92 Schools in 12 U.S. Communities Participating in Student Spaceflight Experiments Program (SSEP) Mission 1 to the International Space Station (ISS)



Announcing New Flight Opportunity - SSEP Mission 2 to ISS

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For Immediate Release November 15, 2011 Program Description Video Clip

Washington, D.C. - The National Center for Earth and Space Science Education (NCESSE), in partnership with NanoRacks LLC, has selected 12 communities across the U.S. to participate in the third Student Spaceflight Experiments Program (SSEP) flight opportunity - SSEP Mission 1 to the International Space Station (ISS) - reflecting involvement by 92 elementary, middle and high schools. The Center and NanoRacks are also proud to announce the fourth SSEP flight opportunity, Mission 2 to ISS.

Launched in June 2010, SSEP immerses typically 300 students across a community in real scientific research of their own design, using a highly captivating spaceflight opportunity on ISS, America's newest National Laboratory. The community-focused program is open to schools and school districts serving grade 5 through 12 students, 2- and 4-year colleges and universities, informal science education organizations, and internationally through the Center's new Arthur C. Clarke Institute for Space Education.

Mirroring the proposal process for professional researchers, each participating community solicits proposals for a microgravity experiment from their students, with student teams vying for use of a real research minilaboratory reserved to fly for their community. A suite of programs leverages the experience to engage the entire community, embracing a Learning Community Model for STEM (Science, Technology, Engineering and Mathematics) education.

SSEP is a true STEM education program, with students proposing experiments over a wide range of biological and physical science disciplines, and designed to the technology and engineering constraints imposed by the mini-laboratory and flight operations to and from Earth orbit.

The SSEP Mission 1 communities are providing 41,200 students the opportunity to participate, and nearly 1,000 student team proposals are expected. The 12 communities are in California, Connecticut, Indiana, Iowa, Maryland, Massachusetts, Nebraska, Ohio, Texas, and the District of Columbia. Half of the communities participated in SSEP on the final two flights of the Space Shuttle. The Mission 1 experiment design competition takes place October through December 2011, with the 12 selected flight experiments scheduled to fly to ISS on Soyuz 30 in March 2012.

"SSEP is designed to empower the student as scientist, and within the real-world context of science. Student teams design a real experiment, propose for a real flight opportunity, experience a formal proposal review process, and go through a NASA flight safety review. They even have their own science conference, where

they are immersed in their community of researchers", said Dr. Jeff Goldstein, creator of SSEP and NCESSE Center Director. "The 2011 SSEP conference was held at the Smithsonian's National Air and Space Museum, which was a fantastic setting for the next generation of America's scientists and engineers some just 10 years old - to report on their experiment results. SSEP is about introducing real science to our children."

The first two SSEP flight opportunities on the final flights of Space Shuttles Endeavour and Atlantis (STS-134 and STS-135), engaged 27 communities, providing a combined 30,700 grade 5-14 students in 101 schools the opportunity to participate; 1,027 student team proposals were received; and 27 experiments were selected and flown on the Shuttles - one for each participating community.

## New SSEP Mission 2 Flight Opportunity:

SSEP Mission 2 to ISS includes an experiment design competition March though May 2012, with selected flight experiments flying to ISS aboard Soyuz 32 in September 2012 – a great way to start the new school year. All communities interested in participating in Mission 2 should contact the Center as soon as possible.

SSEP is the first pre-college STEM (Science, Technology, Engineering, and Math) education program that is both a U.S. national initiative and implemented as an on-orbit commercial space venture. SSEP is enabled through NanoRacks LLC, which is working in partnership with NASA under a Space Act Agreement as part of the utilization of the International Space Station as a National Laboratory.

## Links

**SSEP Home Page** 

SSEP 3-Page Overview PDF

**SSEP Participating Communities** 

Student Flight Experiments on Final Two Space Shuttle Flights

SSEP In the News

Program Impact from Teachers, Students, and Community Leaders

SSEP Conference, Team from Zachary, LA, National Air and Space Museum

## About NCESSE

The National Center for Earth and Space Science Education (NCESSE) creates and oversees national initiatives addressing science, technology, engineering, and mathematics (STEM) education, with a focus on earth and space. Programs are designed to provide an authentic window on science as a human endeavor. Central objectives of the Center's programs are to help ensure a scientifically literate public and a next generation of U.S. scientists and engineers - both of which are of national importance in an age of high technology. NCESSE is a Project of the Tides Center. <a href="http://ncesse.org">http://ncesse.org</a>

## About NanoRacks, LLC

NanoRacks LLC was formed in 2009 to provide quality hardware and services for the U.S. National Laboratory onboard the International Space Station. NanoRacks now has two research platforms onboard the U.S. National Laboratory that can house plug and play payloads using the Cube-Sat form factor. Our current signed customer pipeline of over 50 payloads, including domestic and international educational institutions, research organizations and government organizations, has propelled NanoRacks into a leadership position in understanding the emerging commercial market for low-earth orbit utilization. Visit us at <a href="https://www.nanoracks.com">www.nanoracks.com</a> and @nanoracks

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