

# Establish National Atmospheric Deposition Program Sites at Historically Black Colleges & Universities

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## Background:

Historically Black Colleges and Universities (HBCUs) are institutions of higher education in the United States that were established before 1964 with the intention of serving the black community. There are 106 HBCUs in the United States, including public and private institutions, community and four-year institutions, medical and law schools. The Savannah River Environmental Sciences Field Station (SRESFS) is a consortium of HBCUs that provides hands-on, field oriented experiences for under represented students.



## Specific goals of the SRESFS include:

- Providing hands-on, field oriented experiences for students from Field Station member institutions in programs that utilize math and science principles to solve complex real-life problems in agriculture, environmental science, natural resource management, and engineering by using the expertise available at the member institutions, government agencies, private sector, and the natural and technological resources available at the Savannah River Site.
- Increasing the recruitment and retention of under represented students in science, engineering, natural resources management and environmental career professions.
- Increasing science literacy and public education on complex environmental issues.



The SRESFS is managed by South Carolina State University. Historical Funding for the program has been provided from the US Department of Energy, US Department of Agriculture's Forest Service and Natural Resources Conservation Service, and the Walmart Giving Program.

## Project Overview:

The SRESFS received support from the US Department of Energy's Office of Environmental Management in 2014 to establish and operate NADP National Trends Network (NTN) and Mercury Deposition Network (MDN) sites at two HBCU facilities. The grant provided funding to support stations that are currently being located at North Carolina A&T State University (NCA&T) and Florida Agricultural & Mechanical University (FAMU), both 1890 land grant institutions.

### NADP Site NC17: North Carolina A&T (Greensboro, NC)

An NADP site has been installed at NC A&T 's Research Farm. This facility is located 3-miles east of the NCA&T campus and is used by the campus' Cooperative Extension Program to test and demonstrate new crops and farming practices before introducing them to the state's farm community. The NADP station is co-located with a NC Environment and Climate Observing Network (ECONet) site. This data is available in real-time to the general public. The location currently contains NTN and MDN equipment.



### NADP Site FL95: Florida A&M University (Tallahassee, FL)

In late fall we are planning to install our second site on the campus of Florida A&M. We are currently in the process of evaluating four potential sites that are associated with the School of the Environment. The preferred site is located on the southern end of campus north of the greenhouse. Currently determining logistics and costs related to installation of 110-V power to support the NADP equipment. Once completed the site will contain NTN and MDN equipment.



After equipment installation is complete research professors at both institutions will oversee the local operation through the use of student research interns. Professors and interns will operate each station consistent with current NADP protocols to measure local deposition. Through the NADP program office the local deposition results will be incorporated with results from other stations across the United States.

This project will introduce HBCU professors and students to techniques of deposition monitoring, contribute to nationwide efforts in environmental monitoring, and provide collaboration opportunities for HBCU faculty with other researchers related to atmospheric deposition.

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