The National Aeronautics and Space Administration’s

Experimental Program to Stimulate Competitive Research in Missouri
(NASA-EPSCoR Missouri)

Research Infrastructure Development (RID)

2015 NASA-EPSCoR Missouri
Research Infrastructure Development Competition Announcement

19 June 2015
Introduction
The NASA Experimental Program to Stimulate Competitive Research (EPSCoR) is administered through NASA’s Office of Education. The purpose of NASA EPSCoR is to strengthen the research capability of jurisdictions that have not participated equably in competitive federal research and development activities in the recent past.

In 2015, the NASA-EPSCoR Missouri jurisdiction is accepting two-year proposals from early-career faculty members at research institutions in Missouri (see Eligibility section below) in order to improve NASA related research capabilities within the state. Research Infrastructure Development (RID) proposals should focus on building the core strength needed to develop and enhance competitive research and technology development methods and activities for solutions to scientific and technical problems of importance to NASA. Successful proposals will address national research interests as defined by one or more of NASA’s three Mission Directorates, the Office of the Chief Technologist, and/or one or more of NASA’s Field Research Centers and the Jet Propulsion Laboratory. The selected proposals will also contribute to the overall research infrastructure for science, engineering, and technology capabilities; higher education; and/or economic development in Missouri. For a proposal to be considered for funding, one or more letters of support and/or collaboration on the proposed work from NASA scientists and/or engineers must be included with the proposal when submitted.

The NASA-EPSCoR Missouri jurisdiction expects to award a total of approximately $112,500 per year in both 2015 and 2016 under this solicitation. Therefore, individual two-year proposals with maximum annual funding levels of up to $18,750 are requested (i.e., corresponding to a maximum of $37,500 over two years). Actual funding and pertinent dates in this program for the first year (2015) are dependent upon availability, receipt, and overall amount of funds obtained from NASA EPSCoR during the fall of 2015. Also note that second year funding for accepted proposals (in 2016) is contingent as well upon the availability and receipt of follow-on EPSCoR funding from NASA in the fall of 2016. In addition, second year (follow-on) funding for every award is contingent upon adequate and demonstrated progress in meeting goals and objectives during the first year work. Note that a minimum one-to-one cost share match is required for all funds awarded as a result of this solicitation. Proposals are limited to one per Principal Investigator.

Eligibility
Eligibility is limited to accredited academic institutions performing scientific research and/or technology development and serving students at all academic levels in science, technology, engineering, and mathematics fields in Missouri. Principal Investigators must be untenured tenure-track faculty (generally Assistant Professors) who have not received tenure as of July 1, 2015 and who have less than five years in service as full time faculty at their institution. Note that for collaborative proposals with co-investigators, only proposals with early-career untenured tenure-track faculty as primary principle investigators will be accepted. Primary principle investigators provide the bulk of the work and receive the bulk of the funding awarded for developing their research infrastructure.
**Pertinent Dates**

- Solicitation: **June 19th, 2015**
- Required Notices of Intent Due: **July 15th, 2015**
- Proposals Due: **July 31st, 2015**
- Anticipated Approximate Period of Performance: **10/1/2015 – 9/30/2016**

**Proposals of Interest**

The goals of the NASA EPSCoR program closely parallel those of the National Science Foundation EPSCoR and work in partnership with NASA's National Space Grant College and Fellowship Program. Individual institutions participating in a NASA EPSCoR program need not be affiliated with the jurisdiction’s Space Grant program.

The specific objectives of the NASA EPSCoR program are:

- Contribute to and promote the development of research infrastructure 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, science and technology capabilities, higher education, and/or economic development of the jurisdiction.
- Work in close coordination with the NASA Space Grant program to improve the environment for science, mathematics, engineering, and technology education in the jurisdiction.

Each NASA EPSCoR RID project must perform scientific research and/or technology development in an area that supports the strategic research and technology development priorities of one or more of NASA’s three Mission Directorates, the Office of the Chief Technologist, and/or one or more of the ten NASA Centers. An emphasis should be placed on developing a core expertise capable of successfully competing for funds from NASA and non-NASA sources outside of the EPSCoR program. Projects should move progressively toward gaining support from sources outside the NASA EPSCoR program by aggressively pursuing additional funding opportunities offered by NASA, industry, other federal agencies, and other sources. Proposed activities may include, but are not limited to the following priority areas of interest:

- Development of new contacts and cooperative research ties with the NASA Centers and/or Mission Directorates, and/or the Office of the Chief Technologist.
- Development of new or continuing partnerships among colleges and universities in the jurisdiction that will enhance the jurisdiction’s abilities to respond to the research and technology development needs of NASA.
- Identifying and developing collaborations with existing EPSCoR and EPSCoR-like programs from other federal agencies within the jurisdiction.
- Research initiation seed grants.
- Student research support.
- Conducting EPSCoR workshops, conferences, and other community-based endeavors.
Additional Requirements for Proposals

Proposals in this FY2015 competition will be required without exception to directly and strongly relate their proposed research and technology development plans to the priorities of one or more of NASA’s Mission Directorates and/or one or more of the ten NASA field research centers. **In addition, for a proposal to be further considered, it must include one or more letters of support and/or collaboration from NASA scientists and/or engineers.** This requirement will ensure that the early-career proposers will have (at a minimum) reached out to and established at least an initial relationship (or relationships) with NASA personnel, as well as having adequately explored and understood NASA mission directorate drivers and needs, prior to writing and submitting their proposals.

Notice of Intent (NOI)

Please provide your notice of intent to submit a proposal along with a one-page concept paper and brief summary budget (including anticipated cost share). This NOI is required in order to have your proposal considered. The NOI should be submitted according to the instructions given on page 6. Note that you need to provide the name of at least three reviewers with the NOI (see page 5 – Reviewer Recommendations).

Proposal Format and Content

Proposals are limited to three pages excluding the title page, adequately detailed budget, and supporting documents. Supporting documents include the required letter of support/collaborative intent from NASA personnel and a brief (2 page) summary resume of the principle investigator with dates delineating time in service as a tenure-track faculty member at your institution (in order to determine eligibility). Proposals should be prepared in the following format:

**Title Page:**
Include the name of the proposing institution; names, addresses, telephone and fax numbers, and e-mail addresses of the principal and the co-principal investigators; and an original signature of the lead principal investigator submitting the proposal on the scanned version.

**Body of Proposal:**
The following items should be included for each proposed project:
- A brief summary regarding the general scope of the project including how it ties to the priority research areas of interest to NASA.
- The project goals and anticipated outcomes along with the metrics used to measure the success of the project.
- The number of each type of projected participant. (undergrad, grad, faculty, K-12, general public)

**Budget:**
- The budget should be separately presented for both first and second years (as well as a total two-year budget) and should contain sufficient project cost detail and supporting information to facilitate a timely evaluation and selection of the award. Matching funds and indirect costs should be sufficiently explained (including amounts and sources) such that evaluators can easily understand the basis of the proposed matching income and expenditures. Dollar amounts proposed with no explanation may reduce proposal acceptability.
The total funding requested in this proposal cannot exceed $18,750 per year, or $37,500 over the two year period, including indirect costs.

A one-to-one cost share match is required for all funds awarded through this solicitation. Each proposal must provide, from non-federal sources, either a cash or in-kind contribution equal to or greater than the total amount requested from NASA. Note that institutional indirect cost waivers on NASA direct funds and indirect costs on the recipient’s direct shared costs may be included as matching funds. **It is strongly urged that indirect costs be waived or reduced by the recipient’s university.**

**Restrictions:**
The following restrictions exist on the use of the NASA EPSCoR RID funds:

- NASA EPSCoR RID funds cannot be used for equipment.
- NASA EPSCoR RID funds cannot be used for foreign travel.
- NASA EPSCoR funds cannot be used for civil-service personnel travel.
- Research Infrastructure Development funding may not be used for the augmentation of awards made under the NASA EPSCoR Research Award program.

**Reviewer Recommendations**
Please provide the name, area of expertise, and contact information for at least three reviewers that you have confirmed to be able and willing to review one or two proposals between August 1, 2015 and August 31, 2015, along with your Notice of Intent.

**Review and Evaluation**
The following criteria shall be used in the review/evaluation process:

**Ties to NASA (15%):** Proposals should relate to one or more areas of the research interests of NASA’s three Mission Directorates, the Office of the Chief Technologist, and/or one or more of NASA’s Field Research Centers or JPL. Recall that **one or more letters of support and/or collaboration from NASA scientists and/or engineers are required for a successful proposal in this competition.** Projects that establish sustainable collaborations and provide cooperative research opportunities are highly desirable.

**Partnerships (15%):** The involvement of appropriate local, state, regional, or national partners in the execution and dissemination of the proposed work is desirable. Industry relations that produce ongoing connections and include significant cost sharing contributions are of considerable interest.

**Diversity (10%):** Proposals should make a demonstrable contribution to attracting under-represented minorities, persons with disabilities, and women. The review criteria for proposals submitted in the secondary award competition will include a significant weighting on reasonable efforts planned for recruiting and supporting students drawn from a diverse representation of under-represented demographic groups. In addition, weighting will be given to activity/collaboration with Missouri minority-serving institutions.

**Project Execution (25%):** A plan and structure for efficient operation of the proposed work must be evident.
Budget (10%): An appropriate and realistic budget that demonstrates of the effective use of funds and includes sufficient and effective cost share matching must be given.

Overall Merit (25%): The overall merit of the proposal includes the feasibility to achieve the proposed project goals with a high degree of impact with regard to the stated objectives. Program outcomes that justify the total program costs and evidence that the scale of the proposed activity is commensurate with program funding will be used as a primary consideration in proposal selection.

Reporting
A first-year annual written progress report as well as a (second-year) final written report describing the achievements, results, and outcomes of the initiative(s) as defined by the metrics and expected outcomes as stated in the proposal will be required. In addition, EPSCoR RID principle investigators may also be required to present brief summaries of their work to the NASA Missouri EPSCoR Technical Advisory Committee. Note that the first year written annual progress report will be internally and externally reviewed for satisfactory performance prior to award of 2nd year funding. For both reports, research accomplishments will be measured against the proposed goals and objectives. At a minimum, all research infrastructure development projects should expect to report on the following quantitative data:

Participants
- Faculty, including names and institutions.
- NASA and corporate researchers, including names and institutions.
- Number of post-doctoral, graduate, and undergraduate students.
- Demographic information (ethnicity/race and gender) on all participants.

Research success of individual investigators and projects as measured by the number of:
- Partnerships and collaborations.
- Follow-on grant proposals submitted/funded including funding amounts.
- Articles submitted to or published in refereed journals.
- Talks, presentations, or abstracts at professional meetings.
- Theses and dissertations.
- Patents and patent applications.
- Technical transfer activities.
- Other products (courses developed, websites, software and hardware, models, etc.).

NOI, Reviewer Recommendation, and Proposal Submission
Please send your Notice of Intent (NOI) to submit a proposal and information for your recommended reviewers along with an electronic version of a one-page concept paper and brief summary budget (including anticipated cost share) in MS Word or converted (not scanned) *.pdf format by email attachment to Dr. David Riggins, Director of NASA-EPSCoR, at rigginsd@mst.edu no later than Tuesday, July 15, 2015. Also copy Dr. Stephen Haug, at sbhaug@mst.edu and spaceg@mst.edu. The NOI is required in order to have your proposal considered, due to the need to set up the review process.
Please submit an electronic version of your full proposal in MS Word or converted (not scanned) *.pdf format along with scanned copies of the proposal title page bearing the signature of the lead principal investigator and a cost share commitment letter from the proposing institution bearing the signature of an authorizing official by email attachment to the NASA-EPSCoR Missouri Director, Dr. David Riggins at rigginsd@mst.edu no later than Friday, July 31, 2015. Also copy Dr. Stephen Haug, at sbhaug@mst.edu, and spaceg@mst.edu. Late proposals will not be considered.