



National Aeronautics and Space
Administration
Goddard Space Flight Center

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ANNOUNCEMENT

SUBJECT: 2005 Director's Discretionary Fund (DDF) – Call for Proposals **Firm Deadline: September 24, 2004**

The DDF is a special program supporting *innovative* ideas at Goddard Space Flight Center (GSFC), ones for which payoff would be high even if probability of success is low. It helps lay foundations for the future. It is intended for projects that do not fit other technology programs. Many past projects have blossomed into new instruments, flights, or research directions.

I anticipate approximately \$2.0 - 2.5 million in DDF funds for FY 2005. This will allow both extension of some current projects and new starts. I would like a number of small projects with one-year completion targets, and perhaps one or two carefully selected large (up to \$250K) and/or multi-year projects. I am especially interested in projects relevant to Goddard's Strategic Implementation Plan. I encourage inter-Directorate projects and University collaborations. I am particularly interested in work that could contribute to the President's Space Exploration Initiative. Other factors (such as innovation, payoff, and capability) being equal, priority will be given to work that would contribute to the Initiative, particularly in the following areas: Program Management and Systems Integration, Communications and Navigation, Intersection of Humans and Machines, Suborbital and Orbiting Platforms, Space and Planetary Environment & Associated Knowledge Infrastructure, and Sensor Systems and Analysis for In-Space and Surface Applications. In addition, I encourage proposals from people with fewer than 5 years professional experience and new ideas. Finally, we will allocate 5-10 percent to proposals with innovative educational and/or public outreach focus. These will be evaluated by a special Educational Panel.

Holders of current DDF awards who began projects in FY 2004 with plans to complete work in FY 2005, should submit an Extension request following the enclosed guidelines.

Undergraduate and graduate summer interns from the 2005 ten-week NASA Academy and Student Internship Programs are available at no cost. They can contribute substantially to the progress of DDF projects. In writing proposals, one should consider how a bright student might increase productivity during Summer, 2005.

The University Programs Office manages the DDF. They will assemble a technical review panel consisting of Goddard Senior Fellows plus a few other senior GSFC engineers and scientists (as appropriate), and they will coordinate the review process. The Education Officer will handle the Education and Outreach DDF Proposal Review. The University Programs Office will also disburse and oversee the awarded funds.

I encourage you to propose your best ideas. Innovative, high risk, high payoff DDF projects help set the course for Goddard's future.

Edward J. Weiler

Director

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**2005 DIRECTOR'S DISCRETIONARY FUND
SCHEDULE AND DEADLINES**

August 13, 2004	DDF Announcement for FY2005 Proposals
August 23	Online DDF Application Available
September 24	All Proposals (New and Extension) due by COB <i>This is a firm deadline. Late proposals will not be accepted.</i>
October 1	Results of Review Panel first screening completed
October 5	Proposers called with Review Panel results and scheduled for oral presentation, or informed if not selected (Oct. 5 - Oct. 8)
Oct. 28 - Nov. 5	Technical Oral Presentations to Review Panel (8:00 a.m. – 5:00 p.m.) Bldg. 8/MCC, Rm. N303 Projected Dates: Oct. 28, 29 and Nov. 2, 3, 4, 5 The number of proposers invited to present will determine if all of the above dates are required. Note: Education Presentations will be coordinated in the Education Office by Dr. Robert Gabrys on Ext. 6-7205.
December 2	Panel Recommendations to Center Director (2:00 – 4:00 p.m.) Bldg. 8, MCC, Room 309
December 6	Announcement of 2005 Awards
December 10	DDF 2004 Final Reports (brief interim reports for incomplete work and research under the 2004 <i>Supplemental</i> call) due to Code 603.1, Building 28
June - July 2005	Optional 2005 Interim Reports (requested when there are results of particular interest or unanticipated difficult problems)
December 9, 2005	DDF 2005 Final Report due

2005 DIRECTOR'S DISCRETIONARY FUND

General Guidelines for Submission of Proposals

Proposals may be submitted by any GSFC civil servant, and may include outside collaborators. Inter-Directorate work is encouraged.

Proposals must be innovative and likely risky, with other funding unlikely.

Proposals must have significant potential to enhance payoff to Goddard's mission and future viability as a Center; be technically feasible, innovative and visionary, and make efficient use of resources.

New versus Renewal:

Renewals will be treated as either (1) 2nd-year Extensions, or (2) New proposals, as follows:

1. Proposal for work that is a continuation to complete work funded in FY 2004 will be treated as a simple Extension to the original proposal. It will be approved or denied on the basis of progress-to-date, potential for completion, innovation, risk, and payoff. It is best if the original proposal had indicated that an extension request was likely.
2. A proposal for work that is a spin-off, a development step beyond, or different from the work originally proposed must be submitted as a New Proposal. It will be evaluated from scratch on equal footing with all other new proposals.

Submission Rules:

The DDF web site (<http://ddf.gsfc.nasa.gov/>) has complete materials for submitting a proposal. Proposals should be submitted as free-form in ASCII, Word, RTF, or PDF. The web application will be available after August 20, 2004. If you have questions or difficulties transmitting e-mail Mary.J.Dant@nasa.gov. We will acknowledge receipt of proposals by posting a list of all proposers at the **DDF website** (<http://ddf.gsfc.nasa.gov/received.jsp>)

New Proposals:

For New Proposals use free-form text (2 pages maximum; see sample write-up at <http://ddf.gsfc.nasa.gov/samples/new.html>). Follow the cover sheet, describing concisely:

1. **Brief Background**, understandable to the non-specialist but meaningful to the specialist.
2. **Objectives**, including end goal or product.

3. **Research and Development Plan**, including projected schedule and future plans and objectives.
4. **Context:** Specific relevance to the Goddard strategic implementation plan should be shown and, if appropriate, relevance to the President's Exploration Initiative or the NASA and Earth and/or Space Science plans.

If the proposal is for education or outreach, this section must address the new education organization (Code N) vision, mission, goals, and priorities. (Education links are shown below under "Education/Outreach Proposals").

5. **Innovation Summary: EACH PROPOSAL SHOULD CONTAIN A BRIEF SUMMARY SECTION ADDRESSING THE FOLLOWING QUESTIONS:**
 - a. **What are the innovative elements in the work proposed?**
 - b. **What is the "payoff" to science and/or engineering? To NASA? To Goddard?**
 - c. **What are the criteria for success?**
 - d. **What risk factors could prevent achieving these criteria?**
6. **Budget:** List required funds and PI/Co-I time (in fractions of a man-year). Line item breakdowns showing fund usage must be given (see the sample). In full-cost accounting this is an important consideration. If a second year is anticipated, a brief rationale should be included in the budget section.

Extension Requests:

For Extension requests, follow the cover sheet with a copy of the original (FY 2004) proposal, then free-form text (2-page maximum; see the sample write-up at <http://ddf.gsfc.nasa.gov/samples/extension.html>) describing:

1. **Progress-to-date** including significant results, roadblocks, etc.
2. **Justification for Extension:** (Why is it necessary?)
3. **Research and Development Plan** (including projected schedule)
4. **Innovation Summary**
 - a. What are the innovative elements in the work proposed?
 - b. What is the "payoff" to science and/or engineering? To NASA? To Goddard?
 - c. What are the criteria for success?
 - d. What risk factors could prevent achieving these criteria?
5. **Budget:** List required funds and PI/Co-I time (in fractions of a man-year). Line item breakdowns, showing fund usage, must be given.

Education/Outreach Proposals:

For Education and Outreach, the proposal (two page maximum) should clearly describe:

1. **Relationship to the New Education Organization (Code N)** vision, mission, goals, and priorities.
2. **Relationship to a NASA Enterprise:** Earth Science, Space Science, Biological and Physical Research, Aerospace Technology, or Human Exploration.
3. **Innovative Summary**, including connection to the "As Only NASA Can" theme:
 - a. What are the innovative elements in the work proposed?
 - b. What is the "payoff" to science and/or engineering? To NASA? To Goddard?
 - c. What are the criteria for success?
 - d. What risk factors could prevent achieving these criteria?
4. **Clearly Identified Customer.**
5. **If a K-12, Relationship to National Standards/school curriculum** and/or teacher training.
6. **Sustainability, Scale-up Potential, and Deployment Strategies.**

Education Links:

- * National Science Education Standards
- * Benchmarks for Science Literacy
- * National American Indian Standards
- * Mid-continent Research for Education and Learning (McREL)

University Faculty or Student Involvement:

All proposal funding requests that include university faculty or student involvement, or contractor support must list these as separate line items (except for Academy or SIP Interns – see the next section). Contractors may not take a lead or major role in the project development work; however, they may be used to provide necessary specific support services.

University Programs Office Interns:

If requesting a summer intern for your FY05 DDF project, please submit a brief write-up about the project that can be shown to the prospective student. Funds for Academy and SIP Interns should not be listed as a project requirement. (Visit the sample write-up at <http://ddf.gsfc.nasa.gov/samples/intern.html>)

Final Report:

Please be aware that a clearly written final report containing all requested information is an essential part of this program. This report must be submitted on time and will be included in a final year-end report that will be made available to the outside community upon request. **The call for this report should be expected in November 2005 for projects funded in FY2005 and in November 2004 for this year's projects. Note that the quality of these reports influences the amount of DDF funds allotted to the center.**

Free Advice:

The Goddard Senior Fellows are willing to provide advice on your proposal at the development or execution phases. Expertise areas of some of the Fellows are listed on our website: <http://university.gsfc.nasa.gov/GSF/index.html>.