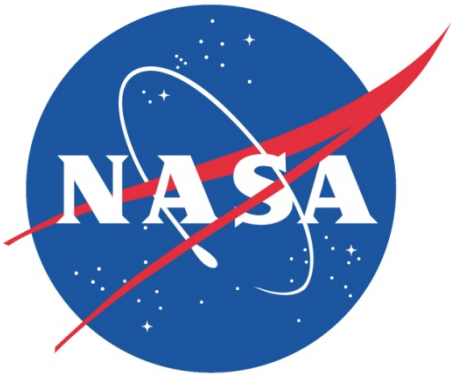
OMB Control Number 2700-0088



# National Aeronautics and Space Administration
# Office of Education

## NASA Cooperative Agreement Notice (CAN)

## Experimental Program to Stimulate Competitive Research (EPSCoR)

## International Space Station (ISS) Flight Opportunity

Announcement Number: NNH14ZHA002C
Catalog of Federal Domestic Assistance (CFDA) Number: 43.008

**Release Date:** **January 27, 2014**
**Proposals Due:** **March 27, 2014**

NASA Headquarters
Office of Education
Washington, DC 20546-0001

**Summary of Key Information**

The National Aeronautics and Space Administration (NASA) Office of Education, in cooperation with the International Space Station (ISS) Research Office, solicits proposals that utilize the ISS as a microgravity platform or test bed for a spaceflight demonstration. This Cooperative Agreement Notice (CAN or solicitation) is for current or previously funded EPSCoR projects that are mature enough to design a research experiment or develop research experimental hardware to the point that it can be safely flown on the ISS. Each funded NASA EPSCoR proposal is expected to perform scientific and/or technical research in areas that support NASA's strategic research and technology development priorities and contribute to the overall research infrastructure, science and technology capabilities, higher education, and economic development of the jurisdiction.

Utilization of the ISS will further strengthen the relationships between NASA and the EPSCoR jurisdictions in the pursuit of national priorities for the advancement of Science, Technology, Engineering, and Mathematics (STEM). Jurisdictions are encouraged to create relationships with faculty and students from underrepresented and underserved groups and to establish partnerships and collaborations with minority-serving institutions.

**Solicitation Availability**

This announcement is accessible through the NASA Solicitation and Proposal Integrated Review and Evaluation System (NSPIRES) and through Grants.gov.
To access through NSPIRES, go to http://nspires.nasaprs.com and click on Solicitations.
To access through Grants.gov, go to http://www.grants.gov/search/agency.do and select the link for NASA.

**Selection Process and Selecting Official**

This selection will be a two step process. In the first step, the proposals will be evaluated by the NASA EPSCoR staff for scientific feasibility and benefit of microgravity flight. Those proposals selected in the first step will then proceed to the second step, where they will be evaluated by the ISS Program for inclusion of the proposed project on the ISS flight manifest. At the end of the second step, the recommended selected proposals will be presented to the Associate Administrator for Education for approval, who is the selecting official for this CAN.

**Funds Availability**

The Government's obligation to make an award is contingent upon the availability of appropriated funds from which payment can be made.

**Number and Size of Awards**

It is anticipated that five (5) awards of up to $100,000 each to be expended over a three-year period of performance may be made under this Notice pursuant to the authority of the *NASA Grant and Cooperative Agreement Handbook* (http://prod.nais.nasa.gov/pub/pub_library/grcover.htm), Section 1260.12(d). The number of exact awards depends on the available EPSCoR Budget.

**NASA Safety Policy**
The objectives of the NASA Safety Program are to protect the public, NASA workforce, high-value equipment and property, and the environment from potential harm as a result of NASA activities and operations by factoring safety as an integral feature of programs, projects, technologies, operations, and facilities.

**Proposal Submission**
All information needed to respond to this solicitation is contained in this announcement. Within the Agency, NASA Research Announcements (NRAs) and Cooperative Agreement Notices (CANs) are types of solicitations used to solicit proposals for grants and cooperative agreements. The main difference between an NRA and a CAN is that a CAN involves more interaction between NASA and the recipient. For this opportunity, a Cooperative Agreement, rather than a grant, will be awarded. . The procedures and processes that proposers follow when responding to CANs and/or NRAs are the same.

**Inquiries**
Technical and scientific questions about programs in this CAN may be directed to:

EPSCoR Related:
Jeppie R. Compton
Project Manager, NASA EPSCoR
Office of Education
NASA Kennedy Space Center, HQ EX-E
Kennedy Space Center, FL 32899-0001
E-mail: jeppie.r.compton@nasa.gov
Telephone: (321) 867-6988

ISS Capabilities/Integration Process:

Willie B. Williams
Research Portfolio Manager
ISS NASA Research Office
NASA, Johnson Space Center, OZ2
Houston, Texas 77058
E-mail: willie.b.williams@nasa.gov
Telephone: (281) 244-7579

**Release Date:** **January 27, 2014**
**Proposals Due:** **March 27, 2014**

# Table of Contents

## 1.0 Description of Opportunity

### 1.1 Technical Description

The National Aeronautics and Space Administration (NASA) Office of Education, in cooperation with the International Space Station (ISS) Program solicits proposals that utilizes the ISS as a microgravity platform or test bed for a spaceflight demonstration. This solicitation is for current or previously funded EPSCoR projects that are mature enough to design a research experiment or develop research experimental hardware to the point that it can safely be flown on the ISS. Each funded NASA EPSCoR proposal is expected to perform scientific and/or technical research in areas that support NASA's strategic research and technology development priorities and contribute to the overall research infrastructure, Science, Technology, Engineering, and Mathematics (STEM) capabilities, higher education, and economic development of the jurisdiction.

The program parameters are:

- This first opportunity is open to all EPSCoR jurisdictions with current mature or completed EPSCoR research projects. All NASA EPSCoR jurisdictions may propose against this solicitation. Up to two proposals that represent current mature or completed EPSCoR research projects will be accepted from the EPSCoR Director at each lead institution.
- It is estimated that up to five (5) proposals may be selected for funding per paragraph 1.3 below (EPSCoR Eligibility and Proposal Acceptance).
- The maximum funding request per proposal is $100,000. This amount is to be expended over a three-year period.
- There is no cost share requirement for this opportunity.

This solicitation is being announced in electronic form through the NASA Solicitation and Proposal Integrated Review and Evaluation System (NSPIRES) and through Grants.gov.

To access the CAN through NSPIRES, go to http://nspires.nasaprs.com and click on Solicitations.

To access the CAN through Grants.gov, go to http://www.grants.gov/search/agency.do and select the link for NASA.

Proposals will be submitted in electronic form to the EPSCoR Project Office via Agency-EPSCoR and in original, signed form to the NASA EPSCoR Program Office at NASA HQ.

### 1.2 EPSCoR and ISS Background

EPSCoR

Public Law 102-588, passed in 1992, authorized NASA to initiate NASA EPSCoR to strengthen the research capability of jurisdictions that have not in the past participated equably in competitive aerospace research activities. The goal of NASA EPSCoR is to provide seed funding that will enable jurisdictions to develop an academic research enterprise directed toward long-term, self-sustaining, nationally-competitive capabilities in aerospace and aerospace-related research. This capability will, in turn, contribute to the jurisdiction's economic viability and expand the nation's base for aerospace research and development.

Based on the availability of funding, NASA will continue to help jurisdictions achieve these goals through NASA EPSCoR. Funded jurisdictions will be selected through a merit-based, peer-review competition.

The following are the specific objectives of NASA EPSCoR:

- Contribute to and promote the development of research capability in NASA EPSCoR jurisdictions in areas of strategic importance to the NASA mission;
- Improve the capabilities of the NASA EPSCoR jurisdictions to gain support from sources outside the NASA EPSCoR program;
- Develop partnerships among NASA research assets, academic institutions, and industry;
- Contribute to the overall research infrastructure, STEM capabilities, higher education, and economic development of the jurisdiction; and
- Work in close coordination with the Space Grant consortium in the jurisdiction to improve the environment for STEM education.

International Space Station (ISS)

Utilization of the ISS will further strengthen the relationships between NASA and the EPSCoR jurisdictions in the pursuit of national priorities for the advancement of STEM. This utilization of the ISS will also open new paths for the jurisdictions to compete for and win much larger spaceflight research projects.

The ISS international partnership includes the United States, Russia, Japan, Canada, and Europe. The ISS, including its large solar arrays, spans the area of a U.S. football field, including the end zones, and weighs 827,794 pounds. The complex has more livable room than a conventional five-bedroom house, and has two bathrooms and a gymnasium. The ISS provides the microgravity (less than $10^{-5}$g) environment in a work volume accessible to the ISS crew of astronauts. The broader ISS Program provides launch capabilities, crew time, training, data downlink, commanding, thermal control and electrical power. General information about the International Space Station is available at: http://www.nasa.gov/mission_pages/station/main

### 1.3 EPSCoR Eligibility and Proposal Acceptance

The National Science Foundation (NSF) determines overall jurisdiction eligibility for NASA EPSCoR. Details regarding general eligibility are available at: http://www.nsf.gov/od/oia/programs/epscor/eligible.jsp.

The following jurisdictions are eligible to submit up to two proposals to this NASA EPSCoR solicitation: Alabama, Alaska, Arkansas, Delaware, Idaho, Iowa, Kansas, Kentucky, Louisiana, Maine, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, North Dakota, Oklahoma, Puerto Rico, Rhode Island, South Dakota, Tennessee, Utah, Vermont, West Virginia, and Wyoming (Note: Iowa, Tennessee, and Utah are ineligible to compete in EPSCoR competitions following this solicitation).

South Carolina may submit an additional proposal, provided it is from the US Virgin Islands (which currently falls under South Carolina's jurisdiction).

While proposals can be accepted only from institutions for which the NASA EPSCoR Directors are currently serving, all institutions of higher education within the jurisdiction *having current or*

*completed EPSCoR Research projects* (funded since 2007) should be given the opportunity and must be made aware of this NASA EPSCoR CAN.

### 1.4 Period of Performance

NASA EPSCoR awards will support a three-year cooperative agreement. It is anticipated that this period of performance will enable the researchers to achieve the performance task objectives of the microgravity flight as stated in the original proposal and/or any amendments submitted with annual progress reports and accepted by the NASA EPSCoR project office.

### 1.5 Connections between the NASA's EPSCoR and the ISS

NASA EPSCoR, through the Jurisdiction's Research projects, will provide the ground-based research. All proposed projects have previously been selected for NASA EPSCoR Research funding. Approximately $750,000 was provided by NASA and $375,000 provided by the jurisdiction. All proposed projects must be mature enough to transition to a flight experiment with little or no additional NASA funding.

Through this solicitation, the ISS will provide the integration and flight opportunity. There are a variety of laboratory facilities and capabilities designed to support a range of scientific disciplines on the space station. A general overview of the research facilities and capabilities is at http://www.nasa.gov/sites/default/files/files/ISS_Overview_HSTI.pdf. ISS experts will evaluate a proposal's potential for integration and flight based on:

| Criterion | Strong | Average | Weak |
|---|---|---|---|
| Feasibility | No impediment | Minor impediment | Major impediment |
| Time to flight | Less than 1 year | Less than 2 year | More than 2 year |
| Crew time requirements | No crew involvement beyond installation and removal | Requires less than 1 hour of crew intervention per increment period (6 months) | Requires more than 1 hour of crew intervention per increment period (6 months) |
| Power requirements | None | Less than 500w | More than 500w |
| Physical Space Requirements | Fits in 3U CubeSat (100mm X 100mm X 340.5mm) | Fits in a single Express Rack Locker | Bigger than a single Express Rack Locker |
| Funding Feasibility * | Sufficient budget to complete experiment | Budget risks exist that must be addressed | Insufficient budget to complete experiment |

* No proposer is required to fund launch costs or the use of space station laboratory facilities. However, proposers are required to fund the cost of their research equipment/hardware unless such hardware is already available in the NASA/ISS inventory. Proposers will also be responsible for providing data for the required flight documentation. For guidance, please see this brief tutorial at http://www.nasa.gov/pdf/750523main_How_To_Do_ISS_Research_22_May_2013.pdf (specifically the inputs required on pages 5 through 8). For further explanation of these products, please contact Willie Williams at willie.b.williams@nasa.gov.

## 2.0 Project Overview and Guidelines

### 2.1 General

Each selected NASA EPSCoR flight project must perform scientific and/or technical research in areas that support NASA's strategic research and technology development priorities. Proposals should emphasize how a flight in microgravity will influence/improve the results/quality of the ground based research.

### 2.2 Funding and Cost-Sharing

The maximum funding that can be requested from NASA by a jurisdiction is $100,000 per proposal. This amount is to be expended over three years in accordance with the budget details and budget narrative in the approved proposal.

Cost-sharing is not required. However, the proposer must be aware of costs such as hardware and/or software development, documentation development support (data to the ISS) that is not covered by this award.

### 2.3 Restrictions

In addition to the funding guidelines and requirements in the *NASA Guidebook for Proposers* and the *Grant and Cooperative Agreement Handbook*, the following restrictions govern the use of the federally-provided NASA EPSCoR funds and are applicable to this CAN:

- Page length - Proposals should not exceed 20 pages.
- Funds may not be used to fund research carried out by non-U.S. institutions. U.S. research award recipients may, however, directly purchase supplies and/or services that do not constitute research from non-U.S. sources. However, subject to export control restrictions, a foreign national may receive remuneration through a NASA award for the conduct of research while employed either full or part time by a U.S. institution. For additional guidance on foreign participation, see Section 1.6 of the *NASA Guidebook for Proposers*, the NASA FAR Supplement (NFS) Part 1835.016-70 and this document's Appendix E, Section E.6.1 Assurance of Compliance – China Funding Restriction.
- NASA EPSCoR funds from this solicitation are not allowed to be used for foreign travel. Foreign travel is allowed under the *original EPSCoR research award* for the meaningful completion of the proposed investigation, as well as for reporting results at appropriate professional meetings. As stated in the research award, foreign travel to meetings and conferences in support of the jurisdiction's NASA EPSCoR research project is an acceptable use of NASA EPSCoR funds, with an upper limit of $3,000 per trip for up to two separate years of a jurisdiction's proposal (i.e., the maximum amount the jurisdiction can request for foreign travel is $3,000 total in any one year and a limit of $6,000 total for each research proposal). EPSCoR support should be acknowledged by the EPSCoR research project number in written reports and publications. Note that domestic travel does not have a limit. Domestic travel, defined as that travel which does not require a passport, should be appropriate and reasonable to conduct the proposed research.
- The construction of facilities is not an allowable cost in any of the programs solicited in this CAN. For further information on allowable costs, refer to the cost principles cited in the *Grant and Cooperative Agreement Handbook*, 14 CFR §1260.127.

- NASA EPSCoR funding cannot be used to purchase general purpose equipment, e.g. desktop workstations, office furnishings, reproduction and printing equipment, etc. as a direct charge. Special purpose equipment purchases (i.e., equipment that is used only for research, scientific, and technical activities directly related to the proposed research activities) are allowed and can be reflected as a direct charge as per NASA *Grants and Cooperative Agreement Handbook*, 14 CFR § 1260.27.
- NASA EPSCoR funding may not be used to support NASA civil service participation (FTE) in a research project unless that funding is provided through a funding vehicle between the jurisdiction and NASA center, such as a Space Act Agreement or other reimbursable agreement. NASA EPSCoR cannot hold back funding from an award to send to a center for FTE support (including travel).

**2.4 Special information relative to this solicitation**

Researchers from proposals selected for this ISS opportunity must attend an ISS 2-day workshop (Date TBD) at the ISS Program Office located at Johnson Space Center (JSC) in Houston, TX.

Experiments must fit within the mass and volume constraints of existing ISS launch vehicles and must adhere to ISS integration requirements. Experiments can be launched pressurized or unpressurized. The proposer should include specific requirements for mass, volume, power, and data from the ISS. Cartoon drawings or photographs of any flight hardware should be included.

All ISS flight experiments must undergo a 3-phase safety review process and provide a letter certifying the experiment is safe for flight. This is a very stringent safety review process that can be accomplished via Webex, but travel to JSC is preferred. IT IS STRONGLY SUGGESTED THAT ALL SELECTED PROJECTS APPOINT A SAFETY REPRESENTATIVE to interface with NASA safety experts, provide the required documentation, and lead the project's safety review at JSC.

The use of NASA EPSCoR funds for support of research students is allowable and encouraged, and must be detailed in the Budget Justification and described in the narrative and evaluation sections of the proposal. NASA ISS funding for students/faculty may become available but is not promised in this solicitation. Any ISS funding will be a case-by-case decision.

Travel is required to meet ISS requirements. Proposers should plan as a minimum to travel to the ISS workshop at JSC, possibly to the flight safety reviews at JSC, and for payload launch and installation, if required.

If post flight labs are required, the ISS looks to the jurisdictions to provide the lab support. Funding requirements: The selected research project will be an existing EPSCoR project (funded since 2007). NASA ISS will fund the required use of its equipment, ISS research integration, and the up and down flight to the ISS.

Jurisdictions will be asked to provide funding/resources for the research project's faculty, students, and PIs; the basic (ground) research; and program integration documentation inputs and any specific hardware not already available in the ISS Program inventory.

The following documents are available online at the address shown:

International Space Station Facilities and Accommodations Overview.
http://www.nasa.gov/pdf/558162main_ISS%20Overview_HSTI.pdf
Overview of Attached Payload Accommodations and Environments on the International Space Station. http://www.nasa.gov/pdf/190373main_TP-2007-214768.pdf

Reference Guide to the International Space Station.
http://www.nasa.gov/pdf/508318main_ISS_ref_guide_nov2010.pdf

### 2.5 Partnerships and Interactions

All existing EPSCoR projects in eligible jurisdictions must be made aware of this solicitation. *All proposals must be submitted through the jurisdiction's NASA EPSCoR Director's office*. Existing EPSCoR awards already demonstrate partnerships or cooperative arrangements among academia, government agencies, business and industry, private research foundations, jurisdiction agencies, and local agencies. There is no requirement to repeat this effort; however, addition of faculty and students from underrepresented/underserved groups is encouraged.

As in the original research proposals, statements of commitment and letters of support are important components of the proposal. NASA does not, however, solicit or evaluate letters of endorsement. Review the *NASA Guidebook for Proposers* for distinctions among statements of commitment, letters of support, and letters of endorsement.

## 3.0 Program Management

### 3.1 NASA EPSCoR Program and Project Levels

The NASA EPSCoR is a component of the Aerospace Research and Career Development Program administered by the Office of Education at NASA Headquarters. NASA EPSCoR Program Management is closely coordinated with NASA Headquarters program offices (research and educational) and the Centers.

NASA EPSCoR Project Management resides at the Kennedy Space Center (KSC). NASA EPSCoR Project Management has the overall responsibility for oversight, evaluation, and reporting. Technical and scientific questions about programs in this solicitation may be directed to the NASA EPSCoR Project Manager.

The primary points of contact for this solicitation are listed in Appendix D.

### 3.2 Jurisdiction Level

The jurisdiction's NASA EPSCoR Director will serve as the managing Principal Investigator (PI) on the award, providing leadership and direction for the team from an oversight role. The submitting and awardee institution will be that of the jurisdiction's NASA EPSCoR Director. The Director is responsible for oversight and overall management of the project to assure compliance with NASA EPSCoR and ISS administrative requirements. The Director is responsible for ensuring the timely reporting by the team of progress and accomplishments of its work. The Science-I should be listed as the technical POC and Mission Manager for ISS integration and flight.

The Government's obligation to continue any award is based on satisfactory progress as detailed in the recipient's required annual progress reports. The research proposal can include a reasonable

level of funding for management, administrative, and oversight function of the jurisdiction's NASA EPSCoR Director. This amount, if required, must be included in the $100,000 proposal limit.

### 3.3 Schedule

The schedule for the review and selection of proposals for this announcement is as follows:
Release Date: January 27, 2014
Proposals Due: March 27, 2014

### 3.4 Cancellation of Program Announcement

NASA Office of Education reserves the right to not make awards under this CAN and to cancel this CAN. NASA assumes no liability (including bid and proposal costs) for cancelling the CAN or for any entity's failure to receive actual notice of cancellation.

### 3.5 Inquiries

Technical and scientific questions about this CAN may be directed to:

EPSCoR Project Office
Jeppie R. Compton
Project Manager, NASA EPSCoR
Office of Education/EX-E
Kennedy Space Center, FL 32899-0001
E-mail: jeppie.r.compton@nasa.gov
Telephone: (321) 867-6988

ISS Capabilities/Integration Process:
Willie B. Williams
Research Portfolio Manager
ISS NASA Research Office
NASA, Johnson Space Center, OZ2
Houston, Texas 77058
E-mail: willie.b.williams@nasa.gov
Telephone: (281) 244-7579

## 4.0 Proposal Review and Selection

### 4.1 Evaluation Criteria

The evaluation criterion is as follows:

EPSCoR Project Office:
All proposals will be reviewed by the NASA Office of Education staff and ISS flight research experts following procedures similar to those used for NASA EPSCoR proposals. Proposals will be evaluated based on:

- Intrinsic merit of microgravity requirement (What is the added value by flying on the ISS)
- Approach to flight safety process
- Budget (should be adequate, appropriate, reasonable, and realistic, and demonstrate the effective use of funds in alignment with the proposed projects).

ISS Program

Proposals recommended by the EPSCoR Project Office will then be evaluated by ISS Program personnel based on the following:

Feasibility
Time to flight
Crew time requirements
Power requirements
Physical Space requirements
Budget

### 4.2 Review and Selection Processes

This selection will be a two-step process. In the first step, the proposals will be evaluated by the NASA EPSCoR staff for scientific feasibility and benefit of microgravity flight. Those proposals selected in the first step will then proceed to the second step, where they will be evaluated by the ISS Program personnel for inclusion of the proposed project on the ISS flight manifest. At the end of the second step, the recommended selected proposals will be presented to the Associate Administrator for Education, who is the selecting official for this CAN.

### 4.3 Selection Announcement

NASA's stated goal is to announce selections as soon as possible. However, NASA does not usually announce new selections until the funds needed for those awards are approved through the Federal budget process. Therefore, a delay in NASA's budget process may result in a delay of the selection date(s). After 180 days past the proposal's submitted date, proposers may contact the NASA EPSCoR Project Manager for a status.

Notification of both the selected, as well as the non-selected proposals, will be consistent with the policy contained in the *NASA Guidebook for Proposers*, Section C.5.3. Proposers not selected will be notified by electronic mail and offered a debriefing consistent with the policy in the *NASA Guidebook for Proposers,* Section C.6.

## 5.0 Award Administration Information

### 5.1 Notice of Award

For selected proposals, a NASA Grants Officer will contact the business office of the proposer's institution. The NASA Grants Officer is the only official authorized to obligate the Government. For a grant or cooperative agreement, any costs that the proposer incurs in anticipation of an award will be subject to the *NASA Grant and Cooperative Agreement Handbook*, 14 CFR § 1260.125(e).

### 5.2 Administrative and National Policy Requirements

This solicitation does not invoke any special administrative or national policy requirements, nor do the resulting awards involve any special terms and conditions that differ from NASA's general terms and conditions as provided in the *Grant and Cooperative Agreement Handbook* and *the NASA Guidebook for Proposers*.

### 5.3 Award Reporting Requirements

The reporting requirements for awards made through this CAN will be consistent with the *Grant and Cooperative Agreement Handbook;* Exhibit G. Specific reporting requirements are described below.

**Annual Progress and Final Reports**
Jurisdictions will submit progress reports to the NSSC and Agency-EPSCoR on the results of Years-1&2 ISS flight integration activities no later than 60 days prior to the end of the first anniversary of the award. Reports must include the following information:

- Integration and flight achievements (if flown), results, and outcomes of the flight opportunity as defined by the metrics and expected outcomes stated in the proposal.
- Participant information to include: number, level, and demographics of institution, student and faculty participants, and longitudinal tracking of student participants. A final report on the analysis of flight data is required no later than 90 days after the anniversary date of the research on board the ISS being completed is required to the ISS Program. A final report is also required to the NSSC and Agency-EPSCoR no later than 90 days after the end of the award period and will document project activities over the entire period of the award as well as overall progress towards project objectives. The ISS staff, NASA EPSCoR staff, and a NASA Technical Monitor will review these progress reports.

Every effort will be made to streamline the reporting burden for these requirements, while complying with federal and education reporting requirements. NASA will provide specific formats and data entry forms to the respective jurisdictions.

At a minimum, progress reports will include grant title and number, and report on the following:

<u>Quantitative Data</u>

- Demographic (ethnicity/race and gender through self identification) information on participants
  - faculty – including names and institutions
  - post-doctoral, graduate, and undergraduate students
- Research success of individual investigators and projects as measured by:
  - articles submitted to or published in refereed journals
  - talks, presentations, or abstracts at professional meetings
  - theses and dissertations
  - technical transfer activities
  - partnerships, collaborations
  - other products (courses developed, websites, software and hardware, models, etc.)

<u>Narrative</u>

- Research accomplishments measured against the proposed goals and objectives
- Affect on jurisdiction research/development priorities:
  - how the EPSCoR Program has responded to the research and development priorities in the state/jurisdiction
  - how the EPSCoR Program has influenced the research and development priorities in the state/jurisdiction (mechanism and changes)
- The nature and extent of the interaction and cooperation between EPSCoR and the Space Grant Consortium in the jurisdiction

Accomplishments toward project goals will be evaluated by reference to indicators such as, but not limited to, the metrics outlined above. NASA may approve no-cost extensions when requested by the recipient in accordance with the *NASA Grant and Cooperative Agreement Handbook*.

The NASA EPSCoR project office will review the annual and final reports for completeness. Failure to provide an annual project report and/or final report will delay or preclude the participation of the respective jurisdiction in other funding opportunities related to NASA EPSCoR.

## 6.0 Updates and Submission Information

### 6.1 Announcement and Updates/Amendments to Solicitation

This solicitation will be announced via NSPIRES and Grants.gov, but submission will be directly to the EPSCoR project (electronic) and program offices (original, signed copy). Additional programmatic information for this CAN may develop before the proposal due date. If so, such information will be added as a formal amendment to this CAN as posted at its homepage on http://nspires.nasaprs.com.

**It is the responsibility of the prospective proposer to regularly check this CAN's homepage for updates.**

### 6.2 Electronic Submission of Proposal Information

Submit a single electronic file of the complete PDF document via electronic mail no later than 5:00 PM Eastern Time on March 27, 2014 to the following:
AGENCY-EPSCOR@mail.nasa.gov
Crystal.N.Bassett@nasa.gov

### 6.3 Signed, Original Submission Date and Time

One paper copy with original signatures should be received by NASA EPSCoR Office no later than March 27, 2014. Regular U.S. Post Office mail addressed to NASA Headquarters continues to be subjected to irradiation and significant delivery delays. We therefore recommend that you send your complete package via an express or commercial carrier or courier to:

LaTeicia Durham
Program Analyst, NASA EPSCoR Program Mail Suite 4Q20, Office of Education
ATTN: Receiving and Inspection (Rear of Building) NASA Headquarters
300 E Street, SW
Washington, DC 20546-0001

## 7.0 Proposal Preparation

Proposals should not exceed 20 pages. Required elements of the proposal are described below in the Proposal Evaluation Criteria and Selection Process sections (Section 8).

## 8.0 Proposal Evaluation Criteria and Selection Process

### 8.1 Summary of Evaluation Process

Successful research proposals are likely to be those that provide sound contributions to both immediate and long-term scientific and technical needs of NASA as explicitly expressed in current NASA documents and communications, as well as contribute to the overall research infrastructure, STEM capabilities, higher education, and economic development of the jurisdiction.

EPSCoR Project Office (Sections 8.2 through 8.4):

All proposals will be reviewed by the NASA Office of Education staff and ISS flight research experts following procedures similar to those used for other NASA EPSCoR proposals. Proposals will be evaluated based on:

- Intrinsic merit of microgravity requirement (What is the added value by flying on the ISS)
- Approach to flight and ground safety process
- Budget (should be adequate, appropriate, reasonable, and realistic, and demonstrate the effective use of funds in alignment with the proposed projects).

ISS Program (Section 8.5):
Proposals recommended by the EPSCoR Project Office for acceptance will then be evaluated by the ISS Program based on the following:

Feasibility
Time to flight
Crew time requirements
Power requirements
Physical Space requirements
Budget

Jurisdictions responding to this CAN may submit up to two proposals per paragraph 1.3 above.

### 8.2 Intrinsic merit of microgravity requirement (40% of score)

- Existing Research - If relevant, the narrative should include a brief history of the NASA EPSCoR Research project (include NSSC grant number).

- Benefit of a microgravity environment to the research - Proposals should provide a detailed technical narrative of the proposed research activity and the potential impact of a microgravity environment on the proposed research (Project Description, Microgravity Goals and Objectives, Anticipated Results, and Timeline).

### 8.3 Approach to flight and ground safety review process (40% of score).

The ISS Payload Safety Review Panel (PSRP) is an ISS Safety Review Panel (SRP) located at the JSC. The purpose of the PSRP is to ensure that the Payload Developer (PD) complies with the

technical and process safety requirements. More specifically, the PSRP performs the following functions:

- Assists the PD in the interpretation of safety requirements;
- Conducts safety reviews during appropriate phases of the payload development to assess the payload compliance to the relevant program safety and process requirements;
- Evaluates hazard assessment revisions resulting from modifications to payloads that may affect a safety critical subsystem or create a potential hazards to the crew, ISS, Space Shuttle, or other ISS/IP visiting vehicles;
- Evaluates the safety analyses, safety reports, and waiver/deviation requests prepared by the PD and elevates to Program Management (for approval) those non-compliances that are above the delegated authority of the PSRP;
- Ensures the resolution of payload safety issues, including (as required) the formation of splinter groups, subpanels, and/or coordination with other organizations to perform technical activities required to accomplish assigned responsibilities.

The PD is required to produce a Safety Data Package (SDP). The SDP usually contains two parts. Part one is descriptive text that contains information (usually drawings) to describe the payload, its systems, sub-systems, and interfaces, as well as flight and ground operations. It also summarizes hazard analyses used in the identification and control of payload hazards. Part two of the SDP is typically a hazard report. The hazard report is used to summarize controls and verifications to ensure compliance to safety requirements. Elements of a hazard report include technical requirement references, description of hazard, hazard category, hazard cause, hazard controls, and safety verification methods. More information can be found in the "Payload Developers and Principal Investigators Payload Planning, Integration and Operations Primer" at: http://www.nasa.gov/pdf/501115main_ISS_Payload_Integration_Process_Primer_final_submission_baseline.pdf.

### 8.4 Budget (20% of score)

A detailed budget is required for the three years of performance. A suggested format to use in preparing the proposed budget can be found in the *NASA Guidebook for Proposers*, Section 2.3.10. The budget will be evaluated based upon the clarity and reasonableness of the funding request. A budget narrative should be included that discusses other budgetary issues such as the extent and level of jurisdiction commitment and support, including resources (staff, facilities, laboratories, indirect support, waiver of indirect costs, etc.).

The proposed budget should be adequate, appropriate, reasonable, and realistic, and demonstrate the effective use of funds. The proposed budget should reflect clear alignment with the content and text of the proposal. The budget should contain sufficient cost detail and supporting information to facilitate evaluation.

### 8.5 ISS Program vetting of select proposals.

Proposals recommended by the EPSCoR Project Office for acceptance will be evaluated by ISS Program personnel based on the following; A maximum of ten (10) points will be awarded per the following table:

| Criterion | Strong (10 points) | Average (5 points) | Weak (0 points) |
|---|---|---|---|
| Feasibility | No impediment | Minor impediment | Major impediment |
| Time to flight | Less than 1 year | Less than 2 year | More than 2 year |
| Crew time requirements | No crew involvement beyond installation and removal | Crew intervention required less than once per 1hr period per increment period (6 months) | Crew intervention required more than once per 1hr period per increment period (6 months) |
| Power requirements | None | Less than 500w | More than 500w |
| Physical Space Requirements | Fits in 3U CubeSat (100mm X 100mm X 340.5mm) | Fits in a single Express Rack Locker | Bigger than a single Express Rack Locker |
| Funding Feasibility | Sufficient budget to complete experiment | Budget risks exist that must be addressed | Insufficient budget to complete experiment |

Appendix A: NASA Strategic Approach

## A.1 NASA Strategic Plan

The NASA 2011 Strategic Plan includes the focus on the development of Science, Technology, Engineering, and Mathematics (STEM) disciplines along with the engagement of academic institutions and students in accomplishing the vision and mission of NASA. NASA contributes to national efforts for achieving excellence in STEM education through a comprehensive education portfolio implemented by the Office of Education, the Mission Directorates, and the NASA Centers. NASA will continue the Agency's tradition of investing in the Nation's education programs and supporting the country's educators who play a key role in preparing, inspiring, exciting, encouraging, and nurturing the young minds of today that will manage and lead the Nation's laboratories and research centers of tomorrow.

NASA Strategic Goals, Outcomes, and Objectives relevant to education

- Strategic Goal 5: Enable program and institutional capabilities to conduct NASA's aeronautics and space activities.
  - Outcome 5.1: Identify, cultivate, and sustain a diverse workforce and inclusive work environment that is needed to conduct NASA missions.
    - *Objective 5.1.2: Provide opportunities and support systems that recruit, retain, and develop undergraduate and graduate students in STEM-related disciplines.*

- Strategic Goal 6: Share NASA with the public, educators, and students to provide opportunities to participate in our Mission, foster innovation, and contribute to a strong national economy.
  - Outcome 6.1: Improve retention of students in STEM disciplines by providing opportunities and activities along the full length of the education pipeline.
    - *Objective 6.1.1: Provide quality STEM curricular support resources and materials.*
    - *Objective 6.1.2: Provide NASA experiences that inspire student interest and achievement in STEM disciplines.*
    - *Objective 6.1.3: Assess grant recipient institutions throughout the education pipeline to ensure that grant recipients demonstrate a consistent commitment to civil rights compliance.*
  - Outcome 6.2: Promote STEM literacy through strategic partnerships with formal and informal organizations.
  - Objective 6.2.1: Develop NASA's leadership role in national STEM improvement efforts, as demonstrated by provision of meaningful educator professional development and student experiences, adoption of education technologies, and contributions to STEM education policies and strategies.
  - Outcome 6.4: Inform, engage, and inspire the public by sharing NASA's missions, challenges, and results.
    - *Objective 6.4.1: Use strategic partnerships with formal and informal educational organizations to provide NASA content to promote interest in STEM.*
    - *Objective 6.4.2: Provide clear, accurate, timely, and consistent information that is readily available and suitable for a diverse audience.*

### A.2 NASA Education Strategic Coordination Framework

The *NASA Education Strategic Coordination Framework: A Portfolio Approach* creates an agency-wide strategic planning, implementation and evaluation framework for NASA's investments in education. This Framework establishes three educational outcomes:

- **Outcome 1 – Higher Education:** Contribute to the development of the STEM workforce in disciplines needed to achieve NASA's strategic goal through a portfolio of investments.
- **Outcome 2 – Elementary and Secondary Education:** Attract and retain students in STEM disciplines through a progression of educational opportunities for students, teachers, and faculty.
- **Outcome 3 – Informal Education:** Build strategic partnerships and linkages between STEM formal and informal education providers that promote STEM literacy and awareness of NASA's mission.

The plan encompasses all education efforts undertaken by NASA and guides the Agency's relationships with external education partners.

**Appendix B: Definitions**

- Center – The ten NASA Centers including the Jet Propulsion Laboratory (JPL). For purposes of collaboration in NASA EPSCoR, JPL is considered a NASA Center.
- Cooperative Agreement – An agreement similar to a grant with the exception that NASA and the recipient are each expected to have substantial technical interaction for the performance of the project. Cooperative agreements are managed pursuant to the policies set forth in the *Grant and Cooperative Agreement Handbook.*
- Jurisdiction – States or commonwealths eligible to submit proposals in response to this CAN.
- NASA Research Contact – The NASA Research Contact is the primary NASA point of contact during the proposal writing stage for the proposed research area. If the proposer has contacted and received permission from a NASA scientific or technical person, that individual may be listed in the proposal as the NASA Research Contact. Otherwise the NASA Research Contact is the University Affairs Officer at the Center, or the NASA Mission Directorate contact at NASA Headquarters.
- Principal Investigator (PI) – For this EPSCoR CAN, the Principal Investigator is the jurisdiction's EPSCoR director. The Principal Investigator has an appropriate level of authority and is responsible for proper conduct of the research, including appropriate use of funds and administrative requirements such as the submission of the scientific progress reports to the Agency. The PI is the administrator for the proposal.
- Science-I – For this CAN, the Science I will serve as the POC with the ISS Program. The formally stated PI will still be held responsible for the overall direction of the effort and use of funds.
- Research area – One of the areas of research interest for the NASA Mission Directorate(s).
- Research Student – A student (undergraduate, graduate, or postdoctoral) who receives a research appointment in direct support of the NASA EPSCoR research in the research proposals.
- Underrepresented Minority – Refers to persons from racial and ethnic groups whose enrollment in STEM education or participation in STEM professions is much smaller than that group's representation in the general population. African Americans, Hispanics/Latinos, Native Americans and Pacific Islanders currently fit this definition.

## Appendix C: NASA Points of Contact

**D.1** Additional information regarding NASA EPSCoR can be obtained from the following:

EPSCoR Project Office
Jeppie R. Compton
Project Manager, NASA EPSCoR
Office of Education
NASA Kennedy Space Center
HQ EX-E
Kennedy Space Center, FL 32899-0001
Telephone: (321) 867-6988
E-mail: Jeppie.R.Compton@nasa.gov

ISS Capabilities/Integration Process:
Willie B. Williams
Research Portfolio Manager
ISS NASA Research Office
NASA, Johnson Space Center, OZ2
Houston, Texas 77058
Telephone: (281) 244-7579
E-mail: willie.b.williams@nasa.gov

## Appendix D; Certifications

### D.1 Certification of Compliance

By submitting the enclosed proposal cover sheet certification form in response to this NASA research announcement, the authorizing official provides assurance that the jurisdiction is in compliance with the certifications listed. The summaries for the existing certifications state:

- **Debarment, Suspension, and Other Responsibility Matters Primary Covered Transactions**

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 34 CFR Part 85, Section 85.510, Participant's responsibilities. The regulations were published as Part VII of the May 26, 1988 Federal Register (pages 19160 - 19211). Copies of the regulation may be obtained by contacting the U.S. Department of Education, Grants and Contracts Service, 400 Maryland Avenue, S.W. (Room 3633 GSA Regional Office Building No. 3), Washington, DC. 20202-4725, telephone (202) 732-2505.

- The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
    - Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
    - Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or Local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
    - Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or Local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
    - Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State, or Local) terminated for cause or default.
- Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

- Certification Regarding Lobbying for Contracts, Grants, Loans, and Cooperative Agreements The undersigned certifies, to the best of his or her knowledge and belief, that:
    - No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the

entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

- If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form - LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certificate shall be subject to a civil penalty of not less than $10,000, and not more than $100,000 for each such failure.

- **Assurance of Compliance with the National Aeronautics and Space Administration Regulations Pursuant to Nondiscrimination in Federally Assisted Programs**

As a condition of receipt of Federal financial assistance, the Applicant Institution, acknowledges and agrees that it must comply (and require any subgrantees, contractors, successors, transferees, and assignees to comply) with applicable provisions of national laws and policies prohibiting discrimination, including but not limited to:

- Title VI of the Civil Rights Act of 1964, as amended, which prohibits recipients of federal financial assistance from discriminating on the basis of race, color, or national origin (42 U.S.C. 2000d et seq.), as implemented by NASA Title VI regulations, 14 C.F.R. Part 1250.
- As clarified by Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination on the basis of limited English proficiency (LEP). To ensure compliance with Title VI, the Applicant must take reasonable steps to ensure that LEP persons have meaningful access to its programs in accordance with NASA Title VI LEP Guidance to Grant Recipients (68 Fed. Reg. 70039). Meaningful access may entail providing language assistance services, including oral and written translation, where necessary. The Applicant is encouraged to consider the need for language services for LEP persons served or encountered both in developing budgets and in conducting programs and activities. Assistance and information regarding LEP obligations may be found at http://www.lep.gov.
- Title IX of the Education Amendments of 1972, as amended, which prohibits discrimination on the basis of sex in education programs or activities (20 U.S.C. 1681 et seq.) as implemented by NASA Title IX regulations, 14 C.F.R. Part 1253. If the Applicant is an educational institution:
    - The Applicant is required to designate at least one employee to serve as its Title IX coordinator (14 C.F.R. §1253.135(a)).

    - The Applicant is required to notify all of its program beneficiaries of the name, office, address, and telephone number of the employee(s) designated to serve as the Title IX coordinators. (14 C.F.R. §1253.135(a)).
    - The Applicant is required to publish internal grievance procedures to promptly and equitably resolve complaints alleging illegal discrimination in its programs or activities (14 C.F.R. §1253.135(b).
    - The Applicant is required to take specific steps to regularly and consistently notify program beneficiaries that the Applicant does not discriminate in the operation of its programs and activities. (14 C.F.R. §1253.140).
- Section 504 of the Rehabilitation Act of 1973, as amended, which prohibits The Applicant from discriminating on the basis of disability (29 U.S.C. 794) as implemented by NASA Section 504 regulations, 14 C.F.R. Part 1251.
    - The Applicant is required to designate at least one employee to serve as its Section 504 coordinator (14 C.F.R. §1251.106(a)).
    - The Applicant is required to notify all its program beneficiaries of the name, office, address, and telephone number of the employee(s) designated to serve as the Section 504 coordinator (14 C.F.R. §1251.106(a)).
    - The Applicant is required to publish internal grievance procedures to promptly and equitably resolve complaints alleging illegal discrimination in its programs or activities (14 C.F.R. §1251.106(b)).
    - The Applicant is required to take specific steps to regularly and consistently notify program beneficiaries that the Applicant do not discriminate in the operation of its programs and activities. (14 C.F.R. §1251.107).
- The Age Discrimination Act of 1975, as amended, which prohibits the Applicant from discriminating on the basis of age (42 U.S.C. 6101 et seq.) as implemented by NASA Age Discrimination Act regulations, 14 C.F.R. Part 1252.

  The Applicant also acknowledges and agrees that it must cooperate with any compliance review or complaint investigation conducted by NASA and comply (and require any subgrantees, contractors, successors, transferees, and assignees to comply) with applicable provisions governing NASA access to records, accounts, documents, information, facilities, and staff. The Applicant must keep such records and submit to the responsible NASA official or designee timely, complete, and accurate compliance reports at such times, and in such form and containing such information, as the responsible NASA official or his designee may determine to be necessary to ascertain whether the Applicant has complied or is complying with relevant obligations and must immediately take any measure determined necessary to effectuate this agreement. The Applicant must comply with all other reporting, data collection, and evaluation requirements, as prescribed by law or detailed in program guidance.

The below certification form must be completed and returned as part of the jurisdiction's proposal.

*Proposal Cover Sheet*

Title: _____

Principal Investigator: _____

Institution_____

Street/PO Box: _____

City: _____ State:_____ Zip: _____ Country: _____

Email: _____

Phone: _____ Fax: _____

| Co-Investigator | Institution & Address | Phone & E-mail |
|---|---|---|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

---

Certification of Compliance with Applicable Executive Orders and U.S. Code

By submitting the proposal identified in the Cover Sheet/Proposal Summary either in response to a NASA Research Announcement or as an Unsolicited Proposal, the Authorizing Official of the proposing institution (or the individual proposer if there is no proposing institution) as identified below:

- Certifies that the statements made in this proposal are true and complete to the best of his/her knowledge;
- Agrees to accept the obligations to comply with NASA award terms and conditions if an award is made as a result of this proposal; and
- Confirms compliance with all provisions, rules and stipulations set forth by these two Certifications [namely, (i) *Certification of Compliance with the NASA Regulations Pursuant to Nondiscrimination in Federally Assisted Programs*, and (ii) *Certifications, Disclosures, And Assurances Regarding Lobbying and Debarment & Suspension*].

Willful provision of false information in this proposal and/or its supporting documents, or in reports required under an ensuing award, is a criminal offense (U.S. Code, Title 18, Section 1001).

Title of Authorizing Official: _____

Signature: _____ Date: _____

Name of Proposing Institution: _____

Phone: _____ Fax: _____ E-mail: _____

Cage Code: _____ DUNS Number: _____ TIN Number: _____

- **Assurance of Compliance – China Funding Restriction (DEVIATION FEB 2012)**

An Assurance of Compliance with The Department of Defense and Full-Year Appropriation Act, Public Law 112-10 Section 1340(a); The Consolidated and Further Continuing Appropriation Act of 2012, Public Law 112-55, Section 539; and future-year appropriations herein after referred to as "the Acts", whereas:

- NASA is restricted from using funds appropriated in the Acts to enter into or fund any grant or cooperative agreement of any kind to participate, collaborate, or coordinate bilaterally with China or any Chinese-owned company, at the prime recipient level and at all subrecipient levels, whether the bilateral involvement is funded or performed under a no-exchange of funds arrangement.
- Definition: "China or Chinese-owned Company" means the People's Republic of China, any company owned by the People's Republic of China, or any company incorporated under the laws of the People's Republic of China.
- The restrictions in the Acts do not apply to commercial items of supply needed to perform a grant or cooperative agreement.
- By submission of its proposal, the proposer represents that the proposer is not China or a Chinese-owned company, and that the proposer will not participate, collaborate, or coordinate bilaterally with China or any Chinese-owned company, at the prime recipient level or at any subrecipient level, whether the bilateral involvement is funded or performed under a no-exchange of funds arrangement.

Title of Authorizing Official: _____

Printed Name: _____ Signature: _____

Date: _____

Name of Proposing Institution: _____

Phone: _____ Fax: _____

E-mail: _____

- **Representation by prospective recipient that they are not the Association of Community Organizations for Reform now (ACORN) or a subsidiary of ACORN**

In accordance with section 534 of the Consolidated and Further Continuing Appropriations Act of 2012 (Pub. L.112-55), none of the funds made available by the Act may be distributed to the Association of Community Organizations for Reform Now (ACORN) or its subsidiaries.

The prospective recipient represents, by submission of its offer, that it is not the Association of Community Organizations for Reform Now (ACORN) or a subsidiary thereof, and that no funds made available under this award will be distributed to ACORN or its subsidiaries.

Recipient _____
Signature _____
Name _____
Title _____
Date of execution _____

- **Representation by corporations regarding an unpaid delinquent tax liability or a felony conviction under any federal law**

In accordance with sections 544 and 543 of the Consolidated and Further Continuing Appropriations Act of 2012 (Pub. L.112-55), none of the funds made available by that Act may be used to enter into a grant or cooperative agreement with any corporation that -

- Has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability, where the awarding agency is aware of the unpaid tax liability, unless an agency has considered suspension or debarment of the corporation and made a determination that this action is not necessary to protect the interests of the Government; or

- Was convicted (or had an officer or agent of such corporation acting on behalf of the corporation convicted) of a felony criminal violation under any Federal law within the preceding 24 months, where the awarding agency is aware of the conviction, unless an agency has considered suspension or debarment of the corporation and made a determination that this action is not necessary to protect the interests of the Government.

The prospective recipient represents that -

- It is [ ] is not [ ] a corporation that has had any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability; and

- It is [ ] is not [ ] a corporation that was convicted, or had an officer or agent acting on behalf of the corporation convicted, of a felony criminal violation under a Federal law within the preceding 24 months.

- **Certification by prospective recipients regarding federal income tax filing and federal income tax violations**

In accordance with section 527 of the Consolidated and Further Continuing Appropriations Act of 2012 (Pub. L.112-55), none of the funds made available by the Act may be used to enter into a grant or cooperative agreement in an amount greater than $5 Million unless the prospective recipient certifies in writing to NASA that, to the best of its knowledge and belief, the prospective recipient has filed all Federal tax returns required during the three years preceding the certification, has not been convicted of a criminal offense under the Internal revenue Code of 1986, and has not, more than 90 days prior to certification, been notified of any unpaid Federal tax assessment for which the liability remains unsatisfied, unless the assessment is the subject of an installment agreement or offer in compromise that has been approved by the Internal Revenue Service and is not in default, or the assessment is the subject of a non-frivolous administrative or judicial proceeding.

The prospective recipient's proposal shall include a signed written certification as follows -

> To the best of my knowledge and belief, _____(name of offeror) has filed the Federal tax returns required during the three years preceding this certification, has not been convicted of a criminal offense under the Internal revenue Code of 1986, and has not, more than 90 days prior to certification, been notified of any unpaid Federal tax assessment for which the liability remains unsatisfied, unless the assessment is the subject of an installment agreement or offer in compromise that has been approved by the Internal Revenue Service and is not in default, or the assessment is the subject of a non-frivolous administrative or judicial proceeding.