

# LOCAL CLIMATOLOGICAL DATA

## Monthly Summary

### March 2008

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	42.8	30.0	36.4	34.9	25	71	28	0	.....	0	0.33	0.3	30.11	29.82	29.907	2.3	2.1	263	24	N	12	280		
2	41.2	25.6	33.4*	31.9	14	50	31	0	.....	0	0.00	0.0	30.27	30.02	30.173	2.6	2.5	315	21	NW	11	6		
3	59.8*	23.3	41.5	39.1	27	64	23	0	.....	0	0.00	0.0	30.26	29.91	30.108	1.6	1.6	224	16	SW	9	221		
4	57.5	31.0	44.3	42.3	40	91	20	0	.....	0	0.66	0.0	29.91	29.67	29.849	1.4	0.3	313	12	SW	7	225		
5	56.0	33.4	44.7	44.4	37	78	20	0	.....	0	0.40	0.0	29.99	29.35	29.614	3.4	2.8	240	21	SW	13	238		
6	49.4	27.6	38.5	36.9	26	66	26	0	.....	0	0.00	0.0	30.22	29.98	30.119	1.1	0.7	215	12	WNW	7	158		
7	47.7	26.1	36.9	36.9	31	80	28	0	.....	0	0.65	0.0	30.23	29.63	30.050	1.1	0.9	42	14	E	7	78		
8	57.3	34.0	45.6	43.6	41	91	19	0	.....	0	1.02	0.0	29.68	29.09	29.464	3.3	2.0	240	33	SSW	20	233		
9	41.5	27.8	34.6	33.2	11	40	30	0	.....	0	0.00	0.0	30.27	29.56	29.968	5.2	4.8	263	26	W	16	230		
10	45.2	23.9	34.6	32.9	15	47	30	0	.....	0	0.00	0.0	30.38	30.15	30.264	2.3	2.0	277	17	NNW	9	227		
11	48.8	26.0	37.4	35.9	23	63	27	0	.....	0	0.00	0.0	30.17	29.78	30.026	1.4	1.0	245	11	S	7	219		
12	46.2	31.0	38.6	37.4	25	64	26	0	.....	0	0.00	0.0	29.89	29.58	29.684	3.0	2.7	298	27	WSW	12	314		
13	46.7	26.6	36.7	35.1	21	59	28	0	.....	0	0.00	0.0	30.00	29.78	29.898	1.5	1.0	200	16	S	8	164		
14	54.7	27.6	41.2	40.9	32	73	23	0	.....	0	0.04	0.0	29.82	29.60	29.743	0.8	0.6	87	11	S	6	61		
15	56.0	38.6	47.3*	45.2	37	73	17	0	.....	0	0.12	0.0	29.78	29.50	29.645	2.4	2.2	355	18	N	9	356		
16	46.4	34.1	40.3	40.2	31	71	25	0	.....	0	0.06	0.0	30.22	29.74	29.922	2.0	1.9	350	20	NW	10	342		
17	49.8	27.9	38.8	36.4	13	39	26	0	.....	0	0.00	0.0	30.45	30.22	30.380	3.0	3.0	351	20	NNW	11	351		
18	45.5	26.7	36.1	35.6	20	56	28	0	.....	0	0.00	0.0	30.46	30.16	30.349	1.3	1.1	173	13	SSE	7	176		
19	45.1	38.0	41.5	41.7	39	91	23	0	.....	0	1.12	0.0	30.16	29.33	29.763	0.6	0.1	12	11	WSW	6	168		
20	48.6	34.7	41.6	42.4	30	65	23	0	.....	0	0.06	0.0	29.85	29.21	29.524	4.8	4.5	301	27	W	14	327		
21	44.1	31.6	37.8	36.7	11	36	27	0	.....	0	0.00	0.0	29.99	29.85	29.938	4.8	4.4	301	28	NNW	13	320		
22	48.6	31.5	40.0	38.1	4	25	24	0	.....	0	0.00	0.0	29.98	29.81	29.891	2.7	2.0	321	20	N	8	16		
23	46.2	25.7	36.0	35.3	9	34	29	0	.....	0	0.00	0.0	30.16	29.96	30.071	2.2	1.9	334	13	N	9	6		
24	49.2	21.9	35.6	35.4	14	45	29	0	.....	0	0.00	0.0	30.24	30.12	30.175	1.4	1.0	340	13	NNW	7	352		
25	48.5	23.8	36.1	35.9	14	45	28	0	.....	0	0.00	0.0	30.29	30.06	30.182	2.0	1.0	220	17	SSW	9	218		
26	59.8	31.8	45.8	45.5	27	53	19	0	.....	0	0.00	0.0	30.06	29.91	29.950	2.2	2.0	259	21	S	12	222		
27	47.7	28.8	38.3	39.0	28	66	26	0	.....	0	0.03	0.0	30.07	29.91	29.997	0.2	0.1	268	4	WSW	3	248		
28	44.3	36.5	40.4	40.7	36	83	24	0	.....	0	0.10	0.0	30.07	29.73	29.832	1.4	1.3	337	15	NNW	8	326		
29	46.1	29.5	37.8	36.1	14	43	27	0	.....	0	0.01	0.0	30.51	30.07	30.295	3.5	3.4	327	23	NNW	13	343		
30	48.6	21.0*	34.8	34.3	9	38	30	0	.....	0	0.00	0.0	30.67	30.51	30.604	1.1	0.4	124	11	S	7	137		
31	46.2	28.4	37.3	39.1	35	85	28	0	.....	0	0.23	0.0	30.62	30.16	30.402	0.1	0.0	199	3	SE	2	146		
Sum	Sum	-----	-----	---	----	Ttl	Ttl						For the month:										---	
1515	904					792	0		Number of Days	4.83	0.3	30.67	29.09	29.993	2.2	1.2	291	33	SSW	20	233			
Avg	Avg	Avg	Mean	Avg	Avg	----	----		Precip	Season Ttl		Date	Date	-----	----	----	---	Date	Date	Avg				
48.9	29.2	39.0	38.2	24	60.8	----	----		≥.01 inch	14	12.72	28.3	30	8	-----	----	----	---	8	8				
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			4876	0	Thunder	0	Precipitation			Snow, Ice Plts											
≥ 90°F	≤ 32°F	≤ 32°F	≤ 0°F	----	----	Heavy Fog	0	1.62	7- 8	0.3	1	0					-							
0	0	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.



# OBSERVATIONS AT 3-HOUR INTERVALS

## March 2008: Oakland, NJ

Hour	MAR 19									MAR 20									MAR 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	30.13	0.00	40	32	75	22	2	7	29.29	0.00	45	45	98	05	0	1	29.86	0.00	34	18	51	24	6	18			
04	30.01	0.00	39	34	80	22	0	2	29.23	0.00	47	47	100	33	5	14	29.90	0.00	33	19	56	26	3	19			
07	29.92	0.09	38	35	89	21	0	2	29.36	0.00	43	35	76	32	5	19	29.93	0.00	32	15	49	33	11	21			
10	29.83	0.06	40	38	93	33	0	3	29.49	0.00	42	31	63	28	9	24	29.99	0.00	35	13	41	30	5	18			
13	29.73	0.00	43	41	96	01	0	2	29.56	0.00	46	26	47	34	4	21	29.99	0.00	39	12	32	31	8	19			
16	29.62	0.00	45	44	97	00	0	2	29.62	0.00	45	24	42	30	7	20	29.95	0.00	43	4	20	30	7	19			
19	29.53	0.04	45	44	98	01	0	3	29.74	0.00	40	21	47	31	7	18	29.95	0.00	41	3	20	27	2	14			
22	29.42	0.00	45	44	98	06	0	1	29.82	0.00	36	21	54	26	2	14	29.96	0.00	37	6	27	23	4	9			
MAR 22									MAR 23									MAR 24									
01	29.97	0.00	36	2	24	27	5	10	29.99	0.00	32	4	29	32	1	4	30.16	0.00	31	14	49	07	0	2			
04	29.93	0.00	33	4	29	32	1	10	30.02	0.00	29	6	37	24	0	3	30.17	0.00	25	15	66	07	0	0			
07	29.90	0.00	32	7	35	34	3	8	30.06	0.00	26	10	50	03	0	3	30.19	0.00	22	16	76	07	0	1			
10	29.90	0.00	33	4	28	35	2	6	30.10	0.00	33	9	37	30	1	11	30.23	0.00	35	15	43	32	1	3			
13	29.85	0.00	42	4	20	00	5	12	30.08	0.00	40	9	27	32	2	6	30.19	0.00	44	13	28	20	2	5			
16	29.81	0.00	49	3	15	33	2	12	30.06	0.00	45	6	20	33	2	6	30.13	0.00	47	12	24	25	1	6			
19	29.85	0.00	43	0	16	33	5	12	30.08	0.00	42	11	28	35	3	5	30.13	0.00	42	15	33	00	0	1			
22	29.92	0.00	38	8	28	33	1	5	30.14	0.00	35	13	40	01	3	5	30.18	0.00	38	12	34	35	3	9			
MAR 25									MAR 26									MAR 27									
01	30.19	0.00	33	18	53	33	2	7	30.03	0.00	39	26	61	22	2	7	30.01	0.00	34	26	73	24	0	0			
04	30.20	0.00	27	16	63	03	0	1	29.95	0.00	34	28	77	22	0	0	30.00	0.00	30	25	81	24	0	0			
07	30.26	0.00	24	12	61	06	1	2	29.94	0.00	33	29	83	22	0	0	30.03	0.00	29	25	84	24	0	0			
10	30.28	0.00	34	8	33	28	2	7	29.92	0.00	52	30	43	21	6	10	30.07	0.00	39	29	65	24	0	1			
13	30.23	0.00	43	8	23	28	1	5	29.91	0.00	57	26	30	31	6	21	30.02	0.00	48	23	37	23	1	2			
16	30.14	0.00	48	7	19	21	5	12	29.91	0.00	59	26	28	24	6	18	29.96	0.00	46	25	44	20	0	0			
19	30.09	0.00	40	23	51	23	4	9	29.94	0.00	53	26	35	32	0	2	29.94	0.00	44	31	61	32	0	1			
22	30.08	0.00	39	25	57	23	1	4	29.99	0.00	41	27	58	22	0	3	29.94	0.00	42	33	69	32	0	1			
MAR 28									MAR 29									MAR 30									
01	29.87	0.00	40	38	94	32	0	1	30.09	0.00	36	23	61	34	5	10	30.53	0.00	28	11	50	35	0	4			
04	29.80	0.00	39	38	96	34	2	6	30.17	0.00	31	19	61	30	3	11	30.57	0.00	23	11	58	04	0	2			
07	29.75	0.00	39	36	89	35	1	3	30.25	0.00	30	18	60	29	2	10	30.62	0.00	22	8	53	07	1	4			
10	29.75	0.00	41	36	81	35	0	3	30.31	0.00	36	14	40	00	8	14	30.66	0.00	34	5	29	00	1	4			
13	29.76	0.00	43	38	83	35	1	2	30.32	0.00	42	13	30	33	6	19	30.62	0.00	43	6	21	18	4	6			
16	29.81	0.00	42	37	84	29	3	5	30.31	0.00	45	11	24	35	3	12	30.59	0.00	47	4	17	07	2	7			
19	29.91	0.00	44	34	69	30	3	10	30.39	0.00	40	7	25	17	1	12	30.60	0.00	43	10	25	16	3	6			
22	30.02	0.00	40	30	68	34	5	12	30.47	0.00	33	8	35	01	1	7	30.63	0.00	34	15	46	21	0	1			
MAR 31																											
01	30.62	0.00	29	19	66	23	0	0																			
04	30.54	0.00	31	22	69	23	0	1																			
07	30.51	0.00	34	24	67	23	0	1																			
10	30.48	0.00	38	32	79	23	0	1																			
13	30.40	0.00	42	41	96	14	0	2																			
16	30.30	0.00	45	44	97	34	0	1																			
19	30.23	0.00	46	46	98	34	0	0																			
22	30.20	0.00	46	46	100	34	0	0																			

### 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

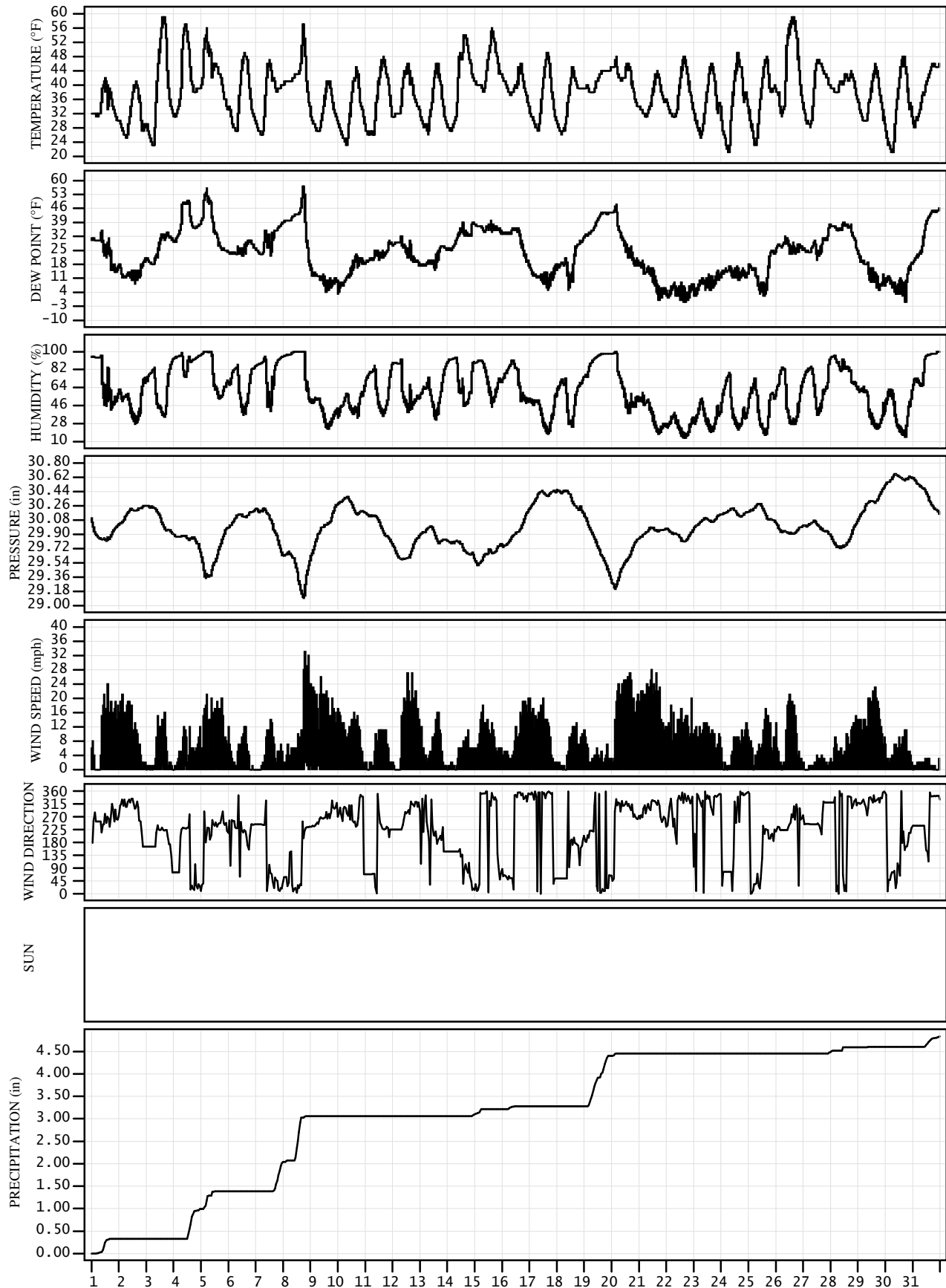
Hour	Averages						Resultant Wind	
	Sunshine	Pressure	Temperature	Dew Point	Humidity	Wind Speed	Direction	Speed
01		30.001	34	23	68	1.5	28	0.8
04		29.980	32	24	73	1.3	30	0.7
07		30.006	31	24	74	1.3	32	1.0
10		30.024	38	24	59	2.6	30	1.5
13		29.997	44	23	48	3.3	28	1.9
16		29.957	46	24	46	3.1	28	1.6
19		29.973	42	24	53	2.5	27	1.0
22		30.008	37	24	63	1.7	28	0.8

**HOURLY PRECIPITATION (Water Equivalent)**  
**March 2008: Oakland, NJ**

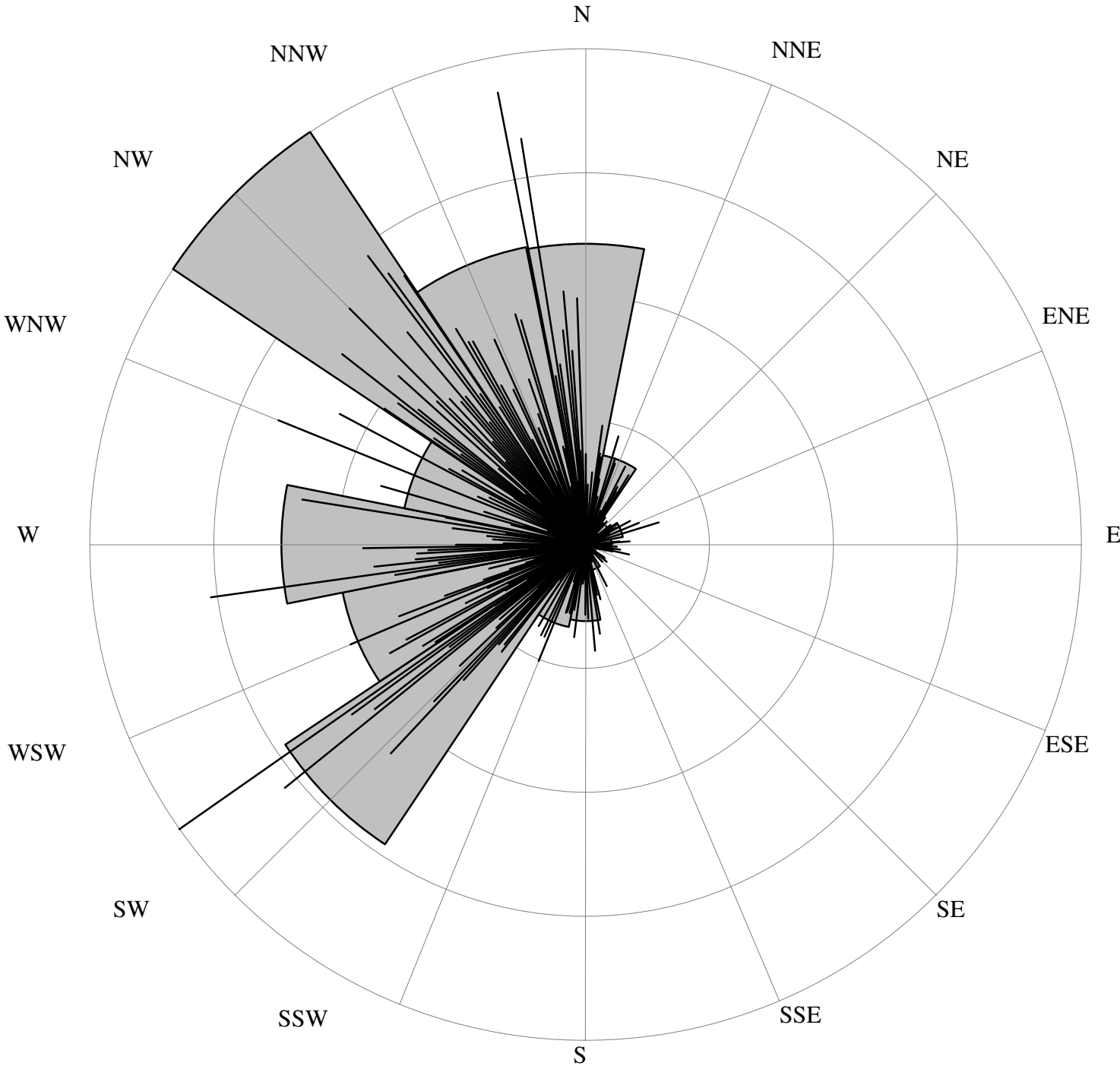
Date	A.M. Hour Ending at												P.M. Hour Ending at												Date
	01	02	03	04	05	06	07	08	09	10	11	12	01	02	03	04	05	06	07	08	09	10	11	12	
01					0.01		0.01	0.01		0.05	0.08	0.08	0.05	0.02	0.01	0.01									01
02																									02
03																									03
04																									04
05			0.03	0.05	0.10	0.11	0.01			0.09		0.01	0.12	0.10	0.10	0.17	0.05	0.07	0.01		0.01		0.03		05
06																									06
07																0.01	0.05	0.09	0.09	0.11	0.11	0.09	0.07	0.03	07
08			0.02	0.01							0.07	0.22	0.15	0.19	0.22	0.10									08
09																			0.03	0.01					09
10																									10
11																									11
12																									12
13																									13
14																						0.01	0.02	0.01	14
15	0.01	0.01	0.01	0.01	0.05	0.03																			15
16						0.01	0.02	0.01	0.01		0.01														16
17																									17
18																									18
19				0.02	0.06	0.10	0.06	0.12	0.09	0.06	0.07	0.06		0.01	0.07	0.03	0.08	0.11	0.06	0.07	0.05			19	
20		0.01	0.03	0.01	0.01																				20
21																									21
22																									22
23																									23
24																									24
25																									25
26																									26
27																									27
28	0.02	0.01																					0.01	0.02	28
29																									29
30									0.01																30
31											0.01	0.04	0.03	0.03	0.03	0.02	0.02	0.01		0.01		0.01	0.01	0.01	31
Sum	0.03	0.03	0.09	0.10	0.23	0.25	0.10	0.14	0.11	0.20	0.31	0.41	0.35	0.35	0.43	0.34	0.20	0.28	0.19	0.20	0.17	0.11	0.14	0.07	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  
March 2008: Oakland, NJ



Wind Rose: March 2008  
Oakland, NJ



Maximum direction of wind: 31.5 miles from 235°  
Maximum sector of wind: 308.4 miles from NW  
1610.3 total miles of wind