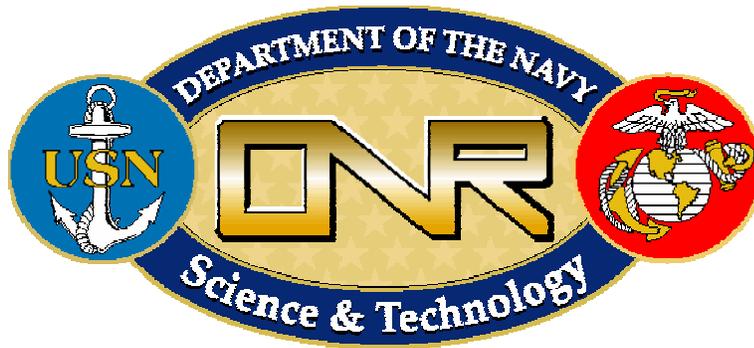


ONR BAA Announcement # ONR 07-010



INTRODUCTION

This publication constitutes a Broad Agency Announcement (BAA) as contemplated in Federal Acquisition Regulation (FAR) 6.102(d)(2) and Department of Defense Grant and Agreement Regulations (DODGARS) 22.315. A formal Request for Proposals (RFP), solicitation, and/or additional information regarding this announcement will not be issued. Request for same will be disregarded.

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.

Awards may take the form of contracts or grants. Therefore, proposals submitted as a result of this announcement may fall under the purview of either the Federal Acquisition Regulations (FAR) or the Department of Defense Grant and Agreement Regulations (DODGARS).

Potential offerors may obtain information on ONR programs and opportunities by checking the ONR website at <http://www.onr.navy.mil>. Specific information about BAAs and amendments and updates to this BAA will be found at that site under the heading "BAAs".

I. GENERAL INFORMATION

1. Agency Name -

Office of Naval Research

2. Research Opportunity Title

Affordable Electronically Scanned Array Technology for Next Generation Naval Platforms

3. Program Name

Future Naval Capability, Sea Shield

4. Research Opportunity Number

BAA 07-010

5. Response Date

White Papers: 20 April 2007

Full Proposals: 20 July 2007

6. Research Opportunity Description

Synopsis

The goal of this research opportunity is to develop and transition affordable, high performance, solid state Radio Frequency (RF) electronics for future Naval Radar and Electronic Warfare systems that will provide a decisive edge to the warfighter. The program encompasses RF research, design, modeling, fabrication, and testing of devices, integrated circuits, and multi-chip assemblies that span digital, analog and microwave technologies. Toward that end, ONR invests in electronics science and technology initiatives which will provide the present Navy and Next Generation Navy with electronics technology to meet these needs. Such future generation systems include a range of Radar and Electronic Warfare / Electronic Attack functions and require active electronically scanned arrays (AESA's) operating at microwave frequencies. The emphasis of this topic is affordability with an objective of 40% reduction of the life cycle cost of current and next generation radars and electronic warfare systems.

Objective and Areas of Interest:

The Office of Naval Research is interested in innovative proposals addressing the technologies and concepts that support advanced Naval Theater Air and Missile Defense radars and electronic warfare systems. In addition to supporting traditional Naval radar roles and missions, future radars are expected to also support ballistic missile defense (BMD) mission requirements. Improvements in radar and electronic warfare (EW) systems power, efficiency, and cooling capabilities well beyond present are required. Advanced technologies and concepts that maximize radiated power and minimize prime power and waste heat (e.g., low-loss components and architectures, high efficiency amplifiers) are of particular interest. This must be accomplished while reducing the cost of the radar and electronic warfare systems. Specific system operational frequencies are as defined by IEEE/ANSI STD 521. Components and architectures that maximize the use of each band are desired.

Radar Goals:

For future Naval radars, S- and X-band are the primary frequencies of interest. High-power, high efficiency transmitter amplifiers and signal/power chains are of primary interest. In addition, highly innovative and affordable receiver technology may be considered. Current receiver technology dissipates considerable levels of power in order to support dynamic range objectives. Low-power, high-performance receiver technology is needed to minimize the power consumed by receiver components.

Electronic Warfare Goals:

For electronic warfare (EW) systems, both new construction and backfit ships should be considered. The objective of this program is to provide an enhanced Electronic Attack (EA) capability as a preplanned product improvement (P3I) to existing systems and/or other new EW systems, and be adaptable to various ship platforms and integrated with other ship systems. For EA transmitters, technology solutions that will provide designs that will easily scale to C-, X-, Ku-, K-, and Ka bands are of primary areas of interest; wide instantaneous frequency bandwidth is also desired. Offerors must indicate bandwidths (both tunable and instantaneous) and frequency band objectives within the proposed solutions. Transmitter related electronics technology that can provide simultaneous multiple signal transmission capability, polarization diversity, low transmit sidelobes, and low unintentional transmitted noise are highly sought after. Proposed solutions must be capable of providing sufficient antenna isolation for transmit and receive operation so as to allow interoperability among various systems. Wideband array radiating elements with practical coincident phase centers for polarization control are also sought after.

Goals Common to both RADAR and EW:

The common goals of this program are to provide innovative technologies that can be used in near- mid-, and far-term applications. Therefore, proposals focused on near-term solutions can be expected to be constrained by current system concepts whereas those focused on far-term solutions are likely to be much less constrained. Technology transition into Naval systems is a

primary objective of this program. Proposals must demonstrate that technologies have a clear insertion path, either as an open market commodity or via a prime contractor's Naval systems. Teaming between technology developers and prime contractors is encouraged, where appropriate. Proposals must clearly articulate a business plan addressing lifecycle cost reduction, transition targets, teaming arrangements and other relevant information that summarizes the offeror's case for meeting the Navy's affordability.

Preferred solutions will develop electronic technologies, components and architectures that will be compatible with future generation Naval Platforms. The primary thrust is to address affordability for transmitter related technology. Receiver technology (such as digital beamforming components) may also be considered under a clearly defined scope, provided that offerors can show that the proposed approach will provide a significant improvement on the overall system life cycle affordability. A list of candidate technologies include but are not limited to the following:

- High efficiency, high power amplifiers and amplifier chains
- Innovative architectures for AESAs
- Power Digital-to-Analog Converters
- Beamformers, beamforming components, and signal distribution networks
- Other innovative techniques including but not limited to, component integration, thermal management, packaging, and manufacturing.
- Shipboard AESA calibration and tuning to both maintain long term performance and permit ship replaceable assembly (SRA) maintenance.

Proposals must clearly indicate how the innovation advances the technology state of art and provides value added. Cost and performance metrics will be considered.

Planned Program Approach and Scope:

This planned program includes electronics technology development that will advance the state of the art in critical technologies that can demonstrate an affordable solution at technology readiness level (TRL) 5. The program will be accomplished in a phased approach as follows:

- **Phase 1** - Offerors will develop and demonstrate basic critical component technologies pertaining to a relevant and well defined architecture.
- **Phase 2** - Offerors will demonstrate components (and component chains) that can be integrated into a representative array environment for the relevant architecture.

Open System Interfaces and Architectures:

The development philosophy is to accomplish significant life cycle cost reductions by improving transmitter efficiency, reliability, Open Architecture (OA) and Modular Open Systems Approaches (MOSA). A reduction in size, weight, and power consumption expected from improved high power amplifier efficiencies will lead to reductions in power supplies, thermal management and other backend support functions, and, coupled with improvements in reliability, OA and MOSA are expected to reduce lifecycle cost.

The results of this research opportunity for the above mentioned technologies must have a Modular Open Systems Approach (MOSA) to facilitate technology insertion and refresh. This will be evident by an approach that employs a modular design and where appropriate, defines key interfaces using widely supported, consensus based standards that are published and maintained by a recognized industry standards organization. The practice of open architecture will be evident by the extensive usage of commercial standards and best practices that adhere to a common architecture across multiple systems application. The technical approaches considered must be consistent with open system interfaces and industry standard interface definitions. However if recognized industry interface standards do not presently exist due to the originality of the new technology, the contractor shall develop and publicly publish their proposed interfaces in anticipation of the establishment of such standards.

The following Government tools and other models may be utilized as advisory to ensure open architecture and MOSA:

PART Version 1.02

<http://www.acq.osd.mil/osjtf/mosapart.html>

OAAT Version 1.04

<https://ACC.DAU.MIL/CommunityBrowser.ASPX?ID=121180>

7. Points of Contact

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

Primary

Dr. Dan Purdy

Program Officer

Electronics, Sensors, and Networks Research Division

ONR Code 312

Email: purdyd@onr.navy.mil

Secondary

Mr. James (Mike) Young

Office of Naval Research

james.m.young@navy.mil

Mailing address (all):

Office of Naval Research

One Liberty Place

875 North Randolph Street, Suite 1425

Arlington, VA 22203-1995

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

Ms. Carol Brown
Contract Specialist
Contracts, Code BD 0251
Office of Naval Research
One Liberty Place
875 North Randolph Street, Suite W1274
Arlington, VA 22203-1995
E-Mail: brownc@onr.navy.mil

**** Important Notices Regarding Questions ****

- All Questions (of a general programmatic, thrust specific or business nature) shall be submitted in writing by electronic mail.
- Questions presented by telephone call, fax message, or other means will not be responded to.
- There will be no meetings between potential offerors and ONR personnel other than industry day & Oral Presentations.
- Questions regarding **white papers** must be submitted by 2:00 p.m. EST on 12 April 2007. Questions after this date and time may not be answered and the due date for submission of the white papers will not be extended.
- If invited to present an oral presentation, questions regarding **oral presentations** must be submitted by 2:00 p.m. EST one week prior to the scheduled presentation. Questions after this date and time may not be answered and the date and/or time of the scheduled presentation will not be changed.
- Questions regarding **full proposals** must be submitted by 2:00 p.m. EST on 29 June 2007. Questions after this date and time may not be answered and the due date for submission of the proposals will not be extended.

8. Instrument Type

It is anticipated that primarily contracts will result from this solicitation. However, ONR will consider awarding grants.

9. Catalog of Federal Domestic Assistance (CFDA) Number

CFDA No.: 12.300

10. Catalog of Federal Domestic Assistance (CFDA) Title

CFDA Title: DoD Basic and Applied Scientific Research

11. Additional Information

N/A

II. AWARD INFORMATION

The Office of Naval Research (ONR) plans to award 5-9 technology development contracts (particularly cost plus fixed fee (CPFF) type contracts) that represent the best value to the Government in accordance with the evaluation criteria. The period of performance of awarded contracts is anticipated to be 3 to 5 years with a base period of one (1) year (Phase 1) and options of up to four (4) years (Phase 2). ONR tentatively plans to fund contracts valued at \$3M to \$6M per award using Applied Research (Budget Category 6.2 and 6.3), subject to date of final award and availability of new fiscal year funds. Lower and higher cost proposals, however, will be considered. ONR will consider funding grant proposals up to \$200,000 per year for the base and up to four (4) option years.

ONR may consider proposals from Government Entities, outside of this BAA, that may draw from this budget.

ONR and DoD have funded related technology development under numerous programs. Proposals that build on current or previous DoD work are encouraged. 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 may submit a proposal, which shall be considered by the Government. The proposals submitted to perform Discovery & Invention research (Budget Category 6.2) in response to this BAA are categorized as Applied Research. However, some proposals made could be viewed by the Program Manager as more developmental and militarily sensitive in nature. In those instances the International Traffic in Arms Regulations (ITAR) may apply, and researchers who are not U.S. citizens or permanent resident aliens may be restricted in their ability to perform the work. These situations must be judged on a case-by-case basis.

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 due to the impracticality of reserving discrete or severable areas of Radar and Electronic Warfare technology for exclusive competition among these entities.

Federal Funded Research and Development Centers (FFRDCs) may submit proposals under this BAA, unless otherwise restricted under their agreements with sponsoring agencies.

Independent organizations and teams are encouraged to submit proposals in any or 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.

IV. APPLICATION AND SUBMISSION INFORMATION

1. Application and Submission Process

The Application and Submission Process consists of white papers, oral presentations, and full proposals. If an Offeror does not submit a white paper before the due date and time, it is not eligible to participate in the rest of the process.

NOTE: White Papers and/or Full Proposals sent by fax or E-Mail will not be considered.

2. Address for the Submission of White Papers and Full Proposals

Ms. Sheila Richardson
Communications and Networking Science and Technology Submission Coordinator
Surveillance, Communications and Electronic Division, Code ONR 312
Office of Naval Research
One Liberty Place
875 North Randolph Street, Suite 1425*
Arlington, VA 22203-1995
E-Mail: Sheila_Richardson@onr.navy.mil

* This is the address if using U.S. mail. If using overnight courier, please use Room 1115 instead of Suite 1425. If a telephone number is required, please use 703-588-1920.

NOTE: Due to changes in security procedures since September 11, 2001, the time required for hard-copy written materials sent as U.S. mail 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.

a. Industry Day

An industry day will be held to openly discuss this BAA in more detail. Interested parties are encouraged to attend and actively participate in the technical discussions relative to US Navy application of Affordable Electronically Scanned Array Technology for Next Generation Naval Platforms.

Date: The Industry Day is tentatively scheduled from 0800 to 1600 on 15 March 2007. All Industry Day attendees are required to contact the Administrative Point of Contact, listed below, no later than 3 business days prior to the date of the meeting.

Industry Day Administrative Point of Contact:

Ms. Carmen Bray
Office Manager
Ballston Office
4121 Wilson Blvd., #302
Arlington, VA 22203
Telephone: (703) 469-3886
Fax: (703) 469-3891
E-Mail: carmen.bray@gd-ais.com

Note: If technical discussions of a sensitive nature are required, break-out sessions may be held that may be ITAR restricted. All ITAR restricted meetings will be held in accordance with ITAR regulations. To attend ITAR restricted breakout sessions, all attendees will be required to prove US citizenship or provide a “Green Card”.

b. White Papers

White papers are required prior to submitting full proposals. Each White Paper should state that it is submitted in response to this BAA.

Due Date: The due date for White Papers is no later than 4 P.M. (EST) on 20 April 2007.

Evaluation/Notification: White papers will be evaluated and will be used to determine whether an offeror is invited to make an oral presentation of its white paper to a panel of government evaluators. The process for oral presentations is described below. Oral presentations will be scheduled for those offerors who have been notified by e-mail that their proposed technologies appear to be of “particular value” to the Navy. Selection of white papers considered as being of “particular value” will be announced on or about 27 April 2007. However, any such encouragement does not assure a subsequent award. Those white papers not selected for oral presentations will not be considered further under this announcement.

c. Oral Presentations

Process: Offerors whose white papers are selected for oral presentations will be invited by e-mail not less than five (5) working days prior to the commencement of the unclassified oral presentation event. This event is tentatively planned for 30/31 May 2007. A detailed format presentation will be provided in the e-mail invitation.

Notification/Evaluation: Following the oral presentation, offerors will be notified by e-mail regarding the Navy’s response to their oral presentation. Those offerors whose technology is

still considered as having “particular value” to the Navy will be encouraged to submit detailed technical and cost proposals. However, such encouragement after oral presentations does not assure a subsequent award. Full proposals will not be considered under this BAA unless both a white paper was received by the due date specified above and a presentation made during the Oral Presentation event. The evaluation provided after white papers and oral presentations should give offerors some indication of whether a later full proposal would likely result in an award. Evaluation of oral presentations and subsequent encouragement to submit full proposals will be completed on or about 1 June 2007. If an offeror is notified that its oral presentation was not considered to offer the Navy “particular value,” it is still able to submit a full proposal, should it so choose.

d. Full Proposals

The due date for receipt of Full Proposals is 4 p.m. (local time) on 20 July 2007. It is anticipated that final selections will be made on or about 9 August 2007. As soon as the final proposal evaluation process is completed, the offeror will be notified via email of its selection or non-selection for an award. Full Proposals exceeding their page limit may be rejected.

2. Content and Format of White Papers/Full Proposals

The white papers and full proposals submitted in response to this BAA must be unclassified. The 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.

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 or double spaced
- Font – Times New Roman, 12 point
- Number of Pages – No more than 15 pages (12 pages for the technical section and 3 pages for the cost section), single-sided pages (excluding cover page and resumes). White papers exceeding the page limit may not be evaluated.
- Copies – one (1) original, nine (9) hard copies, and ten (10) electronic copies on CD-ROM (in Microsoft ® Word or Excel 97 compatible or Adobe (.pdf format))

White Paper Content

The cover page shall be labeled “PROPOSAL WHITE PAPER” and shall include the BAA number (BAA 07-010), proposed title, offeror’s administrative and technical points of

contact, with telephone numbers, facsimile numbers, and internet addresses. The white paper shall be signed by an authorized officer.

The white paper submission should contain two sections, Technical and Cost. The technical section of the white paper should include those items required in the full proposals below, but should not exceed twelve (12) pages and should focus on the proposed technical concept, compliance with Open Architecture (OA)/Modular Open Systems Approach (MOSA) and approach within the areas of interest described above. The cost section shall be no more than three (3) pages. The first page should be a summary of costs segregated by each task. A statement should also be made under each task in which the use of government facilities is proposed. The second page should be a summary of costs segregated by cost category and total costs per Government Fiscal Year. The third page should provide a list of deliverables and descriptions planned for this effort.

White papers exceeding any of these page restrictions may not be reviewed.

NOTE: White papers for grants must be submitted in hard copy and not through the Grants.gov application process.

b. Full Proposals

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

- ♦ Paper Size – 8.5 x 11 inch paper
- ♦ Margins – 1 inch
- ♦ Spacing – single or double spaced
- ♦ Font – Times New Roman, 12 point
- ♦ Copies – one (1) original, nine (9) hard copies, and ten (10) electronic copies on CD-ROM (in Microsoft ® Word or Excel 97 compatible or .pdf format)
- ♦ Number of pages – Volume 1 is limited to no more than 25 pages. Volume 2 has no page limit. The cover page, table of contents, and resumes are excluded from the page limitations.

Full Proposal Content

VOLUME 1: Technical Proposal

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

- ♦ **Cover Page**: (Not included in page limitations). This page must include the words “Technical Proposal” and the following:
 - 1) BAA Number (BAA-07-010)
 - 2) Title of Proposal
 - 3) Identity of Prime Contractor and Complete List of Subcontractors, if applicable.
 - 4) Principal Investigator (PI) Contact (name, address, phone/fax, & e-mail address)

- 5) Business Point of Contact (name, address, phone/fax, & e-mail address)
 - 6) Duration of Effort (differentiate basic effort and any options)
- ♦ **Table of Contents**: (Not included in page limitations)
 - ♦ **Executive Summary**: One (1) page that summarizes the proposed technology and the expected improvements to the Navy.
 - ♦ **Concept of Operation for the Navy**: Two (2) pages that provide a summary of the way in which the proposal's product(s) would support the Navy in an operational context. Include quantifiable metrics to the extent possible of how the results of the proposed work will improve operational performance.
 - ♦ **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, such proposals must include a severable self-standing SOW without any proprietary restrictions, which can be made an attachment to the resultant award. Include a detailed listing of the technical tasks/subtasks organized by year. When options are contemplated, the SOW must clearly identify separate optional tasks areas. The SOW should be no more than three (3) pages.
 - ♦ **Project Schedule and Milestones**: One (1) page summary of the schedule of events and milestones.
 - ♦ **Assertion of Data Rights**: 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. The table submitted in accordance with this clause should be a severable attachment to the proposal, which will not be counted towards the page limitations. If there are no claims of proprietary rights in pre-existing data, this section shall consist of a statement to that effect. This information will not be included in the page limitation.

- ♦ **Technical Approach and Deliverables**: A detailed description of the approach planned, results targeted, and products to be delivered. The technical approach and deliverables should not exceed twelve (12) pages.

- **Affordability Business Plan**: A discussion of how the results of the research provide value added to the Government in terms of achieving life cycle affordability. This can include but is not limited to overall system objectives, transitions objectives, teaming, affordability models, and other relevant information. This section should not exceed three (3) pages.
- **Qualifications**: 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 towards the page limitations. The qualifications should not exceed two (2) pages.
- **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 relationships; government research interfaces; and planning, scheduling and control practice. Identify which personnel and subcontractors (if any) will be involved. Submit resumes/curriculum vitae for the key personnel identified. Include a description of the facilities that are required for the proposed effort with a description of any requested Government Furnished Items (Equipment, Hardware, Software, Information required by version and/or configuration. The management approach should not exceed three (3) pages.
- **Other Agencies**: Include the name(s) of any other agencies to which the proposal has also been submitted. This information will not be included in the page limitation.

VOLUME 2: Cost Proposal

The cost proposal shall consist of a cover page and three parts described below.

Cover Page: The words “COVER PAGE” should appear on the cover page in addition to the following information (the use of SF 1411 is optional):

- BAA Number (ONR BAA 07-010)
- Title of Proposal
- Identity of Prime Offeror and Complete List of Subcontractors/Sub-Recipients (if applicable)
- Technical Point of Contact (name, address, phone/fax, E-mail address) and Business Point of Contact (name, address, phone/fax, E-Mail address)
- Duration of Effort (differentiate basic and options)
- Summary Statement of Proposed Costs

Part 1: Detailed breakdown of costs by cost category by offeror’s calendar/fiscal year

- **Direct Labor** – Individual labor categories or person with associated labor hours and unburdened direct labor rates;

- Indirect Costs – Fringe Benefits, Overhead, G&A, COM, etc. (must show base amount and rate);
- Proposed Contractor-Acquired Equipment such as computer hardware for proposed research projects should be specifically itemized with cost or estimated costs. An explanation of any estimating factors; including their derivation and application, shall be provided. Where possible, indicate purchasing method (competition, price comparison, market review, etc.);
- Travel – Number of trips, number of people. destinations, durations, etc
- 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 envelop with the Offeror’s cost proposal or will be obtained from the subcontractor prior to award;
- Consultant – Provide consultant agreement or other documentation which verifies the proposed loaded daily/hourly rate;
- Materials – Specifically itemized by cost. An explanation of any estimating factors, including their derivation and application, shall be provided. Where possible, indicate purchasing method (competition, price comparison, market review, etc.);
- Other Direct Costs; should be itemized with costs or estimated costs. Backup documentation should be submitted to support proposed costs;
- Fee/Profit, including fee percentage.

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/sub-task corresponding to the same task numbers in the Statement of Work.

Part 3: List and brief description of all planned deliverables associated with this effort.

4. Significant Dates and Times

ANTICIPATED SCHEDULE OF EVENTS		
Event	Date	Time
Industry Day *	15 March 2007	TBD
White Paper Due Date	20 April 2007	1600
Notification of Selection: White Papers *	27 April 2007	COB
Oral Presentations *	30/31 May 2007	TBD
Full Proposal Due Date	20 July 2007	1600
Notification of Selection: Full Proposals *	9 August 2007	N/A
Contract Awards *	31 October 2007	N/A

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

5. Submission of Late Contract Proposals

Any proposal that is received at the designated Government office after the exact time specified for receipt of white papers or proposals is “late” and will not be considered unless it is received before award is made, the contracting officer determines that accepting the late submission 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 white papers or proposals or
- (b) There is acceptable evidence to establish that it was received at the Government installation designed for receipt of proposals and was under the Government’s control prior to the time set for receipt of white papers or proposals; or
- (c) It was the only white paper or proposal received.

However, a late modification of an otherwise timely and successful white paper or 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 extend 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.

6. 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 312.** It should be noted that “white papers” **should not** be submitted through the Grants.gov application process; the only acceptable medium will be hard copy. White

papers must be submitted in hard copy directly to Department Code 312 at the address identified in Section IV, Subsection 2, above.

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, specifically www.grants.gov/GetStarted.

Use the Grants.gov Organization Registration Checklist at: <http://www.grants.gov/assets/OrganizationRegCheck.pdf>, 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. 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.

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

Forms

You must complete the mandatory forms and any applicable optional forms (e.g., SF-LLL Disclosure of Lobbying Activities) in accordance with the instructions on the forms and the additional instructions below. **Files that are attached to the forms must be in Adobe Portable Document Format (PDF) unless otherwise specified in this announcement.**

SF 424 (R&R)

Complete this form first to populate data in other forms. Complete all the required fields in accordance with the pop-up instructions on the form. To activate the instructions, turn on the “Help Mode” (icon with the pointer and question mark at the top of the form). The list of certifications and assurances referenced in Field 18 can be found on the ONR Home Page at Contracts and Grants. The certification package for Grants is entitled, “Certifications for Grants and Agreements”. The completion of most of the fields is self-explanatory except the following special instructions:

- a. Field 2: In the Applicant Identifier area, please list ONR Program Officer Dan Purdy, Code 312.
- b. Field 4: In the Federal Identifier Field, ONR Department Code **312** MUST be entered.

- c. Field 7: Complete as indicated. Please note under “Other (Specify)” if your organization is a Minority Institution (MI).

Proposal Narrative - Attach the proposal narrative to the SF424 (R&R) using the optional “Attachment” form provided in the Applicant Package in Grants.gov. The proposal narrative contains the cover, table of contents, executive summary, background, statement of work, management approach, reference citations, assertion of data rights, qualifications and cost proposal.

Supporting Letter - Attach a supporting letter to the SF424 (R&R) using the optional “Attachment” form provided in the Applicant Package in Grants.gov. The supporting letter should be from the applicant’s Department Chairperson, Dean, or other official who speaks for the university regarding support for and commitment to the applicant. This commitment can be shown, for example, by the purchase of research equipment, support for the applicant’s graduate students, etc. The supporting letter should state whether the applicant holds a tenure track position or a permanent position. If the applicant does not have a permanent appointment and the university does not designate any faculty appointments as tenure track, the letter should note this and state when the applicant will be considered for a permanent appointment.

7. Hard Copy Grant Submission: Content and Format of Applications

If submitting by hard copy, please complete the Grants.gov forms as described, print them out, and mail to the address in Section IV, Sub-section 2, above. Full hard copy proposals should be stapled in the upper left hand corner; plastic covers or binders should not be used. Separate attachments, such as individual brochures, or reprints, will not be accepted.

Copies – one (1) original and nine (9) hard copies.

V. EVALUATION INFORMATION

1. Evaluation Criteria

The following evaluation criteria apply to both the White Papers and the Full Proposals.

These submissions will be selected through a technical/scientific/cost decision process with technical and scientific considerations being more important than cost. Even though cost is of less importance than all of the technical factors combined, it will not be ignored. The degree of its importance 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 technical superiority to the Government. Technical criteria A-C are listed in descending order of priority. Any sub-criteria listed under a particular criterion are of equal importance to each other.

A. Overall scientific and technical merits of the proposal

1. Potential to provide cost reduction and life cycle cost affordability improvement to existing & future RADAR and EW systems.
2. Soundness and quality of the *technical approach* (components, component chains, and projected impact of array performance).
3. Compliance with Open Architecture (OA)/Modular Open Systems Approach (MOSA) practices and standards.
4. Clarity, thoroughness and correctness of identification / evaluation of *technical risks*.

B. Naval relevance, transition business plan and anticipated contributions of the proposed technology to RADAR and Electronic Warfare systems

1. Best value to the Government in terms of teaming with specialty vendors/developers and leveraging the performance and cost savings potential of their devices.
2. Ability of the offeror to provide technology of at least TRL-5 (TRL-6 preferred).
3. Clarity of deliverables proposed.

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

1. The quality of technical personnel proposed
2. The Offeror's experience in relevant efforts with similar resources
3. The ability to manage the proposed effort

D. The realism of the proposed cost

1. Total cost relative to benefit
2. Realism of cost levels for facilities and staffing

Socio-Economic Merits: For proposed awards to be made as contracts to large businesses, the socio-economic merits of each proposal will be evaluated based on the extend of the Offeror's commitment in providing meaningful subcontracting opportunities (to the maximum extent practicable) for small businesses, HubZone small businesses, small disadvantaged businesses, woman-owned small businesses, veteran-owned small businesses, service-disabled veteran-owned small businesses, historically black colleges and universities, and minority institutions.

Industry-Academia Partnering – ONR highly encourages partnering between 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 result in enhancements of novel S&T, will be given favorable consideration.

2. Evaluation Panel

White papers and full proposals submitted under this BAA will be protected from unauthorized disclosure in accordance with FAR 3.104-4 and 15.207. 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. The Government may use selected support personnel to assist in providing both technical expertise and administrative support regarding any proposals 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. Additional Requirements

- ◆ North American Industry Classification System (NAICS) Code – The North American Industry Classification System (NAICS) Code for this solicitation 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 of any grant, contract, cooperative agreement, or other transaction. Information on CCR registration is available at <http://www.ccr.gov> or by calling 1-888-227-2423.
- ◆ Certifications – Proposals should be accompanied by a complete certification package which can be accessed on the ONR Home Page at Contract & Grants. For grants, the certification package is entitled “Certifications for Grants and Agreements.” For contracts, the certification package is entitled “Representations and Certifications for Contracts.” For contracts, in addition to the certification on the ONR Home Page, prospective contractors shall complete the Online Representations and Certifications Application (ORCA), at <http://orca.bpn.gov>.
- ◆ Subcontracting Plans – Successful contract proposals that exceed \$500,000, submitted by all but small business concerns, will be required to submit a Small Business Subcontracting Plan in accordance with FAR 52.219-9.

2. Data Deliverables -

The following is a sample of deliverables that could be required under a typical research effort. The following deliverables, primarily in contractor format, are anticipated as necessary:

- ◆ Technical and Financial Reports
- ◆ Presentation Material
- ◆ Other Documentation or Reports
- ◆ Interface Definitions and Drawings
- ◆ Final Report

3. Hardware, Software and Firmware Deliverables –

The following is a sample list of hardware, software, and firmware deliverables that could be required under a typical research effort. The following deliverables are required for the Government to utilize and independently recreate results produced under contract:

- ◆ Hardware / material samples
- ◆ Software and Firmware code

However, note that specific deliverables (that may include software and hardware deliverables) may 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 contractors purchase the equipment/hardware for deliverable items under their contract. 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.

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 the facilities would be used for any one specific program. The use of facilities and resources will be negotiated as the program unfolds. Offerors should explain which of these facilities they recommend.

2. Use of Animals and Human Subjects in Research

If animals are to be utilized in the research effort proposed, the Offeror must complete a DoD Animal Use Protocol with supporting documentation (copies of AAALAC accreditation and /or NIH assurance, IACUC approval, research literature database searches, and the two most recent USDA inspection reports) prior to award. Similarly, for any proposal that involves the experimental use of human subjects, the Offeror must obtain approval from the Offeror's committee for protection of human subjects (normally referred to as an Institutional Review Board, (IRB)). The Offeror must also provide NIH (OHRP/DHHS) documentation of a Federal Wide Assurance that covers the proposed human subjects study. If the Offeror does not have a Federal Wide Assurance, a DoD Single Project Assurance for that work must be completed prior to award. Please see <http://www.onr.navy.mi./02/howto.htm> for further information.

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. Additional information and an application may be found at <http://www.hpcmo.hpc.mil/>.

4. 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.

5. Disclosure of Information

DFARS Clause 252.204-7000 entitled "Disclosure of Information" will be incorporated into many of the contracts resulting under this BAA. Due to the potential sensitivity of the release of unclassified information regardless of the medium used, all information/data deliverables under the contract must be approved by the Program Officer before its public release, if DFARS 252.204-7000 applies.