

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE	PAGE 1 OF 3 PAGES
2. AMENDMENT/MODIFICATION NO. 0001		3. EFFECTIVE DATE 05/27/2004	4. REQUISITION/PURCHASE REQ. NO. 11-4800-04	5. PROJECT NO. (If applicable)	
6. ISSUED BY CONTRACTING OFFICER NAVAL RESEARCH LABORATORY 4555 OVERLOOK AVENUE SW WASHINGTON, DC 20375-5326 ATTN: CODE 3220.JS		CODE N00173	7. ADMINISTERED BY (If other than Item 6)		CODE
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(X)	9A. AMENDMENT OF SOLICITATION NO. N00173-04-R-JS02
				X	9B. DATED (SEE ITEM 11) 04/20/2004
					10A. MODIFICATION OF CONTRACT/ORDER NO.
					10B. DATED (SEE ITEM 11)
CODE		FACILITY CODE			

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers  is extended,  is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment your desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)

**E. IMPORTANT:** Contractor  is not,  is required to sign this document and return \_\_\_\_\_ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

Jamie Simpson Code: 3220.JS 202/767-4597  
Simpson@contracts.nrl.navy.mil  
Continued on Page 2

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
15B. CONTRACTOR/OFFEROR		16B. UNITED STATES OF AMERICA	
15C. DATE SIGNED		16C. DATE SIGNED	
(Signature of person authorized to sign)		(Signature of Contracting Officer)	

The purpose of this modification is to answer questions received from potential offerors.

1. Can you send me a digital image, frontal view only, of the FIB 200? This picture confirms the orientation of the components of the system.

The digital image can be located at: <http://heron.nrl.navy.mil/contracts/RFP/04js02.htm>

2. What version XP software? Is it ODP or turbo?

Software Version xP 1.10; Build 678 and turbo pumped

3. Does it have a mechanical rough pump?

Yes

4. Does it have a microscope?

It has a video camera and illumination for optical visualization of stage position

5. Is it pre-lens or magnum? Has it ever been replaced?

It is pre-lens column and has never been replaced.

6. Could examples of vendors and/or models of deposition chambers be provided for Option 7.0 – Metal/Insulator Deposition Chamber?

Option 7 has not been modeled on a particular commercial attachment but derives from a useful device fabrication capability. It is specified to provide a method to deposit both metal and dielectric layers films over a large area. The specification requires deposition capability for samples having 2.5 cm diameter with preference given sample deposition capabilities up to 15 cm diameter (6 inches). Such an add-on can allow construction of 3-dimensional structures and allow wider variety of materials having better conduction and insulating properties than can be achieved by the GIS units alone.

Please see attached file for one version of a system that is representative of what is desired located at: <http://heron.nrl.navy.mil/contracts/RFP/04js02.htm>

7. Can additional clarification on item 1.6.2 a x, y travel range: 150mm be provided? Is it mandatory that there is 150mm in X translation and 150mm in Y translation or should the x and y movement equal 150mm? (75mm in x and 75mm in y)

If the answer is yes to needing 150mm in X and also in Y is it more important to have simultaneous EDX/EBSD or have the range of movement?

Additionally would it be acceptable to get coverage of a six-inch wafer with rotation?

1. The stage translation requires 150 mm in X and 150 mm in Y.
2. Simultaneous EDX/EBSD is more important than the range of movement.
3. It is preferred to have six-inch wafer coverage without rotation. This will allow for optimum use of third party attachments such as the ebeam writing capability that can not automatically correct for gross rotational misalignment. NRL will consider systems that implement full six-inch travel with rotation in comparison to the overall capabilities of the instrument.