



NAVAL AIR SYSTEMS COMMAND DIGITAL OFFICE (NDO)

OFFICE-WIDE BROAD AGENCY ANNOUNCEMENT (BAA)

N00421-19-S-0001

November 19, 2018

TABLE OF CONTENTS

I. OVERVIEW INFORMATION	
A. Required Overview Content	
1. Federal Awarding Agency Name	
2. Funding Opportunity Title	
3. Announcement Type	
4. Funding Opportunity Number	
5. Catalog of Federal Domestic Assistance (CFDA) Numbers	
6. Key Dates	
7. North American Industry Classification System (NAICS) Code	
II. FULL TEXT OF ANNOUNCEMENT	
A. Program Description	
B. Federal Award Information	
1. Awards	
2. Contracted Fundamental Research	
3. Funded Amount and Period of Performance	
4. Instrument Type(s)	
5. Assistance Instruments	
C. Eligibility Information	
1. Eligible Applicants	
2. Cost Sharing or Matching	
D. Application and Submission Information	
1. Address to Request (Access) Application Package	
2. Content and Form of Application Submission	
3. Unique Entity Identifier and System for Award Management (SAM)	
4. Submission Dates and Times	
5. Funding Restrictions	
E. Application Review Information	
1. Evaluation Criteria	
2. Review and Selection Process	
3. Recipient Qualifications	
F. Federal Award Administration Information	
1. Administrative and National Policy Requirements	
2. Reporting	
G. Federal Awarding Agency Contacts	
III. APPENDICES	
1. Requirements Applicable to Grants, Cooperative Agreements, and Technology Investment Agreements (TIAs) Only	
2. Requirements Applicable to Contracts	
3. Requirements Applicable to Other Transaction Agreements	

I. OVERVIEW INFORMATION

The digital transformation of the Naval Air Systems Command (NAVAIR) and the Navy is underway. As such, recent advances in digital technology and data integration are being harnessed to improve material readiness, increase speed in the delivery and sustainment of warfighting capability, and accelerate business operations. The journey to become a digital organization requires leveraging digital tools to implement fundamentally different business models across the enterprise, including all business, technology development, workforce, and mission operation domains. The digital transformation strategy focuses on providing the digital infrastructure to create an agile ecosystem of accessible data sources, along with visualization and analytic tools, to support a self-service environment to speed mission outcomes. The vision is a digital culture that empowers the workforce to accelerate, innovate, collaborate, develop, and deliver capabilities to meet fleet requirements.

The mission of the NAVAIR Digital Office (NDO) is to lead the digital transformation of NAVAIR. This includes ensuring alignment of activities, expanding analytic capability and the wide use of digital technologies, developing a command wide data strategy, educating the workforce, and leading culture change. A primary role of the NDO is the design / selection of a digital platform environment/ecosystem that integrates or scales as a foundational open architecture fabric to provide the workforce self-service infrastructure and data accessibility, enabling the rapid research, creation, deployment, and sustainment of applications, enterprise solutions, and other digital capabilities.

This publication constitutes a Broad Agency Announcement (BAA) for awards by the Naval Air Warfare Center Aircraft Division (NAWCAD) Aircraft Support Contracts Division, AIR-2.5.1 (or otherwise approved by AIR-2.5.1), on behalf of NAVAIR, as contemplated in Federal Acquisition Regulation (FAR) 6.102(d)(2) and 35.016, 2 CFR § 200.203, and the Department of Defense (DoD) Other Transaction (OT) Guide, Jan 2017. A formal Request for Proposals (RFP), solicitation, and/or additional information regarding this announcement will not be issued.

NAWCAD 2.5.1 will not issue paper copies of this announcement. NAVAIR reserves the right to fund all, some, or none of the proposals received under this BAA. NAVAIR or NAWCAD 2.5.1 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 NAWCAD 2.5.1 to treat all white papers and proposals submitted under this BAA as sensitive competitive information and to disclose their contents only for the purposes of evaluation.

This BAA is intended for white papers/proposals related to basic and applied research, and that part of development not related to the development of a specific system or hardware procurement. This Announcement is not for the acquisition of technical, engineering, and other types of support services.

A. Required Overview Content

1. Federal Awarding Agency Name

Naval Air Warfare Center Aircraft Division (NAWCAD) 2.5.1
21983 Bundy Road
Building 441
Patuxent River, MD 20670

2. Funding Opportunity Title

Research projects in support of the digitization of NAVAIR / U.S. Naval Operations.

3. Announcement Type

Initial Announcement

4. Funding Opportunity Number

N00421-19-S-0001

5. Catalog of Federal Domestic Assistance (CFDA) Numbers

12.300

Title: Department of Defense (DOD), Department of the Navy, Office of Chief of Naval Research, Basic and Applied Scientific Research

6. Key Dates (See also Section II, paragraph D.4)

This announcement will remain open for one (1) year from the date of publication, unless replaced by a successor BAA. White papers may be submitted at any time during this period.

7. North American Industry Classification System (NAICS) code

The NAICS code under this announcement is:

- 541715, Research and Development in the Physical, Engineering, and Life Sciences (except Nanotechnology and Biotechnology)

II. FULL TEXT OF ANNOUNCEMENT

A. Program Description

THIS ANNOUNCEMENT IS NOT FOR THE ACQUISITION OF TECHNICAL, ENGINEERING AND OTHER TYPES OF SUPPORT SERVICES

The Naval Air Systems Command (NAVAIR) Digital Office (NDO) is interested in receiving white papers for Science and Technology (S&T) Projects which offer potential for advancements and improvements applicable to the digitization of NAVAIR / U.S. Naval operations to include Competencies and Command at all echelons including: NAVAIR Headquarters; the Program Executive Offices (PEOs); the Naval Air Warfare Center Aircraft Division (NAWCAD); the Naval Air Warfare Center Training Systems Division (NAWCTSD); the Naval Air Warfare Center Weapons Division (NAWCWD); Commander, Fleet Readiness Centers (COMFRC) and the Fleet Readiness Centers (FRCs), as well as other Navy operations (hereinafter collectively referred to as ‘the Organization’). All interested parties should note that this is an announcement to declare NAVAIR’s broad role in competitive funding of meritorious research across a broad spectrum of science, technology, business, and engineering disciplines related to digital transformation technologies, strategies, initiatives, and integration.

The Organization has identified various research areas needed to address digital transformation challenges, problems, and future technology needs in order to: improve readiness, accelerate capabilities to the Fleet, streamline business processes, and improve workforce efficiencies. Research opportunity areas of interest and examples include, but are not limited to:

1. **Data Architecture and Management**. Examples of areas of research include but are not limited to the following:

1.1. **Identity and Access Management (IAM)**: Seeking research on unified management of user identities and authoritative attribute data that enables consistent application of security controls across systems and associated data sources. IAM capabilities would be leveraged to enable role-based or attribute-based access control, ensuring seamless data accessibility across enterprise information systems. User attributes will be sourced from enterprise authoritative sources to ensure near real-time application of controls/permissions/access. Optimally, the IAM capability would unify access across all data enclaves and security levels.

1.2. **Data Lake/Data Virtualization**: Seeking the development of an aggregated data store that enables the Organization to connect structured and unstructured data sources with requisite metadata to enable data reuse, sharing, and analytics.

1.3. **Data Catalog, Metadata Management Capabilities**: Seeking development of an enterprise data catalog to connect users and system owners with data sources. The approach may be centralized or federated management of data and associated descriptive metadata that (in conjunction with IAM) ensure just-in-time access to need-

to-know data. This capability shall enable Master Data Management, ensuring integrity across the data management lifecycle and includes open data standards and data governance capabilities that encourage enterprise adoption through flexible implementation methodologies - engendering community support and generating business value from connectedness.

1.4. Self Service Data Portal and Microservice Catalog: Seeking development of a self-service data portal leveraging a virtualized data layer, which enables users and systems to access both custom and pre-configured data sources and microservices. These data sources shall also be accessible to self-service visualization and analytics toolsets either natively or through a set of standard application programming interfaces (APIs).

1.5. Cloud Services: Seeking approaches and solutions to utilizing cloud services to provide compute and data storage solutions in support of the Organization's stakeholder requirements.

1.6. Data Warehouses: The Organization has a number of data warehouses that have curated data from a wide variety of data sources and data types. The data warehouses are in different locations across the country and contained in different networks. Seeking approaches and demonstrations of data virtualization and/or other solutions to make data accessible for use to support predictive analytics, data visualization, and improve decision making.

1.7. Data Governance Model: Seeking investigation and applied research on best practices for identifying key critical information holdings and using distributed governance approaches across multi-site, multi-domain information hubs. Analysis should encompass what levels of governance are needed for various data types and how to effectively plan and manage data life-cycle(s). Data Governance as it applies to multiple security levels and with associated information access needs are additional areas of interest.

1.8. Streaming Data Analysis: The organizational infrastructure does not effectively leverage the ability to identify data changes and trends available from data streams. Requesting analysis of options to integrate analysis into multiple streaming data systems for the purpose of optimizing the Organization's products, systems and processes.

1.9. Information Architecture: Seeking research regarding leading edge approaches to change organization data into usable information in a way that can be supported across changing technologies and limited resources. The goal is to continue to grow treating data as an asset, that begins with a mindset of how information plays a role in the current and future organization.

1.10. Data Standards and Interface Strategies: The number and complexity of current and future data and interface standards may have a significant impact on the Organization's activities. A study of what interface and data standards the Organization should monitor or actively engage in is sought. The Organization recognizes it no longer

drives industry practices; however, there are some areas where insight and collaboration can support future needs. Seeking an investigation into those specific data interfaces and standards.

1.11. Data Transfer / Standardized Data Products: Lab, Ground, and Flight test data is gathered on different networks and in different formats through a plethora of sources via test ranges, aircraft, test equipment, and dedicated test assets. Seeking a more efficient way of transferring all of the data from the multiple sources to have access to the data in near real time as well as a methodology to be able to simply and efficiently merge the data in one format, within a multiple level security environment.

1.12. Data Strategy: Seeking research and approaches on resolving accessibility issues and expanding models, metrics, and data virtualization across the Organization. Research may include data lessons learned, and strategies for developing data models, metrics, and visualization within their own and/or other organizations comparable to NAVAIR.

1.13. Supplier Data Fusion: Seeking research and presentation of front end solutions that can reduce human data pulls by coordinating the collection of information from existing Organization supplier data sources and associate it with the Organization's other program data to provide supplier risk and information.

1.14. Program Lifecycle Management Data Fusion: Seeking research on reusable tools/script/code (XML, JSON, etc.) and government/industry data sharing arrangements to enable access to cost, technical, and programmatic elements from existing Industry databases by Government data systems to support efficient and effective Program Lifecycle Management (PLM). This would enable taking advantage of the digital environment to improve the Government's identification, collection, correlation and distribution of Cost, Technical and Programmatic information.

1.15. Techniques for Understanding and Handling Classification Levels associated with Aggregation of Data: Due to the increased use of data models and linking of models, seeking techniques, processes, and/or tools that will enable the Organization to understand how the classification of data is affected when it is aggregated. Also seeking strategies to manage this data to provide the most flexibility without compromising security.

1.16. Developing System Models in a Multi-level Security Environment: Seeking methods, tools, and processes that will facilitate developing system models with commercially available modeling software, such as Magic Draw or Rhapsody, in multi-level security environments. Efficiency and collaboration should be considered as these methods, tools, and processes are developed. This could involve specific modeling techniques or the use of different abstraction methods so that part of the model could be unclassified and easier to work with. It could also be strategies on how to partition the model so that different groups could work on the models without seeing each other's information.

2. **Predictive Analytics/Business Intelligence/Visualization**. Examples of areas of research include but are not limited to the following:

2.1. Predictive Analytics: Seeking research on a combination of capabilities that enables a holistic approach to data analysis - driving deeper insights into current business operations and enabling predictive modeling to drive future business strategy. These analytic capabilities would span structured and unstructured data sources and leverage Machine Learning (ML) and Artificial Intelligence (AI) to maximize business value with reduced man-in-the-loop analysis. ML/AI capabilities would enable natural language search/insight capabilities to provide real-time insights to a spectrum of users from analysts to executive leadership.

2.2. Prescriptive Analytics Use for Optimized Platform and Product Sustainment: The number of weapons systems going into or in a sustainment phase is increasing. Seeking research data on how prescriptive analytics capabilities can be applied to improve and optimize maintenance actions, supply, and logistics planning.

2.3. Visualization/Visualization Strategy: Seeking research on the ability to turn data into visualizations that would assist in the analysis and consumption of information to make data-driven decisions. This could include techniques, skills required, and technology platform information. Seeking specific research and approaches for multi-tool strategies and specific technology combinations that work well with each other. Any relevant use-cases that tie business processes to the visualization strategy would also be of interest.

2.4. Data Analytics: Lab, Ground, and Flight test data analysis has not evolved to account for the current terabytes of data available from each individual test event. Seeking a better, more efficient way for data analysis to automatically identify trends, concern areas, and mission accomplishment across the entirety of a test program and across system of systems, within a multiple level security environment.

2.5. Query Capability: Seeking research to determine if there are more effective ways to query various Federal systems. Many of the tools are mandated at the Office of the Secretary of Defense (OSD) level, and many of these are already being consolidated under "Federal" umbrellas, such as the Invoice, Receipt, Acceptance and Property Transfer (iRAPT) application (formerly WAWF) and the System for Award Management (SAM). From a data perspective, many of these systems are not easy to query to get data out and there are no ad-hoc reporting capabilities, or they are very limited. Therefore, accessing the data after it has been input into the system has proven to be extremely challenging. For example, seeking research and examples of strategies to standardize input streams fed from multiple small business accounting systems, potentially including the use of Robotics Process Automation (RPA) to read and distribute contractor invoice data to the appropriate Contract Line Item Number (CLIN), Accounting Classification Reference Number (ACRN), Enterprise Resource Planning (ERP) fund accounting code and Work Breakdown Structure (WBS) elements to automate the reconciliation and verification of invoices, track project execution status, and automatically feed WAWF to enable prompt payment.

3. **Development Security Operations (DevSecOps)**. Examples of areas of research include but are not limited to the following:

3.1. Scalable Methodologies: Current industry practices build security steps into development methodologies while providing frequent (e.g., weekly) capability updates to the user base. Seeking strategies on how this standard industry practice could be employed on a large scale across the variety and volume of the Organization's products.

3.2. Software Prototyping: Seeking research and insight into how to quickly prototype new software functionality. For example, how to optimize container based environments into enterprise service bus structures and maximize interoperability.

3.3. Microservices: Microservices or basic capability elements are an emerging area of the Organization's use. Seeking research, investigation, and strategies for managing large scale numbers of micro-services across a multi-site, multiple purpose organization. Seeking insight into leading edge approaches to ensure microservices meet multiple purposes and are easily supportable for both internal (i.e., business infrastructure) and Fleet product needs. Also seeking solutions on managing identification, storage, data governance, etc.

4. **Artificial Intelligence (AI), Machine Learning**. Examples of areas of research include but are not limited to the following:

4.1. AI Infrastructure: Seeking research and solutions on architectures for developing an Artificial Intelligence Infrastructure that can be used to develop algorithms for business, technology development, and mission operations within the Organization's scope.

4.2. AI Software Development: Seeking research and investigation into developing efficient methods and/or tools related to AI software development efforts to include the full development lifecycle consisting of: planning and project control, including all aspects of cost estimating, schedule, and risk management through system design, test, evaluation, and sustainment (covering all Technology Readiness Levels (TRLs)).

4.3. Coalition Data Use: Seeking research into designing a collaborative data exchange amongst partners which reflects predicted technology changes.

5. **Business Transformation**. Examples of areas of research include but are not limited to the following:

5.1. Transformation Change Management/Business Transformation Process: Seeking studies and analyses to identify solutions for creating, implementing and sustaining a transformative change management program within a digital environment. This could include any specific business methodologies or strategies, as well as employing technology to enable innovative change. It may include vendor-specific techniques developed and employed across a variety of organizations to produce

effective organizational change. Specific use cases related to government entities would be of greatest interest.

5.2. Automation, Workflows, and Routing: Seeking research on the ability to route digital information and receive electronic approval for complex business processes. This could include use cases, technology platform information, and proven strategies for implementing automation and workflow approval processes. It could include research and strategies for merging some of the Organization's Enterprise Business Systems into one platform (e.g. Workload Requirements and Planning Systems [WRAPS], Acquisition Management System [AMS Suite]) to build a more collaborative, cohesive environment. Some of these systems overlap in capabilities/functionality, requiring the end users to input the same data into multiple systems. Incorporating some type of technology such as Business Process Modeling (BPM) tools may help facilitate this, allowing single input from the end user into a central system, and then flowing the data to where it needs to go. A single overarching system, which is highly configurable, and allows for the incorporation of workflows based on existing business processes, and allows for rapid development of new business process flows for the future is ideal.

5.3. Paperless Office: Seeking research and more efficient low-cost methods to implement innovative concepts and technical approaches to replace the conventional paper based processes with digital workflow. This could include high volume paperless office technologies such as data repository, process, collaboration, electronic display, business flow, large data storage methodologies and solutions, and related processes.

5.4. Strategic Roadmap: Seeking research and approaches on how to create a strategic roadmap for digital integration. This should include both the specific business process review and mapping efforts, as well as technology enablers to achieve digital transformation and innovation goals. Relevant use cases should be included.

6. Digital/Data Careers and Organizational Strategies. Examples of areas of research include but are not limited to the following:

6.1. Employee Centered Organizational Structures: Seeking research, tools, and solutions that facilitate organizational design to support agile work including - matching talent to the work, managing work streams and workload, flexible workplace, and flexible workforce design. Seeking approaches to empower employees and integrate performance management and career development programs. The goal is to improve recruitment and retention and provide employees and project the flexibility needed to meet changing program and personal needs.

6.2. Skills Requirements for 2030 Work: Seeking research, analysis, and solutions on how to anticipate, navigate, and satisfy the Organization's 2030 task needs. Specifically, what skills are needed to enable the Organization's work in the 2030 timeframe, to include the identification of recruiting needs and potential resources as well as training methods and demands to grow skills or re-purpose existing skills are areas of interest. For example, if the number of Science, Technology, Engineering, and

Math (STEM) degrees are decreasing by a certain percentage per year, what kinds of impacts will that have on the Organization's ability to satisfy out-year work demands.

6.3. What Organizational Construct Makes Sense for NAVAIR 2030 Work: NAVAIR utilizes a Competency Aligned Organization (CAO) or matrix structure. Given the dynamic nature of digital infrastructure and the increased role of data between organizational elements to effectively function, what does research suggest is an ideal organizational construct? Solutions based on emerging organization structures and trade-offs among them are areas of interest. Research and analysis into optimum sizes for teams, projects, and programs to enable agility and decrease time to Fleet product delivery and sustainment needs are key objectives of any NAVAIR organizational construct.

6.4. Partnership & Collaboration: Seeking solutions and strategies for the use of collaboration technology to share information. This would include a large category of technologies, processes, and human resource capital to enable the sharing of information to make data-driven decisions. It could include use cases, capability presentations, and integration within organizations. In addition, include any relevant information related to organizational structure such as flattening the organization, improving horizontal connectivity between organizational silos, matrix organizational structure, and hybrid organizational design paradigms using real-world examples.

6.5. Digital Tools Training: Seeking approaches and strategies on training tools, methodologies, and technology solutions that would enable transforming into a digital-savvy, highly performing workforce. Examples from government organizations would be of significant interest. The ideal response would include both business process changes that were successful, in addition to the organizational and technology support platforms that were employed.

6.6. Growing Transferable Skills: As the Organization achieves its goals of automating existing processes and routine decisions, seeking research and approaches into what skills need to be acquired to help individuals excel across changing problem sets and technology enablers. It is anticipated the rate of technology evolution will continue to surpass imagination. Given the Government can be slow to change, seeking analysis and solutions to assist in planning for and acquiring skills that are not limited by technology or a specific domain, while providing the technical depth required for the Organization's work.

6.7. Building an Adaptive Work Environment: The work environment dynamics within the Organization are shifting from a production-orientation to a data-centric business model. The cultural, technology, and product impacts are significant. In addition to existing change management methods and best practices, seeking strategies and approaches outlining what's required to grow and sustain a workforce and associated technology infrastructure that is able to embrace change and push innovation, while maintaining commitments on schedule, security, and product content capabilities.

7. Digital Innovation / Disruptive Digital Technology. Examples of areas of research include

but are not limited to the following:

7.1. Emerging Technology/Use Cases/Pilots: Seeking research, strategies, and approaches on the use of new technology to enable digital innovation. This could include such topics as: Organizational Digital Pilots; Block Chain; Functions as a Service; Internet of Things (IoT); unstructured data (NoSQL); Natural Language Processing; Micro Services Pilots; Quantum, Neuromorphic, and Remanence Computing; complex automation of currently operational DoD processes and capabilities; and related topics. Include any specific business process use cases that were enhanced or enabled by these technologies.

7.2. Product Lifecycle Management (PLM) Configuration and Migration of Workflows: Seeking research into processes for maximizing the value of PLM class software. For example, automating complex manual workflows.

7.3. Tying Systems Modeling Language (SysML) models into Test & Evaluation Infrastructure: As the Organization transforms to model based system engineering, research is needed on how to connect the future SysML models into NAVAIR's existing Live Virtual Constructive (LVC) infrastructure to enable testing.

7.4. Multi-Factor Authentication: Seeking research and approaches for providing multi-factor authentication for trusted users to access government systems and data from both government provided and employee personal devices.

7.5. Innovative Solutions to Replicate Real World Military Targets: Real world or actual air, surface, and subsurface targets and other test assets can be expensive or otherwise unavailable to support testing. As the Organization looks to "Test like we fight," the organization seeks research and solutions for alternate targets that replicate their real world elements.

7.6. Edge Computing: Seeking research into the capability of an edge computing center at each Naval Air Station (NAS) / Marine Corps Air Station (MCAS) that is capable of analyzing in near real time the: current material condition of all assigned aircraft; open maintenance actions with the ability to denote which aircraft are in scheduled/unscheduled maintenance and special rework; ability to digest and analyze the Prognostics and Health Management data coming from each aircraft at post flight and be able to identify systems/subsystems/components that are not within allowable tolerances. This analytical capability will help set the priorities of provider organizations supporting the Fleet and influence the local intermediate and depot level repair lines. These centers need to have the ability to communicate with other analytical centers across the enterprise.

7.7. Empowering Teams in Secure Environments: Much of the Organization's work involves performing tasks in a secure environment. Seeking research and strategies into how to enable this type of work from a technology, multi-site and distributed approach. In some cases, the secure environment limits data exchanges or limits access to tools. Strategies on how to optimize secure development, data exchanges, work location

constructs, team collaboration, and multi-level security needs are among potential areas of interest.

The Organization may also consider submissions outside these areas if the white paper/proposal involves the development of novel-based digital technologies and capabilities with potential to enhance the digitization of NAVAIR/U.S. Naval Operations.

B. Federal Award Information

1. Awards

Multiple awards are anticipated. The level of funding for individual awards made under this solicitation have not been predetermined and will depend on the quality of the white papers/proposals received and the availability of funds. Awards will be made to proposers whose white papers/proposals are determined to be the most advantageous to the Government, all factors considered, including the potential contributions of the proposed work, overall funding strategy, and availability of funding.

The Government reserves the right to:

- select for negotiation all, some, one or none of the white papers/proposals received in response to this solicitation;
- make awards without discussions with proposers;
- conduct discussions with proposers if it is later determined to be necessary;
- segregate portions of the resulting awards into pre-priced options;
- accept proposals in their entirety or to select only portions of proposals for award;
- fund proposals in increments and/or with options for continued work at the end of one or more phases;
- request additional documentation once the award instrument has been determined (e.g., representations and certifications); and
- remove proposers from award consideration should the parties fail to reach agreement on award terms within a reasonable time or the proposer fails to provide requested additional information in a timely manner.

Proposals selected for award may result in a procurement contract, grant, cooperative agreement or other transaction (OT) depending upon the nature of the work proposed, the required degree of interaction between parties, and other factors.

Proposers looking for innovative, commercial-like contractual arrangements are encouraged to consider requesting OTs. Please refer to the DoD “Other Transactions Guide for Prototype Projects” dated January 2017 to understand the flexibility and options associated with OTs.

In accordance with 10 U.S.C. § 2371b(f), the Government may award a follow-on production contract or OT for any OT awarded under this BAA if: (1) that participant in the OT, or a recognized successor in interest to the OT, successfully completed the entire prototype project provided for in the OT, as modified; and (2) the OT provides for the award of a follow-on production contract or OT to the participant, or a recognized

successor in interest to the OT.

In all cases, the Government contracting officer shall have sole discretion to select award instrument type, regardless of instrument type proposed, and to negotiate all instrument terms and conditions with selectees. The Organization will apply publication or other restrictions, as necessary, if it determines that the research resulting from the proposed effort will present a high likelihood of disclosing performance characteristics of military systems or manufacturing technologies that are unique and critical to defense. Any award resulting from such a determination will include a requirement for the Organization's permission before publishing any information or results on the program. For more information on publication restrictions, see the section below on Contracted Fundamental Research.

2. Contracted Fundamental Research

It is DoD policy that the publication of products of fundamental research will remain unrestricted to the maximum extent possible. National Security Decision Directive (NSDD) 189 defines fundamental research as follows:

'Fundamental research' means basic and applied research in science and engineering, the results of which ordinarily are published and shared broadly within the scientific community, as distinguished from proprietary research and from industrial development, design, production, and product utilization, the results of which ordinarily are restricted for proprietary or national security reasons.

With regard to any restrictions on the conduct or outcome of work funded under this BAA, the Organization 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.

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 Research, Development, Test and Evaluation 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) does not meet the definition of "contracted fundamental research." In conformance with the Under Secretary of Defense for Acquisition, Technology and Logistics guidance and National Security Decision Directive 189, the Organization 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. As of the date of publication of this BAA, the Government cannot identify whether the work under this BAA may be considered fundamental research and may award both fundamental and non-fundamental research.

Proposers should indicate in their proposal whether they believe the scope of the research included in their proposal is fundamental or not. While proposers should clearly explain the intended results of their research, the Government shall have sole discretion to select award instrument type and to negotiate all instrument terms and conditions with selectees. Appropriate clauses will be included in resultant awards for non-fundamental research to prescribe publication requirements and other restrictions as appropriate.

Relative to contracts and assistance instruments (excluding OTs), FAR Part 35 restricts the use of Broad Agency Announcements (BAAs), such as this, to the acquisition of basic and applied research and that portion of advanced technology development not related to the development of a specific system or hardware procurement. Contracts and grants and other assistance agreements made under BAAs are for scientific study and experimentation directed towards advancing the state of the art and increasing knowledge or understanding.

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 research area and the technical approach to be pursued by the proposers 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 a state government, a local government, or other 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. Grant: A legal instrument consistent with 31 U.S.C. 6304, is used to enter into 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.
- No fee or profit is allowed.

ii. Cooperative Agreement: A legal instrument which, consistent with 31 U.S.C 6305, is used to enter into the same kind of relationship as a grant, except that substantial involvement is expected between the Federal Government and the recipient when carrying out the activity contemplated by the cooperative agreement. No fee or profit is allowed.

iii. Technology Investment Agreement (TIA): Assistance Transaction other than a Grant or a Cooperative Agreement (see 32 CFR Part 37). A legal instrument, consistent with 10 U.S.C. 2371, which 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. The research covered under a TIA 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, foregone intellectual property rights, equipment, access to unique facilities, and/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.

c. Other Transaction for Prototype (OTA): A legal instrument, consistent with 10 U.S.C. 2371b, which may be used when the use of a contract, grant, or cooperative agreement is not feasible or appropriate 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 for Prototype Projects” dated January 2017. This document along with other OTA resources may be accessed at the following link:

<http://www.acq.osd.mil/dpap/cpic/cp/10USC2371bOTs.html>

5. Assistance Instruments

Any assistance instrument awarded under this announcement will be governed by the award terms and conditions that conform to DoD’s implementation of the Office of Management and Budget (OMB) circulars applicable to financial assistance. Terms and conditions of new awards made after December 26, 2014, will include revisions to reflect DoD implementation of new OMB guidance in 2 CFR Part 200, “Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards.” The DoD Terms and Conditions are located at <http://www.onr.navy.mil/Contracts-Grants/submit-proposal/grants-proposal/grants-terms-conditions.aspx>.

C. Eligibility Information

1. Eligible Applicants

- a. 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 Small Business or other socio-economic participation. All businesses both small and large are encouraged to submit proposals and compete for funding consideration.
- b. 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 proposers are allowed so long as such arrangements are permitted under the sponsoring agreement between the Government and the specific FFRDC.
- c. Navy laboratories, military universities and warfare centers as well as other Department of Defense and civilian agency laboratories **are not** eligible to receive awards under this BAA and should not directly submit either white papers or full proposals in response to this BAA. As with FFRDCs, these types of federal organizations may team with other eligible sources from academia and industry that are submitting proposals under this BAA.
- d. 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.
- e. Teams are also encouraged and may submit proposals in any and all areas.

However, proposers 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 NAWCAD 2.5.1.

2. **Cost Sharing or Matching** – Cost sharing is not required; however, unless there is an applicable statutory condition relating to the selected funding instrument (e.g., TIA/OTs under the authority of 10 U.S.C. § 2371).

D. Application and Submission Information

1. **Address to 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. Grants.gov (www.grants.gov)
- b. FedBizOpps (www.fbo.gov)

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

- a. General Information

The submission process is two-phased as described below. No further Request for Information or other announcement of this opportunity will be made.

PHASE I – White Paper

White Papers may be submitted at any time up until November 18, 2019, 5:00 PM Eastern time. If a proposer does not submit a white paper before the specified due date and time, it is not eligible to participate in Phase II and is not eligible for funding.

Proposers are instructed not to submit general capabilities statements in response to this BAA. White Papers shall only be submitted for actual technologies within the areas of interest in Part II Section A, Program Description. Proposers are encouraged to submit white papers on topics not specifically mentioned in the BAA. However, the proposed areas must be logically interconnected to existing BAA topics. Each white paper should state that it is submitted in response to this BAA and cite the particular Research Opportunity Area of Interest that the white paper is specifically addressing. Proposers may provide solutions that are applicable to multiple research topics in a single white paper as appropriate. Additionally, proposers may submit more than one white paper on each research topic if a separate solution or approach is being proposed.

White Paper Evaluation/Notification: Navy evaluations of the white papers are anticipated to be conducted on a periodic basis. However, any such review does not assure a subsequent award. Any proposer whose white paper was not identified as being of particular value to the Navy is ineligible to submit a full proposal under this BAA.

PHASE II – Full Technical/Cost Proposal (BY INVITATION ONLY)

Only proposers whose PHASE I - White Paper is considered of interest in meeting existing or future program requirements will be asked to submit a PHASE II – Full Technical/Cost Proposal (Full Proposal). NAWCAD 2.5.1 will not respond to every White Paper received. If no request for a Phase II proposal is received, do not submit a Full Proposal. Request for submission of a Full Proposal does not guarantee an award.

All proposal submissions will be protected from unauthorized disclosure in accordance with FAR Subpart 15.207, applicable law, and Department of Defense/Department of the Navy regulations. Proposers are expected to appropriately mark each page of their submission that contains proprietary information.

b. Submission of Unclassified White Papers:

All submitted white papers under this BAA shall be unclassified. Classified white papers shall NOT be submitted under this solicitation. If a determination is made that the award instrument may result in access to classified information, a DD Form 254, “DoD Contract Security Classification Specification,” will be issued and attached as part of the award.

c. White Paper Requirements.

i. White Paper Format

- Paper Size – 8.5 x 11 inch paper
- Margins – 1 inch on all four sides
- Spacing –single-spaced
- Font – Times New Roman or Calibri, 12 point
- Page limit– 5 pages for white paper, exclusive of cover page and Quad Chart. Quad Chart is limited to 1 page.

Note: Any pages submitted exceeding the page limit shall be disregarded and not evaluated. Additionally, the electronic file name for all documents submitted under this solicitation must not exceed 68 characters in length, including the file name extension.

ii. White Paper Submission. E-mail submission is required (per the instructions below). The white paper must be a Microsoft Word 2010 compatible, or Adobe Portable Document Format (PDF) format attachment to the email. There is an email size limit of 5MB per email.

- Electronic (email) submissions should be sent to the attention of the BAA Coordinator at: navair_ndo_baa.fct@navy.mil
- The subject line of the email shall include reference to BAA Number N00421-19-S-0001 and list the Research Opportunity Area of Interest by section and subsection as applicable.

- Do not send ZIP files or password protected files.

iii. White Paper Content: White papers shall include the following:

- **Cover Page**: The Cover Page shall be labeled “WHITE PAPER” and shall include the BAA Number, proposed title, research opportunity area of interest, contracts and technical points of contact, telephone number, facsimile number, and E-mail address. IMPORTANT NOTE: Titles given to the White Papers should be descriptive of the work they cover and not be merely a copy of the title of this solicitation.
- **Technical Concept and Approach**: A description of the technology innovation and technical challenges and risk areas. Also include a brief technical approach to include a description of major tasks to be performed and their duration start and end dates.
- **Future Naval Relevance** – A description of potential Naval relevance and contributions of the effort to the agency’s specific mission.
- **Navy Lead**: Provide the name, organizational code, and phone number of the Navy Lead, if known. Leave this entry blank if there is no Navy Lead.
- **Cost and Period of Performance (POP)**: Rough Order of Magnitude cost estimate (ROM), POP and, if applicable, the anticipated cost sharing arrangement.
- **Instrument Type**: Specify the award instrument requested.
- **Government Provided Information/Equipment/Material**: List any Government provided Information/Equipment/Material that would be required, if applicable.
- **Provide a notional Roadmap of the Technology Readiness Level (TRL) progression** to include the beginning, current, and final TRL in accordance with the DoD description in Table 1 (below), as applicable. Also describe how the TRL self-assessment is validated through quantifiable measures, including products and/or deliverables showing TRL progression.
- **Quad Chart**: Completed Quad Chart with format in accordance with Table 2.

Technology Readiness Levels in the Department of Defense (DOD) (Source: DoDI 5000.02, January 7, 2015)	
Technology Readiness Level	Description
1. Basic principles observed and reported.	Lowest level of technology readiness. Scientific research begins to be translated into applied research and development. Examples might include paper studies of a technology's basic properties.
2. Technology concept and/or application formulated.	Invention begins. Once basic principles are observed, practical applications can be invented. Applications are speculative and there may be no proof or detailed analysis to support the assumptions. Examples are limited to analytic studies.
3. Analytical and experimental critical function and/or characteristic proof of concept.	Active research and development is initiated. This includes analytical studies and laboratory studies to physically validate analytical predictions of separate elements of the technology. Examples include components that are not yet integrated or representative.
4. Component and/or breadboard validation in laboratory environment.	Basic technological components are integrated to establish that they will work together. This is relatively "low fidelity" compared to the eventual system. Examples include integration of "ad hoc" hardware in the laboratory.
5. Component and/or breadboard validation in relevant environment.	Fidelity of breadboard technology increases significantly. The basic technological components are integrated with reasonably realistic supporting elements so it can be tested in a simulated environment. Examples include "high fidelity" laboratory integration of components.
6. System/subsystem model or prototype demonstration in a relevant environment.	Representative model or prototype system, which is well beyond that of TRL 5, is tested in a relevant environment. Represents a major step up in a technology's demonstrated readiness. Examples include testing a prototype in a high-fidelity laboratory environment or in simulated operational environment.
7. System prototype demonstration in an operational environment.	Prototype near, or at, planned operational system. Represents a major step up from TRL 6, requiring demonstration of an actual system prototype in an operational environment such as an aircraft, vehicle, or space. Examples include testing the prototype in a test bed aircraft.
8. Actual system completed and qualified through test and demonstration.	Technology has been proven to work in its final form and under expected conditions. In almost all cases, this TRL represents the end of true system development. Examples include developmental test and evaluation of the system in its intended weapon system to determine if it meets design specifications.
9. Actual system proven through successful mission operations.	Actual application of the technology in its final form and under mission conditions, such as those encountered in operational test and evaluation. Examples include using the system under operational mission conditions.

Table 1 – Technology Readiness Levels and Description

- d. Full Proposals: (See Appendices 1-3 for instructions.)
 - i. Requirements Applicable to Grants, Cooperative Agreements, and Technology Investment Agreements (TIAs) Only.
(See Appendix 1)
 - ii. Requirements Applicable to Contracts.
(See Appendix 2)
 - iii. Requirements to Other Transaction Agreements.
(See Appendix 3)

3. Unique Entity Identifier and System for Award Management (SAM)

Unique Entity Identifier and System for Award Management (SAM) - All proposers 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/>

Effective 27 April 2018, all new entities registering in SAM, as well as existing registrations being updated or renewed, will require the submission of an original, signed notarized letter identifying the authorized Entity Administrator for the entity associated with the Data Universal Numbering System (DUNS) number before the registration will be activated. Please be aware that processing this additional information may take several days and proposers are advised to be proactive in maintaining their SAM registration in an “Active” status as the government cannot award to an entity without an “Active” SAM registration. More information can be found at www.gsa.gov/samupdate.

4. Submission Dates and Times

(See Section I, paragraph A.6, Key Dates, for information)

Submission of Late Proposals (Applicable to White Papers and Full Proposals):

Any white paper, proposal, modification, or revision, that is received at the designated Government office after the exact time specified for receipt is late and will not be considered.

5. Funding Restrictions

Not Applicable

E. Application Review Information

1. Evaluation Criteria

Proposals will be evaluated using the following criteria:

1) *Technical Approach:*

This criterion rates the degree to which the proposed technical approach is innovative, feasible, achievable, and complete. The task descriptions and associated technical elements are complete and in a logical sequence. The proposal identifies major technical risks, clearly defines feasible risk mitigation efforts, and outlines a realistic schedule.

2) *Potential Contribution and Relevance to the Organization's Mission:*

This criterion rates the degree to which the potential contributions of the proposed effort are relevant to the Organization and Department of the Navy mission.

3) *Cost:*

This criterion rates the degree to which the proposed costs are realistic for the technical approach and accurately reflect the technical goals and objectives of the applicable area of interest. The proposed costs are consistent with the proposer's Statement of Work and reflect a sufficient understanding of the costs and level of effort needed to successfully accomplish the proposed technical approach. The costs for the prime proposer and proposer's subawardees are substantiated by the details provided in the full proposal (e.g., the type and number of labor hours proposed per task, the type and quantities of materials, equipment and fabrication costs, travel and any other applicable costs and the basis for the estimates).

The Technical Approach (Criteria 1) is most important, followed by Potential Contribution and Relevance to the Organization's Mission (Criteria 2) and Cost (Criteria 3), which are of equal importance.

2. Review and Selection Process

- a. For White Papers, the Organization's intent is to review white papers as soon as possible after they arrive; however, white papers will be reviewed and responses will be conveyed to the proposers no later than (NLT) 30 days after the end of the quarter in which they were received.

Selections may be made at any time during the period of solicitation. Pursuant to FAR 35.016, the primary basis for selecting proposals for award negotiations shall be technical, importance to agency programs, and fund availability.

For Proposals, the Organization will conduct a scientific review of each conforming proposal. Conforming proposals comply with all requirements detailed in this BAA; proposals that fail to do so may be deemed non-conforming and may be removed from consideration. The Organization may, at its discretion, choose not to make an award to any proposer for any reason.

Proposals will not be evaluated against each other since they are not submitted in accordance with a common work statement.

NAWCAD 2.5.1's intent is to review Full Proposals as soon as possible after they arrive; however, Full Proposals may be reviewed periodically for administrative reasons.

The ultimate recommendation for award of proposals is made by the Organization's scientific/technical community. Recommended proposals will then be forwarded to the NAWCAD 2.5.1 Aircraft Support Contracts Division. Any notification received from NAWCAD 2.5.1 that indicates that the proposer'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 proposer's responsibility, confirm whether funds are available, and take other relevant steps necessary prior to commencing negotiations with the proposer.

b. 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.

c. Evaluation Panel

Scientists, engineers, program officers, and technical experts who serve the government as subject matter experts will evaluate the white papers and proposals received at NAWCAD 2.5.1. In many cases, the subject matter experts will participate in an awarded project as a Navy Lead with the responsibility of guiding, coordinating and executing efforts in support of the project.

Technical and cost proposals submitted under this BAA will be protected from unauthorized disclosure in accordance with FAR 3.104-4 and 15.207.

3. Recipient Qualifications

- a. Requirements Applicable to Grants, Cooperative Agreements and Technology Investment Agreements (TIAs) Only
(See Appendix 1.)
- b. Requirements Applicable to Contracts
(See Appendix 2.)
- c. Requirements Applicable to Other Transaction Agreements
(See Appendix 3.)

F. Federal Award Administration Information

1. Administrative and National Policy Requirements

Export Control Laws

Proposers should be aware of recent changes in export control laws. Proposers 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 Munition 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. Proposers should address in their proposals whether ITAR or EAR restrictions apply to the work they are proposing to perform. The ITAR and EAR are available online at <http://www.ecfr.gov/>. Additional information regarding the President's Export Control Reform Initiative can be found at <http://export.gov/ecr/index.asp>.

Proposers 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. Proposers 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.

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 proposer must coordinate with the Technical Point of Contact and NAVAIR/NAWCAD Security Office.

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 contract, and FAR 52.204-2 - Security Requirements will be incorporated into the contract.

The Organization does not provide access to classified material under assistance instruments (i.e., grants, cooperative agreements).

Requirements Concerning Live Organisms:

- a) Use of Animals: Award recipients performing research, experimentation, or testing involving the use of animals shall comply with the rules on animal acquisition, transport, care, handling, and use as outlined in: (i) 9 CFR parts 1-4, Department of Agriculture rules that implement the Animal Welfare Act of 1966, as amended, (7 U.S.C. § 2131-2159); (ii) National Institutes of Health Publication No. 86-23, "Guide for the Care and Use of Laboratory Animals" (8th Edition); and (iii) DoD Instruction 3216.01, "Use of Animals in DoD Programs."

For projects anticipating animal use, proposals should briefly describe plans for Institutional Animal Care and Use Committee (IACUC) review and approval. Animal studies in the program will be expected to comply with the Public Health Service Policy on Humane Care and Use of Laboratory Animals, available at <http://grants.nih.gov/grants/olaw/olaw.htm>.

All award recipients must receive approval by a DoD-certified veterinarian, in addition to an IACUC approval. No animal studies may be conducted using DoD funding until the United States Army Medical Research and Materiel Command Animal Care and Use Review Office (ACURO) or other appropriate DoD veterinary office(s) grant approval. As a part of this secondary review process, the award recipient will be required to complete and submit an ACURO Animal Use Appendix, which may be found at:

http://mrmc.amedd.army.mil/index.cfm?pageid=research_protections.acuro_animalappendix

b) Use of Human Subjects in Research: Proposers must protect the rights and welfare of individuals who participate as human subjects in research under this award and comply with the requirements of the Common Rule at 32 CFR part 219 and applicable provisions of DoD Instruction 3216.02, Protection of Human Subjects and Adherence to Ethical Standards in DoD-Supported Research (2011), the DON implementation of the human research protection program contained in SECNAVINST 3900.39D (or its replacement), 10 USC 980 “Limitation on Use of Humans as Experimental Subjects,” and when applicable, Food and Drug Administration and other federal and state law and regulations.

For proposals containing activities that include or may include “research involving human subjects” as defined in DoDI 3216.02, prior to award, the proposer must submit documentation of:

- i. Approval from an Institutional Review Board (IRB) (IRB-approved research protocol, IRB- approved informed consent document, and other material they considered); proof of completed human research training (e.g., training certificate or institutional verification of training for the principal investigator, co-investigators); and the proposer’s Department of Health and Human Services (DHHS)-issued Federal Wide Assurance (FWA#);
- ii. Any claimed exemption under 32 CFR 219 101(b), including the category of exemption, supporting documentation considered by your institution in making the determination (e.g., protocol, data collection tools, advertisements, etc.). The documentation shall include a short rationale supporting the exemption determination. This documentation should be signed by the IRB Chair or IRB vice Chair, designated IRB administrator or official of the human research protection program; or

iii. Any determinations that the proposal does not contain activities that constitute research involving human subjects, including supporting documentation considered by your institution in making the determination. This documentation should be issued by the IRB Chair or IRB vice Chair, designated IRB administrator or official of the human research protection program.

Documentation must be submitted to the NAWCAD Human Research Protection Official (HRPO), by way of the NAWCAD 2.5.1 Aircraft Support Contracts Division. If the research is determined by the IRB to be greater than minimal risk, you also must provide the name and contact information for the independent research monitor and a written summary of the monitors' duties, authorities, and responsibilities as approved by the IRB.

Contracts, orders, or grant awards and any subawards or modifications will include a statement indicating successful completion of the HRPO review. Research involving human subjects must not be commenced under any award or modification or any subcontract or grant subaward or modification until awardee receives notification from the Contracting or Grants Officer that the HRPO has approved the assurance as appropriate for the research under the award or modification and that the HRPO has reviewed the protocol and accepted the IRB approval or determination for compliance with Federal, DoD and DON research protection requirements. See DFARS 252.235-7004.

Use of Recombinant DNA or Synthetic Nucleic Acid Molecules

Proposals which call for experiments using recombinant or synthetic nucleic acid molecules must include documentation of compliance with National Institute of Health (NIH) Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules (NIH Guidelines), approval of the Institutional Biosafety Committee (IBC), and copies of the DHHS Approval of the IBC letter.

Institutional Dual Use Research of Concern

As of September 24, 2015, all institutions and United States Government (USG) funding agencies subject to the United States Government Policy for Institutional Oversight of Life Sciences Dual Use Research of Concern must comply with all the requirements listed therein. Policy may be found at: <http://www.phe.gov/s3/dualuse/Documents/durc-policy.pdf>

If your research proposal directly involves certain biological agents or toxins, contact the cognizant Technical Point of Contact. U.S. Government Science, Safety, Security (S3) guidance may be found at <http://www.phe.gov/s3/dualuse>.

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 NAWCAD 2.5.1 contracts, grants, and other assistance instruments may be eligible to use HPCMP assets in support of their funded activities if NAWCAD 2.5.1 Program Officer approval is obtained and if security/screening requirements are favorably completed. Additional information and an application may be found at <http://www.hpc.mil/>.

Publication of Grant Awards

Per Section 8123 of the Department of Defense Appropriations Act, 2015 (Pub. L. 113-235), all grant awards must be posted on a public website in a searchable format. To comply with this requirement, proposers requesting grant awards must submit a maximum one (1) page abstract that may be publicly posted and explains the program or project to the public. The proposer should sign the bottom of the abstract confirming the information in the abstract is approved for public release. Proposers are advised to provide both a signed PDF copy, as well as an editable (e.g., Microsoft Word) copy. Abstracts contained in grant proposals that are not selected for award will not be publicly posted.

2. Reporting:

If the total Federal share of the 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:

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 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 section 41 U.S.C. 2313. As required by section 3010 of Public Law 111-212, 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:

- (1) A criminal proceeding that resulted in a conviction, as defined in paragraph 5 of this award term and conditions;
- (2) 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;
- (3) 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
- (4) 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;
 - (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 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—

- (1) Only the Federal share of the funding under any Federal award with a recipient cost share or match; and
- (2) The value of all expected funding increments under a Federal award and options, even if not yet exercised.

Further guidance for reporting:

- Applicable to Grants, Cooperative Agreements, and Technology Investment Agreements (TIAs) Only
(See Appendix 1).
- Applicable to Contracts
(See Appendix 2).
- Applicable to Other Transaction Agreements
(See Appendix 3).

G. Federal Awarding Agency Contacts

1. Communications:

a. Technical or administrative questions shall be submitted via e-mail to:

navair_ndo_baa.fct@navy.mil

b. All White Papers shall be submitted via email to:

navair_ndo_baa.fct@navy.mil

Any questions or White Paper submissions not submitted to the email address provided above will not be reviewed.

III. APPENDICES

APPENDIX 1 – REQUIREMENTS APPLICABLE TO GRANTS, COOPERATIVE AGREEMENTS, AND TECHNOLOGY INVESTMENT AGREEMENTS (TIAS) ONLY

A. Application and Submission Information

1. Content and Form of Application Submission

(a) Full Proposals:

i. Instructions for Grants, Cooperative Agreements, and TIAs

Content and Form of Application:

Applicants must submit a full proposal accordance with the instructions provided below. Files must be in Adobe Portable Document Format (PDF) or Microsoft Word 2010 compatible and Microsoft Excel Spreadsheet. Do not password protect documents.

Proposers are responsible for clearly identifying proprietary information. Submissions containing proprietary information must have the cover page and each page containing such information clearly marked.

NAWCAD 2.5.1 encourages grant and cooperative agreement proposers to submit their Full Proposals online through Grants.gov. Proposers that plan to submit through Grants.gov must be aware of the following procedures and the potential time it may take to complete them.

Submissions: Proposers must submit the four forms listed below:

SF 424 Research and Related (R&R) Application for Federal Assistance. This form must be completed and submitted. Complete this form first as it is designed to fill in common required fields across other forms, such as the applicant name, address, and DUNS Number. Once it is completed, the information will transfer to the other forms.

To evaluate compliance with Title IX of the Education Amendments of 1972 (20 U.S.C. § 1681 Et. Seq.), the Department of Defense is using the two forms below to collect certain demographic and career information to be able to assess the success rates of women who are proposed for key roles in applications in science, technology, engineering, or mathematics disciplines. Detailed instructions for each form are available on Grants.gov.

Research and Related Senior/Key Person Profile (Expanded). *This form must be completed and submitted.*

Research and Related Personal Data. *Each applicant must complete the name field of this form; however, provision of the demographic information is voluntary. Regardless of whether the demographic fields are completed or not, this form must be submitted with at least the applicant's name completed.*

Attachment. Each applicant will attach their required documents using this form as instructed in this Appendix. Applicants may use the optional Research and Related (R&R) Budget template for the submission of the cost proposal but do not use both forms; choose either the Attachment or RR Budget form to prevent the duplication of cost proposal submissions.

Grants.gov requires proposers to complete a one-time registration process before a proposal can be electronically submitted. However, before you can register as an applicant with Grants.gov, you will need to obtain a DUNS number and complete registration in SAM. These processes can take up to four weeks. Once your DUNS number has been verified, you can submit your registration to Grants.gov.

For more information, see <https://www.grants.gov/web/grants/register.html>.

Submit your proposal via electronic upload at: <https://www.grants.gov/applicants/apply-for-grants.html>.

For more information on submitting proposals to Grants.gov, see:

<https://www.grants.gov/web/grants/applicants/applicant-faqs.html>.

Technical support for Grants.gov submissions may be reached at 1-800-518-4726 or support@grants.gov

Once Grants.gov has received a proposal submission, Grants.gov will send two email messages to advise proposers as to whether or not their proposals have been validated or rejected by the system. It may take up to two days to receive these emails. The first email will confirm receipt of the proposal by the Grants.gov system, but this email only confirms receipt, not acceptance, of the proposal. The second email will indicate that the application has been successfully validated by the system prior to transmission to the grantor agency or that it has been rejected due to errors. If the proposal is validated, then the proposer has successfully submitted their proposal. If the proposal is rejected, the proposal submission must be corrected and resubmitted before NAWCAD 2.5.1 can retrieve it. If the solicitation is no longer open, the rejected proposal cannot be resubmitted. Once the proposal is retrieved by NAWCAD 2.5.1, the proposer will receive a third email from Grants.gov. For more information on tracking your proposal submission, see: <https://www.grants.gov/web/grants/applicants/track-my-application.html>

Grants.gov recommends that proposers submit their proposals to Grants.gov 24-28 hours in advance of the proposal due date, as specified in Section I, paragraph A.6, Key Dates, to provide sufficient time to complete the registration and submission process, receive email notifications and correct errors, as applicable.

NOTE: THESE INSTRUCTIONS APPLY ONLY UPON INVITATION TO PHASE II, FULL PROPOSAL SUBMISSION. Phase 1, White Papers will NOT be accepted if submitted via Grants.gov. White Papers shall be submitted in accordance with Section II, paragraph D.(2).(c)(ii), White Paper Submission. Any direct submission of Full Proposals without specific Government request, will not be considered.

Full Proposal Format

- Paper Size – 8.5 x 11 inch paper
- Margins – 1 inch on all four sides
- Spacing – single-spaced
- Font – Times New Roman or Calibri, 12 point
- Page limit - 25 pages, exclusive of cover page. There are no page limitations for the cost proposal.

Note: Any pages submitted exceeding the page limit shall be disregarded and not evaluated. Additionally, the electronic file name for all documents submitted under this solicitation must not exceed 68 characters in length, including the file name extension.

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: N00421-19-S-0001;
 - (b) Title of Proposal;
 - (c) Identity of prime applicant and complete list of subawards, if applicable;
 - (d) Type of organization, selected from the following categories: Large Business, Small Disadvantaged Business, Other Small Business, HBCU, MI, Other Educational, or Non Profit;
 - (d) Technical contact (name, address, phone/fax, electronic mail address);
 - (e) Administrative/business contact (name, address, phone/fax, electronic mail address);
 - (f) Total Amount of the proposed effort;
 - (g) Place(s) and period of performance (identify both the base period and any options, if included);
 - (h) Award instrument requested;
 - (i) Proposal validity period (minimum 120 days);
 - (j) Data Universal Numbering System (DUNS) number;
 - (k) Taxpayer identification number;
 - (l) Commercial and Government Entity (CAGE) code.

Note: In all cases, the Government Contracting/Grant Officer has sole discretion to select award instrument type, regardless of instrument type proposed, and to negotiate all instrument terms and conditions with selectees.

- **Table of Contents:** A listing of the sections within the proposal, including corresponding page numbers.
- **Executive Summary:** Provide a synopsis of the proposed project, including answers to the following questions:
 - What is the proposed work attempting to accomplish or do?
 - How is it done today, and what are the limitations?
 - Who or what will be affected and what will be the impact if the work is successful?

- How much will it cost, and how long will it take?
- What are the teaming/subcontracting relationships, if applicable? What unique skills and knowledge does each team member have? What role will each team member perform?

The executive summary should include a description of the key technical challenges, a concise review of the technologies proposed to overcome these challenges and achieve the project's goal, and a clear statement of the novelty and uniqueness of the proposed work.

• **Technical Concept and Approach.** Describe the basic scientific or technical concepts that will be investigated, giving 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:** 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 to include major tasks and their duration start and end dates. Include any planned decision points and demos or experiments.
- **Detailed Task Description:** A detailed description of work to include a detailed task breakdown, citing specific tasks and their connection to the interim milestones and metrics, as applicable. Any optional tasking shall be separately identifiable within the document.
- **Provide a detailed roadmap of the TRL progression** to include beginning, current, and final TRLs in accordance with the DoD description in BAA Table 1 (located in Section II, paragraph D.(2.)(c)(iii), as applicable. Also describe how the TRL self-assessment is validated through quantifiable measures.
- **Reports:** An overview of the content, format, and delivery of Technical and Financial Progress Reports, as well as the Final Report.

NOTE: Grants and Cooperative Agreements do not include the delivery of software, prototypes, and other hardware deliverables.

- **Staffing and Principal Investigator Qualifications:** A detailed description of the proposed staffing by labor category. Include 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.
- **Facilities, Equipment, and Government Furnished Information/Equipment/Material (GFI/E/M):** 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.) Also provide a list of any GFI/E/M that would be required, if applicable.

- **Cost Proposal.** A separate Adobe PDF document, in addition to a fully disclosed unburdened cost proposal with working formulas in Microsoft Excel, should be included in the proposal that provides appropriate justification and/or supporting documentation for each element of cost proposed. 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 proposer should not provide “value only spreadsheets” similar to a hard copy.

(a) Part 1: The cost proposal shall include the following

- Direct Labor – Individual labor categories or persons, with associated labor hours and unburdened direct labor rates. Provide basis for 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 (F&A, Overhead, G&A, etc.) – The application 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, the estimated cost per trip, and basis for estimation. Such estimates and the resultant costs claimed must conform to the applicable Federal cost principles.
- Subawards/Subcontracts – Provide a description of the work to be performed by the subawardee/subcontractor. For each subaward, a detailed cost proposal is required to be submitted by the subawardee(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. NAWCAD 2.5.1'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 via e-mail directly to the Government at the same time the prime proposal is submitted. The e-mail shall identify the proposal title, the prime Applicant and that the attached proposal is a subawardee.

- 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 tasking 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).
- Awardee Acquired Equipment or Facilities – Equipment and/or facilities are normally furnished by the awardee. 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 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).
- Fee/Profit – Fee/profit is unallowable under assistance agreements at either the prime or subaward level.

B. Application Review Information

1. Recipient Qualifications

a. Grant, Cooperative Agreement, and TIA Proposals

i. The Grants Officer is responsible for determining a recipient’s qualification prior to award. In general, a Grants Officer will award grants or cooperative agreements only to qualified awardees 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;

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

(5) Not identified in the Excluded Parties List System as being debarred, suspended or otherwise ineligible to receive the award.

The Contract/Grants Officer reserves the right to request additional information to support the responsibility determination of the awardee.

ii. 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 (FAPIS), 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 any 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, is required to review and consider any information about the applicant that is in the designated integrity and performance system accessible through SAM (currently FAPIS)(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.

APPENDIX 2 - REQUIREMENTS APPLICABLE TO CONTRACTS

A. Application and Submission Information

1. Content and Form of Application Submission

- (a) Full Proposals:
 - i. Instructions for Contracts

Content and Form Application:

Applicants must submit a full proposal in accordance with the instructions provided below. Files must be in Adobe Portable Document Format (PDF), Microsoft Word 2010 compatible and Microsoft Excel 2010 compatible. Do not password-protect documents.

Proposers are responsible for clearly identifying proprietary information. Submissions containing proprietary information must have the cover page and each page containing such information clearly marked.

Full Proposal Format

- Paper Size- 8.5 x 11 inch paper
- Margins – 1 inch on all four sides
- Spacing- single-spaced
- Font- Times New Roman or Calibri, 12 point
- Technical Proposal Page limit – 25 pages, exclusive of cover page. There are no page limitations for the Cost Proposal or the remaining submission requirements.

NOTE: Any pages submitted exceeding the page limit shall be disregarded and not evaluated. Additionally, the electronic file name for all documents submitted under this solicitation must not exceed 68 characters in length, including the file name extension.

The following documents, with attachments, comprise a complete proposal package as described below:

- **Cover Page:** This must include the following:
 - (a) BAA Number: N00421-19-S-0001;
 - (b) Title of Proposal;
 - (c) Identity of prime applicant and complete list of subcontractors, if applicable;
 - (d) Type of organization, selected from the following categories: Large Business, Small Disadvantaged Business, Other Small Business, HBCU, MI, Other Educational, or Non Profit;
 - (d) Technical contact (name, address, phone/fax, electronic mail address);
 - (e) Administrative/business contact (name, address, phone/fax, electronic mail address);

- (f) Total Amount of the proposed effort;
- (g) Place(s) and period of performance (identify both the base period and any options, if included);
- (h) Award instrument requested;
- (i) Proposal validity period (minimum 120 days);
- (j) Data Universal Numbering System (DUNS) number;
- (k) Taxpayer identification number;
- (l) Commercial and Government Entity (CAGE) code.

Note: In all cases, the Government Contracting Officer has sole discretion to select award instrument type, regardless of instrument type proposed, and to negotiate all instrument terms and conditions with selectees.

- **Table of Contents:** A listing of the sections within the proposal, including corresponding page numbers.

- **Proposal Adequacy Checklist in accordance with DFARS 252.215-7009**

Proposer shall complete the proposal adequacy checklist contained at DFARS 252.215-7009, providing the location of requested information, or an explanation of why the requested information is not provided. In preparation of the checklist, proposers may elect to have their prospective subcontractors use the same or similar checklist as appropriate.

- **Executive Summary:** Provide a synopsis of the proposed project, including answers to the following questions:
 - What is the proposed work attempting to accomplish or do?
 - How is it done today, and what are the limitations?
 - Who or what will be affected and what will be the impact if the work is successful?
 - How much will it cost, and how long will it take?
 - What are the teaming/subcontracting relationships if applicable? What unique skills and knowledge does each team member have? What role will each team member perform?

The executive summary should include a description of the key technical challenges, a concise review of the technologies proposed to overcome these challenges and achieve the project's goal, and a clear statement of the novelty and uniqueness of the proposed work.

- **Technical Proposal:** The technical proposal must describe the research in sections as described below:
 - a. **Technical Concept and Approach.** Describe the basic scientific or technical concepts that will be investigated, giving 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.

- b. Future Naval Relevance: A description of potential Naval relevance and contributions of the effort to the agency's specific mission.
- c. Project Schedule and Milestones: A summary of the schedule of events and milestones to includes major tasks and their duration start and end dates. Include any planned decision points and demos or experiments.
- d. Provide a detailed roadmap of the TRL progression to include beginning, current, and final TRLs in accordance with the DoD description in BAA Table 1 (located in Section II, paragraph D.(2.)(c.)(iii), as applicable. Also describe how the TRL self-assessment is validated through quantifiable measures.
- e. Stand-alone non-proprietary Statement of Work: The Statement of Work must clearly define the technical tasks/subtasks to be performed, their durations, and interdependencies. For each task/subtask, provide:
 - A general description of the objective (for each defined task/activity);
 - A detailed description of the approach to be taken to accomplish each defined task/subtask;
 - Identification of the primary organization responsible for task execution (prime contractor, subcontractor(s), consultant(s)), by name;
 - Measurable milestones (e.g., a deliverable, demonstration, or other event/activity that marks task completion);
 - A definition of all deliverables (reporting, data, reports, software, etc.) to be provided to the Government in support of the proposed research tasks/subtasks;
 - Clearly identify any tasks/subtasks (to be performed by either a prime or sub) that will be accomplished on-campus at a university, if applicable;
 - Any optional tasking shall be separately identifiable within the document.

Note: It is recommended that the SOW be developed so that each Phase of the program is separately defined. The SOW shall be submitted in Microsoft Word format.

- f. Staffing and Key Personnel Qualifications: A detailed description of the proposed staffing by labor category. Include a discussion of the qualifications of all key personnel. Include resumes or curricula vitae for any key personnel and consultants.
- g. Facilities, Equipment, and Government Furnished Information/Equipment/Material (GFI/E/M). 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.) Also provide a list of any GFI/E/M that would be required, if applicable.
- h. Security: If it is determined that access to classified information will be required during the performance of an award, proposers shall provide evidence (e.g. written certification) of their current Facility Clearance and also indicate the current security

clearance level and status (final, interim, pending) for all personnel proposed who could potentially access classified information.

- **Cost Proposal:** A separate Adobe .pdf document, in addition to a fully disclosed unburdened cost proposal with working formulas in Microsoft Excel, should be included in the proposal that provides appropriate justification and/or supporting documentation for each element of cost proposed. 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 proposer should not provide “value only spreadsheets” similar to a hard copy.

(a) Part 1: The cost proposal shall include the following

- Direct Labor – Individual labor categories or persons, with associated labor hours and unburdened direct labor rates. Provide basis for 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 (F&A, Overhead, G&A, etc.) – The application 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, the estimated cost per trip, and basis for estimation. Such estimates and the resultant costs claimed must conform to the applicable Federal cost principles.
- Subcontracts – Provide a description of the work to be performed by the subcontractor. For each subcontractor, a detailed cost proposal is required to be submitted by the subcontractor(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. NAWCAD 2.5.1'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 via e-mail directly to the Government

at the same time the prime proposal is submitted. The e-mail shall identify the proposal title, the prime Applicant 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 tasking 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).
- Awardee Acquired Equipment or Facilities – Equipment and/or facilities are normally furnished by the awardee. 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 proposed other direct costs, and the basis for the estimate (e.g., quotes, prior purchases, catalog price lists).
- Fee/Profit – In accordance with FAR 15.404-4(c)(4), the fee for experimental, developmental, or research work performed under a cost-plus-fixed-fee contract shall not exceed 15% of the contract’s estimated cost, excluding fee. For other cost-plus-fixed fee contracts, the fee shall not exceed 10% of the contract’s estimated cost, excluding fee.
- Certified Cost or Pricing Data – Certified cost or pricing data, or other than certified cost or pricing data, may be requested by the Contracting Officer in accordance with FAR 15.403.
- Options - 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.
- **Representations and Certifications**

- a. Prospective awardees must be registered in the SAM database prior to award and complete electronic annual representations and certifications consistent with guidance at FAR 4.1102 and 4.1201. The representations can be found at www.sam.gov. Supplementary representations and certifications which must be included in the proposal submission are as follows:

Provision Number	Title
FAR 52.209-7	Information Regarding Responsibility Matters
DFARS 252.203-7005	Representation Relating to Compensation of Former DOD Officials
DFARS 252.204-7007 Alt A	Annual Representations and Certifications
DFARS 252.225-7003	Report of Intended Performance Outside the United States and Canada – Submission with Offer (applicable for proposals over \$13.5M)
DFARS 252.227-7017	Identification and Assertion of Use, Release, or Disclosure Restrictions

b. Additional Guidance Regarding Data Rights/Intellectual Property Assertions

- i. Noncommercial Items (Technical Data and Computer Software): Proposers requesting a procurement contract must list all noncommercial technical data and computer software that it plans to generate, develop, and/or deliver, in which the Government will acquire less than unlimited rights and to assert specific restrictions on those deliverables. In the event a proposer does not submit the list, the Government will assume that it has unlimited rights to all noncommercial technical data and computer software generated, developed, and/or delivered, unless it is substantiated that the development of the noncommercial technical data and computer software occurred with mixed funding. If mixed funding is anticipated in the development of noncommercial technical data and computer software generated, developed, and/or delivered, proposers should identify the data and software in question as subject to Government Purpose Rights (GPR). In accordance with DFARS 252.227-7013, “Rights in Technical Data – Noncommercial Items,” and DFARS 252.227-7014, “Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation,” the Government will automatically assume that any such GPR restriction is limited to a period of 5 years, at which time the Government will acquire unlimited rights unless the parties agree otherwise. The Government may use the list during the evaluation process to evaluate the impact of any identified restrictions and may request additional information from the proposer, as may be necessary, to evaluate the proposer’s assertions. Failure to provide full information may result in a determination that the proposal is not

compliant with the solicitation.

- ii. Commercial Items (Technical Data and Computer Software): Proposers requesting a procurement contract must list all commercial technical data and commercial computer software that may be included in any deliverables contemplated under the research project, and assert any applicable restrictions on the Government's use of such commercial technical data and/or computer software. In the event a proposer does not submit the list, the Government will assume there are no restrictions on the Government's use of such commercial items. The Government may use the list during the evaluation process to evaluate the impact of any identified restrictions and may request additional information from the proposer to evaluate the proposer's assertions. Failure to provide full information may result in a determination that the proposal is not compliant with the solicitation.
- iii. For all technical data or computer software that will be furnished to the Government with other than unlimited rights, the proposer shall provide a list describing all proprietary claims to results, prototypes, deliverables or systems supporting and/or necessary for the use of the research, results, prototypes, and/or deliverables. Provide documentation proving ownership or possession of appropriate licensing rights to all patented inventions (or inventions for which a patent application has been filed) to be used for the proposed project. Proposers shall use the format specified in DFARS 252.227-7017.

- **Additional Submission Requirements (*not subject to proposal page limit*)**

- a) Use of Arms, Ammunition and Explosives

- i. Safety

The proposer 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(C)(iv) entitled *Preaward survey*.

If the proposer 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).

- ii. Security

If arms, ammunition or explosives (AA&E) are to be utilized under the proposed research effort, the Government requires a preaward security survey. (See DoD manual 5100.76-M, dated April 17, 2012, *Physical Security of Sensitive Conventional Arms, Ammunition and Explosives*, Enclosure 2, paragraph 2.a.)

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 5, paragraph 2.a.

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

b) Conflicts of Interest

i. Disclosure.

A proposer 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. Proposers performing systems engineering and technical assistance (SETA) or Advisory and Assistance Services (A&AS) for the Organization are considered to have an OCI that may not be susceptible to mitigation. See NAWCAD 2.5.1's Statement of Policy on OCIs, which can be found at the following address: <http://www.NAWCAD.navy.mil/en/About-NAWCAD/compliance-protections/Organizational-Conflicts-Interest.aspx>

The nondisclosure or misrepresentation of an interest creating an OCI may result in the disqualification of a proposer 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, proposers should interpret the requirements of this section broadly.

An proposer who does not provide support services to the Organization 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 PROPOSER] 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

an actual or potential OCI shall result in the proposer not being considered for award.”

A proposer who does provide support services to the Organization 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:

1. The name of the entity the proposer, its subcontractors, partners, consultants or affiliates.
2. The number of the contract, subcontract, or agreement that creates the actual or potential OCI. If NAWCAD 2.5.1 did not award the contract or agreement, provide a copy of the document. If NAWCAD 2.5.1 awarded the contract, provide the name of the technical point of contact.
3. 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 proposer 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, proposers shall address the personal conflicts of their employees.
4. A Mitigation Plan. Proposers should refer to FAR Subpart 9.5 for policies and procedures for avoiding, neutralizing, or mitigating organizational conflicts of interest.
5. A concluding statement as follows: “I [NAME] as an authorized negotiator on behalf of [NAME OF PROPOSER] 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 proposer not being considered for award.”

ii. OCI Mitigation Plan Contents. At a minimum, a Mitigation Plan shall:

1. Provide organizational charts showing the proposer’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.
2. 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.
3. 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.
4. 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.

5. For each contract or agreement relevant to the OCI, describe the controls, including nondisclosure agreements, that are exercised over the future employment of departing employees as it relates to the OCI.
6. 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.
7. Provide evidence of facts and circumstances that the proposer asserts mitigate or address the concerns related to the actual or potential OCI.

iii. Review.

The Contracting Officer will review a proposer's certifications, statements, and OCI Mitigation Plan (if applicable) submitted and may require additional relevant information from a proposer. All such information and any other relevant information will be used by the Contracting Officer to determine whether an award to the proposer may create an OCI. If found to exist, the Government may: (1) impose appropriate conditions which avoid such conflict, (2) disqualify the proposer, (3) determine that it is otherwise in the best interest of the Government to award a contract to the proposer 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 proposer will be ineligible for award. If accepted, the Mitigation Plan shall become part of the contract. Note that the Government will only evaluate OCI mitigation plans for proposals that are determined selectable based on the BAA evaluation criteria and funding availability. A proposer 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.

c) Small Business Participation Statement –

If subcontracting opportunities exist, all prime proposers shall submit a Small Business Participation Statement regardless of size in accordance with DFARS 215.304 when receiving a contract for more than the simplified acquisition threshold. All proposers shall provide a statement of the extent of the proposer's commitment in providing meaningful subcontracting opportunities for small businesses and other concerns subject to socioeconomic considerations through its awards and must agree that small businesses, VOSBs, SDVOSBs, HUBZones, SDBs, and WOSBs concerns will have the maximum practicable opportunity to participate in contract performance consistent with efficient performance.

This assertion will be reviewed to ensure that it supports this policy by providing meaningful subcontracting opportunities.

d) Small Business Subcontracting Plan

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 (DEVIATION 2018-O0013) and as supplemented by DFARS 252.219-7003. If a company has a Master Subcontracting Plan, as described in FAR 19.701 or a Comprehensive Subcontracting Plan, as described in DFARS 219.702-70, a copy of the Plan shall also be submitted with the proposal.

The Plan will be reviewed and approved by the PCO prior to contract award. See FAR 19.702, Statutory Requirements, regarding failure of a proposer to negotiate and submit a Subcontracting Plan acceptable to the Contracting Officer. The successful proposer’s Subcontracting Plan will be incorporated into the resultant contract. The proposer shall propose a minimum of the subcontracting goals identified in the table below.

SB Area	Goal %
Small Business (SB) (Total)	33%
Small Disadvantaged Business (SDB)	5%
Women-Owned SB (WOSB)	5%
HUBZone SB (HUBZone)	3%
Service-Disabled VOSB (SDVOSB)	3%

If proposed goals are below the minimum, then the proposer 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.

e) Evidence of approved management/cost systems (as applicable)

- i. Property Management System: If GFP/GFE is anticipated, the proposer shall provide evidence of an approved property management system, pursuant to FAR 45.105.
- ii. Cost Accounting Standards: For any proposer who submits a proposal which, if accepted, will result in a CAS-compliant contract, must include a Disclosure Statement as required by 48 CFR 9903.202. Further information regarding CAS certification can be found in FAR 52.230-1.
- iii. Adequate Cost Accounting System: If requesting a cost-type contract, the proposer must provide evidence of an approved accounting system, per FAR 16.103-3(a)(3). If the proposer is requesting a cost-type contract but does not yet have an approved accounting system, proposer shall provide the DCAA Pre-award Accounting System Adequacy Checklist to facilitate DCAA’s completion of an SF1408. This form is available at: http://www.dcaa.mil/Content/Documents/Preaward_Survey_of_Prospective_Contractor_Accounting_System_Checklist.pdf

B. Application Review Information

1. Recipient Qualifications & Eligibility

a) Responsibility Determination:

- i. 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.
 - ii. Per 13 CFR §125.6(e)(2), compliance with the limitation on subcontracting shall be an element of responsibility. If the proposer is a small business, it shall provide a breakout to demonstrate how the prime contractor will satisfy the limitation on subcontracting for each period of performance. The contractor's compliance with FAR Clauses 52.219-14 "Limitation on Subcontracting," 52.219-27 "Notice of Total Service-Disabled Veteran-Owned Business Set Aside," 52.219-29 "Notice of Set-Aside for, or Sole Source Award to, Economically Disadvantaged Women-Owned Small Business Concerns," 52.219-30 "Notice of Set-Aside for, or Sole Source Award to, Women-Owned Small Business Concerns," or 52.219-3 "Notice of Total HUBZone Set Aside or Sole Source Award," as applicable, will be assessed as an element of responsibility. Cost of contract incurred for personnel includes direct labor cost, overhead that has only direct labor as its base, and the small business's General and Administrative (G&A) rate multiplied by the labor cost. A proposal that fails to meet the limitation on subcontracting during each period of performance shall not be considered for award.
 - iii. Per FAR 9.106-1(a), a preaward survey may be required if the Contracting Officer determines that the information on hand or readily available, including information from commercial sources, is not sufficient to make a determination regarding responsibility. Proposers are expected to cooperate in the conduct of a preaward survey if such survey is deemed necessary.
 - iv. Applicants may be requested to provide information subsequent to proposal submission to assist the Contracting Officer in making a determination of responsibility.
- b) System for Award Management (SAM): All proposers must be registered in SAM unless exempt per FAR 4.1102. 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.

Note that new registrations can take an average of 7-10 business days to process.

- c) 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.”

- d) Federal Awardee Performance and Integrity Information System (FAPIIS) 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’s integrity, business ethics, and record of performance under Federal awards that may affect the Government’s determination that the applicant is qualified to receive an award.

- e) Wide Area Work Flow (WAWF): Unless using another means of invoicing, performers will be required to submit invoices for payment directly at <https://wawf.eb.mil>. If applicable, WAWF registration is required prior to any award under this solicitation.

C. FAR / DFARS Provisions/Clauses:

1. Anticipated Terms and Conditions

For purposes of illustration and not of limitation, the following provisions and clauses may be applicable to NAWCAD 2.5.1 contracts:

Number	Provision/Clause
52.202-1	Definitions
52.204-2	Security Requirements
52.204-7	System for Award Management
52.204-13	System for Award Management Maintenance
52.209-9	Updates of Publicly Available Information Regarding Responsibility Matters
52.215-16	Facilities Capital Cost of Money
52.215-20	Requirements for Certified Cost or Pricing Data or Information Other Than Certified Cost or Pricing Data
52.215-23	Limitations on Pass Through Charges
52.216-1	Type of Contract
52.216-7	Allowable Cost and Payment
52.217-5	Evaluation of Options
52.217-9	Option to Extend the Term of the Contract
52.219-9	Small Business Subcontracting Plan
52.219-14	Limitations on Subcontracting

52.222-26	Equal Opportunity
52.222-50	Combating Trafficking in Persons
52.222-54	Employment Eligibility Verification
52.223-6	Drug-Free Workplace
52.228-5	Insurance – Work on A Government Installation
52.228-7	Insurance – Liability to Third Persons
52.232-20	Limitation of Cost
52.232-22	Limitation of Funds
52.233-1	Disputes
52.242-15	Stop-Work Order
52.244-2	Subcontracts
52.245-1	Government Property
52.246-7	Inspection of Research and Development – Fixed Price
52.246-8	Inspection of Research and Development – Cost Reimbursement
52.246-9	Inspection of Research and Development (Short Form)
52.246-16	Responsibility for Supplies
52.249-6	Termination (Cost Reimbursement)
52.252-1	Solicitation Provisions Incorporated by Reference
52.252-2	Clauses Incorporated by Reference
252.203-7005	Representation Relating to Compensation of Former DoD Officials
252.204-7000	Disclosure of Information
252.204-7004	Alternate A, System for Award Management
252.204-7008	Compliance with Safeguarding Covered Defense Information Controls
252.204-7012	Safeguarding Covered Defense Information and Cyber Incident Reporting
252.227-7013	Rights in Technical Data – Noncommercial Items
252.227-7014	Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation
252.227-7015	Technical Data – Commercial Items
252.227-7016	Rights in Bid or Proposal Information
252.232-7006	Wide Area Workflow Payment Instructions
252.235-7002	Animal Welfare
252.235-7004	Protection of Human Subjects
252.235-7011	Final Scientific or Technical Report
252.242-7005	Contractor Business Systems
252.242-7006	Accounting System Administration

252.244-7001	Contractor Purchasing System Administration
252.246-7000	Material Inspection and Receiving Report
5252.204-9505	System Authorization Access Request Navy (SAAR-N) Requirements for Information Technology (IT)
5252.209-9510	Organizational Conflicts of Interest (Services)

2. Additional Notes Regarding Terms and Conditions:

a. Electronic and Information Technology

All electronic and information technology acquired through this solicitation must satisfy the accessibility requirements of Section 508 of the Rehabilitation Act (29 U.S.C 794d) and FAR 39.2. Each project involving the creation or inclusion of electronic and information technology must ensure that: (1) Federal employees with disabilities will have access to and use of information that is comparable to the access and use by Federal employees who are not individuals with disabilities; and (2) members of the public with disabilities seeking information or services from the Organization will have access to and use of information and data that is comparable to the access and use of information and data by members of the public who are not individuals with disabilities.

b. Production and Testing of Prototypes

A contract awarded under this solicitation may include a contract line item or contract option for the provision of advanced component development or prototype of technology developed under a contract for new technology for the delivery of initial or additional prototype units pursuant to DFARS 234.005-1.

APPENDIX 3 - REQUIREMENTS APPLICABLE TO OTHER TRANSACTION AGREEMENTS

A. Application and Submission Information

1. Content and Form of Application Submission

- (a) Full Proposals:
 - i. Instructions for Other Transactions

Content and Form Application:

Applicants must submit a full proposal in accordance with the instructions provided below. Files must be in Adobe Portable Document Format (PDF), Microsoft Word 2010 compatible and Microsoft Excel 2010 compatible. Do not password-protect documents.

Proposers are responsible for clearly identifying proprietary information. Submissions containing proprietary information must have the cover page and each page containing such information clearly marked.

Full Proposal Format

- Paper Size- 8.5 x 11 inch paper
- Margins – 1 inch on all four sides
- Spacing- single-spaced
- Font- Times New Roman or Calibri, 12 point
- Technical Proposal Page limit – 25 pages, exclusive of cover page. There are no page limitations for the Cost Proposal or the remaining submission requirements.

NOTE: Any pages submitted exceeding the page limit shall be disregarded and not evaluated. Additionally, the electronic file name for all documents submitted under this solicitation must not exceed 68 characters in length, including the file name extension.

The following documents, with attachments, comprise a complete proposal package as described below:

- **Cover Page:** This must include the following:
 - (a) BAA Number: N00421-19-S-0001;
 - (b) Title of Proposal;
 - (c) Identity of prime applicant and complete list of subcontractors, if applicable;
 - (d) Type of organization, selected from the following categories: Large Business, Small Disadvantaged Business, Other Small Business, HBCU, MI, Other Educational, or Non Profit;
 - (d) Technical contact (name, address, phone/fax, electronic mail address);

- (e) Administrative/business contact (name, address, phone/fax, electronic mail address);
- (f) Total Amount of the proposed effort;
- (g) Place(s) and period of performance (identify both the base period and any options, if included);
- (h) Award instrument requested;
- (i) Proposal validity period (minimum 120 days);
- (j) Data Universal Numbering System (DUNS) number;
- (k) Taxpayer identification number;
- (l) Commercial and Government Entity (CAGE) code.

Note: In all cases, the Government Contracting Officer has sole discretion to select award instrument type, regardless of instrument type proposed, and to negotiate all instrument terms and conditions with selectees.

- **Table of Contents:** A listing of the sections within the proposal, including corresponding page numbers.

- **Executive Summary:** Provide a synopsis of the proposed project, including answers to the following questions:

- What is the proposed work attempting to accomplish or do?
- How is it done today, and what are the limitations?
- Who or what will be affected and what will be the impact if the work is successful?
- How much will it cost, and how long will it take?
- What are the teaming/subcontracting relationships if applicable? What unique skills and knowledge does each team member have? What role will each team member perform?
- Proposers must indicate whether they qualify as a nontraditional Defense contractor in accordance with (IAW) the definition of a nontraditional defense contractor at 10 U.S.C. 2302(9), have teamed with a nontraditional Defense contractor, or are providing a one-third cost share for this effort. Proposers must specifically:
 - Identify who the nontraditional defense contractor/s are;
 - Specify why they are considered nontraditional defense contractors and
 - Specify the nontraditional defense contractor/s' role and how their role constitutes significant participation in the effort.
- If multi-party relationships are anticipated, provide a description of the legal arrangement anticipated and how this will impact the administration of the resulting OT. Note that the binding document should be in place before negotiations begin with the Government.

The executive summary should include a description of the key technical challenges, a concise review of the technologies proposed to overcome these challenges and achieve the project's goal, and a clear statement of the novelty and uniqueness of the proposed work.

- **Technical Proposal:** The technical proposal must describe the research in sections as described below:

- a) Technical Concept and Approach. Describe the basic scientific or technical concepts that will be investigated, giving 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.
- b) Future Naval Relevance: A description of potential Naval relevance and contributions of the effort to the agency's specific mission.
- c) Project Schedule and Milestones: A summary of the schedule of events and milestones to includes major tasks and their duration start and end dates. Include any planned decision points and demos or experiments.
- d) Provide a detailed roadmap of the TRL progression to include beginning, current, and final TRLs in accordance with the DoD description in Table 1(located in Section II, paragraph D.(2.)(c.)(iii), as applicable. Also describe how the TRL self-assessment is validated through quantifiable measures.
- e) Stand-alone non-proprietary Statement of Work: The Statement of Work must clearly define the technical tasks/subtasks to be performed, their durations, and interdependencies. For each task/subtask, provide:
 - A general description of the objective (for each defined task/activity);
 - A detailed description of the approach to be taken to accomplish each defined task/subtask;
 - Identification of the primary organization responsible for task execution (prime contractor, subcontractor(s), consultant(s)), by name;
 - A detailed list of milestones including the description, completion criteria, due date, and payment/funding schedule (to include, if cost share is proposed, contractor and Government share amounts). Milestones must relate directly to accomplishment of technical metrics. While agreement type (fixed price or expenditure based) will be subject to negotiation, the use of fixed price milestones with a payment/funding schedule is preferred;
 - A definition of all deliverables (reporting, data, reports, software, etc.) to be provided to the Government in support of the proposed research tasks/subtasks;
 - Clearly identify any tasks/subtasks (to be performed by either a prime or sub) that will be accomplished on-campus at a university, if applicable;
 - Any optional tasking shall be separately identifiable within the document.

Note: It is recommended that the SOW be developed so that each Phase of the program is separately defined. The SOW shall be submitted in Microsoft Word format.

- f) Staffing and Key Personnel Qualifications: A detailed description of the proposed staffing by labor category. Include a discussion of the qualifications of all key personnel. Include resumes or curricula vitae for any key personnel and consultants.

- g) Facilities, Equipment, and Government Furnished Information/Equipment/Material (GFI/E/M). 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.) Also provide a list of any GFI/E/M that would be required, if applicable.
- h) Resource Sharing, if applicable. Describe any assets that will be used to contribute (by which team member(s)) to the resource/cost share (e.g., non-cash, in-kind) and provide evidence of its value (e.g., appraisal by a third party, commercial value). Describe the relevancy to and method of use of the asset in the proposed scope of work to be conducted under this OT. Provide documentation to verify that the asset is under the control of the proposer's program management team. Note that only the time it's used on this project can be claimed. The Government shall not consider the following as contributions: foregone profit or fee, cost of money or profit/fee, and sunk costs or prior research unless a reasonable valuation and relevance to the current program can be established.
- i) Security. If it is determined that access to classified information will be required during the performance of an award, proposers shall provide evidence (e.g. written certification) of their current Facility Clearance and also indicate the current security clearance level and status (final, interim, pending) for all personnel proposed who could potentially access classified information.
- **Cost Proposal:** A separate Adobe.pdf document, in addition to a fully disclosed unburdened cost proposal with working formulas in Microsoft Excel, should be included in the proposal that provides appropriate justification and/or supporting documentation for each element of cost proposed. 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 proposer should not provide "value only spreadsheets" similar to a hard copy.
 - (a) Part 1: Accounting Standards
 - Proposer needs to provide evidence that their accounting system complies with Generally Accepted Accounting Principles (GAAP), if proposer does not already have a Government-approved accounting system.
 - (b) Part 2: The cost proposal shall include the following
 - Direct Labor – Individual labor categories or persons, with associated labor hours and unburdened direct labor rates. Provide basis for 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 (F&A, Overhead, G&A, etc.) – The application 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, the estimated cost per trip, and basis for estimation. Such estimates and the resultant costs claimed must conform to the applicable Federal cost principles.
- Subcontracts – Provide a description of the work to be performed by the subcontractor. For each subcontractor, a detailed cost proposal is required to be submitted by the subcontractor(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. NAWCAD 2.5.1'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 via e-mail directly to the Government at the same time the prime proposal is submitted. The e-mail shall identify the proposal title, the prime Applicant 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 tasking 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).
- Awardee Acquired Equipment or Facilities – Equipment and/or facilities are normally furnished by the awardee. 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 proposed other direct costs, and the basis for the estimate (e.g., quotes, prior purchases, catalog price lists).
- Fee/Profit – Separately break out the proposed fee/profit rate.
- Options - 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.
- **Representations and Certifications**
 - a. Prospective awardees must be registered in the System for Award Management (SAM) database prior to award and complete electronic annual representations and certifications. The representations can be found at www.sam.gov.
 - b. Additional Guidance Regarding Data Rights/Intellectual Property Assertions:
 - i. Noncommercial Items (Technical Data and Computer Software): Proposers requesting an Other Transaction must list all noncommercial technical data and computer software that it plans to generate, develop, and/or deliver, in which the Government will acquire less than unlimited rights and to assert specific restrictions on those deliverables. In the event a proposer does not submit the list, the Government will assume that it has unlimited rights to all noncommercial technical data and computer software generated, developed, and/or delivered, unless it is substantiated that the development of the noncommercial technical data and computer software occurred with mixed funding. If mixed funding is anticipated in the development of noncommercial technical data and computer software generated, developed, and/or delivered, proposers should identify the data and software in question as subject to Government Purpose Rights (GPR). In accordance with DFARS 252.227-7013, “Rights in Technical Data – Noncommercial Items,” and DFARS 252.227-7014, “Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation,” the Government will automatically assume that any such GPR

restriction is limited to a period of 5 years, at which time the Government will acquire unlimited rights unless the parties agree otherwise. The Government may use the list during the evaluation process to evaluate the impact of any identified restrictions and may request additional information from the proposer, as may be necessary, to evaluate the proposer's assertions. Failure to provide full information may result in a determination that the proposal is not compliant with the solicitation.

- ii. Commercial Items (Technical Data and Computer Software): Proposers requesting an Other Transaction must list all commercial technical data and commercial computer software that may be included in any deliverables contemplated under the research project, and assert any applicable restrictions on the Government's use of such commercial technical data and/or computer software. In the event a proposer does not submit the list, the Government will assume there are no restrictions on the Government's use of such commercial items. The Government may use the list during the evaluation process to evaluate the impact of any identified restrictions and may request additional information from the proposer to evaluate the proposer's assertions. Failure to provide full information may result in a determination that the proposal is not compliant with the solicitation.
- iii. For all technical data or computer software that will be furnished to the Government with other than unlimited rights, the proposer shall provide a list describing all proprietary claims to results, prototypes, deliverables or systems supporting and/or necessary for the use of the research, results, prototypes, and/or deliverables. Provide documentation proving ownership or possession of appropriate licensing rights to all patented inventions (or inventions for which a patent application has been filed) to be used for the proposed project. proposers shall use the format specified in DFARS 252.227-7017.

- **Additional Submission Requirements**

- a) Use of Arms, Ammunition and Explosives

- i. Safety

The proposer 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(C)(iv) entitled *Preaward survey*.

If the proposer 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).

ii. Security

If arms, ammunition or explosives (AA&E) are to be utilized under the proposed research effort, the Government requires a preaward security survey. (See DoD manual 5100.76-M, dated April 17, 2012, *Physical Security of Sensitive Conventional Arms, Ammunition and Explosives*, Enclosure 2, paragraph 2.a.)

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 5, paragraph 2.a.

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

b) Conflicts of Interest

i. Disclosure.

A proposer 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. Proposers performing systems engineering and technical assistance (SETA) or Advisory and Assistance Services (A&AS) for the Organization are considered to have an OCI that may not be susceptible to mitigation. See NAWCAD's Statement of Policy on OCIs, which can be found at the following address: <http://www.NAWCAD.navy.mil/en/About-NAWCAD/compliance-protections/Organizational-Conflicts-Interest.aspx>

The nondisclosure or misrepresentation of an interest creating an OCI may result in the disqualification of a proposer 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, proposers should interpret the requirements of this section broadly.

An proposer who does not provide support services to the Organization 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 PROPOSER] 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 proposer not being considered for award.”

A proposer who does provide support services to the Organization 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:

1. The name of the entity the proposer, its subcontractors, partners, consultants or affiliates.
 2. The number of the contract, subcontract, or agreement that creates the actual or potential OCI. If NAWCAD 2.5.1 did not award the contract or agreement, provide a copy of the document. If NAWCAD 2.5.1 awarded the contract, provide the name of the technical point of contact.
 3. 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 proposer 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, proposers shall address the personal conflicts of their employees.
 4. A Mitigation Plan. Proposers should refer to FAR Subpart 9.5 for policies and procedures for avoiding, neutralizing, or mitigating organizational conflicts of interest.
 5. A concluding statement as follows: “I [NAME] as an authorized negotiator on behalf of [NAME OF PROPOSER] 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 proposer not being considered for award.”
- ii. OCI Mitigation Plan Contents. At a minimum, a Mitigation Plan shall:
1. Provide organizational charts showing the proposer’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.
 2. 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.

3. 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.
4. 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.
5. For each contract or agreement relevant to the OCI, describe the controls, including nondisclosure agreements, that are exercised over the future employment of departing employees as it relates to the OCI.
6. 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.
7. Provide evidence of facts and circumstances that the proposer asserts mitigate or address the concerns related to the actual or potential OCI.

iii. Review.

The Contracting Officer will review a proposer's certifications, statements, and OCI Mitigation Plan (if applicable) submitted and may require additional relevant information from a proposer. All such information and any other relevant information will be used by the Contracting Officer to determine whether an award to the proposer may create an OCI. If found to exist, the Government may: (1) impose appropriate conditions which avoid such conflict, (2) disqualify the proposer, (3) determine that it is otherwise in the best interest of the Government to award a contract to the proposer 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 proposer will be ineligible for award. If accepted, the Mitigation Plan shall become part of the contract. Note that the Government will only evaluate OCI mitigation plans for proposals that are determined selectable based on the BAA evaluation criteria and funding availability. A proposer 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.

B. Application Review Information

1) Recipient Qualifications & Eligibility

- a) System for Award Management: All proposers must be registered in SAM unless exempt per FAR 4.1102.

Note that new registrations can take an average of 7-10 business days to process.

- b) Federal Awardee Performance and Integrity Information System (FAPIIS) 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's integrity, business ethics, and record of performance under Federal awards that may affect the Government's determination that the applicant is qualified to receive an award.

- c) Wide Area Work Flow (WAWF): Unless using another means of invoicing, performers will be required to submit invoices for payment directly at <https://wawf.eb.mil>. If applicable, WAWF registration is required prior to any award under this solicitation.

C. Mandatory Terms and Conditions:

Terms and conditions are subject to negotiation. However, the following terms and conditions are non-negotiable and will be in the resulting agreement.

a. Electronic and Information Technology

All electronic and information technology acquired through this solicitation must satisfy the accessibility requirements of Section 508 of the Rehabilitation Act (29 U.S.C 794d). Each project involving the creation or inclusion of electronic and information technology must ensure that: (1) Federal employees with disabilities will have access to and use of information that is comparable to the access and use by Federal employees who are not individuals with disabilities; and (2) members of the public with disabilities seeking information or services from the Organization will have access to and use of information and data that is comparable to the access and use of information and data by members of the public who are not individuals with disabilities.

b. Comptroller General Access.

IAW 10 U.S.C. § 2371b(c), each agreement that provides for payments in a total amount in excess of \$5,000,000 shall include a clause that provides for the Comptroller General, in the discretion of the Comptroller General, to examine the records of any party to the agreement or any entity that participates in the performance of the agreement.

c. Follow-On Production Contract

In accordance with 10 U.S.C. § 2371b(f), the Government may award a follow-on production contract or Other Transaction (OT) for any OT awarded under this BAA if: (1) that participant in the OT, or a recognized successor in interest to the OT, successfully completed the entire prototype project provided for in the OT, as modified; and (2) the OT provides for the award of a follow-on production contract or OT to the participant, or a

recognized successor in interest to the OT.