# Northeast Regional Climate Center Mid-Atlantic Climate

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# **DECEMBER 2014**

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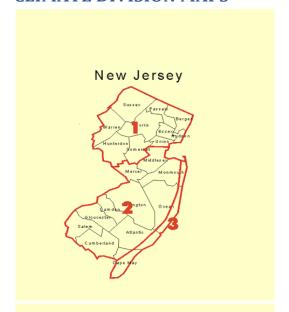
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# **CLIMATE DIVISION MAPS**



# **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

#### **DECEMBER WEATHER HIGHLIGHTS**

December brought the return of warmer conditions to the Mid-Atlantic. The region's average temperature of 39.5 degrees F, 3.0 degrees F above normal, made it the 15<sup>th</sup> warmest December since 1895. All states and their divisions saw above-normal temperatures. New Jersey was 3.1 degrees F above normal, making it the 15<sup>th</sup> warmest December on record. Maryland and Delaware both had their 16<sup>th</sup> warmest December on record at 3.0 degrees F above normal and 2.8 degrees F above normal, respectively. Rankings for climate divisions are listed below. Maryland was home to the highest and lowest temperatures of the month. Mechanicsville and Upper Marlboro reported a high of 73 degrees F on the 2<sup>nd</sup>, while Frostburg reported a low of 15 degrees F on the 31<sup>st</sup>.

| <b>Climate Division</b> | Rank (warmest since 1895) |
|-------------------------|---------------------------|
| New Jersey              |                           |
| Northern                | 12 <sup>th</sup>          |
| Southern                | 17 <sup>th</sup>          |
| Coastal                 | 20 <sup>th</sup>          |
| Maryland                |                           |
| Northeastern Shore      | 14 <sup>th</sup>          |
| Southeastern Shore      | 14 <sup>th</sup>          |
| Allegheny Plateau       | 14 <sup>th</sup>          |
| North Central           | 16 <sup>th</sup>          |
| Lower Southern          | 16 <sup>th</sup>          |
| Upper Southern          | 17 <sup>th</sup>          |
| Delaware                |                           |
| Northern                | 15 <sup>th</sup>          |
| Southern                | 16 <sup>th</sup>          |
|                         |                           |

The Mid-Atlantic wrapped up December on the wet side of normal. The region received 3.98 inches of precipitation, 109 percent of normal. New Jersey was the only wetter than normal state, however. The state saw 124 percent of normal precipitation, with its Coastal division having its 10<sup>th</sup> wettest December on record. Maryland and Delaware both received 99 percent of normal precipitation. In Maryland, the Central Eastern Shore had its 20<sup>th</sup> wettest December on record, while the Allegheny Plateau had its 20<sup>th</sup> driest December on record. Two New Jersey sites had the greatest precipitation and snow totals. Brant Beach picked up 8.14 inches of precipitation in December, with 3.34 inches of that reported on the 9<sup>th</sup>. Flemington saw 1.8 inches of snow during the month, with 1.5 inches of that on the 12<sup>th</sup>.

According to the U.S. Drought Monitor, 19 percent of Maryland was abnormally dry at the start of December. Dry conditions eased slightly along parts of the Eastern Shore, but lingered elsewhere. By month's end 15 percent of the state was abnormally dry. While Delaware started the month with abnormal dryness in a small portion of southern Sussex County, dry conditions eased by month's end. At the start of December, 14 percent of New Jersey was abnormally dry. Dryness in northwest parts of the state lingered through the month. By month's end, 11 percent of the state was abnormally dry.

A slow-moving low pressure system brought a wintry mix to the Mid-Atlantic from December 9 to 11.

Several inches of snow, up to ¼ inch of ice, up to 3 inches of rain, and gusty winds were reported. The storm caused the largest storm surge along the coast since Sandy in 2012, according to the New Jersey State Climatologist. The surge (2.76 feet at Atlantic City) caused moderate beach erosion and coastal flooding, which resulted in road closures. In addition, flights were affected region-wide.

### Daily Maximum Temperature Records (°F)

| Station           | Date | New | Previous   |
|-------------------|------|-----|------------|
| Atlantic City, NJ | 1    | 72  | 72 in 2001 |
| Wilmington, DE    | 24   | 65  | 64 in 1990 |

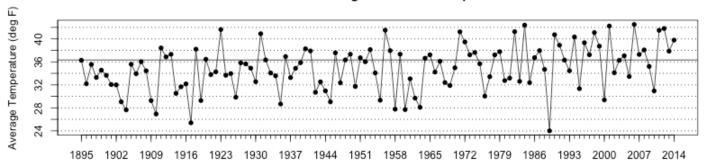
#### Daily High Minimum Temperature Records (°F)

| Station               | Date | New | Previous   |  |
|-----------------------|------|-----|------------|--|
| Washington Dulles, DC | 24   | 42  | 42 in 1979 |  |

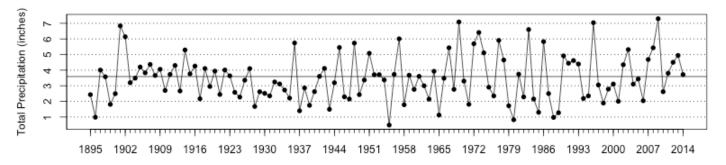
#### Daily High Average Temperature Records (°F)

| Station        | Date | New  | Previous     |
|----------------|------|------|--------------|
| Wilmington, DE | 24   | 56.0 | 54.0 in 1941 |

# Mid Atlantic Average December Temperatures



# Mid Atlantic December Precipitation Totals



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

#### A Dreary Month: Shades of Years Past

#### **December 2014 Report and 2014 Summary**

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

#### **December Overview**

Clouds prevailed in this darkest month of the year, making for some rather persistent dreary conditions. Until the last week of the month there were only two days (the 4<sup>th</sup> and 7<sup>th</sup>) where the sun outperformed the clouds across NJ. At least the year ended on a bright note, with lots of sun during five of the last six days. With the clouds came a fair amount of precipitation, and given milder-than-normal conditions, the vast majority was in the form of rain. Statewide precipitation averaged 4.79". This is 0.88" above the 1981–2010 mean and ranks as the 27<sup>th</sup> wettest December since 1895. The mean temperature of 38.9° was 3.3° above average and ranked as the 15<sup>th</sup> warmest on record. Snowfall averaged 0.6", some 3.5" below average and ranked as the 19<sup>th</sup> least snowy December. A strong nor'easter brought strong winds, multiple inches of rain, minor to moderate coastal flooding, and beach erosion on the 9<sup>th</sup>.

#### **Temperature**

With the abundant cloud cover, there were a number of December days with rather small diurnal temperature ranges. However, on occasion, either due to the sun breaking through or warm frontal passages, temperatures made it into the upper 50°s to mid 60°s. In fact on the 1<sup>st</sup>, the warmest day of month, West Creek (Ocean County) and Egg Harbor Township (Atlantic) reached 72°. Three other stations got to 70°, while 40 of the 56 NJWxNet stations were in the 60°s. However, in the northwest corner of the state, Walpack (Sussex) only got to 47°.

Eight other days saw one or more stations top out at 55° or higher. Cape May Courthouse (Cape May) was 55° on the 3<sup>rd</sup> and West Cape May (Cape May) saw 57° on the 6<sup>th</sup>, with four other stations at 56°. It took until the 16<sup>th</sup> to reach the upper 50°s again, with Piney Hollow (Gloucester) at 57° and Dennis Township (Cape May) 55°. The 17<sup>th</sup> brought a high of 56° to Jersey City (Hudson) and Mansfield (Burlington).

Very mild air invaded NJ on the 24<sup>th</sup>, and by the predawn hours of Christmas near record-high temperatures were achieved. Evening maximums on the 24<sup>th</sup> included 65° at Cherry Hill (Camden) and Mansfield, and 64° at six stations. The warmth never made it to a few low-lying areas in north Jersey by midnight, with the daily maximum of only 50° in Wayne (Passaic). Highs on the 25<sup>th</sup> were 65° at Cherry Hill, Mansfield, and Hamilton (Mercer), 64° at 12 stations, and 60°–63° at 27 other locations. The coolest location was Atlantic City Marina (Atlantic) at 56°. The warmth continued on the 27<sup>th</sup>, with Egg Harbor Township, Greenwich (Cumberland), and Piney Hollow reaching 60°. Five stations topped out at 56° and eight at 55° on the 28<sup>th</sup>. Colder weather prevailed on the last day of the year, when the top reading of highs of only 35° was achieved at four stations, while High Point Monument (Sussex) only got to 22°.

The general absence of cold air intrusions, along with the frequent nighttime cloud cover, resulted in mild daily minimums throughout the majority of the month. Only six days saw one or more stations fall below 20°. On the 5<sup>th</sup>, Walpack bottomed out at 15° and Pequest (Warren) at 19°. Walpack was 14° on the 7<sup>th</sup> and High Point Monument 17°. High Point and High Point Monument fell to 11° on the 8<sup>th</sup>, when Walpack reached 13° and Wantage (Sussex) 14°.

It was not until the 27<sup>th</sup> that sub-20° cold returned to NJ. In the interim, daily minimums across the state did not fall below 33° (the two High Point stations) on the 23<sup>rd</sup> or 38° (High Point Monument) on the 24<sup>th</sup>. Walpack reached 19° on the 27<sup>th</sup> and 18° on the 29<sup>th</sup>, when Pequest was 19°. Walpack and High Point bottomed out at 14° on the 30<sup>th</sup>. The previously mentioned cold on the 31<sup>st</sup> included minimums of 7° at Walpack, 8° in Pequest, and 34 NJWxNet stations dropping to 11°–19°. Atlantic City Mariana was "mildest" at 27°.

#### **Precipitation and Storms**

As was often the case in 2014, a wide range of monthly precipitation totals was observed across NJ in December. On the wet end, the Community Collaborative Rain, Hail and Snow (CoCoRaHS) Network observer at Belmar (Ocean) measured 7.58", followed by CoCoRaHS observations of 7.51" in Point Pleasant Beach (Ocean), Ocean Township (Monmouth) 7.36", Brick Township (Ocean) 7.25", and Long Branch (Monmouth) 7.18". Vernon (Sussex) was the driest location at 2.49", with Hackettstown (Warren) at 3.04", Boonton (Morris) 3.13", two locations in Wantage 3.23" and 3.31", and Sparta (Sussex) 3.30". Maximum monthly snowfall included 3.3" in Highland Lakes (Sussex), 2.0" in Hardyston (Sussex), Holland (Hunterdon) 1.9", and Greenwich (Warren) 1.8".

On four occasions rainfall exceeded an inch at more than one location. The first event barely reached that mark when scattered periods of mainly rain fell from the late afternoon of the 1<sup>st</sup> until the afternoon of the 3<sup>rd</sup>. Stafford Township (Ocean) caught 1.08", Woodbine (Cape May) 1.03", and Ocean Township (Ocean) 0.99". Totals were generally within a few tenths of 0.50" across all but the wetter coastal areas. In some locations this event began with a dusting of light snow and sleet.

The next event from the late afternoon of the 5<sup>th</sup> until the early morning hours of the 7<sup>th</sup> brought a widespread soaking to the state. Some 205 CoCoRaHS gauges caught between 1.00"–1.93", with only 15 reports of 0.50"–0.99" from the far northwest and deep southeast. Freehold topped the list with 1.93", followed by Matawan (Monmouth) with 1.87", Red Bank (Monmouth) 1.81", and Old Bridge (Middlesex) 1.79".

A minor but interesting snow event took place along the coast on the 8<sup>th</sup>. Winds from off the Atlantic generated ocean effect snow that accumulated to 0.5" in Ocean Township (Ocean), and 0.4" in both Howell (Monmouth) and Point Pleasant Beach. At best, a few inland areas saw flurries.

As mentioned in the introduction, a sizable nor'easter visited NJ on the 9<sup>th</sup>. The storm was strongest along the coast. While not even coming close to the storm on December 11, 1992, it brought the largest storm surge to the coast since Sandy. The surge measured 2.76′ at Atlantic City (Atlantic), which is considered moderate. The 2.77′ surge at Sandy Hook (Monmouth) is just below the moderate criterion for that location. Low-lying roads went underwater at multiple high tides and beach erosion was moderate. Winds gusted to 55 mph at Harvey Cedars (Ocean), 54 mph in Tuckerton (Ocean), 49 mph at Sea Girt (Monmouth), and 46 mph in Seaside Heights (Ocean). Four other stations gusted in the 40–45 mph range, with 14 others between 30–39 mph. Rainfall exceeded 3.00″ at five CoCoRaHS stations, including Belmar 3.17″, Ocean Township (Monmouth) 3.15″, Point Pleasant Beach 3.12″, Lavallette (Ocean) 3.06″, and Lacey Township (Ocean) 3.03″. Some 40 other stations caught between 2.00–2.99″ and 150 stations from 1.00″–1.99″. The lowest totals were in Boonton 0.56″, Pennsville (Salem) 0.62″, and East Greenwich (Gloucester) 0.63″. The storm began as a period of freezing rain at higher elevations in north Jersey, icing trees and walkways. Several roads across the Millstone River in Somerset County were closed for a day due to minor flooding.

Snow squalls followed on the backside of the storm during the afternoon of the 10<sup>th</sup>. Highland Lakes received 3.3", Hardyston 2.0", Wantage and Sparta 1.5", and both Jefferson Township (Morris) and West Milford (Passaic) 1.4".

The final rainy episode of the month began late on the 22<sup>nd</sup>, ending in the predawn hours of the 25<sup>th</sup>. While it was mainly a persistent period of light rain and drizzle, moderate rain fell on the 24<sup>th</sup>. The event tally was as much as 1.61" and 1.55" at two Woodbridge (Middlesex) locations, 1.60" in Belmar, 1.58" at Ocean Township (Monmouth), and 1.57" in Long Branch. Some 1.38 CoCoRaHS observers measured between 1.00"–1.61", with 70 others seeing between 0.50"–0.99". There was a dusting of snow at higher elevations to begin the event.

Windy conditions prevailed at the High Point Monument NJWxNet station throughout most of December. On all but two days the maximum wind gust exceeded 20 mph and on seven days gusts were higher than 40 mph. Starting off the list of daily gusts equal to or exceeding 40 mph was Wantage with a 41 mph gust on the 1<sup>st</sup>. Harvey Cedars reached 42 mph on the 7<sup>th</sup>. The strong winds of

the 9<sup>th</sup> were discussed above. A six-day run of strong gusts at High Point Monument and Wantage began on the 10<sup>th</sup> with 46 mph at the Monument. The 11<sup>th</sup> brought a 41 mph gust to this location, Wantage peaked at 42 mph on the 12<sup>th</sup>, both stations reached 46 mph on the 13<sup>th</sup>, the Monument was at 46 mph and Wantage 45 mph on the 14<sup>th</sup>, and the Monument got to 40 mph on the 15<sup>th</sup>. These strong winds were somewhat localized, as for instance on the 13<sup>th</sup> the next highest gust in NJ was 29 mph at four stations and 27 mph at Harvey Cedars on the 14<sup>th</sup>. This local wind maximum is a function of the northeast trending topography atop and just to the east of the Kittatinny Ridge and a prevailing northwesterly flow at lower levels of the atmosphere (to learn more about this type of occurrence, click here). This phenomenon was also seen on the 18<sup>th</sup> when High Point Monument gusted to 50 mph and Wantage to 48 mph, with the 34 mph gust at Harvey Cedars next highest. Strong winds were more widespread on the 25<sup>th</sup>, with Wantage gusting to 57 mph, the Monument to 49 mph, the generally sheltered High Point station 300 feet below the crest of the ridge an impressive 43 mph, and 26 other NJWxNet stations gusting to between 30–39 mph.

The highest surface barometric pressure of the month was on the 8<sup>th</sup> with impressive observations of 30.65"–30.70". The 25<sup>th</sup> brought the lowest pressure of 29.50"–29.55".

#### 2014 Synopsis

The statewide annual temperature of 52.1° is 1.1° below the 1981–2010 mean. However, when examining the complete 1895–2014 period of record, it is only 0.2° below that long-term average. This ranks 2014 as the 56<sup>th</sup> coolest year of the past 120 (tied with 1922). The warmest day was July 2, when Hillsborough (Somerset) reached 97°, the 2014 state maximum. The coldest day was January 7, when the noon temperature ranged from -3° at High Point Monument to 13° at West Cape May. The coldest temperature of the year was -18° at Walpack on February 11<sup>th</sup> and 12<sup>th</sup>.

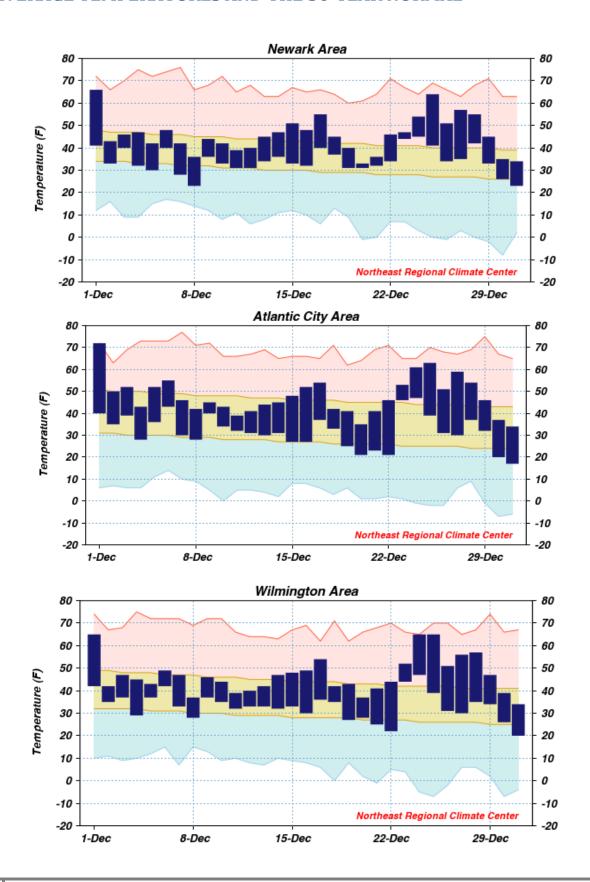
Annual precipitation was 50.54". This is 3.60" above the 1981–2010 mean and ranks as the 20<sup>th</sup> wettest on record. This was 5.24" above the 1895–2014 mean. The wettest locations in the state were found along the coast and included 66.76" in Lacey Township, 63.15" at Belmar, 59.55" in Brick, and 59.48" at two stations in Howell and one in Berkeley Township (Ocean). Franklin Township (Gloucester) also had a wet year with 61.66". On the opposite side of the ledger, Sussex and Cape May counties were driest. This included 40.70" in Wantage, 42.56" in Middle Township (Cape May), 43.18" at Wildwood Crest (Cape May), and 45.20" in Andover (Sussex). Upper Deerfield in western Cumberland County was also dry at 45.00".

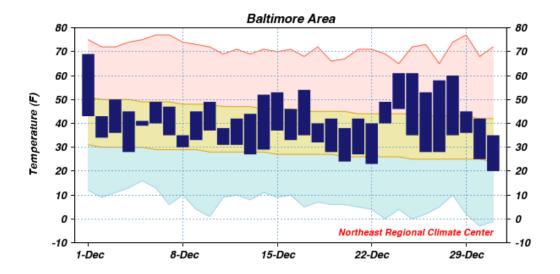
The wettest day of the year was April 30, with 4.00"–5.00" at many locations and as much as 6.52" in Washington Township (Gloucester). The wettest storm at any location was 8.94" in Millville on August 12<sup>th</sup>–13<sup>th</sup>. Only one tropical system affected NJ in 2014. South coastal sections were brushed by Hurricane Arthur, which passed offshore on July 4<sup>th</sup>. Rainfall totaled 0.50"–1.25" along the coast, the wind gusted to 40 mph at Harvey Cedars and rip currents made for dangerous swimming.

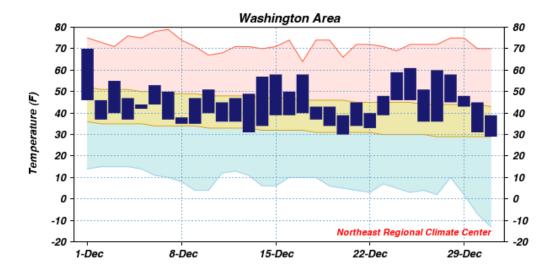
It was a protracted winter that stole the biggest environmental headlines of 2014. Frequent snows and some of the coldest weather in 20 years made for a memorable January through March. Read more about this and see what we in the state climate office consider to be the major weather and climate events of the year in our top 10 list that follows.

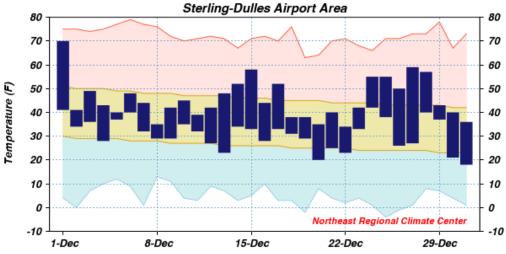
To view the ONJSC's Top 10 NJ Weather and Climate Events of 2014, please follow the link here: <a href="http://www.njweather.org/content/onjscs-top-10-nj-weather-and-climate-events-2014">http://www.njweather.org/content/onjscs-top-10-nj-weather-and-climate-events-2014</a>

# DAILY AVERAGE TEMPERATURES AND THE 30-YEAR NORMAL









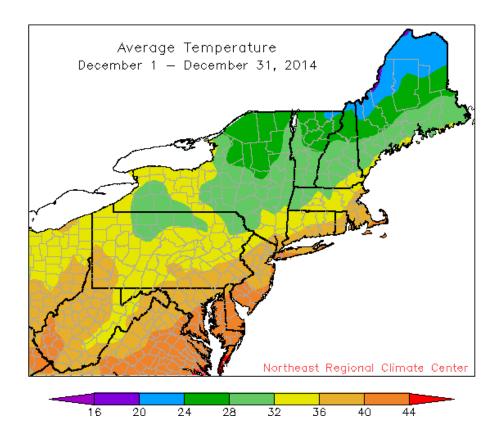
Observed daily maximum and minimum temperatures are connected by dark blue bars.

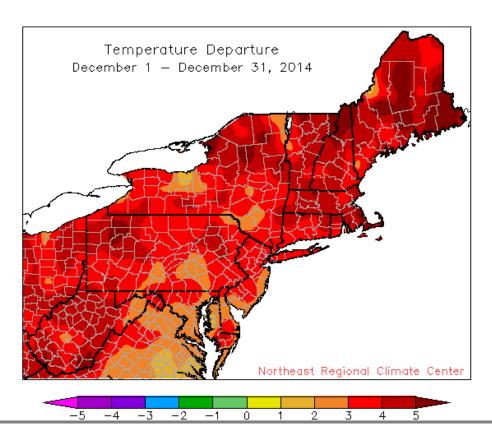
Area between normal max and min temperatures has tan shading.

Red line connects record high temperatures.

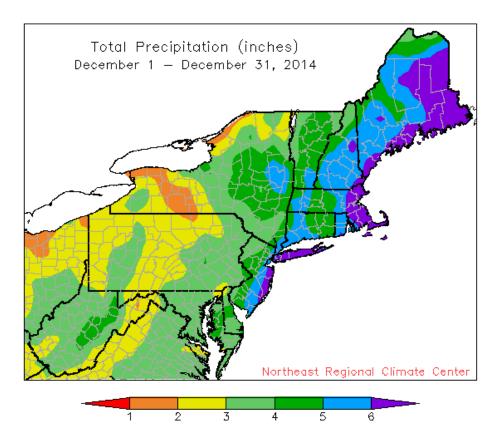
Light blue line connects record low temperatures.

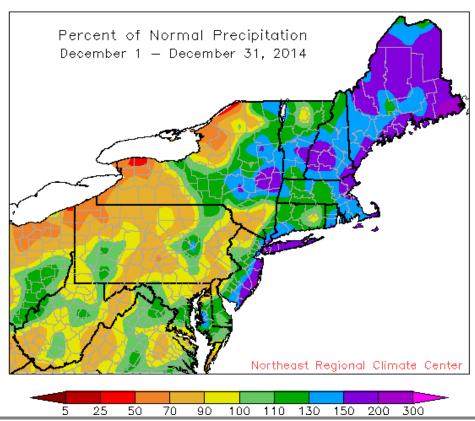
# **MONTHLY TEMPERATURE MAPS**



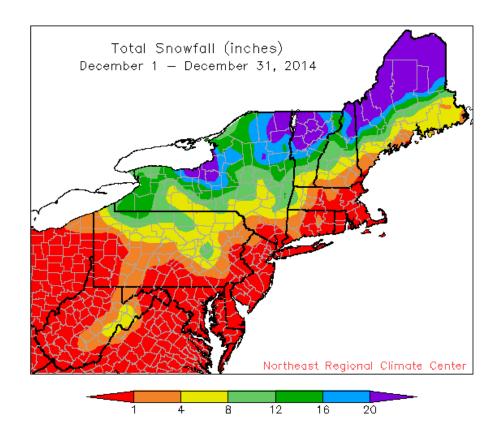


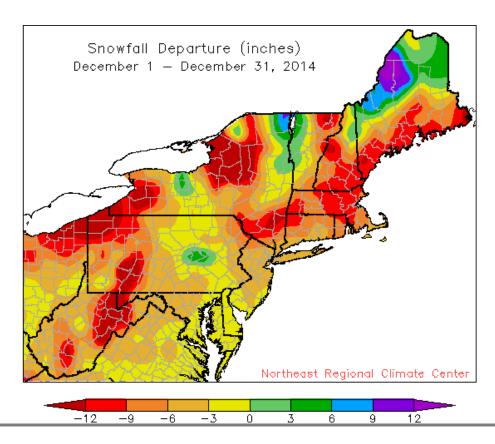
# **MONTHLY PRECIPITATION MAPS**





# **MONTHLY SNOWFALL MAPS**





# PRELIMINARY MONTHLY SUMMARIZED DATA DECEMBER 2014

| статом              | TEMPERATURE       | 1               | NUMBER OF SAUG |                    | PITATION (INCH |  |
|---------------------|-------------------|-----------------|----------------|--------------------|----------------|--|
| 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-      |                   |                 |                |                    | ļ              |  |
| WILMINGTON NEW CAS  | 47.0 33.1 40.1    | 65 25+ 20 31    | 8 0 13 0       | 3.01 6             | 0.95 24        | 0.2 0.2 11   |
| WILMNGTON PORTER R  | 45.8 32.1 38.9    | 63 26+ 20 31    | 10 1 14 0      | 3.06 8             | 0.97 24        | 0  |
| -DIVISION-          | 39.5 3.0          |                 |                | 3.04 -0.71         |                | 0.1  |
|                     |                   |                 |                |                    |                |  |
| -DE: SOUTHERN-      |                   |                 |                |                    | ļ              |  |
| DOVER               | 48.8 34.6 41.7    | 69 1 22 31      | 15 0 13 0      |                    |                | т т  |
| -DIVISION-          | 41.7 2.8          |                 |                | 3.77 +0.15         |                | 0  |
| 211121011           | 1117 210          |                 |                |                    |                | , and the second |
| -STATE-             | 41.2 2.8          |                 |                | 3.61 -0.04         |                | 0  |
| -STATE-             | 41.2 2.0          |                 |                | 3.61 -0.04         | ļ              | U  |
| MD - COURTE A CREEN |                   |                 |                |                    | ļ              |  |
| -MD: SOUTHEASTERN-  |                   |                 |                |                    |                |  |
| SALISBURY WICOMICO  | 52.4 35.6 44.0    | 71 1 22 31      | 19 0 12 0      |                    |                | т т  |
| SNOW HILL 4 N       | 53.2 34.2 43.7    | 72 1 18 31      | 19 0 14 0      | 4.19 8             | 1.28 24        | NM   |
| SALISBURY 2N        | 53.4 34.5 44.0    | 69 24+ 22 31    | 17 0 14 0      | 4.06 7             | 1.40 9         | NM   |
| -DIVISION-          | 43.9 3.7          |                 |                | 4.13 0.47          |                | 0  |
|                     |                   |                 |                |                    |                |  |
| -MD: CENTRAL EAST-  |                   |                 |                |                    | 1              |  |
| ROYAL OAK 2 SSW     | 48.8 33.4 41.1    | 69 1 22 31      | 17 0 10 0      | 4.99 8             | 1.11 24        | т т  |
| -DIVISION-          | 41.1 1.8          |                 |                | 4.99 1.45          |                | 0  |
| -NTATOM-            | 41.1 1.8          |                 |                | 4.77 1.40          | 1 '            | Ū.   |
| VD TOITE 00         |                   |                 |                |                    | 1              |  |
| -MD: LOWER SOUTHE-  |                   | 1               |                |                    | 1 '            |  |
| MECHANICSVILLE 5 N  | 48.9 31.5 40.2    | 73 2 20 31      | 14 0 18 0      |                    | 1              |  |
| ST INIGOES WEBSTER  | 49.6 35.5 42.5    | 71 1 23 31      | 14 0 11 0      | 2.83 5             | 1.20 24        | NM   |
| -DIVISION-          | 41.4 2.8          |                 |                | 2.83 -0.69         |                |  |
|                     |                   |                 |                |                    |                |  |
| -MD: UPPER SOUTHE-  |                   |                 |                |                    |                |  |
| BALTIMORE WASH INT  | 47.4 32.4 39.9    | 69 1 20 31      | 10 0 15 0      | 3.58 6             | 0.85 24        | 0.2 0.2 11   |
|                     |                   |                 |                |                    |                |  |
| BELTSVILLE          | 47.8 31.7 39.7    | 71 2 21 31      | 12 0 18 0      | 3.39 9             | 0.55 7         | т т  |
| DALECARLIA RSVR *   | 48.1 32.6 40.4    | 72 2 23 31      |                |                    |                |  |
| LAUREL 3 W          | 46.8 33.2 40.0    | 71 1 22 31      | 9 0 15 0       | 3.87 8             | 0.78 24        | NM   |
| MD SCI CTR BALTIMO  | 46.5 36.0 41.2    | 72 1 28 31      | 9 0 5 0        | 3.33 8             | 0.87 24        | NM   |
| NATL ARBORETUM DC   | 50.2 34.1 42.1    | 70 25+ 24 31    | 14 0 13 0      | 3.44 9             | 0.62 24        |  |
| OXON HILL           | 48.2 33.3 40.8    | 71 2 23 31      | 12 0 13 0      | 4.00 10            | 0.61 25        | т т  |
| UPPER MARLBORO 3 N  | 48.7 31.1 39.9    | 73 2 19 31      | 12 0 18 0      | 4.15 11            | 0.90 11        | NM   |
| -DIVISION-          | 40.7 31.1 39.9    | 75 2 19 51      | 12 0 10 0      | 3.68 0.32          | 0.90 11        | 0.1  |
| -DIVISION-          | 40.3 2.9          |                 |                | 3.06 0.32          |                | 0.1  |
|                     |                   |                 |                |                    |                |  |
| -MD: NORTHEASTERN-  |                   |                 |                |                    | 1              |  |
| STEVENSVILLE        | 46.9 34.5 40.7    | 64 2 27 31+     | 11 0 9 0       | 3.71 10            | 0.91 7         | T T  |
| -DIVISION-          | 40.7 3.3          |                 |                | 3.71 0.16          |                | 0  |
|                     |                   |                 |                |                    |                |  |
| -MD: NORTHERN CEN-  |                   |                 |                |                    |                |  |
| ABERDEEN PHILLIPS   | 47.4 32.9 40.1    | 64 2 23 31      | 12 0 15 0      |                    | 1              |  |
| BRIGHTON DAM *      | 45.4 29.9 37.6    | 70 2 19 31      |                | 3.78 11            | 0.59 7         | 0  |
| CYLBURN             | 46.6 32.5 39.5    | 72 2 24 22      | 10 0 18 0      |                    | 1              | NM   |
| DAMASCUS 3 SSW      | 44.6 30.6 37.6    | 69 2 21 31+     | 7 1 21 0       | 2.96 8             | 0.58 7         | T T  |
|                     |                   |                 |                |                    |                |  |
| EMMITSBURG 2 SE     | 45.9 29.8 37.9    |                 | 11 0 22 0      | 3.14 10            | 0.56 24        | T T  |
| MILLERS 4 NE        | 44.4 31.9 38.2    | 67 1 20 31+     | 6 1 19 0       | 3.46 9             | 0.92 24        | 0.5 0.5 11   |
| -DIVISION-          | 38.5 3.0          |                 |                | 3.34 -0.15         | 1 '            | 0.1  |
|                     |                   |                 |                |                    | 1 '            |  |
| -MD: APPALACHIAN -  |                   |                 |                |                    | 1 '            |  |
| CUMBERLAND 2        | 45.5 31.0 38.3    | 64 28 23 31     | 8 0 18 0       | 1.92 6             | 0.50 24        |  |
| FROSTBURG 2         | 38.8 26.4 32.6    | 56 28+ 15 31    | 3 7 26 0       | 2.42 5             | 0.52 17+       |  |
| SHARPSBURG 5 S      | 45.4 28.5 36.9    | 69 2 17 31      | 10 0 23 0      | _                  |                | NM   |
| -DIVISION-          | 35.9 2.7          | "" ""           |                | 2.17 -0.89         | 1              |  |
| -DIAIDIOM-          | 33.9 2.1          |                 |                | 2.17 -0.09         | 1 '            |  |
| WD 377              |                   |                 |                |                    | 1              |  |
| -MD: ALLEGHENY PL-  |                   | 1               | _              |                    | 1 .            |  |
| SAVAGE RIVER DAM    | 40.4 28.8 34.6    | 58 1 20 31      | 5 5 24 0       | 2.26 7             | 0.51 7         |  |
| KITZMILLER 1 W      | 41.8 28.8 35.3    | 61 1 20 31+     | 6 3 24 0       |                    | 1              | NM   |
| -DIVISION-          | 35.0 4.4          |                 |                | 2.26 -1.35         | 1              |  |
|                     |                   |                 |                |                    | 1              |  |
| -STATE-             | 39.6 3.0          |                 |                | 3.46 -0.02         | 1              | 0  |
|                     | 33.0 3.0          |                 |                | 5.15 -0.0 <u>2</u> | 1              |  |
| NI. NODWIEDN        |                   |                 |                |                    | 1 '            |  |
| -NJ: NORTHERN-      |                   |                 |                |                    | 1              | 10 -   |
| BLACKWELLS MILLS    |                   |                 |                |                    | 1              | 1.0 1.0 12   |
| BOONTON 1 SE        | 44.2 30.4 37.3    | 62 2 21 9+      | 7 1 22 0       | 2.79 9             | 0.51 9         | т т  |
| BOUND BROOK 2 W     | 1                 | 1               | I              | 4.17 8             | 1.00 9         | т т  |

|                    | TEMPERATURE (     | F)              |                | PRECIP         | ITATION (INCH | ES)         |
|--------------------|-------------------|-----------------|----------------|----------------|---------------|-------------|
| 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     |
| CANOE BROOK        | 44.9 31.7 38.3    | 64 2 22 8       | 6 0 18 0       | 4.46 8         | 1.56 6        | NM          |
| CHARLOTTEBURG RSVR | 41.5 28.4 34.9    | 62 25 16 9+     | 5 3 26 0       |                |               |             |
| FLEMINGTON 5 NNW   | 43.8 31.0 37.4    | 62 25+ 18 31    | 7 0 20 0       | 4.70 10        | 1.08 7        | 1.8 1.5 12  |
| HARRISON           | 45.4 33.8 39.6    | 66 2 23 8       | 8 0 14 0       | 5.38 9         | 1.15 7        |             |
| LAMBERTVILLE       |                   |                 |                | 4.04 10        | 0.98 9        | 0           |
| NEWARK INTL AP     | 45.9 34.2 40.1    | 66 1 23 31+     | 8 0 12 0       | 4.91 7         | 1.34 9        | 0.3 0.2 11  |
| PHILLIPSBURG EASTO | 43.6 30.4 37.0    | 63 26+ 20 9+    | 7 1 23 0       | 3.84 9         | 0.82 10       | т т         |
| POTTERSVILLE 2 NN* | 42.9 32.0 37.5    | 59 25 22 31     |                | 4.27 8         | 1.04 7        | 0.5 0.5 11  |
| SUSSEX 2 NW        | 41.2 28.8 35.0    | 61 25 17 9+     | 6 2 23 0       |                |               |             |
| WAYNE              | 45.1 31.5 38.3    | 64 2 20 8       | 6 0 19 0       | 4.41 10        | 1.00 7        | NM          |
| WERTSVILLE 4 NE    | 44.1 31.0 37.5    | 64 2 17 31      | 8 1 20 0       | 4.58 10        | 1.01 9        | T T         |
| RIEGELSVILLE       |                   |                 |                | 4.53 10        | 0.81 25       | т т         |
| TOCKS ISLAND       | 41.6 29.8 35.7    | 63 25 20 31+    | 4 2 23 0       |                |               | NM          |
| -DIVISION-         | 37.4 3.7          |                 |                | 4.37 0.37      |               | 0.4         |
| -NJ: SOUTHERN-     |                   |                 |                |                |               |             |
| ATLANTIC CITY INTL | 47.9 31.9 39.9    | 72 1 17 31      | 13 0 18 0      | 5.53 7         | 2.08 9        | 0.4 0.4 11  |
| FREEHOLD MARLBORO* | 47.2 31.1 39.1    | 65 3 19 31      |                |                |               | 0           |
| HAMMONTON 1 NE     | 47.9 32.0 39.9    | 68 2 21 31      | 14 0 18 0      | 5.21 8         | 1.61 9        | 0.5 0.5 12  |
| HIGHTSTOWN 2 W     | 46.8 30.1 38.5    | 66 25 17 31     | 10 0 23 0      | 4.79 9         | 1.27 7        | T T         |
| INDIAN MILLS       | 47.4 31.4 39.4    | 67 1 16 31      | 10 1 19 0      | 5.54 9         | 1.78 9        | T T         |
| MAYS LANDING 1 W   |                   |                 |                |                |               | 0.2 0.2 8   |
| MILLVILLE MUNI AP  | 47.4 31.3 39.3    | 68 1 16 31      | 11 0 17 0      | 4.94 7         | 1.66 24       | NM          |
| NEW BRUNSWICK 3 SE | 46.5 31.8 39.2    | 66 2 17 31      | 10 0 18 0      | 5.34 12        | 1.13 9        | 0.2 0.1 12+ |
| SEABROOK FARMS     | 47.2 32.6 39.9    | 67 2 21 31      | 12 0 15 0      | 4.70 8         | 1.31 7        | 0.5 0.5 12  |
| SOMERDALE 4 SW     | 47.6 32.7 40.1    | 66 2 18 31      | 11 0 14 0      | 4.39 7         | 1.21 7        | 0.3 0.2 12  |
| TRENTON MERCER CO  | 45.4 32.6 39.0    | 67 1 19 31      | 7 1 19 0       | 4.14 8         | 1.46 9        | NM          |
| PHILADELPHIA MT HO | 46.1 31.7 38.9    | 65 2 17 31      | 10 0 20 0      | 4.84 9         | 1.44 9        | 0.1 0.1 11  |
| -DIVISION-         | 39.4 2.9          |                 |                | 4.94 1.07      |               | 0.2         |
| -NJ: COASTAL-      |                   |                 |                |                |               |             |
| BRANT BEACH HVN    |                   |                 |                | 8.14 9         | 3.34 9        | 0           |
| CAPE MAY 2 NW      | 48.2 34.8 41.5    | 69 1 22 31      | 12 0 11 0      | 4.67 11        | 1.47 9        | т т         |
| LONG BRANCH OAKHUR | 46.8 33.3 40.0    | 67 1 16 31      | 9 1 16 0       | 7.87 10        | 1.84 9        | 0           |
| -DIVISION-         | 40.8 2.0          |                 |                | 6.27 2.61      |               | 0           |
| -STATE-            | 38.8 3.1          |                 |                | 4.83 0.92      |               | 0.3         |

# PRELIMINARY MONTHLY DEGREE DATA DECEMBER 2014

| STATION                                 | неаттис ре | GREE DAYS (BASE 65) | COOL TMG D | EGREE DAYS (BASE 65) | GROWING DECREE DAVS (PAGE 50)                           |
|---|------------|---------------------|------------|----------------------|---|
| SIMITON                                 |            | H SEASON SEASON     |            | TH SEASON SEASON     | GROWING DEGREE DAYS (BASE 50) MONTH MONTH SEASON SEASON |
| DE - NODWIEDN                           | MONTH MONT | n SEASON SEASON     | MONTH MON  | IN SEASON SEASON     | MONTH MONTH SEASON SEASON                               |
| -DE: NORTHERN-<br>WILMINGTON NEW CAST   | 765        | 1654                | 0          | 1073                 |   |
| WILMINGTON NEW CAST WILMNGTON PORTER RS | 765        | 1755                | 0          | 10/3                 |   |
| WILLINGTON FORTER RS                    | 179        | 1133                | 0          |                      |   |
| -DE: SOUTHERN-                          |            |                     |            |                      |   |
| DOVER                                   | 714        | 1452                | 0          |                      |   |
| BOVER                                   | 714        | 1432                | Ų.         |                      |   |
| -MD: SOUTHEASTERN SHORE-                |            |                     |            |                      |   |
| SALISBURY WICOMICO                      | 644        | 1316                | 0          | 1379                 |   |
| SNOW HILL 4 N                           | 654        | 1350                | 0          |                      |   |
| SALISBURY 2N                            | 645        |                     | 0          |                      |   |
|   |            |                     |            |                      |   |
| -MD: CENTRAL EASTERN SHORE-             |            |                     |            |                      |   |
| ROYAL OAK 2 SSW                         | 732        | 1487                | 0          | 1237                 |   |
|   |            |                     |            |                      |   |
| -MD: LOWER SOUTHERN-                    |            |                     |            |                      |   |
| MECHANICSVILLE 5 NE                     | 761        | 1719                | 0          |                      |   |
| ST INIGOES WEBSTER                      | 688        |                     | 0          |                      |   |
|   |            |                     |            |                      |   |
| -MD: UPPER SOUTHERN-                    |            |                     |            |                      |   |
| BALTIMORE WASH INTL                     | 769        | 1661                | 0          | 1084                 |   |
| BELTSVILLE                              | 775        | 1664                | 0          | 1077                 |   |
| LAUREL 3 W                              | 767        | 1569                | 0          |                      |   |
| MD SCI CTR BALTIMOR                     | 727        | 1462                | 0          | 1456                 |   |
| NATL ARBORETUM DC                       | 699        |                     | 0          |                      |   |
| OXON HILL                               | 745        | 1574                | 0          | 1199                 |   |
| UPPER MARLBORO 3 NN                     | 773        | 1678                | 0          | 1128                 |   |
|   |            |                     |            |                      |   |
| -MD: NORTHEASTERN SHORE-                |            |                     |            |                      |   |
| STEVENSVILLE                            | 745        | 1505                | 0          |                      |   |
|   |            |                     |            |                      |   |
| -MD: NORTHERN CENTRAL-                  |            |                     |            |                      |   |
| ABERDEEN PHILLIPS F                     | 764        | 1716                | 0          | 1003                 |   |
| CYLBURN                                 | 782        | 1755                | 0          |                      |   |
| DAMASCUS 3 SSW                          | 839        |                     | 0          |                      |   |
| EMMITSBURG 2 SE                         | 834        | 1935                | 0          | 738                  |   |
| MILLERS 4 NE                            | 826        | 1861                | 0          | 731                  |   |
|   |            |                     |            |                      |   |
| -MD: APPALACHIAN MOUNTAIN-              | 1          |                     |            |                      |   |
| CUMBERLAND 2                            | 820        | 1871                | 0          |                      |   |
| FROSTBURG 2                             | 996        | 2525                | 0          |                      |   |
| SHARPSBURG 5 S                          | 862        |                     | 0          |                      |   |
| MD. ALLECHENY DISCOUR                   |            |                     |            |                      |   |
| -MD: ALLEGHENY PLATEAU-                 | 024        |                     | 0          |                      |   |
| SAVAGE RIVER DAM                        | 934        | 2253                | 0          |                      |   |
| KITZMILLER 1 W                          | 912        | 2233                | U          |                      |   |
| -NJ: NORTHERN-                          |            |                     |            |                      |   |
| BOONTON 1 SE                            | 849        | 1906                | 0          |                      |   |
| CANOE BROOK                             | 821        | =3.64               | 0          |                      |   |
| CHARLOTTEBURG RSVR                      | 924        |                     | 0          |                      |   |
| FLEMINGTON 5 NNW                        | 845        | 1978                | 0          | 794                  |   |
| HARRISON                                | 779        | 1688                | 0          | 1113                 |   |
| NEWARK INTL AP                          | 765        | 1597                | 0          | 1175                 |   |
| PHILLIPSBURG EASTON                     | 858        | 100,                | 0          | 11.0                 |   |
| INTERTIORATE EASION                     | 0.50       |                     |            |                      |   |

| STATION             |     | GREE DAYS (BASE 65) |   | EGREE DAYS (BASE 65) | GROWING DEGREE DAYS (BASE 50) MONTH MONTH SEASON SEASON |
|---------------------|-----|---------------------|---|----------------------|---|
|                     |     | SEASON SEASON       |   | TH SEASON SEASON     | MONTH MONTH SEASON SEASON                               |
| SUSSEX 2 NW         | 921 |                     | 0 |                      |   |
| WAYNE               | 821 |                     | 0 |                      |   |
| WERTSVILLE 4 NE     | 844 | 1946                | 0 |                      |   |
| TOCKS ISLAND        | 899 | 2092                | 0 | 601                  |   |
|                     |     |                     |   |                      |   |
| -NJ: SOUTHERN-      |     |                     |   |                      |   |
| ATLANTIC CITY INTL  | 769 | 1676                | 0 | 857                  |   |
| HAMMONTON 1 NE      | 769 | 1739                | 0 | 953                  |   |
| HIGHTSTOWN 2 W      | 814 |                     | 0 |                      |   |
| INDIAN MILLS        | 785 |                     | 0 |                      |   |
| MILLVILLE MUNI AP   | 788 |                     | 0 |                      |   |
| NEW BRUNSWICK 3 SE  | 792 | 1781                | 0 | 921                  |   |
| SEABROOK FARMS      | 769 | 1646                | 0 | 1106                 |   |
| SOMERDALE 4 SW      | 764 | 1744                | 0 | 1105                 |   |
| TRENTON MERCER CO A | 798 | 1768                | 0 | 930                  |   |
| PHILADELPHIA MT HOL | 803 | 1874                | 0 | 788                  |   |
|                     |     |                     |   |                      |   |
| -NJ: COASTAL-       |     |                     |   |                      |   |
| CAPE MAY 2 NW       | 722 | 1462                | 0 | 1003                 |   |
| LONG BRANCH OAKHURS | 766 | 1730                | 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

1123 Bradfield Hall Cornell University Ithaca, NY 14853-1901