

# Integrated Ocean Observing System (IOOS<sup>®</sup>) Program

*Overview Briefing*

*20 October 2009*

*NOAA Library*

# Integrated Ocean Observing System (IOOS®)

*IOOS is a robust partnership effort that leverages the National ability to collect, deliver, and use ocean and coastal data to enhance science and improve decision-making*

Improve safety



Enhance our economy



Protect our environment



# Establishing an IOOS<sup>®</sup> Structure



## National IOOS

- 17 federal agencies
- 12 regional partners
- Industry partners
- US contribution to GOOS

## Formalizing NOAA IOOS, Feb 2007

1. *Stand up a Program Office in NOS*
2. *Establish a Program in PPBES (Mission Support, MOBI sub-goal)*
3. *Execute project to demonstrate the value of integrating ocean data*

## IOOS codified in law, March 2009 (P.L. No 111-11)

**FY10 priorities align with NOAA strategic goals as identified in AGM**

# IOOS<sup>®</sup> Subsystems

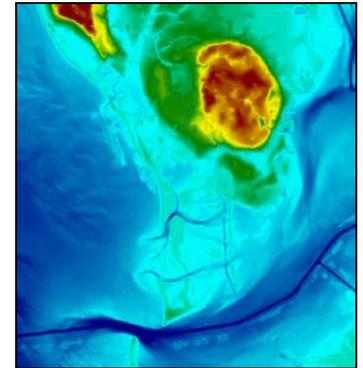
**DATA MANAGEMENT & COMMUNICATIONS:**  
*Making data compatible and more easily accessible to users*



**OBSERVING SYSTEMS:**  
*Ocean and coastal data collection*



**MODELING & ANALYSIS:**  
*Tools to aid informed and timely decision making*

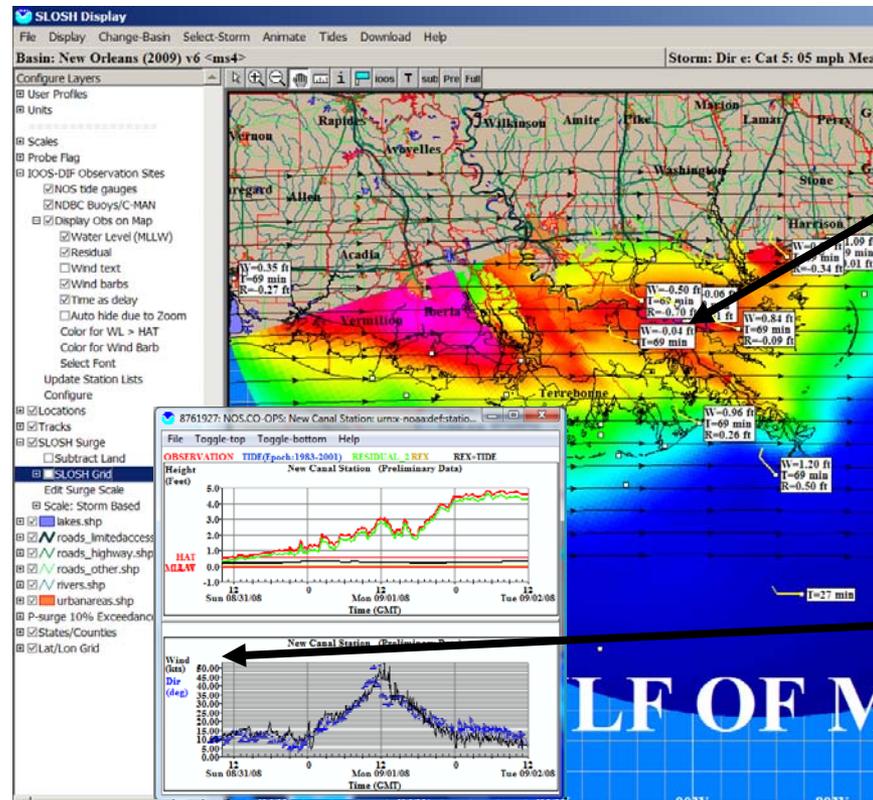


# IOOS<sup>®</sup> Data Integration in Action

## Interoperable data for seven variables linked in a distributed architecture

- Three NOAA centers of data (NDBC, CoastWatch and CO-OPS)
- Nine regional data providers
- All regions providing interoperable model outputs

**SLOSH  
Display Program  
(SDP) =  
operational display  
used to determine  
storm surge**



**CO-OPS/NDBC stations available directly from SDP map with latest observations displayed as station label**

**Detailed observations and other data available in graph format by clicking station**



The last two years have yielded significant success

# IOOS<sup>®</sup> - Pursuing NOAA's National Priorities

## Enhancing climate services

- Hurricane Intensity (NWS)
- Ocean Acidification (OAR)

## Marine spatial planning

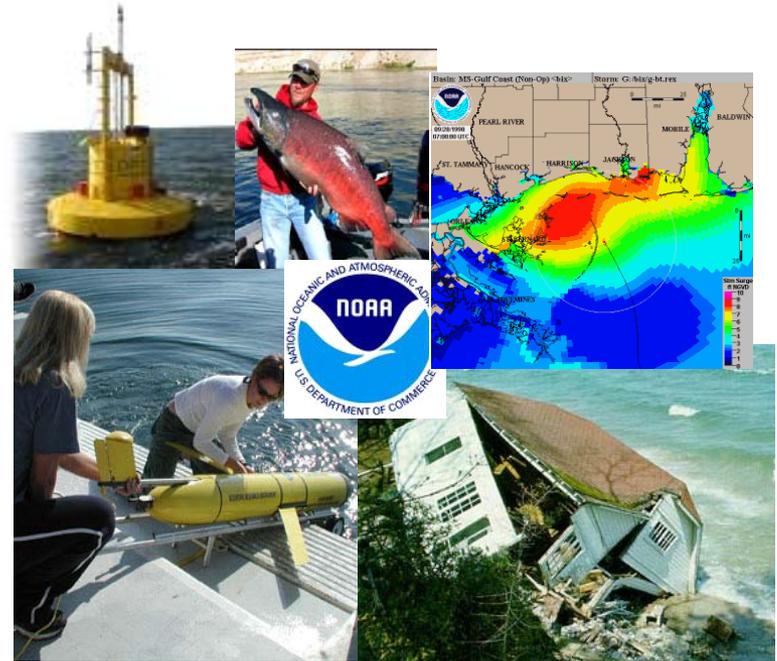
- Joint White Paper w/ MPA FAC
- Observing and monitoring capability

## Sustainable marine fisheries/Ecosystem Health

- Integrated Ecosystem Assessments (NMFS)
- Harmful Algal Blooms (NOS)
- National Water Quality Monitoring Network

## Arctic science and stewardship

- Long term monitoring
- Impact on fisheries and commerce



## Core Competencies to Strengthen

**Safe, efficient environmentally sound transportation**

National surface current monitoring network (USCG)

**Improve Forecasting**

Coastal Inundation (NOS, NWS, OAR)

# Success Stories



- Response to Hudson River Events
  - Mid-Air Collision (August 2009)
  - USAIR flight 1549 emergency landing (January 2009)
- California Mysterious Bird Strandings

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# Questions?