The Pennsylvania Observer

February 4, 2009

The Pennsylvania State CLIMATOLOGIST

PENNSTATE

A Service to the Commonwealth by the College of Earth and Mineral Sciences

January 2009 – Pennsylvania Weather Recap

January kicked off 2009 with low temperatures which were some 3 – 6 degrees below the monthly average. Harrisburg was down 4.0 degrees from normal with Pittsburgh accumulating a departure of -5.5 degrees. One cold snap in particular was noteworthy. Martin Luther King weekend brought very cold conditions to Pennsylvania with temperatures that plummeted to below zero on the morning of January 18. Temperatures in Clarence, Pa fell to a bone chilling -29 degrees while Williamsport broke their 1982 record low of -12 degrees by dropping to -13. Unlike temperatures, precipitation varied across the state with southwest portions receiving more than an inch above average while areas in the north and southeast had below average precipitation with some areas barely receiving one inch of liquid equivalent. This below average precipitation though was not enough to prevent DEP from dropping the drought watch declaration that was in effect for the north-central and western portions of the Commonwealth since November.

New Years was a dry day in eastern portions of the state, but the air was cold, especially for those braving the twenty degree temperatures in Philadelphia to watch the Mummers parade. A small disturbance did bring some light snow to the western portions of the state on that day. This light snow reached Philadelphia by midday on the 2nd. The disturbance ushered in warmer air with places like Pittsburgh and State College reaching 42 degrees on the 2nd, and Philadelphia touching 40 degrees on the 3rd. It turned cooler on the 3rd in the western parts of the state from the back door cold front. Shortly afterward, low pressure passed through the western parts of the state bringing a ridge of warmer air and some precipitation. Precipitation started in the form of snow and freezing rain but changed to plain rain in most areas. Pittsburgh ended the day with a high of 48 degrees! The unsettled weather continued for the next few days as the primary disturbance passed to the east and then was soon followed by another storm riding up the Appalachians. This storm was different to the first in that temperatures over much of the state were below freezing. The low pressure which passed over Pittsburgh ushered in warmer air aloft, but it did not make it to the ground. The bulk of the precipitation started as snow or freezing rain on the 6th and then changed over on the 7th to freezing rain in most locales except for Philadelphia and the surrounding areas which experienced plain rain. Ice accumulations of up to one half inch occurred over the western two-thirds of the state. The story in southeastern PA was the heavy rain. 1.47 inches of rain fell in Philadelphia on the 7th alone.

The passing of the storm was followed by colder weather, but not frigid temperatures. The quiet weather lasted only a day as another storm approached the region from the west on the 9th. The storm system moved along the Mason-Dixon Line and was expected to deposit heavy snow over the state, but only ended up dumping ten inches in a few places in the northern tier. Philadelphia received less then two inches. The storm moved out by the 11th and by the end of the day on the 12th an Alberta Clipper approached the region. Snow fell statewide on the 13th with 2-4 inches in many sections and Wellsboro had the most with 7.4 inches. The passing of the clipper on the 13th and then the reinforcing cold front which passed through on the 14th ushered in an artic air mass which created temperatures which had not been seen in the state in fifteen years. On the 16th & 17th not one location in the state other than downtown Philadelphia reached temperatures higher than 15 degrees. Many locations did not even make it above zero for maximum temperatures. Record low temperatures were most noticeable on the

mornings of the 17th and 18th when temperatures dropped below zero in nearly all locales. Temperatures recovered back into the 20s and 30s on the 18th with an approaching storm which brought some light snow to the state. After this storm, the state had a few days of calm weather. Temperatures rebounded into the 40s and near 50 on the 23rd hitting 53 degrees in Pittsburgh and Philadelphia respectively on the 23rd.

The 24th and 25th saw seasonable temperatures and some light snow showers in the western mountains of the state. On the 26th, unsettled weather approached from the southwest. Snow overspread the state during the evening hours. The snow continued overnight but the warm front associated with the low pushed northward and overran the cold air. Many locations changed to a wintry mix of snow, sleet and freezing rain. State College switched to sleet even though the surface air temperature was only 22 degrees. Most places in the southeastern triangle of the state switched to a wintry mix by dawn. Snow turned to freezing rain in Philadelphia by 4am on the 27th, prompting most schools to close for the day. Snowfall and sleet accumulations ranged from two to four inches. The 29th – 31st ended the month with near average temperatures and mostly sunny conditions for the eastern portion of the state. Snow showers still prevailed in the western half though. Some of the snow squalls were intense with State College picking up around 1.5 inches of snow in the matter of an hour or two on the 30th while portions of Pittsburgh received nearly 4 inches.

2009 started off with below average temperatures and precipitation varied across the state, but the good news to report is that there is no longer a drought watch for the northern and western tiers of the state.

Here are the weather extremes across Pennsylvania (**observations taken at 8AM EDT**) during January 2009 from the NWS Cooperative & ASOS Networks. The extremes occurred in the 24-hour period prior to the date listed.

Parameter	Location	Value	Date (8 AM EDT)	County
Highest Temperature	Wolfsburg	**57°F**	January 24th	Bedford
Lowest Temperature	Clarence	**-29°F**	January 18th	Centre
Greatest Cumulative Liquid Precipitation	Chalk Hill	**4.65”**	-	Fayette
Greatest Cumulative Snowfall	Laurel Summit	**65”**	-	Westmoreland

Weather Stories

Cold Temperatures, Snow Hit Region Hard in January
http://online.indianagazette.com/articles/2009/02/01/news/indiana_county/10010179.txt

Green a Key to More White for Ski Resorts
http://www.mcall.com/sports/all-skireport010908,0,4704724.story

Ever Wondered Whether Groundhogs Can Predict the Weather?
http://www.washingtonpost.com/wp-dyn/content/article/2009/02/01/AR2009020101840.html

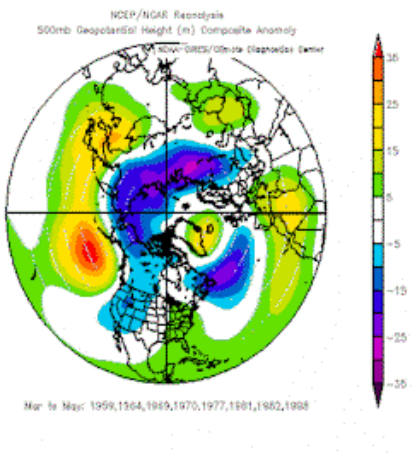
Phil Predicts Another Six Weeks of Winter
http://www.washingtonpost.com/wp-dyn/content/article/2009/02/02/AR2009020202931.html

February Might be Wetter than Usual
http://www.theolympian.com/southsound/story/745626.html

PA DEP Lifts Drought Watch in 29 Counties
http://news.prnewswire.com/DisplayReleaseContent.aspx?ACCT=104&STORY=/www/story/01-26-2009/0004960717&EDATE=

The Pennsylvania Observer

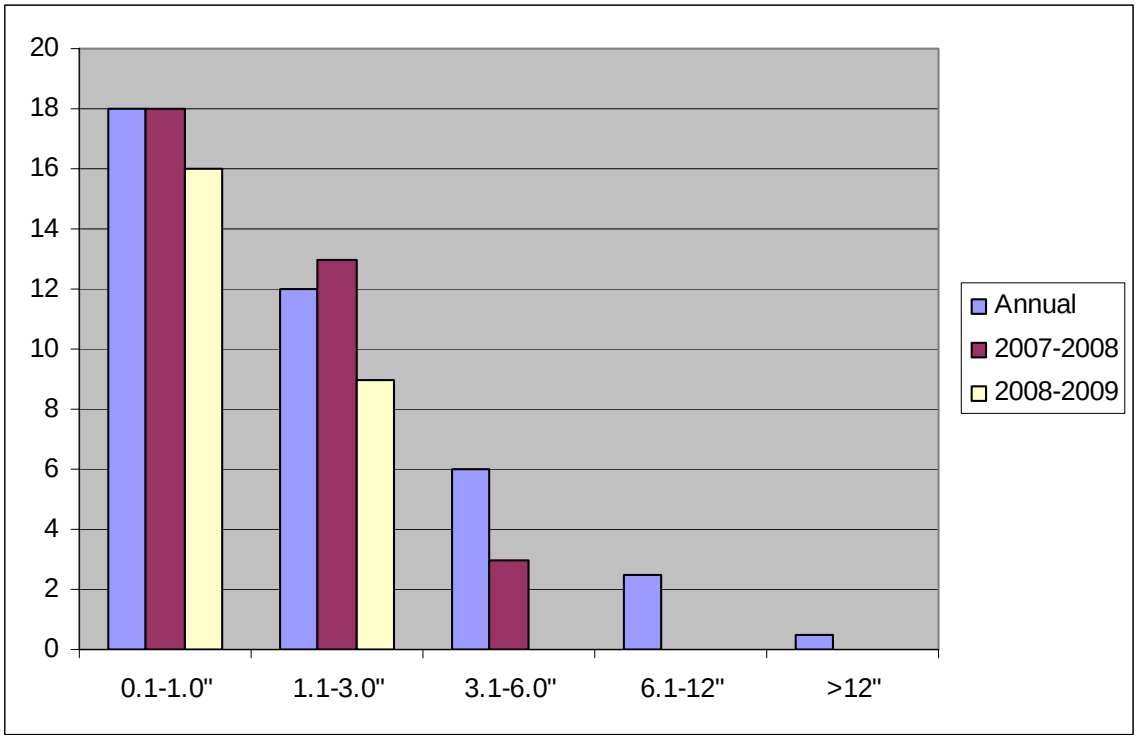
The Pennsylvania State Climatologist



February Climate Highlight:

This climate highlight compares the snowfall in the 2007-2008 winter season to that of the present 2008-2009 season. It also shows the distribution of icing events. Interestingly, in central Pennsylvania there have been no 24 hour snowfalls greater than 6 inches in more than two years, but the frequency of icing events has considerably increased.

Comparison of Snowfall



In comparing the normal distribution of snowfall (by events) in State College, (the left most bar) with last winter's snowfall distribution and this season to date, it is noted that there have been no 24 hour snowfalls greater than 6 inches in more than two years.

Total number of hours of ZR or UP

December

Day	KFIG	KBFD	KDUJ	KUNV
11	7	0	2	18
12	0	0	0	3
16	1	0	3	1
17	3	3	2	9
19	6	4	6	2
24	6	1	4	8
Total	**23**	**8**	**17**	**41**

The counterpart to the lack of substantial snow in the central valleys of the state is the increased frequency of icing events. The above chart shows the total number of hours of freezing rain and unknown precipitation type during the month of December 2008 at several regional airports. Clearfield (KFIG) reported 23 hours while the University Park airport registered a total of 41 hours, with 18 of those occurring on one day.

The Pennsylvania Observer

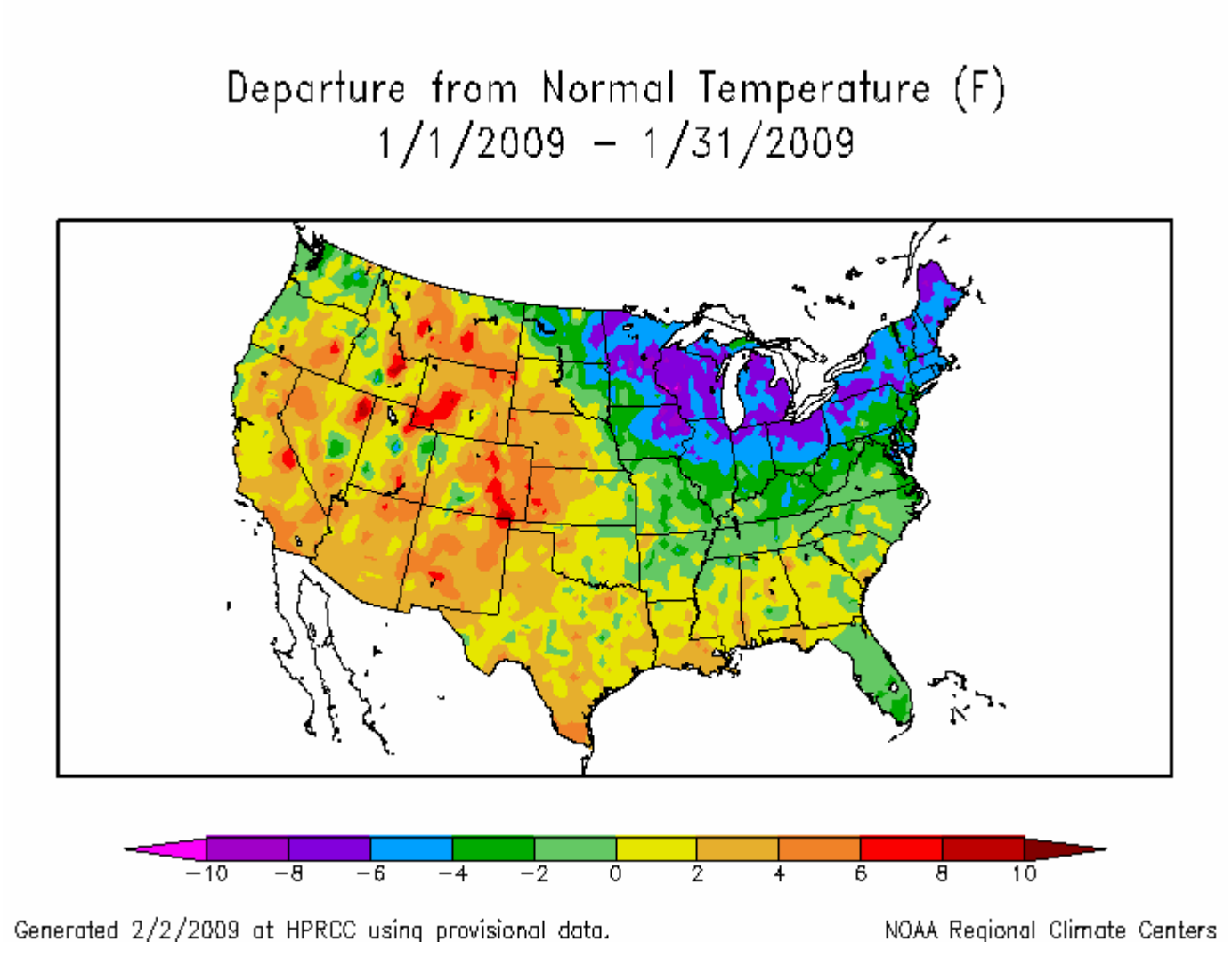
The Pennsylvania State CLIMATOLOGIST

PENNSTATE

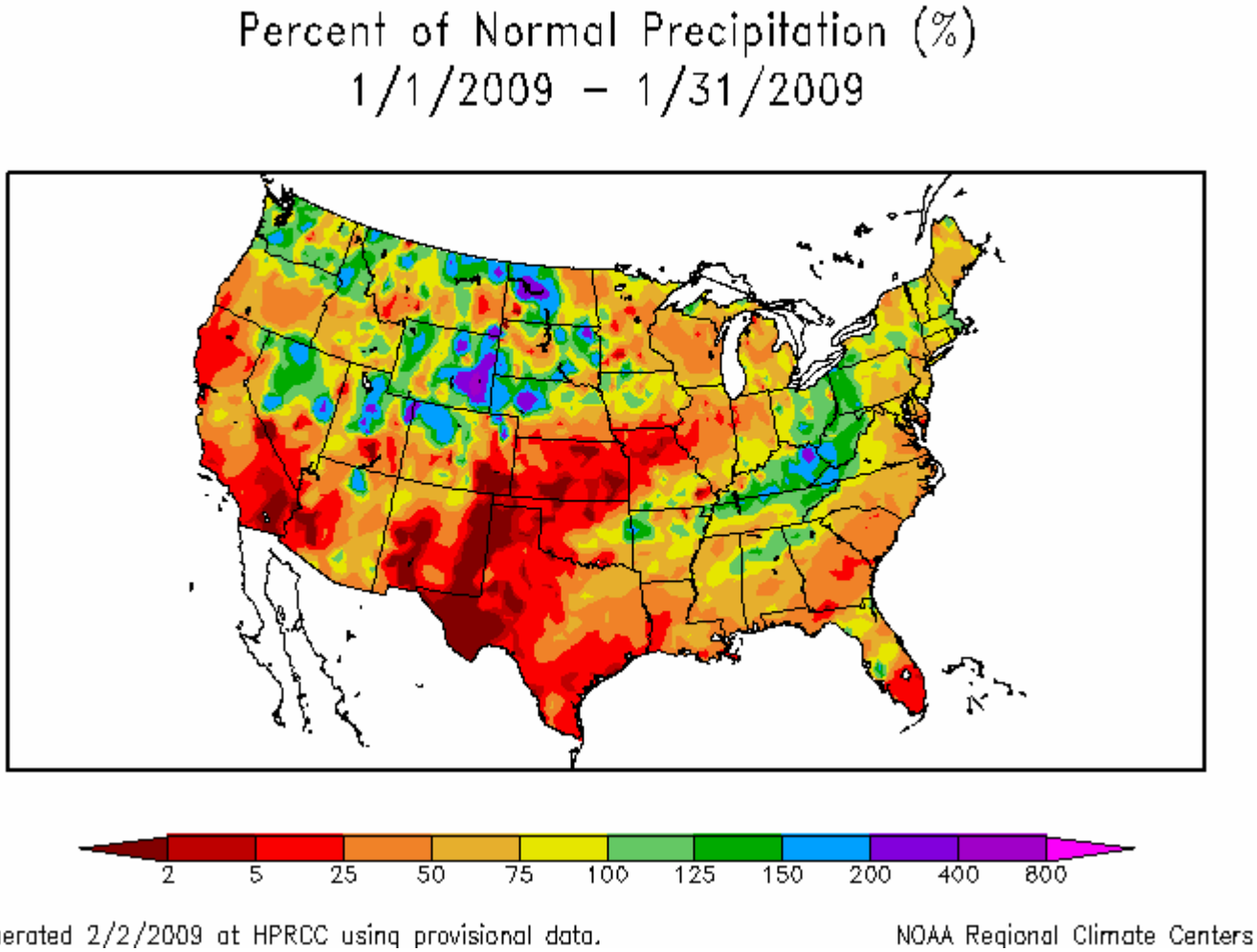
A Service to the Commonwealth
by the College of Earth and Mineral Sciences

Outlook

Experimental Long Range Outlook for Pennsylvania: February – March 2009



Throughout much of January the northeastern part of the United States felt the chill of cold, Canadian air while the western half of the nation experience above normal temperatures.

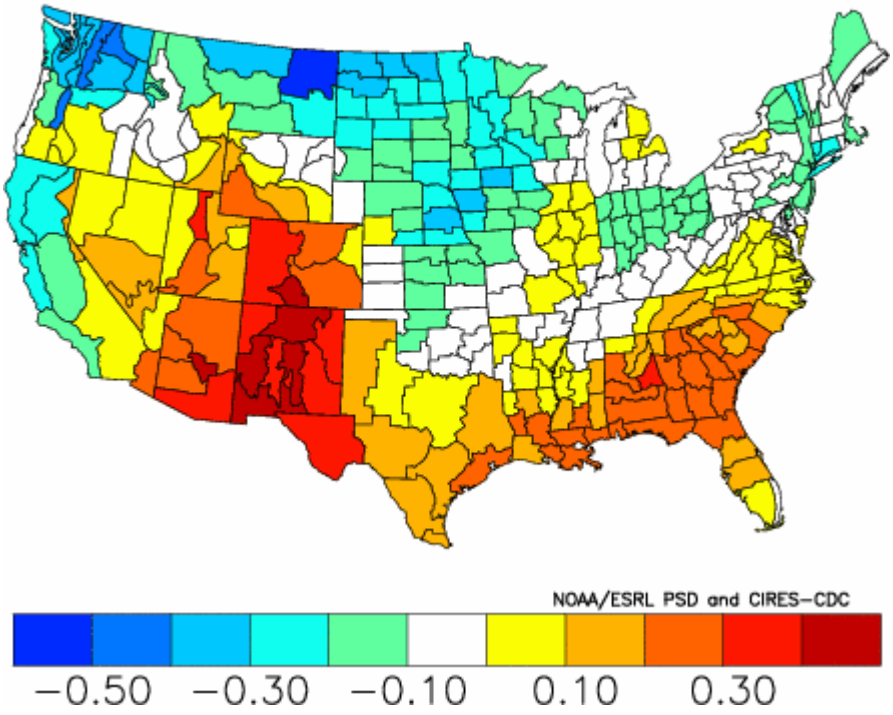


Precipitation was sparse in the Plains and along most of the Eastern Seaboard. Western Pennsylvania as well as Kentucky, West Virginia, and scattered locations in the northwestern tier were wetter than average for the month of January.

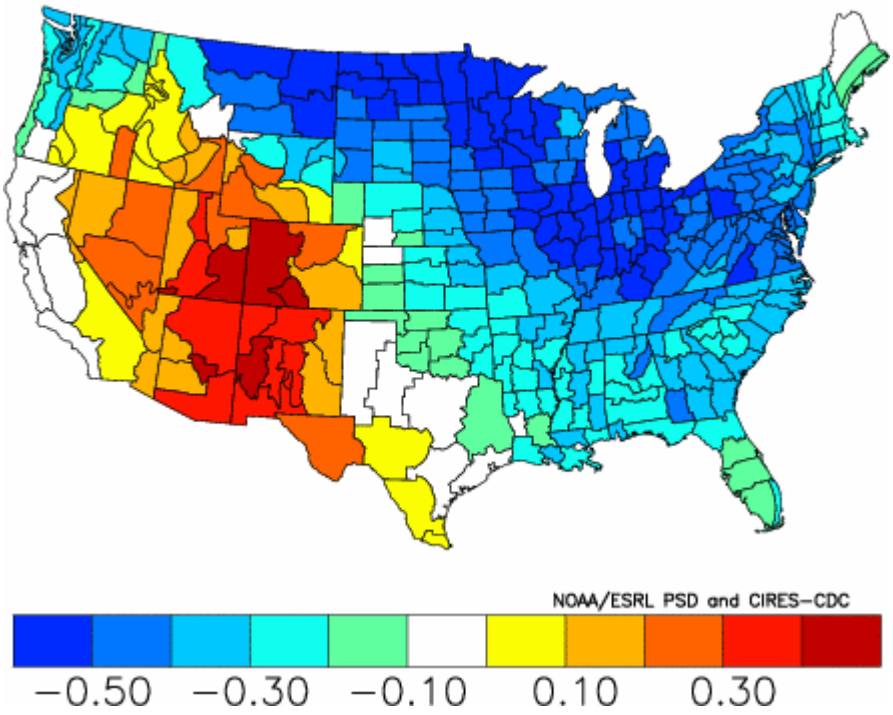
Analogs were based on the warmth across the Rocky Mountain States and the chill in the Northeast. Precipitation matches were based on the widespread dryness from Texas through the Great Plains and a corridor of wetness along the Appalachian Mountains.

The following years served as a match: 1907, 1913, 1916, 1932, 1947, 1949, 1950, 1951, 1978, 1999

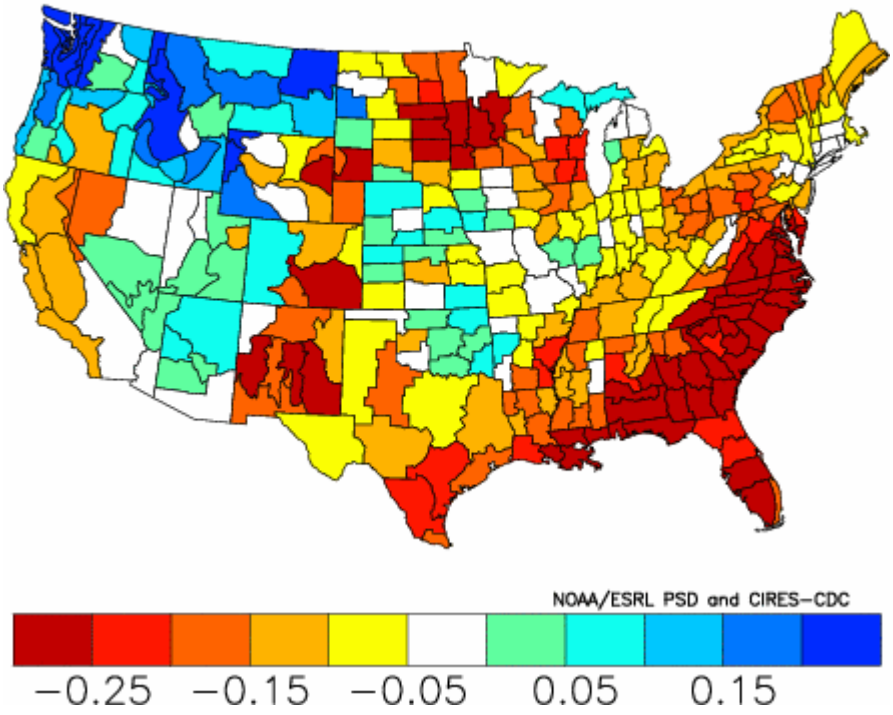
Composite Standardized Temperature Anomalies
Feb 1907,1913,1916,1932,1947,1978,1999,1949,1950,1951
Versus 1895–2000 Longterm Average



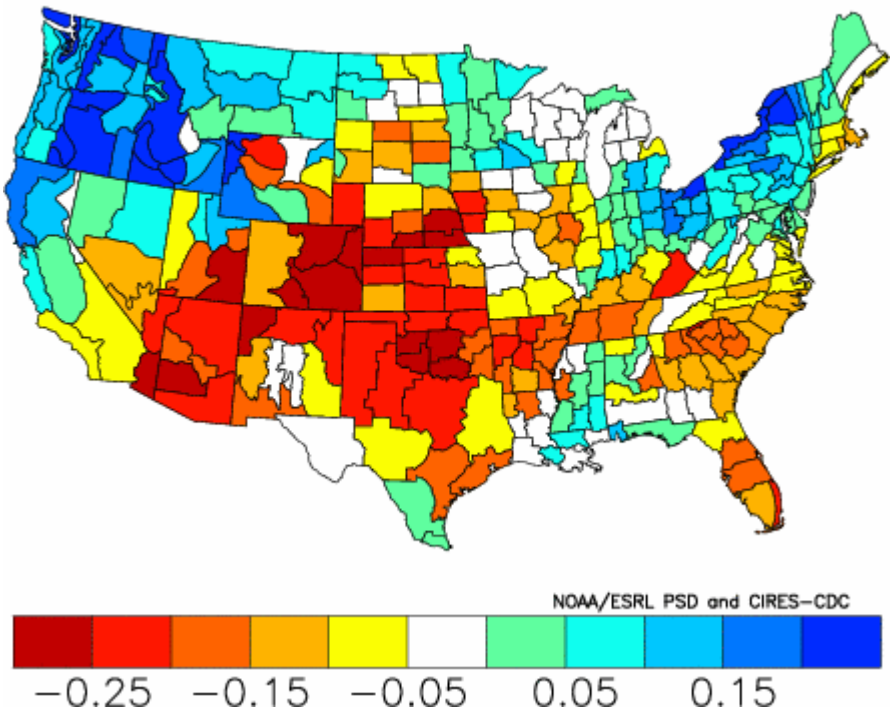
Composite Standardized Temperature Anomalies
Mar 1907,1913,1916,1932,1947,1978,1999,1949,1950,1951
Versus 1895–2000 Longterm Average



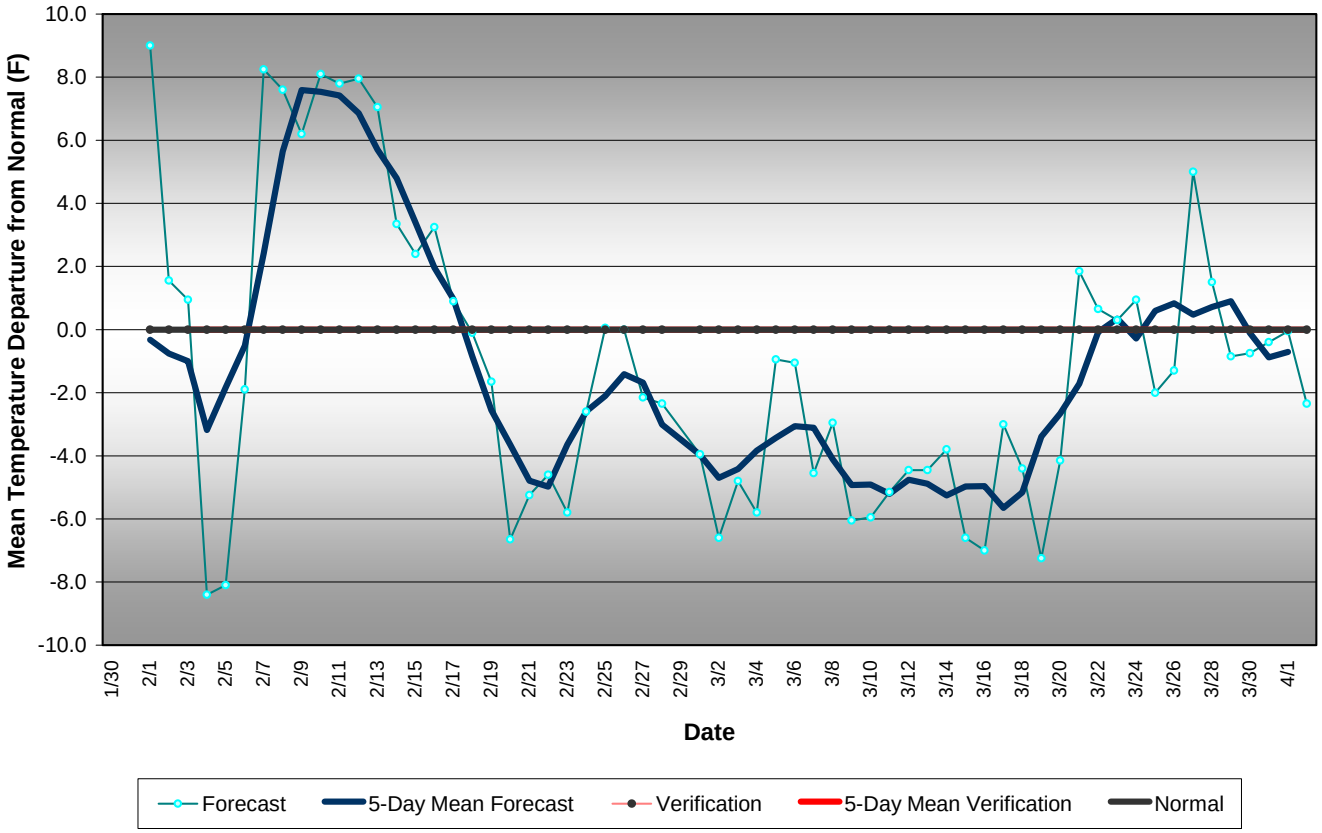
Composite Standardized Precipitation Anomalies
Feb 1907,1913,1916,1932,1947,1978,1999,1949,1950,1951
Versus 1895–2000 Longterm Average

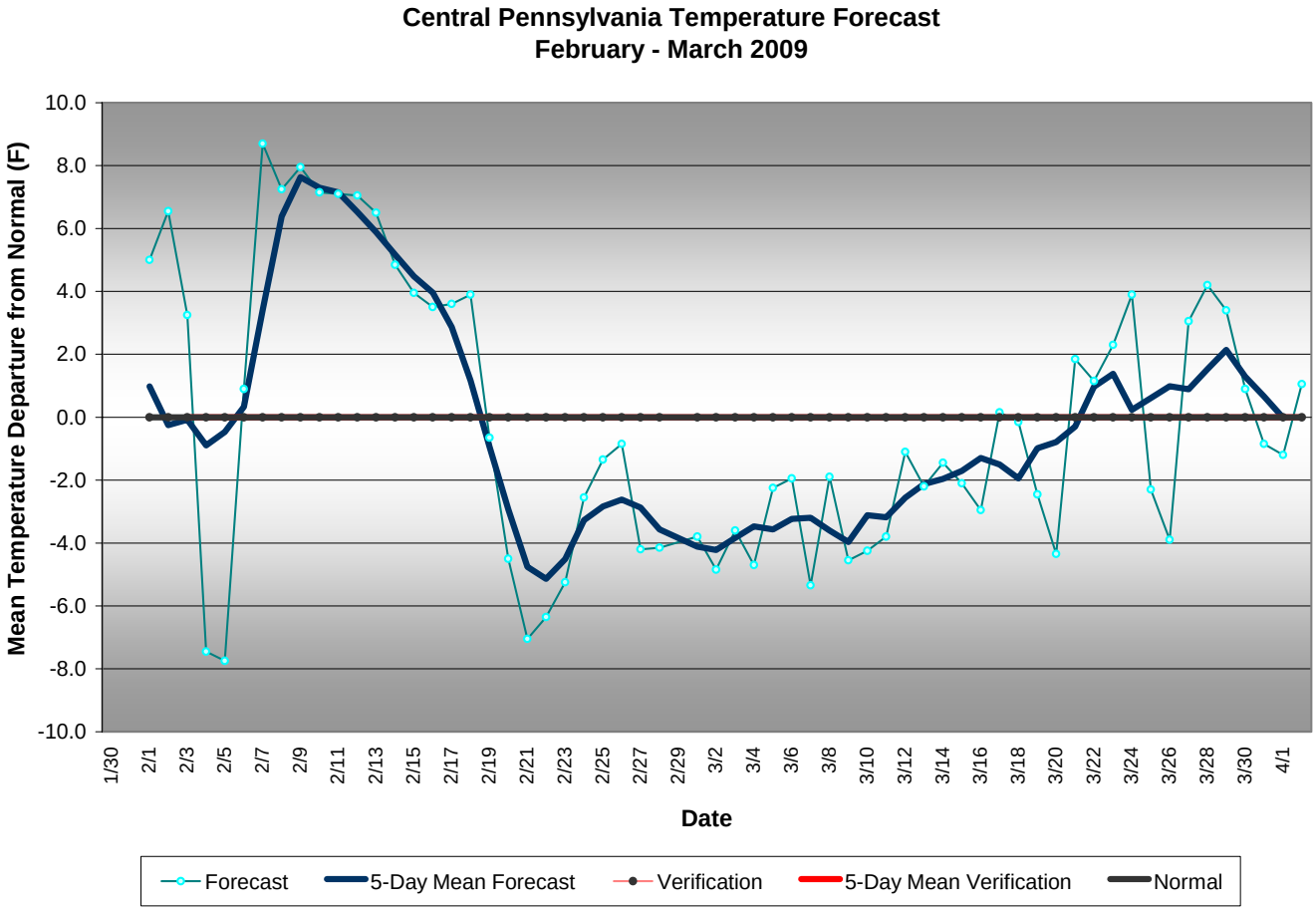


Composite Standardized Precipitation Anomalies
Mar 1907,1913,1916,1932,1947,1978,1999,1949,1950,1951
Versus 1895–2000 Longterm Average



Western Pennsylvania Temperature Forecast
Februrary - March 2009




Central Pennsylvania Temperature Forecast
February - March 2009
Mean Temperature Departure from Normal (F)
10.0
8.0
6.0
4.0
2.0
0.0
-2.0
-4.0
-6.0
-8.0
-10.0
1/30
2/1
2/3
2/5
2/7
2/9
2/11
2/13
2/15
2/17
2/19
2/21
2/23
2/25
2/27
2/29
3/2
3/4
3/6
3/8
3/10
3/12
3/14
3/16
3/18
3/20
3/22
3/24
3/26
3/28
3/30
4/1
Date
Forecast
5-Day Mean Forecast
Verification
5-Day Mean Verification
Normal

Eastern Pennsylvania Temperature Forecast
February - March 2009