



JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY

REQUEST FOR PROPOSAL

REQUEST FOR PROPOSAL NO. **JPL-MAV-2001**

FOR

MARS ASCENT VEHICLE (MAV) TRADE STUDY

PROPOSALS TO BE RECEIVED AT JPL NO LATER THAN

Date: **May 16, 2001**
3:00 P.M. Pacific Standard Time

COMMUNICATIONS IN REFERENCE TO THIS RFP

It is requested that any communication in reference to this RFP be submitted in writing via the internet to the attention of:

Name: Diane Montini

Mail Station: 190-220

Title: Member Acquisition Staff

California Institute of Technology
Jet Propulsion Laboratory
4800 Oak Grove Drive
Pasadena, CA 91109-8099

Date of Issuance: April 16, 2001

TABLE OF CONTENTS

1. **PROPOSAL INSTRUCTIONS** Page

 General Instructions 3

 Proposal Instructions - Technical/Management – Volume I 10

 Proposal Instructions – Cost – Volume II 11

2. **SPECIMEN CONTRACT, dated 04/05/01**

GENERAL INSTRUCTIONS

1.0 PROPOSAL REQUIREMENT

The following provides general instructions and information regarding preparation of your proposal in response to this Request for Proposal (RFP). The effort to be performed, delivery schedule and/or performance period and contract type will be in accordance with the Specimen Contract.

2.0 PROPOSAL FORMAT

Your proposal shall consist of two volumes:

Volume I – Technical/Management Instructions

Volume II – Cost Instructions

The first step shall be the submission of Volume I and II by the proposal submission date. Volume I shall be submitted as a set of viewgraphs. The second step will be an oral presentation of the Volume I viewgraph package submitted to JPL. A JPL caucus and then a question and answer session covering both volumes will follow the presentation on the same day. The volumes of your proposal are to be submitted in accordance with the instructions of this RFP. The required documents, as set forth in the Attachments to this RFP, must be included in the cost volume.

3.0 SCHEDULE OF ORAL PRESENTATIONS

The sequence of presentations will be determined by JPL based on ease of travel and logistics. Only those organizations that have submitted a proposal, conforming to the requirements of this RFP, by the due date will be requested to make an oral presentation. Oral presentations are expected to begin the week of June 6, 2001. A specific date and time for each presentation will be coordinated with individual proposers.

4.0 SUBMITTING YOUR PROPOSAL

4.1 Organization and Format for the Written Proposal.

- 4.1.1 Your written viewgraph proposal, should be organized as closely as practicable to the format and sequence indicated in these proposal instructions. **It shall be prepared in viewgraph format and it is recommended that Volume I be limited to 40 pages, using fonts not smaller than Times New Roman 12 points. There is no recommended page limit for Volume II, however, Volume II must include only cost information.** For each of the two volumes

you should submit one hard copy and one electronic version in a common format on either a Zip-disk or CD-ROM.

4.1.2 JPL reserves the right to retain all proposal information submitted in response to this RFP.

4.2 Oral Presentation

4.2.1 JPL will send each proposer written questions concerning their Volume I- Technical/Management and Volume II- Cost proposals three (3) calendar days before the scheduled date of each proposer's oral presentation. Each proposer shall decide how best to present the answer to each question. However the answer to these questions and any subsequent questions generated as a result of the oral presentation shall be addressed during the two and one half (2.5) hour question and answer session (see paragraph 4.2.6 below).

4.2.2 Presentations shall address the information required by the Technical/ Management Instructions. You may organize your presentation/allocate your time in any manner you see fit; keeping in mind, however, the relative weight of each evaluation criteria specified in paragraph 8.0 below and your ability to cover the material submitted.

4.2.3 The viewgraphs provided in Volume I are to be what is presented during your oral presentation, recognizing that some additional verbal explanation beyond the words on the viewgraphs is sometimes needed to fully explain some issues or points. **Oral presentations shall be solely based on the material submitted by the proposal due date. Accordingly, the proposer shall use all viewgraphs, submitted as Volume I, in their oral presentation.**

4.2.4 There shall be a three (3) hour time limit placed on your oral presentation. JPL will formulate questions in writing during the presentation but will not interrupt the presenters during the oral presentation.

4.2.5 Following the oral presentation, JPL will caucus for two (2) hours, including lunch, to discuss and organize questions developed during the oral presentation. At the end of the two (2)-hour period, JPL will provide its questions to the proposer.

4.2.6 A question and answer session will be conducted with each proposer following the oral presentation and will be limited two and one half (2.5) hours. In this session, ALL questions, including those sent to proposers three (3) calendar days prior to the oral presentation, shall be addressed. The purpose of the question and answer session is to assist JPL in fully understanding each proposal by:

- 4.2.6.1 Discussing those aspects of each proposal which contain omissions, ambiguities and uncertainties;
 - 4.2.6.2 Verifying and identifying strengths and weaknesses which could affect work performance;
 - 4.2.6.3 Verifying the validity of the proposed price; and
 - 4.2.6.4 Assessing the proposed personnel and the proposer's capabilities for performing the work.
 - 4.2.7 The total time for the entire session, including the oral presentation, JPL caucus and question and answer session with proposers will not exceed seven and one half (7.5) hours, including lunch.
 - 4.2.8 JPL cost questions will be either sent three (3) calendar days prior to the presentation or will be asked during the question and answer period.
 - 4.2.9 The presentation will not be audio/video recorded by either the presenter or by JPL.
 - 4.2.10 After discussions, JPL may request proposal cost deltas in order to correct errors, omissions or ambiguities in the proposal. Only those deltas requested by JPL will be accepted. (NOTE: JPL will not request best and final offers (BAFOs).
 - 4.2.11 Finally, the initial evaluation findings are reviewed and ratings are assigned which incorporate the results of the discussions and/or price proposal deltas.
- 4.3 Address and Identification
- To help ensure timely receipt and processing of your proposal, please down-load and affix the address label (Attachment I to the RFP cover letter) to the envelope/container containing a complete original copy of your proposal. (NOTE: the label is JPL's notification that the package you send is a proposal.) All proposal envelopes/containers must be identified with the RFP number that appears on the RFP cover page.
- 4.4 Hand Carried Proposals
- Hand-carried proposals must be delivered to the California Institute of Technology/ Jet Propulsion Laboratory, Visitor Control Center, at 4800 Oak Grove Drive, Pasadena, California 91109, Building 249, where it will be received and time-stamped. Visitor Control is open to receive proposals only on working weekdays, between 7:30 a.m., and 4:30 p.m. local time. (**Note: Proposals are due at 3:00 p.m., local time May 16, 2001**).

4.5 Other Proposal Transmission

Proposals will NOT be accepted by facsimile (fax) transmission or by electronic mail (e-mail).

5.0 GENERAL INFORMATION

5.1 Proposal Preparation and Related Costs

This RFP does not commit JPL or the Government of the United States to pay any costs incurred in submitting your proposal, making studies or designs for preparing the proposal or in procuring or subcontracting for services or supplies related to the proposal.

5.2 Data

If the proposal contains data that either you or your subcontractors do not wish to be disclosed for any purpose other than proposal evaluation, you must mark the cover sheet of each volume containing such information with the legend below:

“Data contained in pages _____ of this proposal furnished in connection with RFP No. JPL-MAV-2001 shall not be used or disclosed, except for evaluation purposes, provided that if a contract is awarded to this offeror as a result of or in connection with the submission of this proposal, JPL and the Government shall have the right to use or disclose this data to the extent provided in the contract. This restriction does not limit JPL’s right to use or disclose any data obtained from another source without restriction.”

5.3 Security

There shall be no classified information in response to this RFP.

5.4 Requests for Clarification/RFP Addenda.

During the proposal preparation period, requests to clarify certain aspects of the RFP package or for additional information, must be in writing and sent to the individual designated on the RFP cover page, via Fax or e-mail, prior to May 10, 2001. JPL responses providing additional information or clarification will be provided to all prospective proposers on the web site (<http://acquisition.jpl.nasa.gov/rfp/MAV 01>) as addenda to the RFP. In addition, any JPL-initiated changes to the governing documents in the RFP package will be provided to all prospective proposers as addenda to the RFP. Prospective bidders will be notified of the issuance of all addenda and the addenda content will be posted on the web site. JPL will not be responsible for explanations or interpretations of the RFP by any other means. (Note: You must include reference to all addenda on your Acknowledgement to this RFP (Attachment A-1).

5.5 Retention of RFP and Proposal Material

Except where specified otherwise, the material furnished with this RFP should not be returned to JPL.

6.0 LATE PROPOSALS

Any proposal, portion of a proposal, or unrequested proposal revision received at JPL after the time and date specified on the cover page of this RFP is late. Any volume of a proposal received after the time and date specified will cause the entire proposal to be late. Late proposals will not be considered for award, except under the following circumstances:

- 6.1 JPL determines that the late receipt was due solely to a delay by the U.S. Postal Service for which the offeror was not responsible. Timely postmark or receipt of registered, certified, or express mail "next-day service," establishing the time of deposit must be evidenced.
- 6.2 JPL determines that the proposal was late due solely to mishandling by JPL after receipt at JPL, provided that the timely receipt at JPL is evidenced.
- 6.3 No acceptable proposals are received in a timely manner.

NOTE: If an emergency or unanticipated event interrupts normal JPL processes so that solicitation responses cannot be received at the JPL office designated for receipt by the exact time specified in the solicitation, and urgent JPL requirements preclude amendment of the solicitation closing date, the time specified for receipt of proposals will be extended to the same time of day specified in the solicitation on the first work day on which normal JPL processes resume.

7.0 SOURCE EVALUATION AND SELECTION PROCESS

7.1 Source Evaluation

Proposals will be evaluated in the areas of technical and management as described in paragraph 8.0 below. In order to attain the highest quality study possible proposers are encouraged to propose the full allowed cost of \$300,000. Conversely, due to current funding constraints proposers are not to propose an amount higher than \$300,000. Accordingly, price per-se is not a significant consideration in the evaluation process. JPL plans to make source selection, to approximately three proposers, based on the offerors whose proposals are determined to represent the best value to JPL. JPL defines best value as the responsive, responsible proposer having the best combination of (1) Technical/Management Study Approach and Commitment; and (2) Proposer and Study Team Personnel Qualifications, within the resource limitation of \$300,000. JPL will evaluate the proposals utilizing the following process.

- 7.1.1 Before issuing the RFP, JPL establishes specific criteria and their weighting for the evaluation of the Technical and Management proposals. After receipt at JPL, the proposals are evaluated against the pre-set criteria outlined in paragraph 8.0 below
- 7.1.2 Price proposals are reviewed for mathematical accuracy, rate application, verification, and price omissions. If the Buy American Act, the Balance of Payment Program, or rent-free use of Government-furnished property applies, the prices will be adjusted as required for the purpose of evaluation.
- 7.1.3 Responsibility (i.e., consideration of matters such as contractor financial capability, past performance record, adequacy of facilities, etc.) is assessed within the meaning of Federal Acquisition Regulation 9.1. Award will not be made to a Contractor deemed to be nonresponsible.
- 7.1.4 After discussions, the results of the oral presentation and discussions are used to arrive at a final evaluation.

7.2 Selection Process

The results of the final evaluation are submitted to the JPL Source Selection Official, who selects the Contractor(s) for negotiation.

8.0 TECHNICAL AND MANAGEMENT EVALUATION CRITERIA

The Technical/Management evaluation criteria for this procurement are listed below. The factors shown under the criteria are not individually weighted for evaluation purposes and are not listed in any particular order.

8.1 Qualifications of Proposer and Study Team Personnel - Criterion 1 (500 points)

The degree to which the experience and skills of the team members and the organization are appropriate to conduct the study tasks and to assure a comprehensive and technically competent study effort. Factors to be considered are:

- 8.1.1 Experience of key personnel
- 8.1.2 Mix of personnel
- 8.1.3 Percentage of time being proposed for each key person
- 8.1.4 Organization's related experience in conducting large, space-based system trade studies such as that required by this RFP.

8.2 Technical/Management Approach and Commitment - Criterion 2
(500 points)

The degree to which the proposed technical/management approach reflects a viable and well thought-out approach for organizing and implementing the study effort and the degree to which the proposer is committed to providing the best possible product in a timely manner. Factors to be considered are:

- 8.2.1 The system trade approach and trade evaluation tools to be used during the Phase I study.
- 8.2.2 For study Phase 2, a detailed mission concept analyses that includes integrated tools for subsystem modeling and end-to-end system integrated modeling.
- 8.2.3 Lines of responsibilities and communications with your overall Program Management Organization.
- 8.2.4 Corporate dedication in keeping key personnel and subcontractors through the end of the effort.
- 8.2.5 Plan for meeting and achieving the proposed study schedule outlined in this RFP.

9.0 EXCEPTIONS TO TERMS AND CONDITIONS

A large number of exceptions or one or more significant exceptions to the General Provisions and/or Additional General Provisions may make your proposal unacceptable for evaluation. **You must provide a detailed explanation, including the rationale, for any exceptions you take.** Proposers who submit proposals with exceptions may be selected for negotiations. However, if an agreement cannot be negotiated, your proposal may be rejected.

VOLUME I - TECHNICAL/MANAGEMENT INSTRUCTIONS

1. INTRODUCTION

This portion of the proposal instructions sets forth the requirements to be followed in preparing the Technical/Management Proposal. The following specific information must be included in your proposal to permit an evaluation of your technical and management capabilities:

1.1. **Part 1 Qualifications of Proposer and Study Team Personnel**

List your proposed key team members, personnel and subcontractor personnel. Describe their experience working on space system studies. Describe their experience in the areas of liquid/solid/hybrid propulsion systems, which are appropriate and feasible for Mars Ascent Vehicles. Describe how your system engineer is supported by the subsystem engineers in the areas of propulsion (liquid, solid, and hybrid), Control, Trajectory, Rendezvous, Reliability, Structures, and Thermal. Discuss the percentage of time proposed for each key person assigned to this effort. Describe your organization's related experience in conducting large space-based system trades similar to that required by the Specimen Contract.

1.2 **Part 2 Technical/Management Approach and Commitment**

Discuss in detail your proposed system trade approach and your trade evaluation tools to be used in the Phase 1 Study. For Phase 2, describe your detailed mission concept analyses, including the use of appropriate integrated tools for subsystem modeling and end-to-end system integrated modeling.

Discuss how your management organization will integrate with the overall organization in lines of authority, responsibility and communications. Discuss your corporate commitment to keep key personnel available for this effort, including subcontractors, and discuss how resource issues are resolved. Provide a plan for meeting and achieving the proposed study schedule as outlined in the Specimen Contract.

VOLUME II - COST INSTRUCTIONS

This portion of the proposal instructions outlines the requirements to be followed in preparing the cost proposal.

1. DATA SUBMITTAL

Provide a total price for each item listed in Article 1 of the Specimen Contract and the applicable supporting data requested in paragraph a, below. Note that if any of the current information requested below has been previously submitted to JPL resubmittal is not necessary, simply reference the applicable JPL RFQ or RFP number under which the data was submitted.

a. Price or Cost Breakdown.

Provide the information requested on Attachment A-19, Cost Elements Breakdown (Short Form). Proposers may provide the requested information, as applicable, on an alternate computer-generated form.

2. SUPPLEMENTAL BUSINESS/COST INFORMATION

a. Financial Statement.

Submit a copy of your annual financial statements for the last three years and any information regarding additional resources required to perform the proposed effort such as an established line of credit or other financial resource. If this information has recently been submitted to JPL, resubmittal is not necessary; simply reference the applicable JPL RFP number under which the data was submitted.

b. Royalties.

If your proposal contains costs for royalties, indicate the amount and be ready to furnish details.

c. Accounting Calendar.

The proposer will furnish its accounting calendar for each year in which work is anticipated.

d. Attachments.

The Section of this RFP entitled "Attachments" consists of those forms and documents containing information applicable to this RFP. Group A Attachments must be completed and attached to your cost proposal. Group B attachments consist of forms and documents for informational purposes only and can be found through the electronic address identified below. Hard copies of the Group B Attachments will be mailed by request only. Note that Group B Attachments are very important and may become requirements under the Contract.

Additionally, the General Provisions (GPs) and Additional General Provisions (AGPs) stated in the attached Specimen Contract can be found at the following URL address:

<http://acquisition.jpl.nasa.gov/e2000.htm>



ATTACHMENTS TO THE SOLICITATION

The following attached forms and documents are organized into two major groupings:

1. Group A must be completed and returned as part of your quotation or cost proposal.
2. Group B are for information purposes only in preparing your quotation/proposal.

GROUP A - Complete and return as part of your quotation/cost proposal, as applicable:

Attachment

Number Title and Form Number

- | | | |
|-------------------------------------|------|--|
| <input checked="" type="checkbox"/> | A-1 | Acknowledgment (form JPL 2384) |
| <input checked="" type="checkbox"/> | A-19 | Cost Element Breakdown (Short Form)(form JPL 0549-1) |

GROUP B - For information only:

- | | | |
|-------------------------------------|-----|--|
| <input checked="" type="checkbox"/> | B-1 | Waiver of Rights to Inventions (form JPL 62-301) |
|-------------------------------------|-----|--|