

# The Pennsylvania Observer

October 1, 2013



## **September 2013 - Pennsylvania Weather Recap**

*By: Catherine Menke*

The month of September was a relatively dry with temperatures steadily becoming more fall-like as the month went on.

The month began warm and rainy as result of low pressure sitting right on the border of Pennsylvania and New Jersey. As much as 1.5 inches fell on Labor Day in parts of northeastern Pennsylvania. This low pushed off the coast two days later as a cold front brought cooler air and much needed relief from high humidity to the state. For the next few days, high pressure to our south was in control keeping the air cool and dry. It was not until the 8<sup>th</sup> that another cold front moved through bringing minimal amounts of rain to Pennsylvania, totaling only about 0.1 of an inch. This, however, lead to Pennsylvania being stuck between two high pressure systems, one from the southwest bringing warm air, and one to our northeast bringing in moist air from the ocean. These two factors explain why the temperature drastically increased from the 9<sup>th</sup> to the 10<sup>th</sup>. The warm, moist air stayed in the area until the next front pushed the air mass out to sea. This also brought some rain to the state, as much as 2 inches fell in southwestern Pennsylvania, and there was a large drop in temperature. There was a break from the rain for a few days before another cold front brought more showers, about a quarter of an inch, and was followed by a few days of gorgeous fall weather.

The beautiful weather lasted until the 20<sup>th</sup> when showers started to fall in western and central Pennsylvania in association with the strong cold front. The front took most of the next day, the 21<sup>st</sup>, to move through the state. The cold front brought significant amounts of rain to the state, as much as 2 inches in the western part of the state and 1 inch in the central and eastern parts. There was also another large drop in dew point and temperature leading into nighttime lows in the mid 30s for portions of northern Pennsylvania. The rest of the month was relatively cool and dry with high pressure in control from the 23<sup>rd</sup> to the 30<sup>th</sup>. Overall for the month there frequent rain-producing weather systems during the first half, but most of the state still averaged below normal precipitation, about an inch off the average. The average temperature for the month of September was right where it should have been, warm in the beginning of the month and starting to cool as the fall weather moved in near the end so that mean temperatures were just a bit below the 30 year mean.

The summary of severe weather is as follows: There were 89 wind reports, 13 hail reports, and 0 tornado reports for PA during the month of September.

Here are the weather extremes across Pennsylvania (**observations taken at 8AM EDT**) during September 2013 from the NWS Cooperative & ASOS Networks of which our office receives routine observations. The extremes occurred in the 24-hour period prior to the date listed.

Parameter	Location	Value	Date (8 AM EDT)	County
Highest Temperature	York 3 Mi. SSW Pump Stn	96°F	September 12 <sup>th</sup>	York
Lowest Temperature	Clarence	28°F	September 19 <sup>th</sup>	Centre
Greatest Cumulative Liquid Precipitation	Glenburn 0.7 Mi. ESE	6.15"	September 1 <sup>st</sup> -September 30 <sup>th</sup>	Lackawanna
Least Cumulative Liquid Precipitation	Tyrone	0.92"	September 1 <sup>st</sup> -September 30 <sup>th</sup>	Blair

### Links to Pennsylvania Weather Stories during September, 2013

**Stink bug population likely to greatly increase in PA**

[http://millburn.patch.com/groups/summer/p/invasive-stinkbug-population-may-be-ready-to-explode-on-east-coast\\_e4a147b9](http://millburn.patch.com/groups/summer/p/invasive-stinkbug-population-may-be-ready-to-explode-on-east-coast_e4a147b9)

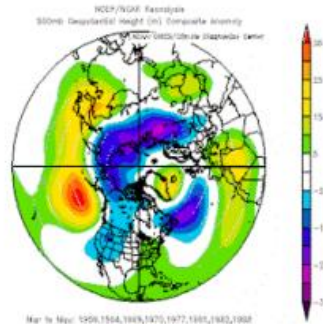
**Rising water temperatures in the Susquehanna River**

[http://lancasteronline.com/article/local/893705\\_Rising-Susquehanna-water-temps--rhetoric.html](http://lancasteronline.com/article/local/893705_Rising-Susquehanna-water-temps--rhetoric.html)

**Average to Excellent Fall Foliage Expected in PA**

[http://blog.pennlive.com/wildaboutpa/2013/09/average\\_brilliant\\_fall\\_foliage.html](http://blog.pennlive.com/wildaboutpa/2013/09/average_brilliant_fall_foliage.html)

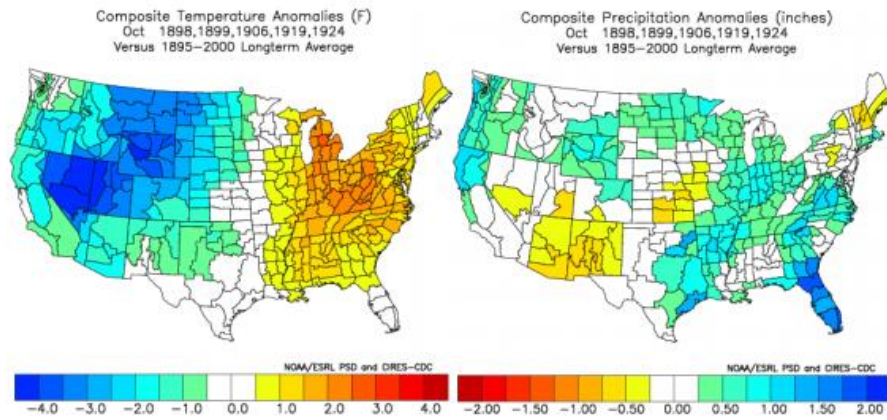
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## FEATURED CLIMATE HIGHLIGHT

*By: Kelly Balmes*

After the wettest July for Florida on record with 12.38 inches of precipitation and the driest July for Oregon on record with 0.03 inches of precipitation, analog forecasts based on prior years of similar conditions can be made for October. Dating back to 1895, there have been 5 years where July precipitation totals ranked in the top 25 wettest and driest for Florida and Oregon respectively: 1898 (20<sup>th</sup> wettest, 22<sup>nd</sup> driest), 1899 (15<sup>th</sup> wettest, 3<sup>rd</sup> driest), 1906 (12<sup>th</sup> wettest, 25<sup>th</sup> driest), 1919 (21<sup>st</sup> wettest, 9<sup>th</sup> driest) and 1924 (10<sup>th</sup> wettest, 9<sup>th</sup> driest). Looking at the resulting October temperature departures from average across the country (map below on the left), the Eastern half of the United States experienced above average temperatures while the Western half experienced below average temperatures. The October precipitation departures (map below on the right) point towards above average precipitation across most of the country, with the furthest above in Florida, and below average precipitation in the Southwest desert, parts of the Central Plains as well as parts of New England.



## *The Pennsylvania Observer*



The Pennsylvania State  
**CLIMATOLOGIST**

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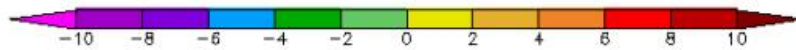
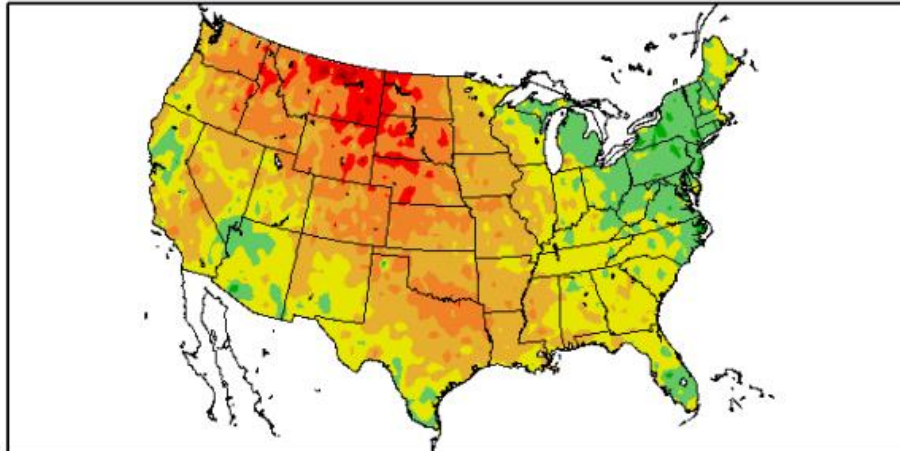


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### **LONG RANGE OUTLOOK**

*By: Joshua Markel*

Departure from Normal Temperature (F)  
9/1/2013 - 9/25/2013

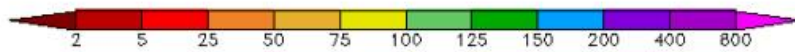
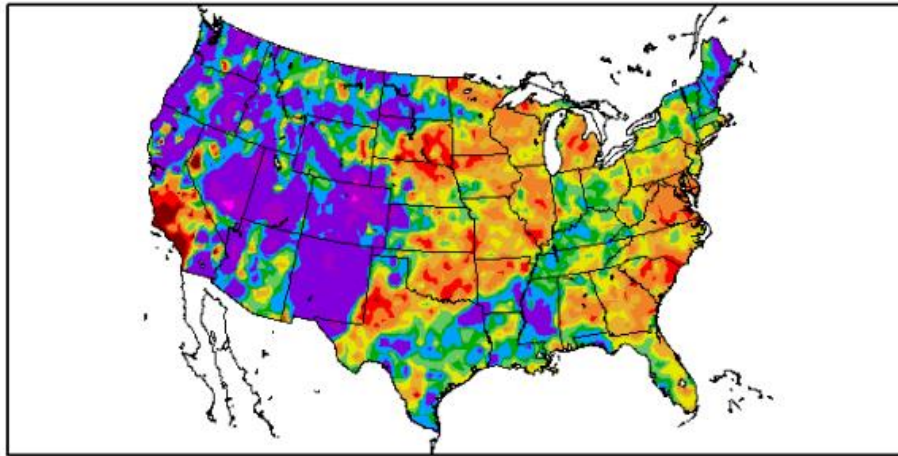


Generated 9/26/2013 at HPRCC using provisional data.

Regional Climate Centers

Analog predictions will be based on a warm September in the north central Plains and cooler than normal in the Northeast.

Percent of Normal Precipitation (%)  
9/1/2013 – 9/25/2013



Generated 9/26/2013 at HPRCC using provisional data.

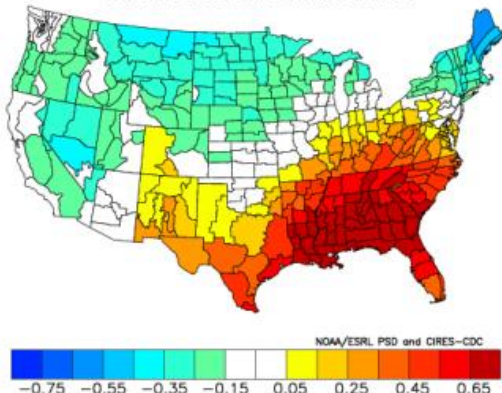
Regional Climate Centers

Analog predictions will be based on a very wet month in the Rocky Mountains and dry in the Southeast.

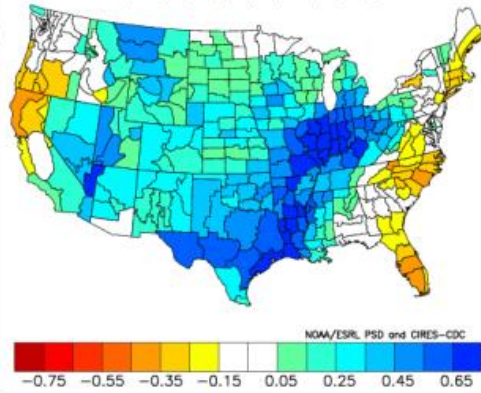
189509	Midwest	189609	NE Cool	189709	Southwest Wet	189609	Southeast Dry
189709	Warmth	189709		190409		189709	
189809		190209		190509		190009	
190509		190509		191909		190309	
190609		190909		192709		190509	
190809		191009		192909		190909	
191909		191109		193809		191109	
192009		191409		193909		191509	
192109		191909		194009		191609	
192209		192509		194109		192309	
192509		194009		195809		193309	
192709		194309		196109		193609	
193109		195109		196209		193709	
193309		195409		196509		193909	
193609		195509		197009		194309	
193909		197309		197609		195209	
194009		198209		198209		195809	
194109		198409		198309		196509	
194809		198609		198509		196709	
197809		198709		198609		197209	
199409		198809		199009		197309	
199809		199109		199109		198209	
200209		199309		199609		199209	
200409		199409		199709		199509	
200509		199709		200209		200709	
200909		200909		200409		200809	

Years in table highlighted in red have all four categories in common, years in orange have three categories in common, and years in yellow have two categories in common. Below are composites of temperature and precipitation anomalies for the months of October and November based on analogous years in common highlighted above.

Composite Standardized Temperature Anomalies  
Versus 1895–2000 Longterm Average  
Oct to Nov 1897, 1897, 1905, 1905, 1973, 1919, 1925, 1927, 1933, 1936  
1939, 1986, 1940, 1991, 1941, 1994, 2002, 2004, 2009, 1909

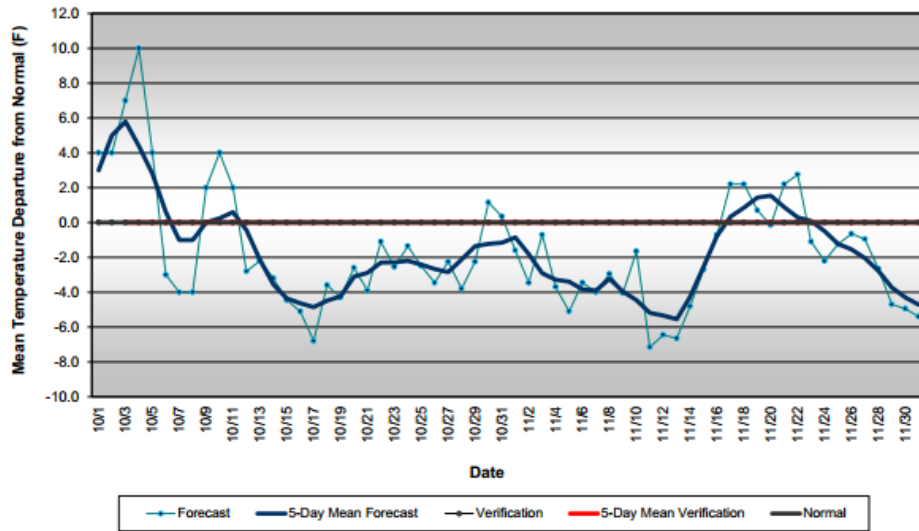


Composite Standardized Precipitation Anomalies  
Versus 1895–2000 Longterm Average  
Oct to Nov 1897, 1897, 1905, 1905, 1973, 1919, 1925, 1927, 1933, 1936  
1939, 1986, 1940, 1991, 1941, 1994, 2002, 2004, 2009, 1909

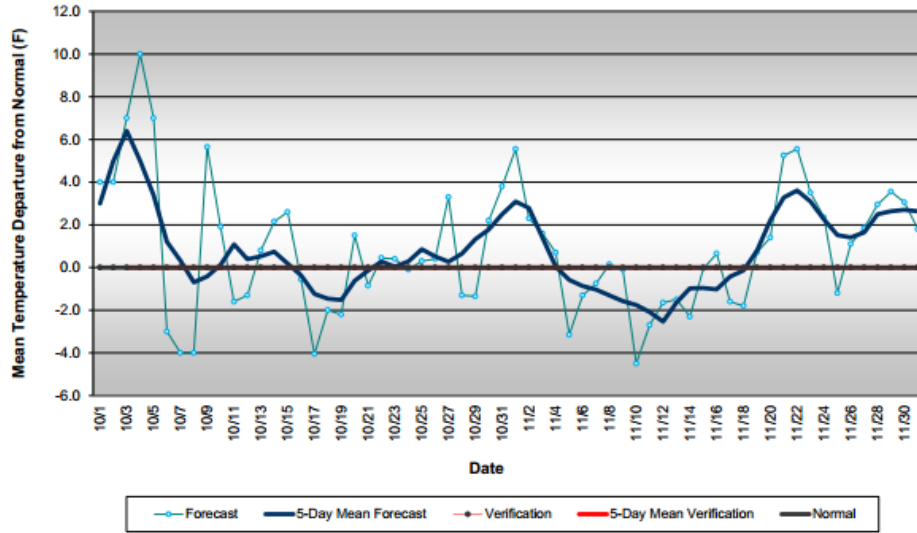




Western Pennsylvania Temperature Forecast  
October - November 2013



**Central Pennsylvania Temperature Forecast  
October - November 2013**



**Eastern Pennsylvania Temperature Forecast  
October - November 2013**

