



**NATIONAL AERONAUTICS
AND
SPACE ADMINISTRATION**

***GUIDEBOOK FOR PROPOSERS
RESPONDING TO A
NASA RESEARCH ANNOUNCEMENT (NRA)***

Edition: January 2003*

**Including subsequent administrative corrections summarized on enclosed Errata Sheet*

National Aeronautics and
Space Administration
Office of the Administrator
Washington, DC 20546-0001



December 12, 2002

Dear Colleagues:

This letter introduces the revised version of the *Guidebook for Proposers Responding to a NASA Research Announcement (NRA) – 2003*, that will be used for those NASA Research Announcements released after January 2, 2003, in which it is formally incorporated by reference.

Although the new edition does not contain any major revisions concerning NASA's policies for receiving, reviewing, or selecting proposals, it is reissued in its entirety and includes many clarifications and updates of information, including addresses on the World Wide Web. In addition to the relocation of some material, several new "Frequently Asked Questions" have been added. Therefore, all proposers to NRAs that incorporate this *Guidebook* by reference are urged to read Chapters 1, 2, and 3 with care and comply with all provisions therein.

Please address any questions or comments concerning this document to Ms. Rita Svarcas, Office of Procurement, NASA Headquarters Code HC, Washington, DC 20546 or via E-Mail to rsvarcas@hq.nasa.gov.

Cordially,

A handwritten signature in black ink, appearing to read "Shannon W. Lucid".

Shannon W. Lucid, Ph.D.
NASA Chief Scientist

Errata Sheet

The initial version of the January 2003 edition of the Guidebook has been subsequently updated through incorporation of the following administrative corrections:

1. On January 31, 2003, the following changes were made:
 - a. On page 2-7, §2.3.11(b), first paragraph, an extraneous word (“the”) was deleted.
 - b. On page B-3, in paragraph (e) entitled “Length”, the statement referring to “1520 pages” was corrected to read “15 to 20 pages”.
 - c. Unnecessary page breaks were deleted in the PDF version of the document.

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PREFACE

INTRODUCTION TO THIS GUIDEBOOK

This Guidebook describes the policies and procedures of the Broad Agency Announcement known as the NASA Research Announcement (NRA) used by the program offices at the Headquarters of the National Aeronautics and Space Administration (NASA) that solicit proposals for basic science and technology research. All proposers who plan to respond to an NRA released by NASA Headquarters should adhere to the guidelines contained in the main Chapters 1, 2, and 3, and relevant 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 Regulations (FAR) Supplement (NFS) 1852.235-72 (see Appendix A for access information). Its 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, while Appendix F contains frequently asked questions and answers concerning the NRA proposal and administrative processes.

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.

This Guidebook may be reproduced in part or in total without restriction.

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*. The NASA Vision and Mission statements are given at the Web site <http://www.hq.nasa.gov/office/codez/plans.html>:

- NASA Vision:
- To improve life here;
 - To extend life to there;
 - To find life beyond.
- NASA Mission:
- To understand and protect our home planet,
 - To explore the Universe and search for life,
 - To inspire the next generation of explorers,
...as only NASA can.

In pursuit of these goals, NASA's programs are organized into five Strategic Enterprises called:

- Aerospace Technology,
- Biological and Physical Research,
- Earth Science,
- Human Exploration and Development of Space, and
- Space Science.

These Enterprises pursue NASA's goals using a wide variety of ground-, aeronautical-, and space-based programs. Examples of such programs are NASA's manned and unmanned space missions to explore and study the planet Earth, the Solar System, and the universe; NASA's life, microgravity, and applications research using the Earth-orbiting Shuttle and International Space Station; and NASA's ground- and space-based programs and facilities to develop advanced aeronautics and space systems. Awards for research through these various programs fund thousands of scientists, engineers, and educators each year at U.S. nonprofit and commercial organizations, as well as Federal research institutions including NASA's own Centers and the Jet Propulsion Laboratory. In addition, NASA solicits proposals to foster aggressive programs aimed at education and public outreach, as well as to ensure maximum participation in NASA programs by minority institutions, small businesses, and small disadvantaged businesses. Further material about all of NASA's many interests and programs may be found through links starting at the NASA homepage at <http://www.nasa.gov/>. In particular, the NASA Headquarter's program offices that issue NRA's that may incorporate this Guidebook by formal reference are:

- Office of Aerospace Technology
- Office of Biological and Physical Research
- Office of Earth Science
- Office of Equal Opportunity Programs
- Office of Human Resources and Education
- Office of Space Flight.
- Office of Space Science

STATEMENTS OF GENERAL POLICY

NASA's Partnership with the Research and Education Communities. Funding for NASA-related research and development projects is a privilege accorded to qualified science, engineering, and educational personnel by NASA acting on behalf of the citizens of the United States through Congressional 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 processes. 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 (HBCU's), Other Minority Universities (OMU's), and small disadvantaged businesses (SDB's) and women-owned small businesses (WOSB's). 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

Links to all material posted on the World Wide Web concerning NASA and its programs may be found through the NASA homepage at <http://www.nasa.gov/> (Note: all of the NASA postings on the Internet may be searched through the NASA search engine found at <http://www.nasa.gov/search>).

NOTIFICATION OF RELEASE OF NASA RESEARCH SOLICITATIONS

Links to all open and recently closed NASA Research Announcements (NRA's) released by NASA Headquarters may be accessed by opening "Research Opportunities" from the menu on the NASA home page at <http://www.nasa.gov/> and then selecting the program office of interest (see listing above). Alternatively, the same menu of NASA's program offices may be directly accessed through the Web address <http://research.hq.nasa.gov/research.cfm>. Alternatively, the NASA Acquisition Internet Service (NAIS) provides an inclusive, searchable data base 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 NRA's that may be released by any of NASA's Field Centers.

As a matter of Federal Acquisition Regulations (FAR), all procurement opportunities for which contracts may be used to fund the selected participants must be advertised publicly at least 15 calendar days in advance of their release. Therefore, all such notices, including the NRA's addressed in this Guidebook, are formally posted electronically through the Federal Business Opportunities Web site at <http://www.fedbizopps.gov/>. Finally, as a service to the interested research communities, some of NASA's Program Offices maintain their own electronic notification systems for their own specific program announcements. Directions for subscribing to these electronic notification services are found by searching their home pages and following the instructions therein.

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 (accessible on the World Wide Web at <http://www.hq.nasa.gov/ogc/spaceact.html>), NASA endeavors to sponsor the highest quality research and development of the newest technologies related to the space and aeronautical sciences. Therefore, NASA solicits proposals by issuing Broad Agency Announcements of several different types for the particular targeted objectives sought by each program. This Guidebook specifically discusses the policies and procedures of the Broad Agency Announcement known as the NASA Research Announcement (NRA).

A key feature that distinguishes the research sponsored by NASA is that it must be relevant to NASA's programs in addition to its being of the highest intrinsic science and technical merits and affordable and realistic in cost. Therefore, proposals that respond to a specific NRA are called "solicited proposals," of which NASA receives and processes several thousand 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 of proposals. Therefore, potential proposers are urged to read this Guidebook carefully and to adhere to the directives 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 Regulations (FAR) Supplement (NFS) 1852.235-72 (see Appendix A for the World Wide Web access to the NFS). Where appropriate in this Guidebook, especially in Chapter 2 below, the cross reference to Appendix B is provided in brackets (for example, "[Ref.: Appendix B, Part (a)]"). In several cases note that the provisions of the NFS 1852.235 are specifically amended by this Guidebook. In case of any conflict, the provisions of the NFS or as specifically noted in the NRA itself, take precedence over this Guidebook.

The funding mechanisms used by NASA for research selected through an NRA are grants, cooperative agreements, contracts, interagency agreements, and NASA's own internal processes for funding activities at its Centers and the Jet Propulsion Laboratory (JPL). For conciseness, the term "award" will be used hereafter in the remainder of 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 allocate Government funds allocated to a recipient. See 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, NRA's released by NASA that specifically incorporate this Guidebook by reference will be patterned on a standard format that, at a minimum, includes:

- A short "Summary of Solicitation" that describes the program(s) for which proposals are solicited, summarizes pertinent information about the NRA, provides any additions or amendments to the standard guidance and/or formats given in this Guidebook for the preparation and submission of proposals, and is signed by the responsible NASA program official; and
- An appendix, entitled "Description of Program Opportunity," that describes in detail the objectives for which proposals are being solicited by that particular NRA.

Pursuant to Federal statute, all NRA's must be synopsisized in the Federal Business Opportunities (FBO) at <http://www.fedbizopps.gov/> at least 15 calendar days prior to their release. If an NRA expressly precludes the award of a contract as a funding instrument, posting in the FBO is not legally required but NASA usually posts one anyway to ensure notification of the solicitation to the broadest possible audience. As a service to the interested members of the science, technical, and educational research communities, some of NASA Headquarters program offices also provide direct notification of the intended release of their program announcements through Internet-based or postal mail services that may be subscribed to by following the instructions found at the research opportunities Website for each office (see complete listing at

<http://research.hq.nasa.gov/>). However, note that NASA is not responsible for inadvertently failing to provide E-mail notification of a future NRA. Finally, NRA's may also be accessed through the menu listing "Business Opportunities" of NASA's Acquisition Internet Service (NAIS) at <http://procurement.nasa.gov/>. 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 (optional) and for proposals;
- Executive summary of announcement objectives;
- A statement of the inclusiveness of eligibility applicants; and
- Name and address of the cognizant NASA Program Officer for further information.

Each NRA may also be found on its date of release by opening "Research Opportunities" on the home page of its sponsoring NASA program office found through the menu at <http://research.hq.nasa.gov/research.cfm>. Generally, advance notices of future NRA's are found at the same location with a best estimate of its release date, though such advance postings are not guaranteed. Notification of NRA's 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 E-mail notification service(s), to check the relevant NASA home page(s), and/or to check the NAIS and FBO Web sites. All other sources are unofficial and not necessarily complete nor timely.

1.2.2 Proposal Content and Submission

Unless specifically amended in the signed Summary of Solicitation of the NRA itself, the proposal preparation and submission processes for all NRA's that specifically reference this Guidebook are given in the following Chapters 2 and 3 below. Note that while NASA program personnel may also 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.

As a general rule, in order to be considered complete and, therefore, accepted for competitive review, proposals submitted in response to an NRA should provide at a minimum the following key information:

- a detailed description of the proposed research objective(s) and its(their) significance to its field of endeavor;
- the suitability of the methods proposed for carrying out the proposed investigation;
- the significance of the proposed work as it relates to the objectives specifically stated in the NRA and to NASA in general;
- the qualifications of the proposing investigator(s) and their institution(s); and
- the amount of, and justification for, the requested funding.

NASA must receive the required number of printed copies plus the signed original of the proposal at the designated mailing address by the proposal deadline that will be given in each NRA (see Section 3.2 in this Guidebook for the policy on late proposals). Alternatively, some NRA's may specify that an electronic copy of the entire proposal also be submitted, or even be submitted instead of a printed copy, either through the World Wide Web or by means of a specified electronic storage medium.

1.2.3 Proposal Review and Selection

To be competitive for selection, proposals must fully satisfy the evaluation criteria as judged through review by qualified peers of the proposer and by programmatic evaluation for cost and relevance by NASA (see further details in Appendix C of this Guidebook). 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, and responsive to and affordable by the advertised NASA program.

Following peer evaluation, the cognizant NRA Program Officer will evaluate the competitively-rated proposals against the programmatic objectives and financial limitations stated in the NRA. The Program Officer then presents a recommendation for selection based on the entirety of these factors to the NASA Selecting Official identified in the NRA who then selects those proposals deemed worthy as judged against the evaluation criteria, the objectives of the NRA, and the available financial resources.

Following selection, each proposer will be notified of the disposition of his/her proposal and provided with a debriefing to explain that decision. Those proposers who are selected will be advised that their institutions will be contacted by the responsible NASA Procurement Office to arrange for implementation of an appropriate award. It is important to note that until an award is made, there is no guarantee that the recommended financial resources will be available and that awards are made to the proposing institution 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 NRA's.

1.3 Unsolicited Proposals

1.3.1 Definition

Unsolicited proposals are defined as those submitted to NASA on the initiative of the applicant rather than in response to an NRA (see Appendix A for reference to further information). However, since funding resources are rarely available beyond those of NASA's formally defined programs, anyone considering the submission of an unsolicited proposal is strongly advised to consult with appropriate NASA program personnel before preparing and submitting such a proposal. In accordance with the NASA FAR Supplement, the information NASA personnel may provide in discussing the development of an unsolicited proposal is limited to the general need for the type of effort contemplated for the proposal and, as appropriate, to names of other Agency personnel for the limited purpose of obtaining an understanding of the Agency mission and responsibilities relative to the type of effort contemplated; that is, NASA personnel may not encourage or otherwise "solicit" that a proposal be submitted (see third item in next paragraph below). The decision to submit an unsolicited proposal must be entirely that of the proposer alone.

1.3.2 Evaluation for Acceptance for Review

An unsolicited proposal received by NASA is first evaluated to ascertain if it is relevant to NASA's interests. If it is not relevant, it will be handled as technical correspondence and returned without review. If it is relevant, it will be assigned to the most appropriate NASA Program Office under cover of a copy of a letter informing the proposer of that assignment. For an unsolicited proposal that falls within the domain of a current NASA program or interest, the proposal will be further assessed to determine if it:

- proposes a specific, unique, or innovative project with sufficient technical and cost information to permit its meaningful evaluation;
- is signed by an official authorized to commit the submitting organization to carrying out the proposed effort if it is selected;
- does not offer to perform standard services, nor has been prepared under or as a result of Government (NASA) supervision or request;
- does not request a level of funding beyond that which could be accommodated by uncommitted resources should the proposal be found to be of sufficient merit; and
- is not appropriate for submission to a formal NASA solicitation that is either already open or planned for release in the near future through which the proposal could be competed with other similar proposals (Note: regarding this point, an unsolicited proposal identified as being within the scope of an open program announcement, or one that is soon to be released, may be evaluated as a response to that announcement providing that this action does not place the proposal as submitted at a competitive disadvantage based on the requirements for that program; if this action would result in a competitive disadvantage, the applicant will be given the opportunity to amend the proposal to ensure compliance with applicable proposal preparation instructions, e.g., to meet the standards and provisions of this Guidebook).

If an unsolicited proposal fails to meet any of these guidelines, NASA reserves the right to handle it as technical correspondence and return it without review. If an unsolicited proposal is determined to be valid,

NASA will conduct an appropriate review (at a minimum, by NASA personnel only; at a maximum, by external mail and/or panel review), after which it will be submitted to an appropriate NASA Selection Official for selection or rejection.

1.4 Categories of Proposal Institutions and Personnel

1.4.1 Proposing Institutions

NASA accepts proposals in response to its NRA's submitted by all types of U.S. and non-U.S. institutions 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 institutional categories is requested on the Proposal Cover Page (see Section 2.3.2 below in this Guidebook):

- Educational Institution – A university or two- and four-year college (including U.S. community colleges) accredited to confer degrees beyond that of the K-12 grade levels (all such institutions are considered nonprofit).
- Nonprofit, Nonacademic Organization – A private or Government supported research laboratory, university consortium, museum, observatory, professional society, educational organization, or similar institution that directly supports advanced research activities but whose principal charter is not for the training of students for academic degrees.
- Commercial Organization – An organization of any size that operates for profit or fee and that has appropriate capabilities, facilities, and interests to conduct the proposed effort.
- NASA Center – Any NASA Field Center and the Jet Propulsion Laboratory.
- Other Federal Agency – Any non-NASA, U.S. Federal Executive agency or Federally Funded Research and Development Center (FFRDC) sponsored by a Federal agency.
- Unaffiliated Individual – Any person residing in the U.S., regardless of being a U.S. citizen or resident alien, 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 – Institutions outside the U.S. that propose on the basis of a policy of no-exchange-of-funds; consult Section (I) of Appendix B in this Guidebook for specific details (Note: some NRA's may be issued jointly with a non-U.S. institution, 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 see Sections 2.3.11(b)(vii) in this Guidebook for special instructions for proposals from non-U.S. organizations that involve U.S. personnel for whom NASA support is requested.

1.4.2 Proposal Personnel

Every proposal submitted to an NRA must identify every person and their institution of employment who is expected to play a significant role in the execution of the proposed effort if it is selected by NASA (see Sections 2.3.4 and 2.3.5 in this Guidebook) using one of the following six categories of personnel (Note: other than the Principal Investigator, some NRA's may specifically disallow some or all of these categories):

Principal Investigator (PI) – Every proposal must identify a single PI who is solely 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 institution has the authority to designate the PI and to designate any replacements him/her, if that becomes necessary, although NASA approval is required for replacement after proposal selection. Note that NASA does not accept the designation of anyone as a "Co-Principal Investigator" with the possible exception of when a proposal includes participation from a non-U.S. organization; see further discussion below under Co-Investigators.

NASA strongly encourages Principal Investigators to specify only the most critically important personnel to aid in the execution of their proposals. Such personnel are to 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 institution (see Section 2.3.10 in this Guidebook).

The Scientific/Technical/Management section of a proposal (see 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 institution 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 institution 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 institution, may also be designated as the "Institutional PI" for that Co-I's institution (Note: if specifically stated in the NRA, NASA may elect to provide an award directly to that Co-I institution with the Co-I/Institutional PI serving as a "PI" for that award at his/her institution).
- A Co-I from a non-U.S. institution 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 institution and/or to enable the procurement of funding by that Co-I from his/her sponsoring funding authority (see also Appendix B, Section (I)).

Postdoctoral Associate – A Postdoctoral Associate holds a Ph.D. or equivalent degree, is usually employed full time at the proposing PI institution, 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.

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-I's. 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. Note, however, that direct support for Undergraduate Students is nominally 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 costs of all Consultants (see Sections 2.3.2 and 2.3.11 below)).

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 (Note: if funding support is requested in the proposal, such a person must be identified in one of the other categories above).

1.5 Successor Proposals

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

Holders of existing research awards frequently submit follow-on or “successor proposals” to successive NRA’s 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 regardless of their previous history of NASA funding and will be reviewed on an equal basis with all other proposals submitted to the NRA.

Nevertheless, such successor proposals are welcomed and encouraged, and are expected to indicate the relevant achievements made during the course of the previous award(s) in their Scientific/Technical/Management Section (see Section 2.3.5 below in this Guidebook). In addition, the Proposal Cover Page (see 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 an amendment 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 institution may not overlap an existing award.

1.6 Proposals Involving Non-U.S. Institutions

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

NASA welcomes proposals that in any way involve non-U.S. institutions including those that request funds from NASA for support of U.S. participants. Such proposals may be from U.S. institutions that include participants employed by non-U.S. institutions or from non-U.S. institutions that include participants employed by U.S. institutions. In all cases such proposals must be compliant with the policies stated in Section (l) of Appendix B in this Guidebook. For such proposals, it is critical for the sponsoring non-U.S. institution or agency to certify that support for their own proposing personnel will be forthcoming should the proposal be selected by NASA. Such personnel may fill any of the roles defined in Section 1.4.2 above except that of being a paid Consultant. Further details concerning budgets of such proposals are given in Section 2.3.11(vii) of this Guidebook. In addition, proposals that contain the participation of non-U.S. personnel should be aware of an important new provision as follows:

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.org> 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.

Owing to these legal provisions and requirements, proposals involving 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.

1.7 Guidelines for Proposal Preparation

NASA's extensive experience in the review of proposals submitted in response to a wide variety of program announcements 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).
- Proof read 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 a submission to a peer-reviewed journal.
- Keep the proposal as short as possible consistent with completeness and understandability; use legible printer fonts and illustrations and a clear, simple organization.
- Propose fresh, new ideas rather than slight modifications of proposals that may have been rejected in previous competitions (Note: 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 (Note: 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).

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, and material contained in the Guidebook will not be repeated in the individual NRA's. Any deviations from the Guidebook will be clearly identified in the NRA but will only be introduced if critically needed for the unique needs of the program being solicited.

Guidance to the information requested on the required Proposal Cover Page, which includes a Budget Summary and is needed for NRA's that reference this Guidebook, is given below. The address on the World Wide Web for the direct electronic access to and submission of this Proposal Cover Page is <http://proposals.hq.nasa.gov/proposals.cfm>. Note that access into this Web site requires that the user initially register with their name and institutional address, after which they are given an identification ID and password that allows immediate future log-in access. Once access is gained into the data system, access for application to a given NRA is provided through a menu entitled "*Division Specific Opportunities*" that requires knowledge of the NASA Headquarters Program Office that sponsors the NRA of interest (see list in the Introduction to this Guidebook), or alternatively, one can select "All" to have access to every currently open solicitation in any of the Program Offices. After filling out and submitting the information requested for the Proposal Cover Page, it is printed by the applicant for securing the required signatures, and then reproduced for submission with the hard copies of the proposal to the mailing address specified in the NRA. Note that some NRA's may require additional prefatory information on the Proposal Cover Page that augments the items discussed in Section 2.3.2 below.

It is NASA policy that proposals should not contain security classified material (see also Appendix B, Part (c) (9) in this Guidebook). However, should the project proposed 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 a proposal submitted in response to all NRA's issued by NASA are as follows:

- Single-spaced, typewritten, English-language text, formatted using one or two columns, and using an easily read font having no more than ~15 characters per inch (typically 12-point font);
- 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);
- Use of 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);
- No material submitted on any type of electronic media, nor by reference to sites on the World Wide Web for information or material needed to either complete or to understand the proposal (Note: only the printed proposal is used for peer review);
- Use of only metric and standard discipline-unique units 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 used as reference); and

- Adherence to the page limits given in this Guidebook for all sections of the proposal (see Section 2.3 below) unless otherwise specified in the NRA.

2.3 Proposal Contents

2.3.1 Overview of Proposal

Unless otherwise specified in the NRA, a proposal should be assembled with the items given in the following table in the order listed, using the titles and page limits as given. Proposals that omit required materials or that exceed the page limits may be returned 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.

| CONSTITUENT PARTS OF A PROPOSAL (in order of assembly) | PAGE LIMIT |
|---|--|
| • <i>Proposal Cover Page</i> | As printed from NASA proposal Internet site. |
| • <i>Budget Summary</i> (contiguous with <i>Cover Page</i>) | As printed from NASA proposal Internet site. |
| • <i>Table of Contents</i> | 1 |
| • <i>Summary of Personnel and Work Efforts</i> | 1 |
| • <i>Scientific/Technical/Management Section</i> | 15* |
| • <i>References and Citations</i> | As needed. |
| • <i>Facilities and Equipment</i> (if applicable to proposal) | 2 |
| • <i>Curriculum Vitae for: the Principal Investigator</i> | 3 |
| <i>for each Co-Investigators</i> | 1 |
| • <i>Current and Pending Support</i> | As needed. |
| • <i>Co-I and/or Collaborator Commitments</i> | As needed. |
| • <i>Budget Details</i> (incl. Proposing Institution Budget) | As needed. |
| • <i>Special Notifications and/or Certifications</i> | As needed. |
| • <i>Reprint(s)/Preprint(s)</i> (optional) | Not applicable. |

* includes all illustrations, tables, and figures, where each side of a sheet containing text or an illustration counts as a page, and each "n-page" fold-out counts as n-pages.

2.3.2 *Proposal Cover Page and Budget Summary*

[Ref.: Appendix B, Part (c)(1) & (c)(3)]

All proposals must be prefaced by the integrated *Proposal Cover Page/Budget Summary* that is produced by electronically entering the requested information through the World Wide Web site <http://proposals.hq.nasa.gov/proposals.cfm>. Note that after accessing this Web site and logging in, the user is presented with a menu entitled "Division Specific Opportunities" that requires knowledge of the NASA Headquarters Program Office that sponsors the NRA of interest (see list in the Introduction to this Guidebook). After selecting the appropriate Division (or "All" for access to all open solicitations) another menu will appear that lists all of the research solicitations for which Cover Pages may be generated (i.e., those solicitations whose proposal due dates have not passed). Any proposer who experiences difficulty in using the specified Web site or who cannot access the Web may request assistance by E-mail to proposals@hq.nasa.gov.

After this item is submitted electronically, it is then printed in hard copy in order to obtain the authorizing original signatures of the PI and the Institutional Official. This 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. (Note that this data system automatically assigns a unique proposal identifier code to each entry, e.g., "LWSGD02-0004-0003," that will appear in a double-framed box in the upper right corner of printed *Proposal Cover Page*; this

number is used by NASA throughout the proposal review and selection process to uniquely identify the proposal and its associated electronic data.)

At a minimum, the following information will be requested to complete the *Proposal Cover Page* although additional programmatic information may also be requested on the form depending on the unique needs of the NRA. Note that all of this information is needed in order for NASA to complete a financial award with the proposing institution should the proposal be selected for funding; therefore, it is extremely important that it be provided accurately and completely (Note: additional information unique to the needs of the solicited program may also be specified).

- **PI Information.** Provide the name and full mailing address of the Principal Investigator, including his/her specific Division or Mail Stop as appropriate, and E-mail address, telephone number, and facsimile (Fax) number (Note: once the PI enters his/her name, this information will be provided automatically from the data base using the information previously submitted when registering as a user in this system). The printed version of this form includes a space for the PI's signature.

- **Authorizing Official.** Provide the name and title of the Authorizing Official of the proposing institution, and the full mailing address for the office that functions as proposing institution's Office of Sponsored Research. The printed version of the form includes a space for that Official's signature.

- **Taxpayer Identification Number (TIN).** Every U.S. institution (or Unaffiliated Individual; see Section 1.4.1 in this Guidebook) that submits a proposal to a U.S. agency must provide their permanently-assigned TIN in compliance with 31 U.S. Code 7702(c)(1).

- **Commercial and Government Entity (CAGE) Code.** Every U.S. institution (or Unaffiliated Individual; see Section 1.4.1 in this Guidebook) that submits a proposal to a U.S. agency must register with the Department of Defense Central Contractor Registration (CCR) database for a permanently-assigned CAGE number.

- **Team Members.** A table is provided for listing all supporting Proposal Personnel by the Role they are expected to play in the proposal based on the categories given in Section 1.4.2 in this Guidebook, including their Names, Organizations, E-mail Addresses, and Telephone numbers (Note: these individuals must each register him/herself in this NASA data base in order to be listed in this section; the proposing PI may not register someone as a Team Member).

- **Proposal Title.** Provide both a Short Title (limit of 50 characters), as well as a Full Title of the proposed investigation, which may be of any length or the same as the Short Title so long as it is intelligible to a scientifically literate reader and suitable for use in the public press.

- **Predecessor Information.** Provide the alpha-numeric Award Number and Title of any existing NASA research award for which the newly proposed work is submitted as a successor activity (see Section 1.5 of this Guidebook).

- **Proposed Start/End Dates.** Provide the starting and ending dates of the period of performance of the proposal (Note: as indicated in Section 3.4 in this Guidebook, the Start Date should be at least 200 days after the Proposal Due Date unless otherwise specified in the NRA, and the maximum period of performance for research allowed by most NRA's is three years unless otherwise indicated).

- **Themes.** This optional field allows the proposer to select from among a number of different science themes or objectives as may be specified in the NRA.

- **Summary of Proposal.** Using ~2500 characters, including spaces, or less (about half a page using the standard style formats for proposal text given in Section 2.2 of this Guidebook) provide the following key information:

- A description of the key, central objectives of the proposal in terms understandable to a nonspecialist;
- A concise statement of the methods/techniques proposed to accomplish the stated research objectives; and
- A statement of the perceived significance of the proposed work to the objectives of the NRA and to NASA interests and programs in general.

(Note: NASA intends to publish the proposal's full title, the PI's name and institution, and the Proposal Summary of every selected investigation in a publicly accessible data base; therefore, the Proposal Summary should not include proprietary information that would preclude its unrestricted release (see also Appendix B, Parts (a)(2) and (c)(2) of this Guidebook.)

- Institution Type, using one of the categories defined in Section 1.4.1 of this Guidebook.
- International Participation: a Yes/No designation of whether the proposal involves participation by any personnel employed by a non-U.S. organization (Note: if such personnel are involved, signed letters of support from their sponsoring organizations or agencies are required; see Sections 1.6 and 2.3.11(vii) in this Guidebook).
- U.S. Government Agency Participation: a Yes/No designation of whether the proposal involves participation by any personnel employed by any agency of the U.S. Government, including any of NASA's Centers and the Jet Propulsion Laboratory. If the answer is "Yes," provide the participant's name, role (see Section 1.4.2 above in this Guidebook), Government agency affiliation, and total dollar amount requested (if any) for their participation in the proposal. Note that all costs for this participation must also be shown in the Budget Summary (see below), as well as be supported by appropriate details in the proposal's Budget Details (see Section 2.3.11 in this Guidebook).
- Budget Summary: Fill in the tables as presented, which requires the total amounts for each of the following items for each year of the proposed period of performance, as well as for the total proposed effort, as supported by the Budget Details portion of the proposal (see Section 2.3.11 below in this Guidebook for further instructions about each item):

Categories of Entries for Budget Summary

- DIRECT LABOR
- OTHER DIRECT COSTS
 - Subcontracts
 - Consultants
 - Equipment
 - Supplies
 - Travel
 - Other
- FACILITIES AND ADMINISTRATIVE (F&A) COSTS (including fees)
- OTHER APPLICABLE COSTS
- PROPOSED COST SHARING (if any)
- CARRYOVER FUNDS (if any)
- BUDGET TOTAL

Special conditions and instructions concerning the *Proposal Cover Page*:

- (i) The authorizing institutional signature also serves to verify that the proposing institution has read and is in compliance with all Federally required Assurances and Certifications (Note: for reference only, all currently required Certifications are printed in full in Section E.1, Appendix E, of this Guidebook; however, the NRA may specify additional applicable certifications that must also be submitted).
- (ii) Electronic submission of only the *Proposal Cover Page* does not satisfy the deadline for proposal submission; the required number of copies of the proposal (as specified in the NRA), one with original signatures, must be received at the indicated address by close of business (4:30 p.m. Eastern Time) on the proposal due date (Note: see Section (g) of Appendix B, as well as Section 3.2, both in this Guidebook, for NASA policy on late proposals).
- (iii) Physical changes (such as whiteout or strikethrough) of any kind to the printed version of a *Proposal Cover Page* that has been electronically submitted are not permitted. Any needed changes may only be made by editing the electronic version following the instructions on its Web site, after which the revised *Proposal Cover Page* is then printed for purposes of securing the necessary signatures (Note: for this reason, it is recommended that this item be produced from the specified Web site well in advance of the proposal due date).

2.3.3 Table of Contents

The one-page *Table of Contents* should provide 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 institution through use of letterhead stationary, project logos, etc.

2.3.4 Summary of Proposal Personnel and Work Efforts

The item must provide a summary list, using a tabular format of the proposer's own choosing, of the names and intended work commitments (in units of a percentage of a nominal full time Work Year of 1840 hours) of the PI and of every Co-I in the proposed investigation for whom salary support is requested for each year of the proposed period of performance.

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 in the order given, all within the specified page limit (unless otherwise specified, the default limit is 15 pages using the default formats given in Section 2.3.1 above):

- 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 institution(s) and/or capabilities of the proposer(s) that would be used for carrying out the work (Note: see also Section 2.3.7, *Facilities and Equipment*, below concerning the description of critical existing equipment needed for carrying out the proposed research, and the Instructions for the *Budget Summary* in Section 2.3.11 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.

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 Facilities and Equipment

[Ref.: Appendix B, Part (c)(7)]

This section should describe any facilities (including any owned by the U.S. Government) and/or test or experiment equipment valued over \$5,000 that are critical for carrying out the proposed project, whether it is already available or would need to be purchased. Before requesting an item of capital equipment, the proposer should determine if sharing or loan of equipment already within the organization is a feasible alternative and, if not, why such arrangements cannot be made. The need for general purpose items that typically can be used for research and nonresearch purposes should be explained. Proposed costs for

purchased facilities, tooling, or equipment must be entered in the proposal *Budget Summary* and described in the *Budget Details* (see Section 2.3.11 below in this Guidebook).

2.3.8 *Curriculum Vitae*

[Ref.: Appendix B: Part (c)(6)]

The Principal Investigator must include a *curriculum vitae* (not to exceed three 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 vitae 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 three page limit as for the PI).

2.3.9 *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 preferred but not required for any Co-I's who are proposed to perform a significant share (>10 percent) of the proposed work. This information must be provided for each such individual for each of the following two categories of awards that may exist at the time of the proposal submission deadline, namely,

- A. Current Awards (for any of the period that overlaps with the submitted proposal), and
- B. Pending Awards (including the proposal being submitted to NASA).

For each of these two categories, and using a format of the proposer's own choosing, provide the following information:

- Title of award or project title;
- Program name (if appropriate) and sponsoring agency or institution, including a point of contact with his/her telephone number and E-mail address;
- Performance period and total budget; and
- Commitment by PI (or Co-I) in terms of a fraction of a full time Work 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 anytime after the Proposal Due Date and until the time that NASA's selections are announced.

2.3.10 *Statement(s) of Commitment*

Every Co-Investigator and Collaborator (see definitions in Section 1.4.2 of this Guidebook) identified as a participant in the proposal's *Scientific/Technical/Management Section* must submit a brief, signed statement of commitment that acknowledges his/her intended participation in the proposed effort. In the case of more than one Co-I or Collaborator, 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 E-mail (the latter must have sufficient information to unambiguously identify the sender), and is required even if the Co-I or Collaborator is from the PI institution. An example of such a statement follows:

"I(we) acknowledge that I(we) am(are) identified by name as 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."

2.3.11 *Budget Details*

[Ref.: Appendix B, Part (c)(8)]

2.3.11(a) Instructions for *Budget Summary*

The *Proposal Cover Page* that is submitted electronically through the World Wide Web (see Section 2.3.2 above in this Guidebook) contains a *Budget Summary* that must be provided for each year of the proposed effort and supported by appropriate narrative material in compliance with the following instructions.

INSTRUCTIONS FOR BUDGET SUMMARY

1. **DIRECT LABOR** (salaries, wages, and fringe benefits): Attachments should list the number and titles of personnel, amounts of time to be devoted to the grant, and rates of pay.

2. **OTHER DIRECT COSTS:**

a. **Subcontracts:** Attachments should describe the work to be subcontracted, estimated amount, recipient (if known), and the reason for subcontracting.

b. **Consultants:** Identify consultants to be used, why they are necessary, the time they will spend on the project, and rates of pay (not to exceed the equivalent of the daily rate for Level IV of the Executive Schedule, exclusive of expenses and indirect costs).

c. **Equipment:** List separately. Explain the need for items costing more than \$5,000. Describe basis for estimated cost. General purpose equipment is not allowable as a direct cost unless specifically approved by the NASA Grant Officer. Any general purpose equipment purchase requested to be made as a direct charge under this award must include the equipment description, how it will be used in the conduct of the basic research proposed and include a written certification that the equipment will be used exclusively for research, activities.

d. **Supplies:** Provide general categories of needed supplies, the method of acquisition, and the estimated cost.

e. **Travel:** Describe the purpose of the proposed travel in relation to the grant and provide the basis of estimate, including information on destination and number of travelers where known.

f. **Other:** Enter the total of direct costs not covered by 2a through 2e. Attach an itemized list explaining the need for each item and the basis for the estimate.

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 unapproved rates are used, explain why, and include the computational basis for the indirect expense pool and corresponding allocation base for each rate.

4. **OTHER APPLICABLE COSTS:** Enter total explaining the need for each item.

5. **SUBTOTAL-ESTIMATED COSTS:** Enter the sum of items 1 through 4.

6. **LESS PROPOSED COST SHARING (IF any):** Enter any amount proposed. If cost sharing is based on specific cost items, identify each item and amount in an attachment.

7. **CARRYOVER FUNDS (if any):** Enter the dollar amount of any funds expected to be available for carryover from the prior budget period. Identify how the funds will be used if they are not used to reduce the budget. NASA officials will decide whether to use all or part of the anticipated carryover to reduce the budget (not applicable to second-year and subsequent-year budgets submitted for award of a multiple year award).

8. **TOTAL ESTIMATED COSTS:** Enter the total after subtracting items 6 and 7 from item 5.

2.3.11(b) Special Budget Considerations

In complying with the requirements of the Budget Summary and for providing adequate additional information to understand its entries, the following additional important NASA procurement policies apply:

(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. Such items are usually considered by NASA to be general purpose equipment that must be purchased from general institutional 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 provisions of the instructions for item 2.c will require that NASA contact the proposing institution 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 research activities.

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

(a) If a PI from any type of private or public institution proposes to team with a Co-I from and/or use a facility at a U.S. Government institution (including NASA Centers and the Jet Propulsion Laboratory), then any required budget for that Government Co-I and/or facility should be included in the proposal's *Budget Details* and should be listed as "Other Applicable

Costs" in the required *Budget Summary*. 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 institution.

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

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

(iv) Full-Cost Accounting at NASA Centers. NASA is expected to be operating on the basis of full cost accounting as soon as possible, including all Civil Service salaries with overhead. In the interim period, proposals involving NASA employees as either a PI or as a Co-I should use the accounting method authorized at their Centers at the time proposals are due and for the entire proposed period of performance.

(v) Unallowable Costs. The Office of Management and Budget (OMB) Circulars A-21 and A-122, and the Federal Acquisition Regulation (FAR) at 48 CFR part 31, identify certain costs that may not be included in a proposed budget. The use of appropriated funds for such purposes are unallowable and may lead to cancellation of the award and possible criminal charges. Grant recipients should be aware of cost principles applicable to their institution 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. institutions on a cooperative, no-exchange-of-funds basis. Although Co-I's or collaborators employed by non-U.S. institutions may be identified as part of a proposal submitted by a U.S. institution, NASA funding may not normally be used to support research efforts by non-U.S. institutions at any level; 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. See also Section (I) of Appendix B.

(vii) Proposals from non-U.S. PI institutions that propose the funding of U.S. Co-I's. A proposal submitted by a non-U.S. institution that involves U.S. Co-I's for whom NASA funding is requested must provide the budgets for those U.S. Co-I's in compliance with all applicable provisions in this Section 2.3.11. In addition, compliance is required by the proposing non-U.S. institution with the provisions of Section (I) of Appendix B.

2.3.12 *Special Notifications and/or Certifications*

[Ref.: Appendix B, Part (c)(11)]

Some NRA's 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 this section of the proposal. In addition, if any of the proposal's personnel are from a non-U.S. institution, 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.

2.3.13 *Reprint(s)/Preprint(s)*

Reprints from and/or preprints for peer-reviewed publications that are considered critical to the background of a proposal may be appended to a proposal. However, while there is no limit on the number of such items that may be appended, proposers should note that NASA's reviewers are instructed that there is no obligation to read them and that their judgment of the proposal's merits is to be based only on the proposal's contents and not on the perceived quality or quantity of any appended items. Therefore, proposers are encouraged to include only the minimum of the most relevant of such items, which also helps minimize the Government's costs of mailing the proposals to reviewers.

3. PROPOSAL SUBMISSION PROCEDURES

3.1 Notice of Intent (NOI) to Propose

To plan for and expedite the review process, and thus minimize the time required for announcement of selections, all NRA's released by NASA Headquarters that reference this Guidebook will request that an optional Notice of Intent (NOI) to propose be submitted by typically about 60 days prior to the Proposal Due Date. Although the information in a NOI is not binding on the submitter, it should be as accurate and complete as possible by its due date. An NOI is submitted by logging into the NASA Headquarters proposal data base at <http://proposals.hq.nasa.gov/proposals.cfm> and then selecting either "All" or the NRA's sponsor in the menu entitled "Division Specific Opportunities," which will then open a menu of those solicitations for which the NOI deadlines have not passed (see further below for the submission of late NOI's). Each individual NOI Web page will include its unique alpha-numeric identifier and the mailing address information for the applicant based on the information in NASA's data system. Space is provided for the applicant to provide, at a minimum, the following information, although the 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 (any length but 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 (Note: in order to enter such names, the team members must have previously accessed and registered in this NASA data system themselves; a PI cannot do this for them).

After completing the indicated fields the NOI, is then electronically submitted (Note: 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 E-mail directly to proposals@hq.nasa.gov.

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. The required 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. In addition, delivery by any method to any address other than the one specified in the NRA may result in the proposal being declared late (see further below). 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 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 (see Appendix B, Part (g), in this Guidebook). 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.

3.3 Submission of Proposals

In order to prepare a fully compliant proposal, it is necessary to electronically complete, submit, and then print a *Proposal Cover Page* from the World Wide Web site <http://proposals.hq.nasa.gov/proposals.cfm>. Access to the Web page for a given NRA is identical to that for submission of an NOI (see Section 3.1 above). A help desk is available by E-mail at proposals@hq.nasa.gov for applicants who may have difficulty with accessing or submitting to this site.

The address for the delivery of proposals, including a telephone number point-of-contact for commercial delivery, is given in the Summary of Solicitation of each NRA. A receipt that verifies that a proposal has been received will be sent within two weeks of the proposal deadline. Any submitters not receiving such notification in that timeframe should immediately contact the help desk by E-mail at proposals@hq.nasa.gov, as well as the NASA Program Officer identified in the NRA.

Note: The submission address specified in an NRA may be at one of the NASA field Centers, a commercial support contractor, or a nonprofit institution (whether funded primarily by NASA or otherwise). Regardless of their nature, all receiving organizations are bound by the conditions of their employment policies, service contracts, or agreements with NASA to maintain strict confidentiality of the materials they handle. Furthermore, they are bound to ensure that their employees who handle proposals, or who in any way have access to information about or within proposals, do not have conflicts of interest with any of the proposers and are not in any way involved in proposing to the NRA themselves (see also Appendix C for a further discussion of conflict of interest issues).

3.4 Timeline for Review and Selection

NASA currently is committed to meeting a standard of no more than 150 days from the Due Date for proposals to the announcement of selections, and another 46 days after that announcement for the implementation of the award itself. Therefore, a request for the commencement of funding sooner than about 200 days from the Proposal Due Date is unlikely to be accommodated, and 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 returned if, in the opinion of the cognizant Program Officer, there is insufficient time for its review and processing. Alternatively, time-sensitive proposals may be submitted as unsolicited proposals when the NRA selection cycle does not accommodate its unique circumstances. In such a case, however, the proposer is urged to read and carefully follow the guidance for unsolicited proposals given in Section 1.3 of this Guidebook.

3.5 Proposal Withdrawal by Proposer or Return by NASA [Ref.: Appendix B, Part (h)]

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. Conversely, NASA reserves the right to return a proposal without review should the proposal:

- Be clearly nonresponsive to the objectives and/or provisions of the NRA;
- Not meet the requirements for proposal format, content, and organization as specified in this Guidebook and/or the NRA itself;
- Fail to be submitted to the specified delivery address by the Proposal Due Date; and/or
- Be submitted with insufficient lead time to review, select, fund, and carry out a time-sensitive proposed effort (see Section 3.4 above).

GUIDE TO KEY DOCUMENTS ON THE WORLD WIDE WEB

- All parts of the NASA Federal Acquisition Regulations (FAR) Supplement (NFS) may be found through the index found at the World Wide Web (WWW) site <http://www.hq.nasa.gov/office/procurement/regs/nfstoc.htm>. 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
 - Links to all NASA Headquarters Program Offices
 - Links to all NASA Field Centers and the Jet Propulsion Laboratory
 - The master list of all current Broad Agency Announcements
 - The "Tasks Books" for each HQ Program Office that lists all currently supported research awards, including the Principal Investigator (PI) name, PI institution, and title and summary of the investigation (Note: some of the HQ program offices will not have Task Books in place).
- The following document may be found at <http://ec.msfc.nasa.gov/hq/library/unSol-Prop.html>:
"Guidance for the Preparation and Submission of Unsolicited Proposals"
- The following document may be found at <http://ec.msfc.nasa.gov/hq/grcover.htm>:
"Grant And Cooperative Agreement Handbook," NPG 5800.1
- The following items may be found at <http://www.whitehouse.gov/omb/circulars/index-ffm.html>:

| | |
|--|--------------------|
| "Cost Principles for Educational Institutions" | OMB Circular A-21 |
| "Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations" | OMB Circular A-110 |
| "Cost Principles for Non-Profit Organizations" | OMB Circular A-122 |
| "Audits of States, Local Government And Non-Profit Organizations" | OMB Circular A-133 |

**INSTRUCTIONS FOR RESPONDING TO
NASA RESEARCH ANNOUNCEMENTS**

NASA Federal Acquisition Regulations (FAR) Supplement (NFS) Part 1852.235-72
(May 2002)

(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 preaward 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) NRA's 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 NRA's.

(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 NRA's are subject to the Federal Acquisition Regulation and the NASA FAR Supplement. Any resultant grants or cooperative agreements will be awarded and administered in accordance with the *NASA Grant and Cooperative Agreement Handbook* (NPG 5800.1).

(5) NASA does not have mandatory forms or formats for responses to NRA's; 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. NRA's 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 identification if part of a larger organization;

(ii) A brief, scientifically valid project title intelligible to a scientifically literate reader 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 are 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 nonprofessional personnel). Estimate all staffing data in terms of staff-months or fractions of fulltime.

(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 A21 for educational institutions and A122 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) 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.

(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 to 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 mail or through assembled panels. The final decisions are made by a NASA selecting 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 selecting official who will arrange a debriefing.

(2) When a proposal is selected for award, negotiation and award will be handled by the procurement office in the funding installation. 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.

PROPOSAL PROCESSING, REVIEW, AND SELECTIONC.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 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. Also, all non-Government reviewers are prohibited from making unauthorized disclosure of proposal information and evaluation materials and/or information (see the sample Nondisclosure Agreement in Section E.2, Appendix E), whereas Government employees who may be involved in the peer review process are bound by the proscriptions of Civil Service employment not to divulge confidential aspects of their duties.

Although proposers are provided with explanations for the final decisions regarding their proposals, it is NASA policy not to release the identities of the reviewers themselves nor the details of panel deliberations that culminate in the final assessments of the 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 electronic submission of its *Proposal Cover Page* by the proposer, each proposal is given a unique identification code that is maintained throughout the entire process, and a log of all proposals received is provided to the cognizant NASA Program Officer within a week after the Proposal Due Date.
- The Program Officer selects panel and/or mail 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 (see also next section below).
- Whether by mail or as 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 submit a signed *Nondisclosure Agreement* before they are allowed to review any proposals (see Section E.2 in Appendix E in this Guidebook).
- 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 Headquarters employee (including those who may be serving under auspices of an Intergovernmental Personnel Act (IPA) appointment). The peer reviewers may also be asked to comment on the perceived programmatic and budgetary aspects of the proposals, but these comments are for NASA's information only and are not considered binding nor folded into the overall evaluation determination.
- A recommendation for selection or nonselection of each proposal is developed by the cognizant Program Officer and presented to the Selecting 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 Selecting Official.
- After selection, each proposer is notified by letter or electronic mail of the disposition of his/her proposal and is offered a debriefing based on its identified strengths and weaknesses. This debriefing will be accomplished either by sending the peer reviews by mail to the proposer or by oral communication.

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

C.2 Evaluation Criteria

[Ref.: Appendix B, Part (i)]

As a general rule, the evaluation criteria in Appendix B, Part (i), of this Guidebook, as amended below by the words in italics, will apply to all NRA's released by NASA, although they may be augmented and/or amended in each NRA:

"(i). Evaluation Factors.

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

"(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 *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.*

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

"(4) Evaluation of the cost of a proposed effort shall 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.*"

Note that the NRA itself provides the focused, program-specific objectives that will define precisely what is meant by the term "relevance" in items (1) and (2) above. The evaluation forms that are provided to both mail 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 almost always 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 reviews solicited by mail by the Program Officer that are made available to the panel reviewers once they convene. As a general rule, and as based on its deliberations, a peer panel is authorized to wholly or partially accept or reject any such mail 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 the plenary meeting of the group. There are almost always at least two such 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 consensus evaluation

determined by the panel is reviewed and approved for completeness and clarity by the chairperson of the panel and the attending NASA Program Officer.

The number and significance of strengths and weaknesses for a proposal determines its final summary evaluation based on the following adjectival scale (see also Prototype Proposal Evaluation Form in Section E.3 in Appendix E of this Guidebook):

| Summary Evaluation | Basis for Summary Evaluation | Relationship of Summary Evaluation to Potential for Selection |
|---------------------------|---|--|
| <u>Excellent</u> | A comprehensive, thorough, and compelling proposal of exceptional merit that fully responds to the objectives of the NRA as documented by numerous and/or significant strengths and having no major weaknesses. | Top priority for funding pending the availability of funds and programmatic balance in the context of the objectives of the NRA and/or the existing program as a whole. |
| <u>Very Good</u> | A fully competent proposal of very high merit that fully responds to the objectives of the NRA, whose strengths fully outbalance any minor weaknesses and that has no major weaknesses. | Second priority for selection pending (i) the availability of funds, (ii) that programmatic balance is not an issue, and (iii) that no Excellent proposal having substantially the same objective(s) is displaced. |
| <u>Good</u> | A competent proposal that represents a credible response to the NRA, having neither significant strengths nor weakness and whose minor strengths and weaknesses essentially balance. | May be selected as funds permit for purposes of programmatic balance once all Excellent and Very Good proposals having dissimilar objectives are funded. |
| <u>Fair</u> | A proposal that provides a nominal response to the NRA but whose weaknesses outweigh any perceived strengths. | Not selectable regardless of the availability of funds. |
| <u>Poor</u> | A seriously flawed proposal having one or more major weaknesses (e.g., an inadequate or flawed plan of research, or lack of focus on the objectives of the NRA). | Not selectable regardless of the availability of funds. |

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, cogent language that is understandable to the nonspecialist by means of perceived major and minor strengths and weaknesses (see Section E.3 in Appendix E below), 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, or is unjustifiably too costly compared to the available resources).

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 from 5 for Excellent to 1 for Poor. Peer panels frequently choose to designate a score between two of these ratings; for example, a rating midway between Excellent and Very Good is designated as "E/VG ~ 4.5." However, panels are discouraged from attempting to assign ratings to any finer levels of discrimination since such precision generally cannot be substantiated or defended. Likewise, NASA Program Officers and Selecting Officials typically consider proposals ranked within one-tenth of a point to be essentially co-equal and, therefore, invoke other factors to discriminate between 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 objectives, 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.

C.4 Conflict of Interest and Confidentiality

[Ref.: Appendix B, Parts (a)(1), (a)(2), and (c)(2)]

The issues of conflict 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, 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 by mail 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 by signing a Nondisclosure Agreement in advance of being sent any proposals (a generic version of this Agreement is given in Section E.2, Appendix E; note that reviewers who are U.S. Government employees do not have to sign such a form since their conduct is covered by the Ethics in Government Act). By signing a Nondisclosure Agreement, a reviewer agrees to abide by its guidelines for conflict 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.
- NASA makes every effort to never allow a reviewer to see a proposal with which a conflict of interest is known to exist. Should that circumstance inadvertently happen, the reviewer is instructed to immediately return the proposal and is disqualified from participation in any way in its review. Occasionally, NASA must ask personnel to participate on a panel that will consider one or more proposals for which a reviewer does have acknowledged conflicts of interest. In cases like this, the reviewer is excused from the panel during all deliberations of those proposals, and in some cases may also be excused from the deliberation of any other proposals that are judged to be in direct programmatic competition with the conflicted proposals.
- 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.

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 Selecting 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 Selecting 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 (see Appendix D in this Guidebook 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 augmented 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. In such a case, the proposer will be given the opportunity to accept or decline selection based on the reduced effort and/or budget. 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, the offer of selection may be withdrawn in its entirety by NASA."

See also the concluding material 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. Should this reduction be greater than 20 percent of that originally proposed, a revised budget and statement of work will have to be submitted by the proposer.

C.5.3 Disclosure of Selections and Nonselections

For selected proposals, NASA considers the Proposal Title, the Principal Investigator's name and institution, and the Proposal Summary to be in the public domain and will post that information on an appropriate publicly accessible location. Therefore, prospective proposers should refer to Section 2.3.1 in this Guidebook as well as Appendix B, Part (a)(2) for guidance on the preparation of their Proposal Summaries in anticipation of public disclosure. 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. At the discretion of the NASA Program Officer, such 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 Headquarters, 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* (see Section C.5.1 in this Appendix).

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 of this Guidebook, 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.

PROPOSAL AWARDS AND CONTINUED SUPPORT

D.1 New Awards

D.1.1 Awards to NASA Centers

A selected proposal submitted from a NASA Center, as well as from the Jet Propulsion Laboratory, is funded directly by NASA Headquarters through the Agency's funding mechanism called a Research and Technology Operating Plan (RTOP).

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 institution. 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 may be inferred from any communication, even if in writing by way of a letter of selection, from anyone other than a certified NASA Award Officer.

NASA chooses the funding vehicle best suited for the project and the proposing institution, which can be a grant, a contract, an interagency agreement, 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 (see Section 2.3.2 in this Guidebook) asks the proposer to designate his/her type of organization according to the definitions given in Section 1.4.1 of this Guidebook (see also Appendix B, Part (c)(1)(iii)) of this Guidebook, as well as the *NASA Grant and Cooperative Agreement Handbook* referenced in Appendix A). Regardless of the type of award, selected investigators are urged to work with their own institution'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 institution, 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 deliverables 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 the *Grant And Cooperative Agreement Handbook* (see Appendix A for access information).
- 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 institutions 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 (see Appendix A for access information).
- Interagency Agreement – 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 agreements for the transfer of Federal funds are arranged by NASA management 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 deliverables 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* (see 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 (Note: funding supplements are sometimes called "renewals;" see also Section D.4 below in this Appendix). 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.

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 institution. The Program Officer will review such requests as soon as possible and make a recommendation to the NASA Procurement 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 extension (see section D.3 below) is not allowed.

The procedures described above applies 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 Extensions

A no cost 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 extension of the award's expiration date for up to 12 months by notifying the NASA Procurement Officer in writing of the revised date and the

justification for the extension at least ten days before the end of the period of performance. A copy of this request should also be sent to the Program 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. See paragraphs 1260.23 and 1260.1255(e)(2) of the *Grants and Cooperative Agreements Handbook* (see Appendix A for Web site) for further details.

- In the case of a contract, NASA authorizes a no cost 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.

D.4 Funding Continuation ("Renewals") of Multiple Year Awards

It is NASA's usual policy to award multiple year awards. If the decision to provide multiple year funding to a research proposal is made through a grant or cooperative agreement, the special condition at §1260.52 of the *Grants and Cooperative Agreement Handbook*, 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 §1260.52 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 of this Guidebook), 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 report, called a Summary of Research, is due within 90 days of the expiration date of the award; see § 1260.22 and §1260.151(d) in the *Grants and Cooperative Agreement Handbook*.

The funding levels for multiple year awards is fixed at the time that the award is made by a NASA Procurement 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.

These procedures do not apply to cooperative agreements with for profit entities.

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. For a research grant, one of the most common award types, the following final reports are generally required:

- Final Federal Cash Transaction Report (SF 272)
- Summary of Research
- Subject Inventions Final Report
- Final Inventory Report of Federally-Owned Property

CERTIFICATIONS, SAMPLE AGREEMENTS, AND FORMS**E.1 Certifications and Assurances****E.1.1 Certification of Compliance on *Proposal Cover Page***

There are currently two formal Certifications and one formal Assurance required as part of any proposal from every institution, except U.S. Federal institutions, that respond to a Federal research solicitation as given in Sections E.1.2 through E.1.4 below. In order to reduce paper work required by the submitting institutions, the "Certification of Compliance....," reproduced directly below, is now included at the top of the printout of the *Proposal Cover Page* that affirms that these requirements are met by the proposing institution once the printed version of the *Cover Page* is signed by the Authorizing Official of the proposing institution (or by the individual proposer if there is no proposing institution) and submitted with the proposal. Therefore, the Certifications and Assurance reproduced in sections E.1.2 through E.1.4 are included only for reference and information; they should not be submitted with the proposal.

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 institution (or the individual proposer if there is no proposing institution) 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 obligations to comply with NASA award terms and conditions if an award is made as a result of this proposal; and
 - confirms compliance with all provisions, rules, and stipulations set forth in the two Certifications and one Assurance contained in this NRA (namely, (i) the Assurance of Compliance with the NASA Regulations Pursuant to Nondiscrimination in Federally Assisted Programs, and (ii) Certifications, Disclosures, and Assurances Regarding Lobbying and Debarment & Suspension.
- 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 NRA's 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 NRA, signed, and submitted with a proposal. If such cases, they will be provided in the individual NRA's.

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

"The Institution, corporation, firm, or other organization on whose behalf this assurance is signed, hereinafter called "Applicant"

"HEREBY AGREES THAT it will comply with Title VI of the Civil Rights Act of 1964 (P.L. 88-352), Title IX of the Education Amendments of 1972 (20U.S.C. 1680 et seq.), Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and the Age Discrimination Act of 1975 (42 U.S.C. 16101 et seq.) and all requirements imposed by or pursuant to the Regulation of the National Aeronautics and Space Administration (14 CFR Part 1250)(hereinafter called "NASA") issued pursuant to these laws, to the end that in accordance with these laws and regulations, no person in the United States shall, on the basis of race, color, national origin, sex, handicapped condition, or age be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the Applicant receives federal financial assistance from NASA; and HEREBY GIVES ASSURANCE THAT it will immediately take any measure necessary to effectuate this agreement.

"If any real property or structure thereon is provided or improved with the aid of federal financial assistance extended to the Applicant by NASA, this assurance shall obligate the

Applicant, or in the case of any transfer of which federal financial assistance is extended or for another purpose involving the provision of similar services or benefits. If any personal property is so provided, this assurance shall obligate the Applicant for the period during which it retains ownership or possession of the property. In all other cases, this assurance shall obligate the Applicant for the period during which the federal financial assistance is extended to it by NASA.

"THIS ASSURANCE is given in consideration of and for the purpose of obtaining any and all federal grants, loans, contract, property, discounts or other federal financial assistance extended after the date hereof to the Applicant by NASA, including installation payments after such date on account of applications for federal financial assistance which were approved before such date. The Applicant recognizes and agrees that such federal financial assistance will be extended in reliance on the representations and agreements made in this assurance, and that the United States shall have the right to seek judicial enforcement of this assurance. 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."

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

"This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 14 CFR, Part 1265, Participant's responsibilities, published as Part VII of the May 26, 1988, *Federal Register* (pages 19160-19211).

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

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

- 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
- Have not within 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.2 Sample Nondisclosure and Conflict of Interest Agreement

As discussed in section C.1 of this Guidebook, every person (other than a Civil Servant) who is asked to serve as 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 a prime 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 institutions. 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. An example of such an agreement is reproduced as follows:

| PROPOSAL PEER REVIEW NONDISCLOSURE AGREEMENT, AND CONFLICT OF INTEREST AVOIDANCE |
|---|
| <p>In the performance of peer review of proposals submitted to NASA, the undersigned 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 the presence of the undersigned, or that the undersigned may have access to or learns about, the undersigned agrees:</p> <ol style="list-style-type: none">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 (in particular, a reviewer is not permitted to take part in the review of a proposal that originates from his/her home institution; or if any of the proposal's personnel are closely related to the reviewer, e.g., household family members, partners, or professional associates; or if the reviewer has a financial interest in the proposing institution, e.g., ownership of stock or securities, employment, or arrangements for employment). In addition, proposal reviewers agree to avoid the real or apparent conflict of interest created by participating in the peer review for a particular solicitation for which they or professional associates (e.g. from their home institution) have submitted substantially similar investigations; and |

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.

Printed Name, Signature, and Date: _____

E.3 Sample Proposal Evaluation Form

The following Sample Proposal Evaluation Form reflects the principles discussed in Appendix C of this *Guidebook* for the evaluation of proposals submitted to an NRA, where it is understood that the blocks for strengths, weaknesses, and narrative text are of unrestricted size. The actual form is typically customized to reflect the objectives and needs of the particular NRA for which a proposal was submitted.

PROTOTYPE PROPOSAL EVALUATION FORM

[Note: This Evaluation Form is only representative of what might be provided to the reviewers based on the unique specifications for the solicited proposals; in particular, Criteria 2 and 3 may be evaluated in separate venues from that used for Criteria 1.]

| | |
|------------------------|--|
| Proposal No.: | |
| PI/Institution: | |
| Proposal Title: | |

- 1. Intrinsic Merit of Proposed Research** *[Note: Individual, weights may be specified for the four main characteristics below; comments are to be expressed in terms of Strengths and Weaknesses that may be differentiated as Major and Minor as appropriate.]*
- **Overall Scientific and Technical Merit.**
 - o **Intent and relevance:**
 - Scientific importance of the proposed investigation to the field.
 - Clarity and completeness of proposed investigation.
 - o **Proposed methodology and approach:**
 - Technical feasibility and merit of proposed research plan.
 - Clarity and completeness of proposed research plan.
 - o **Expectation of closure of effort based on proposed activities.**
 - **Capabilities, relevant experience, and facilities of proposing institution.**
 - **Qualifications, capabilities, and relevant experience of proposing personnel.**
 - **Overall standing of proposal among similar proposals and against state-of-the-art.**

Summary Evaluation For Intrinsic Merit *[Note: narrative length as required but must reflect the documented Strengths and Weaknesses.]*

- 2. Relevance to NASA's Objectives** *[Note: Even if evaluation of this factor is reserved for separate determination by NASA, comments from Science/Technical reviewer's are sometimes solicited and always welcome.]*

Relevance to the specific objectives in the solicitation and to the themes and goals of the sponsoring NASA Program Office's current Strategic Plan.

- 3. Cost Realism and Reasonableness** *[Note: even if evaluation of this factor is reserved for separate determination by NASA, comments from Science/Technical reviewer's are sometimes solicited and always welcome.]*

Realism of cost in terms of proposed scope/tasks and reasonableness of cost in context of available funds.

SUMMARY EVALUATION OF PROPOSAL

- **Narrative Text** *[Note: length of narrative text as required, but must reflect documented strengths and weaknesses; if assessing a descoped proposal, clearly identify and justify the recommended deletions from original proposal.]*
- **Overall Summary Evaluation** *[Note: only one rating box to be checked and must be consistent with narrative Summary Evaluation.]*

| | | | | | | | | |
|------------------|-------------|------------------|-------------|-------------|------------|-------------|------------|-------------|
| Excellent | E/VG | Very Good | VG/G | Good | G/F | Fair | F/P | Poor |
| | | | | | | | | |

Guidelines for Determination of Overall Evaluation

- A proposal that demonstrates a credible response to the solicitation but that has neither significant strengths nor weaknesses is properly designated as "Good."
- In the absence of significant Weaknesses, a finding of Strengths of increasing significance and number generally warrants a progressively better rating, and vice versa for findings of

Weaknesses. However, even a single Major Weakness that identifies a fatal or “uncorrectable” flaw or shortcoming is sufficient to offset any number of Strengths and may justify a rating of less than Good.

- If a significant Weakness may be nullified by the unambiguous deletion (“descoping”) of well-identified element or provision of the proposal, the proposal may be rated a second time under the express condition of that descoping.*
-

FREQUENTLY ASKED QUESTIONSF.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 Monitor 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 institutional 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 institution'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.

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

Starting with the formal publication of this Guidebook, most NRA's released by NASA Headquarters will only contain 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 institution 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 (see 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?

For non-NASA recipients, NASA determines the appropriate funding instrument (a grant, a contract, or a cooperative agreement; an interagency agreement; 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 institution. 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 or the Contracting Officer's Technical Representative, 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 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 institution 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.

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. The signature on the Proposal Cover Page by the Authorizing Official of the proposing institution certifies that the institution is cognizant of and in compliance with all applicable certifications (for information purposes these certifications are given in Section E.1 of Appendix E of this Guidebook).

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 the *NASA Grant and Cooperative Agreement Handbook*. Several of the most common situations requiring prior written authorization from NASA are:

- transfer of the project to another institution at which the PI takes employment (see 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 a change in employment status;
- a substantial change in the PI's commitment of effort;
- new or revised allocations for purchase of equipment;
- the intent to award a subcontract in excess of \$100,000 or to purchase equipment in excess of \$5000 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 institutions?

When a PI leaves his/her organization during the course of an award to that institution, 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 institution 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 institutions for the implementation of a new award at the PI's new institution 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 institution or other nonprofit organization using NASA funds normally vests with the recipient institution 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 purchase is approved by NASA. 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 institution 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 institution.

F.12 Are there required reports?

The two types of technical reports generally required for grants are as follows. Starting sometime in 2003, both of them are expected to be submitted through a specified World Wide Web site using a unique identification number given to the successful proposal:

- 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 Program 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 Cash Transaction Report (SF 272) that is due at the end of each Federal fiscal quarter from the institution 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?

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. However, small amounts of data (for example, as might be taken during the course of a suborbital (rocket or balloon), Space Shuttle, or Space Station investigation) are 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 institution for appropriate transfer of the data and, as necessary, may provide funds to convert the data into an easily used format using standard units.

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

All publications of any material based on or developed under NASA sponsored projects should conclude 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 Office of <XYZ> <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, without any exceptions, all releases of photographic or illustrative data products must list NASA first on the credit line followed by the name of the PI organization, 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 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-I's through circumstances beyond the control of the PI). A No Cost 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, the recipient must notify NASA in writing with the supporting reasons and revised expiration data at least 10 days before the expiration date specified in the award. For a contract, an appropriate request must be submitted for NASA's approval by the recipient institution. In either case, NASA will not accept requests for an augmentation to an award during a no cost extension, and any successor proposal that is selected will not be funded until a no cost extension has expired. See further details on No Cost Extensions in Section D.3 of Appendix D of this Guidebook and paragraphs 1260.23 and 1260.1255(e)(2) of the *Grants and Cooperative Agreements Handbook* (see Appendix A for Web site).

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. institutions 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 (see also Section C.2 of Appendix C of this Guidebook). Regarding this latter factor, most of NASA's NRA's are oversubscribed by factors ranging typically from two to five and can be even much 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 (see 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. In the near future, NASA is expecting to be operating on the basis of full cost accounting, which will be applicable to all research proposals submitted by its Centers and the Jet Propulsion Laboratory. This new accounting practice is being implemented as rapidly as possible.

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

NASA is committed to implement 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 (see Section 2.3.10) to perform a significant role in a proposed effort, even if at no cost, is entitled to be listed as a Co-I (see also Section 1.4.2). However, proposers are reminded that, 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 (see Section 2.3.5), then 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 NRA's are typically for three years and for relatively limited amounts of money (\$50 to 200 K), although some awards can be as much as \$1 M (e.g., construction and flight of a suborbital experiment payload). NRA awards are most commonly in the form of grants, but at NASA's discretion, and depending on the nature 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 experiment 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 NRA's issued by NASA Headquarters will rely upon this Guidebook to specify the organization and submission of proposals. However, because of their highly unique characteristics, AO's and CAN's 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 owing to the use of the common proposal data base system by Headquarters that is accessed through the Web site <http://proposals.hq.nasa.gov/proposals.cfm>.

F.23 Why isn't NASA more flexible about receiving late proposals?

Regardless of the reason for its being late, submission of a proposal after the deadline inherently allows that proposer additional time to prepare his/her submission, which in principle gives the proposal a competitive advantage over those submitted on time. Even if this were not the case, in practice the accommodation of late proposals creates logistical problems since, within only a few working days after their due date, all proposals must be screened for compliance and completeness, logged in, and stored, and within five days NASA's support contractor is required to provide a complete log of all proposals, including the names of all proposal personnel, to the responsible Program Officer to use for finalizing plans for the peer review. Interrupting this process for even a few late proposals can impact the review/selection schedule. As for a proposal being late because of unforeseen circumstances beyond the PI's control, it is untenable for NASA to judge the merits for each case to decide whether or not to accept some while rejecting others.

F.24 Why doesn't NASA release the names of its reviewers?

NASA solicits the most knowledgeable, nonconflicted peers available to review the proposals it receives. It is NASA's opinion, which is generally substantiated by the reviewers it has used, that preserving the anonymity of the participants in the review process promotes more candid comments than if this practice was not used. During the conduct of a panel a NASA Program Officer is present to ensure that the discussions and written text remain focused on the technical qualities of the proposals being discussed. The only review comments that are actually preserved for the record are those on the Summary Evaluation form, which reflects the opinion of the entire panel and not those of any one reviewer. After debriefing, a proposer has the right to challenge what are perceived to be factual errors in this consensus review.