

ERDC
Broad Agency Announcement Number W912HZ-13-BAA-1000

**Science, Technology, Engineering & Mathematics
(STEM)**

Introduction: This publication constitutes a funding opportunity announcement (FOA) as contemplated in the Department of Defense Grants and Agreements regulations (DoDGARS) 22.315. A formal request for proposal (RFP), solicitation, and/or additional information regarding this announcement will not be issued.

OVERVIEW INFORMATION

1. Agency Name: This Department of Defense program will be administered through the Army Corps of Engineers, and may be delegated to the Office of Naval Research (ONR).
2. Funding Opportunity Title: Broad Agency Announcement for Science, Technology, Engineering & Mathematics (STEM) Program.
3. Program Name: Basic, Advanced and Applied Research in Science and Engineering
4. Announcement Type: Initial Announcement
5. Funding Opportunity Number: W912HZ-13-BAA-1000
6. Catalog of Federal Domestic Assistance (CFDA) Numbers:
CFDA # 12.630 Basic, Advanced and Applied Research in Science and Engineering
7. Response Date: Proposals in response to this announcement will be continuously accepted and evaluated from the date this announcement is published until 14:00 (CT) on 31 December 2013

I. FUNDING OPPORTUNITY DESCRIPTION

The U.S. Army Engineer Research and Development Center (ERDC) seeks proposals under authority of the National Defense Education Act (1959) and under the Pre-Engineering Program (PEP) to stimulate young pupils in the sciences, technology, engineering and mathematics (STEM).

The target students attend primary, middle, and high schools in the following locations; Huntsville Hampton Cove Elementary, Owens Crossroads, Alabama; Madison County, Alabama; Monocacy Elementary, Frederick, Maryland; Frederick County, Maryland; North Chevy Chase Elementary School, Chevy Chase, Maryland; Montgomery County, Maryland; Hinds County, Mississippi; Rankin County, Mississippi; Madison County, Mississippi; Claiborne County, Mississippi; Warren County, Mississippi; Champaign County, Illinois; De

Witt County, Illinois; Douglas County, Illinois; Ford County, Illinois; McLean County, Illinois; Vermilion County, Illinois; Coles County, Illinois; Piatt County, Illinois; Moultrie County, Illinois; Grafton County, New Hampshire; Sullivan County, New Hampshire; Carroll County, New Hampshire; Caledonia County, Vermont; Orange County, Vermont; Windsor County, Vermont; Arlington County, Virginia; Fairfax County, Virginia; and Prince William County, Virginia and Alexandria City Public Schools. The target students may attend public or private schools.

ERDC solicits basic research proposals in the general DoD STEM Education and Outreach Program from colleges, universities, and non-profit organizations. Depending upon the availability of appropriated funds, ERDC may: (1) Make multiple awards under this BAA; and (2) Consider options exercisable for multi-year performance. Area of performance for proposals may be limited to one of the selected locations listed above or may address multiple locations. Funding is limited and proposals are primarily sought in the not-to-exceed \$30,000 range; however, larger awards may be considered when appropriate.

The proposal should:

- (1) Contain an executive summary not to exceed one page;
- (2) In 10 pages or less describe a plan to create and manage basic scientific projects for target pupils, K-12, setting out areas of research appropriate to the age of the pupil and of interest under STEM stimulation set out by the Office of the Director, Defense Research and Engineering (DDR&E). The technical/management plan should identify mentoring opportunities with seasoned research scientists within the university/college community or ERDC;
- (3) Contain an itemized budget. Include a copy of any federal rate agreement;
- (4) Identify key personnel;
- (5) Describe your organization's qualifications;
- (6) Describe your organization's past experience related to NDEP/STEM or PEP projects; and,
- (7) Include references from past grant-type instruments (grants/cooperative agreements/youth-cooperative-outreach-agreements).

Proposals in response to this announcement will be continuously accepted and evaluated from the date this announcement is published until 14:00 (CT) on 31 December 2013.

II. AWARD INFORMATION

Instrument Type: Award may take the form of a Grant or Cooperative Agreement as appropriate. ERDC intends to make one award under this FOA which represents the best value to the Government in accordance with the evaluation criteria listed in section V. ERDC is seeking participants that are capable of supporting the goals and desired outcomes as described in this announcement. Offerors are encouraged to be creative in the selection of the technical and management processes and approaches to the STEM programs described above.

Funding is limited and proposals are primarily sought in the not-to-exceed \$30,000 range; however, larger awards may be considered when appropriate.

ERDC reserves the right to reject all proposals if none are found suitable. Depending upon the availability of appropriated funds, ERDC may: (1) Make multiple awards; or (2) Consider an offeror's options for multi-year projects.

III. ELIGIBILITY INFORMATION

All responsible sources from educational institutions and non-profit organizations may submit proposals under this FOA. 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 FOA will be set-aside for HBCU and MI participation.

Cost Sharing or Matching in accordance with 32 C.F.R. 32.23 is not required but is highly encouraged.

IV. APPLICATION AND SUBMISSION INFORMATION

1. Application and Submission Process: Instructions for submission of proposals are as follows:

Proposals

Proposals in response to this announcement will be continuously accepted and evaluated from the date this announcement is published until 14:00 (CT) on 31 December 2013. Submission of proposals shall be sent via email to Amanda Andrews at Amanda.Andrews@usace.army.mil. Notice of selections based on proposal submissions will be issued via e-mail.

2. Content and Format of Proposals

Proposals submitted under this FOA are required to be unclassified.

All proposal submissions will be protected from unauthorized disclosure. Upon receipt, all grant and cooperative agreement proposals shall be safeguarded from unauthorized disclosure throughout the review and selection process. Offerors are expected to appropriately mark each page of their submission that contains proprietary information.

INSTRUCTIONS FOR FULL PROPOSALS FOR GRANTS AND COOPERATIVE AGREEMENTS

Submission of all proposals for Grants and Cooperative Agreements shall be submitted via email to Amanda Andrews at Amanda.Andrews@usace.army.mil. The proposal shall include the following forms:

- SF 424 (R&R) form as the cover page;
- SF 424 (R&R) Research and Related Budget form;

- SF-424 (R&R) Research and Related Other Project Information form (Volume 1 – Technical will be an attachment to this form)
- Research & Related Senior/Key Person Profile (Resumes will be included as attachments)

EXECUTIVE SUMMARY

- Paper Size: 8.5 x 11 inch paper
- Margins: 1 inch
- Spacing: Single-Spaced
- Font: Times New Roman, 12 point
- Number of Pages: 1 single-sided page to include an overview of the entire proposed program.

PROPOSAL FORMAT – VOLUME 1 – TECHNICAL AND VOLUME 2 – COST PROPOSALS

- Paper Size: 8.5 x 11 inch paper
- Margins: 1 inch
- Spacing: Single-Spaced
- Font: Times New Roman, 12 point
- Number of Pages: Volume 1 is limited to no more than 10 single-sided pages. Limitations within sections of the proposal, if any, are indicated in the individual descriptions shown below. The cover page, table of contents, reports, pending proposal submissions and qualifications are excluded from the page limitations. Full proposals exceeding the page limit may not be evaluated. There are no page limitations for Volume 2 – Cost Proposal.
- Copies: The full proposal shall be submitted via email to Amanda Andrews at Amanda.Andrews@usace.army.mil

Volume 1 – Technical Proposal

- **Cover Page (not included in page limitation):** The cover page shall be labeled “Technical Proposal” and shall include the following:
 - FOA Number W912HZ-12-BAA-1000;
 - Title of Proposal;
 - Identity of Prime Offeror and complete list of subcontractors/subrecipients, if applicable;
 - Technical contact (name, address, phone/fax, e-mail address)
 - Administrative/Business contact (name, address, phone/fax, e-mail address) and;
 - Proposed period of performance (identify both the base period and any options, if included).
- **Table of Contents (not included in page limitation):** An alphabetical/numerical listing of the sections within the proposal including corresponding page numbers.

- **Statement of Work:** A Statement of Work (SOW) should clearly detail the scope and objectives of the effort to be performed under the grant if the proposal is selected for funding. It is anticipated that the proposed SOW will be incorporated as an attachment to any resultant award. To this end, this project narrative must include a severable self-standing SOW, without any proprietary restrictions, which can be attached to a grant award.
- **Technical Approach and Justification (5 page limit):** The proposal should consist of a clear description of the technical approach being proposed. This discussion should provide the technical foundation/justification for pursuing this particular approach and why one could expect it to enable the objectives of the proposal to be met. Provide a description of the program including any events, or other activities being proposed. The description should include the following:
- **Project Schedule and Milestones (Two (2) page limit):** Provide a summary of the schedule of events and milestones.
- **Reports (Not included in page limitation):** Provide a detailed list of reports, inclusive of the timeframe in which they will be delivered. The following are sample data deliverables typically required:
 - Programmatic and Financial Progress Reports
 - Final Report
- **Management Approach (3 page limit):**
 - a. Describe the overall approach to the management of this effort. Identify the personnel and subcontractors/sub recipients (if any) that will be involved. Provide past, present or proposed collaborative educational activities with other institutions, such as colleges/universities.
 - b. Designate one individual as the Principal Investigator for the award, for the purpose of technical responsibility and to serve as the primary point-of-contact. Briefly summarize the qualifications of the Principal Investigator, and other key personnel (if applicable), to conduct the proposed effort. Provide resumes for the Principal Investigator and other key personnel (if applicable) as attachments using the Research & Related Senior/Key Person Profile. Form and resumes are not included in the page count.

Volume 2 – Budget/Cost Proposal

- **Budget/Cost Proposal:** Provide a detailed cost breakdown by period of performance. Options must be separately identified and priced. The Budget/Cost proposal should include the following:
 - Direct Labor – Individual Labor categories or persons, with associated labor hours and unburdened direct labor rates. Provide escalation rates for out years.
 - Indirect Costs (Fringe Benefits, Overhead, G&A, etc.) – the proposal should show the rates and calculation of the costs for each rate category. If the rates have been

approved/negotiated by a Government agency, provide a copy of the memorandum/agreement. If the rates have not been approved/negotiated, provide sufficient detail to enable a determination of allowability, allocability, and reasonableness of the allocation bases, and how the rates are calculated. Additional information may be requested, if needed. If composite rates are used, provide the calculations used in deriving the composite rates.

- Travel – The proposed travel cost should include the following for each trip; the purpose of the trip, origin and destination if known, approximate duration, number of travelers, and estimated cost per trip must be justified based on the organization's historical cost per trip or costs claimed must conform to the applicable Federal cost principles.
- Materials & Supplies – Provide an itemized list of all proposed materials and supplies including quantities, unit prices, proposed vendors (if known), and the basis for the estimate (e.g., quotes, prior purchases, catalog price lists).
- Other Direct Costs – provide an itemized list of all other proposed other direct costs such as: equipment rental/user fees, report and publication costs, and the basis for the estimate (e.g. quotes, prior purchases, catalog price lists).
- Fee/Profit – Fee/profit is not allowable.

NOTE: Submit Budget/Cost information on the Research and Related Budget Form. If attachments are required to provide backup documentation, use Attachment Form.

3. Significant Dates and Times: Proposals in response to this announcement will be continuously accepted and evaluated from the date this announcement is published until 14:00 (CT) on 31 December 2013.

4. Submission of Grant Proposals via email: The offeror must submit the application package template associated with this BAA via email to Amanda Andrews at Amanda.Andrews@usace.army.mil.

By Completing Block 17 of the SF 424 (R&R), the Grant Applicant provides the certification on lobbying required by 32 CFR Part 28. Refer to Section VI, "Award Administration Information" entitled "Certifications" for further information.

In order to submit full proposals via electronic submission, Applicants must take the following one-time actions:

- Obtain a Dun and Bradstreet Data Universal Numbering System (DUNS) number;
- Register with the System for Award Management (SAM) at <https://www.sam.gov/portal/public/SAM/>
- Register with Grants.gov at <http://www.grants.gov>, specifically <http://www.grants.gov/GetStarted>.

Use the Grants.gov organization Registration Checklist at http://www.grants.gov/applicants/register_your_organization.jsp which will provide guidance through the process, and includes links for the SAM and DUNS websites. Designating an E-Business Point of Contact (EBiz POC) and obtaining a special password called "MPIN" are important steps in the SAM registration process. Applicants not already registered with SAM

and Grants.gov should allow at least 21 days to complete these requirements. The process should be started as soon as possible. Any questions relating to the registration process, system requirements, or how an application form works must be directed to Grants.gov at 1-800-518-4726 or support@grants.gov. Any questions about the submittal process must be directed to Amanda Andrews at 601-634-5249 or Amanda.Andrews@usace.army.mil

V. APPLICATION REVIEW INFORMATION

1. Evaluation Criteria for Research Proposals – Specific evaluation criteria are as follows:

- a. Degree to which the proposal meets the objectives outlined in section I. Funding Opportunity Description above.
- b. The offeror's ability to implement the proposed approach as demonstrated by specific accomplishments in similar projects, by the qualifications (including relevant experience) of the proposed key personnel, and availability of appropriate facilities.
- c. The offeror's proximity to the target students.
- d. Proposed cost and cost realism.

VI. AWARD ADMINISTRATIVE INFORMATION

1. Award Notices

ERDC will send written notification via e-mail to all Principal Investigators who submitted a proposal. The notification of a successful proposal must not be regarded as an authorization to commit or expend funds (except at the recipient's own risk) The Government is not obligated to provide any funding until a Government Grants Officer signs the grant award document.

2. Administrative and National Policy Requirements

Lobbying – Federal regulations (Appendix A to 32 CFR Part 28) require certification regarding lobbying at the time of proposal submission. By signing and submitting the required cover page (SF 424 R&R), the proposer is certifying compliance with this regulation, which provides:

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

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer 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.

(3) The undersigned shall require that the language of this certification be included in the award documents for all sub awards at all tiers (including sub contracts, sub grants, and contracts under grants, loans, and cooperative agreements) and that all sub recipients 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 31 U.S.C. Sec. 1352, as implemented by the DoD at 32 CFR Part 28. 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.

3. Reporting Requirements

Reporting requirements and instructions for report preparation will be included in the grant award document signed by the Grants Officer.

4. Equipment

In compliance with provisions of 31 U.S.C. 6306 and with the intent of this program to enhance university capabilities in STEM education and research, title to instrumentation and equipment acquired under this solicitation will be vested with the educational institution without further obligation to the government.

5. Dun and Bradstreet Universal Numbering System (DUNS) Number and SYSTEM FOR AWARD MANAGEMENT (SAM)

System for Award Management and Universal Identifier Requirements.

A. Requirement for recipients. Unless you are exempted from this requirement under 2 CFR 25.110, you as the recipient must maintain the currency of your information in the System for Award Management (SAM) until you submit the final financial report required under this award or receive the final payment, whichever is later.

B. Requirement for subrecipients. If you are authorized to make subawards under this award, you:

1. Must notify potential subrecipients that no entity (*see definition in paragraph C of this award term*) may receive a subaward from you unless the entity has

provided its Data Universal Numbering System (DUNS) number to you and is registered in the SAM.

2. May not make a subaward to an entity unless the entity has provided its DUNS number to you and is registered in the SAM.

C. Definitions. For purposes of this award term:

1. *System for Award Management (SAM)* means the Federal repository into which an entity must provide information required for the conduct of business as a recipient. Additional information about registration procedures may be found at the SAM Internet site <https://www.sam.gov/portal/public/SAM/>. Assistance with registration is available at 866-606-8220.

2. *Data Universal Numbering System (DUNS) number* means the nine-digit number established and assigned by Dun and Bradstreet, Inc. (D&B) to uniquely identify business entities. A DUNS number may be obtained from D&B by telephone (currently 866-705-5711) or the Internet (currently at <http://fedgov.dnb.com/webform>).

3. *Entity*, as it is used in this award term, means all of the following, as defined at 2 CFR part 25, subpart C:

a. A Governmental organization, which is a State, local government, or Indian tribe;

b. A foreign public entity;

c. A domestic or foreign nonprofit organization;

d. A domestic or foreign for-profit organization; and

e. A Federal agency, but only as a subrecipient under an award or subaward to a non-Federal entity.

4. *Subaward*:

a. This term means a legal instrument to provide support for the performance of any portion of the substantive project or program for which you received this award and that you as the recipient award to an eligible subrecipient.

b. The term does not include your procurement of property and services needed to carry out the project or program (for further explanation, see attachment to OMB Circular A-133, “Audits of States, Local Governments, and Non-Profit organizations”).

c. A subaward may be provided through any legal agreement, including an agreement that you consider a contract.

5. *Subrecipient* means an entity that:

- a. Receives a subaward from you under this award; and
- b. Is accountable to you for the use of the Federal funds provided by the subaward.

VII. AGENCY CONTACTS

Grants Officer
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