

OVERVIEW INFORMATION:

Federal Agency Name: U.S. Army Research Office (ARO), 4300 S. Miami Blvd., Durham, NC 27703

Issuing Acquisition Office: U.S. Army RDECOM Contracting Center, RTP Contracting Division, 4300 S. Miami Blvd., Durham, NC 27703

Funding Opportunity Title: Youth Science (YS) Cooperative Outreach Agreement (COA)

Announcement Type: Initial

Funding Opportunity Number: W911NF-10-R-0002

Catalog of Federal Domestic Assistance (CFDA) Number(s): 12.630 - "Basic, Applied, and Advanced Research in Science and Engineering"

Dates: The following is a summary of the events and dates associated with the YS COA PA:

<u>EVENT</u>	<u>ESTIMATED DATE</u>
Program Announcement Issued	26 January 2010
Opportunity Conference	18 February 2010
Proposals Due	11 March 2010
Negotiations Conducted	March 2010
Final Proposals Due	01 April 2010
Award	June 2010

EXECUTIVE SUMMARY

1. Purpose: The purpose of this U.S. Army Research Office (ARO) **Youth Science (YS) Cooperative Outreach Agreement (COA)** is to solicit offers to carry out the public purpose of support and stimulation of science, technology, engineering, and math (STEM) education and outreach in conjunction with the U.S. Department of Defense and the U.S. Department of the Army. The Army envisions the YS COA will bring together government and a consortium of organizations working collaboratively to further STEM education and outreach efforts nationwide.

The YS COA envisions a collaborative STEM education and outreach program that will focus upon a set of core objectives:

- Increase the number of STEM graduates to address the projected shortfall of scientists and engineers in National and DoD positions
- Expand the involvement of students in ongoing DoD research
- Provide STEM educational opportunities for students at all stages of their K-12, undergraduate, graduate, and post-graduate education
- Entice students into college-level Department of Defense (DoD) programs
- Inform students about military or civil service career opportunities in STEM

To achieve these objectives, the YS COA will implement several strategies, including but not limited to, to the development and implementation of an overarching marketing strategy that synergizes all youth science programs; seamlessly integrating programs in a way that best creates collaboration, and achieves the core objectives established by the Army; assuring Army presence and visibility at all major youth science events; integrating existing Army Educational Outreach Program (AEOP) website (www.usaeop.com) into application and/or registration process for all youth science programs; and the development of a metrics collection plan that will measure the effectiveness of the COA, particularly with respect to the core objectives. The vision being pursued is that of a collaborative effort between the Government and a group of STEM education/outreach oriented organizations, that identifies students with STEM potential, engages them in an AEOP early on, and encourages continued involvement in other AEOPs throughout their education. Ultimately, these actions should increase the pool of qualified applicants that progress into college-level DoD programs and, ideally, STEM careers in military and civil service.

2. Programs: This YS COA effort consists of twelve programs: (1) Marketing, (2) Data Collection/Metrics, (3) Research and Engineering Apprenticeship Program (REAP), (4) Science and Engineering Apprenticeship Program/College Qualified Leaders (SEAP/CQL), (5) Gains in the Education of Mathematics and Science (GEMS), (6) eCybermission Internship Program, (7) ARL College Student/University Faculty Internship Program, (8) Teach the Teacher Program, (9) Junior Solar Sprint (JSS), (10) Intel-International Science and Engineering Fair (ISEF), (11) Junior Science and Humanities Symposia (JSHS), and (12) UNITE.

3. Award Instruments: This PA is expected to result in the award of a cooperative agreement as defined at 31 U.S.C. 6305. The cooperative agreement is to be awarded to a Consortium of organizations (which may include industrial, not-for-profit, and academic institutions.) To assure the creation of a well focused program, the consortium membership will be kept small, with a minimal number of organizations distributing program responsibility in a way that maximizes efficiency and minimizes duplication of efforts. It is expected that similarities between programs will result in consolidation of multiple programs

under fewer individual consortium members. One organization is to be designated as the Lead Organization (LO). The LO will be charged with providing leadership to the consortium, coordinating the efforts associated with all programs, and the LO is expected to have significant involvement in marketing and data collection/metrics. The LO will also be responsible for the distribution of funding to all members of the Consortium.

4. Articles of Collaboration: The Articles of Collaboration define the operational structure within the COA. An attachment to the PA provides a sample Articles of Collaboration for offerors to consider in preparing their articles of collaboration; however, offerors are free to modify this document as necessary and appropriate to achieve YS COA program goals. The Articles of Collaboration prepared by the offerors will be evaluated under the Management evaluation factor. Proposals must include a copy of their proposed Articles of Collaboration, signed by a duly authorized representative for each Consortium member.

5. Period of Performance: Awards made as a result of this PA will provide for a base period of performance of three years, with two optional three-year extension periods.

6. Place of Performance: Performance is limited to the United States.

7. Funding: This PA is issued subject to the availability of funds. The PA provides the estimated funding levels for the YS COA. ARO has submitted the requisite documents to request funding for the period covered by the COA; however, offerors are reminded that this request is subject to Presidential, Congressional and Departmental approval. **The funding levels provided in the PA are for proposal preparation purposes only. The actual funding level of the cooperative agreement will be updated annually as part of the appropriation process.**

8. Profit/Fee: Profit/fee is not permitted under the cooperative agreement.

9. Industry Day: An Industry Day will be held February 18, 2010 at the Marriott in Research Triangle Park, NC. This one-day event will include a technical briefing (program expectations and requirements), a proposal/contracting briefing, and question/answer session. Please register with Ms. Ashley E. Wade, Youth Science Program Manager by email aror.youthscience@us.army.mil. Specific event information will be provided upon registration.

I. FUNDING OPPORTUNITY DESCRIPTION

A. PROGRAM BACKGROUND

The United States Army has long recognized that a scientifically and technologically literate citizenry is our nation's best hope for a secure, rewarding and successful future. For over 50 years, the Army has supported a wide range of educational opportunities in science, technology, engineering and mathematics (STEM) for our youth and their teachers.

Our nation's economy has greatly benefited from the technological achievements of the last century and is destined for greater achievements throughout the 21st century. STEM will continue to play a dominant role in all aspects of everyday life and be a key enabler of US military capability and national security in the 21st century. For these reasons, the Army has created the Army Educational Outreach Program, AEOP, which greatly expands and integrates an array of Army educational opportunities for the future generations of America's workforce and their teachers.

The AEOP is comprised of Army-sponsored research, education, competitions, internships and practical experiences designed to engage and guide students and teachers in STEM. From elementary school through graduate school, students of all proficiency levels, interests, and ethnic, economic and academic backgrounds are encouraged to participate in real world experiences involving these important disciplines.

In an effort to create synergy and collaboration among previously autonomous programs, identify new areas for growth and expansion, and enable the Government's direct and substantial involvement, the Army has determined that a cooperative agreement will be awarded for the YS COA. The principle purpose of the YS COA cooperative agreement is the support and stimulation of STEM and not the acquisition of supplies or services for the direct benefit of the Government. The YS COA is for the public purpose of helping to ensure the United States will continue to maintain its technological leadership in a globally competitive world.

Substantial Government involvement is expected under the YS COA. Performance requires a special relationship between the Government and the Consortium that is essential to performance. Currently, the Youth Science portfolio includes a number of established and funded STEM educational outreach programs. Background information and a detailed description of how each program currently operates are provided for each program below. The Government seeks to establish a Consortium of organizations with interest and expertise in STEM education, initially to facilitate programs as described below. The intention, however, is during performance the Government and Consortium will jointly evaluate the effectiveness of programs and through the combined expertise of the Government and Consortium shape and deliver a more robust and dynamic program. This will mean tapping into the ideas and experience of the Government and Consortium and then making adjustments real-time during performance to funding, programs, and processes to assure Army meets the core objectives. It is expected that the programs will evolve over time, change in size and scope, and new programs will be added. Further, substantial Government involvement will take place through collaborative research opportunities that will be performed by both students and teachers with Army laboratories. Also, the Government will be involved in the planning for events and in the decision making process for achievement awards to be bestowed to subrecipients under the cooperative agreement. Substantial Government involvement is expected with respect to marketing because of the interrelationships between the programs and the need to ensure that the program also incorporates Army objectives. The Government's primary representative that will be responsible for being substantially involved with the Consortium in the YS COA is the Cooperative Agreement Manager (CAM). The CAM will be the ultimate decision making authority.

The projected scope of the cooperative agreement is approximately \$17.2 million over the first three years and \$34.4 million total for two three-year options. ARO's strategy is to continue STEM educational outreach through the issuance of a single award through this program announcement to a consortium of organizations (that may include industrial, not-for-profit, and academic partners) that will work with Army program managers to help fulfill the YS COA objectives. A significant goal of this effort will be to create a collaborative effort between government and a consortium of industrial, not-for-profit, and academic partners who have expertise in a variety of STEM, education, and youth outreach areas, focused on furthering STEM educational outreach.

B. FUNDAMENTAL PROGRAMS

1. MARKETING

Background:

The primary objective of a unified overarching marketing strategy is to create synergy between all AEOPs. Students participating in any one program should have knowledge of the other programs available. The Army wants to keep students engaged in Army programs throughout their development, with the hope that they will consider pursuing a career in STEM with the DoD. To keep students engaged and involved, they need to be educated about opportunities that exist in each stage. For example, when student X reaches his final year of participation in Junior Solar Sprint, he should be given information about how to get involved in his local JSHS or ISEF affiliated science fair. While participating in JSHS, student X should be encouraged to apply for a summer high school apprenticeship (REAP or SEAP). During Junior/Senior year of High School, student X should be encouraged to explore DoD funded programs that pay for college tuition. Student X has a series of continuous Army STEM experiences during development, which result in a STEM career, ideally with the DoD.

Creative marketing strategies must be employed to assure individual AEOPs are not stove piped, and that there is constant overlap of programs. For example, the recipient will be responsible for providing AEOP displays at significant events (i.e. award ceremonies, symposia, competitions, etc) or using Army personnel as speakers at events to describe STEM opportunities in DoD (through AEOPs, fellowships, and/or careers). The recipient will also develop and maintain website(s) for programs that can be linked to the AEOP website. When appropriate, websites should include tools that can be utilized by program participants (i.e. message boards/online community for JSHS regions or UNITE sites to communicate, data collection capability for conducting program evaluation surveys online, and simulcasting of events). Website(s) should be created in close coordination with the AEOP website administrator to assure continuity between sites, and prevent duplication of efforts. Site should include ability to host pages for the host academic organizations (i.e. JSHS regional symposia, UNITE sites, etc).

1.1. One entity will be identified, as part of the Consortium, as the organization to take leadership to develop and implement a unified overarching marketing effort, in close collaboration with the government and other Consortium members. Entity must be experienced in marketing, preferably with specific experience in youth outreach and/or STEM educational programs. Marketing effort will center on the AEOP website, as it is the primary source of program information, application, and referral. Other efforts including new media and creative marketing strategies will be incorporated, if determined appropriate by government and recipient. In addition, grassroots marketing efforts should be made to reach specific student populations intended as primary targets for programs. (For example: posters, mailers, phone calls, or visits to schools located in close proximity to UNITE sites could target socially or economically disadvantaged students).

1.2. The Recipient will be required to print, order, and ship a variety of AEOP promotional materials (pamphlets, posters, pins, Frisbees, t-shirts, notebooks, etc) to the government for various career fairs and educational programs. Calendar of events for which materials are needed and a list of materials will be provided at the beginning of each fiscal year.

1.3. Program Transition Expectations:

Recipient will begin coordinating with AEOP website administrator to update program information. Recipient will also be prepared to begin ordering marketing and promotional materials as stated in section 1.2.

2. DATA COLLECTION/METRICS

One entity should be proposed to be the Lead Organization (LO) and this organization will be responsible for managing the YS COA's efforts in data collection and metrics, in close collaboration with the Government. This entity must have expertise in program evaluation, data collection, and reporting. The AEOP website will be the primary method of data collection on student participants. The consortium is responsible for assuring that complete and accurate data from their program(s) are input into AEOP. In addition to the student information collected in the AEOP website, the LO must collect quantitative and qualitative data from students, teachers, mentors, and other participants in their individual program(s).

The Army is interested in measuring the effectiveness of its AEOPs, in an effort to identify areas of potential growth/improvement and to justify future funding. The LO will collaborate with the CAM to develop specific objectives for data collection. The LO will promptly provide metrics to the CAM, upon request. The LO will also be prepared to make periodic recommendations for adjustments to programs (i.e. funding distribution, administrative processes, scope, etc) based on metrics collected. These recommendations will be considered when the government and recipient make decisions about the evolution of the Youth Science COA.

Program Transition Expectations:

Recipient will begin coordination with AEOP website administrator upon award and begin the process of training all consortium members on use of AEOP website to gather student data for programs, assure all members have required ethics/privacy training prior to accessing AEOP databases, and be sure all members are given usernames/passwords for their programs.

3. RESEARCH AND APPRENTICESHIP PROGRAM (REAP)

Background Information:

In 1980, the ARO established the Research and Engineering Apprenticeship Program (REAP) for high school students to help ensure the availability of personnel with a high degree of orientation towards science and engineering. The objectives of the program are to provide socially and economically disadvantaged high school students the opportunity to attend US colleges and universities in their communities during the summer months, to spend at least 200 hours in university research laboratories, and to obtain hands-on experience in science and engineering. The long range objectives of the REAP are to encourage the students to continue their education beyond the high school level by attending US colleges and universities, to obtain degrees in science, engineering and mathematics and to seek careers in these fields.

REAP funds cover (i) guidance and instruction to the students by the participating college and university faculty members (mentors) and (ii) financial assistance in the form of an education stipend to the selected

students during the summer months. Students apply through the AEOP website and applications are initially screened based on the evaluation criteria. The recipient then identifies the top applicants, identifies potential host universities in the student's geographical area, pairs the two, and awards funds to the host university.

At least 85% of the funds will be allocated by the recipient directly to the host academic organizations (and thus, they will be subrecipients under the cooperative agreement.) Host academic organizations will use at least half of the funds received from the recipient to pay student stipends (primarily for travel, living expenses, and for needed text books and study materials). The host academic organizations will use the remaining funds for laboratory supplies, instructional books, etc. to support the student research. The host academic organizations are responsible for providing the administrative management, facilities, support effort and mentors for the selected students who conduct the research efforts.

3.1. In execution of the REAP, the recipient will in collaboration with the Government:

- Collect all student applications through the AEOP website. Students who cannot apply online should be provided with alternative application option. In the case of paper applications, recipient should manually input student information into AEOP, for data collection purposes. Selection of applicants should be done by recipient, in coordination with the CAM. Top applicants will be identified based on the established selection criteria. It is the responsibility of the Recipient to notify all applicants not selected and provide information about other programs applicants may want to explore.
- Recipient must establish a standard set of selection criteria for students, in coordination with the CAM.
- The recipient will then begin identifying REAP host universities based on the location of student applicants selected and facilitate placement of student. Recipient will send out a call for proposals from potential REAP host universities in the geographical areas corresponding with the selected students' locations. Proposals should describe the research experience to be provided to the student. In coordination with the CAM, a set of standard selection criteria will be established by which all REAP host university proposals will be evaluated.
- Recipient will coordinate with selected REAP host universities to award funds and select start/end dates. Consideration should be given to all institutions who submit proposals. Evaluation of the REAP host university applications and selecting those that can provide the best opportunity to ensure program goals is an inherent part of the recipient's responsibility. Funding negotiations will be handled by the recipient. However, CAM must approve final selection of REAP host universities and students prior to award/placement.
- The Recipient will build and maintain a database of academic and research institutions capable of being REAP host universities. Since students from throughout the country will be applying, database will be constantly grown and updated to assure the top student applicants can be placed in a lab, with minimal constraints due to location. The CAM will provide an existing list of REAP host university contacts, to help start the process.

3. 2. Program Transition Expectations:

The active REAP grant expires on 30 October 2010. Recipient will begin work on 2011 REAP cycle at the time active grant expires. On 1 November, recipient will identify mentors as described above. Recipient will also begin collecting/reviewing student applications through the AEOP website at that time.

4. SCIENCE AND ENGINEERING APPRENTICESHIP PROGRAM and the COLLEGE QUALIFIED LEADERS (SEAP and CQL, respectively)

Background Information:

Begun officially in 1980, the Science and Engineering Apprentice Program (SEAP) is an eight-week summer program for exceptionally qualified high school students. SEAP is designed so that students can apprentice in fields of their choice with experienced military scientists and engineers. This opportunity provides students with valuable experience needed to make informed career decisions. Students apprentice with their military research mentors on mutually agreed upon projects. At Army research facilities, the students apprentice in a professional laboratory setting and learn how their research can benefit the Army as well as the civilian community. Participants are awarded educational stipends.

The students contribute to the research of the laboratory while learning research techniques in the process. This "hands-on" experience gives students a broader view of their fields of interest and shows students what kind of work awaits them in their future career. The students also attend seminars and demonstrations to learn more about the inner workings of an Army research laboratory. At the end of the summer, the students prepare final reports and present their research at a final professional-format poster presentation.

College Qualified Leaders (CQL) offers interested continuing students from the SEAP program moving on to college and other undergraduate and graduate students the opportunity for a research internship and near-peer mentoring for the Gains in the Education of Mathematics and Science Program centered in a DoD laboratory. Internships are available year round, for the summer only, part-time or full-time. There is no deadline for applying and applications are accepted all year. Participants often publish their research with their mentors and research team. CQL students also learn the value of mentorship of younger students and lifelong learning through near-peer mentoring.

4.1. The Recipient will perform collaboratively with the Government:

- Science and Engineering Apprenticeship Program (SEAP), which annually places approximately 400 high school students in Army laboratories for research and development work during the summers;
- CQL, which allows college students to compete for full- and part-time participation, and cooperative internships throughout the school year and during the summer with participating Defense and U.S. Army laboratories.
- The basic objectives of these programs are:

- a. To establish a pool of students preparing for careers in science and engineering with a view toward potential civilian or uniformed federal service or employment in the private sector.
- b. To provide students with opportunities in and exposure to scientific and engineering practice and personnel not normally available in a school environment.
- c. To prepare these students to serve as positive role models for their peers and younger students, thereby encouraging junior and senior high school students to take more science and mathematics courses.
- d. To involve a larger percentage of students from currently under-represented segments of our population – socially and economically disadvantaged groups – in potential science and engineering careers.
- e. To acquaint qualified high school students with the activities of the Department of Defense in-house laboratories through summer research and engineering experiences.
- f. To permit the continued mentorship experience and productive laboratory association of outstanding students during their college years and to enhance the research laboratory with undergraduate and graduate student participants who did not participate previously through SEAP but who would benefit from research internships.
- g. Through near-peer mentorship, to identify and encourage academically promising students at the junior high school level who might not otherwise choose courses of study needed to undertake careers in science and engineering.
- h. To strengthen the teaching of science and mathematics in high school by updating selected teachers and preparing them to be centers of influence for the apprenticeship program.

4.2. The Recipient will execute SEAP and CQL programs described above on a continuous basis, consistent with its long history. The recipient must also provide related assistance to the CAM, so the CAM can respond to data requests regarding these programs in the time sensitive environment. Data calls may include information about level of participation, populations reached, effectiveness of programs, program costs, etc. The Recipient will coordinate and execute the following critical pieces of the SEAP and CQL program:

- **SOLICITATION OF QUALIFIED CANDIDATES.** The Recipient will advertise the program to perspective applicants through the public/private school systems. SEAP and CQL will be advertised in accordance with the following instructions:

Program materials will be designed in collaboration with the Government (building off of existing templates), and disseminated through websites and through paper distributions to all local high school principals, science and mathematics department chairpersons and teams, and superintendents of schools in the National Capital Area and in other areas where DoD and Army laboratories exist for participation by such students. Dissemination, by all available means, will include public, private, and parochial schools in the area surrounding each laboratory facility. Additional sources of publicity may be utilized (i.e. science fairs, conferences, professional organizations, etc.) upon discussion with the ARO. SEAP participants will also be informed of the CQL program during their SEAP tenure. Potential mentors will be encouraged to use their contacts at local universities to create a pool of eligible college students to apply to the USAEOP website.

- **GUIDANCE TO ASSIST APPLICANTS AND LABORATORIES/FACILITIES.** The Recipient will assist applicants, as needed, in applying through the AEOP website, for review by recipient

and then laboratory mentors. When needed, recipient should provide the necessary forms for applicants, assist in completing the necessary forms, and input those applications into the AEOP website. The Recipient must develop or already possess familiarity with the programs and personnel at participating DoD laboratories/facilities in order to provide assistance to qualified applicants and laboratory mentors. Additionally, the recipient must be familiar with the geography of the National Capital Region and the areas surrounding participating laboratories to match applicants with alternate convenient laboratories/facilities.

SELECTION OF PARTICIPANTS (DISSEMINATING APPLICATIONS TO THE LABS, ARRANGING MENTOR INTERVIEWS, AND NOTIFYING PARTICIPANTS). The Recipient will review and forward SEAP and CQL applications. Military mentors will make final selection of participants for the research oriented programs, SEAP and CQL. The Recipient will notify applicants and CAM of actions taken by the Recipient, laboratory mentors, and laboratory science education program directors and will aid in the solicitation of funds transfer and accounting of funds from the participating government laboratories/facilities. Since dollars are shaved out of the gaining laboratory's research budget for individual participants, it is critical that the Recipient maintain accurate accounting records of all funds received, amounts of all student payments, and remaining balances from each lab. This will be compared to the accounting records of the CAM and the individual labs periodically, to check for accuracy. All participants must be U.S. Citizens or foreign nationals with a J-1 visa classification or permanent residency status in the United States. The J-1 classification (exchange visitors) are authorized for those who intend to participate in an approved program for the purpose of teaching, instructing or lecturing, studying, observing, conducting research, consulting, demonstrating special skills, receiving training, or to receive graduate medical education or training. This requirement is due to the security requirements for work in and access to DoD laboratories, facilities, and equipment. Personnel having access to unclassified Defense information and accessing Government computer systems under this award may be subjected to, as a minimum, a National Agency Check (NAC). The appropriate security investigation for this access will be conducted by the Government at time of award and/or upon notification by the Recipient for personnel changes. The Recipient will perform the following functions:

- a. The recipient will review and sort the applications from high school students and college students based on scientific areas of interest, geographical location, courses taken, grades achieved, scores on national standardized tests, and teacher recommendations.
 - b. The recipient will collect and review the student request forms submitted by prospective volunteer mentors at the various DoD laboratories. The student request forms delineate each proposed project, student tasks, and the background desired.
 - c. The recipient will match the applications of qualified students with the prospective volunteer mentor project requirements. The recipient will arrange an orientation session for mentors as soon as practicable after the closing date for receipt of applications. The recipient will facilitate the transmission of completed student applications to each laboratory and aid in conducting the orientation sessions to select suitable applicants for apprentice interviews. The recipient will both inform lab personnel about the philosophy, rules, and goals of the program, and assist in the development of schedule for laboratory mentors to select the participant who will perform research at the participating laboratory.
- **PAYING OF STIPENDS AND BENEFITS TO PARTICIPANTS.** The Recipient will be responsible for all stipends and benefit payments to participants.

Students spend eight weeks in the summer at the DoD laboratory/facility. The students are given a stipend. The amounts of the payments will be determined by SEAP working group with input from the CAM. The Recipient will provide the appropriate stipend with increases added when appropriate, for each additional year that the student participates. The pay scales for such students will be reasonably aligned with the GS pay schedule and will be published annually. These guidelines are especially important for college participants. The recipient must ensure a timely payment of all student stipends.

- **MAINTENANCE OF PARTICIPANT DATABASE.** The recipient will inherit the existing AEOP website database for SEAP and CQL. The Recipient will solicit, receive and maintain program evaluation forms, participant data (to include funding), and student reports. The student reports must be evaluated for publication, publicity, and nomination for laboratory awards.
- **PROVISION FOR SYMPOSIA, SEMINARS, AND OPENING/CLOSING GENERAL SESSIONS.** The Recipient will aid Army program directors in conducting an opening orientation session, closing general session, symposia, field trips, laboratory coordinators working meeting, etc., as appropriate.

4.3. Program Transition Expectations:

The existing SEAP/CQL grant expires on 30 Sep 2010. Recipient will immediately begin coordinating with CAM, SEAP COs (individuals identified at each participating military lab as the point of contact for SEAP and CQL), and existing SEAP grant holder to learn SEAP/CQL program and plan transition of responsibility. Recipient must be prepared to begin cutting first round of student checks by 1 Sep 2010. In order to do so, recipient will receive list of current SEAP/CQL students, hours worked, and stipend amounts needed, from CAM. Recipient will need access to AEOP website database, to begin student identification/placement process.

5. GAINS IN THE EDUCATION OF MATHEMATICS AND SCIENCE (GEMS)

Background: Gains in the Education of Mathematics and Science (GEMS) is a program that allows students an opportunity to participate in a paid internship over the summer in an Army Laboratory learning the real life application of science, technology, engineering and mathematics. These opportunities are unique depending on the laboratory.

5.1 The Recipient will execute the GEMS program, in collaboration with the Government as follows:

- The Recipient will develop processes, application forms, guidelines, and evaluations for reporting student and mentor participation with the GEMS program across the following six (6) U.S. Army sites: (1) Army Research Laboratory in Aberdeen, MD (ARL-Aberdeen) (2) Army Research Laboratory in Adelphi, MD (ARL-Adelphi) (3) Army Research Laboratory in White Sands, NM (ARL-WS)(4) Aviation and Missile Research Development and Engineering Center in Huntsville, AL (AMRDEC) (5) Engineer Research and Development Center in Vicksburg, MS (ERDC) and (6) Walter Reed Army Institute of Research - Washington, DC (WRAIR). Dissemination to new sites will be encouraged from the Recipient of this award in coordination with the CAM.
- The Recipient will send program materials to the appropriate counselors and science teachers of public junior high/middle schools and high schools in the areas near each Army research laboratory with limited opportunities in science, technology, engineering and mathematics

training and experience for their students. The counselors/teachers will be encouraged to nominate students for participation in this program and encourage students to apply through the AEOP website. Students are also selected from local science fairs and are selected based on their interests and aptitude but not prior experience and opportunity.

- The recipient will make participant selections for all locations based on three criteria:
 - a. the student must be in the selected grade range;
 - b. the student will have demonstrated an interest and ability in science and mathematics; and
 - c. the student's parent or guardian must grant permission for the student to participate in GEMS.
- The recipient will provide compensation in the form of an educational stipend to GEMS students and teachers at each Army location within 3 days of notification from the Army that program requirements for students and teachers have been completed.

5.2 Program Transition Expectations:

GEMS is currently administered under two separate contracts. The WRAIR GEMS program contract expires on 30 Sep 2010. Recipient will be expected to immediately begin learning GEMS and planning transition of responsibility for WRAIR GEMS, so that recipient can accept funds, begin reviewing applications and placing students, and paying students by 31 October 2010. Recipient will be granted immediate access to AEOP website database. The other GEMS contract which includes ARL Adelphi, Aberdeen, ARL-WS, AMRDEC, and ERDC, expires 31 Dec 2010. Recipient is expected to begin transitioning prior to expiration and is expected to be prepared to begin administering GEMS on 1 January 2011.

6. ECYBERMISSION INTERNSHIP PROGRAM (ECIP)

Background: ECybermission Internship Program provides internships in university laboratories for 9th grade student winners of ECybermission. Mentors are identified at universities near each student by contacting colleges and universities in the areas near the selected students' residences, and are provided a stipend to provide a summer research experience in the university lab. A stipend is provided to the mentor to be split between the mentor and the student.

6.1. The Recipient will develop and execute the ECybermission Internship program in collaboration with the Government. For such, the recipient is expected to be involved in the following:

- The recipient will develop processes, application forms, guidelines, and evaluations for reporting student and mentor participation with the eCybermission Internship program.
- The recipient will develop a student participation policy for the eCybermission Internship program.
- The recipient in collaboration with the Government, will develop a mentor qualification and participation policy for the eCybermission Internship program.
- The recipient will identify 9th grade eCybermission national competition winners who are interested in summer internships.

- The recipient in collaboration with the Government, will identify and select college and university faculty mentors to provide quality summer internship experiences for eCybermission national winners.
- The recipient will facilitate the placement of eCybermission national winners into Internships with college and university mentors.
- The recipient will provide stipends to eCybermission Interns and faculty mentors within twenty-one (21) days of completing the internship requirements.
- The recipient will identify all participating eCybermission Interns and college and university mentors by 15 July of each option year.

6.2. Program Transition Expectations:

Existing grant expires on 31 December 2010. Recipient will begin administering E-Cybermission Internship Program on 1 January 2011.

7. ARL COLLEGE STUDENT/UNIVERSITY FACULTY INTERNSHIP PROGRAM

Background: This internship program provides opportunities for students and faculty at educational partner institutions and attendees to ARL supported career fairs to have an in-house research experience at one of ARL's six technical laboratories. Individuals participating in this program will experience cutting edge research, work in state of the art facilities, and collaborate with world class scientists and engineers to develop innovative technologies that support the war fighter.

7.1. The Recipient will develop and execute the ARL College Student/University Faculty Internship Program in collaboration with the Government, which is expected to include the following:

- The recipient will develop processes for facilitating summer students and/or faculty internships across both ARL sites (Aberdeen Proving Ground and Adelphi Laboratory Center).
- The recipient will provide a stipend to the student and faculty interns at each location on a bi-weekly basis during the summer internship experience.
- The recipient will develop a student/faculty participation policy for the summer internship program.

The recipient will conduct as a minimum two (2) professional development workshops for student and/or faculty interns at both ARL sites. The workshops will be designed to enhance the summer students experience at ARL by providing classroom style seminars that focus on the development of skills required to be successful in a high performing organization. Workshop topics will be selected based on input from principal investigators and supervisors and are conducted at ALC and APG. The curriculum will vary from year to year depending on need. Currently, several topics including leadership, procrastination, technical writing, communication skills, and ethics have been covered in the workshops.

- The recipient will identify all participating college students/university faculty interns by 15 July of each performance year.

7.2. Program Transition Expectations:

Existing grant expires on 31 December 2010. Recipient will begin administering ARL College Student/University Faculty Internship Program on 1 January 2011.

8. TEACH THE TEACHER PROGRAM

Background: The ARL teach the teacher program is designed to improve the quality of physical science instruction at the middle, and high school level. Teachers will be provided with access to high quality curricula materials in addition to current state of knowledge in areas e.g., physics, chemistry, and electronics through a series of in-service professional development programs designed to assist them in developing creative integration strategies that bring wonder, discovery and exploration into their classrooms. These strategies will ultimately remove the fear of teaching science. Most importantly, the program is designed to enhance middle and high school student's understanding of and appreciation for the importance of science and technology to our nation.

8.1. The Recipient will develop and execute the Teach the Teacher Program in collaboration with the Government, which is expected to include the following:

- The recipient will develop processes for reporting student and teacher participation with the Teach the Teacher program across the following ARL sites: (1) Aberdeen Proving Ground in Aberdeen, MD, and (2) Adelphi Laboratory Center in Adelphi, MD.
- The recipient will provide agreed upon stipend for teachers and administrators at both locations within 21 days of notification from the ARL Local Program Manager (LPM) that all program requirements have been completed.

The recipient will develop and implement a training program for teachers. This training program will focus on providing teachers with a more relevant, hands-on approach to teaching math and science. Curricula will be determined by ARL researchers based on technologies important to the organizational mission. Principal Investigators collaborate with teachers at ARL facilities and in classrooms to improve the quality of STEM instruction in local schools. Courses and topics will change over time based on where future technological emphasis will be placed.

- The recipient will conduct teacher training at both ARL facilities (Aberdeen Proving Ground, MD and Adelphi, MD) or within local schools. The ARL Outreach Director will decide which teachers and ARL facilities are selected.

8.2. Program Transition Expectations:

Existing grant expires on 31 December 2010. Recipient will begin administering Teach the Teacher Program on 1 January 2011.

9. JUNIOR SOLAR SPRINT (JSS)

Background: Junior Solar Sprint (JSS) is a middle school-level interdisciplinary science and engineering program. It develops students' knowledge and skills in science and engineering and builds enthusiasm for science, engineering, and mathematics in students at an age when children are both impressionable and inspired by creative exploration. In brief, the Junior Solar Sprint program challenges teams of middle school youth to design, build, and compete with small cars which can either be run entirely on solar power through photovoltaic cells, or indoors on batteries. This highly successful program has proven to get youth excited and exposed to several fundamental science and engineering concepts and processes during their formative middle school years.

9.1. The Recipient will develop and execute JSS in collaboration with the Government, which is expected to include the following:

- The recipient will support student-inspired, inquiry-based experiments to investigate design and construction of photovoltaic-powered vehicles.
- The recipient will organize and facilitate professional development workshops for teachers throughout the Northeast to provide educators with training to nurture students in deepening their understanding about solar energy, math, physical science, and craftsmanship.
- The recipient will support and train area and state event coordinators to host JSS competitions, and organize, promote, and run the end-of-year Northeast Junior Solar Sprint Championship, to excite the innovative edge in students through peer and professional review.
- The recipient will develop and implement strategy to assure all student participants register/apply through the AEOP website.
- The recipient will develop and implement strategy to facilitate transition of students from JSS to other AEOPs.

9.2. Program Transition Expectations:

Existing JSS grant expires on 30 September 2010. Recipient will begin administration of JSS upon expiration of current grant, with the identification, training, and funding of area and state events.

10. INTEL-INTERNATIONAL SCIENCE AND ENGINEERING FAIR (ISEF)

Background: Since 1960, the Department of the Army, through the U.S. Army Research Office (ARO), has sponsored special awards in the nationwide High School level Science and Engineering Fairs as a means to stimulate and encourage the future technical development of our nation's youth. Army representatives participate in ISEF Affiliated Science and Engineering Fairs at the Regional (approximately 300 fairs), State (approximately 50 fairs), and International level (1 fair held annually), by judging student projects and awarding Special Army Awards. At the regional level, those awards include 15 Certificates of Achievement, 5 tangible awards (polo shirts, book bags, etc), and 1 Bronze US Army Science Fair Medallion. At the state level, awards include 15 Certificates of Achievement, 5 US Savings Bonds (4 \$50 bonds, 1 \$100 bond), and 1 Silver US Army Science Fair Medallion. At the international level, awards include 23 framed Certificates of Achievement, 23 Gold US Army Science Fair Medallions, and 21 \$3,000 US Savings Bonds.

10.1. The Recipient will develop and execute ISEF in collaboration with the Government, which is expected to include the following:

- The recipient will build and maintain a list of ISEF affiliated Regional and State Science and Engineering Fairs who wish to receive Army support and Army special awards, through the AEOP website. <http://www.usaeop.com/programs/ISEF/index.htm> Recipient will provide an annual report NLT 30 September of all Army support of science and engineering fairs.
- The Recipient will be responsible for the purchase and distribution of all Army awards to the Regional, State, and International level fairs on behalf of the US Army. Awards will be clearly marked as being from the US Army. This includes purchase of savings bonds for student winners at the State and International Level. Any changes to the standard list of Army awards should be approved by the Army Research Office program manager/CAM prior to order and distribution.
- The Recipient will maintain an accurate database of Army Points of Contact (POC) located throughout the US who support local fairs as Army judges and/or presenters of Army awards. An existing database will be provided with some already active Army POCs. Recipient should work with ARO PM to expand the existing list of POCs, as needed. Recipient will coordinate to have at least one US Army POC at any Science and Engineering Fair where Army awards are provided. Recipient will identify an Army POC and request their support of their local Regional or State fair. Recipient will also provide the Army POC with suggested judging criteria and AEOP information cards (to be distributed to students).
- The recipient will coordinate with CAM to select and reserve hotel for Army Judges to stay during ISEF.

10.2. Program Transition Expectations:

2010 ISEF efforts will be done by CAM at ARO. Recipient will begin working with CAM on ISEF work effort transition in 01 October 2010, and will be responsible for entire ISEF work effort described above, at that time.

11. JUNIOR SCIENCE AND HUMANITIES SYMPOSIUM

Background Information:

The Junior Science and Humanities Symposia (JSHS) Program promotes original research and experimentation in the sciences, engineering, and mathematics at the high school level and publicly recognizes students for outstanding achievement. By connecting talented students, their teachers, and research professionals at the academic hosts of the regional symposia and by rewarding research excellence, JSHS aims to widen the pool of trained talent prepared to conduct research and development vital to our nation. Students participate first in one of 48 regional symposia held throughout the United States, Puerto Rico, and in cooperation with the Department of Defense Dependents Schools of Europe and the Pacific. Each regional symposium is administered by a university or another approved educational institution. Top student winners from each of the regions then compete at the National Competition.

11.1. The Recipient will execute in collaboration with the Government, the Junior Science and Humanities Symposia (JSHS), including the subprograms listed below. As a minimum, the administrative office will perform the following functions:

- Identify academic organizations capable of conducting the regional JSHS symposia and provide funds to operate regional symposia, in coordination with the CAM
- Assure that academic organizations selected to perform the individual JSHS regional symposia possess sufficient knowledge and experience to organize and administer a scientific symposium for high school students and teachers that all host academic organizations conduct regional symposia to include a set of minimum standards (listed below), and that costs proposed are commensurate with the effort to be performed.

11.2. JSHS Subprograms. The recipient will execute the JSHS programs in collaboration with the Government as follows:

- **Regional JSHS.** This is the primary part of the JSHS program and currently consists of forty-eight scientific meetings (i.e. Regional Symposia) annually. High school students present original research and compete for scholarships and awards. Teachers, university researchers, and military personnel attend as mentors, judges, and guest speakers. These meetings are conducted at varying times during the year beginning in September and continuing through April of the next year. The recipient will assist the academic organizations in arranging the transportation, food, lodging, speakers, etc. for the individuals attending the various symposia.

The recipient in collaboration with the Government, will provide advice and guidance to the host academic organizations to assure all regional symposia are being conducted in a manner that meets the minimum standards, outlined below. The recipient will train new regional symposia directors on the JSHS program and requirements for all regions. Some minimum standards are expected of all Regional Symposia:

- 9-12 grade high school students who engage in research will be invited to submit articles/reports on their research.
- Information about the regional symposium will be provided to principals, assistant principals, teachers, and students throughout the area of responsibility.
- Gather university and military reviewers (professional researchers and/or educators) to read papers and select students who will present their work orally at the regional symposium. Those students not selected to present will be invited to present posters at the regional symposium (it is up to each region to determine if poster sessions will be competitive or noncompetitive).
- University faculty and military researchers will be invited to serve as judges during the regional symposium.
- Judges will be trained prior to symposium on their roles and responsibilities. Training can be done electronically.
- Categories of competition for regional symposium will closely align with the national JSHS categories of competition (life sciences, medicine and health, behavioral sciences, earth and space, environmental sciences, physical sciences, engineering, mathematics and computer sciences).
- There will be significant military presence at the regional symposium. Military color guard will be invited to post colors at awards ceremony. Military representative will be invited to be on stage during presentation of scholarship awards to students. Military

research/technology will be highlighted somewhere in the program (i.e. military or military-affiliated lab tour/fieldtrip, military STEM professional as speaker or career round table host).

- Accept nominations for the Teacher's Award Program and select the teacher who will win \$500 cash award for their contributions to science education.
- Submit student and teacher winners by close of business on the 10th day following the regional symposium, so payment can be made accordingly.

In addition, the recipient will advertise and distribute program materials to the various host academic organizations about the Regional JSHS and qualifications for student participants. The recipient will assure that program materials distributed to the host academic organizations will indicate the following categories of competition for students: (1) Earth and Space; (2) Environmental Science; (3) Life Science; (4) Medicine and Health; (5) Behavioral and Social Science; (6) Physical Science; (7) Engineering/Technology and (8) Mathematics/Information/Computer Science.

Recipient will establish a Regional Director's Executive Council (RDEC), which will consist of a sampling of Regional JSHS Directors (elected by their regional director peers annually), a sampling of high school teachers involved in JSHS, a representative from the Recipient's organization, and one representative from each of the three sponsoring military services. The RDEC meetings will provide a forum for open communication between the JSHS Regions, the recipient, and the government, for the purpose of understanding challenges faced by the regions, increasing collaboration and communication between regions, and improving the quality of the regional symposia.

- **National JSHS.** This meeting will be held annually and will be attended by selected high school students and regional directors/teachers from each regional symposium. Attending the meeting will be five students plus one director or designated representative from each region (approximately 300 attendees). All National symposia will include both the formal scholarship competition and a poster presentation session for those students attending as delegates. This symposium normally will be held during the last week of April or the first week of May each year for 5 days (travel inclusive). The site will alternate from selected Army, Navy or Air Force institutions or university campuses, in coordination with the CAM. The recipient will be responsible for providing transportation and lodging for the participants attending from all 48 regions.

The Government will jointly develop the National JSHS agenda with the Recipient. The recipient and the Government will jointly select the principal speakers for the National Symposium. CAM will work closely with Recipient to provide opportunities for top student winners to attend the Army Science Conference and make connections with Army mentors in their field of study.

- **Scholarships.** The recipient will administer the scholarship program from both the Regional and National JSHS programs. The Regions submit student scholarship winner information to the recipient. The recipient will then pay all student scholarships and monetary awards directly to the student or teacher winners. Funds are not filtered through the regions to pay out any awards. There are 134 scholarships at the regional level totaling \$4,500 for each of 48 regions, annually. Award recipients who advance to the National compete for 24 scholarships (8 1st place winners of \$12,000 each; 8 2nd place winners of \$8,000 each; and 8 3rd place winners of \$4,000 each) at this higher level. The recipient will determine eligibility of recipients and payment of each

scholarship to the student's chosen institution. Eligibility includes, but is not limited to, full-time enrollment in an accredited institution; citizenship status, maintenance of acceptable GPA, and students remaining enrolled in a STEM discipline, etc. Additionally, scholarship funding will be provided on a yearly as needed basis and information about other relevant Army STEM opportunities should be included with the award. Currently, scholarships are distributed over a 4 year period to allow for continued contact with students and assure they remain in STEM majors (i.e. 1st place winners receive \$12,000 total, in \$3,000 increments over a 4 year period). The current scholarship amounts and distribution schedule can be modified with the written approval of the CAM.

- ***Teachers' Award Program.*** This program is designed to recognize the efforts of one teacher at each JSHS regional symposium for their contributions to science education. In collaboration with the RDEC and Government, recipient will develop standard selection process for all teacher awards. Once the recipient receives the information about the winning teacher from each regional symposium, the recipient will issue a \$500 check to be presented to the school and teacher to buy scientific equipment or books for use in the science department, in consultation with the CAM. CAM will provide official letters of recognition from the military to accompany all teacher award checks. Additionally, funding up to \$500 can be requested by the regional winners' teacher to supplement the costs of their attendance at National Symposium in the event they are not the designated representative, in consultation with the CAM.
- ***London International Youth Science Forum (LIYSF).*** The recipient will coordinate and fund the travel of the eight first place student winners from the National JSHS Symposium and one adult chaperone to London for the annual international scientific forum. LIYSF is a two week event held annually in July.
- ***School Award Program.*** This program is designed to recognize the efforts of one school at each JSHS regional symposium for their contributions to science education. Students should be given the opportunity to nominate their school at the regional symposia. Winning schools will be chosen by a selection panel formed by the Regional Director. Once selected, school information will be forwarded to the recipient. The recipient will purchase trophies for each school and distribute to the Regional Directors for presentation to the winning schools. CAM must approve trophy design prior to purchase. When possible, Military representative from local area should be involved in presentation of award to school. CAM can assist in locating military personnel available to present award for each region.
- ***International Mathematical Olympiad (IMO).*** The twelve top scoring United States of America Mathematics Olympiad (USAMO) students are invited to a two day Olympiad Awards Ceremony in Washington, DC sponsored by the Mathematical Association of America (MAA), the Akamai Foundation, the Microsoft Corporation and the Matilda Wilson Foundation. Six of these twelve students will be identified at the awards ceremony to comprise the United States team that competes each summer in the International Mathematical Olympiad (IMO). The US Army pays for the US team of 6 students and 2 team leaders to travel to and compete in the IMO annually. The Recipient is responsible only for providing Army funds to American Mathematics Competitions (AMC) upon request. No involvement is needed in selection of students, presentation of awards, or coordination of travel. Recipient will be contacted by AMC, the organizers of the annual trip, to request funds. IMO should not exceed \$10,000 annually.

11.3. Program Transition Expectations:

The existing JSBS grant expires 31 October 2010. It covers the entire 2010 JSBS program: regional symposia, national symposium, scholarships, teachers' award program, LIYSF, school award program, and IMO. Recipient is expected to begin preparation for the 2011 JSBS program in 01 September 2010, including regional symposia, national symposium, scholarships, teachers' award program, LIYSF, school award program, and IMO.

12. UNITE

Background Information:

UNITE aims to promote careers in engineering and technology at the high school level by providing high school students access to academic enrichment courses on college campuses. UNITE is designed to support socially and economically disadvantaged high school students. UNITE encourages high school students to pursue a college education in Engineering. UNITE prepares high school students for college by having them attend summer classes on a college campus, which is comparable to the academic experience of a first-year college or university student. Currently, there are nine UNITE sites serving approximately 40 students each. Many sites supplement Army funding with funds from their university or other organizations. Army funds are distributed to each of the universities hosting a UNITE site through the recipient.

12.1. In development and execution of the UNITE program, the recipient, in collaboration with the Government, will:

- Review proposals (technical/program and cost) from each site each year to determine which universities will provide the best quality UNITE experience for students;
- Coordinate with the selected sites for program set-up, compliance with requirements, and correspond with students relative to achievement;
- Assure that each program site operates an educational program that encourages and assists socially and/or economically disadvantaged high school students. The recipient may recommend changes to the current sites. However, the recipient must coordinate any planned UNITE site changes with the CAM;
- Approve the marketing materials designed by the local UNITE sites prior to use. Marketing efforts done by individual UNITE sites must seek to identify talented high school students who show an aptitude for math and science subjects. Students identified by the local sites should be directed to apply through the AEOP website for consideration. The UNITE program is designed for students living within the general local area rather than to support students regardless of area location;
- Visit the sites and evaluate the programs: sit in on classes; review the curriculum materials and course content; meet and discuss the program with students, faculty and the program administrator; provide written input regarding areas that the evaluator believes can be strengthened. CAM will also conduct periodic site visits, so recipient will coordinate all site visits with the CAM, to assure no duplication of efforts. A visit to each site every year is not required.
- Submit a comprehensive summary report of all program activities from each site annually. At a minimum, the report must include: number of student participants by school, student demographics and student grade level. Additionally, the recipient must assure that each site submits the following on their respective program: goals, criteria for admission, program curricula, promotion/marketing techniques, budget and historical program data.

- Establish criteria used in evaluation and selection of participants, in coordination with the CAM. Initial selection of applicants should be done by recipient. Once applicant pool has been screened/reduced based on initial criteria, applications should be forwarded to individual sites for final selections. It is the responsibility of the recipient to notify all participants not selected. Recipient should provide those students information about any other AEOP programs of potential interest and when possible, should facilitate in the transition of students from UNITE to another AEOP.

12.2. Additionally, the recipient is responsible for assuring that each site administrator incorporates the following into their program:

- Seek and encourage high school students who are considered to be socially and/or economically disadvantaged and encourage them to apply through AEOP website to participate in college structured summer science, mathematics and engineering courses.
- Provide an academic setting at a level that is appropriate for the grade level of the students and is correlated to the academic skills needed for success in a college of engineering.
- Provide a generally hands-on program in which the primary focus is on rigorous classroom instruction either taught by carefully selected high school teachers or college professors.
- Be formally linked with a pre/post-UNITE continuing academic and support experience. This ensures that the students are not participating in a “one-time” experience.
- Provide continuity, in that once a student enters UNITE they are constantly evaluated and it is likely that the student, assuming they maintain the standards necessary will participate in two or more summer UNITE experiences during their four year high school career.
- In collaboration with the Government, host an ‘Army Day’ which should include Army ROTC and an Army Engineer speaker at each site, and visit an Army (or other service) research institute to experience what capacities the U.S. military employs engineers. Students should also be educated on what other AEOP/DoD programs may be available to them in High School and College to continue their enrichment in STEM.

12.3. Program Transition Expectations:

Current UNITE grant expires on 30 September 2010. Recipient will be expected begin work upon expiration of current grant by soliciting proposals from all universities interested in hosting a UNITE site, selecting best proposals, and awarding funds, as described above.

C. FUNDING

Table 1 presents the estimated funding for Cooperative Agreement over the projected period of performance. The projected funding includes all costs associated with the Cooperative Agreement. Table 2 presents the approximate percent of funds currently allocated to individual programs. This should be used as a guide when developing a proposal. The amounts are only intended as guidelines, and do not have to be adhered to strictly.

Table 1. Anticipated COA Funding

First Year	\$5,740,000
Second Year	\$5,740,000
Third Year	\$5,740,000
Three Year Award Total	\$17,220,000

Table 2. Approximate allocation of funds among programs

JSHS	28%
REAP	4%
GEMS	5%
JSS	2%
UNITE	5%
SEAP/CQL?	32%
AEOP MARKETING MATERIALS	3 %
ARL PROGRAMS (Teach the Teacher and ARL Internships)	2%
ISEF	1%
ECYBERMISSION INTERNSHIPS PROG	2%
MANAGEMENT/MARKETING	16%

D. PROGRAM PAYMENTS AND TRANSITION SCHEDULE

Table 1. Payment Types and Timing Requirements

Programs	Payment Type	Payment Timing Requirements
SEAP	Two student stipend payments	Mid-point and End of Apprenticeship
CQL	Monthly student stipend payments	1 st of each month
GEMS	One-time student stipend payments made on last day of week-long program	Cut check within 3 days of submission of participant names
eCybermission Internship Program	One-time stipend payments	Cut check within 21 days of submission of participant names
ARL College Student/Faculty Intern	Bi-weekly stipend payments	Cut checks bi-weekly for duration of summer program
Teach the Teacher	One-time stipend payments	Cut check within 21 days of submission of participant names

Table 2. Program Transition Schedule

Component	Current Grant Expiration	Begin Work Under COA
Marketing	N/A	Immediately Upon Award
Data Collection/Metrics	N/A	Immediately Upon Award
REAP	30 Oct 2010	1 Nov 2010
SEAP/CQL	30 Sep 2010	1 Sep 2010
GEMS (WRAIR)	30 Sep 2010	1 Sep 2010
GEMS (All Others)	31 Dec 2010	1 Jan 2011
eCybermission Internship Program	31 Dec 2010	1 Jan 2011
ARL College Student/Faculty Intern	31 Dec 2010	1 Jan 2011
Teach the Teacher	31 Dec 2010	1 Jan 2011
JSS	30 Sep 2010	1 Oct 2010
ISEF	N/A	1 Oct 2010
JSHS	31 Oct 2010	1 Sep 2010
UNITE	30 Sep 2010	1 Oct 2010

E. MANAGEMENT

1. Background

It is critical that the Consortium be structured and managed to partner and foster an open, collaborative environment in which each member of the Consortium is an equal and to facilitate the core objectives of STEM Outreach. This section describes a framework for the organization of the Consortium. The framework is sparse and flexible to minimize overhead yet insure relevance and proper oversight. Offerors can suggest additional management tools and mechanisms as part of the proposal, but in doing so they must also justify and demonstrate the benefit and cost effectiveness of these additional management activities. General expectation is for a Lead Organization (LO) to assemble a qualified team of organizations, with expertise in the areas of interest described in this announcement, to be members of the consortium. These members can be industrial, not-for-profit or academic institutions. The LO is to propose a consortium structure that will seamlessly integrate programs in a way that best creates collaboration, creativity, synergy, and ultimately achieves the core objectives established by the Army for the YS COA.

2. Overall Management Concept

At the request of the Consortium and at the discretion of the US Army, additional programs and/or STEM Educational Outreach oriented organizations may be added to or removed from COA, in an effort to further advance the YS COA towards meeting the core objectives outlined.

The Agreement will strive for a focused, yet flexible environment. To accomplish this the Government proposes that the consortium consist of a small number of academic, not-for-profit, and industrial organizations, possessing significant expertise related to one or more of the fundamental programs

covered by the COA. The areas of responsibility of each organization will be designated in a way that maximizes efficiency and collaboration among/between programs. It will be led by a single organization, the Lead Organization (LO), with the ability to ensure all programs under the COA are focused on achieving the core objectives, previously mentioned. Each of these entities will be a full member of the COA and possess equal voting rights in accordance with the Articles of Collaboration.

3. Technical Guidance and Oversight

The following flexible framework is suggested for the management and oversight of the Agreement.

Cooperative Agreement Manager (CAM)

Overall technical management and fiscal responsibility for the YS COA will reside with the Cooperative Agreement Manager (CAM) designated under the cooperative agreement. All executables must be approved by the CAM.

Program Director (PD)

The YS COA PD is the Consortium's technical representative charged with the Consortium's overall responsibility for management and guidance of the cooperative agreement. The PD will be designated by the LO and be a member of that organization.

Individual Program Administrator (IPA)

The IPA is the primary point of contact designated for each of the fundamental programs and should communicate with the PD, LPM, and CAM as needed. It is acceptable for some IPAs to be responsible for multiple programs, depending on how the Consortium is formed and responsibility is divided.

Local Program Manager (LPM)

In a few cases, programs have site-specific government employees who provide management/oversight at their location. In these cases, that person is designated the LPM and will communicate directly with the IPA member that is executing his/her program(s). This communication will be coordinated through the CAM.

Cooperative Management Committee (CMC)

The YS COA will have a Cooperative Management Committee (CMC) that includes a representative from each member of the Consortium. The CAM participates as ex officio member in all discussions except those that deal with purely internal Consortium matters. The CMC will be chaired by the PD. Each Member will have one vote on the CMC to support programmatic and management-related activities and decisions. In the event of a tie, the LO will cast the deciding vote. The CMC will be responsible for the management and integration of the Consortium's efforts under the YS COA including programmatic, technical, reporting, financial, and administrative matters. The CMC makes recommendations that concern the membership of the Consortium, the definition of the tasks and goals of the participants, and the distribution of funding to the participants. Quarterly meetings will be conducted by the CMC.

4. Articles of Collaboration

The Articles of Collaboration define the operational structure within the Consortium. A sample for offerors to consider in formulating their proposals is provided on the ARL website.

5. Initial Program Plan (IPP) and Annual Program Plan (APP)

Within 90 days after award, the Consortium (through the CMC) and the Government will jointly prepare an Initial Program Plan (IPP) to cover the first 12 months of performance. The IPP will be based substantially on the final proposal received from the Consortium. The IPP will be accompanied by a three-year roadmap that describes the overall plan to be accomplished by the Consortium within the YS COA structure. The roadmap should provide a detailed description of a well-coordinated plan of program execution, focused on meeting all YS COA objectives outlined in the PA. It should provide approximate timelines, to the best possible extent for the various programs and activities. Eight months after award, the Consortium (through the CMC) and the Government will jointly prepare a proposed Annual Program Plan (APP) for the next fiscal year. The CAM will approve the APP and formally submit the approved APP to the Grants Officer for incorporation into the cooperative agreement. This process will continue through the life of the cooperative agreement. Each APP will cover a one-year timeframe, but may be altered, with the approval of the CAM and the Grants Officer, if work requirements change.

During the course of performance, if it appears that established goals will not be met, the CMC will provide a proposed adjustment to the APP for approval by the CAM. In addition, the CAM may from time to time request that additional programs be added to the APP within the scope of the cooperative agreement. The Consortium, as an entity, will not solicit or accept funding from outside sources without the approval of the CAM and the Grants Officer. During the course of performance, the Grants Officer, in coordination with the CAM, will have approval authority for certain specific changes to the IPP/APP including but not limited to:

- a. Changes in the scope or the objective of the program or IPP/APP;
- b. Change in the PD or IPAs specified in the IPP/APP;
- c. The need for additional Federal funding; and
- d. Any subaward, transfer, or contracting out of substantive program performance under an award, unless described in the IPP/APP.

During the course of performance, the Grants Officer, in coordination with the CAM, will have approval authority for certain specific changes to the cooperative agreement including, but not limited to:

- Changes to the Articles of Collaboration if such changes substantially alter the relationship of the parties as originally agreed upon;
- Solicitation or acceptance of funding under the agreement from outside sources; and
- Changes in Consortium membership.

6. Annual Program Review Conference

The Recipient will be responsible for participating with ARO in an Annual Program Review Conference to display and present the results of its previous year's achievements and describe plans for the next year. The Conference will foster interactions and collaborations among all consortium members and

government COA participants. Planning for the Conference will be executed through the PD and the CAM.

7. Evaluation for Three-Year Extension

The COA will be awarded for a three-year period beginning in FY10. There will be two options to extend the COA for additional three year periods. At the end of the third year, a program review will be conducted by ARO. This review will consider cumulative performance metrics, the Consortium's vision for the additional option periods (to be submitted by the Consortium at the end of the third year), funding availability and the current fundamental outreach needs and goals of the US Army. Performance metrics are expected to include items that provide an indication of the COA's accomplishments, such as successful integration of core objectives into all programs and processes, effective integration of AEOP website, collaboration of all organizations, success of marketing efforts, effectiveness of metrics and data collection, and management of COA. The decision as to whether to exercise the option is expected to be based on the results of the review and evaluation described above as well as continued funding availability.

8. Integration of Army Educational Outreach Program Website

All programs must incorporate the AEOP website in the registration or application process. This ensures Army and Recipient are able to collect accurate information about participation in programs and events.

9. Distribution of Funding

The CMC will distribute the funding for the fundamental programs to all members of the Consortium. Subawardee funding will be provided to the consortium member with whom the Subawardee has or will have a legal relationship.

10. Accounting

The LO will establish and maintain an adequate accounting system. This system will include adequate documentation for audit purposes to justify the reasonableness and allocability of costs for each program and task performed and for operation of the administrative program management office(s). Cost proposals will be prepared and submitted to the CAM for all programs.

LO will provide a quarterly Federal Financial Reports (SF 425) and, upon completion, a Final Report.

LO will provide an annual financial report to the CAM electronically. The report will summarize (a) by cost element the total funds programmed and expended during the year for the administrative management offices, (b) the funded and expended cost for each program, (c) by cost element the total funds programmed and expended during the year for any programs, including additional/supplemental funding received from other sources. This report will be due no later than 120 calendar days after the completion of each year.

11. Interim and Final Reports

The recipient will provide monthly performance reports to the CAM and LPMs for each program beginning 30 days after award of the COA. The performance report will be sent electronically, and will provide a general update on the progress of each of the programs. Recipient format for the report is acceptable.

The recipient will deliver (electronically and in hard copy) a final report to the CAM no later than 90 days following the conclusion of each year of performance. Recipient format for the reports is acceptable. All reports/documents must be marked with the distribution statement B, provided below.

DISTRIBUTION STATEMENT B: Distribution authorized to U.S. Government agencies only in order to protect information not owned by the U.S. Government and protected by a Recipient's "limited rights" statement, or received with the understanding that it not be routinely transmitted outside the U.S. Government. Other requests for this document will be referred to the Army Research Office, ATTN: RDRL-DO, A. Wade, Research Triangle Park, NC 27709-2211.

12. Transition of Students Between Programs

In collaboration with the Government, the recipient will formalize a process in which to transition student participants between/among DoD STEM programs/opportunities. Intent is to maximize student involvement in all relevant programs to assure students remain engaged in STEM long term. For example, a student participates in JSS until 9th grade, at which point she is encouraged to apply for a REAP apprentice position. Upon completion of her apprenticeship, she is encouraged by her REAP mentor to do an original research project her second year. She submits her finished research paper to her regional JSHS Symposium and is invited to present at the Regional and National Symposia. After high school, she enrolls in a STEM degree in college, so she can utilize the scholarship money awarded at JSHS.

13. Insurance

The recipient will carry blanket accident insurance policy to cover all student participants. Cost of the accident insurance will be included in the budget for the COA.

14. Youth and Labor

Recipient will assure compliance with all applicable federal and state child labor laws, with regards to all Youth Science programs.

II. AWARD INFORMATION:

Offerors selected for award will be notified by the Grants Officer or his/her designee telephonically or via email. Once notified the selected offerors will be required to sign the cooperative agreement. The award is not official until the recipient has signed the cooperative agreement and the Grants Officer has signed the cooperative agreement.

III. ELIGIBILITY INFORMATION:

A. ELIGIBLE APPLICANTS

The Army envisions the YS COA will bring together government and a consortium of organizations working collaboratively to further STEM education and outreach efforts nationwide. To assure the creation of a well focused program, the consortium will be kept small, with a minimal number of

organizations distributing program responsibility in a way that maximizes efficiency and minimizes duplication of efforts. It is expected that similarities between programs will result in consolidation of multiple programs in which the consortium will decide who will lead the programs. The Consortium lead will be charged with spearheading the efforts to meet previously identified core objectives and collect data/metrics on program success. This organization will be designated as the Lead Organization (LO) and its activities will be conducted in the United States. Additionally, offerors are expected to consider carefully the construct of their proposed consortium and effectively engage membership and subawardee performance to achieve the goals of the cooperative agreement. To be qualified, potential Consortium Members must:

- be judged to have adequate financial and technical resources, given those that would be made available through the cooperative agreement, to execute the program of activities envisioned,
- have no known recent record of lack of responsibility or serious deficiency in executing such programs or activities,
- have no known recent record indicating a lack of integrity or business ethics,
- be otherwise qualified and eligible to receive an award under applicable laws and regulations.

B. COST SHARING OR MATCHING

Cost sharing or matching is not required to be responsive to this PA; however, it is encouraged. Cost sharing will be evaluated in how the benefit derived from such relates to the evaluation factors set forth below. In order for cost sharing to be considered with a proposal, there must be a firm commitment by the organization for providing such.

IV. APPLICATION AND SUBMISSION INFORMATION

A. APPLICATION PROCESS

Proposals will be submitted electronically through the www.grants.gov portal. Proposals sent by fax or email will not be considered.

Registration Requirements for www.grants.gov: There are several one-time actions that an offeror must complete in order to submit an application through Grants.gov (e.g., obtain a Dun and Bradstreet Data Universal Numbering System (DUNS) number, register with the Central Contract Registry (CCR), register with the credential provider, and register with Grants.gov). See www.grants.gov/GetStarted to begin this process. Use the Grants.gov Organization Registration Checklist at www.grants.gov/assets/OrganizationRegCheck.doc to guide you through the process. Designating an E-Business Point of Contact (EBiz POC) and obtaining a special password called an MPIN are important steps in the CCR registration process. Applicants, who are not registered with CCR and Grants.gov, should allow at least 21 days to complete these requirements. It is suggested that the process be started as soon as possible.

Questions: Questions relating to the registration process, system requirements, how an application form works, or the submittal process must be directed to Grants.gov at 1-800-518-4726 or support@grants.gov.

B. CONTENT AND FORMAT OF APPLICATION SUBMISSION

Application forms and instructions will be available at Grants.gov. To access these materials, go to <http://www.grants.gov>, select "Apply for Grants", and then select "Download Application Package." Enter the funding opportunity number, W911NF-10-R-0002.

NOTE: Compatible versions of Adobe Reader are currently 8.1.1 and 8.1.2. You will be asked to specify your Operating System (examples: Windows, Mac) and Version (examples: XP, Vista, 10.4.9) be sure to specify Adobe Reader Version 8.1.2 to get the compatible version to apply for grants on Grants.gov.

Click here to download version 8.1.2 from Adobe Website:

http://www.adobe.com/products/acrobat/readstep2_allversions.htm.

Offerors must complete the mandatory forms and any optional forms (e.g., SF-LLL Disclosure of Lobbying Activities) in accordance with the instructions on the forms and the additional instructions below. The required fields should be completed in accordance with the "pop-up" instructions on the forms. To activate the instructions, turn on the "Help Mode" (icon with the pointer and question mark at the top of the form). Files that are attached to the forms must be in Adobe Portable Document Form (PDF) unless otherwise specified in this announcement.

The following formatting rules apply for the file attachments:

Paper size when printed – 8.5 x 11 inch paper

Margins – 1 inch

Spacing – single

Font – No smaller than Times New Roman, 12 point

Form: SF 424 (R&R) (Mandatory) – Complete this form first to populate data in other forms. Authorized Organization Representative (AOR) usernames and passwords serve as "electronic signatures" when your organization submits applications through Grants.gov. By using the SF 424 (R&R), offerors are providing the certification required by 32 CFR Part 28 regarding lobbying.

Form: Research & Related Other Project Information - Complete questions 1 through 5 and attach files.

Project Summary/Abstract (Field 7 on the form) - The Project Summary should be a brief abstract that summarizes the content of the proposal. The project summary must not exceed 5 pages. Pages in excess of the page limit may be removed for the evaluation of the proposal.

Project Narrative (Field 8 on the form) - Chapters and Numbers of pages – Field 7 is to contain the chapters set forth below and may not exceed the stipulated page counts for those chapters. Pages in excess of the page limits may be removed for the evaluation of the proposal. All chapters set forth below should be in a single PDF file.

- Volume 1 - **Technical Component**. The pages included in Volume 1 will be numbered. Offerors are advised that Chapter 1 **will not exceed 70 pages**, utilizing one side of the page.
-
- Volume 2 - **Cost Component**. The pages included in Chapter 2 will be numbered and does not have a page limitation.

Facilities and Other Resources (Field 10 on the form) - The offeror is to include a listing of facilities and other resources available to support the proposal. Any Government resources necessary for performance are to be clearly identified. Attach this information at Field 10.

Equipment (Field 11 on the form) - The offeror is to include a listing of equipment available to support the proposal. Any Government equipment necessary for performance is to be clearly identified. Attach this information at Field 11.

Other Attachments (Field 12 on the form) are as follows:

1. Attached the completed Proposal Cover Sheet.
2. Attached the completed certifications.
3. Attach any exceptions or conditions to the Model Cooperative Agreement.
4. Attach the signed Articles of Collaboration for all Members.
5. Attach the Cost Proposal. Cost Proposal will include the entire cost submission for the period of performance. (The Consortium will be requested to provide a complete cost proposal for the base period of three years and the two option periods which will be three years each. The total 9 year period of performance to include the 2 optional years will be included as part of the evaluation to be completed prior to making the decision concerning this optional period.) The cost portion of the proposal will contain cost estimates sufficiently detailed for meaningful evaluation. For budget purposes, assume a performance start date of **1 June 2010**. Grants.gov only allows a budget for up to 5 years. For the remaining 4 years provide the budget as an attachment. For all proposals, the elements of the budget should include:
 - Direct Labor - Individual labor category or person, with associated labor hours and unburdened direct labor rates.
 - Indirect Costs - Fringe benefits, overhead, G&A, etc. (must show base amount and rate). Justify.
 - Travel - Number of trips, destination, duration, etc. Justify and include basis for costs.
 - Subaward - A cost proposal, as detailed as the offeror's cost proposal, will be required to be submitted by each proposed subrecipient.

- Consultant - Provide consultant agreement or other document that verifies the proposed loaded daily/hourly rate. Include a description of the nature of and the need for any consultant's participation. Provide budget justification.
- Materials - Specifically itemized with costs or estimated costs. An explanation of any estimating factors, including their derivation and application, will be provided. Include a brief description of the offeror's procurement method to be used (competition, engineering estimate, market survey, etc.). Justify.
- Other Directs Costs - Particularly any proposed items of equipment or facilities. Equipment and facilities generally must be furnished by the recipient (justifications must be provided when Government funding for such items is sought). Include a brief description of the offeror's procurement method to be used (competition, engineering estimate, market survey, etc.). Justify.

SF-LLL - Disclosure of Lobbying Activities

If applicable, attach a complete SF- LLL at Field 12 of the R&R Other Project Information form.
 Applicability: 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 the grant/cooperative agreement, you must complete and submit Standard Form - LLL, "Disclosure Form to Report Lobbying."

C. SUBMISSION DATES AND TIMES

Proposals are due by 3:00pm (local North Carolina time) on Tuesday, 28 February 2010.

After a proposal is submitted through Grants.gov, the Authorized Organization Representative (AOR) will receive a series of three e-mails. It is extremely important that the AOR watch for and save each of the e-mails. Offerors will know that the proposal has been properly received when the AOR receives e-mail Number 3. Retain the Submission Receipt Number (e-mail Number 1) to track a submission. The three emails are:

Number 1 – The applicant will receive a confirmation page upon completing the submission to Grants.gov. This confirmation page is a record of the time and date stamp for the submission.

IMPORTANT: Once email number 1 has been received, please forward this email to Ms. Vonetta Goodson of the U.S. Army RDECOM Contracting Center at vonetta.goodson@us.army.mil. This email may be used by the Government for verification of the timeliness of the proposal submission!

Number 2 – The applicant will receive an email indicating that the proposal has been validated by Grants.gov within a few hours of submission. (This means that all of the required fields have been completed.)

Number 3 – The third notice is an acknowledgment of receipt in email form from the designated agency within ten days from the proposal due date. The email is sent to the authorized representative for the

institution. The email for proposals notes that the proposal has been received and provides the assigned tracking number.

Late Submission of Proposals - Any proposal submitted through Grants.gov where the time and date for submission (e-mail Number 1) is after the specified deadline for proposal submission, will be considered late and will not be evaluated unless the Grants.gov website was not operational on the due date and was unable to receive the proposal submission. If this occurs, the time specified for the receipt of proposals through Grants.gov will be extended to the same time of day specified in this BAA on the first workday on which the Grants.gov website is operational.

D. INTERGOVERNMENTAL REVIEW - NONE

E. FUNDING RESTRICTIONS - NONE

F. OTHER SUBMISSION REQUIREMENTS

The following Proposal Cover Sheet is required to be submitted by each offeror:

PROPOSAL COVER SHEET

1. Information concerning the Member proposal (Lead Organization):

Technical POC: _____

Phone No.: _____

Fax No.: _____

Email Address _____

Business POC _____

Phone No.: _____

Fax No.: _____

Email Address: _____

2. List the names and relationships of all organizations included in the proposal: (Please also indicate which Member is designated to receive the Technology Transition Contract, should the Offeror’s proposal be selected for award.)

Members _____

Subrecipients/Subawardees _____

3. Provide a point of contact for each organization included in the Cost Proposal. These individuals may be contacted for questions concerning the Cost Proposal:

Organization: _____

POC: _____

Phone No.: _____

Email Address _____

Organization: _____

POC: _____

Phone No.: _____

Email Address _____

Organization: _____

POC: _____

Phone No.: _____

Email Address _____

4. Signature of one person for the Lead Organization, authorized to submit a proposal and bind that organization: (These signatures may be provided on separate sheets.)

Organization Name: _____

Signature: _____

Type Name/Title: _____

Date (Proposal): _____

V. APPLICATION REVIEW INFORMATION

A. CRITERIA

All information necessary for the review and evaluation of a proposal must be contained in the proposal. No other material will be provided to the evaluators. Proposals should contain sufficient technical detail to allow for in-depth technical evaluation.

An initial review of the proposals will be conducted to ensure compliance with the requirements of this PA. Failure to comply with the requirements of the PA may result in a proposal receiving no further consideration for award.

A Source Selection Evaluation Board (SSEB) will review the proposals. The SSEB, consisting of qualified groups of scientists, managers, and cost specialists, will evaluate each proposal and provide the results of that evaluation to the Source Selection Authority (SSA). The SSA will make decisions concerning the competitive range and award selection.

If negotiation discussions are held, the Grants Officer will coordinate with the offerors at that time.

Proposals submitted in response to this PA will be evaluated against the evaluation factors set forth below, using an adjectival and color rating system. Cost will be evaluated for realism, reasonableness, and affordability. Evaluators will identify strengths, weaknesses and clarifications concerning the proposal. Information from any and all proposal volumes may be used for any and all evaluation areas described above.

FACTORS (1-4): 1) Plan/Approach to Execution; 2) Management; 3) Credentials; and 4) Past Performance

1) Plan/Approach to Execution. The YS COA is potentially a long-term, evolving STEM outreach effort focused upon furthering STEM education and outreach efforts nationwide. Therefore the evaluation of this factor will concentrate on the overall plan/approach to execute of the YS COA, including the plan's creativity, innovation, feasibility, efficacy, and likelihood of achieving the YS COA objectives. This plan is to include detailed plans on how the YS COA program programs will be executed, focusing on how such plans will lead to achieving the YS COA objectives. Evaluation of this factor will examine plans and mechanisms proposed by the offeror to involve all members of the Consortium into an integrated STEM education and outreach program, including proposed processes for selection of appropriate program participants. It will evaluate the proposed consolidated among programs to minimize duplication of actions and assure efficiency. The evaluation will also include the process proposed for creating a STEM pipeline where students participate in multiple AEOPs. Proposed plans for the substantial involvement of the Government will also be included in the evaluation. Finally, the proposed plan is to include detailed steps for transitioning the ongoing efforts of all programs to the new YS COA cooperative agreement.

2) Management. This factor will focus upon the plan for managing execution of Consortium activities over the lifetime of the YS COA. Evaluation of this factor will focus on the offeror's plan to comply with the requirements of the overall management concept; including the proposed Articles of Collaboration; mechanisms for development of a comprehensive program plan; leadership and management to be provided by the PD; management procedures to oversee and maximize progress; management concepts to foster collaboration among programs and communication among consortium members; specifics of the integration of AEOP website into all programs/efforts; and controls to assure timely submission of consortium invoices to the Government. The offeror should demonstrate a viable management approach by providing a feasible, comprehensive management plan considering each of the items listed above.

3) Credentials. Evaluation of this factor will focus on the offeror's credentials, as an organization as well as the credentials of the specific individuals proposed, including, but not limited to, the PD and all IPAs. Evaluation of this factor will focus on how the demonstrated education and experience is expected to contribute to the offeror's understanding of the Army's goals for STEM education and outreach and the core objectives of the YS COA. The proposal is to include the names, brief biographies and availability of key personnel substantially and meaningfully engaged in the YS COA, including, but not limited to the PD and all of the IPAs.

4) Past Performance. Evaluation of this factor will focus on the offeror's proposed past performance in similar efforts to promote STEM education and outreach nationwide. It will examine their demonstrated experience with education and outreach, targeting K-12, College, Graduate, and Post-Graduate students, paying specific attention to that which was directly STEM related. The proposal should include examples of successful past or current experience similar to what is called for in the YS COA, and provide the contract/agreement number(s) and point(s) of contact (names, addresses, and telephone numbers) of

Government personnel who can attest to the success of these examples. Offerors are encouraged to provide information on problems encountered on the identified contracts/agreements and the offeror's corrective actions. Offerors without a record of relevant past performance or for whom information on past performance is not available, will not be evaluated favorably or unfavorably for this evaluation factor.

Cost. While this area will not be weighted, evaluation of this area will consider cost realism, cost reasonableness, and affordability within funding constraints.

Relative Importance of Evaluation Criteria

The relative importance of the evaluation factors within this PA are as set forth below:

Evaluation Factors (1) and (2) have the greatest weight and factors (3) and (4) are in descending order of importance and are lower in weight than factors (1) and (2).

B. REVIEW AND SELECTION PROCESS

Proposals received in response to this Program Announcement will be evaluated using source selection procedures. Award will be based on an integrated assessment of each offeror's ability to satisfy the requirements of the PA. The Government anticipates that discussions with offerors will be conducted; however, the Government reserves the right to make award without discussions. A competitive range may be established for any discussions. If discussions are held, offerors in the competitive range will be invited to submit Final Proposal Revisions, which will be evaluated using the same procedures used with the initial proposals. The Government will make award to the Consortium that offers the best value to the Government, conforming to the PA, cost and other factors considered. Further, award may be made to other than the offeror who offers the lowest cost proposal.

VI. AWARD ADMINISTRATION INFORMATION

A. AWARD NOTICES

Should your proposal be selected for award, you will be contacted telephonically or via email by the Grants Officer or his/her representative. At that time the offeror will be asked to execute the cooperative agreement. Award is not made until the cooperative agreement is signed by both the successful offeror and the Grants Officer.

B. ADMINISTRATIVE AND NATIONAL POLICY REQUIREMENTS

Offerors are to complete the following certifications to be submitted with the proposal:

1. CERTIFICATION REGARDING LOBBYING

This certification is required for an award of a Federal contract, grant, or cooperative agreement exceeding \$100,000 and for an award of a Federal loan or a commitment providing for the United States to insure or guarantee a loan exceeding \$150,000

The undersigned certifies, to the best of his or her knowledge and belief, that:

(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 will complete and submit Standard Form - LLL, "Disclosure Form to Report Lobbying," In accordance with its instructions.

(3) The undersigned will require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contacts under grants, loans, and cooperative agreements) and that all subrecipients will 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 will be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure

Organization (Offeror): _____

Signature: _____

Typed Name: _____

Title: _____ Date: _____

2. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, PROPOSED DEBARMENT, AND OTHER RESPONSIBILITY MATTERS-PRIMARY COVERED TRANSACTIONS

(1) 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 from covered transactions 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; 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 governmental 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.

(2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant will attach an explanation to this proposal.

Organization (Offeror): _____

Signature: _____

Typed Name: _____

Title: _____ Date: _____

3. CERTIFICATION REGARDING DRUG-FREE WORKPLACE REQUIREMENTS

A. The recipient 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 recipient'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 cooperative agreement, 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 grant 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 will include the identification number(s) of each affected grant or cooperative agreement;

(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 an employee, up to and 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).

B. The recipient may insert in the space provided below the site(s) for the performance of work done in connection with the proposed cooperative agreement:

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

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

Organization (Offeror): _____

Signature: _____

Typed Name: _____

Title: _____ Date: _____

C. REPORTING

Reporting requirements for the Cooperative Agreement are contained in the Model Cooperative Agreement.

VII. AGENCY CONTACTS

Questions or comments concerning this PA will be posted through the COA website. Questions and comments should be concise and to the point. In addition, the relevant part and paragraph of the PA should be referenced. Responses to questions received will be posted to the COA website for the benefit of all interested parties. Should an offeror have questions they believe are of a proprietary nature, the offeror must clearly state so in the question when posed. Answers to questions of a proprietary nature will be provided via email directly to the poser of the question. A location on the website will be provided for potential offerors to post their availability for teaming with others.

VIII. OTHER INFORMATION - NONE