



# FLIGHT OPPORTUNITIES



ISSUE 89 — MARCH 2026

Webinar this Wednesday | First hosted orbital flight test | In-space wifi technology transition | Open challenges | Upcoming events

## COMMUNITY OF PRACTICE WEBINAR

### Advancing Space Power Capabilities Through Flight Tests – Join us tomorrow!

Wednesday, April 1 • 1–2 p.m. ET

Join this webinar to hear about a new hydrogen fuel cell technology that may provide a potentially important power capability that can operate efficiently in extreme environments from Earth’s ocean floor to the Moon and beyond.

Teledyne Energy Systems, Inc., advanced its Hydrogen Electrical Power System (HEPS) via **parabolic flights** and a **suborbital rocket flight** — all supported by Flight Opportunities with its fly-fix-fly ethos.

During this 1-hour webinar, representatives from Teledyne, NASA’s Glenn Research Center, and Flight Opportunities will discuss these flight tests and share lessons learned.



*Bill Doig (left) and Brianna Warrenfeltz (right) operating the Teledyne EDR fuel cell water separator experiment during a reduced-gravity parabola on the first day of testing.*

*Credits: Zero Gravity Corporation*

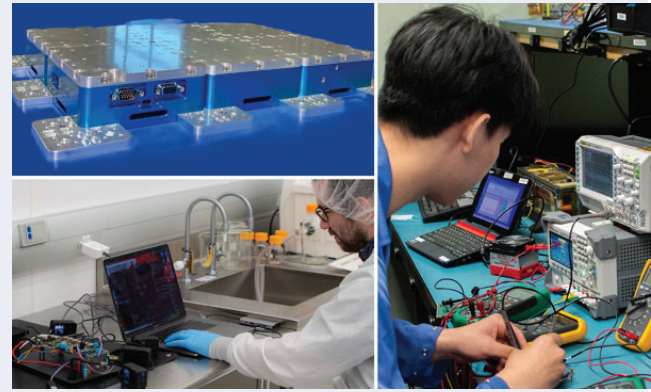
Learn about our Apr. 1 webinar

# ON-DEMAND WEBINARS

## Watch our past webinars on demand!

These webinars share best practices and important lessons learned from suborbital and orbital researchers, flight providers, and NASA personnel experienced in using flight tests to advance technologies.

Our Mar. 4, 2026, webinar is now available: [TechLeap Universal Payload Interface Challenge: Spotlight on Winning Solutions](#)



Watch our on-demand webinars

## RECENT FLIGHT TEST

### Testing Smaller, Lighter Power Conversion

#### *Hosted orbital flight test marks milestone for program capabilities*

The Flight Opportunities program's first hosted orbital flight test will help advance a smaller, lighter weight power processing technology designed to transform power ranging from 1 to 100 kW for a variety of spacecraft systems. The payload launched to low Earth orbit on Monday, March 30 via the SpaceX Falcon 9 rocket as part of the Transporter-16 commercial rideshare mission from Vandenberg Space Force Base in California.

The flight test aboard Momentus Space's Vigoride-7 mission will expose the Electric Power Intelligent Conversion (EPIC) technology developed by CisLunar Industries to significant thermal and radiation effects in low Earth orbit. CisLunar Industries will verify EPIC's performance in these conditions by sending their data to the ground through the Momentus mission operations center and uplinking new configurations as needed.

[Learn more](#) about how this technology could help enable in-space manufacturing and dynamic space operations, including electric, dual-mode, and other forms of electric propulsion.

The mission also involves a demonstration of in-space wifi with Flight Opportunities heritage — see the [“Suborbital Tests Prepare In-Space Wifi for Low Earth Orbit”](#) article below.



*The SpaceX Falcon 9 launched the Transporter-16 mission to low Earth orbit from the Vandenberg Space Force Base in California on March 30. Credits: SpaceX*

Read about this hosted orbital flight test

Interested in hosted orbital flight testing? [Watch this webinar to learn more about Flight Opportunities hosted orbital capabilities.](#)

## TECHNOLOGY TRANSITIONS

### Suborbital Tests Prepare In-Space Wifi for Low Earth Orbit

In addition to the power converter flight test (story above), an in-space wifi router matured through NASA's Flight Opportunities program made its orbital debut aboard Vigoride-7 on March 30, illustrating how suborbital flight testing advances technology readiness for space missions.

To help meet the vast need for in-space communications, Solstar Space Company developed satellite communications technology that uses commercial satellite networks to provide internet and voice communications for people and payloads in space — essentially in-space wifi.

With support from Flight Opportunities, Solstar tested its technology aboard a high-altitude balloon, a sounding rocket, and a suborbital launch vehicle. Now, it's taking the next step on an orbital mission.



*A rendering of Santa Fe-based Solstar Space Co.'s Deke Space Communicator communicating with a small satellite in low Earth orbit. Credits: Solstar Space*

[Read about the Solstar technology transition](#)

## OPEN CHALLENGES



### Mars to Table Food Challenge

NASA's newest Deep Space Food Challenge seeks concepts for food systems that could be used on the surface of Mars as well as on the Moon

**Register by July 31, 2026**

**Total Prizes: \$750,000**

[Learn about the food challenge](#)



### NASA Space to Soil Challenge

Small satellite technologies for regenerative agriculture, sustainable forestry, and land resilience

**Submit by May 4, 2026**

**Total Prizes: \$400,000**

[Learn about the soil challenge](#)

# Attending any of these upcoming meetings? Let us know!

## NASA's Human Research Program Investigators' Workshop

- **April 7-9** | Virtual event

## Space Symposium

- **April 13-16** | Colorado Springs, Colorado and virtual
- Attending in person? Let us know and look out for our team. NASA's Flight Opportunities and Space Technology Mission Directorate leadership will be attending this event.

## Lunar Surface Innovation Consortium (LSIC) Spring Meeting

- **April 28-30** | Washington, DC and Laurel, Maryland (Johns Hopkins University Bloomberg Center and Applied Physics Laboratory) and virtual

## NASA Flight Opportunities Program

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

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