

IMPORTANT NOTICE

The U.S. Postal Service continues to irradiate letters, flats, Express and Priority Mail with stamps for postage and other packages with stamps for postage destined to government agencies in the ZIP Code ranges 202 through 205.

Mail that is irradiated may exhibit a discolored (tan-colored) quality, as well as be brittle, show spots on envelopes and make address labels unreadable. Irradiation may destroy electronic format materials provided on computer discs. Customers and businesses sending mail to ZIP Codes 202-205 can avoid the irradiation process by affixing postage meter strips or permit indicia instead of postage stamps to Express or Priority Mail. The use of corporate accounts for Express Mail or registered mail also is another way to avoid the irradiation process.

Due to potential delays in receiving mail and potential for receipt of damaged computer discs, offerors are encouraged to use alternatives to the mail when submitting proposals.

This solicitation contains the provision at FAR 52.215-5 which authorizes facsimile proposals. Offerors are encouraged to use alternatives to the mail when submitting proposals.

SOLICITATION, OFFER AND AWARD		1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 350)		RATING	PAGE OF 1 26 PAGES	
2. CONTRACT NO.		3. SOLICITATION NO. N00173-03-R-CB01		4. TYPE OF SOLICITATION <input type="checkbox"/> SEALED BID (IFB) <input checked="" type="checkbox"/> NEGOTIATED (RFP)		5. DATE ISSUED 25 Oct 02
7. ISSUED BY CONTRACTING OFFICER NAVAL RESEARCH LABORATORY 4555 OVERLOOK AVENUE SW WASHINGTON DC 20375-5326 ATTN: CODE 3230.CB		CODE		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 03 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 See Section L-2 until 4:00 local time 25 Nov 02
(Hour) (Date)

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

10. FOR INFORMATION CALL:	A. NAME Cheri R. Burkhardt	B. TELEPHONE NO. (Include area code) (NO COLLECT CALLS) (202)767-6542
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OFFER (Must be fully completed by offeror)

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

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

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

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

AWARD (To be completed by Government)

19. ACCEPTED AS TO ITEMS NUMBERED	20. AMOUNT	21. ACCOUNTING AND APPROPRIATION	
22. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION: <input type="checkbox"/> 10 U.S.C. 2304(c) () <input type="checkbox"/> 41 U.S.C. 253(c) ()		23. SUBMIT INVOICES TO ADDRESS SHOWN IN ITEM (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 (Signature of Contracting Officer)	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 perform the work as described in Section C.	\$	\$	\$
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 08 October 2002 which are hereby incorporated by reference. The full text is available at <http://heron.nrl.navy.mil/contracts/home.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**

52.246-8 - Inspection Of Research And Development - Cost Reimbursement (MAR 2001)

DFARS CLAUSE TITLE

252.246-7000 - Material Inspection And Receiving Report (DEC 1991)

E-2 INSPECTION AND ACCEPTANCE

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

**SECTION F
DELIVERIES OR PERFORMANCE**

F-1 DELIVERIES OR PERFORMANCE CLAUSES INCORPORATED BY REFERENCE:**FAR CLAUSE TITLE**

52.242-15 - Stop-Work Order (AUG 1989) - Alternate I (APR 1984)
52.247-34 - F.O.B. Destination (NOV 1991)

F-2 PERIOD AND PLACE OF PERFORMANCE

- (a) The term of this contract is from date of award through 12 months thereafter with four (4) options of 12 months each, if exercised.
(b) The principal place of performance of this contract shall be at NRL, Washington, D.C.

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

* is hereby designated the cognizant COR who will represent the Contracting Officer in the administration of technical details within the scope of this contract and inspection and acceptance. 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 statements of work, a modification must be issued in writing and signed by the Contracting Officer. The COR is responsible for reviewing the bills and charges submitted by the Contractor and informing the ACO of areas where exceptions are to be taken.

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

G-5 NAPS 5252.232-9001 - SUBMISSION OF INVOICES (COST-REIMBURSEMENT, TIME-AND-MATERIALS, LABOR-HOUR, OR FIXED PRICE INCENTIVE (JUL 1992))

(a) "Invoice" as used in this clause includes contractor requests for interim payments using public vouchers (SF 1034) but does not include contractor requests for progress payments under fixed price incentive contracts.

(b) The Contractor shall submit invoices and any necessary supporting documentation, in an original and 4 copies, to the contract auditor at the following address:

(To be completed at time of award)

unless delivery orders are applicable, in which case invoices will be segregated by individual order and submitted to the address specified in the order. In addition, an information copy shall be submitted to [See Section G for designated COR]. Following verification, the contract auditor will forward the invoice to the designated payment office for payment in the amount determined to be owing, in accordance with the applicable payment (and fee) clause(s) of this contract.

(c) Invoices requesting interim payments shall be submitted no more than once every two weeks, unless another time period is specified in the Payments clause of this contract. For indefinite delivery type contracts, interim payment invoices shall be submitted no more than once every two weeks for each delivery orders. There shall be a lapse of no more than 30 calendar days between performance and submission of an interim payment invoice.

(d) In addition to the information identified in the Prompt Payment clause herein, each invoice shall contain the following information, as applicable:

- (1) Contract line item number (CLIN)
- (2) Subline item number (SLIN)
- (3) Accounting Classification Reference Number (ACRN)
- (4) Payment terms

- (5) Procuring activity
- (6) Date supplies provided or services performed
- (7) Costs incurred and allowable under the contract
- (8) Vessel (e.g., ship, submarine or other craft) or system for which supply/service is provided
- (e) A DD Form 250, "Material Inspection and Receiving Report",
 is required with each invoice submittal.
 is required only with the final invoice.
 is not required.
- (f) A Certificate of Performance
 shall be provided with each invoice submittal.
 is not required.
- (g) The Contractor's final invoice shall be identified as such, and shall list all other invoices (if any) previously tendered under this contract.
- (h) Cost of performance shall be segregated, accumulated and invoiced to the appropriate ACRN categories to the extent possible. When such segregation of costs by ACRN is not possible for invoices submitted with CLIN/SLINS with more than one ACRN, an allocation ratio shall be established in the same ratio as the obligations cited in the accounting data so that costs are allocated on a proportional basis.

G-6 INCREMENTAL FUNDING

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

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

G-7 INFORMATIONAL SUBLINE ITEMS

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

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

Payments shall be made using the ACRNs cited on the contractor's invoice. The contractor may contact the COR for advice regarding which ACRNs to cite on an invoice.

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

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 204,250 total hours of direct labor for all years if options are exercised, including subcontractor direct labor for those subcontractors specifically identified in the Contractor's proposal as having hours included in the proposed level of effort. A breakdown of labor categories and hours is set forth in paragraph (k) below.
- (b) The level of effort for this contract shall be expended at an average rate of 3,404 hours per month. It is understood and agreed that the rate of hours per month may fluctuate in pursuit of the technical objective, provided such fluctuation does not result in the use of the total hours of effort prior to the expiration of the term of the contract.
- (c) The Contractor is required to notify the Contracting Officer when any of the following situations occur, or are anticipated to occur: If during any three consecutive months the monthly average is

exceeded by 25% or, if at any time it is forecast that during the last three months of the contract less than 50% of the monthly average will be used during any given month; or, when 85% of the total level of effort has been expended.

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

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

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

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

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

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

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

(i) It is understood that the mix of labor categories provided by the Contractor under the contract, as well as the distribution of effort among those categories, may vary considerably from the initial mix and distribution of effort which was estimated by the government or proposed by the Contractor.

(j) Nothing herein shall be construed to alter or waive any of the rights or obligations of either party pursuant to the Clause entitled "Limitation of Costs" or "Limitation of Funds," either of which clauses as incorporated herein applies to this contract.

- (k) The anticipated breakdown by labor category of the total level of effort, for all years if options are exercised, is as follows:

<u>Labor Category</u>	<u>Hours</u>
Sr. Electrical Engineer	9,500
Electrical Engineer	19,000
Sr. Systems Programmer	9,500
Systems Programmer	9,500
Sr. Mechanical Engineer	19,000
Mechanical Engineer	28,500
Mechanical Technician	28,500
QA Engineer	4,750
Building Maintenance Engineer	4,750
Sr. Research Scientist 1	9,500
Sr. Research Scientist 2	4,750
Research Scientist	47,500
Computational Physicist	9,500

H-4 ONR 5252.235-9714 - REPORT PREPARATION (FEB 02)

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 Z39.18-1995, 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 (4) 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

Government facilities and equipment specified or approved for use in the performance of any portion of the contract at the U.S. Naval Research Laboratory (NRL) or any of its field sites may be used by the contractor's personnel on a rent free basis. 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:

Office space/Lab

Oscilloscope, NRL Property #N00173369799000

Applied Microsystem ES1800 Emulator, NRL Property #N00173394068000

Lambda Power Supply, NRL Property #N00173418908000

Lambda Power Supply, NRL Property #N00173418910000

Digital Equipment 433, NRL Property #N00173418915000

Hewlett-Packard Power Supply 6235A, NRL Property #N00173404935000

Data I/O Prom Burner, NRL Property #N00173416382000

Payload Electronics

H-9 REPRESENTATIONS AND CERTIFICATIONS

The Contractor's completed Representations, Certifications, and Other Statements of Offerors or Respondents is incorporated herein by reference in any resultant award.

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*.

PART II - CONTRACT CLAUSES

SECTION I

CONTRACT CLAUSES

I-1 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.arnet.gov/far>

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

a. FEDERAL ACQUISITION REGULATION CLAUSES

FAR CLAUSE TITLE

52.202-1 - Definitions (DEC 2001)

- 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 (JUL 1995)
- 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 (JUN 1997)
- 52.204-4 - Printed Or Copied Double-Sided On Recycled Paper (AUG 2000)
- 52.209-6 - Protecting The Government's Interest When Subcontracting With Contractors Debarred, Suspended, Or Proposed For Debarment (JUL 1995)
- 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 (DEC 1998)
- 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 (OCT 1997)
- 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 (FEB 2002) (*If the contract is with an educational institution, modify the clause by deleting from paragraph (a) "Subpart 31.2" and substitute "Subpart 31.3". If the contract is with a state or local government, delete from paragraph (a) "Subpart 31.2" and substitute "Subpart 31.6". If the contract is with a nonprofit other than an educational institution, a state or local government, or a nonprofit organization exempted under OMB Circular A-122, modify the clause by deleting from paragraph (a) "Subpart 31.2" and substituting "Subpart 31.7".*)
- 52.216-8 - Fixed-Fee (MAR 1997)
- 52.219-4 - Notice Of Price Evaluation Preference For HUBZone Small Business Concerns (JAN 1999) Offeror elects to waive the evaluation preference.
- 52.219-8 - Utilization Of Small Business Concerns (OCT 2000)
- 52.219-9 - Small Business Subcontracting Plan (JAN 2002) - Alternate II (OCT 2001)
- 52.219-16 - Liquidated Damages-Subcontracting Plan (JAN 1999)
- 52.219-25 - Small Disadvantaged Business Participation Program-Disadvantaged Status And Reporting (OCT 1999)
- 52.222-2 - Payment For Overtime Premiums (JUL 1990) -The Use Of Overtime Is Authorized Under This Contract If The Overtime Premium Does Not Exceed "0"
- 52.222-3 - Convict Labor (AUG 1996)
- 52.222-19 - Child Labor – Cooperation With Authorities And Remedies (SEP 2002)
- 52.222-21 - Prohibition Of Segregated Facilities (FEB 1999)

- 52.222-26 - Equal Opportunity (APR 2002)
- 52.222-35 - Equal Opportunity For Special Disabled Veterans, Veterans Of The Vietnam Era, And Other Eligible Veterans (DEC 2001)
- 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 (DEC 2001)
- 52.223-3 - Hazardous Material Identification And Material Safety Data (JAN 1997)
- 52.223-5 - Pollution Prevention And Right-To-Know Information (APR 1998)
- 52.223-6 - Drug-Free Workplace (MAY 2001)
- 52.223-10 - Waste Reduction Program (AUG 2000)
- 52.223-14 - Toxic Chemical Release Reporting (OCT 2000)
- 52.225-13 - Restrictions On Certain Foreign Purchases (JUL 2000)
- 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 (NOV 1999)
- 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 (FEB 2002) Alternate I (FEB 2002)
- 52.232-33 - Payment By Electronic Funds Transfer-Central Contractor Registration (MAY 1999)
- 52.233-1 - Disputes (JUL 2002) - Alternate I (DEC 1991)
- 52.233-3 - Protest After Award (AUG 1996) - Alternate I (JUN 1985)
- 52.237-2 - Protection Of Government Buildings, Equipment And Vegetation (APR 1984)
- 52.237-3 - Continuity Of Services (JAN 1991)
- 52.242-1 - 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)
- 52.244-2 - Subcontracts (AUG 1998) - Alternate I (AUG 1998)
- 52.244-5 - Competition In Subcontracting (DEC 1996)

- 52.244-6 - Subcontracts For Commercial Items (MAY 2002)
- 52.245-5 - Government Property (Cost-Reimbursement, Time-And-Material, Or Labor-Hour Contracts) (JAN 1986) (DEVIATION)
- 52.245-18 - Special Test Equipment (FEB 1993)
- 52.245-19 - Government Property Furnished "As-Is" (APR 1984)
- 52.246-23 - Limitation Of Liability (FEB 1997)
- 52.246-25 - Limitation Of Liability - Services (FEB 1997)
- 52.247-1 - Commercial Bill Of Lading Notations (APR 1984)
- 52.247-63 - Preference For U. S. Flag Carriers (JAN 1997)
- 52.249-6 - Termination (Cost-Reimbursement) (SEP 1996)
- 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 (MAR 1999)
- 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 - Required Central Contractor Registration (NOV 2001)
- 252.204-7005 - Oral Attestation Of Security Responsibilities (NOV 2001)
- 252.205-7000 - Provision Of Information To Cooperative Agreement Holders (DEC 1991)
- 252.209-7000 - Acquisition From Subcontractors Subject To On-Site Inspection Under The Intermediate-Range Nuclear Forces (INF) Treaty (NOV 1995)
- 252.209-7004 - Subcontracting With Firms That Are Owned Or Controlled By The Government Of A Terrorist Country (MAR 1998)
- 252.215-7000 - Pricing Adjustments (DEC 1991)
- 252.215-7002 - Cost Estimating System Requirements (OCT 1998)
- 252.219-7003 - Small Business And Small Disadvantaged Business Subcontracting Plan (DoD Contracts) (APR 1996)
- 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 (MAR 1998)
- 252.225-7002 - Qualifying Country Sources As Subcontractors (DEC 1991)
- 252.225-7012 - Preference For Certain Domestic Commodities (APR 2002)
- 252.225-7016 - Restriction On Acquisition Of Ball And Roller Bearings (DEC 2000)
- 252.225-7025 - Restriction On Acquisition Of Forgings (JUN 1997)
- 252.225-7026 - Reporting Of Contract Performance Outside The United States (JUN 2000)
- 252.225-7031 - Secondary Arab Boycott Of Israel (JUN 1992)
- 252.225-7043 - Antiterrorism/Force Protection Policy For Defense Contractors Outside The United States (JUN 1998) (fill in : Naval Criminal Investigative Service (NCIS), Code 24,

- 252.226-7001 - telephone, DSN 228-9113 or commercial (202)433-9113
Utilization of Indian Organizations and Indian-Owned Economic Enterprises-DoD Contracts (SEP 2001)
- 252.227-7000 - Non Estoppel (OCT 1966)
- 252.227-7001 - Release Of Past Infringement (AUG 1984)
- 252.227-7013 - Rights In Technical Data -- Noncommercial Items (NOV 1995)
- 252.227-7016 - Rights In Bid Or Proposal Information (JUN 1995)
- 252.227-7030 - Technical Data--Withholding Of Payment (MAR 2000)
- 252.227-7034 - Patents--Subcontracts (APR 1984)
- 252.227-7036 - Declaration Of Technical Data Conformity (JAN 1997)
- 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)
- 252.235-7010 - Acknowledgment Of Support And Disclaimer (MAY 1995)
- 252.235-7011 - Final Scientific Or Technical Report (SEP 1999)
- 252.242-7000 - Post Award Conference (DEC 1991)
- 252.242-7004 - Material Management And Accounting System (DEC 2000)
- 252.243-7002 - Requests For Equitable Adjustment (MAR 1998)
- 252.244-7000 - Subcontracts For Commercial Items And Commercial Components (DOD Contracts) (MAR 2000)
- 252.245-7001 - Reports Of Government Property (MAY 1994)
- 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 (MAY 1995)

I-2 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 – 5 Pages, With Exhibit A - DD Form 1423, Contract Data Requirements List, 1 Pages.
- J-2** Attachment (2) – Personnel Qualifications, 3 Pages.
- J-3** Attachment (3) – Accounting and Appropriation Data- 1 page. *
- (* To be included at time of a ward)

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

Each Offeror must submit a completed Representations, Certifications, and Other Statements Of Offerors or Respondents with its proposal which is available electronically in full text at [HTTP://HERON.NRL.NAVY.MIL/CONTRACTS/REPS&CERTS.HTM](http://HERON.NRL.NAVY.MIL/CONTRACTS/REPS&CERTS.HTM)

Use Representations and Certifications: A

K-2 FILL IN FOR FAR 52.219-1 - SMALL BUSINESS PROGRAM REPRESENTATIONS (MAR 2001)

The fill in information is as follows:

The NAICS code for this acquisition is 541710.

The small business size standard is 500.

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

L-1 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.arnet.gov/far>
<http://heron.nrl.navy.mil/contracts/home.htm>

FAR CLAUSE TITLE

- | | | |
|-----------|---|--|
| 52.204-6 | - | Data Universal Numbering System (DUNS) Number (JUNE 1999) |
| 52.214-34 | - | Submission Of Offers In The English Language (APR 1991) |
| 52.214-35 | - | Submission Of Offers In U.S. Currency (APR 1991) |
| 52.215-1 | - | Instructions To Offerors- Competitive Acquisition (MAY 2001) |
| 52.215-5 | - | Facsimile Proposals (OCT 1997)
Paragraph (c) is completed as follows: (202) 767-6197 (primary) or (202) 767-0494 (alternate). In addition proposals may be transmitted by e-mail to burkhardt@contracts.nrl.navy.mil (primary) or @contracts.nrl.navy.mil (alternate) in either Microsoft Word (version 97 or earlier) or pdf format. |
| 52.215-16 | - | Facilities Capital Cost Of Money (OCT 1997) |
| 52.219-24 | - | Small Disadvantaged Business Participation Program - Targets (OCT 2000) |
| 52.222-24 | - | Preaward On-Site Equal Opportunity Compliance Evaluation (FEB 1999) |
| 52.237-10 | - | Identification Of Uncompensated Overtime (OCT 1997) |

DFAR CLAUSE TITLE

- | | | |
|---------------|---|--|
| 252.209-7001- | - | Disclosure Of Ownership Or Control By The Government Of A Terrorist Country (MAR 1998) |
| 252.211-7005 | - | Substitutions For Military Or Federal Specifications And Standards (OCT 2001) |

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 to:

Contracting Officer, ATTN: Code 3230.CB
Naval Research Laboratory(NRL)
4555 Overlook Avenue, S.W.

Washington, D.C. 20375
Solicitation/RFP No. – N00173-03-R-CB01
Closing Date: 25 November 02 Time 4:00 PM

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/aboutdc.htm>

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 – Volume II – Business Proposal. More detailed information could be required and then be requested if and when it is then deemed to be 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 FeeTerm contract resulting from this solicitation.

L-6 FAR 52.233-2 - SERVICE OF PROTEST (AUG 1996)

(a) Protests, as defined in Section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the General Accounting Office (GAO) 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 Computer Software to be Furnished With Restrictions*	Basis for Assertion **	Asserted Rights Category ***	Name of Person Asserting Restrictions****
(List)*****	(List)	(List)	(List)

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

** Generally, development at private expense, either exclusively or partially, is the only basis for

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

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

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

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

Date _____
Printed Name and Title _____
Signature _____

(End of identification and assertion)

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

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

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

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

L-9 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 at the location

noted in blocks 7 and 9 of the Standard Form 33, "Solicitation, Offer and Award," no less than fifteen (15) days before closing. The Government will not consider questions received after this date. 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 3 COPIES .

(1) Include a matrix indicating proposed labor hours by skill category required to perform the statement of work. This matrix shall not contain labor rates or any other indication of price. Please note that the contractor must propose in accordance with the level of effort breakdown identified in Section H of this Solicitation.

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

(a) PERSONNEL QUALIFICATIONS

The offeror should provide convincing proof that the offeror has, or has the ability to obtain, personnel with relevant experience in the scientific and technical areas described in the statement of work. These are highly specialized fields and personnel without actual experience in these areas are not acceptable. Attachment 2 of the solicitation sets forth the desired qualifications. The proposal should indicate the specific personnel to be assigned to this effort, their background and pertinent experience, and the amount of effort each will be performing on this contract. The proposal must show the availability of sufficient key project professional and technical personnel by the prime contract as well as any proposed subcontractors and consultants.

(b) COMPANY EXPERIENCE

The proposal must provide a narrative description of company experience on providing research and technical effort similar to the requirements in the Statement of Work. This description should clearly show: (1) the relationship between the company's experience and the requirements under the Statement of Work and (2) prior similar or current programs. Prior experience should be identified by citing contracting agency, period of performance of the contract, and a summary of the nature of the work.

(c) PAST PERFORMANCE INFORMATION

(a) Offerors shall submit the following information as part of their proposal. (*Offerors are encouraged to submit the information prior to other parts of the proposal to assist the government in reducing the length of the evaluation period.*) List the last **5** contracts or subcontracts completed by the offeror or predecessor companies during the past 1 years for services similar in nature to this requirement. Include in the 5 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 3 COPIES

(1) COST PROPOSAL

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

(b) The following travel and material estimates are for evaluation purposes only. The government estimates the travel and material costs for this effort to be as shown in the following matrix.

	Base	Option 1	Option 2	Option 3	Option 4
Materials	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000
Travel	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000

Travel and material elements are direct costs and the offeror should add applicable indirect cost, if any. All offers will be evaluated using the estimated amounts provided above.

(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 2000), 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. Although 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 business considerations become.

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 two technical subfactors.

M-2-1. TECHNICAL/MANAGEMENT

(a) PERSONNEL QUALIFICATIONS

The proposal will be evaluated on the offeror's demonstrated ability to provide personnel with: (1) the appropriate qualifications set forth in Attachment No. 2 of the Solicitation; (2) actual relevant experience in the technical and scientific areas set forth in the Statement of Work.

(b) COMPANY 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 effort required by the Statement of Work.

(c) 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 FOR SPACE SCIENCE RESEARCH AND DEVELOPMENT

1.0 INTRODUCTION

The Naval Research Laboratory (NRL), through its Space Science Division (SSD), conducts a research and development program in the fields of astronomy and astrophysics, solar-terrestrial physics, and atmospheric science. Satellites, rockets, and ground-based facilities are used to obtain information on radiation from the Sun and celestial sources, and to study the behavior of the ionosphere and high atmosphere. NRL's research results are of importance to radio communications, to use of the Space environment, to weather prediction, and to the fundamental understanding of natural radiation and geophysical phenomena.

2.0 BACKGROUND

NRL conducts broad-based investigations of the electromagnetic spectrum from the soft X-ray to the visible region in the space environment. NRL evaluates the potential of this wavelength range from remote sensing of the ionosphere and upper atmosphere. NRL is continually developing new sensor technology, observational techniques and theoretical models to enhance the investigations.

NRL uses ground-based observations, sounding rockets, and manned and unmanned satellites to conduct solar physics research spanning the electromagnetic spectrum from the X-ray to the visible. The solar physics research involves astrophysical plasmas in general. The purpose to the effort is to understand the means by which astrophysical plasmas are being heated and maintained. In order to achieve this goal NRL is continually developing new diagnostic methods to explore the physical state of interplanetary plasmas, stellar plasmas and their interactions. On the experimental side this includes the development of new imaging techniques, spectroscopic measuring techniques and detectors for a wide range of short wavelengths radiation found only above the earth's atmosphere. The investigations also require the design and construction of advanced space platforms. On the data interpretation side it comprises of efforts in identifying newly detected spectroscopic lines, calculating the atomic cross sections of ions abundant in astrophysical plasmas, developing plasma diagnostics techniques, evaluate and upgrade existing solar upper atmosphere models.

Radiation is measured from naturally occurring sources and used as a background for measuring artificially-induced phenomena. The instrumentation used to detect, identify and track radiation from natural phenomena is also used

to measure ionospheric weather and the global distribution of ozone and trace gases (to understand the role of natural and man-made green-house gases).

3.0 SCOPE

This SOW defines the managerial and technical tasks required to accomplish selected developments for the technical tools used in existing and future space science projects. The work involves development, test, and implementation of hardware and software systems for real-time payload operations and control for ground support equipment for payload satellites. The work also includes flight instrument testing and calibration, scientific data analysis and image processing of radiation that spans the X-ray to the visible spectral range.

4.0 TASK DEFINITIONS/TECHNICAL REQUIREMENTS

The contractor shall design, develop, implement and test the hardware and software systems required for ground support equipment (GSE) for satellite payloads (including the SHIMMER STPSat-1, SHIMMER AIM and SHIMMER MidDeck). This includes real-time software in the C++ language for Windows based systems to provide an environment for command management and housekeeping and for science data graphical display in a Payload Operations Control Center. All development must be in conformance with satellite command and data handling interface specifications (including the AeroAstro STPSat-1, Ball Aerospace AIM satellite and the Shuttle MidDeck PGSC). The contractor shall provide microcomputer systems including processors, mass storage, backup media, network communications, graphics terminals and printers to support payload testing and on orbit operation of the payload. The contractor shall provide the wire harnessing, interface equipment, electronics simulator and power distribution units required to support payload testing.

The contractor shall design, develop, implement and test the hardware and software required for NRL instrument characterization. This includes interface hardware and software to allow testing and calibration of a variety of flight imaging (2-dimensional) detectors and data logging software for a calibration facility. All hardware and software must be based on current PC technology. The data logging software shall record at any interval: pressure, temperature, source lamp current, monochromator grating position, reference intensity, and detector count rate.

The contractor shall design, develop, implement and test the hardware and software systems required for the flight payload controllers based on the Intel 80C86 microprocessor. This shall include real-time, interrupt driven, software to monitor and control space flight payloads (including the three SHIMMER payloads) and real-time interrupt driven, software to receive, decode and implement commands. This also includes real-time, interrupt driven, software to receive real-time data from ancillary microprocessors, to format telemetry

streams, and to transmit data and command replies. All hardware and software shall conform to spacecraft bus interface specifications.

The contractor shall design, develop, implement and test hardware and software systems for on orbit processing of interferogram images from a Spatial Heterodyne Spectrograph (SHS) like the three SHIMMER payloads. The objective is to minimize the telemetry bandwidth required to support the SHS. The minimization includes flat-field and fixed pattern noise compression, correction of errors due to fringe distortions (resulting from figure errors and index inhomogeneities in the beam splitter and field widening prisms), and fast Fourier transform algorithms.

The contractor shall maintain all flight instrument wire harnesses, electrical interfaces, and control electronics to the spacecraft. The control electronics shall include: motor control, interface to spacecraft (telemetry, CMD, discrete power), interface to detector, and analog and serial data acquisition. The contractor shall provide technical input at working meetings, integrations, and flight experiments.

The contractor shall provide electrical, software, mechanical and optical expertise for NRL's rocket and shuttle program. The contractor shall develop the designs, plans and specifications for rocket/shuttle programs and other systems for use in rockets, satellites, and other installations. The contractor shall design optical and mechanical systems for spectrographs, spectroheliographs, heliographs, and telescopes for solar pointing to sub-arc-second tolerances.

The contractor shall design, fabricate, assemble, maintain and test specialized NRL equipment and facilities for various NRL projects.

The contractor shall provide mechanical, electronic and technical support for research experiments on rockets, high altitude balloons, and the space shuttle. Also, in support of the "space based" experiments, the contractor shall design, fabricate and operate specialized "ground based" equipment. The NRL equipment shall be used for focus, alignment, tests, calibrate and evaluation of the flight instruments, equipment and data.

The contractor shall design, fabricate, assemble, integrate, test, calibrate, and operate sophisticated scientific instruments, experimental payloads, and their GSE.

The contractor shall provide expert services in structure, fabrication methods and materials, coatings, electronic materials, lubrication, high vacuum techniques for space equipment, contamination control, testing methods and procedures, and structural and thermal engineering for multiple NRL projects.

The contractor shall maintain a state of the art atomic physics capabilities. This includes the maintenance of CHIANTI the atomic Database for Emission Lines,

updating and the expanding it when newly calculated cross section become available. (CHIANTI consists of a database of atomic data, transition rates and collisional transition probabilities necessary to evaluate the emissivity of optically thin spectral lines and continuum.) The contractor shall provide the expertise needed to identify yet unidentified lines in the solar spectrum and operate and derive atomic cross sections using state of the art atomic physics codes, e.g., HULLAC, University Collage Atomic code, etc.

The contractor shall provide the required know-how to operate and analyze data acquired by space experiments and reach conclusions regarding the composition of solar plasmas, the sources of solar dynamical activity, such as the heating of the corona, the nature of coronal mass ejections and the origin of solar flares. The space experiment under consideration are the already deployed LASCO, EIT, SUMER and VAULT, the soon to be deployed Solar-B/EIS and STEREO, and any other future solar space experiment with which the NRL Space Science Division will have an interest.

5.0 CONTRACTOR REQUIREMENTS

5.1 Reports, Data and Other Deliverables

Requirements are listed in the following subsections and in Exhibit A, the Contract Data Requirements List (CDRL), DD1423.

5.1.1 Monthly Financial Reports (Contractor On-Site Labor Report)

The monthly financial report shall show the number of hours for each employee with rate overhead, G&A, and fee costs. The contractor shall provide details for current period, including date submitted, contract number, contract value and current funding, and show accrued costs for total contract. Expenses such as travel, materials and training shall be reported separately for each employee with rate, overhead, G&A and fee costs. If the contractor employee worked on multiple tasks (as defined by COR) the accounting for each task shall be shown separately. The report shall be submitted with a copy of the monthly invoice.

5.1.2 Monthly and Final Reports

The contractor shall provide a monthly technical report. The report should be concise, but shall include the following: task objectives; general technical approach; status prior to and at the end of the report period; important findings and their implication; significant hardware and software developments; and planned work to be accomplished in the next contractor's reporting period. The report shall summarize any problems or areas of concern for which government assistance or guidance is required and state any anticipated deviation in contractor's planned effort to achieve contract scientific/technical objectives. The contractor shall describe technical progress during the reporting period, citing

any major changes in the technical approach planned at the beginning of the reporting period, and drawing attention to any anticipated technical, logistic or administrative problems.

The final report shall be a concise but comprehensive summary of the scientific objectives, findings and recommendations made over the entire contract period. Both monthly and final reports must be submitted to the COR for approval prior to publication and distribution.

5.1.3 Software and Hardware Documentation

The contractor shall provide software for source file codes and supporting software documentation. The documentation shall include instructions for the user. A separate user's guide shall be produced for interactive programs having multiple options. Software and hardware produced or modified shall be accompanied by documentation for maintenance and operation. Software shall be delivered on media compatible with NRL systems (the system shall be determined by each task accomplished).

CONTRACT DATA REQUIREMENTS LIST

Form Approved
OMB No. 0704-0188

The public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0701-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. 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 address. Send completed form to the Government Issuing

A. CONTRACT LINE ITEM NO. ALL		B. EXHIBIT A		C. CATEGORY: TDP _____ TM- _____ OTHER _____					
D. SYSTEM / ITEM Scientific Support			E. CONTRACT / PR NO. 76-0520-02		F. CONTRACTOR				
1. DATA ITEM NO. A001	2. TITLE OF DATA ITEM Technical Report			3. SUBTITLE					
4. AUTHORITY (Data Acquisition Document No.) N/A			5. CONTRACT REFERENCE SOW 5.1.2		6. REQUIRING OFFICE NRL CODE 7601				
7. DD 250 REQ LT	9. DIST STATEMENT REQUIRED	10. FREQUENCY MNTLY		12. DATE OF FIRST SUBMISSION 60DAC		14. DISTRIBUTION			
8. APP CODE N/A	N/A	11. AS OF DATE		13. DATE OF SUBSEQUENT SUBMISSION EOM		a. ADDRESSEE	b. COPIES		
							Draft	Final Reg Repro	
16. REMARKS						COR	0	1	0
						15. TOTAL →	0	1	0
1. DATA ITEM NO. A002	2. TITLE OF DATA ITEM Financial Report (Contractor On-Site Labor Report)			3. SUBTITLE					
4. AUTHORITY (Data Acquisition Document No.) N/A			5. CONTRACT REFERENCE SOW 5.1.1		6. REQUIRING OFFICE NRL CODE 7601				
7. DD 250 REQ LT	9. DIST STATEMENT REQUIRED	10. FREQUENCY MNTLY		12. DATE OF FIRST SUBMISSION 30 DAC		14. DISTRIBUTION			
8. APP CODE N/A	N/A	11. AS OF DATE		13. DATE OF SUBSEQUENT SUBMISSION see block 16		a. ADDRESSEE	b. COPIES		
							Draft	Final Reg Repro	
16. REMARKS 5 days after the end of each reporting month						COR	0	1	0
						AO Code 7602	0	1	0
						15. TOTAL →	0	2	0
1. DATA ITEM NO. A003	2. TITLE OF DATA ITEM Software and Hardware Documentation			3. SUBTITLE					
4. AUTHORITY (Data Acquisition Document No.) N/A			5. CONTRACT REFERENCE SOW 5.1.3		6. REQUIRING OFFICE NRL CODE 7601				
7. DD 250 REQ LT	9. DIST STATEMENT REQUIRED	10. FREQUENCY ASREQ		12. DATE OF FIRST SUBMISSION 30DAC		14. DISTRIBUTION			
8. APP CODE N/A	N/A	11. AS OF DATE		13. DATE OF SUBSEQUENT SUBMISSION		a. ADDRESSEE	b. COPIES		
							Draft	Final Reg Repro	
16. REMARKS						COR	0	1	0
						15. TOTAL →	0	1	0
1. DATA ITEM NO. A004	2. TITLE OF DATA ITEM Final Report			3. SUBTITLE					
4. AUTHORITY (Data Acquisition Document No.) N/A			5. CONTRACT REFERENCE S9W 5.1.2		6. REQUIRING OFFICE NRL CODE 7601				
7. DD 250 REQ DD	9. DIST STATEMENT REQUIRED	10. FREQUENCY 1TIME		12. DATE OF FIRST SUBMISSION See block 16		14. DISTRIBUTION			
8. APP CODE N/A	N/A	11. AS OF DATE		13. DATE OF SUBSEQUENT SUBMISSION		a. ADDRESSEE	b. COPIES		
							Draft	Final Reg Repro	
16. REMARKS 60 days after completion of contract						COR	0	1	0
						DTIC	0	1	0
						15. TOTAL →	0	2	0
G. PREPARED BY NRL CODE 7601			H. DATE 9/25/02		I. APPROVED BY		J. DATE		

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

17. PRICE GROUP
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PERSONNEL QUALIFICATIONS

Education and Experience Requirements

The following are a list of desired qualifications:

SENIOR ELECTRICAL ENGINEER: Must have at least ten years experience in detailed electrical design and supervision of personnel who were responsible for fabricating instruments in support of efforts of a scope similar to the Statement of Work. Must have at least a BA or BS degree in physics, mathematics or electrical engineering, or the equivalent as identified in the OPM Qualification Standards for General Schedule Positions. Must be a US Citizen.

SENIOR SYSTEMS PROGRAMMER: Must have at least 10 years experience with space flight experiments. Must have current knowledge of, and be active in, the areas of systems hardware/software described in the Statement of Work. Must be proficient and have professional experience in assembly and C language programming in the processors described in the Statement of Work. Experience in handling real-time databases is also essential. Must have at least a BA or BS degree in physics, mathematics or computer sciences or the equivalent as identified in the OPM Qualification Standards for General Schedule Positions. Should have familiarity with Fortran and numerical methods applied to operations such as integration, interpolation and differentiation. Must be a US citizen.

SYSTEMS PROGRAMMER: Must have at least 2 years experience with space flight experiments. Must have current knowledge of, and be active in, the areas of systems hardware/software described in the Statement of Work. Must be proficient and have professional experience in assembly and C language programming in the processors described in the Statement of Work. Experience in handling real-time databases is also essential. Must have at least a BA or BS degree in physics, mathematics or computer sciences or the equivalent as identified in the OPM Qualification Standards for General Schedule Positions. Should have familiarity with Fortran and numerical methods applied to operations such as integration, interpolation and differentiation. Must be a US citizen.

ELECTRICAL ENGINEER: Must have at least 2 years experience with space flight experiments. Must have current knowledge of, and be active in, the areas of systems hardware described in the Statement of Work. Must be proficient and have professional experience in the design, fabrication and testing of digital and analog interfaces for space flight instrumentation. Must have at least a BA or BS degree in physics, mathematics or electrical engineering, or the equivalent as identified in the OPM Qualification Standards for General Schedule Positions. Must be a US Citizen.

SENIOR MECHANICAL ENGINEER: Must have at least 10 years experience in detailed mechanical design and supervision of personnel who were responsible for fabricating instruments in support of efforts of a scope similar to the Statement of Work. Must have experience with sounding rocket payload design, fabrication and assembly. This experience must include: optical payload structures, the design, development, test, focus, and alignment of optical instruments, the design, development, and test of electro-mechanical and explosive devices for space environment operations, and materials for use with UV optical systems in a vacuum environment. Must have a BA or BS degree in physics, mathematics or mechanical engineering or the equivalent as identified in the OPM Qualification Standards for General Schedule Positions. Must be a US Citizen.

MECHANICAL ENGINEER: Must have at least ten years experience in designing space flight instruments. Knowledge of the latest techniques in computer aided design and engineering. Must have knowledge of and experience in finite element analysis with particular emphasis on qualifying instruments for flight. Must also have knowledge of structural and thermal analysis of space flight projects. Must have at least a BA or BS degree in physics, mathematics or mechanical engineering, or the equivalent as identified in the OPM Qualification Standards for General Schedule Positions. Must be a US Citizen.

MECHANICAL TECHNICIAN: Must have at least five years experience in space flight instruments. Knowledge of mechanical engineering concepts, principles and practices applicable to a wide range of duties concerned with the design, fabrication and maintenance of mechanical systems peculiar to the scientific areas addressed in the statement of work. Must be a US Citizen.

QA ENGINEER: Must have at least 5 years experience in QA of mechanical components fabricated for space flight instruments in support of efforts of a scope similar to the Statement of Work. Must be familiar with NASA and Military standards. Must have a BA or BS degree in mechanical engineering or the equivalent as identified in the OPM Qualification Standards for General Schedule Positions. Must be a US Citizen.

BUILDING MAINTENANCE ENGINEER: Must have at least two years experience in general building maintenance. Knowledge of facilities management, disposal and inventory of equipment and maintenance of space science laboratories. Must be a certified crane operator. Must be a US citizen.

SENIOR RESEARCH SCIENTIST: with at least 15 years experience in atomic physics, diagnostics of solar and laboratory plasmas by spectroscopic means. The experience should include successful management of at least one major research project. Must have a PhD degree in physics or astrophysics and must be a US citizen.

SENIOR RESEARCH SCIENTIST: with at least 15 years experience in atomic spectroscopy and atomic physics. The experience should include the identification of highly ionized atoms commonly found in high temperature astrophysical plasmas or the calculation their diagnostic properties. Must be a US citizen.

RESEARCH SCIENTIST: with at least 3 years experience in atomic physics, diagnostics of solar and laboratory plasmas by spectroscopic means. The experience should include the ability calculate atomic cross-sections using structure codes and incorporate the results in astrophysical databases. Must have a PhD degree in physics or astrophysics. Must be a US citizen.

RESEARCH SCIENTIST: with at least 2 years experience in theoretical solar physics research. The experience should include the to ability to extract data from space experiment analyzed it and publish it in professional journals. Must have a PhD degree in physics or astrophysics. Must be a US citizen.

RESEARCH SCIENTIST: Must have at least 2 years experience in detailed design, alignment and calibration of optical or spectroscopic instrumentation to be used in the Far UV, Extreme UV or in the X-rays. Must have a PhD degree in physics or astrophysics. Must be a US citizen.

COMPUTATIONAL PHYSICIST: Must have at least 5 years experience in scientific programming and advanced mathematical computations. Must have advanced programming experience in IDL and Fortran. Must have experience in data base programming. Must have experience in writing custom software in IDL for testing space and laboratory instruments scientific and engineering data . Must have a BS or MS degree in physics, astrophysics or mathematics. Must be a US citizen.