

LOCAL CLIMATOLOGICAL DATA

Monthly Summary

February 2004

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

Date	Temperature					Humidity	Dew Pt		Precip Ty	Snow Cvr	Precip		Pressure			Wind						Sun												
	Maximum	Minimum	Average	Mean	Dew Point		Mean	Heating Base			Cooling Base	1 fog	2 hvy fog	3 thunder	4 ice plt	5 hail	6 glaze	7 duststm	8 smk, hz	9 blw snw	Water Equivalent		Ice Pellets Snow	Adj. to Sea Level			Avg		Res		Peak		Minute	
																								Maximum	Minimum	Mean	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	23.6	5.8	14.7	14.1	5	66	51	0	.....	14	0.00	0.0	30.46	30.08	30.315	1.3	1.0	252	13	WSW	3	322											
2	30.3	12.1	21.2	20.0	12	72	44	0	.....	14	0.00	0.0	30.55	30.33	30.466	0.4	0.2	343	7	NNE	0	0											
3	31.9	13.8	22.8	25.9	18	74	43	0	.....	16	0.23	2.8	30.33	29.80	30.105	5.0	4.6	175	25	S	3	127											
4	31.3	18.4	24.8	25.2	19	77	41	0	.....	19	0.29	4.0	30.27	29.75	29.999	6.8	6.3	245	28	WSW	6	261											
5	23.5	11.1	17.3	16.4	6	63	48	0	.....	18	0.00	0.0	30.63	30.27	30.505	3.9	3.5	291	25	WNW	1	52											
6	33.2	12.6	22.9	21.5	16	81	43	0	.....	19	0.21	2.1	30.52	29.58	30.069	3.5	2.8	160	19	SSE	0	0											
7	33.2	9.3	21.3	23.8	20	85	44	0	.....	19	0.02	0.8	29.84	29.45	29.567	4.2	3.2	305	26	WNW	0	0											
8	15.4	-1.6	6.9	7.8	-6	54	59	0	.....	19	0.00	0.0	30.24	29.85	30.149	5.9	4.0	273	27	NW	11	295											
9	33.2	14.0	23.6	25.2	12	57	42	0	.....	18	T	T	30.24	29.93	30.077	7.1	6.9	195	30	SSW	0	0											
10	34.1	25.4	29.7	30.6	22	71	36	0	.....	18	0.01	0.4	29.94	29.75	29.837	5.1	4.7	231	28	WSW	0	0											
11	27.8	2.4	15.1	17.4	7	64	50	0	.....	18	0.03	0.7	30.23	29.75	29.971	5.1	4.2	274	27	WNW	1	266											
12	23.6	0.5	12.1	14.6	7	70	53	0	.....	18	0.01	0.3	30.23	29.90	30.104	2.3	2.1	193	14	SSW	0	0											
13	33.1	21.1	27.1	27.0	16	64	38	0	.....	17	0.00	0.0	29.90	29.66	29.774	6.7	6.4	232	25	WSW	0	0											
14	30.6	1.1	15.9	21.6	11	64	50	0	.....	17	0.01	0.4	29.98	29.67	29.765	6.6	5.1	253	24	WSW	12	231											
15	7.9	-12.2*	-2.1*	-2.3	-22	38	67	0	.....	17	0.00	0.0	30.40	30.00	30.265	1.7	0.5	252	12	WNW	0	0											
16	14.1	-3.3	5.4	4.7	-10	49	60	0	.....	17	0.00	0.0	30.66	30.40	30.531	2.3	1.2	265	16	NW	0	0											
17	24.5	-6.3	9.1	11.0	-6	48	56	0	.....	17	0.00	0.0	30.69	30.37	30.553	3.5	3.4	186	22	SSW	4	201											
18	30.6	10.7	20.7	20.4	8	59	45	0	.....	17	0.00	0.0	30.37	29.91	30.189	1.3	0.3	231	11	WSW	0	0											
19	23.8	12.1	17.9	17.7	13	80	48	0	.....	17	0.02	0.5	29.97	29.80	29.877	0.7	0.7	336	12	NW	0	0											
20	34.7	16.5	25.6	26.2	20	78	40	0	.....	17	0.00	0.0	30.01	29.60	29.879	0.8	0.4	223	13	S	9	269											
21	36.0	30.1	33.1	32.2	29	88	32	0	.....	0	0.00	0.0	29.61	29.45	29.509	4.0	3.9	169	24	SE	15	147											
22	31.3	23.0	27.1	27.6	25	89	38	0	.....	0	0.00	0.0	30.15	29.61	29.912	3.0	2.9	290	19	W	12	289											
23	28.8	11.1	19.9	20.0	11	68	46	0	.....	0	0.00	0.0	30.26	30.15	30.205	2.1	1.8	318	16	W	11	297											
24	25.0	5.0	15.0	14.8	2	58	50	0	.....	0	0.00	0.0	30.18	30.05	30.118	0.9	0.7	340	13	WNW	7	303											
25	25.8	7.0	16.4	17.1	1	50	49	0	.....	0	0.00	0.0	30.29	30.08	30.186	1.5	1.3	331	14	WNW	10	303											
26	22.9	8.6	15.8	15.3	1	54	50	0	.....	0	0.00	0.0	30.48	30.29	30.421	1.4	1.2	328	11	NW	9	296											
27	28.1	6.3	17.2	16.9	-5	39	48	0	.....	0	0.00	0.0	30.49	30.32	30.412	0.9	0.8	335	10	N	8	273											
28	42.5	16.1	29.3	29.3	13	51	36	0	.....	0	0.00	0.0	30.32	30.16	30.234	1.4	0.4	243	12	W	8	291											
29	43.2*	27.9	35.6*	36.5	21	53	30	0	.....	0	0.00	0.0	30.16	30.00	30.092	4.5	4.5	187	18	S	12	196											
Sum	Sum	-----	-----	---	----	Ttl	Ttl						For the month:										---											
824	299					1337	0	Number of Days		0.83	12.0	30.69	29.45	30.106	3.2	1.8	239	30	SSW	15	147													
Avg	Avg	Avg	Mean	Avg	Avg	----	----	Precip		Season Ttl	Date	Date	-----	----	----	----	----	----	Date	Date	Avg													
28.4	10.3	19.4	20.0	9	64.3	----	----	>.01 inch	9	2.11	108.6	17	21	-----	----	----	----	----	----	9	21													
Number of Days								Season to Date	Snow, Ice >1.0 inch	3	Greatest in 24 Hours and Dates					Greatest Depth on Ground of Snow, Ice Pellets or Ice and Date																		
Max Temperature				Min Temperature				6206	0	Thunder	0	Precipitation		Snow, Ice Plts																				
> 90°F	< 32°F	< 32°F	< 0°F	----	----	Heavy Fog	0	0.00	-	4.0	4				19		4+																	
0	20	29	4	----	----	Clear	12	Partly Cloudy	7	Cloudy	10																							

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/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

February 2004: Westford

Hour	Sunshine	Pressure	Rainfall rate	Temperature	Dew Point	Wind			Sunshine	Pressure	Rainfall rate	Temperature	Dew Point	Wind			Sunshine	Pressure	Rainfall rate	Temperature	Dew Point	Wind																																																																																																																																																																																																									
						Humidity	Direction	Speed						Humidity	Direction	Speed						Humidity	Direction	Speed																																																																																																																																																																																																							
FEB 01																								FEB 02																								FEB 03																																																																																																																																																																															
01		30.10	0.00	6	-1	73	20	2	3		30.47	0.00	15	10	80	00	0	0		30.31	0.00	15	12	88	00	0	0	04		30.15	0.00	9	-0	66	24	4	7		30.49	0.00	18	12	78	00	0	0		30.26	0.00	21	13	72	20	3	8	07		30.24	0.00	8	1	72	24	1	2		30.52	0.00	18	11	73	09	1	3		30.23	0.00	23	13	65	15	8	13	10		30.34	0.00	13	3	63	31	1	3		30.53	0.00	22	12	66	06	1	4		30.19	0.00	29	17	59	18	10	16	13		30.36	0.00	18	7	60	27	3	3		30.46	0.00	27	15	59	24	2	3		30.11	0.00	31	18	58	20	10	21	16		30.38	0.00	20	9	61	31	2	5		30.43	0.00	27	14	56	31	0	1		30.02	0.00	31	19	61	15	8	13	19		30.45	0.00	19	9	65	00	0	0		30.43	0.00	18	12	75	00	0	0		29.96	0.00	28	26	92	13	4	8	22		30.45	0.00	18	10	72	00	0	0		30.39	0.00	14	9	80	00	0	0		29.85	0.00	28	26	94	15	3	7

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.

OBSERVATIONS AT 3-HOUR INTERVALS

February 2004: Westford

Hour	Sunshine	Pressure	Rainfall rate	Temperature	Dew Point	Wind			Sunshine	Pressure	Rainfall rate	Temperature	Dew Point	Wind			Sunshine	Pressure	Rainfall rate	Temperature	Dew Point	Wind																																																																																																																																																																																	
						Humidity	Direction	Speed						Humidity	Direction	Speed						Humidity	Direction	Speed	Humidity	Direction	Speed																																																																																																																																																																												
FEB 19																								FEB 20																								FEB 21																																																																																																																																																							
01	29.89	0.00	13	6	75	00	0	0	29.95	0.00	21	17	86	00	0	0	29.57	0.00	31	26	80	19	3	10	04	29.82	0.00	15	7	69	00	0	0	29.96	0.00	22	18	83	00	0	0	29.48	0.00	32	26	79	15	10	21	07	29.82	0.00	16	13	85	00	0	0	30.01	0.00	18	15	88	00	0	0	29.46	0.00	31	27	84	17	8	14	10	29.83	0.00	20	15	82	00	2	7	29.97	0.00	35	21	57	00	0	0	29.49	0.00	31	29	94	19	5	7	13	29.85	0.00	22	17	81	31	2	4	29.89	0.00	32	20	59	30	3	7	29.46	0.00	34	31	89	19	2	5	16	29.88	0.00	23	16	74	31	2	5	29.84	0.00	30	19	65	35	0	2	29.48	0.00	34	30	85	17	2	3	19	29.94	0.00	15	12	87	00	0	0	29.80	0.00	26	24	92	20	0	0	29.54	0.00	32	31	96	18	0	2	22	29.96	0.00	18	15	89	13	1	2	29.65	0.00	27	24	89	16	0	3	29.58	0.00	32	31	96	17	0	0
FEB 22																								FEB 23																								FEB 24																																																																																																																																																							
01	29.64	0.00	31	30	97	30	0	0	30.16	0.00	23	16	76	27	5	8	30.18	0.00	14	6	72	09	0	0	04	29.71	0.00	31	29	92	29	0	0	30.20	0.00	19	13	76	31	2	8	30.16	0.00	11	4	73	00	0	2	07	29.80	0.00	30	29	96	30	1	5	30.24	0.00	13	8	82	33	1	7	30.16	0.00	6	2	82	03	0	0	10	29.88	0.00	28	26	92	29	5	10	30.25	0.00	22	11	63	35	1	5	30.14	0.00	18	3	51	05	2	4	13	29.95	0.00	28	24	86	30	4	9	30.20	0.00	24	11	56	26	5	7	30.08	0.00	24	3	41	33	1	8	16	30.01	0.00	26	21	82	31	2	11	30.17	0.00	27	12	53	33	2	6	30.05	0.00	23	0	36	34	2	6	19	30.10	0.00	24	20	84	27	3	11	30.22	0.00	19	10	68	02	2	5	30.09	0.00	12	-2	52	01	0	0	22	30.13	0.00	24	19	82	29	4	11	30.19	0.00	15	8	73	05	0	3	30.08	0.00	12	-1	54	06	0	2
FEB 25																								FEB 26																								FEB 27																																																																																																																																																							
01	30.09	0.00	12	-2	51	02	0	2	30.31	0.00	18	9	66	35	1	6	30.44	0.00	9	-4	54	00	0	0	04	30.10	0.00	9	-1	63	35	0	0	30.37	0.00	13	6	75	02	1	6	30.45	0.00	10	-1	58	01	1	5	07	30.16	0.00	8	-2	64	01	0	1	30.44	0.00	10	5	79	35	0	1	30.48	0.00	8	-5	55	00	0	0	10	30.18	0.00	17	1	49	35	1	7	30.45	0.00	19	2	46	34	3	9	30.46	0.00	20	-8	28	35	3	10	13	30.19	0.00	23	3	42	32	3	12	30.40	0.00	22	1	40	31	7	10	30.40	0.00	25	-6	25	28	6	10	16	30.22	0.00	26	-2	30	00	3	9	30.46	0.00	21	-1	38	28	2	6	30.36	0.00	27	-7	21	32	2	5	19	30.26	0.00	22	3	44	01	0	0	30.48	0.00	13	-1	52	32	0	1	30.37	0.00	19	-4	36	04	0	1	22	30.26	0.00	23	6	48	30	3	11	30.44	0.00	10	-4	53	00	0	2	30.35	0.00	16	-6	36	02	0	1
FEB 28																								FEB 29																																																																																																																																																																															
01	30.32	0.00	18	-2	41	02	0	0	30.16	0.00	32	18	58	18	3	6									04	30.28	0.00	18	6	58	02	0	0	30.14	0.00	28	16	60	18	3	7									07	30.28	0.00	21	5	51	19	5	6	30.14	0.00	29	16	59	19	5	8									10	30.26	0.00	35	10	36	17	0	3	30.12	0.00	37	18	47	17	6	11									13	30.21	0.00	39	18	44	30	5	8	30.05	0.00	42	21	43	18	8	14									16	30.18	0.00	42	23	46	34	2	5	30.00	0.00	43	22	44	18	4	12									19	30.19	0.00	32	23	68	14	0	2	30.05	0.00	40	24	53	19	3	7									22	30.18	0.00	30	18	60	18	3	6	30.08	0.00	40	28	64	19	1	2								

WEATHER NOTES

SUMMARY BY HOUR

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.

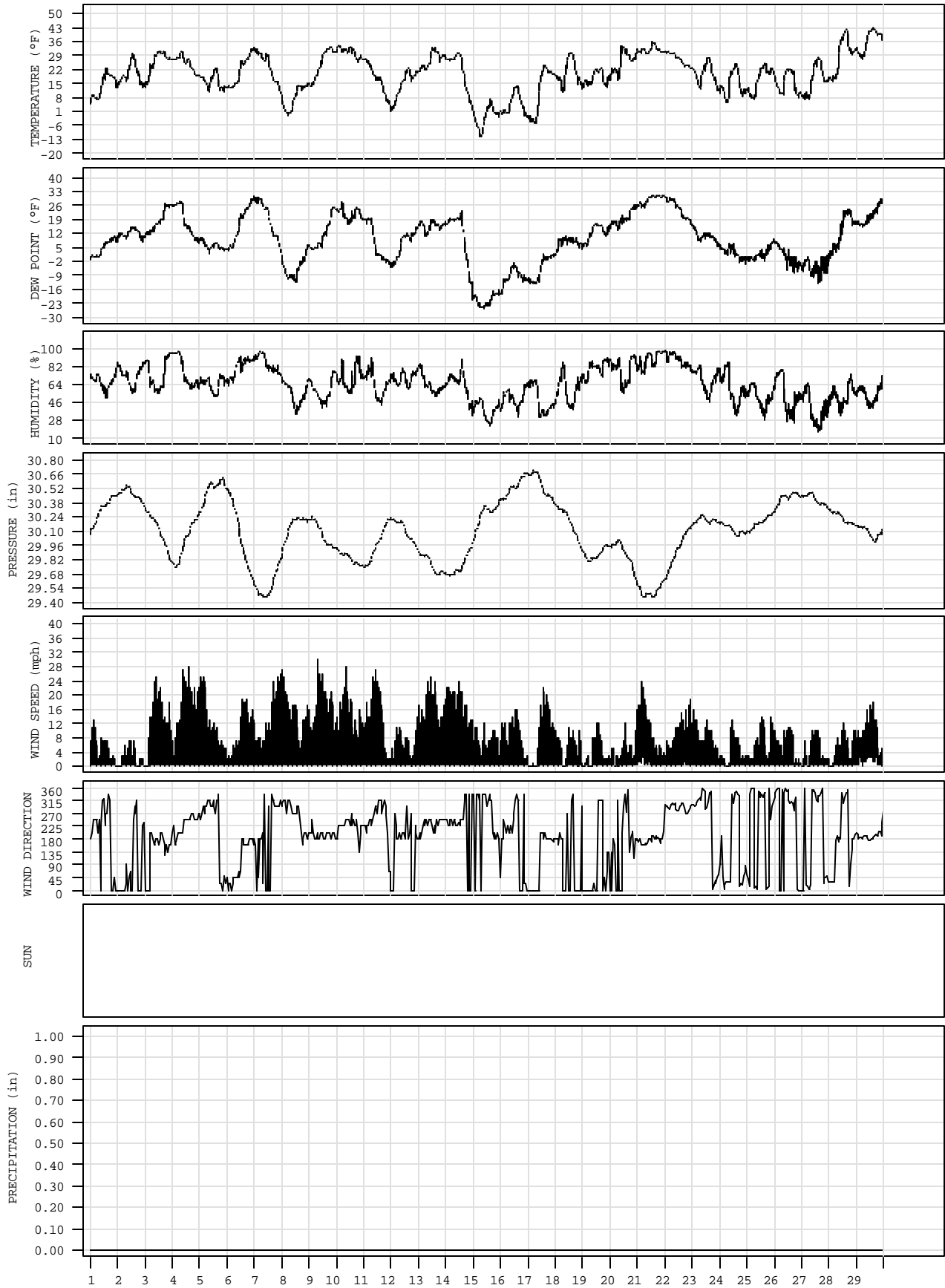
Hour	Averages						Resultant wind	
	Sunshine	Pressure	Temperature	Dew Point	Humidity	Wind Speed	Direction	Speed
01		30.094	17	8	69	1.9	23	1.2
04		30.097	17	9	70	3.0	23	1.8
07		30.121	16	8	72	3.2	22	2.2
10		30.135	21	9	60	4.3	25	2.6
13		30.097	25	10	55	5.2	25	3.3
16		30.090	25	9	53	3.7	26	1.5
19		30.114	20	10	65	2.3	21	1.3
22		30.099	19	9	67	2.5	23	1.3

**HOURLY PRECIPITATION (Water Equivalent)
February 2004: Westford**

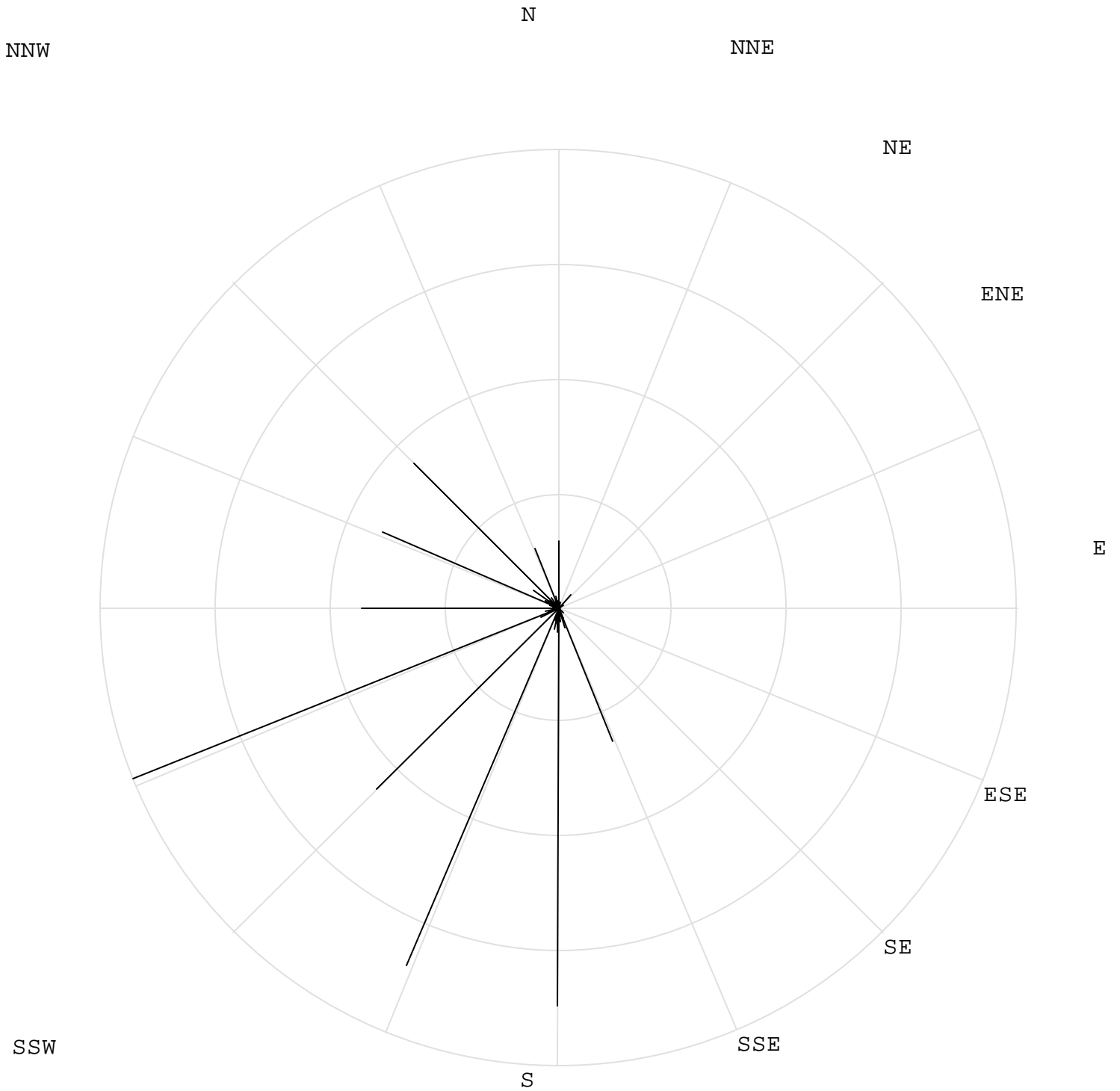
Date	A.M. Hour Ending at												P.M. Hour Ending at												Date
	01	02	03	04	05	06	07	08	09	10	11	12	01	02	03	04	05	06	07	08	09	10	11	12	
01																								01	
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29																									29
Sum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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.)

HOURLY-BY-HOURLY DATA
February 2004: Westford



Wind Rose: February 2004
Westford



Maximum direction of wind: 329.6 miles from 248°.
2246.6 total miles of wind.