

LOUISIANA NASA EPSCoR



Travel Awards Program (TAP)

A NASA EPSCoR Research Infrastructure Development (RID) Project

Sponsored by NASA & the Louisiana Board of Regents (BoR) With Technical & Management Support from LaSPACE

La NASA EPSCoR / LaSPACE Management Office 364 Nicholson Hall, Department of Physics and Astronomy Louisiana State University, Baton Rouge, LA 70803 225.578.8697 | Fax: 225.578.1222 | http://lanasaepscor.lsu.edu/

NASA EPSCoR RID General Info

Introduction to the NASA EPSCoR RID Program

The NASA Established Program to Stimulate Competitive Research (EPSCoR) is administered through NASA's Office of STEM Engagement. The purpose of NASA EPSCoR is to strengthen the research capability of jurisdictions that have not in the past participated equitably in competitive federal research and development activities.

The NASA EPSCoR Research Infrastructure Development (RID) program for 2022-2027 focuses on building the core strength needed to develop competitive research and technology development methods and activities for the solution of scientific and technical problems of importance to NASA as defined by one or more of the four Mission Directorates and one or more of the ten NASA Centers (including JPL). RID programs will also contribute to the overall research infrastructure, science and technology capabilities, higher education, and/or economic development of the EPSCoR jurisdiction. An emphasis should be placed on developing a core expertise and robust research program capable of successfully competing for funds offered by NASA, industry, other federal agencies, and additional external sources beyond the EPSCoR program.

NASA 2022 Strategic Plan

NASA's 2022 strategic plan aligns the Agency's future activities along three strategic themes of Discover, Explore, and Develop, as well as a fourth theme focused on the activities that will enable the Agency's mission.

- DISCOVER: Expand human knowledge through new scientific discoveries
- EXPLORE: Extend human presence to the Moon and on towards Mars for sustainable long-term exploration, development, and utilization
- INNOVATE: Catalyze economic growth and drive innovation to address national challenges
- ADVANCE: Enhance capabilities and operations to catalyze current and future mission success

The complete plan can be downloaded here.

NASA Vision

Exploring the secrets of the universe for the benefit of all.

NASA Mission

NASA explores the unknown in air and space, innovates for the benefit of humanity, and inspires the world through discovery.

NASA Office of STEM Engagement

NASA's journeys have propelled technological breakthroughs, pushed the frontiers of scientific research, and expanded our understanding of the universe. These accomplishments, and those to come, share a common genesis: education in science, technology, engineering, and math.

NASA's Office of STEM Engagement (OSTEM) delivers tools for young Americans and educators to learn and succeed. OSTEM seeks to:

- Create unique opportunities for students and the public to contribute to NASA's work in exploration and discovery.
- Build a diverse future STEM workforce by engaging students in authentic learning experiences with NASA people, content, and facilities.
- Strengthen public understanding by enabling powerful connections to NASA's mission and work.

To achieve these goals, NASA's Office of STEM Engagement strives to increase K-12 involvement in NASA projects, enhance higher education, support underrepresented communities, strengthen online education, and boost NASA's contribution to informal education. The intended outcome is a generation prepared to code, calculate, design, and discover its way to a new era of American innovation.

The National Space Grant College and Fellowship Program, from which LaSPACE is derived, is a component of the NASA Office of STEM Engagement's larger portfolio, managed at NASA Headquarters in Washington D.C., in alignment with the NASA Mission Directorates, and engagement with all NASA centers and facilities.

NASA Office of STEM Engagement, and by extension LaSPACE, supports the four strategic goals detailed in the 2018 plan. Research and design work supported by Space Grant or NASA EPSCoR must align with one or more of these strategic goals and corresponding objectives.

NASA Mission Directorates (MD)

Research, technology, and development priorities of your proposed project must align with one or more of NASA's Mission Directorates:

Aeronautics: Results achieved by NASA's aeronautical innovators through the years directly benefit today's air transportation system, the aviation industry, and the passengers and businesses who rely on those advances in flight every day. As a result, every U.S. commercial aircraft and U.S. air traffic control tower uses NASA-developed technology to improve efficiency and maintain safety.

Exploration Systems: The Exploration Systems Development Mission Directorate manages human exploration system development for lunar orbital, lunar surface, and Mars exploration. Artemis missions will open a new era of scientific discovery and economic opportunity on the Moon while validating operations and systems and preparing for human missions to Mars.

Programs in the directorate include the Space Launch System rocket, Orion spacecraft, supporting ground systems, human landing systems, spacesuits, and Gateway.

<u>Science</u>: The Science Mission Directorate is an organization where discoveries in one scientific discipline have a direct route to other areas of study. This flow is something extremely valuable and is rare in the scientific world. From exoplanet research to better understanding Earth's climate to understanding the influence of the sun on our planet and the solar system, the directorate's work is interdisciplinary and collaborative.

<u>Space Operations</u>: The Space Operations Mission Directorate maintains a continuous human presence in space for the benefit of people on Earth. The programs within the directorate are the heart of NASA's space exploration efforts, enabling Artemis, commercial space, science, and other agency missions through communication, launch services, research capabilities, and crew support.

Space Technology: Technology drives exploration and the space economy. NASA's Space Technology Mission Directorate aims to transform future missions while ensuring American leadership in aerospace. The directorate develops, demonstrates, and transfers new space technologies that benefit NASA, commercial, and other government missions.

All NASA Space Grant subprograms must relate to and support one or more of these directorates. Likewise, all programs supported by LaSPACE must support the NASA organization, align with the NASA Strategic Plan, and support the goals of the Office of STEM Engagement. Any alignment with NASA Center programs should also be detailed.

NASA MD Contacts for University Researchers

Aeronautics Research Mission Directorate (ARMD)

POC: Dave Berger, OSTEM Embed for Aeronautics, Phone: (661) 276-5712,

dave.e.berger@nasa.gov

Exploration Systems Development Mission Directorate (ESDMD)

POC: Greg Chavers, DAA for HEO System Engineering & Integration, Phone: (256) 544-0494, greg.chavers@nasa.gov

Science Mission Directorate (SMD)

POC: Kristen Erickson, Director, Science Engagement Partnerships Phone: (202) 358-1017, kristen.erickson@nasa.gov

Space Operations Mission Directorate (SOMD)

POC: Marc Timm Phone: (202) 358-0373, marc.g.timm@nasa.gov

Space Technology Mission Directorate (STMD)

POC: Damian Taylor, SBIR and STTR Mission, Directorate Liaison Phone: (202) 358-1432,

damian.taylor@nasa.gov

NASA Center Liaisons

Armstrong Flight Research Center	Johnson Space Center
Veronica Wilson	Jakarda Varnado
veronica.l.wilson@nasa.gov	jakarda.w.varnado@nasa.gov
Ames Research Center	Kennedy Space Center
Veronica Wilson	Patricia Gillis
veronica.l.wilson@nasa.gov	patricia.j.gillis@nasa.gov
Goddard Space Flight Center	Langley Research Center
James Harrington	Bonnie Murray
james.l.harrington@nasa.gov	bonnie.murray@nasa.gov
Glenn Research Center	Marshall Space Flight Center
Gerald Voltz	Vemitra Alexander
gerald.w.voltz@nasa.gov	vemitra.m.white@nasa.gov
Jet Propulsion Lab	Stennis Space Center
Petra Kneissl	Louis Thompson
petra.a.kneissl-milanian@jpl.nasa.gov	louis.m.thompson@nasa.gov

NASA EPSCoR RID Program in Louisiana

The Louisiana Board of Regents (BoR) has received an EPSCoR Research Infrastructure Development (RID) award from the NASA EPSCoR program. Moving a jurisdiction forward in competitiveness is the foundational goal of all EPSCoR programs and is measured by a jurisdiction's rank in its percentage of federal R&D funds received over a three-year period. Louisiana's success with EPSCoR can be seen by looking at the state's rankings over time – moving from the bottom to the mid-point on the EPSCoR list. Aerospace has accounted for much of our growth with expertise developed in areas ranging from smart materials to air traffic management, from additive manufacturing to astrophysics. But the work is far from completed. We need to build upon what has been accomplished and move forward into increased competitiveness.

Achieving this goal requires a number of plans and actions: (a) expanding university educational opportunities, (b) enhancing research infrastructure, (c) fostering R & D capabilities, and (d) capitalizing upon the resultant intellectual property. NASA EPSCoR provides university students and faculty exposure to and involvement in the Aerospace research enterprise, improves faculty research capabilities (both at a given institution and between institutions), enhances research facilities and infrastructure, and opens opportunities for faculty (particularly junior faculty), post-doctoral researchers, and students to engage in meaningful Aerospace R&D all with the goal of graduating from the EPSCoR program designation. The Research Infrastructure Development (RID) component of NASA EPSCoR is of critical importance to prepare Louisiana's researchers to become involved in larger projects which can be proposed as NASA EPSCoR Research Implementation Projects or proposed to NASA opportunities issued by the directorates. Thus, the overall Goal for the NASA EPSCoR RID is to Elevate the Competitiveness of the State's researchers in Aerospace Science and Technology Development.

TAP Proposal Guidelines

Travel Award Program (TAP)

The Travel Award Program (TAP) offers travel support for Louisiana researchers to interact with NASA counterparts and investigate possible collaborative efforts OR to present NASA-relevant research at professional meeting or conference OR to attend a NASA-run workshop or event.

The key to building better ties with NASA R & D is to foster researcher-to-researcher communications and this sub-program is designed to foster such communication. Awards will support the travel of a Louisiana researcher to interact with potential collaborators or program managers at NASA centers, NASA HQ or scientific conferences or workshops.

A TAP is intended to provide time for a detailed interchange of ideas and capabilities and for planning mutually beneficial projects. An "invitation" (e-mail is acceptable) from the NASA contact is required before an award is approved. For trips to NASA HQ, names of the NASA managers to be visited must be provided. Trips to NASA related facilities (e.g. White Sands) or to Aerospace contractor facilities will be considered on a case-by-case basis. Conference details, including an agenda and participation plans for the traveler, must be included. For all trips a narrative justification must be provided which shows how this travel plan will benefit the researcher and the overall NASA-relevant research infrastructure in Louisiana.

Eligibility

Applicants must be faculty or research staff members, administrators, post-doctoral associates, or graduate students at one of Louisiana's colleges and universities.

For NASA site visits, a letter/email of interest/invitation from a NASA researcher which shows a willingness to meet with the applicant is required. Contact info for Mission Directorate Leads and University Affairs Officers at the various NASA centers are included earlier in these guidelines.

Period of Performance

Trips are expected to extend over one to five days, depending on the location, mode of transportation, and objectives of the meeting. Additional PoPs may be considered. Applicants are advised to submit proposals 60 days prior to their planned travel for optimal consideration; travel should commence within 90 days of the application whenever possible. With an appropriate justification from the applicant, funds can be available for use for up to 6 months from the award. After 6 months, the award is forfeited, and the monies are returned to the pool for additional applicants. Applications will be considered year-round as funds are available.

Award Funding Amounts & Disbursements

Individual TAP awards will be funded up to a maximum of \$2,500 and be dependent upon the site visited, the trip length, and the number of travelers. We expect many travel funding requests will be for partial support. In such cases, please tell us where the funding is coming from for

unrequested travel expenses. Disbursement of the funds for the awards will be handled by the Board of Regents (BoR). Travel advances are not available. The traveler will submit a travel reimbursement form and final report on the details of the trip and then be reimbursed directly by the BoR.

Proposed Costs

This program is intended to support a single traveler on a short trip to a NASA center to investigate possible future collaborations or to a NASA-relevant conference or workshop. General state regulations, university policies, and BoR requirements on travel must be followed.

Cost-Share

There is no cost-share requirement for this program.

Public Nature of Applications

Once an application is received, it becomes public record. Although the staff will not disseminate applications to individuals other than to reviewers, applicants should be aware that, if a request for information is made by the public (e.g., the news media), a copy of the application, by law, must be provided.

Disclosure of Information

All La NASA EPSCoR programs must conform to applicable Federal, State, and NASA Agency regulations and stipulations. This includes annual reporting of award participant information to both the Louisiana Board of Regents and NASA. Part of this information will include both directory information such as name, address, telephone number, date of birth, and demographic information such as gender, ethnicity, and race for all award participants including faculty, staff, and students. Further, outreach includes public dissemination of its supported programs through newsletters, press releases, the La NASA EPSCoR website (http://laNASAepscor.lsu.edu/), as well as papers and/or presentations at Space Grant or related Education & Public Outreach conferences. The contents of award reports, including participant names, titles, institution, project summaries, results or conclusions and images, might be included in such public outreach articles. It is not intended that these public articles will disclose directory or demographic information except as aggregated statistical data.

Final Deliverables

Following the trip, the applicant must submit a brief report on the results of the trip (list all travelers, locations/facilities visited, number of meetings, persons in attendance at all meetings, summary of major discussions, prospects for future collaborations/endeavors, etc). Please include photographs and NASA media release forms for all persons pictured. This report is to be submitted at the same time the travel reimbursement request is submitted, as remittance is contingent upon receipt of the report A link to the online platform for report submission, as well as a document with detailed guidance for writing the report, are posted in the <u>LaSPACE Document</u> Center on our website.

TAP Proposal Format & Submittal

TAP proposals should be submitted as fully searchable pdf documents via email to laspace@lsu.edu. TAP proposals may be submitted at any time. Applicants are advised to submit proposals 60 days prior to their planned travel for optimal consideration. Applications will be considered as funds are available.

A TAP proposal must include the following completed sections in the order presented:

- TAP Cover Page (signed by the applicant)
- Proposal Narrative (not to exceed 3 pages)
 - NASA location to be visited and primary POC at NASA OR Conference/Event OR NASA Contractor Site/Facility.
 - Length of trip & approximate dates of travel.
 - o List of all known NASA personnel (name, title, field of research) you will be meeting with.
 - Goals & Objectives for the trip including research areas to be discussed, potential projects for future collaboration, familiarization with ongoing NASA programs, research presentations, workshops, etc.
 - Statement of relevance to NASA research infrastructure development in Louisiana.
- Letter/email from the NASA contact/host confirming interest in an exploratory meeting OR conference registration details/meeting agenda OR workshop registration, etc.
- Budget Section: Estimated costs for the trip (i.e. airfare, lodging, per diem, rental car, etc.).
 Note: Use of a rental car may require prior approval from BOR; use of a personal vehicle will require advanced approval from the BoR. Your application should include a detailed justification if a rental car is requested. Clearly delineate between total travel costs and costs you are requesting reimbursement for if this is a request for partial travel support.
- Short CV (2-page max) for the Applicant

Attachments Required Proposal Forms

Required Forms for Proposal

All proposals submitted must use the forms included following this page. Proposals not using these forms may be rejected without review.

• TAP Cover Sheet

A NASA EPSCoR – La BOR RID Project Travel Awards Program (RAP) Cover Sheet

1.	Title of Proposed Travel:	
2.	Applicant:	
	(Name & Title/Classific	
	(Department/Division)
3.	Institution of Higher Education:_	
4.	Applicant's Address:	
	(Street Addre	ss/P.O. Box Number)
_	(City, State)	(Zip Code)
5.	Campus Phone #:	Mobile Phone #:
	E-mail:	
6.	NASA Contact (if applicable):	
	(Na	me & Title)
(Ce	nter/Division)	(e-mail)
7.	Total Funds Requested: \$	
***	******	*******
signa agree the ir but n respo with Comp	stories certify that the statements made in this properties to comply with LaSPACE/NASA EPSCOR award to estitution and proposed project are in compliance to limited to, Executive Order 12549, Debarment onsibilities; Non-Discrimination; Certification again China Funding Restriction as detailed in Public Lapliance in accordance with 534 of the Consolidate	e Orders and U.S. Code: By signing and submitting this proposal, the roposal are true and complete to the best of their knowledge; they erms and conditions if an award is made as a result of this proposal; and e with all applicable Federal and State laws and regulations including, t and Suspension, 34 CFR Part 85, Section 85.510, Participant's inst Lobbying imposed by section 1352, title 31, U.S. Code; Compliance aws 112-10 Section 1340(a) and 112-55, Section 539; ACORN ed and Further Continuing Appropriations Act of 2012 (Pub. L.112-55); ony conviction (sections 544 and 543 of Public Law 112-55).
8.	Signature of Applicant:	
9	Date Signed:	