Ocean Research and Monitoring Opportunities

Molly McCammon, Executive Director
Alaska Ocean Observing System
www.aoos.org

AOOS
Alaska Ocean Observing System

The U.S. Integrated Ocean Observing System(IOOS) - Windows Internet Explorer

http://ioos.gov/

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Of Special Note

- Secretary Gary Locke - Scarlet Knight Landing
- National Surface Current Mapping Plan
- Federal Funding Opportunities
- Waves Plan
- IOOS Timeline
- Business Case for Improving NOAA Management and Integration of Ocean and Coastal Data
- IWGOO IOOS Strategic Plan
- NOAA IOOS Program Strategic Plan

U.S. IOOS®: Our Eyes on Our Oceans, Coasts, and Great Lakes.

Providing the data and information needed to improve safety, enhance our economy, and protect our environment.

The Integrated Ocean Observing System (IOOS®) is a federal, regional, and private-sector partnership working to enhance our ability to collect, deliver, and use ocean information. IOOS delivers the data and information needed to increase understanding of our oceans and coasts, so decision makers can take action to improve safety, enhance the economy, and protect the environment.

OBSERVATIONS

DATA MANAGEMENT

Data Integration Framework (DIF)
Data Management and Communications (DMAC)
Participate in U.S. DMAC Standards

COMMUNICATIONS

Press Room
Calendar of Events
Messaging Materials
Brochures, Videos, Podcasts
Z-grams

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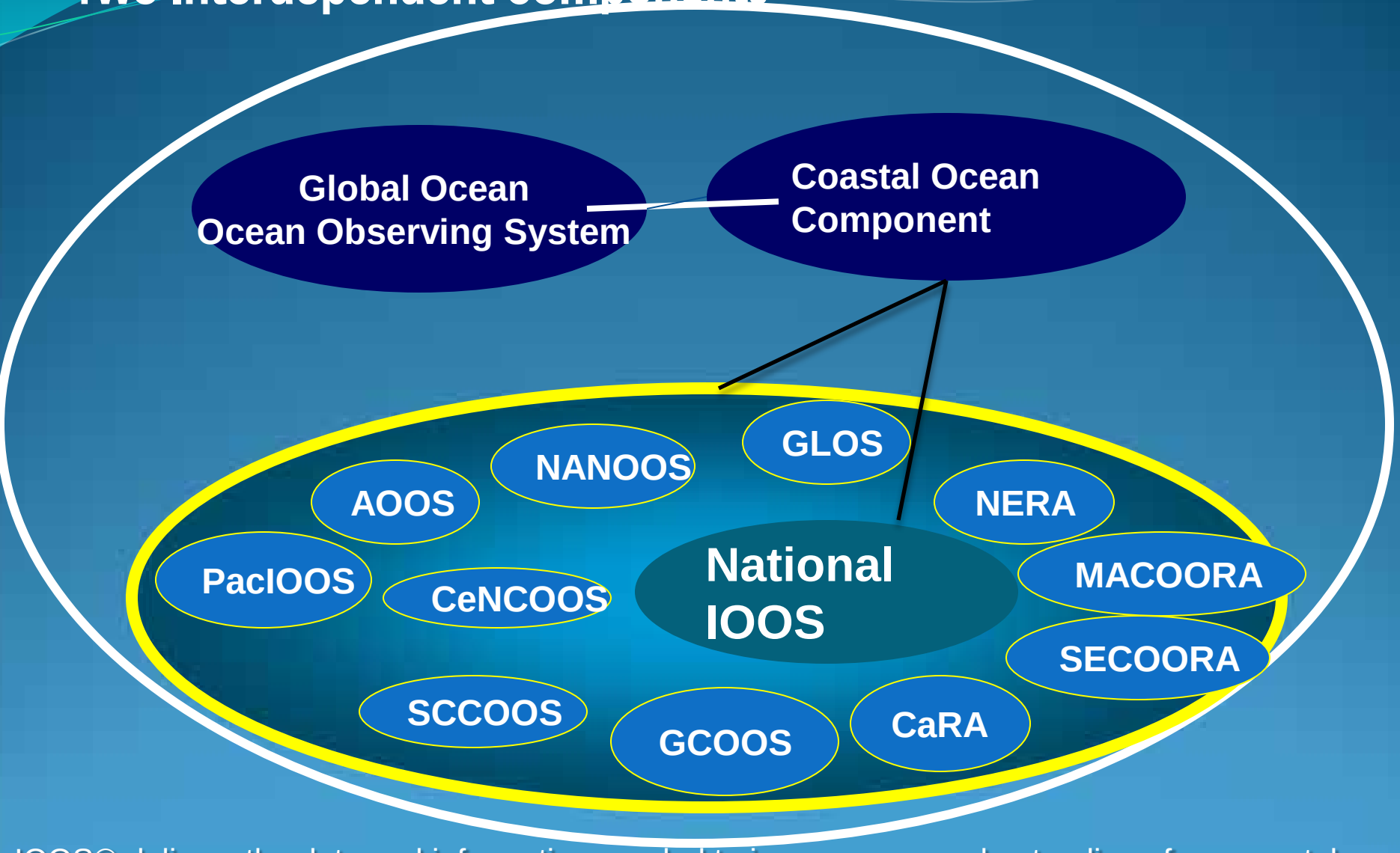
U.S. IOOS
Two Interdependent Components



IOOS® delivers the data and information needed to increase our understanding of our coastal waters so decision makers can take action to improve safety, enhance our economy, and protect our environment.

Data Catalog Explorer:
AK Marine Information System (AMIS)

AOOS - Data Explorer Portal - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

http://ak.aoos.org/op/data.php?region=PWS

AOOS Alaska Ocean Observing System — Prince William Sound

General Info | Observing System | Real Time Data | Historical Data | Forecasts | Research | RA Info

AOOS Home -> Prince William Sound - AOOS Home -> Data Explorer Portal

Data Catalog Explorer

Use map above to go to other AOOS regions

Alaska Regions

Data Products

Parameter search

Metadata

Metadata search

Provider/Collaborator Links

Prince William Sound

--Choose station--

Weather

Click on map to go to the station page. Map Link: **Station Data Portal**

Name: Weather Stations

Provider:

National Data Buoy Center (NDBC) http://ndbc.noa

National Weather Service (NWS) http://www.arh.n

SnoTel http://ambcs.org

SHEF

Road Weather Information System (RWIS)

http://www.dot.state.ak.us/iways/roadweather/

Done

Data Catalog Explorer

Use map above to go to other AOOS regions

Moorings: PWS

Mooring: HE3

Project:

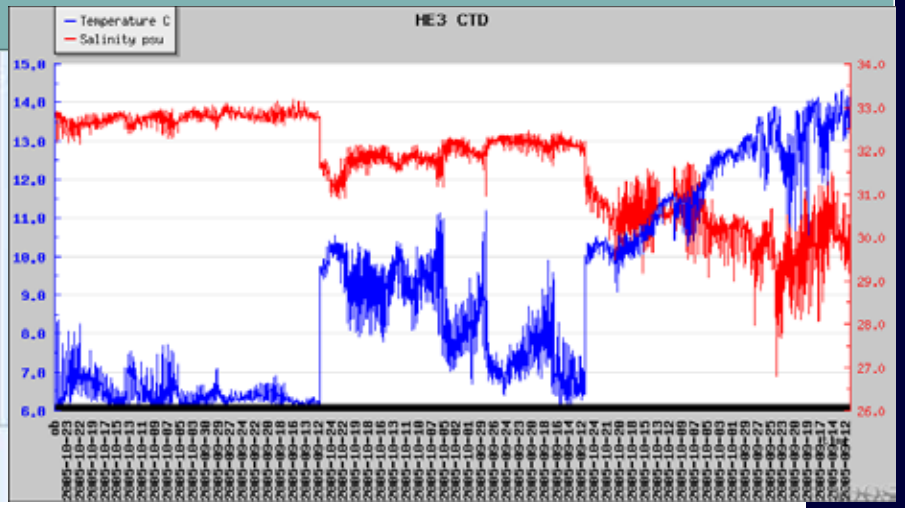
Lat: 60.24

Start: 2005-06-12 22:30:00

Agency: PWSOOS

Lon: -146.75

End: 2005-10-26 20:15:00



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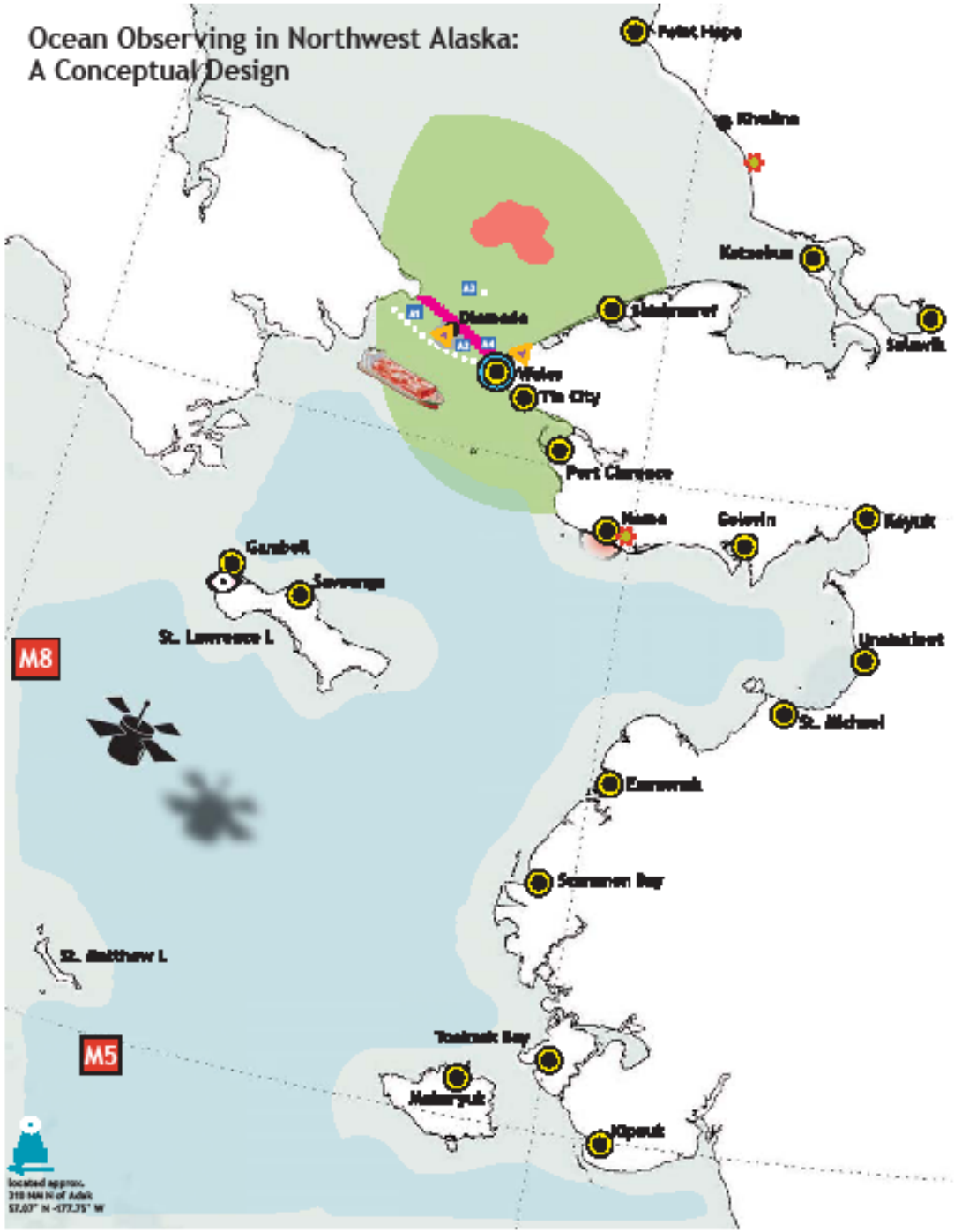
HE3	2005-09-12 00:00:00	107.2	322.9	-64.6638962863	85.5009971701	3.7		60.2353333	-146.74575			
HE3	2005-09-12 00:00:00	29.7	327.2	-16.0887338454	24.9648281238	7.7		60.2353333	-146.74575			
HE3	2005-09-12 00:00:00	17.1	304.5	-14.0925578254	9.68554665141	11.7		60.2353333	-146.74575			
HE3	2005-09-12 00:00:00	9	305.5	-7.32703966521	5.2263266014	15.7		60.2353333	-146.74575			
HE3	2005-09-12 00:00:00	13	321.5	-8.09269027629	10.1739060391	19.7		60.2353333	-146.74575			
HE3	2005-09-12 00:00:00	13.5	327.1	-7.33285507433	11.3348681712	23.7		60.2353333	-146.74575			
HE3	2005-09-12 00:00:00	13.5	343.2	-3.90192925875	12.9238132167	27.7		60.2353333	-146.74575			
HE3	2005-09-12 00:00:00	19.3	339.7	-6.69585807536	18.101256438	31.7		60.2353333	-146.74575			
HE3	2005-09-12 00:00:00	27.8	335.6	-11.4843031491	25.3170057704	35.7		60.2353333	-146.74575			

Ocean Observing in Northwest Alaska: A Conceptual Design



Existing Observation Platforms

- NWS stations: real time met obs (wind, temp, humidity) used by National Weather Service forecasters
- Bering Sea moorings: Four moorings along the 70-m isobaths measuring temp, salinity, fluorescence, nutrients, currents. Spring and fall hydrographic transects measure temp, salinity, oxygen, fluorescence, nutrients, chlorophyll, zooplankton. Data recovered twice annually.
- Bering Strait moorings: temp, salinity, currents & flow through strait, ice draft, plus some fluorescence and nutrients on Russian and U.S. sides
- Diomede environmental observatory: shore-based biological and water sampling; marine mammal tissue samples from subsistence use
- Sea ice observatory: Real-time radar measures ice motion and break-out events; local sea ice observers; web cam
- Hotspot sampling: benthic high-production zone sampled near annually since 1984
- Bering Strait ship sampling: samples water column across strait.
- Fish surveys (NOAA-BASIS): sample for groundfish and salmon; take ocean property measurements. Every 2-3 years depending on funding.
- Volunteer ship observing: ships voluntarily report met and ocean wave conditions to NWS. (usually barge traffic transiting strait)
- Bering Sea Sub-Network: indigenous community-based observations of environmental changes by Russian and U.S. villages, including Gambell.
- Ocean Tracking Network: sea-floor based acoustic sensors track migration of marine mammals and fish, and include sensors to monitor ocean conditions
- Tide gauges: real-time measurements of water levels, winds, air temp
- AIS System: provide ship Maritime Mobile Service Identify numbers to identify and track ships transiting Bering Strait. (Diomede and/or Wales)
- Satellites: measure ocean color, sea surface temp, sea surface height
- Wave buoys: used during ice-free season to measure waves and model coastal inundation

Proposed Observation Platforms

- Harbornet: met obs, web cam, plus soil temp profiler and wave, tide and water property sensors
- HF radar: real-time surface current mapper

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Fact Sheet

The Arctic Observing Network (AON)

July 10, 2007

What is the Arctic Observing Network (AON)?

The AON is envisioned as a system of atmospheric, land- and ocean-based environmental monitoring capabilities--from ocean buoys to satellites--that will significantly advance our observations of Arctic environmental conditions. Data from the AON will enable the interagency U.S. government initiative--the Study of Environmental Arctic Change (SEARCH)--to get a handle on the wide-ranging series of significant and rapid changes occurring in the Arctic.

What is the rationale for developing an Arctic Observing Network?

Recent environmental changes in the Arctic are both large and rapid. The AON will allow scientists to:

- record the full suite of changes
- understand the causes and consequences of the changes underway
- predict the course, magnitude and consequences of future changes
- develop adaptive responses to future change.

Examples of significant and documented changes in the Arctic:

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INITIATIVES

Federal Sustainability

Interagency Ocean Policy Task Force

The Interagency Ocean Policy Task Force

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http://www.whitehouse.gov/

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SCIENCE, TECHNOLOGY *and* INNOVATION

Whether it's improving our health or harnessing clean energy, protecting our security or succeeding in the global economy, our future depends on reaffirming America's role as the world's engine of

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National Oceanographic Partnership Program

Promoting Partnerships for the Future of Oceanography

Program Overview
Committees
National Ocean Research Leadership Council
Ocean Research and Resources Advisory Panel
Interagency Working Group on Facilities
Interagency Working Group on

Ocean Research and Resources Advisory Panel

The Ocean Research Advisory Panel (ORAP) was formed to advise the NORLC. Renamed from the ORAP, the Ocean Research and Resources Advisory Panel (ORRAP) is called on in the Administration's Ocean Action Plan to provide independent advice and guidance through an expanded version of the Panel that includes resource management. As with ORAP, membership is comprised of individuals from the National Academies, state government, academia, and ocean industries, representing marine science, marine policy, and other related fields, which now specifically include resource management. The ORRAP is an advisory committee under the Federal Advisory Committee Act (FACA). Additional

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HIGHLIGHTS

UPCOMING MEETING

92nd USARC Meeting
March 14-15, 2010
Miami, FL
Held in conjunction with the ARCUS State of the Arctic Conference
March 16-19, 2010

Arctic Boundary Maps

Arctic Marine Shipping Assessment 2009 Report
(27.2 MB pdf)
This report was co-authored by USARC's former Deputy Director, Dr. Lawson Brigham, and approved by the Arctic

About USARC

The Arctic Research Policy Act of 1984 established USARC. Its principal duties are to develop and recommend an integrated national Arctic research policy and to assist in establishing a national Arctic research program plan to implement the policy. USARC Commissioners facilitate cooperation among the federal government, state and local governments, and other nations with respect to basic and applied Arctic research.<more>

USARC Commissioners, June 2009

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Alaska Marine Policy Forum

- Hosted by Alaska Ocean Observing System and Alaska Sea Grant Program
- Bimonthly teleconference calls
- Share information about federal, state, local activities in a policy-neutral fashion
- Budget, legislation, policy, events
- Participants include AK congressional delegation staff, governor's office, University of AK lobbyist in Washington DC
- All are welcome

www.aoos.org