

APPENDIX C

PROPOSAL PROCESSING, REVIEW, AND SELECTION

C.1 The General Process

NASA takes seriously its responsibility for ensuring that proposal material is treated with the utmost confidentiality and that proposals are evaluated fairly and objectively without conflict of interest on the part of the reviewers. Therefore, regardless of the address to which a NRA may direct proposals to be sent, it is NASA policy that NASA 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 representative Nondisclosure Agreement in Appendix E), whereas Government employees 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 to not release the identities of the reviewers themselves nor the minutes 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:

- Each proposal submitted in response to a NRA 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 of the 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.
- 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 all proposal and review materials provided to them, and to avoid conflicts of interest. All reviewers not employed by the U.S. Government must submit a signed Nondisclosure Agreement before they are provided with any proposals.
- The scientific and technical merits of each proposal are determined by the peer reviewers, usually while meeting as a panel monitored by the cognizant program officer or another Headquarters Civil Servant (including any personnel 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 as well, but these comments are for NASA's information and generally are not considered binding.

- A recommendation for selection or nonselection of each proposal is developed by the cognizant program officer and presented to the Selecting Official (who is identified in the NRA) based on its science/technical peer review, any program-unique criteria (e.g., program balance and education/public outreach objectives), its relevance to the research objectives stated in the NRA and to NASA's strategic goals in general, 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. In some cases the peer reviews will be directly sent to the proposer; in other cases, the debriefing may be only oral.
- Official notification of selection for the solicitation is then forwarded to the NASA Award Office, which will contact the proposing institution to negotiate funding through an appropriate award instrument.

C.2 Evaluation Criteria

[Appendix B, Part (i)]

As a general rule, the evaluation criteria in Appendix B, Part (i), as amended below by the words in italics, will apply to all NRA's, 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 Strategy documents and to 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 relevance in items (1) and (2) above. The evaluation forms given to both mail as well as panel reviewers will generally list (perhaps in abbreviated form) all criteria. Reviewers are instructed to judge each proposal against the stated evaluation criteria and not to compare proposals even if they propose similar objectives. Only NASA program officers may make binding comparisons of proposals in the context of his/her recommendation for selection.

C.3 Evaluation Processes

[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 mail reviews solicited for each proposal 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. The final Consensus Review determined by the review panel is approved for completeness and clarity by the chairperson of the panel and the attending NASA program officer.

Reviewers are instructed not to compare proposals to each other but to base all comments against the evaluation criteria and objectives stated in the NRA. To help ensure uniformity, NASA asks its reviewers to document their findings using clear, cogent language that is understandable to the non specialist by means of perceived Major and Minor Strengths and Major and Minor Weaknesses. A Major Strength is considered an attribute of the proposal that clearly distinguishes it well above the standards set by the program objectives (including relevance to NASA's interests) and that provides compelling justification for the selection of the proposal, while a Minor Strength is considered a noteworthy attribute of the proposal compared to the objectives that may be a necessary though not sufficient cause for selection. Conversely, a Minor Weakness is defined as a noteworthy deficiency or flaw compared to program objectives but that could be corrected if addressed early in the period of performance (or that might be eliminated by a partial selection of the proposal; see Section 5.2 in this Appendix), whereas a Major Weakness is considered a very serious if not fatal flaw or deficiency compared to the objectives and which may be both necessary and sufficient to justify nonselection..

The number and significance of such discriminators are broadly related to the final evaluation of a proposal based on the following adjectival scale:

- Excellent – many Major and Minor Strengths, few if any Minor Weaknesses, and no uncorrectable Major Weaknesses; top priority for funding pending the availability of funds and programmatic balance.
- Very Good – a few Major and Minor Strengths, few if any Minor Weaknesses, and no uncorrectable Major Weaknesses; second priority for selection assuming that funds are available, programmatic balance is not an issue, and an Excellent proposal having the same objectives is not displaced.
- Good – few if any significant Strengths or Weaknesses, and no uncorrectable Major Weaknesses; may be selected if funds permit after all Very Good and Excellent proposals.
- Fair – few if any Strengths but one or more Major Weakness; not selectable.
- Poor – no Strengths but many Minor and uncorrectable Major Weaknesses; not selectable.

It is important to note that defining this adjective scale in this way means that a proposal having few if any Major or Minor Strengths, nor few if any Major or Minor Weaknesses, may be judged as “Good,” whereas the determination of strengths of increasing number and significance improves its rating and, conversely, a finding of weaknesses of increasing number and significance lowers its rating.

C.4 Conflict of Interest and Confidentiality [Appendix B, Parts (a)(1), (a)(2), & (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 conflict of interest situations and maintaining confidentiality regarding each proposal that they handle or to which they may be exposed. Regardless of whether the review process is by mail or by a convened panel, the presiding NASA program officer address 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 6 of Appendix E). 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 must inform the cognizant NASA program officer and cease participation pending a NASA decision on the issue. The following guidelines are used to decide if a conflict exists:

- An institutional conflict of interest exists if the reviewer is from the same organization as the proposal’s PI, and may or may not exist if the reviewer is from the

same organization as any Co-I based on the relative proximity of his/her institutional affiliations.

- A conflict exists if the proposing PI has signed a contract for employment at the reviewer's institution for anytime during the proposal's requested period of performance
- A professional conflict exists if the reviewer has recently (within the last three years) been the graduate student advisee or advisor of the PI, or has collaborated within the last two years with the PI on a joint research activity.
- A personal conflict exists if the reviewer is related by family or marriage to the PI or any Co-I, or if the reviewer declares him/herself to be an especially close personal friend or adversary of the PI.
- A financial conflict exists if the reviewer or any member of his/her immediate family would monetarily benefit in any way by the selection and funding of the proposal.
- Usually a conflict of interest is not considered meaningful if the reviewer is only a casual professional colleague with a proposing PI or Co-I (e.g., contemporaneous service on an advisory committee or co-author on published research papers three years or more in the past). Likewise, conflicts of interest of any kind are usually not considered for Collaborators on proposals (which by definition are unfunded by the proposal).

NASA makes every effort to never allow a reviewer to ever see a proposal with which a conflict of interest is known to exist. Should that circumstance inadvertently happen NASA's reviewers are instructed to immediately return the proposal and is disbarred 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 the reviewer does have conflicts of interest. In cases like this, the reviewer is excused from the panel meeting during all deliberations of that proposal, 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 proposal.

Disclosure by a reviewer of the proposals and his/her 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 General Procedures

[Appendix B, Parts (j) & (k)]

After all reviews and evaluations are completed, the program officer 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. 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.

C.5.2 Partial Selections

[Appendix B, Part (k)]

Appendix B, Part (k), is augmented by including 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 must be submitted 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."

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 this 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 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.

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

C.6 Debriefing of Proposers

A proposer has the right to be informed which major factor(s) led to the acceptance or rejection of his/her proposal. Such debriefings may be entirely oral (usually by telephone) or entirely in writing, or a combination of the two. A PI can request an in-person debriefing at the NASA facility that issued the NRA but NASA funds cannot be used to defray travel costs. Note that nonselected proposers should be aware that owing to the shortage of budget resources, proposals of nominally high intrinsic and programmatic merits submitted for NASA's NRA's are routinely declined.

Non selection does not restrict the submission of a similar proposed effort by the same proposer(s) for appropriate future competitions. However, proposers are strongly urged to carefully consider the entirety of comments offered during their debriefing before making the decision to resubmit the same, or nearly the same, proposal.

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