this system is incorporated into the NASA FAR Supplement.

# 101 Key Features of the System

1. Use of the system commences with a Program Associate Administrator's determination that the investigation acquisition process is appropriate for a program. An Announcement of Opportunity (AO) is disseminated to the interested community. 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 Program Associate Administrator (Program AA) 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.

The Program AA 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.

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

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

b. An evaluation team shall be formed including recognized peers of the investigators.

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

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

e. 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.

f. Selections shall be made by the Program AA.

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

4. When the need is determined by the Program AA, payload specialists will be selected in accordance with NMI 7100.16, Payload Specialists for Space Transportation Systems (STS) Missions.

#### 102 Management Responsibilities

1. Program AA are responsible for overseeing the process and for making key decisions essential to the process including:

a. Determination to use the investigation acquisition system.

b. Appointment of the steering committee members.

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

d. Reuse, to the maximum extent practicable, of space hardware and support equipment.

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

f. Issuance of the AO.

g. 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.

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

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

2. The Program AA should call upon any required experts throughout the process. The remaining chapters of this Handbook will discuss the exercise of the foregoing responsibilities in greater detail.

# Chapter 2—Applicability of the Process

### 200 General

The system used for acquisition of investigations is separate from the agency procedures for procurement 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.

## 201 Criteria for Determining Applicability

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

a. NASA has a general objective which can be furthered through novel experimental approaches. To develop such approaches, NASA wishes to draw upon the broadest reservoir of ideas that can be made available. b. Choices must be made among competing ideas in expanding knowledge.

c. Individual participation of an investigator is essential to exploitation of the opportunity.

2. The investigations acquisition process shall not be used when any of the following characteristics are present:

a. The requiring office can define a requirement sufficiently to allow for normal procurement.

b. 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.

c. It is not possible or considered essential to the program to follow the steps of the investigations acquisition process.

# 202 Programs and Activities Where Use May be Considered

1. General—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 several types of opportunity. A discussion of several types of programs, the opportunities they offer, and comment on the suitability of the special process follows.

2. Exploration and Space Research Flights

a. Examples—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.

b. Types of Opportunity

(1) A common and sought after opportunity is to participate 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.

(2) There may also be an opportunity to serve on a PI's team as a member or Co-Investigator.

(3) A type of opportunity that generally involves the use of data from another investigator's instrument is that of guest investigator or guest observer. Guest investigators usually participate after the primary objectives have been satisfied for the investigations involved.

(4) A team may be 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.

c. Selection and Acquisition Procedures— The investigation acquisition process may be applicable to all of these 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.

#### 3. Minor Missions

a. Examples—Research aircraft, sounding rockets, balloons, and minor missions are