

SOLICITATION, OFFER AND AWARD		1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700)		RATING DO-C9	PAGE OF PAGES 1 41
2. CONTRACT NUMBER	3. SOLICITATION NUMBER N00173-08-R-JR06	4. TYPE OF SOLICITATION <input type="checkbox"/> SEALED BID (IFB) <input checked="" type="checkbox"/> NEGOTIATED (RFP)	5. DATE ISSUED 10 SEP 08	6. REQUISITION/PURCHASE NUMBER 76-0103-08	
7. ISSUED BY CONTRACTING OFFICER NAVAL RESEARCH LABORATORY 4555 OVERLOOK AVE, SW WASHINGTON, DC 20375-5320		CODE N00173	8. ADDRESS OFFER TO (If other than Item 7)		

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

SOLICITATION

9. Sealed offers in original and 4 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 BLDG 222, RM 115 until 3:00PM local time 09 OCT 08
(Hour) (Date)

CAUTION - LATE Submissions, Modifications, and Withdrawals: See Section L, Provision No. 52.214-7 or 52.215-1. All offers are subject to all terms and conditions contained in this solicitation.

10. FOR INFORMATION CALL:	A. NAME MR. JERRY RILES	B. TELEPHONE (NO COLLECT CALLS)		C. E-MAIL ADDRESS jerry.riles@nrl.navy.mil
		AREA CODE 202	NUMBER 767	EXT. 0667

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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 <small>(See Section I, Clause No. 52.232-8)</small>	10 CALENDAR DAYS (%)	20 CALENDAR DAYS (%)	30 CALENDAR DAYS (%)	CALENDAR DAYS (%)
14. ACKNOWLEDGMENT OF AMENDMENTS <small>(The offeror acknowledges receipt of amendments to the SOLICITATION for offerors and related documents numbered and dated):</small>	AMENDMENT NO.	DATE	AMENDMENT NO.	DATE

15A. NAME AND ADDRESS OF OFFEROR	CODE	FACILITY	16. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER <small>(Type or print)</small>	
15B. TELEPHONE NUMBER	AREA CODE	NUMBER	EXT.	17. SIGNATURE
				18. OFFER DATE
15C. CHECK IF REMITTANCE ADDRESS IS DIFFERENT FROM ABOVE - ENTER SUCH ADDRESS IN SCHEDULE.				

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)) <input type="checkbox"/> 41 U.S.C. 253(c) ()		23. SUBMIT INVOICES TO ADDRESS SHOWN IN (4 copies unless otherwise specified)	ITEM
24. ADMINISTERED BY (If other than Item 7) CODE		25. PAYMENT WILL BE MADE BY CODE	
26. NAME OF CONTRACTING OFFICER (Type or print)		27. UNITED STATES OF AMERICA <small>(Signature of Contracting Officer)</small>	28. AWARD DATE

**PART I - THE SCHEDULE
SECTION B
SUPPLIES OR SERVICES AND PRICES/COSTS**

B-1 SUPPLIES/SERVICES AND COSTS

ITEM NUMBER	SUPPLIES/SERVICES	ESTIMATED COST	FIXED FEE	ESTIMATED COST PLUS FIXED FEE
0001	The Contractor shall perform provide research and support in the area of Space Science Research, Development and Engineering efforts in accordance with Section C.	\$	\$	\$
000101	AA: To Be Completed at Time of Award.			
0002	Data in accordance with Exhibit A (DD 1423)	* NSP	* NSP	* NSP
TOTAL ESTIMATED COST PLUS FIXED FEE		\$	\$	\$

* *Not Separately Priced*

NOTICE TO OFFERORS: In addition to inserting the estimated cost and fixed fee for the base year above, the estimated cost and fixed fee for each optional extension of the term of the contract are to be inserted in Section H.

SECTION C
DESCRIPTION/SPECIFICATIONS/STATEMENT OF WORK

C-1 STATEMENT OF WORK

The work and services to be performed hereunder shall be subject to the requirements and standards contained in Attachment (1), Statement of Work, with Exhibit A, Contract Data Requirements List, and all other Attachments cited in Section J, which are incorporated by reference into Section C.

C-2 REQUIREMENTS FOR ON-SITE CONTRACTORS

For those portions of the work under this contract performed at any NRL site, the contractor shall comply with the Requirements for On-Site Contractors dated 01 June 2007 which are hereby incorporated by reference. The full text is available at <http://heron.nrl.navy.mil/contracts/13onsite.htm>

C-3 SUBCONTRACTING PLAN

Subcontracting Plan _____ dated _____ is hereby incorporated by reference and made a material part of this contract.

*(*this provision will be included and completed at time of award, if applicable)*

SECTION D
PACKAGING AND MARKING

D-1 PACKAGING AND MARKING

Preservation, packaging, packing and marking of all deliverable contract line items must conform to normal commercial packing standards to assure safe delivery at destination.

**SECTION E
INSPECTION AND ACCEPTANCE**

E-1 INSPECTION AND ACCEPTANCE CLAUSES INCORPORATED BY REFERENCE

FAR CLAUSE TITLE

52.246-9 - Inspection Of Research And Development (Short Form) (APR 1984)

DFARS CLAUSE TITLE

252.246-7000 - Material Inspection And Receiving Report (MAR 2008)

E-2 INSPECTION AND ACCEPTANCE

Inspection and acceptance of the final delivery will be accomplished by the Technical Manager (TM) or Contracting Officer Representative (COR) designated in Section G of this contract. Inspection and acceptance will be performed at the Naval Research Laboratory, Washington DC 20375-5320.

**SECTION F
DELIVERIES OR PERFORMANCE**

F-1 DELIVERIES OR PERFORMANCE CLAUSES INCORPORATED BY REFERENCE:

FAR CLAUSE TITLE

52.242-15 - Stop-Work Order (AUG 1989) - Alternate I (APR 1984)

52.247-34 - F.O.B. Destination (NOV 1991)

F-2 PERIOD AND PLACE OF PERFORMANCE

(a) The term of this contract is from date of award through one year thereafter. Each Option, if exercised, shall extend the term an additional year.

(b) The principal place of performance of this contract shall be the Contractor's facility and the Naval Research Laboratory, Washington, DC.

F-3 PLACE OF DELIVERY - FOB DESTINATION

The contractor shall deliver supplies, all transportation charges paid, to destination in accordance with the clause in Section F of the Schedule titled FAR 52.247-34 FOB Destination (NOV 1991).

Receiving Officer
Naval Research Laboratory
Contract Number
ATTN: *
CODE: *
LOCATION: *
Bldg. 49
4555 Overlook Avenue, SW
Washington DC 20375-5320

(* To be filled in at time of award.)

**SECTION G
CONTRACT ADMINISTRATION DATA**

G-1 PROCURING OFFICE REPRESENTATIVE

In order to expedite administration of the contract, the Administrative Contracting Officer (ACO) will direct inquiries to the appropriate office listed below. Please do not direct routine inquiries to the person listed in Item 20A on Standard Form 26.

Security Matters- Contracting Officer for Security, Code 1226, (202) 767-2240, DSN 297-2240, email security-group@nrl.navy.mil

Safety Matters- Head Safety Branch, Code 3540, (202) 767-2232, DSN 297-2232, email safety@nrl.navy.mil

Patent Matters-Associate Counsel (Intellectual Property), Code 1008.2, (202) 404-1552, DSN 297-1552, email patents@nrl.navy.mil

Release of Data-Public Affairs Officer, Code 1030 (202) 767-2541, DSN 297-2541, email publicaffairs@nrl.navy.mil

G-2 CONTRACTING OFFICER'S REPRESENTATIVE (COR) - FUNCTIONS AND LIMITATIONS

* @nrl.navy.mil is hereby designated the cognizant COR who will represent the Contracting Officer in the technical monitoring and administration of this contract. In accordance with Section E, the COR will accomplish inspection and acceptance of deliverables under this contract. The COR is not otherwise authorized to make any representations or commitments of any kind on behalf of the Contracting Officer or the Government. The COR does not have the authority to alter the Contractor's obligations or change the specifications in the contract. If, as a result of technical discussions, it is desirable to alter contract obligations or the statement of work, a modification must be issued in writing and signed by the Contracting Officer. Unless terminated sooner, this appointment is effective for the period of performance of this contract including any options, if exercised. COR authority may not be redelegated. No change in COR assignment shall be made without written notice by the Contracting Officer, who will modify the contract to reflect the change of COR assignment.

(* To be completed at time of award)

G-3 TECHNICAL DIRECTION MEMORANDUM (TDM)

- (a) For the purposes of this clause, technical direction includes the following:
- (1) Direction to the Contractor which shifts work emphasis between work areas or tasks, requires pursuit of certain lines of inquiry, fills in details or otherwise describes work which will accomplish the objectives described in the statement of work;
 - (2) Guidelines to the Contractor, which assist in interpretation of drawings, specifications or technical portions of, work description.
- (b) Technical instructions must be within the scope of work stated in the contract. Technical instructions may not be used to:
- (1) Assign additional work under the contract;
 - (2) Direct a change as defined in the contract clause entitled "Changes";
 - (3) Increase or decrease the estimated contract cost, the fixed fee, or the time required for contract performance; or
 - (4) Change any of the terms, conditions or specifications of the contract
- (c) The TDM shall be written by the Contracting Officer's Representative (COR), with the original given to the Contractor and a copy retained in the CORs file. Technical direction may be issued orally only in emergency situations. If technical direction is issued orally, a TDM must follow within two (2) working days from the date of the oral direction. Amendments, corrections, or changes to TDMs shall also be in written format and shall include all the information set forth in paragraph (e) below.
- (d) A TDM shall be considered issued when the Government deposits it in the mail, or if transmitted by other means, when it is physically delivered to the contractor.

- (e) TDMs shall include, but not be limited to, the following information:
 - (1) Date of TDM,
 - (2) Contract Number,
 - (3) Reference to the relevant portion or item in the Statement of Work,
 - (4) The specific technical direction or clarification, and
 - (5) The signature of the COR.
- (f) CORs shall retain all files containing TDMs for a period of two (2) years after the final contract completion date.
- (g) The only individual authorized in any way to amend or modify any of the terms of this contract shall be the Contracting Officer. When, in the opinion of the Contractor, any technical direction calls for effort outside the scope of the contract or inconsistent with this special provision, the Contractor shall notify the Contracting Officer in writing within ten (10) working days after its receipt.

G-4 CONTRACTOR-ACQUIRED PROPERTY

(a) The contractor is authorized to acquire the following items of facilities, which are needed to accomplish this contract.

Items to be Acquired	Estimated Cost
----------------------	----------------

*

*(*this provision will be included and completed at time of award, if applicable)*

- (b) This authorization does not constitute any consent required pursuant to the contract clause entitled "Subcontracts" (FAR 52.244-2). Advance notification or requests for consent pursuant to that clause shall be directed to the administrative contracting officer (ACO).
- (c) Pursuant to the contract clause entitled "Government Property" (FAR 52.245-1), title to the property shall vest in the Government.
- (d) Prior to acquisition of any item of Industrial Plant Equipment, the Contractor must comply with the requirements of Department of Defense Federal Acquisition Regulation Supplement (DFARS 245.302-1(b)(1)(A). (See DFARS 245.301 for definition of "Industrial Plant Equipment.")

G-5 SUBCONTRACTORS/CONSULTANTS

(a) Advance notification or requests for consent pursuant to the contract clause entitled "Subcontracts" (FAR 52.244-2) shall be directed to the cognizant administrative contracting officer (ACO).

(b) The following subcontractors/consultants have been identified in the Contractor's proposal as necessary for performance of this contract:

Subcontractor/Consultant Name	Estimated Cost
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(Paragraph (b) will be included and filled in at time of award if subcontractor/consultants are proposed by the successful offeror)

G-6 INCREMENTAL FUNDING

Pursuant to the Limitation of Funds clause (FAR 52.232-22), the total amount allotted to this contract is \$* and it is estimated that this amount is sufficient for contract performance through * .

*(*this provision will be included and completed at time of award, if applicable)*

G-7 INFORMATIONAL SUBLINE ITEMS

It is anticipated that the research and development services performed under this contract will be paid for from multiple sources of funds. Informational subline items will be established as necessary to identify each accounting citation classification.

G-8 PAYMENT INSTRUCTIONS FOR MULTIPLE ACCOUNTING CLASSIFICATION CITATIONS (COST-REIMBURSEMENT)

If there is more than one ACRN within a contract line item, the payment office will make payment using the ACRN(s) cited on the contractor's invoice.

G-9 PAYMENT AND VOUCHER INSTRUCTIONS

In accordance with the contract clause, *Electronic Submission of Payment Requests and Receiving Reports* (DFARS 252.232-7003), the contractor must submit requests for payment electronically in the Wide Area Workflow (WAWF). It may be accessed at its homepage <https://wawf.eb.mil/>. If the contractor has not registered with WAWF, instructions for doing so may be accessed at: <https://wawf.eb.mil/vreg.htm> . The designated Electronic Business (EB) point of contact in the Central Contractor Registration (CCR) is the person responsible for activating the company’s CAGE code in WAWF by calling 1-866-618-5988.

The following information is applicable to vouchers submitted under this contract using WAWF:

Under "Create New Document" select "Cost Voucher". When you enter the contract number, some of the other fields in the document may fill out automatically.

Use the appropriate Item Number stated in Section B of the contract (e.g., 0001, 0002 or 0001AA, 0001AB, etc).

If the contract contains multiple accounting classification reference numbers (ACRNs), the ACRN(s) from which payment is to be made must be cited on the voucher. If more than one ACRN is cited, the voucher must indicate the amounts to be paid from each. Information may be obtained from the COR to assist the contractor in determining the appropriate ACRNs from which payment is to be made.

ROUTING TABLE DATA REQUIRED FOR SUBMISSION OF INVOICE TO WAWF	
Document Type	Cost Voucher
Contract Number	N00173-08-
Issued By DoDAAC	N00173
Admin By DoDAAC	
Pay DoDAAC	
LPO	N00173
Ship To DoDAAC	N00173 Extension
Service Acceptor	N00173 Extension
DCAA Auditor DoDAAC	
CAGE Code	

IMPORTANT: When submitting vouchers using WAWF, utilize the “**Send More Email Notifications**” function in WAWF. This additional notification is important to ensure the Government Acceptor is aware that the invoice documents have been submitted into the WAWF system.

Send More Email Notifications	
Acceptor email	@nrl.navy.mil

Pursuant to DFARS 242.803(b)(i)(c), if the cognizant Government auditor has notified the contractor of its authorization to do so, the contractor may submit vouchers under this contract direct to the payment office. Such authorization does not extend to the first and final vouchers.

For assistance with the WAWF system, you may contact the Navy WAWF Assistance Line : 1-800-559-WAWF(9293).

**SECTION H
SPECIAL CONTRACT REQUIREMENTS**

H-1 TYPE OF CONTRACT

This is a *

*(*To be completed at time of award)*

H-2 ONR 5252.237-9705 - KEY PERSONNEL (DEC 88)

(a) The Contractor agrees to assign to the contract tasks those persons whose resumes were submitted with its proposal and who are necessary to fulfill the requirements of the contract as "key personnel". No substitutions may be made except in accordance with this clause.

(b) The Contractor understands that during the first ninety (90) days of the contract performance period, no personnel substitutions will be permitted unless these substitutions are unavoidable because of the incumbent's sudden illness, death or termination of employment. In any of these events, the Contractor shall promptly notify the Contracting Officer and provide the information described in paragraph (c) below. After the initial ninety (90) day period the Contractor must submit to the Contracting Officer all proposed substitutions, in writing, at least thirty (30) days in advance (sixty (60) days if security clearance must be obtained) of any proposed substitution and provide the information required by paragraph (c) below.

(c) Any request for substitution must include a detailed explanation of the circumstances necessitating the proposed substitution, a resume for the proposed substitute, and any other information requested by the Contracting Officer. Any proposed substitute must have qualifications equal to or superior to the qualifications of the incumbent. The Contracting Officer or his/her authorized representative will evaluate such requests and promptly notify the Contractor of his/her approval or disapproval thereof.

(d) In the event that any of the identified key personnel cease to perform under the contract and the substitute is disapproved, the contract may be immediately terminated in accordance with the Termination clause of the contract.

The following are identified as key personnel: *

*(*To be completed at time of award)*

Labor Category	First/M/Last Name
Program Manager	
Senior Thermal Engineer	
Senior Contamination Engineer	
Senior Instrument Optical Engineer	
Senior Systems Engineer	
Senior Electrical Engineer	
Senior Electromechanical Engineer	
Senior Mechanical Systems Engineer	

H-3 ONR 5252.216-9706 - LEVEL OF EFFORT (DEC 88)

(a) The Contractor agrees to provide the total level of effort specified in the next sentence in performance of the work described in this contract. The total level of effort for performance of this contract shall be 33,800 total hours of direct labor for the base year, and 33,800 hours for each option year, if exercised, including subcontractor direct labor for those subcontractors specifically identified in the Contractor's proposal as having hours included in the proposed level of effort. A breakdown of labor categories and hours is set forth in paragraph (k) below.

(b) The level of effort for this contract shall be expended at an average rate of 2,816 hours per month. It is understood and agreed that the rate of hours per month may fluctuate in pursuit of the technical objective, provided such fluctuation does not result in the use of the total hours of effort prior to the expiration of the term of the contract.

(c) The Contractor is required to notify the Contracting Officer when any of the following situations occur, or are anticipated to occur: If during any three consecutive months the monthly average is exceeded by 25% or, if at any time it is forecast that during the last three months of the contract less than 50% of the monthly average will be used during any given month; or, when 85% of the total level of effort has been expended.

(d) If, during the term of the contract, the Contractor finds it necessary to accelerate the expenditure of direct labor to such an extent that the total hours of effort specified would be used prior to the expiration of the term, the Contractor shall notify the Contracting Officer in writing, setting forth the acceleration required, the probable benefits which would result, and an offer to undertake the acceleration at no increase in the estimated cost or fixed fee together with an offer setting forth a proposed level of effort, cost breakdown, and proposed fixed fee for continuation of the work until expiration of the term hereof. The offer shall provide that the work proposed will be subject to the terms and conditions of this contract and any additions or changes required by then current law, regulations, or directives, and that the offer, with a written notice of acceptance by the Contracting Officer, shall constitute a binding contract. The Contractor shall not accelerate any effort until receipt of such written approval by the Contracting Officer. Any agreement to accelerate will be formalized by contract modification.

(e) The Contracting Officer may, by written order, direct the Contractor to accelerate the expenditure of direct labor such that the total hours of effort specified in paragraph (a) above would be used prior to the expiration of the term. This order shall specify the acceleration required and the resulting revised term. The Contractor shall acknowledge this order within five days of receipt.

(f) If the total level of effort specified in paragraph (a) above is not provided by the Contractor during the term of this contract, the Contracting Officer shall either (i) reduce the fixed fee of this contract as follows:

$$\text{Fee Reduction} = \text{Fixed Fee} \times \frac{(\text{Required LOE Hours} - \text{Expended LOE Hours})}{\text{Required LOE Hours}}$$

or (ii) subject to the provisions of the clause of this contract entitled "Limitation of Cost," require the Contractor to continue to perform the work until the total number of hours of direct labor specified in paragraph (a) shall have been expended, at no increase in the fixed fee of this contract.

(g) In the event the government fails to fully fund the contract in a timely manner, the term of the contract may be extended accordingly with no change to cost or fee. If the government fails to fully fund the contract, the fee will be adjusted in direct proportion to that effort which was performed.

(h) Notwithstanding any of the provisions in the above paragraphs, the Contractor may furnish hours up to five percent in excess of the total hours specified in paragraph (a) above, provided that the additional effort is furnished within the term hereof, and provided further that no increase in the estimated cost or fixed fee is required, and no adjustment in the fixed fee shall be made provided that the Contractor has delivered at least 95% of the level of effort required in paragraph (a) above.

- (i) It is understood that the mix of labor categories provided by the Contractor under the contract, as well as the distribution of effort among those categories, may vary considerably from the initial mix and distribution of effort which was estimated by the government or proposed by the Contractor.
- (j) Nothing herein shall be construed to alter or waive any of the rights or obligations of either party pursuant to the Clause entitled "Limitation of Costs" or "Limitation of Funds," either of which clauses as incorporated herein applies to this contract.
- (k) The anticipated breakdown by labor category of the total level of effort is as follows:

LABOR CATEGORY	BASE	OPT 1	OPT 2	OPT 3	OPT 4
Program Manager	200	200	200	200	200
Senior Thermal Engineer	950	950	950	950	950
Thermal Engineer	1900	1900	1900	1900	1900
Senior Contamination Engineer	950	950	950	950	950
Contamination Engineer	1900	1900	1900	1900	1900
Senior Instrument Optical Engineer	950	950	950	950	950
Instrument Optical Engineer	1900	1900	1900	1900	1900
Senior Systems Engineer	950	950	950	950	950
Systems Engineer	1900	1900	1900	1900	1900
Quality Engineer	1900	1900	1900	1900	1900
Senior Electrical Engineer	475	475	475	475	475
Electrical Engineer	1900	1900	1900	1900	1900
Senior Electromechanical Systems Engineer	950	950	950	950	950
Electromechanical Systems Engineer	1900	1900	1900	1900	1900
Senior Mechanical Systems Engineer	950	950	950	950	950
Mechanical Systems Engineer	1900	1900	1900	1900	1900
Junior Engineer	7000	7000	7000	7000	7000
Senior Mechanical Designer	950	950	950	950	950
Mechanical Designer	950	950	950	950	950
Junior Designer	950	950	950	950	950
Senior Integration Technician	475	475	475	475	475
Integration Technician	950	950	950	950	950
Junior Technician.	950	950	950	950	950
TOTAL HOURS	33,800	33,800	33,800	33,800	33,800

H-4 ONR 5252.235-9714 - REPORT PREPARATION (JUL 2005)

Scientific or technical reports prepared by the Contractor and deliverable under the terms of this contract will be prepared in accordance with format requirements contained in ANSI/NISO Z39.18-2005, Scientific and Technical Reports: Elements, Organization, and Design.

[NOTE: All NISO American National Standards are available as free, downloadable pdf(s) at <http://www.niso.org/standards/index.html> . NISO standards can also be purchased in hardcopy form from NISO Press Fulfillment, P. O. Box 451, Annapolis Junction, MD 20701-0451 USA. Telephone U.S. and Canada: (877) 736-6476; Outside the U.S. and Canada: 301-362-6904 ax: 301-206-9789.]

H-5 ELECTRONIC AND INFORMATION TECHNOLOGY (EIT)

In accordance with Section 508 of the Rehabilitation Act of 1973 (29 U.S.C. 794d), all EIT supplies and services provided under this contract must comply with the applicable accessibility standards issued by the Architectural and Transportation Barriers Compliance Board at 36 CFR part 1194 (see FAR Subpart 39.2). Electronic and information technology (EIT) is defined at FAR 2.101.

H-6 OPTION TO EXTEND THE TERM OF THE CONTRACT

This contract shall be renewable at the unilateral option of the Government by the Contracting Officer giving written notice of renewal to the Contractor within the existing term of the contract. The Government may exercise its option to renew the contract a total of times and each such renewal shall extend the term of the contract by twelve (12) months. The Contractor agrees that performance under each such renewal shall be accomplished in accordance with all of the terms and conditions of this contract and at the estimated cost and fixed fee set forth below:

First Option

Estimated Cost:	\$ _____
Fixed Fee:	\$ _____
Estimated Cost Plus Fixed Fee:	\$ _____

Second Option

Estimated Cost:	\$ _____
Fixed Fee:	\$ _____
Estimated Cost Plus Fixed Fee:	\$ _____

Third Option

Estimated Cost:	\$ _____
Fixed Fee:	\$ _____
Estimated Cost Plus Fixed Fee:	\$ _____

Fourth Option

Estimated Cost:	\$ _____
Fixed Fee:	\$ _____
Estimated Cost Plus Fixed Fee:	\$ _____

H-7 ON-SITE USE OF GOVERNMENT PROPERTY

It is anticipated that Government property will be used by the contractor's personnel in the performance of that portion of the contract performed on-site at the U.S. Naval Research Laboratory (NRL) including any of its field sites. Such use will be on a rent free basis and all such property shall be considered to remain in the possession and control of the NRL for property responsibility and accountability purposes.

H-8 GOVERNMENT-FURNISHED PROPERTY

The following Government property will be furnished to the contractor on a rent-free basis for use in performing the contract:

(To be completed at time of award)

H-9 REPRESENTATIONS AND CERTIFICATIONS

The Contractor's ORCA Representations and Certifications valid from to are incorporated herein by reference.

The Contract Specific Representations and Certifications submitted by the contractor for this award are hereby incorporated by reference.

H-10 SUBCONTRACTING PLAN

The contractor's Comprehensive Small Business Subcontracting Plan is incorporated into this contract in accordance with DFARS SUBPART 219.7 *Test Program for Negotiation of Comprehensive Small Business Subcontracting Plans*.

H-11 PROTECTION OF HUMAN SUBJECTS

Any collection or analysis of data from human subjects must not commence until the contractor provides the following information per SECNAV 3900.39D 8.d. (1):

- (a) An appropriate DoD Navy Assurance or a Federalwide Assurance (FWA) with a DoD Navy addendum to the FWA, or an application for a DoD Navy Assurance.
- (b) Documentation of the Institutional Review Board's (IRBs) initial and continuing review and approval.
- (c) IRB-approved informed consent form, except when not required consistent with law and regulation.
- (d) IRB-approved research protocol.
- (e) Documentation that research ethics and human subject protections training has been completed by the contractor's principle investigators.

The contractor has responsibility for certain reporting requirements per SECNAV 3900.39D 8.d. (2).

H-12 ORGANIZATIONAL CONFLICT OF INTEREST

(a) Definitions

Organizational Conflict of Interest (OCI): FAR Part 2.1 defines "Organizational Conflict of Interest" as a situation in which: "...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." For the purposes of this contract, the term Organizational Conflict of Interest means that a relationship exists between the contractor (including the successor-in-interest, assignee or affiliated divisions, subsidiaries, employees, consultants, or subcontractors, hereinafter referred to as "Contractor") and another in which the underlying interests of the contractor and the other party, directly or indirectly (1) may influence, affect or diminish the contractor's ability to give impartial, technically sound, objective assistance, conclusions, advice or recommendations, or may otherwise result in a biased work product to or for the Government, or (2) may result in an unfair competitive advantage.

(b) Purpose

The purpose of this provision is to ensure that the Contractor (1) is able to give the Government impartial, technically sound, objective assistance, conclusions, advice or recommendations in its performance of this contract and (2) does not obtain an unfair competitive advantage over other parties by virtue of its performance of this contract.

(c) Scope

The requirements described herein shall apply to performance or participation by the Contractor, any of its affiliate organizations or their successors in interest (hereinafter referred to collectively as "Contractor") in the activities covered by this clause as a prime contractor, subcontractor, co-sponsor, joint venturer, consultant, or in any similar capacity. The financial, contractual, organizational and other interests of Contractor personnel performing work under this contract shall be deemed to be the interests of the Contractor for the purposes of determining the existence of an Organizational Conflict of Interest.

(d) Requirements

(1) The contractor shall evaluate Commercial-Off-the-Shelf software and related products and make recommendations to the government regarding its use or replacement.

(A) The Contractor warrants that, to the best of its knowledge and belief, it does not have any organizational conflict of interest, as defined in paragraph (a) above.

(B) The Contractor agrees that if during the performance of this contract, it discovers a potential or actual organizational conflict of interest with respect to this contract; it shall make an immediate and full disclosure in writing to the Procuring Contracting Officer (PCO). This disclosure must include a description of the actions which the contractor has taken or proposes to take to eliminate, avoid, or neutralize the conflict(s).

(C) If the Contractor's efforts in performing this contract require access to proprietary data of another company(ies), whether the proprietary data is in the possession of the other company or the Government, the Contractor shall obtain a written agreement from such other company(ies), to have access to and to use the data and to protect the data from unauthorized use or disclosure so long as the data remains proprietary. The Contractor shall upon request, provide the Contracting Officer or Contracting Officer's Technical Representative with copies of the agreement(s). This provision is not intended to protect proprietary data furnished voluntarily by companies without limitations as to use or data furnished by companies which is in the public domain.

(2) The contractor may have access to government information technology (IT) systems that contain sensitive information including, but not limited to, other organizations' proprietary information, Government procurement sensitive information, source selection information (see Federal Acquisition Regulation 2.101, 3.104-4 and 9.505-4), personally identifiable information subject to the Privacy Act Of 1974, and information designated For Official Use Only.

(A) The Contractor agrees that such information will be accessed only to the extent necessary to perform the contract and that such information will be used by the Contractor only in the performance of the contract.

(B) The Contractor agrees that all its personnel having access to such information will be required to sign a nondisclosure statement substantially as Attachment (4) to this contract and that, upon request, it will provide the Contracting Officer or COR with copies of the nondisclosure agreement(s).

(e) Government Remedy

The Contractor agrees that any breach or violation of the warranties, restrictions, disclosures or non-disclosures set forth in this organizational conflicts of interest clause shall constitute a material and substantial breach of the terms, conditions and provisions of this contract and the government may, in addition to any other remedies available, terminate this contract for default.

PART II - CONTRACT CLAUSES
SECTION I
CONTRACT CLAUSES

I-1 FAR 52.252-2 - CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

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.

Also, the full text of a clause may be accessed electronically at this/these address(es):

<http://www.acqnet.gov/far>

<http://heron.nrl.navy.mil/contracts/home.htm>

a. FEDERAL ACQUISITION REGULATION CLAUSES

FAR CLAUSE TITLE

52.202-1	-	Definitions (JUL 2004)
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 (SEP 2006)
52.203-7	-	Anti-Kickback Procedures (JUL 1995)
52-203-8	-	Cancellation, Rescission, And Recovery Of Funds For Illegal Or Improper Activity (JAN 1997)
52.203-10	-	Price Or Fee Adjustment For Illegal Or Improper Activity (JAN 1997)
52.203-12	-	Limitation On Payments To Influence Certain Federal Transactions (SEP 2007)
52.203-13	-	Contractor Code Of Business Ethics And Conduct (DEC 2007)
52.203-14	-	Display Of Hot-line Poster(s) (DEC 2007)
52.204-2	-	Security Requirements (AUG 1996)
52.204-4	-	Printed Or Copied Double-Sided On Recycled Paper (AUG 2000)
52.204-7	-	Central Contractor Registration (APR 2008)

- 52.204-9 - Personal Identity Verification Of Contractor Personnel (SEP 2007)
- 52.209-6 - Protecting The Government's Interest When Subcontracting With Contractors Debarred, Suspended, Or Proposed For Debarment (SEP 2006)
- 52.211-15 - Defense Priority And Allocation Requirements (APR 2008)
- 52.215-2 - Audit And Records-Negotiation (JUN 1999)
- 52.215-8 - Order Of Precedence - Uniform Contract Format (OCT 1997)
- 52.215-10 - Price Reduction For Defective Cost Or Pricing Data (OCT 1997)
- 52.215-11 - Price Reduction For Defective Cost Or Pricing Data - Modifications (OCT 1997)
- 52.215-12 - Subcontractor Cost Or Pricing Data (OCT 1997)
- 52.215-13 - Subcontractor Cost Or Pricing Data Modifications (OCT 1997)
- 52.215-14 - Integrity Of Unit Prices (OCT 1997)
- 52.215-15 - Pension Adjustments And Asset Reversions (OCT 2004)
- 52.215-17 - Waiver Of Facilities Capital Cost Of Money (OCT 1997)
(*will be included if the successful offeror does not propose facilities capital cost of money*)
- 52.215-18 - Reversion Or Adjustment Of Plans For Post-Retirement Benefits (PRB) Other Than Pensions (JUL 2005)
- 52.215-19 - Notification Of Ownership Changes (OCT 1997)
- 52.215-21 - Requirements For Cost Or Pricing Data Or Information Other Than Cost or Pricing Data -Modifications (OCT 1997)
- 52.216-7 - Allowable Cost And Payment (DEC 2002) (fill in 30th
- 52.216-8 - Fixed-Fee (MAR 1997)
- 52.219-4 - Notice Of Price Evaluation Preference For HUBZone Small Business Concerns (JUL 2005) Offeror elects to waive the evaluation preference.
- 52.219-8 - Utilization Of Small Business Concerns (MAY 2004)
- 52.219-9 - Small Business Subcontracting Plan (NOV 2007) - Alternate II (OCT 2001)
- 52.219-16 - Liquidated Damages-Subcontracting Plan (JAN 1999)
- 52.219-25 - Small Disadvantaged Business Participation Program-Disadvantaged Status And Reporting (OCT 1999)
- 52.222-2 - Payment For Overtime Premiums (JUL 1990) -The Use Of Overtime Is Authorized Under This Contract If The Overtime Premium Does Not Exceed "0"
- 52.222-3 - Convict Labor (JUN 2003)
- 52.222-21 - Prohibition Of Segregated Facilities (FEB 1999)
- 52.222-26 - Equal Opportunity (MAR 2007)
- 52.222-35 - Equal Opportunity For Special Disabled Veterans, Veterans Of The Vietnam Era, And Other Eligible Veterans (SEP 2006)
- 52.222-36 - Affirmative Action For Workers With Disabilities (JUN 1998)
- 52.222-37 - Employment Reports On Special Disabled Veterans, Veterans Of The Vietnam Era, And Other Eligible Veterans (SEP 2006)
- 52.222-39 - Notification Of Employee Rights Concerning Payment Of Union Dues Or Fees (DEC 2004)
- 52.222-50 - Combating Trafficking In Persons (AUG 2007)
- 52.223-3 - Hazardous Material Identification And Material Safety Data (JAN 1997)
- 52.223-5 - Pollution Prevention And Right-To-Know Information (AUG 2003)
- 52.223-6 - Drug-Free Workplace (MAY 2001)

- 52.223-10 - Waste Reduction Program (AUG 2000)
- 52.223-14 - Toxic Chemical Release Reporting (AUG 2003)
- 52.225-13 - Restrictions On Certain Foreign Purchases (FEB 2006)
- 52.227-1 - Authorization And Consent (DEC 2007)- Alternate I (APR 1984)
- 52.227-2 - Notice And Assistance Regarding Patent And Copyright Infringement (DEC 2007)
- 52.227-10 - Filing Of Patent Application- Classified Subject Matter (DEC 2007)
- 52.227-11 - Patent Rights - Ownership by the Contractor (DEC 2007)
- 52.228-7 - Insurance - Liability To Third Persons (MAR 1996)
- 52.230-2 - Cost Accounting Standards (APR 1998)
- 52.230-3 - Disclosure And Consistency Of Cost Accounting Practices (APR 1998)
- 52.230-6 - Administration Of Cost Accounting Standards (MAR 2008)
- 52.232-9 - Limitation On Withholding Of Payments (APR 1984)
- 52.232-17 - Interest (JUN 1996)
- 52.232-20 - Limitation Of Cost (APR 1984) (*Applicable when the contract or task order is fully funded*)
- 52.232-22 - Limitation Of Funds (APR 1984) (*Applicable when the contract or task order is not fully funded*)
- 52.232-23 - Assignment Of Claims (JAN 1986) Alternate I (APR 1984)
- 52.232-25 - Prompt Payment (OCT 2003)
- 52.232-33 - Payment By Electronic Funds Transfer-Central Contractor Registration (OCT 2003)
- 52.233-1 - Disputes (JUL 2002) - Alternate I (DEC 1991)
- 52.233-3 - Protest After Award (AUG 1996) - Alternate I (JUN 1985)
- 52.233-4 - Applicable Law For Breach Of Contract Claim (OCT 2004)
- 52.237-2 - Protection Of Government Buildings, Equipment And Vegetation (APR 1984)
- 52.237-3 - Continuity Of Services (JAN 1991)
- 52.242-1 - Notice Of Intent To Disallow Costs (APR 1984)
- 52.242-3 - Penalties For Unallowable Costs (MAY 2001)
- 52.242-4 - Certification of Final Indirect Costs (JAN 1997)
- 52.242-13 - Bankruptcy (JUL 1995)
- 52.243-2 - Changes - Cost-Reimbursement (AUG 1987) - Alternate V (APR 1984)
- 52.243-6 - Change Order Accounting (APR 1984)
- 52.243-7 - Notification Of Changes (APR 1984)fill in 30
- 52.244-2 - Subcontracts (JUN 2007) - Alternate I (JUN 2007)
- 52.244-5 - Competition In Subcontracting (DEC 1996)
- 52.244-6 - Subcontracts For Commercial Items (MAR 2007)
- 52.245-1 - Government Property (JUN 2007)
- 52.245-9 - Use And Charges (JUN 2007)
- 52.246-23 - Limitation Of Liability (FEB 1997)
- 52.246-25 - Limitation Of Liability - Services (FEB 1997)
- 52.247-1 - Commercial Bill Of Lading Notations (FEB 2006)
- 52.247-63 - Preference For U. S. Flag Air Carriers (JUN 2003)
- 52.249-6 - Termination (Cost-Reimbursement) (MAY 2004)
- 52.249-14 - Excusable Delays (APR 1984)
- 52.251-1 - Government Supply Sources (APR 1984)
- 52.252-6 - Authorized Deviations in Clauses (APR 1984)(fill in Defense Federal Acquisition Regulation Supplement (48 CFR Chapter 2))
- 52.253-1 - Computer Generated Forms (JAN 1991)

b. DEPARTMENT OF DEFENSE FEDERAL ACQUISITION REGULATION CLAUSES

DFARS CLAUSE	TITLE
252.201-7000	- Contracting Officer's Representative (DEC 1991)
252.203-7001	- Prohibition On Persons Convicted Of Fraud Or Other Defense Contract Related Felonies (DEC 2004)
252.203-7002	- Display Of DoD Hotline Poster (DEC 1991)
252.204-7000	- Disclosure Of Information (DEC 1991)
252.204-7003	- Control Of Government Personnel Work Product (APR 1992)
252.204-7004	- Alternate A Central Contractor Registration (SEP 2007)
252.204-7005	- Oral Attestation Of Security Responsibilities (NOV 2001)
252.205-7000	- Provision Of Information To Cooperative Agreement Holders (DEC 1991)
252.209-7004	- Subcontracting With Firms That Are Owned Or Controlled By The Government Of A Terrorist Country (DEC 2006)
252.211-7003	- Item Identification And Valuation (JUN 2005) (<i>fill in none</i> in (c)(1)(ii) and (c)(1)(iii))
252.211-7007	- Item Unique Identification of Government Property (SEP 2007) (<i>fill in none</i>)
252.215-7000	- Pricing Adjustments (DEC 1991)
252.215-7002	- Cost Estimating System Requirements (DEC 2006)
252.215-7004	- Excessive Pass-Through Charges (MAY 2008)
252.219-7003	- Small Business Subcontracting Plan (DoD Contracts) (APR 2007)
252.219-7004	- Small Business Subcontracting Plan (Test Program) (APR 2007)
252.223-7004	- Drug-Free Work Force (SEP 1988)
252.223-7006	- Prohibition On Storage And Disposal Of Toxic And Hazardous Materials (APR 1993)
252.225-7004	- Report Of Intended Performance Outside The United States And Canada- Submission After Award (MAY 2007)
252.225-7006	- Quarterly Reporting Of Actual Contract Performance Outside The United States (MAY 2007)
252.225-7012	- Preference For Certain Domestic Commodities (MAR 2008)
252.225-7031	- Secondary Arab Boycott Of Israel (JUN 2005)
252.226-7001	- Utilization of Indian Organizations, Indian-Owned Economic Enterprises, And Native Hawaiian Small Business Concerns (SEP 2004)
252.227-7013	- Rights In Technical Data -- Noncommercial Items (NOV 1995)
252.227-7014	- Rights In Noncommercial Computer Software And Noncommercial Computer Software Documentation (JUN 1995)
252.227-7016	- Rights In Bid Or Proposal Information (JUN 1995)
252.227-7019	- Validation Of Asserted Restrictions--Computer Software (JUN 1995)
252.227-7030	- Technical Data--Withholding Of Payment (MAR 2000)
252.227-7037	- Validation Of Restrictive Markings On Technical Data (SEP 1999)
252.227-7038	- Patent Rights-Ownership By The Contractor (Large Business) (DEC 2007)
252.227-7039	- Patents--Reporting Of Subject Inventions (APR 1990)
252.231-7000	- Supplemental Cost Principles (DEC 1991)
252.232-7003	- Electronic Submission of Payment Requests and Receiving Reports (MAR 2008)
252.232-7010	- Levies On Contract Payments (DEC 2006)

- 252.235-7010 - Acknowledgment Of Support And Disclaimer (MAY 1995)
- 252.235-7011 - Final Scientific Or Technical Report (NOV 2004)
- 252.242-7004 - Material Management And Accounting System (NOV 2005)
- 252.243-7002 - Requests For Equitable Adjustment (MAR 1998)
- 252.244-7000 - Subcontracts For Commercial Items And Commercial Components (DoD Contracts) (JAN 2007)
- 252.247-7023 - Transportation Of Supplies By Sea (MAY 2002)
- 252.247-7024 - Notification Of Transportation Of Supplies By Sea (MAR 2000)
(will be included if the successful offeror made a negative response to the inquiry at DFARS 252.247-7022)
- 252.251-7000 - Ordering From Government Supply Sources (NOV 2004)

I-2 FAR 52.219-28 - POST-AWARD SMALL BUSINESS PROGRAM REREPRESENTATION (JUNE 2007)

(a) Definitions. As used in this clause—

Long-term contract means a contract of more than five years in duration, including options. However, the term does not include contracts that exceed five years in duration because the period of performance has been extended for a cumulative period not to exceed six months under the clause at 52.217-8, Option to Extend Services, or other appropriate authority.

Small business concern 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 the size standard in paragraph (c) of this clause.

(b) If the Contractor represented that it was a small business concern prior to award of this contract, the Contractor shall rerepresent its size status according to paragraph (e) of this clause or, if applicable, paragraph (g) of this clause, upon the occurrence of any of the following:

(1) Within 30 days after execution of a novation agreement or within 30 days after modification of the contract to include this clause, if the novation agreement was executed prior to inclusion of this clause in the contract.

(2) Within 30 days after a merger or acquisition that does not require a novation or within 30 days after modification of the contract to include this clause, if the merger or acquisition occurred prior to inclusion of this clause in the contract.

(3) For long-term contracts—

(i) Within 60 to 120 days prior to the end of the fifth year of the contract; and

(ii) Within 60 to 120 days prior to the exercise date specified in the contract for any option thereafter.

(c) The Contractor shall rerepresent its size status in accordance with the size standard in effect at the time of this rerepresentation that corresponds to the North American Industry Classification System (NAICS) code assigned to this contract. The small business size standard corresponding to this NAICS code can be found at

<http://www.sba.gov/services/contractingopportunities/sizestandardsttopics/>.

(d) The small business size standard for a Contractor providing a product which it does not manufacture itself, for a contract other than a construction or service contract, is 500 employees.

(e) Except as provided in paragraph (g) of this clause, the Contractor shall make the rerepresentation required by paragraph (b) of this clause by validating or updating all its representations in the Online Representations and Certifications Application and its data in the Central Contractor Registration, as necessary, to ensure they reflect current status. The Contractor shall notify the contracting office by e-mail, or otherwise in writing, that the data have been validated or updated, and provide the date of the validation or update.

(f) If the Contractor represented that it was other than a small business concern prior to award of this contract, the Contractor may, but is not required to, take the actions required by paragraphs (e) or (g) of this clause.

(g) If the Contractor does not have representations and certifications in ORCA, or does not have a representation in ORCA for the NAICS code applicable to this contract, the Contractor is required to complete the following rerepresentation and submit it to the contracting office, along with the contract number and the date on which the rerepresentation was completed:

The Contractor represents that it is, is not a small business concern under NAICS Code _____ assigned to contract number _____.

[Contractor to sign and date and insert authorized signer's name and title].

I-3 FAR 52.223-11 - OZONE-DEPLETING SUBSTANCES (MAY 2001)

(a) *Definitions.* "Ozone-depleting substance", as used in this clause, means any substance the Environmental Protection Agency designates in 40 CFR Part 82 as –

- (1) Class I, including, but not limited to, chlorofluorocarbons, halons, carbon tetrachloride, and methyl chloroform; or
- (2) Class II, including, but not limited to, hydrochlorofluorocarbons.

(b) The Contractor shall label products which contain or are manufactured with ozone-depleting substances in the manner and to the extent required by 42 U.S.C. 7671j (b), (c), and (d) and 40 CFR Part 82, Subpart E, as follows:

WARNING

Contains (or manufactured with, if applicable) *_____, a substance(s) which harm(s) public health and environment by destroying ozone in the upper atmosphere.

**The Contractor shall insert the name of the substance(s).*

PART III - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS
SECTION J
LIST OF ATTACHMENTS

- J-1** Attachment (1) - Statement Of Work - 12 Pages, With Exhibit A - DD Form 1423, Contract Data Requirements List, 4 Pages.
- J-2** Attachment (2) - DD Form 254, Contract Security Classification Specification, Ser 084-08 Dated 09 July 2008.
- J-3** Attachment (3) – Personnel Qualifications, 9 Pages.
- J-4** Attachment (4) – Non-Disclosure Agreement, 1 page
- J-5** Attachment () – Accounting and Appropriation Data- 1 page. *
(To be included at time of award)*

PART IV - REPRESENTATIONS AND INSTRUCTIONS
SECTION - K
REPRESENTATIONS, CERTIFICATIONS
AND OTHER STATEMENTS OF OFFERORS OR RESPONDENTS

K-1 REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS OF OFFERORS OR RESPONDENTS

In accordance with FAR 4.1201, prospective contractors must complete electronic annual representations and certifications via the Online Representations and Certifications Application (ORCA) at <http://orca.bpn.gov> in conjunction with required registration in the Central Contractor Registration (CCR) at http://www.ccr.gov_database. The representations and certification must be updated as necessary, but at least annually, to ensure they are kept current, accurate and complete.

In addition, each offeror must complete the additional contract specific representations and certifications below:

K-2 FAR 52.204-8 ANNUAL REPRESENTATIONS AND CERTIFICATIONS (JAN 2006)

(a)(1) The North American Industry Classification System (NAICS) code for this acquisition is see Section K-3 *[insert NAICS code]*.

(2) The small business size standard is see Section K-3 *[insert size 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)(1) If the clause at 52.204-7, Central Contractor Registration, is included in this solicitation, paragraph (c) of this provision applies.

(2) If the clause at 52.204-7 is not included in this solicitation, and the offeror is currently registered in CCR, and has completed the ORCA electronically, the offeror may choose to use paragraph (c) of this provision instead of completing the corresponding individual representations and certifications in the solicitation. The offeror shall indicate which option applies by checking one of the following boxes:

(i) Paragraph (c) applies.

(ii) Paragraph (c) does not apply and the offeror has completed the individual representations and certifications in the solicitation.

(c) The offeror has completed the annual representations and certifications electronically via the Online Representations and Certifications Application (ORCA) website at <http://orca.bpn.gov>. After reviewing the ORCA database information, the offeror verifies by submission of the offer that the representations and certifications currently posted electronically have been entered or updated within the last 12 months, are current, accurate, complete, and applicable to this solicitation (including the business size standard applicable to the NAICS code referenced for this solicitation), as of the date of this offer and are incorporated in this offer by reference (see FAR 4.1201); except for the changes identified below [*offeror to insert changes, identifying change by clause number, title, date*]. These amended representation(s) and/or certification(s) are also incorporated in this offer and are current, accurate, and complete as of the date of this offer.

FAR CLAUSE #	TITLE	DATE	CHANGE

Any changes provided by the offeror are applicable to this solicitation only, and do not result in an update to the representations and certifications posted on ORCA.

K-3 FILL IN FOR FAR 52.219-1 - SMALL BUSINESS PROGRAM REPRESENTATIONS (MAY 2004)

The fill in information is as follows:

- (a) (1) The NAICS code for this acquisition is: **541330**
- (2) The small business size standard is: **\$4,500,000**

K-4 FAR 52.230-1 COST ACCOUNTING STANDARDS NOTICES AND CERTIFICATION (JUNE 2000)

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.

If the offeror is an educational institution, Part II does not apply unless the contemplated contract will be subject to full or modified CAS coverage pursuant to 48 CFR 9903.201-2(c)(5) or 9903.201-2(c)(6), respectively.

I. DISCLOSURE STATEMENT—COST ACCOUNTING PRACTICES AND CERTIFICATION

(a) Any contract in excess of \$500,000 resulting from this solicitation will be subject to the requirements of the Cost Accounting Standards Board (48 CFR Chapter 99), except for those contracts which are exempt as specified in 48 CFR 9903.201-1.

(b) Any offeror submitting a proposal which, if accepted, will result in a contract subject to the requirements of 48 CFR Chapter 99 must, as a condition of contracting, submit a Disclosure Statement as required by 48 CFR 9903.202. When required, 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) or cognizant Federal agency official authorized to act in that capacity (Federal official), as applicable; and

(ii) One copy to the cognizant Federal auditor.

(Disclosure must be on Form No. CASB DS-1 or CASB DS-2, as applicable. Forms may be obtained from the cognizant ACO or Federal official and/or from the loose-leaf version of the Federal Acquisition Regulation.)

Date of Disclosure Statement: _____

Name and Address of Cognizant ACO or Federal Official 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 Disclosure Statement.

(2) *Certificate of Previously Submitted Disclosure Statement.* The offeror hereby certifies that the required Disclosure Statement was filed as follows:

Date of Disclosure Statement: _____

Name and Address of Cognizant ACO or Federal Official 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 \$50 million or more 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 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 paragraph (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 \$50 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 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 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 \$50 million in awards of CAS-covered prime contracts and subcontracts. 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 \$50 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 \$50 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 paragraph (a)(3) of the Cost Accounting Standards clause, require a change in established cost accounting practices affecting existing contracts and subcontracts.

No
 Yes

(End of provision)

Alternate I (Apr 1996). As prescribed in 30.201-3(b), add the following paragraph (c)(5) to Part I of the basic provision:

(5) *Certificate of Disclosure Statement Due Date by Educational Institution.* If the offeror is an educational institution that, under the transition provisions of 48 CFR 9903.202-1(f), is or will be required to submit a Disclosure Statement after receipt of this award, the offeror hereby certifies that (check one and complete):

(i) A Disclosure Statement Filing Due Date of _____ has been established with the cognizant Federal agency.

(ii) The Disclosure Statement will be submitted within the 6-month period ending _____ months after receipt of this award.

Name and Address of Cognizant ACO or Federal Official Where Disclosure Statement is to be Filed: _____

K-5 FAR 52.230-7 PROPOSAL DISCLOSURE—COST ACCOUNTING PRACTICE CHANGES (APR 2005)

The offeror shall check “yes” below if the contract award will result in a required or unilateral change in cost accounting practice, including unilateral changes requested to be desirable changes.

No
Yes

If the offeror checked “Yes” above, the offeror shall—

(1) Prepare the price proposal in response to the solicitation using the changed practice for the period of performance for which the practice will be used; and

(2) Submit a description of the changed cost accounting practice to the Contracting Officer and the Cognizant Federal Agency Official as pricing support for the proposal.

K-6 ORGANIZATIONAL CONFLICTS OF INTEREST REPRESENTATION

The offeror hereby represents that it has reviewed and understands the guidance, requirements, and restrictions in Federal Acquisition Regulation (FAR) Subpart 9.5 ("Organizational and Consultant Conflicts of Interest"). With respect to the guidance provided in FAR Subpart 9.5,

it is aware of no past, present, or currently planned interest (financial, contractual, organizational, or otherwise) or activity relating to the work required to be performed under the contract resulting from the Request for Proposals that would indicate any impingement upon its ability to render impartial, technically sound, and objective assistance or advice or result in the appearance that it may have an unfair competitive advantage.

it is aware of circumstances that may indicate an impingement upon its ability to render impartial, technically sound, and objective assistance or advice or result in the appearance that it may have an unfair competitive advantage.

This representation applies to all affiliates of the offeror and its proposed consultants or subcontractors of any tier.

**SECTION L
INSTRUCTIONS CONDITIONS AND NOTICES
TO OFFERORS OR RESPONDENTS**

L-1 FAR 52.252-1 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE (FEB 1998)

This solicitation incorporates one or more solicitation provisions 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. The offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at this/these address(es):

<http://www.acqnet.gov/far>
<http://heron.nrl.navy.mil/contracts/home.htm>

FAR CLAUSE TITLE

52.204-6	-	Data Universal Numbering System (DUNS) Number (APR 2008)
52.214-34	-	Submission Of Offers In The English Language (APR 1991)
52.214-35	-	Submission Of Offers In U.S. Currency (APR 1991)
52.215-1	-	Instructions To Offerors- Competitive Acquisition (JAN 2004)
52.215-16	-	Facilities Capital Cost Of Money (JUN 2003)
52.219-24	-	Small Disadvantaged Business Participation Program - Targets (OCT 2000)
52.222-24	-	Preaward On-Site Equal Opportunity Compliance Evaluation (FEB 1999)
52.237-10	-	Identification Of Uncompensated Overtime (OCT 1997)

DFAR CLAUSE TITLE

252.209-7001-	Disclosure Of Ownership Or Control By The Government Of A Terrorist Country (OCT 2006)
252.215-7003 -	Excessive Pass-Through Charges—Identification Of Subcontract Effort (MAY 2008)
252.225-7003	-Report Of Intended Performance Outside The United States And Canada – Submission With Offer (DEC 2006)

L-2 INSTRUCTIONS FOR SUBMISSION OF PROPOSALS/OFFERS

All proposals shall be submitted in accordance with FAR 52.215-1- *Instructions to Offerors- Competitive Acquisition*. Proposals/offers submitted in paper media through the United States Postal Service (USPS) or delivery services shall be addressed:

Contracting Officer, ATTN: Code 3230JR

RFP No. N00173-08-R-JR06

Closing Date: 09 Oct 2008

Time: 3:00 P.M.

Naval Research Laboratory

4555 Overlook Avenue, S.W.

Washington, D.C. 20375

Proposals may be hand delivered to the Contracting Office, NRL, 4555 Overlook Avenue, S.W., Washington, D.C. 20375, Building 222, Room 115 between the hours of 8AM until 4PM, local time, excluding weekends and federal holidays. NRL is a controlled-access facility. Photo identification will be required. Report first to Building 72, Visitor Control for access to NRL. After receiving a Visitor Pass, proceed directly to Building 222, Room 115, Contracting Office Receptionist to deliver the proposal. All offerors shall allow sufficient time for delivery of their proposal to the Contracting Office prior to the closing date and time announced in the solicitation. Directions and additional information about NRL is available at <http://www.nrl.navy.mil/content.php?P=PLANNINGVISIT> .

If facsimile proposals are authorized, contracting officers may request offeror(s) to provide the complete; original signed proposal at a later date.

L-3 FAR 52.211-14 - NOTICE OF PRIORITY RATING FOR NATIONAL DEFENSE, EMERGENCY PREPAREDNESS, AND ENERGY PROGRAM USE (APR 2008)

Any contract awarded as a result of this solicitation will be DX rated order; DO rated order certified for national defense, emergency preparedness, and energy program 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-4 FAR 52.215-20 REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA (OCT 1997)ALTERNATE IV (OCT 1997)

- (a) Submission of cost or pricing data is not required.
- (b) Provide information described below
- (c) See Section L-13, Volume II, Business Proposal. More detailed information may be required and requested if and when it is deemed necessary for evaluation of a specific proposal.

L-5 FAR 52.216-1 - TYPE OF CONTRACT (APR 1984)

The Government contemplates award of a Cost Plus Fixed Fee Term contract resulting from this solicitation.

L-6 FAR 52.233-2 - SERVICE OF PROTEST (SEP 2006)

(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 Government Accountability Office(GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from the Control Desk, Code 3200, Bldg. 222, Rm. 115, Naval Research Laboratory, 4555 Overlook Ave., S.W., Washington DC 20375-5326.

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

L-7 DFARS 252.227-7017 - IDENTIFICATION AND ASSERTION OF USE, RELEASE, OR DISCLOSURE RESTRICTIONS (JUN 1995)

- (a) The terms used in this provision are defined in following clause or clauses contained in this solicitation—
- (1) If a successful offeror will be required to deliver technical data, the Rights in Technical Data--Noncommercial Items clause, or, if this solicitation contemplates a contract under the Small Business Innovative Research Program, the Rights in Noncommercial Technical Data and Computer Software--Small Business Innovative Research (SBIR) Program clause.
 - (2) If a successful offeror will not be required to deliver technical data, the Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation clause, or, if this solicitation contemplates a contract under the Small Business Innovative Research Program, the Rights in Noncommercial Technical Data and Computer Software--Small Business Innovative Research (SBIR) Program clause.
- (b) The identification and assertion requirements in this provision apply only to technical data, including computer software documents, or computer software to be delivered with other than unlimited rights. For contracts to be awarded under the Small Business Innovative Research Program, the notification requirements do not apply to technical data or computer software that will be generated under the resulting contract. Notification and identification is not required for restrictions based solely on copyright.
- (c) Offers submitted in response to this solicitation shall identify, to the extent known at the time an offer is submitted to the Government, the technical data or computer software that the Offeror, its subcontractors or suppliers, or potential subcontractors or suppliers, assert should be furnished to the Government with restrictions on use, release, or disclosure.

- (d) The Offeror's assertions, including the assertions of its subcontractors or suppliers or potential subcontractors or suppliers shall be submitted as an attachment to its offer in the following format, dated and signed by an official authorized to contractually obligate the Offeror:

Identification and Assertion of Restrictions on the Government's Use, Release, or Disclosure of Technical Data or Computer Software.

The Offeror asserts for itself, or the persons identified below, that the Government's rights to use, release, or disclose the following technical data or computer software should be restricted:

Technical Data or Computer Software to be Furnished With Restrictions*	Basis for Assertion **	Asserted Rights Category ***	Name of Person Asserting Restrictions****
(List)*****	(List)	(List)	(List)

* For technical data (other than computer software documentation) pertaining to items, components, or processes developed at private expense, identify both the deliverable technical data and each such items, component, or process. For computer software or computer software documentation identify the software or documentation.

** Generally, development at private expense, either exclusively or partially, is the only basis for asserting restrictions. For technical data, other than computer software documentation, development refers to development of the item, component, or process to which the data pertain. The Government's rights in computer software documentation generally may not be restricted. For computer software, development refers to the software. Indicate whether development was accomplished exclusively or partially at private expense. If development was not accomplished at private expense, or for computer software documentation, enter the specific basis for asserting restrictions.

*** Enter asserted rights category (e.g., government purpose license rights from a prior contract, rights in SBIR data generated under another contract, limited, restricted, or government purpose rights under this or a prior contract, or specially negotiated licenses).

**** Corporation, individual, or other person, as appropriate.

***** Enter "none" when all data or software will be submitted without restrictions.

Date	
Printed Name and Title	
Signature	

(End of identification and assertion)

- (e) An offeror's failure to submit, complete, or sign the notification and identification required by paragraph (d) of this provision with its offer may render the offer ineligible for award.
- (f) If the Offeror is awarded a contract, the assertions identified in paragraph (d) of this provision shall be listed in an attachment to that contract. Upon request by the Contracting Officer, the Offeror shall provide sufficient information to enable the Contracting Officer to evaluate any listed assertion.

L-8 DFARS 252.227-7028 - TECHNICAL DATA OR COMPUTER SOFTWARE PREVIOUSLY DELIVERED TO THE GOVERNMENT (JUN 1995)

The Offeror shall attach to its offer an identification of all documents or other media incorporating technical data or computer software it intends to deliver under this contract with other than unlimited rights that are identical or substantially similar to documents or other media that the Offeror has produced for, delivered to, or is obligated to deliver to the Government under any contract or subcontract. The attachment shall identify - -

- (a) The contract number under which the data or software were produced;
- (b) The contract number under which, and the name and address of the organization to whom, the data or software were most recently delivered or will be delivered; and
- (c) Any limitations on the Government's rights to use or disclose the data or software, including, when applicable, identification of the earliest date the limitations expire.

L-9 POTENTIAL ORGANIZATIONAL CONFLICT OF INTEREST

If, in Section K, the offeror represented that it **is** aware of circumstances that may hinder its ability to render impartial, technically sound, and unbiased assessments, recommendations and/or evaluations; or that circumstances exist that may result in the appearance that it may have an unfair competitive advantage, the offeror shall provide a full disclosure statement. The statement must describe in a concise manner all relevant facts concerning any past, present or currently planned interest (financial, contractual, organizational, or otherwise) relating to the work to be performed hereunder and bearing on whether the offeror has a possible organizational conflict of interest with respect to (1) impartial, technically sound, and unbiased assessments, recommendations and/or evaluations, or (2) being given an unfair competitive advantage. Prospective Offerors should refer to FAR Subpart 9.5 for policies and procedures for avoiding, neutralizing, or mitigating organizational conflicts of interest.

The government will review the statement submitted and may require additional relevant information from the offeror. All such information and any other relevant information will be used by the government to determine whether an award to the offeror may create an organizational conflict of interest. If found to exist, the Government may (1) impose appropriate conditions which avoid such conflict, (2) disqualify the offeror, or (3) determine that it is otherwise in the best interest of the government to contract with the offeror by including appropriate conditions mitigating such conflict in the contract awarded.

The refusal to provide the disclosure or representation of any additional information as required shall result in disqualification of the offeror for award. The nondisclosure or misrepresentation of any relevant interest may also result in the disqualification of the offeror for award, or if such nondisclosure or misrepresentation is discovered after award, the government may terminate the contract for default, recommend that the contractor be disqualified from subsequent related contracts, or be subject to such other remedial actions as may be permitted or provided by law. The attention of the offeror in complying with this provision is directed to 18 U.S.C. 1001 and 31 U.S.C. 3802(a)(2).

Depending on the nature of the contract activities, the offeror may, because of possible organizational conflicts of interest, propose to exclude specific kinds of work from the statement, unless the solicitation specifically prohibits such exclusion. Any such proposed exclusion by an offeror shall be considered by the government in the evaluation of proposals, and if the government considers the proposed excluded work to be an essential or integral part of the required work, the proposal may be rejected as unacceptable.

No award shall be made until the disclosure or representation has been evaluated by the government. Failure to provide the disclosure or representation will be deemed to be a minor informality and the offeror or contractor shall be required to promptly correct the omission.

The provision in Section H, "Organizational Conflict of Interest," may be modified if the Contracting Officer determines it necessary to avoid or resolve a conflict of interest based on the information provided by the offeror. The terms of the provision are subject to negotiation.

L-10 GOVERNMENT-FURNISHED PROPERTY

No material, labor, or facilities will be furnished by the Government unless provided for in the solicitation.

L-11 INQUIRIES CONCERNING THE RFP

Any questions concerning the RFP must be submitted in writing to the Contracting Officer representative at the contact location noted in blocks 7 and 10 of the Standard Form 33, *Solicitation, Offer and Award*, no less than fifteen (15) days before closing. Offerors are cautioned against directing any questions concerning this RFP to technical personnel at the Naval Research Laboratory.

L-12 PROPOSAL ORGANIZATION

(1) Information for the technical/management proposal shall be placed in Volume I and be completely separate from the business proposal (Volume II).

(2) Proposal Format and Length - No attempt is made to restrict the proposal format and style. However, the proposal should be written and organized so as to be compatible with the RFP, the Statement of Work, company's organization and accounting structure, and proposed cost estimate. Offerors are encouraged to use recycled paper and maximize the use of double sided copying when preparing responses to solicitations.

L-13 VOLUME I - TECHNICAL/MANAGEMENT PROPOSAL**REQUIRED COPIES: 1 ORIGINAL AND 4 COPIES .**

(1) The offeror must propose the labor categories in accordance with the Level of Effort Breakdown in Section H. If the offeror uses labor category terminology other than that used in Section H, the offer must provide a matrix clearly relating their proposed labor categories to those stated.

(2) The following information is required for evaluation of your technical/management proposal:

1. QUALIFICATIONS OF PERSONNEL:

The proposal should clearly demonstrate the Offerors ability to provide the specific personnel to be assigned to this project, as set forth under Attachment No. 2 of the solicitation. The proposal should indicate:

- (1) the appropriate qualifications set forth in the Personnel Qualifications of the RFP;
- (2) their actual relevant experience (both general and project related), in the technical and scientific areas set forth in the Statement of Work (SOW);
- (3) the ability to obtain a SECRET clearance of key personnel prior to commencing work. well as any proposed subcontractors

The proposal should indicate the availability of proposed key project professional and technical personnel to support the effort on a permanent basis. Key personnel must be currently employed by the offeror or documentation included showing their immediate availability. A statement of commitment by the offeror that specific personnel will be committed to the effort is essential, and the amount of effort each will be performing against the resulting contract.

2. TECHNICAL UNDERSTANDING:

The proposal should demonstrate the offeror's complete understanding and response to all tasks set forth under the Statement of Work. The proposal should demonstrate the offerors technical expertise with respect to each technical requirement listed in the SOW, the offerors stated approach to meeting each technical requirement listed in the SOW, the offerors estimates for the personnel and/or physical resources required for meeting each technical requirement listed in the SOW, and the offerors description of how the different tasks can be effectively and efficiently managed with minimum assistance from Government personnel.

A simple statement of understanding or playback of the SOW will be considered non-responsive.

3. COMPANY EXPERIENCE:

The proposals should demonstrate the offerors capacity to routinely and rapidly respond to the general science, engineering, and support requirements of a research laboratory. The proposal should also demonstrate the offerors' capability to meet the specific technical requirements listed in the Statement of Work. This capability should be demonstrated via examples and references from within the previous five years as provided from the prime contractor and proposed subcontractors.

The proposal should indicate the offerors' ability to administratively support "on-site" with minimum demands upon Government personnel for assistance.

The proposal should indicate the the sufficiency of the offerors' staff to accommodate program changes within the scope of the SOW.

4. PAST PERFORMANCE INFORMATION

(a) Offerors shall submit the following information as part of their proposal. (*Offerors are encouraged to submit the information prior to other parts of the proposal to assist the government in reducing the length of the evaluation period.*) List the last three (3) contracts or subcontracts completed by the offeror or predecessor companies during the past five (5) years for services similar in nature to this requirement. Include in the three (3) any current contracts or subcontracts for similar services that were awarded at least one year prior to the date of this solicitation. Offerors that have no similar previous or current contracts should provide the requested information for proposed subcontractors that will perform major or critical aspects of the requirement or for the proposed project manager or key personnel responsible for major or critical aspects of the requirement.

1. Name of contracting organization.
2. Contract number
3. Contract type
4. Total contract value
5. Description of the contract work
6. Contracting officer and telephone number
7. Contracting officer's representative, program manager, or similar official and telephone number

(b) Offerors shall contact the contracting organizations identified pursuant to paragraph (a) as soon as possible and request them to send past performance information on the identified contracts to the address in Block 7 of the face page of this solicitation. The past performance report which is available electronically in full text at <http://heron.nrl.navy.mil/contracts/home.htm> is to be provided to the contracting organization for this purpose. If the contracting organization has already collected past performance information on the contract pursuant to FAR Subpart 42.15, the format used to collect the information may be used instead of the past performance report.

(c) Offerors may include in their proposals specific information relating to problems encountered in performing the identified contracts and any corrective actions by the offeror. Offerors should not provide general information on their performance on the identified contracts as this will be obtained from the contracting organizations.

L-14 VOLUME II - BUSINESS PROPOSAL**REQUIRED COPIES: 1 ORIGINAL AND 4 COPIES****(1) COST PROPOSAL**

(a) The offeror shall submit a business proposal that includes a cost proposal with supporting information for each cost element consistent with offeror's cost accounting system. The supporting breakdown should include such elements as materials, direct labor, indirect cost, and other costs such as travel. The offeror shall provide exhibits as necessary to substantiate each cost element. Should rates be used in the proposal which are not DCAA approved, the offeror shall provide complete documentation and the rationale for their use at time of proposal submission. However, offerors are advised to use actual labor rates of proposed personnel as the basis for estimating labor costs when practicable.

(b) It is requested that the offeror provide one copy of their cost proposal on a PC formatted disk or CD ROM using software that is compatible with Microsoft Excel V 5.1.2600.

(c) The following Travel and Material estimates are for evaluation purposes only. The Government estimates the travel and material costs for this effort to be as shown in the matrix below:

	BASE	OPTION 1	OPTION 2	OPTION 3	OPTION 4
Materials	\$ 70,000	\$ 70,000	\$ 70,000	\$ 70,000	\$ 70,000
Travel	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000

* Offerors should add any applicable indirect costs to the above estimates

(2) SMALL BUSINESS PARTICIPATION

(a) In addition to complying with the clause at FAR 52.219-9, Small Business Subcontracting Plan (NOV 2007) with its Alternate II (OCT 2001), proposals must include information to permit evaluation of the extent of participation of small businesses and historical black colleges or universities and minority institutions in performance of the contract. Participation to be identified may be in the form of a joint venture, teaming arrangement, or subcontract. Small business concerns that are not required by FAR 52.219-9 to submit a subcontracting plan must indicate the extent to which proposed joint ventures, teaming arrangements, or subcontracts are with historically black colleges or universities and minority institutions. Information provided should include the extent of participation of such firms in terms of the value of the total acquisition and the complexity and variety of the work such firms are to perform.

SECTION M EVALUATION FACTORS FOR AWARD

M-1 EVALUATION

Award will be made to that offeror whose proposal is determined to be the best value to the Government, proposed cost and other factors considered. The Government reserves the right to make award to other than the low offeror. The technical considerations are more important than the cost factor. The closer the technical scores of the various proposals are to one another, the more important the cost considerations become. The Technical and Cost factors are each more important than the Small Business Participation factor.

M-2 EVALUATION FACTORS FOR AWARD

Proposals will be evaluated in accordance with the following criteria. The technical factor is more important than the cost factor. The Qualifications of Personnel factor is more important than all other factors. Technical Understanding and Company Experience are of equal weight, and are more important than Past Performance, which is more important than Small Business Participation

M-2-1. TECHNICAL/MANAGEMENT

1. QUALIFICATIONS OF PERSONNEL:

The proposal will be evaluated on the offerors demonstrated ability to provide the specific personnel to be assigned to this project, which shall cover:

- (1) the appropriate qualifications set forth in the Personnel Qualifications of the RFP;
- (2) their actual relevant experience (both general and project related), in the technical and scientific areas set forth in the Statement of Work (SOW).

The proposal will be evaluated on the availability of proposed key project professional and technical personnel to support the effort on a permanent basis. Key personnel must be currently employed by the offeror or documentation included showing their immediate availability. A statement of commitment by the offeror that specific personnel will be committed to the effort is essential, and the amount of effort each will be performing against the resulting contract.

2 TECHNICAL UNDERSTANDING:

The proposals will be evaluated on the offerors complete understanding and response to all tasks set forth under the Statement of Work. Evaluation of the offerors level of understanding of the SOW tasks will be based on the offerors demonstrated technical expertise with respect to each technical requirement listed in the SOW, the offerors stated approach to meeting each technical requirement listed in the SOW, the offerors estimates for the personnel and/or physical resources required for meeting each technical requirement listed in the SOW, and on the offerors description of how the different tasks can be effectively and efficiently managed with minimum assistance from Government personnel.

A simple statement of understanding or playback of the SOW will be considered non-responsive.

3 COMPANY EXPERIENCE:

The proposals will be evaluated on the offerors' demonstrated capacity to routinely and rapidly respond to the general science, engineering, and support requirements of a research laboratory. The proposal will also be evaluated on the offerors' demonstrated capability to meet the specific technical requirements listed in the Statement of Work. Examples and references from within the previous five years must be provided from the prime contractor and proposed subcontractors.

The proposal should address the ability to administratively support "on-site" with minimum demands upon Government personnel for assistance.

The proposals will be evaluated on the sufficiency of the offerors' staff to accommodate program changes within the scope of the SOW.

4. PAST PERFORMANCE

Past performance will be evaluated on the basis of the quality of the work performed, timeliness of performance, cost control, and business relations. The evaluation will be based on the information provided pursuant to Section L and other sources if available. The evaluation will take into account past performance information regarding predecessor companies, subcontractors that will perform major or critical aspects of the requirement, or the proposed project manager or key personnel responsible for major or critical aspects of the requirement. Offerors that have no relevant performance history or for which past performance information is not available will not be evaluated favorably or unfavorably on past performance. The government may begin proposal evaluation prior to receipt of past performance information. If, after completion of proposal evaluation except evaluation of past performance, the contracting officer determines that evaluation of past performance will not affect the outcome of competitive selection, the contracting officer may waive its evaluation in accordance with FAR 15.304(c)(3)(iv).

M-2-2 COST TO THE GOVERNMENT

Proposed estimated cost to the Government. The Government may adjust the proposed cost for purposes of evaluation based upon an evaluation of cost realism. Cost Realism means that the costs in an offeror's proposal are realistic for the work to be performed; reflect a clear understanding of the requirements; and are consistent with the various elements of the offeror's technical proposal. The cost realism evaluation includes an analysis of the adequacy of the hours, labor mix, and other direct costs to perform the work as proposed in the technical proposal as well as the proposed labor and indirect rates. It also includes evaluation of the likelihood that the risks inherent in the offeror's technical approach will result in higher actual costs than anticipated.

M-2-3 SMALL BUSINESS PARTICIPATION

The extent of participation of small businesses and historically black colleges or universities and minority institutions in performance of the contract will be evaluated on the basis of the proposed extent of participation of such firms in terms of the value of the total acquisition and the complexity and variety of the work such firms are to perform.

M-3 FAR 52.217-5 - EVALUATION OF OPTIONS (JUL 1990)

Except when it is determined in accordance with FAR 17.206(b) not to be in the Government's best interests, the Government will evaluate offers for award purposes by adding the total price for all options to the total price for the basic requirement. Evaluation of options will not obligate the Government to exercise the option(s).

**STATEMENT OF WORK:
SPACE SCIENCE RESEARCH, DEVELOPMENT
AND ENGINEERING EFFORTS**

1. BACKGROUND

The Naval Research Laboratory conducts research in the fields of astronomy and astrophysics, solar-terrestrial physics and atmospheric science. Satellites, rockets and ground-based facilities are used (a) to obtain information on radiation from the sun and celestial sources, (b) to study the behavior of the ionosphere and the upper and lower atmosphere, and (c) to conduct research in support of these activities. Radio telescopes are used for astronomical observations and atmospheric sensing. Results are of importance to radio communications applicable to (a) the operation of ships and aircraft, (b) utilization of the space environment, and (c) fundamental understanding of natural radiation and geophysical phenomena.

In order to carry out space science investigations, instrument systems engineering efforts are needed for satellite design, experiment design, instrument packaging, integration and payload testing. Specific issues to be addressed under this solicitation will include advanced thermal, mechanism, optical, contamination and systems engineering activities for implementation of Space Science instruments and payloads.

2. SCOPE

The purpose of the contract is to acquire the personnel, equipment and facilities necessary to perform instrument systems engineering efforts pursuant to the design, development, analysis, fabrication, assembly, integration, testing and documentation of sophisticated Space Science instruments and experimental payloads.

More specifically, the work required under this solicitation primarily deals with advanced thermal, mechanism, optical, contamination and systems engineering efforts which shall, at least, include the following functions:

- Thermal Systems Engineering
- Contamination Engineering
- Instrument Optical and RF Engineering
- Instrument Systems Engineering
- Mechanisms Engineering
- Mechanical Systems Engineering
- Electrical Systems Engineering
- Quality Assurance Engineering
- Hardware Fabrication and Testing, Inspection, Assembly, and Integration
- Code 7650 WMD/DHS future needs?

3 SPECIFIC REQUIREMENTS

3.0 OVERALL

The Contractor shall provide the personnel, facilities and materials to perform research, development and engineering efforts for the Space Science Division. Primary areas of concern under this solicitation include, but may not be limited to, advanced thermal, mechanism, optical, contamination and systems engineering. Tasks to be performed under this Statement of Work include, but may not be limited to (a) performance of instrument and experimental payload studies, design, analysis, integration and testing in the areas of advanced thermal, mechanism, optical, contamination, and systems engineering; (b) instrument prototype and flight hardware fabrication; (c) hardware assembly; (d) training; and (e) documentation development. All tasks hereunder will require in-depth knowledge and understanding of, and experience with instrument, payload and spacecraft systems, as well as the equipment and procedures involved in launching these systems on ELV and STS vehicles.

3.1 TASK 1 – ADVANCED THERMAL SYSTEMS ENGINEERING

The Contractor shall perform efforts associated with advanced thermal systems. Efforts associated with this task shall include the following:

3.1.1 SubTask 1.1 – Thermal Systems Engineering

The Contractor shall perform thermal systems engineering efforts that include, but may not be limited to, detailed thermal systems design, analysis, testing and integration efforts at the board, box, instrument, and payload levels, including (a) temperature gradient prediction/control; (b) electronic packaging analysis; (c) bulk temperature/transient response/aerodynamic heating predictions; and (d) state of the art instrument cooling systems design, fabrication and testing.

3.1.2 SubTask 1.2 – Thermal System Design and Analyses

The Contractor shall (a) conceive and develop thermal system designs for instruments and payloads; (b) determine thermal interfaces between instruments and their support structure; (c) develop plans and procedures, as applicable, for thermal analyses and verification testing; and (d) review, evaluate, analyze, and report on thermal system design implementation and development.

The Contractor shall (a) perform thermal analyses for STS and ELV instrument payloads; (b) develop analytical mathematical models representing conductive and radiative heat transfer both internal and external to the payload; (c) determine heat fluxes, temperature distributions, and gradients for all specified payload components and locations for all flight and on-orbit conditions.

The Contractor shall also improve or modify existing thermal software, as required. All thermal analysis software utilized under this Contract shall be functionally and operationally compatible with Systems Improved Numerical Differencing Analyzer (SINDA), and either Thermal Radiation Analyzer System (TRASYS) or Thermal Synthesizer System (TSS) software packages, as required by the COR.

3.1.3 SubTask 1.3 – Advanced Thermal System Development, Integration and Testing

The Contractor shall develop, integrate and test advanced thermal system technologies to facilitate new Space Science Division missions and applications. Technologies included under this subtask shall include, but may not be limited to (a) Capillary Pumped Loops, (b) heat pipes, (c) heat pumps, (d) alternative materials, and other similar technologies and thermal coatings.

The Contractor shall perform thermal coating efforts in the areas of (a) thin film analysis, (b) thermal/optical testing, and (c) environmental testing of instrument, payload and spacecraft coatings.

The Contractor shall use project requirements to determine planned usage of thermal control coatings and the extent of environmental testing needed.

The Contractor shall perform efforts associated with conducting (a) solar wind testing, (b) UV degradation testing, and (c) conductivity testing of coatings.

3.1.4 SubTask 1.4 – Thin Films and Thermal Coatings Application

The Contractor shall (a) apply instrument, payload and spacecraft coatings which meet thermal and contamination requirements; (b) devise methods of surface preparation and application procedures for such sprayed thermal control coatings as silicate, silicon and urethane-based coatings; and (c) devise techniques for the refurbishment and cleaning of coatings to remove particulate contamination.

The Contractor shall also perform efforts in the areas of vacuum vapor deposition and sputter deposited thin films.

3.2 TASK 2 – CONTAMINATION ENGINEERING

The Contractor shall provide contamination control management and analyses to define and implement appropriate contamination control performance measures pursuant to mission requirements.

3.2.1 SubTask 2.1 – Contamination Control Management

The Contractor shall (a) develop contamination control plans for instruments, payloads and related spacecraft; (b) determine contamination control requirements; and (c) develop appropriate monitoring plans and procedures to assess contamination control requirements compliance. The Contractor shall also monitor, review, evaluate, analyze, and report on overall contamination control management implementation and development.

3.2.2 SubTask 2.2 – Contamination Control Analysis

The Contractor shall (a) develop analytical transport models (molecular and particulate, as applicable) for instrument systems and other spaceflight hardware; and (b) generate contamination hazards predictions. The Contractor shall perform detailed environmental analyses of all phases of assembly, integration, test, transportation, pre-launch, on-orbit, and descent for comparison against requirements. The Contractor shall establish surface contamination limits based on allowable performance degradation and conduct tradeoff analyses on specifications and reviewing requirements. The Contractor shall also develop new, or improve existing, contamination control analysis software.

3.3 TASK 3 – INSTRUMENT OPTICAL/RF ENGINEERING

Under this Task, the Contractor shall perform efforts which shall include, but may not be limited to, (a) ray trace; (b) optics design; (c) STOP analysis; (d) MW receiver design/analysis; and (e) design, fabrication and testing of optical benches and stray light baffles/doors.

3.3.1 SubTask 3.1 – Instrument Optical Design and Development

The Contractor shall perform optical design and analysis efforts to provide (a) concept trades; (b) concept design; (c) component design; (d) 1st order baffle design; (e) optical mounting concepts; (f) optical packaging; (g) alignment and fabrication tolerancing; and (h) development of component specifications for engineering drawings.

The Contractor shall perform optical research and development efforts involving prototype laboratory optical hardware, new optical algorithms for use in software codes, and novel optical designs and analysis techniques.

The Contractor shall interface with and make optical recommendations to instrument teams, science Principal Investigators, and project managers.

3.3.2 SubTask 3.2 – Instrument Optical and RF Analysis

The Contractor shall perform optical, opto-mechanical, electro-optical, and RF analysis efforts at the conceptual, preliminary, and detailed stages of instrument and payload programs. The required efforts may be directed to the following topics: (a) adaptive optics; (b) geometrical and physical optics; (c) deformed optics; (d) diffraction; (e) Gaussian beam propagation; (f) stray light/energy analysis; (g) interferometry; (h) component tolerancing and tolerancing sensitivity; (i) radiometry as associated with receivers, detectors and detector arrays; (j) geometrical and diffraction image quality; (k) throughput; (l) polarization; (m) alignment and calibration; and (n) guided wave optics.

The Contractor shall provide the personnel and facilities necessary to participate in the optical analysis aspects of an interdisciplinary Structural – Thermal – Optical (STOP) analysis task. The efforts associated with this task shall include (a) conceiving physical transformations; (b) implementing coordinate transformations; and (c) developing the interface tools (macros, etc.) to accomplish this. The Contractor shall perform subsystem, instrument and spacecraft analysis of system behavior and system error budgets and tolerances. The Contractor shall also establish component tolerances based on allowable tolerance sensitivities, performance degradation, and error budgets.

3.4 TASK 4 – INSTRUMENT SYSTEMS ENGINEERING

The Contractor shall perform studies and analyses which shall include, but may not be limited to (a) feasibility studies; (b) design/reviews; (c) margin/budget management; (d) specifications; (d) interfaces; (e) parts engineering; and (f) contamination control. These tasks require the use of a comprehensive suite of modeling, design and analysis tools, including structural/thermal/optical (STOP) analysis capability.

3.4.1 SubTask 4.1 – Alignment and Pointing Studies

The Contractor shall (a) perform three-dimensional kinematics analyses; (b) perform field view analyses to determine structural/optical interferences; (c) perform collision detection analysis to determine any mechanism interferences; (d) provide realistic visualization of such simulations as required; and (e) generate programs and recordings of such simulations for integration with other hardware and software as needed.

The Contractor shall perform studies that combine the influence of thermal environments, gravity, loading/unloading, tolerances, and structural stiffness effects on the alignment and pointing of instrument, payload and spacecraft systems, mechanisms, electromechanical devices, and instruments. Studies shall include STOP analyses. The Contractor shall also (a) evaluate the capabilities of alignment test facilities; (b) monitor tests; and (c) reduce test data.

3.4.2 SubTask 4.2 – Configuration and Systems Requirements Trade Studies

The Contractor shall perform configuration trade-off studies on instrument, payload and related spacecraft, mechanisms, and scientific instruments in launch, orbital, and landing conditions.

The Contractor shall perform studies which define (a) instrument and payload mechanical system requirements; (b) mass budgets; (c) error budgets; (d) system/subsystem requirements; (e) ground support equipment requirements; and (f) integration and test requirements.

The Contractor shall perform radiometric system studies that include the influence of optical, electro-optical, thermal, electronic, and component tolerances on radiometric error budgets.

3.4.3 SubTask 4.3 – Sub-System Engineering Review and Analysis

The Contractor shall review, evaluate, analyze, and prepare (a) mechanical design interfaces; and (b) mechanical design specifications for instrument and payload interfaces. The Contractor shall review, evaluate, and augment (a) math models; (b) structural analyses; (c) fracture control implementation; (d) thermal analyses; and (e) alignment studies. The Contractor shall participate in design reviews of structural subsystems and instruments. The Contractor shall review, analyze, and develop test plans for subsystems and instruments. The Contractor shall analyze test data and recommend appropriate modifications to hardware, math models, and test specifications or set-ups.

3.4.4 SubTask 4.4 – Instrument Related Attitude and Control Design and Analyses

The Contractor shall perform attitude control system definition, evaluation and implementation studies which shall include, but may not be limited to, incorporating the structural transfer function into the attitude and control system design, in order to analyze the effects of structural modes on control system performance and error budgets which affect the instruments and payloads.

3.4.5 SubTask 4.5 – Instrument Mission Operations and Planning

The Contractor shall perform efforts associated with instrument mission operations and planning, which shall include, but may not be limited to, (a) on-orbit instrument activation and engineering check-out; (b) spacecraft Delta-V maneuver plan and procedure development implementation; (c) instrument-related flight software update requirement definition; (d) impact review and verification; (e) operations management; (f) spacecraft subsystem performance evaluation; (g) assessment and reporting; (h) instrument and payload longevity assessment and prediction; (i) configuration management; (j) contingency planning efforts; (k) long-term instrument, payload and spacecraft component performance trending; (l) contingency procedure development; (m) special operational studies; (n) pre-launch efforts; (o) on-orbit ACS sensor calibration; (p) instrument, payload and spacecraft anomaly resolution and recovery implementation; and (q) general operational mission efforts.

3.5 TASK 5 – MECHANISMS ENGINEERING

The Contractor shall perform trade studies, analysis and development of detailed mechanisms to support instrument and experimental payload programs. The efforts associated with this task shall include, but may not be limited to, the design, modeling, analysis, development, fabrication, testing and alignment of such precision mechanisms as (a) electromechanical devices; (b) release mechanisms; (c) shutters; (d) choppers; and (e) deployment mechanisms and booms.

3.5.1 SubTask 5.1 – Design and Analysis

The Contractor shall conceive, analyze, design, develop, direct, test, and provide the required mechanical, optomechanical, electromechanical, electrical, and electronic expertise to support the development of electromechanical components and systems for flight instruments and spacecraft subsystems.

The Contractor shall analyze, design, fabricate, test, and integrate precision electromechanical systems for scanning, pointing, and tracking applications. This subtask shall include development of state of the art electronic systems to control the mechanisms.

3.5.2 SubTask 5.2 – Development, Integration and Testing

The Contractor shall verify the performance of electromechanical components and systems such as optical benches, telescopes, collimators, and antenna booms through all the stages of development from conceptual design to on-orbit testing.

3.6 TASK 6 – MECHANICAL SYSTEMS ENGINEERING

The Contractor shall perform trade studies and detailed structural and mechanical design efforts associated with instrument and experimental payload programs. The efforts associated with this task shall include the design, modeling, analysis, development, fabrication, testing and alignment of precision structures, mechanical interfaces/enclosures, and mechanisms.

3.6.1 SubTask 6.1 – Finite Element Model Analysis

The Contractor shall generate finite element models (FEMs) of instrument and payload spaceflight and related structures with primary emphasis given to the use of the NASTRAN structural analysis program. The Contractor shall utilize FEM pre- and post-processor software to aid in the development/modification, checkout and visualization of the NASTRAN models themselves, as well as the FEM analysis results.

3.6.2 SubTask 6.2 – ELV and STS Flight Loads Analyses

The Contractor shall perform preliminary or design-coupled launch vehicle/payload flight loads analyses on task specified payload configurations. Flight loads analyses include (a) lift-off, ascent, descent, and landing for the Space Transportation System (STS); and (b) launch and ascent for Expendable Launch Vehicles (ELV). The purpose of these analyses may be (a) to determine envelope preliminary design loads; or (b) to determine payload specific time-history transient flight loads. Loads parameters required may be acceleration, displacement, force, or stress. The Contractor shall perform preliminary coupled STS/payload on-orbit loads analyses on task specified payloads configurations. The Contractor shall determine (a) loads resulting from berthing of payloads to carrier structures in the orbiter cargo bay; and (b) loads due to orbiter OMS and RCS firings while the payload is berthed. Load parameters required will include acceleration, displacement, force and stress.

3.6.3 SubTask 6.3 – Stress Analysis

The Contractor shall perform hardware-related stress and margin of safety analyses of instrument and payload structures, electromechanical devices, and mechanisms. The purpose of these analyses will be (a) to size the required structural members to obtain the required strength and stiffness characteristics; and (b) to demonstrate required stress margins of safety. This subtask is a necessary prerequisite for fracture control implementation using safe-life (fracture mechanics analysis) and fail-safe approaches.

3.6.4 SubTask 6.4 – Dynamic Analysis

The Contractor shall perform selected vibration, frequency response, and vibroacoustic analyses to simulate spacecraft test and the flight event responses of instruments, payload structures, electromechanical devices and mechanisms. The required analyses shall determine the acceleration, velocity, displacement, and force response of the hardware due to random, transient, sinusoidal vibration, and acoustic environments. The Contractor shall derive equivalent test specifications from the required analyses which properly simulate dynamic flight environments.

3.6.5 SubTask 6.5 – Fracture Control

The Contractor shall develop fracture control plans for task-specified STS payloads, and shall implement approved fracture control procedures. The Contractor shall perform fracture mechanics analyses to ensure that the maximum crack size which can exist in structural elements, as determined by NDI test procedures, will not propagate to failure as a result of intended service usage. The Contractor shall perform fail-safe and containment analyses, where appropriate, to satisfy fracture control requirements. The Contractor shall also perform STS safety reviews for specific payloads, as specified in task assignments.

3.6.6 SubTask 6.6 – Mechanical Design

The Contractor shall (a) conduct conceptual and detailed mechanical design studies; (b) produce configuration layout drawings; and (c) iterate these arrangement drawings, as necessary, to satisfy mission objectives. The Contractor shall also provide conceptual designs and drawings of instruments, payload and spacecraft structures, GSE, and mechanisms (i.e., deployable booms, choppers, shutter mechanisms, aperture doors, etc.) The Contractor shall produce layout and detailed fabrication drawings of all hardware mentioned above in both conventional board and Computer Aided Design (CAD) formats.

3.6.7 SubTask 6.7 – Mechanical Drawing Checking

The Contractor shall perform detailed mechanical drawing checking in accordance with ANSI Y14.5M, Dimensioning and Tolerancing.

3.7 TASK 7-ELECTRICAL SYSTEMS ENGINEERING

The Contractor shall design, model, analyze, assemble, integrate and test instrument control and data storage subsystems. The subsystems associated with this task shall include, as a minimum, servo-controllers, electronic thermostats, and processing and memory systems.

3.7.1 SubTask 7.1 – Electrical Systems and Control

The Contractor shall conduct conceptual and detailed analytical studies for the design, optimization, and performance verification of both control systems for ground support and spaceborne thermal, mechanical, electromechanical and electronic systems. Requirements under this subtask shall include (a) the modeling of mechanical systems to produce the required transfer functions between actuators and sensors for analysis of the control system; and (b) development of transfer functions for thermal and electronics.

Further requirements under this subtask shall include, but may not be limited to, (a) analysis, design, and specification of actuators and sensors to allow feedback control systems to meet the performance specifications within imposed environmental and dimensional constraints; (b) use of classical and modern techniques in the analysis and synthesis of steady state and transient behavior of linear and nonlinear feedback systems; (c) computer processing of test data for analysis and verification of the system's performance and the extraction of control system model parameters; (d) estimation of the system's performance margins, sensitivity to parameter variations and performance in the presence of disturbances, with emphasis on the jitter resulting from the interaction between the control system and structural dynamics.

3.7.2 SubTask 7.2 – Electromagnetic and Electronic

The Contractor shall analyze, design, fabricate, test, and integrate electronic systems for the measurement and control of thermal, mechanical, and electromechanical systems.

Further requirements under this subtask shall include, but may not be limited to, the design, analysis, fabrication, testing and troubleshooting of (a) power electronic circuits for the drive and commutation of motors; (b) precision, low noise signal conditioning and interface electronics for sensors, optical encoders, and thermistors; (c) digital and microprocessor-based controllers for the implementation of command and telemetry functions; (d) embedded software for microprocessor-based systems to implement digital filtering and control algorithms in sampled data systems, perform worst-case, failure mode and performance sensitivity analysis of electronic systems to verify design suitability for the range of operational and survival temperatures and the cosmic radiation environments; (e) grounding, shielding, Electromagnetic Interference/Electromagnetic Compatibility (EMI/EMC) problems; (f) the interconnecting harness for electronic assemblies; and (g) calculation of the electromagnetic fields and the electromagnetically generated forces in electrical machinery.

3.8 TASK 8 – HARDWARE FABRICATION, INSPECTION, ASSEMBLY, INTEGRATION AND TESTING

The Contractor shall develop instrument system hardware for protoflight, flight, ground support and test applications. The hardware associated with this task shall, as a minimum, include structural components, mechanisms, electromechanical devices, electronic components, heat pipes, thermal blankets (MLI), and other devices to support Space Science Division programs.

3.8.1 SubTask 8.1 – Hardware Fabrication

The Contractor shall fabricate hardware for flight (including protoflight) and non-flight (including prototype) instruments, payloads and related spacecraft primary structures, secondary structures, instrument structures, mechanical subassemblies, components, mechanisms, electromechanical devices, and thermal flight experiments.

The Contractor shall also fabricate or otherwise provide (a) mechanical ground support equipment; and (b) special test and evaluation equipment (including electronic equipment) necessary to support the operation of all mechanical hardware.

In situations where hardware fabrication is required in a quick reaction mode and the Contractor determined to perform the task under subcontract, the Contractor shall minimize both the subcontract implementation and fabrication phases of the task.

3.8.2 SubTask 8.2 – Hardware Testing

The Contractor shall perform mechanical testing, as directed, for flight and non-flight mechanical and mechanisms hardware development efforts. The required testing shall include, but may not be limited to, performance and life testing of mechanisms and electromechanical devices. The Contractor shall provide all necessary equipment to perform the required testing of all mechanical hardware.

3.8.3 SubTask 8.3 – Hardware Inspection

The Contractor shall perform flight hardware inspections for all hardware fabricated/provided under this contract, which shall include, but may not be limited to, (a) dimensional; (b) NDE; (c) fracture control; and (d) workmanship inspections.

3.8.4 SubTask 8.4 – Hardware Protective Coatings and Multilayer Insulation

The Contractor shall (a) provide iridite, anodize, or comparable coating processes to finish metal services; (b) prime and paint surfaces, parts, and assemblies as required, and (c) provide and install multilayer insulation.

3.8.5 SubTask 8.5 – Assembly, Integration and Testing

The Contractor shall assemble, test and integrate thermal, mechanical, electromechanical, and electronic flight instruments, and optical systems and subsystems. Requirements under this subtask shall include, but may not be limited to (a) designing test sequences, establishing pass/fail criteria, and writing test procedures to characterize or verify the performance of systems under test; (b) choosing the proper transducers, instrumentation and test equipment required for the test based on the performance requirements and specified operational environment; (c) conducting the test; and (d) analyzing the test data and preparing reports summarizing the test results. The Contractor shall provide test and instrumentation capabilities to support these activities.

Further requirements under this subtask include, but may not be limited to, (a) measurement of bearing torque; (b) measurement of residual momentum; (c) modal surveys of structures and mechanisms; (d) measurement of transfer functions and transient behavior of thermal, structural, mechanical, electromechanical, and electronic components and systems; (e) life testing of electromechanical assemblies; (f) measurement of disturbance rejection and jitter performance; (g) reduction and display of test data; (h) automation of test sequences and data acquisition; (i) implementation of signal processing algorithms to identify trends; (j) extraction of modal parameters; and (k) calculation of transfer functions and power spectral densities.

4.0 CONTRACTOR REQUIREMENTS

4.1 Program Management and Control

The Contractor shall provide the leadership and management skills necessary to satisfy the objectives and requirements of this Statement of Work.

The Contractor shall appoint a Program Manager (PM) who shall have overall responsibility for the contracted effort. The PM shall be the single point of contact and interface with the Government for all matters concerning technical progress and problems, program performance, scheduling, resource coordination, and all other program related activities.

4.2 Reports, Data and Other Deliverables

The Contractor shall provide data deliverables as required under Exhibit A, DD Form 1423, Contract Data Requirements List, and all enclosures thereto. Specific requirements for all reports, data, and other deliverables may be found under attachment to Exhibit A.

4.3 Quick Response

This Contract has a Quick Response requirement. Key and resource personnel employed by the Contractor shall respond to quick response situations within 2 hours.

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 <p style="text-align: center; font-weight: bold;">SECRET</p> b. LEVEL OF SAFEGUARDING REQUIRED <p style="text-align: center; font-weight: bold;">NONE</p>	
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		<input checked="" type="checkbox"/>		a. ORIGINAL <i>(Complete date in all cases)</i>	
b. SUBCONTRACT NUMBER				DATE (YYYYMMDD) 2008/07/09	
c. SOLICITATION OR OTHER NUMBER		DUE DATE (YYYYMMDD)		b. REVISED <i>(Supersedes all previous specs)</i>	
76-0103-08				REVISION NO.	
				DATE (YYYYMMDD)	
<input checked="" type="checkbox"/>				c. FINAL <i>(Complete Item 5 in all cases)</i>	
				DATE (YYYYMMDD)	
4. IS THIS A FOLLOW-ON CONTRACT? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO. If Yes, complete the following: Classified material received or generated under <u>N00173-00-C-6011</u> <i>(Preceding Contract Number)</i> is transferred to this follow-on contract.					
5. IS THIS A FINAL DD FORM 254? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO. If Yes, complete the following: In response to the contractor's request dated _____, retention of the 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		b. CAGE CODE		c. COGNIZANT SECURITY OFFICE <i>(Name, Address, and Zip Code)</i>	
FOR RFP PURPOSES ONLY, NOT VALID FOR ACTUAL CONTRACT AWARD				N/A	
7. SUBCONTRACTOR					
a. NAME, ADDRESS, AND ZIP CODE		b. CAGE CODE		c. COGNIZANT SECURITY OFFICE <i>(Name, Address, and Zip Code)</i>	
N/A				N/A	
8. ACTUAL PERFORMANCE					
a. LOCATION		b. CAGE CODE		c. COGNIZANT SECURITY OFFICE <i>(Name, Address, and Zip Code)</i>	
N/A				N/A	
9. GENERAL IDENTIFICATION OF THIS PROCUREMENT SPACE SCIENCE DIVISION RESEARCH AND DEVELOPMENT SUPPORT.					
10. CONTRACTOR WILL REQUIRE ACCESS TO:					
	YES	NO	11. IN PERFORMING THIS CONTRACT, THE CONTRACTOR WILL:		
a. COMMUNICATIONS SECURITY (COMSEC) INFORMATION		<input checked="" type="checkbox"/>	a. HAVE ACCESS TO CLASSIFIED INFORMATION ONLY AT ANOTHER CONTRACTOR'S FACILITY OR A GOVERNMENT ACTIVITY	<input checked="" type="checkbox"/>	
b. RESTRICTED DATA		<input checked="" type="checkbox"/>	b. RECEIVE CLASSIFIED DOCUMENTS ONLY		<input checked="" type="checkbox"/>
c. CRITICAL NUCLEAR WEAPON DESIGN INFORMATION		<input checked="" type="checkbox"/>	c. RECEIVE AND GENERATE CLASSIFIED MATERIAL		<input checked="" type="checkbox"/>
d. FORMERLY RESTRICTED DATA		<input checked="" type="checkbox"/>	d. FABRICATE, MODIFY, OR STORE CLASSIFIED HARDWARE		<input checked="" type="checkbox"/>
e. INTELLIGENCE INFORMATION		<input checked="" type="checkbox"/>	e. PERFORM SERVICES ONLY		<input checked="" type="checkbox"/>
(1) Sensitive Compartmented Information (SCI)		<input checked="" type="checkbox"/>	f. HAVE ACCESS TO U.S. CLASSIFIED INFORMATION OUTSIDE THE U.S., PUERTO RICO, U.S. POSSESSIONS AND TRUST TERRITORIES		<input checked="" type="checkbox"/>
(2) Non-SCI		<input checked="" type="checkbox"/>	g. BE AUTHORIZED TO USE THE SERVICES OF DEFENSE TECHNICAL INFORMATION CENTER (DTIC) OR OTHER SECONDARY DISTRIBUTION CENTER		<input checked="" type="checkbox"/>
f. SPECIAL ACCESS INFORMATION		<input checked="" type="checkbox"/>	h. REQUIRE A COMSEC ACCOUNT		<input checked="" type="checkbox"/>
g. NATO INFORMATION		<input checked="" type="checkbox"/>	i. HAVE TEMPEST REQUIREMENTS		<input checked="" type="checkbox"/>
h. FOREIGN GOVERNMENT INFORMATION		<input checked="" type="checkbox"/>	j. HAVE OPERATIONS SECURITY (OPSEC) REQUIREMENTS		<input checked="" type="checkbox"/>
i. LIMITED DISSEMINATION INFORMATION		<input checked="" type="checkbox"/>	k. BE AUTHORIZED TO USE THE DEFENSE COURIER SERVICE		<input checked="" type="checkbox"/>
j. FOR OFFICIAL USE ONLY INFORMATION		<input checked="" type="checkbox"/>	l. OTHER <i>(Specify)</i>		
k. OTHER <i>(Specify)</i>					

12. PUBLIC RELEASE. Any information (classified or unclassified) pertaining to this contract shall not be released for public dissemination except as provided by the Industrial Security Manual or unless it has been approved for public release by appropriate U.S. Government authority. Proposed public releases shall be submitted for approval prior to release Direct Through (Specify)

COMMANDING OFFICER, NAVAL RESEARCH LABORATORY, WASHINGTON, DC 20375-5320, CODE 7602

to the Directorate for Freedom of Information and Security Review, Office of the Assistant Secretary of Defense (Public Affairs)* for review.
 *In the case of non-DoD User Agencies, requests for disclosure shall be submitted to that agency.

13. SECURITY GUIDANCE. The security classification guidance needed for this classified effort is identified below. If any difficulty is encountered in applying this guidance or if any other contributing factor indicates a need for changes in this guidance, the contractor is authorized and encouraged to provide recommended changes; to challenge the guidance or the classification assigned to any information or material furnished or generated under this contract; and to submit any questions for interpretation of this guidance to the official identified below. Pending final decision, the information involved shall be handled and protected at the highest level of classification assigned or recommended. (Fill in as appropriate for the classified effort. Attach, or forward under separate correspondence, any documents/guides/extracts referenced herein. Add additional pages as needed to provide complete guidance.)

Access to classified information is not required for the purpose of submitting a bid/proposal for this statement of work. However, prior to award of contract, the successful contractor will be required to have a SECRET facility clearance, and personnel available with final DoD granted personnel security clearances commensurate with level of access required for performance of contract.

14. ADDITIONAL SECURITY REQUIREMENTS. Requirements, in addition to ISM requirements, are established for this contract. Yes No
 (If Yes, identify the pertinent contractual clauses in the contract document itself, or provide an appropriate statement which identifies the additional requirements. Provide a copy of the requirements to the cognizant security office. Use Item 13 if additional space is needed.)

15. INSPECTIONS. Elements of this contract are outside the inspection responsibility of the cognizant security office. Yes No
 (If Yes, explain and identify specific areas or elements carved out and the activity responsible for inspections. Use Item 13 if additional space is needed.)

16. CERTIFICATION AND SIGNATURE. Security requirements stated herein are complete and adequate for safeguarding the classified information to be released or generated under this classified effort. All questions shall be referred to the official named below.

a. TYPED NAME OF CERTIFYING OFFICIAL	b. TITLE	c. TELEPHONE (Include Area Code)
VICKI CICALA	CONTRACTING OFFICER, SECURITY	(202) 767-2240/2576

d. ADDRESS (Include Zip Code)
 NAVAL RESEARCH LABORATORY
 4555 OVERLOOK AVE. SW
 WASHINGTON, DC 20375-5320

e. SIGNATURE


17. REQUIRED DISTRIBUTION

<input checked="" type="checkbox"/>	a. CONTRACTOR
<input type="checkbox"/>	b. SUBCONTRACTOR
<input checked="" type="checkbox"/>	c. COGNIZANT SECURITY OFFICE FOR PRIME AND SUBCONTRACTOR
<input type="checkbox"/>	d. U.S. ACTIVITY RESPONSIBLE FOR OVERSEAS SECURITY ADMINISTRATION
<input type="checkbox"/>	e. ADMINISTRATIVE CONTRACTING OFFICER
<input checked="" type="checkbox"/>	f. OTHERS AS NECESSARY 1226.2, 7602

WORKFORCE QUALIFICATIONS AND EXPERIENCE

It is anticipated that the following labor categories will be required under any resulting contract, including their desired qualifications.

(**) – Denotes Anticipated Key Personnel

PROGRAM MANAGER()**

Educational Requirements – The Program Manager shall, as a minimum, possess Bachelor of Science degree in engineering, mathematics, or physics from an accredited institution.

Experience - The Program Manager/Scientist shall possess a minimum of 10 years of demonstrated progressively responsible experience with a particular background in the development of aerospace hardware. The Program Manager shall (i) demonstrate supervisory/management experience suited to the requirements of this project, (ii) demonstrate the ability to successfully interact with customer management, and (iii) demonstrate aerospace hardware test activity experience.

SENIOR THERMAL ENGINEER()**

Educational Requirements – The Senior Thermal Engineer shall, as a minimum, possess a Bachelor of Science Degree in engineering, mathematics or physics from an accredited institution.

Experience – The Senior Thermal Engineer shall possess a minimum of 10 years of demonstrated experience in thermal design and thermal analysis, which shall include demonstrable experience in (i) conceptual thermal design, (ii) development of thermal analytical models, and (iii) thermal analyses of spacecraft and instruments for ELV and STS payloads. The Senior Thermal Engineer shall possess a minimum of ten years of demonstrable experience with thermal computer programs such as SINDA. The Senior Thermal Engineer shall also possess demonstrable team leadership experience for a team of at least 5 people.

THERMAL ENGINEER

Educational Requirements – The Thermal Engineer shall, as a minimum, possess a Bachelor of Science Degree in engineering, mathematics or physics from an accredited institution.

Experience – The Thermal Engineer shall possess a minimum of 5 years of demonstrated experience in Thermal design and thermal analysis, which shall include demonstrable experience in (i) development of thermal analytical models, and (ii) thermal analyses of spacecraft and instruments for ELV and STS payloads using thermal computer programs like SINDA.

SENIOR CONTAMINATION ENGINEER()**

Educational Requirements – The Senior Contamination Engineer shall, as a minimum, possess a Bachelor of Science degree in engineering, mathematics, or physics from an accredited institution.

Experience – The Senior Contamination Engineer shall possess a minimum of 5 years of demonstrated experience in contamination management and contamination analysis, which shall include demonstrable experience in (i) contamination control, (ii) requirement development, (iii) detailed environmental analysis, and (iv) contamination impact assessment of several flight systems.

CONTAMINATION ENGINEER

Educational Requirements – The Contamination Engineer shall, as a minimum, possess a Bachelor of Science degree in engineering, mathematics, or physics from an accredited institution.

Experience – The Contamination Engineer shall possess a minimum of five years of demonstrated experience in contamination management and contamination analyses, which shall include demonstrable experience in (i) contamination control requirement development, (ii) detailed environmental analysis, and (iii) contamination impact assessment. The Contamination Engineer shall also possess a minimum of three years of demonstrable experience with computer systems and contamination programs.

SENIOR INSTRUMENT OPTICAL ENGINEER()**

Educational Requirements – The Senior Instrument Optical Engineer shall, as a minimum, possess a Bachelor of Science degree in engineering, mathematics, or physics from an accredited institution.

Experience – The Senior Instrument Optical Engineer shall possess at least 10 years experience in optical design and analysis of space instruments, which shall include demonstrable experience with a variety of analytical codes for (i) optical design and analysis, (ii) wave-front propagation, (iii) multi-path configurations, (iv) stray light, and (v) analysis of interferograms.

INSTRUMENT OPTICAL ENGINEER

Educational Requirements – The Instrument Optical Engineer shall, as a minimum, possess a Bachelor of Science Degree in engineering, mathematics, or physics from an accredited institution.

Experience – The Instrument Optical Engineer shall possess at least 5 years of demonstrated experience in the optical design and analysis of space instruments, which shall include demonstrable experience with a variety of analytical codes for (i) optical design and analysis, (ii) wave-front propagation, (iii) multi-path configurations, (iv) stray light, and (v) analysis of interferograms.

SENIOR SYSTEMS ENGINEER()**

Educational Requirement – The Senior Systems Engineer shall, as a minimum, possess a Bachelor of Science degree in engineering or physics from an accredited institution.

Experience – The Senior Systems Engineer shall possess at least 10 years of demonstrated experience in the analysis and design of space flight systems, which shall include demonstrable experience in (i) component tolerancing and tolerancing sensitivity, (ii) radiometry (receivers, detectors and detector arrays), (iii) stray light/energy, (iv) alignment and calibration, (v) Structural-Thermal-Optical (STOP) analysis, (vi) system behavior, (vii) system error budgets and tolerances of subsystems, instruments and spacecraft, (viii) establishment of component tolerances based on allowable tolerance sensitivities, performance degradation, and error budgets, and (viii) RF, digital and analog circuit design and analysis.

SYSTEMS ENGINEER

Educational Requirements – The Systems Engineer shall, as a minimum, possess a Bachelor of Science degree in engineering or physics from an accredited institution.

Experience – The Systems Engineer shall possess at least 5 years of demonstrated experience in the analysis and design of space flight systems, which shall include demonstrable experience in (i) component tolerancing and tolerancing sensitivity, (ii) radiometry (receivers, detectors and detector arrays), (iii) stray light/energy, (iv) alignment and calibration, (v) Structural-Thermal-Optical (STOP) analysis, (vi) system behavior, (vii) system error budgets and tolerances of subsystems, instruments and spacecraft, (viii) establishment of component tolerances based on allowable tolerance sensitivities, performance degradation, and error budgets, and (ix) control systems and the effect of structural modes on control system performance.

QUALITY ENGINEER

Educational Requirements – The Quality Engineer shall, as a minimum, possess a Bachelor of Science Degree in engineering, physics or mathematics from an accredited institution.

Experience – The Quality Engineer shall possess at least 10 years of demonstrated experience in the aerospace industry, with demonstrated experience in (a) space flight hardware (b) experience with NASA, NRL and (c) knowledge and demonstrated skills in the application of Y14.5, ISO 9001-1994, ISO 9000-2000, AS9100, FEMA's, Risk Management and statistical process techniques. Familiarity and experience with DoD and NASA standard for reliability, quality assurance, and system safety.

SENIOR ELECTRICAL ENGINEER()**

Educational Requirements – The Senior Electrical Engineer shall, as a minimum, possess a Bachelor of Science Degree in engineering, physics or mathematics from an accredited institution.

Experience – The Senior Electrical Engineer shall possess at least 10 years of demonstrated experience in the analysis, design and development of electrical and electronic systems for space-borne applications, including hands-on work in the fabrication, ground testing and integration, and on-orbit operation of flight hardware. More specifically, the Senior Electrical Engineer shall possess demonstrable experience in (i) analysis, design and testing of analog and digital circuitry for the measurement and control of thermal and electromechanical systems using continuous or sampled data techniques, including the use of programmable logic arrays, software development and hardware interfacing in microprocessor-based systems; (ii) analysis and design of control systems,

(iii) the operation and interfacing to the spacecraft's command, telemetry and power subsystems, sensors and actuators, (iv) the design of electronic instrumentation systems from the standpoint of grounding, shielding and Electromagnetic Compatibility (EMC), (v) component ratings, performance limitation and the effects of cosmic radiation, (vi) the modeling and management of thermal effects that result from power dissipation in electrical components.

ELECTRICAL ENGINEER

Educational Requirements – The Electrical Engineer shall, as a minimum, possess a Bachelor of Science degree in engineering, physics or mathematics from an accredited institution..

Experience – The Electrical Engineer shall possess at least 5 years of demonstrated experience in the analysis, design and development of electrical and electronic systems for space-borne applications, including hands-on work in the fabrication, ground testing and integration, and on-orbit operation of flight hardware. More specifically, the Senior Electrical Engineer shall possess demonstrable experience in (i) analysis, design and testing of analog and digital circuitry for the measurement and control of thermal and electromechanical systems using continuous or sampled data techniques, including the use of programmable logic arrays, software development and hardware interfacing in microprocessor-based systems; (ii) analysis and design of control systems, (iii) the operation and interfacing to the spacecraft's command, telemetry and power subsystems, sensors and actuators, (iv) the design of electronic instrumentation systems from the standpoint of grounding, shielding and Electromagnetic Compatibility (EMC), (v) component ratings, performance limitation and the effects of cosmic radiation, (vi) the modeling and management of thermal effects that result from power dissipation in electrical components.

SENIOR ELECTROMECHANICAL SYSTEMS ENGINEER()**

Educational Requirements – The Senior Electromechanical Systems Engineer shall, as a minimum, possess a Bachelor of Science degree in engineering, mathematics or physics from an accredited institute.

Experience – The Senior Electromechanical Systems Engineer shall possess at least 10 years of demonstrated experience in the analysis and design of space flight control systems, which shall include demonstrable experience in (i) hands-on work with flight hardware at all stages of development, design, fabrication and construction, testing, qualification and on-orbit operation; (ii) control/structure interaction; and (iii) performance in the presence of jitter. The Senior Electromechanical Systems Engineer shall also possess demonstrable experience in the modeling of mechanical, electronic, electromechanical, and thermal control systems using such tools as MATLAB.

ELECTROMECHANICAL SYSTEMS ENGINEER

Educational Requirements – The Electromechanical Systems Engineer shall, as a minimum, possess a Bachelor of Science degree in engineering, mathematics, or physics from an accredited institution.

Experience – The Electromechanical System Engineer shall possess at least 5 years of demonstrated experience in the analysis and design of space flight control systems, including (i) an understanding of control/structure interaction, (ii) an understanding of performance in the presence of jitter, and (iii) hands-on experience in the modeling of mechanical, electronic, and electromechanical control systems using such tools as MATLAB.

SENIOR MECHANICAL SYSTEMS ENGINEER()**

Educational Requirements – The Senior Mechanical Systems Engineer shall, as a minimum, possess a Bachelor of Science degree in engineering, mathematics, or physics from an accredited institution.

Experience – The Senior Mechanical Systems Engineer shall possess at least 10 years of demonstrated experience in the design and testing of aerospace hardware, which shall include demonstrable experience in specific aerospace project-related design and analysis efforts for the development of spacecraft mechanical systems, and subsystems. The Senior Mechanical Systems Engineer shall also possess demonstrable team leadership experience for a team of at least 5 people.

MECHANICAL SYSTEMS ENGINEER

Educational Requirements – The Senior Mechanical Systems Engineer shall, as a minimum, possess a Bachelor of Science degree in engineering, mathematics, or physics from an accredited institution.

Experience – The Mechanical Systems Engineer shall possess at least 5 years of demonstrated experience in the analysis, design, testing, and optical alignment of aerospace hardware, which shall include demonstrable experience in specific aerospace project-related engineering efforts associated with the development of spacecraft mechanical systems.

JUNIOR ENGINEER

Educational Requirements – The Senior Mechanical Systems Engineer shall, as a minimum, possess a Bachelor of Science degree in engineering, mathematics, or physics from an accredited institution.

Experience – The Junior Engineer shall possess at least 2 years of demonstrated experience in the analysis of engineering problems.

SENIOR MECHANICAL DESIGNER

Educational Requirements – The Senior Mechanical Designer shall, as a minimum, possess a High School diploma.

Experience – The Senior Mechanical Designer shall possess at least 10 years of demonstrable experience in the design and development of aerospace hardware, which shall include (i) demonstrable experience in specific spacecraft hardware design, (ii) demonstrable detailed knowledge of current aerospace design practices and hardware, (iii) demonstrable knowledge of NASA Engineering Drawing Standards Manual (X-673-64-1), and (iv) demonstrable knowledge of Dimensioning and Tolerancing in accordance with ANSI Y14.5M.

MECHANICAL DESIGNER

Educational Requirements – The Mechanical Designer shall, as a minimum, possess a High School diploma.

Experience – The Mechanical Designer shall possess at least 5 years of demonstrable experience in the design of aerospace or related hardware, which shall include (i) demonstrable specific design experience with layout or piece part drawings, (ii) demonstrable knowledge of NASA Engineering Drawing Standards Manual (X-673-64-1), and (iii) demonstrable knowledge of Dimensioning and Tolerancing in accordance with ANSI Y14.5M.

JUNIOR DESIGNER

Educational Requirements – The Junior Designer shall, as a minimum, possess a High School diploma.

Experience – The Junior Designer shall possess at least 2 years of demonstrable experience in the design of aerospace or related hardware, which shall include (i) demonstrable specific design experience with layout or piece part drawings, (ii) demonstrable knowledge of NASA Engineering Drawing Standards Manual (X-673-64-1), and (iii) demonstrable knowledge of Dimensioning and Tolerancing in accordance with ANSI Y14.5M.

SENIOR INTEGRATION TECHNICIAN

Educational Requirements – The Senior Integration Technician shall, as a minimum, possess a High School diploma.

Experience – The Senior Integration Technician shall possess at least 10 years of experience and specialization in (i) the manufacture, integration and testing of either mechanical, electrical, thermal or mechanism instrument-related hardware. The Senior Integration Technician shall demonstrate applicable knowledge of and work experience with issues related to, but not limited to, aerospace systems, contamination and cleaning procedures, and handling and assembly of flight mechanisms and mechanical, thermal or electrical hardware. The Senior Integration Technician shall also demonstrate at least 11 years of specific discipline, aerospace experience, and demonstrable team leadership experience for a team of at least 3 people.

INTEGRATION TECHNICIAN

Educational Requirements – The Integration Technician shall, as a minimum, possess a High School diploma.

Experience – The Integration Technician shall possess at least 5 years of experience and specialization in (i) the manufacture, integration and testing of either mechanical, electrical, thermal or mechanism instrument-related hardware. The Integration Technician shall demonstrate applicable knowledge of and work experience with issues related to, but not limited to, aerospace systems, contamination and cleaning procedures, and handling and assembly of flight mechanisms and mechanical, thermal or electrical hardware. The Integration Technician shall also demonstrate at least 6 years of specific discipline and aerospace experience.

JUNIOR TECHNICIAN

Educational Requirements – The Junior Technician shall, as a minimum, possess a High School diploma.

Experience – The Junior Technician shall possess at least 2 years of experience in (i) the manufacture, integration and testing of either mechanical, electrical, thermal or mechanism instrument-related hardware. The Junior Technician shall also demonstrate at least 1 year of specific discipline and aerospace experience.

NON-DISCLOSURE AGREEMENT

I understand that in the performance of my duties under Naval Research Laboratory contract number N00173- I may have access to information of a sensitive nature including, but not limited to, other organizations' proprietary information, Government procurement sensitive information, source selection information (see Federal Acquisition Regulation 2.101, 3.104-4 and 9.505-4), personally identifiable information subject to the Privacy Act of 1974, and information designated For Official Use Only. I agree that I will access such information only to the extent necessary to perform my duties under the contract. I further agree that I will not disclose or release such information to any person, or other entity, either within or outside of the United States Government, including representatives of the organization by which I am employed, except as necessary to perform my duties under the contract or as expressly authorized in writing by the Contracting Officer.

I understand that any unauthorized disclosure or release of such information may result in the termination of my services at the Naval Research Laboratory. Criminal or civil sanctions may also apply.

In the event I disclose or release any such information described herein, I will advise the Technical Manager or the Contracting Officer's Representative (identified elsewhere in the contract) of the disclosure as soon as practicable. That advice will identify the person or other entity to which the information was disclosed or released and the content of that information.

I understand that, following completion of the contract or if my employment is terminated prior to contract completion, I have a continuing obligation not to disclose or release such information obtained there under.

I understand that my supervisor will monitor my compliance with this nondisclosure agreement.

EMPLOYEE SIGNATURE		DATE
EMPLOYEE NAME (<i>Print</i>)		
SUPERVISOR SIGNATURE		DATE
SUPERVISOR NAME (<i>Print</i>)		