

6-Month Climate Model Forecast Summary for Pennsylvania

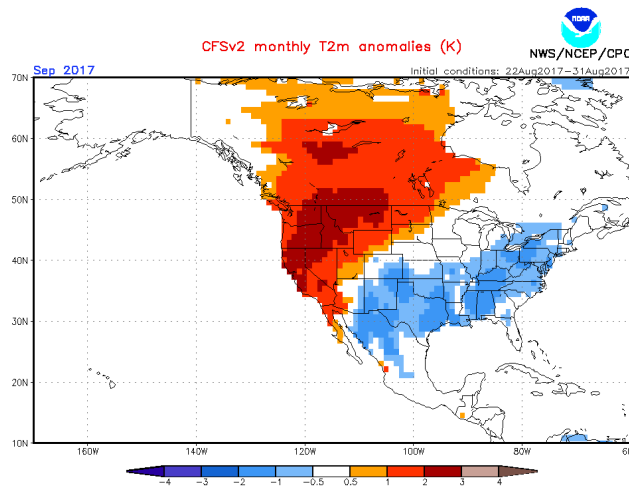
September 1, 2017

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 previous forecast briefing highlighted the trend to wetter conditions, climate forecast models have now trended cooler for the month of September (see below).



Sep 2017 CFS 2m Temp Anomalies – Initialized 22 Aug – 31 Aug 2017

What is most interesting about recent trends in model guidance has been the signal of a wetter than normal winter period (December through February). While temperature forecast are uncertain making it difficult to discern whether that precipitation is favored

to fall in the frozen form or not, current climate model guidance is indicating that there is at least the potential for East Coast storminess during this time.

Forecast:

Changes highlighted in yellow

Previous forecast in parentheses

<u>Month</u>	<u>Temperature</u>	<u>Precipitation</u>
September	B (N)	A (N)
October	N (N)	N (A)
November	A (N)	U (U)
December	A (A)	A (A)
January	U (U)	A (A)
February	U (N)	A (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 15, 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>