

# NASA FAR Sup 1872

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PART 1872

## **ACQUISITIONS OF INVESTIGATIONS**

*(Revised November 20, 2015)*

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## **PART 1872**

### **ACQUISITIONS OF INVESTIGATIONS**

#### **1872.000 Scope of part.**

This part prescribes policies and procedures for the acquisition of investigations.

#### **Subpart 1872.1—The Investigation Acquisition System**

##### **1872.101 General.**

The investigation acquisition system encourages the participation of investigators and the selection of investigations which contribute most effectively to the advancement of NASA's scientific and technological objectives. It is a system separate from the acquisition process, but requiring the same management and discipline to assure compliance with statutory requirements and considerations of equity.

##### **1872.102 Key Features of the system.**

(a)(1) Use of the system commences with the Enterprise Associate Administrator's determination that the investigation acquisition process is appropriate for a program. An Announcement of Opportunity (AO) is disseminated to the interested scientific and technical communities. The AO is a form of broad agency announcement (BAA) (see FAR 35.016 and 1835.016 for general BAA requirements). This solicitation does not specify the investigations to be proposed but solicits investigative ideas which contribute to broad objectives. In order to determine which of the proposals should be selected, a formal competitive evaluation process is utilized. The evaluation for merit is normally made by experts in the fields represented by the proposals. Care should be taken to avoid conflicts of interest. These evaluators may be from NASA, other Government agencies, universities, or the commercial sector. Along with or subsequent to the evaluation for merit, the other factors of the proposals, such as engineering, cost, and integration aspects, are reviewed by specialists in those areas. The evaluation conclusions as well as considerations of budget and other factors are used to formulate a complement of recommended investigations. A steering committee, serving as staff to the Enterprise Associate Administrator or designee when source selection authority is delegated, reviews the proposed payload or program of investigation, the iterative process, and the selection recommendations. The steering committee serves as a forum where different interests, such as flight program, discipline management, and administration, can be

weighed.

(2) The Program AA, or designee, selects the proposals that will participate in the program. Once selected, an investigator is assigned appropriate responsibilities relating to the investigation through a contract with the institution. For foreign investigators, these responsibilities will usually be outlined in an agreement between NASA and the sponsoring governmental agency in the investigator's country.

(b) The AO process provides a disciplined approach to investigation acquisition. The following major steps must be followed in each case:

(1) The AO shall be signed by the Program AA and shall be widely distributed to the scientific, technological, and applications user communities, as appropriate.

(2) An evaluation team shall be formed including recognized peers of the investigators.

(3) A project office will be assigned to assess the engineering, cost, integration, and management aspects of the proposals.

(4) A program office will be responsible to formulate a complement of investigations consistent with the objectives stated in the AO, cost, and schedule constraints.

(5) A steering committee appointed by the appropriate Program AA shall review the proposed investigations for relevance and merit, will assure compliance with the system as described in this Handbook, and make selection recommendations.

(6) The Source Selection Official shall be the Program AA or the Program AA's designee.

(c) Payloads will be formulated consisting of investigations selected through the AO process and/or other authorized methods.

### **1872.103 Management responsibilities.**

(a) Program AAs are responsible for overseeing the process and for making key decisions essential to the process including:

(1) Determination to use the investigation acquisition system.

(2) Appointment of the steering committee members.

(3) Designation of a staff to assure uniformity in the issuance of the AO and conformity with the required procedures in the evaluation and selection.

(4) Reuse, to the maximum extent practicable, of space hardware and support equipment.

(5) Determination to use advisory subcommittees, contractor, or full-time Government employees only in the evaluation process.

(6) Issuance of the AO.

(7) Selection of investigations and investigators, determination of need of a definition phase, determination of the role of the investigator with regard to providing essential investigation hardware and services, and determination of the need for payload specialists.

(8) Assure consideration is given to minorities in the establishment of peer groups, distribution of the AO and in the selection of investigations.

(9) Provide a framework for cooperative foreign participation in Space Shuttle, Spacelab, and Space Station missions.

(b) The Program AA should call upon any required experts throughout the process.

## **Subpart 1872.2—Applicability of the Process**

### **1872.201 General.**

The system used for acquisition of investigations is separate from the agency procedures for acquisition of known requirements. A decision to use this special acquisition process will be based on a determination that it is the most suitable to meet program needs. The decision-making official will consider the criteria for use of the system. The project plan or other documentation should discuss the proposed mode of investigations selection.

## **1872.202 Criteria for determining applicability.**

(a) The decision to use the investigations acquisition process as an alternative to the normal planning and acquisition process can only be made after consideration of the conditions which require its use. All of the following conditions should exist before deciding that the system is applicable:

- (1) NASA has a general objective which can be furthered through novel experimental approaches. To develop such approaches, NASA wishes to draw upon the broadest possible reservoir of ideas.
- (2) Choices must be made among competing ideas in expanding knowledge.
- (3) Individual participation of an investigator is essential to exploitation of the opportunity.

(b) The investigations acquisition process shall not be used when any of the following characteristics are present:

- (1) The requiring office can define a requirement sufficiently to allow for normal acquisition.
- (2) The program is extremely complex, requiring specialized integration, coordination, or other special handling, or extending over a lengthy period wherein individual participation is not essential.

## **1872.203 Applicable programs and activities.**

The investigation acquisition process is most suitable for investigations aimed at exploration requiring several unique sensors or instruments, but it has been used successfully in the following types of activities:

### *(a) Exploration and Space Research Flights.*

(1) Examples include Space Transportation System (STS) flights with attached payloads, generally Spacelab payloads; and free-flying spacecraft, such as Explorers, Pioneers, Space Telescope, Landsats, and Long Duration Exposure Facilities.

(2) Types of opportunity include:

(i) Participation as a Principal Investigator (PI) responsible for conceiving and conducting a space investigation (This may involve a major piece of instrumentation. In the case of a "facility" or "multiuser" payload, each PI's responsibilities would ordinarily involve a relatively minor portion of the total instrument.);

(ii) An opportunity to serve on a PI's team as a member or Co-Investigator;

(iii) An opportunity that generally involves the use of data from another investigator's instrument as a guest investigator or guest observer (Guest investigators usually participate after the primary objectives have been satisfied for the investigations involved.); and

(iv) A team formed from selected investigators to assist in defining planned mission objectives and/or to determine, in a general manner, the most meaningful instruments to accomplish the mission objectives.

(3) The investigation acquisition process may be applicable to all types of opportunities. The supposition common in these opportunities is that the best ideas and approaches are likely to result from the broadest possible involvement of the scientific, technological or applications user communities.

### *(b) Minor Missions.*

(1) Examples include research aircraft, sounding rockets, balloons, and minor missions that are generally of short duration, small in size, often single purpose, and subject to repetition. Many investigations are follow-on to past-flight investigations.

(2) Types of opportunity include:

(i) PIs responsible for investigation; and

(ii) Data use or analysis.

(3) Opportunities for participation on minor missions are generally suitable for normal acquisition procedures. The use of an announcement describing the general nature and schedule of flights may

be appropriate when considered necessary to broaden participation by requesting investigator-initiated research proposals. Normal acquisition procedures shall be used for follow-on repeat flights. Although NASA seeks unique, innovative ideas for these missions, the prospect of reflight and the latitude in determining number and schedule of flights argue against the need for the use of the investigations acquisition process to force dissimilar proposals into an annual or periodic competitive structure. On the other hand, there are some minor missions addressed to specific limited opportunities; for example, a solar eclipse. When such limitations indicate that the special competitive structure is needed, it should be authorized.

*(c) Operational and Operational Prototype Spacecraft.*

(1) Examples include spacecraft built for NASA and other agencies' missions.

(2) The user agency can be expected to specify performance parameters. Payload definition will be the responsibility of the user agency and NASA. Specifications sufficient for normal acquisition procedures can be produced. Use of data from the mission is the responsibility of the user agency. Thus, the investigation acquisition process is not required.

*(d) Supporting Research and Technology (SR&T).*

(1) Examples include studies, minor developments, instrument conceptualization, ground-based observations, laboratory and theoretical supporting research, and data reduction and analysis which is unconstrained by a specific opportunity.

(2) Programs in these areas tend to go forward on a continuing basis, rather than exploiting unique opportunities. Normal acquisition procedures should be used. A general announcement of area of interest could be made when greater participation is deemed advisable.

**1872.204 Approval.**

The Program AA is responsible for determining whether or not to use the investigations acquisition process. Normally on major projects, or when a project plan is required, use of the investigation acquisition system will be justified and recommended in the project planning documentation and will be coordinated with staff offices and discussed in the planning presentation to the Deputy Administrator or designee.

**Subpart 1872.3--The Announcement of Opportunity**

**1872.301 General.**

An announcement of opportunity (AO) is characterized by its generality. However, it is essential that the AO contains sufficient data in order to obtain meaningful proposals. To a considerable extent, the detail and depth of the AO will depend on the objective. The purpose is to get adequate information to assess the relevance, merit, cost, and management requirements without overburdening the proposer.

**1872.302 Preparatory effort.**

(a) Headquarters offices and the responsible project installation must consult prior to release of the AO.

(b) The program office shall—

(1) Synopsise the AO on the Federal Business Opportunities web page <https://www.fbo.gov/> prior to release;

(2) Determine if there is instrumentation or support equipment available which may be appropriate to the AO with all necessary background data considered essential for use by a proposer;

(3) Determine mailing lists, including the mailing list maintained by the International Affairs Division, Office of External Relations, for broad dissemination of the AO; and

(4) Assure mandatory provisions are contained in the AO.

(c) Other methods of dissemination of the AO may also be used, such as the use of press releases, etc. When possible, the AO should be widely publicized through publications of appropriate professional societies; however, NASA policy does not allow payment for the placement of advertisements.

### **1872.303 Responsibilities.**

(a) The program office originator is responsible for the content of the AO and coordination with concerned Headquarters offices and field installations. All personnel involved in the evaluation of proposals are responsible for familiarizing themselves and complying with this part and other applicable regulations. To this end, they are expected to seek the advice and guidance of appropriate Headquarters program and staff offices, and Project Installation management.

(b) The Program Office is also responsible for coordinating the AO with the International Affairs, Educational Affairs, Management Support Divisions, Office of External Relations, Office of General Counsel, Office of Safety and Mission Assurance, and Office of Procurement prior to issuance (see [NPD 1360.2](#), Initiation and Development of International Cooperation in Space and Aeronautics Programs).

(c) Concurrence of the Office of Procurement is required before issuance of an AO.

### **1872.304 Proposal opportunity period.**

(a) The AO must accommodate to the maximum extent practicable opportunities afforded by the Shuttle/Spacelab flights. The following methods may be used to enable an AO to be open for an extended period of time and/or to cover a series or range of flight possibilities or disciplines:

(1) The AO may be issued establishing a number of proposal submission dates. Normally, no more than three proposal submission dates should be established. The submittal dates may be spread over the number of months most compatible with the possible flight opportunities and the availability of resources necessary to evaluate and fund the proposals.

(2) The AO may be issued establishing a single proposal submission date. However, the AO could provide that NASA amend the AO to provide for subsequent dates for submission of proposals, if additional investigations are desired within the AO objectives.

(3) The AO may provide for an initial submission date with the AO to remain open for submission of additional proposals up to a final cutoff date. This final date should be related to the availability of resources necessary to evaluate the continuous flow of proposals, the time remaining prior to the flight opportunity(s) contemplated by the AO, and payload funding and availability.

(b) Generally, a core payload of investigations would be selected from the initial submission of proposals under the above methods of open-ended AOs. These selections could be final or tentative recognizing the need for further definition. Proposals received by subsequent submission dates would be considered in the scope of the original AO but would be subject to the opportunities and resources remaining available or the progress being made by prior selected investigations.

(c) Any proposal, whether received on the initial submission or subsequent submission, requires notification to the investigator and the investigator's institution of the proposal disposition. Some of the proposals will be rejected completely and the investigators immediately notified. The remaining unselected proposals may, if agreeable with the proposers, be held for later consideration and funding and the investigator so notified. However, if an investigator's proposal is considered at a later date, the investigator must be given an opportunity to validate the proposal with the

investigator's institution and for updating the cost and other data contained in the original submission prior to a final selection. In summary, NASA may retain proposals, receiving Category I, II, or III classifications (see 1872.403-1(e)), for possible later sponsorship until no longer feasible to consider the proposal. When this final stage is reached, the investigator must be promptly notified. Proposing investigators not desiring their proposals be held for later consideration should be given the opportunity to so indicate in their original submissions.

### **1872.305 Guidelines for announcement of opportunity.**

(a) The AO should be tailored to the particular needs of the contemplated investigations and be complete in itself. Each AO will identify the originating program office and be numbered consecutively by calendar year, e.g., OA-1-95, OA-2-95; OLMSA-1-95; OSS-1-95; etc. The required format and detailed instructions regarding the contents of the AO are contained in 1872.705.

(b) The General Instructions and Provisions (1872.705-1) are necessary to accommodate the unique aspects of the AO process. Therefore, they must be appended to each AO.

(c) At the time of issuance, copies of the AO must be furnished to Headquarters, Office of Procurement, Contract and Grant Policy Division and Office of General Counsel.

(d) Proposers should be informed of significant departures from scheduled dates for activities related in the AO.

### **1872.306 Announcement of opportunity soliciting foreign participation.**

Foreign proposals or U.S. proposals with foreign participation shall be treated in accordance with 1835.016-70. Additional guidelines applicable to foreign proposers are contained in the Management Plan Section of 1872.705-2 and must be included in any Guidelines for Proposal Preparation or otherwise furnished to foreign proposers.

### **1872.307 Guidelines for proposal preparation.**

While not all of the guidelines outlined in 1872.705-2 will be applicable in response to every AO, the investigator should be informed of the relevant information required. The proposal may be submitted on a form supplied by the Program Office. However, the proposal should be submitted in at least two sections: (a) Investigation and Technical Plan; and (b) Management and Cost Plan as described in 1872.705-2. Investigators shall be required to identify and discuss risk factors and issues throughout the proposal where they are relevant, and describe their approach to managing these risks.

### **1872.308 Proposals submitted by NASA investigators.**

(a) NASA solicits, accepts, and evaluates proposals submitted by NASA Centers in response to an AO. A NASA investigator may team with one or more non-Government co-investigators. A NASA investigator may also need to acquire supplies, including instruments and other hardware, and non-research services in support of the proposed investigation. If a proposal submitted by a NASA Center is selected, formal assembly of the team and acquisition of hardware and support services must be accomplished through the award of new Government contracts, unless existing Government contracts are available. The award of new Government contracts must comply with procurement laws and regulations.

(b) In addition to complying with proposal preparation instructions contained in the AO, proposals submitted by NASA Centers should address the following matters.

(1) Non-Government co-investigators.

(i) The proposal should describe the open and competitive process that was used for selecting

proposed team members. While a formal solicitation is not required, the process should include the following competitive aspects: notice of the opportunity to participate to potential sources, submissions from and/or discussions with potential sources, and objective criteria for selecting team members among interested sources. If proposed team members are selected without using an open and competitive process, the proposal should contain a full justification consistent with the requirements of FAR Subpart 6.3.

(ii) The proposal should also include a representation that the NASA investigator has examined his/her financial interests and has determined that no personal conflict of interest exists.

(2) Supplies and support services.

(i) The proposal should indicate that the supplies or services are available under an existing Government contract; or

(ii) The proposal should state that the supplies or services will be acquired under a full and open competition; or

(iii) The proposal should explain the basis of a justification for acquiring the supplies or services noncompetitively (see FAR Subpart 6.3).

(c) A selection decision approving the non-Government team members as selected co-investigators satisfies legal and regulatory requirements without further competition or justification (see 1872.702).

(d) For the acquisition of supplies, including hardware, and support services by non-Government co-investigators, see 1872.502(a)(4).

## **Subpart 1872.4--Evaluation of Proposals**

### **1872.401 General.**

(a) The evaluation process considers the aspects of each proposal by the following progressive sorting:

(1) A review resulting in a categorization is performed by using one of the methods or combination of the methods outlined in 1872.403. The purpose of this initial review is to determine the scientific and/or technological merit of the proposals in the context of the AO objectives.

(2) Those proposals which are considered to have the greatest scientific or technological merit are then reviewed in detail for the engineering, management, and cost aspects, usually by the project office at the installation responsible for the project.

(3) Final reviews are performed by the program office and the steering committee and are aimed at developing a group of investigations which represent an integrated payload or a well-balanced program of investigation which has the best possibility for meeting the AO's objectives within programmatic constraints.

(b) The importance of considering the interrelationship of the several aspects of the proposals to be reviewed in the process and the need for carefully planning their treatment should not be overlooked. An evaluation plan should be developed before issuance of the AO. It should cover the recommended staffing for any subcommittee or contractor support, review guidelines as well as the procedural flow and schedule of the evaluation. While not mandatory, such a plan should be considered for each AO. A fuller discussion of the evaluation and selection process is included in the following sections of this subpart.

### **1872.402 Criteria for evaluation.**

(a) Each AO must indicate those criteria which the evaluators will apply in evaluating a proposal. The relative importance of each criterion must also be stated. This information will allow

investigators to make informed judgments in formulating proposals that best meet the stated objectives.

(b) Following is a list of general evaluation criteria appropriate for inclusion in most AOs:

- (1) The scientific, applications, and/or technological merit of the investigation.
- (2) The relevance of the proposed investigation to the AO's stated scientific, applications, and/or technological objectives.
- (3) The competence and experience of the investigator and any investigative team.
- (4) Adequacy of whatever apparatus may be proposed with particular regard to its ability to supply the data needed for the investigation.
- (5) The reputation and interest of the investigator's institution, as measured by the willingness of the institution to provide the support necessary to ensure that the investigation can be completed satisfactorily.
- (6) Cost and management aspects will be considered in all selections.
- (7) The proposed approach to managing risk (e.g., level of technology maturity being applied or developed, technical complexity, performance specifications and tolerances, delivery schedule, etc.).
- (8) Other or additional criteria may be used, but the evaluation criteria must be germane to the accomplishment of the stated objectives.

(c) Once the AO is issued, it is essential that the evaluation criteria be applied in a uniform manner. If it becomes apparent, before the date set for receipt of proposals, that the criteria or their relative importance should be changed, the AO will be amended, and all known recipients will be informed of the change and given an adequate opportunity to consider it in submission of their proposals. Evaluation criteria and/or their relative importance will not be changed after the date set for receipt of proposals.

#### **1872.403 Methods of evaluation.**

Alternative methods are available to initiate the evaluation of proposals received in response to an AO. These are referred to as the Advisory Subcommittee Evaluation Process, the Contractor Evaluation Process, and the Government Evaluation Process. In all processes, a subcommittee of the appropriate Program Office Steering Committee will be formed to categorize the proposals. Following categorization, those proposals still in consideration will be processed to the selection official.

##### **1872.403-1 Advisory subcommittee evaluation process.**

(a) Evaluation of scientific and/or technological merit of proposed investigations is the responsibility of an advisory subcommittee of the Steering Committee. The subcommittee constitutes a peer group qualified to judge the scientific and technological aspects of all investigation proposals. One or more subcommittees may be established depending on the breadth of the technical or scientific disciplines inherent in the AO's objectives. Each subcommittee represents a discipline or grouping of closely related disciplines. To maximize the quality of the subcommittee evaluation and categorization, the following conditions of selection and appointment should be considered.

- (1) The subcommittee normally should be established on an ad hoc basis.
- (2) Qualifications and acknowledgment of the professional abilities of the subcommittee members are of primary importance. Institutional affiliations are not sufficient qualifications.
- (3) The executive secretary of the subcommittee must be a full-time NASA employee.
- (4) Subcommittee members should normally be appointed as early as possible and prior to receipt of proposals.
- (5) Care must be taken to avoid conflicts of interest. These include financial interests, institutional affiliations, professional biases and associations, as well as familiar relationships. Conflicts could further occur as a result of imbalance between Government and non-Government appointees or membership from institutions representing a singular school of thought in discipline areas involving

competitive theories in approach to an investigation.

(6) The subcommittee should convene as a group in closed sessions for proposal evaluation to protect the proposer's proprietary ideas and to allow frank discussion of the proposer's qualifications and the merit of the proposer's ideas. Lead review responsibility for each proposal may be assigned to members most qualified in the involved discipline. It is important that each proposal be considered by the entire subcommittee.

(b) It may not be possible to select a subcommittee fully satisfying all of the conditions described in paragraph (a) of this section. It is the responsibility of the nominating and appointing officials to make trade-offs, where necessary, among the criteria in paragraph (a) of this section. This latitude permits flexibility in making decisions in accord with circumstances of each application. In so doing, however, it is emphasized that recognized expertise in evaluating dissimilar proposals is essential to the continued workability of the investigation acquisition process.

(c) Candidate subcommittee members should be nominated by the office having responsibility for the evaluation. Nominations should be approved in accordance with NPD 1150.11, "Federal Advisory Committee Act Committees." The notification of appointment should specify the duration of assignment on the subcommittee, provisions concerning conflicts of interest, and arrangements regarding honoraria, per diem, and travel when actually employed.

(d) It is important that members of the subcommittee be formally instructed as to their responsibilities with respect to the investigation acquisition process, even where several or all of the members have served previously. This briefing of subcommittee members should include:

(1) Instruction of subcommittee members on agency policies and procedures pertinent to acquisition of investigations.

(2) Review of the program goals, AO objectives, and evaluation criteria, including relative importance, which provide the basis for evaluation.

(3) Instruction on the use of preliminary proposal evaluation data furnished by the Installation Project Office. The subcommittee should examine these data to gain a better understanding of the proposed investigations, any associated problems, and to consider cost in relation to the value of the investigations' objectives.

(4) Definition of responsibility of the subcommittee for evaluation and categorization with respect to scientific and/or technical merit in accordance with the evaluation criteria.

(5) Instruction for documentation of deliberations and categorizations of the subcommittee.

(6) Inform the chairperson of the subcommittee and all members that they should familiarize themselves with the provisions of the Standards of Ethical Conduct for Employees of the Executive Branch, 5 CFR Part 2635, and the Supplemental Standards of Ethical Conduct for employees of the National Aeronautics and Space Administration, 5 CFR Part 6901, regarding conflicts of interest. Members should inform the appointing authority if their participation presents a real or apparent conflict of interest situation. In addition, all participants should inform the selection official in the event they are subjected to pressure or improper contacts.

(7) Inform members that prior to the selection and announcement of the successful investigators and investigations, subcommittee members and NASA personnel shall not reveal any information concerning the evaluation to anyone who is not also participating in the same evaluation proceedings, and then only to the extent that such information is required in connection with such proceedings. Also, inform members that subsequent to selection of an investigation and announcement of negotiations with the investigator's institution, information concerning the proceedings of the subcommittee and data developed by the subcommittee will be made available to others within NASA only when the requestor demonstrates a need to know for a NASA purpose. Such information will be made available to persons outside NASA including other Government agencies, only when such disclosure is concurred in by the Office of General Counsel. In this connection, reference is made to 18 U.S.C. 1905 which provides criminal sanctions if any officer or

employee (including special employees) of the United States discloses or divulges certain kinds of business confidential and trade secret information unless authorized by law.

(e) The product of an advisory subcommittee is the classification of proposals into four categories. The categories are:

(1) *Category I*--Well conceived and scientifically and technically sound investigations pertinent to the goals of the program and the AO's objectives and offered by a competent investigator from an institution capable of supplying the necessary support to ensure that any essential flight hardware or other support can be delivered on time and that data can be properly reduced, analyzed, interpreted, and published in a reasonable time. Investigations in Category I are recommended for acceptance and normally will be displaced only by other Category I investigations.

(2) *Category II*--Well conceived and scientifically or technically sound investigations which are recommended for acceptance, but at a lower priority than Category I.

(3) *Category III*--Scientifically or technically sound investigations which require further development. Category III investigations may be funded for development and may be reconsidered at a later time for the same or other opportunities.

(4) *Category IV*--Proposed investigations which are recommended for rejection for the particular opportunity under consideration, whatever the reason.

(f) A record of the deliberations of the subcommittee shall be prepared by the assigned executive secretary and shall be signed by the Chairperson. The minutes shall contain the categorizations with basic rationale for such ratings and the significant strengths and weaknesses of the proposals evaluated.

#### **1872.403-2 Contractor evaluation process.**

(a) The use of the contractor method for obtaining support for evaluation purposes of proposals received in response to an AO requires the approval of the Program AA. Prior to the use of this method, discussion should be held with the Office of Acquisition.

(b) It is NASA policy to avoid situations in the acquisition process where, by virtue of the work or services performed for NASA, or as a result of data acquired from NASA or from other entities, a particular company:

(1) Is given an unfair competitive advantage over other companies with respect to future NASA business;

(2) Is placed in a position to affect Government actions under circumstances in which there is potential that the company's judgment may be biased; or

(3) Otherwise finds that a conflict exists between the performance of work or services for the Government in an impartial manner and the company's own self-interest.

(c) To reduce the possibility of an organizational conflict of interest problem arising, the following minimum restrictions will be incorporated into the contract:

(1) No employee of the contractor will be permitted to propose in response to the AO;

(2) The "Limitation on Future Contracting" clause contained in 1852.209-71 will be included in all such contracts; and

(3) Unless authorized by the NASA contracting officer, the contractor shall not contact the originator of any proposal concerning its contents.

(d) The scope of work for the selected contractor will provide for an identification of strengths and weaknesses and a summary of the proposals. The contractor will not make selections nor recommend investigations.

(e) The steps to be taken in establishing evaluation panels and the responsibilities of NASA and the contractor in relation to the panels will be as follows:

- (1) The contractor will be required to establish and provide support to panels of experts for review of proposals to evaluate their scientific and technical merit;
- (2) These panels will be composed of scientists and specialists qualified to evaluate the proposals;
- (3) The agency may provide to the contractor lists of scientist(s) and specialist(s) in the various disciplines it believes are qualified to serve on the panels;
- (4) The contractor will report each panel's membership to NASA for approval; and
- (5) The contractor must make all the necessary arrangements with the panel members.

(f) The evaluation support by the contractor's panels of experts will be accomplished as follows:

- (1) The panels will review the scientific and technical merit of the proposals in accordance with the evaluation criteria in the AO and will record their strengths and weaknesses.
- (2) The contractor will make records of each panel's deliberations which will form the basis for a report summarizing the results of the evaluations. Upon request, the contractor shall provide all such records to NASA;
- (3) The chairperson of each panel shall certify that the evaluation report correctly represents the findings of the review panel; and
- (4) A final report will be submitted as provided in the contract.

(g) A subcommittee of the Program Office Steering Committee will be established on an ad hoc basis. Utilizing furnished data, the subcommittee will classify the proposals into the four categories enumerated in 1872.403-1(e)(1), Advisory Subcommittee Evaluation Process. A record of the deliberations of the subcommittee should be prepared by an assigned executive secretary and signed by the chairperson. The minutes should contain the categorizations with the basic rationale for such ratings and the significant strengths and weaknesses of the proposals evaluated.

### **1872.403-3 Government evaluation process.**

(a) The Program AA may appoint one or more full-time Government employees as subcommittee members of the Program Office Steering Committee to evaluate and categorize the proposals.

(b) Each subcommittee member should be qualified and competent to evaluate the proposals in accordance with the AO evaluation criteria. It is important that a subcommittee's evaluation not be influenced by others either within or outside of NASA.

(c) The subcommittee members will not contact the proposers for additional information.

(d) The subcommittee members will classify the proposals in accordance with the four categories indicated in 1872.403-1(e)(1). Each categorization will be supported by an appropriate rationale including a narrative of each proposal's strengths and weaknesses.

### **1872.404 Engineering, integration, and management evaluation.**

(a) The subcommittee responsible for categorization of each proposal in terms of its scientific, applications, or technical merit should receive information on probable cost, technical status, developmental risk, integration and safety problems, and management arrangements in time for their deliberations.

(b) This information should be provided at the discretion of the Headquarters Program Office by the Project Office at the installation. This information can be in general terms and should reflect what insights the Project Office can provide without requesting additional details from the proposers. This limited Project Office review will not normally give the subcommittees information of

significant precision. The purpose is to give the subcommittee sufficient information so it can review the proposals in conjunction with available cost, integration, and management considerations to gain an impression of each investigator's understanding of the problems of the experiment and to permit gross trade-offs of cost versus value of the investigation objective.

(c) Following categorization, the Project Office shall evaluate proposals in contention, in depth, including a thorough review of each proposal's engineering, integration, management, and cost aspects. This review should be accomplished by qualified engineering, cost, and business analysts at the project center.

(d) In assessing proposed costs, the evaluation must consider:

- (1) The investigation objective.
- (2) Comparable, similar or related investigations.
- (3) Whether NASA or the investigator should procure the necessary supporting instrumentation or services and the relative cost of each mode.
- (4) Total overall or probable costs to the Government including integration and data reduction and analysis. In the case of investigations proposed by Government investigators, this includes all associated direct and indirect cost. With respect to cooperative investigations, integration, and other applicable costs should be considered.

(e) The Project Office, as part of the in-depth evaluation of proposals that require instrumentation or support equipment, will survey all potential sources for Government-owned instrumentation or support equipment that may be made available, with or without modifications, to the potential investigator. Such items contributed by foreign cooperating groups which are still available under cooperative project agreements will also be considered for use under the terms and conditions specified in the agreements. As part of the evaluation report to the Program Office, the availability or nonavailability of instrumentation or support equipment will be indicated.

(f) Proposals which require instrumentation should be evaluated by project personnel. This evaluation should cover the interfaces and the assessment of development risks. This evaluation should furnish the selection official with sufficient data to contribute to the instrument determinations. Important among these are:

- (1) Whether the instrument requires further definition;
- (2) Whether studies and designs are necessary to provide a reasonably accurate appreciation of the cost;
- (3) Whether the investigation can be carried out without incurring undue cost, schedule, or risk of failure penalties; and
- (4) Whether integration of the instrument is feasible.

(g) In reviewing an investigator's management plan, the Project Office should evaluate the investigator's approach for efficiently managing the work, the recognition of essential management functions, and the effective overall integration of these functions. Evaluation of the proposals under final consideration should include, but not be limited to: workload--present and future related to capacity and capability; past experience; management approach and organization; e.g.:

- (1) With respect to workload and its relationship to capacity and capability, it is important to ascertain the extent to which the investigator is capable of providing facilities and personnel skills necessary to perform the required effort on a timely basis. This review should reveal the need for additional facilities or people, and provide some indication of the Government support the investigator will require.
- (2) A review should be made of the investigator, the investigator's institution, and any supporting contractor's performance on prior investigations. This should assist in arriving at an assessment of the investigator and the institution's ability to perform the effort within the proposed cost and time

constraints.

(3) The proposed investigator's management arrangements should be reviewed, including make or buy choices, support of any co-investigator, and preselected subcontractors or other instrument fabricators to determine whether such arrangements are justified. The review should determine if the proposed management arrangements enhance the investigator's ability to devote more time to the proposed experiment objectives and still effectively employ the technical and administrative support required for a successful investigation. In making these evaluations, the Project Office should draw on the installation's engineering, business, legal, and other staff resources, as necessary, as well as its scientific resources. If further information is needed from the proposers, it should be obtained through the proper contacts.

#### **1872.405 Program Office evaluation.**

(a) A Program Office responsible for the project or program at Headquarters will receive the evaluation of the proposals, and weigh the evaluative data to determine an optimum payload or program of investigation. This determination will involve recommendations concerning individual investigations; but, more importantly, should result in a payload or program which is judged to optimize total mission return within schedule, engineering, and budgetary constraints. The recommendations should facilitate sound selection decisions by the Program AA. Three sets of recommendations result from the Program Office evaluation:

- (1) Optimum payload or program of investigations, or options for alternative payloads or programs.
- (2) Recommendation for final or tentative selection based on a determination of the degree of uncertainty associated with individual investigations. A tentative selection may be considered step one of a two-step selection technique.
- (3) Upon consideration of the guidelines contained in 1872.502(a)(3), recommending responsibility for instrument development.

(b) The Installation Project Office evaluation is principally concerned with ensuring that the proposed investigation can be managed, developed, integrated, and executed with an appropriate probability of technical success within the estimated probable cost. The Headquarters program Director, drawing upon these inputs, should be mainly concerned with determining a payload or program from the point of view of programmatic goals and budgetary constraints. Discipline and cost trade-offs are considered at this level. The Headquarters Program Office should focus on the potential contribution to program objectives that can be achieved under alternative feasible payload integration options.

(c) It may be to NASA's advantage to consider certain investigations for tentative selection pending resolution of uncertainties in their development. Tentative selections should be reconsidered after a period of time for final selection in a payload or program of investigations. This two-step selection process should be considered when:

- (1) The potential return from the investigation is sufficient, relative to that of the other investigations under consideration, and that its further development appears to be warranted before final selection.
- (2) The investigation potential is of such high priority to the program that the investigation should be developed for flight if at all possible.
- (3) The investigative area is critical to the program and competitive approaches need to be developed further to allow selection of the optimum course.

(d) Based on evaluation of these considerations associated with the investigations requiring further development of hardware, the following information should be provided to the Steering Committee and the Program AA responsible for selection:

- (1) The expected gain in potential return associated with the eventual incorporation of tentatively

recommended investigations in the payload(s) or program.

(2) The expected costs required to develop instrumentation to the point of "demonstrated capability."

(3) The risk involved in added cost, probability of successfully developing the required instrument capability, and the possibility of schedule impact.

(4) Identification of opportunities, if any, for inclusion of such investigations in later missions.

(e) In those cases where investigations are tentatively selected, an explicit statement should be made of the process to be followed in determining the final payload or program of investigations and the proposers so informed. The two-phase selection approach provides the opportunity for additional assurance of development potential and probable cost prior to a final commitment to the investigation.

(f) As instruments used in investigations become increasingly complex and costly, the need for greater control of their development by the responsible Headquarters Program Office also grows. Accordingly, as an integral part of the evaluation process, a deliberate decision should be made regarding the role of the Principal Investigator with respect to the provision of the major hardware associated with that person's investigation. The guidelines for the hardware acquisition determination are discussed in 1872.502(a)(3).

(g) The range of options for responsibility for the instrumentation consists of:

(1) Assignment of full responsibility to the Principal Investigator. The responsibility includes all in-house or contracted activity to provide the instrumentation for integration.

(2) Retention of developmental responsibility by the Government with participation by the Principal Investigator in key events defined for the program. In all cases the right of the Principal Investigator to counsel and recommend is paramount. Such involvement of the Principal Investigator may include:

(i) Provision of instrument specifications.

(ii) Approval of specifications.

(iii) Independent monitorship of the development and advice to the Government on optimization of the instrumentation for the investigation.

(iv) Participation in design reviews and other appropriate reviews.

(v) Review and concurrence in changes resulting from design reviews.

(vi) Participation in configuration control board actions.

(vii) Advice in definition of test program.

(viii) Review and approval of test program and changes thereto.

(ix) Participation in conduct of the test program.

(x) Participation in calibration of instrument.

(xi) Participation in final inspection and acceptance of the instrument.

(xii) Participation in subsequent test and evaluation processes incident to integration and flight preparation.

(xiii) Participation in the development and support of the operations plan.

(xiv) Analysis and interpretation of data.

(h) The Principal Investigator should as a minimum:

(1) Approve the instrument specification.

(2) Advise the project manager in development and fabrication.

(3) Participate in final calibration.

(4) Develop and support the operations plan.

(5) Analyze and interpret the data.

(i) The Project Installation is responsible for implementing the program or project and should

make recommendations concerning the role for the Principal Investigators. The Program AA will determine the role, acting upon the advice of the Headquarters Program Office and the Steering Committee. The Principal Investigator's desires will be respected in the negotiation of the person's role allowing an appeal to the Program AA and the right to withdraw from participation.

(j) The Program Office should make a presentation to the Steering Committee with supporting documentation on the decisions to be made by the responsible Program AA.

#### **1872.406 Steering Committee review.**

(a) The most important role of the Steering Committee is to provide a substantive review of a potential payload or program of investigations and to recommend a selection to the Program AA. The Steering Committee applies the collective experience of representatives from the program and discipline communities and offers a forum for discussing the selection from those points of view. In addition to this mission-specific evaluation function, the Steering Committee provides guidance to subcommittee chairpersons and serves as a clearinghouse for problems and complaints regarding the process. The Steering Committee is responsible for assuring adherence to required procedures. Lastly, it is the forum where discipline objectives are weighed against program objectives and constraints.

(b) The Steering Committee represents the means for exercising three responsibilities in the process of selecting investigations to:

- (1) Review compliance with procedures governing application of the AO process.
- (2) Ensure that adequate documentation has been made of the steps in the evaluation process.
- (3) Review the results of the evaluation by the subcommittee, Project, and Program Offices and prepare an assessment or endorsement of a recommended payload or program of investigations to the Program AA.

(c) The purpose in exercising the first of the responsibilities in paragraph (b) of this section is to ensure equity and consistency in the application of the process. The Steering Committee is intended to provide the necessary reviews and coordination inherent in conventional acquisition practices.

(d) The second and third responsibilities of the Steering Committee in paragraph (b) are technical. They require that the Steering Committee review the evaluations by subcommittee, the Project Office, and the Program Office for completeness and appropriateness before forwarding to the Program AA. Most important in this review are:

- (1) Degree to which results of evaluations and recommendations follow logically from the criteria in the AO.
- (2) Consistency with objectives and policies generally beyond the scope of Project/Program Offices.
- (3) Sufficiency of reasons stated for tentative recommendations of those investigations requiring further instrument research and development.
- (4) Sufficiency of reasons stated for determining responsibilities for instrument development.
- (5) Sufficiency of consideration of reusable space flight hardware and support equipment for the recommended investigations.
- (6) Sufficiency of reasons for classifying proposed investigations in their respective categories.
- (7) Fair treatment of all proposals.

(e) The Steering Committee makes recommendations to the selection official on the payload or program of investigations and notes caveats or provisions important for consideration of the selection official.

#### **1872.407 Principles to apply.**

(a) 1872.406 contains a description of the evaluation function appropriate for a major payload or very significant program of investigation. The levels of review, evaluation, and refinement described should be applied in those selections where warranted but could be varied for less significant selection situations. It is essential to consider the principles of the several evaluative steps, but it may not be essential to maintain strict adherence to the sequence and structure of the evaluation system described. The selection official is responsible for determining the evaluation process most appropriate for the selection situation using this Subpart 1872.4 as a guide.

(b) Significant deviations from the provisions of this Part 1872 must be fully documented and be approved by the Program AA after concurrence by the Office of General Counsel and Office of Acquisition.

**Subpart 1872.5--The Selection Process**

**1872.501 General.**

The Program AA is responsible for selecting investigations for contract negotiation. This decision culminates the evaluations and processes that can be summarized as follows:

<b>Evaluation Stage</b>	<b>Principal Emphasis</b>	<b>Results</b>
Contractor (when authorized)	Summary evaluation (strengths and weaknesses)	Report to Subcommittee
Subcommittee	Science and technological relevance, value, and feasibility	Categorization of individual proposals
Project Office	Engineering/cost/integration/management assessment	Reports to Subcommittee and Program Office
Program Office Announcement and Steering Committee of	Consistency with Announcement and program objectives, and cost and schedule constraints	Recommendations to Steering Committee of payload or program investigations
Steering Committee	Logic of proposed selections and compliance with proper procedures	Recommendations to Program Associate Administrator

**1872.502 Decisions to be made.**

(a) The selection decisions by the Program AA constitute management judgments balancing individual and aggregate scientific or technological merit, the contribution of the recommended investigations to the AO's objectives, and their consonance with budget constraints to make the following decisions:

(1) Determination of the adequacy of scientific/technical analysis supporting the recommended selections. This supporting rationale should involve considerations including:

(i) Assurance that the expected return contributes substantially to program objectives and is likely to be realized.

- (ii) Assurance that the evaluation criteria were applied consistently to all proposed investigations.
  - (iii) Assurance that the set of recommended investigations constitutes the optimum program or payload considering potential value and constraints.
  - (iv) Assurance that only one investigator is assigned as the Principal Investigator to each investigation and that the Principal Investigator will assume the associated responsibilities and be the single point of contact and leader of any other investigators selected for the same investigation.
- (2) Determination as to whether available returned space hardware or support equipment, with or without modification, would be adequate to meet or support investigation objectives.
- (3) Determination, with regard to a non-Government principal investigator, as to whether the proposed instrument fabricator qualifies and should be accepted as a sole source or whether the requirement should be competitively procured. The following guidelines apply:
- (i) The hardware required should be subjected to competitive solicitation where it is clear that the capability is not sufficiently unique to justify sole source acquisition.
  - (ii) The hardware requirement should be purchased from the fabricator proposed by the investigator, which may be the investigator's own institution, (A) when the fabricator's proposal contains technical data that are not available from another source, and it is not feasible or practicable to define the fabrication requirement in such a way as to avoid the necessity of using the technical data contained in the proposal; (B) when the fabricator offers unique capabilities that are not available from another source; (C) when the selection official determines that the proposed hardware contributes so significantly to the value of the investigator's proposal as to be an integral part of it.
  - (iii) While it is NASA policy that acquisition of the necessary hardware be the responsibility of the principal investigator, NASA may buy the hardware and furnish it to the investigator only if a producer other than the one proposed by the investigator offers unique capabilities. The NASA acquisition must be justified as prescribed in FAR Subpart 6.3.
- (4) If a NASA Center submits a proposal, any requirement for hardware necessary to perform the investigation must be acquired under existing Government contracts, be competed by the installation acquisition office, or a justification must be written, synopsised, and approved in accordance with the requirements of the FAR and the NASA FAR Supplement (see 1872.308). In the event that a proposal submitted by a NASA Center includes non-Government team members that will have substantial responsibilities for performing the investigation (co-investigator organizations), and one or more of these organizations will be responsible for the acquisition of hardware, the determination described in subparagraph (a)(3) of this section must be made.
- (5) Determination of the desirability for tentative selection of investigations. This determination involves considerations including:
- (i) Assessment of the state of development of the investigative hardware, the cost and schedule for development in relation to the gain in potential benefits at the time of final selection.
  - (ii) Assurance that there is adequate definition of investigation hardware to allow parallel design of other project hardware.
  - (iii) Assurance that appropriate management procedures are contained in the project plan for reevaluation and final selection (or rejection) on an appropriate time scale.
- (6) Determination of the acceptability of the proposer's management plan, including the proposed hardware development plan, and the necessity, if any, of negotiating modifications to that plan.

(b) In the process of making the determinations described in paragraph (a)(1) of this section, the Program AA may request additional information or evaluations. In most instances, this information can be provided by the Program Office responsible for the mission, project, or program. However, the Program AA may reconvene the subcommittee or poll the members individually or provide for additional analysis or require additional data from evaluators or proposers as considered necessary to facilitate the Program AA's decision.

### **1872.503 The Selection Statement.**

Upon completion of deliberations, the responsible Program AA shall issue a selection statement. Ordinarily this statement will, upon request, be releasable to the public. As a minimum, the selection statement should include:

- (a) The general and specific evaluation criteria and relative importance used for the selection.
- (b) The categorizations provided by the subcommittee and the rationale for accepting or not accepting each Category I proposal and a succinct statement concerning the nonacceptance of all other proposals.
- (c) A concise description of each investigation accepted including an indication as to whether the selection is a partial acceptance of a proposal and/or a combination with other investigators.
- (d) The role of the Principal Investigator with regard to hardware essential to the investigation and whether the Principal Investigator will be responsible for hardware acquisition and the basis therefor.
- (e) An indication of the plan and acquisition using the regular acquisition processes, if the Principal Investigator is not to acquire the hardware.
- (f) A statement indicating whether the selection is final or tentative, recognizing the need for better definition of the investigation and its cost.
- (g) A statement indicating use of Government-owned space flight hardware and/or support equipment.

### **1872.504 Notification of proposers.**

(a) It is essential that investigators whose proposals have no reasonable chance for selection be so apprised as soon as practicable. The responsible Program Office will, upon such determination, notify investigators of that fact with the major reason(s) why the proposals were so considered. The notification letter should also inform such investigators that they may obtain a detailed oral debriefing provided they request it in writing.

(b) Letters of notification will be sent to those Principal Investigators selected to participate. This letter should not commit the agency to more than negotiations for the selected investigation, but it should indicate the decision made and contain:

- (1) A concise description of the Principal Investigator's investigation as selected, noting substantive changes, if any, from the investigation originally proposed by the Principal Investigator.
- (2) The nature of the selection, i.e., whether it should be considered final or tentative requiring additional hardware or cost definition.
- (3) A description of the role of the Principal Investigator including the responsibility for the provision of instruments for flight experiments.
- (4) Identification of the principal technical and management points to be treated in subsequent negotiations.
- (5) Any rights to be granted on use of data, publishing of data, and duration of use of the data.
- (6) Where applicable, indication that a foreign selectee's participation in the program will be arranged between the Office of External Relations, and the foreign government agency which endorsed the proposal.

(c) In conjunction with the notification of successful foreign proposers, the Program Office shall forward a letter to the responsible Office of External Relations, addressing the following:

- (1) The scientific technological objective of the effort.
- (2) The period of time for the effort.
- (3) The responsibilities of NASA and of the sponsoring governmental agency; these may include:
  - (i) Provision and disposition of hardware and software.
  - (ii) Responsibilities for reporting, reduction and dissemination of data.
  - (iii) Responsibilities for transportation of hardware.
- (4) Any additional information pertinent to the conduct of the experiment.

(d) Using the information provided above, the Office of External Relations will negotiate an agreement with the sponsoring foreign agency.

(e) Notices shall also be sent to those proposers not notified pursuant to the paragraphs (a) through (d) of this section, and, as applicable, a copy to the sponsoring foreign government agency. It is important that these remaining proposers be informed at the same time as those selected. Other agency notifications and press release procedures will apply, as appropriate.

### **1872.505 Debriefing.**

It is the policy to debrief, if requested, unsuccessful proposers of investigations in accordance with FAR 15.5. The following shall be considered in arranging and conducting debriefings:

(a) Debriefing shall be done by an official designated by the responsible Program AA. Any other personnel receiving requests for information concerning the rejection of a proposal shall refer to the designated official.

(b) Debriefing of unsuccessful offerors shall be made at the earliest possible time; debriefing will generally be scheduled subsequent to selection but prior to award of contracts to the successful proposers.

(c) Material discussed in debriefing shall be factual and consonant with the documented findings of several stages of the evaluation process and the selection statement.

(d) The debriefing official shall advise of weak or deficient areas in the proposal, indicate whether those weaknesses were factors in the selection, and advise of the major considerations in selecting the competing successful proposer where appropriate.

(e) The debriefing official shall not discuss other unsuccessful proposals, ranking, votes of members, or attempt to make a point-by-point comparison with successful proposals.

(f) A memorandum of record of the debriefing shall be provided the Chairperson of the Steering Committee.

## **Subpart 1872.6--Payload Formulation**

### **1872.601 Payload formulation.**

(a) Payload elements for Space Transportation System (STS) missions can come from many sources. These include those selected through AOs, those generated by in-house research, unsolicited proposals and those derived from agreements between NASA and external entities. However, it is anticipated that the primary source of NASA payload elements will be the AO process. Generally, proposals for payload elements submitted outside the AO process will not be selected if they would have been responsive to an AO objective.

(b) Payload elements for STS flights fall into two major categories. "NASA or NASA-related"

payload elements are those which are developed by a NASA Program Office or by another party with which NASA has a shared interest. "Non-NASA" payload elements are those which require only STS operation services from NASA and interface with NASA through the Office of Space Flight.

(c) In general, a Program Office will be designated responsibility for formulating the "NASA or NASA-related" portion of an STS payload. The Office of Space Flight will be responsible for formulating the "non-NASA" portion of an STS payload. Flights may, of course, consist wholly of payload elements of either type. Resource allocation for mixed missions will be determined by the Program Office and the Office of Space Flight.

### **Subpart 1872.7--Acquisition and Other Considerations**

#### **1872.701 Early involvement essential.**

(a) The distinctive feature of the AO process is that it is both a program planning system and an acquisition system in one procedure. The choice of what aeronautical and space phenomena to investigate is program planning. Acquisition is involved with the purchase of property and services to carry out the selected investigations.

(b) Because of both the programmatic and multi-functional aspects of the AO process, early involvement of external program office elements is essential. Success of the process requires that it proceed in a manner that meets program goals and complies with statutory requirements and acquisition policy.

(c) The planning, preparation and selection schedule for the investigation should commence early enough to meet statutory and regulatory requirements. Chief of these are the requirements for soliciting maximum feasible competition and for conducting discussions with offerors within the competitive range by the Project Office and/or any other evaluation group or office authorized by the selection official.

#### **1872.702 Negotiation, discussions, and contract award.**

(a) The AO shall be synopsisized in the Commerce Business Daily. Responses to the synopsis must be added to the AO mailing list. Every effort should be made to publish opportunities far enough in advance to encourage a broad response. (In no case less than 45 days before the date set for receipt of proposals).

(b) Significant items for consideration after receipt of proposals:

(1) Late Proposals -- The policy on late proposals contained in 1815.208 is applicable. Potential investigators should be informed of this policy. In the AO context, the selection official or designee will determine whether a late proposal will be considered.

(2) Competitive Consideration.

(i) The proposals submitted in response to the AOs are not necessarily fully comparable. However, all proposals within the scope of an opportunity must be evaluated in accordance with the criteria in the AO.

(ii) Cost must be considered in the evaluation if costs are involved in the investigation. General cost information should be given to the subcommittee by the Installation Project Office for use in determining the categories into which the subcommittee places proposals.

(iii) Further information should be obtained, as necessary, by the Installation Project Office and/or any other evaluation group authorized by the selection official and from the investigators whose proposals are being considered. This is similar to the acquisition procedure for conducting written and oral discussions. A major consideration during discussions is to avoid unfairness and unequal

treatment. Good judgment is required by in the extent and content of the discussions. There should be no reluctance in obtaining the advice and guidance of management and staff offices during the discussion phase. A summary should be prepared of the primary points covered in the written and oral discussions and show the effect of the discussions on the evaluation of proposals. This summary should also contain general information about the questions submitted to the investigators, the amount of time spent in oral discussion, and revisions in proposals, if any, resulting from the discussions.

(iv) During the conduct of discussions, all proposers being considered shall be offered an equitable opportunity to submit cost, technical, or other revisions in their proposals as may result from the discussions. All proposers shall be informed that any revisions to their proposals must be submitted by a common cut-off date in order to be considered. The record should note compliance of the investigators with that cut-off date.

(c) Significant items for consideration before award:

(1) Issuance of a Request for Proposal (RFP)--A formal RFP should not be issued to obtain additional information on proposals accepted under the AO process. Additional technical, cost, or other data received should be considered as a supplement to the original proposal.

(2) Selection of Investigator/Contractor--The selection decision of the Program AA approves the selected investigators and their institutions as the only satisfactory sources for the investigations. The selection of the investigator does not constitute the selection of that person's proposed supporting hardware fabricator unless the selection official specifically incorporates the fabricator in the selection decision.

### **1872.703 Application of the Federal Acquisition Regulation (FAR) and the NASA FAR Supplement.**

The AO process supplants normal acquisition procedures only to the extent necessary to meet the distinctive features of the process. This process is not intended to conflict with any established statutory requirements.

### **1872.704 Other administrative and functional requirements.**

After selection, all other applicable administrative and functional requirements will be complied with or incorporated in any resultant contract.

### **1872.705 Format of Announcement of Opportunity (AO).**

Use the following format instructions when drafting AOs:

OMB Approval Number 2700-0085

**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
Washington, DC 20546**

### **ANNOUNCEMENT OF OPPORTUNITY**

**A0 No. \_\_\_\_\_ (Issuance Date)**

**(Descriptive Heading)**

#### **I. Description of the Opportunity.**

This section should set forth the basic purpose of the AO and describe the opportunity in terms of NASA's desire to obtain proposals which will meet the stated scientific, applications and/or technological objectives. These objectives may be directed to the generation of proposals for investigations and/or they may pertain to the acquisition of dissimilar ideas leading to selection of

investigators, guest observers, guest investigators, or theorists. In those instances where proposals for investigations are sought, this section should describe the requirement, if any, for selected investigators to serve on advisory or working groups. In those instances where the project or program has not yet been approved, a qualifying statement should be included to indicate that this AO does not constitute an obligation for the Government to carry the effort to completion.

## **II. NASA's Safety Priority.**

Safety is the freedom from those conditions that can cause death, injury, occupational illness, damage to or loss of equipment or property, or damage to the environment. NASA's safety priority is to protect--

- (1) The public;
- (2) Astronauts and pilots;
- (3) The NASA workforce (including NASA employees working under NASA instruments); and
- (4) High-value equipment and property.

## **III. AO Objectives.**

This section will give a succinct statement of the specific scientific, applications, and/or technological objective(s) for the opportunity(s) for which proposals are sought.

## **IV. Background.**

This section should provide an explanation of the context of the opportunity, i.e., information which will help the reader understand the relevance of the opportunity.

## **V. Proposal Opportunity Period.**

This section should provide the proposal opportunity period(s). The following methods may be used individually or in conjunction for establishing the proposal opportunity period(s):

(a) The AO may be issued establishing a single date by which proposals may be received. However, the AO could provide that the agency may amend the AO to provide for subsequent dates for submission of proposals, if additional investigations are desired.

(b) The AO may be issued to provide for an initial submission date with the AO to remain open for submission of additional proposals up to a final cutoff date. This final date should be related to the availability of resources necessary to evaluate the continuous flow of proposals and the time remaining prior to the flight opportunities contemplated by the AO.

(c) The AO may be issued establishing a number of dates by which proposals may be received. Normally no more than three proposal submission dates should be established. The submittal dates may be spread over the number of months most compatible with the possible flight opportunities and the availability of resources necessary to evaluate and fund the proposal. If desired, this section should further inform the reader that if a proposal receives a Category I, II, or III rating but is not selected for immediate support, the proposal may, if desired by the proposer, be held by NASA for later consideration within the ground rules set forth in paragraphs 1 and 2. The section should inform the reader that if the person wishes the proposal to be so treated, it should be indicated in the proposal. This section should further indicate that offerors whose proposals are to be considered at a later time will be given the opportunity to revalidate their proposals with their institution and update cost data.

## **VI. Requirements and Constraints.**

(a) This section will include technical, programmatic, cost, and schedule requirements or constraints, as applicable, and will specify performance limits such as lifetime, flight environment,

safety, reliability, and quality assurance provisions for flight-worthiness. It will specify the requirements and constraints related to the flight crew and the ground support. It will also include requirements for data analysis, estimated schedule of data shipment to user or observer, need for preliminary or raw data analysis and interim reports. It will specify the planned period (time) for data analysis to be used for budgeting. It will provide any additional information necessary for a meaningful proposal.

(b) When NASA determines that instrumentation, ground support equipment, or NASA supporting effort will be required or may be expected to be required by the contemplated investigations, the AO should indicate to the potential investigators that they must submit specific information regarding this requirement to allow an in-depth evaluation of the technical aspects, cost, management, and other factors by the Installation Project Office.

## **VII. Proposal Submission Information.**

(a) **Preproposal Activities.** In this section, the AO will indicate requirements and activities such as the following:

(1) Submittal of "Notice of Intent" to propose (if desired), date for submission, and any additional required data to be submitted. Indicate whether there are information packages which will only be sent to those who submit "Notice of Intent."

(2) Attendance at the preproposal conference (if held). Information should be provided as to time, place, whether attendance will be restricted in number from each institution, and whether prior notice of intention to attend is required. If desired, a request may be included that questions be submitted in writing several days before the conference in order to prepare replies.

(3) The name and address of the scientific or technical contact for questions or inquiries.

(4) Any other preproposal data considered necessary.

(b) **Format of Proposals--**This section should provide the investigator with the information necessary to enable an effective evaluation of the proposal. The information is as follows:

(1) *Proposal--*The AO should indicate how the proposal should be submitted to facilitate evaluation. The proposal should be submitted in at least two sections; (i) Investigation and Technical Section; and (ii) Management and Cost Section.

(2) *Signatory--*The proposal must be signed by an institutional official authorized to ensure institutional support, sponsorship of the investigation, management, and financial aspects of the proposal.

(3) *Quantity--*The number of copies of the proposal should be specified. One copy should be clear black and white, and on white paper of quality suitable for reproduction.

(4) *Submittal Address--*Proposals from domestic sources should be mailed to arrive not later than the time indicated for receipt of proposals to:

National Aeronautics and Space Administration  
Office of (Program)  
Code \_\_\_\_\_ AO No. \_\_\_\_\_  
Washington, DC 20546

(5) *Format--*To aid in proposal evaluation, and to facilitate comparative analysis, a uniform proposal format will be required for each AO. The number of pages, page size, and restriction on photo reduction, etc., may be included. The format contained in Appendix B can be used as a guide. Proposers may be requested to respond to all of the items or the AO may indicate that only selected items need be addressed. Using the Appendix format as a guide, specific guidelines may be prepared for the AO or an appropriate form developed.

(c) *Additional Information*--This section may be used to request or furnish data necessary to obtain clear proposals that should not require further discussions with the offeror by the evaluators. Other pertinent data could also be included, such as significant milestones.

(d) *Foreign Proposals*--The procedures for submission of proposals from outside the U.S. are contained in Appendix B, "Guidelines for Proposal Preparation." This section will describe any additional requirements, for example, if information copies of proposals are required to be furnished by the proposer to other organizations at the same time the proposal is submitted.

(e) *Cost Proposals (U.S. Investigators Only)*--This section defines any special requirements regarding cost proposals of domestic investigators. Reference then should be made to the cost proposal certifications indicated in Appendix B, "Guidelines for Proposal Preparation."

### **VIII. Proposal Evaluation, Selection, and Implementation.**

#### *(a) Evaluation and Selection Procedure.*

(1) This section should notify the proposers of the evaluation process.

(2) For example, a statement similar to the following should be included:

"Proposals received in response to this AO will be reviewed by a subcommittee appointed by the (appropriate Program AA). The purpose of the review is to determine the scientific/technical merit of the proposals in the context of this AO and so categorize the proposals. Those proposals which are considered to have the greatest scientific/technical merit are further reviewed for engineering, integration, management, and cost aspects by the Project Office at the installation responsible for the project. On the basis of these reviews, and the reviews of the responsible Program Office and the Steering Committee, the (appropriate Program Associate Administrator) will appoint/select the investigators/investigations."

#### *(b) Evaluation Criteria.*

(1) This section should indicate that the selection of proposals which best meet the specific scientific, applications, and/or technological objectives, stated in the AO, is the aim of the solicitation. This section should list the criteria to be used in the evaluation of proposals and indicate their relative importance. See NASA FAR Supplement 1872.402 for a listing of criteria generally appropriate.

(2) This section will also inform the proposers that cost and management factors, e.g., proposed small business participation in instrumentation fabrication or investigation support, will be separately considered.

### **IX. Schedule.**

This section should include the following, as applicable:

(a) Preproposal conference date.

(b) Notice of Intent submittal date.

(c) Proposal submittal date(s).

(d) Target date for announcement of selections.

### **X. Appendices.**

(a) General Instructions and Provisions (must be attached to each AO).

(b) Other Pertinent Data, e.g., Spacelab Accommodations Data.

/s/

Associate Administrator for (Program)

## **1872.705-1 Appendix A: General Instructions and Provisions.**

Include the following in all Announcements of Opportunity:

### **I. Instrumentation and/or Ground Equipment.**

By submitting a proposal, the investigator and institution agree that NASA has the option to accept all or part of the offeror's plan to provide the instrumentation or ground support equipment required for the investigation or NASA may furnish or obtain such instrumentation or equipment from any other source as determined by the selecting official. In addition, NASA reserves the right to require use, by the selected investigator, of Government instrumentation or property that becomes available, with or without modification, that will meet the investigative objectives.

### **II. Tentative Selections, Phased Development, Partial Selections, and Participation with Others.**

By submitting a proposal, the investigator and the organization agree that NASA has the option to make a tentative selection pending a successful feasibility or definition effort. NASA has the option to contract in phases for a proposed experiment, and to discontinue the investigative effort at the completion of any phase. The investigator should also understand that NASA may desire to select only a portion of the proposed investigation and/or that NASA may desire the individual's participation with other investigators in a joint investigation, in which case the investigator will be given the opportunity to accept or decline such partial acceptance or participation with other investigators prior to a selection. Where participation with other investigators as a team is agreed to, one of the team members will normally be designated as its team leader or contact point.

### **III. Selection Without Discussion.**

The Government reserves the right to reject any or all proposals received in response to this AO when such action shall be considered in the best interest of the Government. Notice is also given of the possibility that any selection may be made without discussion (other than discussions conducted for the purpose of minor clarification). It is therefore emphasized that all proposals should be submitted initially on the most favorable terms that the offeror can submit.

### **IV. Foreign Proposals.**

See Appendix B, Management Plan and Cost Plan, paragraph (a)(3).

### **V. Treatment of Proposal Data.**

It is NASA policy to use information contained in proposals and quotations for evaluation purposes only. While this policy does not require that the proposal or quotation bear a restrictive notice, offerors or quoters should place the following notice on the title page of the proposal or quotation and specify the information, subject to the notice by inserting appropriate identification, such as page numbers, in the notice. Information (data) contained in proposals and quotations 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. To prevent inadvertent disclosure, proposal data shall not be included in submissions (e.g. final reports) that are routinely released to the public.

### **RESTRICTION ON USE AND DISCLOSURE OF PROPOSAL AND QUOTATION INFORMATION (DATA)**

The information (data) contained in [insert page numbers or other identification] of this proposal or quotation 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 for other than evaluation purposes; provided, however, that in the event a contract is awarded on the basis of this proposal or quotation the Government shall have the right to use and disclose this information (data) to the extent provided in the contract. This restriction does not limit the Government's right to use or disclose this information (data) if obtained from another source without restriction.

#### **VI. Status of Cost Proposals (U.S. Proposals Only).**

The investigator's institution agrees that the cost proposal is for proposal evaluation and selection purposes, and that following selection and during negotiations leading to a definitive contract, the institution may be required to resubmit cost information in accordance with FAR 15.403-5.

#### **VII. 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.

#### **VIII. Source of Space Transportation System Investigations.**

Investigators are advised that candidate investigations for Space Transportation System (STS) missions can come from many sources.

#### **IX. Disclosure of Proposals Outside Government.**

NASA may find it necessary to obtain proposal evaluation assistance outside the Government. Where NASA determines it is necessary to disclose a proposal outside the Government for evaluation purposes, arrangements will be made with the evaluator for appropriate handling of the proposal information. Therefore, by submitting a proposal the investigator and institution agree that NASA may have the proposal evaluated outside the Government. If the investigator or institution desire to preclude NASA from using an outside evaluation, the investigator or institution should so indicate on the cover. However, notice is given that if NASA is precluded from using outside evaluation, it may be unable to consider the proposal.

#### **X. Equal Opportunity (U.S. Proposals Only).**

By submitting a proposal, the investigator and institution agree to accept the following clause in any resulting contract:

##### **EQUAL OPPORTUNITY**

During the performance of this contract, the Contractor agrees as follows:

(a) The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin.

(b) The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. This shall include, but not be limited to, (1) employment, (2) upgrading, (3) demotion, (4) transfer, (5) recruitment or recruitment advertising, (6) layoff or termination, (7) rates of pay or other forms of compensation, and (8) selection for training, including apprenticeship.

(c) The Contractor shall post in conspicuous places available to employees and applicants for employment the notices to be provided by the Contracting Officer that explain this clause.

(d) The Contractor shall, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

(e) The Contractor shall send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding the notice to be provided by the Contracting Officer, advising the labor union or workers' representative of the Contractor's commitments under this clause, and post copies of the notice in conspicuous places available to employees and applicants for employment.

(f) The Contractor shall comply with Executive Order 11246, as amended, and the rules, regulations, and orders of the Secretary of Labor.

(g) The Contractor shall furnish to the contracting agency all information required by Executive Order 11246, as amended, and by the rules, regulations, and orders of the Secretary of Labor. Standard Form 100 (EEO-1), or any successor form, is the prescribed form to be filed within 30 days following the award, unless filed within 12 months preceding the date of award.

(h) The Contractor shall permit access to its books, records, and accounts by the contracting agency or the Office of Federal Contract Compliance Programs (OFCCP) for the purposes of investigation to ascertain the Contractor's compliance with the applicable rules, regulations, and orders.

(i) If the OFCCP determines that the Contractor is not in compliance with this clause or any rule, regulation, or order of the Secretary of Labor, the contract may be canceled, terminated, or suspended in whole or in part, and the Contractor may be declared ineligible for further Government contracts, under the procedures authorized in Executive Order 11246, as amended. In addition, sanctions may be imposed and remedies invoked against the Contractor as provided in Executive Order 11246, as amended, the rules, regulations, and orders of the Secretary of Labor, or as otherwise provided by law.

(j) The Contractor shall include the terms and conditions of subparagraph l through 9 of this clause in every subcontract or purchase order that is not exempted by the rules, regulations, or orders of the Secretary of Labor issued under Executive Order 11246, as amended, so that these terms and conditions will be binding upon each subcontractor or vendor.

(k) The Contractor shall take such action with respect to any subcontract or purchase order as the contracting agency may direct as means of enforcing these terms and conditions, including sanctions for non-compliance; provided, that if the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of direction, the Contractor may request the United States to enter into the litigation to protect the interests of the United States.

## **XI. Patent Rights.**

(a) For any contract resulting from this solicitation awarded to other than a small business firm or nonprofit organization, the clause at 1852.227-70, "New Technology," shall apply. Such contractors may, in advance of contract, request waiver of rights as set forth in the provision at 1852.227-71, "Requests for Waiver of Rights to Inventions."

(b) For any contract resulting from this solicitation awarded to a small business firm or nonprofit organization, the clause at FAR 52.227-11, "Patent Rights--Retention by the Contractor (Short Form)" (as modified by 1852.227-11), shall apply.

## **1872.705-2 Appendix B: Guidelines for Proposal Preparation.**

The following guidelines apply to the preparation of proposals in response to an AO. The material is a guide for the proposer and not intended to be encompassing or directly applicable to the various types of proposals which can be submitted. The proposer should provide information relative to

those items applicable or as required by the AO.

### **I. Cover Letter.**

A letter or cover page should be forwarded with the proposal signed by the investigator and an official by title of the investigator's organization who is authorized to commit the organization responsible for the proposal.

### **II. Table of Contents.**

The proposal should contain a table of contents.

### **III. Identifying Information.**

The proposal should contain a short descriptive title for the investigation, the names of all investigators, the name of the organization or institution and the full name, address, and telephone number of the Principal Investigator.

## **INVESTIGATION AND TECHNICAL PLAN**

### **(a) Investigation and Technical Plan.**

The investigation and technical plan generally will contain the following:

- (1) *Summary.* A concise statement about the investigation, its conduct, and the anticipated results.
- (2) *Objective and Significant Aspects.* A brief definition of the objectives, their value, and their relationships to past, current, and future effort. The history and basis for the proposal and a demonstration of the need for such an investigation. A statement of present development in the discipline field.
- (3) *Investigation Approach.*
  - (i) Fully describe the concept of the investigation.
  - (ii) Detail the method and procedures for carrying out the investigation.

### **(b) Instrumentation.**

This section should describe all information necessary to plan for experiment development, integration, ground operations, and flight operations. This section must be complete in itself without need to request additional data. Failure to furnish complete data may preclude evaluation of the proposal.

- (1) *Instrument Description*--This section should fully describe the instrumentation and indicate items which are proposed to be developed as well as any existing instrumentation. Performance characteristics should be related to the experiment objectives as stated in the proposal.
- (2) *Instrument Integration*--This section should describe all parameters of the instrument pertinent to the accommodation of the instrument in the spacecraft, Spacelab, Shuttle Orbiter, Space Station, etc. These include, but are not limited to, volumetric envelope; weight; power requirements; thermal requirements; telemetry requirement; sensitivity to or generation of contamination (e.g., EMI gaseous effluent); data processing requirements.
- (3) *Ground Operations*--This section should identify requirements for pre-launch or post-launch ground operations support.
- (4) *Flight Operations*--This section should identify any requirements for flight operations support including mission planning. Operational constraints, viewing requirements, and pointing requirements should also be identified. Details of communications needs, tracking needs, and special techniques, such as extravehicular activity or restrictions in the use of control thrusters at stated times should be delineated. Special communications facilities that are needed must be described. Any special orbital requirements, such as time of month, of day, phase of moon, and lighting conditions are to be given in detail. Describe real-time ground support requirements and indicate any special equipment or skills required of ground personnel.

**(c) Data Reduction and Analysis.**

A discussion of the data reduction and analysis plan including the method and format. A section of the plan should include a schedule for the submission of reduced data to the receiving point. In the case of Space Science programs, the National Space Science Data Center, Greenbelt, MD, will be the repository for such data and the Department of Interior, Sioux Falls, SD, for earth observations data.

**(d) Orbiter Crew and/or Payload Specialist Training Requirement.**

A description of the tasks required of each crew member (Commander, Pilot, Mission Specialist) or payload specialist should be provided, including the task duration and equipment involved. Indicate special training necessary to provide the crew members or payload specialist(s) with the capability for performing the aforementioned tasks.

**MANAGEMENT PLAN AND COST PLAN**

**(a) Management Plan.**

The management plan should summarize the management approach and the facilities and equipment required. Additional guidelines applicable to non-U.S. proposers are contained herein:

*(1) Management.*

(i) The management plan sets forth the approach for managing the work, the recognition of essential management functions, and the overall integration of these functions.

(ii) The management plan gives insight into the organization proposed for the work, including the internal operations and lines of authority with delegations, together with internal interfaces and relationships with the NASA major subcontractors and associated investigators. Likewise, the management plan usually reflects various schedules necessary for the logical and timely pursuit of the work accompanied by a description of the investigator's work plan and the responsibilities of the co-investigators.

(iii) The plan should describe the proposed method of instrument acquisition. It should include the following, as applicable.

(A) Rationale for the investigator to obtain the instrument through or by the investigator's institution.

(B) Method and basis for the selection of the instrument fabricator.

(C) Unique capabilities of the instrument fabricator that are not available from any other source.

(D) Characteristics of the proposed fabricator's instrument that make it an inseparable part of the investigation.

(E) Availability of personnel to administer the instrument contract and technically monitor the fabrication.

(F) Status of development of the instrument.

(G) Method by which the investigator proposes to:

(a) Prepare instrument specifications.

(b) Review development progress.

(c) Review design and fabrication changes.

(d) Participate in testing program.

(e) Participate in final checkout and calibration.

(f) Provide for integration of instrument.

(g) Support the flight operations.

(h) Coordinate with co-investigators, other related investigations, and the payload integrator.

(i) Assure safety, reliability, and quality.

(j) Provide required support for Payload Specialist(s), if applicable.

(H) Planned participation by small and/or minority business in any subcontracting for instrument fabrication or investigative support functions.

(2) *Facilities and Equipment.*

All major facilities, laboratory equipment, and ground-support equipment (GSE) (including those of the investigator's proposed contractors and those of NASA and other U.S. Government agencies) essential to the experiment in terms of its system and subsystems are to be indicated, distinguishing insofar as possible between those already in existence and those that will be developed in order to execute the investigation. The outline of new facilities and equipment should also indicate the lead time involved and the planned schedule for construction, modification, and/or acquisition of the facilities.

(3) *Additional Guidelines Applicable to Non-U.S. Proposers Only.*

The following guidelines are established for foreign responses to NASA's AO. Unless otherwise indicated in a specific announcement, these guidelines indicate the measures to be taken by foreign proposers, prospective foreign sponsoring agencies, and NASA leading to the selection of a proposal and execution of appropriate arrangements. They include the following:

**(i) Where a "Notice of Intent" to propose is requested, prospective foreign proposers should write directly to the NASA official designated in the AO.**

(ii) Unless otherwise indicated in the AO, proposals will be submitted in accordance with this Appendix. Proposals should be typewritten and written in English. Foreign entities are generally not eligible for funding from NASA. Therefore, 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 (unless otherwise noted in the AO).

(iii) Persons planning to submit a proposal should arrange with an appropriate foreign governmental agency for a review and endorsement of the proposed activity. Such endorsement by a foreign organization indicates that the proposal merits careful consideration by NASA and that, if the proposal is selected, sufficient funds will be available to undertake the activity envisioned.

(iv) Proposals including the requested number of copies and letters of endorsement from the foreign governmental agency must be forwarded to NASA in time to arrive before the deadline established for each AO.

(v) Those proposals received after the closing date will be treated in accordance with NASA's provisions for late proposals. Sponsoring foreign government agencies may, in exceptional situations, forward a proposal directly to the above address if review and endorsement is not possible before the announced closing date. In such cases, NASA should be advised when a decision on endorsement can be expected.

(vi) Shortly after the deadline for each AO, the Program Office will advise the appropriate sponsoring agency which proposals have been received and when the selection process should be completed. A copy of this acknowledgment will be provided to each proposer.

(vii) Successful and unsuccessful proposers will be contacted directly by the NASA Program Office coordinating the AO. Copies of these letters will be sent to the sponsoring Government agency.

(viii) NASA's Office of External Relations will then begin making the arrangements to provide for the selectee's participation in the appropriate NASA program. Depending on the nature and extent of the proposed cooperation, these arrangements may entail:

(A) An exchange of letters between NASA and the sponsoring foreign governmental agency.

(B) An agreement or Memorandum of Understanding between NASA and the sponsoring foreign governmental agency.

**(b) Cost Plan (U.S. Investigations Only).**

The cost plan should summarize the total investigation cost by major categories of cost as well as by function.

(1) The categories of cost should include the following:

(i) *Direct Labor*--List by labor category, with labor hours and rates for each. Provide actual salaries

of all personnel and the percentage of time each individual will devote to the effort.

(ii) *Overhead*--Include indirect costs. Usually this is in the form of a percentage of the direct labor costs.

(iii) *Materials*--This should give the total cost of the bill of materials including estimated cost of each major item. Include lead time of critical items.

(iv) *Subcontracts*--List those over \$25,000, specify the vendor and the basis for estimated costs. Include any baseline or supporting studies.

(v) *Special Equipment*--Include a list of special equipment with lead and/or development time.

(vi) *Travel*--List estimated number of trips, destinations, duration, purpose, number of travelers, and anticipated dates.

(vii) *Other Costs*--Costs not covered elsewhere.

(viii) *General and Administrative Expense*--This includes the expenses of the institution's general and executive offices and other miscellaneous expenses related to the overall business.

(ix) *Fee* (if applicable).

(2) Separate schedules, in the above format, should be attached to show total cost allocable to the following:

(i) Principal Investigator and other Investigators' costs.

(ii) Instrument costs.

(iii) Integration costs.

(iv) Data reduction and analysis including the amount and cost of computer time.

(3) If the effort is sufficiently known and defined, a funding obligation plan should provide the proposed funding requirements of the investigations by quarter and/or annum keyed to the work schedule.

(4) 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.

### **1872.705-3 Appendix C: Glossary of Terms and Abbreviations Associated with Investigations.**

*Advisory Committee Subcommittee*--Any committee, board, commission, council, conference, panel, task force; or other similar group, or any subcommittee or other subgroup thereof, that is not wholly composed of full-time Federal Government employees, and that is established or utilized by NASA in the interest of obtaining advice or recommendations.

*Announcement of Opportunity (AO)*--A document used to announce opportunities to participate in NASA programs.

*AO Process*--A term used to describe the program planning and acquisition procedure used to acquire investigative effort, initiated by an AO.

*Categorization*--The process whereby proposed investigations are classified into four categories: synopsized here as Category I--recommended for immediate acceptance; Category II--recommended for acceptance but at a lower priority than Category I proposals; Category III--sound investigations requiring further development; Category IV--rejected.

*Co-Investigator (Co-I)*--Associate of a Principal Investigator, responsible to the Principal Investigator for discrete portions or tasks of the investigation. A NASA employee can participate as a Co-I on an investigation proposed by a private organization.

*Data Users*--Participants in NASA programs, selected to perform investigations utilizing data from NASA payloads or facilities.

*Experiments*--Activities or effort aimed at the generation of data. NASA-sponsored experiments generally concern generation of data obtained through measurement of aeronautical and space phenomena or use of space to observe earth phenomena.

*Federal Acquisition Regulation (FAR)*--The regulations governing the conduct of acquisition.

*Flight*--That portion of the mission encompassing the period from launch to landing or launch to termination of the active life of spacecraft. The term "*shuttle flight*" means a single shuttle round trip--its launch, orbital activity, and return; one flight might deliver more than one payload. More than one flight might be required to accomplish one mission.

*Flight Investigation*--Investigation conducted utilizing aeronautical or space instrumentation.

*Flight Opportunity*--A flight mission designed to accommodate one or more experiments or investigations.

*Guest Investigators*--Investigators selected to conduct observations and obtain data within the capability of a NASA mission, which are additional to the mission's primary objectives. Sometimes referred to as Guest Observers.

*Investigation*--Used interchangeably with "Experiments."

*Investigation Team*--A group of investigators collaborating on a single investigation.

*Investigator*--A participant in an investigation. May refer to the Principal Investigator, Co-Investigator, or member of an investigation team.

*Mission*--The performance of a coherent set of investigations or operations in space to achieve program goals. (Example: Measure detailed structure of Sun's chromosphere; survey mineral resources of North America.)

*NASA FAR Supplement*--Acquisition regulations promulgated by NASA in addition to the FAR.

*NMI*--NASA Management Instruction.

*Notice of Intent*--A notice or letter submitted by a potential investigator indicating the intent to submit a proposal in response to an AO.

*Payload*--A specific complement of instruments, space equipment, and support hardware carried to space to accomplish a mission or discrete activity in space.

*Peer Group*--A gathering of experts in related disciplinary areas convened as a subcommittee of the Program Office Steering Committee to review proposals for flight investigations.

*Peer Review*--The process of proposal review utilizing a group of peers in accordance with the categorization criteria as outlined in this Handbook.

*Principal Investigator (PI)*--A person who conceives an investigation and is responsible for carrying it out and reporting its results. A NASA employee can participate as a PI only on a government-proposed investigation.

*Program*--An activity involving human resources, materials, funding, and scheduling necessary to achieve desired goals.

*Project*--Within a program, an undertaking with a scheduled beginning and ending, which normally involves the design, construction, and operation of one or more aeronautical or space vehicles and necessary ground support in order to accomplish a scientific or technical objective.

*Project Office*--An office generally established at a NASA field installation to manage a project.

*Selection Official*--The NASA official designated to determine the source for award of a contract or grant.

*Space Facility*--An instrument or series of instruments in space provided by NASA to satisfy a general objective or need.

*Steering Committee*--A standing NASA sponsored committee providing advice to the Program Associate Administrators and providing procedural review over the investigation selection process. Composed wholly of full-time Federal Government employees.

*Study Office*--An office established at a NASA field installation to manage a potential undertaking which has not yet developed into project status.

*Subcommittee*--An arm of the Program Office Steering Committee consisting of experts in relevant disciplines to review and categorize proposals for investigations submitted in response to an AO.

*Supporting Research and Technology (SR&T)*--The programs devoted to the conduct of research and development necessary to support and sustain NASA programs.

*Team*--A group of investigators responsible for carrying out and reporting the results of an

investigation or group of investigations.

*Team Leader*--The person appointed to manage and be the point of contact for the team and who is responsible for assigning respective roles and privileges to the team members and reporting the results of the investigation.

*Team Member* -- A person appointed to a team who is an associate of the other members of the team and is responsible to the team leader for assigned tasks or portions of the investigation.