Revised: 4/11/	/00 Collaborator:	
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COOPERATIVE RESEARCH AND DEVELOPMENT AGREEMENT (CRADA)

Article 1. INTRODUCTION

This Cooperative Research and Development Agreement (CRADA) between the **National Oceanic and Atmospheric Administration (NOAA)**, *on behalf of the Office of Oceanic and Atmospheric Research (OAR)*, and the Collaborator will be effective when signed by all Parties. The research and development project(s) which will be undertaken by each of the Parties in the course of this CRADA is detailed in the Statement of Work (SoW) which is attached as part of Appendix A. Any exceptions or changes to the CRADA are set forth in Appendix B.

Article 2. **DEFINITIONS**

As used in this CRADA, the following terms shall have the indicated meanings:

- 2.1 "Background Invention" means any invention of either Party conceived outside of this CRADA.
- 2.2 "Cooperative Research and Development Agreement" or "CRADA" means this Agreement, entered into by NOAA/OAR, pursuant to 15 U.S.C. Section 3710a.
- 2.3 "Invention" means any invention or discovery which is or may be patentable or otherwise protected under Title 35 (35 U.S.C.) or any novel variety of plant which is or may be protectable under the Plant Variety Protection Act (7 U.S.C. 2321 et seq.).
- 2.4 "**Principal Investigator**" or "**PI**" means the person designated respectively by each Party to this CRADA who will be responsible for the scientific and technical conduct of the research.
- 2.5 "**Project Team**" means all personnel assigned by the Collaborator to conduct the research designated in this Agreement.
- 2.6 "**Proprietary Information**" means confidential scientific, business, or financial information, which may embody trade secrets provided by the Collaborator to NOAA/OAR in the course of this CRADA, and developed exclusively at private expense, except if such information:

- 2.6.1 was in NOAA/OAR's possession before receipt from the Collaborator; or
- 2.6.2 is or becomes a matter of public knowledge through no fault of NOAA/OAR; or
- 2.6.3 is received by NOAA/OAR from a third party without a duty of confidentiality; or
- 2.6.4 is disclosed by the Collaborator to a third party without a duty of confidentiality on the third party; or
- 2.6.5 is independently disclosed by NOAA/OAR with the Collaborator's prior written approval; or
- 2.6.6 is independently developed by NOAA/OAR without reference to information disclosed hereunder.
- 2.7 "Research Products" means all tangible materials, other than CRADA Data, first produced in the performance of this CRADA.
- 2.8 "CRADA Data" means all recorded information first produced in the performance of this Agreement.
- 2.9 "CRADA Invention" means any invention conceived or first actually reduced to practice under this CRADA.

Article 3. COOPERATIVE RESEARCH

- 3.1 **Research Plan and Changes.** The Statement of Work (SoW) of this CRADA, its duration, and its objectives are detailed in Appendix A. The research under this CRADA shall be performed on a reasonable efforts basis. Collaborator certifies the correctness of the information contained in Appendix A.
- 3.2 **Reviews and Reports.** Periodic conferences shall be held by NOAA/OAR and the Collaborator to review work progress. Parties shall exchange formal written interim progress reports and final reports on a schedule as set forth in Appendix A.
- 3.3 <u>Principal Investigators.</u> NOAA/OAR shall be the supervising Federal agency, both administratively and scientifically, for this CRADA. The NOAA/OAR PI is responsible for the scientific and technical conduct of this project on behalf of NOAA/OAR. The designated Collaborator PI is responsible for the scientific and technical conduct of this project on behalf of the Collaborator. The Collaborator shall designate the Project Team in Appendix A of this Agreement.
- 3.4 <u>Project Team.</u> While at NOAA/OAR, the Project Team shall pursue its activities according to the work schedule and under the Government security and conduct regulations that apply to NOAA/OAR employees. The project team shall conform to the Standards of Ethical Conduct for Employees of the Executive Branch (Executive Order 12674 and 5 C.F.R. Part 2635), hereby made part of this Agreement, to

the extent that these standards prohibit private business activities or interests incompatible with the best interest of the Department of Commerce. Individuals selected to work at the other Party's laboratory will be subject to the acceptance by that Party. Such acceptance shall not be unreasonably withheld.

3.5 <u>Change in Collaborator Status.</u> Collaborator agrees to notify NOAA/OAR within thirty days should it become subject to the control of a foreign company or government at any time during this Agreement, or if any other change occurs relevant to Appendix A.

Article 4. FINANCIAL OBLIGATIONS

4.1 **NOAA/OAR** and Collaborator Contributions. Each Party's contribution to the CRADA is listed in Appendix A. Payment schedules, if applicable, are also indicated in Appendix A. The Collaborator shall provide directly for travel and related expenditures for its Project Team. NOAA/OAR may not contribute funds to a non-Federal collaborator.

Article 5. **TITLE TO EQUIPMENT**

5.1 **Equipment.** Equipment purchased by NOAA/OAR with funds provided under this CRADA by the Collaborator shall be the property of NOAA/OAR. All equipment loaned under this CRADA by a Party remains the property of that Party unless the Parties agree in writing on some other disposition. Each Party's equipment will be returned to the lending Party at the lending Party's expense and risk as soon as practical after termination of the Agreement.

Article 6. TREATMENT OF PROPRIETARY INFORMATION

6.1 <u>Protection.</u> Each Party agrees to limit its disclosure of Proprietary Information to the other to the amount necessary to carry out the SoW of this CRADA. The Collaborator shall place a Proprietary Information notice on all information it delivers to NOAA/OAR under this Agreement, which the Collaborator asserts is proprietary. NOAA/OAR agrees that Proprietary Information shall be used only for the purposes described in the attached SoW. Except where NOAA/OAR is legally obligated to release information pursuant to the Freedom of Information Act (5 U.S.C. 552), or other requirement of law, Proprietary Information shall not be disclosed or otherwise made available in any form to any other person, firm, corporation, partnership, association or other entity without the written consent of the Collaborator. NOAA/OAR agrees to use its best efforts to maintain the confidentiality of Proprietary Information. NOAA/OAR will promptly notify the Collaborator of requests for Collaborator's Proprietary Information. The Collaborator agrees that NOAA/OAR is not liable for the disclosure of information designated as

Proprietary which, after notice to and consultation with the Collaborator, NOAA/OAR determines may not lawfully be withheld or which a court of competent jurisdiction requires disclosed.

Article 7. **INTELLECTUAL PROPERTY**

- 7.1 <u>Preference for U.S. Manufacturing.</u> The Parties agree that an important purpose of the CRADA is to improve U.S. competitiveness so as to provide substantial benefit to the U.S. economy. Thus, any product embodying CRADA inventions, or produced through the use of such inventions, for sale or use in the United States by the Collaborator or any affiliate, or licensee, shall be manufactured substantially in the United States.
- 7.2 <u>Rights to Background Inventions.</u> No rights to Background Inventions are conveyed by this Agreement.
- 7.3 **Reporting Inventions and Other Responsibilities.** Each Party shall promptly report in writing to the other Party each CRADA Invention disclosed to it. Such reports shall be maintained as Proprietary by the receiving Party until such time as a patent or other intellectual property application claiming that CRADA Invention has been filed. The Collaborator shall ensure that all Project Team members (a) promptly report any CRADA Inventions they make to the Collaborator, and (b) sign any documents necessary or desirable for the filing and prosecution of patent applications. If any Project Team member is not the Collaborator's employee, the Collaborator shall require the member to agree in writing to assist the Collaborator in fulfilling all of its patent responsibilities under this CRADA.

7.4 <u>Treatment of CRADA Data.</u>

- 7.4.1 Ownership of Original Copies of CRADA Data. NOAA/OAR and the Collaborator agree to exchange all CRADA Data. Subject to these sharing requirements, the creating Party will retain the original copy of all CRADA Data created solely by it. NOAA/OAR shall retain the original copy of all jointly created CRADA Data; NOAA/OAR shall supply Collaborator with a copy of the original copy of jointly created CRADA Data, and Collaborator shall have access to the original copy. NOAA/OAR and Collaborator shall each have the right to use all CRADA Data for their own purposes, consistent with their obligations under this Agreement. Pursuant to the Federal Technology Transfer Act (15 U.S.C. 3710a(c)), NOAA/OAR agrees that, for a period of five (5) years after development, it will not disseminate CRADA Data that would be a trade secret or commercial or financial information that is privileged or confidential if the information had been obtained from a non-Federal party participating in a CRADA.
- 7.4.2 Ownership of Copyrights of CRADA Data. Collaborator may elect to copyright works, or those identifiable portions of a joint work, developed solely by a Project Team member. When Collaborator obtains a copyright, Collaborator shall affix the applicable copyright notice of 17 U.S.C. §§ 401, 402, and 403, and an acknowledgment of the scientific and technical contributions of the National Oceanic and Atmospheric Administration. The Collaborator grants to the U.S. Government, a paid-up, non-exclusive, irrevocable world-wide license to reproduce or have reproduced, prepare or have prepared in derivative form, and distribute or

have distributed copies of CRADA Data for government purposes. CRADA Data prepared by NOAA/OAR employees, and CRADA Data prepared jointly by NOAA/OAR employees and the Project Team, are not subject to copyright in the United States pursuant to Section 105 of Title 17 of the United States Code. NOAA/OAR may, however, own copyright in such works outside of the United States.

- 7.5 Ownership of Research Products. NOAA/OAR and the Collaborator agree to exchange samples of all Research Products. Research Products will be shared equally by the Parties. Subject to these sharing requirements, the Research Products created under this CRADA are the jointly owned property of the Parties. The Parties agree to make mutually acceptable arrangements for the disposition of unique or hard-to-replace Research Products.
- 7.6 **Publication and Disclaimer.** Except as provided in Sections 7.3 and 7.7, the Parties are encouraged to make publicly available the results of their research. Before either Party submits a paper or abstract for publication or otherwise intends to publicly disclose information about a CRADA Invention, CRADA Data, or Research Products, the other Party shall be provided thirty (30) days to review the proposed publication or disclosure. NOAA/OAR reports and publications developed under this Agreement shall carry the following disclaimer:

"This work was performed under a Cooperative Research and Development Agreement (CRADA) between NOAA/OAR and Collaborator. Under the terms of the CRADA, this document may not be used as advertising for any product or service, nor may Collaborator imply to anyone that the CRADA or the research results are an endorsement by NOAA/OAR of any Collaborator products or services."

7.7 Patenting and Ownership of CRADA Inventions.

7.7.1 Government's Minimum Rights.

- 7.7.1.1 NOAA/OAR Sole Inventions and Joint Inventions. Pursuant to the Federal Technology Transfer Act of 1986 as amended (15 U.S.C. 3710a (b)), NOAA/OAR, on behalf of the United States Government, shall retain a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced NOAA/OAR Sole CRADA Inventions and Joint CRADA Inventions throughout the world by or on behalf of the Government.
- 7.7.1.2 <u>Collaborator Sole Inventions.</u> Pursuant to the Federal Technology Transfer Act of 1986 as amended (15 U.S.C. 3710a (b)), NOAA/OAR, on behalf of the United States Government, shall retain a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced Collaborator Sole CRADA Inventions throughout the world by or on behalf of the Government for research or other Government purposes.
- 7.7.2 <u>Joint CRADA Inventions.</u> Joint CRADA Inventions shall be jointly owned. Collaborator shall be responsible for filing U.S. Patent Applications for joint CRADA Inventions in a timely manner. If Collaborator does not file a U.S. Patent Application on a joint CRADA Invention within six (6) months after disclosure, NOAA/OAR may file a U.S. Patent Application on such joint CRADA Invention. The non-filing Party shall reasonably cooperate and assist the Filing Party in perfecting the patent application. The Filing Party shall give the non-filing Party copies of any correspondence to and from the U.S. Patent

and Trademark Office.

- 7.7.3 **CRADA Inventions Solely Developed.** Except for Joint CRADA Inventions, each Party shall retain title to any CRADA Invention of its employees or Project Team members. The Party retaining title to a CRADA Invention may file a U.S. Patent Application, but has no duty to file a U.S. or foreign patent application. Each Party grants the other Party a research license to CRADA Inventions. This research license shall not include any rights to make, sell or use such CRADA Inventions for commercial purposes or in lieu of purchase as a commercial product.
- 7.7.4 <u>Patent Expenses and Prosecution.</u> All of the expenses attendant to the filing of patent applications shall be borne by the Party filing such application. Each Party shall promptly provide the other Party with copies of Provisional Applications filed, Patent Applications filed and Office Actions bearing upon any CRADA Invention. Any post filing and post patent fees shall also be borne by the same Party.
- 7.7.5 <u>Foreign Filings of CRADA Inventions.</u> The Parties will consult with each other as to the advisability of filing for patent protection outside the U.S.

Article 8. LICENSING

- 8.1 Option for a Commercialization License. NOAA/OAR, on behalf of the Government, hereby agrees to grant to the Collaborator: (1) an option to choose an exclusive commercialization license to patents or patent applications on NOAA/OAR CRADA Inventions; and (2) an option to choose an exclusive commercialization license to NOAA/OAR' interest in patents or patent applications on joint CRADA Inventions. The exclusive or nonexclusive license shall be limited to fields of use defined by the subject matter of the SoW found in Appendix A. The license will specify the licensed fields of use, geographic territory, markets, term and royalties, and will, pursuant to Article 7.1 of this CRADA, contain a requirement that products manufactured for sale or use in the United States under the license will be manufactured substantially in the United States. Additional terms and conditions shall be added to all licenses consistent with applicable statutes and regulations. The royalty rates will be based on product sales and the rates conventionally granted in the field identified in the SoW for inventions with reasonably similar commercial potential. The royalty rates will also reflect the relative contributions of the Parties to the invention. Licenses granted under this Article are subject to the reservation of patent licenses in favor of the United States Government required in Section 7.7.1 above.
- 8.2 Exercise of License Option to NOAA/OAR Sole or Joint CRADA Inventions. The option of Section 8.1 must be exercised by written notice mailed within six (6) months from the filing date of the application. Exercise of this option by the Collaborator initiates a negotiation period which expires in six (6) months. If the last proposal by the Collaborator has not been responded to in writing by NOAA/OAR within this six (6) month period, the negotiation period shall be extended to expire one (1) month after NOAA/OAR responds. If no agreement is concluded in this period or if Collaborator exercises its option for a nonexclusive license, NOAA/OAR shall be free to license such CRADA Inventions to others.

- 9.1 <u>Notices.</u> The Collaborator and NOAA/OAR each have the right to terminate this Agreement upon 30 days notice in writing to the other party.
- 9.2 <u>Termination After Change of Control.</u> NOAA/OAR may terminate this Agreement immediately if direct or indirect control of the Collaborator is transferred to a foreign company or government; or, if Collaborator is already controlled by a foreign company or government, if that control is transferred to another foreign company or government.

Article 10. **DISPUTES**

- 10.1 <u>Settlement.</u> Any dispute arising under this Agreement which is not disposed of by agreement of the Parties shall be submitted jointly to the signatories of this Agreement. A joint decision of the signatories or their designees shall be the disposition of such dispute. If the Parties cannot reach a joint decision, either Party may terminate this Agreement immediately.
- 10.2 <u>Continuation of Work.</u> 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 direction of the NOAA/OAR signatory.

Article 11. LIABILITY

- 11.1 **Property.** The U.S. Government shall not be responsible for damage to any property of the Collaborator provided to NOAA/OAR or acquired by NOAA/OAR pursuant to this Agreement.
- 11.2 Indemnification.
- 11.2.1 <u>Conduct of Employees.</u> Collaborator's Project Team assigned to this SoW are not employees of NOAA/OAR. The Collaborator shall indemnify and hold harmless the U.S. Government for any loss, claim, damage, or liability of any kind to the Collaborator's Project Team arising in connection with this Agreement, except to the extent that such loss, claim damage or liability arises from the negligence of NOAA/OAR or its employees. NOAA/OAR's responsibility for the payment of claims for the loss of property, personal injury or death, or otherwise arising out of any negligent act or omission of its employees in connection with the performance of work under this Agreement shall be governed by the Federal Tort Claims Act.
- 11.2.2 <u>Collaborator's Use of NOAA/OAR Research.</u> The Collaborator shall indemnify and hold harmless the U.S. Government for any loss, claim, damage, or liability of any kind arising out of the use by the Collaborator, or any Party acting on its behalf or under its authorization, of NOAA/OAR's research and

technical developments or out of any use, sale or other disposition by the Collaborator or others acting on its behalf or with its authorization, of products made by the use of NOAA/OAR's technical developments.

- 11.3 Force Majeure. Neither Party shall be liable for any unforeseeable event beyond its reasonable control not caused by the fault or negligence of such Party, which causes such Party to be unable to perform its obligations under this Agreement (and which it has been unable to overcome by the exercise of due diligence), including, but not limited to, flood, drought, earthquake, storm, fire, pestilence, lightning and other natural catastrophes, epidemic, war, riot, civic disturbance or disobedience, strikes, labor dispute, or failure, threat of failure, or sabotage of the NOAA/OAR facilities, or any order or injunction made by a court or public agency. In the event of the occurrence of such a force majeure event, the Party unable to perform shall promptly notify the other Party. It shall further use its best efforts to resume performance as quickly as possible and shall suspend performance only for such period of time as is necessary as a result of the force majeure event.
- 11.4 **NO WARRANTY.** THE PARTIES MAKE NO EXPRESS OR IMPLIED WARRANTY AS TO ANY MATTER WHATSOEVER, INCLUDING THE CONDITIONS OF THE RESEARCH OR ANY INVENTION OR PRODUCT, WHETHER TANGIBLE OR INTANGIBLE, MADE OR DEVELOPED UNDER THIS AGREEMENT, OR THE OWNERSHIP, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE RESEARCH OR ANY INVENTION OR PRODUCT.

Article 12. MISCELLANEOUS

- 12.1 <u>No Benefits.</u> No member of, or delegate to the United States Congress, or resident commissioner, shall be admitted to any share or part of this Agreement, nor to any benefit that may arise therefrom; but this provision shall not be construed to extend to this Agreement if made with a corporation for its general benefit.
- 12.2 **Governing Law.** The construction validity, performance and effect of this Agreement for all purposes shall be governed by the laws of the United States.
- 12.3 Entire Agreement. This Agreement 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.
- 12.4 <u>Headings.</u> Titles and headings of the Sections and Subsections of this Agreement are for the convenience of references only and do not form a part of this Agreement and shall in no way affect the interpretation thereof.
- 12.5 <u>Amendments.</u> If either Party desires a modification in this Agreement, the Parties shall, upon reasonable notice of the proposed modification by the Party desiring the change, confer in good faith to determine the desirability of such modification. Such modification shall not be effective until a written amendment is signed by all the Parties hereto by their representatives duly authorized to execute such amendment.
- 12.6 **Assignment.** Neither this Agreement nor any rights or obligations of any Party hereunder shall be assigned or otherwise transferred by either Party without the prior written consent of the other Party except

that the Collaborator may assign this Agreement to the successors or assignees of a substantial portion of the Collaborator's business interest to which this Agreement directly pertains.

- 12.7 **Notices.** All notices pertaining to or required by this Agreement shall be in writing and shall be directed to the signatories.
- 12.8 <u>Independent Contractors.</u> The relationship of the Parties to this Agreement is that of independent contractors and not as agents of each other or as joint venturers or partners. Each Party shall maintain sole and exclusive control over its personnel and operations.
- 12.9 The Use of Name or Endorsements. Collaborator shall not use the name of NOAA/OAR or the Department of Commerce on any advertisement, product or service which is directly or indirectly related to either this Agreement or any patent license or assignment agreement which implements this Agreement. By entering into this Agreement NOAA/OAR does not directly or indirectly endorse any product or service provided, or to be provided, by the Collaborator its successors, assignees, or licensees. The Collaborator shall not in any way imply that this Agreement is an endorsement of any such product or service.
- 12.10 **Duration of the Agreement.** It is mutually recognized that the duration of this project cannot be rigidly defined in advance, and that the contemplated time periods for various phases of the SoW are only good faith guidelines subject to adjustment by mutual agreement to fit circumstances as the SoW proceeds. In no case will the term of this CRADA extend beyond the term indicated in the SoW unless it is revised in accordance with Section 12.5.
- 12.11 <u>Survivability.</u> The provisions of Articles 6, 7, 8, 11, and 12.9 shall survive the termination of this CRADA.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date of the last signature written below. Annex A and B appended to this Agreement are rendered an integral part of this Agreement upon signature of the Agreement by the parties.

National Oceanic and Atmospheric

Administration (NOAA),

Office of Oceanic and Atmospheric Research

(Name of Collaborator)

By: By:

Print Name: <u>David Evans</u> Print Name:
Title: <u>Assistant Administrator</u> Title:
Address: Address: Date: Date:
Concurrence by the Senior Counselor/NOAA Office of the General Counsel:
Mailing Address for Notices:
Attention: (Fill in contact person and related information, as appropriate)

Appendix A

The Research Plan

NOAA/OAR requires the information listed below. The project title, eligibility, and company address information (Items 1, 2, and 3 respectively) are for public disclosure. NOAA/OAR considers the information in Items 5, 7, 9, 11, and 12 proprietary.

1. **Collaboration Project Title.** (Please provide a brief project title that NOAA/OAR may use for public disclosure and management reporting.):

2. **Collaborator Eligibility.** In order to assure compliance with Section 2 of the Federal Technology Transfer Act of 1986 (15 U.S.C. §3710a), the Collaborator must provide the following information to NOAA/OAR:

PLEASE CHECK THE APPROPRIATE BOX

[] Collaborator certifies that it is not subject to the control of any foreign company or government, and agrees to notify NOAA/OAR within thirty days should it become subject to the control of a foreign company or government at any time during this Agreement; or
[] Collaborator acknowledges that it is subject to the control of the following foreign company or government (if a company, please specify nationality):
Company Name, Country/Government
Collaborator certifies to NOAA/OAR that it is incorporated under the laws of one of the states or territorie of the United States; and that it has a manufacturing presence in the United States; and that the foreign government listed above permits United States agencies, organizations, or other persons to enter into cooperative agreements and licensing agreements.
3. Company Name and Address (city, state, zip code):
4. Licensing of Background Inventions belonging to NOAA. CRADA partners may apply for exclusive or nonexclusive licenses in Background Inventions belonging to NOAA/OAR. Collaborator hereby states that:
PLEASE CHECK THE APPROPRIATE BOX
[] Collaborator is not engaged in discussions with NOAA/OAR concerning a NOAA/OAR Background Invention that is related to the work done under this CRADA.
[] Collaborator is engaged in discussions with NOAA/OAR concerning a NOAA/OAR Background Invention that is related to the work done under this CRADA.
5. NOAA/OAR's Principal Investigator (please provide name, mail address, and telephone number):

6. Collaborator's Principal Investigator (please provide name, mail address, and tel	ephone number):
7. Proposed Duration and Starting Date for the CRADA:	
8. Collaborator Personnel, Services, Facilities, Intellectual Property, Equipment, ar Contributions are Listed as Follows:	nd/or Funds
9. NOAA/OAR Personnel, Services, Facilities, Intellectual Property, and/or Equipn Contributions are Listed as Follows:	nent
10. Collaborator's Project Team (please list):	
Name/Telephone	
11. The Statement of Work (SoW):	
(Please describe the research project. The description should: 1) state the project's object the research approach sufficiently to permit your management chain to review the propo A brief description of one page is usually sufficient.)	

Appendix B

Exceptions or Changes to the CRADA

(Changes to CRADA will be placed here)
