

# LOCAL CLIMATOLOGICAL DATA

## Monthly Summary

### September 2022

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	Speed
1	2	3	4A	4B	5	6	7	8		11	12	13	14	15	16	17	18	19	20	21	22	23		
1	62.2	45.1	53.6	55.1	51	87	11	0	.....	0	0.00	0.0	30.08	29.66	29.875	1.7	1.6	255	18	WSW	9	259	103	
2	76.4	42.3	59.4	58.3	51	80	6	0	.....	0	0.01	0.0	30.24	30.08	30.188	0.9	0.9	175	12	SSE	6	235	238	
3	80.8	51.0	65.9	66.4	59	78	0	1	.....	0	0.00	0.0	30.22	30.04	30.142	1.3	1.3	174	17	SSE	8	162	203	
4	66.0	54.4	60.2	59.0	57	94	5	0	.....	0	0.01	0.0	30.14	30.04	30.105	0.3	0.1	286	11	NNW	5	270	36	
5	59.1	52.7	55.9	56.8	56	97	9	0	.....	0	0.02	0.0	30.15	30.08	30.121	0.0	0.0	0	0	NNW	0	348	33	
6	65.7	58.9	62.3	62.0	61	96	2	0	.....	0	0.07	0.0	30.10	30.05	30.081	0.0	0.0	335	3	N	1	333	57	
7	76.1	55.7	65.9	64.3	61	89	0	1	.....	0	0.00	0.0	30.09	29.93	30.005	0.3	0.2	269	11	WSW	6	264	178	
8	80.4	51.9	66.2	64.0	59	86	0	1	.....	0	0.01	0.0	29.95	29.86	29.913	0.1	0.1	301	8	WSW	3	69	209	
9	80.0	52.4	66.2	64.5	60	86	0	1	.....	0	0.00	0.0	30.10	29.92	30.014	0.1	0.1	192	7	SW	3	215	195	
10	83.0	54.7	68.9	66.8	61	84	0	4	.....	0	0.00	0.0	30.19	30.10	30.138	0.4	0.4	176	10	SSE	4	180	202	
11	81.7	56.9	69.3	67.5	62	85	0	5	.....	0	0.00	0.0	30.13	29.94	30.037	0.4	0.4	178	12	SSE	5	179	158	
12	80.9	60.3	70.6*	68.8	64	86	0	6	.....	0	0.00	0.0	29.94	29.73	29.813	0.2	0.1	293	9	WSW	5	255	168	
13	73.7	59.0	66.3	65.4	64	96	0	2	.....	0	3.05	0.0	29.75	29.60	29.682	0.7	0.4	257	17	W	8	259	51	
14	73.2	51.6	62.4	61.8	59	90	2	0	.....	0	0.12	0.0	30.00	29.65	29.789	2.1	1.7	242	19	SW	10	245	105	
15	60.5	44.6	52.5	50.8	45	82	12	0	.....	0	0.00	0.0	30.17	30.00	30.116	1.7	1.7	263	19	W	11	269	167	
16	64.0	43.4	53.7	52.3	47	83	11	0	.....	0	0.00	0.0	30.22	30.14	30.166	0.8	0.8	269	16	W	7	259	188	
17	68.4	40.2	54.3	53.7	47	81	11	0	.....	0	0.00	0.0	30.27	30.03	30.183	0.7	0.7	179	12	SSE	6	168	192	
18	70.8	54.8	62.8	60.9	59	93	2	0	.....	0	1.26	0.0	30.03	29.83	29.898	1.9	1.8	187	17	SSE	8	176	54	
19	65.7	54.6	60.1	59.5	59	98	4	0	..3.....	0	1.46	0.0	29.89	29.70	29.796	0.7	0.7	176	13	SSE	5	254	24	
20	60.4	53.3	56.9	55.4	55	98	8	0	..2.....	0	0.38	0.0	29.93	29.74	29.831	0.3	0.2	297	9	N	4	264	27	
21	68.0	52.6	60.3	58.4	56	93	4	0	.....	0	0.01	0.0	29.93	29.59	29.816	1.1	1.1	173	18	SSE	7	167	103	
22	65.9	46.1	56.0	57.6	55	90	9	0	..3.....	0	1.24	0.0	29.73	29.46	29.546	3.4	2.9	247	29	W	11	273	86	
23	49.9	40.4	45.2	44.0	40	86	20	0	.....	0	0.05	0.0	29.96	29.73	29.885	2.9	2.9	267	21	W	11	271	62	
24	64.1	39.4	51.8	50.1	44	82	13	0	.....	0	0.00	0.0	29.95	29.80	29.884	1.8	1.8	263	18	W	10	273	200	
25	57.5	45.8	51.6	51.7	49	91	13	0	.....	0	0.26	0.0	29.80	29.47	29.636	0.7	0.7	176	14	SSE	6	177	53	
26	66.9	50.1	58.5	56.8	55	93	6	0	..3.....	0	0.38	0.0	29.63	29.46	29.533	1.4	1.4	183	16	SSE	7	181	92	
27	58.0	45.9	52.0	52.0	50	93	13	0	.....	0	0.09	0.0	29.83	29.60	29.697	1.5	1.5	173	19	SSE	8	174	67	
28	59.5	50.0	54.8	53.3	51	94	10	0	.....	0	0.31	0.0	30.26	29.83	30.022	2.0	1.6	247	16	WNW	8	261	75	
29	54.7	35.5	45.1*	46.5	42	85	19	0	.....	0	0.00	0.0	30.42	30.26	30.360	0.7	0.6	288	13	W	7	268	114	
30	63.1	33.5*	48.3	45.5	41	86	16	0	.....	0	0.01	0.0	30.39	30.19	30.303	0.0	0.0	254	7	WSW	4	248	158	
<b>Sum</b>	<b>Sum</b>	<b>-----</b>	<b>-----</b>	<b>---</b>	<b>----</b>	<b>Ttl</b>	<b>Ttl</b>						<b>Total</b>	<b>Total</b>	<b>For the month:</b>						<b>---</b>			
2037	1477					206	21		<b>Number of Days</b>				8.74	0.0	30.42	29.46	29.952	1.0	0.7	230	29	W	11	273
<b>Avg</b>	<b>Avg</b>	<b>Avg</b>	<b>Mean</b>	<b>Avg</b>	<b>Avg</b>	<b>----</b>	<b>----</b>		<b>Precip</b>				<b>Season Ttl</b>	<b>Date</b>	<b>Date</b>	<b>-----</b>	<b>----</b>	<b>---</b>	<b>Date</b>	<b>Date</b>	<b>Avg</b>			
67.9	49.2	58.6	57.6	54	88.7	----	----		≥.01 inch	18	45.24	0.0	29	26	-----	----	---			22	22	120		
<b>Number of Days</b>						<b>Season to Date</b>	<b>Snow, Ice ≥1.0 inch</b>	0	<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>			228	388	<b>Thunder</b>	3	<b>Precipitation</b>			<b>Snow, Ice Plts</b>											
≥ 90°F	≤ 32°F	≤ 32°F	≤ 0°F	----	----			<b>Heavy Fog</b>	1	3.17	13-14	0.0	-	0			-							
0	0	0	0	----	----			<b>Clear</b>	6	<b>Partly Cloudy</b>			9	<b>Cloudy</b>			13							

**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

## September 2022: Westford

Hour	SEP 19									SEP 20									SEP 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
00	0	29.89	0.00	55	54	98	23	0	0	0	29.74	0.00	60	59	98	17	0	0	0	29.93	0.00	54	53	99	27	0	0
03	0	29.88	0.00	55	54	98	23	0	0	0	29.76	0.00	57	56	98	31	0	4	0	29.91	0.00	54	53	98	27	0	0
06	0	29.85	0.08	55	54	98	23	0	0	0	29.77	0.00	55	54	98	31	0	0	0	29.92	0.00	53	52	98	27	0	0
09	79	29.84	0.00	57	57	99	23	0	3	51	29.79	0.00	57	56	99	31	0	2	125	29.92	0.00	54	53	98	27	0	0
12	32	29.79	0.20	60	60	99	19	1	8	93	29.81	0.00	58	58	99	27	1	6	183	29.89	0.00	58	56	94	20	1	6
15	81	29.73	0.04	65	64	99	16	0	2	51	29.85	0.00	55	54	98	33	1	8	427	29.78	0.00	64	59	84	16	2	13
18	5	29.72	0.15	65	64	98	20	2	5	35	29.89	0.00	54	53	98	02	0	0	54	29.72	0.00	63	60	88	17	0	3
21	0	29.74	0.00	62	61	98	17	1	10	0	29.93	0.00	54	53	99	27	0	0	0	29.65	0.00	61	58	90	17	3	12
SEP 22									SEP 23									SEP 24									
00	0	29.59	0.00	64	60	88	16	6	15	0	29.73	0.00	46	43	90	27	1	14	0	29.94	0.00	41	38	89	27	1	6
03	0	29.50	0.00	66	62	87	17	7	13	0	29.77	0.00	44	41	92	26	1	12	0	29.94	0.00	41	39	91	27	1	10
06	0	29.49	0.10	62	61	97	21	1	5	0	29.83	0.00	42	39	90	28	1	13	0	29.93	0.00	40	38	93	27	0	0
09	14	29.53	0.00	57	56	96	25	5	11	62	29.90	0.00	41	39	93	25	1	11	295	29.93	0.00	49	44	83	26	2	8
12	682	29.51	0.00	61	56	86	21	4	9	260	29.92	0.00	45	40	85	26	5	10	677	29.91	0.00	58	48	68	26	7	14
15	188	29.50	0.00	55	52	90	27	4	18	322	29.92	0.00	49	41	75	26	2	14	626	29.86	0.00	63	48	58	27	8	17
18	7	29.56	0.00	53	48	84	26	3	16	70	29.93	0.00	48	41	75	27	4	12	23	29.82	0.00	59	50	71	27	1	3
21	0	29.66	0.00	50	46	87	25	2	12	0	29.95	0.00	44	39	84	24	2	13	0	29.81	0.00	50	46	85	22	0	6
SEP 25									SEP 26									SEP 27									
00	0	29.80	0.00	46	44	95	18	0	1	0	29.47	0.00	54	54	98	14	0	5	0	29.63	0.00	51	50	97	16	0	6
03	0	29.76	0.00	47	46	96	22	1	3	0	29.48	0.00	55	54	98	17	0	6	0	29.63	0.00	49	48	96	14	0	5
06	0	29.73	0.00	47	45	92	18	2	7	0	29.48	0.00	55	55	98	16	4	10	0	29.63	0.00	47	45	95	13	0	0
09	125	29.69	0.00	51	48	91	17	0	6	97	29.53	0.00	56	55	98	18	1	8	83	29.65	0.00	52	49	90	18	2	17
12	63	29.65	0.00	54	49	84	18	4	10	241	29.54	0.00	62	59	89	21	1	7	84	29.69	0.07	54	51	91	15	1	12
15	104	29.58	0.00	57	52	84	16	1	6	200	29.52	0.00	65	57	74	18	2	12	269	29.71	0.00	57	55	92	18	3	14
18	9	29.53	0.10	53	52	95	10	0	3	11	29.56	0.00	58	56	93	18	2	6	49	29.75	0.00	56	53	90	17	1	10
21	0	29.50	0.00	53	52	97	10	0	0	0	29.62	0.00	51	50	96	17	0	3	0	29.80	0.00	52	51	96	18	1	4
SEP 28									SEP 29									SEP 30									
00	0	29.83	0.00	52	50	96	17	0	4	0	30.26	0.00	50	47	91	25	1	9	0	30.38	0.00	36	34	96	35	0	0
03	0	29.85	0.00	51	50	97	18	0	0	0	30.29	0.00	49	46	91	27	1	8	0	30.38	0.00	35	34	97	35	0	0
06	0	29.89	0.00	51	51	97	17	4	8	0	30.33	0.00	46	43	89	27	3	12	0	30.37	0.00	34	33	97	35	0	0
09	127	29.96	0.00	54	53	98	18	0	7	116	30.39	0.00	46	42	87	34	1	8	272	30.37	0.00	42	41	98	35	0	0
12	114	30.02	0.00	58	56	94	26	3	12	158	30.41	0.00	50	44	79	27	0	3	603	30.34	0.00	58	49	73	29	0	5
15	258	30.07	0.00	59	56	89	28	3	11	496	30.38	0.00	54	44	69	26	1	7	281	30.26	0.00	58	46	65	25	0	0
18	26	30.14	0.00	54	49	85	25	6	12	21	30.36	0.00	49	43	78	35	0	2	26	30.21	0.00	55	48	76	23	0	0
21	0	30.20	0.00	51	49	91	26	3	10	0	30.39	0.00	38	37	95	35	0	0	0	30.20	0.00	43	41	94	23	0	0

### 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	29.944	54	52	94	0.4	19	0.3
03	0	29.938	53	52	95	0.4	20	0.3
06	0	29.948	52	51	96	0.7	20	0.5
09	177	29.971	57	55	93	1.2	22	0.8
12	365	29.969	63	57	80	1.9	23	1.4
15	380	29.944	65	57	76	1.8	24	1.1
18	61	29.936	63	57	82	0.9	24	0.7
21	0	29.957	55	53	92	0.8	22	0.5

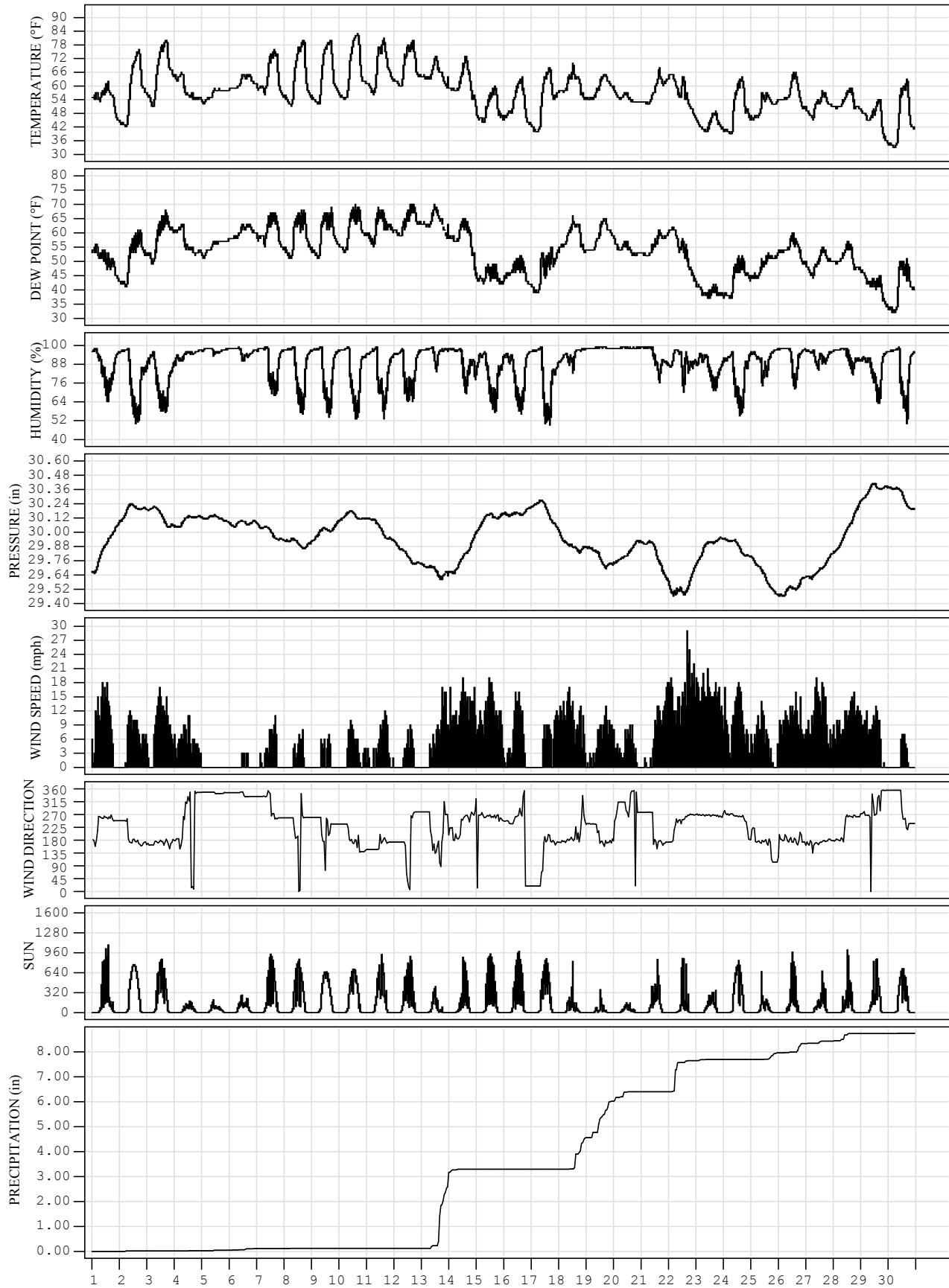
## HOURLY PRECIPITATION (Water Equivalent) September 2022: Westford

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																		02	
03																								03	
04												0.01												04	
05											0.02													05	
06			0.01																					06	
07																								07	
08						0.01																		08	
09																								09	
10																								10	
11																								11	
12																								12	
13																								13	
14		0.05	0.04																					14	
15																								15	
16																								16	
17																								17	
18																								18	
19																								19	
20	0.03	0.13																						20	
21																								21	
22																								22	
23																								23	
24																								24	
25																								25	
26																								26	
27																								27	
28	0.02	0.01																						28	
29																								29	
30																								30	
Sum	0.05	0.19	0.06	0.06	0.04	1.08	0.08	0.30	0.31	0.22	0.34	0.26	0.17	0.10	0.89	1.05	0.72	0.30	0.39	0.93	0.17	0.32	0.11	0.60	Sum

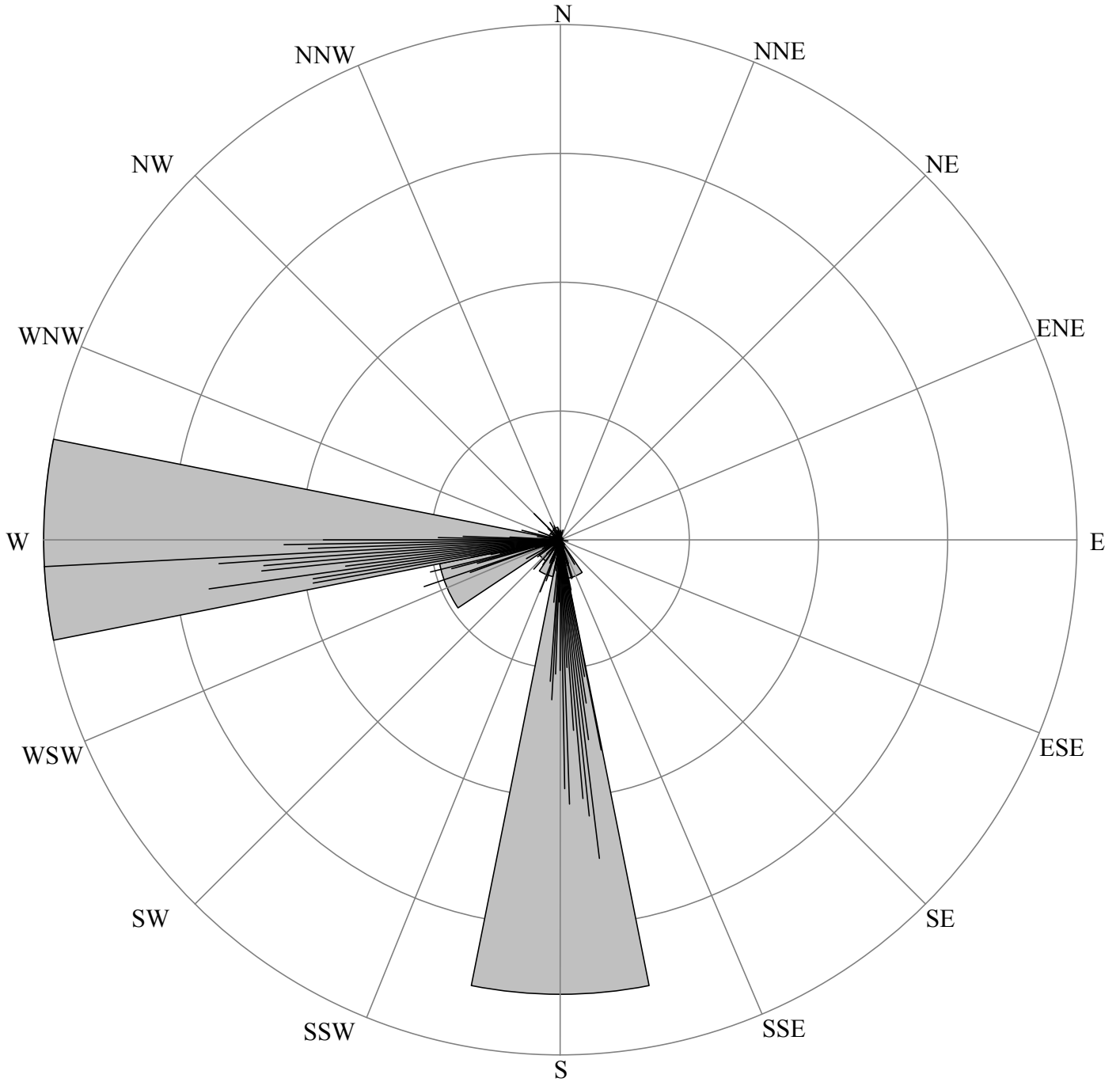
During a frozen precipitation event, hourly precipitation totals may not be recorded. In this case, daily amounts are typically entered in the last column (hour ending at 12 A.M.)

# HOUR-BY-HOUR DATA

## September 2022: Westford



Wind Rose: September 2022  
Westford



Maximum direction of wind: 41.9 miles from 267°  
Maximum sector of wind: 299.8 miles from W  
725.4 total miles of wind