

# LOCAL CLIMATOLOGICAL DATA

## Monthly Summary

### December 2010

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	54.6	32.6	43.6*	45.8	41	82	21	0	.....	1	0.73	0.7	30.04	29.42	29.730	7.3	6.0	183	39	S	22	181	30		
2	35.5	31.7	33.6	33.3	29	83	31	0	.....	1	0.19	0.6	30.04	29.73	29.929	1.5	1.4	276	16	W	9	288	42		
3	33.5	26.8	30.1	30.8	26	84	34	0	.....	1	0.01	T	30.01	29.90	29.962	0.9	0.8	351	12	NNW	5	329	21		
4	26.7	22.2	24.5	24.8	21	85	40	0	.....	2	0.15	1.8	29.90	29.65	29.761	3.1	3.0	316	16	NW	9	302	28		
5	24.1	20.2	22.2	21.9	16	77	43	0	.....	2	0.03	1.3	29.65	29.50	29.574	2.2	2.1	283	13	WNW	8	265	46		
6	21.9	19.7	20.8	20.3	17	86	44	0	.....	11	0.59	11.5	29.50	29.19	29.327	4.7	4.4	274	24	W	15	276	15		
7	21.6	17.1	19.4	20.0	15	82	45	0	.....	14	0.20	5.0	29.59	29.20	29.371	7.2	7.0	271	23	WSW	14	297	38		
8	17.1	13.5	15.3	15.3	10	81	49	0	.....	16	0.23	5.8	29.98	29.58	29.772	3.6	3.5	292	16	WNW	10	292	30		
9	16.0	5.0	10.5	11.0	4	74	54	0	.....	13	0.01	0.2	30.37	29.98	30.182	1.3	1.2	303	13	WNW	8	292	47		
10	22.5	-2.1*	10.2	11.5	5	74	54	0	.....	10	0.04	1.0	30.40	30.13	30.278	3.0	3.0	194	21	SSW	12	196	36		
11	32.8	22.6	27.7	28.5	24	82	37	0	.....	8	0.12	1.5	30.21	30.11	30.156	4.5	4.4	207	26	SSW	14	214	21		
12	48.0	20.9	34.4	36.8	32	84	30	0	...4.....	4	0.24	T	30.15	29.14	29.681	3.5	3.3	177	32	S	15	182	14		
13	44.6	14.4	29.5	30.9	29	92	35	0	.....	2	1.08	1.9	29.26	29.02	29.158	1.9	1.0	353	19	NNW	11	295	11		
14	14.6	5.9	10.3	10.9	6	82	54	0	.....	5	0.20	5.0	29.65	29.24	29.445	2.1	2.0	282	16	NW	10	277	14		
15	12.6	7.2	9.9	10.5	6	81	55	0	.....	6	0.11	2.4	29.66	29.61	29.632	2.4	2.2	322	16	WNW	10	307	15		
16	20.2	9.8	15.0	15.5	12	85	50	0	.....	8	0.19	4.0	29.70	29.64	29.675	0.7	0.7	208	8	S	5	213	10		
17	22.1	11.8	17.0	16.5	12	81	48	0	.....	6	0.04	0.6	29.98	29.70	29.854	0.2	0.2	235	8	SW	4	229	32		
18	30.5	19.8	25.1	25.5	21	82	39	0	.....	5	0.01	0.1	30.05	29.97	30.015	2.2	2.1	205	11	SSW	6	219	14		
19	31.1	12.5	21.8	20.2	16	85	43	0	.....	5	T	T	30.08	29.97	30.030	0.2	0.1	350	6	NNW	3	327	56		
20	23.1	14.2	18.7	18.5	15	86	46	0	.....	5	0.01	0.3	29.99	29.93	29.963	1.0	1.0	13	13	NNW	6	38	23		
21	23.6	19.9	21.8	22.2	19	88	43	0	....6....	5	0.02	0.2	29.97	29.91	29.941	1.7	1.6	0	14	NNW	6	342	9		
22	27.2	23.0	25.1	25.3	23	90	40	0	.....	7	0.22	2.5	29.91	29.76	29.815	2.0	1.9	339	17	NW	9	330	12		
23	26.6	21.5	24.1	24.9	22	89	40	0	.....	9	0.28	3.2	30.05	29.77	29.904	3.0	2.9	347	18	NNW	10	335	9		
24	23.8	9.0	16.4	17.4	13	84	48	0	.....	8	0.00	0.0	30.15	30.05	30.102	0.8	0.7	17	15	NNW	4	60	31		
25	16.9	6.2	11.5	11.7	8	85	53	0	.....	8	T	T	30.10	30.03	30.074	0.2	0.2	5	9	NNW	5	306	24		
26	13.0	3.4	8.2*	9.3	5	84	57	0	.....	7	T	T	30.11	29.67	29.976	1.4	1.3	20	20	NNE	9	30	27		
27	12.6	6.7	9.7	9.9	5	81	55	0	.....	9	0.08	3.6	29.65	29.48	29.555	5.1	4.9	353	25	N	14	324	11		
28	26.0	11.0	18.5	18.0	9	67	46	0	.....	7	0.00	0.0	29.84	29.64	29.736	4.2	4.0	328	22	NW	10	322	57		
29	28.7	22.2	25.5	25.8	22	87	39	0	....6....	7	0.03	0.1	30.07	29.83	29.947	0.5	0.4	330	10	WNW	0	251	13		
30	42.6	21.0	31.8	27.7	22	79	33	0	.....	7	0.00	0.0	30.16	30.03	30.094	3.3	3.1	208	16	SSW	7	210	54		
31	45.0	31.5	38.3	39.0	30	70	26	0	.....	3	0.00	0.0	30.06	29.95	30.011	6.1	6.0	209	21	SSW	2	202	38		
<b>Sum</b>	<b>Sum</b>	-----	-----	---	----	<b>Ttl</b>	<b>Ttl</b>						<b>For the month:</b>										---		
839	501					1332	0						4.81	53.3	30.40	29.02	29.827	2.6	1.2	271	39	S	10	322	
<b>Avg</b>	<b>Avg</b>	<b>Avg</b>	<b>Mean</b>	<b>Avg</b>	<b>Avg</b>	----	----						<b>Season Ttl</b>	<b>Date</b>	<b>Date</b>	-----	----	----	----	<b>Date</b>	<b>Date</b>	<b>Avg</b>			
27.1	16.2	21.6	21.9	17	82.3	----	----						≥.01 inch	24	52.26	55.1	10	13	-----	----	----	----	1	28	26
<b>Number of Days</b>						<b>Season to Date</b>	<b>Snow, Ice ≥1.0 inch</b>	14	<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>			3001	482	<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	0.85	3- 4	11.5	6												
0	23	30	1	----	----			<b>Clear</b>	2	<b>Partly Cloudy</b>		4	<b>Cloudy</b>		25										

**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

## December 2010: Westford

Hour	Sunshine	Pressure	Rainfall rate	Temperature	Dew Point	Humidity	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
DEC 01									DEC 02									DEC 03									
01	0	30.03	0.01	43	39	86	18	8	19	0	29.74	0.00	33	31	94	10	0	2	0	30.00	0.00	32	28	85	32	0	3
04	0	29.95	0.00	45	41	86	17	6	22	0	29.80	0.00	33	31	91	26	0	3	0	29.99	0.00	31	26	83	32	0	2
07	0	29.84	0.00	49	42	79	18	10	18	0	29.88	0.00	33	29	85	27	0	3	0	29.99	0.00	31	27	87	02	2	7
10	135	29.73	0.00	52	44	75	17	7	20	432	29.94	0.00	35	29	79	28	2	7	44	29.99	0.00	31	27	85	32	0	5
13	49	29.57	0.00	52	45	75	18	10	32	118	29.95	0.01	35	28	75	29	4	6	54	29.93	0.00	33	27	79	04	0	4
16	0	29.43	0.00	52	46	80	15	6	28	11	30.00	0.00	34	27	75	26	2	5	7	29.94	0.00	32	28	83	00	0	5
19	0	29.59	0.00	39	36	89	30	8	18	0	30.03	0.00	32	27	83	24	0	2	0	29.95	0.01	30	26	86	34	1	7
22	0	29.70	0.00	33	31	92	27	0	4	0	30.03	0.00	33	28	83	25	2	5	0	29.93	0.00	28	24	82	34	2	6
DEC 04									DEC 05									DEC 06									
01	0	29.89	0.00	26	22	83	30	0	7	0	29.63	0.00	22	18	82	30	0	5	0	29.50	0.00	21	18	87	19	0	1
04	0	29.86	0.00	27	22	82	33	3	14	0	29.62	0.00	22	17	81	28	0	5	0	29.46	0.00	21	17	83	30	1	8
07	0	29.81	0.00	26	21	84	30	4	14	0	29.59	0.00	21	17	83	28	0	5	0	29.42	0.00	20	17	87	29	3	11
10	113	29.77	0.00	25	22	88	30	5	13	127	29.60	0.00	21	14	72	27	6	10	46	29.38	0.00	20	17	86	30	4	10
13	109	29.71	0.00	26	22	85	32	2	10	155	29.55	0.00	23	14	66	30	4	11	62	29.26	0.00	20	16	86	28	3	11
16	0	29.72	0.00	24	20	84	29	2	11	5	29.54	0.00	23	15	71	26	2	10	0	29.25	0.00	20	17	88	26	8	14
19	0	29.71	0.00	24	20	86	26	1	4	0	29.56	0.00	21	16	78	28	0	3	0	29.22	0.00	20	17	88	26	7	14
22	0	29.66	0.00	23	20	87	28	6	9	0	29.52	0.00	21	17	84	26	0	1	0	29.19	0.00	20	17	87	27	11	19
DEC 07									DEC 08									DEC 09									
01	0	29.20	0.00	20	17	87	26	9	17	0	29.59	0.00	17	13	85	27	2	6	0	29.99	0.00	14	7	73	30	4	10
04	0	29.22	0.00	20	17	87	25	11	21	0	29.63	0.00	16	13	86	26	3	10	0	30.04	0.00	12	5	74	31	3	7
07	0	29.27	0.00	20	17	87	26	5	16	0	29.68	0.00	14	10	83	25	3	13	0	30.09	0.00	8	2	76	26	1	4
10	172	29.33	0.00	20	17	86	25	7	12	49	29.75	0.00	15	11	84	28	4	8	165	30.16	0.00	13	5	72	33	4	13
13	141	29.36	0.00	21	17	82	29	5	15	156	29.76	0.00	16	9	71	28	7	15	227	30.18	0.00	14	8	75	28	1	3
16	5	29.43	0.00	20	15	78	28	10	19	5	29.83	0.00	16	10	74	28	3	9	7	30.25	0.00	12	6	74	33	0	6
19	0	29.51	0.00	21	13	72	28	10	20	0	29.91	0.00	14	10	83	30	3	6	0	30.33	0.00	8	2	75	34	0	4
22	0	29.56	0.00	19	12	75	30	5	13	0	29.94	0.00	14	8	78	30	2	9	0	30.35	0.00	5	-0	78	34	0	0
DEC 10									DEC 11									DEC 12									
01	0	30.37	0.00	4	-1	79	27	0	1	0	30.12	0.00	24	20	84	20	9	15	0	30.13	0.00	24	22	91	09	1	5
04	0	30.39	0.00	-0	-5	81	26	0	0	0	30.12	0.00	26	21	81	20	9	19	0	30.06	0.00	21	18	90	09	0	1
07	0	30.36	0.00	-2	-6	81	17	0	0	0	30.14	0.00	28	23	81	21	7	13	0	29.97	0.00	35	28	74	18	4	18
10	120	30.34	0.00	8	3	80	17	0	2	58	30.17	0.00	29	24	83	21	5	10	32	29.85	0.00	36	30	80	19	6	17
13	141	30.26	0.00	18	5	55	21	5	11	105	30.15	0.00	32	25	77	20	7	11	83	29.63	0.00	40	34	80	18	9	30
16	5	30.21	0.00	20	6	53	18	6	11	0	30.17	0.00	32	26	78	21	1	7	0	29.44	0.00	42	38	84	16	7	14
19	0	30.19	0.00	19	12	75	19	7	14	0	30.21	0.00	31	26	82	10	1	4	0	29.34	0.00	47	42	83	18	11	32
22	0	30.15	0.00	21	18	87	20	9	18	0	30.18	0.00	27	24	87	09	0	0	0	29.22	0.00	46	43	90	18	1	11
DEC 13									DEC 14									DEC 15									
01	0	29.12	0.00	42	41	95	13	0	5	0	29.25	0.00	13	10	86	33	3	11	0	29.62	0.00	8	4	82	34	0	3
04	0	29.04	0.00	44	42	95	18	0	4	0	29.28	0.00	13	9	86	28	1	4	0	29.65	0.00	11	7	84	32	0	9
07	0	29.10	0.00	38	37	95	31	2	4	0	29.34	0.00	11	8	86	27	0	7	0	29.63	0.00	9	5	82	32	5	10
10	37	29.15	0.00	35	34	94	33	0	3	44	29.41	0.00	12	8	85	26	3	7	54	29.63	0.00	10	5	78	31	3	10
13	21	29.18	0.00	31	30	94	01	2	11	53	29.44	0.00	14	7	75	29	6	12	76	29.61	0.00	12	6	75	33	2	8
16	0	29.21	0.00	26	24	91	00	3	12	0	29.53	0.00	12	5	74	27	2	6	0	29.62	0.00	12	6	77	30	1	8
19	0	29.22	0.00	20	17	89	00	1	7	0	29.62	0.00	8	2	77	25	0	5	0	29.65	0.00	11	7	84	27	1	5
22	0	29.25	0.00	16	13	88	33	1	10	0	29.64	0.00	7	3	81	24	0	3	0	29.64	0.00	11	7	84	28	0	4
DEC 16									DEC 17									DEC 18									
01	0	29.64	0.00	11	7	84	25	1	6	0	29.70	0.00	17	14	88	21	0	0	0	29.97	0.00	22	17	81	20	1	5
04	0	29.65	0.00	10	6	84	17	1	2	0	29.74	0.00	15	11	87	24	0	0	0	30.00	0.00	24	19	83	21	3	8
07	0	29.67	0.00	11	7	85	23	1	4	0	29.78	0.00	13	10	86	02	0	0	0	30.01	0.00	24	21	88	19	3	7
10	32	29.68	0.00	14	10	83	21	3	6	135	29.85	0.00	17	12	78	02	0	0	40	30.04	0.00	27	22	83	21	2	8
13	39	29.66	0.00	19	13	78	20	4	7	128	29.87	0.00	21	12	68	25	2	3	74	30.00	0.00	29	23	78	20	4	7
16	0	29.68	0.00	20	16	85	21	0	1	0	29.91	0.00	16	11	80	22	0	0	0	30.01	0.00	28	21	75	20	0	5
19	0	29.70	0.00	20	17	88	21	0	0	0	29.95	0.00	17	12	80	22	1	4	0	30.03	0.00	26	21	80	16	0	2
22	0	29.70	0.00	18	15	88	21	0	0	0	29.98	0.00	19	14	80	22	0	0	0	30.04	0.00	25	21	85	21	0	0

## MAXIMUM SHORT DURATION PRECIPITATION

Time Period (minutes)	5	10	15	20	30	45	60	80	100	120	150	180
Precipitation	0.04	0.06	0.08	0.10	0.13	0.17	0.19	0.24	0.29	0.33	0.40	0.45
Ended: Date	01	01	01	01	01	01	01	01	01	01	01	01
Ended: Time	0323	1838	1842	1842	1844	1849	1849	1846	1844	1844	1932	1942

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

## December 2010: 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						
DEC 19									DEC 20									DEC 21									
01	0	30.05	0.00	20	17	89	21	0	0	0	29.97	0.00	16	13	88	33	0	1	0	29.95	0.00	20	16	84	35	2	9
04	0	30.06	0.00	19	16	89	21	0	0	0	29.95	0.00	18	15	88	03	1	5	0	29.94	0.00	21	17	85	00	1	6
07	0	30.06	0.00	14	11	87	21	0	0	0	29.97	0.00	18	15	88	04	0	1	0	29.96	0.00	21	18	88	34	3	10
10	561	30.08	0.00	23	20	88	21	0	0	65	29.98	0.00	20	17	88	02	1	5	42	29.96	0.00	22	19	88	35	0	6
13	109	30.01	0.00	31	21	68	01	0	3	69	29.93	0.00	23	18	83	00	1	8	21	29.91	0.00	23	20	87	02	2	6
16	9	30.01	0.00	25	19	78	33	0	2	5	29.97	0.00	18	14	84	02	1	5	0	29.94	0.00	23	21	89	04	1	6
19	0	30.01	0.00	19	16	89	33	0	0	0	29.99	0.00	18	14	84	04	2	7	0	29.95	0.00	23	21	90	04	3	7
22	0	29.98	0.00	13	9	87	33	0	1	0	29.96	0.00	19	15	86	35	2	8	0	29.92	0.00	23	21	90	01	2	6
DEC 22									DEC 23									DEC 24									
01	0	29.89	0.00	23	21	90	03	0	2	0	29.77	0.00	26	24	91	33	4	12	0	30.05	0.00	21	17	87	00	2	6
04	0	29.87	0.00	24	21	91	00	0	6	0	29.79	0.00	25	23	91	00	3	10	0	30.08	0.00	19	16	87	33	2	7
07	0	29.85	0.00	24	22	90	36	0	4	0	29.83	0.00	25	22	91	00	3	8	0	30.11	0.00	16	13	87	03	1	3
10	35	29.83	0.00	26	23	90	02	0	6	26	29.90	0.00	25	23	91	33	3	8	90	30.14	0.00	17	14	85	06	1	5
13	47	29.77	0.00	26	24	89	33	2	7	36	29.90	0.00	25	23	89	33	3	9	132	30.09	0.00	23	17	75	01	1	5
16	0	29.78	0.00	26	23	90	32	5	12	0	29.95	0.00	25	23	90	00	2	6	9	30.10	0.00	20	14	79	03	1	5
19	0	29.78	0.00	26	24	91	33	6	14	0	30.01	0.00	25	22	88	00	5	9	0	30.12	0.00	14	11	87	04	0	3
22	0	29.77	0.00	27	25	92	00	4	16	0	30.03	0.00	23	20	86	33	1	7	0	30.11	0.00	10	7	87	04	0	0
DEC 25									DEC 26									DEC 27									
01	0	30.09	0.00	9	6	86	04	0	0	0	30.05	0.00	8	4	85	00	0	0	0	29.61	0.00	12	8	84	00	5	12
04	0	30.09	0.00	12	9	87	04	0	0	0	30.07	0.00	6	2	85	00	0	0	0	29.53	0.00	11	7	85	00	3	14
07	0	30.09	0.00	11	7	86	04	0	0	0	30.06	0.00	4	1	85	00	0	0	0	29.50	0.00	8	5	84	00	5	16
10	84	30.09	0.00	16	12	86	04	1	3	72	30.10	0.00	8	4	85	00	0	0	37	29.52	0.00	7	3	83	00	5	18
13	105	30.04	0.00	17	12	82	01	0	4	91	30.02	0.00	12	7	81	33	1	5	55	29.49	0.00	8	4	82	33	4	12
16	9	30.05	0.00	14	9	82	02	0	4	5	29.97	0.00	10	6	83	02	1	5	11	29.53	0.00	11	6	81	33	5	13
19	0	30.07	0.00	9	5	85	01	1	2	0	29.88	0.00	11	7	84	04	3	11	0	29.60	0.00	11	5	76	33	6	16
22	0	30.07	0.00	8	4	85	03	1	5	0	29.74	0.00	13	9	85	04	4	16	0	29.64	0.00	12	5	74	33	8	17
DEC 28									DEC 29									DEC 30									
01	0	29.65	0.00	11	3	69	33	8	16	0	29.83	0.00	22	18	83	04	0	3	0	30.07	0.00	28	24	85	00	0	0
04	0	29.69	0.00	13	4	69	33	6	12	0	29.86	0.00	23	19	85	00	0	0	0	30.10	0.00	23	20	87	29	0	2
07	0	29.72	0.00	14	6	70	31	4	8	0	29.90	0.00	23	21	90	00	0	0	0	30.14	0.00	22	19	89	18	1	3
10	463	29.73	0.00	19	8	62	31	8	16	35	29.95	0.00	27	24	90	33	1	4	407	30.16	0.00	28	22	78	20	3	7
13	84	29.70	0.00	25	10	53	31	9	17	61	29.93	0.00	28	25	87	33	1	5	81	30.10	0.00	33	24	69	20	5	11
16	12	29.74	0.00	23	8	52	31	8	16	5	29.98	0.00	28	25	87	33	0	1	15	30.08	0.00	31	23	71	22	4	7
19	0	29.81	0.00	18	12	75	29	1	5	0	30.02	0.00	27	24	89	00	0	0	0	30.07	0.00	29	22	76	20	5	11
22	0	29.83	0.00	19	15	84	31	2	6	0	30.05	0.00	28	24	84	00	0	0	0	30.06	0.00	31	23	72	20	5	9
DEC 31																											
01	0	30.04	0.00	32	24	72	22	5	11																		
04	0	30.03	0.00	33	24	70	20	5	10																		
07	0	30.03	0.00	36	26	67	22	7	14																		
10	130	30.05	0.00	38	29	71	20	7	14																		
13	125	29.98	0.00	42	33	72	22	7	10																		
16	11	30.00	0.00	43	34	71	22	6	11																		
19	0	30.01	0.00	43	35	72	20	6	9																		
22	0	29.97	0.00	42	34	72	22	7	12																		

### 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

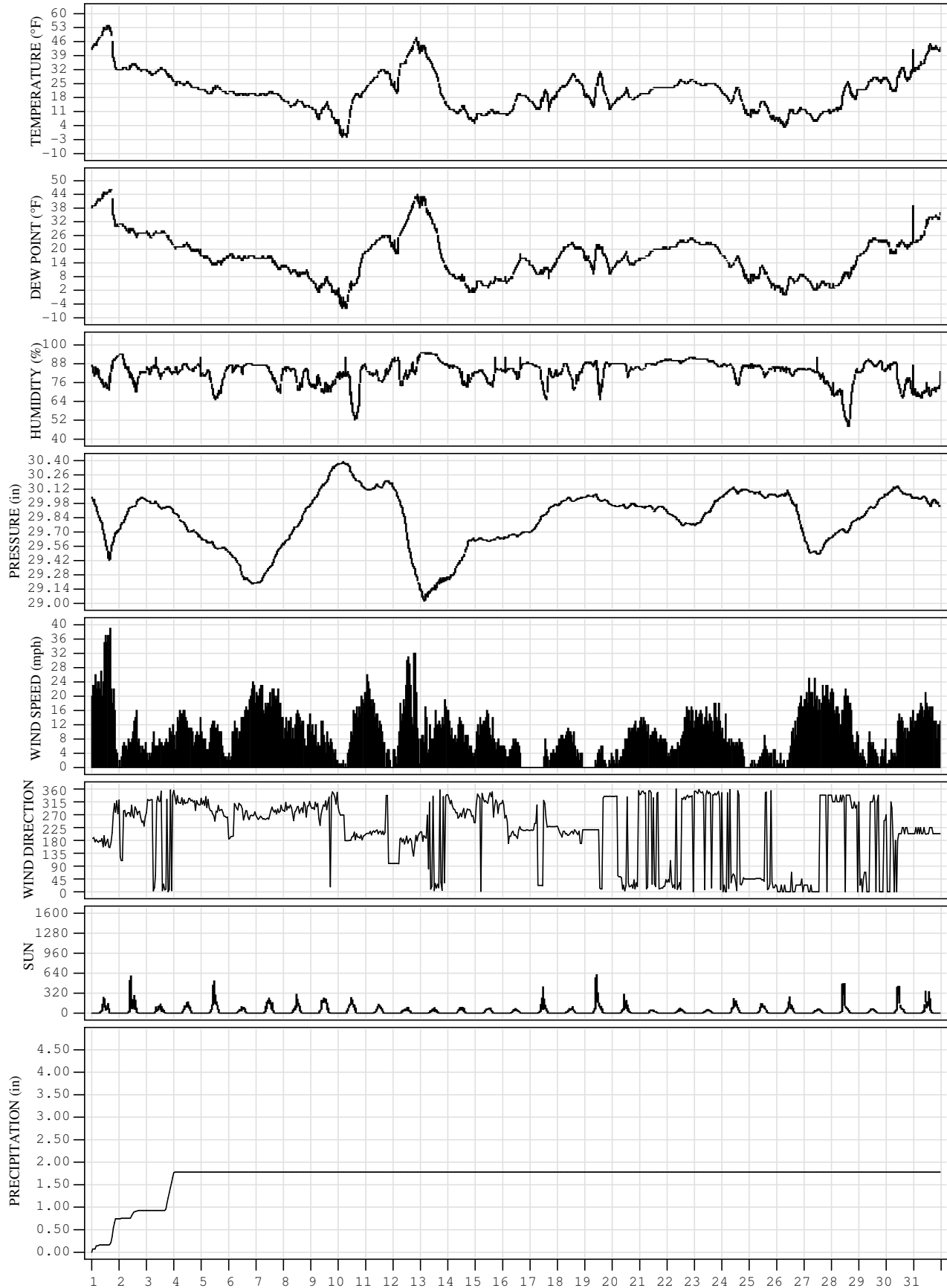
Hour	Averages						Resultant Wind	
	Sunshine	Pressure	Temperature	Dew Point	Humidity	Wind Speed	Direction	Speed
01	0	29.823	21	17	85	2.1	28	0.9
04	0	29.825	20	16	85	2.0	26	0.9
07	0	29.832	20	16	84	2.4	26	1.1
10	125	29.847	22	18	82	2.9	27	1.6
13	91	29.805	25	19	77	3.7	26	1.9
16	4	29.814	24	18	79	2.8	27	1.3
19	0	29.840	22	17	83	2.9	28	1.1
22	0	29.833	21	17	84	2.4	29	1.2

## HOURLY PRECIPITATION (Water Equivalent) December 2010: Westford

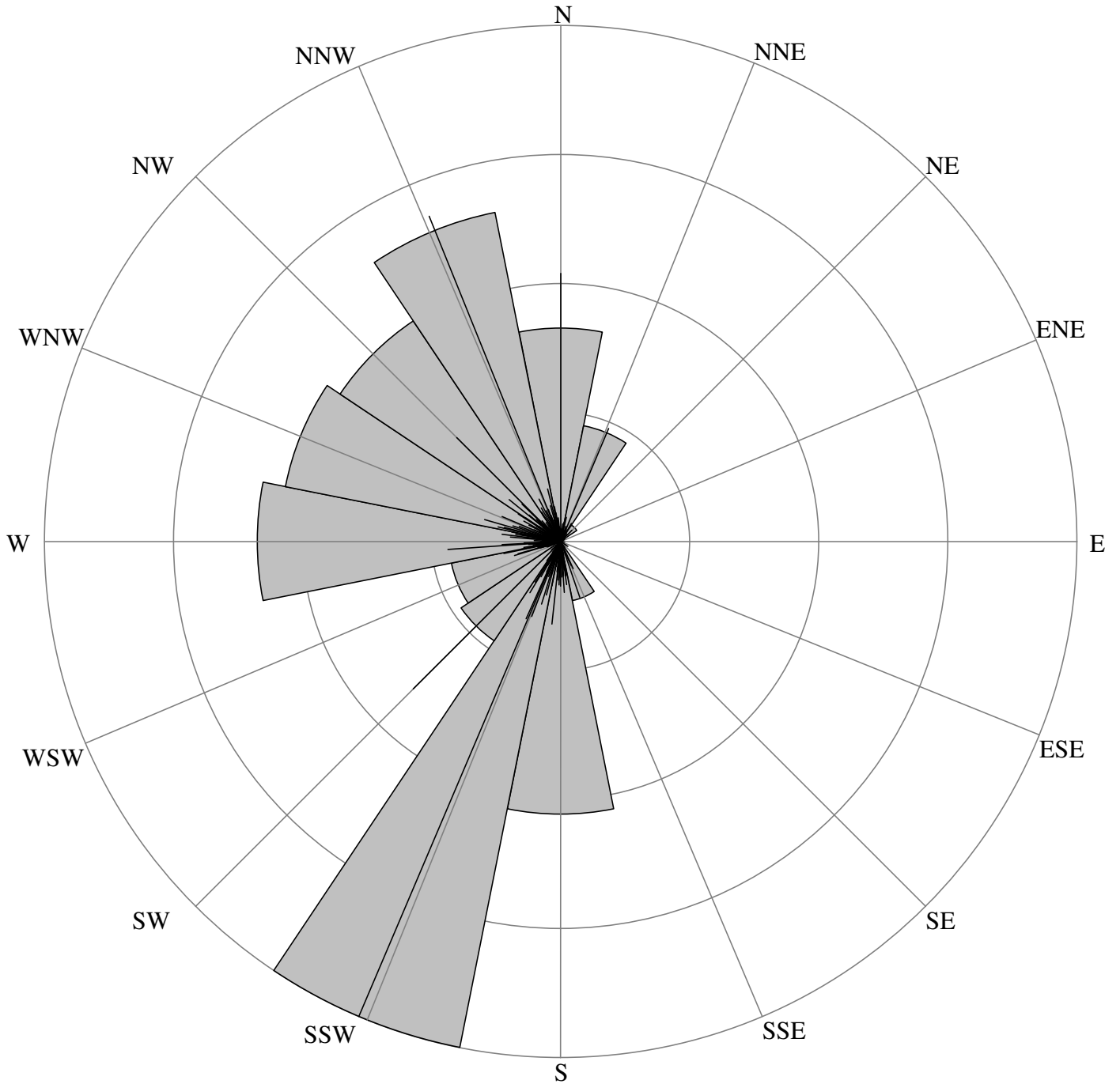
Date	A.M. Hour Ending at												P.M. Hour Ending at												Date
	01	02	03	04	05	06	07	08	09	10	11	12	01	02	03	04	05	06	07	08	09	10	11	12	
01	0.07			0.07		0.01	0.01								0.01	0.05	0.13	0.19	0.12	0.08				01	
02		0.01								0.01	0.05	0.04	0.04	0.01	0.01	0.01	0.01	0.13	0.12	0.08				02	
03																0.03	0.12	0.12	0.12	0.12	0.11	0.11	0.11	03	
04	0.01																							04	
05																								05	
06																								06	
07																								07	
08																								08	
09																								09	
10																								10	
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28																								28	
29																								29	
30																								30	
31																								31	
<b>Sum</b>	0.08	0.01	0.00	0.07	0.00	0.01	0.01	0.00	0.00	0.01	0.05	0.04	0.04	0.01	0.01	0.02	0.09	0.25	0.31	0.24	0.20	0.11	0.11	0.11	<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.)

# HOUR-BY-HOUR DATA December 2010: Westford



Wind Rose: December 2010  
Westford



Maximum direction of wind: 155.3 miles from 203°  
Maximum sector of wind: 384.3 miles from SSW  
1956.8 total miles of wind