



LETTER OF AGREEMENT



BETWEEN
DR. RICHARD FISHER, EARTH SUN SYSTEM DIVISION, NASA
AND,
DR. RICHARD BEHNKE DIVISION OF ATMOSPHERIC SCIENCES, NSF

September 21, 2005

Situation

The Living With a Star Targeted Research and Technology (TR&T) program at NASA and the Upper Atmosphere Research Section (UARS) in the Division of Atmospheric Sciences at NSF have a strong and mutual interest in supporting research that addresses the goals of the National Space Weather Program (NSWP). In particular, the two agencies share an interest in creating comprehensive, science-based models of space weather phenomena that would lead to the capability of predicting space weather events.

Problem

Both agencies fund large research projects, where the annual research budget is on the order of \$1M/yr or more. Similarly, both agencies have standard ways for providing research funding for individual PIs where the annual budget for a project is of the order of \$100K/yr. It has, however, proven difficult to fund projects, that are larger and more complex than the typical single PI grant but that are also smaller and less complex than large, million dollar projects.

Purpose

It is the purpose of the NASA/NSF Partnership for Collaborative Space Weather Modeling to fund moderate sized, collaborative research projects related to space weather modeling.

Solicitation of proposals

Amendment 29 to the NASA ROSES 2005 provides the basis for the implementation of the NASA/NSF Partnership, hereafter referred to as the SWM program. The LWS/TR&T program will take responsibility for the solicitation of proposals. The SWM amendment includes details of the targeted research goals that are being solicited as well as the special review conditions that apply. In particular, the special review conditions include the review criteria required for proposals submitted to NSF. Thus, the review criteria for proposals submitted to SWM will be consistent with both NASA and NSF requirements.

NASA and NSF each agree to provide a minimum of \$500,000/yr for a maximum duration of 5 years (pending the availability of funds) to support SWM research projects as articulated in the two strategic goals that are of immediate concern to both the NSWP and to NASA's LWS program:

1. The need for a comprehensive, coupled, quantitative three-dimensional model for the outer magnetosphere, inner magnetosphere (plasmasphere, ring current, and radiation belts), and the ionosphere, including polar regions; and
2. The need for a three-dimensional time-dependent model of the solar corona and the ambient solar wind.

Review process

The review process will be handled through the usual NASA contractors. Program Officers from NASA and NSF will choose a set of mutually acceptable ad hoc reviewers and panelists for the proposals that are received. NASA, in consultation with NSF, will establish a time and place for the review panel to meet. After the panel review has been concluded, NASA and NSF Program Officers will meet to determine a mutually acceptable list of proposals to be funded and levels of funding to be provided for each project. The recommendation for funding will be based on the peer evaluation and the scientific and technical merit of each proposal, as well as the broader impacts of the activity, and relevance to LWS and NSWP goals.

Funding method(s)

It is expected that the selected proposals will consist of collaborative efforts involving two or more research groups: Since the NSF does not traditionally fund researchers at government laboratories or FFRDC's, it may be advantageous for individual project to be partially funded by NASA and partially by NSF. The following procedure can be used to distribute the funding responsibility for a project between NASA and NSF:

- 1) The NASA and NSF program officers will recommend for selection the proposals that best address the objectives of this solicitation within the resource constraints. The NASA and NSF program officers will also recommend the division of funding responsibilities between the two agencies. NASA and NSF intend to issue separate funding instruments for the research efforts that each agency supports. NASA and NSF reserve the option of funding co-investigator institutions either as a sub-award of the principal investigator institution's award or as a separate award directly to the co-investigator institution. The NASA and NSF selections will be coordinated so that together they fund the selected research efforts through an appropriate combination of awards.
- 2) The proposals selected for NSF funding will be electronically transferred from NASA to NSF where they will be entered into the NSF proposal database. The reviews of the proposals transferred to NSF will also be electronically transferred from NASA to NSF where they will be entered into the NSF review database.
- 3) After selection, the proposal PIs and CoIs will provide a revised budget to NASA and NSF according to the guidance provided in the selection letter.
- 4) NSF will make awards to the institutions it is funding and NASA will award the portion of the project that remains.

The scenario indicated above is the most probable approach that will be used to allow both NASA and NSF to jointly fund a single proposal. This scenario is not meant to exclude other possibilities and the agencies will retain the possibility of transferring funds from one agency to the other if that is deemed advisable.

Reporting procedures

Each sub-award group will follow the reporting rules and requirements for the agency that is actually managing the award. The Project managers at the agency that receives a report will

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ensure that copies of the reports are made available to the appropriate Program Managers at the other agency. However, an annual report of the proposal should be submitted by the Principal Investigator of each proposal to both agencies irrespective of the funder. The cognizant Program Managers at the two agencies will examine and discuss the reports before approving them and may, at their discretion, request additional information from the awardees. Continued support for an award is dependent on the awardee providing reports of progress that are mutually acceptable to both NASA and NSF.

The selecting officials for this program are:

Dr. Richard Fisher
NASA Headquarters

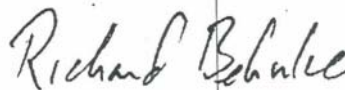
Dr. Richard Behnke
National Science Foundation

Signatures

Agreed to by:



Dr. Richard Fisher
Acting Director, Earth Sun System Division
Science Mission Directorate
NASA Headquarters



Dr. Richard Behnke
Section Head, Upper Atmosphere Research
GEO/ATM
National Science Foundation