

SOLICITATION, OFFER AND AWARD		1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700)		RATING DO-C9	PAGE OF PAGES 1 29
2. CONTRACT NUMBER	3. SOLICITATION NUMBER N00173-08-R-TA02	4. TYPE OF SOLICITATION <input type="checkbox"/> SEALED BID (IFB) <input checked="" type="checkbox"/> NEGOTIATED (RFP)	5. DATE ISSUED 01/02/2008	6. REQUISITION/PURCHASE NUMBER 72-9201-08	
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 1 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 4:00 PM local time 02/04/2008
(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 TOMMY R. ALBRECHT	B. TELEPHONE (NO COLLECT CALLS)		C. E-MAIL ADDRESS tommy.albrecht@nrl.navy.mil
		AREA CODE 202	NUMBER 767-3003	EXT.

11. TABLE OF CONTENTS

(X)	SEC.	DESCRIPTION	PAGE(S)	(X)	SEC.	DESCRIPTION	PAGE(S)
PART I - THE SCHEDULE				PART II - CONTRACT CLAUSES			
<input checked="" type="checkbox"/>	A	SOLICITATION/CONTRACT FORM	1	<input checked="" type="checkbox"/>	I	CONTRACT CLAUSES	13-18
<input checked="" type="checkbox"/>	B	SUPPLIES OR SERVICES AND PRICES/COSTS	2	PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACH.			
<input checked="" type="checkbox"/>	C	DESCRIPTION/SPECS./WORK STATEMENT	2-3	<input checked="" type="checkbox"/>	J	LIST OF ATTACHMENTS	18
<input checked="" type="checkbox"/>	D	PACKAGING AND MARKING	3	PART IV - REPRESENTATIONS AND INSTRUCTIONS			
<input checked="" type="checkbox"/>	E	INSPECTION AND ACCEPTANCE	3	<input checked="" type="checkbox"/>	K	REPRESENTATIONS, CERTIFICATIONS AND OTHER STATEMENTS OF OFFERORS	18-20
<input checked="" type="checkbox"/>	F	DELIVERIES OR PERFORMANCE	4	<input checked="" type="checkbox"/>	L	INSTRS., CONDS., AND NOTICES TO OFFERORS	20-27
<input checked="" type="checkbox"/>	G	CONTRACT ADMINISTRATION DATA	4-8	<input checked="" type="checkbox"/>	M	EVALUATION FACTORS FOR AWARD	27-29
<input checked="" type="checkbox"/>	H	SPECIAL CONTRACT REQUIREMENTS	8-12				

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		15C. CHECK IF REMITTANCE ADDRESS IS DIFFERENT FROM ABOVE - ENTER SUCH ADDRESS IN SCHEDULE. <input type="checkbox"/>	17. SIGNATURE	
AREA CODE	NUMBER		18. OFFER DATE	

AWARD (To be completed by Government)

19. ACCEPTED AS TO ITEMS NUMBERED	20. AMOUNT	21. ACCOUNTING AND APPROPRIATION	
22. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION: <input type="checkbox"/> 10 U.S.C. 2304(c)) <input type="checkbox"/> 41 U.S.C. 253(c) ()		23. SUBMIT INVOICES TO ADDRESS SHOWN IN (4 copies unless otherwise specified)	
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 <i>(Signature of Contracting Officer)</i>	
		28. AWARD DATE	

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

**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 provide on/off site multi-disciplinary scientific and engineering services to support the development, implementation and use of components subsystems, systems, and scientific instruments for laboratory and field experiments 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 2003)

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 the date of award through twelve (12) months thereafter, with four (4) options, each extending the period of performance an additional twelve (12) months, if exercised.
- (b) The principal place of performance of this contract shall be 80% at the contractor's facility and 20% on site at the NRL.

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 1221, (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 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
-------------------------------	----------------

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

G-5 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-6 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-7 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-8 PAYMENT AND VOUCHER INSTRUCTIONS

In accordance with the contract clause, *Electronic Submission of Payment Requests* (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	
System 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 **14,564** total hours of direct labor per year (72,820 hours for the base and all four options), 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 **1,214** 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 **annual level of effort** is as follows:

<u>Labor Category</u>	<u>Hours</u>
Deputy Program Manager	1,181
System Engineer	984
Electronics Engineer	1,574
Computer Engineer	787
Software Engineer	1,960
Senior Computer Networking Specialist	984
Mechanical Engineer	1,960
Thermal Engineer	394
Quality Assurance and Control Engineer	197
Optical Scientist	394
Imaging Algorithm Developer	1,181
Research Scientist	984

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 four 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 dated 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 INTERNATIONAL TRAFFIC IN ARMS REGULATIONS

In performing the Contract, the Contractor may gain access to or develop information or technology, the export of which is controlled under United States laws and regulations. The Contractor agrees that it is obligated to and will comply with all applicable United States laws and regulations regarding the export of information and technology before providing or disclosing (anywhere in the world) any export controlled articles, services, or information to any individual or entity (including, but not limited to, the Contractor's employees, affiliates, consultants, and subcontractors at all tiers) that is not a United States person (as defined in the ITAR). Further, the Contractor shall require that all of its affiliates, consultants, and subcontractors (at all tiers) participating in the Contract, comply with the requirements of this clause.

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)
- 52.204-2 - Security Requirements (AUG 1996)
- 52.204-4 - Printed Or Copied Double-Sided On Recycled Paper (AUG 2000)
- 52.204-7 - Central Contractor Registration (JUL 2006)
- 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 (SEP 1990)
- 52.215-2 - Audit And Records-Negotiation (JUN 1999)
- 52.215-8 - Order Of Precedence - Uniform Contract Format (OCT 1997)
- 52.215-11 - Price Reduction For Defective Cost Or Pricing Data - Modifications (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) - Alternate III (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 (SEP 2007) - Alternate II (OCT 2001)
- 52.219-16 - Liquidated Damages-Subcontracting Plan (JAN 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)
- 52.223-3 - 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 (JUL 1995)- Alternate I (APR 1984)
- 52.227-2 - Notice And Assistance Regarding Patent And Copyright Infringement (AUG 1996)
- 52.227-10 - Filing Of Patent Application- Classified Subject Matter (APR 1984)
- 52.227-11 - Patent Rights - Retention By The Contractor (Short Form) (JUN 1997)
(will be included if the successful offeror is a small business or a non-profit organization)
- 52.227-12 - Patent Rights - Retention By The Contractor (Long Form) (JAN 1997)
(will be included if the successful offeror is not a small business or a non-profit organization)
- 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 (APR 2005)
- 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)
- 52.247-1 - 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) (*fill in None*)
- 252.211-7007 - Item Unique Identification of Government Property (SEP 2007) (*fill in none*)
- 252.215-7000 - Pricing Adjustments (DEC 1991)
- 252.215-7004 - Excessive Pass-Through Charges (APR 2007)
- 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)
- 252.225-7001 - Buy American Act And Balance Of Payments Program (JUN 2005)
 - 252.225-7002 - Qualifying Country Sources As Subcontractors (APR 2003)
 - 252.225-7006 - Quarterly Reporting Of Actual Contract Performance Outside The United States (MAY 2007)
 - 252.225-7012 - Preference For Certain Domestic Commodities (JAN 2007)
 - 252.225-7013 - Duty Free Entry (OCT 2006)
 - 252.225-7016 - Restriction On Acquisition Of Ball And Roller Bearings (MAR 2006)
 - 252.225-7043 - Antiterrorism/Force Protection Policy For Defense Contractors Outside The United States (MAR 2006) (fill in : Naval Criminal Investigative Service (NCIS), Code 24, telephone, DSN 228-9113 or commercial (202)433-9113)
 - 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)
 - 252.227-7025 - Limitations On The Use Or Disclosure Of Government-Furnished Information Marked With Restrictive Legends (JUN 1995)
 - 252.227-7030 - Technical Data--Withholding Of Payment (MAR 2000)
 - 252.227-7034 - Patents--Subcontracts (APR 1984)
 - 252.227-7037 - Validation Of Restrictive Markings On Technical Data (SEP 1999)
 - 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 (MAY 2006)
 - 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)
 - 252.246-7001 - Warranty Of Data (DEC 1991)
 - 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/sizestandardstopics/>.

(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 -11 Pages, With Exhibit A - DD Form 1423, Contract Data Requirements List, 3 Pages.
- J-2** Attachment (2) - DD Form 254, Contract Security Classification Specification, Ser 075-07 Dated 11 September 2007.
- J-3** Attachment (3) – Personnel Qualifications, 3 Pages.
- J-4** 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 located at <http://heron.nrl.navy.mil/contracts/repсандcerts.htm>.

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 541712.

(2) The small business size standard is 500.

K-4 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 the following circumstances (describe in detail by attachment) 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

52.215-1	-	Instructions To Offerors- Competitive Acquisition (JAN 2004)
52.215-16	-	Facilities Capital Cost Of Money (JUN 2003)
52.222-50	-	Combating Trafficking In Persons (AUG 2007)
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 (APR 2007)
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 3230

RFP No. N00173-08-R-TA02 Closing Date: 18 December 2007 Time: 4:00 pm

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 USE (SEP 1990)

Any contract awarded as a result of this solicitation will be a DX rated order; DO rated order certified for national 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 in Section L-12, Volume II- Business Proposal. More detailed information may be required and will be requested if and when it is deemed necessary for the 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 type contract resulting from this solicitation.

L-6FAR 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	Basis for	Asserted Rights	Name of Person Asserting
---	-----------	-----------------	--------------------------

With Restrictions*	Assertion **	Category ***	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 GOVERNMENT-FURNISHED PROPERTY

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

L-10 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*. Offerors are cautioned against directing any questions concerning this RFP to technical personnel at the Naval Research Laboratory.

L-11 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-12 VOLUME I - TECHNICAL/MANAGEMENT PROPOSAL

REQUIRED COPIES: 1 ORIGINAL AND 1 COPY AND 1 DISK. Offerors are encouraged to submit an electronic copy of their proposal on a CD ROM or PC formatted disk in addition to their paper copies. This is in an effort to further the Government's ambitious of operating in a paperless environment.

(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:

PERSONNEL QUALIFICATIONS

The proposer should provide convincing evidence that the company has, or has the ability, to obtain personnel with relevant experience in the scientific and technical areas described in the Statement of Work. These areas are highly specialized fields and personnel without actual experience in these areas are not acceptable. It is essential for the offeror to demonstrate that key personnel will be capable of obtaining a SECRET clearance. The proposal should specify the amount of effort each person will be performing on this contract, both by the prime contractor as well as any proposed subcontractors. The proposal should also provide the names, titles, experience, and qualification briefs of the personnel the offeror intends to assign to this contract. This section should include: description of key personnel, program functions, responsibilities, authority and rationale for

assignment; education; length of experience; technical qualifications; previous assignments; current security clearance; percent dedication of work time of the key personnel assigned to the contract; plan for retention of key personnel throughout the program and a plan to acquire needed key personnel, if necessary. Key personnel are defined as functional supervisors and journeyman level professionals including subcontract personnel and consultants.

CORPORATE EXPERIENCE

The demonstrate that the Contractor has experience in performing projects requiring scientific and technical effort which is closely similar or related to the scientific and technical efforts set forth in the Statement of Work. The proposal should provide applicable contract numbers, nature of the effort, deliverables, periods of performance and levels of effort supplied.

MANAGEMENT APPROACH

The proposed management approach section should demonstrate the offerors approach to organize the support required by the Statement of Work (SOW) into a cohesive and integrated effort that is responsive and at the same time does not encourage duplication of effort and overlap. It is essential for the offeror to demonstrate that it will be capable of obtaining a SECRET facility and SECRET storage capabilities. The offeror shall provide a description of his corporate organization and how the proposed project organization will be integrated into the overall structure, as well as the specific lines of authority, communications and reporting.

PAST PERFORMANCE

(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 contracts or subcontracts completed by the offeror or predecessor companies during the past two years for services similar in nature to this requirement. Include in the three 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-13 VOLUME II - BUSINESS PROPOSAL

REQUIRED COPIES: 1 ORIGINAL AND 1 COPY AND 1 DISK. Offerors are encouraged to submit an electronic copy of their proposal on a CD ROM or PC formatted disk in addition to their paper copies. This is in an effort to further the Government's ambitious of operating in a paperless environment.

(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 offerors provide one copy of their cost proposal on a PC formatted disk or CD Rom using software that is compatible with Microsoft Excel Version 5.
- c) The following travel and material estimates are for evaluation purposes only. The government estimates that the travel and material costs for this effort to be as shown in the matrix below:

	Base Term	Option 1	Option 2	Option 3	Option 4
Materials	\$350,000	\$350,000	\$350,000	\$350,000	\$350,000
Travel	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000

Please note that all offers will be evaluated using the estimated amounts provided above plus applicable indirect costs.

(2) SMALL BUSINESS PARTICIPATION

(a) In addition to complying with the clause at FAR 52.219-9, Small Business Subcontracting Plan (JAN 2002) 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 technical subfactors are listed in descending order of importance with Personnel Qualifications being significantly more important than the remaining three technical subfactors.

M-2-1. TECHNICAL/MANAGEMENT

(1) PERSONNEL QUALIFICATIONS

The proposal will be evaluated on the offeror's demonstrated ability to provide personnel with: (1) the appropriate qualifications as set forth in Enclosure (1) of the Statement of Work; (2) actual relevant experience in the technical and scientific areas set forth in the Statement of Work; and (3) the ability to obtain a SECRET clearance of key personnel prior to commencing work.

The contractor will be evaluated on the demonstrated experience, education and qualifications of the personnel proposed for this effort (to include the following: description of key personnel, program functions, responsibilities, authority and rationale for assignment. Key personnel are defined as functional supervisors and journeyman level professionals including subcontract personnel and consultants, education, length of experience, technical qualifications, previous assignments, current security clearance, percent dedication of work time of the key personnel, plan for retention of key personnel, plan to acquire needed personnel if necessary).

(2) CORPORATE EXPERIENCE

The proposal will be evaluated on the offeror's demonstrated company experience in performing projects requiring scientific and technical effort which is closely similar or related to the scientific and

technical efforts set forth in the Statement of Work. Experience based on contracts supporting similar efforts will be given the greatest consideration. Specifically, the offeror will be evaluated on the items/tasks performed, extent of involvement (prime vs. subcontractor), depth of experience, and utilization of subcontractor technical support vs. in-house technical support. The contractor will also be evaluated on his recent corporate experience performing activities similar or related to those activities specified in the SOW.

(3) MANAGEMENT APPROACH

The offeror will be evaluated on his proposed management organization that will accomplish the proposed support effort and how those tasks relate to his existing organization (specifically, the offeror will be evaluated on the following areas: the assessment and control of the effort by the offeror's higher level management, the lines of management responsibility within the proposed program organization, between Navy project management and the offeror's program management and between the offeror's project organization and his subcontractor(s), and the Project Manager's authority to act and commit corporate resources). The proposal will also be evaluated on the offeror's ability to obtain a SECRET facility clearance and SECRET storage capabilities.

(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

(a) 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

1.0 INTRODUCTION

The Remote Sensing Division, NRL Code 7200, has an active program of research in the remote sensing, modeling and scientific analysis of the Earth's atmosphere and ocean and land surfaces. The Division designs, tests and operates space-based, air-based and surface-based sensors, and develops new remote sensing capabilities and new ways of analyzing data. Current projects include: spectral imaging for the remote sensing of coastal water and of land surfaces; passive polarimetric microwave sensing of the ocean surface (*Windsat*, *APMIR*, and follow-on sensors); passive NUV, VIS NIR and passive microwave sensing of the atmosphere; SAR; radio, IR and optical astronomy; lidar sensing of the atmospheric boundary layer; passive sensing of direct and diffuse near-surface sunlight; and laboratory and field studies of aerosols, foam and bubbles, and fluid flow. The Division performs modeling, field and laboratory experiments, calibrates and validates sensors, carries out feasibility studies, and performs simulations and scientific analyses.

2.0 SCOPE

The purpose of this Statement of Work (SOW) is to acquire scientific and engineering R&D services to support the Remote Sensing Division's (RSD) formulation, design, development, fabrication, integration, testing, verification, operation, and data analysis of laboratory, field and spaceflight and ground system hardware and software, including the development and validation of technologies to enable future science missions. Tasks may range from supporting mission concept design and feasibility analyses through to the laboratory, in-field or flight (including on-orbit operation) of deployed systems, the analysis of engineering data obtained from them, and the development and operation of algorithms for analyzing data. To this end, the Contractor shall provide on/off-site multi-disciplinary scientific and engineering services to support the development, implementation and use of components, subsystems, systems, and scientific instruments for NRL laboratory and field experiments. (In this context, "field experiments" shall be interpreted to include ground-based experiments, in-water experiments, experiments on spacecraft, and experiments on suborbital craft such as UAVs, balloons, and aircraft.) Hardware to be developed may include instruments, Ground Support Equipment (GSE), simulators, non-flight models and prototypes.

Services may include feasibility studies, systems definition studies; systems engineering; analysis; preliminary and detailed design; fabrication; assembly; integration and test; instrument integration, validation and calibration; test instrumentation; laboratory and field operation of equipment; research and technology unique to the intended use; phenomenology; data reduction; documentation; maintenance; sustaining engineering; configuration management; system safety, reliability, and quality assurance (SR&QA); architectural trades; performance, cost, and risk assessment; and the development of algorithms for analyzing data from instruments that were not developed under this SOW.

The Contractor shall provide technical and scientific support within the scope of this SOW. Task deliverables will consist of scientific and engineering services, any instruments or mounts that are fabricated under this SOW, and documentation and data as defined by the Contract Data Requirements List (CDRL) of the base contract. The tasks shall involve activities both on-site (at NRL) and off-site, and may require extensive travel.

The Contractor shall provide the requisite components for any deliverable instruments and mounts that are developed and fabricated under this SOW, and shall be responsible for obtaining the use of any requisite software tools, assembly and test equipment, and packaging needed for providing those instruments and mounts to NRL or to a third party designated by NRL.

3.0 REQUIREMENTS

The Contractor shall perform work assignments and provide all necessary personnel and facilities to accomplish the work described below. Facilities will be provided by the Government for field or laboratory experiments, and for integrating equipment developed under this SOW onto mobile platforms, and for operating it on mobile platforms. Task-associated support shall be provided for mechanical, thermal, electronic, and related advanced hardware and software development, along with the integration and testing of advanced subsystems on designated host platforms, and for the development and application of scientific algorithms. The contractor shall provide technical support for concept and feasibility studies; requirement definition; subsystem and payload design and development; integration and test; and laboratory, field, and in-flight (including on-orbit) or in-water operation of the systems developed under this SOW.

3.1 General Requirements

The contractor shall provide management oversight to deliver the services and products described herein. The contractor shall provide the logistics, procurement resources, and facilities necessary to purchase, control, and report on the equipment, materials, supplies, software, and services required for the performance of the efforts defined herein. The contractor shall support user communities by arranging for equipment demonstrations and tests; configuration and acquisition of new systems; and by providing day-to-day user support. The contractor shall be capable of providing and staffing facilities for the fabrication, test, and storage of unique fixtures and support equipment. To accomplish the work, the contractor shall have (i) office space and meeting facilities within the Washington, DC locale; (ii) document duplication and facsimile transmission resources; (iii) graphic and documentation reproduction resources; and (iv) internet connectivity. Contractor personnel shall have the capability to interact with NRL's technical and management staff on a daily basis. The contractor may subcontract a portion of the efforts defined within this SOW to provide the expert talent needed to perform planning, special studies, design, analysis, development, test, integration, and documentation. The contractor shall obtain the concurrence of the COR before subcontracting any effort defined within this SOW. Because the successful performance of this SOW requires close coordination, meetings, and interaction with NRL, Government, military, academic, and private sector organizations, the contractor shall establish the appropriate non-disclosure agreements to ensure acceptable interface support. The tasks may result in scientific and/or technical publications. Documentation generated by the contractor and/or its subcontractors (e.g., notebooks, reports, memoranda, presentation materials, technical papers, software simulations, and analytical models) that are not submitted as a contract data deliverable shall be made available to NRL upon COR request. Any designs, technical data files and software generated in the course of this activity shall be delivered to the Government in computer readable form upon request, and shall not be considered proprietary. Upon request, numerical data shall be provided in a form that can be read by programs written in FORTRAN, C, C++, and IDL. The contractor shall perform technical writing and editing tasks for the design, development, and specification of space and ground hardware and software systems, ground support equipment (GSE), payload and launch processing, and flight operations. These tasks shall include the following types of documents: analysis and trade studies; design specifications and ICDs; test plans, procedures, and reports; parts lists; drawing packages describing the system baseline; and operating procedures. The contractor shall deliver documentation on electronic media, and, when required, also in hard copy form.

The contractor shall provide for the creation of illustrations, drawings, and other graphic material required by various programs, studies, proposals, or technical presentations.

As directed by the COR, the contractor shall compose technical summaries and reports of surveys, investigations, or fact-finding efforts for tasks performed under this SOW. The contractor shall describe documents or information reviewed or referenced; organizations contacted; efforts undertaken; key progress and accomplishments, problems, or findings; and appropriate recommendations, conclusions, and action items taken. The contractor shall conduct research into new and emerging technologies and shall produce reports documenting their features and applicability to ongoing NRL programs. The contractor shall participate in the development and production of proposals for new programs of opportunity that may include special study and research programs.

The contractor shall provide the personnel and material resources and support SRRs, PDRs, CDRs, TRRs, and other required technical reviews. The contractor shall participate and present technical reviews on the recommended designs, along with other conclusions and results. The contractor shall prepare technical review data packages. The contractor shall participate in periodic and informal working group meetings and discussions held at the direction of NRL.

The contractor shall perform those tasks necessary to develop and refine the requirements and performance of approved system concepts and their segments. The contractor shall perform and document system analyses, trades, and alternatives. The contractor shall show how performance and cost vary with design alternatives. The contractor shall perform studies, analyses, and simulations that demonstrate system compliance with the system specs, interface control documents (ICDs), specifications of allowed materials, and the CONOPS. The contractor shall identify technology drivers that, if relaxed, would reduce cost and schedule, and offer alternatives allowing costs to remain within the program's objectives. The contractor shall prepare Segment Specification(s) and ICDs defining the requirements among the system segments. Specific contractor activities shall include: definition of system and subsystem level requirements; system specs, and specifications of allowed materials; and presentation of the appropriate analyses, trade studies, top level system, segment, and subsystem designs, test plans, critical parts and materials lists, and lists of long-lead parts. The contractor shall verify (by, e.g., test and evaluation, simulation and modeling, examination) that the system meets its performance requirements.

The contractor shall provide Quality Assurance and Quality Control (QA/AC). The contractor shall identify potential risks and formulate a risk management plan. The contractor shall perform thermal analyses and provide corrective plans where required. The contractor shall conduct in-depth analyses and collaborate with the designated mechanical, electrical, and software engineers to identify both documented and undocumented requirements and shall provide for technical writing, editing, and production of the resultant information. The contractor shall recommend and prepare the plans needed to transition systems concepts to the next stage of development.

The contractor shall recommend and develop cost-effective, tailored project-level Safety, Reliability, and Quality Assurance (SR&QA) requirements for NRL review and concurrence. The contractor shall apply safety engineering and safety management principles, criteria, and techniques to optimize safety and enhance mission effectiveness. System safety activities shall stress early hazard identification, evaluation, and elimination or reduction of residual risk to preclude system damage or destruction and injury to personnel. The system safety program shall use NRL-specified guidelines. The contractor shall support the development of reliability, quality, and inspection system provisions that emphasize verification by test at the subsystem and system level. The quality assurance (QA) program shall include policies, requirements, and activities during the design, fabrication, test, and delivery of laboratory, field or flight hardware. The contractor shall provide a reliability assurance program during the design, fabrication, test, and delivery of flight hardware. The contract shall perform or review Failure Modes and Effects Analyses. The contractor shall support a cost effective Parts, Materials, and Processes control program that includes the selection, qualification, acquisition, and correct application of parts and material for items developed under this SOW. The contractor shall perform contamination control planning, analysis, assessment, and reporting to support the development of laboratory, field or flight instruments. The contractor shall plan and support the conduct of a verification program that includes functional verifications, performance tests, and end-to-end systems tests, in specific operational modes over the anticipated environment. The tests shall include laboratory, field or flight software operational sequences, and shall address EMC and Electromagnetic Interference (EMI). Flight hardware tests shall also address thermal-vacuum, dynamics, and natural space environments. The contractor shall provide test plans, traceability matrices, and verification databases.

The Contractor shall provide scientific expertise, engineering test support, materials, and supplies for NRL scientists and engineers performing special calibrations, and for reducing the resultant data sets. The Contractor shall develop and maintain documentation to implement calibration requirements.

The contractor shall provide engineering services to test, mount and integrate instruments, whether GFE or developed under this SOW, to their intended fixed or mobile host platform. The contractor shall assist NRL to establish requirements for environmental test of specific experiments, payloads, and subsystems, including mechanical and electrical experimental and functional testing, along with corrective actions where necessary. The contractor shall develop test plans and procedures for the integration and test of experiments, payloads, and subsystems into an operational payload at NRL or other NRL-designated facilities. The contractor shall assist NRL to perform system level environmental and functional testing, along with corrective actions where necessary. The contractor shall support integration and test activities including, but not limited to, natural environmental stresses (e.g., thermal, vacuum), EMC, shock and vibration, and calibration. The contractor shall document the results of subsystem and system level testing. The contractor shall provide software development for the hosted systems, independent verification and validation (IV&V), and testing support. The contractor shall provide scientific expertise, engineering test support, and supplies for scientists and engineers performing special instrument and payload tests, and for reducing the resultant data sets. The contractor shall design, procure, fabricate, assemble, test, calibrate, and maintain specialized laboratory equipment, instrumentation, GSE, and facilities to support the integration and test activity. The contractor shall not endanger instrument health and cleanliness during integration and test.

The contractor shall provide engineering expertise and technical support for the design, development, fabrication, assembly, and test of thermal control systems for selected instrumentation produced under this SOW or for selected GFE. The contractor shall support both active and passive thermal systems in the specification and modeling of thermal environments; developing conceptual designs; selecting heat pipes using capillary pumped loop (CPL) and other related systems; performing design verification tests; fabricating multilayer insulation (MLI) blankets; selecting and applying environmental covers, shields, and coatings; performing environmental testing; and documenting system tests.

The contractor shall perform analysis, trade studies, detailed design, and implementation of electro-mechanical and electro-optical devices, components, and subsystems. The contractor shall perform analysis, trade-off studies, detailed design, and implementation for optical devices, components, and subsystems. These efforts shall include component designs, models, test, evaluation, and calibration of optical sensors to determine their adequacy to meet mission requirements.

Ground Support Equipment (GSE) will be needed for characterizing the operation and performance of instrumentation under ambient and stressing conditions, whether that instrumentation is GFE or is developed under this SOW. The contractor shall design, acquire, modify, and adapt GSE to support payload integration and test. Typical GSE elements will include: electronics for command, control, and data acquisition, and associated interfaces; support structures; wiring harnesses; and supporting design support systems.

The Contractor shall provide engineering test support and supplies for the integration of flight instruments and experimental payloads with the appropriate host platform or vehicle. The Contractor shall provide post-integration (both pre-launch and post-launch) instrument support.

3.2 Specific Tasks

Specific tasking shall depend on programmatic need and on the availability of funding. Some tasks will have fallow periods. The cumulative list of tasks is expected to include the following, and similar tasks.

3.2.1 Task 1— Program Management

The contractor shall provide a single point-of-contact Program Manager (PM) for SOW technical and procedural matters for this contract. The PM shall be cognizant of SOW technical elements and shall be responsible for the management of tasks conducted under this SOW. The PM shall interface with the COR, and as necessary, with other Government Representatives and contractors. The PM shall oversee the efforts of on-site contractor personnel, and shall ensure that tasks are performed according to SOW requirements. The contractor shall provide a Monthly contractor On-Site Labor Report and a Monthly Financial Status Report. The PM shall ensure that required documents and deliverables are properly prepared and delivered. [CDRL A001, A002, A003, A004, A005, A006]

3.2.2 Task 2 – PCU and GSE for HREP

HREP (the HICO-RAIDS Experiment Payload) is a combination of two instruments, the Hyperspectral Imager for the Coastal Ocean (HICO), and the Remote Atmospheric and Ionospheric Detection System (RAIDS). HREP will be attached to the Japanese Experiment Module – Exposed Facility (JEM-EF) on the International Space Station (ISS). It will be carried to the JEM-EF by the HTV (the Japanese H-2 Transfer Vehicle) spacecraft.

The Contractor shall design, fabricate, test, and deliver the Payload Control Unit (PCU) and Ground Support Equipment (GSE) for HREP. The contractor shall also participate in PCU and GSE related activities during pre-launch integration of HREP to the HTV, and shall participate in troubleshooting during the on-orbit commissioning and operation of HREP.

This task is expected to require the following types of support: Systems engineering, Electronics engineering, Computer engineering, Software engineering, Thermal engineering, and QA/QC Engineering.

The contractor shall support the coordination, planning, communication and execution of key experiment project events that include: System Requirements Review (SRR), Preliminary Design Review (PDR), Critical Design Review (CDR), Test Readiness Review (TRR), Technical Interchange Meetings (TIM), Launch Readiness Review (LRR), and Safety Reviews. The contractor shall provide periodic technical and progress reports that establish event status and that demonstrate the progress to-date. The contractor shall reproduce and distribute technical documents and engineering drawings, and provide for the coordination, production, and delivery of review material. The contractor shall maintain timely and current status information and shall interface with the cognizant NRL scientists and engineers to handle Action Items. [CDRL A002, A003, A005, A006]

3.2.3 Task 3 – Hyperspectral Imager for the Coastal Ocean (HICO)

The Hyperspectral Imager for the Coastal Ocean (HICO) will be one of two instruments that will comprise the HREP, described above. The contractor shall provide Electronic, Mechanical and Software Engineering support for HICO. [CDRL A002, A003, A005, A006]

3.2.4 Task 4 – Passive Microwave Remote Sensing of Sea and Land Surfaces

The *WindSat* passive microwave radiometer measures brightness temperatures at vertical and horizontal polarizations centered on 5 atmospheric window frequencies between 6 and 37 GHz, and is fully polarimetric at three of

these frequencies. The primary objective of WindSat is to demonstrate the feasibility of using passive microwave polarimetry to measure the ocean surface wind vector, as well as other geophysical parameters including sea surface temperature, columnar cloud liquid water, and columnar precipitable water.

APMIR is an airborne passive microwave polarimeter used for calibrating and validating the WindSat measurements and models. WindSat is also serving as a pathfinder for the MIS instruments on future NPOESS platforms. The Contractor shall provide mechanical engineering, software development, algorithm development and calibration/validation support for space-based and airborne passive polarimetric microwave remote sensing of the ocean and land surface, including – but not restricted to – the space-based Windsat and the airborne APMIR experiments.

Support for WindSat and APMIR shall also include: maintenance of software to decode the raw telemetry; development of software to associate geolocation and time with radiometry, to convert raw radiometric signals to antenna temperatures, and to compute Faraday rotation; maintenance and further development of software to correct the antenna temperatures to brightness temperatures, to collocate the brightness temperatures, and to reduce them to common resolutions; continued development, validation and documentation of the ocean wind vector retrievals; development, validation and documentation of land and ice retrieval algorithms; support of software integration, configuration management and in-house data processing activities; and modeling and scientific analysis of the data, including ocean wave, foam and bubble processes that affect the measured signals. The retrieval algorithms shall incorporate physics-based forward model algorithms that include state-of-the-art ocean models and radiative transfer in the coupled ocean-atmosphere system. The Contractor shall be responsible for designing, implementing and maintaining strict configuration management for all aspects of the evolving software and algorithms, for performing routine processing of the WindSat data in real time, and for making results available to NRL's NOAA collaborators and to the contractors supporting other Navy organizations.

During the last three option years this task may include the development of forward models and inversion algorithms for MIS.

[CDRL A002, A003, A005, A006]

3.2.5 Task 5 – Synthetic Aperture Radar

Synthetic Aperture Radar (SAR) and Interferometric Synthetic Aperture Radar (ISAR) techniques are being used to measure radar backscatter from the ocean surface. The radars are mounted on both ground-based and airborne platforms.

The contractor shall supply Mechanical engineering services for the radar mounts. [CDRL A002, A003, A005, A006]

3.2.6 Task 6 – Fluid Flow Phenomena

The Contractor shall perform laboratory and field experiments and modeling and analysis to study fluid flow phenomena in the oceans and other natural bodies of water, and in laboratory test tanks. [CDRL A002, A003, A005, A006]

3.2.7 Task 7 – Atmospheric Boundary Layer Sensing and Processes

The Contractor shall perform laboratory and field experiments to develop lidar techniques for remotely sensing the atmospheric boundary layer, and shall develop forward and inverse algorithms for modeling and analyzing data from such measurements. Laboratory work shall be performed at NRL/DC and at the Chesapeake Bay Detachment (CBD), using NRL equipment. Field experiments shall be performed at CBD and on Navy boats and ships.

The Contractor shall design and fabricate mechanical equipment and optical supports to aid the development of a portable eye-safe lidar for characterizing aerosols and winds in urban areas, using NRL supplied materials and tools.

[CDRL A002, A003, A005, A006]

3.2.8 Task 8 – Aerosol and Cloud Processes

The Contractor shall test, improve and extend computer models of marine aerosols and clouds, and shall perform laboratory and field measurements to obtain data for comparing with the models.

The Contractor shall perform field measurements of aerosol and cloud processes and of the effects of aerosols and clouds on natural and artificial optical radiation. The field measurements shall include surface measurements of sky radiance and direct solar irradiance.

The Contractor shall develop models and perform process studies to develop and evaluate algorithms for the future APS and VIIRS instruments on NPOESS and NPP.

[CDRL A002, A003, A005, A006]

3.2.9 Task 9 – Upper Atmospheric Remote Sensing

The contractor shall participate in the optical, electronic, mechanical and thermal design of instruments, and associated support equipment, for space-based, airborne and ground-based Instruments for remotely sensing the atmosphere above the atmospheric boundary layer, including the upper troposphere, stratosphere, mesosphere, and ionosphere. Where warranted, the contractor shall fabricate, test and calibrate the instruments and/or support equipment, integrate them to their host platforms or vehicles, and operate them. [CDRL A002, A003, A005, A006]

3.2.10 Task 10 – Radio Astronomy

The contractor shall participate in the optical, electronic, mechanical and thermal design of instruments, and associated support equipment, for space-based, airborne and ground-based Instruments for radio astronomy. Where warranted, the contractor shall fabricate, test and calibrate the instruments and/or support equipment, integrate them to their host platforms or vehicles, and operate them. [CDRL A002, A003, A005, A006]

3.2.11 Task 11 – IR Astronomy

The contractor shall participate in the optical, electronic, mechanical and thermal design of instruments, and associated support equipment, for space-based, airborne and ground-based Instruments for infrared (IR) astronomy. Where warranted, the contractor shall fabricate, test and calibrate the instruments and/or support equipment, integrate them to their host platforms or vehicles, and operate them. [CDRL A002, A003, A005, A006]

3.2.12 Task 12 – Optical Astronomy

The contractor shall participate in the optical, electronic, mechanical and thermal design of instruments, and associated support equipment, for space-based, airborne and ground-based Instruments for optical astronomy. Interferometric image synthesis instruments will be the primary emphasis. Where warranted, the contractor shall fabricate, test and calibrate the instruments and/or support equipment, integrate them to their host platforms or vehicles, and operate them. [CDRL A002, A003, A005, A006]

4.0 CONTRACT DELIVERABLES

The Contractor shall provide deliverables in accordance with Exhibit A, DD1423, Contract Data Requirements List. All documents shall be delivered in electronic form, but, when requested by NRL, documents to be distributed at program reviews shall also be provided in hardcopy form, in sufficient quantity for distribution to the attendees.

CONTRACT DATA REQUIREMENTS LIST
(2 Data Items)

Form Approved
OMB No. 0704-0188

The public reporting burden for this collection of information is estimated to average 220 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the Department of Defense, Executive Services Directorate (0704-0188). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please do not return your form to the above organization. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.

A. CONTRACT LINE ITEM NO. ALL	B. EXHIBIT A	C. CATEGORY: TDP _____ TM _____ OTHER _____
---	------------------------	---

D. SYSTEM/ITEM	E. CONTRACT/PR NO. 72-9201-08	F. CONTRACTOR
-----------------------	---	----------------------

1. DATA ITEM NO. A001	2. TITLE OF DATA ITEM Monthly Cost Report	3. SUBTITLE
---------------------------------	---	--------------------

4. AUTHORITY (Data Acquisition Document No.)	5. CONTRACT REFERENCE SOW Para. 4	6. REQUIRING OFFICE NRL Code 7227 (COR)
---	---	---

7. DD 250 REQ LT	9. DIST STATEMENT REQUIRED	10. FREQUENCY Monthly	12. DATE OF FIRST SUBMISSION A+ 45 days	14. DISTRIBUTION		
8. APP CODE		11. AS OF DATE Award Date	13. DATE OF SUBSEQUENT SUBMISSION C+ 15 days	a. ADDRESSEE		b. COPIES
				Draft	Final	
					Reg	Repro

16. REMARKS The contractor shall provide a Monthly Cost Report to the COR and to the other addressees listed in Block 14 of A001 in the CDRL. The report shall include all current and cumulative labor expenditures. For each on-site and off-site contractor or subcontractor employee working on the contract the report shall list the person, hours worked on- and off-site, and the cost for on-site and off-site work. For materials and other direct costs the Report shall indicate: description of item ordered, task supported by the order, cost; or, in the case of travel: traveler's name, destination, dates of travel, task supported by the trip, cost.	Code 7227 (COR)		1		
	Code 7202.2			1	
	15. TOTAL →	0	1	1	

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

1. DATA ITEM NO. A002	2. TITLE OF DATA ITEM Quarterly Progress Report	3. SUBTITLE
---------------------------------	---	--------------------

4. AUTHORITY (Data Acquisition Document No.)	5. CONTRACT REFERENCE SOW Para. 4	6. REQUIRING OFFICE NRL Code 7227 (COR)
---	---	---

7. DD 250 REQ LT	9. DIST STATEMENT REQUIRED	10. FREQUENCY Quarterly	12. DATE OF FIRST SUBMISSION End 1st Qtr	14. DISTRIBUTION		
8. APP CODE		11. AS OF DATE End Cal Qtr	13. DATE OF SUBSEQUENT SUBMISSION Quarterly	a. ADDRESSEE		b. COPIES
				Draft	Final	
					Reg	Repro

16. REMARKS The contractor shall provide a Quarterly Progress Report to the COR and to the other addressees listed in Block 14 of A002 in the CDRL. This shall report technical progress during the quarter, summarize any problems or concerns, highlighting those for which Government assistance or guidance is desired, and note any anticipated deviation from the Contractor's previous plans for achieving scientific and technical objectives, including any change in key personnel.	Code 7227 (COR)		1		
	Code 7202.2			1	
	15. TOTAL →	0	1	1	

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

G. PREPARED BY 7227	H. DATE 8/30/07	I. APPROVED BY	J. DATE
-------------------------------	---------------------------	-----------------------	----------------

CONTRACT DATA REQUIREMENTS LIST
(2 Data Items)

Form Approved
OMB No. 0704-0188

The public reporting burden for this collection of information is estimated to average 220 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the Department of Defense, Executive Services Directorate (0704-0188). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please do not return your form to the above organization. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.

A. CONTRACT LINE ITEM NO. ALL	B. EXHIBIT A	C. CATEGORY: TDP _____ TM _____ OTHER _____
---	------------------------	---

D. SYSTEM/ITEM	E. CONTRACT/PR NO. 72-9201-08	F. CONTRACTOR
-----------------------	---	----------------------

1. DATA ITEM NO. A003	2. TITLE OF DATA ITEM Final Report	3. SUBTITLE
---------------------------------	--	--------------------

4. AUTHORITY (Data Acquisition Document No.)	5. CONTRACT REFERENCE SOW Para. 4	6. REQUIRING OFFICE NRL Code 7227 (COR)
---	---	---

7. DD 250 REQ LT	9. DIST STATEMENT REQUIRED	10. FREQUENCY Once	12. DATE OF FIRST SUBMISSION C+ 90 days	14. DISTRIBUTION		
8. APP CODE		11. AS OF DATE Contr. End	13. DATE OF SUBSEQUENT SUBMISSION N/A	a. ADDRESSEE		b. COPIES

16. REMARKS The contractor shall provide a Final Report to the COR and to the other addressees listed in Block 14 of A003 in the CDRL. The report shall concisely but comprehensively summarize the technical and scientific objectives, findings and recommendations for the entire contract period.	15. TOTAL → 0 1 1
---	--------------------------

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

1. DATA ITEM NO. A004	2. TITLE OF DATA ITEM Contractor Labor Report	3. SUBTITLE
---------------------------------	---	--------------------

4. AUTHORITY (Data Acquisition Document No.)	5. CONTRACT REFERENCE	6. REQUIRING OFFICE NRL Code 7227 (COR)
---	------------------------------	---

7. DD 250 REQ LT	9. DIST STATEMENT REQUIRED	10. FREQUENCY Monthly	12. DATE OF FIRST SUBMISSION A+ 45 days	14. DISTRIBUTION		
8. APP CODE		11. AS OF DATE Award Date	13. DATE OF SUBSEQUENT SUBMISSION C+ 15 days	a. ADDRESSEE		b. COPIES

16. REMARKS The contractor shall provide a Labor Report to the COR and to the other addressees listed in Block 14 of A004 in the CDRL, no later than 15 days after the end of each of the contractor's accounting periods. The Labor Report shall include at least the following data: Reporting Period, Contract Number, Contract Value, Current Funding, Amount Expended During the Current Period, Total Expended to Date, Date Submitted, Labor Hours and Burdened Cost for each on-site and off-site contractor or subcontractor employee working on the contract, including labor, travel, and ODC.	15. TOTAL → 0 1 1
---	--------------------------

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

G. PREPARED BY 7227	H. DATE 8/30/07	I. APPROVED BY	J. DATE
-------------------------------	---------------------------	-----------------------	----------------

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>	DATE (YYYYMMDD)	
	b. SUBCONTRACT NUMBER		b. REVISED <i>(Supersedes all previous specs)</i>	REVISION NO.	DATE (YYYYMMDD)
<input checked="" type="checkbox"/>	c. SOLICITATION OR OTHER NUMBER 72-9201-08	DUE DATE (YYYYMMDD)	c. FINAL <i>(Complete Item 5 in all cases)</i>		DATE (YYYYMMDD)
4. IS THIS A FOLLOW-ON CONTRACT? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO. If Yes, complete the following: Classified material received or generated under _____ <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					

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	
b. RESTRICTED DATA			<input checked="" type="checkbox"/>	b. RECEIVE CLASSIFIED DOCUMENTS ONLY	
c. CRITICAL NUCLEAR WEAPON DESIGN INFORMATION			<input checked="" type="checkbox"/>	c. RECEIVE AND GENERATE CLASSIFIED MATERIAL	
d. FORMERLY RESTRICTED DATA			<input checked="" type="checkbox"/>	d. FABRICATE, MODIFY, OR STORE CLASSIFIED HARDWARE	
e. INTELLIGENCE INFORMATION				e. PERFORM SERVICES ONLY	
(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	
(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	
f. SPECIAL ACCESS INFORMATION			<input checked="" type="checkbox"/>	h. REQUIRE A COMSEC ACCOUNT	
g. NATO INFORMATION			<input checked="" type="checkbox"/>	i. HAVE TEMPEST REQUIREMENTS	
h. FOREIGN GOVERNMENT INFORMATION			<input checked="" type="checkbox"/>	j. HAVE OPERATIONS SECURITY (OPSEC) REQUIREMENTS	
i. LIMITED DISSEMINATION INFORMATION			<input checked="" type="checkbox"/>	k. BE AUTHORIZED TO USE THE DEFENSE COURIER SERVICE	
j. FOR OFFICIAL USE ONLY INFORMATION		<input checked="" type="checkbox"/>		l. OTHER <i>(Specify)</i>	
k. OTHER <i>(Specify)</i>			<input checked="" type="checkbox"/>		

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 7227

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.

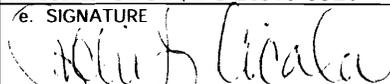
14. ADDITIONAL SECURITY REQUIREMENTS. Requirements, in addition to ISM requirements, are established for this contract. Yes No
 (*If Yes, identify the pertinent contractual clauses in the contract document itself, or provide an appropriate statement which identifies the additional requirements. Provide 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 (<i>Include Area Code</i>)
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, 7202, 7227

LABOR CATEGORIES, PERSONNEL QUALIFICATIONS, AND KEY PERSONNEL

Labor Categories, Personnel Qualifications, and Key Personnel

Program Manager (Key) – B.Sc. Engineering, Physics, Mathematics or Business. Ten years of demonstrated experience desired in managing multiple project activities with a developmental program. Demonstrated experience in the planning, direction, and control of scientific development programs involving laboratory and field (including airborne and spaceflight) instruments and experimental payloads. Specific experience with the technical program planning required to support the developmental process including engineering specialty integration, program reviews, technical performance measurement, interface control, risk analysis, and program planning. Experience with the requirements for controlling information exchanges under the International Traffic in Arms Regulations (ITAR) and related defense trade acts. Experience with the process of integrating payloads to spacecraft and other mobile and fixed platforms. Experience with the guidelines, requirements, and standards used for deriving spaceflight instrument interface control, ground, and flight operation requirements. Specific experience interfacing with space vehicle and launch integration personnel, and technical lead engineers to develop ICDs. Demonstrated experience with the fabrication and manufacture of prototype and limited production space-qualified and airborne instruments and payloads.

System Engineer (Key) – M.Sc. in Electrical Engineering. Ten years of demonstrated experience desired, or an equivalent combination of education and experience. Demonstrated experience performing System Engineering duties for spaceflight scientific instruments. Demonstrated capability to conceptualize, specify, model, and prototype analog and digital spaceflight instruments and related systems. Demonstrated experience, knowledge, and familiarity with hardware development programs for scientific spaceflight instrumentation and experimental payloads. Demonstrated experience, knowledge, and familiarity with software development for developing spaceflight instrument system and support equipment software routines. Demonstrated experience, knowledge, and familiarity with real-time software development including requirements analysis and systems programming for flight systems, including: telemetry and command; flight instrument control and pointing; processor selection support, timing and sizing estimates, and costing; and interface analysis. Demonstrated experience

with Reduced Instruction Set Computing (RISC) processors, Field Programmable Gate Arrays (FPGA), Application Specific Integrated Circuits (ASIC) for spaceflight, and their development systems, including the design of support equipment processors and telemetry displays. Relevant experience with digital signal processing (DSP) chipsets and their development systems. Relevant experience with developing support equipment for testing spaceflight hardware and software in an operational satellite environment, including ground support software, digital motor control systems, and specialized telemetry formatting and documentation equipment.

Electronics Engineer – B.Sc., Electrical Engineering, Physical Sciences, Mathematics, or the equivalent. Five years of demonstrated experience desired in specifying, developing, and documenting spaceborne, airborne and ground-based instrument electronics, conducting systems level environmental and reliability tests, performing Failure Modes and Effects Analyses and Electronic Stress Analyses; specifying limits on Electromagnetic Interference and Electromagnetic Compatibility (EMI/EMC), and testing and controlling EMI/EMC; documenting acceptance tests in formal plans and procedures; planning and conducting tests; and troubleshooting the system after it has been deployed. Specific design engineering experience related to the electrical analysis, design, integration, and test of interface and data handling electronics for MIL-STD-1553, 1394-based, and VME-based systems. Specific experience using digital and analog circuitry, i80xxx microprocessors, and digital signal processing (DSP) chipsets. Relevant design experience with printed wiring board design, layout, integration, and testing.

Computer Engineer – B.Sc., Electrical Engineering, Physical Sciences, Mathematics, or the equivalent. Five years of demonstrated experience desired in specifying, developing, testing and documenting computer systems for spaceborne, airborne and ground-based instrumentation, conducting systems level environmental and reliability tests; documenting acceptance tests in formal plans and procedures; planning and conducting tests; and troubleshooting the computer while the system that contains it is in the field or in flight or in orbit.

Software Engineer – B.Sc., Engineering, Physical Sciences, Mathematics, or the equivalent. Ten years of demonstrated experience desired, knowledge and familiarity with real-time scientific software algorithms supporting flight

instrumentation development programs. Demonstrated experience, knowledge, and familiarity with real-time software development including requirements analysis and systems programming for flight systems, including: telemetry and command; image processing; flight instrument control and pointing; processor selection support, timing and sizing estimates, and costing; interface analysis, and algorithm development. Specific knowledge to perform systems analysis, simulation, algorithm design, and system evaluation required to design and implement complex real-time software systems using assembly, C/C++, and FORTRAN programming languages on a variety of spaceflight and ground processors. Specific experience with MIL-STD-1553 standard data bus and VME-based flight controller systems. Relevant experience with digital hardware and software test beds for space vehicle simulators that have the capability to evaluate and resolve hardware/software compatibility problems occurring during the developmental process. At least five years of directly related experience in the specification and setup of domains, servers, telecommunications networks, remote access systems, firewalls, mail servers, operating systems, computer system management, hardware and software installation and testing, and user support.

Mechanical Engineer – B.Sc., Mechanical Engineering. Five years of demonstrated experience desired in specifying, developing, and documenting instrument mounts and enclosures for spaceborne, airborne and ground-based instrumentation, chassis designs, printed wiring board designs, and equipment layouts. Specific experience on support equipment racks and interconnects diagrams. Specific experience in designing, planning, documenting, and installing complex ground enclosures for flight instrument command and control during flight operations, including wiring interconnects, power distribution, video and audio routing and distribution, and chassis design. Experience with mechanical design software.

Thermal Engineer – B.Sc., Mechanical Engineering, Physical Sciences, Mathematics, or the equivalent. Five years of demonstrated experience desired in specifying, developing, and documenting thermal control systems for spaceborne, airborne and ground-based instrumentation, conducting systems level environmental and reliability tests; documenting acceptance tests in formal plans and procedures; planning and conducting tests; and troubleshooting the

thermal control system while the system that contains it is in the field, in flight or in orbit. Experience with thermal modeling and design software.

Quality Assurance and Control Engineer– B.Sc., Electrical or Mechanical Engineering, Physical Sciences, Mathematics, or the equivalent. Five years of demonstrated experience desired in quality assurance and control for spaceborne, airborne and ground-based instrumentation; including the formal documenting of QA/QC, and QA/QC software tools.

Optical Scientist – Ph.D., Physical Sciences, Physics, or Mathematics. Four years of demonstrated experience desired in the engineering development and design of optical sensors and scientific instrumentation. Experienced in the research, development, design, and fabrication of optical sensors and instrumentation for spaceborne, airborne and terrestrial scientific instruments. Knowledgeable in various aspects of physical and geometrical optics including optical system design, aspheric optics, aberration theory, polarization analysis and design, optical coating design and characterization, optical filtering design and application (including ultra-narrow band optical filters), optical diffraction and interferometry, and optical fibers. Experience with image processing and modeling algorithms. Experience with the C, FORTRAN, C++, and IDL programming languages.

Imaging Algorithm Developer – M.S. or Ph.D., Physical Sciences, Physics, Mathematics or Engineering. Four years of demonstrated experience in the development and application of algorithms for analyzing imagery obtained by remote sensing. Experienced with image processing and modeling algorithms. Experience with image processing and analysis tools, and with the C, FORTRAN, C++, and IDL programming languages.

Research Scientist – B.Sc. in Physical Sciences, Engineering, Mathematics or the equivalent. It is further desired that the individual has experience in radiative transfer, electromagnetic scattering, transmission and absorption. Experience in modeling or characterizing the interactions of electromagnetic radiation and atmospheric, geophysical, and man-made factors such as smoke plumes, buildings, vegetation, water, and weather. Experienced in image processing and

modeling algorithms. Experienced with software modeling and simulation tools, as well as the C, FORTRAN, C++ and IDL programming languages.