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.

c. Ground Operations—This section should identify requirements for pre-launch or postlaunch ground operations support.

d. 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.

#### 3. 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 the Interior, Sioux Falls, SD, for earth observations data.

## 4. 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.

### SECTION II—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

- a. The management plan sets forth the approach for managing the work, the recognition of essential management functions, and the overall integration of these
- b. 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.

- c. The plan should describe the proposed method of instrument acquisition. It should include the following, as applicable.
- (1) Rationale for the investigator to obtain the instrument through or by the investigator's institution.
- (2) Method and basis for the selection of the instrument fabricator.
- (3) Unique capabilities of the instrument fabricator that are not available from any other source.
- (4) Characteristics of the proposed fabricator's instrument that make it an inseparable part of the investigation.
- (5) Availability of personnel to administer the instrument contract and technically monitor the fabrication.
- (6) Status of development of the instrument.
- (7) 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.
- (8) 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 appropriate 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:

a. Where a "Notice of Intent" to propose is requested, prospective foreign proposers should write directly to the NASA official designated in the AO and send a copy of this letter to the International Relations Division, Office of External Relations, Code IR, NASA, Washington, DC 20546, U.S.A.

- b. Unless otherwise indicated in the AO, proposals will be submitted in accordance with this Appendix excluding cost plans. Proposals should be typewritten and written in English.
- c. 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.
- d. 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. These documents should be sent to:

National Aeronautics and Space

Administration International Relations Division Code IR Office of External Relations

Washington, DC 20546 U.S.A.

- e. 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.
- f. Shortly after the deadline for each AO, NASA's International Relations Division will advise the appropriate sponsoring agency which proposals have been received and when the selection process should be completed. A copy of this acknowledgement will be provided to each proposer.
- g. 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.
- h. NASA's International Relations Division 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:
  - (1) A letter of notification by NASA.
- (2) An exchange of letters between NASA and the sponsoring foreign governmental agency.
- (3) 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:
- a. 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.
- b. Overhead-Include indirect costs, which because of its incurrence for common or joint