

# LOCAL CLIMATOLOGICAL DATA

## Monthly Summary

### January 2007

Station: Oakland, NJ

Latitude: 41° 02' 26" N Longitude: 74° 13' 58" W Elevation (Ground): 272 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 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	51.3	40.2	45.8	46.7	45	94	19	0	.....	0	1.22	0.0	30.20	29.67	29.859	0.6	0.2	273	13	WNW	6	282		
2	47.7	26.4	37.1	39.4	27	61	28	0	.....	0	0.01	0.0	30.34	29.73	30.084	2.8	2.5	292	24	NNW	10	315		
3	51.1	24.1	37.6	35.7	27	73	27	0	.....	0	0.00	0.0	30.37	30.17	30.271	1.9	1.9	228	13	SW	8	226		
4	54.8	26.1	40.4	37.9	31	78	24	0	.....	0	0.00	0.0	30.17	30.01	30.110	0.9	0.9	224	12	S	7	208		
5	59.0	37.9	48.5	51.9	50	93	16	0	.....	0	0.03	0.0	30.01	29.75	29.890	1.5	1.5	226	16	WSW	7	230		
6	70.1*	51.7	60.9*	61.9	53	75	4	0	.....	0	0.10	0.0	29.99	29.57	29.698	3.8	3.7	235	22	SSW	14	226		
7	51.7	40.6	46.2	44.7	30	57	18	0	.....	0	0.36	0.0	30.31	29.96	30.173	1.6	0.7	320	18	WNW	9	333		
8	49.6	35.3	42.5	44.0	36	76	22	0	.....	0	0.89	0.0	29.96	29.49	29.645	2.8	2.2	238	26	SW	11	223		
9	40.9	26.6	33.8	34.0	21	60	31	0	.....	0	0.00	0.0	29.83	29.71	29.777	2.4	2.2	235	19	SSW	9	229		
10	33.7	26.3	30.0	30.6	11	45	35	0	.....	0	0.00	0.0	30.41	29.82	30.095	3.1	3.0	281	23	NW	12	301		
11	36.2	19.9	28.1	28.1	14	56	37	0	.....	0	0.00	0.0	30.62	30.41	30.515	1.8	1.8	223	12	W	7	221		
12	50.2	28.7	39.5	36.8	27	69	25	0	.....	0	0.00	0.0	30.44	30.21	30.302	1.6	1.6	228	13	S	7	232		
13	52.8	30.3	41.6	42.7	40	91	23	0	.....	0	0.14	0.0	30.25	30.08	30.156	1.0	0.2	250	10	N	4	352		
14	43.1	38.0	40.6	40.8	39	93	24	0	.....	0	0.10	0.0	30.23	30.11	30.176	0.3	0.3	22	7	NNW	4	349		
15	42.9	37.0	40.0	39.7	39	96	25	0	.....	0	0.12	0.0	30.19	29.67	29.916	0.4	0.3	32	5	NNE	4	125		
16	49.8	19.1	34.4	34.9	23	63	30	0	.....	0	0.00	0.0	30.35	29.67	29.974	3.8	3.5	323	25	WNW	12	315		
17	26.9	15.1	21.0	20.1	4	50	44	0	.....	0	0.00	0.0	30.72	30.35	30.593	2.8	2.7	330	20	N	12	337		
18	33.5	14.1	23.8	24.8	19	78	41	0	.....	0	0.00	T	30.70	30.02	30.442	0.4	0.3	243	7	SW	4	243		
19	39.8	29.1	34.4	33.6	23	68	30	0	.....	0	0.03	1.0	30.02	29.70	29.794	2.8	2.5	267	25	NNW	13	336		
20	30.1	19.1	24.6	25.3	7	46	40	0	.....	0	0.00	T	30.24	29.79	29.968	4.9	4.1	295	31	W	15	319		
21	26.9	16.1	21.5	22.3	2	42	43	0	.....	0	0.00	0.0	30.38	30.11	30.270	1.3	0.9	297	21	WNW	9	274		
22	30.1	25.4	27.8	27.3	17	65	37	0	.....	0	0.00	T	30.11	29.75	29.883	0.3	0.1	255	5	NNW	4	339		
23	34.6	20.6	27.6	28.2	17	63	37	0	.....	0	0.00	0.0	29.89	29.74	29.827	1.8	1.5	299	18	NW	9	325		
24	38.2	18.6	28.4	27.7	17	68	36	0	.....	0	0.00	0.0	29.97	29.88	29.909	1.0	0.9	271	15	WNW	7	333		
25	30.3	11.2	20.8	24.6	11	58	44	0	.....	0	0.01	1.5	29.90	29.72	29.810	2.4	2.2	322	23	NW	12	348		
26	21.4	5.4*	13.4*	13.0	-6	44	52	0	.....	0	0.00	0.0	29.99	29.87	29.934	3.5	3.1	299	30	NNW	14	331		
27	34.1	17.2	25.7	26.3	12	55	39	0	.....	0	0.00	0.0	29.97	29.63	29.755	1.5	1.5	229	7	W	4	224		
28	41.9	25.1	33.5	33.8	22	64	31	0	.....	0	0.02	0.5	29.67	29.53	29.597	1.3	1.1	356	14	N	8	353		
29	28.7	18.4	23.6	23.3	8	54	41	0	.....	0	0.00	T	29.97	29.57	29.822	3.3	2.6	305	21	W	11	314		
30	33.2	17.2	25.2	25.3	14	62	40	0	.....	0	0.00	T	30.00	29.79	29.899	2.4	2.4	229	16	WNW	8	249		
31	31.9	19.4	25.6	26.1	11	55	39	0	.....	0	0.00	0.0	30.08	29.80	29.962	2.7	2.1	285	22	WNW	14	327		
Sum	Sum	-----	-----	---	----	Ttl	Ttl	Number of Days		For the month:													---	
1267	780					982	0			3.03	3.0	30.72	29.49	30.003	2.0	1.4	277	31	W	15	319			
Avg	Avg	Avg	Mean	Avg	Avg	----	----	Precip		Season Ttl		Date	Date	-----	----	----	---	Date	Date	Avg				
40.9	25.2	33.0	33.3	22	66.2	----	----	≥.01 inch	12	3.03	3.0	17	8	-----	----	----	---	20	20					
Number of Days						Season to Date	Snow, Ice ≥1.0 inch	2	Greatest in 24 Hours and Dates						Greatest Depth on Ground of Snow, Ice Pellets or Ice and Date									
Max Temperature			Min Temperature			2857	0	Thunder	0	Precipitation			Snow, Ice Plts											
≥ 90°F	≤ 32°F	≤ 32°F	≤ 0°F	----	----	Heavy Fog	0	1.25	7- 8	1.5	25	0						-						
0	8	24	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.

**OBSERVER NOTES:**

Most of January was unusually mild and relatively wet. The end of the month was cold and dry, including a brief arctic air outbreak.



# OBSERVATIONS AT 3-HOUR INTERVALS

## January 2007: Oakland, NJ

Hour	JAN 19									JAN 20									JAN 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	29.98	0.00	31	27	88	29	1	2	29.79	0.00	30	15	53	24	5	10	30.24	0.00	19	5	55	16	0	4			
04	29.86	0.00	31	28	88	19	0	4	29.80	0.00	28	11	49	23	5	16	30.32	0.00	18	5	56	27	3	6			
07	29.78	0.00	30	27	90	24	1	3	29.85	0.00	26	8	46	24	5	17	30.34	0.00	16	2	53	10	1	3			
10	29.74	0.00	34	28	77	26	5	14	29.89	0.00	27	7	42	30	9	20	30.37	0.00	20	1	43	00	3	6			
13	29.70	0.00	39	22	49	34	4	17	29.93	0.00	29	7	39	32	2	7	30.28	0.00	26	0	32	32	1	5			
16	29.73	0.00	38	20	48	24	5	15	30.03	0.00	26	1	33	30	3	19	30.23	0.00	27	-1	30	16	2	3			
19	29.78	0.00	34	23	62	21	4	12	30.17	0.00	21	1	41	34	6	20	30.23	0.00	26	2	35	21	1	4			
22	29.81	0.00	32	16	51	19	2	10	30.22	0.00	19	4	50	03	1	16	30.15	0.00	26	5	39	23	1	3			
JAN 22									JAN 23									JAN 24									
01	30.09	0.00	26	7	43	23	2	3	29.75	0.00	27	23	83	28	0	1	29.89	0.00	20	16	86	24	0	0			
04	29.99	0.00	25	9	49	22	0	3	29.77	0.00	28	16	61	29	2	14	29.90	0.00	19	16	88	25	0	2			
07	29.96	0.00	25	12	56	22	0	2	29.82	0.00	26	15	62	28	2	11	29.92	0.00	20	17	89	27	0	1			
10	29.92	0.00	26	18	73	10	0	3	29.87	0.00	28	15	57	28	5	12	29.96	0.00	33	23	65	25	4	7			
13	29.82	0.00	29	20	71	04	0	1	29.83	0.00	34	16	47	32	1	8	29.90	0.00	36	17	45	30	5	13			
16	29.79	0.00	30	21	68	28	0	0	29.82	0.00	34	17	49	23	1	13	29.90	0.00	34	15	45	22	3	5			
19	29.78	0.00	29	22	75	28	0	1	29.85	0.00	28	17	64	24	0	0	29.90	0.00	31	18	58	23	0	0			
22	29.77	0.00	28	23	80	28	0	0	29.89	0.00	23	17	77	24	0	0	29.90	0.00	29	19	65	23	0	0			
JAN 25									JAN 26									JAN 27									
01	29.87	0.00	28	20	70	23	0	0	29.91	0.00	9	-8	44	33	5	15	29.95	0.00	18	1	48	23	0	1			
04	29.84	0.00	26	20	75	23	0	0	29.94	0.00	7	-7	53	35	3	14	29.88	0.00	19	5	54	23	0	2			
07	29.83	0.00	25	21	83	02	0	1	29.96	0.00	5	-6	59	21	1	4	29.83	0.00	21	8	58	22	1	5			
10	29.80	0.00	28	23	81	19	0	5	29.93	0.00	11	-5	47	27	2	16	29.78	0.00	24	9	51	24	1	3			
13	29.73	0.00	30	9	42	24	6	15	29.87	0.00	18	-7	32	23	7	19	29.69	0.00	28	12	51	21	2	4			
16	29.75	0.00	26	-1	31	25	5	17	29.89	0.00	19	-6	31	32	1	16	29.64	0.00	33	19	55	22	2	3			
19	29.81	0.00	21	-0	39	01	4	14	29.96	0.00	17	-6	35	23	1	4	29.69	0.00	33	20	58	24	1	3			
22	29.85	0.00	16	-3	42	21	1	6	29.99	0.00	15	-1	49	04	0	1	29.66	0.00	33	21	63	24	1	3			
JAN 28									JAN 29									JAN 30									
01	29.64	0.00	32	23	68	23	0	1	29.58	0.00	28	23	81	34	1	5	29.98	0.00	19	6	56	23	2	7			
04	29.62	0.00	31	27	84	23	0	1	29.68	0.00	25	16	70	34	1	4	29.96	0.00	19	8	62	23	3	6			
07	29.65	0.00	27	24	86	21	0	1	29.80	0.00	19	7	57	00	2	13	29.98	0.00	18	9	66	20	0	4			
10	29.64	0.00	36	22	57	34	1	4	29.86	0.00	22	7	53	30	3	11	29.98	0.00	25	12	57	23	4	10			
13	29.57	0.00	40	18	40	23	2	5	29.86	0.00	25	7	45	34	2	17	29.88	0.00	32	12	43	23	4	10			
16	29.53	0.00	40	17	39	29	2	3	29.88	0.00	26	1	33	29	3	9	29.81	0.00	32	14	47	24	0	5			
19	29.55	0.00	35	21	57	04	0	3	29.94	0.00	22	4	45	23	1	3	29.82	0.00	31	22	69	20	2	6			
22	29.58	0.00	32	23	69	35	3	6	29.96	0.00	20	9	62	23	3	4	29.80	0.00	27	23	84	21	1	2			
JAN 31																											
01	29.80	0.00	26	23	88	35	2	5																			
04	29.86	0.00	26	17	68	30	3	7																			
07	29.92	0.00	23	13	65	32	1	10																			
10	29.99	0.00	26	9	48	30	6	14																			
13	29.99	0.00	30	5	33	25	4	9																			
16	29.99	0.00	31	6	35	21	4	8																			
19	30.06	0.00	26	8	46	22	3	11																			
22	30.07	0.00	22	8	54	19	0	3																			

### 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

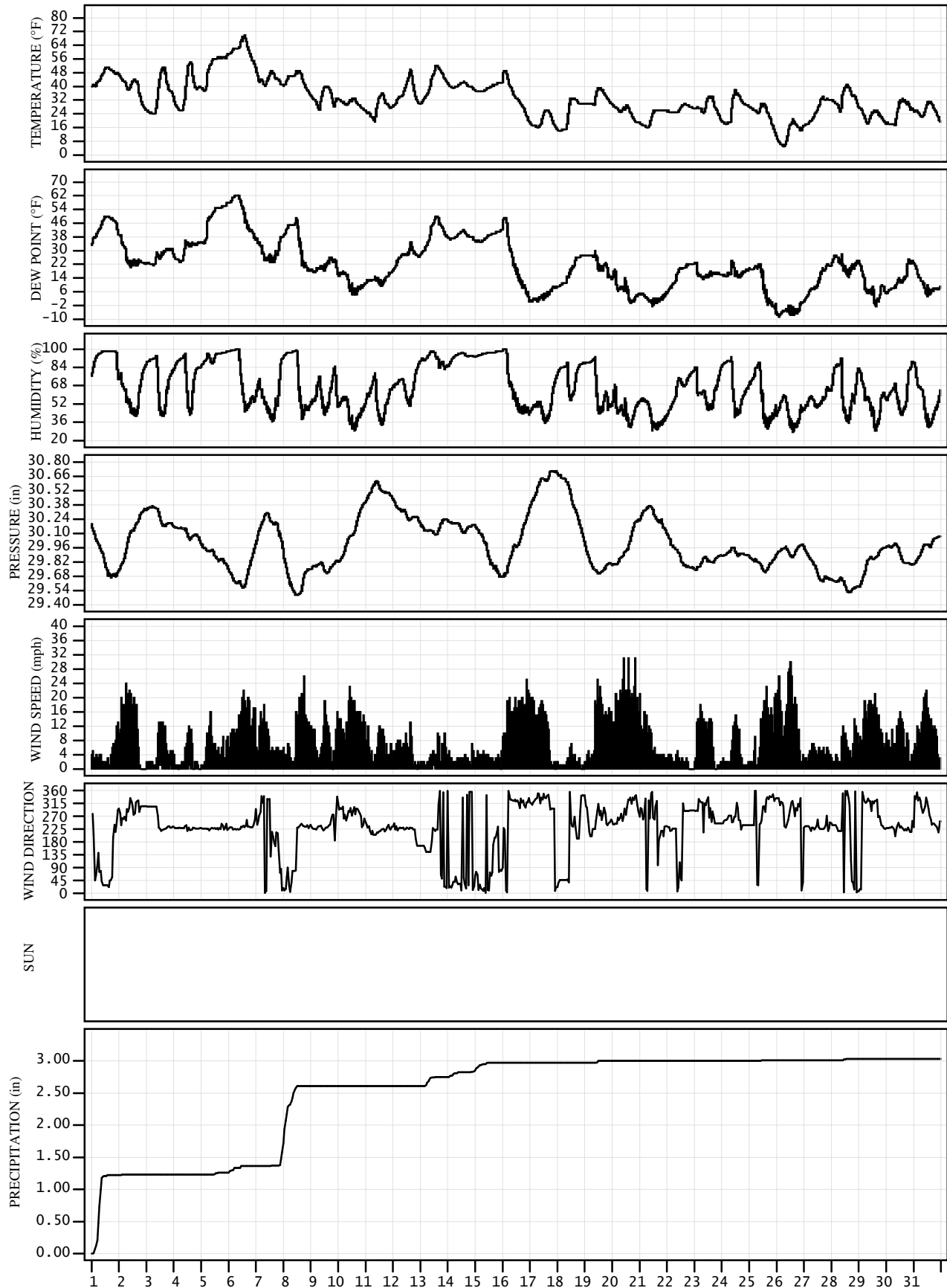
Hour	Averages						Resultant Wind	
	Sunshine	Pressure	Temperature	Dew Point	Humidity	Wind Speed	Direction	Speed
01		30.005	31	23	73	1.2	29	0.7
04		30.001	30	23	74	1.4	26	0.9
07		30.019	30	22	75	1.5	28	0.9
10		30.031	33	23	67	3.0	29	2.1
13		29.971	38	22	55	3.2	26	1.9
16		29.969	38	21	52	2.9	27	2.0
19		30.014	34	22	62	1.5	25	0.9
22		30.018	32	22	70	1.2	25	0.7

**HOURLY PRECIPITATION (Water Equivalent)**  
**January 2007: Oakland, NJ**

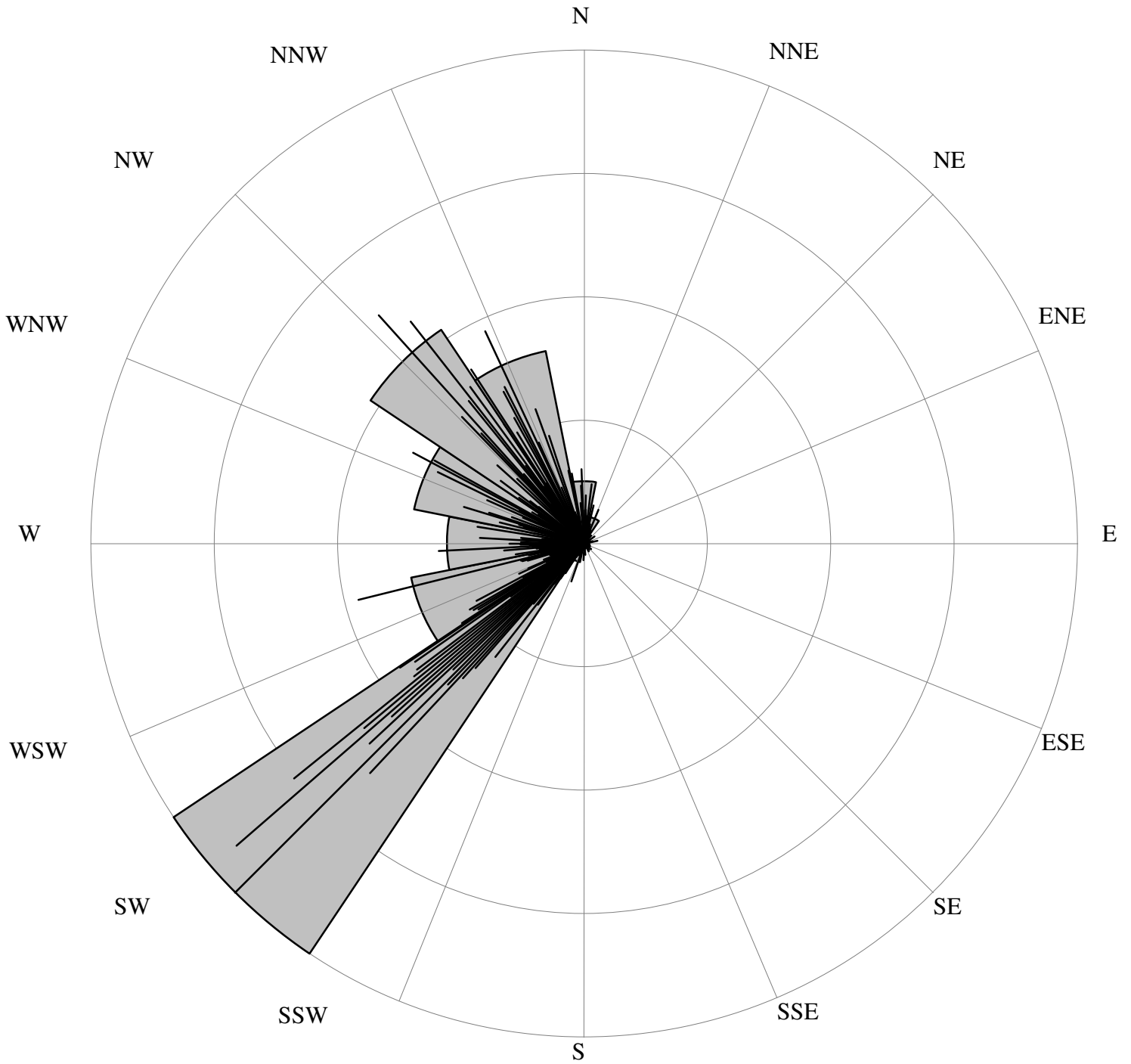
Date	A.M. Hour Ending at												P.M. Hour Ending at												Date
	01	02	03	04	05	06	07	08	09	10	11	12	01	02	03	04	05	06	07	08	09	10	11	12	
01		0.01	0.06	0.05	0.09	0.26	0.26	0.26	0.19	0.02	0.01													01	
02			0.01																					02	
03																								03	
04																								04	
05												0.01	0.01		0.01									05	
06	0.02	0.01	0.01		0.03						0.03													06	
07														0.01						0.01	0.09	0.11	0.14	07	
08	0.21	0.14	0.10	0.11	0.03	0.01	0.05	0.05	0.08	0.05	0.03	0.03												08	
09																								09	
10																								10	
11																								11	
12																								12	
13					0.01	0.04	0.02	0.03	0.02	0.01			0.01											13	
14		0.01	0.01		0.02	0.02			0.01											0.01		0.01	0.01	14	
15	0.03	0.02	0.01	0.02	0.01	0.01				0.01	0.01													15	
16																								16	
17																								17	
18																								18	
19											0.01	0.02												19	
20																								20	
21																								21	
22																								22	
23																								23	
24																								24	
25											0.01													25	
26																								26	
27																								27	
28											0.01		0.01											28	
29																								29	
30																								30	
31																								31	
Sum	0.26	0.19	0.20	0.18	0.18	0.34	0.34	0.34	0.30	0.09	0.11	0.06	0.03	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.02	0.09	0.12	0.15	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  
January 2007: Oakland, NJ



Wind Rose: January 2007  
Oakland, NJ



Maximum direction of wind: 51.3 miles from 225°  
Maximum sector of wind: 476.1 miles from SW  
1508.6 total miles of wind