Subj: Amendment 06 – updates Contracting Officer and Contract Specialist contact information and extends opportunity to 2 February 2026 – 1 February 2027.

I. OVERVIEW OF THE RESEARCH OPPORTUNITY

This publication constitutes a Broad Agency Announcement (BAA) for awards by Naval Surface Warfare Center Crane Division (NSWC Crane) Contracts Department, as well as other federal entities where appropriate, as contemplated in Federal Acquisition Regulation (FAR) 6.102(d)(2) and 35.016, the Department of Defense Grants and Agreements regulations (DoDGARS) 32 CFR 22.315(a) and the, Office of the Under Secretary of Defense for Acquisition and Sustainment Other Transaction Guide version 2.0 dated July 2023. A formal Request for Proposals (RFP), solicitation, and/or additional information regarding this announcement will not be issued.

NSWC Crane reserves the right to fund all, some, or none of the proposals received under this BAA. NSWC Crane provides no funding for direct reimbursement of proposal development costs. Technical and cost proposals (or any other material) submitted in response to this BAA will not be returned. It is the policy of NSWC Crane to treat all proposals submitted under this BAA as sensitive competitive information and to disclose their contents only for the purposes of evaluation.

A. Required Overview Content

1. **Federal Awarding Agency Name**:
   Naval Surface Warfare
   Center Crane Division
   300 HWY 361
   Code T2 Bldg 34
   CRANE, IN 47522-5001
   Email: usn.crane.nswc-cd-crane-in.mbx.NSWC-Crane-T2-BACA@us.navy.mil

   Agency Contact:
   - **Contracting Officer:** Scotland R. McKinzie (scotland.r.mckinzie.civ@us.navy.mil)
   - **Requiring Technical Activity:** Maria Duran (usn.crane.nswc-cd-crane-in.mbx.NSWC-Crane-T2-BACA@us.navy.mil)

2. **Funding Opportunity Title**: Long Range Broad Agency Announcement (BAA) for NSWC Crane

   Anticipated individual awards: Multiple awards are anticipated.

   Anticipated funding type: 6.1, 6.2, 6.3, 6.4

   Types of instruments that may be awarded: Procurement contract (Federal Acquisition Regulation (FAR) based), grant, cooperative agreement, or other transaction.

3. **Announcement Type**: Amendment 06 to Initial Announcement
4. **Funding Opportunity Number**: N0016424SNB35

5. **Catalog of Federal Domestic Assistance Numbers (CFDA)**: 12.335 Navy Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance

6. **Key Dates**

   Dates: (All times listed herein are Eastern Time)
   - **Posting Date:** Initial Announcement posted on 1 February 2024.
   - **Amendment Posting Date:** Amendment 01 posted on 15 March 2024, Amendment 02 posted on 17 April 2024, and Amendment 03 posted on 08 May 2024. Amendment 04 posted on 09 August 2024. Amendment 05 posted on 27 January 2025. Amendment 06 posted 30 October 2025.
   - **Abstract Due Date**: Abstracts may be submitted on a rolling basis. **Proposal Due Date**: Proposals may be submitted on a rolling basis. **Closing Date**: Not applicable.
   - **Estimated period of performance start**: start dates are unique to each action.

7. **North American Industry Classification System (NAICS) code**: 541715 - Research and Development in the Physical, Engineering, and Life Sciences (except Nanotechnology and Biotechnology). The NAICS code for contracts under this announcement is "541715" with a small business size standard of "1,000 employees."

I. DETAILED INFORMATION ABOUT THE FUNDING OPPORTUNITY

A. Program Description

This announcement seeks revolutionary research ideas, and technology demonstrators that offer potential for advancement and improvement of NSWC Crane's primary mission areas.

- **Funding Opportunity Description**

NSWC Crane is a field activity of the Naval Sea Systems Command. NSWC Crane supports a wide range of government agencies in the interest of national security. NSWC Crane may publish BAAs and other solicitations in response to specific needs. This BAA is issued to seek innovative solutions and ideas for topics not covered via other means.

It is strongly encouraged that potential proposers review existing NSWC Crane solicitations to avoid duplication of effort and to contact the identified points of contact for each BAA topic to discuss specific details of the needs.

- **Crane Mission and Technical Capabilities**

The mission of NSWC Crane is to provide research, development, test and evaluation, acquisition engineering, in-service engineering, and technical support in its assigned technical capabilities for the United States Navy, Department of Defense components and agencies, and other federal agencies and components engaged in national security. NSWC Crane also works to apply component and system-level product and industrial engineering to surface sensors, strategic systems, special warfare devices and electronic warfare systems, as well as to execute other responsibilities as assigned by the Commander, Naval Surface Warfare Center.

The focus of NSWC Crane is "Harnessing the Power of Technology for the Warfighter." Crane specializes in total lifecycle support in three broad focus areas: Expeditionary Warfare, Strategic Missions, and Electronic Warfare, which support ten assigned technical capabilities (TCs) listed below.

1. Electronic Warfare (EW)
2. Infrared and Pyrotechnic Countermeasures
3. Strategic Systems Hardware
4. Expeditionary Warfare and Systems
5. Advanced Electronics
6. Sensors and Surveillance Systems
7. Hypersonic Weapon Systems
8. Power and Energy Systems
9. Electro-optic and Infrared Technologies
10. Force level EW Mission Analysis, Advanced Concepts and Technologies

Within each of the TCs, there are multiple thrust areas, which present considerable opportunities for innovative research and solutions to support national security imperatives. There is intentional overlapping space within the listed TC such that a potential technology or research idea may support multiple TCs. Any proposal should list the principal TC as well as any adjunct TCs that should be considered. Proposals that support multiple TCs are strongly desired but not necessary.

- **Thrust Areas by Technical Capability**

Each NSWC Crane TC encompasses multiple thrust areas supporting technology development and national security activities. NSWC Crane is looking for unsolicited proposals to help with the following areas within each capability:

1. **Electronic Warfare (EW)**. Research and development for materials, material processing, microelectronics, radio frequency (RF), electro-optic infrared (EOIR) and other hardware that improves the efficiency, capability and responsiveness of EW systems used in all warfighting domains (land, sea, air, space, and cyber). Algorithms, digital signal processing techniques and photonics approaches that improves EW system responsiveness and accuracy. Hardware and software-based solutions focused on manipulation of electromagnetic spectrum (EMS) signatures or emissions to include signature management. Material and non-material solutions that improve sustainability and affordability of EW systems and their components. Novel and low-cost approaches to EW test and evaluation (T&E) supporting fast-to-field initiatives.

Technology demonstrations that include prototypes of component or system level solutions to EW problems. EW mission analysis that may include a combination of live, virtual or constructive representations of EW systems, platforms or unique capabilities in single or multiple engagements and campaign simulations. Research and development that enable improvements in EW component or EW system Size, Weight and Power (SWAP). Research and development that support the integration of EW capability into unmanned systems. Artificial Intelligence (AI) and Machine Learning (ML) approaches with emphasis on accuracy, generalizability, and tactical employment of AI and ML in support of all EW functions.

2. **Infrared and Pyrotechnic Countermeasures**. Research, design, development, prototyping, and demonstration of safe, reliable, and effective infrared (IR) and electro-optic (EO) countermeasures, countermeasure systems, and pyrotechnics for platform protection, target enhancement, counterintelligence, surveillance, and reconnaissance (C-ISR), illumination, and signaling and marking. Seeking innovative approaches to Navy, Marine Corps, and Air Force platform protection through design, development, modeling and simulation (M&S), integration, test and evaluation (T&E), and fielding of camouflage, concealment, and deception devices, countermeasures, threat warning, and dispensing systems. Unique solutions that improve current capabilities in M&S, T&E, simulators, and all infrared countermeasure and pyrotechnic solutions, especially those that also incorporate RF with EO/IR are encouraged.

3. **Strategic Systems Hardware**. Research and development, prototyping, technology demonstration, and test & evaluation of safe, reliable, secure and effective hardware that supports the Department of Navy and DoD nuclear deterrence community. Innovation around Strategic Systems Hardware design starting at the physics level for materials and devices including quantum, mechanics, thermodynamics, electronics and electromagnetism. Application to specific systems and subsystems such as acoustic sensors, navigation, fire control, launch, flight, guidance, onboard & pier side mechanical & electrical support systems, as well as modeling & simulation and integrated verification & validation of those systems. Approaches that facilitate strategic hardware reliability through design, manufacturing and assessment of radiation hardened microelectronics for space missions, nuclear modernization, and missile defense are desired. Special emphasis is placed on research that enables secure, robust, and resilient microelectronics, sensors and embedded systems for military applications in severe environments. Other areas of interest include digital engineering and system modeling of requirements, interface management, system level architecture integration with model-based systems engineering. Data analytics, intelligent design with artificial intelligence and machine learning, configuration and data management, and improved procedures and trainings with augmented and virtual reality will be beneficial.

4. **Expeditionary Warfare and Systems (ExWar)**. Research, development, prototyping, and demonstration of technology associated with Expeditionary Warfare, commonly considered mission sets executed by the USMC, NAVSPECWAR & SOF, NECC, and other maritime & land-based forces. ExWar technologies can include sensor systems, battle management systems,

communications and command & control systems, and kinetic & non-kinetic effectors. Unmanned (UxS) and Counter-Unmanned (C-UxS) systems technologies are of particular interest to this area of research. Novel, end-to-end capability development and demonstration via rapid prototyping and fleet experimentation is a goal for the ExWar area of research. Areas of concentration at NSWC Crane in support of ExWar capabilities include EO/IR Sensor Systems, Radar Sensor Systems, Command & Control Systems, Cyber Security, Weapon Systems & Munitions, Power & Energy, Mobility Systems, and Electronic Warfare Systems. Capabilities that enable Naval expeditionary strategies and concepts, such as Distributed Maritime Operations, Expeditionary Advanced Base Operations, and force modernization are a focus for NSWC Crane.

5. **Advanced Electronics**. Research, development, prototyping, and demonstration of affordable, sustainable microelectronics solutions that provide asymmetric capability for the Department of Navy and the DoD Enterprise in support of the following platforms but not limited to hypersonic weapon systems and their platforms, ballistic missile defense systems, electronic warfare systems, command; control; communications; computing; intelligence; surveillance; and reconnaissance (C4ISR) systems, cyber-physical systems, space surveillance systems, maritime and undersea autonomous systems. Areas of interest but not limited to basic and applied trusted microelectronics research & development (including design, development, acquisition, test and evaluation, advanced prototyping, technology maturation and technology demonstration) in support of security systems engineering to integrate advanced electronics within complex systems satisfying security and resilience objectives. Microelectronics technology areas of interests include but are not limited to active and passive electronic devices, circuit cards, advanced Complementary Metal Oxide Semiconductor (CMOS) logic for ASICs and programmable logic, volatile and nonvolatile memory, radiation hardened technologies, advance packaging to include heterogeneous integration, advanced interconnect technologies, electronic controls, solid state transmit/receive modules, digital receiver exciters, digital beamforming electronics, DC to DC converters, microwave tubes, other radio frequency and optoelectronics technologies. Microelectronics technology test and evaluation areas of interests include but are not limited to model and simulation at the board, component, and circuit level, as well as operational environments to include radiation, cyber, electronic warfare across all identified microelectronics technologies. Additionally, solutions in development and demonstration of tools, techniques, and technologies for evaluation of microelectronics devices to support the confidentiality and integrity objectives of the DoD are desired.

6. **Sensors and Surveillance Systems**. Basic research; applied research; advanced technology development; and advanced component development and prototypes that facilitate the maturation of Sensors and Surveillance System technologies and manufacturing capabilities. Sensors and Surveillance Systems include multi-domain sensors and systems supporting Intelligence, Surveillance, and Reconnaissance (ISR); Counter-Uncrewed Systems (C-UxS); Radar; Electromagnetic Warfare (EW); Signals Intelligence (SIGINT); Electronic Intelligence (ELINT), Geospatial Intelligence (GEOINT), and Communications

missions and activities. Solutions of interest target improvements to sensor size, weight, power, cost, and/or performance. Research and development areas of interest to demonstrate include innovations associated with metamaterials, microelectronics, 2.5- and 3-Dimensional packaging, advanced sensor architectures, power systems, thermal management solutions, mechanical technologies, networking solutions, processing systems, modeling and simulation capabilities, sensor fusion, and algorithms.

7. **Hypersonic Weapon Systems (HWS)**. Research and development of technologies that support the development, integration, test and evaluation of HWS to include aerodynamics, aerothermal prediction and analysis, guidance, navigation and control, high temperature materials, thermal management, sensors and supporting algorithms. Any approach including materials and manufacturing processes that improve HWS performance, lethality, survivability, lowers costs or improves HWS and HWS component manufacturability (cost and capacity) is strongly desired. Innovative approaches and prototypes that lower the cost or increase the cadence of HWS testing and evaluation are also strongly desired. M&S of HWS components, subsystems and systems at all M&S levels (Engineering, Engagement, Mission and Campaign). Power and Energy solutions for HWS that reduce Size, Weight and Power (SWAP), improve power density or lower costs are welcome. Solutions that enhance microelectronics and HWS component, subsystem and system reliability and survivability in natural and prompt radiation environments are desired.

8. **Power and Energy Systems**. Research, development, prototyping, test and evaluation, materials analysis, safety analysis, modeling, digital engineering, data analytics, data management, specification development, and production and demonstration of advanced battery technologies, advanced high energy density storage systems, high power energy storage systems, hybrid and all-electric propulsion systems, energy transfer systems, alternative and renewable energy systems, and battery management systems. Applications include space, airborne, missile, surface, land, undersea, manned, and unmanned platforms, hybrid and all-electric vehicles, human portable energy storage systems, and portable energy storage and energy conversion systems. Desired outcomes are as follows: (1) Improvements in battery power density in support of directed energy systems. (2) Improvements in battery energy density in support of extended mission endurance for space, airborne, missile, surface, land, undersea, manned, and unmanned applications. (3) Improvements in battery cycle life in support of aerospace applications and austere mission environments. (4) Enable integration onto high value surface, air, and undersea platforms by mitigating safety risks associated with lithium chemistry batteries. This includes advancements in battery casualty containment and early failure detection. This also includes advancements of battery technologies utilizing nonflammable electrolyte and solid-state electrolyte batteries. (5) Improvements of lithium chemistry battery performance in extreme cold weather environments. (6) Improvements in power management and distribution systems efficiency. (7) Improvements of solar array technology efficiency to support expeditionary mission sets. (8) Supply chain risk mitigations associated with power and energy technologies. This includes advancement of

technologies, methodologies, and materials that increase availability of domestic raw materials, address obsolescence issues, enable processing of raw materials, and reduce dependence of rare earth metals. This also includes development and advancement of batteries and electric motors that utilize alternative materials. (9) Development of cost effective and supportable high voltage and high-power battery test systems.

9. **Electro-optic and Infrared Technologies**. The objective of the Electro-Optic and Infrared (EO/IR) is to develop high-performance, low-cost, next generation EO/IR sensors, devices and autonomous processing to provide real-time detection, tracking, classification, and identification of air, sea-surface, and ground targets in all weather conditions. The primary interest is for systems working in the visible and infrared (near, short-wave, mid-wave, and long-wave) regions of the electromagnetic spectrum, which is typically considered to be 0.4 um to 15 um in wavelength. Beyond imaging and detection, this area also includes supported EO/IR technologies and sub-systems such as optics, software, targeting and tracking, sensor protection, visual augmentation systems (VAS), laser pointers, free space optics (FSO), laser markers, and laser designators. Approaches and technologies that offer improvements or improved understanding in of these areas is of interest. Additionally, innovative approaches, prototypes, and tools that benefit modeling and simulation (M&S), test and evaluation (T&E), systems installation, logistics, or other approaches that reduced cost or benefit to the management of the entire EO/IR lifecycle are of interest.

10. **Force level EW Mission Analysis, Advanced Concepts and Technologies.** Research and development of technologies and capabilities that support development, integration, modeling and simulation, test and evaluation of distributed and integrated electromagnetic warfare mission capabilities to support joint and naval kinetic and non-kinetic operations delivering lethal and non-lethal effects in the air, surface, ground, space and cyber domains of the electromagnetic spectrum. Seeking innovative approaches to provide a comprehensive modeling and simulation and analytical foundation to represent non-kinetic effects and complex electromagnetic environments for evaluation at the engineering, engagement, mission and campaign levels of modeling to facilitate rapid evaluation of current and emerging electromagnetic systems and system of systems capabilities. Seeking novel model-based systems engineering approaches, non-kinetic models, and visualization of non-kinetic effects in a modeling and simulation environment. Solutions and prototypes that are focused on advancing radio frequency enabled cyber, hardware agnostic electromagnetic spectrum capabilities, advanced electromagnetic sensors and systems, decision-making aids, many on many threat simulators, and advanced countermeasures are welcome. Innovative approaches and prototypes that benefit modeling and simulation, test and evaluation, and development and evaluation of integrated and distributed system of systems capabilities to help reduce cost and enable rapid analysis and evaluation are of interest.

B. Federal Award Information

1. **Eligibility for Competition**. Proposals for supplementation of existing projects

are eligible to compete with applications for new Federal awards under this BAA.

2. **Contracted Fundamental Research**. If there are any restrictions on the conduct or outcome of work funded under this BAA, NSWC Crane will follow the guidance on and definition of "contracted fundamental research" as provided in the Under Secretary of Defense (Acquisition, Technology and Logistics) Memorandum of 24 May 2010. The memorandum can be found at DoD Policy on Fundamental Research (osd.mil).

As defined therein, the definition of "contracted fundamental research," in a DoD contractual context, includes research performed under grants and contracts that are (a) funded by RDT&E Budget Activity 1 (Basic Research), whether performed by universities or industry or (b) funded by Budget Activity 2 (Applied Research) and performed on campus at a university. The research shall not be considered fundamental in those rare and exceptional circumstances where the applied research effort presents a high likelihood of disclosing performance characteristics of military systems or manufacturing technologies that are unique and critical to defense, and where agreement on restrictions have been recorded in the contract or grant.

Pursuant to DoD policy, research performed under grants and contracts that are (a) funded by Budget Activity 2 (Applied Research) and NOT performed on-campus at a university or (b) funded by Budget Activity 3 (Advanced Technology Development) or Budget Activity 4 (Advanced Component Development and Prototypes) does not meet the definition of "contracted fundamental research." In conformance with the USD (AT&L) guidance and National Security Decision Directive found at https://www.acq.osd.mil/dpap/dars/pgi/docs/National_Security_Decision_Directive_189.pdf, NSWC Crane will place no restriction on the conduct or reporting of unclassified "contracted fundamental research," except as otherwise required by statute, regulation, or executive order. For certain research projects, it may be possible that although the research being performed by the prime contractor is restricted research, a subcontractor may be conducting "contracted fundamental research." In those cases, it is the **prime contractor's responsibility** in the proposal to identify and describe the subcontracted unclassified research and include a statement confirming that the work has been scoped, negotiated, and determined to be fundamental research according to the prime contractor and research performer.

Normally, fundamental research is awarded under grants with universities and under contracts with industry. Non-fundamental research is normally awarded under contracts and may require restrictions during the conduct of the research and DoD pre-publication review of such research results due to subject matter sensitivity. Potential offerors should consult with the appropriate NSWC Crane Technical POCs to determine whether the proposed effort would constitute fundamental or non-fundamental research.

3. **Funded Amount and Period of Performance.** The funded amount and period of performance of each proposal selected for award may vary depending on the technology area and the technical approach to be pursued by the offeror selected.

4. **Instrument Type(s).** Awards may take the form of contracts, grants,

cooperative agreements, technology investment agreements, and other transaction agreements, as appropriate. The following provides brief descriptions of potential instrument types:

a. **Procurement Contract.** A legal instrument, consistent with 31 U.S.C. § 6303, which reflects a relationship between the Federal Government and another entity/contractor when the principal purpose of the instrument is to acquire property or services for the direct benefit or use of the Federal Government.

b. **Assistance Instruments.**

i. Any assistance instrument awarded under this announcement will be governed by the award terms and conditions that conform to DoD's implementation of Office of Management and Budget (OMB) circulars applicable to financial assistance.

ii. *Grant.* A legal instrument, consistent with 31 U.S.C. § 6304, is used to enter a relationship:

- The principal purpose of which is to transfer a thing of value to the recipient to carry out a public purpose of support or stimulation authorized by a law of the United States, rather than to acquire property or services for the Federal Government's direct benefit or use.
- In which substantial involvement is not expected between the Federal Government and the recipient when carrying out the activity contemplated by the grant.
- Per 2 CFR § 1128.325, no fee or profit is allowed

iii. *Cooperative Agreement*. A legal instrument which, consistent with 31 U.S.C. § 6305, is used to enter the same kind of relationship as a grant, except:

- Substantial involvement is expected between the Federal Government and the recipient when carrying out the activity contemplated by the cooperative agreement. ***(For information on the substantial involvement NSWC Crane expects to have in cooperative agreements, prospective offerors should contact the Technical Point of Contact identified in the technology area of interest.)***
- Per 2 CFR § 1128.325, no fee or profit is allowed.

iv. *Technology Investment Agreement (TIA)*. An assistance instrument as described in 32 CFR Part 37. A TIA may be a cooperative agreement with provisions tailored for involving commercial firms or an assistance transaction under 10 U.S.C. § 4021. An assistance transaction may be used when the use of a contract, grant, or cooperative agreement is not feasible or appropriate for basic, applied, and advanced research projects, but the research shall not be duplicative of research being conducted under an existing DoD program. To the maximum extent practicable, TIAs shall provide for a 50/50 cost share between the Government and the applicant. An applicant's cost share may take the form of cash, independent research, and

development (IR&D), foregone intellectual property rights, equipment, access to unique facilities, or other means. Due to the extent of cost share, and the fact that a TIA does not qualify as a "funding agreement" as defined at 37 CFR 401.2(a), the intellectual property provisions of a TIA can be negotiated to provide expanded protection to an applicant's intellectual property. No fee or profit is allowed on TIAs.

c. **Other Transaction Agreement (OTA) for Research.** A Research OTA is a legal instrument, consistent with 10 U.S.C. § 4021, which may be used for basic, applied, and advanced research projects. The effort covered under an OTA shall not be duplicative of effort being conducted under an existing DoD program. Please refer to the DoD "Other Transactions Guide" version 2.0 dated July 2023, for additional information.

d. **Other Transaction Agreement (OTA) for Prototypes.** A Prototype OTA is a legal instrument, consistent with 10 U.S.C. § 4022, which may be used for prototype projects directly relevant to enhancing the mission effectiveness of military personnel and the supporting platforms, systems, components, or materials proposed to be acquired or developed by the Department of Defense, or for improvement of platforms, systems, components, or materials in use by the armed forces. The effort covered under an OTA shall not be duplicative of effort being conducted under an existing DoD program. Please refer to the DoD "Other Transactions Guide" version 2.0 dated July 2023, for additional information.

C. Eligibility Information

1. <u>Eligible Applicants</u>

All responsible sources from academia, industry and the research community may submit proposals under this BAA. Historically Black Colleges and Universities (HBCUs) and Minority Institutions (MIs) are encouraged to submit proposals and join others in submitting proposals. However, no portion of this BAA will be set aside for HBCUs/MIs, small businesses, or other socio-economic participation. All businesses, both small and large, are encouraged to submit proposals and compete for funding consideration.

Federally Funded Research & Development Centers (FFRDCs), including Department of Energy National Laboratories, are not eligible to receive awards under this BAA. However, teaming arrangements between FFRDCs and eligible principal Offerors are allowed so long as such arrangements are permitted under the sponsoring agreement between the Government and the specific FFRDC.

Navy laboratories, military universities, and warfare centers as well as other Department of Defense and civilian agency laboratories are also not eligible to receive awards under this BAA and should not directly submit either white papers or full proposals in response to this BAA. If any such organization is interested in one or more of the programs described herein, the organization should contact an appropriate NSWC Crane Technical POC to discuss its area of interest.

University Affiliated Research Centers (UARCs) are eligible to submit proposals under this BAA unless precluded from doing so by their Department of Defense UARC contract.

Teams are also encouraged and may submit proposals in any and all areas. However, Offerors must be willing to cooperate and exchange software, data and other information in an integrated program with other contractors, as well as with system integrators, selected by NSWC Crane.

2. **Cost Sharing or Matching** – Cost sharing is not expected and will not be used as a factor during the merit review of any proposal hereunder. However, the Government may consider voluntary cost sharing if proposed.

D. Application and Submission Information

1. **Address to Request (Access) Application Package** – This BAA may be accessed from the sites below. Amendments, if any, to this BAA will be posted to these websites when they occur. Interested parties are encouraged to periodically check these websites for updates and amendments.

a. SAM.gov (https://sam.gov/content/home)

2. **Content and Format of Application Submission**

a. **General Information**

All submissions will be protected from unauthorized disclosure in accordance with FAR Subpart 15.207, applicable law, and DoD/DoN regulations. Offerors are expected to appropriately mark each page of their submission that contains proprietary information.

Titles given to the submissions should be descriptive of the work they cover and not be merely a copy of the title of this announcement.

b. **Security Classification**

White Papers and Proposals submitted under this BAA are expected to be unclassified; however, classified proposals are permitted. If a classified proposal is submitted and selected for award, the resultant contract will be unclassified. An 'unclassified' Statement of Work (SOW) must accompany any classified proposal.

1. Classified proposals shall be submitted directly to the NSWC Crane TPOC whose technology area best matches the offeror's field of interest under Section G(5).

OUTSIDE ENVELOPE - (**no classification marking**):

NSWC Crane
Attn: OPSEC – Document Control Unit
[ENTER ADDRESS]

The inner wrapper of the classified White Paper and/or Full Proposal should be addressed to the attention of the cognizant Technical POC, NSWC Crane Code XX and marked in the following manner:

INNER ENVELOPE - (**stamped with the overall classification of the material**)

Program Name:
NSWC Crane
Attn: Program Officer Name

c. **Non-Proprietary Statement of Work**

For all proposals, a non-proprietary version of the Statement of Work must also be submitted. Do not put proprietary data or markings in or on the Statement of Work. For proposals containing data that the offeror does not want disclosed to the public for any purpose, or used by the Government except for evaluation purposes, the contractor shall mark the title page with the following legend:

"This proposal includes data that shall not be disclosed outside the Government and shall not be duplicated, used, or disclosed--in whole or in part--for any purpose other than to evaluate the proposal. If, however, a contract is awarded to this offeror as a result of--or in connection with-- the submission of this data, the Government shall have the right to duplicate, use, or disclose the data to the extent provided in the resulting contract. This restriction does not limit the Government's right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction are contained in (insert numbers or other identification of sheets)."

Each sheet of data that the offeror wishes to restrict must be marked with the following legend:

"Use or disclosure of data contained on this sheet is subject to the restriction on the title page of this proposal."

d. **White Paper Requirements**. White Papers are frequently desired by NSWC Crane Technical POCs.

i. White Paper Format
- Paper Size – 8.5 x 11-inch paper
- Margins – 1 inch
- Spacing – single-spaced
- Font – Times New Roman, 12 point
- Page limit – 1-5 pages excluding cover page.

ii. White Paper Submission.

When e-mail submission is required (per the instructions below), the white paper must be at least Microsoft Word 2016 compatible, or PDF-compatible format attachment to the email. There is an email size limit of 5MB per email.

- For NSWC Crane Only: Electronic (email) submissions must be sent to usn.crane.nswc-cd-crane-in.mbx.NSWC-Crane-T2-BACA@us.navy.mil. The subject line of the email shall read: "N0016424SNB35 *White Paper Submission*". Do not send ZIP files. Password protected files are discouraged.

iii. White Paper Content

- Cover Page:
  - BAA Number: N0016424SNB35
  - Company name, CAGE code, DUNS number, address, e-mail address, and telephone number;
  - A statement confirming agreement with all terms, conditions, and provisions included in the BAA and agreement to furnish any or all items upon which prices are offered at the price set opposite each item;
  - Names, titles, telephone numbers, and e-mail addresses of persons authorized to negotiate on the Offeror's behalf with the Government in connection with this BAA ;
  - DCAA and DCMA office POC, including branch location, contact name, telephone number and e-mail address;
  - Name, title, signature of person authorized to sign the proposal. Proposals signed by an agent shall be accompanied by evidence of that agent's authority unless that evidence has been previously furnished to the issuing office. The Offeror's signature on their proposal indicates the company will meet all requirements of the SOW/PWS, without exception; and
  - Identify all enclosures being transmitted as part of the Offeror's proposal.
  - If an Offeror believes no organizational conflict(s) of interest exists, an affirmative statement that no such conflict exists shall be included in the cover letter.

- Technical Concept: A description of the technology innovation and technical risk areas.

- Future Military Relevance (where applicable) – A description of potential Naval relevance and contributions of the effort to the agency's specific mission.

- Operational Military Concept (where applicable) – A description of the project objectives, the concept of operation for the new capabilities to be delivered, and the expected operational performance improvements.

- Operational Utility Assessment Plan (where applicable) – A plan for demonstrating and evaluating the operational effectiveness of the Offeror's proposed products or processes in field experiments and/or tests in a simulated environment.

- Rough Order of Magnitude (ROM) cost estimate.

e. **Full Proposals**: See Appendix 1 for Instructions for Grants, Cooperative Agreements, and TIAs and Appendix 2 for instructions for Contracts and Other Transaction Agreements.

3. **Unique Entity Identifier and System for Award Management (SAM)** – All offerors submitting proposals or applications must:

a. Be registered in the SAM prior to submission;
b. Maintain an active SAM registration with current information at all times during which it has an active Federal award or an application under consideration by any agency; and
c. Provide its DUNS number in each application or proposal it submits to the agency.

SAM may be accessed at https://www.sam.gov/SAM

4. **Submission Dates and Times** – See Section A.6 above, "Key Dates" for information.

5. **Intergovernmental Review**: RESERVED

6. **Funding Restrictions**: RESERVED

7. **Other Submission Requirements**: See Appendix 1 for Instructions for Grants, Cooperative Agreements and TIAs and Appendix 2 for instructions for Contracts and Other Transaction Agreements.

E. Application Review Information

1. **Criteria.** Awards under this BAA will be made in accordance with FAR 35.016(e). The primary basis for selecting proposals for acceptance will be technical merit, importance to agency programs, and fund availability. To the extent appropriate, cost realism and reasonableness will also be considered when selecting proposals. NSWC Crane reserves the right to request and require any additional information and documentation after it makes the type of award instrument determination. NSWC Crane reserves the right to remove Offerors from award consideration when the parties fail to reach agreement on award terms, conditions, and cost/price within a reasonable time, or when the Offeror fails to timely provide requested or required additional information.

Offerors' white papers and full proposals will be evaluated against the following criteria:

1) Overall scientific and technical merits of the proposal and responsiveness to the topic, i.e., the degree of innovation, soundness of technical concept, Offeror's awareness of the state of the art and understanding of the scope of the problem, significance and originality of the technical approach and effort needed to address/solve the problem and anticipated scientific impact within the field. The following areas will also be considered: (A) the Offeror's capabilities, related experience, facilities, techniques, or unique combinations of these which are integral factors for achieving the proposal objectives, and (B) the qualifications, capabilities and experience of the proposed Principal Investigator (PI), team leader and key personnel who are critical to achieving the proposal objectives.

2) Potential Military relevance and contribution to the NSWC Crane and Department of Navy mission.

3) The availability of funds. (Not applicable to white papers.)

Criteria 1, 2, and 3 are equally important.

2. **Review and Selection Process**

a. **Evaluation** – Proposals will not be evaluated against each other since they are not submitted in accordance with a common work statement. NSWC Crane's intent is to review all proposals received as soon as possible after they arrive; however, proposals may be reviewed periodically for administrative reasons.

The ultimate recommendation for award of proposals is made by NSWC Crane's scientific/technical community. Recommended proposals will then be forwarded to the cognizant NSWC Crane executing Contracts Division. Any notification received from NSWC Crane that indicates that the Offeror's full proposal has been recommended does not ultimately guarantee an award will be made. This notice indicates that the proposal has been selected in accordance with the evaluation criteria stated above and has been sent to the Contracting Department to conduct cost analysis, determine the offeror's responsibility, to confirm whether funds are available, and to take other relevant steps necessary prior to making an award.

b. **Commitment to Small Business**- (For Contract Award Only)

NSWC Crane is strongly committed to providing meaningful prime and subcontracting opportunities for small businesses, small disadvantaged businesses (SDBs), woman-owned small businesses (WOSBs), historically underutilized business zone (HUB Zone) small businesses, veteran-owned small business (VOSBs), service disabled veteran-owned small businesses (SDVOSBs), historically black colleges and universities, and minority institutions, and other concerns subject to socioeconomic considerations through its awards.

Businesses unfamiliar with doing business with the government and that require assistance may contact the state-specific Department of Defense (DoD) Procurement Technical Assistance Center (PTAC). DoD PTACs serve as a resource for

businesses pursuing and performing under contracts with DoD, other federal agencies, state and local governments and with government prime contractors. Assistance provided by the PTACs is usually free of charge. PTAC support includes registration in systems such as SAM, identification of contract opportunities, understanding requirements and preparing and submitting proposals. The PTACs have a presence in each state, Puerto Rico and Guam.

To locate a local PTAC visit:

http://www.dla.mil/HQ/SmallBusiness/PTAC.aspx or http://www.aptac-us.org/new/.

i. Subcontracting Plan – For proposed contract awards exceeding $700,000, large businesses and non-profits (including educational institutions) shall provide a Subcontracting Plan (hereafter known as 'the Plan') that contains all elements required by FAR 19.704, FAR 52.219-9 and as supplemented by DFARS 252.219-7003.

NOTE: Small businesses are exempt from this requirement to submit a subcontracting plan.

The Plan must be submitted as an attachment. If a company has a Master or Individual Subcontracting Plan, as described in FAR 19.701 or a Comprehensive Subcontracting Plan, as described in DFARS 219.702, a copy of the Plan shall also be submitted as an attachment to the proposal.

Plans will be reviewed for adequacy, ensuring that the required information, goals, and assurances are included. FAR 19.702 requires an apparent successful offeror to submit an acceptable Plan. If the apparent successful offeror fails to negotiate a Plan acceptable to the contracting officer within the time limit prescribed by the contracting officer, the offeror will be ineligible for award.

Offerors shall propose a plan that ensures small businesses (inclusive of SDBs, WOSBs, HUBZone, VOSBs and SDVOSBs) will have the maximum practicable opportunity to participate in contract performance consistent with efficient performance.

As a baseline, Offerors shall, to the best extent possible, propose realistic goals to ensure small business participation in accordance with the current or most recent fiscal year subcontracting goals found on the DoD Office of Small Business Program website at: https://business.defense.gov/. If proposed goals are below the statutory requirements, then the offeror shall include in the Plan a viable written explanation as to why small businesses are unable to be utilized and what attempts were taken to ensure that small business were given the opportunity to participate in the effort to the maximum extent practicable.

ii. Subcontracting Resources –

Subcontracting to a prime contractor can be a good way to participate in the

contracting process. The following is a list of potential resources that may assist in locating potential subcontracting partners/opportunities/resources:

- Companies Participating in DoD Subcontracting Program Report
- DAU Small Business Community of Practice (SB COP)
- DefenseLink ≥ $7.0 M Award Notices
- DoD OSBP Prime Contractors and Subcontractors with Subcontracting Plans
- Dynamic Small Business Search
- Electronic Subcontracting Reporting System (eSRS)
- System Award Management (SAM)
- Navy SBIR/STTR Search – Website or Brochure
- DoD Procurement Technical Assistance Centers (PTAC)
- U.S. Small Business Administration (SBA) Subcontracting Opportunities Directory
- U.S. SBA Subnet

In accordance with FAR 5.206, the following entities may transmit a notice to the Government wide Point of Entry (GPE) at https://www.sam.gov to seek competition for subcontracts, to increase participation by qualified small businesses, VOSBs, SDVOSBs, HUBZones, SDBs, and WOSBs, and to meet established subcontracting plan goal as follows:

(1) A contractor awarded a contract exceeding $250,000 that is likely to result in the award of any subcontracts;

(2) A subcontractor or supplier, at any tier, under a contract exceeding $250,000, which has a subcontracting opportunity exceeding $15,000.

The notices must describe:

(a) The business opportunity;
(b) Any prequalification requirements; and
(c) Where to obtain technical data needed to respond to the requirement.

In addition, another example of a place in which prime contractors may post solicitations or sources sought notices for small business is the U.S. SBA SUB-Net: https://subnet.sba.gov/client/dsp_Landing.cfm. The SUB-Net database provides a listing of subcontracting solicitations and opportunities posted by large prime contractors and other non-federal organizations.

c. **Options** – The Government will evaluate options for award purposes by adding the total cost for all options to the total cost for the basic requirement. Evaluation of options will not obligate the Government to exercise the options during contract or grant performance. The Government reserves the right to exercise options at time of award.

d. **Evaluation Panel** – Technical and cost proposals submitted under

this BAA will be protected from unauthorized disclosure in accordance with FAR 3.104-4 and 15.207. The cognizant Program Officer and other Government scientific experts will perform the evaluation of technical proposals. Restrictive notices notwithstanding, one or more support contractors may be utilized as subject-matter-expert technical consultants. However, proposal selection and award decisions are solely the responsibility of Government personnel. Each support contractor's employee having access to technical and cost proposals submitted in response to this BAA will be required to sign NSWC Crane's Non-Disclosure Agreement (NDA) for Contractor Support prior to receipt of any proposal submissions. This NDA includes third-party beneficiary language giving the submitter of proprietary information a right of direct action against the contractor employee and/or his/her employer in the event that the NDA is violated.

3. **Recipient Qualifications**

a. See Appendix 1 for Instructions for Grants, Cooperative Agreements and TIAs and Appendix 2 for instructions for Contracts and Other Transaction Agreements.

F. Federal Award Administration Information

1. **Federal Award Notices**

All applicants will receive a notification email advising if their proposal has been selected or not selected for award.

Applicants whose proposals are recommended for award may be contacted by a Contract Specialist or Purchasing Agent to discuss additional information required for award. This may include representations and certifications, revised budgets or budget explanations, certificate of current cost or pricing data, subcontracting plan for small businesses, and/or other information as applicable to the proposed award.

The notification e-mail must not be regarded as an authorization to commit or expend funds. The Government is not obligated to provide any funding until a Government Contracting Officer, Agreements Officer, or Grants Officer, as applicable, signs the award document.

Only, the award document signed by the Contracting Officer, Agreements Officer, or Grants Officer is the official go-ahead to commence the research project.

NSWC Crane award/modification documents are only available via the Department of Defense (DoD) Electronic Document Access System (EDA) within the Procurement Integrated Enterprise Environment (PIEE) (https://wawf.eb.mil/).

2. **Administrative and National Policy Requirements**

a. **Applicable to All Awards**

i. *Export Control*:

Offerors should be aware of recent changes in export control laws. Offerors are responsible for ensuring compliance with all U.S. export control laws and regulations, including the International Traffic in Arms Regulation (ITAR) (22 CFR Parts 120 - 130) and Export Administration Regulation (EAR) (15 CFR Parts 730 – 774), as applicable. In some cases, developmental items funded by the Department of Defense are now included on the United States Munitions List (USML) (22 CFR Part 121) and are therefore subject to ITAR jurisdiction. In other cases, items that were previously included on the USML have been moved to the EAR Commerce Control List (CCL). Offerors should address in their proposals whether ITAR or EAR restrictions apply to the work they are proposing to perform for NSWC Crane. The ITAR and EAR are available online at http://www.ecfr.gov/cgi-bin/ECFR?page=browse.

Offerors must comply with all U.S. export control laws and regulations, including the ITAR and EAR, in the performance of any award or agreement resulting from this BAA. Offerors shall be responsible for obtaining any required licenses or other approvals, or license exemptions or exceptions if applicable, for exports of hardware, technical data, and software (including deemed exports), or for the provision of technical assistance.

ii. Security Classification:

In order to facilitate intra-program collaboration and technology transfer, the Government will attempt to enable technology developers to work at the unclassified level to the maximum extent possible. If access to classified material will be required at any point during performance, the Offeror must clearly identify such need.

If it is determined that access to classified information will be required during the performance of an award, a Department of Defense (DD) Form 254 will be attached to the award, and FAR 52.204-2 – Security Requirements will be incorporated into the contract.

NSWC Crane does not provide access to classified material under grants or cooperative agreements.

iii. Department of Defense High Performance Computing Program: The DoD High Performance Computing Program (HPCMP) furnishes the DoD S&T and RDT&E communities with use-access to very powerful high performance computing systems. Awardees of NSWC Crane contracts, grants, and other assistance instruments may be eligible to use HPCMP assets in support of their funded activities if NSWC Crane TPOC approval is obtained and if security/screening requirements are favorably completed. Additional information and an application may be found at https://www.hpc.mil/.

iv. *Project Review Meetings and Program Review Meetings:* Individual Project Review Meetings between the NSWC Crane sponsor and the performer may be held as necessary. Project Review Meetings typically last approximately one day. Typically, there are 2 in-person Project Review Meetings each year. Additional Project Review Meetings are likely, but these will be accomplished by video telephone conferences, telephone conferences, or web-based collaboration tools.

In addition to Project Review Meetings, Program Review Meetings may be held to provide a forum for reviews of the latest results from individual project experiments and any other incremental project progress towards major demonstrations. Program Review Meetings are generally held once per year and last two to three days.

For cost estimating purposes, offerors should assume 40% of the review meetings will be at or near NSWC Crane, Crane, IN, and 60% will be held at other government or non-government facilities within the continental United States.

The Government sometimes finds it advantageous to hold Program Review Meetings at a performer's facility. Offerors interested in hosting such meetings should include an estimated cost and the following language in their proposals, which become part of any award (note: if a contract is awarded, use of the facility will be included as an option):

> [Name of entity] offers the use of its facilities for an NSWC Crane Program Review Meeting to discuss the status of programs related to the subject of this proposal. Such meetings may include attendees representing multiple research efforts. The meetings will discuss only "contracted fundamental research" as provided in the Under Secretary of Defense (Acquisition, Technology and Logistics) Memorandum of 24 May 2010, the results of which are open to the public. No fee will be charged Program Review Meeting attendees. [Name of entity] understands it will not be asked to host a Performance Review Meeting more than once per year, if at all.

Offerors are not required to include the foregoing term in their proposals, and whether they do or not will not affect their selection for award.

3. **Reporting**:

See Appendix 1 for reporting requirements for Grants, Cooperative Agreements and TIAs.

See Appendix 2 for reporting requirements for Contracts and Other Transactions.

G. Federal Awarding Agency Contracts

1. **Communications:**

a. All UNCLASSIFIED communications shall be submitted via e-mail to the Technical Point of Contract (POC) with a copy to the designated Business POC, as designated below.

b. CLASSIFIED questions shall be handled through the NSWC Crane TPOC. Specifically, any entity wanting to ask a CLASSIFIED question shall send an UNCLASSIFIED email to the NSWC Crane TPOC with a copy to both the Technical POC and the Business POC stating that the entity would like to ask a CLASSIFIED question. DO NOT EMAIL ANY CLASSIFIED QUESTIONS. The Security POC will

contact the entity and arrange for the CLASSIFIED question to be asked through a secure method of communication.

2. **Questions of a Technical Nature** should be submitted to the NSWC Crane TPOC whose technology area best matches the offeror's field of interest under Section G(5). Questions of a Technical nature related to Naval Surface Warfare Center Crane topics: Contact RTA, Maria Duran at usn.crane.nswc-cd-crane-in.mbx.NSWC-Crane-T2-BACA@us.navy.mil.

3. **Questions of a Business nature, regarding Contract proposal submissions, or suggestions for improvement**, should be submitted to: PCO, Scotland R. McKinzie, scotland.r.mckinzie.civ@us.navy.mil.

4. **Questions regarding Grants proposal submissions** should be submitted to: usn.crane.nswc-cd-crane-in.mbx.NSWC-Crane-T2-BACA@us.navy.mil.

5. **Questions of a Security nature** should be submitted to: Industrial Security, Eugene "Scott" Burns, eugene.s.burns.civ@us.navy.mil.

H. Other Information – RESERVED

APPENDIX 1 – REQUIREMENTS APPLICABLE TO GRANTS, TIAS, AND COOPERATIVE AGREEMENTS

D. Application and Submission Information – Full Grant Proposals

2. Content and Format of Application Submission

(e) Full Proposals:

Prospective offerors must complete the mandatory forms in accordance with the instructions provided on the forms and the additional instructions below. Files that are attached to the forms must be in Adobe Portable Document Format (.PDF).

Full Proposal Format

- Spacing – single spaced
- Font – Times New Roman, not smaller than 12 point
- Discuss the limit on the number of pages for the Technical Proposal with the cognizant Program Officer. There are no page limitations to the Budget.

NOTE: The electronic file name for all documents submitted under this BAA must not exceed 68 characters in length, including the file v name extension.

Mandatory SF-424 Research and Related (R&R) Family Forms

The mandatory forms are found at https://www.grants.gov/web/grants/forms.html.

(1) SF-424 (R&R)

The SF-424 (R&R) form must be used as the cover page for all proposals. Complete all required fields in accordance with the "pop-up" instructions on the form and the following instructions for specific fields. Please complete the SF-424 first, as some fields on the SF-424 are used to auto-populate fields on other forms. Guidance: grants.gov/forms/forms-repository/r-r-family.

The completion of most fields is self-explanatory with the exception of the following special instructions:

- Field 3 – Date Received by State: Leave Blank

- Field 4a - Federal Identifier: For new proposals, enter N0016424SNB35. If the application is a renewal or expansion of an existing award, enter the NSWC Crane award number.

- Field 4c - Previous Grants.gov Tracking ID: If this submission is for a Changed/Corrected Application, enter the Grants.gov tracking number of the previous proposal submission; otherwise, leave blank.

- Field 5 – Application Information: Email address entered by the grantee on the SF424 application to create the EDA notification profile. NSWC Crane recommends that organizations provide a global business address.

- Field 7 - Type of Applicant. Complete as indicated: If the organization is a Minority Institution, select "Other" and under "Other (Specify)" note that the institution is a Minority Institution (MI).

- Field 9 - Name of Federal Agency: List the NSWC Crane as the reviewing agency. This field is pre-populated in Grants.gov.

- Field 11 – Descriptive Title of Applicant's Project: Include the NSWC Crane White Paper Tracking Number provided to the applicant by NSWC Crane.

- Field 14 – Project Director/Principal Investigator: Email address entered by the grantee on the SF424 application to create the EDA notification profile.

- Field 16 - Is Application Subject to Review by State Executive Order 12372 Process? Choose "No". Check "Program is Not Covered by Executive Order 12372."

- Field 17 – Certification: All awards require some form of certifications of compliance with national policy requirements. By checking the "I agree" box in field 17 and **attaching the representation to Field 18 of the SF424 (R&R)** as part of the electronic proposal submitted via Grants.gov, the Grant Applicant is providing the certification on lobbying required by 32 CFR Part 28 and representation regarding an unpaid delinquent tax liability or a felony conviction under any federal law – DoD appropriations.

- Field 19 – Authorized Representative: Email address entered by the grantee on the SF424 application to create the EDA notification profile.

(2) PROJECT/ABSTRACT

The project summary/abstract must identify the research problem and objectives, technical approaches, anticipated outcome of the research, if successful, and impact on DoD capabilities. Use only characters available on a standard QWERTY keyboard. Spell out all Greek letters, other non-English letters, and symbols. Graphics are not allowed and there is a 4,000-character limit including spaces. Do not include proprietary or confidential information. The project summary/ abstract must be marked by the applicant as "Approved for Public Release". Abstracts of all funded

research projects will be posted on the public DTIC website:
https://dodgrantawards.dtic.mil/grants

(3) RESEARCH AND RELATED OTHER PROJECT INFORMATION

- Fields 1 and 1a - Human Subject Use: Each proposal must address human subject involvement in the research by completing Fields 1 and 1a of the R&R Other Project Information form. For proposals containing activities that include or may include "research involving human subjects" as defined in Title 32 of the Code of Federal Regulations (CFR), prior to award, the Applicant must submit the required documentation under "Use of Human Subjects in Research" (Section F).

- Fields 2 and 2a – Vertebrae Animal Use: Each proposal must address animal use protocols by addressing Fields 2 and 2a of the R&R Other Project Information form. If animals are to be utilized in the research effort proposed, the Applicant must submit the documents described under "Use of Animals" (Section F).

- Fields 4a through 4d - Environmental Compliance: Address these fields and briefly indicate whether the intended research will result in environmental impacts outside the laboratory, and how the applicant will ensure compliance with environmental statutes and regulations.

Federal agencies making grant or cooperative agreement awards and recipients of such awards must comply with various environmental requirements. The National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. § 4321*et seq.*, requires that agencies consider the environmental impact of "major Federal actions" prior to any final agency decision. With respect to those awards which constitute "major Federal actions," as defined in 40 CFR 1508.18, federal agencies may be required to comply with NEPA and prepare an environmental impact statement (EIS), even if the agency does no more than provide grant funds to the recipient. Questions regarding NEPA compliance should be referred to the technical point of contact. Most research efforts funded by NSWC Crane will, however, qualify for a categorical exclusion from the need to prepare an EIS. Navy instructions/regulations provide for a categorical exclusion for basic and applied scientific research usually confined to the laboratory, if the research complies with all other applicable safety, environmental and natural resource conservation laws.

- Field 7 – Project Summary/Abstract: Leave Field 7 blank; complete Form SF424, Project Abstract. If an error message occurs when leaving Block 7 blank, upload the Project Abstract.

- Field 8 – Project Narrative: Describe clearly the research, including the objective and approach to be performed, keeping in mind the evaluation criteria. Attach the entire proposal narrative to R&R Other Project Information form in Field 8. To attach a Project Narrative in Field 8 click on "Add Attachment" and attach the technical proposal as a single PDF file. (Save the file as "Technical Proposal," as typing in the box is prohibited). The technical proposal must describe the research in sections as described below:

- **Cover Page**: This must include the words "Technical Proposal" and the following:

  (a) BAA Number: N0016424SNB35;

  (b) Title of Proposal;

  (c) Identity of prime Offeror and complete list of subawards, if applicable;

  (d) Technical contact (name, address, phone/fax, electronic mail address)

  (e) Administrative/business contact (name, address, phone/fax, electronic mail address) and;

  (f) Proposed period of performance (identify both the base period and any options, if included).

- **Table of Contents**: An alphabetical/numerical listing of the sections within the proposal, including corresponding page numbers.

- **Technical Approach**. Describe the scientific or technical concepts that will be investigated, providing the complete research plan. Describe what is innovative about the proposed approach. Provide the proposed approach compared to alternate approaches other researchers in this field have taken. Given the successful completion, describe the results, new knowledge, or insights.

  - Future Naval Relevance (where applicable): A description of potential Naval relevance and contributions of the effort to the agency's specific mission.

  - Project Schedule and Milestones: A summary of the schedule of events and milestones:

  - Reports: The following are sample reports that are typically required under a research effort:

    - Technical and Financial Progress Reports
    - Final Report

Grants do not include the delivery of software, prototypes, and other hardware deliverables.

- Management Approach. Describe the overall management approach and provide rationale for participation of key team members. Describe the planned relationships with any subawardees or collaborators. This is a single PI award; if there are subawardees or collaborators, explain how the proposed team fits the single PI structure. If appropriate, briefly describe anticipated schedule.

- Current and Pending Project and Proposal Submissions: Offerors are required to provide information on all current and pending support for ongoing projects

and proposals, including subsequent funding in the case of continuing contracts, grants, and other assistance agreements. Offerors shall provide the following information of any related or complementary proposal submissions from whatever sources (e.g., NSWC Crane, Federal, State, local or foreign government agencies, public or private foundations, industrial or other commercial organizations). Concurrent submission of a proposal to other organizations will not prejudice its review by NSWC Crane.

- Title of Proposal and Summary;
- Source and amount of funding (annual direct costs; provide contract and/or grant numbers for current contracts/grants);
- Percentage effort devoted to each project;
- Identity of prime Offeror and complete list of subawards, if applicable;
- Technical contact (name, address, phone/fax, electronic mail address)
- Administrative/business contact (name, address, phone/fax, electronic mail address);
- Period of performance (differentiate basic effort);
- The proposed project and all other projects or activities requiring a portion of time of the Principal Investigator and other senior personnel must be included, even if they receive no salary support from the project(s);
- The total award amount for the entire award period covered (including indirect costs) must be shown as well as the number of person-months or labor hours per year to be devoted to the project, regardless of source of support; and
- State how projects are related to the proposed effort and indicate degree of overlap.

- Principal Investigator Qualifications: A discussion of the qualifications of the proposed Principal Investigator and any other key personnel. Include resumes or curricula vitae for the Principal Investigator, other key personnel and consultants. The resumes/curricula vitae shall be attached to the proposal.

- Responsibility: Offerors must provide the following information to NSWC Crane in order to assist in NSWC Crane's evaluation of the offeror's responsibility:

  - Describe how you have adequate resources or the ability to obtain such resources as required to complete the activities proposed.

  - Describe how you have the ability to comply with the grant conditions, taking into account all existing and currently prospective commitments of the applicant, nongovernmental and governmental.

  - Describe your performance history; specifically, your record in managing Federal awards and the extent to which any previously awarded amounts will be expended prior to future awards.

  - Describe your record of integrity and business ethics.

- Describe qualifications and eligibility to receive an award under applicable laws and regulations.

- Describe your organization, experience, accounting, and operational controls and technical skills, or the ability to obtain them (including as appropriate such elements as property control systems, quality assurance measures, and safety programs applicable to the efforts to be performed).

- Facilities & Equipment. Describe facilities available for performing the proposed research and any additional facilities or equipment the organization proposes to acquire at its own expense. Indicate government-owned facilities or equipment already possessed that will be used. Justify the need for each equipment item. (Additional facilities and equipment will not be provided unless the research cannot be completed by any other practical means.)

(4) RESEARCH & RELATED BUDGET

The offeror must use the Grants.gov forms (including the Standard Form (SF) Research and Related (R&R) Budget Form) from the application package template associated with the BAA on the Grants.gov web site located at http://www.grants.gov/. If options are proposed, the cost proposal must provide the pricing information for the option periods; failure to include the proposed costs for the option periods will result in the options not being included in the award.

A separate Adobe .pdf document should be included in the application that provides appropriate justification and/or supporting documentation for each element of cost proposed. This document shall be attached under Section K. "Budget Justification" of the Research and Related Budget form. Click "Add Attachment" to attach.

(a) Part 1: The itemized budget should include the following. All costs should be rounded to the nearest dollar.

- Direct Labor – Individual labor categories or persons, with associated labor hours and unburdened direct labor rates. Provide escalation rates for out years.

- Administrative and Clerical Labor – Salaries of administrative and clerical staff are normally indirect costs (and included in an indirect cost rate). Direct charging of these costs may be appropriate when a major project requires an extensive amount of administrative or clerical support significantly greater than normal and routine levels of support. Budgets proposing direct charging of administrative or clerical salaries must be supported with a budget justification which adequately describes the major project and the administrative and/or clerical work to be performed.

- Fringe Benefits and Indirect Costs (Facilities and Administration (F&A), Overhead, G&A, etc.) – The proposal should show the rates and

calculation of the costs for each rate category. If the rates have been approved/negotiated by a Government agency, provide a copy of the memorandum/agreement. If the rates have not been approved/negotiated, provide sufficient detail to enable a determination of allowability, allocability and reasonableness of the allocation bases, and how the rates are calculated. Additional information may be requested, if needed. If composite rates are used, provide the calculations used in deriving the composite rates.

- Travel – The proposed travel cost must include the following for each trip: the purpose of the trip, origin and destination if known, approximate duration, the number of travelers, and the estimated cost per trip must be justified based on the organizations historical average cost per trip or other reasonable basis for estimation. Such estimates and the resultant costs claimed must conform to the applicable Federal cost principles. Offerors may include travel costs for the Principal Investigator to attend the peer reviews described in Section II of this BAA.

- Subawards/Subcontracts – Provide a description of the work to be performed by the subrecipient/subcontractor. For each subaward, a detailed cost proposal is required to be submitted by the subrecipient(s). A proposal and any supporting documentation must be received and reviewed before the Government can complete its cost analysis of the proposal and enter negotiations. NSWC Crane's preferred method of receiving subcontract information is for this information to be included with the Prime's proposal. However, a subcontractor's cost proposal can be provided in a sealed envelope with the recipient's cost proposal or via e-mail directly to the Program Officer at the same time the prime proposal is submitted. The e-mail should identify the proposal title, the prime Offeror and that the attached proposal is a subcontract.

- Consultants – Provide a breakdown of the consultant's hours, the hourly rate proposed, any other proposed consultant costs, a copy of the signed Consulting Agreement or other documentation supporting the proposed consultant rate/cost, and a copy of the consultant's proposed statement of work if it is not already separately identified in the prime contractor's proposal.

- Materials & Supplies – Provide an itemized list of all proposed materials and supplies including quantities, unit prices, and the basis for the estimate (e.g., quotes, prior purchases, catalog price lists).

- Recipient Acquired Equipment or Facilities – Equipment and/or facilities are normally furnished by the Recipient. If acquisition of equipment and/or facilities is proposed, a justification for the purchase of the items must be provided. Provide an itemized list of all equipment and/or facilities costs and the basis for the estimate (e.g., quotes, prior purchases, catalog price lists). Allowable items normally are limited to research equipment not already available for the project. General

purpose equipment (i.e., equipment not used exclusively for research, scientific or other technical activities, such as personal computers, laptops, office equipment) should not be requested unless they will be used primarily or exclusively for the project. For computer/laptop purchases and other general-purpose equipment, if proposed, include a statement indicating how each item of equipment will be integrated into the program or used as an integral part of the research effort.

- Other Direct Costs – Provide an itemized list of all other proposed other direct costs such as Graduate Assistant tuition, laboratory fees, report and publication costs, and the basis for the estimate (e.g., quotes, prior purchases, catalog price lists).

NOTE: *If the grant proposal requests funds for a conference, workshop or symposium:*

1. *NSWC Crane will not sponsor an NSWC Crane, Navy, or DoD event. Provide a list of other sponsors and the requested amounts to be funded by all sponsors.*

2. *The funds provided by NSWC Crane may be used to pay for food or beverages as a direct cost only in exceptional circumstances. The funds shall not be used for food or beverages unless*

a. The grant proposal contains a request for such funding that is fully supported factually in accordance with the cost principles of the relevant OMB Circular, and

b. The Grants Officer determines that the funding is a reasonable, allocable, allowable expense under the relevant cost principles.

3. *Specify in your proposal how the event and related outcomes will directly and programmatically relate to the US Military identify specific focus areas that will be addressed. The proposal must provide the technical and scientific objectives of the program or event and clearly state the desired outcomes (e.g. conference proceedings, journal articles, algorithms, tools, additional research, etc.).*

- Fee/Profit – Fee/profit is unallowable under assistance agreements at either the prime or subaward level but may be permitted on contracts issued by the prime awardee.

(5) RESEARCH AND RELATED SENIOR/KEY PERSON PROFILE (EXPANDED)

To evaluate compliance with Title IX of the Education Amendments of 1972 (20 U.S.C.§ 1681 *et. seq.*), the Department of Defense is collecting certain demographic and career information to be able to assess the success rates of women who are proposed for key roles in applications in STEM disciplines. In addition, the National Defense Authorization Act (NDAA) for FY 2019, Section 1286, directs the Secretary of Defense to protect intellectual property, controlled information, key personnel, and information about critical technologies relevant to national security and limit undue influence, including foreign talent programs by countries that desire to exploit United States' technology within the DoD research, science and technology, and innovation enterprise.

The R&R Senior/Key Person Profile (Expanded) form will be used to collect the following information for all senior/key personnel, including Project Director/Principal Investigator and Co-Project Director/Co-Principal Investigator, whether or not the individuals' efforts under the project are to be funded by the DoD:

- Degree Type and Degree Year fields as the source for career information.
- A list of all current projects the individual is working on, in addition to any future support the individual has applied to receive, regardless of the source.
- Title and objectives of the other research projects.
- The percentage per year to be devoted to the other projects.
- The total amount of support the individual is receiving in connection to each of the other research projects or will receive if other proposals are awarded.
- Name and address of the agencies and/or other parties supporting the other research projects.
- Period of performance for the other research projects.

Additional senior/key persons can be added by selecting the "Next Person" button. Note that, although applications without these fields completed may pass Grants.gov edit checks, if NSWC Crane receives an application without the required information, NSWC Crane may determine that the application is incomplete and may cause it to be returned without further review. DoD reserves the right to request further details from the applicant before making a final determination on funding the effort. If the bio-sketch field requires an attachment, upload the resumes.

(6) RESEARCH AND RELATED PERSONAL DATA

This form will be used by NSWC Crane as the source of demographic information, such as gender, race, ethnicity, and disability information for the Project Director/Principal Investigator and all other persons identified as Co-Project Director(s)/Co-Principal Investigator(s). Each application must include this form with the name fields of the Project Director/Principal Investigator and any Co-Project Director(s)/Co-Principal Investigator(s) completed; however, provision of the demographic information in the form is voluntary. If completing the form for multiple individuals, each Co-Director/Co-Principal Investigator can be added by selecting the "Next Person" button. The demographic information, if provided, will be used for statistical purposes only. The demographic information may be accessible to the reviewer but will not be considered in the evaluation. Applicants who do not wish to provide some or all the information should check or select the "Do not wish to provide" option.7. Other Submission Requirements.

Grants.gov Application Submission and Receipt Procedures

This section provides the application submission and receipt instructions for Naval Surface Warfare Center (NSWC) Crane program applications. Please read the following instructions carefully and completely.

1. Electronic Delivery

NSWC Crane is participating in the Grants.gov initiative to provide the grant community with a single site to find and apply for grant funding opportunities. NSWC Crane encourages applicants to submit their applications online through Grants.gov.

2. How to Register for Grants.gov

a. *Instructions*: Read the instructions below about registering to apply for NSWC Crane funds.

Applicants should read the registration instructions carefully and prepare the information requested before beginning the registration process. Reviewing and assembling the required information before beginning the registration process will alleviate last-minute searches for required information.

The registration process can take up to four weeks to complete. Therefore, registration should be done in sufficient time to ensure it does not impact your ability to meet required application submission deadlines.

If individual applicants are eligible to apply for this grant funding opportunity, refer to: https://www.grants.gov/web/grants/applicants/registration.html

Organization applicants can find complete instructions here: https://www.grants.gov/web/grants/applicants/organization-registration.html

1) *Obtain a DUNS Number*: All entities applying for funding, including renewal funding, must have a Data Universal Numbering System (DUNS) number from Dun & Bradstreet (D&B). Applicants must enter the DUNS number in the data entry field labeled "Organizational DUNS" on the SF-424 form.

For more detailed instructions for obtaining a DUNS number, refer to: https://www.grants.gov/web/grants/applicants/organization-registration/step-1-obtain-duns-number.html

2) *Register with SAM*: In addition to having a DUNS number, organizations applying online through Grants.gov must register with the System for Award Management (SAM). All organizations must register with SAM to apply online. Failure to register with SAM will prevent your organization from applying through Grants.gov.

For more detailed instructions for registering with SAM, refer to: https://www.grants.gov/web/grants/applicants/organization-registration/step-2-register-with-sam.htm

Note: On February 2, 2019, the System for Award Management (SAM) implemented a new process that allows financial registrants to submit common federal government-wide representations and certifications. Entities creating new registrations and existing entities completing their annual registration renewals will be required to review financial assistance representations and certification before their registration can be activated.

3) *Create a Grants.gov Account*: The next step in the registration process is to create an account with Grants.gov. Applicants must know their organization's DUNS number to complete this process. Completing this process automatically triggers an email request for applicant roles to the organization's E-Business Point of Contact (EBiz POC) for review. The EBiz POC is a representative from your organization who is the contact listed for SAM. To apply for grants on behalf of your organization, you will need the Authorized Organizational Representative (AOR) role.

For more detailed instructions about creating a profile on Grants.gov, refer to: https://www.grants.gov/web/grants/applicants/registration.html

4) *Authorize Grants.gov Roles*: After creating an account on Grants.gov, the EBiz POC receives an email notifying them of your registration and request for roles. The EBiz POC will then log in to Grants.gov and authorize the appropriate roles, which may include the AOR role, thereby giving you permission to complete and submit applications on behalf of the organization. You will be able to submit your application online any time after you have been approved as an AOR.

For more detailed instructions about creating a profile on Grants.gov, refer to: https://www.grants.gov/web/grants/applicants/registration/authorize-roles.html

5) Track Role Status: To track your role request, refer to: https://www.grants.gov/web/grants/applicants/registration/track-role-status.html

b. *Electronic Signature*: When applications are submitted through Grants.gov, the name of the organization's AOR that submitted the application is inserted into the signature line of the application, serving as the electronic signature. The EBiz POC **must** authorize individuals who are able to make legally binding commitments on behalf of the organization as an AOR; **this step is often missed, and it is crucial for valid and timely submissions.**

3. How to Submit an Application to the NSWC Crane via Grants.gov

White Papers must not be submitted through the Grants.gov application process. White paper submissions must be emailed to usn.crane.nswc-cd-crane-in.mbx.NSWC-Crane-T2-BACA@us.navy.mil. All attachments to grant applications submitted through Grants.Gov must be in Adobe Portable Document Format. Proposals with attachments submitted in word processing, spreadsheet, or any format other than Adobe Portable Document Format will not be considered for award.

Grants.gov applicants can apply online using Workspace. Workspace is a shared, online environment where members of a grant team may simultaneously access and edit different webforms within an application. For each funding opportunity announcement (FOA), you can create individual instances of a workspace.

Below is an overview of applying on Grants.gov. For access to complete instructions on how to apply for opportunities, refer to:
https://www.grants.gov/web/grants/applicants/apply-for-grants.html

1) *Create a Workspace*: Creating a workspace allows you to complete it online and route it through your organization for review before submitting.

2) *Complete a Workspace*: Add participants to the workspace, complete all the required forms, and check for errors before submission.

a. *Adobe Reader*: If you decide not to apply by filling out web forms you can download individual PDF forms in Workspace so that they will appear similar to other Standard forms. The individual PDF forms can be downloaded and saved to your local device storage, network drive(s), or external drives, then accessed through Adobe Reader.

NOTE: Visit the Adobe Software Compatibility page on Grants.gov to download the appropriate version of the software at:
https://www.grants.gov/web/grants/applicants/adobe-software-compatibility.html

b. *Mandatory Fields in Forms*: In the forms, you will note fields marked with an asterisk and a different background color. These fields are mandatory fields that must be completed to successfully submit your application.

c. *Complete SF-424 Fields First*: The forms are designed to fill in common required fields across other forms, such as the applicant's name, address, and DUNS number. To trigger this feature, an applicant must complete the SF-424 information first. Once it is completed, the information will transfer to the other forms.

3) *Submit a Workspace*: An application may be submitted through workspace by clicking the Sign and Submit button on the Manage Workspace page, under the Forms tab. Grants.gov recommends submitting your application package at least 24-48 hours prior to the close date to provide you with time to correct any potential technical issues that may disrupt the application submission.

4) *Track a Workspace*: After successfully submitting a workspace package, a Grants.gov Tracking Number (GRANTXXXXXXXX) is automatically assigned to the package. The number will be listed on the Confirmation page that is generated after submission.

For additional training resources, including video tutorials, refer to:
https://www.grants.gov/applicants/applicant-training

Applicant Support: Grants.gov provides applicants 24/7 support via the toll-free number 1-800-518-4726 and email at support@grants.gov. (Foreign applicants should contact 1-606-545-5035.) For questions related to the specific grant opportunity, contact the number listed in the application package of the grant you are applying for.

If you are experiencing difficulties with your submission, it is best to call the Grants.gov Support Center and get a ticket number. The Support Center ticket number will assist NSWC Crane with tracking your issue and understanding background information on the issue.

4. Timely Receipt Requirements and Proof of Timely Submission

a. Online Submission. The applicant AOR will receive an acknowledgement of receipt and a tracking number (GRANTXXXXXXXX) from Grants.gov with the successful transmission of their application. Applicant AORs will also receive the official date/time stamp and Grants.gov Tracking number in an email serving as proof of their timely submission.

When NSWC Crane successfully retrieves the application from Grants.gov, and acknowledges the download of submissions, Grants.gov will provide an electronic acknowledgment of receipt of the application to the email address of the applicant with the AOR role.

Applicants using slow internet connections should be aware that transmission can take some time before Grants.gov receives your application. Again, Grants.gov will provide either an error or a successfully received transmission in the form of an email sent to the applicant with the AOR role. The Grants.gov Support Center reports that some applicants end the transmission because they think that nothing is occurring during the transmission process. Please be patient and give the system time to process the application.

E. Application Review Information

3. Recipients Qualifications

a. *Recipients Qualifications*: The Grants Officer is responsible for determining a recipient's qualification prior to award. In general, a Grants Officer will award grant, cooperative agreements, or TIAs only to qualified recipients that meet the standards at 32 CFR 22.415. To be qualified, a potential recipient must:

(1) Have the management capability and adequate financial and technical resources, given those that would be made available through the grant or cooperative agreement, to execute the program of activities envisioned under the grant or cooperative agreement;

(2) Have a satisfactory record of executing such programs or activities (if a prior recipient of an award);

(3) Have a satisfactory record of integrity and business ethics; and

(4) Be otherwise qualified and eligible to receive a grant or cooperative agreement under applicable laws and regulations.

Applicants are requested to provide information with proposal submissions to assist the Grants Officer's evaluation of recipient qualification.

b. *FAPIIS*: In accordance with Office of Management and Budget (OMB) guidance in parts 180 and 200 of Title 2, CFR, it is DoD policy that DoD Components must report and use integrity and performance information in the Federal Awardee Performance and Integrity Information System (FAPIIS), or any successor system designated by OMB, concerning grants, cooperative agreements, and TIA's as follows:

If the total Federal share will be greater than the simplified acquisition threshold on and Federal award under a notice of funding opportunity (see 2 CFR 200.88 Simplified Acquisition Threshold):

(1) The Federal awarding agency, prior to making a Federal award with a total amount of Federal share greater than the simplified acquisition threshold, will review and consider any information about the applicant that is in the designated integrity and performance system accessible through SAM (currently FAPIIS) (see 41 U.S.C. § 2313);

(2) An applicant, at its option, may review information in the designated integrity and performance systems accessible through SAM and comment on any information about itself that a Federal awarding agency previously entered and is currently in the designated integrity and performance system accessible through SAM;

(3) The Federal awarding agency will consider any comments by the applicant, in addition to the other information in the designated integrity and performance system, in making a judgment about the applicant's integrity, business ethics, and record of performance under Federal awards when completing the review of risk posed by applicants as described in 2 CFR 200.205 Federal awarding agency review of merit proposals.

F. Federal Award Administration Information

2. Administrative and National Policy Requirements

i. Federal Funding Accountability and Transparency Act of 2006:

The Federal Funding Accountability and Transparency Act of 2006 (Public Law 109-282), as amended by Section 6202 of Public Law 110-252 and expanded by the Digital Accountability and Transparency Act of 2014 (Public Law 113-101), requires that all agencies establish requirements for recipients reporting information on subawards and executive total compensation as codified in 2 CFR Part 170. Any company, non-profit agency or university that applies for financial assistance (either grants, cooperative agreements or TIAs) as either a prime or subrecipient under this BAA must provide information in its proposal that describes the necessary processes and systems in place to comply with the reporting requirements identified in 2 CFR Part 170 Appendix A. Entities are required to meet reporting requirements unless an exception or exemption applies. Please refer to 2 CFR Part 170, including Appendix A, for a detailed explanation of the requirements, exceptions, and exemptions.

ii. Certification regarding Restrictions on Lobbying:

Grants, cooperative agreement awards, and TIA awards greater than $100,000 require a certification of compliance with a national policy mandate concerning lobbying. Grant applicants shall provide this certification by electronic submission of SF424 (R&R) as a part of the electronic proposal submitted via https://www.grants.gov/ (complete Block 17). The following certification applies likewise to each cooperative agreement and TIA seeking federal assistance funds exceeding $100,000:

(1) No Federal appropriated funds have been paid or will be paid by or on behalf of the applicant, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the Federal contract, grant, loan, or cooperative agreement, the applicant shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The applicant shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering this transaction imposed by 31 U.S.C. § 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

iii. Representation Regarding an Unpaid Delinquent Tax Liability or a Felony Conviction under any Federal Law - DOD Appropriations:

If you have not completed the federal financial assistance General Certs and Reps in SAM, grant applicants are required to complete the "Representation on Tax Delinquency and Felony Conviction" found at https://sam.gov/content/home. By checking the "I agree" box in block 17 and attaching the representation to block 18 of the SF424 (R&R) as part of the electronic proposal submitted via Grants.gov. The representation reads as follows:

(1) The applicant represents that it is___ is not___ a corporation that has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being

paid in timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.

(2) The applicant represents that it is not a corporation that was convicted of a felony criminal violation under any Federal law within the preceding 24 months.

NOTE: If an applicant responds in the affirmative to either of the above representations, the applicant is ineligible to receive an award unless the agency suspension and debarment official (SDO) has considered suspension or debarment and determined that further action is not required to protect the Government's interests. The applicant therefore should provide information about its tax liability or conviction to the agency's SDO as soon as it can do so, to facilitate completion of the required consideration before award decisions are made.

iv. Representation Regarding the Prohibition on Using Funds with Entities that Require Certain Internal Confidentiality Agreements

Agreement with the representation below will be affirmed by checking the "I agree" box in block 17 of the SF424 (R&R) as part of the electronic proposal submitted via Grants.gov. The representation reads as follows:

By submission of its proposal or application, the applicant represents that it does not require any of its employees, contractors, or subrecipients seeking to report fraud, waste, or abuse to sign or comply with internal confidentiality agreements or statements prohibiting or otherwise restricting those employees, contractors, subrecipients from lawfully reporting that waste, fraud, or abuse to a designated investigative or law enforcement representative of a Federal department or agency authorized to receive such information.

Note that, as applicable, the following prohibitions form the basis for this representation:

a. Any prohibitions with regards to Government Appropriations to include active Continuing Appropriations Acts.

b. Any successor provision of law on making funds available through grants and cooperative agreements to entities with certain internal confidentiality agreements or statements.

v. Code of Conduct:

Applicants for assistance are required to comply with 2 CFR 200.318(c), General Procurement Standards, to prevent real or apparent conflicts of interest in the award and administration of any contracts supported by federal funds. This provision will be incorporated into all assistance instruments awarded under this BAA.

vi. Peer Review

In the case of proposals funded as basic research, NSWC Crane may utilize peer reviewers from academia, industry, and Government agencies to assist in the periodic

appraisal of performance under the awards. Such periodic peer reviews monitor the quality of funded basic research efforts. The reviews are used in part to determine which basic research projects will receive continued NSWC Crane funding. Peer reviewers who are not U.S. Government employees must sign nondisclosure agreements before receiving full or partial copies of proposals and reports submitted by the basic research performers. Offerors may include travel costs for the Principal Investigator (PI) to attend the peer review. Peer reviews may consider information derived from individual project or program review meetings (see BAA Section F.2.a.viii for further guidance).

3. Reporting

i. If the Federal share of any Federal award may include more than $500,000 over the period of performance, the post award reporting requirements, Award Term and Condition for Recipient Integrity and Performance Matters (2 CFR Part 200 Appendix XII), is applicable as follows:

1. Reporting of Matters Related to Recipient Integrity and Performance

1. General Reporting Requirement. If the total value of your currently active grants, cooperative agreements, and procurement contracts from all Federal awarding agencies exceeds $10,000,000 for any period of time during the period of performance of this Federal award, then you as the recipient during that period of time must maintain the currency of information reported to the System for Award Management (SAM) that is made available in the designated integrity and performance system (currently the Federal Awardee Performance and Integrity Information System (FAPIIS)) about civil, criminal, or administrative proceedings described in paragraph 2 of this award term and condition. This is a statutory requirement under 41 U.S.C. § 2313. All information posted in the designated integrity and performance system on or after April 15, 2011, except past performance reviews required for Federal procurement contracts, will be publicly available.

2. Proceedings About Which You Must Report. Submit the information required about each proceeding that:

a. Is in connection with the award or performance of a grant, cooperative agreement, or procurement contract from the Federal Government;

b. Reached its final disposition during the most recent five-year period; and

c. Is one of the following:

(i) A criminal proceeding that resulted in a conviction, as defined in paragraph 5 below (Section 3. Reporting) of this award term and condition;

(ii) A civil proceeding that resulted in a finding of fault and liability and payment of a monetary fine, penalty, reimbursement, restitution, or damages of $5,000 or more;

(iii) An administrative proceeding, as defined in paragraph 5. of this award

term and condition, that resulted in a finding of fault and liability and your payment of either a monetary fine or penalty of $5,000 or more or reimbursement, restitution, or damages in excess of $100,000; or

(iv) Any other criminal, civil, or administrative proceeding if:

(i) It could have led to an outcome described in paragraph 2.c. (1), (2), or (3) of this award term and condition above (Section 3. Reporting);

(ii) It had a different disposition arrived at by consent or compromise with an acknowledgment of fault on your part; and

(iii) The requirement in this award term and condition to disclose information about the proceeding does not conflict with applicable laws and regulations.

3. Reporting Procedures. Enter in the SAM Entity Management area the information that SAM requires about each proceeding described in paragraph 2 of this award term and condition. You do not need to submit the information a second time under assistance awards that you received if you already provided the information through SAM because you were required to do so under Federal procurement contracts that you were awarded.

4. Reporting Frequency. During any period of time when you are subject to the requirement in paragraph 1 of this award term and condition, you must report proceedings information through SAM for the most recent five-year period, either to report new information about any proceeding(s) that you have not reported previously or affirm that there is no new information to report. Recipients that have Federal contract, grant, and cooperative agreement awards with a cumulative total value greater than $10,000,000 must disclose semiannually any information about the criminal, civil, and administrative proceedings.

5. Definitions. For purposes of this award term and condition:

a. Administrative proceeding means a non-judicial process that is adjudicatory in nature in order to make a determination of fault or liability (e.g., Securities and Exchange Commission Administrative proceedings, Civilian Board of Contract Appeals proceedings, and Armed Services Board of Contract Appeals proceedings). This includes proceedings at the Federal and State level but only in connection with performance of a Federal contract or grant. It does not include audits, site visits, corrective plans, or inspection of deliverables.

b. Conviction, for purposes of this award term and condition, means a judgment or conviction of a criminal offense by any court of competent jurisdiction, whether entered upon a verdict or a plea, and includes a conviction entered upon a plea of nolo contendere.

c. Total value of currently active grants, cooperative agreements, and procurement contracts includes—

(i) Only the Federal share of the funding under any Federal award with a recipient cost share or match; and

(ii) The value of all expected funding increments under a Federal award and options, even if not yet exercised.

APPENDIX 2 - REQUIREMENTS APPLICABLE TO CONTRACTS AND OTHER TRANSACTION AGREEMENTS

D. Application and Submission Information

2. Content and Format of Application Submission

(e) Full Proposals:

Proposal Package:

The following documents with attachments comprise a complete proposal package:

(1) Cover page (pdf format)
(2) DCAA Pre-award Survey of Prospective Contractor Accounting System Checklist to be submitted by contractors without an approved accounting system.
(3) Statement of Work (SOW) (word format)
(4) NSWC Crane Contract Specific Representations and Certifications (pdf format)

NOTE: The electronic file name for all documents submitted under this BAA must not exceed 68 characters in length, including the file name extension.

The format requirements for attachments are as follows:

- Paper Size – 8.5 x 11-inch paper
- Margins – 1 inch
- Spacing – single or double spaced
- Font – Times New Roman, 12 point

Offerors responding to this BAA must submit a separate list of all technical data or computer software that will be furnished to the Government with other than unlimited rights. The Government will assume unlimited rights if offerors fail to identify any intellectual property restrictions in their proposals. Include all proprietary claims to results, prototypes, and/or deliverables. If no restrictions are intended, then the offeror should state "NONE."

For proposals below the simplified acquisition threshold (less than or equal to $250K), Purchase orders can also contain options, as long as the total amount of the base and all options does not exceed $250K.

For proposed subcontracts or inter-organizational transfers over $250K, Offerors must provide a separate fully completed Cost Proposal Spreadsheet in support of the proposed costs. This spreadsheet, along with supporting documentation, must be provided with the prime's proposal or via e-mail to the email address where the prime proposal was submitted. The e-mail should identify the proposal title, the prime Offeror and that the attached proposal is a subcontract and should include a description of the effort to be performed by the subcontractor.

The electronic copy must be submitted in a secure, pdf-compatible format, except for the electronic file of the Cost Proposal Spreadsheet which must be submitted in a Microsoft Excel compatible format and the Statement of Work which must be submitted in Microsoft Word format. All attachments to any required proposal documents must be submitted in a secure, pdf-compatible format.

The secure pdf-compatible format is intended to prevent unauthorized editing of the proposal prior to any award. A password should not be required for opening the proposal document. Should an Offeror amend its proposal, the amended proposal should be submitted following the same guidance applicable to the original proposal.

Any proposed options that are identified in the Technical Proposal but are not fully priced out in the Cost Proposal Spreadsheet, will not be included in any resulting contract or other transaction agreement. If proposing options, they **must** be separately priced and separate spreadsheets should be provided for the base period and each option. In addition to providing summary by period of performance (base and any options), the Contractor is also responsible for providing a breakdown of cost for each task identified in the Statement of Work. The sum of all costs by task worksheets MUST equal the total cost summary.

The electronic submission of the Excel spreadsheet should be in a "useable condition" to aid the Government with its evaluation. The term "useable condition" indicates that the spreadsheet should visibly include and separately identify within each appropriate cell any and all inputs, formulas, calculations, etc. The Offeror should not provide "value only spreadsheets" similar to a hard copy.

Fixed Fees on NSWC Crane Contracts: The Government Objective is set in accordance with the DFARS 215.404-71. See the below table for range and normal values:

Contractor Risk Factor	**Contract Type**	**Assigned Value (Normal range)**	**Normal Value**
Technical (1)		3% - 7% (2)	5%
Management/Cost Control (1)		3% - 7% (2)	5%
Contract Type Risk	Firm Fixed Price	2% - 6% (3)	3% - 5% (4)
Contract Type Risk	Cost Plus Fixed Fee	0% - 1% (2)	0.5%

(1) Assign a weight (percentage) to each element according to its input to the total performance risk. The total of the two weights equal 100%
(2) Assign a weighting score relative to the Risk Factor.

(3) Depends on the specific Contract Type (With/without financing, performance-based payments, and/or progress payments).
(4) Depends on the specific Contract Type.
(5). Any consideration of Technology Incemtive (TI) requires strong and convincing justification in the proposal, which are then subject to negotiation and determination of a fair and reasonable fee, within the context of the specific award.

Typically, the range of fee is 7% to 11% on an NSWC Crane awarded contract (DFARS 215.404-71-2(c)).

7. <u>Other Submission Requirements</u>

a. Submission of Full Proposals for Contracts and Other Transaction Agreements

i. For NSWC, contact the Program Officer for electronic submission information for full proposals.

E. Application Review Information

3. Recipient Qualifications

b. Contract Proposals:

ii. Contracts shall be awarded to responsible prospective contractors only. See FAR 9.104-1 for a listing of the general standards against which an applicant will be assessed to determine responsibility. Applicants are requested to provide information with proposal submission to assist the Contracting Officer's evaluation of responsibility.

iii. FAPIIS (Federal Awardee Performance and Integrity Information System) will be checked prior to making an award. The web address is:

https://www.fapiis.gov/fapiis/index.action

The applicant representing the entity may comment in this system on any information about the entity that a federal government official entered. The information in FAPIIS will be used in making a judgment about the entity' integrity, business ethics, and record of performance under Federal awards that may affect the official's determination that the applicant is qualified to receive an award.

F. Federal Award Administration Information

2. <u>Administrative and National Policy Requirements</u>

i. Applies to Contracts (and may be applicable, as required, to Other Transaction Agreements):

(1) Government Property/Government Furnished Equipment (GFE) and Facilities: Government research facilities and operational military units are available and

should be considered as potential government-furnished equipment/facilities. These facilities and resources are of high value, and some are in constant demand by multiple programs. It is unlikely that all facilities would be used for any one specific program. The use of these facilities and resources will be negotiated as the program unfolds.

(2) Use of Arms, Ammunition and Explosives:

Safety

The Offeror is required to be in compliance with DoD Manual 4145.26-M, *DoD Contractor's Safety Manual for Ammunition and Explosives* if ammunitions and/or explosives are to be utilized under the proposed research effort. (See DFARS 223.370-5 and DFARS 252.223-7002) If ammunitions and/or explosives (A&E) are to be utilized under the proposed research effort, the Government requires a preaward safety survey in accordance with DFARS PGI 223.370-4(i)(iv) entitled *Preaward Survey*. The Offeror is solely responsible for contacting the cognizant Defense Contract Management Agency (DCMA) office and obtaining a required preaward safety survey before proposal submission. The Offeror should include required preaward safety surveys with proposal submissions.

If the Offeror proposes that the Government provide Government-furnished A&E containing any nitrocellulose-based propellants and/or nitrate ester-based materials (such as nitroglycerin) or other similar A&E with a tendency to become chemically unstable over time, then NMCARS 5252.223-9000 will also apply to a resulting contract award. (See NMCARS 5223.370-5)

Security

If arms, ammunition or explosives (AA&E) are to be utilized under the proposed research effort, the Government requires a preaward security survey. The Offeror is solely responsible for contacting the cognizant DCMA office and obtaining a required preaward security survey before proposal submission. The Offeror should include a required preaward security survey with proposal submission. (See DoD manual 5100.76-M dated April 17, 2012, *Physical Security of Sensitive Conventional Arms, Ammunition and Explosives*, Enclosure 9)

If AA&E are to be utilized under the proposed research effort, the Government may require the Contractor to have perimeter fencing around the place of performance in accordance with DoD 5100.76-M dated April 17, 2012, Enclosure 9, paragraph 5.e.

If AA&E are to be utilized under the proposed research effort, the Offeror is required to provide a written copy of the Offeror's AA&E accountability procedures in accordance with DoD 5100.76-M. If the Offeror is required to provide written AA&E accountability procedures, the Offeror should provide the respective procedures with its proposal submission. See DoD 5100.76-M dated April 17, 2012, Enclosure 9, paragraph 9.

(3) System for Award Management (SAM):

FAR 52.204-7 System for Award Management and FAR 52.204-13 System for Award Management Maintenance are incorporated into this BAA, and FAR 52.204-13 will be incorporated in all awards.

(4) Employment Eligibility Verification (E-verify):

As per FAR 22.1802, recipients of FAR-based procurement contracts must enroll as Federal Contractors in E-verify and use E-verify to verify employment eligibility of all employees assigned to the award. All resultant contracts from this solicitation will include FAR 52.222-54, "Employment Eligibility Verification."

(5) Conflicts of Interest:

Disclosure. An offeror shall state in its proposal whether it is aware of any information bearing on the existence of any actual or potential organizational conflict of interest (OCI) as defined in FAR 2.101 and as further discussed in FAR Subpart 9.5 as to itself and any proposed subcontractors, partners, consultants or other affiliates. Offerors performing systems engineering and technical assistance (SETA) for NSWC Crane are considered to have an OCI that may not be susceptible to mitigation.
The nondisclosure or misrepresentation of an interest creating an OCI may result in the disqualification of an offeror for award, or if such nondisclosure or misrepresentation is discovered after award, the Government may terminate the contract for default, recommend that the contractor be disqualified from subsequent related contracts, or be subject to such other remedial actions as may be permitted or provided by law (see 18 U.S.C. § 1001 and 31 U.S.C. § 3802(a)(2)). Therefore, offerors should interpret the requirements of this section broadly.

An offeror who does not provide support services to NSWC Crane or concludes no actual or potential OCI exists shall include the following statement in its proposal: "I [NAME] as an authorized negotiator on behalf of [NAME OF OFFEROR] certify that **NO** actual or potential organizational conflict of interest (OCI) exists under [BAA NUMBER]. I understand that the failure to disclose the existence of actual or potential OCI shall result in the offeror not being considered for award."

An offeror who does provide support services to NSWC Crane or is aware circumstances exist that may result in the appearance that it may have an unfair competitive advantage shall submit the following with its proposal:

(i) The name of the entity the offeror, its subcontractors, partners, consultants or affiliates support.

(ii) The number of the contract, subcontract, or agreement that creates the actual or potential OCI. If NSWC Crane did not award the contract or agreement, provide a copy of the document. If NSWC Crane awarded the contract, provide the name of the technical point of contact.

(iii) A description of the actual or potential OCI. The statement must describe in a concise manner all relevant facts concerning any past, present, or currently planned interest (financial, contractual, organizational, or otherwise) relating to the work to be performed hereunder and bearing on whether the offeror has a possible organizational

conflict of interest with respect to (1) impartial, technically sound, and unbiased assessments, recommendations, or evaluations, or (2) being given an unfair competitive advantage. If relevant, offerors shall address the personal conflicts of their employees.

(iv) A Mitigation Plan. Offerors should refer to FAR Subpart 9.5 for policies and procedures for avoiding, neutralizing, or mitigating organizational conflicts of interest.

(v) A concluding statement as follows: "I [NAME] as an authorized negotiator on behalf of [NAME OF OFFEROR] certify that I have, to the best of my knowledge and belief, disclosed all actual or potential organizational conflicts of interest (OCI) under [BAA NUMBER]. I understand that the failure to disclose the existence of an actual or potential OCI shall result in the offeror not being considered for award."

(b) OCI Mitigation Plan Contents. At a minimum, a Mitigation Plan shall:

(i) Provide organizational charts showing the offeror's (and, as appropriate, those of its subcontractors, partners, consultants, and affiliates) structure as it relates to performance under the contract awarded under this BAA and all contracts and agreements relevant to the OCI, highlighting those elements that create the actual or apparent OCI.

(ii) Demonstrate how the elements that create the actual or apparent OCI will be isolated from the resources that will perform work under the contract awarded under this BAA.

(iii) Provide information showing whether the organizational elements that will perform work under the contract awarded under this BAA will be geographically or physically separated from the elements that create the actual or apparent OCI.

(iv) For each contract or agreement relevant to the OCI, describe the process for reassigning personnel, including those belonging to subcontractors, partners, consultants, and affiliates, from one organization to another. Include restrictions that apply.

(v) For each contract or agreement relevant to the OCI, describe any controls, including nondisclosure agreements, that are exercised over the future employment of departing employees as it relates to the OCI.

(vi) For each contract or agreement relevant to the OCI, describe any OCI training the employees are offered or required to attend, along with the timing (before or after starting work on a government contract), frequency, length, and content of such training.

(vii) Provide evidence of facts and circumstances that the offeror asserts mitigate or address the concerns related to the actual or potential OCI.

(c) Review. The Contracting Officer will review an offeror's certifications, statements,

and OCI Mitigation Plan (if applicable) submitted and may require additional relevant information from an offeror. All such information and any other relevant information will be used by the Contracting Officer to determine whether an award to the offeror may create an OCI. If found to exist, the Government may: (1) impose appropriate conditions which avoid such conflict, (2) disqualify the offeror, (3) determine that it is otherwise in the best interest of the Government to award a contract to the offeror and include appropriate conditions mitigating such conflict in the award, or (4) seek a waiver. If the Contracting Officer determines that an actual or significant potential conflict of interest exists that cannot reasonably be avoided, neutralized or mitigated, the offeror will be ineligible for award. If accepted, the Mitigation Plan shall become part of the contract.

An offeror who has refused to disclose the information or make the certification required by this BAA concerning an actual or potential OCI shall be disqualified from consideration for award.

6. FAR / DFARS Provisions/Clauses: For purposes of illustration and not of limitation, the following provisions and clauses may be applicable to NSWC Crane contracts:

#	**Provision/Clause**
52.204-7	System for Award Management
52.204-13	System for Award Management Maintenance
52.204-16	Commercial and Government Entity Code Reporting
52.215-20	Requirements for certified cost and pricing data and data other than certified cost and pricing data
52.215-16	Facilities Capital Cost of Money
52.215-22	Limitations on Pass Through Charges - Identification of Subcontract Effort
52.216-1	Type of Contract
52.216-27	Single or Multiple Awards
52.217-4	Evaluation of Options Exercised at time of Contract Award
52.217-5	Evaluation of Options
52.217-9	Option to Extend the term of the Contract
52.222-24	Preaward On-Site Equal Opportunity Compliance Evaluation (Applies if exceeds $10M)
52.226-2	Historically Black College or University and Minority Institution Representation
52.230-7	Proposal Disclosure - Cost Accounting Practice Changes
52.232-15	Progress Payments not included
52.233-2	Service of Protest
52.252-1	Solicitation Provisions Incorporated by Reference
52.252-3	Alterations in Solicitation

52.252-5	Authorized Deviations in Provisions
252.203-7005	Representation Relating to Compensation of Former DoD Officials
252.204-7007	Alternate A, Annual Representations and Certifications
252.204-7008	Compliance with Safeguarding Covered Defense Information Controls (OCT 2016)
252.204-7012	Safeguarding Covered Defense Information and Cyber Incident Reporting (JAN 2023)
252.215-7003	Requirements for Submission of Data Other than Certified Cost or Pricing Data - Canadian Commercial Corporation
252.219-7000	Advancing Small Business Growth

(a) Combating Trafficking in Persons: FAR Clause 52.222-50 will be incorporated in all awards.

(b) Certification Regarding Trafficking in Persons Compliance Plan: Prior to award of a contract, for the portion of the contract that is for supplies, other than commercially available off-the-shelf items, to be acquired outside the United States, or services to be performed outside the United States, and which has an estimated value that exceeds $500,000, the contractor shall submit the certificate as specified in paragraph (c) of 52.222-56, Certification Regarding Trafficking in Persons Compliance Plan

(c) Updates of Information regarding Responsibility Matters: FAR clause 52.209-9, Updates of Publicly Available Information Regarding Responsibility Matters, will be included in all contracts valued at $550,000 where the contractor has current active Federal contracts and grants with total value greater than $10,000,000.,

(7) Certificate of Current Cost or Pricing Data Requirement

Even though the BAA is a competitive procedure, all proposals submitted under this BAA that meet the TINA threshold are subject to certified cost and pricing data.

In accordance with OUSD Memorandum, Subject: "Reducing Acquisition Lead Time by Eliminating Inefficiencies Associated with Cost or Pricing Data Submissions After Price Agreement ('Sweep Data)," dated 07 June 2018, if an action is subject to the Truth in Negotiations Act, offerors are required to execute the Certificate of Current Cost or Pricing Data as soon as practicable, but no later than five business days after the date of price agreement. Any cost or pricing data submitted after price agreement shall be reviewed and dispositioned after award of the contract action, pursuant to FAR 15.407-1, to establish whether it is rendered that the certified cost or pricing data submitted up to the point of price agreement was defective, and to determine whether the Government is entitled to a price adjustment in accordance with FAR 52.215-10 or FAR 52.215-11.

(8) Advanced Development of Initial or Additional Prototypes

NSWC Crane may initially award a contract under this BAA that may contain a contract line item or contract option for the provision of advanced component development, prototype, or initial production of technology developed under the contract or for the delivery of initial or additional items if the item or prototype thereof is created as the result of work performed under the contract. However, such a contract shall be subject to the limitations contained in 10 USC 4004.

(9) Enhanced Security Controls on Select Defense Industrial Base Partner Networks

In accordance with NMCARS 5204.73 entitled, "Safeguarding Covered Defense Information and Cyber Incident Reporting" certain performers may be required to implement enhanced cyber security controls to unclassified networks housing controlled unclassified information (CUI). Such controls are in addition to the requirements of DFARS clause 252.204-7012 and may be required if the Chief of Naval Research (CNR) determines that enhanced controls are warranted by the risk to a critical program or technology. Offerors are strongly encouraged to consult with the cognizant Program Officer to determine whether these requirements will apply to a particular effort.

ii. <u>Applies to Other Transaction Agreements (OTAs) only:</u>

In accordance with 10 USC 4022(f), NSWC Crane may award a follow-on production contract or OTA for any OTA awarded under this BAA if:

A follow-on production contract or transaction provided for in a transaction under paragraph (1) may be awarded to the participants in the transaction without the use of competitive procedures, notwithstanding the requirements of chapter 221 of this title and even if explicit notification was not listed within the request for proposal for the transaction if—

(A) competitive procedures were used for the selection of parties for participation in the transaction; and

(B) the participants in the transaction successfully completed the prototype project provided for in the transaction.