

Flight Opportunities

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Enjoy!

The Flight Opportunities team

Deadline Extended for Space Technology Flight Test Services Solicitation

Proposals due 12:00 pm Pacific on September 15, 2023

NASA's Armstrong Flight Research Center has extended the deadline to submit proposals for the [Suborbital/Hosted Orbital Flight and Payload Integration Services 4](#) solicitation to September 15.

The new solicitation is designed to replace contracts for existing flight test services and seeks to add new capabilities, including hosting payloads in orbit and flying NASA researchers on suborbital flights. It aims to increase available testing options for researchers to advance their technologies and expand opportunities for a wider range of commercial companies to support suborbital and orbital flight testing for NASA. Flights and other services solicited will be available for NASA internal use across the agency as well as for use by other government agencies.

This contract will be managed by NASA's [Flight Opportunities](#) program, in cooperation with the agency's [Small Spacecraft Technology](#) program.

[Visit the full proposal page.](#)

Community of Practice

ROSES-2023 APRA and H-LCAS Suborbital Research Informational Webinar

NASA will hold an informational webinar on September 6 at 9:00 am PT on the suborbital research aspects of the ROSES-2023 [D.3. Astrophysics Research and Analysis \(APRA\)](#) and [B.9 Heliophysics Low Cost Access to Space \(H-LCAS\)](#) program elements.

The webinar will provide prospective applicants with information regarding the APRA and H-LCAS calls, the application process, and the various suborbital research platforms (rocket-powered or balloon launch vehicles) available. For ROSES-2023, NASA's Science Mission Directorate (SMD) and the [Flight Opportunities](#) program are augmenting and complementing NASA's traditional suborbital research capabilities available from the Balloon Program Office and Sounding Rocket Program Office with the addition of a suite of NASA-contracted commercial suborbital research capabilities. This expanded portfolio of rocket-powered vehicles and high-altitude balloons offers H-LCAS and APRA researchers additional suborbital platform options, expanded capabilities, and higher flight cadence to further enable innovative suborbital investigations and technology testing. Detailed information regarding the various platforms and their corresponding capabilities can also be found on the SMD [Suborbital Research webpage](#).

Suborbital investigations submitted to APRA or H-LCAS must include a brief Payload Reference Document (PRD) at the time of proposal submission that provides basic information about the envisioned suborbital payload, including flight test objectives and payload size. The PRD form has been posted under other documents on the NSPIRES webpages for APRA and H-LCAS. For those that cannot attend, the webinar will be recorded and posted online on the SMD [Suborbital Research webpage](#).

Wednesday, September 6, 2023

9:00 a.m. PT

Join link: <https://nasaevents.webex.com/nasaevents/j.php?MTID=mdde5fb50de0b28ea5d720ce5836339c9>

Webinar number: 2760 122 2016

Webinar password: uFbkv88HYg3 (83258884 from phones and video systems)

Join by phone:

+1-415-527-5035 United States Toll

+1-312-500-3163 United States Toll (Chicago)

Access code: 276 012 22016

Direct questions to Lucas Moxey at lucas.e.moxey@nasa.gov.

Visit the Flight Opportunities [Community of Practice webpage](#) to access recordings from previous webinars and stay up-to-date on future topics.

Recent Flight

NASA TechRise Student Challenge Tests Experiments in Stratosphere

Students from 30 middle and high schools selected for NASA's [TechRise Student Challenge](#) watched their experiments launch in late July aboard a high-altitude balloon, marking the culmination of months of hard work.

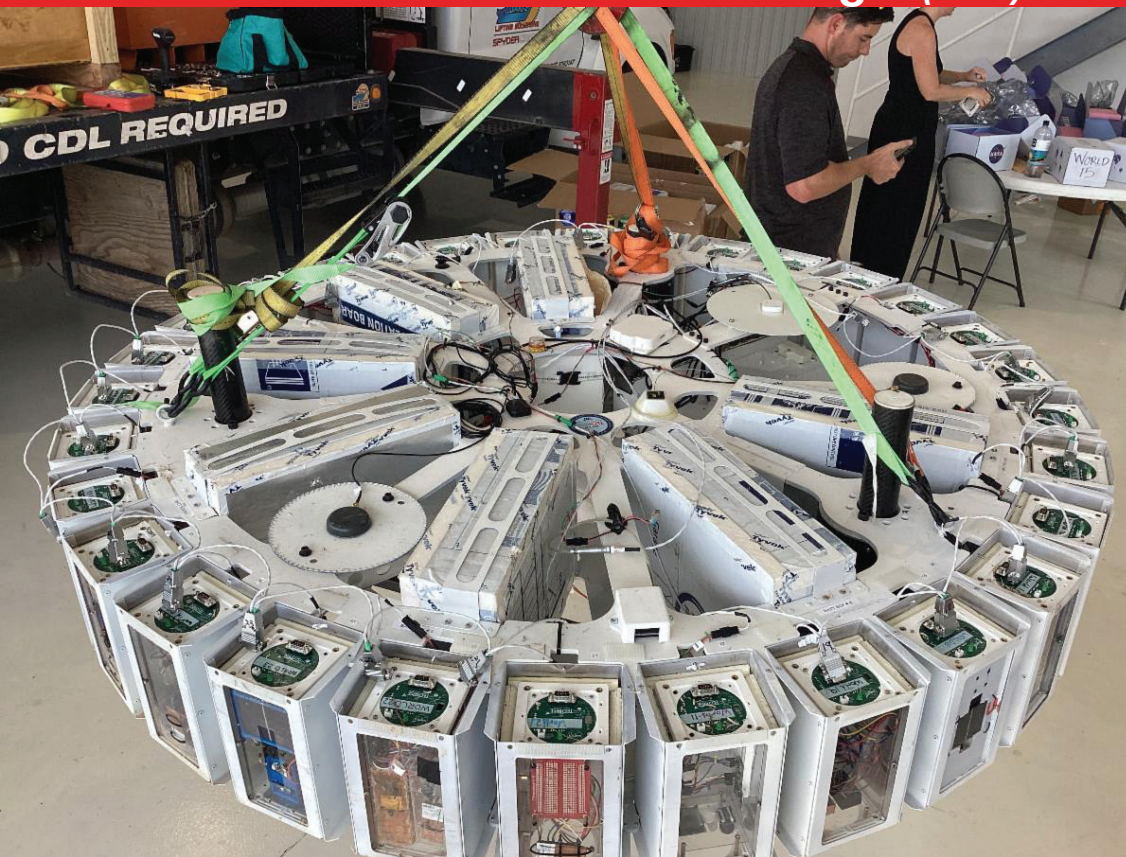
[TechRise](#) – led by NASA's [Flight Opportunities](#) program and administered by Future Engineers – allows student teams to participate directly in the process by giving them the chance to design and build experiments for suborbital flight. This flight was the latest in [a series for TechRise payloads](#) this summer and beyond.

“It’s incredible to see what the students do. We ask them to design the experiment, and then build and prepare it so it’s flight-ready within a period of about four months,” said Danielle McCulloch, program manager for Flight Opportunities at [NASA's Armstrong Flight Research Center](#) in Edwards, California. “Along the way, they have to learn from their mistakes and overcome challenges to bring it all together – following the same process used by all other Flight Opportunities-supported researchers.”

The high-altitude balloon from Tucson-based World View launched from Page, Arizona. Student projects flew for over four hours in the stratosphere at approximately 96,000 feet – more than twice as high as commercial planes fly – enabling data collection by experiments in areas such as pollutants in the atmosphere, machine learning in low Earth orbit, climate change, air quality, and other space exploration and Earth observation topics. Read on for information on how to get involved in the next TechRise challenge!

[Read the full NASA feature.](#)

Recent Flight (cont)



These 30 student experiments, housed in a World View zero-pressure balloon gondola, flew in the stratosphere above Page, Arizona, for more than four hours on July 24, 2023, as part of the NASA TechRise Student Challenge.
Credits: NASA/Paul De León

Opportunities

Now Open: NASA TechRise 2023-24

NASA is calling on middle and high school students across the country to submit experiment ideas for a high-altitude balloon or rocket-powered lander test flight in the third TechRise Student Challenge.



TechRise is open to students in grades six to 12 attending U.S. public, private, or charter schools – including those in U.S. territories. It offers participants hands-on insight into the payload design and suborbital flight test process, with the goal of inspiring a deeper understanding of space exploration, Earth observation, coding, electronics, and the value of test data.

“NASA’s TechRise Student Challenge is one of the many exciting ways we’re engaging with the Artemis Generation,” said NASA Administrator Bill Nelson. “The process of designing flight experiment proposals encourages students to think big and realize that their talents and creativity will be key in the future of humanity’s exploration.”

Managed by NASA’s Flight Opportunities program and administered by Future Engineers, the challenge invites teams of four or more students, under the guidance of an educator, to design science and technology experiments for suborbital flight. Sixty winning teams will be selected to turn their proposed experiment ideas into reality. Winners will receive \$1,500 to build their experiments, a 3D printed flight box in which to build it, and an assigned spot for their payload on a NASA-sponsored flight test. Experiment ideas must be submitted no later than October 20, 2023.

[Read the full NASA feature.](#)
[Learn about the Challenge and how to enter.](#)

Now Open: CubeSat Launch Initiative

NASA has announced a **new round of opportunities** for CubeSat developers to have their research spacecraft fly on upcoming launches through the agency's **CubeSat Launch Initiative (CSLI)**.

The initiative provides access to space at a low cost to U.S. educational institutions; nonprofits with an education/outreach component; informal educational institutions (museums and science centers); and NASA centers – including the agency's Jet Propulsion Laboratory in southern California – focused on workforce development. CSLI encourages participation by Minority Serving Institutions.



Those selected will develop their skills in hardware design, development, and build knowledge in operating the CubeSats. “Working with CubeSats is a way to get students interested in launching a career in the space industry,” said Jeanie Hall, CSLI program executive at NASA Headquarters in Washington. “It’s hands-on experience that enables students, teachers, faculty, and NASA to conduct scientific investigations and technology demonstrations in space while contributing to NASA’s exploration goals.”

Applicants must submit proposals by 5 p.m. EST, Nov. 17, 2023. NASA expects to make selections by March 15, 2024, for flight opportunities in 2025-2028, although selection does not guarantee a launch opportunity. Applicants are responsible for funding the development of the small satellites.

[View the launch opportunities.](#)
[Read the full NASA feature.](#)

Resource

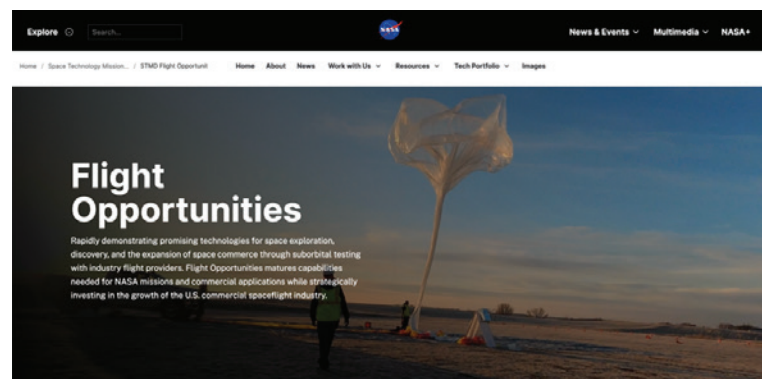
We’re Testing Our New Flight Opportunities Website!

NASA is beta testing its new website, and you can help! We’ve reorganized the **Flight Opportunities pages** to make it easier than ever to find helpful information about the program. Take it for a spin and let us know if you have problems finding anything. You’ll also get a sneak peek at our new **Lessons Learned Library** that’s full of great tips and sound bites from Flight Opportunities researchers, NASA experts, and commercial flight providers.

[Visit the new website.](#)

Send comments to:

nasa-flightopportunities@mail.nasa.gov





Appalachian Space Technology & Research Advancement Conference (ASTRA-Con)

September 14-16, 2023

Morehead, Kentucky

ASTRA-Con highlights innovations in aerospace technology and research and provides a collaboration space for companies, researchers, and students. Registration is limited, so don't wait! Christopher Baker, Program Executive for NASA's Flight Opportunities and Small Spacecraft Technology portfolio, will be presenting at the keynote session on Thursday with Acting Associate Administrator for NASA's Space Technology Mission Directorate, Dr. Prasun Desai. NASA Administrator Bill Nelson will present at Friday's keynote session.

NASA Innovative Advanced Concepts (NIAC) 2023 Symposium

September 19-21, 2023

Houston, Texas

NASA's NIAC Program seeks innovative, technically credible advanced concepts that could one day change the possible in aeronautics and space. The portfolio addresses diverse research areas including: Revolutionary Exploration Systems; Novel Propulsion, Human Systems & Architectures for Extreme Environments; Sensors, and Imaging. This year's symposium will feature progress presentations from currently funded Phase I-III fellows and keynote addresses from government officials, scientists, and visionary thinkers.

ASCEND

October 23-25

Las Vegas, Nevada

ASCEND connects the civil, commercial, and national security space sectors, along with adjacent industries, to embrace the opportunities and address the challenges that come with increased activity in space. The conference enables technical exchanges, debates, and collaboration to help forge a sustainable off-world future. Members of the Flight Opportunities and Small Spacecraft Technology program teams will lead a discussion on the complementary role that suborbital flight testing and orbital platforms hosting payloads play in the rapid testing of space technologies.

Annual Meeting of the American Society for Gravitational and Space Research (ASGSR)

November 14-18, 2023

Washington, D.C.

The ASGSR annual meeting brings together the biological and physical space sciences community to share research, build collaborations, and discuss emerging issues in the field. ASGSR welcomes scientists and engineers from all career stages. The Flight Opportunities team will have a session at the meeting. Stay tuned for details.

American Geophysical Union Annual Meeting

December 11-15, 2023

San Francisco, California

The AGU annual meeting convenes 25,000 attendees from 100+ countries to share research and connect with scientists and colleagues. Scientists, educators, policymakers, journalists, and communicators attend AGU to better understand our planet and environment and collaborate on solutions for global challenges. This year's conference theme is: *Wide. Open. Science.* Flight Opportunities will be supporting an innovation session on commercial suborbital flight testing.

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NASA-FlightOpportunities@mail.nasa.gov

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NASA Flight Opportunities Program

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