SECOORA Meeting

Josie Quintrell, Director
IOOS Association
May 2017
IOOS Association

Observing our oceans, coasts and Great Lakes

Providing information to those who need it, when they need it

- Objectives:
  - Advocacy
  - Common Issues
  - IOOS federal/non-federal partnership
    - Administration
    - Congress
    - National Partners
  - Emerging Issues
Closing the Gaps: 5 yr Campaign

- Scalable campaign
- Tangible outcomes
- Align with Administration Priorities
- Filling targeted gaps in:
  - HR Radars
  - Gliders

CLOSING THE GAP CAMPAIGN
Phase 2: FY18-FY23 Multiyear Strategy

Desired outcome of discussion: Input from the regions and the Program Office on how to organize a successful campaign to fill critical gaps.

- 2018, $32M
- 2019, $37M
- 2020, $42M
- 2021, $48M
- 2022, $53M
US IOOS FY 17 High Frequency Radar Request

$3.1 million to install 12 high frequency radar systems

Safeguarding the Arctic Marine Highway
2 remote radars needed

Protecting Lives and Public Health in the Pacific Northwest
3 radars needed

Cleaning up the Great Lakes
3 radars needed

Saving Lives off Florida’s Coast
2 radars needed

Saving Millions in the Gulf of Mexico
3 radars needed
### Appropriations

<table>
<thead>
<tr>
<th>IOOS Appropriations</th>
<th>FY10 Enacted</th>
<th>FY11 Spend Plan</th>
<th>FY 12 Spend Plan</th>
<th>FY 13 Spend Plan</th>
<th>FY 14 Enacted</th>
<th>FY 15 Enacted</th>
<th>FY 16 Enacted</th>
<th>FY 17 Enacted</th>
<th>FY 18 IA Request</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Regional IOOS Total</strong></td>
<td>$27m</td>
<td>$21.9m</td>
<td>$23 m</td>
<td>$26.5m</td>
<td>$28.5m</td>
<td>$29.5m</td>
<td>$29.5m</td>
<td>$30.7 m</td>
<td>$37.6m</td>
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<tr>
<td>National network of regional infrastructure systems, gaps in radars and gliders</td>
<td>$20m</td>
<td>$20m</td>
<td>$22m</td>
<td>$23.5m</td>
<td>$24.3m</td>
<td>$24.5 m</td>
<td>$24.5 m</td>
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<tr>
<td>Marine Sensor Innovation Grants, Modeling Test bed, Sensor Verification</td>
<td>$7m</td>
<td>$1.9m</td>
<td>$1m</td>
<td>$3m</td>
<td>$4.2m</td>
<td>$5 m</td>
<td>$5m</td>
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<td><strong>U.S. IOOS Program Office</strong></td>
<td>$6.5m</td>
<td>$6.5m</td>
<td>$6.4m</td>
<td>$5.9m</td>
<td>$6.6m</td>
<td>$6.6m</td>
<td>$6.6m</td>
<td>$6.6m</td>
<td>$6.7m</td>
</tr>
<tr>
<td><strong>Total U.S. IOOS</strong></td>
<td>$33.5m</td>
<td>$28.4m</td>
<td>$29.4m</td>
<td>$32.4m</td>
<td>$35.1m</td>
<td>$36.1m</td>
<td>$36.1 m</td>
<td>$38.1 m</td>
<td>$44.6m</td>
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</tbody>
</table>

- Starting in FY 14 included in the Navigation, Observations and Predictions budget line
- ...provides no less than $1,500,000 for ACT within NOS for fiscal year 2017.
“Zeroes out $250M in targeted NOAA grants and programs supporting coastal and marine management, research, and education including Sea Grant, which primarily benefit industry and State and local stakeholders. These programs are a lower priority than core functions maintained in the Budget such as surveys, charting and fisheries management.”
FY 18 IOOS Request

IOOS is essentially the weather service for the coastal oceans and Great Lakes, providing the ability to “see” what is happening both above and below the surface and making the Information readily available. IOOS is led by NOAA’s National Ocean Service and includes 17 Federal agencies and a national network of 11 regional observing systems.

IOOS is efficient; it builds on and leverages local and regional partnerships. IOOS provides the coastal infrastructure necessary to support jobs, economic development, maritime safety and environmental health.

MAPPING SURFACE CURRENTS
Search and rescue, oil spill response, harmful algal bloom tracking and forecasting, water quality monitoring, and port and harbor navigation all depend on real-time surface current mapping. IOOS operates nation’s only network of high-frequency radars (HF radars) providing this information.

Despite the far-ranging use of this data, there are critical gaps in coverage.

SEEING UNDERWATER WITH COASTAL GLIDERS
IOOS gliders provide an underwater view and support a range of operations including improving hurricane warnings, detecting harmful algal blooms, ensuring safe navigation, supporting offshore energy operations, fishermen and fisheries management, and enhancing public health and safety.

Globars are underwater robots that are flexible and cost-effective, gathering data at a fraction of the cost of ships.

Who Uses IOOS Data?
- Emergency managers
- Fishermen
- Oil spill responders
- Ports
- Public health officials (e.g., beaches, water quality)
- Recreational boaters
- Researchers
- Seafood safety officials
- Shellfish growers
- Tribes
- Bureau of Ocean Energy Management
- Environmental Protection Agency
- National Oceanic and Atmospheric Administration
- Office of Naval Research
- U.S. Arctic Research Commission
- U.S. Army Corps of Engineers
- U.S. Coast Guard
- U.S. Department of State

www.ioosassociation.org
HFR and Gliders

Seeing Underwater with Coastal Gliders
Saving Lives, Protecting Health & Promoting Commerce

IOOS gliders provide data to support a range of operations including improving hurricane warnings, detecting harmful algal blooms, ensuring safe navigation, supporting offshore energy operations, fishermen and fisheries management and enhancing public health and safety.

Gliders are underwater robots that relay information about subsurface conditions. The U.S. Navy estimates gliders are 1/100th the cost of ship-collected data. Gliders are revolutionizing ocean observing by being cost effective, safe and flexible.

IOOS FY 18 GLIDER REQUEST: $3.3m

Where our nation needs gliders to support safe navigation, public health and safety, and the economy:

**Great Lakes: Protecting Drinking Water**
Over 35 million people depend on the Great Lakes for their drinking water. Gliders provide the flexibility to focus on issues impacting local areas and to better predict the risk of harmful algal blooms (HABs).

**Northeast: Enhancing Maritime Industry By Reducing Endangered Right Whale Collisions**
Ship strikes and fishing gear entanglements threaten the endangered right whales. Gliders equipped with acoustic sensors can detect the whales and alert mariners and fishermen in real time about the location of the whales, thus minimizing impacts.

**Mid-Atlantic: Protecting Lives and Property From Hurricanes**
Globally, gliders are a safe method for seeing below the surface of the coastal ocean, where strong winds stir cold water upwards, affecting the intensity of the storms. Such information improves warnings that can protect lives and property.

**Southeast: Saving Lives, Supporting Fisheries and Detecting HABs**
Information gathered from gliders along the Southeast coast is critical for predicting red tides, optimizing fisheries management models, improving hurricane intensity forecasts and detecting marine mammals and HABs.

WHAT ARE HIGH-FREQUENCY RADARS?

Land-based HF radar uses radio-wave backscatter to map the speed and direction of surface currents in real time. Because of the large coverage area, HF radar data are also valuable input for ocean models and for assisting with search and rescue operations and oil spill response.

Mapping Surface Currents
Saving Lives, Protecting Health & Commerce

Despite the far-ranging use of this data, there are critical gaps in coverage.

Map of IOOS high frequency radars that provide real-time surface currents.

For more information, contact
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Gulf of Mexico Briefing
March Madness

- Strategic Planning
- Jt DMAC Meeting
- Congressional Visits

* Over 75 Offices visited
* OMB
**Appropriations Support**

**HOUSE Dear Colleague Letters**

- Rep Pingree (D-ME) and Carbajal (D-CA)
- Rep Posey (R-FL) and Young (R-AK)
- 43 Signatures

**SENATE IN MAY - TBD**

- NC – Burr and Tillis
- SC – Graham and Scott
- GA – Isakson and Purdue
- FL – Rubio and Nelson
Senators Wicker and Cantwell expected to reintroduce S 1886 this spring

Weather Research and Forecasting Innovation Act of 2017

H.R. 237

To reauthorize the Integrated Coastal and Ocean Observation System Act of 2009, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

Mr. Young of Alaska introduced the following bill; which was referred to the Committee on Natural Resources, and in addition to the Committee on Science, Space, and Technology, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

Water, Power and Ocean
- Webster (R-FL-11)
- Hice (R-GA-10)
- Rouzer (R-NC-07)
RA Certification

• 5 RAs certified!
  – Congratulations to
    • PacIOOS, GLOS, MARACOOS, SCCOOS
    • CariCOOS

• All others in process

• Opportunity to engage federal agencies
  – Operational forecasting
  – Regional data sharing
  – Agency engagement
  – Fisheries- PacIOOS
• Senate Ocean Caucus Briefing - Technology and Innovation – June
• House Briefing - ICOOS Act
• House Ocean Caucus Reception - Fall
• Congressional Site Visits - Summer
• Messaging IOOS
  • Series of regional editorials – Op Ed
  • Professional publications – MTS
  • Local papers
• Foundation Funding – explore national campaign
Thank you