

| | | | | | |
|---|--|--|--|--------------------------------------|--|
| SOLICITATION, OFFER AND AWARD | | 1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 350) | | RATING D0-C9 | PAGE OF 1 15 PAGES |
| 2. CONTRACT NO. | 3. SOLICITATION NO. N00173-04-R-JK01 | 4. TYPE OF SOLICITATION <input type="checkbox"/> SEALED BID (IFB) <input checked="" type="checkbox"/> NEGOTIATED (RFP) | | 5. DATE ISSUED 17 Mar 2004 | 6. REQUISITION/PURCHASE NO. 53-2074-04 |
| 7. ISSUED BY CONTRACTING OFFICER NAVAL RESEARCH LABORATORY 4555 OVERLOOK AVENUE SW WASHINGTON DC 20375-5326 ATTN: CODE | | CODE | 8. ADDRESS OFFER TO (If other than Item 7) | | |

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

SOLICITATION

9. Sealed offers in original and 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 19 Apr 2004
(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 Janiece Kirkland | B. TELEPHONE NO. (Include area code) (NO COLLECT CALLS) 202-767-3710 |
|---------------------------|------------------------------------|--|

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OFFER (Must be fully completed by offeror)

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

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

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

| | | | |
|----------------------------------|------|----------|---|
| 15A. NAME AND ADDRESS OF OFFEROR | CODE | FACILITY | 16. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER (Type or print) |
|----------------------------------|------|----------|---|

| | | | |
|--|--|---------------|----------------|
| 15B. TELEPHONE NO. (Include area code) | 15C. CHECK IF REMITTANCE ADDRESS IS DIFFERENT FROM ABOVE - ENTER SUCH ADDRESS IN SCHEDULE. | 17. SIGNATURE | 18. OFFER DATE |
|--|--|---------------|----------------|

AWARD (To be completed by Government)

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

| | | | |
|--|------|-----------------------------|------|
| 24. ADMINISTERED BY (If other than Item 7) | CODE | 25. PAYMENT WILL BE MADE BY | CODE |
|--|------|-----------------------------|------|

| | | |
|---|--|----------------|
| 26. NAME OF CONTRACTING OFFICER (Type or print) | 27. UNITED STATES OF AMERICA (Signature of Contracting Officer) | 28. AWARD DATE |
|---|--|----------------|

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

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

B-1 SUPPLIES OR SERVICES AND PRICES/COSTS

| ITEM NUMBER | SUPPLIES OR SERVICES | QTY | UNIT | UNIT PRICE | AMOUNT |
|--------------------|---|------------|-------------|-------------------|---------------|
| 0001 | The Contractor shall provide a Reconfigurable Signal Processor Development System in accordance With Section C. | | | | |
| 0001AA | Wideband Analog-to Digital Converter (ADC) card | 2 | ea. | | |
| 0001AB | ADC Clock Generator Card | 1 | ea. | | |
| 0001AC | FPGA Prototyping Card | 2 | ea. | | |
| 0001AD | One floating seat of design entry | 1 | ea. | | |
| 0001AE | One floating seat of design simulation software | 1 | ea. | | |
| 0001AF | One floating seat of design synthesis | 1 | ea. | | |

TOTAL DOLLAR AMOUNT FOR CLINs*: \$

*CONTRACT LINE ITEM NUMBER

**SECTION C
DESCRIPTION/SPECIFICATIONS/STATEMENT OF WORK**

C-1 Items furnished under this contract shall comply with Attachment (1), Specifications, 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 Preservation, packaging, packing and marking of all deliverable contract line items must conform to normal commercial packing standards to assure safe delivery at destination.

D-2 The Contractor shall mark all shipments under this contract in accordance with the edition of ASTM-D-3951-90 "Standard Practice for Commercial Packaging" in effect on the date of the contract.

**SECTION E
INSPECTION AND ACCEPTANCE**

E-1 INSPECTION AND ACCEPTANCE CLAUSES BY REFERENCE:**FAR CLAUSE TITLE**

- 52.246-2 - Inspection Of Supplies - Fixed -Price (AUG 1996)
52.246-16 - Responsibility For Supplies (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 BY REFERENCE:**FAR CLAUSE TITLE**

- 52.211-17 - Delivery Of Excess Quantities (SEP 1989)
52.242-15 - Stop-Work Order (AUG 1989)
52.242-17 - Government Delay Of Work (APR 1984)
52.247-34 - F.O.B. Destination (NOV 1991)

F-2 FAR 52.211-8 - TIME OF DELIVERY (JUN 1997)

(a) The Government requires delivery to be made according to the following schedule:

| REQUIRED DELIVERY SCHEDULE | | |
|--|----------|--|
| <i>[Contracting Officer insert specific details]</i> | | |
| Item No. | Quantity | Within Days After Date Of Contract |
| 0001 | ALL | 30 |

The Government will evaluate equally, as regards time of delivery, offers that propose delivery of each quantity within the applicable delivery period specified above. Offers that propose delivery that will not clearly fall within the applicable required delivery period specified above, will be considered nonresponsive and rejected. The Government reserves the right to award under either the required delivery schedule or the proposed delivery schedule, when an offeror offers an earlier delivery schedule than required above. If the offeror proposes no other delivery schedule, the required delivery schedule above will apply.

| OFFEROR'S PROPOSED DELIVERY SCHEDULE | | |
|--------------------------------------|----------|--|
| Item No. | Quantity | Within Days After Date Of Contract |
| | | |
| | | |
| | | |

(b) Attention is directed to the Contract Award provision of the solicitation that provides that a written award or acceptance of offer mailed, or otherwise furnished to the successful offeror, results in a binding contract. The Government will mail or otherwise furnish to the offeror an award or notice of award not later than the day award is dated. Therefore, the offeror should compute the time available for performance beginning with the actual date of award, rather than the date the written notice of award is received from the Contracting Officer through the ordinary mails. However, the Government will evaluate an offer that proposes delivery based on the Contractor's date of receipt of the contract or notice of award by adding (i) five calendar days for delivery of the award through the ordinary mails or (ii) one working day if the solicitation states that the contract or notice of award will be transmitted electronically. (The term "working day" excludes weekends and U.S. Federal holidays.) If, as so computed, the offered delivery date is later than the required delivery date, the offer will be considered nonresponsive and rejected.

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 TECHNICAL MANAGER - FUNCTIONS AND LIMITATIONS

* is hereby designated the cognizant Technical Manager who will represent the Contracting Officer in the administration of technical details within the scope of this contract and inspection and acceptance. The Technical Manager is not otherwise authorized to make any representations or commitments of any kind on behalf of the Contracting Officer or the Government. The Technical Manager 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 Technical Manager, after review and signature of the "Material Inspection and Receiving Report, DD Form 250, If applicable, will forward a copy to the Administrative Contracting Officer.

(* To be filled in at time of award)

**SECTION H
SPECIAL CONTRACT REQUIREMENTS****H-1 TYPE OF CONTRACT**

(To be filled in at time of award)

H-2 REPRESENTATIONS AND CERTIFICATIONS

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

H-3 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.

**PART II - CONTRACT CLAUSES
SECTION I
CONTRACT CLAUSES****I-1 FAR 52.252-2 - CLAUSES INCORPORATED BY REFERENCE (FEB 1998)**

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

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

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

a. **FEDERAL ACQUISITION REGULATION CLAUSES**

| <u>FAR CLAUSE</u> | <u>TITLE</u> |
|--------------------------|--|
| 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) |
| 52.204-4 | - 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) |
| 52.211-5 | - Material Requirements (AUG 2000) |
| 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) |
| 52.215-14 | - Integrity Of Unit Prices (OCT 1997) |
| 52.215-21 | - Requirements For Cost Or Pricing Data Or Information Other Than Cost Or Pricing Data -Modifications (OCT 1997) |
| 52.219-4 | - Notice Of Price Evaluation Preference For HUBZone Small Business Concerns (JAN 1999) <input type="checkbox"/> Offeror elects to waive the evaluation preference. |
| 52.219-8 | - Utilization Of Small Business Concerns (OCT 2000) |
| 52.222-3 | - Convict Labor (JUN 2003) |
| 52.222-19 | - Child Labor – Cooperation With Authorities And Remedies (JAN 2004) |
| 52.222-20 | - Walsh-Healey Public Contracts Act (DEC 1996) |
| 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) |
| 52.223-5 | - Pollution Prevention and Right-To-Know Information (AUG 2003) |
| 52.223-6 | - Drug-Free Workplace (MAY 2001) |
| 52.223-14 | - Toxic Chemical Release Reporting (AUG 2003) |
| 52.225-13 | - Restrictions On Certain Foreign Purchases (DEC 2003) |
| 52.227-1 | - Authorization And Consent (JUL 1995) |
| 52.227-2 | - Notice And Assistance Regarding Patent And Copyright Infringement (AUG 1996) |
| 52.227-3 | - Patent Indemnity (APR 1984) |
| 52.229-3 | - Federal, State, And Local Taxes (APR 2003) |
| 52.232-8 | - Discounts For Prompt Payment (FEB 2002) |
| 52.232-9 | - Limitation On Withholding Of Payments (APR 1984) |
| 52.232-11 | - Extras (APR 1984) |
| 52.232-17 | - Interest (JUN 1996) |

- 52.232-23 - Assignment Of Claims (JAN 1986)
- 52.232-25 - Prompt Payment (OCT 2003)
- 52.232-33 - Payment By Electronic Funds Transfer-Central Contractor Registration (OCT 2003)
- 52.233-1 - Disputes (JUL 2002)
- 52.233-3 - Protest After Award (AUG 1996)
- 52.242-13 - Bankruptcy (JUL 1995)
- 52.243-1 - Changes - Fixed Price (AUG 1987)
- 52.244-5 - Competition In Subcontracting (DEC 1996)
- 52.244-6 - Subcontracts For Commercial Items And Commercial Components (APR 2003)
- 52.246-23 - Limitation Of Liability (FEB 1997)
- 52.248-1 - Value Engineering (FEB 2000)
- 52.249-2 - Termination For Convenience Of The Government (Fixed Price) (SEP 1996)
- 52.249-8 - Default (Fixed-Price Supply And Service) (APR 1984)
- 52.253-1 - Computer Generated Forms (JAN 1991)

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)
- 252.204-7002 - Payment For Subline Items Not Separately Priced (DEC 1991)
- 252.204-7003 - Control Of Government Personnel Work Product (APR 1992)
- 252.204-7004 - Alternate A (NOV 2003)
- 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)
- 252.211-7003 - Item Identification And Valuation (JAN 2004)
- 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)
- 252.225-7012 - Preference For Certain Domestic Commodities (FEB 2003)
- 252.225-7013 - Duty-Free Entry (JAN 2004)
- 252.225-7014 - Preference For Domestic Specialty Metals (APR 2003)
- 252.225-7025 - Restriction On Acquisition Of Forgings (APR 2003)
- 252.225-7031 - Secondary Arab Boycott Of Israel (APR 2003)
- 252.226-7001 - Utilization of Indian Organizations, Indian-Owned Economic Enterprises, And Native Hawaiian Small Business Concerns (OCT 2003)
- 252.227-7013 - Rights In Technical Data--Noncommercial Items (NOV 1995)
- 252.227-7014 - Rights In Noncommercial Computer Software And Noncommercial Computer Software Documentation (JUN 1995)
- 252.227-7016 - Rights In Bid or Proposal Information (JUN 1995)
- 252.227-7019 - Validation Of Asserted Restrictions--Computer Software (JUN 1995)
- 252.227-7030 - Technical Data--Withholding Of Payment (MAR 2000)
- 252.227-7036 - Declaration Of Technical Data Conformity (JAN 1997)
- 252.227-7037 - Validation Of Restrictive Markings On Technical Data (SEP 1999)
- 252.232-7003 - Electronic Submission Of Payment Requests (JAN 2004)

- 252.242-7000 - Postaward Conference (DEC 1991)
- 252.243-7001 - Pricing Of Contract Modifications (DEC 1991)
- 252.243-7002 - Requests For Equitable Adjustment (MAR 1998)
- 252.244-7000 - Subcontracts For Commercial Items And Commercial Components (DOD Contracts) (MAR 2000)
- 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).

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

SECTION J

LIST OF ATTACHMENTS

- J-1** Attachment (1) - Specifications - 3 Pages
- J-2** Attachment (2) - 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/reps&certs.htm>

Use Representations and Certifications: A

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

The fill in information is as follows:

The NAICS code for this acquisition is 334511

The small business size standard is 750

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

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

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. The offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at this/these addresses:

<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 (OCT 2003) |
| 52.204-7 | - | Central Contractor Registration (OCT 2003) |
| 52.215-1 | - | Instructions To Offerors- Competitive Acquisition (JAN 2004) |

- 52.215-5 - Facsimile Proposals (OCT 1997)
Paragraph (c) is completed as follows: (202) 767-0430 Janiece Kirkland. In addition proposals may be transmitted by e-mail to Kirkland@contracts.nrl.navy.mil (primary) or Bays@contracts.nrl.navy.mil (alternate) in either Microsoft Word (version 97 or earlier) or pdf format.
- 52.215-16 - Facilities Capital Cost Of Money (JUN 2003)

DFAR CLAUSE TITLE

- 252.209-7001 - Disclosure Of Ownership Or Control By The Government Of A Terrorist Country (MAR 1998)
- 252.211-7005 - Substitutions For Military Or Federal Specifications And Standards (FEB 2003)

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 overnight delivery services shall be addressed to:

Contracting Officer, ATTN: Code 3220
Naval Research Laboratory(NRL)
4555 Overlook Avenue, S.W.
Washington, D.C. 20375

Solicitation/RFP No. – N00173-04-R-JK01
Closing Date: See block 9 on SF33.

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.
{CHOOSE ONE 52.215-20}

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 : See L-
Offerors should provide information to enable the Contracting Officer to determine that the proposed price is fair and reasonable. Such information could include published price lists, information on previous sales of the same or similar items, or the projected costs of fabricating and installing the item (material costs, labor costs, etc).

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

The Government contemplates award of a Firm Fixed Price Supply 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 Receptionist Desk, Code 3200, Bldg. 222, Rm. 115, Naval Research Laboratory, 4555 Overlook Ave., S.W., Washington DC 20375-5326.

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

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

- (a) The terms used in this provision are defined in following clause or clauses contained in this solicitation—
 - (1) If a successful offeror will be required to deliver technical data, the Rights in Technical Data--Noncommercial Items clause, or, if this solicitation contemplates a contract under the Small Business Innovative Research Program, the Rights in Noncommercial Technical Data and Computer Software--Small Business Innovative Research (SBIR) Program clause.
 - (2) If a successful offeror will not be required to deliver technical data, the Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation clause, or, if this solicitation contemplates a contract under the Small Business Innovative Research Program, the Rights in Noncommercial Technical Data and Computer Software--Small Business Innovative Research (SBIR) Program clause.

- (b) The identification and assertion requirements in this provision apply only to technical data, including computer software documents, or computer software to be delivered with other than unlimited rights. For contracts to be awarded under the Small Business Innovative Research Program, the notification requirements do not apply to technical data or computer software that will be generated under the resulting contract. Notification and identification is not required for restrictions based solely on copyright.
- (c) Offers submitted in response to this solicitation shall identify, to the extent known at the time an offer is submitted to the Government, the technical data or computer software that the Offeror, its subcontractors or suppliers, or potential subcontractors or suppliers, assert should be furnished to the Government with restrictions on use, release, or disclosure.
- (d) The Offeror's assertions, including the assertions of its subcontractors or suppliers or potential subcontractors or suppliers shall be submitted as an attachment to its offer in the following format, dated and signed by an official authorized to contractually obligate the Offeror:

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

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

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

- * For technical data (other than computer software documentation) pertaining to items, components, or processes developed at private expense, identify both the deliverable technical data and each such items, component, or process. For computer software or computer software documentation identify the software or documentation.
- ** Generally, development at private expense, either exclusively or partially, is the only basis for asserting restrictions. For technical data, other than computer software documentation, development refers to development of the item, component, or process to which the data pertain. The Government's rights in computer software documentation generally may not be restricted. For computer software, development refers to the software. Indicate whether development was accomplished exclusively or partially at private expense. If development was not accomplished at private expense, or for computer software documentation, enter the specific basis for asserting restrictions.
- *** Enter asserted rights category (e.g., government purpose license rights from a prior contract, rights in SBIR data generated under another contract, limited, restricted, or government purpose rights under this or a prior contract, or specially negotiated licenses).
- **** Corporation, individual, or other person, as appropriate.
- ***** Enter "none" when all data or software will be submitted without restrictions.

Date _____
Printed Name and Title _____
Signature _____

(End of identification and assertion)

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

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

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

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

L-9 GOVERNMENT-FURNISHED PROPERTY

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

L-10 INQUIRIES CONCERNING THE RFP

Any questions concerning the RFP must be submitted in writing to the Contracting Officer at the location noted in blocks 7 and 9 of the Standard Form 33, "Solicitation, Offer and Award," no less than fifteen (15) days before closing. The Government will not consider questions received after this date. Offerors are cautioned against directing any questions concerning this RFP to technical personnel at the Naval Research Laboratory.

L-11 PROPOSAL ORGANIZATION

(1) Required Copies: Original and 3 copies.

(2) No attempt is made to restrict the proposal format and style. However, the proposal should be written and organized so as to be compatible with the RFP. Offerors are encouraged to use recycled paper and maximize the use of double sided copying when preparing responses to solicitations. The proposal must demonstrate in sufficient detail that the supplies or services proposed comply with the requirements of the RFP Statement of Work or Specifications. General statements that the offeror can or will comply with the requirements, that standard procedures will be used, that well known techniques will be used, or paraphrases of the RFP's Statement of Work or Specification in whole or in part will not constitute compliance with these requirements concerning the content of the technical proposal. Failure to conform to any of the requirements of the RFP may form the basis for rejection of the proposal.

**SECTION M
EVALUATION FACTORS FOR AWARD**

M-1 EVALUATION

(a) Non cost factor(s) :

(1) Technical Proposals will be evaluated on demonstrated compliance with the requirements of the RFP's Statement of Work or Specifications.

(b) Award will be made to the responsible offeror proposing the lowest price that meets or exceeds the acceptability standards for non-cost factors.

M-2 AWARD BY FULL QUANTITY

An offeror must propose on all items in this solicitation to be eligible for award. Award will be made to that responsible offeror proposing the lowest total price for all items.

Specification for Reconfigurable Signal Processor Development System

This order is for the purchase of items constituting a Reconfigurable Signal Processor Development System. The system will incorporate hardware and software required for designing signal processors using field programmable gate arrays (FPGAs).

The hardware portion of the development system must include the following items:

1. Wideband Analog-to-Digital Converter (ADC) card (Quantity 2)

The specification for each card is as follows:

- a. Incorporates one MAX108 1.5 GSPS (gigasample per second), 8-bit ADC.
- b. 4 Mbyte FIFO for data capture.
- c. Two Xilinx Virtex-II Pro XC2VP50 FPGAs for signal processing.
- d. Each FPGA has two banks of 128 Mbyte DDR SDRAM.
- e. Dual RACE++ backplane interface.
- f. External clock, sync and trigger inputs to allow synchronization of multiple boards.
- g. Front-panel 16-bit RapidIO connector for streaming ADC data off the card.
- h. Triggering mode that makes board trigger on the next sync clock edge after a trigger is detected.
- i. 6U VME-64X card spec.

2. ADC Clock Generator card (Quantity 1)

The specification for this card is as follows:

- a. 6U VME form factor
- b. Internal or external 10 MHz reference.
- c. On-board PLL and VCO to produce a nominal 1.5 GHz sample clock, synchronized to the reference signal.
- d. At least 5 front-panel SMA outputs providing copies of the 1.5 GHz sample clock, each of which can drive a 50-ohm load.
- e. A mechanism to divide the sample clock by factors of 12-1024, in steps of 4, to provide slow clock outputs derived from the sample clock.
- f. At least 6 front-panel SMA outputs providing copies of the slow clock generated by Item d, each of which can drive a 50-ohm load.
- g. Board can be triggered by a hardware trigger, provided by a front-panel SMA connector, or by software command.
- h. A mechanism to provide a programmable pulse width version of the trigger.
- i. At least 6 front-panel SMA outputs providing copies of the modified trigger generated by Item h, each of which can drive a 50-ohm load

3. FPGA Prototyping card (Quantity 2)

The specification for each card is as follows:

- a. PCI/PCI-X card form factor.
- b. Single Xilinx Virtex-II Pro XC2VP70 FPGA (At least the -6 speed rating).
- c. Four external banks of 4 Mbyte pipeline ZBT Static RAM.
- d. Four external banks of 32 Mbyte DDR SDRAM.
- e. 10 high-speed serial ports utilizing the internal MGTs of the FPGA. The ports are configured as four channels of fiber Gigabit Ethernet, 2 SATA connectors, 2 HSSDC2 connectors and 2 channels with SMA connectors.
- f. One 200-pin high-speed connector.

The design software portion of the system must include the following items:

1. One floating seat of design entry with the following features
 - a. A design manager that provides design navigation and the ability to search and organize data to aid in understanding design content.
 - b. The design creation environment must contain a Block Diagram, configurable State Machine, Flow Chart, Tabular I/O and Truth table editor.
 - c. An Interface Based Design (IBD) entry. This IBD must display the structure, interconnections and generate the Hardware Description Language (HDL) automatically.
 - d. A design-aware, fully customizable HDL code editor. This design entry tool must provide rapid browsing and accessing to any code blocks. It must be able to cross-reference error/warning messages and provide file comparison features that highlight differences and lets the designer selectively apply changes to either file.
 - e. 1-year software maintenance.
2. One floating seat of design simulation software with the following features
 - a. It must be fully integrated with the design entry software and be invoked from any design entry window.
 - b. It must have graphical breakpoints, signal probing, graphics-to-text source cross-highlighting, animation and cause analysis debugging features.
 - c. A performance analyzer that allows the designer to analyze a simulation to show which part of the design model is taking the most simulation time.
 - d. A code coverage line-by-line. This shall allow the designer to keep track the number of times a particular executable line of code has been visited during simulation.
 - e. A configurable waveform compare feature that analyzes the results of two simulations to quickly identify errors. Where any number of signals or regions can be compared either continuously or relative to a signal edge.

Tolerances for any signal, set start and end times for the compare, set a limit for the total number of comparisons, and view the compare results graphically or in text.

- f. A signal spy feature that can check or force any signal in any part of a design without having to modify the original design code.
 - g. A signal tracing feature that allows the designer to automatically trace the root cause of any unknown signal generate the schematic of any or all portions of the design. This window must be cross-linked to all other simulation and debugging windows.
 - h. 1-year software maintenance.
3. One floating seat of design synthesis with the following features
- a. It must support flat, hierarchy, top-down or bottom-up the designs.
 - b. It must "encapsulate" FPGA vendor place-and-route (P&R) tools, which shall allow the designer to go from schematic to VHDL to back annotation.
 - c. It must be able to create vendor specific P&R scripts resulting in better FPGA circuit implementations.
 - d. An RTL block-based viewer. This viewer must automatically create a block-based schematic from the RTL code.
 - e. It must allow for individual module modifications at the RTL level, then re-synthesize and re-optimize while preserving the netlist information in surrounding blocks.
 - f. It must have the ability to re-apply constraints to sub-blocks and re-optimize following P&R.
 - g. It must have an automated from to identify and improve timing performance after an initial P&R. This feature must annotate the physical timing data after P&R and use this data to perform second pass timing optimizations to improve the design.
 - h. 1-year software maintenance.