

# LOCAL CLIMATOLOGICAL DATA

## Monthly Summary

### December 2007

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 hv 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		
	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	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	24.3	3.9	14.1	11.4	2	65	51	0	.....	1	0.00	0.0	30.63	30.02	30.423	6.4	6.3	306	33	WSW	21	295		
2	23.7	6.0	14.9	13.4	5	68	50	0	.....	1	T	T	30.62	29.78	30.323	0.8	0.5	115	11	SE	6	154		
3	32.0	15.5	23.8	24.6	22	89	41	0	...4.6...	9	0.80	7.6	29.78	29.32	29.446	7.2	5.2	197	32	S	17	184		
4	21.7	14.3	18.0	18.2	15	88	47	0	.....	12	0.12	3.3	29.62	29.39	29.479	2.5	2.5	232	14	WSW	7	255		
5	22.6	12.7	17.7	18.2	15	86	47	0	.....	13	0.10	3.0	29.91	29.61	29.718	3.1	2.0	234	13	NW	9	296		
6	22.8	6.5	14.6	15.8	11	81	50	0	.....	10	T	T	30.29	29.91	30.129	3.8	3.4	203	16	S	12	201		
7	25.6	17.7	21.7	22.8	17	79	43	0	.....	8	T	T	30.31	30.10	30.203	5.0	4.9	186	25	SSW	14	199		
8	34.4	16.0	25.2	25.5	20	80	40	0	.....	7	0.04	0.5	30.38	30.06	30.177	4.9	3.5	236	26	WNW	17	314		
9	18.8	8.4	13.6	13.8	5	69	51	0	.....	7	T	T	30.50	30.33	30.429	0.8	0.7	12	9	N	4	78		
10	30.4	15.0	22.7	20.6	16	81	42	0	.....	7	0.04	1.1	30.35	30.24	30.287	0.7	0.1	63	7	NE	4	203		
11	31.6	21.8	26.7	27.6	24	87	38	0	.....	8	0.00	1.5	30.34	29.78	30.160	5.5	5.5	187	25	S	15	179		
12	33.2	10.9	22.1	26.9	21	80	43	0	...4.....	8	0.20	1.7	30.32	29.71	29.965	7.0	5.1	278	32	W	21	288		
13	19.3	-0.4	9.4	10.3	6	81	55	0	.....	11	0.15	2.6	30.37	29.89	30.188	1.0	0.4	124	10	SSE	5	183		
14	34.4	9.2	21.8	24.8	20	81	43	0	.....	10	0.00	0.3	30.37	29.89	30.007	8.6	5.4	233	30	NW	18	289		
15	9.2	-1.4*	3.9*	4.9	-2	72	61	0	.....	10	0.00	0.0	30.62	30.36	30.505	1.5	1.3	341	17	WNW	11	308		
16	18.8	7.6	13.2	13.6	10	85	51	0	...4.....	20	1.05	11.4	30.38	29.08	29.658	2.8	0.4	32	28	SSE	11	163		
17	16.1	7.2	11.7	10.9	5	77	53	0	.....	21	0.12	2.0	30.13	29.18	29.720	8.4	8.3	290	33	W	19	271		
18	22.4	0.2	11.3	12.8	8	81	54	0	.....	21	0.00	0.1	30.29	30.13	30.244	1.7	1.3	196	16	W	9	281		
19	33.4	19.3	26.4	26.7	22	82	39	0	.....	19	0.19	1.9	30.26	30.06	30.143	2.3	2.2	172	21	S	13	177		
20	28.8	14.3	21.5	20.7	18	89	43	0	.....	19	0.12	1.4	30.35	30.05	30.180	0.6	0.5	314	6	W	5	274		
21	28.0	14.8	21.4	22.3	19	87	43	0	.....	18	0.00	0.0	30.49	30.34	30.441	1.3	1.1	179	16	S	12	163		
22	35.9	23.5	29.7	30.4	25	79	35	0	.....	16	0.00	0.0	30.53	30.33	30.454	7.8	7.7	180	28	SSW	18	184		
23	48.7*	33.0	40.9*	41.3	37	84	24	0	.....	8	0.41	0.0	30.35	29.48	29.957	9.5	8.1	187	38	S	20	186		
24	33.2	26.2	29.7	29.5	22	73	35	0	.....	8	0.07	0.1	29.90	29.64	29.728	8.0	7.5	237	29	W	18	264		
25	35.4	30.0	32.7	32.9	25	74	32	0	.....	7	0.00	0.0	30.21	29.90	30.099	4.1	3.7	249	20	W	12	249		
26	37.3	23.9	30.6	30.5	25	80	34	0	.....	7	0.00	0.0	30.25	30.10	30.188	1.9	1.5	198	14	S	9	195		
27	33.5	24.3	28.9	30.2	26	86	36	0	.....	10	0.21	2.7	30.11	29.92	29.997	1.7	1.5	175	15	S	9	184		
28	34.4	26.5	30.5	31.5	27	84	34	0	.....	9	0.00	0.0	30.32	29.97	30.193	3.2	0.9	245	19	S	13	161		
29	38.6	32.0	35.3	35.1	29	79	29	0	.....	0	0.00	0.0	30.00	29.82	29.878	7.1	6.0	218	26	W	17	252		
30	34.9	29.2	32.1	31.2	23	70	33	0	.....	0	0.00	0.0	30.15	29.92	30.065	1.8	1.4	253	18	WSW	12	242		
31	30.3	21.6	25.9	25.6	23	88	39	0	.....	0	0.00	0.0	30.09	29.72	29.877	1.5	0.8	309	15	WNW	10	300		
Sum	Sum	-----	-----	---	----		Ttl	Ttl		For the month:												---		
894	490						1316	0	Number of Days	3.62	41.2	30.63	29.08	30.073	4.0	2.3	226	38	S	21	295			
Avg	Avg	Avg	Mean	Avg	Avg	----	----		Precip	Season Ttl		Date	Date	-----	----	----	----	Date	Date	Avg				
28.8	15.8	22.3	22.7	17	80.2	----	----		≥.01 inch	14	47.52	50.7	1	16	-----	----	----	----	23	1				
Number of Days							Season to Date	Snow, Ice ≥1.0 inch	12	Greatest in 24 Hours and Dates					Greatest Depth on Ground of Snow, Ice Pellets or Ice and Date									
Max Temperature			Min Temperature			2872	346	Thunder	0	Precipitation		Snow, Ice Plts												
≥ 90°F	≤ 32°F	≤ 32°F	≤ 0°F	----	----	Heavy Fog	0	0.00	-	11.4	16			21		17+								
0	18	30	3	----	----	Clear	3	Partly Cloudy		8	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

## December 2007: Westford

Hour	DEC 01									DEC 02									DEC 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	30.05	0.00	23	11	59	30	7	21	30.60	0.00	7	1	76	05	1	3	29.71	0.00	24	19	81	15	5	14			
04	30.16	0.00	16	10	77	32	6	18	30.57	0.00	7	-0	73	03	0	1	29.51	0.00	25	23	90	16	7	17			
07	30.29	0.00	11	-0	60	32	13	24	30.55	0.00	8	1	73	05	0	3	29.41	0.00	28	25	90	16	11	32			
10	30.47	0.00	10	-1	61	30	6	18	30.42	0.00	11	3	68	03	0	6	29.36	0.00	30	28	90	17	9	18			
13	30.50	0.00	13	2	62	29	8	16	30.32	0.00	16	5	61	16	2	5	29.33	0.00	31	30	93	22	3	11			
16	30.57	0.00	10	-0	62	33	2	10	30.23	0.00	17	8	66	02	0	3	29.40	0.00	25	23	91	26	8	14			
19	30.62	0.00	7	-1	70	34	2	7	30.10	0.00	18	8	64	04	0	2	29.46	0.00	18	15	89	22	6	10			
22	30.63	0.00	4	-1	78	33	0	0	29.96	0.00	20	10	65	11	0	5	29.42	0.00	17	14	88	21	5	10			
DEC 04									DEC 05									DEC 06									
01	29.42	0.00	15	12	88	23	2	6	29.62	0.00	19	16	88	20	4	7	29.93	0.00	12	8	82	27	2	9			
04	29.39	0.00	15	12	88	22	4	7	29.64	0.00	19	16	89	19	2	6	30.01	0.00	8	3	81	23	3	7			
07	29.40	0.00	15	12	88	23	1	3	29.66	0.00	18	16	89	18	3	7	30.07	0.00	8	3	82	17	4	6			
10	29.44	0.00	17	14	87	23	5	7	29.69	0.00	20	17	88	19	3	9	30.13	0.00	14	7	76	18	7	14			
13	29.46	0.00	21	17	87	22	2	6	29.68	0.00	22	18	85	27	3	7	30.15	0.00	21	15	78	21	4	6			
16	29.52	0.00	21	18	89	26	1	2	29.71	0.00	20	16	85	33	2	4	30.18	0.00	20	15	81	19	7	12			
19	29.58	0.00	21	17	87	23	2	5	29.81	0.00	14	11	85	30	1	6	30.23	0.00	21	17	84	18	4	9			
22	29.59	0.00	20	17	88	17	2	4	29.88	0.00	13	9	83	29	3	11	30.28	0.00	22	18	85	19	4	11			
DEC 07									DEC 08									DEC 09									
01	30.29	0.00	22	19	87	19	3	7	30.10	0.00	25	22	86	17	4	10	30.40	0.00	16	8	70	32	1	4			
04	30.30	0.00	20	15	83	18	1	4	30.08	0.00	27	23	86	19	6	14	30.42	0.00	12	5	74	01	1	3			
07	30.28	0.00	20	15	80	19	1	4	30.07	0.00	29	25	86	20	7	19	30.46	0.00	9	4	80	03	1	3			
10	30.24	0.00	23	16	75	18	5	11	30.10	0.00	30	27	88	21	5	11	30.50	0.00	14	5	67	04	1	5			
13	30.13	0.00	25	18	72	18	5	16	30.15	0.00	30	22	74	28	5	19	30.46	0.00	18	7	60	35	0	2			
16	30.12	0.00	25	18	72	19	7	11	30.23	0.00	26	21	81	30	5	10	30.43	0.00	15	5	65	03	0	4			
19	30.14	0.00	25	19	78	19	5	13	30.30	0.00	23	13	67	32	1	10	30.42	0.00	13	5	71	02	0	1			
22	30.13	0.00	23	20	87	18	5	10	30.35	0.00	17	12	81	01	0	0	30.38	0.00	14	6	70	05	0	2			
DEC 10									DEC 11									DEC 12									
01	30.32	0.00	15	8	72	03	1	4	30.31	0.00	23	20	89	14	0	2	29.77	0.00	32	30	94	20	9	14			
04	30.27	0.00	16	12	85	04	1	4	30.33	0.00	25	21	85	17	3	10	29.74	0.00	32	31	94	20	7	13			
07	30.25	0.00	17	13	87	09	1	2	30.31	0.00	24	20	84	19	3	8	29.78	0.00	33	32	95	22	4	6			
10	30.28	0.00	22	18	82	19	2	4	30.29	0.00	26	21	80	19	6	12	29.88	0.00	32	26	78	29	11	19			
13	30.25	0.00	30	21	67	35	0	2	30.20	0.00	31	25	80	17	5	10	29.94	0.00	30	24	80	29	9	16			
16	30.27	0.00	27	20	76	34	0	4	30.09	0.00	30	27	88	18	4	13	30.07	0.00	24	15	69	30	6	18			
19	30.30	0.00	19	16	88	31	0	1	29.99	0.00	30	28	92	19	10	20	30.20	0.00	21	12	69	30	4	12			
22	30.33	0.00	19	16	89	14	0	0	29.83	0.00	31	29	92	18	11	19	30.28	0.00	15	7	70	32	2	10			
DEC 13									DEC 14									DEC 15									
01	30.31	0.00	10	4	77	03	0	2	29.91	0.00	21	18	87	19	12	23	30.39	0.00	8	1	74	30	8	16			
04	30.33	0.00	3	-1	81	09	0	0	29.92	0.00	24	21	87	19	10	20	30.47	0.00	4	-1	79	33	2	5			
07	30.35	0.00	1	-3	83	17	0	2	29.91	0.00	26	23	89	19	8	14	30.55	0.00	-1	-5	83	34	0	6			
10	30.27	0.00	8	2	76	03	3	7	29.93	0.00	28	25	89	19	6	12	30.59	0.00	3	-4	74	00	1	8			
13	30.25	0.00	13	6	73	03	0	0	29.91	0.00	31	27	84	18	5	9	30.59	0.00	6	-4	63	11	1	3			
16	30.15	0.00	13	9	84	06	1	4	29.98	0.00	32	27	82	28	10	20	30.54	0.00	6	-3	66	35	0	1			
19	30.05	0.00	16	13	87	19	2	5	30.14	0.00	24	15	66	30	13	22	30.53	0.00	6	-2	71	33	0	2			
22	29.94	0.00	19	14	82	16	3	8	30.30	0.00	12	5	71	31	8	18	30.42	0.00	8	-1	66	03	0	3			
DEC 16									DEC 17									DEC 18									
01	30.37	0.00	8	4	80	17	3	4	29.23	0.00	10	7	86	27	13	22	30.15	0.00	7	1	75	27	1	6			
04	30.22	0.00	12	8	84	08	1	7	29.36	0.00	10	6	85	29	11	18	30.22	0.00	3	-1	83	05	0	1			
07	30.03	0.00	15	11	83	13	3	11	29.55	0.00	8	5	84	28	13	26	30.26	0.00	3	-0	84	07	0	0			
10	29.79	0.00	14	11	87	11	0	3	29.70	0.00	10	6	82	27	9	15	30.28	0.00	14	7	72	19	2	4			
13	29.49	0.00	17	14	85	02	1	4	29.78	0.00	15	8	72	28	10	18	30.24	0.00	16	10	77	16	2	7			
16	29.31	0.00	19	16	88	00	4	7	29.89	0.00	14	5	68	29	6	12	30.24	0.00	17	13	83	21	2	4			
19	29.18	0.00	13	10	86	00	4	10	30.01	0.00	12	4	68	29	11	22	30.27	0.00	19	15	85	22	0	0			
22	29.09	0.00	11	8	86	31	2	7	30.10	0.00	8	3	77	26	2	9	30.27	0.00	22	17	81	18	3	5			

### MAXIMUM SHORT DURATION PRECIPITATION

Time Period (minutes)	5	10	15	20	30	45	60	80	100	120	150	180
Precipitation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ended: Date	00	00	00	00	00	00	00	00	00	00	00	00
Ended: Time	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000

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.

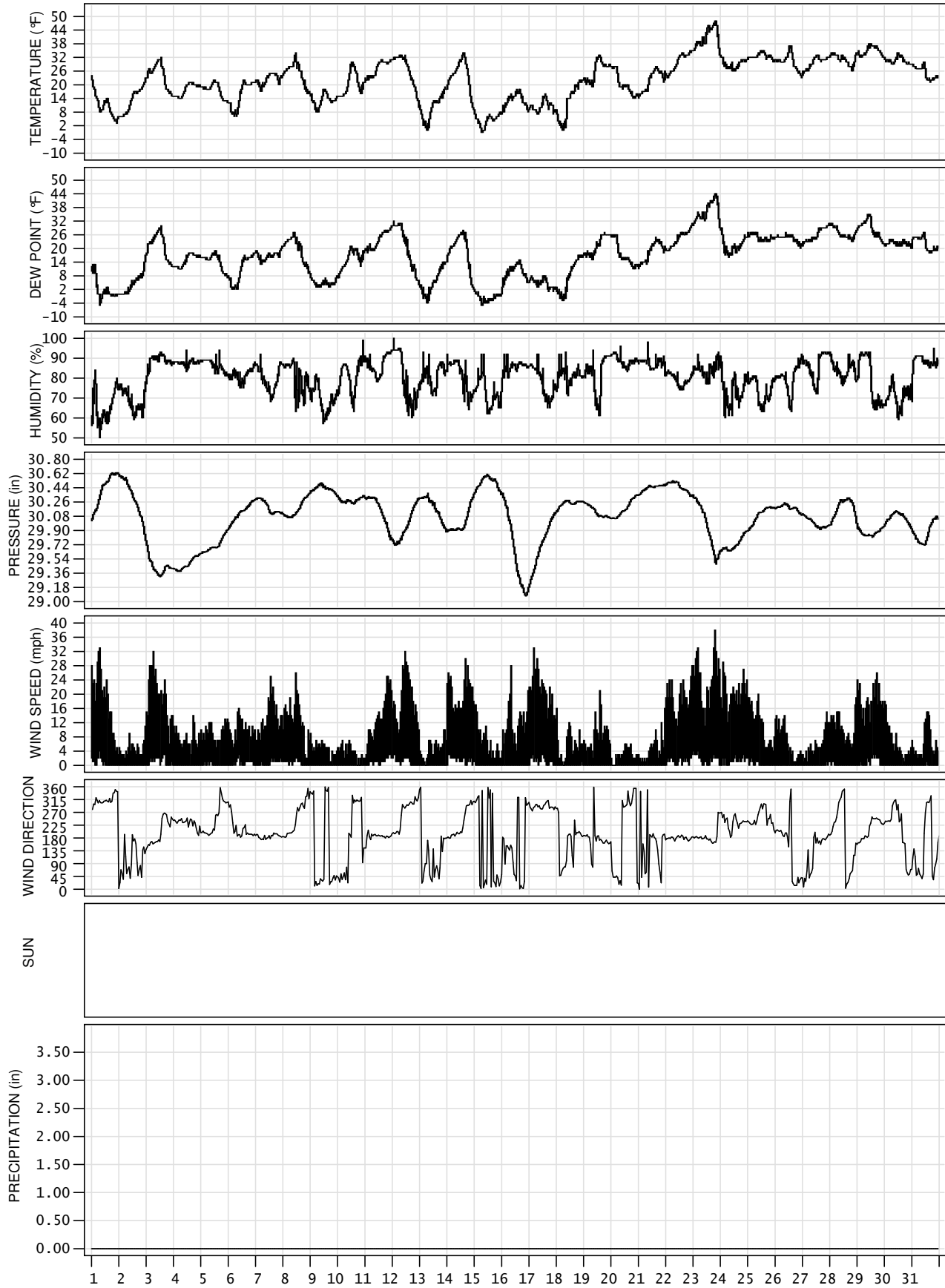


## HOURLY PRECIPITATION (Water Equivalent) December 2007: Westford

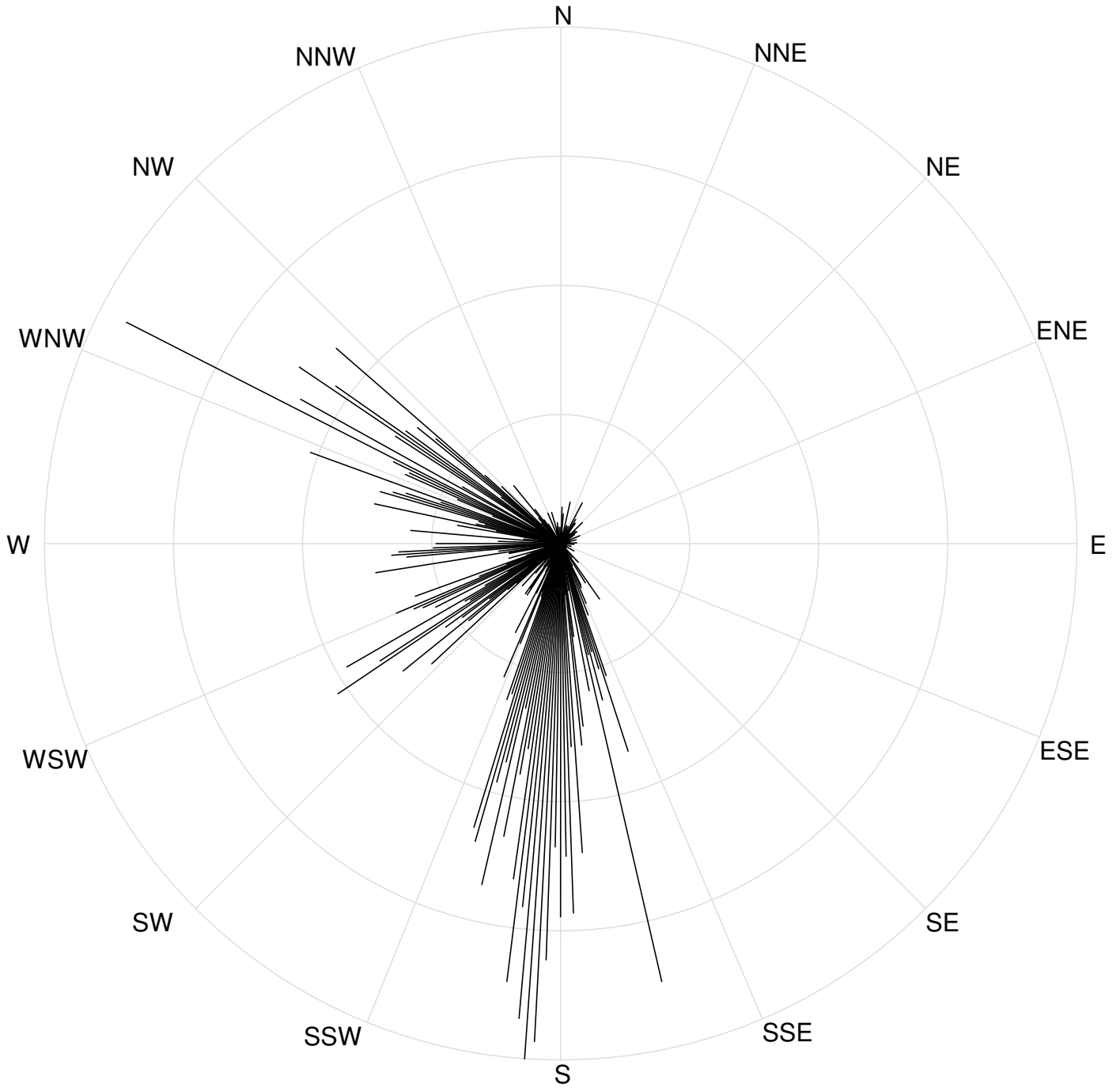
Date	A.M. Hour Ending at												P.M. Hour Ending at												Date
	01	02	03	04	05	06	07	08	09	10	11	12	01	02	03	04	05	06	07	08	09	10	11	12	
01																								01	
02																									02
03																									03
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29																									29
30																									30
31																									31
Sum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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 December 2007: Westford



Wind Rose: December 2007  
**Westford**



Maximum direction of wind: 68.3 miles from 184°.  
2945.0 total miles of wind.