

# LOCAL CLIMATOLOGICAL DATA

## Monthly Summary

### October 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	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
1	54.2	38.5	46.4	46.8	42	85	18	0	.....	0	0.00	0.0	30.04	29.94	29.988	0.8	0.8	245	14	WSW	7	217		
2	62.7	36.1	49.4	50.5	46	86	15	0	.....	0	0.03	0.0	30.08	29.90	29.992	0.6	0.5	181	15	SSW	8	196		
3	69.0	60.4	64.7*	63.7	62	95	0	0	.....	0	0.19	0.0	29.91	29.78	29.845	0.3	0.2	203	10	E	4	173		
4	72.7	51.9	62.3	60.5	54	81	2	0	.....	0	0.00	0.0	29.91	29.80	29.853	0.6	0.5	241	12	SSW	7	239		
5	64.3	44.7	54.5	53.5	46	78	10	0	.....	0	0.00	0.0	29.97	29.88	29.917	1.3	1.2	300	18	WNW	9	323		
6	64.8	42.9	53.9	53.7	46	78	11	0	.....	0	0.00	0.0	30.02	29.73	29.919	0.9	0.7	254	13	N	7	183		
7	67.5	55.3	61.4	59.5	50	72	3	0	.....	0	0.36	0.0	29.82	29.44	29.585	4.2	3.8	274	37	SW	16	263		
8	62.2	48.8	55.5	54.6	44	68	9	0	.....	0	0.00	0.0	30.09	29.82	29.999	1.8	1.7	304	24	W	11	317		
9	64.0	50.2	57.1	56.9	55	94	8	0	.....	0	0.18	0.0	30.04	29.66	29.848	0.1	0.1	228	7	WSW	4	246		
10	61.7	40.2	51.0	55.7	51	85	14	0	.....	0	0.08	0.0	30.14	29.61	29.849	1.4	1.4	335	22	W	11	353		
11	61.6	35.1	48.3	47.1	40	79	16	0	.....	0	0.00	0.0	30.29	30.12	30.173	1.0	0.8	277	17	W	7	212		
12	50.6	32.4	41.5	42.9	35	77	23	0	.....	0	0.00	0.0	30.41	30.20	30.325	0.3	0.1	131	8	NE	4	34		
13	61.5	40.7	51.1	49.4	42	78	13	0	.....	0	0.00	0.0	30.21	29.96	30.067	1.6	1.3	330	25	NW	10	306		
14	52.8	31.0	41.9	41.9	35	78	23	0	.....	0	0.00	0.0	30.26	30.14	30.187	0.4	0.2	324	9	NNW	5	345		
15	41.4	34.4	37.9*	37.7	34	86	27	0	.....	0	0.57	T	30.15	29.89	30.028	1.4	1.4	37	15	N	6	38		
16	44.6	35.3	39.9	39.7	37	89	25	0	.....	0	0.06	0.0	30.03	29.86	29.948	1.3	1.2	30	15	N	6	57		
17	45.9	38.7	42.3	42.3	36	79	22	0	.....	0	0.02	0.0	30.11	30.00	30.061	1.0	0.9	29	14	NE	5	28		
18	44.3	34.9	39.6	41.2	37	86	25	0	.....	0	0.17	0.0	30.12	30.00	30.069	2.6	2.6	14	23	NE	10	5		
19	56.5	28.2*	42.4	40.2	31	75	22	0	.....	0	0.00	0.0	30.18	30.09	30.128	0.8	0.6	332	14	WNW	7	336		
20	67.3	31.4	49.4	47.5	39	78	16	0	.....	0	0.01	0.0	30.17	30.06	30.121	0.7	0.7	238	12	SW	7	203		
21	67.1	41.4	54.3	52.2	47	83	11	0	.....	0	0.00	0.0	30.21	30.09	30.144	0.2	0.1	198	6	SE	4	226		
22	76.2*	42.8	59.5	56.3	45	73	5	0	.....	0	0.00	0.0	30.09	29.84	29.960	1.2	1.2	220	25	SW	11	222		
23	59.7	46.1	52.9	51.0	44	79	12	0	.....	0	0.09	0.0	30.16	29.93	30.079	1.2	1.1	45	13	NE	6	57		
24	67.3	47.8	57.6	59.0	58	97	7	0	.....	0	1.98	0.0	30.02	29.59	29.753	1.2	0.8	223	27	W	14	228		
25	60.7	38.7	49.7	52.0	41	69	15	0	.....	0	0.00	0.0	30.20	29.70	30.012	1.5	1.3	329	18	WNW	10	342		
26	60.3	35.2	47.8	46.0	38	78	17	0	.....	0	0.00	0.0	30.35	30.20	30.289	0.4	0.2	102	9	NE	4	55		
27	53.5	36.9	45.2	47.5	47	97	19	0	.....	0	0.34	0.0	30.27	30.01	30.128	0.4	0.4	39	9	NE	4	48		
28	53.7	48.9	51.3	51.1	50	96	13	0	.....	0	1.29	0.0	30.05	29.76	29.903	1.8	1.7	20	19	NNW	9	17		
29	61.4	47.4	54.4	52.8	47	81	11	0	.....	0	0.00	0.0	30.30	30.05	30.221	1.0	0.2	56	10	S	5	358		
30	57.2	49.3	53.3	52.8	48	83	12	0	.....	0	0.00	0.0	30.29	30.09	30.223	1.3	1.3	195	15	SSW	8	208		
31	68.1	53.2	60.6	59.8	58	93	4	0	.....	0	0.22	0.0	30.09	29.71	29.872	2.6	2.3	231	23	SW	13	224		
Sum	Sum	-----	-----	---	----	Ttl	Ttl						For the month:										---	
1855	1299					428	0		Number of Days	5.59	T	30.41	29.44	30.016	1.2	0.4	306	37	SW	16	263			
Avg	Avg	Avg	Mean	Avg	Avg	----	----		Precip	Season Ttl		Date	Date	-----	----	----	---	Date	Date	Avg				
59.8	41.9	50.9	50.5	45	82.4	----	----		≥.01 inch	15	38.62	T	12	7	-----	----	----	---	7	7				
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			556	544	Thunder	0	Precipitation		Snow, Ice Plts												
≥ 90°F	≤ 32°F	≤ 32°F	≤ 0°F	----	----	Heavy Fog	0	2.02	23-24	T	15	0					-							
0	0	4	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

## October 2009: Oakland, NJ

Hour	Sunshine	Pressure	Rainfall rate	Temperature	Dew Point	Humidity	Wind			Sunshine	Pressure	Rainfall rate	Temperature	Dew Point	Humidity	Wind			Sunshine	Pressure	Rainfall rate	Temperature	Dew Point	Humidity	Wind		
							Direction	Speed	Gust							Direction	Speed	Gust							Direction	Speed	Gust
OCT 01									OCT 02									OCT 03									
01		29.95	0.00	41	40	94	22	0	1		30.04	0.00	42	40	95	31	0	0		29.89	0.00	61	60	96	04	0	4
04		29.95	0.00	41	40	96	22	0	0		30.01	0.00	40	39	96	31	0	0		29.84	0.00	61	60	97	20	0	0
07		29.99	0.00	40	39	96	22	0	1		30.04	0.00	36	35	96	31	0	0		29.85	0.00	61	60	97	30	0	0
10		30.00	0.00	51	44	78	13	0	4		30.07	0.00	49	45	86	32	0	1		29.87	0.00	64	63	98	23	0	1
13		29.99	0.00	52	44	74	22	2	10		30.02	0.00	56	47	74	19	2	4		29.84	0.00	66	65	95	22	0	1
16		29.97	0.00	53	45	73	25	1	4		29.93	0.00	59	50	71	02	1	6		29.80	0.00	67	65	94	13	0	2
19		30.00	0.00	50	44	80	28	0	5		29.92	0.00	57	52	85	07	0	1		29.82	0.00	64	63	96	16	0	1
22		30.03	0.00	47	43	86	31	0	1		29.92	0.00	62	57	83	22	1	11		29.84	0.00	64	63	97	16	0	0
OCT 04									OCT 05									OCT 06									
01		29.85	0.00	58	57	97	05	0	0		29.90	0.00	52	48	85	27	0	2		29.97	0.00	46	44	94	23	1	3
04		29.83	0.00	55	55	98	05	0	0		29.90	0.00	47	45	95	29	0	2		29.96	0.00	48	45	88	33	0	5
07		29.86	0.00	54	53	98	05	0	0		29.93	0.00	47	46	95	29	0	3		29.99	0.00	43	41	94	19	0	2
10		29.88	0.00	63	60	90	21	0	1		29.95	0.00	57	47	69	34	4	12		30.00	0.00	57	48	74	30	0	5
13		29.84	0.00	72	52	49	20	2	7		29.91	0.00	64	47	54	35	5	11		29.95	0.00	64	49	59	00	2	5
16		29.81	0.00	70	50	50	27	2	7		29.88	0.00	62	45	54	27	1	7		29.86	0.00	64	48	55	27	2	6
19		29.85	0.00	59	54	85	28	1	6		29.92	0.00	54	47	78	23	0	0		29.84	0.00	54	49	81	17	0	0
22		29.88	0.00	54	49	83	29	0	2		29.95	0.00	47	44	91	23	0	0		29.80	0.00	52	50	92	17	0	0
OCT 07									OCT 08									OCT 09									
01		29.68	0.00	57	52	84	22	1	3		29.84	0.00	55	40	57	22	3	19		30.03	0.00	50	49	94	27	0	0
04		29.55	0.04	56	55	96	24	0	1		29.89	0.00	52	40	64	27	3	11		29.99	0.00	51	50	95	27	0	0
07		29.47	0.06	57	57	97	24	1	6		29.99	0.00	49	41	72	25	0	6		29.96	0.00	52	50	95	27	0	0
10		29.44	0.00	66	60	79	25	5	22		30.03	0.00	56	44	65	30	2	14		29.91	0.00	57	53	88	27	0	2
13		29.51	0.00	64	46	51	28	8	22		30.04	0.00	61	43	52	31	4	10		29.81	0.00	58	56	96	19	0	1
16		29.56	0.00	62	45	53	27	8	25		30.02	0.00	61	46	58	24	4	7		29.73	0.00	64	60	86	21	0	2
19		29.68	0.00	58	45	60	27	4	16		30.06	0.00	54	49	81	25	0	2		29.72	0.00	62	60	95	02	0	1
22		29.76	0.00	57	41	55	02	3	21		30.08	0.00	50	47	91	27	0	0		29.69	0.00	60	58	96	05	0	1
OCT 10									OCT 11									OCT 12									
01		29.65	0.05	59	58	97	05	0	0		30.15	0.00	40	39	96	10	0	0		30.30	0.00	41	35	78	01	0	1
04		29.64	0.00	59	58	97	19	0	2		30.13	0.00	37	36	96	10	0	0		30.34	0.00	34	33	93	04	0	1
07		29.68	0.00	59	58	98	20	0	0		30.17	0.00	35	34	97	10	0	0		30.38	0.00	34	33	95	06	0	1
10		29.79	0.00	60	56	89	29	4	14		30.19	0.00	52	45	77	18	3	9		30.37	0.00	44	35	69	03	1	3
13		29.89	0.00	61	50	67	27	3	22		30.17	0.00	59	43	54	23	1	12		30.36	0.00	49	33	53	11	0	4
16		29.95	0.00	59	43	56	28	5	15		30.14	0.00	61	41	49	29	3	7		30.32	0.00	50	36	58	24	0	3
19		30.03	0.00	50	42	73	31	0	1		30.18	0.00	50	43	77	27	0	1		30.29	0.00	47	40	75	29	0	0
22		30.11	0.00	42	40	94	31	0	0		30.25	0.00	42	40	94	27	0	0		30.24	0.00	43	41	91	19	0	0
OCT 13									OCT 14									OCT 15									
01		30.17	0.00	43	41	93	19	0	0		30.16	0.00	38	35	90	32	0	0		30.14	0.00	41	34	77	02	0	1
04		30.10	0.00	44	42	93	29	0	2		30.19	0.00	35	33	92	14	0	0		30.13	0.00	40	32	74	04	0	2
07		30.04	0.00	46	44	95	29	0	0		30.24	0.00	31	30	95	14	0	0		30.09	0.00	39	32	77	01	0	3
10		29.99	0.00	53	49	87	21	3	8		30.24	0.00	45	36	69	07	1	4		30.08	0.00	41	33	73	02	2	7
13		29.96	0.00	61	47	60	02	4	14		30.20	0.00	52	33	50	13	1	4		30.03	0.04	36	35	94	04	2	5
16		30.01	0.00	56	42	61	01	2	9		30.16	0.00	51	35	54	22	0	2		29.95	0.05	35	34	95	01	3	12
19		30.10	0.00	48	40	75	00	2	16		30.14	0.00	43	36	79	00	0	0		29.92	0.04	35	34	96	03	3	13
22		30.15	0.00	45	35	69	35	4	11		30.15	0.00	40	37	89	00	0	0		29.92	0.00	35	34	96	06	2	12
OCT 16									OCT 17									OCT 18									
01		29.88	0.00	36	35	96	04	3	13		30.03	0.00	40	37	86	03	1	3		30.08	0.00	42	37	82	04	1	9
04		29.86	0.00	36	35	95	04	2	7		30.03	0.00	39	36	90	04	0	4		30.02	0.00	41	39	92	04	4	13
07		29.91	0.00	36	34	94	03	2	6		30.03	0.00	40	34	82	00	0	4		30.04	0.06	40	39	93	35	3	16
10		29.95	0.00	38	35	90	00	3	7		30.08	0.00	42	35	75	04	0	4		30.05	0.00	41	38	92	00	3	13
13		29.96	0.00	43	38	82	04	1	11		30.09	0.00	43	36	77	00	1	7		30.07	0.00	43	38	84	03	5	18
16		29.95	0.00	45	38	78	03	1	9		30.06	0.00	46	37	71	02	1	9		30.06	0.00	43	37	80	02	6	15
19		30.00	0.00	42	39	89	04	0	0		30.08	0.00	44	38	80	02	0	4		30.10	0.00	42	36	81	00	0	5
22		30.03	0.00	41	39	91	04	0	1		30.08	0.00	43	35	74	03	1	6		30.11	0.00	41	36	83	01	0	1

## MAXIMUM SHORT DURATION PRECIPITATION

Time Period (minutes)	5	10	15	20	30	45	60	80	100	120	150	180
Precipitation	0.26	0.41	0.54	0.59	0.69	0.77	0.82	0.88	1.00	1.08	1.11	1.11
Ended: Date	24	24	24	24	24	24	24	24	24	24	24	24
Ended: Time	1917	1922	1926	1926	1926	1927	1928	1928	1928	1928	1928	1928

The precipitation amounts may occur at any time during the month. The time indicated is the ending time of the interval. Date and time are not entered for trace amounts.

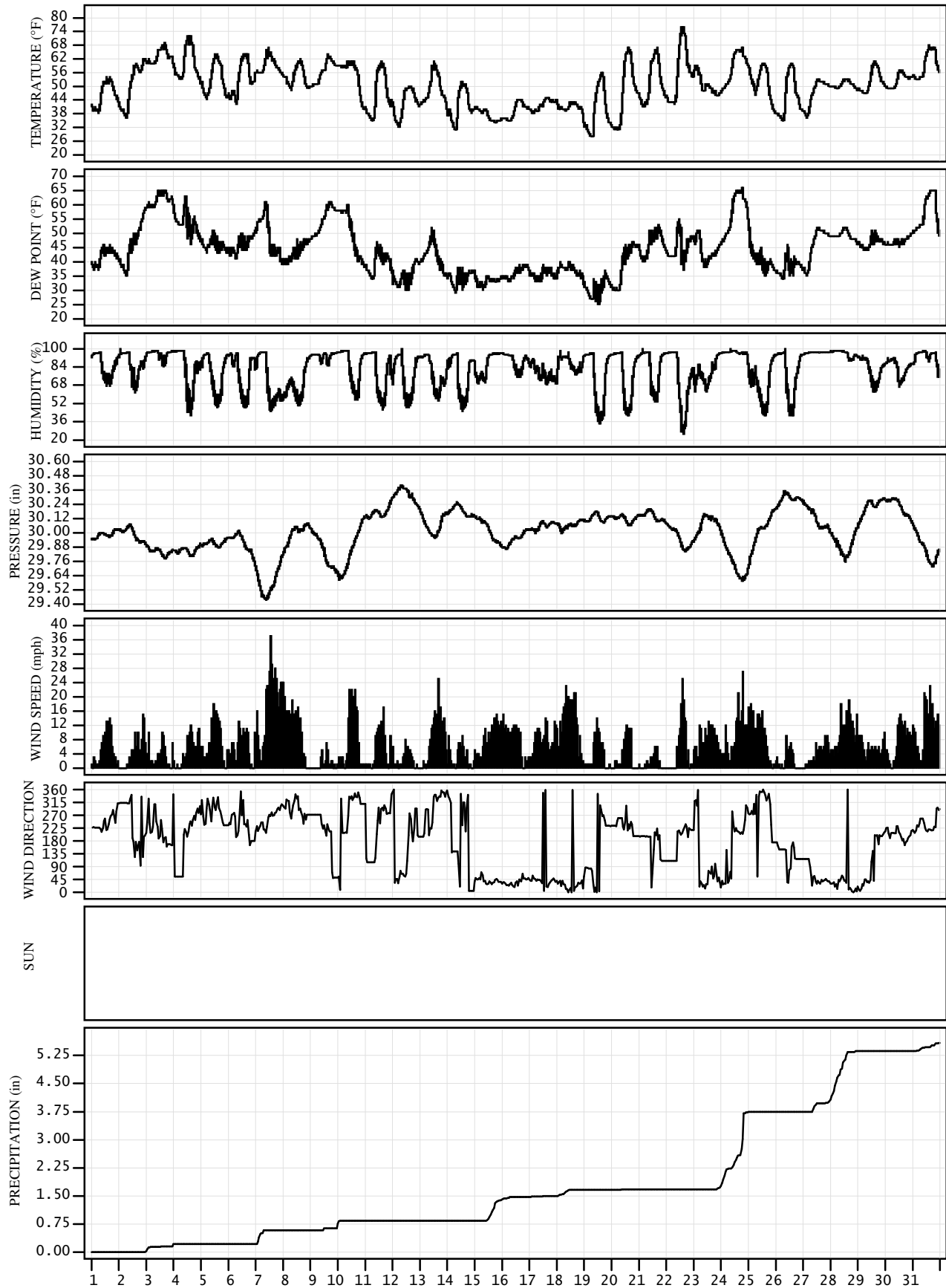


**HOURLY PRECIPITATION (Water Equivalent)**  
**October 2009: Oakland, NJ**

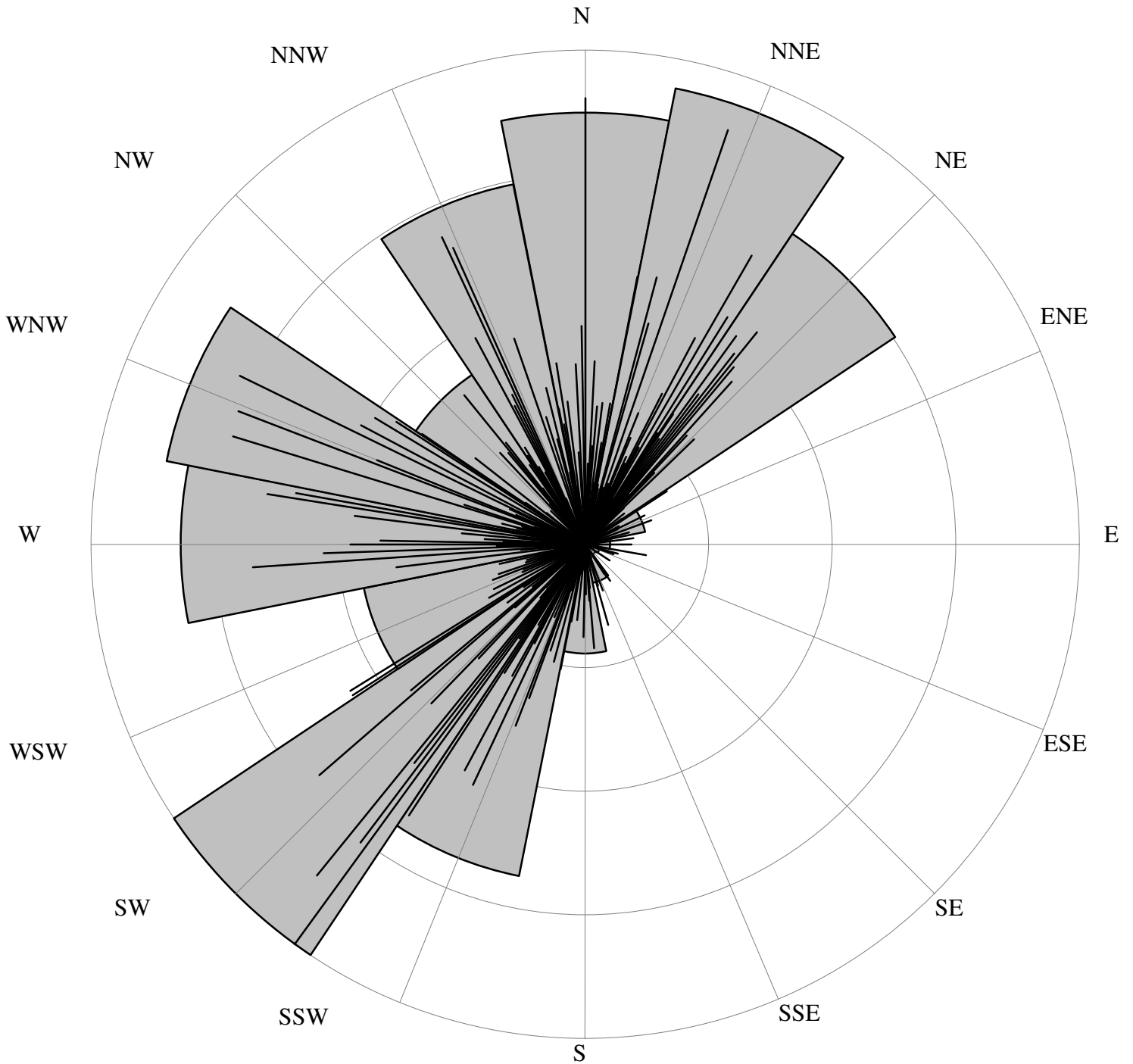
Date	A.M. Hour Ending at												P.M. Hour Ending at												Date
	01	02	03	04	05	06	07	08	09	10	11	12	01	02	03	04	05	06	07	08	09	10	11	12	
01																								01	
02																								02	
03	0.04	0.05	0.01	0.01								0.01											0.03	03	
04																							0.07	04	
05																								05	
06																								06	
07		0.06	0.11	0.09	0.03		0.07																	07	
08																								08	
09											0.01	0.04	0.01											09	
10	0.06	0.02																					0.12	10	
11																								11	
12																								12	
13																								13	
14																								14	
15											0.01	0.04	0.05	0.06	0.06	0.06	0.06	0.12	0.05	0.01	0.01	0.01	0.01	0.02	15
16	0.01	0.01		0.01	0.01		0.02																	16	
17		0.01										0.01												17	
18	0.01	0.02	0.01		0.02		0.04	0.02	0.02	0.02	0.01													18	
19																								19	
20									0.01															20	
21																								21	
22																								22	
23																								23	
24	0.09	0.09	0.10	0.10	0.07	0.01	0.01	0.01		0.02	0.06	0.08	0.06	0.06	0.06	0.01		0.17	0.26	0.01	0.02	0.01	0.03	24	
25																							0.01	0.01	25
26																								26	
27								0.01	0.08	0.07	0.04	0.03	0.01							0.01		0.01	0.03	0.05	27
28	0.08	0.08	0.06	0.14	0.12	0.10	0.06	0.02	0.14	0.02	0.16	0.06	0.02	0.12	0.09					0.01		0.01	0.02	0.05	28
29																									29
30																									30
31				0.02		0.01	0.02	0.03	0.01		0.01					0.02	0.03				0.06		0.01		31
Sum	0.29	0.34	0.29	0.37	0.25	0.12	0.22	0.09	0.26	0.13	0.30	0.26	0.16	0.24	0.21	0.09	0.09	0.29	0.31	0.77	0.03	0.08	0.07	0.33	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 October 2009: Oakland, NJ



Wind Rose: October 2009  
Oakland, NJ



Maximum direction of wind: 16.1 miles from 216°  
Maximum sector of wind: 106.4 miles from SW  
858.9 total miles of wind