

LOCAL CLIMATOLOGICAL DATA

Monthly Summary

November 2005

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

Date	Temperature					Humidity	Deg F		Precip Ty	Snow Cvr	Precip		Pressure			Wind						Sun			
	Maximum	Minimum	Average	Mean	Dew Point		Mean	Heating Base 65°F			Cooling Base 65°F	Water Equivalent	Ice Pellets Snow	Adj. to Sea Level			Avg	Res	Res	Peak			Minute		Mean Index
														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	65.2	44.6	54.9	54.2	42	67	11	0	.....	0	0.13	0.0	29.97	29.63	29.792	5.8	4.3	209	27	SSW	5	256		
2	45.7	32.2	39.0	40.9	33	73	27	0	.....	0	0.00	0.0	30.06	29.70	29.901	4.9	4.4	285	22	WNW	0	0		
3	60.5	30.3	45.4	47.2	36	66	20	0	.....	0	0.00	0.0	30.06	29.65	29.831	6.5	5.2	200	33	S	0	0		
4	52.9	36.5	44.7	44.6	38	78	21	0	.....	0	0.00	0.0	30.00	29.78	29.878	0.9	0.4	195	10	N	0	0		
5	64.8	43.1	54.0	52.1	44	75	12	0	.....	0	0.00	0.0	30.00	29.82	29.909	2.4	1.5	203	14	SSW	0	0		
6	64.3	38.5	51.4	49.1	45	88	14	0	..3.....	0	0.54	0.0	30.00	29.63	29.826	3.0	2.4	145	24	SSE	0	0			
7	50.1	43.2	46.6	46.3	34	62	19	0	.....	0	0.01	0.0	29.92	29.68	29.851	8.0	4.8	217	32	WSW	0	0		
8	46.4	28.7	37.6	39.2	30	70	28	0	.....	0	0.00	0.0	30.18	29.91	30.012	4.0	1.2	266	20	WNW	0	0		
9	40.6	22.7	31.6	33.0	27	80	34	0	.....	0	0.56	0.0	30.21	29.41	29.910	4.2	3.9	166	27	S	0	0		
10	44.1	29.3	36.7	37.6	30	74	29	0	.....	0	0.03	0.0	29.79	29.42	29.589	7.9	6.8	254	29	W	0	0		
11	32.1	25.4	28.7	29.4	18	62	37	0	.....	0	T	0.0	30.07	29.79	29.950	5.3	5.1	288	26	WNW	0	0		
12	45.7	22.5	34.1	34.9	24	67	31	0	.....	0	0.00	0.0	30.20	30.07	30.149	3.1	2.9	183	16	S	0	0		
13	57.6	44.2	50.9	51.8	31	46	15	0	.....	0	0.00	0.0	30.13	29.87	29.996	10.0	9.9	183	32	S	6	191		
14	54.8	28.8	41.8	44.9	30	58	24	0	.....	0	0.00	0.0	30.39	29.85	30.146	6.1	4.7	239	32	WSW	0	0		
15	46.2	28.7	37.5	36.9	33	88	28	0	.....	0	0.92	0.0	30.41	29.98	30.252	1.5	1.0	139	14	SSE	0	0		
16	67.9*	39.3	53.6	51.3	47	86	12	0	.....	0	0.87	0.0	29.98	29.60	29.803	6.2	4.6	189	34	S	0	0		
17	39.8	29.3	34.5	35.2	26	71	31	0	.....	0	0.01	T	30.04	29.82	29.954	6.1	5.8	249	22	W	0	0		
18	29.7	18.3	24.0	23.7	13	64	41	0	.....	0	0.02	0.2	30.25	30.04	30.191	3.8	3.5	280	21	WNW	0	0		
19	35.9	24.5	30.2	30.9	20	63	35	0	.....	0	T	T	30.25	30.10	30.189	6.3	6.2	185	22	SSW	0	0		
20	44.9	32.9	38.9	39.7	26	58	27	0	.....	0	0.00	0.0	30.10	29.90	30.007	5.9	5.7	191	20	S	0	0		
21	51.7	39.1	45.4	44.8	31	58	20	0	.....	0	0.00	0.0	29.90	29.49	29.721	4.3	4.1	193	27	S	0	0		
22	41.9	21.4	31.7	33.8	31	91	34	0	.....	4	0.45	4.5	29.49	29.01	29.198	4.1	3.9	318	27	NW	0	0		
23	21.4	6.0	13.7*	15.4	11	82	52	0	.....	4	0.00	0.0	29.54	29.23	29.445	3.4	3.3	298	24	NW	0	0		
24	29.3	4.5*	16.9	19.8	14	78	49	0	.....	4	0.02	0.2	29.51	29.15	29.313	3.9	2.4	225	30	W	0	0		
25	27.8	11.9	19.8	20.1	10	65	46	0	.....	3	0.00	0.0	30.22	29.51	29.889	5.1	3.0	197	24	SSW	0	0		
26	25.8	19.1	22.4	22.6	17	78	43	0	.....	3	0.02	0.3	30.29	30.22	30.252	3.4	3.3	178	16	S	0	0		
27	35.8	14.3	25.0	26.9	21	80	40	0	.....	3	0.05	0.0	30.37	30.26	30.306	1.1	0.6	183	14	S	0	0		
28	49.5	35.6	42.5	41.7	39	90	23	0	.....	1	0.20	0.0	30.27	30.09	30.209	3.7	3.5	174	20	SSE	0	0		
29	63.4	47.9	55.7*	57.3	49	75	10	0	.....	0	T	0.0	30.09	29.72	29.904	8.9	8.6	163	34	S	0	0		
30	54.5	35.9	45.2	43.6	40	87	20	0	.....	0	0.97	0.0	30.00	29.76	29.885	2.2	1.3	262	17	S	0	0		
Sum	Sum	-----	-----	---	----	Ttl	Ttl						For the month:										---		
1390	879					833	0	Number of Days			4.80	5.2	30.41	29.01	29.909	4.7	2.9	213	34	S	6	191			
Avg	Avg	Avg	Mean	Avg	Avg	----	----	Precip			Season Ttl		Date	Date	-----	----	----	---	Date	Date	Avg				
46.3	29.3	37.8	38.3	30	72.7	----	----	≥.01 inch 15			45.57	11.7	15	22	-----	----	----	---	16+	13					
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			1577	445	Thunder	1	Precipitation		Snow, Ice Plts													
≥ 90°F	< 32°F	< 32°F	< 0°F	----	----	Heavy Fog	0	1.01	15-16	4.5	22	4		22+											
0	6	18	0	----	----	Clear	4	Partly Cloudy	13	Cloudy	13														

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
November 2005: Westford**

Hour	NOV 19									NOV 20									NOV 21								
	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		30.20	0.00	25	14	65	18	1	2	30.10	0.00	34	21	59	18	9	17	29.89	0.00	45	29	54	20	8	17		
04		30.22	0.00	26	18	70	20	6	12	30.07	0.00	33	21	61	18	6	11	29.85	0.00	44	29	56	20	6	12		
07		30.24	0.00	28	19	69	18	5	11	30.05	0.00	34	22	61	18	7	14	29.80	0.00	40	27	59	18	4	8		
10		30.25	0.00	31	22	69	18	9	17	30.03	0.00	40	25	53	20	9	17	29.75	0.00	47	29	49	18	11	22		
13		30.18	0.00	36	22	57	18	9	18	29.99	0.00	44	27	52	20	4	10	29.68	0.00	51	31	46	20	8	17		
16		30.17	0.00	34	21	59	18	5	14	29.97	0.00	43	29	56	20	4	8	29.66	0.00	48	33	55	22	1	3		
19		30.15	0.00	33	20	59	18	8	17	29.97	0.00	45	32	60	20	6	14	29.64	0.00	43	35	73	00	0	0		
22		30.11	0.00	34	22	61	18	5	8	29.92	0.00	45	31	59	20	5	11	29.55	0.00	42	34	75	00	0	0		
NOV 22									NOV 23									NOV 24									
01		29.46	0.00	41	33	73	06	1	5	29.26	0.00	21	19	90	29	6	12	29.46	0.00	6	2	83	00	0	0		
04		29.38	0.00	40	33	75	00	0	0	29.34	0.00	20	16	86	29	5	10	29.39	0.00	9	6	86	06	0	2		
07		29.29	0.00	38	36	95	00	0	0	29.41	0.00	18	13	81	27	7	13	29.30	0.00	19	14	79	13	2	7		
10		29.17	0.00	38	37	96	00	3	10	29.49	0.00	17	12	78	29	6	11	29.25	0.00	23	17	75	15	6	14		
13		29.03	0.00	37	35	95	31	3	10	29.48	0.00	18	10	73	29	3	8	29.18	0.00	25	22	88	15	3	11		
16		29.03	0.00	30	29	96	31	7	19	29.50	0.00	16	9	75	00	1	5	29.18	0.00	26	24	90	18	5	12		
19		29.07	0.00	27	26	95	31	9	19	29.53	0.00	9	6	87	00	0	0	29.31	0.00	25	23	92	27	10	20		
22		29.17	0.00	23	22	95	31	9	18	29.50	0.00	6	3	85	00	0	0	29.45	0.00	20	5	53	24	9	20		
NOV 25									NOV 26									NOV 27									
01		29.53	0.00	14	-3	45	22	3	6	30.24	0.00	22	16	75	18	4	8	30.27	0.00	23	20	87	18	1	3		
04		29.58	0.00	12	3	66	04	6	11	30.29	0.00	21	14	73	18	3	7	30.33	0.00	19	17	92	00	0	0		
07		29.72	0.00	14	5	67	20	8	16	30.27	0.00	19	13	76	18	2	5	30.35	0.00	15	13	90	00	0	0		
10		29.88	0.00	17	8	69	20	6	12	30.28	0.00	25	14	64	18	6	11	30.37	0.00	25	21	84	00	0	0		
13		29.95	0.00	26	10	50	22	6	16	30.23	0.00	25	18	76	20	3	7	30.30	0.00	33	21	61	15	2	5		
16		30.05	0.00	26	12	55	22	2	6	30.22	0.00	24	19	81	18	4	8	30.28	0.00	32	23	69	18	2	6		
19		30.14	0.00	24	20	84	18	3	7	30.24	0.00	22	19	86	18	2	6	30.28	0.00	32	27	80	00	0	0		
22		30.19	0.00	24	17	73	18	6	10	30.26	0.00	24	21	88	18	3	6	30.26	0.00	34	31	88	18	5	10		
NOV 28									NOV 29									NOV 30									
01		30.26	0.00	36	34	93	18	5	14	30.07	0.00	52	47	84	18	4	8	29.80	0.00	51	50	97	27	5	12		
04		30.27	0.00	37	34	86	18	3	7	30.03	0.00	53	47	78	15	9	22	29.80	0.00	54	52	95	22	5	17		
07		30.26	0.00	38	36	93	18	4	8	30.01	0.00	54	48	78	15	9	29	29.84	0.00	48	46	93	31	0	2		
10		30.26	0.00	40	38	94	18	5	11	29.96	0.00	58	50	75	15	6	14	29.88	0.00	43	41	93	33	2	7		
13		30.20	0.00	45	42	87	20	5	12	29.86	0.00	63	51	66	15	8	18	29.87	0.00	41	39	91	04	2	6		
16		30.18	0.00	43	41	91	20	1	3	29.84	0.00	60	51	74	15	11	20	29.92	0.00	40	34	79	00	1	6		
19		30.18	0.00	42	40	92	18	0	2	29.79	0.00	59	51	75	15	10	21	29.97	0.00	39	33	80	27	2	7		
22		30.12	0.00	48	44	87	18	1	5	29.72	0.00	60	50	69	18	10	22	29.98	0.00	37	30	74	24	1	3		

WEATHER NOTES

NOTES:
 Units are: Temperature= $^{\circ}$ 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

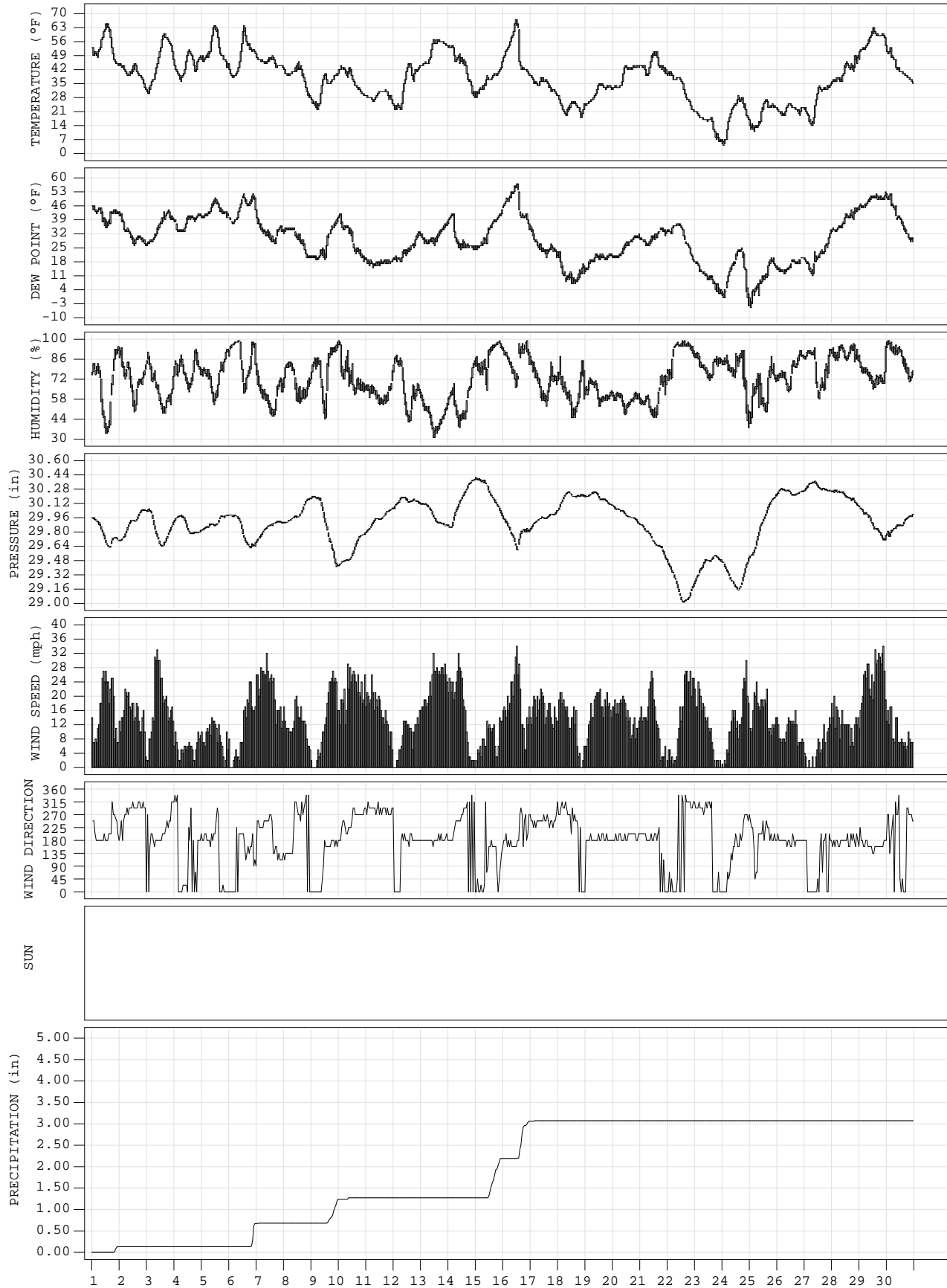
Hour	Averages						Resultant Wind	
	Sunshine	Pressure	Temperature	Dew Point	Humidity	Wind Speed	Direction	Speed
01		29.912	36	30	78	3.9	21	2.8
04		29.924	36	29	76	4.3	21	2.7
07		29.931	35	29	77	4.3	21	2.8
10		29.926	40	29	68	6.6	21	4.1
13		29.876	43	30	62	5.9	22	3.8
16		29.883	41	30	67	4.6	21	2.6
19		29.908	38	31	76	4.3	21	2.6
22		29.907	37	30	77	4.3	21	2.3

HOURLY PRECIPITATION (Water Equivalent)
November 2005: Westford

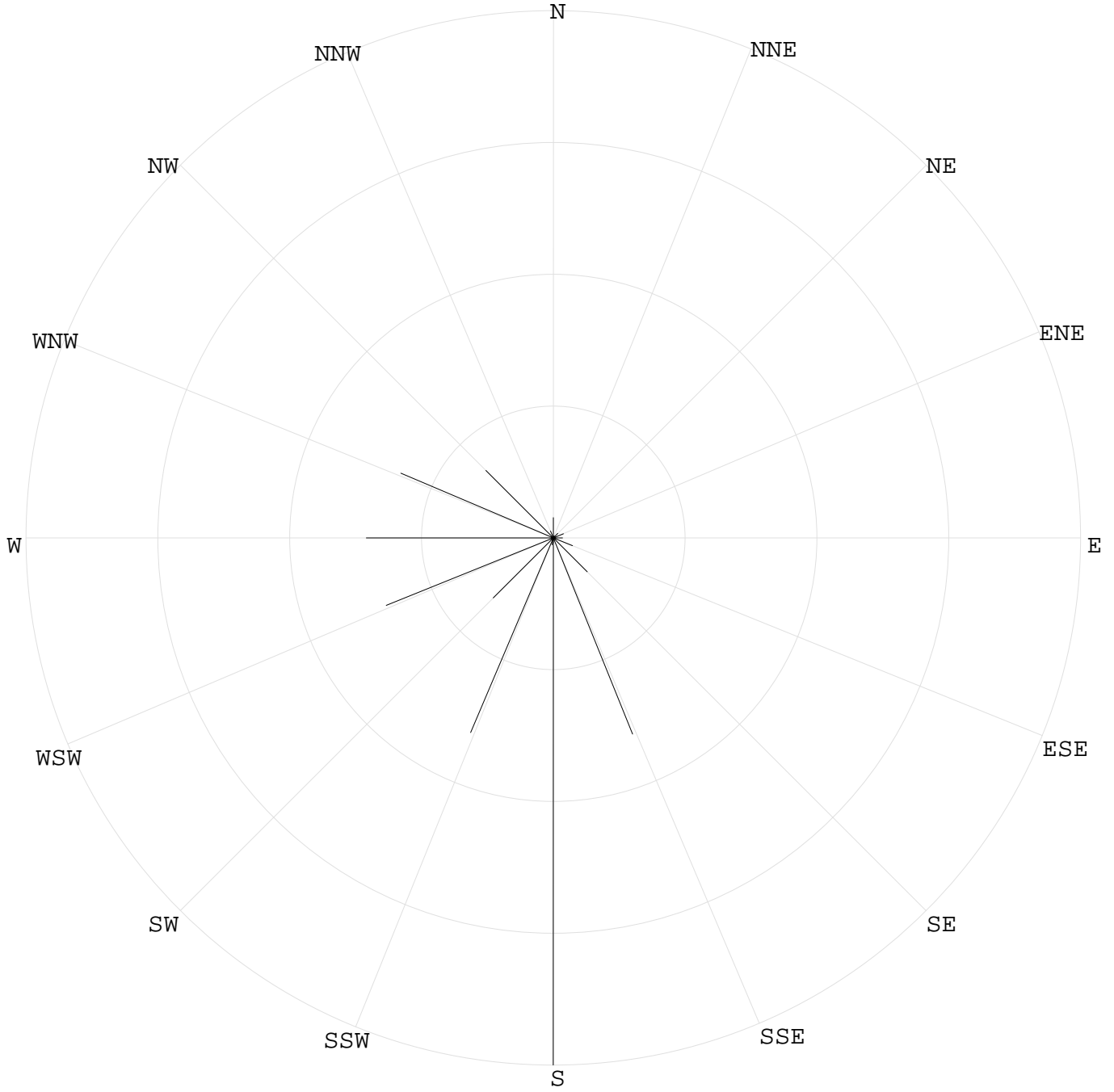
Date	A.M. Hour Ending at												P.M. Hour Ending at												Date
	01	02	03	04	05	06	07	08	09	10	11	12	01	02	03	04	05	06	07	08	09	10	11	12	
01																			0.01	0.07	0.04	0.01		01	
02																									02
03																									03
04																									04
05																									05
06																			0.02	0.14	0.33	0.05			06
07	0.01																								07
08																									08
09															0.03	0.05	0.03	0.04	0.03	0.11	0.07	0.07	0.10	0.03	09
10								0.03																	10
11																									11
12																									12
13																									13
14																									14
15												0.05	0.12	0.11	0.08	0.07	0.11	0.12	0.02	0.08	0.08	0.08			15
16																									16
17													0.01		0.20	0.11	0.27	0.14	0.04		0.02	0.05	0.03		17
18				0.01																					18
19																									19
20																									20
21																									21
22																									22
23																									23
24																									24
25																									25
26																									26
27																									27
28																									28
29																									29
30																									30
Sum	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.05	0.13	0.11	0.31	0.23	0.41	0.30	0.09	0.22	0.38	0.57	0.19	0.03	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
November 2005: Westford



Wind Rose: November 2005
Westford



Maximum direction of wind: 998.6 miles from 180°.
3403.9 total miles of wind.