



June 2017

CISA & CoCoRaHS Condition Monitoring Newsletter

Dear CoCoRaHS Observer,

This month's newsletter includes:

- A Southeast Regional Climate Update and Summer Solstice and July 4th holiday climatology
- An overview of the 2017 Hurricane Season Forecast
- A message from Pete Goble, of the Colorado Climate Center, about soil moisture monitoring
- Our Condition Monitoring Star of the Month: Lancy Burn from Beaufort County, SC

We'd also like to thank those observers who recently participated in a feedback discussion about the new Condition Monitoring Training Animation that we are working to produce with the CoCoRaHS team. Their thoughtful suggestions will help to improve the final product and ensure that the training captures all of the most important components of condition monitoring for new reporters. Be on the lookout for this new training animation, scheduled to launch in early September!

As always, do not hesitate to reach out to us at cisa@sc.edu if you have any other questions or comments.

The CISA Team - Amanda, Ellie, Kirsten, Kerry and Meghan

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SE Regional Climate Update

This spring the continental United States saw weather patterns that were slightly warmer and wetter than normal according to [NOAA](#). The May average temperature was 0.4°F above normal, and the precipitation total was 0.40 inches above average. The Southeast region had record warm temperatures throughout Georgia, South

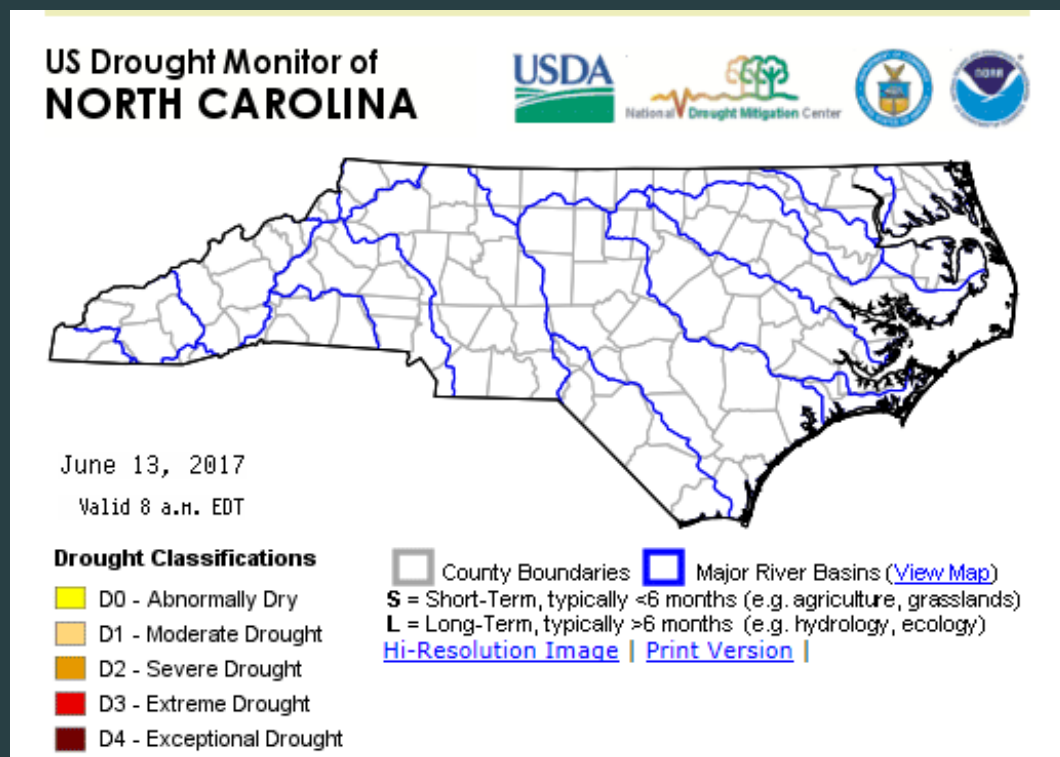
Carolina and North Carolina. May precipitation in the Southeast was above normal through most of the region, with the wettest areas including the Carolinas and Georgia. This precipitation helped with the drought recovery in North and South Carolina. There were also 741 severe weather reports in the region throughout the month of May! Read the full [regional spring climate summary here](#).

The [Southeast Regional Climate Center's Holiday Climatology](#) page can give us some insight into the weather we may experience for the upcoming Summer Solstice (June 21st) and Independence Day.

- The hottest Summer Solstice in the Carolinas occurred on June 21, 1958 when Union, SC reached 99°F
- The wettest Summer Solstice in the Carolinas occurred on June 21, 1961 when Caesars Head, SC recorded 10.3 inches of precipitation
- The hottest Independence Day in the Carolinas occurred in 1997 when Goldsboro, NC reached 106°F
- The wettest Independence Day in the Carolinas occurred in Lake Toxaway, NC when 6.56 inches of precipitation was measured in 1989

Carolinas Drought Update

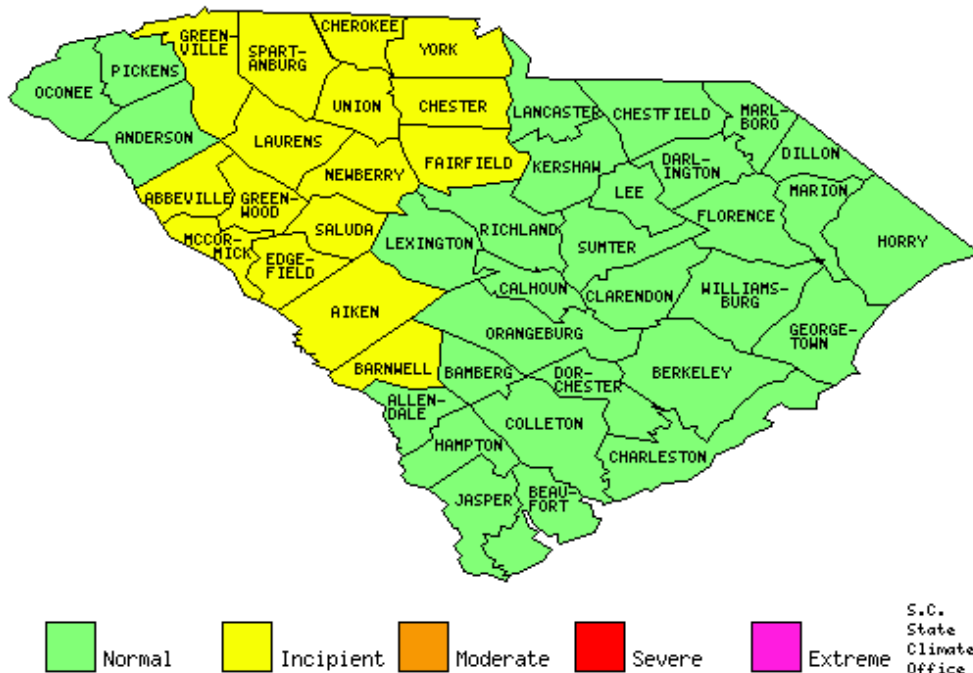
North Carolina currently has no drought advisories! The June 13th release of the [NC DMAC](#) map illustrates how some recent rainfall events have helped to alleviate the drought status throughout the state.



Map released by the North Carolina Drought Management Advisory Council on June 13, 2017.

The [South Carolina Drought Response Committee](#) released an updated conditions status on June 6th. Many counties across the state have received enough precipitation in the recent months that the drought conditions have improved considerably. There are currently 16 counties that are in a state of incipient drought, while the rest of South Carolina is in normal condition.

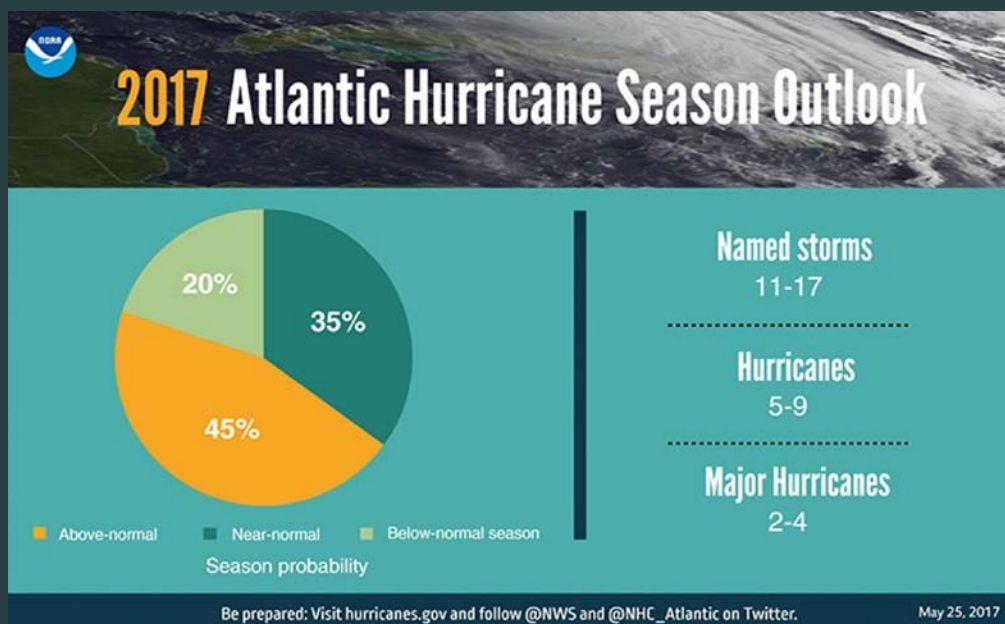
South Carolina Drought Status by County June 6, 2017



Map released by the South Carolina Drought Response Committee on June 6, 2017.

Hurricane Season 2017

The United States hurricane season officially began on June 1st and will go through November 30th. The 2016 hurricane season saw 16 tropical cyclones which include depressions, storms and hurricanes. The [NOAA predictions](#) for the 2017 season seem to lean towards above-average activity. The first storm of 2017, Tropical Storm Arlene, occurred back in April over the east Atlantic. One reason for the above-average season prediction is the lack of a strong El Niño which can usually suppress hurricane developments in the Atlantic.



The current [Five-Day Tropical Weather Outlook](#) illustrates two disturbances over the Atlantic. If you would like to brush up on your hurricane readiness steps, you

can visit [this site](#) for information on planning, preparing and evacuating. The National Weather Service also has a [webpage](#) with information from Hurricane Preparedness Week. South Carolina's 2017 Hurricane Guide, which includes preparation tips, evacuation maps, and more, can be accessed [here](#).

Soil Moisture Monitoring Project

We reached out to Peter Goble at the Colorado Climate Center about the new CoCoRaHS soil moisture monitoring protocol. You may remember an article we included previously from volunteer Ed Barrows about soil moisture monitoring. If you found that article of interest, read on to find out what Peter has to say about this new reporting option for CoCoRaHS volunteers.

"We measure rainfall every day, but how much of that rain is soaking in? CoCoRaHS is now offering a soil moisture reporting option. It's more time and labor-intensive than measuring rain, so it won't be for everyone, and that is okay. It is a great opportunity to play outside, get your hands dirty, and learn something!

Much like our rain gauge measurements and snowfall measurements, our soil moisture protocol involves manually determining the amount of water in the soil. We are using a brass ring to excavate the sample, a scale to weigh it, and an oven (or toaster oven if available) to dry it. You can think about it like a snow core, but with soil instead of snow. Details on how to measure soil moisture can be found [here](#).

Just as your rain gauge measurements are valued by the broader scientific community, your soil moisture measurements will matter too. Our mission in taking these measurements is to follow the water cycle, and to do a better job tracking drought conditions. This is also an exciting opportunity to be a part of the calibration and validation of the [NASA Soil Moisture Active Passive \(SMAP\) satellite](#).

If you have any questions about if this is right for you, please send an email to peter@cocorahs.org."

Condition Monitoring Star of the Month: Lancy Burn

Our Condition Monitoring Star of the Month is Lancy Burn from Beaufort County, SC. Lancy has been submitting condition monitoring reports as a CoCoRaHS volunteer for a few years now. Living on a small island gives him a different perspective on the impacts that precipitation and drought have on local conditions. According to Lancy, "living on an island, and in and out of boats, I've always been keen on weather and conditions that will make or break the day's activities." In addition, he creates pottery with his wife and weather conditions can have a big impact on business.

The following are a couple of examples of the detailed reports that Lancy has been submitting regarding impacts to agriculture, tourism and everything in between:

Report Date	Scale Bar	Categories	Description
05/9/2017	Moderately Dry	General	This week we had

		Awareness Plants and Wildlife Tourism and Recreation	rain on two days but only totaled 0.16" so it didn't help much with the dry conditions. Wetlands are drying up and lots of snakes and alligators are moving around. No real rain in sight so it's going to get worse. the sunny weather is still drawing people to the island so that is the good side of all this.
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Report Date	Scale Bar	Categories	Description
05/29/2017	Near Normal	General Awareness Agriculture Business and Industry Plants and Wildlife	We got 2.45" of very nice rain between 22-25 May and brought up water in wetlands and low areas...the garden loved it for sure. We've taken honey twice already from all three hives and that's always a good thing. Bugs in abundance and the heat is coming.

Lancy's enthusiasm to submit consistent condition monitoring reports stems from his enjoyment of reading and reporting on weather trends and conditions. His favorite memory as a CoCoRaHS observer was during Hurricane Matthew when he had to check the gauge to ensure that it wouldn't flow over after 14 inches of rain!

For fellow observers, Lancy has this advice: "I think that where you live has a great impact on what you observe and how important it may or may not be. Maybe just thinking of how weather would affect these activities would give one a keener feel for reporting it."

A big thank you to Lancy for his participation with CoCoRaHS and condition monitoring! If you're interested in reading more condition monitoring reports, visit the

Feel free to contact us with any questions.

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