6-Month Climate Model Forecast Summary for Pennsylvania
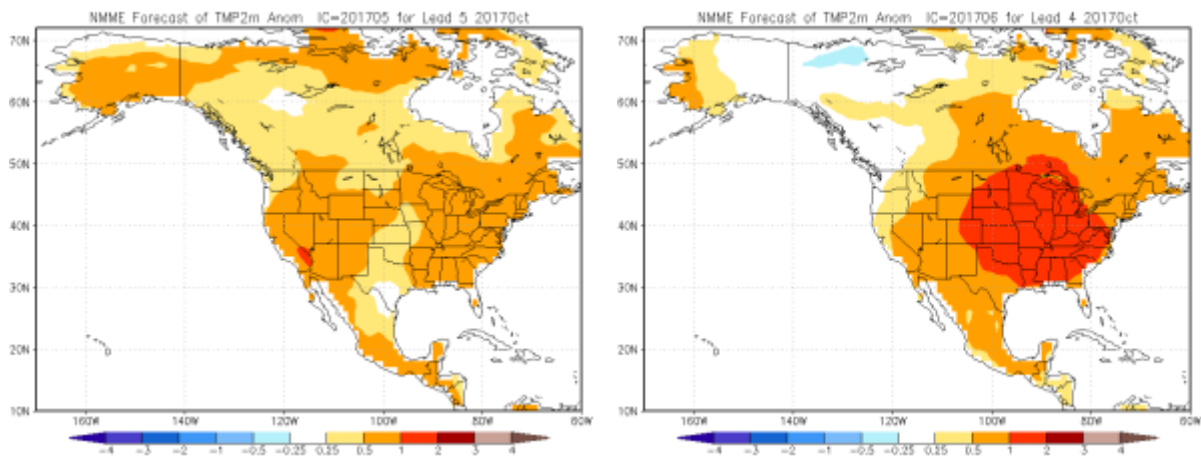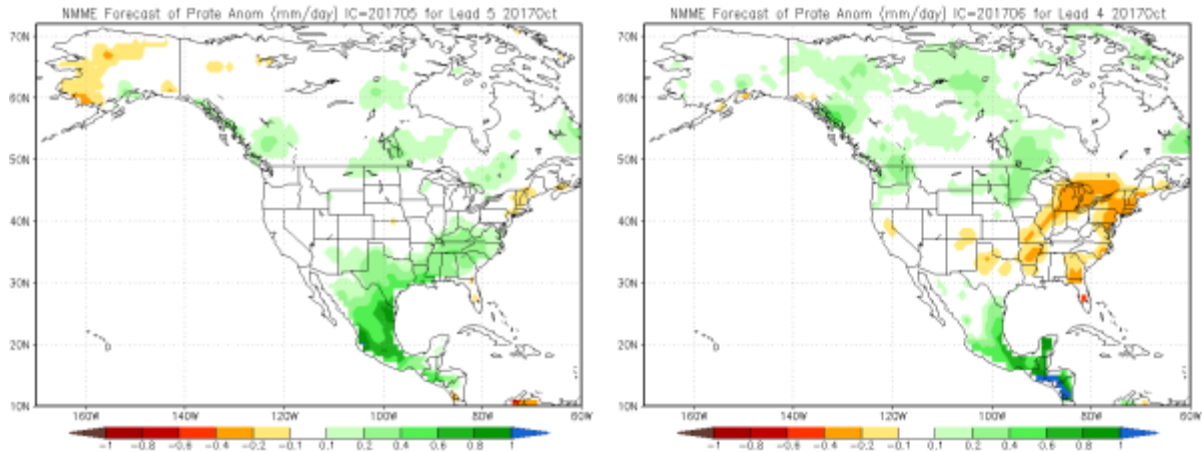June 15, 2017

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:

CFS forecasts over the past two weeks have been very consistent in maintaining July temperatures above normal across the eastern United States and Canada. Although the NMME is less convincing, it too maintains slightly above normal temperatures across Pennsylvania for July. Precipitation for July is still a forecast challenge, but a slight drying trend along with continued NMME forecasts of near normal precipitation cause us to update this forecast to reflect near to slightly below normal precipitation for July. August continues to look near normal in both temperature and precipitation, although southern counties could see slightly above normal amounts of rainfall. September has dropped back to near normal for temperature based on new NMME guidance, but October now looks warmer and dryer:

Check back next month to see whether this trend for October continues. The November and new December forecasts are near normal for temperature and uncertain for precipitation.

Forecast:
Changes highlighted in yellow
Previous forecast in parentheses

Month	*Temperature*	*Precipitation*
July	N (N)	N (U)
August	N (N)	N (N)
September	N (A)	N (B)
October	A (N)	N (U)
November	N (N)	U (U)
December	N (N)	U (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 July 3, 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