ARTICLES OF COLLABORATION

DEFENSE SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS (STEM) EDUCATION CONSORTIUM (DSEC)

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ARTICLES OF COLLABORATION

FOR THE

DSEC CONSORTIUM

These Articles of Collaboration (herein after referred to as the "Articles") are entered into by and among the following Parties:

Lead Organization (LO): (Completed at Proposal Submission)
Consortium Members: (Completed at Proposal Submission)

HEREINAFTER the LO and Consortium Members collectively are referred to as the "Consortium" or "DSEC" and individually as "Members".

WHEREAS, the Members having complementary interests in national Science, Technology, Engineering, and Mathematics (STEM) efforts and the support and advancement of the Department of Defense (DoD) STEM program enter into the DSEC Cooperative Agreement (COA) (hereafter known as the "Cooperative Agreement", "Agreement" or "COA") with ARL; and

WHEREAS, the Members hereby establish the "Consortium" to engage in a collaborative effort of specified duration, with the Consortium existing for the duration of time specified in the Cooperative Agreement; and

WHEREAS, the Cooperative Agreement identifies the roles and responsibilities of the Members, including the Members' desire to cooperate, contribute resources and perform specified tasks; and

WHEREAS, the Cooperative Agreement will include these executed Articles of Collaboration as an attachment.

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NOW THEREFORE, the Members agree as follows:

ARTICLE 1 - CONSORTIUM MEMBERSHIP AND MANAGEMENT

1.1 Consortium Membership

The DSEC, as outlined in the Cooperative Agreement, consist of the LO and the Consortium Members. The Consortium may be augmented with subawardees to the Consortium Members to meet the objectives of the COA. The subawardees are Participants for purposes of these Articles. The LO will include these Articles in all subawards.

1.2 Consortium Management

Program management duties and responsibilities for the Members are outlined in the Cooperative Agreement. A summary of these duties and responsibilities are include below:

The **Lead Organization (LO)** provides the overall leadership for the Consortium. This responsibility includes the day-to-day management of the Consortium; oversight of the development of the Initial and Annual Program Plans (IPP/APP); participation in the STEM efforts; promoting collaboration within the DSEC; distributing Government funding to Members; and maintaining proper invoicing. The LO will designate a Consortium Chair (CC) from their organization who will be the Consortium's technical representative charged with the responsibility to manage and provide guidance to the DSEC. The CC will support the Cooperative Agreement Manager (CAM) and chair the Cooperative Management Committee (CMC).

The **Individual Program Administrator (IPA)** is the primary point of contact designated by the Consortium for each of the COA fundamental element(s) and should regularly communicate with the CC and CAM.

The **Consortium Management Committee (CMC)** has a representative from each Member and is chaired by the CCC, with each Member having a vote. In the event of a tie, the CC will cast the deciding vote. The CMC is responsible for management and integration of the Consortium's efforts under the COA, to include 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 Consortium. The Cooperative Agreement Manager (CAM) participates as an ex officio member in all discussions except those that deal with purely internal Consortium matters.

ARTICLE 2 - CHANGES IN CONSORTIUM MEMBERSHIP

For purposes of Article 2, "days" means calendar days.

Members acknowledge the Consortium Membership may change during the course of the COA. Thus, the Members agree:

2.1 Resignation of the Lead Organization. The LO, due to its extensive role and involvement, will be required to provide a minimum 180 day notice of its intent to resign from the Consortium. Written notification by the LO of its intent to resign must be made to the CAM and announced at the subsequent monthly CMC meeting at which time, the 180-day period of succession will begin. The CMC will identify a new LO within 180 days of notice of the LO's intent to resign. First consideration to an LO replacement will be given to remaining Members. If a successor LO cannot be found within the remaining Members (e.g., the remaining Members are unwilling or unqualified), the CMC will seek out, investigate, negotiate with and approve an LO from outside the Consortium. The CMC will meet as frequently as every 30 days during the succession period of the LO in an effort to make a smooth transition. The LO will make a diligent effort to transfer its assigned Consortium tasks and results to Members and the new LO during this time. Actual and reasonable costs incurred, including non-cancellable commitments made by the resigning LO before the effective date of the resignation and not incurred expressly in anticipation of the action, may be paid to the resigning LO. The resigning LO will provide a replacement LO with a royalty free, nontransferable, non-exclusive license to use its Consortium Intellectual Property solely for

the performance of the transferred tasks and results.

2.2 Resignation of Consortium Members. Any Consortium Member may resign without penalty or risk from the Consortium upon 90 days prior written notice to the CC. During the 90-day notice period, the resigning Member will conclude its efforts in an orderly manner so as not to adversely impact the Consortium objectives. The CMC will identify a replacement Member within the 90-day notice period of a Member's intent to resign. Actual and reasonable costs, incurred by the resigning Member, including non-cancellable commitments before the effective date of resignation and not incurred expressly in anticipation of the action, may be paid to the resigning Member. A resigning Member will make a diligent effort to transfer its assigned Consortium tasks and results to the remaining Member(s) designated by the CMC to replace the resigning Member in performing such tasks. In the event such transfer effort extends beyond the 90-day notice period, upon approval of the CC, actual and reasonable costs properly incurred in order to affect the transfer and not incurred expressly in anticipation of the action may be paid to the resigning Member. The resigning Member will provide a replacement Member with a royalty free, nontransferable, non-exclusive license to use its Consortium Intellectual Property solely for the performance of the transferred tasks and results.

ARTICLE 3 - FINANCIAL, PERSONNEL, FACILITIES AND REPORTING RESPONSIBILITIES

3.1 Financial Responsibilities - Through execution of these Articles, the Members authorize the LO to receive and disburse Government funds on behalf of the Consortium. The LO shall document Consortium performance through the issuance of a consolidated quarterly report to the CAM. Members are responsible for timely submission of appropriate documentation to the LO to allow for the generation of this report. Members recognize that failure of these timely submissions may result in payment delays or reductions in program funding. The IPP/APP will serve as the baseline for funding disbursements. Funding disbursement is dependent upon the availability of Government funding. It is understood the Government's liability to make payments to the Consortium, through the LO, is limited to only those funds obligated under the Cooperative Agreement.

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 Members will be funded under the Cooperative Agreement or may be provided by a Member as cost-share.

3.2 Personnel Responsibilities- Each Member shall make a good faith effort to provide those personnel identified for the execution of tasks as defined in the Cooperative Agreement and the IPP/APPs. This commitment shall include, but not be limited to:

3.2.1 The ability to make available reasonable and adequate office facilities and administrative support (telephone, personal computer, etc.) for the Consortium to perform activities of the fundamental elements at Member facilities. Anything above and beyond access to reasonable and adequate office facilities and administrative support is subject to negotiation and shall be reflected in the IPP/APPs.

3.3 Facilities. The Members are committed to making available identified facilities for the execution of tasks as defined in the Cooperative Agreement and the IPP/APPs. Such availability shall include, but not be limited to, reasonable facilities access for the Consortium to support efforts at a Member's facility, at times and places agreed to in advance so as not to disrupt other work. Information on facilities availability will be included in the IPP/APPs. Costs for such facilities usage that are expected to be born under the Cooperative Agreement should also be included. By signing these Articles, the Members agree to comply with all applicable safety, environmental, security and operational regulations and policies while performing DSEC efforts at a Consortium host facility.

3.4 Reporting Responsibilities – Members acknowledge the program reporting requirements set forth in the Cooperative Agreement. The LO, through its role in the CMC, is responsible for submitting these reports to the CAM. Report content is totally dependent upon timely and accurate submissions from the Members. As a result, all Members pledge to exercise a good faith effort to submit timely and accurate report data as necessary.

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ARTICLE 4 - INTELLECTUAL PROPERTY

For purposes of Article 4, Members and Subawardees are defined as "Participants."

Success of the COA is dependent on the establishment and maintenance of a collaborative environment that encourages and facilitates the sharing of intellectual property while providing adequate protection of ownership rights. Per the Cooperative Agreement, the United States Government (USG) shall obtain "Government Purpose Rights" to Intellectual Property developed in the course of performance under the Cooperative Agreement. 37 CFR Part 401, 32 CFR §32.36, and 32 CFR §34.25 are included by reference in the Cooperative Agreement.

Participants will cooperate with the Government in all reasonable respects to perfect the USG's rights. "Government Purpose Rights" do not include commercial application. Participants will cooperate with the Government in transferring, or otherwise making available, rights to Consortium Intellectual Property for USG purposes.

4.1 Intellectual Property – "Intellectual Property" refers to intangible personal property to include, but not limited to, copyright, patents and patent applications, trademarks, technical data and software rights.

4.2 Consortium Intellectual Property – "Consortium Intellectual Property" means that Intellectual Property made or created by a Participant in the course of performing tasks under the Cooperative Agreement with Consortium funding, which includes Government funding or Consortium cost share recognized in the subject Cooperative Agreement. The referenced tasks shall be those tasks that are specified in the IPP/APPs.

4.2 Excluded Intellectual Property – "Excluded Intellectual Property" means Intellectual Property that is made or created by a Participant outside of the course of performing tasks under the Cooperative Agreement.

4.3 Non-Exclusive License to Members – Each Participant hereby grants to all other Participants a nonexclusive, royalty-free, non-sublicensable, non-assignable license to Consortium Intellectual Property for the limited purpose of performing tasks under the Cooperative Agreement.

4.4 Ownership – Each Participant has the option to retain sole title and ownership to Consortium Intellectual Property created solely by its employees. Consortium Intellectual Property made or created jointly among Participants shall be jointly owned by such Participants.

4.5 Patents

4.5.1 Patent Filing – Solely Owned Inventions – Each Participant electing to retain sole title to inventions made solely by its employees will be subject to the obligations and conditions set forth in 37 CFR Part 401.

4.5.2 Patent Filing – Jointly Owned Inventions – In the event that an invention is jointly made by employees of more than one Participant ("Inventing Participant") during the performance of the Cooperative Agreement:

- Each Inventing Participant electing to retain title to the ownership interest it received through its employees will be subject to the obligations and conditions set forth in 37 CFR Part 401;
- Said Inventing Participant(s) will jointly determine whether an application for patent will be filed on such joint invention, the identity of the Participants who will prepare and file such application, and the countries in which such application will be filed;
- Unless otherwise agreed by the Inventing Participants, the actual out-of-pocket expenses of patenting such joint invention will be divided equally between the Inventing Participants, provided that, when one Inventing Participant elects not to share equally in the expenses, the other Inventing Participant(s) will have the right to seek or maintain such protection for such joint invention at its (their) own expense and will be granted by the non-paying Inventing Participant full control over the preparation, prosecution and maintenance of the patent application and issuing patent, even though title to any issuing patent will be jointly owned.

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4.5.3 Disclosure and Prosecution of Participant Inventions – An Inventing Participant will report in writing to the LO, or his designee, each Subject Invention within three (3) months after the Inventing Participant inventor discloses it in writing to the Inventing Participant's personnel or office responsible for patent matters or within six (6) months after the Inventing Participant becomes aware of the Subject Invention, whichever is earlier. At the time of such reporting, the Inventing Participant will provide the LO with a copy of such invention disclosure along with an abstract of the Subject Invention. The LO, or his designee, will report the invention to the CAM, or another entity, as provided in the Cooperative Agreement. Any Participant may obtain a copy of the above disclosure from the LO, or his designee, and will respect the inventions confidentiality. An Inventing Participant will also notify the LO, or his designee, of any publications, sale, offer for sale or public use of the Subject Invention, and whether a manuscript has been submitted for publication at the time of the disclosure, or anytime thereafter until the filing of a patent application. An Inventing Participant will also notify the LO, or his designee, promptly of any filing of a patent application, decision not to file, pay maintenance fees, continue prosecution or defend in reexamination or opposition proceeding any patent or patent application or a Subject Invention.

4.6 No Accounting – Subject to the licenses granted or to be granted according to the terms of these Articles, or any separate written agreement to the contrary, each Inventing Participant will have the right to license its solely owned or jointly owned Consortium Intellectual Property to any third party, independently and at such royalty rates and upon such terms and conditions as it may determine. All royalties resulting from such licensing may be retained solely by the licensing Participant without a requirement for accounting to any other Participant.

4.7 Obligation to Negotiate – All Inventing Participants agree, to the extent rights are available, to negotiate with other Participants licenses, for consideration with reasonable terms and conditions, to Consortium Intellectual Property which they own, solely or jointly, for purposes other than performance of tasks under the Cooperative Agreement.

4.8 Copyright –

Works Created Solely by the Consortium: The Consortium retains all ownership to copyrights for original works of authorship created solely by the Consortium's employees in the course of performance of work under this Agreement. The Consortium grants a royalty-free, nonexclusive, irrevocable license to use, modify, prepare derivative works, reproduce, distribute, perform, and display worldwide such copyrighted works by or on behalf of the Government for Government purposes.

Works Created Solely by the Government: Copyright protection is not available for any work of the United States Government. A "work of the United States Government" is work prepared by an officer or employee of the United States Government as part of that person's official duties and the Government may reproduce and disseminate this work in paper or digital form/

Jointly Created Works: Ownership to copyrights for original works of authorship created jointly by a Government employee and a Consortium employee in the course of performance of work under this Agreement is vested in the Consortium. The Consortium grants to the Government a royalty-free, nonexclusive, irrevocable license to use, modify, prepare derivative works, reproduce, distribute, perform, and display worldwide such copyrighted works.

Copyright Statement: The Consortium will include the following statement on any text, drawing, mask work or other work of authorship that may be copyrighted under Title 17 of the US Code, which is created in the performance of this Agreement: "The U.S. has a copyright license in this work pursuant to an Cooperative Agreement."

The Consortium will include the following statement on any text, drawing, mask work or other work of authorship by a U.S. Government employee created while collaborating under this Agreement: "This work was prepared by a U.S. Government employee and, therefore, is excluded from copyright by Section 105 of the Copyright Act of 1976."

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ARTICLE 5 - INFORMATION EXCHANGE GUIDELINES

For purposes of Article 5, Members and Subawardees are defined as "Participants."

Each of the Participants has technical expertise pertaining to certain intangible property including, but not limited to: inventions, reports, technical data, computer software, computer codes and designs, trade secrets marketing and proposal pricing information related to the DSEC which is appropriately considered to be commercially sensitive and proprietary ("Proprietary Information"). Participants recognize the success of the DSEC is dependent upon the exchange of said Proprietary Information with other Participants and each Participant agrees to the following Information Exchange Guidelines as follows:

5.1 Each Participant agrees that it will, to the extent it protects its own Proprietary Information, but to not less than a reasonable extent, protect from unauthorized use, reproduction, and disclosure and will not disclose to any person outside its respective organization; other than Representatives of the Government and other Participants as identified herein; or to any person within its respective organization not having a need to know for the purposes of the Cooperative Agreement and will not use or reproduce, except for the purposes of this agreement, any Proprietary Information:

a) which is disclosed hereunder to such receiving Participant, hereafter known as the "Recipient" of the information, in writing, whether tangible or electronic, and is designated by an appropriate stamp, marking or legend thereon to be of a proprietary, confidential or commercially sensitive nature by the disclosing Participant , hereafter known as the "Owner" of the information; or

b) which is orally or visually disclosed to such Recipient and is identified at the time of disclosure as being proprietary or commercially sensitive by the Owner, provided that, within 30 days of such oral or visual disclosure, the Owner reduces the subject matter of the disclosure to a tangible or electronic form properly identified in the manner described above and delivers it to the Recipient.

5.2 All Participants acknowledge the purpose of this Article is to promote the disclosure and protection of information which is identified as Proprietary Information by the Owner of the information. In the event of such a disclosure, the Participants agree the Owner, prior to such disclosure, will advise the intended Recipient of the sensitivity of the Proprietary Information to be discussed and/or disclosed and the Recipient will verbally agree or decline to receive the Owner's Proprietary Information. In such cases where the Recipient agrees to receive Owner's Proprietary Information, Owner will notify and inform Recipient as required herein. A record, capable of producing an audit trail will be maintained by both the Owner of the Proprietary Information and the Recipient. If for any reason, the intended Recipient declines to receive Owner's Proprietary Information which is deemed by the CMC to be necessary to further the goals of the applicable Program Plan(s), said intended Recipient's level of participation in a given research project may be (i) diminished to an extent where said participation is excluded from access to the proprietary data and/or subsequent research findings or (ii) eliminated as may be determined by the CMC in accordance with the terms and conditions of the Cooperative Agreement. All reasonable efforts will be made by the CMC to equitably resolve and/or mitigate the impact of (i) and (ii) above resulting from an intended Recipient's inability to accept and protect the Owner's Proprietary Information.

5.3 Each Participant agrees to take appropriate action in accordance with Paragraph 5.2 above, to provide for the protection, safekeeping, and restricted use, reproduction, and disclosure of Proprietary Information received under this Cooperative Agreement.

5.4 No Participant shall be liable for disclosure of any such Proprietary Information if the same is disclosed by the Recipient with the prior written approval of the Owner.

5.5 Notwithstanding the earlier termination of, or expiration of the term of, the Cooperative Agreement, Proprietary Information received hereunder shall be protected by a Recipient as required by this Article for a period of five (5) years from the date of receipt thereof or for five (5) years after the expiration date of the Cooperative Agreement, whichever is later,

5.6 The standard of care to be employed by a Recipient will be the same standard of care employed by the Recipient in treating its own Proprietary Information of like sensitivity. However, under no circumstances

will the degree of care be less than reasonable. Furthermore, immediately upon discovering the loss or unauthorized disclosure of Proprietary Information received, the Recipient shall notify the Owner thereof and take all reasonable steps to retrieve and prevent further disclosure of such Proprietary Information.

5.7 In the event, and to the extent, Proprietary Information received under the Cooperative Agreement: (i) is or becomes publicly available without breach of this Agreement; or (ii) was, and can be shown by written records to have been, known to the Recipient, free of any obligation to keep confidential and free of any restrictions on use and disclosure, at the time of its receipt hereunder from the Owner; or (iii) is rightfully received by the Recipient from a third party without breach of other agreements; or (iv) is and can be shown to have been independently developed by employees of the Recipient not having access to such Proprietary Information, or (v) is disclosed by the Owner to any third party, including the USG, without restriction upon its further disclosure, the Recipient shall not be liable for disclosure of such publicly available, known, third party disclosed, or independently developed or owner-disclosed information. Proprietary Information, if required, may be disclosed pursuant to applicable law, regulation or court order, provided that the Recipient will use reasonable efforts to afford the Owner an opportunity to limit or restrict such disclosure, or to obtain an appropriate protective/secrecy order with respect thereto.

5.8 It is understood and agreed that Proprietary Information received under the Cooperative Agreement may be disclosed by any Recipient to the Government in support of on-going or of subsequent Program Plans provided the disclosure documentation (medium) containing the Proprietary Information bears restrictive legends such as:

"This document contains trade secrets, commercial or financial information that is privileged or confidential. The disclosure of such information is prohibited under the Freedom of Information Act (5 U.S.C. Sec. 552) and other statute(s) prohibiting disclosure (*e.g.*, 18 U.S.C. Sec. 1905)."

5.9 Proprietary Information received under the Cooperative Agreement may be used by the Recipient in the performance of any grant, contract or other award only as is authorized in writing by the Owner.

5.10 Nothing contained in this Article shall be construed as granting or conferring any rights by license or otherwise in any Proprietary Information disclosed under the Cooperative Agreement.

5.11 This Article shall benefit and be binding upon the Participants hereto, and the rights and obligations under this Article shall not be sold, assigned, nor otherwise transferred. Notwithstanding the foregoing, a Participant may assign its rights and obligations under the Cooperative Agreement in their entirety to the purchaser of substantially all of the Participant's business to which the subject matter of this Article relates, subject to approval of the Government and subject to return of any Proprietary Information of another Participant which objects to the transfer of its Proprietary Information to the assignee.

5.12 IN NO EVENT ARISING FROM OR CONNECTED WITH THIS ARTICLE OF THE INFORMATION DISCLOSED HEREUNDER SHALL ANY PARTICIPANT BE LIABLE TO THE OTHER FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES.

ARTICLE 6 - MODIFICATIONS TO THE ARTICLES OF COLLABORATION

Any Member who wishes to modify these Articles will, upon reasonable notice of the proposed modification to the other Members, confer in good faith with the Members to determine the desirability of the proposed modification. Modifications will not be effective until consensus is reached by the Members on the modification, a written modification is signed by the Agreement signatories or their successors and the modification is approved by the CAM and the Grants Officer.

ARTICLE 7 - TERM OF THE AGREEMENT

The term of these Articles will commence upon the date of execution of these Articles and continue through the completion or termination of the Consortium's Cooperative Agreement with the Government.

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ARTICLE 8 - DISCLAIMER OF WARRANTIES AND CERTAIN LIABILITY

8.1 No Warranties. Except as explicitly set forth in these articles, the Members disclaim any warranties including any implied warranty of merchantability or fitness for a particular purpose for actions, omissions, technical information, data or products developed in pursuit of the objectives of the Consortium.

8.2 Relationship of the Members. The Members are bound to each other by duties of good faith and reasonable efforts in achieving the goals of the COA. Joint and severable liability shall not attach to the Members. Therefore, no Member shall be responsible for the acts or omissions of another Member, but shall be only responsible for its own actions.

8.3 Liability Disclaimer. Members disclaim any liability for consequential, indirect, or special damages. In no event shall a Member's liability under these Articles exceed the funding it has received from the Government up to the time of incurring such liability.

8.4 Property Liability. No Member shall be liable to another Member for any property belonging to the latter that has been consumed, damaged, or destroyed in performance under the Cooperative Agreement, unless it is due to the negligence or misconduct of the former Member or an employee or agent of same.

ARTICLE 9 - WAIVER OF RIGHTS

Any waiver of any requirement contained in these Articles shall be by mutual agreement of the Members, subject to the approval of the CAM. Any waiver shall be reduced to writing and a copy of the waiver shall be provided to each Member. 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 Member hereto.

ARTICLE 10 - SEVERABILITY

If any clause, provision or section of these Articles shall be held illegal or invalid by any court, the invalidity of such clause, provision or section shall not affect any of the remaining clauses, provisions or sections herein and these Articles shall be construed and enforced as if such illegal or invalid clause, provision or section had not been contained herein.

ARTICLE 11 - FORCE MAJEURE

No Member shall be in breach of these Articles for any failure of performance caused by any event beyond its reasonable control and not caused by the fault or negligence of that Member. In the event such a force majeure event occurs, the Member unable to perform shall promptly notify all other Members and shall in good faith maintain such partial performance and resume full performance as soon is reasonably possible.

ARTICLE 12 - COMMUNICATION

Any notices or other communications required or permitted thereunder shall be deemed sufficiently given if hand-delivered, delivered electronically (*i.e.*, email) with verification of receipt, sent by overnight carrier or by certified first class mail postage prepaid to the following address for each Member:

(Members are to enter their address and point of contact)

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ACKNOWLEDGEMENT COVERSHEET

(TO BE SIGNED BY ALL CONSORTIUM MEMBERS)

FOR THE

ARTICLES OF COLLABORATION

DEFENSE SCIENCE,

TECHNOLOGY, ENGINEERING,

AND MATHEMATICS (STEM)

EDUCATION CONSORTIUM

(DSEC) COOPERATIVE

AGREEMENT (COA)

By signing below, the prospective Consortium Member hereby acknowledges their willingness to sign and abide by the Articles of Collaboration, as set forth in the DEFENSE SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS (STEM) EDUCATION CONSORTIUM (DSEC) AND TECHNOLOGY (DSEC) Cooperative Agreement Funding Opportunity Announcement, should the prospective Consortium be selected for award. The signature must be from a person who is duly authorized to bind that organization under the Cooperative Agreement.

_____
(Signature)

_____
(Name)

_____
(Title)

_____
(Name of Organization)

_____
(Date)

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