

# LOCAL CLIMATOLOGICAL DATA

## Monthly Summary

### January 2011

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						Solar Radiation	
	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	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1	51.9	40.3	46.1*	45.3	41	85	19	0	1	0.04	0.0	30.01	29.79	29.922	5.1	5.0	203	21	SW	12	213	29	
2	46.7	25.9	36.3	36.9	30	76	28	0	1	0.16	T	29.93	29.80	29.875	4.3	3.0	280	25	WNW	15	301	34	
3	26.7	20.7	23.7	24.5	14	65	41	0	1	T	T	30.03	29.92	29.996	4.2	4.0	294	20	WNW	12	289	36	
4	27.4	19.6	23.5	24.0	19	80	41	0	1	0.06	0.6	29.99	29.69	29.820	2.2	2.0	219	11	SSW	8	220	40	
5	25.2	14.3	19.8	21.8	17	80	45	0	1	0.04	0.8	29.74	29.69	29.712	2.3	2.2	296	17	NW	10	283	15	
6	24.0	10.2	17.1	16.9	11	77	48	0	1	T	T	29.69	29.55	29.633	1.4	1.3	223	10	W	6	253	51	
7	26.6	9.9	18.3	20.4	12	69	46	0	1	T	0.1	29.55	29.43	29.480	1.3	1.3	168	18	SSE	9	172	47	
8	26.1	18.0	22.1	21.3	18	86	43	0	4	0.23	3.2	29.53	29.43	29.469	0.3	0.3	31	7	NW	3	321	7	
9	22.6	16.7	19.7	20.7	16	83	45	0	6	0.00	3.3	29.97	29.52	29.725	4.6	4.5	304	23	WNW	14	286	4	
10	19.5	11.9	15.7	15.7	10	77	49	0	6	0.02	2.0	30.28	29.96	30.158	2.1	2.0	310	18	NW	11	298	6	
11	19.2	9.1	14.2	15.4	11	81	51	0	5	0.02	1.4	30.29	29.96	30.195	0.2	0.2	8	6	N	3	20	6	
12	19.4	9.9	14.6	15.9	12	85	50	0	11	0.58	8.2	29.96	29.67	29.771	1.7	1.7	7	18	N	7	12	2	
13	18.0	11.2	14.6	15.3	10	81	50	0	12	0.06	3.4	30.28	29.87	30.135	2.9	2.9	328	17	N	9	320	7	
14	16.7	10.9	13.8	13.4	8	81	51	0	12	0.03	1.3	30.31	30.23	30.273	0.4	0.4	324	8	NNW	5	324	8	
15	22.5	4.1	13.3	14.8	11	83	51	0	13	0.10	1.8	30.23	29.71	29.961	2.8	2.7	208	20	SW	11	213	11	
16	22.6	2.2	12.4	14.5	9	79	52	0	12	0.03	0.8	30.20	29.73	29.965	1.6	1.4	296	15	WNW	11	294	20	
17	10.6	-11.8	-0.6	0.6	-8	69	66	0	11	0.00	0.0	30.42	30.20	30.318	0.5	0.2	247	12	S	8	199	74	
18	33.0	6.7	19.8	22.9	16	76	45	0	11	0.16	0.9	30.23	29.66	29.955	4.2	4.1	193	23	SW	11	190	23	
19	31.5	13.2	22.3	19.8	17	87	42	0	10	0.11	1.4	29.91	29.65	29.775	0.8	0.8	355	10	NNW	5	334	12	
20	21.8	11.6	16.7	16.2	11	80	48	0	11	0.02	1.5	29.99	29.77	29.923	0.6	0.5	248	9	SW	6	207	18	
21	17.9	7.4	12.6	14.7	10	81	52	0	11	0.15	1.7	29.77	29.50	29.609	2.2	2.1	305	17	WNW	10	298	54	
22	15.8	-0.4	7.7	6.4	-0	74	57	0	10	0.00	0.0	29.93	29.73	29.869	0.9	0.6	292	14	NW	9	299	108	
23	2.8	-14.7	-5.9	-3.9	-11	70	71	0	10	0.02	0.3	30.35	29.86	30.077	1.4	1.3	342	16	NW	8	321	70	
24	0.9	-19.6*	-9.4*	-9.1	-20	60	75	0	10	0.00	0.0	30.51	30.30	30.427	0.1	0.1	284	7	ENE	4	296	89	
25	23.8	-2.5	10.6	13.8	8	78	54	0	11	0.05	1.0	30.30	30.04	30.111	4.1	4.1	210	19	S	12	218	28	
26	32.7	20.3	26.5	25.4	20	82	38	0	10	T	T	30.10	29.71	29.949	0.2	0.1	181	6	SSW	3	203	48	
27	28.0	15.1	21.6	20.7	16	82	43	0	10	T	T	29.77	29.67	29.727	0.5	0.5	2	11	N	5	302	71	
28	29.8	15.8	22.8	23.9	17	76	42	0	9	T	T	29.80	29.75	29.777	2.0	1.9	208	15	S	8	216	85	
29	28.7	15.4	22.1	23.3	19	83	43	0	9	0.05	0.5	29.98	29.78	29.860	0.9	0.5	254	9	SSW	5	311	42	
30	21.1	8.3	14.7	15.7	11	80	50	0	9	0.01	0.5	30.26	29.97	30.067	1.0	1.0	323	21	NNW	11	329	56	
31	10.0	-3.8	3.1	2.8	-8	61	62	0	9	0.00	0.0	30.56	30.26	30.473	0.9	0.9	326	13	NNW	6	306	103	
<b>Sum</b>	<b>Sum</b>	-----	-----	---	----	<b>Ttl</b>	<b>Ttl</b>					<b>For the month:</b>										---	
724	296					1498	0	<b>Number of Days</b>		1.94	34.7	30.56	29.43	29.936	1.9	1.0	266	25	WNW	15	301		
<b>Avg</b>	<b>Avg</b>	<b>Avg</b>	<b>Mean</b>	<b>Avg</b>	<b>Avg</b>	----	----	<b>Precip</b>		<b>Season Ttl</b>		<b>Date</b>	<b>Date</b>	-----	----	----	----	<b>Date</b>	<b>Date</b>	<b>Avg</b>			
23.3	9.5	16.4	17.1	11	77.6	----	----	≥.01 inch	20	1.94	89.8	31	7+	-----	----	----	----	2	2	38			
<b>Number of Days</b>						<b>Season to Date</b>	<b>Snow, Ice ≥1.0 inch</b>	12	<b>Greatest in 24 Hours and Dates</b>					<b>Greatest Depth on Ground of Snow, Ice Pellets or Ice and Date</b>									
<b>Max Temperature</b>			<b>Min Temperature</b>			4499	0	<b>Thunder</b>	0	<b>Precipitation</b>			<b>Snow, Ice Plts</b>										
≥ 90°F	≤ 32°F	≤ 32°F	≤ 0°F	----	----	<b>Heavy Fog</b>	0	0.14	9	8.2	12				13		15						
0	27	30	6	----	----	<b>Clear</b>	5	<b>Partly Cloudy</b>			4	<b>Cloudy</b>		21									

**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: Solar Radiation 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

## January 2011: Westford

Hour	Wind			Sunshine	Pressure	Rainfall rate	Temperature	Dew Point	Humidity	Wind			Sunshine	Pressure	Rainfall rate	Temperature	Dew Point	Humidity	Wind																																																																																																																																																																																																					
	Direction	Speed	Gust							Direction	Speed	Gust							Direction	Speed	Gust																																																																																																																																																																																																			
JAN 01																						JAN 02																						JAN 03																																																																																																																																																																												
01	0	29.97	0.00	42	36	80	20	5	9	0	29.82	0.00	46	40	79	21	11	19	0	29.93	0.00	25	16	66	31	6	11	0	29.81	0.00	46	41	81	21	5	11	0	29.95	0.00	25	15	65	31	7	15	0	29.90	0.00	39	35	88	30	6	6	0	30.01	0.00	21	13	72	29	4	9	50	30.01	0.00	45	43	95	20	4	9	109	29.91	0.00	38	34	84	34	3	8	225	30.03	0.00	24	16	70	29	4	9	147	29.94	0.00	49	44	82	20	7	15	199	29.88	0.00	38	27	65	31	7	11	225	29.99	0.00	26	16	65	29	6	11	0	29.89	0.00	51	45	80	19	2	12	9	29.87	0.00	34	24	67	31	1	9	12	30.00	0.00	26	15	64	29	1	6	0	29.83	0.00	46	42	86	19	6	10	0	29.91	0.00	30	23	75	32	3	6	0	30.02	0.00	25	14	62	24	4	8	0	29.80	0.00	47	41	81	20	6	15	0	29.91	0.00	28	17	63	29	14	25	0	30.02	0.00	25	14	61	29	4	12																		
JAN 04																						JAN 05																						JAN 06																																																																																																																																																																												
01	0	29.98	0.00	22	13	67	24	1	4	0	29.69	0.00	24	21	90	31	1	5	0	29.68	0.00	16	9	74	24	1	6	0	29.95	0.00	20	13	76	22	1	3	0	29.70	0.00	22	20	89	03	0	2	0	29.68	0.00	17	11	78	26	2	7	0	29.92	0.00	21	15	75	20	2	5	0	29.72	0.00	23	20	89	31	0	4	0	29.66	0.00	16	11	80	23	0	5	135	29.87	0.00	24	18	77	20	3	7	33	29.72	0.00	25	22	88	31	2	6	109	29.67	0.00	18	12	77	19	3	5	139	29.77	0.00	27	20	75	19	5	9	35	29.70	0.00	24	17	76	30	4	12	323	29.61	0.00	23	14	68	19	2	9	21	29.72	0.00	26	22	86	21	4	9	16	29.73	0.00	22	13	67	32	2	12	30	29.60	0.00	22	12	65	17	0	4	0	29.71	0.00	26	24	90	34	0	5	0	29.74	0.00	21	14	75	30	0	3	0	29.61	0.00	14	9	82	18	0	0	0	29.71	0.00	26	24	90	34	0	5	0	29.71	0.00	17	10	74	32	0	4	0	29.58	0.00	11	8	85	18	0	0
JAN 07																						JAN 08																						JAN 09																																																																																																																																																																												
01	0	29.54	0.00	11	7	84	17	0	1	0	29.45	0.00	20	16	87	07	1	2	0	29.52	0.00	21	18	89	34	0	3	0	29.51	0.00	14	7	74	09	0	0	0	29.44	0.00	20	17	87	06	0	3	0	29.59	0.00	22	19	89	31	4	10	0	29.51	0.00	19	9	65	13	1	4	0	29.44	0.00	20	17	87	03	0	3	0	29.63	0.00	21	18	88	34	0	6	132	29.50	0.00	22	7	53	17	5	12	21	29.48	0.00	22	18	84	03	0	0	9	29.69	0.00	20	17	85	31	6	12	214	29.44	0.00	25	12	59	18	2	9	30	29.45	0.00	25	20	82	03	0	3	14	29.69	0.00	22	19	86	28	3	7	25	29.44	0.00	25	14	62	16	0	7	0	29.47	0.00	24	20	84	03	0	4	0	29.77	0.00	22	16	79	29	5	10	0	29.45	0.00	24	16	71	21	0	4	0	29.50	0.00	20	17	87	03	0	0	0	29.88	0.00	19	13	75	28	7	12	0	29.47	0.00	21	17	84	20	0	1	0	29.52	0.00	20	17	88	03	0	2	0	29.94	0.00	17	11	77	30	9	17
JAN 10																						JAN 11																						JAN 12																																																																																																																																																																												
01	0	29.99	0.00	16	9	74	31	4	12	0	30.27	0.00	16	11	81	25	0	0	0	29.93	0.00	11	7	85	04	0	0	0	30.03	0.00	14	9	77	28	5	9	0	30.29	0.00	17	13	84	25	1	3	0	29.81	0.00	14	10	85	04	0	3	0	30.10	0.00	15	8	76	28	2	8	0	30.28	0.00	15	11	86	31	1	2	0	29.74	0.00	15	10	82	00	0	4	19	30.17	0.00	16	11	79	33	2	5	23	30.28	0.00	19	13	79	00	0	2	7	29.72	0.00	14	10	84	32	0	1	23	30.17	0.00	18	11	75	33	2	5	21	30.20	0.00	19	12	75	01	0	4	7	29.67	0.00	17	14	86	01	2	8	7	30.22	0.00	18	11	73	02	0	3	5	30.17	0.00	18	11	76	35	0	3	0	29.71	0.00	18	15	86	35	4	11	0	30.26	0.00	14	10	81	34	0	1	0	30.11	0.00	11	7	82	03	0	1	0	29.76	0.00	19	16	87	01	2	13	0	30.27	0.00	16	11	80	29	5	11	0	30.02	0.00	11	8	86	04	0	0	0	29.83	0.00	18	15	86	35	2	9
JAN 13																						JAN 14																						JAN 15																																																																																																																																																																												
01	0	29.89	0.00	18	14	86	35	4	14	0	30.26	0.00	11	7	83	22	0	2	0	30.22	0.00	11	7	84	19	0	1	0	30.00	0.00	16	12	84	32	6	11	0	30.28	0.00	12	8	83	22	0	0	0	30.18	0.00	7	2	82	21	0	2	0	30.08	0.00	15	11	83	32	5	16	0	30.28	0.00	13	9	84	22	0	0	0	30.13	0.00	7	3	83	20	1	4	21	30.15	0.00	16	11	80	30	5	13	37	30.31	0.00	16	11	82	30	2	5	58	30.07	0.00	13	7	77	20	3	8	28	30.15	0.00	18	12	78	33	3	9	16	30.26	0.00	16	9	74	34	2	5	21	29.91	0.00	17	12	80	17	0	5	0	30.21	0.00	16	9	76	32	1	10	0	30.28	0.00	15	8	74	03	0	1	0	29.79	0.00	19	15	85	20	1	9	0	30.26	0.00	13	7	77	33	1	7	0	30.27	0.00	13	8	81	03	0	0	0	29.74	0.00	21	17	85	20	8	19	0	30.27	0.00	12	6	78	30	0	0	0	30.25	0.00	12	8	83	03	0	0	0	29.73	0.00	22	19	86	24	6	13
JAN 16																						JAN 17																						JAN 18																																																																																																																																																																												
01	0	29.74	0.00	22	19	87	20	1	5	0	30.21	0.00	-0	-6	77	29	0	2	0	30.20	0.00	12	-1	55	20	2	6	0	29.81	0.00	16	12	85	32	0	3	0	30.27	0.00	-3	-9	76	31	0	0	0	30.16	0.00	15	2	56	18	3	7	0	29.89	0.00	14	10	84	30	0	2	0	30.35	0.00	-10	-15	78	31	0	0	0	30.08	0.00	17	6	61	18	7	15	33	29.97	0.00	15	9	77	30	2	8	613	30.41	0.00	-1	-8	71	10	1	4	81	30.04	0.00	19	14	81	20	2	6	51	29.96	0.00	18	9	67	29	5	9	84	30.35	0.00	8	-5	54	22	0	4	62	29.92	0.00	24	20	85	19	7	15	14	30.01	0.00	16	11	80	06	0	3	21	30.34	0.00	8	-7	49	21	0	4	19	29.85	0.00	29	25	85	19	4	12	0	30.10	0.00	11	6	77	34	0	6	0	30.33	0.00	1	-6	71	21	0	2	0	29.77	0.00	32	28	87	16	5	11	0	30.17	0.00	6	-2	72	32	1	11	0	30.27	0.00	-1	-7	74	11	0	0	0	29.70	0.00	32	30	90	20	2	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

## January 2011: Westford

Hour	JAN 19									JAN 20									JAN 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	0	29.65	0.00	31	29	92	31	0	0	0	29.92	0.00	13	10	86	01	0	0	0	29.75	0.00	16	12	84	00	0	0
04	0	29.65	0.00	27	24	92	33	2	9	0	29.95	0.00	12	9	85	01	0	0	0	29.65	0.00	16	13	86	00	0	0
07	0	29.72	0.00	20	17	89	35	3	7	0	29.96	0.00	12	8	85	01	0	0	0	29.56	0.00	16	12	86	00	0	0
10	42	29.78	0.00	19	16	86	00	1	6	51	29.98	0.00	17	12	81	01	0	0	43	29.55	0.00	15	10	82	00	0	0
13	37	29.78	0.00	18	14	84	35	1	7	77	29.95	0.00	20	13	73	23	4	9	292	29.51	0.00	17	11	77	31	7	12
16	0	29.81	0.00	17	13	84	03	1	5	16	29.92	0.00	22	13	70	22	1	4	14	29.56	0.00	13	8	79	00	0	2
19	0	29.87	0.00	15	11	85	01	1	5	0	29.89	0.00	18	12	76	22	0	0	0	29.63	0.00	12	7	80	31	2	6
22	0	29.89	0.00	14	10	85	01	0	2	0	29.82	0.00	17	12	78	20	0	0	0	29.70	0.00	10	4	76	31	4	10
JAN 22									JAN 23									JAN 24									
01	0	29.76	0.00	7	1	75	30	3	13	0	29.87	0.00	1	-3	81	32	0	2	0	30.37	0.00	-15	-23	68	31	0	0
04	0	29.83	0.00	4	-2	77	32	3	9	0	29.89	0.00	2	-2	81	02	0	1	0	30.42	0.00	-17	-24	69	35	0	1
07	0	29.87	0.00	0	-5	80	03	0	0	0	29.95	0.00	-3	-8	79	32	0	3	0	30.46	0.00	-19	-26	70	06	0	0
10	200	29.93	0.00	6	-1	73	04	0	3	148	30.04	0.00	-5	-11	75	32	0	4	336	30.51	0.00	-10	-21	56	06	0	1
13	580	29.88	0.00	15	3	60	22	3	5	371	30.08	0.00	-2	-13	59	34	2	6	438	30.47	0.00	-2	-19	43	29	0	2
16	44	29.88	0.00	14	4	63	20	0	0	65	30.14	0.00	-3	-12	63	06	3	11	46	30.44	0.00	-0	-18	42	18	0	3
19	0	29.90	0.00	5	0	79	30	0	1	0	30.25	0.00	-9	-18	62	32	3	11	0	30.40	0.00	-8	-17	64	18	0	0
22	0	29.88	0.00	1	-3	82	31	0	2	0	30.31	0.00	-12	-22	61	31	0	5	0	30.36	0.00	-3	-12	64	18	0	0
JAN 25									JAN 26									JAN 27									
01	0	30.25	0.00	-2	-12	63	20	0	2	0	30.08	0.00	22	18	85	12	0	3	0	29.69	0.00	21	17	82	05	0	1
04	0	30.18	0.00	3	-2	79	21	1	5	0	30.07	0.00	21	18	87	12	1	3	0	29.68	0.00	17	14	87	04	0	2
07	0	30.12	0.00	9	4	79	20	5	13	0	30.06	0.00	21	17	87	22	0	0	0	29.71	0.00	16	13	87	01	1	6
10	67	30.09	0.00	14	8	80	21	7	17	116	30.03	0.00	24	20	83	18	0	5	114	29.74	0.00	19	16	86	35	1	4
13	67	30.05	0.00	18	13	81	21	7	12	236	29.92	0.00	32	24	70	02	0	3	299	29.72	0.00	28	18	67	01	1	5
16	14	30.05	0.00	21	15	80	21	4	9	12	29.88	0.00	30	23	77	05	0	1	47	29.73	0.00	25	18	74	30	1	3
19	0	30.08	0.00	21	16	81	20	3	7	0	29.84	0.00	27	23	82	04	0	0	0	29.76	0.00	22	18	85	30	0	1
22	0	30.09	0.00	23	18	83	21	4	10	0	29.77	0.00	25	21	84	04	0	1	0	29.77	0.00	21	17	84	30	0	0
JAN 28									JAN 29									JAN 30									
01	0	29.77	0.00	18	15	87	22	0	3	0	29.78	0.00	24	20	83	20	0	2	0	29.97	0.00	16	12	86	31	0	1
04	0	29.77	0.00	16	13	87	22	1	4	0	29.80	0.00	25	21	88	21	1	2	0	29.99	0.00	16	12	86	35	0	0
07	0	29.77	0.00	20	15	80	19	2	5	0	29.82	0.00	24	22	89	21	2	4	0	30.02	0.00	14	11	86	35	0	0
10	315	29.79	0.00	25	17	71	22	6	11	58	29.84	0.00	26	23	88	21	3	7	130	30.04	0.00	18	12	78	35	0	0
13	332	29.76	0.00	29	19	66	18	5	9	330	29.84	0.00	28	23	79	29	2	5	248	30.02	0.00	19	12	75	30	0	3
16	58	29.75	0.00	29	19	66	20	2	6	42	29.86	0.00	25	18	73	06	0	4	47	30.07	0.00	18	12	77	31	0	3
19	0	29.79	0.00	26	19	73	21	1	4	0	29.92	0.00	20	15	82	02	0	1	0	30.14	0.00	13	9	84	29	0	0
22	0	29.79	0.00	26	20	78	19	0	4	0	29.97	0.00	16	13	86	31	0	1	0	30.21	0.00	12	5	72	33	2	16
JAN 31																											
01	0	30.28	0.00	7	-2	67	30	2	10																		
04	0	30.38	0.00	1	-6	70	31	1	7																		
07	0	30.48	0.00	-3	-10	72	02	1	5																		
10	345	30.55	0.00	2	-8	61	01	0	4																		
13	403	30.50	0.00	8	-9	45	34	1	5																		
16	77	30.52	0.00	8	-10	42	06	0	0																		
19	0	30.52	0.00	1	-10	60	05	0	0																		
22	0	30.51	0.00	1	-9	63	05	0	0																		

### WEATHER NOTES

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.

### SUMMARY BY HOUR

Hour	Averages						Resultant Wind	
	Sunshine	Pressure	Temperature	Dew Point	Humidity	Wind Speed	Direction	Speed
01	0	29.919	16	11	80	1.4	26	0.8
04	0	29.927	15	11	81	1.6	28	1.0
07	0	29.941	14	10	81	1.4	23	0.7
10	119	29.964	17	12	78	2.1	25	1.1
13	173	29.919	21	13	71	2.9	26	1.5
16	21	29.925	20	12	72	1.3	26	0.5
19	0	29.951	17	11	78	1.6	24	0.8
22	0	29.943	16	10	79	2.0	28	1.5

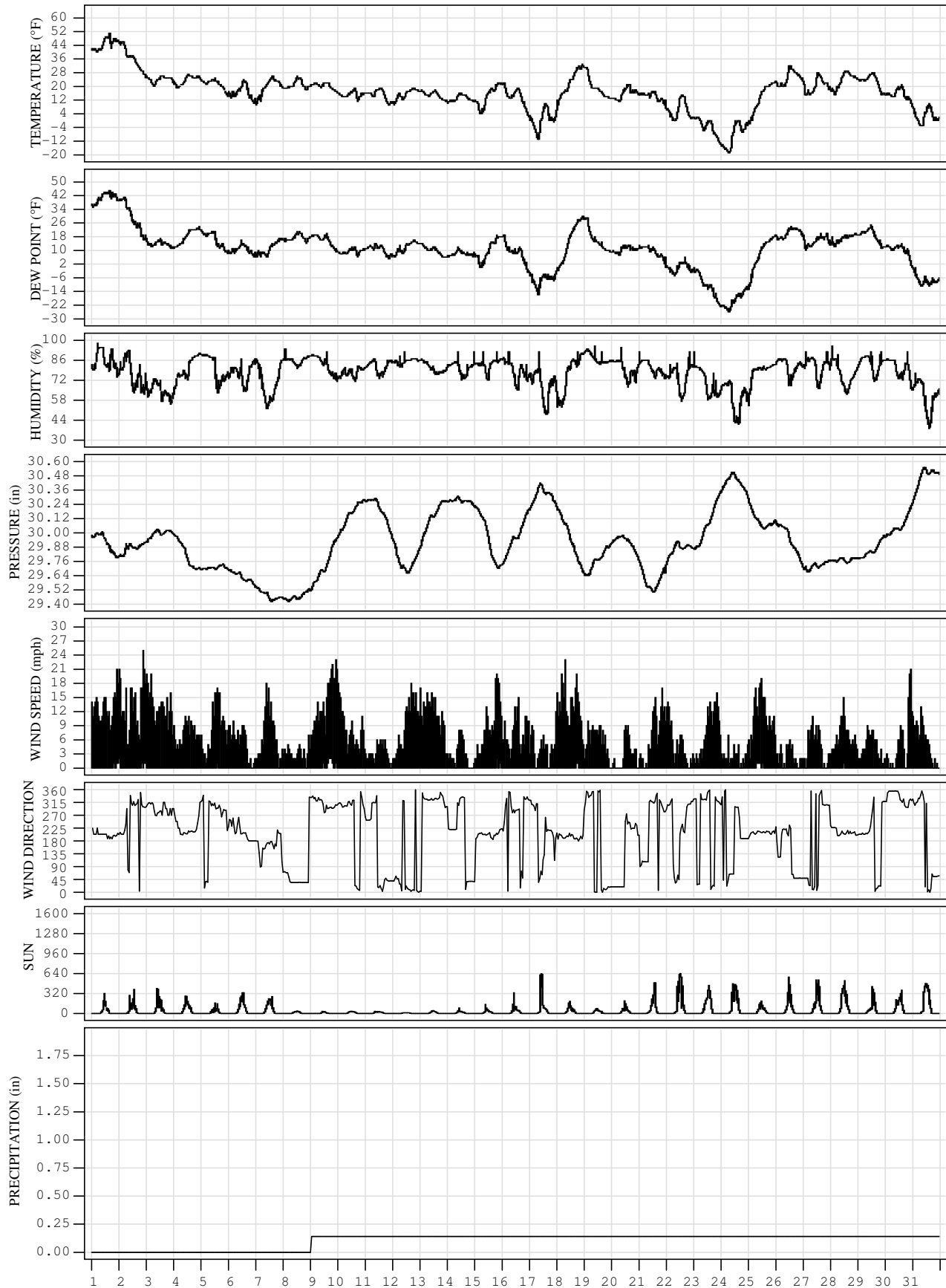
## HOURLY PRECIPITATION (Water Equivalent) January 2011: Westford

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
04																									04
05																									05
06																									06
07																									07
08																									08
09	0.14																								09
10																									10
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29																									29
30																									30
31																									31
<b>Sum</b>	0.14	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	<b>Sum</b>	

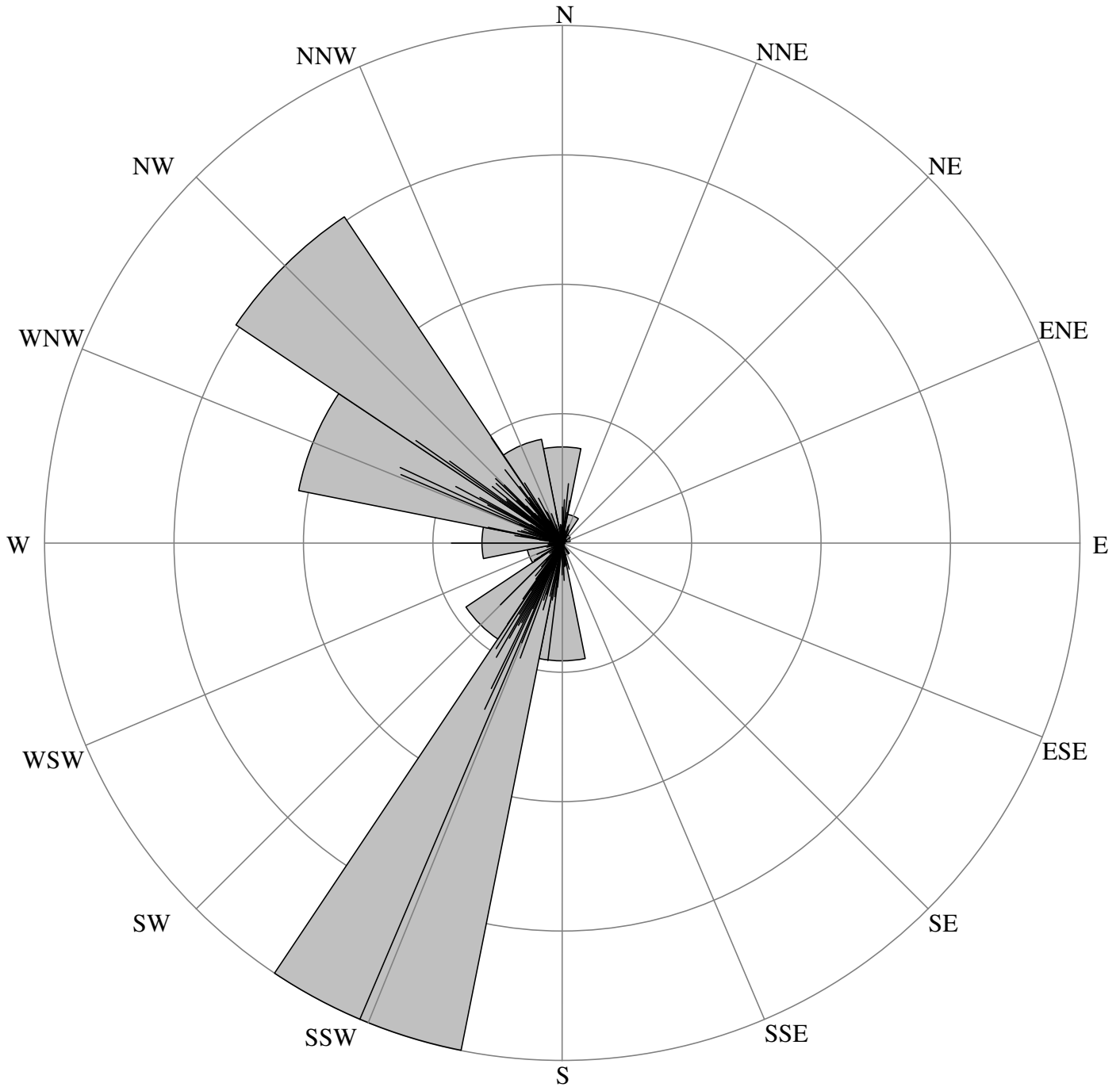
During a frozen precipitation event, hourly precipitation totals may not be recorded. In this case, daily amounts are typically entered in the last column (hour ending at 12 A.M.)

# HOURLY-BY-HOURLY DATA

## January 2011: Westford



Wind Rose: January 2011  
Westford



Maximum direction of wind: 95.7 miles from 203°  
Maximum sector of wind: 402.0 miles from SSW  
1391.7 total miles of wind