

LOCAL CLIMATOLOGICAL DATA

Monthly Summary

May 2003

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			Wind						Sun		
	Maximum	Minimum	Average	Mean	Dew Point		Mean	Heating			Cooling	Water Equivalent	Ice Pellets Snow	Adj. to Sea Level			Avg Speed	Res Speed	Res Dir	Peak			Minute	
														Maximum	Minimum	Mean				Speed	Dir		Speed	Dir	Speed	Dir
1	2	3	4A	4B	5	6	7	8	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
1	69.4	43.3	56.4	53.8	45	74	9	0	.....	0	0.32	0.0	30.05	29.63	29.855	6.7	5.2	185	36	S	6	10	
2	48.2	38.8	43.5	44.6	43	95	22	0	.....	0	0.40	0.0	30.02	29.84	29.906	2.2	2.2	359	25	N	0	0	
3	52.5	31.0	41.8*	41.7	30	66	24	0	.....	0	0.00	0.0	30.18	30.02	30.115	2.8	2.6	338	18	WNW	0	0	
4	66.8	32.9	49.9	50.7	28	46	16	0	.....	0	0.00	0.0	30.22	30.08	30.159	1.4	0.8	264	12	S	0	0	
5	72.1	41.3	56.7	59.0	33	40	9	0	.....	0	0.00	0.0	30.15	29.93	30.041	2.8	2.3	194	21	SE	0	0	
6	57.2	43.8	50.5	50.1	41	72	15	0	.....	0	0.04	0.0	29.95	29.80	29.882	6.7	6.4	182	28	S	0	0	
7	57.6	43.1	50.3	50.5	45	82	15	0	1.....	0	0.00	0.0	29.97	29.78	29.898	2.9	1.4	269	16	S	0	0		
8	66.4	38.9	52.7	53.1	43	72	13	0	.....	0	0.00	0.0	29.96	29.88	29.922	2.5	1.6	220	14	WNW	0	0	
9	55.1	40.9	48.0	47.6	42	82	17	0	.....	0	0.08	0.0	30.00	29.91	29.962	2.9	2.6	321	18	WNW	0	0	
10	62.0	36.5	49.3	49.4	38	68	16	0	.....	0	0.00	0.0	29.96	29.80	29.880	1.8	1.4	312	16	W	0	0	
11	70.8	39.9	55.4	55.4	44	68	10	0	..3.....	0	0.86	0.0	29.83	29.44	29.656	2.9	2.2	158	21	SSE	0	0		
12	57.2	45.1	51.1	49.2	47	93	14	0	.....	0	1.07	0.0	29.53	29.35	29.431	2.6	2.2	177	17	S	0	0	
13	53.8	44.2	49.0	47.7	46	94	16	0	.....	0	0.43	0.0	29.65	29.39	29.502	1.1	0.8	324	19	NW	0	0	
14	54.1	44.2	49.1	48.3	45	89	16	0	.....	0	0.04	0.0	29.99	29.64	29.805	1.1	1.0	307	13	NW	0	0	
15	64.5	45.4	55.0	54.5	47	77	11	0	.....	0	0.00	0.0	30.27	30.00	30.150	0.8	0.2	119	11	SE	2	152	
16	64.2	47.9	56.0	54.8	40	59	9	0	.....	0	0.00	0.0	30.38	30.27	30.350	3.3	2.9	160	17	SSW	2	158	
17	66.9	34.9	50.9	52.9	32	48	15	0	.....	0	0.00	0.0	30.44	30.31	30.363	2.0	1.1	247	14	WNW	0	0	
18	73.3	40.8	57.1	59.6	37	45	8	0	.....	0	0.00	0.0	30.37	30.23	30.300	1.7	1.3	288	17	WNW	0	0	
19	80.3	48.0	64.2	65.0	42	47	1	0	.....	0	0.00	0.0	30.34	30.19	30.266	1.3	0.9	299	13	W	0	0	
20	78.5	55.0	66.8*	67.6	39	36	0	1	.....	0	0.00	0.0	30.23	29.93	30.109	4.9	4.8	189	26	S	0	0	
21	66.9	40.8	53.9	51.2	43	76	12	0	.....	0	0.52	0.0	30.29	29.93	30.138	3.4	1.3	262	26	NW	0	0	
22	65.3	35.6	50.5	51.2	37	60	15	0	.....	0	0.00	0.0	30.34	30.24	30.288	1.2	0.7	318	13	NW	0	0	
23	67.4	49.8	58.6	56.9	48	72	7	0	.....	0	T	0.0	30.26	30.14	30.205	1.9	0.8	220	14	S	0	0	
24	56.7	48.3	52.5	53.3	50	89	13	0	.....	0	0.26	0.0	30.14	30.00	30.071	0.6	0.3	163	11	SW	0	0	
25	67.3	49.6	58.5	56.9	53	87	7	0	.....	0	0.08	0.0	30.01	29.93	29.977	1.4	1.0	189	13	SSE	0	0	
26	58.9	51.9	55.4	55.3	53	92	10	0	.....	0	0.14	0.0	30.02	29.97	29.994	0.4	0.3	143	11	SE	0	0	
27	63.7	49.8	56.8	55.5	52	89	9	0	.....	0	0.01	0.0	30.03	29.90	29.978	0.6	0.2	174	8	N	0	0	
28	62.9	47.6	55.3	54.5	52	93	10	0	..3.....	0	0.27	0.0	29.90	29.56	29.733	0.4	0.2	214	8	W	0	0		
29	67.4	52.0	59.7	56.9	54	90	6	0	.....	0	0.15	0.0	29.55	29.43	29.487	3.5	3.0	219	19	W	0	0	
30	58.6	49.9	54.3	54.5	52	91	11	0	.....	0	0.01	0.0	29.63	29.46	29.548	1.5	0.8	270	14	W	0	0	
31	69.6	47.4	58.5	57.9	51	81	7	0	.....	0	0.07	0.0	29.65	29.58	29.616	1.0	0.8	187	10	S	0	0	
Sum	Sum	-----	-----	---	----	Ttl	Ttl						For the month:						---					
1976	1359					363	1	Number of Days		4.75	0.0	30.44	29.35	29.955	2.3	0.9	220	36	S	6	10			
Avg	Avg	Avg	Mean	Avg	Avg	----	----	Precip		Season Ttl	Date	Date	-----	----	----	----	Date	Date	Avg					
63.7	43.8	53.8	53.5	44	73.3	----	----	>.01 inch	17	14.37	96.8	17	12	-----	----	----			1	1				
Number of Days								Season to Date	Snow, Ice >1.0 inch	Greatest in 24 Hours and Dates				Greatest Depth on Ground of Snow, Ice Pellets or Ice and Date										
Max Temperature				Min Temperature		8275	1	Thunder	2	Precipitation		Snow, Ice Plts												
> 90°F	< 32°F	< 32°F	< 0°F	----	----	Heavy Fog	0	1.90	11-12	0.0	-	0												
0	0	1	0	----	----	Clear	5	Partly Cloudy	12	Cloudy	14													

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

May 2003: 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
MAY 19									MAY 20									MAY 21								
01		30.28	0.00	53	41	63	00	0	0	30.19	0.00	57	40	54	18	1	3	29.94	0.00	64	44	48	20	6	13	
04		30.29	0.00	50	41	71	20	0	1	30.21	0.00	59	38	46	18	2	5	29.97	0.01	53	51	94	18	4	11	
07		30.32	0.00	54	42	63	00	0	0	30.22	0.00	60	39	46	18	1	3	30.02	0.00	53	52	96	20	4	7	
10		30.33	0.00	71	47	42	31	1	5	30.20	0.00	70	39	32	18	6	10	30.17	0.00	43	41	96	31	5	11	
13		30.29	0.00	77	41	28	02	1	6	30.12	0.00	77	41	27	18	9	18	30.22	0.00	47	43	83	00	3	11	
16		30.24	0.00	79	42	27	27	4	8	30.03	0.00	76	40	27	18	9	17	30.22	0.00	55	42	62	33	5	15	
19		30.20	0.00	76	40	27	18	0	2	29.98	0.00	72	37	28	18	5	13	30.23	0.00	58	34	41	31	1	6	
22		30.20	0.00	61	41	49	00	0	0	29.95	0.00	68	40	35	18	5	11	30.28	0.00	44	37	77	00	0	0	
MAY 22									MAY 23									MAY 24								
01		30.30	0.00	39	35	84	00	0	1	30.23	0.00	52	43	72	18	2	5	30.13	0.00	52	47	82	18	5	9	
04		30.31	0.00	37	32	82	04	0	1	30.23	0.00	51	44	78	20	0	2	30.11	0.00	49	46	92	00	0	0	
07		30.33	0.00	39	33	78	00	0	3	30.25	0.00	51	46	82	06	0	1	30.09	0.00	51	47	86	02	1	3	
10		30.33	0.00	54	35	48	31	3	8	30.25	0.00	57	49	75	29	0	3	30.09	0.00	54	48	80	06	1	4	
13		30.29	0.00	61	37	40	00	2	6	30.21	0.00	64	48	56	00	1	3	30.07	0.00	57	49	76	13	4	7	
16		30.26	0.00	64	41	43	31	3	7	30.17	0.00	64	51	64	29	5	10	30.04	0.00	55	54	95	33	0	2	
19		30.25	0.00	59	37	45	31	1	7	30.16	0.00	61	51	70	20	0	2	30.03	0.00	55	54	95	00	0	0	
22		30.25	0.00	55	42	61	11	0	1	30.16	0.00	56	50	78	18	5	11	30.03	0.00	53	52	97	00	0	0	
MAY 25									MAY 26									MAY 27								
01		30.00	0.00	51	51	98	13	1	5	30.00	0.00	55	53	94	00	0	0	29.99	0.00	52	51	98	00	0	0	
04		29.98	0.01	50	49	97	00	0	0	29.99	0.01	54	54	97	06	0	2	29.99	0.00	51	51	98	20	0	2	
07		30.01	0.00	51	50	98	20	2	4	30.00	0.00	55	54	98	00	0	0	30.01	0.00	52	51	98	18	2	5	
10		29.99	0.00	57	53	89	11	2	6	30.01	0.00	56	52	87	13	3	7	30.02	0.00	56	53	90	20	1	3	
13		29.98	0.00	59	55	88	27	3	7	30.00	0.00	58	52	81	09	0	2	29.99	0.00	61	53	75	00	1	3	
16		29.95	0.00	65	54	69	22	3	8	29.98	0.00	57	53	87	18	0	2	29.95	0.00	63	54	72	02	2	6	
19		29.95	0.00	63	57	79	00	0	0	29.98	0.01	56	54	95	00	0	0	29.94	0.00	60	54	79	00	0	0	
22		29.98	0.00	56	53	90	00	0	0	29.99	0.00	52	52	97	00	0	0	29.93	0.00	52	51	96	00	0	0	
MAY 28									MAY 29									MAY 30								
01		29.89	0.00	48	47	98	00	0	0	29.53	0.00	52	52	97	18	3	5	29.47	0.00	55	54	98	18	2	5	
04		29.85	0.00	49	49	99	00	0	0	29.50	0.00	52	52	97	18	2	6	29.46	0.00	55	54	96	22	1	2	
07		29.83	0.00	51	51	99	00	0	0	29.50	0.00	53	53	99	18	3	6	29.52	0.00	53	52	96	29	3	7	
10		29.77	0.00	59	55	85	22	1	3	29.50	0.00	56	55	96	20	4	10	29.55	0.00	54	52	94	00	0	3	
13		29.71	0.00	62	55	77	20	0	2	29.47	0.00	62	59	89	20	3	8	29.56	0.00	58	53	83	31	1	6	
16		29.67	0.01	55	53	93	04	0	2	29.43	0.00	66	55	66	27	7	13	29.57	0.00	57	53	86	00	0	3	
19		29.61	0.00	57	55	93	00	0	0	29.47	0.00	60	54	80	27	3	7	29.60	0.00	55	51	86	27	3	6	
22		29.59	0.00	53	52	98	18	0	2	29.50	0.00	55	54	96	18	3	7	29.62	0.00	54	50	87	00	0	0	
MAY 31																										
01		29.62	0.00	51	49	93	18	1	3																	
04		29.63	0.00	48	47	96	20	0	2																	
07		29.65	0.00	53	50	88	18	1	3																	
10		29.63	0.00	61	52	73	18	1	4																	
13		29.61	0.00	67	50	53	20	0	1																	
16		29.58	0.00	68	54	60	00	1	5																	
19		29.60	0.00	58	56	92	00	0	0																	
22		29.62	0.00	55	55	97	00	0	0																	

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.

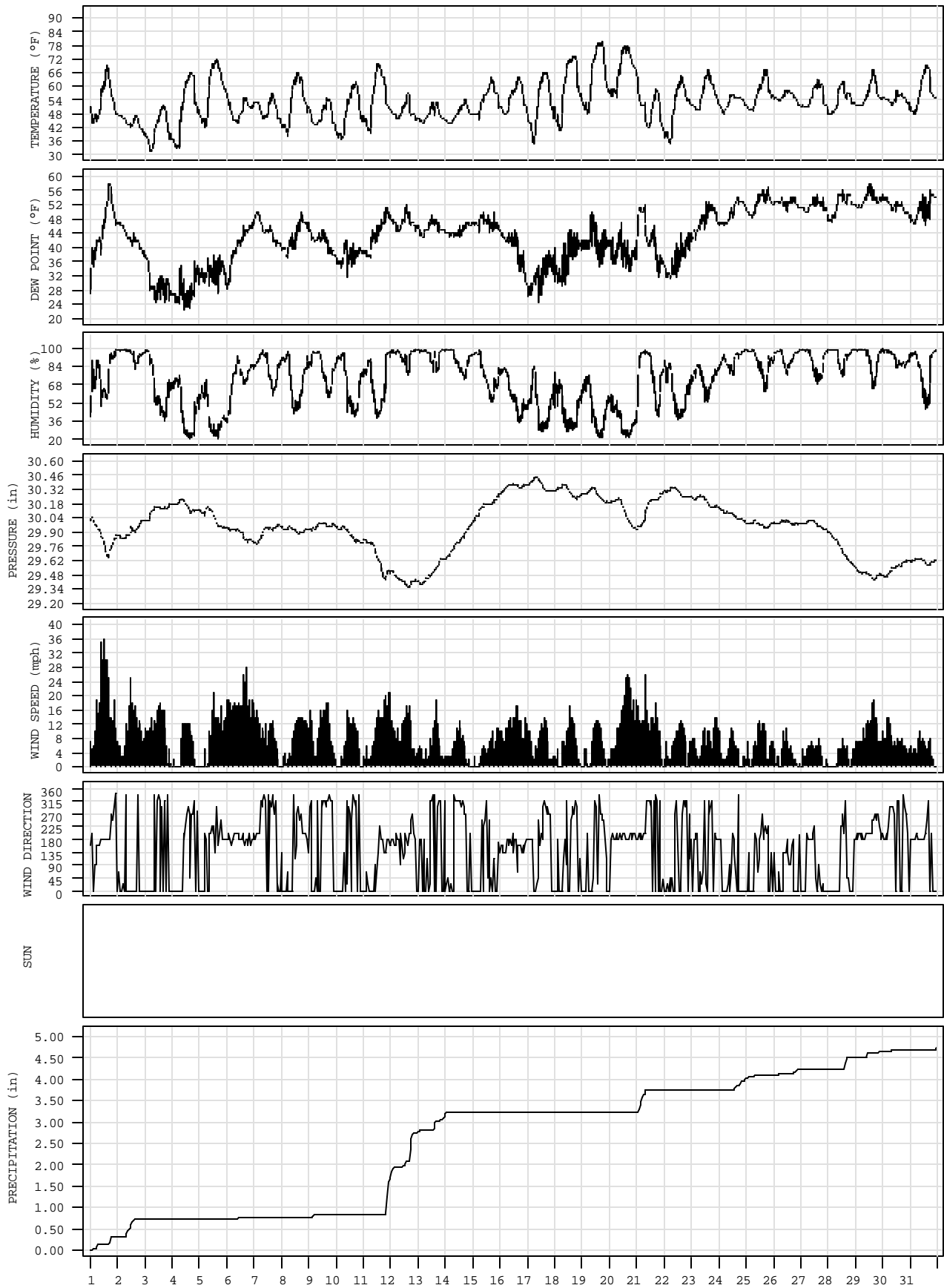
Hour	Averages						Resultant Wind	
	Sunshine	Pressure	Temperature	Dew Point	Humidity	Wind Speed	Direction	Speed
01		29.960	49	42	80	1.8	19	1.2
04		29.955	47	42	85	0.9	19	0.5
07		29.977	47	43	86	1.3	19	0.7
10		29.983	55	44	71	2.8	22	0.9
13		29.959	59	45	63	3.8	24	1.3
16		29.924	62	45	59	4.4	25	2.1
19		29.929	58	45	65	1.5	24	0.6
22		29.949	52	44	78	1.5	17	1.2

**HOURLY PRECIPITATION (Water Equivalent)
May 2003: Westford**

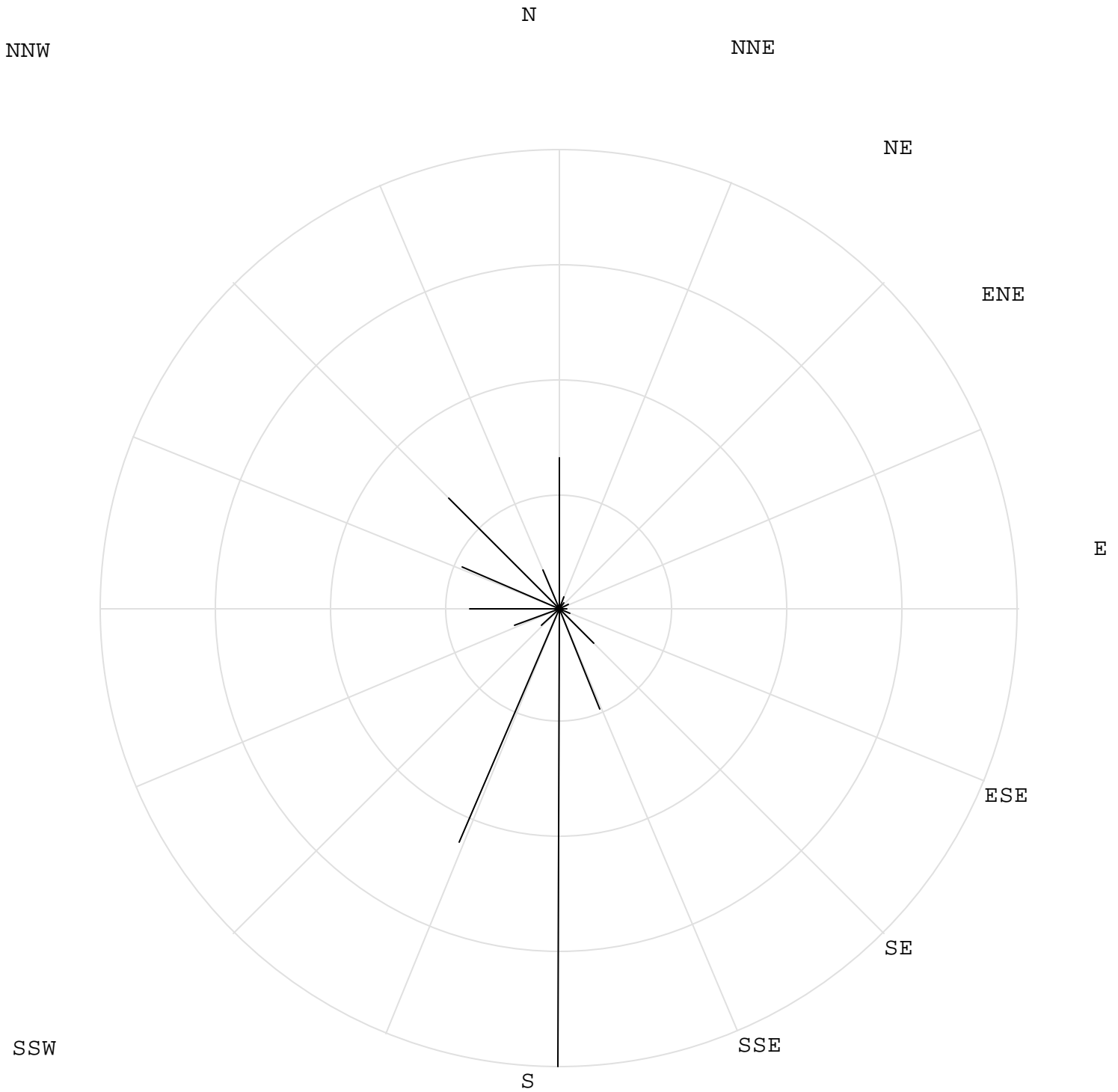
Date	A.M. Hour Ending at												P.M. Hour Ending at												Date	
	01	02	03	04	05	06	07	08	09	10	11	12	01	02	03	04	05	06	07	08	09	10	11	12		
01			0.02			0.04	0.07	0.01									0.02	0.16						01		
02						0.01	0.01	0.04	0.07	0.03	0.05	0.08	0.06	0.05	0.01									02		
03																								03		
04																								04		
05																								05		
06										0.02	0.02													06		
07																								07		
08																								08		
09				0.03	0.03		0.01	0.01																09		
10																								10		
11																		0.01	0.01	0.40	0.33	0.09	0.02	11		
12	0.14	0.06	0.06								0.02		0.02	0.08			0.28	0.24	0.12	0.04			0.01	12		
13	0.01	0.02				0.01		0.01			0.01			0.01	0.14	0.03			0.02	0.02	0.02	0.03	0.04	0.01	13	
14	0.03		0.01																					0.06	14	
15																									15	
16																									16	
17																									17	
18																									18	
19																									19	
20																									20	
21		0.06	0.10	0.08	0.08	0.08	0.02	0.08	0.02																21	
22																									22	
23																									23	
24															0.02	0.03	0.03	0.01	0.02	0.02	0.06	0.01	0.01	0.04	0.01	24
25	0.02	0.01	0.01		0.01	0.01		0.01																	0.01	25
26					0.02	0.02												0.04		0.02	0.04					26
27				0.01																						27
28															0.11	0.12	0.03	0.01								28
29				0.01							0.09				0.01							0.03			0.01	29
30								0.01																		30
31																			0.01		0.01			0.02	0.03	31
Sum	0.20	0.15	0.20	0.13	0.14	0.16	0.11	0.17	0.11	0.05	0.17	0.08	0.08	0.16	0.29	0.20	0.34	0.47	0.18	0.15	0.51	0.37	0.19	0.14	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
May 2003: Westford



Wind Rose: May 2003
Westford



Maximum direction of wind: 498.4 miles from 180°.
1678.0 total miles of wind.