

New Hampshire Space Grant Consortium

2010-11 Program Highlights

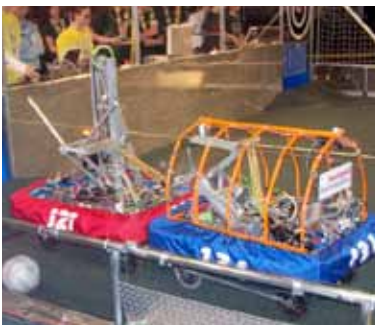
The National Space Grant College and Fellowship Program, sponsored by the National Aeronautics and Space Administration (NASA), provides opportunities for all citizens to participate in NASA's aeronautics and space projects. Space Grant Consortia are expanding science and engineering opportunities, especially for young Americans, in all 50 states, the District of Columbia, and Puerto Rico. New Hampshire's Space Grant Consortium, in a collaborative effort to inspire and educate future scientists and engineers, involves nine higher education, science education and industry affiliates from across the state, led by the University of New Hampshire (UNH).

Find out more at www.nhsgc.sr.unh.edu



Opportunities at NH Institutions of Higher Learning

- **More than 83 NH undergraduate and graduate students** received NHSGC scholarship, fellowship and internship support last year at Dartmouth College, Plymouth State University (PSU), UNH, and Community Colleges throughout the state. Many of these opportunities involved both formal education and "hands on" research enhancing the impact on the students and their professional plans.
- **A new graduate course on Satellite Systems and Instrumentation** was offered through a collaboration of UNH, NHSGC, and industrial affiliate BAE Systems.



Manchester Central High School's FIRST robotics team was sponsored by the NH Space Grant Consortium.

- **Twelve undergraduate women** conducted scientific research alongside Dartmouth faculty through the Women in Science Program (WISP). These internships, along with WISP's skill-building workshops and career guidance programs are critical to attracting and retaining women in science and engineering fields.
- **Dartmouth's Visiting Young Scientist award** retained a PhD scientist in a space-related field, providing him with the opportunity to teach and do research at Dartmouth.
- **UNH's collaboration with Elizabeth City State University (ECSU)** in North Carolina continues to connect ECSU students with UNH research and graduate education. Last year, three undergraduate students in ECSU's Spatial Technology program received scholarships and presented their research at UNH's Undergraduate Research Conference. Two went on to complete summer internships at UNH culminating with research presentations at NASA's Goddard Space Flight Center.

Science and Engineering Research

- **The small satellite development award** to Dartmouth College, BAE and UNH has received NASA EPSCoR funding for two additional years. Progress continues in UNH's use of geospatial techniques for assessing the risk of infectious disease. Plymouth State University received a new award: "Icing Assessments in Cold and Alpine Environments." This research is in collaboration with the Mount Washington Observatory, U.S. Army Cold Regions Research and Engineering Laboratory and NASA Glenn and Langley Research Centers.



UNH students designed a model of a NASA spacecraft and tested attitude control scenarios.

NEW HAMPSHIRE SPACE GRANT CONSORTIUM

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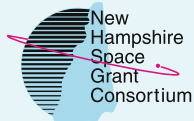
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AFFILIATES:

- BAE SYSTEMS North America
- Community College System of New Hampshire (CCSNH)
- FIRST (For Inspiration and Recognition of Science and Technology)
- The McAuliffe Shepard Discovery Center (MSDC, previously the Christa McAuliffe Planetarium)
- Dartmouth College
- The Mount Washington Observatory (MWO)
- Plymouth State University (PSU)
- The Margret and H.A. Rey Center

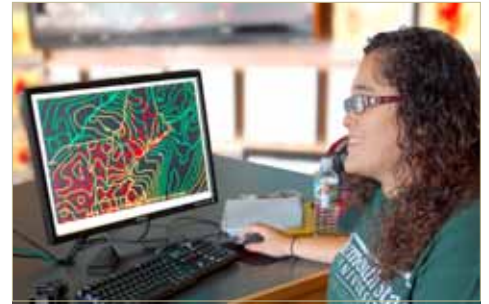


Mount Washington Observatory is collaborating with Plymouth State University in a NASA EPSCoR alpine icing project.



Sidewalk Astronomy in Waterville Valley, N.H., courtesy of the Rey Center.

- **Plymouth State faculty and students** spent a sixth summer at Kennedy Space Center/Cape Canaveral Air Force Station focused on Weather Forecasting Research. The program pairs PSU students with the forecasters at KSC and the Air Force's 45th Weather Squadron.



Plymouth State University student Yolanda Lee received support for her meteorology studies.

- **Thirty-two of the science and engineering research projects** featured at Dartmouth's and UNH's undergraduate research symposia received support from NHSGC.

- **Professional Development awards** for science center educators, graduate students and college faculty supported their participation in programs by the Astronomical Society, Association of Science-Technology Centers, and the American Geophysical Union.



The Aerospace Festival at the McAuliffe-Shepard Discovery Center engaged the community in NASA's work.

Community Programs

- **The Aerospace Festival** at the McAuliffe-Shepard Discovery Center (MSDC) was a hub of activity enjoyed by 570 citizens of all ages. They rode on a helicopter, viewed the universe through a telescope, talked to a space scientist, watched a weather balloon launch and experienced the shuttle and lunar lander simulators.
- **The Margret and H.A. Rey Center and MSDC** collaborated to bring astronomy programs to hundreds of citizens. Another partnership between the Rey Center and Plymouth State University supported citizen science and meteorology education.
- **From one of the planet's most extreme places**, the Mount Washington Observatory's meteorologists and educators inspired interest in climate and weather through distance learning and outreach programs reaching 4,789 participants.

Pre-College Programs

- **High School students received a head start** on their college coursework through CCSNH's on-line eStart science courses and NHSGC scholarships.
- **For twenty years the Forest Watch Program** has tracked the long-term health trends of white pines in New England. Teachers and students in 250 regional upper-elementary, middle and high school schools have sampled white pine, analyzed remote sensing data and contributed to this unique database used by environmental scientists.
- **Twenty-four middle and high school educators** were immersed in a Solar Symposium led by the MSDC for a week this summer. The educators benefited from lessons by NASA and university scientists, learned about NASA's science missions and resources and visited UNH's Space Science Center.



Solar Symposium educators toured the UNH Space Science Center.