



## Multi-Target Track and Terminate (MT3)

### **INTRODUCTION:**

This publication constitutes a Broad Agency Announcement (BAA) as contemplated in Federal Acquisition Regulation (FAR) 6.102(d)(2). 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** - Multi-Target Track and Terminate (MT3)
- 3. Program Name** - Multi Target Laser Designation (MTLD)
- 4. Research Opportunity Number** - 09-023
- 5. Response Date** -

White Papers: 7/29/2009  
Full Proposals: 9/10/2009

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

The Sea Strike Future Naval Capability (FNC) sponsored and managed by the Office of Naval Research (ONR), is soliciting applied research and advanced technology demonstration proposals for the development of a Multi-Target Track and Terminate (MT3) enhanced capability (EC) to support manned and unmanned rotary wing platforms in countering the small boat threat using precision semi-active laser (SAL) guided weapons in the littoral combat environment.

#### **6.1 Background**

Improvements in littoral ship defense capabilities against both small boats and coastal land-based threats are required, due to attacks such as the October 2000 attack on the U.S.S. Cole, and the emerging tactical use of swarms of small boats to confuse and overwhelm blue forces in the littoral environment.

One required improvement involves persistent Intelligence, Surveillance, Reconnaissance, and Targeting (ISRT) capabilities. The Navy needs more responsive ISRT assets to add detailed high-resolution information to a complete littoral combat picture, and to provide a means for high-confidence targeting of enemy combatants. In particular the ISRT system must be capable of detecting and tracking multiple potential threats, identifying and prioritizing these threats, and supporting the simultaneous weapon engagements required to defeat this threat. This FNC is expected

to address the Navy's need for this high-confidence targeting capability against multiple elements of the small boat threat composed of Fast In-Shore Attack Craft (FIAC). FIACs can be grouped into 3 categories with their typical weapon loadouts:

- Type (1) Jet Ski or Waverunner (RPG or explosive payload);
- Type (2) Boghamar class boats (unguided rockets, and anti-tank weapons); and
- Type (3) Fast Attack boats (short range cruise missiles and torpedoes).

The total size of the threat would consist of tens of boats with a likely distribution of larger numbers (10-50) of Type (1), fewer (5 to 10) of the medium size Type (2), and the fewest numbers (1 to 5) of Type (3). The FIAC threat can occur as a single axis attack (20 to 60 degree sectors) or multi-axis attacks. The rotary wing platform supporting the ships under attack must deconflict the threat from other boats in the area, determine the most capable elements of the threat (based on location and weaponry), and rapidly target these threats with precision guided weapons.

The MTL D program seeks to develop and demonstrate technology for a multi-mode sensor suite, operating from a rotary wing platform, to support multiple simultaneous engagements with existing SAL seekers, and evolving dual band SAL weapons. The MTL D system prototype should significantly improve the Navy's persistent ISRT capabilities suitable to a Technology Readiness Level (TRL) of 6 within 60 months. TRL 6 for this program is defined as a flight demonstration of the MTL D capability aboard a MH-60 helicopter in the littoral environment. The developed system shall be suitable for flight testing aboard an MH-60 helicopter to be determined and supplied by the government at a later date, during requirements development. The government will provide detailed requirements needed to meet the goals of the demonstration. The final configuration delivered to the government shall be technically suitable for transition into a System Development Demonstration (SDD) program acquisition phase.

The desired technical effort includes but is not limited to requirements definition, preliminary design, detailed design, fabrication, assembly, and laboratory testing of MTL D hardware and software as well as collaboration with the government to integrate the MT3 subsystem with an existing EO/IR/Designator package, and to integrate the complete system with the test-bed helicopter.

Goals of the program include:

- 1) Development of a simultaneous Multi-Target Tracking capability;
- 2) Demonstration of a multi-target laser designator;
- 3) Development and demonstration of a Multi-direction Laser Pointing system with high pointing accuracy and rapid slew and settle capability;
- 4) Demonstration of designator weapon de-confliction using existing designator codes;
- 5) Development of algorithms and software to support MLTD; and
- 6) Demonstration of at least 6 simultaneous SAL weapon launches against maritime targets.

## 6.2 Program Plan

The program will be executed in two phases. A Phase I effort, of duration no longer than 6 months, will be awarded based on the evaluation of responses to this BAA and will initiate one or more contract programs that will examine operational scenarios and refine performance and physical requirements for the multi-target capability. This phase will identify and assess material solutions for potential lead platform(s), the number and type of threats that can be countered, existing designator, sensor and SAL guidance systems that could be modified or augmented, and current threat response capability. Component risk reduction to the proposed technical approach and system design will be conducted, and contractor(s) will submit updated plans for executing Phase II of the program.

The factors that will be considered in assessing the transition to Phase II include both programmatic and technical issues. The programmatic issues include the proposed solution's likelihood of achieving required technical capabilities (performance, size, weight, power, etc) with various lead platform program offices (MH-60, AH-1 and Fire Scout.) The technical issues are the maturity levels of the technologies needed and an analysis of the performance capabilities of the system.

Phase II of the program will be awarded to a single vendor based on the merit of the proposed solutions and funding availability. This phase will develop a detailed system design based on the results of the Phase I effort and will fabricate and demonstrate a prototype system with the multi-target designation capability. Field tests from an airborne platform will be performed to demonstrate the

effective function of the system. These tests will be done against a number of targets simulating a synchronized attack. The targets will be instrumented to collect a sequence of designator laser pulses sufficient to identify the pulse code and estimate the irradiance level. Once this is accomplished, the demonstration phase will culminate with the simultaneous launch of multiple (6) SAL weapons to defeat maritime targets in a representative scenario including the following elements of the kill chain:

- 1) Search using the multi-sensor suite of the airborne platform
- 2) Detection based on radar MTI or MWIR hot spot modes
- 3) Tracking in the Narrow Field of View of the MWIR sensor
- 4) Identification of the target based on the EO/IR sensor
- 5) Engagement of multiple targets with SAL weapons
- 6) Damage assessment using EO/IR sensor

A Critical Design Review will occur no later than 8 months after the start of Phase II. In addition to revisiting the factors considered in the transition from Phase I to Phase II, an in-depth assessment of the derived requirements, the capabilities and readiness of the technologies, and the performance projections will be made.

### 6.3 Design and Performance Goals

Performance goals for the system include:

- 1) Total system field of regard: Classified
- 2) ID/Tracker sensor field of view: Classified
- 3) Number of targets designated: 6 or greater
- 4) Revisit Rate: up to 20Hz/target
- 5) Compatible with current laser guided weapons appropriate for the threat
- 6) Number of PIM/PRI codes supported: TBD
- 7) Range: 5-10 km
- 8) Spectral band: 1.06 microns designation with upgrade path to eye safe wavelengths
- 9) Candidate Lead platforms: MH 60R/S, AH-1Z, Fire Scout
- 10) Form Factor & Weight: compatible with existing lead platform ball turrets
- 11) Beam Divergence: ~100 microradians
- 12) Pointing stability: ~50 microradians
- 13) Ball/ Laser configuration: Laser in ball or external to ball with coude path

Awards under this BAA will be in the form of cost-plus-fixed-fee contracts with a base period and an option period. The period of performance for the base period will be 6-9 months and the period of performance for the option period will be 51-60 months. The base period will cover the Phase I effort. The option period will cover the Phase II effort. The proposals submitted should address all technical issues regarding the two phases of the effort. Offerors should submit complete budgets covering both the Phase I and Phase II work. It is anticipated that the option covering Phase II will be exercised on only one of the awarded contracts.

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 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. In conformance with the USD(AT&L) guidance and National Security Decision Directive 189, ONR will place no restriction on the conduct or reporting of unclassified fundamental research, except as otherwise required by statute, regulation or Executive Order. 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 consist of applied research and advanced technology development. The funds available to support awards are Budget Activities 6.2 and 6.3.

## 7. Point(s) of Contact -

Questions of a technical nature should be submitted to:

Primary Point of Contact:

Dr. Michael D. Duncan  
Office of Naval Research  
875 North Randolph Street, Suite 1121  
Arlington, VA 22203  
Code: 312 Persistent Surveillance Program Manager  
Electronics, Sensors, and Networks Research Division  
Email:michael.d.duncan2@navy.mil

Secondary Point of Contact:

Robert Hintz  
Office of Naval Research  
875 North Randolph Street, Suite 1121  
Arlington, VA 22203  
Code: 312 Persistent Surveillance Program Manager  
Electronics, Sensors, and Networks Research Division  
Email: robert.hintz@navy.mil

Questions of a business nature should be submitted to:

Primary Point of Contact:

Kenesha Y. Hargrave  
Office of Naval Research  
875 North Randolph Street - Suite W1273  
Arlington, Virginia 22203-1995  
Code: BD 0251  
Email: kenesha.y.hargrave@navy.mil

Secondary Point of Contact:

Vera M. Carroll  
Office of Naval Research  
875 North Randolph Street, Suite 1279  
Arlington, Virginia 22203-1995  
Code: BD 0251  
Email Address: vera.carroll@navy.mil

Questions of a security nature should be submitted to:

Derrick Shack  
Information Security Specialist  
Office of Naval Research  
Security Department, Code 43  
One Liberty Center  
875 N. Randolph Street  
Arlington, VA 22203-1995  
Email Address: derrick.shack@navy.mil

Note: All UNCLASSIFIED communications shall be submitted via e-mail. All questions of an UNCLASSIFIED nature to the Technical Point of Contact (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) - Contracts**

Awards will be issued as Contracts. ONR reserves the right to award a different instrument type if deemed to be in the best interest of the Government.

#### **9. Catalog of Federal Domestic Assistance (CFDA) Numbers -**

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

#### **11. Other Information -**

This announcement is restricted to only applied research and advanced technology development not related to the development of a specific system or hardware procurement. Contracts made under this BAA are for experimentation directed towards advancing the state of the art and increasing knowledge or understanding.

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

### **II. AWARD INFORMATION**

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

Estimated Total Amount of Funding Available (\$K):

<b>FY2010</b>	<b>FY2011</b>	<b>FY2012</b>	<b>FY2013</b>	<b>FY2014</b>	<b>Total</b>
<b>\$800</b>	<b>\$2375</b>	<b>\$3250</b>	<b>\$1300</b>	<b>\$500</b>	<b>\$8225</b>

The Office of Naval Research (ONR) plans to award one or more technology development contracts that represent the best value to the Government in accordance with the evaluation criteria stated in Section V. entitled "Evaluation Information". The Office of Naval Research is seeking participants for this program that are capable of supporting the goals described in this announcement. Offerors have the opportunity to be creative in the selection of the technical and management processes and approaches to address the research topics. ONR anticipates a budget of 6.2 and 6.3 funds of approximately \$8,225,000 over a five (5) year period, FY10 - FY14, for this program. Above is the estimated budget per year. However, lower and higher cost proposals will be considered. ONR has funded related technology development under numerous programs. If Offerors are enhancing work performed under other ONR or DoD projects, they must clearly identify the point of departure and what existing work will be brought forward and what new work will be performed under this BAA.

### **III. ELIGIBILITY INFORMATION**

All responsible sources from academia and industry may submit proposals under this BAA. Historically Black Colleges and Universities (HBCUs) and Minority Institutions (MIs) are encouraged to submit proposals and join others in submitting proposals. However, no portion of this BAA will be set aside for HBCU and MI participation.

Federally Funded Research & Development Centers (FFRDCs), including Department of Energy National Laboratories, are not eligible to receive awards under this BAA. However, teaming arrangements between FFRDCs and eligible principal bidders are allowed so long as they are permitted under the sponsoring agreement between the Government and the specific FFRDC.

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

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

Some topics cover export controlled technologies. Research in these areas is limited to "U.S. persons" as defined in the International Traffic in Arms Regulations (ITAR) - 22 CFR § 1201.1 et seq. (See Section VII, Other Information)

#### **IV. APPLICATION AND SUBMISSION INFORMATION**

##### **1. Application and Submission Process - White Paper, Full Proposals**

The due date for white papers is no later than 3:00 PM (EDT) on Wednesday, 29 July 2009. If an offeror does not submit a white paper before the due date and time, it is not eligible to participate in the remaining Full Proposal submission process and is not eligible for Fiscal Year (FY) 2010 funding. Each white paper should state that it is submitted in response to this BAA.

Initial Navy evaluations of the white papers will be issued via e-mail notification on or about 12 August 2009.

Full proposals will not be considered under this BAA unless a white paper was received before the white paper due date specified above.

The due date for receipt of Full Proposals is 3:00 PM (EDT) on 10 September 2009. ONR will select the efforts to be funded for FY10 start-up based upon the quality and completeness of the full proposal and the level of available funding. It is anticipated that final selections will be made within 4 weeks after full proposal submission. As soon as the final full proposal evaluation process is completed, PIs will be notified via e-mail of their project's selection or non-selection for FY10 funding. Full proposals received after the published due date will not be considered for funding in FY10. Full proposals exceeding the page limit may not be evaluated. NOTE: Full Proposals sent by fax or e-mail will not be considered.

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

White Papers and Full Proposals submitted under the BAA are expected to be unclassified ; however, confidential/classified responses are permitted. If a classified response is submitted, the resultant contract will 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. The full proposal shall include a

severable, self-standing Statement of Work, which contains only unclassified information and does not include any proprietary restrictions.

**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.

Unclassified White Papers and Full Proposals shall be submitted directly to the appropriate Technical Point of Contact (TPOC).

**Classified Proposal Instructions:**

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

OUTSIDE ENVELOPE (no classification marking):

Office of Naval Research  
Document Control Unit  
ONR Code 43  
875 North Randolph Street  
Arlington, VA 22203-1995

The inner wrapper of the classified proposal should be addressed to the attention of Dr. Michael Duncan (michael.d.duncan2@navy.mil), ONR Code 312 and marked in the following manner:

INNER ENVELOPE (stamped with the overall classification of the material)  
Program: Multi-Target Track and Terminate (MT3)  
Office of Naval Research  
Attn: Dr. Michael Duncan  
ONR Code: 312  
875 North Randolph Street  
Arlington, VA 22203-1995

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

**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
- Max. Number of Pages permitted: 4 pages (excluding cover page, resumes, bibliographies, and table of contents)
- Copies - one (1) original, five (5) copies, and one (1) electronic copy on CD-ROM (in Microsoft® Word or .PDF format).

**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.

- **Technical Concept:** A description of the technology innovation and technical risk areas.
  1. Project Manager or Principal Investigator
  2. Navy/Marine Corps capability deficiency being satisfied
  3. Technical objective
  4. Technical approach
  5. Deliverables (hardware and software)
  6. Recent technical advances that will reduce risk
  7. Program schedule of events with milestones
  8. Funding plan showing requested funding per fiscal year
- **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.

## **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 30 pages. The cover page, table of contents, personnel resumes, and bibliographies shall not be included in the page limit. There are no page limitations to the Cost Proposal, Volume 2. Full Proposals exceeding the page limit may not be evaluated.
- Copies - one (1) original, five (5) copies, and one (1) electronic copy on CD-ROM (in Microsoft® Word or .PDF format).

### **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
- **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. Limit the number of pages for this section to 5.

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.

- **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. Limit the number of pages for this section to 10.

- **Operational Naval Concept:** A description of the project objectives, the concept of operation for the new capabilities to be delivered, and the expected operational performance improvements.
- **Operational Utility Assessment Plan:** A plan for demonstrating and evaluating the operational effectiveness of the Offeror's proposed products or processes in field experiments and/or tests in a simulated environment.
- **Project Schedule and Milestones:** A summary of the schedule of events and milestones. Limit the number of pages for this section to 1.
- **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. Limit the number of pages for this section to 1.

If it is determined that data rights are not applicable, indicate no assertions are being made in the proposal submission.

- **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 2.
- **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. Limit the number of pages for this section to 5.
- **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 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 PI 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.

Limit the number of pages for this section to 2.

- **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 4.

## **VOLUME 2: Cost Proposal**

### **INSTRUCTIONS FOR CONTRACTS**

Although not required and provided for informational purposes only, adhering to the instructions delineated below may expedite contract placement. Detailed instructions, entitled "Instructions for Preparing Cost Proposals for Contracts and Agreements", including a sample template for preparing costs proposals for contracts, may be found at ONR's website listed under the 'Acquisition Department - Contracts & Grants Submitting a Proposal' link at: [http://www.onr.navy.mil/02/how\\_to.asp](http://www.onr.navy.mil/02/how_to.asp)

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 Government fiscal year, and Part 2 will provide a cost breakdown by task/sub-task corresponding to the task numbers in the proposed Statement of Work. Options must be separately priced.

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

- BAA number
- 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

**Part 1** - Detailed breakdown of all costs by cost category by calendar or Government 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 principles.
- **Subcontracts** - A cost proposal as detailed as the Offeror's cost proposal will be required to be submitted by the subcontractor. The subcontractor's cost proposal can be provided in a sealed envelope with the Offeror's cost proposal or may be sent directly to the Government. Subcontractor proposals must be received and reviewed prior to contract award. The prime contractor should perform and provide a cost/price analysis of each subcontractor's cost proposal.\*

\*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 formed through subcontractors, the offeror must include the additional information required by the above-cited clause.

- Consultant - 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 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).
- 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. 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).
- Other Directs 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).
- 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 contract or agreement.
- 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 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
White Paper Due Date	7/29/2009	3:00 PM Eastern Daylight Time
Notification of White Paper Evaluation*	8/12/2009	
Full Proposal Due Date	9/10/2009	3:00 PM Eastern Daylight Time
Notification of Selection: Full Proposals*	10/5/2009	
Awards*	1/5/2010	

*\*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. Address for the Submission of White Papers and Full Proposals.

White Paper Submission	Full Proposal Submission
Hard Copy & Electronic	Hard Copy & Electronic
<p>Electronic documents must be provided on a CD-ROM that is sent with the hard copy. NOTE: White papers and full proposals sent by FAX or e-mail will NOT be considered. The only acceptable methods for submission of white papers and full proposals is via the United States Postal Service (USPS) with delivery confirmation, via a commercial carrier (e.g., FedEx, United Parcel Service (UPS) or hand delivered to the attention of the cognizant Primary Technical Point of Contact, Dr. Michael Duncan, at the address located below.</p>	

White Papers and Full Proposals for Contracts should be sent to the Office of Naval Research at the following address:

Primary Contact	Secondary Contact
<p>Office of Naval Research Attn: Michael Duncan ONR Department Code: 312 875 North Randolph Street Arlington, VA 22203-1995</p>	<p>Office of Naval Research Attn: Robert Hintz ONR Department Code: 312 875 North Randolph Street Arlington, VA 22203-1995</p>

## 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;
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 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.

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 and assistance agreements 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](http://www.onr.navy.mil/02/rep_cert.asp).

## **2. Reporting -**

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

- Detailed Technical Data
- Quarterly Technical and Monthly Financial Progress Reports
- Presentation Materials
- Other Documentation or Reports (ICD, schedule of events with milestones), as required
- Final Report

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**

Each proposer must provide a very specific description of any equipment/hardware that it needs to acquire to perform the work. This description should indicate whether or not each particular piece of equipment/hardware will be included as part of a deliverable item under the resulting award. Also, this 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 special test equipment or other 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.

Offerors are expected to provide all facilities (equipment and/or real property) necessary for the performance of the proposed effort. Any direct charge of facilities, not including deliverable items, must be specifically identified in the Offeror's proposal and approved by the Government prior to purchase. In addition, any request to use Government owned facilities must be included in the Offeror's proposal and approved in advance by the cognizant Government official. (Note: proposals that are contingent upon ONR providing government furnished equipment, instrumentation, test facilities, or threat hardware and information for exploitation are NOT acceptable.)

### **2. Security Classification**

In order to facilitate intra-program collaboration and technology transfer, the Government will attempt to enable technology developers to work at the unclassified level to the maximum extent possible. If access to classified material will be required at any point during performance, the Offeror must clearly identify such need prominently in its proposal.

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

Reserved

### **4. Recombinant DNA**

Reserved

## 5. Department of Defense High Performance Computing Program

Reserved

## 6. Protection of Proprietary and Sensitive Information

The parties acknowledge that, during performance of the contract agreement resulting from this BAA, the recipient may require access to certain proprietary and confidential information (whether in its original or derived form) submitted to or produced by the Government. Such information includes, but is not limited to, business practices, proposals, designs, mission or operation concepts, sketches, management policies, cost and operating expense, technical data and trade secrets, proposed Navy budgetary information, and acquisition planning or acquisition actions, obtained either directly or indirectly as a result of the effort performed on behalf of ONR. The recipient shall take appropriate steps not only to safeguard such information, but also to prevent disclosure of such information to any party other than the Government. The recipient agrees to indoctrinate company personnel who will have access to or custody of the information concerning the nature of the confidential terms under which the Government received such information and shall stress that the information shall not be disclosed to any other party or to recipient personnel who do not need to know the contents thereof for the performance of the contract/agreement. Recipient personnel shall also be informed that they shall not engage in any other action, venture, or employment wherein this information will be used for any purpose by any other party.

## 7. Project Meetings and Reviews

Individual program reviews between the ONR sponsor and the performer may be held as necessary. Program status reviews may also be held to provide a forum for reviews of the latest results from experiments and any other incremental progress towards the major demonstrations. These meetings will be held at various sites throughout the country. For costing purposes, offerors should assume that 40% of these meetings will be at or near ONR, Arlington VA and 60% at other contractor or government facilities. Interim meetings are likely, but these will be accomplished via video telephone conferences, telephone conferences, or via web-based collaboration tools.

## 8. Submission of Questions

Any questions regarding this solicitation must be provided to the Science and Technology Point of Contact AND 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 PM Eastern Time on 15 July 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 PM Eastern Time on 26 August 2009**. 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 one or more of the following webpages:

- Federal Business Opportunities (FEDBIZOPPS) Webpage - <https://www.fbo.gov/>
- ONR Broad Agency Announcement (BAA) Webpage - <http://www.onr.navy.mil/02/baa/>

## 9. Other Guidance, Instructions, and Information

None