2016

NOAA's Acquisition and Grants Office

presents

CONNECTING the CHANNELS

Partnership in Grants Management

Seattle, WA

Silver Spring, MD

2016

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presents

CONNECTING the CHANNELS

Partnership in Grants Management

A Glimpse of NOAA Research

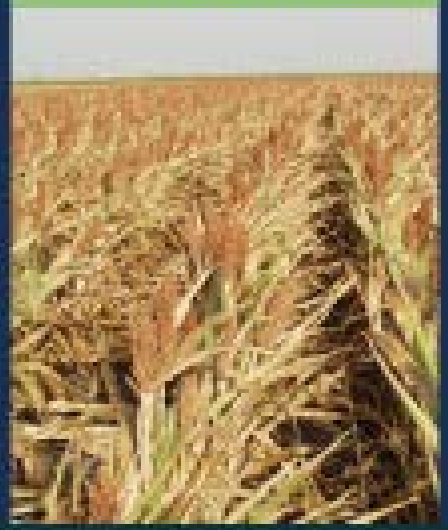
Presented By: Jim Guyton, Deputy Director
PMEL/NOAA

NOAA's NEXT GENERATION STRATEGIC PLAN GOALS

Healthy Oceans

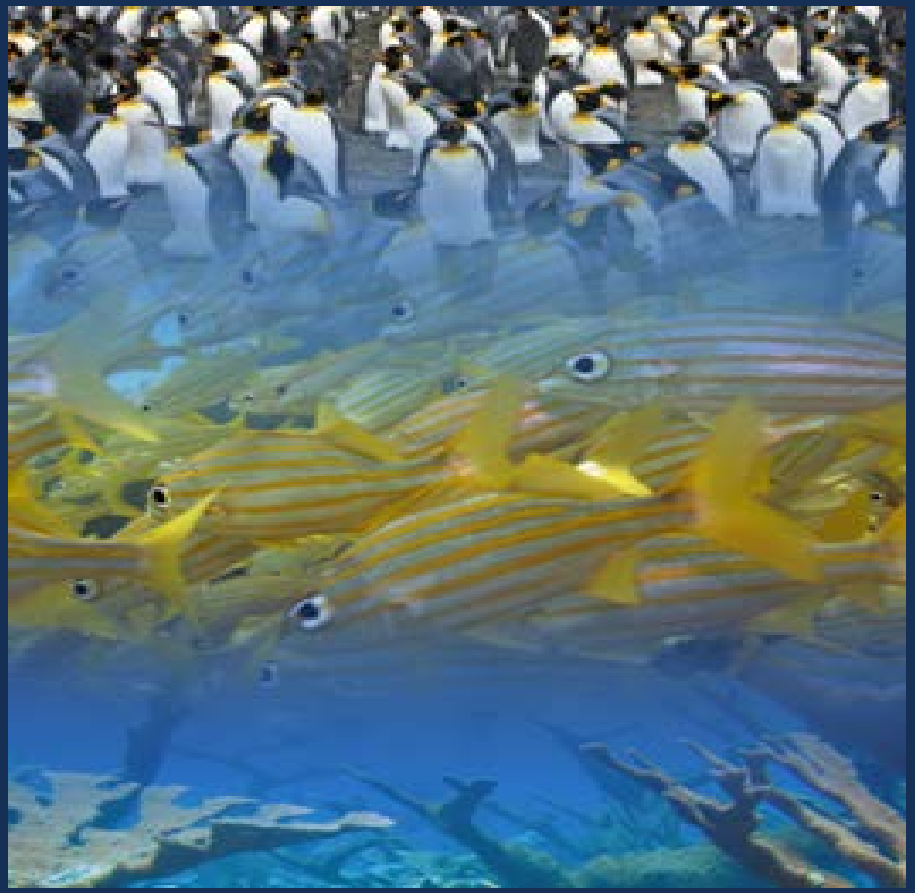
Weather Ready Nation

Climate Adaptation & Mitigation



Resilient Coastal Communities & Economies

HEALTHY OCEANS



Key Questions

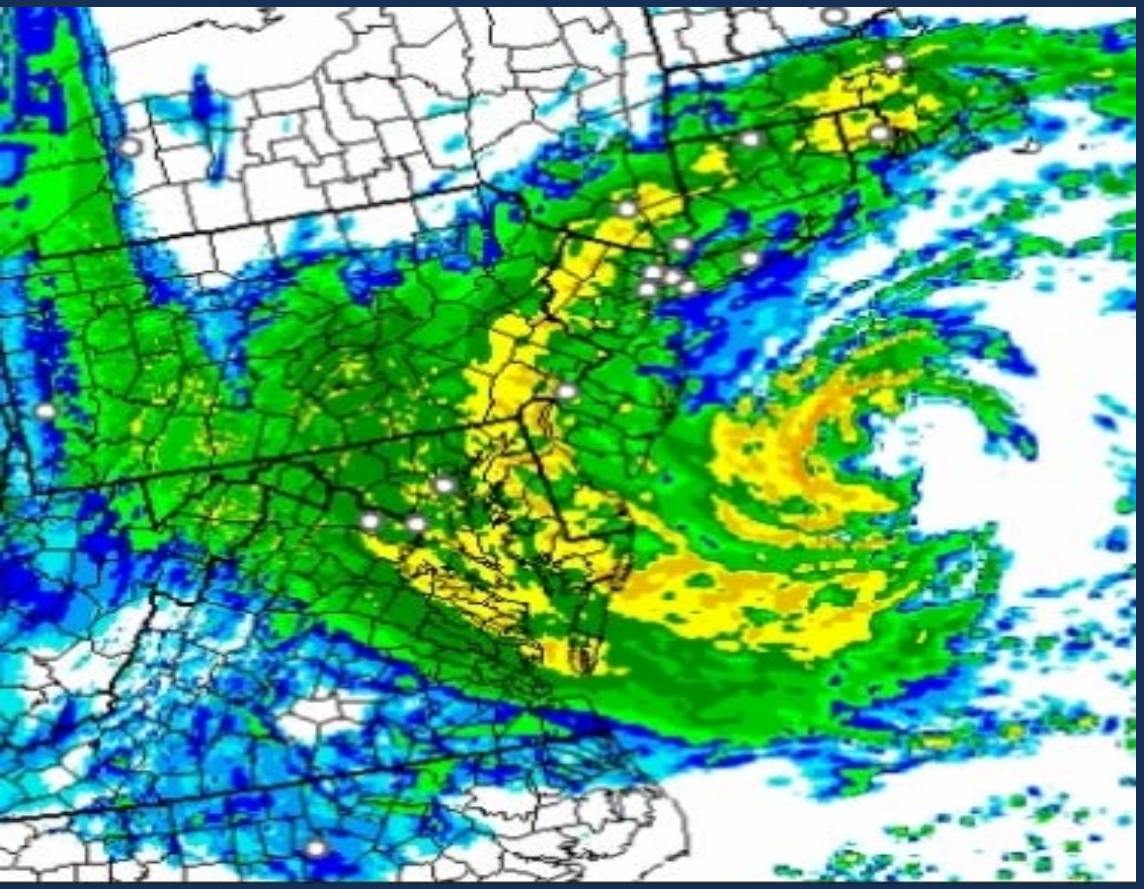
How do environmental changes affect marine ecosystems and the value of fisheries?

What exists in the unexplored areas of our oceans?

How can emerging technologies improve ecosystem-based management?

How is the chemistry of our ocean changing and what are the effects?

WEATHER READY NATION



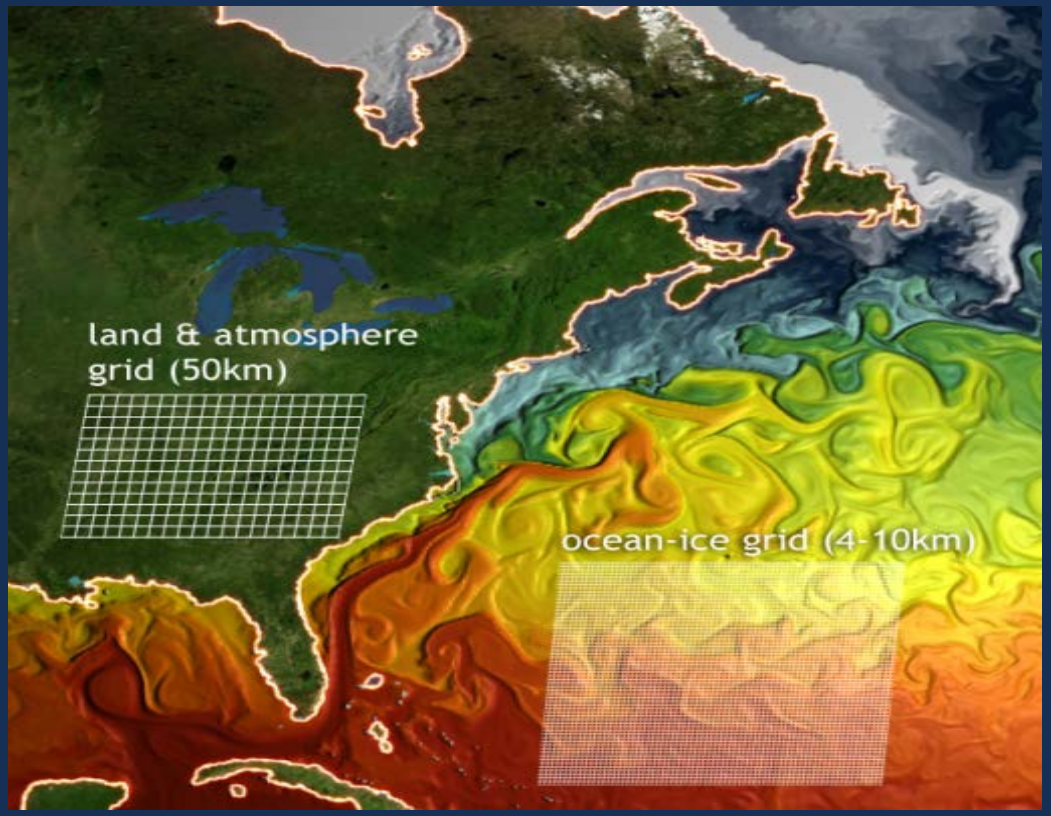
Key Questions

How can we improve forecasts, warnings and decision support for high-impact weather events?

How are seasonal weather and extreme weather events influenced by climate?

How can we improve forecasts for resource management?

CLIMATE ADAPTATION & MITIGATION



Key Questions

What is the state of the climate system and how is it evolving?

What causes climate variability and change on global to regional scales?

How can NOAA best inform and support the Nation's efforts to adapt to the impacts of climate variability and change?

RESILIENT COASTAL COMMUNITIES & ECONOMIES

Key Questions

What is the value of coastal ecosystems?

How do we reduce the economic and ecological impacts of degraded water quality?

How is the Arctic affected by expanding industry and commerce?

How do communities prepare for, and respond to hazards?

SCIENCE & TECHNOLOGY INFRASTRUCTURE

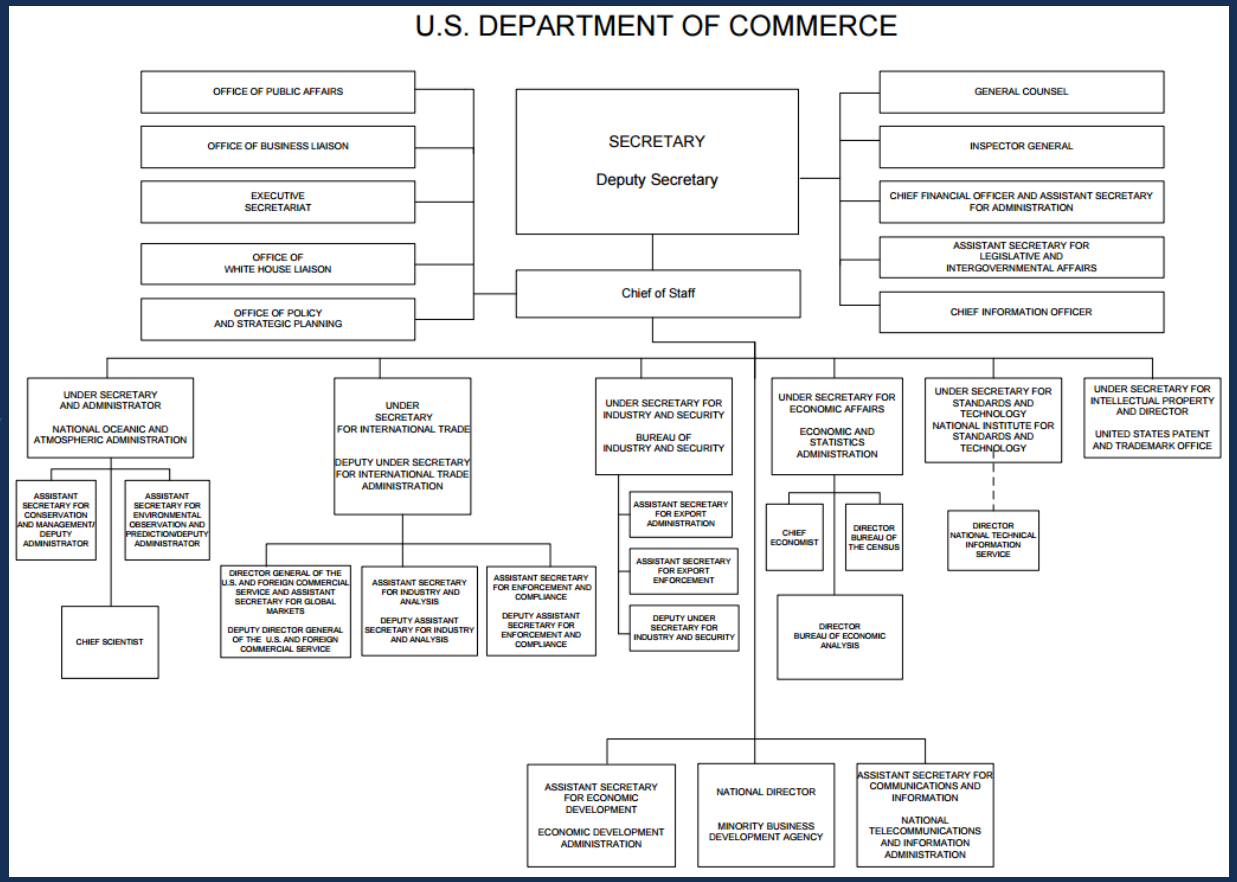
Key Questions

What is the best suite of observing systems to meet NOAA's mission?

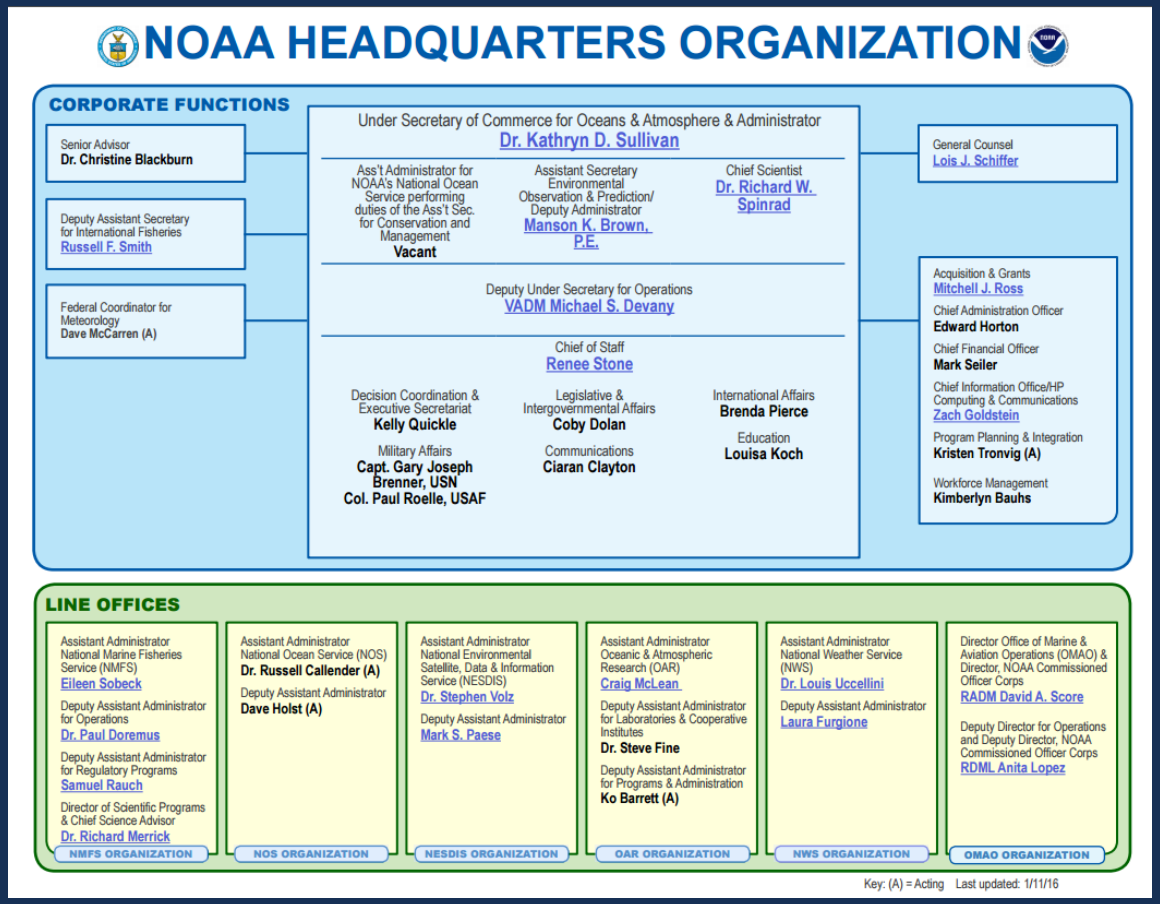
How can we best use current and emerging environmental data?

How can modeling be best integrated, and improved, with respect to skill, efficiency, and adaptability?

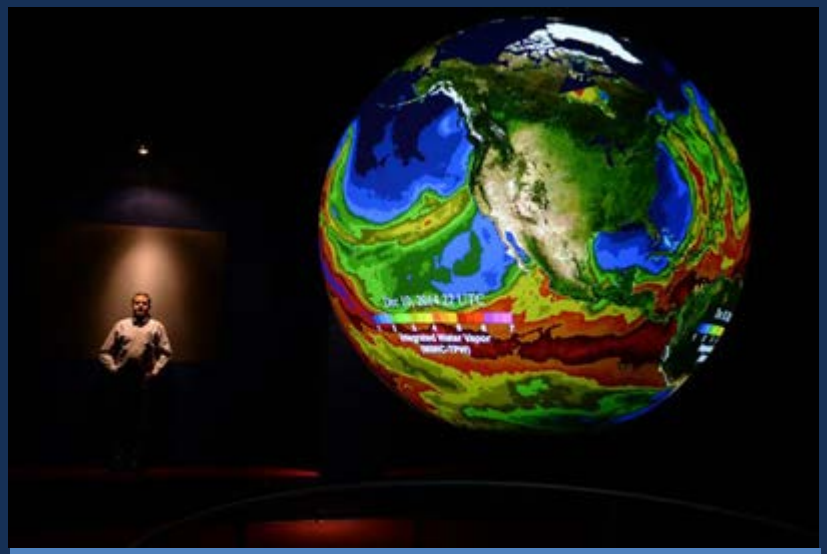
Department of Commerce



NOAA Organization Chart



OAR VISION & MISSION



To be a trusted world leader in observing, modeling, understanding
and predicting the Earth system.

To conduct research to understand and predict the Earth system; develop technology to improve NOAA science, service and stewardship; and transition the results so they are useful to society.

OAR's Research Network

OAR Laboratories

- OAR's laboratories are critical to long-term research endeavors, particularly those that require major infrastructure, such as monitoring and modeling oceans and atmosphere for climate assessments.

OAR Programs

- Program offices manage competitive and noncompetitive awards (including extramural) to focus on specific topics, including emerging areas of research. They are well suited to address research needs that are relatively short-term in nature or that require infrastructure that exists beyond OAR laboratories.

OAR Partners

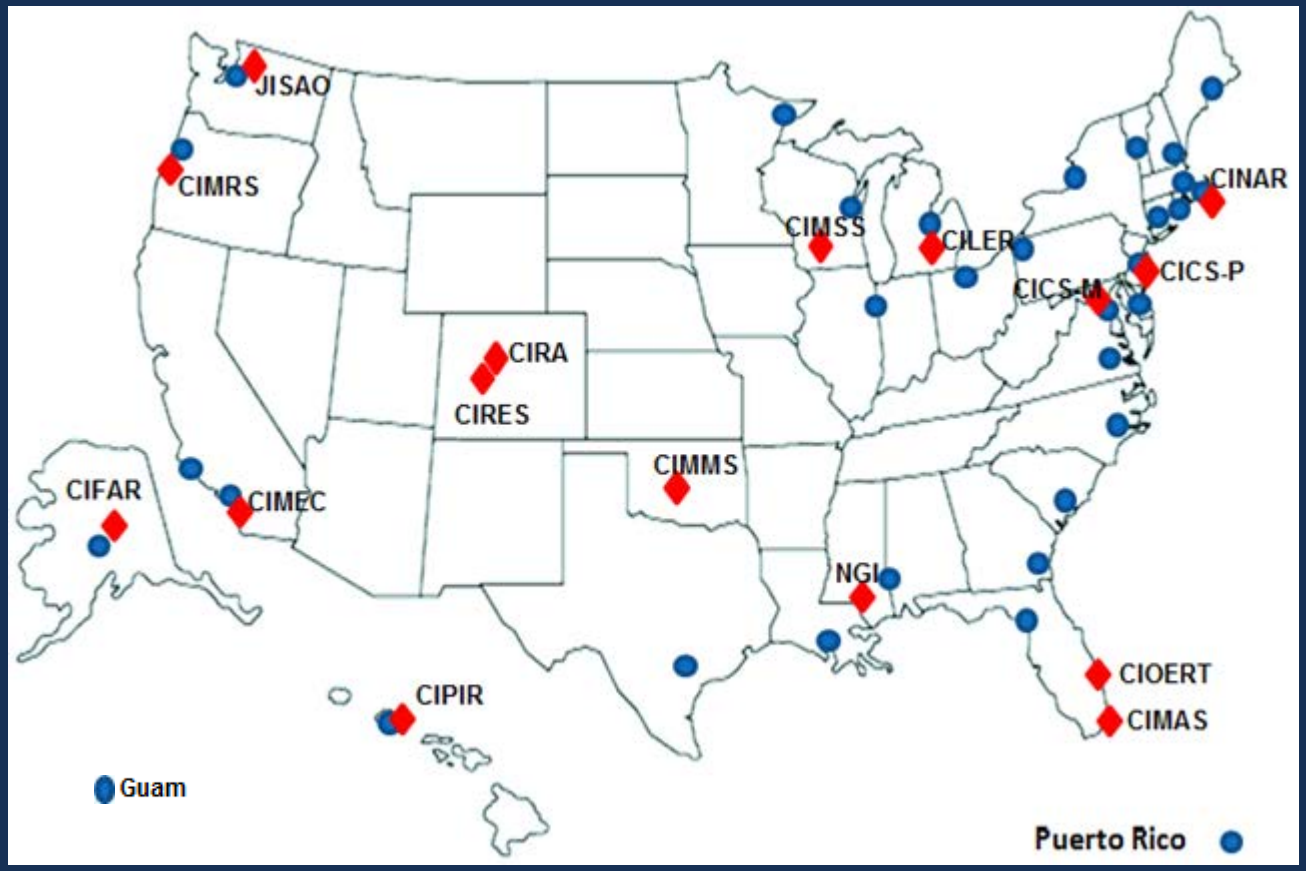
- OAR manages the National Sea Grant College program and NOAA's Cooperative Institutes. OAR also oversees NOAA's Technology Partnerships Office (TPO) and NOAA's Science Advisory Board.

OAR's Labs and Programs

Programs:
Climate Program Office (CPO)
National Sea Grant Program (NSGP)
Office of Ocean Exploration and Research (OER)
Office of Weather and Air Quality (OWAQ)
Ocean Acidification Program (OAP)
Unmanned Aircraft System (UAS)

Laboratories:
Air Resources Laboratory (ARL)
Atlantic Oceanographic and Meteorological Laboratory (AOML)
Geophysical Fluid Dynamics Laboratory (GFDL)
Earth System Research Lab (ESRL)
Great Lakes Environmental Research Laboratory (GLERL)
National Severe Storms Laboratory (NSSL)
Pacific Marine Environmental Laboratory (PMEL)

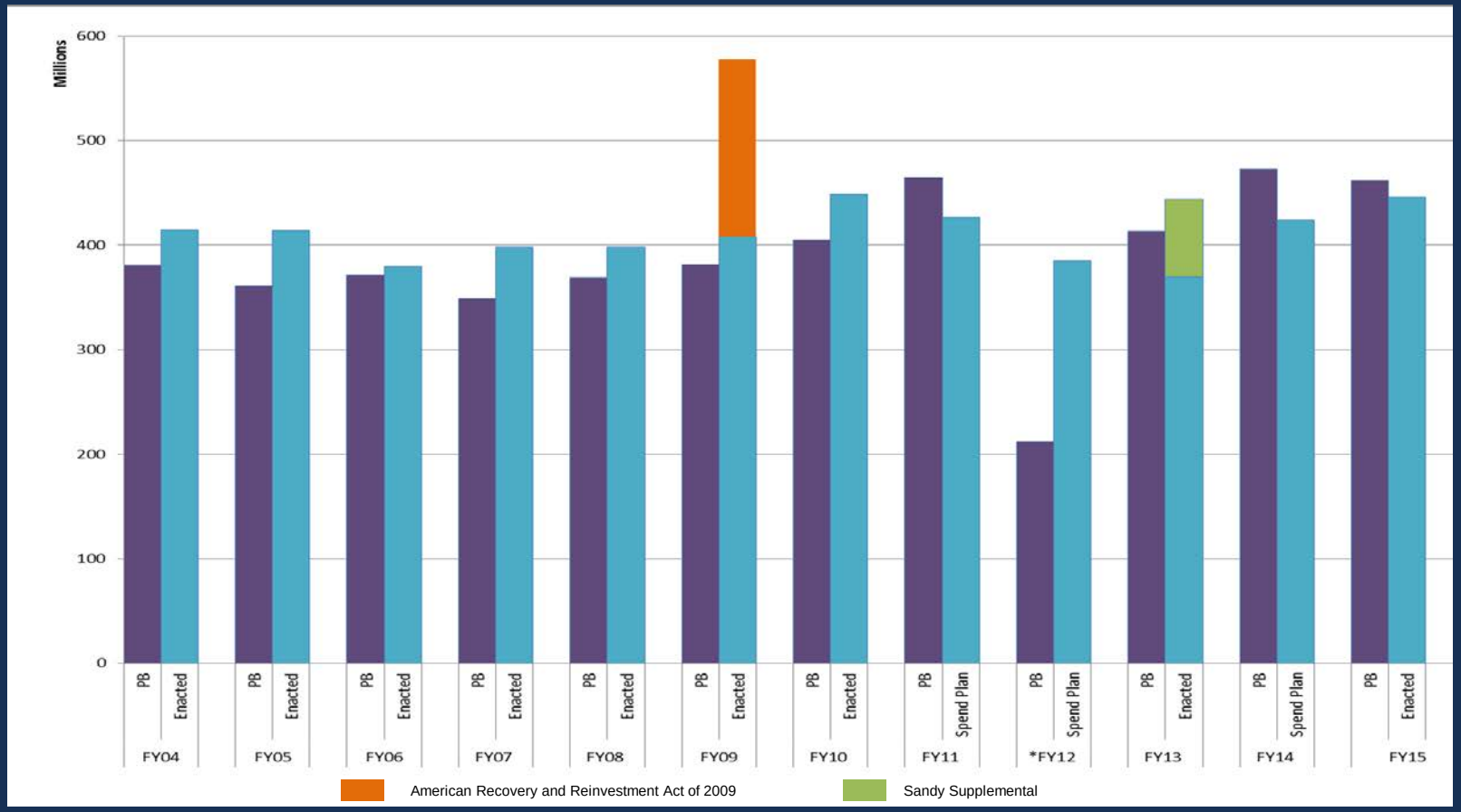
Sea Grant College Programs and Cooperative Institutes



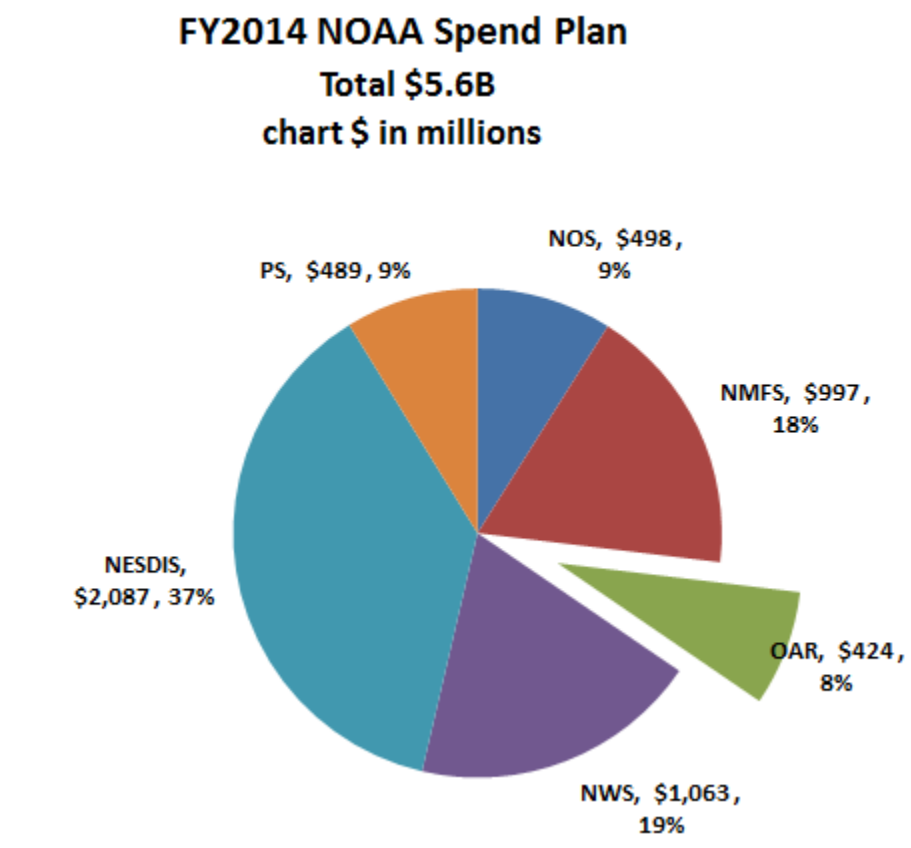
33 Sea Grant College Programs

16 Cooperative Institutes

OAR Budget History



OAR as a Proportion of NOAA



Pacific Marine Environmental Laboratory (PMEL)

1 of 7 OAR Research Labs

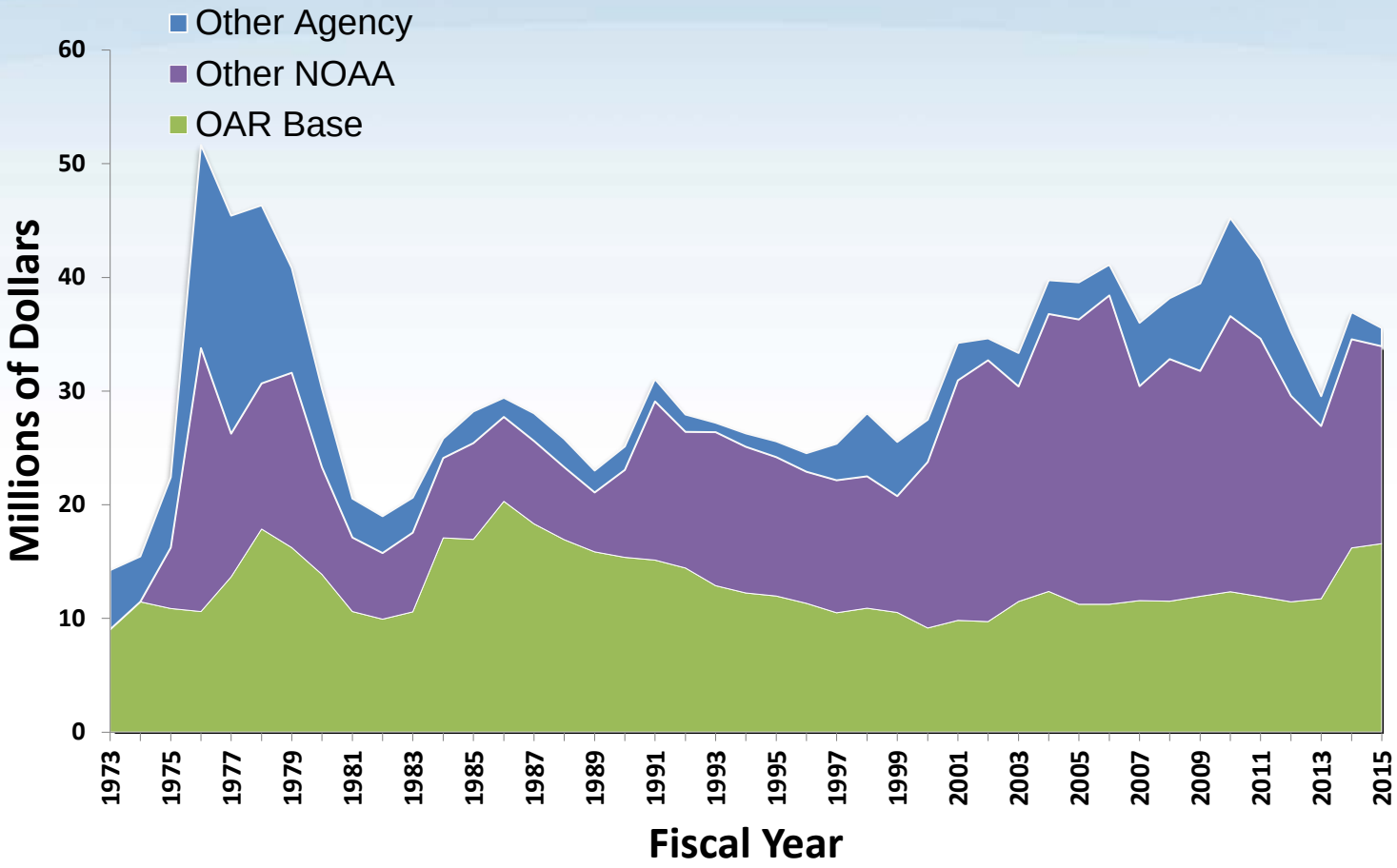
Established in 1972

approximately 200 people shared between 2 locations

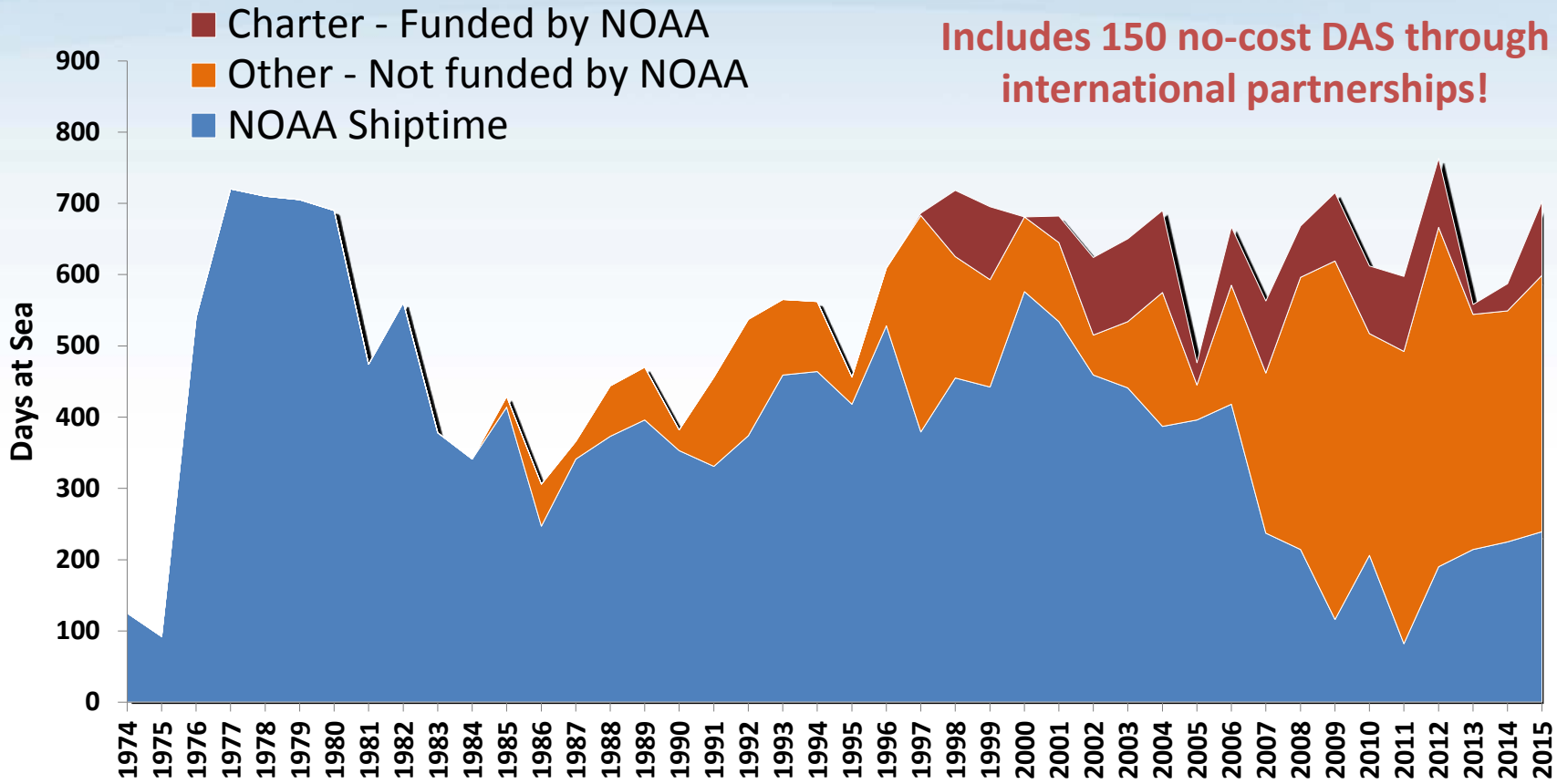
Two Facilities:

~90% of personnel in Seattle
~10% of personnel in Newport

PMEL Funding Adjusted to 2015 Dollars



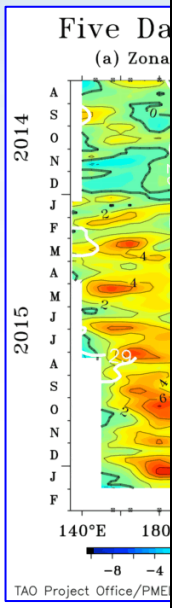
FY15 PMEL Ship-time



Includes 150 no-cost DAS through international partnerships!

The 2015-16 El Niño

A Once-in-a-Generation Event



PMEL dis
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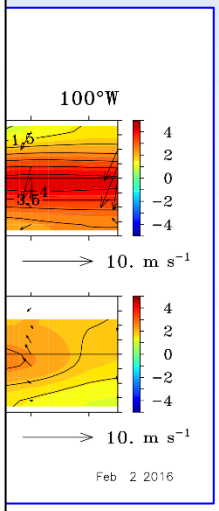
predict



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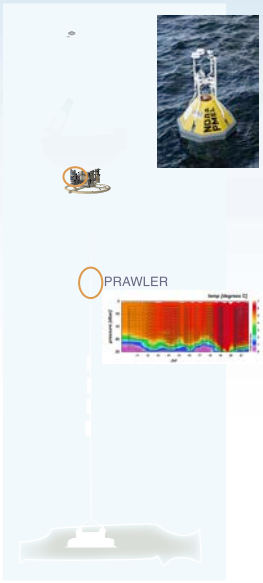
Innovative Technology for Arctic Exploration

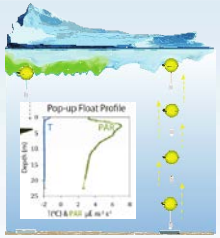
Consistency
- Radiation Buoy w/ PRAWLER & LOC

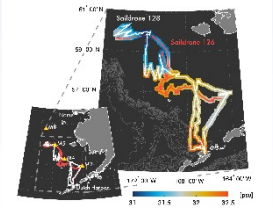
Fast & Furious
- Saildrone

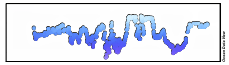
Endurance
- Carbon & Ecosystem Wave Gliders

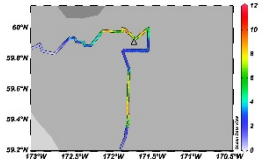
Exploration
- EXIT FLOAT

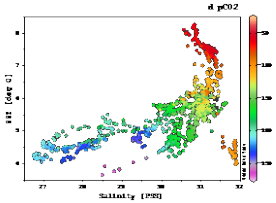


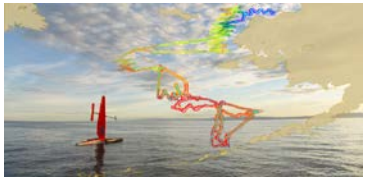












Prepping the ITAE Mooring for deployment on the USCGC *Healy*.

Recovered Saildrones in Dutch Harbor ready to be shipped home to SF.

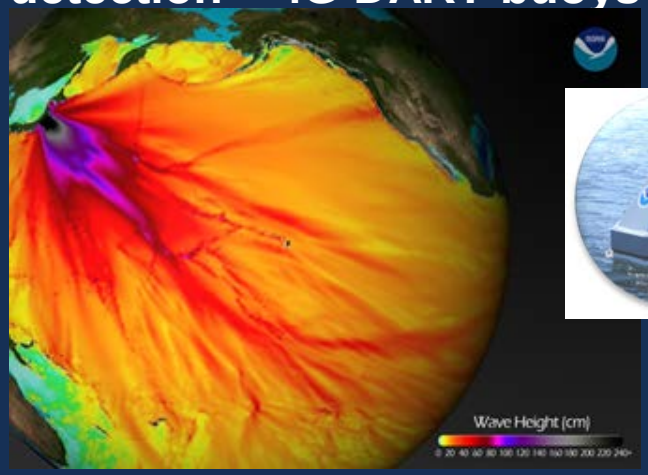
Prepping the Ecosystem Wave Glider for deployment in the Arctic.

Pop-up float ready to go on the USCGC *Healy*.

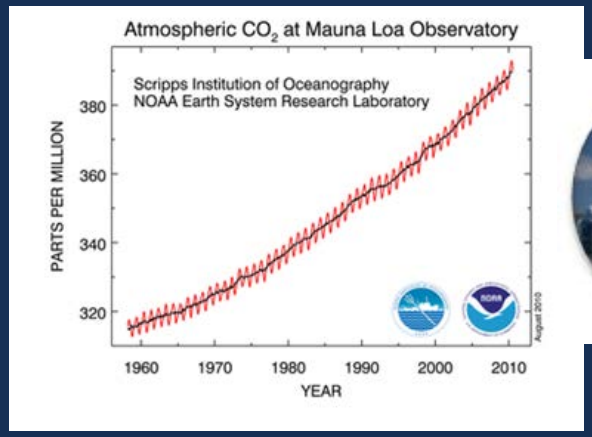
ITAE
Innovative Technology for Arctic Exploration

Major OAR Contributions

Advances in tsunami detection – 4G DART buoys

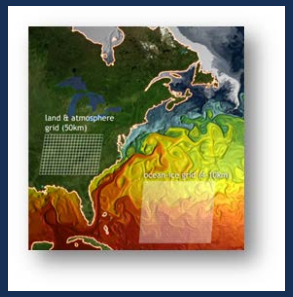


Keeling Curve, Sustained Climate Observations



Ocean Acidification

High Resolution Climate Modeling and IPCC Contributions



Thanks and to answer all your questions on NOAA Research

http://research.noaa.gov/

CONNECTING the CHANNELS