

AGENDA ITEM VII.A

Funding Recommendations for Six NASA/BoRSF Research Projects

Background Information

Initiated in 1991 and jointly supported by the Board of Regents and the National Aeronautics and Space Administration (NASA), the Louisiana Space Consortium (LaSPACE) seeks to strengthen aerospace research and education in Louisiana. The Board has approved the provision of \$250,000 per year (FY 2010-11 through FY 2014-15, for a total of \$1,250,000) as a match for \$3,360,000 in funding to date (a return of \$2.69 for every \$1 matched from the BoRSF) from NASA for the continuation of the LaSPACE award. The LaSPACE program is administered by Louisiana State University on behalf of the State's higher education community.

Staff Summary

As indicated in the memorandum from the LaSPACE Project Director in Appendix A, a total of twenty (20) Research Enhancement Awards (REA) proposals requesting a total of \$691,751 were submitted in response to the Round 24 LaSPACE REA request for proposals. All proposals were evaluated by out-of-state experts, who have submitted their report with funding recommendations to the LaSPACE Project Director. (Copies of the consultants' report and the attachments referred to in the LaSPACE Project Director's memorandum are on file in the Board's office.)

Six proposals were deemed "very meritorious" and recommended for funding. Funding is available in the current fiscal year (FY 2013-14) to support three proposals (see the list of recommended projects in Table 1 of Appendix A); the remaining three proposals (see Table 2 of Appendix A) will be supported with FY 2014-15 funds and will begin after the start of the new fiscal year (i.e., July 1, 2014).

Senior Staff Recommendation

Senior Staff recommends that the Board of Regents approve the LaSPACE consultants' report and funding recommendations relative to the six LaSPACE Research Enhancement Awards (REA) projects recommended for funding. Three projects, totaling \$99,186, will be contracted with Support Funds allocated to the LaSPACE program in FY 2013-14; the remaining three projects, totaling \$113,156, will be contracted with Support Funds allocated to the LaSPACE program in FY 2014-15, contingent upon the appropriation of sufficient funds by the Legislature. If the Legislature fails to appropriate sufficient monies to provide for these three projects, contracts shall not be issued. All projects shall be funded in the amounts recommended in the consultants' report.

Appendix A



Louisiana Space Consortium (LaSPACE)

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Baton Rouge □ LA □ 70803-4001
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From: T. Gregory Guzik
Director-Elect

Date: January 10, 2014

To: James E. Gershey
Sponsored Programs
Louisiana Board of Regents

Re: LaSPACE - Board of Regents Project
Research Enhancement Awards

The Louisiana Space Consortium (LaSPACE) has continued its program of research stimulation with Round 24 of the LaSPACE Research Enhancement Awards (REA) Program the competition for which was conducted during fall 2013. The proposals have now been evaluated by out-of-state consultants. This memo summarizes the response to this competition and the recommendations for funding under the LaSPACE REA program.

Each year a new RFP for the REA program is prepared and distributed to all campus coordinators, to research offices, to department chairs, to individual researchers who had responded to previous solicitations, plus it is posted on the LaSPACE Website. Subsequent memos from the LaSPACE office are sent to remind the campuses of the date for the closing of applications. For Round 24, we received 20 reviewable proposals for projects in the Research Facilitation and Initiation (Single Institution) (19) and Multi-Investigator (1) categories. The proposals reviewed for this round requested a total of \$691,751.00.

As in the previous rounds of competition, the review process consisted of obtaining independent out-of-state reviewers to evaluate the proposals using the review procedure, and utilizing the evaluation form, given in Attachment 1. The four evaluators were located in Arkansas, Colorado, Oregon and Texas (Attachment 2). All are members of the Research and Education community and are familiar with the goals and objectives of the Space Grant program.

Recommendation

Many of the Round 24 proposals were of relatively high quality and there were twenty projects to evaluate. We are grateful to the consultants who were able to provide constructive reviews of the proposals. Six of these projects were rated as very meritorious and were recommended for funding.

Current year funds available to support REA proposals limited us to starting only three projects in January, 2014. These projects are shown in Table 1. Rather than reject all remaining proposals, regardless of merit, we deferred the initiation of the three proposals listed in Table 2 until after the start of the new state fiscal year. All three PIs of the REA proposals so affected agreed that a delayed start of their projects would be acceptable. In fact, one PI (Fekih) preferred a mid-summer start.

Table 1: Round 24 - Projects Recommended for Funding with Start Date 1/15/14

NAME/UNIVERSITY	TITLE		REQUEST	MATCH
		TOTAL:	\$99,186.00	\$98,862.00
Michael L. Cherry Louisiana State University	<i>Terrestrial Gamma Flashes at Ground Level</i>		\$35,000.	\$34,570.
Yucheng Liu University of Louisiana at Lafayette	<i>Microstructure-Property Relationships in Aluminum Foam Sandwich Panels during Impact and Perforation</i>		\$33,922.	\$33,922.
Ying (Jane) Wang Louisiana State University	<i>Novel High-Capacity Cathode Materials for Superior Lithium-Ion Batteries in Space Systems</i>		\$30,264.	\$30,370.

Table 2: Round 24 - Projects Recommended for Funding with Start Date 7/15/14

NAME/UNIVERSITY	TITLE		REQUEST	MATCH
		TOTAL:	\$113,156.00	\$113,532.00
Afef Fekih University of Louisiana at Lafayette	<i>Stability Guaranteed Fault Tolerant Flight Control Technology for Safer Aircraft Systems</i>		\$35,836.	\$35,833.
Arun Jaganathan Louisiana Tech University	<i>A Novel Sensor Concept for Health Monitoring of Rotating Machines</i>		\$42,553.	\$42,932.
Ahmed Khattab University of Louisiana at Lafayette	<i>Process Development for Manufacturing Polymer NanoComposites Using Vacuum Assisted Resin Transfer Molding</i>		\$34,767.	\$34,767.

The fourteen projects in Table 3 are being declined. The reviewers comments have been transmitted to the PIs, who will be encouraged to improve their proposals for submission to a subsequent competition.

Table 3: Round 24 - Projects Not Recommended for Funding

NAME/UNIVERSITY	TITLE		REQUEST	MATCH
		TOTAL:	\$479,409.00	\$471,067.00
Seyed M. Aghili McNeese State University	<i>Feasibility Analysis of Solar Power Satellite-Arbitrarily Large Phased Array</i>		\$33,858.	\$33,858.
Dhruva K. Chakravorty University of New Orleans	<i>Developing Multi-Scale Computational Methodologies to Study the Effect of Microgravity and Ionizing Radiation on Antibiotic Resistance and Virulence in Bacteria</i>		\$34,638.	\$34,692.
William A. Hollerman University of Louisiana at Lafayette	<i>Feasibility of EuD4TEA-Based Sensors to Detect Space Radiation</i>		\$35,000.	\$35,000.
Amitava Jana Southern University - Baton Rouge	<i>Research on Thermal Barrier Coatings Using Parallel Molecular Dynamics Simulation and Stereographic CAVE-Based Visualization</i>		\$38,165.	\$38,165.
Gefu Ji Louisiana State University	<i>Hypervelocity Impact Tolerance of Shape Memory Alloy Tube Grid Stiffened Shape Memory Polymer Composite Panel</i>		\$35,687.	\$35,687.
Patrick F. Mensah Southern University and A & M College	<i>Development of Hypersonic Vehicle Design Research and Educational Program at Southern University</i>		\$35,000.	\$35,100.
Long Que Louisiana Tech University	<i>Integrating Moth-Eye Nanostructures and Nanomaterials for Efficiency Improvement of Energy Harvesting Microdevices</i>		\$37,529.	\$37,128.
Rastko R. Selmic Louisiana Tech University	<i>System for Classification of 3D Dynamic Hand Gestures</i>		\$40,210.	\$40,695.
Amir Shojaei Louisiana State University	<i>Self-Healing Thermal Barrier Coating for High Temperature Aerospace Applications with Introducing a Novel Shape Memory Ceramic Foam</i>		\$35,920.	\$35,920.
Vincent A. Sichula Nicholls State University	<i>Enhancement of Undergraduate Research in Solar Energy for Space Explorations</i>		\$29,563.	\$28,621.
Wanjun Wang Louisiana State University	<i>Development of A Novel Lab-on-CD Liquid Chromatography Instrument for Space Applications</i>		\$34,775.	\$35,265.
Darcey Wayment Nicholls State University	<i>A Microfluidic Device for the Determination of Explosives</i>		\$28,950.	\$31,274.

Eyassu Woldeesenbet Southern University and A & M College	<i>Development of a Novel Photo- Driven Low Voltage "Bucky Gel" Micro-Actuator for Aerospace Applications</i>		\$23,431.	\$20,996.
Harris Wong Louisiana State University	<i>Preliminary Investigation of a Long Heat Pipe</i>		\$36,683.	\$28,666.

For the six awards, two are LSU, one is LaTech and three are ULL which provides a reasonable geographic distribution of awards across the state.

We have notified the proposers of the results. Each proposer received a transcription of the consultants' evaluations of their proposal.

We remain indebted to the Board of Regents for providing this vital support and thank you for your continuing commitment to the Space Grant program in Louisiana.

ATTACH.

TGG/ae

AGENDA ITEM VII.B

Approval of Two System Nominees to the Board of Regents Support Fund Planning Committee

Background Information

The Board of Regents Support Fund (BoRSF) Planning Committee provides advice and guidance to the Board of Regents and the Sponsored Programs Section relative to the management and operation of the BoRSF, as well as other matters pertaining to Sponsored Programs. Membership on the Planning Committee includes two representatives nominated by the president of each higher education system: Louisiana State University, University of Louisiana, Southern University, the Louisiana Association of Independent Colleges and Universities (LAICU), and the Louisiana Community and Technical College System (LCTCS).

Staff Summary

Dr. Sandra Woodley, President of the University of Louisiana System, has nominated Dr. Mark Zappi, Dean of the College of Engineering at the University of Louisiana at Lafayette, to serve on the Planning Committee as a representative of the University of Louisiana System. Dr. Zappi replaces Dr. Bradd Clark, University of Louisiana at Lafayette. Dr. Ronald Mason, President of the Southern University System, has nominated Dr. Patrick Mensah, Professor in the Department of Mechanical Engineering at Southern University and A&M College, as a representative of the Southern University System. Dr. Mensah replaces Dr. Diola Bagayoko, Southern University and A&M College.

Senior Staff Recommendation

Senior Staff recommends that the Board of Regents approve the nominations of Dr. Zappi and Dr. Mensah to the BoRSF Planning Committee.