

New
Hampshire
Space
Grant
Consortium



NH SPACE GRANT CONSORTIUM

Established by Congress (Public Law 100-147) in 1988 and implemented through the NASA Office of STEM Engagement, the National Space Grant College and Fellowship Program (known as 'Space Grant') contributes to the nation's space enterprise by funding related research, education, and public service projects through a national network of 52 university-based Space Grant consortia: one in each state, the District of Columbia, and Puerto Rico. Each consortium consists of multiple independent affiliate institutions, creating a network of over 850 Space Grant institutions nationwide. A key aspect of the Space Grant Program is that it is a Cost Share program, with federal dollars matched by state and affiliate funding contributions.

NH SPACE GRANT FY23 HIGHLIGHTS:

- **New Hampshire Space Grant Consortium** was established in 1991 as a collaboration between the University of New Hampshire (UNH) and Dartmouth College. The Consortium has since expanded to include seven institutions at 20 locations throughout the state: University of New Hampshire, Dartmouth College, Plymouth State University, the Community College System of NH, the McAuliffe-Shepard Discovery Center, Mount Washington Observatory, and BAE Systems. (See map on following page)

- **Undergraduate and graduate student STEM workforce development opportunities** sponsored through the consortium include scholarships, fellowships, NASA Center hands-on experiences, conference travel allowances, student symposia support, and individual student and team research experiences.

This past year, these student opportunities have included:

- ★ Fellowship support for graduate student research at UNH including soil ecology, methane production in thawing permafrost, spatial changes in climate and atmospheric rivers, and ionospheric observations
- ★ Graduate fellowships and undergraduate research awards in applied meteorology at Plymouth State University;
- ★ At Dartmouth, graduate assistantships in physics, earth science, computer science, and engineering at Dartmouth College, as well as symposia and hands-on experience for undergraduate women in STEM;
- ★ Mentorship and teaching experience for undergraduates through UNH Tech Camps and MSDC STEM Camp;
- ★ Scholarships for dozens of diverse STEM-career students through CCSNH;
- ★ Travel to the American Geophysical Union and American Meteorological Society annual meetings, and Lunar & Planetary Science conferences.

- **NHSGC is committed to diversifying the STEM workforce** and has consistently met Consortium-wide funding goals for STEM-underrepresented groups.

- **Public outreach events include students and citizens across the state.** AerospaceFest (PSU's demonstration booth seen in the photo at top) and summer STEM camps at MSDC, as well as innovative new collaborations between area tech high schools and MSDC; dozens of MWO distance learning programs; and Tech Camp for middle and high school students at UNH, all allow K-12 students to gain hands-on research experience and get a taste of STEM careers and research. **A wide range of NASA K-12 and outreach resources are also available through our website.**



*In work done over the summer of 2023 by UNH graduate student **Tim Hoheneder**, a Ground Penetrating Radar (GPR) antenna was attached to a UAS drone and flown at Thompson Farm Research Observatory. Tim is developing a system to allow for easier measurement of snowpack and soil conditions. His report, and those of other recent UNH Fellows, is available on the NHSGC website.*



- **Preparations for the 2024 eclipse**, which will include northern New Hampshire, are underway. *Left, UNH's Sheldon Oliver poses with the eclipse glasses she designed, which are being distributed statewide to libraries, K-12 schools, after-school clubs, 4H groups, and many more organizations.*

**NASA INTERNSHIPS
FELLOWSHIPS,
SCHOLARSHIPS,
AND RESEARCH
AWARDS FY23**

114

UNH: 13

PSU: 15

DARTMOUTH: 24

**COMMUNITY
COLLEGES: 60**

MSDC: 2

**DIVERSITY IN
SIGNIFICANT
AWARDS
FY23**

**51.3%
FEMALE**

**12.8%
UNDER-REPRESENTED
RACIAL OR ETHNIC
GROUPS**

**INFORMAL EDUCATION
& PRE-COLLEGE FY23**

22,000+

TOTAL PARTICIPANTS STATEWIDE

12,000+ K-12 STUDENTS

150+ K-12 TEACHERS



engaged via:

McAuliffe-Shepard Discovery Ctr.
Aerospace Festival, STEM camps
and clubs

Mount Washington Observatory
Science of Weather and Climate
Programs

University of New Hampshire
Tech Camps

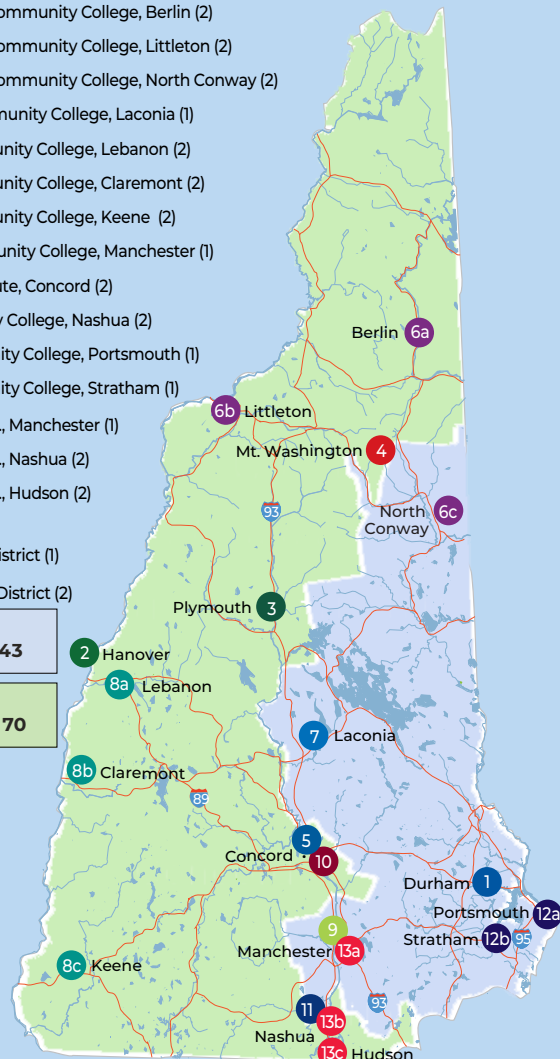
**NEW HAMPSHIRE SPACE GRANT
CONSORTIUM AFFILIATE LOCATIONS**

- 1 University of New Hampshire, Durham (1)
- 2 Dartmouth College, Hanover (2)
- 3 Plymouth State University, Plymouth (2)
- 4 Mt. Washington Observatory, Mt. Washington (1)
- 5 McAuliffe-Shepard Discovery Center, Concord (2)
- 6a White Mountains Community College, Berlin (2)
- 6b White Mountains Community College, Littleton (2)
- 6c White Mountains Community College, North Conway (2)
- 7 Lakes Region Community College, Laconia (1)
- 8a River Valley Community College, Lebanon (2)
- 8b River Valley Community College, Claremont (2)
- 8c River Valley Community College, Keene (2)
- 9 Manchester Community College, Manchester (1)
- 10 NH Technical Institute, Concord (2)
- 11 Nashua Community College, Nashua (2)
- 12a Great Bay Community College, Portsmouth (1)
- 12b Great Bay Community College, Stratham (1)
- 13a BAE Systems of N.A., Manchester (1)
- 13b BAE Systems of N.A., Nashua (2)
- 13c BAE Systems of N.A., Hudson (2)

1st Congressional District (1)
2nd Congressional District (2)

Direct-funded students in CD 1: **43**

Direct-funded students in CD 2: **70**



NEW HAMPSHIRE SPACE GRANT ALUMNI HIGHLIGHTS

**88.5% of tracked student participants
have gone into STEM disciplines as their next step!**

“I experienced, first-hand, that research can push time and personal boundaries, which helped me learn about how I handle tough situations. Motivation, discipline, time management, a passion for my work, and customer service are critical to my success as an earth and environmental scientist. I discovered that being a full-time researcher is not a career path of interest for me, but that is ok because the work funded by this grant will help guide me to a different path that will also make a difference.”

*Megan Wimsatt, University of New Hampshire
2023 Space Grant Graduate Fellowship*

“The NH Space Grant has given me an opportunity to focus on my research interests while working towards a doctorate degree in space physics. This grant also motivates me to set and achieve higher goals. It reminds me that my work could be important on a much larger scale than the department that I work in from day to day, and illuminates the amazing results that can come from the cooperation of STEM fields.”

*Tedi Godfrey, Dartmouth College
2022 Space Grant Fellowship,
2023 New Hampshire Space Grant Fellowship*