

Flight Opportunities

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In This Issue

Opportunities:

- Join Us For the TechLeap Nighttime Precision Landing Challenge Q&A on April 12
- Coming Soon: TechFlights 2022
- Now Open: Research Opportunities in Space and Earth Sciences (ROSES) – 2022
- Closing Soon: Established Program to Stimulate Competitive Research (EPSCoR) Suborbital Flight Opportunity

News:

- TechLeap Autonomous Observation Challenge No. 1 Winners Advance to Next Round

Community of Practice:

- April 6 Webinar: From Suborbital Flight to the International Space Station
- View the March Webinar Replay: Testing Lunar Landing and Surface Sampling Technologies Suborbitally
- Lessons From the Launchpad: When In Doubt, Check the List

Events:

- Space Symposium: April 4-7, 2022
- Space Tech Expo: May 23-25, 2022
- SBIR/STTR Spring Innovation Conference: June 13-15, 2022
- ISS R&D Conference: July 25-28, 2022

Enjoy!

The Flight Opportunities team

Join Us For the Nighttime Precision Landing Challenge Q&A on April 12



NASA
TechLeap
PRIZE

The **NASA TechLeap Prize** Nighttime Precision Landing Challenge No. 1 invites applicants to submit proposals for sensing systems that can detect hazards from an altitude of 250 meters or higher and process the data in real time to **help spacecraft land safely in the dark**. Up to three winners may receive awards of up to \$650,000 each to build their payloads, as well as the opportunity to test their technology on a suborbital flight at no additional cost.

Join us for a live Q&A session: April 12, 2022, 10-11 a.m. PDT
Register here for full details and attendance information.

Apply to the challenge!

Visit the **Challenge webpage** to get started.
Applications due: May 19, 2022

Coming Soon: TechFlights 2022

Tech Flights offers funding opportunities to researchers from U.S.-based industry, academia, and private research institutions to rapidly test promising technologies on commercial suborbital vehicles. Awardees receive a grant or cooperative agreement allowing them to purchase flights directly from any eligible **U.S. commercial flight provider** that best suits their technology demonstration.

TechFlights 2022 is expected to be released in the coming weeks. The Flight Opportunities program encourages broad participation and urges interested researchers to keep in mind that topics, relevant technologies, and other details do change from year to year. Keep an eye on this newsletter for details when the solicitation is announced.

Now Open: Research Opportunities in Space and Earth Sciences – 2022

New in the 2022 ROSES solicitation:

Proposers may avail themselves of the Flight Opportunities program's Indefinite Delivery/Indefinite Quantity (IDIQ) contracts to **suborbital flight service providers**. Note that the solicitation does not include proposals for human participants (payloads must be either automated or remotely operated), or for commercial parabolic flights.

Investigators thinking of proposing payloads to fly on a Flight Opportunities-contracted commercial flight vehicle are strongly urged to **discuss prospective investigations with Flight Opportunities personnel** and/or a potential flight services vendor to ensure that integration, safety and mission assurance, and operational costs are properly anticipated.

View all due dates (organized by solicited research program)

Learn More:

[View the ROSES 2022 solicitation on NSPIRES](#)

[Read the Summary of Solicitation \(PDF\)](#)

[Read the FAQ](#), which includes information about changes from previous ROSES solicitations

Closing Soon: Established Program to Stimulate Competitive Research (EPSCoR) Suborbital Flight Opportunity

Proposals due: April 15, 2022

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

News



Sara Jennings, chief executive officer of Orion Labs and team lead for the company's TechLeap project, works on a payload build during a January 2022 site visit to assess the team's progress. Credit: NASA

TechLeap Autonomous Observation Challenge No. 1 Winners Advance to Next Round

Flight Opportunities is pleased to announce that all **three winners** of the NASA TechLeap **Autonomous Observation Challenge No. 1** have successfully completed **Payload Build Round 1**, receiving additional awards of \$200,000 each to advance to **Payload Build Round 2**. Field judges conducted on-site visits in January to review each winner's progress and provide input. A second round of site visits is planned for June 2022 as part of Payload Build Round 2 activities. Teams will continue to build their payloads in anticipation of upcoming flights.



Join Us For the April Webinar

From Suborbital Flight to the International Space Station

Wednesday, April 6, 2022

10:00 a.m. - 11:00 a.m. PDT

Speakers:

Dmitry Starodubov, Ph.D., *FOMS Inc.*

Steve Huning, Research Portfolio Manager, *NASA's Johnson Space Center*

Lynn Harper, Strategic Integration Advisor to ISS National Lab, *NASA's Ames Research Center*

Brief periods of microgravity in suborbital flights facilitated by Flight Opportunities can validate a technology's functionality in a cost-efficient and timely manner, reducing risk for longer, more expensive missions. FOMS's Dr. Dmitry Starodubov, principal investigator (PI) for the Space Fibers 3 project, will share how his team leveraged parabolic flights to validate technology performance and improve crew instructions before the project's transition to the International Space Station later this year. He will be joined by NASA's Steve Huning and Lynn Harper, who will help illustrate how PIs can make the most of NASA-supported flight tests and why suborbital demonstrations have become a best practice for technologies looking to advance to orbital missions.

Microsoft Teams meeting

[Click here to join the meeting](#)

Or call in (audio only)

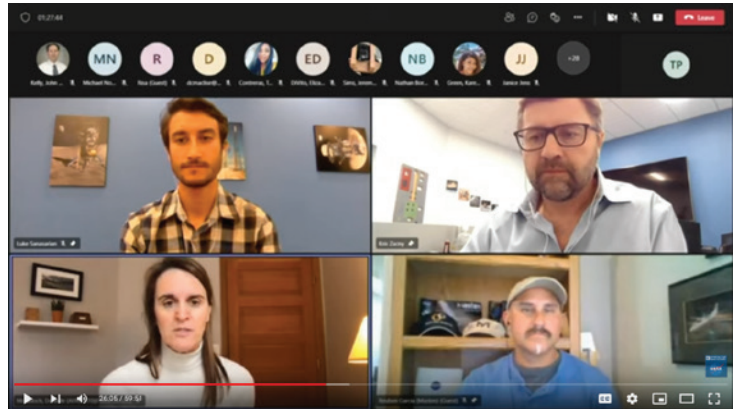
+1 256-715-9946

Phone Conference ID: 131 160 889#

Missed our March Webinar? Watch the Recording Online!

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

Testing Lunar Landing and Surface Sampling Technologies Suborbitally



Lessons From the Launchpad



When in Doubt, Check the List

After all your payload planning, testing, and integration, one of the most invaluable tools you can bring with you to your suborbital flight campaign is a good old-fashioned checklist. During a long flight week when research teams are short on sleep and stress weighs heavily, a trusty checklist can help ensure that small details don't get missed.

Take inventory: Make note of every part, procedure, and step-by-step experiment process that is critical to the success of your flight testing.

Categorize: Group the information for your checklist as needed and make sure it is in a logical order. This will help you quickly run through procedures, double check that all parts and replacements are on hand and in the right place, and verify that team members know their responsibilities.

Assign a stage manager: If possible, put one person on your research team in charge of visually or verbally verifying that all steps and tasks on the checklist have been met prior to flight, and report back to the principal investigator or campaign manager if anything seems amiss.

Space Symposium

April 4-7, 2022

Colorado Springs, Colorado

Space Tech Expo

May 23-25, 2022

Long Beach, California

*Flight Opportunities Chief Technologist Stephan Ord will be on hand at this event, along with personnel from NASA's **Game Changing Development** program as well as NASA's Goddard Space Flight Center. Stop by Booth #7048.*

SBIR/STTR Spring Innovation Conference

June 13-15, 2022

Washington, DC

ISS R&D Conference

July 25-28, 2022

Washington, DC

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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.