NASA's Flight Opportunities Program
NASA Townhall at the 2023 Small Satellite Conference | August 7, 2023

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Flight Opportunities Program Manager
NASA's Armstrong Flight Research Center

EXPLORE SPACE TECH

THROUGH SUBORBITAL FLIGHT

The Flight Opportunities program rapidly demonstrates promising technologies for space exploration, discovery, and the expansion of space commerce through suborbital testing with industry flight providers.

EXPLORE SPACE TECH

WITH SMALL SPACECRAFT

The Small Spacecraft Technology program expands the ability to execute unique missions through rapid development and demonstration of capabilities for small spacecraft applicable to exploration, science and the commercial space sector.

COMMERCIAL VEHICLES MAKE FLIGHT OPPORTUNITIES POSSIBLE

Rocket-Powered Vehicles

High-Altitude Balloons

Parabolic Flights

Vertical Takeoff Vertical Landing (VTVL) Vehicles

Orbital Platforms Hosting Payloads

FLIGHT OPPORTUNITIES

NASA TECHFLIGHTS

Includes topic areas that address agency and mission goals; up to $1M to purchase flights on suborbital or hosted orbital platforms directly from any eligible U.S. commercial flight provider

NASA TechLeap PRIZE

Challenges addressing specific NASA technology needs; previous awards have been up to $650K to build payloads, plus access to a suborbital flight test

NASA TECHRISE STUDENT CHALLENGE

Competition to inspire the next generation of space researchers; offers hands-on insight into the design and test process used by NASA-supported researchers

FLIGHTS OF OPPORTUNITY

Through collaborative internal and external relationships, the program takes advantage of opportunities to flight test valuable space technologies

Agency Initiatives

To increase access to test opportunities in relevant environments, Flight Opportunities collaborates with other NASA initiatives like **SMD's ROSES and SOMD's SubC** to help them leverage the commercial flight ecosystem

Open now:

Suborbital/Hosted Orbital Flight and Payload Integration Services

Due: Aug. 28 at 12 pm PT

sam.gov/opp/e1372cc0103f421cbf69a59b538b4d81/view

CLOSE TECHNOLOGY GAPS WITH NASA

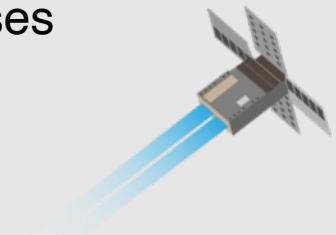
The portfolio rapidly moves innovative solutions from benchtop to flight test.

We support a wide range of innovators from:

- Academia
- Non-profit research institutes
- Industry
- Government

Including…

- Entrepreneurs
- Commercial space companies
- Small businesses
- Students



Researchers with existing U.S. government support can contact the programs directly to discuss flight testing:

Small Spacecraft Technology
ARC-SST@mail.nasa.gov

Flight Opportunities:
NASA-FlightOpportunities@mail.nasa.gov

TechPort

Match your solution to available funding opportunities:

techport.nasa.gov/opportunities

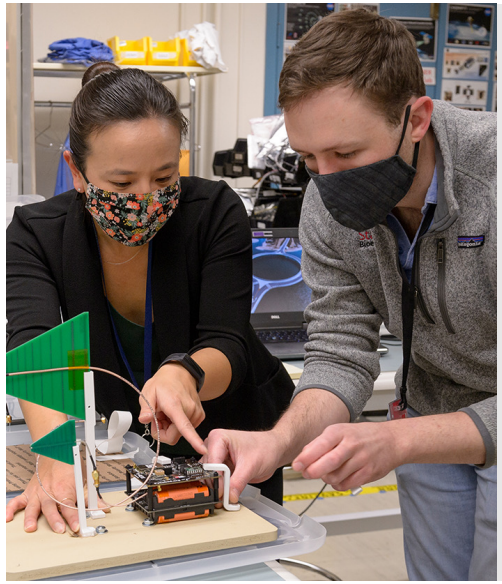
FLIGHT TEST HIGHLIGHTS OF SMALL SPACECRAFT TECHS

Montana State University

Radiation-tolerant computing technology for spacecraft

Advanced through University SmallSat Technology Partnership and Flight Opportunities

CSLI, ISS, and CLPS infusions

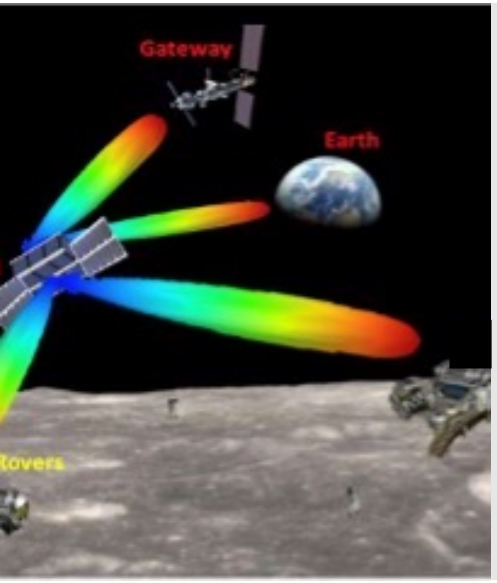


V-R3x, Stanford, and NASA Ames

Advanced swarm communications tech

Orbital flight test in Jan 2021

High-altitude balloon test in March 2021

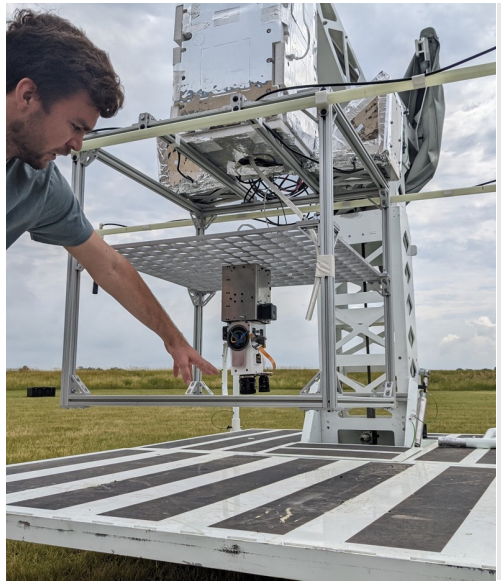


San Diego State

Ongoing University SmallSat Technology Partnership

Commercial 5G technologies to provide LunaNet relay nodes with high gain, high data rate, multi-point communications without physical pointing mechanisms

Upcoming high-altitude balloon flight test via Flight Opportunities



TechLeap Autonomous Observation Challenge No. 1

3 teams selected to build and flight test autonomous observation technologies for small spacecraft

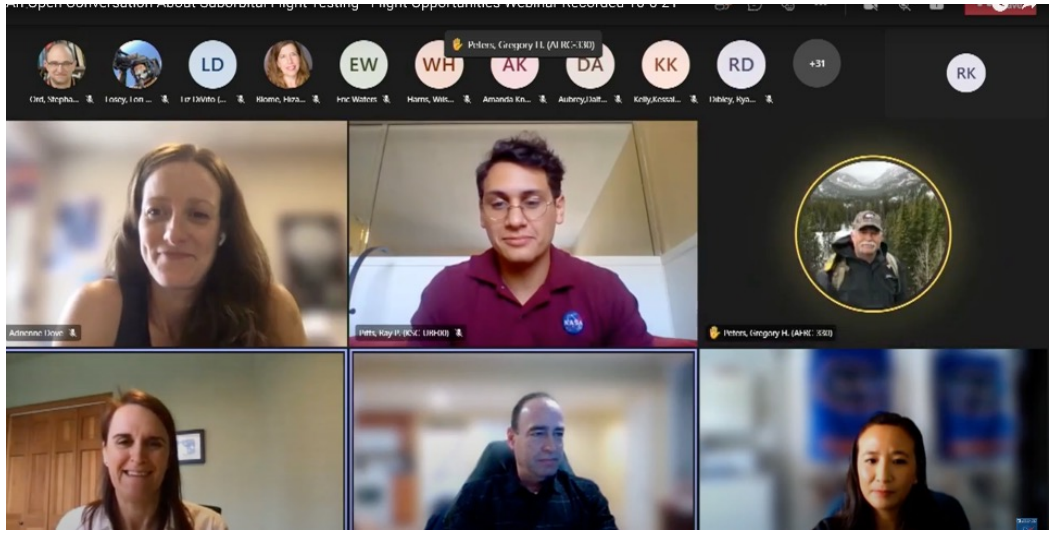
Tested via high-altitude balloon flights in July 2022, with long-duration re-flight in July 2023

SUPPORTING THE FLIGHT TEST COMMUNITY

Community of Practice Webinars

Designed to distill and share most important lessons learned by suborbital researchers.

First Wednesday of each month 10 am PT



October 6, 2021 Community of Practice -
An Open Conversation About Suborbital Flight Testing

Flight Opportunities Newsletter

www.nasa.gov/flightopportunities

NASA

Flight Opportunities

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In This Issue:

- **Recent Flights:** Big Goals, Small Package: Enabling Compact Deliveries from Space; Parabolic Flights Provide Relevant Environment for Testing Flight Opportunities-Supported Technologies
- **Community of Practice:** June webinar: From the Mojave Desert to Jezero Crater; Introducing Lessons from the Launchpad – a new monthly column featuring trusted tips for successful flights
- **Opportunities:** Recently announced: CASIS Research Announcement for Technology Advancements; Upcoming: Tech Flights 2021 solicitation, Two new NASA prize-based competitions; Closing soon: CASIS Research Announcement for In-Space Production Applications
- **Events:** Join Flight Opportunities Chief Technologist Stephan Ord for CRASTE next month

Enjoy!
The Flight Opportunities team

Recent Flights

The Near Space Corporation launch team completes pre-flight rigging and checks at the Madras Municipal Airport in Madras, Oregon. Credits: Near Space Corporation

HELP NASA IDENTIFY TECHNOLOGY GAPS

Contribute to:

Small Spacecraft Technology State of the Art Report

nasa.gov/smallsat-institute/sst-soa

Offer feedback:

Strategic Technology Framework

Go - Land - Live - Explore - Lead

techport.nasa.gov/framework

STAY ENGAGED:

NASA.GOV/FLIGHTOPPORTUNITIES

NASA.GOV/SMALLSPACECRAFT

Visit our websites for more information and resources, including our newsletter and monthly Community of Practice webinars.

Reach out:

NASA-FlightOpportunities@mail.nasa.gov