

# LOCAL CLIMATOLOGICAL DATA

## Monthly Summary

### April 2007

Station: Westford  
 Latitude: 44° 37' 39" N Longitude: 73° 02' 29" W Elevation (Ground): 850 feet Time Zone: Eastern

Date	Temperature					Humidity Mean	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						Sun Mean Index	
	Maximum	Minimum	Average	Mean	Dew Point		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	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	57.5	25.8	41.6	41.7	14	37	23	0	.....	0	T	0.0	30.23	29.92	30.112	3.1	3.0	189	20	SSW	12	190	
2	45.2	37.8	41.5	39.8	37	89	23	0	.....	0	0.17	0.0	29.93	29.79	29.852	5.8	5.7	164	28	S	0	0	
3	44.6	37.5	41.0	41.1	38	90	23	0	.....	0	0.04	0.0	30.09	29.92	30.021	2.7	2.0	166	18	S	8	160	
4	37.6	30.3	33.9	33.3	30	89	31	0	.....	2	0.50	2.1	30.02	29.65	29.800	5.7	5.7	159	26	S	13	156	
5	32.7	23.9	28.3	28.7	24	84	36	0	.....	5	0.20	3.0	29.65	29.50	29.556	3.8	3.1	254	20	WNW	11	252	
6	29.0	21.9	25.4	25.1	16	67	39	0	.....	3	0.04	T	29.69	29.52	29.595	5.5	5.2	247	22	WSW	13	269	
7	31.3	21.6	26.4	24.8	16	70	38	0	.....	2	0.03	T	29.68	29.55	29.618	2.1	1.8	233	13	WSW	7	234	
8	30.6	19.2*	24.9*	25.4	20	80	40	0	.....	5	0.03	3.0	29.70	29.58	29.632	3.8	3.6	258	20	NW	12	284	
9	34.0	28.4	31.2	31.1	21	66	34	0	.....	3	0.01	T	29.89	29.70	29.806	6.3	6.2	281	26	SW	15	282	
10	36.2	27.3	31.8	31.4	21	66	33	0	.....	T	0.03	T	30.05	29.87	29.941	3.0	2.8	296	24	W	15	276	
11	42.2	22.7	32.5	32.5	20	62	32	0	.....	0	0.00	0.0	30.16	30.02	30.099	1.2	1.1	295	19	S	8	293	
12	38.0	30.9	34.4	32.9	28	84	30	0	.....	2	0.24	2.0	30.03	29.61	29.833	1.7	1.6	154	18	SE	11	133	
13	34.0	30.6	32.3	32.5	31	96	32	0	.....	3	0.38	2.0	29.80	29.59	29.675	1.4	0.9	270	13	N	7	278	
14	40.6	32.1	36.3	35.3	33	91	28	0	.....	2	0.47	T	29.97	29.79	29.896	2.2	2.1	299	17	W	10	287	
15	36.8	31.8	34.3	33.7	32	94	30	0	...4.....	5	0.42	4.0	29.97	29.51	29.797	0.5	0.3	107	10	ESE	5	150	
16	50.4	31.6	41.0	41.5	34	76	24	0	.....	T	1.15	T	29.51	29.07	29.235	4.7	4.4	12	35	WNW	14	53	
17	44.3	33.1	38.7	38.0	33	81	26	0	.....	0	0.06	T	29.75	29.47	29.614	3.7	3.7	357	24	NNW	10	8	
18	54.1	34.9	44.5	43.2	34	70	20	0	.....	0	0.00	0.0	29.91	29.75	29.841	2.7	2.7	357	18	N	9	5	
19	62.0	34.3	48.1	47.2	26	47	17	0	.....	0	0.00	0.0	30.00	29.89	29.940	2.1	1.9	336	19	N	11	297	
20	66.1	31.9	49.0	50.6	24	38	16	0	.....	0	0.00	0.0	30.11	29.99	30.048	1.3	1.3	321	16	WNW	10	291	
21	66.9	41.5	54.2	54.1	26	35	10	0	.....	0	0.00	0.0	30.11	30.02	30.064	1.6	1.3	322	17	WNW	11	288	
22	75.3	41.5	58.4	59.3	28	33	6	0	.....	0	0.00	0.0	30.12	29.92	30.032	4.1	4.0	202	19	S	11	196	
23	79.4*	54.8	67.1*	67.4	35	32	0	2	.....	0	0.05	0.0	29.92	29.53	29.761	6.9	6.6	202	30	W	20	237	
24	61.0	39.6	50.3	48.7	34	60	14	0	.....	0	0.12	0.0	30.00	29.58	29.879	5.3	4.5	298	27	W	16	291	
25	51.1	34.9	43.0	43.9	28	55	22	0	.....	0	0.00	0.0	30.06	29.97	30.010	1.2	0.7	273	10	W	6	189	
26	59.2	32.5	45.9	47.0	30	60	19	0	.....	0	0.00	0.0	30.16	29.95	30.063	2.3	2.2	188	12	SSW	8	279	
27	53.3	45.2	49.3	49.9	42	75	16	0	.....	0	0.04	0.0	29.95	29.66	29.777	4.8	4.7	171	19	SSW	12	166	
28	55.7	47.1	51.4	50.9	49	94	13	0	.....	0	0.07	0.0	29.70	29.62	29.654	2.6	2.0	200	16	S	10	200	
29	50.1	39.6	44.8	46.4	46	97	20	0	.....	0	0.14	0.0	29.78	29.66	29.714	1.4	0.9	276	11	SSW	6	173	
30	54.1	42.8	48.4	47.0	41	80	16	0	..3.....	0	0.23	0.0	29.86	29.49	29.638	7.2	4.1	250	29	W	15	286	
Sum	Sum	-----	-----	---	----	Ttl	Ttl									For the month:						---	
1453	1007					711	2	Number of Days			4.42	16.1	30.23	29.07	29.817	3.4	1.4	241	35	WNW	20	237	
Avg	Avg	Avg	Mean	Avg	Avg	----	----	Precip			Season Ttl	Date	Date	-----	----	----	---	Date	Date	Avg			
48.4	33.6	41.0	40.8	30	70.0	----	----	≥.01 inch	21		14.59	108.5	1	16	-----	----	----	---	16	23			
Number of Days						Season to Date	Snow, Ice ≥1.0 inch	6	Greatest in 24 Hours and Dates						Greatest Depth on Ground of Snow, Ice Pellets or Ice and Date								
Max Temperature			Min Temperature			7542	2	Thunder	1	Precipitation			Snow, Ice Plts										
≥ 90°F	≤ 32°F	≤ 32°F	≤ 0°F	----	----	Heavy Fog	0	1.39	15-16	4.0	15												
0	3	15	0	----	----	Clear	5	Partly Cloudy			5	Cloudy			20								

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: Sunshine index 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

## April 2007: 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		30.22	0.00	30	6	37	00	0	0		29.90	0.00	39	36	88	18	5	12		29.92	0.00	40	39	97	18	3	6
04		30.20	0.00	26	14	58	00	0	0		29.85	0.00	38	37	96	18	0	3		29.95	0.00	40	39	95	18	3	7
07		30.21	0.00	28	13	52	00	0	0		29.83	0.00	39	35	85	18	7	13		30.00	0.00	40	39	98	18	1	3
10		30.20	0.00	45	10	23	18	5	10		29.82	0.00	41	36	82	15	10	19		30.07	0.00	41	40	96	18	3	7
13		30.12	0.00	53	10	17	18	6	12		29.79	0.00	44	37	77	15	11	19		30.08	0.00	44	40	86	20	0	3
16		30.04	0.00	57	8	14	15	4	9		29.84	0.00	39	37	93	15	9	16		30.06	0.00	44	40	85	02	3	7
19		30.00	0.00	51	18	27	18	1	3		29.88	0.01	39	38	95	15	4	7		30.06	0.00	42	38	85	00	0	0
22		29.98	0.00	41	33	73	20	5	11		29.93	0.00	39	38	97	18	4	8		30.03	0.00	39	34	81	18	2	6
APR 04									APR 05									APR 06									
01		30.02	0.01	36	35	93	15	2	5		29.64	0.00	30	29	97	18	2	3		29.54	0.00	23	17	76	22	3	8
04		29.93	0.00	35	33	92	13	2	6		29.58	0.00	30	29	97	20	1	4		29.53	0.00	22	19	87	18	3	8
07		29.89	0.01	33	29	84	15	9	20		29.55	0.00	30	29	96	18	2	5		29.57	0.00	23	16	73	27	3	6
10		29.82	0.00	33	29	84	15	9	20		29.53	0.00	31	29	93	24	3	6		29.59	0.00	25	14	64	24	7	17
13		29.72	0.00	33	30	89	15	8	14		29.52	0.01	31	25	78	27	7	16		29.60	0.00	26	15	62	29	9	13
16		29.71	0.00	32	30	91	15	6	14		29.52	0.00	27	25	92	27	7	14		29.60	0.00	28	16	60	24	5	7
19		29.70	0.00	33	28	83	15	5	11		29.54	0.00	27	18	70	27	5	10		29.64	0.00	27	14	58	27	5	10
22		29.68	0.00	31	29	95	13	5	12		29.56	0.00	25	15	67	24	6	10		29.69	0.00	24	15	67	24	7	12
APR 07									APR 08									APR 09									
01		29.68	0.00	23	15	69	24	4	8		29.59	0.00	22	18	85	27	1	2		29.71	0.00	30	22	71	29	6	12
04		29.64	0.00	22	18	84	18	1	2		29.59	0.00	21	18	87	27	2	5		29.72	0.00	31	22	70	27	10	16
07		29.64	0.00	22	17	81	20	2	6		29.62	0.00	21	18	89	00	0	0		29.78	0.00	29	21	73	27	8	14
10		29.63	0.00	25	15	66	20	3	6		29.63	0.00	26	16	66	27	7	13		29.81	0.00	30	21	71	27	5	11
13		29.61	0.00	28	13	55	29	4	8		29.63	0.00	29	15	56	24	6	12		29.83	0.00	33	22	64	27	7	14
16		29.56	0.00	29	10	44	29	2	6		29.63	0.00	28	23	81	27	4	8		29.83	0.00	33	21	59	29	7	14
19		29.59	0.00	26	16	64	27	5	7		29.67	0.00	27	25	93	24	1	5		29.85	0.00	33	21	61	31	4	10
22		29.62	0.00	24	21	88	24	0	2		29.68	0.00	30	25	83	22	6	13		29.89	0.00	31	19	61	31	5	12
APR 10									APR 11									APR 12									
01		29.88	0.00	29	21	69	27	1	7		30.07	0.00	29	23	76	27	3	6		30.02	0.00	33	22	64	00	0	0
04		29.88	0.00	29	23	79	00	0	0		30.09	0.00	25	20	81	00	0	0		29.96	0.00	32	24	72	06	0	2
07		29.91	0.00	28	24	86	31	3	8		30.14	0.00	24	19	79	00	0	0		29.97	0.00	37	27	66	18	6	10
10		29.93	0.00	32	17	53	31	4	10		30.16	0.00	34	17	50	31	1	3		29.88	0.01	34	31	92	18	3	6
13		29.94	0.00	34	21	58	31	3	7		30.13	0.00	38	19	46	27	2	11		29.76	0.00	33	31	91	15	6	13
16		29.95	0.00	36	21	54	29	5	11		30.09	0.00	40	20	45	24	2	5		29.74	0.01	32	30	92	18	4	11
19		29.97	0.00	34	22	61	31	3	6		30.07	0.00	37	22	54	29	2	5		29.72	0.00	32	31	96	00	0	0
22		30.03	0.00	30	21	69	24	2	5		30.05	0.00	31	20	64	00	0	2		29.66	0.00	31	29	93	00	0	0
APR 13									APR 14									APR 15									
01		29.61	0.00	31	29	94	00	0	0		29.80	0.00	33	33	98	22	1	3		29.94	0.00	33	31	95	05	0	0
04		29.59	0.00	31	30	97	00	0	0		29.81	0.00	34	33	98	29	4	8		29.91	0.00	33	32	94	04	0	0
07		29.61	0.00	32	31	98	00	0	0		29.86	0.00	34	33	98	29	4	8		29.87	0.00	35	31	83	13	0	3
10		29.63	0.01	33	32	97	18	2	5		29.91	0.00	33	32	97	31	4	8		29.88	0.04	34	33	94	06	0	2
13		29.66	0.01	33	32	96	27	5	10		29.93	0.01	37	34	89	29	1	5		29.83	0.06	36	34	92	18	0	5
16		29.72	0.00	33	31	92	31	4	12		29.93	0.00	40	33	75	30	1	7		29.75	0.04	35	33	93	35	0	2
19		29.76	0.00	33	32	96	00	0	3		29.94	0.00	38	32	80	01	2	5		29.67	0.00	32	31	97	33	1	3
22		29.80	0.00	33	33	98	22	1	3		29.95	0.00	33	31	94	05	0	0		29.60	0.00	32	31	98	35	0	0
APR 16									APR 17									APR 18									
01		29.44	0.00	32	31	98	35	0	0		29.49	0.00	40	31	71	31	2	8		29.76	0.00	36	32	86	01	0	5
04		29.25	0.00	34	33	96	00	0	7		29.53	0.00	37	31	80	34	4	11		29.77	0.00	36	33	87	01	1	6
07		29.09	0.34	40	37	88	28	6	14		29.59	0.00	33	32	96	34	3	11		29.82	0.00	36	33	89	32	1	6
10		29.14	0.09	43	37	79	07	5	19		29.62	0.00	35	33	94	35	1	10		29.86	0.00	45	37	73	32	6	14
13		29.10	0.00	49	36	63	33	7	22		29.61	0.00	41	33	72	34	6	14		29.86	0.00	49	37	63	33	1	14
16		29.15	0.00	47	33	58	05	10	25		29.63	0.00	43	32	66	35	7	20		29.85	0.00	53	34	48	02	6	17
19		29.29	0.00	44	33	64	25	4	17		29.68	0.00	38	33	82	35	4	12		29.88	0.00	49	33	52	02	5	11
22		29.42	0.00	42	31	64	00	4	13		29.73	0.00	37	32	85	35	4	11		29.90	0.00	43	32	66	00	2	6

### MAXIMUM SHORT DURATION PRECIPITATION

Time Period (minutes)	5	10	15	20	30	45	60	80	100	120	150	180
Precipitation	0.04	0.07	0.09	0.09	0.09	0.09	0.10	0.11	0.12	0.14	0.16	0.18
Ended: Date	30	30	30	30	30	04	30	30	04	04	13	13
Ended: Time	0605	1115	1118	1118	1118	1225	0635	0617	1315	1340	1335	1345

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.

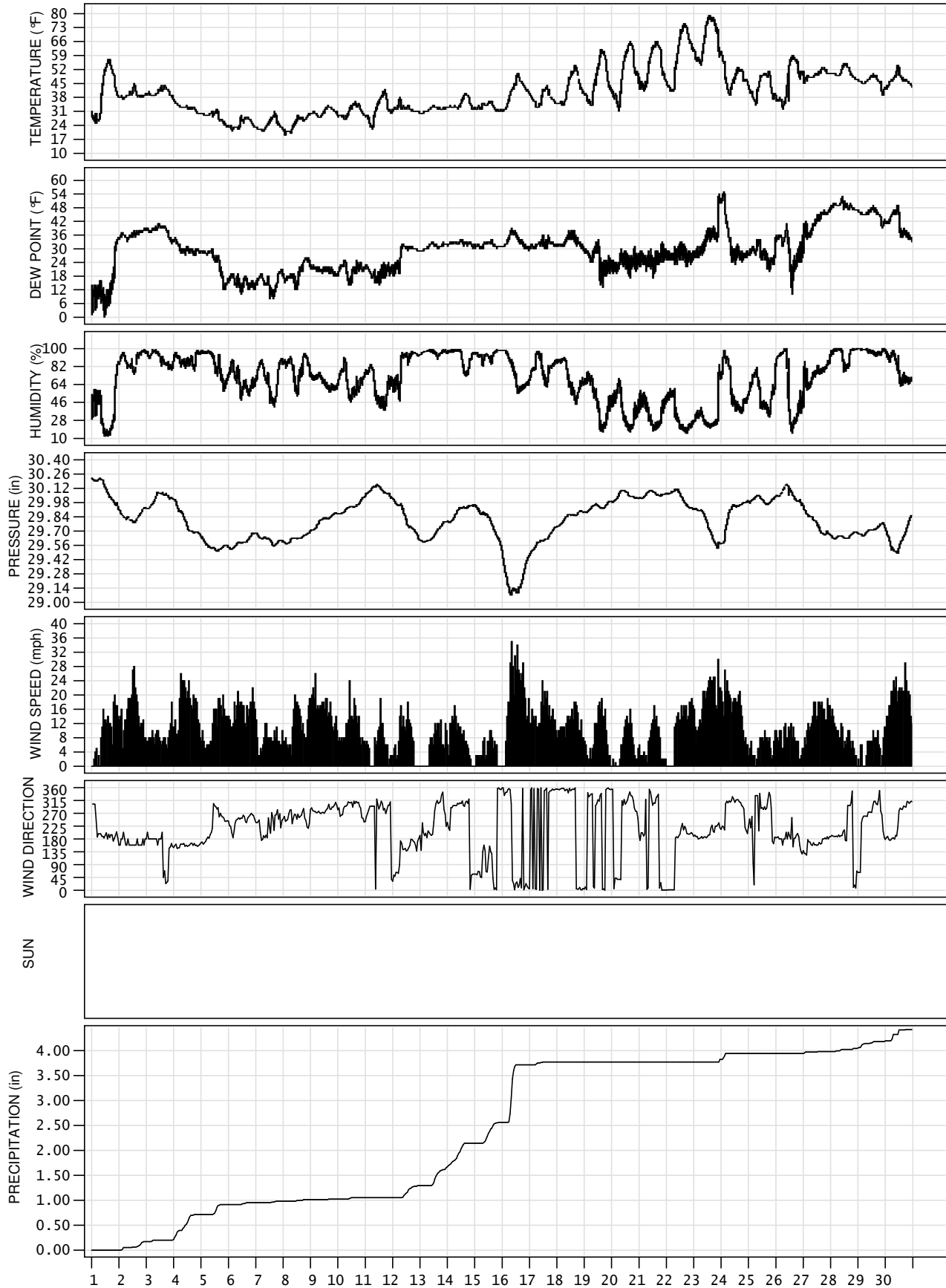


## HOURLY PRECIPITATION (Water Equivalent) April 2007: Westford

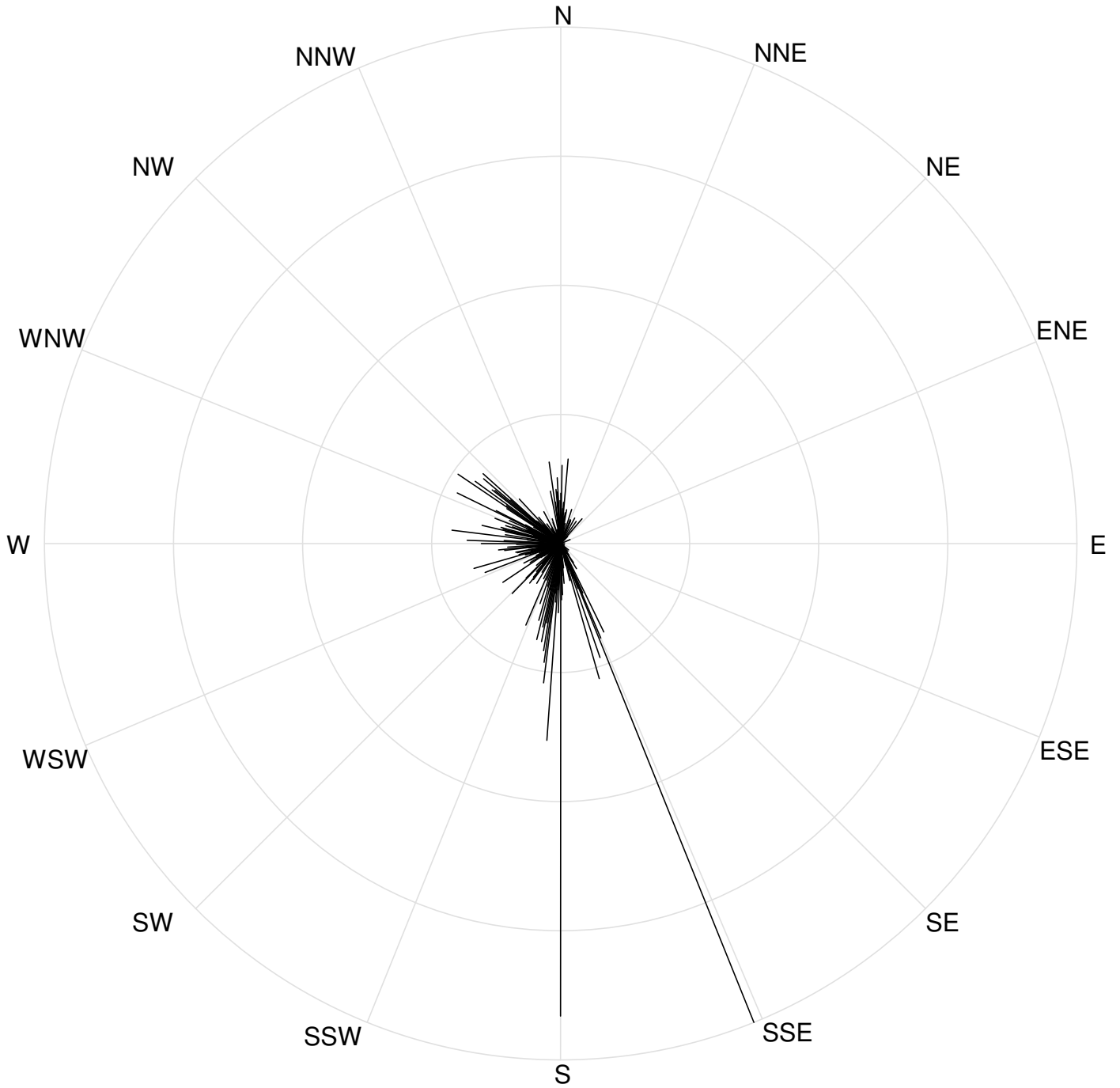
Date	A.M. Hour Ending at												P.M. Hour Ending at												Date
	01	02	03	04	05	06	07	08	09	10	11	12	01	02	03	04	05	06	07	08	09	10	11	12	
01																								01	
02			0.01	0.04	0.01	0.02						0.01				0.01	0.01	0.01	0.02	0.04	0.01	0.01		02	
03					0.01																			03	
04	0.05	0.04	0.06	0.02	0.01		0.04	0.02	0.04	0.02	0.04	0.06	0.05	0.03	0.01		0.01						0.01	04	
05											0.01	0.02	0.05	0.07	0.03	0.01	0.01							05	
06												0.01	0.01		0.01	0.01								06	
07													0.01	0.01	0.01	0.01		0.01						07	
08															0.01			0.01						08	
09																								09	
10									0.01	0.01	0.01													10	
11																								11	
12								0.01	0.04	0.02	0.02	0.02	0.05	0.02	0.01	0.02	0.01	0.01	0.01		0.01		0.01	12	
13										0.02	0.04	0.07	0.06	0.04	0.03	0.02	0.02	0.01	0.01					13	
14	0.02	0.02	0.02	0.03	0.02	0.01	0.02	0.03	0.05	0.05	0.03	0.06	0.05	0.03	0.03	0.02	0.02	0.01	0.01	0.01		0.01	0.03	0.02	14
15								0.02	0.02	0.04	0.06	0.06	0.04	0.05	0.01	0.05	0.04	0.01	0.01		0.01				15
16						0.01	0.16	0.32	0.38	0.17	0.07	0.04													16
17					0.02	0.02	0.02			0.01		0.01													17
18																									18
19																									19
20																									20
21																									21
22																									22
23																							0.05		23
24		0.03	0.04	0.05																					24
25																									25
26																									26
27	0.01	0.02										0.01													27
28					0.01				0.02	0.01										0.02				0.01	28
29	0.01		0.04	0.02	0.01	0.01					0.01		0.02	0.01									0.01	0.01	29
30					0.01	0.03	0.09					0.09						0.01							30
Sum	0.09	0.11	0.17	0.16	0.07	0.10	0.29	0.41	0.50	0.37	0.25	0.42	0.33	0.33	0.18	0.15	0.10	0.09	0.05	0.07	0.02	0.03	0.08	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 2007: Westford



Wind Rose: April 2007  
**Westford**



Maximum direction of wind: 133.6 miles from 158°.  
2416.2 total miles of wind.