MEMORANDUM OF AGREEMENT

Between the

National Oceanic and Atmospheric Administration (NOAA)

and the

Woods Hole Oceanographic Institution (WHOI)

establishing the

Cooperative Institute for Climate and Ocean Research (CICOR)





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I. PURPOSE AND SCOPE

A. Purpose

The National Oceanic and Atmospheric Administration (NOAA) and the Woods Hole Oceanographic Institution (WHOI) have collaborated for a number of years in long-term climate studies, fisheries research and other ocean related studies. With the collocation of an office of the National Marine Fisheries (NMFS) in Woods Hole, with the close research interests of Atlantic Oceanographic and Meteorological Laboratory (AOML) and the Office of Global Programs (OGP) in the long-term climate and other ocean research, with the coastal science mission and ecosystem research of the Great Lakes Environmental Research Laboratory (GLERL), and with the concomitant opportunities for collaborative research and shared use of research platforms, NOAA and WHOI have a mutual, evolving and long-term interest to maintain an essential research capability in ongoing cooperative research projects and operational programs aimed at facilitating the development of scientific and technical advances in climate, fisheries research, and marine related studies in the Northeast geographical area.

This Memorandum of Agreement (MOA) between NOAA and WHOI reaffirms their common interest in these research areas and provides a basis for consolidating these several established cooperative programs and a growing number of common research interests under a Cooperative Institute, hereinafter referred to as the Cooperative Institute for Climate and Ocean Research or "CICOR". The CICOR will formalize a major collaborative relationship between NOAA, represented by the Office of Oceanic and Atmospheric Research (OAR)/ Environmental Research Laboratories (ERL) and the National Marine Fisheries Service, and a consortium of university and research facilities mostly in the Northeast, represented by the WHOI. Collaboration between WHOI and

NOAA provides an interdisciplinary approach and a pooling of resources required for the identification and pursuit of new research projects and a focus for a continuing program of research and education.

The CICOR is designed to accomplish the following:

- 1. Improve the long-term effectiveness of NOAA and academia sponsored research with an emphasis in oceanic and atmospheric studies and technology.
- 2. Improve and strengthen research collaborations with NOAA programs [for example Climate Variability and Predictability (CLIVAR), The U. S. Global Ocean Ecosystems Dynamics Program (GLOBEC), and The Ecology and Oceanography of Harmful Algal Blooms (ECOHAB)], centers, and laboratories by strengthening long-term partnerships with the external research community and with end users.
- 3. Improve the effectiveness of graduate-level education and expand the scientific research experiences available in graduate and various undergraduate opportunities that may include participation in joint research programs with NOAA and other agencies.
- 4. Provide opportunities for Postdoctoral associates and other expanded training opportunities in climate; paleoclimate; global environmental change; marine ecosystems dynamics; fisheries ecology, aquaculture, harmful algal blooms, estuarine processes, and new technologies for ocean research and operational programs.
- 5. Provide access to surface vessels operated by WHOI under UNOLS, and submersibles, ROVs and AUVs operated by WHOI as the National Deep Submergence Facility for the research activities sponsored under CICOR. This MOA does not replace the need for any agreement such as a lease or license that may be deemed necessary to enable NOAA to use WHOI equipment or property.
- 6. Provide a basis for consolidating existing NOAA assistance programs and a forum to engage in long term research studies within WHOI and other significant research institutions in the Northeast under an omnibus award to be administered by WHOI/CICOR.

B. Scope

Participation in the CICOR is open to all NOAA organizational elements. Research assistance provided to WHOI for CICOR activities and expenses may be supported by other public and private organizations. The CICOR will carry out a number of agreed upon activities, including, but not limited to:

1. Fostering long-term collaborative research on themes of mutual interest to the parties.

- 2. Facilitating the establishment of joint research projects between scientists of NOAA and the members of CICOR.
- 3. Encouraging, facilitating, and promoting other cooperative research among researchers within CICOR.
- 4. Providing, as requested by NOAA and the CICOR Director, peer review by the Fellows of the CICOR of research proposals regarding the scientific areas listed below.

An initial and continuing charge to the CICOR will be to develop specific research themes that address critical research needs. These themes are expected to fall into, but are not limited to, three interdisciplinary areas.

- 1. Climate related research: including but not limited to ocean observing systems, paleoclimate studies, ocean process studies, ocean circulation studies, air-sea interaction, and climate change prediction.
- 2. Fisheries studies: including but not limited to marine ecosystems dynamics, fisheries ecology, aquaculture, and estuarine processes.
- 3. Technology Research and Development: including but not limited to basin scale observing systems, meteorological sensors on volunteer observing ships, buoy technology, acoustic technology, and ships.

II. REFERENCES AND AUTHORITY

Nothing herein is intended to conflict with current NOAA policies, regulations, and statutes. If any terms of this agreement are inconsistent with existing policies, regulations, and statutes of either of the parties entering into this agreement, those portions of this agreement which are determined to be inconsistent, shall be invalid; but the remaining terms and conditions not affected by the inconsistency shall remain in full force and effect. At the first opportunity for review of the agreement, all necessary changes will be accomplished by either amending this agreement or by entering into a new agreement, whichever is deemed expedient to the interests of both parties.

Should disagreement arise on the interpretation of the provisions of this agreement, or amendments and/or revisions thereto, that cannot be resolved at the operating level, the area(s) of disagreement shall be stated in writing by each party and presented to the other party for consideration. If agreement on interpretation is not reached with 30 days, the parties shall forward a written presentation of the disagreement to their respective higher officials for appropriate resolution.

NOAA has authority to conduct research and provide financial assistance on issues relating to climate studies, fisheries research and other ocean related studies with WHOI/CICOR under: 33 U.S.C. § 883d which provides authority to conduct investigations and research in geophysical sciences (including geodesy, oceanography, seismology and geomagnetism); 49 U.S.C. § 44720, which provides authority to promote and develop meteorological science and foster and support research projects in meteorology through the use of private and government research facilities; 15 U.S.C. § 1540, which provides authority to enter into cooperative agreements and other financial agreements with any nonprofit organization to aid and promote scientific and educational activities to foster public understanding of the National Oceanic and Atmospheric Administration or it programs; 15 U.S.C. § 2901 et. seq., which provides authority to award federal assistance for climate-related activities; and 16 U.S.C. § 753a, which provides authority to award federal assistance for work of researchers on fish and wildlife ecology and resource management projects.

III. FINANCIAL ARRANGEMENT

This MOA does not constitute a financial commitment on the part of either Party. Financial support for CICOR shall be contingent upon the availability of funds appropriated by Congress and subject to the ordinary budgetary and administrative procedures of NOAA and WHOI, as applicable. NOAA funds shall not be obligated directly or indirectly, without written approval of an authorized NOAA official, to which this Memorandum of Agreement does not replace the need for a financial assistance award or procurement award pursuant to 31 U.S.C. § 6301, et. seq., to legally authorize and obligate federal funds to WHOI for CICOR activities. This MOA does not prohibit WHOI from soliciting funds solely for WHOI expenses and activities under CICOR from other Federal, State, and local agencies, international entities, and private sources.

IV. SUBSTANCE

A. Structure of the CICOR

1. Location

The CICOR will be administrated through and located at the Woods Hole Oceanographic Institution, Woods Hole, MA.

2. Composition

The CICOR will consist of the Director, an Executive Board, the scientific and support staff of the CICOR, the Fellows of the CICOR (including Visiting Fellows), and a Council of Fellows.

3. Organization

The CICOR will have such internal organization as deemed necessary by the Director to meet its goals and carry out its programs.

4. Initial Organization

Consistent with the interests of the parties at the time of enactment of this MOA, the principal research components will be OAR/ERL, the Northeast Fisheries Science Center and WHOI. Other research components may include:

- a. Atlantic Oceanographic and Meteorological Laboratory (AOML)
- b. Great Lakes Environmental Research Laboratory (GLERL)
- c. Office of Global Programs (OGP)
- d. The National Deep Submergence Facility (NDSF) at WHOI
- e. The Rinehart Coastal Research Center (RCRC) at WHOI
- f. The Marine Policy Center (MPC) at WHOI.

5. Responsibilities of WHOI, NOAA and other participating institutions

- a. Each party may introduce proposed research themes at any time.
- b. Each of the participating organizations takes full financial and operational responsibility for its employees affiliated with the CICOR.
- c. Formal education, including the admission of students, and the awarding of academic credit, remains the responsibility of appropriate academic structures of WHOI or other participating institutions.
- d. WHOI shall serve as the prime grantee or contractor for all involvement in the CICOR by all universities. Participation of researchers from such other institutions that shall become involved in the CICOR shall be through suitable sub-agreements with WHOI and shall be within usual and customary business

policies and procedures of WHOI and the sponsoring agency and shall be submitted as part of WHOI's financial assistance proposal to NOAA.

- e. WHOI shall maintain a separate, identifiable operating budget for the CICOR with separate accounts maintained for each major research project.
- f. WHOI will provide suitable space and office facilities to the administration of CICOR. This MOA does not replace the need for a lease or any other agreement required to enable NOAA or other federal government agencies to accept donated space or office facilities.

6. Conduct of the Research Program

All research undertaken by the CICOR will be developed in the following manner:

a. **In general:** Research to be undertaken will address critical environmental problems focusing on the research themes identified and agreed upon by NOAA, WHOI, and/or the CICOR Fellows and will normally stress long-term collaboration.

Research proposals from WHOI under CICOR to sponsors other than NOAA will be subject to the usual procedures of WHOI and sponsoring agencies. Such proposals are highly encouraged by the parties to this agreement.

All research proposed to be undertaken by the CICOR under NOAA sponsorship will be subject to peer review both within and outside the Institute.

b. **Establishment of an extramural research program for the Northeast:** The CICOR will, when requested by the Director upon recommendation by the Executive Board, develop a Call for Proposals to be submitted to NOAA through the CICOR. Such a call shall be subject to review by the Council of Fellows. This Call for Proposals will be sent to all Fellows of the CICOR and other potential researchers.

Proposals received will be subject to peer review by the Fellows of the CICOR and by other researchers within and outside the Northeast. The peer review will be in compliance with WHOI and NOAA/OAR policies which prohibit all real or potential conflicts of interest. CICOR will institute a peer review conflict of interest policy to ensure that competing Fellows or other scientists either are advised to recuse themselves or withdraw completely from the peer review process, as applicable.

On the basis of this peer review and the programmatic needs of the CICOR, the Director will recommend, for Executive Board concurrence, the research projects to be included in an umbrella proposal from the CICOR to NOAA.

B. The Director

- 1. The Director of the Institute shall be a member of the Tenured Scientific or Senior Technical Staffs of WHOI and subject to the policies, regulations and procedures of WHOI. The Director shall not be an employee or officer of the Federal Government. The Director shall be appointed by the Director of WHOI in consultation with the Director of ERL and the Science and Research Director, Northeast Region, National Marine Fisheries Service. The appointment shall be for a renewable term of five years.
- 2. The responsibilities of the Director include:
 - a. Provide scientific leadership, research coordination, planning and priority setting;
 - b. Review and approve all research proposals sent to outside agencies by the CICOR;
 - c. Develop mechanisms to identify, encourage, and facilitate cooperative research between Fellows of the CICOR, NOAA and other institutions in the Northeast;
 - d. Develop integrated interdisciplinary research proposals, to be addressed to NOAA or other agencies, address priority needs and utilize a full array of available resources;
 - e. Submit an annual report of research results arising from funded projects to the Executive Board;
 - f. Serve as chief administrator of the CICOR;
 - g. Serve as a member of the Council of Fellows and serve as a non-voting member of the Executive Board;
 - h. Maintain accountability for all funds supplied to the CICOR;
 - i. Prepare an annual budget proposal for the CICOR;
 - j. Negotiate MOAs, at the Board's direction, with agencies and organizations interested in becoming affiliated with the CICOR; and
 - k. Arrange for the periodic review of the scientific activities of the CICOR.

C. The Executive Board

1. The Executive Board shall consist of the following:

- a. The Deputy Assistant Administrator for Oceanic and Atmospheric Research, NOAA;
- b. The Director of the Environmental Research Laboratories;
- c. The Science and Research Director, Northeast Region, National Marine Fisheries Service;
- d. The Director of Atlantic Oceanographic and Meteorological Laboratory (AOML);
- e. The Director of Great Lakes Environmental Research Laboratory (GLERL);
- f. The Director of Global Ocean Programs (OGP)
- g. Representatives of NOAA upon the invitation of either the Director of ERL and/or the Science and Research Director, Northeast Region, National Marine Fisheries Service;
- h. The Director of Research of WHOI, who shall serve as Chair of the Executive Board;
- i. Representatives of WHOI upon the invitation of the Director of WHOI;
- j. The Director of the CICOR, who will serve as a nonvoting member;
- k. The Chair of the CICOR Council of Fellows, who will serve as a nonvoting member;
- Designated representatives of other agencies or organizations who may formally affiliate with the CICOR and any such others as may be deemed appropriate by the Executive Board.

2. The responsibilities of the Executive Board include:

- a. Make recommendations to the CICOR Director concerning policies for the CICOR, new and existing scientific program areas, research themes to be pursued by the CICOR, and methods to improve coordination of research programs with other institutions or agencies;
- b. Approve the appointments of the Fellows and the Council of Fellows of the CICOR;
- c. Review the annual budget of the CICOR;

- d. Review such further implementing agreements or addenda to this agreement as may be entered into in the future and make recommendations in regard to such agreements to the CICOR Director; and
- e. Review Memoranda of Agreement (MOAs), with prospective member agencies and organizations to insure consistency with the terms and conditions of this MOA.
- 3. The meetings of the Executive Board generally occur once a year, at the call of the CICOR Director. Additional meetings of the Board may be called by the Director, the Chair of the Board, or by a majority of the voting members of the Board.

D. The Fellows of the CICOR and The Council of Fellows

- 1. The CICOR shall establish a program of "Fellows" which shall be both an honorific title and a formal association with the CICOR. From these Fellows, a Council of Fellows shall be selected as provided below.
- 2. The Fellows of the CICOR shall be researchers in the consortium who have established national or international standing. Fellows must be (1) members of the Scientific Staff or Senior Technical Staff at WHOI, (2) scientists holding teaching or research appointments in other Northeast academic institutions, (3) selected staff members of NOAA components, or (4) selected staff members of not-for-profit research organizations, or other international, Federal, and State agencies. Fellows shall be recommended by the Director and approved by the Executive Board for three-year, renewable terms. Fellows may conduct CICOR-sponsored research and/or provide peer review of proposals submitted through the CICOR to NOAA.
- 3. The Council of Fellows shall consist of Fellows from the following organizations: NOAA; WHOI; and other Northeast institutions. The Director of the CICOR shall be an ex-officio member of the Council of Fellows. Council of Fellows members will be nominated by the Fellows and recommended by the Director of the CICOR for approval by the Executive Board. The Executive Board will determine the number of Fellows on the Council.
- 4. The Council of Fellows shall play a leadership role in maintenance of high standards of the CICOR's research. The Council of Fellows shall select their chairperson; advise the Director on the selection of new Fellows and the reappointment of current Fellows; recommend new theme areas; and make recommendations to the Director of the selection of Visiting Fellows.
- 5. The Council of Fellows shall develop, review and modify By-laws subject to the review of the Executive Board.

E. Affiliation of other agencies or organizations

Any research agency or research organization is eligible for formal affiliation with the CICOR, provided that the purpose of the organization adheres to the principles of academic freedom, that the organization provides for the dissemination of research findings, and that the organization's research interests fall within the scope of the CICOR objectives.

Affiliation is to be established through a MOA between the CICOR and the organization, which MOA must be approved by the Executive Board of CICOR and the appropriate official of the prospective member organization.

F. The Research Staff of the CICOR

The Research Staff shall consist of those researchers and support staff who are collocated in Woods Hole or located in their own facilities. They will include the following:

- 1. Scientific and research staff, including post-doctoral investigators, of WHOI and other participating institutions, who are supported by the research grants and/or contracts of the CICOR.
- 2. Federal scientific and research staff of NOAA as selected by NOAA. This MOA does not replace the need for an IPA for federal employees that NOAA intends to assign to WHOI/CICOR.
- 3. Students who are supported by the research grants and/or contracts of the CICOR.
- 4. Visiting Fellows who shall be fully qualified and appointed as fellows of the CICOR and who may be appointed for a one-year term (renewable for one year) on the site(s) of the CICOR.

V. TERM

This Memorandum of Agreement is effective as of the date of signature by the Director of Woods Hole Oceanographic Institution and the Under Secretary for Oceans and Atmosphere, United States Department of Commerce. This MOA will be subject to review every five years.

VI. MODIFICATION/CANCELLATION PROVISION

Either party may terminate this agreement unilaterally on one year's written notice to the other party. Proposals to modify the terms of the Memorandum of Agreement can be initiated by either NOAA line organizations or WHOI and will be subject to approval by the Under Secretary for Oceans and Atmosphere and the Director of WHOI. Such actions to

terminate or amend this agreement will have no force or effect on any existing procurement or cooperative agreement between the parties.

VII. OTHER PROVISIONS

A. Equal Opportunity

WHOI, as an Equal Opportunity and Affirmative Action employer, does comply with applicable Federal and State laws prohibiting discrimination. It is the policy of WHOI not to discriminate against any applicant, employee or student on the basis of race, religion, color, creed, gender, age, national origin, sexual orientation, disability, or veteran status. Such actions shall include, but not be limited to, the following: employment, upgrading, promotion, demotion, transfer, leaves or other absences from duty, recruitment, lay-off, rate of pay and all other forms of compensation and benefits; admission, progression or graduation from any academic program; selection for training; other education and professional opportunities; and conflict resolution. The CICOR will be operated in accordance with this policy. Contracts, grants, or other agreements entered into pursuant to this Memorandum shall contain appropriate provisions relating to Equal Employment Opportunity, E.O. 11249. This clause applies to WHOI/CICOR activities and employees.

B. Compliance

WHOI/CICOR shall comply with all applicable laws, regulations, rules and ordinances. This agreement is effective upon the date of signature of both Parties.

UNDER SECRETARY FOR OCEANS & ATMOSPHERE U.S. DEPARTMENT OF COMMERCE	DIRECTOR WOODS HOLE OCEANOGRAPHIC INSTITUTION
D. James Balen	Dahart D. Carasian
D. James Baker	Robert B. Gagosian
Date:	Date: