



FLIGHT OPPORTUNITIES



ISSUE 79 — FEBRUARY 2025

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SOLICITATIONS/FUNDING OPPORTUNITIES: NASA'S TECHLEAP PRIZE

TechLeap Q&A Webinar: Wednesday February 12 at 2:30 PM ET

Are you applying for the NASA [TechLeap Space Technology Payload Challenge](#)? If not, maybe you should!

Join the [Feb. 12 Q&A webinar](#) to learn more about the challenge. Starting at 2:30 p.m. ET, this webinar will provide an overview of the competition, walk through the [challenge website](#), and answer participant questions.

[Feel free to email your questions in advance.](#)

[Sign up for the webinar](#)

You must [sign up](#) in order to receive information on how to join the webinar. A recording will be available after the webinar.



Three New Challenge Shortfalls

In case you missed it, three additional shortfalls have been selected as topics for the **Space Technology Payload Challenge** (see **Technical Guidelines** – Category 17: Advanced Propulsion).

The shortfalls identify technology areas where further technology development is required to meet future exploration, science, and other mission needs. Technologies submitted to this challenge should meet or exceed specifications found in the Technical Guidelines and be at a level of development that could benefit from a flight test.



Reminders for the Space Technology Payload Challenge

REGISTER

Before submitting an application, participants must [register](#).

Registration Due: Mar. 4, 2025
2:00 p.m. PT, 5:00 p.m. ET

SUBMIT YOUR APPLICATION

Applications will be accepted only from registered participants.

Application Due: Mar. 20, 2025
2:00 p.m. PT, 5:00 p.m. ET

1. Check out the [updated FAQs](#)
2. Read the PUGs (payload user guides) provided by Flight Opportunities' contracted [flight providers](#) (noted with *) to learn more about their flight testing environments.
3. Reach out to specific flight providers with any questions you have about flight testing.
4. Watch the recording of the [Jan. 8 informational webinar](#).

February 4 Launch of Lunar Gravity Simulation via Suborbital Rocket

In case you missed it, three additional shortfalls have been selected as topics for the Space Technology Payload Challenge (see Technical Guidelines – Category 17: Advanced Propulsion).

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Credits: Blue Origin

[Learn more about the technologies that took flight](#)

[Visit our Flight Summaries page for information about other flight tests](#)

COMMUNITY OF PRACTICE WEBINAR

March Webinar: Flight Testing Technologies, Instruments, and Experiments with NASA's Flight Opportunities Program

March 5, 2025 • 10–11 a.m. PST

Mark your calendar for our upcoming Community of Practice webinar to be held on March 5 at 10:00 a.m. PST. These webinars offer best practices and important lessons learned from researchers, flight providers, and NASA personnel experienced in using flight tests to advance technologies.

Our March 5 webinar will discuss how NASA researchers as well as those outside the agency can access the flight testing capabilities offered by the Flight Opportunities program.



Watch your email for a Special Announcement with more details about our March webinar.

CHECK OUT OUR PAST WEBINARS

On-Demand Webinar: NASA's Flight Opportunities Program: Leveraging Commercial Flight Tests to Rapidly Advance Space Technologies

Hosted by the AIAA (American Institute of Aeronautics and Astronautics) Space Resources Technical Committee, this webinar presents an overview of how NASA's Flight Opportunities program can help rapidly advance space technologies through flight testing with commercial providers. The webinar was presented by Greg Peters, program manager of NASA's Flight Opportunities program, and Macarena Parra, Ph.D., program technologist.



[Watch the recorded webinar](#)

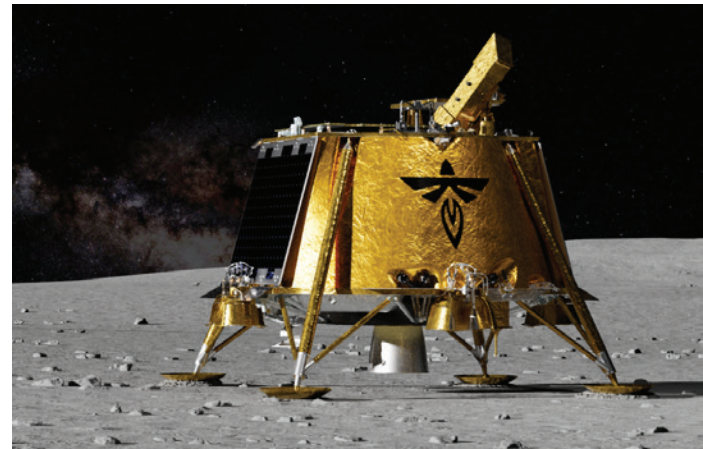
TECHNOLOGY TRANSITIONS

From Flight Test to the Moon: A Tale of Three Payloads

The Firefly Blue Ghost lunar lander launched on January 15, with a manifest of payloads that included three innovations advanced by NASA's Flight Opportunities program. Flight testing aboard sounding rockets, high-altitude balloons, and rocket-powered landers helped research teams mature the technologies' readiness and minimize the risk for future endeavors, such as this CLPS (Commercial Lunar Payload Services) mission.

Payloads included:

1. [PlanetVac: Regolith Sample Collection](#)
2. [RadPC: Radiation-Tolerant Computing](#)
3. [LuGRE: Leveraging Earth-Based GNSS Signals](#)



Firefly's Blue Ghost lander. Credits: Firefly Aerospace

[Read about these technologies and the Blue Ghost launch](#)



New Technology Transitions Webpage!

Infusion into space-based missions is a significant milestone for innovations tested and matured through NASA's Flight Opportunities program. Over the years, many Flight Opportunities–supported innovations have made this transition. Visit this new webpage for summaries of some of these transitions over the years.

[Visit the Tech Transitions webpage](#)



Share your transition story!

Are you a PI who has flown with Flight Opportunities and transitioned your technology to a NASA mission or commercial use?

Let us know!

[Share your story!](#)

NASA Ames researchers Rachel Ticknor (left) and Howard Cannon (right) set up their liquid mirror deployment experiment on a parabolic flight on August 21, 2024. Credits: Zero Gravity Corporation

STEM INITIATIVE

NASA Selects Winners of Fourth TechRise Student Challenge

On January 21, NASA **announced 60 winning teams** for its fourth **TechRise Student Challenge**, a nationwide contest to engage students in technology, science, and space exploration. The middle and high school student teams will work together to turn their proposed science and technology experiments into reality ahead of NASA-sponsored flight tests in summer 2025.



The winning teams include more than 530 students representing 50 states and territories. Their experiments, addressing a wide variety of STEM (science, technology, engineering, and math) challenges, will fly on a high-altitude balloon operated by World View Enterprises of Tucson, Arizona.

[Learn more and see the list of winning teams!](#)

Meet the Team: Wanessa Priesmeyer



Wanessa Priesmeyer

Wanessa Priesmeyer, a flight test campaign manager for NASA's Flight Opportunities program, was recently featured in NASA's "Faces of Technology" video series. In addition to discussing NASA's TechRise Student Challenge, Wanessa describes how she and the Flight Opportunities team give researchers the chance to test their technologies for space applications using high-altitude balloons, rocket launches, or parabolic flights.

[Watch the video](#)

UPCOMING EVENTS

National Science Teaching Association (NSTA) National Conference on Science Education

MAR. 26–29, 2025 • PHILADELPHIA, PENNSYLVANIA

Flight Opportunities and Future Engineers team members attending this year's NSTA conference will discuss the NASA TechRise Student Challenge. Designed by educators for educators, this conference provides practical strategies for classrooms, schools, or districts through peer-driven roundtable discussions and sessions as well as casual networking. Visit our team at the NASA Science Exhibit.

Lunar Surface Innovation Consortium (LSIC) Spring Meeting

MAY 20–22, 2025 • LAUREL, MARYLAND

The focus of LSIC’s 2025 spring meeting is on technology payloads headed to the Moon. The agenda includes invited speakers, panels, focus area discussions, lightning talks, and posters. A technology “Show and Tell” from the community will provide an opportunity to learn more about technologies that are out there to drive partnerships and establish networks to support a sustainable existence on the Moon. ([Submit your technology demonstration](#) for consideration.) [Let us know if you’re attending!](#)

NASA Flight Opportunities Program

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

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