



Flight Opportunities



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Dear Flight Opportunities community,

Spring is in full swing — and so is the latest NASA Tech Flights solicitation. This month, we're covering this and more:

- A reminder for those who submitted mandatory abstracts for the current Tech Flights solicitation: full proposals are due April 26
- Information about the recent [Exos Aerospace test launch](#)
- [Staff news](#), including a spotlight on Program Manager John Kelly
- New [resources](#), including a presentation from our recent Tech Flights information sessions and more
- Information about upcoming [conferences and events](#)

As always, thank you for being a valuable part of the Flight Opportunities community.

Looking forward,
The Flight Opportunities Team

Opportunities

Tech Flights Proposals Due April 26

Thank you to those of you who submitted a mandatory abstract for NASA's Tech Flights solicitation seeking innovative payloads for testing on suborbital vehicles. (If you did *not* submit an abstract, start thinking about proposal ideas for the next opportunity.)

We want to remind you that **full proposals are due no later than April 26, 2019 at 5 p.m. EDT**. Please be sure to give yourself enough time to complete the entire submission process before then. All proposal material must be submitted via [NSPIRES](#).

Questions about the process?

- View the [solicitation FAQ](#)
- Take a look at the [slides presented during our recent Q&A sessions](#)
- Read our [quick tips for drafting a successful proposal](#)

At the time of your submission, you will have an opportunity to answer a few questions to provide feedback to NASA about the 2019 Tech Flights solicitation. These responses will be used to inform future solicitations.

For assistance with NSPIRES, contact:

NSPIRES Help Desk
nspires-help@nasaprs.com
202-479-9376

Exos Aerospace Completes SARGE Vehicle Launch Test



The SARGE rocket is seen from below, shortly after launch from Spaceport America. Credit: Exos Aerospace

Exos Aerospace completed its SARGE Reuse “Mission 1” test launch at Spaceport America, New Mexico on March 2. The flight aimed to be the first suborbital reuse launch with an altitude over 80 km for both the company and for its SARGE (Suborbital Autonomous Rocket with Guidance) vehicle. Among the payloads onboard was the SPACE-2 experiment from the University of Central Florida (UCF), flown on SARGE with support from Flight Opportunities.

SPACE-2, which stands for Suborbital Particle Aggregation and Collision Experiment-2, is designed to observe clustering of dust particles in space, with researchers observing collisions of particles at various speeds and sizes. The aim? To help scientists better understand how dust behavior impacts planet formation, as well as that of small solar system bodies like asteroids and comets. This knowledge will also help explorers anticipate the structure and composition of these bodies on future exploration missions.

While the launch itself was successful, the flight was aborted early (at about 65,000 feet) having reached the maximum instantaneous impact point (IPP) limit. The flight abort helped to further prove SARGE’s autonomous control system capability to maintain flight safety. In addition, the launch enabled Exos to gather critical flight data that will enable design advancements for its vehicle. While the target altitude was not reached, the landing was soft, enabling Exos to return the payloads onboard to their respective organizations for analysis and upgrade before re-flight. The company is aiming for a next flight attempt later this year.

Spotlight: Flight Opportunities Program Manager John Kelly

In late 2018, Flight Opportunities welcomed John Kelly back to the program in the role of program manager. We sat down with John to get his thoughts on how the program has changed over the years, and his goals moving forward.

You originally worked with the Flight Opportunities program as program manager back in 2010. How has the program changed since then?

Initially, Flight Opportunities matched technology payloads to commercial vehicles. We've now moved to a principal investigator (PI)-oriented model where recipients of a NASA Tech Flights award have the opportunity to identify a suitable commercial vehicle and engage directly with the flight provider to execute their flight testing. These vehicles are adding to the breadth of flight profiles and capabilities that PIs have access to and the data they can gather to help mature their technologies. This new PI-centric model and the increasing number of commercial vehicles combine to give Flight Opportunities the promise of attracting a healthy supply of promising technologies. These innovations will in turn contribute to NASA's goals as well as the expansion of space commerce.



Program Manager John Kelly

Can you share how your vision for the program is beginning to take shape?

It is my vision to maintain a healthy supply of high-quality technologies coming in to the program pipeline that can help NASA achieve its mission objectives. The latest Tech Flights solicitation provides for a significant increase in individual award amounts. This should generate a higher quantity of proposals, resulting in more high-quality technologies entering the program. With a steady supply of technologies ready to fly, Flight Opportunities is also poised to successfully stimulate transactions in the commercial space market — an objective of the program.

What do you see as the biggest challenge for the commercial space community at the moment?

The challenge is to determine the true size of the marketplace, which will in turn determine the number of viable suppliers. Commercial suborbital flight providers offer services that NASA needs to perform payload testing, and NASA will continue to consume those services so long as they are provided.

And the greatest opportunity?

With NASA's renewed emphasis on returning to the Moon, as well as a manned mission to Mars, commercial suborbital flight providers have an opportunity to serve the technology development community to help us get there. Commercial providers are ideally positioned to get those technologies up the readiness curve prior to infusion into NASA's missions to the Moon and Mars.

In Memorium: Gregory Noffz

It is with great sadness that we relay the passing of our friend and colleague, Flight Opportunities Chief Engineer Gregory Noffz. The Flight Opportunities team knew Greg as a kind, forthright professional with vast knowledge, always ready to lend a hand wherever needed. His dry humor and wit, intelligence, and unique outlook on life will be missed by all.

If you knew Greg and would like to share memories with his family, [you can submit them via an online memorial site here](#).



In Memorium: Gregory Noffz

Resources

Presentations, Reports, and More Online

The Flight Opportunities [resources page](#) is updated regularly with current fact sheets, reports, and presentations -- many of which may be useful for those of you considering or working on solicitation proposals. Be sure to check out the recent Tech Flights solicitation Q&A presentation now online, as well as our annual reports and more.

The poster features a large image of a white parachute canopy against a dark background. In the top right corner, the NASA logo and the text "National Aeronautics and Space Administration" are visible. Below the main image is a grid of six smaller photos: a group of people in a meeting, a person in a lab, a person in a flight suit, a person in a lab, a person in a flight suit, and a person in a lab. The text on the poster reads: "NASA Flight Opportunities Program Tech Flights 2019 – Q & A Sessions". Below this, the facilitators are listed: "Facilitators Technology Manager – Steve Ord Program Manager – John Kelly Program Executive – Chris Baker Chat Monitor – Jennifer Thomson". The date "March 6 – 7, 2019" is at the bottom right.

**NASA Flight Opportunities Program
Tech Flights 2019 – Q & A Sessions**

Facilitators
Technology Manager – Steve Ord
Program Manager – John Kelly
Program Executive – Chris Baker
Chat Monitor – Jennifer Thomson

March 6 – 7, 2019

Mark your calendar...



Flight Opportunities team members will be attending these upcoming events:

- **Space Access**, Fremont, CA, April 18-21, 2019
- **Kirtland Air & Space Fiesta**, Albuquerque, NM, May 18, 2019
- **Spacetech Expo**, May 20-22, 2019

If you will be attending any of these events, **let us know** — we'd welcome the opportunity to meet you!

Have ideas or feedback for the Flight Opportunities newsletter?

Drop us a line at: NASA-FlightOpportunities@mail.nasa.gov

STAY CONNECTED:



NASA Flight Opportunities Program

650-604-5876 (Stephen Ord - Technology Manager) | www.nasa.gov/flightopportunities

Flight Opportunities is part of the Commercial Partners Portfolio of NASA's Space Technology Mission Directorate.