



JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY

REQUEST FOR PROPOSAL

REQUEST FOR PROPOSAL NO.: 011204

FOR:

JUPITER ICY MOONS ORBITER RADIATION HARDENED MEMORY DEVELOPMENT

PROPOSALS ARE TO BE RECEIVED AT JPL NO LATER THAN:

Date: March 5th, 2004

Local Time: 3:00 p.m.

COMMUNICATIONS IN REFERENCE TO THIS RFP

It is requested that any communication in reference to this RFP be in writing and directed to the attention of:

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California Institute of Technology
Jet Propulsion Laboratory
4800 Oak Grove Drive
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Date of Issuance: January 30th, 2004

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2. Attachments to the Solicitation, See form JPL 2839 for a list of Attachments

This Section of this RFP consists of those forms and documents containing information applicable to this RFP. Group A Attachments must be completed and attached to your proposal. Group B Attachments consist of forms and documents for informational purposes only. Both A and B Attachments 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.

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

3. Specimen Contracts, Dated 1/27/04

GENERAL INSTRUCTIONS

1.0 PROPOSAL REQUIREMENT

The effort to be performed will be in accordance with the three separate Specimen Contracts. Proposals for the efforts covered by each Specimen Contract must be independently complete and under separate cover.

Please notify the JPL Subcontract Manager before February 13th if you intend to propose in response to this RFP. In your notification identify the number of efforts you intend to propose on and whether or not you will be submitting a supplemental Volume III.

2.0 PACKAGING AND SUBMITTING YOUR PROPOSAL

2.1 Organization and Format.

- 2.1.1 Each stand-alone proposal for the SUROM, LM, or NVMM Specimen Contract should be organized as closely as practicable to the format and sequence indicated in these proposal instructions, must be submitted as outlined below. Please note that JPL has assigned a recommended page limitation to the individual proposal volumes.

Volume No.	Title	Recomended Page Limit	Number of Copies
I	Technical-Management	50	13
II	Cost	No Page Limit	13

- 2.1.2 A single supplemental Volume (Volume III) showing the Technical-Management and Cost effect of combining two or all three Specimen Contracts may be submitted. The supplemental Volume must clearly state which Specimen Contracts it covers.

Volume No.	Title	Reccomended Page Limit	Number of Copies
III	Technical-Management Proposal Adjustments	20	13
	Cost Adjustments	No Page Limit	13

- 2.1.3 Please provide one copy of each volume unbound and reproducible.

- 2.1.4 Unnecessarily elaborate brochures or presentation layouts, other than those sufficient to present a complete and effective proposal, are not desired. Except when specifically requested, mockups, models, samples, hardware, or software of any kind must not be furnished and will not be considered.

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

2.2 Address and Identification.

To help ensure timely receipt and processing of your proposal, please affix the enclosed yellow adhesive label to the envelope/container containing the complete original copy of your proposal. (NOTE: The yellow label is JPL's notification that the package you send is a proposal.) In case the mailing label is lost, address your proposal on a similar yellow label containing JPL's address, the name of the individual designated on the cover page of this RFP

(including the mail stop) and the RFP number. All proposal envelopes/containers must be identified with the RFP number that appears on the RFP cover page.

2.3 Hand Carried Proposals.

Hand-carried proposals must be delivered to the California Institute of Technology/Jet Propulsion Laboratory (JPL) Visitor Control Center, at 4800 Oak Grove Drive, Pasadena, 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. (proposals are due at the time and date stated on the cover of this RFP).

2.4 E-mail, Facsimile and other forms of electronic delivery

Proposals delivered by E-mail, Facsimile and other forms of electronic delivery will not be accepted or evaluated.

3.0 GENERAL INFORMATION

3.1 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.

3.2 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. (***) 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.”
(** insert RFP number)

3.3 Requests for Clarification/RFP Addenda.

During the proposal preparation period, all requests for clarification and/or additional information, must be submitted in writing to the individual referenced by “Attention:” on the cover page of this RFP. Written questions may be submitted by email.. When appropriate, responses to requests, as well as any JPL initiated changes, will be provided to all prospective proposers in writing as addenda to the RFP. (NOTE: You must include reference to all addenda on your Acknowledgment to this RFP [Attachment A-1].)

4.0 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:

- 4.1 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.
- 4.2 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.
- 4.3 No acceptable proposals are received in a timely manner.

NOTE TO PROPOSERS: 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.

5.0 PAST PERFORMANCE

JPL requests you to submit your Past Performance by February 13th 2004 , but not later than March 5th, 2004 to facilitate proposal evaluation, clearly mark the outside of the package as follows:

RFP No. 011204

Past Performance.

6.0 CONTRACT OPTION

Proposers are cautioned that the proposer's capability to perform the option will be a consideration in source selection. The technical evaluation will be in accordance with paragraph 7 of these instructions. The Specimen Contract anticipates that JPL will negotiate the option(s) described in the Specimen Contract with each of selected contractor(s).

7.0 SOURCE EVALUATION AND SELECTION PROCESS

7.1 Source Evaluation.

Proposals will be evaluated in the areas as described in paragraph 8 below. Although cost will not be scored, cost is a substantial factor. JPL plans to make source selection based on the offeror whose proposal is determined to represent the best value to JPL. JPL's best value source selection is based on the following: If all offers, in the competitive range, are of approximately equal qualitative (technical and management) merit, JPL will select for negotiations the offers with the lowest cost. However, JPL may select for negotiations offerors whose proposals offer a higher qualitative merit if the difference in cost is commensurate with added value. Conversely, JPL may select for negotiations offerors whose proposals offer lower qualitative merit if the cost differential between it and other offers so warrants. For purposes of this evaluation, JPL may use the proposed costs or the JPL-determined probable costs, as defined in paragraph 7.1.7 below. 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 below.
- 7.1.2 An analysis of the supporting cost details is performed and the proposed costs are compared. If the Buy American Act, the Balance of Payments Program, or rent-free use of Government-furnished property applies, costs 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 Competitive Range:
 - 7.1.4.1 Results of the initial proposal evaluation are used to determine which proposals are within the competitive range (i.e., those having a reasonable chance of being selected for award).

Proposals determined not to be within the competitive range are eliminated from further consideration, and the proposers are notified accordingly.

- 7.1.4.2 JPL may, at its discretion, conduct limited communications with one or more proposer for the purpose of determining whether the proposer(s) should be included in the competitive range. Such precompetitive range communications may be conducted to enhance JPL understanding of proposal(s) and may be used to:
 - 7.1.4.2.1 Validate the proposed price; and
 - 7.1.4.2.2 Clarify omissions, ambiguities and uncertainties in the proposer's supplemental business/cost information; and
 - 7.1.4.2.3 Clarify relevant past performance information.
- 7.1.4.3 JPL reserves the right to make a competitive range determination without conducting such communications. Further, JPL, at its discretion, may waive minor informalities and minor irregularities in proposals received.
- 7.1.5 JPL may make source selection after the initial proposal evaluation or may conduct discussions with the proposers determined to be within the competitive range. The purpose of the discussions is to assist the evaluators in fully understanding each proposal by:
 - 7.1.5.1 Discussing those aspects of each proposal which contain omissions, ambiguities and uncertainties;
 - 7.1.5.2 Verifying and identifying strengths, weaknesses, and risks which could affect work performance;
 - 7.1.5.3 Verifying the validity of the proposed cost; and
 - 7.1.5.4 Assessing the proposed personnel and the proposer's capabilities for performing the work.
- 7.1.6 As part of discussions JPL may conduct site surveys of facilities for fabrication, packaging, assembly, and semiconductor manufacturing.
- 7.1.7 After discussions, the initial evaluation findings are reviewed and may be revised to incorporate the results of the discussions to arrive at a final evaluation. This final evaluation includes completing a thorough assessment of the cost realism of each proposed cost estimate and comparing the cost estimates. In performing this assessment, JPL may develop a "probable cost" for each proposer. "Probable cost" is defined as JPL's best estimate of the cost of any contract that is most likely to result from the offeror's proposal. (NOTE: JPL will not request best and final offers (BAFOs).)

7.2 Selection Process.

The results of the final evaluation are submitted to the JPL Source Selection Official (SSO), who selects the Contractors for negotiation. The JPL SSO may select more Contractors for negotiation than the number that will be awarded. In the event that this occurs, the SSO will make final selection following the conclusion of negotiations.

- 7.3 JPL reserves the right to reject all proposals, to award a contract based on initial proposals (without proposal clarifications) or conduct oral discussions prior to making source selection.

8.0 TECHNICAL AND MANAGEMENT CRITERIA

The technical and management criteria and the weight for each are listed below. The criteria are listed in three separate groupings titled and corresponding to the three separate Specimen Contracts. The factors shown under the criteria are not weighted for evaluation purposes and are not listed in any particular order of importance.

SUROM EVALUATION CRITERIA AND FACTORS

Criterion T-1. DESIGN APPROACH - 550 Maximum Points

The degree to which the proposed design approach will result in an SUROM capable of meeting or surpassing the requirements of the Specimen Contract and Exhibits.

- Factor 1. Design Approach**
- Factor 2. Design to Fabrication**

Criterion T-2. TESTING AND QUALIFICATION APPROACH- 150 Maximum Points

The degree to which the proposal demonstrates an understanding of the parts testing and qualification requirements including methods and facilities for test which meet or exceed those required per the Specimen Contract and Exhibits.

- Factor 1. Testing Approach**
- Factor 2. Product Assurance**

Criterion M-1. MANAGEMENT APPROACH - 300 Maximum Points

The degree to which the proposer's management approach provides for effective organization, implementation, and control of the effort.

- Factor 1. Implementation Approach**
- Factor 2. Monitoring and Control**
- Factor 3. Capability and Availability of Personnel**
- Factor 4. Suitability and Availability of Facilities and Equipment**

LM EVALUATION CRITERIA AND FACTORS

Criterion T-1. DESIGN APPROACH - 550 Maximum Points

The degree to which the proposed design approach will result in an LM capable of meeting or surpassing the requirements of the Specimen Contract and Exhibits.

- Factor 1. Design Approach**
- Factor 2. Design to Fabrication**

Criterion T-2. TESTING AND QUALIFICATION APPROACH- 150 Maximum Points

The degree to which the proposal demonstrates an understanding of the parts testing and qualification requirements including methods and facilities for test which meet or exceed those required per the Specimen Contract and Exhibits

- Factor 1. Testing Approach**
- Factor 2. Product Assurance**

Criterion M-1. MANAGEMENT APPROACH - 300 Maximum Points

The degree to which the proposer's management approach provides for effective organization, implementation, and control of the effort.

- Factor 1. Implementation Approach**
- Factor 2. Monitoring and Control**
- Factor 3. Capability and Availability of Personnel**

Factor 4. Suitability and Availability of Facilities and Equipment

NVMM EVALUATION CRITERIA AND FACTORS

Criterion T-1. DESIGN APPROACH - 550 Maximum Points

The degree to which the proposed design approach will result in an NVMM device or components capable of meeting or surpassing the requirements of the Specimen Contract and Exhibits.

- Factor 1. Design Approach**
- Factor 2. Design to Fabrication**

Criterion T-2. TESTING AND QUALIFICATION APPROACH- 150 Maximum Points

The degree to which the proposal demonstrates an understanding of the parts testing and qualification requirements including methods and facilities for test which meet or exceed those required per the Specimen Contract and Exhibits

- Factor 1. Testing Approach**
- Factor 2. Product Assurance**

Criterion M-1. MANAGEMENT APPROACH - 300 Maximum Points

The degree to which the proposer's management approach provides for effective organization, implementation, and control of the effort.

- Factor 1. Implementation Approach**
- Factor 2. Monitoring and Control**
- Factor 3. Capability and Availability of Personnel**
- Factor 4. Suitability and Availability of Facilities and Equipment**

9.0 EXCEPTIONS TO GENERAL PROVISIONS AND ADDITIONAL GENERAL PROVISIONS

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.

10.0 PROPRIETARY TECHNOLOGY

JPL recognizes the potentially significant opportunity for commercialization of the devices resulting from these efforts. In order to facilitate future negotiations regarding proprietary technology proposers are requested to submit a list of pre-existing proprietary technology developed at private expense which the proposer intends to employ. The list should describe the technology in sufficient detail to distinguish it from new technology which may be developed under any contracts awarded as a result of the proposal. Failure to provide this information may result in the elimination of the proposal from further consideration

VOLUME I – TECHNICAL/MANAGEMENT INSTRUCTIONS

1.0 INTRODUCTION

This portion of the proposal instructions sets forth the requirements to be followed in preparing the Technical/Management Proposal(s). There is a separate set of instructions for each Specimen Contract. The following specific information must be included to permit an evaluation of your technical/management capabilities:

SUROM TECHNICAL/MANAGEMENT INSTRUCTIONS

CRITERION T1 –DESIGN APPROACH

550 points

The degree to which the proposed design approach will result in a SUROM capable of meeting or surpassing the requirements of the Specimen Contract and Exhibit(s).

Design Approach

Provide a detailed discussion of your proposed design approach, supported by functional/ electrical block diagrams and specific reference to any currently existing technology you propose to use. Include evidence demonstrating how your approach will meet or exceed the performance requirements (especially the long life and radiation survival requirements) and the operating environment requirements identified in the Specimen Contract and Exhibits. Describe and explain any possible exceptions to meeting the requirements of the Specimen Contract and Exhibits.

Identify and discuss technical, schedule and cost risks to meeting or exceeding the performance requirements and flight operating environment requirements and provide contingency plans to address the risks. Identify and discuss how you will address risks resulting from differences between the technology proposed for the current effort and any currently existing technology.

Identify any potential applicability of the U.S. Export Regulations to your implementation approach. If there is none, state that there is none and briefly explain why. Describe your plan for mitigating any schedule and technical risk resulting from any applicability of the U.S. Export Regulations and provide documentary evidence (eg: Export Licenses) where necessary to enhance the credibility of your plan.

Design to Fabrication

Describe your proposed approach to move from a design through processing and into fabrication at a foundry. Identify any previous products that have used the processing facilities and foundries proposed. Describe your business relationship with the facilities or foundries proposed.

CRITERION T2 – TESTING AND QUALIFICATION APPROACH

150 points

The degree to which the proposal demonstrates an understanding of the parts testing and qualification requirements including methods and facilities for test which meet or exceed those required per the Specimen Contract and Exhibits. Factors to be considered are:

Testing Approach

Provide a test approach to verify that your hardware deliverables will meet the requirements of the Specimen Contract and Exhibits. Include in your proposed approach a list of specific tests with details regarding number of tests, duration of tests etc..

Product Assurance

Describe how you have or will be able to obtain the necessary expertise to conduct a flight qualification effort in Phase 2. Provide a discussion of your experience with product assurance with particular reference to requirements that would be applicable to the design, manufacture, and test of the technology(ies) proposed.

CRITERION M1 – MANAGEMENT APPROACH

300 -points

The degree to which the proposer’s management approach provides for effective organization, implementation and control of the effort. Factors to be considered are:

Implementation Approach

Provide a discussion fully describing your implementation plan for conducting the effort. Your plan should show how the performance and delivery schedule of the Specimen Contract will be met or exceeded. Credible proposals which lead to a flight qualifiable SUROM in less than the full 36 months as outlined for Phase 1 and 2 in the Specimen Contract are preferred . Your discussion should include:

A Work Breakdown Structure (WBS) to the level indicated in the cost instructions. Identify and discuss in detail, the activities in support of each report item. Work items which are of short duration or those which pertain to level-of-effort activities need not be expanded.

A schedule showing the major tasks and sub-tasks (work items) derived from the WBS. Dates shall be shown for each major task and sub-task and the critical path shall be identified. As a guideline, the major tasks and sub-tasks should be approximately one month in duration.

Monitoring and Control

Provide a clear and concise description of the management approach you intend to implement for the monitoring and control of technical, schedule, cost and work force performance. Include the following:

A list of the specific management tools which you propose to use to monitor cost, work performance and schedule. Describe in detail how the tools will be used to control costs.

A description of the methods to be used to provide visibility at all levels of the effort in order to permit evaluation of status, the detection of problems, and the approach to be used for the implementation of corrective actions.

A discussion of how your organization plans to conduct and enable communication both internally and with JPL.

A discussion of the Program/Project Manager’s responsibility and authority to manage and control the required resources (personnel, financial and facilities) and subcontractors.

A discussion of how problems beyond the Program/Project Manager’s authority will be resolved.

If you have proposed teaming, a discussion of the tools and methods which will be used to ensure effective communication, control and management of the effort between you and your teaming partners.

A discussion of your risk management system including how it enables you to identify and address risks proactively.

Capability and Availability of Personnel

Discuss in detail your staffing, facilities and equipment proposed to accomplish the effort. This discussion should include but is not limited to the following:

Identify by name and title all key persons who will be responsible for the proposed effort. List their qualifications relevant to this effort and provide a separate description of their responsibility for this effort.

Discuss your plan for staffing the proposed effort with qualified personnel. Include with this discussion, a summary curve or chart depicting total work force loading by month for the duration of the effort.

Suitability and Availability of Facilities and Equipment

List and describe all facilities and equipment including test and product assurance facilities and equipment that will be required to support this effort. Include the location, intended usage, planned availability and description of adequacy of such facilities and equipment. Discuss how you will ensure that facilities for fabrication, packaging, assembly, and semiconductor manufacturing for this effort will be available to support the SUROM delivery dates. Identify any external dependencies (e.g., promised development funding, related capital investment, etc.) and contingency plans provided to assure credibility of the availability of these facilities. Also include contingency plans established to address potential conflicts regarding facility and equipment availability.

LM TECHNICAL/MANAGEMENT INSTRUCTIONS

CRITERION T1 –DESIGN APPROACH

550 points

The degree to which the proposed design approach will result in a LM capable of meeting or surpassing the requirements of the Specimen Contract and Exhibit(s). Factors to be considered are:

Design Approach

Provide a detailed discussion of your proposed design approach, supported by functional/ electrical block diagrams and specific reference to any currently existing technology you propose to use. Discuss in detail your proposed cell design and the ability to meet the high speed requirements specified Exhibit III. Include evidence demonstrating how your approach will meet or exceed the performance requirements (especially the long life and radiation survival requirements) and the operating environment requirements identified in the Specimen Contract and Exhibits. Describe any possible exceptions to meeting the requirements of the Specimen Contract and Exhibits.

Identify and discuss technical, schedule and cost risks to meeting or exceeding the performance requirements and flight operating environment requirements and provide contingency plans to address the risks. Identify and discuss how you will address risks resulting from differences between the technology proposed for the current effort and any currently existing technology.

Identify any potential applicability of the U.S. Export Regulations to your implementation approach. If there is none, state that there is none and briefly explain why. Describe your plan for mitigating any schedule and technical risk resulting from any applicability of the U.S. Export Regulations and provide documentary evidence (eg: Export Licenses) where necessary to enhance the credibility of your plan.

Design to Fabrication

Describe your proposed approach to move from a design through processing and into fabrication at a foundry. Identify any previous products that have used the processing facilities and foundries proposed. Describe your business relationship with the facilities or foundries proposed.

CRITERION T2 – TESTING AND QUALIFICATION APPROACH

150-points

The degree to which the proposal demonstrates an understanding of the parts testing and qualification requirements including methods and facilities for test which meet or exceed those required per the Specimen Contract and Exhibits. Factors to be considered are:

Testing Approach

Provide a test approach to verify that your hardware deliverables will meet the requirements of the Specimen Contract and Exhibits. Include in your proposed approach a list of specific tests with details regarding number of tests, duration of tests etc..

Product Assurance

Describe how you have or will be able to obtain the necessary expertise to conduct an element and subassembly flight qualification effort in Phase 2. Provide a discussion of your experience with product assurance with particular reference to requirements that would be applicable to the design, manufacture, and test of the technology(ies) proposed.

CRITERION M1 – MANAGEMENT APPROACH

300 points

The degree to which the proposer's management approach provides for effective organization, implementation and control of the effort. Factors to be considered are:

Implementation Approach

Provide a discussion fully describing your implementation plan for conducting the effort. Your plan should show how the performance and delivery schedule of the Specimen Contract will be met or exceeded. Your discussion should include:

A Work Breakdown Structure (WBS) to the level indicated in the cost instructions. Identify and discuss in detail, the activities in support of each report item. Work items which are of short duration or those which pertain to level-of-effort activities need not be expanded.

A schedule showing the major tasks and sub-tasks (work items) derived from the WBS. Dates shall be shown for each major task and sub-task and the critical path shall be identified. As a guideline, the major tasks and sub-tasks should be approximately one month in duration.

Monitoring and Control

Provide a clear and concise description of the management approach you intend to implement for the monitoring and control of technical, schedule, cost and work force performance. Include the following:

A list of the specific management tools which you propose to use to monitor cost, work performance and schedule. Describe in detail how the tools will be used to control costs.

A description of the methods to be used to provide visibility at all levels of the effort in order to permit evaluation of status, the detection of problems, and the approach to be used for the implementation of corrective actions.

A discussion of how your organization plans to conduct and enable communication both internally and with JPL.

A discussion of the Program/Project Manager's responsibility and authority to manage and control the required resources (personnel, financial and facilities) and subcontractors.

A discussion of how problems beyond the Program/Project Manager's authority will be resolved.

If you have proposed teaming, a discussion of the tools and methods which will be used to ensure effective communication, control and management of the effort between you and your teaming partners.

A discussion of your risk management system including how it enables you to identify and address risks proactively.

Capability and Availability of Personnel

Discuss in detail your staffing, facilities and equipment proposed to accomplish the effort. This discussion should include but is not limited to the following:

Identify by name and title all key persons who will be responsible for the proposed effort. List their qualifications relevant to this effort and provide a separate description of their responsibility for this effort.

Discuss your plan for staffing the proposed effort with qualified personnel. Include with this discussion, a summary curve or chart depicting total work force loading by month for the duration of the effort.

Suitability and Availability of Facilities and Equipment

List and describe all facilities and equipment including test and product assurance facilities and equipment that will be required to support this effort. Include the location, intended usage,

planned availability and description of adequacy of such facilities and equipment. Discuss how you will ensure that facilities for fabrication, packaging, assembly, and semiconductor manufacturing for this effort will be available to support the LM delivery dates. Identify any external dependencies (e.g., promised development funding, related capital investment, etc.) and contingency plans provided to assure credibility of the availability of these facilities. Also include contingency plans established to address potential conflicts regarding facility and equipment availability.

NVMM TECHNICAL/MANAGEMENT INSTRUCTIONS

CRITERION T1 –DESIGN APPROACH

550 points

The degree to which the proposed design approach will result in a NVMM device or components thereof capable of meeting or surpassing the requirements of the Specimen Contract and Exhibit(s). Factors to be considered are:

Design Approach

Provide a detailed discussion of your proposed design approach, supported by functional/ electrical block diagrams and specific reference to any currently existing technology you propose to use. Discuss in detail the components which will be used to form the mass memory device with specific reference to the challenges of scaling and packaging the components. Include evidence demonstrating how your approach will meet or exceed the performance requirements (especially the long life and radiation survival requirements) and the operating environment requirements identified in the Specimen Contract and Exhibits. Discussion of a power converter is not necessary. Describe any possible exceptions to meeting the requirements of the Specimen Contract and Exhibits.

Identify and discuss technical, schedule and cost risks to meeting or exceeding the performance requirements and flight operating environment requirements and provide contingency plans to address the risks. Identify and discuss how you will address risks resulting from differences between the technology proposed for the current effort and any currently existing technology.

Identify any potential applicability of the U.S. Export Regulations to your implementation approach. If there is none, state that there is none and briefly explain why. Describe your plan for mitigating any schedule and technical risk resulting from any applicability of the U.S. Export Regulations and provide documentary evidence (eg: Export Licenses) where necessary to enhance the credibility of your plan.

Design to Fabrication

Describe your proposed approach to move from a design through processing and into fabrication at a foundry. Identify any previous products that have used the processing facilities and foundries proposed. Describe your business relationship with the facilities or foundries proposed.

CRITERION T2 – TESTING AND QUALIFICATION APPROACH

150 points

The degree to which the proposal demonstrates an understanding of the parts testing and qualification requirements including methods and facilities for test which meet or exceed those required per the Specimen Contract and Exhibits. Factors to be considered are:

Testing Approach

Provide a test approach to verify that your hardware deliverables and any subassemblies and critical piece parts thereof will meet the requirements of the Specimen Contract and Exhibits. Include in your proposed approach a list of specific tests with details regarding number of tests, duration of tests etc..

Product Assurance

Describe how you have or will be able to obtain the necessary expertise to conduct a flight qualification effort in Phase 2. Provide a discussion of your experience with product assurance with particular reference to requirements that would be applicable to the design, manufacture, and test of the technology(ies) proposed.

CRITERION M1 – MANAGEMENT APPROACH

300 points

The degree to which the proposer's management approach provides for effective organization, implementation and control of the effort. Factors to be considered are:

Implementation Approach

Provide a discussion fully describing your implementation plan for conducting the effort. Your plan should show how the performance and delivery schedule of the Specimen Contract will be met or exceeded. Your discussion should include:

A Work Breakdown Structure (WBS) to the level indicated in the cost instructions. Identify and discuss in detail, the activities in support of each report item. Work items which are of short duration or those which pertain to level-of-effort activities need not be expanded.

A schedule showing the major tasks and sub-tasks (work items) derived from the WBS. Dates shall be shown for each major task and sub-task and the critical path shall be identified. As a guideline, the major tasks and sub-tasks should be approximately one month in duration.

Monitoring and Control

Provide a clear and concise description of the management approach you intend to implement for the monitoring and control of technical, schedule, cost and work force performance. Include the following:

A list of the specific management tools which you propose to use to monitor cost, work performance and schedule. Describe in detail how the tools will be used to control costs.

A description of the methods to be used to provide visibility at all levels of the effort in order to permit evaluation of status, the detection of problems, and the approach to be used for the implementation of corrective actions.

A discussion of how your organization plans to conduct and enable communication both internally and with JPL.

A discussion of the Program/Project Manager's responsibility and authority to manage and control the required resources (personnel, financial and facilities) and subcontractors.

A discussion of how problems beyond the Program/Project Manager's authority will be resolved.

If you have proposed teaming, a discussion of the tools and methods which will be used to ensure effective communication, control and management of the effort between you and your teaming partners.

A discussion of your risk management system including how it enables you to identify and address risks proactively.

Capability and Availability of Personnel

Discuss in detail your staffing, facilities and equipment proposed to accomplish the effort. This discussion should include but is not limited to the following:

Identify by name and title all key persons who will be responsible for the proposed effort. List their qualifications relevant to this effort and provide a separate description of their responsibility for this effort.

Discuss your plan for staffing the proposed effort with qualified personnel. Include with this discussion, a summary curve or chart depicting total work force loading by month for the duration of the effort.

Suitability and Availability of Facilities and Equipment

List and describe all facilities and equipment including test and product assurance facilities and equipment that will be required to support this effort. Include the location, intended usage, planned availability and description of adequacy of such facilities and equipment. Discuss how you will ensure that facilities for fabrication, packaging, assembly, and semiconductor manufacturing for this effort will be available to support the NVMM delivery dates. Identify any external dependencies (e.g., promised development funding, related capital investment, etc.) and contingency plans provided to assure credibility of the availability of these facilities. Also include contingency plans established to address potential conflicts regarding facility and equipment availability.

VOLUME II - COST INSTRUCTIONS

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

1.0 DATA SUBMITTAL

Provide the applicable data requested in paragraphs 1.1 and 5.0 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.

- 1.1 Provide the cost breakdown information requested on Attachment A-15, "Cost Elements Breakdown." per paragraph 4.0 below. Proposers may provide the requested information, as applicable, on an alternate computer generated form.
- 1.1.1 Provide with your proposal a letter authorizing government audit and management organizations to release rate and other relevant information to the Jet Propulsion Laboratory.
- 1.2 You are required to provide the following information subsequent to the submission of your proposal, if requested by the JPL Negotiator. This information must be received by JPL within 5 working days from the date of the request for the information to be further considered. Failure to provide this information in a timely manner may result in the elimination of the proposal from further consideration.
 - 1.2.1 For proposals greater than \$500,000, a Contract Pricing Proposal Cover Sheet, signed by the proposer's authorized representative, stating:
 - 1.2.1.1 The solicitation number, proposed cost, profit or fee, and total;
 - 1.2.1.2 Whether your organization is subject to cost accounting standards (CAS);
 - 1.2.1.3 Whether your organization has submitted a CASB Disclosure Statement, and if it has been determined adequate;
 - 1.2.1.4 Whether you have been notified that you are or may be in noncompliance with your Disclosure Statement or CAS, and, if yes, an explanation;
 - 1.2.1.5 Whether any aspect of this proposal is inconsistent with your disclosed practices or applicable CAS, and, if so, an explanation; and
 - 1.2.1.6 Whether the proposal is consistent with your established estimating and accounting principles and procedures and FAR Part 31, "Cost Principles," and, if not, an explanation.
 - 1.2.2 The cost information requested in paragraph 5 below. (NOTE: If the price of a purchased item is based on adequate price competition as defined in FAR Part 15, the cost elements supporting data addressed in paragraph 1.2.3 is not required for that item.)
 - 1.2.3 If your proposal exceeds \$500,000, the cost or pricing data requested below must be certified in accordance with Attachment B-10, "Certificate of Current Cost or Pricing Data," upon contract negotiation, unless an exception applies. If any exception per Attachment B-13, "Claims for Exceptions to Cost or Pricing Data," is applicable, you must submit a written request in accordance with Attachment B-13 to qualify for an exception to the requirement for submission of cost or pricing data.
 - 1.2.4 For each individual item included in the proposal for which the price exceeds \$500,000 and is based on catalog or market prices, or prices set by law or regulation, a written request for an

exception to the submission of certified cost or pricing data in accordance with Attachment B-13, "Claims for Exceptions to Cost or Pricing Data," is required. If an item is subject to an exception but is priced at less than or equal to \$500,000, state the basis of the price and provide appropriate reference documentation; a written request for an exception is not required. The cost elements supporting data addressed in paragraph 3 below is not required on any item for which an exception applies.

2.0 (THIS PARAGRAPH IS INTENTIONALLY LEFT BLANK)

3.0 (THIS PARAGRAPH IS INTENTIONALLY LEFT BLANK)

4.0 PROPOSAL PRICING

4.1 Submit the cost information at the WBS levels requested under item 4.3 below. Provide costs by cost element and time phased by month totaled by year and for the total contract. Labor should be proposed by work hour not work month. This information should be submitted using Attachment A-15, "Cost Elements Breakdown," or your computer generated equivalent. If possible, include a copy of the data on a 3.5-inch computer diskette in an Excel or Excel-compatible format (e.g., Lotus 1-2-3, Quattro Pro, Microsoft Works, Dbase, etc.).

4.2 (THIS PARAGRAPH IS INTENTIONALLY LEFT BLANK)

4.3 Submit the following cost information as described in item 4.1., above.

4.3.1 Total Effort - WBS level 1.

4.3.2 Report Items - WBS level 2 (items subject to monthly financial reporting).

5.0 COST ELEMENTS SUPPORTING DATA

Provide the following information with your cost proposal:

5.1 Direct Labor.

5.1.1 Explain the basis of the labor-hour estimates by classification for each lowest level item in your WBS. Show all calculations in detail, including the development of any factored hours and the base to which the factor is applied.

5.1.2 Discuss the development of the labor rates, including all escalation factors. Include a summary rate table by classification and lowest fiscal distribution (i.e., by quarter if rates change quarterly). If available, submit evidence of Government approval of direct labor rates for each labor classification.

5.2 Material.

Submit a breakdown of raw materials and purchased parts, including: basis of estimates, part number, description, quantity, unit price, extended price, and source of supply. Describe any pricing factors proposed, such as scrap, rework, and usage.

5.3 Subcontracts.

Identify each effort to be subcontracted. List the selected subcontractor's name, location, amount proposed and type of contract. Explain any adjustment made to the subcontractor's proposed costs. Describe the cost or price estimates for each subcontract.

5.4 Other Direct Costs.

5.4.1 Travel and Relocation.

- 5.4.1.1 Indicate the destination, duration and purpose of each trip proposed. Detail the development of each cost element included in the per trip cost.
- 5.4.1.2 Submit current company policy regarding the reimbursement of travel relocation costs and the accounting of such costs as a direct or indirect expense.
- 5.4.2 Special Tooling and Special Test Equipment.
 - 5.4.2.1 Special Tooling and Special Test Equipment are defined in JPL form entitled “Management of Government Property in the Possession of Contractors,” which is incorporated into the Specimen Contract. Describe each item of Special Tooling and Special Test Equipment you proposed; explain how it meets the definition referenced above; indicate where and when each item is to be used and the extent of usage.
 - 5.4.2.2 Explain the Basis of Estimate and furnish supporting data for each item of Special Tooling and Special Test Equipment in accordance with the requirements of the paragraphs entitled “Direct Labor,” “Material” and “Subcontracts” above.
- 5.4.3 Computer Usage.
Describe the proposed computer usage, extent of usage, rate(s), and the total cost. Explain the development of the rate(s).
- 5.4.4 Consultants.
Indicate the specific task requiring consultant services. Identify the proposed consultants, state the proposed hourly/daily rate, the estimated number of hours/days, and any associated costs (such as travel). State whether the consultant has been compensated at the quoted rate for similar services performed in connection with Government contracts.
- 5.4.5 Licensing and Royalty Information.
If your proposal contains costs for royalties or licenses, indicate the amount and be ready to furnish details.
- 5.4.6 Other.
Explain and support any additional other direct costs included in the proposal.
- 5.5 Indirect Costs.
 - 5.5.1 Discuss the development of each proposed indirect expense rate (e.g., labor overhead, material overhead, off-site burden, general and administrative [G&A]). Specifically identify the cost elements included in the base to which each rate is applied. List the indirect expense rates experienced for the past two years. Explain any significant variance between the experienced and proposed rates. Submit evidence of Government approval of each indirect rate, if available.
 - 5.5.2 Identify separately any independent research and development expenses included in the G&A rate.
- 6.0 (THIS PARAGRAPH IS INTENTIONALLY LEFT BLANK)
- 7.0 (THIS PARAGRAPH IS INTENTIONALLY LEFT BLANK)
- 8.0 SUPPLEMENTAL BUSINESS/COST INFORMATION
 - 8.1 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.

8.2 Royalties.

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

8.3 Accounting Calendar.

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

8.4 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 accessed via the electronic address provided below. Hard copies of the Group B Attachments will be mailed by request only. Note that the Group B Attachments are very important and may be required under the Contract.

VOLUME III - TECHNICAL/MANAGEMENT & COST ADJUSTMENT INSTRUCTIONS

1.0 INTRODUCTION

A proposer who submits more than one stand-alone set of technical/management, and cost volumes for more than one of the three memory development efforts, and who desires that JPL consider the benefits of combining one or more efforts must provide a single supplemental volume (Volume III) showing the technical, management and cost effect of combining the proposed areas of responsibility with the following information:

- 1.1 Provide a discussion showing the technical/management and cost effects of combining the proposed areas of responsibility. Include detailed technical/management discussion of the benefits and risks of combining efforts and provide contingency plans for any risks which are a result of combining the efforts. Include cost adjustments due to the combined effort traceable to the task level of the WBS for the individual proposals. If you propose for all three efforts and submit a Volume III, you must list to which combination of efforts your Volume III applies and provide a discussion for each combination listed.



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 proposal.
2. Group B are for information purposes only in preparing your quotation/proposal.

NOTE TO PROPOSERS: Forms and documents listed below are not applicable unless the box preceding the Attachment Number is marked .

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-2 Cost Accounting Standards (form JPL 2842)
<input type="checkbox"/>	A-3 Government Property Questionnaire (form JPL 0544)
<input type="checkbox"/>	A-4 (RESERVED)
<input type="checkbox"/>	A-5 (RESERVED)
<input type="checkbox"/>	A-6 Notice of Total Small Business Set-Aside (form JPL 4022)
<input type="checkbox"/>	A-7 Notice of Total Small Business Set-Aside - Modified (form JPL 4023)
<input type="checkbox"/>	A-8 (RESERVED)
<input type="checkbox"/>	A-9 (RESERVED)
<input type="checkbox"/>	A-10 (RESERVED)
<input type="checkbox"/>	A-11 (RESERVED)
<input checked="" type="checkbox"/>	A-12 Foreign Acquisitions - Certification of Eligibility for Exemption from/Certain JPL General Provisions, Additional General Provisions, and Certifications (form JPL 2881)
<input type="checkbox"/>	A-13 (RESERVED)
<input checked="" type="checkbox"/>	A-14 Past Performance (form JPL 0358)
<input checked="" type="checkbox"/>	A-15 Cost Element Breakdown (form JPL 0549)
<input type="checkbox"/>	A-16 Determination of Lowest Overall Price - Time-and-Material Proposals (form JPL 0359)
<input type="checkbox"/>	A-17 Determination of Lowest Overall Price - Labor Hour Proposals (form JPL 0363)
<input type="checkbox"/>	A-18 Determination of Lowest Overall Price - Labor-Hour Proposals to JPL-Provided Rate Ranges (form JPL 0364)
<input type="checkbox"/>	A-19 Cost Elements Breakdown (Short Form) (form JPL 0549-1)

GROUP B - For information only:

Attachment Number	Title and Form Number
<input checked="" type="checkbox"/>	B-1 Waiver of Rights to Inventions (form JPL 62-301)
<input type="checkbox"/>	B-2 Summary Work Breakdown Structure (no form number)
<input type="checkbox"/>	B-3 Notice to Offerors (form JPL 2843)
<input type="checkbox"/>	B-4 Instructions for Patent Agreement for Use in Support Service Contracts (form JPL 2844) Patent Agreement (form JPL 1929)
<input checked="" type="checkbox"/>	B-5 Notice of Requirement of Pre-award On Site Equal Opportunity Compliance Review (form JPL 3553)
<input checked="" type="checkbox"/>	B-6 Requirements for A Subcontracting Plan (form JPL 0294)
<input type="checkbox"/>	B-7 Security Requirements for a Classified Contract (form JPL 2891)
<input type="checkbox"/>	B-8 Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity(Executive Order 11246) (form JPL 2899)
<input type="checkbox"/>	B-9.1 Notice to Prospective Contractors of Requirement for an Environmental Audit of the Lease Facilities (form JPL 2896)
<input type="checkbox"/>	B-9.2 Notice to Prospective Contractors of Requirement for an Environmental Audit of the Lease Facilities – Alternate (form JPL 2896-1)
<input type="checkbox"/>	B-10 Certificate of Current Cost or Pricing Data (form JPL 2496)
<input type="checkbox"/>	B-11 Standards of Conduct and Procedures for Handling Contractor Personnel Problems, Discipline, and Separation (form JPL 4412)
<input type="checkbox"/>	B-12 (RESERVED)
<input checked="" type="checkbox"/>	B-13 Claims for Exceptions to Cost or Pricing Data (form JPL 2703)
<input checked="" type="checkbox"/>	B-14 Billing Instructions – Cost Type Contract (form JPL 2716)

- B-15 Billing Instructions – CREI Contract (form JPL 2717)
- B-16 Billing Instructions – Labor-Hour/Time-and-Material Contract (form JPL 2718)
- B-17 JPL Contractor Safety and Health Notification (form JPL 2885)