



# Presentation to the IOOS FAC

## April 2015



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IOOS Association

# Overview

- Update on IOOS Association and Regions
- Advocacy - Appropriations and Reauthorization
- Resilience - Administration priority, IOOS role
- Certification - First application submitted, unique in federal government, how can this be used for



# IOOS Association: Activities

2014 Annual Meeting – November

**Facilitated Strategic Session - Grow the enterprise!**

Be realistic but aspirational

4<sup>th</sup> Meeting of IOOS Organizations

Building IOOS visibility

Inside NOAA

IOOS PO, NOS Roundtable

Outside of NOAA

OMB, DOC, federal agencies

Strategic partners

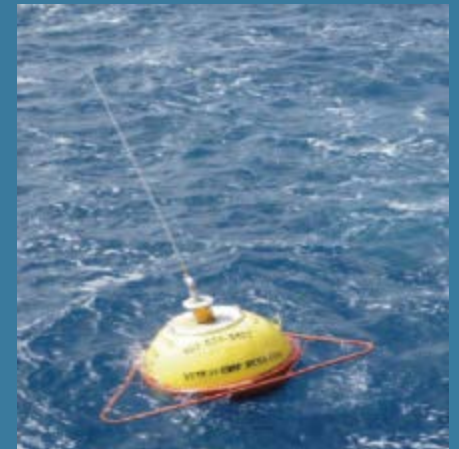
COL, Earth Alliance, JOCI,

Advocating on behalf of regions

Common voice, RA representation on task teams,

Conduit for communication

New IOOS Association Brochure





# Recent Activities



## Congressional Briefing: Feb

- Over 75 attendees
- Focus on uses of IOOS



2015 Spring Meetings in Washington DC  
“March Madness”  
Hill Visits – over 50 offices visited by  
RAs

Meetings with Appropriations staff authorization  
Appropriations Letters in House and Senate



## Congress of the United States Washington, DC 20515

March 24, 2015

The Honorable John Culberson  
Chairman  
House Appropriations Committee  
Subcommittee on Commerce, Justice,  
Science, and Related Agencies  
Washington, D.C. 20515

The Honorable Chaka Fattah  
Ranking Member  
House Appropriations Committee  
Subcommittee on Commerce, Justice,  
Science, and Related Agencies  
Washington, D.C. 20515

Dear Chairman Culberson and Ranking Member Fattah:

## United States Senate WASHINGTON, DC 20510

April 1, 2015

The Honorable Richard C. Shelby  
Chairman  
Subcommittee on Commerce, Justice, Science,  
and Related Agencies  
Senate Committee on Appropriations  
125 Hart Senate Office Building  
Washington, D.C. 20510

The Honorable Barbara A. Mikulski  
Ranking Member  
Subcommittee on Commerce, Justice, Science,  
and Related Agencies  
Senate Committee on Appropriations  
125 Hart Senate Office Building  
Washington, D.C. 20510

# Appropriations



<b>IOOS Appropriations</b>	<b>FY10 Enacted</b>	<b>FY11 Spend Plan</b>	<b>FY 12 Spend Plan</b>	<b>FY 13 Spend Plan</b>	<b>FY 14 Enacted</b>	<b>FY 15 Enacted</b>	<b>FY 16 Pres Bud</b>	<b>FY 16 IOOS Request</b>
<b>Regional IOOS Total</b>	<b>\$27m</b>	<b>\$21.9m</b>	<b>\$23 m</b>	<b>\$26.5m</b>	<b>\$28.5m</b>	<b>\$29.5m</b>	<b>\$29.5m</b>	<b>\$34.5m</b>
<i>Competitive funding for the national network of regional systems, including surface currents</i>	<i>\$20m</i>	<i>\$20m</i>	<i>\$22m</i>	<i>\$23.5m</i>	<i>\$24.3m</i>	<i>\$24.5 m</i>	<i>\$24.5m</i>	<i>\$ 29.5m</i>
<i>Marine Sensor Innovation Grants, Modeling Test bed, Sensor Verification</i>	<i>\$7m</i>	<i>\$1.9m</i>	<i>\$1m</i>	<i>\$3m</i>	<i>\$4.2m</i>	<i>\$5 m</i>	<i>\$5 m</i>	<i>\$5m</i>
<b>U.S. IOOS Program Office*</b>	<b>\$6.5m</b>	<b>\$6.5m</b>	<b>\$6.4m</b>	<b>\$5.9m</b>	<b>\$6.6m</b>	<b>\$6.6m</b>	<b>\$6.5m</b>	<b>\$6.6m</b>
<b>Total U.S. IOOS</b>	<b>\$33.5m</b>	<b>\$28.4m</b>	<b>\$29.4m</b>	<b>\$32.4m</b>	<b>\$35.1m</b>	<b>\$ 36.1m</b>	<b>\$36 m</b>	<b>\$41.1 m</b>

President's Budget -

NOS budget increased for resilience - but core observation programs level funded

# The Need: \$54 b over 15 years



## Independent Cost Estimate

\$54 b over 15 years

- \$45 b Federal (including satellites)
- \$8 b Non-Federal (530m/yr)
- \$.98 Central Functions

Based on IOOS Blueprint & Regional Build Out Plans

Current funding: \$29.5m for regional IOOS,  
\$6.6 m for national IOOS

Goal: \$50m per year

- \* HFR - 137 to 150
- \* Resilience - expand base observations (water level, wave), hi-res dynamic modeling
- \* National data management - interagency integration, national products



# ICOOS Act Reauthorization



Expired 2013, New Congress: 114<sup>th</sup>

## Key elements of the ICOOS Act:

- Establishes an Interagency Ocean Observing Committee (IOOC);
- Identifies NOAA as lead federal agency and calls for a Program Office within NOAA's National Ocean Service;
- Creates standards and protocols for the integration and sharing of coastal data across federal agencies and with non-federal partners;
- Sets certification standards for the regional;
- Defines observing systems to include the full suite of operations necessary to transform observations into meaningful information
- Creates a Federal Advisory Committee; and
- Extends of federal tort liability coverage to certified regional partners.

Why does it matter?  
Creates legitimacy for:  
Program Office  
Interagency efforts  
Regional systems

Time to Act is Now: Next  
year is the Presidential  
election

# House Reauthorization



Rep Young - Lead



Rep Sablan –  
Lead co-sponsor

## House Natural Resources Committee

- New subcommittee: Water, Power and Oceans
- Focus on California drought, fisheries

### Majority Water Power and Oceans

Fleming R LA	McClintock R CA	Byrne R AL	<u>Macarthur</u> R NJ
<u>Young</u> R AK	Duncan R SC	Denham R CA	
<u>Wittman</u> R VA	La Malfa R CA	Newhouse R WA	

### Need Republican co-sponsors

- Jolly R- FL, Posey (R-FL), Buchanan (R-FL), Clawsom R-FL)
- Poliquin R-ME, Rohrabacher (r-CA), Duncan (R-CA), Graves (R-LA) Palazzo (R-MS)
- Frelinghuysen (R-NJ), LoBiondo (R-NJ) Duncan (R-SC)

Rep Young –Circulating Dear Colleague NEXT WEEK  
Committee – NEED bipartisan co-sponsors



# Senate Reauthorization

## Republicans

### Supporters:

Wicker (R-MS) is lead

Collins (R-ME)

Mikowski (R-AK)

Sullivan (R-AK)

### Hopefuls

Johnson (R-WI)

Kirk (R-IL)

Ayotte (R-NH)

Burr (R-NC)

Rubio (R-FL)

### Likely

Shelby (R-AL)

Cochran (R-MS)

Graham (R-SC)

## Democrats

Blumenthal (D-CT)

Booker (D-NJ)

Boxer (D-CA)

Cantwell (D-WA)

Carper (D-DE)

Coons (D-DE)

Feinstein (D-CA)

Franklin (D-MN)

Kolbuchar (D-MN)

Hironon (D-HI)

Nelson (D-FL)

Markey (D-MA)

Murphy (D-CT)

Murray (D-WA)

Reed (D-RI)

Shaheen (D-NH)

Schatz (D-HI)

Stabenow (D-MI)

Warren (D-MA)

Whitehouse (D-RI)



Sen Wicker- Lead



Sen Cantwell -  
Co-Lead

Oceans, Atmosphere, Fisheries and Coast Guard  
Subcommittee

Rubio – Chair

Wicker (MS)

Ayotte (NH)

Cruz (TX)

Sullivan (AK)

Johnson (WI)

Booker, RM

Cantwell (WA)

Blumenthal (CT)

Schatz (HI)

Peters (MI)

# Certification

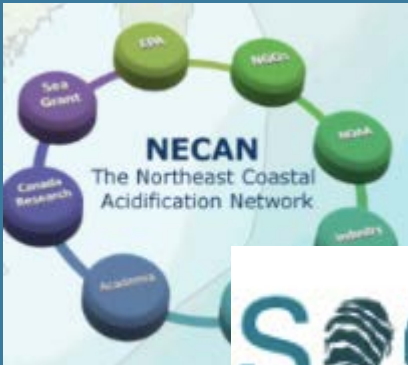


Congratulations to PacIOOS:  
First to submit!

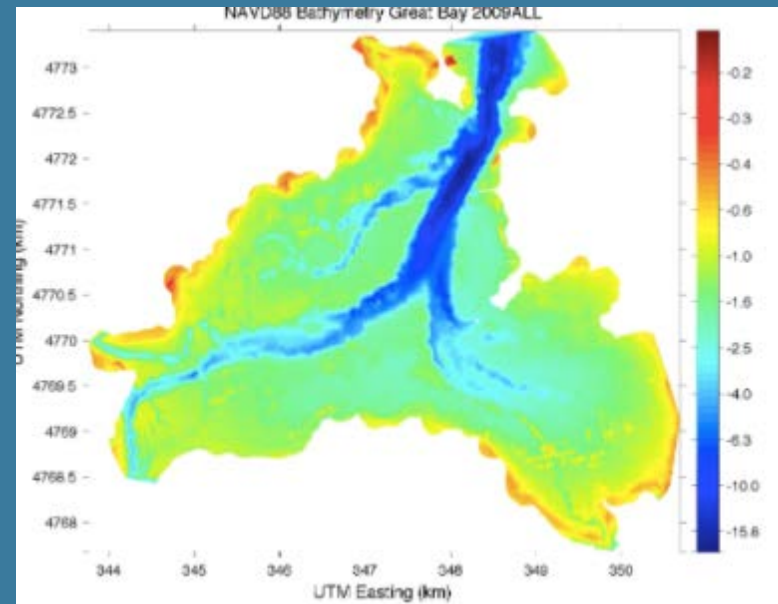


A certified is an opportunity for all IOOS agencies -  
RAs are “ecumenical” at the regional level  
Convene fed, tribal, state agencies, research,

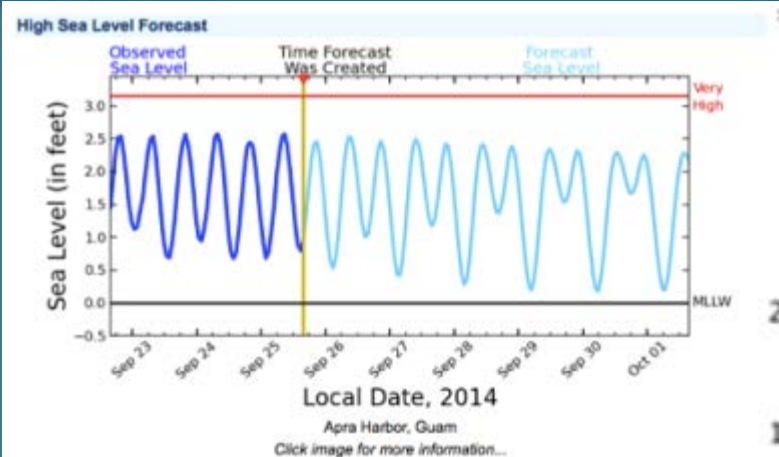
- Integration of regional data - IOOC agencies should foster  
Reduce duplication of efforts  
Enhance users ability to access data
- Regional forum - e.g., Ecological Forecasting webinars, ocean acidification (NECAN, SE



# IOOS Resilience: Need for Basic Observations



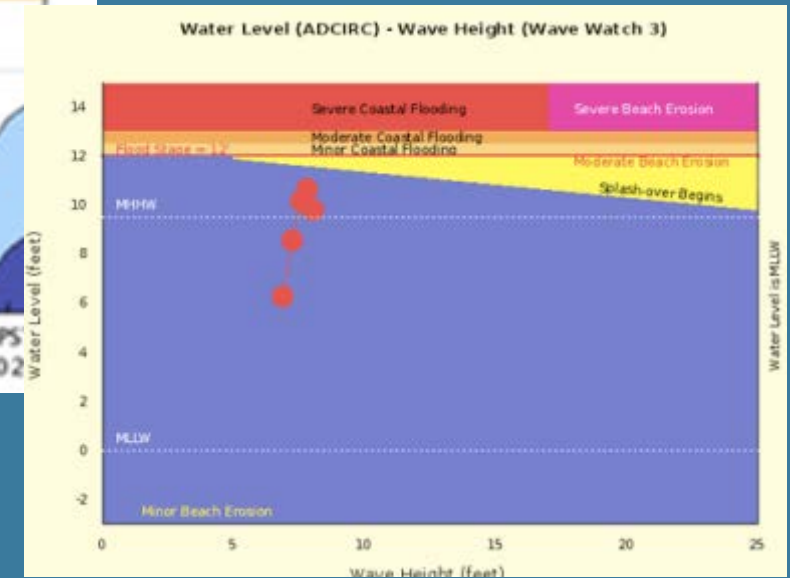
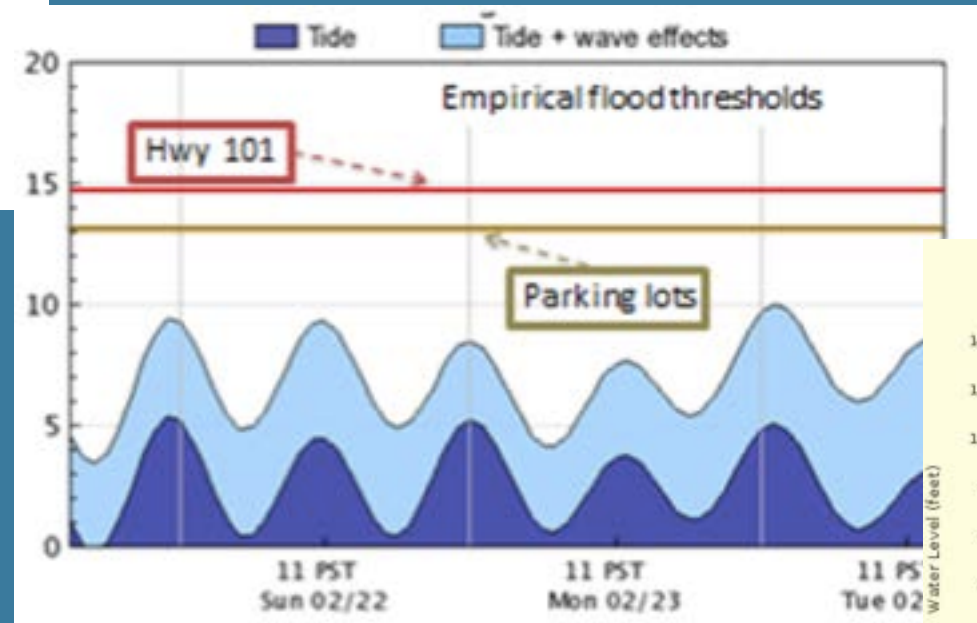
# IOOS Resilience Tools



Guam



California



Maine



# Resilience



## Bathtub ('static') vs. Hydrodynamic

### Bathtub

- Output = topographic vulnerability
- Instantaneous fill
- Flood defenses not resolved
- Overprediction

### Hydrodynamic

- Output = areal extent, depth, velocity
- Temporal variability
- Walls, berms, drains, etc. may be resolved
- Accurate prediction



Identical offshore water level different predictions



© Timu Gallien



## Coastal Ocean Modeling Testbed

Linking research to operations

Delivering benefits – SLOSH improvements

# Making a Difference: Ask the Users

“We decide which boat we can take out for missions and what type of survival equipment we can wear” – US Coast Guard

“Go/no go decisions for moving large commercial ships and tug/barge combinations in Penobscot Bay” – Harbor Pilot

“To decide when to go to sea and how long we might be able to stay, as well as what areas might be best to go. Its not just for fishing info but safety too. I also use it to verify the forecast to see if weather maybe unexpectedly changing.” – Commercial Fishermen

Going across the bar [near the SF Bay] can be scary with long period wave series. Buoy data are very important to our safety. I have incredible gratitude for the scientific community doing this research and making it so usable - Fishermen

“I use this data to discuss data with my middle school students. When there are big storms or other major events we look at the data and make our own predictions.” – Educator

“Developing water quality assessments, understanding the effects of climate change, looking at extreme event effects” – Environmental Manager

“[The OOSes are] the first place where a lot of sanctuary staff look for information.”- Sanctuary manager

“I am impressed by the amount and ease of use of data. I couldn't believe how fast someone got back to me.” Abalone Farmer

# Thank you

