



## **BROAD AGENCY ANNOUNCEMENT (BAA) NUMBER 13-005**

### **Electronic Warfare Technology**

#### **Table of Content**

**The following information presents the basic organization of this document as well as the location of significant information:**

- I. General Information
  1. Agency Name
  2. Research Opportunity Title
  3. Program Name
  4. Research Opportunity Number
  5. Response Date
  6. Research Opportunity Description
  7. Point(s) of Contact
  8. Instrument Type(s)
  9. Catalog of Federal Domestic Assistance (CFDA) Number
  10. Catalog of Federal Domestic Assistance (CFDA) Titles
  11. Other Information
- II. Award Information
  1. Amount and Period of Performance
  2. Peer Reviews
  3. Production and Testing of Prototypes
- III. Eligibility Information
- IV. Application and Submission Information
  1. Application and Submission Process
  2. Content and Format of White Papers/Full Proposals
    - a. White Papers
    - b. Full Proposals
      - i. Contracts
      - ii. Grants
  3. Significant Dates and Times
  4. Submission of Late Proposals
  5. Submission of Grant Proposals
  6. Submission of White Papers and Full Proposals for Contracts, Cooperative Agreements and Other Transaction Agreements
- V. Evaluation Information
  1. Evaluation Criteria

2. Commitment to Small Business (For Contract Awards Only)
3. Options
4. Evaluation Panel
- VI. Award Administration Information
  1. Administrative Requirements
- VII. Other Information
  1. Government Property/Government Furnished Equipment (GFE) and Facilities
  2. Security Classification
  3. Use of Animals and Human Subjects in Research
  4. Recombinant DNA
  5. Use of Arms, Ammunition and Explosives
  6. Department of Defense High Performance Computing Program
  7. Organizational Conflicts of Interest
  8. Project Meetings and Reviews
  9. Reporting Executive Compensation and First-Tier Subcontract Awards
  10. Military Recruiting on Campus (APPLIES ONLY TO GRANTS)
  11. Combating Trafficking in Persons
  12. Updates of Information regarding Responsibility Matters
  13. Employment Eligibility Verification
  14. Intellectual Property

## **INTRODUCTION:**

This publication constitutes a Broad Agency Announcement (BAA) as contemplated in Federal Acquisition Regulation (FAR) 6.102(d)(2) and 35.016 and the Department of Defense Grants and Agreements Regulations (DoDGARS) 22.315(a). 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 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.

### **I. GENERAL INFORMATION:**

- 1. Agency Name** - Office of Naval Research
- 2. Research Opportunity Title** - Electronic Warfare Technology
- 3. Program Name** - Electronic Warfare Discovery and Invention (D&I)
- 4. Research Opportunity Number** - 13-005
- 5. Response Date** -

White Papers: 2/5/2013

Full Proposals: 5/7/2013

### **6. Research Opportunity Description -**

The goal of Electronic Warfare (EW) is to control the Electro-Magnetic Spectrum (EMS) by exploiting, deceiving, or denying enemy use of the spectrum while ensuring its use by friendly forces. To that end, the Office of Naval Research (ONR) EW Discovery and Invention (D&I) program invests in Science and Technology (S&T) initiatives that will provide naval forces (including Navy and Marine Corps) with improved threat warning systems; Electronic warfare Support (ES); decoys and countermeasures against weapon tracking and guidance systems; Electronic Attack (EA) against adversary Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR); and Electronic Protection (EP) of our own weapons and C4ISR from intentional and unintentional interference.

ONR has funded related technology development under numerous programs. If Offerors are enhancing work performed under other ONR or DoD projects, they must clearly identify the point of departure and what existing work will be brought forward and what new work will be performed under this BAA.

ONR Code 312 Electronic Warfare (312EW) seeks proposals for efforts that shall develop and demonstrate technologies for the next generation systems in electronic warfare. White papers and subsequent proposals should address technology developments in one or more of the following areas:

## A. Enabling Cognitive and Adaptive Electronic Warfare

The objective is to apply adaptive and machine learning algorithms to EW. Radio Frequency (RF) systems are becoming increasingly more agile in waveforms, bandwidth, functionality, and diversity of EP modes. Traditional static emitter databases and pre-programmed countermeasures could be inadequate against future threat systems employing such agility. New methods are needed to represent real-time dynamic spectrum knowledge, sense and learn RF features and behaviors, and to reason about threat systems and the environment to form electronic attack strategies on-the-fly. Potential areas of investigation include:

1. **Spectrum Knowledge:** Develop a framework and standards to capture a priori and real-time spectrum knowledge. This framework should provide an open and common way to organize, share, and utilize dynamic data about spectrum and its users for real-time electronic warfare applications. Spectrum knowledge includes both static and dynamic parameters of RF emitters and networks including physical layer transmission properties, protocols, functionality, physical maneuver, network topologies, adaptive behaviors, EP modes, etc. The framework should have the ability to maintain multiple hypotheses with likelihood estimates on aspects of measurements that are uncertain. At a minimum, this framework should handle the common RF systems such as communications, radars, jammers, and precision timing and navigation systems. Existing standards and proven techniques in the artificial intelligence (AI) community for representing dynamic relationships and actions applied to knowledge should be leveraged if applicable and appropriate. In addition, standardization agreements (STANAG), spectrum standards, and EW protocols and tools should be leveraged if applicable. The framework and representation should be open (within the US government and their contractors) and extensible. It should be independent to how spectrum knowledge is collected and to the methods that consume or reason about knowledge (these are covered in the next subsections). The Offerer should include a plan for vetting their framework and standards to the appropriate industry, academic, and government community for feedback and critical review to increase probability for greater acceptance.

2. **Spectrum Learning:** Investigate technologies and techniques to learn and provide comprehensive knowledge about the spectrum and threat environment. Non-traditional techniques and technologies are needed that can provide information beyond the physical layer properties such as frequency, bandwidth, and power. Preference will be given to techniques that can be applied to existing sensors and avoid adding new hardware to platforms with severe size, weight and power (SWAP) constraints. Of particular interest are technologies and techniques to learn or infer in real-time some, if not all, of the following from over-the-air observables:

- a. Comprehensive identification and location of all spectrum signals, emitters, and users with a focus on naval missions such as tactical strike and surface ship defense;
- b. Identification of the electronic order-of-battle of integrated defense networks;
- c. Identification and characterization of EP modes and adaptive threat strategies (especially in the presence of jamming);
- d. Identification of communication or radar network structures including functional topologies and hierarchal importance;
- e. Identification and characterization of previously unknown communication or network

protocols;

- f. Identification of the function and intent of radar systems;
- g. Assessment of the effectiveness of our own EA, i.e. an EW battle damage assessment (BDA); and
- h. Characterization of the RF propagation environment using both intentionally transmitted signals and signals of opportunity.

Offerors must include a realistic testing and validation plan for their proposed technology and directly describe how their approach compares to the current state-of-the-art. Proposed technologies that are pure signal processing techniques must address the expected receiver and computational requirements needed to execute their technique.

3. **Spectrum Reasoning:** Investigate methods to reason about current spectrum conditions and threat knowledge to develop real-time and resource optimized EA strategies. The emphasis of this task is developing methods for prioritizing threats on-the-fly and mapping available EA resources to counter many simultaneous threats (one-on-many scenarios). Methods to optimize distributed EW resources across many platforms to counter multiple threats are also of high interest (many-on-many scenarios). These methods should reason from available knowledge about the spectrum (including dynamically changing data and data with uncertainty) and knowledge of the current EW resources and available techniques to develop real-time optimized attack strategies. Preference is given to methods that are applicable to all potential EW engagements but scenario specific methods are also of interest. Specific scenarios could include real-time EW strategies for off-board decoys for surface ship defense or multiple ground-based communication jammers working in a dense RF environment. Other technologies of interest include: methods to reason about the best composition of actions to create an effective electronic attack against new threats or new threat modes; methods to optimize the allocation of EW resources at the platform level and the engagement level (e.g. optimize trajectory of multiple unmanned platforms to achieve an EW objective); and optimization and distribution of EA techniques across available EW assets to achieve the desired effect.

4. **Spectrum Attack:** Investigate methods to leverage knowledge about a RF system's hardware, protocol, operation methods, processing algorithms, software, firmware, and vulnerabilities of these components to develop targeted and optimized EA strategies. The end goal is to develop non-traditional electronic countermeasure techniques that are more effective, efficient and covert than current EW methods. Technologies of interest include but are not limited to: methods to autonomously develop EW strategies based on sensing of protocol dynamics to attack targeted portions of the protocol to cause denial; automated search and optimization methods to develop targeted EA attacks; and network and target deception techniques that covertly deny the threat's operational effectiveness. Preference is given to techniques that can identify vulnerabilities in real-time and exploit them to cause denial or deception. Automated hardware-in-the-loop laboratory systems for targeted technique development, hardware and software reverse engineering, and vulnerability analysis are also of interest. Preference is given to techniques that can be applied to all threats or a specific threat class (e.g. radar, communications), but solutions targeted at specific, high-interest threats will also be considered.

## B. Technologies for High Throughput and Rapidly Programmable EW Systems

The objective is to develop enabling technologies for reconfigurable EW systems that have extremely high-volume processing capability. Future EW systems need to be able to consume a large amount of raw sensor data, extract high-level knowledge from this data, and then derive optimized EW attack strategies in real-time while operating over very large bandwidths. The software defined radio (SDR) concept has proven practical in the communication domain for providing a capability to rapidly develop, test, and deploy new processing techniques and waveforms. SDR's that run on general purpose processors (GPPs) can typically handle 10's of MHz of bandwidth. Field programmable gate arrays (FPGAs) and graphical processing units (GPU's) allow for larger data throughput processing but usually at the price of specialized code and algorithm development. Technologies are desired that will enable rapidly reconfigurable, highly capable, and easily programmable software defined RF systems that have at least an order-of-magnitude more processing capability than current state-of-the-art FPGA or GPU-based solutions. The objective is a software defined RF system that is capable of performing high-level and real-time signal processing operations (such as those described in sections A2 and A3) over not less than 3 GHz (threshold) and up to 10 GHz (objective) of RF bandwidth on platforms with severe SWAP constraints. Technologies of interest include but are not limited to high-performance, parallel, or hybrid computational architectures to provide a significantly higher processing capability and analog or digital signal processing techniques to drastically reduce the amount of raw sensor data required to be processed. The goal is to minimize the amount of data that needs to be moved from system to system or platform to platform by processing it at the data source (i.e. co-exist with the sensor) and only transmitting low volume metadata (metacontent). Offerors must directly describe how their approach compares to the current state-of-the-art.

#### C. Emulation Environments for Adaptive and Targeted Electronic Warfare

The objective is to develop emulated RF environments or modeling and simulation (M&S) environments to enable the development, testing, and validation of advanced cognitive and targeted EW techniques and systems. As EW systems become more automated, the development of robust experimentation and validation methodologies are needed to ensure sufficient and optimal testing against future threats. This includes the development of a flexible hardware-in-the-loop or M&S testbed to test adaptive EW techniques, which could include the adaptation of existing testbeds to support testing of cognitive systems. This testbed should incorporate representative models of non-adaptive and adaptive or cognitive electromagnetic systems, e.g. radar, EO sensors, radios, and jammers. The testbed should provide a framework that allows for the incorporation of additional electromagnetic systems and realistic EM background environments. The testbed should provide the ability for developers to prototype cognitive algorithms and visualize the performance of these algorithms. This may include network topology discovery, threat discovery and identification, and location of assets. It should also support research into closed-loop techniques that rapidly identify threat behavior in order to anticipate and out-pace its actions.

#### D. Innovative EW Concepts

The objective is to explore truly innovative concepts in the EW areas of ES, EA, or EP which could fundamentally change the way naval (Navy and Marine Corps) forces conduct EW operations. (Note that this sub-section should only be cited by proposals that do not fall within any of the other sub-sections of this Research Opportunity Description.)

Proposals responding to this solicitation should focus on innovative solutions involving emerging, cutting-edge technologies. Solutions that use Commercial Off-The-Shelf (COTS) or other traditional technologies are less desirable, unless the application of these technologies

is truly innovative in approach. Likewise, proposals that seek primarily to demonstrate the military application of existing technology or techniques, in either a laboratory or field environment, are discouraged unless a truly significant technological advance can be achieved through this demonstration. Finally, proposals that are contingent upon ONR providing government furnished equipment, instrumentation, test facilities, or threat hardware and information for exploitation are NOT acceptable.

## **7. Point(s) of Contact -**

Questions of a technical nature should be submitted to:

Technical Primary Point of Contact:

Dr. Peter Craig  
Office of Naval Research  
ONR Code 312 - Electronic Warfare  
Electronics, Sensors, and Network Research Division  
Office of Naval Research  
875 North Randolph Street, Suite 1112  
Arlington, VA 22203-1995  
Email: [peter.craig@navy.mil](mailto:peter.craig@navy.mil)

Technical Secondary Point of Contact:

Dr. Kevin Rudd  
Office of Naval Research  
ONR Code 312 - Electronic Warfare  
Electronics, Sensors, and Network Research Division  
Office of Naval Research  
875 North Randolph Street, Suite 1125  
Arlington, VA 22203-1995  
Email: [kevin.e.rudd@navy.mil](mailto:kevin.e.rudd@navy.mil)

Questions of a business nature should be submitted to:

Business Primary Point of Contact:

Rebecca Foster  
Office of Naval Research  
ONR Code BD 0251  
Office of Naval Research  
875 North Randolph Street, Suite W1272D  
Arlington, VA 22203-1995  
Email: [rebecca.d.foster@navy.mil](mailto:rebecca.d.foster@navy.mil)

Business Secondary Point of Contact:

Vera M. Carroll  
Office of Naval Research  
ONR Code BD 0251  
Office of Naval Research  
875 North Randolph Street, Suite 1279  
Arlington, VA 22203-1995  
Email: [vera.carroll@navy.mil](mailto:vera.carroll@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.

Questions submitted within 2 weeks prior to a deadline may not be answered, and the due date for submission of the white paper and/or full proposal will not be extended.

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

- 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) - Contracts and Grants**

Awards may take the form of Contracts and Grants as appropriate. ONR reserves the right to award a different instrument type if deemed to be in the best interest of the Government.

Any contract awards resulting from this BAA will incorporate the most current FAR, DFARs, NMCARS and 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 -**

12.300

## **10. Catalog of Federal Domestic Assistance (CFDA) Titles -**

Department of Defense (DOD) Basic and Applied Scientific Research

## **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 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. 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.

As regards to the present BAA, the Research and Development efforts to be funded will consist of applied research. The funds available to support awards are Budget Activity 6.2 and Budget Activity 6.3.

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**

### **1. Amount and Period of Performance -**

The period of performance of the awards will range from twelve (12) to thirty six (36) months. In conjunction with the U.S. Army Communications-Electronics Research, Development and Engineering Center (CERDEC) and the U.S. Air Force Research Laboratory (AFRL), ONR plans to fund individual awards of \$500,000.00 to \$1,500,000.00 per year using some combination of Budget Category 6.2 and Budget Category 6.3 funds. However, lower and higher cost efforts will be considered. The estimated start date of selected projects is 02 January 2014, subject to date of final award and availability of new fiscal year funds. Some portion of this budget may fund research requests in this program area received from Government entities outside of this BAA.

The award(s) will be made for the full performance period requested. Options will not be utilized.

## **2. Peer Reviews**

In the case of proposals funded as basic research, ONR may utilize peer reviewers from academia, industry, and Government agencies to assist in the periodic appraisal of performance under the awards, as outlined in ONR Instruction 3966.1. Such periodic program reviews monitor the cost, schedule and technical performance of funded basic research efforts. The reviews are used in part to determine which basic research projects will receive continued ONR funding. Peer reviewers who are not U.S. Government employees must sign nondisclosure agreements before receiving full or partial copies of proposals and reports submitted by the basic research performers. Offerors may include travel costs for the Principal Investigator (PI) to attend the peer review.

## **3. Production and Testing of Prototypes -**

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.

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 § 1201.1 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 - Industry Day, White Paper, Oral Presentation, Full Proposals**

*Industry Day Briefing:* The ONR EW D&I Program will conduct an unclassified briefing for potential Offerors on Tuesday, 18 December 2012 in Arlington VA. The purpose of the meeting will be to provide potential Offerors with a better understanding of the scope of the ONR EW program and objectives of this BAA. The briefing will be held at 10:00 AM Eastern Standard Time (EST) with check-in beginning at 9:00 AM (EST). All attendees are required to pre-register by sending a notification of planned attendance via email to [312\\_EC@onr.navy.mil](mailto:312_EC@onr.navy.mil) by 3:00 PM (EST) on Friday, 14 December 2012. The message must include the following information: name of attendee(s), title(s), organization, department or company division, phone, fax, and email address. Pre-registration by email is mandatory; **WALK-IN REGISTRATION WILL NOT BE PERMITTED**. If requested attendance exceeds capacity, it may be necessary to limit attendance, and organizations will be so notified. ONR will reply via email on or before Friday, 14 December 2012 to those parties who plan on attending the briefing with the specific location in the Arlington, VA area where the briefing will be conducted, directions, schedule, and any other appropriate information. Those not able to attend this briefing should consult the web page <http://www.onr.navy.mil/02/BAA/> after Tuesday, 18 December 2012 to see briefing slides and answers to questions submitted during the conference.

*White Papers:* The due date for white papers is no later than 3:00 PM (EST) on Tuesday, 05 February 2013. White papers are to be submitted as an Adobe PDF or Word 2007 file via electronic mail (email) only to [312\\_EC@onr.navy.mil](mailto:312_EC@onr.navy.mil). If an Offeror does not submit a white paper before the due date and time, it is not eligible to participate in the remaining Full Proposal submission process and is not eligible for Fiscal Year (FY) 2014 funding. (In order to

provide traceability and evidence of submission, Offerors may wish to use the "Delivery Receipt" option available from Microsoft Outlook and other email programs that will automatically generate a response when the subject email is delivered to the recipient's email system. Consult the User's Manual for your email software for further details on this feature.) Each white paper should state that it is submitted in response to BAA Number 13-005 and cite the particular sub-section of the Research Opportunity Description that the white paper is primarily addressing.

Navy evaluations of the white papers will be issued via email notification on or about Friday, 22 February 2013.

*Oral Presentation:* An expanded oral presentation will be subsequently requested from those Offerors whose proposed technologies have been identified as being of "particular value" to the Navy. However, any such request does not assure a subsequent award. Any Offeror whose white paper technology was not identified as being of "particular value" to the Navy is ineligible to make an oral presentation or to submit a full proposal under this BAA. ONR requests that Project Manager (PMs)/Principal Investigators (PIs) provide expanded presentations of their selected white papers. The purpose of the oral presentation is to provide additional information and address how the proposed technology will affect military applications. The requested oral presentations will coincide with the annual ONR EW Science & Technology (S&T) Review, currently scheduled for 19-21 March 2013. The time, location, and briefing format of the oral presentations, if requested, will be provided at a later date via email notification.

Navy evaluations of the oral presentations will be issued via email notification on or about Friday, 29 March 2013.

*Full Proposal:* A full proposal will be subsequently encouraged from those Offerors whose proposed technologies have been identified through the aforementioned email as still being of "particular value" to the Navy. Any Offeror whose oral presentation was not identified as being of "particular value" to the Navy is ineligible to submit a full proposal under this BAA. The due date for receipt of Full Proposals is 3:00 PM Eastern Daylight Time (EDT) on Tuesday, 07 May 2013. ONR will select the efforts to be funded for FY14 start-up based upon the quality and completeness of the full proposal and the level of available funding. It is anticipated that final selections will be made within four (4) weeks after 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 FY14 funding. Full proposals received after the published due date and time will not be considered for funding in FY14. Full proposals exceeding the page limit may not be evaluated.

The only acceptable method for submission of full proposals for contracts is hard copy to the technical point of contact (Dr. Peter Craig) by the United States Postal Service (USPS) with delivery confirmation, or via a commercial carrier (FedEx and UPS).

***NOTE: Full Proposals sent by email or fax will not be considered. Delivery of materials by USPS, even when sent as Express Mail, may take a week or more due to current security procedures in place to ensure the safety of U.S. mail to DoD activities.***

## 2. Content and Format of White Papers/Full Proposals -

White Papers and Full Proposals submitted under the BAA are expected to be unclassified; however, confidential/classified responses are permitted. Contracts or other instruments resulting from a classified proposal will be unclassified.

### Unclassified Proposal Instructions:

Unclassified White Papers and Full Proposals shall be submitted in accordance with Section IV. entitled "Application and Submission Information".

### Classified White Paper and Proposal Instructions:

Classified White Papers and Full Proposals shall be submitted directly to the attention of ONR's Document Control Unit at the following address:

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 proposal should be addressed to the attention of Dr. Peter Craig ([Peter.Craig@navy.mil](mailto:Peter.Craig@navy.mil)), ONR Code 312 and marked in the following manner:

INNER ENVELOPE (stamped with the overall classification of the material)  
Program: Electronic Warfare Technology  
Office of Naval Research  
Attn: Dr. Peter Craig  
ONR Code: 312  
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.***

### 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

- Max. Number of Pages permitted: four (4) pages (excluding cover page, resumes, bibliographies, and table of contents)
- Copies - One (1) electronic copy in Adobe PDF or Word 2007 delivered via email. Electronic (email) submissions should be sent to the attention of the TPOC at: (Email Address of the TPOC, e.g. [312\\_EC@onr.navy.mil](mailto:312_EC@onr.navy.mil)). The subject line of the email shall read "ONR BAA 13-005 White Paper Submission."  
**NOTE: 1) Do not send .ZIP files; 2) Do not send password protected files.**

In order to provide traceability and evidence of submission, Offerors may wish to use the "Delivery Receipt" option available from Microsoft Outlook and other email programs that will automatically generate a response when the subject email is delivered to the recipient's email system. Consult the User's Manual for your email software for further details on this feature.

### **White Paper Content**

- **Cover Page:** The Cover Page shall be labeled "WHITE PAPER", and shall include the BAA Number 13-005, proposed title, Offeror's administrative and technical points of contact, with telephone numbers, facsimile numbers, and Internet addresses, and shall be signed by an authorized officer.
- **Technical Concept:** A description of the technology innovation and technical risk areas.
  1. Project Manager and/or Principal Investigator;
  2. Relevance to BAA Research Opportunity Description and specific sub-section(s) being addressed;
  3. Technical objective;
  4. Technical approach;
  5. Deliverables;
  6. Recent technical breakthroughs that will reduce risk; and
  7. Funding plan showing requested funding per fiscal year, as well as the total funding request.
- **Operational Naval Concept:** 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:** 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.
- **Programmatic Section:** A programmatic section that includes milestones and a timetable.
- **Resumes:** A single page (each) summary resume (including previous relevant experience and pertinent publications) for Project Manager and/or Principal Investigator.

## **b. FULL PROPOSALS**

### **i. INSTRUCTIONS FOR CONTRACTS, COOPERATIVE AGREEMENTS AND OTHER TRANSACTION AGREEMENTS (Does not include Grants)**

*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.*

*Proposal Package: The following three documents with attachments comprise a complete proposal package:*

- (1) Technical Proposal Template (pdf)
- (2) Technical Content (word)
- (3) Cost Proposal Spreadsheet (excel)

*These 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 Technical Proposal Template and the Cost Proposal Spreadsheet require completion of cost-related information. Please note that attachments can be incorporated into the Technical Proposal Template for submission.*

***IMPORTANT NOTE: When completing the Technical Content portion of the Technical Proposal Template, make sure to address the Evaluation Criteria provided in Section V. of this BAA in addition to all information required by the Technical Proposal Template.***

The format requirements for any attachments are as follows:

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

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 Proposal Template or Technical Content documents, 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. In addition to providing summary by period of performance (base and any options), the Contractor is also responsible for providing a breakdown of cost for each task identified in the Statement of Work. The sum of all costs by task worksheets MUST equal the total cost summary.

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. The pertinent requirements can be found in Section VII, Other Information, of this document.

Offerors should submit one (1) electronic copy on CD-ROM as discussed with the cognizant Program Officer, of their proposal package. The electronic copy 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 Proposal Template and Technical Content in an electronic file that allows for revision (preferably in Microsoft Word) to facilitate the communication of potential revisions. Should an Offeror amend its proposal, 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.

## **ii. 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 located on [www.grants.gov](http://www.grants.gov) 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 and the Program Officer's name, last name first, in brackets (312 [Craig, Peter]). Applicants who fail to provide a Program Officer code identifier may receive a notice that their proposal is rejected.

To attach the technical proposal in Grants.gov, download the application package  
Click on "Research and Related Other Project Information"  
Click on "Move form to Submission List"  
Click on "Open Form"  
You will see a new PDF document titled "Research & Related Other Project Information".  
Block 7 is the Project Summary/Abstract -> click on "Add attachment" and attach the project summary/abstract. (You will not be able to type in the box, therefore, save the file you want to attach as Project Summary or Abstract).

Block 8 is the Project Narrative -> click on Add attachment and attach the technical proposal. (Save the file as Volume I- Technical Proposal since you will not be able to type in the box).

## **Full Proposal Format - Volume 1 - Technical Proposal 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
- Number of Pages - Volume (Vol. 1) is limited to no more than fifteen (15) pages. Limitations within sections of the proposal, if any, are indicated in the individual descriptions shown below. The cover page, table of contents, resumes and current and pending project and proposal submissions information are excluded from the page limitations. Full Proposals exceeding the page limit may not be evaluated. There are no page limitations to 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 13-005;
  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);
  6. Proposed period of performance (Awards will be made without options); and
  7. Signature of Authorized Representative.
- **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.
  - **Operational Naval Concept:** 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:** 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 reports that are typically required under a research effort:
  - Technical and Financial Progress Reports
  - Presentation Materials

-Final Report

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

- **Management Approach:** A discussion of the overall approach to the management of this effort, including brief discussions of the total organization; use of personnel; project/function/subcontractor/subrecipient relationships; government research interfaces; and planning, scheduling and control practice. Identify which personnel and subcontractors/subrecipients (if any) will be involved. Include a description of the facilities that are required for the proposed effort 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 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 subawards, if applicable;
  - 5) Technical contact (name, address, phone/fax, electronic mail address)
  - 6) Administrative/business contact (name, address, phone/fax, electronic mail address);
  - 7) Duration of effort (differentiate basic effort);
  - 8) The proposed project and all other projects or activities requiring a portion of time of the Project Manager/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 Project Manager/Principal Investigator and any other key personnel. Include resumes for the Project Manager/Principal Investigator and other key personnel and full curricula vitae for Principal Investigators and consultants. The resumes and curricula vitae shall be attached to the proposal and will not count toward the page limitations.

## **VOLUME 2: Cost Proposal**

The offeror must use the Grants.gov forms (including the Standard Form (SF) Research and

Related (R&R) Budget Form) from the application package template associated with the BAA on the Grants.gov web Site located at <http://www.grants.gov/>. If options are proposed, the cost proposal must provide the pricing information for the option periods; failure to include the proposed costs for the option periods will result in the options not being included in the award. Assume that performance will start no earlier than seven (7) 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. Offerors may include travel costs for the /Project Manager/Principal Investigator to attend the peer reviews described in Section II of this BAA.
- 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 for 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.
- Consultants - Provide a breakdown of the consultant's hours, the hourly rate proposed, any other proposed consultant costs, a copy of the signed Consulting

Agreement or other documentation supporting the proposed consultant rate/cost, and a copy of the consultant's proposed statement of work if it is not already separately identified in the prime contractor's proposal.

- Materials & Supplies - Provide an itemized list of all proposed materials and supplies including quantities, unit prices, and the basis for the estimate (e.g., quotes, prior purchases, catalog price lists).
- Recipient Acquired Equipment or Facilities - Equipment and/or facilities are normally furnished by the Recipient. If acquisition of equipment and/or facilities is proposed, a justification for the purchase of the items must be provided. Provide an itemized list of all equipment and/or facilities costs and the basis for the estimate (e.g., quotes, prior purchases, catalog price lists). Allowable items normally 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, laptops, office equipment) should not be requested unless they will be used primarily or exclusively for the project. For computer/laptop purchases and other general purpose equipment, if proposed, include a statement indicating how each item of equipment will be integrated into the program or used as an integral part of the research effort.
- Other Direct Costs - Provide an itemized list of all other proposed other direct costs such as Graduate Assistant tuition, laboratory fees, report and publication costs, and the basis for the estimate (e.g., quotes, prior purchases, catalog price lists).  
NOTE: If the grant proposal is for a conference, workshop or symposium, the funds provided by ONR may be used to pay for food or beverages as a direct cost 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.

### 3. Significant Dates and Times –

| Event                                   | Date                     | Time                           |
|---|--------------------------|--------------------------------|
| Industry Day Briefing                   | 12/18/2012               | 10:00 AM Eastern Standard Time |
| White Paper Due Date                    | 2/5/2013                 | 3:00 PM Eastern Standard Time  |
| Notification of White Paper Evaluation* | 2/22/2013                |                                |
| Oral Presentations*                     | 3/19/2013 thru 3/21/2013 |                                |

|   |           |                               |
|---|-----------|-------------------------------|
| Notification of Oral Presentation Evaluation* | 3/29/2013 |                               |
| Full Proposal Due Date                        | 5/7/2013  | 3:00 PM Eastern Daylight Time |
| Notification of Selection: Full Proposals*    | 6/4/2013  |                               |
| Awards*                                       | 1/2/2014  |                               |

*\*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 extended 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. 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 Submit Proposals section of the website at <http://www.onr.navy.mil/Contracts-Grants/submit-proposal/grants-proposal/grants-gov.aspx>

White Papers should not be submitted through the Grants.gov Apply process, but rather should be sent directly to ONR. White Papers should be e-mailed directly to the Technical Point of Contact. White Paper format requirements are found in Section IV, item 2a above.

By completing Block 17, 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 System for Award Management (SAM), registering with the credential provider, and registering with Grants.gov. See [www.grants.gov](http://www.grants.gov), specifically [www.grants.gov/GetStarted](http://www.grants.gov/GetStarted).

Use the Grants.gov Organization Registration Checklist at [http://www.grants.gov/applicants/register\\_your\\_organization.jsp](http://www.grants.gov/applicants/register_your_organization.jsp) which will provide guidance through the process. Designating an E-Business Point of Contact (EBiz POC) and obtaining a special password called 'MPIN' are important steps in the SAM registration process. Applicants who are not registered with SAM 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 (1-606-545-5035 for foreign applicants) or [support@grants.gov](mailto:support@grants.gov).

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

All attachments to grant applications submitted through [Grants.Gov](http://www.grants.gov) must be in Adobe Portable Document Format (i.e., .PDF files). Proposals with attachments submitted in word processing, spreadsheet, or any format other than Adobe Portable Document Format will not be considered for award.

Applicants who have registered with Grants.gov are urged to submit their proposals electronically at least three days before the date and time that proposals are due so that they will not be received late and be ineligible for award consideration.

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. 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. This confirmation page is a record of the time and date stamp that is used to determine whether the proposal was submitted.

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). After an institution submits an application, Grants.gov generates a submission receipt via email and also sets the application status to "Received." This receipt verifies the Application has been successfully delivered to the Grants.gov system. Next, Grants.gov verifies the submission is valid by ensuring it does not contain viruses, the opportunity is still open, and the applicant login and applicant DUNS number match. If the submission is valid, Grants.gov generates a submission validation receipt via email and sets the application status to "Validated." If the application is not validated, the application status is set to "Rejected." The system sends a rejection email notification to the institution, and the institution must resubmit the application package. Applicants can track the status of their application by logging in to Grants.gov.

Number 3 - The third notice is an acknowledgement 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

White Papers must be emailed to the ONR 312 EW group at the following email address: [312\\_EC@onr.navy.mil](mailto:312_EC@onr.navy.mil). The DVD or CD-ROM of the Full Proposal including all supporting documentation should be sent to the Office of Naval Research at the following address:

| <b>Primary Point of Contact</b>  | <b>Secondary Point of Contact</b>   |
|--|---|
| Office of Naval Research<br>Attn: Dr. Peter Craig<br>ONR Department Code 312<br>875 North Randolph Street – Suite 1112<br>Arlington, VA 22203-1995 | Office of Naval Research<br>Attn: Mr. Kevin Rudd<br>ONR Department Code 312<br>875 North Randolph Street – Suite 1125<br>Arlington, VA 22203-1995 |

## 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:

1. Overall scientific and technical merits of the proposal
  - a. Degree of innovation,
  - b. Soundness of technical concept,
  - c. Awareness of the state of the art and understanding of the scope of the problem and the technical effort needed to address it, and
  - d. Successful achievement of goals will significantly reduce technical risk to a

- subsequent development effort.
2. Naval relevance, transition potential and anticipated contributions of the proposed technology to Electronic Warfare operations
    - a. Technology addresses a Naval critical need,
    - b. Naval program or initiative depends on the technology,
    - c. Potential transition effort identified, and
    - d. Part of a joint service technology effort.
  3. Program structure and execution plan
    - a. Level of technical risk appropriate for applied research,
    - b. Clear statements of objectives, applicability to BAA, anticipated end state, and deliverables,
    - c. Concise schedule with clearly identified milestones to objectively measure progress, and
    - d. Timing is right (e.g. addresses current or future capability need, leverages recent S&T breakthrough or emerging COTS technology, constructive relationship with other on-going work, etc.).
  4. The qualifications, capabilities and experience of the proposed Project Manager (PM)/Principal (PI), team leader and key personnel who are critical in achieving the proposal objectives
    - a. Offeror's experience in relevant efforts with similar resources,
    - b. Ability to manage the proposed effort, and
    - c. Offeror's overall capabilities, facilities, techniques or unique combinations of these which are integral factors for achieving the proposal objectives.
  5. The realism of the proposed costs and availability of funds.

Overall, the technical factors 1 - 4 above are significantly more important than the cost factor, with the technical factors all being of equal value. 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 award of proposals is made by ONR's scientific/technical community. Recommended proposals will be forwarded to the contracts department **which** will perform costs analysis 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. Commitment to Small Business - (For Contract Awards Only)**

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

- a.) Subcontracting Plan - For proposed awards to be made as contracts that exceed \$650,000, large businesses and non-profits (including educational institutions) shall provide a

Subcontracting Plan that contains all elements required by FAR 52.219-9, as supplemented by DFARS 252.219-7003. Small businesses are exempt from this requirement.

The Subcontracting Plan should be submitted as an attachment to the "Technical Proposal Template" and will not be included in the page count. If a company has a Master Subcontracting Plan, as described in FAR 19.701 or a Comprehensive Subcontracting Plan, as described in DFARS 219.702, a copy of the plan shall also be submitted as an attachment to the "Technical Proposal Template."

Plans will be reviewed for adequacy, ensuring that the required information, goals, and assurances are included. Zero Percent (0%) of goals, Zero Dollars (\$0), or Not Applicable (N/A) are unacceptable. If a subcontracting plan is not submitted with the proposal package or the negotiation of an acceptable subcontracting plan is required, there could be a delay in the issuance of an award. In addition, in accordance with FAR 52.219-9, failure to submit and negotiate a subcontracting plan may make an offeror ineligible for contract award.

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

As a baseline, offerors shall to the best extent possible propose realistic goals to ensure small business participation in accordance with the current fiscal year subcontracting goals found on the Department of Defense Office of Small Business Program website at: <http://www.acq.osd.mil/osbp/>. If proposed goals are below the statutory requirements, then the offeror should provide a viable written explanation as to why small businesses are unable to be utilized and what attempts have been taken to ensure that small business were given the opportunity to participate in the effort to the maximum extent practicable.

**b.) Small Business Participation Statement –**

If subcontracting opportunities exist, all prime Offerors shall submit a Small Business Participation Statement regardless of size in accordance with DFARS 215.304 when receiving a contract for more than the simplified acquisition threshold (i.e., \$150,000). All offerors shall provide a statement of the extent of the offeror's commitment in providing meaningful subcontracting opportunities for small businesses and other concerns subject to socioeconomic considerations through its awards and must agree that small businesses, VOSBs, SDVOSBs, HUBZones, SDBs, and WOSBs concerns will have to the maximum practicable opportunity to participate in contract performance consistent with its efficient performance.

*NOTE: Small Business Offerors may meet the requirement using work they perform themselves.*

This assertion will be reviewed to ensure that it supports this policy by providing meaningful subcontracting opportunities. The statement should be submitted as a part of the proposal package and will not be included in the page count.

**3. Options –**

Options will not be utilized.

**4. 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 -**

- The North American Industry Classification System (NAICS) code - The NAICS code for this announcement is "541712" with a small business size standard of "500 employees".
- System for Award Management: All Offerors submitting proposals or applications must:
  - (a) be registered in the SAM prior to submission;
  - (b) maintain an active SAM registration with current information at all times during which it has an active Federal award or an application under consideration by any agency; and
  - (c) provide its DUNS number in each application or proposal it submits to the agency.

The System for Award Management (SAM) is a free web site that consolidates the capabilities you used to find in CCR/FedReg, ORCA, and EPLS. Future phases of SAM will add the capabilities of other systems used in Federal procurement and awards processes.

SAM may be accessed at <https://www.sam.gov/portal/public/SAM/>

- Access to your Grant, Cooperative Agreement, Other Transaction and Contract Award

Effective 01 October 2011, hard copies of award/modification documents are no longer 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 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, 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](mailto:cscassig@csd.disa.mil) (Subject: EDA Assistance).

- 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, applicants shall provide this certification by electronic submission of SF424 (R&R) as a part of the electronic proposal submitted via Grants.gov (complete Block 17). The following certification applies likewise to each cooperating agreement and normal OTA 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.

## **VII. OTHER INFORMATION**

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

RESERVED

## **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 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.

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

## **3. Use of Animals and Human Subjects in Research**

RESERVED

## **4. Recombinant DNA**

RESERVED

## **5. Use of Arms, Ammunition and Explosives**

RESERVED

## **6. 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/>.

## **7. 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 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.

## **8. 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.

## **9. Reporting Executive Compensation and First-Tier Subcontract Awards**

The FAR clause 52.204-10, "Reporting Executive Compensation and First-Tier Subcontract Awards," will be used in all procurement contracts valued at \$25,000 or more. A similar award term will be used in all grants and cooperative agreements.

## **10. Military Recruiting On Campus (APPLIES ONLY TO GRANTS)**

Military Recruiting on Campus (DoDGARS Part 22.520) applies to domestic U. S. colleges and universities. Appropriate language from 32CFR22.520 Campus access for military recruiting and Reserve Officer Training Corps (ROTC) will be incorporated in all university grant awards.

## **11. Combating Trafficking in Persons**

Appropriate language from FAR Clause 52.222-50 will be incorporated in all awards.

## **12. Updates of Information regarding Responsibility Matters**

FAR clause 52.209-9, Updates of Publicly Available Information Regarding Responsibility Matter, will be included in all contracts valued at \$500,000 where the contractor has current active Federal contracts and grants with total value greater than \$10,000,000.

## **13. Employment Eligibility Verification**

As per FAR 22.1802, recipients of FAR-based procurement contracts must enroll as Federal Contractors in E-verify and use E-verify to verify employment eligibility of all employees assigned to the award. All resultant contracts from this solicitation will include FAR 52.222-54, "Employment Eligibility Verification." This clause will not be included in grants, cooperative agreements, or Other Transactions.

## **14. Intellectual Property**

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