

U.S. ARMY RESEARCH OFFICE

BROAD AGENCY ANNOUNCEMENT

W911NF-04-R-0006



Solutions for Non-Medical Science and Technology
Chemical/Biological Defense Program

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CHEMICAL/BIOLOGICAL DEFENSE PROGRAM

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I. INTRODUCTION

The purpose of this Broad Agency Announcement (BAA) is to solicit proposals for the Department of Defense (DoD) Fiscal Year 2005 Non-Medical Science and Technology (S&T) Chemical and Biological Defense Program (CBDP). The goal is to explore new and innovative ideas to fill identified technology gaps.

On 22 April 2003, the Undersecretary of Defense, Acquisition, Technology and Logistics (USD(AT&L)) approved the "Implementation Plan for the Management of the Department of Defense Chemical and Biological Defense Program." The plan defines the roles and responsibilities and provides the implementation procedures for CBDP management. The CBDP provides for planning, programming, budgeting and execution of the Chemical/Biological/Radiological/Nuclear (CBRN) defense research, development and acquisition; programming and budgeting for CBD equipment, sustainment, and training; establishing military requirements for CBRN defense; and test and evaluation of CBRN defense programs. This BAA is focused on S&T needs for chemical and biological defense.

II. FUNDING OPPORTUNITY DESCRIPTIONS

A. Overview

Proposals are being sought to identify viable solutions to technology gaps in the following CBD S&T areas: Detection; Modeling & Simulation (M&S); Protection; Decontamination; and Supporting Science and Technology. General goals are listed here; specific technology issues to be addressed in each of these areas can be found in Section II.B. of this BAA.

Detection. The goal of the CBD detection program is to provide real-time capability to detect, identify, characterize, locate, and warn against all known or validated CBRN warfare agent threats. The CBDP seeks to:

- Optimize sensor technologies,
- Improve tactical detection and identification capabilities for both chemical and biological warfare agents, and
- Develop multi-agent sensors for CBRN agent detection and remote/early warning CBRN detection.

Modeling and Simulation. The goals of CBD Modeling and Simulation science and technology efforts are as follows:

- Support the warfighter directly through existing C⁴I networks and information systems.

- Support the operational and national command authority with CBD environment decision systems.
- Support DoD level theater and warfare simulation efforts.
- Support materiel acquisition programs with Simulation Based Acquisition (SBA) tools and architectures.

Protection. Goals of the CBD Protection efforts are divided into two subareas:

- The goal of the individual CBD Protection effort is to reduce the physiological burden associated with wearing protective equipment while maintaining, and potentially improving, the already high level of protection against CB warfare agents and radiological particles.
- The goals of the collective CBD Protection area are to (1) reduce the weight, size, and power requirements of Collective Protection (CP) systems; (2) reduce the logistical burdens associated with the maintenance of CP filters; (3) improve protection capabilities against current and emerging threat agents, including Toxic Industrial Chemicals (TICs); and (4) improve the deployability of transportable shelter systems.

Decontamination. The goal of CBD decontamination science and technology efforts is to develop technologies to support two key Joint Future Operational Capabilities (JFOCs):

- Restore (Equipment/Facilities/Large Areas) JFOC
- Restore (Logistics) JFOC

This capability area includes decontamination of personnel, individual equipment, tactical combat vehicles, aircraft, facilities, and fixed sites. Decontamination S&T efforts have the following goals:

- Eliminate toxic materials or their effects without performance degradation to the contaminated object.
- Use non-corrosive decontamination agents.
- Use decontamination agents which are environmentally safe.
- Minimize the weight of decontamination systems.

Supporting Science and Technology (SS&T). Supporting Science and Technology CBD efforts include basic research and strive to identify new and innovative approaches to solving technology gaps. The goals of SS&T include developing unique technologies in the following areas:

- Aerosol technologies,
- Physical and chemical properties of chemical and biological agents,
- Simulant development and characterization, and
- Studies of low-level toxicity.

B. Topic Areas.

Each submission must identify the specific topic area and issue addressed. Electronic submissions must be made following the instructions provided in Section IV of this BAA.

1. Detection

The detection capability area requests applied research proposals encompassing technologies that are suitable for laboratory applications, high resolution test methodologies, and fieldable systems for fixed sites and mobile platform applications to include the warfighter as a platform. In all applications, priority is given first to minimizing the number of false alarms followed by expanding the number of detectable/identifiable targets and ending with the reduction of the overall lifecycle cost, which is heavily dependent on the resources needed to maintain and use the system. Specific detection issues are:

- a) New excitation sources/detectors for standoff detection will be examined with a focus on “nontraditional” regions of the electromagnetic (EM) spectrum, such as the far infrared and millimeter wave regions. Must demonstrate feasibility to reproducibly produce the excitation source/detector with the appropriate performance parameters to support a detection system.
- b) New and novel signal processing techniques are being sought for both active and passive standoff CB detectors. Techniques for fusing spatial, temporal, and spectral data will be investigated to include real time on-the-move-analysis of high resolution hyperspectral data cubes. Techniques for improving the performance of existing systems will also be examined. Must demonstrate feasibility in a post processing mode using current desktop PC, Intel Pentium 4 processor, as the baseline for computational power requirements.
- c) New concepts are sought to eliminate the need for specialized storage requirements and triple the shelf-life of current molecular recognition elements [antibodies, polymerase chain reaction (PCR) primers and probes, etc.]. Freeze-dry techniques WILL NOT be considered. Must demonstrate feasibility of concept with no degradation of molecular recognition element performance.

- d) New identification concepts equivalent to current nucleic acid based technologies (e.g., PCR) performance in sensitivity and selectivity without the need for sample preparation and achieving a response time of less than 15 minutes. Micro array concepts with antibodies, nucleic acids, peptides, or aptmers WILL NOT be considered. Must demonstrate feasibility to meet performance parameters.
- e) New excitation sources for standoff detection will be examined with a focus on at least a factor of 10 reduction in power usage, size, and weight, as well as an increase of at least a factor of 10 in source life in comparison to existing excitation sources. Must demonstrate feasibility to reproducibly produce the excitation source with the appropriate performance parameters to support a detection system.
- f) New referee methodology to quantify bio aerosols in outdoor field trials. The methodology must have a 10 second time resolved 1 meter spatial resolution for the quantification of the bio aerosol in a 10 squared km test grid. Analysis of data is required within four hours. Must demonstrate feasibility and correlation of methodology to existing sampling referee systems.

2. Modeling and Simulation

The modeling and simulation capability area requests applied research proposals pertaining to chemical and biological defense for M&S and battle management capabilities that are technologically revolutionary, that are collaborative or complimentary, and leverage other efforts.

- a) Battle Management. Develop capability to utilize CB sensor data throughout the battlespace and integrate with other relevant battlespace information and C4I systems to display and disseminate operationally meaningful information to support decision making. Within the Battle Management technology area, solutions are sought that are of a revolutionary nature (high risk/high pay-off) and not evolutionary in nature. Areas of interest include:
 - Develop solutions that network and then monitor similar chemical or biological sensors and/or dissimilar chemical and biological sensors to provide a single network alarm.
 - Develop a capability to guide the CB Battle Management system user or suggest a course of action through an automated set of steps or procedures to respond to a CB event or incident management.
 - Develop an approach to using Artificial Intelligence (AI) techniques (i.e., intelligent agents, and neural networks) to consequence manage the effects of and predict the occurrence of future CB events.

- Build capability that determines the proper deployment and placement (or reconnaissance routes) of fixed, mobile (manned and unmanned), and stand-off CB sensors by taking into consideration threat, personnel, weather and terrain.
 - Develop an information management system that fuses large volumes of data to assist real-time decision-making for CB defense.
- b) Chemical/Biological Weapon Environment Prediction. Develop enabling capability to model and simulate CBW threats across a range of scales from individual to theater, to provide realistic, rigorous treatment of agent dissemination, dispersion, terrain, agent fate and downwind dispersion and deposition. Within the environment technology area solutions are sought that are of a revolutionary nature (high risk/high pay-off) and not evolutionary in nature. Areas of potential interest include:
- Enable more accurate subsequent dispersion model calculations.
 - Develop a methodology by which the validity of the sensor data can be assessed and fused with existing dispersion models.
 - Develop the capability for estimating the location, size, and time of chemical and biological agent release in a variety of natural and man-made environments. This capability will be employed in the joint programs JEM and JWARN.
- c) Chemical/Biological Effects on Operations
- Develop a set of M&S tools that transforms existing fixed site analysis capabilities to provide CB impact assessment of either mobile force operations or amphibious operations in a variety of terrain and weather environments.
 - Build an approach to developing a high fidelity CB defense training environment that facilitates the integration of man-in-the-loop training with existing M&S resources.
- d) Simulation Based Acquisition
- Develop M&S tools or methods to support CB equipment acquisition for DoD facilities and homeland security. Tools and methods should allow comparisons between different CB defense acquisition options at a variety of installations with aim of maximizing the utility of the decision makers' acquisition decisions.
 - Given an array of threat scenarios (e.g., domestic bio-terrorism), develop an M&S capability that assists a facility commander in determining the

selection of appropriate CB defense items (sensor, protection, decontamination). These items would be obtained from an existing inventory and also aid in the geospatial placement of such items with respect to a facility and its surrounding area/community.

3. Protection

The protection capability area requests applied research proposals for protective clothing, protective masks, air purification systems and shelter materials/systems that are technologically revolutionary, that are collaborative or complimentary, and leverage other efforts.

a) Clothing

- Intelligent materials (textiles, membranes, etc.) suitable for advanced, lightweight CB garments, i.e., membranes that open and close their pores in response to external stimuli.
- Technologies that can sense and indicate the remaining service life of garments (uncontaminated by CB).

b) Masks

- Non-sorbent based technologies for removing chemical agent vapor and/or biological and chemical agent aerosols from air.
- Self-decontaminating materials or sacrificial layer concepts for mask facepieces.

c) Air Purification

- Advanced regenerative filter materials or technologies.
- Design concepts for removal/destruction of both aerosols/particulates and chemicals.

d) Shelters

- Advanced textiles, seaming technology and materials used for protective enclosures.
- Novel closures technologies for enclosures on mobile, transportable and fixed site shelter platforms, and protective clothing—may include seaming, zippers, etc.

4. Decontamination

The decontamination capability area is seeking applied research proposals in the areas of liquid phase (solution) decontamination and in solid phase reactive materials. Materials and technologies that will not create a significant health hazard or environmental hazard are greatly preferred.

- a) The program has been focusing upon the use of peroxide based systems to effectively decontaminate both chemical and biological agents. Most of the systems have been based on multi-component liquid systems, however, there is an interest in having a solid based formulation that can be mixed with available water or deicing systems. Solid peroxides that have been examined to date have suffered from stability issues and typically decompose at elevated temperatures that would be associated with storage in hot temperature situations. The program is looking for solid based stable peroxide formulations that are stable for storage and use in high temperature environments and that can also be used in mixed (organic/aqueous) solvent systems to have activity at low temperature.
- b) The program is interested in alternative technologies for solution decontamination. These may or may not be oxidation based approaches but could also include nucleophilic approaches using a variety of catalysts. Of particular interest is a comparative study of various classes of catalytic materials in formulations. Because of the logistics in carrying the decon systems to the field and because of the thermal stress on the systems, stable low molecular weight catalysts are of interest over high molecular weight catalysts such as enzymes. Likewise, because of complex side products, processes using radical chemical pathways are high risk and unacceptable.
- c) Mass transport and Nanoscale properties - There are technical shortfalls in determining if nanostructured or nanoparticulate sorbents will provide a significant benefit over conventional micro-sized particulate with low surface area. Live agent testing in the laboratory of the existing micron sized particle sorbent vs. nanostructure sorbents has not shown a significant difference. Mass transport of agent into the matrix may be the critical issue. The decontamination area is interested in studies, modeling, or analysis that can demonstrate the operational capabilities of nanostructured materials.

5. Supporting Science and Technology

The Supporting Science and Technology capability area seeks basic and applied research proposals in the following areas:

- a) CB simulants and correlation of physical and chemical properties to those of CB agents. Of primary interest are identification of correlations between non-toxic simulants and bacterial, toxin, viral, prion, and related agents of primary interest to the CB Defense Program.

- b) Aerosol science and novel concepts and systems to improved collection and separation of biological and chemical aerosols while reducing energy, power, and size profile. Of primary interest are methods to improve collection efficiency for sub-micrometer particles and liquid (chemical) aerosols.
- c) Basic Research into novel concepts for individual protection. Of primary interest are improved barrier materials that allow water vapor exchange to minimize heat stress, while providing superior protection performance against CB agents and filtration media to address issues associated with novel CW agents, [e.g., reduced flow resistance, filtration of novel agents such as toxic industrial materials (TIMs)].
- d) Basic Research into novel concepts for collective protection. Of primary interest are novel approaches for regenerative vapor and particulate filtration of CB agents and toxic industrial materials.
- e) Basic Research into novel concepts for CB standoff detection. Of primary interest are novel methods for improved remote detection of CB agents and toxic industrial materials. UV fluorescent techniques WILL NOT be considered.
- f) Basic Research into novel concepts for decontamination from CB agents. Of primary interest are novel materials that may be used for in situ decontamination of sensitive equipment. Enzymatic techniques WILL NOT be considered.

III. INFORMATION FOR OFFERORS

A. General Information

Through this solicitation the DoD CDBP and the Army Research Office (ARO) expect to make several awards for one- to four-year performance periods, subject to the availability of appropriations. Awards may be made as contracts or grants. Single-year, stand-alone proposals are encouraged; multi-year proposals will be considered, but funding will not be guaranteed for subsequent years. Therefore, multi-year proposals must have clear goals and milestones for each year.

B. Eligibility

The solicitation is specifically for experimental and theoretical development of technologies for chemical and biological defense as described in Section II.B. Potential offerors are advised to read this announcement carefully. It explains the agencies' research needs upon which the topic is based and the terms and conditions of the solicitation.

Proposals may be submitted by degree-granting universities, nonprofit organizations, or industrial concerns. Proposals are encouraged from Historically Black Colleges and Universities (as determined by the Secretary of Education to meet requirements of Title

III of the Higher Education Act of 1965, as amended (20 U.S.C. § 1061)) and from Minority Institutions defined as institutions “whose enrollment of a single minority or a combination of minorities...exceeds 50 percent of the total enrollment.” [20 U.S.C. § 1067k(3) and 10 U.S.C. § 2323(a)(1)(C)]. The U.S. Department of Education list of Accredited Postsecondary Minority Institutions is available at <http://www.ed.gov/about/offices/list/ocr/edlite-minorityinst-as-vi.html>.

Federal laboratories, Federally Funded Research and Development Centers, and academic institutions that are federal government organizations (e.g., Naval Postgraduate School) may participate, but they cannot receive funds awarded through this solicitation. Instead, they are encouraged to contact the technical point of contact listed in Section III.D.

C. Military Recruiting

This is to notify potential offerors that each grant awarded under this announcement to an institution of higher education shall include the following term and condition:

“As a condition for receipt of funds available to the Department of Defense, DoD, under this award, the recipient agrees that it is not an institution of higher education (as defined in 32 Code of Federal Regulations (CFR) Part 216) that has a policy of denying, and that it is not an institution of higher education that effectively prevents, the Secretary of Defense from obtaining for military recruiting purposes: (A) entry to campuses or access to students on campuses; or (B) access to directory information pertaining to students. If the recipient is determined, using procedures in 32 CFR Part 216 to be such an institution of higher education during the period of performance of this agreement, and therefore to be in breach of this clause, the Government will cease all payments of DoD funds under this agreement and all other DoD grants and cooperative agreements, and it may suspend or terminate such grants and agreements unilaterally for material failure to comply with the terms and conditions of award.” (32 CFR Part 216 may be accessed electronically at <http://www.gpoaccess.gov/cfr/index.html>).

If your institution has been identified under the procedures established by the Secretary of Defense to implement Section 558 of Public Law 103-337, then: (1) no funds available to DoD may be provided to your institution through any grant, including any existing grant; (2) as a matter of policy, this restriction also applies to any cooperative agreement; and (3) your institution is not eligible to receive a grant or cooperative agreement in response to this solicitation.

This is to notify potential offerors that each contract awarded under this announcement to an institution of higher education shall include the clause: Defense Federal Acquisition Regulation Supplement (DFARS) 252.209-7005, Reserve Officer Training Corps and Military Recruiting on Campus.

D. Points of Contact

Technical point of contact for this BAA is Dr. Stephen J. Lee, Chemical Sciences Division, (919) 549-4365, email: stephen.lee2@us.army.mil. Questions regarding the administrative content of this BAA may be addressed to ARO at (919) 549-4375.

E. Department of Defense (DoD) Central Contractor Registration (CCR)

Prospective contractors/grantees must be registered in the DoD CCR database prior to award of an agreement. By submission of an offer resulting from this BAA, the offeror acknowledges the requirement that a prospective contractor/grantee must be registered in the CCR database prior to award, during performance, and through final payment of any agreement resulting from this BAA. The CCR may be accessed at <http://www.ccr.gov/index.cfm>. Assistance with registration is available by phone at 1-888-227-2423.

IV. PROPOSAL PREPARATION

A. White Paper Submission and Content

Interested offerors are strongly encouraged to submit a white paper consisting of a quad chart and a 1-page narrative to expand on the quad chart. White papers, however, are not required prior to proposal submission.

The white paper must be received by 4:00 PM Eastern Standard Time, February 24, 2004. The white paper must be transmitted electronically to the following address: **whitepapers@arl.army.mil**. The e-mail subject line should contain the following: W911NF-04-R-0006 White Paper.

Each submission (quad chart and narrative) must specify a single topic area and issues for consideration by identifying at the end of the project title the specific paragraph referenced in Section II.B. of this BAA (for example, II.B.1.c). (See quad chart format and narrative guidelines below).

Quad charts shall follow the following format:

Title (e.g., II.B.1.c)

1. Technical Approach	2. Technology
4. Schedule and Milestones	3. Cost

QUADRANT 1: Provide a brief description of the technical approach in bullet format.

QUADRANT 2: Provide a brief description of the technology to be employed in bullet format.

QUADRANT 3: Provide a brief description of the proposed costs in tabular format.

QUADRANT 4: Provide a listing of schedule and major milestones in bullet format.

The narrative expanding on the quad chart must not exceed ONE (1) 8.5 x 11 inch page, single-spaced, with 1-inch margins in type not smaller than 12 points. The project title with topic paragraph referenced in Section II.B. must be included at the top of the page. The content of the narrative must be limited only to further explanation, as deemed necessary by the offeror, of the information being conveyed as requested in the quad chart. Do NOT include corporate or personnel qualifications, past experience, or any supplemental information not requested in the Quad Chart.

CBD Program Managers will review the submissions with regard to overall scientific and technical merit and whether the offered project can be integrated into the FY05 CBD program currently under development. Feedback on the white papers and encouragement to submit full proposals for selected white papers will be e-mailed directly to the proposed Principal Investigators on or about the week of March 8, 2004.

B. Proposal Submission

All proposals under this BAA must be submitted electronically. Proposals must contain all information specified in Proposal Content below. The electronic proposal must be received at the Army Research Office by 4:00 PM Eastern Daylight Savings Time on April 26, 2004.

Proposals must be transmitted to the following address: baa@arl.army.mil. Proposals must be submitted in a single PDF formatted file. The e-mail subject line should contain the following: W911NF-04-R-0006 Proposal.

The proposal must contain three electronic forms: (1) ARO Form 51, Proposal Cover Page; (2) ARO Form 99, Summary Proposal Budget; and (3) ARO Current and Pending Support (unnumbered form). See Proposal Content below. These forms may be accessed electronically at <http://www.arl.army.mil/forms/forms2.htm>. The fillable PDF forms may be saved to a working directory on your computer and opened and filled in using the Adobe Acrobat software application. The fillable Proposal Cover Page (ARO Form 51) should be printed, signed, and scanned into a PDF file with the proposal.

If you have questions concerning electronic proposal submission, please contact the Army Research Office at (919) 549-4219. Proposals submitted by facsimile will not be accepted.

Proposals received after the deadline will be handled in accordance with the provisions detailed in Appendix A.

Acknowledgment of receipt of a proposal under this solicitation will be accomplished via e-mail to the addressee submitting the proposal.

C. Proposal Content

1. Technical Proposal

The technical proposal shall not exceed 45 pages. A page is defined as 8 ½ x 11 inches, single-spaced, with one-inch margins, and type not smaller than 12 points. The technical proposal must include the following components.

- a) Cover page. To be eligible for review, proposals must have a signed ARO Form 51 as a cover page (See Section IV.B). The title of the project must reference the technical area being addressed in the effort by identifying the specific paragraph from Section II.B. (For example, II.B.1.c).
- b) Summary page with the proposal title, the principal investigator(s), institution affiliation and a brief summary/abstract of the proposal.

- c) Proposal narrative, tables, figures, references. The proposal narrative should discuss the proposed work and its scientific basis, together with the objectives and application of the research. Collaborators, if applicable, should be identified.
- d) Statement of work (i.e., listing of tasks; not to exceed 5 pages).
- e) Proposed schedule, milestones, and deliverables (technical and financial reports, data, hardware, software and documentation, as applicable).
- f) Summary of qualifications of key personnel (Curriculum vitae will NOT be accepted).
- g) Describe the facilities available for accomplishment of research objective. Describe the equipment planned for acquisition under this program and its application to the objective. When possible, equipment should be purchased very early in the research award period.
- h) Statement of Current and Pending Support. A statement of current and pending support must be included for each investigator listed in the proposal. Use the ARO Current and Pending Support form to submit this information (See Section IV.B.). This statement requires that each investigator specify all grants and contracts through which he or she is currently receiving or may potentially receive financial support.

2. Cost Proposal

The financial portion of the proposal should contain cost estimates sufficiently detailed for meaningful evaluation. Use ARO Form 99, Summary Proposal Budget, to submit budget data (See Section IV.B.). For budget purposes, use an award start date of November 1, 2004. The budget must include the total cost of the project, as well as a breakdown of the amount(s) by source(s) of funding (e.g., funds requested under this BAA, non-federal funds to be provided as cost sharing). The cost proposal is not considered part of the page count; there is no page limit for the cost proposal.

Budgeted cost elements should reflect the following:

- a) Time being charged to the project, for whom (principal investigator, graduate students, etc.), and the commensurate salaries and benefits. Allowable charges for graduate students include salary, appropriate research costs, and tuition. Allowable charges for undergraduate students include salary and research training costs, but not tuition.
- b) Cost of equipment, based on most recent quotations and broken down in sufficient detail for evaluation.

- c) Travel costs and time, and the relevance to stated objectives.
- d) Estimate of material and operating costs.
- e) Publication and report costs.
- f) Consultant fees (indicating daily or hourly rate) and travel expenses and the nature and relevance of such costs.
- g) Computer services.
- h) Sub-award costs and type (the portion of work to be sub-awarded and rationale). Include detailed cost summary.
- i) Communications costs not included in overhead.
- j) Other direct costs.
- k) Indirect costs.
- l) Fee, if any, which an industrial/commercial organization proposes.
- m) Facilities Capital Cost of Money: When an offeror elects to claim facilities capital cost of money as an allowable cost, the offeror should submit Form CASB-CMF and show the calculation of the proposed amount. (See FAR 31.205-10.)

NOTE: Failure to provide the requested information may render the proposal non-responsive, and the proposal may not be evaluated.

V. EVALUATION CRITERIA AND SELECTION PROCESS

The proposal selection process will be conducted based upon a technical peer review as described in Federal Acquisition Regulation Subparts 6.102(d)(2) and 35.016 and DOD Grant and Agreement Regulations (DOD 3210.6-R (DODGARS), Section 22.315. All information necessary for the review and evaluation of the proposal must be contained in the Technical Proposal and Cost Proposal as identified in Section IV.C.

The evaluation will be based primarily on the following criteria, both of equal weight:

1. Overall scientific and technical merit of the proposed research.
2. Potential contributions of the research to the chemical and biological defense mission.

Other evaluation criteria, of lesser importance, but weighted equal to each other are:

3. Offeror's capabilities, related experience, facilities, techniques, or unique combinations of these factors that support achieving the proposed objectives.
4. Qualifications, capabilities, and experience of the proposed principal investigator, team leader or other key personnel who are critical in achieving proposed objectives.
5. Offeror's record of past projects to include assessment of duplication with already completed or ongoing work.
6. Realism and reasonableness of the proposed cost.

VI. NOTIFICATION TO OFFERERS

Notification of acceptance of proposals will be mailed or e-mailed by ARO on or about October 1, 2004. Unsuccessful offerors will be notified shortly thereafter.

VII. AWARDS

A. A total of \$5 million per year is anticipated to be available under this solicitation. It is anticipated that funding for each award will be between \$100K -\$2M per award.

B. Reporting requirements for both contracts and grants will be as described in ARO Form 18 located at <http://www.aro.army.mil/forms/forms2.htm>. Additional reports will be specified in the award document.

VIII. INFORMATION TO BE REQUESTED FROM SUCCESSFUL OFFERORS

Offerors whose proposals are accepted for funding will be contacted before award to provide additional information required for award. This may include representations and certifications, revised budgets or budget explanations, certificate of current cost or pricing data, subcontracting plan for small businesses, and other information as applicable to the proposed award.

IX. CERTIFICATIONS REQUIRED FOR GRANT AWARDS

A. Certification at Appendix A to 32 CFR Part 28 Regarding Lobbying

By signing and submitting a proposal that may result in the award of a grant exceeding \$100,000, the prospective awardee is certifying, to the best of his or her knowledge and belief, that:

(a) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or

employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(b) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

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

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

B. Certification at Appendix A to 32 CFR Part 25 Regarding Debarment, Suspension, and Other Responsibility Matters --Primary Covered Transactions

(1) By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.

(2) The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such person from participation in this transaction.

(3) The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

(4) The prospective primary participant shall provide immediate written notice to the department or agency to which this proposal is submitted if at any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

(5) The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive order 12549. You may contact the department or agency to which this proposal is being submitted for assistance in obtaining a copy of those regulations.

(6) The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

(7) The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

(8) A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the List of Parties excluded from Federal Procurement and Nonprocurement Programs.

(9) Nothing contained in the foregoing shall be construed to require establishment of a system or records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

(10) Except for transactions authorized under paragraph 6 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is proposed for debarment under 48 CFR part 9, subpart 9.4, suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

Certification Regarding Debarment, Suspension, and Other Responsibility
Matters--Primary Covered Transactions

The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any Federal department or agency;
- (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (c) Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
- (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

Where the prospective primary participant is unable to certify to any of the statements in this certification such prospective participant shall attach an explanation to this proposal.

C. Certification at Appendix C to 32 CFR Part 25 Regarding Drug-Free Workplace Requirements

- (1) By signing and/or submitting this application or grant agreement, the grantee is providing the certification set out below.
- (2) The certification set out below is a material representation of fact upon which reliance is placed when the agency awards the grant. If it is later determined that the grantee knowingly rendered a false certification, or otherwise violates the requirements of the Drug-Free Workplace Act, the agency, in addition to any other remedies available to the Federal Government, may take action authorized under the Drug-Free Workplace Act.
- (3) For grantees other than individuals, Alternate I applies.
- (4) For grantees who are individuals, Alternate II applies.
- (5) Workplaces under grants, for grantees other than individuals, need not be identified on the certification. If known, they may be identified in the grant application. If the grantee does not identify the workplaces at the time of application, or upon award,

if there is no application, the grantee must keep the identity of the workplace(s) on file in its office and make the information available for Federal inspection. Failure to identify all known workplaces constitutes a violation of the grantee's drug-free workplace requirements.

(6) Workplace identifications must include the actual address of buildings (or parts of buildings) or other sites where work under the grant takes place. Categorical descriptions may be used (e.g., all vehicles of a mass transit authority or State highway department while in operation, State employees in each local unemployment office, performers in concert halls or radio studios).

(7) If the workplace identified to the agency changes during the performance of the grant, the grantee shall inform the agency of the change(s), if it previously identified the workplaces in question (see paragraph five).

(8) Definitions of terms in the Nonprocurement Suspension and Debarment common rule and Drug-Free Workplace common rule apply to this certification. Grantees' attention is called, in particular, to the following definitions from these rules;

Controlled substance means a controlled substance in schedules I through V of the Controlled Substances Act (21 U.S.C. 812), and as further defined by regulation (21 CFR 1308.11 through 1308.15);

Conviction means a finding of guilt (including a plea of nolo contendere) or imposition of sentence, or both, by any judicial body charged with the responsibility to determine violations of the Federal or State criminal drug statutes;

Criminal drug statute means a Federal or non-Federal criminal statute involving the manufacture, distribution, dispensing, use, or possession of any controlled substance;

Employee means the employee of a grantee directly engaged in the performance of work under a grant, including: (i) All "direct charge" employees; (ii) all "indirect charge" employees unless their impact or involvement is insignificant to the performance of the grant; and, (iii) temporary personnel and consultants who are directly engaged in the performance of work under the grant and who are on the grantee's payroll. This definition does not include workers not on the payroll of the grantee (e.g., volunteers, even if used to meet a matching requirement; consultants or independent contractors not on the grantee's payroll; or employees of subrecipients or subcontractors in covered workplaces).

Certification Regarding Drug-Free Workplace Requirements
(Alternate I - Grantees Other Than Individuals)

The grantee certifies that it will or will continue to provide a drug-free workplace by:

(a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;

(b) Establishing an ongoing drug-free awareness program to inform employees about--

(1) The dangers of drug abuse in the workplace;

(2) The grantee's policy of maintaining a drug-free workplace;

(3) Any available drug counseling, rehabilitation, and employee assistance programs; and

(4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace.

(c) Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a);

(d) Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will--

(1) Abide by the terms of the statement; and

(2) Notify the employer in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace no later than five calendar days after such conviction;

(e) Notifying the agency in writing, within ten calendar days after receiving notice under paragraph (d)(2) from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position title, to every grants officer or other designee on whose grant activity the convicted employee was working, unless the Federal agency has designated a central point for the receipt of such notices. Notice shall include the identification number(s) of each affected grant;

(f) Taking one of the following actions, within 30 calendar days of receiving notice under paragraph (d)(2), with respect to any employee who is so convicted--

(1) Taking appropriate personnel action against such employee, up to an including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended; or

(2) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency;

(g) Making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs (a), (b), (c), (d), (e) and (f).

The grantee may insert in the space provided below the site(s) for the performance of work done in connection with the specific grant:

Place of Performance (Street address, city, county, state, zip code)

Check if there are workplaces on file that are not identified here.

(Alternate II - Grantees Who Are Individuals)

(a) The grantee certifies that, as a condition of the grant, he or she will not engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance in conducting any activity with the grant;

(b) If convicted of a criminal drug offense resulting from a violation occurring during the conduct of any grant activity, he or she will report the conviction, in writing within 10 calendar days of the conviction, to every grants officer or other designee, unless the Federal agency designates a central point for the receipt of such notices. When notice is made to such a central point, it shall include the identification number(s) of each affected grant.

APPENDIX A: LATE SUBMISSIONS AND WITHDRAWALS OF PROPOSALS

- a. Offerors are responsible for submitting electronic proposals so as to reach the Government office designated in this BAA by the time specified in this BAA.
- b. If the electronic proposal is received at the Government office designated in this BAA after the exact time and date specified for receipt of offers, it is "late" and will not be considered unless it was received at the initial point of entry to the Government infrastructure not later than 4:00 p.m. Eastern Daylight Savings Time one working day prior to the date specified for receipt of proposals.
- c. Acceptable evidence to establish the time of receipt at the Government office includes documentary evidence of receipt maintained by the installation.
- d. If an emergency or unanticipated event interrupts normal Government processes so that proposals cannot be received at the office designated for receipt of proposals by the exact time specified in the solicitation, and urgent Government requirements preclude amendment of the solicitation closing date, the time specified for receipt of proposals will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which normal Government processes resume.
- e. Proposals may be withdrawn by written notice received at any time before award. Withdrawals are effective upon receipt of notice by the Contracting Officer.