# Northeast Regional Climate Center Mid-Atlantic Climate

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#### **NOVEMBER 2014**

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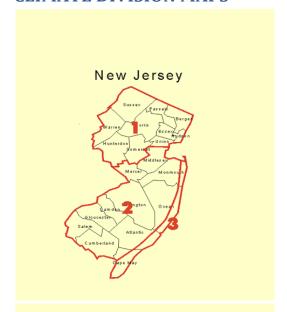
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#### **CLIMATE DIVISION MAPS**



#### New Jersey Climate Divisions

- 1 Northern
- 2 Southern
- 3 Coastal



Maryland

#### **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

#### **NOVEMBER WEATHER HIGHLIGHTS**

November was quite a cool month in the Mid-Atlantic. With an average temperature of 42.6 degrees F, it was 3.7 degrees F colder than normal. Maryland and New Jersey were both 3.8 degrees F colder than normal in November, while Delaware was 2.7 degrees F colder than normal. All 13 of the region's climate divisions were colder than normal, with five ranking the month among their top 20 coldest: Maryland's Appalachian Mountains, 8<sup>th</sup> coldest; Coastal New Jersey, 14<sup>th</sup> coldest; North Central Maryland, 16<sup>th</sup> coldest; Northern Delaware, 18<sup>th</sup> coldest; and Southern New Jersey, 19<sup>th</sup> coldest. Maryland was home to the month's maximum and minimum temperatures. Cumberland reported a high of 75 degrees F on the 5<sup>th</sup> and Oakland reported a low of 8 degrees F on the 18<sup>th</sup> and 19<sup>th</sup>.

The Mid-Atlantic wrapped up November just on the wet side of normal with 3.69 inches of precipitation, 104 percent of normal. New Jersey was the wettest state at 126 percent of normal, while Delaware saw 106 percent of normal precipitation. The five climate divisions in these states had near to above normal precipitation. Maryland saw 87 percent of normal precipitation, with seven of eight divisions drier than normal. Indian Mills, NJ, had the greatest precipitation totals. The site picked up 5.58 inches of precipitation during November, with 1.66 inches of that reported on the 1<sup>st</sup>. Oakland, MD, had the greatest snow totals. The site saw 12.4 inches of snow during November, with 4.8 inches on the 27<sup>th</sup>.

According to the U.S. Drought Monitor, 10 percent of Maryland was abnormally dry at the start of November. Conditions deteriorated during the month, so that by month's end 19 percent of the state was abnormally dry. While Delaware started the month drought-free, abnormally dryness was introduced in southern Sussex County by month's end. Dry conditions in New Jersey remained through the month, with 42 percent of the state abnormally dry.

A Nor'easter on November 26–27 dropped up to 10 inches of snow on parts of the Mid-Atlantic, causing travel problems the day before Thanksgiving. Numerous vehicle accidents occurred, and more than a hundred flights were delayed or canceled. Sporadic power outages were also reported.

#### Daily Maximum Temperature Records (°F)

Station	Date	New	Previous	
Washington National, DC	24	74	74 in 1958	

#### Daily Low Maximum Temperature Records (°F)

Station	Date	New	Previous
Washington Dulles, DC	2	49	50 in 2002
Washington Dulles, DC	18	36	39 in 2008
Newark, NJ	19	33	35 in 1951
Wilmington, DE	19	33	34 in 1951
Washington Dulles, DC	19	35	38 in 2008
Atlantic City, NJ	19	35	35 in 1951

#### Daily Minimum Temperature Records (°F)

Station	Date	New	Previous
Washington Dulles, DC	18	18	20 in 1991
Washington Dulles, DC	19	13	20 in 1990
Baltimore, MD	19	19	20 in 1936
Washington Dulles, DC	22	14	14 in 1964

#### Daily High Minimum Temperature Records (°F)

<u>Station</u>	Date	New	Previous
Wilmington, DE	24	55	55 in 1979
Atlantic City, NJ	24	57	57 in 1979

#### Daily High Average Temperature Records (°F)

Station	Date	New	Previous
Atlantic City, NJ	24	64.0	63.5 in 1999
Washington National, DC	24	65.0	65.0 in 1979

#### Daily Low Average Temperature Records (°F)

Station	Date	New	Previous
Washington Dulles, DC	18	27.0	33.0 in 2005
Washington Dulles, DC	19	24.0	30.0 in 2000
Wilmington, DE	19	26.0	26.0 in 1936
Newark, NJ	19	27.0	28.5 in 1936
Baltimore, MD	19	27.5	29.0 in 1880

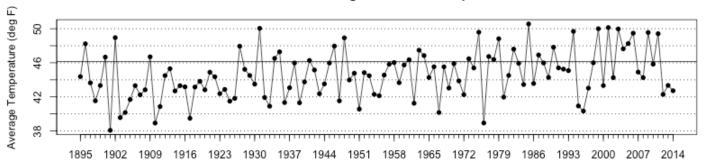
#### **Daily Precipitation Records (inches)**

Station	Date	New	Previous
Newark, NJ	17	1.48	1.31 in 2002

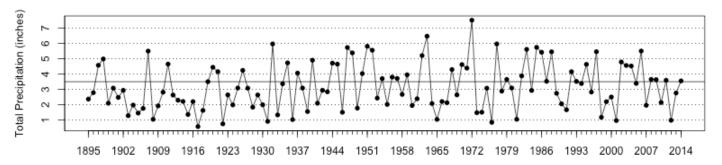
#### **Daily Snowfall Records (inches)**

Station	Date	New	Previous
Washington Dulles, DC	13	Т	T in 2012
Newark, NJ	13	Т	T in 2004
Atlantic City, NJ	14	Т	T in 2003
Wilmington, DE	26	0.3	0.1 in 1950
Washington Dulles, DC	26	1.6	1.1 in 1978
Washington Dulles, DC	28	Т	T in 1995

#### Mid Atlantic Average November Temperatures



#### Mid Atlantic November Precipitation Totals



The 2014 values depicted on these graphs are based on preliminary data.

## A Cool Damp Month November 2014 Summary

## All Things Considered, a Rather Average Season Fall 2014 Summary

Dr. David A. Robinson, New Jersey State Climatologist NJ Agricultural Experiment Station, Rutgers University

#### **November Overview**

While cooler conditions took some time to arrive in New Jersey this fall, once here they locked in for the most part, as the November average temperature of 41.9° was 3.7° below the 1981-2010 average. This ranks as the 24<sup>th</sup> coolest November of the past 120 years. November precipitation (rain and melted snow) averaged 4.58" across the state. This is 0.94" above average and ranks as 31<sup>st</sup> wettest. On two occasions measurable snow was reported in northern and central areas, with these regions, respectively, picking up 4.6" and 1.9" on average for the month, with over a foot accumulating at higher elevations. Despite no snow accumulating in the south, the statewide average was 1.7", which is 1.3" above average. It is only the second November to average above an inch since 1995, the other in 2012. A Thanksgiving eve storm delivered a white Thanksgiving to central and northern counties.

#### **Precipitation and Storms**

As also noted this past October, there was a more than 4.00" range in precipitation totals across NJ in November. Ocean County was the wet spot, with Lavallette receiving 6.53", Berkeley 6.35", Lacey 6.28", Brick 6.13", and Stafford 6.10". Not far behind was Berlin (Camden County) at 5.99" and Woodland (Burlington) with 5.97". The far northwest was driest, with two locations in Wantage (Sussex) measuring 2.34" and 2.35", followed by Andover (Sussex) with 3.10". In the far south, Wildwood Crest (Cape May) only saw 3.27" and two Middle Township (Cape May) locations 3.34" and 3.39".

The largest monthly snowfall totals were observed in Highland Lakes (Sussex) with 15.5", Montague (Sussex) 14.3", West Milford (Passaic) 12.2", Vernon (Sussex) 11.9", 10.5", Hardyston (Sussex) 10.5", and Bethlehem (Hunterdon) 10.3".

A storm on the 1<sup>st</sup> put Ocean County into the precipitation lead for the month that it never relinquished. From the predawn hours through the late evening, Lavallette received 2.90", Lacey 2.78", and Berkeley 2.70". Of 206 Community Collaborative Rain, Hail and Snow Network (CoCoRaHS) observations, eight exceeded 2.00" and 43 were between 1.00"-1.99". The rainfall tapered off toward the far south coast and especially to the northwest, establishing a dry area theme for the month. In Sussex County, Montague only saw 0.06", Wantage 0.08" and Vernon 0.09".

Five days later, the pre-dawn to early evening hours of the 6<sup>th</sup> brought another widespread rainfall across NJ. This was punctuated by late-afternoon thunderstorms in northern Cape May County that brought the daily total to 0.93" in Upper Township and 0.87" and 0.91" at two Woodbine locations. Again, the northwest caught the least with 0.13" at Vernon and 0.17" in both Montague and Wantage.

Southwestern counties were blanketed with dense fog on the morning of the 11<sup>th</sup>. Fog was quite widespread across NJ on the morning of the 12<sup>th</sup>.

The afternoon of the 13<sup>th</sup> into the predawn hours of the 14<sup>th</sup> brought the <u>first measurable snowfall</u> of the season to a good portion of central and northern NJ. Rain turned to snow, leaving more than an inch at one or more locations in seven counties. Highland Lakes took top honors with 4.0", followed by 3.5" at High Point (Sussex), 3.3" at Lake Hopatcong (Morris), and 3.0" in Randolph (Morris). Other larger totals included 2.2" in West Milford and 2.0" in both Bethlehem and Holland (Hunterdon). Rain and melted snow measured 0.37" in Randolph and 0.36" at Sparta (Sussex). Most of the northern half of the state received about 0.25", while the south only accumulated about 0.10".

One of the more evenly distributed statewide soakings one might expect to ever see across NJ fell from the evening of the 16<sup>th</sup> through sunset on the 17<sup>th</sup>. An all-rain event, 173 of the 208 CoCoRaHS stations caught between 1.00" to 1.84". The top total was in Howell (Monmouth), followed by 1.65" in Woodbine and 1.64" at Woodbridge (Middlesex). Again, the far south and northwest received the least with Cape May (Cape May) coming in with 0.50", Montague 0.54", and two Wantage locations with 0.56" and 0.61".

The late evening of the 23<sup>rd</sup> to the post-dawn hours of the 24<sup>th</sup> saw several rainfall reports exceeding an inch. This included West Milford with 1.24", Hawthorne (Passaic) 1.22", and Rockaway and Mine Hill (Morris) each with 1.13". Elsewhere, quite a few locations came in between a half-inch and an inch. The southwest was least affected, with Merchantville (Camden) catching 0.25" and 0.29" at both Collingswood (Camden) and Pennsville (Salem).

The last November storm was a memorable one for those receiving enough snow to whiten the ground. Precipitation began before sunrise on the 26<sup>th</sup> (Thanksgiving eve) as rain across much of the state, although in higher locations the event was exclusively snow. During the morning, temperatures continued falling (they had been in the 50s and 60s the previous day!) and sleet and snow began to mix in and dominate over central and northern counties. Snowfall was heaviest and most widespread during the mid-day hours before again mixing with sleet and even turning back to rain at lower elevations. The southern half of the state saw mostly rain, with some sleet and snow mixing in at times and some snow near the end of the event (which continued as flurries during Thanksgiving morning).

Some 13 counties received an inch of snow or considerably more. The top totals from each of these counties are listed in Table 1 and a map of snowfall totals can be found in Figure 1 below (a full list of snowfall totals can be viewed <a href="here">here</a>). Topping the list was Montague with 12.5", with other Sussex County locations above 10", including High Point and Highland Lakes (11.5"), Vernon (11.4"), and Wantage 10.7". In and near these communities, lower elevations received totals from several inches to as much as half a foot less than up high. Rain and melted snow/sleet amounted to 1.70" at Montague, 1.63" in Egg Harbor City (Atlantic), 1.59" in Holland, and 1.57" in Rockaway. Some 154 CoCoRaHS stations received between 1.00"-1.70", with central and north regions over an inch and the southern area between 0.75" and 1.00". The heavy, wet snow led to power outages for over 23,000 customers, mainly in the northwest hills.

County	Community	Snowfall
Bergen	Oakland	4.0", 5.1" (2 reports)
Burlington	Florence	1.1"
Essex	Cedar Grove	3.2", 3.5" (2)
Hudson	Harrison	1.2"
Hunterdon	Bethlehem	5.8", 8.2" (2)
Mercer	Hopewell, Princeton	2.0"
Middlesex	Metuchen	1.0", 2.0" (2)
Morris	Marcella	7.4"

Passaic	West Milford	10.0"
Somerset	Peapack-Gladstone	2.5", 3.0" (2)
Sussex	Montague	12.5"
Union	New Providence	2.5"
Warren	Blairstown	5.5"

Table 1. Top snowfall totals for all NJ counties with at least one report of an inch or more on the 26<sup>th</sup>. Snow totals based on CoCoRaHS, NWS Spotter and NWS Cooperative Observing Network, and "independent" reports received by the ONJSC.

The inch or more of snow on the ground the morning of the 27<sup>th</sup> in the northern half of the state made for the most widespread white Thanksgiving since 1989, when the entire state was under a blanket of 4-6" of fresh snow. Just behind 2014 was Thanksgiving 1971, when snow cover was mostly confined to middle to higher north Jersey elevations.

Ten November days saw winds gusting to 40 mph or higher at one or more of the 57 NJWxNet stations. The storm on the 1<sup>st</sup> brought gusts to 45 mph at Harvey Cedars (Ocean) and 42 mph in Seaside Heights (Ocean). As the storm departed and the atmospheric pressure gradient tightened, quite windy conditions prevailed across the state. High Point Monument (Sussex) topped out at 63 mph, followed by 48 mph at Harvey Cedars and 45 mph in Wantage (Sussex). Eight other stations maxed out between 40-44 mph and 29 stations had peak gusts of 30-39 mph. A gust of 42 mph was experienced at High Point Monument on the 3<sup>rd</sup>.

The 7<sup>th</sup> saw gusts to 44 mph at Bivalve (Cumberland), 43 mph at High Point Monument, and 41 mph at three other locations. Conditions calmed until the 17<sup>th</sup> when the Monument reached 44 mph, and the 18<sup>th</sup> with 41 mph gusts at Sea Girt (Monmouth) and Seaside Heights. The Monument reached 40 mph on the 20<sup>th</sup>.

A blast of warm air on the 24<sup>th</sup> brought gusts of 49 mph to Upper Deerfield (Cumberland) and 46 mph in Bivalve. Seven stations gusted between 40-44 mph and 26 peaked between 30-39 mph. The 25<sup>th</sup> brought a gust of 40 mph to Wantage, and the storm on the 26<sup>th</sup> saw a gust of 41 mph at Harvey Cedars.

The highest November atmospheric pressures across NJ were close to 30.55" on the 22<sup>nd</sup>, while on the 17<sup>th</sup> the pressure bottomed out close to 29.50".

#### **Temperature**

The 8<sup>th</sup> brought the first widespread freeze of the season to all but some immediate coastal locations. By the evening of the 15<sup>th</sup>, when West Cape May (Cape May) dropped below freezing, everywhere in the state had experienced a fall freeze. At West Cape May the last freeze of the past winter occurred on March 27<sup>th</sup>. Thus there were 232 consecutive freeze-free days at this location during the 2014 growing season. At the other end of the spectrum was Walpack, a valley location in Sussex County. There, the last spring freeze was on May 19<sup>th</sup> and the first this fall on September 23<sup>rd</sup>. Thus only a 125-day growing season at Walpack, an impressive 107 days shorter than at West Cape May. The next longest growing season was 212 days at Atlantic City Marina (Atlantic) and the next shortest 139 days in Pequest (Warren).

Over the course of November, nine days saw one or more NJWxNet station dip into the teens or single digits for a minimum temperature. The first was the 15<sup>th</sup>, when Walpack reached 16°, Pequest 17°, and four other stations at 18° or 19°. Walpack was 15° and Pequest 17° on the 16<sup>th</sup>. High Point Monument was coldest on the 18<sup>th</sup> at 13°, while a High

Point station 300 feet lower in elevation reached 14°. The first single-digit observation of the season of 9° occurred at Walpack on the 19<sup>th</sup>, when both High Point stations sank to 11° and 26 stations were between 12°-19°. West Cape May only got down to 26°. The cold continued on the 20<sup>th</sup> with Basking Ridge (Somerset) at 15° and Pequest 16°. Walpack was 11° and Pequest 12° on the 21<sup>st</sup>.

The coldest morning of the month occurred on the 22<sup>nd</sup>, with Walpack at 5°, Pequest 9°, and 37 of the 56 NJWxNet stations between 10°-19°. Atlantic City Marina only fell to 27°. Record lows were noted on this day at some long-term NWS Cooperative stations, including 17° at New Brunswick (Middlesex) where observations extend back to 1893. The Walpack low was one of the coldest on record in NJ for so early in the season. The only location in the state that historically is as cold as Walpack is Layton, which is in a valley close to Walpack. Daily weather observations at Layton were gathered from 1900 to 1968 (Walpack observations only date back to the early 2000s). While November minimum temperatures dropped to 5° or lower on 10 occasions during that 69 year period at Layton, the only day that was colder than 6° and occurred earlier in the month than Walpack's 5° observation this year was a 2° minimum on November 16, 1908. Thus, while not an early season state record, Walpack's 5° minimum was awfully impressive.

The 28<sup>th</sup> saw High Point fall to 10° and Wantage 11°. On the 29<sup>th</sup>, Walpack reached 6°, and both High Point and Pequest 10°.

There were some mild days during November, including a record breaker wedged within the cold second half of the month. On 12 days, one or more stations equaled or exceeded 60°. Seven days made it to at least 65°. Of these, the 4<sup>th</sup> found Hamilton (Mercer), Red Lion (Burlington), and Sicklerville (Camden) up to 73°, with 27 other NJWxNet stations between 70°-72°. Five stations topped out at 69° on the 5<sup>th</sup>. Piney Hollow was 66° on the 10<sup>th</sup> and both Mansfield (Burlington) and Red Lion 65°. Cherry Hill (Camden), Hamilton (Mercer), and Mansfield were 72° on the 11<sup>th</sup>, with this mark also reached on the 12<sup>th</sup> at Mansfield and Sicklerville. Just two days later on the 14<sup>th</sup>, High Point Monument only made it to 32° for the first fully subfreezing day of the season at a NJ location.

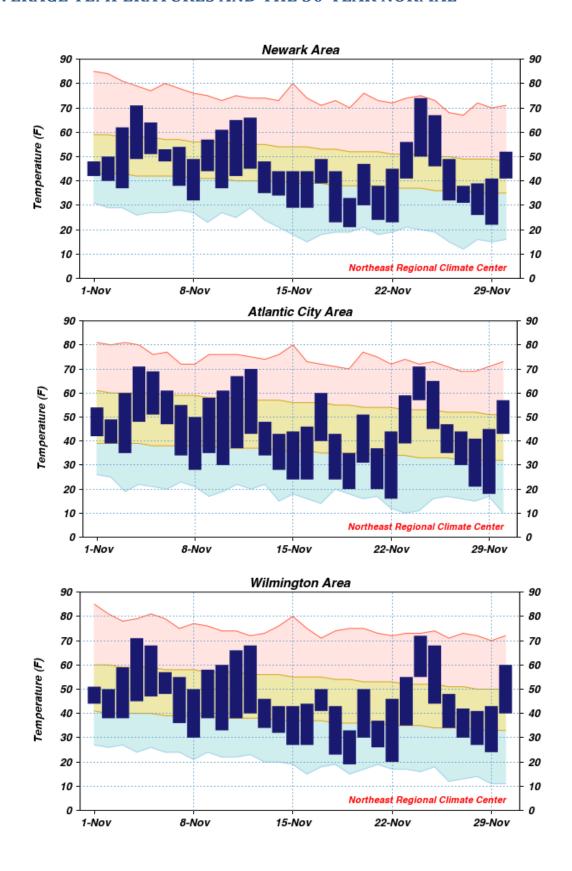
The 24<sup>th</sup> was an impressive day for late-season warmth. Hamilton (Mercer) got to 75°, with Holmdel (Monmouth) at 74°. 32 other NJWxNet stations maxed out between 70°-73°. This included a record high of 73° in New Brunswick, just two days after the record low noted above. This warmth extended into the early morning of the 25<sup>th</sup> before a cold front arrived. Before it got through NJ, five stations recorded a daily maximum of 68°.

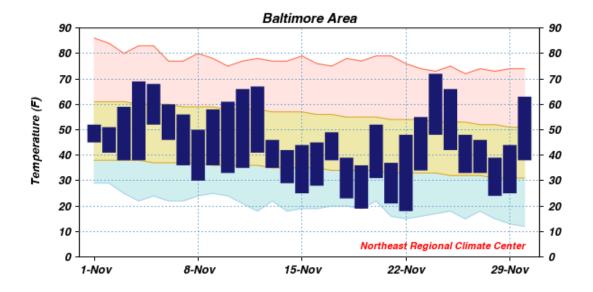
#### Fall Synopsis

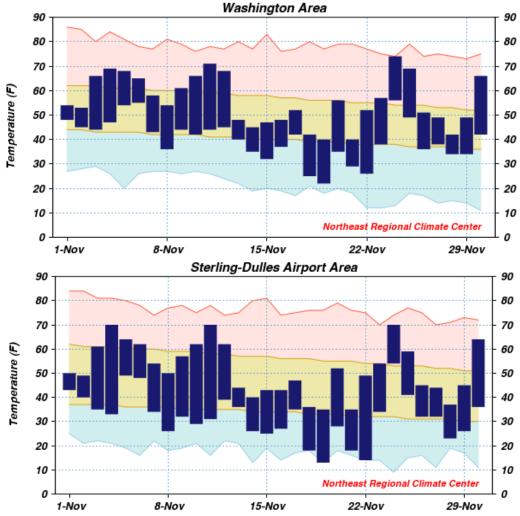
As often happens during a season, monthly temperatures and precipitation totals tend to balance out. Fall 2014 was certainly no exception. A dry September, close to average October, and wet November led to an 11.03" statewide average seasonal total across NJ. This is 0.61" below average, yet due to the skewness of fall precipitation records, this ranks as the 53<sup>rd</sup> wettest of the past 120 years.

Temperatures were almost 1° above average in September and over 2° above in October. However, the -3.7° departure in November resulted in an average fall temperature of 55.3°, which is 0.3° below average. Still, given that the averaging period is 1981-2010 and that falls have generally warmed throughout the past century, this season ranked as the 43<sup>rd</sup> mildest of the past 120 years.

#### DAILY AVERAGE TEMPERATURES AND THE 30-YEAR NORMAL





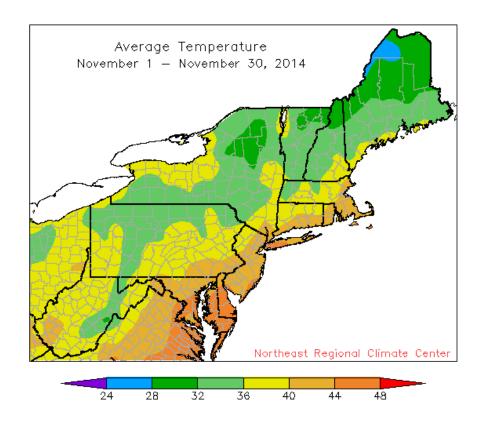


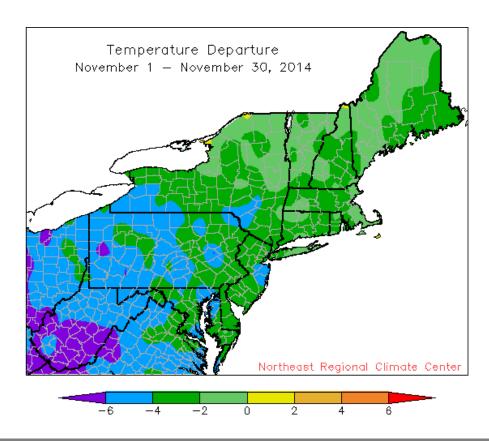
Observed daily maximum and minimum temperatures are connected by dark blue bars. Area between normal max and min temperatures has tan shading.

Red line connects record high temperatures.

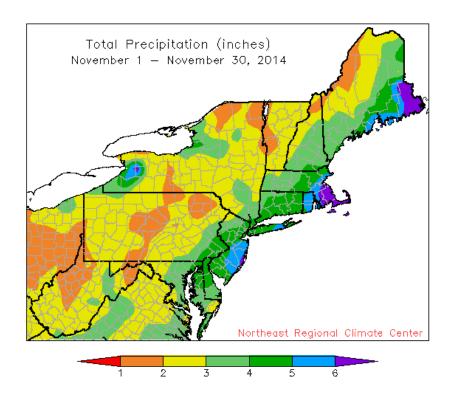
Light blue line connects record low temperatures.

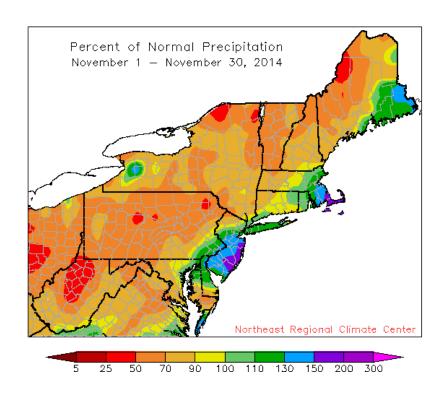
#### **MONTHLY TEMPERATURE MAPS**



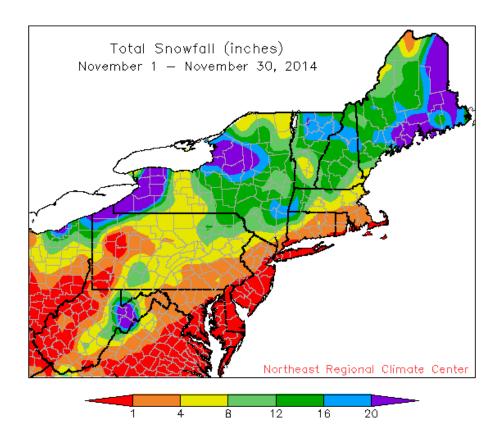


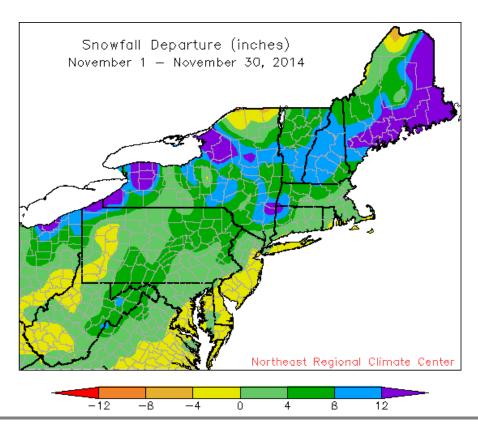
#### **MONTHLY PRECIPITATION MAPS**





#### **MONTHLY SNOWFALL MAPS**





#### PRELIMINARY MONTHLY SUMMARIZED DATA NOVEMBER 2014

CMARTON	TEMPERATURE	1	NUMBER OF TAXA		TATION (INCHE	·
STATION	MONTHLY AVERAGES	EXTREMES	NUMBER OF DAYS	MONTHLY TOTALS	EXTREMES	SNOWFALL
	AVG AVG MON DEPRT	MON DAY MON DAY	MAX MIN	MON DEPRT DAYS	DLY DAY	MON DLY DAY
	MAX MIN AVG	MAX MIN	50+ 32- 32- 0-	TOT 0.1+	MAX	TOT MAX
-DE: NORTHERN-						
WILMINGTON NEW CAS	52.6 34.8 43.7	72 24 19 19	18 0 12 0	4.20 6	1.23 17	0.3 0.3 26
WILMNGTON PORTER R	49.9 33.9 41.9	70 4 19 19	13 1 14 0	4.37 5	1.65 26	0
-DIVISION-	42.8 -3.5			4.28 0.95		0.2
-DE: SOUTHERN- DOVER	55.4 36.5 46.0	71 24 20 19	22 0 11 0			
-DIVISION-	46.0 -2.5	71 24 20 19	22 0 11 0	3.59 -0.02		
-STATE-	45.3 -2.7			3.74 0.20		0
-MD: SOUTHEASTERN-						
SNOW HILL 4 N	58.6 35.2 46.9	74 24 15 19	24 0 15 0	2.24 6	1.00 26	NM
SALISBURY 2N	58.0 36.7 47.3	72 24 19 22	24 0 11 0	3.85 6	1.40 26	NM
-DIVISION-	47.1 -2.2			3.04 -0.35		
-MD: CENTRAL EAST-						
-DIVISION-	45.3 -3.5			3.11 -0.38		
-MD: LOWER SOUTHE-						
MECHANICSVILLE 5 N	52.7 32.0 42.4	73 25 16 20+	16 0 17 0	2.91 6	0.84 18	
ST INIGOES WEBSTER	55.0 37.6 46.3	72 12 20 22	19 0 9 0	2.59 5	1.16 26	NM
-DIVISION-	44.3 -3.8			2.75 -0.81		
-MD: UPPER SOUTHE-						
BALTIMORE WASH INT	52.9 33.8 43.4	72 24 18 22	17 0 11 0	3.36 5	1.19 26	0.3 0.3 26
BELTSVILLE	52.2 33.8 43.0	71 25+ 17 22	17 1 13 0	3.14 7	0.76 27	1.0 1.0 27
DALECARLIA RSVR *	52.5 34.2 43.4	72 25 19 22+	17 1 13 0	3.14	0.76 27	1.0 1.0 27
LAUREL 3 W	52.6 36.0 44.3	71 24+ 18 19	17 0 12 0	2.61 3	1.14 26	NM
MD SCI CTR BALTIMO	52.3 38.3 45.3	71 24+ 18 19	18 0 8 0	3.40 4	1.14 20	NPI
NATL ARBORETUM DC*	54.4 37.3 45.8	73 25+ 22 19	10 0 0 0	3.40 4	1.13 20	
OXON HILL	52.9 35.2 44.0	72 25 20 20	17 1 13 0	2.86 7	0.94 27	0.2 0.2 27
UPPER MARLBORO 3 *	55.1 33.0 44.0	73 25 16 23+	17 1 13 0	2.00	0.94 27	NM
-DIVISION-	44.2 -3.3	75 25 10 25+		3.07 -0.51		0.5
211121011	1112 010			0.07		0.0
-MD: NORTHEASTERN-						
STEVENSVILLE	52.9 37.3 45.1	70 25 23 22	21 1 9 0	3.79 8	1.06 27	0
-DIVISION-	45.1 -2.2			3.79 0.48		0
-MD: NORTHERN CEN-	51.2 33.5 42.3	70 25 10 22	16 1 12 0			
ABERDEEN PHILLIPS BRIGHTON DAM *		70 25 18 22	16 1 13 0	2 22 0	0 65 271	0 5 0 5 27
Dillonion Dim	50.6 32.6 41.6	69 5 16 22	12 1 17 0	3.32 8 3.63 8	0.65 27+	0.5 0.5 27
CONOWINGO DAM	48.6 31.5 40.1 50.2 34.0 42.1	66 24 16 19+	13 1 17 0	3.63 8	0.85 17	NM
CYLBURN	48.2 32.0 40.1	69 25 18 20+ 68 6+ 16 19	14 1 14 0	3.40 5	1.28 26	3.3 2.8 26
DAMASCUS 3 SSW EMMITSBURG 2 SE	49.8 30.8 40.3		12 2 16 0 15 1 19 0		0.85 24	3.0 3.0 27
MILLERS 4 NE	50.2 32.7 41.4	71 4 15 19	13 1 14 0	3.46 4	1.19 26	6.0 4.6 26
-DIVISION-	41.1 -4.3			3.40 -0.18		3.2
-MD: APPALACHIAN -						
CUMBERLAND 2	49.9 31.3 40.6	75 5 13 22	14 1 18 0	1.82 7	0.62 27	
FROSTBURG 2	43.3 26.7 35.0	67 25+ 9 20	8 5 20 0	1.99 5	0.48 6	
-DIVISION-	37.8 -5.6	0, 25. , 20		1.91 -1.39	""	
	37.0 -3.0			1.52 2.05		
-MD: ALLEGHENY PL-						
OAKLAND 1 SE	44.4 24.7 34.5	72 12 8 19+	9 6 25 0	3.34 11	0.75 8	12.4 4.8 27
SAVAGE RIVER DAM	45.2 28.6 36.9	69 25 12 22	9 4 19 0	1.71 5	0.48 27	
KITZMILLER 1 W	46.3 27.9 37.1	70 25+ 13 23+	12 4 22 0			NM
-DIVISION-	36.2 -4.3			2.52 -0.99		12.4
-STATE-	42.6 -3.8			3.06 -0.44		2
-NJ: NORTHERN-						
BELVIDERE BRG *	48.4	69 25				2.5 2.5 27
BOONTON 1 SE	49.4 32.3 40.9	71 25 18 23+	12 1 15 0	4.00 9	1.03 27	

	PRECIPITATION (INCHES)					
STATION	MONTHLY AVERAGES	EXTREMES	NUMBER OF DAYS	MONTHLY TOTALS	EXTREMES	SNOWFALL
	AVG AVG MON DEPRT	MON DAY MON DAY	MAX MIN	MON DEPRT DAYS	DLY DAY	MON DLY DAY
	MAX MIN AVG	MAX MIN	50+ 32- 32- 0-	TOT 0.1+	MAX	TOT MAX
BOUND BROOK 2 W				4.41 10	0.92 18	т т
CANOE BROOK	51.2 32.3 41.7	72 25 19 22	12 2 15 0	4.35 8	1.06 27	NM
CHARLOTTEBURG RSVR	47.0 29.3 38.2	69 25+ 12 30+	11 4 20 0	3.95 9	1.13 24	
CRANFORD	51.8 35.0 43.4	73 25 18 20	16 0 14 0	4.49 10	1.10 18	2.0 1.2 26
FLEMINGTON 5 NNW	48.5 30.2 39.4	72 25 15 29+	12 2 20 0	4.47 10	0.98 27	3.5 3.5 27
HARRISON	50.5 35.2 42.9	74 25 20 20+	13 1 12 0	4.67 10	1.18 18	
NEWARK INTL AP	51.7 36.0 43.9	74 24 21 19	14 0 12 0	4.13 6	1.48 17	1.4 1.4 26
POTTERSVILLE 2 NNW	47.3 31.6 39.5	67 25 19 23+	12 2 14 0	4.41 9	1.10 27	2.4 2.2 27
SUSSEX 2 NW	47.3 28.8 38.0	70 25 10 29	11 3 19 0			
WAYNE *	50.0 32.9 41.2	71 25 16 23		4.03 9	0.92 18	NM
WERTSVILLE 4 NE	49.1 31.4 40.2	71 25 17 20+	11 2 17 0	4.75 9	1.22 27	
RIEGELSVILLE				4.04 10	1.10 27	
TOCKS ISLAND	48.2 29.3 38.7	70 25 15 23+	11 2 21 0			NM
-DIVISION-	40.7 -3.2			4.32 0.41		2.3
-NJ: SOUTHERN-						
ATLANTIC CITY INTL	53.5 33.9 43.7	71 24+ 16 22	17 0 13 0	5.37 5	1.62 17	т т
ESTELL MANOR	52.8 32.2 42.5	72 25 16 22	16 0 16 0	4.97 9	1.13 18	т т
FREEHOLD MARLBORO	51.7 31.6 41.6	73 25 10 30	15 0 17 0	4.83 10	1.06 27	0
HAMMONTON 1 NE	52.3 32.5 42.4	72 5 18 23	15 0 15 0	5.24 10	1.09 27	0
HIGHTSTOWN 2 W	51.2 30.4 40.8	74 25 16 22	14 0 20 0	4.53 9	1.18 27	0.7 0.7 27
INDIAN MILLS	52.4 33.0 42.7	71 24+ 15 22	17 1 14 0	5.58 7	1.66 1	
MILLVILLE MUNI AP	53.2 33.2 43.2	71 24+ 14 22	17 0 14 0	3.94 5	1.38 17	NM
NEW BRUNSWICK 3 S*	50.9 31.9 41.4	73 25 17 22				
SEABROOK FARMS	52.3 33.7 43.0	71 25+ 19 22	16 0 14 0	4.48 10	1.01 27	0
SOMERDALE 4 SW	51.2 33.0 42.1	71 25 18 22	15 0 14 0	4.92 10	0.84 27	0.1 0.1 14
TRENTON MERCER CO	50.7 33.7 42.2	71 24 19 29+	14 1 13 0	4.20 6	1.19 17	NM
PHILADELPHIA MT HO	50.0 31.7 40.9	71 25 18 23+	13 1 17 0	4.30 8	1.34 27	0.1 0.1 14
-DIVISION-	42.2 -4.1			4.76 1.26		0.1
-NJ: COASTAL-						
CAPE MAY 2 NW	53.8 37.5 45.6	68 11+ 21 22	18 0 8 0	3.30 5	1.29 26	0
LONG BRANCH OAKHUR	51.3 33.5 42.4	70 4 20 19+	14 1 13 0	5.54 8	1.40 26	0
-DIVISION-	44.0 -4.4		-	4.42 1.09		0
-STATE-	41.8 -3.8			4.57 0.94		0.9

\*= 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.

#### **MONTHLY DEGREE DATA NOVEMBER 2014**

STATION	HEATING DEGREE DAYS (BASE 65)		COOLING I	DEGREE DAYS (BASE 65)	GROWING DEGREE DAYS (BASE 50)	
		MONTH MONTH SEASON SEASON		TH SEASON SEASON	MONTH MONTH SEASON SEASON	
-DE: NORTHERN-			1.0.1			
WILMINGTON NEW CAST	634	889	0	1073		
WILMINGTON PORTER RS	684	956	0	10.0		
WIEMOTON TONIER RD	004	330				
-DE: SOUTHERN-						
DOVER	562	738	0			
20121	302	700				
-MD: SOUTHEASTERN SHORE-						
SNOW HILL 4 N	535	696	0			
SALISBURY 2N	524		0			
-MD: CENTRAL EASTERN SHORE-						
-MD: CENTRAL EASTERN SHORE-						
-MD: LOWER SOUTHERN-						
MECHANICSVILLE 5 NE	671	958	0			
ST INIGOES WEBSTER	554		0			
-MD: UPPER SOUTHERN-						
BALTIMORE WASH INTL	640	892	0	1084		
BELTSVILLE	652	889	0	1077		
LAUREL 3 W	614	802	0			
MD SCI CTR BALTIMOR	584	735	0	1456		
OXON HILL	622	829	0	1199		
-MD: NORTHEASTERN SHORE-						
STEVENSVILLE	592	760	0			
-MD: NORTHERN CENTRAL-						
ABERDEEN PHILLIPS F	675	952	0	1003		
CONOWINGO DAM	738	1080	0	742		
CYLBURN	678	973	0			
DAMASCUS 3 SSW	736		0			
EMMITSBURG 2 SE	734	1101	0	738		
MILLERS 4 NE	701	1035	0	731		
-MD: APPALACHIAN MOUNTAIN-						
CUMBERLAND 2	724	1051	0			
FROSTBURG 2	893	1529	0			
-MD: ALLEGHENY PLATEAU-						
OAKLAND 1 SE	905	1633	0			
SAVAGE RIVER DAM	837		0			
KITZMILLER 1 W	829	1341	0			
-NJ: NORTHERN-						
BOONTON 1 SE	718	1057	0			
CANOE BROOK	692		0			
CHARLOTTEBURG RSVR	799		0			
CRANFORD	638	874	0	1063		
FLEMINGTON 5 NNW	761	1133	0	794		
HARRISON	659		1			
NEWARK INTL AP	624	832	0	1175		
POTTERSVILLE 2 NNW	758	1118	0	932		
SUSSEX 2 NW	802		0			
WERTSVILLE 4 NE	739	1102	0			

STATION	HEATING DEGREE DAYS (BASE 65)		COOLING DEGREE DAYS (BASE 65)		GROWING DEGREE DAYS (BASE 50)
	MONTH MONTH SEASON SEASON		MONTH MO	NTH SEASON SEASON	MONTH MONTH SEASON SEASON
TOCKS ISLAND	780	1193	0	601	
-NJ: SOUTHERN-					
ATLANTIC CITY INTL	633	907	0	857	
ESTELL MANOR	666	974	0	798	
FREEHOLD MARLBORO	692		0		
HAMMONTON 1 NE	670	970	0	953	
HIGHTSTOWN 2 W	720		0		
INDIAN MILLS	663		0		
MILLVILLE MUNI AP	647		0		
SEABROOK FARMS	650	877	0	1106	
SOMERDALE 4 SW	679	980	0	1105	
TRENTON MERCER CO A	678	970	0	930	
PHILADELPHIA MT HOL	714	1071	0	788	
-NJ: COASTAL-					
CAPE MAY 2 NW	574	740	0	1003	
LONG BRANCH OAKHURS	673	964	0		

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 Regional Climate Center

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