



Pacific Coast Ocean Observing System Board of Governors Meeting USGS 2009 Update

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USGS Regional Executive – Alaska
September 10, 2009



- **Brief Status of USGS Director**
- **Creation of USGS WROC**
- **USGS Factsheet Series**
- **Summary of some key science**
- **Data integration efforts**



April **NewsWave** 2009

President Obama, Secretary Salazar Announce Framework for Renewable Energy Development on the U.S. Outer Continental Shelf

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In an Earth Day speech at a wind turbine tower manufacturing plant, President Barack Obama announced that the Department of the Interior has finalized a long-awaited framework for renewable energy production on the U.S. Outer Continental Shelf (OCS). The framework establishes a program to grant leases, assessments, and rights-of-way for orderly, safe, and environmentally responsible renewable energy development activities, such as the construction of offshore wind farms, on the OCS.

development, the program also sets methods for sharing generated from renewable energy with adjacent co-Additionally the



March **NewsWave** 2009

Secretary Salazar Announces Schedule of Regional Meetings On Energy Development of the U.S. Outer Continental Shelf

Inside this issue:

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DOI PRESS RELEASE:

Secretary of the Interior Ken Salazar will host four regional public meetings in April to present Interior's findings on Outer Continental Shelf (OCS) energy resources and information regarding sensitive areas and resources in the OCS from their development. At the meetings, the Secretary will also hear comment from public officials, interested organizations, advocacy groups and private citizens on OCS's development.



Interior Secretary Ken Salazar introduces his new approach to offshore energy production. (Photo: Tami Heilemann/DOI)

about an offshore energy plan. The Department's efforts over the next six months to develop a

hearing from these elected officials and public and private interests.



Dr. Marcia McNutt , Nominee for Director of the United States Geological Survey and Science Advisor to the Secretary of the Interior.

- Hearing date not set
- PhD in Earth Sciences, Scripps Institution of Oceanography
- 3 years with the USGS--earthquake prediction.
- Faculty at MIT in 1982, Griswold Professor of Geophysics, Director of the Joint Program in Oceanography & Applied Ocean Science & Engineering, a joint program offered by both MIT & the Woods Hole Oceanography Institution.
- fellow for the American Geophysical Union, the Geological Society of America, the American Association for the Advancement of Science and the International Association of Geodesy.
- member of the National Academy of Sciences, the American Philosophical Society and the American Academy of Arts & Sciences and serves on numerous evaluation and advisory boards for institutions such as the Monterey Bay Aquarium, Stanford University, Harvard University and Science Magazine.





Supporting Sound Management of our Coasts and Seas

Western Region

U.S. Geological Survey (USGS) Western Region Coastal and Ocean Science

USGS Western Region Coastal and Ocean Science is interdisciplinary, collaborative, and integrates expertise from all USGS Disciplines, and ten of its major Science Centers in Alaska, Hawai'i, California, Washington, and Oregon. The scientific talent, laboratories, and research vessels in the Western Region and across the Nation, strategically position the USGS to address broad geographic and oceanographic research topics. USGS information products inform resource managers and policy makers who must balance conservation mandates with increasing demands for resources that sustain the Nation's economy.

This fact sheet describes but a few examples of the breadth of USGS science conducted in coastal, nearshore, and ocean environments along our Nation's West Coast and Pacific Islands.



The U.S. Geological Survey (USGS), the Nation's largest water, earth, biological, and geographic science agency, studies the coasts of the western United States, including Alaska and Hawai'i. USGS scientists conduct research, monitor processes, and develop information about coastal and ocean ecosystems, species, geologic hazards, and energy and mineral resources. This information helps decision-makers address the use and protection of national coastal and ocean environments.

U.S. Department of the Interior
U.S. Geological Survey

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Fact Sheet 2002-2003
July 2003

The United States was in Prince William Sound on March 28, 1964.

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USGS Western Region WROC

USGS Western Region Efforts to Highlight Coastal Ocean Science and Issues

Coasts and Seas

Alaska

(USGS) Science

ureau of the Nation's largest mapping agency. The row's Challenges—Decade 2007-2017" e in six integrated y Ecosystems and Variability and Risk, and Human States. s nine os examples nearshore e Alaska Area.



coastline
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- The oil field of Prudhoe Bay on the northern Alaskan coast accounts for 25 percent of the oil produced in the United States. Millions of gallons of oil travel daily through the Trans-Alaska Pipeline to the coastal community of Valdez, where the oil is pumped into tankers for marine transport.
- The 1989 Exxon Valdez oil spill is widely considered to be the largest spill worldwide in terms of damage to the environment with effects lingering today after 20 years.
- More than one-half of the Nation's seafood comes from Alaskan waters, and Alaska leads the Nation in the value of its catch, including salmon, crab, shrimp, halibut, herring, and cod.
- More than 90 percent of the migratory shorebird species in the Western Hemisphere have breeding populations in Alaska.

Coasts and Seas

Seabirds

(USGS) Science

the warm, tropical seabird species numbering many of the Pacific raise their young—on the water, whether sea. Those seabirds that nest each summer by here hemisphere in irth. Seabirds in the tacles on the earth. Yet, spills, introduction of ch with fisheries. State glicated information and feeding ecology to ecosystems. Within the n the Alaska Science (Center (WERC), and are leading the way in nown species. Their rds in the Pacific and to nagement of the birds and



Northern Fulmar

Turtledove

Alaska Science Center

Western Ecological Research Center

is the Nation's science and civilian the Nation by providing reliable scientific information to describe and to understand the Earth; to minimize loss of life and property from natural disasters; to manage water, biological, energy, and mineral resources; and to enhance and to protect our quality of life.



Black-legged Kittiwakes

U.S. Department of the Interior
U.S. Geological Survey

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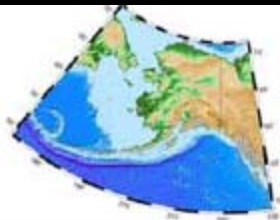
Fact Sheet 2002-2003
July 2003



- **Regional Alliance. West Coast Governors Agreement (WCGA) on Ocean Health. USGS has staff on Action Teams for Seafloor Mapping (Sam Johnson), Climate Change (Kim Taylor, Patrick Barnard), and Integrated Ecosystem Assessment (Tom Suchanek).**
- **Ecosystem work in California current. Seabirds (cite fact sheet). Cite otter work (see SB fact sheet).**
- **Seafloor Mapping. Summarized. Chris Goldfinger (Oregon State University) and Sam Johnson (USGS) are the Co-Chairs of the WCGA Mapping Action Team. Points**
 - Work in CA continues despite state budget woes. Big boost was contribution from Stimulus Package (through NOAA Office of Coast Surveys)
 - USGS also got FY09 \$500K earmark, a big boost to our ground truthing and product development efforts.
 - CA state funding about to come back at lower levels.
 - OR work - also got big boost from Stimulus Package and from OR state funding
 - NOAA OCS doing some mapping in Puget Sound, and USGS doing some ground truthing.
 - **OVERALL MESSAGE: *Work continues***



AOOS
Alaska Ocean Observing System
The Eye on Alaska's Oceans and Coasts



The Alaska Marine Information System

Sponsors

- And see the AMIS demo page: <http://ak.aos.org/amis/demo/>

The Alaska Ocean Observing System

Molly McCammon, Executive Director

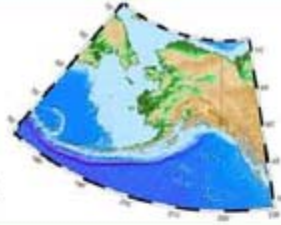
The North Pacific Research Board

Clarence Pautzke, Executive Director

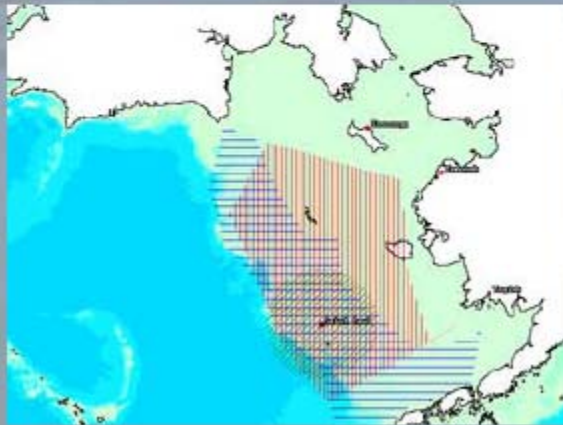


AOOS

Alaska Ocean Observing System
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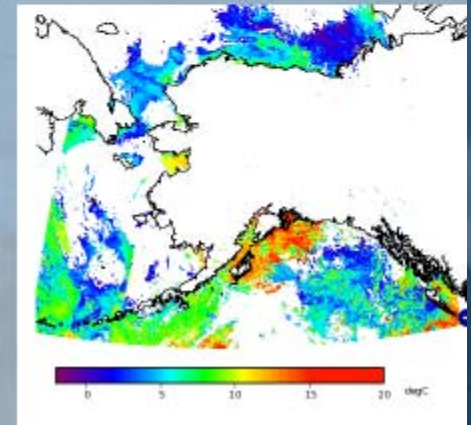
AMIS is an online interactive tool to view information and obtain data from Alaska's marine environment.



Project locations



Ship tracks



Satellite data



AOOS
Alaska Ocean Observing System
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Goals

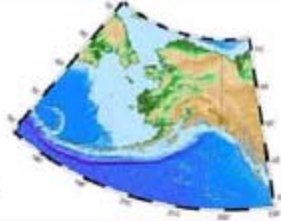
- Allow discovery of past projects and historical data
- Assist project planning and coordination
- Make better use of existing observations
- Provide visual exploration of datasets
- Provide data download in industry standard formats
- Provide tools to project and data managers
- Provide a central marine database



AOOS

Alaska Ocean Observing System

The Eye on Alaska's Oceans and Coasts



AOOS

Alaska Ocean Observing System

Alaska Marine
INFORMATION SYSTEM

① Set up SEARCH ② Explore RESULTS ③ Request DATA

Variable

Search Term

Data Term

Project Term

- Bathymetry
- Biology
- Bottom Character
- Contaminants
- Currents
- Dissolved Nutrients
- Dissolved O₂
- Fish Abundance
- Fish Species
- Heat flux
- Ice Distribution
- Ocean color
- Optical properties
- Pathogens
- Phytoplankton species
- Salinity
- Sea Level
- Surface Currents
- Surface Waves
- Temperature

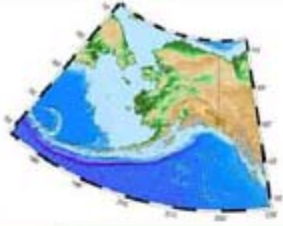
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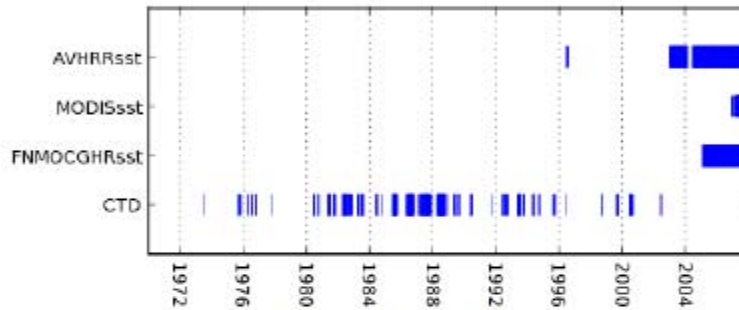
AOOS

Alaska Ocean Observing System

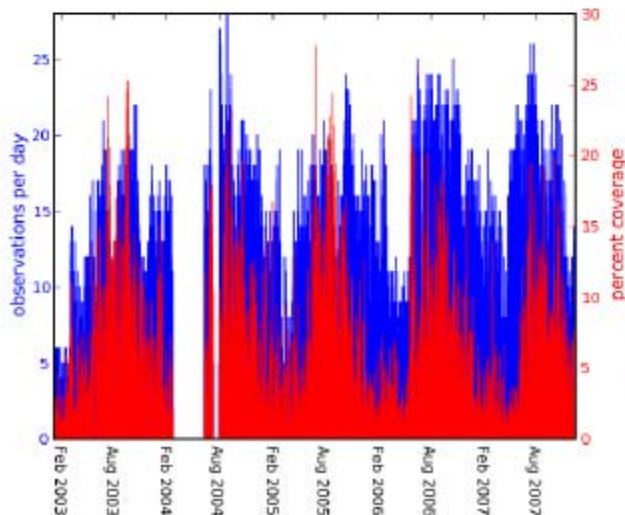
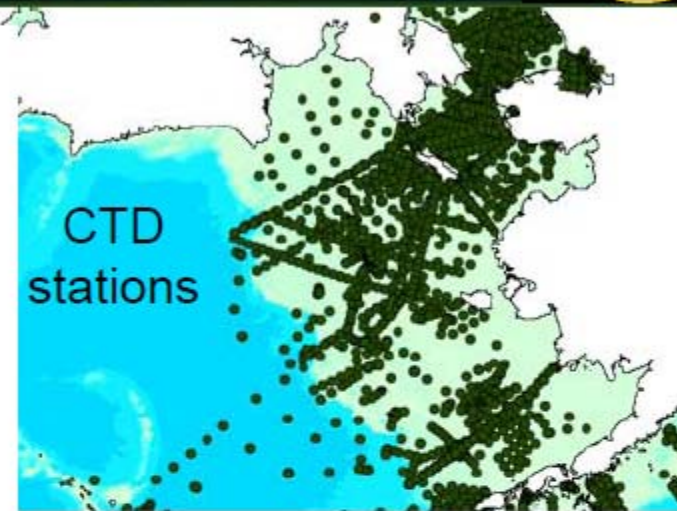
The Eye on Alaska's Oceans and Coasts



Graphical data summary

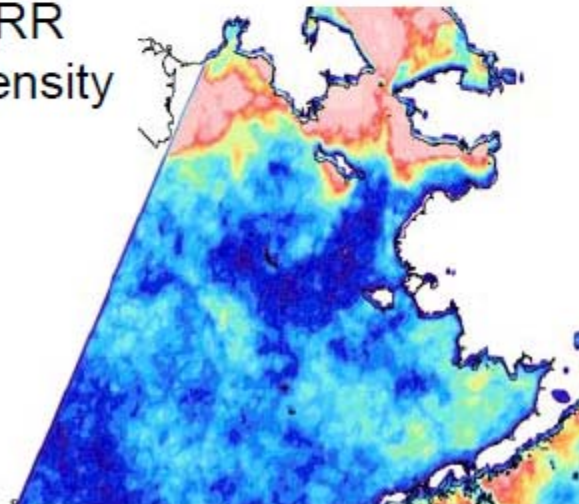


Data timelines



AVHRR temporal history

AVHRR data density





Why Bring Up AMIS

- Alaska Multi-Agency Data Integration and Visualization Committee
- Accepted AMIS as the vision
- Chaired by by AOOS, MMS, USGS



Data Visualization and Integration

- **AMIS a winning concept**
- **Challenges of moving forward past pilot**
- **Alaska Federal, State, and Boards working together to share data ONCE.**
 - **For USGS Alaska anyway this is the way forward.**