ONR BAA Announcement # ONR BAA 12-004

BROAD AGENCY ANNOUNCEMENT (BAA)

Autonomous Aerial Cargo Utility System (AACUS) Innovative Naval Prototype (INP)

This publication constitutes a Broad Agency Announcement (BAA) as contemplated in Federal Acquisition Regulation (FAR) 6.102(d)(2) and 35.016. A formal Request for Proposals (RFP), solicitation, and/or additional information regarding this announcement will not be issued.

The Office of Naval Research (ONR) will not issue paper copies of this announcement. The ONR reserves the right to select for award all some or none of the proposals in response to this announcement. ONR 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 ONR to treat all proposals as sensitive competitive information and to disclose their contents only for the purposes of evaluation.

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LIST OF ACRONYMS

AACUS	Autonomous Aerial Cargo Utility System
AA&E	Arms, Ammunition & Explosives
AFDD	Aeroflightdynamics Directorate
AT&L	Acquisition, Technology & Logistics
ATD	Advanced Technology Development
BAA	Broad Agency Announcement
BLOS	Beyond-Line-of-Sight
CASEVAC	Casualty Evacuation
CBA	Cost Benefit Analysis
CCR	Central Contractor Registration
CDRL	Contract Data Requirements List
CFDA	Catalog of Federal Domestic Assistance
CoDR	Conceptual Design Review
CONUS	Contiguous United States
COP	Combat Outpost
DCMA	Defense Contract Management Agency
DFARS	Department of Defense Federal Acquisition Regulation Supplement
DHHS	United States Department of Health and Human Services
DoD	Department of Defense
DoDGARS	Department of Defense Grants and Agreements Regulations
DoN	Department of the Navy
DT & E	Development, Test, & Evaluation
EDA	Electronic Document Access System
F&A	Facilities and Administrative
FAR	Federal Acquisition Regulation
FFRDC	Federally Funded Research & Development Centers
FOA	Funding Opportunity Announcement
FOB	Forward Operating Base
FOB	Free on Board
FPDS	Federal Procurement Data System
FRP	Full Rate Production
FWA	Federal Wide Assurance
G&A	General and Administrative
GFE	Government Furnished Equipment
GFI	Government Furnished Information
GFP	Government Furnished Property
GOAL	Global Open Architecture Layer
HBCU	Historically Black Colleges and Universities
HPCMP	High Performance Computing Program
HQ	Headquarters
HRPO	Human Research Protection Official
ICUAS	Immediate Cargo Unmanned Aerial System
IDE	Integrated Digital Environment

IED	Improvised Explosive Device
INP	Innovative Naval Prototype
IP	Intellectual Property
IRB	Institutional Review Board
ITAR	International Trafficking in Arms Regulation
LRIP	Low-Rate Initial Production
MAGTF	Marine Air-Ground Task Force
MEDEVAC	Medical Evacuation
MI	Minority Institutions
MIL-STD	Military Standard
MOSA	Modular Open Systems Approach
MRMP	Medium-range Multi-purpose
NAICS	North American Industry Classification System
NATO	North Atlantic Treaty Organization
NMCARS	Navy Marine Corps Acquisition Regulation Supplement
OCI	Organizational Conflict of Interest
OCONUS	Outside
OMB	Office of Management and Budget
ONR	Office of Naval Research
OT	Other Transactions
PDR	Preliminary Design Review
PGI	Procedure, Guidance, and Information
PI	Principal Investigator
PKI	Public Key Infrastructure
POM	Program Objectives Memorandum
R&R	Research & Related Budget Form
RFP	Request for Proposal
RPG	Rocket Propelled Grenade
S&T	Science & Technology
SETA	Scientific, Engineering, and Technical Assistance
SF	Standard Form
SNAP	Scalable Networked Application Proxy
SRR	System Requirements Review
STANAG	Standardization Agreement
STEM	Science, Technology, Engineering & Mathematics
TAS	Treasury Account Symbol
TMP	Technology Maturation Plan
TOC	Total Ownership Cost
TPOC	Technical Point of Contact
TRL	Technology Readiness Level
TRR	Technology Readiness Review
UARC	University Affiliated Research and Development Centers
UAS	Unmanned Aerial System
UAS	Unmanned Aircraft System
UAV	Unmanned Aerial Vehicle
UNS	Universal Needs Statement

USD	Under Secretary of Defense
USMC	United States Marine Corps
VTOL	Vertical Take Off and Landing

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I. GENERAL INFORMATION

1. Agency Name

Office of Naval Research
875 N. Randolph Street
Arlington, VA 22203-1995

2. Research Opportunity Title

The Development and Demonstration of Sensor and Supervisory Control Technologies for Autonomous Cargo Vertical Take Off and Landing (VTOL) Aircraft in Unprepared and Hostile Environments

3. Program Name

Autonomous Aerial Cargo Utility System (AACUS)

4. Research Opportunity Number

ONR BAA 12-004

5. Response Date

Full Proposals: 28 FEB 2012

6. Research Opportunity Description

As outlined in the Joint Cargo Unmanned Aerial Systems Concept of Operations document (attached), combat operations are conducted in a variety of environments (mountainous, desert, forest, jungle, at sea, and in urban/complex terrain) that are often characterized by rugged terrain and obstacles to ground vehicle transportation. In support of distributed operations, many Combat OutPosts (COPs) are located in obscure locations. Some missions can be conducted up to hundreds of miles from Forward Operating Bases (FOBs). The extended lines of communication between forces and their FOBs are at risk of enemy ambush or Improvised Explosive Device (IED) attack for both air and ground resupply assets.

Resupplying these COPs assets is difficult due to the extreme environments, presence of hostile activity, and lack of resources. Ground resupply vehicles are forced to find routes around barriers or obstacles and may require heavy armor that can withstand attacks using small arms, Rocket Propelled Grenades (RPGs), and IEDs. The great risks to ground resupply operations in these environments have placed a tremendous strain on the use of dedicated air assets to support these operations. The asymmetric warfare aspects and hostile terrain of battlefields such as Afghanistan have increased the threat to aircraft

crews and platforms conducting manned resupply operations. This increased threat has placed additional lives at risk.

The Autonomous Aerial Cargo Utility Systems (AACUS) Innovative Naval Prototype (INP) proposes to fill this gap by developing a modular open architecture sensor suite including supervisory control interfaces that can be rapidly and cost-effectively integrated and physically mounted on a number of different Vertical Take Off and Landing (VTOL) platforms. The primary purpose of AACUS is to enable unmanned and potentially optionally manned VTOL rapid response cargo delivery to widely separated small units in demanding and unpredictable conditions that pose unacceptable risks to both ground resupply personnel and aircrew. The wide applicability of the AACUS system for autonomous cargo capability across different VTOL platforms requires sufficient reliability to be entrusted with not just precision cargo delivery, but also in the long term, evacuating human casualties from remote sites.

To enable such a system, the primary focus of this BAA is the development of threat and/or obstacle detection and avoidance sensor technologies, and autonomous landing site selection and descent-to-land capabilities that incorporate autonomous mission planning technologies in an open architecture framework that interface seamlessly with the air vehicle and UAS network and control infrastructures. In addition, a human operator with no special skills in operating a VTOL aircraft should be able to supervise and requests services from this system. This BAA calls for multiple demonstrations of these technologies and framework on two separate airframes in progressively challenging scenarios as the AACUS system is matured through program execution.

The following attributes are envisioned for this program:

- The AACUS-enabled platform should be able to autonomously detect and execute a landing to an unprepared site while simultaneously negotiating and navigating threats and obstacles, potentially requiring evasive maneuvering.
- The AACUS-enabled platform should be able to avoid obstacles (both static and dynamic) in flight as well as in the descent-to-land phase in a potentially GPS-denied environment.
- The AACUS-enabled platform shall be capable of generating complete paths from takeoff to landing, modifiable by a human in a supervisory control role in real-time. This platform should also generate and execute new paths as required by mission contingencies.
- The AACUS-enabled platform shall be capable of goal-based supervisory control with an unobtrusive device from a variety of end-users with no specialized training as well as from various locations (field personnel, medical personnel, supply personnel, command center personnel), which could be Beyond-Line-of-Sight (BLOS) from the launch location.
- AACUS-enabled aircraft should be able to operate in environments that present significant risks to manned aircraft today (i.e., weather, threat, terrain, etc.), and ideally operate in environments that manned aircraft cannot (i.e., high wind, steep terrain, low visibility), etc.)

- An AACUS-enabled platform should also be able to be monitored and supervised through a more traditional ground control station with mission planning capabilities from a remote operations center.

The resulting sensor package and supervisory control interfaces from this effort are expected to be portable across different aircraft such that both legacy and new platforms can take advantage of AACUS. Due to increasing DoD concern for proprietary systems that hinder or prevent cost-effective upgrades and modifications, it is expected that as part of this effort, a Global Open Architecture Layer (GOAL) will be developed to allow portability (i.e., the software that allows a new or legacy platform the ability to "plug in" to the AACUS sensor suite will be open source.) However, it is expected that local vehicle control software will remain proprietary. The concept of modularity can also apply to components within systems or vehicles to enhance cross-system compatibility while simplifying field level maintenance and repair[1].

The primary focus in terms of cargo capacity for this effort in internal. While external, sling load capabilities are important to the USMC, they are not a focus of this effort. In this effort the term "all weather" is taken to mean the meteorological or operating conditions that may limit manned cargo delivery especially in austere terrains with a similar platform in Instrument Meteorological Conditions (IMC) and non-icing conditions with minimum visibility. In terms of terrain characteristics, an AACUS-enabled system should be able to detect and negotiate any obstacle that could prevent a safe approach and landing, it should be able to determine safe ground composition (i.e., marsh versus field), and it should be able to negotiate sloped landing sites.

In general, the basic desired capabilities for an AACUS-enabled system are described below with the understanding that the AACUS program is attempting to advance the state-of-the-art in a high-risk setting; therefore these are guidelines instead of strict specifications. Moreover, this INP is focused on the sensor suite and interface development, so vehicle specifications are not mandatory for AACUS, but are provided for context.

- The general air vehicle type is expected to operate at low density, high altitudes (greater than 12,000 ft density altitude), delivering multiple in-stride cargo drops, over round trip distances with a threshold of 150 nautical miles and an objective

[1] The Future Airborne Capability Environment (FACE) Reference Architecture is an area of interest for the AACUS program. The goal of FACE is to reduce software development and integration costs and reduce time to field new avionics capabilities. FACE establishes a common computing software infrastructure that supports portable, capability-specific software applications across Department of Defense (DoD) avionics systems. More information on FACE can be found in their Technical Standard: <https://www2.opengroup.org/ogsys/jsp/publications/PublicationDetails.jsp?publicationid=12430>, and their Business Guide: <https://www2.opengroup.org/ogsys/jsp/publications/PublicationDetails.jsp?publicationid=12432><https://www2.opengroup.org/ogsys/jsp/publications/PublicationDetails.jsp?publicationid=12432>

of 365 nautical miles, therefore reducing the number of ground transport delivered items.

- The air vehicle should be one that can carry a threshold of 1600 lbs and an objective of 5000 lbs of payload internally (with some internal capacity for casualty evacuations).
- The air vehicle is required to travel at speeds of 110 knots threshold and 250 knots objective. Within the terminal area of 5 nautical miles, the air vehicle should be able to descend and land within a threshold of 4 minutes and an objective of 2 minutes and execute an autonomous landing as close to the requested site as possible (<1 m error from computer-designated landing site center point) without over-flight of the landing zone (i.e., the vehicle executes a straight-in approach).
- In addition, the air vehicle shall be able to operate at night (24/7) in possibly satellite-denied settings, and in all types of environments including steep and rugged terrain, Instrument Meteorological Conditions (IMC) and non-icing conditions, high and hot environments, and in dust and sand conditions with minimum visibility. An AACUS-enabled vehicle should be able to operate in weather conditions that exceed manned flight capabilities.

It is anticipated that the proposer's selection of demonstration platforms will progress and validate the AACUS system capability to be transitioned ultimately to a platform that can meet the prescribed operational/performance specifications listed above.

The first demonstration (Task 1) is expected to occur in daylight conditions with moderately difficult terrain to negotiate (including obstacles and constrained landing environments.) In this first demo, the environment is not expected to change. The envisioned Task I schedule is detailed in Figure 1.

Each of the three subsequent demonstrations (for a total of four demonstrations) is expected to get progressively harder, concluding in a scenario where both aircraft are flying under adverse, dynamic conditions. Potential performers should propose what they envision to be an effective demonstration scenario and test objectives for each demonstration in the proposal.

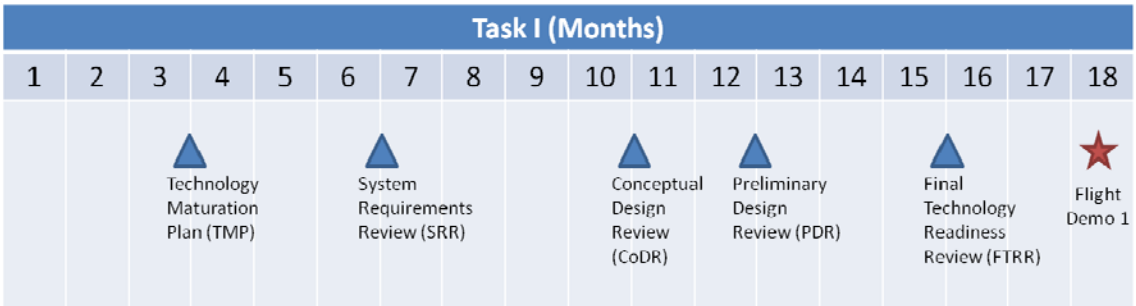

Figure 1: Task 1 Schedule

In their proposals, potential performers should adequately describe the proposed sensor technologies and how they meet the attributes described for the AACUS system, how

they will be integrated through the GOAL, and how their capabilities may be enhanced as the program progresses and demonstration scenarios become more challenging. The hardware and software architecture for the GOAL should be discussed including clear identification of software builds/versions (if proposed), the capabilities associated with each build, linkage of these capabilities to program tasking and flight demonstration challenges during each phase. Potential performers should detail autonomous system capabilities and discuss how they meet AACUS system attributes. Proposers should provide a clear flight demonstration philosophy including but not limited to flight demonstration goals for each phase, identification of flight vehicles for each phase, location of flight demonstrations, discussion of flight certification issues, and flight demonstration timeline.

Proposers should clearly define the technical and programmatic risks associated with this INP effort. Proposers should show a risk mitigation plan that is linked to sensor system changes during each phase (if applicable), GOAL upgrades during each phase (if applicable), autonomous software testing, and flight demonstrations.

Although the AACUS INP does not focus on sea-based operations, a future Naval autonomous cargo/utility system should have a shipboard landing capability. Enabling technologies for shipboard and shore landings should be common to the maximum extent practicable. Please provide no more than a two page addendum to your proposal that describes:

1. How a proposed technology could be adapted to support automated landings aboard aircraft carriers, amphibious ships, and small deck aviation capable (e.g., DDG, LCS) ships.
2. How proposed development could be leveraged to include shipboard landing specific capabilities and demonstrations.

Additional information on shipboard automated landings can be found in the Shipboard Automated Landing Technology Innovation brief from the Industry Workshop file on FEDBIZOPS and can be found on the ONR website at the following link: https://docs.google.com/open?id=0B3d5_qZn7OYFZGYzZDBlZmEtZDRjOC00MGNlLTk3NjgtODZiM2JlMDIwM2Y4. The page count of this addendum will not count against the technical volume.

AACUS is currently slated to start in FY12 with a 65 month duration, ending in FY17. The expectation is that up to two awards will be made to performers that will address the four major elements of the program: 1) a flight demonstration of the developed system on two air vehicles, 2) the sensor package, 3) the human supervisory control layer, and 4) the mission-centered global open architecture layer.

The general tasks and deliverables for the period of performance are expected to be as follows:

Total Effort: 72 Months (FY12-FY17)

Performed by ONR (Total of 7 Months)

- Task 0: BAA release, award, and contracting: 7 months

Performed by the Offeror (Total of 65 months)

- Task I: 18 Months: Develop sensor package and supervisory control system. Integrate the AACUS system hardware and software with the initial demonstration platform(s). Demonstrate the AACUS system capabilities on a single representative platform(s) for a representative cargo mission with a notional user in expected and unchanging conditions. This task will commence with a Kick Off meeting, and will include a System Requirements Review, Weekly Program Management telecons and Bi-weekly Technical telecons.
    - Deliverables Task I (per award):
        1. Kick Off Meeting and Presentation
        2. Monthly Technical and Financial Status Reports
        3. Semi-Annual Reports
        4. Technology Maturation Plan
        5. System Requirements Review Presentation
        6. Preliminary Design Review Presentation
        7. Critical Design Review/ Test Readiness Review Presentation
        8. Demonstration Test Plan
        9. Demonstration Test Report
        10. Sensor Package Design for Demo Platform 1
        11. Two interface designs (operations center ground control system & field user)

- Task II: 11 Months: Adapt sensor package and supervisory control system with integrated mission-centered GOAL for second distinct demonstration platform. Integrate the AACUS system hardware and software with the second demonstration platform. Demonstrate the adapted AACUS system capabilities on the second representative platform for a representative cargo mission with a notional user in expected and unchanging conditions for second aircraft, with an emphasis on rapid resupply.
    - Deliverables Task II
        1. Monthly Technical and Financial Status Reports
        2. Semi-Annual Reports
        3. Critical Design Review/ Test Readiness Review Presentation
        4. Demonstration Test Plan
        5. Demonstration Test Report (Quick Fire (10 Days), Final (30 days))
        6. Sensor Package Design for Demo Platform 2
        7. Global open architecture layer software (i.e., source code)

8. Three interface designs (including updates for the operations center ground control system and field user displays, as well as the addition of the vehicle-mounted displays for ground communication.)

- Task III: 13 Months: Adapt sensor package and supervisory control system to handle a cargo mission in unexpected and dynamic conditions for first aircraft. Such conditions include contingency planning due to vehicle problems, dynamic changes in the environment including hostile fire, and/or weather changes such as thunderstorms. Update/Integrate the AACUS system hardware and software with the demonstration platform. Demonstrate the AACUS system capabilities on a single representative platform for a representative cargo mission in unexpected and dynamic conditions with a notional user.
    - Deliverables Task III
        1. Monthly Technical and Financial Status Reports
        2. Semi-Annual Reports
        3. Critical Design Review/Test Readiness Review Presentation
        4. Demonstration Test Plan
        5. Demonstration Test Report (Quick Fire (10 Days), Final (30 days))
        6. Updated Sensor Package Design for Demo Platform
        7. Updated Global open architecture software layer (i.e., source code)
        8. Updated three interface designs (operations center ground control system, field user, vehicle-mounted).

- Task IV: 11 Months: Demonstrate the AACUS system capabilities on two representative platforms simultaneously for a representative rapid resupply cargo mission in unexpected and dynamic conditions. Adapt sensor package and supervisory control system with integrated mission-centered global open-architecture to handle cargo missions with unexpected and dynamic conditions for both demonstration platforms. Update/Integrate the AACUS system hardware and software as needed.
    - Deliverables Task IV:
        1. Monthly Technical and Financial Status Reports
        2. Semi-Annual Reports
        3. Critical Design Review/Test Readiness Review Presentation
        4. Demonstration Test Plan
        5. Demonstration Test Report (Quick Fire (10 Days), Final (45 days))
        6. Updated Sensor Package Design for Demo Platform
        7. Updated Global open architecture software layer (i.e., source code)
        8. Updated three interface designs (operations center ground control system, field user, vehicle-mounted),

- Task V: 12 Months: Transition open architecture software to government, developing transition test plan for sensor package in conjunction with a DoD testing facility, finalize open architecture cost-benefit analysis, and draft lessons learned.

- Deliverables Task V:
  1. Semi-Annual Report
  2. Transition Plan
  3. Final Report that includes a cost benefit analysis that details a trade space analysis for the design and implementation of the Global Open Architecture Layer.
  4. Interface Control Document for ACCUS System

The initial contract is expected to be two years, with three option periods that align with Tasks II, III, and IV & V combined. The envisioned milestone chart is depicted in Figure 2.

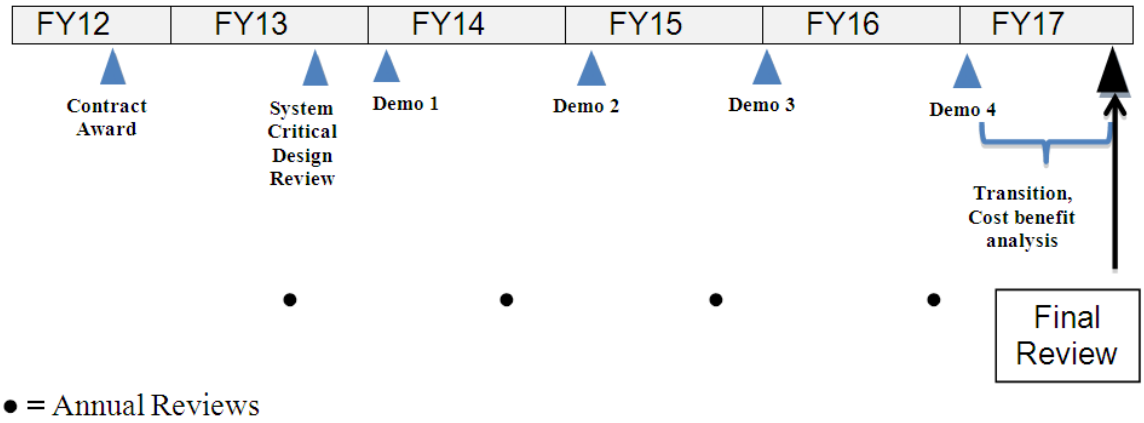

Figure 2: AACUS Milestones

For supplementary information and further details on the desired capabilities for AACUS, please reference the CONOPs document, available on FEDBIZOPS.

7. Point(s) of Contact

Questions of a technical nature shall be directed to the cognizant Technical Point of Contact, as specified below:

Science and Technology Point of Contact:

Dr. Mary L. Cummings
AACUS Program Manager
Naval Air Warfare and Weapons
Code 35
875 N. Randolph Street
Arlington, VA 22203-1995
mary.cummings@navy.mil

Questions of a business nature shall be directed to the cognizant Contract Specialist, as specified below:

Business Point of Contact:

Heather Land
Contract Specialist
Code 255
875 N. Randolph Street
Arlington, VA 22203-1995
heather.land@navy.mil

Questions of a security nature should be submitted to:

Diana Pacheco
Industrial Security Specialist
Office of Naval Research
Security Department, Code 43
875 North Randolph St.
Arlington, VA 22203-1995
diana.pacheco@navy.mil

Note: All UNCLASSIFIED communications shall be submitted via e-mail. All questions of an UNCLASSIFIED nature to the Technical Point of Contract (TPOC) shall be sent via e-mail with a copy to the designated Business POC.

CLASSIFIED questions shall be handled through the ONR Security POC. Specifically, any entity wanting to ask a CLASSIFIED question shall send an email to the ONR Security POC with a copy to both the TPOC and the Business POC stating that the entity would like to ask a CLASSIFIED question. DO NOT EMAIL ANY CLASSIFIED QUESTIONS. The Security POC will contact the entity and arrange for the CLASSIFIED question to be asked through a secure method of communication.

Questions submitted within 2 weeks prior to a deadline (2 FEB 12 deadline for questions for 16 FEB 12 proposal due date) will not be answered.

Amendments will be posted to one or more of the following web pages:

- Federal Business Opportunities (FEDBIZOPPS) Webpage – https://www.fbo.gov/
- ONR Broad Agency Announcement (BAA) Webpage – http://www.onr.navy.mil/en/Contracts-Grants/Funding-Opportunities/Broad-Agency-Announcements.aspx

8. Instrument Type

Award will take the form of up to two contracts. Any contract award resulting from this BAA will incorporate the most current Federal Acquisition Regulation (FAR), Defense Federal Acquisition Regulation Supplement (DFARs), Navy Marine Corps Acquisition Regulation Supplement (NMCARS) and Office of Naval Research (ONR) clauses. Examples of model contracts can be found on the ONR website at the following link: http://www.onr.navy.mil/Contracts-Grants/submit-proposal/contracts-proposal/contract-model-awards.aspx

9. Catalog of Federal Domestic Assistance (CFDA) Numbers

N/A

10. Catalog of Federal Domestic Assistance (CFDA) Titles

N/A

11. Other Information

Work funded under a BAA may include basic research, applied research and some Advanced Technology Development (ATD). With regard to any restrictions on the conduct or outcome of work funded under this BAA, ONR 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 Category 6.2 (Applied Research) and NOT performed on-campus at a university or b) funded by Budget Category 6.3 (Advanced Research) does not meet the definition of “contracted fundamental research.” In conformance with the USD (AT&L) guidance and National Security Decision Direction 189, ONR 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 performed by the prime contractor is restricted, 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. ATD is normally awarded under contracts and may require restrictions during the conduct of the research and DoD pre-publication review of research results due to subject matter sensitivity. In regard to the present BAA, the Research and Development efforts to be funded will consist of applied research and advanced technology development. The funds available to support awards are Budget Activity 2, and 3.

FAR Part 35 restricts the use of the 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.

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

II. AWARD INFORMATION

1. Amount and Period of Performance

The period of performance is expected to be 65 months, with an estimated start date of 135 days after award notification, subject to date of final award and availability of new fiscal year funds. There will be a 2 year base period with 3 options that align with Tasks II, III, and IV & V combined. ONR anticipates an approximate budget of $7,000,000 for the first fiscal year, $17,000,000 for the second year, and then $13,000,000 for the third year and each year thereafter. This funding may be utilized for a single contract award or split between two awards if the Government determines there are two noteworthy efforts worth funding. However, lower and higher cost proposals will be considered.

2. Production and Testing of Prototypes

ONR may, during the contract period, add a contract line item or contract option for the provision of advanced component development or for the delivery of additional prototype units such as those used in the demonstrations. However, such a contract addition shall be subject to the limitations contained in Section 819 of the National Defense Authorization Act for Fiscal Year 2010.

III. ELIGIBILITY INFORMATION

All responsible sources from academia and industry 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 HBCU and MI participation.

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 bidders are allowed so long as they are permitted under the sponsoring agreement between the Government and the specific FFRDC.

Navy laboratories and warfare centers as well as other Department of Defense and civilian agency laboratories are also not eligible to receive awards under this BAA and should not directly submit either white papers or full proposals in response to this BAA. If any such organization is interested in one or more of the programs described herein, the organization should contact an appropriate ONR POC to discuss its area of interest. The various scientific divisions of ONR are identified at http://www.onr.navy.mil/. As with FFRDCs, these types of federal organizations may team with other responsible sources from academia and industry that are submitting proposals under this BAA.

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

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

Some topics cover export controlled technologies. Research in these areas is limited to "U.S. persons" as defined in the International Traffic in Arms Regulations (ITAR) -22 CFR § 120.1 et seq.

IV. APPLICATION AND SUBMISSION INFORMATION

1. Application and Submission Process

Pre-proposal Industry Workshop: The ONR AACUS Program conducted an unclassified briefing for potential Offerors on 1-2 November in Crystal City, VA. The purpose of the meeting was to provide potential Offerors with a better understanding of the scope of the Program and objectives of this BAA, as well as provide a forum for presentations from possible performers. The Special Notice for this Workshop, posted to FedBizOpps on 17 October 2011, is available at:

https://www.fbo.gov/index?s=opportunity&mode=form&id=27da84faefa237e0abfc15c390f24a73&tab=core&_cview=1.

All briefings are available for review; contact Angelo Collins at collinsa@centratechnology.com for copies.

Full Proposals: The due date for receipt of Full Proposals is 2:00 PM (EST) Thursday, 16 February 2012. It is anticipated that final selections will be made within the four (4) weeks following full proposal submission. As soon as the final full proposal evaluation process is completed, PI's will be notified via email of their project's selection or non-selection for FY12 funding. Full proposals received after the published due date and time will not be considered for funding.

Oral Presentations: ONR may request that Principal Investigators (PIs) provide expanded presentations of their full proposals. The purpose of the oral presentation is to provide additional information and address how the proposed technology will affect military applications. The time, location, and briefing format of the oral presentations, if requested, will be provided at a later date via email notification.

2. Content and Format of Full Proposals

The Proposals submitted under this BAA are expected to be unclassified. However, confidential/classified proposals are permitted. Contracts or other instruments resulting from a classified proposal will be unclassified.

Unclassified Proposal Instructions:

Unclassified proposals shall be submitted in accordance with paragraphs 5 and 6 of Section IV.

Classified Proposal Instructions:

Classified proposals shall be submitted directly to the attention of ONR's Document Control Unit at the following address and marked in the following manner:

OUTSIDE ENVELOPE (no classification marking):
Office of Naval Research
Attn: Document Control Unit
ONR Code 43
875 N. Randolph St.
Arlington, VA 22203-1995

The inner wrapper of the classified White Paper and/or Full Proposal should be addressed to the attention of the Technical Point of Contact (TPOC), ONR Code 35 and marked in the following manner:

AACUS Program
Office of Naval Research
Attn: Dr. Mary Cummings
ONR Code: 35
875 N. Randolph St.
Arlington, VA 22203-1995

An 'unclassified' Statement of Work (SOW) must accompany any classified proposal.

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

IMPORTANT NOTE: Titles given to the Full Proposals should be descriptive of the work they cover and not be merely a copy of the title of this solicitation.

FULL PROPOSALS

INSTRUCTIONS FOR CONTRACTS

NOTE: *Submission instructions for BAAs issued after FY 2010 have changed significantly from previous requirements. Potential Offerors are advised to carefully read and follow the instructions below. The new format and requirements have been developed to streamline and ease both the submission and the review of proposals.*

All proposals must include the following three documents:
(1) Technical Proposal Template (pdf)
(2) Technical Content (word)
(3) Cost Proposal Spreadsheet (excel)

The documents can be found at: http://www.onr.navy.mil/Contracts-Grants/submit-proposal/contracts-proposal/cost-proposal.aspx

All have instructions imbedded into them that will assist in completing the documents. Also, both the Template and the Spreadsheet require completion of cost-related information. Please note that all the attachments listed can be incorporated into the Technical proposal template for submission.

The format requirements for any attachments to the Technical and Cost Proposal Template are as follows:

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

The Cost Proposal Spreadsheet can be found by following this link: http://www.onr.navy.mil/Contracts-Grants/submit-proposal/contracts-proposal/cost-proposal.aspx. Click on the "proposal spreadsheet" link and save a copy of the spreadsheet. Instructions for completion have been embedded into the spreadsheet. Any proposed options that are identified in the Technical and Cost Proposal Template, but are not fully priced out in the Cost Proposal Spreadsheet, will not be included in any

resulting contract or other transaction. In addition to providing summary by period of performance, 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.

For proposed subcontracts or interorganizational transfers over $150,000, Offerors must provide a separate fully completed Cost Proposal Spreadsheet in support of the proposed costs. This spreadsheet, along with supporting documentation, must be provided either in a sealed envelope with the prime's proposal or via e-mail directly to both the Program Officer and the Business Point of Contact at the same time the prime proposal is submitted. The e-mail should identify the proposal title, the prime Offeror and that the attached proposal is a subcontract, and should include a description of the effort to be performed by the subcontractor.

Offerors should submit one (1) original plus six hard copies of their Technical and Cost Proposal package, and one (1) electronic copy on a CD-ROM. The electronic Technical and Cost Proposal should be submitted in a secure, pdf-compatible format, except for the electronic file for the Cost Proposal Spreadsheet which should be submitted in a Microsoft Excel 2007 compatible format. All attachments should be submitted in a secure, pdf-compatible format.

The secure pdf-compatible format is intended to prevent unauthorized editing of the proposal prior to any award. A password should not be required for opening the proposal document, but the Government must have the ability to print and copy text, images, and other content. Offerors may also submit their Technical and Cost Proposal in an electronic file that allows for revision (preferably in Microsoft Word) to facilitate the communication of potential revisions. Should an Offeror amend its Technical and Cost Proposal package, the amended proposal should be submitted following the same hard and electronic copy guidance applicable to the original proposal.

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

3. Significant Dates and Times

Anticipated Schedule of Events		
Event	**Date (MM/DD/YEAR)**	**Time (Local EST)**
Industry Workshop	1-2 NOV 2011	0730-1700
Broad Agency Announcement Published*	22 DEC 2011	N/A
Questions Due*	8 FEB 2012	1400
Full Proposals Due Date*	22 FEB 2012	1400
Notification of Selection for Award *	28 MAR 2012	N/A

Contract Award*	135 days after award notification	
Kickoff Meeting*	14 days after contract award	

***These dates are estimates as of the date of this announcement.**

NOTE: Due to changes in security procedures since September 11, 2001, the time required for hard-copy written materials to be received at the Office of Naval Research has increased. Materials submitted through the U.S. Postal Service, for example, may take seven days or more to be received, even when sent by Express Mail. Thus any hard-copy proposal should be submitted long enough before the deadline established in the solicitation so that it will not be received late and thus be ineligible for award consideration.

4. Submission of Late Proposals

Any proposal, modification, or revision, that is received at the designated Government office after the exact time specified for receipt of proposals is "late" and will not be considered unless it is received before award is made, the contracting officer determines that accepting the late proposal would not unduly delay the acquisition and

(a) If it was transmitted through an electronic commerce method authorized by the announcement, it was received at the initial point of entry to the Government infrastructure not later than 5:00 p.m. one working day prior to the date specified for receipt of proposals; or

(b) There is acceptable evidence to establish that it was received at the Government installation designated for receipt of proposals and was under the Government's control prior to the time set for receipt of proposals; or

(c) It was the only proposal received.

However, a late modification of an otherwise timely and successful proposal that makes its terms more favorable to the Government will be considered at any time it is received and may be accepted.

Acceptable evidence to establish the time or receipt at the Government installation includes the time/date stamp of that installation on the proposal wrapper, other documentary evidence of receipt maintained by the installation, or oral testimony or statements of Government personnel.

If an emergency or unanticipated event interrupts normal Government processes so that proposals cannot be received at the Government office designated for receipt of proposals by the exact time specified in the announcement, and urgent Government requirements preclude amendment of the announcement closing date, the time specified for receipt of

proposals will be deemed to be extend to the same time of day specified in the announcement on the first work day on which normal Government processes resume.

The contracting officer must promptly notify any offeror if its proposal, modifications, or revision was received late and must inform the offeror whether its proposal will be considered.

5. Address for the Submission of Full Proposals for Contracts

Full Proposals for Contracts can be sent to the Office of Naval Research at the following address:

Office of Naval Research
Attn: Dr. Mary L. Cummings
ONR Department Code: 35
875 North Randolph Street
Arlington, VA 22203-1995

Electronic submissions of Full Proposals for Contracts can be emailed to the Program Officer directly at mary.cummings@navy.mil.

V. EVALUATION INFORMATION

1. Evaluation Criteria -

Award decisions will be based on a competitive selection of proposals resulting from a scientific and cost review. Evaluations will be conducted using the following evaluation criteria. Criteria 1 through 4 are significantly more important than Criterion 5, and Criteria 1 through 4 are of equal value.

1) Overall scientific and technical merits of the proposal:

The feasibility and likelihood of the proposed approach to meet the program technical objectives/metrics are the primary technical evaluation criteria. The extent to which the proposal reflects a mature, substantiated, and quantitative understanding of the program technical objectives/metrics, the statistical confidence with which they may be measured, and their relationship to the concept of operations that will result from successful performance in the program.

Proposals will also be evaluated as to the extent to which the proposed technical approach is feasible, achievable, and complete. Task descriptions and associated technical elements provided should be complete and in a logical sequence with all proposed deliverables clearly defined, such that a final product that achieves the goal can be expected as a result of award. The

proposal should identify major technical risks and planned mitigation efforts should be detailed and be clearly defined and feasible.

Proposers must demonstrate that their proposal is innovative, that the technical approach is comprehensive, systematic and sound, that they have an understanding of critical technical issues and risks, that they have a plan for mitigation of those risks, and that the technical elements are well integrated into a cohesive program. Task descriptions and associated technical elements provided should be complete and in a logical sequence with all proposed deliverables clearly defined such that the final product can be expected to achieve the program goals.

The technical evaluation criteria will be the same regardless of platform scale. However, individual capabilities of the demonstration platform and associated technologies will be taken into consideration.

2) Potential Navy and Marine Corps relevance and contributions of the effort to the agency's specific mission:

This factor assesses a technology's potential and likelihood of implementation on Navy and Marine Corps platforms, as well as possibly other DoD aircraft. It is expected that all proposals for the BAA will detail a transition plan.

A concern for the government is the ability to transition resultant AACUS technologies to production once the technology is proven. Key to a successful transition is upfront planning, acknowledging, and resolving all aspects of Intellectual Property (IP) rights. The following criteria will be considered to evaluate applicability to any future transition:

- IP assertions are clearly delineated.
- IP assertions are well substantiated
- Licensing terms are clear and enforceable.

3) The offeror's capabilities, related experience, facilities, techniques or unique q combinations of these which are integral factors for achieving the proposal objectives:

Each team of proposers should demonstrate prior experience in similar efforts and must clearly demonstrate an ability to deliver products that meet the proposed technical performance within the proposed budget and schedule.

4) The qualifications, capabilities and experience of the proposed Principal Investigator (PI), team leader and key personnel who are critical in achieving the proposal objectives:

The PI, team leader, and key personnel critical should – individually and as a team - demonstrate the expertise to manage the cost and schedule.

For BAA proposals, each team member should detail experience related to the performance of similar efforts completed/ongoing and identify the respective Government sponsors.

Award(s) will be made based on the evaluation of proposals against evaluation factors, including the potential contributions of the proposed work to the overall research program and the availability of funding for the effort.

The degree of importance of cost will increase with the degree of equality of the proposals in relation to the other factors on which selection is to be based, or when the cost is so significantly high as to diminish the value of the proposal's technical superiority to the Government.

The ultimate recommendation for the award will be made by ONR's scientific/technical community. Recommended proposals will be forwarded to the contracts department, which will perform cost analyses prior to any ensuing negotiations. Any notification received from ONR that indicates that the Offeror's full proposal has been recommended does not ultimately guarantee an award will be made. This notice indicates that the proposal has been selected in accordance with the evaluation criteria above and has been sent to the contracting department to conduct cost analysis, determine the offeror's responsibility, and any take any other relevant steps necessary prior to commencing negotiations with the offeror.

2. Industry-Academia Partnering -

For this effort, ONR highly encourages partnering among industry and academia with a view toward speeding the incorporation of new science and technology into fielded systems. Proposals that utilize industry-academic partnering which enhances the development of novel S&T advances will be given favorable consideration

3. Industry-Government Partnering -

For this effort, ONR highly encourages partnering among industry and Government with a view toward speeding the incorporation of new science and technology into fielded systems. Proposals that utilize industry-Government partnering which enhances the development of novel S&T advances will be given favorable consideration

4. Small Business Participation -

The Office of Naval Research is strongly committed to providing meaningful subcontracting opportunities for small businesses, small disadvantaged businesses, woman-owned small businesses, HUBZone small businesses, veteran-owned small business, service disabled veteran-owned small businesses, historically black colleges and universities, and minority institutions through its awards.

For proposed awards to be made as contracts (that exceed $650K) to other than small businesses, the Offeror is required to submit a Small Business Subcontracting Plan in accordance with FAR 52.219-9.

For proposed awards made as contracts to small businesses at any value or to other than Small Businesses that are less than $650,000, the Offeror shall provide a statement which demonstrates how they intend to provide meaningful subcontracting opportunities to support this policy.

5. 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 performance.

6. Evaluation Panel -

Technical and cost proposals submitted under this BAA will be protected from unauthorized disclosure in accordance with FAR 3.104-4 and 15.207. The cognizant Program Officer and other Government scientific experts will perform the evaluation of technical proposals. Restrictive notices notwithstanding, one or more support contractors may be utilized as subject-matter-expert technical consultants. However, proposal selection and award decisions are solely the responsibility of Government personnel. Each support contractor's employee having access to technical and cost proposals submitted in response to this BAA will be required to sign a non-disclosure statement prior to receipt of any proposal submissions.

VI. AWARD ADMINISTRATION INFORMATION

Administrative Requirements –

- North American Industry Classification System (NAICS) code – The NAICS code for this announcement is 541712 with a small business size standard of 500 employees.

- Central Contractor Registration - All Offerors submitting proposals or applications must:

  (a) be registered in the Central Contractor Registration (CCR) prior to submission;
  (b) maintain an active CCR 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.

- Access to your Contract Award -

  Hard copies of award/modification documents will no longer be mailed to Offerors. All Office of Naval Research (ONR) award/modification documents will be available via the Department of Defense (DoD) Electronic Document Access System (EDA).

  EDA

  Effective 01 October 2011, EDA is a web-based system that provides secure online access, storage, and retrieval of awards and modifications to DoD employees and vendors.

  If you do not currently have access to EDA, you may complete a self-registration request as a "Vendor" via http://eda.ogden.disa.mil following the steps below:

  Click "New User Registration" (from the left Menu)
  Click "Begin VENDOR User Registration Process"
  Click "EDA Registration Form" under Username/Password (enter the appropriate data)
  Complete & Submit Registration form

  Allow five (5) business days for your registration to be processed. EDA will notify you by email when your account is approved.

  Registration questions may be directed to the EDA help desk toll free at 1-866-618-5988, Commercial at 801-605-7095, or via email at cscassig@csd.disa.mil (Subject: EDA Assistance).

NOTE: Central Contractor Registry (CCR), Subcontracting Plan requirements and Certification requirements are all set forth in the ONR Technical and Cost Proposal Template.

VII. OTHER INFORMATION

1. Government Property/Government Furnished Equipment (GFE) and Facilities

Government research facilities, Government Furnished Equipment (GFE) and operational military units are potentially available and should be considered as potential government-furnished equipment/facilities. These facilities and resources are of high value and some are in constant demand by multiple programs. It is unlikely that all facilities would be used for any one specific program. The use of these facilities and resources will be negotiated as the program unfolds. Offerors should indicate in the Technical and Cost Proposal Template, Section II, Blocks 8 and 9, which of these facilities are critical for the project's success.

At this time, the only item identified as a GFE possibility is the Scalable Networked Application Proxy (SNAP) software (see https://snapteam.org/). Access will be provided to any performer that requests it. Government labs are permitted to team with companies under this proposal. Teaming with government agencies that may have desired equipment is encouraged if such a relationship is beneficial to the overall program goals.

2. Security Classification

In order to facilitate intra-program collaboration and technology transfer, the Government will attempt to enable technology developers to work at the unclassified level to the maximum extent possible. If access to classified material will be required at any point during performance, the Offeror must clearly identify such need in Section II, Block 11 of the Technical and Cost Proposal Template.

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.

3. Use of Animals and Human Subjects in Research

If animals are to be utilized in the research effort proposed, the Offeror must complete a DoD Animal Use Protocol with supporting documentation (copies of AALAC accreditation and/or NIH assurance, IACUC approval, research literature database searches, and the two most recent USDA inspection reports) prior to award. For assistance with submission of animal research related documentation, contact the ONR Animal Use Administrator at (703) 696-4046.

Similarly, for any proposal for research involving human subjects, the Offeror must submit or indicate an intention to submit prior to award: documentation of approval from an Institutional Review Board (IRB); IRB-approved research protocol; IRB-approved informed consent form; proof of completed human research training (e.g., training certificate or institutional verification of training); an application for a DoD-Navy Addendum to the Offeror's DHHS-issued Federal wide Assurance (FWA) or the Offeror's DoD-Navy Addendum. In the event that an exemption criterion under 32 CFR.219.101 (b) is claimed, provide documentation of the determination by the Institutional Review Board (IRB) Chair, IRB vice Chair, designated IRB administrator or official of the human research protection program including the category of exemption and short rationale statement. This documentation must be submitted to the ONR Human Research Protection Official (HRPO), by way of the ONR Program Officer. Information about assurance applications and forms can be obtained by contacting ONR_343_contact@navy.mil. If the research is determined by the IRB to be greater than minimal risk, the Offeror also must provide the name and contact information for the independent medical monitor. For assistance with submission of human subject research related documentation, contact the ONR Human Research Protection Official at (703) 696-4046.

For contracts and orders, the award and execution of the contract, order, or modification to an existing contract or order serves as notification from the Contracting Officer to the Contractor that the HRPO has approved the assurance as appropriate for the research under the Statement of Work and also that the HRPO has reviewed the protocol and accepted the IRB approval or exemption determination for compliance with the DoD Component policies. See, DFARS 252.235-7004.

4. Use of Arms, Ammunition and Explosives

Safety
The Offeror is required to be in compliance with DoD manual 4145.26-M, *DoD Contractor's Safety Manual for Ammunition and Explosives* if ammunitions and/or explosives are to be utilized under the proposed research effort. (See DFARS 223.370-5 and DFARS 252.223-7002)

If Ammunitions and/or Explosives (A&E) are to be utilized under the proposed research effort, the Government requires a preaward safety survey in accordance with DFARS PGI 223.370-4(C)(iv) entitled *Preaward survey*. The Offeror is solely responsible for contacting the cognizant Defense Contract Management Agency (DCMA) office and obtaining a required preaward safety survey before proposal submission. The Offeror should include required preaward safety surveys with proposal submissions.

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

Security
If arms, ammunition and explosives (AA&E) are to be utilized under the proposed research effort, the Government requires a preaward security survey. The Offeror is solely responsible for contacting the cognizant DCMA office and obtaining a required preaward security survey before proposal submission. The Offeror should include a required preaward security survey with proposal submission. (See DoD manual 5100.76-M, *Physical Security of Sensitive Conventional Arms, Ammunition and Explosives*, paragraph C1.3.1.4)

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, Appendix 2.

If AA&E are to be utilized under the research effort, the Offeror is required to provide a written copy of the Offeror's AA&E accountability procedures in accordance with DoD 5100.76-M. If the Offeror is required to provide written AA&E accountability procedures, the Offeror should provide the respective procedures with its proposal submission. See DoD 5100.76-M Appendix 2.12.

5. Department of Defense High Performance Computing Program

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

6. Organizational Conflicts of Interest

All Offerors and proposed subcontractors must affirm whether they are providing Scientific, Engineering, and Technical Assistance (SETA) or similar support to any ONR technical office(s) through an active contract or subcontract. All affirmations must state which office(s) the offeror supports and identify the prime contract numbers. Affirmations shall be furnished at the time of proposal submission. All facts relevant to the existence or potential existence of organizational conflicts of interest (FAR 9.5) must be disclosed.

The disclosure shall include a description of the action the offeror has taken or proposes to take to avoid, neutralize, or mitigate such conflict. In accordance with FAR 9.503 and without prior approval, a contractor cannot simultaneously be a SETA and a research and development performer. Proposals that fail to fully disclose potential conflicts of interests will be rejected without technical evaluation and withdrawn from further consideration for award. Additional ONR Organizational Conflict of Interest (OCI) guidance can be found at http://www.onr.navy.mil/About-ONR/compliance-protections/Organizational-Conflicts-Interest.aspx.

If a prospective offeror believes that any conflict of interest exists or may exist (whether organizational or otherwise), the offeror should promptly raise the issue with ONR by sending his/her contact information and a summary of the potential conflict by e-mail to the Business Point of Contact in Section I, item 7 above, before time and effort are expended in preparing a proposal and mitigation plan. If, in the sole opinion of the Contracting Officer after full consideration of the circumstances, any conflict situation cannot be effectively avoided, the proposal may be rejected without technical evaluation and withdrawn from further consideration for award under this BAA.

7. Project Meetings and Reviews

Individual program reviews between the ONR sponsor and the performers will be held as detailed in Section I.6. A Critical Design Review will be conducted prior to the first demonstration, and semi-annual program status reviews will be held to provide a forum for reviews of the latest results from experiments and any other incremental progress towards the major demonstrations. Quarterly meetings will be held with the key performers. These meetings will be held at various sites throughout the country. For

costing purposes, offerors should assume that 60% of these meetings will be at or near ONR, Arlington, VA and 40% at other contractor or government facilities. Interim meetings are likely, but these will be accomplished via video telephone conferences, telephone conferences, or via web-based collaboration tools.

8. Executive Compensation and First-Tier Subcontract Reporting (APPLIES ONLY TO CONTRACTS)

Section 2(d) of the Federal Funding Accountability and Transparency Act of 2006 (Pub. L. No. 109-282), as amended by section 6202 of the Government Funding Transparency Act of 2008 (Pub. L. 110-252), requires the Contractor to report information on subcontract awards. The law requires all reported information be made public, therefore, the Contractor is responsible for notifying its subcontractors that the required information will be made public.

Unless otherwise directed by the Contracting Officer, by the end of the month following the month of award of a first-tier subcontract with a value of $25,000 or more, (and any modifications to these subcontracts that change previously reported data), the Contractor shall report the following information at http://www.fsrs.gov for each first-tier subcontract:

(a) Unique identifier (DUNS Number) for the subcontractor receiving the award and for the subcontractor's parent company, if the subcontractor has one.

(b) Name of the subcontractor.

(c) Amount of the subcontract award.

(d) Date of the subcontract award.

(e) A description of the products or services (including construction) being provided under the subcontract, including the overall purpose and expected outcomes or results of the subcontract.

(f) Subcontract number (the subcontract number assigned by the Contractor).

(g) Subcontractor's physical address including street address, city, state, and country. Also include the nine-digit zip code and congressional district.

(h) Subcontractor's primary performance location including street address, city, state, and country. Also include the nine-digit zip code and congressional district.

(i) The prime contract number, and order number if applicable.

(j) Awarding agency name and code.

(k) Funding agency name and code.

(l) Government contracting office code.

(m) Treasury account symbol (TAS) as reported in Federal Procurement Data System (FPDS).

(n) The applicable North American Industry Classification System (NAICS) code.

By the end of the month following the month of a contract award, and annually thereafter, the Contractor shall report the names and total compensation of each of the five most highly compensated executives for the Contractor's preceding completed fiscal year at http://www.ccr.gov, if –

(a) In the Contractor's preceding fiscal year, the Contractor received –

(i) 80 percent or more of its annual gross revenues from Federal contracts (and subcontracts), loans, grants (and subgrants) and cooperative agreements; and

(ii) $25,000,000 or more in annual gross revenues from Federal contracts (and subcontracts), loans, grants (and subgrants) and cooperative agreements; and

(b) The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986. (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at http://www.sec.gov/answers/execomp.htm.).

Unless otherwise directed by the Contracting Officer, by the end of the month following the month of a first-tier subcontract with a value of $25,000 or more, and annually thereafter, the Contractor shall report the names and total compensation of each of the five most highly compensated executives for each first-tier subcontractor for the subcontractor's preceding completed fiscal year at http://www.fsrs.gov, if –

(a) In the subcontractor's preceding fiscal year, the subcontractor received –

(i) 80 percent or more of its annual gross revenues from Federal contracts (and subcontracts), loans, grants (and subgrants) and cooperative agreements; and

(ii) $25,000,000 or more in annual gross revenues from Federal contracts (and subcontracts), loans, grants (and subgrants) and cooperative agreements; and

(b) The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986. (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at http://www.sec.gov/answers/execomp.htm.).

If the Contractor in the previous tax year had gross income, from all sources, under $300,000, the Contractor is exempt from the requirement to report subcontractor awards. Likewise, if a subcontractor in the previous tax year had gross income from all sources under $300,000, the Contractor does not need to report awards to that subcontractor.

9. Intellectual Property Rights

a. Noncommercial Items (Technical Data and Computer Software).

Offerors responding to this BAA shall identify all noncommercial technical data and noncommercial computer software that it plans to generate, develop, and/or deliver under any proposed award instrument in which the Government will acquire less than unlimited rights, and to assert specific restrictions on those deliverables. Offerors shall follow the format under DFARS 252.227-7017 for this stated purpose. In the event that offerors do not submit the list, the Government will assume that it automatically has “unlimited rights” to all noncommercial technical data and noncommercial computer software generated, developed, and/or delivered under any award instrument, unless it is substantiated that development of the noncommercial technical data and noncommercial computer software occurred with mixed funding.

If mixed funding is anticipated in the development of noncommercial technical data and noncommercial computer software generated, developed, and/or delivered under any award instrument, then offerors 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 five (5) years in accordance with the applicable DFARS clauses, at which time the Government will acquire “unlimited rights” unless the parties agree otherwise.

The Government will use the list during the evaluation process to evaluate the impact of any identified restrictions and may request additional information from the offeror, as may be necessary, to evaluate the offeror's assertions. If no restrictions are intended, then the offeror should state "NONE." It is noted an assertion of "NONE" indicates that the Government has "unlimited rights" to all noncommercial technical data and noncommercial computer software delivered under the award instrument, in accordance with the DFARS provisions cited above. Failure to provide full information may result in a determination that the proposal is not compliant with the BAA – resulting in nonselectability of the proposal.

A sample list for complying with this request is as follows:

NONCOMMERCIAL

Technical Data Computer Software To be Furnished With Restrictions	Summary of Intended Use in the Conduct of the Research	Basis for Assertion	Asserted Rights Category	Name of Person Asserting Restrictions
(LIST)	(NARRATIVE)	(LIST)	(LIST)	(LIST)

b. Commercial Items (Technical Data and Computer Software)

Offerors responding to this BAA shall identify all commercial technical data and commercial computer software that may be embedded in any noncommercial deliverables contemplated under the research effort, along with any applicable restrictions on the Government's use of such commercial technical data and/or commercial computer software. In the event that offerors do not submit the list, the Government will assume that 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 offeror, as may be necessary, to evaluate the offeror's assertions. If no restrictions are intended, then the offeror should state "NONE." Failure to provide full information may result in a determination that the proposal is not compliant with the BAA – resulting in non-selectability of the proposal.

A sample list for complying with this request is as follows:

COMMERCIAL

Technical Data Computer Software To be Furnished With Restrictions	Basis for Assertion 4	Asserted Rights Category	Name of Person Asserting Restrictions

(LIST)	(LIST)	(LIST)	(LIST)