Recommended Tools for Climate Information and Indicators

David Zierden Florida State Climatologist The Florida State University <u>dzierden@fsu.edu</u> (850) 644-3417

Following is a list of publicly available tools available online that I use nearly every day. Some of them have a bit of a learning curve, but you will become more comfortable the more you explore the different options and functionality.

1) NOAA NCEI "Climate at a glance" - This tool uses the climate division (nClimdiv) data to drive it. The old climate division data was areal averages for the climate divisions in the state and also statewide averages. NOAA formerly just averaged all the weather stations within a particular area. What made this data very useful is that it was 100% complete for the lower 48 States going back to 1895.

In recent years they have updated the data and methodology and it is now on a 5km grid, so we can even do county averages, and they even have some of the raw station data available on the tool. My go to options are the "time series" tab, where can plot graphs over the entire history and the "mapping" function.

NOAA uses this output for their monthly state of the climate reports.

https://www.ncdc.noaa.gov/cag/

2) ACIS - This tool lets you access the raw daily station data (NOAA) for tens of thousands of weather stations across the country. The state climate version has very sophisticated analysis functions that will take a little time to get familiar with.

http://scacis.rcc-acis.org/

3) Climate Perspectives tool - Developed by the Southeast Regional Climate Center, it accesses the ACIS database and provides a comparison of recent conditions to historical climate. There is both a map version for viewing many stations across the regions and a station-by-station version for more detailed information. Again, there is a pretty steep learning curve here.

https://sercc.com/perspectives

4) NWS AHPS precipitation - This tool lets you map recent precipitation using Doppler radar estimates that have been adjusted with ground station measurements to remove radar biases. You can view recent rainfall estimates from one-day totals to

accumulations over the past year and view them as totals, departured from normal or percent of normal. Useful for tracking high-resolution coverage.

https://water.weather.gov/precip/

5) Sea Levels - Tides and Currents provide a suite of tools for looking at oceanographic data. I use this site for information for tide and water level data from our network of tide gauges. "Real-time Tide Data" is good for monitoring current water levels and how they compare to predicted values, and "Sea Levels" gives great information on long-term trends at the different tide stations.

https://oceanservice.noaa.gov/facts/find-tides-currents.html

6) Blogs and websites – The amount of websites and climate blogs available on the internet are too numerous to count, and many of them have varying degrees of bias or agenda in the material they post. Visit these sites with discretion in mind. There is one web resource that stands above the rest and is extremely informed, yet impartial in the science they present on climate change. Many of the contributors are top-notch climate scientists. The Carbon Brief is one such website that I fully endorse.

https://www.carbonbrief.org/

That's enough for now, I am sure you guys will have some questions and there is definitely a learning curve to some of these tools. There are also other data sources and ways to access it outside of NOAA. I will be glad to work with you on some of the topics you will be investigating, so feel free to call any time.