

NOAA Issues 2019 Atlantic Tropical Outlook

May 25, 2019



By: Ryan Ellis and Brandon Locklear

Left: Hurricane Florence makes its approach to North Carolina on September 12, 2018. Photo courtesy of NASA.

Tropical Links:

2019 NOAA Tropical Atlantic Outlook

National Hurricane Center

NWS Raleigh
Tropical Webpage

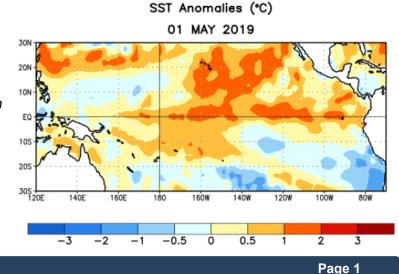
WEATHER READY NATION

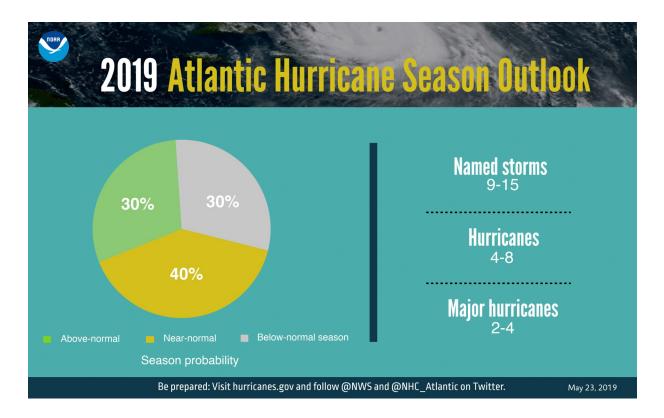
On Thursday, NOAA issued its <u>2019 Atlantic Hurricane Seasonal Outlook</u> and this year it calls for a 40% chance of a near normal season with a 30% chance of both an above or below normal year. The forecast calls specifically for 9-15 named storms, 4-8 hurricanes, and 2-4 major hurricanes.

Many aspects of climatology as well as a detailed analysis of global weather patterns go into the preparation of the seasonal forecast. Among this year's most influential factors were:

- El Niño
- Warmer than average sea surface temperatures
- Stronger than normal west African monsoon

Right: Sea surface temperature anomalies depicting El Niño condition over the Pacific Ocean.
Typically this helps suppress tropical activity in the Atlantic Ocean during hurricane season.

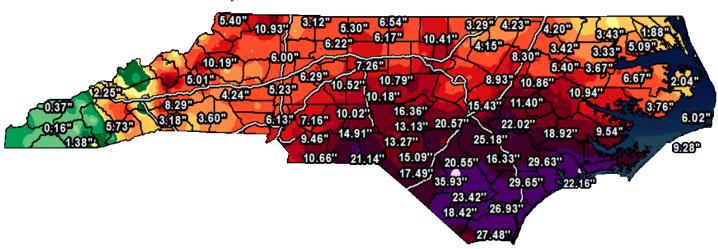




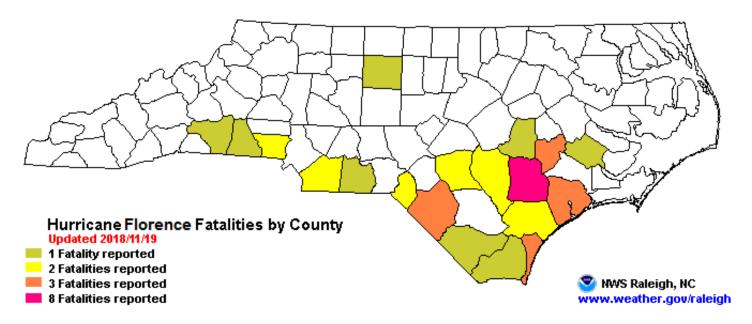
Looking at the first factor in more detail, El Niño is a pattern during which sea surface temperatures in the equatorial Pacific Ocean are warmer than normal. An El Niño pattern in the eastern Pacific typically suppresses hurricane activity in the tropical Atlantic Ocean. As of this writing, we are currently observing El Niño conditions and there is a 70% chance of El Niño continuing through summer and a 55-60% chance through fall.

Despite the status of El Niño, above normal sea surface temperatures and an enhanced west African monsoon are both factors that will typically result in greater activity in the tropical Atlantic. These features act to cancel each other out, leading to the near normal forecast for this hurricane season.

While the seasonal forecast is good information to keep in your back pocket, North Carolinians know all too well that it only takes one hurricane to cause major problems for the state. None moreso than Hurricane Florence last year.



Despite the publicity around wind and storm surge in a hurricane, it is often inland flooding that results in more fatalities. Florence was a particularly deadly storm that culminated in 15 fatalities across the state. Out of those, 11 were due to freshwater flooding. Even more alarming, all of the freshwater flooding deaths in North Carolina involved motor vehicles. Many times these occur many days after the storm has passed while flood waters linger. The best advice we can give is to "Turn Around, Don't Drown" and to exercise patience after the storm has passed to allow flood waters to recede before driving.



Remember, now is the time to prepare for hurricanes. Determine your vulnerability and make an evacuation plan if necessary. If far enough from the storm to avoid evacuating, an emergency plan still needs to be made with your family or loved ones now so that if the time comes to enact it, everyone knows what to do.

Just prior to a hurricane, stores typically become very busy and supplies become scarce. It is never too early to stock up your hurricane preparedness kit so that when the need arises you won't be left without necessities. Some things to think about including in your preparedness kit are non-perishable food items, water, batteries, flashlights, first aid kits, and pet supplies. Have enough on hand to outlast any power or water outages that could linger for many days after landfall. Another good thing to have on hand is a list of any medications that may need to be refilled prior to the storm.

While we hope not to use our emergency kits and plans, they go a long way to mitigating the effects of a hurricane and its potential aftermath. Stay safe this hurricane season and remember to check back often for forecasts from the National Weather Service and the National Hurricane Center as we work together to create a weather ready nation.