

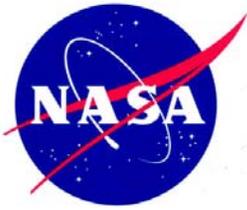


Draft New Frontiers AO

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Draft New Frontiers AO

- We are discussing a **Draft** New Frontiers AO
 - Discussion today is about the released draft and NASA's current plans for the (final, released) New Frontiers AO.
 - The New Frontiers AO may contain provisions that differ from the Draft AO, in which case those in the AO will take precedence.
- Although NASA currently plans to issue a final AO in 2009
 - The schedule upon which the New Frontiers AO will be released will not be determined until after NASA makes a decision on the launch date for Mars Science Laboratory.
 - The issuance of this Draft New Frontiers AO does not obligate NASA to issue the AO and solicit proposals.
 - Any costs incurred by prospective investigators in preparing submissions in response to the Draft AO are incurred completely at the submitter's own risk.



The Standard AO

- SMD has developed a Standard AO Template for PI-led Mission AOs
 - Simplify and clarify the AO so that proposal requirements are clearly stated
 - Separate proposal requirements from requirements on the implementation of the selected mission
 - Simplify and standardize the policies and language that is common from AO to AO
 - Improve some AO requirements and processes to remove unproductive burden from the proposers
- The Standard AO Template is based on extensive community discussions and feedback
- The Standard AO Template is available at
<http://sso.larc.nasa.gov/aosimplification.html>



The Standard AO

1. Description of Opportunity
2. AO Objectives
3. Proposal Opportunity Period
4. Policies Applicable to this AO
5. Requirements and Constraints
6. Proposal Submission Information
7. Proposal Evaluation, Selection, and Implementation
8. Conclusion
 - A. General Instructions and Provisions
 - B. Requirements for Proposal Preparation
 - C. Glossary of Terms and Abbreviations
 - D. Program Library
 - E. Requirements for Subsequent Phases
 - F. Compliance Checklist
 - G. Requirements Crosswalk
 - H. Certifications



The Draft New Frontiers AO

1. Description of Opportunity – One planetary mission
2. AO Objectives – 8 mission concepts (**1 Requirement**)
3. Proposal Opportunity Period – One proposal due date (**2 Requirements**)
4. Policies Applicable to this AO – NASA Management, Participation, Cost, Data, Project Management
5. Requirements and Constraints – Science, Technical, Management, Science Team, SB&E/PO, Cost, Non-U.S. Participation, Letters of Commitment, Export Control, Schedule, Launch Services, Propulsion technology Infusion (**81 Requirements**)
6. Proposal Submission Information – Preproposal, Preparation and Submission (**5 Requirements**)
7. Proposal Evaluation, Selection, and Implementation – Evaluation Criteria, Selection Factors, Implementation, Debriefing, Appeals
8. Conclusion
- B. Requirements for Proposal Preparation (**72 Requirements**)



Draft New Frontiers AO

- AO Objectives

- [1] NASA Strategic Goals, New Frontiers Goals and Objectives, Science Objectives for New Frontiers Mission Concepts

Tom Morgan

- Policies and Requirements

- [2] Propulsion Technology Infusion
- [3] Launch Services
- [4] Environmental Review
- [5] International Participation
- [6] Export Control
- [7] Space Communications
- [8] Data Services and Archives
- [9] Planetary Protection
- [10] Astromaterials Curation
- [11] EPO and Student Collaboration

Dave Anderson

Ann Sweet/Rex Engelhardt

Kathleen Callister

Tim Tawney

Paula Geisz

Barry Geldzahler

Bill Knopf

Cassie Conley

Marilyn Lindstrom

Stephanie Stockman

- Evaluation, Selection, and Implementation

- [12] Evaluation and Selection

Tom Morgan/Jay Bergstralh



Draft AO Highlights

- Solicits proposals for a PI-led, cost-capped mission that addresses the science objectives of one of eight mission concepts
 - Select approximately 3 proposals for competitive Phase A concept studies (§1, §7.4.3)
 - Select one mission concept for continuing into Phase B (§1, §7.4.4)
- Launch date requirement
 - Launch readiness date in a window beginning in late CY 2016 and ending no later than the end of CY 2018, optimized according to target (§5.9.1)
- No Mission of Opportunity solicitation
 - See future program elements in the SALMON AO



Draft AO Highlights

- Cost capped missions

- PI-Managed Mission Cost is capped at \$650M (§5.6.1)

- Includes everything unless otherwise stated (§4.3.1)
- Does not include LV and standard launch services (GFE) [3] (§5.6.1)
- Increased cost cap for use of less capable launch vehicle [3] (§5.9.2)
- Increased cost cap for use of specific propulsion technologies [2] (§5.9.3)
- Does include at least \$6.5M (1% of \$650M) for core E/PO program [11] (§5.5.2)
- Does not include up to \$6.5M (1% of \$650M) toward student collaboration [11] (§5.5.3)

- Total Mission Cost includes above plus (§4.3.2)

- Contributions (§4.3.2, §5.6.7)
- Up to \$6.5M toward student collaboration [11] (§5.5.3)

- Enhanced mission cost

- Science enhancement options may be proposed; these are optional for NASA and the proposed cost is outside of the PI-Managed Mission Cost (§4.3.3)

[2] Propulsion Technologies; [3] Launch Services; [10] EPO and Student Collaboration



Draft AO Highlights

- Science Requirements

- Must be one of 8 mission concepts [1 Science Focus] (§2.4)
- Clearly state relationship between science objectives, data returned, instrument complement, mission architecture, etc. (§5.1.2)
- Must provide a rationale for science instruments (§5.1.3)
- One Baseline Science Mission and one Threshold Science Mission permitted (§5.1.4)
- Must show plan to comply with planetary protection requirements and curation requirements [9 Planetary Protection] [10 Astromaterials Curation] (§5.1.5)
- Science enhancement options permitted if clearly separable from baseline and threshold missions; Cost is outside the PI-Managed Mission Cost (§5.1.6)



Draft AO Highlights

- Data Requirements

- Data is immediately in public domain (§4.4.2)
- Short period of exclusive access permitted for validation, but must be justified in proposal and may not exceed 6 months (§4.4.2)
- Data must be delivered to PDS in useable form with necessary ancillary products [8 Data Services and Archives] (§4.4.3)
- Must explicitly budget adequately for data archiving and data analysis (§5.1.2)



Draft AO Highlights

- Participation Requirements
 - Open to all categories of organizations (§4.2.1)
 - Open to non-U.S. proposers under policy of no-exchange-of-funds [5 International Participation] (§5.7)
 - No cost plan required nor permitted (§5.7.2)
 - Letters of Commitment required (§5.7.2)
 - Mitigation plan against failure to secure funding required (§5.7.2)
 - Table summarizing non-U.S. participation required (§5.7.2)
 - Plan for complying with export control regulations required [6 Export Control] (§5.7.4)
 - Contributions from U.S. and non-U.S. organizations permitted
 - Contribution limit for all contributions is 1/3 of NASA cost (§5.6.7)
 - No non-U.S. nuclear power sources permitted (§5.6.7)
 - Letter of Commitment required from all contributing organizations except for Co-I contributions (§5.6.7, §5.7.2, §5.8.1)
 - For essential or critical path contributions, simple interfaces and contingency plan required (§5.6.7)



Draft AO Highlights

- Project Management Requirements
 - Proposal must be for a complete spaceflight mission (§5.2.1)
 - Project will be managed according to NPR 7120.5D and New Frontiers Program Safety and Mission Assurance Requirements (§4.1.1, §4.1.2)
 - Proposals shall indicate any expected deviations (§5.2.9)
 - NF3 is a Category 2 mission (per NPR 7120.5D) with Class B payloads (per NPR 8705.4) (§4.1.3)
 - Technology maturation plan and backup required for any technology not at TRL-6 (except advanced propulsion)
[2 Propulsion Technology Infusion] (§5.2.3)
 - No radioisotope power sources permitted (§5.2.5)
 - Radioisotope heater units permitted (§5.2.5)
 - Radioactive calibration sources permitted (§5.2.5)
 - Proposal must include resources to accommodate environmental review
[4 Environmental Review] (§5.2.4)
 - Proposal must include both requirements and costs for telecommunications, tracking, and navigation
[7 Space Communications] (§5.2.6)



Draft AO Highlights

- Team Management Requirements
 - Designate one Principal Investigator by name (§5.3.1)
 - Designate one Project Manager by name (§5.3.2)
 - Identify key management team positions (by name is optional) (§5.3.3)
 - Identify implementing organizations (§5.3.3)
 - Describe roles, responsibilities, qualifications (§5.3.1, §5.3.2, §5.3.3)

 - Identify science team (§5.4.1)
 - Designate Co-Investigators, describe role, identify funding (§5.4.2)
 - Designate collaborators (§5.4.3)
 - Note: NASA cares a lot about the difference between a Co-I and a collaborator because a Co-I creates an institutional conflict of interest during peer review and a collaborator does not
 - All team members (any individual named on the proposal cover page) commits through NSPIRES (§5.8.1.3)
 - No Letters of Commitment required in Step 1



Draft AO Highlights

- Proposal Structure Requirements
 - Uniform proposal format outlined in Appendix B (§6.2.1, App B)
 - Includes page limits, required content, required tables, required appendices (App B)
- Submission Requirements
 - Proposal is hardcopy submission (§6.2.3)
 - Each hardcopy proposal must include a CD (§6.2.3)
 - Electronic submission of proposal summary information is required
 - Hardcopy proposal must include same information as electronic proposal summary (§6.2.4)
 - Does not have to be printout of electronic submission; allows proposal teams to reproduce hardcopy before submitting electronic information
 - All team members must commit through NSPIRES (§5.8.1.3)
 - Electronic submission of proposal summary information is prevented until all team members have committed through NSPIRES



Draft New Frontiers AO

- Draft AO is posted on NSPIRES
 - <http://nspires.nasaprs.com/> (select “solicitations”, select “open solicitations”, select “Draft New Frontiers AO NNH9ZDA003J”)
- New Frontiers Acquisition Page
 - Includes New Frontiers Program Library, New Frontiers community announcements, New Frontiers Community Workshop presentations, Q&A for the Draft New Frontiers AO
 - <http://newfrontiers.larc.nasa.gov/>
- All questions and comments on the Draft New Frontiers AO should be addressed to:
 - Tom Morgan, New Frontiers Program Scientist,
Thomas.H.Morgan@nasa.gov