



Flight Opportunities

Next-Generation Suborbital Researchers Conference

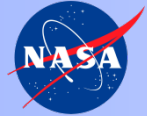
Suborbital Grant Writing

June 2-4 2016

NASA Flight Opportunities Program

Technology Manager – Stephan Ord





Flight Opportunities Call/Solicitation Overview

Goal of Internal Calls and External Solicitations

- Demonstrate crosscutting space technologies in relevant space-like environments using currently available U.S. commercial reduced gravity, high-altitude balloon, and suborbital reusable flight capabilities

External

(Use Any Qualified Flight Vehicle)

SpaceTech-REDDI NRA Appendix F1 Solicitation

Universities

Private Entities (for-profit)

Private Entities (non-profit)

FFRDCs (incl. NASA JPL)

Foreign Entities

w/ Lead U.S. Partner



Internal

(Use IDIQ-2 Contract Flight Vehicles)

NASA Internal Call

STMD Programs

(e.g. GCD, NRA, CIF, SBIR, SST)

Other Mission Directorates

(e.g. ROSES, HOPE, USIP, HERO)

Other Government Agencies

(e.g. FAA)



Call/Solicitation Overview

Eligibility

- TRL 4 at time of submission - hardware should already have been bench tested
- U.S. entities (for-profit & non-profit)
- Foreign entities when in partnership with a U.S. entity – U.S. entity must be lead

Key Dates

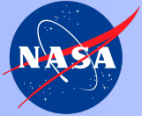
- External Calls – 2 per year
- Internal Calls – 4 per year

REDDI F1 Award Details

- Awards up to \$300K
 - Max \$250K for allowable flight costs (flight costs + indirect costs related to flight cost only)
 - Max \$50K for other costs (indirect costs, travel, labor, materials to build flight hardware)
 - Max amounts include any indirect costs if applicable
 - Researchers contract directly with Flight Providers for flights

NASA Internal Award Details

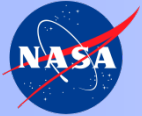
- FO provides flight from flight providers currently on contract with FO
- Max \$50K for other costs (no Civil Service travel or labor)



Call/Solicitation Overview

Topics

- **Topic 1: Demonstration of Space Technology Payloads**
 - Technologies that address one or more needs described in Space Technology Roadmaps (STRs) , National Research Council (NRC) recommendations, Strategic Space Technology Investment Plan (SSTIP), and STMD focus areas
- **Topic 2: Demonstration of Vehicle Capability Enhancements and Onboard Research Facilities for Payload Accommodation**
 - Demonstration of new or enhanced onboard facilities for commercial suborbital reusable launch vehicles, reduced gravity aircraft, and high altitude balloons that will [improve or enable use vehicles for science research and/or technology flight test applications](#)



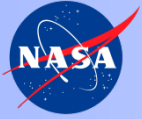
Evaluation Criteria Overview

REDDI F1 Evaluation Criteria

- **Criterion 1 - Relevance to U.S. Space Exploration and Utilization (40%)**
 - Alignment
 - Comparison to State of the Art
 - Infusion Potential
- **Criterion 2 - Technical Approach (35%)**
 - TRL Assessment
 - Technology Development Plan
 - Includes degree of support/funding provided to date **by other sponsors**
 - **Demonstrate flight test is required**
 - Flight Test Plan
 - Qualifications and Capabilities
- **Criterion 3 - Cost, Value, and Schedule (25%)**
 - Cost – i.e. test plan makes optimal use of flight(s))
 - Value
 - Technology reduces mission and life-cycle costs, increases safety, or reduces risk, etc.
 - Potential to benefit more than one customer or mission type
 - Extent of cost-sharing provided by proposer
 - Schedule



Important for STMD
investment decision



Evaluation Criteria Overview

NASA Internal Call Evaluation Criteria

- **Criterion 1 - NASA Mission Directorate Sponsorship**
- **Criterion 2 - Relevance to U.S. Space Exploration and Utilization**
- **Criterion 3 – Comparison to State of the Art**
- **Criterion 4 – Past Performance**



Important Things to Communicate

Technology Need

- Describe current state of the art
- Describe need for improvement
- Describe **how your technology will advance the state of the art**
- What will I now be able to do?

Technology Concept

- Describe your technology – how does your technology work
- If the technical review panels don't understand how your technology works, it's difficult to evaluate

Flight Test Plan

- Make sure that you have worked out the flight test with the flight provider – minimum number of parabolas, minimum altitude, etc.



NSPIRES Can be Daunting

Get Started Early!!

NSPIRES - NASA Research Opportunities Online - Mozilla Firefox

File Edit View History Bookmarks Tools Help

nspires.nasaprs.com/external/

NSPIRES - NASA Research Opportunities...

Home NASA Research Help Login

NSPIRES

NASA Solicitation and Proposal Integrated Review and Evaluation System

NSPIRES Time: Nov 27, 2012 02:50PM EST

NSPIRES Home

- Solicitations

Getting Started

- NSPIRES Help
- Getting an Account

Help Desk

If you need help or have any questions regarding the NSPIRES website, please contact the NSPIRES Help Desk at (202) 479-9376 Monday through Friday, 8:00 AM to 6:00 PM EST/EDT, or by email at nspires-help@nasaprs.com.

NASA Web Sites

Click for Links

NASA Research Opportunities

Supporting research in science and technology is an important part of NASA's overall mission. NASA solicits this research through the release of various research announcements in a wide range of science and technology disciplines. NASA uses a peer review process to evaluate and select research proposals submitted in response to these research announcements. Researchers can help NASA achieve national research objectives by submitting research proposals and conducting awarded research. This site facilitates the search for NASA research opportunities.

NASA Research

- [Solicitations](#)
- [Getting Started](#)

Search for and view open, closed, past, and future NASA research announcements. The full text of the [solicitation announcements](#) can be viewed and downloaded.

Solicitations and selected proposals for years prior to NSPIRES implementation, January 1, 2005, were posted manually; therefore, some postings for years 2000-2004 may not be as complete as those posted through the NSPIRES system from 2005 to the present.

Research.gov

[Research.gov](#) is a partnership of federal research-oriented grant making agencies. Research.gov is led by the National Science Foundation.

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This is a U.S. Government computer. By accessing and using the computer system, you are consenting to the use of system monitoring. Unauthorized use of, or access to, this computer system may subject you to disciplinary action and criminal prosecution.

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Site News

Gmail and NSPIRES email

Your Gmail could be flagging NSPIRES emails as Spam.

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Tutorials and User Guides

Tutorials and user guides are found by clicking the Help tab at the top of any NSPIRES web page.

NRA/CAN Proposer's Guidebook

Available online

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Curator: NASA Research and Education Support Services
NASA Official: [Roger L. Sachse](#)
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NSPIRES Lessons Learned

Organization Registration

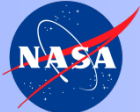
- Registering an org in NSPIRES can take several days
- Org must first be registered in System for Award Management (SAM)
- Start at least two weeks before proposal deadline to make sure enough time
- See NSPIRES FAQ on Organization Registration for more info

Member Registration

- All investigators named on proposal cover page typically have to be registered in NSPIRES
- Registering for individual account is quick, but to affiliate with your organization (required for Principal Investigator), the org has to approve affiliation – may delay process
- See NSPIRES FAQ on Member Registration for more info

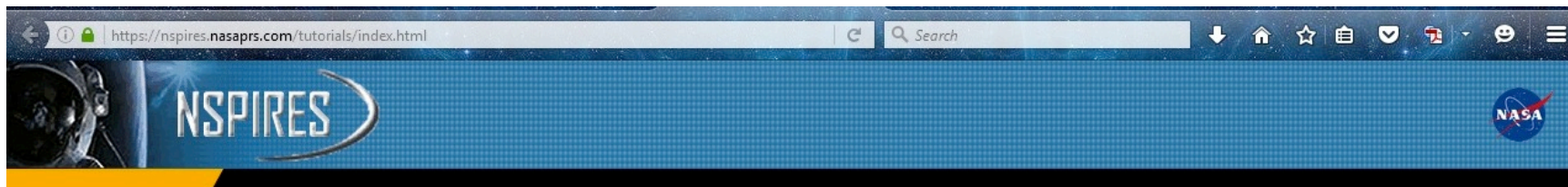
Proposal Submission

- Proposal submission process is complex and involves multiple steps
- You are strongly encouraged to begin process well in advance of deadline
- Principal Investigator releases prepared proposal (proposal document upload and NSPIRES cover page elements) to organization, and Authorized Organizational Representative is person who submits proposal to NASA
- Coordination between PI and AOR is essential to submit proposals on time



NSPIRES Tutorials

<https://nspires.nasaprs.com/tutorials/>



NSPIRES Tutorials and User Guides

Close Window

Using the tabs below, you may access online tutorials on "General Information", "Proposals and NOIs" and "Organizations". These tutorials require special software described in the box called "Tutorial Requirements" immediately to the right. Also available, under "User Guides", are manuals in PDF format that explain typical scenarios and highlight enhancements to existing processes.

Help

If you have any questions or concerns regarding the tutorials, please contact the NSPIRES Help Desk at (202) 479-9376, or by email at nspires-help@nasaprs.com.

Tutorial Requirements

The tutorials for NSPIRES require a Javascript-enabled browser and use Flash for both animation and navigation. We recommend the following to get the full benefit of the tutorials:

- [Macromedia Flash plug-in 7.0 or higher](#)
- Screen size of 1024x768 or greater

General Information

Proposals and NOIs

Organizations

User Guides

> [Lesson 1: General Information](#)

Learn about NASA's overall mission and programs in relation to the solicitations and proposals process.

> [Lesson 2: Introduction to NSPIRES](#)

Learn how NSPIRES can help you create and submit proposals to NASA through this introduction to the basic modules of this web application.

> [Lesson 3: Organizations](#)

Learn about the various roles within an organization, such as EBPOC, OAO, and OPOC, and how they participate in the proposal process. This lesson also defines the term affiliation.

> [Lesson 4: Members](#)

Learn about the roles of Principal Investigator (PI), team member and support staff and how they participate in the proposal process. This lesson also defines the term associations.

> [Lesson 5: Proposals](#)

Learn about the characteristics of a proposal, proposal sources, parts of a proposal, tips for writing proposals, and requirements for submitting proposals to NASA.

> [Basic Navigation before Registration](#)

Learn how to navigate within NSPIRES before becoming a registered member.

> [User Registration](#)

Learn how to register for a personal NSPIRES account.

> [Basic Navigation after Registration](#)

Learn how to navigate within NSPIRES after becoming a registered member.

