

**SOLICITATION, OFFER AND AWARD**

1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 350)

RATING

DO-C9

PAGE OF

1 | 18 PAGES

2. CONTRACT NO.

3. SOLICITATION NO.

N00173-02-R-MS04

4. TYPE OF SOLICITATION

 SEALED BID (IFB) NEGOTIATED (RFP)

5. DATE ISSUED

05 JUNE 02

6. REQUISITION/PURCHASE NO.

55-8111-02

7. ISSUED BY CONTRACTING OFFICER

NAVAL RESEARCH LABORATORY

ATTN: CODE 3220.MS

WASHINGTON DC 20375-5326

CODE N00173

8. ADDRESS OFFER TO (If other than Item 7)

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

**SOLICITATION**9. Sealed offers in original and 3 copies for furnishing the supplies or services in the Schedule will be received at the place specified in Item 8, or if handcarried, in the depository located in Bldg. 222 Room 115 until 4:00pm local time 10 JULY 02  
(Hour) (Date)

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

10. FOR INFORMATION CALL:

A. NAME

Mary M. Sandy

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)
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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
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**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 <input type="checkbox"/> ITEM (4 copies unless otherwise specified)	

24. ADMINISTERED BY (If other than Item 7)	CODE	25. PAYMENT WILL BE MADE BY	CODE
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26. NAME OF CONTRACTING OFFICER (Type or print)	27. UNITED STATES OF AMERICA (Signature of Contracting Officer)	28. AWARD DATE
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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**

<b>ITEM NUMBER</b>	<b>SUPPLIES OR SERVICES</b>	<b>QTY</b>	<b>UNIT</b>	<b>UNIT PRICE</b>	<b>AMOUNT</b>
0001	The contractor shall provide a one person motion simulator platform for vestibular research in accordance with Attachment 1, Specifications, Sections 1-16.	1	EA	\$	\$
0002	The contractor shall provide initial training for the motion simulator operators in accordance with Attachment 1, Specifications, Section 17(a).	1	LO	\$	\$
0003	The contractor shall provide one year of on-site maintenance in accordance with Attachment 1, Specifications, Sections 17 (f) and (g).	12	MO	\$	\$
0004	The contractor shall provide one year of telephone support in accordance with Attachment 1, Specifications, Section 17 (h).	12	MO	\$	\$
0005	Data in accordance with Exhibit "A" (DD Form 1423)	NSP*		NSP*	NSP*

**Option 1**

0006	The Contractor shall incorporate flat-screen displays on the front and sides of the cockpit in accordance with Attachment 1, Specifications, Option (1).	1	EA	\$	\$
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**Option 2**

0007	The Contractor shall supply the Head Up Display (HUD) and Supporting computer, in accordance with Attachment 1, Specifications, Option (2).	1	EA	\$	\$
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TOTAL DOLLAR AMOUNT FOR CLINs\*\*: \$

\* Not Separately Priced

\*\*Contract Line Item Number

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

**C-1** Items furnished under this contract shall comply with Attachment (1), Specifications with Exhibit A, DD Form 1423, Contracts 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 19 October 2001 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)  
 52.246-4    -    Inspection Of Services - Fixed Price (AUG 1996)  
 52.246-16   -    Responsibility For Supplies (APR 1984)

**DFARS CLAUSE    TITLE**

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

**E-2 INSPECTION AND ACCEPTANCE**

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

**SECTION F  
DELIVERIES OR PERFORMANCE**

**F-1 DELIVERIES OR PERFORMANCE CLAUSES 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	1	365
0002	2	365

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 DELIVERIES OR PERFORMANCE**

(a) The period of performance for CLINS 0003 and 0004 under this contract shall be from date of delivery of CLIN 0001 through twelve months.

(b) The principal place of performance of CLINS, 0002, 0003 and 0004 shall be the Naval Research Laboratory, Washington, DC.

**F-4 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.

Contract Matters- \*

Security Matters- \*

Safety Matters- \*

Patent Matters- \*

Release of Data- \*

The ACO will forward invention disclosures and reports directly to the Associate Counsel for Patents, Code 1008.2, Naval Research Laboratory, Washington DC 20375-5320. The Associate Counsel for Patents will return the reports along with a recommendation to the Administrative Contracting Officer. The Associate Counsel for Patents will represent the Contracting Officer with regard to invention reporting matters arising under this contract.

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

**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)

**G-3 NAPS 5252.232-9000 - SUBMISSION OF INVOICES (FIXED PRICE) (JUL 1992)**

(a) "Invoices" as used in this clause does not include contractor's requests for progress payments.

(b) The contractor shall submit original invoices with 4 copies to the address identified in the solicitation/contract award form (SF 26-Block 10; SF 33-Block 23; SF 1447-Block 14), unless delivery orders are applicable, in which case invoices will be segregated by individual order and submitted to the address specified in the order (DD 1155-Block 13 or SF 26-Block 10).

(c) The use of copies of the Material Inspection and Receiving Report (MIRR), DD Form 250, as an invoice is encouraged. DFARS Appendix F-306 provides instructions for such use. Copies of the MIRR used as an invoice are in addition to the standard distribution stated in DFARS F-401.

(d) In addition to the requirements of the Prompt Payment clause of this contract, the contractor shall cite on each invoice the contract line item number (CLIN); the contract subline item number (SLIN), if applicable; the accounting classification reference number (ACRN) as identified on the financial accounting data sheets, and the payment terms.

(e) The contractor shall prepare:

- a separate invoice for each activity designated to receive the supplies or services.
- a consolidated invoice covering all shipments delivered under an individual order.
- either of the above.

(f) If acceptance is at origin, the contractor shall submit the MIRR or other acceptance verification directly to the designated payment office. If acceptance is at destination, the consignee will forward acceptance verification to the designated payment office.

**G-4 INVOICING ADDRESS**

With reference to paragraph (b) of the above provision, "Submission of Invoices (Fixed Price)", the contractor shall submit invoices to the address in Block 12 of the contract award form (SF26).

**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 OPTION(S)**

The Government may require delivery of the optional items under this contract by the Contracting Officer's giving written notice anytime from date of contract award through twelve months.

**H-4 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 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**

<b>FAR CLAUSE</b>	<b>TITLE</b>
52.202-1	- Definitions (DEC 2001)
52.203-3	- Gratuities (APR 1984)
52.203-5	- Covenant Against Contingent Fees (APR 1984)
52.203-6	- Restrictions On Subcontractor Sales To The Government (JUL 1995)
52.203-7	- Anti-Kickback Procedures (JUL 1995)
52.203-8	- Cancellation, Rescission, And Recovery Of Funds For Illegal Or Improper Activity (JAN 1997)
52.203-10	- Price Or Fee Adjustment For Illegal Or Improper Activity (JAN 1997)
52.203-12	- Limitation On Payments To Influence Certain Federal Transactions (JUN 1997)
52.204-4	- Printed Or Copied Double-Sided On Recycled Paper (AUG 2000)
52.209-6	- Protecting The Government's Interest When Subcontracting With Contractors Debarred, Suspended, Or Proposed For Debarment (JUL 1995)
52.211-5	- 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)
52.215-11	- 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)
52.215-17	- Waiver Of Facilities Capital Cost Of Money(OCT 1997) ( <i>will be included if the successful offeror does not propose facilities capital cost of money</i> )
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)
52.219-16	- Liquidated Damages - Subcontracting Plan (JAN 1999)
52.219-25	- Small Disadvantaged Business Participation Program-Disadvantaged Status And Reporting (OCT 1999)
52.222-3	- Convict Labor (AUG 1996)
52.222-4	- Contract Work Hours And Safety Standards Act-Overtime Compensation (SEP 2000)
52.222-21	- Prohibition of Segregated Facilities (FEB 1999)

- 52.222-26 - Equal Opportunity (APR 2002)
- 52.222-35 - Equal Opportunity For Special Disabled Veterans, Veterans Of The Vietnam Era, And Other Eligible Veterans (DEC 2001)
- 52.222-36 - Affirmative Action For Workers With Disabilities (JUN 1998)
- 52.222-37 - Employment Reports On Special Disabled Veterans, Veterans Of The Vietnam Era, And Other Eligible Veterans (DEC 2001)
- 52.223-3 - Hazardous Material Identification And Material Safety Data (JAN 1997)
- 52.223-5 - Pollution Prevention and Right-To-Know Information (APR 1998)
- 52.223-6 - Drug-Free Workplace (MAY 2001)
- 52.223-14 - Toxic Chemical Release Reporting (OCT 2000)
- 52.225-8 - Duty-Free Entry (FEB 2000)
- 52.225-13 - Restrictions On Certain Foreign Purchases (JUL 2000)
- 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)
- 52.228-5 - Insurance - Work on a Government Installation (JAN 1997)
- 52.229-3 - Federal, State, And Local Taxes (JAN 1991)
- 52.229-5 - Taxes - Contracts Performed In U.S. Possessions Or Puerto Rico (APR 1984)
- 52.230-2 - Cost Accounting Standards (APR 1998)
- 52.230-6 - Administration Of Cost Accounting Standards (NOV 1999)
- 52.232-1 - Payments (APR 1984)
- 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 (FEB 2002)
- 52.232-33 - Payment By Electronic Funds Transfer-Central Contractor Registration (MAY 1999)
- 52.233-1 - Disputes (DEC 1998)
- 52.233-3 - Protest After Award (AUG 1996)
- 52.237-2 - Protection Of Government Buildings, Equipment, And Vegetation (APR 1984)
- 52.239-1 - Privacy Or Security Safeguards (AUG 1996)
- 52.242-10 - F.O.B. Origin - Government Bills Of Lading Or Prepaid Postage (APR 1984)
- 52.242-13 - Bankruptcy (JUL 1995)
- 52.243-1 - Changes - Fixed Price (AUG 1987) Alternate II (APR 1984)
- 52.244-5 - Competition In Subcontracting (DEC 1996)
- 52.244-6 - Subcontracts For Commercial Items (May 2002)
- 52.245-9 - Use And Charges (APR 1984)(DEVIATION)
- 52.245-17 - Special Tooling (APR 1984)(DEVIATION)
- 52.245-18 - Special Test Equipment (FEB 1993)
- 52.246-23 - Limitation Of Liability (FEB 1997)
- 52.247-1 - Commercial Bill Of Lading Notations (APR 1984)  
(fill in Naval Research Laboratory)
- 52.247-63 - Preference For U.S.-Flag Air Carriers (JAN 1997)
- 52.247-64 - Preference For Privately Owned U.S. Flag Commercial Vessels (JUN 2000)
- 52.247-66 - Returnable Cylinders (MAY 1994)
- 52.248-1 - Value Engineering (FEB 2000)
- 52.249-2 - Termination For Convenience Of The Government (Fixed Price) (SEP 1996)
- 52.249-4 - Termination For Convenience Of The Government (Services) (Short Form) (APR

- 1984)
- 52.249-8 - Default (Fixed-Price Supply And Service) (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)

**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)
- 252.204-7003 - Control Of Government Personnel Work Product (APR 1992)
- 252.204-7004 - Required Central Contractor Registration (NOV 2001)
- 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)
- 252.219-7004 - Small, Small Disadvantaged And Women-Owned Small Business Subcontracting Plan (Test Program) (JUN 1997)
- 252.223-7006 - Prohibition On Storage And Disposal Of Toxic And Hazardous Materials (APR 1993)
- 252.225-7001 - Buy American Act And Balance Of Payments Program (MAR 1998)
- 252.225-7002 - Qualifying Country Sources As Subcontractors (DEC 1991)
- 252.225-7009 - Duty-Free Entry - Qualifying Country Supplies (End Products And Components) (AUG 2000)
- 252.225-7010 - Duty-Free Entry - Additional Provisions (AUG 2000)
- 252.225-7012 - Preference For Certain Domestic Commodities (AUG 2000)
- 252.225-7016 - Restriction On Acquisition Of Ball And Roller Bearings (DEC 2000)
- 252.225-7025 - Restriction On Acquisition Of Forgings (JUN 1997)
- 252.225-7031 - Secondary Arab Boycott Of Israel (JUN 1992)
- 252.226-7001 - Utilization of Indian Organizations and Indian-Owned Economic Enterprises-DoD Contracts (SEP 2001)
- 252.232-7009 - Mandatory Payment By Governmentwide Commercial Purchase Card (JUL 2000)
- 252.242-7000 - Postaward Conference (DEC 1991)
- 252.242-7004 - Material Management And Accounting System (DEC 2000)
- 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 (MAR 2000)
- 252.247-7024 - Notification Of Transportation Of Supplies By Sea (MAR 2000) *(will be included if the successful offeror made a negative response to the inquiry at DFARS 252.247-7022)*
- 252.251-7000 - Ordering From Government Supply Sources (MAY 1995)

**I-2 FAR 52.223-11 - OZONE-DEPLETING SUBSTANCES (MAY 2001)**

- (a) *Definitions.* "Ozone-depleting substance", as used in this clause, means any substance the Environmental Protection Agency designates in 40 CFR Part 82 as –
- (1) Class I, including, but not limited to, chlorofluorocarbons, halons, carbon tetrachloride, and methyl chloroform; or
  - (2) Class II, including, but not limited to, hydrochlorofluorocarbons.

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

**WARNING**

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

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

**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:

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

**J-1** Attachment (1) - Specifications - 5 Pages, with Exhibit A - DD Form 1423, Contract Data Requirements List – 1 Page.

**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/reprs&certs.htm>

**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 333999.

The small business size standard is 500 employees.

**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)
52.215-1	-	Instructions To Offerors- Competitive Acquisition (MAY 2001)
52.215-5	-	Facsimile Proposals (OCT 1997)
		Paragraph (c) is completed as follows: (202) 767-0430 (primary) or (202) 767-0494 (alternate). In addition facsimile proposals may be transmitted by e-mail to sandy@contracts.nrl.navy.mil (primary) or bays@nrl.navy.mil (alternate) in either Microsoft Word (version 97 or earlier) or pdf format.
52.215-16	-	Facilities Capital Cost Of Money (OCT 1997)
52.219-24	-	Small Disadvantaged Business Participation Program - Targets (OCT 2000)

**L-2 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-3 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 :
- 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-4 FAR 52.216-1 - TYPE OF CONTRACT (APR 1984)**

The Government contemplates award of a Firm Fixed Price contract resulting from this solicitation.

**L-5 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-6 GOVERNMENT-FURNISHED PROPERTY**

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

**L-7 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-8 INSTRUCTIONS FOR SUBMISSION AND INFORMATION REQUIRED TO EVALUATE PROPOSALS**

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

(2) Proposal Identification/Mailing - The proposal should be packaged for delivery so as to permit safe and timely arrival at destination. The proposal package should be sent to the address shown in Block 7 of the RFP face page and marked:

**Solicitation No. N00173-02-R-MS04**  
**Closing Date:**  
**(As specified in Block 9, RFP face page)**  
**Attn: Code 3220.MS**

(3) Proposal Format and Length - No attempt is made to restrict the proposal format and style. However, the proposal should be written and organized so as to be compatible with the RFP. Offerors are encouraged to use recycled paper and maximize the use of double sided copying when preparing responses to solicitations.

## L-9 VOLUME I – TECHNICAL PROPOSAL

REQUIRED COPIES: 1 ORIGINAL AND 3 COPIES .

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

1. **Technical Experience:** Provide documentation on the background and related experience that demonstrates an understanding of research in aviation medicine. Include the following:
  - (a) Previous experience working with Navy, Military and/or DoD Research Labs in the general area of Aviation Medicine.
  - (b) Demonstrated expertise in the areas of motion perception, visual perception, spatial disorientation and/or Otolaryngology;
  - (c) Proven record of developing motion platforms, within similar time/cost constraints (or, alternatively, indication that previous programs that might be of different scope are, when properly, weighted, indicative of future performance);
  - (d) Publications from proposed members of Design team, relating to this project.
2. **Technical Capability:** Describe the technical capability of the item offered to meet the government requirements as stated in the Specifications, Attachment 1. Describe the design in respect to compliance with good engineering practice and the degree of technical risk posed by the proposed design.
3. **Past Performance Information:** Offerors shall submit the following information as part of their proposal. List the last two contracts or subcontracts completed by the offeror or predecessor companies during the past two years for services similar in nature to this requirement. Include in the two any current contracts or subcontracts for similar services that were awarded at least one year prior to the date of this solicitation. Offerors that have no similar previous or current contracts should provide the requested information for proposed subcontractors that will perform major or critical aspects of the requirement or for the proposed project manager or key personnel responsible for major or critical aspects of the requirement.
  - (a) Name of contracting organization.
  - (b) Contract number
  - (c) Contract type
  - (d) Total contract value
  - (e) Description of the contract work
  - (f) Contracting officer and telephone number

- (g) Contracting officer's representative, program manager, or similar official and telephone number

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

## L-10 VOLUME II - BUSINESS PROPOSAL

REQUIRED COPIES: 1 ORIGINAL AND 3 COPIES

### (1) PRICE PROPOSAL

The offeror shall submit a business proposal that includes a price proposal with supporting information. 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 the price.

## 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 price and other factors considered. The Government reserves the right to make award to other than the low offeror.

### M-2 EVALUATION FACTORS FOR AWARD

Proposals will be evaluated in accordance with the following criteria. The technical factor is more important than the price factor. Technical factors are listed in descending order of importance with technical subfactor 3 being of lesser importance than factors 1 and 2.

#### M-2-1 TECHNICAL

1. ***Technical Experience:*** The offeror will be evaluated on their background and related experience that demonstrates an understanding of research in aviation medicine and on their previous experience working with Navy, Military and/or DoD Research Labs in the general area of Aviation Medicine. The offeror will be evaluated on their demonstrated expertise in the areas of motion perception, visual perception, spatial disorientation and/or Otolaryngology; on their proven record of developing motion platforms, within similar time/cost constraints (or, alternatively, indication that previous programs that might be of different scope are, when properly weighted, indicative of future performance); and publications from proposed members of design team, relating to this project.

2. **Technical Capability**: The offeror will be evaluated on the technical capability of the item offered to meet the government requirements as stated in the specifications. The design will be evaluated with respect to its compliance with good engineering practice, and with the degree of technical risk posed by the proposed design.

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

#### **M-2-2 PRICE TO THE GOVERNMENT**

Proposed estimated price to the Government.

#### **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).

## **SPECIFICATIONS**

The contract shall provide a one-person motion simulator platform for vestibular research with the following requirements.

(1) The unassembled components of each motion platform must fit through a door with the dimensions specified for the rooms i.e.

Door frame height: 6 feet (') 7.5 inches (") (i.e. 79.5")

Door frame width: 2' 11" (i.e. 35.0")

Note: The doorframe is slightly smaller than a standard-size doorframe.

(2) Designs, which are electrical or pneumatic in operation, are preferable, but hydraulic designs are also acceptable. Hydraulic systems must operate at 500 PSI (pounds per square inch) or less, and be safe to operate in a laboratory setting with computers and other sensitive devices present. For a hydraulic-based design, the contractor must explicitly explain how hydraulic fluids will be safely contained during routine servicing, accidental leakage, or catastrophic rupture. No degree of leakage onto the floor is acceptable.

(3) The system must be operable using 110 volts (V) and/or 220V-wall power.

(4) The drive system for each axis must be such that a very smooth transition (minimum backlash) occurs during a change in direction of rotation. The drive system/control system for each axis must be such that a very smooth transition occurs during a change in direction of rotation. It must be such that the subject can not perceive the change in direction through their sense of touch or feel.

(5) The simulator must satisfy the following constraints for motion:

### Position ranges

a. +/-45 degrees of roll

b. +/- 45 degrees of pitch

c. 360 degrees of yaw (rotation axis must align with the center of the subject's head but also have ability to shift center of Subject's rotation minimum of 6 inches off center.)

Position accuracy +/- 1 degree

Velocity ranges

d. Roll rate of 0.0 degree (deg)/second (sec) to 45 deg/sec

e. Pitch rate of 0.0 deg/sec to 45 deg/sec

f. Yaw rate of 0.0 deg/sec to 180 deg/sec (30 Revolutions Per Minute (RPM))

Velocity accuracy +/- .5 deg/sec (1/12 RPM)

Acceleration ranges

g. Roll acceleration of 0.0 deg/sec squared to 90 deg/sec squared

h. Pitch acceleration of 0.0 deg/sec squared to 90 deg/sec squared

i. Yaw acceleration of 0.0 deg/sec squared to 180 deg/sec squared

Acceleration accuracy +/- .5 deg/sec squared

(6) There must be a minimum of 30 open channels for either data or audio/video to be sent between the system and the stationary control station.

NOTE: data transmitted through these channels may be in any of the following formats:

a. video (for Head Mounted Display (HMD) or Computer Remote Terminal (CRT) hookup)

b. Audio

c. Physiological Measures such as (but not limited to): Eye Tracking, Electrogastragram, Galvanic Skin Response, Heart Rate Monitor

(7) The subject must be seated in a framework (cockpit) that for safety purposes provides adequate restraint and protection during motion. Adequate restraint implies that, if the unit were to come to a complete and abrupt stop from any position and speed, the subject would not strike any part of his body against any part of the unit; including any passive restraining devices (e.g. seatbelts, harnesses or padding); with sufficient force to cause injury. The subject must be able to wear a Head Mounted Display (HMD) while operating this system. The cockpit chair must be removable.

(8) The cockpit should be designed in such a way that the subject can be isolated from the external world visually, and re-afferently from the effects of air currents induced by the rotation of the system. With respect to the latter, the cockpit will serve as a barrier (i.e. "windshield") which minimizes the air currents experienced by the subject attributable to the motion of the cockpit relative to the fixed coordinates of the room. (There are no constraints on any necessary circulation of air through the cockpit. For example, it is permissible to provide a fan in the cockpit to provide a constant flow of air around the subject.) The cockpit should provide as much auditory isolation as possible, to the extent permitted by other design requirements such as weight.

(9) The system must meet the following load limit requirements: the system must be safe to use with a 250 pound (lb) subject and 100 pounds (lbs) of gear, for a total payload of 350 lbs with a safety factor of 1.25 or greater. (A safety factor of 1.25 implies a *maximum* permissible load limit of  $1.25 \times 350 \text{ lbs} = 437.5 \text{ lbs}$  for the combined weight of the subject and gear.) The 350 lbs of payload excludes the weight of the chair and cockpit. There must be a minimum 1-foot of headspace for a 6-foot subject seated in the cockpit. With the chair removed, a six-foot subject should be able to stand upright.

(10) Capability for the system to be controlled on-board by the participant and off-board by an operator is required, including the ability to feed pre-defined motion profiles (i.e. accelerations/velocities along all three axes) to the motion system. The operator must have the ability to override control by the subject. The ability to record these inputs/outputs is also required, including the option of transmitting this data to an external computer.

(11) The simulator must have an accelerometer for each axis. Through a combination of software and hardware, it must be possible to continuously record the instantaneous position, speed, and acceleration for each axis, and to transmit this data to an external computer.

(12) The simulator must support experiments in which motion occurs about a single axis or more than one axis simultaneously, with the output being recorded. It must be possible to present stimuli via an HMD, a CRT or through headphones. It must be possible to move the subject slightly off-center about the yaw axis (4-6 inches) and then rotate the subject in this position (off-axis yaw rotation).

(13) The simulator must satisfy the following minimal safety requirements:

- a. Automatic cut-off of power if the permissible range of motion is exceeded on any axis.
- b. There must be two or more emergency "mushroom" cut-off switches - one accessible by the subject, and one or more on the control panel.
- c. Accelerometers, which can be set to limit the acceleration for pitch, roll, and yaw. There must be a built-in check at the instrument panel that verifies that the accelerometers are working.
- d. There must be a governor or comparable system for the yaw platform, which can be set to limit the maximum rate of yaw (i.e. the maximum rate of spin).
- e. Lockout/tagout for electrical power must be supported i.e. it must be possible to padlock the power switches in the off position.

f. It must be possible to mechanically stabilize the unit when it is at rest, in order to prevent pinch injuries during maintenance, and/or to stabilize the unit when a subject is entering or exiting. For example, removable pins or rods would provide an acceptable solution.

(14) Dimensions and live loading for the room which must contain the motion simulator:

First floor.

13 feet wide (dimension of the wall parallel to the corridor)

14 feet deep (excluding the additional 7" occupied by the radiator on the far wall)

9 foot high ceiling – from the carpet to the roof tile.

The ceiling is false, but there is ducting above, and no additional usable vertical space.

The door frame is slightly smaller than a standard door because there is a metal ridge around the inner frame.

Door frame height: 6' 7.5 " (i.e. 79.5")

Door frame width: 2' 11" (i.e. 35.0")

The live loading rating for the room is 125 lbs. per sq. ft. More specifically:

Allowable Live Load = 125 lbs. per sq. ft.

Slab thickness = 6 inches

Slab supported on grade

Slab reinforcement = 4"x4" welded wires

(15) The contractor must provide any necessary material or devices required for mechanically isolating the motion platforms from the floor.

(16) The contractor shall provide the following:

- a. Initial training for the motion simulator operators.
- b. Installation manual (assembly and disassembly).
- c. Maintenance manual and maintenance schedule.
- d. Safety analysis justifying use of simulator with human subjects.
- e. Operators manual.
- f. One year of on-site maintenance, including an agreed-upon number of 2 or more general maintenance visits by the contractor. The contractor will inspect the system for wear, and will perform any routine maintenance operations, which cannot be performed by NRL.

- g. Within one week of device failure, the contractor will make site visit to NRL, and diagnose the problem, and either repair the system, or schedule the repair after ordering any necessary parts. If the problem can be diagnosed by telephone, or through other means not requiring an on-site visit, the contractor has the option of first ordering and receiving any necessary parts for the repair prior to making the site visit to NRL.
- h. The contractor shall provide one year of telephone support. The Contractor shall provide the COR or designated Government individual with a phone number for placing service calls. Recording devices or e-mail are acceptable if the COR or Government authorized individual(s) is notified within 24-hours that the service call has been received. Response Time begins at the time the call is placed by the COR or the Government authorized individual(s). The Contractor shall be responsible for the proper selection of personnel and equipment to be dispatched to the system site.

**Options:**

The contractor shall provide the following options, if exercised:

- (1) The contractor shall incorporate flat-screen displays or equivalent projection systems on the front and sides of the cockpit. Minimum required resolution is 1280 x 1024.
- (2) The contractor shall supply the Head Mounted Display (HMD) and supporting computer), Head Tracking System and supporting computer. (Minimum): color, Stereoscopic Display. Resolution of 800 X 600 (true); field of view, 130 (horizontal) / 75 (vertical) degrees. Weight: < 4 lbs. Adjustable Overlap.