

NOAA Center for Atmospheric Sciences and Meteorology (NCAS-M)

25 Years of Impact

Empowering Future Atmospheric Scientists



383	100M	155	927	102	56	136	214	58	20K
Students Supported	Funding Leveraged	Peer-reviewed Publications	Conference Presentations	NERTOS	NOAA Summer Internships	NOAA Mentors	NOAA Collaborators	Doctorates	K-12 Reached

About NCAS-M

A national research center led by **Howard University** since 2001, the NOAA Center for Atmospheric Sciences and Meteorology (NCAS-M) has prepared students for careers aligned with NOAA's mission through research, professional development, and experiential training.

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| 2001 | NCAS established with NOAA EPP support |
| 2005–2015 | Expanded to 13 partner institutions nationwide |
| 2016–2022 | Deepened NOAA research collaborations |
| 2022–Current | Advancing mission-aligned research & workforce development |



NCAS-M Director Dr. Sen Chiao leads tour of atmospheric monitoring instruments at Howard University.

Student Impact

Our center has supported **258** students in earning degrees, including **58** PhD, **76** MS, and **124** BS, across meteorology, atmospheric science, physics, earth system sciences, geology, public policy, and information systems.

NCAS-M has played a central role in broadening participation in the field. From the National Science Foundation Survey of Earned Doctorates (SED) data (2003–2019), the program supported over 50% of African American (25) and more than 20% of Hispanic (20) PhD recipients in atmospheric science nationwide. That impact is expected to continue, with NCAS-M projected to support 70% of African American and 35% of Hispanic doctoral recipients in the years ahead, even as overall representation in the field remains low, at just ~1.8% and 2.6%, respectively.



Dr. Daniel Yeager with his doctoral dissertation committee during his Ph.D. defense - Saharan Dust Plume research.

Our Alumni

A total of **258** fellows now contribute across NOAA, academia, and industry. NCAS-M alumni are shaping the future of atmospheric science and environmental policy.

Alumni Spotlight



Dr. DaNa Carlis

NCAS-M alumnus, Dr. Carlis, has dedicated more than 20 years to NOAA, contributing to weather prediction, environmental protection, and community resilience. Currently, Dr. Carlis is the Director of NOAA National Severe Storms Laboratory.



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NCAS-M – 25 Years of Impact

Partner Institutions

Current partner institutions are shown in **teal**. Former partners shown in grey

Howard University (Lead)	Jackson State University	San José State University	Univ. of Maryland College Park
Univ. of Maryland Baltimore County	Univ. of Texas El Paso	Univ. of Puerto Rico Mayagüez	Pennsylvania State University
SUNY Albany	Tuskegee University	Fort Valley State University	Universidad Metropolitana
San Diego State University	13 institutions total		

AEROSE Field Campaigns

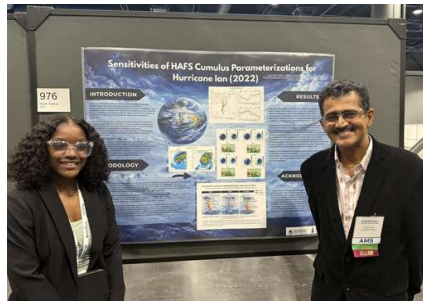
The Aerosols and Ocean Science Expeditions (AEROSE) program has conducted **12 research cruises** in the Atlantic and Caribbean, producing landmark research on Saharan dust transport, air-sea interactions, and Atlantic hurricanes that has advanced NOAA forecasting capabilities.



AEROSE researchers at sea

Research Impact

A total of **155 peer-reviewed student and faculty publications** advancing atmospheric sciences and meteorology. Our researchers present at **927 conferences** and collaborate with NOAA scientists across all line offices.



Doctoral fellow Myah Rather earns honorable mention for student poster presentations at AMS 2026



NCAS-M members attended the 2026 American Meteorological Society annual meeting

Community Outreach

NCAS-M reaches **20,000 K-12 students** through hands-on demonstrations, weather balloon launches, and mentorship programs that inspire the next generation of atmospheric scientists.



Middle school students launch a weather balloon at Beltsville Campus



Doctoral fellow Rebekah Hackett engages elementary and middle school students on air pollution



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