GEOG 595: SC State Climatology Office Internship

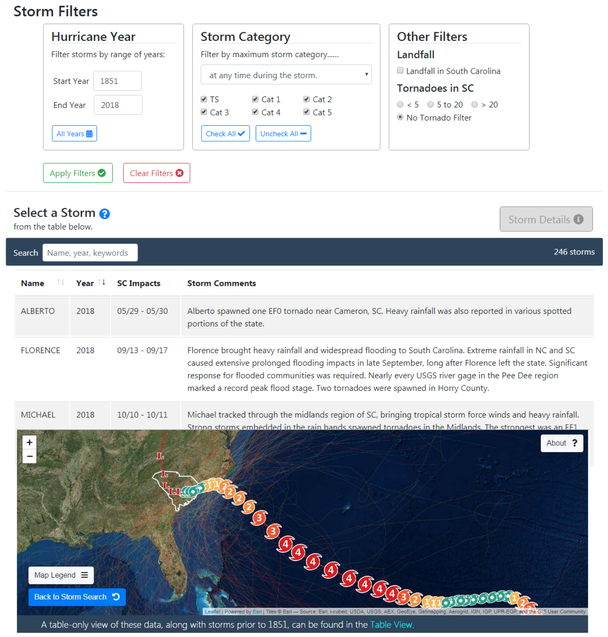
By: Leah Moore

OVERVIEW & SCOPE

- Started at the SCO in May 2018
- Able to do the internship credit so that I could work more hours during the school semester
- Staff consists of Dr. Hope Mizzell, State Climatologist, Melissa Griffin, Assistant State Climatologist, and Mark Malsick, Severe Weather Liaison.
- Small staff enables a lot of independent, project-based work environment.
- Research projects have consisted of a range of topics, such as: hurricanes and tropical climatology, drought, precipitation extremes, heavy precipitation trends, county climatology, and more!
- The bulk of the poster details my hurricane work, which has been my favorite.

HURRICANES

SC Hurricanes Website

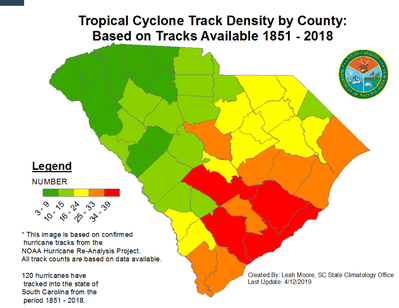


GIS credit: Tanner Arrington, SC DNR

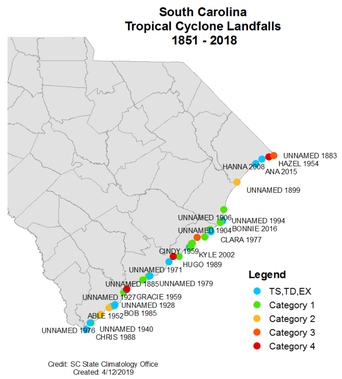
This website serves as a comprehensive hurricane database for the entire state of South Carolina. It is incredibly interactive, with the ability to zoom within the track map and click on various points on the track to see category, wind and pressure information. Tracks exist in the database starting in 1851, but the table view has records for South Carolina dating back to 1686. This expanded record and extensive collection of data will serve a wide spread of stakeholders, such as the general public and emergency managers.

Also featured on the website is an informational PDF executive summary that reviews general SC tropical climatology, landfalls and major hurricanes.

OUTREACH



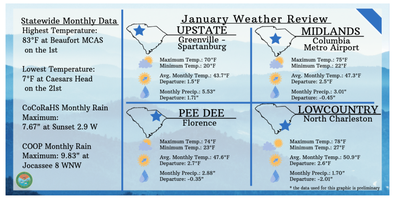
This visual shows the county-by-county total of tropical cyclone activity. To create it, HURDAT data of 120 cyclones that have tracked into the state of South Carolina was compiled, and then a query was created to count the number of cyclones that tracked into each county. This graphic will prove to be helpful for various stakeholders, such as emergency planners.



This visual queries GIS coordinates to show all 41 recorded SC landfalls. The landfalls are color-coded by category upon landfall in SC.

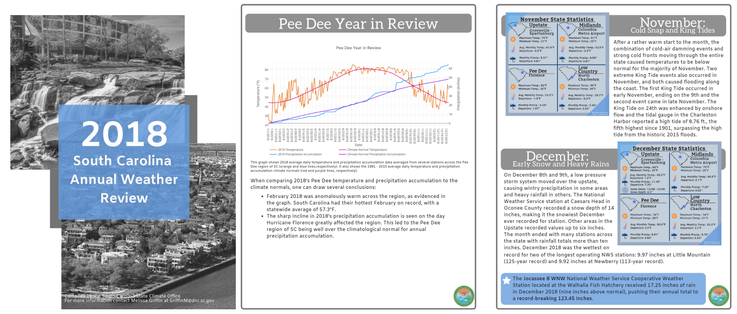
PUBLICATIONS

All of the pictures below show deliverables that I have produced during my time with the SC State Climate Office. Most of the images show the cover of a report placed online.

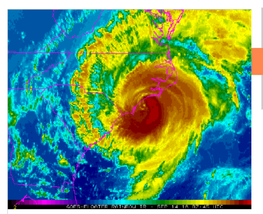


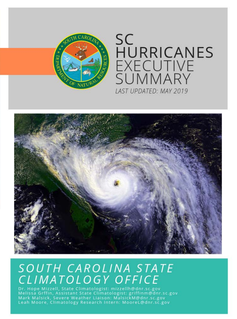
This is a Twitter post that summarizes January's weather for each region of the state. These are tweeted every month as a creative way to show the public a summary of our weather.

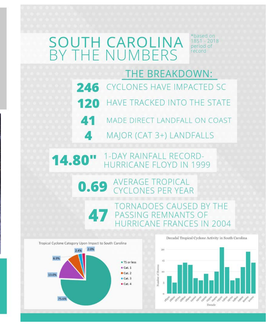
Our South Carolina drought portal, www.scdrought.com, won an award from the SC State Library. Pictured here is a timeline of historical drought impacts. I compiled content for the timeline during the summer.



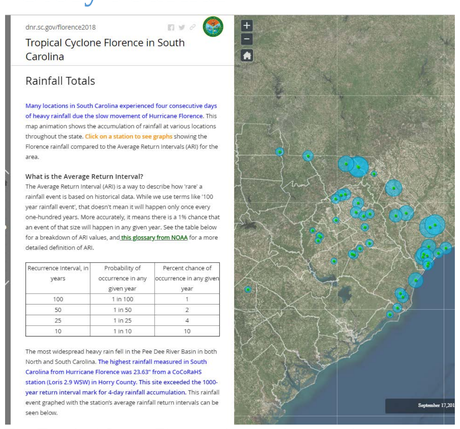
The three images above show pages from the South Carolina Annual Weather Review, which can be found online. The weather review summarizes monthly data for each region of SC, and highlights any big weather events that may have occurred. At the end, data across each region of SC was averaged and compared to climatological normal.







Tropical Storm Florence Story Journal



Three above images from left to right:

- Tropical Storm Florence in South Carolina report PDF version cover page
- SC Hurricanes Executive Summary cover page
- SC By the Numbers Hurricane Executive Summary infographic page

The Tropical Storm Florence interactive story journal was completed in early 2019. This screen shot shows rainfall accumulation totals.
Link: www.dnr.sc.gov/florence2018

OUTCOME

- Doing an internship with a state government office has helped me gain incredible insight into my career aspirations and future path.
- I have learned an incredible amount about my field, the state of South Carolina, and workplace relations.
- I now have several research ideas for the future, because I am more familiar with my field.