

# Alaska Ocean Observing System

## Operating Procedures

*As adopted at September 23 2011 board meeting*

*Revised at November 3 2015 board meeting*

*Revised at March 20, 2017 board meeting*

### I. MEMBERSHIP MEETINGS

#### A. Notice

Timely notice of Membership meetings shall be distributed via the AOOS website and AOOS listserv, as well as other email listserves that receive wide distribution.

#### B. Conduct of Meetings

AOOS members shall meet at least annually to foster cooperation among the Parties, share findings with other participatory agencies, evaluate plans and progress in implementation, and coordinate in establishing priorities for the system.

Membership meetings will be conducted as public, open meetings.

#### C. Record

Detailed minutes of each meeting of the Board, except for any closed session, shall be kept and made available on the AOOS website.

### II. BOARD OF DIRECTOR MEETINGS

#### A. Notice

Timely notice of Board of Director meetings shall be distributed via the AOOS website and AOOS listserv, as well as other email listserves that receive wide distribution.

#### B. Conduct of Meetings

Board meetings will be conducted using Roberts Rules of Order and will be open to the public. Each Board director or his/her designated alternate shall be entitled to one vote upon any matter properly submitted to the Board. Although consensus is the goal of AOOS, unless specifically identified or otherwise noted in the AOOS Memorandum of Agreement (MOA), all actions shall require a majority vote of those present and eligible to vote at a meeting duly held in which a quorum is present. A quorum consists of a simple majority of the AOOS Board and, once established, the board may continue to conduct its business in accordance with these operating procedures. Abstentions shall constitute presence of a Board member in determination of a quorum.

#### C. Record

Detailed minutes of each meeting of the Board, except for any closed session, shall be kept and made available on the AOOS website.

D. Closed Meetings

The Board and its executive committee may close any meeting, or portion thereof, that concerns matters that pertain to personnel matters or litigation. For closed meetings, a general list of topics discussed and people present will be maintained as a record of that meeting.

E. Frequency

The Board normally meets twice each year but may meet more frequently at the call of the Chair. The executive committee may meet more frequently at the call of the Chair.

F. Emergency Meetings

In the event of an emergency requiring Board action, the executive committee will be convened to address the emergency. The Executive Director will poll other Board members on their opinion on how to address the emergency, but final resolution will be left to the discretion of the executive committee.

G. Location

The Board will normally meet in Anchorage, Alaska, but may choose to meet in other communities in Alaska.

III. BOARD OF DIRECTORS

A. For AOOS Membership of less than 25:

1. All AOOS members shall sit on the AOOS Board of Directors.
2. Each AOOS Member organization shall designate one Board director and may designate one alternate director.

B. For AOOS Membership of 25 or greater:

The Members may continue to operate as the Board of Directors, or, upon majority vote, the Members may choose to elect a Board of Directors using procedures to be adopted by the Board at that time.

C. Powers and Duties

The AOOS Board will provide general oversight and policy guidance, ensure sustained support by the Parties, and approve implementing documents. The Board will also have the authority to:

- Provide strategic guidance to the AOOS Executive Director;
- Adopt and carry out a strategic operations plan, including a budget;
- Design and operate with appropriate performance metrics a Regional Coastal Ocean Observing System for the AOOS region, as defined by IOOS;
- Establish priorities for funding;
- Authorize the execution and acceptance of grants, contracts, and cooperative agreements and approve the distribution of funds in these agreements (through the Fiscal Agent);
- Create ad hoc committees and external advisory bodies as needed;

- Elect officers as needed;
- Establish the policies of AOOS;
- Adopt operating procedures and Terms of Reference for the board, committees and advisory bodies;
- Provide AOOS representation to the Integrated Ocean Observing System Association;
- Draft and propose further incorporation documents for AOOS if and when deemed appropriate; and
- Carry out other such powers and responsibilities designated by law or by terms of agreement(s) between or among the parties comprising AOOS.

#### IV. BOARD OF DIRECTOR OFFICERS

##### A. Chair

The Chair shall be responsible to the AOOS Board. The Chair shall be the principal officer of AOOS, Chair of the AOOS Board, and Chair of the Executive Committee, presiding at all meetings thereof. The Chair shall execute any instruments the Board authorizes, except in cases where signing and execution thereof is expressly delegated by the Board to another officer or agent of AOOS, including the Executive Director. The Chair will actively promote AOOS within and outside the region.

##### B. Vice-chair

The Vice-chair shall be responsible to the AOOS Board and the Board Chair and shall act as meeting chair in the absence of the Chair and carry out other responsibilities of the Chair.

##### C. Secretary

The Secretary shall be responsible to the AOOS Board. He/she shall keep, or cause to be kept, minutes of the proceedings of the Board and see that all notices are duly given in accordance with the provisions of the Memorandum of Agreement, AOOS operating procedures, or as required by law. The Secretary shall be the custodian of all records, including the mailing address of each Board and committee member, and generally perform all the duties incident to the office of Secretary. In the event the Secretary is absent from a meeting of the Board, the Chair shall designate a Secretary pro tempore.

##### D. Treasurer

The Treasurer shall be responsible to the AOOS Board. He/she shall interact with the Fiscal Agent on behalf of AOOS to account for monies to support the AOOS mission and operations. The Treasurer shall keep, or cause to be kept, accurate financial accounts, and shall hold those open for inspection and examination by the Governing Board. In concert with the Fiscal agent, the Treasurer shall prepare, or cause to be prepared, a full report concerning the finances of AOOS to be presented to the Board annually. The Treasurer shall act as a second Officer signatory, after the Chair, on all AOOS business requiring such.

E. Elections

The Nominating Committee shall fill vacancies by presenting for Board consideration a slate of candidates that represent the broad diversity of the Membership. Board directors may also nominate candidates. All candidates must be Board directors.

F. Terms of Office

All terms of office are for two years, or until such time as the office is otherwise filled by special election or action of the Board. Officers may serve consecutive terms.

G. Resignation

An officer may resign his/her position at any time upon written notice to the Chair.

H. Vacancies

A vacancy in any office occurring by reason of resignation, or otherwise, shall be filled by majority vote of the Board. Individuals filling vacancies in accordance with this section shall serve for the remainder of the term vacated.

V. EXECUTIVE AND ADMINISTRATIVE STAFF

A. The Executive Director and staff are the executive arms of AOOS.

B. The Executive Director and staff will facilitate the work of AOOS.

C. The Executive Director is authorized to sign documents on behalf of the Board consistent with the authorities attached as an appendix to this document.

D. The Executive Director will be responsible to the AOOS Board. All other staff will be responsible to the Executive Director.

E. Administrative and executive responsibilities of the Board's officers may be delegated to the Executive Director.

VI. COMMITTEES AND PANELS

A. The standing committees include the Executive Committee and the Nominating Committee. Committee members must be members of the AOOS Board. Committee recommendations and/or decisions will be made by consensus and if necessary, simple majority vote.

B. Executive Committee

1. The Executive Committee is a subset of the AOOS Board and will be comprised of the Board's Officers. A representative of the AOOS fiscal agent shall sit on the executive committee as an ex-officio member.

2. The Board Chair will chair the Executive Committee.

3. Committee meetings will proceed according to Robert’s Rules of Order.
4. Powers and responsibilities
  - a. The Executive Committee shall make assignments to the Nominating Committee.
  - b. The Executive Committee, in consultation with the full Board, may make assignments to external Advisory Panels
  - c. The Executive Committee shall take actions necessary for the functioning of AOOS in the intervals between Board meetings.
  - d. The Executive Committee shall have all the authority of the AOOS Board other than to amend or repeal any resolution of the Board of Directors or the terms of the MOA.
  - e. The Executive Committee shall have the authority to move forward with grant requests and approve implementation steps that are consistent with Board policies, priorities, and overall guidance.
  - f. The Executive Committee shall serve as the Personnel Committee and have responsibility for the employment and evaluation of the Executive Director. All other staff are the responsibility of the Executive Director.

C. Nominating Committee

The nominating committee will oversee nominations for vacant Officer and Board positions. No present officer may be a member of this committee.

## VII. STAKEHOLDER ENGAGEMENT POLICY

AOOS will rely on a variety of avenues to engage stakeholders and solicit recommendations and input into AOOS operations and decision-making, to be described in the AOOS Strategic Operating Plan and updated at least every five years. This feedback will allow AOOS to both identify gaps and priorities in ocean observing and enhance AOOS tools and products. Engagement avenues include:

- Communication pathways and forums of partner organizations and programs;
- Topic-specific groups of experts and partners;
- Regionally focused meetings with key stakeholders;
- Ongoing activities including presentations, scoping groups, user surveys and the feedback tab found on every data portal page.

## VIII. EXTERNAL ADVISORY PANELS

A. Stakeholder/User Advisory Panels

The Board may appoint Stakeholder/End user panel or panels to identify and engage end users and provide input on system development from observations to product development. If established, Terms of Reference for the panel or panels will be adopted by the Board and attached as an appendix to this document.

B. Data Management and Communications Advisory Panel

This advisory panel will design and advise on implementation of the AOOS regional data management and communications system. Terms of Reference for the panel will be adopted by the Board and attached as an appendix to this document.

C. Scientific and Technical Advisory Panel

The Board may appoint a Scientific and Technical Advisory Panel or Panels on an ad hoc basis or to serve as a standing advisory body. Terms of Reference for the panel or panels will be adopted by the Board and attached as an appendix to this document.

IX. FISCAL SPONSOR

As per the AOOS MOA, AOOS will secure a fiscal sponsor from an appropriate entity in order to apply for grants and implement grant proposals, accept additional funds, as well as to accept any coordination funds from AOOS parties. The terms and conditions of the fiscal agency will be detailed in a separate document drafted between the fiscal sponsor and AOOS and approved by the AOOS Board and attached to this document as an appendix. The fiscal sponsor must have the ability to enter into enforceable contracts and account for money due and payable to AOOS.

Through the fiscal sponsor, AOOS will receive and distribute AOOS-related funding and other resources from federal, state, other public agencies, foundation sources, corporations, and private donors, according to the identified priorities.

X. EQUIPMENT

AOOS will manage and operate its system at the highest level in accordance with these policies:

- A. For all equipment owned by AOOS, follow the manufacturer's standard operating procedures and any applicable national policies and/or guidelines for calibrating, validating, operating, and maintaining equipment; and
- B. For all equipment purchased through AOOS but owned and managed by external contractors, operate using best practices and calibrate, validate, operate, and maintain in accordance with manufacturing guidelines and/or national IOOS program guidelines when available. External contractors will be required to provide maintenance reports upon request.

XI. CIVIL LIABILITY

Under the authorizing legislation (Public Law 111-11 "Omnibus Public Land Management Act of 2009," Subtitle C - Integrated Coastal and Ocean Observing System Act of 2009, Sections 12301 to 12311) the following language applies to AOOS:

*For purposes of determining liability arising from the dissemination and use of observation data gathered pursuant to this section, any non-Federal asset or regional information coordination entity incorporated into the System by contract, lease, grant, or cooperative agreement under subsection (c)(3)(D) that is participating in the System shall be considered to be part of the National Oceanic and Atmospheric Administration. Any employee of such a non-Federal asset or regional information coordination entity, while operating within the scope of his or her employment in carrying out the purposes of this subtitle, with respect to tort liability, is deemed to be an employee of the Federal Government.*

*(f) Limitation: Nothing in this subtitle shall be construed to invalidate existing certifications, contracts, or agreements between regional information coordination entities and other elements of the System. Nothing in this subtitle supersedes or limits the authority of any agency to carry out its responsibilities and missions under other laws.*

XII. CONFLICTS OF INTEREST AND RECUSAL

Policy adopted by the AOOS Board on May 11, 2010 and attached as appendix.

XIII. CONFIDENTIALITY OF INFORMATION

Policy may be developed.

XIV. COMPETITION WITHIN AOOS

Policy may be developed.

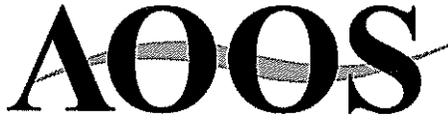
XV. DUES

No dues are assessed at this time. However, a policy may be adopted for accepting non-binding dues.

**APPENDICES**

- A. MEMORANDUM OF AGREEMENT
- B. AUTHORIZING LEGISLATION
- C. DATA MANAGEMENT AND COMMUNICATIONS ADVISORY PANEL
  - 1. Terms of Reference
- D. EXECUTIVE DIRECTOR SIGNATURE AUTHORITIES
- E. CONFLICT OF INTEREST POLICY
- F. FISCAL SPONSOR AGREEMENT

## APPENDIX A



Alaska Ocean Observing System  
1007 W. Third Avenue, Suite 100  
Anchorage, Alaska 99501  
907-770-6543  
www.aos.org

### Memorandum of Agreement

#### To Establish an Alaska Ocean Observing System (AOOS)

##### **Section I. Parties**

This Memorandum of Agreement ("MOA") is entered into by the signatories and any other entities that may become signatories to this agreement in the future (the "Parties").

##### **Section II. Background**

The Alaska Ocean Observing System (AOOS) is the interim Alaska regional association established and responsible for the development, operation and improvement of regional observing systems in Alaska's three regions: the Arctic Ocean/Chukchi and Beaufort Seas, the Bering Sea and Aleutian Islands, and the northern Gulf of Alaska, including Southeast Alaska, until such time as separate regional associations can be established for each of these regions. These regions are based on the world's Large Marine Ecosystems (LMES) as described by the World Conservation Union (IUCN), the Intergovernmental Oceanographic Commission of UNESCO, other United Nations agencies, and the U.S. National Oceanic and Atmospheric Administration (NOAA). Regional observing systems

–which are networks of observations, data management and analyses – will be nested within the Integrated Ocean Observing System (IOOS). IOOS is the U.S. network that will coordinate with the Global Ocean Observing System (GOOS) and systematically acquire and disseminate data and information on past, present and future states of the oceans and the nation's Exclusive Economic Zone. IOOS is being developed under the auspices of the National Ocean Research Leadership Council through the Ocean. US Office and is being designed to meet the following needs:

- Detecting and forecasting oceanic components of climate variability;
- Facilitating safe and efficient marine operations;
- Ensuring national security;
- Managing resources for sustainable use;
- Preserving and restoring healthy marine ecosystems;
- Mitigating natural hazards; and
- Ensuring public health

### Section III. Findings

- There is a need for more rapid detection and timely prediction of a broad spectrum of ocean/climate conditions.
- There are impacts on society as a result of changes in these conditions.
- Priorities for detecting and predicting changes in the marine and coastal ecosystems vary among regions in the United States.
- Regional associations, responsible for the development and operation of regional observing systems, provide the most effective means for identifying users and user needs and developing the products for those users.
- Due to Alaska's extensive coast line and variety of user groups and needs, three regional associations will ultimately need to be formed, although some functions may be addressed statewide.

### Section IV. Purpose

This MOA outlines the initial functions and responsibilities agreed to by the participating parties to establish a regional ocean observation association known as AOOS (Alaska Ocean Observing System), which will serve as the first Alaska member of the National Federation of Regional Associations of Coastal Ocean Observing Systems. The association will serve as the Alaska regional node for integrating coastal and ocean observing activities. Alaska's oceans are among the most productive ecosystems in existence and the Nation's greatest natural resources. There must be a concerted effort and commitment to maintain, monitor, and protect the long-term sustainability and health of these ecosystems, their habitats and resources. This can be accomplished, in part, through collaborative, coordinated efforts by the Parties to this MOA, each of which has an interest in the coasts and oceans of Alaska. This MOA will provide a framework for the Parties to work cooperatively to more effectively accomplish their individual and common missions and enhance broad user access to ocean knowledge, data, tools, and products.

### Section V. Definitions

- a. Regional Observing System. A system that links the needs of users to measurements of the coastal oceans on regional or subregional scales.** The integrated Alaska Ocean Observing System will be a heterogeneous, distributed system of linked elements, with organizational structures and interfaces developed where common good is identified. AOOS will be the regional point for relating Alaska ocean observing system elements to the national Integrated Ocean Observing System (IOOS) and the international Global Ocean Observing System (GOOS). In appropriate cases, AOO will establish, fund, and provide for the operation of components of the observing system whose functionality cuts across the roles and interests of the individual participating entities. Examples might include network links, master databases and indexes, or collaborative tools and services. The system will be a virtual system, consisting of the physical links, servers, and other elements that contribute to the overall purpose of AOOS, regardless of their ownership or operational responsibility.

The system will comprise five main activities:

- Operational and routine ocean observations;
- Long-term research operations;
- Technology development to support the AOOS objectives;
- A web-based "commons" for access to models, algorithms, numerical techniques, etc. to foster improved predictions by the users; and
- Data and information products such as nowcasts, forecasts and maps to meet user needs.

AOOS will integrate and coordinate assigned elements within these five areas. Further, AOOS will foster and integrate linkages among the many other partner elements in these areas.

**b. Functioning Bodies.** The following bodies are established by this MOA:

- (1) AOOS Governance Committee. The Governance Committee will be composed of the heads of federal and state agencies, academic and research institutions, and private entities (or their designees) that are both party to this Agreement and who provide personnel or resources to the AOOS office. The Governance Committee will provide policy guidance, ensure sustained support by the Parties, and approve implementing documents. The Committee shall elect a chair when AOOS is activated. The first chair shall serve through the second September 30 following activation of AOOS; thereafter, the chair shall serve for a two- year term. Decisions shall be by majority vote of those members present.
- (2) AOOS Office. The AOOS Office will function as the official representative of AOOS and initially establish and have cognizance over the components of an ocean observation and prediction system. It will initially have a Director and a modest administrative/support staff, as appropriate. Other partners may be represented at appropriate times. The Office will initially be co-located with the North Pacific Research Board in Anchorage, Alaska.
- (3) AOOS Director. Initially, the Director of the AOOS Office will be an employee of the University of Alaska.
- (4) AOOS Data Management and Communications Committee. The DMAC Committee will oversee development of the data management and communications component of AOOS and ensure its alignment with the IOOS DMAC Plan. The DMAC Committee will be appointed by the AOOS Governance Committee
- (5) AOOS User Committees. Once potential users and stakeholders for AOOS have been identified, User Committees will be established to ensure that AOOS is developed with user benefits in mind. User Committee members will be appointed by the AOOS Governance Committee and reflect the broad spectrum of users and stakeholders interested in the products of ocean observing systems. Committees may be developed on a sub- regional basis.

(6) AOOS Implementation Committees/Work Groups. At some point, an AOOS Implementation Committee or multiple committees or work groups may be established to aid the technical and scientific development of AOOS. These committees and work groups would be composed of experts in the various fields of ocean observing systems such as biological, physical and chemical oceanography, fish and shellfish, seabirds, marine mammals, atmospheric science, remote sensing, fisheries technology, and aquaculture and mariculture. Members would be appointed by the Governance Committee. In the interim, scientific and technical advice will be sought from the scientific advisory panels of other related organizations such as the North Pacific Research Board and the Gulf Ecosystem Monitoring Program, and through the use of targeted workshops.

**c. Geographic scope.** Initially, the geographic scope of AOOS will include the waters and Exclusive Economic Zone surrounding the coast of the state of Alaska. Given the vast extent of Alaska's coastline however, over time AOOS will ultimately become three separate regional associations: roughly the Arctic, Bering Sea, and Gulf of Alaska, although some functions may still be provided statewide.

#### **Section VI. Functions & Responsibilities**

This undertaking requires active participation of the involved parties in promoting collaboration between agencies and in ensuring compatibility and interoperability. The Governance Committee parties will support the AOOS Office by 1) designating representative(s), as needed, and/or 2) providing adequate funding support to the Office. Costs for operating the Office are intended to be shared among the Governance Committee members at levels commensurate with their involvement and with the availability of federal ocean observing funds slated for this purpose. Each Party will be responsible for supporting its staff detailed to the AOOS Office. Transfer of funds or personnel for this effort will be made pursuant to other appropriate authorities, agreements, or by amendment to this agreement.

The AOOS Office will:

- 1) Develop and maintain a document outlining the long-range vision of an integrated ocean observation and prediction system for Alaska. This document will serve as the strategic plan for the system.
- 2) Serve as the Alaska regional node to coordinate AOOS activities with IOOS, Ocean.US and the National Federation of Regional Associations of Coastal Ocean Observing Systems, as well as other federal and non-federal partners.
- 3) Monitor and support the work of the DMAC, Implementation and User Committees and Work Groups.

- 4) Report regularly to the Governance Committee for guidance. Provide an annual assessment of the observing system status, products and planned directions including results of external reviews, as appropriate.
- 5) Recommend enhancements to existing systems, new projects, need for research and development, and identification of system components suitable to transition from research to operations.
- 6) Carry out all other tasks as directed by the Governance Committee.

#### **Section VII. Information and data**

To enhance communications and availability of information, the Parties agree to:

1. Provide data required to support AOOS operations, research and education efforts in accordance with applicable laws, regulations and policies of the participating entities.
2. Develop compatible data standards and quality control procedures so data are of the highest quality and compatible between participating agencies; and
3. Cooperate in jointly synthesizing the results of ongoing monitoring and research efforts undertaken by the Parties and other research entities.

#### **Section VIII. Shared resources**

To reduce costs, increase efficiency, and avoid duplication of effort, the Parties agree to expedite access to and sharing of each other's facilities and equipment, pooled inventories of costly technology development projects, and scarce human skill sets, consistent with each Party's policies and regulations.

#### **Section IX. Joint meetings**

The Parties agree to meet jointly as often as needed. These meetings will help to foster cooperation among the parties, share findings with other participatory agencies, evaluate plans and progress in implementation, and coordinate in establishing priorities for the system.

#### **Section X. Participation of other entities and facilities**

The Parties recognize that adding new participatory organizations to this MOA will better enable participatory organizations to reach shared goals. The Parties agree to:

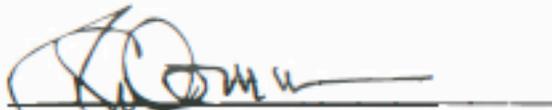
1. Recognize and promote the participation of other organizations that may contribute to the shared interests of monitoring and research in Alaska's oceans and related watersheds; and
2. Establish a mechanism through which new participants can participate in planning for the ocean observing system.

#### **Section XI. General provisions**

1. Effective date. This MOA becomes effective upon the date of the signature of the third Party to execute it and is subject to availability of funds. This MOA may be executed in counterparts, each of which will be considered an original document.
2. Withdrawal. Any Party to this MOA may withdraw without obligation upon six months formal written notice to the other Parties.

3. Termination. This MOA shall remain in effect until it is terminated by agreement of the Parties.
4. Authority. Nothing in this MOA shall be construed to limit or modify the authority or responsibility of any participating agency.
5. Third parties. This MOA is not intended to, nor shall it, vest rights in persons or entities who are not Parties.
6. Amendment. This MOA may be amended in writing by the unanimous written agreement of the Parties.
7. Antideficiency. Nothing in this MOA shall be construed as obligating any of the Parties, their agents or employees, to expend funds in excess of that authorized by law.
8. Effect. This MOA is intended to express the good faith plans and general intentions of the parties, but does not create any legally enforceable obligations.
9. Notice. Any notice, request, order, or communication to the Parties pursuant to this MOA shall be in writing to each Party at the address that follows: 1007 W. Third Avenue, Suite 100, Anchorage, AK 99501. Or to such other addresses as any Party may designate in writing.

Accepted as affirmed by our signatures below.

  
Craig Norman  
University of Alaska

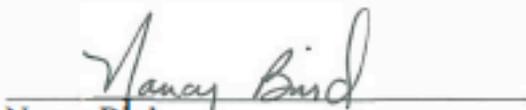
2/12/04  
Date

  
Clarence Pautzke  
North Pacific Research Board

2/17/04  
Date

  
Gail Phillips  
Exxon Valdez Oil Spill Trustee Council

4-08-04  
Date

  
Nancy Bird  
Prince William Sound Science Center  
Oil Spill Recovery Institute

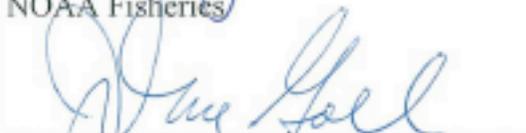
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Tylan Schrock  
Alaska SeaLife Center

3/9/04  
Date

  
Douglas DeMaster  
NOAA Fisheries

5 March 2004  
Date

  
John Goll  
Minerals Management Service  
U.S. Department of the Interior

4/14/04  
Date

  
Richard Glenn  
Barrow Arctic Science Consortium

2004  
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Lawson Brigham  
Lawson Brigham  
Arctic Research Commission

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Terry Thompson  
Kachemak Bay Research Reserve

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William Seitz  
William Seitz  
USGS  
U.S. Department of the Interior

3/18/04  
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John Calder  
John Calder  
NOAA Office of Arctic Programs

Feb 19, 2004  
Date

Brian Ahee  
Brian Ahee  
AK Sea Grant Program

10/1/04  
Date

Denis Wiesenburg  
Denis Wiesenburg  
Dean, School of Fisheries & Ocean Sciences,  
UAF

10/22/04  
Date

James Partain  
James Partain  
NOAA/NWS

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Kachemak Bay Research Reserve

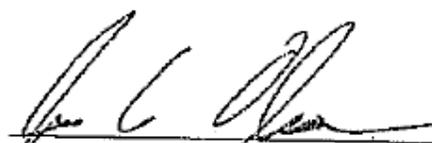
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U.S. Department of the Interior

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John Calder  
NOAA Office of Arctic Programs

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J. C. Olson

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10/12/04  
Date

Commander, Seventeenth Coast Guard District

**COAST GUARD ADDENDUM TO THE MEMORANDUM OF AGREEMENT TO ESTABLISH AN  
ALASKA OCEAN OBSERVING SYSTEM**

Commander, Coast Guard District Seventeen agrees to sign the Memorandum of Agreement To Establish an Alaska Ocean Observing System (AOOS) with the following modifications:

**Section A . Authority**

This Agreement is authorized under the provisions of 14 U.S.C. § 93(d), which authorizes the Coast Guard to cooperate with federal and private agencies. The statutory authority for the National Oceanographic Partnership Program is contained in 10 U.S.C 7901, *et. seq.*

**Section B. Functions & Responsibilities**

This undertaking requires active participation of the involved parties in promoting collaboration between agencies and in ensuring compatibility and interoperability. Coast Guard District Seventeen will support the AOOS Office by 1) designating representative(s) to serve as active members of committees as available.



J.C. Olson

10/12/04  
Date

Commander, Seventeenth Coast Guard District

## APPENDIX B

### INTEGRATED COASTAL AND OCEAN OBSERVATION SYSTEM ACT OF 2009

Subtitle C of HR 146 Omnibus Public Lands Management Act of 2009 SEC.

12301. SHORT TITLE.

This subtitle may be cited as the 'Integrated Coastal and Ocean Observation System Act of 2009'.

SEC. 12302. PURPOSES. The purposes of this subtitle are to--

(1) establish a national integrated System of ocean, coastal, and Great Lakes observing systems, comprised of Federal and non-Federal components coordinated at the national level by the National Ocean Research Leadership Council and at the regional level by a network of regional information coordination entities, and that includes in situ, remote, and other coastal and ocean observation, technologies, and data management and communication systems, and is designed to address regional and national needs for ocean information, to gather specific data on key coastal, ocean, and Great Lakes variables, and to ensure timely and sustained dissemination and availability of these data to--

- (A) support national defense, marine commerce, navigation safety, weather, climate, and marine forecasting, energy siting and production, economic development, ecosystem-based marine, coastal, and Great Lakes resource management, public safety, and public outreach training and education;
- (B) promote greater public awareness and stewardship of the Nation's ocean, coastal, and Great Lakes resources and the general public welfare; and
- (C) enable advances in scientific understanding to support the sustainable use, conservation, management, and understanding of healthy ocean, coastal, and Great Lakes resources;

(2) improve the Nation's capability to measure, track, explain, and predict events related directly and indirectly to weather and climate change, natural climate variability, and interactions between the oceanic and atmospheric environments, including the Great Lakes; and

(3) authorize activities to promote basic and applied research to develop, test, and deploy innovations and improvements in coastal and ocean observation technologies, modeling systems, and other scientific and technological capabilities to improve our conceptual understanding of weather and climate, ocean-atmosphere dynamics, global climate change, physical, chemical, and biological dynamics of the ocean, coastal and Great Lakes environments, and to conserve healthy and restore degraded coastal ecosystems.

SEC. 12303. DEFINITIONS.

In this subtitle:

(1) ADMINISTRATOR- The term `Administrator' means the Under Secretary of Commerce for Oceans and Atmosphere in the Under Secretary's capacity as Administrator of the National Oceanic and Atmospheric Administration.

(2) COUNCIL- The term `Council' means the National Ocean Research Leadership Council established by section 7902 of title 10, United States Code.

(3) FEDERAL ASSETS- The term `Federal assets' means all relevant non-classified civilian coastal and ocean observations, technologies, and related modeling, research, data management, basic and applied technology research and development, and public education and outreach programs, that are managed by member agencies of the Council.

(4) INTERAGENCY OCEAN OBSERVATION COMMITTEE- The term `Interagency Ocean Observation Committee' means the committee established under section 12304(c)(2).

(5) NON-FEDERAL ASSETS- The term `non-Federal assets' means all relevant coastal and ocean observation technologies, related basic and applied technology research and development, and public education and outreach programs that are integrated into the System and are managed through States, regional organizations, universities, nongovernmental organizations, or the private sector.

(6) REGIONAL INFORMATION COORDINATION ENTITIES-

(A) IN GENERAL- The term `regional information coordination entity' means an organizational body that is certified or established by contract or memorandum by the lead Federal agency designated in section 12304(c)(3) of this subtitle and coordinates State, Federal, local, and private interests at a regional level with the responsibility of engaging the private and public sectors in designing, operating, and improving regional coastal and ocean observing systems in order to ensure the provision of data and information that meet the needs of user groups from the respective regions.

(B) CERTAIN INCLUDED ASSOCIATIONS- The term `regional information coordination entity' includes regional associations described in the System Plan.

(7) SECRETARY- The term `Secretary' means the Secretary of Commerce, acting through the National Oceanic and Atmospheric Administration.

(8) SYSTEM- The term `System' means the National Integrated Coastal and Ocean Observation System established under section 12304.

(9) SYSTEM PLAN- The term `System Plan' means the plan contained in the document entitled `Ocean. US Publication No. 9, The First Integrated Ocean Observing System (IOOS) Development Plan', as updated by the Council under this subtitle.

## SEC. 12304. INTEGRATED COASTAL AND OCEAN OBSERVING SYSTEM.

(a) Establishment- The President, acting through the Council, shall establish a National

Integrated Coastal and Ocean Observation System to fulfill the purposes set forth in section 12302 of this subtitle and the System Plan and to fulfill the Nation's international obligations to contribute to the Global Earth Observation System of Systems and the Global Ocean Observing System.

(b) System Elements-

(1) IN GENERAL- In order to fulfill the purposes of this subtitle, the System shall be national in scope and consist of--

(A) Federal assets to fulfill national and international observation missions and priorities;

(B) non-Federal assets, including a network of regional information coordination entities identified under subsection (c)(4), to fulfill regional observation missions and priorities;

(C) data management, communication, and modeling systems for the timely integration and dissemination of data and information products from the System;

(D) a research and development program conducted under the guidance of the Council, consisting of--

(i) basic and applied research and technology development to improve understanding of coastal and ocean systems and their relationships to human activities and to ensure improvement of operational assets and products, including related infrastructure, observing technologies, and information and data processing and management technologies; and

(ii) large scale computing resources and research to advance modeling of coastal and ocean processes.

(2) ENHANCING ADMINISTRATION AND MANAGEMENT- The head of each Federal agency that has administrative jurisdiction over a Federal asset shall support the purposes of this subtitle and may take appropriate actions to enhance internal agency administration and management to better support, integrate, finance, and utilize observation data, products, and services developed under this section to further its own agency mission and responsibilities.

(3) AVAILABILITY OF DATA- The head of each Federal agency that has administrative jurisdiction over a Federal asset shall make available data that are produced by that asset and that are not otherwise restricted for integration, management, and dissemination by the System.

(4) NON-FEDERAL ASSETS- Non-Federal assets shall be coordinated, as appropriate, by the Interagency Ocean Observing Committee or by regional information coordination entities.

(c) Policy Oversight, Administration, and Regional Coordination-

(1) COUNCIL FUNCTIONS- The Council shall serve as the policy and coordination oversight body for all aspects of the System. In carrying out its responsibilities under this subtitle, the Council shall--

(A) approve and adopt comprehensive System budgets developed and maintained by the Interagency Ocean Observation Committee to support System operations, including operations of both Federal and non-Federal assets;

(B) ensure coordination of the System with other domestic and international earth observing activities including the Global Ocean Observing System and the Global Earth Observing System of Systems, and provide, as appropriate, support for and representation on United States delegations to international meetings on coastal and ocean observing programs; and

(C) encourage coordinated intramural and extramural research and technology development, and a process to transition developing technology and methods into operations of the System.

(2) INTERAGENCY OCEAN OBSERVATION COMMITTEE- The Council shall establish or designate an Interagency Ocean Observation Committee which shall--

(A) prepare annual and long-term plans for consideration and approval by the Council for the integrated design, operation, maintenance, enhancement and expansion of the System to meet the objectives of this subtitle and the System Plan;

(B) develop and transmit to Congress at the time of submission of the President's annual budget request an annual coordinated, comprehensive budget to operate all elements of the System identified in subsection (b), and to ensure continuity of data streams from Federal and non-Federal assets;

(C) establish required observation data variables to be gathered by both Federal and non-Federal assets and identify, in consultation with regional information coordination entities, priorities for System observations;

(D) establish protocols and standards for System data processing, management, and communication;

(E) develop contract certification standards and compliance procedures for all non-Federal assets, including regional information coordination entities, to establish eligibility for integration into the System and to ensure compliance with all applicable standards and protocols established by the Council, and ensure that regional observations are integrated into the System on a sustained basis;

(F) identify gaps in observation coverage or needs for capital improvements of both Federal assets and non-Federal assets;

(G) subject to the availability of appropriations, establish through one or more participating Federal agencies, in consultation with the System advisory committee established under subsection (d), a competitive matching grant or other programs--

(i) to promote intramural and extramural research and development of new, innovative, and emerging observation technologies including testing and field trials; and

(ii) to facilitate the migration of new, innovative, and emerging scientific and technological advances from research and development to operational deployment;

(H) periodically review and recommend to the Council, in consultation with the Administrator, revisions to the System Plan;

(I) ensure collaboration among Federal agencies participating in the activities of the Committee; and

(J) perform such additional duties as the Council may delegate.

(3) LEAD FEDERAL AGENCY- The National Oceanic and Atmospheric Administration shall function as the lead Federal agency for the implementation and administration of the System, in consultation with the Council, the Interagency Ocean Observation Committee, other Federal agencies that maintain portions of the System, and the regional information coordination entities, and shall--

(A) establish an Integrated Ocean Observing Program Office within the National Oceanic and Atmospheric Administration utilizing to the extent necessary, personnel from member agencies participating on the Interagency Ocean Observation Committee, to oversee daily operations and coordination of the System;

(B) implement policies, protocols, and standards approved by the Council and delegated by the Interagency Ocean Observing Committee;

(C) promulgate program guidelines to certify and integrate non-Federal assets, including regional information coordination entities, into the System to provide regional coastal and ocean observation data that meet the needs of user groups from the respective regions;

(D) have the authority to enter into and oversee contracts, leases, grants or cooperative agreements with non-Federal assets, including regional information coordination entities, to support the purposes of this subtitle on such terms as the Administrator deems appropriate;

(E) implement a merit-based, competitive funding process to support non-Federal assets, including the development and maintenance of a network of regional information coordination entities, and develop and implement a process for the periodic review and evaluation of all non-Federal assets, including regional information coordination entities;

(F) provide opportunities for competitive contracts and grants for demonstration projects to design, develop, integrate, deploy, and support components of the System;

(G) establish efficient and effective administrative procedures for allocation of funds among contractors, grantees, and non-Federal assets, including regional information coordination entities in a timely manner, and contingent on appropriations according to the budget adopted by the Council;

(H) develop and implement a process for the periodic review and evaluation of regional information coordination entities;

(I) formulate an annual process by which gaps in observation coverage or needs for capital improvements of Federal assets and non-Federal assets of the System are identified by the regional information coordination entities, the Administrator, or other members of the System and transmitted to the Interagency Ocean Observing Committee;

(J) develop and be responsible for a data management and communication system, in accordance with standards and protocols established by the Council, by which all data collected by the System regarding ocean and coastal waters of the United States including the Great Lakes, are processed, stored, integrated, and made available to all end-user communities;

(K) implement a program of public education and outreach to improve public awareness of global climate change and effects on the ocean, coastal, and Great Lakes environment;

(L) report annually to the Interagency Ocean Observing Committee on the

accomplishments, operational needs, and performance of the System to contribute to the annual and long-term plans developed pursuant to subsection (c)(2)(A)(i); and (M) develop a plan to efficiently integrate into the System new, innovative, or emerging technologies that have been demonstrated to be useful to the System and which will fulfill the purposes of this subtitle and the System Plan.

(4) REGIONAL INFORMATION COORDINATION ENTITIES-

(A) IN GENERAL- To be certified or established under this subtitle, a regional information coordination entity shall be certified or established by contract or agreement by the Administrator, and shall agree to meet the certification standards and compliance procedure guidelines issued by the Administrator and information needs of user groups in the region while adhering to national standards and shall--

(i) demonstrate an organizational structure capable of gathering required System observation data, supporting and integrating all aspects of coastal and ocean observing and information programs within a region and that reflects the needs of State and local governments, commercial interests, and other users and beneficiaries of the System and other requirements specified under this subtitle and the System Plan.

(ii) identify gaps in observation coverage needs for capital improvements of Federal assets and non-Federal assets of the System, or other recommendations to assist in the development of the annual and long-term plans created pursuant to subsection (c)(2)(A)(i) and transmit such information to the Interagency Ocean Observing Committee via the Program Office;

(iii) develop and operate under a strategic operational plan that will ensure the efficient and effective administration of programs and assets to support daily data observations for integration into the System, pursuant to the standards approved by the Council;

(iv) work cooperatively with governmental and non-governmental entities at all levels to identify and provide information products of the System for multiple users within the service area of the regional information coordination entities; and

(v) comply with all financial oversight requirements established by the Administrator, including requirements relating to audits.

(B) PARTICIPATION- For the purposes of this subtitle, employees of Federal agencies may participate in the functions of the regional information coordination entities.

(d) System Advisory Committee-

(1) IN GENERAL- The Administrator shall establish or designate a System advisory committee, which shall provide advice as may be requested by the Administrator or the Interagency Ocean Observing Committee.

(2) PURPOSE- The purpose of the System advisory committee is to advise the Administrator and the Interagency Ocean Observing Committee on--

(A) administration, operation, management, and maintenance of the System, including integration of Federal and non-Federal assets and data management and

communication aspects of the System, and fulfillment of the purposes set forth in section 12302;

(B) expansion and periodic modernization and upgrade of technology components of the System;

(C) identification of end-user communities, their needs for information provided by the System, and the System's effectiveness in disseminating information to end-user communities and the general public; and

(D) any other purpose identified by the Administrator or the Interagency Ocean Observing Committee.

(3) MEMBERS-

(A) IN GENERAL- The System advisory committee shall be composed of members appointed by the Administrator. Members shall be qualified by education, training, and experience to evaluate scientific and technical information related to the design, operation, maintenance, or use of the System, or use of data products provided through the System.

(B) TERMS OF SERVICE- Members shall be appointed for 3-year terms, renewable once. A vacancy appointment shall be for the remainder of the unexpired term of the vacancy, and an individual so appointed may subsequently be appointed for 2 full 3-year terms if the remainder of the unexpired term is less than 1 year.

(C) CHAIRPERSON- The Administrator shall designate a chairperson from among the members of the System advisory committee.

(D) APPOINTMENT- Members of the System advisory committee shall be appointed as special Government employees for purposes of section 202(a) of title 18, United States Code.

(4) ADMINISTRATIVE PROVISIONS-

(A) REPORTING- The System advisory committee shall report to the Administrator and the Interagency Ocean Observing Committee, as appropriate.

(B) ADMINISTRATIVE SUPPORT- The Administrator shall provide administrative support to the System advisory committee.

(C) MEETINGS- The System advisory committee shall meet at least once each year, and at other times at the call of the Administrator, the Interagency Ocean Observing Committee, or the chairperson.

(D) COMPENSATION AND EXPENSES- Members of the System advisory committee shall not be compensated for service on that Committee, but may be allowed travel expenses, including per diem in lieu of subsistence, in accordance with subchapter I of chapter 57 of title 5, United States Code.

(E) EXPIRATION- Section 14 of the Federal Advisory Committee Act (5 U.S.C. App.) shall not apply to the System advisory committee.

(e) Civil Liability- For purposes of determining liability arising from the dissemination and use of observation data gathered pursuant to this section, any non-Federal asset or regional information coordination entity incorporated into the System by contract, lease, grant, or cooperative agreement under subsection (c)(3)(D) that is participating in the System shall be considered to be part of the National Oceanic and Atmospheric Administration. Any employee of such a non-Federal asset or regional information coordination entity, while

operating within the scope of his or her employment in carrying out the purposes of this subtitle, with respect to tort liability, is deemed to be an employee of the Federal Government.

(f ) Limitation- Nothing in this subtitle shall be construed to invalidate existing certifications, contracts, or agreements between regional information coordination entities and other elements of the System.

#### SEC. 12305. INTERAGENCY FINANCING AND AGREEMENTS.

(a) In General- To carry out interagency activities under this subtitle, the Secretary of Commerce may execute cooperative agreements, or any other agreements, with, and receive and expend funds made available by, any State or subdivision thereof, any Federal agency, or any public or private organization, or individual.

(b) Reciprocity- Member Departments and agencies of the Council shall have the authority to create, support, and maintain joint centers, and to enter into and perform such contracts, leases, grants, and cooperative agreements as may be necessary to carry out the purposes of this subtitle and fulfillment of the System Plan.

#### SEC. 12306. APPLICATION WITH OTHER LAWS.

Nothing in this subtitle supersedes or limits the authority of any agency to carry out its responsibilities and missions under other laws.

#### SEC. 12307. REPORT TO CONGRESS

(a) Requirement- Not later than 2 years after the date of the enactment of this Act and every 2 years thereafter, the Administrator shall prepare and the President acting through the Council shall approve and transmit to the Congress a report on progress made in implementing this subtitle.

(b) Contents- The report shall include--

- (1) a description of activities carried out under this subtitle and the System Plan;
- (2) an evaluation of the effectiveness of the System, including an evaluation of progress made by the Council to achieve the goals identified under the System Plan;
- (3) identification of Federal and non-Federal assets as determined by the Council that have been integrated into the System, including assets essential to the gathering of required observation data variables necessary to meet the respective missions of Council agencies;
- (4) a review of procurements, planned or initiated, by each Council agency to enhance, expand, or modernize the observation capabilities and data products provided by the System, including data management and communication subsystems;

- (5) an assessment regarding activities to integrate Federal and non-Federal assets, nationally and on the regional level, and discussion of the performance and effectiveness of regional information coordination entities to coordinate regional observation operations;
- (6) a description of benefits of the program to users of data products resulting from the System (including the general public, industries, scientists, resource managers, emergency responders, policy makers, and educators);
- (7) recommendations concerning--
  - (A) modifications to the System; and
  - (B) funding levels for the System in subsequent fiscal years; and
- (8) the results of a periodic external independent programmatic audit of the System.

#### SEC. 12308. PUBLIC-PRIVATE USE POLICY.

The Council shall develop a policy within 6 months after the date of the enactment of this Act that defines processes for making decisions about the roles of the Federal Government, the States, regional information coordination entities, the academic community, and the private sector in providing to end-user communities environmental information, products, technologies, and services related to the System. The Council shall publish the policy in the Federal Register for public comment for a period not less than 60 days. Nothing in this section shall be construed to require changes in policy in effect on the date of enactment of this Act.

#### SEC. 12309. INDEPENDENT COST ESTIMATE.

Within 1 year after the date of enactment of this Act, the Interagency Ocean Observation Committee, through the Administrator and the Director of the National Science Foundation, shall obtain an independent cost estimate for operations and maintenance of existing Federal assets of the System, and planned or anticipated acquisition, operation, and maintenance of new Federal assets for the System, including operation facilities, observation equipment, modeling and software, data management and communication, and other essential components. The independent cost estimate shall be transmitted unabridged and without revision by the Administrator to Congress.

#### SEC. 12310. INTENT OF CONGRESS.

It is the intent of Congress that funding provided to agencies of the Council to implement this subtitle shall supplement, and not replace, existing sources of funding for other programs. It is the further intent of Congress that agencies of the Council shall not enter into contracts or agreements for the development or procurement of new Federal assets for the System that are estimated to be in excess of \$250,000,000 in life-cycle costs without first providing adequate notice to Congress and opportunity for review and comment.

#### SEC. 12311. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to the Secretary of Commerce for fiscal years 2009

through 2013 such sums as are necessary to fulfill the purposes of this subtitle and support activities identified in the annual coordinated System budget developed by the Interagency Ocean Observation Committee and submitted to the Congress.

## APPENDIX C

# Terms of Reference for the Alaska Ocean Observing System Data Management Advisory Committee

### Definition

These Terms of Reference describe the purpose, responsibilities, governance, terms of membership, and general and specific rules of order for the Alaska Ocean Observing System (AOOS) Data Management Advisory Committee (DMAC), hereafter referred to as “the committee”.

### Purpose

The committee is advisory to the Executive Director and annually reports to the AOOS Board on the status of AOOS data management services, the AOOS Data Management Plan and the annual AOOS Data Management Work Plan. The status of data management services addresses the degree and quality of implementation of the following attributes: interoperability; open, easy access and discovery; reliable, sustained, efficient operations; effective user feedback; open design and standards process; and preservation of data and products. (Attributes are further elaborated below.)

### Responsibilities

In general, the committee shall

1. Meet as may be necessary for consideration and discussion;
2. Provide advice to the Executive Director and her designees; and
3. Report annually to the AOOS Board.

Specifically, the committee shall

1. Conduct and assist in the conduct of inquiries on the status of data management as requested by the Executive Director and AOOS Board;
2. Periodically review the AOOS Data Management Plan;
3. Provide input into the Annual Data Management Work Plan for the data contractor, including data ingestion priorities and user feedback;

4. Engage and provide feedback on relevant IOOS national level activities; and
5. Communicate data needs and data management activities of constituent groups.

## **Governance**

The governance of the AOOS DMAC operates within the context of the AOOS governance mechanism as defined by the AOOS Board and described in the AOOS Memorandum of Agreement and Standard Operating Procedures.

## **Terms of Membership**

The AOOS DMAC consists of as many as fifteen (15) members selected from a cross section of agencies, institutions and user groups providing coastal and ocean data, information or products in the Alaska region. Eligible members are: 1) familiar with the technical aspect of data management and communication, 2) actively engaged in some aspect of coastal ocean observing systems in or around Alaska, or 3) principal end-users of data, products, and services from coastal ocean observing systems around Alaska.

Membership may include, but is not limited to, research institutions, non-governmental organizations, local government agencies or authorities, state agencies, federal agencies, and private industry.

AOOS DMAC members are appointed by, and serve at the pleasure of, the AOOS Board. A member who resigns is asked to submit a written resignation to the AOOS Board via the Executive Director as far in advance as possible. Resigning members are encouraged to suggest replacement members.

## **Rules of Order**

### **General:**

The AOOS DMAC operates under rules of order that are generally accepted for the operation of scientific and technical committees, which are summarized here. Committee meetings are conducted by a chair who serves at the pleasure of the committee. The committee will vote on the chair once every two years in the fall of odd years. A member may call for a vote on the matter of chairmanship at any time. The chair recognizes members wishing to speak. Members are encouraged to speak only when recognized by the chair; however, a member may respond to a question from another member, or clarify an earlier statement in response to another member's statement without going through the chair. When a decision or recommendation is to be made, it is offered in the form of a motion by any member of the committee, and seconded by any other member. The motion is then followed by discussion. The chair may call for the end of discussion

at any time, but discussion will continue until no member wishes to speak to the subject further. At the end of the discussion, the chair will ask if anyone objects to the motion. Hearing any objection, the chair calls for a vote. Motions are recorded in the meeting summary if no one objects or if a simple majority of members present vote in favor.

### **Specific:**

- The AOOS DMAC determines the frequency and location of its regular meetings, which occur at least annually or at the request of the AOOS Board or Executive Director.
- Extraordinary meetings may be convened by the AOOS DMAC chair or at the request of any four AOOS DMAC members.
- A quorum for any AOOS DMAC meeting is a simple majority of the currently appointed DMAC members.
- The committee, in its discretion, may invite observers or other relevant parties to attend committee meetings.
- At any meeting of the committee, any member unable to attend may designate to the Executive Director and chair an alternate. Each alternate exercises full powers of the member while serving in that capacity.
- The summary of each committee meeting, including action items, will be distributed to committee members and published on the AOOS website.

### **Support services provided by AOOS**

Support services provided to the DMAC include establishing the meeting venue, developing the agenda in consultation with the chair and members, and recording and reporting meeting summaries, including action items. The AOOS Executive Director will work with the committee chair to ensure action items are followed up.

### **Definition of Attributes of Data Management Services**

*Interoperability:* Data management services serves as a framework for interoperability among heterogeneous cooperating systems. The cooperating systems are free to evolve independently to address the needs of their target users. Software and standards needed to participate in data management activities are available directly to partners, or provided through commercial and non-commercial sources. Data management services are interoperable with systems outside of the marine community that manage atmospheric and terrestrial data.

*Open, easy access and discovery:* Data management services enable users from all over the globe to easily locate, access, and use the varied and distributed forms of marine data and their associated metadata and documentation in a variety of computer applications (e.g., geographic information systems and scientific analysis applications). Users are unencumbered by traditional barriers such as data formats, volumes, and distributed locations. Data management services integrate cooperating systems so that data discovery is seamless, and multiple versions are easily

tracked. There is a “free market” of ocean sciences information, including officially sanctioned IOOS data sets, as well as data and products from other sources.

*Reliable, sustained, efficient operations:* Data management services provide high reliability with uninterrupted delivery of real-time data streams from measurement subsystems to operational modeling centers and users with time-critical requirements. It provides high reliability in the delivery of computer-generated forecasts, estimates of state, and delayed-mode and real-time data to end-users. Data management services requires sufficient bandwidth and adequate carrying capacity to support large exchanges of raw data and model outputs among high-volume users. Data management services facilitates techniques that reduce the need for large data transfers, such as server-side subsetting and computation, to allow users with limited bandwidth to enjoy the benefits of AOOS. Feedback mechanisms are built into the technical design of data management services to ensure that problems are detected and rapidly addressed.

*Effective user feedback:* AOOS provides a continuous, vigorous outreach process addressing all levels of users of marine data, emphasizing the benefits of sharing data through AOOS, and helping to identify and remedy difficulties encountered by those who are sharing or accessing data. In addition, this process identifies and addresses changing user requirements that drive the development and growth of AOOS.

*Open design and standards process:* AOOS data management services commits to an open software design. All standards and protocol definitions are openly published so that participating organizations may create functioning data management components based on these specifications. The standards development process is open and inclusive, so that it fosters buy-in by all stakeholders. Existing information technology and scientific standards are used in preference to development of new solutions, wherever possible. The standards and protocols are of sufficient breadth and quality to guarantee interoperability of all observations and products. Institutions participating in AOOS ensure that the data they contribute comply with these standards and protocols.

*Preservation of data and products:* Irreplaceable observations, data products of lasting value, and associated metadata are archived for posterity in an efficient and automated manner.

## APPENDIX D



Alaska Ocean Observing System  
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Anchorage, AK 99501  
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### **EXECUTIVE DIRECTOR SIGNING AUTHORITY**

Approved by AOOS Executive Committee January 6, 2012.  
Amended by AOOS Board of Directors March 20, 2017

The AOOS Executive Director has the authority to sign the following documents:

1. All funding proposals consistent with the AOOS mission. Confidential reports of all proposals being considered or worked on by AOOS staff will be circulated to AOOS board members for feedback on a monthly basis.
2. All grants or other funding agreements that have been approved by the AOOS Board or AOOS Executive Committee.
3. Contracts or subawards providing funds to other entities that are budgeted as a component of funds received by AOOS in accordance with #2.
4. All payables and payroll expenses budgeted on AOOS grants or other non-grant funds that have been received by AOOS in accordance with #2.
5. All letters of support for proposals from other entities that are consistent with the AOOS mission.
6. All documents when acting as a board member of the Integrated Ocean Observing System Association and consistent with the AOOS mission and policies.
7. All letters or documents on behalf of AOOS when clearly consistent with the AOOS mission.

## **APPENDIX E**

### **AOOS Conflict of Interest and Confidentiality Policies**

Adopted May 11, 2010

#### **BACKGROUND**

As a general rule, AOOS is not intended to be an organization that regularly provides competitive grants for coastal and ocean monitoring. Rather, AOOS staff and the board have used the ocean observing community and stakeholders to identify needs for observations, models and products, worked with those investigators and entities that are most likely to be able to do the work, and included a suite of investigators into a comprehensive proposal that seeks funding through an open competition managed by NOAA. The final projects included in that comprehensive program are reviewed by advisory panels and eventually approved by the AOOS board.

As the program matures and certain components of the program become more established, the AOOS Board may decide to hold open competitions for certain components of the program, especially if there are a variety of investigators and entities which could do the actual work. Such is the case with the AOOS data management services, for which an open competition was held in 2010.

To guide advisory committee and review panel recommendations and final decision-making by the AOOS Board, the following conflict of interest and confidentiality policies were adopted by the Board on May 11, 2010. They are similar to ones adopted by the North Pacific Research Board and the North Pacific Fishery Management Council.

#### **Conflict of Interest Policy for AOOS Board Members**

AOOS Board Members must recuse themselves from voting under three circumstances:

- 1) On approval of funding for a project for which the Board Member is a principal investigator or collaborator whose resume is included as a part of the project;
- 2) If the decision would have a significant and predictable effect on their financial interest;  
or
- 3) If the Board member believes he/she has a conflict of interest.

AOOS Board Members who recuse themselves from voting are still permitted to participate in discussion of the issue.

Examples of instances covered under 3) above include

- Current employment with the institution of the applicant receiving funds;
- Ownership of the institution's securities or evidence of debt;
- Known family or marriage relationship, if relationship is with investigator or collaborator whose resume is included as part of project; and
- Business or professional relationship with investigator or collaborator whose resume is included as part of project.

The organizational level of involvement in the institution described above would affect the potential for conflict, but should be determined by the individual Board Member. For example, if the Alaska Sea Grant Program Board Member, an employee of the University of Alaska, was

voting on a decision affecting funding for the University of Alaska, the potential for conflict should be noted, but the Board Member should determine if it is sufficient to result in recusal.

The AOOS Board may determine by majority vote if the Board Member does or does not have a conflict if the conflict is not clear.

### **Conflict of Interest Policy for AOOS Advisory Committee Members and Independent Reviewers**

AOOS Advisory Committee members and independent reviewers should consider potential conflict situations that may arise in their review of projects being considered for funding and in other activities related to their activities. An individual may serve on advisory committees despite a personal conflict, but must recuse him/herself from voting under three broad affiliations characterized below. The member may remain in the meeting for discussion purposes for all affiliations except item 2, bullet 4, wherein the member must leave the room during discussions and voting. Independent reviewers should recuse themselves from evaluating proposals if any of the following circumstances apply.

#### 1. Affiliation with an Applicant Institution or Institution Proposed to Receive Funding

- Current employment at the applicant institution or agency within the specific department of the applicant, or being considered for employment in that department
- Ownership of the institution's securities or other evidences of debt
- Current membership on a visiting committee or similar body that directly relates to the proposal.
- Current enrollment as a student at a department or school submitting a proposal if the proposed project will be of direct professional or financial benefit.
- Received and retained an honorarium or award related to work or activities in the specific department of the applicant within the last 12 months

#### 2. Affiliation with an Investigator, Project Director, or Other Person with Personal Interest in the Proposal or Project Proposed to Receive Funding

- Known family or marriage relationship, if relationship is with a principal investigator, collaborator (if curriculum vitae is included in proposal) or project director
- Business or professional partnership
- Past or present association as major thesis/dissertation advisor or thesis/dissertation student to one of the principal investigators
- Advisory committee member is a principal investigator on a proposal or is listed as a collaborator and a curriculum vitae is included in the proposal package (for this case only, the panel member must leave the room during discussion and voting on that particular proposed project)
- Reviewers who have submitted a proposed project may be called on to review other proposals, but only if there is a shortage of available reviewers.

#### 3. Other Affiliations or Relationships

- Interests of the following persons must be treated as if they were that of the Advisory Committee member or technical reviewer: any affiliation or relationship of member's spouse or minor child or sibling, of a relative living in the immediate household or of

anyone who is legally a partner of the member, that would be covered by the affiliations listed above

- Other relationship, such as a very close personal friendship or open antagonism that might tend to affect a member's judgment or be seen as doing so by a reasonable person familiar with the relationship

### **Confidentiality of Documents and Restriction on Contact Policy for AOOS Board Members, Advisory Committee Members, and Reviewers**

Following any open competition, unfunded project proposals will remain proprietary and confidential, though the title, author, requested funding amount, performance period, and proposal summary page will be made available to the public. Proposals and materials from unfunded proposals must not be copied, quoted or otherwise disclosed by committee and board members and any reviewers outside official review panels, advisory committee or board meetings. Committee and board members and reviewers must not retain copies of proposals in full or part, after completing the review process. They must not contact the originators of proposals under review concerning any aspect of the contents, without AOOS approval.

Once a project proposal has been approved by the AOOS board, the final approved version of the full proposal shall be made public.

## APPENDIX F



MEMORANDUM OF AGREEMENT: Between Alaska Ocean Observing System (AOOS) and the Seward Association for the Advancement of Marine Science doing business as the Alaska SeaLife Center (ASLC).

RE: Agreement to use Alaska SeaLife Center to provide fiscal sponsorship services to the Alaska Ocean Observing System

### I. BACKGROUND

1. The Alaska Ocean Observing System (AOOS) is the Integrated Ocean Observing System regional association for the Alaska region, operating under a Memorandum of Agreement (MOA) adopted by member organizations. The Seward Association for the Advancement of Marine Science (SAAMS), doing business as the Alaska SeaLife Center (ASLC), is a private non-profit organization operating a marine science facility in Seward, Alaska, and one of the founding members of AOOS and signatory to the AOOS MOA.
2. Since 2003 the ASLC has provided administrative and fiscal support services to AOOS, operating under informal agreements, and most recently, letters of agreement
3. This Memorandum of Agreement, upon approval by the AOOS Board of Directors and the ASLC, supersedes all other agreements between AOOS and ASLC.
4. This agreement may be terminated by either party with 120-day notice.

### II. The Alaska SeaLife Center agrees to:

- A. Provide fiscal sponsorship for AOOS as described in this MOA for the period October 1, 2013 through September 30, 2016.
- B. Employ those staff working exclusively on AOOS efforts and projects as employees of ASLC. Unless otherwise agreed by the ASLC and AOOS Boards those employees will continue to be tasked solely with AOOS duties. The AOOS Director reports directly to the AOOS Board for all strategic decision making. The AOOS Director will act on tactical and day to day operations as advised by the AOOS Board. The AOOS staff report directly to the AOOS Executive Director.
- C. Provide fiscal, human resources, and other services for AOOS as described in Attachment A.

### III. The Alaska Ocean Observing System agrees to:

- A. Provide the responsibilities and services described in Attachment A.
- B. Pay fees on a monthly basis to ASLC for such services.

1. For the primary NOAA cooperative agreement, the rate will be \$104,000 in year 1 (FY 2014) with a 3% annual increase which will include any amendments to the primary NOAA cooperative agreement that become an integral portion of that award budget. If the total amount of that budget changes by more than 20% of whatever the current rate is, then the fee will be renegotiated.

2. For other contracts and awards, AOOS will include fiscal agent fees of 5% of direct costs if the award amount exceeds \$100,000; includes more than 75% of total costs as subawards and/or contracts; and the average size of those subawards/contracts is at least \$45,000.

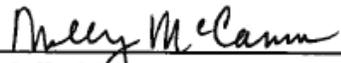
3. The fee will be 10% of direct costs for all other contracts or awards.

4. The minimum fiscal agent fee on any contract or award will be \$1000.

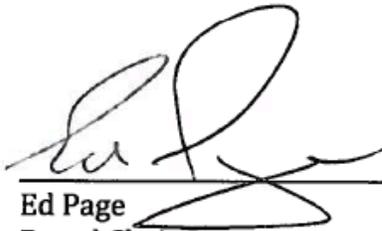
C. Adhere to financial and personnel policies and procedures as established.

IV. This agreement can be amended with both parties' concurrence at any time.

For the Alaska Ocean Observing System

  
\_\_\_\_\_  
Molly McCammon  
Executive Director

17/22/14  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Ed Page  
Board Chair

18 AUG 2017  
\_\_\_\_\_  
Date

For the Seward Association for the Advancement of Marine Science  
dba Alaska SeaLife Center

  
\_\_\_\_\_  
Tara L. Riemer, Ph.D.  
President and CEO

17/21/14  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Stephen T. Grabacki  
Chairman, Board of Directors

21 JULY 2014  
\_\_\_\_\_  
Date

## ATTACHMENT A: AOOS and ASLC responsibilities

FUNCTION	AOOS RESPONSIBILITIES	ASLC RESPONSIBILITIES
General	<p>Provide programmatic oversight for all AOOS activities and programs.</p> <p>ADOS board provides oversight of Executive Director, including hiring, compensation, benefits, evaluation and contractual terms. AOOS Executive Director oversees all other staff and staffing levels.</p> <p>Adhere to established policies and procedures.</p> <p>Suggest changes in policies and procedures as appropriate.</p>	<p>Establish administrative policies and procedures related to accounting, grants management, and personnel.</p> <p>Maintain all documents in accordance with ASLC grant document retention policies.</p> <p>Acknowledge all inquiries on a timely basis.</p> <p>Key fiscal agent staff be available for in-person meetings in Anchorage at least twice a year.</p>
Accounts Payable	<p>Establish contact person for payable questions.</p> <p>Define signature authority for all invoices and reimbursements.</p> <p>Collect, organize, review, code and authorize vendor invoices, travel reimbursements and other payables.</p> <p>Reconcile credit card statements on monthly basis.</p> <p>Ensure appropriate documentation is attached to invoices.</p>	<p>Establish policies and procedures for Accounts Payable.</p> <p>Establish contact person for payable questions.</p> <p>Review invoices, coding and backup.</p> <p>Process payments.</p> <p>Prepare required 1099 forms at year end.</p>
Personnel: payroll, HR Support	<p>Shall be covered under ASLC personnel policies and procedures as amended and clearly identified to staff.</p> <p>Keep human resources staff informed of hiring needs and plans.</p> <p>Collect and organize new hire information, including compensation.</p> <p>Conduct annual personnel evaluations and submit to ASLC.</p> <p>Collect and submit biweekly timesheets.</p> <p>Work with benefit plan administrators on enrollment and benefit issues.</p> <p>Pay any legal costs associated with personnel issues regarding <b>ADOS staff</b>.</p>	<p>Establish personnel policies and procedures.</p> <p>Advise on new hire process.</p> <p>Process new hire information in timely manner.</p> <p>Maintain official personnel records.</p> <p>Provide payroll administration.</p> <p>Review timesheets and process payment.</p> <p>Track annual leave usage and earnings.</p> <p>Prepare W-2 forms at year end.</p> <p>Ensure all employees have current information about benefit package.</p> <p>Provide training and guidance on any personnel issues.</p> <p>ASLC is responsible for all hiring, discipline, termination, benefits and administration of</p>

		staff assigned to AOOS but except under exigent circumstances will take no specific actions with regard to those employees without first conferring with the AOOS Executive Director and as appropriate the AOOS Board of Directors.
Accounts Receivable	Ensure all invoicing information and coding is sent to ASLC.	Establish policies and procedures for Accounts Receivable. Collect and process receivables, including draw-down or invoicing of grant receivables.
Cash management	Forward any payments to ASLC upon receipt	Maintain bank accounts to accept receivables and process payables. Provide short-term cash advances when payables must be processed prior to receipt of grant funding to cover those expenses.
Grant Reporting: financial	Prepare annual budgets. Review monthly financial reports. Approve any financial transfers or budget amendments.	Provide information on monthly expenditures from financial reporting software. Prepare and submit financial reports per grant requirements. Review any financial transfers or budget amendments.
Grant Reporting: programmatic	Prepare grant reports. Submit reports within established deadlines.	Make AOOS aware of pending reporting deadlines. Assist in submission of reports as requested.
Annual audit	Provide funds for annual audit, including prorated portion of travel expenses. Be available during audit to respond to questions from the auditors as needed. Review and approve audit drafts.	Retain auditor and oversee annual audit per federal audit requirements. Provide auditor w/information needed to conduct audit Respond to any audit issues.
Pre-award grant functions	Notify ASLC of pending proposal submissions as soon as identified by completing a proposal routing form and providing the request for proposals. Develop draft grant proposals, budgets and other proposal documents and provide all drafts to ASLC for review preferably	Assist with development of grant proposals and budgets. Review grant proposals for accuracy and completeness and submit on AOOS behalf.

	one week prior to submission deadlines, but no later than two days prior.	
Post-award grant functions	<p>Prepare drafts and review final agreements for subawards and contracts.</p> <p>Review subawardee reports, monitoring for appropriate progress towards deadlines and deliverables.</p> <p>Send letters to subawardees who are non-compliant and delinquent on financial reporting, as requested by ASLC.</p>	<p>Oversee compliance with federal award conditions, federal and state laws, and audit requirements.</p> <p>Maintain complete set of grant files.</p> <p>Review drafts and assist with preparation of subawards and contracts.</p> <p>Monitor administrative and compliance aspects of subawards and contracts.</p> <p>Provide overall grant financial tracking, monitoring and reporting.</p> <p>Assist with award changes and special requests (e.g., international travel, no cost extensions)</p>
Office space, equipment and telecommunications.	<p>Identify needs and provide funds for office space, parking and telephone and internet</p> <p>Negotiate contracts for office space, parking and internet, currently as a sub lessee of NPRB.</p> <p>Provide these draft contracts to ASLC for review.</p> <p>Complete actual physical inventory of equipment as required.</p>	<p>Maintain telephone system.</p> <p>Maintain official equipment inventory records.</p> <p>Review draft contracts.</p> <p>Ensure physical equipment inventories are completed in accordance with grant requirements.</p>
Insurance	<p>Provide funds for workers compensation, D&amp;O and general liability insurance. Review draft policies.</p>	<p>Obtain and oversee workers compensation, D&amp;O and liability insurance policies.</p> <p>Processes claims on insurance policies.</p>