



National Aeronautics and
Space Administration

Langley Research Center
Hampton, Virginia 23681-0001

SOLICITATION

1-137-D.1165

AEROSPACE RESEARCH AND TECHNOLOGY (ART)

REQUIREMENT:

The Government intends to award the contract resulting from this solicitation without discussions. (See Section L clause entitled "Contract Award," FAR 52.215-16 (OCT 1995)-- Alternate II (OCT 1995).) The Government desires to avoid situations where proposals include substantive exceptions or additions to the proposed contract terms and conditions which might be unacceptable to the Government and therefore preclude award. Accordingly, it is requested and strongly recommended that you bring to the Government's attention prior to the proposal due date any exceptions, additions, or questions you have to the proposed contract terms and conditions. This will allow the Government to comment to all offerors via solicitation amendment on the acceptability or unacceptability of these exceptions (e.g., additions, deletions, changes) prior to proposal receipt. The resolution of any exceptions to terms and conditions prior to proposal receipt will aid the Government in its intention to award without discussions and thus streamline the procurement process.

The Government reserves the right to conduct discussions if later determined by the Contracting Officer to be necessary. If discussions are determined to be necessary, the Contractor's attention is directed to Section L, L.42, Test of Source Selection Procedures. This section defines the FAR procedures that will be used in lieu of the traditional NASA FAR Supplement procedures.

NASA has established a mandatory Small Disadvantaged Business (SDB) subcontracting goal of eight percent for this requirement. The goal also includes participation by small business concerns owned and controlled by women, Historically Black Colleges and Universities and other minority educational institutions. Offerors will be evaluated on the proposed SDB goal in comparison to the eight percent goal, as an element under the Management Approach subfactor under the Mission Suitability factor, in accordance with M.2.A.3.e of the solicitation.

Any of the individual task orders issued under the contract may be placed on a "cost reimbursable, completion form" or a "fixed price" basis, but none will be level-of-effort term.

In addition to the original and eight copies of your proposal to be received in accordance with Block 9 of the Standard Form (SF) 33, one copy shall be sent directly to the cognizant DCAA office with a cover sheet referencing the solicitation number in Block 3 of the SF 33.

A bidder's library has been established for prospective offerors and will remain open through the proposal due date. Although attendance at the bidder's library is not mandatory to bid this procurement, it is highly encouraged. See L.39 for details.

A pre-proposal conference will be held at Langley Research Center on February 13, 1996. See L.31 for details.

IMPORTANT NOTICE: THE EFFORT REQUIRED UNDER THIS CONTRACT WILL DECREASE BY APPROXIMATELY 20% EACH GOVERNMENT FISCAL YEAR (FY), STARTING IN FY 1997. AT THE CONCLUSION OF FY 2000, NASA WILL CEASE CONTRACTING FOR THESE SERVICES, WITH THE EXPECTATION THAT THEY WILL BE PERFORMED BY NASA CIVIL SERVANTS.

SOLICITATION, OFFER AND AWARD		1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 350)		RATING DO-C9	PAGE OF 1 176 PAGES
2. CONTRACT NO.	3. SOLICITATION NO. 1-137-D.1165	4. TYPE OF SOLICITATION <input type="checkbox"/> SEALED BID (IFB) <input checked="" type="checkbox"/> NEGOTIATED (RFP)		5. DATE ISSUED 1/26/96	6. REQUISITION/PURCHASE NO.
7. ISSUED BY National Aeronautics and Space Administration Langley Research Center Hampton, VA 23681-0001			8. ADDRESS OFFER TO (If other than Item 7) NASA, Langley Research Center 9A Langley Boulevard, Bldg. 1195B, Room 123 Hampton, VA 23681-0001		

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".

SOLICITATION

9. Sealed offers in original and 8 copies for furnishing the supplies or services in the Schedule will be received at the place specified in Item 8, or if handcarried, in the depository located in 9A Langley Blvd., Bldg. 1195B, Rm. 123 until 4:00 PM local time 3/12/96
(Hour) (Date)

CAUTION - LATE Submissions, Modifications, and Withdrawals: See Section L, Provision No 52.214-7 or 52.215-10. All offers are subject to all terms and conditions contained in this solicitation.

10. FOR INFORMATION CALL:	A. NAME	B. TELEPHONE NO. (Include area code) (NO COLLECT CALLS)
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OFFER (Must be fully completed by offeror)

NOTE: Item 12 does not apply if the solicitation includes the provisions at 52.214-16, Minimum Bid Acceptance Period.

12. In compliance with the above, the undersigned agrees, if this offer is accepted within _____ calendar days (60 calendar days unless a different period is inserted by the offeror) from the date for receipt of offers specified above, to furnish any or all items upon which prices are offered at the price set opposite each item, delivered at the designated point(s), within the time specified in the schedule.

13. DISCOUNT FOR PROMPT PAYMENT (See Section I, Clause No. 52-232-8)	10 CALENDAR DAYS	20 CALENDAR DAYS	30 CALENDAR DAYS	CALENDAR DAYS
	%	%	%	%
14. ACKNOWLEDGMENT OF AMENDMENTS (The offeror acknowledges receipt of amendments to the SOLICITATION for offerors and related documents numbered and dated:	AMENDMENT NO.	DATE	AMENDMENT NO.	DATE

15A. NAME AND ADDRESS OF OFFEROR	CODE	FACILITY	16. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER (Type or print)
15B. TELEPHONE NO. (Include area code)	15C. CHECK IF REMITTANCE ADDRESS IS DIFFERENT FROM ABOVE - ENTER SUCH ADDRESS IN SCHEDULE <input type="checkbox"/>		17. SIGNATURE
			18. OFFER DATE

AWARD (To be completed by Government)

19. ACCEPTED AS TO ITEMS NUMBERED	20. AMOUNT	21. ACCOUNTING AND APPROPRIATION	
22. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION: <input type="checkbox"/> 10 U.S.C. 2304(c)(1) <input type="checkbox"/> 41 U.S.C. 253(c)(1)		23. SUBMIT INVOICES TO ADDRESS SHOWN IN (4 copies unless otherwise specified) ITEM	
24. ADMINISTERED BY (If other than Item 7) CODE	Criticality Designator C	25. PAYMENT WILL BE MADE BY CODE Financial Management Division Mail Stop 175, NASA, Langley Research Center Hampton, VA 23681-0001	
26. NAME OF CONTRACTING OFFICER (Type or print)	(Signature of Contracting Officer)	27. UNITED STATES OF AMERICA	28. AWARD DATE

IMPORTANT - Award will be made on this Form, or on Standard Form 26, or by other authorized official written notice.

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PART I - THE SCHEDULE

SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTSB.1 SUPPLIES AND/OR SERVICES TO BE FURNISHED (NASA 18-52.210-72)
(DEC 1988)

The Contractor shall provide all resources (except as may be expressly stated in this contract as provided by the Government) necessary to furnish the required supplies and/or services in accordance with the Description/Specifications/Work Statement in Section C.

B.2 ESTIMATED COST AND AWARD FEE (NASA 18-52.216-85) (SEP 1993)

The estimated cost of this contract is \$. The maximum available award fee is \$. Total estimated cost and maximum award fee are \$.

B.3 AWARD FEE AVAILABILITY SCHEDULE (LaRC 52.216-96) (MAR 1989)

The award fee available for each evaluation period is as follows:

<u>Period</u>	<u>Available Award Fee</u>
May 1, 1996 - October 31, 1996	
November 1, 1996 - April 30, 1997	

NOTE: The award fee available for each evaluation period will be determined based on the task orders performed during that period. If a task order is started and completed during a particular evaluation period, then the award fee for that particular task order will be included in the award fee available for that period only. If a task order is started in a particular evaluation period and extends beyond that period, then the award fee for that particular task will be distributed by the Government (with input from the Contractor) across the appropriate evaluation periods, considering the work to be performed in each impacted period. At the end of each evaluation period, the total available award fee pool will be added to the contract by modification.

B.4 CONTRACT FUNDING (NASA 18-52.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is \$. This allotment is for and covers the following estimated period of performance: _____.

(b) An additional amount of \$ is obligated under this contract for payment of fee.

SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

C.1 STATEMENT OF WORK - AEROSPACE RESEARCH AND TECHNOLOGY (ART)

1.0 Purpose

This statement of work defines the requirement for technical support to the NASA Langley Research Center to assist in meeting the objectives of its Aerospace Research and Technology activities. These requirements include, but are not limited to, technical support in the functional areas of Aeronautics and Aerothermodynamics Research, Structures and Materials Research, and Flight Systems.

2.0 Scope

The Contractor shall provide support to the Langley Research Center aerospace research programs and activities. The work to be performed will be defined in Task Orders issued by the Contracting Officer. Some of these tasks will be classified (up to and including Top Secret). The scope and diversity of these Task Orders will encompass the broad scope of the mission and responsibilities of the Langley Research Center's research and technology programs. The general categories of work to be performed under the task orders are outlined below.

3.0 Aeronautics and Aerothermodynamics Research

3.1 Gas Dynamics Research - The Contractor shall provide support to the Gas Dynamics Division in the general areas of aerothermodynamics, hypersonic airbreathing propulsion systems, and wind tunnel operations and system evaluations. The Contractor shall interpret and analyze experimental data and apply and upgrade computational methods and phenomenological models. This support includes timely generation of both surface and volume grids for Computational Fluid Dynamic and Direct Simulation Monte Carlo codes as well as routine maintenance and implementation of upgrades of the actual software as required to ensure state-of-the-art computing capability. Analyses shall determine the flowfield physics about a variety of configurations required to quantify the performance of fully integrated (tip-to-tail) airbreathing propulsion vehicles and aerospace vehicles. The Contractor shall configure and operate facilities such as the jet exhaust simulation facility to perform combustion studies of specific fuel blends for the purpose of analyzing exhaust properties; perform risk assessment of facility systems (new, modified & existing); develop, upgrade, and review all LaRC facility safety documentation and operating procedures for the 8 Ft. High Temperature Tunnel; assess system performance and health; troubleshoot; and design & implement system modifications to improve reliability, operability, and performance.

3.2 Aerodynamics Technology Development - The Contractor shall provide support for the research and development conducted in aerodynamics in the areas of: wind tunnel testing of advanced aircraft concepts and components including rotorcraft; development of advanced wind tunnel testing technology; and applied computational fluid dynamics. Included in the field of wind tunnel testing and testing technology development are: model preparation, test participation, instrumentation selection, development and use of advanced measurement techniques,

development of advanced wind tunnel testing techniques, and the implementation of uncertainty analysis as a standard practice in wind tunnel research. The wind tunnels cover the speed range from low subsonic to hypersonic and include conventional as well as cryogenic facilities. In the area of computational fluid dynamics, support will be required to develop and apply computational codes for studies of aircraft designs, airframe/propulsion integration, and aircraft performance throughout the speed regime from low subsonic to hypersonic. Also included will be the development and application of advanced grid generation concepts.

3.3 Fluid Mechanics and Acoustics Research and Technology Programs -

The Contractor shall provide analytical, computational, and experimental support for fluid mechanics and acoustics research and technology programs. The Contractor shall support both focused and basic research and technology development in the areas of aeroacoustics, including instrumentation, data acquisition and analysis, acoustic testing of rotors, jets, and ducted fans in wind tunnels, anechoic chambers, or outdoors; structural acoustics, including prediction and control of noise transmission and structural response, experimental and analytical methods for acoustic liner technology, digital control systems and their implementation to noise and vibration control problems; laminar flow control, including advanced transition prediction and control methods and the effects of surface roughness/steps/gaps and inhomogeneities and attachment line contamination; aerodynamic and acoustic methods, including aerodynamic analyses of complex-geometry configurations using structured and unstructured-grid Euler and Reynolds-averaged Navier-Stokes methodology; multidisciplinary applications involving aerodynamics, structures, and controls; flow modeling and control, including large-eddy simulations of turbulent boundary layers and computations to study the effect of roughness, suction, and admittance on receptivity of three-dimensional boundary layers on swept wings; and measurement science and technology, including image transmit and receiving optics, data acquisition systems, data analysis systems, ground based applications, systems to eliminate directional ambiguity, real-time analysis system, applications to high-speed flow, digital electronics, software algorithms, computer interfacing, computer animation, Monte Carlo simulation, and particle scattering studies. The Contractor shall provide: coding, upgrading, and maintenance of large multipurpose computer programs; test subjects for psychoacoustic testing; operation of psychoacoustic test facilities; support for wind-tunnel experiments; support for flight experiments; modification to analysis codes to perform effectively on distributed workstation and massively parallel computers.

4.0 Structures and Materials Research

4.1 Structures Research and Technology Programs - The Contractor shall provide analytical and experimental support for structures research and technology programs. The Contractor shall support focused and basic research and technology development in the areas of structural mechanics, structural dynamics, aeroelasticity, thermal structures, and computational structures. The Contractor shall support investigations that quantify the response, failure, and structural integrity of composite and metallic aircraft and spacecraft structures; develop innovative modeling methods for predicting composite and metallic component behavior; analyze the response, failure, and structural integrity of composite and metallic structures subjected to complex combined mechanical and thermal loadings;

develop new equation solvers, eigenvalue extraction algorithms, and stiffness and mass matrix assembly techniques that enable efficient and rapid solution on evolving computer systems; and develop efficient structural concepts for future space transportation systems including durable thermal protection systems, reusable cryogenic tanks, and cooled-structure concepts. The Contractor shall support analyses and tests of aeroelastically scaled models; aeroelastic studies of fixed- and rotary-wing vehicles, including performance, the control of aeroelastic instabilities, loads, vibration, flutter, buffet, buzz, gust response, limit cycle oscillations, and adverse structural response; simulations, ground testing, wind-tunnel tests, and flight experiments; development of analytical methods to perform vibration, aeroelastic, and aeroservoelastic studies; analytical and experimental studies to predict, verify, and control the dynamic response of spacecraft structures; and studies to advance the safety and ground-handling performance of aircraft during all-weather takeoff and landing operations.

4.2 Materials Research and Technology Programs - The Contractor shall support research to develop advanced light metallic alloys, polymers and polymeric matrix composites, carbon-carbon composites, and ceramic-based materials. This research includes the development of metal forming and joining technology, polymer matrix composite processing and fabrication technology, adhesive bonding and sealant technology, and carbon-carbon and ceramics processing and coating technology. Materials characterization testing shall be conducted to measure chemical, physical, electrical, optical, and mechanical properties of metals and composites. Experimental studies shall be conducted to characterize the effects of the environment on the long-term durability of materials for aircraft and spacecraft. Mechanics models shall be developed to predict the stiffness, strength, durability, and damage tolerance of composite materials. Fracture mechanics methodologies shall be developed to predict the residual strength and fatigue life of metallic materials. Advanced sensors, electronics, and signal processing technology shall be developed for nondestructive examination systems. Advanced sensor technologies shall be developed for smart materials and structures, and for in-situ process monitoring and quality control.

R&D support tasks shall include operation of a wide variety of equipment used for materials processing, mechanical testing, and materials analysis. The following are examples of typical materials support tasks:

Operation of metals processing laboratory equipment for deposition of experimental alloys by chemical vapor deposition and plasma spraying; testing and analysis of as-deposited and secondarily processed product forms to establish mechanical and physical properties.

Operation of laboratory equipment required for chemical characterization of high performance polymers, adhesives and polymer matrix composites. Typical measurements shall include: Fourier Transform Infrared Spectroscopy, High Pressure Liquid Chromatography, Gel Permeation Chromatography, Low Angle Laser Light Scattering Photometry, Differential Viscometry and Osmometry.

Performance of laboratory tests in support of the fabrication of advanced composite subcomponents. Supporting tasks shall include: tests to

establish processing methods, improved methods of subelement fabrication, design of test fixtures and associated apparatus, and operation of test machines to measure mechanical and physical properties.

5.0 Flight Systems

5.1 Flight Dynamics, Guidance and Control Research and Technology - The Contractor shall develop analytical, mathematical models of aircraft and spacecraft; synthesize and analyze navigation, guidance, and control systems for aircraft and spacecraft; develop efficient and reliable numerical methods and optimization algorithms for use in guidance and control law synthesis; provide data acquisition and reduction support, and analyze data from dynamics, control, and/or crew systems experiments, including simulation and flight tests, some involving extensive meteorological data; coordinate the design and construction of models, conduct static and dynamic (free spin, tumble, forced oscillation) wind tunnel model tests, and analyze the results; use engineering codes and CFD methodologies to predict aircraft flight dynamics and correlate these results with experimental data; develop and maintain computer-based, high-fidelity aircraft and spacecraft batch simulation software; develop and apply software tools for simulation data analysis, including studies with simulated air traffic environments; conduct piloted aircraft simulation studies; develop software modifications for an existing atmospheric modeling CFD code; develop and operate the hardware and software components of electro-optical sensing and processing systems; develop and operate drop model and free-flight model test integrated hardware and software systems, including control law software, appropriate displays, and necessary network communications; configure and operate physiological signal and behavioral data acquisition systems, develop appropriate software tools for analysis of data from such systems, and perform the analysis; synthesize and analyze transport flight deck systems, including displays and underlying algorithms; provide operational airline pilot and air traffic controller expertise to support the planning, development, and conduct of transport aircraft simulation studies in simulated air traffic environments.

5.2 Information and Electromagnetic Systems Technology - The Contractor shall provide support for research and technology development in selected technical areas in the information systems and electromagnetic systems disciplines. The areas include: the design and development of electronic hardware for information and electromagnetic systems; the design and development of computer codes for the analysis of complex sensor, antenna and digital computer systems; the development of design and assessment methods for life-critical systems; and maintenance and operation of research laboratories. Additional information regarding support for these areas is as follows:

Design and Development of Electronic Hardware - The Contractor shall provide support for sensor technology development and testing, digital circuit and microprocessor designs, mechanical and structural designs, computational models for predicting fluid flow in reduced gravity environments, and optical/fiber-optic system fabrication and evaluation.

Design and Development of Computer Codes - The Contractor shall provide support for design, development, modeling, simulation, and implementation

of computer codes for the design and assessment of antenna systems, airport systems, flight crucial digital systems and electromagnetic fields.

Development of Design and Assessment Methods - The Contractor shall develop techniques for the design and assessment of fault-tolerant, life-critical systems for aerospace applications. These techniques may use formal specifications, automatic theorem proving, hierarchical design methodologies, fault-tolerant systems theory, and reliability theory as well as other available capabilities.

Maintenance and Operation of Research Laboratories - The Contractor shall be responsible for the maintenance and operation of Information and Electromagnetic Technology research facilities including but not limited to: compact range, experimental test range, low frequency antenna chamber, High Intensity Radiation Laboratory test chambers, microgravity crystal growth facility, the crystal vapor deposition facility and the vehicle emulator system.

SECTION D - PACKAGING AND MARKING

D.1 PACKAGING AND MARKING (ALTERNATE I) (NASA 18-52.210-75) (SEP 1990)

(a) The Contractor shall preserve, pack, and mark for shipment all items deliverable under this contract in accordance with good commercial practices and adequate to ensure both acceptance by common carrier and safe transportation at the most economical rate(s).

(b) The Contractor's markings on shipping containers shall be clearly legible from a distance of 36 inches. The Contractor may mark by stencil, rubber stamp, or lacquer over a coated gummed label.

(c) The Contractor shall place the requirements in (a) and (b) above on all subcontracts.

SECTION E - INSPECTION AND ACCEPTANCE

E.1 FINAL INSPECTION AND ACCEPTANCE (LaRC 52.246-94) (OCT 1992)

Final inspection and acceptance of all items specified for delivery under this contract shall be accomplished by the Contracting Officer or his duly authorized representative at destination as specified in task orders.

SECTION F - DELIVERIES OR PERFORMANCE

F.1 PERIOD OF PERFORMANCE (NASA 18-52.212-74) (DEC 1988)

A. The period of performance for issuance of task orders is 12 months from the effective date of this contract, which is the date of signature by the Contracting Officer of NASA Langley Research Center.

B. Any task orders issued prior to the expiration of the period of performance for issuance of task orders shall be completed, subject to the

limitations specified in B.2; provided that the Contractor will not be required to perform any work beyond 12 months after the period of performance for issuing task orders. (Notwithstanding this provision, NO work will be performed under this contract, including any options, after September 30, 2000.)

F.2 PLACE OF DELIVERY (LaRC 52.212-92) (OCT 1992)

Delivery shall be f.o.b. destination as specified in task orders.

F.3 PLACE(S) OF PERFORMANCE (LaRC 52.212-98) (OCT 1992)

The place(s) of performance shall be:

NASA, Langley Research Center, Hampton, Virginia; the Contractor's facilities and other sites as may be designated by task orders.

SECTION G - CONTRACT ADMINISTRATION DATA

G.1 DESIGNATION OF NEW TECHNOLOGY REPRESENTATIVE AND PATENT REPRESENTATIVE (NASA 18-52.227-72) (APR 1984)

(a) For purposes of administration of the clause of this contract entitled "New Technology" or "Patent Rights - Retention by the Contractor (Short Form)", whichever is included, the following named representatives are hereby designated by the Contracting Officer to administer such clause:

<u>Title</u>	<u>Office Code</u>	<u>Address (including zip code)</u>
New Technology Representative	212	NASA, Langley Research Center Hampton, VA 23681-0001
Patent Representative	212	NASA, Langley Research Center Hampton, VA 23681-0001

(b) Reports of reportable items, and disclosure of subject inventions, interim reports, final reports, utilization reports, and other reports required by the clause, as well as any correspondence with respect to such matters, should be directed to the New Technology Representative unless transmitted in response to correspondence or request from the Patent Representative. Inquiries or requests regarding disposition of rights, election of rights, or related matters should be directed to the Patent Representative. This clause shall be included in any subcontract hereunder requiring a "New Technology" clause or "Patent Rights - Retention by the Contractor (Short Form)" clause, unless otherwise authorized or directed by the Contracting Officer. The respective responsibilities and authorities of the above-named representatives are set forth in 18-27.375-3 of the NASA FAR Supplement.

G.2 SUBMISSION OF VOUCHERS FOR PAYMENT (NASA 18-52.216-87) (DEC 1988)

(a) Public vouchers for payment of costs and fee shall include a reference to this contract NAS1- and be forwarded to:

NASA Langley Research Center
Attn: Financial Management Division, MS 175
Hampton, VA 23681-0001

This is the designated paying office for cost and fee vouchers for purposes of the Prompt Payment clause of this contract.

Cost vouchers shall be submitted through

Fee vouchers shall be submitted through

(b) The Contractor shall prepare vouchers as follows:

(1) One original Standard Form (SF) 1034, SF 1035, or equivalent Contractor's attachment.

(2) Three copies of SF 1034A, SF 1035A, or equivalent Contractor's attachment.

(3) The Contractor shall mark SF 1034A copies 1, 2, 3 and such other copies as may be directed by the Contracting Officer by insertion in the memorandum block the names and addresses as follows:

- (i) Copy 1 NASA Contracting Officer;
- (ii) Copy 2 Auditor; and
- (iii) Copy 3 Contract administration office.

(c) In the event that amounts are withheld from payment in accordance with provisions of this contract, a separate voucher for the amount withheld will be required before payment for that amount may be made.

G.3 LIST OF INSTALLATION-PROVIDED PROPERTY AND SERVICES
(NASA 18-52.245-77) (MAR 1989)

In accordance with the Installation Provided Government Property (IPGP) clause of this contract, the Contractor is authorized use of the types of property and services listed below, to the extent they are available, while on-site at the NASA installation.

(a) Office space, work area space, and utilities. The Contractor shall use Government telephones for official purposes only.

(b) General- and special-purpose equipment, including office furniture.

(1) Equipment to be made available to the Contractor for use in performance of this contract on-site is listed in Exhibit A. The Government retains accountability for this property under the Installation-Provided Government Property clause, regardless of its authorized location. Installation-Provided Government Property may not be removed from Langley Research Center for any reason. Remote or field operations shall be accomplished using Contractor-owned equipment. IPGP shall not be provided to Contractor employees under "Equipment Loan Agreements."

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(2) If the Contractor acquires property as a direct cost under this contract, this property also shall become accountable to the Government upon its entry into the NASA Equipment Management System (NEMS) in accordance with the property-reporting requirements of this contract. The Contractor shall not acquire property as a direct cost under this contract unless expressly authorized in writing by the Contracting Officer.

(3) The Contractor shall advise the Contracting Officer, in writing, before it brings property owned or leased by the Contractor, or other property that the Contractor is accountable for under any other Government contract, on-site for use on this contract.

(c) Publications and blank forms stocked by the installation.

(d) Institutional fire protection necessary to protect NASA facilities.

(e) Medical treatment of a first-aid nature for Contractor personnel injuries or illnesses sustained during on-site duty.

(f) Cafeteria privileges for Contractor employees during normal operating hours.

(g) Moving and hauling of Government property.

(h) Building maintenance for facilities occupied by Contractor personnel.

(i) The responsibilities of the Contractor as contemplated by paragraph (a) of the Installation-Provided Government Property clause are defined in the following property management directives and installation supplements to these Directives:

(1) NHB 4200.1, NASA Equipment Management Manual.

(2) NHB 4200.2, NASA Equipment Management System (NEMS) User's Guide for Property Custodians.

(3) NHB 4300.1, NASA Personal Property Disposal Manual.

(4) NHB 4100.1, NASA Materials Inventory Management Manual.

G.4 TASK ORDERING PROCEDURE (NASA 18-52.216-80) (DEC 1991)

Performance under this contract is subject to the following ordering procedure.

(a) Within the cost limitations specified in this contract, the Contractor shall incur costs under this contract in the performance of task orders and task order modifications issued in accordance with this ordering procedure. No other costs are authorized without the express written consent of the Contracting Officer.

(b) From time to time during the term of this contract, the Contracting Officer will issue task orders in writing to the Contractor, providing specific information on work to be performed within the scope of the contract. Each task order will indicate the objectives or results desired. The initial task order issuance will serve as a formal request for the Contractor's task proposal, while providing a task to which proposal efforts can be charged. Upon receipt of the Contractor's task proposal, the Contracting Officer will negotiate the objectives, cost and fee with the Contractor and modify the task to reflect their agreement.

(1) Task orders will contain, as a minimum, the following information:

(i) Signature of the Contracting Officer.

- (ii) Contract number, order number, and date.
- (iii) Description of work.
- (iv) Maximum dollar amount authorized (cost and fee or price)
- (v) Other resources authorized.
- (vi) Documentation requirements.
- (vii) Delivery/performance schedule.
- (viii) Quality assurance standards, as appropriate.
- (ix) Any other necessary information.
- (x) Fee.

(2) Unless otherwise directed by the Contracting Officer, the Contractor shall submit the following information for each task order:

- (i) Discussion of the technical approach for performing the work.
- (ii) Estimated date of commencement of work, and any changes proposed to the schedule of performance.
- (iii) Direct labor hours, both straight time and overtime (if authorized), on a monthly basis by applicable labor category, and the total direct labor hours, including those in (2)(b)(iv)(B) of this clause, estimated to complete the task.
- (iv) The total estimated cost and fee, where appropriate, for completion of the task order, including:
 - (A) The travel and material estimates.
 - (B) An estimate for subcontractors and consultants.
 - (C) Estimated computer use time required, if applicable.
 - (D) Other pertinent information, such as indirect costs and inter-divisional transfers.

(E) Proposed fee to be assigned to the task order, including proposed distribution of fee for achievement of specific milestones. (Fee tied to intermediate milestones will become part of the award fee pool for the period in which the milestone is achieved. All other fee associated with a task order will go into the award fee pool for the period in which the task is completed.)

(3) Each task order shall require the Contractor to acknowledge receipt and acceptance of the task order within ten calendar days after receipt. If the Contractor cannot comply with a task order requirement, the Contractor shall indicate in his acknowledgement, the changes required prior to his acceptance. Any differences must be resolved between the parties and the order modified to reflect the agreement.

G.5 TASK ORDER LIMITATIONS

Each task order shall specify a total cost limitation. Notwithstanding the Limitation of Funds clause, the Contractor shall not exceed the authorized cost set forth in each individual task order.

G.6 CONTRACT CLOSEOUT (LaRC 52.242-90) (JUN 1988)

A. Reassignment--After receipt, inspection, and acceptance by the Government of all required articles and/or services, and resolution of any pending issues raised during the Period of Performance, this contract will be reassigned to the NASA Langley Research Center Contracting Officer for Contract Closeout. All transactions subsequent to the physical completion of the contract should, therefore, be addressed to the said Contracting Officer at NASA Langley Research Center, Mail Stop 126, who may be reached by telephone at (804) 864-7765.

B. "Quick Closeout"--Paragraph (f) of the Allowable Cost and Payment clause of this contract addresses the "Quick Closeout Procedure" delineated by Subpart 42.7 of the Federal Acquisition Regulation (FAR). It should be understood that the said procedure applies to the settlement of indirect costs for a specific contract in advance of the determination of final indirect cost rates when the amount of unsettled indirect cost to be allocated to the contract is relatively insignificant. Therefore, the "Quick Closeout" procedure does not preclude the provisions of paragraph (d) of the Allowable Cost and Payment clause nor does it constitute a waiver of final audit of the Contractor's Completion Voucher.

C. Completion Voucher Submittal--Notwithstanding the provisions of the Allowable Cost and Payment clause, as soon as practicable after settlement of the Contractor's indirect cost rates applicable to performance of the contract, the Contractor shall submit a Completion Voucher as required by the aforesaid clause. The Completion Voucher shall be supported by a cumulative claim and reconciliation statement and executed NASA Forms 778, Contractor's Release, and 780, Contractor's Assignment of Refunds, Rebates, Credits, and Other Amounts. Unless directed otherwise by the Contracting Officer for Contract Closeout, the Contractor shall forward the said Completion Voucher directly to the cognizant Government Agency to which audit functions under the contract have been delegated.

SECTION H - SPECIAL CONTRACT REQUIREMENTS

H.1 RIGHTS TO PROPOSAL DATA (TECHNICAL) (FAR 52.227-23) (JUN 1987)

Except for data contained on pages _____, it is agreed that as a condition of award of this contract, and notwithstanding the conditions of any notice appearing thereon, the Government shall have unlimited rights (as defined in the "Rights in Data - General" clause contained in this contract) in and to the technical data contained in the proposal dated _____, upon which this contract is based.

H.2 KEY PERSONNEL (NASA 18-52.235-71) (MAR 1989)

(a) The personnel and/or facilities listed below (or specified in the Contract Schedule) are considered essential to the work being performed under this contract. Before removing, replacing, or diverting any of the listed or specified personnel or facilities, the Contractor shall (1) notify the Contracting Officer reasonably in advance and (2) submit justification (including proposed substitutions) in sufficient detail to permit evaluation of the impact on this contract.

(b) The Contractor shall make no diversion without the Contracting Officer's written consent; provided, that the Contracting Officer may ratify in writing the proposed change, and that ratification shall constitute the Contracting Officer's consent required by this clause.

(c) The list of personnel and/or facilities (shown below or as specified in the Contract Schedule) may, with the consent of the contracting parties, be amended from time to time during the course of the contract to add or delete personnel and/or facilities.

Contract Manager
Deputy Contract Manager (if proposed)

H.3 STATEMENT OF EQUIVALENT RATES FOR FEDERAL HIRES (FAR 52.222-42)
(MAY 1989)

In compliance with the Service Contract Act of 1965, as amended, and the regulations of the Secretary of Labor (29 CFR Part 4), this clause identifies the classes of service employees expected to be employed under the contract and states the wages and fringe benefits payable to each if they were employed by the contracting agency subject to the provisions of 5 U.S.C. 5341 or 5332.

THIS STATEMENT IS FOR INFORMATION ONLY: IT IS NOT A WAGE DETERMINATION

Employee Class	Monetary Wage
Computer Operator I	\$ 8.34/hr.
Computer Operator II	\$ 9.33/hr.
Programing Assistant	\$10.40/hr.
Technical Illustrator	\$11.56/hr.
Electronic Systems Development Technician I	\$11.56/hr.
Electronic Systems Development Technician II	\$12.80/hr.

FRINGE BENEFITS

- Annual Leave - Receives 13 days paid leave for service up to 3 years; 20 days for 3 to 15 years service; and 26 days for 15 years service or over.
- Sick Leave - Receives 13 days paid leave per year.
- Holidays - Receives 10 paid holidays per year.
- Health Insurance - Government pays up to 60% of health insurance.
- Group Life Insurance - Government pays two-thirds of life insurance rate premiums.
- Retirement - The Government provides three retirement plans identified as the Civil Service Retirement System (CSRS), the Federal Employees Retirement System (FERS), and the CSRS Offset. Under the CSRS, the Government contributes 7% of the employees' base pay towards the retirement benefit and 1.45% towards Medicare. Under the FERS, the Government contributes 11.4% of the employees' base pay towards a basic benefit plan, 6.2% to Social Security, 1.45% towards Medicare, and 1% (plus matching contributions of up to 4% of basic pay, depending on employees' contributions) to a thrift savings plan. Under the CSRS Offset, the Government contributes 0.8% of the employees' base pay towards the retirement benefit, 6.2% to Social Security, and 1.45% towards Medicare.

Part-time Federal employees receive pro rata annual leave, sick leave, holiday leave, health insurance, and group life insurance benefits based on the number of hours worked.

H.4 OPTIONS

Priced Options/Extended Term

The Contractor hereby grants to the Government options to extend the term of the contract for three additional periods of 12 months each, plus one additional period of five months. Such options are to be exercisable by issuance of a unilateral modification. Upon exercise of such option(s) by the Government, the following items will be increased by the amount specified below for each option period.

<u>Item</u>	<u>First Option Period</u>	<u>Second Option Period</u>	<u>Third Option Period</u>	<u>Fourth Option Period</u>
Period of Performance (Ref. F.1)	12 months	12 months	12 months	5 months
Estimated Cost (Ref. B.2)	\$	\$	\$	\$
Award Fee* (Ref. B.2)	\$	\$	\$	\$
Award Fee Availability (Ref. B.3)				
5/1/97 - 10/31/97	\$			
11/1/97 - 4/30/98	\$			
5/1/98 - 10/31/98		\$		
11/1/98 - 4/30/99		\$		
5/1/99 - 10/31/99			\$	
11/1/99 - 4/30/00			\$	
5/1/00 - 9/30/00				\$
Overtime Premium (Ref. Section I Clause 52.222-2)	\$	\$	\$	\$
Small Disadvantaged Business Goal**	\$	\$	\$	\$

*The Award Fee available for each evaluation period will be determined in accordance with B.3, Award Fee Availability Schedule.

**Not applicable if the prime Contractor is a small disadvantaged business.

H.5 CONTRACTOR EMPLOYEE'S SECURITY CLEARANCE (LaRC 52.204-90) (OCT 1992)

By virtue of their particular work assignment, certain Contractor employees, may be required to have a security clearance granted in accordance with DOD 5220.22M, "Department of Defense Industrial Security Manual for the Safeguarding of Classified Information (ISM)". Clearances will be issued by the Department of Defense (DOD). Within 10 working days after an employee is identified by the Government and/or the Contractor as requiring a SECRET or higher clearance, the Contractor shall submit to the Contracting Officer evidence of the submittal of a request for clearance to DOD for such employee. If the clearance for an employee has not been issued by DOD within 120 calendar days of the submittal of the request for clearance to DOD, the Contractor may be required to remove the employee from the contract.

H.6 PROCUREMENT AUTHORITY (201-39.5202-3) (OCT 90 FIRMR)

This acquisition is being conducted under the regulatory delegation of GSA's exclusive procurement authority for FIP resources. The specific GSA DPA case number is not applicable.

H.7 SECURITY PROGRAM/FOREIGN NATIONAL EMPLOYEE INVESTIGATIVE REQUIREMENTS (LaRC 52.204-91) (NOV 1991)

Prior to reporting to Langley Research Center (LaRC) to perform under a contract or grant, each Foreign National shall have approval for access to LaRC facilities from NASA Headquarters, International Relations Division (Code IR). A copy of the access authorization request shall be provided to the LaRC Chief of Security. Additionally, an investigation by the Government shall be completed on each Foreign National contractor prior to reporting to LaRC to perform under a contract or grant. A properly executed "Name Check Request" (NASA Form 531) and a completed "applicant" fingerprint card shall be submitted to the LaRC Security Office, Mail Stop 182, for each Foreign National contractor at least 75 days prior to the estimated entry on duty date. The NF 531 and fingerprint card may be obtained from the LaRC Security Office. If the access approval is obtained from NASA Headquarters prior to completion of the investigation, and the Contracting Officer requires a Foreign National to work on LaRC, an escort request may be considered by the LaRC Chief of Security.

H.8 OBSERVATION OF REGULATIONS AND IDENTIFICATION OF CONTRACTOR'S EMPLOYEES (LaRC 52.212-104) (MAR 1992)

A. Observation of Regulations--In performance of that part of the contract work which may be performed at Langley Research Center or other Government installation, the Contractor shall require its employees to observe the rules and regulations as prescribed by the authorities at Langley Research Center or other installation.

B. Identification Badges--At all times while on LaRC property, the Contractor shall require its employees, subcontractors and agents to wear badges which will be issued by the NASA Contract Badge and Pass Office, located at

1 Langley Boulevard (Building No. 1228). Badges shall be issued only between the hours of 6:30 a.m. and 4:30 p.m., Monday through Friday. Contractors will be held accountable for these badges, and may be required to validate outstanding badges on an annual basis with the NASA LaRC Security Office. Immediately after employee termination or contract completion, badges shall be returned to the NASA Contract Badge and Pass Office.

H.9 INCORPORATION OF REPRESENTATIONS, CERTIFICATIONS AND OTHER STATEMENTS OF OFFERORS BY REFERENCE

Pursuant to FAR 15.406.1(b), the completed Representations, Certifications and Other Statements of Offerors dated _____ is hereby incorporated by reference.

H.10 VIRGINIA AND LOCAL SALES TAXES (LaRC 52.229-92) (APR 1992)

To perform this contract, the Contractor must be knowledgeable of relevant state and local taxes when making purchases of tangible personal property. The Contractor shall refrain from paying nonapplicable taxes or taxes where an exemption exists, but shall pay applicable taxes that are reimbursable pursuant to FAR 31.205-41, Taxes. Even though title to property purchased under this contract may pass to the Government and the price is reimbursable under contract cost principles, such transactions do not in themselves provide tax immunity to the Contractor. Therefore, within 30 days after the effective date of this contract, the Contractor shall request from the Virginia State Tax Commission a ruling on any tax exemptions that may be applicable to purchases made under this contract. The Contractor shall provide all facts relevant to the situation and shall pursue an interpretation of the law that is most favorable to both the Contractor and the Government.

H.11 EVIDENCE OF INSURANCE

The Contractor shall submit evidence of insurance coverage, required by the NASA Clause 18-52.228-75 in Section I entitled "Minimum Insurance Coverage" (i.e., a Certificate of Insurance or other confirmation), to the Contracting Officer prior to performing under this contract. In the event the Government exercises its options to extend the term of the contract, the Contractor shall also present such evidence to the Contracting Officer prior to commencement of performance under the extension.

H.12 LIMITATION OF FUTURE CONTRACTING (NASA 18-52.209-71) (DEC 1988)

(a) The Contracting Officer has determined that this acquisition may give rise to a potential organizational conflict of interest. Accordingly, the attention of all prospective offerors is invited to FAR Subpart 9.5--Organizational Conflicts of Interest.

(b) The nature of this conflict in the performance of task orders involves: the management of the evaluation of Announcements of Opportunity (AO) process; the evaluation of the Contractor's own products; access to other companies proprietary data; and participation by the Contractor in the development of requirements and specifications for both software and hardware systems.

(c) The restrictions upon future contracting are as follows:

(1) If the Contractor, under the terms of this contract, or through the performance of tasks pursuant to this contract, is required to develop specifications or statements of work that are to be incorporated into a solicitation, the Contractor shall be ineligible to perform the work described in that solicitation as a prime or first-tier subcontractor under an ensuing NASA contract. This restriction shall remain in effect for a reasonable time, as agreed to by the Contracting Officer and the Contractor, sufficient to avoid unfair competitive advantage or potential bias (this time shall in no case be less than the duration of the initial production contract). NASA shall not unilaterally require the Contractor to prepare such specifications or statements of work under this contract.

(2) To the extent that the work under this contract requires access to proprietary, business confidential, or financial data of other companies, and as long as such data remains proprietary or confidential, the Contractor shall protect these data from unauthorized use and disclosure and agrees not to use them to compete with those other companies.

H.13 PROVIDING FACILITIES TO CONTRACTORS

In accordance with FAR 45.302-1, it is the policy of the Government that Contractors shall furnish all facilities required for performing Government contracts. "Facilities" include real property and plant equipment. Plant equipment includes personal property such as general purpose off-the-shelf equipment, machine tools, test equipment, furniture and vehicles. "Facilities" do not include material, special test equipment, special tooling or agency-peculiar property.

In keeping with the policy set forth in FAR 45.302-1, the Government will not provide "facilities" under this contract for off-site performance.

However, the Government will provide EXISTING facilities as listed in Exhibit A for use on-site at Langley Research Center. If necessary, the Government will replace damaged or obsolete equipment for on-site use only.

PART II - CONTRACT CLAUSES

SECTION I - CONTRACT CLAUSES

I.1 CLAUSES INCORPORATED BY REFERENCE (FAR 52.252-2) (JUN 1988)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available.

I.2 LISTING OF CLAUSES INCORPORATED BY REFERENCE:

NOTICE: The following solicitation provisions and/or contract clauses pertinent to this section are hereby incorporated by reference.

FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1) CLAUSES

<u>CLAUSE NUMBER</u>	<u>TITLE AND DATE</u>
52.202-1	Definitions (OCT 1995)
52.203-3	Gratuities (APR 1984)
52.203-5	Covenant Against Contingent Fees (APR 1984)
52.203-6	Restrictions on Subcontractor Sales to the Government (OCT 1995)
52.203-7	Anti-Kickback Procedures (JUL 1995)
52.203-10	Price or Fee Adjustment for Illegal or Improper Activity (SEP 1990)
52.204-2	Security Requirements (APR 1984)
52.204-4	Printing/Copying Double-Sided on Recycled Paper (MAY 1995)
52.208-8	Helium Requirement Forecast and Required Sources for Helium (FEB 1995)
52.209-6	Protecting the Government's Interest when Subcontracting with Contractors Debarred, Suspended, or Proposed for Debarment (JUL 1995)
52.210-5	New Material (MAY 1995)
52.212-8	Defense Priority and Allocation Requirements (SEP 1990)
52.212-13	Stop-Work Order (AUG 1989) Alternate I (APR 1984)
52.215-2	Audit and Records - Negotiation (OCT 1995)
52.215-23	Price Reduction for Defective Cost or Pricing Data - Modifications (OCT 1995)
52.215-25	Subcontractor Cost or Pricing Data - Modifications (OCT 1995)
52.215-27	Termination of Defined Benefit Pension Plans (SEP 1989)
52.215-33	Order of Precedence (JAN 1986)
52.215-39	Reversion or Adjustment of Plans for Postretirement Benefits Other Than Pensions (FEB 1995)
52.215-40	Notification of Ownership Changes (FEB 1995)
52.216-7	Allowable Cost and Payment (JUL 1991)
52.219-8	Utilization of Small, Small Disadvantaged and Women-Owned Small Business Concerns (OCT 1995)
52.219-9	Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan (OCT 1995)
52.219-16	Liquidated Damages - Subcontracting Plan (OCT 1995)
52.222-1	Notice to the Government of Labor Disputes (APR 1984)
52.222-3	Convict Labor (APR 1984)
52.222-26	Equal Opportunity (APR 1984)
52.222-28	Equal Opportunity Preaward Clearance of Subcontracts (APR 1984)
52.222-35	Affirmative Action for Special Disabled and Vietnam Era Veterans (APR 1984)
52.222-36	Affirmative Action for Handicapped Workers (APR 1984)
52.222-37	Employment Reports on Special Disabled Veterans and Veterans of the Vietnam Era (JAN 1988)
52.223-2	Clean Air and Water (APR 1984)
52.223-6	Drug-Free Workplace (JUL 1990)
52.223-14	Toxic Chemical Release Reporting (OCT 1995)
52.225-11	Restrictions on Certain Foreign Purchases (MAY 1992)
52.225-19	European Community Sanction for Services (MAY 1995)

52.227-1 Authorization and Consent (JUL 1995)
 52.227-2 Notice and Assistance Regarding Patent and Copyright
 Infringement (APR 1984)
 52.227-11 Patent Rights - Retention by the Contractor (Short Form)
 (JUN 1989)--as modified by NASA FAR Supplement
 18-52.227-11
 52.227-14 Rights in Data - General (JUN 1987) -- as modified by NASA
 FAR Supplement 18-52.227-14
 52.228-7 Insurance - Liability to Third Persons (APR 1984)
 52.230-2 Cost Accounting Standards (AUG 1992)
 52.230-5 Administration of Cost Accounting Standards (FEB 1995)
 52.232-9 Limitation on Withholding of Payments (APR 1984)
 52.232-17 Interest (JAN 1991)
 52.232-22 Limitation of Funds (APR 1984)
 52.232-23 Assignment of Claims (JAN 1986)
 52.232-28 Electronic Funds Transfer Payment Methods (APR 1989)--as
 modified by NASA FAR Supplement 18-32.908
 52.233-1 Disputes (DEC 1995) Alternate I (DEC 1991)
 52.233-3 Protest After Award (DEC 1995) Alternate I (JUN 1985)
 52.237-2 Protection of Government Buildings, Equipment and Vegetation
 (APR 1984)
 52.237-3 Continuity of Services (JAN 1991)
 52.237-8 Restriction on Severance Payments to Foreign Nationals
 (OCT 1995)
 52.242-1 Notice of Intent to Disallow Costs (APR 1984)
 52.242-3 Penalties for Unallowable Costs (OCT 1995)
 52.243-2 Changes - Cost-Reimbursement (AUG 1987) Alternate I (APR 1984)
 52.244-2 Subcontracts (Cost-Reimbursement and Letter Contracts)
 (JUL 1995) Alternate I (JUL 1995)
 52.244-5 Competition in Subcontracting (APR 1984)
 52.245-1 Property Records (APR 1984)
 52.245-5 Government Property (Cost-Reimbursement, Time-and-Material,
 or Labor-Hour Contracts) (JAN 1986)
 52.246-5 Inspection of Services - Cost-Reimbursement (APR 1984)
 52.246-25 Limitation of Liability - Services (JUL 1995)
 52.249-6 Termination (Cost-Reimbursement) (MAY 1986)
 52.249-14 Excusable Delays (APR 1984)
 52.251-1 Government Supply Sources (APR 1984)
 52.253-1 Computer Generated Forms (JAN 1991)

NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) CLAUSES

<u>CLAUSE NUMBER</u>	<u>TITLE AND DATE</u>
18-52.204-77	Submission of Security Plan for Unclassified Federal Computer Systems (Sep 1993)
18-52.208-81	Restrictions on Printing and Duplicating (AUG 1993)
18-52.212-70	Notice of Delay (DEC 1988)
18-52.215-84	Ombudsman (OCT 1995)
18-52.216-89	Allowable Cost and Payment (APR 1994)
18-52.219-74	Use of Rural Area Small Businesses (SEP 1990)

18-52.219-75	Small Business and Small Disadvantaged Business Subcontracting Reporting (OCT 1995)
18-52.219-76	NASA Small Disadvantaged Business Goal (JUL 1991)
18-52.219-77	NASA Mentor-Protege Program (JAN 1994)
18-52.223-70	Safety and Health (SEP 1993)
18-52.227-70	New Technology (APR 1988)
18-52.228-75	Minimum Insurance Coverage (OCT 1988)
18-52.237-70	Emergency Evacuation Procedures (DEC 1988)
18-52.237-71	Pension Portability (NOV 1994)
18-52.242-70	Technical Direction (SEP 1993)
18-52.242-71	Travel Outside of the United States (DEC 1988)
18-52.242-72	Observance of Legal Holidays (AUG 1992)--Alternate I (SEP 1989)
18-52.242-72	Observance of Legal Holidays (AUG 1992) Alternate II (SEP 1989)
18-52.242-73	NASA Contractor Financial Management Reporting (APR 1994)
18-52.245-70	Acquisition of Centrally Reportable Equipment (MAR 1989)
18-52.245-71	Installation-Provided Government Property (MAR 1989)

I.3 CLAUSES IN FULL TEXT

The clauses listed below follow in full text:

52.203-9	Requirement for Certificate of Procurement Integrity - Modification (SEP 1995)
52.203-12	Limitation on Payments to Influence Certain Federal Transactions (JAN 1990)
52.215-41	Requirements for Cost or Pricing Data or Information Other Than Cost or Pricing Data (OCT 1995) Alternate IV (OCT 1995)
52.215-42	Requirements for Cost or Pricing Data or Information Other Than Cost or Pricing Data - Modifications (OCT 1995)
52.222-2	Payment for Overtime Premiums (JUL 1990)
52.222-4	Contract Work Hours and Safety Standards Act - Overtime Compensation (JUL 1995)
52.222-41	Service Contract Act of 1965, as Amended (MAY 1989)
52.232-25	Prompt Payment (MAR 1994)
52.242-4	Certification of Indirect Costs (OCT 1995)
52.242-13	Bankruptcy (JUL 1995)
52.244-6	Subcontracts for Commercial Items and Commercial Components (OCT 1995)
52.252-6	Authorized Deviations in Clauses (APR 1984)
18-52.204-75	Security Classification Requirements (SEP 1989)
18-52.204-78	Security Plan for Unclassified Federal Computer Systems (SEP 1993)
18-52.216-76	Award Fee for Service Contracts (SEP 1993)

I.4 REQUIREMENT FOR CERTIFICATE OF PROCUREMENT INTEGRITY--MODIFICATION (FAR 52.203-9) (SEP 1995)

(a) Definitions. The definitions set forth in FAR 3.104-4 are hereby incorporated in this clause.

(b) The Contractor agrees that it will execute the certification set forth in paragraph (c) of this clause when requested by the contracting officer in connection with the execution of any modification of this contract.

(c) Certification. As required in paragraph (b) of this clause, the officer or employee responsible for the modification proposal shall execute the following certification. The certification in paragraph (c)(2) of this clause is not required for a modification which procures commercial items.

CERTIFICATE OF PROCUREMENT INTEGRITY--MODIFICATION (SEP 1995)

(1) I, _____, [Name of certifier]

am the officer or employee responsible for the preparation of this modification proposal and hereby certify that, to the best of my knowledge and belief, with the exception of any information described in this certification, I have no information concerning a violation or possible violation of subsections 27(a), (b), (d), or (f) of the Office of Federal Procurement Policy Act, as amended* (41 U.S.C. 423), (hereinafter referred to as "the Act"), as implemented in the FAR, occurring during the conduct of this procurement

(contract and modification number).

(2) As required by subsection 27(e)(1)(B) of the Act, I further certify that, to the best of my knowledge and belief, each officer, employee, agent, representative, and consultant of _____

[Name of Offeror]

who has participated personally and substantially in the preparation or submission of this proposal has certified that he or she is familiar with, and will comply with, the requirements of subsection 27(a) of the Act, as implemented in the FAR, and will report immediately to me any information concerning a violation or possible violation of subsections 27(a), (b), (d), or (f) of the Act, as implemented in the FAR, pertaining to this procurement.

(3) Violations or possible violations: (Continue on plain bond paper if necessary and label Certificate of Procurement Integrity--Modification (Continuation Sheet), ENTER NONE IF NONE EXIST) _____

[Signature of the officer or employee responsible for the modification proposal and date]

[Typed name of the officer or employee responsible for the modification proposal]

*Subsections 27(a), (b), and (d) are effective on December 1, 1990.
Subsection 27(f) is effective on June 1, 1991.

THIS CERTIFICATION CONCERNS A MATTER WITHIN THE JURISDICTION OF AN AGENCY OF THE UNITED STATES AND THE MAKING OF A FALSE, FICTITIOUS, OR FRAUDULENT CERTIFICATION MAY RENDER THE MAKER SUBJECT TO PROSECUTION UNDER TITLE 18, UNITED STATES CODE, SECTION 1001.

(End of certification)

(d) In making the certification in paragraph (2) of the certificate, the officer or employee of the competing Contractor responsible for the offer or bid, may rely upon a one-time certification from each individual required to submit a certification to the competing Contractor, supplemented by periodic training. These certifications shall be obtained at the earliest possible date after an individual required to certify begins employment or association with the Contractor. If a Contractor decides to rely on a certification executed prior to suspension of Section 27 (i.e., prior to December 1, 1989), the Contractor shall ensure that an individual who has so certified is notified that Section 27 has been reinstated. These certifications shall be maintained by the Contractor for a period of 6 years from the date a certifying employee's employment with the company ends or, for an agency, representative, or consultant, 6 years from the date such individual ceases to act on behalf of the Contractor.

(e) The certification required by paragraph (c) of this clause is a material representation of fact upon which reliance will be placed in executing this modification.

I.5 LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (FAR 52.203-12) (JAN 1990)

(a) Definitions.

"Agency," as used in this clause, means executive agency as defined in 2.101.

"Covered Federal action," as used in this clause, means any of the following Federal actions:

- (1) The awarding of any Federal contract.
- (2) The making of any Federal grant.
- (3) The making of any Federal loan.
- (4) The entering into of any cooperative agreement.
- (5) The extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

"Indian tribe" and "tribal organization," as used in this clause, have the meaning provided in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450B) and include Alaskan Natives.

"Influencing or attempting to influence," as used in this clause, means making, with the intent to influence, any communication to or appearance before an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any covered Federal action.

"Local government," as used in this clause, means a unit of government in a State and, if chartered, established, or otherwise recognized by a State for the performance of a governmental duty, including a local public authority, a special district, an intrastate district, a council of governments, a sponsor group representative organization, and any other instrumentality of a local government.

"Officer or employee of an agency," as used in this clause, includes the following individuals who are employed by an agency:

(1) An individual who is appointed to a position in the Government under title 5, United States Code, including a position under a temporary appointment.

(2) A member of the uniformed services, as defined in subsection 101(3), title 37, United States Code.

(3) A special Government employee, as defined in section 202, title 18, United States Code.

(4) An individual who is a member of a Federal advisory committee, as defined by the Federal Advisory Committee Act, title 5, United States Code appendix 2.

"Person," as used in this clause, means an individual, corporation, company, association, authority, firm, partnership, society, State, and local government, regardless of whether such entity is operated for profit, or not for profit. This term excludes an Indian tribe, tribal organization, or any other Indian organization with respect to expenditures specifically permitted by other Federal law.

"Reasonable compensation," as used in this clause, means, with respect to a regularly employed officer or employee of any person, compensation that is consistent with the normal compensation for such officer or employee for work that is not furnished to, not funded by, or not furnished in cooperation with the Federal Government.

"Reasonable payment," as used in this clause, means, with respect to professional and other technical services, a payment in an amount that is consistent with the amount normally paid for such services in the private sector.

"Recipient," as used in this clause, includes the Contractor and all subcontractors. This term excludes an Indian tribe, tribal organization, or any other Indian organization with respect to expenditures specifically permitted by other Federal law.

"Regularly employed," as used in this clause, means, with respect to an officer or employee of a person requesting or receiving a Federal contract, an officer or employee who is employed by such person for at least 130 working days within one year immediately preceding the date of the submission that initiates agency consideration of such person for receipt of such contract. An officer or employee who is employed by such person for less than 130 working days within one year immediately preceding the date of the submission that initiates agency consideration of such person shall be considered to be regularly employed as soon as he or she is employed by such person for 130 working days.

"State," as used in this clause, means a State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, a territory or possession of the United States, an agency or instrumentality of a State, and multi-State, regional, or interstate entity having governmental duties and powers.

(b) Prohibitions.

(1) Section 1352 of title 31, United States Code, among other things, prohibits a recipient of a Federal contract, grant, loan, or cooperative agreement from using appropriated funds to pay any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any of the following covered Federal actions: the awarding of any Federal contract; the making of any Federal grant; the making of any Federal loan; the entering into of any cooperative agreement; or the modification of any Federal contract, grant, loan, or cooperative agreement.

(2) The Act also requires Contractors to furnish a disclosure if any funds other than Federal appropriated funds (including profit or fee received under a

covered Federal transaction) have been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a Federal contract, grant, loan, or cooperative agreement.

(3) The prohibitions of the Act do not apply under the following conditions:

(i) Agency and legislative liaison by own employees.

(A) The prohibition on the use of appropriated funds, in subparagraph (b)(1) of this clause, does not apply in the case of a payment of reasonable compensation made to an officer or employee of a person requesting or receiving a covered Federal action if the payment is for agency and legislative liaison activities not directly related to a covered Federal action.

(B) For purposes of subdivision (b)(3)(i)(A) of this clause, providing any information specifically requested by an agency or Congress is permitted at any time.

(C) The following agency and legislative liaison activities are permitted at any time where they are not related to a specific solicitation for any covered Federal action:

(1) Discussing with an agency the qualities and characteristics (including individual demonstrations) of the person's products or services, conditions or terms of sale, and service capabilities.

(2) Technical discussions and other activities regarding the application or adaptation of the person's products or services for an agency's use.

(D) The following agency and legislative liaison activities are permitted where they are prior to formal solicitation of any covered Federal action -

(1) Providing any information not specifically requested but necessary for an agency to make an informed decision about initiation of a covered Federal action;

(2) Technical discussions regarding the preparation of an unsolicited proposal prior to its official submission; and

(3) Capability presentations by persons seeking awards from an agency pursuant to the provisions of the Small Business Act, as amended by Pub. L. 95-507, and subsequent amendments.

(E) Only those services expressly authorized by subdivision (b)(3)(i)(A) of this clause are permitted under this clause.

(ii) Professional and technical services.

(A) The prohibition on the use of appropriated funds, in subparagraph (b)(1) of this clause, does not apply in the case of -

(1) A payment of reasonable compensation made to an officer or employee of a person requesting or receiving a covered Federal action or an extension, continuation, renewal, amendment, or modification of a covered Federal action, if payment is for professional or technical services rendered directly in the preparation, submission, or negotiation of any bid, proposal, or application for that Federal action or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal action.

(2) Any reasonable payment to a person, other than an officer or employee of a person requesting or receiving a covered Federal action or an extension, continuation, renewal, amendment, or modification of a covered Federal action if the payment is for professional or technical services rendered directly in the preparation, submission, or negotiation of any bid, proposal, or

application for that Federal action or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal action. Persons other than officers or employees of a person requesting or receiving a covered Federal action include consultants and trade associations.

(B) For purposes of subdivision (b)(3)(ii)(A) of this clause, "professional and technical services" shall be limited to advice and analysis directly applying any professional or technical discipline. For example, drafting of a legal document accompanying a bid or proposal by a lawyer is allowable. Similarly, technical advice provided by an engineer on the performance or operational capability of a piece of equipment rendered directly in the negotiation of a contract is allowable. However, communications with the intent to influence made by a professional (such as a licensed lawyer) or a technical person (such as a licensed accountant) are not allowable under this section unless they provide advice and analysis directly applying their professional or technical expertise and unless the advice or analysis is rendered directly and solely in the preparation, submission or negotiation of a covered Federal action. Thus, for example, communications with the intent to influence made by a lawyer that do not provide legal advice or analysis directly and solely related to the legal aspects of his or her client's proposal, but generally advocate one proposal over another are not allowable under this section because the lawyer is not providing professional legal services. Similarly, communications with the intent to influence made by an engineer providing an engineering analysis prior to the preparation or submission of a bid or proposal are not allowable under this section since the engineer is providing technical services but not directly in the preparation, submission or negotiation of a covered Federal action.

(C) Requirements imposed by or pursuant to law as a condition for receiving a covered Federal award include those required by law or regulation and any other requirements in the actual award documents.

(D) Only those services expressly authorized by subdivisions (b)(3)(ii)(A)(1) and (2) of this clause are permitted under this clause.

(E) The reporting requirements of FAR 3.803(a) shall not apply with respect to payments of reasonable compensation made to regularly employed officers or employees of a person.

(iii) Disclosure.

(A) The Contractor who requests or receives from an agency a Federal contract shall file with that agency a disclosure form, OMB standard form LLL, Disclosure of Lobbying Activities, if such person has made or has agreed to make any payment using nonappropriated funds (to include profits from any covered Federal action), which would be prohibited under subparagraph (b)(1) of this clause, if paid for with appropriated funds.

(B) The Contractor shall file a disclosure form at the end of each calendar quarter in which there occurs any event that materially affects the accuracy of the information contained in any disclosure form previously filed by such person under subparagraph (c)(1) of this clause. An event that materially affects the accuracy of the information reported includes -

(1) A cumulative increase of \$25,000 or more in the amount paid or expected to be paid for influencing or attempting to influence a covered Federal action; or

(2) A change in the person(s) or individual(s) influencing or attempting to influence a covered Federal action; or

(3) A change in the officer(s), employee(s), or Member(s) contacted to influence or attempt to influence a covered Federal action.

(C) The Contractor shall require the submittal of a certification, and if required, a disclosure form by any person who requests or receives any subcontract exceeding \$100,000 under the Federal contract.

(D) All subcontractor disclosure forms (but not certifications) shall be forwarded from tier to tier until received by the prime Contractor. The prime Contractor shall submit all disclosures to the Contracting Officer at the end of the calendar quarter in which the disclosure form is submitted by the subcontractor. Each subcontractor certification shall be retained in the subcontract file of the awarding Contractor.

(iv) Agreement. The Contractor agrees not to make any payment prohibited by this clause.

(v) Penalties.

(A) Any person who makes an expenditure prohibited under paragraph (a) of this clause or who fails to file or amend the disclosure form to be filed or amended by paragraph (b) of this clause shall be subject to civil penalties as provided for by 31 U.S.C. 1352. An imposition of a civil penalty does not prevent the Government from seeking any other remedy that may be applicable.

(B) Contractors may rely without liability on the representation made by their subcontractors in the certification and disclosure form.

(vi) Cost allowability. Nothing in this clause makes allowable or reasonable any costs which would otherwise be unallowable or unreasonable. Conversely, costs made specifically unallowable by the requirements in this clause will not be made allowable under any of the provisions.

I.6 REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA (FAR 52.215-41) (OCT 1995) ALTERNATE IV (OCT 1995)

(a) Submission of cost or pricing data is not required

(1) In lieu of submitting cost or pricing data, offerors may submit a written request for exception by submitting the information described in the following subparagraphs. The Contracting Officer may require additional supporting information, but only to the extent necessary to determine whether an exception should be granted, and whether the price is fair and reasonable.

(i) Information relative to an exception granted for prior or repetitive acquisitions.

(ii) Catalog price information as follows:

(A) Attach a copy of or identify the catalog and its date, or the appropriate pages for the offered items, or a statement that the catalog is on file in the buying office to which this proposal is being made.

(B) Provide a copy or describe current discount policies and price lists (published or unpublished), e.g., wholesale, original equipment manufacturer, and reseller.

(C) Additionally, for each catalog item that exceeds _____ (extended value not unit price), provide evidence of substantial sales to the general public. This may include sales order, contract, shipment, invoice, actual recorded sales or other records that are verifiable. In addition, if the basis of the price proposal is sales of essentially the same commercial item by affiliates, other manufacturers or vendors, those sales may be included. The offeror shall explain the basis of each offered price and its relationship to the established catalog price. When substantial general public sales have also been made at prices other than catalog or price list prices, the offeror shall indicate how the

proposed price relates to the price of such recent sales in quantities similar to the proposed quantities.

(iii) Market price information. Include the source and date or period of the market quotation or other basis for market price, the base amount, and applicable discounts. The nature of the market should be described. The supply or service being purchased should be the same as or similar to the market price supply or service. Data supporting substantial sales to the general public is also required.

(iv) Identification of the law or regulation establishing the price offered. If the price is controlled under law by periodic rulings, reviews, or similar actions of a Governmental body, attach a copy of the controlling document, unless it was previously submitted to the contracting office.

(v) For a commercial item exception, information on prices at which the same item or similar items have been sold in the commercial market.

(2) The offeror grants the Contracting Officer or an authorized representative the right to examine, at any time before award, books, records, documents, or other directly pertinent records to verify any request for an exception under this provision, and the reasonableness of price. Access does not extend to cost or profit information or other data relevant solely to the offeror's determination of the prices to be offered in the catalog or marketplace.

(b) Requirements for cost or pricing data. If the offeror is not granted an exception from the requirement to submit cost or pricing data, the following applies:

(1) The offeror shall submit cost or pricing data on Standard Form (SF) 1411, Contract Pricing Proposal Cover Sheet (Cost or Pricing Data Required), with supporting attachments prepared in accordance with Table 15-2 of FAR 15.804-6(b)(2).

(2) As soon as practicable after agreement on price, but before contract award (except for unpriced actions such as letter contracts), the offeror shall submit a Certificate of Current Cost or Pricing Data, as prescribed by FAR 15.804-4.

(c) By submitting information to qualify for an exception, an offeror is not representing that this is the only exception that may apply.

I.7 REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA - MODIFICATIONS (FAR 52.215-42) (OCT 1995)

(a) Exceptions from cost or pricing data.

(1) In lieu of submitting cost or pricing data for modifications under this contract, for price adjustments expected to exceed the threshold set forth at FAR 15.804-2(a)(1) on the date of the agreement on price or the date of the award, whichever is later, the Contractor may submit a written request for exception by submitting the information described in the following subparagraphs. The Contracting Officer may require additional supporting information, but only to the extent necessary to determine whether an exception should be granted, and whether the price is fair and reasonable -

(i) Information relative to an exception granted for prior or repetitive acquisitions.

(ii) Catalog price information as follows:

(A) Attach a copy of or identify the catalog and its date, or the appropriate pages for the offered items, or a statement that the catalog is on file in the buying office to which this proposal is being made.

(B) Provide a copy or describe current discount policies and price lists (published or unpublished), e.g., wholesale, original equipment manufacturer, and reseller.

(C) Additionally, for each catalog item that exceeds _____ (extended value not unit price), provide evidence of substantial sales to the general public. This may include sales order, contract, shipment, invoice, actual recorded sales or other records that are verifiable. In addition, if the basis of the price proposal is sales of essentially the same commercial item by affiliates, other manufacturers or vendors, those sales may be included. The offeror shall explain the basis of each offered price and its relationship to the established catalog price. When substantial general public sales have also been made at prices other than catalog or price list prices, the offeror shall indicate how the proposed price relates to the price of such recent sales in quantities similar to the proposed quantities.

(iii) Market price information. Include the source and date or period of the market quotation or other basis for market price, the base amount, and applicable discounts. The nature of the market should be described. The supply or service being purchased should be the same as or similar to the market price supply or service. Data supporting substantial sales to the general public is also required.

(iv) Identification of the law or regulation establishing the price offered. If the price is controlled under law by periodic rulings, reviews, or similar actions of a Governmental body, attach a copy of the controlling document, unless it was previously submitted to the contracting office.

(v) Information on modifications of contracts or subcontracts for commercial items.

(A) If (1) The original contract or subcontract was granted an exception from cost or pricing data requirements because the price agreed upon was based on adequate price competition, catalog or market prices of commercial items, or prices set by law or regulation; and (2) the modification (to the contract or subcontract) is not exempted based on one of these exceptions, then the Contractor may provide information to establish that the modification would not change the contract or subcontract from a contract or subcontract for the acquisition of a commercial item to a contract or subcontract for the acquisition of an item other than a commercial item.

(B) For a commercial item exception, the Contractor may provide information on prices at which the same item or similar items have been sold in the commercial market.

(2) The Contractor grants the Contracting Officer or an authorized representative the right to examine, at any time before award, books, records, documents, or other directly pertinent records to verify any request for an exception under this clause, and the reasonableness of price. Access does not extend to cost or profit information or other data relevant solely to the Contractor's determination of the prices to be offered in the catalog or marketplace.

(3) By submitting information to qualify for an exception, an offeror is not representing that this is the only exception that may apply.

(b) Provide information described below:

(1) The Contractor shall submit cost or pricing data on Standard Form (SF) 1411, Contract Pricing Proposal Cover Sheet (Cost or Pricing Data Required), with supporting attachments prepared in accordance with Table 15-2 of FAR 15.804-6(b)(2).

(2) As soon as practicable after agreement on price, but before award (except for unpriced actions), the Contractor shall submit a Certificate of Current Cost or Pricing Data, as prescribed by FAR 15.804-4.

I.8 PAYMENT FOR OVERTIME PREMIUMS (FAR 52.222-2) (JUL 1990)

(a) The use of overtime is authorized under this contract if the overtime premium cost does not exceed _____ or the overtime premium is paid for work -

(1) Necessary to cope with emergencies such as those resulting from accidents, natural disasters, breakdowns of production equipment, or occasional production bottlenecks of a sporadic nature;

(2) By indirect-labor employees such as those performing duties in connection with administration, protection, transportation, maintenance, standby plant protection, operation of utilities, or accounting;

(3) To perform tests, industrial processes, laboratory procedures, loading or unloading of transportation conveyances, and operations in flight or afloat that are continuous in nature and cannot reasonably be interrupted or completed otherwise; or

(4) That will result in lower overall costs to the Government.

(b) Any request for estimated overtime premiums that exceeds the amount specified above shall include all estimated overtime for contract completion and shall -

(1) Identify the work unit; e.g., department or section in which the requested overtime will be used, together with present workload, staffing, and other data of the affected unit sufficient to permit the Contracting Officer to evaluate the necessity for the overtime;

(2) Demonstrate the effect that denial of the request will have on the contract delivery or performance schedule;

(3) Identify the extent to which approval of overtime would affect the performance or payments in connection with other Government contracts, together with identification of each affected contract; and

(4) Provide reasons why the required work cannot be performed by using multishift operations or by employing additional personnel.

I.9 CONTRACT WORK HOURS AND SAFETY STANDARDS ACT - OVERTIME COMPENSATION (FAR 52.222-4) (JUL 1995)

(a) Overtime requirements. No Contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics (see Federal Acquisition Regulation (FAR) 22.300) shall require or permit any such laborers or mechanics in any workweek in which the individual is employed on such work to work in excess of 40 hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than 1 1/2 times the basic rate of pay for all hours worked in excess of 40 hours in such workweek.

(b) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the provisions set forth in paragraph (a) of this clause, the Contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such Contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic employed in violation of the provisions set forth in paragraph (a) of this clause in the sum of \$10 for each calendar day on which

such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by provisions set forth in paragraph (a) of this clause.

(c) Withholding for unpaid wages and liquidated damages. The Contracting Officer shall upon his or her own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the Contractor or subcontractor under any such contract or any other Federal contract with the same Prime Contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act which is held by the same Prime Contractor, such sums as may be determined to be necessary to satisfy any liabilities of such Contractor or subcontractor for unpaid wages and liquidated damages as provided in the provisions set forth in paragraph (b) of this clause.

(d) Payrolls and basic records. (1) The Contractor or subcontractor shall maintain payrolls and basic payroll records during the course of contract work and shall preserve them for a period of 3 years from the completion of the contract for all laborers and mechanics working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Nothing in this paragraph shall require the duplication of records required to be maintained for construction work by Department of Labor regulations at 29 CFR 5.5(a)(3) implementing the Davis-Bacon Act.

(2) The records to be maintained under paragraph (d)(1) of this clause shall be made available by the Contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the Contracting Officer or the Department of Labor. The Contractor or subcontractor shall permit such representatives to interview employees during working hours on the job.

(e) Subcontracts. The Contractor or subcontractor shall insert in any subcontracts, exceeding \$100,000, the provisions set forth in paragraphs (a) through (e) of this clause and also a clause requiring the subcontractors to include these provisions in any lower tier subcontracts. The Prime Contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the provisions set forth in paragraphs (a) through (e) of this clause.

I.10 SERVICE CONTRACT ACT OF 1965, AS AMENDED (FAR 52.222-41) (MAY 1989)

(a) **Definitions.** "Act," as used in this clause, means the Service Contract Act of 1965, as amended (41 U.S.C. 351, et seq.).

"Contractor," as used in this clause or in any subcontract, shall be deemed to refer to the subcontractor, except in the term "Government Prime Contractor."

"Service employee," as used in this clause, means any person engaged in the performance of this contract other than any person employed in a bona fide executive, administrative, or professional capacity, as these terms are defined in Part 541 of Title 29, Code of Federal Regulations, as revised. It includes all such persons regardless of any contractual relationship that may be alleged to exist between a Contractor or subcontractor and such persons.

(b) **Applicability.** This contract is subject to the following provisions and to all other applicable provisions of the Act and regulations of the Secretary of Labor (29 CFR Part 4). This clause does not apply to contracts or subcontracts

administratively exempted by the Secretary of Labor or exempted by 41 U.S.C. 356, as interpreted in Subpart C of 29 CFR Part 4.

(c) **Compensation.**

(1) Each service employee employed in the performance of this contract by the Contractor or any subcontractor shall be paid not less than the minimum monetary wages and shall be furnished fringe benefits in accordance with the wages and fringe benefits determined by the Secretary of Labor, or authorized representative, as specified in any wage determination attached to this contract.

(2) (i) If a wage determination is attached to this contract, the Contractor shall classify any class of service employee which is not listed therein and which is to be employed under this contract (i.e., the work to be performed is not performed by any classification listed in the wage determination) so as to provide a reasonable relationship (i.e., appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination. Such conformed class of employees shall be paid the monetary wages and furnished the fringe benefits as are determined pursuant to the procedures in this paragraph (c).

(ii) This conforming procedure shall be initiated by the Contractor prior to the performance of contract work by the unlisted class of employee. The Contractor shall submit Standard Form (SF) 1444, Request For Authorization of Additional Classification and Rate, to the Contracting Officer no later than 30 days after the unlisted class of employee performs any contract work. The Contracting Officer shall review the proposed classification and rate and promptly submit the completed SF 1444 (which must include information regarding the agreement or disagreement of the employees' authorized representatives or the employees themselves together with the agency recommendation), and all pertinent information to the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor. The Wage and Hour Division will approve, modify, or disapprove the action or render a final determination in the event of disagreement within 30 days of receipt or will notify the Contracting Officer within 30 days of receipt that additional time is necessary.

(iii) The final determination of the conformance action by the Wage and Hour Division shall be transmitted to the Contracting Officer who shall promptly notify the Contractor of the action taken. Each affected employee shall be furnished by the Contractor with a written copy of such determination or it shall be posted as a part of the wage determination.

(iv) (A) The process of establishing wage and fringe benefit rates that bear a reasonable relationship to those listed in a wage determination cannot be reduced to any single formula. The approach used may vary from wage determination to wage determination depending on the circumstances. Standard wage and salary administration practices which rank various job classifications by pay grade pursuant to point schemes or other job factors may, for example, be relied upon. Guidance may also be obtained from the way different jobs are rated under Federal pay systems (Federal Wage Board Pay System and the General Schedule) or from other wage determinations issued in the same locality. Basic to the establishment of any conformable wage rate(s) is the concept that a pay relationship should be maintained between job classifications based on the skill required and the duties performed.

(B) In the case of a contract modification, an exercise of an option, or extension of an existing contract, or in any other case where a Contractor succeeds a contract under which the classification in question was

previously conformed pursuant to paragraph (c) of this clause, a new conformed wage rate and fringe benefits may be assigned to the conformed classification by indexing (i.e., adjusting) the previous conformed rate and fringe benefits by an amount equal to the average (mean) percentage increase (or decrease, where appropriate) between the wages and fringe benefits specified for all classifications to be used on the contract which are listed in the current wage determination, and those specified for the corresponding classifications in the previously applicable wage determination. Where conforming actions are accomplished in accordance with this paragraph prior to the performance of contract work by the unlisted class of employees, the Contractor shall advise the Contracting Officer of the action taken but the other procedures in subdivision (c)(ii) of this clause need not be followed.

(C) No employee engaged in performing work on this contract shall in any event be paid less than the currently applicable minimum wage specified under section 6(a)(1) of the Fair Labor Standards Act of 1938, as amended.

(v) The wage rate and fringe benefits finally determined under this subparagraph (c)(2) of this clause shall be paid to all employees performing in the classification from the first day on which contract work is performed by them in the classification. Failure to pay the unlisted employees the compensation agreed upon by the interested parties and/or finally determined by the Wage and Hour Division retroactive to the date such class of employees commenced contract work shall be a violation of the Act and this contract.

(vi) Upon discovery of failure to comply with subparagraph (c)(2) of this clause, the Wage and Hour Division shall make a final determination of conformed classification, wage rate, and/or fringe benefits which shall be retroactive to the date such class or classes of employees commenced contract work.

(3) **Adjustment of Compensation.** If the term of this contract is more than 1 year, the minimum monetary wages and fringe benefits required to be paid or furnished thereunder to service employees under this contract shall be subject to adjustment after 1 year and not less often than once every 2 years, under wage determinations issued by the Wage and Hour Division.

(d) **Obligation to Furnish Fringe Benefits.** The Contractor or subcontractor may discharge the obligation to furnish fringe benefits specified in the attachment or determined under subparagraph (c)(2) of this clause by furnishing equivalent combinations of bona fide fringe benefits, or by making equivalent or differential cash payments, only in accordance with Subpart D of 29 CFR Part 4.

(e) **Minimum Wage.** In the absence of a minimum wage attachment for this contract, neither the Contractor nor any subcontractor under this contract shall pay any person performing work under this contract (regardless of whether the person is a service employee) less than the minimum wage specified by section 6(a)(1) of the Fair Labor Standards Act of 1938. Nothing in this clause shall relieve the Contractor or any subcontractor of any other obligation under law or contract for the payment of a higher wage to any employee.

(f) **Successor Contracts.** If this contract succeeds a contract subject to the Act under which substantially the same services were furnished in the same locality and service employees were paid wages and fringe benefits provided for in a collective bargaining agreement, in the absence of the minimum wage attachment for this contract setting forth such collectively bargained wage rates and fringe benefits, neither the Contractor nor any subcontractor under this contract shall pay any service employee performing any of the contract work (regardless of

whether or not such employee was employed under the predecessor contract), less than the wages and fringe benefits provided for in such collective bargaining agreement, to which such employee would have been entitled if employed under the predecessor contract, including accrued wages and fringe benefits and any prospective increases in wages and fringe benefits provided for under such agreement. No Contractor or subcontractor under this contract may be relieved of the foregoing obligation unless the limitations of 29 CFR 4.1b(b) apply or unless the Secretary of Labor or the Secretary's authorized representative finds, after a hearing as provided in 29 CFR 4.10 that the wages and/or fringe benefits provided for in such agreement are substantially at variance with those which prevail for services of a character similar in the locality, or determines, as provided in 29 CFR 4.11, that the collective bargaining agreement applicable to service employees employed under the predecessor contract was not entered into as a result of arm's length negotiations. Where it is found in accordance with the review procedures provided in 29 CFR 4.10 and/or 4.11 and Parts 6 and 8 that some or all of the wages and/or fringe benefits contained in a predecessor Contractor's collective bargaining agreement are substantially at variance with those which prevail for services of a character similar in the locality, and/or that the collective bargaining agreement applicable to service employees employed under the predecessor contract was not entered into as a result of arm's length negotiations, the Department will issue a new or revised wage determination setting forth the applicable wage rates and fringe benefits. Such determination shall be made part of the contract or subcontract, in accordance with the decision of the Administrator, the Administrative Law Judge, or the Board of Service Contract Appeals, as the case may be, irrespective of whether such issuance occurs prior to or after the award of a contract or subcontract (53 Comp. Gen. 401 (1973)). In the case of a wage determination issued solely as a result of a finding of substantial variance, such determination shall be effective as of the date of the final administrative decision.

(g) **Notification to Employees.** The Contractor and any subcontractor under this contract shall notify each service employee commencing work on this contract of the minimum monetary wage and any fringe benefits required to be paid pursuant to this contract, or shall post the wage determination attached to this contract. The poster provided by the Department of Labor (Publication WH 1313) shall be posted in a prominent and accessible place at the worksite. Failure to comply with this requirement is a violation of Section 2(a)(4) of the Act and of this contract.

(h) **Safe and Sanitary Working Conditions.** The Contractor or subcontractor shall not permit any part of the services called for by this contract to be performed in buildings or surroundings or under working conditions provided by or under the control or supervision of the Contractor or subcontractor which are unsanitary, hazardous, or dangerous to the health or safety of the service employees. The Contractor or subcontractor shall comply with the safety and health standards applied under 29 CFR Part 1925.

(i) **Records.** (1) The Contractor and each subcontractor performing work subject to the Act shall make and maintain for 3 years from the completion of the work, and make them available for inspection and transcription by authorized representatives of the Wage and Hour Division, Employment Standards Administration, a record of the following:

- (i) For each employee subject to the Act -
 - (A) Name and address and social security number;

(B) Correct work classification or classifications, rate or rates of monetary wages paid and fringe benefits provided, rate or rates of payments in lieu of fringe benefits, and total daily and weekly compensation;

(C) Daily and weekly hours worked by each employee; and

(D) Any deductions, rebates, or refunds from the total daily or weekly compensation of each employee.

(ii) For those classes of service employees not included in any wage determination attached to this contract, wage rates or fringe benefits determined by the interested parties or by the Administrator or authorized representative, under the terms of paragraph (c) of this clause. A copy of the report required by subdivision (c)(2)(ii) of this clause will fulfill this requirement.

(iii) Any list of the predecessor Contractor's employees which had been furnished to the Contractor as prescribed by paragraph (n) of this clause.

(2) The Contractor shall also make available a copy of this contract for inspection or transcription by authorized representatives of the Wage and Hour Division.

(3) Failure to make and maintain or to make available these records for inspection and transcription shall be a violation of the regulations and this contract, and in the case of failure to produce these records, the Contracting Officer, upon direction of the Department of Labor and notification to the Contractor, shall take action to cause suspension of any further payment or advance of funds until such violation ceases.

(4) The Contractor shall permit authorized representatives of the Wage and Hour Division to conduct interviews with employees at the worksite during normal working hours.

(j) **Pay Periods.** The Contractor shall unconditionally pay to each employee subject to the Act all wages due free and clear and without subsequent deduction (except as otherwise provided by law or Regulations, 29 CFR Part 4), rebate, or kickback on any account. These payments shall be made no later than one pay period following the end of the regular pay period in which the wages were earned or accrued. A pay period under this Act may not be of any duration longer than semi-monthly.

(k) **Withholding of Payment and Termination of Contract.** The Contracting Officer shall withhold or cause to be withheld from the Government Prime Contractor under this or any other Government contract with the Prime Contractor such sums as an appropriate official of the Department of Labor requests or such sums as the Contracting Officer decides may be necessary to pay underpaid employees employed by the Contractor or subcontractor. In the event of failure to pay any employees subject to the Act all or part of the wages or fringe benefits due under the Act, the Contracting Officer may, after authorization or by direction of the Department of Labor and written notification to the Contractor, take action to cause suspension of any further payment or advance of funds until such violations have ceased. Additionally, any failure to comply with the requirements of this clause may be grounds for termination of the right to proceed with the contract work. In such event, the Government may enter into other contracts or arrangements for completion of the work, charging the Contractor in default with any additional cost.

(l) **Subcontracts.** The Contractor agrees to insert this clause in all subcontracts subject to the Act.

(m) **Collective Bargaining Agreements Applicable to Service Employees.** If wages to be paid or fringe benefits to be furnished any service employees employed

by the Government Prime Contractor or any subcontractor under the contract are provided for in a collective bargaining agreement which is or will be effective during any period in which the contract is being performed, the Government Prime Contractor shall report this fact to the Contracting Officer, together with full information as to the application and accrual of such wages and fringe benefits, including any prospective increases, to service employees engaged in work on the contract, and a copy of the collective bargaining agreement. Such report shall be made upon commencing performance of the contract, in the case of collective bargaining agreements effective at such time, and in the case of such agreements or provisions or amendments thereof effective at a later time during the period of contract performance such agreements shall be reported promptly after negotiation thereof.

(n) **Seniority List.** Not less than 10 days prior to completion of any contract being performed at a Federal facility where service employees may be retained in the performance of the succeeding contract and subject to a wage determination which contains vacation or other benefit provisions based upon length of service with a Contractor (predecessor) or successor (29 CFR Part 4.173), the incumbent Prime Contractor shall furnish the Contracting Officer a certified list of the names of all service employees on the Contractor's or subcontractor's payroll during the last month of contract performance. Such list shall also contain anniversary dates of employment on the contract either with the current or predecessor Contractors of each such service employee. The Contracting Officer shall turn over such list to the successor Contractor at the commencement of the succeeding contract.

(o) **Rulings and Interpretations.** Rulings and interpretations of the Act are contained in Regulations, 29 CFR Part 4.

(p) **Contractor's Certification.**

(1) By entering into this contract, the Contractor (and officials thereof) certifies that neither it (nor he or she) nor any person or firm who has substantial interest in the Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of the sanctions imposed under section 5 of the Act.

(2) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract under section 5 of the Act.

(3) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

(q) **Variations, Tolerances, and Exemptions Involving Employment.**

Notwithstanding any of the provisions in paragraphs (b) through (o) of this clause, the following employees may be employed in accordance with the following variations, tolerances, and exemptions, which the Secretary of Labor, pursuant to section 4(b) of the Act prior to its amendment by Public L. 92-473, found to be necessary and proper in the public interest or to avoid serious impairment of the conduct of Government business.

(1) Apprentices, student-learners, and workers whose earning capacity is impaired by age, physical or mental deficiency, or injury may be employed at wages lower than the minimum wages otherwise required by section 2(a)(1) or 2(b)(1) of the Act without diminishing any fringe benefits or cash payments in lieu thereof required under section 2(a)(2) of the Act, in accordance with the conditions and procedures prescribed for the employment of apprentices, student-learners, handicapped persons, and handicapped clients of sheltered workshops under Section 14 of the Fair Labor Standards Act of 1938, in the regulations issued by the Administrator (29 CFR Parts 520, 521, 524, and 525).

(2) The Administrator will issue certificates under the Act for the employment of apprentices, student-learners, handicapped persons, or handicapped clients of sheltered workshops not subject to the Fair Labor Standards Act of 1938, or subject to different minimum rates of pay under the two acts, authorizing appropriate rates of minimum wages (but without changing requirements concerning fringe benefits or supplementary cash payments in lieu thereof), applying procedures prescribed by the applicable regulations issued under the Fair Labor Standards Act of 1938 (29 CFR Parts 520, 521, 524, and 525).

(3) The Administrator will also withdraw, annul, or cancel such certificates in accordance with the regulations in 29 CFR Parts 525 and 528.

(r) **Apprentices.** Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed and individually registered in a bona fide apprenticeship program registered with a State Apprenticeship Agency which is recognized by the U.S. Department of Labor, or if no such recognized agency exists in a State, under a program registered with the Bureau of Apprenticeship and Training, Employment and Training Administration, U.S. Department of Labor. Any employee who is not registered as an apprentice in an approved program shall be paid the wage rate and fringe benefits contained in the applicable wage determination for the journeyman classification of work actually performed. The wage rates paid apprentices shall not be less than the wage rate for their level of progress set forth in the registered program, expressed as the appropriate percentage of the journeyman's rate contained in the applicable wage determination. The allowable ratio of apprentices to journeymen employed on the contract work in any craft classification shall not be greater than the ratio permitted to the Contractor as to his entire work force under the registered program.

(s) **Tips.** An employee engaged in an occupation in which the employee customarily and regularly receives more than \$30 a month in tips may have the amount of tips credited by the employer against the minimum wage required by section 2(a)(1) or section 2(b)(1) of the Act, in accordance with section 3(m) of the Fair Labor Standards Act and Regulations 29 CFR Part 531. However, that the amount of credit shall not exceed \$1.34 per hour beginning January 1, 1981. To use this provision -

(1) The employer must inform tipped employees about this tip credit allowance before the credit is utilized;

(2) The employees must be allowed to retain all tips (individually or through a pooling arrangement and regardless of whether the employer elects to take a credit for tips received);

(3) The employer must be able to show by records that the employee receives at least the applicable Service Contract Act minimum wage through the combination of direct wages and tip credit; and

(4) The use of such tip credit must have been permitted under any predecessor collective bargaining agreement applicable by virtue of section 4(c) of the Act.

(t) **Disputes Concerning Labor Standards.** The U.S. Department of Labor has set forth in 29 CFR Parts 4, 6, and 8 procedures for resolving disputes concerning labor standards requirements. Such disputes shall be resolved in accordance with those procedures and not the Disputes clause of this contract. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

I.11 PROMPT PAYMENT (FAR 52.232-25) (MAR 1994)

Notwithstanding any other payment clause in this contract, the Government will make invoice payments and contract financing payments under the terms and conditions specified in this clause. Payment shall be considered as being made on the day a check is dated or an electronic funds transfer is made. Definitions of pertinent terms are set forth in 32.902. All days referred to in this clause are calendar days, unless otherwise specified.

(a) *Invoice Payments.*

(1) For purposes of this clause, "invoice payment" means a Government disbursement of monies to a Contractor under a contract or other authorization for supplies or services accepted by the Government. This includes payments for partial deliveries that have been accepted by the Government and final cost or fee payments where amounts owed have been settled between the Government and the Contractor.

(2) Except as indicated in subparagraph (a)(3) and paragraph (c) of this clause, the due date for making invoice payments by the designated payment office shall be the later of the following two events:

(i) The 30th day after the designated billing office has received a proper invoice from the Contractor.

(ii) The 30th day after Government acceptance of supplies delivered or services performed by the Contractor. On a final invoice where the payment amount is subject to contract settlement actions, acceptance shall be deemed to have occurred on the effective date of the contract settlement. However, if the designated billing office fails to annotate the invoice with the actual date of receipt, the invoice payment due date shall be deemed to be the 30th day after the date the Contractor's invoice is dated, provided a proper invoice is received and there is no disagreement over quantity, quality, or Contractor compliance with contract requirements.

(3) The due date on contracts for meat, meat food products, or fish; contracts for perishable agricultural commodities, contracts for dairy products, edible fats or oils, and food products prepared from edible fats or oils, and contracts not requiring submission of an invoice shall be as follows:

(i) The due date for meat and meat food products, as defined in Section 2(a)(3) of the Packers and Stockyard Act of 1921 (7 U.S.C. 182(3)) and further defined in Pub. L. 98-181 to include any edible fresh or frozen poultry meat, any perishable poultry meat food product, fresh eggs, and any perishable egg product, will be as close as possible to, but not later than, the 7th day after product delivery.

(ii) The due date for fresh or frozen fish, as defined in Section 204(3) of the Fish and Seafood Promotion Act of 1986 (16 U.S.C. 4003(3)), will be as close as possible to, but not later than, the seventh day after product delivery.

(iii) The due date for perishable agricultural commodities, as defined in section 1(4) of the Perishable Agricultural Commodities Act of 1930 (7 U.S.C. 499a(44)), will be as close as possible to, but not later than, the 10th day after product delivery, unless another date is specified in the contract.

(iv) The due date for dairy products, as defined in section 111(e) of the Dairy Production Stabilization Act of 1983 (7 U.S.C. 4502(e)), edible fats or oils, and food products prepared from edible fats or oils, will be as close as possible to, but not later than, the 10th day after the date on which a proper invoice has been received.

(v) If the contract does not require submission of an invoice for payment (e.g., periodic lease payments), the due date will be as specified in the contract.

(4) An invoice is the Contractor's bill or written request for payment under the contract for supplies delivered or services performed. An invoice shall be prepared and submitted to the designated billing office specified in the contract. A proper invoice must include the items listed in subdivisions (a)(4)(i) through (a)(4)(viii) of this clause. If the invoice does not comply with these requirements, then the Contractor will be notified of the defect within 7 days after receipt of the invoice at the designated billing office (3 days for meat, meat food products, or fish, and 5 days for perishable agricultural commodities, edible fats or oils, and food products prepared from edible fats or oils). Untimely notification will be taken into account in the computation of any interest penalty owed the Contractor in the manner described in subparagraph (a)(6) of this clause.

- (i) Name and address of the Contractor.
- (ii) Invoice date.
- (iii) Contract number or other authorization for supplies delivered or services performed (including order number and contract line item number).
- (iv) Description, quantity, unit of measure, unit price, and extended price of supplies delivered or services performed.
- (v) Shipping and payment terms (e.g., shipment number and date of shipment, prompt payment discount terms). Bill of lading number and weight of shipment will be shown for shipments on Government bills of lading.
- (vi) Name and address of Contractor official to whom payment is to be sent (must be the same as that in the contract or in a proper notice of assignment).
- (vii) Name (where practicable), title, phone number and mailing address of person to be notified in event of a defective invoice.
- (viii) Any other information or documentation required by other requirements of the contract (such as evidence of shipment).

(5) An interest penalty shall be paid automatically by the Government, without request from the Contractor, if payment is not made by the due date and the conditions listed in subdivisions (a)(5)(i) through (a)(5)(iii) of this clause are met, if applicable.

- (i) A proper invoice was received by the designated billing office.
- (ii) A receiving report or other Government documentation authorizing payment was processed and there was no disagreement over quantity, quality, or Contractor compliance with any contract term or condition.

(iii) In the case of a final invoice for any balance of funds due the Contractor for supplies delivered or services performed, the amount was not subject to further contract settlement actions between the Government and the Contractor.

(6) The interest penalty shall be at the rate established by the Secretary of the Treasury under section 12 of the Contract Disputes Act of 1978 (41 U.S.C. 611) that is in effect on the day after the due date, except where the interest penalty is prescribed by other governmental authority. This rate is referred to as the "Renegotiation Board Interest Rate," and it is published in the *Federal Register* semiannually on or about January 1 and July 1. The interest penalty shall accrue daily on the invoice payment amount approved by the Government and be compounded in 30-day increments inclusive from the first day after the due date through the payment date. That is, interest accrued at the end of any 30-day

period will be added to the approved invoice payment amount and be subject to interest penalties if not paid in the succeeding 30-day period. If the designated billing office failed to notify the Contractor of a defective invoice within the periods prescribed in paragraph (a)(4) of this clause, then the due date on the corrected invoice will be adjusted by subtracting the number of days taken beyond the prescribed notification of defects period. Any interest penalty owed the Contractor will be based on this adjusted due date. Adjustments will be made by the designated payment office for errors in calculating interest penalties, if requested by the Contractor.

(i) For the sole purpose of computing an interest penalty that might be due the Contractor, Government acceptance shall be deemed to have occurred constructively on the 7th day (unless otherwise specified in this contract) after the Contractor delivered the supplies or performed the services in accordance with the terms and conditions of the contract, unless there is a disagreement over quantity, quality, or contractor compliance with a contract provision. In the event that actual acceptance occurs within the constructive acceptance period, the determination of an interest penalty shall be based on the actual date of acceptance. The constructive acceptance requirement does not, however, compel Government officials to accept supplies or services, perform contract administration functions, or make payment prior to fulfilling their responsibilities.

(ii) The following periods of time will not be included in the determination of an interest penalty:

(A) The period taken to notify the Contractor of defects in invoices submitted to the Government, but this may not exceed 7 days (3 days for meat, meat food products, or fish, and 5 days for perishable agricultural commodities, dairy products, edible fats or oils, and food products prepared from edible fats or oils).

(B) The period between the defects notice and resubmission of the corrected invoice by the Contractor.

(iii) Interest penalties will not continue to accrue after the filing of a claim for such penalties under the clause at 52.233-1, Disputes, or for more than 1 year. Interest penalties of less than \$1.00 need not be paid.

(iv) Interest penalties are not required on payment delays due to disagreement between the Government and Contractor over the payment amount or other issues involving contract compliance or on amounts temporarily withheld or retained in accordance with the terms of the contract. Claims involving disputes, and any interest that may be payable, will be resolved in accordance with the clause at 52.233-1, Disputes.

(7) An interest penalty shall also be paid automatically by the designated payment office, without request from the Contractor, if a discount for prompt payment is taken improperly. The interest penalty will be calculated as described in subparagraph (a)(6) of this clause on the amount of discount taken for the period beginning with the first day after the end of the discount period through the date when the Contractor is paid.

(8) If this contract was awarded on or after October 1, 1989, a penalty amount, calculated in accordance with regulations issued by the Office of Management and Budget, shall be paid in addition to the interest penalty amount if the Contractor -

(i) Is owed an interest penalty;

(ii) Is not paid the interest penalty within 10 days after the date the invoice amount is paid; and

(iii) Makes a written demand, not later than 40 days after the date the invoice amount is paid, that the agency pay such a penalty.

(b) *Contract Financing Payments.*

(1) For purposes of this clause, "contract financing payment" means a Government disbursement of monies to a Contractor under a contract clause or other authorization prior to acceptance of supplies or services by the Government. Contract financing payments include advance payments, progress payments based on cost under the clause at 52.232-16, Progress Payments, progress payments based on a percentage or stage of completion (32.102(e)(1)) other than those made under the clause at 52.232-5, Payments Under Fixed-Price Construction Contracts, or the clause at 52.232-10, Payments Under Fixed-Price Architect-Engineer Contracts, and interim payments on cost type contracts.

(2) For contracts that provide for contract financing, requests for payment shall be submitted to the designated billing office as specified in this contract or as directed by the Contracting Officer. Contract financing payments shall be made on the 30th day after receipt of a proper contract financing request by the designated billing office. In the event that an audit or other review of a specific financing request is required to ensure compliance with the terms and conditions of the contract, the designated payment office is not compelled to make payment by the due date specified.

(3) For advance payments, loans, or other arrangements that do not involve recurrent submissions of contract financing requests, payment shall be made in accordance with the corresponding contract terms or as directed by the Contracting Officer.

(4) Contract financing payments shall not be assessed an interest penalty for payment delays.

(c) If this contract contains the clause at 52.213-1, Fast Payment Procedure, payments will be made within 15 days after the date of receipt of the invoice.

I.12 CERTIFICATION OF INDIRECT COSTS (FAR 52.242-4) (OCT 1995)

(a) The Contractor shall -

(1) Certify any proposal to establish or modify billing rates or to establish final indirect cost rates;

(2) Use the format in paragraph (c) of this clause to certify; and

(3) Have the certificate signed by an individual of the Contractor's organization at a level no lower than a vice president or chief financial officer of the business segment of the Contractor that submits the proposal.

(b) Failure by the Contractor to submit a signed certificate, as described in this clause, shall result in payment of indirect costs at rates unilaterally established by the Government.

(c) The certificate of indirect costs shall read as follows:

CERTIFICATE OF INDIRECT COSTS

This is to certify that to the best of my knowledge and belief:

1. I have reviewed this indirect cost proposal;

2. All costs included in this proposal (identify proposal and data) to establish billing or final indirect costs rates for (identify period covered by rate) are allowable in accordance with the requirements of contracts to which they apply and

with the cost principles of the Federal Acquisition Regulation (FAR) and its supplements applicable to those contracts;

3. This proposal does not include any costs which are unallowable under applicable cost principles of the FAR or its supplements, including, but not limited to: advertising and public relations costs, contributions and donations, entertainment costs, fines and penalties, lobbying costs, defense of fraud proceedings, and goodwill; and

4. All costs included in this proposal are properly allocable to Government contracts on the basis of a beneficial or causal relationship between the expenses incurred and the contracts to which they are allocated in accordance with applicable acquisition regulations.

I declare under penalty of perjury that the foregoing is true and correct.

Firm: _____

Signature: _____

Name of Certifying Official: _____

Title: _____

Date of Execution: _____

I.13 BANKRUPTCY (FAR 52.242-13) (JUL 1995)

In the event the Contractor enters into proceedings relating to bankruptcy, whether voluntary or involuntary, the Contractor agrees to furnish, by certified mail or electronic commerce method authorized by the contract, written notification of the bankruptcy to the Contracting Officer responsible for administering the contract. This notification shall be furnished within five days of the initiation of the proceedings relating to bankruptcy filing. This notification shall include the date on which the bankruptcy petition was filed, the identity of the court in which the bankruptcy petition was filed, and a listing of Government contract numbers and contracting offices for all Government contracts against which final payment has not been made. This obligation remains in effect until final payment under this contract.

I.14 SUBCONTRACTS FOR COMMERCIAL ITEMS AND COMMERCIAL COMPONENTS (FAR 52.244-6) (OCT 1995)

(a) Definition

"Commercial item," as used in this clause, has the meaning contained in the clause at 52.202-1, Definitions.

"Subcontract," as used in this clause, includes a transfer of commercial items between divisions, subsidiaries, or affiliates of the Contractor or subcontractor at any tier.

(b) To the maximum extent practicable, the Contractor shall incorporate, and require its subcontractors at all tiers to incorporate, commercial items or nondevelopmental items as components of items to be supplied under this contract.

(c) Notwithstanding any other clause of this contract, the Contractor is not required to include any FAR provision or clause, other than those listed below to the extent they are applicable and as may be required to establish the reasonableness of prices under Part 15, in a subcontract at any tier for commercial items or commercial components:

- (1) 52.222-26, Equal Opportunity (E.O. 112460);
 - (2) 52.222-35, Affirmative Action for Special Disabled and Vietnam Era Veterans (38 U.S.C. 4212(a));
 - (3) 52.222-36, Affirmative Action for Handicapped Workers (29 U.S.C. 793);
- and
- (4) 52.247-64, Preference of Privately-Owned U.S. - Flagged Commercial Vessels (46 U.S.C. 1241) (flowdown not required for subcontracts awarded beginning May 1, 1996).

(d) The Contractor shall include the terms of this clause, including this Paragraph (d), in subcontracts awarded under this contract.

I.15 AUTHORIZED DEVIATIONS IN CLAUSES (FAR 52.252-6) (APR 1984)

(a) The use in this solicitation or contract of any Federal Acquisition Regulation (48 CFR Chapter 1) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the date of the clause.

(b) The use in this solicitation or contract of any NASA/FAR Supplement (48 CFR Chapter 18) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

I.16 SECURITY CLASSIFICATION REQUIREMENTS (NASA 18-52.204-75) (SEP 1989)

Performance under this contract will involve access to and/or generation of classified information, work in a security area, or both, up through the level of top secret. See Federal Acquisition Regulation clause 52.204-2 in this contract and DD Form 254, Contract Security Classification Specification, Exhibit D.

I.17 SECURITY PLAN FOR UNCLASSIFIED FEDERAL COMPUTER SYSTEMS (NASA 18-52.204-78) (SEP 1993)

In addition to complying with any functional and technical security requirements set forth in the schedule and the clauses of this contract, the Contractor shall comply with the Security Plan For Unclassified Federal Computer Systems submitted pursuant to provision 18-52.204-77, Submission of Security Plan For Unclassified Federal Computer Systems, as approved by the Contracting Officer.

I.18 AWARD FEE FOR SERVICE CONTRACTS (NASA 18-52.216-76) (SEP 1993)

(a) The Contractor can earn award fee from a minimum of zero dollars to the maximum stated in NASA FAR Supplement Clause 18-52.216-85, "Estimated Cost and Award Fee" in this contract.

(b) Beginning six months after the effective date of this contract, the Government shall evaluate the Contractor's performance every six months to determine the amount of award fee earned by the Contractor during the period. The Contractor may submit a self-evaluation of performance for each evaluation period under consideration. These self-evaluations will be considered by the Government

in its evaluation. The Government's Fee Determination Official (FDO) will determine the award fee amounts based on the Contractor's performance in accordance with _____. The plan may be revised unilaterally by the Government prior to the beginning of any rating period to redirect emphasis.

(c) The Government will advise the Contractor in writing of the evaluation results. The Contracting Officer will issue a unilateral modification to the contract that will recognize the award fee earned. The Contractor is not required to submit a separate voucher for earned award fee. The _____ will make payment based on the unilateral modification.

(d) The amount of award fee which can be awarded in each evaluation period is limited to the amounts set forth at _____. Award fee which is not earned in an evaluation period cannot be reallocated to future evaluation periods.

(e) Award fee determinations made by the Government under this contract are not subject to the Disputes clause.

PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS

SECTION J - LIST OF ATTACHMENTS

- Exhibit A Installation-Provided Government Property, 27 pages
- Exhibit B Contract Documentation Requirements, 6 pages
- Exhibit C Register of Wage Determination and Fringe Benefits No. 94-2544,
Rev. 6, June 20, 1995, 9 pages
- Exhibit D Contract Security Classification Specification, DD Form 254,
2 pages
- Exhibit E Procedures for the Preparation and Approval of Contractor
Reports for Langley Research Center, Form PROC./P-72,
May 1992, 4 pages
- Exhibit F Semi-Annual Progress Report for Small Disadvantaged Business
(SDB) Goals, 1 page

The following are located after the last section of this solicitation:

- Attachment 1 Bidder's Library Index, 9 pages
- Attachment 2 Organization Chart - Research and Technology Group, 1 page
- Attachment 3 Proposal Cover Sheet, Standard Form 1448 (10/95), 1 page
- Attachment 4 FAR Provision 52.203-8, Requirement for Certificate of Procurement
Integrity (SEPT 1995) Alternate I (SEP 1990), 3 pages
- Attachment 5 Relevant Experience and Past Performance Evaluation
Instructions/Questionnaire, 5 pages
- Attachment 6 Representative Task Orders, 14 pages
- Attachment 7 Potential Tasks, 4 pages
- Attachment 8 Skill Matrix, 2 pages

EXHIBIT A

Solicitation No.
1-137-D.1165

ECN	Description	Manufacturer	Model No	Bldg	Room
1089585	VOLTMETER, DIGITAL	HEWLETT-PACKARD CO	3455A	1232	.116A
1092753	COMPUTER, MICRO	APPLE COMPUTER INC	M5780	1298	.139
1092762	DISPLAY UNIT	RADIUS INC	TPD/19	1298	.139
1257431	DISPLAY UNIT	RADIUS INC	0381	1148	202
0470395	PRINTER, ADP	DIGITAL EQUIPMENT CORP	LA50	1208	.143
1091949	DISPLAY UNIT	DIGITAL EQUIPMENT CORP	VRT19HA	1208	109
G078458	TERMINAL, DATA PROCESSING	DIGITAL EQUIPMENT CORP	VT320	1298	102
1155680	COMPUTER, MINI	SILICON GRAPHICS INC	CMNB001	1298	142
1155681	DISPLAY UNIT	SILICON GRAPHICS INC	HL7965KW-SG	1298	142
1155682	DISK DRIVE UNIT	SEAGATE	ST4767N	1298	142
1261663	OSCILLOSCOPE, PORTABLE	TEKTRONIX INC	2252	1230B	.291
G078537	DISPLAY UNIT	HITACHI MFG CO	CM2186A3UY	1230B	.166
G078540	COMPUTER, MICRO	APPLE COMPUTER INC	M5525	1230B	.166
0020394	MULTIMETER, DIGITAL	FLUKE JOHN MFG CO INC	8050A	1230B	.166
0020648	POWER SUPPLY	LAMBDA ELECTRONICS	LPT7202FM	1230B	.166
0020955	MULTIMETER, DIGITAL	FLUKE JOHN MFG CO INC	87	1230B	.166
0142412	DISK DRIVE UNIT	APPLE COMPUTER INC	M2644	1230B	.166
0259414	CABINET, EQUIPMENT	HEWLETT-PACKARD CO	29402C	1230B	.166
0282436	MULTIMETER, DIGITAL	HEWLETT-PACKARD CO	3478A	1230B	.166
0427292	GENERATOR, VARIABLE PHASE	HEWLETT-PACKARD CO	203A	1230B	.166
1425792	SYSTEM, EXPOSURE, DOUBLE SIDED	COLIGHT INC F-COLIGHT PHOTO-	M218	1230B	.167
0467203	OSCILLOSCOPE, GENERAL PURPOSE	TEKTRONIX INC	2215	1230B	.166
0467840	AMPLIFIER, ELECTROMETER	KEITHLEY INSTRUMENTS INC	604	1230B	.166
0467922	STANDARD, VOLTAGE	FLUKE JOHN MFG CO INC	515A	1230B	.166
0468563	VOLTMETER, DIGITAL	HEWLETT-PACKARD CO	3455A	1230B	.166
0469708	ANALYZER, LOGIC	TEKTRONIX INC	7D01F	1230B	.166
0470924	VOLTMETER, DIFFERENTIAL	FLUKE JOHN MFG CO INC	887AB	1230B	.166
1262901	PROCESSING MACHINE, BLUEPRINT	TOTAL SYSTEMS CONCEPT INC	BTD201B	1230B	.167
1257338	COMPUTER, MICRO	APPLE COMPUTER INC	M1205	1298	.116
0847116	DISK DRIVE UNIT	APPLE COMPUTER INC	M2644	1298	.116
1258860	DISPLAY UNIT	SONY CORP	2075RO	1298	.116
0139980	FILM MAGAZINE	PHOTO-SONICS INC	16MMIP200FEET	645	401
0139981	FILM MAGAZINE	PHOTO-SONICS INC	16MMIP200FEET	645	401
0142814	RADIO SYSTEM	FUTABA CORP	FP-T7FG/K	645	401
0410738	CAMERA, MOTION PICTURE	PHOTO-SONICS INC	16MMIPL	645	401
0410739	FILM MAGAZINE	PHOTO-SONICS INC	16MMIP200FEET	645	401
0410740	FILM MAGAZINE	PHOTO-SONICS INC	16MMIP200FEET	645	401

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1089585	VOLTMETER, DIGITAL	HEWLETT-PACKARD CO	3455A	1232	116A
0410741	FILM MAGAZINE	PHOTO-SONICS INC	16MMIP200FEET	645	401
0801269	CAMERA, TELEVISION	PULNIX AMERICA INC	TM845	1230	143
0803322	DISK DRIVE UNIT	IOMEGA	B2150A-UNI	645A	200
1087719	CAMERA, TELEVISION	PULNIX AMERICA INC	TM845/865	645	401
1087720	CAMERA, TELEVISION	PULNIX AMERICA INC	TM845/865	1230	143
1087874	COMPUTER, MICRO	APPLE COMPUTER INC	5780	645	201
1087884	DISPLAY UNIT	APPLE COMPUTER INC	M0401	645	201
1088298	RECORDER, OPTICAL DISK	MATSUSHITA ELEC INDUS CO	TQ3038F	1230	103
1088933	DISPLAY UNIT	SUN MICROSYSTEMS INC	M19P114	645	401
1088934	MONITOR, TELEVISION	CONRAC CORP CRAMER DIV	7250C19	645	401
1088935	COMPUTER, MICRO	AST RESEARCH INC	386	645	401
1088936	MONITOR, TELEVISION	SONY CORP	PVM1341	645	401
1088937	DISPLAY UNIT	NEC INFORMATION SYSTEMS INC	JC1404HMAI	645	401
1088938	COMPUTER, MICRO	SUN MICROSYSTEMS INC	SPARCSTATION330	645	401
1088939	PLAYER, OPTICAL DISK RECORDER	MATSUSHITA ELEC INDUS CO	TQ3038F	645	401
1088940	PRINTER, ADP	HEWLETT-PACKARD CO	33449A	645	401
G074559	RECORDER, CHART, STRIP	KONTRON ELECTRONICS	340	1293C	266
1090438	BATH, CONSTANT TEMPERATURE	CANNON INSTRUMENT CO	18MS	1293C	266
G078221	OSMOMETER	GONOTEC	090	1293C	266
G079647	CONTROLLER, GRADIENT	MILLIPORE CORP WATERS DIV	680	1293C	266
0054142	PLOTTER, GRAPHICS	HEWLETT-PACKARD CO	7440A	1293C	266
0054256	PRINTER, ADP	EPSON AMERICA INC	FX286E	1293C	266
0059140	INTERFACE	VISCOTEK	131	1293C	266
0060074	REFRACTOMETER	MILLIPORE CORP WATERS DIV	M410	1293C	266
0060127	CALORIMETER	PERKIN-ELMER CORP THE	DSC7	1293C	268
0060128	ASSEMBLY, DRY BOX	PERKIN-ELMER CORP THE	DSC7	1293C	268
0060129	REFRIGERATION SYSTEM	FTS SYSTEMS INC	FC60PEA	1293C	268
0060130	PRINTER/PLOTTER	HEWLETT-PACKARD CO	7470A	1293C	268
0061686	INTERFACE CONTROLLER	PERKIN-ELMER CORP THE	TAC7/3	1293C	268
0061967	COMPUTER, MICRO	INTERNATIONAL BUSINESS MACHINE	8550061	1293C	268
0061968	DISPLAY UNIT	INTERNATIONAL BUSINESS MACHINE	8513001	1293C	268
0141584	SPECTROPHOTOMETER	PERKIN-ELMER CORP ETEC INC	C6880000	1293C	268
0141585	PRINTER/PLOTTER	PERKIN-ELMER CORP ETEC INC	GPI00	1293C	268
1264260	DISK DRIVE UNIT	LACIE LTD	TSUNAMI	1293C	261
1259377	SPECTROMETER	NICOLET INSTRUMENT CORP	MAGNA750	1293C	268
1259378	COMPUTER, MICRO	INTEL CORP	R486DX2664F	1293C	268

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1089585	VOLTMETER, DIGITAL	HEWLETT-PACKARD CO	3455A	1232	116A
1259379	DISPLAY UNIT	CTX INTL	CMS1561LR	1293C	268
1422727	PRINTER, ADP	HEWLETT-PACKARD CO	C2168A	1293C	268
0282297	PRINTER, ADP	EPSON AMERICA INC	FX80	1293C	268
0282496	REFRACTOMETER	CHROMATIX	RMX16	1293C	266
0284095	CHROMATOGRAPH, LIQUID	MILLIPORE CORP WATERS DIV	490	1293C	266
1425547	COMPUTER, MICRO	DIGITAL EQUIPMENT CORP	862WW	1293C	266
1425548	DISPLAY UNIT	DIGITAL EQUIPMENT CORP	PCXCV-AC	1293C	266
1089292	RECORDER, CHART, STRIP	SOLTEC CORP	DS6404	1293C	266
0404549	VOLTMETER, DIGITAL	HEWLETT-PACKARD CO	3480C	1293A	266
0419224	THERMOMETER, DIGITAL	FLUKE JOHN MFG CO INC	2100A06F01-02	1293A	106
0419482	ULTRAVIOLET RADIATION SYSTEM	MILLIPORE CORP WATERS DIV	440	1293C	266
0419484	CHROMATOGRAPH, LIQUID	MILLIPORE CORP WATERS DIV	712WISP	1293C	266
0419875	CHROMATOGRAPH, LIQUID	MILLIPORE CORP WATERS DIV	ALC/GPC202R401	1293C	266
0419920	DESORBER, THERMAL	FOXBORO CO F-WILKS SCIENTIFIC	PTD132A	1293C	266
1424464	CONTROLLER, AUTOMATIC TEMPERAT	HARRICK SCIENTIFIC CORP	ATC30D	1293C	266
0035476	SAMPLER, CONTACT	SPECTRA TECHNOLOGY INC	0050-290	1293C	266
1424680	REFLECTOR ASSEMBLY, SPECULAR	SPECTRA TECHNOLOGY INC	NONE (VERIFIED)	1293C	266
0549763	PHOTOMETER, LIGHT SCATTERING	CHROMATIX	CMX100	1293C	266
0550577	PLUG-IN, MULTI-FUNCTION, DVM	HEWLETT-PACKARD CO	3484A	1293A	266
1083508	COMPUTER, MICRO	MICROSERVE	386	1293C	266
1083509	DISPLAY UNIT	NEC INFORMATION SYSTEMS INC	JC1404HMA1	1293C	266
1083929	PLOTTER, GRAPHICS	HEWLETT-PACKARD CO	7440A	1293C	268
1083930	SPECTROPHOTOMETER	PERKIN-ELMER CORP THE	1620FT-IR	1293C	268
1085612	DISPLAY UNIT	APPLE COMPUTER INC	M0401	1293A	261
1086001	OSMOMETER	GONOTEC	070	1293C	266
1086152	PLOTTER, GRAPHICS	HEWLETT-PACKARD CO	7440A	1293C	266
1086155	VISCOMETER	VISCOTEK	100	1293C	266
1087043	COMPUTER, MICRO	APPLE COMPUTER INC	M5870(11CI)	1293C	261
1087047	PRINTER, ADP	APPLE COMPUTER INC	M6000	1293A	261
1088604	PHOTOMETER, LIGHT SCATTERING	LDC ANALYTICAL	KMX6	1293C	266
1088681	CHROMATOGRAPH	MILLIPORE CORP WATERS DIV	150C	1293C	266
1089132	RECORDER, CHART, STRIP	SOLTEC CORP	1242	1293C	266
1089681	COMPUTER, MICRO	ALR	POWERFLEX40	1293C	261
1091134	PUMP, PERISTALTIC	RAININ INSTRUMENT CO INC	RABBIT39-701	1293C	266
1091883	VISCOMETER	VISCOTEK	150R	1293C	266
1092023	COMPUTER, MICRO	NEC INFORMATION SYSTEMS INC	PM380-1000(S/X161)	1293C	266

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1089585	VOLTMETER, DIGITAL	HEWLETT-PACKARD CO	3455A	1232	116A
1092022	DISPLAY UNIT	RELISYS (SUB TECO ELEC & MACH)	RE9514	1293C	266
1155878	PUMP, CHROMATOGRAPHY	MILLIPORE CORP WATERS DIV	510	1293C	266
1158353	OVEN, AIR CONVECTION	BLUE M ELECTRIC CO	336	1293C	106
1158354	OVEN, AIR CONVECTION	BLUE M ELECTRIC CO	336	1293C	106
1158355	OVEN, AIR CONVECTION	BLUE M ELECTRIC CO	336	1293C	106
1255015	DISPLAY UNIT	MAGNAVOX ELECTRONIC SYSTEMS	CM9089BE41	1293C	261
1262657	VACUUM PUMP	LEYBOLD-HERAEUS VACUUM PRODUCT	D4A	1293C	271
G074350	PLAYER, OPTICAL DISK	MATSUSHITA ELEC INDUS CO	TQ3031	1298	144
G075005	PROCESSOR, SPEECH	SUN MICROSYSTEMS INC	PE200	1298	102
0055902	DISPLAY UNIT	COMMODORE BUSINESS MACHINES	1084	1244	142
0056154	COMPUTER, MICRO	COMMODORE BUSINESS MACHINES	AMIGA2000	1244	142
0258359	PRINTER, ADP	EPSON AMERICA INC	FX286	1244	142
1160000	DISK DRIVE UNIT	MICROPOLIS CORP	1548	1237T	215
1091285	COMPUTER, MINI	SILICON GRAPHICS INC	CMNB003	1237T	215
1091286	DISPLAY UNIT	SILICON GRAPHICS INC	HL7965KW-CD	1237T	215
1089771	DISK DRIVE UNIT	UNISUN PERIPHERALS REPLCD BY	PUP5112DF	1237T	215
1091986	DISK DRIVE UNIT	TOSHIBA HOSHASEN CO LTD	TXM3301E1	1237T	215
1159548	COMPUTER, MICRO	SUN MICROSYSTEMS INC	447	1251	102A
1422776	DISPLAY UNIT	SUN MICROSYSTEMS INC	GDM1662B	1251	102A
1425272	TRANSPORT, MAGNETIC TAPE	ANDATA CO	X5X5E51UX252X	644	200
1087876	DISPLAY UNIT	APPLE COMPUTER INC	M0401	644	200
1087879	COMPUTER, MICRO	APPLE COMPUTER INC	M5780	644	200
1090831	COMPUTER, MINI	SILICON GRAPHICS INC	CMNA008W64D320VVGX	644	200
1090832	DISPLAY UNIT	SILICON GRAPHICS INC	CM2086A3SG	644	200
1158506	DISK DRIVE UNIT	TOSHIBA HOSHASEN CO LTD	TXM3301E1	643	105
1256541	DISK DRIVE UNIT	FUJITSU LTD	M2654SA	644	200
0803272	DISK DRIVE UNIT	IOMEGA	B2150A-UNI	644	200
G074034	COMPUTER, MICRO	GATEWAY 2000	AM424E25	1224T	902
1088088	DISPLAY UNIT	NEC INFORMATION SYSTEMS INC	JC1404HMA2	1224T	902
1088880	COMPUTER, MINI	SILICON GRAPHICS INC	4D35TG	1224T	902
1088881	DISPLAY UNIT	SILICON GRAPHICS INC	CM2086A3SG	1224T	902
0143443	DISPLAY UNIT	SONY CORP	CPD1302P	1220	136
0848854	PRINTER, ADP	APPLE COMPUTER INC	M6000	1220	209
1085854	PRINTER, ADP	HEWLETT-PACKARD CO	33449A	1220	136
1085855	PRINTER/PLOTTER	HEWLETT-PACKARD CO	C1602A	1220	209
1259122	DISPLAY UNIT	PHILIPS INFORMATION SYSTEMS	I764DC	1220	106

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EXHIBIT A

<u>ECN</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Model No</u>	<u>Bldg</u>	<u>Room</u>
1089585	VOLTMETER, DIGITAL.	HEWLETT-PACKARD CO	3455A	1232	116A
0021034	POWER SUPPLY	FORCE COMPUTERS INC	SYS68K/PWR09A	1220	214D
0801611	MULTIMETER, DIGITAL.	FLUKE JOHN MFG CO INC	87	1220	214D
0427187	ANALYZER, LOGIC	TEKTRONIX INC	DAS9103MODIFIED	1220	214D
1255075	COMPUTER, MICRO	GATEWAY 2000	DESKTOP	1220	214D
1255048	DISPLAY UNIT	VIEWSONICS INC	TX2013MV	1220	214D
0803250	DISK DRIVE UNIT	IOMEGA	B2150A-UNI	645A	200
1087875	COMPUTER, MICRO	APPLE COMPUTER INC	5780	645A	200
1087877	DISPLAY UNIT	APPLE COMPUTER INC	M0401	645A	200
1089582	VOLTMETER, DIGITAL.	HEWLETT-PACKARD CO	3455A	1232	116B
0846830	DISPLAY UNIT	KEGAMI ELECTRONIC US INC	C/DM2060MC2	1200	282
1092751	COMPUTER, MICRO	APPLE COMPUTER INC	M5780	1298	139
1092764	DISPLAY UNIT	RADIUS INC	TPD/19	1298	139
G079464	COMPUTER, MICRO	SUN MICROSYSTEMS INC	47(4/40FC8P40)	1251	110
G079466	DISPLAY UNIT	SUN CORP	GDM1604B15	1251	110
1090239	COMPUTER, MICRO	APPLE COMPUTER INC	APL-A10860	1293B	237
1254520	DISPLAY UNIT	RASTEROPS CORP	1649	1293B	237
1156251	COMPUTER, MINI	SUN MICROSYSTEMS INC	147B4/75	647	103
G073639	DISPLAY UNIT	SUN CORP	GDM1604A15	647	103
0056040	PRINTER, ADP	HEWLETT-PACKARD CO	33440A	1168	126
0139778	PRINTER, ADP	EPSON AMERICA INC	P24EA(LQ2500)	1168	126
0140845	PLOTTER, GRAPHICS	HEWLETT-PACKARD CO	7550A	1168	126
0142504	BUFFER, PRINTER, MULTIPORT	BAY TECHNICAL ASSOCIATES	710E	1168	126
0461797	CALCULATOR, ELECTRONIC	HEWLETT-PACKARD CO	HP41C	1168	126
0461799	PRINTER, ADP	HEWLETT-PACKARD CO	82143A	1168	126
0532626	PRINTER, ADP	HEWLETT-PACKARD CO	82143A	1168	126
0846974	CALCULATOR, ELECTRONIC	HEWLETT-PACKARD CO	HP65	1168	126
1089816	COMPUTER, MICRO	GATEWAY 2000	486/33C	1168	126
1254764	DISPLAY UNIT	GATEWAY 2000	CS1572FS	1168	126
G077413	COMPUTER, MICRO	HEWLETT-PACKARD CO	QS20	1220	239
G077414	DISPLAY UNIT	HEWLETT-PACKARD CO	D1182A	1220	239
0532628	CALCULATOR, ELECTRONIC	HEWLETT-PACKARD CO	HP35	1220	239
0846456	CALCULATOR, ELECTRONIC	HEWLETT-PACKARD CO	HP28S	1220	239
G074776	LASER, ARGON-ION	HEWLETT-PACKARD CO	2040-15	1212C	LVLAB
G074868	TABLE, OPTICAL	SPECTRA-PHYSICS	XS26	1212C	LVLAB
G075245	OSCILLOSCOPE	NEWPORT/KLINGER FRMLY NEWPORT	2467B	1212C	LVLAB
G075246	OSCILLOSCOPE	TEKTRONIX INC	2467B	1212C	204

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1089585	VOLTMETER, DIGITAL	HEWLETT-PACKARD CO	3455A	1232	116A
G078242	DISK DRIVE UNIT	MOUNTAINGATE DATA SYSTEMS INC	MDB-DS2CAN-SC766	1212C	202
G078243	DISK DRIVE UNIT	MOUNTAINGATE DATA SYSTEMS INC	MDB-DS2CAN-SC766	1212C	202
G078244	CHASSIS, DISK DRIVE	MOUNTAINGATE DATA SYSTEMS INC	MDB-DS2000	1212C	202
G078532	PRINTER, ADP	HEWLETT-PACKARD CO	33449A	1212C	202
G078533	PRINTER, ADP	HEWLETT-PACKARD CO	33449A	1212	134A
G078859	PROCESSOR, SIGNAL, MODULE	MACRODYNE INC	3100	1212C	201
G078860	PROCESSOR, SIGNAL, MODULE	MACRODYNE INC	3100	1212C	201
G078861	PROCESSOR, SIGNAL, MODULE	MACRODYNE INC	3100	1212C	201
G078862	POWER SUPPLY	MACRODYNE INC	3000	1212C	201
G078863	POWER SUPPLY	MACRODYNE INC	3000	1212C	201
G078864	GENERATOR, WAVEFORM, MODULE	MACRODYNE INC	3005	1212C	201
1256008	COMPUTER, MINI	HEWLETT-PACKARD CO	HP9000/433	1212C	202
G079008	SCANNER/CONTROLLER	GENERAL SCANNING INC	CX6120	1212C	211
G079009	SCANNER/CONTROLLER	GENERAL SCANNING INC	CX6120	1212C	211
G079379	STAGE, TRANSLATION	KLINGER SCIENTIFIC CORP	TCB200.1000PP	1212C	LVLAB
G079380	STAGE, TRANSLATION	KLINGER SCIENTIFIC CORP	TCB200.1000PP	1212C	LAB
G079381	STAGE, TRANSLATION	KLINGER SCIENTIFIC CORP	TCB200.1000PP	1212C	LAB
G079382	STAGE, TRANSLATION	KLINGER SCIENTIFIC CORP	TCB200.1000PP	1212C	LAB
G079383	STAGE, TRANSLATION	KLINGER SCIENTIFIC CORP	TCB200.1000PP	1212C	LAB
G079384	STAGE, ROTATION	KLINGER SCIENTIFIC CORP	RT200	1212C	LVLAB
G079385	CONTROLLER, POSITIONER	KLINGER SCIENTIFIC CORP	MC4	1212C	LVLAB
G079386	AMPLIFIER, POWER	KLINGER SCIENTIFIC CORP	MD4	1212C	LVLAB
G079387	AMPLIFIER, POWER	KLINGER SCIENTIFIC CORP	MD4	1212C	LVLAB
G079388	CONTROLLER, SYNCHRONIZATION	KLINGER SCIENTIFIC CORP	SU2	1212C	LVLAB
G079389	CONTROLLER, SYNCHRONIZATION	KLINGER SCIENTIFIC CORP	SU2	1212C	LVLAB
G079598	WORKSTATION, GRAPHICS	HEWLETT-PACKARD CO	98735X	1212C	202
G079732	CONTROLLER, POSITIONER	NEWPORT/KLINGER FRMLY NEWPORT	860C2	1212C	LASLB
G079804	PUMP, WATER	PULSAFEEDER, INC.	90	1212C	LASER
0020143	FREQUENCY SHIFTER, LASER	TSI INC F-THERMO-SYSTEMS INC	9186A	1212C	LVLAB
0020487	ILLUMINATOR, LASER FIBER	NEWPORT/KLINGER FRMLY NEWPORT	FLF145	1212C	LASER
0020909	ROTATOR, POLARIZATION	TSI INC F-THERMO-SYSTEMS INC	9102-12	1212C	LVLAB
0020910	EXPANDER, LASER BEAM	TSI INC F-THERMO-SYSTEMS INC	9189	1212C	LVLAB
0020911	RECEIVER, OPTICAL	TSI INC F-THERMO-SYSTEMS INC	9140A	1212C	LVLAB
0020912	COUPLER, FIBER OPTICS	TSI INC F-THERMO-SYSTEMS INC	9271	1212C	LVLAB
0020913	COUPLER, FIBER OPTICS	TSI INC F-THERMO-SYSTEMS INC	9271	1212C	LVLAB
0020915	PHOTOMULTIPLIER	TSI INC F-THERMO-SYSTEMS INC	9162	1212G	LVLAB

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EXHIBIT A

<u>ECN</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Model No</u>	<u>Bldg</u>	<u>Room</u>
1089585	VOLTMETER, DIGITAL	HEWLETT-PACKARD CO	3455A	1232	.116A
0020916	POWER SUPPLY	TSI INC F-THERMO-SYSTEMS INC	9165	1212C	.211
0021260	ILLUMINATOR, LASER FIBER	NEWPORT/KLINGER FRMLY NEWPORT	F-LFI	1212C	LASER
0021661	STAGE, ROTATION	NEWPORT/KLINGER FRMLY NEWPORT	495	1212C	LASER
0052591	DOWNMIXER/SIGNAL SPLITTER	TSI INC F-THERMO-SYSTEMS INC	9186A	1212C	.211
0052592	BRAGG CELL	TSI INC F-THERMO-SYSTEMS INC	9182-3A	1212C	LVLAB
0053437	PRINTER, ADP	HEWLETT-PACKARD CO	2564B	1212C	.201
0053451	PLOTTER, GRAPHICS	HEWLETT-PACKARD CO	7550A	1212	.202
0053453	REPEATER, NETWORK	HEWLETT-PACKARD CO	28645A	1212C	.202
0053454	CABINET, EQUIPMENT	HEWLETT-PACKARD CO	29402C	1212C	.301
0053457	RECORDER, TAPE, DIGITAL	HEWLETT-PACKARD CO	7980A	1212C	.202
1158086	CARD CAGE	MACRODYNE INC	3030	1212C	.201
0061140	LASER, ARGON-ION	SPECTRA-PHYSICS	2030-15	1212C	LVLAB
0139159	PHOTOMULTIPLIER	TSI INC F-THERMO-SYSTEMS INC	9162	1212C	LVLAB
0139160	PHOTOMULTIPLIER	TSI INC F-THERMO-SYSTEMS INC	9162	1212C	LVLAB
0139161	POWER SUPPLY	TSI INC F-THERMO-SYSTEMS INC	9165	1212C	LVLAB
0139162	POWER SUPPLY	TSI INC F-THERMO-SYSTEMS INC	9165	1212C	.211
0464080	COUNTER, FREQUENCY	TSI INC F-THERMO-SYSTEMS INC	1094	1212	.124
0258418	CARD CAGE	MACRODYNE INDUSTRIES INC	3030-3	1212C	.201
0259418	CONTAINER, SHIPPING & STORAGE	ANVIL CASES INC SUB OF ZERO CO	NONE	1212	134A
0284572	LENS, LASER	RECON/OPTICAL INC PACIFIC	SK3539	1212C	LASER
0284770	GENERATOR, AEROSOL, PORTABLE	PACIFIC SCIENTIFIC CO	256MODIFIED	1212C	LVLAB
0411088	COUNTER, FREQUENCY	TSI INC F-THERMO-SYSTEMS INC	1094	1212C	.201
1259277	BREADBOARD, OPTICAL	NEWPORT/KLINGER FRMLY NEWPORT	XA48	1212C	LASER
0464082	COUNTER, FREQUENCY	TSI INC F-THERMO-SYSTEMS INC	1094	1212C	.201
0464084	GENERATOR, TIME CODE	DATUM INC F-PERIPHERAL	9310	1212C	.202
G076465	GENERATOR, TIME CODE	DATUM INC F-PERIPHERAL	9700	1212	134A
0533051	SIMULATOR, DOPPLER BURST	TSI INC F-THERMO-SYSTEMS INC	NONE	1212C	.201
0801942	COUPLER, FIBER, OPTICS	TSI INC F-THERMO-SYSTEMS INC	9271	1212C	LASER
0801946	COUPLER, FIBER, OPTICS	TSI INC F-THERMO-SYSTEMS INC	9271	1212C	LASER
0801947	COUPLER, FIBER, OPTICS	TSI INC F-THERMO-SYSTEMS INC	9271	1212C	LASER
0801948	COUPLER, FIBER, OPTICS	TSI INC F-THERMO-SYSTEMS INC	9271	1212C	LASER
0801949	COUPLER, FIBER, OPTICS	TSI INC F-THERMO-SYSTEMS INC	9271	1212C	LASER
0801950	COUPLER, FIBER, OPTICS	TSI INC F-THERMO-SYSTEMS INC	9271	1212C	LASER
1258209	COMPUTER, MINI	HEWLETT-PACKARD CO	A2273A	1212	134A
1258208	DISPLAY UNIT	HEWLETT-PACKARD CO	A1097C	1212	134A
0847203	FREQUENCY SHIFTER, LASER	TSI INC F-THERMO-SYSTEMS INC	9186A9180-3A	1212C	.211

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<u>ECN</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Model No</u>	<u>Bldg</u>	<u>Room</u>
108585	VOLTMETER, DIGITAL	HEWLETT-PACKARD CO	3455A	1232	116A
1083702	CHASSIS, DISK DRIVE	MOUNTAINGATE DATA SYSTEMS INC	MDB-DS2000SP0	1212	134A
1083703	DISK DRIVE UNIT	MOUNTAINGATE DATA SYSTEMS INC	MDB-DS2CAN-SC	1212	134A
1083704	DISK DRIVE UNIT	MOUNTAINGATE DATA SYSTEMS INC	MDB-DS2CAN-SC	1212	134A
1083708	DISPLAY UNIT	HEWLETT-PACKARD CO	98754A	1212C	202
1084107	CHASSIS, DISK DRIVE	MOUNTAINGATE DATA SYSTEMS INC	MDB-DS2000SP0	1212	134A
1084108	DISK DRIVE UNIT	MOUNTAINGATE DATA SYSTEMS INC	MDB-DS2CAN-SC	1212	134A
1084109	DISK DRIVE UNIT	MOUNTAINGATE DATA SYSTEMS INC	MDB-DS2CAN-SC	1212	134A
1084140	CHASSIS, DISK DRIVE	MOUNTAINGATE DATA SYSTEMS INC	MDB-DS2000SP0	1212C	202
1084141	CHASSIS, DISK DRIVE	MOUNTAINGATE DATA SYSTEMS INC	MDB-DS2CAN-SC	1212C	202
1084142	DISK DRIVE UNIT	MOUNTAINGATE DATA SYSTEMS INC	MDB-DS2CAN-SC	1212	134A
1084143	DISK DRIVE UNIT	MOUNTAINGATE DATA SYSTEMS INC	MDB-DS2CAN-SC	1212	134A
1084144	DISK DRIVE UNIT	MOUNTAINGATE DATA SYSTEMS INC	MDB-DS2CAN-SC	1212C	202
1084145	DISK DRIVE UNIT	MOUNTAINGATE DATA SYSTEMS INC	MDB-DS2CAN-SC	1212C	LAB
1084242	STAGE, TRANSLATION	KLINGER SCIENTIFIC CORP	TCB200.1000	1212C	LAB
1084243	STAGE, TRANSLATION	KLINGER SCIENTIFIC CORP	TCB200.1000	1212C	202
1085397	RECORDER, TAPE, ANALOG	HONEYWELL INC AEROSPACE DIV	97(16821992-001)	1212	134A
1085398	RECORDER, TAPE, ANALOG	HONEYWELL INC AEROSPACE DIV	97(16821992-001)	1212	134A
1085787	PROCESSOR, SIGNAL, GRAPHICS	ZONIC CORP	7000	1212C	202
1085788	PROCESSOR, SIGNAL, GRAPHICS	ZONIC CORP	7000	1212C	202
1085789	CABINET, EQUIPMENT	ZONIC CORP	A&D	1212	134A
1085790	PROCESSOR, SIGNAL, GRAPHICS	ZONIC CORP	7000	1212	134A
1085791	CABINET, EQUIPMENT	ZONIC CORP	A&D	1212	113
1086742	DISPLAY UNIT	HEWLETT-PACKARD CO	A1097A	1212	113
1086743	COMPUTER, MICRO	HEWLETT-PACKARD CO	C2708A	1212	134A
1086962	DISK DRIVE UNIT	MOUNTAINGATE DATA SYSTEMS INC	MDB-DS2CAN	1212C	202
1086963	DISK DRIVE UNIT	MOUNTAINGATE DATA SYSTEMS INC	MDB-DS2CAN	1212	134A
1086964	CHASSIS, DISK DRIVE	ANDATA CO	MDB-DS2000-0	1212C	202
1087470	CHASSIS, DISK DRIVE	MOUNTAINGATE DATA SYSTEMS INC	DS2000SP0	1212C	202
1087471	DISK DRIVE UNIT	MOUNTAINGATE DATA SYSTEMS INC	DS2CAN-P-SCSI	1212C	202
1087472	DISK DRIVE UNIT	MOUNTAINGATE DATA SYSTEMS INC	DS2CAN-P-SCSI	1212	134A
1087991	CHASSIS, DISK DRIVE	MOUNTAINGATE DATA SYSTEMS INC	MDB-DS2000SP0	1212	134A
1087992	CHASSIS, DISK DRIVE	MOUNTAINGATE DATA SYSTEMS INC	MDB-DS2000SP0	1212	134A
1087993	CHASSIS, DISK DRIVE	MOUNTAINGATE DATA SYSTEMS INC	MDB-DS2000SP0	1212	134A
1087994	DISK DRIVE UNIT	MOUNTAINGATE DATA SYSTEMS INC	SC1200	1212	134A
1087995	DISK DRIVE UNIT	MOUNTAINGATE DATA SYSTEMS INC	SC1200	1212	134A
1087996	DISK DRIVE UNIT	MOUNTAINGATE DATA SYSTEMS INC	SC1200	1212	134A

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<u>ECN</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Model No</u>	<u>Bldg</u>	<u>Room</u>
1089585	VOLTMETER, DIGITAL	HEWLETT-PACKARD CO	3455A	1232	116A
1087997	DISK DRIVE UNIT	MOUNTAINGATE DATA SYSTEMS INC	SC1200	1212	134A
1087998	DISK DRIVE UNIT	MOUNTAINGATE DATA SYSTEMS INC	SC1200	1212	134A
1087999	DISK DRIVE UNIT	MOUNTAINGATE DATA SYSTEMS INC	SC1200	1212	134A
1088631	CONTROLLER, PROGRAMMABLE	NEWPORT/KLINGER FRMLY NEWPORT	PMC100	1212C	LASER
1088806	PROCESSOR, SIGNAL, GRAPHICS	ZONIC CORP	7000	1212	134A
1089567	ROTATOR, POLARIZATION	TSI INC F-THERMO-SYSTEMS INC	9102-13	1212C	LVLAB
1091574	TABLE, RAIL	PARKER-HANNIFIN CORP MOTION AN	5061151S-LN-N34	1212C	210
0801307	ILLUMINATOR, LASER FIBER	NEWPORT/KLINGER FRMLY NEWPORT	F-LFI	1212C	LVLAB
1089456	COMPUTER, MINI	HEWLETT-PACKARD CO	A1962A	1212	134A
1089457	DISPLAY UNIT	HEWLETT-PACKARD CO	A1097A	1212	134A
1092580	PRINTER, ADP	QMS INC	PS815	1212C	202
0801354	RECEIVER, OPTICAL	TSI INC F-THERMO-SYSTEMS INC	9140A	1212C	211
0801355	RECEIVER, OPTICAL	TSI INC F-THERMO-SYSTEMS INC	9140A	1212C	LVLAB
0801376	ROTATOR, POLARIZATION	SPECTRA-PHYSICS	310A	1212C	LVLAB
1259451	DISK DRIVE UNIT	HEWLETT-PACKARD CO	C2217T	1212	134A
G074075	COMPUTER, MICRO	APPLE COMPUTER INC	M5780	1148T	1
0062189	DISPLAY UNIT	APPLE COMPUTER INC	M0401	1148T	001
0062194	PRINTER, ADP	APPLE COMPUTER INC	M6000	1148T	001
0062197	DISK DRIVE UNIT	APPLE COMPUTER INC	A9M0110	1148T	1
1157404	COMPUTER, MICRO	APPLE COMPUTER INC	M5870	1298	151
1257624	DISPLAY UNIT	RADIUS INC	0350	1298	151
1157985	PRINTER, ADP	QMS INC	PS860	1220	241
0062154	DISK DRIVE UNIT	ARTECON INC	DSU1-600B	1220	241
1090128	COMPUTER, MICRO	SUN MICROSYSTEMS INC	147B	1220	240
1090129	COMPUTER, MICRO	SUN MICROSYSTEMS INC	147B	1220	240
1093446	COMPUTER, MINI	SUN MICROSYSTEMS INC	147B	1220	241
0802375	DISK DRIVE UNIT	SEAGATE	ST4210N/ND	1220	240
0846695	TAPE/DISK DRIVE UNIT	PARITY SYSTEMS INC	PS5013-60	1220	241
0846943	DISPLAY UNIT	PHILIPS ELECTRONICS LTD	M3/60	1220	240
0846989	DISPLAY UNIT	SONY CORP	RS423	1220	241
1093445	DISK DRIVE UNIT	SUN MICROSYSTEMS INC	411	1220	240
1089661	DISK DRIVE UNIT	COMPUTER SYSTEMS TECHNOLOGY	CST1600HT4JMR-SC	1220	241
1159016	COMPUTER, MINI	SILICON GRAPHICS INC	CMNB001	1244	115
1091088	COMPUTER, MINI	SUN MICROSYSTEMS INC	47B	1220	241
1091089	DISPLAY UNIT	SUN MICROSYSTEMS INC	GDM1662B	1220	241
1092046	DISPLAY UNIT	SUN MICROSYSTEMS INC	M19P114	1220	241

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<u>ECN</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Model No</u>	<u>Bldg</u>	<u>Room</u>
1089585	VOLTMETER, DIGITAL	HEWLETT-PACKARD CO	3455A	1232	116A
1155685	DISK DRIVE UNIT	SUN MICROSYSTEMS INC	411	1220	241
0801438	TRANSPORT, MAGNETIC TAPE	JMR ELECTRONICS INC	MZF002	1220	241
1155914	DISPLAY UNIT	KNIGHT COMPUTER SYSTEMS	MEDIAPRO	1220	241
1157156	COMPUTER, MICRO	SUN MICROSYSTEMS INC	47B	1220	228
1157158	COMPUTER, MICRO	SUN MICROSYSTEMS INC	47B	1220	241
1157155	DISPLAY UNIT	SUN MICROSYSTEMS INC	GDM1962B	1220	228
1157838	DISPLAY UNIT	SUN MICROSYSTEMS INC	GDM1962B	1220	241
1159017	DISPLAY UNIT	SILICON GRAPHICS INC	HL7965KWSG	1244	115
G076430	COMPUTER, MICRO	APPLE COMPUTER INC	M5525IIFX	1168	103
1091412	DISPLAY UNIT	NEC INFORMATION SYSTEMS INC	JC1531VMA	1168	103
0221413	COMPUTER, MICRO	INTERNATIONAL BUSINESS MACHINE	5170-068	1208	109
1422577	DISPLAY UNIT	VIEW SONIC	1782-2	1208	109
0549630	TERMINAL, DATA PROCESSING	DIGITAL EQUIPMENT CORP	VT240A	1208	227
0053000	BALANCE, ANALYTICAL	METTLER INSTRUMENT CORP	AE240S	1293C	148
0284458	MICROSCOPE, INFRARED	NICOLET INSTRUMENT CORP	0036-005	1293C	148
0419456	SPECTROMETER	VARIAN ASSOC INSTRUMENT DIV	EM360A	1293C	148
0419458	PRESS, PELLET	CARVER FRED S INC	21005-43	1293A	148
0419926	BEAM CONDENSER	NICOLET INSTRUMENT CORP	BC7000	1293C	268
1426273	COMPUTER, MICRO	DELL COMPUTER CORP F-PC'S LTD	DPS	1293T	04
1426274	DISPLAY UNIT	DELL COMPUTER CORP F-PC'S LTD	D1526T-HS	1293T	04
0020070	AMPLIFIER, WIDE BAND	STAVELEY INSTR F-NORTEC CORP	MR106	1230B	192
0220156	COMPUTER, MICRO	INTERNATIONAL BUSINESS MACHINE	5170	1230B	296
0220157	DISK DRIVE UNIT	IOMEGA	A210H	1230B	296
0220158	OSCILLOSCOPE, STORAGE	DATA PRECISION CORP	6000	1230B	296
0220162	PLUG-IN, CONTROLLER, OSCOPE	DATA PRECISION CORP	620	1230B	296
0803545	DISK DRIVE UNIT	IOMEGA	B1150TM	1230B	296
0801875	MODEM, COMMUNICATIONS	HAYES MICROCOMPUTER PRODUCTS	5110AM	1230B	296
1084185	COMPUTER, MICRO	APPLE COMPUTER INC	M5526	1230B	296
1084233	DISPLAY UNIT	E-MACHINES INC	T16	1230B	296
1084537	OSCILLOSCOPE	LECROY CORP	9410	1230B	296
0802924	MOTOR, STEPPER	PARKER-HANNIFIN CORP COMPUMOTO	S57-102MO	1230B	296
1157839	CONTROLLER, ENCODER MIKE	ORIEL CORP F-ORIEL OPTICAL	18094	1230B	296
0802925	MOTOR, STEPPER	PARKER-HANNIFIN CORP COMPUMOTO	S57-102MO	1230B	296
0846102	CAMERA, TELEVISION	ELMO MFG CORP	EM102	1299	214
G073607	RACK, AMPLIFIER	DYNAMICS ELECTRONIC PRODUCTS	7914AR/VX2	1221B	122
1259323	COMPUTER, MICRO	INDUSTRIAL COMPUTER SOURCE F-	7415-23V	1221B	122

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<u>ECN</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Model No</u>	<u>Bldg</u>	<u>Room</u>
1089585	VOLTMETER, DIGITAL	HEWLETT-PACKARD CO	3455A	1232	116A
G073656	COMPUTER, MICRO	PC BRAND INC	286/12	1208	117A
1259324	MONITOR, TELEVISION	INDUSTRIAL COMPUTER SOURCE F-	9001R	1221B	122
G074388	PRINTER, ADP	NEC INFORMATION SYSTEMS INC	LC08LC890	1221B	122
G077311	CONTROLLER, INPUT/OUTPUT	IOTECH	488	1287	100
G079424	MULTIPLIER, MICROPHONE	BRUEL AND KJAER INSTRUMENTS	2811A	1287	100
G079425	CALIBRATOR, MICROPHONE	BRUEL AND KJAER INSTRUMENTS	4228	1221B	122
0019618	MULTIMETER, DIGITAL	TEKTRONIX INC	DM5010	1287	100
0019619	OSCILLOSCOPE, MODULAR	TEKTRONIX INC	SC502	1287	100
0019961	SCANNER, PROGRAMMABLE	TEKTRONIX INC	SI5010	1287	100
0020594	TRANSCEIVER, RADIO	MOTOROLA INC AUTOMOTIVE PROD	H335PU3120AN	1287	100
0020595	TRANSCEIVER, RADIO	MOTOROLA INC AUTOMOTIVE PROD	H335PU3120AN	1287	100
0020596	TRANSCEIVER, RADIO	MOTOROLA INC AUTOMOTIVE PROD	H335PU3120AN	1287	100
0020755	AMPLIFIER, DC, DIFFERENTIAL	DYNAMICS ELECTRONIC PRODUCTS	7600A21-00-23-1	1221B	122
0020756	AMPLIFIER, DC, DIFFERENTIAL	DYNAMICS ELECTRONIC PRODUCTS	7600A21-00-23-1	1221B	122
0020757	AMPLIFIER, DC, DIFFERENTIAL	DYNAMICS ELECTRONIC PRODUCTS	7600A21-00-23-1	1221B	122
0020758	AMPLIFIER, DC, DIFFERENTIAL	DYNAMICS ELECTRONIC PRODUCTS	7600A21-00-23-1	1221B	122
0020759	AMPLIFIER, DC, DIFFERENTIAL	DYNAMICS ELECTRONIC PRODUCTS	7600A21-00-23-1	1221B	122
0020760	AMPLIFIER, DC, DIFFERENTIAL	DYNAMICS ELECTRONIC PRODUCTS	7600A21-00-23-1	1221B	122
0020761	AMPLIFIER, DC, DIFFERENTIAL	DYNAMICS ELECTRONIC PRODUCTS	7600A21-00-23-1	1221B	122
0020762	AMPLIFIER, DC, DIFFERENTIAL	DYNAMICS ELECTRONIC PRODUCTS	7600A21-00-23-1	1221B	122
0020763	AMPLIFIER, DC, DIFFERENTIAL	DYNAMICS ELECTRONIC PRODUCTS	7600A21-00-23-1	1221B	122
0020764	AMPLIFIER, DC, DIFFERENTIAL	DYNAMICS ELECTRONIC PRODUCTS	7600A21-00-23-1	1221B	122
0021261	GENERATOR, WAVEFORM	TEKTRONIX INC	AFG5101	1287	100
0052621	SYSTEM, DATA ACQUISITION	PRECISION FILTERS INC	MF32-001	1287	100
0054591	CLOCK, DIGITAL	TRUE TIME INC FRMLY KINEMETRIC	468DC	1287	100
0054835	SYNTHESIZER, FREQUENCY	HEWLETT-PACKARD CO	3325A	1221B	122
0055589	FILTER, BAND PASS	WAVETEK ROCKLAND CP F-ROCKLAND	432	1287	100
0055590	FILTER, BAND PASS	WAVETEK ROCKLAND CP F-ROCKLAND	432	1287	100
0060437	COMPUTER, MINI	DIGITAL EQUIPMENT CORP	VS31V-C2	1287	100
0061142	PRINTER, ADP	DIGITAL EQUIPMENT CORP	LA50RA	1221B	122
0061151	TERMINAL, DATA PROCESSING	DIGITAL EQUIPMENT CORP	VT220A	1221B	122
0061152	TERMINAL, DATA PROCESSING	DIGITAL EQUIPMENT CORP	VT220A	1287	100
0062128	MULTIMETER, DIGITAL	FLUKE JOHN MFG CO INC	77	1287	100
0062129	MULTIMETER, DIGITAL	FLUKE JOHN MFG CO INC	77	1208	117A
0137930	DISPLAY UNIT	NEC INFORMATION SYSTEMS INC	JC1401P3A	1287	100
0138523	TABLET, GRAPHICS	SUMMAGRAPHS CORP	1103	1287	100

EXHIBIT A

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<u>ECN</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Model No</u>	<u>Bldg</u>	<u>Room</u>
1089585	VOLTMETER, DIGITAL	HEWLETT-PACKARD CO	3455A	1232	.116A
0138752	COMPUTER, MICRO	CLUB AMERICAN TECHNOLOGIES INC	1800	1287	.100
0141957	PLUG-IN, RECORDER, TRANSIENT	PACIFIC INSTR F-PACIFIC PHOTO	9834	1221B	122
0141958	PLUG-IN, RECORDER, TRANSIENT	PACIFIC INSTR F-PACIFIC PHOTO	9834	1221B	122
0141959	PLUG-IN, RECORDER, TRANSIENT	PACIFIC INSTR F-PACIFIC PHOTO	9834	1221B	122
0141960	PLUG-IN, RECORDER, TRANSIENT	PACIFIC INSTR F-PACIFIC PHOTO	9834	1221B	122
0141961	PLUG-IN, RECORDER, TRANSIENT	PACIFIC INSTR F-PACIFIC PHOTO	9834	1221B	122
0141962	PLUG-IN, RECORDER, TRANSIENT	PACIFIC INSTR F-PACIFIC PHOTO	9834	1221B	122
0141963	PLUG-IN, RECORDER, TRANSIENT	PACIFIC INSTR F-PACIFIC PHOTO	9834	1221B	122
0141964	PLUG-IN, RECORDER, TRANSIENT	PACIFIC INSTR F-PACIFIC PHOTO	9834	1221B	122
0141965	PLUG-IN, RECORDER, TRANSIENT	PACIFIC INSTR F-PACIFIC PHOTO	9834	1221B	122
0141966	PLUG-IN, RECORDER, TRANSIENT	PACIFIC INSTR F-PACIFIC PHOTO	9834	1221B	122
0141967	POWER SUPPLY, SPECIAL PURPOSE	PACIFIC INSTR F-PACIFIC PHOTO	R90-020MC1	1221B	122
0142185	POWER SUPPLY, SPECIAL PURPOSE	TEKTRONIX INC	TM5006	1221B	122
0142701	EXPANSION BOX	DIGITAL EQUIPMENT CORP	BA23A	1287	
0142706	COMPUTER, MINI	DIGITAL EQUIPMENT CORP	VS21V-L2	1287	
1159476	ANALYZER, WAVEFORM	BAKKER ELECTRONICS	2570	1221B	122
0221891	OSCILLOSCOPE, MONITOR	DATA CHECK CORP	1200B(R)	1221B	122
0258803	PLOTTER, GRAPHICS	HEWLETT-PACKARD CO	7470A	1287	.100
0280207	OSCILLOSCOPE, MONITOR	DATA CHECK CORP	1200B(R)	1221B	122
0801512	SCANNER, PRESSURE, HAND HELD	PRESSURE SYSTEMS INC	M9100	1287	.100
0404126	GENERATOR, TIME CODE	DATUM INC F-PERIPHERAL	9150-439	1287	.100
1425765	PREAMPLIFIER	BRUEL AND KJAER INSTRUMENTS	2633	1287	
1425766	PREAMPLIFIER	BRUEL AND KJAER INSTRUMENTS	2633	1287	
0430590	ACTUATOR, ROD, BALL BEARING	SMITH L C CO	BBR12SME	1287	.100
1425767	PREAMPLIFIER	BRUEL AND KJAER INSTRUMENTS	2633	1287	
1425768	PREAMPLIFIER	BRUEL AND KJAER INSTRUMENTS	2633	1287	
0469122	COUNTER, FREQUENCY	HEWLETT-PACKARD CO	5512A	1287	.100
0470088	OSCILLOSCOPE, DUAL TRACE	TEKTRONIX INC	T922T922R	1287	.100
0527543	SIGNAL CONDITIONING SYSTEM	METRAPLEX CORP	381MODIFIED	1221B	122
0527544	SIGNAL CONDITIONING SYSTEM	METRAPLEX CORP	381MODIFIED	1287	.100
0527546	SIGNAL CONDITIONING SYSTEM	METRAPLEX CORP	381MODIFIED	1287	.100
0529737	ANEMOMETER	TSI INC F-THERMO-SYSTEMS INC	1054B63MODIFIED	1221B	122
1260410	RECORDER-REPRODUCER SET, SOUND	RACAL COMMUNICATIONS INC	VL2401	1287	.100
0791070	COUNTER, FREQUENCY	TEKTRONIX INC	DC503A	1287	.100
0846088	PRINTER, ADP	INTERNATIONAL BUSINESS MACHINE	4201-002	1287	.100
0846160	COMPUTER, MICRO	DELL COMPUTER CORP F-PC'S LTD	200	1287	.100

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<u>ECN</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Model No</u>	<u>Bldg</u>	<u>Room</u>
1089585	VOLTMETER, DIGITAL	HEWLETT-PACKARD CO	3455A	1232	116A
0846161	DISPLAY UNIT	DELL COMPUTER CORP F-PC'S LTD	VC2	1287	100
0846233	PRINTER, ADP	NEC INFORMATION SYSTEMS INC	LC890LC08	1287	100
0846453	PRINTER, ADP	INTERNATIONAL BUSINESS MACHINE	4201-002	1287	100
0846799	OSCILLOSCOPE	HITACHI MFG CO	VC6025	1221B	122
0848603	SYSTEM, DATA RECORDING	FLUKE JOHN MFG CO INC	2289A	1287	100
0848863	COMPUTER, MICRO	PC BRAND INC	PCI286/12006	1221B	122
0849539	CABINET, FILE, SECURITY	MOSLER SAFE CO	7110 01 029 8059	1208A	STOR
1083679	CONTROLLER, PRESSURE	PRESSURE SYSTEMS INC	8400SP	1287	100
1083680	CALIBRATOR, PRESSURE	PRESSURE SYSTEMS INC	8432-45	1287	100
1089835	INTERFACE, SCANNER	PRESSURE SYSTEMS INC	8415	1287	100
1083682	DIGITIZER, SCANNER	PRESSURE SYSTEMS INC	8420	1287	100
1088043	SYNTHESIZER	HEWLETT-PACKARD CO	8904A	1287	100
1257697	DISPLAY UNIT	RADIUS INC	0381	1208	117A
1093019	COMPUTER, MICRO	GATEWAY 2000	486DX33	1287	100
1093016	DISPLAY UNIT	GATEWAY 2000	PMV1448	1287	100
1156046	DISK DRIVE UNIT	TOTAL TEC SYSTEMS INC	H212D	1208	306
1156157	CONTROLLER, INPUT/OUTPUT	IOTECH	488/80A	1287	100
1157271	DISPLAY UNIT	SONY CORP	GDM1961	1208	306
1158042	CALIBRATOR, PRESSURE	PRESSURE SYSTEMS INC	8400PCU	1287	100
1255447	COMPUTER, MICRO	DIGITAL EQUIPMENT CORP	PE50A-A9	1208	306
1256679	GAGE, PRESSURE, DIGITAL	RUSKA INSTRUMENT CORP	6220	1287	100
1257695	COMPUTER, MICRO	APPLE COMPUTER INC	M9020	1208	117A
0398720	CONTAINER, STORAGE	MITSUBISHI ELECTRIC CORP	NONE	1299	YARD
0398721	CONTAINER, STORAGE	MITSUBISHI ELECTRIC CORP	NONE	1299	YARD
0398723	CONTAINER, STORAGE	MITSUBISHI ELECTRIC CORP	NONE	1299	YARD
0398724	CONTAINER, STORAGE	MITSUBISHI ELECTRIC CORP	NONE	1299	YARD
1159609	DISPLAY UNIT	SONY CORP	M1212	1208	139
0465106	TERMINAL, DATA PROCESSING	DIGITAL EQUIPMENT CORP	VT180	1208	227
0846492	COMPUTER, MICRO	APPLE COMPUTER INC	M5650	1208	139
1091527	COMPUTER, MINI	DIGITAL EQUIPMENT CORP	WS42A-BH	1208	139
1159874	TRANSPORT, MAGNETIC TAPE	WANGDAT TECHNOLOGY INC	1300	1208	139
G076183	EXPANDER, INPUT/OUTPUT	HEWLETT-PACKARD CO	98570A	1212	141
G076295	DISPLAY UNIT	HEWLETT-PACKARD CO	98788A	1212	141
0055139	GENERATOR, AEROSOL, PORTABLE	PACIFIC SCIENTIFIC CO	256	1212	141
0055901	POWER METER, LASER	NEWPORT/KLINGER FRMLY NEWPORT	CT210	1212C	LAB
0058414	LASER, ARGON-ION	COHERENT INC COMPONENTS GROUP	INNOVA90	1212	141

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1089585	VOLTMETER, DIGITAL	HEWLETT-PACKARD CO	3455A	1232	116A
0058417	POWER SUPPLY, LASER	COHERENT INC COMPONENTS GROUP	INNOVA90-6	1212	141
0058733	SCANNER/CONTROLLER	GENERAL SCANNING INC	CX6120	1212	141
0058734	SCANNER/CONTROLLER	GENERAL SCANNING INC	CX6120	1212	141
1084882	POWER METER, LASER	COHERENT COMPONENT CORP	212	1212C	LAB
1089894	FREQUENCY SHIFTER, LASER	TSI INC F-THERMO-SYSTEMS INC	9186A	1212	141
1089895	FREQUENCY SHIFTER, LASER	TSI INC F-THERMO-SYSTEMS INC	9186A	1212	141
1089896	FREQUENCY SHIFTER, LASER	TSI INC F-THERMO-SYSTEMS INC	9186A	1212	141
1089897	AMPLIFIER, DIFFERENTIAL	PACIFIC INSTR F-PACIFIC PHOTO	60A4	1212	141
1089898	AMPLIFIER	ENI POWER SYSTEMS INC	403LA	1212	141
1089899	AMPLIFIER	ENI POWER SYSTEMS INC	403LA	1212	141
1089900	AMPLIFIER	ENI POWER SYSTEMS INC	403LA	1212	141
1089901	SYSTEM, DATA ACQUISITION	COMPLERE INC	LVDAS	1212	141
1089902	CONTROLLER, TRAVERSE	COMPLERE INC	TCS8	1212	141
1089904	DRIVER, TRAVERSE	COMPLERE INC	NONE	1212	141
1089905	DRIVER, TRAVERSE	COMPLERE INC	NONE	1212	141
1089906	ANOMETER, LASER FLUORESCENCE	COMPLERE INC	NONE	1212	141
1089907	TABLE, OPTICAL	NEWPORT/KLINGER FRMLY NEWPORT	CS23-4	1212	141
1089908	TABLE, OPTICAL	NEWPORT/KLINGER FRMLY NEWPORT	MST48-8	1212	141
0057714	COMPUTER, MICRO	HEWLETT-PACKARD CO	98562X98580S	1212	141
0057745	DISK DRIVE UNIT	HEWLETT-PACKARD CO	9153C	1212	141
0057669	PRINTER, ADP	HEWLETT-PACKARD CO	3630A	1212	141
1089290	DISPLAY UNIT	E-MACHINES INC	T16	647	103
1156635	COMPUTER, MICRO	APPLE COMPUTER INC	M5920	648	
G079046	COMPUTER, MICRO	GATEWAY 2000	AM424E386	1168	126
G079047	DISPLAY UNIT	GATEWAY 2000	PMV14VC PLUS	1168	126
0140666	PRINTER, ADP	EPSON AMERICA INC	P82AA(FX86E)	1168	126
0803179	MODEM, COMMUNICATIONS	PRACTICAL PERIPHERALS INC	PM14400FXMT	1168	126
0431630	CALCULATOR, ELECTRONIC	HEWLETT-PACKARD CO	HP55	1168	126
1091181	COMPUTER, MICRO	GATEWAY 2000	B922512AM	1168	126
1091182	DISPLAY UNIT	GATEWAY 2000	PMV1448	1168	126
0035488	RECORDER, CASSETTE, VIDEO	JVC CO OF AMERICA	BR-S800U	1299	114
0056460	SHIELD, X-RAY	ENRAF-NONIUS (DISCONTINUED)	1598-491	1202	106
0220465	RECORDER, CHART, STRIP	SOLTEC CORP	3314MF	1202	106
0283421	MICROSCOPE	NIKON INC	SMZ10	1202	106A
0283422	TRINOCULAR HEAD	NIKON INC	SNZ10	1202	106A
0404609	INTENSIFIER, IMAGE	BRIMROSE CORP OF AMERICA	PIXI	1202	106

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1089585	VOLTMETER, DIGITAL	HEWLETT-PACKARD CO	3455A	1232	116A
0473434	POLISHING MACHINE, CHEMICAL	SOUTH BAY TECHNOLOGY INC	460	1202	CONX1
0473439	DICING MACHINE	SOUTH BAY TECHNOLOGY INC	850	1202	106C
0473466	POLISHING MACHINE	GEOS CORP THE	UNIPOL-PA104	1202	106
0473467	SPECTROMETER, X-RAY	GENERAL ELEC CO SUPPLY CO	XRD6	1202	106
0527910	MICROSCOPE	UNITRON INSTRUMENTS INC	TMS	1202	106A
0527911	CONTROLLER, TEMPERATURE	LEEDS AND NORTHRUP CO	10877-3T000	1202	106
0527912	VOLTMETER, RATIONMETER, DIGITAL	LEAR SIEGLER ELECTR INSTR DIV	P9500B	1202	106
0527914	CONVERTER, AC & OHMS TO DC	LEAR SIEGLER ELECTR INSTR DIV	6812B	1202	106
0527915	ELECTROMAGNET	VARIAN ASSOC MICROWAVE DIV	V4005	1202	106
0527916	FLUXMETER	BELL F W INC	811AB	1202	106
0527917	CRYOCOOLER SYSTEM	AIR PRODUCTS AND CHEMICALS INC	20-1352E	1202	106
0528075	MICROSCOPE SYSTEM	ZEISS CARL INC	ULTRADHUT II	1202	106A
0528086	PROFILE MEASURING SCANNER	SLOAN TECHNOLOGY CP F-SLOAN	138-000	1202	106A
0528088	RECORDER, CHART, STRIP	SLOAN TECHNOLOGY CP F-SLOAN	KIK10	1202	106A
0530683	CAMERA, X-RAY	UNKNOWN (VERIFIED)	NONE	1202	106
0531063	SURVEY METER	VICTOREEN INC NUCLEAR ASSOC	440	1202	106
0533523	RECORDER, TAPE, VIDEO	RCA CORP GVMT & COMMERCIAL SYS	UKT700	1299	114
0533524	CAMERA, TELEVISION	RCA CORP GVMT & COMMERCIAL SYS	CKC031	1202	106A
0533525	MONITOR, TELEVISION	RCA CORP GVMT & COMMERCIAL SYS	EKR360	1202	106
0848800	MONITOR, TELEVISION	SONY CORP	PVM1341	1299	114
0140557	PRINTER, ADP	DIGITAL EQUIPMENT CORP	LN0SS-AA	1208A	111
0142700	DISPLAY UNIT	DIGITAL EQUIPMENT CORP	VR260AA	1208A	111
0471277	READER, TIME CODE	SYSTRON-DONNER CORP	8130-203	1208A	111
0791057	RECORDER, TAPE, DIGITAL	EMULEX CORP	92185	1208	227
0847993	DISPLAY UNIT	APPLE COMPUTER INC	M0401	647	211
0847994	COMPUTER, MICRO	APPLE COMPUTER INC	M5000	647	211
1088518	DISPLAY UNIT	SUN MICROSYSTEMS INC	GDM1962B	647	103
1088519	COMPUTER, MICRO	SUN MICROSYSTEMS INC	147B	647	103
1088520	TRANSPORT, MAGNETIC TAPE	SUN MICROSYSTEMS INC	411	647	103
1155648	TRANSPORT, MAGNETIC TAPE	TOTAL TEC SYSTEMS INC	D5PE113	647	103
1259187	DISK DRIVE UNIT	ANDATACO	X165S51AX2S5X	647	103
1262543	DISK DRIVE UNIT	ANDATACO	X240S32D32S5X	647	103
1258369	COMPUTER, MICRO	SUN MICROSYSTEMS INC	144	1299	232
1427825	DISPLAY UNIT	SUN MICROSYSTEMS INC	GDM20D10	1299	234
1258538	DISK DRIVE UNIT	DYNAMIC COMPUTER PRODUCTS	NONE (VERIFIED)	1299	232
1258653	DISK DRIVE UNIT	MAXOPTIX CORP	711	1299	232

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1089585	VOLTMETER, DIGITAL	HEWLETT-PACKARD CO	3455A	1232	116A
G079160	EXPANDER, CONTROLLER, PRESSURE	PRESSURE SYSTEMS INC	8400LS	1251	142
G079161	DIGITIZER, SCANNER	PRESSURE SYSTEMS INC	8425	1251	126A
G079162	DIGITIZER, SCANNER	PRESSURE SYSTEMS INC	8425	1251	126A
G079163	DIGITIZER, SCANNER	PRESSURE SYSTEMS INC	8425	1251	126E
G079164	CALIBRATOR, PRESSURE	PRESSURE SYSTEMS INC	8432-15	1251	144
G079165	CALIBRATOR, PRESSURE	PRESSURE SYSTEMS INC	8432-15	1251	142
G079166	CALIBRATOR, PRESSURE	PRESSURE SYSTEMS INC	8432-15	1251	126E
G079167	CALIBRATOR, PRESSURE	PRESSURE SYSTEMS INC	8432-15	1251	126F
G079168	CALIBRATOR, PRESSURE	PRESSURE SYSTEMS INC	8432-30	1251	144
G079169	CALIBRATOR, PRESSURE	PRESSURE SYSTEMS INC	8432-30	1251	126E
1090076	INTERFACE, SCANNER	PRESSURE SYSTEMS INC	8415	1251	126E
1090077	INTERFACE, SCANNER	PRESSURE SYSTEMS INC	8415	1251	126E
1090078	INTERFACE, SCANNER	PRESSURE SYSTEMS INC	8415	1251	126D
G079174	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-1	1251	144
G079175	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-1	1251	144
G079176	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-1	1251	144
G079177	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-1	1251	142
G079178	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-1	1251	142
G079179	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-1	1251	142
G079180	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-5	1251	126E
G079181	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-5	1251	142
G079182	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-5	1251	144
G079183	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-5	1251	144
G079184	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-5	1251	126E
G079185	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-5	1251	126E
G079186	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-5	1251	142
G079187	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-5	1251	142
G079188	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-5	1251	144
G079189	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-5	1251	142
G079190	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-5	1251	126E
G079191	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-5	1251	142
G079192	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-5	1251	142
G079193	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-5	1251	144
G079194	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-5	1251	144
G079195	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-5	1251	142
G079196	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-15	1251	144

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1089585	VOLTMETER, DIGITAL	HEWLETT-PACKARD CO	3455A	1232	116A
G079197	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-15	1251	144
G079198	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-15	1251	144
G079199	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-15	1251	144
G079200	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-15	1251	144
G079201	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-15	1251	126
G079202	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-15	1251	142
G079203	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-15	1251	142
G079204	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-15	1251	142
G079205	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-15	1251	142
G079206	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-15	1251	142
G079207	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-15	1251	142
G079208	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-15	1251	144
G079209	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-15	1251	144
G079210	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-30	1251	144
G079211	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-30	1251	144
G079212	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-30	1251	142
G079213	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-30	1251	142
G079216	RACK, PRESSURE SCANNER	PRESSURE SYSTEMS INC	S3200RK50	1251	144
G079217	RACK, PRESSURE SCANNER	PRESSURE SYSTEMS INC	S3200RK50	1251	144
G079218	RACK, PRESSURE SCANNER	PRESSURE SYSTEMS INC	S3200RK50	1251	144
G079438	RACK, PRESSURE SCANNER	PRESSURE SYSTEMS INC	S3200RK	1251	142
G079439	RACK, PRESSURE SCANNER	PRESSURE SYSTEMS INC	S3200RK	1251	142
G079440	RACK, PRESSURE SCANNER	PRESSURE SYSTEMS INC	S3200RK	1251	142
G079447	CONTROLLER, PRESSURE	PRESSURE SYSTEMS INC	8400SP	1251	126A
G079448	CONTROLLER, PRESSURE, REMOTE	PRESSURE SYSTEMS INC	8400RP	1251	142
G079449	EXPANDER, CONTROLLER, PRESSURE	PRESSURE SYSTEMS INC	8400LS	1251	144
G079606	FILM MAGAZINE	HASSELBLAD A B VICTOR	DE32(70/70D)	1251	107
G079706	RECORDER, CASSETTE, VIDEO	AVEC ELECTRONICS CORP	AG7300	1254	126A
G079710	RECORDER, CASSETTE, VIDEO	AVEC ELECTRONICS CORP	AG7300	1251	126A
G079757	MONITOR, TELEVISION	MATSUSHITA ELEC INDUS CO	BT-S702N	1251	248
0020234	MONITOR, TELEVISION, COLOR	MATSUSHITA ELEC INDUS CO	BT-S702N	1251	142
0020237	CAMERA, TELEVISION	SONY CORP	SSC-D5	1251	126
0020238	CAMERA, TELEVISION	SONY CORP	SSC-D5	1251	126
0020241	CAMERA, TELEVISION	SONY CORP	DXC101	1251	126
0020242	CAMERA, TELEVISION	SONY CORP	DXC101	1251	126
0020289	MONITOR, TELEVISION	MATSUSHITA ELEC INDUS CO	WV5203B	1251	126

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1089585	VOLTMETER, DIGITAL	HEWLETT-PACKARD CO	3455A	1232	116A
0020474	CAMERA, TELEVISION	SONY CORP	DXC101	1251	142
0020475	CAMERA, TELEVISION	SONY CORP	DXC101	1251	144
0020476	CAMERA, TELEVISION	SONY CORP	DXC101	1251	126
0020477	CAMERA, TELEVISION	SONY CORP	DXC101	1251	126
0020956	LENS, CAMERA, STILL PICTURE	HASSELBLAD A B VICTOR	20046	1251	126E
0020957	LENS, CAMERA, STILL PICTURE	HASSELBLAD A B VICTOR	20046	1251	126E
0020958	LENS, CAMERA, STILL PICTURE	HASSELBLAD A B VICTOR	20029	1251	126E
0020959	LENS, CAMERA, STILL PICTURE	HASSELBLAD A B VICTOR	20029	1251	126E
0020960	LENS, CAMERA, STILL PICTURE	HASSELBLAD A B VICTOR	20061	1251	126E
0021228	READOUT, DIGITAL, PRESSURE ESP	PRESSURE SYSTEMS INC	8470	1251	144
0021229	READOUT, DIGITAL, PRESSURE ESP	PRESSURE SYSTEMS INC	8470	1251	144
0058169	RECORDER, CASSETTE, VIDEO	MATSUSHITA ELEC INDUS CO	AG7300	1251	142
0058170	RECEIVING SET, TELEVISION	MATSUSHITA ELEC INDUS CO	CT2580VY	1251	142
0058182	RECORDER, CASSETTE, VIDEO	MATSUSHITA ELEC INDUS CO	AG7500P	1251	142
0141565	RACK, PRESSURE SCANNER	PRESSURE SYSTEMS INC	S3200RK	1251	142
0141568	GAGE, PRESSURE RESISTANCE	PRESSURE SYSTEMS INC	S3200-1	1251	122
0465607	CALCULATOR, ELECTRONIC	HEWLETT-PACKARD CO	HP67	1251	126A
1084110	POWER METER, LASER/VAPOR	OPHIR	30A-AN	1251	144
1084111	POWER METER, LASER/VAPOR	OPHIR	30A-AN	1251	126E
1084404	CONTROLLER, VACUUM	VARIAN ASSOC MICROWAVE DIV	BIACAQZ	1251	142
1084405	VACUUM PUMP, TURBO	VARIAN ASSOC MICROWAVE DIV	SD90	1251	142
1084596	CONTROLLER, VACUUM	VARIAN ASSOC MICROWAVE DIV	BIACAQZ	1251	144
1159082	CONTROLLER, VACUUM	VARIAN ASSOC MICROWAVE DIV	BIACAQZ	1251	144
1084598	CONTROLLER, VACUUM	VARIAN ASSOC MICROWAVE DIV	BIACAQZ	1251	142
1084599	CONTROLLER, VACUUM	VARIAN ASSOC MICROWAVE DIV	BIACAQZ	1251	144
1084600	VACUUM PUMP, TURBO	VARIAN ASSOC MICROWAVE DIV	SD90	1251	142
1084601	VACUUM PUMP, TURBO	VARIAN ASSOC MICROWAVE DIV	SD90	1251	142
1084602	VACUUM PUMP, TURBO	VARIAN ASSOC MICROWAVE DIV	SD90	1251	142
1084603	VACUUM PUMP, TURBO	VARIAN ASSOC MICROWAVE DIV	SD90	1251	142
1085546	CALIBRATOR, PRESSURE	PRESSURE SYSTEMS INC	8400PCU	1251	126D
1085547	CALIBRATOR, PRESSURE	PRESSURE SYSTEMS INC	8400PCU	1251	144
G074373	COMPUTER, MICRO	AST RESEARCH INC	340	1220	214C
G078878	DISPLAY UNIT	NEC INFORMATION SYSTEMS INC	CZ805A	1220	214C
0060162	DISPLAY UNIT	SUN MICROSYSTEMS INC	M	1236	235
0848777	COMPUTER, MICRO	SUN MICROSYSTEMS INC	147(4/60)	1236	235
1156549	COMPUTER, MICRO	APPLE COMPUTER INC	M1700	1236	235

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1089585	VOLTMETER, DIGITAL	HEWLETT-PACKARD CO	3455A	1232	116A
1156548	DISPLAY UNIT	SEIKO INSTRUMENTS USA	CM1445C	1236	235
1089282	DISPLAY UNIT	SUN MICROSYSTEMS INC	GDM1662B	1251	102A
1089277	COMPUTER, MICRO	SUN MICROSYSTEMS INC	47	1251	102A
0282147	COMPUTER, MICRO	INTERNATIONAL BUSINESS MACHINE	SYSTEM9000	1205	129B
0282749	DISPLAY UNIT	INTERNATIONAL BUSINESS MACHINE	5153-001	1205	129B
0035905	DISK DRIVE UNIT	ANDATACO	NONE (VERIFIED)	1192E	111A
1092016	COMPUTER, MICRO	SILICON GRAPHICS INC	CMNB003	1192E	111A
1092019	DISPLAY UNIT	SILICON GRAPHICS INC	CM2086A3SG	1192E	111A
1092831	DISK DRIVE UNIT	JMR ELECTRONICS INC	MZF0-001	1192E	111A
0803273	DISK DRIVE UNIT	IOMEGA	B2150A-UNI	644	200
1422540	COMPUTER, MICRO	APPLE COMPUTER INC	M1688	644	200
1422542	DISPLAY UNIT	APPLE COMPUTER INC	M2494	644	200
1261031	COMPUTER, MICRO	APPLE COMPUTER INC	M2118	643	108A
1262796	DISPLAY UNIT	RADIUS INC	0460	643	108A
0803320	DISK DRIVE UNIT	IOMEGA	B2150A-UNI	1244	TUNN
1083769	COMPUTER, MICRO	APPLE COMPUTER INC	M5525	643	124F
1083770	DISK DRIVE UNIT	IOMEGA	B244X	643	104
1083771	DISPLAY UNIT	SONY CORP	CPD1304	644	200
1087467	DISK DRIVE UNIT	SUN MICROSYSTEMS INC	411	643	111B
1088081	DISPLAY UNIT	APPLE COMPUTER INC	M0401	643	124F
1088378	DISK DRIVE UNIT	IOMEGA	B144T	643	108
1088381	DISK DRIVE UNIT	IOMEGA	B144T	643	111B
1160347	PRINTER, ADP	HEWLETT-PACKARD CO	C2021A	644	200
1091281	COMPUTER, MICRO	NORTHGATE COMPUTER SYSTEMS	ELEQANCE SP433	648	309
1091277	DISPLAY UNIT	NEC INFORMATION SYSTEMS INC	JC1532VMA-N	648	309
0020740	PLASTOMETER	TINIUS OLSEN TESTING MACHINE	NONE	1293C	144
0054811	DISK DRIVE UNIT	JASMINE TECHNOLOGIES INC	DIRECT DRIVE80	1293C	144
0060187	DISPLAY UNIT	EPSON AMERICA INC	MCH4095E	1293C	144
0060188	PRINTER, ADP	EPSON AMERICA INC	Q500	1293C	144
0060536	PRINTER, ADP	APPLE COMPUTER INC	M6000	1293T	4
0061267	PRINTER, ADP	OKIDATA CORP	GE5250B	1293C	144
1090693	COMPUTER, MICRO	APPLE COMPUTER INC	MAC11C1	1293C	144
0141063	MULTIMETER, DIGITAL	FLUKE JOHN MFG CO INC	8010	1293C	144
1427883	BATH, CONSTANT TEMPERATURE	HAAKE BUCHLER INSTRUMENTS INC	C1	1293A	144
1256164	DISPLAY UNIT	CTX INTL	CMS1561	1293C	144
0258846	CONTROLLER, PROGRAMMABLE	RESEARCH INC	828E	1293C	144

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<u>ECN</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Model No</u>	<u>Bldg</u>	<u>Room</u>
1089585	VOLTMETER, DIGITAL	HEWLETT-PACKARD CO	3455A	1232	.116A
1255905	DISPLAY UNIT	APPLE COMPUTER INC	M1212	1293C	151
0419247	PLOTTER, GRAPHICS	HEWLETT-PACKARD CO	7470A	1293C	.144
0419394	RECORDER, CHART, STRIP	HEWLETT-PACKARD CO	7132A	1293C	.144
0419395	RHEOMETER	RHEOMETRICS INC	SYSTEM4	1293C	.144
0419450	MULTIMETER, DIGITAL	DATA PRECISION CORP	3500	1293C	.144
0419451	MULTIMETER, DIGITAL	DATA PRECISION CORP	3500	1293C	.144
1256333	COMPUTER, MICRO	ZEOS INTL LTD	486DX2-66T	1293C	.144
0533582	DISPLAY UNIT	DIGITAL EQUIPMENT CORP	VR201C	1293C	.144
0533583	BOX, POWER SUPPLY/CONTROLLER	DIGITAL EQUIPMENT CORP	VS240A	1293C	.144
1085059	PLOTTER, GRAPHICS	HEWLETT-PACKARD CO	7440A	1293C	.144
1259288	COMPUTER, MICRO	GATEWAY 2000	BABY AT	1293C	.144
1155867	INTERFACE, DIELECTROMETER	MICROMET INSTRUMENTS INC	330XJ	1293C	.144
1155868	DIELECTROMETER	MICROMET INSTRUMENTS INC	SYSTEM3(310X)	1293C	.144
1255203	PRINTER, ADP	TEXAS INSTRUMENTS INC EQUIP GP	3206	1293C	.144
1259289	COMPUTER, MICRO	GATEWAY 2000	BABY AT	1293T	03
1259290	DISPLAY UNIT	GATEWAY 2000	CS1572FS	1293C	.144
1259291	DISPLAY UNIT	GATEWAY 2000	CS1572FS	1293T	03
0062426	COMPUTER, MICRO	APPLE COMPUTER INC	M5840	1148	210
1257399	DISPLAY UNIT	SONY CORP	GDM1937/05	1148	210
1159700	PRINTER, ADP	QMS INC	PS1700-1	1251	205
0465782	FURNACE, HEAT TREATMENT	BURRELL CORP	LG15	1221C	BASM
0777674	PLUG-IN, TIME BASE, O'SCOPE	TEKTRONIX INC	7B92A	1221C	BASM
G074550	DISPLAY UNIT	SONY CORP	GDM1950	643	.124C
G079302	COMPUTER, MICRO	APPLE COMPUTER INC	M5650	1148	202
1256124	DISPLAY UNIT	SONY CORP	GDM1971	1148	202
1156702	DISK DRIVE UNIT	PINNACLE MICRO INC	REO130S	1148	202
G078908	DISPLAY UNIT	E-MACHINES INC	T16	1251	122
0053672	DISPLAY UNIT	INTERNATIONAL BUSINESS MACHINE	5151-001	1251	143B
0054819	COMPUTER, MICRO	INTELLIGENT MICRO SYSTEMS	286	1251	122
0054846	PLOTTER, GRAPHICS	HEWLETT-PACKARD CO	7596A	1251	122
0060079	DISPLAY UNIT	SEIKO INSTRUMENTS USA	CM1430C	1251	122
0060237	COMPUTER, MICRO	APPLE COMPUTER INC	M5000	1251	122
0138247	CONTROL UNIT, SWITCHING	HEWLETT-PACKARD CO	3488A	1251	143B
1264430	COMPUTER, MICRO	ZEOS INTL LTD	PANTER90PDT	1251	122
1264429	DISPLAY UNIT	CTX INTL	1562ES	1251	122
1090366	CONTROLLER, FLOWFIELD SURVEY	WYLE LABORATORIES	NONE	1251	140B

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1089585	VOLTMETER, DIGITAL	HEWLETT-PACKARD CO	3455A	1232	116A
1257713	CONTROLLER, INPUT/OUTPUT	NEFF INSTRUMENT CORP	470100	1251	122
0283256	DISPLAY UNIT	INTERNATIONAL BUSINESS MACHINE	5153-001	1251	248
0548334	PLOTTER, GRAPHICS	HEWLETT-PACKARD CO	7475A	1251	122
1092497	GAGE, PRESSURE, DIGITAL	RUSKA INSTRUMENT CORP	6220	1251	126
1092498	GAGE, PRESSURE, DIGITAL	RUSKA INSTRUMENT CORP	6220	1251	144
1092499	GAGE, PRESSURE, DIGITAL	RUSKA INSTRUMENT CORP	6220	1251	126
1092515	GAGE, PRESSURE, DIGITAL	RUSKA INSTRUMENT CORP	6220	1251	142
1092516	GAGE, PRESSURE, DIGITAL	RUSKA INSTRUMENT CORP	6220	1251	144
1092518	GAGE, PRESSURE, DIGITAL	RUSKA INSTRUMENT CORP	6220	1251	126
1092496	GAGE, PRESSURE, DIGITAL	RUSKA INSTRUMENT CORP	6220	1251	126
1092517	GAGE, PRESSURE, DIGITAL	RUSKA INSTRUMENT CORP	6220	1251	142
1259425	COMPUTER, MICRO	ZEOS INTL LTD	486DX2-66T	1251	122
1259426	DISPLAY UNIT	CTX INTL	CMS1561	1251	122
1259488	COMPUTER, MICRO	INDUSTRIAL COMPUTER SOURCE F-	7408-23V	1251	122
1259489	DISPLAY UNIT	INDUSTRIAL COMPUTER SOURCE F-	9014R23V	1251	122
0061207	SHREDDING MACHINE, PAPER, OFFICE	MEIKO SHOKAI CO LTD	C11	643	112B
0062028	COMPUTER, MICRO	DATASEC CORPORATION	DTM110APPLE	643	112B
0062029	COMPUTER, MICRO	APPLE COMPUTER INC	DTM110	643	112B
0062030	DISPLAY UNIT	APPLE COMPUTER INC	DSC120	643	112B
0062031	DISPLAY UNIT	DATASEC CORPORATION	DSC120APPLE	643	112B
0062032	DISK DRIVE UNIT	APPLE COMPUTER INC	DSD320	643	112B
0062033	DISK DRIVE UNIT	APPLE COMPUTER INC	DSD320	643	112B
0062034	PRINTER, ADP	QMS INC	PS810T	643	112B
0849472	SAFE, 5-DRAWER	MOSLER SAFE CO	7110-00-919-9193	643	112B
1086569	COMPUTER, MICRO	APPLE COMPUTER INC	M5780	643	113C
1086574	DISPLAY UNIT	APPLE COMPUTER INC	M0401	643	113C
1088152	COMPUTER, MICRO	APPLE COMPUTER INC	M5525	643	112B
1088157	DISPLAY UNIT	APPLE COMPUTER INC	M0401	643	112B
1088159	DISK DRIVE UNIT	IOMEGA	B244X-UNI	643	112G
1088509	DISK DRIVE UNIT	IOMEGA	B244X-UNI	643	112B
0802771	DISK DRIVE UNIT	IOMEGA	B2150A-UNI	643	112B
G074037	CONTROLLER, POSITIONER	AEROTECH INC F-CW RADIATION	U1C-HM-A500	1202	107
G077696	READOUT, DIGITAL	SONY CORP	LM22S22R	1202	107
0020076	CONTROLLER, TEMPERATURE	EUROTHERM INT'L TURNBULL CTL	822	1202	107
0020077	CONTROLLER, TEMPERATURE	EUROTHERM INT'L TURNBULL CTL	822	1202	107
0020078	CONTROLLER, TEMPERATURE	EUROTHERM INT'L TURNBULL CTL	822	1202	107

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1089585	VOLTMETER, DIGITAL	HEWLETT-PACKARD CO	3455A	1232	116A
0020932	CONTROLLER, TEMPERATURE	EUROTHERM INT'L TURNBULL CTL	822/4-20MA/O/R50176C	1202	107
0020933	CONTROLLER, TEMPERATURE	EUROTHERM INT'L TURNBULL CTL	822/4-20MA/O/R50176C	1202	107
0020934	CONTROLLER, TEMPERATURE	EUROTHERM INT'L TURNBULL CTL	822/4-20MA/O/R50176C	1202	107
0054121	SYSTEM, DATA ACQUISITION	KEITHLEY INSTRUMENTS INC	500-500	1202	107
0058566	CONTROLLER, POSITIONER	AEROTECH INC F-CW RADIATION	UNIDEX I(UIC-HIM-A500	1202	107
0140873	SYSTEM, DATA ACQUISITION	KEITHLEY INSTRUMENTS INC	500-500	1202	107
0221369	READOUT, DIGITAL	SONY CORP	LM22S22R	1296	107
0259020	DATA LOGGER	FLUKE JOHN MFG CO INC	2280B	1202	107
1258864	DISPLAY UNIT	SONY CORP	2075RO	1298	151
1156209	COMPUTER, MICRO	MICRO SERVE	AUVA354/40	1205	229B
1423646	DIGITIZER, SCANNER	PRESSURE SYSTEMS INC	8425	1265	105
1423647	CALIBRATOR, PRESSURE	PRESSURE SYSTEMS INC	8432	1265	105
1093193	COMPUTER, MICRO	APPLE COMPUTER INC	M5920	1148	222
1256125	DISPLAY UNIT	SONY CORP	GDM1971	1148	222
0144335	CABINET, FILE, SECURITY	MOSLER SAFE CO	NONE	1299	148
1259321	COMPUTER, MICRO	GATEWAY 2000	NEW TOWER	644	200
1259320	DISPLAY UNIT	NANAO-USA	MA2170	644	200
1257293	COMPUTER, MICRO	APPLE COMPUTER INC	M1205	1298	143
1258868	DISPLAY UNIT	SONY CORP	2075RO	1298	143
1426642	COMPUTER, MINI	SILICON GRAPHICS INC	CMNB007Y125	1299	214
1426643	DISPLAY UNIT	SONY CORP	GDM20D11	1299	214
0139000	PRINTER, ADP	EPSON AMERICA INC	FX85	1148T	006
0139564	COMPUTER, MICRO	STANDARD BRAND PRODUCTS	286	1148T	006
0141861	DISPLAY UNIT	INTERNATIONAL BUSINESS MACHINE	5151-001	1148T	006
0848885	COMPUTER, MICRO	APPLE COMPUTER INC	M5650	1148T	006
1088743	DISK DRIVE UNIT	PINNACLE MICRO INC	REQ130	1148T	006
1256145	DISPLAY UNIT	SONY CORP	GDM1971	1148T	006
1085169	DISK DRIVE UNIT	CMS ENHANCEMENTS INC	PD80-1	1298	116
1257809	COMPUTER, MICRO	APPLE COMPUTER INC	M1205	1298	116
1258861	DISPLAY UNIT	SONY CORP	2075RO	1298	116
0470219	CALCULATOR, ELECTRONIC	HEWLETT-PACKARD CO	HP41CV	1208	117A
1085825	COMPUTER, MICRO	GATEWAY 2000	486/25C	1208	117A
1261426	COMPUTER, MINI	SILICON GRAPHICS INC	CMNB007Y75	1192E	109A
1263745	DISPLAY UNIT	SONY CORP	GDM20D11	1192E	109A
0059967	DISPLAY UNIT	SONY CORP	GDM1952	1146	204
0138597	DISK DRIVE UNIT	APPLE COMPUTER INC	HARD DISK205C M2603	1146	204

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1089585	VOLTMETER, DIGITAL	HEWLETT-PACKARD CO	3455A	1232	116A
0142018	DISK DRIVE UNIT	APPLE COMPUTER INC	HARD DISK 20SC M2604	1146	204
0143391	DISPLAY UNIT	APPLE COMPUTER INC	M0400	1146	204
1160020	DISPLAY UNIT	APPLE COMPUTER INC	M1297	1146	204
G078736	COMPUTER, MICRO	APPLE COMPUTER INC	M5650	1146	204
1159488	COMPUTER, MICRO	APPLE COMPUTER INC	M5780	1146	204
1083798	DISK DRIVE UNIT	CUTTING EDGE INC.	E	1146	204
1089802	TRANSPORT, MAGNETIC TAPE	MAYNARD ELECTRONICS INC	72500	1146	204
0056399	DISPLAY UNIT	APPLE COMPUTER INC	M0401	HOME	
0398868	PRINTER, ADP	APPLE COMPUTER INC	M0156	1267	125
1257429	DISPLAY UNIT	APPLE COMPUTER INC	0381	1267	108
0848747	MODEM, COMMUNICATIONS	RADIUS INC	231AA	HOME	
1084658	COMPUTER, MICRO	HAYES MICROCOMPUTER PRODUCTS	M5525(11FX)	1267	125
1260407	DISK DRIVE UNIT	APPLE COMPUTER INC	TAHOE130	1267	125
0057736	POWER SUPPLY	PINNACLE MICRO INC	LQD421	1232	116D
0058386	GENERATOR, FUNCTION	LAMBDA ELECTRONICS	191	1232	116A
0142472	PRINTER, ADP	WAVTEK SAN DIEGO INC	P82AA(FX86E)	1230B	115
0801558	CONTROLLER, PROGRAMMABLE	EPSON AMERICA INC	EC320	643	108
1160257	VACUUM SYSTEM	TOSHIBA HOSHASEN CO LTD	SP144-120	643	108
0847369	PRINTER, ADP	AUTOMATION PRODUCTS GROUP	3630A	644	200
1088370	COMPUTER, MICRO	HEWLETT-PACKARD CO	M5780ICI	1212	201
1088375	DISPLAY UNIT	APPLE COMPUTER INC	M0401	1212	201
1159864	VALVE, GLOBE/IP TRANSDUCER	VALTEK INC	5424588-2 SCOUT	643	108
1159800	FLOWMETER	SIERRA INSTRUMENTS INC	760N6	643	108
1089278	COMPUTER, MICRO	SUN MICROSYSTEMS INC	47	1251	102A
1089279	DISPLAY UNIT	SUN MICROSYSTEMS INC	GDM1662B	1251	102A
G078938	COMPUTER, MICRO	SUN MICROSYSTEMS INC	147B4/65FC8	645	200
G078939	DISPLAY UNIT	SUN MICROSYSTEMS INC	GDM1604B15	645	200
G078940	DISK DRIVE UNIT	SONY CORP	411	645	200
G078941	TRANSPORT, MAGNETIC TAPE	SUN MICROSYSTEMS INC	411	645	200
G079486	DISK DRIVE UNIT	SUN MICROSYSTEMS INC	PE114	645	200
0803249	DISK DRIVE UNIT	CITA TECHNOLOGIES, INC.	B2150A-UNI	645A	200
0848497	DISPLAY UNIT	IOMEGA	M0401	645A	200
1088156	COMPUTER, MICRO	APPLE COMPUTER INC	M5780	645A	200
1088380	DISK DRIVE UNIT	APPLE COMPUTER INC	B144T	645A	200
1263286	COMPUTER, MINI	IOMEGA	544	1299	226
1263287	DISPLAY UNIT	SUN MICROSYSTEMS INC	GDM20D10	1299	226

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1089585	VOLTMETER, DIGITAL	HEWLETT-PACKARD CO	3455A	1232	116A
1259394	COMPUTER, MINI	SILICON GRAPHICS INC	CMNB007	1192E	109A
1263746	DISPLAY UNIT	SONY CORP	GDM20D11	1192E	109A
1262007	DISK DRIVE UNIT	KINGSTON TECHNOLOGY CORP	DS100SF	1192E	109B
1425415	PRINTER, ADP	APPLE COMPUTER INC	M2680	1293C	148
1425662	COMPUTER, MICRO	APPLE COMPUTER INC	M1688	1293C	148
1087162	SCANNER, COMPUTER	LACIE LTD	SILVERSCANNER	1293C	151
1087404	PRINTER, ADP	CAL COMP INC DIGITIZER PRODS	6613PS	1293C	151
1093305	DISPLAY UNIT	RASTEROPS CORP	GDM1935	1293C	151
1259208	DISK DRIVE UNIT	PINNACLE MICRO INC	PMO650	1293C	151
G079050	DISPLAY UNIT	APPLE COMPUTER INC	M0401	1293B	237
1085024	DISPLAY UNIT	SONY CORP	VRT19DA	1293B	237
1086233	COMPUTER, MICRO	DIGITAL EQUIPMENT CORP	VS43A-BL	1293B	237
1090235	COMPUTER, MICRO	APPLE COMPUTER INC	APL-A10860	1293B	237
1427942	INTERFACE, FIBER OPTIC	CYBERNETIC EVALUATION INC	CE1-95M0001U	1220	117
1427941	INTERFACE, FIBER OPTIC	CYBERNETIC EVALUATION INC	CE1-95M0001H	1220	117
G074747	MICROSCOPE, STEREO	S-T IND F-SCHERR-TUMICO INC	661921	1230B	286
G078468	COMPUTER, MICRO	HEWLETT-PACKARD CO	9858 IB310C	1267	119A
G078469	DISPLAY UNIT	HEWLETT-PACKARD CO	35741B	1267	119A
0054555	SHIFTER, PHASE, OPTICAL	SAGE LABORATORIES INC	6801-2	1230B	189
0054802	COUNTER, FREQUENCY	HEWLETT-PACKARD CO	5386A	1230B	189
0055895	MULTIMETER, DIGITAL	FLUKE JOHN MFG CO INC	8060A	1230B	288
0056956	PREAMPLIFIER, DC	EG AND G INC	113	1230B	288
0057194	POLISHING MACHINE	BUEHLER LTD	69-3000-160	1230B	288
0139096	PLOTTER, GRAPHICS	HEWLETT-PACKARD CO	7440A	1230B	189
0141288	DISK DRIVE UNIT	APPLE COMPUTER INC	M2620	1230B	288
0803540	DISK DRIVE UNIT	FUJITSU LTD	DYNAM0128	1230B	288
0803541	DISK DRIVE UNIT	FUJITSU LTD	DYNAM0128	1230B	288
0258321	DISK DRIVE UNIT	HEWLETT-PACKARD CO	9122D	1230B	291
0258940	COMPUTER, MICRO	APPLE COMPUTER INC	M0001	1230B	288
0281449	DISK DRIVE UNIT	HEWLETT-PACKARD CO	9122D	1230B	288
0281554	OSCILLOSCOPE, PORTABLE	TEKTRONIX INC	2235L	1267	119A
0403898	CLOCK, DIGITAL	HEWLETT-PACKARD CO	59309A	1230B	291
0403902	PLOTTER, GRAPHICS	HEWLETT-PACKARD CO	7470A MODIFIED	1230B	288
0427288	GENERATOR, SIGNAL	WAVETEK SAN DIEGO INC	3002	1230B	288
0429693	COMPUTER, MICRO	HEWLETT-PACKARD CO	HP85A	1230B	291
0465727	OSCILLOSCOPE, GENERAL PURPOSE	TEKTRONIX INC	7904	1230B	189

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1089585	VOLTMETER, DIGITAL	HEWLETT-PACKARD CO	3455A	1232	116A
0468225	GENERATOR, TRACKING	HEWLETT-PACKARD CO	8444A	1230B	291
0777174	SAMPLING HEAD	TEKTRONIX INC	S6	1230B	189
0848972	DISK DRIVE UNIT	HEWLETT-PACKARD CO	7959B	1230B	1191
1083775	COUNTER, FREQUENCY	HEWLETT-PACKARD CO	5385A	1230B	288
1084536	ATTENUATOR, OPTICAL	HEWLETT-PACKARD CO	8158B	1230B	189
1084606	DISK DRIVE UNIT	HEWLETT-PACKARD CO	9122C	1230B	191
0021699	MICROSCOPE, PORTABLE	BUEHLER LTD	0801-9505	1230B	288
1091040	COMPUTER, MICRO	APPLE COMPUTER INC	M5920	1230B	288
1091042	DISK DRIVE UNIT	PINNACLE MICRO INC	RE0650	1230B	288
1091039	DISPLAY UNIT	APPLE COMPUTER INC	M3502	1230B	288
1089479	PRINTER, ADP	EPSON AMERICA INC	EPL7500L130C	1230	133D
1262055	TERMINAL, DATA PROCESSING	NETWORK COMPUTING DEVICES INC	88K	1148	233
1262056	DISPLAY UNIT	NETWORK COMPUTING DEVICES INC	NC1985AA	1148	233
1092536	DISPLAY UNIT	NEC INFORMATION SYSTEMS INC	JC1741UMA	1148	204
1092738	MODEM, COMMUNICATIONS	MULTITECH COMMUNICATIONS	M7932BA	1148	.NOC
1156716	PRINTER, ADP	HEWLETT-PACKARD CO	33481A	1148	233
1158357	COMPUTER, MICRO	GOVERNMENT MICRO RESOURCES	486/50	1148	233
1091660	COMPUTER, MICRO	APPLE COMPUTER INC	M5780	1168	102
1091661	DISPLAY UNIT	E-MACHINES INC	GDM1601	1168	102
1160122	COMPUTER, MICRO	GATEWAY 2000	SLIMLINE	1244T	.T5
1160121	DISPLAY UNIT	GATEWAY 2000	PMV1448NI	1244T	.T5
1159670	PRINTER, ADP	TEXAS INSTRUMENTS INC EQUIP GP	3206	1244T	100
1262447	COMPUTER, MICRO	GATEWAY 2000	NEW TOWER	1208A	112
1262449	DISPLAY UNIT	SONY CORP	GDM2039	1208A	112
0848659	PRINTER, ADP	EPSON AMERICA INC	P785A(LQ510)	1208	112
1091337	DISK DRIVE UNIT	SONY CORP	SMO-E501	1208A	112
0848758	COMPUTER, MICRO	APPLE COMPUTER INC	M5650	1244C	159
G076463	TRANSPORT, MAGNETIC TAPE	FIFTH GENERATION SYSTEMS INC	FASTBACKTAPE,FB120	1168	129
1155620	COMPUTER, MICRO	APPLE COMPUTER INC	*M5780	1168	129
1155621	DISPLAY UNIT	E-MACHINES INC	T16	1168	129
0057388	COMPUTER, MICRO	PC'S LIMITED SEE DEL COMPUTERS	310	1168	128
0057732	DISPLAY UNIT	PC'S LIMITED SEE DEL COMPUTERS	VC2	1168	128
0847317	DISPLAY UNIT	SONY CORP	GDM1950	1208	300B
1085701	COMPUTER, MICRO	APPLE COMPUTER INC	M5780	1208	300B
0053335	COMPUTER, MICRO	APPLE COMPUTER INC	M5000	1205	158
0055961	DISPLAY UNIT	APPLE COMPUTER INC	M0401	1205	158

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1089585	VOLTMETER, DIGITAL	HEWLETT-PACKARD CO	3455A	1232	.116A
G073670	GAUGE, CAPACITANCE	EDWARDS HIGH VACUUM INC	570A1000T3D1H5X	1230	133F
1422480	CONVERTER, ANALOG TO DIGITAL	IOTECH	ADC488/85A	1230	133E
1424307	DISK DRIVE UNIT	SEAGATE	NONE (VERIFIED)	1229	212
G075904	DISPLAY UNIT	MAGNAVOX ELECTRONIC SYSTEMS	CM9032	1205	229E
G076227	COMPUTER, MICRO	MOTOROLA INC	PCP121	1205	229E

□

EXHIBIT B - CONTRACT DOCUMENTATION REQUIREMENTS

I. DOCUMENTATION PREPARATION/SUBMISSION INSTRUCTIONS

A. Financial Management Reports--The Contractor shall comply with the Section I clause of this contract entitled "NASA Contractor Financial Management Reporting" by monthly submission of NASA Form 533M for the overall contract and a separate 533M for each active task order. The form shall be prepared and submitted in accordance with the instructions set forth on the reverse side of the form and NASA Handbook "Procedures for Contractor Reporting of Correlated Cost and Performance Data" (NHB 9501.2) as further definitized below.

1. Due not later than the 10th operating day following the close of the Contractor's accounting period being reported.

2. Columns 8.a. and b. shall be completed using estimates (forecasts) for the succeeding two months.

3. Minimum reporting categories:

- 1) ~~Direct Labor Hours~~
- 2) ~~Indirect Labor Hours~~
- 3) Direct Labor Dollars
- 4) Indirect Labor Dollars
- 5) Salary - Related Expenses
- 6) Overhead
- 7) Other Direct Costs
 - Travel
 - Equipment
 - Publications
 - Computer Usage
 - Miscellaneous
- 8) G&A
- 9) Total Cost
- 10) Facilities Capital Cost of Money (if applicable)
- 11) Award Fee

12) CPAF

4. Each 533M shall include a narrative explanation for variances exceeding 10 percent between planned hours/dollars and actual hours/dollars for each reporting category.

B. Quarterly Financial Management Report--The Contractor shall submit a quarterly financial report detailed by categories specified in A.4 above on NASA Form 533Q at times and in accordance with the instructions contained on the reverse side of the form. The initial 533Q shall be submitted within 10 operating days after award of the contract.

C. Safety and Health Plan--Within 30 days after contract award, the Contractor shall submit a detailed safety and health plan showing how the Contractor intends to protect the life, health, and well being of NASA and Contractor employees as well as property and equipment. This plan, as approved by the Contracting Officer, should contain, as a minimum the following:

1. Points of Contact and Responsibility--Organizational flow chart and description of responsibilities of each employee in your organization for safety.

2. Employee Safety Training, Certification and Programs--Detailed information on type of training required, parties responsible for certification, and outline of applicable regulations. Detail company programs which emphasize personal safety and motivate employees to be safety conscious.

3. LaRC Safety Policies/Procedures--Recognition of applicable LaRC safety policies and procedures such as Langley Handbook 1710.10, LaRC Red Tag System.

4.. Accident Investigation and Reporting--Procedures for investigating and reporting accidents/incidents including immediate notification to the NASA LaRC Safety Manager of all injuries and damage to equipment or facilities.

5. Hazardous Operations--

(a) Description of hazardous operations involved in contract performance.

(b) Plans for apprising employees of all hazards to which they may be exposed.

(c) Proper conditions and precautions for safe use and exposure to hazardous operations. Include recognition of LHB 1710.12, Potentially Hazardous Materials.

6. People with Disabilities--In accordance with the Americans with Disabilities Act, the plans should specify that prior to assigning a person with disabilities to this contract, the Contractor shall contact the Disability Program Manager at (804) 864-7718.

7. Other Safety Considerations--Any other safety considerations unique to your operation.

D. Monthly Progress Report--The Contractor shall submit a monthly progress report summarizing technical progress at the contract level relative to plan. This report shall be submitted within 10 operating days following the end of the reporting period. (Task Order Progress Reports shall be submitted in accordance with requirements set forth in each task order.)

E. Quarterly Accident/Injury Report--The Contractor shall submit a Quarterly Accident/Injury Report within 10 operating days after the end of each quarter.

F. Conformable Wage Rate Agreement--Within 15 operating days after the effective date of the contract, the Contractor shall submit a report confirming conformable wage rate agreement as this subject is addressed in the Section I clause entitled "Service Contract Act of 1965," for those individuals employed by the Contractor who are covered by the Service Contract Act, but are not listed in Exhibit C.

G. Collective Bargaining Agreements--The Contractor shall provide the Contracting Officer with copies of any collective bargaining agreements, and amendments thereto, which arise during the course of the contract and which apply to Contractor employees assigned to the contract.

H. Subcontracting Reports--The Contractor shall submit Standard Form 294, Subcontracting Report for Individual Contracts and Standard Form 295, Summary Subcontractor Report, in accordance with the instructions on the reverse of the form.

Pursuant to the contract clause entitled "Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan" (FAR 52.219-9 and 19.704(a)(5)), you are required to submit a letter progress report on a quarterly basis. The "Quarterly Progress Report for Socioeconomic Goals" shall be limited to the quarterly data only (excluding cumulative data from beginning of Subcontract Plan) as required for Lines 10A, 10B, 10C, and 12 of the Standard Form 294. (See the sample in Section J, List of Attachments.) Letter progress reports may be signed by the Contract Administrator or equivalent organizational level, and each report is due by the 10th calendar day of the month following the close of the reporting period.

I. Federal Contractor Veterans Employment Report--In compliance with Clause 52.222-37, Employment Reports on Special Disabled Veterans and Veterans of the Vietnam Era, the Contractor shall submit the Federal Contractor Veterans Employment Reports (VETS-100) as required by this clause.

J. Evidence of Insurance--The Contractor shall submit evidence of the insurance coverage, required by the NASA Clause 18-52.228-75 in Section I entitled "Minimum Insurance Coverage" (i.e., a Certificate of Insurance or other confirmation), to the Contracting Officer prior to performing under this contract. In the event the Government exercises its options to extend the term of the

contract, the Contractor shall also present such evidence to the Contracting Officer prior to commencement of performance under the extension.

K. Virginia and Local Sales Taxes--In accordance with Section H.10, you are required to submit a copy of the letter sent to the Virginia Tax Commission and a copy of the subsequent response.

L. Electronic Task Order Status Data Base--The Contractor shall provide a data base containing monthly submissions of the reports listed in Paragraphs I.A, I.B and I.D of Exhibit B. The software used shall be compatible with Macintosh and/or DOS.

M. Conflict of Interest Plan--Within 15 operating days after the effective date of contract, the Contractor shall submit a Conflict of Interest Plan in accordance with the guidelines contained in Section H.12, Limitation of Future Contracting (NASA 18-52.209-71).

N. Security Plan for Unclassified Federal Computer Systems--The Contractor shall submit the Security Plan for Unclassified Federal Computer Systems in accordance with NASA FAR Supplement Clause 18-52.204-77 30 days after contract award.

O. Semiannual Progress Report for Small Disadvantaged Business (SDB) Goals--The Contractor shall submit a semiannual report on SDB goals as contained in Exhibit F.

II. DOCUMENT DISTRIBUTION REQUIREMENTS

A. Unless otherwise specified elsewhere in this contract, reports and other documentation shall be submitted F.O.B. destination as specified below, addressed as follows:

National Aeronautics and Space Administration
Langley Research Center
Attn: _____, Mail Stop ____
Contract NAS1-
Hampton, VA 23681-0001

B. The following letter codes designate the recipients of reports and other documentation which are required to be delivered prepaid to Langley Research Center by the Contractor:

A--Contract Specialist, Mail Stop 126

B--Contracting Officer Technical Representative, Mail Stop

C--New Technology Representative, Mail Stop 212

D--Cost Accounting, Mail Stop 135

E--Safety Manager, Mail Stop 429

F--Industry Relations Office, Mail Stop 144
 G--Programs and Resources Division, Mail Stop 104
 H--Patent Counsel, Mail Stop 212
 I--Industrial Property Office, Mail Stop 377
 J--According to instructions on form
 K--Small Business Specialist, Mail Stop 144
 L--Task Technical Monitor (reports on Monitor's task(s) only)

C. The following are the distribution requirements for reports and other documentation required with the numeral following the letter code specifying the number of copies to be provided:

<u>DOCUMENT</u>	<u>LETTER CODE AND DISTRIBUTION</u>
Financial Management Report (NASA Forms 533M and 533Q)	A-1, B-2, D-2, G-1, L-1
Safety and Health Plan	A-1, B-1, E-1
Monthly Progress Report	A-1, B-3, L-1
Quarterly Accident/Injury Report	A-1, B-1, E-1
Conformable Wage Rate Agreement	A-1, B-1, F-1
New Technology Report	A-1, B-2, C-1
Patent Rights Report	A-1, B-2, C-1 H-1
Collective Bargaining Agreement	A-1, B-1, F-1
Subcontracting Report for Individual Contracts (Standard Form 294)	A-1, K-1
Summary Subcontractor Report (Standard Form 295)	A-1, J, K-1
Federal Contractor Veterans Employment Report (VETS-100)	F-1
Virginia and Local Sales Tax Correspondence	A-1
Electronic Task Order Status Data Base	A-1, B-1
Conflict of Interest Plan	A-1

Security Plan for Unclassified Federal Computer Systems	A-2
Semi-Annual Progress Report for Small Disadvantaged Business (SDB) Goals	A-1, K-1

D. When the Contract Administrator (A) is not designated above to receive a copy of a report or document, the Contractor shall furnish a copy of the report/document transmittal letter to the Contract Administrator. The Contractor shall also furnish a copy of the transmittal letter and a copy of each Financial Management Report to the delegated Administrative Contracting Officer of the cognizant DoD (or other agency) contract administrative services component.

REGISTER OF WAGE DETERMINATIONS UNDER
 THE SERVICE CONTRACT ACT
 By direction of the Secretary of Labor

Alan L. Moss
 Alan L. Moss Director
 Division of
 Wage Determinations

U.S. DEPARTMENT OF LABOR
 EMPLOYMENT STANDARDS ADMINISTRATION
 WAGE AND HOUR DIVISION
 WASHINGTON, D.C. 20210

Wage Determination No.: 94-2544
 Revision No.: 6
 Date of Last Revision: 06/20/1995

State(s): North Carolina, Virginia

Area: NORTH CAROLINA COUNTIES OF CAMDEN, CHOWAN, CURRITUCK, GATES,
 PASQUOTANK, PERQUIMANS.
 VIRGINIA COUNTIES OF CHESAPEAKE, GLOUCESTER, HAMPTON, ISLE OF WIGHT,
 JAMES CITY, MATHEWS, NEWPORT NEWS, NORFOLK, POQUOSON, PORTSMOUTH,
 SOUTHAMPTON, SUFFOLK, SURRY, VIRGINIA BEACH, WILLIAMSBURG, YORK.

** Fringe Benefits Required For All Occupations Included In
 This Wage Determination Follow The Occupational Listing **

OCCUPATION CODE AND TITLE	MINIMUM HOURLY WAGE
ADMINISTRATIVE SUPPORT AND CLERICAL:	
01011 Accounting Clerk I	\$ 6.75
01012 Accounting Clerk II	\$ 8.52
01013 Accounting Clerk III	\$ 9.95
01014 Accounting Clerk IV	\$ 10.75
01030 Court Reporter	\$ 9.81
01050 Dispatcher, Motor Vehicle	\$ 8.03
01060 Document Preparation Clerk	\$ 8.08
01090 Duplicating Machine Operator	\$ 8.08
01110 Film/Tape Librarian	\$ 8.46
01115 General Clerk I	\$ 6.02
01116 General Clerk II	\$ 7.42
01117 General Clerk III	\$ 8.54
01118 General Clerk IV	\$ 9.58
01120 Housing Referral Assistant	\$ 10.42
01131 Key Entry Operator I	\$ 7.32
01132 Key Entry Operator II	\$ 9.24
01191 Order Clerk I	\$ 7.32
01192 Order Clerk II	\$ 9.59
01220 Order Filler	\$ 8.46
01261 Personnel Assistant (Employment) I	\$ 8.65
01262 Personnel Assistant (Employment) II	\$ 10.03
01263 Personnel Assistant (Employment) III	\$ 10.75
01264 Personnel Assistant (Employment) IV	\$ 12.06
01270 Production Control Clerk	\$ 10.42
01290 Rental Clerk	\$ 8.46
01300 Scheduler, Maintenance	\$ 8.46
01311 Secretary I	\$ 8.46
01312 Secretary II	\$ 9.81
01313 Secretary III	\$ 10.42
01314 Secretary IV	\$ 11.41
01315 Secretary V	\$ 11.96
01320 Service Order Dispatcher	\$ 8.46
01341 Stenographer I	\$ 8.78

01342	Stenographer II	\$ 9.86
01400	Supply Technician	\$ 10.00
01420	Survey Worker(Interviewer)	\$ 9.81
01460	Switchboard Operator- Receptionist	\$ 8.08
01531	Travel Clerk I	\$ 6.31
01532	Travel Clerk II	\$ 6.69
01533	Travel Clerk III	\$ 7.06
01551	Typist I	\$ 7.42
01552	Typist II	\$ 8.92
01611	Word Processor I	\$ 8.73
01612	Word Processor II	\$ 9.80
01613	Word Processor III	\$ 10.97

AUTOMATIC DATA PROCESSING:

03010	Computer Data Librarian	\$ 8.26
03041	Computer Operator I	\$ 8.26
03042	Computer Operator II	\$ 9.58
03043	Computer Operator III	\$ 11.83
03044	Computer Operator IV	\$ 13.70
03045	Computer Operator V	\$ 14.56
03071	Computer Programmer I 1/	\$ 11.02
03072	Computer Programmer II 1/	\$ 13.62
03073	Computer Programmer III 1/	\$ 16.20
03074	Computer Programmer IV 1/	\$ 19.39
03101	Computer Systems Analyst I 1/	\$ 17.62
03102	Computer Systems Analyst II 1/	\$ 20.28
03103	Computer Systems Analyst III 1/	\$ 23.23
03160	Peripheral Equipment Operator	\$ 8.26

AUTOMOTIVE SERVICE:

05005	Automobile Body Repairer, Fiberglass	\$ 14.05
05010	Automotive Glass Installer	\$ 12.82
05040	Automotive Worker	\$ 12.82
05070	Electrician, Automotive	\$ 13.42
05100	Mobile Equipment Servicer	\$ 11.59
05130	Motor Equipment Metal Mechanic	\$ 14.05
05160	Motor Equipment Metal Worker	\$ 12.82
05190	Motor Vehicle Mechanic	\$ 14.05
05220	Motor Vehicle Mechanic Helper	\$ 10.95
05250	Motor Vehicle Upholstery Worker	\$ 12.82
05280	Motor Vehicle Wrecker	\$ 12.82
05310	Painter, Automotive	\$ 13.42
05340	Radiator Repair Specialist	\$ 12.82
05370	Tire Repairer	\$ 11.59
05400	Transmission Repair Specialist	\$ 14.05

JOB PREPARATION AND SERVICE:

07010	Baker	\$ 8.68
07041	Cook I	\$ 7.85
07042	Cook II	\$ 8.68
07070	Dishwasher	\$ 6.05
07100	Food Service Worker	\$ 6.05
07130	Meat Cutter	\$ 8.68
07250	Waiter/Waitress	\$ 6.58

FURNITURE MAINTENANCE AND REPAIR:

09010 Electrostatic Spray Painter	\$ 13.42
09040 Furniture Handler	\$ 10.95
09070 Furniture Refinisher	\$ 13.42
09100 Furniture Refinisher Helper	\$ 10.95
09110 Furniture Repairer, Minor	\$ 12.19
09130 Upholsterer	\$ 13.42

GENERAL SERVICES AND SUPPORT:

11030 Cleaner, Vehicles	\$ 6.05
11060 Elevator Operator	\$ 6.05
11090 Gardener	\$ 7.75
11121 Housekeeping Aide I	\$ 5.93
11122 Housekeeping Aide II	\$ 6.49
11150 Janitor	\$ 6.05
11180 Laborer	\$ 9.68
11210 Laborer, Grounds Maintenance	\$ 6.58
11240 Maid or Houseman	\$ 5.52
11270 Pest Controller	\$ 8.25
11300 Refuse Collector	\$ 6.05
11360 Window Cleaner	\$ 6.58

HEALTH:

12010 Ambulance Driver	\$ 8.75
12040 Emergency Medical Technician	\$ 9.13
12070 Licensed Practical Nurse	\$ 8.82
12100 Medical Assistant	\$ 7.88
12130 Medical Laboratory Technician	\$ 7.88
12160 Medical Record Clerk	\$ 7.88
12190 Medical Record Technician	\$ 10.92
12220 Nursing Assistant	\$ 7.02
12250 Pharmacy Technician	\$ 9.83
12280 Phlebotomist	\$ 7.88
12311 Registered Nurse I	\$ 10.92
12312 Registered Nurse II	\$ 13.36
12313 Registered Nurse II, Specialist	\$ 13.36
12314 Registered Nurse III	\$ 16.16
12315 Registered Nurse III, Anesthetist	\$ 16.16
12316 Registered Nurse IV	\$ 19.37

INFORMATION AND ARTS:

3002 Audiovisual Librarian	\$ 14.56
3011 Exhibits Specialist I	\$ 13.06
3012 Exhibits Specialist II	\$ 15.87
3013 Exhibits Specialist III	\$ 17.63
3041 Illustrator I	\$ 13.06
3042 Illustrator II	\$ 15.87
3043 Illustrator III	\$ 17.63
3050 Library Technician	\$ 11.02
3071 Photographer I	\$ 10.40
3072 Photographer II	\$ 13.06
3073 Photographer III	\$ 15.87
3074 Photographer IV	\$ 17.63
3075 Photographer V	\$ 21.32

LAUNDRY, DRY CLEANING, PRESSING:

15010 Assembler	\$ 5.18
15030 Counter Attendant	\$ 5.18
15040 Dry Cleaner	\$ 6.30
15070 Finisher, Flatwork, Machine	\$ 5.18
15090 Presser, Hand	\$ 5.18
15100 Presser, Machine, Dry Cleaning	\$ 5.18
15130 Presser, Machine, Shirts	\$ 5.18
15160 Presser, Machine, Wearing Apparel, Laundry	\$ 5.18
15190 Sewing Machine Operator	\$ 6.71
15220 Tailor	\$ 7.11
15250 Washer, Machine	\$ 5.57

MACHINE TOOL OPERATION AND REPAIR:

19010 Machine-tool Operator (Toolroom)	\$ 14.05
19040 Tool and Die Maker	\$ 15.57

MATERIALS HANDLING AND PACKING:

21010 Fuel Distribution System Operator	\$ 12.82
21020 Material Coordinator	\$ 12.19
21030 Material Expediter	\$ 12.19
21040 Material Handling Laborer	\$ 7.44
21071 Forklift Operator	\$ 9.05
21100 Shipping/Receiving Clerk	\$ 8.85
21130 Shipping Packer	\$ 8.85
21150 Stock Clerk	\$ 8.85
21210 Tools and Parts Attendant	\$ 10.95
21400 Warehouse Specialist	\$ 10.54

MECHANICS AND MAINTENANCE AND REPAIR:

23010 Aircraft Mechanic	\$ 14.05
23040 Aircraft Mechanic Helper	\$ 10.95
23060 Aircraft Servicer	\$ 12.19
23070 Aircraft Worker	\$ 12.82
23100 Appliance Mechanic	\$ 13.42
23120 Bicycle Repairer	\$ 11.59
23125 Cable Splicer	\$ 14.05
23130 Carpenter, Maintenance	\$ 13.42
23140 Carpet Layer	\$ 13.42
23160 Electrician, Maintenance	\$ 15.57
23181 Electronics Technician, Maintenance I	\$ 13.99
23182 Electronics Technician, Maintenance II	\$ 14.31
23183 Electronics Technician, Maintenance III	\$ 15.33
23260 Fabric Worker	\$ 12.19
23290 Fire Alarm System Mechanic	\$ 14.05
23310 Fire Extinguisher Repairer	\$ 11.59
23340 Fuel Distribution System Mechanic	\$ 14.05
23370 General Maintenance Worker	\$ 8.75
23400 Heating, Refrigeration and Air Conditioning Mechanic	\$ 14.05

23430 Heavy Equipment Mechanic	\$ 14.05
23460 Instrument Mechanic	\$ 14.05
23500 Locksmith	\$ 13.42
23530 Machinery Maintenance Mechanic	\$ 14.05
23550 Machinist, Maintenance	\$ 14.05
23580 Maintenance Trades Helper	\$ 10.95
23640 Millwright	\$ 14.05
23700 Office Appliance Repairer	\$ 13.42
23740 Painter, Aircraft	\$ 13.42
23760 Painter, Maintenance	\$ 13.42
23790 Pipefitter, Maintenance	\$ 14.05
23800 Plumber, Maintenance	\$ 13.42
23820 Pneudraulic Systems Mechanic	\$ 14.05
23850 Rigger	\$ 14.05
23870 Scale Mechanic	\$ 12.82
23890 Sheet-metal Worker, Maintenance	\$ 14.05
23910 Small Engine Mechanic	\$ 12.82
23930 Telecommunications Mechanic I	\$ 14.05
23940 Telecommunications Mechanic II	\$ 15.22
23950 Telephone Lineman	\$ 14.05
23960 Welder, Combination, Maintenance	\$ 14.05
23965 Well Driller	\$ 14.05
23970 Woodcraft Worker	\$ 14.05
23980 Woodworker	\$ 12.22

PERSONAL NEEDS:

24570 Child Care Attendant	\$ 6.01
24600 Chore Aide	\$ 4.91
24630 Homemaker	\$ 8.33

PLANT AND SYSTEM OPERATION:

25010 Boiler Tender	\$ 14.05
25040 Sewage Plant Operator	\$ 13.42
25070 Stationary Engineer	\$ 14.05
25190 Ventilation Equipment Tender	\$ 10.95
25210 Water Treatment Plant Operator	\$ 13.42

PROTECTIVE SERVICE:

27004 Alarm Monitor	\$ 7.21
27010 Court Security Officer	\$ 9.68
27040 Detention Officer	\$ 9.68
27070 Firefighter	\$ 10.50
27101 Guard I	\$ 6.03
27102 Guard II	\$ 7.21
27130 Police Officer	\$ 12.28

TECHNICAL:

9010 Air Traffic Control 2/ Specialist, Center	\$ 21.67
9011 Air Traffic Control 2/ Specialist, Station	\$ 14.94
9012 Air Traffic Control 2/ Specialist, Terminal	\$ 16.46
9020 Archeological Technician	\$ 15.87
9030 Cartographic Technician	\$ 15.87
9040 Civil Engineering Technician	\$ 15.87

29061 Drafter I	\$ 9.24
29062 Drafter II	\$ 10.40
29063 Drafter III	\$ 13.06
29064 Drafter IV	\$ 15.87
29070 Embalmer	\$ 17.63
29081 Engineering Technician I	\$ 10.36
29082 Engineering Technician II	\$ 11.63
29083 Engineering Technician III	\$ 13.02
29084 Engineering Technician IV	\$ 16.12
29085 Engineering Technician V	\$ 19.72
29086 Engineering Technician VI	\$ 23.86
29090 Environmental Technician	\$ 15.87
29210 Laboratory Technician	\$ 11.83
29240 Mathematical Technician	\$ 15.87
29330 Mortician	\$ 17.63
29390 Photooptics Technician	\$ 15.87
29480 Technical Writer	\$ 15.02
29620 Weather Observer, Senior 3/	\$ 12.80
29621 Weather Observer, Combined 3/ Upper Air and Surface Programs	\$ 11.83
29622 Weather Observer, Upper Air 3/	\$ 11.83

**TRANSPORTATION/MOBILE EQUIPMENT
OPERATION:**

31030 Bus Driver	\$ 9.15
31100 Driver Messenger	\$ 8.70
31200 Heavy Equipment Operator	\$ 14.05
31290 Shuttle Bus Driver	\$ 8.75
31300 Taxi Driver	\$ 7.29
31361 Truckdriver, Light Truck	\$ 8.75
31362 Truckdriver, Medium Truck	\$ 9.15
31363 Truckdriver, Heavy Truck	\$ 9.65
36364 Truckdriver, Tractor-Trailer	\$ 10.15

MISCELLANEOUS:

99005 Aircraft Quality Control Inspector	\$ 15.22
99020 Animal Caretaker	\$ 7.00
99030 Cashier	\$ 5.93
99040 Child Care Center Clerk	\$ 7.50
99050 Desk Clerk	\$ 7.00
99260 Instructor	\$ 17.63
99300 Lifeguard	\$ 5.36
99350 Park Attendant (Aide)	\$ 6.73
99400 Photofinishing Worker	\$ 6.01
99500 Recreation Specialist	\$ 13.04
99510 Recycling Worker	\$ 7.41
99610 Sales Clerk	\$ 5.36
99630 Sports Official	\$ 5.36
99658 Survey Party Chief	\$ 7.85
99659 Surveying Technician	\$ 7.50
99660 Surveying Aide	\$ 4.91
99690 Swimming Pool Operator	\$ 8.68
99720 Vending Machine Attendant	\$ 7.41
99730 Vending Machine Repairer	\$ 8.68
99740 Vending Machine Repairer Helper	\$ 7.41

**** Fringe Benefits Required For All Occupations Included In
This Wage Determination ****

HEALTH & WELFARE: Life, accident, and health insurance plans, sick leave, pension plans, civic and personal leave, and savings and thrift plans. Minimum employer contributions costing an average of \$2.56 per hour computed on the basis of all hours worked by service employees employed on the contract. May include such benefits as severance pay.

VACATION: 2 weeks paid vacation after 1 year of service with a contractor or successor; 3 weeks after 10 years; 4 weeks after 15 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 4.173)

HOLIDAYS: Minimum of ten paid holidays per year: New Year's Day, Martin Luther King Jr.'s Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4.174)

Does not apply to employees employed in a bona fide executive, administrative, or professional capacity as defined and delineated in 29 CFR 541. (See 29 CFR 4.156)

NIGHT DIFFERENTIAL: An employee is entitled to pay for all work performed between the hours of 6:00 P.M. and 6:00 A.M. at the rate of basic pay plus a night pay differential amounting to 10 percent of the rate of basic pay.

APPLICABLE TO WEATHER OBSERVERS ONLY - NIGHT PAY & SUNDAY PAY: If you work at night as a part of a regular tour of duty, you will earn a NIGHT DIFFERENTIAL and receive an additional 10% of basic pay for any hours worked between 6pm and 6am. If you are a full-time employee (40 hours a week) and Sunday is part of your regularly scheduled workweek, you are paid at your rate of basic pay plus a Sunday premium of 25% of your basic rate for each hour of Sunday work which is not overtime (i.e. occasional work on Sunday outside the normal tour of duty is considered overtime work).

**** UNIFORM ALLOWANCE ****

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all

employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount, or the furnishing of contrary affirmative proof as to the actual cost), reimburse all employees for such cleaning and maintenance at a rate of \$4.25 per week (or \$.85 cents per day). However, in those instances where the uniforms furnished are made of "wash and wear" materials, may be routinely washed and dried with other personal garments, and do not require any special treatment such as dry cleaning, daily washing, or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract, by the contractor, by law, or by the nature of the work, there is no requirement that employees be reimbursed for uniform maintenance costs.

**** NOTES APPLYING TO THIS WAGE DETERMINATION ****

Source of Occupational Titles and Descriptions:

The duties of employees under job titles listed are those described in the "Service Contract Act Directory of Occupations," Fourth Edition, January 1993, as amended by First Supplement December 1993, unless otherwise indicated. This publication may be obtained from the Superintendent of Documents, at 202-783-3238, or by writing to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Copies of specific job descriptions may also be obtained from the appropriate contracting officer.

REQUEST FOR AUTHORIZATION OF ADDITIONAL CLASSIFICATION AND WAGE RATE
(Standard Form 1444 (SF 1444))

Conformance Process:

The contracting officer shall require that any class of service employee which is not listed herein and which is to be employed under the contract (i.e., the work to be performed is not performed by any classification listed in the wage determination), be classified by the contractor so as to provide a reasonable relationship (i.e., appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination. Such conformed classes of employees shall be paid the monetary wages and furnished the fringe benefits as are determined. Such conforming process shall be initiated by the contractor prior to the performance of contract work by such unlisted class(es) of employees. The conformed classification, wage rate, and/or fringe benefits shall be retroactive to the commencement date of the contract. (See Section 4.6 (C)(vi)) When multiple wage determinations are included in a contract, a separate SF 1444 should be prepared for each wage determination to which a class(es) is to be conformed.

The process for preparing a conformance request is as follows:

- 1) When preparing the bid, the contractor identifies the need for a conformed occupation(s) and computes a proposed rate(s).

2) After contract award, the contractor prepares a written report listing in order proposed classification title(s), a Federal grade equivalency (FGE) for each proposed classification(s), job description(s), and rationale for proposed wage rate(s), including information regarding the agreement or disagreement of the authorized representative of the employees involved, or where there is no authorized representative, the employees themselves. This report should be submitted to the contracting officer no later than 30 days after such unlisted class(es) of employees performs any contract work.

3) The contracting officer reviews the proposed action and promptly submits a report of the action, together with the agency's recommendations and pertinent information including the position of the contractor and the employees, to the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, for review. (See section 4.6(b)(2) of Regulations 29 CFR Part 4).

4) Within 30 days of receipt, the Wage and Hour Division approves, modifies, or disapproves the action via transmittal to the agency contracting officer, or notifies the contracting officer that additional time will be required to process the request.

5) The contracting officer transmits the Wage and Hour decision to the contractor.

6) The contractor informs the affected employees.

Information required by the Regulations must be submitted on SF 1444 or bond paper.

When preparing a conformance request, the "Service Contract Act Directory of Occupations" (the Directory) should be used to compare job definitions to insure that duties requested are not performed by a classification already listed in the wage determination. Remember, it is not the job title, but the required tasks that determine whether a class is included in an established wage determination. Conformances may not be used to artificially split, combine, or subdivide classifications listed in the wage determination.

DEPARTMENT OF DEFENSE CONTRACT SECURITY CLASSIFICATION SPECIFICATION <i>(The requirements of the DoD Industrial Security Manual apply to all security aspects of this effort.)</i>				1. CLEARANCE AND SAFEGUARDING a. FACILITY CLEARANCE REQUIRED TOP SECRET b. LEVEL OF SAFEGUARDING REQUIRED NONE	
2. THIS SPECIFICATION IS FOR: <i>(X and complete as applicable)</i>			3. THIS SPECIFICATION IS: <i>(X and complete as applicable)</i>		
a. PRIME CONTRACT NUMBER		b. ORIGINAL <i>(Complete date in all cases)</i>		Date (YYMMDD) 95-10-02	
d. SUBCONTRACT NUMBER		b. REVISED <i>(Supersedes all previous specs)</i>		Revision No. Date (YYMMDD)	
c. SOLICITATION OR OTHER NUMBER X RFP-1-137. D.1165		Due Date (YYMMDD) 95-12-15		c. FINAL <i>(Complete Item 3 in all cases)</i> Date (YYMMDD)	
4. IS THIS A FOLLOW-ON CONTRACT? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> <i>If Yes, complete the following</i> Classified material received or generated under _____ <i>(Preceding Contract Number)</i> is transferred to the follow-on contract					
5. IS THIS A FINAL DD FORM 2547 YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> <i>If Yes, complete the following</i> In response to the contractor's request dated _____ retention of the identified classified material is authorized for the period of _____					
6. CONTRACTOR <i>(Include Commercial and Government Entity (CAGE) Code)</i>					
a. NAME, ADDRESS, AND ZIP CODE N/A		b. CAGE CODE N/A	c. COGNIZANT SECURITY OFFICE <i>(Name, Address, and Zip Code)</i> N/A		
7. SUBCONTRACTOR					
a. NAME, ADDRESS, AND ZIP CODE N/A		b. CAGE CODE N/A	c. COGNIZANT SECURITY OFFICE <i>(Name, Address, and Zip Code)</i> N/A		
8. ACTUAL PERFORMANCE					
a. LOCATION N/A		b. CAGE CODE N/A	c. COGNIZANT SECURITY OFFICE <i>(Name, Address, and Zip Code)</i> N/A		
9. GENERAL IDENTIFICATION OF THIS PROCUREMENT <p style="text-align: center;">AEROSPACE RESEARCH and TECHNOLOGY (ART)</p>					
10. THIS CONTRACT WILL REQUIRE ACCESS TO:				11. IN PERFORMING THIS CONTRACT, THE CONTRACTOR WILL:	
a. COMMUNICATIONS SECURITY (COMSEC) INFORMATION				YES NO	
b. RESTRICTED DATA				YES NO	
c. CRITICAL NUCLEAR WEAPON DESIGN INFORMATION				YES NO	
d. FORMERLY RESTRICTED DATA				YES NO	
e. INTELLIGENCE INFORMATION:				YES NO	
(1) Sensitive Compartmented Information (SCI)				YES NO	
(2) Non-SCI				YES NO	
f. SPECIAL ACCESS INFORMATION				YES NO	
g. NATO INFORMATION				YES NO	
h. FOREIGN GOVERNMENT INFORMATION				YES NO	
i. LIMITED DISSEMINATION INFORMATION				YES NO	
j. FOR OFFICIAL USE ONLY INFORMATION				YES NO	
k. OTHER <i>(Specify)</i> <p style="text-align: center;">N/A</p>				YES NO	
a. HAVE ACCESS TO CLASSIFIED INFORMATION ONLY AT ANOTHER CONTRACTOR'S FACILITY OR A GOVERNMENT ACTIVITY				YES NO	
b. RECEIVE CLASSIFIED DOCUMENTS ONLY				YES NO	
c. RECEIVE AND GENERATE CLASSIFIED MATERIAL				YES NO	
d. FABRICATE, MODIFY, OR STORE CLASSIFIED HARDWARE				YES NO	
e. PERFORM SERVICES ONLY				YES NO	
f. HAVE ACCESS TO U.S. CLASSIFIED INFORMATION OUTSIDE THE U.S. <i>(EXCEPT FOR THE POSSESSIONS AND TRUST TERRITORIES)</i>				YES NO	
g. BE AUTHORIZED TO USE THE SERVICES OF DEFENSE TECHNICAL INFORMATION CENTER (DTIC) OR OTHER SECONDARY DISTRIBUTION CENTER				YES NO	
h. REQUIRE A COMSEC ACCOUNT				YES NO	
i. HAVE TEMPEST REQUIREMENTS				YES NO	
j. HAVE OPERATIONS SECURITY (OPSEC) REQUIREMENTS				YES NO	
k. BE AUTHORIZED TO USE THE DEFENSE COURIER SERVICE				YES NO	
l. OTHER <i>(Specify)</i>				YES NO	

EXHIBIT E

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PROCEDURES FOR THE PREPARATION AND APPROVAL OF CONTRACTOR
REPORTS FOR LANGLEY RESEARCH CENTER

GUIDELINES. - The following documents or subsequent editions in effect on date of contract shall serve as the basis for preparation of Contractor Reports:

NASA SP-7047 NASA Publications Guide
DoD 5220.22-M Industrial Security Manual for Safeguarding Classified
Information, January 1991

NOTE: Copies of NASA SP-7047 will be furnished by the Contracting Officer upon request.

FORMAT AND ORGANIZATION. - The format and organization of a Contractor Report should be consistent and follow the practices recommended in the NASA Publications Guide (NASA SP-7047). For questions concerning format, contact Langley Technical Editing Branch at (804) 864-2518. **An original Report Documentation Page (Standard Form 298) shall be included as the last page in the report.** (The instructions on the back of the form shall not appear in the printed report.) A reproducible copy of this form will be furnished to you with your copy of the executed contract.

TRADEMARKS. - U.S. Government policy prohibits endorsing or criticizing commercial products in its publications. Use of trademarks is discouraged. If a trademark must be used, its owner must be credited and the trademark must be used as an adjective modifying the generic name.

REFERENCES. - Material that is not obtainable or available must not be listed in the references. Documents of NASA contracts published as in-house documents must be referenced as NASA CR's, not as NASA Contract Numbers.

SECURITY. - Security markings, when necessary, shall be consistent with DD Form 254, the directive issued by the Security Classification Officer, and shall conform to requirements established in the DoD Industrial Security Manual. For questions concerning security classification, contact LaRC Security Classification Officer at (804) 864-3415.

APPROVAL COPIES.

1. Upon completion of a report, the Contractor shall submit five (5) approval copies to the Contracting Officer for review and approval by NASA. These copies may be reproduced and assembled by an economical means by the Contractor.

2. The Contractor will be notified of acceptance of the approval copy of the report by the Contracting Officer within sixty (60) days. Approval will be contingent upon changes required by NASA. An original master copy in agreement with the approval copy shall be prepared and submitted by the Contractor.

ORIGINAL MANUSCRIPT. - The original manuscript of a Contractor Report shall consist of a one-sided master copy of the text, cleanly typed on opaque white paper, from which negatives and printing plates can be made, unscreened glossy prints of photographs, and original artwork of a quality suitable for reproduction

by offset printing. Suggestions for preparing acceptable copy are given in NASA SP-7047. The original manuscript should not be bound and should have consecutive page numbers added in proper sequence. Odd numbered pages are numbered at the bottom of the page on the right; even, on the left. To avoid damage in handling and shipping, the original manuscript should be carefully packaged.

DISTRIBUTION AND DUPLICATION. - From the review made at the Langley Research Center, the Contracting Officer will make a determination concerning publication and distribution, which the Contractor shall complete within thirty (30) days after receipt of approval copies.

1. If NASA Langley Research Center considers that the report should be distributed only in limited quantities, the Contractor shall be requested to prepare duplicates of the original manuscript and distribute the original manuscript and copies (not to exceed 100¹) in accordance with a distribution list supplied by the Contracting Officer. In this case, the report will be assigned a number in the NASA CR high-numbered series (CR number above 50,000) by the Contracting Officer. When necessary, the Contractor will be provided with any notices to be added to the cover concerning distribution limitations.

2. If the NASA Langley Research Center considers the report of such quality or interest that it warrants wide distribution, it will be recommended to NASA Headquarters for publication in the NASA CR low-numbered series, and the Contractor will be requested to forward the original manuscript, together with up to 25² duplicate copies to Langley Research Center addresses furnished by the Contracting Officer. At the direction of the Contracting Officer, advance distribution by the Center may be made to those having a need to know. Printing from the original manuscript for final distribution will be provided by NASA. NASA will include the CR number on the cover and provide the author(s) with 10 copies each of the final printed report. (Author(s) will not receive 10 copies each of restricted distribution reports.)

PRINTING STANDARDS. - To comply with NASA printing requirements and cost considerations, reports submitted should conform to the following standards. Any questions regarding implementation of these standards should be directed to the Langley Printing Management Officer (LPMO) at (804) 864-3284.

1. Multiple-copy production shall be by the offset duplicating method, except as described in subparagraphs 1a and 1b below.

a. Production may be on office copying machines or on diazo equipment when the number of copies is so small that such production is more economical than offset duplicating. However, the images will be clearly legible and permanent.

¹See Clause 18-52.208-81, Printing and Duplicating, for more detailed guidance.

b. Any image that cannot be accommodated by a foldout (as described in paragraph 2 herein) will be produced by the diazo or electrostatic method in a size dictated by legibility requirements.

2. The page image size of cover and text pages including headings will not exceed 7 1/8 x 9 1/8 inches. Page image including page number will not exceed 7 1/8 x 10 inches. Diagrams, charts, drawings, etc., shall be reduced and, if necessary, run broadside to eliminate oversized pages. If such reduction is too great for legibility, the subject will be split and run on two facing pages or run as a foldout with an image not larger than 14 x 9 1/2 inches.

3. Text and foldout pages will be on either of two paper stocks:

a. Offset book paper, white, substance 50 lbs. (basis 25 x 38/1000 sheets, Joint Committee on Printing (JCP) A60).

b. Chemical wood writing paper, white or colored, substance 20 lbs. (basis 17 x 22/1000 sheets, JCP G30).

4. Covers, if necessary, will be on either of two paper stocks:

a. Vellum finish (or antique finish) cover paper, white or colored, substance 50 lbs. (basis 20 x 26/1000 sheets, JCP L20).

b. Chemical wood index paper, white or colored, substance 110 lbs. (basis 25 1/2 x 30 1/2/1000 sheets, JCP K20).

5. Use of tabs is expensive and rarely necessary. First consideration should be given to the use of a contents page. Second choice should be bleed-edge index markers. If tabs must be used, they will be duplicated on one side only, on chemical wood index paper, white or colored, substance 110 lbs. (basis 25 1/2 x 30 1/2/1000 sheets); they will be angle cut and not die cut.

6. All duplicating will be in black ink. If other or additional color is required for a functional purpose, approval in writing must be obtained from the Langley Printing Management Officer (LPMO) through the Contracting Officer before preparation of final reproduction copy.

7. Text pages of all documents produced will be reproduced on both sides of sheet where feasible.

8. Binding will be by fastening with wire staples or stitches, either one in a corner or two in the binding margin. Documents too thick to staple or stitch will be produced in two or more volumes. Prong fasteners, binding screws, plastic combs, and spiral and similar wire fasteners add to production time and costs, and generally their use should be avoided.

9. Plastic protective sheets will not be used.

10. When hard-cover protection of a document is needed, the document will be drilled with three round 1/4 inch or 3/8 inch holes, 4 1/4 inches center-to-center, for insertion into standard 3-ring binders. Special stamped, printed or silk-screened binders shall not be used. A single corner staple or stitch or a band will be used to hold the document together until it is put into a binder.

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503

1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE May 1991	3. REPORT TYPE AND DATES COVERED Contractor Report	
4. TITLE AND SUBTITLE Science Needs for Real-Time Adaptable Data Products From the Earth Observing System			5. FUNDING NUMBERS C NAS1-18676	
6. AUTHOR(S) Paul D. Try, Paul F. Twitchell, and Christopher R. Redder				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Science and Technology Corporation 101 Research Drive Hampton, VA 23666-1340			8. PERFORMING ORGANIZATION REPORT NUMBER STC-42518	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) National Aeronautics and Space Administration Langley Research Center Hampton, VA 23665-5225			10. SPONSORING/MONITORING AGENCY REPORT NUMBER NASA CR-0000	
11. SUPPLEMENTARY NOTES Langley Technical Monitor: David E. Bowker Final Report				
12a. DISTRIBUTION/AVAILABILITY STATEMENT Unclassified Unlimited Subject Category 43			12b. DISTRIBUTION CODE <i>(If contract specifies restricted distribution, state restriction instead of Unclassified-Unlimited.)</i>	
13. ABSTRACT (Maximum 200 words) Advancing the understanding of the Earth system requires improved knowledge of the time-variant governing processes, and the knowledge of these processes often comes only from real-time observations of the changing variables as seen from space. The unpredictability of what is to be measured and at what rate requires flexibility in the observational capability. The Earth Observing System (EOS) will be a major source of observational data during the next 10- to 25-year timeframe. Consequently, to ensure the needed advances in the understanding of the Earth system, real-time onboard processing is concluded to be a critical need for EOS. <i>(Provide an unclassified abstract not to exceed 200 words)</i>				
14. SUBJECT TERMS Real-time data needs; Onboard data processing; Real-time processing for EOS; EOS communication needs			15. NUMBER OF PAGES 76	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT	

EXHIBIT F

TO: NASA Langley Research Center
 126/Contract Specialist
 Hampton, VA 23681-0001

FROM: (Insert Company Name)

SUBJECT: Semiannual Progress Report for Small Disadvantaged Business
 Goals - NAS1- for the Period Ending

	<u>This Reporting Period</u>		<u>Cumulative</u>	
	<u>Dollars</u>	<u>Percent</u>	<u>Dollars</u>	<u>Percent</u>
1. Small Disadv. Bus. Concerns:	\$	%	\$	%
2. Woman-Owned Small Bus: (include as part of 1 above)	\$	%	\$	%
3. Historical Black Colleges/Univ: and/or Minority Institutions (include as part of 1 above)	\$	%	\$	%

cc:
 NASA, Langley Research Center
 M/S 144, Head AOB
 Hampton, VA 23681-0001

SAMPLE

PART IV - REPRESENTATIONS AND INSTRUCTIONS

SECTION K - REPRESENTATIONS, CERTIFICATIONS AND OTHER STATEMENTS OF OFFERORSK.1 CONTINGENT FEE REPRESENTATION AND AGREEMENT (FAR 52.203-4)
(APR 1984)

(a) Representation. The offeror represents that, except for full-time bona fide employees working solely for the offeror, the offeror -

(NOTE: The offeror must check the appropriate boxes. For interpretation of the representation, including the term "bona fide employee", see Subpart 3.4 or the Federal Acquisition Regulation.)

(1) () has, () has not, employed or retained any person or company to solicit or obtain this contract; and

(2) () has, () has not, paid or agreed to pay to any person or company employed or retained to solicit or obtain this contract any commission, percentage, brokerage, or other fee contingent upon or resulting from the award of this contract.

(b) Agreement. The offeror agrees to provide information relating to the above Representation as requested by the Contracting Officer and, when subparagraph (a)(1) or (a)(2) is answered affirmatively, to promptly submit to the Contracting Officer -

(1) A completed Standard Form 119, Statement of Contingent or Other Fees, (SF 119); or

(2) A signed statement indicating that the SF 119 was previously submitted to the same contracting office, including the date and applicable solicitation or contract number, and representing that the prior SF 119 applies to this offer or quotation.

K.2 CERTIFICATION AND DISCLOSURE REGARDING PAYMENTS TO INFLUENCE
CERTAIN FEDERAL TRANSACTIONS (FAR 52.203-11) (APR 1991)

(a) The definitions and prohibitions contained in the clause, at FAR 52.203-12, Limitation on Payments to Influence Certain Federal Transactions, included in this solicitation, are hereby incorporated by reference in paragraph (b) of this certification.

(b) The offeror, by signing its offer, hereby certifies to the best of his or her knowledge and belief, that on or after December 23, 1989, -

(1) No Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of

any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with this solicitation, the offeror shall complete and submit, with its offer, OMB standard form LLL, Disclosure of Lobbying Activities, to the Contracting Officer; and

(3) He or she will include the language of this certification in all subcontracts at any tier and require that all recipients of subcontract awards in excess of \$100,000 shall certify and disclose accordingly.

(c) Submission of this certification and disclosure is a prerequisite for making or entering into this contract imposed by section 1352, title 31, United States Code. Any person who makes an expenditure prohibited under this provision or who fails to file or amend the disclosure form to be filed or amended by this provision, shall be subject to a civil penalty of not less than \$10,000, and not more than \$100,000, for each such failure.

K.3 TAXPAYER IDENTIFICATION (FAR 52.204-3) (MAR 1994)

(a) Definitions.

"Common parent," as used in this solicitation provision, means that corporate entity that owns or controls an affiliated group of corporations that files its Federal income tax returns on a consolidated basis, and of which the offeror is a member.

"Corporate status," as used in this solicitation provision, means a designation as to whether the offeror is a corporate entity, an unincorporated entity (e.g., sole proprietorship or partnership), or a corporation providing medical and health care services.

"Taxpayer Identification Number (TIN)," as used in this solicitation provision, means the number required by the IRS to be used by the offeror in reporting income tax and other returns.

(b) All offerors are required to submit the information required in paragraphs (c) through (e) of this solicitation provision in order to comply with reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M and implementing regulations issued by the Internal Revenue Service (IRS). If the resulting contract is subject to the reporting requirements described in 4.903, the failure or refusal by the offeror to furnish the information may result in a 31 percent reduction of payments otherwise due under the contract.

(c) Taxpayer Identification Number (TIN).

- () TIN: _____
- () TIN has been applied for.
- () TIN is not required because:
- () Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the U.S. and does not have an office or place of business or a fiscal paying agent in the U.S.;
- () Offeror is an agency or instrumentality of a foreign government;
- () Offeror is an agency or instrumentality of a Federal, state, or local government;
- () Other. State basis. _____

(d) Corporate Status.

- () Corporation providing medical and health care services, or engaged in the billing and collecting of payments of such services;

- () Other corporate entity;
 () Not a corporate entity:
 () Sole proprietorship
 () Partnership
 () Hospital or extended care facility described in 26 CFR 501(c)(3)

that is exempt from taxation under 26 CFR 501(a).

(e) *Common Parent.*

() Offeror is not owned or controlled by a common parent as defined in paragraph (a) of this clause.

() Name and TIN of common parent:

Name _____

TIN _____

K.4 WOMEN-OWNED BUSINESS (FAR 52.204-5) (OCT 1995)

(a) *Representation.* The offeror represents that it [] is, [] is not a women-owned business concern.

(b) *Definition.* "Women-owned business concern," as used in this provision, means a concern which is at least 51 percent owned by one or more women; or in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and whose management and daily business operations are controlled by one or more women.

K.5 CERTIFICATION REGARDING DEBARMENT, SUSPENSION, PROPOSED DEBARMENT, AND OTHER RESPONSIBILITY MATTERS (FAR 52.209-5) (MAY 1989)

(a)(1) The Offeror certifies, to the best of its knowledge and belief, that -

(i) The Offeror and/or any of its Principals -

(A) Are () are not () presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;

(B) Have () have not (), within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property; and

(C) Are () are not () presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in subdivision (a)(1)(i)(B) of this provision.

(ii) The Offeror has () has not (), within a three-year period preceding this offer, had one or more contracts terminated for default by any Federal agency.

(2) "Principals," for the purposes of this certification, means officers; directors; owners; partners; and, persons having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions).

THIS CERTIFICATION CONCERNS A MATTER WITHIN THE JURISDICTION OF AN AGENCY OF THE UNITED STATES AND THE MAKING OF A FALSE, FICTITIOUS, OR FRAUDULENT CERTIFICATION MAY RENDER THE MAKER SUBJECT TO PROSECUTION UNDER SECTION 1001, TITLE 18, UNITED STATES CODE.

(b) The Offeror shall provide immediate written notice to the Contracting Officer if, at any time prior to contract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

(c) A certification that any of the items in paragraph (a) of this provision exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered in connection with a determination of the Offeror's responsibility. Failure of the Offeror to furnish a certification or provide such additional information as requested by the Contracting Officer may render the Offeror nonresponsible.

(d) Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The knowledge and information of an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

(e) The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to other remedies available to the Government, the Contracting Officer may terminate the contract resulting from this solicitation for default.

K.6 TYPE OF BUSINESS ORGANIZATION (FAR 52.215-6) (JUL 1987)

The offeror or quoter, by checking the applicable box, represents that -

(a) It operates as () a corporation incorporated under the laws of the State of _____, () an individual, () a partnership, () a nonprofit organization, or () a joint venture; or

(b) If the offeror or quoter is a foreign entity, it operates as () an individual, () a partnership, () a nonprofit organization, () a joint venture, or () a corporation, registered for business in _____ country.

K.7 AUTHORIZED NEGOTIATORS (FAR 52.215-11) (APR 1984)

The offeror or quoter represents that the following persons are authorized to negotiate on its behalf with the Government in connection with this request for proposals or quotations: (list names, titles, and telephone numbers of the authorized negotiators).

K.8 SMALL BUSINESS PROGRAM REPRESENTATIONS (FAR 52.219-1) (OCT 1995)

(a)(1) The standard industrial classification (SIC) code for this acquisition is _____ (insert SIC code).

(2) The small business size standard is _____ (*insert SIC standard*).

(3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.

(b) Representations. (1) The offeror represents and certifies as part of its offer that it is: () a small business concern, () not a small business concern.

(2) (Complete only if offeror represented itself as a small business concern in Block (c)(1) of this section.) The offeror represents as part of its offer that it () is, () is into a small disadvantaged business concern.

(3) (Complete only if offeror represented itself as a small business concern in Block (b)(1) of this section.) The offeror represents as part of its offer that it () is, () is not a women-owned small business concern.

(c) Definitions. "Small business concern," as used in this provision, means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR Part 121 and size standard in Paragraph (a) of this provision.

"Small disadvantaged business concern," as used in this provision, means a small business concern that (1) is at least 51 percent unconditionally owned by one or more individuals who are both socially and economically disadvantaged, or a publicly owned business having at least 51 percent of its stock unconditionally owned by one or more socially and economically disadvantaged individuals, and (2) has its management and daily business controlled by one or more such individuals. This term also means a small business concern that is at least 51 percent unconditionally owned by an economically disadvantaged Indian tribe or Native Hawaiian Organization, or a publicly owned business having at least 51 percent of its stock unconditionally owned by one or more of these entities, which has its management and daily business controlled by members of an economically disadvantaged Indian tribe or Native Hawaiian Organization, and which meets the requirements of 13 CFR Part 124.

"Woman-owned small business concern," as used in this provision, means a small business concern--

(1) Which is at least 51 percent owned by one or more women or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and

(2) Whose management and daily business operations are controlled by one or more women.

(d) Notice. (1) If this solicitation is for supplies and has been set aside, in whole or in part, for small business concerns, then the clause in this solicitation providing notice of the set-aside contains restrictions on the source of the end items to be furnished.

(2) Under 15 U.S.C. 645(d), any person who misrepresents a firm's status as a small business concern in order to obtain a contract to be awarded under the preference programs established pursuant to sections 8(a), 8(d), 9, or 15 of the Small Business Act or any other provision of Federal law that specifically references section 8(d) for a definition of program eligibility, shall --

- (i) Be punished by imposition of a fine, imprisonment, or both;
- (ii) Be subject to administrative remedies, including suspension and debarment; and
- (iii) Be ineligible for participation in programs conducted under the authority of the Act.

K.9 CERTIFICATION OF NONSEGREGATED FACILITIES (FAR 52.222-21)
(APR 1984)

(a) "Segregated facilities", as used in this provision, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees, that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, or national origin because of habit, local custom, or otherwise.

(b) By the submission of this offer, the offeror certifies that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The offeror agrees that a breach of this certification is a violation of the Equal Opportunity clause in the contract.

(c) The offeror further agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) it will -

(1) Obtain identical certifications from proposed subcontractors before the award of subcontracts under which the subcontractor will be subject to the Equal Opportunity clause;

(2) Retain the certifications in the files; and

(3) Forward the following notice to the proposed subcontractors (except if the proposed subcontractors have submitted identical certifications for specific time periods):

NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENT FOR
CERTIFICATIONS OF NONSEGREGATED FACILITIES

A Certification of Nonsegregated Facilities must be submitted before the award of a subcontract under which the subcontractor will be subject to the Equal Opportunity clause. The certification may be submitted either for each subcontract or for all subcontracts during a period (i.e., quarterly, semiannually, or annually.

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

K.10 PREVIOUS CONTRACTS AND COMPLIANCE REPORTS (FAR 52.222-22)
(APR 1984)

The offeror represents that -

(a) It () has, () has not, participated in a previous contract or subcontract subject either to the Equal Opportunity clause of this solicitation, the clause originally contained in Section 310 of Executive Order No. 10925, or the clause contained in Section 201 of Executive Order No. 11114;

(b) It () has, () has not, filed all required compliance reports; and

(c) Representations indicating submission of required compliance reports, signed by proposed subcontractors, will be obtained before subcontract awards.

K.11 AFFIRMATIVE ACTION COMPLIANCE (FAR 52.222-25) (APR 1984)

The offeror represents that (a) it () has developed and has on file, () has not developed and does not have on file, at each establishment, affirmative action programs required by the rules and regulations of the Secretary of Labor (41 CFR 60-1 and 60-2), or (b) it () has not previously had contracts subject to the written affirmative action programs requirement of the rules and regulations of the Secretary of Labor.

K.12 CLEAN AIR AND WATER CERTIFICATION (FAR 52.223-1) (APR 1984)

The offeror certifies that -

- (a) Any facility to be used in the performance of this proposed contract () is, () is not, listed on the Environmental Protection Agency List of Violating Facilities;
- (b) The offeror will immediately notify the Contracting Officer, before award, of the receipt of any communication from the Administrator, or a designee, of the Environmental Protection Agency, indicating that any facility that the offeror proposes to use for the performance of the contract is under consideration to be listed on the EPA List of Violating Facilities; and
- (c) The offeror will include a certification substantially the same as this certification, including this paragraph (c), in every nonexempt subcontract.

K.13 CERTIFICATION REGARDING A DRUG-FREE WORKPLACE (FAR 52.223-5)
(JUL 1995)

(a) Definitions. As used in this provision,

"Controlled substance" means a controlled substance in Schedules I through V of Section 202 of the Controlled Substances Act (21 U.S.C. 812) and as further defined in regulation at 21 CFR 1308.11 - 1308.15.

"Conviction" means a finding of guilt (including a plea of nolo contendere) or imposition of sentence, or both, by any judicial body charged with the responsibility to determine violations of the Federal or State criminal drug statutes.

"Criminal drug statute" means a Federal or non-Federal criminal statute involving the manufacture, distribution, dispensing, possession or use of any controlled substance.

"Drug-free workplace" means the site(s) for the performance of work done by the Contractor in connection with a specific contract at which employees of the Contractor are prohibited from engaging in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance.

"Employee" means an employee of a Contractor directly engaged in the performance of work under a Government contract. "Directly engaged" is defined to include all direct cost employees and any other Contractor employee who has other than minimal impact or involvement in contract performance.

"Individual" means an offeror/Contractor that has no more than one employee including the offeror/Contractor.

(b) By submission of its offer, the offeror (other than an individual) responding to a solicitation that is expected to exceed the simplified acquisition threshold, certifies and agrees, that with respect to all employees of the offeror to be employed under a contract resulting from this solicitation, it will--no later than 30 calendar days after contract award (unless a longer period is agreed to in

writing), for contracts of 30 calendar days or more performance duration; or as soon as possible for contracts of less than 30 calendar days performance duration, but in any case, by a date prior to when performance is expected to be completed -

(1) Publish a statement notifying such employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in the Contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition;

(2) Establish an ongoing drug-free awareness program to inform such employees about -

- (i) The dangers of drug abuse in the workplace;
- (ii) The Contractor's policy of maintaining a drug-free workplace;
- (iii) Any available drug counseling, rehabilitation, and employee assistance programs; and
- (iv) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;

(3) Provide all employees engaged in performance of the contract with a copy of the statement required by subparagraph (b)(1) of this provision;

(4) Notify such employees in writing in the statement required by subparagraph (b)(1) of this provision that, as a condition of continued employment on the contract resulting from this solicitation, the employee will -

- (i) Abide by the terms of the statement; and
- (ii) Notify the employer in writing of the employee's conviction under a criminal drug statute for a violation occurring in the workplace no later than 5 calendar days after such conviction;

(5) Notify the Contracting Officer in writing within 10 calendar days after receiving notice under subdivision (b)(4)(ii) of this provision, from an employee or otherwise receiving actual notice of such conviction. The notice shall include the position title of the employee; and

(6) Within 30 calendar days after receiving notice under subdivision (b)(4)(ii) of this provision of a conviction, take one of the following actions with respect to any employee who is convicted of a drug abuse violation occurring in the workplace:

(i) Take appropriate personnel action against such employee, up to and including termination; or

(ii) Require such employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency.

(7) Make a good faith effort to maintain a drug-free workplace through implementation of subparagraphs (b)(1) through (b)(6) of this provision.

(c) By submission of its offer, the offeror, if an individual who is making an offer of any dollar value, certifies and agrees that the offeror will not engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance in the performance of the contract resulting from this solicitation.

(d) Failure of the offeror to provide the certification required by paragraphs (b) or (c) of this provision, renders the offeror unqualified and ineligible for award. (See FAR 9.104-1(g) and 19.602-1(a)(2)(i).)

(e) In addition to other remedies available to the Government, the certification in paragraphs (b) or (c) of this provision concerns a matter within the jurisdiction of an agency of the United States and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code, Section 1001.

K.14 CERTIFICATION OF TOXIC CHEMICAL RELEASE REPORTING
(FAR 52.223-13) (OCT 1995)

(a) The offeror, by signing this offer, certifies that--
(NOTE: The offeror must check the appropriate box(es).)

(1) To the best of its knowledge and belief, it is not subject to the filing and reporting requirements described in Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) Sections 313(a) and (g) and Pollution Prevention Act of 1990 (PPA) Section 6607 because none of its owned or operated facilities to be used in the performance of this contract currently--

(i) Manufacture, process or otherwise use any toxic chemicals listed under Section 313(c) of EPCRA, 42 U.S.C. 11023(c).

(ii) Have 10 or more full-time employees as specified in Section 313(b)(1)(A) of EPCRA, 42 U.S.C. 11023(b)(1)(A).

(iii) Meet the reporting thresholds of toxic chemicals established under Section 313(f) of EPCRA, 42 U.S.C. 11023(f) of EPCRA, 42 U.S.C. 11023(f) (including the alternate thresholds at 40 CFR 372.27, provided an appropriate certification form has been filed with EPA).

(iv) Fall within Standard Industrial Classification Code (SIC) designations 20 through 39 as set forth in FAR Section 19.102.

(2) If awarded a contract resulting from this solicitation, its owned or operated facilities to be used in the performance of this contract, unless otherwise exempt, will file and continue to file for the life of the contract the Toxic Chemical Release Inventory Form (Form R) as described in EPCRA Sections 313(a) and (g) and PPA Section 6607 (42 U.S.C. 13106)

(b) Submission of this certification is a prerequisite for making or entering into this contract Imposed by Executive Order 12969, August 8, 1995 (60 FR 40989-40992).

K.15 BUY AMERICAN CERTIFICATE (FAR 52.225-1) (DEC 1989)

The offeror certifies that each end product, except those listed below, is a domestic end product (as defined in the clause entitled "Buy American Act - Supplies"), and that components of unknown origin are considered to have been mined, produced, or manufactured outside the United States.

Excluded End Products

Country of Origin

(List as necessary)

Offerors may obtain from the Contracting Officer lists of articles, materials, and supplies excepted from the Buy American Act.

K.16 REPRESENTATION OF LIMITED RIGHTS DATA AND RESTRICTED COMPUTER SOFTWARE (FAR 52.227-15) (JUN 1987)

(a) This solicitation sets forth the work to be performed if a contract award results, and the Government's known delivery requirements for data (as defined in FAR 27.401). Any resulting contract may also provide the Government the option to order additional data under the Additional Data Requirements clause at 52.227-16 of the FAR, if included in the contract. Any data delivered under the resulting contract will be subject to the Rights in Data - General clause at 52.227-14 that is to be included in this contract. Under the latter clause, a Contractor may withhold from delivery data that qualify as limited rights data or restricted computer software, and deliver form, fit, and function data in lieu thereof. The latter clause also may be used with its Alternates II and/or III to obtain delivery of limited rights data or restricted computer software, marked with limited rights or restricted rights notices, as appropriate. In addition, use of Alternate V with this latter clause provides the Government the right to inspect such data at the Contractor's facility.

(b) As an aid in determining the Government's need to include any of the aforementioned Alternates in the clause at 52.227-14, Rights in Data - General, the offeror's response to this solicitation shall, to the extent feasible, complete the representation in paragraph (b) of this provision to either state that none of the data qualify as limited rights data or restricted computer software, or identify which of the data qualifies as limited rights data or restricted computer software. Any identification of limited rights data or restricted computer software in the offeror's response is not determinative of the status of such data should a contract be awarded to the offeror.

REPRESENTATION CONCERNING DATA RIGHTS

Offeror has reviewed the requirements for the delivery of data or software and states (offeror check appropriate block) -

- () None of the data proposed for fulfilling such requirements qualifies as limited rights data or restricted computer software.
- () Data proposed for fulfilling such requirements qualify as limited rights data or restricted computer software and are identified as follows:

NOTE: "Limited rights data" and "Restricted computer software" are defined in the contract clause entitled "Rights in Data - General."

K.17 COST ACCOUNTING STANDARDS NOTICES AND CERTIFICATION
(FAR 52.230-1) (NOV 1993)

Note: This notice does not apply to small businesses or foreign governments.
This notice is in three parts, identified by Roman Numerals I through III.
Offerors shall examine each part and provide the requested information in order to determine Cost Accounting Standards (CAS) requirements applicable to any resultant contract.

I. Disclosure Statement - Cost Accounting Practices and Certification

(a) Any contract in excess of \$500,000 resulting from this solicitation, except contracts in which the price negotiated is based on (1) established catalog or market prices of commercial items sold in substantial quantities to the general public, or (2) prices set by law or regulation, will be subject to the requirements of 48 CFR, Parts 9903 and 9904, except for those contracts which are exempt as specified in 48 CFR, Subpart 9903.201-1.

(b) Any offeror submitting a proposal which, if accepted, will result in a contract subject to the requirements of 48 CFR, Parts 9903 and 9904 must, as a condition of contracting, submit a Disclosure Statement as required by 48 CFR, Subpart 9903.202. The Disclosure Statement must be submitted as a part of the offeror's proposal under this solicitation unless the offeror has already submitted a Disclosure Statement disclosing the practices used in connection with the pricing of this proposal. If an applicable Disclosure Statement has already been submitted, the offeror may satisfy the requirement for submission by providing the information requested in paragraph (c) of Part I of this provision.

CAUTION: In the absence of specific regulations or agreement, a practice disclosed in a Disclosure Statement shall not, by virtue of such disclosure, be deemed to be a proper, approved, or agreed-to practice for pricing proposals or accumulating and reporting contract performance cost data.

(c) Check the appropriate box below:

(1) Certificate of Concurrent Submission of Disclosure Statement.

The offeror hereby certifies that, as a part of the offer, copies of the Disclosure Statement have been submitted as follows: (i) original and one copy to the cognizant Administrative Contracting Officer (ACO), and (ii) one copy to the cognizant contract auditor.

(Disclosure must be on Form No. CASB DS-1. Forms may be obtained from the cognizant ACO or from the loose-leaf version of the Federal Acquisition Regulation.)

Date of Disclosure Statement: _____
Name and Address of Cognizant ACO where filed: _____

The offeror further certifies that practices used in estimating costs in pricing this proposal are consistent with the cost accounting practices disclosed in the Disclosure Statement.

(2) Certificate of Previously Submitted Disclosure Statement.

The offeror hereby certifies that Disclosure Statement was filed as follows:

Date of Disclosure Statement: _____
Name and Address of Cognizant ACO where filed: _____

The offeror further certifies that the practices used in estimating costs in pricing this proposal are consistent with the cost accounting practices disclosed in the applicable disclosure statement.

(3) Certificate of Monetary Exemption.

The offeror hereby certifies that the offeror, together with all divisions, subsidiaries, and affiliates under common control, did not receive net awards of negotiated prime contracts and subcontracts subject to CAS totaling more than \$25 million (of which at least one award exceeded \$1 million) in the cost accounting period immediately preceding the period in which this proposal was submitted. The offeror further certifies that if such status changes before an award resulting from this proposal, the offeror will advise the Contracting Officer immediately.

(4) Certificate of Interim Exemption

The offeror hereby certifies that (i) the offeror first exceeded the monetary exemption for disclosure, as defined in (3) of this subsection, in the cost accounting period immediately preceding the period in which this offer was submitted and (ii) in accordance with 48 CFR, Subpart 9903.202-1, the offeror is not yet required to submit a Disclosure Statement. The offeror further certifies that if an award resulting from this proposal has not been made within 90-days after the end of that period, the offeror will immediately submit a revised certificate to the Contracting Officer, in the form specified under subparagraph (c)(1) or (c)(2) of Part I of this provision, as appropriate, to verify submission of a completed Disclosure Statement.

CAUTION: Offerors currently required to disclose because they were awarded a CAS-covered prime contract or subcontract of \$25 million or more in the current cost accounting period may not claim this exemption (4). Further, the exemption applies only in connection with proposals submitted before expiration of the 90-day period following the cost accounting period in which the monetary exemption was exceeded.

II. Cost Accounting Standards - Eligibility for Modified Contract Coverage

If the offeror is eligible to use the modified provisions of 48 CFR subpart 9903.201-2(b) and elects to do so, the offeror shall indicate by checking the box below. Checking the box below shall mean that the resultant contract is subject to the Disclosure and Consistency of Cost Accounting Practices clause in lieu of the Cost Accounting Standards clause.

The offeror hereby claims an exemption from the Cost Accounting Standards clause under the provisions of 48 CFR subpart 9903.201-2(b) and certifies that the offeror is eligible for use of the Disclosure and Consistency of Cost Accounting Practices clause because during the cost accounting period immediately preceding the period in which this proposal was submitted, the offeror received less than \$25 million in awards of CAS-covered prime contracts and subcontracts, or the offeror did not receive a single CAS-covered award exceeding \$1 million. The offeror further certifies that if such status changes before an award resulting from this proposal, the offeror will advise the Contracting Officer immediately.

CAUTION: An offeror may not claim the above eligibility for modified contract coverage if this proposal is expected to result in the award of a CAS-covered contract of \$25 million or more or if, during its current cost accounting period, the offeror has been awarded a single CAS-covered prime contract or subcontract of \$25 million or more.

III. Additional Cost Accounting Standards Applicable to Existing Contracts

The offeror shall indicate below whether award of the contemplated contract would, in accordance with subparagraph (a)(3) of the Cost Accounting Standards clause, require a change in established cost accounting practices affecting existing contracts and subcontracts.

() YES () NO

K.18 CONTRACTS BETWEEN NASA AND FORMER NASA EMPLOYEES (NASA 18-52.203-70) (DEC 1988) (NASA/FAR SUPPLEMENT)

The offeror represents that he or she () is, or () is not, an individual who was employed by NASA during the past two (2) years, or a firm in which such an individual is a partner, principal officer, or majority shareholder or that is otherwise controlled or predominantly staffed by such individuals.

K.19 USE OF GOVERNMENT-OWNED PROPERTY (NASA 18-52.245-79) (MAR 1989) (NASA/FAR SUPPLEMENT)

(a) The offeror does () does not () intend to use in performance of any contract awarded as a result of this solicitation existing Government-owned facilities (real property or plant equipment), special test equipment, or special tooling (including any property offered by this solicitation). The offeror shall identify any offered property not intended to be used. If the offeror does intend to use any of the above items, the offeror must furnish the following information required by Federal Acquisition Regulation (FAR) 45.205(b), NASA FAR Supplement (NFS) 18-45.102-70, and NFS 18-45.104(b):

(1) Identification and quantity of each item. Include the item's acquisition cost if it is not property offered by this solicitation.

(2) For property not offered by this solicitation, identification of the Government contract under which the property is accountable and written permission for its use from the cognizant Contracting Officer.

(3) Amount of rent calculated in accordance with FAR 45.403 and the clause at FAR 52.245-9, Use and Charges, unless the property has been offered on a rent-free basis by this solicitation.

(4) The dates during which the property will be available for use, and if used in more than one contract, the amounts of respective uses in sufficient detail to support proration of the rent. This information is not required for property offered by this solicitation.

(b) The offeror does () does not () request additional Government provided property for use in performing any contract awarded as a result of this solicitation. If the offeror requests additional Government-provided property, the offeror must furnish -

(1) Identification of the property, quantity, and estimated acquisition cost of each item; and

(2) The offeror's written statement as prescribed by FAR 45.302-1(a)(4).

(c) If the offeror intends to use any Government property (paragraphs (a) or (b) above), the offer must also furnish the following:

(1) The date of the last Government review of the offeror's property control and accounting system, actions taken to correct any deficiencies found, and the name and telephone number of the cognizant property administrator.

(2) A statement that the offeror has reviewed, understands, and can comply with all property management and accounting procedures in the solicitation, FAR Subpart 45.5, and NFS Subparts 18-45.5, 18-45.70, and 18-45.71.

(3) A statement indicating whether or not the costs associated with subparagraph (2) above, including plant clearance and/or plant reconversion costs, are included in its cost proposal.

K.20 PAYMENT INFORMATION (LARC 52.232-98) (JUN 1988)

The following is the address to which payment must be sent, if payment is made by check.

SECTION L - INSTRUCTIONS, CONDITIONS, AND NOTICES TO OFFERORS

L.1 ORGANIZATIONAL CONFLICTS OF INTEREST CERTIFICATE--MARKETING CONSULTANTS (FAR 52.209-7) (OCT 1995)

(a) Definitions.

(1) "Marketing consultant" means any independent contractor who furnishes advice, information, direction, or assistance to an offeror or any other contractor in support of the preparation or submission of an offer for a Government contract by that offeror. An independent contractor is not a marketing consultant when rendering --

- (i) Services excluded in Subpart 37.2;
- (ii) Routine engineering and technical services (such as installation, operation, or maintenance of systems, equipment, software, components, or facilities);
- (iii) Routine legal, actuarial, auditing, and accounting services; or
- (iv) Training services.

(2) Organizational conflict of interest means that because of other activities or relationships with other persons, a person is unable or potentially unable to render impartial assistance or advice to the Government, or the person's objectivity in performing the contract work is or might be otherwise impaired, or a person has an unfair competitive advantage.

(b) An individual or firm that employs, retains, or engages contractually one or more marketing consultants in connection with a contract, shall submit to the contracting officer, with respect to each marketing consultant, the certificates described below, if the individual or firm is notified that it is the apparent successful offeror.

(c) The certificate must contain the following:

- (1) The name of the agency and the number of the solicitation in question.
- (2) The name, address, telephone number, and federal taxpayer identification number of the marketing consultant.
- (3) The name, address, and telephone number of a responsible officer or employee of the marketing consultant who has personal knowledge of the marketing consultants involvement in the contract.

(4) A description of the nature of the services rendered by or to be rendered by the marketing consultant.

(5) The name, address, and telephone number of the client or clients, and the name of a responsible officer or employee of the marketing consultant who is knowledgeable about the services provided to such client(s), and a description of the nature of the services rendered to such client(s), if, based on information provided to the Contractor by the marketing consultant, any marketing consultant is rendering or, in the 12 months preceding the date of the certificate, has rendered services respecting the same subject matter of the instant solicitation, or directly relating to such subject matter, to the Government or any other client (including any foreign Government or person).

(6) A statement that the person who signs the certificate for the prime Contractor has informed the marketing consultant of the existence of Subpart 9.5 and Office of Federal Procurement Policy Letter 89-1.

(7) The signature, name, title, employer's name, address, and telephone number of the persons who signed the certificates for both the apparent successful offeror and the marketing consultant.

(d) In addition, the apparent successful offeror shall forward to the Contracting Officer a certificate signed by the marketing consultant that the marketing consultant has been told of the existence of Subpart 9.5 and Office of Federal Procurement Policy Letter 89-1, and the marketing consultant has made inquiry, and to the best of the consultant's knowledge and belief, the consultant has provided no unfair competitive advantage to the prime Contractor with respect to the services rendered or to be rendered in connection with the solicitation, or that any unfair competitive advantage that, to the best of the consultant's knowledge and belief, does or may exist, has been disclosed to the offeror.

(e) Failure of the offeror to provide the certifications may result in the offeror being determined ineligible for award. Misrepresentation of any fact may result in the assessment of penalties associated with false certifications or such other provisions provided for by law or regulation.

L.2 NOTICE OF PRIORITY RATING FOR NATIONAL DEFENSE USE (FAR 52.212-7)
(SEP 1990)

Any contract awarded as a result of this solicitation will be a () DX rated order; (X) DO rated order certified for national defense use under the Defense Priorities and Allocations System (DPAS) (15 CFR 700), and the Contractor will be required to follow all of the requirements of this regulation.

L.3 SOLICITATION DEFINITIONS (FAR 52.215-5) (JUL 1987)

"Offer" means "proposal" in negotiation.

"Solicitation" means a request for proposals (RFP) or a request for quotations (RFQ) in negotiation.

"Government" means United States Government.

L.4 UNNECESSARILY ELABORATE PROPOSALS OR QUOTATIONS (FAR 52.215-7)
(APR 1984)

Unnecessarily elaborate brochures or other presentations beyond those sufficient to present a complete and effective response to this solicitation are not desired and may be construed as an indication of the offeror's or quoter's

lack of cost consciousness. Elaborate art work, expensive paper and bindings, and expensive visual and other presentation aids are neither necessary nor wanted.

L.5 AMENDMENTS TO SOLICITATIONS (FAR 52.215-8) (DEC 1989)

(a) If this solicitation is amended, then all terms and conditions which are not modified remain unchanged.

(b) Offerors shall acknowledge receipt of any amendment to this solicitation (1) by signing and returning the amendment; (2) by identifying the amendment number and date in the space provided for this purpose on the form for submitting an offer; (3) by letter or telegram or (4) facsimile, if facsimile offers are authorized in the solicitation. The Government must receive the acknowledgment by the time specified for receipt of offers.

L.6 SUBMISSION OF OFFERS (FAR 52.215-9) (DEC 1989)

(a) Offers and modifications thereof shall be submitted in sealed envelopes or packages (1) addressed to the office specified in the solicitation, and (2) showing the time specified for receipt, the solicitation number, and the name and address of the offeror.

(b) Telegraphic offers will not be considered unless authorized by the solicitation; however, offers may be modified by written or telegraphic notice.

(c) Facsimile offers, modifications or withdrawals will not be considered unless authorized by the solicitation.

(d) Item samples, if required, must be submitted within the time specified for receipt of offers. Unless otherwise specified in the solicitation, these samples shall be (1) submitted at no expense to the Government and (2) returned at the sender's request and expense, unless they are destroyed during preaward testing.

L.7 LATE SUBMISSIONS, MODIFICATIONS, AND WITHDRAWALS OF PROPOSALS
(FAR 52.215-10) (JUL 1995)

(a) Any proposal received at the office designated in the solicitation after the exact time specified for receipt will not be considered unless it is received before award is made and it -

(1) Was sent by registered or certified mail not later than the fifth calendar day before the date specified for receipt of offers (e.g., an offer submitted in response to a solicitation requiring receipt of offers by the 20th of the month must have been postmarked by the 15th);

(2) Was sent by mail or, if authorized by the solicitation, was sent by telegram or via facsimile and it is determined by the Government that the late receipt was due solely to mishandling by the Government after receipt at the Government installation;

(3) Was sent by U.S. Postal Service Express Mail Next Day Service-Post Office to Addressee, not later than 5:00 p.m. at the place of mailing two working days prior to the date specified for receipt of proposals. The term "working days" excludes weekends and U.S. Federal holidays; or

(4) Is the only proposal received.

(b) Any modification of a proposal or quotation, except a modification resulting from the Contracting Officer's request for "best and final" offer, is subject to the same conditions as in subparagraphs (a)(1), (2), and (3) of this provision.

(c) A modification resulting from the Contracting Officer's request for "best and final" offer received after the time and date specified in the request will not be considered unless received before award and the late receipt is due solely to mishandling by the Government after receipt at the Government installation.

(d) The only acceptable evidence to establish the date of mailing of a late proposal or modification sent either by registered or certified mail is the U.S. or Canadian Postal Service postmark on the envelope or wrapper and on the original receipt from the U.S. or Canadian Postal Service. Both postmarks must show a legible date or the proposal, quotation, or modification shall be processed as if mailed late. "Postmark" means a printed, stamped, or otherwise placed impression (exclusive of a postage meter machine impression) that is readily identifiable without further action as having been supplied and affixed by employees of the U.S. or Canadian Postal Service on the date of mailing. Therefore, offerors or quoters should request the postal clerks to place a legible hand cancellation bull's-eye postmark on both the receipt and the envelope or wrapper.

(e) The only acceptable evidence to establish the time of receipt at the Government installation is the time/date stamp of that installation on the proposal wrapper or other documentary evidence of receipt maintained by the installation.

(f) The only acceptable evidence to establish the date of mailing of a late offer, modification, or withdrawal sent by Express Mail Next Day Service-Post Office to Addressee is the date entered by the post office receiving clerk on the "Express Mail Next Day Service-Post Office to Addressee" label and the postmark on both the envelope or wrapper and on the original receipt from the U.S. Postal Service. "Postmark" has the same meaning as defined in paragraph (d) of this provision, excluding postmarks of the Canadian Postal Service. Therefore, offerors or quoters should request the postal clerk to place a legible hand cancellation bull's-eye postmark on both the receipt and the envelope or wrapper.

(g) Notwithstanding paragraph (a) of this provision, a late modification of an otherwise successful proposal that makes its terms more favorable to the Government will be considered at any time it is received and may be accepted.

(h) Proposals may be withdrawn by written notice or telegram (including mailgram) received at any time before award. If the solicitation authorizes facsimile proposals, proposals may be withdrawn via facsimile received at any time before award, subject to the conditions specified in the provision entitled "Facsimile Proposals." Proposals may be withdrawn in person by an offeror or an authorized representative, if the representative's identity is made known and the representative signs a receipt for the proposal before award.

L.8 PREPARATION OF OFFERS (FAR 52.215-13) (APR 1984)

(a) Offerors are expected to examine the drawings, specifications, Schedule, and all instructions. Failure to do so will be at the offeror's risk.

(b) Each offeror shall furnish the information required by the solicitation. The offeror shall sign the offer and print or type its name on the Schedule and each continuation sheet on which it makes an entry. Erasures or other changes must be initialed by the person signing the offer. Offers signed by an agent shall be accompanied by evidence of that agent's authority, unless that evidence has been previously furnished to the issuing office.

(c) For each item offered, offerors shall (1) show the unit price/cost, including, unless otherwise specified, packaging, packing, and preservation and (2) enter the extended price/cost for the quantity of each item offered in the

"Amount" column of the Schedule. In case of discrepancy between a unit price/cost and an extended price/cost, the unit price/cost will be presumed to be correct, subject, however, to correction to the same extent and in the same manner as any other mistake.

(d) Offers for supplies or services other than those specified will not be considered unless authorized by the solicitation.

(e) Offerors must state a definite time for delivery of supplies or for performance of services, unless otherwise specified in the solicitation.

(f) Time, if stated as a number of days, will include Saturdays, Sundays, and holidays.

L.9 EXPLANATION TO PROSPECTIVE OFFERORS (FAR 52.215-14) (APR 1984)

Any prospective offeror desiring an explanation or interpretation of the solicitation, drawings, specifications, etc., must request it in writing soon enough to allow a reply to reach all prospective offerors before the submission of their offers. Oral explanations or instructions given before the award of the contract will not be binding. Any information given to a prospective offeror concerning a solicitation will be furnished promptly to all other prospective offerors as an amendment of the solicitation, if that information is necessary in submitting offers or if the lack of it would be prejudicial to any other prospective offerors.

L.10 FAILURE TO SUBMIT OFFER (FAR 52.215-15) (JUL 1995)

Recipients of this solicitation not responding with an offer should not return this solicitation, unless it specifies otherwise. Instead, they should advise the issuing office by letter or postcard whether they want to receive future solicitations for similar requirements. If a recipient does not submit an offer and does not notify the issuing office that future solicitations are desired, the recipient's name may be removed from the applicable mailing list.

L.11 CONTRACT AWARD (FAR 52.215-16) (OCT 1995)--ALTERNATE II (OCT 1995)

(a) The Government will award a contract resulting from this solicitation to the responsible offeror whose offer conforming to the solicitation will be most advantageous to the Government, cost or price and other factors, specified elsewhere in this solicitation, considered.

(b) The Government may (1) reject any or all offers if such action is in the public interest, (2) accept other than the lowest offer, and (3) waive informalities and minor irregularities in offers received.

(c) The Government intends to evaluate proposals and award a contract without discussions with offerors (except communications conducted for the purpose of minor clarification). Therefore, each initial offer should contain the offeror's best terms from a cost or price and technical standpoint. However, the Government reserves the right to conduct discussions if later determined by the Contracting Officer to be necessary.

(d) A written award or acceptance of offer mailed or otherwise furnished to the successful offeror within the time for acceptance specified in the offer shall result in a binding contract without further action by either party. Before the offer's specified expiration time, the Government may accept an offer (or part of

an offer, as provided in paragraph (d) above), whether or not there are negotiations after its receipt, unless a written notice of withdrawal is received before award. Negotiations conducted after receipt of an offer do not constitute a rejection or counteroffer by the Government.

(e) Neither financial data submitted with an offer, nor representations concerning facilities or financing, will form a part of the resulting contract. However, if the resulting contract contains a clause providing for price reduction for defective cost or pricing data, the contract price will be subject to reduction if cost or pricing data furnished is incomplete, inaccurate, or not current.

(f) The Government may determine that an offer is unacceptable if the prices proposed are materially unbalanced between line items or subline items. An offer is materially unbalanced when it is based on prices significantly less than cost for some work and prices which are significantly overstated in relation to cost for other work, and if there is a reasonable doubt that the offer will result in the lowest overall cost to the Government, even though it may be the low evaluated offer, or it is so unbalanced as to be tantamount to allowing an advance payment.

L.12 FACILITIES CAPITAL COST OF MONEY (FAR 52.215-30) (SEP 1987)

(a) Facilities capital cost of money will be an allowable cost under the contemplated contract, if the criteria for allowability in subparagraph 31.205-10 (a)(2) of the Federal Acquisition Regulation are met. One of the allowability criteria requires the prospective Contractor to propose facilities capital cost of money in its offer.

(b) If the prospective Contractor does not propose this cost, the resulting contract will include the clause Waiver of Facilities Capital Cost of Money.

L.13 TYPE OF CONTRACT (FAR 52.216-1) (APR 1984)

The Government contemplates award of a cost-plus-award-fee contract resulting from this solicitation.

L.14 SIC CODE AND SMALL BUSINESS SIZE STANDARD (FAR 52.219-22) (JAN 1991)

(a) The standard industrial classification (SIC) code for this acquisition is 8731.

(b)(1) The small business size standard is 1,500 employees.

(2) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.

L.15 PREAWARD ON-SITE EQUAL OPPORTUNITY COMPLIANCE REVIEW (FAR 52.222-24) (APR 1984)

An award in the amount of \$1 million or more will not be made under this solicitation unless the offeror and each of its known first-tier subcontractors (to whom it intends to award a subcontract of \$1 million or more) are found, on the basis of a compliance review, to be able to comply with the provisions of the Equal Opportunity clause of this solicitation.

L.16 EVALUATION OF COMPENSATION FOR PROFESSIONAL EMPLOYEES
(FAR 52.222-46) (FEB 1993)

(a) Recompensation of service contracts may in some cases result in lowering the compensation (salaries and fringe benefits) paid or furnished professional employees. This lowering can be detrimental in obtaining the quality of professional services needed for adequate contract performance. It is therefore in the Government's best interest that professional employees, as defined in 29 CFR 541, be properly and fairly compensated. As a part of their proposals, offerors will submit a total compensation plan setting forth salaries and fringe benefits proposed for the professional employees who will work under the contract. The Government will evaluate the plan to assure that it reflects a sound management approach and understanding of the contract requirements. This evaluation will include an assessment of the offeror's ability to provide uninterrupted high-quality work. The professional compensation proposed will be considered in terms of its impact upon recruiting and retention, its realism, and its consistency with a total plan for compensation. Supporting information will include data, such as recognized national and regional compensation surveys and studies of professional, public and private organizations, used in establishing the total compensation structure.

(b) The compensation levels proposed should reflect a clear understanding of work to be performed and should indicate the capability of the proposed compensation structure to obtain and keep suitably qualified personnel to meet mission objectives. The salary rates or ranges must take into account differences in skills, the complexity of various disciplines, and professional job difficulty. Additionally, proposals envisioning compensation levels lower than those of predecessor Contractors for the same work will be evaluated on the basis of maintaining program continuity, uninterrupted high-quality work, and availability of required competent professional service employees. Offerors are cautioned that lowered compensation for essentially the same professional work may indicate lack of sound management judgment and lack of understanding of the requirement.

(c) The Government is concerned with the quality and stability of the work force to be employed on this contract. Professional compensation that is unrealistically low or not in reasonable relationship to the various job categories, since it may impair the Contractor's ability to attract and retain competent professional service employees, may be viewed as evidence of failure to comprehend the complexity of the contract requirements.

(d) Failure to comply with these provisions may constitute sufficient cause to justify rejection of a proposal.

L.17 DETERMINATION OF COMPENSATION REASONABLENESS (NASA 18-52.231-71)
(MAR 1994)

(a) The proposal shall include a total compensation plan. This plan shall address all proposed labor categories, including those personnel subject to union agreements, the Service Contract Act, and those exempt from both of the above. The total compensation plan shall include the salaries/wages, fringe benefits and leave program proposed for each of these categories of labor. The plan also shall include a discussion of the consistency of the plan among the categories of the labor being proposed. Differences between benefits offered professional and nonprofessional employees shall be highlighted. The requirements of this plan may

be combined with that required by the clause at (FAR) 48 CFR 52.222-46, "Evaluation of Compensation for Professional Employees."

(b) The offeror shall provide written support to demonstrate that its proposed compensation is reasonable.

(c) The offeror shall include the rationale for any conformance procedures used or those Service Contract Act employees proposed that do not fall within the scope of any classification listed in the applicable wage determination.

(d) The offeror shall require all service subcontractors (1) with proposed cost reimbursement or non-competitive fixed-price type subcontracts having a total potential value in excess of \$500,000 and (2) the cumulative value of all their service subcontracts under the proposed prime contract in excess of 10 percent of the prime contract's total potential value, provide as part of their proposals the information identified in (a) through (c) of this provision.

L.18 SERVICE OF PROTEST (FAR 52.233-2) (OCT 1995)

(a) Protests, as defined in Section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the General Accounting Office (GAO) or the General Services Administration Board of Contract Appeals (GSBCA), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from Head, Grants and Services Contracts Branch.

(b) The copy of any protest shall be received in the office designated above on the same day a protest is filed with the GSBCA or within one day of filing a protest with the GAO.

L.19 RESERVED

L.20 RESTRICTION ON USE AND DISCLOSURE OF PROPOSAL/QUOTATION INFORMATION (DATA) (NASA 18-52.215-72) (DEC 1984)

It is NASA policy to use information contained in proposals and quotations for evaluation purposes only. While this policy does not require that the proposal or quotation bear a restrictive notice, offerors and quoter should, in order to maximize protection of trade secrets or other information that is commercial or financial and confidential or privileged, place the following notice on the title page of the proposal or quotation and specify the information subject to the notice by inserting appropriate identification, such as page numbers, in the notice. In any event, information (data) contained in proposals and quotations will be protected to the extent permitted by law, but NASA assumes no liability for use and disclosure of information not made subject to the notice.

RESTRICTION ON USE AND DISCLOSURE OF PROPOSAL AND QUOTATION INFORMATION (DATA)

The information (data) contained in (insert page numbers or other identification) of this proposal or quotation constitutes a trade secret and/or information that is commercial or financial and confidential or privileged. It is furnished to the Government in confidence with the understanding that it will not, without permission of the offeror, be used or disclosed for other than evaluation purposes; provided, however, that in the event a contract is awarded

on this proposal or quotation the Government shall have the right to use and disclose this information (data) to the extent provided in the contract. This restriction does not limit the Government's right to use or disclose this information (data) if obtained from another source without restriction.

L.21 EXPENSES RELATED TO OFFEROR SUBMISSIONS (NASA 18-52.215-75) (DEC 1988)

This solicitation neither commits the Government to pay any cost incurred in the submission of the offer or in making necessary studies or designs for preparing the offer, nor to contract for services or supplies. Any costs incurred in anticipation of a contract shall be at the offeror's own risk.

L.22 FALSE STATEMENTS (NASA 18-52.215-76) (DEC 1988)

PROPOSALS MUST SET FORTH FULL, ACCURATE, AND COMPLETE INFORMATION AS REQUIRED BY THE SOLICITATION (INCLUDING ATTACHMENTS). THE PENALTY FOR MAKING FALSE STATEMENTS IN PROPOSALS IS PRESCRIBED IN 18 U.S.C. 1001.

L.23 DISPOSAL OF UNSUCCESSFUL PROPOSALS (NASA 18-52.215-80) (DEC 1988)

After contract award, one or more copies of each unsuccessful proposal will be retained in the Government's official contract file, and all other copies will be destroyed.

L.24 PROPOSAL PAGE LIMITATIONS (NASA 18-52.215-81) (JAN 1994)

(a) The following page limitations are established for each portion of the proposal submitted in response to this solicitation.

<u>Proposal Section</u>	<u>Page Limit</u>
<u>Mission Suitability</u>	<u>75 pages</u>
<u> </u>	<u> </u>
<u> </u>	<u> </u>

(b) A page is defined as one side of a sheet, 8 1/2" x 11", with at least one inch margins on all sides, using not smaller than 12 characters per inch (or equivalent) type. Foldouts count as an equivalent number of 8 1/2" x 11" pages. The metric standard format most closely approximating the described standard 8 1/2" x 11" size may also be used.

(c) Title pages and tables of contents are excluded from the page counts specified in paragraph (a) of this provision. In addition, the Cost section of your proposal is not page limited. However, this section is to be strictly limited to cost and price information. Information that can be construed as belonging in one of the other sections of the proposal will be so construed and counted against that section's page limitation.

- (d) If Best and Final Offers (BAFOs) are requested, separate page limitations will be specified in the Government's request for that submission.
- (e) Pages submitted in excess of the limitations specified in this provision will not be evaluated by the Government and will be returned to the offeror.

L.25 EVALUATION OF PRIME CONTRACTOR PARTICIPATION IN THE NASA MENTOR-PROTEGE PROGRAM (NASA 18-52.219-78) (DEC 1994) (DEVIATION)

NASA will consider (evaluate) the proposed participation and extent of developmental assistance to be provided by a prime contractor to protege firms as an approved Mentor in the NASA Mentor-Protege Program under Element E - Offeror's Approach to Meeting the 8% Small Disadvantaged Business Subcontracting Goal under the Management Approach Subfactor under Mission Suitability.

L.26 SAFETY AND HEALTH PLAN (NASA 18-52.223-73) (DEC 1988)
ALTERNATE I (DEC 1988)

The Contractor shall submit a detailed safety and health plan within 30 days after contract award, showing how the Contractor intends to protect the life, health, and well being of NASA and Contractor employees as well as property and equipment. This plan, as approved by the Contracting Officer, will be included in any resulting contract. Therefore, your proposed plan should include, as a minimum, the following:

- (1) Points of Contact and Responsibility - Organizational flow chart and description of responsibilities of each employee in your organization for safety.
- (2) Employee Safety Training, Certification and Programs - Detailed information on type of training required, parties responsible for certification, and outline of applicable regulations. Detail company programs which emphasize personal safety and motivate employees to be safety conscious.
- (3) LARC Safety Policies/Procedures - Recognition of applicable LARC safety policies and procedures such as Langley Handbook 1710.10, LARC Red Tag System.
- (4) Safety Monitoring and Area Safety - Description of operations which require protective devices (hard hats, eye protection, etc.) be worn and description of your safety monitoring program.
- (5) Accident Investigation and Reporting - Procedures for investigating and reporting accidents/incidents.
- (6) Health - Plans for insuring that baseline physicals, audiograms, or other specialized health examinations required for performance of effort under this contract are obtained and maintained.

L.27 REQUESTS FOR WAIVER OF RIGHTS TO INVENTIONS (NASA 18-52.227-71)
(APR 1984)

(a) In accordance with the NASA Patent Waiver Regulations, 14 CFR Section 1245, Subpart 1, waiver of rights to any or all inventions made or that may be made under a NASA contract or subcontract with other than a small business firm or a domestic nonprofit organization may be requested at different time periods. Advance waiver of rights to any or all inventions that may be made under a contract or subcontract may be requested prior to the execution of the contract or subcontract, or within 30 days after execution by the selected Contractor. In addition, waiver of rights to an identified invention made and reported under a

contract or subcontract may be requested, even though a request for an advance waiver was not made or, if made, was not granted.

(b) Each request for waiver of rights shall be by petition to the Administrator and shall include an identification of the petitioner; place of business and address; if petitioner is represented by counsel, the name, address and telephone number of the counsel; the signature of the petitioner or authorized representative; and the date of signature. No specific forms need be used, but the request should contain a positive statement that waiver of rights is being requested under the NASA Patent Waiver Regulations; a clear indication of whether the request is for an advance waiver or for a waiver of rights for an individual identified invention; whether foreign rights are also requested and, if so, the countries, and a citation of the specific section or sections of the regulations under which such rights are requested; and the name, address, and telephone number of the party with whom to communicate when the request is acted upon. Requests for advance waiver of rights should, preferably, be included with the proposal, but in any event in advance of negotiations.

(c) Petitions for advance waiver, prior to contract execution, must be submitted to the Contracting Officer. All other petitions will be submitted to the Patent Representative designated in the contract.

(d) Petitions submitted with proposals selected for negotiation of a contract will be forwarded by the Contracting Officer to the installation Patent Counsel for processing and then to the Inventions and Contributions Board. The Board will consider these petitions and where the Board makes the findings to support the waiver, the Board will recommend to the Administrator that waiver be granted, and will notify the petitioner and the Contracting Officer of the Administrator's determination. The Contracting Officer will be informed by the Board whenever there is insufficient time or information or other reasons to permit a decision to be made without unduly delaying the execution of the contract. In the latter event, the petitioner will be so notified by the Contracting Officer. All other petitions will be processed by installation Patent Counsel and forwarded to the Board. The Board shall notify the petitioner of its action and if waiver is granted, the conditions, reservations, and obligations thereof will be included in the Instrument of Waiver. Whenever the Board notifies a petitioner of a recommendation adverse to, or different from, the waiver requested, the petitioner may request reconsideration under procedures set forth in the Regulations.

L.28 PATENT RIGHTS CLAUSES (NASA 18-52.227-84) (DEC 1989)

This solicitation contains the patent rights clauses of FAR 52.227-11 (as modified by the NFS) and NFS 18-52.227-70. If the contract resulting from this solicitation is awarded to a small business or nonprofit organization, the clause at NFS 18-52.227-70 shall not apply. If the award is to other than a small business or nonprofit organization, the clause at FAR 52.227-11 shall not apply.

L.29 PLAN FOR NEW TECHNOLOGY REPORTING (NASA 18-52.235-72) (MAR 1989)

The Offeror shall, in the proposal in response to this solicitation, provide estimates of the cost and manpower requirements to perform the new technology reporting required by the clause at 18-52.227-70, New Technology, to be included in any resulting contract. In addition, the Contractor shall, within 30 days after contract award, submit for approval a detailed plan setting forth the manner

in which the Offeror will meet the new technology reporting requirements of the New Technology clause. Such plan shall, at a minimum -

- (a) Identify the specific areas of technical effort that are considered likely to generate new technology;
- (b) Describe the means by which project supervisory and technical personnel will be advised of the responsibilities, details, and benefits of new technology reporting;
- (c) Describe the procedures to be established, maintained, and followed for reviewing the effort to be undertaken for the purposes of identification and reporting (disclosure) of new technology within the time periods and in the manner prescribed by the New Technology clause;
- (d) Describe the procedure for timely submission of the interim and final new technology reports required by the New Technology clause;
- (e) Describe the procedures for (1) selecting either NASA's New Technology clause or another patent rights clause for inclusion in subcontracts having as a purpose the conduct of experimental, developmental, research, design, or engineering work, and (2) providing prompt notification of either the award of such subcontracts or a subcontractor's refusal to accept the clause; and
- (f) Identify the individual(s) assigned substantial and specific responsibilities for ensuring compliance with the requirements of the New Technology clause, as well as their qualifications and organizational placement to discharge these responsibilities.

L.30 IDENTIFICATION OF UNCOMPENSATED OVERTIME (NASA 18-52.237-72) (APR 1995)

The use of uncompensated overtime is neither encouraged or discouraged. When the proposed uncompensated overtime is consistent with an offeror's written policies and practices, NASA will consider it in proposal evaluation, including the evaluation of cost and of professional compensation (see 48 CFR (FAR) Subpart 22.11).

(a) Definitions. As used in this provision:

"Uncompensated overtime" means the hours worked in excess of an average of 40 hours per week, by direct charge employees who are exempt from the Fair Labor Standards Act (FLSA) without additional compensation. Compensated personal absences, such as holidays, vacations, and sick leave shall be included in the normal work week for purposes of computing uncompensated overtime hours.

"Effective hourly rate" is the rate that results from multiplying the hourly rate for a 40-hour work week by 40, and then dividing by the proposed hours per week. For example, 45 hours proposed on a 40-hour work week basis at \$20.00 per hour would be converted to an effective hourly rate of \$17.78 per hour [(\$20.00 x 40) divided by 45 = \$17.78.]

(b) For any hours proposed against which an effective hourly rate is applied, the Offeror shall identify in its proposal the hours in excess of an average of 40 hours per week, at the same level of detail as compensated hours, and the effective hourly rate, whether at the prime or subcontract level. This includes uncompensated overtime hours that are in indirect cost pools for personnel whose regular hours are normally charged direct. The proposal shall include the rationale and methodology used to estimate the proposed amount of uncompensated overtime.

(c) The Offeror's accounting practices used to estimate uncompensated overtime must be consistent with its cost accounting practices used to accumulate and report uncompensated overtime hours.

(d) Proposals that include unrealistically low labor rates, or that do not otherwise demonstrate cost realism, will be considered in a technical and cost risk assessment and evaluated for award in accordance with that assessment.

(e) The Offeror shall include with its proposal a copy of its policy addressing uncompensated overtime, a description of the timekeeping and accounting systems used to record all hours worked by FLSA-exempt employees, and the historical basis for the uncompensated overtime hours proposed.

L.31 PREPROPOSAL/PRE-BID CONFERENCE (NASA 18-52.215-77) (DEC 1988)

(a) A preproposal/pre-bid conference will be held as indicated below:

Date: February 13, 1996

Time: 9:00 a.m.

Location: Pearl I. Young Theater
5A N. Dryden Street (Building 1202A, Room 160)
NASA Langley Research Center

For planning your itinerary, the following is a tentative agenda for the conference:

Agenda

Opening Remarks
LaRC Presentations
Break
Facilities Tour
Questions and Answers

Attendance will be limited to a maximum of three representatives per offeror. The briefing will be unclassified. If you desire to attend the conference, you should so indicate by written, telephone, or (preferably) E-mail contact with the appropriate individual specified below in L.33. After the briefing, advise this Center if you intend to submit a proposal.

In order that as many questions as possible may be answered at the NASA presentations during the briefing, written questions must be submitted to David H. Jones no later than February 7, 1996. A limited time may be available for answering questions submitted on the day of the conference. However, as there is no assurance that adequate time to answer such questions will remain, submission of questions prior to the conference, by the date specified above, will assure their being fully answered.

(b) Attendance at the preproposal/pre-bid conference is recommended; however, attendance is neither required nor a prerequisite for proposal/bid submission and will not be considered in the evaluation.

L.32 CERTIFICATE OF PROCUREMENT INTEGRITY - OFFERS (LaRC 52.203-90)
(OCT 1992)

The certificate required by Federal Acquisition Regulation (FAR) provision 52.203-8, Requirement for Certificate of Procurement Integrity, Alternate I, is attached to this solicitation. In accordance with FAR 3.104-9, the officer or employee responsible for your offer for this procurement must execute this certificate at the time of proposal submission. The fully executed certificate shall be submitted with your proposal.

L.33 COMMUNICATIONS REGARDING THIS SOLICITATION (LaRC 52.204-95)
(OCT 1993)

Any communications in reference to this solicitation shall cite the solicitation number and be directed to the following Government representative:

Name: David H. Jones
E-Mail Address: d.h.jones@larc.nasa.gov
Phone: (804) 864-2421 (COLLECT CALLS NOT ACCEPTED)
Facsimile: 804-864-7709
Address: National Aeronautics and Space Administration
Langley Research Center
Attn: David H. Jones, Mail Code 126
Hampton, VA 23681-0001

Any written communications must include the mail code on the envelope or on the telex.

NOTE: Please note the provision in this section covering "Facsimile Transmission." This provision specifies a different facsimile number for use in transmitting modifications or withdrawals of bids or proposals and acknowledgment of amendments to solicitations.

L.34 ACKNOWLEDGEMENT OF SOLICITATION AMENDMENTS BY FACSIMILE

(a) OFFERORS MAY NOT SUBMIT FACSIMILE PROPOSALS AS RESPONSES TO THIS SOLICITATION.

(b) Offerors may acknowledge amendments to this solicitation by facsimile transmission.

(c) Facsimile transmission of amendment acknowledgements must contain the required signatures.

(d) The NASA Langley Acquisition Division has only one secure facsimile machine for the purpose of receiving amendment acknowledgements. Facsimile receiving data and characteristics are as follows:

Telephone: 804-864-7898
Make and Model: Pitney-Bowes Model 8050
Receiving Speed: Variable

NOTE: This facsimile number is reserved for acknowledgment of amendments only. Other facsimile communication should be sent to the number listed elsewhere in this section of the solicitation.

(e) If the offeror chooses to acknowledge amendments by facsimile transmission, the Government will not be responsible for any failure attributable to the transmission or receipt of the facsimile transmission including, but not limited to, the following:

- (1) Receipt of garbled or incomplete transmission.
- (2) Availability or condition of the receiving facsimile equipment.
- (3) Incompatibility between the sending and receiving equipment.
- (4) Delay in transmission or receipt of transmission.
- (5) Failure of the bidder to properly identify the transmission.
- (6) Illegibility of transmission.

L.35 SECURITY PLAN FOR UNCLASSIFIED FEDERAL COMPUTER SYSTEMS

Notwithstanding the requirements of NASA FAR Supplement Clause 18-52.204-77, it is not expected that offerors will be required to submit the security plan for selection. However, your attention is invited to Exhibit B, Paragraph N, which requires the selected offeror to submit the subject plan within 30 days after contract award.

L.36 USE OF GOVERNMENT SUPPLY SOURCES

The offeror may assume for proposal preparation purposes that use of Government sources such as GSA Contractors will be authorized. Reference FAR Clause 52.251-1.

L.37 SMALL DISADVANTAGED BUSINESS (SDB) SUBCONTRACTING GOAL

Offerors are advised that, in keeping with Congressionally-mandated goals, NASA seeks to place a fair portion of its contract dollars, where feasible, with small disadvantaged business concerns as defined in 52.219-8 of the FAR and 18-52.219-76 of the NASA FAR Supplement. For this procurement, the Contracting Officer has established a mandatory goal of eight percent for SDB participation. The goal stated as a percentage of the total contract value, including all options, not the total planned subcontracting dollars and includes participation by small business concerns owned and controlled by women, Historically Black Colleges and Universities and other minority educational institutions.

NASA encourages all offerors to propose to meet or exceed this goal to the maximum extent practicable and to continue to encourage small disadvantaged business development throughout the contract period. Offeror's will be evaluated on the proposed SDB subcontracting goal in comparison with the eight percent goal and on the methods for achieving proposed goal, under Element E of the Management Approach subfactor under Mission Suitability. Additionally, the extent that the prime Contractor in any resultant contract meets or exceeds this goal will be a factor considered in award fee determinations.

NOTE: NASA prime Contractor can only count first tier subcontracting dollars toward achievement of the eight percent.

L.38 SMALL BUSINESS AND SMALL DISADVANTAGED BUSINESS SUBCONTRACTING PLAN (DEC 1988) ALTERNATE I (DEC 1988)

(a) This provision is not applicable to small business concerns.

(b) The contract expected to result from this solicitation will contain FAR Clause 52.219-9, "Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan."

Each offeror must submit the complete plan with its initial proposal.

L.39 BIDDER'S LIBRARY

A bidder's library has been established and is located at LaRC in the Technical Library, 2 West Durand Street (Building 1194). Information regarding the contents of the library is included in Attachment 1, Bidder's Library Index. The hours of operation are from 8:00 to 4:00 p.m. Monday through Friday, excluding Government holidays. The bidder's library will be open for visitation through the proposal due date. Offerors wishing to visit the bidder's library should contact Donna Y. Jones at (804) 864-3900 to schedule an appointment. All users of the bidder's library must have a valid NASA Visitor Badge, which may be obtained from the NASA Langley Badge and Pass Office located at the Main Gate (1 Langley Boulevard), telephone (804) 864-2790. The bidder's library contains instructional and reference material that is too voluminous to include with the RFP. Offerors are encouraged to visit the library, although a visit is neither required nor a prerequisite for proposal/bid submission. Copies of all materials in the Bidder's Library are available for a fee of \$0.10/page.

L.40 CONTRACTOR FACILITIES

The Contractor shall provide off-site facilities for the performance of work under the contract. At least 40% of the Contractor's direct labor work force shall be located in these off-site facilities at any given time during the total (up to 53 months) contract period of performance. Additionally, only those Contractor employees with a legitimate need to be on-site (e.g., individuals operating an on-site test facility with continuous staffing requirements) will be allowed permanent work space on-site. Approval for on-site location, if provided, will be included in the signed task order authorizing work. While some work involving special test equipment must necessarily be performed on-site, it is the Government's preference to have the Contractor's employees located off-site to the maximum extent practicable.

NOTE: All equipment, furniture, supplies and maintenance/janitorial services, etc. for off-site facilities shall be provided by the Contractor.

L.41 PROPOSAL PREPARATION AND SUBMISSION--SPECIAL INSTRUCTIONS

A. Number of Proposals, Time and Place of Submission--The offeror shall submit the original and eight copies of each volume of his proposal to the address

shown in Block 8 of the Standard Form (SF) 33 (face page of this solicitation), or if hand carried, to the depository listed in Block 9 of the SF 33. Offers must be received at the place indicated on or before the date and hour shown in Block 9 of the SF 33.

B. Proposal Clarity--The proposal should be specific, complete, and concise. The offeror is urged to examine this solicitation in its entirety and to assure that his proposal contains all the necessary information, provides all required documentation and is complete in all respects since evaluation of the proposal will be based on the actual material presented and not on the basis of what is implied. The cost proposal should be consistent with the technical proposal in all respects since the cost proposal may be used as an aid to determine the offeror's understanding of the technical requirements. Discrepancies may be viewed as a lack of understanding.

C. Proposal Format and Content

Proposals must be submitted in two (2) volumes: Volume I, Technical Proposal, and Volume II, Business Proposal. No cost information shall be presented in the Technical Proposal, except the costs for representative task orders (see Paragraph E below).

D. Page Limitation

Based upon our experience with procurements of this size and complexity, the items to be addressed in the technical proposal can be covered in 75 pages, exclusive of cover page, table of contents, title pages, list of figures, and dividers. The Government, therefore, requires that offerors limit the technical proposal to a total of 75 pages. Each "page" is one side of one sheet, 8-1/2" by 11" with at least one-inch margins on all sides. Foldouts count as an equivalent number of 8-1/2" by 11" pages. The metric standard format most closely approximating the described standard 8-1/2" by 11" size may be used. Narrative text shall be 12 point type size with double-spacing between lines. Type size and spacing between lines for table of contents, list of figures, charts, graphs, figures, illustrations, diagrams, photographs, and tables may be smaller/less, but should be easily readable. The business proposal is not page limited; however, it should be limited to information pertaining to cost, relevant experience and past performance information, and any proposed exceptions or additions to the contract terms and conditions. All pages of both volumes should be numbered.

E. TECHNICAL PROPOSAL - VOLUME I

FACTOR 1 - MISSION SUITABILITY

1. Subfactor 1 - Understanding the Requirement and Approach

The proposal should address the offeror's understanding of the technical requirements of the Statement of Work and the proposed approach to meeting those requirements.

a. Element A - Proposed Technical Approach

(1) The offeror should address his technical approach, including any proposed subcontractor effort, for the representative task orders identified in Attachment 6, supported by the estimated resources proposed, including labor, equipment, facilities and materials as detailed in the offeror's proposed budget. The offeror should address his demonstrated technical expertise in the various areas covered by the representative tasks through the proposed approaches to accomplishing the tasks in a timely manner with acceptable technical risk. The offeror should identify potential problems and suggest resolutions. The offeror should also identify areas where choices might be made that would represent large differences in risk, time, equipment use, etc. (The offeror is reminded that the representative tasks are typical examples only. To enhance the offeror's understanding of the breadth and depth of the overall requirement, a list of potential task order titles is included as Attachment 7.)

The offeror's proposal should also include the approach for performing other areas of the Statement of Work that may not be included in the discussion of the representative tasks. The offeror should discuss its expertise in each of the broad functional areas in the Statement of Work and provide recent, relevant examples of work performed in those areas.

(2) For each representative task order, a proposed time schedule for completion of work, including task start times, task completion times and key milestone dates, should be included to reflect their reasonableness based on the technical approach and the resources proposed.

(3) The offeror's proposal should address staffing for each representative task order, including numbers, types, and qualifications of personnel.

(4) The offeror shall propose a budget (labor, equipment, facilities and materials) for each representative task order. The offeror shall include appropriate indirect (overhead and G&A) costs in each representative task order budget.

b. Element B - Key Personnel

The positions which the Government considers to be Key to this effort are (1) the Contract Manager and (2) the Deputy Contract Manager (if proposed). You should identify the specific persons whom you propose for each of these positions and should include a resume for each such individual. Each resume should detail the individual's education, applicable experience, and other qualifications for his/her proposed position. These resumes should be clear, complete, and comprehensive. Please do not use acronyms in these resumes as it sometimes hampers the Government's evaluation. Your proposal should include the basis for your selection of each individual for his/her position. Also state current and proposed salary for each individual and provide evidence of your ability to employ each individual at the proposed salary and fringe benefits.

2. Subfactor 2 - Total Compensation Plan

The offeror's compensation plans should be addressed for both professional and nonprofessional employees, including any teaming partners or subcontractors. Your compensation plan should address the information required by FAR 52.222-46 and NFS 18-52.231-71 (reference paragraphs L.16 and L.17). Your proposal should also detail and provide a copy of your policies and procedures relative to uncompensated overtime and the historical basis therefor for any uncompensated overtime proposed. The rationale and methodology used to estimate the uncompensated overtime (if any) for you and your subcontractors shall be addressed. The effect of the uncompensated overtime on the effective hourly rate for all Fair Labor Standards Act (FSLA)-exempt employees shall be included.

3. Subfactor 3 - Management Approach

This subfactor should address your approach for maintaining competent staffing for the term of the contract in a downsizing environment; your plans for initial staffing and phase-in; your plans for organizing, assigning, tracking, and performing task orders issued under the Statement of Work; your approach to cost control; your plans to deal with such issues as facilities, downsizing and personal services; and your plans for meeting the NASA 8% disadvantaged business subcontracting goal. ←

a. Element A - Personnel Management/Downsizing

Your proposal should detail your plans for maintaining a competent work force over the term of the contract particularly in light of the reductions in level of effort specified under Factor 2 - Cost.

b. Element B - Initial Staffing and Phase-In

This element will be used to evaluate the effectiveness of your plan to minimize changeover difficulties and to maximize continuity of services to the Government. Your proposal should detail your phase-in plan to include the specific schedule for completion of each phase-in activity. Your initial staffing plan should detail sources of personnel for the entire complement, recruiting methods and initial orientation and training. You should specify the expected amount of incumbent personnel retention and the basis therefor. You should also identify your plan for obtaining and making operational any non-personnel resources required for contract performance (facility, equipment, materials, etc.). ↗

c. Element C - Operations

(1) Your proposal should detail your plans for organizing, planning, assigning, tracking and performing the day-to-day contract activities outlined in the Statement of Work. Your approach to managing work flow from task initiation to completion, including task order tracking and reporting, should be discussed.

(2) You should describe your approach for contract cost control to include cost reporting, tracking, controlling actual vs. planned costs, forecasting, and overhead surveillance and tracking.

(3) You should identify the facilities proposed for use under the contract, discuss their appropriateness for the required work under the contract and detail their adequacy to house the Contractor's proposed off-site direct labor work force (see L.40, Contractor Facilities).

(4) The offeror should describe their approach to providing facilities and equipment in the specified downsizing environment.

d. Element D - Offeror's Approach to Avoiding Personal Services

Contracting for personal services, as described in FAR 37.104, is prohibited under the contract without exception. The offeror should present a comprehensive plan for the avoidance of personal services under the contract from their top management down to the working level.

e. Element E - Offeror's Approach to Meeting the 8% Small Disadvantaged Business Subcontracting Goal*

While small businesses are not required to submit a subcontracting plan in accordance with FAR 52.219-9 and NFS 18-52.219-73, small businesses are subject to the eight percent SDB subcontracting goal. Offerors should make an independent assessment of subcontracting opportunities and propose an SDB subcontracting goal - based on the total contract value rather than as a percent of total planned subcontracting dollars (See L.37) - and should discuss the proposed methods for achieving this goal. Offerors should discuss the types and amount of work, in terms of total dollars, that will be performed by SDBs. This discussion should include any plans for utilizing high-technology SDB firms. (High-technology, as defined in NASA FAR Supplement 1819.7202, means research and/or development efforts that are within or advance the state-of-the-art in a technology discipline and are performed primarily by professional engineers, scientists and highly skilled and trained technicians or specialists.) Any proposed participation in the NASA Mentor-Protege program should also be addressed. An initial proposal will not be rejected as unacceptable solely as a result of an offeror proposing a goal that is less than the mandatory goal.

4. Subfactor 4 - Cost Realism

Cost realism is the degree to which all costs for both the representative task orders and total contract reflect the proposed approach to achieving the technical objectives. Paragraphs E.1.a and F of Section L.41 require the offeror to submit cost proposals for each sample task order and for the overall contract, respectively. These cost proposals will be the primary source for determining realistic costs as discussed in the criteria in Section M.3, Paragraph C. A separate discussion concerning cost realism is not required.

*Does not apply to small businesses.

F. BUSINESS PROPOSAL - VOLUME II

FACTOR 2 - COST

Under requirements of the Federal Acquisition Regulation (FAR), the Contracting Officer is responsible for determining reasonableness of pricing. To assist in determining whether the prices proposed in offers under this solicitation are "fair and reasonable," offerors are required to submit cost or pricing information with your proposal. It is anticipated that downsizing of the Langley budget and workforce will continue for the duration of the contractual period. These national external forces will result in continuing changes to the NASA and Langley aerospace research priorities resulting in contract downsizing and skill mix adjustments.

1. Standard Form (SF) 1448 Instructions

a. In submitting the cost proposal, the offeror shall submit a fully executed SF 1448, Contract Pricing Proposal Cover Sheet, a copy of which is included as Attachment 3 of this solicitation. Each subcontract expected to exceed \$500,000 shall also be supported by fully executed SF 1448.

b. The offeror shall fully comply with the requirements set forth in Table 15-3, Instructions for Submission of a Contract Pricing Proposal, of FAR 15.804-6(b)(2).

c. The cost proposal as represented by the SF 1448 should be prepared in a manner consistent with your current accounting system and Cost Accounting Standards Disclosure Statement, if applicable. A complete and timely evaluation of your proposal cannot be performed without this information being submitted with your proposal.

2. Computerized Cost Proposal Input Instructions

a. The Government intends to use an IBM-compatible personal computer with 16 MB RAM and LOTUS 1-2-3 for Windows, Release 5 software to aid in the evaluation of the cost proposal. The offerors and major subcontractors, as defined below, are requested to submit cost information on floppy diskettes, two copies, 3-1/2 inch, formatted under MS DOS. Cost information must be submitted as a Lotus 1-2-3 spreadsheet or any spreadsheet retrievable under LOTUS 1-2-3 for Windows, Release 5, in formats with the identical information that is supplied on all Contractor paper form in order to be useful in the Government's evaluation. In the event of any inconsistency between the diskettes and the paper forms, the paper forms will be considered the intended version. Any questions related to the computerized cost proposal shall be directed to Timothy P. Warner at (804) 864-2480.

b. Each diskette should have affixed an external label indicating the name of the offeror and the RFP number. Provide with each diskette an index of file contents and applicable ranges.

ALL DISKETTE SUBMISSIONS SHALL BE TRUE SELF-CALCULATING SPREADSHEETS. Include on your diskette all rates and formulas used to derive your proposed

costs. For example, your straight time hours might show a formula that, either directly or by referencing other cells, multiplies positions in a labor category times the productive man-hours in a man-year for that category and your overhead elements might show a formula that, either directly or by referencing other cells, multiplies a rate times the applicable base. Any absolute values must be explained and their values supported.

3. Other Cost and Pricing Information Required

a. Labor - You must propose the labor hours necessary to provide the services set forth in Section C, Statement of Work. Show the hours and costs by labor classification. If any of the positions are classified by your accounting system as other than direct labor, or if you propose to subcontract any of the positions, so indicate. Any composite hourly rates must be explained.

The resultant contract will not contain a specified level-of-effort; however, for the purposes of the Government's comparative cost evaluation of your proposal for this solicitation the offeror shall propose the following direct labor hours for the basic contract and the priced option periods notwithstanding L.11, Contract Award, Paragraph d.

	<u>Estimated Direct Labor Hours</u>	
Basic Contract	470,000	452
Option 1	364,000	345
Option 2	257,000	239
Option 3	151,000	160
Option 4	44,000	—

The "direct labor hours" specified above are defined as those productive hours expended by Contractor personnel in performing the engineering, technician and direct support functions (Ref. Skill Matrix, Attachment 9) required to complete the Statement of Work as defined in Section C (including subcontractors). It does not include administrative or other labor which the Contractor may charge as direct labor under its established accounting policy and procedures. The term does not include sick leave, vacation, holiday leave, military leave, or any type of administrative leave, but does include overtime hours and direct labor hours provided under level-of-effort subcontracts.

Skill Mix is to be proposed as directed in the "Skill Matrix" provided in Attachment 8.

A copy of the Register of Wage Determinations and Fringe Benefits issued by the Department of Labor for employees under this proposed contract is included in Exhibit C. It should be noted that the wage rates specified therein are minimum rates. It should also be noted that the wage determination may not list all labor classes to be employed under this contract. Paragraph (a) of the Section I clause entitled "Service Contract Act of 1965" states that in this event, conformable rates must be established for those service employees to be employed under the contract but not listed on the wage

determination. These conformable wage rates will be the result of a three-party agreement between the employees, contractor and the Government.

If you propose to subcontract any part of the required labor, have the prospective subcontractor complete separate SF 1448, if applicable. The subcontractor shall provide the same information as the prime Contractor.

If the subcontractor refuses to release proprietary cost information to the prime contractor, the subcontractor shall submit the cost information to NASA under a separate cover.

(b) Fringes and Payroll Taxes - Provide the fringe benefits and payroll tax costs applicable to direct labor costs. Provide a breakdown of those rates and/or cost proposed.

(c) City/County Business License Tax - Propose any applicable local business license taxes. Consult the City of Hampton regarding those personnel you intend to work on-site at LaRC even if your facility will not be located in Hampton.

(d) G&A - Provide G&A costs, and identify separately the rates used to determine the costs. Provide the composition of the G&A pool costs and allocation bases upon which the rates were determined. Provide G&A rate history for the preceding three fiscal years.

(e) Facilities Capital Cost of Money (FCCOM) - Propose FCCOM if you choose to include it in your proposal (ref. FAR 52.215-30). If you do not propose FCCOM, Clause 52.215-31, Waiver of Facilities Capital Cost of Money (SEPT 1987) will be included in the contract. As required by NASA FAR Supplement 18-15.970-3, when facilities capital cost of money is included as an item of cost in the Contractor's proposal, a reduction in the profit objective shall be made in an amount equal to the amount of facilities capital cost of money allowed in accordance with FAR 31.205-10(a).

(f) Award Fee - Provide the amounts of award fee for the initial contract and four options to extend. Provide your rationale for determining the proposed amounts.

(g) Provide three year history of rates and factors proposed, including escalation.

FACTOR 3 - RELEVANT EXPERIENCE AND PAST PERFORMANCE

a. Each offeror should address his/her relevant experience and past performance, and that of significant subcontractors and/or teaming partners, if any, under existing or prior contracts for similar products or services. Relevant experience is the accomplishment of work which is comparable or related to the work or effort required by this RFP. Past performance is the quality of performance relative to the size, content and complexity of the requirements for this procurement. Past performance information will be used in making responsibility determinations and to assess the capabilities of offerors. This

factor should include a discussion of overall corporate or offeror experience and past performance, but not the experience and performance of individuals who are proposed to be involved with work pursuant to this RFP. For newly-formed businesses having little or no company experience, the relevant experience and past performance of a predecessor firm, the company's principal owner(s), or corporate officer(s) should be addressed. You are cautioned that omissions or an inaccurate or inadequate response to this evaluation factor will have a negative effect on your overall evaluation.

b. The Relevant Experience and Past Performance Form (Form REPP), included as Attachment 5 to this RFP, will be used to collect information as to the quality of past performance of the offeror and any significant subcontractor and/or teaming partner. The offeror shall select three of his/her customers, for which he/she has performed relevant work within the past three years, and forward copies of the Form REPP to those agencies and/or firms for completion and submission to the Contract Specialist for this solicitation. The forms should be returned or faxed to the Contract Specialist no later than the closing date of the solicitation. The address and fax number are listed at the bottom of the first page of the Form REPP.

c. If a significant portion of work to be performed is proposed to be accomplished by subcontractor(s) and/or teaming partner(s), three Form REPP's shall be submitted by customers of each proposed subcontractor and/or teaming partner. The offeror shall include in his/her proposal the written consent of his/her subcontractor(s) and/or teaming partner(s) to allow the Government to discuss the subcontractors'/teaming partners' past performance evaluation with the offeror during any discussions that are held for this procurement.

d. The offeror shall include with his/her business proposal a list of the firms that will submit evaluation forms. The offeror shall also include a list of all other contracts he/she has held and any significant subcontractors and/or teaming partners have held within the past five years for requirements similar to those being solicited in this acquisition and that are valued at over \$100,000. Other references, aside from those provided by the offeror, may be contacted and their comments considered during the source selection process. The information submitted may be verified by the Government through discussions with the references provided. While the Government may elect to consider data obtained from other sources, the burden of providing relevant references that the Government can readily contact rests with the offeror.

e. Offerors shall prepare a short narrative explanation on each contract listed or for which a Form REPP will be received that identifies its customer and briefly describes the contract, including the objectives achieved and any cost growth or schedule delays encountered. Your summary should include the following for each related contract:

- (1) Contract Number
- (2) Contracting Agency
- (3) Points of contact in the program and contracting offices, including telephone numbers

- (4) Contract type
- (5) Contract beginning and end dates
- (6) Description of the contract work and explanation of its relevance to this solicitation
- (7) Description of the original cost/price and delivery terms in the contract and the cost/price and delivery actually experienced, and explain any differences.
- (8) For award fee contracts, separately state in dollars the base fee and award fee available and the award fee actually received, on a contract year basis.

L.42 TEST OF SOURCE SELECTION PROCEDURES

The Government intends to award the contract resulting from this solicitation without discussions (see Section L clause entitled "Contract Award," FAR 52.215-16 (OCT 1995)--Alternate II (OCT 1995)). However, the Government reserves the right to conduct discussions if later determined by the Contracting Officer to be necessary. If discussions are determined to be necessary, a deviation has been granted by the NASA Associate Administrator for Procurement which applies to this solicitation. The limited discussion procedures set forth in NASA Federal Acquisition Supplement (NFS) 18-15.613(b)(5) will not be utilized for this acquisition. Instead, the provisions of FAR 15.610(c)(2) shall apply. In accordance with FAR 15.610(c)(2), offerors within the competitive range will be advised of deficiencies and uncertainties identified in their proposals and allowed a reasonable opportunity to satisfy the solicitation requirements. As stipulated in FAR 15.611, at the conclusion of discussions, a Best and Final Offer (BAFO) will be requested from all offerors still within the competitive range. This BAFO shall be submitted in the form of a contractual document which has been executed by an individual with the authority to contractually bind the offeror. Selection will be made in accordance with the evaluation criteria set forth in Section M of this solicitation. Contract award will be made WITHOUT SUBSEQUENT DISCUSSIONS OR NEGOTIATIONS and will be evidenced by the Contracting Officer's signature on the BAFO submitted by the successful offeror. A deviation has also been granted to NFS 18-15.1003-4(c)(1); debriefing of unsuccessful offerors will occur after contract award.

L.43 COMPETITIVE RANGE DETERMINATION

In the event that discussions are determined to be necessary, a competitive range will be established. Those proposals which have a reasonable chance of being selected for award shall constitute the competitive range.

L.44 DETERMINATION OF RESPONSIBILITY

As prescribed in FAR 9.104-1, the apparently successful offeror, and as appropriate, subcontractors and/or teaming partners must be determined to be responsible before contract award. If responsibility cannot be determined from the relevant experience and past performance information received or from other

sources available to the Government, the selected offeror shall be required to provide additional information that adequately demonstrates his/her responsibility. Failure to demonstrate responsibility in any area set forth in FAR 9.104-1 may result in the Government selecting the offeror with the second-best-valued proposal.

SECTION M - EVALUATION FACTORS FOR AWARD

M.1 METHOD OF EVALUATION

A. Proposals received in response to this RFP will be evaluated by a NASA Source Evaluation Board (SEB) in accordance with NASA Handbook (NHB) 5103.6B, except in the area of discussions. The Government intends to award the contract resulting from this solicitation without discussions. (See Section L clause entitled "Contract Award," FAR 52.215-16 (OCT 1995)--Alternate II (OCT 1995).) However, if later determined by the Contracting Officer to be necessary, discussions with offerors will be held in accordance with FAR 15.610(c)(2). (See L.42, Test of Source Selection Procedures.)

B. Mission Suitability will be scored. Cost and Relevant Experience and Past Performance will not be scored. The Source Selection Official, after consultation with the SEB and other advisors, will select the offeror for contract award which he considers capable of performing the contract in a manner most advantageous to the Government, all factors considered.

C. Evaluation will be on the basis of material presented and substantiated in your proposal, and not on the basis of what may be implied. Vague statements will be interpreted as a lack of understanding on the part of the offeror and/or inability to demonstrate adequate qualifications. Your attention is directed to Section L, L.41, which provides important instructions concerning proposal preparation.

M.2 EVALUATION FACTORS

A. Factor 1 - Mission Suitability--The contents of this section of your proposal will be evaluated and scored in accordance with the Mission Suitability Subfactors set forth below:

1. Subfactor 1 - Understanding the Requirement and Approach - This subfactor will be used to evaluate the offeror's understanding of the technical requirements of the Statement of Work and the proposed approach to meeting those requirements.

a. Element A - Proposed Technical Approach

(1) The offeror's technical approach, and any proposed subcontractor effort, will be evaluated for the representative task orders, supported by the estimated resources proposed, including labor, equipment, facilities and materials as detailed in the offeror's proposed budget. The offeror will be evaluated on demonstrated technical expertise in the various areas covered by the representative task orders through the proposed approaches to accomplishing the task orders in a timely manner with acceptable technical risks.

The offeror's potential problem identification and suggested resolutions will be evaluated. Offeror's identification of areas where large differences in risk, time, equipment use, etc. will be evaluated. The offeror's approach for performing other areas of the Statement of Work that may not be covered in the representative task order discussions will be evaluated as well.

Specifically, the offeror's demonstrated expertise and experience in each of the broad functional areas in the Statement of Work will be evaluated.

(2) The offeror's proposed time schedule for completing the work for each representative task order, including task order start times, task order completion times and key milestone dates, will be evaluated as to their reasonableness based on the technical approach and resources proposed.

(3) The adequacy of the offeror's proposed staffing for each representative task order, including numbers, types and qualifications of personnel, will be evaluated.

(4) The offeror's proposed budget (labor, equipment, facilities and materials) for each representative task order will be evaluated for the appropriateness and adequacy of the resources proposed.

b. Element B - Key Personnel - The qualifications of the key personnel will be evaluated, considering the following:

- Education
- Applicable experience
- Other qualifications
- Basis for selection
- Current and proposed salary
- Evidence of your ability to employ the individual(s) at the proposed salary and fringe benefits

2. Subfactor 2 - Total Compensation Plan - The offeror's professional and nonprofessional compensation plans, including those of any teaming partners or subcontractors, will be evaluated in accordance with L.16, Evaluation of Compensation for Professional Employees (FAR 52.222-46) (FEB 1993) and L.17, Determination of Compensation Reasonableness (NASA 18-52.231-71) (MAR 1994). The offeror's policies and procedures on uncompensated overtime, as well as the historical basis for any uncompensated overtime proposed and the rationale and methodology used to estimate uncompensated overtime, will be evaluated. The effect of uncompensated overtime on the effective hourly rates for all Fair Labor Standards Act - exempt employees will also be evaluated.

3. Subfactor 3 - Management Approach - This subfactor will be used to evaluate the offeror's approach for maintaining competent staffing for the term of the contract in a downsizing environment; plans for organizing, assigning, tracking and performing task orders issued under the Statement of Work; the offeror's approach to cost control; the offeror's plans to deal with issues such as ~~facilities~~, downsizing and personal services; and the offeror's approach to meeting the 8% small disadvantaged business subcontracting goal.

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a. Element A - Personnel Management/Downsizing - The response to this element will be used to evaluate the offeror's plan for maintaining a competent work force over the term of the contract, particularly in light of the reductions in the level of effort specified under Factor 2 - Cost.

b. Element B - Initial Staffing and Phase-In - The effectiveness of the offeror's plan to minimize changeover difficulties and maximize continuity of services to the Government will be evaluated under this element. Details of this phase-in plan such as the schedule of phase-in activities, initial staffing plan, recruiting methods, initial orientation and training and expected amount of incumbent retention and the basis therefor, will be evaluated. The offeror's plan for obtaining and making operational any non-personnel resources required for contract performance (~~facility~~, equipment, materials, etc.) will also be evaluated.

c. Element C - Operations - This element will be used to evaluate:

(1) The offeror's approach for organizing, planning, assigning, tracking and performing the day-to-day contract activities outlined in the Statement of Work; the offeror's approach to managing work flow from task initiation to completion, including task order tracking and reporting.

(2) The offeror's approach for contract cost control, including cost reporting, tracking, controlling actual versus planned costs, forecasting and overhead surveillance and tracking.

~~(3) Proposed facilities, including their appropriateness for the work to be performed under the contract and their adequacy for housing the Contractor's proposed off-site direct labor work force (see L.40, Contractor Facilities).~~

~~(4) The offeror's approach to providing facilities and equipment in a downsizing environment.~~

d. Element D - Offeror's Approach to Avoiding Personal Services - The offeror's comprehensive plan for avoiding personal services (see FAR 37.104) from top management down to the working level will be evaluated.

e. Element E - Offeror's approach to meeting the 8% Small Disadvantaged Business (SDB) Subcontracting Goal* - Offerors will be evaluated on the proposed SDB subcontracting goal in comparison to the eight percent goal specified in L.37 and on the offerors' proposed method of achieving the goal. The offerors will also be evaluated on the types and amount of work proposed to be performed by SDBs, with emphasis on the utilization of high-technology SDBs. Any plans for establishing Mentor-Protege relationships as defined in NASA FAR Supplement 1819.72 will also be evaluated. An initial proposal will not be rejected as unacceptable solely as a result of an offeror proposing a goal that is less than the mandatory goal.

*Does not apply to Small Businesses.

4. Subfactor 4 - Cost Realism - Cost realism is the degree to which all costs for both the sample tasks and total contract reflect the proposed approach to achieving the technical objectives. The offeror's cost proposal and the proposed cost of each sample task order will be evaluated for cost realism. An unrealistic proposed cost may indicate a lack of understanding under the offeror's technical approach which will negatively impact the offeror's total mission suitability in accordance with M.3, Paragraph C.

B. Factor 2 - Cost and Fee--An analysis of the proposed cost and fee for the basic and priced option periods will be conducted to determine their validity and the extent to which they reflect performance addressed in the technical proposal. An assessment will be made of the offeror's capability to accomplish the contract objectives within the estimated cost proposed. The reasonableness of the award fee will also be determined in accordance with the guidelines set forth in NASA FAR Supplement 18-15.902. A probable cost for each proposal within the competitive range will be developed in accordance with NHB 5103.6B.

C. Factor 3 - Relevant Experience and Past Performance--Each offeror will be evaluated on his/her relevant experience and past performance and that of significant subcontractors and/or teaming partners, if any, under existing or prior contracts for similar products or services. Relevant experience is the accomplishment of work which is comparable or related to the work or effort required by this RFP. Past performance is the quality of performance relative to the size, content and complexity of the requirements for this procurement. Past performance information will be used in making responsibility determinations and to assess the capabilities of offerors. This factor includes the evaluation of overall corporate or offeror experience and past performance, but not the experience and performance of individuals who are proposed to be involved with work pursuant to this RFP. For newly-formed businesses having little or no company experience, the relevant experience and past performance of a predecessor firm, the company's principal owner(s), or corporate officer(s) will be considered. You are cautioned that omissions or an inaccurate ^a inadequate response to this evaluation factor will have a negative effect on your overall evaluation.

M.3 RELATIVE IMPORTANCE OF EVALUATION FACTORS

A. Overall, in the selection of a Contractor for contract award, Mission Suitability, Cost, and Relative Experience and Past Performance will be of essentially equal importance. All evaluation factors other than Cost, when combined, are significantly more important than Cost.

B. The weights to be used in the scoring of the Mission Suitability Subfactors are presented below:

<u>Subfactors</u>	<u>Points</u>
1. Understanding the Requirement and Approach	500
2. Total Compensation Plan	100
3. Management Approach	400

1,000

4. Cost Realism

<100>

The numerical weights assigned to the above subfactors are indicative of the relative importance of those evaluation areas. The weights will be utilized only as a guide.

C. As stated above, a pool of 100 points will be used to adjust the Mission Suitability score to account for any weakness associated with a lack of cost realism present in the offeror's proposal. This adjustment will be made if the proposed resources are unrealistically high or low according to the following guidelines.

If the percent cost realism adjustment for the proposal is less than 10% of the proposed cost, no adjustment will be made to the Mission Suitability score. If the percent cost realism adjustment is greater than 50%, all 100 points will be deducted from the offeror's Mission Suitability Score. Where the cost realism adjustment is between the range of 10% and 50% the amount of points to be subtracted will be in accordance with the table below.

Realism AdjustmentPoint Deduction

0 - 10%
 11 - 18%
 19 - 26%
 27 - 34%
 35 - 42%
 43 - 50%
 > 50%

0 points
 1.5 points per % over 10%
 12 points + 2 points per % over 18%
 28 points + 2.5 points per % over 26%
 48 points + 3 points per % over 34%
 72 points + 3.5 points per % over 42%
 100 points

ATTACHMENT 1

BIDDER'S LIBRARY

SYSTEMS ANALYSIS AND ENGINEERING RESEARCH SUPPORT (SAERS)

AND

AEROSPACE RESEARCH TECHNOLOGY (ART)

The purpose of the Bidder's Library is to provide offerors with specific information concerning work that is presently being performed under all the contracts that are being consolidated into this procurement. It should be noted that the task assignments listed below represent active work only.

1		LaRC Organizational Chart
2	NHB 5103.6B	Source Evaluation Handbook
3	NHB 9501.2	Procedures for Contractor Reporting of Correlated Costs and Cost Performance
4	NMI 1382.17D	Privacy Act--NASA Regulations
5	NHB.2410.9A	NASA Automation Information Security Handbook
6	FY 93	LaRC's Automated Information Security (AIS) Annual Plan
7	LHB 1710.10	LaRC Red Tag System
8	LHB 1710.12	Potentially Hazardous Materials
9	LHB 1740.2	Facility Safety Requirements
10	LMI 5300.1	Systems Safety, Quality, Reliability Program

11	LHB 7122.1	Systems Engineering Handbook For In-House Space Flight Projects
12	LHB 7320.1	Engineering Drawing System
13	AIAA 93-0401	Design of a Hypersonic Waverider-Derived Airplane
14		Sample Specification for a European Space Tug System to be Utilized in the Assembly and Operations of the International Space Station
NAS1-18935 Statement of Work	AMA, Inc.	Analytical Support for NASA Space Missions and Payload Requirements
NAS1-18935 Task No. 8	AMA, Inc.	Guidance, Navigation, and Control Research
NAS1-18935 Task No. 11	AMA, Inc.	Structural Dynamics Experiments Analysis
NAS1-18935 Task No. 17	AMA, Inc.	Spacecraft Configuration and Mission Design and Analysis
NAS1-18936 Statement of Work	CTA	Analytical Support for NASA Space and Missions and Payload Requirements
NAS1-18936 Task No. 15	CTA	Modeling and Performance Evaluation of COSMOS Features
NAS1-18936 Task No. 26	CTA	Microgravity Systems Engineering
NAS1-18936 Task No. 27	CTA	Microgravity Program History
NAS1-18936 Task No. 28	CTA	Development of Data Compression Software for Remote Sensing Application
NAS1-18936 Task No. 29	CTA	Fast Steering Mirror Control Study

NAS1-18936 Task No. 30	CTA	Aerospace Modeling Tools Development
NAS1-18980 Statement of Work	SpaceTec Ventures, Inc.	Studies and Analyses of Scientific Instruments and Payloads
NAS1-18980 Task No. 2	SpaceTec Ventures, Inc.	Payload Planning, Development and Operation Support for MAPS Experiment
NAS1-18980 Task No. 11	SpaceTec Ventures, Inc.	Post-Flight Data Processing System for Flight of MAPS Instrument
NAS1-18980 Task No. 14	SpaceTec Ventures, Inc.	Photogrammetric Appendage Structural Dynamics Experiment (PASDE)
NAS1-18980 Task No. 15	SpaceTec Ventures, Inc.	Lite Mission Operations Report
NAS1-19000 Statement of Work	Lockheed	Technical Support Services for Aerospace Research & Technology
NAS1-19000 Work Orders	Lockheed	Technical Support Services for Aerospace Research & Technology
NAS1-19341 Statement of Work	Vigyan, Inc.	Physical R&D in Flight Control, Detection, Guidance, and Navigation
NAS1-19341 Task No. 1	Vigyan, Inc.	Verification of Life-Critical Computer System Designs
NAS1-19341 Task No. 3	Vigyan, Inc.	Development of New and Innovative Navigation, Guidance, and Control Laws, Implement Techniques and Cockpit Aids
NAS1-19341 Task No. 5	Vigyan, Inc.	Controller Synthesis and Integrated Design for Flexible Space Structures

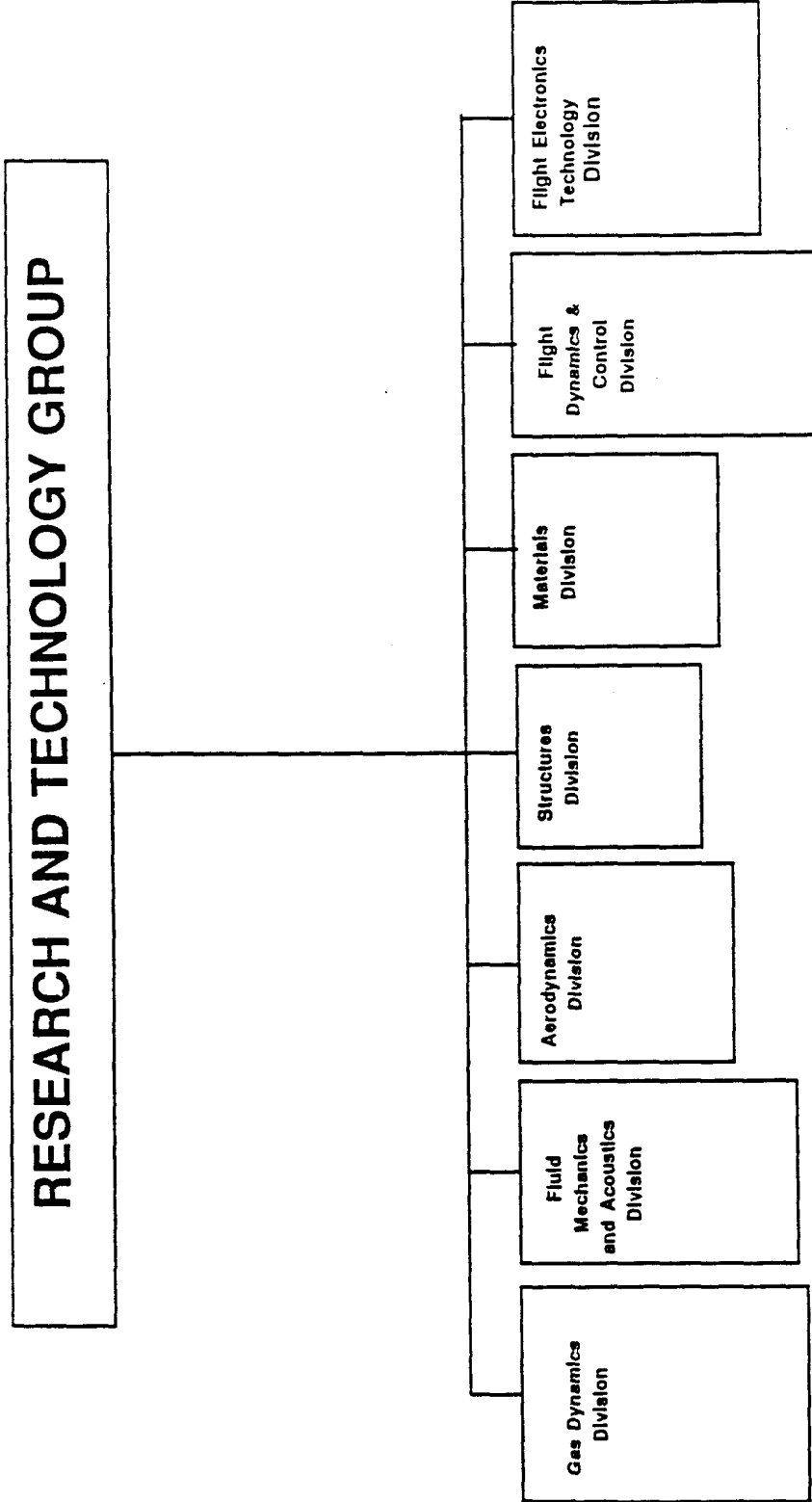
NAS1-19672 Task No. 17	Vigyan, Inc.	Experimental Research in Fundamental Fluid Dynamics
NAS1-19672 Task No. 18	Vigyan, Inc.	Free-Flight Rotorcraft Research Program
NAS1-19672 Task No. 20	Vigyan, Inc.	High-Performance Military Aircraft Research
NAS1-19672 Task No. 22	Vigyan, Inc.	High-Reynolds Number Aerodynamics
NAS1-19672 Task No. 23	Vigyan, Inc.	Application of Advanced Computational Theoretical Methods in Transonic Aerodynamics
NAS1-19672 Task No. 24	Vigyan, Inc.	Improvement Study of 16-Foot And Unitary Tunnels
NAS1-19672 Task No. 27	Vigyan, Inc.	Research to Advance Design of Future Aircraft and Transportation Vehicle Concepts-Aerodynamic Preliminary Analysis System (APAS)
NAS1-19700 Statement of Work	AS&M, Inc.	Basic & Applied Research in Structural Mechanics
NAS1-19700 Task No. 1	AS&M, Inc.	Applied Research in Aircraft Structural Mechanics
NAS1-19700 Task No. 5	AS&M, Inc.	Flow-Structure Acoustic Interaction
NAS1-19700 Task No. 7	AS&M, Inc.	ACT Program Research
NAS1-19700 Task No. 8	AS&M, Inc.	Support and Development of the Computational Mechanics Testbed

NAS1-19603 Task No. 2	STC	Advanced Visual and Spectral Information Processing
NAS1-19603 Task No. 6	STC	Data Analysis and Instrument Development for the DACOM Instrument
NAS1-19603 Task No. 11	STC	Spacecraft Accommodation of Earth Probe Sensors
NAS1-19603 Task No. 13	STC	Laser System Optical Design Support
NAS1-19603 Task No. 20	STC	High Energy Optics Damage Analysis and Tests
NAS1-19603 Task No. 23	STC	SEDS-1 End Mass Payload Flight Data Analysis
NAS1-19603 Task No. 24	STC	System Definition Studies for Wake-Vortex Lidar Systems
NAS1-19672 Statement of Work	Vigyan, Inc.	Applied Aeronautics Research and Development
NAS1-19672 Task No. 2	Vigyan, Inc.	Low-Speed Flight Dynamics
NAS1-19672 Task No. 9	Vigyan, Inc.	Propulsion/Airframe Integration of Advanced Aircraft
NAS1-19672 Task No. 12	Vigyan, Inc.	Vehicle Integration Studies
NAS1-19672 Task No. 13	Vigyan, Inc.	Numerical Experimentation in Subsonic Aerodynamics
NAS1-19672 Task No. 14	Vigyan, Inc.	Numerical Experiments in Rotorcraft Configuration Aerodynamics

NAS1-19700 Task No. 9	AS&M, Inc.	Composite Structural Analysis
NAS1-19700 Task No. 10	AS&M, Inc.	Modeling Analysis and Test of Structures and Thermal Protection Systems (TPS) for High-Speed Vehicles
NAS1-19708 Statement of Work	AS&M, Inc.	Basic & Applied Research in Advanced Material Technology
NAS1-19708 Task No. 1	AS&M, Inc.	Metals Processing
NAS1-19708 Task No. 2	AS&M, Inc.	Metals Synthesis
NAS1-19708 Task No. 3	AS&M, Inc.	Fatigue and Fracture of Metals
NAS1-19708 Task No. 4	AS&M, Inc.	Materials Characterization
NAS1-19708 Task No. 5	AS&M, Inc.	Mechanics of Composite Materials
NAS1-19708 Task No. 6	AS&M, Inc.	Coatings for Ceramic Fiber Insulation
NAS1-19831 Statement of Work	AS&M, Inc.	Basic Research in Aeronautics
NAS1-19831 Task No. 8	AS&M, Inc.	Distributed & Parallel Computing
NAS1-19831 Task No. 12	AS&M, Inc.	Rotorcraft Aerodynamic Research
NAS1-19831 Task No. 15	AS&M, Inc.	Network-Based Computing Environments for Fluid Mechanics Research

NAS1-19831 Task No. 19	AS&M, Inc.	Experimental and Theoretical Studies Research of Fluid Mechanics and Acoustics of Current and Future Subsonic and Supersonic Aircraft
NAS1-19831 Task No. 20	AS&M, Inc.	Analytical Numerical Assessment of Scramjet Performance
NAS1-19864 Statement of Work	AS&M, Inc.	Applied Research in Support of National Aerospace Plane (NASP) and Other Hypersonic Vehicles
NAS1-19864 Task No. 1	AS&M, Inc.	Numerical Techniques Analysis of Aerodynamic and Propulsion Performance of Hypersonic Vehicles
NAS1-19864 Task No. 2	AS&M, Inc.	Numerical Methods Analysis of Aerodynamic Performance of Hypersonic Vehicles
NAS1-19864 Task No. 4	AS&M, Inc.	Boundary Layer Transition Characterization and Mode Separation for Hypersonic Flows
NAS1-19864 Task No. 5	AS&M, Inc.	Design & Develop a Pressure-Box Test Fixture to Test Composite Panels at Cryogenic and Elevated Temperature Conditions
NAS1-19864 Task No. 6	AS&M, Inc.	NASP/HySTP Aerodynamics Technology
NAS1-20043 Statement of Work	AS&M, Inc.	Basic & Applied Research in Measurement Science Technology
NAS1-20043 Task No. 1	AS&M, Inc.	Non-Destructive Evaluation (NDE) Research
NAS1-20043 Task No. 4	AS&M, Inc.	Non-Destructive Evaluation (NDE) Technology for Aging Aircraft
NAS1-20043 Task No. 5	AS&M, Inc.	Operation and Maintenance of Acoustic Microscopy Laboratory

NAS1-20043 Task No. 6	AS&M, Inc.	Non-Destructive Evaluation (NDE) Technology for Aging Aircraft
NAS1-20043 Task No. 7	AS&M, Inc.	Development of Cryogenic Pressure Sensor Technology
NAS1-20043 Task No. 8	AS&M, Inc.	Non-Destruction Evaluation Technology
NAS1-20059 Statement of Work	High Technology Corporation	Basic Research in Transition and Turbulent Flow Physics
NAS1-20059 Task No. 7	High Technology Corporation	Theoretical, Computational and Experimental Research on the Mechanism of Transition to Turbulence and Subsonic and Super-sonic Laminar Flow Control
NAS1-20255 Statement of Work	AS&M, Inc.	Research in Aerothermodynamics and Advanced Space Transportation Vehicles Design
NAS1-20255 Task No. 1	AS&M, Inc.	Aerothermodynamics
NAS1-20255 Task No. 2	AS&M, Inc.	Advanced Space Transportation Vehicle Design



Langley Research Center
Research & Technology Group

PROPOSAL COVER SHEET <i>(Cost or Pricing Data Not Required)</i>	1. SOLICITATION/CONTRACT/MODIFICATION NUMBER OMB NO.: 9000-0013 Expires: 09/30/98
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Public reporting burden for this collection of information is estimated to average 4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the FAR Secretariat (VRS), Office of Federal Acquisition Policy, GSA, Washington, DC 20406.

2a. NAME OF OFFEROR		3a. NAME OF OFFEROR'S POINT OF CONTACT		3c. TELEPHONE	
2b. FIRST LINE ADDRESS		3b. TITLE OF OFFEROR'S POINT OF CONTACT		AREA CODE	NUMBER
2c. STREET ADDRESS		4. TYPE OF CONTRACT ACTION (Check)			
2d. CITY					
5. TYPE OF CONTRACT (Check)		A. NEW CONTRACT		D. LETTER CONTRACT	
<input type="checkbox"/> FFP <input type="checkbox"/> CPFF <input type="checkbox"/> CPIF <input type="checkbox"/> CPAF <input type="checkbox"/> FPI <input type="checkbox"/> OTHER (Specify)		B. CHANGE ORDER		E. UNPRICED ORDER	
		C. PRICE REVISION/REDETERMINATION		F. OTHER (Specify)	

6. PERFORMANCE					
PLACE(S)	a.				
	b.				
	c.				
PERIOD(S)	a.				
	b.				
	c.				

7. List and reference the identification, quantity and total price proposed for each contract line item. (Continue on reverse, if necessary. Use same headings)

a. LINE ITEM NO.	b. IDENTIFICATION	c. QUANTITY	d. TOTAL PRICE	e. PROP. REF. PAGE

8. PROVIDE THE FOLLOWING (if available)

NAME OF CONTRACT ADMINISTRATION OFFICE				NAME OF AUDIT OFFICE			
STREET ADDRESS				STREET ADDRESS			
CITY		STATE	ZIP CODE	CITY		STATE	ZIP CODE
TELEPHONE	AREA CODE	NUMBER		TELEPHONE	AREA CODE	NUMBER	

This proposal is submitted in response to the solicitation, contract, modification, etc. in item 1. By submitting this proposal, the offeror, if selected for discussions, grants the contracting officer or an authorized representative the right to examine, at any time before award, any of those books, records, documents, or other records directly pertinent to the information requested or submitted. See instructions at Table 15-3.

9a. NAME OF OFFEROR (Typed)		10. NAME OF FIRM	
9b. TITLE OF OFFEROR (Typed)			
11. SIGNATURE			12. DATE OF SUBMISSION

ATTACHMENT 4

REQUIREMENT FOR CERTIFICATE OF PROCUREMENT INTEGRITY
(FAR 52.203-8) (SEP 1995) ALTERNATE I (SEP 1990)

(a) Definitions. The definitions at FAR 3.104-4 are hereby incorporated in this provision.

(b) Certifications. As required in paragraph (c) of this provision, the officer or employee responsible for this offer shall execute the following certification:

CERTIFICATE OF PROCUREMENT INTEGRITY

(1) I, _____
[Name of certifier]

am the officer or employee responsible for the preparation of this offer and hereby certify that, to the best of my knowledge and belief, with the exception of any information described in this certificate, I have no information concerning a violation or possible violation of subsections 27(a), (b), (d), or (f) of the Office of Federal Procurement Policy Act, as amended* (41 U.S.C. 423), (hereinafter referred to as "the Act"), as implemented in the FAR, occurring during the conduct of this procurement _____
(solicitation number)

(2) As required by subsection 27(e)(1)(B) of the Act, I further certify that, to the best of my knowledge and belief, each officer, employee, agent, representative, and consultant of _____

[Name of offeror]
who has participated personally and substantially in the preparation or submission of this offer has certified that he or she is familiar with, and will comply with, the requirements of subsection 27(a) of the Act, as implemented in the FAR, and will report immediately to me any information concerning a violation or possible violation of subsection 27(a), (b), (d), or (f) of the Act, as implemented in the FAR, pertaining to this procurement.

(3) Violations or possible violations: (Continue on plain bond paper if necessary and label Certificate of Procurement Integrity (Continuation Sheet), ENTER NONE IF NONE EXIST) _____

(4) I agree that, if awarded a contract under this solicitation, the certifications required by subsection 27(e)(1)(B) of the Act shall be maintained in accordance with paragraph (f) of this provision.

[Signature of the officer or employee responsible for the offer and date]

[Typed name of the officer or employee responsible for the offer]

*Subsections 27(a), (b), and (d) are effective on December 1, 1990.
Subsection 27(f) is effective on June 1, 1991.

THIS CERTIFICATION CONCERNS A MATTER WITHIN THE JURISDICTION OF AN AGENCY OF THE UNITED STATES AND THE MAKING OF A FALSE, FICTITIOUS, OR FRAUDULENT CERTIFICATION MAY RENDER THE MAKER SUBJECT TO PROSECUTION UNDER TITLE 18, UNITED STATES CODE, SECTION 1001.

(End of certification)

(c) For procurements, including contract modifications, in excess of \$100,000 made using procedures other than sealed bidding, the signed certifications shall be submitted by the successful Offeror to the Contracting Officer within the time period specified by the Contracting Officer when requesting the certificates except as provided in subparagraphs (c)(1) through (c)(5) of this clause. In no event shall the certificate be submitted subsequent to award of a contract or execution of a contract modification:

(1) For letter contracts, other unpriced contracts, or unpriced contract modifications, whether or not the unpriced contract or modification contains a maximum or not to exceed price, the signed certifications shall be submitted prior to the award of the letter contract, unpriced contract, or unpriced contract modification, and prior to the definitization of the letter contract or the establishment of the price of the unpriced contract or unpriced contract modification. The second certification shall apply only to the period between award of the letter contract and execution of the document definitizing the letter contract, or award of the unpriced contract or unpriced contract modification and execution of the document establishing the definitive price of such unpriced contract or unpriced contract modification.

(2) For basic ordering agreements, prior to the execution of a priced order; prior to the execution of an unpriced order, whether or not the unpriced order contains a maximum or not to exceed price; and, prior to establishing the price of an unpriced order. The second certificate to be submitted for unpriced orders shall apply only to the period between award of the unpriced order and execution of the document establishing the definitive price for such order.

(3) A certificate is not required for indefinite delivery contracts (see Subpart 16.5) unless the total estimated value of all orders eventually to be placed under the contract is expected to exceed \$100,000.

(4) For contracts and contract modifications which include options, a certificate is required when the aggregate value of the contract or contract modification and all options (see 3.104-4(e)) exceeds \$100,000.

(5) For purposes of contracts entered into under section 8(a) of the SBA, the business entity with whom the SBA contracts, and not the SBA, shall be required to comply with the certification requirements of subsection 27(e). The SBA shall obtain the signed certificate from the business entity and forward the

certificate to the Contracting Officer prior to the award of a contract to the SBA.

(6) Failure of an Offeror to submit the signed certificate within the time prescribed by the Contracting Officer shall cause the offer to be rejected.

(d) Pursuant to FAR 3.104-9(d), the Offeror may be requested to execute additional certifications at the request of the Government. Failure of an Offeror to submit the additional certifications shall cause its offer to be rejected.

(e) A certification containing a disclosure of a violation or possible violation will not necessarily result in the withholding of award under this solicitation. However, the Government, after evaluation of the disclosure, may cancel this procurement or take any other appropriate actions in the interests of the Government, such as disqualification of the Offeror.

(f) In making the certification in paragraph (2) of the certificate, the officer or employee of the competing contractor responsible for the offer may rely upon a onetime certification from each individual required to submit a certification to the competing Contractor, supplemented by periodic training. These certifications shall be obtained at the earliest possible date after an individual required to certify begins employment or association with the contractor. If a contractor decides to rely on a certification executed prior to suspension of Section 27 (i.e., prior to December 1, 1989), the contractor shall ensure that an individual who has so certified is notified that Section 27 is reinstated. These certifications shall be maintained by the Contractor for 6 years from the date a certifying employee's employment with the company ends or, for an agent, representative, or consultant, 6 years from the date such individual ceases to act on behalf of the Contractor.

(g) The certifications in paragraphs (b) and (d) of this provision are a material representation of fact upon which reliance will be placed in awarding a contract.

ATTACHMENT 5

RELEVANT EXPERIENCE AND PAST PERFORMANCE
EVALUATION INSTRUCTIONS
FORM REPP

Send the completed form directly to the address listed at the bottom of page one.

Some space is provided in Item VII for comments. Please use additional pages where necessary; comments would be particularly appreciated concerning excellent and poor performance. The evaluation criteria to be used are defined as follows:

- * Excellent - Of exceptional merit; exemplary performance in a timely, efficient and economical manner; very minor (if any) deficiencies with no adverse effect on overall performance.
- * Very Good - Very effective performance, fully responsive to contract requirements accomplished in a timely, efficient and economical manner for the most part; only minor deficiencies.
- * Good - Effective performance; fully responsive to contract requirements; reportable deficiencies, but with little identifiable effect on overall performance.
- * Fair - Meets or slightly exceeds minimum acceptable standards; adequate results; reportable deficiencies with identifiable, but not substantial, effects on overall performance.
- * Poor - Does not meet minimum acceptable standards in one or more areas; remedial action required in one or more areas; deficiencies in one or more areas which adversely affect overall performance.

ATTACHMENT 5

FORM REPP -- RELEVANT EXPERIENCE AND PAST PERFORMANCE
Solicitation No. 1-137-D.1165

I. CONTRACT INFORMATION

A. Name of Company Being Evaluated: _____

B. Address: _____

C. Contract Number: _____ D. Contract Type: _____

E. Contract Value: _____

F. Period of Performance: From: _____ To: _____

II. DESCRIPTION OF CONTRACT: _____

During the contract performance being evaluated, this firm was the:
____ Prime Contractor; ____ Significant Subcontractor; ____ Team Member;
____ Other (describe) _____

Does a corporate or business relationship exist between the firm being
evaluated and your organization?
____ Yes, ____ No. If so, please describe. _____

III. EVALUATOR

Name: _____

Title: _____

Organization: _____

Address: _____

Telephone No.: _____ Fax No.: _____

SEND TO: ATTN: 126/DAVID H. JONES TO BE OPENED BY ADDRESSEE ONLY
NASA LANGLEY RESEARCH CENTER
9A LANGLEY BOULEVARD
HAMPTON VA 23681-0001
TELEPHONE: 804-864-2421
FAX: 804-864-7898

IV. OVERALL PERFORMANCE

How would you rate the Contractor in the following areas (Circle One):

A. Local Management Authority	E	VG	G	F	P	N/A
B. Contract Compliance	E	VG	G	F	P	N/A
C. Subcontract Administration	E	VG	G	F	P	N/A
D. Responsiveness to Technical Direction	E	VG	G	F	P	N/A
E. Responsiveness to Change Orders (N/A if not services)	E	VG	G	F	P	N/A
F. Phase-in	E	VG	G	F	P	N/A
G. Meeting SDB Goals	E	VG	G	F	P	N/A
H. Planning, Estimating and Scheduling	E	VG	G	F	P	N/A
I. Work Control	E	VG	G	F	P	N/A
J. Responsiveness to Changing Requirements	E	VG	G	F	P	N/A
K. Management of Diverse Tasks	E	VG	G	F	P	N/A
L. Early Identification of Problems and Timely Resolution	E	VG	G	F	P	N/A
M. Labor Relations	E	VG	G	F	P	N/A
N. Working Without Extensive Guidance	E	VG	G	F	P	N/A

V. FINANCIAL MANAGEMENT PERFORMANCE

A. How would you rate the Contractor in the following areas (Circle One):

1. Complete and Timely Reporting	E	VG	G	F	P	N/A
2. Cost Control	E	VG	G	F	P	N/A
3. Procurement System	E	VG	G	F	P	N/A
4. Property Management System	E	VG	G	F	P	N/A
5. Accounting System	E	VG	G	F	P	N/A
6. Adherence to Cost Estimates	E	VG	G	F	P	N/A
7. Overall Financial Management	E	VG	G	F	P	N/A

B. Please provide the Contractor's overhead and G&A growth rates for the past three fiscal years (if applicable), ignoring any contract rate ceilings:

FY ___ FY ___ FY ___

Overhead: _____

G&A: _____

C. If ceiling rates are contained in this contract, please indicate current ceiling rates:

Overhead: _____

G&A: _____

D. Has the Contractor experienced overruns or underruns? Yes No

If yes, please elaborate: _____

VI. TECHNICAL PERFORMANCE

A. How would you rate the Contractor's technical performance in the following areas:

1. Completeness and Accuracy	E	VG	G	F	P
2. Timeliness	E	VG	G	F	P
3. Product Reviews/Product Assurance	E	VG	G	F	P
4. Documentation	E	VG	G	F	P
5. Qualifications of Technical Staff	E	VG	G	F	P
6. Overall Technical Performance	E	VG	G	F	P

B. How long did proposed key personnel remain on contract? _____

C. What is the Contractor's average annual turnover rate? _____

D. Is there an award or incentive fee? If so, please give the fee dollars and percentages earned for the last three reporting periods:

<u>Review Period</u>	<u>Fee Dollars</u>	<u>% of Possible Fee</u>
_____	\$ _____	_____ %
_____	\$ _____	_____ %
_____	\$ _____	_____ %

VII. CONCLUSIONS

Would you recommend this Contractor for another contract? Why? Please add any comments you feel pertinent. _____

Lined area for writing conclusions.

ATTACHMENT 6

REPRESENTATIVE TASK ORDERS

Please refer to L.41. Proposal Preparation and Submission -- Special Instructions, for specific instructions on responding to the seven representative task orders. Offerors are cautioned that the representative task orders cover only a small portion of the total requirements of the Statement of Work in Section C, and are not intended to be representative of the balance of work by functional area or of the skill mix required for the total contract effort.

IMPORTANT: There is **NO GUARANTEE** that the work in any of the representative task orders will be assigned under the contract.

The representative task orders are as follows:

1. "Operation of Electromagnetics Research Laboratories"
2. "Nonlinear Analysis and Testing of Aircraft Structural Components"
3. "Solution Characterization of Advanced Polymers"
4. "Mechanical Testing to Assess Properties of Advanced Light Metallic Alloys"
5. "Computational Validation of F-18 Flight Control Device"
6. "Advanced Control Design and Simulation"
7. "Tail Buffet Research Support"

Representative Task No. 1

Operation of Electromagnetics Research Laboratories**Background:**

Several LaRC electromagnetic facilities serve as focal points for government, industry, and university personnel for performing research. This task provides support for two of these facilities, whose descriptions follow:

The Low Frequency Antenna Test Facility (LFATF) is an indoor far-field measurement facility that provides a simulated free-space environment for performing antenna measurements to support the analysis and design of advanced antenna systems for NASA's current and future research programs. Antenna measurements can be conducted over the 0.10- to 40-GHz frequency range. Test models or antennas up to 12 feet in length and weighing 1000 pounds or less can be measured as long as the far-field criterion is satisfied. Instrumentation includes a Hewlett Packard (HP) model 85301B antenna measurement system, a Flam and Russell model FR959 workstation, an HP model 8720C network analyzer, and a Scientific-Atlanta precision antenna/model positioning system. The test chamber is tapered and is 30-feet high by 32-feet wide by 105-feet long. The LFATF facility anticipates making 35 to 40 tests annually, involving a variety of antennas on or off a variety of aerospace vehicle models.

The High Intensity Radiation Laboratory (HIRL) mission is to serve as a focal point for government, industry, and university personnel to identify and develop methods for systematically validating and evaluating digital control, guidance, and monitoring systems. The laboratory provides specialized resources for the testing of avionics systems response to high intensity radiated fields. These resources include a Gigahertz Transverse Electromagnetic Cell (GTEM) which provides a uniform field of up to 1000 volts per meter from 10 kHz to 18 GHz. Three mode-stirred reverberation chambers of various sizes (47'x23'x9.5', 23'x13'x9.5', 9.5'x8.9'x7') are also available for producing high electromagnetic fields in the frequency band of 87 MHz to 40 GHz with shielding effectiveness of 120 dB at 40 GHz. The facility provides state-of-the-art electromagnetic power sources, data collection and storage equipment, and computational resources (hardware and software) for the monitoring of electromagnetic fields and test specimen performance. Test specimens such as flight control computers and specialized fault tolerant digital systems are available for experimental use. Alternately, experimenters can provide their own systems as test specimens. The HIRL anticipates subjecting five avionics subsystems to electromagnetic susceptibility testing during the period of performance.

Task Description:

The contractor shall be responsible for the operation and coordination of maintenance of two facilities: the Low Frequency Antenna Chamber and the High Intensity Radiation Laboratory. The contractor shall maintain a record of facility use including any anomalies and shall maintain a safe working environment. The contractor shall provide planning, scheduling, and coordination of equipment and contractor personnel to accomplish all job requirements. The contractor shall correct system failures. The contractor shall notify NASA of potential problems as early as possible. The contractor shall minimize the impact of the effect of equipment downtimes on research operations.

Representative Task No. 1

Installation Provided Government Property:

The contractor will have access to the Low Frequency Antenna Chamber in Building 1299, the High Intensity Radiation Laboratory in Building 1220, and associated instrumentation described in Background (above).

Period of Performance: May 1, 1996 - April 30, 1997.

Deliverables:

- Test reports (as needed)
- Work plans (monthly)
- Schedules (monthly)
- Facility logs (monthly)
- Problem/Failure/Action reports (as needed)
- Accident/Safety reports (quarterly)

Performance Criteria:

- Readiness of facilities to support planned tests at least 90 percent of the time
- Timeliness of Deliverables

Representative Task No. 2

Nonlinear Analysis and Testing of Aircraft Structural Components**Background:**

In support of the Aircraft Structural Integrity Program (ASIP), the Structural Mechanics Branch is conducting a combined analytical and experimental study to identify and resolve critical issues related to the strength and service life of major aircraft structural components. This task contributes significantly to that study.

Task Description:

The contractor shall develop finite element models, conduct structural analyses and coordinate test specimen preparation in support of the ASIP program.

The contractor shall provide consultation for approximately 15 civil servant users on structural modeling and analyses using the STAGS finite element analysis code. The contractor shall provide instructions to users and documentation on new capabilities and releases of the code. The contractor shall maintain STAGS on a Unix-based computer system for the Structural Mechanics Branch. The contractor shall promptly install upgrades to the code on LaRC computers and distribute upgrades to external systems as needed (1 - 2 updates per year). The contractor shall conduct analyses of four to five test cases which demonstrate the functionality of the code and identify errors or shortcomings of the code. Errors in STAGS shall be reported to the code developer when they are discovered.

The contractor shall develop four to five finite element models that simulate curvilinear crack growth in thin shells using STAGS/FRANC3D (Fracture Analysis Code 3D). The contractor shall create three to four simple cases to test the solution mapping algorithm between STAGS and FRANC3D for restarting nonlinear solutions with models that have been remeshed. The contractor shall conduct eight to ten nonlinear structural analyses using STAGS and local models of damaged fuselage panels to test the curvilinear crack growth simulation capability. The contractor shall identify problems associated with mapping FRANC3D solutions to STAGS and identify possible causes for these problems. Finite element models and analytical results shall be provided by April 30, 1997.

The contractor shall develop two to three finite element models to simulate the local response (stresses, strains, displacements) of lap joints and other local structural details in pressurized fuselage shells. The contractor shall use STAGS to conduct nonlinear structural analyses of the lap joints and other local details with and without damage. The contractor shall determine the effects of fastener flexibility and variations in local structural parameters (e. g., skin thickness, stiffener dimensions) on the response of the lap-joint and structural-detail models. Finite element models and analytical results shall be provided by October 31, 1996.

The contractor shall develop three to four finite element models to simulate test results (stresses, strains, displacements) for tension-loaded curved panels with cracks and conduct nonlinear analyses using STAGS. The contractor shall recommend instrumentation and test procedures for the tests. The tests will be conducted by the

Representative Task No. 2

government. The contractor shall modify the finite element models to accommodate a stable tearing algorithm for crack growth to be supplied by the government. Finite element models and analytical results shall be provided by April 30, 1997.

The contractor shall develop two to three finite element models of local structural details to simulate the load redistribution near the local details due to multi-site damage in a pressurized fuselage shell. The contractor shall conduct nonlinear analyses of these models using STAGS. The contractor shall assess the effects of fastener flexibility and changes in model parameters on the response (stresses, strains, displacements) of the models. Finite element models and analytical results shall be provided by April 30, 1997.

The contractor shall design test fixtures and coordinate test-specimen and test-fixture preparation for eight to ten stiffened and unstiffened panels and shells with damage and various structural details subjected to combined pressure and mechanical loads. The contractor shall reduce the test data for comparison with analytical results. The tests will be conducted by the government. The contractor shall develop finite element models to simulate the response (stresses, strains, displacements) of the test specimens and to determine instrumentation patterns. The contractor shall vary structural parameters such as stiffener dimensions and crack orientations to determine the response of the specimens due to changes in structural parameters. Analytical results shall be within 10 percent of the test results. Structural analyses of test specimens with support fixtures shall be developed by April 30, 1997.

Installation Provided Government Property:

Test specimens and instrumentation, test data files, mainframe computer and Unix work station access.

Period of Performance: May 1, 1996 - April 30, 1997.

Deliverables:

STAGS user instruction, documentations, upgrades; crack-growth simulation models and related analyses; cracked curved panel model and analyses; models and related analyses of local structural details in a pressurized fuselage shell; structural-test-fixture designs and instrumentation patterns; models and analyses for stiffened panels and shells with damage.

Performance Criteria:

Availability and effectiveness of STAGS user instruction and consultation; prompt installation and documentation of code upgrades; successful operation of upgraded codes; timely and effective design of test fixtures; conformance of analysis results with experimental data.

NOTE: A copy of the STAGS User's Manual, as well as instructions for accessing FRANC3D, are in the Bidders Library at NASA Langley (see L.39).

Representative Task No. 3

Solution Characterization of Advanced Polymers**Background:**

Research efforts are underway to develop advanced materials, processes, and fabrication techniques for the incorporation of the materials into structures with improved aerospace structural efficiency. This research will expand the technology to allow significant improvements in performance, durability and economy of future space systems and future-generation civil and military aircraft.

Task Description:

Contractor shall carry out solution characterization of high-performance polymers, including planning of experiments, and choice of appropriate techniques and experimental conditions. Molecular weights and distributions will be determined by gel permeation chromatography/ differential viscometry, membrane osmometry, vapor pressure osmometry, and low-angle light scattering photometry. This effort supports the work of at least 9 synthetic chemists as well as aging and processing studies for High Speed Research, and requires timely results on 150-200 specimens/year.

Installation Provided Government Property:

Access to laboratory equipped for molecular weight measurements (osmometers, photometer, GPC and columns), ancillary laboratory equipment (balances, glassware, fume hoods); solvents and chemical reagents; data acquisition and storage equipment.

Deliverables:

Molecular weight data on government-supplied materials as specified above; informal written reports on each test upon completion including data, documentation of the quality of the data, and any difficulties encountered.

Period of Performance: May 1, 1996 - April 30, 1997.

Performance Criteria:

Quality of analytical results obtained by routine methods will be evaluated by: 1) reproducibility between replicate samples and 2) analysis of reference materials. Limits of acceptable error depend on the analytical method, but should not exceed twice the specified instrumental accuracy.

In non-routine methods development, success will be measured in terms of the numbers of specimens prepared and analyzed, as well as by evaluation of the novelty, generality, and usefulness of the method.

Representative Task No. 4

Mechanical Testing to Assess Properties of Advanced Light Metallic Alloys**Background:**

Research efforts are underway to develop advanced materials, processes, and fabrication techniques for the incorporation of the materials into structures with improved aerospace structural efficiency. This research will expand the technology to allow significant improvements in performance, durability and economy of future space systems and future-generation civil and military aircraft.

Task Description:

The Contractor shall conduct mechanical tests and data analysis to determine the mechanical behavior of metallic materials. The support shall include preparation, instrumentation, testing, and data analysis for metallic specimens. The Contractor shall measure the dimensions of the test specimens (~1000/year) and remove from the specimens any surface flaws that may adversely affect the test results (up to 100/year). The Contractor shall operate two hydraulic tensile/compression/fatigue machines with cryogenic and elevated temperature chambers to conduct tests. The Contractor shall utilize installation-provided System 4000 and Fracture Testing Associates hardware and software for data acquisition. The Contractor shall conduct tensile and compression tests to measure strength, modulus, and elongation (~300/year). The Contractor shall conduct fracture toughness tests using J-integral analysis of R-curves generated from compact tension specimens, center-crack tension specimens, and other appropriate specimen configurations (~200/year). The Contractor shall conduct fatigue crack growth tests using compact tension specimens, center crack tension specimens, and other appropriate test specimen configurations (~200/year). The Contractor shall conduct S-N fatigue tests on notched and un-notched test specimens (up to 100/year). The Contractor shall conduct edgewise compression and flatwise tension tests on structural panel coupons (up to 200/year). The tests listed above shall be conducted at temperatures ranging from -450°F (liquid helium temperature) to 1800°F, with the majority of tests being conducted at room temperature. The Contractor shall utilize instrumentation for controlling and measuring load, strain, deflection, fatigue cycles, crack-opening-displacement, crack growth, temperature, gripping pressure, and other parameters essential to each of the tests enumerated above. Materials will be aluminum- and titanium based alloys and composites, although other materials may be included on a limited basis. Product forms will be foils, sheets, plates, rods, forgings, and built-up structural panels.

Installation Provided Government Property:

Access to Light Alloy Laboratory and Structures and Materials Lab, including cryogenic and elevated temperature chambers, test machines, strain and displacement measurement instrumentation, data acquisition and storage equipment (described above).

Period of Performance: May 1, 1996 - April 30, 1997.

Representative Task No. 4

Deliverables:

Electronic data files, tested specimens with fracture surface preserved, and informal written and oral report for each set of tests (~3-20) documenting test procedures and occurrence of test anomalies, within 3 working days after test set completion; monthly updated schedule and prioritization of tests to be completed; informal written quarterly reports listing types of tests and numbers and types of specimens tested.

Performance Criteria:

Adherence to all applicable ASTM and/or Mil Handbook 5 standards; clarity of test reports.

Representative Task No. 5

Computational Validation of F-18 Flight Control Device**Background:**

The contractor shall conduct tasks associated with the development, application, maintenance, and documentation of large-scale computational fluid dynamic methods for aerodynamic applications in support of the High Alpha Technology Program (HATP). The tasks require the application of solvers based on block-structured grids and unstructured grids. A hybrid structured-unstructured-grid solver has been developed and applied to the F-18 aircraft at angles of attack up to 30 degrees and the Articulated Nose Strake for Enhanced Roll Effectiveness (ANSER) has been analyzed for a forebody configuration. The focus of this task is to extend these two existing methods to the analysis of the flight-test article for the F-18 at angles of attack up to 60 degrees.

The hybrid approach uses a block-structured-grid viscous solver on the forward part of the F-18 and an unstructured-grid inviscid solver on the downstream part. The hybrid approach enables the essential physics of the high-angle-of-attack flow to be simulated efficiently. This approach will be compared with other patched-grid and overset-grid approaches being pursued in the HATP.

Task Description:

Apply a viscous computational method for the analysis of the ANSER control device being flight-tested on the NASA High Alpha Research Vehicle. The ANSER device will be simulated in the block-structured portion of the hybrid algorithm. The method will be applied at representative conditions corresponding to the flight tests of the F-18 at angles of attack up to 60 degrees and for several ANSER deflections. The calculations will be assessed for truncation error effects through local or global grid refinements and examination of solution parameters such as the number of points in the boundary layers. The predictions, including control effectiveness, loads, moments, and pressures, will be compared to the results from flight tests, ground-based tests, and other available computational methods.

Installation Provided Government Property:

Electronic access to the Numerical Aerodynamic Simulator (NAS) C-90 at Ames Research Center.

Period of Performance: May 1, 1996 - November 1, 1996.

Deliverables:

Document the findings and the computational procedures in a written technical report within 6 months after task is issued.

Performance Criteria:

- Time required to develop a suitable computational grid using the hybrid approach for an existing surface model of a new configuration. Current block-structured-grid approaches require on the order of 2 weeks to 2 months and unstructured grid approaches require on the order of weeks.

Representative Task No. 5

- Time required to develop a suitable computational grid using the hybrid approach for variations of an existing configuration. The time required for variations to a configuration is usually an order of magnitude smaller than for the grid generation for a new configuration.
- Computer time and memory requirements per grid point per iteration for the hybrid approach. Existing structured grid methods use 20 microseconds per grid per iteration and 50 words per grid point on the NAS C-90.

NOTE: Information on ANSER and the grid solver are in the Bidders Library at NASA Langley (see L.39).

Representative Task No. 6

Advanced Control Design and Simulation**Background:**

NASA Langley Research Center has been involved in developing advanced active control concepts for a number of NASA programs, such as the EOS program. These advanced control concepts include advanced attitude control systems for spacecraft, flexible appendage control, and payload isolation systems. These developments are expected to continue for existing NASA programs and to expand into new NASA initiatives, such as the New Millennium Program (NMP).

Task Description:

The scope of this task involves performing H-infinity-based control designs for two of several NMP missions by using H-infinity-synthesis, space-mu-synthesis, and LMI-synthesis techniques, as well as providing dynamic simulations of these missions. Simulations shall be capable of running on Unix-based workstations using LaRC-defined software tools such as SIMULINK (from Mathworks, Inc.). Specific work areas are the following:

- Design H-infinity-based control laws, using Langley-defined spacecraft design specification, performance metrics, and trade parameters, for two NMP missions and/or concepts.
- Provide performance analysis of advanced controllers through computer simulations and/or experimental testing.
- Develop dynamic simulation programs for each of the two Langley-defined NMP mission concepts for use with SIMULINK.
- Perform dynamic simulations using three of the NMP mission concepts with H-infinity control designs.

Installation Provided Government Property:

Access to SIMULINK programs via network.

Period of Performance: May 1, 1996 - April 30, 1997.

Deliverables:

- H-infinity-based control designs for the NMP mission concepts by January 31, 1997. The controllers shall be provided in state-space form and shall be accompanied with full documentations on design process, trade studies, and performance evaluations.
- Dynamic simulation, using SIMULINK, of the NMP mission concept with the H-infinity-based controllers by April 30, 1997. The contractor shall provide full documentation of the simulation results and the simulation programs written in SIMULINK.
- Contractor shall submit informal, written monthly technical progress reports.

Representative Task No. 6

Performance Criteria:

- Simulations (reduced-order models) have sufficient frequency response to capture the dynamics of the systems (full-order models) while running on a LaRC UNIX workstation.
- Deadlines for deliverables are met.

Representative Task No. 7

Tail Buffet Research Support**Background:**

The NASA High Alpha Program identified vortex/fin interactions as the primary cause of tail buffet on twin-tailed fighters. Previous design methods involved limited experimental and empirical design tools. This task will support the development of advanced design methods by providing an extensive vortex/fin interactions database.

Task Description:

Conduct wind tunnel testing and associated data analysis in the Langley Basic Aerodynamics Research Tunnel (BART) to obtain data for a cropped double-delta wing with twin vertical tails. The wind tunnel will be made available for a period of up to 4 months. Develop any software required to conduct the test using the BART data acquisition system.

- The contractor shall obtain force and moment data for wing alone and wing/tail combinations.
- The contractor shall identify the critical tail configuration for maximum tail buffet. Test parameters include angle of attack range -5 to +40 degrees at 0.5 degree increments, three Reynolds numbers and ten wing/tail combinations.
- Measure all three components of the velocity field using laser velocimetry (LV), at a sufficient number of longitudinal stations above the delta wing. Analyze data to obtain vortex strength (vorticity & circulation), root mean square of the velocity fluctuations, and vortex core position. Provide all necessary bias corrections to the LV data. Correlate measured velocities with dynamic data from the pressure transducers on the twin tails.
- Measure buffet pressures and provide scaling consistent with AGARD criteria for buffet response. Calculate power spectra, phase, and correlations.
- Measure the inflow and outflow velocity field and wall pressures to provide accurate boundary conditions for CFD predictions.
- Correct all appropriate data for blockage and interference using the wall pressure signature technique.

Installation Provided Government Property:

- Langley Basic Aerodynamics Research Tunnel (BART), single shift operation.
- Tunnel support and operations; all models; access to data acquisition system and instrumentation.

Period of Performance: May 1, 1996 - February 28, 1997.

Representative Task No. 7

Deliverables:

- Document the results and describe experimental setup, including reduction and analysis procedures in a written final report.
- Transfer the raw and corrected electronic data sets in a file structure compatible with NASA computers.

Performance Criteria:

- Complete wind tunnel test within 4 months.
- Transfer data sets within 6 months of tunnel test completions.
- Final report shall be submitted 10 months after task is issued.

NOTE: Information on the Basic Aerodynamics Research Tunnel is in the Bidders Library at NASA Langley (see L.39).

POTENTIAL TASKS

The attached list of potential tasks is a compilation of tasks which **may** be placed at contract inception. There is **NO GUARANTEE** that any of the tasks on this list will be placed under the contract, nor is this list intended in any way to be limiting. This list has been provided to help the offerors develop a better understanding of the Statement of Work and the Government's potential requirements under the contract. This list is **not** intended to be representative of the balance of work by functional area or the skill mix that will be required for the total contract effort.

Aerodynamics Division (AD)

- Development and application of advanced computational fluid dynamics methods
- Planning, conducting, and analyzing results from tests in LaRC facilities: 16-foot Transonic Tunnel, National Transonic Facility, Low Turbulence Pressure Tunnel, and Jet Exit Test Facility

Flight Dynamics and Control Division (FDCD)

- Boeing 757 Guidance & Control Development
- Spacecraft control design, analysis, and dynamic simulation
- Biocybernetic assessment and experiments of human/automation integration
- Use of NASA-developed CREW (Crew Response Evaluation Window) technology
- Use of NASA-developed EAST (Expanded Attention Span Training) technology in biofeedback training systems
- Applications of human engineering methods technology
- High speed research guidance and flight control technology development
- Large-gap magnetic suspension system
- Spin-tunnel model design, test, and data analysis
- Develop computer systems for drop model and free-flight model testing
- Low speed tunnel testing and data acquisition
- Photogrammetric Appendage Structural Dynamics Experiment (PASDE) flight experiment data analysis support

- Analysis and experimentation for the design and integration element of the high speed research program
- Transport high-lift flight research data analysis
- Software development and data analysis for simulated closely-spaced flight operations
- Wake vortex field data analysis and interpretation
- Real-time graphics and simulation software for High Speed Research External Visibility System (HSR XVS)
- Flight data formatting for the High Alpha Investigation of Roll and Yaw (HAIRRY)

Fluid Mechanics and Acoustics Division (FMAD)

- Testing of cropped, double delta wing with twin vertical tails in LaRC Basic Aerodynamics Research Tunnel
- CFD grid generation for complex geometries
- Computational validation of advanced turbulence models
- Validation of large-scale computational fluid dynamic methods
- Analysis and control of noise produced by an airframe and by advanced ducted fans
- Hybrid laminar flow control testing in LaRC 8-foot Transonic Pressure Tunnel
- Instrumentation, collection, and analysis of aeroacoustic data from tests in LaRC Jet Noise Laboratory
- F-16XL supersonic laminar flow control flight experiment and wind tunnel testing
- Aerodynamic and Aeroelastic Analysis for High Speed Research/Longitudinal Controls Alternative Project (LCAP II)
- Psychophysical studies to assess passenger response to aircraft interior noise
- Identification, modeling, prediction, and reduction of flight vehicle noise
- Structural-acoustic and fluid-structural-acoustic modeling, control system implementation, and acoustic liner development
- Human test subject pool for psychophysical testing
- Subsonic and supersonic flow transition prediction method development

Gas Dynamics Division (GDD)

- Hypersonic Airbreathing Propulsion System Analysis and Testing

Flight and Electronics Technology Division (FETD)

- Maintenance and operation of electromagnetic, crystal growth, and crystal vapor deposition laboratories, and operation of Dexterous Manipulator test bed
- Electromagnetics research and technology on advanced antenna concepts and their application to aerospace and ground vehicle systems
- Sensor technology development for commercial transport, high speed and general aviation aircraft and avionics development and testing for aircraft and spacecraft
- Software, data base, and computer graphics development for IETD programs

Materials Division (MD)

- Mechanical testing using Government-furnished equipment and specimens
- Chemical, micrograph, and spectroscopic analysis of advanced metallic alloys, polymers, and composites
- Computational analysis of deformation, strength, fracture, and fatigue life of advanced polymer matrix composites and light metallic alloys
- Processing technologies for improved structural efficiency of metallic alloys, and metallic and polymeric matrix composites
- Hardware and software integration, testing, and field evaluation of a smart ultrasonic system for aircraft nondestructive evaluation (NDE)
- Computer model development for NDE signal processing
- Development, testing, and operation of NDE sensors, including ultrasonic, X-ray, optical, fiber optic, and thermal
- Installation, operation, and maintenance of laser-based ultrasound NDE system
- Space-environmental exposure and characterization of polymer/graphite and electronic ceramic materials

Structures Division (SD)

- Maintenance, enhancement, documentation, and user support for the Computational Mechanics Testbed (COMET)
- Design, modeling, analysis, and testing of structures and thermal protection system for high-speed vehicles
- Testing and evaluation of aeroelastic phenomena, e.g., flutter, buffet, buzz, limited-cycle oscillations, and gust response, including analysis of complex aerodynamic flows, development, including analysis of complex aerodynamic flows, development of actual control concepts, and test and analysis related to High Speed Civil Transport
- Analysis and testing of aircraft and spacecraft full-scale structures, using structural elements and scaled models, finite element model development, structural analysis, test fixture design, and specimen preparation for Advanced Composites Technologies (ACT), aging aircraft (ASIP), High Speed Research (HSR), and general aviation aircraft (AGATE) programs

Attachment 8

Skill Matrix

The following charts are to assist in proposing cost information. The first chart reflects the percentage of the Level-of-Effort (LOE) which each labor classification is expected to perform on this contract (See Section L). The second chart defines the labor experience levels used in the "Experience Table". The third sets of charts demonstrates the incumbent labor experience and their average labor rate for that level of experience. (These rates are current as of September 1, 1995.) This is followed by lists of the incumbent direct labor position titles from which the experience tables were composed. The data was supplied by the incumbent contractors, and is to be used in your proposal.

In your proposal, explain how your skill mix's experience differs from "Experience Categories" provided herein and how those changes occur over time, if applicable.

SKILL MIX (to be used in cost proposal):

<u>Labor Classification</u>	<u>% of LOE Hours</u>
Engineer	77%
Scientist/Researcher	12%
Technician	11%

LABOR EXPERIENCE LEVELS:

Category I -- Senior Professional (Ph.D. and ≥ 3 years related experience, or Masters degree and >6 years experience, or Bachelors degree and >10 years experience)

Category II -- Journeyman Professional (Ph.D. and <3 years., or Masters degree and 3 - 6 year experience, or Bachelors degree and 5 - 10 years experience)

Category III --- Junior Professional (Masters degree and <3 years experience, Bachelors degree and <5 years experience)

Category IV -- Associate (High School diploma or equivalent)

Incumbent Experience Tables

<u>Experience Table: Engineer</u>					
<u>Years of Work Experience</u>	<u>Category</u>				Total
	I	II	III	IV	
< 6 yrs experience	1.2%	5.9%	3.2%	0.0%	10.4%
6-10 years	14.3%	17.5%	0.0%	1.0%	32.8%
11-15 years	21.1%	0.0%	0.0%	1.5%	22.6%
16-20 years	13.6%	0.0%	0.0%	1.0%	14.6%
20-25 years	5.9%	0.0%	0.0%	0.5%	6.4%
25 years or more	10.8%	0.0%	0.0%	2.5%	13.2%
Total	66.9%	23.4%	3.2%	6.4%	100.0%
Average Labor Rate:	\$26.96	\$20.08	\$16.57	\$20.56	

<u>Experience Table: Scientist/Researcher</u>					
<u>Years of Work Experience</u>	<u>Category</u>				Total
	I	II	III	IV	
< 6 yrs experience	8.1%	4.1%	1.4%	0.0%	13.5%
6-10 years	35.1%	4.1%	0.0%	0.0%	39.2%
11-15 years	20.3%	0.0%	0.0%	0.0%	20.3%
16-20 years	6.8%	0.0%	0.0%	0.0%	6.8%
20-25 years	5.4%	0.0%	0.0%	0.0%	5.4%
25 years or more	12.2%	0.0%	0.0%	2.7%	14.9%
Total	87.8%	8.1%	1.4%	2.7%	100.0%
Average Labor Rate:	\$29.66	\$21.36	\$15.09	\$19.83	

<u>Experience Table: Technician</u>					
<u>Years of Work Experience</u>	<u>Category</u>				Total
	I	II	III	IV	
< 6 yrs experience	0.0%	0.0%	3.7%	7.4%	11.1%
6-10 years	0.0%	0.0%	0.0%	9.3%	9.3%
11-15 years	0.0%	0.0%	0.0%	14.8%	14.8%
16-20 years	3.7%	0.0%	0.0%	7.4%	11.1%
20-25 years	0.0%	0.0%	0.0%	20.4%	20.4%
25 years or more	1.9%	0.0%	0.0%	31.5%	33.3%
Total	5.6%	0.0%	3.7%	90.7%	100.0%
Average Labor Rate:	\$17.63	\$0.00	\$15.87	\$17.41	

Examples of Incumbent Skill Classifications

Engineer

Advanced Sys Eng Spec
 Advanced Sys Spec Sr
 Asst. Engineer III
 Computer Analyst
 Computer Analyst Sr
 Computer Operator I
 Computer Program Assoc Sr
 Computer System Analyst
 Computer System Spec
 Data Proc Co-Ordinator II
 Data Processor
 Data Verification Tech
 Elect. Dev. Eng. III
 Engineer
 Engineer Associate, Sr
 Engineer Associate
 Engineer I
 Engineer II
 Engineer III
 Engineer IV
 Engineering Supervisor
 Engineer, Associate
 Engineer, Principal
 Engineer, Senior
 Engineer, Staff
 Programming Asst
 Project Engineer
 Project Manager
 Research Engineer
 Research Engineer III
 Research Scientist
 Senior Engineer
 Senior Scientist
 Sr. Project Engineer
 Sr. Research Engineer
 Staff Engineer
 Supervising Engineer
 Tech Illustrator

Scientist/Researcher

Manager
 Research Engineer
 Research Scientist
 Scientist Associate
 Scientist Associate, Sr
 Scientist III
 Scientist IV
 Scientist V
 Scientist , Principal
 Scientist , Senior
 Scientist , Staff
 Scientist/Researcher I
 Scientist/Researcher II
 Senior Engineer
 Senior Scientist
 Sr. Research Engineer
 Sr. Research Scientist
 Staff Scientist
 Supervising Engineer

Technician

Administrative Associate
 Aircraft Equip. Flight Specialist
 Aircraft Equip. Flight Spec., Sr
 Electric Sys. Dev. Technician I
 Electric Sys. Dev. Technician II
 Electronic Technician
 Research Technician
 Tech Support Supervisor
 Technician
 Test Conductor
 Test Operations Assistant
 Test Subject Coordinator

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1 CONTRACT ID CODE	PAGE OF PAGES 1 2
2. AMENDMENT/MODIFICATION NO 1	3. EFFECTIVE DATE FEB 20 1996	4. REQUISITION/PURCHASE REQ NO	5. PROJECT NO. (If applicable)
6. ISSUED BY National Aeronautics and Space Administration Langley Research Center Hampton, VA 23681-0001		7. ADMINISTERED BY (If other than Item 6)	

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State, and Zip Code) TO ALL CONCERNED	(x)	9A. AMENDMENT OF SOLICITATION NO. 1-137-D.1165
		9B. DATED (SEE ITEM 11) 1-26-96
		10A. MODIFICATION OF CONTRACT/ORDER NO.
		10B. DATED (SEE ITEM 13)
CODE		FACILITY CODE

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

X The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers is extended, X is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning 1 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(x)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor is not, is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
SUBJECT: NASA RFP 1-137-D.1165, Aerospace Research & Technology (ART) Contract.

The purpose of this amendment is to make revisions to the RFP, provided answers to Contractor questions concerning the RFP, provide the information presented at the preproposal conference held on February 13, 1996, and provide the sign-in sheets for attendees from the preproposal conference.

All of the above information is included in four enclosures to this amendment, which are listed on page 2.

Except as provided herein, all terms and conditions of the document referenced in item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) PANICE H. CLARK
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED
(Signature of person authorized to sign)	16B. UNITED STATES OF AMERICA BY <i>Panice H. Clark</i> (Signature of Contracting Officer)
	16C. DATE SIGNED 2/20/96

ENCLOSURE LIST

- | <u>No.</u> | <u>Title</u> |
|------------|---|
| 1 | AEROSPACE RESEARCH AND TECHNOLOGY (ART)
QUESTIONS AND ANSWERS, 5 pages |
| 2 | ART RFP REVISIONS, 6 pages |
| 3 | ART PREPROPOSAL CONFERENCE CHARTS, 25 pages |
| 4 | ART PREPROPOSAL CONFERENCE SIGN-IN SHEETS, 4 pages |

AEROSPACE RESEARCH AND TECHNOLOGY (ART)

QUESTIONS AND ANSWERS

NOTE: All questions presented below are exactly as submitted by the contractors.

1. Q: "Ref. G.3, "IPGP shall not be provided to Contractor employees under "Equipment Loan Agreements." Does this mean that the ART Contractor will start with no equipment or is the Government going to allow the winning contractor to start with the existing off-site GFE inventory and replace it as it expires?"

A: **NO** Government Furnished Equipment will be provided for **OFF-SITE** use at any time during the life of the ART contract. Any GFE that is in the possession of the incumbent contractors will be returned to NASA just prior to the start of the ART contract, and will not be available for the ART Contractor to use off-site. The IPGP listed in Exhibit A will be available for on-site use only. "Equipment Loan Agreements" refers to a procedure through which both NASA and Contractor employees are currently allowed, acting as individuals, to take Government equipment outside Langley Research Center for official use. Since the 40% off-site performance requirement has been deleted from the RFP (see Enclosure 2, Item F.), the language prohibiting "Equipment Loan Agreements" to contractor employees will be deleted as well.

2. Q: "Ref. Exhibit B, paragraph II. C. Distribution Requirements, indicates a requirement to submit a copy of the contractor's Financial Management Report to each Task Technical Monitor for their tasks. These reports contain proprietary rate data (overhead and G & A) that would not normally be pertinent to task management and should not be widely distributed. Wouldn't it be more appropriate to provide the Technical Monitors with a report of cost budgeted versus actual cost for their tasks, with an explanation of variances and/or a plan for recovery if the variance exceeds some predetermined threshold?"

A: NASA considers all cost data as pertinent to task management, thus the requirement will remain as stated in the RFP. All necessary steps will be taken to protect contractor proprietary data.

3. Q: "Ref. L.41.E.4. and M.2.A.4. - Will the cost realism evaluation apply only to the business proposal as with SAERS or will it also apply to the Representative Task Orders?"

A: All work, with limited exceptions, will be performed on-site at NASA Langley Research Center. See the new L.40, LOCATION OF DIRECT LABOR WORK FORCE, in Enclosure 2, Item F. of this amendment for details.

9. **Q:** "Will each contractor employee on-site at Langley have convenient access to a computer and sufficient hardware and software capability to perform his/her job. Please describe the physical distribution of PC's, MacIntoshs' and/or X-terminals relative to the physical layout of the Government office space to be provided for each contractor employee. Is a standard suite of office software, such as Microsoft Office available to each employee? If not, what software is available to each employee?"

A: The hardware available for on-site use is listed in Exhibit A, Installation-Provided Government Property (IPGP). Its distribution will depend upon the specific task orders that are active at any given time. No specific office or other space has been identified for use by the ART Contractor, but adequate space will be made available for all on-site employees. The Government will provide all necessary software for the computers listed in Exhibit A, and for any computers that subsequently replace those in Exhibit A, for the performance of work under task orders. The exact software will depend upon the work to be performed, and thus is unknown at this time as well. If the contractor deems it to be suitable, the equipment on the IPGP list may be used for on-site administrative work in support of this contract **only**. Software for payroll, accounting, and other administrative functions will not be provided by the Government.

10. **Q:** "SOW paragraph 5.2 cites operation and maintenance of 4 RF ranges which are: a) compact range, b) experimental test range, c) low frequency antenna chamber, and d) high intensity radiation lab. Representative Task No. 1 discusses items c) and d) above. Should we also propose operation and maintenance of the other two [a) and b)]?"

A: Only the facilities specified in Representative Task Order No. 1 should be discussed in your response to that representative task order. The Compact Range and the Experimental Test Range may be discussed in your approach for performing other areas of the statement of work not covered by the representative task orders.

11.a. **Q:** "What incumbent personnel are assigned to each facility (vs. NASA civil servants); i.e., is there a mixture of civil servants and contractor personnel?"

A: The award fee plan will be available at contract award, since several key pieces of information needed to write the plan will not be available until that time. A revised version of I.18 has been included in Enclosure 2 to this amendment.

15. Q: "Reference: Part I, Section G, paragraph G.5 (page 11) and Part II, Section I, (pages 18 to 43) - Paragraph G.5 Implies there is an upper threshold for the estimated cost of each task order, however, it appears that only incremental funding will be provided (see FAR 52.232-22 on page 19). Does the Government intend to fully fund any individual task orders, or the entire contract? If so, please add FAR 52.232-20, Limitation of Cost, to Part II, Section I."

A: The Government does not intend to fully fund the entire contract initially, since funding comes from a multitude of sources covering the various individual task orders. It is also not anticipated that task orders will be fully funded, since the dynamic nature of research makes it difficult to accurately estimate cost in advance of task order issuance. Accordingly, the "Limitation of Cost" clause will not be added to the RFP.

16. Q: "Do the résumés of Key Personnel count against the page limitation for Volume I, Technical Proposal?"

A: Yes.

ART RFP REVISIONS

A. In Section I, the clause at I.18, Award Fee For Service Contracts (SEP 1993), is hereby revised as follows:

"I.18 AWARD FEE FOR SERVICE CONTRACTS (NASA 18-52.216-76) (SEP 1993)

(a) The Contractor can earn award fee from a minimum of zero dollars to the maximum stated in NASA FAR Supplement Clause 18-52.216-85, "Estimated Cost and Award Fee" in this contract.

(b) Beginning six months after the effective date of this contract, the Government shall evaluate the Contractor's performance every six months to determine the amount of award fee earned by the Contractor during the period. The Contractor may submit a self-evaluation of performance for each evaluation period under consideration. These self-evaluations will be considered by the Government in its evaluation. The Government's Fee Determination Official (FDO) will determine the award fee amounts based on the Contractor's performance in accordance with an award fee plan currently being developed, and to be provided to the Contractor at contract award. The plan may be revised unilaterally by the Government prior to the beginning of any rating period to redirect emphasis.

(c) The Government will advise the Contractor in writing of the evaluation results. The Contracting Officer will issue a unilateral modification to the contract that will recognize the award fee earned. The Contractor may, but is not required, to submit a separate voucher for earned award fee. The NASA Langley Commercial Accounting Section will make payment based on the unilateral modification.

(d) The amount of award fee which can be awarded in each evaluation period is limited to the amounts set forth at B.3, AWARD FEE AVAILABILITY SCHEDULE. Award fee which is not earned in an evaluation period cannot be reallocated to future evaluation periods.

(e) Award fee determinations made by the Government under this contract are not subject to the Disputes clause."

B. In Section B, B.3, AWARD FEE AVAILABILITY SCHEDULE, the award fee evaluation periods shown are hereby deleted and replaced with the following:

- F. In Section L, L.40 - CONTRACTOR FACILITIES is hereby **deleted in its entirety**, and replaced with the following:

“L.40 LOCATION OF DIRECT LABOR WORK FORCE

A. All of the Contractor’s direct labor work force, with the exception of those described in paragraph B. below, as well as any indirect personnel that charge 100% of their time to this contract, shall be located in Government facilities on-site at NASA Langley Research Center. The size, location, and layout of these facilities are unknown at the present time; if this information becomes available in a timely manner, it will be included in a subsequent amendment to this RFP. Otherwise, offerors can assume that adequate space will be provided for their entire on-site (direct and indirect) work force. The Installation-Provided Government Property listed in Exhibit A will be available for use by the Contractor’s on-site work force. NASA will make every effort to provide physical separation of contractor and civil service personnel, with a goal of eventually providing one or more dedicated on-site facilities for the ART Contractor. The Contractor shall not maintain a near-site facility for its direct labor work force in the local commuting area (35 mile radius from Langley Research Center).

B. The Contractor may perform under task orders with direct labor forces located in existing facilities outside the local commuting area.”

C. The location of contractor employees on-site does not relieve the contractor of its day-to-day management responsibilities for those employees and the work they are performing.

- G. In Section L, L.41, PROPOSAL PREPARATION AND SUBMISSION--SPECIAL INSTRUCTIONS, paragraph E.3., Subfactor 3 - Management Approach (Page 125), the word “facilities” is hereby deleted from the fifth line of the paragraph.

- H. In Section L, L.41, PROPOSAL PREPARATION AND SUBMISSION--SPECIAL INSTRUCTIONS, paragraph E.3.b, Element B - Initial Staffing and Phase-In (Page 125), the word “facility” is hereby deleted from the ninth line of the paragraph.

- I. In Section L, L.41, PROPOSAL PREPARATION AND SUBMISSION--SPECIAL INSTRUCTIONS, paragraph E.3.c., Element C - Operations (Page 126) paragraphs (3) and (4) are hereby deleted in their entirety.

Q. In Section I, the following clause is added to I.2, LISTING OF CLAUSES INCORPORATED BY REFERENCE:

“18-52.245-73 Financial Reporting of Government-Owned/Contractor-Held Property”

R. The following are hereby added to Exhibit B - Contract Documentation Requirements:

(1) Under Section I, Documentation Preparation/Submission Instructions, the following is added as Paragraph P:

P. Report of Government-Owned/Contractor Held Property (NASA Form 1018) - The Contractor shall submit the NASA Form 1018 no later than October 31 of each year in accordance with the Section I clause entitled “Financial Reporting of Government-Owned/Contractor Held Property”.

(2) Under Section II, Document Distribution Requirements, the following is added to the table in Paragraph C:

<u>DOCUMENT</u>	<u>LETTER CODE AND DISTRIBUTION</u>
Report of Government-Owned/Contractor Held Property (NASA Form 1018)	A-1, B-1, I-4

S. In Section L, L.38 is hereby deleted in its entirety and replaced with the following:

L.38 SMALL, SMALL DISADVANTAGED AND WOMEN-OWNED SMALL BUSINESS SUBCONTRACTING PLAN

(a) This provision is not applicable to small business concerns.

(b) The contract expected to result from this solicitation will contain FAR Clause 52.219-9, Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan (OCT 1995).

(c) Each offeror must submit the complete plan with its initial proposal.

T. The first page of Attachment 8, Skill Matrix (page 174), is hereby deleted and replaced with the revision on page 6 of 6 of this Enclosure.

ENCLOSURE 3:
AEROSPACE RESEARCH AND
TECHNOLOGY (ART)
PREPROPOSAL CONFERENCE CHARTS
(25 pages)

ART

Aerospace Research and Technology
Contract

Preproposal Conference

RFP 1-137-D.1165

Tuesday, February 13, 1996

Pearl I. Young Theater
Building 1202A



Langley Research Center

General Guidance

- All questions and answers, copies of all viewgraphs, and an attendance list will be forwarded to all firms on the bidders list in an RFP Amendment.
- All revisions to the RFP will be in writing; nothing said here today should be construed as a revision unless subsequently confirmed by written amendment.
- Written questions will be collected during the break and at the conclusion of this conference.
- Written questions submitted by February 7 will be addressed in the question and answer session.
- All communications about this RFP must be directed to David H. Jones, Contract Specialist (see Section L.33, p. 120 in the RFP) , or in his absence, Panice Clark, Head, Grants and Services Contracts Branch.



Langley Research Center

Introductions

- **Contracting Officer**
 - Panice Clark
- **Contract Specialist**
 - Dave Jones
- **Contracting Officer's Technical Representative**
 - Fred Staggs
- **Source Evaluation Board Members**
 - Dr. W. B. Fichter, Chair - RTG
 - Tom Foughner - RTG
 - Pete Zaepfel - RTG
 - Dave Jones - IOG
 - Annie Wright, Recorder - RTG
- **Director, RTG**
 - Dr. Douglas L. Dwoyer



Langley Research Center

ART

Consolidation Strategy

- The current Lockheed contract and 14 smaller contracts will be combined into two:
 - ART, supporting the Research and Technology Group.
 - SAERS, supporting all other groups at LaRC.
- Reasons for a single RTG contract - ART:
 - Eliminates contracts with overlapping scopes, allowing NASA to place specific requirements with a single contractor, expressed in performance-based terms.
 - A single contractor can better manage the required downsizing.



Langley Research Center

Performance-Based Contracts

- Under a performance-based contract or task order, the Government's requirements are expressed in terms of expected results, rather than how to achieve those results.
- Performance-based task orders under the ART contract will include:
 - A definitive statement of work
 - A required schedule for completion, including interim milestones if necessary
 - Required deliverables
 - Metrics (Performance Criteria) against which the contractor's performance will be measured



Langley Research Center

EVALUATION PROCESS (CONT'D)

**A
R
T**

- FAR provisions permit full and open discussion
- Discussions may be oral, written, or both
- Offerors within competitive range advised of deficiencies and weaknesses and given a reasonable opportunity to respond
- BAFO requested from all offerors within competitive range
- BAFO takes form of a contractual document executed by offeror
- Selection and award made without subsequent discussion
- Award evidenced by signature of Contracting Officer on BAFO of selected offeror
- Debriefings occur after contract award



Langley Research Center



ART Scope of Work

3.1 Gas Dynamics Research

- The contractor shall complete tasks in the general areas of aerothermodynamics, hypersonic airbreathing propulsion systems, and wind tunnel operations and system evaluations.
- Potential task orders include:
 - Interpretation and analysis of experimental data.
 - Application and improvement of computational methods.
 - Development and modification of advanced grid-generation techniques.



Langley Research Center

3.3 Fluid Mechanics and Acoustics Research and Technology Programs

- The contractor shall complete analytical and experimental tasks involving research and technology programs in fluid mechanics and acoustics.
- Potential task orders include:
 - Instrumentation, data acquisition, and analysis of experimental research.
 - Analytical analysis of acoustics problems relating to noise and vibration control problems.
 - Application, coding, upgrading, and maintenance of analytical computer programs.
 - Support to the operation of psychoacoustic test facilities.



Langley Research Center

4.2 Materials Research and Technology Programs

- The contractor shall complete tasks involving research and technology development of advanced light metallic alloys, polymers and polymer matrix composites, carbon-carbon composites, and ceramic-based materials.
- Potential task orders include:
 - Materials characterization tests and analysis.
 - Operation of mechanical testing equipment, materials analysis equipment, and microscopy instruments.



Langley Research Center

5.2 Information and Electromagnetic Systems Technology

- The contractor shall complete tasks involving research and technology development in selected technical areas in the information systems and electromagnetic systems disciplines.
- Potential task orders include:
 - Design and development of electronic hardware for information and electromagnetic systems.
 - Design and development of computer codes for the analysis of complex sensor, antenna and digital computer systems.
 - Development of design and assessment methods for life-critical systems.
 - Maintenance and operation of research laboratories.



Langley Research Center

Contract Management

- Performance-based Task Orders will be used.
- Process for new Task Orders:
 - Requesting organization provides task definition/requirements, schedule, and measures of success.
 - COTR reviews Task Order, ensures it is within scope and written in performance-based terms.
 - Contracting Officer issues initial Task Order requesting contractor work plan, schedule, cost estimate, and measures of success.
 - Requesting organization reviews plan and provides COTR with feedback.
 - COTR forwards Task Order Modification to Contracting Officer.
 - Contracting Officer issues Task Order Modification reflecting negotiated cost, schedule, and available award fee.
- Semiannual award fee evaluation process.



Langley Research Center

Facilities Tour

- Bus Departs Pearl Young Theater at 11:00
- Tour Stops
 - Low Frequency Antenna Test Facility (Task 1)
 - Basic Aerodynamics Research Tunnel (Task 7)
 - High Intensity Radiation Laboratory (Task 1)
 - Materials Laboratory (Task 4)
 - Structures Laboratory (Task 2)
- Return to Pearl Young Theater



Langley Research Center

Administrative Matters

- Immediately following this Preproposal Conference, all questions should be submitted on the forms provided.
- All questions submitted to date will be answered in an amendment, which is scheduled to be issued next week.
- Proposals are due by 4 p.m. local time on March 12, 1996.
- The RFP and all amendments are available on our Procurement Home Page on the internet:

<http://db-www.larc.nasa.gov/procurement/home-page.html>



Langley Research Center

ENCLOSURE 4:
AEROSPACE RESEARCH & TECHNOLOGY
(ART)
PREPROPOSAL CONFERENCE
SIGN-IN SHEETS

(4 pages)

PLEASE SIGN IN

ART

Aerospace Research and Technology Contract

Preproposal Conference for RFP 1-137-D.1165

Tuesday, February 13, 1996

Pearl L Young Theater

YOUR NAME(S):	COMPANY/ADDRESS/PHONE NO.
---------------	---------------------------

PLEASE PRINT

FRED STAGGS

M/S 105 NASA - LARC

Randy MANNING

M/S '64 " "

CHAD DELANO

DYNACORP/580 RLYDE/MTVIEW RA, 9404

415 961 6102

MIKE ABBETT

SAME AS ABOVE

Pete Zaepfel

NASA LARC

Ralph Muraco

Independent Contractor

Ehud Gartenberg

ERA R&D Corp.

311 Suburban Pkwy

Norfolk VA 23505

GRADY EAKIN

ROCKWELL INTL. 1919 Commerce DR
SUITE 160, HAMPTON VA
23666

David H. Jones

MS-126

NASA LARC

PLEASE SIGN IN

ART

Aerospace Research and Technology Contract

Preproposal Conference for RFP 1-137-D.1165

Tuesday, February 13, 1996

Pearl L. Young Theater

YOUR NAME(S):	COMPANY/ADDRESS/PHONE NO.
---------------	---------------------------

PLEASE PRINT

Edward Melh

STC

101 Research Drive

Hampton, VA 23666

(540) 865-1894

George Wood
Gary Peter

..
..

Nathalie H. Perkins

Bionetics

2 Eaton St.

Hampton, VA 23669

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE	PAGE OF PAGES 1 2
---	--	---------------------	------------------------

2. AMENDMENT/MODIFICATION NO 2	3. EFFECTIVE DATE FEB 28 1996	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (if applicable)
--	---	----------------------------------	--------------------------------

6. ISSUED BY National Aeronautics and Space Administration Langley Research Center Hampton, VA 23881-0001	7. ADMINISTERED BY (if other than item 6) CODE
--	---

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State, and Zip Code) Lockheed Martin Engineering & Sciences Company 2339 Route 70 West, SW-3 Cherry Hill, NJ 08358-0001	(x)	9A. AMENDMENT OF SOLICITATION NO. 1-137-D.1165
		9B. DATED (SEE ITEM 11) 1-26-96
		10A. MODIFICATION OF CONTRACT/ORDER NO.
		10B. DATED (SEE ITEM 13)
CODE 2B877	FACILITY CODE	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

X The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers is extended, X is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing items 8 and 15, and returning 1 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (if required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.


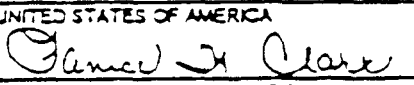
(x)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor is not, is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

SUBJECT: NASA RFP 1-137-D.1165, Aerospace Research & Technology (ART) Contract.

The purpose of this amendment is to provide answers to Contractor questions concerning the RFP. The answers given below are hereby incorporated into the RFP.

Except as provided herein, all terms and conditions of the document referenced in item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.			
15A. NAME AND TITLE OF SIGNER (Type or print) D. W. Smith Manager, Contracting	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) PANICE H. CLARK		
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED 15 May 96	16B. UNITED STATES OF AMERICA BY  (Signature of Contracting Officer)	16C. DATE SIGNED 2-28-96

1-137-D.1165
Amendment

1. Question: “Paragraph L.24, page 115 of the RFP, Proposal Page Limitations, states in L.24.c., that Title pages and tables of contents are excluded from the page count of 75 pages for proposal section - Mission Suitability. Would a cross-reference matrix showing the relationship of the SOW and the L & M sections to the proposal pages, and a list of Figures be considered under the heading of tables of contents?”

1. Answer: Yes - both a Cross-Reference Matrix and a List of Figures will be considered part of the table of contents, and thus will not be subject to the page limitation.

2. Question: “Amendment 1, page 3 of 6, L.40.B states “The Contractor may perform under task orders with direct labor forces located in existing facilities outside the local commuting area.” Without any direct requirements for travel, would the Government consider a line item in Section B for travel with a “Not to exceed” figure as an aid in costing this program?”

2. Answer: No such line item will be added. The RFP language in question was not meant to suggest some level of field operations with travel involved. Rather, it affords the Contractor the option of proposing to provide support in their own existing facilities for task orders that do not inherently require contractor personnel to be physically present at Langley Research Center. For example, a task order with a computer code as a deliverable **may** be performed off site within the constraints of L.40, while a task order for the operation of a research laboratory at Langley obviously must be performed on site.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE

PAGE OF PAGES

1

2. AMENDMENT/MODIFICATION NO.

3. EFFECTIVE DATE

4. REQUISITION/PURCHASE REQ. NO.

6. PROJECT NO. (if applicable)

3

3-5-96

6. ISSUED BY

CODE

7. ADMINISTERED BY (if other than item 4)

CODE

National Aeronautics and Space Administration Langley Research Center Hampton, VA 23681-0001

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State, and Zip Code)

Lockheed Martin Engineering & Sciences Company 2339 Route 70 West, SW-3 Cherry Hill, NJ 08358-0001

(x)

9A. AMENDMENT OF SOLICITATION NO.

1-137-D.1165

X

9B. DATED (SEE ITEM 11)

1-25-96

10A. MODIFICATION OF CONTRACT/ORDER NO.

10B. DATED (SEE ITEM 13)

CODE

2B877

FACILITY CODE

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

X The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers is extended, X is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing items 8 and 15, and returning 1 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (if required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(x) A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).

C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:

D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor is not, is required to sign this document and return copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

SUBJECT: NASA RFP 1-137-D.1165, Aerospace Research and Technology (ART) Contract.

The purpose of this amendment is to delete a clause from the RFP:

In Section I, NFS Clause 18-52.237-71, Pension Portability (NOV 1994), is hereby deleted from the RFP.

Except as provided herein, all terms and conditions of the document referenced in item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)

D. W. Smith Manager, Contracting

16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)

DAVID H. JONES

15B. CONTRACTOR OFFICER

(Signature of person authorized to sign)

16C. DATE SIGNED

15 May 96

16B. UNITED STATES OF AMERICA

BY

(Signature of Contracting Officer)

16C. DATE SIGNED