6	3.2	276	25	WSW	14	278	87
13	55.3	36.0	45.6	43.7	32	65	19	0	.....	0	0.01	0.0	30.33	30.18	30.267	2.5	2.3	307	21	NW	12	324	209
14	58.7	31.8	45.3	45.2	24	48	19	0	.....	0	0.00	0.0	30.41	30.30	30.350	0.4	0.4	311	12	WNW	7	291	255
15	66.0	35.1	50.5	50.8	34	56	14	0	.....	0	0.38	0.0	30.33	29.81	30.098	4.1	4.1	205	23	S	13	202	187
16	75.7	49.7	62.7	59.6	53	81	2	0	.....	0	0.35	0.0	29.81	29.49	29.672	4.8	4.2	224	27	NNW	14	296	97
17	49.8	36.4	43.1	44.7	38	79	22	0	.....	0	0.00	0.0	30.19	29.67	29.915	1.8	1.7	312	21	WNW	10	304	100
18	50.6	31.0	40.8	40.7	28	63	24	0	.....	0	0.00	0.0	30.44	30.19	30.357	0.6	0.5	345	16	NE	7	301	234
19	51.2	38.8	45.0	43.3	37	78	20	0	.....	0	0.51	0.0	30.39	30.03	30.198	6.6	6.6	198	32	SW	15	205	67
20	45.7	39.5	42.6	42.7	40	91	22	0	.....	0	0.07	0.0	30.17	30.00	30.101	1.6	0.7	241	15	SW	10	214	65
21	50.5	41.7	46.1	45.7	42	87	18	0	.....	0	0.40	0.0	30.01	29.83	29.886	4.4	4.3	183	29	S	15	201	92
22	46.5	39.5	43.0	43.4	41	90	21	0	.....	0	0.01	0.0	30.00	29.86	29.909	1.8	1.0	260	16	NNW	9	339	58
23	64.6	31.7	48.1	49.3	35	63	16	0	.....	0	0.00	0.0	30.06	29.91	29.997	1.8	1.5	236	16	NW	10	222	268
24	54.2	35.3	44.8	43.7	33	67	20	0	.....	0	0.00	0.0	30.22	30.02	30.156	0.9	0.9	341	13	WNW	7	313	233
25	62.2	32.1	47.1	46.3	38	73	18	0	.....	0	0.09	0.0	30.21	30.01	30.146	2.8	2.7	191	25	SSW	13	215	143
26	71.6	48.0	59.8	57.0	52	84	5	0	.....	0	0.18	0.0	30.01	29.73	29.837	1.1	0.8	169	16	SW	9	207	178
27	77.1*	49.3	63.2	63.9	55	76	2	0	.....	0	0.00	0.0	29.81	29.69	29.755	2.7	2.6	193	21	S	12	199	233
28	76.4	59.4	67.9*	66.8	48	57	0	3	.....	0	T	0.0	29.92	29.72	29.835	4.2	3.3	237	25	S	13	205	254
29	70.6	38.0	54.3	60.3	41	49	10	0	.....	0	0.00	0.0	30.15	29.80	29.901	2.9	2.1	288	25	WNW	12	316	139
30	42.6	30.2	36.4	38.4	31	73	28	0	.....	0	0.02	0.0	30.34	30.00	30.208	0.3	0.2	25	11	NE	6	22	79
Sum	Sum	-----	-----	---	----		Ttl	Ttl			Total	Total	For the month:					---						
1684	1125						539	3	Number of Days		4.54	1.9	30.44	29.07	29.950	2.5	1.6	230	32	SW	15	201		
Avg	Avg	Avg	Mean	Avg	Avg		----	----	Precip		Season Ttl	Date	Date	-----	----	----	----	----	Date	Date	Avg			
56.1	37.5	46.8	46.6	37	73.2		----	----	≥.01 inch	19	12.87	108.4	18	7	-----	----	----	----	19	21	143			
Number of Days							Season to Date	Snow, Ice ≥1.0 inch	1	Greatest in 24 Hours and Dates					Greatest Depth on Ground of Snow, Ice Pellets or Ice and Date									
Max Temperature			Min Temperature			6806	3	Thunder	0	Precipitation		Snow, Ice Plts												
≥ 90°F	≤ 32°F	≤ 32°F	≤ 0°F	----	----			Heavy Fog	0	0.93	6- 7	1.9	1	8			1							
0	0	11	0	----	----			Clear	2	Partly Cloudy		14	Cloudy		14									

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
April 2017: 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 01																											
00	0	29.89	0.00	31	30	93	21	2	7	0	30.01	0.00	31	31	97	32	2	5	0	30.03	0.00	36	27	72	32	0	0
03	0	29.87	0.00	30	29	95	20	0	0	0	30.02	0.00	31	31	97	34	0	6	0	30.04	0.00	34	26	75	26	0	0
06	0	29.89	0.00	31	29	96	20	0	0	0	30.03	0.00	32	31	97	02	0	0	0	30.04	0.00	28	25	87	27	0	0
09	5	29.93	0.00	32	31	96	20	0	0	200	30.04	0.00	36	34	94	21	3	9	353	30.08	0.00	38	27	65	27	0	0
12	40	29.94	0.00	34	33	94	20	0	4	577	30.01	0.00	42	33	70	23	2	10	765	30.09	0.00	44	25	48	30	0	6
15	130	29.93	0.00	37	33	87	07	0	0	680	29.98	0.00	47	32	56	31	3	15	696	30.01	0.00	49	20	32	27	0	0
18	49	29.97	0.00	35	34	93	32	0	0	190	30.02	0.00	46	31	56	32	0	8	127	29.95	0.00	49	20	32	03	0	0
21	0	30.00	0.00	32	31	96	32	0	5	0	30.03	0.00	37	28	68	32	0	0	0	29.92	0.00	40	22	48	03	0	0
APR 02																											
APR 03																											
APR 04																											
APR 05																											
APR 06																											
APR 07																											
APR 08																											
APR 09																											
APR 10																											
APR 11																											
APR 12																											
APR 13																											
APR 14																											
APR 15																											
APR 16																											
APR 17																											
APR 18																											

MAXIMUM SHORT DURATION PRECIPITATION

Time Period (minutes)	5	10	15	20	30	45	60	80	100	120	150	180
Precipitation	0.06	0.08	0.10	0.12	0.14	0.20	0.22	0.24	0.24	0.27	0.34	0.38
Ended: Date	06	06	16	16	06	06	16	16	16	19	19	19
Ended: Time	1346	1216	1737	1743	1716	1724	1737	1743	1743	1741	1733	1751

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 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																																																																																																																																																																																																										
APR 19										APR 20										APR 21																																																																																																																																																																																																											
00	0	30.37	0.00	39	27	62	18	0	0	0	30.06	0.00	43	41	94	21	5	16	0	30.00	0.00	42	40	93	07	0	0	03	0	30.36	0.00	40	31	71	17	4	12	0	30.06	0.00	43	42	96	22	4	10	0	29.96	0.16	45	43	93	14	0	9	06	0	30.34	0.00	40	33	74	18	8	18	0	30.10	0.00	43	42	96	31	3	9	0	29.91	0.00	44	42	91	20	1	7	09	176	30.27	0.00	44	35	70	19	8	22	88	30.15	0.00	40	40	97	33	0	8	95	29.90	0.00	46	41	82	18	9	25	12	146	30.20	0.00	47	35	65	20	9	19	225	30.16	0.00	44	41	87	33	1	8	288	29.84	0.00	49	42	76	19	7	22	15	54	30.13	0.00	45	41	86	19	2	10	202	30.13	0.00	45	39	81	33	3	7	250	29.83	0.13	46	44	93	18	5	12	18	14	30.05	0.07	43	42	94	21	9	23	32	30.12	0.00	43	40	87	36	0	0	151	29.83	0.00	47	43	83	18	6	18	21	0	30.04	0.00	44	41	89	20	7	27	0	30.06	0.00	42	39	90	07	0	5	0	29.88	0.00	44	42	92	18	0	7
APR 22										APR 23										APR 24																																																																																																																																																																																																											
00	0	29.87	0.00	43	42	95	19	3	9	0	29.99	0.00	40	38	93	31	0	0	0	30.02	0.00	50	35	57	34	0	7	03	0	29.87	0.00	43	42	96	19	3	6	0	30.01	0.00	38	35	91	02	0	0	0	30.06	0.00	42	38	86	01	0	5	06	0	29.87	0.00	43	42	96	20	4	6	5	30.02	0.00	33	32	96	02	0	0	0	30.11	0.00	37	34	89	00	0	0	09	130	29.87	0.00	45	44	95	20	2	6	459	30.06	0.00	46	40	80	16	0	6	257	30.20	0.00	38	31	78	32	0	6	12	183	29.89	0.00	46	40	82	29	5	9	784	30.05	0.00	54	39	56	28	6	9	768	30.22	0.00	45	33	61	28	2	9	15	128	29.90	0.00	46	41	84	32	1	5	694	29.97	0.00	62	37	39	18	1	10	682	30.19	0.00	51	32	47	33	3	9	18	62	29.95	0.00	43	39	84	32	1	14	199	29.91	0.00	64	38	37	21	7	14	236	30.18	0.00	53	33	47	31	0	7	21	0	29.98	0.00	40	38	90	31	0	0	0	29.96	0.00	55	36	49	24	3	10	0	30.20	0.00	42	28	59	00	0	0
APR 25										APR 26										APR 27																																																																																																																																																																																																											
00	0	30.18	0.00	37	27	67	36	0	0	0	30.01	0.00	49	45	86	20	0	4	0	29.78	0.00	53	51	93	18	0	0	03	0	30.17	0.00	33	28	81	00	0	0	0	29.93	0.00	48	46	93	18	1	4	0	29.76	0.00	51	50	96	18	0	3	06	9	30.18	0.00	33	28	82	00	0	0	0	29.89	0.00	48	47	96	17	0	0	7	29.79	0.00	51	50	97	18	0	0	09	441	30.20	0.00	53	36	53	20	7	11	241	29.86	0.00	51	50	96	06	0	3	461	29.80	0.00	65	58	78	16	2	13	12	325	30.19	0.00	57	39	50	19	11	23	388	29.83	0.00	61	55	81	10	0	6	564	29.79	0.00	71	57	62	23	7	15	15	176	30.16	0.00	53	45	74	18	3	10	689	29.79	0.00	68	57	69	15	1	7	737	29.75	0.00	76	59	55	22	6	13	18	62	30.10	0.00	50	43	79	13	4	10	253	29.74	0.00	69	57	66	20	5	10	171	29.71	0.00	74	58	57	15	0	8	21	0	30.06	0.00	51	46	83	17	7	15	0	29.76	0.00	58	54	88	18	0	0	0	29.69	0.00	65	57	74	15	7	12
APR 28										APR 29										APR 30																																																																																																																																																																																																											
00	0	29.72	0.00	64	56	76	21	9	21	0	29.91	0.00	62	35	36	24	0	1	0	30.15	0.00	38	26	62	35	0	8	03	0	29.73	0.00	62	57	84	19	8	16	0	29.86	0.00	59	38	46	25	0	0	0	30.22	0.00	35	26	71	01	0	0	06	5	29.78	0.00	60	57	92	21	5	7	0	29.87	0.00	61	44	52	24	4	9	12	30.26	0.00	31	26	82	03	0	0	09	248	29.85	0.00	65	60	84	25	6	10	519	29.85	0.00	66	47	50	23	3	11	181	30.27	0.00	39	26	60	01	0	7	12	798	29.88	0.00	71	52	52	25	3	12	195	29.82	0.00	68	47	47	25	4	15	311	30.28	0.00	41	28	60	31	0	0	15	738	29.84	0.00	75	43	32	28	2	5	90	29.83	0.00	64	46	53	35	0	0	299	30.21	0.00	41	36	82	09	0	0	18	148	29.85	0.00	75	39	27	28	1	7	113	29.89	0.00	65	43	45	32	5	19	35	30.19	0.00	41	35	81	02	0	0	21	0	29.91	0.00	63	34	34	26	1	4	0	30.06	0.00	50	34	54	35	2	23	0	30.14	0.00	42	36	79	05	1	6

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	29.946	43	36	78	1.6	22	1.3
03	0	29.936	42	36	83	1.7	22	1.2
06	1	29.952	41	36	85	1.7	22	1.2
09	232	29.974	46	38	76	3.5	22	2.7
12	455	29.966	51	38	64	4.4	23	2.9
15	400	29.936	53	38	62	3.0	25	1.5
18	116	29.932	52	38	64	3.0	24	1.6
21	0	29.954	45	37	74	1.8	23	0.9

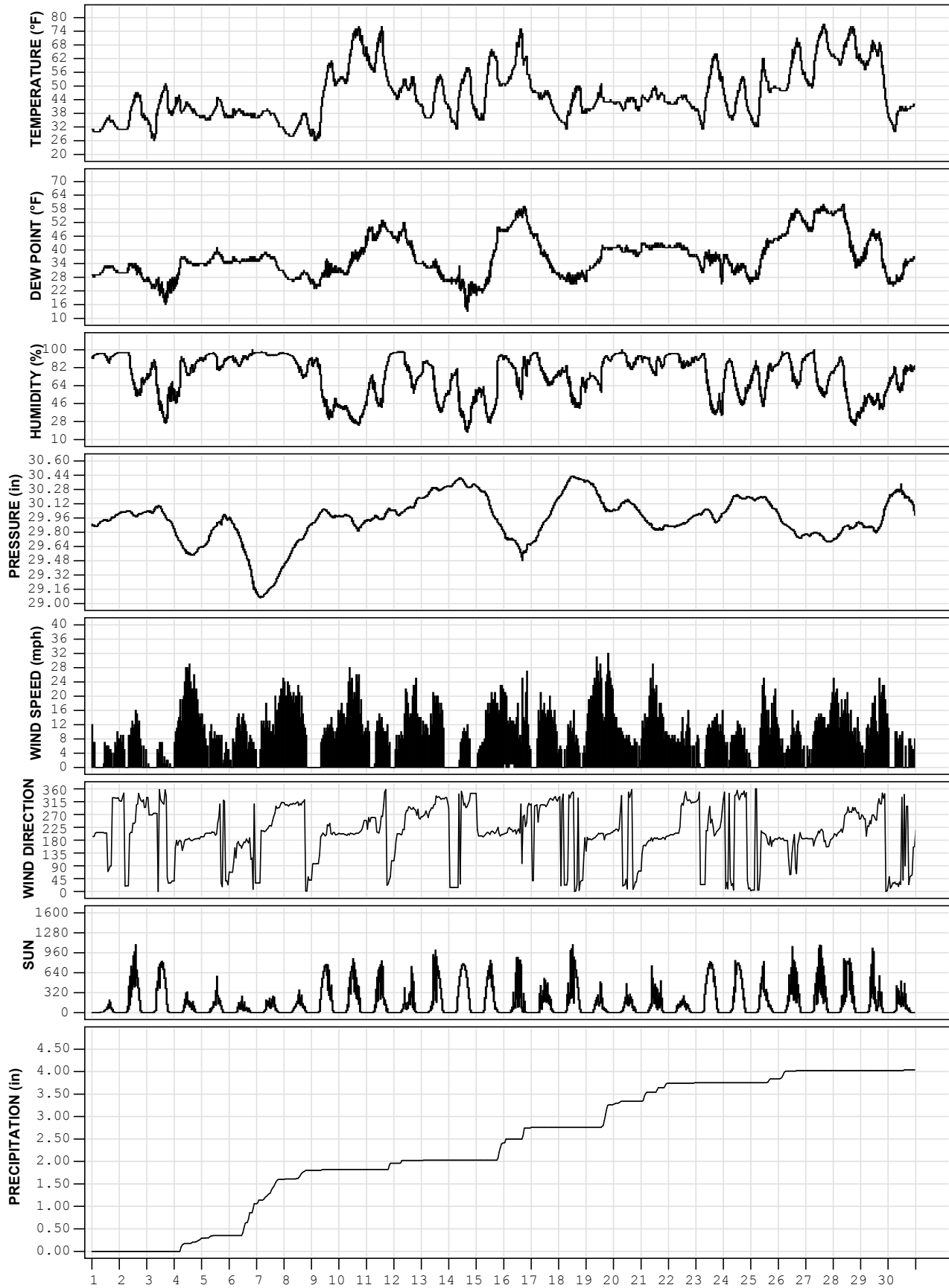
HOURLY PRECIPITATION (Water Equivalent) April 2017: Westford

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						0.09	0.05	0.02	0.01						0.01	0.02			0.01	0.01	0.02	0.01	0.02	0.02	04
05				0.01			0.02	0.02		0.01															05
06												0.06	0.11	0.10	0.02		0.08	0.14			0.08	0.12			06
07	0.02	0.06				0.01	0.03	0.03	0.02	0.03	0.02	0.01	0.07	0.05	0.03	0.06	0.04	0.04	0.02						07
08	0.01											0.01	0.02	0.04	0.04	0.03	0.02	0.01	0.02						08
09								0.01	0.01																09
10																									10
11																				0.10	0.04				11
12						0.01	0.05																		12
13		0.01																							13
14																									14
15																			0.05	0.12	0.10	0.09	0.02		15
16	0.01	0.08														0.08	0.16							0.02	16
17																									17
18																									18
19														0.02	0.02	0.12	0.13	0.13	0.07	0.01				0.01	19
20	0.01	0.02			0.01	0.02	0.01																		20
21		0.02	0.10	0.05	0.03									0.05	0.05						0.04	0.05	0.01		21
22																							0.01		22
23																									23
24														0.01	0.01	0.04	0.03								24
25																									25
26		0.01	0.02	0.05	0.06	0.02	0.01								0.01										26
27																									27
28																									28
29																									29
30														0.02											30
Sum	0.05	0.20	0.12	0.11	0.10	0.15	0.17	0.07	0.04	0.05	0.03	0.07	0.20	0.29	0.18	0.28	0.38	0.48	0.17	0.24	0.28	0.27	0.06	0.05	Sum

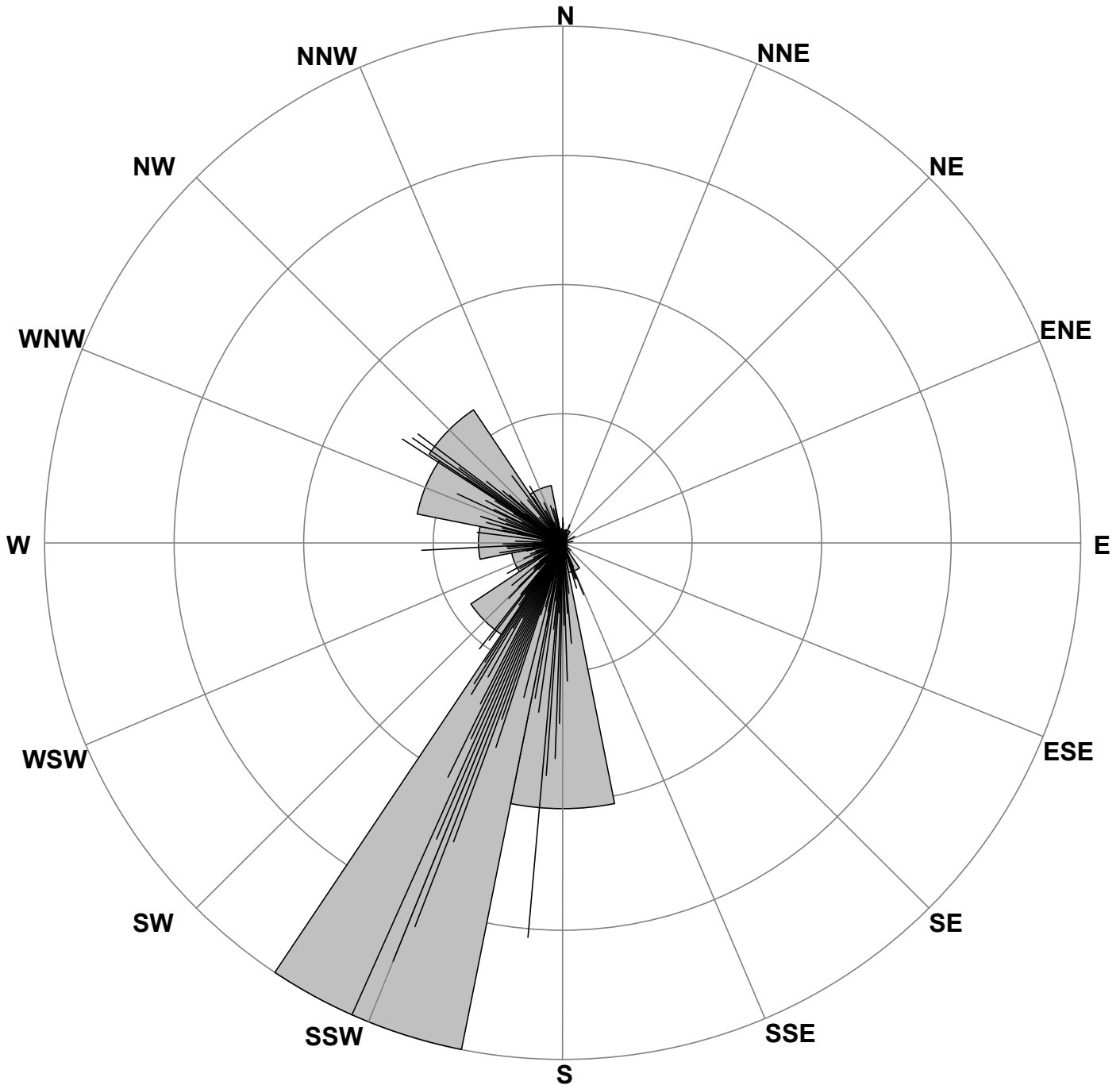
During a frozen precipitation event, hourly precipitation totals may not be recorded. In this case, daily amounts are typically entered in the last column (hour ending at 12 A.M.)

HOUR-BY-HOUR DATA

April 2017: Westford



**Wind Rose: April 2017
Westford**



**Maximum direction of wind: 75.3 miles from 204°
Maximum sector of wind: 630.8 miles from SSW
1787.9 total miles of wind**