

# LOCAL CLIMATOLOGICAL DATA

## Monthly Summary

### April 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	47.1	37.7	42.4	43.2	38	82	22	0	.....	0	0.40	0.0	30.23	30.06	30.141	1.3	1.1	122	16	S	9	180		
2	65.8	42.0	53.9	52.8	46	81	11	0	.....	0	0.00	0.0	30.08	29.88	29.996	1.3	1.1	123	14	ESE	8	126		
3	57.6	51.0	54.3	54.0	52	93	10	0	.....	0	0.73	0.0	29.90	29.12	29.414	2.5	0.6	42	34	W	18	237		
4	54.0	45.4	49.7	48.2	35	61	15	0	.....	0	0.00	0.0	29.66	29.27	29.468	8.0	7.7	273	31	WSW	18	275		
5	63.8	42.1	52.9	51.1	34	53	12	0	.....	0	0.00	0.0	29.80	29.65	29.731	4.4	4.3	314	31	WNW	15	330		
6	48.0	42.0	45.0	45.6	42	86	20	0	.....	0	0.43	0.0	29.75	29.21	29.431	1.5	0.9	40	14	WSW	7	257		
7	47.8	36.2	42.0	41.9	28	58	23	0	.....	0	0.00	0.0	29.56	29.20	29.354	5.0	4.8	275	23	WNW	14	293		
8	46.3	31.9	39.1*	38.5	26	61	26	0	.....	0	0.00	T	29.76	29.56	29.637	3.5	3.2	249	23	WSW	14	242		
9	61.5	26.7*	44.1	45.1	26	55	20	0	.....	0	0.00	0.0	29.93	29.76	29.825	2.6	2.5	245	27	WNW	14	213		
10	59.5	30.6	45.1	47.0	33	61	19	0	.....	0	0.00	0.0	30.05	29.86	29.969	1.2	0.8	71	14	N	7	33		
11	50.3	40.0	45.1	46.0	39	77	20	0	.....	0	0.24	0.0	30.02	29.82	29.869	3.0	2.8	6	24	N	13	349		
12	47.1	33.1	40.1	39.1	16	40	25	0	.....	0	0.00	0.0	30.21	30.01	30.097	5.1	5.1	339	30	WNW	17	296		
13	56.6	26.8	41.7	42.7	19	41	23	0	.....	0	0.00	0.0	30.21	30.01	30.115	2.4	2.0	322	19	N	11	334		
14	48.9	40.5	44.7	44.7	31	60	20	0	.....	0	0.11	0.0	30.07	29.93	30.006	1.2	1.1	70	14	NE	8	130		
15	58.0	37.2	47.6	47.4	31	56	17	0	.....	0	0.11	0.0	30.15	29.92	30.011	2.5	2.1	64	22	NE	9	66		
16	64.4	28.7	46.6	46.8	26	50	18	0	.....	0	0.00	0.0	30.32	30.15	30.252	1.6	1.0	38	16	N	9	353		
17	71.3	30.1	50.7	51.7	29	49	14	0	.....	0	0.00	0.0	30.33	30.04	30.196	1.8	1.6	301	19	WNW	12	251		
18	77.3	44.5	60.9	62.5	34	37	4	0	.....	0	0.00	0.0	30.06	29.85	29.952	2.7	2.4	294	21	SSW	13	278		
19	63.6	43.8	53.7	54.0	37	54	11	0	.....	0	0.00	0.0	30.17	29.89	30.032	2.3	1.0	68	15	SSE	9	139		
20	46.6	41.1	43.8	43.8	37	78	21	0	.....	0	0.46	0.0	30.17	29.82	30.063	3.2	3.2	66	22	NE	12	62		
21	61.2	46.6	53.9	52.1	50	93	11	0	.....	0	0.15	0.0	29.83	29.63	29.721	1.1	0.6	58	18	W	8	308		
22	55.7	43.2	49.5	48.8	44	85	15	0	.....	0	0.06	0.0	29.75	29.60	29.680	1.4	1.1	225	25	SW	12	272		
23	56.1	37.9	47.0	47.8	34	60	18	0	.....	0	0.00	0.0	30.16	29.70	29.907	4.2	3.8	286	26	N	16	335		
24	73.5	32.0	52.8	53.7	35	56	12	0	.....	0	0.00	0.0	30.28	30.16	30.218	2.0	1.8	215	18	SW	10	205		
25	90.1	43.4	66.8	67.8	47	54	0	2	.....	0	0.00	0.0	30.23	30.06	30.148	3.0	2.9	229	27	SW	15	239		
26	93.1*	61.4	77.3*	77.0	53	47	0	12	.....	0	0.00	0.0	30.24	30.09	30.162	2.1	1.4	306	19	SW	10	263		
27	88.1	55.8	71.9	70.4	55	62	0	7	.....	0	0.00	0.0	30.33	30.17	30.249	1.3	1.1	152	16	S	9	137		
28	90.7	57.1	73.9	74.9	52	51	0	9	.....	0	0.00	0.0	30.23	30.01	30.129	4.4	3.4	243	25	SW	15	222		
29	67.2	45.5	56.3	57.2	35	46	8	0	.....	0	0.00	0.0	30.47	30.22	30.401	2.7	1.6	33	21	NW	10	31		
30	62.5	43.4	53.0	52.9	39	63	12	0	.....	0	0.00	0.0	30.46	30.14	30.347	1.9	1.8	171	19	SSW	12	209		
Sum	Sum	-----	-----	---	----	Ttl	Ttl	Number of Days		For the month:						---								
1874	1218					427	30			2.69	T	30.47	29.12	29.951	2.7	0.9	303	34	W	18	275			
Avg	Avg	Avg	Mean	Avg	Avg	----	----	Precip		Season Ttl		Date	Date	-----	----	----	---	Date	Date	Avg				
62.5	40.6	51.5	51.6	37	61.7	----	----	≥.01 inch	9	6.85	35.0	29	3	-----	----	----	---	3	4					
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			5640	30	Thunder	0	Precipitation		Snow, Ice Plts												
≥ 90°F	≤ 32°F	≤ 32°F	≤ 0°F	----	----	Heavy Fog	0	0.73	3	T	8	0				-								
3	0	7	0	----	----	Clear	30	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

## April 2009: Oakland, NJ

Hour	APR 19									APR 20									APR 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	29.91	0.00	53	40	60	05	0	0	30.17	0.00	43	32	63	05	0	3	29.83	0.00	47	46	95	05	0	6			
04	29.93	0.00	52	40	63	04	1	5	30.15	0.00	44	37	76	05	1	3	29.75	0.00	48	47	96	35	1	5			
07	30.01	0.00	49	40	70	00	2	6	30.15	0.00	44	36	74	09	1	7	29.76	0.00	48	47	97	02	1	3			
10	30.05	0.00	55	40	58	04	4	12	30.14	0.00	45	34	66	10	2	15	29.76	0.00	51	50	97	35	0	1			
13	30.05	0.00	59	37	44	33	1	11	30.10	0.00	43	37	77	07	4	11	29.73	0.00	54	52	95	30	0	2			
16	30.04	0.00	62	37	39	15	3	7	30.02	0.00	41	36	83	05	6	15	29.65	0.00	60	54	81	33	2	4			
19	30.08	0.00	54	36	50	14	6	14	29.94	0.04	43	40	91	07	4	15	29.65	0.00	57	52	86	07	0	3			
22	30.16	0.00	47	33	57	13	0	2	29.89	0.04	45	43	94	02	4	10	29.67	0.00	54	52	94	20	0	3			
APR 22									APR 23									APR 24									
01	29.70	0.00	48	47	96	20	0	0	29.72	0.00	44	37	77	26	3	15	30.18	0.00	39	32	75	26	0	1			
04	29.70	0.00	46	45	97	22	0	2	29.75	0.00	41	35	80	25	3	9	30.21	0.00	34	31	90	21	0	0			
07	29.74	0.00	45	45	97	22	0	0	29.80	0.00	41	35	79	21	3	8	30.26	0.00	33	31	94	21	0	0			
10	29.73	0.00	52	46	81	22	2	4	29.87	0.00	49	33	55	29	8	19	30.28	0.00	59	37	44	23	3	11			
13	29.68	0.00	54	42	63	15	0	2	29.93	0.00	52	34	50	31	6	13	30.24	0.00	68	32	26	20	3	13			
16	29.61	0.00	55	41	59	22	7	11	29.96	0.00	56	34	44	27	8	21	30.17	0.00	73	34	24	19	5	18			
19	29.62	0.00	47	45	93	21	0	0	30.03	0.00	53	32	46	30	5	17	30.17	0.00	67	39	35	19	0	11			
22	29.67	0.00	44	41	90	23	3	9	30.12	0.00	46	32	58	00	3	6	30.22	0.00	55	42	62	17	1	3			
APR 25									APR 26									APR 27									
01	30.22	0.00	49	42	77	17	0	0	30.11	0.00	76	53	45	24	3	10	30.25	0.00	60	54	81	05	0	0			
04	30.18	0.00	45	41	86	17	0	0	30.12	0.00	65	54	67	24	1	4	30.26	0.00	57	54	88	05	0	0			
07	30.21	0.00	45	42	89	19	0	0	30.16	0.00	67	54	63	35	1	6	30.31	0.00	58	54	86	05	0	3			
10	30.21	0.00	67	48	51	20	2	6	30.21	0.00	80	55	43	31	2	5	30.32	0.00	70	54	57	00	1	4			
13	30.13	0.00	87	51	29	22	6	18	30.18	0.00	88	52	29	31	2	14	30.28	0.00	80	56	44	14	2	6			
16	30.08	0.00	89	51	27	23	10	21	30.13	0.00	93	45	19	26	4	7	30.21	0.00	87	56	35	17	2	11			
19	30.06	0.00	84	49	30	19	3	13	30.17	0.00	82	55	39	08	1	6	30.17	0.00	84	56	38	18	1	3			
22	30.11	0.00	68	52	57	21	1	4	30.22	0.00	68	56	66	05	0	0	30.21	0.00	67	56	69	14	0	0			
APR 28									APR 29									APR 30									
01	30.20	0.00	62	55	79	14	0	0	30.25	0.00	66	52	60	00	2	12	30.45	0.00	44	38	78	20	0	0			
04	30.18	0.00	58	54	86	16	0	0	30.33	0.00	54	36	51	02	7	19	30.42	0.00	44	40	83	20	0	0			
07	30.17	0.00	63	55	74	20	0	2	30.42	0.00	50	33	52	02	2	10	30.43	0.00	46	40	79	11	0	1			
10	30.15	0.00	83	52	34	26	9	18	30.46	0.00	58	30	35	05	3	12	30.42	0.00	56	34	44	21	0	6			
13	30.09	0.00	88	51	29	21	9	21	30.46	0.00	63	29	28	05	2	8	30.36	0.00	61	26	26	16	6	15			
16	30.02	0.00	89	51	27	18	3	22	30.39	0.00	65	28	24	10	2	5	30.31	0.00	59	37	44	17	5	11			
19	30.03	0.00	85	50	30	22	3	21	30.41	0.00	59	35	41	18	2	8	30.24	0.00	56	47	72	15	2	6			
22	30.17	0.00	70	51	50	34	8	19	30.45	0.00	49	37	62	21	0	0	30.20	0.00	54	48	78	20	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

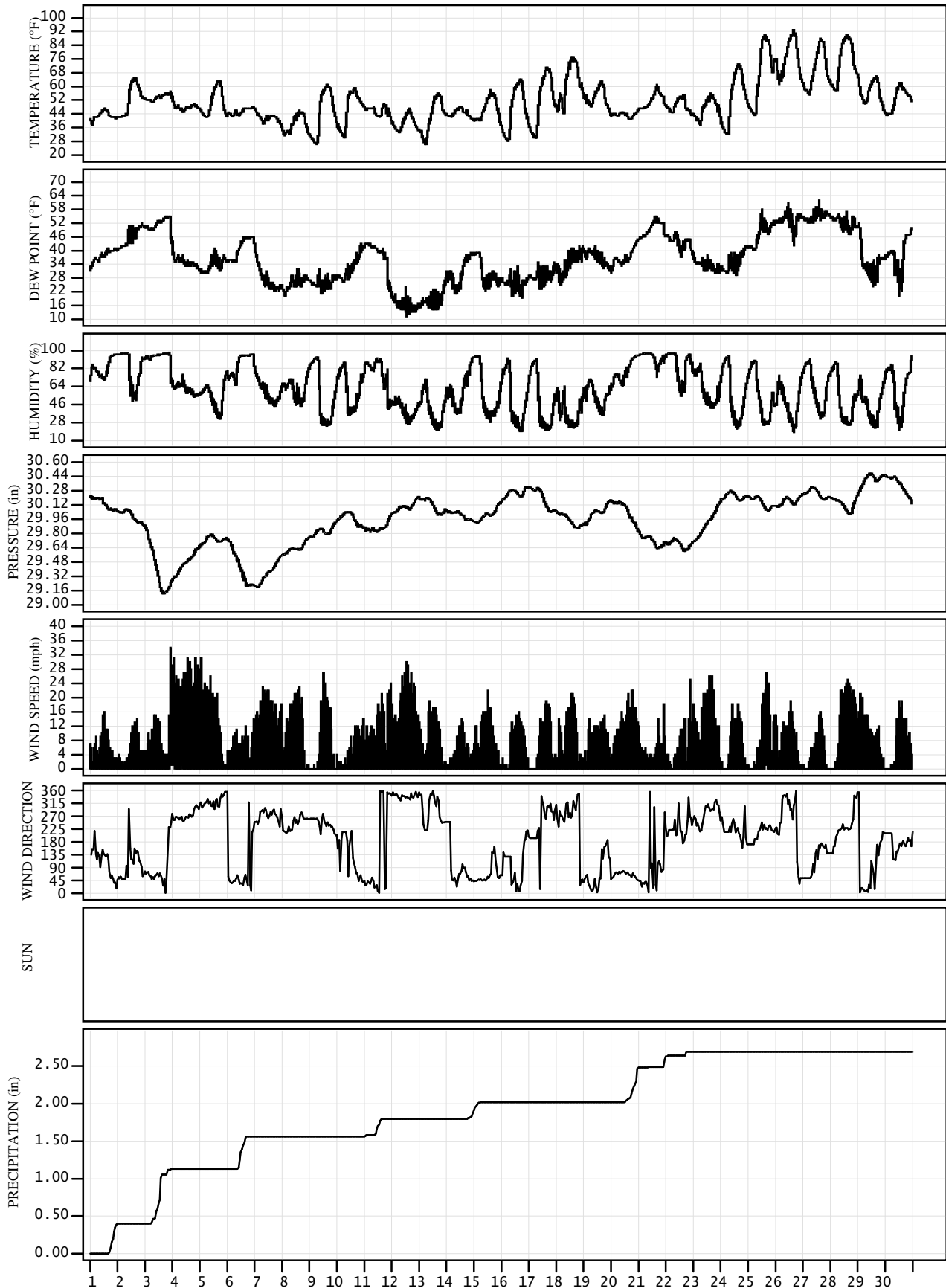
Hour	Averages						Resultant Wind	
	Sunshine	Pressure	Temperature	Dew Point	Humidity	Wind Speed	Direction	Speed
01		29.963	46	37	72	1.7	30	0.8
04		29.959	44	36	76	1.6	30	0.5
07		29.983	43	36	76	1.2	35	0.5
10		29.988	53	36	55	3.7	32	1.5
13		29.952	59	36	48	4.5	29	1.3
16		29.906	60	37	47	4.7	25	2.1
19		29.907	57	38	53	2.6	27	0.7
22		29.950	50	38	66	1.9	31	0.9

## HOURLY PRECIPITATION (Water Equivalent) April 2009: Oakland, NJ

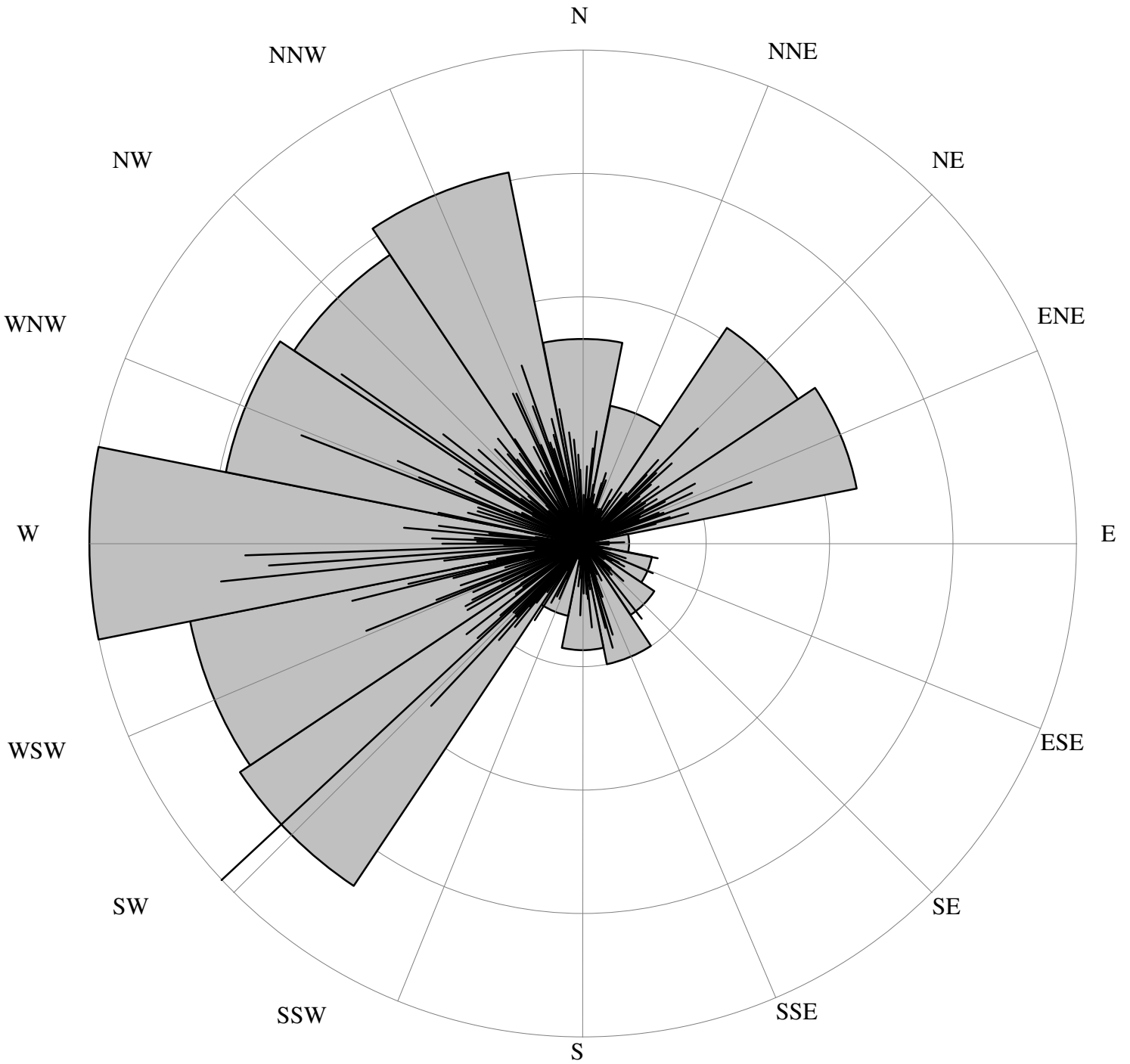
Date	A.M. Hour Ending at												P.M. Hour Ending at												Date
	01	02	03	04	05	06	07	08	09	10	11	12	01	02	03	04	05	06	07	08	09	10	11	12	
01																0.02	0.06	0.07	0.05	0.09	0.06	0.04	0.01	01	
02																								01	
03						0.01	0.05		0.01	0.10	0.02	0.09	0.04	0.29	0.04				0.07			0.01		02	
04																								03	
05																								04	
06										0.02	0.10	0.10	0.05	0.04	0.04	0.06	0.02							05	
07																								06	
08																								07	
09																								08	
10																								09	
11	0.01	0.01								0.02	0.06	0.04	0.02	0.05	0.03									10	
12																								11	
13																								12	
14																		0.01		0.01	0.01	0.05	0.03	13	
15	0.04	0.02	0.02	0.02		0.01																		14	
16																								15	
17																								16	
18																								17	
19																								18	
20												0.02	0.01	0.01	0.01	0.01	0.05	0.07	0.03	0.02	0.05	0.16	0.02	19	
21																								20	
22		0.01							0.01								0.05					0.10	0.04	21	
23																								22	
24																								23	
25																								24	
26																								25	
27																								26	
28																								27	
29																								28	
30																								29	
Sum	0.05	0.04	0.02	0.02	0.00	0.02	0.05	0.00	0.02	0.14	0.18	0.23	0.13	0.39	0.12	0.07	0.05	0.16	0.15	0.15	0.12	0.12	0.36	0.10	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  
April 2009: Oakland, NJ



Wind Rose: April 2009  
Oakland, NJ



Maximum direction of wind: 47.8 miles from 227°  
Maximum sector of wind: 253.9 miles from W  
1947.0 total miles of wind