## Northeast Regional Climate Center Mid-Atlantic Climate

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#### **NOVEMBER 2012**

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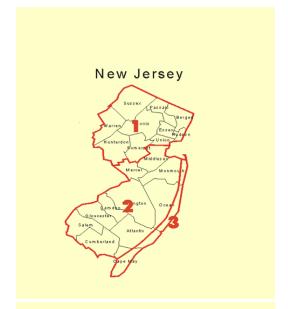
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#### **CLIMATE DIVISION MAPS**



#### **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**

The average temperature of 42.0 degrees, 4.2 degrees below normal, made it the 18<sup>th</sup> coolest November since 1895 for the Mid-Atlantic. All states, and all divisions, reported cooler than average temperatures. In terms of departure from normal, Delaware was the coolest at 4.9 degrees below normal. November 2012 was the 11<sup>th</sup> coolest on record and the coolest November since 1996 for the state. Both Maryland and New Jersey were 4.1 degrees below normal. New Jersey had its 17<sup>th</sup> coolest November while Maryland had its 18<sup>th</sup> coolest. Salisbury, located in Maryland's Southeastern Shore, was the warm spot, reaching a high of 75 degrees on the 12<sup>th</sup>. The cool spot was Millville, located in New Jersey's Southern division, which dropped to 19 degrees on the 29<sup>th</sup>.

On the heels of one of the wettest months on record, October, the Mid-Atlantic had one of its driest months on record. Receiving only 1.06 inches of precipitation (30% of normal), the Mid-Atlantic had its 9<sup>th</sup> driest November in 118 years. All states and their divisions were drier than average. Maryland had its 4<sup>th</sup> driest November at 22% of normal and its Allegheny Plateau division had its driest November on record with 13% of normal precipitation. Delaware received 35% of normal precipitation, making it their 13<sup>th</sup> driest November, and New Jersey received 40% of normal, making it their 12<sup>th</sup> driest. For a list of divisions ranks, see the table below. Frostburg, MD, received only 0.35 inches of precipitation, making it the site of the lowest monthly precipitation. Precipitation totals were greatest in New Jersey in part because of a beginning of the month Nor'easter. The greatest monthly precipitation was reported in Indian Mills, NJ, which received 2.11 inches of precipitation, while Estell Manor had the greatest daily precipitation with 1.21 inches (in the form of 4 inches of snow) on the 8<sup>th</sup>. As for snowfall, Canoe Brook, NJ, received a monthly snowfall maximum of 8.2 inches while a daily snowfall maximum of 7.2 inches fell in Hightstown, NJ, on the 8<sup>th</sup>.

#### Climate Division Rank (driest since 1895)

#### Maryland

Allegheny Plateau	1 <sup>st</sup>
Lower Southern	3 <sup>rd</sup>
Southeastern Shore	$3^{rd}$
Northeastern Shore	5 <sup>th</sup>
Appalachian Mtn.	5 <sup>th</sup>
Central Eastern Shore	9 <sup>th</sup>
Upper Southern	9 <sup>th</sup>
North Central	11 <sup>th</sup>
Now Jorsey	

#### New Jersey

Northern	8 <sup>th</sup>
Coastal	17 <sup>th</sup>
Southern	<b>21</b> <sup>st</sup>

#### Delaware

Northern	12 <sup>11</sup>
Southern	15 <sup>th</sup>

At the start of November, the Mid-Atlantic was still dealing with the aftermath of Sandy. Damage to fuel terminals and power outages caused twelve northern counties of New Jersey to institute gas rationing for 10 days. As per the Associated Press, the estimated cost of recovering and rebuilding from Sandy increased to \$37 billion in New Jersey. A Nor'easter dropped snow on areas still trying to clean up from Sandy on the 7<sup>th</sup> and 8<sup>th</sup>. Some inland areas of New Jersey received over a foot of snow and a few snowfall records were set across the Mid-Atlantic. Wind gusts near 35 mph downed already vulnerable trees and power lines and caused new power outages in places where people had just gotten power back. According to the Department of Energy website, "All customers who are able to receive electricity and who lost power due to Sandy and the Nor'easter have had their electricity restored. As of December 3, in New Jersey there are less than 19,000 customers who are unable to accept electric service."

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

Station	Date	New	Previous
Washington Dulles, DC	8	43	43 in 1967

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

<u>Station</u>	Date	New	Previous
Newark, NJ	6	27	29 in 1953

#### **Daily Precipitation Record (inches)**

Station	Date	New	Previous
Washington Dulles, DC	13	0.87	0.78 in 2008

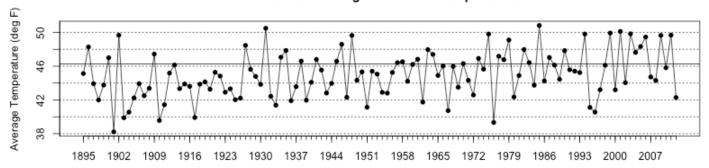
#### **Daily Snowfall Records (inches)**

Station	Date	New	Previous
Atlantic City, NJ	7	2.5	2.0 in 1953
Newark, NJ	7	5.7	Trace in 1981
Washington National, DC	8	Trace	Trace in 1991
Newark, NJ	8	0.5	Trace in 2010
Washington Dulles, DC	13	Trace	Trace in 1995
Wilmington, DE	25	Trace	Trace in 2010

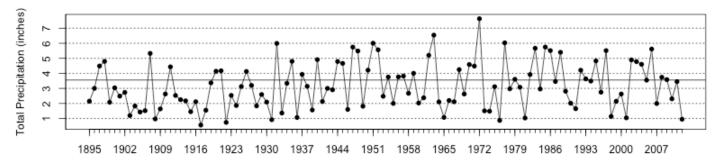
#### **November Single Storm Snowfall Record (inches)**

Station	New	Previous
Newark, NJ	6.2	5.7 in 1989

#### Mid Atlantic Average November Temperatures



#### Mid Atlantic November Precipitation Totals



The 2012 values depicted on these graphs are based on preliminary data.

### The Streak is Broken: November 2012 Report Just About Every Condition Imaginable: Fall 2012 Report

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

#### **November Overview**

The last month of climatological fall proved to be a rather wintery one across New Jersey. Measurable snow fell on two occasions over portions of the state, and for the first time since January 2011 the statewide average monthly temperature was below normal. Despite the cooler-than-average temperatures and the early-month snowstorm, conditions for the most part were rather tranquil, thus of no great hindrance to the recovery efforts from Sandy.

The average monthly temperature of 41.6° was 4.0° below average, making November 2012 the 19<sup>th</sup> coolest on record (back to 1895). Chilly conditions were persistent, with about three out of four days below average; there were no extremely cold episodes. The 10<sup>th</sup>-13<sup>th</sup> was the only warm interval of the month, with highs into the 60°s and low 70°s in many areas. Dennis Township (Cape May County) and Greenwich (Salem) reached 63° on the 10<sup>th</sup>. Red Lion (Burlington), Sicklerville (Camden), and Cherry Hill (Camden) led the way with 72° on the 11<sup>th</sup>. The 12<sup>th</sup> was the mildest day of the month, with 72° reached at Red Lion, Cherry Hill, and Piney Hollow (Gloucester). Elsewhere, 13 stations in the 54 station NJ Weather and Climate Network topped out at 70° or 71°, while High Point (Sussex) only got to 57°. Mullica (Atlantic), Cherry Hill, and Hammonton (Atlantic) were warmest at 64° on the 13<sup>th</sup>. The only other day of the month at or above 60° was the 23<sup>rd</sup>, with 62° in Red Lion and 60° at five locations.

Most locations saw low temperatures dip into the 20°s on a number of November mornings. On 11 days, cold air drainage led to lows in the upper teens at several valley locations. This occurred when overnight skies were clear and winds calm. The usual cold locations of Walpack (Sussex) and Pequest (Warren) took cold honors on most occasions. The 6<sup>th</sup> saw lows of 16° at these two spots, with 17° at Basking Ridge (Somerset) and 18° in Kingwood (Hunterdon). It wasn't until the 17<sup>th</sup> that the teens returned, with 19° at Walpack. The 18<sup>th</sup> saw Walpack at 18° and Pequest at 19°, with Walpack down to 17° on the 19<sup>th</sup>. Walpack fell to 16° on the 21<sup>st</sup>, 19° (along with Pequest) on the 22<sup>nd</sup>, and 19° on the 23<sup>rd</sup>. Berkeley Township (Ocean) bottomed out at 19° on the 26<sup>th</sup>, Pequest 18°, Walpack 19° on the 28<sup>th</sup>, and Pequest 17°, Walpack, and Kingwood 18° on the 29<sup>th</sup>. The 30<sup>th</sup> was the coldest morning of the month statewide, with Pequest and Berkeley Township down to 18°, Walpack at 19°, and 23 NJWxNet stations between 20°-25°.

It took until late in the month for three NJWxNet coastal stations to fall to the freezing point for the first time this fall. Harvey Cedars (Ocean) reached 32° on the 25<sup>th</sup>, West Cape May (Cape May) 28° on the 28<sup>th</sup>, and Atlantic City Marina (Atlantic) 32° on the 29<sup>th</sup>. Of all the stations in the state, West Cape May had the longest growing season this year, with a 261-day freeze-free interval from March 12<sup>th</sup> through November 27<sup>th</sup>. On the opposite end, Pequest's growing season was only 153 days, running from May 12<sup>th</sup> through October 11<sup>th</sup>.

November was a rather dry month, with only three precipitation events of note. The statewide average of 1.44" was 2.20" below normal and ranks as the 12<sup>th</sup> driest on record (tied with 1965; Table 1). The most precipitation (rain and melted snow) was 2.56" at Asbury Park (Monmouth). This was followed by 2.38" in Lacey Township (Ocean) and the Monmouth County communities of Howell (2.22") and Rumson (2.20"). The least precipitation was the 0.77" observed in Parsippany-Troy Hills (Morris), followed by the Hunterdon County communities of Clinton (0.80"), Stockton (0.82"), and Frenchtown (0.84").

Rank	Year	Nov. Prcp
1	1917	0.51"
2	1976	0.59"
3	1922	0.83"
4	1931	0.83"
5	1908	0.87"
6	2001	1.00"
7	1933	1.08"
8	1936	1.10"
9	1903	1.15"
10	1998	1.31"
11	1973	1.43"
12	2012	1.44"
12	1965	1.44"
14	1906	1.47"
14	1946	1.47"

Table 1. The 15 driest Novembers across New Jersey since 1895.

Snowfall for the month accumulated in two events, an unusual circumstance, though not in all locations each time. Examining historic monthly snowfall data for NJ as a whole and for individual regions from 1895-present, November 2012 was the sixth snowiest on record. The 3.4" was 2.6" above normal and the snowiest since 1989 (Table 2). The North region received 4.8" for the month, while Central came in at 5.1" and South at 1.8". This was the snowiest November for the North since 1938, when two separate events in the last week of the month produced heavy snow across the state (all regions averaged over 12.0"). The Central and South totals were the snowiest since 5.3", 5.5", respectively, in 1989.

Rank	Year	Snowfall
1	1898	15.0"
2	1938	13.4"
3	1953	5.1"
4	1989	5.0"
5	1967	4.2"
6	2012	3.4"
7	1978	2.7"
8	1935	2.5"
9	1906	2.1"
10	1955	2.0"

Table 2. The ten snowiest Novembers across New Jersey since 1895.

There were only three precipitation events in November that saw liquid totals exceeding 0.10" at one or more locations. The first was during the daylight hours of the 7<sup>th</sup> into the early morning of the 8<sup>th</sup>. A mix of rain and snow fell across most of the state, the largest totals in Monmouth and Ocean counties. The western portions of Sussex and Warren counties only saw flurries or very light snow accumulations. The most rain/melted snow was the 1.88"observed in Brick (Ocean), followed by Asbury Park (Monmouth) with 1.83", Lacey Township's (Ocean) 1.62", and Freehold's (Monmouth) 1.54". Snowfall was heavy in inland portions of Monmouth

and Ocean counties, peaking at an incredible 13.0" in Freehold, followed by 12.0" in Allaire (Monmouth), Jackson Township (Ocean), and Manchester Township (Ocean) (maximum county totals are posted in Table 3). To only begin to appreciate the exceptional nature of these totals, 20 miles to the northwest in New Brunswick (Middlesex), where complete daily records exist back to 1893, the 4.8" from this event marked the largest early season total on record. To find a larger total, you have to go to November 23, 1989, when 6.1" fell (the October 2011 storm brought 3.0"). In several respects, it was fortunate that the eastern half of the state was in the snow for this storm (often found on the far western side of a coastal storm), as this meant the strong nor'easter was far enough offshore to keep the heavy surf away from the vulnerable coast. Winds gusted to 40 mph at Sea Girt (Monmouth), with 12 other NJWxNet stations recording gusts between 30-38 mph. While not as strong a storm as feared, the event slowed Sandy recovery efforts and placed more homes and businesses back into the dark, joining others that had yet to have power return since the October 29<sup>th</sup> storm.

County	Snowfall	Town
Atlantic	4.0"	Estell Manor & Folsom
Bergen	7.6"	Tenafly
Burlington	5.0"	Chesterfield Twp
Camden	3.5"	Voorhees
Cape May	2.4"	Woodbine
Cumberland	2.5"	South Vineland
Essex	6.2"	Newark Airport
Gloucester	3.0"	Franklin Twp
Hudson	6.0"	Jersey City
Hunterdon	3.2"	Wertsville
Mercer	7.2"	Hightstown
Middlesex	7.8"	Cheesequake
Monmouth	13.0"	Freehold Twp
Morris	7.5"	Long Hill Twp
Ocean	12.0"	Jackson Twp & Manchester Twp
Passaic	5.3"	Little Falls Twp
Salem	3.5"	Pittsgrove Twp
Somerset	7.5"	Warren Twp
Sussex	3.8"	Vernon Twp
Union	7.5"	Berkeley Heights
Warren	3.0"	Hackettstown

Table 3. Maximum reported snowfall in NJ's 21 counties from the November 7-8 snowstorm.

Rain fell most heavily during the morning of the 13<sup>th</sup> on the two northwestern counties that saw little precipitation from the event on the 7<sup>th</sup>. Meanwhile, little rain fell near the coast. Montague (Sussex) and Blairstown (Warren) received 0.85", while two other Blairstown stations caught 0.84" and 0.80". The final November storm during the daylight hours and early evening of the 27<sup>th</sup> again brought snow, with accumulations limited to areas roughly north of Route 1 in Mercer and Middlesex counties. Rain and melted

snow totaled approximately 0.20" to 0.70" statewide, with the largest totals in Moorestown (Burlington) and Ringwood (Passaic), both with 0.77", and 0.72" in the Mercer county towns of Princeton and Ewing. At least one snowfall observation of 4.0" or more was noted in eight counties, including Sussex, Warren, Morris, Passaic, Bergen, Essex, Hunterdon, and Somerset. Topping the list was 6.0" in West Milford (Passaic) and 5.0" at both Lake Hopatcong (Morris) and Randolph Township (Morris).

Barometric pressure was highest on November 17<sup>th</sup> and 18<sup>th</sup>, ranging from about 30.65"-30.70". It was lowest on the 1<sup>st</sup> at 29.50"-29.55" as the remnants of Sandy slowly departed the Northeast. Wind gusts equaled or exceeded 40 mph on six days, but aside from the aforementioned 40 mph gust at Sea Girt on the 7<sup>th</sup>, such gusts were only observed at the Sussex County locations of High Point Monument and Wantage. Wantage got to 41 mph on the 4<sup>th</sup>, with the Monument and Wantage gusting to 50 mph and 46 mph, respectively, on the 8<sup>th</sup>. Both peaked at 48 mph on the 13<sup>th</sup>, when no other station saw a gust greater than 30 mph. The Monument also gusted to 43 mph on the 24<sup>th</sup> and 40 mph on the 25<sup>th</sup>.

#### **Fall Overview**

As is often seen in a transition season, conditions can vary widely over the course of three months. Perhaps never has this rung more true than in fall 2012 across New Jersey. Actually, just within the last week of October and the first week of November, the state experienced its most devastating storm on record and one of its largest early season snowstorms. No counties were impacted worse by both storms than Monmouth and Ocean, with coastal communities devastated by an unprecedented storm surge on October 29<sup>th</sup> and inland towns buried under as much as 13" of snow on November 7<sup>th</sup>. Toss in some early season heat and the first sub-average temperature month since January 2011 (November) and this was indeed a memorable season.

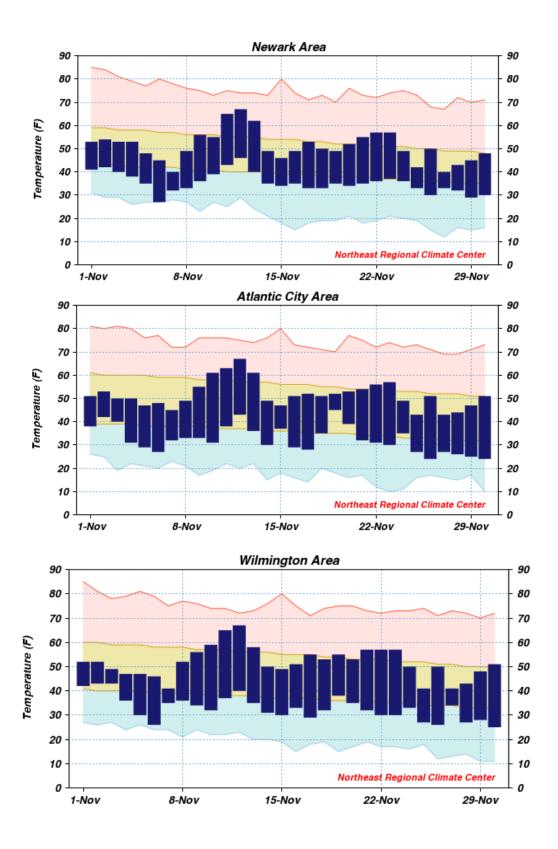
The average temperature of 55.3° was 0.2° below average and tied with 1960 and 1934 as the 43<sup>rd</sup> warmest of the past 118 falls. Despite the cooler fall, all a function of the chilly November, the first 11 months of 2012 are New Jersey's warmest on record (Table 4).

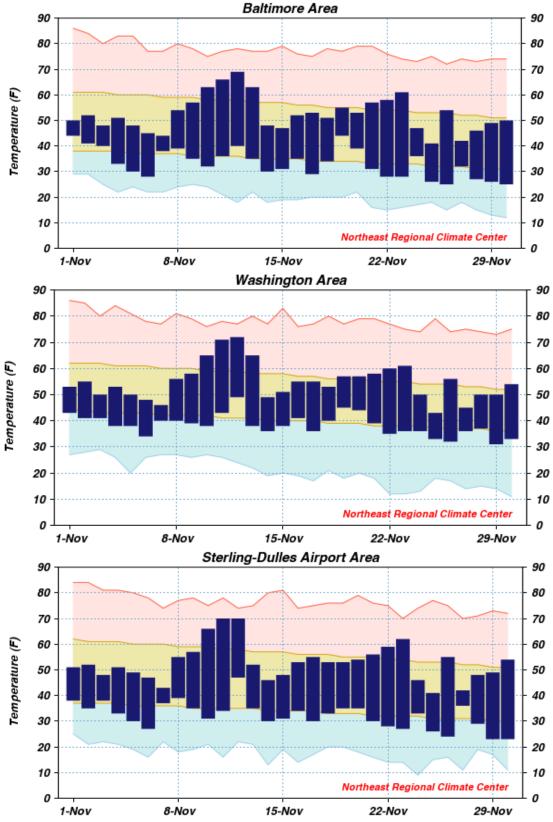
Rank	Year	Jan-Nov Avg. Temp.
1	2012	57.4°
2	2010	57.0°
2	1998	57.0°
4	2002	56.7°
5	2006	56.5°
5	2011	56.5°
7	1949	56.4°
8	1991	56.2°
9	1990	56.0°
10	1999	55.9°

Table 4. The ten warmest January to November intervals across New Jersey since 1895.

Precipitation during fall 2012 average 11.90" across NJ. This was 0.26" above average and ranked as the 45<sup>th</sup> wettest fall on record. January through November precipitation totaled 37.84", which is 5.18" below average and the 34<sup>th</sup> driest. For the fall, Stone Harbor (Cape May) received the most precipitation, with 18.40" accumulating. The next three highest totals included White Township (Warren) with 18.26", West Milford (Passaic) with 17.77", and Middle Twp (Cape May) with 17.09". Much drier conditions were observed in the northeast quadrant, with Maplewood (Essex) only receiving 6.39", Palisades Park (Bergen) 7.19", and North Arlington (Bergen) 6.84".

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



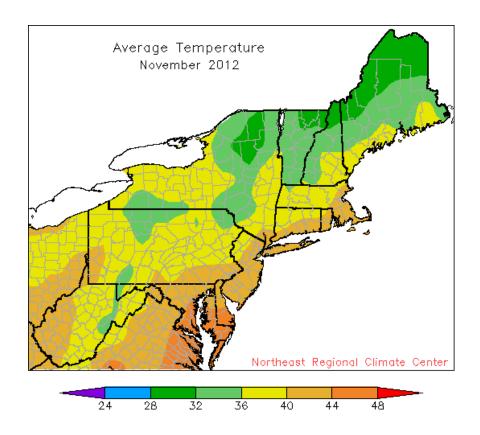


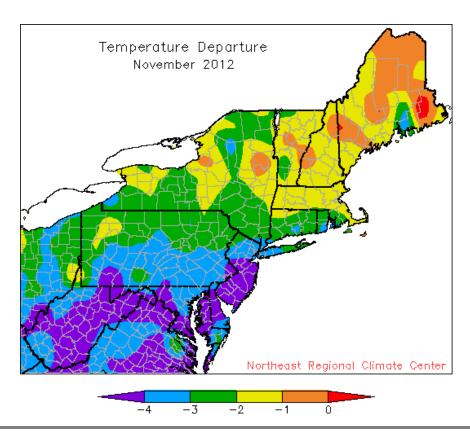
Area between normal max and min temperatures has tan shading.

Red line connects record high temperatures.

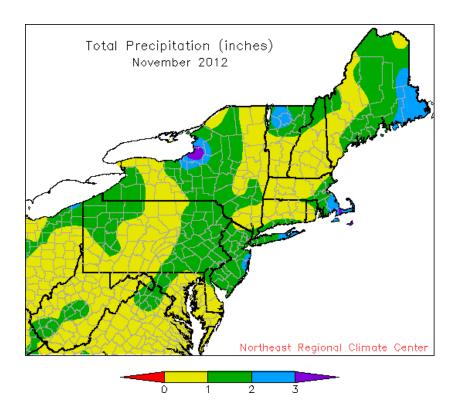
Light blue line connects record low temperatures.

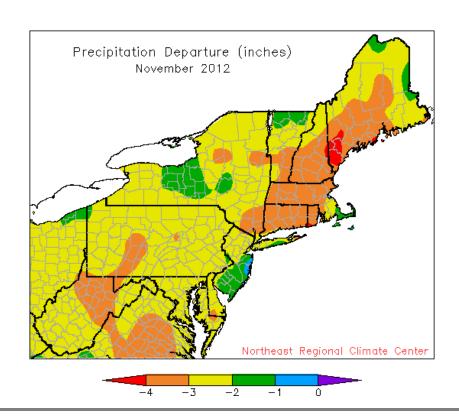
#### **MONTHLY TEMPERATURE MAPS**



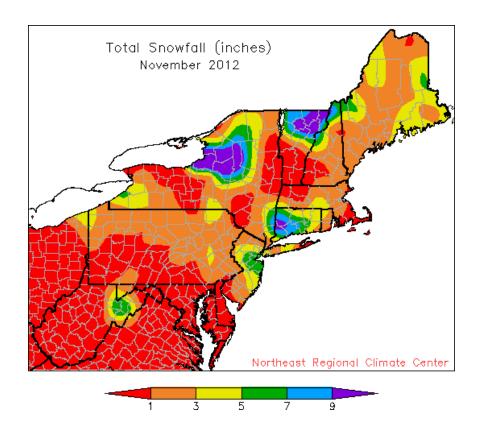


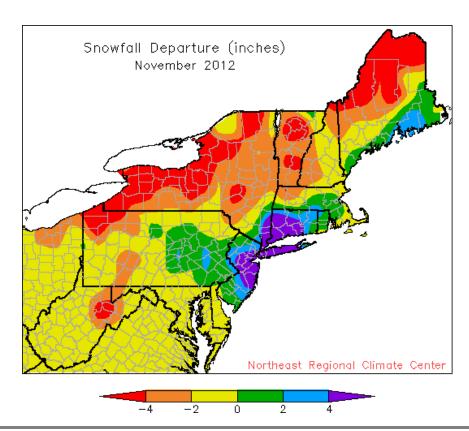
#### **MONTHLY PRECIPITATION MAPS**





#### **MONTHLY SNOWFALL MAPS**





#### PRELIMINARY MONTHLY SUMMARIZED DATA NOVEMBER 2012

STATION	AVG	NTHLY AVG		DEPRT		DAY		DAY	MAX	, vir.	OF DA MIN		MONTH	LY TOTA DEPRT		DLY DA		NOWFALL	_
	AVG	AVG	MON	DEPRT	MON	DAY	MON	DAY	MAX		MIN		MON	DEPRT	DAYS	I DEV D	MOM v z		
										22	20			DDINI					Y DAY
	MAX	MIN	AVG		MAX		MIN		50+	32-	32-	0-	TOT		0.1+	MAX	TOT	MAX	<u> </u>
-DE: NORTHERN-																			
BEAR 2 SW	51.8	31.8	41.8	-3.5	71	12	22	29	19	0	16	0	0.96	-2.51	3	0.54 2	7	г т	ľ
WILMINGTON NEW CAS	51.7	33.0	42.4	-4.2	67	12	25	30	20	0	15	0	0.98	-2.12	3	0.61 2	7	г т	e
WILMNGTON PORTER R	49.4	35.6	42.5	-3.7	67	13+	28	26	12	0	6	0	1.39	-2.09	3	0.56 2	7 (	)	
-DIVISION-				-4.1										-2.22			(	)	
DE COMMUEDN																			
-DE: SOUTHERN-	E2 2	34.6	12.4	F 0	7.0	10	2.4	20	22	0	0	0	1 20	2 20	4	0.55	,		
DOVER	32.2	34.0			72	12	24	29	22	0	9	0		-2.20	4	0.55	<b>,</b>		
-DIVISION-			43.4	-5.1									1.28	-2.33					
-STATE-			43.1	-4.9									1.24	-2.30			(	)	
-MD: SOUTHEASTERN-																			
SALISBURY WICOMICO	56.4	36.3	46.4	-1.8	75	12	24	29	26	0	9	0	0.44	-2.99	1	0.27	7 (	)	
SNOW HILL 4 N	56.3	34.4	45.3	-4.7	73	12	22	29	26	0	13	0	0.51	-3.01	1	0.26	7 NM		
SALISBURY 2N			45.1		73			29	23	0	9	0	0.67	0.01	2	0.29			
	34.3	33.9			/3	12	23	29	23	U	9	U			2	0.29			
-DIVISION-			45.6	-3.7									0.54	-2.85			(	,	
-MD: CENTRAL EAST-																			
ROYAL OAK 2 SSW	52.7	36.2	44.4	-5.6	71	12	27	26	21	0	9	0	0.93	-2.72	4	0.27 2	7 (	)	
-DIVISION-			44.4	-4.4									0.93	-2.56			(	)	
-MD: LOWER SOUTHE-																			
MECHANICSVILLE 5 N	52.8	31.7	42.3	-4.8	72	13	25	30+	18	0	20	0							
SOLOMONS *		40.4				13+		25	1				0.57		3	0.16	B NM		
DOLORIOND	31.0	40.4			0.3	13+	33	23						2 00	3	0.10	INPI		
-DIVISION-			44.2	-3.9									0.57	-2.99					
-MD: UPPER SOUTHE-																			
BALTIMORE WASH INT	52.5	33.2	42.9	-3.6	69	12	25	30+	19	0	15	0	0.71	-2.59	2	0.44 13	3 .	г т	ľ
BELTSVILLE	52.5	34.0	43.3	-3.5	71	13+	25	29+	17	0	9	0	0.67	-2.57	1	0.47 13	3 (	)	
DALECARLIA RSVR	51.2	34.4	42.8	-4.8	71	13+	26	29+	17	0	11	0	0.87	-2.75	2	0.66 1	3 (	)	
LAUREL 3 W		36.3	44.9	-2.9		12+		7	21	0	6	0		-3.50	2	0.52 1			
MD SCI CTR BALTIMO		42.3			71			30+	26	0	0	0	0.64	-2.33	2	0.39 1	3 NM		
NATL ARBORETUM DC*	53.3	35.4	44.3	-4.5	72	13+	27	30+											
OXON HILL	52.5	35.7	44.1	-4.3	71	13+	28	30+	19	0	6	0							
-DIVISION-			44.4	-3.1									0.72	-2.86			(	)	
-MD: NORTHEASTERN-																			
STEVENSVILLE	50.9	35.9	43.4	-5.8	67	12	25	7+	19	0	7	0	0.78		4	0.26 2	в (	)	
-DIVISION-			43.4	-3.9									0.78	-2.53				)	
-MD: NORTHERN CEN-																			
ABERDEEN PHILLIPS	51 6	34.8	43 2	_3.R	70	13	25	26	18	٥	11	0	0 83	-2.59	5	0.27 2	3 (	)	
BRIGHTON DAM *				-3.0					10	J		·		-2.39					
		31.1			69			29		_			0.66		2	0.54 1			
CONOWINGO DAM		32.4			66			26	13		17	0		-2.67	4	0.30 2			
CYLBURN		33.9			67			26	17		15	0	0.92		4	0.52 1			
DAMASCUS 3 SSW	49.1	33.0	41.1	-4.1	67	12	26	29+	9	0	16	0	1.16	-2.76	2	0.92 1	3		
EMMITSBURG 2 SE	49.8	30.3	40.0	-3.9	67	13	21	26	15	0	20	0	1.10	-2.51	3	0.61 1	3 (	)	
FREDERICK 2 NNE	51.4	31.5	41.4	-3.8		13+		26	18		17	0	1.09	-2.61	3	0.73 1		)	
MILLERS 4 NE		32.6			68			6	16			0		-2.51	2	0.63 1			.1 2
									10	J	14	•	1.00	-2.31	4	0.03 1.		_ U.	
	47.6	27.4			66	13	22	26+					_	_			NM		
-DIVISION-			40.9	-4.5									0.96	-2.62			(	J	
-MD: APPALACHIAN -																			
CUMBERLAND 2	52.4	31.3	41.9	-3.5	72	13	24	6	16	0	19	0	0.39	-2.59	2	0.20 2	7 NM		
FROSTBURG 2	44.3	28.7	36.5	-4.0	65	13+	22	7+	6	1	26	0	0.35	-3.32	2	0.22 2	7		
SHARPSBURG 5 S	l	28.1			68			30+	13		26	0		-2.24	2	0.78 1			
-DIVISION-	-1.5			-4.1			23			•		-		-2.67	-	1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
-MD. ATTECHENY DI																			
-MD: ALLEGHENY PL-	45.5	20.0	25.0	2 4		10		16:	1							1	1		
OAKLAND 1 SE *	l	26.2		-3.4	70			16+	1							1	1		
SINES DEEP CREEK *	43.1	25.4	34.3		64	13	20	30											
KITZMILLER 1 W	47.3	28.5	37.9		70	12	23	29+	10	1	22	0				1	NM		
KIIDHIDDDK I W									i				0.45	-3.06		1	1		
-DIVISION-			36.0	-4.5									0.43	-3.00					
			36.0	-4.5									0.43	-3.00					

	TEMPERATURE	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	
-NJ: NORTHERN-							
BELVIDERE BRG *	49.0 28.4 38.7 -4.2	67 13 22 30+		0.92 -2.65 3	0.50 13	T T	
BOONTON 1 SE *	48.7 32.8 40.7 -2.5	66 13 23 6					
BOUND BROOK 2 W				1.33 -2.34 3	0.62 8	NM	
CANISTEAR RESERVOI				0.95 -3.00 5	0.27 28	0	
CANOE BROOK	48.8 31.9 40.3 -3.4	67 13 20 22	12 0 18 0	1.18 -2.88 3	0.51 28	8.2 6.0 8	
CRANFORD	51.9 30.8 41.3 -4.0	70 13 22 6	20 0 21 0	1.52 -2.56 4	0.87 8	7.8 5.3 8	
FLEMINGTON 5 NNW	49.2 30.3 39.7 -3.6	70 13 21 30	13 0 20 0	1.07 -2.75 3	0.46 28		
HARRISON	49.6 36.0 42.8 -3.9	66 13 29 7+	15 0 4 0	1.30 -2.69 2	0.67 8		
NEWARK INTL AP	51.1 35.4 43.3 -3.5	67 12 27 6	16 0 6 0	1.62 -2.03 2	1.03 7	6.6 5.7 7	
OAK RIDGE				0.88 -3.08 4	0.30 13	0	
PHILLIPSBURG EAST*	48.4 31.8 40.1 -3.4	68 13 25 30+					
RINGWOOD	49.8 31.3 40.6	67 12 21 7+	14 0 21 0			NM	
SUSSEX 2 NW	48.0 31.2 39.6 -1.3	67 12 22 6	9 0 16 0				
WAYNE	50.6 33.1 41.9	67 13 26 29+	19 0 16 0	0.70 3	0.43 28	2.2 2.2 8	
WERTSVILLE 4 NE *	48.3 32.0 40.2 -3.9	69 13 24 6					
TOCKS ISLAND	48.5 31.2 39.8	66 12 24 7+	12 0 18 0			NM	
-DIVISION-	40.7 -3.2			1.19 -2.72		5	
-NJ: SOUTHERN-							
ATLANTIC CITY INTL	51.7 32.6 42.1 -4.7	67 12 24 30+	19 0 17 0	1.34 -1.93 3	0.86 7	2.5 2.5 7	
ESTELL MANOR	52.1 32.4 42.3 -3.8	71 13 22 29+	20 0 15 0	1.95 -1.68 4	1.21 8	2.5 2.5 /	
HIGHTSTOWN 2 W	50.2 30.3 40.2 -5.1	71 13 22 231	14 0 21 0	1.82 -1.74 3	0.94 8	7.2 7.2 8	
INDIAN MILLS	51.4 31.1 41.3 -4.3	70 12+ 22 30+	17 0 19 0	2.11 -1.55 4	0.89 8	4.0 3.0 8	
MAYS LANDING 1 W	31.4 31.1 41.3 -4.3	70 121 22 301	1, 0 15 0	1.33 4	0.44 8	NM	
MILLVILLE MUNI AP	51.5 30.5 41.0 -4.8	68 12 19 29	19 0 17 0	1.45 -1.91 3	0.82 7	NM	
NEW BRUNSWICK 3 SE	51.0 32.0 41.5 -3.9	71 13 25 29+	17 0 19 0	1.68 -2.15 3	0.84 8	5.6 4.8 8	
SEABROOK FARMS	50.8 35.6 43.2	70 13 26 30+	17 0 8 0	1.41 3	0.74 8	0	
SOMERDALE 4 SW	47.7 30.9 39.3	68 13 20 29	9 0 18 0	1.56 -1.80 4	0.83 8	-	
TRENTON MERCER CO	50.2 32.7 41.5 -4.2	70 12 25 30+	15 0 14 0	1.18 -2.13 3	0.60 27	NM	
PHILADELPHIA MT H*	50.4 33.1 41.8	72 13 24 26				-1	
-DIVISION-	41.4 -4.9	,2 13 24 20		1.61 -1.89		3.9	
-D1V1D10N-	41.4 -4.5			1.01 -1.03		3.3	
-NJ: COASTAL-							
ATLANTIC CITY	50.0 40.0 45.0 -4.4	64 13 34 29+	14 0 0 0	1.53 -1.82 4	0.96 8	NM	
CAPE MAY 2 NW	53.4 37.3 45.3 -3.7	65 12 27 29+	23 0 5 0	1.22 -2.07 3	0.77 7	т т	
-DIVISION-	45.2 -3.2			1.38 -1.95		0	
ama mp	41.4			1 44 2 22			
-STATE-	41.4 -4.1			1.44 -2.20		4	

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 NOVEMBER 2012

STATION	HEATING DEGREE DAYS (BASE 65) MONTH MONTH SEASON SEASON	COOLING DEGREE DAYS (BASE 65) MONTH MONTH SEASON SEASON	GROWING DEGREE DAYS (BASE 50) MONTH MONTH SEASON SEASON		
-DE: NORTHERN-	PIONTH PIONTH SEASON SEASON	FIONTH FORTH SEASON SEASON	FIGHTH FIGHTH SEASON SEASON		
BEAR 2 SW	689 96 1008 35	0 0 1246 227			
WILMINGTON NEW CAST	672 118 947 49	0 0 1387 242			
WILMNGTON PORTER RS	669 106	0 0			
-DE: SOUTHERN-					
DOVER	640 161 870 132	0 -3 1532 216			
-MD: SOUTHEASTERN SHORE-					
SALISBURY WICOMICO	550 45 744 -74	0 -3 1732 579			
SNOW HILL 4 N	581 127 797 88	0 -4			
SALISBURY 2N	591	0			
-MD: CENTRAL EASTERN SHORE-					
ROYAL OAK 2 SSW	610 157 833 148	0 -3 1665 242			
-MD: LOWER SOUTHERN-					
MECHANICSVILLE 5 NE	674 135 1023 107	0 -2			
-MD: UPPER SOUTHERN-					
BALTIMORE WASH INTL	657 100 913 9	0 -1 1569 405			
BELTSVILLE	645 98 927 43	0 -1 1433 195			
DALECARLIA RSVR	657 133 949 135	0 -2 1509 101			
LAUREL 3 W	596 78 830 35	0 -1 1662 269			
MD SCI CTR BALTIMOR	479 37 607 -44	0 -1 1002 209			
OXON HILL	618 119 857 84	0 -2 1598 215			
onon attu	210 117 037 04	0 -2 1390 213			
-MD: NORTHEASTERN SHORE-					
STEVENSVILLE	638 162 852 158	0 0 1511 285			
DIE VERGVIEDE	030 102 032 130	0 0 1311 203			
-MD: NORTHERN CENTRAL-					
ABERDEEN PHILLIPS F	648 109	0 -1			
CONOWINGO DAM	730 164 1082 208				
CYLBURN	683 102	0 0			
DAMASCUS 3 SSW	710 115 1082 81	0 -1			
EMMITSBURG 2 SE	739 106 1168 89	0 0 972 113			
FREDERICK 2 NNE	697 103	0 0			
MILLERS 4 NE	691 71 1033 -24	0 0 1073 278			
-MD: APPALACHIAN MOUNTAIN-					
CUMBERLAND 2	685 96	0 -1			
FROSTBURG 2	849 114 1464 53	0 0 550 143			
SHARPSBURG 5 S	755 139 1174 145	0 -1			
-MD: ALLEGHENY PLATEAU-					
KITZMILLER 1 W	808 1361	0			
-NJ: NORTHERN-					
CANOE BROOK	733 95 1075 -30	0 0			
CRANFORD	701 111	0 0			
FLEMINGTON 5 NNW	751 100 1126 -14	0 0			
HARRISON	657 106	0 -1			
NEWARK INTL AP	647 100 874 6	0 -1 1450 258			
RINGWOOD	723 1109	0			
SUSSEX 2 NW	756 34 1219 <b>-</b> 140	0 0			
WAYNE	687	0			
TOCKS ISLAND	746 1181	0 834			
-NJ: SOUTHERN-					
ATLANTIC CITY INTL	680 131 966 59	0 -1 1218 163			
ESTELL MANOR	676 109 998 32	0 -2 1202 228			
HIGHTSTOWN 2 W	734 142	0 -1			
INDIAN MILLS	707 123 1011 22	0 -1			
MILLVILLE MUNI AP	710 133	0 -1			
NEW BRUNSWICK 3 SE	699 112 1000 -1	0 0 1206 253			
SEABROOK FARMS	645 883	0			
	766 1162	0 1244	1		
SOMERDALE 4 SW	700 1102	0 1211			

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		
-NJ: COASTAL-					
ATLANTIC CITY	592 122 758 45	0 0 1262 242			
CAPE MAY 2 NW	582 100 771 29	0 -1 1365 277			

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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