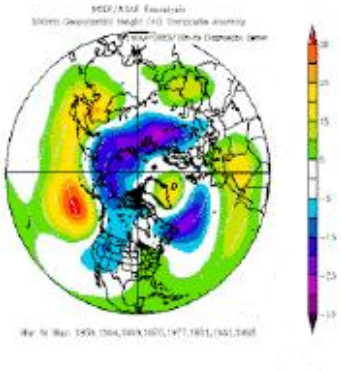
The Pennsylvania Observer

The Pennsylvania State Climatologist

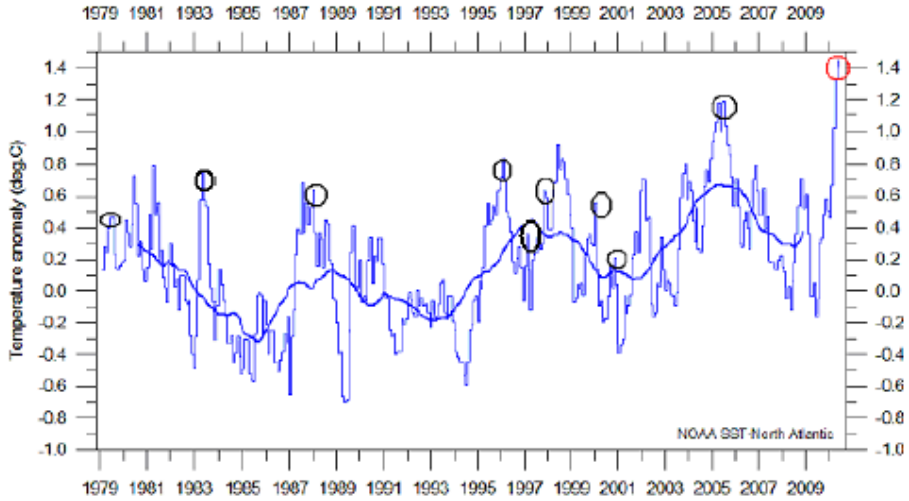


FEATURED CLIMATE HIGHLIGHT

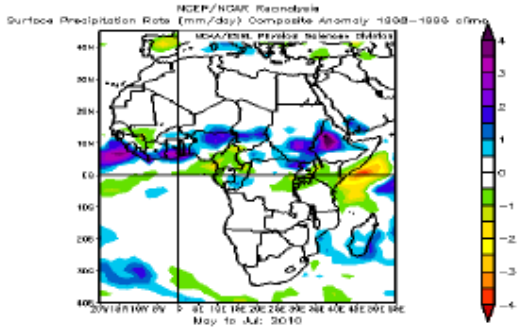
This month's climate highlight provides a glimpse of the tropical activity that can be expected during the latter half of August. Years with a negative quasi-biennial oscillation (QBO), positive Atlantic sea surface temperature anomalies and above normal rainfall in West Africa from May through July were used in order to predict the upcoming tropical activity.

The sputtering start to the 2010 Atlantic hurricane season may not be a good indicator of the activity during the latter half of August. By looking at three signals of Atlantic tropical storm frequency and tracks, we may glean some information about the upcoming week's tropical activity.

The warmth of the North Atlantic sea surface temperatures remains a positive indicator for an active season with the highlighted years showing when the Jan-Jul temperatures were above normal and the quasi-biennial oscillation was negative:



The rainfall during the early summer season in genesis region for tropical cyclones (West Africa) is shown below. The years 1979, 1984, 1988, 1996, 1997, 1998, 2000, 2001 and 2006 were similar.



The following are the storm tracks during 5 day periods from mid-August to early September during years since 1979 when the Atlantic sea surface temperatures were above normal from Jan-July, the QBO was negative and the rainfall from May-July in the West Africa was above normal along the coast:

August 15-19: 45% chance of storm; 15% landfall along East Coast.

August 20-24: 75% chance of a storm; 30% risk of landfall along East Coast

August 25-29: 75% chance of a storm; 45% chance of U.S. landfall.

August 30-September 3: 100% chance of a storm; 25% chance of U.S. landfall