



**NATIONAL AERONAUTICS
AND
SPACE ADMINISTRATION**

***GUIDEBOOK FOR PROPOSERS
RESPONDING TO A
NASA RESEARCH ANNOUNCEMENT (NRA) OR COOPERATIVE
AGREEMENT NOTICE (CAN)***

Edition: January 2015

Changes from 2014 Version of the Guidebook

The January 2014 edition of the Guidebook has been updated as follows:

1. Section 2.2 disallows two column formats unless specifically allowed by the call.
2. Section 2.2 requires electronic submissions unless specifically allowed by the call.
3. Section 2.3.8, "Current and Pending Support [Ref.: Appendix B, Part (c)(10)]," has been amended to read as follows:

Information must be provided for all ongoing and pending projects and proposals that involve the proposing PI. This information is also required for any Co-Is who are proposed to perform a significant share (>10 percent) of the proposed work.

All current project support from whatever source (e.g., Federal, State, local or foreign government agencies, public or private foundations, industrial or other commercial organizations) must be listed. This information must also be provided for all pending proposals already submitted or submitted concurrently. Do not include the current proposal on the list of pending proposals unless it also has been submitted elsewhere.

All projects or activities requiring a portion of the investigators' time during the period of the proposed effort must be included, even if they receive no salary support from the project(s). For the entire period of the proposed award the total amount received by that investigator (including indirect costs) or the amount per year if uniform (e.g., \$50 K/year) must be shown as well as the number of person-months per year to be devoted to the project for each year, regardless of source of support.

Specifically, for the PI and any Co-Is who are proposed to perform a significant share (>10%) of the proposed work, provide the following information:

- Title of award or project title;
- Name of PI on award;
- Program name (if appropriate) and sponsoring agency or organization, including a point of contact with his/her telephone number and email address;
- Performance period;
- Total amount received by that investigator (including indirect costs) or the amount per year if uniform (e.g., \$50 k/year); and
- Commitment by PI or Co-I in terms of person-months per year for each year.

For pending research proposals involving substantially the same kind of research as that being proposed to NASA in this proposal, the proposing PI must notify the NASA Program Officer identified for the NRA immediately of any successful proposals that are awarded any time after the proposal due date and until the time that NASA's selections are announced.

4. Section 2.3.9, Statements of Commitment and Letters of Support, has been revised to read as follows:

Every Co-PI, Co-I, and Collaborator (ref. definitions in Section 1.4.2) identified as a participant on the proposal's cover page and/or in the proposal's Scientific/Technical/Management Section must acknowledge his/her intended participation in the proposed effort.

The NSPIRES proposal management system allows for participants named on the Proposal Cover Page to acknowledge electronically a statement of commitment. Although we prefer all team members to confirm participation via NSPIRES, if that is not possible the inclusion of a statement of commitment in the proposal as set out in the example below may be permitted instead.

The Summary of Solicitation for an NRA may specify that signed statements of commitment must be included within the proposal. Also, any proposals submitted via Grants.gov must include signed statements of commitment in the proposal. In the case of more than one Co-PI, Co-I or Collaborator at the same institution, a single statement signed by all participants may be submitted. In any case, each statement must be addressed to the PI, may be a facsimile of an original statement or the copy of an email (the latter must have sufficient information to unambiguously identify the sender), and is required even if the Co-PI, Co-I or Collaborator is from the proposing organization. An example of such a statement follows:

"I (we) acknowledge that I (we) am (are) identified by name as Co-Principal Investigator(s), Co-Investigator(s) [and/or Collaborator(s)] to the investigation, entitled <name of proposal>, that is submitted by <name of Principal Investigator> to the NASA Research Announcement <alpha-numeric identifier>, and that I (we) intend to carry out all responsibilities identified for me (us) in this proposal. I (we) understand that the extent and justification of my (our) participation as stated in this proposal will be considered during peer review in determining in part the merits of this proposal. I (we) have read the entire proposal, including the management plan and budget, and I (we) agree that the proposal correctly describes my (our) commitment to the proposed investigation." For the purposes of conducting work for this investigation, my participating organization is <<insert name of organization>>."

In addition, a letter of support is required from the owner of any facility or resource that is not under the PI's direct control, acknowledging that the facility or resource is available for the proposed use during the proposed period. For Government facilities, the availability of the facility to users is often stated in the facilities documentation or web page. Where the availability is not publicly stated, or where the proposed use goes beyond the publicly stated availability, a statement, signed by the appropriate Government official at the facility verifying that it will be available for the required effort, is sufficient.

Letters of support do not include "letters of affirmation" (i.e., letters that endorse the value or merit of a proposal). NASA neither solicits nor evaluates such endorsements for proposals. The value of a proposal is determined by peer review. If endorsements are submitted, they may not be submitted as an appendix. They must be

included as part of the proposal and must be included within the required page limitations even though they will not be considered in the evaluation of the proposal.

5. Section 2.3.11(b)(viii), Scholarships and student aid costs, has been revised to read

If selected, proposers must comply with the policy of the Office of Management and Budget set out in 2 CFR § 200.466, Scholarships and student aid costs. To ensure compliance with this policy, proposers must affirm in their proposals the following:

- a. The individual is conducting activities necessary to the Federal award;
- b. Tuition remission and other support are provided in accordance with established policy of the Institution of Higher Education (IHE) and consistently provided in a like manner to students in return for similar activities conducted under Federal awards as well as other activities; and
- c. During the academic period, the student is enrolled in an advanced degree program at a non-Federal entity or affiliated institution and the activities of the student in relation to the Federal award are related to the degree program;
- d. The tuition or other payments are reasonable compensation for the work performed and are conditioned explicitly upon the performance of necessary work; and
- e. It is the IHE's practice to similarly compensate students under Federal awards as well as other activities.

6. Section 2.3.12 has been renumbered 2.3.14 and a new section 2.3.12 has been added to read:

2.3.12 Table of Personnel and Work Effort

Please note that this section does not apply to proposals resulting in contracts. The Table of Personnel and Work Effort summarizes the work effort required to perform the proposed investigation, should it be selected. The table must include the names and/or titles of all personnel necessary to perform the proposed effort, regardless of whether they require funding. Where names are not known, include the position, such as postdoc or technician. For each individual, list the planned work commitment to be funded by NASA, per period in fractions of a work year. In addition, for each individual, please include planned work commitment not funded by NASA, if applicable. This commitment not funded by NASA is not considered cost sharing as defined in 2 CFR § 200.29. The Table Personnel and Work Effort should include only those resources that are directly applicable to the proposed research effort and should not include technical information that belongs in the Scientific/Technical/ Management Section. The detailed budget section must still include the work effort being paid by NASA.

7. A new section 2.3.13 has been added which reads:

2.3.13 Subcontracting plans

As set out in subparagraph (a)(4) of Appendix B, any proposal from a large business concern that may result in the award of a contract, which exceeds \$5,000,000 and has subcontracting possibilities should include a small business subcontracting plan in accordance with the clause at FAR 52.219-9, Small Business Subcontracting Plan.

Subcontract plans for contract awards below \$5,000,000 will be negotiated after selection.

8. Appendix B has been updated by deleting paragraph (n). In addition, regulatory citations for the required provision have been updated and explained.
9. Appendix E has been revised to reflect P.L. 113-235.
10. The following administrative changes were made throughout the document:
 - a. "May 2014" was changed to read "January 2015."
 - b. URLs have been updated
 - c. Citations to regulations have been updated
 - d. Minor editorial changes

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PREFACE

INTRODUCTION TO THIS GUIDEBOOK

This Guidebook describes the policies and procedures of the Broad Agency Announcement known as the National Aeronautics and Space Administration (NASA) Research Announcement (NRA) used by the program offices of NASA that solicit proposals for basic and applied science and technology research and for science, technology, engineering, and mathematics (STEM) education. All Proposers who plan to respond to an NRA released by NASA should adhere to the guidelines contained in Chapters 1, 2, and 3, and the Appendices, unless otherwise noted in the NRA itself.

In general, Chapters 1, 2, and 3 of this Guidebook supplement the material given in its Appendix B, entitled "*Instructions For Responding To NASA Research Announcements*," which reproduces NASA Federal Acquisition Regulation (FAR) Supplement (NFS) 1852.235-72 (ref. Appendix A for access information). Appendices C and D describe how NRA proposals are reviewed, selected, and administered, and are included for completeness of information for Proposers. Appendix E contains a variety of certifications and forms that relate to proposals and their evaluations. Appendix F contains frequently asked questions and answers concerning NRA proposal and administrative processes. Appendix G contains security requirements for grant and cooperative agreement awards and contract awards. Appendix H contains information on the Ombudsman review process and the protest process.

The most recent edition of this Guidebook can always be accessed on the World Wide Web (WWW) at <http://www.hq.nasa.gov/office/procurement/nraguidebook/>. Each NRA will indicate the applicable edition.

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INTRODUCTION TO NASA'S SPONSORED RESEARCH PROGRAMS

The National Aeronautics and Space Administration is an independent Federal Agency of the United States (U.S.) created by the *National Aeronautics and Space Act of 1958*.

Proposers responding to a NASA CAN or NRA are responsible for submitting proposals relevant to the 2014 NASA Strategic Plan or the most current Strategic Plan. Find NASA's 2014 Strategic Plan by visiting

http://www.nasa.gov/sites/default/files/files/2014_NASA_Strategic_Plan.pdf

Because Strategic Plans are updated regularly and often at the same time a new budget is released, verify that the 2014 document is current by visiting

<http://www.nasa.gov/news/budget/index.html>.

If proposed activities are described or understood to be a type of education, proposers are also responsible for submitting proposals relevant to the Federal STEM Education Five-Year Strategic Plan; a report from the Committee on STEM (Co-STEM) Education National Science and Technology Council, May 2013. Download a copy of the plan from the White House website at: http://www.whitehouse.gov/sites/default/files/microsites/ostp/stem_stratplan_2013.pdf.

NASA has four Mission Directorates, each assigned responsibility for implementing NASA's Vision, Mission, and Values as outlined in the 2011 NASA Strategic Plan. The Mission Directorates are listed below:

- Science
- Human Exploration and Operations
- Aeronautics Research
- Space Technology

These Mission Directorates pursue NASA's goals using a wide variety of ground-, aeronautical-, and space-based programs, and any of these may issue NRAs that will incorporate this Guidebook by formal reference. Examples of such programs are NASA's human and robotic space missions to explore and study the planet Earth, the Solar System, and the Universe; NASA's research using the Earth-orbiting International Space Station; and NASA's ground- and space-based programs and facilities to conduct aeronautics research, the development, demonstration, and infusion of pioneering space technologies for advanced space systems. Awards for research through these various programs fund thousands of scientists, engineers, technologists, and educators each year at U.S. nonprofit and commercial organizations, as well as Federal research organizations including NASA's own Centers and the Jet Propulsion Laboratory (JPL).

Education also is identified in the 2014 Strategic Plan as an Agency mission. In the Strategic Plan NASA's Education Office leads: Objective 2.4: Advance the Nation's STEM education and workforce pipeline by working collaboratively with other agencies to engage students, teachers, and faculty in NASA's missions and unique assets.

NASA's Office of Education, in collaboration with the Mission Directorates and Offices, also issues NRAs that solicit evidence-based projects that 1) foster formal and/or informal STEM education; and/or 2) contribute to participation by underrepresented or underserved students and education organizations that predominantly (or historically) serve individuals traditionally underrepresented in STEM careers or underserved in STEM higher education including but not limited minorities, women and persons with disabilities. Visit the NASA Education pages for the most up to date information about the Office of Education performance and priorities at: <http://www.nasa.gov/offices/education/performance/index.html#.VLm0i0fF-Ag>.

The Office of Small Business Programs (OSBP) at NASA Headquarters is responsible for the development and management of NASA programs that assist all categories of small business and works in conjunction with the above-mentioned Offices and Mission Directorates that issue NRAs and CANs in order to facilitate small businesses and small disadvantaged businesses participation. Further information for small businesses and small disadvantaged businesses is available at <http://osbp.nasa.gov/index.html>.

Complete material about all of NASA's many interests and programs is found through links starting at the NASA homepage at <http://www.nasa.gov/>.

STATEMENTS OF GENERAL POLICY

NASA's Partnership with the Research and Education Communities. Funding for NASA-related research and development projects is a privilege afforded to qualified science, engineering, and educational personnel by NASA acting on behalf of the citizens of the United States through

Congressional and Executive action. NASA's proposal and selection procedures work only because the various research communities and NASA Program Offices together maintain the highest level of integrity at all stages of the process. As a general rule, recipients of NASA research awards largely manage their own research projects with minimal oversight by the Agency. Throughout the entire process—starting with the identification of program objectives, the preparation and peer review of submitted proposals, the conduct of the research itself, and, finally, the exposition of new knowledge through publications, public outreach, and education—NASA sees itself as a partner with the scientific, engineering, and educational communities in making its programs relevant and productive.

Inclusive Solicitation of Proposals. NASA welcomes proposals in response to its research solicitations from all qualified sources, and especially encourages proposals from Historically Black Colleges and Universities (HBCUs), Other Minority Universities (OMUs), small disadvantaged businesses (SDBs), veteran-owned small businesses, service disabled veteran-owned small businesses (SDVOSB), HUBZone small businesses, and women-owned small businesses (WOSBs). Proposers should consult FAR Part 19 and FAR Part 26 for definitions of these business types. Reference the following URL for FAR Part 19: <https://acquisition.gov/far/90-37/html/19.html>, and https://www.acquisition.gov/far/current/html/Subpart%2026_3.html#wp1052071. In accordance with Federal statutes and NASA policy, no eligible applicant shall be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving financial assistance from NASA on the grounds of their race, color, creed, age, sex, national origin, or disability.

NASA WORLD WIDE WEB (WWW) HOME PAGES

NASA's homepage on the World Wide Web may be found at <http://www.nasa.gov/>. NASA postings on the Internet may be searched through the NASA search engine found at: <http://prod.nais.nasa.gov/cgi-bin/nais/index.cgi>. The Federal search engine for the acquisition community and the government's business partners can be found at: <http://www.acquisition.gov/>.

NOTIFICATION OF RELEASE OF NASA RESEARCH SOLICITATIONS

Section 5.2.1, Synopses Requirements, of the Grant and Cooperative Manual and Procurement Information Circular (PIC) 06-12 require that all NASA Research Announcements (NRAs) and NASA Cooperative Agreement Notices (CANs) issued on or after October 1, 2006 that could result in the award of a grant or cooperative agreement be posted on NSPIRES. Links to open and recently closed NASA NRAs released by NASA may be accessed through the Web address for the NASA Solicitation and Proposal Integrated Review and Evaluation System (NSPIRES) at <http://nspires.nasaprs.com/>. Alternatively, the NASA Acquisition Internet Service (NAIS) provides an inclusive, searchable database for all solicitations of every type released by the Agency by opening "Business Opportunities" from the menu at <http://procurement.nasa.gov/>. This listing will also include any NRAs that may be released by any of NASA's Centers. Researchers may also find research grant opportunities offered by NASA and other Federal agencies on the Grants.Gov web site at <http://www.grants.gov/>.

1. OVERVIEW OF THE NASA RESEARCH ANNOUNCEMENT (NRA)

1.1 General Background

In fulfillment of the National Aeronautics and Space Act of 1958, as amended, (http://www.nasa.gov/offices/ogc/about/space_act1.html), NASA endeavors to sponsor the highest quality research and development of the newest technologies related to the space and aeronautical sciences. NASA solicits proposals by issuing Broad Agency Announcements (BAAs) of several different types for the particular targeted objectives sought by each program. This Guidebook specifically discusses the policies and procedures of the BAA known as the NRA.

A key feature that distinguishes the research sponsored by NASA from that sponsored by other Federal agencies is that it must be relevant to NASA's programs in addition to being of the highest intrinsic science and technical merit and affordable and reasonable in cost. Proposals that respond to a specific NRA are called "solicited proposals." NASA receives and processes several thousand solicited proposals each year as submitted in response to many different research solicitations. Responsible and timely handling of these proposals is crucial for the integrity and efficiency of the review and funding processes. The standards set forth in this Guidebook not only facilitate these processes but also promote the highest level of professionalism by NASA for handling and reviewing proposals. Potential Proposers are urged to read this Guidebook carefully and to adhere to the requirements specific to each NRA of interest in order to submit a valid, responsive proposal.

In general, this Guidebook supplements the material given in its Appendix B, entitled "*Instructions for Responding to NASA Research Announcements*," which reproduces NASA Federal Acquisition Regulation (FAR) Supplement (NFS) 1852.235-72 (<http://tinyurl.com/oppfngm>) (ref. Appendix A for the World Wide Web access to the NFS). Where appropriate in this Guidebook, especially in Chapter 2, the cross reference to Appendix B is provided in brackets (e.g., [Ref.: Appendix B, Part (a)]).

1.1.1 Order of precedence. In case of any conflict, the order of precedence to be followed is first, provisions of law; second, the NASA FAR Supplement; third, the specific requirements noted in the NRA itself; and lastly the direction provided in this Guidebook.

1.1.2 Award Instruments and Award Authority. The funding mechanisms used by NASA for research selected through an NRA are Interagency transfers, grants, cooperative agreements, contracts, and NASA's own internal processes for funding activities at its Centers and JPL. For conciseness, the term "award" will be used hereafter in this Guidebook to mean any of these funding mechanisms, and, similarly, "Award Officer" will mean either a NASA Grant Officer or a NASA Contracting Officer. In all cases, only the Award Officer has binding authority to obligate Government funds allocated to a recipient. Ref. Appendix D for more details about both the definition and administration of research awards.

1.2 Overview Description of the Processes

1.2.1 Writing, Announcing, and Releasing an NRA

Regardless of their objectives, NRAs released by NASA that specifically incorporate this Guidebook by reference will be patterned on a standard format that, at a minimum, includes:

- Overview Information
- Executive Summary
- Funding Opportunity Description
- Award Information
- Eligibility Information
- Application and Submission Information
- Application Review Information
- Award Administration Information
- Reporting Requirements
- NASA Contacts
- Other Information

If the NRA anticipates the award of both contracts, and grants or cooperative agreements, the NRA must be synopsisized in the Federal Business Opportunities (FBO) at <http://www.fedbizopps.gov> at least 15 calendar days prior to release and in Grants.gov, located at <http://www.Grants.gov>, not later than three days after release. If an NRA expressly excludes the award of a contract as a funding instrument, the NRA is required only to be synopsisized in Grants.gov no later than three days after the release of the NRA. Although posting in the FBO is not legally required in the latter instance, the NRA may also be synopsisized in the FBO as a method of publicizing the opportunity. As a service to the interested members of the science, technical and educational research communities, some NASA program offices also provide direct notification of the intended release of their program announcements through Internet-based email notifications. Instructions for subscribing to email notifications can be found at the research opportunities website (ref. complete listing at <http://nspires.nasaprs.com/>). However, note that NASA is not responsible for inadvertently failing to provide notification of a future NRA. Interested parties are responsible for regularly checking these websites for updated NRAs. Finally, NRAs may also be accessed through the menu listing "Business Opportunities" of NASA's Acquisition Internet Service (NAIS) at <http://prod.nais.nasa.gov/cgi-bin/nais/index.cgi>. In all cases, a notice in any of these venues will always contain at least the following fundamental information:

- Title of program for which proposals are solicited;
- Unique NRA alpha-numeric identifier;
- Date of release of NRA and World Wide Web address for access;
- Due dates for Notices of Intent to propose (if applicable) and for proposals;
- Executive summary of announcement objectives;
- A statement of the inclusiveness of eligibility applicants; and
- Name and contact information of the cognizant NASA Program Officer for further information.

All competitive solicitations issued on or after October 1, 2006, that could result in the award of a grant or cooperative agreement are required to be posted on the NASA Solicitation and Proposal Integrated Review and Evaluation System (NSPIRES) system. NASA NRAs may be found on their date of release at <http://nspires.nasaprs.com/>. When possible, advance notices of future NRAs are found at the same location with a best estimate of the release date, though such advance postings are not guaranteed. Notification of NRAs may also appear in various professional publications that serve specific science disciplines, engineering fields, or educational areas and/or in a variety of commercial publications that report news concerning NASA's programs. However, since such notifications may not appear until several weeks after the actual release dates, those interested in NASA research opportunities are urged

to subscribe to the relevant NASA email notification service(s), to check the relevant NASA home page(s), and/or to check the NAIS, FBO, and Grants.Gov Web sites. All other sources are unofficial and not necessarily complete or timely.

While NASA program personnel may be contacted to discuss general program objectives with prospective Proposers, they are forbidden from providing specific advice on budgetary or technical issues beyond those published in the NRA that would give an unfair competitive advantage unless this same information is openly available to all interested Proposers.

1.2.2 Proposal Content and Submission

The proposal preparation and submission processes for all NRAs that specifically reference this Guidebook are given in Chapters 2 and 3. The requirements of this Guidebook shall be applicable unless specifically amended in the NRA itself. In order to be considered complete and, therefore, accepted for competitive review, proposals submitted in response to an NRA must conform to the instructions provided in the NRA. Compliance is required and will be enforced. NASA may reject without review proposals that are not consistent with the NRA instructions. Reference paragraph 1.1.1 for order of precedence in case of any conflict.

Most NASA NRAs require electronic submission of proposals. In some instances, however, instructions may require both an electronic submission and a paper copy submission, consisting of an original and a specific number of copies. In those instances all required submissions must be received at the designated address, time and date specified in the NRA (ref. Section 3.2 for the policy on late proposals).

If an NRA requires only electronic submission of proposals, then the submission of a proposal by the authorized organizational representative (AOR) serves as the required original signature by an authorized official of the proposing organization. If, however, a paper copy submission is required, all proposal documents submitted shall be appropriately signed.

1.2.3 Proposal Review and Selection

To be competitive for selection, proposals must fully satisfy the evaluation criteria as determined by peer review for scientific and/or technical merit, and by programmatic evaluation for cost and relevance by NASA (ref. further details in Appendix C). NASA peer review members may also participate in determining the relevance of a proposal to NASA program objectives and the realism and reasonableness of proposed costs as compared to the available budget. NASA will begin this evaluation process as soon as possible after the deadline for proposal submission. At a minimum, the evaluation criteria against which the proposals will be judged will be those listed in Section C.2 of Appendix C, although these may be supplemented by specific criteria given in the NRA itself. NASA always seeks the best possible evaluations by appropriately qualified peers of the Proposer who are knowledgeable, though not necessarily specialists, in the objective(s) solicited by the NRA. Experience has consistently shown that the characteristics of successful proposals are that they are technically meritorious, logical, complete, convincing, easily read, affordable, and responsive to the advertised NASA program.

Following peer evaluation, the cognizant NRA Program Officer will consider the competitively rated proposals in the context of the programmatic objectives and financial limitations stated in the NRA. The Program Officer will present a recommendation for selection based on the entirety of these factors to the NASA Selection Official identified in the NRA. The

Selection Official will select proposals as judged against the evaluation criteria, the objectives of the NRA, programmatic considerations, and the available financial resources.

Following selection, each Proposer will be notified of the disposition of his/her proposal and, if desired, provided the opportunity to be debriefed. Those Proposers who are selected will be advised that their organizations will be contacted by the responsible NASA Procurement Office to initiate negotiations for an eventual award. It is important to note that, until an award is made, there is no guarantee that the recommended financial resources will be available. Funds are not in general available for awards at the time of an NRA's release. The Government's obligation to make awards is contingent upon the availability of sufficient appropriated funds from which payment can be made and the receipt of proposals that NASA determines are acceptable for award under the NRA.

Note that awards are made to the proposing organization and not directly to the Principal Investigator. Appendix D provides ancillary information about how NASA typically implements and manages awards for the proposals selected through its NRAs.

1.3 Reserved

1.4 Categories of Proposal Organizations and Personnel

1.4.1 Proposing Organization Type

NASA accepts proposals submitted in response to its NRAs by most types of U.S. and non-U.S. organizations acting on behalf of the Proposer(s). As an aid to NASA to determine the appropriate type of award to be used should a proposal be selected, designation of one of the following organizational categories is required on the *Proposal Cover Page* (ref. Section 2.3.10(a) and D.1.2). The NSPIRES-standard cover page does not offer subcategory organization types, such as museum or public K-12 school. Some NRAs may request subcategory organization type using a program specific data form. Some NRAs may specifically disallow some or all of the following broad categories and/or may add sub categories not cited below.

The proposing organization type, as requested on the *Proposal Cover Page*, typically aligns to the proposing organization's financial reporting identity as required by Federal law. Regardless of what proposing organization type is designated, any resulting award and its reporting requirements will be consistent with applicable NASA and Federal regulations.

- Education Organization (Limited to Higher Education Institutions) – A university, two- or four-year college (including U.S. community colleges) accredited to confer degrees beyond that of the K-12 grade levels. The NSPIRES coversheet excludes classifying non-higher education entities, such as K-12 education groups or institutions of informal education as Education Organizations. Education Organizations not providing higher education may be eligible to propose as non-profit or commercial organizations or as agencies of state, local, or Federally-recognized tribal governments as described below.

- Non-profit Organization – A non-profit organization is generally defined as any private corporation, trust, association, cooperative, or other organization which:

- (1) is operated primarily for scientific, engineering, educational, research, or similar purposes in the public interest;

- (2) is not organized primarily for profit;
- (3) uses its net proceeds to maintain, improve, and/or expand its operations; and is
- (4) an entity incorporated or unincorporated as a non-profit organization under Federal, state or local law.

Non-profit organizations NASA typically supports include: research laboratories, university consortiums, museums, planetariums, observatories, professional societies, or similar organizations, such as entities providing or supporting K-12 education, or entities that directly support advanced research or education activities but whose principal charter is not for the training of students for advanced academic degrees. Non-profit organization generally excludes (i) colleges and universities; (ii) hospitals; and (iii) state, local and Federally recognized Indian tribal governments.

- Commercial Organization – An organization of any size that is organized primarily for profit.
- NASA Center – Any NASA Center, e.g., Johnson Space Center (JSC).
- Other Federal Agency – Any non-NASA, U.S. Federal executive agency or Federally Funded Research and Development Center (FFRDC), e.g., Jet Propulsion Laboratory (JPL), sponsored by a Federal executive agency.
- Unaffiliated Individual – Any person (e.g., Sole Proprietorship) legally residing in the U.S., regardless of being a U.S. citizen or permanent resident, who has the capabilities and access to facilities for carrying out the proposed project and who, if selected, agrees to financial arrangements that NASA determines as sufficient to ensure the responsible management of appropriated Federal funds.
- Non-U.S. Organizations – Organizations outside the U.S. that propose on the basis of a policy of no-exchange-of-funds; consult Section (I) of Appendix B for specific details. Some NRAs may be issued jointly with a non-U.S. organization (e.g., those concerning guest observing programs for jointly sponsored space science programs) that will contain additional special guidelines for non-U.S. participants. Also ref. Sections 2.3.10(c)(vii) for special instructions for proposals from non-U.S. organizations that involve U.S. personnel for whom NASA support is requested.
- State, Local, or Federally-Recognized Tribal Government Agency. – Examples of state, local or federally-recognized tribal government agencies that may apply to NRAs are individual public schools, school districts, museums; planetariums, visitor centers, etc.
 - (1) “State” means any of the several States of the United States, the District of Columbia, the Commonwealth of Puerto Rico, any territory or possession of the United States, or any agency or instrumentality of a State exclusive of local governments.
 - (2) “Local government” means a county, municipality, city, town, township, local public authority, school district, special district, intrastate district, council of governments (whether or not incorporated as a non-profit corporation under State law), any other regional or interstate government entity, or any agency or instrumentality of a local government.
 - (3) “Federally-recognized Indian tribal government” means the governing body or a governmental agency of any Indian tribe, band, nation, or other organized group or

community (including any native village as defined in Section 3 of the Alaska Native Claims Settlement Act, 85 Stat. 688) certified by the Secretary of the Interior as eligible for the special programs and services provided through the Bureau of Indian Affairs.

1.4.2 Proposal Personnel

Every person who is expected to play a significant role (i.e., PI, Co-PI, Co-I, Postdoctoral Associate, Other Professional, Graduate/Undergraduate Students, Consultants, Collaborators) in the execution of the proposed effort must be identified on the Proposal Cover Page, using one of the following seven categories of personnel. Each individual proposed must also identify the organization through which he/she is participating in the investigation, which may differ from his/her primary employer or preferred mailing address, in order to facilitate organizational conflict of interest checks that must be considered in the evaluation process. Any organization requesting NASA funds through participation in the proposed investigation must be listed for each team member on the Proposal Cover Page. NASA will not fund organizations that do not appear on the Proposal Cover Page. Other than the category of Principal Investigator, some NRAs may specifically disallow some or all of these categories and/or may add other categories.

- Principal Investigator (PI) – The Principal Investigator (PI) is(are) the individual(s) a research organization designates as having an appropriate level of authority and responsibility for the proper conduct of the research, including the appropriate use of funds and administrative requirements such as the submission of scientific progress reports to the agency. Every proposal shall identify a PI who is responsible for the quality and direction of the proposed research and for the proper use of awarded funds regardless of whether or not he/she receives support through the award. The proposing organization has the authority to designate the PI and to designate his/her replacement, if that becomes necessary. NASA approval is required for replacement of a PI after proposal selection.
- Contact PI - To facilitate communication with NASA when proposing multiple PIs, the submitting organization must designate a “Contact PI” at the time of proposal. The Contact PI will be referred to as the “PI.” Any other PIs will be referred to as “Co-PIs.” The NASA grant officer and program officer will communicate with the Contact PI, and the Contact PI will be responsible for relaying communications between the Co-PIs and NASA.
- Co-Principal Investigator (Co-PI) - When multiple PIs are proposed, the Co-PI(s) share the responsibilities of the PI.

NASA strongly encourages PIs to specify only the most critically important personnel to aid in the execution of their proposals. Such personnel must be designated as being in one of the following categories:

- Co-Investigator (Co-I) – A Co-I is a member of the proposal’s investigation team who may hold either a full-time or limited-term appointment and who is a critical “partner” for the conduct of the investigation through the contribution of unique expertise and/or capabilities. A Co-I must have a well-defined, and generally sustained, continuing role in the proposed investigation, serve under the direction of the PI, and may or may not receive funding through the award. Only an individual who has formally agreed to the role may participate as a Co-I

even if his/her participation is at no cost (i.e., contributed) to the proposal. Each Co-I must demonstrate his/her commitment to participate in the proposed investigation by way of a brief, signed statement from him/her even if they are from the proposing organization (Section 2.3.9). The *Scientific/Technical/Management Section* of a proposal (ref. Section 2.3.5) may also designate that a Co-I carry additional responsibilities as appropriate for the following unique circumstances:

- One Co-I may also be designated as the "Science PI" for those cases where the proposing organization does not permit that individual to formally serve as a PI as defined above (e.g., nontenured faculty or postdoctoral personnel). In such a case, that Co-I/Science PI will be understood by NASA to be in charge of the scientific direction of the proposed work, although the formally designated PI will still be held responsible for the overall direction of the effort and use of funds.
- A Co-I at an organization other than that of the PI institution who is making a major contribution to the proposal (e.g., providing a significant piece of hardware) and who serves as the point of contact at that Co-I's organization, may also be designated as the "Institutional PI" for that Co-I's organization. If specifically stated in the NRA, NASA may elect to provide a separate award directly to the organization of the Co-I. In this case, the Co-I will serve as the "PI" for this separate award for his/her organization.
- A Co-I from a non-U.S. organization may also be designated as a "Co-Principal Investigator" (Co-PI) should such a designation be required to fulfill administrative requirements of that Co-I's organization and/or to enable the procurement of funding by that Co-I from his/her sponsoring funding authority (ref. also Appendix B, Section (I)).
- Postdoctoral Associate – A Postdoctoral Associate holds a Ph.D. or equivalent terminal degree, is usually employed full time at the proposing PI organization, is identified as a major participant (but not explicitly as a Co-I) for the execution of the proposed research, and is appropriately remunerated for that effort through the proposal's budget. Such a Postdoctoral Associate should be identified by name, if known, by the time the proposal is submitted or may be identified only by designated function in those cases where recruitment depends on the successful selection of the proposal. Postdoctoral associates might not be named on the cover page, but their effort should be included in the technical description of work assignments, the budget, and budget justification.
- Other Professional – This category is appropriate for personnel who support a proposal in a critical manner, e.g., a key Project Engineer and/or Manager, but who is not identified as a Co-I or Postdoctoral Associate.
- Graduate and/or Undergraduate Students– A proposal may incorporate students working for graduate or postgraduate degrees who will be paid through the proposal's budget to help carry out the proposed research under direction of the PI or one of the designated Co-Is. Such students should be identified by name if known when the proposal is submitted, but may be designated only by function in those cases where their recruitment depends on the successful selection of the proposal. These students may not be listed on the Proposal Cover Page but they should be included in the technical description of work assignments, the budget, and budget justification. Note: Direct support for undergraduate students' tuition is normally allowed only if specifically stated in the NRA.

- Consultant – A Consultant is an individual who is critical to the completion of the proposed effort and is to be paid a fee for his/her services, which may include travel in order to consult with the PI, but who is not considered a sustaining “partner” in the proposed activities as is a Co-I. Note: The requirements for the proposal budget includes the identification, justification, and complete breakdown of all costs proposed for all consultants (ref. Sections 2.3.2 and 2.3.10).

- Collaborator – A Collaborator is an individual who is less critical to the proposal than a Co-I but who is committed to provide a focused but unfunded contribution for a specific task. If funding support is requested in the proposal, such a person must be identified in one of the other categories above. For a proposal that is submitted via Grants.gov, collaborators should be listed on the Project Role “Other” line of the Senior/Key Person portion of the R&R 424 form.

1.5 Successor Proposals

[Ref.: Appendix B, Section (d)]

Holders of existing research awards frequently submit follow-on or “successor proposals” to successive NRAs that are issued for continued pursuit of the same NASA program objectives in order to extend an ongoing research activity to its next logical step. However, in order to ensure equitable treatment of all submitted proposals, NASA does not extend any special consideration to such successor proposals in terms of preferential handling, review, or priority for selection. Therefore, all proposals in response to an NRA are considered new, in that they will be reviewed on an equal basis with all other proposals submitted to the NRA.

Such proposals are welcomed and encouraged, and must describe relevant achievements made during the course of the previous award(s) in their Scientific/Technical/Management Section (ref. Section 2.3.5). In addition, for Proposers using the NSPIRES electronic submission system, the *Proposal Cover Page* (ref. Section 2.3.2) provides a space for entering the NASA identifier number of any existing award that is a logical predecessor to the successor proposal that is being submitted. If a successor proposal is selected, it is NASA’s preference to fund it through a new award, although NASA reserves the right to fund the proposal by issuing a supplement/modification to the existing award. In either case, the starting date of a successor award will follow the expiration date of the preceding award (i.e., a successor award to the same PI at the same organization may not overlap the predecessor award). In order to distinguish the successor award from the predecessor award, Proposers **should not** use the same title for successor proposals as the title for the predecessor proposal. A change as simple as adding “Phase 2” is sufficient, though any different title is acceptable.

1.6 Other Guidelines

1.6.1. Proposals Involving Non-U.S. Organizations [Ref.: Appendix B, Section (l)]

Except as set forth in E.1.5 regarding China, NASA welcomes proposals from non-US organizations and proposals that include the participation of non-US organizations. Foreign entities are generally not eligible for funding from NASA and should propose to participate on a no-exchange-of-funds basis. This policy also applies to research performed by non-U.S. organizations as part of a proposal submitted by a U.S. organization. This policy pertains to the nature of the proposing organization, and the nationality or citizenship of the individuals listed in the proposal in accordance with Section 1.4 is not relevant. For such proposals, it is critical that the proposal contains a certification that a sponsoring foreign

government agency or foreign institution commits to bear the cost of the research proposed to be performed by the non-U.S. organization should the proposal be selected by NASA. Ref. Section (I) of Appendix B for more specific instructions on proposals involving non-U.S. organizations, and ref. Section 2.3.10(b)(vii) for details concerning the budgets of such proposals.

1.6.2 Export Control Information regarding U.S. export regulations is available at <http://www.pmdtc.state.gov/> and at <http://www.bis.doc.gov>.

1.6.2(a) Export-Control Guidelines for Proposals Involving Foreign Participation

The following important provision may apply to proposals that involve the participation of non-U.S. organizations, as well as proposals that involve personnel who are not U.S. citizens and do not have status as legally permanent U.S. residents.

Export-Control Guidelines Applicable to Foreign Proposals and Proposals Including Foreign Participation

“Foreign proposals and proposals including foreign participation must include a section discussing compliance with U.S. export laws and regulations, e.g., 22 CFR Parts 120-130 and 15 CFR Parts 730-774, as applicable to the circumstances surrounding the particular foreign participation. The discussion must describe in detail the proposed foreign participation and is to include, but not be limited to, whether or not the foreign participation may require the prospective Proposer to obtain the prior approval of the Department of State or the Department of Commerce via a technical assistance agreement or an export license, or whether a license exemption/exception may apply. If prior approvals via licenses are necessary, discuss whether the license has been applied for or if not, the projected timing of the application and any implications for the schedule. Information regarding U.S. export regulations is available at the U.S. Department of State Web site http://www.pmdtc.state.gov/regulations_laws/itar.html and through the U.S. Department of Commerce’s Bureau of Industry and Security Web site at <http://www.bis.doc.gov>. Proposers are advised that under U.S. law and regulations, spacecraft and their specifically designed, modified, or configured systems, components, and parts are generally considered “Defense Articles” on the United States Munitions List and subject to the provisions of the International Traffic in Arms Regulations (ITAR), 22 CFR Parts 120-130.”

Because of these legal provisions and requirements, Proposers and institutions whose proposals involve non-U.S. participants should be aware that such participation can add to management complexity and risk, and, therefore, Proposers should limit such cooperative arrangements to those offering significant benefits while maintaining the clearest and simplest possible technical and management interfaces.

1.6.2(b) Export-Controlled Material in Proposals

While explicit inclusion of export-controlled material in proposals is not prohibited, NASA is advising Proposers that, under U.S. law and regulations, spacecraft and their specifically designed, modified, or configured systems, components, and parts are generally considered "Defense Articles" on the United States Munitions List and subject to the provisions of the International Traffic in Arms Regulations (ITAR), 22 CFR

Parts 120-130. Other items or information may be subject to the Export Administration Regulations (EAR), 15 CFR Parts 730 – 774. This may, in some circumstances, complicate NASA’s ability to evaluate the proposal, since occasionally NASA may use the services of foreign nationals who are neither U.S. citizens nor lawful permanent residents of the U.S. to review proposals submitted in response to this NRA.

Proposers to NRAs are strongly encouraged not to include export-controlled material in their proposals, although the effort being proposed may itself be export controlled (ref. Web sites noted above in 1.6.2(a)). If it is essential to include any export-controlled information in a proposal, a notice to that effect must be prominently displayed on the first pages of the proposal and shall state:

“The information (data) contained in [insert page numbers or other identification] of this proposal is (are) subject to U.S. export control laws and regulations. It is furnished to the Government with the understanding that it will not be exported without the prior approval of the Proposer under the terms of an applicable export license or technical assistance agreement.”

Reference the following URL for guidance on NASA’s Export Control Program and NASA Center Points of Contact:

<http://www.hq.nasa.gov/office/oer/nasaecp/contacts.html>

For the purposes of proposals submitted via NSPIRES or Grants.gov these first pages listing export-controlled information should precede the table of contents, do not count against the page limits, and may also be used to provide the proprietary notification, if applicable. Note that it is the responsibility of the Proposer to determine whether any proposal information is subject to export-control regulations.

1.7 Guidelines for Proposal Preparation

NASA’s extensive experience in the review of proposals submitted in response to a wide variety of program solicitations has shown that the following guidelines are valuable in helping to ensure the submission of a valid, competitive proposal:

- Follow the instructions in the specific NRA of interest with care in order to respond to the opportunity as published, since NASA is legally obligated to review and select proposals in accordance with their published provisions.
- Clearly state the objectives of the proposal and its implementation plan so that both NASA and the peer reviewers can easily understand what is proposed to be done and how it will be accomplished.
- Strive to ensure that the proposal clearly addresses the advertised objectives as stated in the NRA, since NASA is a program-oriented Agency that is obligated to sponsor only that research that supports its goals and objectives as stated in its strategic plans and research solicitations.
- If proposing innovative work in a new or emerging field, strive to achieve a balance between the provision of tutorial material and the description of the new activities being proposed.

- Provide appropriate recognition of preceding accomplishments, demonstrate knowledge of the literature by citing key recent, significant publications in the field, and show how the proposed activity will extend and build on what has already been accomplished (whether by the Proposer or by others).
- Proofread the proposal carefully before submission, and, if at all possible, ask a colleague to critically review it for completeness and comprehensibility; strive for a quality and clarity of text comparable to that for an article to be submitted to a peer-reviewed journal.
- Keep the proposal as short as possible consistent with completeness and understandability; use legible fonts and illustrations and a clear, simple organization. When designing graphics, remember that readers may be color blind and choose non-color-dependent ways of conveying critical information.
- Propose fresh, new ideas rather than slight modifications of proposals that may have been rejected in previous competitions. Simply revising a proposal to meet deficiencies identified in a previous review(s) does not necessarily guarantee a higher rating, since reviewers are rarely the same, NASA objectives evolve, and fields of research mature, all over a period as short as one year.
- Include all requested proposal information in its specified order and in compliance with stated page limits.
- Strive for realism as well as adequacy of the requested budget, and provide all the details necessary to justify and facilitate understanding of the proposed costs. A relatively low cost does not necessarily provide a competitive advantage to a proposal unless all other factors are equal; likewise, a proposal judged to be of especially high science/technical merit is not necessarily rejected because it requests a budget beyond the norm advertised for the program.
- Familiarize yourself with the proposal submission process and website well before the deadline. Adhere to all proposal deadlines and if possible submit proposals well in advance of the proposal submission deadline to minimize the effect of technical difficulties that may arise.

2. PROPOSAL PREPARATION AND ORGANIZATION

2.1 Overview

It is expected that this Guidebook will be updated as required. Therefore, each NRA will explicitly identify the edition date of this Guidebook that should be followed to ensure the submission of a valid proposal. Material contained in the Guidebook will not be repeated in the individual NRAs. Any deviations from the Guidebook will be clearly identified in the NRA, but will be introduced only if needed for the unique requirements of the program being solicited.

Entry by the PI of the data requested in the required electronic forms and attachment of the allowed PDF attachments, including the Scientific/Technical/Management section, must be followed by the electronic submission of the electronic proposal (forms plus attachments) by an official at the PI's organization who is authorized to make such a submission, referred to as the Authorizing Organizational Representative (AOR). Coordination between the PI and the AOR on the final editing and submission of the proposal materials is facilitated through their respective accounts in NSPIRES and/or Grants.gov. All information required by Appendix B, Part (c), is included in the NSPIRES *Proposal Cover Page* or the Grants.gov SF424(R&R) for electronic submittal. No separate transmittal letter is required. Ref. Section 2.3.1(c) for instructions on PDF file generation.

Proposers may opt to submit proposals via one of two different electronic proposal submission systems: either via NSPIRES, the NASA proposal data system (<http://nspires.nasaprs.com>), or via Grants.gov (<http://www.grants.gov>). All proposals submitted through Grants.gov will be transferred to the NSPIRES system for evaluation by NASA.

Because NASA uses NSPIRES both to evaluate proposals and to communicate the results of its evaluations, each and every proposer, including organizations who submit a proposal via Grants.gov and not via NSPIRES, must still register in NSPIRES. In order to register for NSPIRES, organizations are required to have a Data Universal Numbering System (DUNS) number (<http://fedgov.dnb.com/webform>) and valid registration with the System for Award Management (SAM) (<https://www.sam.gov/portal/public/SAM/>). SAM succeeds the Central Contractor Registry (CCR). The SAM approval process takes several days. SAM registration should be performed by an organization's electronic business point-of-contact. Once the organization has a SAM record, the listed Organization Point of Contact registers as a user with NSPIRES, logs on, then begins the registration. NASA cannot evaluate proposals from proposers who submit a proposal via Grants.gov but fail to register the submitting organization in NSPIRES.

In addition, every individual named on the proposal's electronic *Proposal Cover Page* form (ref. Section 2.3.2) or in the Grants.gov forms as a proposing team member in any role, including Co-Investigators and collaborators, must be registered in NSPIRES. Such individuals must perform this registration themselves; no one may register a second party, even the PI of a proposal in which that person is committed to participate. This data site is secure and all information entered is strictly for NASA's use only.

Generically, an electronic proposal consists of one or more electronic forms, including an electronic cover page and a series of appendices/attachments. All attachments must be in unlocked, searchable PDF format unless specified otherwise in the NRA. One of the attachments is the Scientific/Technical/Management section of the proposal. Proposers must comply with any format requirements specified in this Guidebook and the NRA (ref. Section 2.3).

Only appendices/attachments that are specifically requested in either this Guidebook or in the NRA will be permitted or reviewed. Proposals containing unsolicited appendices/attachments may be declared noncompliant.

2.1.1 Using NSPIRES, the NASA Proposal Data System

Proposals may be submitted electronically via NASA's master proposal database system, NSPIRES. Note that this database system has been changed from that used prior to 2005. NSPIRES is accessed at <http://nspires.nasaprs.com>. Potential applicants are urged to access this site well in advance of the proposal due date(s) of interest to familiarize themselves with its structure and enter the requested identifier information.

Because NASA requires that an organization (to include sole proprietorships) submit proposals, rather than a PI, potential Offerors should use the NSPIRES registration module to affiliate with an organization. Affiliation is a two-way relationship that requires the approval of the targeted organization. Organizations may take some time to respond to requests for affiliations. This may introduce extra time into the proposal preparation and submission cycle.

Tutorials, registration assistance, and other NSPIRES help topics may be accessed through the NSPIRES on-line help site at <http://nspires.nasaprs.com/external/help.do>. For any questions that cannot be resolved with the available on-line help menus, requests for assistance may be directed by email to nspires-help@nasaprs.com or by telephone to (202) 479-9376, Monday through Friday, 8:00 a.m. – 6:00 p.m. Eastern Time.

2.1.2 Using Grants.gov

In furtherance of the President's Management Agenda (<http://www.whitehouse.gov/sites/default/files/omb/assets/omb/budget/fy2002/mgmt.pdf>), proposers have the option to use Grants.gov to prepare and submit proposals. Grants.gov allows organizations to electronically find and apply for competitive grant opportunities from all Federal grant-making agencies. It provides a single access point for over 1,000 grant programs offered by the 26 Federal grant-making agencies. The U.S. Department of Health and Human Services is the managing partner for Grants.gov.

Potential applicants are urged to access the Grants.gov site well in advance of the proposal due date(s) of interest to familiarize themselves with its structure and download the appropriate application packages and tools.

All proposals submitted through Grants.gov will be transferred to the NSPIRES system for evaluation by NASA. To allow this, all individuals and organizations named in the proposal must be registered in NSPIRES. If multiple proposals with the same title and PI are submitted via Grants.gov, NASA will attempt to review and accept the version with the latest time and date stamp. However, it is the responsibility of the Proposer to withdraw old versions of their proposal.

Instructions for the use of Grants.gov may be found at <http://www.grants.gov/>. Instructions for NASA specific forms and NASA program-specific forms may be found in the Application Instructions that accompany the application package. For any questions that cannot be resolved with the available on-line help menus and documentation, requests for assistance

may be directed by email to support@grants.gov or by telephone to (800) 518-4726. The Contact Center hours of operation are Monday-Friday from 7:00 a.m. to 9:00 p.m. Eastern Time.

2.1.3 Restriction on the use of Classified Material

It is NASA policy that proposals should not contain security-classified material [Ref. Appendix B, Part (c)(9)]. However, should the project proposed approach require access to classified information, or should the result of the project generate such material, the Proposer shall comply with all Government security regulations.

2.2 Standard Proposal Style Formats

Unless otherwise specified in the NRA of interest, the standard formats for all types of proposals submitted in response to NRAs are as listed below. Further, all proposals submitted electronically must be in the form of an unlocked, searchable PDF file that conforms to the following formats (as applicable, ref. Section 2.3.1(c) for PDF file generation instructions).

- Single-spaced, typewritten, English-language text, formatted using one column (two column formatting is only allowed in hard-copy proposal submissions, see below), and using an easily read font having no more than ~15 characters per inch including spaces, (e.g., 12-point, Times New Roman Western font). The font size for symbols in equations should be consistent with this guideline. While text within figures and tables may contain more than ~15 characters per inch including spaces, it must in the judgment of reviewers be legible without magnification. In addition, the text shall have no more than 5.5 lines per inch of text. Offerors should not use a smaller font or squeeze lines of text in order to gain more text per page as it makes the evaluation process difficult. Pages should have at least 1-inch (2.5 cm) margins on all sides.
- Electronic submission of proposals as PDF files is the default. All proposals submitted electronically must be in the form of an unlocked, searchable PDF file that conforms to the following formats as applicable—see Section 2.3.1(c) for PDF file generation instructions. Fonts must be embedded. Hardcopy submissions will not be accepted unless specifically allowed by the solicitation.
- Units must be only metric and standard discipline-unique unless referring to existing hardware fabricated in English units or where the fabrication of proposed hardware using metric units would be cost prohibitive (Note: If English units are used, approximate metric units shall also be provided as reference).

Use fold-out pages, colored illustrations, and/or photographs only as needed for the display of unique and critically important proposal data (Note: if such formats are used, all copies of the proposal must also include the same materials).

- Headers and footers are allowed as long as they do not contain proposal material. Only non-proposal material, e.g., page numbers, section titles, disclaimers, etc., is permitted in headers and footers.

For electronically submitted proposals:

- All proposals submitted electronically must be in the form of an unlocked, searchable PDF file (ref. Section 2.3.1(c) for PDF file generation instructions).
- There is a 10 Mbyte file size limit for each proposal; this limit applies to the combined size of all PDF files that are uploaded for a single proposal.

- The use of PDF bookmarks is encouraged, as it aids in electronic navigation of the file(s).

For hard copy proposals:

- White 8.5 x 11-inch paper with at least 1 inch (2.5 cm) margins on all sides (Note: non-U.S. proposals may be submitted on A4 paper with 2.5 cm margins at the top and sides, and 4 cm at the bottom);
- Bound only with metal staples to facilitate recycling (i.e., no loose leaf binders or cardboard, plastic, or permanent covers);
- An easily disassembled, one-sided original copy (to enable NASA to make additional copies, if needed);
- Double-sided printing for proposal copies (preferred but not required);

In addition, proposals should not include references to sites on the World Wide Web for information or material needed to either complete or understand the proposal. Proposals must adhere to the page limits given in this Guidebook, unless otherwise specified in the NRA or preformatted in the Web-based forms, for all sections of the proposal (ref. Section 2.3).

2.3 Proposal Contents

2.3.1 Overview of Proposal

2.3.1(a) Proposal Checklist

Unless otherwise specified in the NRA, a proposal should be assembled with the items given in the following table in the order shown, using the page limits provided herein. Proposals that omit required materials or that exceed the page limits may be rejected without review. In some cases, an NRA may specify exceptions to these page limits, especially to that allowed for the *Scientific/Technical/Management Section*. This table is followed by a discussion of each individual subsection of a proposal that is also cross-referenced to the corresponding subpart in the standard NASA guidance for proposals contained in Appendix B of this Guidebook.

REQUIRED CONSTITUENT PARTS OF A PROPOSAL (in order of assembly)	PAGE LIMIT
<i>Proposal Cover Page</i>	No page limit when generated by electronic proposal system 4,000 characters, included in <i>Proposal Cover Page</i>
Proposal Summary (abstract)	
<i>Table of Contents</i>	1
<i>Scientific/Technical/Management Section</i>	15*
<i>References and Citations</i>	<i>As needed</i>

Biographical Sketches for:

<i>the Principal Investigator(s)</i>	<i>2 (per PI)</i>
<i>each Co-Investigator</i>	<i>1</i>
<i>Current and Pending Support</i>	<i>As needed</i>
<i>Statements of Commitment and Letters of Support</i>	<i>As needed</i>
<i>Budget Justification: Narrative and Details</i>	
<i>(including Proposing Organization Budget, itemized lists detailing expenses within major budget categories, and detailed subcontract/subaward budgets)</i>	
<i>Budget Narrative, including Summary of Proposal Personnel</i>	<i>As needed</i>
<i>Facilities and Equipment)</i>	<i>As needed</i>
<i>Budget Details</i>	<i>As needed</i>
<i>Special Notifications and/or Certifications</i>	<i>As needed</i>
<i>Table of Personnel and Work Effort</i>	<i>As needed</i>
<i>Small Business Subcontracting Plan</i>	<i>As needed</i>

* includes all illustrations, tables, and figures, where each "n-page" fold-out counts as n-pages and each side of a sheet containing text or an illustration counts as a page. Note: This page limit may be superseded by instructions in the NRA.

2.3.1(b) Assembly of Electronic Proposals

For proposals submitted electronically, the *Scientific/Technical/ Management Section* and other required sections of the proposal are submitted as one or more unlocked, searchable PDF files that are attached to the electronic submission using one of the proposal submission systems. All allowed appendices and attachments must be submitted in the PDF file(s) that are attached to the electronic submission. Note that required and permitted appendices may be included either in the PDF file containing the *Scientific/Technical/Management Section* or as separate PDF files attached to the electronic submission, but not both. Including any part of the proposal twice creates an additional burden on the peer reviewers. It is recommended that, where practical, Proposers assemble their proposal into a single PDF file themselves.

Forms submitted in any other format may not be accepted and may not be forwarded for peer review. Proposals may be declared noncompliant if they are not submitted in the required PDF format.

Sections of proposals transferred from Grants.gov to NSPIRES may appear in a slightly different order. This will be considered compliant as long as all of the required forms and documents were originally submitted to Grants.gov.

2.3.1(c) NASA Requirements for Uploaded PDF Files

It is essential that all PDF files submitted meet NASA requirements. This will ensure that the submitted files can be ingested by NSPIRES regardless of whether the proposal is submitted via NSPIRES or Grants.gov. This will also ensure that proposals can be read by community reviewers and NASA program officers using a wide variety of computers, operating systems, and PDF readers. At a minimum, it is the responsibility of the Proposer to ensure: (1) that all PDF files are unlocked and that edit permission is enabled—this is necessary to allow NSPIRES to concatenate submitted files into a single PDF document for review, (2) that all fonts are embedded in the PDF file, and (3) that only Type 1 or TrueType fonts are used. In addition, any Proposer who creates files using TeX or LaTeX is required to first create a DVI file and then convert the DVI file to Postscript and then to PDF. All Proposers are encouraged to reference http://nspires.nasaprs.com/tutorials/PDF_Guidelines.pdf for more information on creating PDF documents compliant with NSPIRES. We note recent occurrences where pdf files produced using newer versions of Microsoft Word have not been ingested properly into NSPIRES. PDF files that do not meet NASA requirements cannot be ingested by the NSPIRES system; such files may be declared noncompliant and not submitted to peer review for evaluation. It is the responsibility of each applicant to verify the accuracy and completeness of his/her proposal, including all text, figures, tables, and required forms. NSPIRES provides the “Generate” function (found on the “View Proposal” page within NSPIRES) to allow applicants to verify before submission that all information contained in proposal PDF file(s) being provided to NSPIRES is complete and accurate. Well in advance of the proposal due date, the applicant should “Generate” the “Complete Proposal,” then download and review the resulting file from NSPIRES to ensure that all text, figures, tables, and required forms are complete and accurate. The applicant should immediately call the NSPIRES Help Desk for assistance with any proposal that is not complete and correct.

The file size limit for proposals submitted electronically to NASA through either NSPIRES or Grants.gov is 10 Mbyte. This limit applies to the combined size of all files that are uploaded for a single proposal. Note that large file sizes can impact the time it takes for NASA

and peer reviewers to download and access your proposal. In order to increase the ease in reviewing your proposal, you should crop and compress any embedded photos and graphic files to an appropriate size and resolution.

2.3.2 Required Cover Pages and Forms [Ref.: Appendix B, Part (c)(1) & (c)(3)]

2.3.2(a) NSPIRES Cover Page and Budget Form

Proposals submitted electronically through NSPIRES will use the NSPIRES *Proposal Cover Page* that is available through the World Wide Web at <http://nspires.nasaprs.com/>. Access for application to a given NRA is provided through a menu entitled “*Solicitations*” then accessing the link “*Open Solicitations*.” Once completed by the PI, the *Proposal Cover Page* must be accessed in the NSPIRES system and submitted electronically by the AOR.

If a hard copy submittal is also required, the submitted cover page should then be printed and signed by the AOR. As directed in the solicitation, the signed copy must be submitted with the original copy of the proposal on or before the proposal due date. In addition, reproductions of the signed *Proposal Cover Page* are used to preface the required printed copies of the proposal.

NSPIRES automatically assigns a unique proposal number to each proposal only after it has been successfully submitted. NASA uses this NSPIRES number throughout the proposal review and selection process to uniquely identify the proposal and its associated electronic data. *If no NSPIRES number appears on the Proposal Cover Page, then it has not been properly submitted through the NSPIRES system.*

2.3.2(b) Grants.gov Required Forms

For proposals submitted via Grants.gov, Offerors must complete the required Grants.gov forms including the SF424 (R&R) Application for Federal Assistance, R&R Other Project Information, R&R Senior/Key Person Profile, and R&R Budget. In addition, Offerors must complete the required NASA-specific forms: NASA Other Project Information, NASA Principal Investigator and Authorized Representative Supplemental Data Sheet, NASA Senior/Key Person Supplemental Data Sheet (this form is required only if there are Senior/Key Persons other than the Principal Investigator). Instructions for completing these forms are on the Grants.gov Web site. All team members, including the PI and any listed in the Senior/Key Persons Data Sheet, must be registered in NSPIRES, even if the proposal is submitted via Grants.gov (ref. Section 2.1).

Finally, there may be NASA program-specific forms that are required for the specific NRA. Instructions for NASA specific forms and NASA program-specific forms may be found in the Application Instructions that accompany the application package. Further instructions on submitting proposals via Grants.gov may be found in Section 3.3.2. Proposals omitting the required NASA- and program-specific forms (as listed above), may be rejected for noncompliance.

2.3.3 Proposal Summary (abstract)

Both electronic submittal systems require the PI to prepare a Proposal Summary. The Proposal Summary should provide an overview of the proposed investigation that is

suitable for release through a publicly accessible archive should the proposal be selected. The proposal summary (or abstract) should be concise, should not exceed 4000 characters in length, and should not contain any special characters or formatting. Note that, while Grants.gov does not impose a limit on the length of the proposal summary, it will be truncated when the proposal is transmitted from Grants.gov to NASA. Grants.gov users must use a writeable pdf form (downloadable from grants.gov) named ProposalSummary.pdf. This form restricts the Proposal Summary document to 4000 characters or less.

2.3.4 Table of Contents

Offerors should include a one-page *Table of Contents* that provides a guide to the organization and contents of the proposal. This item may also incorporate customized formats of the Proposer's own choosing, e.g., identification of the submitting organization through use of letterhead stationery, project logos, etc. The electronic system chosen may provide some assistance in preparing the Table of Contents, but Proposers are responsible for the accuracy of proposals submitted.

2.3.5 Scientific/Technical/Management Section

[Ref.: Appendix B, Parts (c)(4), (c)(5), and in-part (c)(6)]

As the main body of the proposal, this section must cover the following topics all within the specified page limit. Unless specified otherwise in the NRA, the limit is 15 pages using the default values given in Section 2.3.1:

- The objectives and expected significance of the proposed research, especially as related to the objectives given in the NRA;
- The technical approach and methodology to be employed in conducting the proposed research, including a description of any hardware proposed to be built in order to carry out the research, as well as any special facilities of the proposing organization(s) and/or capabilities of the Proposer(s) that would be used for carrying out the work. (Note: ref. also Section 2.3.10(a) concerning the description of critical existing equipment needed for carrying out the proposed research and the Instructions for the *Budget Justification* in Section 2.3.10 for further discussion of costing details needed for proposals involving significant hardware, software, and/or ground systems development, and, as may be allowed by an NRA, proposals for flight instruments);
- The perceived impact of the proposed work to the state of knowledge in the field and, if the proposal is offered as a direct successor to an existing NASA award, how the proposed work is expected to build on and otherwise extend previous accomplishments supported by NASA;
- The relevance of the proposed work to past, present, and/or future NASA programs and interests or to the specific objectives given in the NRA;
- A general plan of work, including anticipated key milestones for accomplishments, the management structure for the proposal personnel, any substantial collaboration(s) and/or use of consultant(s) that is(are) proposed to complete the investigation; and a description of the expected contribution to the proposed effort by the PI and each person as identified in one of the additional categories in Section 1.4.2, regardless of whether or not they derive support from the proposed budget.

- To facilitate data sharing where appropriate, as part of their technical proposal, the Proposer shall provide a data-sharing plan and shall provide evidence (if any) of any past data-sharing practices.

The *Scientific/Technical/Management Section* may contain illustrations and figures that amplify and demonstrate key points of the proposal (including milestone schedules, as appropriate). However, they must be of an easily viewed size and have self-contained captions that do not contain critical information not provided elsewhere in the proposal.

2.3.6 References and Citations

All references and citations given in the *Scientific/Technical/Management Section* must be provided using easily understood, standard abbreviations for journals and complete names for books. It is highly preferred but not required that these references include the full title of the cited paper or report.

2.3.7 Biographical Sketch(s) [Ref.: Appendix B: Part (c)(6)]

The PI (and Co-PI) must include a biographical sketch (not to exceed two pages) that includes his/her professional experiences and positions and a bibliography of recent publications, especially those relevant to the proposed investigation. A one-page sketch for each Co-Investigator must also be included (Note: Any Co-I also serving in one of the three special Co-I categories defined in Section 1.4.2 may use the same two-page limit as for the PI). For the PI and any Co-Is who are required to provide Current and Pending Support information (ref. Section 2.3.8), the biographical sketch must include a description of scientific, technical and management performance on relevant prior research efforts. Those participants who will play critical management or technical roles in the proposed investigation should demonstrate that their qualifications, capabilities, and experience are appropriate to provide confidence that the proposed objectives will be achieved.

2.3.8 Current and Pending Support [Ref.: Appendix B, Part (c)(10)]

Information must be provided for all ongoing and pending projects and proposals that involve the proposing PI. This information is also required for any Co-Is who are proposed to perform a significant share (>10 percent) of the proposed work.

All current project support from whatever source (e.g., Federal, State, local or foreign government agencies, public or private foundations, industrial or other commercial organizations) must be listed. This information must also be provided for all pending proposals already submitted or submitted concurrently. Do not include the current proposal on the list of pending proposals unless it also has been submitted elsewhere.

All projects or activities requiring a portion of the investigators' time during the period of the proposed effort must be included, even if they receive no salary support from the project(s). For the entire period of the proposed award the total amount received by that investigator (including indirect costs) or the amount per year if uniform (e.g., \$50 K/year) must be shown as well as the number of person-months per year to be devoted to the project for each year, regardless of source of support.

Specifically, for the PI and any Co-Is who are proposed to perform a significant share (>10%) of the proposed work, provide the following information:

- Title of award or project title;
- Name of PI on award;
- Program name (if appropriate) and sponsoring agency or organization, including a point of contact with his/her telephone number and email address;
- Performance period;
- Total amount received by that investigator (including indirect costs) or the amount per year if uniform (e.g., \$50 k/year); and
- Commitment by PI or Co-I in terms of person-months per year for each year.

For pending research proposals involving substantially the same kind of research as that being proposed to NASA in this proposal, the proposing PI must notify the NASA Program Officer identified for the NRA immediately of any successful proposals that are awarded any time after the proposal due date and until the time that NASA's selections are announced.

2.3.9 Statements of Commitment and Letters of Support

Every Co-PI, Co-I, and Collaborator (ref. definitions in Section 1.4.2) identified as a participant on the proposal's cover page and/or in the proposal's *Scientific/Technical/Management Section* must acknowledge his/her intended participation in the proposed effort.

The NSPIRES proposal management system allows for participants named on the Proposal Cover Page to acknowledge electronically a statement of commitment. Although we prefer all team members to confirm participation via NSPIRES, if that is not possible the inclusion of a statement of commitment in the proposal as set out in the example below may be permitted instead.

The Summary of Solicitation for an NRA may specify that signed statements of commitment must be included within the proposal. Also, any proposals submitted via Grants.gov must include signed statements of commitment in the proposal. In the case of more than one Co-PI, Co-I or Collaborator at the same institution, a single statement signed by all participants may be submitted. In any case, each statement must be addressed to the PI, may be a facsimile of an original statement or the copy of an email (the latter must have sufficient information to unambiguously identify the sender), and is required even if the Co-PI, Co-I or Collaborator is from the proposing organization. An example of such a statement follows:

"I (we) acknowledge that I (we) am (are) identified by name as Co-Principal Investigator(s), Co-Investigator(s) [and/or Collaborator(s)] to the investigation, entitled <name of proposal>, that is submitted by <name of Principal Investigator> to the NASA Research Announcement <alpha-numeric identifier>, and that I (we) intend to carry out all responsibilities identified for me (us) in this proposal. I (we) understand that the extent and justification of my (our) participation as stated in this proposal will be considered during peer review in determining in part the merits of this proposal. I (we) have read the entire proposal, including the management plan and budget, and I (we) agree that the proposal correctly describes my (our)

commitment to the proposed investigation.” For the purposes of conducting work for this investigation, my participating organization is <<insert name of organization>>.”

In addition, a letter of support is required from the owner of any facility or resource that is not under the PI’s direct control, acknowledging that the facility or resource is available for the proposed use during the proposed period. For Government facilities, the availability of the facility to users is often stated in the facilities documentation or web page. Where the availability is not publicly stated, or where the proposed use goes beyond the publicly stated availability, a statement, signed by the appropriate Government official at the facility verifying that it will be available for the required effort, is sufficient.

Letters of support do not include “letters of affirmation” (i.e., letters that endorse the value or merit of a proposal). NASA **neither solicits nor evaluates** such endorsements for proposals. The value of a proposal is determined by peer review. If endorsements are submitted, they **may not** be submitted as an appendix. They must be included as part of the proposal and must be included within the required page limitations even though they will not be considered in the evaluation of the proposal.

2.3.10 Budget Justification: Narrative and Details [Ref.: Appendix B, Part (c)(8)]

Each proposal shall provide a budget justification for each year of the proposed effort and shall be supported by appropriate narrative material and budget details in compliance with the following instructions.

Failure to adequately provide detailed cost data will require NASA Procurement Personnel to contact the proposing organization for the required information. This will result in a delay of the award. All Proposers are required to submit a thoroughly detailed cost breakdown. NASA Procurement Personnel must be able to determine that all proposed costs are allowable, allocable, and reasonable. A detailed budget will facilitate this cost analysis. Reference Exhibit G, Grant and Cooperative Agreement Manual (GCAM) located at the following URL:
http://prod.nais.nasa.gov/pub/pub_library/grcover.htm.

2.3.10(a) Required Budget Narrative (Including Personnel and Work Effort and Facilities and Equipment)

The Budget Narrative should clearly state the type of award instrument the Recipient anticipates receiving if selected for award (i.e., contract, grant or cooperative agreement). NASA will, however, make the final decision on the award instrument used (reference D.1.2).

The Budget Narrative must describe the basis of estimate and rationale for each proposed component of cost, including direct labor, subcontracts/subawards, consultants, other direct costs (including travel), and facilities and equipment. The Proposer must provide adequate budget detail to support estimates. The Proposer must state the source of cost estimates (e.g., based on quote, on previous purchases for same or similar item(s), cost data obtained from internet research, etc.) including the company name and/or URL and date if known, but need not include the actual price quote or screen captures from the web. The Proposer must describe in detail the purpose of any proposed travel in relation to the grant and provide the basis of estimate, including information or assumptions on destination, number of travelers, number of days, conference fees, air fare, per diem, miscellaneous expenses, etc. If

destinations are not known, the Proposer should, for estimating purposes, make reasonable assumptions about the potential destination and use historical cost data based on previous trips taken or conferences attended.

A required element of the Budget Narrative is a table of Personnel and Work Effort, summarizing the work effort required to perform the proposed investigation. For contracts this table appears here. For grants and cooperative agreements see 2.3.12. The table must have the names and/or titles of all personnel necessary to perform the proposed effort, regardless of whether those individuals require funding. For each individual, list the planned work commitment to be funded by NASA, per period in fractions of a work year. In addition, include planned work commitment not funded by NASA, if applicable. Where names are not known, include the position, such as postdoc or technician.

The final element of the Budget Narrative is a description of any required facilities and equipment. This section should describe any existing facilities and equipment that are required for the proposed investigation. It must explain the need for items costing more than \$5,000 and describe the basis for estimated cost (i.e., competitive quotes were obtained, justification for sole source purchase, proposed cost based on previous purchases for same or similar item(s), cost data obtained from internet research, etc.).

Proposed costs for purchased facilities, tooling, or equipment must be entered in the *Proposal Cover Page* and included in the *Budget Details* (ref. Section 2.3.10(b)). Proposals submitted via Grants.gov should include a single Facilities and Equipment section as a separate PDF document; it should be uploaded to the Grants.gov application as the "Facilities and Other Resources" document. "Equipment" document should not be uploaded to Grants.gov.

There should be direct and obvious correlation between the items described in the Budget Narrative, those given in the Budget Details, and the figures entered in the Proposal Cover Page/Grants.gov forms.

2.3.10 (b) Required Budget Details

In addition to the Budget Narrative, Proposers are required to include detailed budgets, including detailed subcontract/subaward budgets, in a format of their own choosing. Regardless of format chosen, the following information must be included in the Budget Details..

1. Direct Labor (salaries, wages, and fringe benefits): List the number and titles of personnel, amounts of time to be devoted to the grant (level of effort for each position), and rates of pay. The annual salary should be clearly noted for each position. Labor should be clearly broken out from fringe benefits. The fringe benefit rate/percent should be clearly noted on the budget for each labor category for ease of review.

Important Note: All Recipients are reminded that in accordance with 2 CFR § 200.414, NASA is required to apply the applicable negotiated rate for all grants awarded to the recipient. If fringe benefits comprise part of the applicable negotiated rate, NASA will use this rate for all grants and cooperative agreements awarded to the recipient. Recipients shall not escalate those rates for fringe benefits. If the applicable negotiated rate excludes fringe benefits, recipients may escalate their rates for fringe benefits.

2. Other Direct Costs:

- a. Subcontracts/Subawards: Attachments shall describe the work to be subcontracted/subawarded, estimated amount, recipient (if known), and the reason for subcontracting (e.g., uniquely qualified co-investigator is located at another institution from the proposing institution). Itemized budgets are required for all subcontracts/subawards, regardless of dollar value.
- b. Consultants: Identify consultants to be used and provide the amount of time they will spend on the project and rates of pay to include annual salary, overhead, etc.
- c. Equipment: List all facilities and equipment items separately. General-purpose equipment (i.e., personal computers and/or commercial software) valued at or above \$5,000 is not allowable as a direct cost unless specifically approved by the NASA Award Officer. Any requested general-purpose equipment purchase valued at or above \$5,000 to be made as a direct charge under this award must include the equipment description, an explanation of how it will be used in the conduct of the research proposed, and a written certification that the equipment will be used exclusively for the proposed research activities and not for general business or administrative purposes. [Ref.: Appendix B, Part (c)(7)].
- d. Supplies: Provide general categories of needed supplies, the method of acquisition, and the estimated cost.
- e. Travel: Provide a detailed breakout of costs for any proposed travel. Detailed budget data shall include the following:
 - Number of people and number of days
 - Departure/Arrival cities
 - Airfare
 - Per diem
 - Car rental
 - Conference fees (if applicable)
 - Miscellaneous Costs (i.e., car rental fuel, airport parking, tolls, etc.).

Note: Every effort should be made to accurately estimate and detail travel costs. Under Federal procurement regulations, missing or minimum data is not acceptable for budget evaluation and award purposes. If destinations are not known at time of proposal preparation, then reasonable assumptions about the potential destination and historical data for previous trips may be used but the preparer is still required to include the same amount of detail listed above. That is, use reasonable assumptions and historical data for destinations and length of stay, however, use current pricing for the applicable categories listed above. If adequate budget detail is not submitted with the proposal then this will delay your award.

- f. Other: List and enter the total of direct costs not covered by 2a through 2e.
3. Facilities and Administrative (F&A) Costs: Identify F&A cost rate(s) and base(s) as approved by the cognizant Federal agency, including the effective period of the rate. Provide the name, address, and telephone number of the Federal agency official having cognizance. **If approved audited rates are not available, provide the computational basis for the indirect expense pool and the corresponding allocation base for each proposed rate.**

Reference Important Note in paragraph 2.3.10(b)1. above: All budgets shall be prepared using the most current "approved" indirect rates for estimating and award purposes. Proposers shall not use unapproved "future" rates. Failure to do so will cause a delay in receiving your award as the NASA Procurement Office will then have to come back to the Proposer with a request to reduce the proposed rates to the most

current “approved” rates. Proposers may charge less than the approved current rates but shall not propose more in anticipation of the rates changing in the future.

4. Other Applicable Costs: Enter total explaining the need for each item and itemized lists detailing expenses within major budget categories. Also enter here the required funding for any Co-Is who cannot be funded through the PI award (e.g. because the PI is at a non-Government organization and a Co-I is at a U.S. Government organization) (see Section 2.3.10(c)(ii)(a)).
5. Subtotal-Estimated Costs: Enter the sum of items 1 through 4.

Less: Proposed Cost Sharing (if any): Neither NSPIRES nor Grants.gov allows for notating cost sharing on the standardized budget form. However, if cost sharing is proposed, it should be discussed in detail in the Budget Narrative. Further, if cost sharing is based on specific cost items, identify each item and amount in the Budget Detail with a full explanation provided in the Budget Narrative.

If an institution of higher education, hospital, or other non-profit organization wants to receive a grant or cooperative agreement, cost sharing is not required. The award would be made in accordance with the requirements of Subparts A and B of 14 CFR Part 1260. Subparts A and B are also applicable to NASA grants and cooperative agreements awarded to commercial firms which do not involve cost sharing. This does not prohibit voluntary cost sharing. NASA may accept cost sharing from any type of organization if it is voluntarily offered. Reference 2 CFR §200.306 (Cost Sharing or matching). If a commercial organization wants to receive a grant or cooperative agreement, cost sharing is required unless the commercial organization can demonstrate that it does not expect to receive substantial compensating benefits for performance of the work. If this demonstration is made, cost sharing is not required but may be offered voluntarily. Reference also 2 CFR §1800.922 and 14 CFR §1274.204, (Costs and Payments), paragraph (b), Cost Sharing.

Cost sharing is not required when a commercial organization receives a contract, but it may be offered voluntarily.

6. Total Estimated Costs: Enter the total amount of funding requested from the Government.

2.3.10(c) Other Budget Guidelines

In preparing the Budget Justification (both Narrative and Details), Proposers must consider the following additional important NASA procurement policies:

(i) Purchase of Personal Computers and/or Software. Note the discussion of item "2.c. Equipment" on the Instructions above regarding the proposed purchase of personal computers and/or commercial software at or above \$5,000. Such items are usually considered by NASA to be general purpose equipment that must be purchased from general, organizational overhead budgets and not directly from the proposal budget unless it can be demonstrated that such items are to be used uniquely and only for the proposed research. If a proposal is selected for award, failure to adequately address the requirements of the instructions for item 2.c above (Equipment) will require that NASA contact the proposing organization for the required

information. Such activity may delay the award until the purchase is justified as a direct charge for general-purpose equipment to be used exclusively for the proposed research activities.

(ii) Joint Proposals Involving a Mix of U.S. Government and Non-Government Organizations.

(a) Unless otherwise specified in the solicitation, if a PI from any type of private or public organization proposes to team with a Co-I from and/or use a facility at a U.S. Government organization (including NASA Centers and the Jet Propulsion Laboratory), the budget for the proposal must include all funding requested from NASA for the proposed investigation, and this must be reflected in the budget totals that appear in the budget forms (e.g., Proposal Cover Page, Grants.gov forms, Budget Details). Any required budget for that Government Co-I and/or facility should be included in the proposal's *Budget Narrative* and should be listed as "Other Applicable Costs" in the required *Budget Details*. If the proposal is selected, NASA will execute an inter- or intra-Agency transfer of funds, as appropriate, to cover the applicable costs at that Government organization.

The required cost for any Government Co-I and/or facility should be entered in the "Other" line(s) on the NSPIRES or Grants.gov budget entry form in the "Other Direct Costs" section. This cost must be included in the total cost of the proposed work. No indirect burden should be applied to this amount. NASA will transfer funds, as appropriate, to cover applicable costs for the Government Co-I and/or facility. Reference 2.3.10(c)(iv) below – Full-Cost Accounting at NASA Centers.

(b) If a PI from a U.S. Government organization (including NASA Centers and the Jet Propulsion Laboratory) proposes to team with a Co-I from a non-Government organization, then the proposing Government organization must cover those Co-I costs through an appropriate award for which that Government PI organization is responsible. Such non-Government Co-I costs should be entered as a "Subcontract/Subaward" on the Budget Summary.

(c) If a PI from a non-U.S. organization proposes to team with a Co-I from a U.S. organization then reference part (vii) below.

(iii) Responsibility of the Proposing Organization to Place Subawards for Co-Is at Other Organizations. Other than the special cases discussed in item (ii) above, and unless specifically noted otherwise in the NRA, the proposing PI organization must subcontract the funding of all proposed Co-Is who reside at other non-Government organizations, even though this may result in a higher proposal cost because of subcontracting fees.

(iv) Full-Cost Accounting at NASA Centers. Regardless of whether functioning as a team lead or as a team member, personnel from NASA Centers must propose budgets based on full-cost accounting. Proposal budgets from NASA Centers must include all costs that will be paid out of the resulting award. Costs which will not be paid out of the resulting award, but are paid from a separate NASA budget (e.g., Center Management and Operations, CM&O) and are not based on the success of this specific award, should not be included in the proposal budget. For example, CM&O should not be included in the proposal budget while direct civil service labor, travel, service pools, and other charges to the proposed research task should be included. Proposal budgets having JPL participation should include all costs except the JPL fixed-fee (formerly JPL award fee).

(v) Unallowable Costs. Subpart E, Cost Principles, 2 CFR §200.400, et seq., and the Federal Acquisition Regulation (FAR) at 48 CFR Part 31 (<https://acquisition.gov/far/current/html/FARTOCP31.html>), identify and describe certain costs that may not be included in a proposed budget (unallowable costs). The use of appropriated funds for such purposes is unallowable and may lead to cancellation of the award and possible criminal charges. Grant recipients should be aware of cost principles applicable to their organization as set forth in the above regulations.

(vi) Prohibition of the Use of NASA Funds for Non-U.S. Research. NASA's policy welcomes the opportunity to conduct research with non-U.S. organizations on a cooperative, no-exchange-of-funds basis. Although Co-Is or collaborators employed by non-U.S. organizations may be identified as part of a proposal submitted by a U.S. organization, NASA funding may not typically be used to support research efforts by non-U.S. organizations at any level, including travel by foreign investigators. However, the direct purchase of supplies and/or services that do not constitute research from non-U.S. sources by U.S. award recipients is permitted. Ref. Section (I) of Appendix B. Also reference paragraph (c)(8)(iv) of Appendix B which states in part, "NASA funding may not be used for foreign research efforts at any level, whether as a collaborator or a subcontract. The direct purchase of supplies and/or services, which do not constitute research, from non-U.S. sources by U.S. award recipients is permitted."

(vii) Proposals from non-U.S. PI organizations that propose the funding of U.S. Co-Is. A proposal submitted by a non-U.S. organization that involves U.S. Co-Is for whom NASA funding is requested must provide the budgets for those U.S. Co-Is in compliance with all applicable provisions in this Section 2.3.10. The budget should identify the U.S. Co-I organization to which funding will be awarded. In addition, compliance is required by the proposing non-U.S. organization with the provisions of Section (I) of Appendix B.

(viii) Scholarships and student aid costs. If selected, proposers must comply with the policy of the Office of Management and Budget set out in 2 CFR § 200.466, Scholarships and student aid costs. To ensure compliance with this policy, proposers must affirm in their proposals the following:

- a. The individual is conducting activities necessary to the Federal award;
- b. Tuition remission and other support are provided in accordance with established policy of the IHE and consistently provided in a like manner to students in return for similar activities conducted under Federal awards as well as other activities; and
- c. During the academic period, the student is enrolled in an advanced degree program at a non-Federal entity or affiliated institution and the activities of the student in relation to the Federal award are related to the degree program;
- d. The tuition or other payments are reasonable compensation for the work performed and are conditioned explicitly upon the performance of necessary work; and
- e. It is the IHE's practice to similarly compensate students under Federal awards as well as other activities

2.3.11 Special Notifications and/or Certifications [Ref.: Appendix B, Part (c)(11)]

2.3.11(a) Special Notifications and/or Certifications

Some NRAs may require proposals to include special notifications or certifications regarding the impact of research including, e.g., environmental, human, or animal care provisions, conflicts of interest, or other topics as may be required by statute, Executive Order, or Government policies. Compliance with such requirements is important to ensure submission of a complete proposal, and such items must be included in the Special Notifications and/or Certifications section of the proposal.

2.3.11(b) Proposals Involving Non-U.S. Organizations

If the proposal involves the conduct of research by a non-U.S. organization, appropriately signed letter(s) of certification must be included that verifies that their support will be provided by a responsible organization(s) or government agency(ies) should the proposal be selected by NASA.

2.3.12 Table of Personnel and Work Effort

Please note that this section does not apply to proposals resulting in contracts. The Table of Personnel and Work Effort summarizes the work effort required to perform the proposed investigation, should it be selected. The table must include the names and/or titles of all personnel necessary to perform the proposed effort, regardless of whether they require funding. Where names are not known, include the position, such as postdoc or technician. For each individual, list the planned work commitment to be funded by NASA, per period in fractions of a work year. In addition, for each individual, include planned work commitment not funded by NASA, if applicable. This commitment not funded by NASA is not considered cost sharing as defined in 2 CFR § 200.29. The Table of Personnel and Work Effort should include only those resources that are directly applicable to the proposed research effort and should not include technical information that belongs in the Scientific/Technical/ Management Section. The detailed budget section must still include the work effort being paid by NASA.

2.3.13 Subcontracting plans

As set out in subparagraph (a)(4) of Appendix B, any proposal from a large business concern that may result in the award of a contract, which exceeds \$5,000,000 and has subcontracting possibilities should include a small business subcontracting plan in accordance with the clause at FAR 52.219-9, Small Business Subcontracting Plan. Subcontract plans for contract awards below \$5,000,000 will be negotiated after selection.

2.3.14 Reprint(s)/Preprint(s)/Website(s)

Reprints and/or preprints are not permitted to be appended to a proposal unless they are accommodated within the proposal page limit. Proposals shall not rely upon material posted on a website. All information and material necessary for an informed peer review of the proposal must be included within the proposal in a manner that is compliant with the proposal page limit and permitted appendices. References to unpublished manuscripts should be avoided. Any information required to evaluate the proposal must be included within the

proposal. If a proposal requires referenced material (not included within the proposal page limit) in order to be evaluated, this information will not be examined and the proposal may be judged noncompliant.

3. PROPOSAL SUBMISSION PROCEDURES

3.1 Notice of Intent (NOI) to Propose

The information provided in the NOI is of considerable value to both the Proposer and NASA because it is used to help expedite the proposal-review activities. Material in an NOI is confidential and will be used for NASA planning purposes only. NOIs must be submitted via NSPIRES even when the intent is to submit the proposal via Grants.gov. Grants.gov does not support NOI submittal. Offerors must be registered with NSPIRES to create and submit an NOI. An NOI is submitted by logging into NSPIRES at <http://nspires.nasaprs.com> and then clicking on the “Proposals” link. Space is provided for the applicant to provide, at a minimum, the following information, although additional special requests may also be indicated:

- A Short Title of the anticipated proposal (50 characters or less);
- A Full Title of the anticipated proposal (which should not exceed 254 characters and is of a nature that is understandable by a scientifically trained person);
- A brief description of the primary research area(s) and objective(s) of the anticipated investigation (Note: the information in this item does not constrain in any way the Proposal Summary that must be submitted with the final proposal); and
- The names of any Co-Investigators and/or Collaborators as may be known by the time the NOI is submitted. In order to enter such names, such team members must have previously accessed and registered in NSPIRES themselves; a PI cannot do this for them. After completing the indicated fields, the NOI is then submitted electronically. A copy may be printed for reference.

Although it is most helpful to NASA if the NOI is submitted by the specified due date, a late NOI is still of value since the receipt of even a few unanticipated proposals can significantly delay and/or complicate the review process. A late NOI that contains (i) the name and identifier for the NRA of interest, (ii) the name and address of the applicant, and (iii) the key information listed above for an NOI may be submitted by email directly to the program officer identified in the NRA.

3.2 On-Time and Late Proposals

Each NRA will prominently list the deadline for proposal submission in the NRA’s prefatory Summary of Solicitation. For an electronically submitted proposal, the organization’s AOR must submit the proposal, with all required attachments, prior to midnight (11:59 pm) Eastern Time on the proposal due date as specified in the NRA’s Summary of Solicitation.

If paper copy proposals are required, the number of copies of the proposal (the default is 15 copies unless otherwise specified in the NRA), plus the signed original, must be received by the close of business (4:30 p.m. Eastern Time) on the proposal due date as specified in the NRA’s Summary of Solicitation. Note that a postmark or other evidence of submission for delivery in advance of or on the due date does not satisfy the requirement for on-time delivery of a proposal. Delivery to any address by any method other than the one specified in the NRA may result in the proposal being declared late. NASA does not accept proposals sent by collect

postage, nor is NASA responsible for delayed delivery by commercial services or the United States Postal Service.

Proposers should be aware that neither NASA personnel nor the employees of the support contractor that receives and handles proposals for NASA are empowered to authorize the submission of a late proposal and, therefore, such permission should not be requested. The decision to submit a late proposal is solely that of the Proposer, and it is then NASA's decision whether to accept it or not. Late proposals may be considered for review and possible selection only if they appear to offer a distinct benefit to NASA [Ref. Appendix B, Part (g), Late Proposals]. In this regard it is important to note that, since almost every NRA receives many more high-quality proposals than can be supported with the available funds, a determination by NASA that a late proposal is of distinct benefit over its competitors is likely to be rare. Proposers should note that Grants.gov does not support the receipt of late proposals.

3.3 Submission of Proposals

If the solicitation expressly states that only authenticated electronic proposals (electronically authorized by the AOR) are to be submitted, and all required attachments are submitted electronically with a complete cover page by the submission due date, then the proposal will be considered complete. Electronic submission of only the *Proposal Cover Page* or SF 424 (R&R) does not satisfy the deadline for proposal submission. Because of the individual requirements of each electronic submission system, Proposers are encouraged to begin their submission process early. Proposers are solely responsible for ensuring their proposals are received by NASA before the deadline.

When hard-copy submission is required, the required number of copies of the proposal (as specified in the NRA), including an original signed by the AOR, must be received by the submission due date. The address for the delivery of hard-copy proposals, if required, including a telephone number and point-of-contact for commercial delivery, is given in the Summary of Solicitation of each NRA.

If both electronic and hard copy submission are required, the Offeror must submit the required number of copies of the proposal (as specified in the NRA), along with the original signature of the AOR on the printed *Proposal Cover Page*, to the address specified in the NRA by the submission due date. Ref. Section 3.3.1 below for further instructions on printed copies of the *Proposal Cover Page*.

Proposals may be submitted only by AORs. In instances where an individual acts as both the PI and the AOR, the individual must take separate action for both roles to ensure that proposals are properly submitted.

3.3.1 Submission of Proposals through NSPIRES

All proposals submitted via NSPIRES include a required electronic *Proposal Cover Page* form that is accessed at <http://nspires.nasaprs.com>. This form is comprised of several distinct sections: a *Cover Page* that contains the identifier information for the proposing institution and personnel; a *Proposal Summary* that provides an overview of the proposed investigation that is suitable for release through a publicly accessible archive should the proposal be selected; and the *Proposal Cover Page Budget Summary* of the proposed research effort (ref. Section 2.3). In general, this *Cover Page* form is available for access and submission

to both the AOR and the PI notifying them of successful submission of the proposal within minutes of that action.

3.3.2 Submission of Proposals through Grants.gov

Information regarding steps to take to submit proposals through Grants.gov is located at <http://www.Grants.gov>. Proposers are reminded that in order to submit applications on Grants.gov, the AOR must complete a one-time registration process. The registration process can take three to five days depending on the organization. Registration checklists are also provided at the Grants.gov website. Note that all organizations and individuals named in the proposal must be registered in NSPIRES, even if the proposal is submitted via Grants.gov, to facilitate identification of conflicts of interest and review of the proposal.

In order to submit a proposal via Grants.gov, the Principal Investigator must download an application package from Grants.gov. Identifying the appropriate application package requires using the "Find Grant Opportunities" function within Grants.gov and/or using the funding opportunity number for that program. The funding opportunity number may be found in the NRA. For omnibus NRAs, such as ROSES or ROA, each program element will have a separate funding opportunity number.

Proposals submitted via Grants.gov must be submitted by the AOR.

Submitting a proposal via Grants.gov requires the following steps:

- Proposers must still register in NSPIRES even if they submit their proposal through Grants.gov (otherwise proposals cannot be ingested into NSPIRES for review and selection).
- Grant researchers (PIs) do NOT need to register with Grants.gov. To find solicitations, ref. "Find Grant Opportunities" at http://www.grants.gov/applicants/find_grant_opportunities.jsp. Using a Basic Search, enter the Funding Opportunity Number to retrieve the application package all NASA application packages may be found by searching on CFDA Number 00.000.
- Download and install any required Grants.gov software applications or tools.
- Download the application package from Grants.gov at <http://www.grants.gov>.
- Complete the required Grants.gov forms including the SF424 (R&R) Application for Federal Assistance, R&R Other Project Information, R&R Senior/Key Person Profile, and R&R Budget.
- Complete the required NASA-specific forms: NASA Other Project Information, NASA Principal Investigator and Authorized Representative Supplemental Data Sheet, NASA Senior/Key Person Supplemental Data Sheet (this form is only required if there are Senior/Key Persons other than the Principal Investigator), and proposal summary form. Instructions for NASA program-specific forms can be found in the Application Instructions that accompany the application package.
- Complete any NASA program-specific form that is required for the specific program element. This form, which is required by many NRAs including all ROSES program element submissions, is included as a PDF form within the proposal application package

downloaded from Grants.gov. The form, once completed, is attached to the NASA Other Project Information form.

- Create a proposal in PDF including the Science/Technical/Management section and all other required sections. Attach the proposal and any allowed appendices/attachments (also in PDF) to the appropriate Grants.gov form(s).
- Submit the proposal via the authorized organization representative (AOR); the PI may not submit the application to Grants.gov unless he/she is an AOR.

If Proposers need assistance with the application process and the submission of their proposals through Grants.gov, they can contact Grants.gov by email at support@grants.gov or they can call the Grants.gov Contact Center at 1-800-518-4726. The Contact Center hours of operation are Monday-Friday from 7:00 a.m. to 9:00 p.m. Eastern Time.

3.4 Timeline for Review and Selection

NASA is committed to announcing selections and initiating awards as quickly as possible, consistent with ensuring the quality of the selection and award process and subject to the appropriation of Federal funds for the initiation of new research awards.

Selections are typically announced between 150 days and 220 days after the proposal due date for proposals. Although there are many reasons why selections are not announced earlier, the most common are the uncertainty in the NASA budget at the time selection decisions could be made and the time required to conduct an appropriate peer review and selection process. NASA does not usually announce new selections until the funds needed for those awards are approved through the Federal budget process. Therefore, a delay in the budget process for NASA usually results in a delay of the selection date(s).

The initiation of the award itself typically occurs between 45 and 90 days after the selection announcement depending on the extent of negotiations required. Therefore, a request for the commencement of funding sooner than about 250 days after the proposal due date is unlikely to be accommodated. A proposal submitted in response to an NRA that is time-sensitive (e.g., to take advantage of a unique natural phenomena or programmatic event) may be rejected if, in the opinion of the cognizant Program Officer, there is insufficient time for its review and processing.

3.5 Proposal Withdrawal by Proposer or Rejection without Review by NASA [Ref.: Appendix B, Part (h)]

3.5.1 Withdrawal by Proposer

A proposal may be withdrawn by a written request signed by the Proposer at any time for any reason, including the circumstance in which another organization has agreed to fund the proposal. Proposals submitted using NSPIRES may be withdrawn electronically by the AOR at any time.

3.5.2 Proposal Rejected by NASA Without Review

NASA reserves the right to reject a proposal without review for the following reasons:

- The proposal is clearly nonresponsive to the objectives and/or provisions of the NRA;
- The proposal does not meet the requirements for proposal format, content, and organization as specified in this Guidebook and/or the NRA itself;
- The Offeror fails to deliver the hard copy (if required) to the specified delivery address by the proposal due date;
- The Offeror fails to submit the electronic proposal by the submission due date;
- The Offeror submits a proposal to Grants.gov but fails to register in NSPIRES; and/or
- Proposals for time-sensitive investigations are submitted with insufficient lead time to allow NASA adequate time for proposal review, selection, funding and awarding the proposed effort (Ref. Section 3.4 above – Timeline for Review and Selection).

APPENDIX A

GUIDE TO KEY DOCUMENTS ON THE WORLD WIDE WEB

- Guidebook for Proposers Responding to a NASA Research Announcement (NRA) or Cooperative Agreement Notice (CAN):
<http://www.hq.nasa.gov/office/procurement/nraguidebook/>
- NASA Solicitation and Proposal Integrated Review and Evaluation System (NSPIRES) can be found at the following URL: <http://nspires.nasaprs.com>
- Find NASA research grant award information at the following URL:
<http://www.research.gov>
- The following URL can be used to track the process of a grant and/or cooperative agreement prepared by the NASA Shared Services Center (NSSC) on behalf of one of the NASA Centers/HQ: <https://www.nssc.nasa.gov/grantstatus>
- Find the NASA Online Directives Information System (NODIS) Library at the following URL: <http://nodis3.gsfc.nasa.gov>
- NASA Federal Acquisition Regulation (FAR) Supplement (NFS):
<http://www.hq.nasa.gov/office/procurement/regs/nfstoc.htm>
- The Office Of Management and Budget's (OMB's) Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (2 CFR § 200):
http://www.ecfr.gov/c_will_qi-bin/text-idx?tpl=/ecfrbrowse/Title02/2cfr200_main_02.tpl
- NASA's regulation for grants and cooperative agreements (2 CFR § 1800):
<http://www.ecfr.gov/cgi-bin/text-idx?SID=86178a02841f1b4387be3b2d65a5453d&node=pt2.1.1800&rgn=div5>

Key parts of particular relevance to this Guidebook are:

"Unsolicited proposals"	NFS 1815.6
"Broad Agency Announcements"	NFS 1835.016
"NASA Research Announcements"	NFS 1835.016-71
"Instructions for Responding to NASA Research Announcements"	NFS 1852.235-72 (reproduced as Appendix B in this Guidebook)

The following items may be found through active links from the NASA homepage at <http://www.nasa.gov/>:

- The NASA Strategic Plan: <http://www.nasa.gov/about/budget/index.html>
- The Vision for Space Exploration:
http://www.nasa.gov/mission_pages/exploration/main/index.html
- Links to all NASA Headquarters Mission Directorates:
http://www.nasa.gov/about/org_index.html
- Space Technology Roadmaps:
<http://www.nasa.gov/offices/oct/home/roadmaps/>
- Links to all NASA Centers and the Jet Propulsion Laboratory:
http://www.nasa.gov/about/org_index.html
- A list of current Business Opportunities with NASA:
<http://prod.nais.nasa.gov/cgi-bin/nais/index.cgi>
- Guidance for the Preparation and Submission of Unsolicited Proposals:
http://prod.nais.nasa.gov/pub/pub_library/unSol-Prop.html
- 14 CFR Part 1274: http://prod.nais.nasa.gov/pub/pub_library/grcover.htm
- Federal Acquisition Regulation: <http://acquisition.gov/far/index.html>
- Grant and Cooperative Agreement Manual (GCAM):
https://prod.nais.nasa.gov/pub/pub_library/srba/index.html#

APPENDIX B

As set forth in 48 CFR §1835.070 (c), the following provision at 48 CFR §1852.235-72 will be included in all NRAs:

INSTRUCTIONS FOR RESPONDING TO NASA RESEARCH ANNOUNCEMENTS

(a) General.

(1) Proposals received in response to a NASA Research Announcement (NRA) will be used only for evaluation purposes. NASA does not allow a proposal, the contents of which are not available without restriction from another source, or any unique ideas submitted in response to an NRA to be used as the basis of a solicitation or in negotiation with other organizations, nor is a pre-award synopsis published for individual proposals.

(2) A solicited proposal that results in a NASA award becomes part of the record of that transaction and may be available to the public on specific request; however, information or material that NASA and the awardee mutually agree to be of a privileged nature will be held in confidence to the extent permitted by law, including the Freedom of Information Act.

(3) NRAs contain programmatic information and certain requirements which apply only to proposals prepared in response to that particular announcement. These instructions contain the general proposal preparation information which applies to responses to all NRAs.

(4) A contract, grant, cooperative agreement, or other agreement may be used to accomplish an effort funded in response to an NRA. NASA will determine the appropriate award instrument. Contracts resulting from NRAs are subject to the Federal Acquisition Regulation and the NASA FAR Supplement. Any proposal from a large business concern that may result in the award of a contract, which exceeds \$5,000,000 and has subcontracting possibilities should include a small business subcontracting plan in accordance with the clause at FAR 52.219-9, Small Business Subcontracting Plan. (Subcontract plans for contract awards below \$5,000,000, will be negotiated after selection.) Any resultant grants or cooperative agreements will be awarded and administered in accordance with the NASA Grant and Cooperative Agreement Handbook (NPR 5800.1).

(5) NASA does not have mandatory forms or formats for responses to NRAs; however, it is requested that proposals conform to the guidelines in these instructions. NASA may accept proposals without discussion; hence, proposals should initially be as complete as possible and be submitted on the Proposers' most favorable terms

(6) To be considered for award, a submission must, at a minimum, present a specific project within the areas delineated by the NRA; contain sufficient technical and cost information to permit a meaningful evaluation; be signed by an official authorized to legally bind the submitting organization; not merely offer to perform standard services or to just provide computer facilities or services; and not significantly duplicate a more specific current or pending NASA solicitation.

(b) NRA-Specific Items. Several proposal submission items appear in the NRA itself: the unique NRA identifier; when to submit proposals; where to send proposals; number of copies required; and sources for more information. Items included in these instructions may be supplemented by the NRA.

(c) The following information is needed to permit consideration in an objective manner. NRAs will generally specify topics for which additional information or greater detail is desirable. Each proposal copy shall contain all submitted material, including a copy of the transmittal letter if it contains substantive information.

(1) Transmittal Letter or Prefatory Material.

(i) The legal name and address of the organization and specific division or campus

and suitable for use in the public press;

(iii) Type of organization: e.g., profit, nonprofit, educational, small business, minority, women-owned, etc.;

(iv) Name and telephone number of the principal investigator and business personnel who may be contacted during evaluation or negotiation;

(v) Identification of other organizations that are currently evaluating a proposal for the same efforts;

(vi) Identification of the NRA, by number and title, to which the proposal is responding;

(vii) Dollar amount requested, desired starting date, and duration of project;

(viii) Date of submission; and

(ix) Signature of a responsible official or authorized representative of the organization, or any other person authorized to legally bind the organization (unless the signature appears on the proposal itself).

(2) Restriction on Use and Disclosure of Proposal Information. Information contained in proposals is used for evaluation purposes only. Offerors or quoters should, in order to maximize protection of trade secrets or other information that is confidential or privileged, place the following notice on the title page of the proposal and specify the information subject to the notice by inserting an appropriate identification in the notice. In any event, information contained in proposals will be protected to the extent permitted by law, but NASA assumes no liability for use and disclosure of information not made subject to the notice.

Notice

Restriction on Use and Disclosure of Proposal Information

The information (data) contained in [insert page numbers or other identification] of this proposal constitutes a trade secret and/or information that is commercial or financial and confidential or privileged. It is furnished to the Government in confidence with the understanding that it will not, without permission of the Offeror, be used or disclosed other than for evaluation purposes; provided, however, that in the event a contract (or other agreement) is awarded on the basis of this proposal the Government shall have the right to use and disclose this information (data) to the extent provided in the contract (or other agreement). This restriction does not limit the Government's right to use or disclose this information (data) if obtained from another source without restriction.

(3) Abstract. Include a concise (200-300 word if not otherwise specified in the NRA) abstract describing the objective and the method of approach.

(4) Project Description.

(i) The main body of the proposal shall be a detailed statement of the work to be undertaken and should include objectives and expected significance; relation to the present state of knowledge; and relation to previous work done on the project and to related work in progress elsewhere. The statement should outline the plan of work, including the broad design of experiments to be undertaken and a description of experimental methods and procedures. The project description should address the evaluation factors in these instructions and any specific factors in the NRA. Any substantial collaboration with individuals not referred to in the budget or use of consultants should be described. Subcontracting significant portions of a research project is discouraged.

(ii) When it is expected that the effort will require more than one year, the

proposal should cover the complete project to the extent that it can be reasonably anticipated. Principal emphasis should be on the first year of work, and the description should distinguish clearly between the first year's work and work planned for subsequent years.

(5) Management Approach. For large or complex efforts involving interactions among numerous individuals or other organizations, plans for distribution of responsibilities and arrangements for ensuring a coordinated effort should be described.

(6) Personnel. The principal investigator is responsible for supervision of the work and participates in the conduct of the research regardless of whether or not compensated under the award. A short biographical sketch of the principal investigator, a list of principal publications and any exceptional qualifications should be included. Omit social security number and other personal items which do not merit consideration in evaluation of the proposal. Give similar biographical information on other senior professional personnel who will be directly associated with the project. Give the names and titles of any other scientists and technical personnel associated substantially with the project in an advisory capacity. Universities should list the approximate number of students or other assistants, together with information as to their level of academic attainment. Any special industry-university cooperative arrangements should be described.

(7) Facilities and Equipment.

(i) Describe available facilities and major items of equipment especially adapted or suited to the proposed project, and any additional major equipment that will be required. Identify any Government-owned facilities, industrial plant equipment, or special tooling that is proposed for use. Include evidence of its availability and the cognizant Government points of contact.

(ii) Before requesting a major item of capital equipment, the Proposer should determine if sharing or loan of equipment already within the organization is a feasible alternative. Where such arrangements cannot be made, the proposal should so state. The need for items that typically can be used for research and non-research purposes should be explained.

(8) Proposed Costs (U.S. Proposals Only).

(i) Proposals should contain cost and technical parts in one volume: do not use separate "confidential" salary pages. As applicable, include separate cost estimates for salaries and wages; fringe benefits; equipment; expendable materials and supplies; services; domestic and foreign travel; ADP expenses; publication or page charges; consultants; subcontracts; other miscellaneous identifiable direct costs; and indirect costs. List salaries and wages in appropriate organizational categories (e.g., principal investigator, other scientific and engineering professionals, graduate students, research assistants, and technicians and other non-professional personnel). Estimate all staffing data in terms of staff-months or fractions of full-time.

(ii) Explanatory notes should accompany the cost proposal to provide identification and estimated cost of major capital equipment items to be acquired; purpose and estimated number and lengths of trips planned; basis for indirect cost computation (including date of most recent negotiation and cognizant agency); and clarification of other items in the cost proposal that are not self-evident. List estimated expenses as yearly requirements by major work phases.

(iii) Allowable costs are governed by [FAR Part 31](#) and the NASA FAR Supplement [Part 1831](#) (and OMB Circulars A-21 for educational institutions and A-122 for nonprofit organizations).

(iv) Use of NASA funds--NASA funding may not be used for foreign research efforts at any level, whether as a collaborator or a subcontract. The direct

purchase of supplies and/or services, which do not constitute research, from non-U.S. sources by U.S. award recipients is permitted. Additionally, in accordance with the National Space Transportation Policy, use of a non-U.S. manufactured launch vehicle is permitted only on a no-exchange-of-funds basis.

(9) Security. Proposals should not contain security classified material. If the research requires access to or may generate security classified information, the submitter will be required to comply with Government security regulations.

(10) Current Support. For other current projects being conducted by the principal investigator, provide title of project, sponsoring agency, and ending date.

(11) Special Matters.

(i) Include any required statements of environmental impact of the research, human subject or animal care provisions, conflict of interest, or on such other topics as may be required by the nature of the effort and current statutes, executive orders, or other current Government-wide guidelines.

(ii) Identify and discuss risk factors and issues throughout the proposal where they are relevant, and your approach to managing these risks.

(iii) Proposers should include a brief description of the organization, its facilities, and previous work experience in the field of the proposal. Identify the cognizant Government audit agency, inspection agency, and administrative contracting officer, when applicable.

(iv) To facilitate data sharing where appropriate, as part of their technical proposal, the Proposer shall provide a data-sharing plan and shall provide evidence (if any) of any past data-sharing practices.

(d) Renewal Proposals.

(1) Renewal proposals for existing awards will be considered in the same manner as proposals for new endeavors. A renewal proposal should not repeat all of the information that was in the original proposal. The renewal proposal should refer to its predecessor, update the parts that are no longer current, and indicate what elements of the research are expected to be covered during the period for which support is desired. A description of any significant findings since the most recent progress report should be included. The renewal proposal should treat, in reasonable detail, the plans for the next period, contain a cost estimate, and otherwise adhere to these instructions.

(2) NASA may renew an effort either through amendment of an existing contract or by a new award.

(e) Length. Unless otherwise specified in the NRA, effort should be made to keep proposals as brief as possible, concentrating on substantive material. Few proposals need exceed 15-20 pages. Necessary detailed information, such as reprints, should be included as attachments. A complete set of attachments is necessary for each copy of the proposal. As proposals are not returned, avoid use of "one-of-a-kind" attachments.

(f) Joint Proposals.

(1) Where multiple organizations are involved, the proposal may be submitted by only one of them. It should clearly describe the role to be played by the other organizations and indicate the legal and managerial arrangements contemplated. In other instances, simultaneous submission of related proposals from each organization might be appropriate, in which case parallel awards would be made.

(2) Where a project of a cooperative nature with NASA is contemplated, describe the contributions expected from any participating NASA investigator and agency facilities or equipment which may be required. The proposal must be confined only to that which the proposing organization can commit itself. "Joint" proposals which specify the internal arrangements NASA will actually make are not acceptable as a means of establishing an agency commitment.

(g) Late Proposals. Proposals or proposal modifications received after the latest date specified for receipt may be considered if a significant reduction in cost to the Government is probable or if there are significant technical advantages, as compared with proposals previously received.

(h) Withdrawal. Proposals may be withdrawn by the Proposer at any time before award. Offerors are requested to notify NASA if the proposal is funded by another organization or of other changed circumstances which dictate termination of evaluation.

(i) Evaluation Factors.

(1) Unless otherwise specified in the NRA, the principal elements (of approximately equal weight) considered in evaluating a proposal are its relevance to NASA's objectives, intrinsic merit, and cost.

(2) Evaluation of a proposal's relevance to NASA's objectives includes the consideration of the potential contribution of the effort to NASA's mission.

(3) Evaluation of its intrinsic merit includes the consideration of the following factors of equal importance:

(i) Overall scientific or technical merit of the proposal or unique and innovative methods, approaches, or concepts demonstrated by the proposal.

(ii) Offeror's capabilities, related experience, facilities, techniques, or unique combinations of these which are integral factors for achieving the proposal objectives.

(iii) The qualifications, capabilities, and experience of the proposed principal investigator, team leader, or key personnel critical in achieving the proposal objectives.

(iv) Overall standing among similar proposals and/or evaluation against the state-of-the-art.

(4) Evaluation of the cost of a proposed effort may include the realism and reasonableness of the proposed cost and available funds.

(j) Evaluation Techniques. Selection decisions will be made following peer and/or scientific review of the proposals. Several evaluation techniques are regularly used within NASA. In all cases proposals are subject to scientific review by discipline specialists in the area of the proposal. Some proposals are reviewed entirely in-house, others are evaluated by a combination of in-house and selected external reviewers, while yet others are subject to the full external peer review technique (with due regard for conflict-of-interest and protection of proposal information), such as by individual reviewers or through assembled panels. The final decisions are made by a NASA Selection Official. A proposal which is scientifically and programmatically meritorious, but not selected for award during its initial review, may be included in subsequent reviews unless the Proposer requests otherwise.

(k) Selection for Award.

(1) When a proposal is not selected for award, the Proposer will be notified. NASA will explain generally why the proposal was not selected. Proposers desiring additional information may contact the Selection Official who will arrange a debriefing.

(2) When a proposal is selected for award, negotiation and award will be handled by the appropriate procurement office. The proposal is used as the basis for negotiation. The contracting officer may request certain business data and may forward a model award instrument and other information pertinent to negotiation.

(l) Additional Guidelines Applicable to Foreign Proposals and Proposals Including Foreign Participation.

(1) NASA welcomes proposals from outside the U.S. However, foreign entities are generally not eligible for funding from NASA. Therefore, unless otherwise noted in the NRA, proposals from foreign entities should not include a cost plan unless the proposal involves collaboration with a U.S. institution, in which case a cost plan for only the participation of the U.S. entity must be included. Proposals from foreign entities and proposals from U.S. entities that include foreign participation must be endorsed by the respective government agency or

funding/sponsoring institution in the country from which the foreign entity is proposing. Such endorsement should indicate that the proposal merits careful consideration by NASA, and if the proposal is selected, sufficient funds will be made available to undertake the activity as proposed.

(2) All foreign proposals must be typewritten in English and comply with all other submission requirements stated in the NRA. All foreign proposals will undergo the same evaluation and selection process as those originating in the U.S. All proposals must be received before the established closing date. Those received after the closing date will be treated in accordance with paragraph (g) of this provision. Sponsoring foreign government agencies or funding institutions may, in exceptional situations, forward a proposal without endorsement if endorsement is not possible before the announced closing date. In such cases, the NASA sponsoring office should be advised when a decision on endorsement can be expected.

(3) Successful and unsuccessful foreign entities will be contacted directly by the NASA sponsoring office. Copies of these letters will be sent to the foreign sponsor. Should a foreign proposal or a U.S. proposal with foreign participation be selected, NASA's Office of External Relations will arrange with the foreign sponsor for the proposed participation on a no-exchange-of-funds basis, in which NASA and the non-U.S. sponsoring agency or funding institution will each bear the cost of discharging their respective responsibilities.

(4) Depending on the nature and extent of the proposed cooperation, these arrangements may entail:

- (i) An exchange of letters between NASA and the foreign sponsor; or
- (ii) A formal Agency-to-Agency Memorandum of Understanding (MOU).

(m) Cancellation of NRA. NASA reserves the right to make no awards under this NRA and to cancel this NRA. NASA assumes no liability for canceling the NRA or for anyone's failure to receive actual notice of cancellation.

(End of provision)

APPENDIX C

PROPOSAL PROCESSING, REVIEW, AND SELECTION

C.1 Overview

NASA takes seriously its responsibility for ensuring that proposals are treated with the utmost confidentiality and are evaluated fairly and objectively without conflict of interest on the part of the reviewers. Therefore, regardless of the mailing address or Web-site to which an NRA may direct proposals to be sent, it is NASA policy that NASA Civil Service personnel will be in charge of and direct all aspects of the review and selection processes, including the identification and invitation of peer review personnel, in-person monitoring of the deliberations of any peer review panel, and the adjudication of conflicts of interest that may be declared by panel personnel (ref. list of potential conflicts of interest in Appendix E.3). Also, all non-Government reviewers are prohibited from making unauthorized disclosure of proposal information and evaluation materials and/or information (ref. the sample Nondisclosure Agreement in Section E.2, Appendix E). Government employees who may be involved in the peer review process are bound by Government law and regulation not to make unauthorized disclosure of trade secrets and confidential commercial and financial information contained in proposals.

Proposers are provided with explanations for the final decisions regarding their proposals. NASA depends upon the scientific community involved as peer reviewers to acknowledge conflicts of interest when they exist, to maintain confidentiality of the proceedings and results both during and after a review process, and to provide the fairest and most competent peer review possible.

An overview of the process from proposal submission through selection is as follows:

At the time of the submission of its *Proposal Cover Page* by the Proposer, each proposal is given a unique identifier (proposal number) that is maintained throughout the entire process. A log of all proposals received is provided to the cognizant NASA Program Officer within three working days if the number of proposals received is less than 250; within five working days if the number of proposals received is more than 250.

- The Program Officer selects panel and/or individual reviewers based on their known expertise relevant to the content of each proposal and avoidance of conflicts of interest, and requests their reviews based on the evaluation criteria established in the NRA (ref. also next section below).
- Whether the review is conducted by individual reviewers or by a member of a panel, NASA instructs all reviewers to base their comments on the specified evaluation criteria, to maintain confidentiality of their activities and of all proposal and review materials provided to them, to avoid any activities that may knowingly lead to conflicts of interest, and to report any conflicts as may become known to them during the course of the review activities. To this end, all reviewers not employed by the U.S. Government must accept the *Nondisclosure Agreement* before they are allowed to review any proposals (ref. Section E.2 in Appendix E) and must identify any conflicts of interest (ref. Appendix E.3). U. S. Government reviewers also follow a thorough process to ensure that a financial conflict of interest does not exist. Proposal titles may be revealed to potential viewers who ultimately decline to act as reviewers because of conflict or lack of knowledge.

- The scientific and technical merits of each proposal are determined by the peer reviewers while meeting as a panel monitored by the cognizant NASA Program Officer or another NASA employee (including those who may be serving under the auspices of an Intergovernmental Personnel Act (IPA) appointment). The peer reviewers may also be asked to comment on the perceived programmatic relevancy and the cost realism and reasonableness of the proposals.

- A recommendation for selection or nonselection of each proposal is developed by the cognizant Program Officer and presented to the Selection Official (as identified in the NRA) based on the quality of its science/technical peer review, any program-unique criteria (e.g., program balance) stated in the NRA, its relevance to the research objectives stated in the NRA and to NASA's strategic goals in general, its comparison to competing proposals of equal merits and objectives, and the available budget resources. Selections are then made by the NASA Selection Official.

- After selection, each Proposer is notified by letter or electronic mail of the disposition of his/her proposal. Sometimes this communication may also transmit an anonymous copy of the proposal's peer review. In any case, the Proposer may request a debriefing from NASA, identifying strengths and weaknesses. A debriefing may be accomplished by sending the peer reviews by mail to the Proposer and/or by oral communication.

- NASA also notifies Members of Congress of awards to any of their constituents. Following notification of Proposers and of Congress, a list of selected proposals is posted at <http://nspires.nasaprs.com/>. In addition to the proposal title, PI, and proposing organization, the proposal summary may also be posted. (Ref. NASA FAR Supplement 1805.3)

- Official notification of selection for the solicitation is then forwarded by the Program Officer to a NASA Award Office that will contact the proposing organization to negotiate funding through an appropriate award instrument (ref. further in Appendix D).

C.2 Evaluation Criteria [Ref.: Appendix B, Part (i)]

The evaluation criteria in Appendix B, Part (i), amended below, will apply to all NRAs released by NASA, unless otherwise stated in the individual NRA. Evaluation factors include factors evaluated by peer review as well as factors evaluated by NASA program personnel.

Unless otherwise specified in the NRA, the evaluation criteria (of approximately equal weight) considered in evaluating a proposal are its relevance to NASA's objectives, intrinsic merit and its cost. *The failure of a proposal to be rated highly in any one of these elements is sufficient cause for the proposal to not be selected.*

(1) Evaluation of a proposal's relevance to NASA's objectives includes the consideration of the potential contribution of the effort to NASA's mission as expressed in its most recent NASA strategy documents and the specific objectives and goals given in the solicitation to which the proposal is submitted. If a solicitation includes a specific description of how it is relevant to NASA strategy documents, it is not necessary for individual proposals to show relevance to NASA's broader goals and objectives. The proposal only needs to demonstrate relevance by discussing how the proposed investigation addresses the goals and objectives of the specific program element.

(2) Evaluation of intrinsic merit includes consideration of the following factors:

(i) Overall scientific or technical merit of the proposal and/or unique and innovative methods, approaches, concepts, or advanced technologies demonstrated by the proposal;

(ii) Offeror's capabilities, related experience, facilities, techniques, or unique combination of these which are integral factors for achieving the proposal's objectives;

(iii) The qualifications, capabilities, and experience of the proposed principal investigator, team leader, or key personnel critical in achieving the proposal objectives; and

(iv) Evaluation against the state-of-the-art. Review panels are instructed not to compare proposals to each other; all comparative evaluations are conducted by NASA program personnel.

(3) Evaluation of the cost of a proposed effort may include the *realism and* reasonableness of the proposed cost, and the comparison of that proposed cost to available funds. Low cost, while desirable, does not offset the importance of realism and reasonableness of the proposed budget. Review panels evaluate cost realism and reasonableness; however, comparison of the proposed cost to available funds is performed by NASA program personnel.

Note that the NRA itself provides the focused, program-specific objectives that will define precisely what is meant by the term "relevance" in item (1) above. The evaluation forms that are provided to both individual and panel reviewers, will generally list (perhaps in abbreviated form) all criteria for which their opinion is requested. Reviewers are instructed to judge each proposal against the stated evaluation criteria and not to compare proposals to which they have access, even if they propose similar objectives. Only the NASA Program Officer may make binding comparisons of proposals during the process of developing the recommendation for selection.

C.3 Evaluation Processes [Ref.: Appendix B, Part (j)]

As a matter of both policy and practice, proposals submitted to NASA are principally reviewed by panels composed of the Proposer's professional peers who have been screened for conflicts of interest. In addition, panel reviews may be augmented by one or more individual reviews solicited by the Program Officer that are made available to the panel reviewers once they convene. In some circumstances, NASA may elect to evaluate proposals using only individual reviews. As a general rule, and as based on its deliberations, a peer panel is authorized to wholly or partially accept or reject any such individual reviews. Typically, each member of the panel is provided with only a few of the proposals for which he/she is specifically tasked to read and report in detail during a meeting of the complete panel group. There are generally at least three readers of each proposal. In all cases, however, copies of every proposal are available for inspection by the members of the panel while it is in session. The final proposal evaluation determined by the panel is reviewed and approved for completeness and clarity by the attending NASA Program Officer and, if appropriate, the chairperson of the panel.

The number and significance of strengths and weaknesses for a proposal determines its final summary evaluation based on the following adjectival scale.

Summary Evaluation	Basis for Summary Evaluation	Relationship of Summary Evaluation to Potential for Selection
<u>Excellent</u>	A thorough, and compelling proposal of exceptional merit that fully responds to the objectives of the NRA as documented by numerous or significant strengths and with no major weaknesses.	Top priority for selection in the absence of any issues of funding availability or programmatic priorities.
<u>Very Good</u>	A competent proposal of high merit that fully responds to the objectives of the NRA, whose strengths fully out-balance any weaknesses and none of those weaknesses constitute fatal flaws.	Second priority for selection in the absence of any issues of funding availability or programmatic priorities.
<u>Good</u>	A competent proposal that represents a credible response to the NRA, whose strengths and weaknesses essentially balance each other.	May be selected as funds permit based on programmatic priorities.
<u>Fair</u>	A proposal that provides a nominal response to the NRA but whose weaknesses outweigh any strengths.	Not selectable regardless of the availability of funds or programmatic priorities.
<u>Poor</u>	A seriously flawed proposal having one or more major weaknesses that constitute fatal flaws.	Not selectable regardless of the availability of funds or programmatic priorities.

Review panels are instructed not to compare proposals to each other but to base all evaluation comments against the criteria and objectives as stated in the NRA. To help ensure uniformity of the reviews, NASA asks its reviewers to document their findings using clear, concise language that is understandable to the non-specialist by means of perceived major and minor strengths and weaknesses, where it is understood that a minor weakness is correctable if addressed early in the period of performance but that a major weakness is considered a serious if not fatal flaw or deficiency that would effectively prevent in part or wholly the proposed objectives from being accomplished, or that otherwise may render the proposal unsuitable for consideration for funding (e.g., the proposal fails to address the NRA's objectives, does not show promise of making a significant advance in its field, has an inadequate or flawed plan of research, or proposes an unrealistic level of effort).

For NASA's purposes of easily ranking the proposals in the order of their summary assessments, these adjectival ratings are commonly converted into a numerical scale. NASA Program Officers and Selection Officials typically consider proposals ranked closely to be essentially co-equal and, therefore, invoke other factors to discriminate among them, e.g., relevance to NASA's objectives and interests, the balance of the research objectives addressed by other tasks within the program, and costs.

Note that on occasion a proposal may include some aspect(s) that is(are) considered undesirable or unnecessary (e.g., the development of hardware, the pursuit of a certain research objective, plans for excessive travel, or the support of certain personnel). In such a case, and at the option of the cognizant NASA Program Officer, a proposal may be evaluated more than once: first as originally proposed, and then again as “descoped” of one or more of its original provisions. In such a case, the rating of the descoped proposal may justify its consideration for funding consistent with the policy for Partial Selections discussed in Section C.5.2 below and a revised proposal may be requested.

C.4 Conflicts of Interest and Confidentiality [Ref.: Appendix B, Parts (a)(1), (a)(2), and (c)(2)]

The issue of conflicts of interest and confidentiality are of critical importance to the peer review process. All reviewers of NASA proposals are directed to avoid not only actual but also any apparent conflicts of interest and to maintain confidentiality about all activities involved in the review process. In a worst case, a selection process could be nullified by the *post facto* disclosure of a conflict of interest or breach in confidentiality. Reviewers are personally responsible for identifying and calling to the attention of the cognizant NASA Program Officer any conflicts of interest situations (ref. Appendix E.3), as well as maintaining confidentiality regarding each proposal that they handle or to which they may be exposed during the course of the review process. Regardless of whether the review process is through individuals or by a convened panel, the presiding NASA Program Officer addresses and adjudicates conflicts of interest based on the following general guidelines:

- Every reviewer agrees to avoid conflicts of interest and to maintain the confidentiality of his/her participation in and the results of the review process. Non-federal reviewers are required to sign a Nondisclosure Agreement in advance of being sent any proposals (a generic version of this Agreement is given in Section E.2, Appendix E). U.S. Government employees who serve as reviewers are governed by the Ethics in Government Act. By accepting a Nondisclosure Agreement, a non-Federal reviewer agrees to abide by its guidelines for conflicts of interest and confidentiality. Should an unanticipated conflict arise or otherwise become known during the course of examining the proposal under review, the reviewer is obligated to inform the cognizant NASA Program Officer and cease participation pending a NASA decision on the issue.

- Disclosure by a reviewer of either the proposals themselves and their evaluation materials and discussions is never condoned by NASA under any circumstances at any time even after the selections are announced. Since the review process is not complete until the selections are announced, a breach of confidentiality of the review process could result in the entire selection process for an NRA being declared invalid. Just as serious, but on a more personal basis, unauthorized disclosure of privileged review information may lead to the Proposer and/or his/her proposing colleagues to make critical career decisions based on erroneous, preselection hearsay information.

- In certain situations, NASA may ask individuals to participate as reviewers despite being identified in a competing proposal and ask individuals, whether identified in proposals or not, to serve on panels that will consider one or more proposals for which those individuals have a conflict of interest. In such situations, NASA takes appropriate measures to assure the objectivity and integrity of the evaluation process, including, for example, excusing the individual from panel discussions of proposals for which a conflict exists. In some cases, the individual may also be excused from the discussion of proposals other than those giving rise to the conflict

of interest if these proposals are in direct programmatic competition with those proposals giving rise to the conflict.

C.5 Selection Procedures

C.5.1 Overview [Ref.: Appendix B, Parts (j) & (k)]

After all reviews and evaluations are completed, the Program Officer for the NRA develops a recommendation for selection based on the results of each proposal's intrinsic merit, its overall relevance to the program objectives as stated in the NRA (including programmatic factors such as balance between objectives or disciplines), and the realism and reasonableness of the proposed costs as compared to the available budget. The Program Officer then presents and defends this recommendation before the NASA Selection Official identified in the NRA, who then selects the proposals to be funded. The general relationship of the Summary Evaluation rating to the potential for selection is given in the in table in Section C.3 above. In this regard, note that owing to the shortage of budget resources and/or issues of programmatic balance, proposals of nominally high intrinsic merits may have to be declined.

As soon as possible after the selection is concluded, the Selection Official or Program Officer informs each Proposer of the selection or declination of his/her proposal by postal letter or electronic mail and offers a debriefing. However, such correspondence does not constitute an award to the selected Proposer nor a commitment to transmit funds (Ref.: Appendix D for further information about NASA's procedures for management of selected proposals).

C.5.2 Partial Selections [Ref.: Appendix B, Part (k)]

Part (k) of Appendix B of this Guidebook, is supplemented by inclusion of Paragraph (3) as follows:

"(3) NASA may elect to offer selection of only a portion of a proposed investigation, usually at a level of support reduced from that requested in the original proposal or may also offer tentative selections in which NASA requests investigators to team in a joint investigation. In such a case, the Proposer will be given the opportunity to accept or decline such selection. If the Proposer accepts such an offer, a revised budget and statement of work may be required before funding action on the proposal can be initiated. If the Proposer declines the offer of a partial selection, or participation in a joint investigation, the offer of selection may be withdrawn in its entirety by NASA."

Ref. also the last paragraph in Section C.3 above.

Should NASA offer to select such a descoped proposal, it is generally done so for a lesser amount of support than that requested in the original proposal budget. A revised budget and statement of work may be required from the Proposer should this reduction be greater than 20 percent of that originally proposed. However, as a general rule, if the reduction is less than 20 percent of the originally proposed budget, the adjustment to the budget and statement of work can be extracted from the original proposal and no further submission would be required.

C.5.3 Disclosure of Selections and Nonselections

For selected proposals, NASA considers the Proposal Title, the Principal Investigator's name and organization, and the Proposal Summary to be in the public domain and will post that information on an appropriate publicly accessible location. Prospective Proposers should refer to Section 2.3.1 as well as Appendix B, Part (a)(2) for guidance on the preparation of their Proposal Summaries in anticipation of public disclosure. If a proposal is partially selected by NASA, the Proposer will be given the opportunity to modify the Proposal Summary so that it correctly describes the funded research. Selected Proposers are free, but not required by NASA, to release any additional information about their proposals that they may choose. However, NASA considers other portions of proposals to be proprietary and, therefore, does not release these sections of successful proposals to the public without prior consultation with the Proposer.

It is NASA policy not to release any information about any of the nonselected proposals.

C.6 Debriefing of Proposers

A Proposer has the right to be informed of the major factor(s) that led to the acceptance or rejection of his/her proposal. Debriefings may be entirely oral (usually by telephone) or entirely in writing, or a combination of the two. A Proposer may request an in-person debriefing at NASA, but NASA funds cannot be used to defray travel costs. Again, it is emphasized that nonselected Proposers should be aware that proposals of nominally high intrinsic and programmatic merits may be declined for reasons entirely unrelated to any scientific or technical weaknesses *per se* (ref. Section C.5.1).

Written debriefings may include an anonymous copy of the proposal's peer review. Only the peer review(s) that form the basis for the acceptance/rejection decision shall be provided to the Proposer. Individual reviews that were not considered by NASA in the selection decision shall not be provided to the Proposer. In particular, when a peer review panel generates an evaluation for NASA, this evaluation shall be provided to the Proposer and the individual reviews shall not be provided to the Proposer. When there is no panel evaluation and the selection decision is based only on individual reviews, the individual reviews may be provided to the Proposer (ref. Section C.3).

The nonselection of a proposal does not restrict the submission of a similar or even the same effort by the Proposer(s) in response to appropriate future NASA solicitations or to other appropriate funding agencies or organizations. However, if a proposal to NASA is contemplated, Proposers are strongly urged to carefully consider the entirety of comments offered during their debriefing, as well as the proposal guidelines given in Section 1.7, before making the decision to resubmit the same, or nearly the same, proposal. Merely correcting any perceived deficiencies in a proposal as noted by a review process for one NRA in no way guarantees a higher rating in another solicitation.

APPENDIX D

PROPOSAL AWARDS AND CONTINUED SUPPORT

D.1 New Awards

D.1.1 Awards to NASA Centers

A selected proposal submitted from a NASA Center, is funded directly by NASA Headquarters through the Agency's funding mechanism called a Research and Technology Operating Plan (RTOP). Awards made to the Jet Propulsion Laboratory are funded through the contract between NASA and the California Institute of Technology.

D.1.2 Awards to Non-NASA Organizations

A NASA award is signed only by a NASA Grant or Contracting Officer (called an "Award Officer" for the purposes of this Guidebook) and is addressed to the proposing organization. Only an appointed NASA Award Officer can make commitments, obligations, or awards on behalf of the Agency and authorize the expenditure of funds. As a professional courtesy, this award will be preceded by notification by electronic mail or postal mail from the NASA Program Officer to the Principal Investigator. It is important to note that no commitment on the part of NASA or the Government is legally binding, even if in writing by way of a letter of selection, from anyone other than a warranted NASA Award Officer.

NASA chooses the funding vehicle best suited for the project and the proposing organization, which can be a grant, a contract, an interagency transfer, or a cooperative agreement as defined further below. It is for the purpose of aiding NASA in choosing the appropriate post-selection award and reporting requirements that the *Proposal Cover Page* format (ref. Section 2.3.2) asks the Proposer to designate his/her type of organization according to the definitions given in Section 1.4.1 (ref. also Appendix B, Part (c)(1)(iii)). The Budget Narrative should clearly state that type of award instrument the Recipient anticipates receiving if selected for award (i.e., contract, grant or cooperative agreement). Regardless of the type of award, selected investigators are urged to work with their own organization's grants/contracts office (sometimes called the Office of Sponsored Research) to understand which funding vehicle is being used as the source of support for their award, since the reporting requirements and deadlines vary with the type of funding mechanism.

- Grant – A funding instrument used by the Government to accomplish a public purpose of support or stimulation authorized by Federal statute. The objective of a grant is the general enhancement of the field of scientific and technical programs of interest to NASA. The recipient of the grant is an organization, not the Principal Investigator (PI), although the PI is responsible for conduct of the project. No substantial technical involvement is expected between NASA and the recipient, nor does the Government direct the research by the PI. A grant is usually funded on a yearly basis, and the products expected from a grantee are Annual Progress Reports and a Final Progress Report. Grants with nonprofit organizations are managed by a NASA Grant Officer following the policies set forth in 2 CFR §200 and 2 CFR §1800.

- Contract – A mutually binding legal commitment between the Government and a contractor whose principal purpose is the acquisition by purchase, lease, or barter of property or services from the contractor for the direct benefit to or use by the Government. The Principal Investigator is responsible for scientific conduct of the project. In general, contracts are negotiated and have deliverable products, i.e., the Government "purchases" a product that, in the case of an NRA, is a study in a specified area of basic research. Normally, for proposals selected through an NRA, no fee or profit is paid under cost contracts with educational organizations or nonprofit organizations, as well as cost-sharing contracts with any type of entity. Non cost-sharing contracts with commercial organizations are fee bearing. Contracts typically carry a variety of reporting requirements that will be specified in their terms. Contracts with either nonprofit or for profit organizations are managed by a NASA Contracting Officer following the policies in the FAR and NFS (ref. Appendix A for access information).

- Interagency Transfer – A transaction by which one U.S. Government agency (the requesting agency) obtains needed supplies or services from another U.S. Government agency (the servicing agency). Such agreements are negotiated by direct contact between NASA administrative personnel and those of the other agency and may involve either the direct or reimbursable transfer of funds from the requesting agency to the servicing agency. Interagency transfers of Federal funds are arranged by NASA Procurement Personnel following currently applicable policies and procedures.

- Cooperative Agreement – An agreement similar to a grant with the exception that NASA and the recipient are each expected to have substantial technical interaction for the performance of the project. A cooperative agreement is usually funded on a yearly basis. The only products expected to NASA are Annual Progress Reports and a Final Progress Report. Cooperative agreements with nonprofit organizations are managed by a NASA Grant Officer, while cooperative agreements with for profit entities may be managed by a Contracting Officer or a Grant Officer. In any case, cooperative agreements are managed pursuant to the policies set forth in the *Grant and Cooperative Agreement Handbook* (ref. Appendix A for access information).

For all of these types of awards, NASA agrees to provide a specific level of support for a specified period of time. Owing to the intrinsic yearly nature of the Federal budget process, funding is usually only provided in increments of one year at a time, although there can be exceptions to this rule. If the award funding is to be provided on an annual basis, the recipient receives an award supplement for the successive period provided that funds are available and that the results reported through their Yearly Progress Reports indicate that further support is warranted (see also Section D.4). NASA occasionally sponsors programs that fund selected tasks for up to five years, although in such cases the selected tasks are subject to full peer evaluation after the first three years in order to qualify for continued funding. Payment to commercial firms shall be paid via invoice. Payment to all other organizations shall be paid via letter of credit through the Health and Human Services (HHS) Payment Management System (PMS).

The award period begins on the effective date specified in the award document and ends on the indicated expiration date. For a grant or cooperative agreement, expenses incurred within the 90-day period preceding the effective date of the award may be authorized by the recipient organization, but such expenses are made at the recipient's risk. Expenses after the scheduled expiration date of the award may be made only to honor documented commitments made on or before the expiration date.

D.2 Requests for Augmentation Funding

Occasionally a selected investigation may have a valid need for additional funding due to unforeseen circumstances (e.g., the failure of a critical piece of equipment, or unanticipated increase in costs of an approved item or labor rates). In such cases, the Proposer may request an augmentation to the award by submitting a letter proposal to the cognizant Program Officer, with a copy to the Award Officer, that describes why the increase is needed, the impact to the selected investigation if the augmentation is not approved, and a budget for the augmentation signed by an authorized representative of the proposing organization. The Program Officer will review such requests as soon as possible and make a recommendation to the NASA Award Officer for funding or not. If the decision is favorable, the recipient must have written approval from a NASA Award Officer for an increase to his/her approved budget before incurring expenses beyond the authorized award. In any case, such requests for additional funding should be made only for the most extreme and demanding of circumstances since NASA funding reserves are always extremely limited. Note that a request for an augmentation for an award during a no cost time extension (ref. section D.3 below) is not allowed.

The procedures described above apply only to grants and cooperative agreements with nonprofit organizations. Cost growth on a cooperative agreement with a for-profit organization is the responsibility of the recipient. Finally, any increase in scope on a contract is a subject to negotiation and prior approval of the Contracting Officer.

D.3 No Cost Time Extensions

A no cost time extension of an award can be requested when a Principal Investigator for a selected investigation realizes that he/she cannot complete the objectives of the proposed project before the specified expiration date of the award. In such cases, the following policies apply:

- In most cases of a grant or a cooperative agreement with a nonprofit entity, the recipient organization may unilaterally initiate a one-time no cost time extension of the award's expiration date for up to 12 months by notifying the NASA Award Officer in writing of the revised date and the justification for the extension before the end of the period of performance. A copy of this request should also be sent to the Technical Officer. NASA has the right to deny the extension if it is determined that it is merely for the purpose of using unobligated funds, if the extension may require additional funds, or if the extension involves any change in the approved objectives or scope of the project. Ref. 2 CFR §1800.903, Extensions, and 14 CFR § 1274.909 (ref. Appendix A for Web site) for further details.
- In the case of a cooperative agreement with a commercial firm, the parties may extend the expiration date if additional time is required to complete the milestones at no increase in Government resources. Requests for approval for no-cost time extensions must be forwarded to the NASA Award Officer no later than ten days prior to the expiration of the award to be considered.
- In the case of a contract, the Award Officer may authorize a no cost time extension based on a written request by the recipient organization to their NASA Award Officer in sufficient time to receive approval. Investigators may not make new commitments or incur new expenditures after the established expiration date until an extension is formally granted by the Award Officer.

D.4 Funding Continuation of Multiple Year Awards

If the decision to provide multiple year funding to a proposal is made through a grant or cooperative agreement, the special condition in 2 CFR §1800.920, entitled “Multiple Year Grant or Cooperative Agreement,” will be included in the award. Periods approved under the Multiple Year Grant or Cooperative Agreement special condition at 2 CFR §1800.920 and funded at the levels specified in the special condition are not considered to be new awards. Therefore, new proposals, new proposal-related certifications (such as given in Appendix E), new technical evaluations, and new budget proposals are not required as long as this information for the multiple year period was reviewed and approved as part of the original proposal. An Annual Progress Report is due 60 days prior to the anniversary date of every grant and cooperative agreement except for the final year when a final progress report, called a Summary of Research, is due within 90 days of the expiration date of the award; Ref. 2 CFR §1800.902. Investigations with a period of performance exceeding three years may be subject to full peer evaluation after the first three years in order to qualify for funding.

Note: A “Friendly Reminder” will be sent out approximately 70 days prior to the anniversary date to remind the Recipient that the first progress report is due in 10 days (60 days prior to the anniversary award date). NASA prefers that the Recipient send electronic copies of all progress reports to both the Grant Officer and the NASA Technical Officer.

Sample Friendly Reminder

To: University Name/PI Name
CC: NASA Technical Officer – Name/emailaddress@nasa.gov
NSSC Grant Officer – Name/NSSC.Grant.Reports@nasa.gov

Subject: Friendly Reminder of Progress Report Coming Due

Reference: NASA Award Number, NNX _____, entitled, “XXXX”.

This notification is sent as a friendly reminder that the Progress Report for subject award number is due 60 days prior to your anniversary date of (MM/DD/YY). It is important that NASA receives your Progress Reports in a timely manner to facilitate funding approval to continue your research effort without delay.

Please submit this required report electronically via email to both the NASA Grant Officer and the NASA Technical Officer identified above. You are not required to send a hard copy of the report to the Grant Officer and the Technical Officer.

Reference 2 CFR §1800.902 and Exhibit E of the Grant and Cooperative Agreement Manual (GCAM) https://prod.nais.nasa.gov/pub/pub_library/srba/index.html# for report requirements. Please note that you are still required to comply with the requirements of your grant award document entitled, “Required Publications and Reports.”

All other correspondence, replies and questions concerning Procurement issues related to this award, should be addressed to the NSSC Contact Center at:

Email: nssc-contactcenter@nasa.gov
Phone: 877-NSSC123 (877-677-2123)
Fax: 866-779-6772

NASA/NSSC Grants Officer

The funding levels for multiple year awards are fixed at the time that the award is made by a NASA Award Officer. However, a revised budget for the next year of a multiple year award will be required (i) if the anticipated expenditures are greater than that stated in the award, (ii) if the research has appreciably changed in scope, or (iii) if changes have been made to the planned purchases of equipment. Requests for augmentations for work that is beyond the scope of the originally approved proposal may require technical evaluations by NASA.

Nevertheless, NASA reserves the right to terminate any multiple year grant or cooperative agreement whenever one of the three conditions cited in Section 1260.52 occurs.

D.5 Completing an Award

At the completion of a grant or cooperative agreement, certain reports are required by NASA and will be specified in the award document. See Grant and Cooperative Agreement Manual (GCAM) https://prod.nais.nasa.gov/pub/pub_library/srba/index.html#, Exhibit E, entitled, "Required Publications and Reports," for a list of the required reports. For a research grant, one of the most common award types, the following final reports are generally required:

- Federal Financial Report (SF 425)
- Summary of Research
- Subject Inventions Final Report
- Final Inventory Report of Federally-Owned Property

APPENDIX E

CERTIFICATIONS, ASSURANCES, REPRESENTATIONS, AND SAMPLE AGREEMENTS

E.1 Certifications, Assurances, and Representations

E.1.1 Certification of Compliance on *Proposal Cover Page*

The Certifications, Assurances, and Representations set out in Sections E.1.2 through E.1.9 are not required from U.S. Federal Institutions. To reduce the paper work of submitting organizations, the “Certification of Compliance with Applicable Executive Orders and US Code”—reproduced directly below—is included at the bottom of the printout of the *Proposal Cover Page*. After April 27, 2013, (the date the certification was included in NSPIRES) the certification set out below affirms that these requirements are met by the proposing organization once the printed version of the *Cover Page* is signed by the Authorizing Official of the proposing organization (or by the individual Proposer if there is no proposing organization) and submitted with the proposal. Therefore, the Certifications, Assurances, and Representations reproduced in sections E.1.2 through E.1.9 are included only for reference and information; they should not be submitted separately for proposals after April 27, 2013. For electronic submission, the electronic signature of the AOR who submits the proposal is sufficient to meet the requirements.

Certification of Compliance with Applicable Executive Orders and U.S. Code

By submitting the proposal identified in the Cover Sheet/Proposal Summary in response to this Research Announcement, the Authorizing Official of the proposing organization (or the individual Proposer if there is no proposing organization) as identified below:

- certifies that the statements made in this proposal are true and complete to the best of his/her knowledge;
- agrees to accept the obligation to comply with NASA award terms and conditions if an award is made as a result of this proposal; and
- confirms compliance with all applicable provisions, rules, and stipulations set forth in the Certifications, Assurances, and Representations contained in this NRA or CAN.

Willful provision of false information in this proposal and/or its supporting documents, or in reports required under an ensuing award, is a criminal offense (U.S. Code, Title 18, Section 1001).

In addition, proposers should be aware that NRAs and CANs released by some NASA program offices will require additional, specialized certifications (e.g., concerning the impact of proposed research that includes environmental, human, or animal care provisions, or other topics required by statute, Executive Order, or Government policies) that will need to be individually reproduced from the solicitation, signed, and submitted with a proposal. In such cases, the certifications will be provided in the individual solicitation.

E.1.2 Assurance of Compliance with the National Aeronautics and Space Administration Regulations Pursuant to Nondiscrimination in Federally Assisted Programs

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- “The Organization, corporation, firm, or other organization on whose behalf this assurance is made, hereinafter called "Applicant,"
- “HEREBY acknowledges and agrees that it must comply (and require any subgrantees, contractors, successors, transferees, and assignees to comply) with applicable provisions of national laws and policies prohibiting discrimination, including but not limited to:
 - Title VI of the Civil Rights Act of 1964, as amended, which prohibits recipients of federal financial assistance from discriminating on the basis of race, color, or national origin (42 U.S.C. 2000d et seq.), as implemented by NASA Title VI regulations, 14 C.F.R. Part 1250.
 - As clarified by Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination on the basis of limited English proficiency (LEP). To ensure compliance with Title VI, the Applicant must take reasonable steps to ensure that LEP persons have meaningful access to its programs in accordance with NASA Title VI LEP Guidance to Grant Recipients (68 Fed. Reg. 70039). Meaningful access may entail providing language assistance services, including oral and written translation, where necessary. The Applicant is encouraged to consider the need for language services for LEP persons served or encountered both in developing budgets and in conducting programs and activities. Assistance and information regarding LEP obligations may be found at <http://www.lep.gov>.
 - Title IX of the Education Amendments of 1972, as amended, which prohibits discrimination on the basis of sex in education programs or activities (20 U.S.C. 1681 et seq.) as implemented by NASA Title IX regulations, 14 C.F.R. Part 1253. If the Applicant is an educational institution:
 - The Applicant is required to designate at least one employee to serve as its Title IX coordinator (14 C.F.R. § 1253.135(a)).
 - The Applicant is required to notify all of its program beneficiaries of the name, office, address, and telephone number of the employee(s) designated to serve as the Title IX coordinators. (14 C.F.R. §1253.135(a)).
 - The Applicant is required to publish internal grievance procedures to promptly and equitably resolve complaints alleging illegal discrimination in its programs or activities (14 C.F.R. §1253.135(b)).
 - The Applicant is required to take specific steps to regularly and consistently notify program beneficiaries that The Applicant does not discriminate in the operation of its programs and activities. (14 C.F.R. §1253.140).
 - Section 504 of the Rehabilitation Act of 1973, as amended, which prohibits The Applicant from discriminating on the basis of disability (29 U.S.C. 794) as implemented by NASA Section 504 regulations, 14 C.F.R. Part 1251.

- a. The Applicant is required to designate at least one employee to serve as its Section 504 coordinator (14 C.F.R. §1251.106(a)).
 - b. The Applicant is required to notify all its program beneficiaries of the name, office, address, and telephone number of the employee(s) designated to serve as the Section 504 coordinator (14 C.F.R. §1251.106(a)).
 - c. The Applicant is required to publish internal grievance procedures to promptly and equitably resolve complaints alleging illegal discrimination in its programs or activities (14 C.F.R. §1251.106(b)).
 - d. The Applicant is required to take specific steps to regularly and consistently notify program beneficiaries that the Applicant does not discriminate in the operation of its programs and activities. (14 C.F.R. §1251.107).
4. The Age Discrimination Act of 1975, as amended, which prohibits the Applicant from discriminating on the basis of age (42 U.S.C. 6101 et seq.) as implemented by NASA Age Discrimination Act regulations, 14 C.F.R. Part 1252.

The Applicant also acknowledges and agrees that it must cooperate with any compliance review or complaint investigation conducted by NASA and comply (and require any subgrantees, contractors, successors, transferees, and assignees to comply) with applicable provisions governing NASA access to records, accounts, documents, information, facilities, and staff. The Applicant must keep such records and submit to the responsible NASA official or designee timely, complete, and accurate compliance reports at such times, and in such form and containing such information, as the responsible NASA official or his designee may determine to be necessary to ascertain whether the Applicant has complied or is complying with relevant obligations and must immediately take any measure determined necessary to effectuate this agreement. The Applicant must comply with all other reporting, data collection, and evaluation requirements, as prescribed by law or detailed in program guidance.

The United States shall have the right to seek judicial enforcement of these obligations. This assurance is binding on the Applicant, its successors, transferees, and assignees, and the person or persons whose signatures appear below are authorized to sign on behalf of the Applicant.”

Under penalty of perjury, the undersigned officials certify that they have read and understand their obligations as herein described, that the information submitted in conjunction with this document is accurate and complete, and that the recipient is in compliance with the nondiscrimination requirements set out above.

E.1.3 Certification Regarding Lobbying

“No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

"If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

"The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

"This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000, and not more than \$100,000 for each such failure."

E.1.4 Certification Regarding Debarment, Suspension, and Other Responsibility Matters

"Pursuant to Executive Order 12549, Debarment and Suspension, and implemented at 2 CFR Parts 180 and 1880:

(1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

(b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and

(d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State, or local) terminated for cause or default."

“(2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.”

E.1.5. Assurance and Representation on China restrictions set out in section 532 of PL 113-235:

By submission of its proposal, the proposer represents that the proposer is not China or a Chinese-owned company, and that the proposer will not participate, collaborate, or coordinate bilaterally with China or any Chinese-owned company, at the prime recipient level or at any subrecipient level, whether the bilateral involvement is funded or performed under a no-exchange of funds arrangement.

E.1.6 Certification of Tax Compliance as provided in section 523 of PL 113-235:

For awards exceeding \$5 million, proposer certifies it has filed the Federal tax returns required during the three years preceding this certification, has not been convicted of a criminal offense under the Internal revenue Code of 1986, and has not, more than 90 days prior to certification, been notified of any unpaid Federal tax assessment for which the liability remains unsatisfied, unless the assessment is the subject of an installment agreement or offer in compromise that has been approved by the Internal Revenue Service and is not in default, or the assessment is the subject of a non-frivolous administrative or judicial proceeding.

E.1.7 Representation regarding corporate felony convictions as provided in section 745 of PL 113-235:

If a corporation, the prospective recipient represents that it has not been convicted, or had an officer or agent acting on behalf of the corporation convicted, of a felony criminal violation under a Federal law within the preceding 24 months.

E.1.8 Representation regarding unpaid corporate tax liabilities as provided in section 744 of PL 113-235:

If a corporation, the prospective recipient represents that it has no unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability; unless an agency has considered suspension or debarment of the corporation and made a determination that this further action is not necessary to protect the interests of the Government.

E.1.9 Representation regarding restrictions on reporting waste, fraud, and abuse as provided in section 743 of PL 113-235:

The prospective recipient represents that it does not and will not require employees or its contractors—who seek to report fraud, waste, or abuse—to sign internal confidentiality agreements or statements prohibiting or otherwise restricting such employees or contractors from lawfully reporting such waste, fraud, or abuse to a designated investigative or law enforcement representative of a federal department or agency authorized to receive such information.

Summary of Required Certifications, Assurances, and Representations:

- E.1.1 Certification of Compliance on Proposal Cover Page*
- E.1.2 “Assurance of Compliance...Pursuant to Nondiscrimination...” (each award)*
- E.1.3 “Certification Regarding Lobbying” (awards over \$100,000)*
- E.1.4 “Certification Regarding Debarment, Suspension, and ...” (each award)*
- E.1.5 “Assurance and Representation on China restrictions ...” (each award)*
- E.1.6 “Certification of compliance with section 523 of PL 113-235 ...” (awards over \$5 M)*
- E.1.7 “Representation of compliance with section 745 of PL 113-235” (each corporate award)*
- E.1.8 “Representation of compliance with section 744 of PL 113-235” (each corporate award)*
- E.1.9 “Representation of compliance with section 743 of PL 113-235” (each award)*

Note: Reference E.1.1 for electronic submissions. Certifications, assurances, and representations, must be less than one year old at time of award. Procurement personnel will obtain updates at time of award if needed. Procurement personnel will also obtain any outdated certifications needed on an annual basis (e.g., at time of annual funding).

E.2 Sample Nondisclosure and Conflict of Interest Agreement

As discussed in section C.1, every person (other than a Civil Servant) who is asked to serve as a reviewer of proposals submitted to NASA must sign a statement concerning the nondisclosure of the proposal materials to which they may have access either as an individual reviewer or as a member of a review panel that will consider the proposal, as well as their obligation to disclose any conflicts of interest that they may have with either the proposing personnel or organizations. Once signed, these agreements are kept on permanent file by NASA, and no proposal materials are sent to a reviewer without confirming that his/her agreement is on file. For reviews conducted electronically via NSPIRES, the nondisclosure statement is signed electronically by

the reviewer prior to that reviewer getting access to the proposal(s). An example of such an agreement is reproduced as follows:

Proposal Peer Review Nondisclosure Agreement and Conflict of Interest Avoidance:

In the performance of peer review of proposals submitted to NASA, I may have access to or be furnished with information that contains unpublished research results, unpublished research ideas, and/or proprietary plans, information, and budgetary data. All NASA supervisory and management personnel and reviewers, and all non-NASA participants, are bound by Federal regulations to maintain the confidentiality of such information and to avoid conflicts of interest in the review process. (Note that Federal law prohibits Federal employees from making unauthorized disclosure of confidential information (18 U.S.C. 1905)). Therefore, with respect to any proposals that may be furnished to or discussed in my presence, or that I may have access to or learn about, I agree:

1. to use such data and information only for the purpose of carrying out the requested proposal review;
2. to refrain from disclosing or discussing such data and information with submitters of proposals, other reviewers, non-NASA support personnel, or NASA personnel outside the meetings of any designated peer review sessions;
3. to refrain from copying in part or all of any proposals that may be provided;
4. to return to NASA all proposals that may be provided along with all review sheets and other forms that have been generated in the course of the review process, or to make other disposition of such materials as directed by NASA;
5. to exercise due care to avoid any real or apparent conflict of interest in carrying out any reviews. Specifically, a person identified in a proposal (e.g., principal investigator, co-investigator, consultants, and collaborator) is not permitted to participate in the review of competing proposals unless specifically authorized by NASA to do so. A person may also be excluded from participating as a reviewer of any proposals, unless authorized by NASA, if a close professional associate from his/her own organization is identified in a proposal. In addition, a reviewer is not permitted to take part in the review of a particular proposal (a) that originates from his/her own organization; or (b) if any of the personnel identified in the proposal are closely related to the reviewer (e.g., household family members, partners, or professional associates); or (c) if the reviewer has a financial interest in a proposing organization (e.g., ownership of stock or securities, employment, or arrangements for prospective employment). If a reviewer is given access to a proposal for which a conflict of interest exists, the reviewer shall notify NASA immediately and return the proposal.
6. to advise NASA of the disclosure of any information obtained from NASA that is disclosed, used, or handled in a manner inconsistent with this agreement.

For Hard Copy Submittals (if applicable):

Printed Name, Signature and Date: _____

Note: A candidate reviewer who declares himself as a non-civil servant is presented with a "Review Assignment Agreement" which displays the Proposal Peer Review Nondisclosure Agreement and Conflict of Interest Avoidance statement (as shown above). In NSPIRES, the reviewer clicks on either the "Accept" button or "Decline" button. Clicking on the "Accept" button is considered the equivalent of providing an electronic signature. If a reviewer does not electronically "Accept" this agreement and statement, he/she will not be granted access to the proposal to be reviewed.

E.3 Conflicts of Interest for NASA Peer Reviewers

As discussed in Section C.1, NASA expects all peer reviewers (both Federal government employees [i.e. civil servants] and others) to disclose all conflicts of interest, as well as situations which may be actual conflicts of interest or which may give the appearance of a conflict of interest. Peer reviewers are also expected to disclose situations which may give the appearance of bias, or may cause a reasonable observer to question the ability of the reviewer to provide an unbiased evaluation of a proposal. A summary of situations which may constitute conflicts of interest for NASA peer reviewers is reproduced as follows:

Conflicts of Interest for NASA Peer Reviewers
(This is a list of examples and not an exhaustive list of disqualifying affiliations and relationships.)

You may have a disqualifying conflict of interest or appearance of a conflict of interest if you have a relationship or affiliation identified in any of the three categories listed below:

1. YOUR AFFILIATIONS WITH A PROPOSING OR APPLICANT INSTITUTION OR COMPANY.
<ul style="list-style-type: none">• Current employment at the proposing organization as a professor, adjunct professor, visiting professor, employee, or similar position.• Other current employment with the proposing organization (such as a consulting or advisory arrangement)• Seeking or negotiating for employment with the proposing organization.• Formal or informal arrangement for future employment with the proposing organization.• A financial interest in the proposing organization (e.g. ownership of securities).• Serving as an officer, director, trustee, general partner, or in another role of authority in the proposing organization. (Ordinary membership in a professional society or association is not considered an office.)• Current enrollment as a student with a proposing organization. (Only a conflict for proposals or applications that originate from the department or school in which one is a student.)• Previous employment with the proposing organization within the last 12 months.• Any award, honoraria, or other payment received from a proposing organization within the last 12 months.
2. YOUR RELATIONSHIP WITH AN INVESTIGATOR, PROJECT DIRECTOR, OR OTHER PERSON WHO IS A PARTICIPANT IN THE PROPOSAL OR OTHER APPLICATION.
<ul style="list-style-type: none">• Family relationship as spouse, child, sibling, or parent.• Business or professional general partnership (An ordinary scientific collaboration is not considered a partnership).• Association as thesis advisor (major professor) or thesis student, or acting in a similar role, within the past 12 months.• Professional or personal relationship which may preclude you from being impartial.

3. YOUR OTHER AFFILIATIONS OR RELATIONSHIPS.

- The following interests may create a conflict or the appearance of a conflict for you: Any financial interest or professional affiliation or relationship of your spouse, your minor child, anyone living in your immediate household, or anyone who is legally your general partner. (E.g., if your spouse is employed by a proposing organization, this may create an actual conflict or the appearance of a conflict for you.)
- Other relationship, such as close personal friendship, that you think might tend to affect your judgment or be seen as doing so by a reasonable person familiar with the relationship.
- Other financial interests and relationships, such as those related to persons or organizations in competition with a proposing organization, which you think might tend to affect your judgment or be seen as doing so by a reasonable person familiar with the relationship.

If you identify a potential conflict of interest or appearance of a conflict of interest at the beginning or at any time during your tenure as a NASA peer reviewer, bring it immediately to the attention of the NASA Program Officer who asked you to serve as a peer reviewer. This official will determine how the matter should be handled and will tell you what steps, if any, to take. You should also consult with your local NASA legal counsel or ethics official at any time during the process for legal advice.

APPENDIX F

FREQUENTLY ASKED QUESTIONS

F.1 Who answers questions about an award?

Questions on technical matters prior to an award should be addressed to the NASA Program Officer listed in the original NRA. Questions on technical matters after an award are addressed to the Technical Officer (grants and cooperative agreements) identified on the cover page of the award document. Questions about administrative and budgetary matters are addressed to the NASA Award (i.e., Grants or Contracting) Officer. The PI's organizational research/grants office will know this point of contact from the official award document. It is important for the PI to know the various points of contact, including his/her organization's research/grants office, the NASA Award Officer, the NASA Technical Monitor, and/or the NASA Program Officer. Note that the NASA Technical Monitor and Program Officer may be the same person. The Contracting Officer's Representative (COR) may be contacted after award for contracts.

F.2 Is all the information in this Guidebook needed to submit a proposal?

Starting with the formal publication of this Guidebook, most NRAs released by NASA will contain only information specific to the technical description of that one advertised program. The NRA will then refer prospective Proposers to this Guidebook for all common or "default" requirements, policies, procedures, and formats to be used for the preparation of proposals unless specifically exempted otherwise in the NRA. It is the intention of NASA to restrict exceptions to these standards to items that are unique to a given NRA.

F.3 Who is responsible for what?

The Principal Investigator is expected to provide scientific and technical leadership for the proposed research and the timely publication of results. The PI's organization has responsibility for general supervision of all award activities, especially for all fiduciary matters, and also for notifying NASA of any significant problems relating to financial or administrative matters, including issues of scientific misconduct and when the PI must be changed for some reason (ref. also F.9 below). NASA is responsible for the appropriate and timely review, selection, and funding of proposals submitted in response to the NRA and for monitoring the selected proposals during their periods of performance.

F.4 Who determines the type of award to be made?

NASA determines the appropriate funding instrument (a grant, a contract, or a cooperative agreement; an interagency transfer; or an intra-NASA funding instrument) for each award based on the nature of the program for which the competition was held and the type of proposing organization. Occasionally, an NRA will specify that only one type of award will be made based on its unique circumstances or requirements.

F.5 Who monitors an award?

An award is monitored by the NASA Technical Monitor (grants and cooperative agreements) or the Contracting Officer's Representative (COR) (contracts), who serves as an official resource

to the NASA Grants or Contracting Officer, respectively. This person is knowledgeable about the technical aspects of the award and provides scientific and technical advice, including reviews of progress reports, to the Award Officer. The Award Officer has the responsibility to ensure that the award is properly administered, including technical, cost, and schedule aspects.

F.6 Is it "my" award?

Although the PI usually originates and writes the proposal and has technical/scientific leadership of the work, NASA's funding awards are legally issued to the proposing organization at which the PI is employed and not to the PI personally. Although a PI may use the term "my grant" (or contract or cooperative agreement), the distinction between the PI and the legal grant recipient is real, and the PI should understand the various responsibilities for the administration of the award due to this distinction.

F.7 Must every proposal include certain documents?

Awards for financial assistance are subject to certain U.S. statutory and other general requirements, such as compliance with the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, and other laws and regulations, e.g., prohibition of discrimination; prohibition of misconduct in science and engineering; requirements for a drug-free workplace; restrictions on lobbying; requirements for patents and copyrights; and the use of U.S.-flag carriers for international travel, whenever possible. For all NRAs submitted through the NASA's electronic proposal system, the signature on the *Proposal Cover Page* by the Authorizing Official of the proposing organization certifies that the organization is cognizant of and in compliance with all applicable certifications (for information purposes these certifications are given in Section E.1 of Appendix E). For all proposals submitted electronically through NSPIRES or Grants.gov, the electronic signature of the AOR who submits the proposal meets the certification requirements.

F.8 Once an award has been implemented, for what must prior approval be requested?

Prior approval requirements are set forth in the FAR, the NFS, and 2 CFR § 200, 2 CFR § 1800, and the NASA Grant and Cooperative Agreement Manual. Several of the most common situations requiring prior written authorization from NASA are:

- transfer of the project to another organization at which the PI takes employment (ref. also F.9 below);
- a substantive change in objectives or scope of the project;
- a change in the designation of the PI, e.g., because of his/her change in employment status, retirement, or death;
- a substantial change in the PI's commitment of effort;
- new or revised allocations for purchase of major equipment;
- the intent to award a subcontract in excess of \$100,000 or to purchase equipment in excess of \$5,000 that was not part of the original budget; and/or
- actions involving a change of obligations (legally called a "novation").

The recipient organization requests approval for such actions from the NASA Award Officer, who often will ask for a recommendation from the cognizant Technical Monitor. However, only the NASA Award Officer can officially approve or deny such requests.

F.9 What happens if the PI changes organizations?

When a PI leaves his/her organization during the course of an award to that organization, that organization has the option of nominating an appropriately qualified replacement PI or recommending termination of the award. In the former case, NASA has the right of approval of the recommended replacement PI. If the replacement is approved, the award continues at the original organization through its nominal period of performance. However, if NASA judges that participation of the original PI is critical to the project owing to his/her unique knowledge and capabilities, then NASA will seek the agreement of both the PI's original and new organization to either transfer the award (novation) or to terminate the original award at the PI's original organization followed by implementation of a new award at the PI's new organization to complete the project.

F.10 Who owns any equipment purchased through the award?

Title to most equipment purchased or fabricated for the purpose of conducting research by an academic organization or other nonprofit organization using NASA funds normally vests with the recipient organization of the award. In some instances, NASA may elect to take title but, if so, the recipient will be notified of that intention when the award is approved by an Award Officer. Title to equipment acquired by a commercial organization using Federal funds provided through any type of award vests with the Government.

F.11 Can an award be suspended or terminated?

The award document will contain procedures that define conditions for suspension or termination of awards. For example, lack of adequate progress in meeting the objectives of the award or failure to submit required reports set forth in the award document on a timely basis may be grounds for termination of an award. Awards may also be terminated by mutual agreement between the recipient organization and NASA. In the event of a termination, the recipient is not entitled to expend any more funds except to the extent required to meet commitments that, in the judgment of NASA, had become firm before the effective date of the termination. A suspension of advance payments may also occur when a recipient demonstrates an unwillingness or inability to comply with financial reporting requirements. Where this occurs, the recipient would be required to finance its operations with its own funds, and NASA would reimburse the recipient's costs. Advance payments would be reinstated upon corrective action by the recipient organization. An award may also be terminated in cases of professional misconduct on the part of the PI.

F.12 Are there required reports?

The two types of technical reports generally required for grants are as follows.

- ANNUAL PROGRESS REPORT -- For multiple year awards, NASA requires that a brief progress report be submitted to the Program Officer 60 days before the anniversary date of the award, in order to allow for the timely recommendation for a continuation of funding.
- SUMMARY OF RESEARCH -- NASA requires a final summary of research report to be submitted to the NASA Awards Officer and the Technical Officer for every award at

the completion of the period of performance. This report should include substantive results from the work, as well as references to all published materials from the work, and is due within 90 days after the end of the award.

Other reports, in addition to technical reports, are required that include financial, property, invention or other specialized reports applicable for certain types of grants (such as education grants). The award document will include a complete list of required reports and schedules for their submission. Especially significant is the Federal Financial Report (SF 425) that is due at the end of each Federal fiscal quarter from the organization holding the award.

If the resulting award is a contract, reporting requirements will be detailed in the award.

F.13 What is NASA's policy about releasing data and results derived through its sponsored research awards?

All data taken through research programs sponsored by NASA are considered public. As a Federal Agency, NASA requires prompt public disclosure of the results of its sponsored research and, therefore, expects significant findings from supported research to be promptly submitted for peer reviewed publication with authorship(s) that accurately reflects the contributions of those involved. Likewise, as a general policy and unless otherwise specified, NASA no longer recognizes a "proprietary" period for exclusive use of any new scientific data that may be acquired through the execution of the award; instead, all data collected through any of its funded programs are to be placed in the public domain at the earliest possible time following their validation and calibration *or within 12 months after completion of performance of the award*. However, small amounts of data (for example, as might be taken during the course of a suborbital (rocket or balloon), Space Station investigation) is usually left in the care of the Principal Investigator. In any case, NASA may require that any data obtained through an award be deposited in an appropriate public data archive as soon as possible after calibration and reduction. If so, NASA will negotiate with the organization for appropriate transfer of the data and, as necessary, may provide funds to convert the data into an easily used format using standard units.

Note: There are cases when data cannot be disclosed in the public domain (e.g., export controlled data). Even in these cases, Proposers are expected to publish data to the greatest extent possible (e.g., use normalized data or at least discuss new methodologies used with clean "test cases.")

F.14 How is NASA to be acknowledged in publications?

All publications (including websites or other electronic only products) of any material based on or developed under NASA sponsored projects should conclude or begin with the following acknowledgement:

"This material is based upon work supported by the National Aeronautics and Space Administration under Grant/Contract/Agreement No. <xxxxxx> issued through the <XYZ> Mission Directorate <or ABC Program, as appropriate>."

Except for articles or papers published in peer-reviewed scientific, technical, or professional journals, the exposition of results from NASA supported research should also include the following disclaimer:

"Any opinions, findings, and conclusions or recommendations expressed in this article <or report, material, etc.> are those of the author(s) and do not necessarily reflect the views of the National Aeronautics and Space Administration."

Finally, as a courtesy, any releases of NASA photographic or illustrative data products should list NASA first on the credit line followed by the name of the PI institution, for example,

"Photograph <or illustration, figure, etc.> courtesy of NASA <or NASA Center managing the mission or program> and the <Principal Investigator institution>."

F.15 Can audits occur, and are they important?

Yes, Government auditors frequently check contracts, grants, and cooperative agreements for evidence of fraud, waste, and/or mismanagement by the recipient organization. Therefore, it is important to keep clear and accurate records to avoid misunderstandings.

F.16 What are the uses of a No Cost Extension?

A no cost time extension to an award allows the completion of the objectives for which the proposal was selected that have not been accomplished in the originally specified period of performance owing to unforeseen circumstances (e.g., the inability to hire a critically important graduate student or postdoctoral employee in time; the breakdown of a unique and critical piece of equipment; or the inability to coordinate important activities with Co-Is through circumstances beyond the control of the PI). A no cost time extension may not be implemented merely to use funds that are unspent because of the untimely planning of activities within the original period of performance. For a one-time extension of a grant or a cooperative agreement with a noncommercial firm, the recipient must notify NASA in writing with the supporting reasons and revised expiration date (not to exceed twelve months) before the expiration date specified in the award. For cooperative agreements with commercial firms, the parties may extend the expiration date if additional time is required to complete the milestones at no increase in Government resources. Requests for approval for no cost time extensions must be forwarded to the NASA Agreement Officer no later than ten days prior to the expiration of the award to be considered. For a contract, an appropriate request must be submitted for NASA's approval by the recipient organization. For further details, see "No Cost Time Extensions," in Section D.3 of Appendix D, 2 CFR §1800.903, and 14 CFR §1274.909.

F.17 Why are all these requirements and details about research awards necessary?

Funding for research using U.S. Federal monetary resources is a privilege accorded to U.S. organizations by NASA acting on behalf of the U.S. Congress and the public at large. The recipient is legally obligated to use the funds appropriately and conscientiously to justify their continued appropriation through the Federal budget. This obligation necessarily entails attention to the details of how the award is competed and selected, and then how the selected activities are carried out, in order to provide public accountability of the Nation's financial resources throughout the process.

F.18 Why aren't all proposals that are highly rated by peer review selected for funding?

Although a proposal in response to an NRA may nominally be judged by peer review to be of intrinsically high merit, it still may not be selected owing to the programmatic issues of relevance to NASA's stated interests and/or to budget limitations (ref. also Section C.2 of Appendix C).

Regarding this latter factor, most of NASA's NRAs are oversubscribed by factors ranging typically from two to five or even higher. The entirety of the factors leading to a decision of selection or nonselection will be conveyed to the Proposers during the course of a debriefing after selections are announced (ref. Section C.6 of Appendix C).

F.19 Are proposals from NASA Centers subject to peer review, and are their budgets based on Full Cost Accounting?

All proposals submitted in response to an NRA are subjected to exactly the same peer review process regardless of the submitting organization, including NASA Centers. NASA is now operating using full cost budgeting, accounting, and management practices. As such, all research proposals should be submitted with fully loaded costs for all cost items that will be funded with the requested award, including procurement, civil service labor, travel, etc. Overhead, such as IT seats, should be included to the extent that it will be funded through the requested award. NASA researchers answering NRAs should comply with the full cost policies current for the requested year of performance. Non-NASA researchers answering NRAs should work with the NASA sponsoring organization to ensure all direct and institutional costs (including NASA facilities and civil service labor) are adequately accounted for. The web address for NASA's Full Cost Initiative is: <http://www.hq.nasa.gov/fullcost>.

F.20 Why is an award sometimes slow in being implemented after selection?

NASA is committed to the goal of initiating awards within 46 days after the selections are announced to the Proposers. However, sometimes additional materials are needed from the Proposer (e.g., revised budgets and/or budget details) before NASA may legally obligate Federal money. Contracts and cooperative agreements with for profit entities generally take longer owing to greater complexity. Finally, NASA's ability to distribute funds is dependent on the timely approval of its budget through the Federal budget process, which occasionally may be delayed; such a delay can significantly affect the implementation of awards, especially those whose nominal start dates would fall in the first quarter of the Fiscal Year (October through December).

F.21 Who may be listed as participating personnel on a proposal?

Every person who has agreed in writing (ref. Section 2.3.9) to perform a significant role in a proposed effort, even if at no cost, is entitled to be listed as a Co-I (ref. also Section 1.4.2). However, since one of the nominal requirements for the Science/Technical/Management Section of a proposal is the justification of each key member of a proposal's team (ref. Section 2.3.5), Proposers are reminded that the stated contributions and qualifications of proposal personnel will be evaluated as part of the peer review process. Inclusion of unjustified personnel can lead to a downgrading of a proposal's rating.

F.22 How does the NASA Research Announcement (NRA) differ from other types of NASA research solicitations?

NASA commonly issues three types of solicitations for scientific and technical research that are broadly defined as follows:

- NASA Research Announcement (NRA) – A NRA is used to solicit and competitively select relatively nonspecific research, technology, and/or education projects and investigations to be funded through NASA's ongoing Research and Analysis budgets. Awards made through

NRAs are typically for three years although some awards can be for as long as five years. NRA awards are most commonly in the form of grants but at NASA's discretion, and depending on the type of the proposing organization, may be a contract or a cooperative agreement.

- Announcement of Opportunity (AO) – An AO is used to competitively select relatively well-defined science investigations for a specific research opportunity funded by a specific element in NASA's budget, most commonly a NASA space mission (or program of missions such as the Explorer missions) that may, but does not always, involve the provision and operation of experimental hardware. Science investigations carried out through an AO almost always involve a considerable degree of oversight by NASA to ensure adherence to cost and schedule requirements and are almost always funded through a contract since well-defined "deliverables" are involved. Contracts awarded through an AO can be for hundreds of millions of dollars and may have periods of performance lasting ten years or more for space flight missions.
- Cooperative Agreement Notice (CAN) – A CAN is used to solicit unique research programs and/or related activities that involves a relatively high degree of interaction and cooperation between NASA and the selected recipient(s) to achieve NASA's desired objectives (e.g., to develop and operate a research institute, an extensive educational/public outreach activity, or a specified technology capability). Funding through a CAN is always done through a cooperative agreement award and can be for amounts up to several millions of dollars and for time periods as long as five years.

Most NRAs issued by NASA will rely upon this Guidebook to specify the organization and submission of proposals. However, because of their highly unique characteristics, AOs and CANs will usually include their own specific instructions concerning the format and content of proposals, although frequently the instructions for a proposal's *Proposal Cover Page* may be identical to that given in this Guidebook due to the use of the common proposal database system by NASA Headquarters that is accessed at <http://nspires.nasaprs.com/>.

F.23 What is NASA's policy for submitting late proposals?

Proposals or proposal modifications received after the date specified for receipt may be considered if a significant reduction in cost to the Government is probable or if there are significant technical advantages, as compared with proposals previously received. Reference Appendix B, paragraph (g), Late Proposals.

F.24 Why doesn't NASA release the names of the reviewers who reviewed my proposal?

NASA solicits the most knowledgeable, non-conflicted peers available to review the proposals it receives. It is NASA's opinion, which is generally substantiated by the opinions of the reviewers it has used, that preserving the anonymity of the participants in the review process promotes more candid comments than if this practice were not used. During the conduct of a panel a NASA Program Officer is present to ensure that the discussions and written text on the review forms remain focused on the technical qualities of the proposals being discussed. The review comments on the Summary Evaluation Form, which reflect the considered opinion of the entire panel and not those of any one reviewer, are preserved for the record.

F.25 I can't find the application forms in Grants.gov for the specific solicitation that I want to propose to; where are they?

Each NRA can be found by searching on the NRA title. All NASA application packages may be found by searching on the applicable CFDA number. For omnibus NRAs (e.g. ROSES, ROA), each program element requires a different application package and has a different Funding Opportunity Number; the Funding Opportunity Number may be found in each appendix of the omnibus NRA. Enter the appropriate Funding Opportunity Number to retrieve the desired application package.

F.26 How can a PI verify that his/her proposal has been properly submitted?

It is the Offeror's responsibility to ensure the successful submission of a proposal and to ensure that all required parts of the proposal, as described in the solicitation, are incorporated.

NSPIRES automatically assigns a unique proposal number to each proposal only after it has been successfully submitted. NASA uses this NSPIRES number throughout the proposal review and selection process to uniquely identify the proposal and its associated electronic data. *If no NSPIRES number appears on the Proposal Cover Page, then it has not been submitted finally and correctly through the NSPIRES system.*

Proposers can also verify that their proposals have been submitted by logging into NSPIRES, and verifying that the proposal record now appears in the "Submitted Proposals" (versus "Active Proposals") part of their accounts.

As a courtesy, the PI and AOR will both receive an email from the NSPIRES system indicating that a proposal has been successfully submitted. This email is sent within moments of submission and should thus be received very quickly after the submission activity. Proposers not receiving such an email should contact the NSPIRES Help Desk at nspires-help@nasaprs.com or on (202) 479-9376.

NOTE: Proposals submitted to Grants.gov will be transferred to NSPIRES for evaluation purposes. When this transfer is complete (possibly a few days after submission), Proposers will receive an email as described above and will be able to find the proposal record within the appropriate part of their NSPIRES account.

F.27 Does NASA prefer special formatting for Education grants/cooperative agreements?

Preferred Education Project Report Format

Project Reports are a comprehensive summary of significant accomplishments during the reporting period or the duration of the grant. Progress Reports, Final Reports and interim Educational Activity Reports ideally include the following information in the following order to facilitate cross project analysis and reporting:

- (1) NASA Grant Number and Title of the grant.
- (2) Type of report (Progress, Final or Interim).
- (3) Name(s) of the principal investigator and other key project personnel with institutional contact information (e-mail and phone).
- (4) Period covered by the report. (From: month/day/year To: month/day/year)

(5) An updated project abstract (not to exceed 500 words). Please include the goal(s) of the project and your estimate of whether/when those goals have been/will be achieved.

(6) List deliverables or products being prepared or already developed (for example but not limited to: outreach materials/exhibits/film and other media/URLs etc.) that will lead to the accomplishment of the project's goals, impacts, or outcomes. Please briefly describe each deliverable in enough detail to allow report of intended or unintended effects.

(7) Identify types of target audience(s) under two broad categories: 1) Public and 2) Professional and provide target and actual (if available) participation numbers. Identify the most important intended audience impacts (up to three). For each audience impact, indicate how you (will) measure or assess that impact or for defining overall success.

8) A Project or (if applicable) Product Evaluation Update: Indicate (Yes or No) whether or when the project engaged in third-party or self-assessment activities. This includes internal or external evaluators or peer or scientific reviewer components. If the answer is "No" or not applicable, please indicate why no evaluation was conducted or is planned.

If the answer is, "Yes", please briefly explain by:

a) Listing approaches, data collection techniques, and/or modes of analysis used to demonstrate impact, such as:

- Project administrative records
- Pre/post test of participants' skills, knowledge, or attitudes
- Telephone survey
- Mail survey
- Formal interviews, in person
- Formal interviews, by telephone
- Unstructured interviews with participants
- Observation
- Focus groups
- Formal education system data
- Count of attendance, participation, or use
- Other (did you have a target or treatment audience and a control group?).

b) Indicate if documents, such as an evaluation plan or formative evaluation reports, data sets, etc., exist and contact information for obtaining these materials and whether they are publicly available.

c) What continuing impact is this project/product likely to have?

(9) Problems Encountered and Other Information.

(10) Dissemination Accomplishments/Plans.

An important way that NASA makes information available to the public in a transparent and meaningful manner is to ask grantees to acknowledge NASA funding. All information produced and disseminated by a grantee should contain a statement that acknowledges NASA's support and identifies the grant by number (e.g., "This website (or CD label) is based upon work supported by NASA under award No(s) <insert number(s)>."). Except for articles or papers published in scientific, technical, or professional journals, the exposition of results from NASA supported research should use the following disclaimer: "Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Aeronautics and Space Administration."

If available, please indicate a URL. If your project does not have or need a URL, please consider alternative distribution sites, such as <http://informal.science.org/> articles for journals, and presentations at national conferences such as the Association of Science-Technology Centers (ASTC); American Evaluation Association, etc.

F.28 How is payment provided to commercial firms versus to educational institutions and nonprofit organizations?

Guidance for payment of grants and cooperative agreements to Educational Institutions and Nonprofit Organizations can be found in 2 CFR § 1800.906, Financial Management. For commercial firms see 2 CFR § 1800.928, Invoices and Payments Under Grants With Commercial Firms and 2 CFR § 1800.929, Electronic Funds Transfer Payment Methods.

Payment to commercial firms shall be paid via invoice. Payment to all other organizations shall be paid via letter of credit through the Department of Health and Human Services (HHS) Payment Management System (PMS).

F. 29 Can NASA grant funds be used to buy supplies and/or services, which do not constitute research, from non-U.S. sources? If yes, where should they be included in the proposal? For example, if the cost is more than \$5000, does the vendor need to be listed on the proposal coversheet as Key personnel? How otherwise does one explain the proposed non-US purchase as a direct cost?

NASA funds may be used for the purchase of non-research goods, supplies, or services from non-U.S. vendors provided they are properly presented and documented in the proposal as a direct cost. One part of the coversheet is to be used to list people whose contributions are vital to the conduct of the proposed research and/or education project and another part is for other direct and indirect costs. Key personnel costs are normally separated from other direct costs. If you are proposing non-US Key personnel, then they cannot have dollar figures requested. Otherwise, treat these non-US goods and services no differently from US goods and services. As stated in this guidebook: "The Budget Narrative must describe the basis of estimate and rationale for each proposed component of cost, including direct labor, subcontracts/subawards, consultants, other direct costs (including travel), and facilities and equipment. The Proposer must provide adequate budget detail to support estimates. The Proposer must state the source of cost estimates (e.g., based on quote, on previous purchases for same or similar item(s), cost data obtained from internet research, etc.) including the company name and/or URL and date if known, but need not include the actual price quote or screen captures from the web.

F. 30 What is a cost realism analysis?

The first thing to note is that a cost realism analysis does not apply to proposals for the award of grants or cooperative agreements.

In evaluating proposals for the award of contracts, a cost realism analysis is the process of independently reviewing and evaluating specific elements of each offeror's proposed cost estimate to determine whether the estimated proposed cost elements are realistic for the work to be performed; reflect a clear understanding of the requirements; and are consistent with the unique methods of performance and materials described in the offeror's technical proposal. A cost realism analysis asks questions such as: (1) does the proposed cost accurately reflect the proposed work and is it consistent with the offeror's technical proposal? (2) does it show

sufficient understanding of the requirements? (3) can the offeror accomplish the work with the resources and costs proposed?

F. 31 How can proposals for a grant or cooperative agreement request funds for a NASA partner?

Normally the availability or limitations on funds for a proposer's potential NASA partner, e.g., civil servants or contractor personnel salaries, travel, facilities etc., are described in the specific NRA or CAN. If a particular NRA or CAN, however, does not provide guidance on how to request a budget for a NASA partner including JPL (if there is one on the proposal) key personnel should be reported by name on the NSPIRES cover sheet as team members and non-key-personnel costs are listed on the cover page under other direct costs as consultant services, subawards, equipment, etc., as appropriate. Describe in detail any NSPIRES or Grants.gov coversheet requests (including any funds for a proposed NASA partnership component) in the budget narrative and justification. See Section 2.3.10(c)(ii) for further details.

APPENDIX G

Security Requirements

G.1 Requirement for Grant and Cooperative Agreement awards.

As set out in 2 CFR §1800.913, Investigative Requirements, recipients needing access to a NASA Center, facility, or computer system, or to NASA technical information shall comply with the requirements of this provision and shall ensure that individuals needing such access shall provide the personal background and biographical information requested by NASA. Further details are set out in the provision entitled, “Personal Identity Verification of Recipient Personnel,” (see Appendix C, Grant and Cooperative Agreement Manual (GCAM), https://prod.nais.nasa.gov/pub/pub_library/srba/index.html#).

G.2 Requirement for Contract awards.

PIV Card Issuance Procedures in accordance with FAR Clause 52.204-9, Personal Identity Verification of Contractor Personnel (November 2006)

Personal Identity Verification of Contractor Personnel (Nov 2006)

(a) The Contractor shall comply with agency personal identity verification procedures identified in the contract that implement Homeland Security Presidential Directive-12 (HSPD-12), Office of Management and Budget (OMB) guidance M-05-24, as amended, and Federal Information Processing Standards Publication (FIPS PUB) Number 201, as amended.

(b) The Contractor shall insert this clause in all subcontracts when the subcontractor is required to have routine physical access to a Federally-controlled facility and/or routine access to a Federally-controlled information system.

(End of Clause)

In accordance with the requirements of FAR Clause 52.204-9, Personal Identity Verification of Contractor Personnel, Contractors shall comply with the requirements of PIC 06-01 and its attached “PIV Card Issuance Procedures.”

PIC 06-01 may be found at the following URL:

<http://www.hq.nasa.gov/office/procurement/regs/pic06-01.doc>

APPENDIX H

PROCESS FOR APPEALS

H.1 Ombudsman Review Process

The NASA Procurement Ombudsman Program is available under NRAs as a procedure for addressing concerns and disagreements. The clause at NASA FAR Supplement (NFS) 1852.215-84, Ombudsman, is incorporated into NRAs by reference. The cognizant Ombudsman is as follows:

Ronald A. Poussard
Director, Contract and Grant Policy Division
Office of Procurement
NASA Headquarters
Washington, DC 20546
Telephone: 202-358-0445
Facsimile: 202-358-3082
Email: ronald.a.poussard@nasa.gov

H.2 Protest Process

Only prospective Offerors seeking contract awards (not grant and/or cooperative agreement awards) under NRAs have the right to file a protest either with the Government Accountability Office (GAO) or with the Agency, as defined in FAR 33.101. The provisions at FAR 52.233-2, Service of Protest, FAR 52.233-3, Protest after Award, and NASA FAR Supplement (NFS) 1852.233-70, Protests to NASA, are incorporated into NRAs by reference. The designated official for receipt of protests to the Agency and copies of protests filed with the GAO is as follows:

William P. McNally
Assistant Administrator for Procurement
Office of Procurement
NASA Headquarters
Washington, DC 20546.
Telephone: 202-358-2090
Facsimile: 202-358-3082
Email: William.P.McNally@nasa.gov

H.3 Requests for Reconsideration.

(i) Debriefing by the Program Officer. A Principal Investigator (PI) whose proposal has been declined may request an oral debriefing from the Program Officer. The debriefing will be provided expeditiously, i.e., usually within two weeks.

(ii) Written Request for Reconsideration to Selecting Official. Following the debriefing, dissatisfied PIs must within 30 calendar days of the debriefing submit in writing a Request for Reconsideration to the Selecting Official. If no debriefing has been conducted, the Request for Reconsideration must be submitted within 60 calendar days of notification that the proposal had been declined. The Selecting Official will respond in writing to the Request for Reconsideration

within 30 calendar days. If additional time is required to prepare a response, an explanation of the need for more time will be given to the PI within 30 calendar days.

(iii) Appeals above the Selecting Official. Appeals of the Selecting Official's decision must be made within 30 calendar days of receipt of that decision. The written appeal must be submitted to the Associate Administrator or the Assistant Administrator of the Mission Directorate or Office issuing the solicitation. A response to the appeal will be provided to the PI within 30 calendar days.