

I. General Information

This publication constitutes a Broad Agency Announcement (BAA) as contemplated in Federal Acquisition Regulation (FAR) 6.102(d)(2). A formal Request for Proposal (RFP)/BAA will not be issued.

1. AGENCY: Naval Surface Warfare Center Dahlgren Division, Dahlgren, VA
2. RESEARCH OPPORTUNITY TITLE: High Average Power RF Antenna Technology
3. RESEARCH OPPORTUNITY NUMBER: N00178-12-Q-3908
4. ANNOUNCEMENT TYPE: Broad Agency Announcement – Amendment 001 Announcement
5. RESPONSE DATE: White Papers – 29 August 2012 – 30 September 2013
6. RELATED EFFORTS:
7. ANTICIPATED AWARDS:

Multiple awards are anticipated, but not guaranteed. The Government reserves the right to award one, several, or no awards in response to this BAA. Awards may be made without discussions. The Government also reserves the right to conduct discussions if the Contracting Officer later determines them to be necessary. Portions of resulting awards may be segregated into pre-priced options. The Government reserves the right to fund proposals in phases with options for continued work at the end of one or more of the phases. This BAA should not be construed as a commitment or authorization to incur costs in anticipation of a contract.

This announcement will remain open through 30 September 2013. For consideration during the selection process, white papers are being accepted through 2:00 P.M. Eastern Standard Time on 30 September 2013. However, proposals received after this deadline may be evaluated up to 6 months after the closing of this BAA. Naval Surface Warfare Center, Dahlgren Division is interested in receiving white papers for this BAA for innovative technology research and development in the areas of high power source technology with respect to Directed Energy applications. The frequency ranges of interest cover a broad spectrum from DC to L-Band.

Questions of a technical nature should be submitted to Diane McCauley (Code CXS13-13-18), 17632 Dahlgren Road, Suite 157, Dahlgren, VA 22448-5110, or email to diane.mccauley@navy.mil.

8. ELIGIBLE APPLICANTS: All responsible sources from industry and academia 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. Per FAR

35.017-1 (c)(4) Federally funded Research & Development Centers (FFRDCs) are not eligible to bid on this BAA. However, per DFARS 235.017-1 (c)(4), DoD-sponsoring FFRDCs (C3I Laboratory operated by the Institute for Defense Analysis, Lincoln Laboratory operated by Massachusetts Institute of Technology, and Software Engineering Institute operated by Carnegie Mellon) may respond.

This BAA is restricted to those entities with DoD SECRET clearances for all necessary personnel and facilities to perform work. This research initiative will involve a joint government-industrial team. This research effort will necessitate an advanced approach to R&D system engineering in that the subcomponents all are highly interdependent, and thus must be designed together, with trade-offs dictated by any given limiting subcomponent capability. Overall performance is forefront for the entire design. The objective is to develop design studies and prototypes for a high average power RF antenna that will meet the performance parameters listed with particular emphasis on reducing the physical size. Manufacturability and robustness will be critical parameters in the proposal evaluation criteria.

II. Description

The Directed Energy Warfare Office (DEWO), Code Q07, of the Naval Surface Warfare Center Dahlgren Division (NSWCDD) is seeking proposals for innovative technology research and development in the areas of high average power RF antenna concepts for Directed Energy applications. These include innovative and novel ideas for significant improvements in peak power, bandwidth and average power capability relative to high average power RF antenna technology. Of specific interest are horn antennas, lens antennas, and the like being fed by the following waveguides 1) WR1800, 2) WR 1500, 3) WR1150, and 4) WR975. Power levels of interest approach the rated power of the associated waveguide (peak and average). Designs that incorporate compactness for mobile applications, with a goal of fitting in an area eight feet wide by five feet tall, and covertness are most desirable.

There are two phases in this BAA. Phase 1 will be the submission of developed high average power broad-band RF antenna designs. Phase 1 is estimated to have a 2 month period of performance. NSWCDD will evaluate the designs and may request the offeror to participate in Phase 2. Phase 2 is estimated to have a 4 month period of performance.

Phase 1 is to develop high average power broad-band RF antenna designs that are capable of an instantaneous fractional bandwidth of 15%-20% while maintaining moderate to high directivity and beam steering over +/- 30 degrees. White papers/proposals under this BAA are encouraged to address: 1) novel efficiency mitigation techniques to overcome bandwidth/efficiency trade-offs, 2) high-voltage breakdown issues in ground-level military environments 3) compactness and robustness of device, and 4) low-volume build costs. No funding will be provided for phase 1 participation.

Phase 2 for this BAA, assuming funding availability, will be to build and test a prototype designed in phase 1. Entering phase 2 of this BAA is not automatic but based the evaluation of the white papers/proposals submitted in phase 1. NSWCDD may choose to invite one or more offerors to participate in phase 2 but is not required to invite any.

A formal Request for Proposals (RFP), other BAA, and/or additional information regarding this announcement will not be issued. The NSWCDD will not issue paper copies of this announcement. The NSWCDD reserves the right to select for award all, some, or none of the white papers submitted in response to this announcement.

Awards to Offerors of selected proposals will be in the form of contracts. Therefore, proposals submitted as a result of this announcement will fall under the purview of Federal Acquisition Regulations (FAR).

Questions of a technical nature should be submitted to Diane McCauley, diane.mccauley@navy.mil, who will submit them to Technical Point of Contact. Through the NSWCDD TOC, prospective Offerors will be connected to the cognizant NSWCDD Contract Officer.

Questions of a business nature should be submitted to:

Ms. Diane McCauley
Contract Specialist
Naval Surface Warfare Center, Dahlgren Division
17632 Dahlgren Road, Suite 157
Dahlgren, VA 22448
Email Address: diane.mccauley@navy.mil

Questions of a security nature should be submitted to:

Maria Hutt Clark
Q Department Security Specialist
Naval Surface Warfare Center, Dahlgren Division
6350 Photo Lane, Suite 214
Building 213, Floor 1, Room 1004
Dahlgren, VA 22448 Email Address: maria.h.clark@navy.mil

Questions of a technical nature should be submitted to the Technical Point of Contact (TPOC), via the Contract Specialist identified above.

CLASSIFIED questions shall be handled through the NSWCDD Security POC. Specifically, any entity wanting to ask a CLASSIFIED question shall send an email to the NSWCDD 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.

NSWCDD reserves the right to fund all, some, or none of the white papers received under this BAA. NSWCDD provides no funding for direct reimbursement of proposal development costs. White papers and cost proposals (or any other material) submitted in response to this BAA will

not be returned. It is the policy of NSWCDD to treat all white papers as sensitive competitive information and not to disclose their contents.

III. Application and Submission Information

1. SUBMISSION:

All white papers submissions will be protected from unauthorized disclosure in accordance with FAR 15.207, applicable law, and Department of Defense and Department of Navy regulations. Offerors are expected to appropriately mark each page of their submission that contains proprietary information. All white papers received will be maintained for a period not to exceed 18 months from posting of the BAA and will be considered as candidate sources for research projects during that period. Offerors may replace, update, or withdraw white paper submissions at any time, please notify Diane McCauley at diane.mccauley@navy.mil . All white papers submitted for topics may be considered.

White papers should be submitted as a MS Word file or in PDF, either as (1) an e-mail attachment to diane.mccauley@navy.mil or (2) on CD to:

ATTN: DIANE MCCAULEY, RM 106
NAVAL SURFACE WARFARE CENTER DAHLGREN
CONTRACTING OFFICER
17632 DAHLGREN ROAD, SUITE 157
DAHLGREN, VA 22448-5110

IMPORTANT: Certain white papers are not appropriate under this BAA and are not desired. Engineering and technical services white papers are not appropriate. These usually involve applying effort toward a broadly identified task, often on a level-of-effort basis, rather than delivery of an end item such as a final report. **This BAA seeks white papers for scientific study and experimentation directed toward advancing the state-of-the-art, increasing knowledge/understanding, and the knowledge gained by prototype design, build and testing.** A determination of appropriateness will be made on a case-by-case basis by government scientists and engineers.

2. WHITE PAPER FORMAT:

White papers under this BAA are expected to be unclassified. However, confidential/classified proposals are permitted. Please notify Diane McCauley at diane.mccauley@navy.mil in writing 5 working days prior to submission of any classified proposals. Every classified proposal must be accompanied by an Unclassified Statement of Work (SOW). If a classified addendum is submitted, any resulting contract shall be unclassified. Alternatives to the format and content identified below may be appropriate depending on the scope and nature of the proposed effort.

The Naval Surface Warfare Center Dahlgren Division anticipates making multiple awards of contracts. All white papers received that indicate interest will be reviewed for potential projects.

A. Cover Page: (one page) - Identify offeror by name and address, include point of contact with telephone number and email address, include date of submission, indicate that submission is in response to this BAA.

B. Overview: The white paper submission must include an abstract encompassing technology being used.

C. Costing: (one page) - Provide representative salary costs (hourly rates). In addition, identify and provide all applicable indirect (facility and administration) rates that would be charged on each project; provide name, address, and point of contact, including telephone number, of applicable government auditor and, where applicable, government Administrative Grants Officer/Administrative Contracting Officer.

D. Specific Research Area Information: (one page) Provide specific capability information applicable to the research area to supplement information provided in the overview; identify/discuss specific human resources expertise, specific facilities or equipment relevant to the research area, offeror's prior participation in related research projects, and any other relevant information. DO NOT submit a specific research proposal unless requested.

Unclassified Proposal Instructions:

Unclassified proposals shall be submitted in accordance with instructions in this BAA.

Classified Addendum Instructions:

Classified addenda shall be submitted directly to the attention of Contract Specialist at the address in Section III – 1 and marked in the following manner:

OUTSIDE ENVELOPE (no classification marking):
“Naval Surface Warfare Center, Dahlgren Division

The inner wrapper of the classified White Paper and/or Full Proposal should be addressed to the attention of the Contract Specialist, NSWCCD Code CXS13-12 and marked in the following manner:

INNER ENVELOPE (stamped with the overall classification of the material)
“Program: Naval Surface Warfare Center, Dahlgren Division”

3. EVALUATION

Award decisions will be based on a competitive selection of proposals resulting from a scientific peer review. White papers will be reviewed and formal technical and cost proposals may be required from sources whose approaches have been selected for further consideration. An invitation to submit a formal proposal does not assure subsequent contract award. Formal Cost and Technical Proposals may be required approximately four (4) weeks after notification that NSWCCD has determined the white paper warrants further consideration.

The following evaluation criteria apply to all submitted white papers. These submissions will be selected through a technical/scientific/cost decision process with technical and scientific considerations being more important than cost. Manufacturability and robustness will be two critical parameters in the proposal evaluation criteria. Even though cost is of less importance than all the technical factors combined, it will not be ignored.

The degree of its importance will increase with the degree of equality of the white papers 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. Criteria A-D is 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.
- (B) Naval relevance, transition potential and anticipated contributions of the proposed scientific research.
- (C) The offeror's capabilities, related experience, and past performance, including the qualifications, capabilities, and experience of the proposed principal investigator, team leader or key personnel who are critical in achieving the proposal objectives.
- (D) Realism of the proposed cost.
- (E) Availability of funds.

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 NSWCCD Technical Department, with the support of other Government scientific experts, will perform the evaluation of technical proposals. One or more support contractors may be utilized as subject-matter-expert technical consultants and are listed below. Restrictive notices (e.g., "proprietary," "trade secret," etc.) notwithstanding, submission of a proposal in response to this BAA constitutes the Offeror's express permission to disclose the proposal to one or more of the listed entities for evaluation purposes.

- a. Booz Allen Hamilton
- b. EOIR Technologies, Inc.
- c. Envisioneering Inc.
- d. The Durbin Group, LLC
- e. Gilbert Franklin DuVal Jr.
- f. Thomas J. Zwolinski

IV. Full Proposals

1. FORMAT:

- Paper Size – 8.5 x 11 inch paper

- Margins – 1” inch
- Spacing – single or double-spaced
- Font – Times New Roman, 12 point
- Microsoft® Word and Excel format, photos and illustration should be in either .jpg or .pdf format.

VOLUME 1: TECHNICAL PROPOSAL

Proposals under this BAA are expected to be unclassified. However, confidential/classified proposals are permitted with prior/ advanced approval from the Subject Matter Expert (SME). Please notify Diane McCauley at diane.mccauley@navy.mil in writing 5 working days prior to submission of any classified proposals.

A. Cover Page: This should include the words “Technical Proposal” and the following:

- i) BAA number;
- ii) Title of Proposal;
- iii) Identity of Prime Offeror and complete list of subcontractors, if applicable;
- iv) Technical contact (name, address, phone/fax, e-mail address)
- v) Administrative/business contact (name, address, phone/fax, e-mail address) and;
- vi) Duration of effort (differentiate basic effort and any proposed options)

B. Table of Contents: This should address the contents of the proposal, generally by section.

C. 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 attached to the contract. When options are contemplated, the SOW must clearly identify separate optional tasks. Include a detailed listing of the technical tasks/subtasks organized by base and option period(s).

D. Deliverables: A detailed description of the results and products to be delivered inclusive of the timeframe in which it will be delivered, including Technical and Financial Progress Reports.

E. Project Schedule and Milestones: A summary of the schedule of events and milestones.

F. Assertion of Data Rights and/or Rights in Computer Software: For a contract award an Offeror must provide with its proposal any 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 Acquisition Regulation Supplement (DFARS) clauses 252.227-7013, -7014, 7028, and -7017. These clauses may be accessed at the following web address: <http://farsite.hill.af.mil/VFDFARA.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.

G. 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 interfaces; and planning, scheduling and control practice. Identify personnel and subcontractors (if any) involved. Include a description of the facilities that are required for the proposed effort with a description of any Government Furnished Equipment/Hardware/Software/ Information required, by version and/or configuration.

H. Personnel: The offeror shall provide resumes of proposed key personnel to be utilized by the contractor/subcontractor in the performance of this contract. The offeror shall ensure that the proposed personnel are fully capable of performing in an efficient, reliable, and professional manner. Upon review of resumes, if the Government questions the qualifications or competence of any person performing under this contract, the burden of proof to sustain that person's qualifications shall be upon the offeror.

I. Past Performance: The offeror's past performance will consist of a description of the offeror's Government contracts (both prime and major subcontracts (those involving 25% or more of the effort)) received during the past three (3) years, which are similar in the effort being proposed. The offeror may describe any quality awards or certificates that indicate the offeror possesses a high quality process for providing desired research and development outcomes.

J. Other Agencies: Include the name(s) of any other agencies to which the proposal has also been submitted.

VOLUME 2: COST PROPOSAL

2. Offerors Shall:

A. Provide these instructions to all lower tier offerors (subcontractors). Proprietary data from lower tier offerors may be submitted directly to the Government in accordance with instructions contained below.

B. Submit the proposal, organized as discussed below. The cost proposal is not restricted in length and shall provide cost information for all performance periods.

C. The Government will provide a spreadsheet with the request for quote for completion by offerors who are invited to submit Full Proposals.

3. First Page:

Provide the following information as the first page of the budget for the entire period of performance, including any options.

A. Name, title, telephone and fax numbers and e-mail address of offeror's business and technical points of contact,

B. Amount budgeted/proposed for basic effort and each option (Government and Offeror Share if applicable);

C. Name, address and telephone number of the cognizant contract administration (DCMA) and Defense Contract Audit Agency (DCAA) offices, if known;

D. Name, title, and signature of authorized representative;

E. Date offer is submitted; and

F. Broad Agency Announcement Number under which the proposal is submitted.

4. Total Cost Summary: This section should include all of the proposed costs of the project, including Government or Offeror cost sharing if applicable. Identify when the offeror's fiscal year begins and ends. Submit a cost element summary by major cost element for the basic period of performance and each option proposed using the format to be later provided by the Government. The detail required for each of the major cost elements is described below. Address all elements of cost applicable to the proposed effort and provide a narrative to support these costs.

A. Direct Labor:

Show each individual labor category or person proposed on a separate row. In supporting rationale, identify the source and explain the derivation of the labor rate proposed for the base period and explain the methodology used to project each rate for subsequent years. Note: If temporary or part-time labor is proposed, explain the differences between the rates of pay for fulltime and temporary or part-time workers and the impact of those differences on the direct rates proposed. Identify all uncompensated labor (straight time and/or overtime) included in this cost element, and explain the impact of uncompensated time on the direct rates proposed. For new or unfilled positions, a historical average, signed offer sheet, or description of the labor category sufficient to allow comparison to salary surveys should be provided.

B. Indirect Cost Rates and/or Factors:

Identify all indirect cost rates (such as, fringe benefits, labor overhead, material overhead, G&A, COM, etc.) and their applicable allocation bases. (Show base amount and rate.) If composite rates are used, provide the calculations used in deriving the composite rates. Identify the basis of proposed rates (e.g., Forward Pricing Rate Agreement and date of agreement, bidding rates and the date of submission or actual rates used and the effective date, billing rates and the date of approval, etc.). Provide historical actual rates for the past three years.

C. Subcontractors and Interorganizational Transfers (IOTs):

Obtain cost proposals from each subcontractor and IOT using the same cost breakout required to be later provided by the Government. Perform and provide evaluation results of cost/price analysis of subcontract and IOT proposals. Prime contractors are required to obtain competition to the maximum extent practicable when selecting subcontractors or IOTs. If the prime intends to award the subcontract /IOT effort on a sole-source basis, the prime should provide rationale for their decision. The subcontractors/IOTs can submit this Cost Summary information in a sealed envelope with the prime contractor's proposal or directly to the Government. If the subcontractor is not yet determined, the proposal must include a list of the tasks to be performed, an explanation of the method used to estimate the subcontract price, and the reason proposals/quotes cannot be requested/provided at this time.

D. Consultants:

Provide a list of anticipated consultants. Substantiate the need for and cost of proposed consultant services. The prime contractor should provide a breakdown of the consultant's hours, the hourly rate proposed, any other proposed consultant costs, a copy of the signed Consulting Agreement or other documentation supporting the proposed consultant cost, and a copy of the

consultant's proposed statement of work if it is not already separately identified in the prime contractor's proposal.

E. Travel, Materials, Equipment & Supplies, and Other Direct Costs (ODCs):

Separately identify costs for travel, material, equipment, supplies and other direct costs required to perform the basic effort and each option.

Travel - Provide a breakout of travel costs for base and each option including the purpose and number of trips, origin and destination(s), duration, and travelers per trip.

Materials, Equipment & Supplies - Provide an itemized list of all proposed materials, equipment, and supplies for the base and each option including quantities, unit prices, proposed vendors (if known), and the basis of estimate (e.g., quotes, prior purchases, catalog price lists, etc.).

Other Direct Costs - Provide an itemized breakout and explanation of all other proposed ODCs by base and option period.

F. Cost of Money (COM):

Refer to FAR 52.215-16, Facilities Capital Cost of Money. Provide a schedule which contains proposed cost of money (COM) factors, if applicable, to include a display of all individual bases for the COM amounts. Submit a DD Form 1861 for each year.

G. Profit/Fee (If applicable):

This section specifies the profit or fee percentage proposed and the base to which the rate applies. Any usual contract performance risk factors should be identified. Profit or fee is not allowed on direct costs for facilities, or in cost-sharing contracts.

V. Award Administration Information

1. Administrative Requirements:

A. 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.

B. Central Contractor Registration: All Offerors submitting white papers or proposals must:

- (i) be registered in the Central Contractor Registration (CCR) prior to submission;
- (ii) maintain an active CCR registration with current information at all times during which it has an active Federal award or an application under consideration by any agency; and
- (iii) provide its DUNS number in each application or proposal it submits to the agency.

C. Approved Accounting System:

In order to be eligible for a Cost Reimbursable type contract offerors must have a DCAA Approved accounting system.

D. Subcontracting Plans:

Formal proposals that exceed \$650,000.00 and submitted by Large Business must contain a Small Business Subcontracting Plan in accordance with FAR 52.219-9.