



FLIGHT OPPORTUNITIES



ISSUE 76 — OCTOBER 2024

Competitions and solicitations • Six recent flights • Nov. 6 Community of Practice webinar
• Volunteer to judge student proposals • Other opportunities • Events

COMPETITIONS AND SOLICITATIONS



New Challenge in Dec.

NASA expects to issue a new challenge as part of the **TechLeap Prize** in December 2024. NASA intends to award up to nine \$500K prizes and the opportunity for a flight test, focusing on a wide variety of NASA's prioritized shortfalls.



Q&A Webinar • Nov. 20

To help researchers learn more about the upcoming TechLeap opportunity, we will host a Q&A webinar on Wed., Nov. 20 at 12pm PT/3pm ET.

- [Join the webinar](#)
- [Visit the TechLeap webpage](#)



TechFlights Update

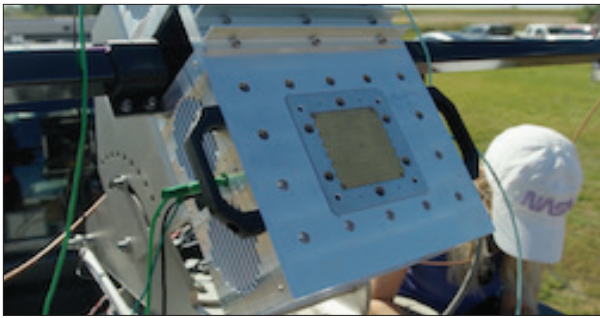
Flight Opportunities continually seeks impactful options for advancing space technology. Although the program will not be issuing a TechFlights solicitation in 2024, NASA does intend to open another **TechLeap Prize** this year.

[Learn More About TechLeap](#)

A Busy Month for Flight Opportunities

Since the September issue of this newsletter published, NASA's Flight Opportunities program has supported the testing of nine technologies aboard six flights with five commercial providers. Click the links to learn more about the space technologies selected by the program to advance exploration, discovery, and commerce for NASA and the nation.

Sept. 26 • Aerostar



FIGARO (5G Array for Lunar Relay Operations) • San Diego State University

Aug. 31 to Sept. 27 • World View



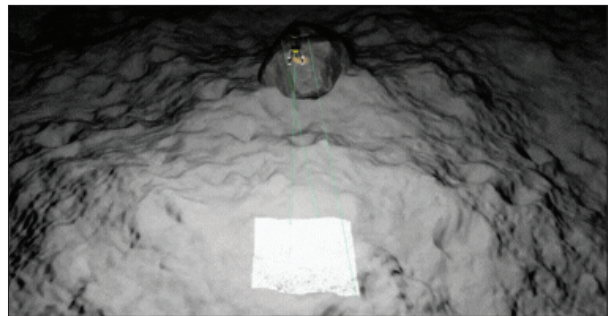
ARMAS Dual Monitor • Space Environment Technologies
CubeSounder 3D Weather Imaging Sensor • Arizona State University
[Flight summary](#)

Oct. 1 • UP Aerospace



More information about this flight test will be added to our website soon!

Oct. 5 • Astrobotic



MoonFALL • Bronco Space (Cal Poly Pomona)
This was the third flight in our TechLeap
[Nighttime Precision Landing Challenge](#)

Oct. 22 • Astrobotic



DMEN (Draper Multi-Environment Navigator) • Draper Laboratory

Oct. 23 • Blue Origin



Proximity Operations Sensors
• Blue Origin

Image credits (l to r): First row: Aerostar, World View; second row: NASA/Anh Nguyen, Bronco Space; third row: Astrobotic, Blue Origin

COMMUNITY OF PRACTICE WEBINAR

Advancing Technologies Through Flight Tests Over a Simulated Lunar Surface

November 6, 2024 at 10am–11am PST

Join us on November 6 for a conversation about the NASA TechLeap Prize's **Nighttime Precision Landing Challenge** and the recent flight tests of the winning technologies over a simulated lunar surface constructed by Astrobotic. The challenge sought to advance the affordability and reduce the complexity of precision landing capabilities to deliver spacecraft to safe landing locations, particularly when the terrain is hazardous and lighting conditions are challenging. In this **webinar** discussion moderated by Flight Opportunities personnel, Astrobotic as well as the three challenge winners will discuss the flight tests and explore lessons learned and what comes next.



Credits: Astrobotic

**LEARN MORE ABOUT OUR
NOVEMBER 6 WEBINAR**



Students use computer-aided design (CAD) to develop their TechRise experiment focused on microplastics in the atmosphere. Credits: John F. Kennedy High School (Tamuning, Guam)

TechRise Student Challenge Deadline Nov. 1; Sign Up Now to Judge Proposals

The deadline for [NASA's TechRise Student Challenge](#) is this Friday, Nov. 1, so remind the middle and high schoolers in your life to submit their team's experiment ideas before midnight PDT. TechRise is open to 6-12 graders attending U.S. public, private, or charter schools, including those in U.S. territories.

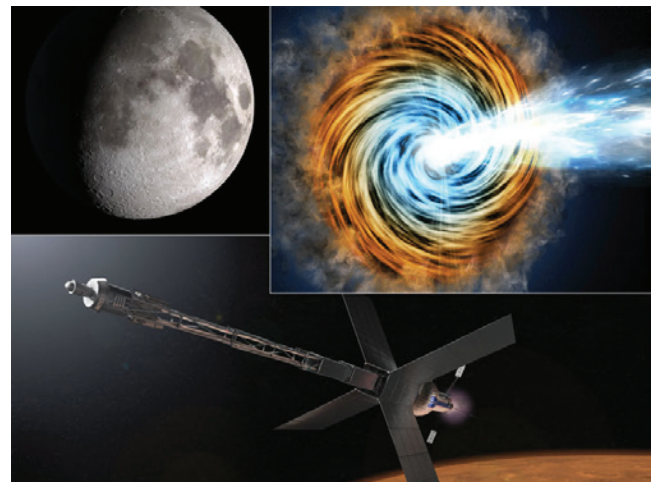
And now is the perfect time to [sign up for judging](#) if you have expertise in engineering, space, and/or atmospheric research. Volunteer judges must be 18 or older and willing to spend about five hours to review proposals approximately Nov. 4–19.

OTHER OPPORTUNITIES

NASA Space Technology Graduate Research Opportunities (NSTGRO25) Due Nov. 1

Graduate students at accredited U.S. universities are invited to submit NSTGRO25 proposals by 6 PM ET this Friday, Nov. 1. Starting in the fall term of 2025, selected fellows perform research at their own campus and at NASA centers, collaborating with a NASA researcher. Fellows pursue broader/deeper research, understand potential applications, and directly disseminate results within the NASA community.

[Read more about the NSTGRO25 opportunity](#)



ASCEND Content Proposals Due Nov. 21

The 2025 ASCEND meeting will take place in Las Vegas July 22-24. Abstracts for technical papers and sessions may be submitted that focus on advances in all aspects of the space enterprise, including exploration, infrastructure, science, technology, economics, law, societal impact, and education and/or that focus on four Space Domain Challenges that are particularly relevant for the growing space sector.

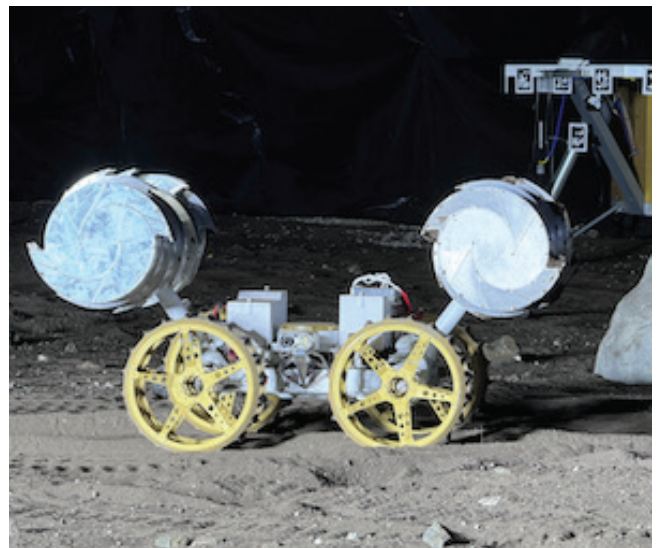
[See the detailed guidance for preparing ASCEND content proposals](#)



Lunar Autonomy Challenge Registration Due Nov. 7

Teams of U.S. undergraduate and graduate students are invited to develop an autonomous agent — that is, software that can perform specified actions without human intervention — to control a virtual robot to map the lunar surface surrounding a landing module. This digital twin of the **ISRU Pilot Excavator (IPEX)** must successfully navigate the harsh, low-light conditions of the Moon without human intervention.

[Read more about the challenge and how to apply](#)



EVENTS

Lunar Surface Innovation Consortium (LSIC) Fall Meeting

NOV. 13–15 • LAS VEGAS, NEVADA

LSIC's fall meeting focuses on technology testing, lunar proving grounds, and how the community can partner to get to the Moon together. If you have registered for in-person attendance, connect with the Flight Opportunities team while you're there.

American Society for Gravitational and Space Research (ASGSR) Conference

DEC. 3-7 • SAN JUAN, PUERTO RICO

ASGSR's annual meeting brings together the biological and physical space sciences community to share research and discuss emerging issues. Engage with NASA's Flight Opportunities program in the Exhibit Hall and learn more in these sessions:

NASA Biological and Physical Sciences Update (including **Robert Ferl**) Thur. Dec. 5 • 11:15am AST (local time)

Flight Opportunities • Fri. Dec. 6 • 12pm AST (local time)



Coming to ASGSR and have a payload you'd be willing to show to the community?

Let us know, and we might have an opportunity for you to be part of our booth.

American Geophysical Union (AGU) Annual Meeting

DEC. 9-13 • WASHINGTON, D.C.

AGU's annual meeting brings together more than 25,000 attendees from over 100 countries to share research in Earth and space science. Its hybrid model includes both in-person and virtual participation. Registration fees are discounted until Nov. 6. Connect with the Flight Opportunities team while you're there.

NASA Flight Opportunities Program

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

Visit nasa.gov/stmd-flight-opportunities

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