



2023 MS NASA EPSCoR RID SEED GRANTS

The Mississippi NASA EPSCoR Research Infrastructure Development (RID) Program provides research initiation grants aimed at strengthening Mississippi's research competitiveness.

Title: MS NASA EPSCoR RID Seed Grants

Sponsored By: Mississippi NASA EPSCoR

SUBMIT APPLICATIONS ONLINE AT
<https://olemiss.infoready4.com/#competitionDetail/1900238>

Key Dates

1. Release/Posted Date: 3 April 2023
2. Application Due Date: **Monday, 3 July 2023, 11:59pm**

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

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Section 1. Overview Information

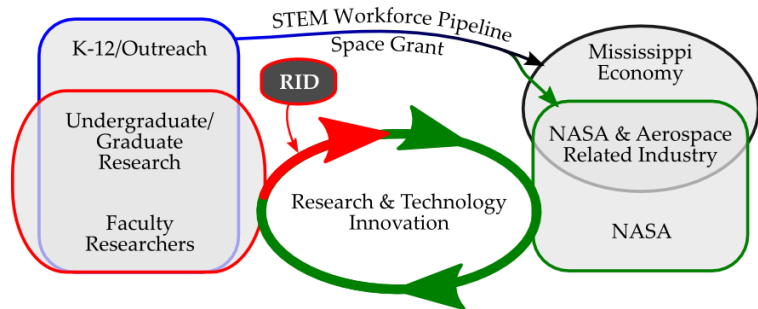
The Mississippi NASA EPSCoR Director is soliciting seed grant proposals for scientific and/or technical research of relevance to NASA that support the strategic research and technology development priorities of one or more of NASA's four Mission Directorates, the Office of the Chief Technologist, and/or one or more of the ten NASA Centers.

Proposals are solicited for a period of performance starting no earlier than 8/1/2023 and ending no later than 7/31/2024. The maximum amount of MS NASA EPSCoR funding available is **\$45,000** per award. A minimum of \$7,000 in non-federal cost sharing from either cash or in-kind sources is required. It is expected that MS NASA EPSCoR will award 3 projects.

Section 2. Background

2.A. RESEARCH INFRASTRUCTURE DEVELOPMENT (RID)

The MS NASA EPSCoR RID program funds research initiation projects in order to strengthen Mississippi's research competitiveness. Individual seed grants are expected to (a) build on core strengths, (b) focus these strengths on issues of particular relevance to NASA, and (c) increase the applicability of Mississippi's research to areas of interest within NASA. MS NASA EPSCoR uses the RID program to fill a unique role by infusing NASA investment into human research asset development. The goal is to provide initiation funds to set in motion the maturation of innovative research and technology ventures that are relevant to NASA and NASA-related Mississippi industry. The competitive seed grant opportunities are focused on developing research activities that



explore promising research avenues, **establish** or strengthen collaboration between researchers in the state, and **enhance** MS research relevance to NASA through communication/collaboration with NASA scientists.

2.B. GOALS, OBJECTIVES, AND PRIORITIES

2.B.i. Goals

The MS NASA EPSCoR RID program aligns with the overarching goals of the nation-wide NASA EPSCoR program and complements Mississippi's efforts to grow and attract aerospace and aerospace-related industry (<https://www.msepsc.org/>).

- A. Mature innovative research and technology ventures that are **relevant to NASA** and the national space mission.
- B. Evolve Mississippi's academic research enterprise leading to long-term, self-sustaining, **nationally competitive capabilities** in aerospace and aerospace-related fields.
- C. Promote growth in the **economies of Mississippi** and expand the national base for aerospace related research and development.

2.B.ii. Objectives

- A. Increase the number and diversity of entities that are actively performing research in Mississippi of **strategic importance to NASA**.
- B. Improve **Mississippi research competitiveness** allowing researchers to succeed in gaining support from sources outside the NASA EPSCoR program.
- C. Develop **partnerships** between NASA research assets, Mississippi academic institutions, and Mississippi aerospace-related industry.
- D. Support the overall **Mississippi STEM workforce development** by graduating scientist and engineers that contribute to the overall research infrastructure, science and technology capabilities, higher education, and economic development of Mississippi.
- E. Create research activities that coordinate with Space Grant for overall **STEM education enhancement** in Mississippi.

2.B.iii. Priorities

- A. Perform scientific and/or technical research of relevance to NASA that support the strategic research and technology development priorities of one or more of NASA's Mission Directorates, the Office of the Chief Technologist, and/or one or more of the ten NASA Centers.
- B. Initiate and mature research that has a positive potential impact on Mississippi's research competitiveness.
- C. Develop active partnerships between the MS NASA EPSCoR research universities, HBCUs, Mississippi businesses, and/or NASA Centers.
- D. Develop a workforce (faculty & student involvement) in areas of interest to NASA that align with the Mississippi Science and Technology Plan.
- E. Encourage participation from under-represented groups.

Section 3. Project Elements and Evaluation

3.A. PROJECT ELEMENTS

A variety of different types of programs may be proposed within the following guidelines:

- A. Each seed grant project must address the overall program priorities listed in Section 2.B.iii.
- B. Proposals must include a letter of support from an appropriate NASA point of contact to demonstrate alignment with NASA priorities.
- C. Proposals must include clear evidence of partnership with NASA, other schools, and/or industry.
- D. Proposals must emphasize developing a research capability to compete for funds from NASA sources outside of EPSCoR and/or from non-NASA sources.
- E. Each of the proposals must meet the required cost-sharing from either cash or in-kind sources.

3.B. PROPOSAL EVALUATION

Proposals will be evaluated using the following rubric:

| <i>Proposal Quality</i> | Max Score |
|---|------------------|
| Project Narrative: Narrative written with clarity, effectiveness, purpose, and context; includes specific objectives and expected outcomes | 30 |
| Specific Outcomes: Specific, measurable, and realistic outcomes | 10 |
| Budget Narrative: No equipment, justified, clear evidence of required match | 5 |
| Timeline: Realistic and timely schedule within the period of performance | 5 |
| <i>Alignment with Program Priorities</i> | |
| Relevance to NASA: Clearly aligns with NASA priorities; specifically lists the NASA Center/Directorate with interest/support for proposed research | 10 |
| Potential Impact: Clearly describes impact of research to NASA and Mississippi with plan/strategy to harness technology or scientific impact of project | 10 |
| Partnerships: Clear evidence of partnership with NASA, other institutions (e.g., HBCUs) and/or Mississippi business or industry (i.e., letters of support) | 15 |
| Workforce Development – Faculty: Clearly describes faculty involvement and development (e.g., junior faculty research initiation) | 5 |
| Workforce Development – Student: Clear plan for student involvement, mentoring, and graduation | 5 |
| Commitment to Under-represented Groups: Clear plan to reach, engage, and support students from groups under-represented in STEM research/education | 5 |
| Total Score | 100 |

3.B.i. Evaluation of Proposals from Prior Awardees

PI's that have been awarded RID funding in the past are eligible to apply for a new award under this solicitation that builds on previous results. The scope of work of the new proposal must not be duplicative compared to work performed under prior RID funding. Proposals from prior awardees should include an additional section that summarizes outcomes from that work (see Section 5.A.iii below). The review of the proposal will consider this summary of prior RID funded work in the total scoring for the Project Description and Specific Outcomes.

Section 4. Reports

4.A. PROGRESS REPORT

The principal investigator will submit a mid-year progress report to Mississippi NASA EPSCoR (via *InfoReady*) summarizing progress of the project, names of faculty and students involved, and any measurable outcomes such as proposals submitted to federal and/or state agencies for further funding and papers submitted for presentation and/or publication.

PROGRESS REPORT DUE: 15 January 2024

4.B. FINAL REPORT

The principal investigator will submit a final report to the Mississippi NASA EPSCoR (via *InfoReady*) summarizing results of the project, names of faculty and students involved, and any measurable outcomes such as proposals submitted to federal and/or state agencies for further funding and papers submitted for presentation and/or publication.

FINAL REPORT DUE: 30 days after end date of the project

4.C. REPORTING OF STATISTICS

MS NASA EPSCoR is required to report to NASA EPSCoR on the measurable outcomes (publications, presentations, new proposals), participant demographics, and degrees awarded. MS NASA EPSCoR will make spreadsheets provided by NASA available to awardees (via *InfoReady*) for reporting these statistics. **A completed spreadsheet must be included with both the progress report and final report.**

Section 5. Proposal Submission Instructions

5.A. CONTENT AND FORM OF APPLICATION

5.A.i. General rules

- A. Incomplete applications will NOT be considered. Late applications will NOT be considered. Applications containing plagiarized or incorrect information will NOT be considered. Non-compliant applications will NOT be considered.
- B. The text must be no smaller than 12-point font, single-spaced, with 1" margins on all sides.
- C. The proposal should address the goals/objectives/priorities of the MS NASA EPSCoR RID program.
- D. Each of the following sections will be uploaded as separate documents into *InfoReady*. Please note how each file should be named in italics. *Short_Title* refers to a shortened title (2-3 words) of your proposed project.

5.A.ii. Project Narrative (5 pages maximum) *Project_Short_Title*

- A. **Summary:** (1 page maximum) Please give a thorough but basic overview of the project background. Remember, reviewers will have appropriate knowledge, but will likely not be experts in your field. Write in a way that is understandable to those in other disciplines, define terms where necessary, explain issues clearly, and proofread carefully. Include (1) information that will clarify your project; (2) the main project goal or purpose of your project; (3) need for this project to be conducted; and (4) any preliminary results that you may have.
- B. **Objectives:** Describe the objectives, the expected outcomes and impact. Provide the number and names of participants, faculty, undergraduate and graduate students (if known). Describe the relevance of the proposed work to NASA.
See areas relevant to NASA here: <https://www.nasa.gov/offices/oct/taxonomy/index.html>.
- C. **Statement of Work:** List and describe the specific tasks of your project. Explain the methods that will be used to complete the tasks. Briefly list any facilities, equipment or other resources you will have at your disposal for the completion of the described project.
- D. **Outreach:** Describe how you plan to disseminate information garnered from your study.

E. Deliverables and Timeline: Include a timeline/schedule of your planned research. The period of performance should start no earlier than 1 August 2023 and end no later than 31 July 2024.

F. References Cited: (does not count toward page limit) Please use the same style for all citations – APA, MLA, etc.

5.A.iii. Summary of Results from Prior RID Funding (1 page maximum, if applicable)

Prior_Short_Title

If the PI has previously been awarded a RID grant, the proposal should include a 1-page summary of the results of that research. The outcomes should be discussed in terms of the objectives. A summary of the educational impact of the work should be provided (number of students support, any theses or dissertations completed, any undergraduate students supported, etc.). Any relationship to the proposed new work should be summarized.

5.A.iv. Bio of Key Personnel (No page limit) *Personnel_Short_Title*

Include a short (1-paragraph) biographical sketch of the key personnel (PI, graduate student, etc.) that will directly contribute to the project.

5.A.v. Budget Narrative *Budget_Short_Title*

A. Budget Summary Table: (1 page maximum) Provide a 1-page budget summary in the form of a table that clearly identifies personnel, supplies, commodities, travel, and other research related expenses requested and the cost of each. Make sure that items are compliant with your institution’s spending and reimbursement policies.

B. Budget Justification: (2 pages maximum) The maximum amount of MS NASA EPSCoR funds that can be requested for this effort is \$45,000 with a match requirement of \$7,000. The match may be cash or in-kind and must be from non-federal sources. Indirects/F&A are allowed expenses for either direct or matching funds. The budget justification should contain an explanation of the requested budget. Support of students for research experience is highly encouraged. NASA EPSCoR funds ***cannot*** be used for equipment. The source of the required cost match must be explained.

5.A.vi. Terms of Agreement *Terms_Short_Title*

Include a signed *Terms of Agreement* form (found on page 6 of this document).

5.A.vii. Letters of Support *Support_Short_Title*

A. Proposals must include a letter of support from an appropriate NASA point of contact to demonstrate alignment with NASA priorities. If needed, contact mssgc@olemiss.edu for assistance.

B. Proposals may also include letters of support as evidence of partnership with other institutions (e.g., HBCUs) and/or Mississippi businesses/industries.

5.B. SUBMISSION DEADLINE

Proposals should be submitted by **Monday, 3 July 2023, 11:59 pm**.

5.C. SUBMISSION REQUIREMENTS

Submit applications online via <https://olemiss.infoready4.com/#competitionDetail/1900238> with sections 5.A.ii. through 5.A.vii. uploaded as separate documents. For questions or concerns regarding this award or submission process, please email mssgc@olemiss.edu.



MS NASA EPSCoR RID Terms of Agreement

Last Name:

First Name:

Middle Initial:

Department:

Phone:

Email:

Contact Information will be used solely for contacting awardees.

1. The **Awardee** will use the funds only for those things outlined in their budget proposal, based on the MSSGC Program Guidelines and compliant with applicable University rules and regulations. All receipts must be saved in case an inquiry is made in this regard.
2. The **Awardee** will submit the progress report and final report as required.
3. The **Awardee** will provide MSSGC with project information as requested to comply with MSSGC reporting to NASA.
4. The **Awardee's** name and project abstract may be used on the MSSGC webpage.

Applicant's Certification

I understand and accept the terms and conditions set forth by the MSSGC Program.

PI Signature

Date