

Percentage of all real-time continuous ocean measurements in the region conducted by NERACOOS:



NERACOOS

NORTHEASTERN REGIONAL ASSOCIATION
of COASTAL OCEAN OBSERVING SYSTEMS



7.8 MILLION

Ocean and weather
observations made by
NERACOOS in 2013



3.2 MILLION

Web page views of
NERACOOS data
and information on
neracoos.org and
ndbc.noaa.gov in 2013



93%

Percentage of survey respondents
who indicated that if the data were
not available to them through
NERACOOS it would be a serious
loss or an inconvenience





Canada

Hudson Bay

Greenland

Iceland

North Sea

Poland

Slovakia

Hungary

Austria

Croatia

Belgium

France

Italy

Bay of Biscay

Tyrrhenian

Med

Spain

T

Morocco

Al

Western Sahara

Mauritania

M

Bu

F

GH

Senegal

Guinea

Liberia

United States

Gulf of Mexico

Guatemala

Cuba

Honduras

Nicaragua

Costa Rica

Panama

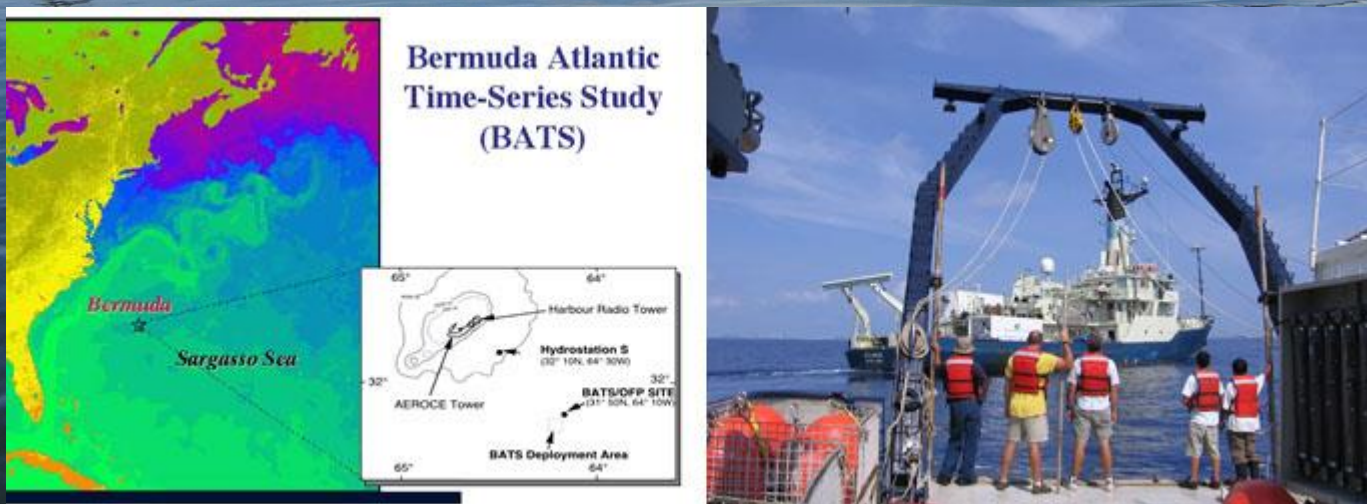
Caribbean Sea

Dominican Republic

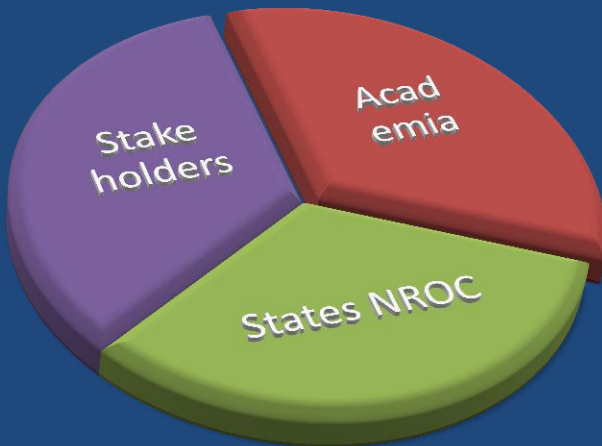
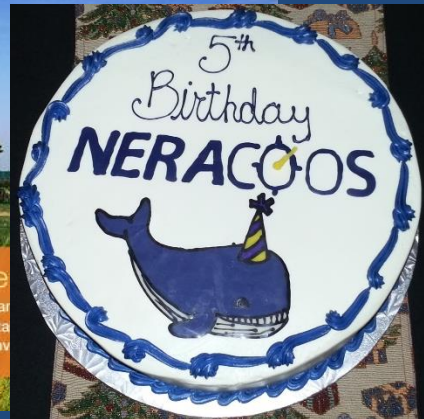
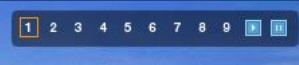
Puerto Rico

North Atlantic Ocean

Google



NERACOOS Timeline



Strategic Planning and Implementation (SPI) Team

MOU's

- NROC
- NEOSEC
- SBNMS





NERACOOS SYSTEM OPERATORS

“NERACOOS is collecting critical ocean data and providing valuable tools that will help us understand changes in our ocean and their impact on our coasts, fisheries, and climate. Their buoy system is the workhorse that drives many important decisions made by fishermen, regulators, offshore wind developers, and recreational users of the Gulf of Maine and beyond.”

U.S. Senator Angus King (Maine)



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UConn

{ Long Island Sound
buoy array }

THE
UNIVERSITY
OF RHODE ISLAND

{ Estuarine nutrient
monitoring }



{ Harmful algal
bloom sensors }

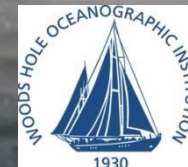
NERACOOS

NORTHEASTERN REGIONAL ASSOCIATION
of COASTAL OCEAN OBSERVING SYSTEMS

NERACOOS Works

NERACOOS measures ~50% (65-76%) of the continuous real-time surface variables in the region and ~95% of the subsurface variables.

The Northeast Coastal Ocean Forecast System (NECOFS) and WW3 provide 3 day forecasts including inundation in Scituate MA and Hampton NH.



NERACOOS Gulf of Maine

A - Massachusetts Bay

Lat: 42.52 Lon: -70.56

Latest Observation: 12/05 5:00 AM EST

Variable	Value
Wind speed	6 knots (7 mph, 11 kph)
Wind direction	ESE (113°) True
Wind gust	7 knots (8 mph, 14 kph)
Wave height	0.8 ft (0.2 m)
Wave period	10.7 sec
Air temp	46 ° F (7.5 ° C)
Visibility	1.6 nm (1.8 miles, 3.0 km)
Air pressure	1021.57 mb
Water temp	47 ° F (8.5 ° C)
Salinity	32.67 psu
Dissolved Oxygen	5.78 ml/l
Turbidity	0.435 ntu
Chlorophyll	2.09mg chl/m ³



Dr. Neal Pettigrew University of Maine

Like 300 people like this. Sign up to see what your friends like.

Data returns historically in excess of 90%
But dropping today!

NERACOOS supports

- Buoys
 - 6+1 Gulf of Maine – UMaine
 - 1 CDIP - UNH
 - 1 CO2 – UNH
 - 1 Estuarine – UNH
 - 3 Long Island Sound – Uconn
 - 3 ESP HAB - WHOI
- HFR – Surface Currents - UMaine
- Shore-stations
 - 2 water quality – UNH & URI
 - 3 Water Level
- Forecasts
 - Northeast Coastal Ocean Forecast System (NECOFS) - UMassD
 - Inundation forecasts
 - Wave Watch III – BIO
- Data Management and Communications - GMRI

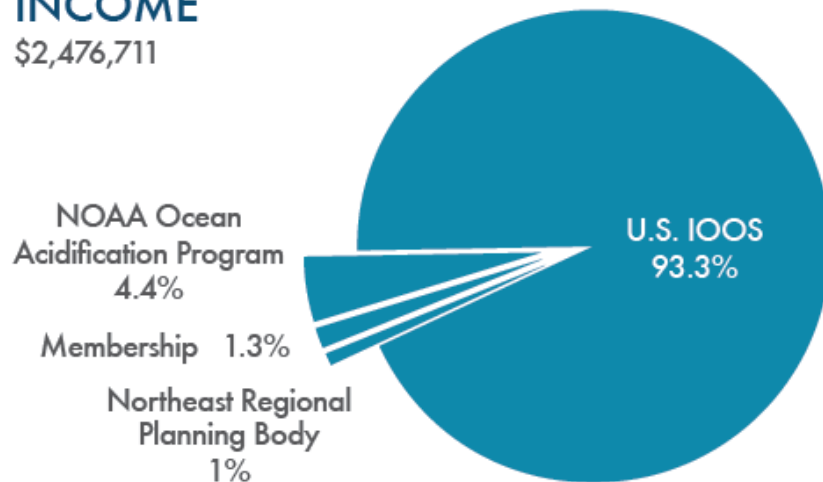
The Money

2013 FINANCIALS

NERACOOS is funded primarily by U.S. IOOS. In 2013, we began a membership program, and we are grateful for the generous support from our members.

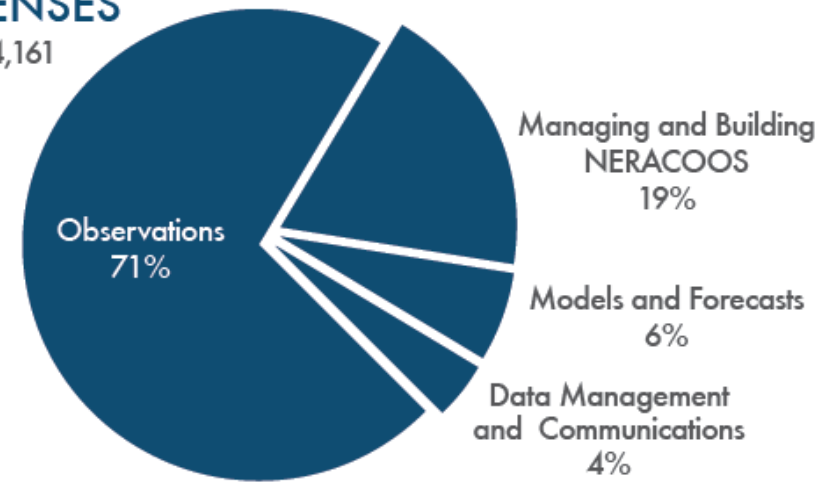
INCOME

\$2,476,711



EXPENSES

\$2,444,161



The financial information above represents funding allocated in 2013 and how these funds were budgeted to be spent. Our financial year ends September 30th and audited financials are available at www.guidestar.org.

MARITIME OPERATIONS

SUPPORTING SAFETY and EFFICIENCY



+



+



Dec 3, 2012 - Dec 3, 2012: ● Visits

Dec 3, 2011 - Dec 3, 2011: ● Visits



"I trust the weather buoys with my life. Thank you." - Maine Fisherman; "Love your service...I believe your service is a lifesaver. Thanks!" -Dave, Pilot; and "I would like you to know that information you are providing us not only aids us in our work, it almost certainly has saved lives." -Roy Atkinson, Fisherman.

4:00 AM

8:00 AM

12:00 PM

4:00 PM

8:00 PM

Success Stories

“ When making decisions about bringing a 700-foot tanker full of fuel into port, we need the best possible ocean and weather information, which is why we depend on buoy observations and forecasts from NERACOOS to ensure safety and efficiency of these critical operations. ”

Captain David Gelinas
Penobscot Bay and River Pilots Association



Capt. David Gelinas preparing to board a ship.

How do we know it works?

NERACOOS Survey 2013 - Decision Making

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

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

“Oil spill trajectory analysis” – NOAA Spill Response

“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

OCEAN and COASTAL ECOSYSTEM HEALTH

SUPPORTING SCIENCE and MANAGEMENT

Integrated Sentinel Monitoring for Climate Change in Northeastern Coastal Ecosystems

Goal: To develop a science and implementation plan for an adaptive sentinel monitoring program in the Northeast coastal region that integrates existing regional monitoring efforts, assets, and resources to assess the status and trends of key indicators at select sites and geographic sub regions.



Participating Organizations:

Bigelow Laboratory for Ocean Sciences
Casco Bay Estuary Partnership
Connecticut Department of Energy and Environmental Protection
Fisheries and Ocean Canada
Great Bay National Estuarine Research Reserve
Gulf of Maine Council Ecosystem Indicator Partnership
Gulf of Maine Research Institute
Maine Department of Marine Resources
Maine Geological Survey
Massachusetts Bays National Estuary Program
Massachusetts Department of Marine Fisheries
Massachusetts Office of Coastal Zone Management
Massachusetts Water Resources Authority
Massachusetts Institute of Technology Sea Grant
National Oceanic and Atmospheric Administration, National Marine Fisheries Service
NERACOOS
New England Interstate Water Pollution Control Commission
New Haven University
Northeastern University
Northeast Regional Ocean Council
Provincetown Center for Coastal Studies
Rhode Island Department of Environmental Management
Stellwagen Bank National Marine Sanctuary
The Nature Conservancy
U.S. Army Corps of Engineers
U.S. Environmental Protection Agency
U.S. Geological Survey
University of Connecticut
University of Maine
University of Massachusetts Boston
University of New Hampshire
University of Rhode Island
Wells National Estuarine Research Reserve
Woods Hole Oceanographic Institution





Northeast Coastal Acidification Network (NECAN)

[www. http://neracoos.org/necan](http://neracoos.org/necan)



NE-CAN is a nexus of scientists, federal and state agencies, and industry partners that works to coordinate regional observing and research to identify and communicate critical vulnerabilities to ocean acidification in the Northeast Atlantic

- 16 Webinars
- State of the Science Workshop

Sustainable
Fisheries
Partnership



NERACOOS

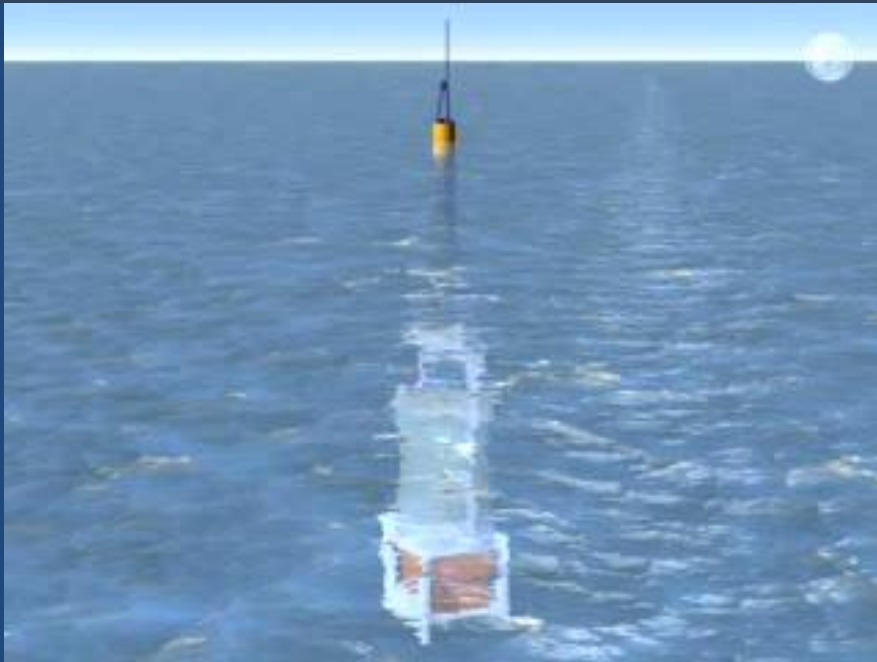


DALHOUSIE
UNIVERSITY
Inspiring Minds

1865 THE UNIVERSITY OF
MAINE



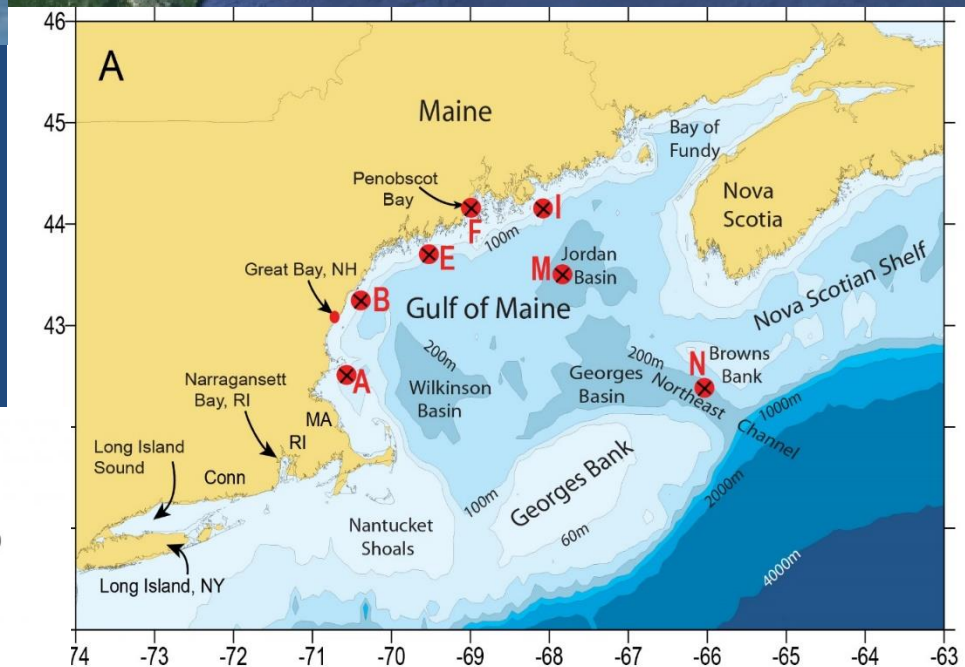
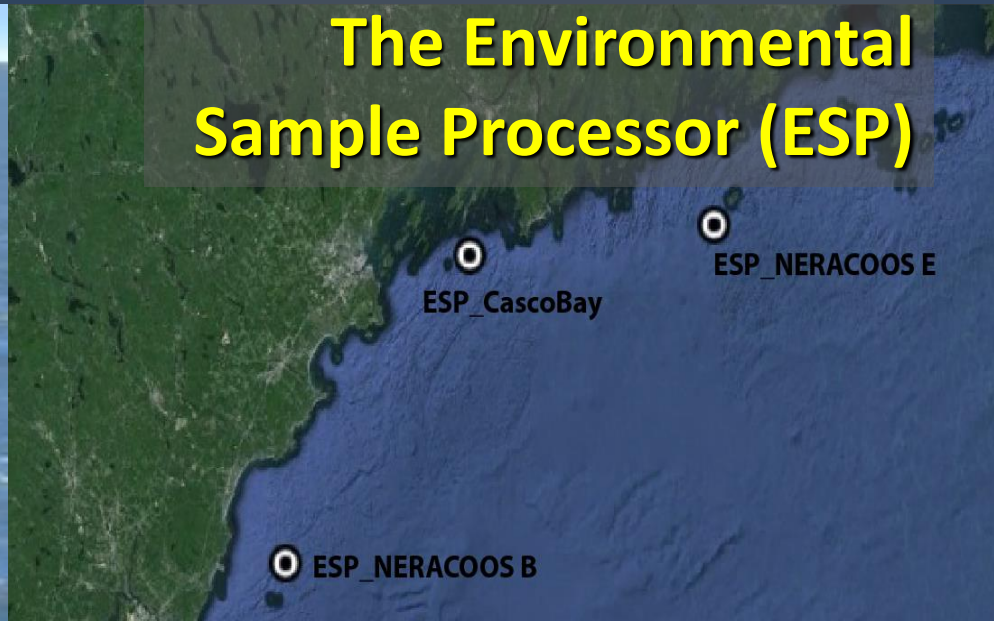
Marine Sensor Innovation



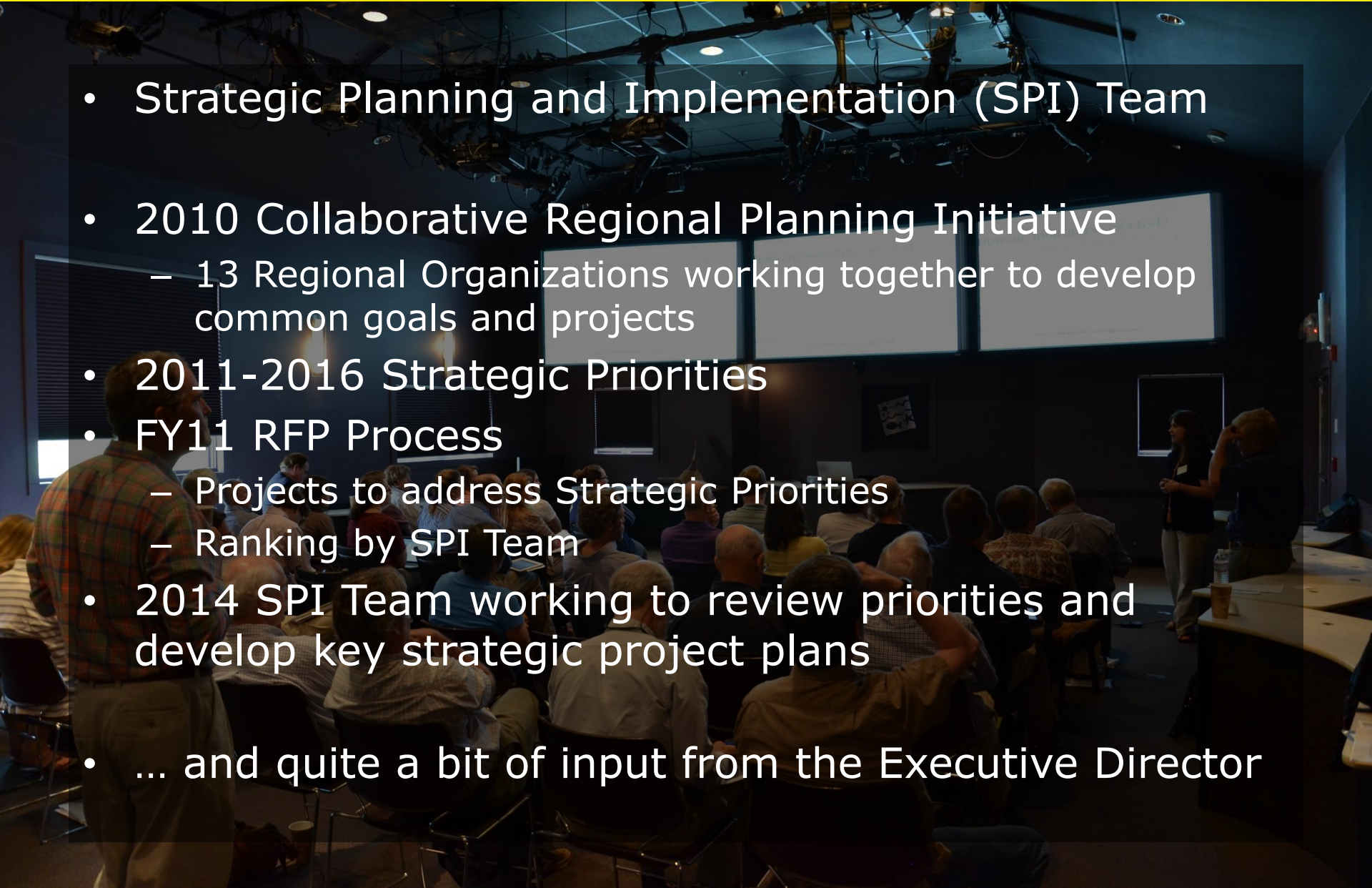
System wide nutrient sensors



The Environmental Sample Processor (ESP)



How do we decide what to do

- Strategic Planning and Implementation (SPI) Team
 - 2010 Collaborative Regional Planning Initiative
 - 13 Regional Organizations working together to develop common goals and projects
 - 2011-2016 Strategic Priorities
 - FY11 RFP Process
 - Projects to address Strategic Priorities
 - Ranking by SPI Team
 - 2014 SPI Team working to review priorities and develop key strategic project plans
 - ... and quite a bit of input from the Executive Director
- 

NERACOOS Board of Directors

- Meets 4 times a year
 - Annual meeting – In person associated with Members meeting
 - Spring meeting – In person in association with Sustaining Members Forum event
 - Virtual meeting - twice a year
- Board Strategic Planning 2013-2014
 - Working with consultant
 - Mix of staff and Board working group
 - Developing a short and Implementable Strategic Plan
- First step in truly diversifying funding and harnessing the power of being a non-profit

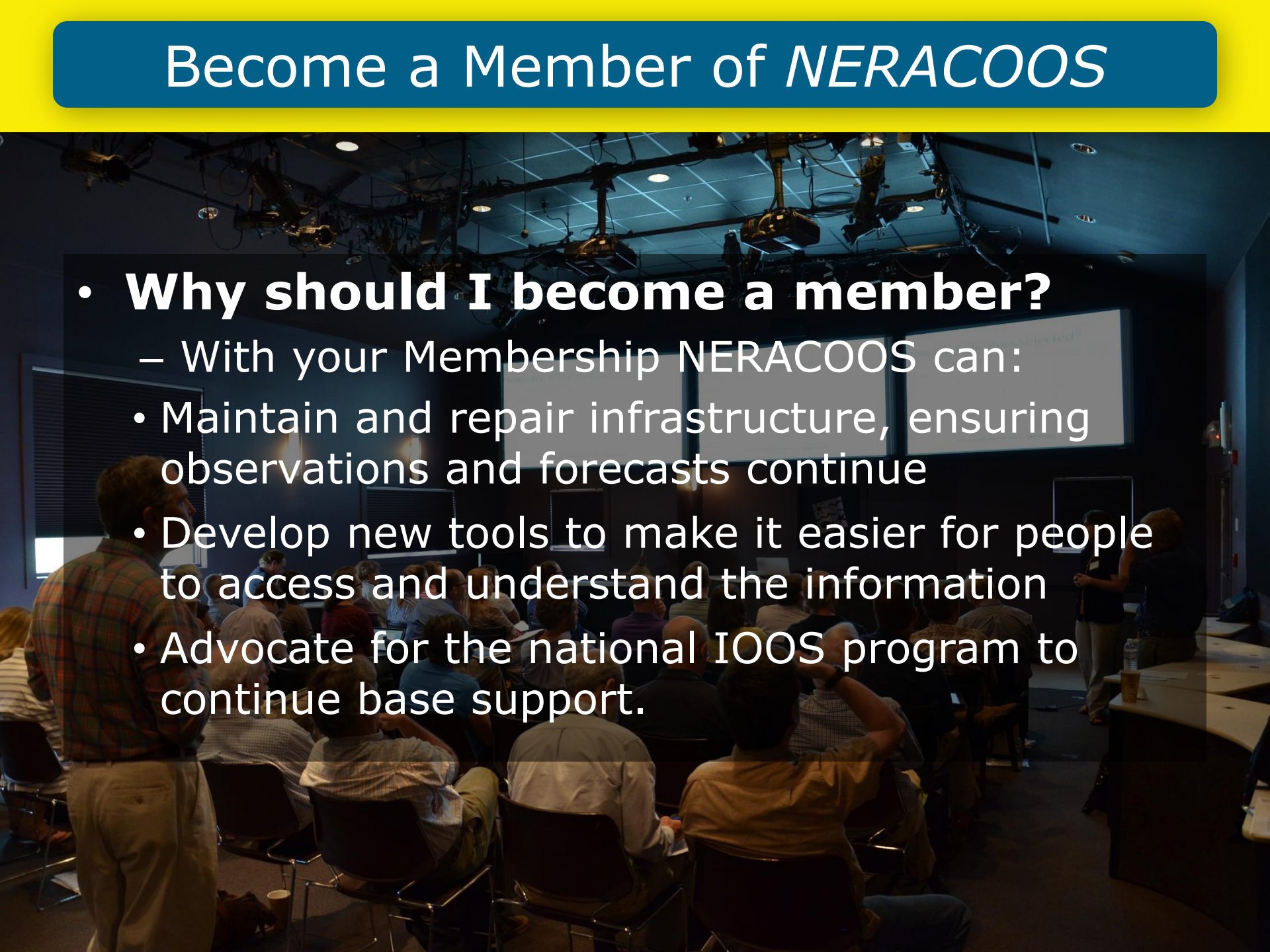
KEEP MOVING FORWARD

“Around here, however, we don’t look backwards for very long. We keep moving forward, opening new doors and doing new things ... and curiosity keeps leading us down new paths.”

- Walt Disney



Become a Member of *NERACOOS*

- 
- **Why should I become a member?**
 - With your Membership NERACOOS can:
 - Maintain and repair infrastructure, ensuring observations and forecasts continue
 - Develop new tools to make it easier for people to access and understand the information
 - Advocate for the national IOOS program to continue base support.

Become a Member of *NERACOOS*

• **What benefits do I receive?**

- Participate in research and development of ocean information products
- Leverage and enhance existing monitoring/observation activities
- Easily deliver data and information to target audiences
- Discover collaborative project opportunities and networking events
- Determine the direction of NERACOOS activities