

# Northeast Regional Climate Center

## Mid-Atlantic Climate

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### SEPTEMBER 2013

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Website: <http://www.nrcc.cornell.edu>

Address: Phone: (607)255.1751

1123 Bradfield Hall Fax: (607)255.2106

Cornell University Email: [nrcc@cornell.edu](mailto:nrcc@cornell.edu)

Ithaca, NY 14853

#### NRCC Staff:

**Dr. Arthur DeGaetano**  
Director  
**Mr. William Noon**  
Computer Analyst

**Mr. Keith Eggleston**  
Regional Climatologist  
**Ms. Jessica Spaccio**  
Assistant Climatologist

**Mrs. Samantha Borisoff**  
Assistant Climatologist  
**Ms. Tara Fardellone**  
Publication Design

**Mrs. Pamela Vitale**  
Administrative Assistant

#### State Climatologists:

**Dr. Daniel Leathers**  
210 Pearson Hall  
Department of Geography  
Newark, DE 19716  
302-831-8764

**Konstantin Y. Vinnikov**  
Dept of Atmospheric and Oceanic Sci.  
University of Maryland  
College Park, MD 20742  
301-405-5382

**David Robinson**  
Department of Geography  
Rutgers University  
Piscataway, NJ 08854  
732-445-4741

## CLIMATE DIVISION MAPS

### New Jersey



### New Jersey Climate Divisions

- 1 Northern
- 2 Southern
- 3 Coastal

### Delaware



### Delaware Climate Divisions

- 1 Northern
- 2 Southern

### Maryland



### Maryland Climate Divisions

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

## SEPTEMBER WEATHER HIGHLIGHTS

It was another cooler-than-normal month for the Mid-Atlantic region. With an average temperature of 65.5 degrees, it was 1.4 degrees below normal and the coolest September since 2006. All three states experienced below-normal temperatures with departures of -1.6 degrees in New Jersey, -1.3 degrees in Maryland, and -1.0 degree in Delaware. Baltimore's Maryland Science Center was the warm spot of the month with a high of 98 degrees on the 11<sup>th</sup>. For a fifth consecutive month, Deep Creek Lake, MD, was the region's cool spot. The site dropped to 32 degrees on the 24<sup>th</sup>.

After three wet months in a row, the Mid-Atlantic returned to drier conditions in September. Receiving 1.71 inches, 42 percent of normal, it was the 9<sup>th</sup> driest September on record. The states and their divisions were all drier than normal. Delaware was the driest state at 23 percent of normal, making it the 7<sup>th</sup> driest September. Maryland received 38 percent of normal precipitation, making it their 12<sup>th</sup> driest September, while New Jersey received 53 percent of normal. Divisions ranking the month among their top 20 driest are listed below. Atlantic City, NJ, reported only 0.53 inches of precipitation, making it the dry spot of the month while the wet spot was Estell Manor, NJ, which reported 4.24 inches. Estell Manor was also the site of the greatest daily precipitation, 3.35 inches on the 3<sup>rd</sup>.

### Climate Division Rank (driest since 1895)

#### **Delaware**

--Southern 5<sup>th</sup>

#### **Maryland**

--Allegheny Plateau 4<sup>th</sup>

--Southeastern Shore 6<sup>th</sup>

--Northeastern Shore 10<sup>th</sup>

--Lower Southern 15<sup>th</sup>

--North Central 18<sup>th</sup>

#### **New Jersey**

--Coastal 6<sup>th</sup>

Abnormal dryness was introduced in 22.41 percent of Maryland in the U.S. Drought Monitor released on September 12 and expanded to cover 70.36 percent of the state by the end of the month. In Delaware, abnormal dryness was introduced in 4.33 percent of the state by month's end.

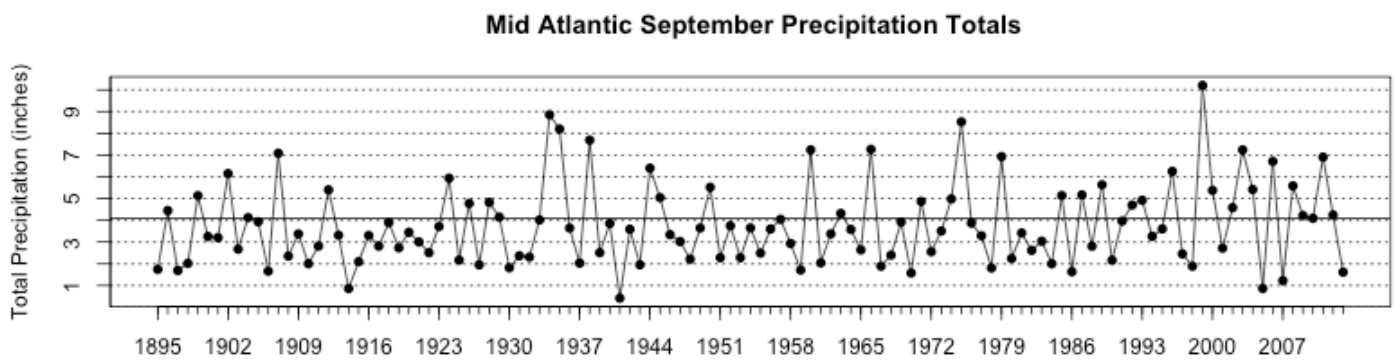
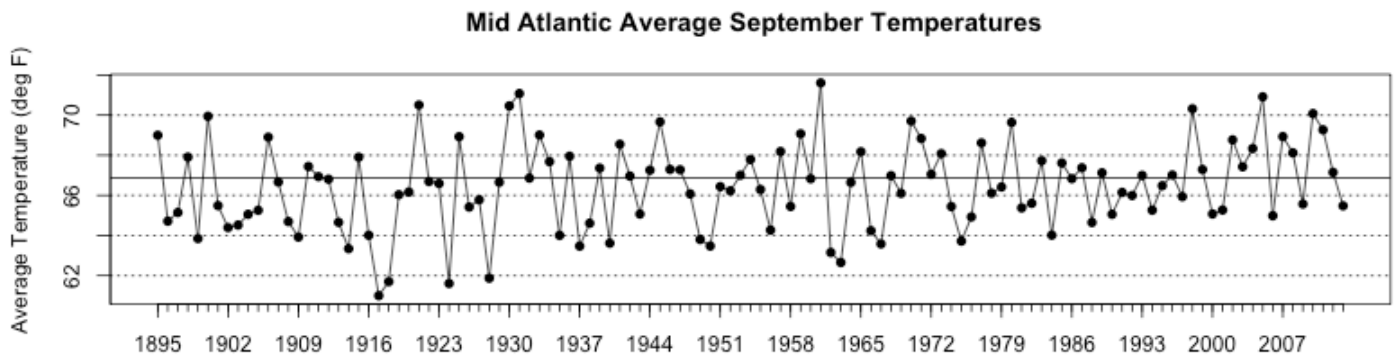
Severe thunderstorms moved across the region from the 1<sup>st</sup> to the 2<sup>nd</sup>. Storm total rainfall of over four inches caused flash flooding in parts of southern New Jersey and a funnel cloud was spotted near Millville, DE, on the 1<sup>st</sup>. Another round of severe storms on the 11<sup>th</sup> and 12<sup>th</sup> brought more flash flooding, nickel-size hail, and wind gusts up to 60 mph that downed trees and power lines. On the 12<sup>th</sup>, a lightning strike near the control tower at Baltimore-Washington International Airport caused a temporary shutdown of air traffic operations. Superstorm Sandy and strong winds were blamed for a fire in Seaside Park and Seaside Heights, NJ, that destroyed part of the boardwalk and more than 50 businesses on the 12<sup>th</sup>. Wiring compromised by saltwater and sand during the October 2012 storm started the fire, but winds of 30 to 40 mph fanned the flames and blew embers several blocks away. A decline in wind speed and a shift in the wind direction later in the day helped firefighters bring the fire under control. Less-than-ideal conditions affected this year's pumpkin crop. Though conditions improved in time for September harvest, excess precipitation through August drowned fields, stunted plant growth, and promoted disease. As a result, prices for the gourd were higher due to the decreased supply, according to the University of Delaware Cooperative Extension.

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

<b><u>Station</u></b>	<b><u>Date</u></b>	<b><u>New</u></b>	<b><u>Previous</u></b>
Washington National, DC	11	76	75 in 1900

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

<b><u>Station</u></b>	<b><u>Date</u></b>	<b><u>New</u></b>	<b><u>Previous</u></b>
Washington Dulles, DC	10	81.5	81.5 in 1989
Washington Dulles, DC	12	81.0	80.5 in 1963



The 2013 values depicted on these graphs are based on preliminary data.

## Cool and Dry Conditions Prevail: September 2013 Summary

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

### **September Overview**

September 2013 was the second consecutive month with the statewide average temperature coming in below normal. The 64.4° average was 1.8° below the 1981-2010 average. This ranks as the 40<sup>th</sup> coolest September since 1895, tied with 1920 and 1922, and the coolest since 1994.

Statewide precipitation averaged 2.40" in September. This is 1.67" below average and ranks as the 30<sup>th</sup> driest on record, tied with 1910. This is the first month since this past May with below-average precipitation.

### ***Temperature***

Of the first 21 days of the month, 14 saw at least one station within the 53 station [NJ Weather and Climate Network](#) reach 80°. Of these, seven saw a station reach at least 85°. Red Lion (Burlington County) and Cherry Hill (Camden) got to 91° on the 1<sup>st</sup>. The 2<sup>nd</sup> saw Dennis Township (Cape May) at 88° and West Cape May (Cape May) reaching 86°. Four stations topped out at 85° on the 3<sup>rd</sup>. Egg Harbor (Atlantic) and Dennis Township reached 86° on the 8<sup>th</sup>. Berkeley Township (Ocean) hit 89° on the 10<sup>th</sup>, when eight other stations reached 88°. The 11<sup>th</sup> was the warmest day statewide since July 20<sup>th</sup>. Howell (Monmouth) soared to 97° and Hawthorne (Passaic) hit 96°. Some 42 NJWxNet stations reached at least 90°, with Harvey Cedars (Ocean) the "coolest" at 80°. The last 85° or higher day of the month was the 12<sup>th</sup>, when Berkeley Township and Greenwich (Cumberland) both reached 92°.

Morning lows were in the 30's with afternoon maximums of 80° or warmer at one or more locations elsewhere on the 7<sup>th</sup> and 19<sup>th</sup>. All told, there were 13 September days with lows in the 30's somewhere in the state, with seven of these 35° or colder. The 9<sup>th</sup> saw Walpack (Sussex) fall to 35°. This valley station dropped to 33° on the 17<sup>th</sup>, when High Point Monument reached 36°. Walpack and Pequest (Warren) reached 33° on the 18<sup>th</sup>, with patchy frost at some of the 23 NJWxNet stations that fell into the 30's. Kingwood (Hunterdon) was 35° on the 19<sup>th</sup> and Walpack 35° on the 23<sup>rd</sup>. Walpack recorded the first (and only) freeze of September, falling to 31° on the 24<sup>th</sup>, when 13 stations fell into the 30's. While it is not all that unusual to see a September freeze at Walpack, at other northwest valley locations, or in the Pine Barrens, in many a year the first NJ freeze of the season at these locations is in early October. In 2011 it wasn't until October 27<sup>th</sup> that NJ's first freeze (at the High Point Monument NJWxNet station) was achieved as cold air rushed in ahead of the snowstorm that arrived two days later. The last sub-35° day of the month was the 25<sup>th</sup> when Walpack reached 33° and Pequest 35°.

### ***Precipitation and storms***

As expected, local differences accompanied the statewide 2.40" precipitation average for the month. Several locations were hit with heavy rain on multiple occasions, while passing showers and thunderstorms most often missed others. On the high end, Stratford Township (Camden) received 6.29" in September. This was followed by Somerdale (Camden) 6.01", Glen Rock (Bergen) 5.87", Glassboro (Gloucester) 5.62", Hawthorne (Passaic) 5.44", and Franklin Township (Hunterdon) 4.64". These totals demark where the localized heavy rains fell. Coming up short in the rainfall department was Atlantic City Marina (Atlantic) with 0.53". This was followed by Toms River (Ocean) 0.69", Middle Township (Cape May) 0.90", Brick Township (Ocean) 1.01" and 1.07", Point Pleasant Beach (Ocean) 1.02", and Berkeley Township (Ocean) with two stations at 1.06". Pockets with only 25%-50% of average monthly precipitation were found along the coast, in the far northwest, and in the urban northeast (excluding the Paterson area).

During the course of the month there were only four episodes with an inch or more of rain falling somewhere in NJ. The first two were not much more than a day apart. Thunderstorms during the morning hours of the 1<sup>st</sup> deposited as much as 2.12" in Riegelsville (Warren), 1.88" in Hightstown (Mercer), 1.62" in Jackson Township (Ocean), and 1.53" and 1.59" at two Oakland

(Bergen) stations. At many locations around NJ totals were a few tenths of an inch to nothing. More widespread rain fell on the afternoon into the evening of the 2<sup>nd</sup>, with some excessive downpours leading to localized flash flooding. Glassboro (Gloucester) topped the list with 4.30", followed by 4.26" in Stratford (Camden), Elk Township (Gloucester) 4.12", Somerdale (Camden) 4.09", and Harvey Cedars (Ocean) 3.45". The heaviest rains were in Gloucester and western Atlantic counties and nearby parts of neighboring counties. Hunterdon and southern Warren saw heavy rains too, while most of the state saw several tenths of an inch, though drier along the northern coast and far southern Cape May County. Some local power failures accompanied the storms.

The 12<sup>th</sup> was a day of transition, as a cold front approached NJ from the west, destined to break the back of the brief hot spell and usher in a much cooler second half of the month. Ahead of the front were very warm temperatures and gusty southerly winds. The latter helped to fan the flames of the massive boardwalk fire in Seaside Park and Seaside Heights (Ocean County; more on this later). Elsewhere, late afternoon and late evening storms brought damaging winds and flooding to portions of north Jersey. A late afternoon storm deluged an area from southern Passaic County into northeastern Bergen County. Trees and branches fell, bringing down power lines, and flash flooding was prevalent. Similar conditions prevailed in the Warren-Morris county region later in the evening. Rainfall totaled 3.71" and 2.53" at two Hawthorne (Passaic) locations, 2.69" in Haworth (Bergen), 2.67" in Glen Rock (Bergen), 1.97" at River Vale (Bergen), and 1.63" at both Washington Township (Morris) and Oxford Township (Warren). The remainder of NJ had several tenths of an inch of rain, except the southwest, which came in under 0.20".

The final rain event of the month occurred from the evening of the 21<sup>st</sup> into the early hours of the 22<sup>nd</sup>. Most areas of the state saw over a half inch, except only a few tenths fell in the far northwest and along the coast. The heaviest totals occurred in the southwest, with inch plus totals northward into central NJ and the north central Highlands. Washington Township (Gloucester) received 2.01", Stratford (Camden) 1.95", Millstone Township (Monmouth) 1.88", Mt. Laurel Township (Burlington) 1.85", and Hainesport (Burlington) 1.83".

A fast-moving firestorm of sorts enveloped buildings housing at least 50 businesses along a four-block section of boardwalk in Seaside Park and Seaside Heights during the afternoon and evening of September 12<sup>th</sup>. The heroic actions of hundreds of firefighters and many others kept the inferno from spreading further north up the boardwalk. Fortunately only minor injuries occurred. There is no question that strong winds blowing from the south with gusts up to 30 mph measured at the nearby Seaside Heights NJWxNet station contributed to the rapid spread of the fire. A mid-evening slackening of the winds and a late evening shift in direction to a more westerly component assisted in bringing the fire under control. See the Office of the NJ State Climatologist's [website post](#) for a more complete discussion, including several graphs.

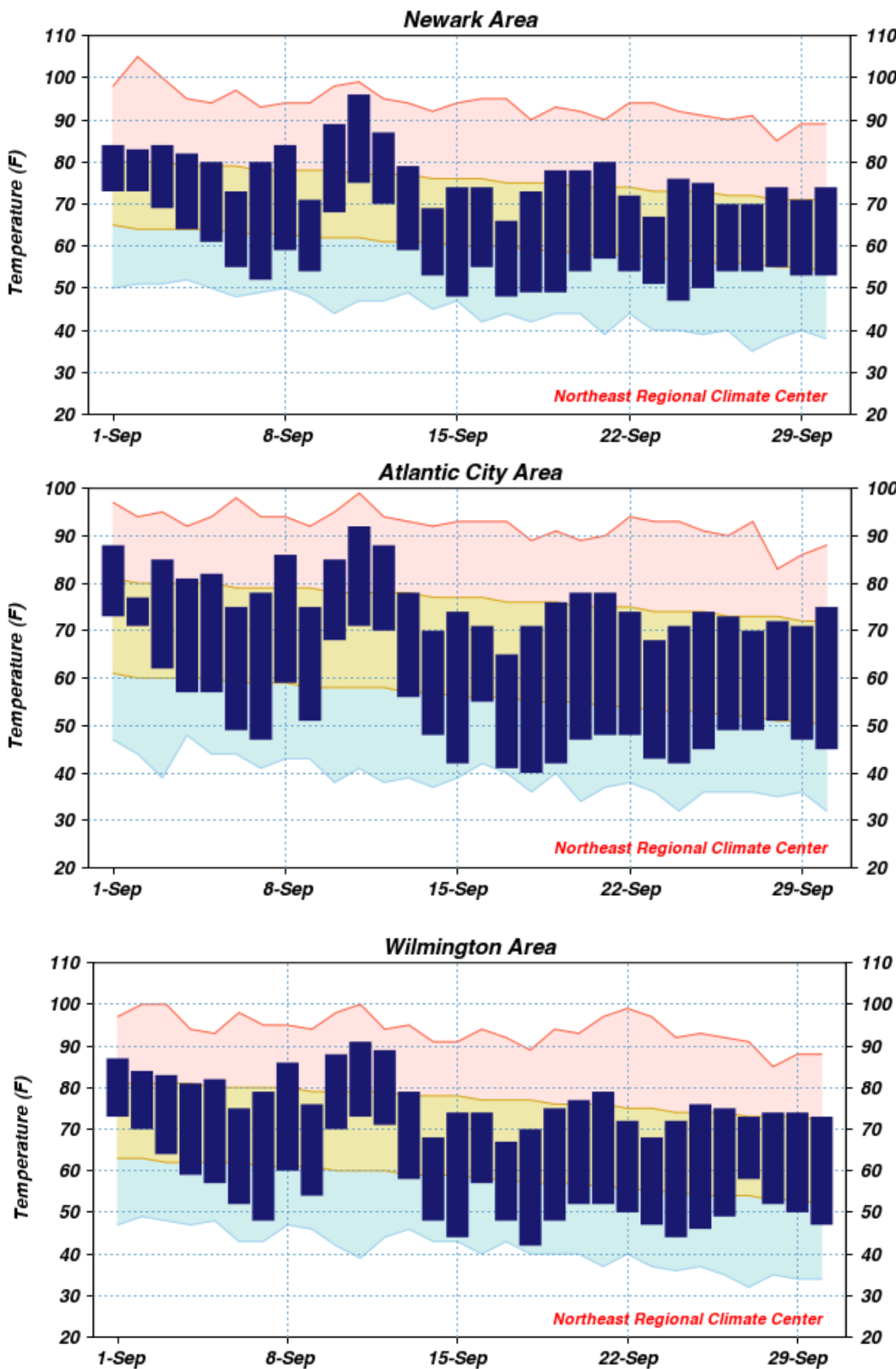
Only two September days saw winds gusting to 40 mph or higher at NJWxNet stations. A 52 mph gust was felt at Sicklerville (Camden) during a storm on the 2<sup>nd</sup>. The next highest gust that day was 30 mph in Hillsborough (Somerset). Storms on the 12<sup>th</sup> saw gusts to 47 mph at Pequest (Warren), 44 mph at Charlotteburg (Passaic), and into the 30-39 mph range at nine locations. Maximum atmospheric pressures were observed on the 17<sup>th</sup>, when they peaked at approximately 30.35". Minima near 29.70" occurred on the 13<sup>th</sup>.

### **Year-to-date Overview**

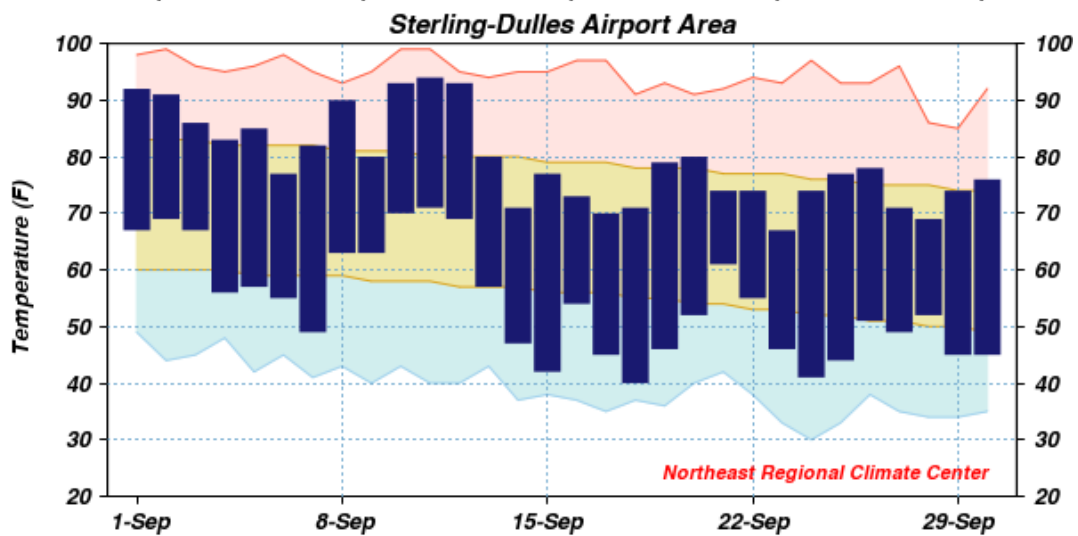
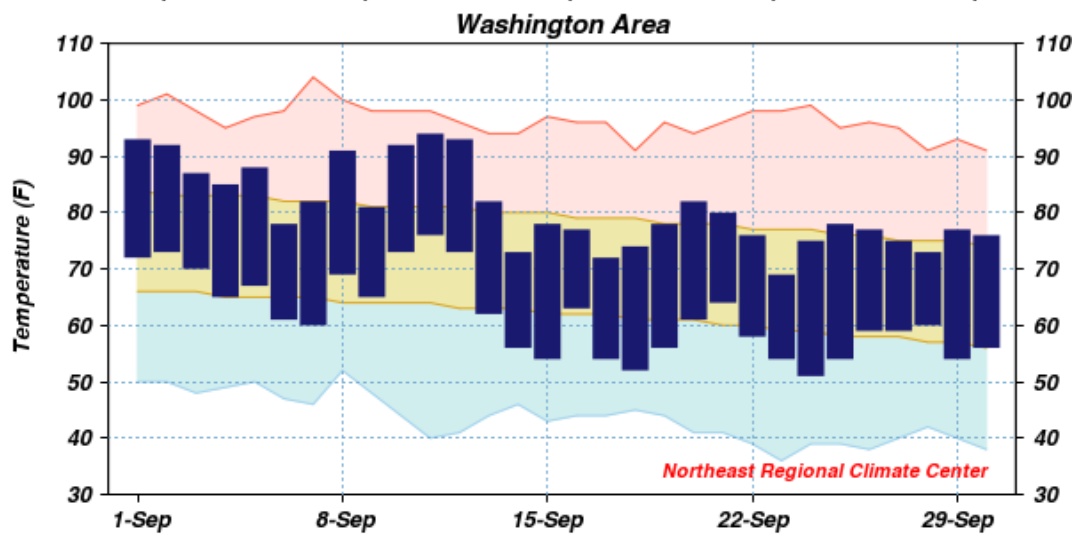
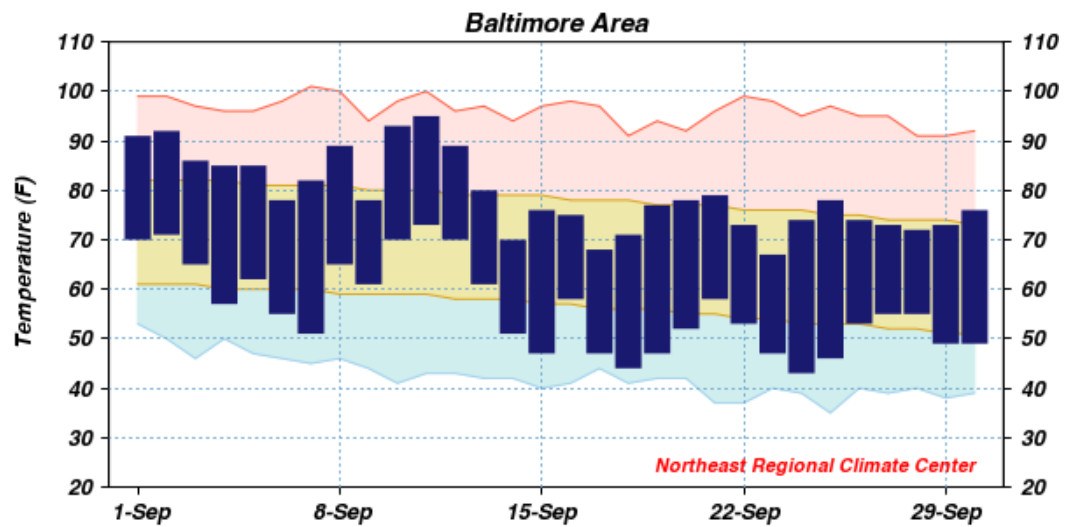
The first nine months of 2013 have averaged very close to normal for temperature and have been wetter than average. The 55.9° statewide mean is exactly the January-September 1981-2010 average. However, given how mild recent decades have been compared to earlier ones dating back to 1895, this 2013 interval was the 23<sup>rd</sup> warmest of the past 119. Some 13 of the past 23 such intervals dating back to 1990 have been warmer than this year.

Precipitation has averaged 38.36" across NJ since January 1. This is 2.90" above the 1981-2010 mark and ranks as 27<sup>th</sup> wettest. Only five such intervals since 1990 have had greater totals.

DAILY AVERAGE TEMPERATURES AND THE 30-YEAR NORMAL





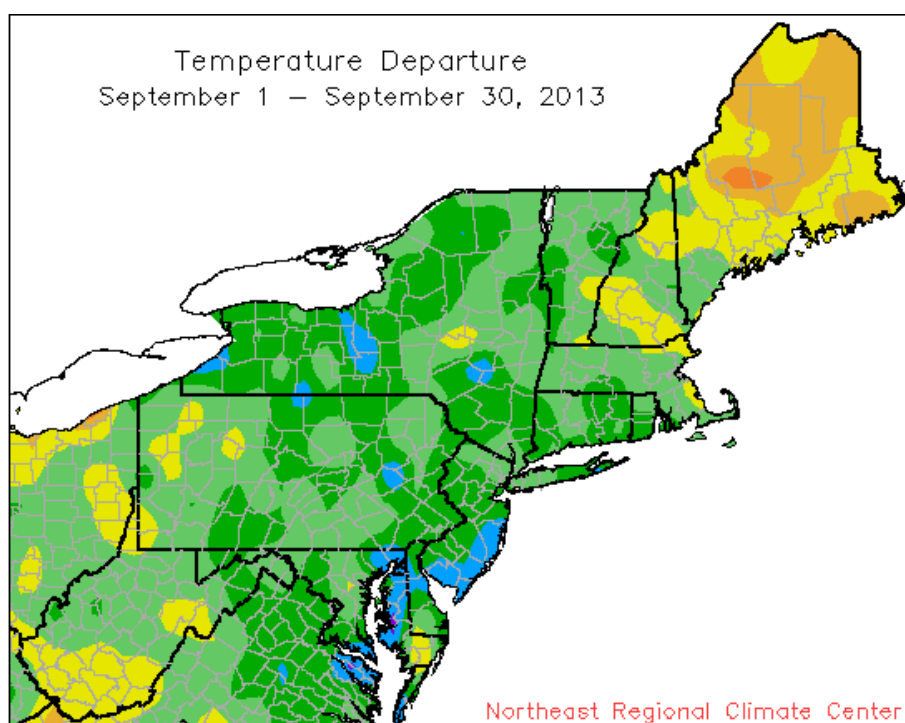
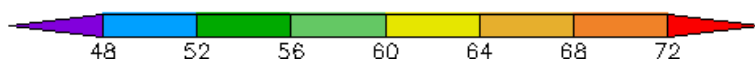
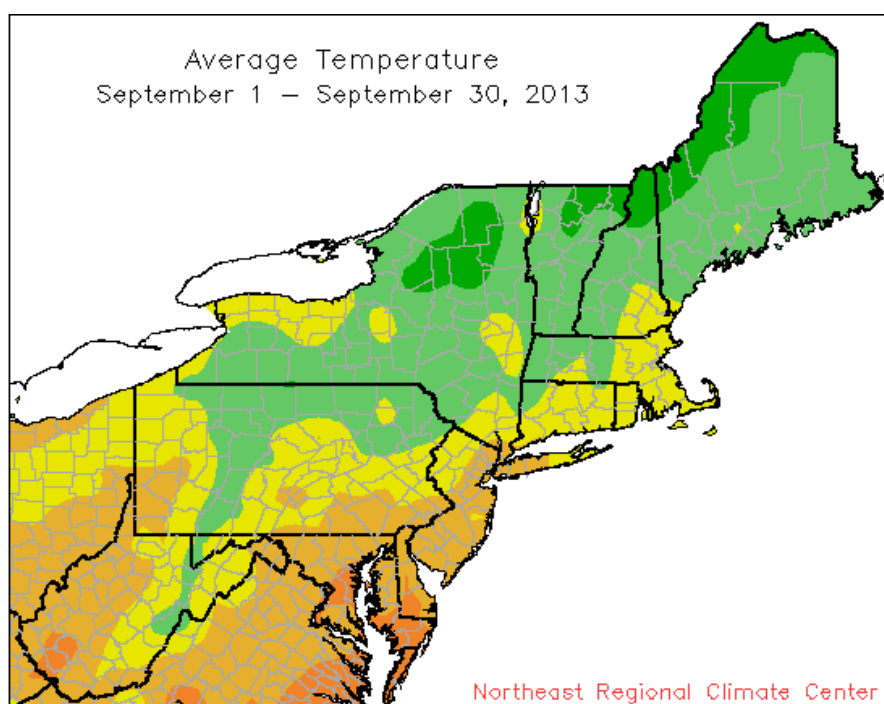


Area between normal max and min temperatures has tan shading.

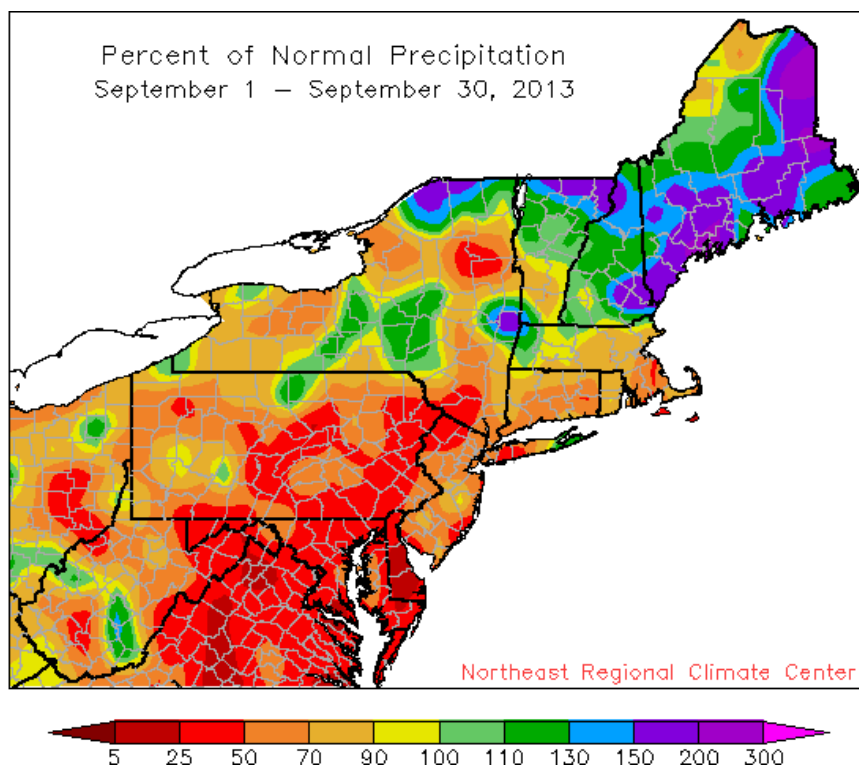
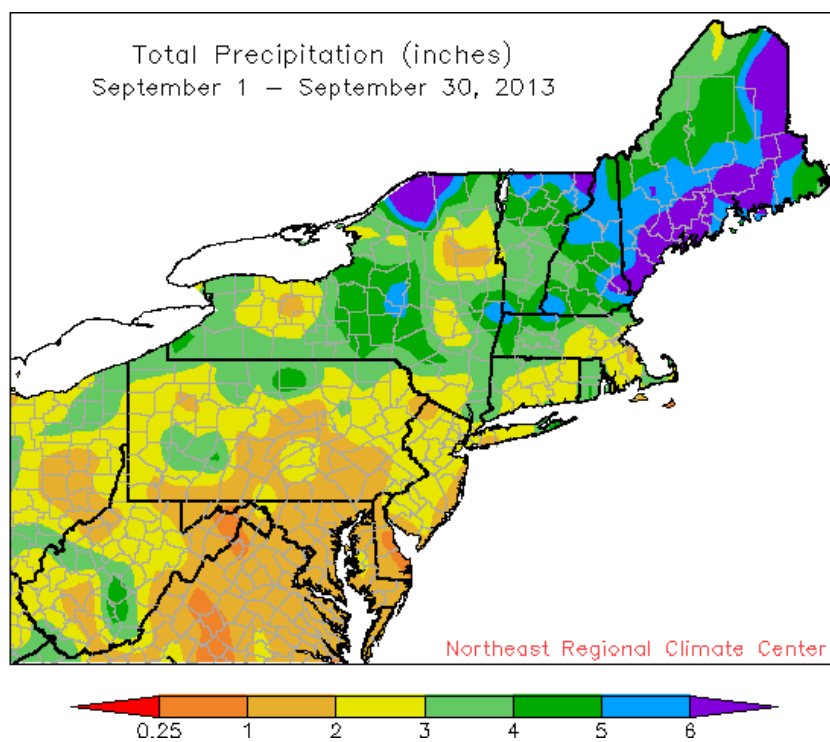
Red line connects record high temperatures.

Light blue line connects record low temperatures.

## MONTHLY TEMPERATURE MAPS



## MONTHLY PRECIPITATION MAPS



# PRELIMINARY MONTHLY SUMMARIZED DATA SEPTEMBER 2013

TEMPERATURE (F)												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			90+	70-	65+	50-	TOT	0.1+	MAX		TOT	MAX	
-DE: NORTHERN-																			
WILMINGTON NEW CAS	77.4	54.8	66.1	-1.7	91	11	42	18	1	4	5	13	1.92	-2.40	2	1.44	21	0	
WILMNGTON PORTER R	76.0	56.8	66.4	-0.8	99	11	45	24	1	9	6	6	2.15	-2.75	4	1.16	21	0	
-DIVISION-			66.3	-1.3									2.04	-2.59					
-DE: SOUTHERN-																			
DOVER	78.2	57.1	67.7	-2.0	93	11	45	18	2	1	7	8	0.66	-3.47	2	0.35	22	NM	
-DIVISION-			67.7	-1.0									0.66	-3.44					
-STATE-			67.4	-1.0									0.96	-3.25			0		
-MD: SOUTHEASTERN-																			
SALISBURY WICOMICO	81.1	57.8	69.5	1.3	94	11	46	24	5	2	6	9	0.77	-3.21	2	0.43	21	0	
SNOW HILL 4 N	81.0	56.5	68.8	-1.0	93	11	42	25+	3	1	7	10	1.38	-3.02	3	0.80	22	NM	
SALISBURY 2N	78.6	57.3	68.0		90	11	44	24+	1	2	7	8	1.35		2	0.78	22	NM	
-DIVISION-			68.8	-0.6									1.17	-2.91					
-MD: CENTRAL EAST-																			
ROYAL OAK 2 SSW	77.9	56.5	67.2	-3.0	92	11	41	24+	2	4	7	12	2.43	-1.58	2	1.46	13	0	
-DIVISION-			67.2	-2.4									2.43	-1.42					
-MD: LOWER SOUTHE-																			
MECHANICSVILLE 5 N	75.2	54.2	64.7	-1.8	88	13+	42	19+	0	9	6	10	0.89	-3.39	2	0.67	22	0	
ST INIGOES WEBSTER	77.5	57.6	67.6	-2.3	90	11	45	24+	1	5	9	8	1.63		2	0.93	21	NM	
-DIVISION-			66.2	-2.0									1.26	-3.18					
-MD: UPPER SOUTHE-																			
BALTIMORE WASH INT	79.2	56.2	67.7	-0.1	95	11	43	24	4	3	7	9	1.65	-2.38	2	0.95	21	0	
BELTSVILLE	78.5	56.0	67.3	-1.1	93	12	43	24+	4	3	6	8	1.94	-2.14	2	1.11	22	0	
DALECARLIA RSVR													2.01	-2.16	2	1.43	22	0	
LAUREL 3 W	80.3	58.6	69.4	0.0	95	11	46	18+	6	1	9	5	1.73	-2.87	2	0.96	21	NM	
MD SCI CTR BALTIMO	81.4	64.3	72.9	0.9	98	11	53	17	5	1	13	0	1.67	-2.42	2	1.29	21	NM	
NATL ARBORETUM DC	81.4	57.9	69.7	-0.6	94	12+	45	18	7	1	6	6	1.65	-2.11	3	1.15	22	NM	
OXON HILL	79.5	57.4	68.4	-1.3	94	12	47	25+	5	2	6	6	1.38	-2.75	3	1.00	22	0	
UPPER MARLBORO 3 N	80.0	54.6	67.3	-0.5	95	13+	42	18	6	2	6	12	2.73	-1.26	2	1.75	13	NM	
-DIVISION-			69.0	0.3									1.82	-2.30					
-MD: NORTHEASTERN-																			
STEVENSVILLE	76.8	59.4	68.1	-1.5	91	12	47	18	2	10	8	3					0		
-DIVISION-			68.1	-0.3									1.33	-3.06					
-MD: NORTHERN CEN-																			
ABERDEEN PHILLIPS	77.2	55.1	66.2	-1.6	92	12	44	24+	1	5	6	12	2.32	-2.20	2	2.18	22	0	
BRIGHTON DAM *	76.3	52.9	64.6		89	12	41	25+									0		
CONOWINGO DAM	74.8	53.8	64.3	-4.7	86	12+	43	19	0	9	6	13	1.14	-3.81	1	1.04	22	NM	
CYLBURN	75.5	55.6	65.6	-0.0	91	12	44	24	1	10	6	10	1.57		2	0.94	22	NM	
DAMASCUS 3 SSW	74.5	54.6	64.5	-1.2	91	11	43	24+	1	10	6	10	1.36	-3.15	3	0.62	21	0	
EMMITSBURG 2 SE	77.5	49.9	63.7	-1.4	95	12	37	25+	4	6	4	16	1.17	-3.07	3	0.81	22	0	
MILLERS 4 NE	76.0	52.1	64.0	-0.9	92	11	40	24+	1	7	6	16	1.59	-2.88	4	0.64	22+	0	
-DIVISION-			64.7	-1.9									1.52	-2.79					
-MD: APPALACHIAN -																			
CUMBERLAND 2	79.2	52.1	65.7	-1.7	92	11	39	24	2	2	3	16	0.80	-2.43	1	0.58	22	NM	
FROSTBURG 2	70.7	49.1	59.9	-1.1	86	12	38	25+	0	15	2	20	3.02	-0.66	4	2.22	12	NM	
SHARPSBURG 5 S	78.0	49.6	63.8	-1.8	94	12	38	25	4	5	5	18					NM		
WILLIAMSPORT	77.3	54.4	65.8	-0.8	92	11	42	19	4	6	5	14	2.15	-1.71	5	0.88	22	0	
-DIVISION-			63.8	-0.5									1.99	-1.53					
-MD: ALLEGHENY PL-																			
OAKLAND 1 SE	72.7	46.3	59.5	-0.5	88	28	33	25+	0	12	0	20	0.83	-2.62	3	0.30	13	0	
SAVAGE RIVER DAM *	71.9	49.1	60.5	-1.5	85	12	37	25					0.60	-2.72	2	0.37	22	NM	
SINES DEEP CREEK *	70.8	46.1	58.4		82	12	32	24									NM		
KITZMILLER 1 W	74.1	50.5	62.3		87	12	39	24	0	10	1	16					NM		
-DIVISION-			60.2	-0.5									0.72	-2.74					
-STATE-			65.9	-1.3									1.56	-2.54			0		

TEMPERATURE (F)										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	90+	70-	65+	50-	TOT		0.1+	MAX		TOT	MAX	
-NJ: NORTHERN-																		
BELVIDERE BRG *	74.8	47.6	60.9	-3.4	89	12	38	24+	0	6	2.61	-1.72	4	0.85	13	0		
BLACKWELLS MILLS											3.48	-0.86	3	2.13	3	NM		
BOONTON 1 SE	76.0	51.6	63.8	-0.7	93	12	41	25+	1	5	2.56	-1.94	3	1.38	22	0		
BOUND BROOK 2 W											1.74	-2.37	3	0.81	22	NM		
CHARLOTTEBURG RSV*	73.3	49.9	61.6	-1.6	92	12	39	18								0		
CRANFORD	75.0	56.3	65.6	-0.4	91	12	46	25+	1	9	2.19	-2.26	4	0.81	2	0		
FLEMINGTON 5 NNW *	76.5	50.7	63.6	-1.0	93	12	38	18			3.62	-0.69	3	1.55	3	0		
HARRISON	77.4	56.8	67.1	-1.1	96	12	45	25+	1	6	1.58	-2.74	4	0.69	22	NM		
LAMBERTVILLE											2.57	-1.81	4	1.25	22	NM		
NEWARK INTL AP	77.1	57.2	67.2	-1.0	96	11	47	24	1	5	1.54	-2.28	4	0.54	21+	0		
PHILLIPSBURG EASTO	75.7	51.6	63.6	-1.2	93	12	41	26+	2	7	1.93		3	0.75	13	NM		
POTTERSVILLE 2 NNW	73.5	52.9	63.2		87	12	43	24	0	8	6	16	4	0.87	22	NM		
RINGWOOD	77.2	49.5	63.3		95	12	37	24	1	5	4	21				NM		
SUSSEX 2 NW *	73.7	49.3	61.5	-0.1	93	12	39	18								0		
WAYNE	75.7	54.7	65.2		94	12	43	17	1	8	5	10	4	1.75	13	0		
WERTSVILLE 4 NE	74.7	51.4	63.0	-1.4	91	12	40	24+	1	7	5	21	4	1.52	3	NM		
RIEGELSVILLE											4.02		5	2.12	2	0		
TOCKS ISLAND	73.0	50.8	61.9		90	12	41	24+	1	13	5	20				NM		
-DIVISION-			63.7	-0.8							2.47	-2.02						
-NJ: SOUTHERN-																		
ATLANTIC CITY INTL	76.7	52.4	64.6	-2.6	92	11	40	18	1	4	5	17	4	0.43	2	0		
ESTELL MANOR	76.4	52.1	64.3	-2.0	90	12	38	18	1	6	6	18	3	3.35	3	NM		
FREEHOLD MARLBORO	77.0	51.4	64.2	-2.2	97	12	39	18	2	6	4	16	2	2.00	22	NM		
HAMMONTON 1 NE	77.3	53.1	65.2	-1.5	93	12	40	19	2	6	5	14	3	0.66	3	0		
HIGHTSTOWN 2 W	76.9	50.9	63.9	-1.8	94	12	38	18	2	6	5	19	5	1.56	2	0		
INDIAN MILLS	76.7	51.6	64.1	-2.0	92	11	35	18	1	6	5	16	3	1.00	22	0		
MILLVILLE MUNI AP	76.7	52.3	64.5	-2.2	90	11	38	18	1	4	5	18	3	0.63	21	NM		
NEW BRUNSWICK 3 SE	78.4	52.6	65.5	-0.7	94	12	40	24+	2	4	6	16	5	0.97	22	0		
SEABROOK FARMS	77.9	52.8	65.3		91	12	40	18	2	4	5	18	3	1.04	22	0		
ATSION	75.6	52.4	64.0		92	12	37	18	1	10	6	15	3	0.54	22	NM		
TRENTON MERCER CO	75.8	53.9	64.8	-1.4	93	11	41	18	1	5	5	14	4	0.84	21			
PHILADELPHIA MT HO	76.5	53.8	65.1		93	12	40	18	1	6	6	16	3	1.82	22	0		
-DIVISION-			64.6	-2.1							2.07	-1.80						
-NJ: COASTAL-																		
ATLANTIC CITY	72.2	60.6	66.4	-2.7	84	9+	48	25+	0	13	7	2	1	0.44	22	0		
CAPE MAY 2 NW	77.4	56.8	67.1	-2.1	88	11	44	18	0	4	7	8	2	0.58	22	0		
LONG BRANCH OAKHUR	74.9	54.9	64.9	-2.0	89	12	45	25+	0	10	5	13	2	0.63	22	NM		
-DIVISION-			66.1	-2.3							1.07	-2.27						
-STATE-			64.4	-1.6							2.14	-1.92				0		

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

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

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

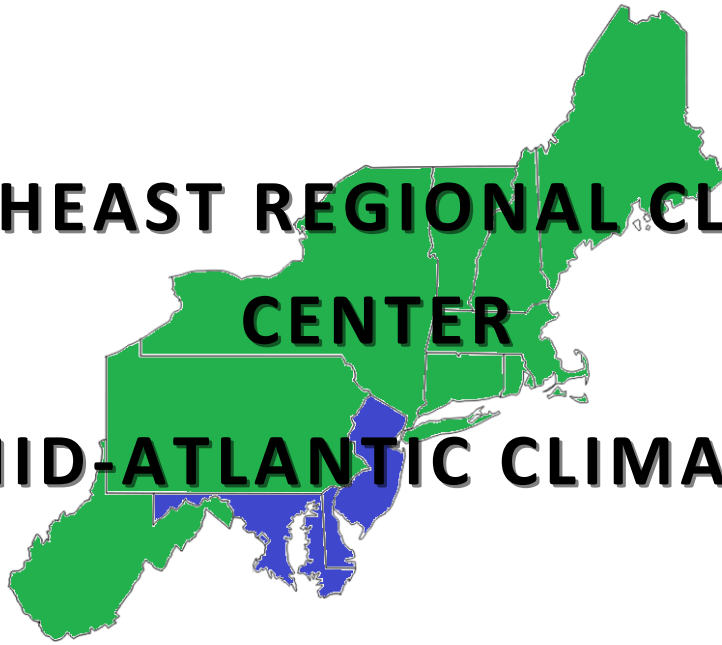
# PRELIMINARY MONTHLY DEGREE DATA SEPTEMBER 2013

STATION	HEATING DEGREE DAYS (BASE 65)				COOLING DEGREE DAYS (BASE 65)				GROWING DEGREE DAYS (BASE 50)			
	MONTH	MONTH	SEASON	SEASON	MONTH	MONTH	SEASON	SEASON	MONTH	MONTH	SEASON	SEASON
-DE: NORTHERN-												
WILMINGTON NEW CAST	69	19	69	17	107	-27	1192	65	488	-46	3455	58
WILMNGTON PORTER RS	63	8	63	6	113	-9			500	-18		
-DE: SOUTHERN-												
DOVER	44	12	44	11	131	-42	1258	-23	537	-54	3574	-72
-MD: SOUTHEASTERN SHORE-												
SALISBURY WICOMICO	27	-19	27	-21	169	27	1532	407	592	46	3907	482
SNOW HILL 4 N	53	19	53	18	173	-3			570	-23		
SALISBURY 2N	48				147				549			
-MD: CENTRAL EASTERN SHORE-												
ROYAL OAK 2 SSW	61	33	61	32	137	-47			526	-80		
-MD: LOWER SOUTHERN-												
MECHANICSVILLE 5 NE	97	31	101	32	94	-17	1002	3	447	-49	3226	-69
ST INIGOES WEBSTER	50	33			136	-28			536	-61		
-MD: UPPER SOUTHERN-												
BALTIMORE WASH INTL	52	0	52	-1	143	8	1288	143	541	8	3585	152
BELTSVILLE	58	9	60	9	132	-18	1218	1	524	-27	3497	-21
LAUREL 3 W	31	-4	31	-5	173	5	1389	25	592	8	3727	-20
MD SCI CTR BALTIMOR	5	-13	5	-13	247	18	1921	296	692	31	4461	382
NATL ARBORETUM DC	29	-5			179	-12			600	-8		
OXON HILL	40	12	40	12	149	-19	1321	-36	559	-30	3653	-129
UPPER MARLBORO 3 NN	62	8			140	0			528	-8		
-MD: NORTHEASTERN SHORE-												
STEVENSVILLE	46	29	46	29	144	-9	1330	126	548	-38	3638	81
-MD: NORTHERN CENTRAL-												
ABERDEEN PHILLIPS F	75	24	75	23	116	-19			491	-43		
CONOWINGO DAM	100	64	102	65	87	-70			437	-135	3037	-550
CYLBURN	91	24	92	18	117	30	1032	164	476	6	3236	141
DAMASCUS 3 SSW	97	23			90	-3			443	-28		
EMMITSBURG 2 SE	129	43			97	9			418	-35		
MILLERS 4 NE	109	25	116	25	86	5	884	99	427	-21	3060	112
-MD: APPALACHIAN MOUNTAIN-												
CUMBERLAND 2	76	16	80	18	103	-29	1128	-29	477	-46	3394	-92
FROSTBURG 2	191	34			46	8			307	-32		
SHARPSBURG 5 S	123	49	135	55	95	3			422	-47		
WILLIAMSPORT	76	22			108	8			482	-14		
-MD: ALLEGHENY PLATEAU-												
OAKLAND 1 SE	200	25	270	35	42	17	417	92	296	-13	2271	122
KITZMILLER 1 W	139		164		68		638		379		2701	
-NJ: NORTHERN-												
BOONTON 1 SE	111	18	114	13	82	2			421	-17		
CRANFORD	76	4	76	-1	103	1			477	-4		
HARRISON	57	16	57	15	128	-7	1267	91	521	-24	3473	36
NEWARK INTL AP	47	3	47	2	119	-21	1290	116	522	-24	3536	103

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
PHILLIPSBURG EASTON	122	41			88	13			416	-31		
POTTERSVILLE 2 NNW	113		114		67				404		2890	
RINGWOOD	125		130		82				407			
WAYNE	85		118		95		1120		460		3278	
WERTSVILLE 4 NE	133	39	138	36	80	5			397	-36		
TOCKS ISLAND	157		165		69		721		362		2724	
-NJ: SOUTHERN-												
ATLANTIC CITY INTL	102	43	102	40	96	-29	1052	18	444	-72	3160	-63
ESTELL MANOR	110	42	115	44	95	-12	996	36	435	-55	3142	-5
FREEHOLD MARLBORO	104	38	108	38	87	-19			433	-58	3136	-1
HAMMONTON 1 NE	91	27	91	24	103	-12			462	-39		
HIGHTSTOWN 2 W	113	34	116	29	88	-13	980	83	425	-49	3054	18
INDIAN MILLS	122	47	123	43	103	-4	1045	114	431	-53	3208	87
MILLVILLE MUNI AP	103	40			97	-16			444	-56		
NEW BRUNSWICK 3 SE	84	13	85	10	108	1	1084	143	474	-13	3218	129
SEABROOK FARMS	89		89		109				470			
ATSION	119		122		95				426			
TRENTON MERCER CO A	88	26	88	23	91	-8	1041	86	453	-35	3201	67
PHILADELPHIA MT HOL	93		94		103				460		3287	
-NJ: COASTAL-												
ATLANTIC CITY	59	32	59	31	107	-45	922	-77	498	-76	3075	-119
CAPE MAY 2 NW	54	22	54	21	126	-33	1055	-7	522	-55	3276	-21
LONG BRANCH OAKHURS	90	33	94	33	94	-18			454	-52	3001	40
<p>The heating season begins July 1 and ends June 30. The cooling season begins January 1 and ends December 31.</p> <p>The growing season begins March 1 and ends October 31. All departures are calculated from the 1981 - 2010 mean.</p> <p>These data are considered preliminary, published data from the National Climatic Data Center may differ somewhat from the values shown here.</p>												

# **NORTHEAST REGIONAL CLIMATE CENTER**

## **MID-ATLANTIC CLIMATE**



**Northeast  
Regional  
Climate  
Center**



1123 Bradfield Hall  
Cornell University  
Ithaca, NY 14853-1901