

# LOCAL CLIMATOLOGICAL DATA

## Monthly Summary

### October 2021

Station: Westford

Latitude: 44° 37' 38" 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		2 Minute		
																			Speed	Dir	Speed		Dir
1	2	3	4A	4B	5	6	7	8		11	12	13	14	15	16	17	18	19	20	21	22	23	
1	61.5	43.0	52.3	50.6	47	87	12	0	.....	0	0.00	0.0	30.16	30.09	30.123	0.6	0.6	250	11	W	6	239	115
2	55.5	47.8	51.6	51.6	51	97	13	0	.....	0	0.81	0.0	30.10	29.91	29.990	1.1	1.1	179	14	SSE	6	177	16
3	57.4	52.9	55.2	55.0	55	98	10	0	.2.....	0	0.24	0.0	29.97	29.91	29.942	0.0	0.0	209	4	S	2	248	19
4	60.6	53.0	56.8	55.8	54	94	8	0	.....	0	0.00	0.0	30.12	29.94	30.025	0.2	0.1	154	9	SSE	3	168	52
5	63.1	51.1	57.1	55.5	53	93	8	0	.....	0	0.03	0.0	30.31	30.11	30.214	0.1	0.1	98	5	ENE	3	69	70
6	70.1	47.4	58.8	57.7	54	88	6	0	.....	0	0.00	0.0	30.38	30.28	30.325	0.2	0.1	227	9	SW	5	221	146
7	71.3	41.5	56.4	54.9	51	89	8	0	.....	0	0.01	0.0	30.30	30.15	30.228	0.3	0.2	213	9	SSE	4	170	146
8	72.0	46.1	59.0	57.5	54	88	6	0	.....	0	0.00	0.0	30.17	30.12	30.145	0.1	0.1	254	9	WSW	4	267	141
9	66.4	50.4	58.4	56.0	50	82	7	0	.....	0	0.00	0.0	30.26	30.17	30.223	1.2	1.2	158	17	SSE	7	168	121
10	64.7	49.5	57.1	56.3	51	83	7	0	.....	0	0.00	0.0	30.23	30.11	30.181	1.4	1.4	172	16	SSE	7	181	80
11	69.9	50.9	60.4	60.8	56	84	4	0	.....	0	0.00	0.0	30.12	30.02	30.071	1.2	1.2	176	13	S	6	174	100
12	73.7	54.2	63.9*	62.1	57	85	1	0	.....	0	0.00	0.0	30.10	29.96	30.027	1.5	1.4	180	16	SSE	7	180	113
13	72.5	53.6	63.0	62.3	58	87	1	0	.....	0	0.06	0.0	29.97	29.89	29.930	1.5	1.5	192	14	SSE	8	180	126
14	67.7	59.4	63.5	61.7	60	95	1	0	.....	0	0.09	0.0	29.93	29.87	29.897	0.1	0.1	255	7	SSE	4	298	40
15	71.0	55.0	63.0	62.4	60	91	2	0	.....	0	0.00	0.0	29.88	29.74	29.823	1.8	1.8	181	19	SSE	10	176	64
16	73.0	54.2	63.6	63.6	62	94	1	0	.3.....	0	1.39	0.0	29.75	29.37	29.572	2.7	2.5	188	28	SW	14	223	31
17	58.0	45.6	51.8	49.9	46	87	13	0	.....	0	0.11	0.0	29.70	29.58	29.648	2.1	2.1	253	16	W	11	266	81
18	46.3	42.5	44.4	44.2	42	90	20	0	.....	0	0.17	0.0	29.85	29.68	29.754	3.8	3.7	259	22	W	11	260	41
19	48.8	39.2	44.0	44.2	39	83	21	0	.....	0	T	0.0	29.86	29.75	29.810	3.3	3.1	257	20	W	12	260	42
20	66.8	40.1	53.5	51.8	47	85	11	0	.....	0	0.01	0.0	29.91	29.77	29.864	0.6	0.4	250	11	WNW	6	260	129
21	57.2	49.0	53.1	53.2	51	92	12	0	.....	0	0.28	0.0	29.90	29.67	29.830	2.5	2.4	176	15	SSE	8	171	26
22	58.3	32.1	45.2	49.4	46	89	20	0	.....	0	0.25	0.0	29.98	29.57	29.775	3.3	1.9	213	24	S	11	254	66
23	48.0	29.3	38.6*	37.0	33	87	26	0	.....	0	0.00	0.0	29.99	29.92	29.958	0.3	0.3	292	9	WSW	5	265	78
24	53.3	28.7	41.0	38.4	32	81	24	0	.....	0	0.00	0.0	30.14	29.99	30.090	0.7	0.6	224	12	WSW	7	252	124
25	43.8	35.1	39.4	40.3	39	94	25	0	.....	0	0.38	0.0	30.13	29.87	30.017	0.5	0.5	22	12	NNE	6	15	14
26	53.7	43.7	48.7	48.1	46	94	16	0	.....	0	0.24	0.0	29.90	29.66	29.748	0.9	0.8	353	13	NNW	7	18	17
27	55.1	38.3	46.7	44.1	39	84	18	0	.....	0	0.00	0.0	29.95	29.74	29.854	1.3	1.3	334	14	N	7	360	81
28	52.2	31.5	41.9	40.1	36	86	23	0	.....	0	0.00	0.0	30.01	29.93	29.973	0.5	0.4	287	12	W	8	258	112
29	58.9	28.5*	43.7	40.1	34	83	21	0	.....	0	0.01	0.0	29.99	29.81	29.932	0.3	0.2	13	12	NNW	5	184	110
30	54.4	33.1	43.8	46.9	45	92	21	0	.....	0	0.38	0.0	29.87	29.62	29.758	0.7	0.7	148	25	S	11	173	29
31	51.4	45.4	48.4	48.9	48	97	17	0	.....	0	2.06	0.0	29.62	29.33	29.450	3.0	2.7	224	19	SSE	12	194	15
Sum	Sum	-----	-----	---	----	Ttl	Ttl			Total	Total	For the month:										---	
1877	1372					383	0		Number of Days	6.52	0.0	30.38	29.33	29.941	1.2	0.7	216	28	SW	14	223		
Avg	Avg	Avg	Mean	Avg	Avg	----	----		Precip	Season Ttl		Date	Date	-----	----	----	---	Date	Date	Avg			
60.5	44.3	52.4	51.6	48	89.0	----	----		≥.01 inch	17	34.74	0.0	6	31	-----	----	---		16	16	76		
Number of Days						Season to Date	Snow, Ice ≥1.0 inch	0	Greatest in 24 Hours and Dates						Greatest Depth on Ground of Snow, Ice Pellets or Ice and Date								
Max Temperature			Min Temperature			586	462	Thunder	1	Precipitation			Snow, Ice Plts										
≥ 90°F	≤ 32°F	≤ 32°F	≤ 0°F	----	----	Heavy Fog	1	2.18	30-31	0.0	-												
0	0	5	0	----	----	Clear	6	Partly Cloudy			10	Cloudy			15								

**NOTES:**

- Units: Temperature=°F, Wind=mph, Pressure=Inches Hg, Precipitation=inches.
- Column 4A: value is (MAX+MIN) ÷ 2.
- Data in columns 4B, 5, 6, 15, 16, 23 are updated continuously, there by achieving a "true" mean.
- 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 W/m² and is continuously averaged for 24 hours.



# OBSERVATIONS AT 3-HOUR INTERVALS

## October 2021: 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							
OCT 19									OCT 20									OCT 21										
00	0	29.84	0.00	44	40	84	26	6	18	0	29.77	0.00	40	39	96	22	0	0	0	29.90	0.00	52	48	88	18	0	4	
03	0	29.82	0.00	42	39	87	27	7	15	0	29.79	0.00	42	41	96	22	0	0	0	29.89	0.00	50	47	91	17	2	7	
06	0	29.84	0.00	42	38	85	26	6	12	0	29.84	0.00	42	41	95	22	0	0	0	29.89	0.00	52	49	90	16	4	8	
09	84	29.85	0.00	42	37	82	27	3	16	32	29.89	0.00	47	46	98	22	1	6	60	29.89	0.00	55	51	87	18	4	6	
12	176	29.84	0.00	47	39	74	23	5	13	527	29.91	0.00	59	51	73	29	1	7	79	29.87	0.00	55	54	95	18	2	12	
15	81	29.78	0.00	49	40	73	23	0	5	316	29.88	0.00	65	53	64	22	0	5	49	29.80	0.00	55	53	96	16	3	11	
18	0	29.78	0.00	46	41	84	22	1	3	0	29.88	0.00	56	50	80	36	0	0	0	29.76	0.00	55	53	93	17	0	4	
21	0	29.77	0.00	42	39	89	22	0	0	0	29.89	0.00	50	49	95	35	1	4	0	29.74	0.00	51	50	97	18	0	0	
OCT 22									OCT 23									OCT 24										
00	0	29.67	0.00	54	52	93	17	1	7	0	29.97	0.00	32	30	93	35	0	0	0	29.99	0.00	36	32	86	24	0	7	
03	0	29.60	0.00	57	54	87	18	5	11	0	29.96	0.00	31	30	96	35	0	0	0	30.03	0.00	30	29	94	28	0	0	
06	0	29.59	0.00	55	54	97	17	5	15	0	29.96	0.00	31	30	96	35	0	0	0	30.07	0.00	31	29	93	28	0	0	
09	18	29.68	0.00	55	54	96	20	4	13	102	29.98	0.00	37	36	98	35	0	0	26	30.11	0.00	34	33	95	24	1	5	
12	174	29.79	0.00	53	49	87	24	2	11	260	29.97	0.00	42	37	81	31	0	4	534	30.12	0.00	49	35	57	25	5	8	
15	123	29.85	0.00	50	44	80	33	2	9	322	29.92	0.00	46	36	68	29	0	7	271	30.09	0.00	52	34	52	24	3	8	
18	0	29.92	0.00	43	39	86	01	0	9	0	29.95	0.00	41	35	79	33	0	0	0	30.11	0.00	42	35	76	24	0	0	
21	0	29.96	0.00	39	36	89	29	2	5	0	29.98	0.00	35	34	94	33	0	0	0	30.12	0.00	34	32	92	24	0	0	
OCT 25									OCT 26									OCT 27										
00	0	30.13	0.00	35	34	96	24	0	0	0	29.89	0.00	44	43	96	03	0	1	0	29.74	0.00	47	43	87	02	0	8	
03	0	30.11	0.00	37	35	93	25	0	2	0	29.82	0.00	46	45	96	11	0	0	0	29.75	0.00	43	40	90	27	0	9	
06	0	30.09	0.00	40	38	93	12	1	3	0	29.78	0.00	45	44	96	01	0	0	0	29.79	0.00	39	37	93	34	3	9	
09	23	30.07	0.04	39	38	96	04	1	6	11	29.78	0.08	46	45	97	01	0	0	91	29.85	0.00	40	37	91	34	1	9	
12	49	30.04	0.04	40	39	96	35	3	11	81	29.72	0.00	49	48	96	35	2	8	339	29.89	0.00	46	39	77	33	2	11	
15	58	29.97	0.00	42	41	95	01	4	7	98	29.66	0.00	53	50	90	01	6	11	218	29.89	0.00	53	42	67	25	2	9	
18	0	29.95	0.00	42	41	95	03	0	0	0	29.69	0.00	52	50	93	34	0	4	0	29.91	0.00	46	40	82	02	0	6	
21	0	29.92	0.00	42	41	96	03	0	3	0	29.73	0.00	48	46	93	00	2	11	0	29.94	0.00	41	38	89	32	1	8	
OCT 28									OCT 29									OCT 30										
00	0	29.93	0.00	39	36	92	32	0	6	0	29.98	0.00	32	30	95	26	0	0	0	29.81	0.00	34	32	91	11	0	1	
03	0	29.95	0.00	36	35	95	02	0	0	0	29.98	0.00	31	30	96	26	0	0	0	29.85	0.00	43	38	83	18	1	11	
06	0	29.96	0.00	34	33	95	34	0	0	0	29.99	0.00	29	28	96	26	0	0	0	29.82	0.09	44	42	92	14	1	9	
09	26	30.00	0.00	32	31	96	34	0	0	21	29.99	0.00	31	30	97	26	0	0	35	29.80	0.00	43	42	96	06	0	0	
12	520	30.00	0.00	49	39	69	28	0	3	508	29.97	0.00	52	40	65	18	1	7	130	29.77	0.00	51	49	93	12	1	7	
15	229	29.96	0.00	52	41	67	25	3	8	216	29.89	0.00	57	38	50	33	2	6	19	29.73	0.00	54	49	83	13	3	10	
18	0	29.97	0.00	44	38	80	26	0	0	0	29.88	0.00	46	39	78	30	0	0	0	29.72	0.00	50	49	95	04	0	0	
21	0	29.98	0.00	35	33	93	26	0	0	0	29.86	0.00	41	37	85	13	0	3	0	29.68	0.00	50	49	96	17	0	0	
OCT 31																												
00	0	29.62	0.00	50	49	97	00	0	0																			
03	0	29.54	0.00	49	48	97	00	0	0																			
06	0	29.40	0.05	49	48	97	35	0	4																			
09	14	29.33	0.11	48	47	98	27	4	10																			
12	63	29.36	0.10	46	45	97	27	2	11																			
15	40	29.40	0.12	50	49	98	19	2	7																			
18	0	29.46	0.15	51	50	97	19	10	19																			
21	0	29.53	0.00	50	49	96	19	5	13																			

### WEATHER NOTES

**NOTES:**  
 Units: 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 pulses from the electronic rain gauge and interpolating this rate for one hour.

### SUMMARY BY HOUR

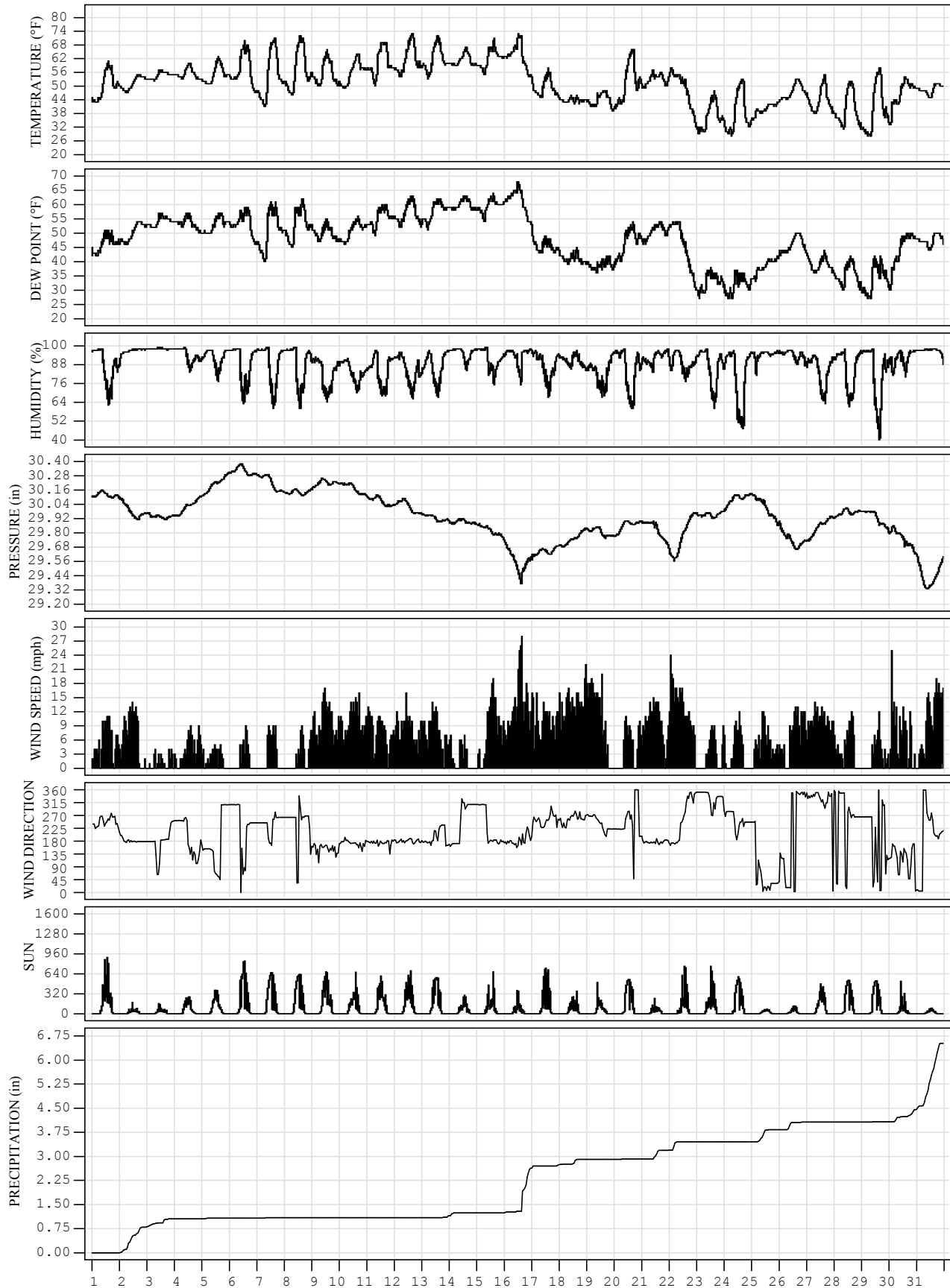
Hour	Averages						Resultant Wind	
	Sunshine	Pressure	Temperature	Dew Point	Humidity	Wind Speed	Direction	Speed
00	0	29.954	49	47	93	0.7	21	0.5
03	0	29.945	48	46	94	0.8	21	0.6
06	0	29.945	47	46	95	1.0	20	0.6
09	77	29.961	49	48	95	1.2	22	0.8
12	286	29.953	56	51	82	1.7	23	0.9
15	160	29.916	59	51	77	2.0	21	0.7
18	5	29.926	54	50	86	0.7	22	0.5
21	0	29.941	50	48	93	0.7	22	0.4

## HOURLY PRECIPITATION (Water Equivalent) October 2021: Westford

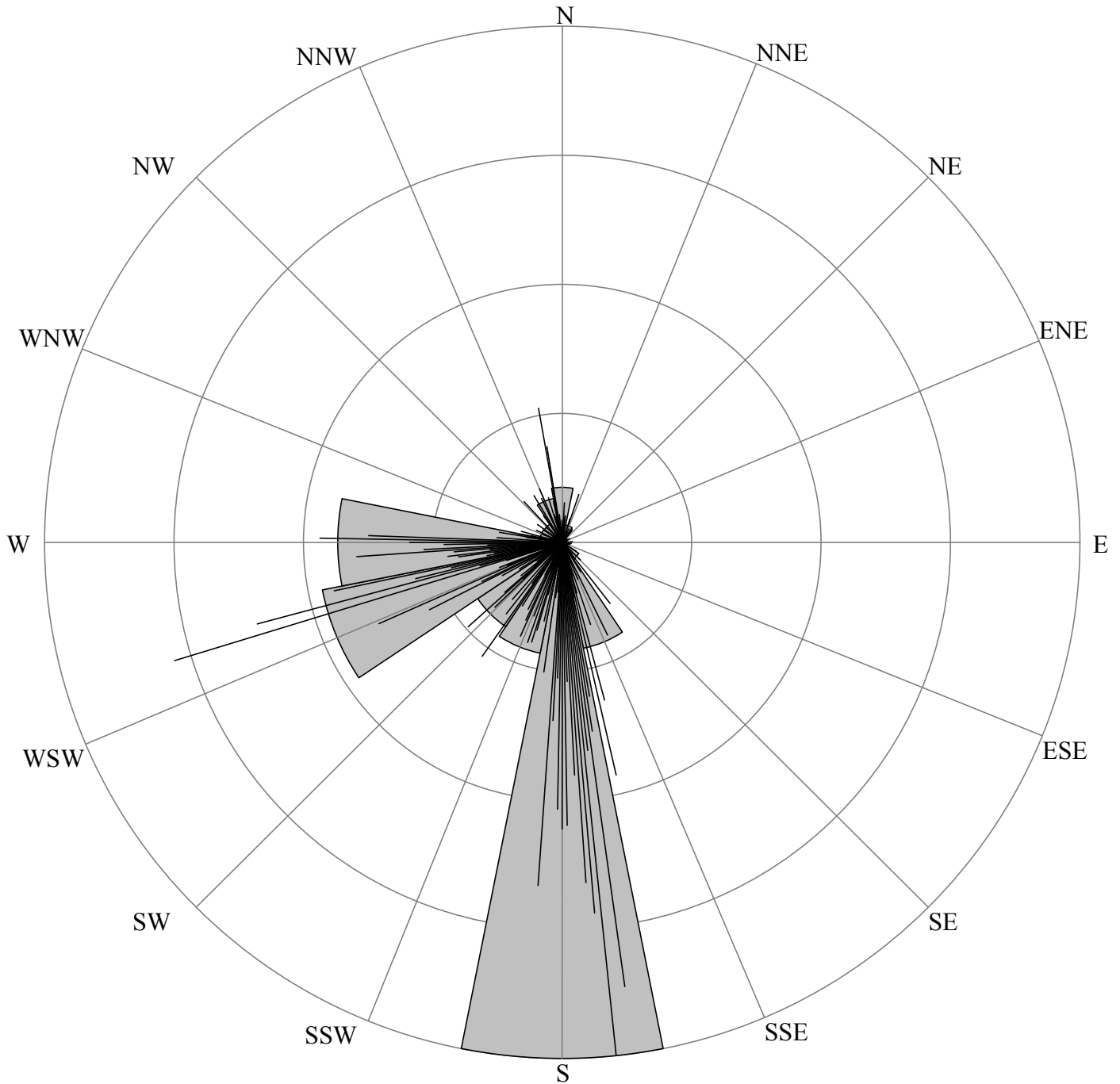
Date	A.M. Hour Ending at												P.M. Hour Ending at												Date
	01	02	03	04	05	06	07	08	09	10	11	12	01	02	03	04	05	06	07	08	09	10	11	12	
01																								01	
02	0.01	0.01	0.03	0.04	0.01	0.01	0.05	0.14	0.03	0.08	0.08	0.04	0.01	0.01	0.05	0.01	0.06	0.09	0.03	0.01				0.01	02
03	0.01	0.02	0.01	0.02	0.02	0.01	0.01	0.01		0.01					0.09	0.02			0.01						03
04																									04
05			0.01	0.01	0.01																				05
06																									06
07								0.01																	07
08																									08
09																									09
10																									10
11																									11
12																									12
13																			0.02				0.03	0.01	13
14		0.06	0.01	0.02																					14
15																									15
16	0.01	0.02								0.02						0.63	0.04	0.06	0.09	0.25	0.11	0.12	0.04	0.01	16
17	0.07																								17
18	0.01		0.01								0.01	0.02	0.09	0.02	0.01							0.01	0.02	0.01	18
19																									19
20							0.01																		20
21										0.05	0.04	0.06	0.09	0.03										0.01	21
22			0.10	0.12	0.02	0.01																			22
23																									23
24																									24
25						0.02	0.03	0.06	0.04	0.05	0.10	0.07			0.01										25
26								0.03	0.09	0.08	0.02								0.01	0.01					26
27																									27
28																									28
29											0.01														29
30				0.01	0.05	0.07				0.02	0.01					0.03	0.01	0.03	0.02	0.07	0.05		0.01	0.01	30
31	0.06	0.04	0.01			0.03	0.10	0.16	0.08	0.14	0.18	0.12	0.15	0.12	0.09	0.17	0.14	0.18	0.14	0.14	0.01				31
Sum	0.17	0.15	0.08	0.19	0.17	0.14	0.28	0.41	0.24	0.39	0.45	0.29	0.24	0.31	0.29	0.84	0.27	0.34	0.33	0.43	0.19	0.18	0.09	0.05	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  
October 2021: Westford



Wind Rose: October 2021  
Westford



Maximum direction of wind: 36.4 miles from 174°  
Maximum sector of wind: 311.6 miles from S  
908.1 total miles of wind