

A.3.11 Planetary Suborbital Research

1. Scope of Program

This Planetary Suborbital Research program element solicits proposals for basic supporting research and technology to study properties of solar system objects. This program solicits science investigations, the completion of which involves the flight of instruments as payloads either (i) on suborbital sounding rockets; (ii) on stratospheric balloons; or (iii) on Shuttle-based platforms or the Space Station. The latter type of program will be evaluated on a contingency basis, with no expectation of flight. This NRA is for new development efforts, as well as for ongoing programs. In all cases, proposed investigations must include appropriate plans and resources for the reduction and analysis of the data that are expected to be acquired.

From time to time opportunities to fly experiments as secondary attached payloads on expendable launch vehicles or on reusable platforms such as Hitchhiker or Spartan become available. Opportunities of this type are unpredictable and usually have significant cost uncertainties. Therefore, these types of flight opportunities are solicited under this NRA on a contingency basis only, with no expectation of funding or flight. Submittal through this NRA allows payloads of this type to be peer reviewed and to provide a ready list of scientifically and technically excellent payloads that could be flown if the opportunity and funding arise. If proposing this type of payload, the proposer should identify the type of platform that would be suitable for the proposed experiment.

Current plans call for opportunities to propose Planetary Suborbital Research investigations at least once every three years. However, proposers may specify shorter periods of performance if the full three-year period is not required to complete their intended program. Proposers are encouraged, but not required, to define a program that can be accomplished within a three-year period. It is recognized that the proposed investigation may evolve with time. Therefore, emphasis should be placed on describing the first year's effort, but with as much detail as possible regarding planned second and third year activities, including the planned flight phase and data analysis. Similarly, a detailed budget supporting the first-year's work is required, together with a reliable estimate for succeeding years. For proposals requesting support beyond three years, key projected activities occurring after the initial three-year interval should be identified. Such programs will be subject to full competitive review at the end of the three-year period.

Student participation in this Planetary Suborbital program is strongly encouraged, especially if it can be concluded within the nominal tenure of graduate training. Therefore, a brief description of the educational goals and training of such personnel should be included in the proposal. Note that such student participation is not to be confused with the Education and Outreach Program described in Section A.5.1. A brief description of the plans for the reduction, analysis, and archiving of data should also be included in the proposal.

2. Programmatic Information

The total funding available for this program is expected to be approximately \$600K per year, beginning in FY 2000. At present, the program supports one sounding rocket investigation, two Hitchhiker payloads, and one mid-deck investigation on the Space Shuttle. The number of groups that can be supported to fly sounding rockets (and other forms of flight opportunity) is limited and heavily dependent on the funds available to this program. NASA does not carry reserves to accommodate any cost overrun incurred by a particular investigation. Such a situation may entail either descoping an initially proposed investigation, or delaying or canceling a particular launch date opportunity.

Proposals submitted in response to this NRA may include budgets for up to three years. These budgets are expected to cover complete suborbital investigations, including payload development and construction, instrument calibration, launch phase, and data analysis. The proposals selected will be funded on a yearly basis. Yearly funding allotments to complete a period of performance after the first year require an Annual Progress Report, which should include a summary sufficient to demonstrate that satisfactory progress has been made, and an updated budget.

NOTE: Appendix C of the ROSS-99 NRA contains critical information necessary for the preparation and submission of proposals submitted in response to this NRA. In particular, Section C.5.3 contains detailed standards concerning the format and contents of a proposal. The submission of a proposal not in compliance with these standards may complicate and/or hinder its efficient and complete evaluation. Therefore, deficiencies in format and/or omission of key information may result in a proposal being found unacceptable for evaluation, or if evaluated, being adversely affected during the evaluation process.

Owing to the larger scope and complexity of Planetary Suborbital proposals, the page limit for the Science/Technical/Management Section given in Section C.5.2 of Appendix C is revised to 20 pages instead of 15 pages.

The schedules for submission of the Notice of Intent (NOI) and the proposal for this program element are:

NOI Due Date	April 9, 1999
Proposal Due Date	June 8, 1999

These dates should be considered as an amendment to Table 1 of the Summary Letter of this NRA. The World Wide Web site for submitting both the NOI and the *Cover Page/Proposal Summary* (see Appendix C.5.3) is <http://cass.jsc.nasa.gov/panel/>; proposers without access to the Web or who experience difficulty in using this site may contact The Lunar and Planetary Institute by E-mail at <panel@lpi.jsc.nasa.gov> or by phone at (281) 486-2137 for assistance. Hard copies of the proposals are to be delivered to:

ROSS-99 NASA Research Announcement
Planetary Suborbital Research Program
The Lunar and Planetary Institute
3600 Bay Area Boulevard
Houston, TX 77058
Phone number for commercial delivery: (281) 486-2189

Additional information may be obtained from the Discipline Scientist:

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