

METEOROLOGICAL DATA FOR 2007

Oakland, NJ

Latitude: 41° 02' 24" N Longitude: 74° 14' 02" W Elevation (Ground): 272 feet Time Zone: Eastern

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
TEMPERATURE													
Average													
-Daily Maximum	40.9	33.0	49.1	57.0	75.5	79.7	81.7	79.9	76.6	69.0	47.9	38.5	60.7
-Daily Minimum	25.2	16.3	26.2	37.1	47.7	57.1	61.4	61.0	53.2	49.7	31.7	26.2	41.1
-Monthly	33.0	24.7	37.7	47.0	61.6	68.4	71.5	70.5	64.9	59.3	39.8	32.4	50.9
-Monthly Dew Point	22.3	9.9	22.5	32.7	45.7	58.1	61.8	63.4	56.6	51.8	30.9	24.3	40.0
Extremes													
-Highest	70.1	47.3	75.4	86.3	88.8	92.9	95.1	90.3	88.2	87.4	63.9	56.3	95.1
-Date	6	20	14	23	25	26	10	2	8	8	22	23	JUL 10
-Lowest	5.4	5.6	8.1	23.5	34.7	44.1	48.5	53.2	39.3	32.2	21.0	15.2	5.4
-Date	26	5	9	11	7	7	3	11	17	29	25	7	JAN 26
DEGREE DAYS													
Heating Base 65°F	982	1120	840	529	151	29	10	24	74	215	746	1004	5724
Cooling Base 65°F	0	0	0	0	55	140	225	199	76	46	0	0	741
SOLAR RADIATION (W/m2)													
NUMBER OF DAYS													
Sunrise to Sunset													
-Clear	31	28	31	30	31	30	31	31	30	31	30	31	365
-Partly Cloudy	0	0	0	0	0	0	0	0	0	0	0	0	0
-Cloudy	0	0	0	0	0	0	0	0	0	0	0	0	0
Precipitation													
.01 inches or more	12	11	15	13	6	11	12	13	7	12	13	21	146
Snow, Ice pellets 1.0 inches or more	2	5	1	0	0	0	0	0	0	0	1	3	12
Thunderstorms	0	0	0	1	0	0	0	0	0	0	0	0	1
Heavy Fog, visibility ¼ mile or less	0	0	0	0	0	0	0	0	0	0	0	0	0
TEMPERATURE:													
-Maximum													
90°F and above	0	0	0	0	0	2	2	3	0	0	0	0	7
32°F and below	8	15	3	0	0	0	0	0	0	0	0	7	33
-Minimum													
32°F and below	24	28	22	7	0	0	0	0	0	1	14	29	125
0°F and below	0	0	0	0	0	0	0	0	0	0	0	0	0
PRESSURE													
Average													
-Monthly	30.003	29.894	30.099	29.833	30.057	29.906	29.908	29.943	30.074	30.026	30.020	30.072	29.986
Extremes													
-Highest	30.72	30.39	30.74	30.24	30.45	30.20	30.18	30.18	30.46	30.49	30.46	30.55	30.74
-Date	17	13	21	1	7	26	3	22	30	29	24	1	MAR 21
-Lowest	29.49	29.18	29.29	28.60	29.54	29.35	29.57	29.61	29.57	29.34	29.41	29.02	28.60
-Date	8	14	2	16	16	4	20	8	11	12	15	16	APR 16
RELATIVE HUMIDITY (%)													
Average													
-Monthly	66.2	55.7	61.1	63.8	62.2	73.6	75.5	82.5	80.1	80.8	72.5	74.4	70.7
Local Time													
Hour 01	74	64	72	76	78	87	89	93	93	90	77	79	81
Hour 07	75	64	79	79	81	88	89	95	95	91	83	82	83
Hour 13	54	43	45	49	40	54	56	67	57	64	60	62	54
Hour 19	64	55	55	56	53	67	69	81	81	79	72	75	67
PRECIPITATION													
Water Equivalent													
-Total	3.03	1.29	3.12	8.15	1.49	3.60	6.21	3.64	1.51	5.71	3.19	5.70	46.64
-Greatest (24 hrs)	1.25	0.42	1.92	4.22	1.03	1.40	1.61	1.62	0.88	2.44	1.25	2.18	4.22
-Date	7- 8	20-21	1- 2	15-16	16	27-28	23	8	10-11	26-27	26	22-23	APR 15-16
Snow, Ice pellets													
-Total	3.0	8.1	9.3	T	0.0	0.0	0.0	0.0	0.0	0.0	1.0	9.4	30.8
-Greatest (day)	1.5	2.0	9.0	T	0.0	0.0	0.0	0.0	0.0	0.0	1.0	4.0	9.0
-Date	25	14	16	5	1	1	1	1	1	1	19	13	MAR 16
WIND													
Resultant													
-Direction	275	278	295	314	295	293	284	308	274	276	295	289	288
-Speed	1.4	1.9	1.2	1.2	0.4	0.3	0.3	0.2	0.2	0.3	0.7	0.8	0.7
Average Speed	2.0	2.8	2.3	2.4	1.1	0.8	0.6	0.4	0.5	0.7	1.1	1.6	1.4
Maximum One-minute													
Average													
-Direction	NW	NNW	NW	NNW	W	NW	W	NW	NW	WNW	NW	WSW	NNW
-Speed	15	18	17	17	15	9	8	10	8	12	11	15	18
-Date	20	14	6	16	16	22	20	18	28	12	23	17	FEB 14
Peak Gust													
-Direction	W	W	WNW	NNW	W	WNW	NW	NNW	SSW	N	N	N	W
-Speed	31	33	33	34	35	20	19	24	19	25	25	30	35
-Date	20	18	6	16	16	23	1	18	15	12	16	3	MAY 16

MEANS AND EXTREMES*

Oakland, NJ

Latitude: 41° 02' 24" N Longitude: 74° 14' 02" W Elevation (Ground): 272 feet Time Zone: Eastern

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
TEMPERATURE													
Average													
-Daily Maximum	40.9	35.8	49.5	60.7	73.2	78.4	83.0	80.7	73.7	65.3	52.0	43.2	61.4
-Daily Minimum	25.2	17.8	27.9	38.2	48.0	58.4	63.0	61.2	52.5	45.1	35.3	27.7	41.7
-Monthly	33.0	26.8	38.7	49.5	60.6	68.4	73.0	71.0	63.1	55.2	43.7	35.4	51.5
-Monthly Dew Point	22.3	11.6	22.2	33.5	46.7	59.1	64.2	62.3	55.8	47.0	35.1	26.2	40.5
Extremes													
-Record Highest	70.1	58.7	75.4	86.3	89.9	92.9	95.1	95.4	88.2	87.4	66.9	70.1	95.4
-Year	2007	2006	2007	2007	2006	2007	2007	2006	2007	2007	2006	2006	AUG 2006
-Record Lowest	5.4	5.6	8.1	23.5	34.3	44.1	48.5	48.2	37.8	26.0	21.0	15.2	5.4
-Year	2007	2007	2007	2007	2006	2007	2007	2006	2006	2006	2007	2007	JAN 2007
MEAN DEGREE DAYS													
Heating Base 65°F	982	972	806	460	173	35	5	15	96	319	632	909	5401
Cooling Base 65°F	0	0	0	3	48	146	264	207	48	23	0	0	738
MEAN SOLAR RADIATION													
MEAN NUMBER OF DAYS													
Sunrise to Sunset													
-Clear	31.0	24.5	30.0	28.5	30.5	30.0	31.0	31.0	30.0	31.0	30.0	31.0	358.5
-Partly Cloudy	0.0	0.0	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
-Cloudy	0.0	1.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
Precipitation ≥ .01"													
-Year	12.0	7.5	12.5	12.5	7.0	14.0	13.5	13.5	10.0	12.5	11.0	14.5	140.5
Snow, Ice plts. ≥ 1.0"	2.0	3.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.5	8.5
Thunderstorms	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
Heavy Fog, vis. ≤ ¼ mi	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
TEMPERATURE:													
-Maximum													
90°F and above	0.0	0.0	0.0	0.0	0.5	1.5	3.0	3.0	0.0	0.0	0.0	0.0	8.0
32°F and below	8.0	10.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	24.5
-Minimum													
32°F and below	24.0	25.0	21.0	7.5	0.0	0.0	0.0	0.0	0.0	3.5	11.5	25.5	118.0
0°F and below	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PRESSURE													
Average													
-Monthly	30.003	29.946	30.028	29.878	29.949	29.907	29.929	29.953	30.024	29.976	30.040	30.100	29.978
Extremes													
-Record Highest	30.72	30.39	30.74	30.44	30.45	30.20	30.22	30.22	30.46	30.49	30.53	30.65	30.74
-Year	2007	2007	2007	2006	2007	2006	2006	2006	2007	2007	2006	2006	MAR 2007
-Record Lowest	29.49	29.18	29.29	28.60	29.39	29.35	29.57	29.61	29.54	29.03	29.38	29.02	28.60
-Year	2007	2007	2007	2007	2006	2007	2007	2007	2006	2006	2006	2007	APR 2007
RELATIVE HUMIDITY (%)													
Average													
-Monthly	66.2	55.9	57.2	60.7	66.3	76.8	77.9	78.9	81.8	78.4	74.2	71.2	70.5
-Local Time													
Hour 01	74	66	68	73	82	88	91	90	93	88	80	77	81
Hour 07	75	68	71	77	82	88	91	92	96	89	84	80	83
Hour 13	54	41	41	46	47	61	59	63	61	61	60	58	54
Hour 19	64	54	52	52	56	71	72	75	82	78	75	72	67
PRECIPITATION													
Water Equivalent													
-Mean	3.03	0.87	1.87	5.86	2.47	5.77	4.46	3.91	3.40	5.93	4.07	4.23	45.88
-Maximum Monthly	3.03	1.29	3.12	8.15	3.45	7.94	6.21	4.18	5.29	6.16	4.95	5.70	8.15
-Year	2007	2007	2007	2007	2006	2006	2007	2006	2006	2006	2006	2007	APR 2007
-Minimum Monthly	3.03	0.45	0.62	3.58	1.49	3.60	2.71	3.64	1.51	5.71	3.19	2.75	0.45
-Year	2007	2006	2006	2006	2007	2007	2006	2007	2007	2007	2007	2006	FEB 2006
-Greatest (24 hrs)	1.25	0.42	1.92	4.22	2.47	2.28	1.61	2.14	2.41	2.44	2.60	2.18	4.22
-Year	2007	2007	2007	2007	2006	2006	2007	2006	2006	2007	2006	2007	APR 2007
Snow, Ice pellets													
-Mean	3.0	12.1	5.9	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	25.2
-Maximum Monthly	3.0	16.0	9.3	T	0.0	0.0	0.0	0.0	0.0	0.0	1.0	9.4	16.0
-Year	2007	2006	2007	2006	2006	2006	2006	2006	2006	2006	2007	2007	FEB 2006
-Minimum Monthly	3.0	8.1	2.5	T	0.0	0.0	0.0	0.0	0.0	0.0	T	T	0.0
-Year	2007	2007	2006	2006	2006	2006	2006	2006	2006	2006	2006	2006	MAY 2007
-Greatest (day)	1.5	13.6	9.0	T	0.0	0.0	0.0	0.0	0.0	0.0	1.0	4.0	13.6
-Year	2007	2006	2007	2006	2006	2006	2006	2006	2006	2006	2007	2007	FEB 2006
WIND													
Resultant													
-Direction	275	274	297	320	313	291	267	300	290	269	317	272	289
-Speed	1.4	1.7	1.3	1.2	0.4	0.4	0.3	0.3	0.2	0.5	0.7	1.0	0.7
Average Speed	2.0	2.8	2.6	2.4	1.2	0.9	0.6	0.6	0.6	0.9	1.3	1.7	1.5
Maximum One-minute													
Average													
-Direction	NW	NNW	NW	NNW	W	NNW	W	NW	N	SW	SSW	SW	NNW
-Speed	15	18	17	17	15	11	8	10	9	14	13	18	18
-Year	2007	2007	2007	2007	2007	2006	2007	2007	2006	2006	2006	2006	FEB 2007
Peak Gust													
-Direction	W	NNW	WNW	NNW	W	WNW	NW	NNW	E	N	SSE	W	NNW
-Speed	31	36	33	34	35	23	19	24	23	28	28	31	36
-Year	2007	2006	2007	2007	2007	2006	2007	2007	2006	2006	2006	2006	FEB 2006

* Length of record: February 2006 to December 2007

Oakland, NJ

PRECIPITATION (inches)

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Annual
2006		0.45	0.62	3.58	3.45	7.94	2.71	4.18	5.29	6.16	4.95	2.75	42.08
2007	3.03	1.29	3.12	8.15	1.49	3.60	6.21	3.64	1.51	5.71	3.19	5.70	46.64

SNOWFALL (inches)

Year	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	Total
2005-06					T	T		16.0	2.5	T	0.0	0.0	18.5
2006-07	0.0	0.0	0.0	0.0			3.0	8.1	9.3	T	0.0	0.0	20.4
2007-08	0.0	0.0	0.0	0.0	1.0	9.4							

Oakland, NJ

TEMPERATURE °F

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Annual
2006		29.0	39.7	51.9	59.6	68.4	74.5	71.4	61.3	51.1	47.5	38.5	53.9
2007	33.0	24.7	37.7	47.0	61.6	68.4	71.5	70.5	64.9	59.3	39.8	32.4	50.9

HEATING DEGREE DAYS: Base 65°F

Year	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	Total
2005-06								824	771	390	195	41	2221
2006-07	0	5	117	422	517	814	982	1120	840	529	151	29	5526
2007-08	10	24	74	215	746	1004							

Oakland, NJ

COOLING DEGREE DAYS: Base 65°F

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total
2006		0	0	5	41	152	302	215	20	0	0	0	735
2007	0	0	0	0	55	140	225	199	76	46	0	0	741

STATION LOCATION AND INSTRUMENTATION Oakland, NJ

Location	Occupied from	Occupied to	Latitude North	Longitude West	Elevation Above (ft)						
					Sea Level	Ground					
						Wind	Sun	Temp	Humidity	Rain	Barometer
6 Apache Drive Oakland, NJ 07436	2/6/2006	Present	41° 02' 24"	74° 14' 02"	272	30	0	7	7	7	7

INSTRUMENTATION DETAIL

Units are: Temperature=°F, Wind=mph, Pressure=Inches Hg, Precipitation=inches.

Davis Vantage Pro, Vantage Pro Plus, Vantage Pro2, Vantage Pro2 Plus

Wind:

Electronic sensors:

Large cups: Instantaneous speed to 120 mph and direction to nearest 7°, greater of 2 mph or ±5%.

Small cups: Instantaneous speed to 175 mph and direction to nearest 7°, greater of 3 mph or ±5%.

Temperature:

Electronic sensor: -40° to 140°F, ±1°F.

Humidity:

Electronic sensor: 0 to 100% RH, ±3%.

Barometer:

Electronic sensor: 26.00 to 32.00 inches Hg, ±0.05".

Rainfall:

6.5-inch diameter electronic tipping bucket rain gauge. Resolution 0.01", ±4%.

Sunshine:

Electronic sensor: 0 to 1600 W/m², 5%.

UV:

Electronic sensor: 0 to 16 Index, 8%.

Snow, ice pellets, glaze and other meteorological phenomenon not recorded by the Weather Computer are manually observed and recorded in the station record.

OBSERVER NOTES

Station is located in a valley, at elevation 272 feet.
The anemometer is mounted 4' above the
roofline of the house at 30', and the rest of the
sensors are mounted on a pole at a height of 7'.