

C.19 NEW FRONTIERS DATA ANALYSIS PROGRAM

NOTICE: Proposals to this program will be taken by a two-step process, in which the Notice of Intent is replaced by a required Step-1 proposal submitted by an Authorized Organizational Representative. Only proposers who submit a Step-1 proposal are eligible to submit a Step-2 (full) proposal. Mandatory Step-1 proposals are due February 8, 2017, and Step-2 proposals are due May 3, 2017.

This is a new program element offered in ROSES-2016. The scope of this program element also differs slightly from the other Planetary Science Division Data Analysis Programs. Proposers are expected to carefully read the solicitation and should E-mail the program point of contact with any questions sufficiently ahead of the Step-1 proposal deadline. In addition, the NSPIRES page has a Frequently Asked Questions document that holds answers to common questions about this program.

1. Scope of Program

1.1 Programmatic Overview

The objective of the New Frontiers Data Analysis Program (NFDAP) is to enhance the scientific return from New Frontiers missions by broadening scientific participation in the analysis and interpretation of data returned by these missions. Other mission and nonmission data sets may be used to supplement these data in a supporting role, but all proposals require the use of data from at least one New Frontiers mission.

This program solicits research proposals to conduct scientific investigations utilizing or enhancing the utilization of data obtained by the New Frontiers missions. For the purposes of this solicitation, "data" is understood to include both uncalibrated and calibrated data, as well as higher-order data products produced from the mission data. Science investigations may include the use of data from any spacecraft not supported by a separate Planetary Science Division Data Analysis Program.

Investigations using the New Horizons data may also use mission data supported by a separate Data Analysis program for outer-solar-system single-body or comparative planetology studies that require the use of New Horizons data for at least one of the bodies of focus.

All proposals to NFDAP must identify and address a clear objective with science research that would be a significant, not incremental, advance in the state of knowledge of the research topic. Tasks responsive to this call include 1) data analysis tasks, 2) tasks that are not data analysis but are necessary to analyze or interpret the data, and 3) tasks that are not data analysis but that significantly enhance the use or facilitate the interpretation of mission data. These tasks may incorporate theory, modeling, laboratory studies, correlative analyses, and/or other research. Proposals that include tasks that are not data analysis to enhance the use or facilitate the interpretation of mission data must incorporate the results of such tasks in the analysis or interpretation of mission data to be responsive to this call.

1.2 Mission Data and Produced Data Products

Higher-order mission data products produced as part of funded research must be made publicly available, following the guidelines described in Section 4.3 of C.1, Planetary Science Overview ("Data Management Plans and Archiving"). Proposed data products for delivery to the PDS must be clearly described, appropriate time and effort for delivery and ingestion must be budgeted, and the proposal must include a letter from the manager of the appropriate PDS data node. For additional information, refer to the PDS Proposer's Archiving guide at <http://pds.nasa.gov/documents/pag/index.html>. Data products, including maps, improved calibrations, etc., must be submitted to the PDS or the USGS, as appropriate, by the end of the funded research period, unless the investigator explicitly makes a case in the proposal for a later date. Each research proposal must constitute a stand-alone scientific investigation, with stated lines of inquiry, and result in one or more peer-reviewed publications.

2. Programmatic Information

2.1 Exclusions

Proposals to this program must include a science investigation. Proposals to produce a higher-order data product that enhances the science return from one or more missions, but without a larger science investigation, must be submitted to the Planetary Data Archiving, Restoration, and Tools (PDART) Program, C.7.

2.2 Relevance Statement Requirement

Proposals to this program must discuss relevance in a (4000-character max) text box on the cover pages via the NSPIRES web interface for this program element. This section is outside of the 15-page Scientific/Technical/Management Section and the relocation of the relevance discussion does not decrease that fifteen-page limit. This requirement supersedes Section 2.3.5 of the *NASA Guidebook for Proposers* and the *ROSES Summary of Solicitation*, and the omission of this section is sufficient reason for a proposal to be returned without review. The relevance discussion must explicitly refer to this program element and the section of the solicitation to which the proposal is responsive. If the proposed work is close in scope to research covered by any other program element, this discussion must also justify why it is more relevant to this program element than that other program element. This discussion may not be used to address the proposal's intrinsic merit, budget justification, or any other factor that remains in the fifteen-page main body, or any other section, of the proposal.

3. Data, Facilities, and Archiving

3.1 Use of Mission Data

Proposals to this program element must follow the rules for use of mission data given in Appendix C.1, The Planetary Science Division Research Program Overview, Section 3.3.

- Mission information can be accessed via the NASA website(s).
 - https://www.nasa.gov/mission_pages/newhorizons/main/index.html
- Mission data information can be accessed via the PDS webpage(s).
 - http://pds-smallbodies.astro.umd.edu/data_sb/missions/newhorizons/index.shtml

3.2 Facilities and Data Sources Available to Proposers

Proposers are advised to read Section 4 of Appendix C.1 for information on facilities and data sources that are available to supported investigators. If their use is anticipated, this should be discussed and justified in the submitted proposals (especially note the provision for such discussion in the proposal section entitled Facilities and Equipment). Also note that, per the directions in Section 2.3 of the *NASA Guidebook for Proposers*, a letter of support may be required from any facility required for the proposed effort.

3.3 Data Archiving and Map Publication

Proposals submitted to this program element must include a Data Management Plan (see Appendix C.1, Section 3.5). This must be placed in a special section, no longer than two pages in length, immediately following the References and Citations section for the Scientific/Technical/Management portion of the proposal.

Selected investigations may result in data products and software tools that are of broad use to the science community, including maps, data with improved calibrations, etc. NASA strongly encourages that such data be archived in the Planetary Data System (<http://pds.nasa.gov/>), or equivalent public archive, by the end of the award period. Proposers are advised to read Appendix C.1, The Planetary Science Division Research Program Overview, for information on including an archiving plan in the proposal.

Proposed investigations of any planetary or satellite surface that are intended to result in the publication of a Scientific Investigations Map (SIM) by the U.S. Geological Survey (USGS) should check the relevant box on the proposal Cover Page and clearly indicate this intention in the Proposal Summary, as well as in the text of the proposal. The scientific goal of such a geologic map product should be clearly explained and justified. Proposers are advised to read Appendix C.1, Sections 3.5-3.6, for the USGS' information on and requirements for map production and publication.

4. The Two-Step Submission Process

This program element uses the two-step proposal submission process outlined in Appendix C.1, Section 2.

Proposers are reminded that Step-1 proposals are mandatory and must be submitted by the proposing organization.

Proposals must follow all formatting requirements that are described Appendix C.1 and in Chapter 2 of the *NASA Guidebook for Proposers*. Note that these requirements have been updated in 2016. Violation of these rules is sufficient ground for a proposal to be rejected.

5. Planetary Science Division Early Career Fellowship Program

Proposals to this program element may include an application for an Early Career Fellowship (ECF). See Program Element C.16 for a description of the application and evaluation process.

6. Summary of Key Information

Expected program budget for first year of new awards	~ \$1.5 M/Year
Number of new awards pending adequate proposals of merit	~ 8-12 total
Maximum duration of awards	3 years
Due date for Step-1 proposals	See Tables 2 and 3 in the <i>ROSES Summary of Solicitation</i> .
Due date for Step-2 proposals	See Tables 2 and 3 in the <i>ROSES Summary of Solicitation</i> .
Planning date for start of investigation	~6 months after Step-2 proposal due date.
Page limit for the central Science-Technical-Management section of proposal	15 pp; see also Chapter 2 of the <i>NASA Guidebook for Proposers</i>
Relevance	This program is relevant to the planetary science questions and goals in the NASA Science Plan. Proposals that are relevant to this program are, by definition, relevant to NASA.
General information and overview of this solicitation	See the <i>ROSES Summary of Solicitation</i> .
Detailed instructions for the preparation and submission of proposals	See the <i>NASA Guidebook for Proposers</i> at http://www.hq.nasa.gov/office/procurement/nraguidebook/ .
Submission medium	Electronic proposal submission is required; no hard copy is required or permitted. See also Section IV of the <i>ROSES Summary of Solicitation</i> and Chapter 3 of the <i>NASA Guidebook for Proposers</i> .
Web site for submission of Step-1 and Step-2 proposals via NSPIRES	http://nspires.nasaprs.com/ (help desk available at nspires-help@nasaprs.com or (202) 479-9376)
Web site for submission of Step-1 and Step-2 proposals via Grants.gov	http://grants.gov (help desk available at support@grants.gov or (800) 518-4726)
Funding opportunity number for downloading an application package from Grants.gov	NNH16ZDA001N-NFDAP
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