



# Gas Turbine Upgrades for Reduced Total Ownership Cost (TOC) and Improved Ship Impact

## 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. 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. Address for Submission of White Papers and Full Proposals for Contracts
- V. Evaluation Information
  - 1. Evaluation Criteria
  - 2. Commitment to Small Business
  - 3. Options
  - 4. Evaluation Panel
- VI. Award Administration Information
- 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. Executive Compensation and First-Tier Subcontract Reporting
10. Combating Trafficking in Persons
11. Updates of Information regarding Responsibility Matters
12. Employment Eligibility Verification
13. Intellectual Property
14. Other Guidance, Instructions and Information

## **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** - Gas Turbine Upgrades for Reduced Total Ownership Cost (TOC) and Improved Ship Impact

**3. Program Name** - ONR Enterprise Enablers (EPE) Future Naval Capabilities (FNC) Program: EPE-FY15-02 - Gas Turbine Upgrades for Reduced Total Ownership Cost (TOC) and Improved Ship Impact

**4. Research Opportunity Number** – ONR BAA13-013

**5. Response Date** -

White Papers: 8/16/2013

Full Proposals: 11/15/2013

**6. Research Opportunity Description** -

Objective: The objective of this effort will be to produce a package of "Marinized" materials upgrades to be used in United States Navy surface ship gas turbines for propulsion or auxiliary power systems that will enable longer hot section lives at current operating temperatures and/or higher temperature operations with sustained engine life in marine service. For example, gas turbines in Destroyer service typically remain in place between 15,000 and 25,000 hours before removal for hot section degradation. The advanced gas turbine upgrade package will include better corrosion and oxidation resistant capability and/or higher temperature capable materials and their associated component overhaul methodologies. These technologies are planned to be developed for use in more aggressive environments and higher temperature operations.

Technical Description: It is the Navy's goal to increase the operational capabilities of its gas turbine engines that are used in Surface Fleet propulsion and auxiliary electrical power generation. This is desired because it is envisioned that future increased surface combatant loads and operational changes will require increased gas turbine operating temperatures and change the associated operating environment to one where Type I and Type II hot corrosion AND oxidation will be prevalent in newly anticipated operational profiles. Figure 1 provides a graphical representation of the corrosion rate changes that can occur with changes in engine operating temperature. A prototypical engine operating profile with increased proportions of time at higher temperatures is shown in Table 1. Higher temperatures and environmental changes will increase engine corrosion and oxidation rates thereby shortening engine life. The USN shipboard environment (the marine environment) is high in salt laden air and water, coupled with air and fuel sulfur species that cause aggressive corrosion in gas turbine hot sections. Materials that can function in this environment are considered to be "Marinized". It is expected that hot section propulsion materials will need to be resistant to frequent and more severe thermal/mechanical cycles between LTHC temperatures and HTHC/Oxidation temperatures in future Naval operational profiles. Furthermore, littoral operations in certain areas of the world have the potential to introduce calcium-magnesium-aluminum-silicate (CMAS) attack from the melting of sand that entered the engine through the air intake.

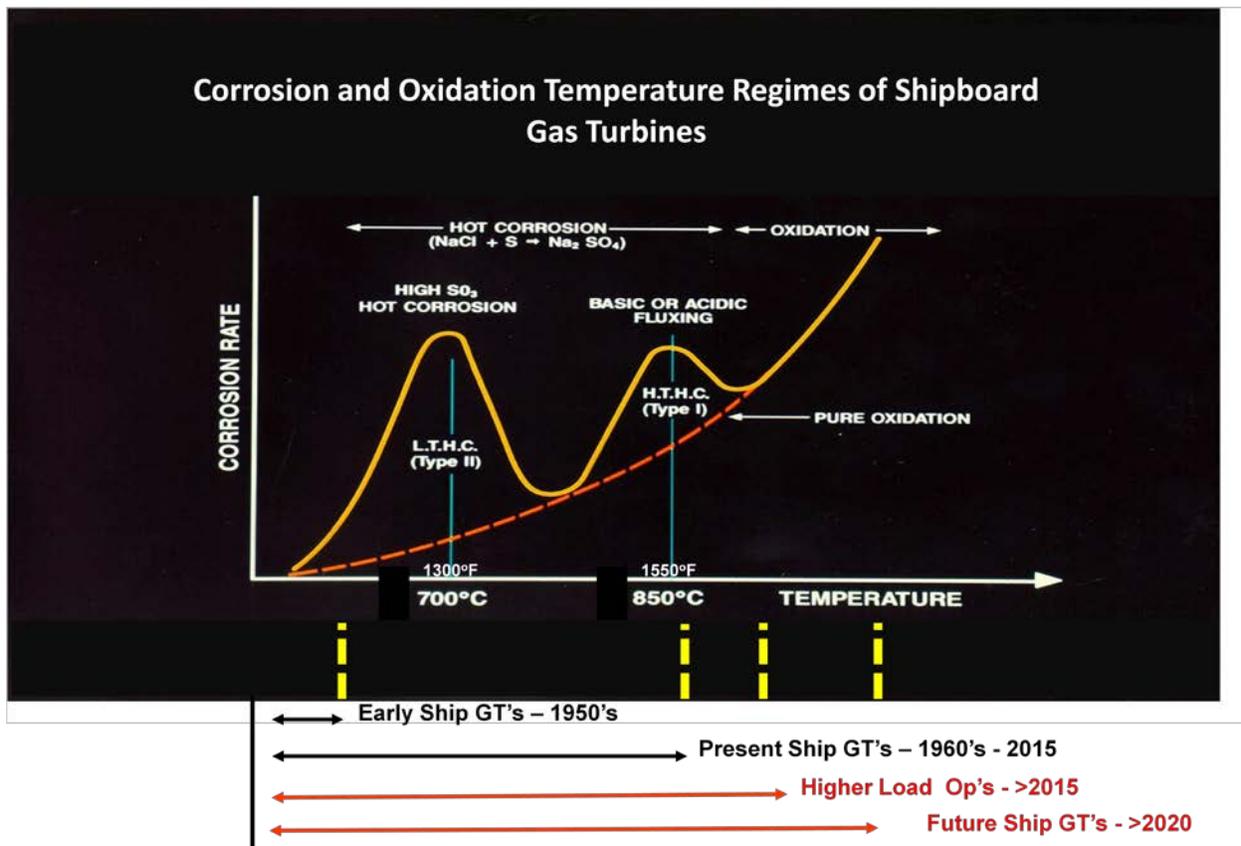


Figure 1: Corrosion Rate Changes vs. Operating Temperature for Shipboard Gas Turbine Engines

Near term projected higher engine power density and pressure ratios for new engine designs will increase maximum blade, vane, and rotor metal temperatures from a mainly Low Temperature Hot Corrosion (LTHC) regime into both the High Temperature Hot Corrosion (HTHC) and Oxidation Corrosion regions. It is expected that hot section propulsion materials will need to endure more frequent and more severe thermal cycles between LTHC temperatures and HTHC/Oxidation temperatures in future Naval operational profiles. This will be a problem since materials selected for use in current destroyer gas turbine blades, vanes, and rotors have been designed for optimal performance in the LTHC region where they are currently achieving lives in the range of 15,000 hours to 25,000 hours regularly.

This anticipated upgrade package will include a higher temperature capable rotor (marinized alloy and/or marinized alloy and coating system), the development of marinized single crystal alloys, and oxidation and hot corrosion-resistant coatings for hot-section components (power turbine blades and vanes, and other engine components to be identified by the contract award recipient).

#### Alloy and Coating Metrics::

- A higher temperature capable marinized, 1st stage hot-section rotor which will have in excess of 20,000 hour (threshold) corrosion resistance at 1400 deg F at the blade root attachment points.
- Coatings for turbine blades and vanes which will have in excess of 20,000 (threshold) hour resistance to oxidation and/or hot corrosion in the sustained metal temperature range of 1300 degF to 1800 degF ( and short-term temperature departures of up 1950 degF) and will be compatible with any resultant new alloys that come out of this program.
- Marinized alloys which will have in excess of 5,000 hours uncoated and 25,000 hours coated resistance to hot corrosion and oxidation at sustained metal temperatures from 1650 degF to 1800 degF (and short-term temperature departures of up 1950 degF). In the temperature range of 1300 degF to 1650 degF the coated alloy will maintain the current hot corrosion and oxidation resistance of the current hot-section blades and vanes now used in the LM2500 and 501K-34 engines as used for surface ship applications. The alloys will have high temperature mechanical properties that are at least 50 degF more capable than conventionally cast Rene80 and maintain physical properties that are equal to or better than those of conventionally cast Rene80. Single crystal alloy development work was done in the 1980s on a class of single crystal alloys designated NAVALOY 300 and 400. The Offeror should consider these alloys as starting points for their proposed work. Offerors may request copies of the reports associated with the development of NAVALOY300 and 400.
- Offerors will also identify which engine or engines (currently or anticipated to be used by the Navy) their efforts will focus on and will identify other engine components (in addition to those mentioned above) that will also need to be "upgraded" in order for the entire engine to be able to operate for 25,000 hours (20,000 hour threshold) under the higher temperature conditions. These components will be part of the Offeror's technical proposal and will be separately priced in the cost proposal. If the Offeror's proposal addresses more than one engine, the proposal will be organized to separately cost the effort for each engine, and the Navy will be given the option to select one, all, or none of the separate engine efforts.

• In addition to the above mentioned interest in complete engine upgrade packages, the Navy is willing to consider a separate advanced coating development effort. This should focus on improved coatings for engine hot-section blades and vanes that cover the spectrum of alloys in use in Navy engines today and the alloys to be developed in the upgrade packages described above. The coating(s) will be expected to resist the corrosion and oxidation effects of the "Prototypical Aggressive Operating Profile" shown in Table 1. This work must be completed within 30 months of award, and be available for use by the recipients of any awards related to the development of upgrade packages. The developers of the upgrade packages may or may not be working on advanced coatings themselves, and consequently they may or may not elect to adapt the advanced coating developed under this separate coating development effort. However, the Navy may use the advanced coating as it sees fit in any of its fleet engines.

Table 1 - Prototypical Aggressive Operating Profile

Power Turbine Inlet Temperature*(°F)	% of Time at Temperature
70 to 1300	10
1301 to 1450	19
1451 to 1550	19
1551 to 1575	17
1576 to 1600	17
1601 to 1625	10
1626 to 1650	5
1651 to 1660	1.5
1661 to 1670	1
1671 to 1680	0.4
1681 to 1690	0.1

Note: \* The free turbine inlet gas temperature corresponding to these power turbine inlet temperatures is 600 plus degrees F of the given power inlet temperature on the chart.

The following six engines are of current interest to this program: the Rolls Royce MT30, the Rolls Royce MT5, the Rolls Royce MT7, the GE38, the GE LM2500+, and the GE LM500. An Offeror's proposal must address one or more of these engines. The long term desire is to use these upgrade materials package in future gas turbine engines that will operate at the higher sustained temperatures. Applicability of the developments must be shown as follows:

• For an engine in the 3 to 5 MW range, the deliverables are an actual engine upgrade package that includes all new parts and the corresponding technical data needed to produce or acquire follow on upgrade packages. The materials and components in the upgrade package will be based on materials and parts that have been subjected to appropriate laboratory testing. (See Table 2 for a notional timeline related to the 3 to 5 MW engine effort). The upgrade package should include: high temperature capable marinized rotor, marinized coatings for blades and vanes, and marinized single crystal alloys that have met the alloy/ coatings metrics described above.

Delivery of the technical data/information needed for acquisition of material upgrade packages and delivery of a complete set of upgraded engine parts suitable for engine testing related to 3 to 5 MW engine effort must be completed by the end of FY2018. The government will use these parts in the fifth year of the project in an engine test to be separately funded and conducted at a government facility.

- For an engine in the 20 to 40 MW range, the deliverable is technical data sufficient to produce or acquire a complete upgrade package that will be suitable for engine testing by the end of FY2018. The upgrade package should include: high temperature capable marinized rotor, marinized coatings for blades and vanes, and marinized single crystal alloys that have met the alloy/ coatings metrics described above.

The actual delivery of engine parts for engines in the 20 to 40 MW range will not be part of the contract deliverable. The technical data provided for the materials and components in the upgrade package will be based on the appropriate laboratory testing of actual materials and full size parts. (See Table 3 for a notional timeline related to the 20 to 40 MW engine.)

Note: Any proposals selected from this Broad Agency Announcement that include the delivery of technical data upgrade packages and/or parts for upgrade packages in the case of proposed engines in the 3 to 5 MW range are expected to result in the award of contracts.

- For any advanced coating development effort that is separate from the work done in the efforts to develop complete upgrade packages, the deliverables are the coating composition(s), and associated coating processing method(s). The technical data/information delivered needed to produce/acquire the coating(s) will be based on appropriate laboratory testing and the task will be completed within 30 months of award.

Note: Any proposal(s) selected from Universities or Nonprofits that are only for advanced coating development (i.e., do not include the development of upgrade packages) is expected to result in a grant award(s). Any resulting grant reporting from this Broad Agency Announcement would include the typical general progress and final reports. Any contract awards that include advanced coating development would include specific contract data requirements with the coating composition(s), and associated coating processing method.

**Table 2- Notional Timeline for 3 to 5 MW Engine Task**

TASK	FY15	FY16	FY17	FY18	FY19
Develop High Temperature Capable Marinized Rotor				→	
Develop Marinized Coatings For Blades and Vanes				→	
Develop Marinized Single Crystal Alloys				→	
Deliver Technical Data/Information Needed for Acquisition of Material Upgrade Packages					◇
Deliver Complete Set of Upgraded Engine Parts Suitable for Engine Testing					◇

**Table 3- Notional Timeline for 20 to 40 MW Engine Task**

TASK	FY15	FY16	FY17	FY18	FY19
Develop High Temperature Capable Marinized Rotor				→	
Develop Marinized Coatings For Blades and Vanes				→	
Develop Marinized Single Crystal Alloys				→	
Deliver Technical Data/Information Needed for Acquisition of Material Upgrade Packages					◇

Offeror’s Screening Capability: Materials selection and screening decisions will be critical to an expeditious start to this program. In particular, in the first year of the project, materials selection decisions will be based (in part) on the Offeror's performance under a minimum of three hot corrosion conditions. The first will be LTHC, the second will be HTHC, and the third will be a mixture of the two conditions and with an additional portion of time under conditions of high temperature oxidation which can reach 1950F metal temperature for short periods of time. The Offeror will have to demonstrate, before the start of the program, that they have the capability to run these corrosion/oxidation tests in a burner rig. They will have to demonstrate that they have done so with alloys and coatings that are the same as or similar to the current LM2500 hot-section Bill of Material (BOM) of BC22 coated Rene 80, bare Rene80 and bare X-40. They will also have to demonstrate that the corrosion produced in these reference materials reproduces the corrosion observed in actual engine components in the field. Offerors should possess or have access to at least three burner rigs for the hot corrosion and oxidation testing required in this project. These rigs should be available at the start date of the contract performance period, that is, contract award through the end of the contract performance period. If the Offeror does not have burner rigs available for the start of the program, they must describe in their proposal how they will obtain this capability within the first year of the program and they must describe and justify adequacy of an alternative hot corrosion materials screening procedure to be used in the first year of the project to compensate for this lack of capability.

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

Questions of a technical nature should be submitted to:

Program Manager Name: Dr. David A. Shifler  
 Address: Office of Naval Research, Naval Materials Division, 875 N. Randolph Street, Arlington, VA 22203-1995  
 Code: 332  
 Email: david.shifler@navy.mil

Questions of a business nature should be submitted to:

Name: Joe Cloft  
 Address: 875 N. Randolph Street, Arlington, VA 22203-1995

Code: 255

Email: joseph.cloft@navy.mil

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

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>

Questions of a security nature should be submitted to:

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

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) – Contracts and Grants**

Awards may take the form of Contracts and Grants. 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 -**

12.630

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

Basic, Applied & Advanced 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 and advanced technology development. The funds available to support awards are Budget Activity 2 and 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-** Estimated Total Amount of Funding Available (\$K):

<b>FY2015</b>	<b>FY2016</b>	<b>FY2017</b>	<b>FY2018</b>	<b>FY2019</b>	<b>Total</b>
<b>\$3000</b>	<b>\$5000</b>	<b>\$5000</b>	<b>\$4500</b>	<b>\$3500</b>	<b>\$21000</b>

The amount and period of performance of each selected proposal will vary depending on the research area and the technical approach to be pursued by the selected offeror. The period of performance will vary depending on the progress in meeting the objectives and key performance parameters, but may be up to five years.

ONR anticipates that multiple awards will result from this BAA. The typical award will likely be in the range of \$150K to \$1,000K per year, but awards outside this range are also possible. For white papers that propose efforts that are considered of particular value to the Navy, but either exceed available budgets or contain certain tasks or applications that are not desired by the Navy, ONR may suggest a full proposal with reduced effort to fit within expected available budgets or an effort that refocuses the tasks and application of the technology to maximize the benefit of the Navy.

### **2. 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 Offerors 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.

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 their proposal that describes the necessary processes and systems in place to comply with the reporting requirements identified in 2 CFR 33.220 and Appendix A. Entities are **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, Full Proposals**

Industry Day is planned for June 10, 2013 at the Naval Surface Warfare Center (NAVSEA) in Philadelphia, PA. During this time, representatives from ONR, NAVSEA, and NSWCCD, Philadelphia will outline the objectives and requirements of this program and the need to develop materials to upgrade the hot section of Marine gas turbines that are used or planned to be used in today's Fleet and the Fleet after Next. Industry, academia, and other eligible Offerors will have an opportunity to ask questions and provide feedback in order to successfully accomplish the goals of this research opportunity. An amendment under this Broad Agency Announcement will provide Industry Day registration information and the time of the event.

Each White Paper should state that it is submitted in response to this announcement. White Papers shall be submitted directly to the Technical Point of Contact (TPOC) identified in Paragraph 7 above. Each White Paper will be evaluated by the government to determine whether the applied research and 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 is ineligible to submit a Full Proposal under this solicitation. The due date for receipt of White Papers is stated in paragraph 3 below.

The due date for receipt of Full Proposals is stated in paragraph 3 below. It is anticipated that final selections for awards will be on or about 6 December 2013. 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. 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: 10 pages (excluding cover page, resumes, bibliographies, and table of contents)
- Copies - one (1) original, plus (3) hard copies and one (1) electronic copy in Adobe PDF or Word 2007 format on CD-ROM.

#### **White Paper Content**

- **Cover Page:** The Cover Page shall be labeled "WHITE PAPER", and shall include the BAA number, 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.

**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/>.

- **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.
- **Other Requirements:**
  - **Technical Concept:** A description of the technology innovation and technical risk areas. Describe how the materials technologies will be able to sustain service beyond the current Navy Materials set.
  - **Rough Order of Magnitude (ROM)** - Provide a ROM cost estimate segregated by task and a total cost of the proposed effort

## **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 four documents with attachments comprise a complete proposal package:*

- (1) Technical Proposal Template (pdf)
- (2) Technical Content (word)
- (3) Cost Proposal Spreadsheet (excel)
- (4) Preaward Survey of Prospective Contractor Accounting System Checklist (word)

*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.*

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) original, plus 3 hard copies and 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**

Grant proposals shall be submitted through Grants.Gov using the Grants.gov forms from the

application package template associated with the BAA on the Grants.Gov website. 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 ONR Department code [33] and the Program Officer's name [Shifler, David]. Applicants who fail to provide a Department code identifier may receive a notice that their proposal will be 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 1 is limited to no more than 40 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 13-013;
  2. Title of Proposal;
  3. Identity of prime Offeror and complete list of subawards, if applicable;
  4. Technical contact (name, address, phone/fax, electronic mail address)
  5. Administrative/business contact (name, address, phone/fax, electronic mail address) and;
  6. Proposed period of performance (identify both the base period and any options, if included);
  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.

o **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.

o **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. Limit the number of pages for this section to 4.

### **Reports:**

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

- Technical and Financial Progress Reports
- Presentation Materials including a Quad Chart updated periodically
- Final Report

• **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 Principal Investigator and other senior personnel must be included, even if they receive no salary support from the project(s);
- 9) The total award amount for the entire award period covered (including indirect costs) must be shown as well as the number of person-months or labor hours per year to be devoted to the project, regardless of source of support; and
- 10) State how projects are related to the proposed effort and indicate degree of overlap.

• **Qualifications:** A discussion of the qualifications of the proposed Principal Investigator and any other key personnel. Include resumes 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.

• **Other Requirements:** Statement of Work: A Statement of Work (SOW) clearly detailing the scope and objectives of the effort and the tasks to be performed. 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 any ensuing contract award. Include a detailed listing of the technical tasks/subtasks organized by year.

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

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.

• **Deliverables:** A detailed description of the results and products to be delivered inclusive of the timeframe in which they will be delivered. Limit the number of pages for this section to 6.

## **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 Principal Investigator to attend the peer reviews described in Section II of this BAA.
- Subawards/Subcontracts – Provide a description of the work to be performed by the subrecipient/subcontractor. For each subaward, a detailed cost proposal is required to be submitted by the subrecipient(s). A proposal and supporting documentation must be received and reviewed before the Government can complete its cost analysis of the proposal and enter negotiations. ONR's preferred method of receiving subcontract information is for this information to be included with the Prime's proposal. However, a subcontractor's cost proposal can be provided 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. Fee/profit is unallowable on subawards.
- 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 are limited to research equipment not already available for the project. General purpose equipment (i.e., equipment not used exclusively for research, scientific or other technical activities, such as personal computers, laptops, office equipment) should not be requested unless they will be used primarily or exclusively for the project. For computer/laptop purchases and other general purpose equipment, if proposed, include a statement indicating how each item of equipment will be integrated into the program or used as an integral part of the research effort.
- **Other Direct Costs** - Provide an itemized list of all 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.

- **Options** - The Base Period of Performance and Option Periods must be priced at the submission of the proposal. Unpriced options will not be included in any resulting award or agreement.
- **Fee/Profit** - Fee/profit is unallowable under assistance agreements at either the prime or subaward level but may be permitted on any subcontracts issued by the prime awardee.

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

### 3. Significant Dates and Times -

Event	Date	Time
Pre-Proposal Conference / Industry Day	6/10/2013	TBD
White Paper Due Date	8/16/2013	2:00 PM Eastern Standard Time
Notification of White Paper Evaluation*	9/13/2013	
Full Proposal Due Date	11/15/2013	2:00 PM Eastern Standard Time
Notification of Selection: Full Proposals*	12/16/2013	
Awards*	6/30/2014	

*\*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 of 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**

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>

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 "MPIN" are important steps in the SAM registration process. Applicants who are not registered with SAM.gov 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 requirement, how an application form works, or the submittal process **must** be directed to Grants.gov 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 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.

#### **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.**

Hard Copies of the White Papers and Full Proposal and the DVD or CD-ROM of the Full Proposal and White Papers should be sent to the Office of Naval Research as indicated below. All supporting documentation should be submitted with the DVD or CD-ROM of the Full Proposal.

Office of Naval Research  
Attn: Dr. David A. Shifler  
ONR Department Code: 332  
875 North Randolph Street  
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;
2. The qualifications, capabilities and experience of the proposed Principal Investigator (PI), team leader and key personnel who are critical in achieving the proposal objectives;
3. The offeror's capabilities, related experience, facilities, techniques or unique combinations of these which are integral factors for achieving the proposal objectives; Experience should be relevant: (1) to understanding hot corrosion and gas turbine engine operations in a marine environment; (2) knowledge in nickel-based superalloy metallurgy for hot section turbine engine components for marine service conditions, (3) coating chemistry, thermomechanical effects and application processes that can affect the resistance of coatings to marine environments and high temperature operations stated earlier, and/or ability to use established tools to model behavior of alloys and coatings as described in the Technical Section of this BAA;
4. Potential Naval relevance and contributions of the effort to the agency's specific mission; and
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 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%) for goals, or 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.

Ensure All offerors who become subsequent awardees will submit the Individual Subcontract Report (ISR) (formerly SF294), and the Summary Subcontract Report (SSR) (formerly the SF295) using the Electronic Subcontracting Reporting System (eSRS) at: <http://www.esrs.gov>, following the instructions in the eSRS. In addition subsequent awardees shall adhere to the following;

\* The ISR shall be submitted semi-annually during contract performance for the periods ending March 31 and September 30. A report is also required for each contract within 30 days of contract completion. Reports are due 30 days after the close of each reporting period, unless otherwise directed by the contracting officer. Reports are required when due, regardless of whether there has been any subcontracting activity since the inception of the contract or the previous reporting period.

\*The SSR shall be submitted as follows: The report shall be submitted semi-annually for the six months ending March 31 and the twelve months ending September 30. When selecting the appropriate department/agency under "agency to which this report is submitted", choose from the second drop-down menu, which includes Department of the Navy (1700) (Note: do not select from below the departments/agencies (component) listed beyond the second dropdown menu). Include the following email addresses: [OSBP.info@navy.mil](mailto:OSBP.info@navy.mil) which will provide notification to the Navy SSR Program Coordinator regarding the submission of the SSR.

\* Ensure that its subcontractors with subcontracting plans agree to submit the ISR and/or the SSR using the eSRS;

\*Provide its prime contract number, its DUNS number, and the e-mail address of the offeror's official responsible for acknowledging receipt of or rejecting the ISRs to all first-tier subcontractors with subcontracting plans so they can enter this information into the eSRS when submitting their ISRs; and

\*Require that each subcontractor with a subcontracting plan provide the prime contract number, its own DUNS number, and the e-mail address of the subcontractor's official responsible for acknowledging receipt of or rejecting the ISRs, to its subcontractors with subcontracting plans.

### **3. Options -**

The Government will evaluate options for award purposes by adding the total cost for all options to the total cost for the basic requirement. Evaluation of options will not obligate the Government to exercise the options during the period of performance.

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

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

Effective 01 October 2011, hard copies of award/modification documents will no longer be mailed to Offerors. All Office of Naval Research (ONR) award/modification documents will be available via the Department of Defense (DoD) Electronic Document Access System (EDA).

## **EDA**

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

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

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

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

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

### Grant Certification Requirements:

Grant awards greater than \$100,000 require a certification of compliance with a national policy mandate concerning lobbying.

## **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 sub awards at all tiers (including sub contracts, sub grants, and contracts under grants, loans, and cooperative agreements) and that all sub recipients 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**

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 submitting proposals for contracts, cooperative agreements and Other Transaction Agreements should indicate in the Technical Proposal Template, Section II, Blocks 8 and 9, which of these facilities are critical for the project's success.

### **2. Security Classification**

In order to facilitate intra-program collaboration and technology transfer, the Government will attempt to enable technology developers to work at the unclassified level to the maximum extent possible. If it is determined that access to classified information will be required during the performance of an award, a Department of Defense (DD) Form 254 will be attached to the contract; and FAR 52.204-2 - Security Requirements will be incorporated into the contract. The Offeror must clearly identify such need by completing Section II, Block 11, DD 254 – Security Classification Specification, 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.

ONR does not provide access to classified material under grants.

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

#### **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 or do not have acceptable plans to mitigate identified conflicts 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 Government 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. Executive Compensation and First-Tier Subcontract Reporting**

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.

## **10. Combating Trafficking in Persons**

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

## **11. 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.

## **12. Employment Eligibility Verification**

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

## **13. 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."

## **14. Other Guidance, Instructions, and Information**

None