

NASA EPSCoR

Request for Pre-proposals

TIMETABLE:

Issue Date: **10 December 2008**

Notice of Intent (required) due: **12 January 2009**

Last day for questions and answers about this solicitation: **20 January 2009**

Pre-proposals due: **26 January 2009**



LA EPSCoR

LOUISIANA EXPERIMENTAL PROGRAM TO STIMULATE COMPETITIVE RESEARCH (EPSCoR)

Louisiana Board of Regents
1201 North Third Street, Suite 6-200
Baton Rouge, Louisiana 70802
(225) 342-4253

I. PROGRAM DESCRIPTION

I.A. OVERVIEW

This Request for Pre-Proposals (RFP) is being issued in anticipation of the release of the FY2009 NASA EPSCoR Cooperative Agreement Notice (CAN). The FY2009 CAN is expected to be very similar to the FY2007 CAN, number NNH07ZNE001C, which is available at: <http://nspires.nasaprs.com/external/solicitations/summary.do?method=init&solId={AB8FCD4B-F29D-5B52-7295-26E1CB2DE450}&path=open>)

Each of twenty-five EPSCoR jurisdictions are expected to be eligible to submit a statewide package (most likely consisting of two to four proposals) for consideration; Louisiana's will be submitted by the Board of Regents (BOR). This solicitation seeks pre-proposals which will be reviewed by an external panel. The panel will recommend the 2-4 most meritorious pre-proposals, which will then be further developed and included as the component proposals in the statewide proposal package.

NASA intended to issue the FY2009 CAN in mid-November, with the statewide proposal package due ninety days after issuance (i.e., on or about February 15, 2009). Past experience has indicated that NASA may adhere to that due date even if the CAN is issued in December. For the purposes of this RFP, it is assumed that the proposal package due date will fall sometime between February 15 – March 1, 2009. Therefore, in order to allow as much time as possible for proposers to prepare applications and for the BoR's subsequent review process, this RFP has been issued with a timeline for proposal submission that, while compressed, will allow the State's researchers as much time as possible to respond to the NASA CAN. Proposers should be aware that NASA's issuance of the CAN is not guaranteed. The BOR reserves the right to make adjustments to the timeline and other changes to the requirements contained in this RFP as needed to accommodate the instructions contained in the FY2009 CAN.

Under the last competition, NASA awarded twenty-three (23) research projects (two to Louisiana) with funding of up to \$750,000 for a three-year period of performance. A list of the projects awarded in the last competition is included as Appendix A.

I.B OBJECTIVES

NASA EPSCoR proposals are expected to establish research programs that will make significant contributions to the strategic research and technology priorities of one or more of the four NASA Mission Directorates and/or one or more of the ten NASA field centers, and contribute to the overall research infrastructure, science and technology capabilities, higher education, and economic development of the State.

I.C ELIGIBILITY

Individuals holding a tenured, tenure-track, or research faculty position at any of Louisiana's public institutions of higher education, as well as accredited independent institutions of higher education that are members of the Louisiana Association of Independent Colleges and Universities, are eligible to submit pre-proposals under this solicitation. Individuals who are not employed by these institutions may serve as Consultants; however, they may not be listed as investigators and must not be cited on the cover sheet of the pre-proposal. A faculty member may submit only one pre-proposal in response to this solicitation as Principal Investigator (PI), but may be a co-investigator on additional pre-proposals. Institutional leads of proposals funded

in the last NASA EPSCoR competition in FY2007 are not eligible to serve as leads of a proposal in this competition.

I.D FINANCIAL CONSIDERATIONS

Based on the previous CAN, each statewide proposal may request NASA funding of up to \$750,000 for a three-year project. The BOR will provide cost sharing at a 1:1 ratio to support the research project. Of the \$750,000 in NASA funds, \$28,000 per year (\$84,000 total) will be reserved for management of the project; therefore, for each proposed project, the PI may request a maximum of \$666,000 in NASA funds and \$750,000 in BOR Support Funds. Furthermore, the annual budgets for each research project should be held constant for all three years of the proposed project; therefore the maximum **annual** request is \$222,000 for NASA funds and \$250,000 for BOR Support Funds.

Institutional cost sharing is also expected. Applicants are encouraged to consider methods of cost sharing which would add value to the State's existing research capabilities.

I.E. ASSESSMENT OF PRE-PROPOSALS AND PREPARATION OF FULL PROPOSALS

All NASA-EPSCoR pre-proposals will be reviewed by a panel of experts from outside Louisiana. The PIs of the pre-proposals selected for development into full proposals will be notified on or about **9 February 2009** and will be provided feedback from the panel. Full proposals (with budgets approved by the PI's office of sponsored programs) will be due at the BOR on **13 February 2009**. The PIs of successful pre-proposals are expected to be available to work closely with the NASA EPSCoR Project Director (Dr. John Wefel, LSU Department of Physics and Astronomy) and BOR staff from **9 February 2009** until **15 February 2009** as the recommended proposals are incorporated into the statewide proposal package for submission to NASA. **If changes to this timetable become necessary, the BOR will notify all proposers.**

I.F. TIMETABLE (DATES MAY CHANGE, SUBJECT TO REQUIREMENTS OF FY2009 CAN)

12 January 2009	Notice of Intent due at BOR
20 January 2009	Last day to answer questions about this solicitation
26 January 2009	Pre-proposals due
9 February 2009	Successful proposers notified to develop full proposals
13 February 2009	Full proposals due at BOR (for the selected projects)
15 February 2009	Proposals due at NASA (submitted by BOR)

I.G. QUESTIONS ABOUT THIS SOLICITATION

Specific questions concerning this solicitation and the requirements set forth herein should be directed **in writing** to Mr. Jim Gershey, Executive Director of Special Programs, by email to jim.gershey@la.gov. Questions will be accepted and answered through **20 January 2009**. A running compilation of all questions asked about this RFP and all answers provided in response to those questions will be periodically posted on the BoR website at <http://laregents.org/www2/index.htm>.

II. PRE-PROPOSAL SUBMISSION AND FORMAT REQUIREMENTS

II.A NOTICE OF INTENT (Required)

Before a pre-proposal will be accepted, a notice of intent (NOI) in portable document format (pdf) must be submitted by the PI to Mr. Jim Gershey at jim.gershey@la.gov, with a copy to the

PI's office of sponsored programs, no later than the close of business (4:30 p.m.) on **12 January 2009**. Use the form attached to this document. An email acknowledging receipt of the NOI will be sent to the PI and office of sponsored programs. Failure to receive an acknowledgement by noon on **13 January 2007** indicates that the NOI has not been received by the BOR.

II.B. TYPE SIZE AND FORMATTING

The project description must be formatted to a standard 8-1/2" x 11" page and have 1-inch top, bottom and side margins. Type height should be no smaller than 12 point; type density should be no more than 12 characters per inch; line spacing should be no more than five lines within a vertical space of one inch.

II.C. PRE-PROPOSAL ELEMENTS

The pre-proposal must contain the following elements, in the order presented here:

1. **Cover Page**: use the cover page form attached to this document.
2. **Project Description** –not to exceed fifteen (15) pages, consecutively numbered, including text as well as visual materials, which addresses the intrinsic merit of the proposed project as described in Section X of the FY2007 CAN, entitled “Proposal Evaluation Criteria and Selection Process” (page 24):
 - Proposed research, including goals and objectives clearly defined
 - Existing research relevant to proposed research
 - Relevance to NASA and Louisiana
 - Partnerships/sustainability
 - Plans for NASA interactions
 - Diversity contribution/plan

The Project Description should also describe the management structure for the proposed research and the evaluation plan/process to document outcomes and demonstrate progress toward achieving the stated objectives.
3. **References** – are not included in the page limitation for the project description.
4. **Budget and Budget Narrative** – Use Louisiana NASA EPSCoR Pre-proposal Budget Form attached to this document (this form is also provided in MS Excel as a separate attachment). Prepare a separate budget page for each year plus a cumulative budget page. A budget justification must be included. Indirect Cost request is limited to 25% of salaries, wages, and fringe. Unrecovered indirect costs may be used as institutional cost sharing. Identify all proposed subawards and provide as complete financial details as possible, including a budget from each subaward institution.
5. **Biographical Sketches** – Use BOR Form 1001Bio, which is attached to this document. Biographical Sketches of the Principal Investigator (PI) and Co-I(s) are required and must not exceed two (2) pages each. NSF, NASA, or other formats may be substituted, as long as they provide the information requested on the BOR form.
6. **Current and Pending Support** – Use BOR Form 1001CP attached to this document. Current and Pending Support for PI and Co-PIs must be provided. The NSF or NASA current and pending support form may be substituted.

7. **Letters of Support** – may be appended to the pre-proposal. No other appendices are allowed.

II.D. SUBMISSION OF PRE-PROPOSAL

The pre-proposal must be submitted to the Board of Regents by the submitting institution's authorized representative no later than the close of business (4:30 p.m.) **26 January 2009**. **Pre-proposals directly submitted to the Board of Regents by individual PIs will not be accepted.** All online submissions must be uploaded as a single PDF document through the LOGAN system.

Instructions for PIs:

1. Go to URL: <https://laregents.org/cgi-bin/logan/home>.
2. Login using your LOGAN credentials.
 - a. If you are new user and do not have a LOGAN login, please click on "New user registration" to register.
 - b. If you have logged into LOGAN before and have forgotten your credentials please send an email to karthik@la.gov.
3. After logging in, click on "NASA EPSCoR Pre-proposals" and use the provided online form to select and upload the PDF document. **Note:** the entire pre-proposal must be contained in a **single PDF document**. The LOGAN system will NOT accept multiple PDF document uploads for a single submission.
4. If upload is successful, send the pre-proposal to your sponsored programs office by clicking the "Send Proposal to OSP/OSR". A proposal number will be assigned after the pre-proposal is successfully sent to the PI's Office of Sponsored Programs/Research.
5. An email confirmation will be sent to the PI with the proposal number.
6. The OSP/OSR will review the pre-proposal, and, if approved, send the pre-proposal to the Board of Regents.

Instructions for the OSP/OSR:

1. Go to URL: <https://laregents.org/cgi-bin/logan/home>.
2. Login using your Institutional credentials.
3. Select "NASA EPSCoR Pre-proposals".
4. Follow simple onscreen instructions to submit the pre-proposal to the Board of Regents, EPSCoR office.
5. An email will be sent to both the PI and the OSP/OSR to confirm successful submission of the pre-proposal.

If **both** the PI and the OSP/OSR do not receive confirmation emails within 12 hours, the pre-proposal was not received. Please contact Karthik Poobalashubramanian by phone at (225) 342-4253 or by email at karthik@la.gov.

NOTICE OF INTENT: FY2009 NASA EPSCoR Pre-proposal

NAME OF PRINCIPAL INVESTIGATOR (PI):	NAME OF LEAD ORGANIZATION:
PI DEPARTMENT	PI PHONE NUMBER and EMAIL ADDRESS
TITLE OF PROPOSED PROJECT:	
LIST PARTICIPATING INSTITUTIONS/CAMPUSES:	
LIST PROJECT DISCIPLINES:	
THE PROPOSED WORK WILL SUPPORT THE RESEARCH PRIORITIES OF THE FOLLOWING NASA DIRECTORATES AND/OR NASA FIELD CENTERS:	
PROJECT SYNOPSIS (maximum 250 words):	
NAMES of OTHER INVESTIGATORS	INSTITUTION/DEPARTMENT
CO-I	
CO-I	
CO-I	
CO-I	

COVER SHEET: FY2009 NASA EPSCoR Pre-proposal

FOR CONSIDERATION BY BOR ORGANIZATION UNITS(S)			
Sponsored Programs			
PROGRAM ANNOUNCEMENT NASA EPSCoR			
NAME OF LEAD ORGANIZATION:		ADDRESS OF LEAD ORGANIZATION, INCLUDING ZIP CODE:	
PI DEPARTMENT		PI POSTAL ADDRESS	
TITLE OF PROPOSED PROJECT:			
REQUESTED AMOUNT, YR 1:	REQUESTED AMOUNT, YR 2:	REQUESTED AMOUNT, YR 3:	TOTAL REQUESTED:
\$	\$	\$	\$
LIST PARTICIPATING INSTITUTIONS/CAMPUSES:			
LIST PROJECT DISCIPLINES:			
NAMES (TYPED)	Highest Degree/ year attained	Telephone Number	Email Address
PRINCIPAL INVESTIGATOR (PI)			
CO-I			
CO-I			
CO-I			
CO-I			

Louisiana NASA EPSCoR Pre-proposal Budget Form

PROJECT TITLE:		PROJECT YEAR: (circle one)			
		1	2	3	combined
PRINCIPAL INVESTIGATOR:		ORGANIZATION:			
1	SALARY COSTS	NASA Funds Requested	Non-Federal Match		
			BOR	Institutional	
	1				
	2				
	3				
	4				
	5 Graduate Student Support				
	6 Undergraduate Student Support				
	TOTAL PERSONNEL				
2	FRINGE BENEFITS (if charged as direct costs) Specify Rate:				
3	TOTAL WAGES, SALARIES, BENEFITS (1 + 2)				
4	SUPPLIES & MATERIALS				
5	EQUIPMENT (List item & dollar amount for items exceeding \$1,000)				
	Total Permanent Equipment				
6	TRAVEL COSTS				
	Domestic (Incl. Canada & U. S. possessions.)				
	Foreign				
7	PUBLICATION & REPORT COSTS				
8	SUBAWARD COSTS				
9	CONSULTANT COSTS				
10	COMMUNICATION COSTS				
11	OTHER DIRECT COSTS				
12	TOTAL DIRECT COSTS				
13	INDIRECT COSTS (Specify rates.) 1. Federal: 25% of line 3 2. BOR: 25% of line 3 3. Institutional: (specify rate)				
	Total Indirect Costs				
14	TOTAL PROJECT COSTS (12 + 13)				

BIOGRAPHICAL SKETCH (Form 1001Bio)

Provide the following information for the senior personnel on the project. Begin with the Principal Investigator.
DO NOT EXCEED 2 PAGES PER PERSON.

- A. Vitae, listing professional and academic essentials and mailing address.
- B. List up to 5 publications most closely related to the proposed project and up to 5 other significant publications, including those being printing. Patents, copyrights, or software systems developed may be substituted for publications. Do not include additional lists of publications, invited lectures, etc. Only the list of up to 10 will be used in merit review.
- C. List of persons, other than those cited in the publication list, who have collaborated on a project or a book, article, report or paper within the last 48 months, including collaborators on this proposal. If there are no other collaborators, please indicate that fact.
- D. Names of graduate and post-graduate advisors and advisees.

The information in C. and D. is used to help identify potential conflicts or bias in the selection of reviewers.

CURRENT AND PENDING SUPPORT (Form 1001CP)

(From ALL sources, including BOR Support Fund)

The following information MUST be provided for each investigator and other senior personnel. Use additional sheets as necessary.

NAME OF INVESTIGATOR:

<p>Status of Support: <input type="checkbox"/> Current <input type="checkbox"/> Pending <input type="checkbox"/> Submission Planned in Near Future</p> <p>Project/Proposal Title:</p> <p>Source of Support:</p> <p>Award Amount (or Annual Rate): \$ _____ Period Covered: _____</p> <p>Location of Activity:</p> <p>Person-Months or % of Effort Committed to the Project: <input type="checkbox"/> Cal Yr <input type="checkbox"/> Acad <input type="checkbox"/> Summ</p>
<p>Status of Support: <input type="checkbox"/> Current <input type="checkbox"/> Pending <input type="checkbox"/> Submission Planned in Near Future</p> <p>Project/Proposal Title:</p> <p>Source of Support:</p> <p>Award Amount (or Annual Rate): \$ _____ Period Covered: _____</p> <p>Location of Activity:</p> <p>Person-Months or % of Effort Committed to the Project: <input type="checkbox"/> Cal Yr <input type="checkbox"/> Acad <input type="checkbox"/> Summ</p>
<p>Status of Support: <input type="checkbox"/> Current <input type="checkbox"/> Pending <input type="checkbox"/> Submission Planned in Near Future</p> <p>Project/Proposal Title:</p> <p>Source of Support:</p> <p>Award Amount (or Annual Rate): \$ _____ Period Covered: _____</p> <p>Location of Activity:</p> <p>Person-Months or % of Effort Committed to the Project: <input type="checkbox"/> Cal Yr <input type="checkbox"/> Acad <input type="checkbox"/> Summ</p>
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Appendix A: Funded NASA EPSCoR Proposals, FY2007

State	Lead Institution (award recipient)	Institution conducting research	Funding Per Award	Title
Alaska	University of Alaska, Fairbanks	University of Alaska, Fairbanks	\$732,913.00	Application of a new generation of ground- and satellite based whistler-mode wave experiments as diagnostic tools for probing the structure of magnetospheric plasmas
Alabama	University of Alabama, Huntsville	University of Alabama, Huntsville	\$748,500.00	Device Realization for Sensor and Health Monitoring of Space Transportation Systems
Arkansas	University of Arkansas, Little Rock	University of Arkansas, Little Rock	\$750,000.00	Noninvasive Prospecting for Lunar Ores and Minerals
Idaho	University of Idaho	Boise State University	\$750,000.00	Reliability Investigations of Radiation Resistant Multi-State Phase-Change Memory
Kentucky	Western Kentucky University	University of Kentucky	\$750,000.00	Efficacy of Countermeasures to Cardiovascular Deconditioning in Men and Women during Simulated Moon Explorations
Louisiana	Louisiana Board of Regents	Louisiana State University, Baton Rouge	\$750,000.00	NASA EPSCoR Research Project: Smart Adhesively Bonded High-Performance Joint for Composite Structures
Louisiana	Louisiana Board of Regents	Louisiana State University, Baton Rouge	\$750,000.00	NASA EPSCoR Research Project: Multiwavelength/Multimessenger Observations in Conjunction with the GLAST Satellite Mission
Maine	Maine Space Grant Consortium	University of Southern Maine	\$749,512.00	Toxicology of Metal and Lunar Particles in Biological Systems
Montana	Montana State University	University of Montana	\$750,000.00	Biomolecular Substrates for Extraterrestrial Life: Revealing the Secrets of Extremophilic Archaea and their Viruses
Nebraska	University of Nebraska, Omaha	University of Nebraska, Lincoln	\$750,000.00	Satellite Contaminant Materials Research Program
New Hampshire	University of New Hampshire	University of New Hampshire	\$749,221.00	Enhancing Research and Education Capacity for Integration of Earth Observations, Infectious Diseases Ecology, and Public Health in New Hampshire
New Mexico	New Mexico State University	New Mexico State University	\$741,144.00	Structural Health-Monitoring and Self-Healing of Aerospace Structures
Nevada	Desert Research Institute	University of Nevada, Reno	\$750,000.00	Exploring Planetary Surfaces: Earth, Moon and Mars

Oklahoma	University of Oklahoma	University of Oklahoma	\$720,000.00	Center for Lightning Advanced Studies and Safety (CLASS)
Oklahoma	University of Oklahoma	Oklahoma State University	\$750,000.00	OK NASA EPSCoR: Tissue Equivalent Detectors for Space Crew Dosimetry and Characterization of the Space Radiation Environment
Puerto Rico	University of Puerto Rico	University of Puerto Rico	\$750,000.00	Space Exploration Enabling Power Systems: Partnership to Develop the Fundamental Nanoscience at UPR and Perform the Corresponding Proof-of-Concept at NASA GRC
South Carolina	The College of Charleston	University of South Carolina	\$750,000.00	Development of Advanced Unitized Regenerative Fuel Cell
South Carolina	The College of Charleston	Clemson University	\$750,000.00	Development of a Lunar Capable Rover Tweel for a Modular Manned Rover System: Analytical and Experimental Research
South Dakota	South Dakota School of Mines and Technology	South Dakota School of Mines and Technology	\$750,000.00	Continuous Nano-Scaled Carbon Fibers with Superior Mechanical Strength and Their Innovative Composites for Aeronautics and Space Applications
South Dakota	South Dakota School of Mines and Technology	South Dakota State University	\$737,843.00	Land cover dynamics, regional hydrometeorology, and the vulnerability of rain-fed agriculture to climate change under scenarios of extensive cultivation of biofuel feedstocks
Vermont	University of Vermont	University of Vermont	\$750,000.00	Investigation of Critical Aerothermodynamic Phenomena for Hypersonic Vehicles
West Virginia	West Virginia Space Grant Consortium	Marshall University	\$749,521.00	Molecular and Cellular Mechanisms Underlying Skeletal Muscle and Cardiovascular Adaptation to Simulated Microgravity
West Virginia	West Virginia Space Grant Consortium	West Virginia University	\$750,000.00	Design, Simulation, Validation, and Flight Testing of Adaptive Fault-Tolerant Flight Control Systems