AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE	OF	PAGES
	1		7

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicble)
0001	04/03/13	61-0276-12	

6. ISSUED BY CODE N00173

Contracting Officer
US Naval Research Laboratory
4555 Overlook Avenue, SW
Washington, DC 20375-5326

7. ADMINISTERED BY (If other than Item 6) CODE

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)

CODE FACILITY CODE

(X) ✘

9A. AMENDMENT OF SOLICIATION NO. N00173-13-R-PW06

9B. DATED (SEE ITEM 11) 03/22/13

10A. MODIFICATION OF CONTRACT/ORDER NO.

10B. DATED (SEE ITEM 11)

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 1 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 APPROPIRATION 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.)

See following page(s).

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

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

1. Section B-1 is changed to provide estimate material, equipment, and travel costs:

SECTION B
SUPPLIES OR SERVICES AND PRICES/COSTS

B-1

CONTRACT LINE ITEM NUMBER (CLIN)	**SUPPLIES / SERVICES**	**MAXIMUM ESTIMATED COST**	**FIXED FEE**	**MAXIMUM ESTIMATED COST PLUS FIXED FEE**
0001 (Base year, [dates to be filled in])	The contractor shall provide the R&D Services for Chemical/Materials R&D and Sensors/Systems Development as specified in Section C, Task area 3.1.	$	$	$
0002 (Base year, [dates to be filled in])	PSC AJ12 The contractor shall provide the R&D Services for Chemical/Materials R&D and Sensors/Systems Development as specified in Section C, Task area 3.2.	$	$	$
0003 (Base year, [dates to be filled in])	PSC AJ12 The contractor shall provide the R&D Services for Chemical/Materials R&D and Sensors/Systems Development as specified in Section C, Task area 3.3.	$	$	$
0004 (Base year, [dates to be filled in])	PSC AJ12 The contractor shall provide the R&D Services for Chemical/Materials R&D and Sensors/Systems Development as specified in Section C, Task area 3.4.	$	$	$
0005 (Base year, [dates to be filled in])	PSC AJ12 Materials and Equipment (Cost Only) PSC 6650	$ 934,263.68	N/A	$ 934,263.68
0006 (Base year, [dates to be filled in])	Travel (Cost Only) PSC AJ12	$ 233,565.92	N/A	$ 233,565.92
0008	Data in accordance with Exhibit A (DD Form 1423)	NSP*		
Total Maximum Estimated Cost Plus Fixed Fee (CPFF), base year		**$**	**$**	**$**

*NSP = not separately priced.

CONTRACT LINE ITEM NUMBER (CLIN)	SUPPLIES / SERVICES	MAXIMUM ESTIMATED COST	FIXED FEE	MAXIMUM ESTIMATED COST PLUS FIXED FEE
1001 (Option year 1, [dates to be filled in])	The contractor shall provide the R&D Services for Chemical/Materials R&D and Sensors/Systems Development as specified in Section C, Task area 3.1. PSC AJ12	$	$	$
1002 (Option year 1, [dates to be filled in])	The contractor shall provide the R&D Services for Chemical/Materials R&D and Sensors/Systems Development as specified in Section C, Task area 3.2. PSC AJ12	$	$	$
1003 (Option year 1, [dates to be filled in])	The contractor shall provide the R&D Services for Chemical/Materials R&D and Sensors/Systems Development as specified in Section C, Task area 3.3. PSC AJ12	$	$	$
1004 (Option year 1, [dates to be filled in])	The contractor shall provide the R&D Services for Chemical/Materials R&D and Sensors/Systems Development as specified in Section C, Task area 3.4. PSC AJ12	$	$	$
1005 (Option year 1, [dates to be filled in])	Materials and Equipment (Cost Only) PSC 6650	$ 934,263.68	N/A	$ 934,263.68
1006 (Option year 1, [dates to be filled in])	Travel (Cost Only) PSC AJ12	$ 233,565.92	N/A	$ 233,565.92
Total Maximum Estimated Cost Plus Fixed Fee (CPFF), first option year		**$**	**$**	**$**

CONTRACT LINE ITEM NUMBER (CLIN)	SUPPLIES / SERVICES	MAXIMUM ESTIMATED COST	FIXED FEE	MAXIMUM ESTIMATED COST PLUS FIXED FEE
2001 (Option year 2, [dates to be filled in])	The contractor shall provide the R&D Services for Chemical/Materials R&D and Sensors/Systems Development as specified in Section C, Task area 3.1. PSC AJ12	**$**	**$**	**$**
2002 (Option year 2, [dates to be filled in])	The contractor shall provide the R&D Services for Chemical/Materials R&D and Sensors/Systems Development as specified in Section C, Task area 3.2. PSC AJ12	**$**	**$**	**$**
2003 (Option year 2, [dates to be filled in])	The contractor shall provide the R&D Services for Chemical/Materials R&D and Sensors/Systems Development as specified in Section C, Task area 3.3. PSC AJ12	**$**	**$**	**$**
2004 (Option year 2, [dates to be filled in])	The contractor shall provide the R&D Services for Chemical/Materials R&D and Sensors/Systems Development as specified in Section C, Task area 3.4. PSC AJ12	**$**	**$**	**$**
2005 (Option year 2, [dates to be filled in])	Materials and Equipment (Cost Only) PSC 6650	**$** 934,263.68	N/A	**$** 934,263.68
2006 (Option year 2, [dates to be filled in])	Travel (Cost Only) PSC AJ12	**$** 233,565.92	N/A	**$** 233,565.92
Total Maximum Estimated Cost Plus Fixed Fee (CPFF), option year two		**$**	**$**	**$**
TOTAL CONTRACT MAXIMUM ESTIMATED COST PLUS FIXED FEE		**$**	**$**	**$**

2. The personnel qualifications for the Senior Scientist/Engineers in Section C-3 are changed to read as follows:

PWS Task 3.1, Conduct Basic and Applied Research and Development
The **Senior Scientist/Engineer** staff must possess a Ph.D. degree in Chemistry or Physics, Materials Science or Engineering, Mechanical or Marine Engineering, or equivalent, with a minimum of 5 years of experience in the laboratory. The government will consider more practical experience in lieu of the educational requirement; however, the proposed individual's publication record must be substantial and relevant to the effort proposed here and must include lead authorships. Senior Scientist/Engineer(s) should also possess demonstrated, hands-on experience conducting basic and applied research and development in chemistry, materials, sensors, and systems including experimental and theoretical studies in controlled combustion, deflagration, and detonation processes; fundamental research on non-energetic materials; basic and applied research centering on design, synthesis, and validation of nanostructured materials for energy generation, storage and conversion (batteries, capacitors, fuel cells) and filtration of vapor-phase toxins; research on fuels chemistry; research on alternative fuels, efficient energy and power conversion, energy storage, and portable power; and research on physical, electrochemical, and environmental behavior of materials in a marine environment. Key personnel are expected to be recognized experts and active researchers in their field, as documented by their stature in professional societies and/or regular publications/presentations at professional society meetings. Because they will likely supervise junior staff, a demonstrated supervisory experience is considered a strength.

PWS Task 3.2, Characterization of materials
The **Senior Scientist/Engineer** staff must possess a Ph.D. degree in Chemistry or Physics, Materials Science or Engineering, Mechanical or Marine Engineering, or equivalent, with a minimum of 5 years of experience in the laboratory. The government will consider more practical experience in lieu of the educational requirement; however, the proposed individual's publication record must be substantial and relevant to the effort proposed here and must include lead authorships. Senior Scientist/Engineer(s) should also possess demonstrated, hands-on experience characterizing the electronic and geometric structure, mass, reactivity, molecular weight, or optical/electronic properties for materials; using characterization tools for materials surface analysis, growth, and micro/nanofabrication; conducting studies of fundamentally new approaches for characterization and analysis of material structures and surfaces; characterizing materials for DoD applications; and characterizing non-lithographic functional patterns comprised of metal, dielectrics, polymers, and/or biomolecules. Key personnel are expected to be recognized experts and active researchers in their field, as documented by their stature in professional societies and/or regular publications/presentations at professional society meetings. Because they will likely supervise junior staff, a demonstrated supervisory experience is considered a strength.

PWS Task 3.3, Design, synthesis, processing, and test of materials
The **Senior Scientist/Engineer** staff must possess a Ph.D. degree in Chemistry or Physics, Materials Science or Engineering, Mechanical or Marine Engineering, or equivalent, with a minimum of 5 years of experience in the laboratory. The government will consider more practical experience in lieu of the educational requirement; however, the proposed individual's publication record must be substantial and relevant to the effort proposed here and must include lead authorships. Senior Scientist/Engineer(s) should also possess demonstrated, hands-on experience designing, synthesizing, and testing materials for DoD applications; conducting research of non-lithographic techniques to fabricate 2D and 3D structures comprised of metal, dielectrics, polymers, and/or biomolecules for use in micro/nanoelectronic systems; building proof of concept micro/nanoelectronic components and devices using non-lithographic techniques; testing and evaluating novel non-lithographic processing approaches to digital micro/nanofabrication of micro/nanoelectronic devices and systems; developing new materials and/or methods for fabrication of 2D and 3D micro/nanostructures with unique properties and behavior; developing and testing new fuels suitable for use by the U.S. Navy's ships and aircraft including

determining the properties and stability of traditional Navy mobility fuels and developing, testing, and certifying fuels produced from non-petroleum sources; and providing research and engineering support to develop and field test materials to control anti-fouling, adhesion, friction, wear and corrosion. Key personnel are expected to be recognized experts and active researchers in their field, as documented by their stature in professional societies and/or regular publications/presentations at professional society meetings. Because they will likely supervise junior staff, a demonstrated supervisory experience is considered a strength.

PWS Task 3.4, Design, fabrication, and test of sensors and systems in the laboratory and/or field. The **Senior Scientist/Engineer** staff must possess a Ph.D. degree in Chemistry or Physics, Materials Science or Engineering, Electrical or Mechanical Engineering, Computational Science, Molecular or Microbiology, or equivalent with a minimum of 5 years of experience in the laboratory. The government will consider more practical experience in lieu of the educational requirement; however, the proposed individual's publication record must be substantial and relevant to the effort proposed here and must include lead authorships. Senior Scientist/Engineer(s) should also possess demonstrated, hands-on experience with designing, fabricating and testing chemical and biological sensors and systems (hardware and software); developing simulants and training aids based on chemical and biological sensors and systems; miniaturizing analytical and bioanalytical tools; conducting scientific computing activities associated with data acquisition, measurements, data processing, graphics, instrument control, networking and communications, data fusion, multivariate analysis, and modeling and simulation; applying artificial intelligence techniques to data interpretation problems associated with hazardous material detection and improved situational awareness; analyzing sensor array data using multivariate mathematical and statistical methods, such as pattern recognition algorithms, neural networks, and machine vision; providing research and engineering support to assist in the transition of sensor and power/energy systems to autonomous systems including the development and use of unmanned vehicles to enable real time situational awareness and support the battlespace management needs of DoN autonomous systems; designing, fabricating and testing physical sensors and systems (hardware and software) to detect buried ordnance from vehicular, man-portable, airborne, and/or marine platforms; and supporting laboratory and field operations to evaluate buried ordnance sensor systems. The scientific and engineering staff for this task must have at least 5 years of direct experience in the development and demonstration of 1) instrumentation used for magnetic and electromagnetic geophysical surveys of UXO sites and 2) advanced algorithms used to identify buried ordnance. Key personnel are expected to be recognized experts and active researchers in their field, as documented by their stature in professional societies and/or regular publications/presentations at professional society meetings. Because they will likely supervise junior staff, a demonstrated supervisory experience is considered a strength. Because this effort may require contractor personnel to have access to military installations and specifically to classified ranges and operations, as well as classified information pertaining to performance of DoD systems, the senior scientist/engineer should be eligible for a SECRET clearance.

3. Paragraph (1) for Volume II at Section L-16 is revised to clarify the need for résumés.

(1) The offeror must propose the labor categories in accordance with the level-of-effort breakdown in Section L-15. If the offeror uses labor category terminology other than that used in Section L-15, the offer must provide a matrix clearly relating their proposed labor categories to those stated. Résumés are required for key personnel (all Senior Scientists/Engineers). Résumés are limited to five (5) pages each and do not count toward the overall page count for Volume II.

4. Questions from potential offerors are answered as follows:

Question 1. Section L-15 provides the Government's anticipated distribution of Labor Hours by Labor Category. Section C-3 provides the minimum personnel requirements. For the Senior Scientist/Engineer category, which indicates the requirement for a Ph.D. and 5 years of laboratory experience, will the Government establish equivalence for B.S./M.S. degrees with more practical experience to meet the requirements for this Labor Category?
Answer 1. The government will consider more practical experience in lieu of the educational requirement; however, the proposed individual's publication record must be substantial and relevant to the effort proposed here and must include lead authorships. This is a research facility. See solicitation amendment at C-3.

Question 2. The RFP has provided the anticipated distribution of Labor Hours by Labor Category for the purpose of pricing. Will the Government be providing estimates of Other Direct Costs (Materials, Travel, Equipment) for the purposes of pricing?
Answer 2. Yes. The estimated materials per year is $934,263.68, and the estimated travel per year is $233,565.92. See solicitation amendment at B-1.

Question 3. The RFP establishes a page count limit for Volume II. Please confirm that Resumes of Proposed Personnel will be required, and indicate if the page count limit will be exclusive of resumes?
Answer 3. Yes, résumés are required for key personnel only and are limited to 5 pages each. See solicitation amendment at L-16.

Question 4. Is there a page count limit for Volume V?
Answer 4. For Volume V, the total page count is limited to 20 pages.

Question 5. Can we work at our facilities in Virginia, or is all work to commence at a designated place?
Answer 5. We would consider the contractor's facility and see what it adds, but most work would likely be in our facilities using our equipment to support our on-going research projects.

Question 6. We would be very strong in certain aspects of this project but not as strong in others. Can we bid on only 1 aspect of the project, or do you want a company that can do everything?
Answer 6. Per provision FAR 52.215-1(f)(6), "The Government reserves the right to make multiple awards if, after considering the additional administrative costs, it is in the Government's best interest to do so." Per L-7, Multiple Awards, of the solicitation, "The contracting officer may make multiple awards resulting from this solicitation for entire CLINs only."

The government may award more than one contract resulting from this solicitation and may award per CLIN. Offerors may propose against one or more CLINs.