

2. CONTRACT NO. 3. SOLICITATION NO. **N00173-03-R-JS06** 4. TYPE OF SOLICITATION SEALED BID (IFB) NEGOTIATED (RFP) 5. DATE ISSUED **07 Nov 2003** 6. REQUISITION/PURCHASE NO. **57-3054-03**

7. ISSUED BY CONTRACTING OFFICER
NAVAL RESEARCH LABORATORY
4555 OVERLOOK AVENUE SW
WASHINGTON DC 20375-5326
ATTN: CODE 3220.JS

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 2 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 pm local time 10 Dec 2003
 (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 **Jamie Simpson** B. TELEPHONE NO. (Include area code) (NO COLLECT CALLS) **(202) 767-4597**

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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	%	CALENDAR DAYS	%	CALENDAR DAYS	%
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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: 10 U.S.C. 2304(c) () 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 _____ 28. AWARD DATE _____
 (Signature of Contracting Officer)

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 conduct research and development in accordance with 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>.

**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 date of award through 12 (twelve) months thereafter, with (4) option that will extend the period of performance for an additional (12) twelve months, if exercised.

(b) The principal place of performance of this contract shall be the Naval Research Laboratory, Washington, D.C. 20375

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 in accordance with the ACRN(s) cited on the contractor's invoice. The Contractor may contact the COR regarding which ACRN(s) 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
Senior Radar Engineer	*(To be filled in at time of award)
Senior Communications Engineer	*(To be filled in at time of award)
Senior Electronics Technician	*(To be filled in at time of award)

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 13,300 total hours of direct labor, and 13,300 total hours for each option period, if exercised, including subcontractor direct labor for those subcontractors specifically identified in the Contractor's proposal as having hours included in the proposed level of effort. A breakdown of labor categories and hours is set forth in paragraph (k) below.
- (b) The level of effort for this contract shall be expended at an average rate of 1,108 hours per month. It is understood and agreed that the rate of hours per month may fluctuate in pursuit of the technical objective, provided such fluctuation does not result in the use of the total hours of effort prior to the expiration of the term of the contract.
- (c) The Contractor is required to notify the Contracting Officer when any of the following situations occur, or are anticipated to occur: If during any three consecutive months the monthly average is exceeded by 25% or, if at any time it is forecast that during the last three months of the contract less than 50% of the monthly average will be used during any given month; or, when 85% of the total level of effort has been expended.
- (d) If, during the term of the contract, the Contractor finds it necessary to accelerate the expenditure of direct labor to such an extent that the total hours of effort specified would be used prior to the expiration of the term, the Contractor shall notify the Contracting Officer in writing, setting forth the acceleration required, the probable benefits which would result, and an offer to undertake the acceleration at no increase in the estimated cost or fixed fee together with an offer setting forth a proposed level of effort, cost breakdown, and proposed fixed fee for continuation of the work until expiration of the term hereof.

The offer shall provide that the work proposed will be subject to the terms and conditions of this contract and any additions or changes required by then current law, regulations, or directives, and that the offer, with a written notice of acceptance by the Contracting Officer, shall constitute a binding contract. The Contractor shall not accelerate any effort until receipt of such written approval by the Contracting Officer. Any agreement to accelerate will be formalized by contract modification.

- (e) The Contracting Officer may, by written order, direct the Contractor to accelerate the expenditure of direct labor such that the total hours of effort specified in paragraph (a) above would be used prior to the expiration of the term. This order shall specify the acceleration required and the resulting revised term. The Contractor shall acknowledge this order within five days of receipt.
- (f) If the total level of effort specified in paragraph (a) above is not provided by the Contractor during the term of this contract, the Contracting Officer shall either (i) reduce the fixed fee of this contract as follows:

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

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

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

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

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

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

(k) The anticipated breakdown by labor category of the total level of effort is as follows:

<u>Labor Category</u>	Labor Hours Basic Award and each Option, if exercised
Senior Scientist	1900
Senior Electrical Engineer	4740
Senior Radar Engineer	760
Senior Communications Engineer	760
Senior Computer/Software Engineer	1140
Senior Microwave Engineer	1140
Senior Electronics Technician	1900
Senior Microwave Technician	760
Administrator	200
Total	13,300

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 fax: 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 OPTION(S)

The Government may require performance of the numbered line items identified in the Schedule as optional items at the price stated in the Schedule. The Contracting Officer may unilaterally exercise the option by written notice to the Contractor anytime prior to the current completion date of the contract. The Government may elect to exercise its option by issuing a new contract for the option. Except as provided in the schedule, the new contract will have the same terms and conditions as this contract including any unexercised options.

H-8 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-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.

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 2003) |
| 52.204-2 | - | Security Requirements (AUG 1996) |
| 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 And Pricing Data Or Information Other Than Cost Or Pricing Data - Modifications (OCT 1997) - Alternate IV (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 (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 (JUN 2003)
- 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 (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 (OCT 2003)
- 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)
- 52.232-17 - Interest (JUN 1996)
- 52.232-18 - Availability Of Funds (APR 1984)
- 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 2002)
- 52.232-33 - Payment By Electronic Funds Transfer-Central Contractor Registration (OCT 2003)
- 52.233-1 - Disputes (JUL 2002)
- 52.233-3 - Protest After Award (AUG 1996) - Alternate I (JUN 1985)
- 52.237-2 - Protection Of Government Buildings, Equipment And Vegetation (APR 1984)
- 52.242-1 - 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)
- 52.244-2 - Subcontracts (AUG 1998) - Alternate I (AUG 1998)
- 52.244-5 - Competition In Subcontracting (DEC 1996)
- 52.244-6 - Subcontracts For Commercial Items And Commercial Components (APR 2003)
- 52.245-5 - Government Property (Cost-Reimbursement, Time-And-Material, Or Labor-Hour Contracts) (JUN 2003) (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)
- 52.247-1 - Commercial Bill Of Lading Notations (APR 1984)
- 52.247-63 - Preference For U. S. Flag Carriers (JUN 2003)
- 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)
- 252.223-7004 - 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 (APR 2003)
- 252.225-7002 - Qualifying Country Sources As Subcontractors (APR 2003)
- 252.225-7012 - Preference For Certain Domestic Commodities (FEB 2003)
- 252.225-7021 - Trade Agreements (AUG 2003)
- 252.225-7031 - Secondary Arab Boycott Of Israel (APR 2003)
- 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)
- 252.227-7014 - 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)
- 252.227-7027 - Deferred Ordering Of Technical Data Or Computer Software (APR 1988)
- 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)
- 252.232-7003 - Electronic Submission Of Payment Requests (MAR 2003)
- 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)
- 252.246-7001 - 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 (OCT 2002)

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).

I-3 DFARS 252.225-7008 - SUPPLIES TO BE ACCORDED DUTY- FREE ENTRY (MAR 1998)

In accordance with paragraph (b) of the Duty-Free Entry clause of this contract, in addition to duty-free entry for all qualifying country supplies (end products and components) and all eligible end products subject to applicable trade agreements (if this contract contains the Buy American Act - Trade Agreements - Balance of Payments Program clause or the Buy American Act - North American Free Trade Agreement Implementation Act - Balance of Payments Program clause), the following foreign end products that are neither qualifying country end products nor eligible end products under a trade agreement, and the following nonqualifying country components, are accorded duty free entry.

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

- J-1** Attachment (1) - Statement Of Work - 6 Pages, With Exhibit A - DD Form 1423, Contract Data Requirements List, 2 Pages.
- J-2** Attachment (2) – Personnel Qualifications, 9 Pages.
- J-3** Attachment (3) - DD Form 254, Contract Security Classification Specification, Ser 025-03 Dated April 03, 2003 – 2 Pages.
- J-4** Attachment (4) – 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

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/rep&certs.htm>

Use Representations and Certifications:

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 541330

The small business size standard is \$23,000,000.00

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)
52.215-16	-	Facilities Capital Cost Of Money (JUN 2003)
52.219-24	-	Small Disadvantaged Business Participation Program - Targets (OCT 2000)

DFAR CLAUSE TITLE

252.211-7005	-	Substitutions For Military Or Federal Specifications And Standards (FEB 2003)
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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: 3200.JS
Naval Research Laboratory (NRL)
4555 Overlook Avenue, S.W.
Washington, D.C. 20375

Solicitation/RFP No. – N00173-03-R-JS06

Closing Date: (As specified in Block 9, RFP face page.)

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 below in Section L-12.

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

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

L-6 FAR 52.233-2 - SERVICE OF PROTEST (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 VOLUME I - TECHNICAL/MANAGEMENT PROPOSAL

REQUIRED COPIES: 1 ORIGINAL AND 2 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.
- (2) The following information is required for evaluation of your technical/management :

PERSONNEL QUALIFICATIONS

- Provide documentation to demonstrate proposed personnel to meet the minimum personnel qualifications, Attachment 2.
- Provide resumes for all management, technical, and project personnel as well as demonstrate education and pertinent work experience in the subject areas specified in the RFP with clarity, conciseness, relevancy to all tasks set forth in the SOW.
- Provide tangible evidence of work experience for each labor category in the subject areas specified in the SOW.
- Provide documentation to show the capability of the proposed key personnel to provide project monitoring and control to effectively achieve task assignments and on-time completion.

TECHNICAL UNDERSTANDING

Demonstrate knowledge and understanding in the following areas:

- Properties of DRFM based techniques generators and their application to ECM against coherent radars and seekers
- EA techniques that are effective against modern radar/seeker threats
- Low frequency, RF, microwave, and millimeter wave transceiver technologies and their application coherent and conventional EA systems and techniques
- Multi-spectral seeker/sensor systems and the application of RF, microwave, millimeter wave, infrared and electro-optical technologies to EA systems and techniques for countering multi-spectral seekers/sensors
- Expert knowledge of coherent monopulse radars and radar signal processing
- Dual-polarization technology and its application to EA systems and techniques for countering seekers/sensors using dual-polarization technology
- Information warfare, communications EA, command and control EA
- Practical laboratory experience in designing, fabricating and testing analog RF, digital, microwave, fiber-optical and millimeter wave circuits.

Demonstrate an understanding of the required deliverables and task objectives.

Demonstrate that your understanding of the SOW reveals the knowledge of project monitoring and control, achievement of task assignments, on-time completion, quality assurance, resource management, and responsiveness to workload fluctuation, in support of multiple tasks.

MANAGEMENT/CORPORATE EXPERIENCE

Provide documentation to demonstrate how your corporate experience meets the requirements of the SOW.

- Show corporate ability to simultaneously coordinate a large number of interrelated technical and management support tasks.
- Provide documentation to show previous projects involving similar research in all the task areas set forth in the SOW
- Identify relevant work performed on previous contracts by including contract number(s), Government agency/commercial entity, dollar amount(s), date(s) of performance, and the name(s) and telephone number(s) of Contracting Officer(s) and technical personnel
- Provide evidence of established systems which are closely aligned in their state-of-the-art performance and development phase for effective continuity, quality assurance, and contract completion assurance
- Demonstrate corporate capability and experience on contracts/projects of similar size and complexity as the work solicited.

L-12 VOLUME II - BUSINESS PROPOSAL

REQUIRED COPIES: 1 ORIGINAL AND 2 COPIES

(1) COST PROPOSAL

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.

(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.

(b) Proposals must also include information to permit evaluation of the extent of participation of small disadvantaged business concerns in performance of the contract. See the provision at FAR 52.219-24, Small Disadvantaged Business Participation Program--Targets (OCT 2000), and the clause at 52.219-25, Small Disadvantaged Business Participation Program--Disadvantaged Status and Reporting (OCT 1999). Any targets will be incorporated into and become part of any resulting contract. 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.

L-13 TRAVEL AND MATERIAL ESTIMATES - FOR EVALUATION PURPOSES ONLY

The travel and material set forth below must be included in each offeror's cost proposal. During the term of the contract, the contractor will be reimbursed actual and verifiable travel and material expenses.

- a) The Government estimates the travel costs for this effort shall not exceed \$125,000.00 over five (5) years and shall not exceed \$40,000.00 in any year.
- b) The Government estimates the material costs for this effort shall not exceed \$3,500,000.00 over five (5) years and shall not exceed \$1,000,000.00 per year.
- c) The travel and material estimates are direct costs and the offeror should add applicable indirect costs, if any.

**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. Personnel Qualifications and Technical Understanding are of equal importance and each is more important than Management/Corporate Experience. The cost factor is more important than the Small Business Participation Factor.

M-2-1. TECHNICAL/MANAGEMENT

(1) PERSONNEL QUALIFICATIONS

The proposed personnel will be evaluated on the degree to which they meet the requirements set forth in the Personnel Qualifications, Attachment (2).

(2) TECHNICAL UNDERSTANDING

Evaluation will be based on the demonstrated overall soundness, ability to understand, and accomplish the technical requirements in the Statement of Work, Attachment (1).

(3) MANAGEMENT/CORPORATE EXPERIENCE

Evaluation will be based on the extent of corporate experience in performing, accomplishing, and managing projects related specifically to tasks in the SOW. The soundness of the Offeror's project management approach for accomplishing the tasks in the SOW.

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.

(b) The extent of participation of small disadvantaged business concerns 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

This statement of work (SOW) describes the engineering and technical services to be provided on-site to the Naval Research Laboratory Aerospace Electronic Warfare Branch of the Tactical Electronic Warfare Division (TEWD) at the Naval Research Laboratory (NRL) in Washington, D.C. These services include a number of strongly interrelated tasks that vary significantly in technical, scope and deliverable products. Several of the tasks support the same mission and careful technical coordination is required to ensure a successful deliverable product.

2.0 SCOPE

The contractor shall provide scientific, technical, and engineering services in the following tasks: 1) Coherent Radar Electronic Attack; 2) Transmitter Technology Research and Development; 3) Multi-Spectral Electronic Attack; 4) Dual-Polarized Technology/Electronic Attack; and 5) Information Warfare Technology.

3.0 TASK DESCRIPTIONS

3.1 TASK 1. COHERENT RADAR ELECTRONIC ATTACK (EA)

3.1.1 SCOPE OF TASK: The contractor shall design, develop, fabricate, integrate, test, and evaluate EA concepts, hardware/software components, and subassemblies to conventional and coherent radars/seekers. Specifically, the contractor shall develop EA requirements for countering coherent radars/seekers, identify hardware needs to be developed/integrated to generate coherent EA waveforms, configure equipment for laboratory/field experimental systems, and perform test and evaluation of research and development (R&D) systems to determine their effectiveness.

3.1.2 EA REQUIREMENTS: The contractor shall generate the electronic countermeasures (ECM) requirements for deceptive jamming of coherent and conventional threats in defense of tactical and strategic naval forces. The coherent radar threats include, but are not limited to: (a) pulse Doppler (PD), (b) pulse compression (PC), and (c) imaging/signature recognition radars [e.g. high range resolution (HRR), synthetic aperture radars (SAR) and inverse synthetic aperture radars (ISAR)].

3.1.3 HARDWARE/SOFTWARE DEVELOPMENT: The contractor shall identify, design, fabricate, integrate, simulate, test, and evaluate hardware/software capable of generating EA waveforms. The contractor shall deliver the hardware/software and technical report(s) summarizing the hardware/software performance, documenting the hardware/software design(s), and the expected performance.

3.1.4 TEST AND EVALUATION: The contractor shall test and evaluate hardware/software developed under subtask 3.1.3 against a number of coherent radars. The contractor shall deliver technical report(s) summarizing the experimental set-up, test execution, and the analysis of the test results to the COR for content review.

3.2 TASK 2. TRANSMITTER TECHNOLOGY RESEARCH AND DEVELOPMENT

3.2.1 TASK DESCRIPTION: The contractor shall design, develop, fabricate, integrate, test, and evaluate hardware/software components, subassemblies, and systems with applications to advanced transmitter technology. Specifically, the contractor shall develop requirements for RF, microwave, and millimeter wave transmitters; the identification of hardware/software needs to be developed/integrated to advance RF; microwave and millimeter wave transmitter technology; the configuration of this equipment in laboratory/field experimental systems and test and evaluation of these systems to determine their effectiveness.

3.2.2 R&D REQUIREMENTS: The contractor shall generate the advanced transmitter technology requirements with application towards aerospace EA.

3.2.3 HARDWARE/SOFTWARE DEVELOPMENT: The contractor shall identify, design, integrate, test, and evaluate hardware/software in the development of advanced RF, microwave, and millimeter wave transmitter technologies. The contractor shall deliver the appropriate hardware/software and a technical report summarizing the hardware/software performance, documenting the hardware/software design, and expected performance.

3.2.4 TEST AND EVALUATION: The contractor shall provide technical services for the test and evaluation of hardware/software developed under subtask 3.2.3. The contractor shall deliver technical report(s) summarizing the experimental set-up, test execution, and the analysis of the test results to the COR for review of the content.

3.3 TASK 3. MULTI-SPECTRAL ELECTRONIC ATTACK

3.3.1 TASK DESCRIPTION: The contractor shall design, develop, fabricate, integrate, test, and evaluate hardware/software components, subassemblies, and systems capable of generating state-of-the-art EA techniques effective in countering advanced multi-spectral sensors (i.e. multiple sensor combinations of microwave, millimeter wave, electro-optical (EO), infrared (IR), ultraviolet (UV), acoustic, etc.) In general, this work is concerned with the detection and identification of multi-spectral sensors and the formulation/implementation of generic active and/or passive ECM techniques to minimize, in real time, their effectiveness. Specifically, this work involves the development of EA requirements for multi-spectral sensors; the identification of hardware needed to be developed/integrated to generate EA techniques against multi-spectral sensors; the configuration of this equipment into laboratory/field experimental systems and the evaluation of these systems to determine their effectiveness.

3.3.2 EA REQUIREMENTS: The contractor shall generate the EA requirements for countering multi-spectral threats in defense of tactical and strategic naval forces. The multi-spectral threats include multiple combinations of both active and passive sensors that utilize combinations of the microwave, millimeter wave, electro-optical, infrared, ultraviolet, and/or acoustic spectrum.

3.3.3 HARDWARE/SOFTWARE DEVELOPMENT: The contractor shall identify, design, integrate, test, and evaluate hardware/software capable of generating multi-spectral EA waveforms. The contractor shall deliver the appropriate hardware/software and a technical report summarizing the hardware/software performance, documenting the hardware/software design, and expected performance.

3.3.4 TEST AND EVALUATION: The contractor shall test and evaluate hardware/software developed under tasking 3.3.3 against a number of multi-spectral threats. The contractor shall deliver a technical report(s) summarizing the experimental set-up, test execution, and the analysis of the test results for COR review of the content.

3.4 TASK 4. DUAL-POLARIZED TECHNOLOGY/ELECTRONIC ATTACK

3.4.1 TEST DESCRIPTION: The contractor shall design, develop, fabricate, integrate, test, and evaluate hardware/software components, subassemblies, and systems technologies which generate state-of-the-art EA techniques that are effective in countering dual-polarized sensors/seekers. In general, this work is concerned with the detection and identification of dual polarized sensors/seekers and the formulation/implementation of generic active and/or passive techniques to minimize, in real time, threat effectiveness. Specifically, the contractor shall develop EA and technology requirements to counter dual-polarized sensors/seekers; identify hardware needs to be developed/integrated (upon COR approval) to generate dual-polarized EA waveforms; configure the equipment in laboratory/field experimental systems, and test and evaluate these systems to determine their effectiveness.

3.4.2 TECHNOLOGY/EA REQUIREMENTS: The contractor shall generate the dual-polarization technology and EA requirements for countering dual-polarized threats in defense of tactical and strategic naval forces.

3.4.3 HARDWARE/SOFTWARE DEVELOPMENT: The contractor shall identify, design, fabricate, integrate, test, and evaluate hardware/software in the development of dual-polarization technologies addressing emerging dual-polarization requirements. The contractor shall deliver the appropriate hardware/software and a technical report summarizing the hardware/software performance, documenting the hardware/software design, and expected performance.

3.4.4 TEST AND EVALUATION: The contractor shall test and evaluate hardware/software developed under tasking 3.4.3 against dual-polarized threats. The contractor shall deliver technical report(s) summarizing the experimental set-up, test execution, and the analysis of the test results to the COR for review of content.

3.5 TASK 5. INFORMATION WARFARE TECHNOLOGY

3.5.1 TASK DESCRIPTION: Information warfare is used in the broadest terms to mean the interception, exploitation, and/or manipulation of information systems that may be threats. Information systems of interest include computers; computer networks; communications systems of all types: data links, terrestrial and satellite systems, command and control systems, identification, navigation and air traffic control systems, etc. which may be governmental, commercial, military or civil.

The contractor shall develop and evaluate new techniques and methods for performing information warfare functions and design, develop, fabricate, integrate, test, and evaluate prototype hardware/software components, subassemblies and systems to implement these functions and measure their effectiveness. The contractor shall develop equipment to operate in the lab, at field sites and aboard ships and aircraft.

3.5.2 TECHNOLOGY REQUIREMENTS: The contractor shall generate the requirements for information warfare techniques, methods, equipment and tests.

3.5.3 HARDWARE/SOFTWARE DEVELOPMENT: The contractor shall identify, design, fabricate, integrate, test, and evaluate hardware/software in the development of information warfare technologies. The contractor shall deliver the appropriate hardware/software and technical report documenting the hardware/software design, and measured performance.

3.5.4 TEST AND EVALUATION: The contractor shall test and evaluate hardware/software developed under tasking 3.5.3. The contractor shall deliver a technical report summarizing the experimental set-up, test execution, and the analysis of the test results to the COR for review of content.

3.6 TASK 6. ADDITIONAL SUPPORT

The contractor shall provide the necessary personnel (to include provisions for consultants and subcontractors), materials, facilities and flight services support.

4.0 DELIVERABLES

The contractor shall provide deliverables as outlined in the DD Form 1423 Contract Data Requirements List (CDRL). The general requirements for these items are listed below:

4.1 QUARTERLY PROGRESS REPORTS

This report must include, but not be limited to:

4.1.1 Description of progress during the reporting period supported by the reasons for any change in approach reported previously.

4.1.2 Notification of any change in key personnel associated with the contract during the reporting period.

4.1.3 Summary of substantive information derived from noteworthy trips, meetings, visits, briefings, scientific papers, and special conferences held in connection with the contract during the reporting period.

4.1.4 Software must be documented with comments embedded in code and other documentation, as is the practice for well documented commercial software.

4.1.5 Hardware must be documented with detailed electronic and mechanical schematics down to the component level, block diagrams, special fabrication techniques, mechanical and circuit board layouts, parts/vendor lists, and theory of operation.

4.1.6 Summary of any problems or areas of concern on which Government guidance is desired.

4.1.7 Statement relative to any anticipated deviation in the contractor's planned effort to t to achieve the objective of the contract.

4.2 TECHNICAL REPORTS (INTERIM & FINAL)

The technical reports must present a concise and factual discussion of technical findings and accomplishments during the reporting period. The report must be of technical publication quality, including appropriate subject matter reference. The following information must be included:

4.2.1 Task objectives, technical problems, general methodology (e.g., literature review, laboratory experiment, survey, field study, etc.), technical results, important findings, conclusions, implications for further research, significant hardware and software development, and any special comments.

4.2.2 All such reports must be submitted to the Contracting Officer's Representative (COR) for approval prior to publication and distribution.

4.3 SOFTWARE/HARDWARE DOCUMENTAION

This report shall be submitted as required during the performance of the contract. The report must include, but not be limited to the following:

4.3.1 Theory of Operation.

4.3.2 Logic Flow Diagrams and Mechanical Drawings.

4.3.3 Annotated Lines of Software Code on Appropriate Media.

4.3.4 Circuit Schematics.

4.3.5 Vendor Parts List/Specifications.

4.4 CONTRACTOR ON-SITE LABOR & FINANCIAL REPORTS

This report must include the following information:

4.4.1 Reporting period, contract #, contract value, contract funding, and date submitted.

4.4.2 Labor (including subcontractors and consultants) - show the employee name and number of hours worked on-site at NRL. If the contractor worked on multiple tasks (as defined by the COR), the number of hours worked on each task must be identified separately.

4.4.3 Labor (including subcontractors and consultants) - show the employee name and number of hours worked off-site at NRL. If the contractor worked on multiple tasks (as defined by the COR), the number of hours worked on each task must be identified separately.

4.4.4 Funding expended to date and the estimated funding required to complete tasking.

4.4.5 Estimated date of completion of the work.

5.0 OTHER REQUIREMENTS

5.1 SECURITY REQUIREMENTS

All security clearances for visits, field tests, etc., required for contract performance shall originate and be certified from NRL as specified by the COR. The contractor shall be responsible for sending updated clearance information to the NRL Security Office and the COR in a timely manner.

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. 0002		B. EXHIBIT A		C. CATEGORY: TDP _____ TM- _____ OTHER _____ X			
D. SYSTEM / ITEM			E. CONTRACT / PR NO. N00173-03-R-JS06		F. CONTRACTOR		
1. DATA ITEM NO. A001	2. TITLE OF DATA ITEM Quarterly Status Report			3. SUBTITLE			
4. AUTHORITY (Data Acquisition Document No.)		5. CONTRACT REFERENCE SOW, 4.1		6. REQUIRING OFFICE NRL Code 5730			
7. DD 250 REQ LT	9. DIST STATEMENT REQUIRED	10. FREQUENCY QRTLY	12. DATE OF FIRST SUBMISSION 30 DAC	14. DISTRIBUTION			
8. APP CODE	11. AS OF DATE	13. DATE OF SUBSEQUENT SUBMISSION 60 DAC	a. ADDRESSEE		b. COPIES		
16. REMARKS			NRL Code 5730		Draft	Final	
						Reg	Repro
						2	0
			15. TOTAL →			2	0
1. DATA ITEM NO. A002	2. TITLE OF DATA ITEM Interim Technical Reports			3. SUBTITLE			
4. AUTHORITY (Data Acquisition Document No.)		5. CONTRACT REFERENCE SOW, 4.2		6. REQUIRING OFFICE NRL Code 5730			
7. DD 250 REQ LT	9. DIST STATEMENT REQUIRED	10. FREQUENCY ANNUY	12. DATE OF FIRST SUBMISSION 90 DAC	14. DISTRIBUTION			
8. APP CODE	11. AS OF DATE	13. DATE OF SUBSEQUENT SUBMISSION 180 DAC	a. ADDRESSEE		b. COPIES		
16. REMARKS			NRL Code 5730		Draft	Final	
						Reg	Repro
						2	0
			15. TOTAL →			2	0
1. DATA ITEM NO. A003	2. TITLE OF DATA ITEM Final Technical Report			3. SUBTITLE			
4. AUTHORITY (Data Acquisition Document No.)		5. CONTRACT REFERENCE SOW, 4.2		6. REQUIRING OFFICE NRL Code 5730			
7. DD 250 REQ DD	9. DIST STATEMENT REQUIRED	10. FREQUENCY 1TIME	12. DATE OF FIRST SUBMISSION	14. DISTRIBUTION			
8. APP CODE	11. AS OF DATE 425 DAC	13. DATE OF SUBSEQUENT SUBMISSION	a. ADDRESSEE		b. COPIES		
16. REMARKS			NRL Code 5730		Draft	Final	
						Reg	Repro
						3	1
			15. TOTAL →			3	1
1. DATA ITEM NO. A004	2. TITLE OF DATA ITEM Software Documentation			3. SUBTITLE			
4. AUTHORITY (Data Acquisition Document No.)		5. CONTRACT REFERENCE SOW, 4.3		6. REQUIRING OFFICE NRL Code 5730			
7. DD 250 REQ DD	9. DIST STATEMENT REQUIRED	10. FREQUENCY	12. DATE OF FIRST SUBMISSION	14. DISTRIBUTION			
8. APP CODE	11. AS OF DATE 365 DAC	13. DATE OF SUBSEQUENT SUBMISSION	a. ADDRESSEE		b. COPIES		
16. REMARKS			NRL Code 5730		Draft	Final	
						Reg	Repro
						2	0
			15. TOTAL →			2	0
G. PREPARED BY NRL Code 5730		H. DATE 2/10/03		I. APPROVED BY		J. DATE	

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

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18. ESTIMATED TOTAL PRICE

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18. ESTIMATED TOTAL PRICE

PERSONNEL QUALIFICATIONS**LABOR CATEGORIES:**

The following requirements on personnel, education, experience, and specialties are the typical NRL requirements for the SOW tasks, which shall be carefully evaluated for NRL compatibility.

SENIOR SCIENTIST:

Minimum Education: A Bachelor of Science/Arts in electrical engineering/physics with a background in both hardware and software and a specific emphasis on analog/digital system design and development. A Master of Science/Arts in electrical engineering/physics is desirable. A Ph.D. in electrical engineering, applied physics or applied mathematics with a strong background in applied research rather than only in theoretical research is also desirable.

Years of Experience: The project manager must have a minimum of ten (10) years of applied experience in the areas of radars, electronic countermeasures, digital signal processing, electromagnetism and associated technologies as they are applied to advanced coherent radar threats (e.g. high range resolution, synthetic aperture radars, inverse synthetic aperture radars). Subordinate engineers must have a minimum of five (5) years in the same technical areas. Apprentice engineers should have some practical laboratory hardware/software experience in the technical areas outlined in the following paragraph.

Types of Experience:

1. Practical experience and knowledge of digital and acoustic signal processing as they apply to sensor technologies.
2. Practical experience and knowledge of radar systems including synthetic aperture radars (SARs), interferometric synthetic aperture radars (IFSARs) and inverse synthetic aperture radars (ISARs).
3. Design of EA technique generators and high-speed controllers.
4. Design and optimization of Digital Radio Frequency Memories (DRFMs), their interfaces and control hardware.
5. Knowledge of fiber optic technology and its application to EA systems.
6. Design and fabrication of EA receivers, quasi real-time data displays, and software control.
7. Familiarity with and use of software for computer aided design (CAD)/computer aided engineering (CAE), wave propagation phenomenology and electromagnetics.
8. Practical experience and knowledge of C, C++, Windows NT, UNIX, other programming languages and computers.

Security Requirements: Top Secret/SCI

Other Requirement: Work requires that this person be working on-site at NRL Washington, DC location.

SENIOR ELECTRICAL ENGINEER:

Minimum Education: A Bachelor of Science in electrical engineering with a background in both hardware and software and a specific emphasis on analog/digital system design and development. A Master of Science in electrical engineering is desirable. A Ph.D. in electrical engineering, applied physics or applied mathematics with a strong background in applied research rather than only in theoretical research is also desirable.

Years of Experience: The project manager must have a minimum of ten (10) years of applied experience in the areas of radars, electronic countermeasures, digital signal processing, electromagnetism and associated technologies as they are applied to advanced coherent radar threats (e.g. high range resolution, synthetic aperture radars, inverse synthetic aperture radars). Subordinate engineers must have a minimum of five (5) years in the same technical areas. Apprentice engineers should have some practical laboratory hardware/software experience in the technical areas outlined in the following paragraph.

Types of Experience Desired:

1. Design of high-speed digital hardware such as field programmable gate arrays, analog-to-digital circuits, and digital-to-analog circuits. This includes the design, population and "trouble shooting" of multi-layer printed circuit boards. Design of microwave and millimeter wave circuits. Monolithic microwave integrated circuit (MMIC) and application specific circuit (ASIC) design experience.
2. Practical experience and knowledge of radar systems including synthetic aperture radars (SARs), interferometric synthetic aperture radars (IFSARs) and inverse synthetic aperture radars (ISARs).
3. Design of EA technique generators and high-speed controllers.
4. Design and optimization of Digital Radio Frequency Memories (DRFMs), their interfaces and control hardware.
5. Knowledge of fiber optic technology and its application to EA systems.
6. Design and fabrication of EA receivers, quasi real-time data displays, and software control.
7. Familiarity with and use of software for computer aided design (CAD)/computer aided engineering (CAE), wave propagation phenomenology and electromagnetics.

Security Requirements: Must have Top Secret/SCI clearance.

Other Requirement: Work requires that this person be working on-site at NRL Washington, DC location.

SENIOR RADAR ENGINEER (Key Personnel):

Minimum Education: A Bachelor of Science in electrical engineering/computer engineering/optical engineering with a background in both hardware and software and a specific emphasis on analog/digital system design and development. A Master of Science in electrical engineering with emphasis on electromagnetics, microwave engineering, microwave circuits and modeling/simulation is desirable. A Ph.D. in electrical engineering, applied physics or applied mathematics with a strong background in applied research rather than only in theoretical research is also desirable.

Years of Experience: The project manager must have a minimum of ten (10) years of applied experience in the areas of microwave engineering, radar, electronic countermeasures, digital signal processing, electromagnetics as they are applied to advanced multispectral (RF/EO/IR/UV/acoustic, etc.) sensors/seekers. Subordinate engineers must have a minimum of five (5) years in the same technical areas. Apprentice engineers should have some practical laboratory hardware/software experience in the technical areas outlined in the following paragraph. Electronic technicians must have five (5) years experience in all types of circuit board design, manufacturing, assembly, tests and infrared/fiber optics subsystems.

Types of Experience:

1. Design and technology implementation of analog/digital RF, microwave, millimeter wave, infrared, ultraviolet and visible subsystem hardware (e.g. transmitter sources, receiver/detection, etc).
2. Practical experience and knowledge of both integrated onboard and offboard radar and EA systems.
3. Hardware and software control of transceiver and data display subsystems.
4. Knowledge of infrared/laser electronics, solid-state sensors and fiber-optic technologies and their integration with RF.
5. Practical experience and knowledge of sensor fusion algorithms and servo loops as they apply to monopulse trackers and other EO/IR/UV trackers.
6. Some knowledge of digital and acoustic signal processing as they apply to sensor technologies.
7. Practical experience in modeling and simulation of distributed EA systems to counter integrated air defense systems.
8. Practical experience and knowledge of C, C++, Windows NT, UNIX, other programming languages and computers.

Security Requirements: Must have Top Secret/SCI clearance.

Other Requirement: Work requires that this person be working on-site at NRL Washington, DC location.

SENIOR COMMUNICATIONS ENGINEER (Key Personnel):

Minimum Education: A Bachelor of Science in electrical engineering with a background in both hardware and software with an emphasis on advanced modern communications/radar systems, digital/analog circuits, digital signal processing, electromagnetics, and modeling and simulation. A Master of Science in electrical engineering is desirable. A Ph.D. in electrical engineering, applied physics or applied mathematics with a strong background in applied communications research rather than only in theoretical research is also desirable.

Years of Experience: The senior engineer must have a minimum of ten (10) years of applied experience in the areas of communications/radar, electronic countermeasures, digital signal processing, electromagnetism and associated technologies as they applied to advanced radar threats (e.g. high range resolution, synthetic aperture radars, inverse synthetic aperture radars) and communication systems. Subordinate engineers must have a minimum of five (5) years in the same technical areas. Apprentice engineers should have some practical laboratory hardware/software experience in the technical areas outlined in the following paragraph. electronic technicians must have five (5) years of experience in printed circuit board (PCB) design, component population, fabrication of PCBs, wire bonding, surface mount technologies, as well as discrete microwave circuits.

Types of Experience:

1. Design of analog/digital, RF, microwave, millimeter wave subsystem/system hardware for communications and radar EA applications.
2. Knowledge of communications system theory including coding theory, error-correction, encryption, protocols and standards and receiver/transmitter design.
3. Design and development of multi-processor system architectures, databases, and real-time system control.
4. Practical experience and knowledge of C, C++, Windows NT, UNIX, other programming languages and computers.
5. Knowledge of modeling and simulation of EA/communications/radar advanced integrated networks.
6. Development of digital signal processing system architectures (hardware and software).
7. Experience in developing EA techniques for countering communications and radar systems.

Security Requirements: Must have Top Secret/SCI clearance.

Other Requirement: Work requires that this person be working on-site at NRL Washington, DC location.

SENIOR COMPUTER/SOFTWARE ENGINEER:

Minimum Education: A Bachelor Degree in Computer Science or Electrical Engineering.

Equivalent: a Bachelor degree in any other engineering or science discipline plus an additional year of qualifying experience beyond the minimum, or a Bachelor degree in any other discipline plus an additional three years of qualifying experience beyond the minimum.

Years of Experience: A minimum of ten years experience in computer software design, test and debug is desired. Computer Scientist may be a recent graduate with practical experience.

Types of Experience Desired:

1. Computer program design and development including higher-order-language experience in FORTRAN, C and C++.
2. Algorithm development for solutions to engineering and physical problems.
3. Computer hardware applications, and optimum usage of computer resources.
4. Research and development of software for the development of aerospace EW simulations.
5. Expert systems algorithm development, statistical modeling for expert system evaluation, and neural network development.
6. Digital computer software modeling and simulation of weapon systems and weapon system interactions.
7. Experience in control/optimization in near real time of hardware and software, especially in electronic warfare applications.
8. Modeling and simulation of radar/seeker/sensor systems.
9. Modeling and simulation of radar/seeker/guidance systems.
10. Software design and development in higher-order-languages, lower-order-languages, and in Windows and UNIX operating systems.
11. Algorithm development for solutions to engineering and physical problems.
12. Computer hardware applications, and optimum usage of computer resources.

Security Requirements: Top Secret/SCI

SENIOR MICROWAVE ENGINEER:

Minimum Education: A Bachelor of Science in electrical engineering with a background in both hardware and software and a specific emphasis on analog/digital system design and development. A Master of Science in electrical engineering is desirable. A Ph.D. in electrical engineering, applied physics or applied mathematics with a strong background in applied research rather than only in theoretical research is also desirable.

Years of Experience: The project manager must have a minimum of ten (10) years of applied experience in the areas of radars, electronic countermeasures, digital signal processing, radio frequency power amplifiers, antennas, electromagnetism and associated technologies as they are applied to advanced coherent radar threats (e.g. high range resolution, synthetic aperture radars, inverse synthetic aperture radars) and communication systems. Subordinate engineers must have a minimum of five (5) years in the same technical areas. Apprentice engineers should have some practical laboratory hardware/software experience in the technical areas outlined in the following paragraph. Electronic technicians must have five (5) years of experience in printed circuit board (PCB) design, component population, fabrication of PCBs, wire bonding, surface mount technologies, as well as discrete microwave circuits.

Types of Experience Desired:

1. Design of high-speed digital hardware such as field programmable gate arrays, analog-to-digital circuits, and digital-to-analog circuits. This includes the design, population and "trouble shooting" of multi-layer printed circuit boards. Design of microwave and millimeter wave circuits. MMIC and ASIC design experience.
2. Experience in fabrication, packaging, bonding, etc. of MMIC/ASIC and analog circuits. Experience in qualifying circuit packages for military and space applications.
3. Knowledge of radar systems and communication systems transmitters and receivers.
4. Knowledge of high power vacuum electronics (e.g. triodes, tetrodes, traveling wave tubes, microwave power modules, klystrons, magnetrons, etc.). Also knowledge and use of metal fabrication machinery, welding, soldering, brazing, and vacuum systems as they relate to vacuum electronics.
5. Knowledge of field emitter technology and solid-state electronics.
6. Design and optimization of Digital Radio Frequency Memories (DRFMs), interfaces and control hardware.
7. Knowledge of fiber optic technology and its application to EA systems.
8. Design and fabrication of EA receivers, quasi real-time data displays, and software control.

Security Requirements: Top Secret/SCI

Other Requirement: Work requires that this person be working on-site at NRL Washington, DC location.

SENIOR ELECTRONICS TECHNICIAN (Key Personnel):

Minimum Education: High school diploma or advanced training course in areas of applicability.

Years of Experience: Ten years of direct experience in laboratory research, development, fabrication, test and evaluation of electric and mechanical components is desired. Technician must be a recent graduate with an Associates Degree or related formal technical education.

Types of Experience Desired:

1. Experience in fabrication, packaging, bonding, etc. of MMIC/ASIC and analog circuits. Experience in qualifying circuit packages for military and space applications.
2. Machinist experience that provides a background in the use of normal machine shop machinery in fabrication of prototypes in an R&D facility; and
2. Electronics background in device fabrication, including the mechanical fabrication of components, subassemblies, and assemblies into a complete high power electron tube.
3. The individual should have practical experience with vacuum system technology, hydrogen furnaces, arc welding and other machine shop machinery.
4. Practical experience in electronics, with experience in systems design, digital systems design, High and Low voltage power supplies.
5. Practical experience with maintenance, operation and modification of electronic and mechanical systems.
6. Some experience with computers and software such as LabVIEW, AutoCAD, Orcad, P-Spice, Altera, and others.

Security Requirements: Must possess or be eligible for SECRET or TOP SECRET.

Other Requirement: Work requires that this person be working on-site at NRL Washington, DC location.

SENIOR MICROWAVE TECHNICIAN:

Minimum Education: High school diploma and advanced training course in areas of applicability.

Years of Experience: Ten years of direct experience in laboratory research, development, fabrication, test and evaluation of electric and mechanical components is desired. Technician must be a recent graduate with an Associates Degree or related formal technical education.

Types of Experience Desired:

1. Experience in fabrication, packaging, bonding, etc. of MMIC/ASIC and analog circuits. Experience in qualifying circuit packages for military and space applications.
2. Machinist experience that provides a background in the use of normal machine shop machinery in fabrication of prototypes in an R&D facility; and
2. Electronics background in device fabrication, including the mechanical fabrication of components, subassemblies, and assemblies into a complete high power electron tube.
3. The individual should have practical experience with soldering and fabricating a variety of different chip types onto microwave circuit boards/assemblies.
4. Practical experience in electronics, with experience in systems design, digital systems design, high and low voltage power supplies.
5. Practical experience with maintenance, operation and modification of electronic and mechanical systems.
6. Some experience with computers and software such as LabVIEW, AutoCAD, Orcad, P-Spice, FPGAs, and others.

Security Requirements: Must possess or be eligible for SECRET or TOP SECRET.

Other Requirement: Work requires that this person be working on-site at NRL Washington, DC location.

ADMINISTRATOR:

Minimum Education: Must be a high school graduate with a business course in typing, bookkeeping, and business mathematics.

Years of Experience: Five to Six years of practical experience handling commercial/US government contractual and financial matters.

Security Requirements: Must possess or be eligible for SECRET or TOP SECRET.

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 SER: 025-03 a. FACILITY CLEARANCE REQUIRED <div style="text-align: center; border: 1px solid black; padding: 2px;">TOP SECRET</div> b. LEVEL OF SAFEGUARDING REQUIRED <div style="text-align: center; border: 1px solid black; padding: 2px;">TOP SECRET</div>	
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		DUE DATE (YYYYMMDD)		c. FINAL <i>(Complete Item 5 in all cases)</i> DATE (YYYYMMDD)	
57-3054-03					
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 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					
ENGINEERING AND TECHNICAL SUPPORT SERVICES					
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>					

Reset

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 5730.
NO PUBLIC RELEASE OF SCI IS AUTHORIZED.

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 TOP SECRET facility clearance, TOP SECRET storage capabilities and personnel eligible for Sensitive Compartmented Information.

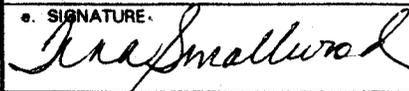
14. ADDITIONAL SECURITY REQUIREMENTS. Requirements, in addition to ISM requirements, are established for this contract. Yes No
(*If Yes, identify the pertinent contractual clauses in the contract document itself, or provide an appropriate statement which identifies the additional requirements. Provide 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 TINA SMALLWOOD	b. TITLE CONTRACTING OFFICER, SECURITY	c. TELEPHONE (<i>Include Area Code</i>) (202)767-2240/2521
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d. ADDRESS (*Include Zip Code*)
NAVAL RESEARCH LABORATORY
4555 OVERLOOK AVE., SW
WASHINGTON, DC 20375-5320

e. SIGNATURE


17. REQUIRED DISTRIBUTION

- a. CONTRACTOR
- b. SUBCONTRACTOR
- c. COGNIZANT SECURITY OFFICE FOR PRIME AND SUBCONTRACTOR
- d. U.S. ACTIVITY RESPONSIBLE FOR OVERSEAS SECURITY ADMINISTRATION
- e. ADMINISTRATIVE CONTRACTING OFFICER
- f. OTHERS AS NECESSARY 1221.1, 1223.1, 5730, 5702, ONI