Click this link to open the e-mail in a browser. Click here

March 2016

CISA & CoCoRaHS Condition Monitoring Newsletter

Dear CoCoRaHS Observer,

Happy spring! We hope that you have been enjoying the azaleas, dogwoods, and other blooming plants in your area during these past few weeks. In this newsletter, we highlight previous winter conditions in the climate update and look forward to what weather we might experience during the next few months in the 2016 Spring Climate and Flood Outlook recap. We are also excited to announce the launch of Phase 2 of Condition Monitoring Project later this spring. Our newsletter ends by showcasing the work of observer Chris Lumpp from Nash County, North Carolina, who is our March Condition Monitoring Star of the Month.

And finally, while many of you might be keeping your own brackets for March Madness, we also want to remind you that CoCoRaHS recruits new volunteers during their March Madness. Don't forget to reach out to your neighbors, friends, and family about joining CoCoRaHS with a few days left this month!

We hope you enjoy this newsletter, and as always, do not hesitate to reach out to us at cisa@sc.edu.

Sincerely,

In This Issue

Regional Climate Update

2016 Spring Climate and Flood Outlook

Phase 2 of Condition Monitoring Coming Soon!

Condition Monitoring Star of the Month: Chris Lumpp

Quick Links

CISA Website

CoCoRaHS Condition Monitoring Webpage

Cuckoo for CoCoRaHS in the Carolinas Blog

Follow us on Twitter

Visit us on Facebook

The CISA Team - Amanda, David, Henrik, Kirsten, Kirstin, Meghan and Sumi

Regional Climate Update

Spring has officially started in the Northern Hemisphere, marked by the recent March vernal equinox, during which we receive equal amounts of daylight and night hours. In the Southeast, early spring is also marked by the pollen from blooming plants throughout the region. If you would like more information on pollen counts in your area, the National Allergy Bureau provides pollen and spore counts for the South Atlantic here. During spring, the National Oceanic and Atmospheric Administration issues a Spring Climate and Flood Outlook, which is described in more detail in the next article.

The rest of this regional climate update provides highlights from the Southeast Regional Climate Center's (SERCC) February 2016 climate summary, NOAA's El Niño blog, and the U.S. Drought Monitor.

February 2016 climate summary

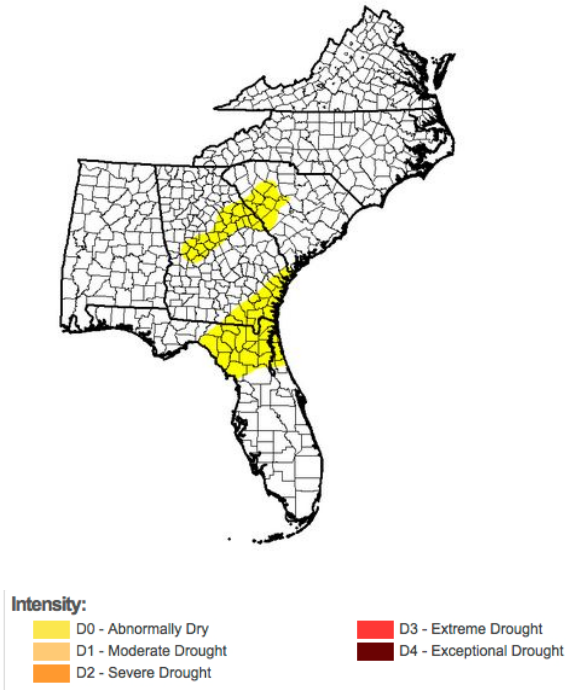
- Temperature averages and precipitation totals ranged from below normal to above normal across the Southeast, with only a few extremes seen in either.
- Severe weather reports, however, exceeded the median monthly frequency of 116 reports (based on 2000-2014 data) by over four times with a total of 441 severe weather reports in the region. The largest number of reports came from North Carolina due to many severe wind gusts. Additionally, every state in the region had tornadoes, with a total of 53 tornadoes reported. This was the highest regional tornado count on record since 1950 for the month of February.
- Agriculture faces various challenges in the region. Examples include excessively wet field conditions in parts of southern Georgia and a reduced number of chilling hours in portions of Alabama that is expected to impact blooming and development of peach orchards.

El Niño updates

- According to NOAA's El Niño blog, weakened sea surface temperature departures from the average in the Pacific indicate that El Niño is on the decline. However, the effects of El Niño will persist due to remaining heat in Pacific.

- Winter (December through February) precipitation departures from normal were above average in most of the Southeast. The El Niño Rain Scorecard from the SERCC shows that Florida, North Carolina, and Georgia stations reported their wettest rainfall totals for the November through March period (as of March 21, 2015). Many stations in the region also have measured their 2nd or 3rd wettest precipitation totals. However, for many places in the Southeast, their wettest winter occurred during the last strong El Niño in 1997-1998.

U.S. Drought Monitor Update



U.S. Drought Monitor map for the Southeast released on March 24, 2016. The U.S. Drought Monitor is published every Thursday at 8 a.m. EDT.

- The most recent U.S. Drought Monitor for the Southeast shows that areas in coastal Georgia, northeast Florida, and along the Georgia and South Carolina border have been classified as D0 or "abnormally dry."
- The U.S. Drought Monitor summary for the region attributes a 2-3 month dry spell and abnormally warm weather as sources of the emerging dry conditions. Some areas, such as Augusta and Macon, Georgia, only received 62-63% of their normal precipitation.

2016 Spring Climate and Flood Outlook

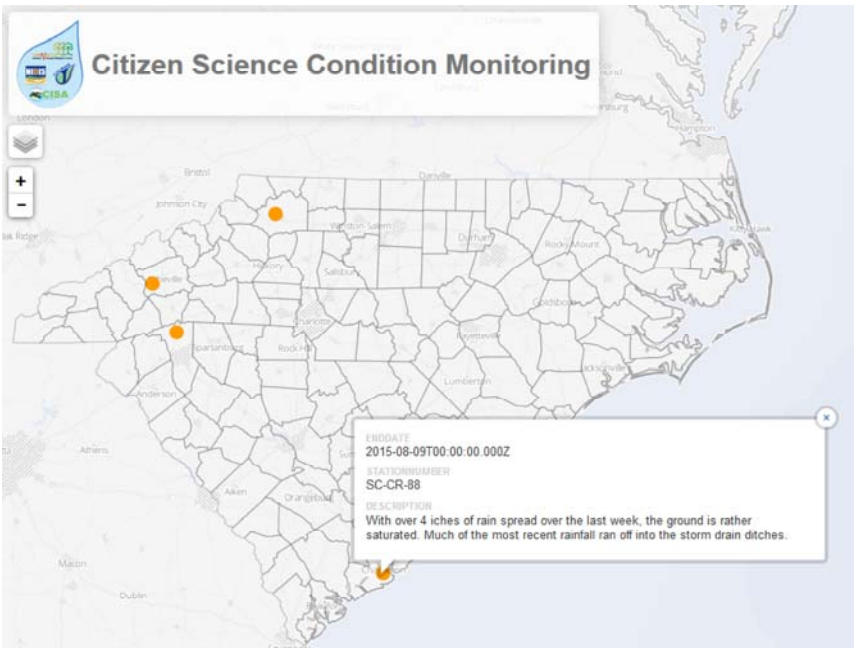
The National Oceanic and Atmospheric Administration (NOAA) released its Spring Outlook for the United States earlier this month. This outlook provides projections for flood risks and droughts, as well as temperature and precipitation forecasts. NOAA uses data from across the nation's weather forecast offices and river forecast centers to produce this report.

- A large factor in this year's forecast is the record setting wettest December that occurred in 2015 for the contiguous United States. This can be attributed, in part, to the El Niño conditions that will likely remain through spring.
- Some parts of the southern United States, including the eastern stretch from Alabama to North Carolina, are at an increased risk of minor flooding because of the rainfall amounts received so far in March.
- A couple of regions in the United States continue to experience drought conditions, but snowmelt and rain are helping to alleviate those conditions. Drought is not expected to affect the Southeast region through this spring.
- Specific to the Southeast, above-average precipitation and temperatures are likely to occur from April-June. In fact, the contiguous United States already had a new record breaking average temperature from December-February, at 36.8°F.
- If you would like to keep updated, and track these climate predictions, check out NOAA's Monthly Summaries Map. Here you'll find monthly summaries of temperature and precipitation across the United States.

Phase 2 of Condition Monitoring Coming Soon!

CISA is excited to announce that later this spring we will be launching Phase 2 of the Condition Monitoring Project in partnership with CoCoRaHS headquarters, the National Drought Mitigation Center, and the North Carolina and South Carolina State Climate Offices. For the past two and a half years, many of you have been participating in the CoCoRaHS Condition Monitoring project, which started in 2013 in order to improve the monitoring and understanding of drought impacts in the Carolinas. The project has received very positive feedback from decision makers and stakeholders that regularly use CoCoRaHS precipitation information and participate in regional and state drought monitoring. Suggestions from the decision makers on how to make condition monitoring information more accessible and usable led CISA to develop

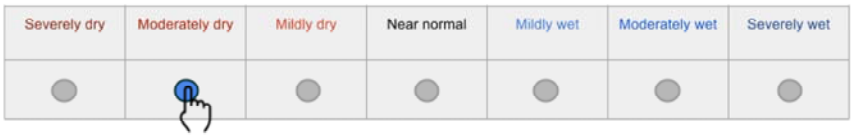
and pilot test a condition monitoring scale bar and web-map to display condition monitoring reports.



The screenshot of the web map prototype above uses dots to show where condition monitoring reports were submitted for a specific week. When the dot is selected, a pop-up shows the condition monitoring report from the observer. The web map will be accessible on CISA's website to everyone, including observers, and allows users to see reports submitted at different stations participating in the Condition Monitoring Project during the selected week. The web map also contains different layers that allow users to overlay watersheds, the US Drought Monitor Map, and climate divisions with condition monitoring reports.

Many of you provided feedback during fall 2015 about the scale bar, guidance for different wet and dry condition categories, and how to improve the current reporting form. This feedback has informed how we designed the training materials, web map, and scale bar. The biggest change for Phase 2 will be the launch of a new condition monitoring form that will replace the current Drought Impact Reporting form and has the following changes:

- Inclusion of the Condition Monitoring Scale Bar (see image below)
- One report date instead of a report start and end date
- A new "general awareness" category
- Removal of the economic value boxes
- Removal of the Condition Monitoring checkboxes



The condition monitoring scale bar will allow observers to mark how conditions fare on a scale of very wet to very dry.

Phase 2 training

Prior to the launch of Phase 2, CISA will hold webinars, which will also be recorded and available on the CoCoRaHS website, detailing the changes for Phase 2. We hope that many of you will continue submitting condition monitoring reports and participate in Phase 2. If you do not currently participate in the Condition Monitoring project, we also invite you to participate in these webinars and consider becoming a condition monitoring observer. For more information about Phase 2 changes and becoming a condition monitoring observer, please contact Amanda Brennan at 803.777.6875 or cisa@sc.edu.

Condition Monitoring Star of the Month

The March Condition Monitoring Star of the Month is Chris Lumpp from Nash County, NC. Prior to joining the condition monitoring project, Chris had already been submitting precipitation reports for CoCoRaHS for several years. Chris regularly describes the levels of nearby water bodies in his condition monitoring reports. In addition to the reports, Chris also submits photos which helps readers visualize what he sees and writes about in his reports:

> ***3/6/2016:*** *Rain total for this week is 0.00. The creek (Flat Rock Branch) is low but flowing. Rocky Mount Memorial Park pond is full. Soil is dry. Daffodils brightening the yard with yellow flowers.*
>
> ***3/14/2016:*** *Rain total for this week is 2.14. The creek (Flat Rock Branch) is low but flowing. The pond at Rocky Mount Memorial Park is full. Soil is moist from recent rain. The Japanese tree is at the peak of flowering, brightening the yard with pink flowers. Strawberry plants growing with flowers in the garden. Animal track at the edge of the creek. Squirrels, birds, and rabbits in the yard eating.*

Photo submitted by Chris Lumpp on March 17th

Chris provides great descriptions of how conditions at specific locations, such as Flat Rock Branch, vary from week to week and change over time. Even when there are no changes, Chris still mentions this in his reports. He also mentions changes in local flora, which helps indicate what seasonal changes have been occurring near him.

Graduate student Sumi Selvaraj reached out to Chris via email to learn more about his motivations behind condition monitoring. Below he provides some responses that we hope you enjoy reading!

Outside of CoCoRaHS, what defines you? How does this inform your monitoring? *As a child I enjoyed following the weather and had an ambition to be in the Meteorology field. I am a Skywarn Spotter for the National Weather Service in Raleigh, starting in summer 2015. These things combined help with monitoring.*

What do you enjoy about condition monitoring? What are some memorable things that you have observed? *I enjoy monitoring how changes occur due to weather conditions. I find these results interesting and am concerned about how they affect my community, my town, and my state. While monitoring the water levels I noticed a fish struggling in low water, I helped the fish get to higher water thus saving its life. I also have observed hazardous road conditions during the winter and proceeded to post pictures to inform my community.*

What tips do you have to other observers about recording precipitation and condition monitoring? *I feel the most important tip for myself is daily monitoring when possible so even the slightest change can be noticed. I feel it's also important to have pictures for visual reference.*

Chris submitted a collage of photos showing how conditions changed between February 16 and 18th at two different locations.

Thank you so much, Chris, for your dedicated observations and regular photo submissions! If you're interested in reading more condition monitoring reports, check out the List of Drought Impacts Reports on the CoCoRaHS website to search for and view more reports from fellow observers.

Feel free to contact us with any questions.

Carolinas Integrated Sciences & Assessments
803-777-6875

cisa@sc.edu | www.cisa.sc.edu
University of South Carolina
Department of Geography
709 Bull Street
Columbia, SC 29208