

6-Month Climate Model Forecast Summary for Pennsylvania

August 15, 2017

Climate models continue to improve and may have some skill in forecasting patterns of temperature and precipitation anomalies several months in advance. However, climate modeling is still a very inexact science. Lacking highly precise observations from the earth's environment (air, land and sea) and a full understanding of the scientific processes that affect the motions in the atmosphere, it is impossible to make precise seasonal-scale weather predictions with any accuracy. Please keep this in mind as you review this forecast.

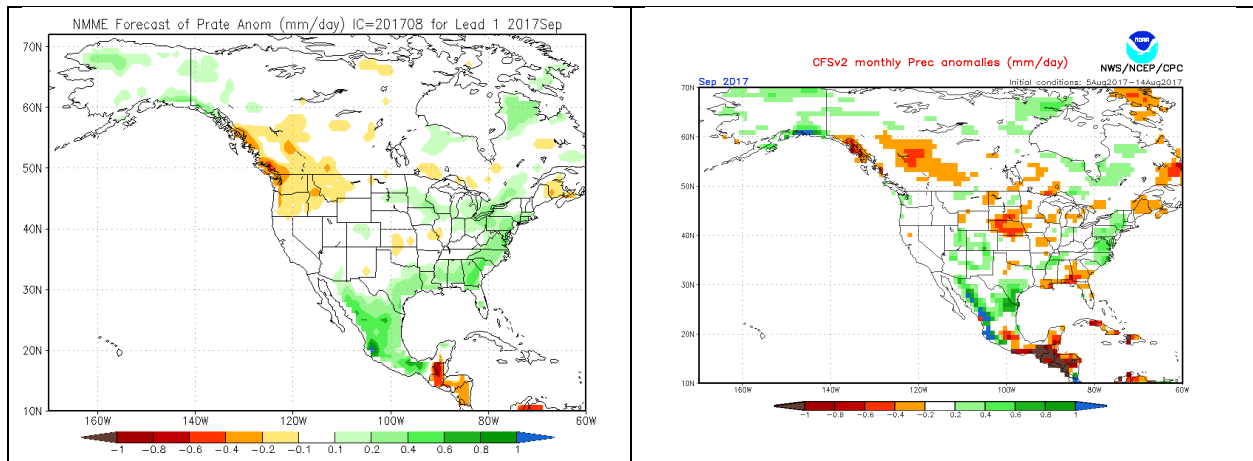
The following forecast is produced based on analysis of monthly forecast products from the Climate Forecast System Version 2 (CFS) and the North American Multi-Model Ensemble (NMME). Links to forecasts are provided at the end of this document.

Discussion:

While the forecast this time indicates “Near Normal” precipitation for the month of September, models have trended slightly wet over the past few runs (see below).

September 2017

September 2017



NMME Mean – September Precip.

CFS 081517 – September Prec.

November temperatures have trended back to seasonal levels in this latest iteration. One of the most interesting aspects to recent model guidance is that there seems to be a consistent ‘wet’ pattern that emerges for much of the fall through at least the first half of the winter. This could be impactful to the state as this wet weather could be tied to tropical cyclones in the fall and/or in the form of snow as temperatures cool down in the late Fall/early winter. The only notable confidence for temperatures beyond the first few months is warmth during the month of December.

Forecast:

Changes highlighted in yellow

Previous forecast in parentheses

<u>Month</u>	<u>Temperature</u>	<u>Precipitation</u>
September	N (N)	N (N)
October	N (N)	A (U)
November	N (A)	U (U)
December	A (A)	A (A)
January	U (U)	A (A)
February	N ()	U ()

BB = Much Below Normal

B = Below Normal

N = Near Normal

A = Above Normal

AA = Much Above Normal

U = Uncertain

The next forecast will be issued on September 1, 2017.

References:

CFS forecasts:

<http://www.cpc.ncep.noaa.gov/products/CFSv2/CFSv2seasonal.shtml>

CFS forecasts:

<http://www.cpc.ncep.noaa.gov/products/people/mchen/CFSv2FCST/monthly/>

NMME forecasts: <http://www.cpc.ncep.noaa.gov/products/NMME/monanom.shtml>

NMME forecasts:

<http://www.cpc.ncep.noaa.gov/products/NMME/verif/monindex.html>