



Navy Counter Directed Energy Weapon Research

INTRODUCTION:

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

Naval Counter Directed Energy Weapon Research

3. Program Name –

ONR Counter Directed Energy Weapon Program (C-DEW)

4. Research Opportunity Number -

09-036

5. Response Date –

This announcement will remain open until 10 APR 2010 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 research that describes and examines the best technologies for future Navy defense needs, including potential civil-military-education institution integrations for innovative scientific concepts, proposals that examine theoretical constructs and explore trade spaces, and present educational development and opportunity programs that will form the foundation for Counter Directed Energy Weapons (CDEW) research, and applied research in the future. Of particular interest is research in theories for future technologies that may be explored, developed and implemented to efficiently and effectively address the emerging Directed Energy Weapon (DEW) threats used against its existing or planned naval ship platforms, underwater systems, aviation systems and/or weapons systems. Also of high interest is the potential for “no cost” solutions where theory and small scale laboratory proofs may indicate that there is no requirement for a new acquisition program in order for the military to field a potential solution.

DEW may be used in naval warfare environments to degrade naval forces operational capabilities, and potentially disrupt maritime or amphibious naval operations, or cause other undesired military or civil consequences related to military actions. The Office of Naval Research (ONR) is interested in receiving research proposals from all responsible sources from academia and industry - capable of providing to the Navy comprehensive and innovative research – and may include methods of innovative countering or negation of the effects caused by directed energy weapons against naval assets, personnel, or platforms, which may also include Marine Corps platforms, or other unmanned naval weapons systems.

Specific modeling programs or simulations tool sets that can be developed and made widely available - are of great interest. The entire decision chain can and should be considered – from initial planning, detection and tagging, through threat countering to dismissal and restoration of previous activities. This also includes the localization and identification of suspected DEW sites that may be used against Navy or Marine Corps personnel or platforms – which may be themselves defeated by either kinetic or non-kinetic (including DEW) means.

Documentation of progress and identification of specific research objectives or figures of merit are vital in program reviews. Where possible, the efforts should attempt to use industry standards or well accepted figures of merit over internally developed standards.

Directed Energy Weapons (DEW) for the purposes of this announcement are considered to be from sources that utilize means to direct energy (other than by kinetic energy means) to a target and that cause a counter-material or counter-personnel effect – and may include classes of DEW systems such as high energy lasers, high power microwave transmitters, particle beam weapons or high power electromagnetic frequency pulsed weapons systems. These may also include the issues related to countering or protecting

against non-lethal forms of DEW, which may be used against troops or civilian personnel to cause military operational defeat.

While systems that have military applications are derived from civilian use or applications, development of purely civilian protection methods is not the primary objective of this research opportunity. Additionally, for the purposes of clarification under this announcement, the following efforts are not the primary focus of interest:

- Solutions for providing counter-jamming (where no permanent physical damage or upset of volatile data is expected to occur from the transmission of energy)
- Solutions for counter-improvised explosive devices (C-IED)
- Reducing the risks of biological effects from Nuclear Weapons, Weapons of Mass Destruction (WMDs) or Radiation/Radiological Type Weapons, (for example, the use of high dose radiological or biological agents against humans)
- Electronics Protection (for example, very high level Electro Magnetic (EM) Pulse defeat of electronics caused by a long standoff, nuclear weapons effect)

Again, the primary focus and the majority of funding is expected to be placed into research efforts that study the scientific effects of directed energy weapons against military weapons systems.

Examples might include research into scientific principles related to countering laser induced counter material effects (e.g. thermal or plasma ablation) where a laser energy is focused against the warhead of an anti-aircraft missile (AAM) - at a sufficient standoff distance, and defeating it through thermal or ablative “cook off” processes or causing pre-detonation of the warhead - prior to any “terminal effects” of the missile being practical, thereby rendering the military value of the AAM missile - useless.

Directed Energy Weapons (DEW) systems, under this BAA, do include, but are not limited to:

- High Energy Lasers (HEL)
- Radio-Frequency weapons, such as High Power Microwaves
- Dazzlers or Non-lethal Lower Energy Lasers (typically milli-watt power)
- DE Weapons that combine the effects of the above, or are otherwise part of the electromagnetic spectrum, as characterized by the transmission of energy by a means other than kinetic energy to defeat a military target of interest.

The purpose of this BAA is not meant to do specific testing against any specific weapon system or platforms – but to use already existing data sets to confirm or examine theoretical trace space and the underlying physics involved in the defeat mechanisms.

For example, when considering a laser effect on the aforementioned missile system, excursions to other missile subcomponents (Seekers, Guidance and Control, Aerosurface) would also need to be considered, and examined not only as a system, but also at a system of systems – and even a campaign (force on force) level may be necessary to determine best value for future applied research efforts. The effort should identify

underlying principals, extend scientific understanding, and offer innovative options that have perhaps never before been considered or tested. The applications applicable or adaptable when compared to other tightly focused or constrained near term results or efforts are vastly preferred.

Primary focus of the effort is expected to be for developing research and educational opportunities where these broad scientific principles evolve from laboratory testing or applications and where low technical readiness exists, or no capabilities exist whatsoever. High interest is expected to be where the basic principles of research topics have yet to be observed or reported (pre TRL=1) through and to the point of analytical and experimental critical function being demonstrated or where a characteristic proof of concept could possibly be shown (pre TRL=3). Development of symposium papers and post doctoral research topics that develop class-ware or educational materials are also of high interest and expected. It is expected that high risk research and development will need to be initiated as a product of this research effort, within a schema of “system of systems” architecture. Some efforts may be shown to have no value due to external constraints, but physics or mathematical simulations may show that trade space is still indeed not only viable – but potentially fruitful. Efforts may be considered as part of a longer term research effort, in order to more fully expand the breadth of understanding over time.

ONR intends to issue multiple grants and contracts arising from proposals received in response to this BAA. Where appropriate, consortia and inter-agency working agreements are encouraged.

Collaboration is highly encouraged with other research facilities and activities. This effort may include or propose analytical studies and laboratory studies to physically validate analytical predictions of separate elements of the CDEW technologies proposed in the laboratory at very low powers, or small scales. Team-Counter teaming is also a method that should be considered. Opportunities already exist where DEW development may provide significant breakthrough research – with minimal to no additional effort. This may even include demonstrations or examples that include laboratory subcomponents that are not yet integrated or representative of an actual field-able system.

Where possible, all attempts should be made to use open source software and simulation tools that are commercially available – such as MATLABtm, SIMULINKtm, and OPENSIMtm.

Additional collaboration tools, such as those widely available with Defense Technical Information Center (DTIC®) or the DoD High Performance Computing Modernization Program Office (HPCMO) is also highly encouraged.

For example, the launch of DoDTechipedia, a Wikipedia like resource - is encouraged, rather than development of new databases or tools that may have no or limited distribution rights. In fact, efforts that increase the usefulness of DoDTechipedia for DEW and CDEW purposes are of high interest. DoDTechipedia, a scientific and technical form of wikipedia, is designed to increase communication and collaboration

among DoD scientists, engineers, program managers and operational warfighters. This tool will enable DoD personnel to collaborate on technological solutions, reduce costs, add capability and avoid duplication. DoDTechipedia will aid in the rapid development of technologies, share knowledge, and enable the discovery of innovative solutions to meet critical capability needs and gaps. For additional information about DoDTechipedia, call 1-800-225-3842 or email: dodtechipedia@dtic.mil. For registration assistance, email: reghelp@dtic.mil.

Through the proposed efforts, scientific research should begin to show how it can be translated into larger applied research and development effort. Examples of initial studies might include paper studies of a technology's basic properties, with development into laboratory bench tests of individual representative components, leading to later field-able demonstrations. Groups may decide to conduct “Red vs. Blue” exercises to examine where new technology concepts, techniques, tactics, procedures (sometimes referred to as TTPs) and/or other applications and inventions development – might have not been otherwise considered or even encouraged. Laboratory experimentation, facility and faculty development are also encouraged, especially where efforts may ultimately be tested and then lead to another innovative solution in a maritime environment. Educational collaboration through the development of shared knowledge base, through symposia or faculty exchanges have proved to be very beneficial to related research program fields, and are highly encouraged.

Once basic principles have been shown and are observed, practical applications are expected to follow and possible innovative concepts or products will follow. The applications resulting from this research are expected to initially be speculative and lead to later proofs and detailed analysis to support the initial assumptions made. In some cases, research proposals may be limited to initial paper studies, presentations and reports.

One example of an interest area is broad solution sets for CDEW technologies. By understanding the underlying causes for weapon defeat caused by DEW, and their ability to be countered effectively, or avoided - by a commonly applied solution set. Some methods, such as reflective coatings for optics, electronic gain filters and redundant structural systems, have already been shown to have modest capabilities in countering some DEW defeat mechanisms. The research efforts and concepts developed should ultimately lead to discussion, peer review, and perhaps even a lab demonstration of the proposed research topic in either the near- or far-term future, where technical capabilities of current or future kinetic or directed energy weapons systems have significantly increased immunity to DEW attack.

For example, the research may potentially aide a future technology development program, where approaches taken over currently accepted commercial approaches have the potential for accelerating a CDEW capability for existing systems that do not currently have a known or published CDEW capability.

Another example of potential interest would be theoretical studies of how the human body is affected by DEW, and how the human body can be protected from various DEW effects. Please note that a significant body of theory and information already exists in this area of research, and any proposed new start should clearly describe how it is both knowledgeable of, and unique from, past research efforts conducted, or how it leverages ongoing research.

Offerors must clearly express:

- 1) Primary research effort subject, field and focus,
- 2) their relationships with other activities in Counter-DEW or DEW weapons research, or how they would develop and expand a new and innovative research capability for C-DEW,
- 3) relevance and importance of their proposed research topic(s) through logical grouping of other task(s) or external efforts, and the explanation of the rationale used in that grouping,
- 4) discussion of academic credentials, experience and knowledge base
- 5) processes used to produce documentation of innovative research and/or technical results or distribute technical or progress reports,
- 6) practical knowledge of DEW systems and potential counter-technologies research,
- 7) discussion of the process by which reviews, peer and by the program officer, will be conducted on a regular basis,
- 8) laboratory facilities and experience in conducting research in laboratory environments, or accessing testing with DEW type systems at a research scale,
- 9) how developed courseware, information, reports, and intellectual capital will be transferred, either through educational programs, or by means of disclosure to industry, other academia, and/or to the program officer, and
- 10) how efforts leading to potentially classified topics will be managed, partitioned, and research reviewed prior to publication or public release.

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 26 June 2008. 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 or by industry. ATD is funded through Budget Activity 3. As regards to the present BAA, the research and development effort to be funded will consist of basic research. The anticipated funds available to support awards are budget activity one. However, budget activity two, applied research, funds may be available for use in FY 2010.

For the past two 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 2010 or thereafter.

7. Point(s) of Contact –

Questions of a technical nature should be submitted to the Technical Point of Contact (TPOC):

Mr. Peter A. Morrison
Code ONR 35
Office of Naval Research
One Liberty Center, Room 1153
875 North Randolph Street
Arlington, VA 22203-1995
Email: peter.a.morrison@navy.mil

Questions of a business nature should be submitted to:

Jeff Wellen
Office of Naval Research
One Liberty Center,
875 North Randolph Street
Arlington, VA 22203-1995
Code 253
Jeff.wellen@navy.mil

Questions of a security nature should be submitted to:

Diana Pocheo
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.Pocheo@navy.mil

Note: All UNCLASSIFIED communications shall be submitted via e-mail. All questions of an UNCLASSIFIED nature to the Technical Point of Contract (POC) or Security POC shall be sent via e-mail with a copy to the designated Business POC. Questions submitted within 2 weeks prior to a deadline may or may not receive a response.

Any 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 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

8. Instrument Type(s) -

Awards may take the form of contracts or grants, as appropriate).

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

12.300, 12.351

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

Basic and Applied Scientific Research/ Basic Scientific Research – Combating Weapons of Mass Destruction

11. Other Information –

Contracts and grants made under this BAA 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 estimated total amount of awards in this program area may be as high as \$15 Million to be made available over a six year period (FY10-15). ONR may issue later BAAs in the same program area. ONR will obligate subsequent funding as it is made available in the out-years.

Anticipated Period of Performance and Range of Individual Award Amounts:

The period of performance of the awards will typically range from one to three years. The average award will typically be in the range of \$250,000 to \$900,000 (i.e. approximately \$250,000 to \$300,000 per year), although proposals for lower and higher amounts, or longer duration may also be considered.

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 above, to discuss its area of interest. The various scientific divisions of ONR are also 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 encouraged to 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. (See Section VII, Other Information).

IV. APPLICATION AND SUBMISSION INFORMATION

1. Application and Submission Process -

White Paper Submission

Each White Paper should state that it is submitted in response to this announcement. White Papers shall be submitted by e-mail directly to the Technical Point of Contact (TPOC) identified in Paragraph 7. Each White Paper will be evaluated by the government to determine whether the technology advancement proposed appears to be of particular value to the Department of the Navy. The submitters of White Papers judged to be of “particular value” to the Navy will be so identified in the initial response provided by ONR and encouraged to submit Full Proposals. The submitter of any White Paper not judged by the ONR reviewers as being of “particular value” to the Navy may still submit a Full Proposal by the date and time specified in the BAA, but the initial Navy response provided is a useful indicator of likely future project funding under this solicitation. An interested party is not eligible to submit a full proposal unless it has first submitted a White Paper by the date and time specified in this BAA.

Full Proposal Submission

The due date for receipt of Full Proposals is 2:00 p.m. (Eastern Time) on (10 APR 2010). An interested party is not eligible to submit a full proposal unless it has first submitted a white paper by the date and time specified in this BAA. It is anticipated that final selections for awards will be on or about (30 MAY 2010). As soon as the final proposal evaluation process is completed, each Offeror will be notified via email or letter of its selection or non-selection for an award.

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 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 Section IV, Application and Submission Information.

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 proposal should be addressed to the attention of (Mr. Peter Morrison), ONR Code (35) and marked in the following manner:

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

“Program: (Navy Counter Directed Energy Weapon Research)
Office of Naval Research
Attn: (Mr. Peter Morrison)
ONR Code: (35)
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.

The proposal format and content identified below are applicable to the submission of proposals for contracts. As noted in Paragraph 5 below, proposals seeking grants are to be formatted as required by Standard Form 424 (R&R), which is available via the internet at <http://www.grants.gov/>.

a. WHITE PAPERS

White Paper Format

- Paper Size – 8.5 x 11 inch paper
- Margins – 1 inch
- Spacing – single or double-spaced
- Font – Times New Roman, 12 point
- No more than 10 pages, single sided
- Copies – Electronic (email) submissions provided on or before the date and time specified in the BAA are acceptable. Email submission attachments in either Microsoft® Word or Adobe Acrobat (V7.0 or later preferred) .PDF format should be sent to the attention of Mr. Peter A. Morrison at:
peter.a.morrison@navy.mil

White Paper Content

- **Cover Page:** The Cover Page shall be labeled “WHITE PAPER” and shall include the BAA number, proposed title, technical points of contact, telephone number, facsimile number, and e-mail address.
- **Research Objective:** A description of the research, potential for technology innovation and discussion of technical risk areas. Include potential avenues for collaborations and requirements in general, broad terms only.
- **Future Naval Relevance (for basic research efforts):** A description of potential Naval relevance and contributions of the effort to the agency’s specific mission.
- **Operational Naval Concept (for applied research efforts):** A description of the research objectives, impact on Naval operations given new capabilities including but not limited to Techniques, Tactics and Procedures (TTPs).

b. FULL PROPOSALS

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

- Paper Size – 8.5 x 11 inch paper
- Margins – 1 inch
- Spacing – single or double-spaced
- Font – Times New Roman, 12 point
- Number of Pages – The Technical Volume (Vol. 1) shall not exceed more than 50 pages. The Cover page, Table of Contents, and personnel resumes shall not be included in the page limit. There are no page limitations to the Cost Proposal, Volume 2.
- Copies – one (1) original, and (3) hard copies , and two electronic copies on a CD ROM or DVD (in Microsoft® Word or Excel 97 compatible or Adobe Acrobat® .PDF format). If a grant is sought, the full proposal should be submitted electronically on Standard Form 424 (R&R) at <http://www.grants.gov/> as delineated below.

Full Proposal Content

Volume 1: Technical Proposal

- **Cover Page:** This should include the words “Technical Proposal” and the following:
 - 1) BAA number;
 - 2) Title of Proposal;
 - 3) Identity of prime Offeror and complete list of subcontractors, 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) Duration of effort (differentiate basic effort and any proposed options)
- **Proposal Checklist:** To assist Offerors in the development and submission of their proposals in response to this BAA, a Proposal Checklist for Contracts, Grants, Cooperative Agreements and Other Transactions has been uploaded as an attachment. Offerors should print and complete the checklist to ensure that all required actions have been taken and information included prior to proposal submission. Inclusion of the completed checklist as the first page of your Volume I, Technical Proposal, will assist in proposal evaluation and may shorten the time it takes to make an award.
- **Table of Contents:** An alphabetical/numerical listing of the sections within the proposal, including corresponding page numbers.
- **Statement of Work:** A Statement of Work (SOW) clearly detailing the scope and objectives of the effort and the technical approach. It is anticipated that the proposed SOW will be incorporated as an attachment to the resultant award instrument. To this

end, the proposals must include a severable, self-standing SOW, without any proprietary restrictions, which can be attached to the contract or agreement award. Include a detailed listing of the technical tasks/subtasks organized by year.

Technical or “research and issues” should consist of clear discussion of the top level subject and relevance to the proposed scientific research topics and associated technologies being pursued or proposed, including top level development objectives of the proposed effort, in a concise clear statement of the major scientific issues to be resolved. Where needed, the discussion that follows should briefly explain what is needed to accomplish objectives, approaches to resolving these science issues, and a clear description of and schedule for demonstration of the significant aspects of the concept. In a sense, this should allow for informal discussions and refinement prior to final proposal submission. These should clearly address:

- **Research Objective(s)**: A description of the research, potential for technology innovation and discussion of technical risk areas. Include potential avenues for collaborations and requirements in general, broad terms only. (basic research)
- **Future Naval Relevance (where applicable)**: A description of potential Naval relevance and contributions of the effort to the agency’s specific mission. (applied research)
- **Operational Naval Concept (where applicable)**: A description of how the research objectives, impact on Naval operations given new capabilities including but not limited to Techniques, Tactics and Procedures (TTPs). (applied research)

Submission of the SOW without restrictive markings is your company’s affirmation that the SOW is non-proprietary and releasable in response to Freedom of Information Act (FOIA) requests.

• **Project Schedule and Milestones**: A summary of the schedule of events and milestones, presented on a quarterly and yearly basis partitioned by major tasks, based on a government fiscal year (GFY) basis (1 OCT-30 SEP).

• **Assertion of Data Rights and/or Rights in Computer Software**: For a contract award an Offeror may provide with its proposal assertions to restrict use, release or disclosure of data and/or computer software that will be provided in the course of contract performance. The rules governing these assertions are prescribed in Defense Federal Acquisition Regulation Supplement (DFARS) clauses 252.227-7013, -7014 and -7017. These clauses may be accessed at the following web address:

<http://farsite.hill.af.mil/VDFDARA.HTM>

The Government may challenge assertions that are provided in improper format or that do not properly acknowledge earlier federal funding of related research by the Offeror.

If it is determined that data rights are not applicable, indicate no assertions are being made in the proposal submission. Grants do not include Assertion of Data Rights.

• **Deliverables/Reports:** A detailed description of the reports and any proposed hardware, software, or prototype, inclusive of the timeframe in which they will be delivered is required.

The following are samples of data deliverables that may be required under a research effort:

Technical and Financial Progress Reports (Monthly and Quarterly)
Presentation Materials (As required for Symposium, Mid-year and Annual program and Technical Reviews, not expected to exceed 4 per annum)
Final Report (Annually)

Additional data deliverables may be proposed and finalized during negotiations. 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 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) Duration of effort (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 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 for the 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. Limit the number of pages for this section to 30.

VOLUME 2: Cost Proposal

INSTRUCTIONS FOR CONTRACTS

The following information is provided to assist contractors in preparing and submitting an adequate and compliant cost proposal. The purpose of the submission of cost or pricing data or information other than cost or pricing data is to enable Government personnel to perform cost or price analysis and ultimately negotiate a fair and reasonable cost. Offerors are reminded that the responsibility for providing adequate supporting data and attachments lies solely with the offeror. Further, the offeror must also bear the burden of proof in establishing reasonableness of proposed costs; therefore, it is in the contractor's best interest to submit a fully supportable and well-prepared cost proposal. The basis and rationale for all proposed costs should be provided as part of the proposal so that Government personnel can place reliance on the information as current, complete and accurate. Further, FAR 15.403-4 sets forth those circumstances in which offerors are required to submit certified cost or pricing data.

Although not required and provided for informational purposes only, using the cost proposal format spreadsheet (spreadsheet.xls) that is an attachment to this document and the accompanying instructions (spreadsheetinstructions.doc) as the basis of the cost proposal may **significantly decrease** the time required to review and award proposals submitted in response to this announcement.

Options: Any proposed options that are identified in either Volume 1 or 2 but are not fully priced out, 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 pricing purposes, assume that performance will start no earlier than six (6) months after submission of the cost proposal.

The Cost Proposal shall consist of a cover page and two parts, Part 1 will provide a detailed cost breakdown of all costs by cost category by calendar or Contractor fiscal year, and Part 2 will provide a cost breakdown by Government fiscal year and task/sub-task corresponding to the task numbers in the proposed Statement of Work.

Cover Page: The use of the SF 1411 (Contract Pricing Proposal Cover Sheet) is optional. The words "Cost Proposal" should appear on the cover page in addition to the following information:

- BAA number 09-036
- Title of Proposal
- Identity of prime Offeror and complete list of subcontractors, if applicable
- Technical contact (name, address, phone/fax, electronic mail address)
- Administrative/business contact (name, address, phone/fax, electronic mail address) and
- Proposed period of performance (identify both the base period and any options, if included).

Part 1: Detailed breakdown of all costs by cost category by calendar or Contractor fiscal year:

- Direct Labor – Individual labor categories or persons, with associated labor hours and unburdened direct labor rates. Provide escalation rates for out years.
- Indirect Costs – Fringe Benefits, Overhead, G&A, COM, etc. and their applicable allocation bases. 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.
- Subcontracts/Interorganizational Transfers – A cost proposal as detailed as the Offeror's cost proposal will be required to be submitted by all proposed subcontractors and for all interorganizational transfers. For subcontracts or interorganizational transfers over \$100,000, the subcontract proposal, 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. A proposal and supporting documentation must be received and reviewed before the Government can complete its cost analysis of the proposal and enter negotiations. The prime contractor should perform and provide a cost/price analysis of each subcontractor's cost proposal.* Offerors are required to obtain competition to the maximum extent practicable when selecting subcontractors or interorganizational transfers; if the offeror has obtained competitive quotes, copies should be provided. If the Offeror has selected other than the low bid for inclusion in their proposal or intends to award the subcontract/interorganizational transfer on a sole-source basis, the offeror should provide rationale for their decision. Certified cost or pricing data may be required for subcontractor proposals over \$650,000. *Note: DoD Federal Acquisition Regulation provision 252.215-7003 (48 CFR §252.215-7003) is incorporated into this solicitation by reference. The offeror is to exclude excessive pass-through charges from subcontractors. The offeror must identify in its proposal the percentage of effort it intends to perform and the percentage to be performed by each of its proposed subcontractors. If more than 70 percent of the total effort will be performed through subcontractors, the offeror must include the additional information required by the above-cited clause.

- 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 for each year including quantities, unit prices, proposed vendors (if known), and the basis for the estimate (e.g., quotes, prior purchases, catalog price lists). If the total cost for materials and supplies exceeds \$100,000 per year, then select a sample of the items proposed and provide catalog price lists/quotes/prior purchase orders to support the price for the items in the sample. All items with a unit price over \$10,000, regardless of the total cost for materials and supplies, must be supported with a copy of catalog price lists/quotes/prior purchase orders.
- Contractor Acquired Equipment or Facilities – Equipment and/or facilities are normally furnished by the Contractor. If acquisition of equipment and/or facilities is proposed, a justification for the purchase of the items must be provided including: 1) a very specific description of any equipment/hardware that it needs to acquire to perform the work, 2) whether or not each particular piece of equipment/hardware will be

included as part of a deliverable item under the resulting award, and 3) the basis for the estimate (e.g., quotes, prior purchases, catalog price lists). The description should identify the component, nomenclature, and configuration of the equipment/hardware that it proposes to purchase for this effort. The purchase on a direct reimbursement basis of equipment that is not included in a deliverable item will be evaluated for allowability on a case-by-case basis. Maximum use of Government integration, test, and experiment facilities is encouraged in each of the Offeror's proposals.

- Other Direct Costs – Provide an itemized list of all other proposed other direct costs and the basis for the estimate (e.g., quotes, prior purchases, catalog price lists).
- Fee/Profit (Contract Proposals Only) – Profit or fee is not allowed on direct costs for facilities or in cost-sharing contracts.

Note: Indicate if you have an approved Purchasing/Estimating System and/or describe the process used to determine the basis of reasonableness (e.g., competition, market research, best value analysis) for subcontractors, consultants, materials, supplies, equipment/facilities, and other direct costs.

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.

INSTRUCTIONS FOR GRANTS

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). Fee/profit is unallowable. The 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 a subcontract. 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, 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 proposal should include the following statement: “The funds provided by ONR will not be used for food or beverages.”
- Fee/Profit – Fee/profit is unallowable.

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 10 APRIL 2010 or until replaced by a successor BAA, whichever first occurs. Proposals may be submitted any time during this period. For consideration of awards under available FY09 funding, the following guidance is provided:

Anticipated Schedule of Events for FY09 Funding Award

<u>EVENT</u>	<u>DATE</u>	<u>TIME (EASTERN TIME)</u>
FY09 White Papers Due Date	April 10, 2010	2:00 pm
Notification of Initial Navy Evaluations of FY09 White Papers	May 20, 2010	
Full FY09 Proposal Due Date	June 20, 2010	2:00 pm
Notification of Selection for FY09 Award	August 30, 2010*	
Issued FY09 Awards	September 1, 2010*	

*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:

- 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
- 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
- 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)

The offeror must use the Grants.gov forms from the application package template associated with the BAA on the Grants.gov web site. To be considered for award, Applicants must fill out Block 4 of the SF 424 R&R as follows: Block 4a, Federal Identifier, enter N00014; Block 4b, Agency Routing Number, Enter the three (3) digit Program Office Code (i.e.351,) and, the Program Officer's name, last name first, in brackets (i.e., [Morrison, Peter]). Applicants who fail to provide a Department code identifier may receive a notice that their proposal will be rejected.

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/02/docs/FY09_GrantsGovAPP_and_Submission_Information.pdf

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 Blocks 18 and 19 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.

Special Notice for Waiver:

Process to Obtain a Waiver from the Use of Grants.gov for Submission of Full Grant Proposals: If a prospective grantee is unable to comply with the requirement to use Grants.gov "APPLY" for submission of a grant application under this BAA or finds it would be an excessive burden to comply with this requirement, a waiver request may be submitted. Such request should be submitted by the Electronic Business Point of Contact listed in the CCR for the organization and should contain the Organization/Individual's name, address, telephone number, and email address. The request should state the reason for the request in sufficient detail so a decision can be made. The Waiver Request should be submitted to the ONR Acquisition Department point of contact listed in Section I, Item 7 above. Such request can be sent by registered mail or email. A decision and response will be issued within 14 calendar days of receipt of the request by ONR. Foreign Grantees who are not registered in CCR may request a waiver on that basis since CCR registration is integral to the Grants.gov application process.

6. Address for the Submission of Full Proposals for Contracts.

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

Office of Naval Research
Attn*: Peter Morrison
ONR Department Code**: 35
875 North Randolph Street
Arlington, VA 22203-1995

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

***Cognizant ONR POC's Code*

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:

- A. Overall scientific and technical merits of the proposal, to include
 - 1) Primary research effort subject, field and focus,
 - 2) their relationships with other activities in Counter-DEW or DEW weapons research, or how they would develop and expand a new and innovative research capability for C-DEW,
 - 3) relevance and importance of their proposed research topic(s) through logical grouping of other task(s) or external efforts, and the explanation of the rationale used in that grouping,

B. Naval relevance, transition potential and anticipated contributions of the proposed scientific research.

C. Offeror's capabilities, related experience, and past performance to include

- 1) discussion of academic credentials, experience and knowledge base of the principal personally.
- 2) processes used to produce documentation of innovative research and/or technical results or distribute technical or progress reports,
- 3) practical knowledge of DEW systems and potential counter-technologies research,
- 4) discussion of the process by which reviews, peer and by the program officer, will be conducted on a regular basis,
- 5) laboratory facilities and experience in conducting research in laboratory environments, or accessing testing with DEW type systems at a research scale, and
- 6) how efforts leading to potentially classified topics will be managed, partitioned, and research reviewed prior to publication or public release.

D. The ability and achievement of the Offeror in partnership with academia and the DoD's and Navy's University Affiliated Research Centers (UARCs) to speed with a view toward speeding the incorporation of new science and technology into fielded systems, including

- 1) how developed courseware, information, reports, and intellectual capital will be transferred, either through educational programs or by means of disclosure to industry, other academia, and/or to the program officer, and

E. The realism of the proposed cost

The Technical Factors (Factors A- D above) are each more important than the Cost Factor (Factor E). The Technical Factors are listed in descending order of importance.

The degree of importance will increase with the degree of equality of the proposals in relation to 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.

For proposed awards to be made as contracts to other than small businesses, the socio-economic merits of each proposal will be evaluated based on the extent of the Offeror's commitment in providing meaningful subcontracting opportunities for small businesses, small disadvantaged businesses, woman-owned small businesses, HUBZone small businesses, veteran-owned small businesses, service disabled veteran-owned small businesses, historically black colleges and universities, and minority institutions.

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. Cost proposals will be evaluated by Government business professionals. Restrictive notices notwithstanding, one or more support contractors may be utilized as subject-matter-expert technical consultants. Similarly, support contractors may be utilized to evaluate cost proposals. 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 North American Industry Classification System (NAICS) code for this announcement is “541712” with a small business size standard of “500 employees”.
- Central Contractor Registry (CCR) - Successful Offerors not already registered in the CCR will be required to register in CCR prior to award of any grant, contract, cooperative agreement, or other transaction agreement. Information on CCR registration is available at <http://www.onr.navy.mil/02/ccr.htm>.
- Subcontracting Plans - Successful contract proposals that exceed \$550,000, submitted by all but small business concerns, will be required to submit prior to award a Small Business Subcontracting Plan in accordance with FAR 52.219-9.
- Certifications – Proposals for contracts should be accompanied by a completed certification package.

Contracts:

For contracts, in accordance with FAR 4.1201, prospective contractors shall complete and submit electronic annual representations and certifications at <http://orca.bpn.gov>. In addition to completing the Online Representations and Certifications Application (ORCA), proposals must be accompanied with a completed DFARS and contract specific representations and certifications. These "DFARS and Contract Specific Representations

and Certifications", i.e., Section K, may be accessed under the Contracts and Grants Section of the ONR Home Page at http://www.onr.navy.mil/02/rep_cert.asp .

Grants:

Grant awards greater than \$100,000 require a certification of compliance with a national policy mandate concerning lobbying. Grant applicants shall provide this certification by electronic submission of SF424 (R&R) as a part of the electronic proposal submitted via [Grants.gov](http://www.onr.navy.mil/02/rep_cert.asp) (complete Blocks 18 and 19); 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/02/rep_cert.asp .

2. Reporting -

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

Technical and Financial Progress Reports (Monthly and Quarterly)
Presentation Materials (As required for Symposium, Mid-year and Annual program and Technical Reviews, not expected to exceed 4 per annum)
Final Report (Annually)

Additional data deliverables may be proposed and finalized during negotiations. Research performed under contracts may also include the delivery of software, prototypes, and other hardware deliverables.

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 explain as part of their proposals which of these facilities are critical for the project's success.

2. Security Classification

Classification and marking guidelines required by Executive Order 12829 and under the authority of DoD Directive 5220.22, "National Industrial Security Program (NISP)," the DoD 5220.22-M, "National Industrial Security Program Operating Manual (NISPOM)," shall be followed as determined by the originating activity. In cases where a DD254 are required, (or DD Form 254, DEC 99 [EF]), block 2C shall be marked and this BAA identification and shall be cited in the filed for "SOLICITATION OR OTHER NUMBER".

In order to facilitate intra-program collaboration and technology transfer, the Government will attempt to enable awardees to work at the unclassified level to the maximum extent possible. Where possible, unclassified descriptions shall be utilized in proposals, technical reports, memorandum with all classified information provided under separate cover, as separate documents or appendices.

If awardees use unclassified data in their deliveries and demonstrations regarding a potential classified project, they should use methods and conventions consistent with those used in classified environments. Such conventions will permit the various subsystems and the final system to be more adaptable in accommodating classified data in the transition system.

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. Reserved

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 Government 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, and may include one-on-one meetings. Program status reviews shall also be held to provide a forum for reviews of the latest results from experiments and any other incremental progress towards the major demonstrations. Documentation of progress and identification of specific research objectives or figures of merit are vital in program reviews. Where possible, the efforts should attempt to use industry standards or well accepted figures of merit over internally developed standards. These meetings will be held at various sites throughout the country. For costing purposes, offerors should assume that 60% of these meetings will be at or near ONR, Arlington VA and 40% at other contractor or government facilities. Interim meetings are likely, but these will be accomplished via video telephone conferences, telephone conferences, or via web-based collaboration tools.

8. Submission of Questions

Any questions regarding this solicitation must be provided to the Science and Technology Point of Contact and/or Business Point of Contact listed in this solicitation. All questions shall be submitted in writing by electronic mail.

Questions regarding white papers must be submitted by 2:00 P.M. Eastern Time on 31 DEC 2009. Questions after this date and time may not be answered, and the due date for submission of the white papers will not be extended.

Questions regarding full proposals must be submitted by 2:00 P.M. Eastern Time on 1 MAR 2010. Questions after this date and time may not be answered, and the due date for submission of the proposals will not be extended.

Answers to questions submitted in response to this BAA will be addressed in the form of an Amendment and will be posted to the 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/02/baa/>

9. Roles of the Navy Warfare Centers

The Navy Warfare Centers will have the primary role for the integration and experimentation/demonstration process. They will also participate in the development of technologies where there are unique capabilities and facilities of interest to ONR. They will also assist ONR in the management, engineering, and administrative tasks and will provide government furnished equipment (GFE) and facilities that will be used for system level integration and portions of experiment execution.