

LaSPACE

Support for Advanced Flight Opportunities for Students (SAFOS)

Offered by the Louisiana Space Grant Consortium



Under the authority of the
NASA Space Grant College and Fellowship Program

Louisiana Space Grant Consortium (LaSPACE)
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Louisiana State University, Baton Rouge, LA 70803
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SAFOS Program Summary Page

About the SAFOS Program

The Support for Advanced Flight Opportunities for Students (SAFOS) Program aims to encourage student participation in aerospace research by providing funds for the development of student satellite payloads and other space-engineering products. SAFOS was developed with several established advanced flight programs in mind. Advanced flight projects offer student scientists and engineers a real-world technical and project management experience, which contributes to a skilled technical workforce for the aerospace industry. Funds from SAFOS may be used to support student teams participating in programs like HASP, RockSat-C, and RockSat-X. Other advanced flight programs that emphasize a complete project lifecycle, from design to build through flight and post-flight analysis, are eligible. Senior Design Projects will not be considered, as these programs are supported by pre-existing funding mechanisms from LaSPACE.

Program Summary

- Proposals must be signed off on by the Faculty PI and the Designated Institutional Representative for Sponsored Programs at your institution.
- Award funds can be requested in the range of \$5,000 to \$25,000. While there is no strict cost-match requirement, many of the advanced flight projects will require more funding than the LaSPACE SAFOS program will supply. You are expected to lay out your plan for acquiring the additional funding, even if you do not claim it as cost-match. A brief monthly status report on the progress of your flight project must be submitted to LaSPACE@lsu.edu (sample template provided).
- If you intend to participate in a flight program that launches from a NASA facility (NASA Wallops, CSBF, etc.) all participants (faculty, staff, and students) using the facility must be U.S. Citizens.
- ***SAFOS projects may request a Period of Performance (PoP) between 6 and 15 months long. SAFOS will remain open for proposals so long as funding remains available. We will send out an announcement when/if the program closes. Thus, there is no specific due date, BUT proposals must be submitted at least 60 days before the proposed start date.***
- Include a list of student participants with your proposal, if your student teams have already been identified. If not, you must submit those immediately upon recruitment. All students identified in the proposal must complete the LaSPACE Online Student Participant Form prior to proposal submission. Additional students recruited to the project must submit a form immediately upon selection.
- The financial representatives at your institution are expected to invoice LaSPACE at least once every 3 months and no more frequently than once a month, using the official LaSPACE billing form.
- The final invoice and a final technical report must be submitted to the LaSPACE office within 30 days of the project end date. Final report guidelines are available on the LaSPACE website.

Proposal Submissions

- **Submit all properly executed proposals via email as fully searchable pdf documents to laspace@lsu.edu.**
 - Solicitation Release Date: Tuesday, August 24, 2021
 - Proposal Due Date: Open-ended as funding is available
 - Anticipated Award Announcements: Reviewed & Awarded as submitted
 - Award Period of Performance: between 6 & 15 months.

LaSPACE General Guidelines

Introduction to the Space Grant Program

The Louisiana Space Grant Consortium (LaSPACE) is a Designated Consortium in the NASA National Space Grant and Fellowship Program network, which was designed to network colleges, universities, and state education boards with partners in business, industry, and the non-profit sector in order to promote, develop, and strengthen aerospace science, research, technology, education, and awareness. Our mission is “To enhance Space and Aerospace related research, education, and public awareness throughout the State of Louisiana and thereby promote math/science education, training of professionals, and economic development.” LaSPACE promotes scientific research, workforce development, and public outreach to develop and strengthen long-term research capabilities within Louisiana that will make significant contributions to the research and technology Mission Directorates of NASA while supporting the goals of the state.

Basis of Authority

The Louisiana Space Grant Consortium (LaSPACE) currently comprises Louisiana public and private colleges and universities in addition to business/industry partners and other organizations. The consortium is funded jointly by the National Aeronautics and Space Administration (NASA) and by the Louisiana Board of Regents Support Fund (BORSF). The consortium is administered by the LaSPACE Council, under the aegis of NASA and the Board of Regents. The basis of authority for this and other programs of LaSPACE rests in part on the above funding. It is important, therefore, to note that the implementation of LaSPACE-supported projects must conform to applicable Federal and State regulations, in general, and to the NASA stipulations, in particular.

NASA Agency Information

NASA 2018 Strategic Plan

NASA’s 2018 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 references NASA’s enduring purpose of scientific discovery.
- EXPLORE references NASA’s push to expand the boundaries of human presence in space.
- DEVELOP references NASA’s broad mandate to promote the technologies of tomorrow.
- ENABLE references the capabilities, workforce, and facilities that allow NASA to achieve its Mission.

The complete plan can be downloaded [here](#).

NASA Vision

To discover and expand knowledge for the benefit of humanity.

NASA Mission

Lead an innovative and sustainable program of exploration with commercial and international partners to enable human expansion across the solar system and bring new knowledge and opportunities back to Earth. Support the growth of the Nation’s economy in space and aeronautics, increase understanding of the universe and our place in it, work with industry to improve America’s aerospace technologies, and advance American leadership.

NASA Office of STEM Engagement *(formerly Office of Education)*

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 and technology priorities are aligned with one or more of NASA's Mission Directorates:

The [Science Mission Directorate \(SMD\)](#) expands the frontiers of Earth science, heliophysics, planetary science, and astrophysics. Using robotic observatories, explorer craft, ground-based instruments, and a peer-reviewed portfolio of sponsored research, SMD seeks knowledge about our solar system, the farthest reaches of space and time, and our changing Earth.

The [Aeronautics Research Mission Directorate \(ARMD\)](#) transforms aviation with research to dramatically reduce the environmental impact of flight, and improves aircraft and operations efficiency while maintaining safety in increasingly crowded skies. ARMD also generates innovative aviation concepts, tools, and technologies for development and maturation by the aviation community.

The [Space Technology Mission Directorate \(STMD\)](#) pursues transformational technologies that have high potential for offsetting future mission risk, reducing cost, and advancing existing capabilities. STMD uses merit-based competition to conduct research and technology development, demonstration, and infusion of these technologies into NASA's missions and American industry. This mission directorate is being refocused as a new Exploration Research & Technology (ER&T) organization to support exploration as a primary customer.

The [Human Exploration and Operations Mission Directorate \(HEOMD\)](#) leads human exploration in and beyond low Earth orbit by developing new transportation systems and performing scientific research to enable sustained and affordable human life outside of Earth. HEOMD also manages space communication and navigation services for the Agency and its international partners.

All NASA 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.

NASA MD Contacts for University Researchers

Science Mission Directorate (SMD)

POC: Kristen Erickson, Director, Science Engagement Partnerships Phone: (202) 358-0039,
Kristen.Erickson@nasa.gov

The Aeronautics Research Mission Directorate (ARMD)

POC: Karen L. Rugg, Lead, Communications and Education Phone: (202) 358-2197, karen.l.rugg@nasa.gov

Space Technology Mission Directorate (STMD)

POC: Damian Taylor, SBIR and STTR Mission, Directorate Liaison Phone: (202) 358-1432,
damian.taylor@nasa.gov

Human Exploration and Operations Mission Directorate (HEOMD)

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

NASA Center Liaisons

Ames Research Center, <i>Kristina Wilmoth</i> Education Specialist Phone: (650) 604-6137 Kristina.Wilmoth@nasa.gov	Kennedy Space Center, <i>Jeffrey A. Kohler</i> Technology Transfer Office Phone: (321) 867-2462 Jeffrey.A.Kohler@nasa.gov
Armstrong Flight Research Center, <i>Kristina Wilmoth</i> Education Specialist Phone: (650) 604-6137 Kristina.Wilmoth@nasa.gov	Langley Research Center, <i>Kim Brush</i> LaRC OSTEM Integration Manager Phone: (757) 864-6454 Kimberly.M.BBrush@nasa.gov
Goddard Space Flight Center, <i>James L. Harrington</i> Computer Research and Development Phone: (301) 286-4063 James.L.Harrington@nasa.gov	Glenn Research Center, <i>Mark David Kankam, Ph.D.</i> University Affairs Officer Phone: (216) 433-6143 Mark.D.Kankam@nasa.gov
Jet Propulsion Laboratory, <i>Linda Rodgers or Petra Kneissl</i> University Programs Administrators Linda Phone: (818) 354-3274 Linda.L.Rodgers@jpl.nasa.gov Petra Phone: (818) 201-8805 Petra.A.Kneissl-milanian@jpl.nasa.gov	Marshall Space Flight Center, <i>Frank Six</i> University Affairs Officer Office of Academic Affairs (HS30) Phone: (256) 961-0678 Norman.F.Six@nasa.gov
Johnson Space Center, <i>Kamlesh Lulla</i> Director, University Research Collaborations and Partnership Office Phone: (281) 483-3065 Kamlesh.P.Lulla@nasa.gov	Stennis Space Center, <i>Mitch Krell, Ph.D.</i> Data Analysis Phone: (228) 688-1821 Mitch.Krell@nasa.gov

LaSPACE Program

The Louisiana Space Grant Consortium, part of the National Space Grant College and Fellowship Program and in partnership with the Louisiana Board of Regents, supports programs at affiliated academic institutions and other Louisiana organizations that address the NASA mission, federal CoSTEM goals, and state education and economic priorities. LaSPACE programs for Research, Higher Education, Workforce Development, K-12 Teacher Development, and Public Outreach, strengthen the Science, Technology, Engineering, and Math (STEM) education needed for a diverse technical workforce, and develops the research and economic infrastructure to boost Louisiana's contribution to the aerospace frontier.

Goals and Objectives

LaSPACE Goals and Objectives are directly aligned with NASA Office of STEM Engagement and National Program Emphases on Diversity, Workforce Development, Community Colleges, Pre-College teacher engagement, Competitiveness, NASA Research Relevance, Industry Relations, and State Government Involvement. The updated LaSPACE 2019 Strategic Plan describes a comprehensive program of Research, Education, and Service via 5 strategic goals, each in line with one or more NASA OSTEM objectives, to (1) Foster aerospace research and education (OSTEM 1.1, 1.2, 2.1, 2.2, 2.4, 3.2), (2) Foster and support hands-on experiential programs for higher education students (2.1, 2.2, 2.3, 2.4), (3) Contribute to pre-college STEM education excellence (1.2, 3.1), (4) Engage and educate the general public (3.1), and (5) Maintain an effective consortium of institutions involved in LaSPACE.

Major objectives for the achievement of these goals includes (1) Support for student and faculty research at consortium institutions, (2) Strengthening interactions between Louisiana aerospace industries, faculty, and students, (3) Increased participation in Space Grant programming with the state's HBCUs and Community & Technical Colleges, (4) Provide support to undergraduate and graduate students for research, design, and internship opportunities, (5) Engage students in experiential learning environments, (6) Support middle and high school educator training, and (7) Foster informal education and public outreach. Proposals to LaSPACE programs should explicitly support one or more of these seven objectives.

LaSPACE Program Administration & Institutional Coordinators

General administration and management is the responsibility of the LaSPACE Staff headquartered at Louisiana State University (LSU). Questions about applications to any LaSPACE programs should be directed to the Director or Assistant Director via the general laspace@lsu.edu email address. Unless otherwise directed, all proposals, invoices, reports, and queries should be submitted via email to the program email address (laspace@lsu.edu).

LaSPACE Program Office, laspace@lsu.edu, 225-578-8697

LSU Department of Physics & Astronomy | 364 Nicholson Hall, Baton Rouge, LA 70803

T. Gregory Guzik, Director, tgguzik@lsu.edu | Colleen H. Fava, Assistant Director, colleenf@lsu.edu | Meaghin Woolie, Program Manager, mwooli2@lsu.edu | Doug Granger, Student Flight Program Manager, dgrang2@lsu.edu | Aaron Ryan, Outreach and Student Flight Program Coordinator, aryan21@lsu.edu

Additionally, all member institutions have appointed an institutional coordinator who sits on the LaSPACE Advisory Council and is available to discuss opportunities and processes related to LaSPACE programs. Contact information for all advisors is provided below. For institutions with a vacancy, contact the program manager listed above.

Louisiana Space Grant Consortium Affiliate Institutional Coordinators

Baton Rouge Community College (BRCC)	Sandra Guzman	guzmans@mybrcc.edu	225-216-8213
BREC / Highland Road Park Observatory (HRPO)	Christopher Kersey	o@brec.org	225-768-9948
Cain Center for STEM Literacy (Cain Center)	Frank Neubrandner	fneubr1@lsu.edu	225-578-4082
Delgado Community College (DCC)	Raymond Duplessis	rduple@dcc.edu	504-671-6419
Dillard University (Dillard)	Abdalla Darwish	adarwish@dillard.edu	504-816-4840
East Baton Rouge Parish Library (EBRPL)	Mary Stein	mstein@ebrpl.com	225-231-3710
Grambling State University (GSU)	Matthew F. Ware	waremf@gram.edu	318-274-2391
Louisiana Arts and Science Museum (LASM)	vacant	vacant	vacant
La Board of Elementary & Secondary Education (BESE)	Ann Wilson	Ann.wilson@la.gov	225-342-0140
Louisiana Board of Regents (BOR)	Jessica Patton	jessica.domingue@la.gov	225-342-4253
Louisiana Business and Technology Center (LBTC)	Roy Keller	rkeller@lsu.edu	225-578-3985
Louisiana Economic Development (LED) FastStart	Susana Schowen	susana.schowen@la.gov	225-342-5729
Louisiana Public Broadcasting (LPB)	Christina Melton	cmelton@lpb.org	225-757-4215
Louisiana State University and A&M College (LSU)	Stephen D. Beck	sdbeck@lsu.edu	225-578-5833
Louisiana State University at Alexandria	Gerard Dumancas	gumancas@lsua.edu	318-427-4436
Louisiana State University Agricultural Center (LSU-Ag)	Wade Baumgartner	wbaumgartner@agcenter.lsu.edu	225-578-7742
Louisiana State University Health Sciences (LSUHSC)	Lynn Harrison	lynn.clary@lsuhs.edu	318-675-4213
Louisiana State University of Shreveport (LSUS)	Urska Cvek	urska.cvek@lsus.edu	318-795-4266
Louisiana Tech University (LaTech)	Mary Caldorera-Moore	mcmoore@latech.edu	318-257-2207
Loyola University (Loyola)	Martin McHugh	mmchugh@loyno.edu	504-865-2451
McNeese State University (McNeese)	Ning Zhang	nzhang@mcneese.edu	337-475-5873
National Center for Biomedical Research & Training (LSU-NCBRT)	Jason Krause	jkrause@ncbrt.lsu.edu	225-578-0285
Nicholls State University (Nicholls)	Matt Marlow	matthew.marlow@nicholls.edu	985-448-4576
Northshore Technical Community College (NTTC)	Chuck Crabtree	charlescraabtree@northshorecollege.edu	985-545-1231
Northwestern State University of Louisiana (NSULA)	Anna Dugas	dugasa@nsula.edu	318-357-5519
Nunez Community College (NCC)	Andreas Pashos	apashos@nunez.edu	504-278-6287
River Parishes Community College (RPCC)	Esperanza Zenon	ezenon@rpcc.edu	225-743-8713
SciPort Louisiana's Science Center	vacant	vacant	vacant
Southeastern Louisiana University (SELU)	Gerard Blanchard	gerard.blanchard@selu.edu	985-549-2159
Southern University and A & M College (SUBR)	Michael Stubblefield	michael_stubblefield@subr.edu	225-771-5231
Southern University of New Orleans (SUNO)	Illya Tietzel	itietzel@suno.edu	504-286-5111
Tulane University (Tulane)	Mark J. Fink	fink@tulane.edu	504-862-3568
University of Louisiana at Lafayette (ULL)	Afef Fekih	afef.fekih@louisiana.edu	337-482-5333
University of Louisiana at Monroe (ULM)	Ken Leppert	leppert@ulm.edu	318-342-1918
University of New Orleans (UNO)	Matthew Tarr	mtarr@uno.edu	504-280-1038
Xavier University of Louisiana (Xavier)	Ashwith K. Chilvery	achilver@xula.edu	504-520-5149

LaSPACE Requirements and Restrictions

In this section, requirements and restrictions applied to all LaSPACE programs are summarized. Additional requirements and restrictions pertaining to individual programs offered by LaSPACE are detailed later in these guidelines.

Public Nature of Applications to LaSPACE

Once an application is received in the LaSPACE office, 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 LaSPACE programs must conform to applicable Federal, State and NASA 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, LaSPACE outreach includes public dissemination of its supported programs through *The Spaceporter Newsletter*, the LaSPACE website (<https://laspace.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.

Diversity

It is a national priority to increase diversity in Science, Technology, Engineering, and Mathematics (STEM), from university students, faculty, and staff to industry employees. Traditionally, minority groups and women have been under-represented in the STEM disciplines as students and faculty as well as in the workplace after graduation. LaSPACE is committed to addressing this priority and utilizing its programs, to the degree possible, to increase the diversity among its awardees. **All proposers are encouraged to help recruit diverse participants to their proposed projects.**

Animal Use

Any project proposing the use of an animal model for validation must include a local IACUC approval letter, fully signed, which specifies a validity period longer than the proposed project period. Failure to obtain the Institutional Animal Care and Use Committee's approval in advance, is grounds for returning the proposal unreviewed. Attach the IACUC material as an additional appendix.

Human Subjects

Projects that involve human subjects are not acceptable for this program.

Eligibility

PI must be associated with a LaSPACE affiliated institution. PI must be a research or tenure-track faculty member or designated institutional representative recognized by LaSPACE. All NASA funded participants must be U.S. citizens. Additional, or altered, restrictions may apply to specific programs.

Concurrent, Overlapping, and Consecutive Awards

PIs may hold more than one LaSPACE Award concurrently with some restrictions. First, no student may be funded simultaneously via multiple awards in the scholarship/fellowship programs (GSRA, LURA, Internships, & HIS programs). Consecutive, non-overlapping awards in these program areas may be issued to exceptional students in the midst of extended research. Proposals for additional year(s) of funding may be submitted if 1) the previous period of performance has recently past or is 60 days or less from completion, 2) must explicitly reference the completion of proposed tasks from the current/previous award within the new proposal, 3) must include a final report, or preliminary final report if still in progress, in an appendix, and 4) must clearly state the objectives and goals for the new proposal differentiating said goals from the prior work.

Budgeting

Capital Equipment purchases, Tuition, and Foreign Travel are, in general, not allowable costs.

Disbursement of Funds

LaSPACE Award fund distribution will be managed by the applicant's college or university, either via a cost-reimbursable subcontract if the applicant is at an affiliate other than LSU, or by transfer of funds from LaSPACE to the applicant's department for projects at LSU. The institution/department will assume responsibility for administering, distributing, and documenting costs charged to this program.

Period of Performance

Unless otherwise stated, LaSPACE programs have a default period of performance of no greater than 12 months. Shorter periods of performance may be proposed, or even required by the LaSPACE office, to meet any requirements or restrictions related to the parent grant. *A proposed period of performance is provided for each program cycle on the summary page; proposers may request a different period within 60 days from our proposed start date, unless otherwise indicated. Proposers may not request a date any earlier than that which was listed by LaSPACE. Modified PoPs will be considered but not promised.* No cost extensions (NCEs) for ongoing projects may be submitted to the LaSPACE program office no later than 60 days before the initial project end-date. All NCE requests must include a status report which addresses all accomplishments made to-date on the project (including all publications, proposals, presentations, patents, etc), where the project is in relation to the originally proposed end date, reasons why the project has been delayed, and a proposed plan for completing the project. This status report must also identify all participants on the project (students, post-docs, faculty, and staff). **SAFOS projects may request a Period of Performance (PoP) between 6 and 15 months long. SAFOS will remain open for proposals so long as funding remains available. We will send out an announcement when/if the program closes. Proposals must be submitted at least 60 days before the proposed start date.**

Support for Advanced Flight Opportunities for Students (SAFOS)

Application Guidelines

About the SAFOS Program

The Support for Advanced Flight Opportunities for Students (SAFOS) Program aims to encourage student participation in aerospace research by providing funds for the development of student satellite payloads and other space-engineering products. SAFOS was developed with several established advanced flight programs in mind. Advanced flight projects offer student scientists and engineers a real-world technical and project management experience, which contributes to a skilled technical workforce for the aerospace industry. Funds from SAFOS may be used to support student teams participating in programs like HASP, RockSat-C, and RockSat-X. Other advanced flight programs that emphasize a complete project lifecycle, from design to build through flight and post-flight analysis, are eligible. Senior Design Projects will not be considered, as these programs are supported by pre-existing funding mechanisms from LaSPACE. Student teams must prove that they have a seat on a flight vehicle secured and that all costs not requested via this proposal are covered. We need to know our investment will result in a flight.

Background and Objectives

The State of Louisiana's prime goal is to develop a well-trained, technical workforce capable of moving the state forward in R & D, attracting high tech industries, and promoting economic development. This is precisely what NASA desires and what LaSPACE is working to achieve. The core focus of the LaSPACE program continues to be student involvement in genuine scientific research and engineering projects. The long-term goals of SAFOS are to 1) retain promising students in aerospace related science and engineering programs, 2) provide students with real-world experience managing modern aerospace projects, 3) give students practical hands-on experience with a complete project lifecycle, 4) expose students to nationally recognized flight programs, 5) familiarize students with multiple flight platforms used in the aerospace industry, and 6) encourage participation from a diverse student population from institutions across Louisiana.

PI Eligibility

Proposals to the SAFOS RFP may be submitted only by qualified faculty or staff members with PI status at a LaSPACE affiliate academic institution. This person becomes the project's Principal Investigator (PI) and is responsible for recruiting team members, administering any necessary instruction, mentoring student participants, and monitoring/advising the student team as they develop their payloads.

Proposal Due Date

We will accept SAFOS proposals beginning immediately and will continue to accept proposals so long as funding remains available. Complete proposals, with all institution approvals and signatures, **must be submitted via email as a fully searchable PDF document** to laspace@lsu.edu. We will send out a notice when funding is no longer available. Thus, there is no "due date" as such, but the SAFOS proposal must be received by the LaSPACE Office no later than 60 days prior to the requested period of performance start date.

Award Funds

SAFOS awards will range from \$5K to \$25K, with fully detailed and justified budget narratives. We anticipate selecting at least 3 applications for award. The proposal may include wage support for personnel (including, but not limited to, students), funds for travel to launch, and costs for materials, supplies, and support for constructing/testing student payloads and analyzing flight data. A strict cost-share is not required, but some institutional investment will be reviewed favorably.

Final Deliverables

At the end of the project, two final reports are required: the Final Technical Report and the Final Financial Report (Last invoice marked “final”). These reports are due within 30 days of the subcontract expiration date.

The Final Technical Report will be a multi-page write-up that is suitable for transmission to NASA and BOR. This report must follow the guidelines set forth in the final report template available from the LaSPACE Management Team. It should describe the activities undertaken, the participants, and your assessment, as Principal Investigator(s), of the success of the venture, the impact that it had (or will have), any follow-on proposals in preparation/submitted, and any further plans for a continuation of this or similar projects. Photographs of, and testimonials from, student participants should be incorporated. Updated student demographic forms for all students must be included. This report shall be submitted to LaSPACE office (laspace@lsu.edu) via email.

SAFOS Proposal Requirements & Format

SAFOS proposals should be submitted as fully searchable pdf documents via email to laspace@lsu.edu.

Proposals must include the following completed sections in the order presented in a single pdf document:

- LaSPACE Cover Page
- Proposed Project Summary Form
- Prior LaSPACE Awards Form
- Proposal Narrative (not to exceed 10 pages)
 1. Description of proposed science/engineering project and payload instrument concept. This section should prove that the project and payload concept have been thought through and basic objectives and requirements identified. We understand that projects evolve, but at the time of proposal, a strong, guiding concept should be in place.
 - A. Science Mission and Primary Objectives
 - B. Explicit alignment with at least one of NASA's four Mission Directorates (ARMD, HEOMD, SMD, & STMD). Also include explicit alignment with research goals, priorities, or NASA Centers as applicable.
 - C. Science Requirements
 - D. Technical Requirements
 - E. Preliminary Payload Design
 2. Flight Plan (must show a clear path to a seat on a specific flight platform)
 - A. Identified flight platform & vehicle (specific HAB, LEO, etc.)
 - B. Details on flight seat acquisition Letter of flight commitment from flight service director (for HASP that would be Doug Granger, for some variation of RockOn that would be Chris Koehler, etc.) The letter should simply certify that this "<Group, Team, or Payload Title>" under direction of <Team lead, Institution> will be provided a seat on the <flight service name, e.g. HASP, RockOn-C> provided that they fulfill the requirements associated with the flight service reviews. Signed and dated.
 - C. Details on flight protocol and requirements
 - D. Timeline for flight
 3. Implementation plan for the project, which includes
 - A. Resources, facilities, and personnel available for technical support and mentorship.
 - B. Financial or in-kind support for other aspects of your project. All required costs must be listed and accounted for.
 4. Project Management plan, which includes
 - A. Team Organizational Structure including definitions of roles and tasks
 - B. Overall Project schedule including details about the flight timeline
 - C. Table of Major Milestones including all required deliverables, critical review documents, and all major milestones for the flight (including payload recovery and data analysis)
 5. Plan to recruit and retain student participants in the program (*If students have already been recruited at the time of the proposal, complete the Student Participant List in the attachments*).
 6. Anticipated outcomes for student learning, flight program development, and overall benefits to your department and institution.
- Budget (LaSPACE Budget Form followed by detailed narrative justification of all costs)

Note: It is hoped that for a student team award of this type, your institution will be willing to forego some or all of the indirect charges. Waived indirect may (should) be used as institutional matching funds. F&A rates and methods for calculation must be included in the budget narrative, as well as any fringe benefits applied, whether to the main budget or the cost-share.

- NASA Media Release Forms (completed by PI and all identified student participants)
- Principal Investigator Short CV (1-2 pages)

Attachments

Required Proposal Forms

Required Forms for Proposal

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

- Cover Sheet
- Proposed Project Summary
- Prior LaSPACE Awards
- Proposal Budget Form
- Student Participant List (to be completed for proposed projects where the participating student(s) have already been identified; a complete online form must also be submitted for each identified student prior to the submission of any proposal. Students recruited later must submit a form immediately upon joining the team).
- NASA Media Release Form (completed by PI and all identified student participants)
- Monthly Status Report Template

LaSPACE SAFOS Program Proposal Cover Sheet

1. Title of Proposed Project: _____

2. Principal Investigator: _____
(Name) (Highest Degree Earned) (Citizenship)

(Department)

3. Institution of Higher Education: _____

4. Address: _____
(Street Address/P.O. Box Number)

(City, State) (Zip Code)

5. Telephone: _____ FAX: _____
E-mail: _____

6. Date of Submission: _____

7. Total Funds Requested: \$ _____ Institutional Match: \$ _____

Certification of Compliance with Applicable Executive Orders and U.S. Code: By signing and submitting this proposal, the signatories certify that the statements made in this proposal are true and complete to the best of their knowledge; they agree to comply with LaSPACE award terms and conditions if an award is made as a result of this proposal; and the institution and proposed project are in compliance with all applicable Federal and State laws and regulations including, but not limited to, Executive Order 12549, Debarment and Suspension, 34 CFR Part 85, Section 85.510, Participant's responsibilities; Non-Discrimination; Certification against Lobbying imposed by section 1352, title 31, U.S. Code; Compliance with China Funding Restriction as detailed in Public Laws 112-10 Section 1340(a) and 112-55, Section 539; ACORN Compliance in accordance with 534 of the Consolidated and Further Continuing Appropriations Act of 2012 (Pub. L.112-55); and does not have a federal tax liability or federal felony conviction (sections 544 and 543 of Public Law 112-55).

8. Signature of Principal Investigator: _____

9. Name of Authorized Institutional Rep: _____

10. Signature of Authorized Institutional Rep: _____

11. Date Signed: _____

Proposed Project Summary

NAME OF INSTITUTION (INCLUDE BRANCH/CAMPUS AND SCHOOL OR DIVISION)
ADDRESS (INCLUDE DEPARTMENT)
PRINCIPAL INVESTIGATOR NAME & EMAIL ADDRESS
PROJECT TITLE
NASA MISSION DIRECTORATE ALIGNMENT (Check all that apply to your project) <input type="checkbox"/> SMD <input type="checkbox"/> STMD <input type="checkbox"/> HEOD <input type="checkbox"/> ARMD
PROPOSED PERIOD OF PERFORMANCE & START DATE Period of Performance duration in months (ex 9 months): _____ Proposed Period of Performance (ex 05/15/21-8/14/22): _____
PROPOSED LAUNCH VEHICLE & ESTIMATED LAUNCH DATE <input type="checkbox"/> RockSat-C (6/2022) <input type="checkbox"/> RockSat-X (8/2022) <input type="checkbox"/> HASP (9/2022) <input type="checkbox"/> Other: _____
ABSTRACT (DO NOT EXCEED 250 WORDS)

Prior LaSPACE Awards

(for the most recent 5 years)

For each prior LaSPACE award, as a PI or a Co-I please provide the following:

1. Project Title:
2. Dates:
3. Was a final technical report submitted? _____YES _____NO*

If no, explain:

4. Did a proposal to a funding agency result? _____NO _____YES

If yes, Agency:

Title:

Date:

Status: _____Funded _____Declined _____Pending

(Add additional pages as necessary.)

LaSPACE Proposed Budget Form

Include this form in your proposal. Be sure to only ascribe funds to categories explicitly open to the program area to which you are applying. Following this form, include a detailed narrative explanation of all proposed costs.

Proposal Title: _____

Principal Investigator: _____

Institution: _____

	LaSPACE Funds Requested	Cost-Share Funds*
A. Direct Labor		
1. Researchers	\$	\$
2. Graduate Student(s)	\$	\$
3. Undergraduate Student(s)	\$	\$
4. Fringe Benefits	\$	\$
5. Subtotal A	\$	\$
B. Supportive Expenses		
1. Travel	\$	\$
2. Supplies & Materials	\$	\$
3. Communications & Equipment	\$	\$
4. Other Direct Costs (Identify)	\$	\$
5. Subcontracts	\$	\$
6. Subtotal B	\$	\$
7. F&A (Indirect)	\$	\$
C. Total Project Cost		
	\$	\$

**Must be certified on all financial billings/reports.*

Student Participant List

Student Participant List is to be completed for proposed projects where the participating student(s) have already been identified; a complete online form must also be submitted for each identified student prior to the submission of any proposal. Students recruited later must submit a form immediately upon joining the team.

Name	Classification	Major	Project Role
<i>e.g. Jane Smith</i>	<i>Undergraduate, Junior</i>	<i>Electrical Engineering</i>	<i>Electrical Design Lead; Technical Writing Co-Lead</i>

[Link to Undergraduate Student Participation Form](#)

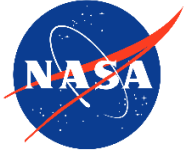
[Link to Graduate Student Participation Form](#)

- Check this box to confirm that all students listed above have completed an online participant form.
- Check this box to confirm that all future recruited students will complete the form immediately upon joining the project team.

Online Student Participant Form Guidance (applicable to all submissions):

Please provide the following guidance to students completing the online participant form.

- The online form should be completed and submitted by all student participants.
- Upon completion of the form, students will see an option to “print or get PDF of answers.” It is recommended that students save a copy of their answers to their local device for their own records.
- The **Faculty Advisor/ Mentor (question 12)** should be the PI who is submitting this proposal. Please provide the students with your office phone number and email address to input.
- The **Program (question 15)** should be the program for which students are currently applying/participating in. If working under multiple LaSPACE projects, students will submit a demographic form for each separate project.
- The **Project Start Date (question 16)** should be the approved start date of this current proposal submission. Follow up with LaSPACE at laspace@lsu.edu to confirm.
- The **Participating Semester(s)** should include all semesters during the Period of Performance of this current proposal submission. Follow up with LaSPACE at laspace@lsu.edu to confirm.



I, , hereby give permission to be interviewed, photographed, and/or videotaped.

I understand and agree that the text, photographs, and/or videotapes thereof containing my name, likeness, and voice, including transcripts thereof, may be used in the production of instructional, promotional materials, and for other purposes that NASA deems appropriate; and such materials may be distributed to the public and displayed publicly one or more times and in different formats, including but not limited to, websites, cablecasting, broadcasting, and other forms of transmission to the public.

I also understand that this permission to use the text, photographs, videotapes, and name in such material is not limited in time and that I will not receive any compensation for granting this permission.

I understand that NASA has no obligation to use my name, likeness, or voice in the materials it produces, but if NASA so decides to use them, I acknowledge that it may edit such materials. I hereby waive the right to inspect or approve any such use in advance or following distribution or display.

I hereby unconditionally release NASA and its representatives from any and all claims and demands arising out of the activities authorized under the terms of this agreement.

By signing below, I represent that I am of legal age, have full legal capacity, and agree that I will not revoke or deny this agreement at any time.

I have read the foregoing and fully understand its contents.

Accepted by:

Signature: Date:

Address:

Cell Phone:

Email Address:

Name and Location of Event: Media related to a NASA Space Grant / NASA EPSCoR 2021 Project

Note: This release pertains to my likeness captured by LaSPACE / LA NASA EPSCoR program staff and/or funded participants, as well as media I submit to the LaSPACE Management office documenting experiences related to this Project. This release is valid for all documentation submitted or released for the duration of the project. This waiver gives LaSPACE/ LaNASA EPSCoR team, LSU, the LA BoR, & NASA permission to share my likeness.



SAFOS Support Monthly Status Report

Report Month: Name of Month

Submitted by: Name of person

Submit Date: MM / DD / 2021

Institution: Institution Name

Flight Platform Name: Example: RockSat-C or HASP 2021

Payload Name: The title of the payload experiment and, if desired, the acronym

I) Activities During Previous Month:

Fill in text as necessary

II) Issues Encountered:

Fill in text as necessary

III) Milestones Achieved:

Fill in text as necessary

IV) Plans for Coming Month:

Fill in text as necessary

V) Other Comments:

Fill in text as necessary

VI) Team Composition and Organization:

Fill in text as necessary plus update table below.

Name	Start Date	End Date	Role	Student Status	Race	Ethnicity	Gender	Disabled
Alpha Bravo	10/15/18	12/31/18	Mechanical	Undergrad	White	Hispanic	Male	No
Charlie Delta	12/1/18	Present	Project Manager	Graduate	Black		Male	No
Echo Foxtrot	1/15/19	Present	Electrical lead	Undergrad	Asian		Female	No