



## Solicitation of White Papers

Open to researchers at *any* of the institutions of higher learning within the **Mississippi NASA EPSCoR Jurisdiction**

issued by the

**Mississippi NASA EPSCoR Director**

in anticipation of

**FY 2019 NASA EPSCoR Research Announcement/Cooperative Agreement Notice (CAN)**



### **AMENDMENT 1 – Released 25 August 2018**

This amendment **revises the due date for white paper submissions**. The due date is now **Wednesday, 12 September 2018**. The amendment also updates relevant dates according to the most recent information on the anticipated timeline of the solicitation cycle. All other information in the original white paper solicitation remains unchanged. The updated full text of the white paper solicitation is provided in the following pages.



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**APPLICATIONS MAY NOT BE SUBMITTED IN PAPER FORMAT**

### Key Dates:

1. Original Release 13 June 2018  
Amendment 1 Released 25 August 2018

2. White Paper Due Date:  
**Wednesday, 12 September 2018, 5:00pm**

**\*\*\*\*\* No late submissions will be accepted \*\*\*\*\***

### Anticipated Solicitation Cycle:

We anticipate NASA will issue the FY19 NASA EPSCoR Research CAN Solicitation near the end of August 2018 with an anticipated full-proposal due date at the end of November 2018. The Mississippi jurisdiction may submit *one* proposals for three years of funding for a maximum \$750,000 per award (roughly \$250K/year).

*This announcement is to solicit a two-page “White Paper” from potential proposers at Mississippi universities.* Based on a review of the white papers, the Mississippi Research Consortium (MRC) will select *one* for development into a full proposal to this NASA EPSCoR program.

The anticipated timeline: white paper solicitation (this document) 6/13/18; NASA solicitation released 8/25/18; white papers due 9/12/18; MRC notification of authorization to proceed 10/10/18; notice of intent due to NASA 10/31/18; full proposals due to NASA 11/28/18. NASA solicitation and due dates are subject to change.

**For questions about this call for white papers, contact the MS NASA EPSCoR Director, Dr. Nathan Murray, [nmurray@olemiss.edu](mailto:nmurray@olemiss.edu), 662-915-3190.**

## Section 1. Solicitation Details

The Mississippi jurisdiction may submit *one* proposals to the FY19 NASA EPSCoR program for three years of funding for a maximum \$750,000 per award (roughly \$250K/year). This announcement is to solicit a two-page “White Paper” from potential proposers at Mississippi universities. *One* of these White Papers will be selected by the Mississippi Research Consortium (MRC) for development into a full proposal to this NASA EPSCoR program.

To be seriously considered for selection, white papers *must* demonstrate:

- direct ties with, and responsiveness to the objectives of, a NASA Center or Directorate;
- a collaboration among two or more Mississippi colleges or universities; and
- involvement of faculty/students from groups underrepresented/underserved in STEM.

The most competitive white papers *may also* demonstrate partnerships or cooperative arrangements with one or more of other government agencies, business/industry, private research foundations, jurisdiction agencies, and/or local agencies, and/or additional academic institutions.

The MS NASA EPSCoR Director will conduct the first-stage review to assess the white paper’s responsiveness to the NASA EPSCoR CAN solicitation. The white papers, along with the first stage review assessments, will then be provided to the MRC, who will judge and select the white paper for development into a full proposal for submission to NASA.

NASA EPSCoR research priorities are defined by the Mission Directorates, the Office of the Chief Technologist, and NASA’s ten Centers. Short descriptions of these, and URL links to longer descriptions, may be viewed in last year’s Full NASA Solicitation.

### 1.A. SUBMISSION OF WHITE PAPERS

All white paper submissions must be submitted to *both* the MS Space Grant Director (Dr. Nathan Murray, [nmurray@olemiss.edu](mailto:nmurray@olemiss.edu)) and the chief research officer of the proposer’s home institution by 5 p.m. **Wednesday, 12 September 2018**. For example, a research at MSU would send the submission as a PDF attachment in a single email addressed to both [nmurray@olemiss.edu](mailto:nmurray@olemiss.edu) and Dr. David Shaw ([dshaw@research.msstate.edu](mailto:dshaw@research.msstate.edu)). Dr. Murray will provide a prompt reply to confirm receipt of each submission.

### 1.B. EVALUATION CRITERIA

- Intrinsic Merit
- NASA Alignment and Partnerships
- Impact on Mississippi Research Infrastructure
- Graduate/Undergraduate Research Engagement

### 1.C. FORMAT FOR WHITE PAPERS

No more than 2 pages, 11- or 12-point font size in Times, Arial, or Calibri, single-spaced. Smaller font ok for tables/illustrations but should be easy to read.

White papers should be submitted via email to the MS NASA EPSCoR director as a single PDF file.

### **1.C.i. White Paper Sections:**

Cover Info, Project Summary and Description, and Budget Summary Justification. Altogether, the three sections must not exceed two pages.

Cover Info: In six lines at the top of the first page in the same font as the style/size as the rest of the submission, provide the following: (1) Submission Title (bold), (2) Lead Institution and Science PI (bold), (3) affiliation (academic disciplines/departments), (4) Other Participating Institutions and Co-Investigators (co-Is) and Collaborating Institutional PI's, (5) NASA Center partners or other partners, (6) *Mission Directorates and priorities addressed*. Separate the cover information from the project summary by a double space.

Project Summary and Description: Should include the objectives, relevance of those objectives to NASA priorities and objectives, description of what is novel, description of anticipated impact, and short description of technical approach.

Budget Summary and Justification: Should include sufficient details that your Chief Research Officer will be able to confirm that you are requesting appropriate, reasonable, and allowable funds, and that you or your institution can meet the 50% cost share requirement by allowable cash or allowable in-kind contributions. Include personnel and work effort.

## **Section 2. More Information**

*Last year's* full NASA Solicitation can be accessed at <https://nspires.nasaprs.com>. Click "Solicitations", then "Closed/Past Selected", then search for EPSCoR and find [solicitation #NNH17ZHA002C](#).

Cost Sharing: **Required**, at least 50% of the monies requested from NASA. In-kind is ok.

Notice of Intent (NOI) to Propose: Must be submitted by MS NASA EPSCoR Director.

Full Proposal: Must be submitted by MS NASA EPSCoR Director through UM to NASA.

Proposers should not include confidential information that they don't want to be seen by CRO's and their designated white paper reviewers at the four MRC institutions.

## **Section 3. Recent NASA EPSCoR Awards to Mississippi**

### EPSCoR 2017/80NSSC17M0039: \$750K

MSU/Dr. Shanti Bhushan in collaboration with UM/Dr. Nathan Murray and NASA/Marshall Space Flight Center: "High-Fidelity Loci-CHEM Simulations for Acoustic Wave Propagation and Vibration."

### EPSCoR 2015/NNX15AM50A: \$750K

USM/Dr. Chris Winstead in collaboration with JSU/Dr. Glake Hill and NASA/Marshall Space Flight Center: "GEANT4 Simulations for Astronaut Risk Calculations."

### EPSCoR 2014/NNX14AN38A: \$750K

UM/Dr. Lei Cao in with collaboration with JSU and JPL: "A New Paradigm for Efficient Space Communications: Rateless Coding with Unequal Error Control and Data Fusion."

EPSCoR 2013/NNX09AP18A: \$750K

UM/Dr. A. Al-Ostaz in collaboration with JSU, NASA Centers Marshall, Johnson, Langley and Glenn: “Hyper Velocity Resistant Nano Materials in Space Applications.”

## **Section 4. NASA EPSCoR Program Overview**

### **4.A. TECHNICAL DESCRIPTION**

The National Aeronautics and Space Administration (NASA) Office of Education, in cooperation with NASA’s Aeronautics Research Mission Directorate (ARMD), Human Exploration & Operations Mission Directorate (HEOMD), Science Mission Directorates (SMD), the Space Technology Mission Directorate (STMD), and NASA’s ten centers (including JPL), solicits proposals for the NASA Experimental Program to Stimulate Competitive Research (EPSCoR). Each funded NASA EPSCoR proposal is expected to establish research activities that will make significant contributions to 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.

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.

### **4.B. EPSCOR BACKGROUND**

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 specific objectives of NASA EPSCoR are to:

- 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, science and technology 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 science, technology, engineering and mathematics (STEM) education.