

Two-Year Research and Higher Education Program



MAINE SPACE GRANT CONSORTIUM

An affiliate of the National Space Grant College and Fellowship Program

REQUEST FOR PROPOSALS

Maine Space Grant Consortium Two-Year Research and Higher Education Program

Letter of Intent Deadline (due by 5 pm.):

September 17, 2009

Full Proposal(s) Deadline (due by 5 p.m.):

October 15, 2009

Two-Year Research and Higher Education Program

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SECTION 1: INTRODUCTION

The Maine Space Grant Consortium's (MSGC) Two-Year Research and Higher Education Program seeks to provide a greater impact on NASA's Education Outcome and the recipient institution's research and higher education priorities. In this program, institutions need to submit a plan to use both research infrastructure and higher education funds to seed the development of a research theme over a two year cycle. Plans need to include methods and outcomes that will support institutional efforts to enhance the competitiveness of the targeted area.

Total funding request allowed: Not to exceed \$50,000 per year

Proposals need to include:

1. Strategies for increasing the participation of undergraduate and/or graduate students, women and underrepresented groups, including persons with disabilities, in the proposed research activities.
2. Outreach to one or more of the following general public, K-12 community, Private Sector, State Government including the Legislature to explain the research program, the benefits to the S&T community and to the State of Maine and to contribute to other efforts to inspire young students to consider careers in science and engineering careers.
3. A comprehensive evaluation and assessment plan including metrics and milestones to assess and evaluate demonstrable impacts and achievements.
4. A budget that shows how Research Infrastructure and Higher Education program funds will be allocated.

MSGC expects to make two, two-year awards under this program.

SECTION 2: Eligible Uses of Program Funding

2.1 Eligible uses of Seed Research Grant Funds:

- Seed research for Maine researchers pursuing collaborative efforts with NASA personnel
- Travel funds for researchers and/or students to NASA Field Centers
- Travel funds for researchers and/or students to other institutions involved in NASA related activities
- Student stipends, scholarships, fellowships or internships
- Disciplinary-specific workshops for networking between Maine researchers and NASA

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2.2 Program Requirements:

- Projects must be interdisciplinary.
- MSGC encourages the participation of undergraduate and/or graduate students.
- MSGC encourages the collaboration or cooperation of two or more Maine organizations
- MSGC strongly encourages the participation of women, minorities and persons with disabilities, therefore it is required that any recruitment of students must be broadly promoted across campus/disciplines and that the institution actively promotes opportunities to its multi-cultural centers, or equivalent of such
- Research funding will not exceed \$25,000
- A cost-share (match) of 1:1 by the institution is required, which can be a combination of cash and/or in-kind
- Proposals should include a timetable for a two year period – however, funding for year two will be contingent on the progress made in year one. Metrics should be broken out by year

2.3 Evaluation and Award Criteria:

- Strategic Alignment with NASA's interests and State of Maine R&D goals
- Technical Merit (goals, objectives, milestones, approach, outcomes and evaluation)
- Schedule and Cost
- Preference may be given to proposals with relatively high proportions of matching funds

2.4 Required NASA Contact:

Because a major aim of this program is the promotion of collaborative efforts between Maine researchers and NASA Field Centers, a required element of the *proposal* is written confirmation that NASA Field Center personnel have been contacted about the proposed research. This confirmation should comprise, *at minimum*, a letter of support from a NASA researcher who is interested in the outcome of the proposed project. Evidence of a more involved collaboration with a NASA researcher will result in higher scoring of the proposal's Strategic Alignment.

Research opportunities are provided by the Mission Directorates (Aeronautics Research, Science, Exploration Systems, and Space Operations), NASA Centers, and the Jet Propulsion Laboratory. Each Mission Directorate covers a major area of the Agency's research and development efforts. NASA critical research opportunities can be viewed at <http://nasaresearchers.nasaprs.com> (click on Research Opportunities in the menu bar). There are also direct links to the Centers from <http://www.nasa.gov/home/index.html?skipIntro=1> . If you have not previously collaborated with NASA personnel, remember to include a statement to that effect in your Letter of Intent. You should then contact the University Affairs Officer (UAO) at your NASA Center(s) of interest. NASA University Affairs Officers are listed in Appendix A of this document. The UAO at your Center of interest can direct you to specific NASA researchers in your field.

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SECTION 3: EDUCATION COMPONENT

3.1 Eligible uses of Education Grant Funds:

- Development of interdisciplinary courses and curriculum, including introductory courses designed for undergraduate students not majoring in scientific or technological disciplines
- Enhance pre-college teacher education (pre-service) programs through collaboration among education, science and engineering disciplines. Place emphasis on coordination with existing state and local systemic reform efforts and with state science, mathematics and technology coalitions.
- Develop technology and distance learning projects, career retraining, and the development of new technical courses such as but not limited to, geographic information systems, global positioning satellite systems, or automated mapping
- Develop instructional technology, technology transfer, and other technological courses that use emerging NASA-developed technology
- Other programs that emphasize undergraduate education, or higher education faculty development in STEM disciplines

3.2 Program Requirements:

- Emphasis should be placed on undergraduate education and interdisciplinary projects
- MSGC encourages collaboration or cooperation of two or more Maine organizations
- Participation of undergraduate and/or graduate students in proposed education projects.
- MSGC strongly encourages the participation of women, minorities and persons with disabilities, therefore it is required that any recruitment of students must be broadly promoted across campus/disciplines and that the institution actively promotes opportunities to its multi-cultural centers, or equivalent of such
- Higher education funding will not exceed \$25,000
- A cost-share (match) of 1:1 by the institution is required, which can be a combination of cash and/or in-kind
- Proposals should include a timetable for a two year period – however, funding for year two will be contingent on the progress made in year one. Metrics should be broken out by year.

3.3 Evaluation and Award Criteria:

- Alignment with program description and purpose, with NASA's interests in Higher Education and with the State of Maine goals in education
- Technical Merit (successfully addresses a need, the goals, objectives, milestones, approach, outcomes and evaluation)
- Schedule and Cost
- Preference may be given to proposals with relatively high proportions of matching funds.

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SECTION 4: GENERAL PROPOSAL REQUIREMENTS

4.1 Letter of Intent (non-binding)

Please send a one-page letter **by 5:00 PM September 17, 2009**, containing the following information:

- Name of primary institution/organization and any collaborating institutions
- Principal Investigator's name and contact information
- Brief description of Principal Investigator's general area of expertise
- Preliminary project title and brief description of project. *Please provide a brief description of both the research and higher education elements, as well as a description on how the two projects are synergistic*
- Estimate of amount to be requested
- If you already have a contact at a NASA Field Center related to the proposed area of research, please provide the person's name and contact information, plus a brief description of your relationship with that person or Center. If you do not have a contact, include a statement to that effect. (For more information, see section above "REQUIRED NASA CONTACT.")

4.2 Research and Education Proposals:

- Cover page which includes Information from Letter of Intent (updated or revised if necessary) (one page not included in the 5-page limit below)
- Project narrative (not to exceed five pages) explaining the project. The narrative should include a section on the research element, higher education element and a description on how the two projects are synergistic. Proposers must include specific measurable goals and objectives, measurable outcomes, milestones and deliverables, how the objectives are to be reached, and the capabilities of the proposer to achieve the objectives. The narrative should also describe alignment with specific NASA research interests (see information under "REQUIRED NASA CONTACT") and State of Maine R&D goals (see <http://www.state.me.us/legis/opla/rdfinal.htm>).
- Brief plan for project evaluation that assesses the effectiveness and impact of the project. Research and higher education evaluation measures need to be broken out and separated for reporting purposes. Include metrics for research and metrics for higher education, per year. (included in the 5-page limit).
- Project timeline, maximum one page (not included in the 5-page limit)
- Itemized budget and justification. The budget should be broken out between the two program elements (research and higher education) and include a combined budget. Because this is a two-year project, please submit a budget for each year, plus a cumulative 2-year budget. Please make sure that if you are funding students, each one is receiving funds from only one source and report them accordingly (either research funds

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or higher education funds per student, but not a combination of both) (not included in the 5-page limit)

- Demonstrated availability of *non-federal* matching funds, minimum 1:1 match (cash and/or in-kind)
- Written confirmation that NASA Field Center personnel have been contacted about the proposed research (See “REQUIRED NASA CONTACT” above.) (not included in the 5-page limit)

4.3 Unallowable Costs and Other Requirements:

- MSGC will not award funds for equipment purchases, including general purpose equipment such as computers and printers
- MSGC will not award funds for foreign travel
- Indirect costs cannot be allocated to student’s scholarships and fellowships
- Indirect cost recovery rate is limited to 25% for research projects and 10% for education projects (limited rate does not pertain to cost sharing).
- Travel funds cannot be used for civil servant travel expenses
- All participants being paid from NASA funds must be U.S. Citizens

SECTION 5: DEADLINES AND IMPORTANT DATES

Letter of Intent *DUE* – September 17, 2009

Proposals *DUE* – October 15, 2009

Awards announced on or around – November 16, 2009

Earliest project start date – December 1, 2009

SEND ALL MATERIALS TO:

Jana Hall, Director of Education Programs
Maine Space Grant Consortium
87 Winthrop Street, Suite 200
Augusta, ME 04330
Phone: (207) 622-4688
Fax: (207) 622-4548
E-mail: jana.hall@msgc.org

NOTES ON FORMAT: Submissions via e-mail are required as a **single** attachment in either PDF or Microsoft Word format. Faxed or postal mail notices of intent and full proposals will **not** be accepted..

If you have questions about this RFP, e-mail jana.hall@msgc.org or terry.shehata@msgc.org, or call toll-free at 1-877-397-7223. For more information about Maine Space Grant Consortium and NASA please visit www.msgc.org.

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SECTION 6: RESOURCES

Proposers can find more information on NASA's mission, strategic plans, other initiatives and the State of Maine's 30 and 1000 plan on the sites below:

NASA's Education Enterprise Strategy http://www.education.nasa.gov/pdf/55377main_32915-Education_508.pdf

NASA Education Enterprise Strategic Plan:
http://www.education.nasa.gov/pdf/55377main_32915-Education_508.pdf

NASA Space Grant College and Fellowship Program: <http://calospace.ucsd.edu/spacegrant/>

Report of the President's Commission on Implementation of United States Exploration Space Policy
http://www.nasa.gov/pdf/60736main_M2M_report_small.pdf

Vision for Space Exploration
http://www.nasa.gov/missions/solarsystem/explore_main.html

State of Maine's 30 and 1000, How to build a knowledge-Based Economy in Maine and Raise Incomes to the National Level:
<http://www.maine.gov/spo/economics/docs/publications/30and1000.pdf>

The Maine Space Grant Consortium: www.msgc.org

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APPENDIX A – NASA CENTER CONTACTS

NASA Center Contacts

Ames Research Center Brenda Collins University Affairs Officer Phone: (650) 604-354 Brenda.J.Collins@nasa.gov	Kennedy Space Center Hortense Burt Education Projects Manager Phone: (321) 867-8768 Hortense.B.Burt@nasa.gov
Dryden Flight Research Center Miriam Rodón-Naveira Education Lead Phone: (661) 276-3647 Miriam.M.Rodon@nasa.gov	Langley Research Center Lloyd Evans University Affairs Officer Phone: (757) 864-5209 Lloyd.B.Evans@nasa.gov
Goddard Space Flight Center Vigdor (Vic) Teplitz University Affairs Officer Phone: (301) 286-0345 Vigdor.L.Teplitz@nasa.gov	Glenn Research Center David Kankam University Affairs Officer Phone: (216) 433-6143 Mark.D.Kankam@nasa.gov
Jet Propulsion Laboratory Linda Rodgers University Programs Administrator Phone: (818) 354-3274 linda.rodgers@jpl.nasa.gov	Marshall Space Flight Center Frank Six University Affairs Officer Office of Academic Affairs (HS30) Phone: (256) 961-7701 Norman.F.Six@nasa.gov
Johnson Space Center Robert Musgrove Manager, Higher Education and Student Programs Phone: (281) 483-3065 Robert.P.Musgrove@nasa.gov	Stennis Space Center Nathan Sovik University Affairs Officer Phone: (228) 688-7355 Nathan.A.Sovik@nasa.gov