

Summary of Weather Network Results, 2017

Ian Flitcroft

University of Georgia

- We expanded the network by adding three additional stations (and Atlanta was removed) for a net gain of two stations to make a total of 85 stations.
- In 2017 we completed our planned upgrades of station hardware, including adding a second raingauge, installing a more capable datalogger, and upgrading the battery and solar panel. All 85 weather stations have now been fitted with these upgrades.
- All station dataloggers were reprogrammed and will begin averaging data over 5 minute, 15 minute, hourly and daily time periods, beginning January 1, 2018 (previously only 15 minute and daily averages were calculated). These changes will appear on the website later in 2018.
- All eleven remaining hard wired land line communication lines have been removed and replaced with wireless cellular modem communication
- Mobile versions (for various operating systems and sizes of device) of the website have been beta tested and the new software is 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 2017 a database (Microsoft Enterprise) was designed and built to provide a better method of data storage and retrieval. The database will begin adding data in January 2018.
- The data server and web server that store the collected data and provide the web pages at weather.uga.edu have been recreated in the “cloud” as virtual machines using Amazon Web Services. Data will be sent directly to the virtual machines from each weather station beginning January 1, 2018.