



BROAD AGENCY ANNOUNCEMENT (BAA) NUMBER 13-002

Navigation and Timekeeping Technology

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INTRODUCTION:

This publication constitutes a Broad Agency Announcement (BAA) as contemplated in Federal Acquisition Regulation (FAR) 6.102(d)(2) and 35.016. A formal Request for Proposals (RFP), other solicitation, or additional information regarding this announcement will not be issued. The Office of Naval Research (ONR) will not issue paper copies of this announcement. The ONR reserves the right to fund all, some or none of the proposals received under this BAA. ONR provides no funding for direct reimbursement of proposal development costs. Technical and cost proposals (or any other material) submitted in response to this BAA will not be returned. It is the policy of ONR to treat all proposals as sensitive competitive information and to disclose their contents only for the purposes of evaluation.

I. GENERAL INFORMATION:

1. **Agency Name** - Office of Naval Research
2. **Research Opportunity Title** - Navigation and Timekeeping Technology
3. **Program Name** - Navigation and Timekeeping Program
4. **Research Opportunity Number** – 13-002
5. **Response Date** -

White Papers: 1/11/2013
Full Proposals: 4/17/2013

6. **Research Opportunity Description** -

The Office of Naval Research (ONR) is interested in receiving proposals for Navigation and Timekeeping Technology.

In concert with the guidance promulgated by the Office of the Assistant Secretary of Defense Research and Engineering (ASD - R&E) and National Information Infrastructure (ASD - NII), concerning Navigation Warfare (NAVWAR), which deals with the mitigation of denial of Positioning, Navigation, and Timing (PNT), this effort is concerned with the first two of the three elements: Electronic Protection (EP) and Electronic Support (ES). ***Please note that this effort does not address Electronic Attack (EA).***

Precision navigation and timekeeping are essential for many modern naval and maritime systems, and it is essential that navigation and timekeeping services be made available to platforms and weapons at the highest level of accuracy and with the highest possible confidence at reasonable cost. Lack of precise navigation and timekeeping technologies may jeopardize the success of military operations. For example, the Global Positioning System (GPS) provides highly accurate position/time information at low cost and, due to this, GPS has become the technology of choice for many users. Unfortunately, the GPS signal is a low-power signal that is susceptible to interference. Therefore, there is a need for (1) affordable approaches to make GPS more reliable/robust, and (2) methods of quantifying threats to GPS performance that may be termed "situational awareness" and (3) affordable and reliable precision navigation/timing alternatives to GPS.

In upcoming FY2014, the ONR Navigation and Timekeeping Technology Program seeks new and innovative navigation technologies that will provide more accurate, reliable, maintainable, and affordable systems for Naval air, surface, subsurface, and ground platforms and forces. The following paragraphs list areas of concentration in this program.

I. Global Positioning System (GPS) Anti-Jam Technology - The following are topics of interest:

- a. Cooperative threat geo-location algorithms for multiple-platforms, and networked platforms. May include combining remotely located GPS antennas for cooperative processing;
- b. GPS anti-spoofing approaches;
- c. GPS anti-tamper approaches;
- d. Software Defined Radio (SDR) for GPS Military GPS User Equipment (MGUE) receivers;
- e. Power efficient GPS devices for MGUE and associated Antenna Electronics;
- f. Cooperative signal acquisition for GPS MGUE;
- g. GPS MGUE with Electronic Warfare (EW) situational awareness and electronic support measures (ESM) capabilities;
- h. Military GPS receivers which incorporate methods of exploiting signals of opportunity;
- i. Coherent Signals in Space (SIS) Processing. Signal-in-space consists of clock corrections and orbit data broadcast by satellite. Performance is driven by the stability of a satellite's atomic clock, the fidelity of the clock, orbit estimation and prediction, and the update-frequency of the navigation message uploads;
- j. Consideration given to "two-signal" GPS navigation when navigating platform has independent, miniature atomic clock and accurate knowledge of its altitude. An independent miniature atomic clock will be provided as a GFE to the successful offerors; and
- k. Next generation GPS Modernized User Equipment/Military GPS User Equipment (MUE/MGUE) for anti-jam/anti-spoof, which handles larger numbers of desired and interference signals; and an updated resource management of multiple trackers and correlators. This effort may include algorithms to detect spoofing during acquisition, tracking, and navigation.

II. Precision Time and Time Transfer Technology - The following are topics of interest:

- a. Applications of ONR-developed tactical grade atomic clocks to various sensor systems (radars, sonars, communications systems, cryptos, navigation devices, etc.) to perform multi-static remote sensing and to provide an extended period of operations possible with low clock power consumption; the atomic clocks will be a Government Furnished Equipment (GFE) item;
- b. The development of a time-scaling approach for multiple tactical atomic clocks aboard ships and other platforms;
- c. A combination of a small atomic clock with short term (24 hours) stability of $\exp 10^{-12}$ aided by a Rubidium (Rb) atomic clock with long-term stability (100 days) to achieve overall stability of $\exp 10^{-12}$;
- d. The development of comb-based, femto-second atomic clock with the SWaP of approximately 50 cc, 10 Watts, Allan Deviation of 10^{-15} with the integration time of 10 sec; and
- e. The development of time transfer devices for tactical platforms such as F/A-18, UAV/UUV, surface ships, etc.

III. Non-GPS Navigation Technology - The following are topics of interest:

- a. The development of a Inertial Navigation System with SWaP of 800 cc, 50 Watts and accuracy of 1,000 meters after one hour transit;
- b. The development of a small, portable quantum physics-based gravimeter/accelerometer with the SWaP of 5,000 cc, 200 Watts and 5,000 meters after one hour transit;
- c. The development of Celestial Navigation System with SWaP of 2,500 cc, 100 Watts and accuracy of 3 meters for day and night operations using star maps and man-made satellites;
- d. The development of a Magnetic Navigation System with SWaP of 2,500 cc, 100 Watts and accuracy of and 100 meters;
- e. The development of a Bathymetric Underwater Navigation device through the use of sound navigation and ranging (sonar) and light detection and ranging (lidar) with SWaP of 2,500 cc, 100 Watts and an accuracy of 100 meters; and
- f. Precise Navigation in Littoral, sub-surface and surface navigation, using various sensors such as sonar, radar, and lidar.

7. Point(s) of Contact -

Questions of a technical nature should be submitted to:

Technical Primary Point of Contact:

Dr. John C. Kim
Program Officer
875 North Randolph Street – Suite 1119
Arlington, VA 22203-1995
Code: 312
Phone: (703) 696-4214
Email: john.c.kim1@navy.mil

Technical Secondary Point of Contact:

Dr. Stephen Pappert
Program Officer
875 North Randolph Street – Suite W909
Arlington, VA 22203-1995
Code: 312
Phone: (703) 696-5268
Email: Stephen.pappert@navy.mil

Questions of a business nature should be submitted to:

Business Primary Point of Contact:

Kenesha Y. Hargrave
Contract Specialist
Office of Naval Research, BD251
875 N. Randolph Street - Suite W1275A
Arlington, VA 22203-1995
Phone: (703) 696-5345
E-mail: kenesha.y.hargrave@navy.mil

Business Secondary Point of Contact:
Vera M. Carroll
Acquisition Branch Head
Office of Naval Research, Code BD0251
875 North Randolph Street - Suite 1279
Arlington, VA 22203-1995
E-mail: vera.carroll@navy.mil

Questions of a security nature should be submitted to:

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

Note: All UNCLASSIFIED communications shall be submitted via e-mail to the Technical Point of Contact (POC), with a copy to the designated Business POC.

CLASSIFIED questions shall be handled through the ONR Security POC. Specifically, any entity wanting to ask a CLASSIFIED question shall send an email to the ONR Security POC with a copy to both the Technical POC and the Business POC stating that the entity would like to ask a CLASSIFIED question. DO NOT EMAIL ANY CLASSIFIED QUESTIONS. The Security POC will contact the entity and arrange for the CLASSIFIED question to be asked through a secure method of communication.

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

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

- Federal Business Opportunities (FEDBIZOPPS) Webpage - <https://www.fbo.gov/>
- ONR Broad Agency Announcement (BAA) Webpage - <http://www.onr.navy.mil/en/Contracts-Grants/Funding-Opportunities/Broad-Agency-Announcements.aspx>

8. Instrument Type(s) - Contracts

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.

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 -

Not applicable.

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

Not applicable.

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.

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

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

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-

1. Anticipated Number of Awards: The Office of Naval Research (ONR) plans to award one (1) to eight (8) contract(s) (particularly cost plus fixed fee (CPFF) type contracts) in accordance with the information stated in the Section entitled "Research Opportunity Description".

2. Anticipated Range of Individual Award Amounts: ONR plans to fund awards in the range of \$450K - \$500K per year, per contract.

3. Anticipated Period of Performance: The performance period of the awards typically ranges up to three (3) years. There will be no option periods. It is the offeror's responsibility to determine the performance period for their proposed research effort.

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.

II. ELIGIBILITY INFORMATION

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

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

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

University Affiliated Research Centers (UARC) are eligible to submit proposals under this BAA unless precluded from doing so by their Department of Defense UARC contracts.

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

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

IV. APPLICATION AND SUBMISSION INFORMATION

1. Application and Submission Process - White Paper, Oral Presentation, Full Proposals

White Papers: The due date for white papers is no later than 2:00 PM Eastern Time (ET) on Friday, 11 January 2013. White papers received after the published due date will not be considered for funding in FY 2013. Each white paper should state that it is submitted in response to this BAA. The only acceptable methods for submission of white papers is via the United States Postal Service (USPS) with delivery confirmation, via a commercial carrier (FedEx and UPS) to the attention of Dr. John Kim or Ms. Sheila Richardson at the address provided in Section IV.5. **NOTE: White Papers sent by fax or e-mail will not be considered.**

Navy evaluations of the white papers will be issued via e-mail notification on or about Friday, 18 February 2013. An expanded oral presentation will be subsequently requested from those Offerors whose proposed technologies have been identified as being of "particular value" to the Navy. However, any such request does not assure a subsequent award. Any offeror whose white paper was not identified as being of "particular value" to the Navy is ineligible to submit a full proposal under this BAA.

Oral Presentation: The purpose of the oral presentation is to better acquaint the Government with the offeror's proposal. Offerors whose white papers are selected for oral presentations will be invited via e-mail to the unclassified oral presentation event which is planned for Monday, 18 March 2013. A detailed format for the presentation will be provided in the e-mail invitation. Each presentation will be no longer than twenty-five (25) minutes in duration. An additional five (5) minutes will be allowed for questions (if any) from the panel of government evaluators.

Navy evaluations of the oral presentations will be issued via e-mail notification on or about Monday, 11 March 2013. A full proposal will be subsequently encouraged from those Offerors whose proposed technologies have been identified through the aforementioned e-mail as still being of "particular value" to the Navy. Any Offeror whose oral presentation was not identified as being of "particular value" to the Navy is ineligible to submit a full proposal under this BAA.

Full Proposals: The due date for full proposals is no later than 2:00 PM Eastern Time (ET) on Wednesday, 17 April 2013. Full proposals received after the published due date will not be considered for funding. The only acceptable methods for submission of full proposals for contracts is via the United States Postal Service (USPS) with delivery confirmation, via a commercial carrier (FedEx and UPS) to the attention of Dr. Steve Pappert or Ms. Sheila Richardson at the address provided in Section IV.5.

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

Notice of Navy selections based on the full proposal submissions will be issued via e-mail on or about Wednesday, 08 May 2013.

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

White Papers and Full Proposals submitted under this BAA are expected to be unclassified, however, classified proposals are permitted. If a classified proposal is submitted, the resultant contract will be unclassified.

Unclassified Proposal Instructions:

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

Classified Proposal Instructions:

Classified proposals shall be submitted directly to the attention of ONR's Document Control Unit at the following address and marked in the following manner:

OUTSIDE ENVELOPE (no classification marking):

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

The inner wrapper of the classified White Paper and/or Full Proposal should be addressed to the attention of the TPOC, ONR Code XX and marked in the following manner:

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

"Program:
Office of Naval Research
ATTN: ONR Program Officer Name
ONR Code: ONR Program Officer Code
875 North Randolph Street
Arlington, VA 22203-1995"

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

Proposal submissions will be protected from unauthorized disclosure in accordance with FAR Subpart 15.207, applicable law, and DoD/DoN regulations. Offerors are expected to appropriately mark each page of their submission that contains proprietary information.

IMPORTANT NOTE: Titles given to the White Papers/Full Proposals should be descriptive of the work they cover and not be merely a copy of the title of this

solicitation.

a. WHITE PAPERS

White Paper Format

- Paper Size - 8.5 x 11 inch paper
- Margins - 1 inch
- Spacing - single spaced
- Font - Times New Roman, 12 point
- Max. Number of Pages permitted: 20 pages (excluding cover page, resumes, bibliographies, and table of contents)
- Copies - one (1) original, plus (2) 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 (13-002), 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.
- **Future Naval Relevance:** A description of potential Naval relevance and contributions of the effort to the agency's specific mission.
- **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:** N/A

b. FULL PROPOSALS

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

NOTE: Submission instructions for BAAs issued after FY 2010 have changed significantly from previous requirements. Potential Offerors are advised to carefully read and follow the instructions below. The new format and requirements have been developed to streamline and ease both the submission and the review of proposals.

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

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

These documents can be found at: <http://www.onr.navy.mil/Contracts-Grants/submit-proposal/contracts-proposal/cost-proposal.aspx>

All have instructions imbedded into them that will assist in completing the documents. Also, both the Technical Proposal Template and the Cost Proposal Spreadsheet require completion of cost-related information. Please note that attachments can be incorporated into the Technical Proposal Template for submission.

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 2 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.

3. Significant Dates and Times –

Event	Date	Time
White Paper Due Date	1/11/2013	2:00 PM Eastern Standard Time
Notification of White Paper Evaluation*	2/18/2013	
Notification of Oral Presentation Evaluation*	3/11/2013	
Oral Presentations*	3/18/2013	
Full Proposal Due Date	4/17/2013	2:00 PM Eastern Standard Time
Notification of Selection: Full Proposals*	5/8/2013	
Awards*	10/31/2013	

**These dates are estimates as of the date of this announcement.*

NOTE: Due to changes in security procedures since September 11, 2001, the time required for hard-copy written materials to be received at the Office of Naval Research has increased. Materials submitted through the U.S. Postal Service, for example, may take seven days or more to be received, even when sent by Express Mail. Thus any hard-copy proposal should be submitted long enough before the deadline established in the solicitation so that it will not be received late and thus be ineligible for award consideration.

4. Submission of Late Proposals –

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

- a. If it was transmitted through an electronic commerce method authorized by the announcement, it was received at the initial point of entry to the Government infrastructure not later than 5:00 P.M. one working day prior to the date specified for receipt of proposals; or
- b. There is acceptable evidence to establish that it was received at the Government installation designated for receipt of proposals and was under the Government's control prior to the time set for receipt of proposals; or
- c. It was the only proposal received.

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

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

If an emergency or unanticipated event interrupts normal Government processes so that proposals cannot be received at the Government office designated for receipt of proposals by the exact time specified in the announcement, and urgent Government requirements preclude amendment of the announcement closing date, the time specified for receipt of proposals will be deemed to be extended to the same time of day specified in the announcement on the first work day on which normal Government processes resume. The contracting officer must promptly notify any offeror if its proposal, modifications, or revision was received late and must inform the offeror whether its proposal will be considered.

5. 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.

Submission of White Papers Primary Point of Contact	Submission of White Papers Secondary Point of Contact
Office of Naval Research Attn: Dr. John C. Kim ONR Department Code: 312 875 North Randolph Street – Suite 1119 Arlington, VA 22203-1995 Telephone: (703) 696-4214	Office of Naval Research Attn: Sheila Richardson ONR Department Code: 312 875 North Randolph Street – Suite W1105D Arlington, VA 22203-1995 Telephone: (703) 696-0113

Submission of Full Proposals Primary Point of Contact	Submission of Full Proposals Secondary Point of Contact
Office of Naval Research Attn: Dr. Stephen Pappert ONR Department Code: 312 875 North Randolph Street – Suite W909 Arlington, VA 22203-1995 Telephone: (703) 696-5268	Office of Naval Research Attn: Sheila Richardson ONR Department Code: 312 875 North Randolph Street – Suite W1105D Arlington, VA 22203-1995 Telephone: (703) 696-0113

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. Potential Naval relevance and contributions of the effort to the agency's specific mission;
3. The qualifications, capabilities and experience of the proposed Principal Investigator (PI), team leader and key personnel who are critical in achieving the proposal objectives;
4. The offeror's capabilities, related experience, facilities, techniques or unique combinations of these which are integral factors for achieving the proposal objectives; 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.

Industry-Academia Partnering - ONR highly encourages partnering among industry and academia with a view toward speeding the incorporation of new science and technology into fielded systems. Proposals that utilize industry-academic partnering which enhances the development of novel S&T advances will be given favorable consideration.

Industry-Government Partnering - ONR highly encourages partnering among industry and Government with a view toward speeding the incorporation of new science and technology into fielded systems. Proposals that utilize industry-Government partnering which enhances the development of novel S&T advances will be given favorable consideration.

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

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

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

b.) Small Business Participation Statement –

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

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

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

3. Options -

RESERVED.

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.

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

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

NOTE TO FORMER CCR REGISTRANTS: If you had an active record in CCR, you have an active record in SAM. You do not need to do anything in SAM at this time, unless a change in your business circumstances requires a change in SAM in order for you to be paid or to receive an award. SAM will send notifications to the registered user via email 60, 30, and 15 days prior to expiration of the record. You can search for registered entities in SAM by typing the DUNS number or business name into the search box.

- Access to your 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 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 (Subject: EDA Assistance)

NOTE: The System for Award Management (SAM), Subcontracting Plan requirements and Certification requirements are all set forth in the ONR Technical and Cost Proposal Template for those submitting contract proposals.

VII. OTHER INFORMATION

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

Government research facilities and operational military units are available and should be considered as potential government-furnished equipment/facilities. These facilities and resources are of high value and some are in constant demand by multiple programs. It is unlikely that all facilities would be used for any one specific program. The use of these facilities and resources will be negotiated as the program unfolds. Offerors should 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 access to classified material will be required at any point during performance, the Offeror must clearly identify such need in Section II, Block 11 of the Technical Proposal Template.

If it is determined that access to classified information will be required during the performance of an award, a Department of Defense (DD) Form 254 will be attached to the contract, and FAR 52.204-2 - Security Requirements will be incorporated into the contract.

3. Use of Animals and Human Subjects in Research

RESERVED

4. Recombinant DNA

RESERVED

5. Use of Arms, Ammunition and Explosives

RESERVED

6. Department of Defense High Performance Computing Program

The DoD High Performance Computing Program (HPCMP) furnishes the DoD S&T and RDT&E communities with use-access to very powerful high performance computing systems. Awardees of ONR contracts, grants, and other assistance instruments may be eligible to use HPCMP assets in support of their funded activities if ONR Program Officer approval is obtained and if security/screening requirements are favorably completed. Additional information and an application may be found at <http://www.hpcmo.hpc.mil/>.

7. Organizational Conflicts of Interest

All Offerors and proposed subcontractors must affirm whether they are providing scientific, engineering, and technical assistance (SETA) or similar support to any ONR technical office(s) through an active contract or subcontract. All affirmations must state which office(s) the offeror supports and identify the prime contract numbers. Affirmations shall be furnished at the time of proposal submission. All facts relevant to the existence or potential existence of organizational conflicts of interest (FAR 9.5) must be disclosed. The disclosure shall include a description of the action the offeror has taken or proposes to take to avoid, neutralize, or mitigate such conflict. In accordance with FAR 9.503 and without prior approval, a contractor cannot simultaneously be a SETA and a research and development performer. Proposals that fail to fully disclose potential conflicts of interests will be rejected without technical evaluation and withdrawn from further consideration for award. Additional ONR OCI guidance can be found at <http://www.onr.navy.mil/About-ONR/compliance-protections/Organizational-Conflicts-Interest.aspx>. If a prospective offeror believes that any conflict of interest exists or may exist (whether organizational or otherwise), the offeror should promptly raise the issue with ONR by sending his/her contact information and a summary of the potential conflict by e-mail to the Business Point of Contact in Section I, item 7 above, before time and effort are expended in preparing a proposal and mitigation plan. If, in the sole opinion of the Contracting Officer after full consideration of the circumstances, any conflict situation cannot be effectively avoided, the proposal may be rejected without technical evaluation and withdrawn from further consideration for award under this BAA.

8. Project Meetings and Reviews

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

9. 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.

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.

13. Employment Eligibility Verification

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

14. Intellectual Property

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

