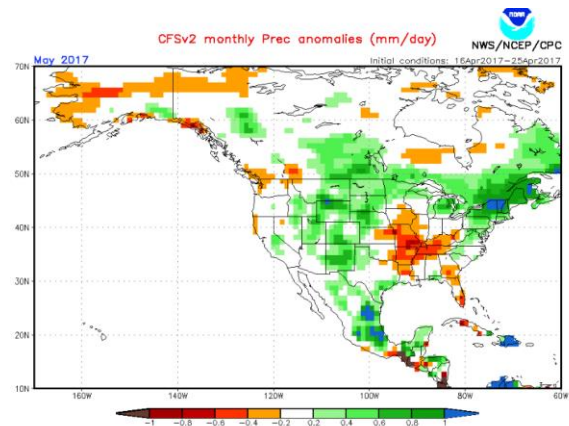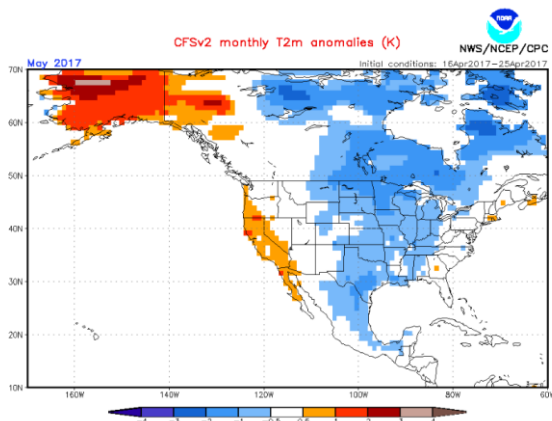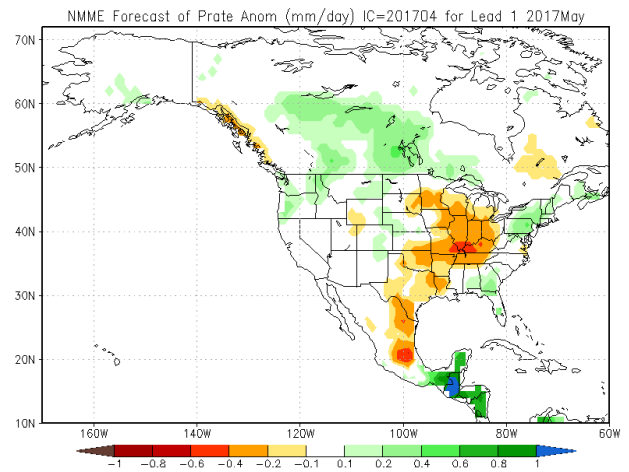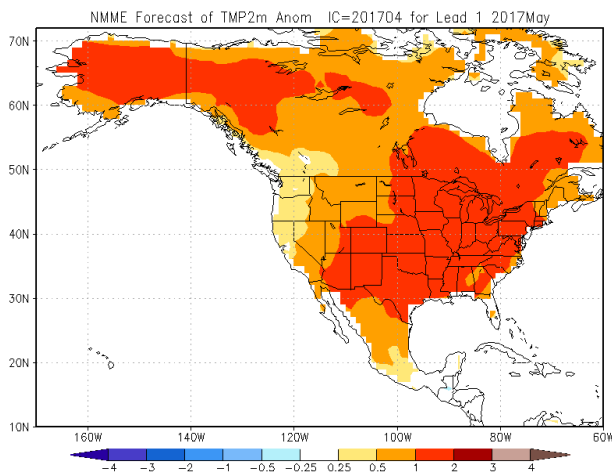# 6-Month Climate Model Forecast Summary for Pennsylvania
May 1, 2017

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:

The NMME forecasts are updated at the beginning of the month and therefore have not changed since the previous forecast. Our forecast is mainly based upon the CFS monthly forecasts. The two bottom graphs indicate normal temperatures for Pennsylvania while precipitation seemed to be above average. During the month of June, temperatures look to be normal, while precipitation amounts are uncertain. The next 4 months didn't show a trend either way, so we changed them to normal temperatures during those months.

Forecast:
Changes highlighted in yellow
Previous forecast in parentheses

Month	Temperature	Precipitation
May	N (A)	A (U)
June	N (A)	U (U)
July	N (U)	A (A)
August	N (U)	N (N)
September	N (A)	A (U)
October	N (A)	N (B)

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 May 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