

Northeast Regional Climate Center

Mid-Atlantic Climate

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CLIMATE DIVISION MAPS



New Jersey Climate Divisions

- 1 Northern
- 2 Southern
- 3 Coastal



Delaware Climate Divisions

- 1 Northern
- 2 Southern



Maryland Climate Divisions

- 1 Southern Eastern Shore
- 2 Central Eastern Shore
- 3 Lower Southern
- 4 Upper Southern
- 5 Northern Eastern Shore
- 6 Northern Central
- 7 Appalachian Mountain
- 8 Allegheny Plateau

SEPTEMBER WEATHER HIGHLIGHTS

September 2011 was the eighth consecutive month that the region averaged warmer than normal. The Mid-Atlantic temperature average was 69.3 degrees F, which was 2.5 degrees above normal and 0.7 degrees cooler than September 2010. This was the region's 12th warmest September since 1895. It was the 5th warmest September in New Jersey, where the temperature average was 3.1 degrees above normal. Delaware (+2.8 degrees) had its 13th warmest September on record, and Maryland (+2.0 degrees) saw its 21st warmest September since 1895. Cumberland, MD recorded this month's high temperature, 95 degrees on the 4th. The low was 33 degrees, recorded on the 16th and 17th at Oakland, MD.

The Mid-Atlantic averaged 7.54 inches of rain in September. This was 184% of normal and 3.42 inches more than fell during the same month in 2010. This month was the Mid-Atlantic's 6th wettest September in 117 years, Maryland's 4th wettest and New Jersey's 11th wettest. Delaware's totals were close to normal, 103%, while New Jersey averaged 158% of normal, and Maryland had 216% of the 30-year average amount. Several heavy rain events, including the remnants of Tropical Storm Lee, left portions of central Maryland and northwestern New Jersey with over a month's worth of rain by the 10th. Rainfall totals during the next two weeks were relatively light, then another 2+ inches were added to the monthly totals when a cutoff low over the Midwest during the last week of September steered storms laden with moisture into the Northeast. Monthly totals exceeded 10 inches in some areas. Emmitsburg, MD, in the North Central climate division, had the greatest monthly total, 16.46 inches.

The ground was already saturated from abundant rainfall in August when a stalled front and the remnants of Tropical Storm Lee dumped over 6 inches of rain on the Susquehanna and Delaware River basins in Maryland and New Jersey. River, stream and flash flooding resulted, closing roads and flooding neighborhoods in both states. The Susquehanna River at the Conowingo Dam crested about 4 feet below the 1972 record. About 1,000 residents downstream in Port Deposit and Havre de Grace were evacuated when operators at the dam opened its spill gates to lessen the pressure of the floodwaters. The opening of the spill gates allowed sediment and pollutants from the entire Susquehanna watershed and trash that had collected behind the dam to flow into the Chesapeake Bay. There is concern among environmentalists that the polluted runoff will produce a dead zone in the Bay larger than last summer's record-breaking zone.

New Precipitation Records (inches)

Daily Precipitation

<u>Station</u>	<u>Date</u>	<u>New</u>	<u>Previous</u>
Dulles AP	7	1.11	0.56 in 1969
Baltimore, MD	8	1.44	1.32 in 1879
Baltimore, MD	23	3.19	3.13 in 1907

Monthly Precipitation

<u>Station</u>	<u>New</u>	<u>Previous</u>
Baltimore, MD	13.32	12.41 in 1934

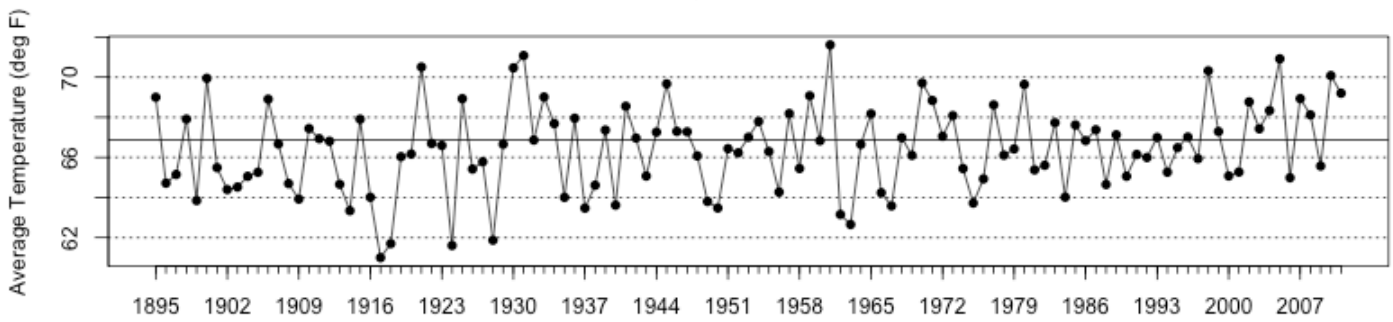
Two Month (August-September) Precipitation

<u>Station</u>	<u>New</u>	<u>Previous</u>
Wilmington, DE	20.63	17.09 in 1911
Baltimore, MD	23.70	19.04 in 1934
Newark, NJ	26.92	18.51 in 1971

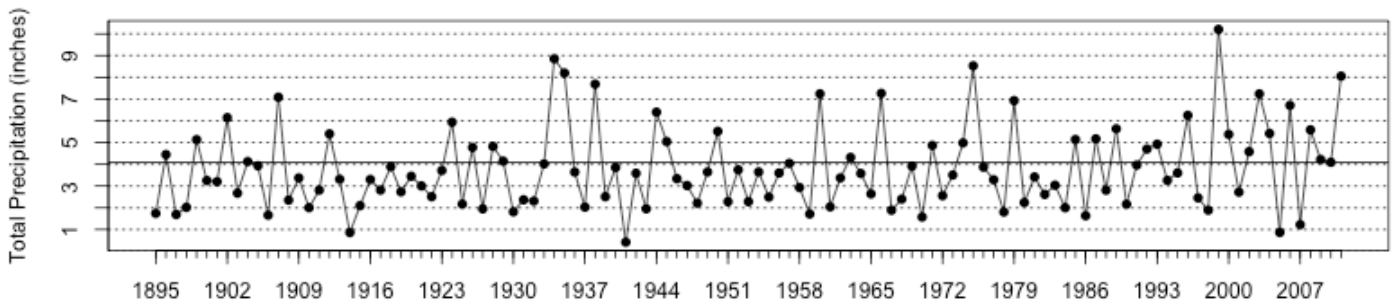
January - September Precipitation

<u>Station</u>	<u>New</u>	<u>Previous</u>
Newark, NJ	56.07	48.51 in 1984

Mid Atlantic Average September Temperatures



Mid Atlantic September Precipitation Totals



The 2011 values depicted on these graphs are based on preliminary data.

**Persistently Extreme:
September 2011 Summary**

Dr. David A. Robinson, New Jersey State Climatologist
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The beat goes on. September brought much of New Jersey a very wet month; this on the heels of record-shattering August rainfall. So too were temperatures well above normal; thus continuing an almost unbroken string of warmer-than-average months extending back to spring 2010. With three months remaining in 2011, the Garden State is knocking on the door of both the wettest (1996) and warmest (1998) years on record since statewide averages began to be compiled in 1895. Neither may be achieved, however to be simultaneously challenging both is quite remarkable.

Precipitation

September precipitation averaged 6.98". This is 2.91" above the 1981-2010 average and ranks as the 10th wettest on record (Table 1).

Rank	Year	Sept. Prcp.
1	1938	9.78"
2	1999	9.58"
3	1934	8.61"
4	1975	8.16"
5	1944	8.14"
6	1907	8.12"
7	1966	7.82"
8	1960	7.73"
9	1989	7.31"
10	2011	6.98"
11	1935	6.60"
12	2008	6.27"
13	2003	6.17"
14	1979	6.13"
15	1899	5.91"

Table 1. The 15 wettest Septembers across NJ since 1895.

August and September combined totaled 23.87". This is the largest consecutive two-month total of any pair of months (more on this interval below). The July-August 2011 pair is second wettest at 20.99". Far behind in third place is March-April 1983 at 16.63". This is yet another example of how extraordinarily wet this past August was compared to any month in the past 117 years! Precipitation for the first nine months of 2011 totals 52.69". This is a record for any January-September and means that with average precipitation from October-December (11.47"), 2011 will be the wettest calendar year on record (the current record is 59.98" in 1996). The past twelve months have seen an average of 63.36" fall across the state, ranking 3rd greatest of any twelve-month interval on record (Table 2). With average October-December precipitation, NJ will move into first place. When considering just the northern portion of the state (Hunterdon, Somerset, Union counties and north), the 73.87" over the past twelve months easily surpasses any other twelve-month periods on record (the next highest is 67.24" during the twelve-month interval ending in

July 1984). Budd Lake (Morris) received 74.08" during the first nine months of 2011. The state record for a calendar year is 85.99" at Paterson (Passaic) in 1882. Other NJ stations may challenge either the state record or individual station records. Stay tuned to see what these coming months may bring.

Rank	Month range	End year	12-month total
1	Apr-Mar	2010	66.60"
2	May-Apr	2010	64.36"
3	Oct-Sep	2011	63.36"
4	Jun-May	2010	63.28"
5	May-Apr	1939	61.38"
6	Oct-Sep	1952	61.23"
7	Dec-Nov	1975	61.21"
8	May-Apr	1973	61.11"
9	Jul-Jun	1972	60.99"
10	Aug-Jul	1984	60.63"

Table 2. The ten wettest 12-month intervals across NJ since 1895.

Returning back to this past September, the wettest portion of NJ was in the northwest where the Mt. Olive (Morris County) CoCoRaHS station saw the most rain, an impressive 16.88". With just a few drops less, Blairstown (Warren) received 16.87", with Oxford Township (Warren) coming in with 16.28". Six other locations in this region had between 15.00"-15.99" and fifteen stations had 14.00"-14.99". Unlike this past August, there was an area of the state with sub-average precipitation. Sea Isle City (Cape May) only saw 1.54" fall, with the Cape May County communities of Stone Harbor (1.72") and Middle Township (1.76") not much wetter. It should be noted that none of these totals include rain that fell after approximately 7AM on the 30th (CoCoRaHS observation time) as those totals will be included with rain falling before 7AM on October 1 as part of October's totals.

The three wettest stations above also lead the way with remarkable August-September totals that include 34.43" in Mt. Olive, 34.31" in Blairstown and 32.59" at Oxford. Some stations in Sussex, Passaic, and Hunterdon counties also had at least 30.00". Another nine counties had stations receive between 24.00"-29.99" (Bergen, Union, Middlesex, Somerset, Mercer, Monmouth, Gloucester, Salem, and Cumberland). That is fourteen of NJ's 21 counties.

Only eight September days failed to see measurable rainfall at one or more NJ stations (1st-4th, 13th, 18th, 19th and 26th). The first and largest event of the month was associated with a moist tropical feed of moisture that included the remnants of Tropical Storm Lee. Between the 5th and 8th, centered on a very wet 6th, as much as 9.48" fell in Blairstown, 9.45" in Liberty Township (Warren) and 9.18" in Oxford Township. Of 190 CoCoRaHS stations reporting on these days, seventeen recorded 8.00"-8.99", 21 from 7.00"-7.99", 22 between 6.00"-6.99", and 31 from 5.00"-5.99". Heavy rain fell in most regions of the state except for the southeast, where Middle Township and Upper Township in Cape May County received 0.13" and 0.15" respectively. Moderate to major flooding was renewed within the Passaic and Raritan basins. Though not as severe as just days earlier, the combination of heavy rain, saturated soils and rivers still running high closed a number of roads and once again flooded homes and businesses in a number of locations. This flooding event was worse along the Delaware than earlier Irene flooding. A mudslide occurred by Mountain Lake in Liberty Township (Warren), damaging several homes. There was no wind damage associated with this event.

On the 10th a localized thunderstorm dropped 2.16" in Oswego Lake (Burlington) and 2.13" in Tabernacle (Burlington). The 11th brought thunderstorms to Gloucester, southern Burlington and southern Ocean counties, with 1.86" in Stafford Township (Ocean), 1.56" at Medford Lakes (Burlington), and 1.17" in Little Egg Harbor (Ocean). Hail was observed and some trees and poles blew down in Springfield (Burlington). Localized thunderstorms on the 14th brought hail to Sussex County but light rain totals. A quickly developing, isolated thunderstorm over Atlantic City (Atlantic) on the 15th tragically resulted in the lightning death of a construction worker.

Only scattered light rainfall occurred over the next week, a welcome period for some drying out. A statewide soaking arrived on the 23rd. Northwestern areas caught the most, with 2.78" in Jefferson Township (Morris), 2.58" in Lebanon (Hunterdon), and 2.52" at Denville (Morris) leading the way. Of 167 stations reporting, eleven saw 2.00"-2.50" and 101 between 1.00"-1.99". The pattern of rainfall distribution was similar to the early-month event, with southeast areas receiving 0.50" or more this time.

Adding insult to injury, the northwest corner of the state was clobbered with more heavy rain in the early morning of the 28th. Mount Olive (Morris) received 4.99", three Blairstown (Warren) stations saw 4.91", 4.65" and 4.43", Liberty Township (Warren) 4.78", Hackettstown (Warren) 4.77", and Allamuchy Township (Warren) 4.47". Twenty other stations in the Hunterdon, Warren, Sussex, and western Morris area received between 3.00" and 4.21". Of the 8450 CoCoRaHS stations reporting nationwide on the morning of the 28th, thirteen of the top twenty were from New Jersey! As a result, dangerous flash flooding occurred on numerous streams and rivers, particularly the South Branch of the Raritan River, where the gauge at Four Bridges went above flood stage for the 6th time since late August. Later that day a thunderstorm brought pea-size hail to Linwood (Atlantic).

Scattered heavy rain fell in thunderstorms on the 29th. Mt. Olive was again soaked with 1.93", Palisades Park (Bergen) saw 1.52", and New Brunswick (Middlesex) 1.45". There was minor wind damage in Warren County and numerous trees toppled by winds in Secaucus (Hudson) and Englewood Cliffs (Bergen). Coastal areas saw some moderate rain on the 30th, with 1.37" at West Creek (Ocean).

With all of the moisture in the air and on the ground, fog was reported at some locations in the state on 7 days, including the 7th, 22nd, 23rd, and 25th-28th. It was most widespread on the 23rd, 26th and 27th. The abundant moisture also resulted in swarms of mosquitoes irritating many NJ residents throughout the month.

Temperature

The statewide average September temperature of 69.3° comes in as the 5th warmest. This is 3.4° above the 1981-2010 normal. Five of the ten warmest Septembers of the past 117 years have occurred since 1998 (Table 3). September continues a persistent pattern of above average temperatures across NJ. Going back to March 2010, sixteen of nineteen months have averaged above the 1981-2010 mean. Of those sixteen, a stunning ten months have ranked in the top ten for warmth, including the warmest April (2010) and July (2011) on record.

Rank	Year	Sept. Temp.
1	1961	71.4°
2	2005	71.0°
3	1931	70.1°
4	2010	69.5°
5	2011	69.3°
6	1998	68.9°
7	1959	68.8°
8	1945	68.7°
9	2002	68.4°
10	1970	68.3°

Table 3. The ten warmest Septembers across NJ since 1895.

September's warmth was more a function of nighttime minimum temperatures rather than daytime maximums. For instance, at New Brunswick (Middlesex) the average maximum was 1.5° above normal while the minimum was 6.5° above normal. This was due to frequent cloud cover and the overall moist atmospheric conditions throughout much of the month.

Based on daily observations from approximately 50 stations, ten September days had maximum temperatures between 85° and 88° at one or more stations. Hawthorne (Passaic) and New Brunswick reached 85° on the 1st. That mark was again achieved at Haworth (Bergen), Chatham (Morris), and Jersey City (Hudson) on the 3rd. New Brunswick and Hillsborough (Somerset) saw 87° maximums on the 4th. New Brunswick, Woodstown (Salem), and Oswego Lake (Burlington) reached 85° on the 5th. Sicklerville (Camden) hit 87° on the 7th, as did Oswego Lake, Hawthorne, and Mullica (Atlantic) on the 9th. Top warmth of 86° occurred at Bethel Mill Park (Gloucester) and Mullica on the 10th, and at South Harrison (Gloucester) on the 13th. The 14th was the warmest day of the month, with 88° reached at Piney Hollow (Gloucester), South Harrison, Bethel Mill Park, and Sicklerville. Eleven other stations reached 87° that day, with the coolest locations in the state at High Point Monument (Sussex) and Atlantic City Marina (Atlantic) with maximums of 78°. Woodbine (Cape May) reached 85° on the 15th.

With no 90° or higher maximums this month the last such day of 2011 was 8th of August. This is quite early, despite August being the 28th warmest on record and September fifth warmest. Again, this is testimony to the cloudy, moist conditions these months that put a check on daytime maximums along with the aforementioned elevated minimums. Still, the number of 90° or greater maximums was several days above average in 2011, though much lower than in the record setting 2010 summer. For instance, Newark Airport (Essex) and the Atlantic City Airport in Pomona (Atlantic) saw 31 such days this year compared to 54 and 46, respectively, in 2010. Other stations came in with the following number of days of 90° or above maximums this summer (with 2010 values in parentheses): Seabrook Farms (Cumberland) 29 (50), Hillsborough (Somerset) 29 (54), Trenton Airport (Mercer) 26 (52), New Brunswick (Middlesex) 24 (51), Sussex (Sussex) 8 (17), and Atlantic City Marina (Atlantic) 8 (10).

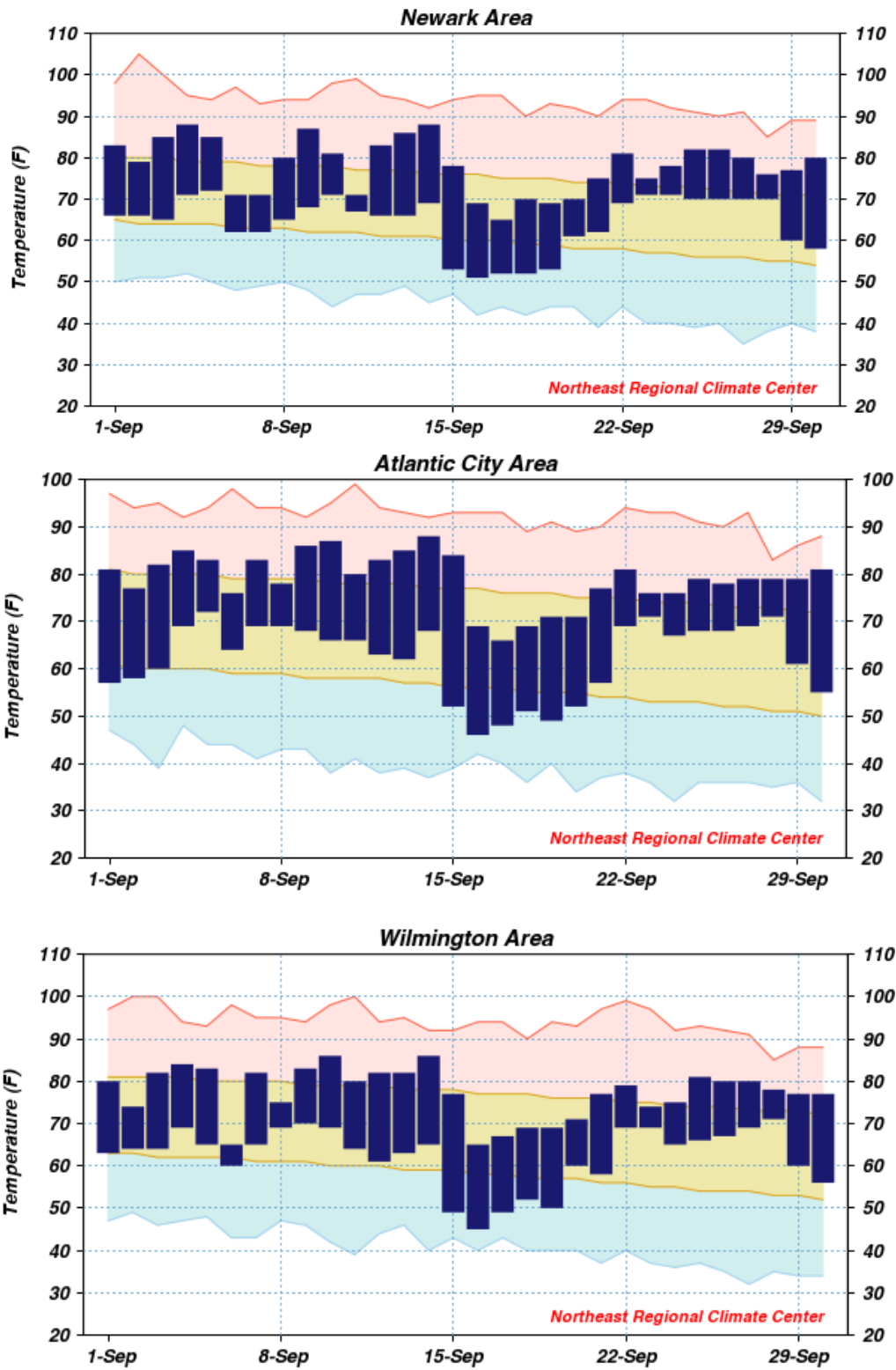
On the cool side of the ledger, low temperatures fell into the 30°s and 40°s on seven September mornings. The 15th saw Walpack (Sussex) reach 40° and three other stations 42°. The 16th was the coolest morning of the month, with Walpack at 37°, High Point Monument (Sussex) at 39, and 25 stations between 40°-45°. West Cape May (Cape May) was mildest that morning at 53°. Five stations got down to 42° on the 17th, Pequest (Warren) was at 38°, Basking Ridge 39° on the 18th, Walpack was 39° and Basking Ridge 41° on the 19th, and in the Pine Barrens, Berkeley Township (Ocean) reached 46° and Oswego Lake (Burlington) 48° on the 20th. On the last day of the month, Berkeley Township, Basking Ridge, and Pequest fell to 48°.

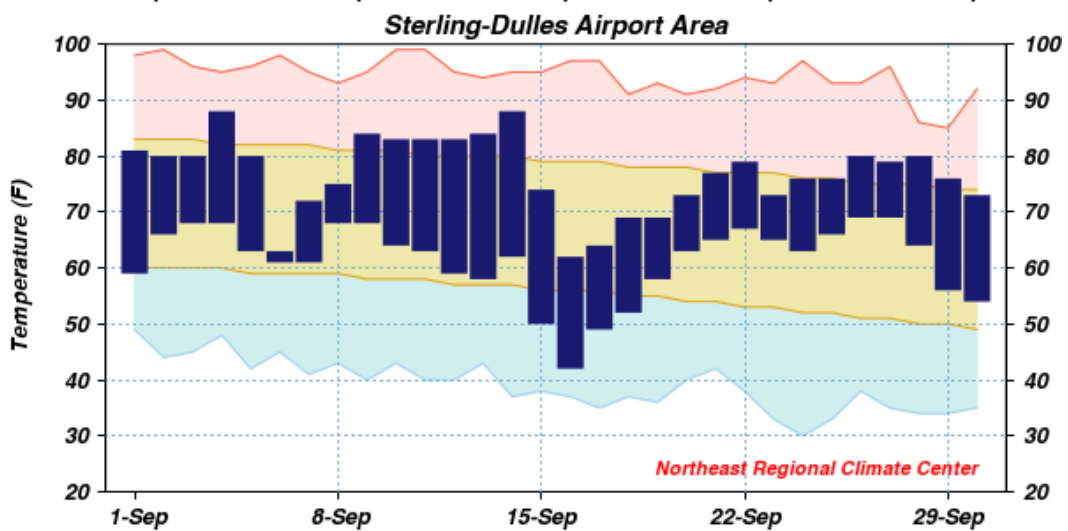
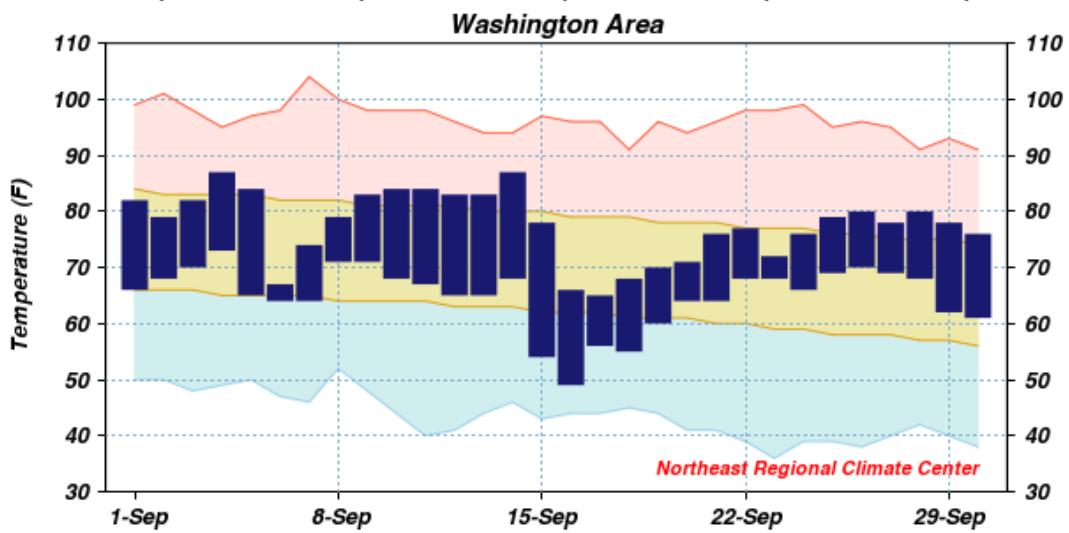
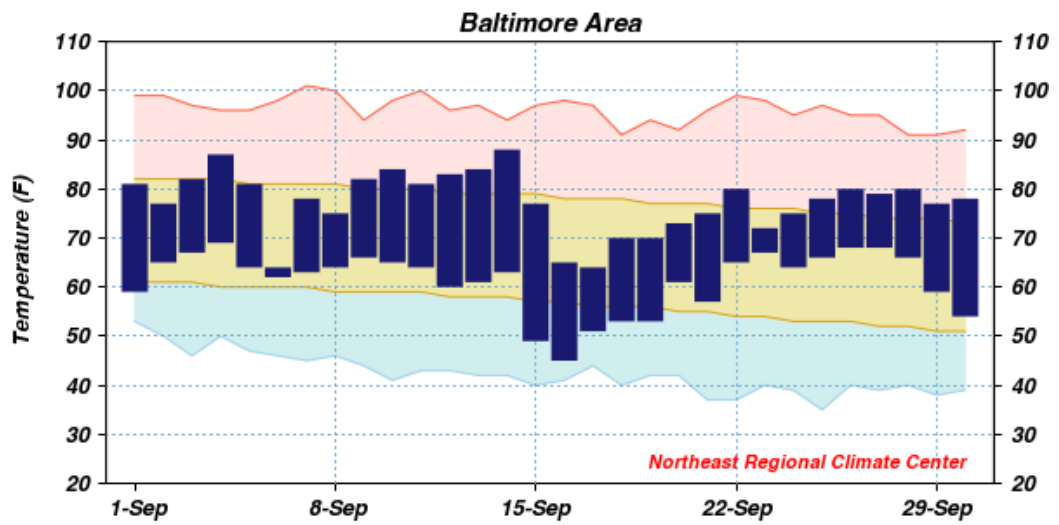
Other variables

Barometric pressure topped out at 30.45"-30.50" of mercury on the 17th. The lowest pressure of the month occurred on the 29th, with a number of stations recording values between 29.55"-29.60".

Aside from localized strong winds in several thunderstorms, September was not a windy month. Winds gusted to 41 mph at Harvey Cedars (Ocean) and Bivalve (Cumberland) on the 15th, when ten other stations had gusts in the 30-39 mph range. High Point Monument (Sussex) gusts reached 42 on the 16th. The most damaging winds were on the 29th, when Point Pleasant (Ocean) gusted to 56 mph, Atlantic City Marina (Atlantic) to 46 mph, Stewartville (Warren) to 43 mph, and seven other stations gusted into the 30-39 mph range.

DAILY AVERAGE TEMPERATURES AND THE 30-YEAR NORMAL



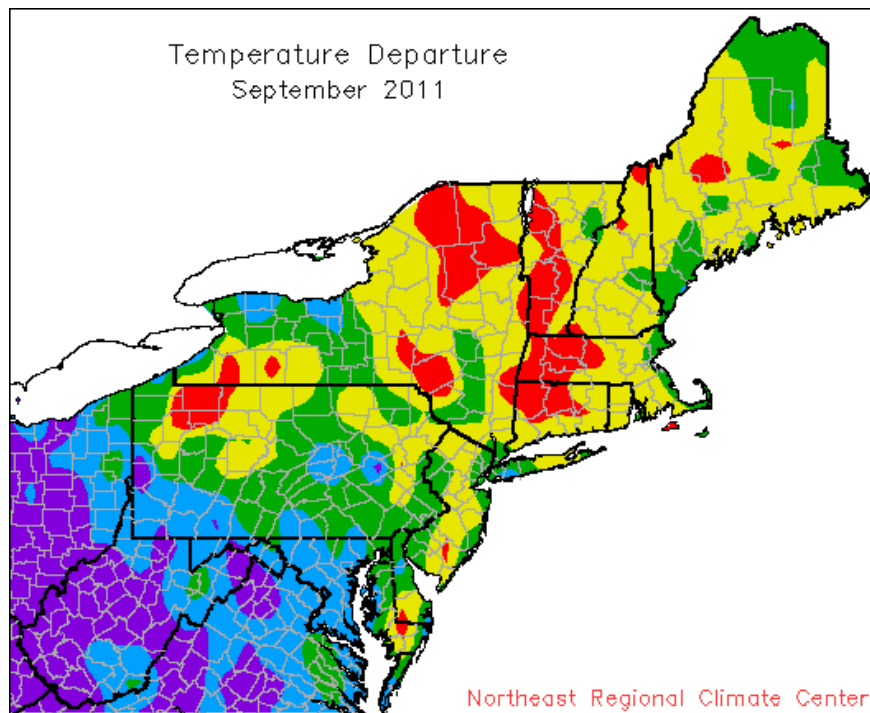
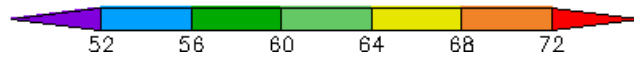
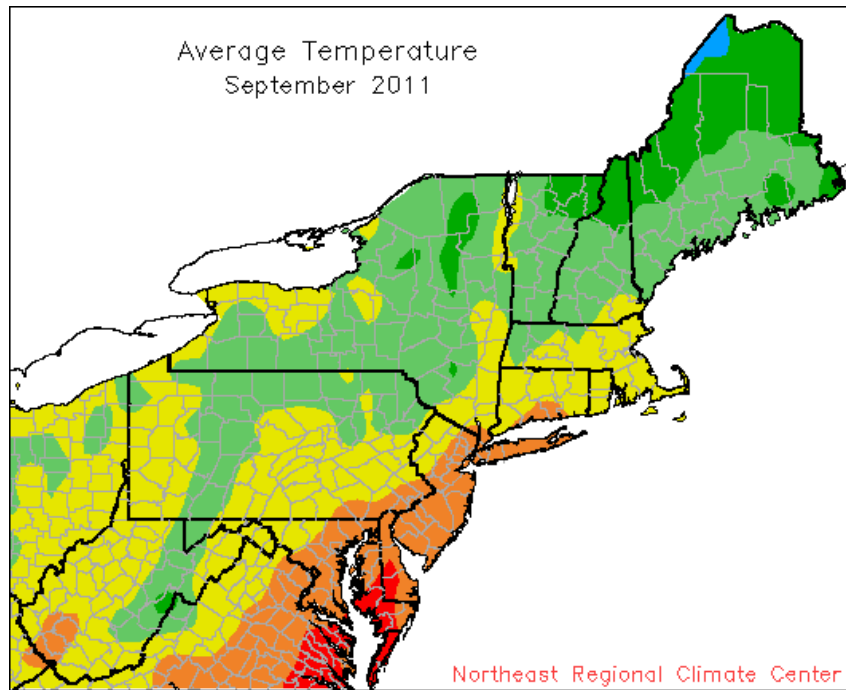


Area between normal max and min temperatures has tan shading.

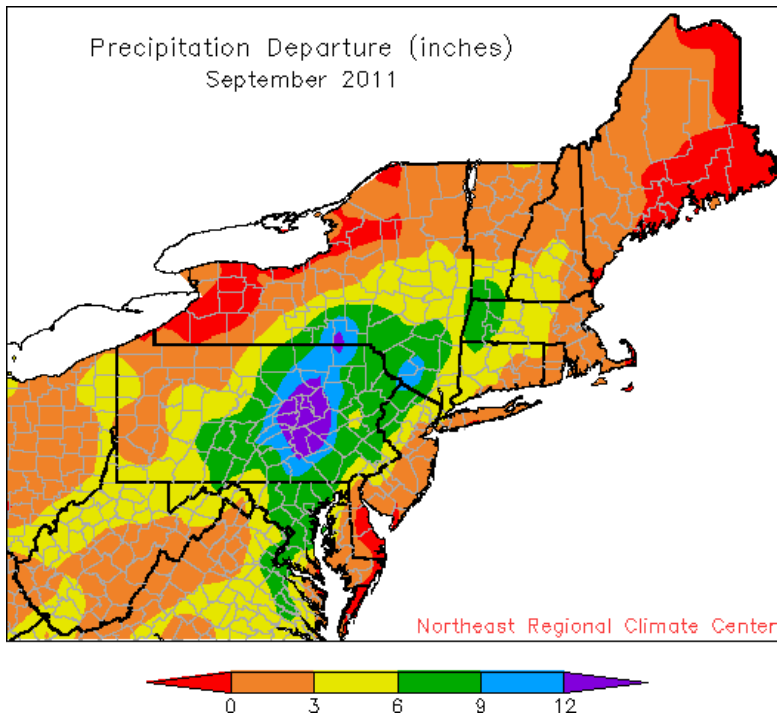
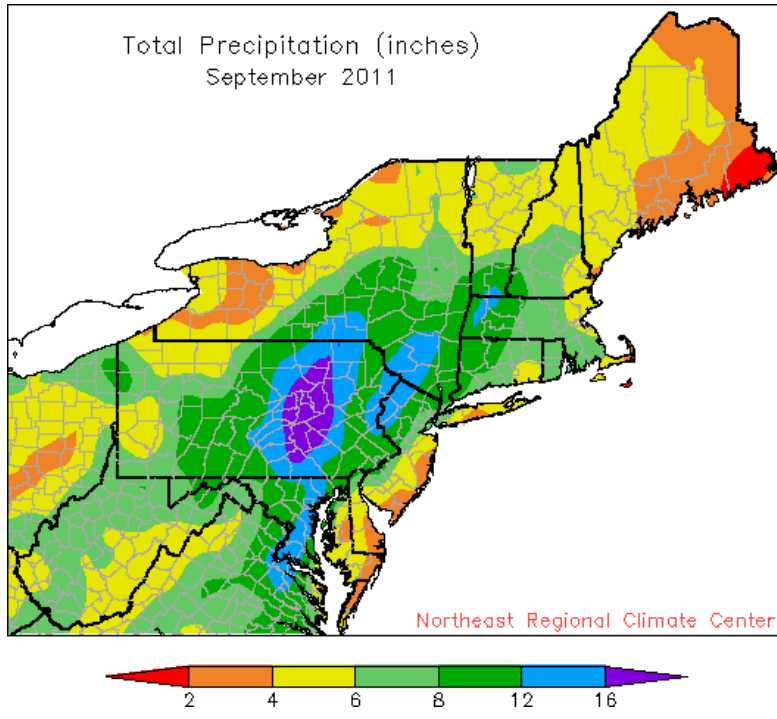
Red line connects record high temperatures.

Light blue line connects record low temperatures.

MONTHLY TEMPERATURE MAPS



MONTHLY PRECIPITATION MAPS



PRELIMINARY MONTHLY SUMMARIZED DATA SEPTEMBER 2011

STATION	TEMPERATURE (F)								PRECIPITATION (INCHES)									
	MONTHLY AVERAGES				EXTREMES		NUMBER OF DAYS				MONTHLY TOTALS			EXTREMES		SNOWFALL		
	AVG MAX	AVG MIN	MON AVG	DEPRT	MON MAX	DAY MIN	MON 90+	DAY 70-	MON 65+	DAY 50-	MON TOT	DEPRT	DAYS 0.1+	DLY MAX	DAY	MON TOT	DAY MAX	
-DE: NORTHERN-																		
BEAR 2 SW	77.4	61.5	69.5	3.0	87	14	43	16	0	4	11	3	6.41	1.78	8	2.46	6	0
WILMINGTON NEW CAS	77.3	62.2	69.8	2.0	86	14+	45	16	0	5	14	4	5.93	1.61	9	2.18	6	0
WILMINGTON PORTER R	76.0	61.6	68.8	1.6	85	14+	44	17+	0	6	14	2	5.96	1.06	9	2.51	6	0
-DIVISION-			69.4	1.8									6.10	1.47				
-DE: SOUTHERN-																		
DOVER	79.3	64.1	71.7	2.0	87	14	49	16	0	3	15	1	3.84	-0.29	8	0.84	8	NM
-DIVISION-			71.7	3.0									3.84	-0.26				
-STATE-			71.2	2.8									4.34	0.12				0
-MD: SOUTHEASTERN-																		
SALISBURY WICOMICO	80.9	64.2	72.5	4.3	89	14	50	16	0	3	17	1	4.76	0.78	8	1.67	8	0
-DIVISION-			72.5	3.1									4.76	0.68				
-MD: CENTRAL EAST-																		
-DIVISION-			71.4	1.8									7.47	3.62				
-MD: LOWER SOUTHE-																		
MECHANICSVILLE 5 N	75.8	60.9	68.4	1.9	84	5	44	16	0	5	6	2	8.47	4.19	8	3.61	8	0
SOLOMONS	78.8	67.3	73.1	1.1	88	15	53	16	0	2	24	0						NM
-DIVISION-			70.8	2.6									8.47	4.03				
-MD: UPPER SOUTHE-																		
BALTIMORE WASH INT	77.3	61.3	69.3	1.5	88	14	45	16	0	5	11	2	13.32	9.29	10	3.40	7	0
BELTSVILLE	77.9	62.7	70.3	1.9	90	15	43	16	1	4	15	1	9.80	5.72	10	4.13	8	0
DALECARLIA RSVR	77.4	62.3	69.8	0.1	90	15	45	16	1	6	14	3	10.17	6.00	10	3.40	8	0
LAUREL 3 W	77.5	63.1	70.3	0.9	91	14	44	16	1	3	17	2	10.87	6.27	10	4.15	7	NM
BALTIMORE DOWNTOWN	79.9	67.9	73.9	1.9	92	14	53	16	1	3	24	0	10.73	6.64	8	3.17	7	NM
NATL ARBORETUM DC*	82.3	64.7	73.5	3.2	91	5	56	30										NM
OXON HILL	78.2	63.1	70.7	1.0	88	15+	49	16	0	5	15	1	11.23	7.10	10	3.74	8	0
UPPER MARLBORO 3 N	78.3	62.1	70.2	2.4	89	15	43	16	0	5	15	3	13.89	9.90	7	7.46	8	NM
-DIVISION-			71.0	2.3									11.43	7.31				
-MD: NORTHEASTERN-																		
STEVENSVILLE	77.7	64.8	71.2	1.6	88	15	51	17	0	3	20	0						0
-DIVISION-			71.2	2.8									8.12	3.73				
-MD: NORTHERN CEN-																		
ABERDEEN PHILLIPS	77.6	62.4	70.0	2.2	88	15	45	17+	0	5	14	4						0
BRIGHTON DAM													9.14		12	3.45	8	0
CATOCTIN MTN PK	72.6	59.0	65.8	1.0	86	4	40	16	0	11	7	5	9.23	4.55	11	1.38	6	NM
CONOWINGO DAM													12.26	7.31	10	3.25	24	NM
CYLBURN	73.6	61.6	67.6	2.0	83	15+	46	16	0	7	12	3						NM
DAMASCUS	73.5	60.4	66.9	1.2	86	4	41	17+	0	10	9	4	12.52	8.01	14	3.30	8	NM
EMMITSBURG 2 SE	74.1	59.3	66.7	1.6	85	5	42	17	0	8	8	4	16.46	12.22	14	2.22	22	NM
FREDERICK 2 NNE	76.7	59.5	68.1	1.0	89	15	46	16	0	7	5	5	10.25	5.98	13	3.06	22	0
MILLERS 4 NE	75.6	59.7	67.7	2.8	85	14+	44	16	0	5	10	3	11.64	7.17	10	3.62	7	0
SMITHSBURG *	75.3	58.0	67.0	1.7	86	5	38	17+					6.22	2.18	14	1.65	7	0
WESTMINSTER POL BR	75.9	60.4	68.2	1.6	88	5	43	16	0	5	9	4	9.73	5.45	12	3.22	8	0
-DIVISION-			67.6	1.0									10.86	6.55				
-MD: APPALACHIAN -																		
CUMBERLAND 2	77.6	58.4	68.0	0.6	95	4	40	17	2	7	5	5	9.71	6.48	10	3.25	7	NM
FROSTBURG 2	70.0	54.7	62.4	1.4	89	4	36	16	0	13	1	6	7.78	4.10	10	3.20	7	NM
SHARPSBURG 5 S	75.8	58.6	67.2	1.6	87	15+	39	17+	0	7	6	4						NM
WILLIAMSPORT *	77.0	60.7	68.9	2.3	87	15+	44	17+										0
-DIVISION-			66.6	2.3									8.75	5.23				
-MD: ALLEGHENY PL-																		
OAKLAND 1 SE	70.8	53.1	62.0	2.0	90	4	33	17+	1	15	2	9	6.24	2.79	12	1.77	7	0
KITZMILLER 1 W	72.3	56.6	64.5		89	4	40	17+	0	10	1	5						NM
-DIVISION-			63.3	2.6									6.24	2.78				
-STATE-			69.2	2.0									8.84	4.74				0

STATION	TEMPERATURE (F)							PRECIPITATION (INCHES)											
	MONTHLY AVERAGES				EXTREMES		NUMBER OF DAYS			MONTHLY TOTALS			EXTREMES		SNOWFALL				
	AVG MAX	AVG MIN	MON AVG	DEPRT	MON MAX	DAY MIN	MON MAX	DAY MIN	90+ 90+	70- 70-	65+ 65+	50- 50-	MON TOT	DEPRT 0.1+	DAYS	DLY MAX	DAY	MON TOT	DLY MAX
-NJ: NORTHERN-																			
BELVIDERE BRG *	73.6	57.0	65.2	0.9	82	10+	38	19					12.89	8.56	11	3.78	6		0
BOONTON 1 SE	76.7	59.8	68.3	3.8	85	15+	42	17	0	6	9	5	7.49	2.99	9	2.88	7		0
BOUND BROOK 2 W	77.1	63.3	70.2		88	5	48	16	0	6	14	1	7.22	3.11	8	2.83	7		0
CANOE BROOK	76.3	61.7	69.0	3.8	85	15+	46	18	0	7	14	5	6.29	1.40	7	2.00	7		0
CHATHAM 2 W	74.9	59.6	67.3	2.0	87	5	46	19+	0	10	10	5	6.01	1.56	7	2.36	7		0
CRANFORD	76.3	63.7	70.0	4.0	86	5	47	16	0	7	18	2	7.32	2.87	9	2.75	7		0
FLEMINGTON 5 NNW *	75.0	59.3	67.1	2.5	85	15+	44	18+										NM	
HARRISON	77.7	63.1	70.4	2.2	88	15	49	16	0	6	15	2	8.76	4.44	5	3.64	7		NM
NEWARK INTL AP	78.2	64.3	71.2	3.0	88	14+	51	16	0	5	19	0	8.13	4.31	6	3.18	6		0
PHILLIPSBURG EASTO	75.8	59.6	67.7	2.9	84	15+	45	18	0	9	7	5	12.82		12	3.25	6		NM
PLAINFIELD	76.3	62.3	69.3	2.3	87	4	45	15	0	7	15	4	7.28	2.71	8	2.02	6		0
POTTERSVILLE 2 NNW	72.3	59.6	66.0		84	15	44	16	0	10	8	4	12.99	8.30	11	3.05	7		0
SUSSEX 2 NW	73.8	56.9	65.4	3.8	82	15+	41	20	0	11	5	6							0
WERTSVILLE 4 NE	75.8	59.4	67.6	3.2	85	15+	43	18	0	5	8	5	8.58	4.29	10	2.59	7		NM
TOCKS ISLAND	73.4	59.2	66.3		82	4	45	16	0	10	6	5							NM
-DIVISION-			68.1	3.6									8.81	4.32					
-NJ: SOUTHERN-																			
ATLANTIC CITY INTL	79.0	62.2	70.6	3.4	88	14	46	16	0	3	15	3	2.95	-0.20	7	0.83	23		0
ESTELL MANOR	79.6	61.7	70.6	4.3	88	15	44	16	0	4	15	4	3.33	-0.12	8	0.76	12		0
FREEHOLD MARLBORO	77.8	60.5	69.2	2.8	88	15+	43	16	0	6	10	4	4.07	0.15	4	1.55	24		NM
HAMMONTON 1 NE *	80.8	62.3	71.6	4.9	88	15	47	16											0
HIGHTSTOWN 2 W	77.9	60.2	69.1	3.4	88	15+	43	16	0	5	11	4	6.47	2.34	5	2.84	8		0
INDIAN MILLS	78.3	60.5	69.4	3.3	86	14	42	16	0	5	13	3	3.83	-0.26	7	1.08	8		0
MILLVILLE MUNI AP	77.8	62.1	70.0	3.3	86	14	45	16	0	5	15	3	4.58	1.42	6	1.61	23		NM
NEW BRUNSWICK 3 SE	78.1	61.0	69.6	3.4	88	15	42	16	0	6	11	4	6.66	2.15	7	2.53	7		0
SEABROOK FARMS	79.1	64.0	71.6	3.0	88	15	47	16	0	3	17	1	6.04	1.78	9	1.94	8		0
SOMERDALE 4 SW	76.5	60.1	68.3		85	1	43	16	0	6	9	3	5.69	2.15	5	2.21	8		NM
ATSION	77.0	60.5	68.8		87	15	44	16	0	6	13	4							NM
TRENTON MERCER CO	77.8	62.2	70.0	3.8	87	4	45	16	0	5	15	3	6.94	2.67	7	2.88	6		NM
PHILADELPHIA MT HO	77.9	61.9	69.9		87	15	44	16	0	6	14	2	4.92		8	1.00	24		0
-DIVISION-			69.9	3.2									5.04	1.17					
-NJ: COASTAL-																			
ATLANTIC CITY	73.4	66.6	70.0	0.9	79	14+	52	17+	0	7	23	0	5.62	2.54	6	2.11	16		0
CAPE MAY 2 NW	78.4	63.7	71.1	1.9	85	10	51	17	0	3	16	0	3.78	0.51	5	1.07	23		0
-DIVISION-			70.6	2.2									4.70	1.36					
-STATE-			69.3	3.3									6.40	2.34					0

*= One to four days of missing temperature data + = This value also occurred on one or more previous dates this month.

All means are for the years 1981-2010. NM = Snowfall is not measured.

These data are considered preliminary, published data from the National Climatic Data Center may differ somewhat from the values shown here.

PRELIMINARY MONTHLY DEGREE DATA SEPTEMBER 2011

STATION	HEATING DEGREE DAYS (BASE 65)				COOLING DEGREE DAYS (BASE 65)				GROWING DEGREE DAYS (BASE 50)			
	MONTH	MONTH	SEASON	SEASON	MONTH	MONTH	SEASON	SEASON	MONTH	MONTH	SEASON	SEASON
-DE: NORTHERN-												
BEAR 2 SW	31	-25	31	-26	171	72	1293	284	590	96	3679	449
WILMINGTON NEW CAST	30	-20	30	-22	183	49	1428	301	603	69	3829	432
WILMINGTON PORTER RS	38	-17	38	-19	160	38			572	54		
-DE: SOUTHERN-												
DOVER	16	-16			223	50			657	66		
-MD: SOUTHEASTERN SHORE-												
SALISBURY WICOMICO	16	-30	16	-32	249	107	1688	563	683	137	4183	758
-MD: CENTRAL EASTERN SHORE-												
-MD: CENTRAL EASTERN SHORE-												
-MD: LOWER SOUTHERN-												
MECHANICSVILLE 5 NE	29	-37	29	-40	139	28	1214	215	560	64	3609	314
SOLOMONS	7	-5	7	-5	256	34			699	39		
-MD: UPPER SOUTHERN-												
BALTIMORE WASH INTL	27	-25	27	-26	164	29	1549	404	587	54	4013	580
BELTSVILLE	22	-27	22	-29	187	37	1497	280	615	64	3938	420
DALECARLIA RSVR	32	-5	32	-7	185	7	1604	227	603	12	4110	329
LAUREL 3 W	26	-9			191	23			615	31		
BALTIMORE DOWNTOWN	6	-12	6	-12	280	51			724	63		
OXON HILL	21	-7	21	-7	198	30	1598	241	627	38	4081	299
UPPER MARLBORO 3 NN	25	-29	25	-32	189	49	1521	347	614	78	3964	485
-MD: NORTHEASTERN SHORE-												
STEVENSVILLE	16	-1	16	-1	211	58	1610	406	645	59	4082	525
-MD: NORTHERN CENTRAL-												
ABERDEEN PHILLIPS F	33	-18			190	55			607	73		
CATOCTIN MTN PK	63	-22			94	13			481	34		
CYLBURN	37	-30	38	-36	122	35			535	65		
DAMASCUS	59	-15	59	-21	122	29			513	42	3569	447
EMMITSBURG 2 SE	50	-36	52	-41	111	23	1044	196	511	58	3336	340
FREDERICK 2 NNE	36	-10			137	30			551	40		
MILLERS 4 NE	40	-44			128	47			538	90		
WESTMINSTER POL BRK	43	-21	44	-26	143	30			550	50		
-MD: APPALACHIAN MOUNTAIN-												
CUMBERLAND 2	51	-9			152	20			551	28		
FROSTBURG 2	116	-41	134	-74	44	6	564	160	383	44	2626	347
SHARPSBURG 5 S	53	-21	54	-26	125	33	1077	217	522	53	3373	335
-MD: ALLEGHENY PLATEAU-												
OAKLAND 1 SE	133	-42	166	-69	46	21	476	151	371	62	2511	362
KITZMILLER 1 W	82				73				441			
-NJ: NORTHERN-												
BOONTON 1 SE	46	-47			152	72			556	118		
BOUND BROOK 2 W	23		23		189		1385		616		3730	
CANOE BROOK	38	-46			164	73			576	117		
CHATHAM 2 W	53	-22			129	46			526	67		

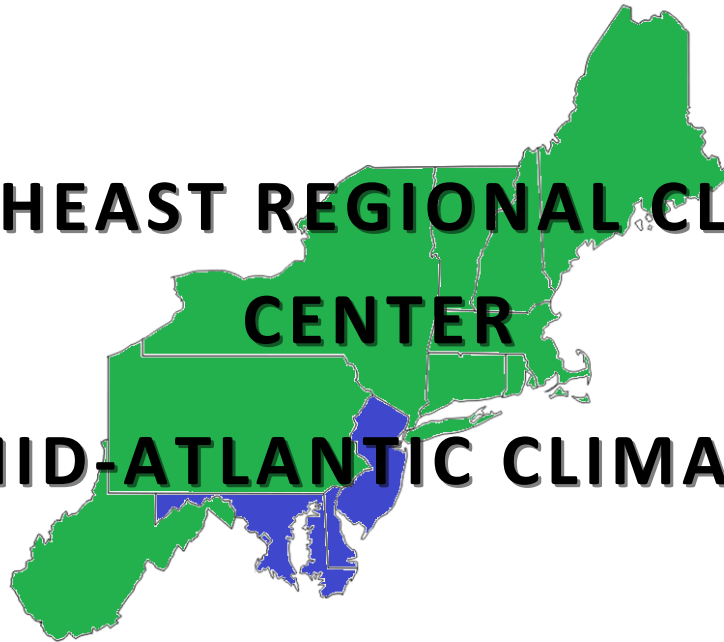
STATION	HEATING DEGREE DAYS (BASE 65)				COOLING DEGREE DAYS (BASE 65)				GROWING DEGREE DAYS (BASE 50)			
	MONTH	MONTH	SEASON	SEASON	MONTH	MONTH	SEASON	SEASON	MONTH	MONTH	SEASON	SEASON
CRANFORD	24	-48	24	-53	184	82			610	129		
HARRISON	23	-18			191	56			618	73		
NEWARK INTL AP	19	-25	19	-26	214	74	1563	389	645	99	3968	535
PHILLIPSBURG EASTON	45	-36			134	59			539	92		
PLAINFIELD	33	-28	33	-32	170	49	1368	331	587	77	3690	434
POTTERSVILLE 2 NNW	51				87				486			
SUSSEX 2 NW	72	-76			94	48			472	119		
WERTSVILLE 4 NE	47	-47			134	59			537	104		
TOCKS ISLAND	55		59		103		825		498		3019	
-NJ: SOUTHERN-												
ATLANTIC CITY INTL	28	-31	28	-34	200	75	1450	416	622	106	3851	628
ESTELL MANOR	27	-41	27	-44	204	97	1331	371	627	137	3709	562
FREEHOLD MARLBORO	31	-35			162	56			581	90		
HIGHTSTOWN 2 W	37	-42	38	-49	166	65			579	105		
INDIAN MILLS	32	-43			171	64			589	105		
MILLVILLE MUNI AP	28	-35			187	74			609	109		
NEW BRUNSWICK 3 SE	29	-42	31	-44	172	65			593	106		
SEABROOK FARMS	14	-31			216	65			652	95		
SOMERDALE 4 SW	41		43		148		1277		557		3581	
ATSION	39		39		161				572			
TRENTON MERCER CO A	27	-35	27	-38	184	85	1425	470	607	119	3826	692
PHILADELPHIA MT HOL	29		29		184		1265		605		3604	
-NJ: COASTAL-												
ATLANTIC CITY	16	-11	16	-12	173	21	1199	200	607	33	3502	308
CAPE MAY 2 NW	14	-18			203	44			639	62		

The heating season begins July 1 and ends June 30. The cooling season begins January 1 and ends December 31.
The growing season begins March 1 and ends October 31. All departures are calculated from the 1981 - 2010 mean.
These data are considered preliminary, published data from the National Climatic Data Center may differ somewhat from the values shown here.

NORTHEAST REGIONAL CLIMATE

CENTER

MID-ATLANTIC CLIMATE



**Northeast
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