



EXPLORE SPACE TECH

NASA's Flight Opportunities Program

NASA Townhall at the 2024 Small Satellite Conference | August 5, 2024

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EXPLORE SPACE TECH

THROUGH SUBORBITAL AND HOSTED ORBITAL FLIGHT

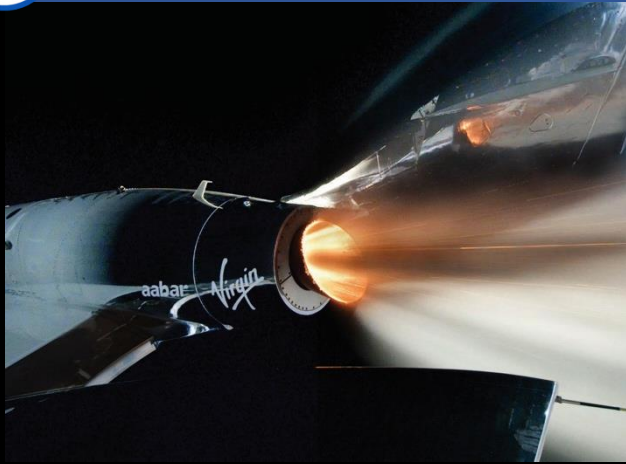
The **Flight Opportunities** program rapidly demonstrates promising technologies for space exploration, discovery, and the expansion of space commerce through suborbital and hosted-orbital testing with industry flight providers.



NASA FLIGHT OPPORTUNITIES PROGRAM COMMERCIAL TEST PLATFORMS



Rocket-Powered Vehicles



Credits: Virgin Galactic



High-Altitude Balloons



Credits: World View Enterprises



Parabolic Flights



Credits: University of California, Berkeley



Vertical Takeoff Vertical Landing (VTVL) Vehicles



Credits: Lauren Hughes/NASA



Orbital Platforms Hosting Payloads



Credits: Varda

Suborbital Rocket-Powered Vehicles

- Astrobotic
- Blue Origin
- Virgin Galactic
- Rocket Lab

High-Altitude Balloons

- Aerostar International, Inc.
Recently acquired Near Space Corp.
- Angstrom Designs
- World View Enterprises

Orbital Platforms

- Astro Digital
- Loft Orbital
- Momentus Space
- Rocket Lab
- SpaceX
- Spire
- Tyvak Nano-Satellite Systems
- Varda

CLOSE TECHNOLOGY SHORTFALLS WITH NASA

TechPort

Match your solution to available funding opportunities:

techport.nasa.gov/opportunities



Flight Opportunities and Small Spacecraft Technology utilize a variety of mechanisms to mature innovative solutions from **proof-of-concept, to benchtop, to flight.**

We want to work with **academia, non-profit research institutes, and industry**, as well as **entrepreneurs, small businesses, and students** in order to close our technology gaps.



Pathways to flight test for researchers with existing support:
Contact the programs directly.



Catalysts: Mechanisms to Advance Technologies and Address Shortfalls

STMD uses a variety of tools and mechanisms to address capability shortfalls and nurture the knowledge and talent base for civil space while also supporting agency level functions



Contracts



Grants and Cooperative Agreements



Internal Awards



Challenges



Flight Tests



Funded / Unfunded Space Act Agreements

Cross-Cutting Activities (Inclusive Innovation, NASA I-Corps) and Other Tools

NASA Innovative Advanced Concepts

Center Innovation Fund / Early Career Initiative

Space Technology Research Grants

Prizes, Challenges, and Crowdsourcing

Tipping Point

Announcement of Collaboration Opportunity

Small Business Innovation Research / Small Business Technology Transfer

Flight Opportunities

Technology Transfer

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

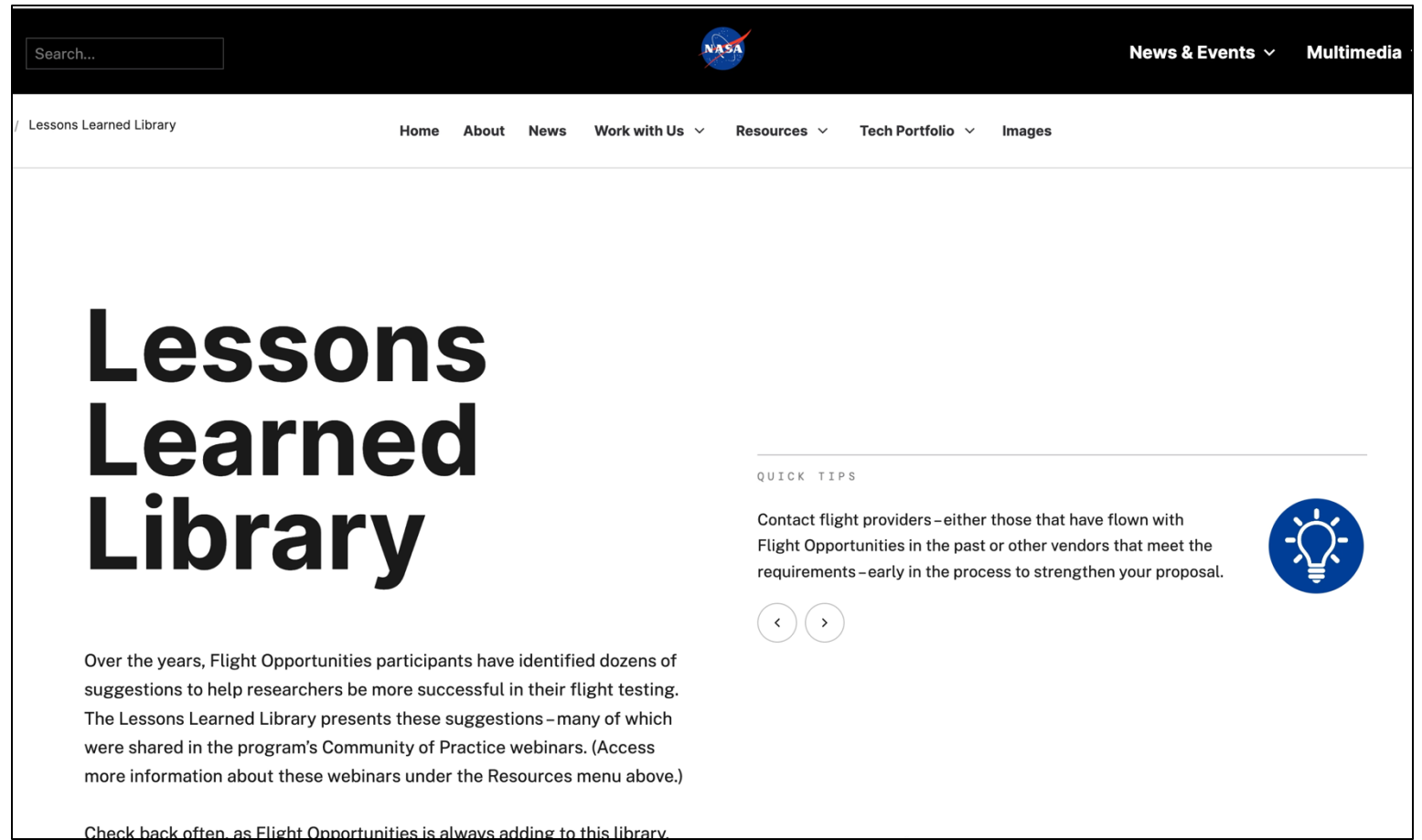


An ongoing collection of best practices and suggestions to help researchers optimize their flight test outcomes

Designed to support researchers as they move through each part of the flight testing process:

- Preparing proposals
- Step-by-step suggestions for getting ready to fly
- Interacting with flight providers
- Best practices for payload design
- Top tips for each type of flight platform

Practical tips are linked to helpful clips from the program's monthly Community of Practice webinar.



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Lessons Learned Library

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Lessons Learned Library

QUICK TIPS

Contact flight providers - either those that have flown with Flight Opportunities in the past or other vendors that meet the requirements - early in the process to strengthen your proposal.



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Over the years, Flight Opportunities participants have identified dozens of suggestions to help researchers be more successful in their flight testing. The Lessons Learned Library presents these suggestions - many of which were shared in the program's Community of Practice webinars. (Access more information about these webinars under the Resources menu above.)

Check back often, as Flight Opportunities is always adding to this library.

STAY ENGAGED:

[NASA.GOV/FLIGHTOPPORTUNITIES](https://www.nasa.gov/flightopportunities)

[NASA.GOV/SMALLSPACECRAFT](https://www.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

