



## **BROAD AGENCY ANNOUNCEMENT (BAA)** **Undersea Cooperative Cueing and Intervention**

### **INTRODUCTION:**

This publication constitutes a Broad Agency Announcement (BAA) as contemplated in Federal Acquisition Regulation (FAR) 6.102(d)(2) and the Department of Defense Grants and Agreements (DoDGARS) Subpart 22.315(a). A formal Request for Proposals (RFP), solicitation, and/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 select for award all some or none of the proposals in response to 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  
One Liberty Center  
875 North Randolph Street, Suite 1425  
Arlington, VA 22203-1995

2. Research Opportunity Title

Undersea Cooperative Cueing and Intervention

3. Program Name

Mine Countermeasures

#### 4. Research Opportunity Number

BAA 07-028

#### 5. Response Date

White Papers: 1 June 2007 not later than 2:00pm ET

Full Proposals: 17 September 2007 not later than 2:00pm ET

#### 6. Research Opportunity Description

The Office of Naval Research (ONR) seeks proposals for an at-sea demonstration of an autonomous system that ultimately searches a large littoral area (100km x 100km) for proud mine-like objects utilizing a logistically manageable number of marine vehicles working in coordination with each other to maximize both the search rate and search quality. Logistically manageable is defined as a system that can be deployed from a Littoral Combat Ship (LCS) mission module. Marine vehicles may include any combination of Unmanned Underwater Vehicles (UUVs) and Unmanned Surface Vehicles (USVs).

In the tactical scenario envisioned, the littoral area to be searched is located tens of nautical miles away from an LCS loitering position. If USVs serve as a system delivery platform, they should be capable of fully autonomous navigation to the search area, including autonomous Rules-of-the-Road collision avoidance capability. Maximizing both the search rate and search quality will likely involve conditional sampling based on a triage approach that capitalizes on the speed, endurance, navigation and communication strengths of USVs and the classification and identification and intervention capabilities of UUVs. UUV deployment may be triggered from the USV autonomously or through a communication link to the LCS. The deployed UUVs collectively search the area based on all available cues until a user-defined system performance level has been achieved. The output of the system is a map of the area showing the estimated positions and types of mine-like objects, the confidence level of each estimate, and the probability of undetected mines. Field demonstrations in the ocean with experimental mine fields should quantify the trade-offs between area search rate /coverage and composite map accuracies and confidence levels.

To explore the structure of the trade space so practical systems may ultimately be produced, proposals are sought with a strong emphasis on multiple-vehicle, adaptive, cooperative autonomy. Exemplary component capabilities within such a system are outlined in more detail below.

##### *USV Transit and Deployment Autonomy*

This capability concerns the autonomy needed for a USV to deploy to the mission search area and return. Included is effective collision avoidance for both static and moving obstacles, the latter in compliance with Coast Guard Collision Regulations (COLREGS). Also included are waypoint following, waypoint generation (path planning), active loitering and station-keeping capabilities. The Global Positioning System (GPS) and the Automatic Identification System (AIS) can both be utilized, but a USV will not depend on AIS alone for tracking contacts.

### *USV Mine Search Autonomy*

This capability concerns the autonomy needed for a USV to perform an effective search pattern over the mission area. The USV may be equipped with a towed or hull mounted sensor and this autonomy component addresses the algorithms used by the USV to exploit its sensor to perform a triage of the search area given the mission constraints to maximize the potential utility of the UUVs when launched and cued from the USV. Effectiveness is influenced by overall coverage rate, preferential routing requirements, ability to adapt to preliminary findings, sea state and sensor performance.

### *USV Mapping, Sensor Data Processing, and Cue Generation*

This capability concerns the autonomous processing of USV search sensor data to the level of providing cues to a UUV that initialize and direct targeted search behaviors. Continuous data must be transformed into discrete decisions. The necessity for timely feedback will impact USV-UUV relative positions and range.

### *UUV Autonomous Launch and Recovery from a USV on Cue*

This capability concerns the delivery and retrieval of a UUV from a USV on a cue from the USV controller. Included is terminal homing and docking at a mutually determined rendezvous point based on system duration and optimization criteria. Dock functionality for one or more UUVs includes re-charge, high bandwidth data exchange, and shock-mitigated transport in Sea-State 4 conditions.

### *UUV/USV (Moving Long Baseline) Localization*

This capability concerns the accurate position fix of a UUV from the combination of acoustic ranging to a USV and the USV's access to GPS. For affordability, baseline UUVs are not equipped with inertial navigation systems or ultra short baseline acoustic systems. For efficiency, UUVs remain at their optimal sampling depth while still maintaining position accuracy.

### *UUV Search Area Autonomy*

This capability concerns UUV cued behavior for the classification and identification of mine-like objects. Included are nested localization algorithms and near-field sensor aperture and directivity constraints. If multi-UUV, bi-static, coordinated sensing is selected, coherent behaviors and inter-UUV communications capabilities are required for effective bi-static performance. The partition of time and energy between localization activity and system-wide area coverage in order to achieve maximum overall mapping accuracy and duration is a central research issue. All vehicles are mobile yet inter-dependent resulting in a system with a large but bounded number of degrees of freedom.

### *UUV Mapping, Sensor Data Processing, Data Fusion*

This capability concerns the ability to process raw sensor data on the UUV main computer to discern mine-like objects above a calibrated confidence threshold. Proposers are expected to capitalize on significant investments to date in computer aided detection (CAD) and computer aided classification (CAC) algorithms. The desired system transmits target locations and snippets (CAD/CAC output) as compressed data packets in near-real time to a central server that fuses all data into an evolving tactical map. Communication protocols for all critical links must be determined and implemented under conservative channel capacity assumptions.

### *USV/UUV Intervention*

Intervention includes any of a number of options for marking a target for later neutralization. At the highest level, the efficiency of re-acquisition and neutralization in any subsequent pass through the area factors into overall system performance.

### *Software Architecture*

The UC2I program objectives include a heavy emphasis on autonomy development. The possible configurations of platform assets, sensors, sensing algorithms, navigation algorithms and autonomy algorithms is enormous. A major challenge is the ability to explore this configuration space to find the most effective system for achieving mission objectives. Meeting this challenge practically requires not only that software solutions be decoupled from hardware solutions, but also that the collection of software modules that comprise the sensing, navigation and vehicle autonomy algorithms be also decoupled from one another. Further guidance and software architecture ground rules for the UC2I program are described in: “Software Architecture and Strategic Plans for Undersea Cooperative Cueing and Intervention,” which you can find as an attachment to this solicitation.

The base effort field demonstration in September 2009 will be conducted in a roughly 25km x 25km target area less than 200m deep off Panama City, Florida, containing an array of representative mine-like objects. Participants will have roughly four (4) days to develop and submit their best map of the associated minefield. The clock will start when the first unmanned vehicles are deployed and run continuously thereafter. Performance will be judged on the accuracy of the map submitted. Final maps must be submitted before the end of the four day period and must include estimates of uncertainty. For the baseline demonstration, the unmanned vehicles can be deployed directly into the target area from a support ship. (Autonomously transiting to the area will be included as an option exit criteria.). Concerns with successful technology at this stage will be eligible for additional work testing their technologies in the expanded 100km x 100 km area.

## 7. Point(s) of Contact

Questions of a technical nature shall be directed to the Technical Point of Contacts, as specified below:

(1) Dr. Thomas Swean  
Office of Naval Research  
One Liberty Center  
875 North Randolph Street, Suite 1425  
Arlington, VA 22203-1995  
(703) 696-4119  
[sweant@onr.navy.mil](mailto:sweant@onr.navy.mil)

(2) Dr. Michael Benjamin  
NAVSEA – Division Newport  
1176 Howell Street  
Building 1171/3  
Newport, RI 02841  
(401) 832-4148  
[BenjaminMR@npt.nuwc.navy.mil](mailto:BenjaminMR@npt.nuwc.navy.mil)

Questions of a business nature shall be directed to the Contract Specialist, as specified below:

Adam Goldstein  
Office of Naval Research  
875 North Randolph Street, Suite 1267C  
Arlington, VA 22203-1995  
Phone: (703) 696-6857  
E-mail: goldsta@onr.navy.mil

8. Instrument Types(s)

Awards resulting from this solicitation will be in the form of grants and/or contracts.

9. Catalog of Federal Domestic Assistance (CFDA) Numbers

12.300

10. Catalog of Federal Domestic Assistance (CFDA) Titles

**DOD Basic and Applied Scientific Research**

11. Other Information

This announcement is restricted to work relating to basic and applied research and that portion of advanced technology development not related to a specific system or hardware procurement. Awards made under this BAA are for scientific study and experimentation directed towards advancing state of the art or increasing knowledge or understanding. Responses to questions will be posted to the ONR website, (<http://www.onr.navy.mil/02/baa/>), FedBizOps (www.fbo.gov), and Grants.gov.

**II. AWARD INFORMATION**

The Office of Naval Research (ONR) plans to award contracts or grants that represent the best value to the Government in accordance with the evaluation criteria. The Government expects to obligate approximately \$26 million in awards for this program. Two system-level proposals and three component technology-level proposals are likely to be funded.

The period of performance for system-level proposals may be up to four (4) years starting 01 November 2007. They should be structured as an initial two-year base effort and a subsequent two-year exercisable option. A decision on whether to exercise the option in any system-level contract will likely be made in October 2009 based on performance in a field demonstration in September 2009. The total budget for the two-year base effort should not exceed \$5M. The total budget for the two-year option effort should not exceed \$10M.

Component technology proposals should each be structured as a two-year effort not to exceed \$2M.

### **III. ELIGIBILITY INFORMATION**

Awardees will be working with sensors that are subject to the export control regulations. The sonars include Low Frequency Broad Band sonar, Synthetic Aperture Sonar, and Inertial Navigation Units. Thus only U.S. Citizens and U.S. persons (as defined under 22 Code of Federal Regulations § 120.15) may work on these awards. Government activities (Federal, State, and Local) and Federally Funded Research and Development Centers (FFRDCs) are not eligible for award under this solicitation. Historically Black Colleges and Universities (HBUCs) and Minority Institutions (MIs) are encouraged to submit proposals and join others submitting proposals.

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

#### 1. White Papers

The due date for receipt of White Papers is 2:00PM (ET) on 1 June 2007. It is anticipated that feedback on white paper submissions will be provided by 1 August 2007. As soon as the white paper evaluation process is completed, the offeror will be notified via e-mail or letter of whether the government would encourage the submission of a full proposal. Encouragement of the submission of a full proposal does not assure a subsequent award. Neither a discouraging response nor the failure to submit a white paper precludes the offeror from submitting a full proposal. White papers exceeding the page limit may not be evaluated. White papers submitted under this BAA shall be unclassified. Confidential or classified white papers are not permitted and will not be accepted for consideration. Offerors are expected to appropriately mark each page of their submission that contains proprietary information.

White papers should follow the following format:

- (1) Paper size – 8.5 x 11 inch paper.
- (2) Margins – 1 inch
- (3) Spacing – single or double-spaced
- (4) Font – Times New Roman, 12 point
- (5) Page count – No more than 10 single-sided pages.

White papers should have the following content:

- (1) Cover page – the cover page shall be labeled “Proposal White Paper”, and include the BAA title and number, title of the white paper, administrative and technical points of contact along with telephone, fax numbers and e-mail addresses. The cover page does not count toward the overall page limit listed above. ***Titles given to the white papers (and proposals) should be descriptive of the approach or work they cover and not merely a copy of the title of this solicitation.***
- (2) Technical summary (1 page) – A clear discussion of the scientific concepts and associated technologies being proposed, objectives of the proposed effort, a clear statement of the major scientific and technical issues to be resolved to accomplish objectives, approaches to resolving these scientific and technical issues.

- (3) Deliverables (1 page) – A summary of deliverables associated with the proposed research.
- (4) Schedule (1 page) - Schedule and milestones for the proposed research, including rough estimates of cost for each year of the effort and total cost.
- (5) Personnel (2 pages) - A description of key personnel and partnering arrangements, if any. For personnel, indicate relevant prior experience and expected percentage of time expected from the individual on this proposed effort.
- (6) Technical description (5 pages) – A technical rationale and approach which contains arguments to substantiate claims made in the summary of technical ideas and is consistent with the summary of deliverables and schedule of milestones for the proposed research. The description should make clear how proposed work or approach is distinguished from others as it pertains to this announcement.
- (7) Curriculum vitae for the principal investigator and key personnel may be submitted. One page per person. The vitae will not count toward the overall page limit.
- (8) References or bibliography may be included on a separate page(s) and will not count toward the overall page limit.

Offerors should submit one (1) original and four (4) hard copies of their white paper to the address indicated on p. 12. Additionally, offerors should include a CD-ROM with a PDF file of their white paper with their paper copies. Finally, offerors also need to e-mail a copy of their white paper to Mr. Terry Foust at [foustt@onr.navy.mil](mailto:foustt@onr.navy.mil) . In order to receive consideration, all formats must be submitted on time. Offerors who do not submit a timely white paper will lose an opportunity to have their concept pre-reviewed by ONR program staff.

## 2. Content and Format of Full Proposals

The due date for receipt of full proposals is 2:00PM (ET) on **17 September 2007**. It is anticipated that final decisions will be made on or about **17 October 2007**. As soon as the proposal evaluation process is completed, the offeror will be notified via e-mail or letter of its selection or non-selection for an award. Proposals exceeding the page limit or not following the format described below may not be considered. Proposals submitted under this BAA shall be unclassified. Confidential or classified proposals are not permitted and will not be accepted for consideration. Proposal submissions will be protected from unauthorized disclosure in accordance with FAR 15.207, applicable law, and DoD/DoN regulations. Offerors are expected to appropriately mark each page of their submission that contains proprietary information.

Full proposals should have the following format:

- (1) Paper size – 8.5 x 11 inch paper, and 1-inch margins.
- (2) Spacing – single or double-sided.
- (3) Font – Times New Roman, 12 point.
- (4) Number of pages – Volume 1 is limited to no more than 30 pages. Volume 2 has no page limit. Limitations within sections of the proposal are indicated in the individual descriptions shown below. The cover page, table of contents, bibliography/references, and resumes are excluded from the page limitations. Full proposals exceeding the page limit may not be evaluated.

- (5) Copies (for contract proposals and for grant proposals not utilizing Grants.gov) – one (1) original copy, four (4) additional hard copies and one electronic copy on a CD-ROM in PDF format only.

Full proposal should have the following content:

Volume 1: Technical Proposal (page limitations for individual sections are suggested guidelines. The only firm page limitation is a maximum of 30 pages for the entire technical proposals.

Each section of the Technical Proposal must start on a new page.

- (1) Cover page: This must include the words “Technical Proposal” and the following: (a) BAA number, (b) title of the proposal, (c) identity of prime offeror and complete list of subcontractors, if applicable, (d) technical contact/PI including name, address, phone, fax, and e-mail, (e) administrative or business contact including name, address, phone, fax, and e-mail, and (f) duration of effort (differentiate between basic effort and options).
- (2) Table of contents: (Not included in overall page limit).
- (3) Statement of work: (5 pages) 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, such proposals must include a severable unclassified 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 and subtasks organized by year.
- (4) Project schedule and milestones: (1 page) A summary of the schedule of events and milestones.
- (5) Assertion of data rights: (1 page) Include here a summary of any proprietary rights to pre-existing result, prototypes, or systems supporting and/or necessary for the use of the research, results and/or prototype. Any rights made in other parts of the proposal that would impact the rights in this section must be cross-referenced. If there are proprietary rights, the Offeror must explain how these affect its ability to deliver subsystems and toolkits for integration. Additionally, Offerors must explain how the program goals are achievable in light of these proprietary and/or restrictive limitations. If there are no claims of proprietary rights in pre-existing data, this section shall consist of a statement to that effect.
- (6) Deliverables: (5 pages) A detailed description of the results and products to be delivered, along with anticipated due dates.
- (7) Qualifications: (5 pages) A discussion of previous accomplishments and work in this, or closely related areas, and the qualifications of the investigators. Key personnel resumes shall be attached to the proposal and will not count toward the page limitations.
- (8) Management approach: (5 pages) 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 relationships, government research interfaces, and planning, scheduling and control practice. Identify which personnel and subcontractors (if any) will be involved.

## Volume 2: Cost Proposal

The Cost Proposal shall consist of a cover page and two parts. Part 1 will provide a detailed cost breakdown of all costs by cost category by calendar/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 (SOW).

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:

- (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, e-mail).
- (5) Administrative / business contact (name, address, phone, fax, e-mail).
- (6) Duration of effort (differentiate basic effort and options).
- (7) Summary statement of proposed costs.
- (8) Cognizant DCAA and DCMA points of contact – address, phone, fax, e-mail (if readily available).

Part 1: Detailed breakdown of all costs by cost category by calendar/fiscal year. When options are contemplated, options must be separately identified and priced by task/sub-task corresponding to the same task numbers in the statement of work (SOW):

- (1) Direct labor: individual labor category and person, with associated labor hours and unburdened direct labor rates.
- (2) Indirect costs: Fringe benefits, overhead, G&A, COM, etc. (Show base amount and rate).
- (3) Proposed contractor acquired equipment such as computer hardware for proposed research projects should be specifically itemized with costs or estimated costs. An explanation of any estimating factors, including their derivation and application, shall be provided. Please include a brief description of the Offeror’s procurement method to be used.
- (4) Travel: Number of trips, number of days per trip, departure and arrival destinations, number of people etc.
- (5) Subcontract: 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 will be obtained from the subcontractor at prior to award.
- (6) Consultant: Provide consultant agreement or other document which verifies the proposed loaded daily/hourly rate.
- (7) Materials should be specifically itemized with costs or estimated costs. An explanation of any estimating factors, including their derivation and application, shall be provided. Include a brief description of the Offeror’s procurement method to be used (competition, engineering estimate, market survey, etc.).

- (8) Other direct costs: Particularly any proposed items of equipment or facilities. Equipment and facilities generally must be furnished by the contractor/recipient. (Justifications must be provided when Government funding for such items is sought). Include a brief description of the Offeror's procurement method to be used (competition, engineering estimate, market survey, etc.).
- (9) Fee / Profit including fee percentage.

Part 2: Cost breakdown by task/sub-task using the same task numbers in the statement of work (SOW). When options are contemplated, options must be separately identified and priced by task/sub-task corresponding to the same task numbers in the statement of work.

Offerors submitting contract proposals, or grant proposals not utilizing Grants.gov, shall submit one (1) original and four (4) hard copies of both volumes of their proposal. Additionally, offers shall submit a CD with both volumes of their proposal in PDF format.

### 3. Significant Dates and Times

<b>Anticipated Schedule of Events</b>		
<b>Event</b>	<b>Date</b>	<b>Time (ET)</b>
White Papers Due	1 June 2007	2:00PM
White Paper Evaluations Returned	On or about 1 August 2007	
Full Proposals Due	17 September 2007	2:00PM
Notifications of Selection for Award	On or about 17 October 2007	
Contract/Grant Awards	17 October-15 November 2007	
Kickoff Meetings	15 November-15 December 2007	

### 4. Submission of Late Proposals

Any proposal, modification, or revision that is received at the designated Government office after the exact time specified for receipt of proposals is "late" and will not be considered unless it is received before award is made, the contracting officer determines that accepting the late proposal would not unduly delay the acquisition and:

- (a) If it was transmitted through an electronic commerce method authorized by the announcement, it was received at the initial point of entry to the Government infrastructure not later than 5:00 p.m. one working day prior to the date specified for receipt of proposals; or

(b) There is acceptable evidence to establish that it was received at the Government installation designated for receipt of proposals and was under the Government's control prior to the time set for receipt of proposals; or

(c) It was the only proposal received.

However, a late modification of an otherwise timely and successful proposal, that makes its terms more favorable to the Government will be considered at any time it is received and may be accepted.

Acceptable evidence to establish the time or receipt at the Government installation includes the time/date stamp of that installation on the proposal wrapper, other documentary evidence of receipt maintained by the installation, or oral testimony or statements of Government personnel.

If an emergency or unanticipated event interrupts normal Government processes so that proposals cannot be received at the Government office designated for receipt of proposals by the exact time specified in the announcement, and urgent Government requirements preclude amendment of the announcement closing date, the time specified for receipt of proposals will be deemed to be extended to the same time of day specified in the announcement on the first work day on which normal Government processes resume.

The contracting officer must promptly notify any offeror if its proposal, modifications, or revision was received late and must inform the offeror whether its proposal will be considered.

#### 5. Submission of Grant Proposals to Grants.gov

Grant proposals may be submitted through Grants.gov or by hard copy. Regardless of whether Grants.gov is used or "hardcopy" submission, the offeror must use 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 include the ONR Department Code in Block 4 entitled 'Federal Identifier' of the Standard Form (SF) 424 R&R. **Please be sure to enter Department Code 321 in Block 4 (Federal Identifier) of the SF 424 R&R to ensure that it is properly routed to the correct Program Office.**

However, it should be noted that "white papers" should not be submitted through Grants.gov Apply process; the only acceptable media will be hard copy. White papers may be submitted in hard copy (either electronically or paper) directly to the cognizant ONR Science and Technology Department. White paper submissions may be either mailed, faxed, or e-mailed directly to the appropriate ONR Program Officer/Program Manager.

For electronic submission, there are several one-time actions that must be completed in order to submit an application through Grants.gov (e.g., obtain a Dun and Bradstreet Data Universal Numbering System (DUNS) number, register with the Central Contract Registry (CCR), register with the credential provider, and register 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/assets/OrganizationRegCheck..doc> [http://www.grants.gov/applicants/register\\_your\\_organization.jsp](http://www.grants.gov/applicants/register_your_organization.jsp) which will provide guidance through the process. Designating an E-Business Point of Contact (EBiz POC) and obtaining a special password called 'MPIN' are important steps in the CCR registration process. Applicants who are not registered with CCR and Grants.gov, should allow at least 21 days to complete these requirements. It is suggested that the process be started as soon as possible. Additionally, in order to download the application package, applicants will need to install PureEdgeViewer. This small, free program will allow applicants to access, complete and submit applications electronically and securely. For a free version of the software, visit the following website: [www.grants.gov/DownloadViewer](http://www.grants.gov/DownloadViewer). If any questions that may arise relating to the registration process, system requirements, how an application form works, or the submittal process must be directed to Grants.gov at 1-800-518-4726 or [support@grants.gov](mailto:support@grants.gov).

**Detailed instructions entitled, "Grants.Gov Electronic Application and Submission Information", on how to submit a Grant proposal through Grants.gov may be found at the ONR 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)**

#### 6. Address for Submission of White Papers

Offerors should submit white papers to the following address:

Office of Naval Research, Code 32MCM (Attn: UC2I, Mr. Terry Foust)  
One Liberty Center  
875 North Randolph Street, Suite 1425  
Arlington, VA 22203-1995

#### 7. Address for Submission of Proposals (for contract proposals and grant proposals not utilizing Grants.gov)

Offerors should submit full proposals to the following address :

Adam Goldstein  
Office of Naval Research  
One Liberty Center  
875 North Randolph Street, Suite 1425\*  
Arlington, VA 22203-1995  
Phone: (703) 696-6857

\*This is the address if using U.S. mail. If using a commercial delivery service, please use Room W1267C instead of Suite 1425.

If you are submitting an offer for a contract, electronic and facsimile proposals will not be accepted. Contract proposals will only be accepted in hard copy.

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. Thus, it is recommended that any hard-copy proposal be mailed several days before the deadline established in the solicitation so that it will not be received late and thus be ineligible for award consideration.

## **V. EVALUATION INFORMATION**

1. Evaluation Criteria: The following evaluation criteria are listed in descending order of importance. Sub-factors under a particular criterion are of equal value.

A. Overall scientific and technical merits of the proposal:

1. Area coverage rate
2. Probability of detection
3. Probability of identification
4. Position accuracy
5. Reliability
6. Affordability

B. Offeror's capabilities, related experience, and past performance, including the qualifications, capabilities, and experience of the proposed personnel:

1. Quality of proposed personnel
2. The offeror's experience in relevant efforts with similar resources
3. Ability to manage the proposed effort

C. Cost:

1. The realism of the proposed cost
2. Total cost relative to potential benefit

For proposed awards to be made as contracts to large 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.

2. Evaluation Panel

Potential Offerors should understand that government technical experts drawn from the Office of Naval Research and other naval and defense activities/agencies will participate in the evaluation of the White Papers and Full Proposals. All government personnel participating in evaluation will be bound by appropriate non-disclosure agreements to protect proprietary and source-selection information.

The Government may use selected support personnel to assist in providing both technical expertise and administrative support regarding any white papers and full proposals ensuing from this announcement. These support contractors will be bound by appropriate non-disclosure agreements to protect proprietary and source-selection information.

## **VI. AWARD ADMINISTRATION INFORMATION**

### **1. Administration Requirements**

- The North American Industry Classification System (NAICS) code for this announcement is 541710, with a small business size standard of 500 employees.

-CCR: Successful offerors not already registered in the Central Contractor Registry (CCR) will be required to register in CCR prior to award. Information on CCR registration may be found at [www.ccr.gov](http://www.ccr.gov).

-Certifications: Proposals for award of contracts should be accompanied by two separate, completed certification packages: one certification package for Federal Acquisition Regulation (FAR) clauses in accordance with FAR 4.2101, and one certification package for Defense Federal Acquisition Regulations Supplement (DFARS) clauses. FAR certification packages should be completed online with ORCA at <http://orca.bpn.gov/login.aspx>. Supplemental DFARS and contract specific certification packages should be completed via the ONR website at [http://www.onr.navy.mil/02/rep\\_cert.asp](http://www.onr.navy.mil/02/rep_cert.asp). Grant applications should be accompanied by the certifications found online at [http://www.onr.navy.mil/02/notice\\_first.asp](http://www.onr.navy.mil/02/notice_first.asp).

-By electronically submitting a grant proposal in excess of \$100,000 using the SF-424 via grants.gov, applicants are certifying to the truth of the following restrictions on lobbying:

- (1) No Federal appropriated funds have been paid or will be paid by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer of 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 of employee of Congress, or an employee of a Member of Congress in connection with the Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontractors, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

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

-Subcontracting Plans: Successful contract proposals in excess of \$550,000, submitted by other than small business concerns, shall be supported by a Small Business Subcontracting plan, in accordance with FAR 52.219-9, prior to award.

## 2. Reporting

The following is a sample of deliverables that could be required under a typical research effort:

- Technical and Financial Progress Reports
- Presentation Material
- Other Documents or Reports
- Final Report

However, specific deliverables (that may include software and hardware deliverables) should be proposed by each offeror and finalized during negotiations.

## **VII. OTHER INFORMATION**

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

Each Offeror 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 proposed to be purchased for this effort. It is the Government's desire to have the contractor purchase the equipment/hardware for deliverable items under their contract. The purchase on an ad hoc 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.

Successful awardees will each be provided one operational 7m RHIB boat, one operational Bluefin 12 autonomous vehicle and one operational REMUS 600 autonomous vehicle as Government Furnished Equipment (GFE) at the start of the contract at no cost. The sensor payloads for these platforms must be determined by the offeror and included in the proposed budget.

## 2. Project Meetings and Reviews

Individual program reviews between the ONR sponsor and the performer may be held as necessary. Semi yearly technology and program status reviews may be held to provide a forum for reviews of the latest results from the research and to foster interactions among principal investigators. These meetings may be held at various sites throughout the country. For costing purposes, Offerors should assume that 60% of these meetings will be at or near ONR, Arlington VA and 40% at the award recipient's or other government facilities.

## 3. Department of Defense High Performance Computing Program

The DoD High Performance Computing Program (HPCMP) furnishes the DoD S&T and DT&E communities with use-access to very powerful high performance computing systems. Awardees of ONR contracts, grants, 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. For additional information and application, see <http://www.hpcmo.hpc.mil/>.

## 4. Security Classification

The Government will not accept white papers or proposals that are classified.