



**MAINE SPACE GRANT
C O N S O R T I U M**

An affiliate of the National Space Grant College and Fellowship Program

Request For Proposals

**Maine Space Grant Education and Seed Research Program
(MSG/ESR)**

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

September 17, 2009

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

October 15, 2009

Education and Seed Research Program

Table of Contents

SECTION 1: INTRODUCTION.....	1
SECTION 2: SEED RESEARCH COMPONENT	1
2.1 Eligible uses of Seed Research Grant Funds:	1
2.2 Program Requirements:.....	1
2.3 Evaluation and Award Criteria:	2
2.4 Required NASA Contact:.....	2
SECTION 3: EDUCATION COMPONENT.....	2
3.1 Eligible uses of Education Grant Funds:.....	2
3.2 Program Requirements:.....	3
3.3 Evaluation and Award Criteria:	3
SECTION 4: GENERAL PROPOSAL REQUIREMENTS	3
4.1 Letter of Intent (non-binding)	3
4.2 Research and Education Proposals:	4
4.3 Integrated Research and Education Proposals	4
4.4 Unallowable Costs and Other Requirements:	5
SECTION 5: DEADLINES AND IMPORTANT DATES	5
SECTION 6: RESOURCES.....	6
APPENDIX A – NASA CENTER CONTACTS	7

Education and Seed Research Program

SECTION 1: INTRODUCTION

The Maine Space Grant Education and Seed Research Program (MSG/ESR) seeks to improve the research competitive position of Maine researchers for larger scale funding from NASA and other agencies and to enhance the higher education capabilities in STEM (Science, Technology, Engineering and Mathematics) skills disciplines in Maine by supporting projects that are aligned with NASA priority areas and the state of Maine's strengths

The MSG/ESR Program has two components, Research and Education.

1. The Research component provides \$5,000 grants to support projects that promote collaborations to strengthen the research infrastructure capacity of the institution and improve the research competitive position of research faculty.
2. The Education component provides \$5,000 grants to support activities that expand the pipeline of students and teachers with STEM and supports higher education research capabilities and opportunities that attract and prepare students and faculty for NASA-related careers.

Proposers may request funds under one or both of the MSG/ESR Program components. For proposals that incorporate both research and education components, the project must demonstrate synergy between components and must include separate budgets and project narratives.

The Maine Space Grant Consortium (MSGC) expects to make four research awards and four education awards under this program.

SECTION 2: SEED RESEARCH COMPONENT

2.1 Eligible uses of Seed Research Grant Funds:

- Preliminary research activities
- Travel to NASA Field Centers
- Student fellowships or internships
- Disciplinary-specific workshops for networking between Maine researchers and NASA

2.2 Program Requirements:

- MSGC strongly encourages interdisciplinary research projects.
- MSGC strongly encourages the participation of undergraduate and/or graduate students in proposed research projects.
- MSGC encourages the collaboration or cooperation of two or more Maine organizations

Education and Seed Research Program

- 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
- Seed grant funding will not exceed \$5,000
- 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 not exceed a one-year period.

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 that are interdisciplinary
- Preference may be given to proposals with relatively high proportions of matching funds

2.4 Required NASA Contact:

Because a major aim of this seed grant 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.

SECTION 3: EDUCATION COMPONENT

3.1 Eligible uses of Education Grant Funds:

Education and Seed Research Program

- 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
- MSGC requires the 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
- Education grant funding will not exceed \$5,000
- 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 not exceed a one-year period.

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 that are interdisciplinary
- Preference may be given to proposals with relatively high proportions of matching funds.

SECTION 4: GENERAL PROPOSAL REQUIREMENTS

4.1 Letter of Intent (non-binding)

Education and Seed Research Program

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
- Which program component will be included in the proposal
- Preliminary project title and brief description of research and/or education area being explored for proposal
- Estimate of amount to be requested
- (**For research**) 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. 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. **For research projects:** 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 (included in the 5-page limit).
- Project timeline, maximum one page (not included in the 5-page limit)
- Itemized budget and justification (not included in the 5-page limit)
- Demonstrated availability of *non-federal* matching funds, minimum 1:1 match (cash and/or in-kind)
- **For research projects:** 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 Integrated 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 overall project and how the research and education components are synergistic. The Narrative must also include separate sections on the research and education components. Each section must include specific measurable goals and objectives, measurable outcomes, milestones and

Education and Seed Research Program

deliverables, how the objectives are to be reached, and the capabilities of the proposer to achieve the objectives. The Research Narrative must 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 (included in the 5-page limit).
- Project timeline, maximum one page (not included in the 5-page limit)
- Separate itemized budget and justification for Research and Education (not included in the 5-page limit).
- Combined total budget (not included in the 5-page limit).
- Demonstrated availability of *non-federal* matching funds, minimum 1:1 match (cash and/or in-kind)
- **For research projects:** 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)

4.4 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:

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Maine Space Grant Consortium
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Augusta, ME 04330
Phone: (207) 622-4688
Fax: (207) 622-4548
E-mail: jana.hall@msgc.org

Education and Seed Research Program

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.

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://calspace.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

Education and Seed Research Program

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