Summer Analogs for 2015

Here is our annual look as to how hot, hot, hot the summer will be based on past performances.

A full-fledged el nino is underway in the tropical pacific. All dynamical and statistical models keep it going, the differences that exist are to its strength through this upcoming summer. The dynamical and statistical models are averaging a moderate el nino for the combined summer months. Some models, including the cfs2 and ecmwf are predicting a strong el nino. In the CPC monitoring el nino era starting since 1950, the highest (warmest) summer anomaly recorded was +1.5C (near or at the threshold for strong el ninos) during the summer of 1997.

This upcoming week will really seal the deal that this May will be unseasonably warm in Philadelphia. It "may" even be a top three warmest. This follows on the heels of an unseasonably warm April. Since 1872, the combination of both warm (top third of all years) Aprils and Mays has only occurred twenty-three times. But it has occurred eleven times since 1990 and six of the last seven springs.

So we scoured the climate records to find budding or in progress el ninos that coincided with both warm Aprils and Mays locally in the CPC monitoring era. We found three past summers that met the criteria. The one sign is that all three analog summers were wetter than normal, hopefully keeping drought conditions from intensifying further.

The North American Multi Model Ensemble predictions for this upcoming summer has warmer and drier than normal weather expected in our area. The International Multi Model Ensemble forecasts are slightly more optimistic predicting near normal temperatures and precipitation.

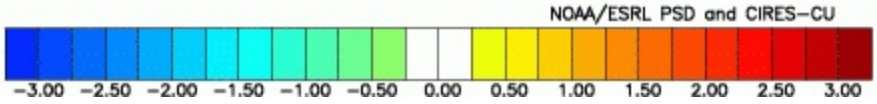
The analogs for Philadelphia are:

Year	June avg	July avg	August avg	summer avg	summer pcpn
1969	73.4	75.1	75.2	74.6	18.30
1977	68.6	77.8	76.2	74.2	15.50
1991	75.7	79.0	79.0	77.9	12.01
Avg	72.6	77.3	76.8	75.6	15.27
1981-2010 Normal	73.3	78.1	76.6	76.0	11.28

The official CPC outlook for our forecast area is for equal chances of above and below normal temperatures as well as equal chances of above and below normal precipitation.

NOAA/NCDC Climate Division Composite Temperature Anomalies (F)
Jun 1969,1977,1991
Versus 1981–2010 Longterm Average

WFO Mount Holly Area Only.



NOAA/NCDC Climate Division Composite Temperature Anomalies (F)
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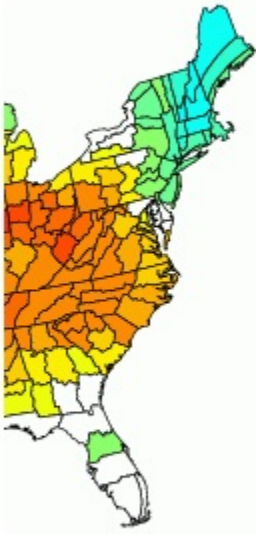

NOAA/NCDC Climate Division Composite Temperature Anomalies (F)
Aug 1969,1977,1991
Versus 1981–2010 Longterm Average

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NOAA/NCDC Climate Division Composite Temperature Anomalies (F)
Jun to Aug 1969,1977,1991
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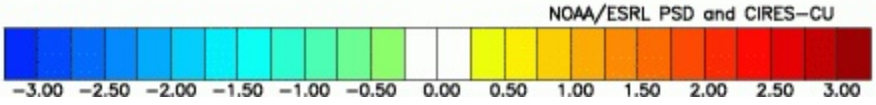

NOAA/NCDC Climate Division Composite Precipitation Anomalies (in)
Jun to Aug 1969,1977,1991
Versus 1981–2010 Longterm Average

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