

COOPERATIVE AGREEMENT

BETWEEN

Cyber Security (CS) Collaborative Research Alliance (CRA) Consortium*

AND

**U.S. Army Contracting Command-Aberdeen Proving Ground, Research Triangle Park Division, on behalf of
U.S. Army Research Laboratory (ARL)**

CONCERNING

Cyber Security (CS) Collaborative Research Alliance (CRA)

Agreement No.: W911NF-13-2-00xx

Total Estimated Amount of the Agreement: \$_____

Total Estimated Government Funding of the Basic Agreement: \$_____

Total Estimated Recipient Cost Share of the Basic Agreement: \$_____

Total Estimated Amount of the Option: \$**

Total Estimated Amount of Government Funding if all Options are exercised: \$**

Total Estimated Recipient Cost Share of the Optional Agreement: \$**

CLIN 0001 is hereby established in the amount of \$_____. CLIN 0001 is funded as set forth below.

Additional CLINs will be established, subject to the availability of funds, up to the Total Estimated Amount of the Agreement set forth above.

Government Funds Obligated: \$_____

Authority: 10 U.S.C. 2358

Catalog of Federal Domestic Assistance (CFDA) number: 12.630

Accounting and Appropriation Data:

ACRN AA:

- (1) Appropriation No.:
- (2) Requisition No.:
- (3) Amount: \$
- (4) Applicable APP:
- (5) Applicable CLIN: 0001
- (6) Applicable SubCLIN: 000101
- (7) Cost Code:
- (8) CIN:

* Award is being made to the CS CRA Consortium with the membership as set forth in Article 3.2 below. The SF 26 Award/Contract cover page specifies <Insert LRO> in block 7 as per Article 3.5 below <Insert LRO> is identified as the Lead Research Organization (LRO) responsible for distribution of Government funds on behalf of the CS CRA Consortium.

** While the Total Estimated Government Funding of the Option is listed above, the Recipient will be requested to provide a complete cost proposal for the optional five-year period of performance as part of the evaluation to be completed prior to the Government decision concerning this optional period. (See Article 5.1.2 and 5.1.3)

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Signatures of one person from each member of the CS CRA Consortium, authorized to bind that organization under this Cooperative Agreement.

LEAD RESEARCH ORGANIZATION (LRO) OF CONSORTIUM

(Signature)

(Name)

(Title)

(Name of Organization)

(Date)

Signatures of one person from each member of the CS CRA Consortium, authorized to bind that organization under this Cooperative Agreement.

GENERAL MEMBER OF CONSORTIUM (one page for each member)

(Signature)

(Name)

(Title)

(Name of Organization)

(Date)

ARTICLE 1 Scope of the Agreement

1.1 Introduction

This Agreement is a “Cooperative Agreement” (31 USC 6305) and is awarded pursuant to 10 USC 2358 Research Projects. The Parties agree that the principal purpose of this Agreement is for the CS CRA Consortium, hereinafter referred to as the “Recipient,” to provide its best research efforts in the support and stimulation of fundamental research and not the acquisition of property or provision of services for the direct benefit or use of the Government. FAR and DFARS apply only as specifically referenced herein. This Agreement is not intended to be, nor shall it be construed as, by implication or otherwise, a partnership, a corporation, or other business organization between the Parties.

1.2 Background and Vision Statement

The U.S. Army Research Laboratory (ARL) has established an Enterprise approach to Cyber Security that couples multi-disciplinary internal research, analysis, and operations with extramural research and collaborative ventures. ARL intends to establish a new collaborative venture – The Cyber Security Collaborative Research Alliance (CRA) – that seeks to advance the theoretical foundations of cyber science in the context of Army networks.

This Collaborative Research Alliance will consist of academia, industry and government researchers working jointly to solve complex problems. The overall objective of the Cyber Security CRA is to develop a fundamental understanding of cyber phenomena, including aspects of human attackers, cyber defenders, and end users, so that fundamental laws, theories, and theoretically grounded and empirically validated models can be applied to a broad range of Army domains, applications, and environments.

The U.S. Army Research Laboratory’s Computational and Information Sciences Directorate (CISD) is the principle Army organization responsible for research and development in information technologies and computational sciences. CISD conceives, exploits, matures and transitions novel concepts and technologies in the areas of information technologies and computational sciences to enhance the lethality and survivability of America’s ground forces. CISD also solves technical problems associated with developmental and fielded communications systems, weather and environmental effects and computational science and engineering and provides technology and support for enhanced survivability and lethality system assessment for the Army’s decision-making process. CISD coordinates technologies within the Army, other Services and their laboratories, industry, and academia to leverage basic and applied research opportunities for the benefit of the Army and Department of Defense.

1.3 Research Strategy

The objective of the CS CRA is to develop (cooperatively and collaboratively with ARL) a fundamental understanding of cyber phenomena, including aspects of human attackers, cyber defenders, and end users. Foundational basic research is needed to advance our fundamental knowledge of cyber security so that generalizable theories and models can enable inherently stable, secure, self-adapting networks. This research is critical for the Army as future networks, which will be relied on to complete the mission, will be heterogeneous and convergent with a diverse array of computing devices that will face a wide variety of cyber attacks that change continuously.

The foundational problem to be addressed by the CS CRA is the lack of understanding of cyber phenomena, particularly the fundamental laws, theories, and heoretically-grounded concepts and empirically validated models that would enable rapid design of cyber defense tools and predictive analysis of their efficacy. Put succinctly, the cyber security community lacks a science of cyber security. Progress in scientific understanding of cyber phenomena should manifest itself in development of models that:

- 1) Are mathematically formulated
- 2) Explicitly and formally specify assumptions, simplifications and constraints
- 3) Involve characteristics of threats, defensive mechanisms and the defended network, to include quantifiable attributes of the analyst/defender, the user, and the adversary
- 4) Are at least partly theoretically grounded
- 5) Yield experimentally testable predictions of characteristics of security violations (e.g. the probability that malware M will remain undetected while executing action A)

6) Are experimentally validated.

The ongoing explosive growth of diverse cyber threats to our armed forces, defense community and national security, combined with rapid accumulation of new observations, techniques and tools for cyber defense provide the empirical basis that will help make significant progress in addressing this foundational problem.

ARL strongly believes that a joint collaborative approach by multidisciplinary researchers is required to make fundamental advances towards meeting the CRA goal to develop a fundamental understanding of cyber phenomena. ARL has identified three Research Areas (RA), identified below, which are interrelated aspects of cyber security, that when jointly studied will advance the theoretical foundations of cyber science in the context of Army networks.

Risk

The Risk Research Area seeks to develop theories and models that relate fundamental properties and features of dynamic risk assessment algorithms to the fundamental properties of dynamic cyber threats, Army's networks, and defensive mechanisms. Risk assessment should take into account the context of the mission. Research in this area should lead to theoretically-grounded techniques and tools to synthesize, modify, adapt, or redesign algorithms that reliably compute risks imposed by new cyber threats to Army networks and imposed by changes to networks to counter or avoid such threats.

Detection

The Detection Research Area seeks to develop theories and models that relate properties and capabilities of cyber threat detection and recognition processes/mechanisms to properties of malicious activity, and of properties of Army networks. This research should inform development of approaches to rapid (potentially in the midst of a battle) adaptation of a detection technique or algorithm as new threats emerge.

Agility

The Agility Research Area seeks to develop theories and models to support planning and control of cyber maneuver (i.e., "maneuver" in the space of network characteristics and topologies) that would describe how control and endstate of the maneuver are influenced by fundamental properties of threats, such as might be rapidly inferred from limited observations of a new, recently observed threat.

Psychosocial Effects

Each of the three Research Areas must take into account the Psychosocial Effects Cross Cutting Research Issue. Although comprehensive monitoring and network adaptation are far beyond the ability of human defenders to perform manually, it must be assumed that network analysts charged with maintaining and defending the network and the Soldiers who rely on the network will need to be kept aware of the threat and of any recommended or implemented changes in the network that may affect their ability to carry out their mission. Thus, since teams of human defenders will likely be the key link in cyber defense, a theoretical understanding of the socio-cognitive factors that impact the decision making of the user/Soldier, defender/analyst, and adversary needs to be developed. As examples: the Risk RA should leverage and develop theories of how users evaluate risk and make decisions regarding cyber security, both as individuals and as members of teams since effective cyber defense will require information sharing between users and defenders. The Detection RA must take into account the detectability and predictability of adversary activities. The Agility RA should take into account models of adversarial behavior. It is expected that the Psychosocial Effects will serve as an integrating factor across the three RAs.

The Recipient shall participate in a program of coordinated research, development, and education with ARL in accordance with the Annual Program Plan, which sets forth the specific goals and objectives for the program for each program period. The Annual Program Plan will be provided as attachments to this agreement. The Recipient shall also comply with the reporting requirements set forth in Attachment 5.

The Government will have continuous involvement with the Recipient. The Government will also obtain access to the research results and certain rights in data, computer codes developed, and patents pursuant to Article 10 and Attachments 1 and 2 to this Agreement. The Government and the Recipient are bound to each other by a duty of good faith and best research efforts in achieving the goals of the Program.

As a condition of this Agreement, it is herein understood and agreed that Federal funds are to be used only for costs that: (1) a reasonable and prudent person would incur, in carrying out the research projects herein; and (2) are consistent with the purposes stated in governing Congressional authorizations and appropriations

1.4 Research Goals

The overall objectives of the Cyber Security CRA are (1) to develop a fundamental understanding of cyber phenomena (including human aspects) so that fundamental laws, theories, and theoretically grounded and empirically validated models can be applied to a broad range of Army domains, applications, and environments; and (2) to significantly increase the cost incurred by adversaries in undertaking cyber attack while minimizing the loss in performance (such as overhead and availability) incurred by our networks.

1.5 Programmatic Strategy

The CRA is intended to create a collaborative environment that enables an Alliance of participants from the Consortium and Government to advance the state of the art and assist with the transition of research to enhance the performance of cyber technologies of interest to the U.S. Army. The CRA will work collaboratively with ARL's internal research program and other ARL-led collaborative ventures, to identify areas where joint, multi-disciplinary, collaborative cyber security research can advance ARL's Cyber Security Enterprise long-term vision. Collaborative research, as well as transition links among the CRA and the ARL internal program, will also be pursued and defined through continuous collaboration, technical exchanges, site visits, staff rotations, and mutual participation in formulating the program, performing the research, and in technical reviews during the period of performance. These activities will strengthen the relevance of CRA research and enable the transition of research results.

Budget Activity 1: Basic Research.

Basic research is systematic study directed toward greater knowledge or understanding of the fundamental aspects of phenomena and of observable facts without specific applications towards processes or products in mind. It includes all scientific study and experimentation directed toward increasing fundamental knowledge and understanding in those fields of the physical, engineering, environmental, and life sciences related to long-term national security needs. It is farsighted high payoff research that provides the basis for technological progress. Basic research may lead to: (a) subsequent applied research and advanced technology developments in Defense-related technologies, and (b) new and improved military functional capabilities in areas such as communications, detection, tracking, surveillance, propulsion, mobility, guidance and control, navigation, energy conversion, materials and structures, and personnel support. Program elements in this category involve pre-Milestone A efforts.

Budget Activity 2: Applied Research.

Applied research is systematic study to understand the means to meet a recognized and specific need. It is a systematic expansion and application of knowledge to develop useful materials, devices, and systems or methods. It may be oriented, ultimately, toward the design, development, and improvement of prototypes and new processes to meet general mission area requirements. Applied research may translate promising basic research into solutions for broadly defined military needs, short of system development. This type of effort may vary from systematic mission-directed research beyond that in Budget Activity 1 to sophisticated breadboard hardware, study, programming and planning efforts that establish the initial feasibility and practicality of proposed solutions to technological challenges. It includes studies, investigations, and non-system specific technology efforts. The dominant characteristic is that applied research is directed toward general military needs with a view toward developing and evaluating the feasibility and practicality of proposed solutions and determining their parameters. Applied Research precedes system specific technology investigations or development. Program control of the Applied Research program element is normally exercised by general level of effort. Program elements in this category involve pre-Milestone B efforts, also known as Concept and Technology Development phase tasks, such as concept exploration efforts and paper studies of alternative concepts for meeting a mission need.

ARTICLE 2 General Definitions

In addition to the Definitions set forth at 32 CFR Part 21, Subpart F and 32.2 and 34.2, the following definitions apply to this Agreement:

2.1 Recipient - An organization or other entity receiving a Grant or Cooperative Agreement from a DoD Component. For purposes of this Agreement, the Recipient is the Cyber Security (CS) Consortium.

2.2 Party - For purposes of this Agreement, the Parties are ARL and the Recipient.

2.3 Collaborative Alliance Manager (CAM) – The research executed under the CRA will be considered an extension and integral part of the U.S. Army Research Laboratory (ARL) research program. As such, the program established under this PA will be planned, defended, executed, and reviewed as part of ARL’s mission program. Overall scientific management and fiscal responsibility for the CRA will reside with a senior ARL scientific manager, who will be designated the CAM for the CRA under the cooperative agreement. The ARL Grants Officer/Contracting Officer will receive recommendations from the CAM and will be the ultimate legal authority empowered to make formal adjustments to the CA. The CAM is identified at Article 3.1.

2.4 Program Manager – The CRA Program Manager (PM) is the Consortium's scientific representative charged with the Consortium’s overall responsibility for management and guidance of the cooperative agreement. The PM will be designated by the LRO and be a member of that organization. The CRA is expected to be the primary responsibility of the individual assigned as PM and a commitment of time commensurate with this responsibility is also expected. The PM is required to be an eminent scholar in the field of Cyber Security and have the stature, experience and leadership skills to successfully execute the CRA program. The PM may need to reduce any teaching schedule commitments commensurate with the duties required to manage the CRA. It is also recognized that the PM may require staff support to manage and execute the cooperative agreement, and this should be included in the CRA submission. The Program Manager is identified at Article 3.3.

2.5 Research Management Board (RMB) – The RMB will be established to identify and develop collaborative opportunities, advise and assist the CAM in setting research goals, and facilitate transition to ARL basic and applied research programs. The RMB will be chaired by the CAM and will include representatives from Army, other Service organizations and other government agencies with interest, expertise in the technologies related to the CRA. The RMB will be invited to CRA meetings, and be informed about the Biennial Program Plan approval process.

2.6 Consortium Management Committee (CMC) – The CRA will have a Consortium Management Committee (CMC) that consists of one representative from each member of the Consortium. The CAM participates as an ex officio member in all discussions except those that deal with purely internal Consortium matters. The CMC will be chaired by the PM. 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 LRO will cast the deciding vote. The CMC will be responsible for the management and integration of the Consortium's efforts under the CRA 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 members and subawardees. Quarterly meetings will be conducted by the CMC.

2.7 Grants Officer - Is the Government's principal point of contact for all administrative, financial or other non-technical issues arising under the Agreement. The Grants Officer is identified at Article 8.1.

2.8 Agreements Administrator - The Agreements Administrator has authority to administer Cooperative Agreements and, in coordination with the Grants Officer, make determinations and findings related to delegated administration functions. The Agreements Administrator is identified at Article 8.2.

ARTICLE 3 Program Management

3.1 The ARL Collaborative Alliance Manager (CAM) is:

Name
U.S. Army Research Laboratory
City, MD Zipcode
Telephone: xxx-xxx-xxxx

Fax: xxx-xxx-xxxx
Email: _____civ@mail.mil

3.2 The Members of the Consortium Include:

3.3 The Program Manager is:

Organization name
City, State Zipcode
Telephone: xxx-xxx-xxxx
Fax: xxx-xxx-xxxx
Email: _____@_____.edu

3.4 Overall Management

The CA will be awarded to a Consortium of organizations that may include academic, industrial and non-profit organizations. To assure the creation of a well-focused research program, the number of partners should balance the need for expertise in all three Research Areas and the crosscutting research initiative with the need to maintain a focused, cohesive, well-integrated research program. The Consortium must be led by an academic institution charged with spearheading the focused basic research program. This organization will be designated as the Lead Research Organization (LRO), with one or more additional organizations adding to the research expertise and collaboration. ARL will subsequently award a contract for experimentation and applied research to mature cyber security research for the ARL Cyber Security Enterprise. After award of this contract, the contractor selected for award (hereinafter referred to as the “BAA Partner”) will be added as a Member to the Consortium selected as a result of this PA in accordance with the provisions to add a new member under the Articles of Collaboration. The Consortium will allocate \$350K per year of the annual CA funding for this member’s participation once selected and added to the agreement. The role of the BAA Partner in the Consortium will be to conduct cyber security research and unclassified experimentation of CRA research results. In addition the BAA Partner will support the Consortium through its efforts under the contract by conducting sensitive and classified experimentation including extended empirical analysis for these experiments as part of an applied research effort.

Additionally, it is a goal that “covered educational institutions” (to include Historically Black Colleges and Universities and Minority-Serving Institutions or HBCU/MSIs) will receive 5% of the annual CA funding. The Consortium will function as a collective of equal partners deciding upon all Consortium matters. It is anticipated that the Consortium may be enhanced by additional researchers and research organizations chosen jointly by the Consortium and the Government to foster new ideas/innovation and thus complement research already undertaken. These researchers and research topics, while part of the Biennial Program Plan, will be Subawardees to the LRO and not part of the Consortium proper. The Government reserves the right to direct ten percent (10%) of the annual CA funds in each research area to ensure flexibility in exploring high-risk research initiatives conducted by Subawardees.

It is critical that the Consortium be structured and managed to create and foster an open, collaborative research environment. This section describes a framework for the organization of the CRA. The lightweight framework is flexible to minimize overhead, yet insure research 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.

3.5 Role of the Lead Research Organization (LRO)

The LRO is an advanced degree-granting educational academic institution under the amended Higher Education Act of 1965. This institution is also expected to have doctoral level courses of study in scientific and research areas related to this CRA that can result in the granting of a doctoral degree. The LRO critical roles include administration, collaboration enabler, and research leadership vision for the basic research and maintaining cross-Consortium collaboration and integration. This Member is expected to articulate a vision for the CRA, promote collaboration among Consortium Members, and coordinate crosscutting themes with Alliance Members. This Member is required to administer the Consortium, participate in the research, and promote the transition of research and technologies resulting from the research program within the CRA. This includes distribution of Government

funding to Consortium Members and subawardees in accordance with the approved IPP/BPP under the agreement. The LRO is responsible for timely billing (invoicing) of executed research for itself and the other Consortium Members to ensure proper disbursement of government funds.

3.6 Consortium Members

Each Consortium Member may be an industrial, non-profit, or academic institution but must possess substantial experience and expertise in the research areas contained within the scope of the CRA. Under special considerations outlined below Federally Funded Research and Development Centers (FFRDCs) and National Laboratories may participate in the Consortium as a Member. Academic members are expected to be advanced degree-granting educational institutions under the Higher Education Act of 1965 as amended. Academic Members are also expected to have doctoral level courses of study in scientific and research areas related to this CRA that can result in the granting of a doctoral degree. Industrial members are expected to have the ability to conduct appropriate research activities utilizing in-house engineers, scientists and facilities. All Members are expected to demonstrate opportunities for substantive collaboration with ARL, including appropriate opportunities for staff rotations and research collaboration.

3.7 Covered Educational Institutions:

The FY10 Department of Defense (DoD) Authorization Act, Public Law 111-84, provides authority for the Secretary of each military department to carry out a program to provide assistance to "covered educational institutions" to assist DoD in defense-related research, development, testing, and evaluation activities. The term "covered educational institution" is defined to mean an (1) an institution of higher education eligible for assistance under title III or IV of the Higher Education Act of 1965 ([20 U.S.C. 1051](#) et seq.); or (2) an accredited postsecondary minority institution. As defined under title III or IV of the Higher Education Act, "covered educational institution" includes Historically Black Colleges and Universities/Minority-Serving Institutions (HBCU/MSIs).¹ Accordingly, it is a goal that covered educational institutions receive 5-% of the annual funding under the CA. This may be accomplished through one of the following: (a) a covered educational institution submitting the proposal as the LRO; (b) a covered educational institution being included as a Member or Subawardee in a proposal; or (c) the proposal including a plan for how the LRO will work collaboratively with the Government to identify a covered educational institution for participation in the program.

3.8 BAA Partner:

ARL will award under a separate Broad Agency Announcement (BAA) a contract for experimentation and applied research to mature cyber security research for the ARL Cyber Security Enterprise. The role of this Member in the Consortium will be to conduct cyber security research and unclassified experimentation to support CRA research. In addition this industrial member will support the Consortium through its efforts under the contract by conducting sensitive and classified experimentation including extended empirical analysis as part of an applied research effort. These experiments will be used to inform the Government as to the applicability and technology transferability of research results from the CRA.

3.9 Subawardees:

Consortium Members may be augmented with Subawardees to conduct specific research projects as necessary and appropriate to meet the goals of the CRA, especially for the conduct of new and innovative research for which they are particularly qualified. Subawardees are organizations that (1) are not expected to provide strategic input concerning the goals and direction of the CRA and (2) may possibly have only a short term relationship with the Consortium.

3.10 Federally Funded research and Development Centers (FFRDCs) and national Laboratories:

FFRDCs and National Laboratories may participate as Consortium Members or Subawardees, but may not be the LRO, and their participation must be within the scope of their charter or sponsorship agreements. Further, FFRDCs and National Laboratories must cost-share an amount at least equal to the funding to be provided to them under the CRA.

3.11 Place of Performance for all Consortium Participants

¹ See the definition of an "eligible institution" at 20 U.S.C. 1067q which includes historically Black colleges and universities and other minority-serving institutions.

There is no limitation on the place of performance for any institution participating under the CRA.

3.12 Initial Program Plan (IPP)

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 to be incorporated into the Agreement by modification. The IPP will be based substantially on the proposal received from the Consortium. The IPP will be accompanied by a five-year roadmap that describes the overall plan to be accomplished by the Consortium within the Alliance structure. The roadmap should provide the vision for goals to be addressed during the first five years of the Alliance. The roadmap should provide a detailed description of a well-coordinated preliminary IPP for execution of the basic research. It should provide approximate timelines for research activities to facilitate potential future basic research transitions. The CAM will approve the IPP and formally submit the approved IPP to the Grants Officer for incorporation into the cooperative agreement.

3.13 Biennial Program Plan (BPP)

Eight months after award, the Consortium (through the CMC) and the Government will jointly prepare a proposed Biennial Program Plan (BPP) for the next two fiscal years. Through discussion among the consortium members, a BPP will result that enables integration and execution of multidisciplinary, collaborative research that strives to achieve CRA objectives. The CAM will approve the BPP and formally submit the approved BPP to the Grants Officer for incorporation into the cooperative agreement. This process will continue through the life of the cooperative agreement.

Each BPP will cover a two-year timeframe, but may be altered, with the approval of the CAM and the Grants Officer, if research work requirements change. The BPP will provide a detailed plan of research activities (including research goals, key personnel, staff rotation, facilities, experiments and budget) that commits the Consortium to use their best efforts to meet specific research objectives. The BPP will also describe the collaborative efforts with the Government. The BPP will include a detailed description of the projects proposed to be undertaken by any subawardees, including new subawardees that may be included at the discretion of the Government.

3.14 Collaboration and Technical Review Meeting

Each year, the Alliance must organize a CRA Collaboration and Technical Review meeting where Alliance researchers engage in face-to-face technical discussions. The overall goal of this meeting is to foster interactions and collaborations among researchers and allow Alliance research leadership to assess research progress. The emphasis is on collaborations (especially multi-disciplinary, cross-Research Area collaborations), experimentation/validation plans, and possible transition opportunities. Planning for the Collaboration and Technical Review Meeting will be executed through the PM and the CAM. Additionally, it is anticipated that the Alliance will participate in other ARL/Army program reviews.

3.15 International Involvement

The Department of Army may also have the opportunity for international involvement with this effort. International involvement may be accomplished by either: (1) announcement and award of a separate cybersecurity agreement, with the intent that the two agreements work together; or (2) by the inclusion of an international partner as a new member under the Articles of Collaboration at some point during performance under the CS CRA.

ARTICLE 4 Staff Rotation and On-Site Collaboration

4.1 Collaboration Concept

The CRA continues the ARL concept of the creation of an Alliance to facilitate a close relationship between ARL and its partners to that collaborative research with the government across the academic and industrial community enhances innovation and has a high return on investment. It is ARL's strong belief that collaboration between the members of the Consortium and the Government is integral to the execution and success of the CRA. Creation of an environment that is conducive to collaboration is therefore a critical element in establishing the CRA.

4.2 ARL Directorate Mission

The CS CRA will become an integral part of ARL's Enterprise in Cyber Security. Collaboration with the internal cyber security research program is critical to its success, and interactions with other related ARL research programs

may bring different insights to bear on the CRA's research problems. Moreover, interactions with ARL's analysis and operations elements may increase relevance of CRA research and eventually lead to transition of research results.

4.3 Staff Rotation

An important element of CRA collaboration is the advancement, education, and rotation of technical staff through short- and long-term temporary assignments. The scope of this collaboration may range from regular, periodic short term visits to sabbatical lasting as long as a year. Staff rotations will be undertaken to foster and facilitate collaborative research where face-to face interaction is advantageous, to enable a researcher to utilize unique facilities, to enable alliance personnel to obtain specialized training or experience and to facilitate the exchange of research results. In addition, this exchange, or cross fertilization, of personnel will provide Consortium personnel with insight into Army unique requirements and will provide Consortium personnel with insight into state of the art research and commercial practices and/or the opportunity to pursue fundamental research with noted researchers. The success of these interactive and collaborative exchanges will be assessed by the quality of the collaboration as demonstrated by joint efforts such as basic research transitions to applied research programs, archival journal papers, patents and refereed presentations.

4.4 Lectures, Workshops, and Research Reviews

The Alliance (i.e., the Consortium and ARL) will be encouraged to hold, from time to time throughout the period of performance of the CS CRA, scientific lectures, short courses and workshops on mutually agreed upon topics. These lectures and workshops will serve as both educational and research outreach opportunities and should involve participants outside the Alliance when appropriate. Additionally, the Alliance is expected to hold regular, periodic research reviews that will permit the free exchange of ideas and research results, especially those impacting any cross-cutting research themes, among the entire ARL enterprise for Cyber Security. The costs associated with the Consortium's efforts for these lectures, short courses, workshops, and reviews will be funded under the Cooperative Agreement.

4.5 Education

As a means to foster the professional growth, technical strength and provide a venue for training personnel in the scientific disciplines underlying the Alliance, the Consortium will identify educational opportunities for Government scientists and engineers. These opportunities may include fellowship programs that lead to masters and doctoral degrees, and short course (e.g., summer and intensive special topic courses in critical technology areas) that lead to the award of appropriate academic credit. The Consortium will further consider means to foster collaboration with the ARL technical staff through program such as internships at ARL for graduate and undergraduate students, faculty sabbaticals and summer research. The costs associated with the Consortium's efforts to identify, prepare for and execute such educational opportunities will be funded under the Cooperative Agreement. The costs associated with salaries, travel, etc. for Government personnel will be the responsibility of the Government, and will not be funded under the Cooperative Agreement.

4.6 Other Government Agencies (OGA's)

The Government will work with the LRO to leverage and/or integrate other interested OGA's (and funding where appropriate) into the CRA umbrella. This may become part of the Core Research Program, or maybe enabled directly through the enhanced CRA program. These efforts and thrusts may be lead by the LRO, consortium partners or coordinated jointly. Other Service elements such as the U.S. Air Force, the U.S. Navy, and the U.S. Army Research and Development Centers (RDECs) may have requirements for Cyber Security and will be able to leverage the CRA work and/or provide funding in areas of interest. The U.S. Army RDEC's will be a part of the CRA Research Management Board.

4.7 Salary and Travel Costs

All salary and travel costs associated with the rotation of government personnel will be borne by the Government. All salary and travel costs associated with staff rotations of Consortium members will be funded under the Cooperative Agreement or may be provided by the Consortium member as cost-share. There should be a balance of staff rotations across all the partners in the Consortium and across all the research areas. It is anticipated that some portion of the Consortium's scientific labor-year will be in staff rotations.

4.8 Host Facility Regulations

All personnel in rotational assignments or on-site collaboration are required to comply with the safety, environmental, security, and operational regulations or requirements of the host facility.

4.9 Administrative Support.

The host facility will provide adequate office space, communications connections, administrative support, and office supplies, if available, for researchers in long-term rotational assignments. Should it become necessary to procure equipment to facilitate a rotational assignment, the BPP should reflect the need for said equipment, and the costs will be borne under this Agreement.

ARTICLE 5 Fiscal Management

5.1 Allocation of Recipient Funds

5.1.1 Restrictions on the Use of Government Funds

Government funds provided under this Agreement must be allocated by the Recipient exclusively for the execution and operation of the IPP/BPP or Agreement Scope. Government funds shall not be utilized to support the Recipient's operations or administration unrelated to this Agreement.

5.1.2. Cost Share

The Government and the Recipient estimate that the Scope of this Agreement can only be accomplished with the Recipient aggregate resource contribution of \$_____ for the Basic Agreement, and a total resource contribution of \$_____ * for the option. For the purposes of this Agreement, the cost share ration for the Basic Agreement shall be \$_____ for the Government and \$_____ for the Recipient, and \$_____ * for the Government and \$_____ * for the Recipient for the Option. The Recipient intends, and by entering into this Agreement, undertakes the cause for which these funds are being provided. The Recipient contributions will be provided as detailed in the IPP and subsequent BPPs under this Agreement. Failure of either Party to provide its contribution may result in termination of this agreement, or a proportional reduction in funding.

(* While the Total Estimated Government Funding of the Option is listed above, the Recipient will be requested to provide a complete cost proposal for the optional five-year period of performance as part of the evaluation to be completed prior to making the decision concerning this optional period.)

5.1.3 Obligation

In no case shall the Government's financial obligation exceed the amount obligated on this Agreement or by amendment to this Agreement. The total Government funding amount estimated for performance of the Basic Agreement is \$_____, subject to the availability of funds. Of this amount, the Government share is \$_____ and the Recipient share is \$_____. The Total amount estimated for performance of the Option is \$_____. Of this amount, the Government share is \$_____ * and the Recipient share is \$_____ *. The amount of Government funds currently obligated and available for payment is \$_____. The Government is not obligated to reimburse the Recipient for expenditures in excess of the amount of obligated funds allotted by the Government.

(* While the Total Estimated Government Funding of the Option is listed above, the Recipient will be requested to provide a complete cost proposal for the optional five-year period of performance as part of the evaluation to be completed prior to making the decision concerning this optional period.)

5.1.4 Incremental Funding

The Government may obligate funds to this Agreement incrementally. In the event that this Agreement is funded incrementally, the Government anticipates that from time to time additional amounts will be allotted to this Agreement by unilateral modification, until the total amount for performance of this Agreement has been funded. To minimize interruption of effort due to lack of Government funds, the Recipient shall notify the Grants Officer in writing whenever the amount of funds obligated under this agreement when added to anticipated costs in the next 60 days will exceed 75% of the amount allotted. Obligated funds provided to the Consortium for any Governmental Fiscal Year (GFY), which are not expended in the GFY, may be carried forward and expended in the next succeeding GFY until they are completely expended within the performance period of the IPP or BPP.

5.1.5 Payments.

The Recipient shall submit to the Agreement Administrator an original and two (2) copies of all vouchers, SF 270 "Request for Advance or Reimbursement" or other form or format prescribed by the DoD component when it (component) determined that adequate information has been provided to meet Federal needs. One copy shall also be provided to the CAM for payment approval. The Recipient shall attach additional information as reasonably requested by the Agreement Administrator. After written verification of progress towards or achievement of the research milestones by the CAM and approval by the Agreement Administrator, the vouchers will be forwarded to the payment office within ten (10) calendar days of receipt of the voucher. The Payment office will make payments via EFT within 20 calendar days of receipt of transmittal.

The Agreement Administrator may, with concurrence of the Recipient and Grants Officer, modify the Agreement to allow for invoices to be submitted through Payweb or the Wide Area Work Flow (WAWF) process.

Payments will be made no more frequently than monthly and will be based on reimbursement of actual expenditures as monitored against the Budget Plan contained in the IPP/BPP. Once the CAM has verified that the Recipient has expended best efforts towards the successful achievement of the research goals, payment will be authorized.

5.1.6 Financial Reporting

The Recipient shall submit Annual and Final Financial (SF425) reports as specified in Attachment 5.

ARTICLE 6 Agreement Administration

6.1 Modifications to this Agreement.

Any Party who wishes to modify this Agreement will, upon reasonable notice of the proposed modification to the other Party, confer in good faith with the other Party to determine the desirability of the proposed modification. Modifications will not be effective until a written modification is signed by an authorized representative of the Recipient and by the Grants Officer for bilateral modifications and by the Grants Officer for unilateral modifications. Administrative modifications may be unilaterally executed by the Grants Officer or by the Agreements Administrator.

6.2 Requirements for Approval for Changes to the Program Budget and program Plan

During the course of performance, if it appears that research goals will not be met, the CMC will provide a proposed adjustment to the BPP for approval by the CAM. In addition, the CAM may from time to time request that additional research be added to the BPP within the scope of the collaborative agreement. The Consortium, as an entity, will not solicit or accept funding from outside sources other than the US ARL 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/BPP including but not limited to:

- Changes in the scope or the objective of the program, IPP/BPP, or research milestones;
- Change in the key personnel specified in the IPP/BPP;
- The absence for more than three months, or a 25% reduction in time devoted to the project, by the PM;
- The need for additional Federal funding; and
- Any subaward, transfer, or contracting out of substantive program performance under an award, unless described in the IPP/BPP.

The CAM, in coordination with the CMC and ARL management, will be responsible for integrating the IPP/BPP into the overall respective research and technology programs.

During the course of performance, the Grants Officer, in coordination with the CAM, will have approval authority for certain specific changes to the CA 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 sources other than ARL; and
- Changes in Consortium membership. It is expected membership will change as technical efforts progress and resource levels change.

6.3 No-Cost Period of Performance Extension

In accordance with the DoD Grant and Agreement Regulations (DoD 3210.6-R), the Recipient may initiate a request for a one-time, no-cost extension to the period of performance. The request may not include additional Federal funds, nor change the approved objectives or scope of the program. Extension requests shall be directed to the Cooperative Agreement Manager (CAM) for approval and shall not be effective until unilateral execution of a modification to the Agreement.

ARTICLE 7 Term Of The Agreement

The basic term of this Agreement will commence upon the effective date and continue through five (5) years; subject to the availability of funds. There will be an option to extend the CRA for an additional five (5) years. At the end of the fourth year, a comprehensive program review will be conducted as directed by ARL. This review will consider cumulative performance metrics, the Consortium's vision for the additional five-year period of performance (to be submitted by the Consortium at the end of the fourth year), funding availability and the current research needs and goals of the US Army. Performance metrics are expected to include items that provide an indication of the CRA's accomplishments, the number of refereed journal and conference articles, invited presentations, patents, relevance of the work to ARL, collaboration, and staff rotation. The Government decision as to whether to exercise the option is expected to be based on the results of the review and evaluation described above.

ARTICLE 8 Administrative Responsibility

8.1 The Agreements Office

U.S. Army Contracting Command – Aberdeen Proving Ground - Research Triangle Park, NC, Division
ATTN: CCAP-SCR

For FedEx etc. use: 4300 S. Miami Blvd., Durham, NC 27703
For USPS use: P.O. Box 12211, Research Triangle Park, NC 27709

Grants Officer: _____	Grant Specialist: _____
Phone: (919) 549-_____	Phone: (919) 549-_____
Fax: (919)549-4388	Fax: (919) 549-4388
Email: _____civ@mail.mil	Email: _____civ@mail.mil

8.2 Agreement Administrator

Office of Naval Research (ONR)
_____ Regional Office
Street, Suite
City, State Zip code
Telephone: xxx-xxx-xxxx
Fax: xxx-xxx-xxxx
Email: onr_@onr.navy.mil

8.3 The Recipient Address and Point of Contact

University

City, State Zip code
Telephone: xxx-xxx-xxxx
Fax: xxx-xxx-xxxx
Email: xxx @xxx.edu

8.4 The Payment Office

DFAS Indianapolis (if using GFEBS funds)
DFAS-INDY VP GFEBS
8899 E 56th Street
Indianapolis, IN 46249-3800
CODE: HQ0490
Telephone: 888-332-7366

8.5 Address of Payee (see paragraph 8.3 above)

ARTICLE 9 Public Release or Dissemination of Information

9.1 Open Publication Policy

Notwithstanding the reporting requirements of this Agreement, Parties to this Agreement favor an open-publication policy to promote the commercial acceptance of the research developed under this Agreement, but simultaneously recognize the necessity to protect proprietary information.

9.2 Prior Review of Public Releases.

The Parties agree to confer and consult with each other prior to publication or other disclosure of the results of work under this Agreement to ensure that no classified or proprietary information is released. Prior to submitting a manuscript for publication or before any other public disclosure, each Party will offer the other Party ample opportunity (not to exceed 60 calendar days) to review such proposed publication or disclosure, to submit objections, and to file application letters for patents in a timely manner.

9.3 Publication Legend

It is herein agreed that except for the disclosure of basic information regarding this Agreement such as membership, purpose and a general description of the technical work, the Consortium Members will submit all proposed public releases to the ARL Cooperative Agreement Manager for comment prior to release. Public releases include press releases, specific publicity or advertisement, and articles for proposed publication or presentation. In addition, articles for publication or presentation will contain an acknowledgement of support and a disclaimer. This should be included to read as follows. These statements may be placed either at the bottom of the first page or at the end of the paper. "Research was sponsored by the Army Research Laboratory and was accomplished under Cooperative Agreement Number **W911NF-13-2-00xx**. The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the official policies, either expressed or implied, of the Army Research Laboratory or the U.S. Government. The U.S. Government is authorized to reproduce and distribute reprints for Government purposes notwithstanding any copyright notation herein."

ARTICLE 10 Intellectual Property

In addition to the Intellectual Property Rights contained in 32 CFR 32.36 or in 32 CFR 34.25 as applicable, and patent rights clause 37 CFR 401.14, incorporated by reference into this Agreement, the participants recognize that this program may result in intellectual property that is generated by the Recipient or Sub-Recipient personnel and Government personnel. Should this occur, the parties agree to use their best efforts to mutually agree to an equitable distribution of property rights and distribution of filing fees or other administrative costs. Should the parties reach an impasse in determining the distribution of property rights, the parties shall resort to the Disputes, Claims, and Appeals Process as set forth at 32 CFR 22.815.

ARTICLE 11 Entire Agreement

This Agreement, along with all Attachments, constitutes the entire Agreement between the Parties concerning the subject matter hereof and supersedes any prior understanding or written or oral agreement relative to said matter. In the event of a conflict between the terms of the Agreement and its attachments, the terms of the Agreement shall govern.

ARTICLE 12 Governing Law/Order of Precedence

The Agreement shall be enforced in accordance with applicable federal law and regulations, directives, circulars or other guidance as specified in this Agreement. When signed, this Agreement shall become binding on the Recipient and the Government to be administered in accordance with the DoD Grant and Agreement Regulations as they apply to the particular recipient concerned. In the event a conflict exists between the provisions of this Agreement and the applicable law, regulations, directives, circulars or other guidance, the Agreement provisions are subordinate.

ARTICLE 13 Waiver of Rights

Any waiver of any requirement contained in this Agreement shall be by mutual agreement of the Parties hereto. Any waiver shall be reduced to writing and a copy of the waiver shall be provided to each Party. Failure to insist upon strict performance of any of the terms and conditions hereof, or failure or delay to exercise any rights provided herein or by law, shall not be deemed a waiver of any rights of any Party hereto.

ARTICLE 14 Use of Technical Facilities

To the maximum extent practical, the Recipient agrees to use the technical reference facilities of the Defense Technical Information Center, 8725 John J. Kingman Road, Suite 0944, Ft. Belvoir, VA 22060-6218 (Internet address: <http://www.dtic.mil>) and all other sources, whether United States Government or private, for purpose of surveying existing knowledge and avoiding needless duplication of scientific and engineering effort.

ARTICLE 15 Metric System of Measurement

The Metric Conversion Act of 1975 as amended by the Omnibus Trade and Competitiveness Act of 1988 and implemented by Executive Order 12770 gives preference to the metric system. The Recipient shall ensure that the metric system is used to the maximum extent practicable in performance of this Agreement.

ARTICLE 16 Liability

No Party to this Agreement shall be liable to the other Party for any property the other Party has consumed, damaged, or destroyed in the performance of this Agreement, unless it is due to the negligence or misconduct of the other Party or an employee or agent of that Party.

ARTICLE 17 Non-Assignment

This Agreement may not be assigned by any Party except by operation of law resulting from the merger of a Party into, or with, another corporate entity.

ARTICLE 18 Severability

If any article, clause, provision or section of this Agreement shall be held illegal or invalid by any court, the invalidity of such article, clause, provision or section shall not affect any of the remaining articles, clauses,

provisions or sections herein and this Agreement shall be construed and enforced as if such illegal or invalid article, clause, provision or section had not been contained herein.

ARTICLE 19 Force Majeure

Neither Party shall be in breach of this Agreement for any failure of performance caused by any event beyond its reasonable control and not caused by the fault or negligence of that Party. In the event such a force majeure event occurs, the Party unable to perform shall promptly notify the other Party and shall in good faith maintain such partial performance as is reasonably possible and shall resume full performance as soon as is reasonably possible.

ARTICLE 20 Notices

All notices and prior approvals required hereunder shall be in writing and shall be addressed to the Parties identified on the Agreement cover page and Article 8. Notices and prior approvals shall be effective upon signature of the Grants Officer.

ARTICLE 21 Access Guidance

Should a Recipient's performance require access to DoD facilities, the Recipient shall coordinate with their CAM or designated point of contact providing access in order to obtain the most current access guidance. Commencement of access coordination should occur at least (10) calendar days prior to the date of required access.

ARTICLE 22 System for Award Management (formerly Central Contractor Registration and Universal Identifier Requirements)

A. Requirement for System for Award Management (SAM)

Unless you are excepted from this requirement under 2 CFR 25.110, you as the recipient must maintain the currency of your information in the SAM until you submit the final financial report required under this award or receive the final payment, whichever is later. This requires that you review and update the information at least annually after the initial registration, and more frequently if required by changes in your information or another award term.

B. Requirement for Data Universal Numbering System (DUNS) Numbers

If you are authorized to make subawards under this award, you:

1. Must notify potential subrecipients that no entity (see definition in paragraph C of this award term) may receive a subaward from you unless the entity has provided its DUNS number to you.
2. May not make a subaward to an entity unless the entity has provided its DUNS number to you.

C. Definitions

For purposes of this award term:

1. System for Award Management (SAM) means the Federal repository into which an entity must provide information required for the conduct of business as a recipient. Additional information about registration procedures may be found at the SAM Internet site (currently at <http://www.sam.gov>).

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

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

- a. A Governmental organization, which is a State, local government, or Indian tribe;
- b. A foreign public entity;

- c. A domestic or foreign nonprofit organization;
- d. A domestic or foreign for-profit organization; and
- e. A Federal agency, but only as a subrecipient under an award or subaward to a non-Federal entity.

4. Subaward:

- a. This term means a legal instrument to provide support for the performance of any portion of the substantive project or program for which you received this award and that you as the recipient award to an eligible subrecipient.
- b. The term does not include your procurement of property and services needed to carry out the project or program (for further explanation, see Sec. __.210 of the attachment to OMB Circular A-133, “Audits of States, Local Governments, and Non-Profit Organizations”).
- c. A subaward may be provided through any legal agreement, including an agreement that you consider a contract.

5. Subrecipient means an entity that:

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

ATTACHMENT 1
Standard Terms and Conditions for Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations Department of Defense Grant and Agreement Regulations (DoDGARS)
(DoD 3210.6-R and 32 CFR Parts 21-37)

Award, administration, and performance under this Agreement is subject to the requirements of the DoD Grant and Agreement Regulations (32 CFR Parts 21 – 37) as these requirements are incorporated as part of this Agreement. The following references indicate the Government’s decision on specific issues. These Narratives are also incorporated as part of this Agreement.

32 CFR 22.815 Claims, Disputes and Appeal

The Government and Recipient will employ Alternative Dispute Resolution to resolve issues which arise during the performance of this Agreement. The Government and Recipient recognize that disputes arising under this Agreement are best resolved at the local working level by the Parties directly involved. All Parties are encouraged to be imaginative in designing mechanisms and procedures to resolve disputes at this level. Any dispute arising under the Agreement, which is not disposed of by agreement of the Parties at the working level shall be submitted jointly to the Grants Officer and a senior manager of the Recipient or their designee(s) for resolution (see section 815(c)(2)). The Grant Appeal Authority is the Director of ARL (see section 815(e)(2)). Pending the resolution of any dispute or claim pursuant to this Article, the Parties agree that performance of all obligations shall be pursued diligently in accordance with the Agreement.

32 CFR 32.21 Standards for Financial Management Systems

The Government does not guarantee or insure the repayment of money borrowed by the recipient. Further, the Government does not require the recipient to secure fidelity bond coverage to protect the Government’s interests.

32 CFR 32.22 Payment

All payments made under this Agreement will be of the reimbursement type(see 32 CFR 32.22(e). See Article 5 – Fiscal Management for specifics concerning the payment process.

32 CFR 32.23 Cost Sharing or Matching

This provision is applicable only if cost sharing or matching is included in the Recipient’s proposal and the subsequent award document. Should cost sharing or matching be included, the Parties to this Agreement will mutually agree to its allowability, valuation and necessary documentation.

32 CFR 32.24 Program Income

Should this Agreement result in the generation of program income, the Recipient shall account for said funds, add them to the funds committed to the project, and they shall be used to further the program objectives. The Recipient shall have no obligation to the Government for program income earned after the expiration of the program. Costs incident to the generation of program income may be deducted from gross income to determine program income, provided these costs have not been charged to the award document.

32 CFR 32.25 Revision of Budget and Program Plans

See Article 6 of this Agreement.

32 CFR 32.26 Non-Federal Audits

Non-Profit entities shall submit a copy of the OMB Circular A-133 audit reports to the DoD Inspector General and to the Grants Officer. Audits that do not meet the requirements of OMB Circular A-133, must address the issues and resolve them prior to additional funding being obligated to this Agreement.

32 CFR 32.27 and 32.28 Allowable Costs and Period of Availability of Funds

The Recipient shall comply with the appropriate cost principles.

32 CFR 32.30 through 32.37 Property Standards

Sections 32.31 through 32.37 set forth uniform standards governing management and disposition of property furnished by the Federal Government and property whose cost was charged to a project supported by a Federal award. DoD Components shall require recipients to observe these standards under awards and shall not impose

additional requirements, unless specifically required by Federal statute. The recipient may use its own property management standards and procedures provided it observes the provisions of §§32.31 through 32.37

32 CFR 32.40 through 32.48 Procurement Standards

Sections 32.41 through 32.48 set forth standards for use by recipients in establishing procedures for the procurement of supplies and other expendable property, equipment, real property and other services with Federal funds. These standards are furnished to ensure that such materials and services are obtained in an effective manner and in compliance with the provisions of applicable Federal statutes and executive orders.

32 CFR 32.5 Subawards

Unless sections of this part specifically exclude subrecipients from coverage, the provisions of this part shall be applied to subrecipients performing work under awards if such subrecipients are institutions of higher education, hospitals or other non-profit organizations. State and local government subrecipients are subject to the provisions of 32 CFR part 33. Subrecipients that are for-profit organizations are subject to 32 CFR part 34.

32 CFR 32.51 and 32.52 Monitoring and Reporting Program and Financial Performance

See Attachment 4 of this Agreement.

32 CFR 32.53 Retention and Access Requirements for Records

Reference DoDGARs website <http://www.dtic.mil/whs/directives/corres/html/321006r.htm> Part 32

32 CFR 32.60 through 32.62 Termination and Enforcement

In addition to the termination processes set forth in 32 CFR 32.61, this Agreement may also be terminated by the Grants Officer should available funds be insufficient to accomplish the goals or intent of the Agreement, or convenience of the Government.

32 CFR 32.71 through 32.73 After-the-Award Requirements

Reference DoDGARs website <http://www.dtic.mil/whs/directives/corres/html/321006r.htm> Part 32

Appendix A to Part 32-Contract Provisions

All contracts awarded by a recipient, including those for amounts less than the simplified acquisition threshold, shall contain the following provisions as applicable:

1. Equal Employment Opportunity - E.O. 11246 (3 CFR, 1964-1965 Comp., p. 339), "Equal Employment Opportunity," as amended by E.O. 11375 (3 CFR, 1966-1970 Comp., p. 684), "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and as supplemented by regulations at 41 CFR chapter 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."
2. Copeland "Anti-Kickback" Act (18 U.S.C. 874 and 40 U.S.C.276c)
3. Davis-Bacon Act, as amended (40 U.S.C. 276a to a-7) – (*construction*)
4. Contract Work Hours and Safety Standards Act (40 U.S.C. 327-333)
5. Rights to Inventions Made Under a Contract, Grant or Cooperative Agreement (37 CFR Part 401)
6. Clean Air Act (42 U.S.C. 7401 et seq.) and the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.), as amended
7. Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)
8. Debarment and Suspension (E.O.s 12549 and 12689)

ATTACHMENT 2
Standard Terms and Conditions Applicable to For-Profit Entities
Department of Defense Grant and Agreement Regulations (DoDGARS)
DoD 3210.6-R and 32 CFR Parts 21-37

Award, administration, and performance under this agreement is subject to the requirements of the DoD Grant and Agreement Regulations (32 CFR Parts 21 – 37). The following references indicate the awarding agency's decision on specific issues.

32 CFR 34.1(b)(2)(ii) Subawards

For-profit organizations that receive prime awards covered by this part shall apply to each subaward the administrative requirements that are applicable to the particular type of sub-recipient (see 32 CFR parts 32 and 34)

32 CFR 34.11 Standards for Financial Management Systems

The Agency does not guarantee or insure the repayment of money borrowed by the Recipient (see section 11(b)). Fidelity bond coverage is not required (see section 11(c)).

32 CFR 34.12 Payment

This Agreement will employ the reimbursement method of payment (see 32 CFR 34.12(a)(1)). This Agreement does not provide for advance payments (see section 12(a)(2)). See Article 5 – Fiscal Management for specifics concerning the payment process.

32 CFR 34.13 Cost Share or Match

This provision is applicable only if cost share or match is proposed. Should cost share or match be included, the parties to this agreement will mutually agree to its allowability, valuation, and necessary documentation.

32 CFR 34.14 Program Income

Should this agreement result in the generation of program income, the Recipient shall account for said funds, add them to the funds committed to the project, and they shall be used to further the program objectives. The Recipient shall have no obligation to the Government for program income earned after the expiration of the program. Costs incident to the generation of program income may be deducted from gross income to determine program income, provided these costs have not been charged to the award document. The Patent and Trademark Amendments (35 U.S.C. Chapter 18) apply to inventions made under this award.

32 CFR 34.15 Revision of Budget/Program Plans

See Article 6 of this agreement.

32 CFR 34.16 Audit

For profit Recipient(s) of this award are required to submit audit reports to the following address:

Grants Officer:

Phone:

Fax:

Email:

Defense Contract Management Administration (DCMA)

Appropriate DCMA Office if applicable

Audit reports may be requested from the DoD Inspector General, or any of the Department of Army Policy directorates.

32 CFR 34.17 Allowable Costs

The For-Profit costs principles in 48 CFR parts 31 and 231 (Federal Acquisition Regulation and Defense Acquisition Regulations Supplement) as well as the supplemental information on allowability of audit costs in the 32 CFR 34.16(f) are applicable.

32 CFR 34.18 Fee/Profit

This Agreement does not provide for the payment of fee/profit to the Recipient or sub-recipients.

32 CFR 34.20 through 34.25 Property Standards

For-Profit Recipients may only purchase real property and equipment under this Agreement with the prior approval of the Grants Officer. Government approved Program Plans that include a budget indicating real property or equipment purchases will provide sufficient evidence of the required Grants Officer approval. The Recipient receives conditional title to all real property and equipment purchased under this Agreement. ARL reserves the right to transfer title to any and all equipment or real property purchased under this Agreement to the Federal Government or to eligible third parties upon conclusion of this Agreement.

For-Profit organizations other than small business concerns shall comply with 35 U.S.C. 210(c) and Executive Order 12591 (3 CFR, 1987 Comp., p.220) which codifies a Presidential Memorandum on Government Patent Policy dated February 18, 1983. ARL reserves the right to obtain, reproduce, publish, or otherwise use for Federal Government purpose the data first produced under this award, and authorize others to receive, reproduce, publish, or otherwise use such data for Federal purposes.

32 CFR 34.30 through 34.31 Procurement Standards

ARL reserves the right to review prior to award procurement documents such as request for proposals, or invitations for bids, independent cost estimates etc., during performance under this award. (see 32 CFR 34.31(b))

32 CFR 34.41 Reports

See Attachment 5 of this Agreement.

32 CFR 34.42 Records

32 CFR 34.50 through 34.52 Termination and Enforcement

In addition to the termination processes set forth at 32 CFR 34.51, this Agreement may also be terminated by the Grants Officer should available funds be insufficient to accomplish the goals or intent of the Agreement, or other convenience of the Government.

32 CFR 22.815 Claims, Disputes and Appeal

The Agency and Recipient will employ Alternative Dispute Resolution to resolve issues which arise during the performance of agreement. The Agency and Recipient recognize that disputes arising under this agreement are best resolved at the local working level by the parties directly involved. All Parties are encouraged to be imaginative in designing mechanisms and procedures to resolve disputes at this level. Any dispute arising under the agreement, which is not disposed of by agreement of the parties at the working level shall be submitted jointly to a senior manager of Agency and Recipient or their designee(s) for resolution (see section 815(c)(2)). The Grant Appeal Authority is the Director of Agency (see section 815(e)(2)). Pending the resolution of any dispute or claim pursuant to this Article, the Parties agree that performance of all obligations shall be pursued diligently in accordance with the Agreement.

32 CFR 34.61 through 34.63 After-the-Award Requirements

Appendix A to Part 34 – Contract Provisions

All contracts awarded by the Recipient, including those for amounts less than the simplified acquisition threshold, shall contain the following provisions as applicable:

- Equal Employment Opportunity (E.O. 11246, as amended by E.O. 11375, and supplemented by 41 CFR Chapter 60)
- Copeland “Anti-Kickback” Act (18 U.S.C. 874 and 40 U.S.C. 276c)
- Contract Work Hours and Safety Standards Act (40 U.S.C. 327-333)
- Rights to Inventions Made Under a Contract, Grant, or Cooperative Agreement (37 CFR Part 401)
- Clean Air Act (42 U.S.C. 7401 et seq.) and the Federal Water Pollution Control Act (33 U.S.C. 1251 et. seq.)
- Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)
- Debarment and Suspension (E.O.s 12549 and 12689)

ATTACHMENT 3

National Policy Requirements

By signing this Agreement or accepting funds under this Agreement, the recipient assures that it will comply with applicable provisions of the national policies on the following topics:

1. NONDISCRIMINATION.

- a. On the basis of race, color, or national origin, in Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d, et seq.), as implemented by DoD regulations at 32 CFR part 195.
- b. On the basis of sex or blindness, in Title IX of the Education Amendments of 1972 (20 U.S.C. 1681, et seq.). (Applicable to Educational Institutions only)
- c. On the basis of age, in the Age Discrimination Act of 1975 (42 U.S.C. 6101, et seq.), as implemented by Department of Health and Human Services regulations at 45 CFR part 90.
- d. On the basis of handicap, in Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794), as implemented by Department of Justice regulations at 28 CFR part 41 and DoD regulations at 32 CFR part 56.

2. LIVE ORGANISMS.

(a) *For human subjects*, the Common Federal Policy for the Protection of Human Subjects, codified by the Department of Health and Human Services at 45 CFR part 46 and implemented by the Department of Defense at 32 CFR part 219.

(b) *For animals*:

a. (*Research, experimentation or testing involving the use of animals*) Rules on animal acquisition, transport, care, handling, and use in 9 CFR parts 1-4, Department of Agriculture rules implementing the Laboratory Animal Welfare Act of 1966 (7 U.S.C. 2141-2156), and guidelines in the National Academy of Sciences (NAS) "Guide for the Care and Use of Laboratory Animals" (1996), including the Public Health Service Policy and Government Principles Regarding the Care and Use of Animals in Appendix D to the guide.

b. (*DoD appropriations for training on treatment of wounds*) Prohibitions on the purchase or use of dogs or cats for certain medical training purposes, in Section 8019 (10 U.S.C 2241 note) of the Department of Defense Appropriations Act, 1991 (Pub. Law 101-511)

c. (*Activities that may involve or impact wildlife and plants*) Rules of the Departments of Interior (50 CFR parts 10-24) and Commerce (50 CFR parts 217-227) implementing the laws and conventions on the taking, possession, transport, purchase, sale, export, or import of wildlife and plants, including the: Endangered Species Act of 1973 (16 U.S.C. 1531-1543); Marine Mammal Protection Act (16 U.S.C. 1361-1384); Lacey Act (18 U.S.C. 42) and Convention on International Trade in Endangered Species of Wild Fauna and Flora.

3. DEBARMENT AND SUSPENSION: The Recipient agrees to comply with the requirements regarding debarment and suspension in Subpart C of the OMB guidance in 2 CFR part 180, as implemented by the Department of Defense in 2 CFR part 1125. The Recipient also agrees to communicate the requirement to comply with Subpart C to the persons at the next lower tier with whom the recipient enters into transactions that are "covered transactions" under Subpart B of 2 CFR part 180 and the DoD implantation in 2 CFR part 1125.

4. ENVIRONMENTAL STANDARDS.

a. Comply with the applicable provisions of the Clean Air Act (42 U.S.C. 7401, et. Seq.) and Clean Water Act (33 U.S.C. 1251, et. seq.), as implemented by Executive Order 11783 [3 CFR, 1971-1075 Comp., p. 799] and Environmental Protection Agency (EPA) rules at Subpart J of 40 CFR part 32.

b. Identify to the awarding agency any impact this award may have on:

1. The quality of the human environment, and provide help the agency may need to comply with the National Environmental Policy Act (NEPA, at 42 U.S.C. 4231, et. seq.) and to prepare Environmental Impact Statements or other required environmental documentation. In such cases, the recipient agrees to take no action that will have an adverse environmental impact (e.g., physical disturbance of a site such as breaking of ground) until the agency provides written notification of compliance with the environmental impact analysis process.

2. (*Awards that may affect the coastal zone*) Coastal zones, and provide help the agency may need to comply with the Coastal Zone Management Act of 1972 (16 U.S.C 1451, et. Seq.), concerning the protection of U.S. coastal resources.

3. *(Awards that may affect barriers along the Atlantic and Gulf coasts and Great Lakes shores)* Coastal barriers, and provide help the agency may need to comply with the Coastal Barriers Resource Act (16 U.S.C. 3501, et. Seq.), concerning preservation of barrier resources.

4. *(Awards that may affect existing or proposed elements of the National Wild and Scenic Rivers system)* Any existing or proposed component of the National Wild and Scenic Rivers system, and provide help the agency may need to comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. 1271, et. Seq)

5. DRUG FREE WORKPLACE – The recipient agrees to comply with the requirements regarding drug-free workplace requirements in Subpart B (or Subpart C, if the recipient is an individual) of 32 CFR part 26, which implements sec. 5151-5160 of the Drug-Free Workplace Act of 1988 (Pub Law 100-690, Title V, Subtitle D; 41 U.S.C. 701, et. Seq)

6. OFFICIALS NOT TO BENEFIT. No member of or delegate to Congress, or resident commissioner, shall be admitted to any share or part of this Agreement or to any benefit arising from it, in accordance with 41 U.S.C. 22.

7. PREFERENCE FOR U.S. FLAG CARRIERS. Travel supported by U.S. Government funds under this Agreement shall use U.S. -flag air carriers (air carriers holding certificates under 49 USC 41102) for international air transportation of people and property to the extent that such service is available, in accordance with the International Air Transportation Fair Competitive Practices Act of 1974 (49 USC 40118) and the interpretative guidelines issued by the Comptroller General of the United States in the March 31, 1981, amendment to the Comptroller General Decision B138942.

8. CARGO PREFERENCE. The recipient agrees that it will comply with the Cargo Preference Act of 1954 (46 U.S.C. 1241), as implemented by Department of Transportation regulations at 46 CFR 381.7, which require that at least 50 percent of equipment, materials or commodities procured or otherwise obtained with U.S. Government funds under this Agreement, and which may be transported by ocean vessel, shall be transported on privately owned U.S.-flag commercial vessels, if available.

9. MILITARY RECRUITERS. As a condition for receipt of funds available to the Department of Defense (DoD) under this award, the recipient agrees that it is not an institution of higher education (as defined in 32 CFR part 216) that has a policy or practice that either prohibits, or in effect prevents:

(a) The Secretary of a Military Department from maintaining, establishing, or operating a unit of the Senior Reserve Officers Training Corps (in accordance with 10 U.S.C. 654 and other applicable Federal laws) at that institution (or any subelement of that institution);

(b) Any student at that institution (or any subelement of that institution) from enrolling in a unit of the Senior ROTC at another institution of higher education;

(c) The Secretary of a Military Department or Secretary of Homeland Security from gaining access to campuses, or access to students (who are 17 years of age or older) on campuses, for purposes of military recruiting in a manner that is at least equal in quality and scope to the access to campuses and to students that is provided to any other employer; or

(d) Access by military recruiters for purposes of military recruiting to the names of students (who are 17 years of age or older and enrolled at that institution or any subelement of that institution); their addresses, telephone listings, dates and places of birth, levels of education, academic majors, and degrees received; and the most recent educational institutions in which they were enrolled. If the recipient is determined, using the procedures in 32 CFR part 216, to be such an institution of higher education during the period of performance of this Agreement, the Government will cease all payments of DoD funds under this Agreement and all other DoD Grants and Cooperative Agreements to the recipient, and it may suspend or terminate such grants and Agreements unilaterally for material failure to comply with the terms and conditions of award.

10. Trafficking Victims Protection Act of 2000 as amended (22 U.S.C. 7104)

Trafficking in Persons - By signing or accepting funds under the agreement, the recipient agrees that it will comply with Trafficking Victims Protection Act of 2000 (22 U.S.C. 7104(g)) as implemented by 2 CFR 175

175.15 - Award term.

(a) To implement the trafficking in persons requirement in section 106(g) of the TVPA, as amended, a Federal awarding agency must include the award term in paragraph (b) of this section in—

(1) A grant or cooperative agreement to a private entity, as defined in § 175.25(d); and

(2) A grant or cooperative agreement to a State, local government, Indian tribe or foreign public entity, if funding could be provided under the award to a private entity as a subrecipient.

(b) The award term that an agency must include, as described in paragraph (a) of this section, is:

I. Trafficking in persons.

a. Provisions applicable to a recipient that is a private entity.

1. You as the recipient, your employees, subrecipients under this award, and subrecipients' employees may not—

i. Engage in severe forms of trafficking in persons during the period of time that the award is in effect;

ii. Procure a commercial sex act during the period of time that the award is in effect; or

iii. Use forced labor in the performance of the award or subawards under the award.

2. We as the Federal awarding agency may unilaterally terminate this award, without penalty, if you or a subrecipient that is a private entity —

i. Is determined to have violated a prohibition in paragraph a.1 of this award term; or

ii. Has an employee who is determined by the agency official authorized to terminate the award to have violated a prohibition in paragraph a.1 of this award term through conduct that is either—

A. Associated with performance under this award; or

B. Imputed to you or the subrecipient using the standards and due process for imputing the conduct of an individual to an organization that are provided in 2 CFR part 180, “OMB Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement),” as implemented by our agency at [agency must insert reference here to its regulatory implementation of the OMB guidelines in 2 CFR part 180 (e.g., “2 CFR part XX”)].

b. Provision applicable to a recipient other than a private entity. We as the Federal awarding agency may unilaterally terminate this award, without penalty, if a subrecipient that is a private entity—

1. Is determined to have violated an applicable prohibition in paragraph a.1 of this award term; or

2. Has an employee who is determined by the agency official authorized to terminate the award to have violated an applicable prohibition in paragraph a.1 of this award term through conduct that is either—

i. Associated with performance under this award; or

ii. Imputed to the subrecipient using the standards and due process for imputing the conduct of an individual to an organization that are provided in 2 CFR part 180, “OMB Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement),” as implemented by our agency at [agency must insert reference here to its regulatory implementation of the OMB guidelines in 2 CFR part 180 (e.g., “2 CFR part XX”)].

c. Provisions applicable to any recipient.

1. You must inform us immediately of any information you receive from any source alleging a violation of a prohibition in paragraph a.1 of this award term.

2. Our right to terminate unilaterally that is described in paragraph a.2 or b of this section:

i. Implements section 106(g) of the Trafficking Victims Protection Act of 2000 (TVPA), as amended (22 U.S.C. 7104(g)), and

ii. Is in addition to all other remedies for noncompliance that are available to us under this award.

3. You must include the requirements of paragraph a.1 of this award term in any subaward you make to a private entity.

d. Definitions. For purposes of this award term:

1. "Employee" means either:

i. An individual employed by you or a subrecipient who is engaged in the performance of the project or program under this award; or

ii. Another person engaged in the performance of the project or program under this award and not compensated by you including, but not limited to, a volunteer or individual whose services are contributed by a third party as an in-kind contribution toward cost sharing or matching requirements.

2. "Forced labor" means labor obtained by any of the following methods: the recruitment, harboring, transportation, provision, or obtaining of a person for labor or services, through the use of force, fraud, or coercion for the purpose of subjection to involuntary servitude, peonage, debt bondage, or slavery.

3. "Private entity":

i. Means any entity other than a State, local government, Indian tribe, or foreign public entity, as those terms are defined in 2 CFR 175.25.

ii. Includes:

A. A nonprofit organization, including any nonprofit institution of higher education, hospital, or tribal organization other than one included in the definition of Indian tribe at 2 CFR 175.25(b).

B. A for-profit organization.

4. "Severe forms of trafficking in persons," "commercial sex act," and "coercion" have the meanings given at section 103 of the TVPA, as amended (22 U.S.C. 7102).

(c) An agency may use different letters and numbers to designate the paragraphs of the award term in paragraph (b) of this section, if necessary, to conform the system of paragraph designations with the one used in other terms and conditions in the agency's awards.

ATTACHMENT 4
Other Representations/Certifications

The following Representations/Certifications, which have been executed by the Recipient prior to award of this Agreement are on file with the issuing office, and are hereby incorporated herein by reference:

- a. Certification at Appendix A to 32 CFR Part 28 Regarding Lobbying
- b. Representations under DoD Assistance Agreements: Appropriations Provisions on Tax Delinquency and Felony Convictions

ATTACHMENT 5
Reporting Requirements

A. QUARTERLY REPORT

Throughout the term of the Agreement, the Recipient shall submit or otherwise provide a quarterly report (government fiscal quarter). Two (2) copies shall be submitted or otherwise provided to the CAM, and one (1) copy shall be submitted or otherwise provided to the Agreements Administration Office. A copy of the letter of transmittal shall be submitted or otherwise provided to the Agreements Office. The report shall contain two (2) major sections:

1. Technical Status Report. The technical status report will detail technical progress to date on research milestones, all problems, technical issues or major developments during the reporting period. The technical status report will include a report on the status of the collaborative activities during the reporting period. The technical status report will include the utilization of subject inventions by the Recipient. Submit Form DD882 for each invention to the Grants Officer and CAM and submit Form DD882 with "NONE" if none have been made at the end of the Agreement.
2. Business Status Report. The business status report will provide summarized details of the resource status of this Agreement, including the status of contributions by the Recipient. This report should compare the resource status with any payment and expenditure schedules or plans provided in the original Agreement. Any major deviations shall be explained along with discussion of adjustment actions proposed.

B. JOINT PAPERS AND PRESENTATIONS:

When determined necessary by the CAM periodic joint papers and presentations will be given.

C. JOURNAL ARTICLES

Journal articles in general and joint ARL/Recipient journal articles are strongly encouraged as a major reporting mechanism of this research effort.

D. ANNUAL AND FINAL REPORTS

1. The Recipient shall submit an Annual Report making full disclosure of all major technical developments and progress for the preceding 12 months of effort within sixty (60) calendar days of completion of the effort and for each additional 12 months of effort, through the life of this Agreement. The report will also provide an accounting of all Federal funds expended during the term of the Agreement. With the approval of the Cooperative Agreement Manager, reprints of published articles may be attached to the Final Report.

The Recipient shall make distribution of the Final report as follows:

Cooperative Agreement Manager - 1 original plus 1 copy;

Agreement Administration Office - 1 copy, and the

Grants Officer - 1 copy of the letter of transmittal only.

One (1) copy of the Final Report shall be provided to:

Defense Technical Information Center (DTIC)
8725 John J. Kingman Road, Suite 0944
Ft. Belvoir, VA 22060-6218.

E. FINANCIAL REPORTING: Federal Financial Report (SF 425): Annual and Final Reports

1. Reporting period end dates fall on the end of the calendar year for annual reports (12/31) and the end date of the grant project or period for the final report. Annual reports are due 30 days after the reporting period end date, and the final report is due 90 days after the end date of the grant.

All financial reports shall be submitted to the Grant Administration Office identified in Block 6 of the SF 26.

Copies of the forms and instructions may be found on the Internet at

<http://www.aro.army.mil/forms/forms2.htm>.

The Recipient shall make distribution of the Annual and Final (SF425) Reports as follows:

- Cooperative Agreement Manager - 1 original plus 1 copy;
- Agreement Administration Office - 1 copy, and

Note: The SF 425 is a single form that consolidates and replaces the Federal Cash Transaction Report (FACTOR or SF 272/SF 272A) and the Financial Status Report (FSR or SF 269/SF 269A).

F. Federal Awardee Performance and Integrity Information System Reporting

The consortium members must be in compliance with statutory requirements under section 872 of Public Law 110-417.

G. FEDERAL FUNDING ACCOUNTABILITY AND TRANSPARENCY ACT (FFATA) REPORTING

Appendix A to Part 170 - Award Term

I. Reporting Subawards and Executive Compensation.

A. Reporting of first-tier subawards.

1. Applicability. Unless you are exempt as provided in paragraph d. of this award term, you must report each action that obligates \$25,000 or more in Federal funds that does not include Recovery funds (as defined in section 1512(a)(2) of the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5) for a subaward to an entity (see definitions in paragraph e of this award term).
2. Where and when to report.
 - i. You must report each obligating action described in paragraph a.1. of this award term to www.frs.gov.
 - ii. For subaward information, report no later than the end of the month following the month in which the obligation was made. (For example, if the obligation was made on November 7, 2010, the obligation must be reported by no later than December 31, 2010.)
3. What to report. You must report the information about each obligating action that the submission instructions posted at www.frs.gov specify.

B. Reporting Total Compensation of Recipient Executives.

1. Applicability and what to report. You must report total compensation for each of your five most highly compensated executives for the preceding completed fiscal year, if –
 - i. The total Federal funding authorized to date under this award is \$25,000 or more;
 - ii. In the preceding fiscal year, you received—
 - (a) 80 percent or more of your annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards); and
 - (b) \$25,000,000 or more in annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards); and
 - iii. The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986. (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at <http://www.sec.gov/answers/execom.htm>.)
2. Where and when to report. You must report executive total compensation described in paragraph b.1. of this award term:

- i. As part of your registration profile at www.sam.gov.
- ii. By the end of the month following the month in which this award is made, and annually thereafter.

C. Reporting of Total Compensation of Subrecipient Executives.

1. Applicability and what to report. Unless you are exempt as provided in paragraph D. of this award term, for each first-tier subrecipient under this award, you shall report the names and total compensation of each of the subrecipient's five most highly compensated executives for the subrecipient's preceding completed fiscal year, if -

- i. In the subrecipient's preceding fiscal year, the subrecipient received –
 - (a) 80 percent or more of its annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards); and
 - (b) \$25,000,000 or more in annual gross revenues from Federal procurement contracts (and subcontracts), and Federal financial assistance subject to the Transparency Act (and subawards); and
- ii. The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986. (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at <http://www.sec.gov/answers/execomp.htm>.)

2. Where and when to report. You must report subrecipient executive total compensation described in paragraph C.1. of this award term:

- i. To the recipient.
- ii. By the end of the month following the month during which you make the subaward. For example, if a subaward is obligated on any date during the month of October of a given year (i.e., between October 1 and 31), you must report any required compensation information of the subrecipient by November 30 of that year.

D. Exemptions.

1. If, in the previous tax year, you had gross income, from all sources, under \$300,000, you are exempt from the requirements to report:

- i. subawards, and
- ii. The total compensation of the five most highly compensated executives of any subrecipient.

E. Definitions. For purposes of this award term:

1. Entity means all of the following, as defined in 2 CFR part 25:

- i. A Governmental organization, which is a State, local government, or Indian tribe;
- ii. A foreign public entity;
- iii. A domestic or foreign nonprofit organization;
- iv. A domestic or foreign for-profit organization;
- v. A Federal agency, but only as a subrecipient under an award or subaward to a non-Federal entity.

2. Executive means officers, managing partners, or any other employees in management positions.

3. Subaward:

- i. This term means a legal instrument to provide support for the performance of any portion of the substantive project or program for which you received this award and that you as the recipient award to an eligible subrecipient.
- ii. The term does not include your procurement of property and services needed to carry out the project or program (for further explanation, see Sec. --.210 of the attachment to OMB Circular A-133, "Audits of States, Local Governments, and Non-Profit Organizations").

iii. A subaward may be provided through any legal agreement, including an agreement that you or a subrecipient considers a contract.

4. Subrecipient means an entity that:

- i. Receives a subaward from you (the recipient) under this award; and
- ii. Is accountable to you for the use of the Federal funds provided by the subaward.

5. Total compensation means the cash and noncash dollar value earned by the executive during the recipient's or subrecipient's preceding fiscal year and includes the following (for more information see 17 CFR 229.402(c)(2)):

- i. Salary and bonus.
- ii. Awards of stock, stock options, and stock appreciation rights. Use the dollar amount recognized for financial statement reporting purposes with respect to the fiscal year in accordance with the Statement of Financial Accounting Standards No. 123 (Revised 2004) (FAS 123R), Shared Based Payments.
- iii. Earnings for services under nonequity incentive plans. This does not include group life, health, hospitalization or medical reimbursement plans that do not discriminate in favor of executives, and are available generally to all salaried employees.
- iii. Earnings for services under non-equity incentive plans. This does not include group life, health, hospitalization or medical reimbursement plans that do not discriminate in favor of executives, and are available generally to all salaried employees.
- iv. Change in pension value. This is the change in present value of defined benefit and actuarial pension plans.
- v. Above market earnings on deferred compensation which is not tax-qualified.
- vi. Other compensation, if the aggregate value of all such other compensation (e.g. severance, termination payments, value of life insurance paid on behalf of the employee, prerequisites or property) for the executive exceeds \$10,000.00.

ATTACHMENT 6 Articles of Collaboration

(To be added at time of award.)

ATTACHMENT 7
Initial Program Plan and Budget

(To be completed in accordance with Article 3.)