



NORTH CAROLINA SPACE GRANT

From the classroom to the sky, developing the next generation of explorers

WHAT IS NC SPACE GRANT?

North Carolina Space Grant leads the way in developing and promoting aeronautics and space-related science, technology, engineering and math (STEM) education. Since 1991, these education and outreach efforts have equipped the current and future aerospace workforce. Our consortium spans top-ranked academic institutions in North Carolina and partners with NASA, industry, non-profit organizations and state government agencies.



TEAM CHALLENGE
Photo taken by the high altitude ballooning team from Southwestern Community College in 2017

HOW WE WORK

Inspired by NASA's revolutionary research and pioneering aerospace industry, North Carolina's top educators **train our country's future STEM leaders.**

The mission: to equip the workforce with a diverse talent base prepared to address challenges through hands-on experiential learning and team-based activities and challenges. Since its inception, NC Space Grant has facilitated funding for millions of dollars of STEM research and public outreach efforts each year.

Through a combination of federal, state and private dollars, we promote competitive space-based under-graduate, graduate and community college fellowships and scholarships; internships; K-12 programs; and professional development and public science initiatives.

NC Space Grant is committed to advancing aerospace and aviation engagement and literacy for all North Carolinians, funding more than 350 students and touching the lives of more than 100,000 members of the general public.

OUR PARTNERS

From its NC State headquarters in Raleigh, NC Space Grant collaborates with 12 colleges and universities plus the community college system, NASA centers; and a dozen other partners that include industry, planetariums and museums.

BY THE NUMBERS

100,000

Number of public participants impacted in FY2017

350

Number of higher education students who received Space Grant funding in FY2017

125

Number of educators who received professional development training in NASA-related content

88%

Percentage of Space Grant students who remain in STEM fields

THE TOTALITY: As part of the Carolinas Solar Eclipse Party, more than 50 locations in North and South Carolina offered viewing events—both within and outside the path of totality—for the public.



CELEBRATING THE ECLIPSE

For a few moments one afternoon in August 2017, much of North Carolina turned midnight dark, thanks to a solar phenomenon unseen in the continental U.S. in 99 years. To celebrate this rare total solar eclipse, the North and South Carolina Space Grant Consortia joined forces to support more than **50 solar eclipse celebrations**, helping reach more than **100,000 attendees** throughout the states. Leading up to the eclipse, NC Space Grant offered 26 professional development workshops for more than 150 educators, including K-12 classroom teachers, museum educators, librarians and national/state park rangers. Educators received activity kits complete with materials to host their own solar eclipse parties in their respective communities across the state.

A *Lenoir-Rhyne University captures an image of the eclipse from a high altitude balloon at 98,000 feet.*

The UNC-Charlotte 49er Rocketry Team fine-tunes its launch vehicle. 



NASA

SENDING STUDENTS INTO SPACE

NASA selected former NC Space Grant student scholar **Zena Cardman** to join its 2017 class of 12 astronaut candidates. More than 18,300 students applied for NASA's exclusive, two-year training program, which prepares participants to become full astronauts and qualify for spaceflight missions. As an undergraduate and master's student in Marine Sciences at UNC Chapel Hill, Cardman was awarded four NC Space Grant research scholarships and fellowships. Each student award helped her gain experience with simulated NASA missions, preparing her for future flight assignments.



UNCC 49ER ROCKETRY CLUB

SUPPORTING STUDENTS

Undergraduates across North Carolina share their first-rate STEM know-how with the rest of the nation through the financial backing of NC Space Grant. Participating in national team competitions sponsored by NASA and other STEM-related organizations, these students prepare for tomorrow's challenges. In the 2017 NASA Student Launch Initiative, the **NC State High Powered Rocketry Team** sent a launch vehicle 5,280-feet into the atmosphere, which deployed a rover and a set of flexible solar panels. In the **Duke Electric Vehicles incubator** at the Shell Eco-Marathon Americas 2017, students took first place with their vehicle designed to use the least amount of energy to carry real passengers around a race track. And the **UNC Charlotte 49er Miner Robotics team** built a rover designed to traverse the NASA Robotic Mining Competition's simulated Martian terrain.

PARTICIPATING UNIVERSITIES AND COLLEGES

