



**LONG RANGE BROAD AGENCY ANNOUNCEMENT (BAA) FOR
NAVY AND MARINE CORPS SCIENCE AND TECHNOLOGY**

The purpose of this amendment is to change Section IV.2.b, Full Proposal, Instructions for Contracts, Cooperative Agreements and Other Transaction Agreements to provide additional submission guidance; Section IV.2.b, Full Proposals, Instructions for Grants to amend the Volume 2, Cost language related to funding associated with conferences, workshops or symposiums; and to add a statement about basic research opportunity Special Notices to Section I.6, Research Opportunity Description. Amendment 4 entirely replaces all previous postings for ONRBAA11-001.

INTRODUCTION:

This publication constitutes a Broad Agency Announcement (BAA) as contemplated in Federal Acquisition Regulation (FAR) 6.102(d)(2) and 35.016, the Department of Defense Grants and Agreements Regulations (DoDGARS) 22.315(a), and DoD's Other Transaction Guide for Prototypes Projects, USD(AT&L), OT Guide, 21 Dec 2000. A formal Request for Proposals (RFP), other solicitation, 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 fund all, some portion, some or none of the proposals received under this BAA. 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.

This announcement will remain open for approximately one (1) year from the date of publication or until replaced by a successor BAA. Proposals may be submitted at any time during this period. This announcement replaces ONR BAA #10-001 dated 18 Sep 2009.

I. GENERAL INFORMATION

1. Agency Name -

Office of Naval Research

2. Research Opportunity Title -

Long Range Broad Agency Announcement (BAA) for Navy and Marine Corps Science & Technology

3. Program Name –

Not Applicable (N/A)

4. Research Opportunity Number -

ONRBAA11-001

5. Response Date -

This announcement will remain open until 30 September 2011 or until replaced by a successor BAA, whichever first occurs. Proposals may be submitted at any time during this period.

6. Research Opportunity Description -

The Office of Naval Research (ONR) is interested in receiving proposals for Long-Range Science and Technology (S&T) Projects which offer potential for advancement and improvement of Navy and Marine Corps operations. Readers should note that this is an announcement to declare ONR's broad role in competitive funding of meritorious research across a spectrum of science and engineering disciplines. A brief description of the ONR Program Codes and the science and technology thrusts that they are pursuing is provided below.

Potential Offerors are urged to check the program areas that they are interested in throughout the year for updates to thrust areas and research priorities. Prior to preparing proposals, potential offerors are strongly encouraged to contact the ONR point of contact (POC). To identify the POC, follow the link for the appropriate code or division listed below and then click on the link to the thrust or topic area that you wish to submit a proposal for. Each thrust or topic area will provide a POC or e-mail address.

Expeditionary Maneuver Warfare & Combating Terrorism Department (Code 30):
Develops and transitions technologies to enable the Navy-Marine Corps team to win and survive on the battlefield. The department invests primarily in asymmetric and irregular warfare, distributed operations, information superiority and communications, and

survivability and self defense. Specific thrusts and the associated research areas are:

- 1) Command, Control, Computers and Communication (C4), which seeks to improve capabilities with an emphasis on small units, asymmetric and irregular warfare, information analysis and communication and distributed operations. Research areas include network-centric warfare and interoperability, over-the-horizon communications gateways, and small-unit technologies (<http://www.onr.navy.mil/Science-Technology/Departments/Code-30/All-Programs/C4.aspx>).
- 2) Fires, which seeks to enable warfighters employed in small, distributed units with tools to locate and decisively destroy larger enemy forces by applying timely, reliable, precise, and accurate fires from a myriad of platforms. Research areas are integrated, lightweight optics and sensors to see through all battlefield conditions and lightweight, organic, advanced weapons for the rapid, accurate and effective application of firepower (<http://www.onr.navy.mil/Science-Technology/Departments/Code-30/All-Programs/Fires.aspx>). Technology investment areas include:
 - a) Targeting and engagement;
 - b) Advanced ammunition;
 - c) Advanced weapons; and
 - d) Energetic materials.
- 3) Force Protection seeks to develop and mature technologies that provide protection from myriad modes of enemy attack through the spectrum of warfare, including concepts such as asymmetric and irregular warfare and distributed operations which concentrate on the small unit and individual warfighters. End products will include protective systems expeditionary in nature, lightweight, and capable of providing a far greater degree of performance than any comparable system currently available. The functional areas of investigation are explosive hazard defeat through detection, breaching and neutralization of all explosive hazards, counter sniper, counter rocket, artillery and mortar, counter-bomber and personal protective equipment. Technology investment areas include detection, neutralization and mitigation (<http://www.onr.navy.mil/Science-Technology/Departments/Code-30/All-Programs/Force-Protection.aspx>).
- 4) Human, Social, Culture and Behavior Modeling, which seeks to build capability through development of a knowledge base, building models and training capacity in order to understand, predict and shape human behavior cross-culturally. Specifically, the program seeks to: a) understand the human, social, cultural and behavioral factors that influence human behavior and to improve our ability to model these influences and understand their impact on human behavior at the individual, group and society-levels; b) Improve computational modeling and simulation capabilities, visualization software toolsets, and training/mission rehearsal systems that provide forecasting capabilities for socio-cultural

- responses; and c) develop and demonstrate an integrated set of model description data (metadata), information systems, and procedures that will facilitate assessment of the software engineering quality of sociocultural behavior models, their theoretical foundation and the translation of theory into model constructs (<http://www.onr.navy.mil/Science-Technology/Departments/Code-30/All-Programs/Human-Behavioral-Sciences.aspx>).
- 5) Human Performance Training and Education, which seeks to develop technologies, architectures, and systems that accelerate the training at the individual and team levels by enhancing physical and cognitive preparedness in three areas (<http://www.onr.navy.mil/Science-Technology/Departments/Code-30/All-Programs/Human-Performance-Training.aspx>):
 - a) Enhanced physical readiness;
 - b) Mental resilience and cognitive agility; and
 - c) Expertise development.
 - 6) Intelligence, Surveillance and Reconnaissance, which seeks to develop and leverage advanced technologies for applications in future intelligence, surveillance and reconnaissance systems, as well as to enhance situational awareness to enable real-time tactical decision making for distributed operations, and provide proactive and predictive capabilities for asymmetric and irregular warfare. Technology investment areas include a) sensor fields, sensor data collection and networking gaps, entity recognition and urban domain; b) relevant and situational information on demand to address capability gaps associated with the tactical processing of sensor data in order to enable indications and warning such as tag, track and locate; and c) actionable intelligence for expeditionary and irregular warfare to address gaps associated with the translation of information to actionable intelligence. Specific research thrusts include: biometrics, agile tactical sensor networks, acoustic collection and processing, calculation of area atmospherics, and decision prediction (<http://www.onr.navy.mil/Science-Technology/Departments/Code-30/All-Programs/Intelligence-Surveillance-ISR.aspx>).
 - 7) Logistics, which seeks to provide Marines of the future with a precisely tailored level of sustained logistic support from sea-based platforms to rapidly transport forces ashore. Logistic delivery systems of the future will be more responsive and flexible, enabling Marines to out-pace rapidly changing operational scenarios. Likewise, delivered logistic commodities will provide more operational value per unit weight, enhancing combat unit self-sufficiency and maneuverability. Operational units will benefit from technologies that maximize equipment readiness by minimizing both down-time and maintenance requirements (<http://www.onr.navy.mil/Science-Technology/Departments/Code-30/All-Programs/Logistics.aspx>). Technology areas of investment include:
 - a) Asset visibility;

- b) Logistic transport;
 - c) Operational sustainment; and
 - d) Maintenance reduction.
- 8) Maneuver, which explores technologies to increase the warfighting capabilities and effectiveness of the Marine Corps Air Ground Task Force with emphasis on improving survivability and enhancing maneuver and maneuver-enabling systems in both decentralized and asymmetric warfare (<http://www.onr.navy.mil/Science-Technology/Departments/Code-30/All-Programs/Maneuver.aspx>). Technology investment areas are:
- a) Survivability;
 - b) Autonomous systems; and
 - c) Fuel efficiency.

Command, Control Communications, Computers, Intelligence, Surveillance, and Reconnaissance (Code 31): Focuses on experimental and theoretical research and technology in these areas with applications across near-, mid- and far-term applications. The department invests primarily in information superiority and communication, distributed operations, and assure access and hold at risk technologies. Specific thrusts and focused research areas are:

- 1) Mathematics, Computers and Information Research, which sponsors basic and applied research, and advanced technology development efforts in mathematics, computer and information sciences that address Navy and Department of Defense needs in computation, information processing, information operation, information assurance and cybersecurity, decision tools, and command and control with specific focus on enabling rapid, accurate decision making in network centric environments (<http://www.onr.navy.mil/Science-Technology/Departments/Code-31/All-Programs/311-Mathematics-Computers-Research.aspx>). Specific scientific and technical areas include:
- a) Applied computational analysis;
 - b) Command and control;
 - c) Image analysis and understanding;
 - d) Information integration;
 - e) Intelligent and autonomous systems;
 - f) Mathematical optimization and operations research;
 - g) Signal processing for networked sensing; and
 - h) Software and computing systems.
- 2) Electronics, Sensors and Network Research, which conducts an integrated program of basic and applied research and advanced technology development into technologies that enable new and innovative uses of the electromagnetic spectrum in areas of surface and aerospace surveillance, communications, electronic combat, and navigation. All of these areas are supported by a broad research

program in electronics which is focused on the reduction of the cost, weight and size of transmit and receive systems. Two overarching goals are the development of technologies and techniques to support adaptive persistent surveillance, and the development of digital/radio frequency technologies and techniques to support active aperture phased arrays capable of performing multiple functions simultaneously (<http://www.onr.navy.mil/Science-Technology/Departments/Code-31/All-Programs/312-Electronics-Sensors.aspx>). Specific scientific and technical areas include:

- a) Active aperture array;
 - b) Atomic, molecular and quantum physics;
 - c) Communications and networking;
 - d) Electronic materials and magnetics;
 - e) Electronic warfare;
 - f) Electro-optical/infrared sensors and sensor processing;
 - g) Ionospheric modification;
 - h) Nanoscale electronics;
 - i) Navigation and timekeeping;
 - j) Radar and signal processing;
 - k) Mixed signal (radio frequency and digital) processing devices, circuits and architecture;
 - l) Radio frequency superconducting technologies;
 - m) Radio frequency semiconductors, radio frequency solid state amplifiers and wide bandgap materials; and
 - n) Vacuum devices.
- 3) Applications and Transitions, which supports programs in surface and aerospace surveillance, communications, and electronic combat. Research areas in surface and aerospace surveillance include sensors, primarily radar and electro-optical/infrared, and associated sign and image processing methods. Areas of interest in communications include military radio communications with emphasis on anti-jam and low-probability-of-intercept techniques, radio networks, and dynamic internetworking. Electronic combat research areas include threat warning systems, electronic support measures, decoys and electronic countermeasures. Navigation research includes GPS anti-jam and associated inertial navigation techniques (<http://www.onr.navy.mil/Science-Technology/Departments/Code-31/All-Programs/313-applications-transitions.aspx>).

Ocean Battlespace Sensing (Code 32) explores science and technology in the areas of oceanographic and meteorological observations, modeling and prediction in the battlespace environment; submarine detections and classification (anti-submarine warfare); and mine warfare applications for detecting and neutralizing mines in both the ocean and littoral environment. Specific thrusts and focused research areas are:

- 1) Ocean Sensing and Systems Application, which conducts an extensive program of

scientific inquiry and technology development in maritime sensing, ocean engineering and marine systems, and undersea signal processing (<http://www.onr.navy.mil/Science-Technology/Departments/Code-32/All-Programs/Ocean-Systems-321.aspx>). Specific technical areas are:

- a) Maritime sensing;
 - b) Ocean engineering & marine systems; and
 - c) Undersea signal processing.
- 2) Ocean, Atmosphere and Space Research, which concentrates on improving Navy and Marine Corps understanding of environmental evolution, assimilation of data, and the limits of predictability by planning, fostering and encouraging scientific inquiry and technological development in fields ranging from environmental optics to high latitude dynamics (<http://www.onr.navy.mil/Science-Technology/Departments/Code-32/All-Programs/Atmosphere-Research-322.aspx>). Specific technical areas are:
- a) Coastal geosciences;
 - b) Environmental optics;
 - c) Marine mammal integrated ecosystems;
 - d) Marine mammal hearing and physiological effects of sound;
 - e) Marine mammal physiology;
 - f) Marine mammal population level effects;
 - g) Marine mammals and biology;
 - h) Marine mammals controlled exposure experiments;
 - i) Marine mammal sensing and tag development;
 - j) Marine mammal models & databases for environmental compliance;
 - k) Marine mammals monitoring and detection;
 - l) Marine meteorology and atmospheric effects;
 - m) Ocean acoustics;
 - n) Physical oceanography;
 - o) Space environment; and
 - p) Special research awards in ocean acoustics.

Sea Warfare and Weapons (Code 33) develops and delivers technologies that enable superior warfighting and energy capabilities for naval forces, platforms and undersea weaponry. Specific thrusts and focused research areas are:

- 1) Ship Systems and Engineering Research, which is focused on providing technologically superior warfighting capabilities at reduced total ownership costs for surface and subsurface platforms through investments in basic and applied research and advanced technology development of programs in: a) advanced sea platforms, b) sea platform survivability, and c) surface ship hydrodynamics. Areas of interest that contribute to these areas include: electrical power generation systems and equipment; energy conversion, distribution, and storage; electro-mechanics; thermoelectric; phototonics; thermal energy management; stability

and control of electrical networks; ship design and analysis; systems engineering; ship systems integration; hydromechanics; maneuvering and seakeeping; hydroacoustics; structural mechanics; solid mechanics; thermo-mechanics; structural acoustics; structural dynamics; computational mechanics; advanced structural systems; protection systems and design methodology; automation; control of dynamic systems; damage control and firefighting; control of acoustic and non-acoustic signatures; high speed platforms; sense and respond logistics; and inter-and intra-ship material movement and tracking (<http://www.onr.navy.mil/Science-Technology/Departments/Code-33/All-Programs/331-ship-systems-engineering.aspx>).

- 2) Naval Materials, which covers a full spectrum of activities from long-range, fundamental scientific and engineering research in the design and realization of new materials and systems to fulfilling the unique requirements of marine and military applications. Experimental work is closely coupled with the development of models and predictive capabilities for materials properties and behavior (<http://www.onr.navy.mil/Science-Technology/Departments/Code-33/All-Programs/332-naval-materials.aspx>). Specific research themes are:
 - a) Bulk nanostructured materials;
 - b) Capacitors for pulsed power applications;
 - c) Composite materials development and processing;
 - d) Environmentally benign marine antifouling coatings;
 - e) Electrochemical power sources;
 - f) Electronic and optical ceramics;
 - g) Environmental quality waste treatment/reduction;
 - h) Fracture and fatigue damage of Navy structural materials focuses on three areas: fatigue of structural materials, fracture in PZT materials and deformation/fracture in nanostructured materials;
 - i) Functional polymeric organic materials;
 - j) Future Naval fuels;
 - k) High temperature materials;
 - l) Inorganic/semiconductor material & nanostructured inorganic materials;
 - m) Solid mechanics;
 - n) Structural cellular materials;
 - o) Structural metals; and
 - p) Water desalination.
- 3) Sea Platforms and Weapons is focused on coordinating the transition of technologically superior systems and equipment that will enhance warfighting capabilities. This is accomplished through the University Laboratory Initiative, which was established in part to increase the number of engineers and scientists in Navy laboratories and University Affiliated Research Centers that conduct research and development of undersea weapon technology. Core technology areas for applied research and technology development include: guidance and

control; sensors; signal processing; planning and control algorithms; signal management for undersea distributed network systems (UDNS); weapon energy conversion; batteries, air-independent fuel cells and hybrids; motors; otto fuel replacements; vehicle technology; liquid fuels for “gas and go” concepts; corrosion and anti-fouling coatings; hydrodynamics; control surfaces; propulsors; drag and noise reduction; projectiles; warheads; explosives; detonators; and fuses (<http://www.onr.navy.mil/Science-Technology/Departments/Code-33/All-Programs/333-sea-platforms-weapons.aspx>).

Warfighter Performance (Code 34) enhances warfighter effectiveness and efficiency through bioengineered and biorobotic systems, medical technologies, improved manpower, personnel, training and system design. Specific thrusts and focused research areas are:

- 1) Human and Bioengineered Systems covers cognitive science, computational neuroscience, bioscience and bio-mimetic technology, physiology and biophysics, immunology, social/organizational science, training, human factors, and decision making. The goals are: sustained and improved warfighter performance and enhanced decision making in all environments through training and biomedical technologies; creating options for future (perhaps unanticipated) naval decisions, based upon fundamental understanding gained from cognitive and neuroscience; supporting integrated interdisciplinary research program; and cultivating transition of findings to government and industry via advanced technology development, small business and acquisition projects (<http://www.onr.navy.mil/Science-Technology/Departments/Code-34/All-Programs/human-bioengineered-systems-341.aspx>). Specific thrusts and focused research are:

- a) Affordable human behavior modeling;
- b) Agile and reconfigurable organizational structures for command and control;
- c) Applied instructional research;
- d) Bio-energy harvesting;
- e) Biometrics in the maritime domain;
- f) Biorobotics;
- g) Computational neuroscience;
- h) Engineered functional organisms;
- i) Human activity recognition;
- j) Human robot interaction;
- k) Marine biofouling;
- l) Marine mammal immunobiology;
- m) Metabolic engineering;
- n) Microbial synthesis of energetic materials;
- o) Multi-echelon command decision making;
- p) Naval environmental biology;
- q) Next generation antibiotics;

- r) Novel biomolecular materials;
- s) Perception, metacognition and cognitive control;
- t) Representing and reasoning about uncertainty;
- u) Skill acquisition;
- v) Social network analysis for combating terrorist networks;
- w) Stress physiology and biophysics;
- x) Theoretical foundations for socio-cognitive architectures; and
- y) Virtual technologies and environments.

2) Warfighter Protection and Applications conducts research and technology demonstration programs directed at maintaining the survival, health and performance of Navy and Marine Corps personnel during training, routine and special operations, and in time of war. The goals are to: increase the survival of casualties through intermediate, life-saving treatment and stabilization; prevent personnel injury caused by the stresses of demanding Naval occupations and environments; enhance cognitive and physiological performance of Navy and Marine Corps personnel in military environments; prepare Sailors and Marines to fight and win in an information rich, distributed battlespace; get the right warfighters into the right job, at the right time with the right tools; and provide a 21st century learning environment designed to deliver the right training (<http://www.onr.navy.mil/Science-Technology/Departments/Code-34/All-Programs/warfighter-protection-applications-342.aspx>). Specific thrusts and topics of interest are:

- a) Casualty care and management;
- b) Casualty prevention;
- c) Human systems integration;
- d) Manpower and personnel;
- e) Noise induced hearing loss; and
- f) Undersea medicine.

Naval Air Warfare and Weapons (Code 35) supports the Navy's power projection needs, fostering the technology development of naval aircraft, structures, propulsion, autonomy, energetic, directed energy and electric weapons. Specific thrusts and areas of research are:

1) Aerospace science research focuses on weapons and aerospace technologies which directly support naval science and technology requirements for joint strike warfare involving air superiority and precision attack, and air and surface battlespace requirements of joint littoral aircraft involving aircraft, naval surface fire support and ship self defense. The focus is on exploratory and advanced development programs in the following areas:

- a) Advanced aerospace propulsion;
- b) Aviation technology;
- c) Combat safe insensitive munitions;

- d) Counter directed energy;
- e) Energetics;
- f) High-density reactive materials;
- g) High-energy dense oxidizers;
- h) High-speed weapons;
- i) Intelligent autonomy;
- j) Maritime laser demonstration;
- k) Maritime WMD detection;
- l) RATTLRS flight demonstration;
- m) Science of autonomy;
- n) Turbine engines; and
- o) Unmanned air systems.

2) Air warfare and naval weapons applications focus on applied research and advanced technology aligned with current and future naval capability gaps and innovative naval prototypes in the following areas:

- a) Air platform safety;
- b) Applied electromagnetic;
- c) Autonomy for collaborating systems;
- d) Directed energy;
- e) Discriminate terminal guidance;
- f) Electromagnetic railgun;
- g) Enhanced weapons systems;
- h) Free electron laser;
- i) Future naval capabilities;
- j) Helicopter low-level operations (HELO);
- k) Increased capabilities; and
- l) Laser-Based Helicopter Landing Aids (LBHLA).

Basic Research Challenge/Special Opportunity Notices: From time to time throughout Fiscal Year 2011, ONR Program Officers will issue Special Opportunity Notices soliciting program-specific basic research proposals which expand on one of the topic areas discussed above. These Special Opportunity Notices will be posted to both www.fbo.gov/ and www.grants.gov/; and will make reference to this BAA for submission instructions. Each Special Opportunity Notice will provide a description of the specific research effort being solicited, the application process to be used, as well as the due dates. Proposals submitted in response to the Special Opportunity Notices shall use this BAA's application package and shall be submitted under this BAA following the instructions contained in Section IV of this BAA and will be evaluated in accordance with the criteria set forth in Section V. Interested parties are urged to periodically check the ONR website, Federal Business Opportunities and Grants.gov websites for new Special Opportunity Notices.

7. Point(s) of Contact –

Questions of a technical nature should be submitted to the ONR POC whose program best matches the offeror's field of interest as listed in section 6 above. Through the ONR POC, prospective offerors will be connected to the cognizant ONR Program Officer.

Questions of a business nature should be submitted to:

Millie Abdi
Contract Specialist
Office of Naval Research
Acquisition Department, Code BD255
One Liberty Center
875 N. Randolph Street
Arlington, VA 22203-1995
Email Address: misale.abdi@navy.mil

Questions of a security nature should be submitted to:

Diana Pacheco
Information Security Specialist
Office of Naval Research
Security Department, Code 43
One Liberty Center
875 N. Randolph Street
Arlington, VA 22203-1995
Email Address: diana.pacheco@navy.mil

Note: All UNCLASSIFIED communications shall be submitted via e-mail to the Technical Point of Contact (POC), 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 Technical POC and the Business POC stating that the entity would like to ask a CLASSIFIED question. DO NOT EMAIL ANY CLASSIFIED QUESTIONS. The Security POC will contact the entity and arrange for the CLASSIFIED question to be asked through a secure method of communication.

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

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

8. Instrument Type(s) -

Awards may take the form of contracts, grants, cooperative agreements, and other transaction agreements, as appropriate.

9. Catalog of Federal Domestic Assistance (CFDA) Number -

12.300

10. Catalog of Federal Domestic Assistance (CFDA) Title -

Department of Defense (DOD) Basic and Applied Scientific Research

11. Other Information -

Work funded under this BAA may include basic research, applied research and some advanced research. 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 Category 1 (Basic Research), whether performed by universities or industry or (b) funded by Budget Category 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 being performed by the prime contractor is restricted research, a subcontractor may be conducting “contracted fundamental research.” In those cases, it is the *prime contractor’s responsibility* in the proposal to identify and describe the subcontracted unclassified research and include a statement confirming that the work has been scoped, negotiated, and determined to be fundamental research according to the prime contractor and research performer.

Normally, fundamental research is awarded under grants with universities and under

contracts with industry. Non-fundamental research is normally awarded under contracts and may require restrictions during the conduct of the research and DoD pre-publication review of such research results due to subject matter sensitivity. Potential Offerors should consult with the appropriate ONR POCs to determine whether the proposed effort would constitute basic research, applied research or advanced research.

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.

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

II. AWARD INFORMATION

The amount and period of performance of each selected proposal may vary depending on the research area and the technical approach to be pursued by the selected offeror.

Awards may be funded with Fiscal Year 2010 basic research appropriations and, if so, will be subject to the reimbursement limit on indirect costs set forth in Section 8101 of the Department of Defense Appropriations Act, 2010 (P.L. 111-118). Indirect costs for basic research may not exceed 35% of the total funds provided.

For the past three years Congress has placed limits on the percentage of indirect costs that can be paid by the government using basic research (6.1) funds. Currently indirect costs paid under contracts and grants for the performance of basic research may not exceed 35 percent. It is unknown at present whether a similar indirect cost restriction will apply to 6.1 funds in FY 2011 or thereafter.

In the case of funded proposals for the 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. 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.

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.

For Grant, Cooperative Agreement, and Other Transaction Agreement applications:

The Federal Funding Accountability and Transparency Act of 2006 (Public Law 109-282), as amended by Section 6202 of Public Law 110-252, requires that all agencies establish requirements for recipients reporting information on subawards and executive total compensation as codified in 2 CFR 33.110. Any company, non-profit agency or university that applies for financial assistance (either grants, cooperative agreements or other transaction agreements) as either a prime or sub-recipient under this BAA must provide information in its proposal that describes the necessary processes and systems in place to comply with the reporting requirements identified in 2 CFR 33.220. An entity is **exempt** from this requirement **UNLESS** in the preceding fiscal year it received: a) 80 percent or more of its annual gross revenue in Federal contracts (and subcontracts), loans, grants (and subgrants), and cooperative agreements; b) \$25 million or more in annual gross revenue from Federal contracts (and subcontracts), loans, grants (and subgrants), and cooperative agreements; and c) the public does not have access to information about the compensation of the senior executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 or section 6104 of the Internal Revenue Code of 1986.

IV. APPLICATION AND SUBMISSION INFORMATION

1. Application and Submission Process -

“White Papers” are frequently desired by ONR Program Officers. Offerors should consult the cognizant ONR Program Officer regarding the desirability of “White Paper” submissions. The various scientific divisions of ONR are identified at <http://www.onr.navy.mil/en/Science-Technology/Contacts.aspx>.

2. Content and Format of White Papers/Full Proposals –

White Papers and Full Proposals submitted under the BAA are expected to be unclassified; however, classified proposals are permitted. If a classified proposal is submitted, the resultant contract 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 North Randolph Street
Arlington, VA 22203-1995”

The inner wrapper of the classified White Paper and/or Full Proposal should be addressed to the attention of the TPOC, ONR Code XX and marked in the following manner:

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

“Program:

Office of Naval Research
ATTN: ONR Program Officer Name
ONR Code: ONR Program Officer Code
875 North Randolph Street
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 DoD/DoN regulations. Offerors are expected

to appropriately mark each page of their submission that contains proprietary information.

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

Alternatives to the format and content identified below may be appropriate depending on the scope and nature of the proposed effort. Coordinate any alternative proposal formats and contents relating to white papers and proposals with the cognizant ONR Program Officer. Alternative formats and content may be directed by the ONR Program Officer or may result from Offerors' suggestions approved by the ONR Program Officer.

a. WHITE PAPERS

White Paper Format

- Paper Size – 8.5 x 11 inch paper
- Margins – 1 inch
- Spacing –single-spaced
- Font – Times New Roman, 12 point
- Copies – Electronic (email) submissions should be sent to the attention of the TPOC at: Email Address of the TPOC, e.g. Jane.Doe@navy.mil. The subject line of the email shall read “ONR BAA 11-001 White Paper Submission”. The white paper must be a Microsoft Word 2003 or .PDF format attachment to the email.

NOTE: 1) Do not send hardcopies of White Papers (including Facsimiles) as only electronic submissions will be accepted and reviewed; 2) Do not send .ZIP files; 3) Do not send password protected files.

White Paper Content

- **Cover Page:** The Cover Page shall be labeled “WHITE PAPER” and shall include the BAA number 11-001, proposed title, technical points of contact, telephone number, facsimile number, and e-mail address.
- **Technical Concept:** A description of the technology innovation and technical risk areas.

For Basic Research

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

For Applied Research and Advanced Technology Development

- **Operational Naval Concept (where applicable):** A description of the project objectives, the concept of operation for the new capabilities to be delivered, and the expected operational performance improvements.
- **Operational Utility Assessment Plan (where applicable):** A plan for demonstrating and evaluating the operational effectiveness of the Offeror's proposed products or processes in field experiments and/or tests in a simulated environment.

b. FULL PROPOSALS

INSTRUCTIONS FOR CONTRACTS, COOPERATIVE AGREEMENTS AND OTHER TRANSACTION AGREEMENTS (Does not include Grants)

NOTE: Submission instructions under this Broad Agency Announcement 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. Both the Template and the Spreadsheet 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 – both documents must be fully completed to constitute a valid proposal.

All proposals must use ONR's Technical and Cost Proposal Template and Cost Proposal Spreadsheet. The Template can be found by following this link: <http://www.onr.navy.mil/Contracts-Grants/submit-proposal/contracts-proposal/cost-proposal.aspx> . Please note that all the attachments listed in Section III.8 of the Template can be incorporated into the Template file for submission.

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. If proposing options, they **must** be separately priced and separate spreadsheets should be provided for the base period and each option period.

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 also familiarize themselves with the new subcontract reporting requirements set forth in Federal Acquisition Regulation (FAR) clause 52.204-10, Reporting Executive Compensation and First-Tier Subcontract Awards. From October 1, 2010 through February 28, 2011, any newly awarded subcontract must be reported if the prime contract award amount is \$550,000 or more. Starting March 1, 2011, any newly awarded subcontract must be reported if the prime contract award amount was \$25,000 or more. The pertinent requirements can be found in Section VII, Other Information, of this document.

Offerors should submit one (1) original, plus an appropriate number of hard copies as discussed with the cognizant Program Officer, of their Technical and Cost Proposal package, and one (1) electronic copy on a CD-ROM. Offerors shall follow the Technical and Cost Proposal Template. The electronic Technical and Cost Proposal should be submitted in a secure, pdf compatible format, save 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” indicated 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.

INSTRUCTIONS FOR GRANTS (Does not include contracts, cooperative agreements and other transaction agreements)

The following information must be completed as follows in the SF 424 to ensure that the application is directed to the correct individual for review: Block 4a, Federal Identifier: Enter the previous ONR award number, or N00014 if the application is not a renewal or expansion of an existing award; Block 4b, Agency Routing Number, Enter the three (3) digit Program Office Code (i.e., 331) and the Program Officer’s name, last name first, in brackets (i.e., [Shifler, David]). Applicants who fail to provide a Department code identifier may receive a notice that their proposal will be rejected.

Please note that Volume I, Technical Proposal should be submitted as an

attachment to the SF 424 rather than being inserted into Block 7, Project Narrative. Block 7 should be completed with a statement that Volume 1 is attached. To attach the Technical Proposal, open the Attachment Form in the Optional Documents box of the application package, scroll down to the Attachment page, and follow the instructions. The file should be titled “Volume I – Technical Proposal.”

Full Proposal Format – Volume 1 - Technical and Volume 2 - Cost Proposal

- Paper Size – 8.5 x 11 inch paper
- Margins – 1 inch
- Spacing – single-spaced
- Font – Times New Roman, 12 point
- Discuss the limit on the number of pages for Volume I with the cognizant Program Officer. There are no page limitations to the Cost Proposal, Volume 2.
- Copies – the full proposal should be submitted electronically at <http://www.grants.gov/> as delineated in paragraph 5 below.

Volume 1: Technical Proposal

- **Cover Page:** This should include the words “Technical Proposal” and the following:
 - 1) BAA number 11-001;
 - 2) Title of Proposal;
 - 3) Identity of prime Offeror and complete list of subawards, if applicable;
 - 4) Technical contact (name, address, phone/fax, electronic mail address)
 - 5) Administrative/business contact (name, address, phone/fax, electronic mail address) and;
 - 6) Proposed period of performance (identify both the base period and any options, if included).

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

Technical Approach and Justification: The major portion of the proposal should consist of a clear description of the technical approach being proposed. This discussion should provide the technical foundation/justification for pursuing this particular approach/direction and why one could expect it to enable the objectives of the proposal to be met. Offerors should limit the number of pages for this section to 15 pages.

Include for Basic Research, if it applies.

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

For Applied Research and Advanced Technology Development, if it applies.

- **Operational Naval Concept (where applicable):** A description of the project objectives, the concept of operation for the new capabilities to be delivered, and the expected operational performance improvements.
- **Operational Utility Assessment Plan (where applicable):** A plan for demonstrating and evaluating the operational effectiveness of the Offeror's proposed products or processes in field experiments and/or tests in a simulated environment.
- **Project Schedule and Milestones:** A summary of the schedule of events and milestones:
- **Reports:**

The following are sample data deliverables that are typically required under a research effort:

Technical and Financial Progress Reports
Final Report

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

- **Management Approach:** Identify which personnel and subcontractors/subrecipients (if any) will be involved. Include a description of the facilities that are required for the proposed effort, along with a description of any Government Furnished Equipment/Hardware/ Software/Information required, by version and/or configuration.
- **Current and Pending Project and Proposal Submissions:** Offerors are required to provide information on all current and pending support for ongoing projects and proposals, including subsequent funding in the case of continuing contracts, grants, and other assistance agreements. Offerors shall provide the following information of any related or complementary proposal submissions from whatever sources (e.g., ONR, Federal, State, local or foreign government agencies, public or private foundations, industrial or other commercial organizations).

The information must be provided for all proposals already submitted or submitted concurrently to other possible sponsors, including ONR. Concurrent submission of a proposal to other organizations will not prejudice its review by ONR:

- 1) Title of Proposal and Summary;
- 2) Source and amount of funding (annual direct costs; provide contract and/or grant numbers for current contracts/grants);
- 3) Percentage effort devoted to each project;

- 4) Identity of prime Offeror and complete list of subcontractors, if applicable;
- 5) Technical contact (name, address, phone/fax, electronic mail address)
- 6) Administrative/business contact (name, address, phone/fax, electronic mail address);
- 7) Period of performance (differentiate basic effort);
- 8) The proposed project and all other projects or activities requiring a portion of time of the Principal Investigator and other senior personnel must be included, even if they receive no salary support from the project(s);
- 9) The total award amount for the entire award period covered (including indirect costs) must be shown as well as the number of person-months or labor hours per year to be devoted to the project, regardless of source of support; and
- 10) State how projects are related to the proposed effort and indicate degree of overlap.

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

Volume 2: Cost Proposal

The offeror must use the Grants.gov forms from the application package template associated with the BAA on the Grants.gov web Site located at <http://www.grants.gov/>. If options are proposed, the cost proposal must provide the pricing information for the option periods; failure to include the proposed costs for the option periods will result in the options not being included in the award. Assume that performance will start no earlier than three (3) months after the date the cost proposal is submitted. A separate Adobe .pdf document should be included in the application that provides appropriate justification and/or supporting documentation for each element of cost proposed.

Part 1: The itemized budget must include the following

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

Administrative and clerical labor – Salaries of administrative and clerical staff are normally indirect costs (and included in an indirect cost rate). Direct charging of these costs may be appropriate when a major project requires an extensive amount of administrative or clerical support significantly greater than normal and routine levels of support. Budgets proposing direct charging of administrative or clerical salaries must be

supported with a budget justification which adequately describes the major project and the administrative and/or clerical work to be performed.

- Fringe Benefits and Indirect Costs (i.e., F&A, Overhead, G&A, etc) – The proposal should show the rates and calculation of the costs for each rate category. If the rates have been approved/negotiated by a Government agency, provide a copy of the memorandum/agreement. If the rates have not been approved/negotiated, provide sufficient detail to enable a determination of allowability, allocability and reasonableness of the allocation bases, and how the rates are calculated. Additional information may be requested, if needed. If composite rates are used, provide the calculations used in deriving the composite rates.
- Travel – The proposed travel cost should include the following for each trip: the purpose of the trip, origin and destination if known, approximate duration, the number of travelers, and the estimated cost per trip must be justified based on the organizations historical average cost per trip or other reasonable basis for estimation. Such estimates and the resultant costs claimed must conform to the applicable Federal cost principals.
- Subawards – Provide a description of the work to be performed by the subrecipients. For each subaward, a detailed cost proposal is required to be submitted by the subrecipient(s). The proposed subawardee's or subrecipient's cost proposal can be provided in a sealed envelope with the recipient's cost 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 either a subcontract or a sub-agreement. A proposal and supporting documentation must be received and reviewed before the Government can complete its cost analysis of the proposal and enter negotiations. Fee/profit is not allowable on any subawards made through assistance agreements. Fee is allowable on subcontract awards.
- Consultants – Provide a breakdown of the consultant's hours, the hourly rate proposed, any other proposed consultant costs, a copy of the signed Consulting Agreement or other documentation supporting the proposed consultant rate/cost, and a copy of the consultant's proposed statement of work if it is not already separately identified in the prime contractor's proposal.
- Materials & Supplies – Provide an itemized list of all proposed materials and supplies including quantities, unit prices, proposed vendors (if known), and the basis for the estimate (e.g., quotes, prior purchases, catalog price lists).
- Recipient Acquired Equipment or Facilities – Equipment and/or facilities are normally furnished by the Recipient. If acquisition of equipment and/or facilities is proposed, a justification for the purchase of the items must be provided. Provide an itemized list of all equipment and/or facilities costs and the basis for the estimate (e.g., quotes, prior purchases, catalog price lists). Allowable items normally would be 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, office equipment and furnishings, etc.) should not be requested unless they will be used primarily or exclusively for the project. For computer/laptop purchases and other general purpose equipment, if proposed, include a statement indicating how each item of equipment will be integrated into the program or used as an integral part of the research effort.

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

***NOTE:** If the grant proposal is for a conference, workshop or symposium, the funds provided by ONR may be used to pay for food or beverages only in exceptional circumstances. The funds will not be used for food or beverages unless (1) the grant proposal contains a request for such funding that is fully supported factually in accordance with the cost principles of the relevant OMB Circular, and (2) the grants officer determines that the funding is a reasonable, allocable, allowable expense under the relevant cost principles.*

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

Part 2: Cost breakdown by Government fiscal year and task/sub-task corresponding to the same task breakdown in the proposed Statement of Work. When options are contemplated, options must be separately identified and priced by task/subtask.

3. Significant Dates and Times –

This announcement will remain open until 30 September 2011 or until replaced by a successor BAA, whichever occurs first. Proposals may be submitted any time during this period.

4. Submission of Late Proposals –

Not applicable (N/A)

5. Submission of Grant Proposals through Grants.gov

(NOT APPLICABLE TO PROPOSALS FOR CONTRACTS, COOPERATIVE AGREEMENTS, AND OTHER TRANSACTION AGREEMENTS)

Detailed instructions entitled “Grants.Gov Electronic Application and Submission Information” on how to submit a Grant proposal through Grants.gov are under the Acquisition Department — Submitting a Proposal section of the website at

<http://www.onr.navy.mil/Contracts-Grants/submit-proposal/grants-proposal/grants-gov.aspx>.

As stated in Section IV.2 (pages 16-17), White Papers should not be submitted through the Grants.gov Apply process but rather should be sent directly to ONR. White paper submissions should be e-mailed directly to the appropriate ONR Program Officer/Program Manager. White paper format requirements are found in Section IV, item 2a above.

By completing Block 17 of the SF 424 R&R the Grant Applicant is providing the certification on lobbying required by 32 CFR Part 28. Refer to Section VI, 'Award Administration Information' entitled "Certifications" for further information.

For electronic submission of grant full proposals, there are several one-time actions that must be completed in order to submit an application through Grants.gov. These include obtaining a Dun and Bradstreet Data Universal Numbering System (DUNS) number, registering with the Central Contract Registry (CCR), registering with the credential provider, and registering with Grants.gov. See www.grants.gov, specifically www.grants.gov/GetStarted.

Use the Grants.gov Organization Registration Checklist at http://www.grants.gov/applicants/register_your_organization.jsp which will provide guidance through the process. Designating an E-Business Point of Contact (E-Biz POC) and obtaining a special password called 'MPIN' are important steps in the CCR registration process. Applicants who are not registered with CCR and Grants.gov should allow at least 21 days to complete these requirements. The process should be started as soon as possible. Any questions relating to the registration process, system requirements, how an application form works, or the submittal process must be directed to Grants.gov at 1-800-518-4726 or support@grants.gov.

Special Notices Relative to Grant Applications to be submitted through Grants.Gov:

All attachments to grant applications submitted through Grants.Gov must be in Adobe Portable Document Format. Proposals with attachments submitted in word processing, spreadsheet, or any format other than Adobe Portable Document Format will not be considered for award.

Proposal Receipt Notices:

After a full proposal is submitted through Grants.gov, the Authorized Organization Representative (AOR) will receive a series of three e-mails. It is extremely important that the AOR watch for and save each of the e-mails. You will know that your proposal has reached ONR when the AOR receives e-mail Number 3. You will need the Submission Receipt Number (e-mail Number 1) to track a submission. The three e-mails are:

Number 1 – The applicant will receive a confirmation page upon completing the submission to Grants.gov.

Number 2 – The applicant will receive an e-mail indicating that the proposal has been validated by Grants.gov within two days of submission (This means that all of the required fields have been completed).

Number 3 – The third notice is an acknowledgment of receipt in e-mail form from ONR within ten days from the proposal due date, if applicable. The e-mail is sent to the authorized representative for the institution. The e-mail for proposals notes that the proposal has been received and provides the assigned tracking number.

6. Address for the Submission of White Papers and Full Proposals for Contracts, Cooperative Agreements, and Other Transaction Agreements.

Hard copies of White Papers (Contracts, Grants, Cooperative Agreements and Other Transaction Agreements), if requested, and Full Proposals for Contracts, Cooperative Agreements, and Other Transaction Agreements should be sent to the Office of Naval Research at the following address:

Office of Naval Research
Attn*: _____
ONR Department Code***: _____
875 North Randolph Street
Arlington, VA 22203-1995

**Cognizant ONR Program Officer/Point of Contact (POC)*

***Cognizant ONR POC's Code*

A list describing each of the ONR Department Codes can be found at <http://www.onr.navy.mil/> on the right side of the screen.

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;
- 2) Potential Naval relevance and contributions of the effort to the agency's specific mission;
- 3) The offeror's capabilities, related experience, facilities, techniques or unique combinations of these which are integral factors for achieving the proposal

- objectives;
- 4) The qualifications, capabilities and experience of the proposed Principal Investigator (PI), team leader and key personnel who are critical in achieving the proposal objects; and
 - 5) The realism of the proposed costs and availability of funds.

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 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 \$650K, the Offeror shall provide a statement which demonstrates how they intend to provide meaningful subcontracting opportunities to support this policy.

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.

2. 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

1. 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.

Subcontracting Plans: Successful contract proposals that exceed \$650,000 shall be submitted by all but small business concerns. Subcontracting Plans will be required prior to award in accordance with FAR 52.219-9.

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

Grants, Cooperative Agreements and Normal Other Transaction Agreements (OTAs) Certification Requirements:

Grant and Cooperative Agreement awards greater than \$100,000, as well as OTAs not under Section 845, require a certification of compliance with a national policy mandate concerning lobbying. Grant, Cooperative Agreement and OTA applicants shall provide this certification by electronic submission of SF424 (R&R) as a part of the electronic proposal submitted via [Grants.gov](https://www.grants.gov) (complete Block 17). The following certification applies to each applicant seeking federal assistance funds exceeding \$100,000:

CERTIFICATION REGARDING LOBBYING ACTIVITIES

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

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

(3) The applicant shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and

contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

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

Grants not through Grants.gov

Proposers seeking grants who have received Grants.gov waiver approval for awards greater than \$100,000 shall complete and submit electronic representations and certifications at the Contracts and Grants Section of the ONR Home Page at <http://www.onr.navy.mil/Contracts-Grants/submit-proposal/~media/BDBA1ACF9F534C10BE2A9C9AD9AA7F12.ashx>.

VII. OTHER INFORMATION

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

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

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.

Normally, work under a grant does not require access to classified material.

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. Recombinant DNA

Proposal which call for experiments using recombinant DNA must include documentation of compliance with Department of Human and Health Services (DHHS) recombinant DNA regulations, approval of the Institutional Biosafety Committee (IBC), and copies of the DHHS Approval of the IBC letter.

5. 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 ONR contracts, grants, and other 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 or do not have acceptable plans to mitigate identified conflicts will be rejected without technical evaluation and withdrawn from further consideration for award. 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 or mitigated, 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 performer may be held as necessary. Program status reviews may also be held to provide a forum for reviews of the latest results from experiments and any other incremental progress towards the major demonstrations. These meetings will be held at various sites throughout the country. For costing purposes, offerors should assume that 40% of these meetings will be at or near ONR, Arlington VA and 60% 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 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.fsr.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.