

# Summary of Weather Network Results, 2018

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In May 2018, Dr. Ian Flitcroft retired from UGA. He was replaced by Pam Knox, Public Service Associate in the Crop and Soil Sciences Department. Her contact information is:

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All of the weather network computer personnel and station technicians will continue to be housed at the Griffin Campus.

Our biggest highlight of the year was the stellar performance of the UGA weather network during Hurricane Michael. All of our stations survived the storm and sent live data throughout, although a few temporary communications problems were noted where cell service was disrupted. We only lost one anemometer (at Sasser, possibly due to a strike by wind-borne debris) and a solar panel at Donalsonville. The Donalsonville station was able to keep transmitting with battery power and recorded a peak wind of 115 mph during Michael, the highest wind gust anywhere in Georgia. Most of the National Weather Service airport equipment failed during the storm, so the network provided invaluable information to NWS forecasters, emergency personnel, and others. We attribute our success to our rigorous maintenance program, which is funded in part by the Peanut and other Commodity Commissions. Thank you!

- We expanded the network by adding one additional station for a total of 86 station in Georgia (plus one in Costa Rica at the UGA research center there).
- In 2018 we upgraded dataloggers on a number of stations with older equipment. We also replaced a number of cell modems with a newer, more secure version after a computer virus attacked 41 of them in May 2018. The new modems are more resistant to outside attacks.
- Mobile versions (for various operating systems and sizes of device) of the website are now operational on all portable devices (smart phones, tablets, etc.)
- All data are currently stored in text files, which is an inefficient way to store large quantities of archived data, while also slowing the retrieval of current data by the web-server. In 2018 a database was designed and built to provide a better method of data storage and retrieval. By the end of 2018 the database was in the final testing stage and will start to ingest our data starting on January 1, 2019.
- The data server and web server that store the collected data and provide the web pages at [weather.uga.edu](http://weather.uga.edu) have been recreated in the "cloud" as virtual machines using Amazon Web Services.
- A new website is being designed to take advantage of the new database and cloud storage. Once the migration is complete, we hope to add additional calculators such as a solar radiation calculator that producers will be able to use for crop management.