

Bi-Weekly Z-GRAM - 2 October 2009

[www.IOOS.gov](http://www.IOOS.gov)

The Z-Gram is an informal way of keeping you up-to-date on IOOS® activities. Please advise of additional addressees, or if you are receiving and no longer want to receive. If you think others could benefit from the Z-Gram please pass it on. To see previous Z-Grams go the IOOS website and view under 'program updates.'

IOOS® - Our Eyes On Our Oceans, Coasts, and Great Lakes.

### Programmatic:

- **Update on Dr. Mark Luther:** Several weeks ago, I let you know about the Mark's accident. I wanted to let you know he is now back home. Mark has a long recovery ahead of him but is has been your thoughts and support that have been very comforting to him and his family. Mark we continue to wish you a full recovery.
- **Congressional Report:** No change.
- **FY10:** On Wednesday, September 30, the Senate passed a continuing resolution (CR) that will keep most discretionary programs operating at fiscal 2009 levels through October 31, 2009.
- **FY09 Regional Fact Sheets:** Want to know the exciting things going on with the US IOOS Regional Coastal Component? Visit [www.ioos.gov](http://www.ioos.gov) and download the Fact Sheets!
- **Grants Training:** For the Regional Coastal Component: The IOOS office will provide a Grants training session via webinar scheduled for October 22, 2:00-4:30 PM. Please contact Regina Evans: [Regina.Evans@noaa.gov](mailto:Regina.Evans@noaa.gov)

### Initial Operating Capability - Data Management and Communications (DMAC) subsystem of IOOS®

- **What the DIF:** For all documents and information, please visit the [www.ioos.gov](http://www.ioos.gov) website.
- **CUSTOMER IMPLEMENTATION:**
  - **NEW CUSTOMER PROJECT:** Biological Customer: Charley initiated discussion on implementing a biological data customer project. The kickoff meeting is scheduled for October 15 and will include representatives from across NOAA, United States Geological Survey (USGS), the IOOS Regions, the Census of Marine Life, and OBIS. The preliminary goals and objectives for this project are to identify a customer “need” associated with the interoperability of one or more types of marine biological data within the U.S. As we work toward these goals and objectives, we will build off the recent progress made within NOAA on Integrated Ecosystem Assessments, the DIF and data interoperability, and activities at the Census of Marine Life and OBIS. The next couple of months will involve the development of a project framework so that an agreed upon project plan will be in place by January 2010.
- **REGIONAL DIF IMPLEMENTATION:**
- **DIF ENHANCEMENTS:**

- Ocean Color: Data Content Standards: The IOOS DIF Ocean Color working group collaborated to finalize and update the Ocean Color Data Content Standard this week. Updates were necessary to address issues discovered in the implementation and testing of IOOS DIF standards by CoastWatch. Carmel Ortiz and Alex Birger (Skjei Telecom) will assure distribution and availability of the document via several avenues (IOOS website, WSDE Wiki, etc). Kent Hughes, the new CoastWatch Program Manager, agreed to implement ocean color for all CoastWatch regions by the end of the FY10 Quarter 1. Currently ocean color data is only available for the Gulf of Mexico on the operational THREDDS4 server in IOOS/DIF formats. Using a suggestion made by Rich Signell that substantially reduces the effort on the part of CoastWatch to implement ocean color data, ocean color availability in IOOS/DIF standards will be significantly expanded (see <http://coastwatch.noaa.gov> for coverage).
- National Data Buoy Center (NDBC) has implemented a new capability to get tsunami post-event alert data. NDC is offering KML (KML + JSON) as an alternative output format that were agreed to with Google.
- Center of Operational Oceanographic Products and Services (CO-OPS) has implemented a THREDDS Server for their operational forecast system (model data outputs).
- Roy Mendelsohn reported that the Environmental Data Connector (EDC) tool has been completed. This tool allows arcGIS to access data in OPeNDAP file formats.

**Interagency Project Collaboration:** The Z-Grams are certainly focused on providing information on IOOS® connections to these projects and it is not intended to provide programmatic updates of these specific projects because they all have project leads.

- **IOOS and Links to the National Water Quality Monitoring Network:** CIPS Project – Water Quality Connection: The CIPS is an end-to-end project using meteorological and hydrological data to forecast high resolution inundation. A connection between this project and the water quality work is the use of USGS data recorded in the waterML format. On this conference call, attended by Eoin Howlett (MACOORA), Doug Wilson (NOAA CBO), and Jeff de La Beaujardiere (IOOS), it was learned that a middleware application had been developed as part of the CIPS Project that makes waterML formatted data available through SOS Webservices (waterML is the format adopted by USGS to record its continuously sampled data), which is a DIF compliant format. This middleware application may resolve some of the lingering issues that have slowed progress on DIF-USGS water quality data interoperability, although more discussion is needed. During this call, the participants agreed to keep all informed on related data management issues.
- **IOOS and National Science Foundation (NSF) - Ocean Observatories Initiative (OOI):** OOI-CI Funded OSSE: Rich has been working with OSSE modeling groups on THREDDS server issues and making the Matlab NJ toolbox more useful to the glider pilots. Working within Unidata and Reading, several issues have been worked through on the THREDDS and ncWMS aggregations and it is believed that all issues have been resolved. Matlab NJ toolbox for glider pilots: David Thompson from JPL is using the

Matlab toolbox tools and can create vertical transects through five different ocean models along arbitrarily defined glider paths and perform model-model and model-data comparisons.

- **Interagency Working Group on Ocean Observations Next Industry Workshop:** The IWGOO is sponsoring the upcoming workshop entitled "Small Sea Changes: Big Infrastructure Impacts" being held in Houston, TX on November 13, 2009. Confirmed speakers for this event include: Dr. Virginia Burkett, the Chief Scientist of Global Change Research at United States Geological Survey; Michael Savonis of the Federal Highway Administration; Dr. Quenton Dokken, Executive Director of the Gulf of Mexico Foundation; Randall Freed, Senior Vice President of ICF International; Gene Berek of Exxon Mobil Corp.; Randy Helmick, Vice President of Transmission at Entergy Corp.; and Zdenka Willis, Director of the Integrated Ocean Observing System at the National Oceanic and Atmospheric Administration. The broad focus of this workshop is the effect of uncertainty on infrastructure decision-making within the Gulf of Mexico region. Specifically, this event will highlight the traditional means of addressing uncertainty and provide new strategies for coping with uncertainty during changing environmental conditions through leveraging ocean observing systems. More information, including registration for the workshop, can be found online at: [www.oceanleadership.org/iwgoo/houston](http://www.oceanleadership.org/iwgoo/houston).

#### Other:

- **The Scarlet Knight (RU27):** As of October 2, 2009 when Scarlet surfaced, she had flown a total path length of 6369 kilometers, continuing to increase the world record. Scarlet's distance to our target point in the middle of the Galcia CODAR field is now below 1000K at 999 km! Keep in the loop by visiting <http://www.i-cool.org/?cat=38>
- **GLOS In Action: New Glider in Lake Superior:** On September 17, 2009, researchers at the University of Minnesota Duluth launched an underwater glider into Lake Superior to collect data in a way that was never before possible. This project co-funded by the Great Lakes Ocean Observing System (GLOS) has succeeded in building a glider that can descend 700 feet, covering more of the 1,300 feet of Lake Superior than ever before. The glider operates autonomously and surfaces every three hours where the data (such as temperature and conductivity) can be downloaded. This is the first glider built for fresh water and it has many uses including water quality management, which may be necessary for some of the other Great Lakes.
- **OceanOBS 09:** So how do you sum up a meeting that brought over 500 of the world's oceanographers together to take Ocean Observing forward over the next 10 years? First, the work preceding the conference was enormous. Over 400 community papers (read multiple authors, from multiple agencies/institutions/countries) were written from all aspects of Ocean Observing, from satellite to in situ, from physical ocean oceanography to biogeochemical oceanography, from observations to data management, and from modeling to customers. Then those chosen to give the plenary speeches had the daunting task of consolidating the community papers in their section to present that to the group. All of this is posted on <http://www.oceanobs09.net>. As we build US IOOS we are working within the United States for a cohesive, complementary relationship between our

Global components and Coastal Components, and our Federal and Regional Coastal components. Likewise we must seek those same partnerships with other Ocean Observing Systems such as My Ocean (EU) and Australia's Integrated Marine Ocean System (IMOS), and we had the chance to meet with both of the Directors and the data managers of those systems. Jeff de La Beaujardiere and I were joined by Molly McCammon (AOOS), Jan Newton (NANOOS), Brain Taylor (PacIOOS/COL), Chris Ostrander and Jim Potemra (PacIOOS and PI-GOOS), and Mario Tamburri (Alliance for Coastal Technologies), which allowed us to force multiply and work across the community to increase collaboration. There were many NOAA colleagues and others within the US IOOS framework who provided inputs into papers and provided excellent plenary talks, and I sincerely applaud the hard work that went into this meeting. The reference documents that will be published from this meeting will serve all of us well as we move to better understand our Oceans, Coasts and Great Lakes. Dr. Jesus Cisneros-Aguirre graciously took me, Dr. Dick Feely, and Dr. Chris Sabine (NOAA) on a visit to his laboratory where he has put in 10 water quality monitoring station networks within the Venice. We talked about collaboration on ocean acidification sensing and Jesus' efforts to work within the EU to set up an ACT-like capability within Europe. It was a tremendous week of seeing the state of play in ocean observing and at the end of the meeting a draft framework document was circulated. I am pleased to see the emphasis on the broadening of the Global Ocean Observing System field of view to include the need for (1) bio/chem/geo observations and (2) coastal information. We, as a community, need to remain engaged as this framework document is circulated.

- **MTS/IEEE Oceans 09 - US IOOS and OOI - Ocean Observing for the Nation, October 26-29** : US IOOS and OOI have a dedicated track for this meeting and I encourage you to attend this conference. This conference brings together the ocean scientists and industry and is a great chance for us to showcase what we have done across the nation to bring value. We have over 40 papers, including a session on international Ocean Observing sessions. **We are also holding a town hall on Wednesday morning to look at the roles of the Private/Public Partnership.** This session will focus on gathering industry feedback on the public/private partnership with regard to ocean observing and the requirement to publish a policy addressing these issues included in the ICOOS Act. We need your input.
- **Ocean Policy Field Meetings:**
  - **Report from Rhode Island Meeting:** Dr. Brian Melzian, EPA representative to the Interagency Working Group on Ocean Observing, reported that EPA, and other Federal and State Agencies (e.g., NOAA; RI Coastal Resources Management Council, RI NERR) met with the National Ocean Policy Task Force this morning when they held a brief "Field Meeting" at the University of Rhode Island's (URI) "Coastal Institute." During that meeting, EPA focused on "Partners" that EPA has worked with, and will work with in the future; present issues that are important to the Region (also National and International), and the importance of Science and Research in making informed Management Decisions. I have attached a PDF version of the poster EPA used. For full resolution of this poster please contact Brian directly: [Melzian.Brian@epamail.epa.gov](mailto:Melzian.Brian@epamail.epa.gov). Thank you, Brain.

- Additional field hearings: At this point the CEQ website does not have information on additional meetings. All meetings provide a call-in number and I recommend that you visit the website often for updates on additional meetings: <http://www.whitehouse.gov/administration/eop/ceq/initiatives/oceans/>
- **Ocean Observing to meet with members of the Council on Environmental Quality (CEQ) and members of the Interagency Ocean Policy Task Force:** On October 15, Josie Quintrell and Dr. Bob Gagosian will meet with the Task Force to offer their perspectives on Coastal and Marine Spatial Planning (MSP) and make recommendations on how ocean observing fits into the the MSP Framework called for by President Obama in his June Presidential Memo. I have been invited as an observer and will participate in the discussion.
- **US IOOS and OOI Track at Oceans**
- **Hurrah! The Clatsop Spit CDIP buoy is deployed:** A CDIP buoy was deployed at the Mouth of the Columbia River, on September 24. It was deployed under the Corps' Regional Sediment Management Program to collect wave data for a proposed beneficial use site south of the south jetty. It will also aid the local maritime community with wave information throughout the winter. There has been a lot of support for the deployment of this buoy, including the Columbia River Bar Pilots, the US Coast Guard, Scripps, the local job corps, and local fishermen. Both Michael Ott and Rod Moritz have been working on this effort for the Portland District. Capt Dan Jordan, Columbia River Bar Pilots, sent us the link to the local community radio show that talked about the new buoy. You can download the podcast at [www.shipreport.net](http://www.shipreport.net). **Making the waves plan happen 1 buoy at a time.** Kudos to Bob Jensen (USACE) and Julie Thompson (CDIP) for their continued efforts to provide safe conditions for all mariners.
- **Committee on Integrated Observing Systems Third Meeting (9/30):** Don Berchhoff, Director, NWS Office of Science and Technology, chaired the third session of the Committee on Integrated Observing Systems (CIOS) meeting on September 30, 2009. The meeting focused on 1) discussion and gaining agreement on the 15 recommendations from the National Research Council report "Observing Weather and Climate from the Ground Up" and the roles of each of the following sectors as the lead, collaborator, or support: Federal government, academia, industry, other public sector, non-governmental organizations and individuals and 2) gaining agreement on goals and priorities of CIOS. CIOS leadership expressed interest in leveraging the experience and implementation of the data integration framework within NOAA and IOOS regions to address a number of CIOS priorities. Before the next meeting, the Office of Federal Coordinator for Meteorology staff that is supporting Don Berchhoff will prepare suggested approaches for each of the CIOS priorities and circulate to CIOS members. Marcia Weaks represents IOOS.
- **Fifth Meeting of the Quality Assurance of Real-Time Ocean Data (QARTOD) Working Group will be held November 17-19, 2009 at the Omni Hotel in Atlanta, Georgia:** QARTOD is composed of oceanographers, data managers, and data providers from agencies interested in addressing the quality assurance and quality control issues of evolving ocean observing systems, such as the Integrated Ocean Observing System (IOOS) community. The QARTOD V meeting will focus on the quality control of some different physical ocean parameters from past QARTOD meetings (e.g. conductivity, dissolved oxygen, turbidity, and pH) as well as provide additional input for parameters

such as waves and ocean currents to complete the QARTOD To Open Geospatial Consortium (OGC) or Q2O effort. More information on Q2O can be found at <http://q2o.who.edu>. We will also explore ways to expand our interaction with similar international efforts. Please register at <http://qartod.org> and forward this announcement to others who share in our goals and interests. This meeting is sponsored by NOAA's National Data Buoy Center.

**Congressional:** No update.

**Communications:**

- Article on use of HFR data:  
[http://www.nytimes.com/2009/09/29/science/29chaos.html?pagewanted=1&\\_r=1&em](http://www.nytimes.com/2009/09/29/science/29chaos.html?pagewanted=1&_r=1&em)
- Sea Technology, September 2009: Picked up NOAA's Press Release on FY09 Funding for the Alliance for Coastal Technologies (see page 9)
- The IOOS story - "Ocean Observations and Critical Response" is now live on the NOS website. You can access this story from the rotating images on the NOS home page (<http://oceanservice.noaa.gov>) or by going directly to the story at <http://oceanservice.noaa.gov/news/weeklynews/sept09/iooshud.html>.
- September 25, NOAA press release: NOAA Announces Funding to Support Ocean Observing in Southern California:  
[http://www.noaanews.noaa.gov/stories2009/20090925\\_ioos.html](http://www.noaanews.noaa.gov/stories2009/20090925_ioos.html)

**Upcoming Meetings:**

- October 20: SCCOOS/CeNCOOS Joint Strategic Advisory Committee - Oakland, CA.
- NOAA Library sponsors a Brown Bag Series: IOOS will be featured October 20 at 12:00. Call-in numbers will be available.
- October 26-29: MTS/IEEE Oceans 09 - US IOOS and OOI - Ocean Observing for the Nation.
- November 10: AOOS board meeting.
- November 17-18: MACOORA annual conference, "Understanding the Coastal Ocean: Partnerships for a Changing World" [www.macoora.org](http://www.macoora.org) (Jack Dunnigan invited).

Cheers,  
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# United States Environmental Protection Agency

## AED's Research Expertise



### Contaminated Sediment

- » assessing the fate, bioavailability and effects of contaminants associated with coastal sediments



### Habitat Effects

- » assessing the role of habitat in maintaining healthy populations of marine organisms



### Monitoring and Assessment

- » developing and evaluating methods for determining the status and trends of the Nation's aquatic ecosystems



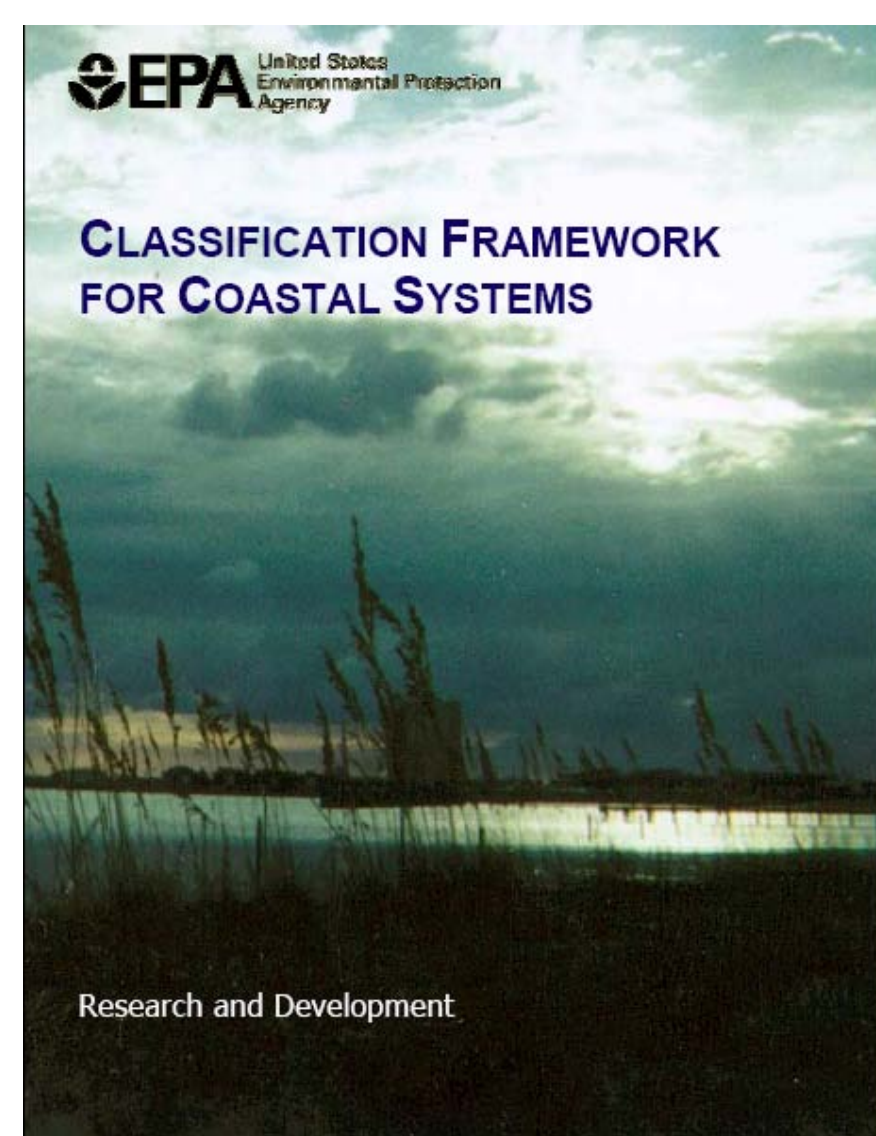
### Population Ecology

- » modeling the response of populations of aquatic and aquatic-dependent wildlife to human activity



### Watershed Diagnostics

- » developing and evaluating quantitative tools and models to identify and characterize causes of aquatic system impairment



## Office of Research & Development Atlantic Ecology Division



*Providing quality ecological science  
supporting credible decisions*



*Conducting research to enhance the  
understanding of the effects of human activity  
on land and waters of the Atlantic seaboard*

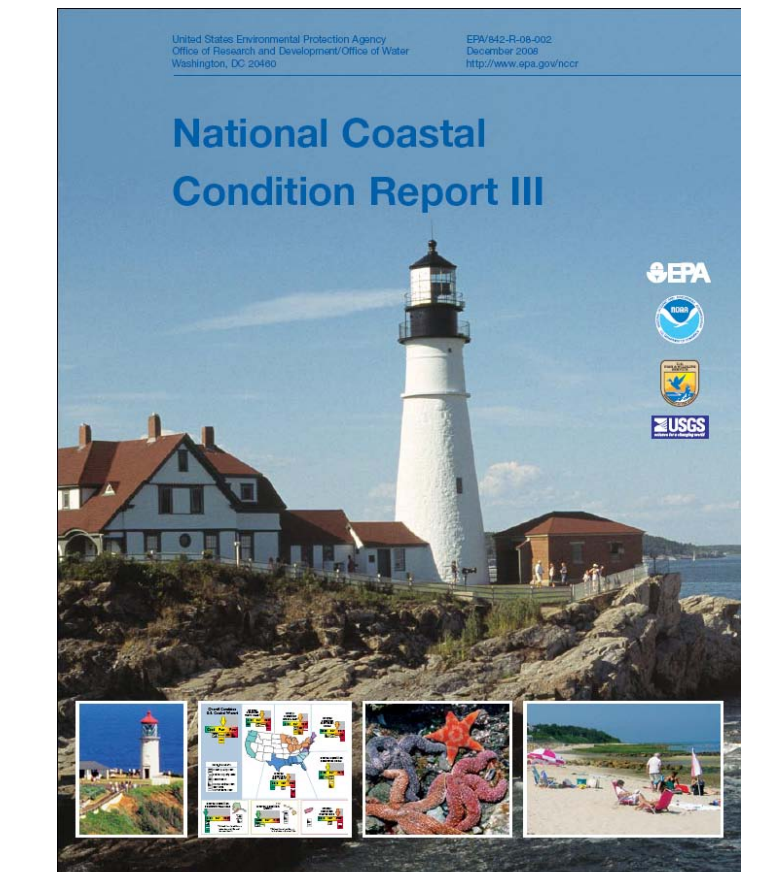
*“In order to better meet our Nation's  
stewardship responsibilities  
for the oceans, coasts,  
and Great Lakes ...”*

June 2009 Memorandum  
from President Barak Obama

## Regional & National Partnerships

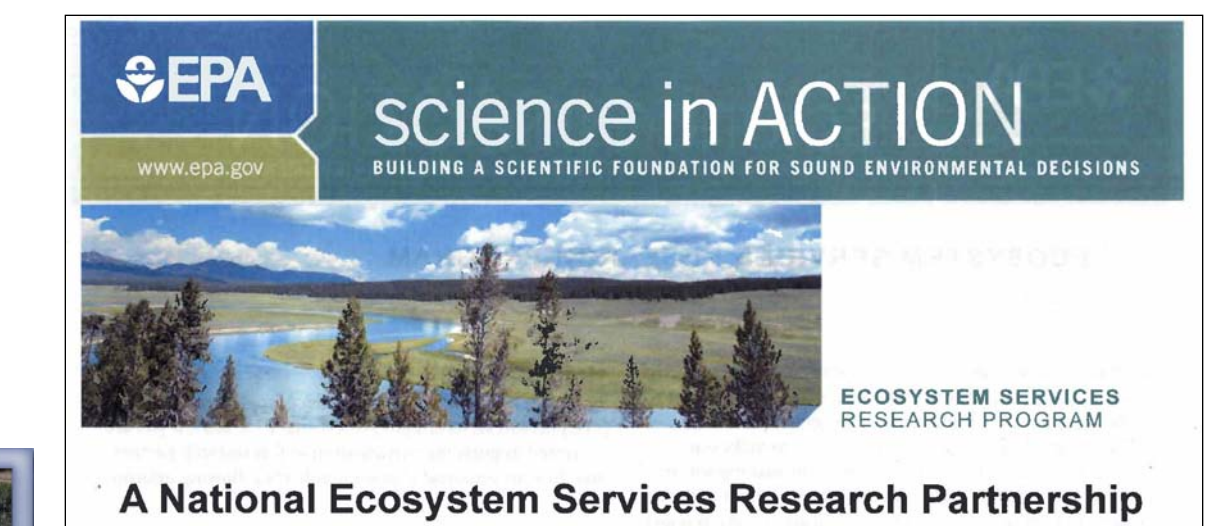
### National Coastal Assessment

- » describing the ecological condition of the Nation's estuaries



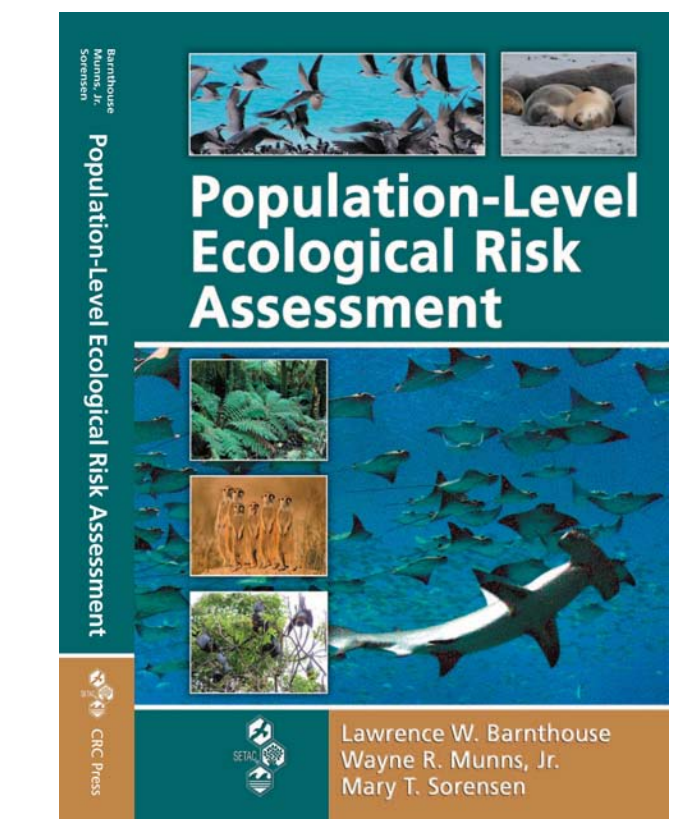
### Ecosystem Services

- » developing the science to inform decisions that sustain human well-being



### Risk Assessment

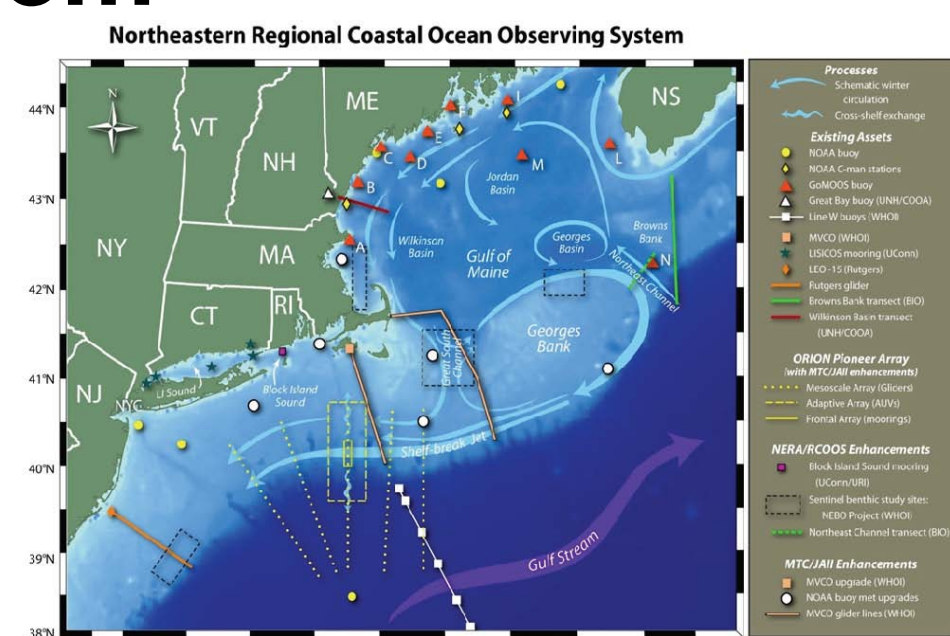
- » developing the science to inform environmental protection decisions



### U.S. Integrated Ocean Observing System

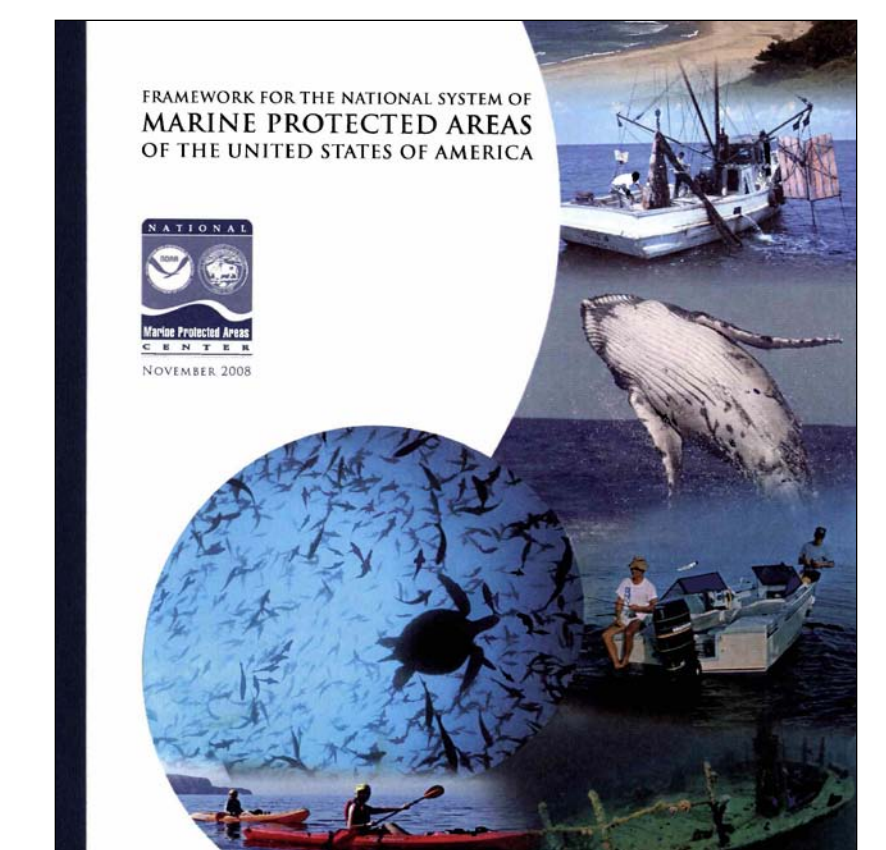


- » providing data on the current and future state of the Oceans & Great Lakes



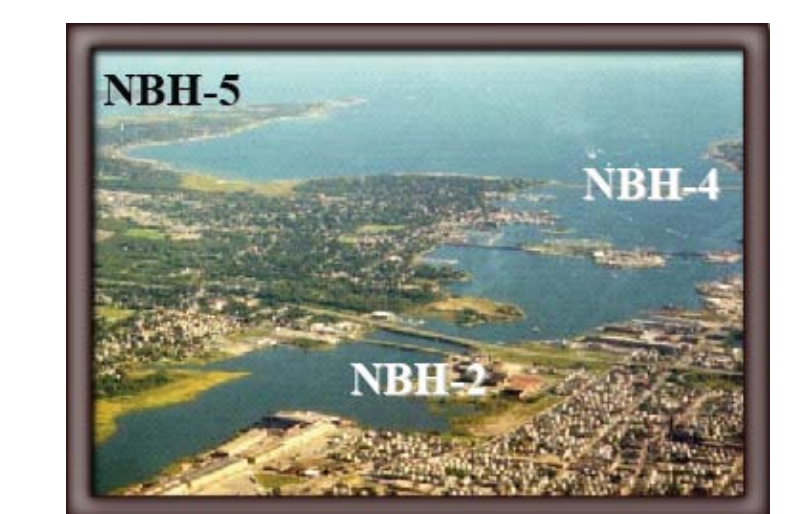
### National Marine Protected Areas

- » managing long-term care of coastal, ocean and Great Lakes resources



### Federal Contaminated Sediment Interagency Workgroup

- » providing support to clean-up contaminated waterways



### Former Bio-Chemical Weapons Scientists Redirect Program

- » engaging Soviet-ERA weapons scientists in the remediation of Ukrainian estuaries

