JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY

REQUEST FOR PROPOSAL

REQUEST FOR PROPOSAL NO.: N11-552142

FOR: OCEAN VECTOR WIND MISSION TRAVELING WAVE TUBE AMPLIFIER (TWTA)

PROPOSALS ARE TO BE RECEIVED AT JPL NO LATER THAN:

Date: April 19, 2002

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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Title: JPL Contract Negotiator

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Date of Issuance: March 18, 2002

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2. Attachments to the Solicitation, See form JPL 2839 for a list of Attachment 17

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 Contract, Dated, February 04, 2002.

GENERAL INSTRUCTIONS

1.0 PROPOSAL REQUIREMENT

The effort to be performed will be in accordance with the Specimen Contract; if you choose to submit more than one proposal for this effort, each proposal must be independently complete and under separate cover.

2.0 PACKAGING AND SUBMITTING YOUR PROPOSAL

2.1 Organization and Format.

2.1.1. Your proposal 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. Your proposal shall be prepared using fonts not smaller than Times New Roman 12 points.

Volume No./Title	Page Limit	Number of Copies
VOLUME I - Technical Approach	50	10
VOLUME II - Management Approach	20	10
VOLUME III – Fixed Price	No limit	5
VOLUME IV – Past Performance	No limit	5

2.1.2 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.

2.1.3 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).

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:

3.3 "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)*

3.4 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. 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: 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 EARLY SUBMITTAL OF – PAST PERFORMANCE

For the convenience of the Laboratory, in its desire to reduce the overall schedule for this procurement activity, Past Performance, should be submitted no later than 3:00 P.M., one week before the due date of March 2002. Proposers will not, however be penalized, for a later delivery of Past Performance as long as this portion of the proposal is not submitted later than Volumes 1, 2 and 3.

6.0 CONTRACT OPTION

The Specimen Contract contains an Option Provision in Article 5. JPL will evaluate the Option Provision technical proposal as well as its price. The technical evaluation will be in accordance with paragraph 7 of these instructions. The total price for the Option Provision will be added to

the total price for the basic requirement.

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 paragraphs 9 and 10 below. Although price will not be scored, it is of approximately equal importance to the combined technical and management areas; therefore, price is a substantial factor in source selection. 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 offer with the lowest price. However, JPL may select for negotiations a contractor whose proposal offers a higher qualitative merit if the difference in price is commensurate with the added value. Conversely, JPL may select for negotiations a contractor whose offers a lower qualitative merit if JPL determines that the price differential between it and other offers so warrants. 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 paragraphs 8 and 9 below.

7.1.2 Price proposals are reviewed for mathematical accuracy, rate application, price omissions, and price reasonableness. 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 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 Determination

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(s) 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 and weaknesses which could affect work performance;

7.1.5.3 Verifying the validity of the proposed price; and

7.1.5.4 Assessing the proposed personnel and the proposer's capabilities for performing the work.

7.1.6 After discussions, JPL may request price proposal 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).

7.1.7 Finally, the initial evaluation findings are reviewed and ratings are assigned which incorporate the results of the discussions and/or any price proposed deltas.

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.

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 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.

9.0 TECHNICAL EVALUATION INSTRUCTIONS

The Technical and Management Criteria and the weight for each are listed below. The factors shown under the criteria are not weighted for evaluation purposes and are not listed in any order of importance.

a. Criteria T1 – Traveling Wave Tube Amplifier (TWTA) Design, Development, Assembly, Integration, And Test Approach – 150 Points

The degree to which the proposer demonstrates an understanding of the tradeoffs involved in establishing a hardware design, development, assembly, integration and test approach for the TWTA that will lead to the final hardware configuration, selection, design, test, and qualification in accordance with the requirements of the Specimen Contract. Factors to be consider are:

1. Allocation of Design Requirements.
2. Development, Assembly, Integration and Test Approach
3. Power Dissipation Estimate(s)

b. Criteria T2 – TWT Design, Development, Assembly, Integration, And Test Approach – 250 Points

The degree to which the proposer demonstrates an understanding of the tradeoffs involved in establishing a TWT hardware design, development, assembly, integration, and test approach that will lead to hardware configuration selection, design, development, assembly, integration, and test and qualification in accordance with the requirements of the Specimen Contract. Factors to be consider are:

1. Allocation of Design Requirements
2. TWT Packaging Approach
3. Development, Assembly, Integration and Test Flow Approach
4. Design Inheritance
5. Part, Materials, and Processes

c. Criteria T3 – High Voltage Power Supply (HVPS) Design, Development, Assembly, Integration, And Test Approach – 300 points

The degree to which the proposer demonstrates an understanding of the tradeoffs involved in establishing a HVPS hardware design, development, assembly, integration and test approach that leads to the final hardware configuration selection, design, development, assembly, integration, test and qualification in the accordance with the Specimen Contract. Factors to be considered are:

1. Allocation of Design Requirements
2. HVPS Packaging Approach
3. Development, Assembly, Integration and Test Approach
4. Design Inheritance
5. Parts, Materials, And Processes

10.0 MANAGEMENT EVALUATION INSTRUCTIONS

a. Criteria M1 – Management Plans - 150 points

The degree to which the proposed Management Plans are suitable for the organization, implementation and control of the effort set forth in the Specimen Contract. Factors to be considered are:

1. Organization Plan
2. Implementation Plan for Conducting the Effort
3. Program Control Plan
4. Program Plans

b. Criteria M2 – Resources and Related Experience – 150 points

The degree to which the proposed technical personnel, facilities, equipment, and related experience are available and suitable for performance for the effort set forth in the Specimen Contract. Factors to be considered are:

1. Availability and Qualification of Personnel
2. Facilities Usage
3. Equipment Usage
4. Related Experience

VOLUME I
PROPOSAL INSTRUCTIONS – TECHNICAL PROPOSAL

I. Introduction

This portion of the Proposal Instructions sets forth the requirements to be followed in preparing Volume I - Technical Proposal. Include the following specific information in Volume I to permit an evaluation of your technical capabilities. Volume I shall consist of three (3) sections:

Section I	Traveling Wave Tube Amplifier (TWTA) Design, Development, Assembly, Integration, and Test Approach
Section II	Traveling Wave Tube (TWT) Design, Development, Assembly, Integration and Test Approach
Section III	High Voltage Power Supply (HVPS) Design, Development, Assembly, Integration and Test Approach

II. Instructions

Your proposal must be prepared as outlined below:

a. Criterion T1 - TWTA Design, Development, Assembly, Integration and Test Approach-Section I

Demonstrate your understanding of the tradeoffs involved in establishing a TWTA hardware design, development, assembly, integration, and test approach that will lead to the final hardware configuration selection, design, development, test and qualification in accordance with requirements of the Specimen Contract. Include the following:

(1) Allocation of Design Requirements

Discuss your proposed TWTA design approach and how it will meet the requirements in Exhibit III, Component Specification for a Pulsed Ku-Band TWTA of the Specimen Contract. Discuss how your proposed design requirements are allocated to the HVPS and the TWT assemblies and how your allocated requirements are consistent with the TWTA level requirements. Discuss how your allocation methodology will meet the TWTA RF pulse waveform specifications.

(2) Development, Assembly, Integration and Test Approach

Discuss your proposed development, assembly, integration and test approach and how it can satisfy the JPL requirements for assembly and integration and test while minimizing risk to the hardware. Discuss how your subcontractor, if applicable, will participate in the TWTA assembly, integration and test. Discuss your planning and control procedures that are applied to your integration and test procedures. Discuss how you plan to verify documentation and procedures for flight integration and test cycle. Provide schedules for the integration and test cycle that are compatible with the programmatic delivery requirements. Provide a manufacturing test flow plan that describes all integration and test activities through final acceptance testing. Provide a test matrix that identifies all planned testing for the EQM and PFM units. Also provide an integration and test plan that discusses appropriate hardware and personnel safety.

(3) Power Dissipation Estimate(s)

Discuss your proposed estimate of power dissipation and densities and how it

will meet the JPL requirements for the three basic modes of operation: (warm-up; TWTA pulsing with RF applied and TWTA pulsing without RF applied). Discuss how duty cycle affects the power consumption. Discuss how the relationship between the bus voltage and power consumption is addressed. Discuss how the estimates for the bus current for nominal bus voltages were generated.

b. Criteria T2 – TWT Design, Development, Assembly, Integration and Test Approach – Section II

Demonstrate your understanding of the tradeoffs involved in establishing a TWT hardware design, development, integration, and test approach that will lead to the hardware configuration selection, design, development, test and qualification in accordance with requirements of the Specimen Contract. Include the following:

(1) Allocation of Design Requirements

Discuss your proposed TWT design approach and how it will meet the allocated requirements derived from Exhibit III, Component Specification, OVWM TWTA.

Provide a block diagram that illustrates your proposed design approach and TWT architecture. Include a discussion on the configuration and tradeoffs on the design characteristics necessary to the TWT functional and performance requirements.

Discuss how your dynamic load characteristics of the beam-control electrode will enable the RF pulse waveform requirements of Exhibit III to meet the TWTA level.

Provide a description of your knowledge in the application of design concepts as they apply to the electrical, mechanical, thermal and reliability functions.

(2) TWT Packaging Approach:

Describe your overall packaging approach and how it will meet the TWT packaging requirements. Include a discussion of the methods used in vacuum assemblies, including techniques to avoid contamination of the cathode, grid, focus electrode (if used), and collector elements. Describe how your packaging approach will operate without degradation during vibration, thermal vacuum and critical pressure environments. Discuss how your proposed TWT design will meet the mass and size requirements, with an acceptable design margin.

(3) Development, Assembly, Integration and Test Approach

Discuss your proposed TWT development, assembly, integration and test approach and how it will meet the allocated TWT requirements derived from Exhibit III. Provide a description of the gun construction, alignment approach and the focusing of the TWT and how the requirements will be met. Identify any crucial processes and discuss how they will minimize or eliminate risks. Provide your planning and control procedures that demonstrate the development, assembly, and test activities. Discuss how you plan to verify documentation and procedures for flight fabrication, assembly, and test. Provide a schedule for the flight fabrication, assembly, and test cycle that meets the programmatic delivery requirements. Include a Manufacturing Test Flow Plan that depicts the fabrication, assembly, and test activities planned for the TWT. Include as part of your discussion a test matrix that clearly identifies all planned testing for the EQM and PFM units. Describe your assembly techniques for addressing safety risk to both the hardware and personnel.

(4) Design Inheritance

Discuss the space applicable design inheritance of your TWT design concept. Actual flight history should be provided which should include relevant performance parameters and environment. Clearly identify what changes, if any, are being made to the heritage design for the Ku-Band TWTA development and how the risks of making the change(s) are mitigated.

(5) Parts, Materials And Processes

Provide JPL with a preliminary list of parts, materials and processes to be used in the fabrication, assembly, and test of the TWT. Describe how the materials and processes listed comply with Exhibit I, Applicable Documents List, PD 686-036 and PD 686-038. Discuss how unapproved parts can be upgraded and/or qualified. Describe your controls to prevent non-approved parts, materials and processes from being installed or used on flight hardware. Describe how your process controls are used to avoid contamination of the vacuum envelope (particularly the cathode, grid, collector elements and gun and isolation paths).

c. Criterion T3 – High Voltage Power Supply (HVPS) Design, Development, Assembly, Integration and Test Approach - Section III

Describe your understanding of the tradeoffs involved in establishing a HVPS hardware design, development, assembly, integration, and test approach that leads to hardware configuration selection, design, development, assembly, integration, test and qualification in accordance with the requirements of the Specimen Contract. Include the following:

(1) Allocation of Design Requirements

Discuss your proposed detailed design approach and how it will meet the allocated requirements in Exhibit III of the Specimen Contract. Provide a preliminary detailed block diagram that clearly explains the overall design approach and architecture of the HVPS. Provide a discussion of the configuration and trade-off that establishes the design characteristics necessary to meet the HVPS functional and performance requirements over life and the specified environment.

Discuss how you plan to meet the requirements of the beam-control electrode voltage waveform. Discuss how you plan to meet the requirements for loop stability, the encapsulation material, and its processing, out-gassing characteristics, general encapsulation techniques for high voltage modules, transformers and components. Identify any high-voltage design guidelines. Discuss your application of design as applied to electrical, mechanical, thermal, and reliability functions.

(2) HVPS Packaging Approach:

Describe your overall HVPS packaging approach and how it will lead to high voltage encapsulation techniques, including your handling of high voltage workmanship, electric field stress in high voltage assemblies and derating of components (transformers and capacitors) and high voltage encapsulation techniques (high voltage modules and transformers). Discuss how your packing design will meet the overall mass and size requirements, including your proposed design margin.

(3) Development, Assembly, Integration and Test Approach

Discuss your HVPS development, assembly, integration and test approach and how it will meet the allocated HVP requirements in Exhibit III of the Specimen Contract. Provide a description of the gun construction, alignment approach and the focusing of the HVPS and how the requirements will be met. Identify any crucial processes and discuss how they will minimize or eliminate risks. Provide

your planning and control procedures that demonstrate the development, assembly, and test activities. Discuss how you plan to verify documentation and procedures for flight fabrication, assembly, and test. Provide a schedule for the flight fabrication, assembly, and test cycle that meets the programmatic delivery requirements. Include a Manufacturing Test Flow Plan that depicts the fabrication, assembly, and test activities planned for the HVPS. Include as part of your discussion a test matrix that clearly identifies the specific activities planned for the EQM and PFM units. Describe your assembly, integration and test techniques for addressing safety concerns for both hardware and personnel.

(4) Design Inheritance

Discuss the space applicable design inheritance of your proposed HVPS design approach. Actual flight history should be provided which includes relevant performance parameters and environment. Clearly identify what changes, if any, are being made to the heritage design for the Ku-Band TWTA development and how the risks of making the change(s) are mitigated.

(5) Parts, Materials, And Processes

Provide JPL with a preliminary list of parts, materials and processes to be used in the fabrication, assembly, and test of the HVPS. Describe how the parts, materials and processes listed comply with Exhibit I, Applicable Documents List, PD 686-036 and PD 686-038. Discuss how unapproved parts can be upgraded and/or qualified. Describe how your controls will prevent non-approved parts and materials and processes from being installed or used on flight hardware.

VOLUME II

PROPOSAL INSTRUCTIONS - MANAGEMENT PROPOSAL

1. Introduction:

This portion of the proposal instruction's material sets forth the requirements to be followed in preparing Volume II - Management Proposal. The following specific information must be included in Volume II to permit an evaluation of management capabilities. Volume II shall consist of two (2) sections:

Section I - Management Plans

Section II -Resources and Related Experience

2. Instructions

Submit the plans listed below, which describe the organization, implementation, and control of the effort described in the Specimen Contract. JPL intends that maximum use be made of the Contractor's existing management, product assurance, and documentation systems. As part of your proposal, include in tabular form, any exceptions your proposal has with the documentation requirements contained within Exhibit II, Contract Data Requirements List and the Statement of Work (SOW). The descriptions in your proposal should be ordered as outlined below.

a. Criterion MI - Management Plans. Section I:

(1) Organization Plan

Provide an organization chart (or charts) and sufficient supplemental narrative to fully describe the following:

(a) A chart of the program management organization to be used in performance of the proposed effort. Identify key technical and management personnel who will be assigned to this effort.

(b) A chart showing the position of the program management organization within the overall company or corporate organization.

(c) The authority of the Program Manager to command and control resources (e.g., personnel, finances, facilities) and subcontracts necessary to contract performance.

(d) The procedure to be followed by the Program Manager in obtaining decisions beyond his/her authority in resolving proprietary conflicts for resources not under his/her control.

(e) Relationship of the Product and Quality Assurance Manager to the Program Manager.

(2) Implementation Plan for Conducting the Effort

(a) As part of the RFP package, at the Report Item (Level 4), submit an expansion of your proposed WBS (including a WBS Dictionary) to identify in more detail the, activities in support of each Report Item.

(b) Provide a Detailed Network Schedule in both Gantt and PERT formats that portrays at the Work Item Level your plan to accomplish the effort contained in the statement of Work (this can be provided on magnetic media if in Microsoft Project format).

(c) Submit a Summary Network Schedule in both Gantt and PERT formats. The Summary Network Schedule shall be event oriented and comprised of events derived from the Detailed Network Schedule. Include events that represent major milestones and reflect the performance and delivery schedule of Article 1 of the Specimen Contract.

(3) Program Control Plan

Discuss your proposed Program Control Plan that describes the procedure to be followed for monitoring technical performance and schedule. Describe in detail the system for reporting technical status and schedule progress, both internally and to JPL. Identity the management level responsible for reviewing the technical and schedule status and program reports and taking corrective action as appropriate. Provide a discussion on how you plan to monitor and control the technical, schedule and cost performance of your subcontractor's.

(4) Program Plans

Discuss your proposed Program Plans, as listed below, for conducting the design, development, fabrication, assembly, integration, test activities for the TWTA. Discuss how they interrelate.

Discuss how your proposed Plans differentiate between the Ku-Band TWTA EQM and the FM. Also discuss any differences between activities at your facilities versus your proposed subcontractor's facilities.

The contractor is encouraged to use existing programs or plans which are equivalent to and meet the intent of the JPL requirements contained within the documents (and related DRD's) listed below. Discuss how these program plans have been proven on successful space flight programs and why use of these programs is appropriate for the TWTA program.

Configuration Management	PD 686-013	
Reliability Assurance	PD 686-031	
Quality Assurance	PD 686-032	**
Problem/Failure (Non-Conformance) Reporting	PD 686-033	*
Electronic Packaging (D-8208)		
Cleanliness/Contamination Control	PD 686-035	
Materials and Processes Control	PD 686-036	
Parts Program	PD 686-038	

Notes To Proposers:

* This topic can be discussed in the Reliability Assurance Plan.
** This topic can be discussed in the Quality Assurance Plan.

Provide a copy of an existing plan for each of the documents described above. The plans should be from an activity similar in scope to the TWTA, along with a narrative description of how the submitted plan will be changed to satisfy the TWTA requirements.

b. Criterion M2 - Resources and Related Experience, Section II

(1) Availability and Qualification of Personnel

Provide man-loading charts and show the personnel needed to be assigned to this program. Indicate how many will be new hires. Provide resumes of the Program Manager, key management and technical positions required for this effort and identify the percentage of time to be devoted by each person to the proposed effort. Describe the education and related experience of all the key personnel for the assigned task during the past five (5) years that makes them suitable for the TWTA effort. Identify the corporate commitment for keeping these key personnel available on the program.

(2) Facilities Usage

Discuss the availability and location of all proposed facilities (including subcontractor facilities) needed for the design, manufacturing and testing of the technical effort. Include a discussion of the following:

(a) Your proposed manufacturing and assembly facilities and parts storage area. Indicate the type of work typically performed in each facility (i.e.model shop, production area, etc.), and how the TWTA program will be accommodated in the proposed facilities (including any provisions for keeping the TWTA hardware isolated from other hardware) and any modifications that may be necessary to accommodate the program.

(b) How you will meet the cleanliness requirements in the document entitled "Cleanliness/Contamination Control Requirements, PD 686-035.Indicate which facilities have existing contamination control systems in operation, and the degrees of cleanliness maintained.

(c) A thorough and comprehensive description of laboratory and testing facilities (including environmental test facilities), computers, design tools, quality control facilities and equipment to be utilized. Indicate the type of work typically performed in each facility and how the TWTA program will be accommodated in the proposed facilities and any modification that may be necessary to accommodate the program.

(3) Equipment Usage

Discuss the availability and planned utilization of commercial test equipment and special test equipment (including software where applicable) that may be required in the performance of the Specimen Contract. Identify any test equipment and special tooling that is not available in current inventory and how it will be obtained when needed.

(4) Related Experience

Discuss all programs of similar complexity, workforce, and cost within the last five years that illustrate previous and related experience in design, fabrication, assembly, integration, test and documentation of qualified space TWTAs. Include in your discuss the following:

(A) Provide a description of the item, its key performance characteristics, environment, and mission life, and any variations between contract requirements and performance of the delivered item.

(B) Include similarities and differences between the items described and the TWTA.

(C) Provide a summary description of the manufacturing history and capability of your proposed major subcontractor(s), if any.

(D) Provide a matrix summarizing the above items.

(E) Identify any subcontractors that possess proven space-qualified hardware experience in areas such as manufacturing components and electronics.

VOLUME III

PROPOSAL INSTRUCTIONS- FIXED PRICE

This portion of the proposal instructions outlines the requirements to be followed in preparing the cost proposal. Submit to JPL five (5) copies of the information requested by the following instructions.

1. PROPOSAL PRICING

   (a) Provide a Firm Fixed Price as specified in Article 2, paragraph 1.0 of the Specimen Contract. (For Foreign Contractors, Pricing must be in U.S. currency).

   (b) Provide a Ceiling Price for the support effort as specified in Article 2, paragraph 2.0 of the Specimen Contract.

   (c) Provide burdened labor rates and labor classifications as specified in Article 2, paragraph 2.1 of the Specimen Contract.

   (d) Identify any recurring and nonrecurring costs in your proposal.

   (e) Identify any costs for materials and subcontracts.

   (f) Provide a Firm Fixed Price for the Option Provision in Article 2, paragraph 6.0 of the Specimen Contract.

   Note: The price of each offer will be adjusted by increasing the proposed prices submitted in response to paragraph 1(a) by the price differential formula described in FAR 25.105/NFS 18.25.105 (i.e., 6% is added to a foreign offer if being compared to a domestic offer from a large business; 12% is added to a foreign offer if being compared to a domestic offer from a small business concern). The adjusted price(s) will be used as the price(s) to be treated in accordance with the evaluation provisions of the RFP under paragraph 6.0 of the General Instructions.

2. FOR INFORMATION PROPOSES ONLY – NOT FOR PROPOSAL EVALUATION

   Possible Bus Voltage Change:

   The design of the spacecraft on which the OVWM TWTA is to fly may experience a change in power bus voltage from “24 V to 32 V” (see Exhibit III paragraph 2.6.1) to “44 V to 52 V.” For planning purposes only, JPL would like an estimate of the cost and schedule impact of such a change. For purposes of estimating the cost and schedule impacts, assume that the change is identified at the time of PDR. The undervoltage trip voltage (Exhibit III paragraph 2.6.3) is assumed to change to “42.0 V +/-0.5 V.” The overvoltage requirement (Exhibit III paragraph 2.6.9) is assumed to change to “56 V.”

3. PROGRESS PAYMENTS

   Progress Payments will be allowed under this Contract in accordance with the Additional General Provision entitled "Progress Payments" incorporated into the Specimen Contract.

4. LIMITATION OF JPL'S OBLIGATION

   The Specimen Contract contains an Article entitled "Limitation of JPL's Obligation" which includes a funding profile regarding termination liability during each phase of the program. A proposal which is conditioned on JPL's agreement to an alternate funding profile may be rejected. Nevertheless, this does not mean that your budgeted costs must be proposed in accordance with this funding profile. You are free to propose your budgeted costs in any manner which satisfies the requirements of the contract. Once again, this will be a fixed-priced contract. You can therefore choose to assume some risk relative to accepting a contract with a fixed funding profile.

5. SPECIAL TOOLING AND SPECIAL TEST EQUIPMENT

Describe each item of Special Tooling and Special Test Equipment proposed; indicate where and when each item is to be used and the extent of usage.

6. 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. License and Royalty Information

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

c. 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. It should be noted that the Group B Attachments are very important and may be required under the Contract.

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

7. DELIVERY INCENTIVES

Discuss in your proposal any delivery incentives for meeting the TWTA delivery schedule.

8. If required, JPL reserves the right to request additional cost backup information from the selected Contractor prior to negotiations.

VOLUME IV

PROPOSAL INSTRUCTIONS - PAST PERFORMANCE

I . Introduction

This portion of the proposal instructions sets forth the requirements to be followed in preparing VOLUME IV - PAST PERFORMANCE. The following specific information requested in paragraph 2, below, must be provided to permit an evaluation of your past performance. The information provided will be used to assess your past performance in technical, schedule, and cost/price areas for contracts similar to the proposed effort.

2. Requirement

Provide a synopsis of all similar contracts performed by the cognizant organization proposed for this effort within the past five(5) years. Include similar on-going efforts. These synopses are to include the following customer contract information:

(a) Contract number;
(b) Customer name and current address;
(c) Current cognizant contract administrator and technical person;
(d) Current telephone numbers;
(e) Period of performance;
(f) Contract type;
(g) Average number of personnel assigned to contract effort;
(h) Initial and final cost or price.

To facilitate evaluation of your proposal, you are encouraged to submit VOLUME IV PAST PERFORMANCE by ----------2002. The last date of submittal for VOLUME IV PAST PERFORMANCE is the due date of this RFP. If you are going to submit VOLUME IV - PAST PERFORMANCE in advance of the RFP due date, clearly mark the outside of the package as follows:

"VOLUME IV - PAST PERFORMANCE

RFP NO. No. N11-552142

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.

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

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

	Attachment Number	Title and Form Number
☒	A-1	Acknowledgment (form JPL 2384)
☐	A-2	Cost Accounting Standards (form JPL 2842)
☒	A-3	Government Property Questionnaire (form JPL 0544)
☐	A-4	Acknowledgment - Commercial Items or Services (form JPL 2384-1)
☐	A-5	Acknowledgment - CREI Contract (form JPL 2384-3)
☐	A-6	Notice of Total Small Business Set-Aside (form JPL 4022)
☐	A-7	Notice of Total Small Business Set-Aside – Modified (form JPL 4023)
☐	A-8	(RESERVED)
☐	A-9	(RESERVED)
☐	A-10	(RESERVED)
☐	A-11	(RESERVED)
☐	A-12	(RESERVED)
☐	A-13	(RESERVED)
☐	A-14	Past Performance (form JPL 0358)
☐	A-15	Cost Element Breakdown (form JPL 0549)
☐	A-16	Determination of Lowest Overall Price – Time-and-Material Proposals (form JPL 0359)
☐	A-17	Determination of Lowest Overall Price – Labor Hour Proposals (form JPL 0363)
☐	A-18	Determination of Lowest Overall Price – Labor-Hour Proposals to JPL-Provided Rate Ranges (form JPL 0364)
☐	A-19	Cost Elements Breakdown (Short Form) (form JPL 0549-1)

GROUP B - For information only:

Attachment Number	Title and Form Number
☒ B-1	Waiver of Rights to Inventions (form JPL 62-301)
☐ B-2	Summary Work Breakdown Structure (no form number)
☐ B-3	Notice to Offerors (form JPL 2843)
☐ B-4	° Instructions for Patent Agreement for Use in Support Service Contracts (form JPL 2844) ° Patent Agreement (form JPL 1929)
☐ B-5	Notice of Requirement of Pre-award On Site Equal Opportunity Compliance Review (form JPL 3553)
☒ B-6	Requirements for A Subcontracting Plan (form JPL 0294)
☐ B-7	Security Requirements for a Classified Contract (form JPL 2891)
☒ B-8	Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246) (form JPL 2899)
☐ B-9	☐ Notice to Prospective Contractors of Requirement for an Environmental Audit of the Lease Facilities (form JPL 2896) ☐ Notice to Prospective Contractors of Requirement for an Environmental Audit of the Lease Facilities - Alternate (form JPL 2896-1)
☐ B-10	Certificate of Current Cost or Pricing Data (form JPL 2496)
☐ B-11	Standards of Conduct and Procedures for Handling Contractor Personnel Problems, Discipline, and Separation (form JPL 4412)
☐ B-12	(RESERVED)
☐ B-13	Claims for Exceptions to Cost or Pricing Data (form JPL 2703)
☐ 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)