

# LOCAL CLIMATOLOGICAL DATA

## Monthly Summary

### May 2009

Station: Oakland, NJ

Latitude: 41° 02' 28" N Longitude: 74° 13' 52" W Elevation (Ground): 280 feet Time Zone: Eastern

Date	Temperature					Humidity	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						Sun		
	Maximum	Minimum	Average	Mean	Dew Point		Mean	Heating Base 65°F			Cooling Base 65°F	Water Equivalent	Ice Pellets Snow	Maximum	Minimum	Mean	Avg	Res	Res	Peak			Minute	
																				Speed	Speed		Dir	Speed
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	69.4	51.7	60.6	60.5	58	92	4	0	.....	0	0.19	0.0	30.14	29.77	29.914	2.5	2.5	224	21	SW	12	214		
2	67.3	47.6	57.5	58.0	48	73	7	0	.....	0	0.13	0.0	29.94	29.73	29.859	1.3	0.9	312	22	NNE	12	358		
3	58.4	46.3	52.4	52.5	50	90	13	0	.....	0	0.10	0.0	30.02	29.94	29.981	0.3	0.3	192	10	SE	5	141		
4	59.0	50.3	54.6	54.1	52	93	10	0	.....	0	0.15	0.0	30.09	30.00	30.050	0.3	0.3	74	9	NE	3	85		
5	54.6	50.5	52.5	52.1	50	93	12	0	.....	0	0.13	0.0	30.13	30.04	30.083	1.3	1.2	46	18	NE	8	49		
6	64.2	48.7	56.4	55.3	51	87	8	0	.....	0	0.35	0.0	30.08	29.93	30.031	1.0	0.7	209	12	WSW	6	231		
7	73.5	51.0	62.3	60.4	56	87	2	0	.....	0	0.94	0.0	29.93	29.68	29.764	1.4	1.1	233	17	W	10	247		
8	76.5	47.8	62.1	62.9	53	75	2	0	.....	0	0.00	0.0	29.85	29.74	29.794	1.7	1.6	215	17	SW	10	232		
9	77.5	59.5	68.5	66.8	60	81	0	4	.....	0	0.24	0.0	29.76	29.48	29.623	1.7	1.4	226	19	SSW	10	212		
10	68.9	49.2	59.1	60.6	41	50	6	0	.....	0	0.00	0.0	30.05	29.63	29.829	4.1	3.8	308	27	W	14	284		
11	65.5	41.3	53.4	53.4	37	58	11	0	.....	0	0.00	0.0	30.11	29.96	30.037	1.3	1.0	303	14	SSW	10	202		
12	67.4	42.8	55.1	54.5	38	56	10	0	.....	0	0.00	0.0	30.28	30.02	30.130	1.3	1.1	356	13	NW	7	354		
13	68.6	38.1	53.3	54.4	41	66	11	0	.....	0	0.00	0.0	30.41	30.28	30.362	1.6	1.5	180	19	S	11	204		
14	68.6	49.8	59.2	58.6	54	85	5	0	.....	0	0.10	0.0	30.37	30.10	30.235	1.3	1.2	198	18	SSW	9	199		
15	77.3	56.7	67.0	65.0	59	82	0	2	.....	0	0.01	0.0	30.25	30.15	30.197	0.7	0.6	134	9	SSE	4	151		
16	70.7	51.5	61.1	61.0	59	93	3	0	.....	0	0.35	0.0	30.18	29.84	30.034	0.5	0.4	121	19	WNW	7	298		
17	64.3	48.2	56.3	55.2	44	68	9	0	.....	0	0.26	0.0	30.16	29.79	29.991	2.1	1.9	352	26	NNW	15	350		
18	55.9	38.0	47.0*	48.9	33	55	18	0	.....	0	0.00	0.0	30.36	30.15	30.248	1.3	1.2	350	14	NW	7	0		
19	70.8	32.2*	51.5	52.1	36	62	13	0	.....	0	0.00	0.0	30.46	30.33	30.388	1.2	0.8	224	15	ESE	10	172		
20	83.4	41.5	62.5	62.7	44	60	2	0	.....	0	0.00	0.0	30.40	30.26	30.335	1.2	1.1	212	15	W	9	208		
21	85.6	48.1	66.8	67.5	46	54	0	2	.....	0	0.00	0.0	30.30	30.13	30.228	2.1	2.0	217	19	W	10	187		
22	86.4*	48.0	67.2	67.8	55	68	0	2	.....	0	0.00	0.0	30.16	30.02	30.091	1.4	1.3	213	15	SSW	8	221		
23	71.7	57.4	64.5	65.3	53	67	0	0	.....	0	0.00	0.0	30.17	30.08	30.118	1.1	1.0	63	15	NNE	7	142		
24	82.8	55.5	69.2*	66.2	61	84	0	5	.....	0	0.01	0.0	30.08	29.89	29.983	0.6	0.6	232	14	WSW	8	241		
25	80.6	54.1	67.3	68.0	53	64	0	3	.....	0	0.00	0.0	30.10	29.93	29.986	0.8	0.6	339	14	NNW	7	4		
26	60.2	47.4	53.8	54.5	41	61	11	0	.....	0	0.03	0.0	30.29	30.10	30.218	1.1	1.0	95	17	SE	7	112		
27	64.8	47.7	56.3	56.2	52	86	8	0	.....	0	0.00	0.0	30.18	29.89	30.023	0.4	0.3	101	7	N	3	30		
28	63.1	55.4	59.3	58.7	57	93	6	0	.....	0	0.01	0.0	29.89	29.83	29.868	0.7	0.7	78	12	SE	4	131		
29	74.2	53.9	64.0	62.3	59	89	1	0	.....	0	0.31	0.0	29.83	29.63	29.717	0.8	0.6	203	14	N	6	356		
30	75.5	51.5	63.5	64.4	54	71	1	0	.....	0	0.00	0.0	29.77	29.66	29.704	1.3	1.1	280	18	S	8	297		
31	79.2	45.9	62.5	61.9	46	62	2	0	.....	0	0.00	0.0	29.99	29.65	29.764	2.3	1.4	267	25	W	12	270		
Sum	Sum	-----	-----	---	----	Ttl	Ttl	Number of Days		For the month:												---		
2186	1508					175	18			3.31	0.0	30.46	29.48	30.019	1.3	0.4	252	27	W	15	350			
Avg	Avg	Avg	Mean	Avg	Avg	----	----	Precip		Season Ttl		Date	Date	-----	----	----	---	Date	Date	Avg				
70.5	48.6	59.6	59.4	50	74.4	----	----	≥.01 inch		16	10.16	35.0	19	9	-----	----	----	---	10	17				
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			5815	48	Thunder		0	Precipitation			Snow, Ice Plts										
≥ 90°F	≤ 32°F	≤ 32°F	≤ 0°F	----	----	Heavy Fog		0	1.08	6- 7	0.0	-	0					-						
0	0	1	0	----	----	Clear		31	Partly Cloudy		0	Cloudy		0										

**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/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

## May 2009: Oakland, NJ

Hour	MAY 19									MAY 20									MAY 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	30.37	0.00	36	34	91	33	0	0	30.37	0.00	45	42	92	20	0	0	30.29	0.00	53	48	81	25	0	0			
04	30.39	0.00	33	32	94	33	0	0	30.36	0.00	43	41	95	20	0	0	30.29	0.00	49	47	93	25	0	0			
07	30.44	0.00	35	34	96	33	0	0	30.38	0.00	44	43	96	20	0	0	30.29	0.00	51	49	94	20	0	3			
10	30.45	0.00	57	32	38	19	0	5	30.38	0.00	70	46	41	14	1	3	30.27	0.00	75	48	38	18	3	8			
13	30.41	0.00	66	36	34	24	2	5	30.34	0.00	80	37	21	19	4	10	30.23	0.00	85	45	25	22	5	14			
16	30.35	0.00	70	36	29	20	3	9	30.30	0.00	83	43	24	14	2	6	30.17	0.00	85	41	21	22	7	15			
19	30.33	0.00	68	38	33	18	2	10	30.27	0.00	77	47	34	13	2	7	30.14	0.00	81	44	27	20	7	13			
22	30.37	0.00	50	44	78	20	0	1	30.28	0.00	59	50	73	25	0	0	30.17	0.00	60	48	64	24	0	0			
MAY 22									MAY 23									MAY 24									
01	30.15	0.00	52	48	87	16	0	0	30.09	0.00	65	60	85	07	0	0	30.08	0.00	57	54	90	07	0	0			
04	30.13	0.00	50	46	89	16	0	0	30.09	0.00	62	60	92	07	0	0	30.05	0.00	57	54	91	07	0	0			
07	30.13	0.00	51	49	91	06	0	0	30.15	0.00	65	59	82	06	0	3	30.03	0.00	59	54	86	07	0	0			
10	30.12	0.00	73	58	59	27	1	3	30.16	0.00	70	50	49	04	2	12	30.01	0.00	65	61	86	23	2	9			
13	30.08	0.00	82	59	47	21	2	7	30.15	0.00	71	50	47	04	3	12	29.96	0.00	80	68	67	24	2	7			
16	30.03	0.00	86	58	39	21	7	13	30.11	0.00	70	49	48	01	2	7	29.94	0.00	73	67	81	29	1	6			
19	30.04	0.00	79	61	55	22	4	9	30.09	0.00	65	49	58	02	0	4	29.91	0.00	72	67	85	25	0	1			
22	30.07	0.00	68	62	80	22	0	0	30.09	0.00	61	50	69	10	0	1	29.95	0.00	67	63	87	22	0	1			
MAY 25									MAY 26									MAY 27									
01	29.94	0.00	63	62	94	22	0	0	30.12	0.00	56	43	62	06	0	1	30.17	0.00	48	44	87	04	0	0			
04	29.94	0.00	61	60	96	17	0	2	30.18	0.00	52	36	55	04	1	6	30.12	0.00	50	46	87	04	0	1			
07	29.99	0.00	63	61	92	36	0	0	30.24	0.00	51	37	58	04	1	6	30.09	0.00	51	46	83	08	1	4			
10	30.02	0.00	70	48	45	02	2	10	30.28	0.00	59	38	46	11	4	11	30.07	0.00	53	51	90	05	0	2			
13	30.00	0.00	76	51	42	06	1	6	30.27	0.00	60	44	56	03	3	7	30.02	0.00	58	55	87	17	0	4			
16	29.95	0.00	80	49	34	32	5	13	30.24	0.00	58	44	59	09	1	12	29.94	0.00	64	58	79	05	1	4			
19	29.98	0.00	71	49	46	33	0	7	30.22	0.00	54	43	65	18	0	3	29.90	0.00	65	59	81	06	1	2			
22	30.06	0.00	61	49	64	05	0	0	30.20	0.00	49	46	91	00	0	1	29.91	0.00	59	56	91	04	0	0			
MAY 28									MAY 29									MAY 30									
01	29.88	0.00	58	56	92	08	0	0	29.81	0.00	56	54	96	08	1	4	29.67	0.00	61	59	93	31	0	3			
04	29.86	0.00	57	56	96	06	0	1	29.78	0.00	55	54	97	18	0	2	29.68	0.00	57	55	94	12	0	1			
07	29.88	0.00	58	57	97	04	0	0	29.76	0.00	54	53	97	02	0	1	29.70	0.00	55	54	96	24	0	2			
10	29.89	0.00	60	59	94	08	1	3	29.75	0.00	57	56	97	05	0	1	29.73	0.00	69	59	71	21	2	13			
13	29.88	0.00	63	59	87	03	2	5	29.70	0.00	66	60	83	21	2	4	29.70	0.00	73	53	50	33	3	9			
16	29.86	0.00	61	57	85	04	2	9	29.65	0.00	74	65	74	27	0	6	29.69	0.00	73	48	40	27	2	10			
19	29.86	0.00	57	55	92	21	0	5	29.65	0.00	71	65	80	18	3	7	29.70	0.00	70	51	52	28	0	2			
22	29.86	0.00	56	54	95	09	0	3	29.69	0.00	66	61	83	06	0	2	29.76	0.00	56	51	83	25	0	0			
MAY 31																											
01	29.77	0.00	50	48	93	25	0	0																			
04	29.76	0.00	46	45	95	25	0	0																			
07	29.77	0.00	49	48	96	24	0	2																			
10	29.74	0.00	69	50	51	22	4	9																			
13	29.68	0.00	78	53	43	20	8	18																			
16	29.66	0.00	78	54	43	27	6	18																			
19	29.76	0.00	70	44	39	29	2	16																			
22	29.92	0.00	59	33	37	34	1	7																			

### 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

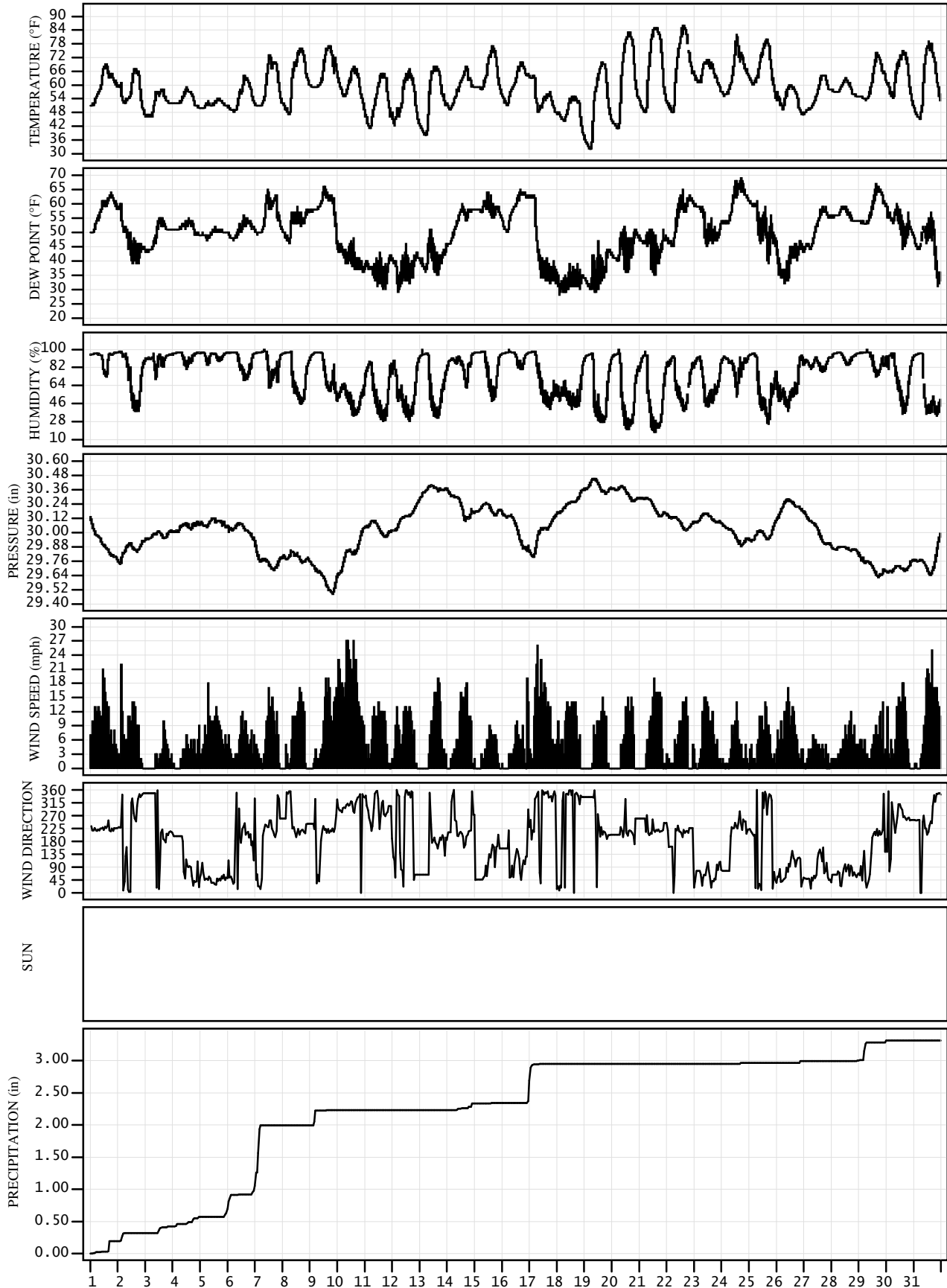
Hour	Averages						Resultant Wind	
	Sunshine	Pressure	Temperature	Dew Point	Humidity	Wind Speed	Direction	Speed
01		30.027	53	50	88	0.4	33	0.0
04		30.015	52	48	90	0.4	1	0.2
07		30.040	52	48	88	0.5	33	0.1
10		30.052	61	50	70	2.0	30	0.5
13		30.026	67	51	60	3.1	23	1.5
16		29.986	69	50	56	2.6	24	1.3
19		29.994	65	51	63	1.4	21	0.7
22		30.022	57	50	80	0.3	32	0.2

**HOURLY PRECIPITATION (Water Equivalent)**  
**May 2009: Oakland, NJ**

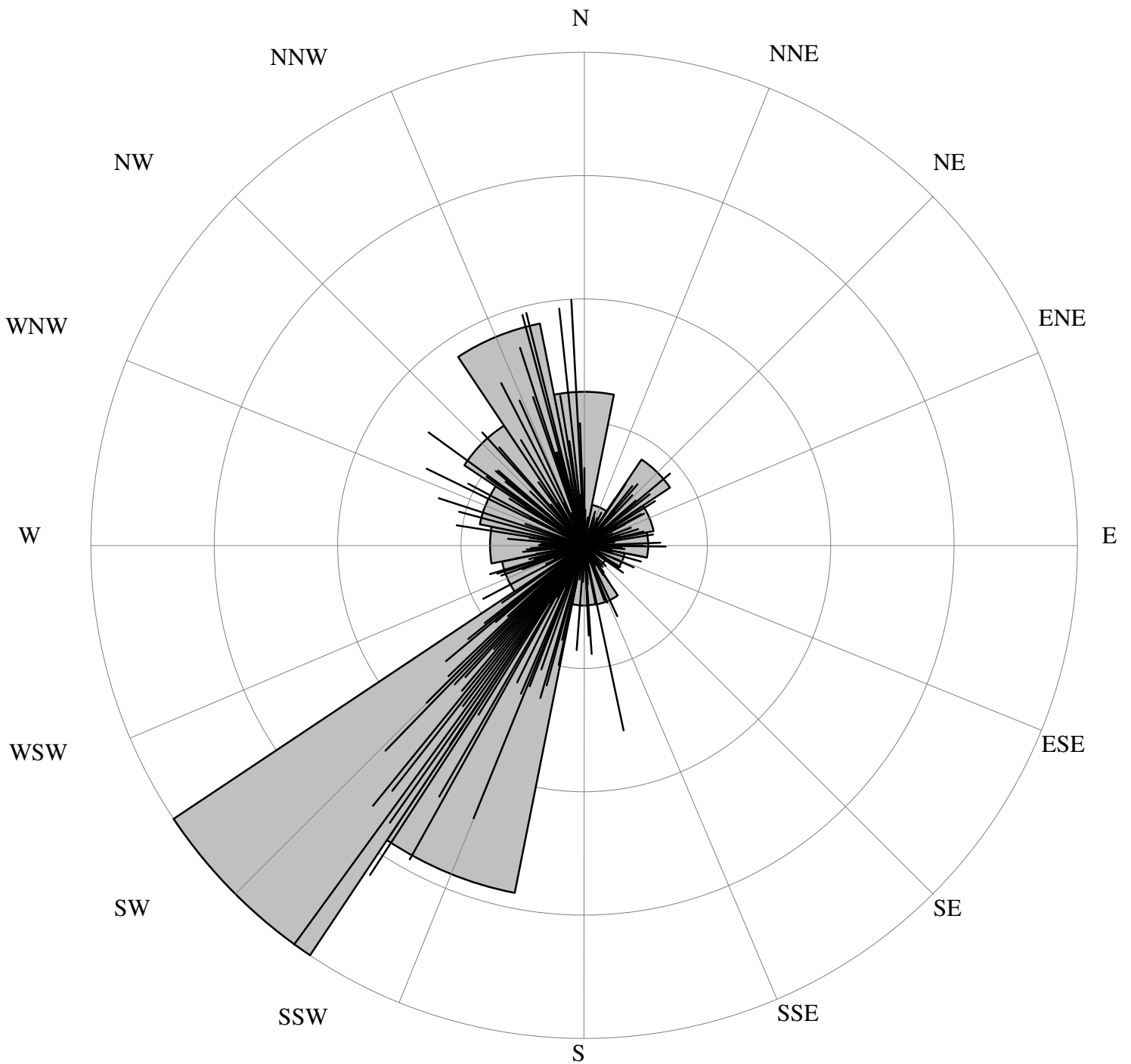
Date	A.M. Hour Ending at												P.M. Hour Ending at												Date
	01	02	03	04	05	06	07	08	09	10	11	12	01	02	03	04	05	06	07	08	09	10	11	12	
01			0.01		0.01							0.01				0.01	0.15								01
02			0.01	0.07	0.04	0.01																			02
03												0.04	0.03	0.01	0.01					0.01					03
04			0.01	0.03									0.01					0.04	0.02				0.02	0.07	04
05																						0.04	0.02	0.07	05
06	0.11	0.04	0.06									0.01										0.03	0.03	0.07	06
07	0.21		0.30	0.37	0.06																				07
08																									08
09				0.06	0.17										0.01										09
10																									10
11																									11
12																									12
13																									13
14									0.01	0.01			0.01						0.02			0.05			14
15														0.01											15
16																									16
17	0.20	0.03	0.01	0.01					0.01														0.03	0.32	17
18																									18
19																									19
20																									20
21																									21
22																									22
23																									23
24																	0.01								24
25																									25
26																									26
27																					0.03				27
28																									28
29	0.01				0.14	0.11	0.02																0.01	0.03	29
30																									30
31																									31
Sum	0.53	0.07	0.40	0.54	0.42	0.12	0.02	0.00	0.02	0.03	0.00	0.04	0.05	0.03	0.03	0.01	0.16	0.04	0.04	0.01	0.03	0.12	0.11	0.49	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  
May 2009: Oakland, NJ



Wind Rose: May 2009  
Oakland, NJ



Maximum direction of wind: 27.0 miles from 216°  
Maximum sector of wind: 226.0 miles from SW  
972.9 total miles of wind