



Flight Opportunities

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Enjoy!
The Flight Opportunities team

NASA TECHRISE STUDENT CHALLENGE

NASA Announces Winners in the First TechRise Student Challenge

NASA has chosen 57 winning teams in the agency's inaugural **TechRise Student Challenge**. Nearly 600 teams applied, representing 5,000 sixth through 12th-grade students from across the country. The winning teams will gain real-world STEM experience by building experiments designed to autonomously operate and collect data from the edge of space aboard a suborbital rocket or a high-altitude balloon test flight.

Read the [NASA web feature](#) to see the winners and learn more about **TechRise**.

CLICK Team Tests Optical Communications Technology Ahead of Small Spacecraft Swarm Demonstration

NASA's Small Spacecraft Technology (SST) program — a sister program to Flight Opportunities focused on rapid technology development and testing — is supporting testing in advance of two missions designed to enhance optical communications capabilities for autonomous fleets of CubeSats. Teams from Massachusetts Institute of Technology (MIT) in Cambridge and University of Florida (UF) in Gainesville are testing components of NASA's CubeSat Laser Infrared Crosslink (**CLICK**) B/C demonstration, aiming to validate that the technology can be packaged into a **CubeSat** and work as expected.



*Image details: Graduate students build the test assembly of the CubeSat Laser Infrared Crosslink, or CLICK, B/C engineering development unit in a clean room at the Massachusetts Institute of Technology in Cambridge.
Credit: Massachusetts Institute of Technology*

Anticipated to deploy from the International Space Station in 2023, CLICK B/C's ground testing occurs on an engineering development unit (EDU) at MIT. The EDU is a non-flight test unit that allows the team to assess the technology's integration and correct any issues with the system's hardware and software prior to building the actual system that will fly to space. Lessons learned from this testing will inform the flight build of CLICK B/C's two small spacecraft. Read [NASA's web feature](#) to learn more.

Now Open: EPSCoR Suborbital Flight Opportunity

NASA's Office of STEM Engagement (OSTEM), in collaboration with the NASA Space Technology Mission Directorate (STMD) Flight Opportunities program, solicits proposals for the Established Program to Stimulate Competitive Research (EPSCoR) FY22 Suborbital Flight Opportunity. This solicitation is for current or previously funded EPSCoR projects or other research projects that are mature enough to design a research experiment or develop research experimental hardware to the point that it can be flown in a suborbital environment.

Proposals due: April 15, 2022

[Read the full solicitation and start your proposal.](#)

Coming Soon: NASA TechLeap Prize

Flight Opportunities is planning to launch the next challenge in the [NASA TechLeap](#) prize in the coming weeks. The next challenge will focus on precision landing technologies. Keep an eye on this newsletter for the announcement, and [register to receive updates](#) on the challenge launch. Visit the [TechLeap website](#) for more details.



Closing Soon: NASA Announces Research Opportunities for In-Space Production Applications in Low-Earth Orbit

To further strengthen U.S. national interests in space and continue providing tangible benefits to humanity, NASA is offering funding to U.S. businesses seeking to develop and demonstrate the manufacturing of advanced materials and other high-value products on the International Space Station (ISS) for use on Earth.

Known previously as demand stimulation, In-Space Production Applications (InSPA) [builds upon prior demand stimulation efforts](#) that support sustainable economic development in low-Earth orbit. Focus Area 1 of the NASA Research Announcement "[Research Opportunities for ISS Utilization](#)" seeks proposals for InSPA demonstrations to nurture high-value future technology development sectors.

Proposals due: January 28, 2022

Learn more

Read the [NASA web feature](#) about this research announcement

Read the [full research announcement on NSPIRES](#)

Closing Soon: Technology Development Research Announcement to Leverage ISS National Lab

This research announcement seeks flight projects within the areas of applied research and development, translational medicine, technology readiness level maturation, and technology demonstration.

Concept summaries due: February 14, 2022
Full proposals (by invitation) due: May 2, 2022

[Learn more about this opportunity.](#)

Community of Practice

Mark Your Calendar For the February Webinar

Designing a Flight Test-Ready Payload

Wednesday, February 2, 2022
10:00 a.m. - 11:00 a.m. PST

Speakers:

- Veerle Reumers, Ph.D., R&D manager, Imec
- Earl Adams, flight campaign manager, NASA Flight Opportunities

In addition to developing and planning their technology flight tests, researchers supported by NASA's Flight Opportunities program are tasked with a variety of other priorities to achieve a successful flight: designing and building a rugged payload, creating and rehearsing team procedures, and communicating their demonstration's needs to their flight provider. In this session, Imec's Dr. Veerle Reumers, principal investigator for the [Functional Integration of Lens-Free Imaging in Suborbital Flight project](#), will share her experience developing a flight-ready payload. She will also illustrate how she established clear communication with her team's flight provider – Zero Gravity Corporation – and their campaign manager, Earl Adams, who will also share his perspectives on preparing for successful flight tests. This webinar will highlight the most important things to keep in mind when preparing for suborbital flight on any platform and will clarify how to best utilize the resources provided to Flight Opportunities-supported researchers.

Join on your computer or mobile app

[Click here to join the meeting](#)

Or call in (audio only)

+1 626-657-0506

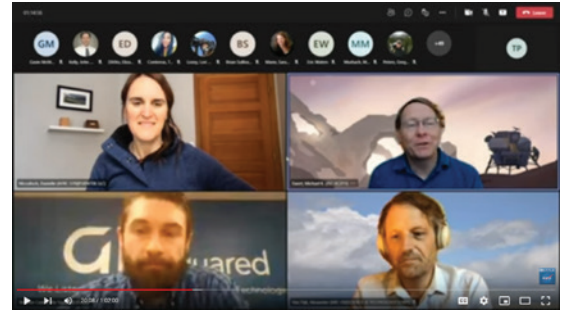
Phone Conference ID: 728 567 076#

[Find a local number](#)

Missed our January Webinar? Watch the Recording Online!

A replay of our January webinar as well as accompanying slides are now available for viewing:

Leveraging SBIR Awards for Suborbital Flight Tests



Lessons From the Launchpad



Understand Flight Week and Prepare for “What If...”

When the big week is upon you, it’s best to have a thorough understanding of what to expect, and contingency plans to account for things you might have not expected.

Be sure you are familiar with the schedule and key activities

by communicating early on with your flight provider and Flight Opportunities campaign manager. Each flight campaign is unique, so these preparations are essential to help you avoid the mistake of assuming this flight schedule will be the same as the last.

Get a description of the payload integration facility and any available payload support equipment from your flight provider before you arrive on site.

Talk to your flight provider if you have special requirements like cold storage, power, or special test equipment to make sure they can accommodate them. Make alternative plans if needed.

Address special payload needs for multi-flight campaigns, such as planning for consumables or materials that may require servicing or replacement between flights.

Events

2022 Human Research Program Investigators’ Workshop

February 7-10, 2022

Virtual Event

This free workshop is the annual meeting for HRP-funded investigators.



SmallSat Symposium

February 8-10, 2022

Mountain View, CA and online

Join representatives from our sister program, NASA's Small Spacecraft Technology, at this three-day event bringing together leaders in the satellite industry.

24th Annual FAA Commercial Space Transportation Conference

February 16-17, 2022

Washington, D.C.

Join Flight Opportunities Program Executive Christopher Baker at this event consisting of panels, speakers, and networking events to inform and discuss issues within the commercial space industry.

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Have ideas or feedback for the Flight Opportunities newsletter?

Drop us a line at:

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STAY CONNECTED:



NASA Flight Opportunities Program

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Flight Opportunities is part of NASA's Space Technology Mission Directorate.