



Announcing Student Spaceflight Experiment Program (SSEP) Mission 4 to the International Space Station for 2013



New Opportunity for Schools to Engage Grade 5-16 Students in
Real Microgravity Experiment Design for Flight to the International Space Station

For Immediate Release

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If you have a PDF of this document, for active links, go to: <http://ssep.ncesse.org/?p=12158>

Time Critical: interested schools are directed to inquire about the program no later than December 20, 2012

Washington, D.C. - The [National Center for Earth and Space Science Education \(NCESSE\)](#), in partnership with [NanoRacks LLC](#), announces a new opportunity for school districts across the U.S. and internationally to participate in the sixth flight opportunity of the Student Spaceflight Experiments Program (SSEP).

Launched in June 2010, SSEP immerses typically 300 students across a community in every facet of real scientific research of their own design, using a highly captivating spaceflight opportunity on the International Space Station (ISS). SSEP is a Science, Technology, Engineering, and Mathematics (STEM) education immersion program that provides a truly authentic research experience on the high frontier.

SSEP Mission 4 to ISS will provide each participating community a real research mini-laboratory capable of supporting a single microgravity experiment, and all launch services to fly the mini-lab to ISS in Fall 2013. Mirroring how professional research is done, student teams across the community submit research proposals, and go through a formal proposal review process to select the flight experiment. The design competition – from program start, to experiment design, to submission of proposals by student teams – spans 9 weeks from February 25 to April 29, 2013. Content resources for teachers and students support foundational instruction on science in microgravity and experimental design. Additional SSEP program elements leverage the experience to engage the entire community, embracing a [Learning Community Model for STEM education](#).

SSEP is open to U.S. 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 [Arthur C. Clarke Institute for Space Education](#).

Student teams are able to design experiments across diverse fields, including: seed germination, crystal growth, physiology and life cycles of microorganisms, cell biology and growth, food studies, and studies of micro-aquatic life. Experiments require design to the technology and engineering constraints imposed by the mini-laboratory, and flight operations to and from low Earth orbit.

“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, and go through a NASA flight safety review. They even have their own science conference at the Smithsonian National Air and Space Museum, where they are immersed in their own community of researchers”, said Dr. Jeff Goldstein, creator of SSEP and NCESSE Center Director. “SSEP is about introducing real science to our children and if you give them a chance to be scientists, stand back and be amazed.”

SSEP Mission 4 to ISS includes an experiment design competition February 25 through April 29, 2013. Flight experiments are selected by May 30, 2013, for a ferry flight to ISS in likely mid-September 2013. All communities participating in Mission 4 to ISS are directed to inquire no later than December 20, 2012.

Heritage: 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 the opportunity to participate, 977 student team proposals were received, and 27 experiments were selected and flown on the Shuttles. SSEP Missions 1 and 2 to ISS engaged 23 communities, providing 56,300 grade 5-14 students the opportunity to participate, 1,904 student team proposals were received, and 26 experiments were flown to ISS on the SpaceX Dragon vehicle. The fifth SSEP flight opportunity, Mission 3 to ISS, began on September 12, 2012, with 17 participating communities. The Mission 3 experiments payload is expected to fly to ISS in April 2013.

SSEP is the first pre-college STEM education program that is both a U.S. national initiative and implemented as an on-orbit commercial space venture. SSEP is undertaken by the [National Center for Earth and Space Science Education \(NCSSE\)](#) in the U.S. and the [Arthur C. Clarke Institute for Space Education](#) Internationally. It is enabled through a strategic partnership with [NanoRacks LLC](#), working with NASA under a Space Act Agreement as part of the utilization of the International Space Station as a National Laboratory. The [Center for the Advancement of Science in Space \(CASIS\)](#) is a national partner on SSEP.

For information on the Mission 4 to ISS flight opportunity, visit: <http://ssep.ncesse.org>

Other Links of Interest:

[SSEP 3-Page Overview PDF](#)

[Program Description Video Clip](#)

[SSEP Participating Communities and Partners](#)

[Selected SSEP Flight Experiments](#)

[SSEP In the News](#)

[Program Impact from Teachers, Students, and Community Leaders](#)

[Videoclips of Student Researchers, 2012 SSEP Conference, Smithsonian National Air and Space Museum](#)

About NCSSE

The [National Center for Earth and Space Science Education \(NCSSE\)](#) 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. NCSSE is a Project of the Tides Center. <http://ncesse.org>

About NanoRacks, LLC

[NanoRacks LLC](#) was formed in 2009 to provide quality hardware and services for the U.S. National Laboratory (USNL) onboard the International Space Station. NanoRacks has two research platforms on the USNL that can house plug and play payloads using the Cube-Sat form factor. The current signed customer pipeline includes over 50 payloads from domestic and international educational institutions, research organizations and government organizations, propelling NanoRacks into a leadership position in the emerging commercial market for low-earth orbit utilization. Visit www.nanoracks.com and @nanoracks

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