COMT Kickoff Meeting FY21-24

September 27th, 2021

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Introduction (Debra)

Introductions

- Tracy Fanara
- Derrick Snowden
- Kate Culpepper
- Debra Esty
- Tiffany Vance
- PI/Transition PI round robin

Agenda

Introduction to IOOS (Derrick)	5 mins
Introduction to COMT (Tracy)	5 mins
Project introductions - PIs (All on call)	5 min
Expectations (Tracy)	1 min
Resources we will provide (Tracy)	5 min
Communications Plan (Kate)	5 min
Cyberinfrastructure (Tiffany)	5 min
Progress Report template (Debra)	5 min
Questions	

What is U.S. IOOS?

U.S. IOOS is a cooperative, coordinated network of federal and non-federal observing networks since 2009.

Thousands of observing data sets gathered every day by public and private programs

Integrated, made accessible, & supported U.S. IOOS

Supporting weather forecasting, maritime safety, and ocean and public health

U.S. IOOS: Program Overview

Authorizing legislation

Integrated Coastal Ocean Observing System (ICOOS) Act (P.L. No 111-11, March 2009)

Coordinated Ocean Observations and Research Act (P.L. No 116-271, December 2020)

Mission Areas

Predicting Weather & Climate variability

Safe and Efficient Transportation and Commerce

Preparedness and Risk Reduction for Coastal Communities

Healthy ecosystems and water quality

Supporting Decisions Every Day!

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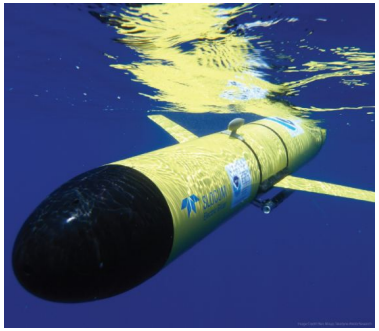
Our primary (but not only!) observing assets…

IOOS supports a national high-frequency radar network as well as providing for operation and maintenance of observing assets in U.S. coastal & territorial waters.

Fixed Moorings & Buoys

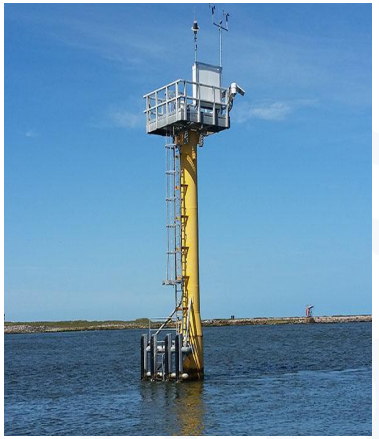
HF Radar

Shore Stations



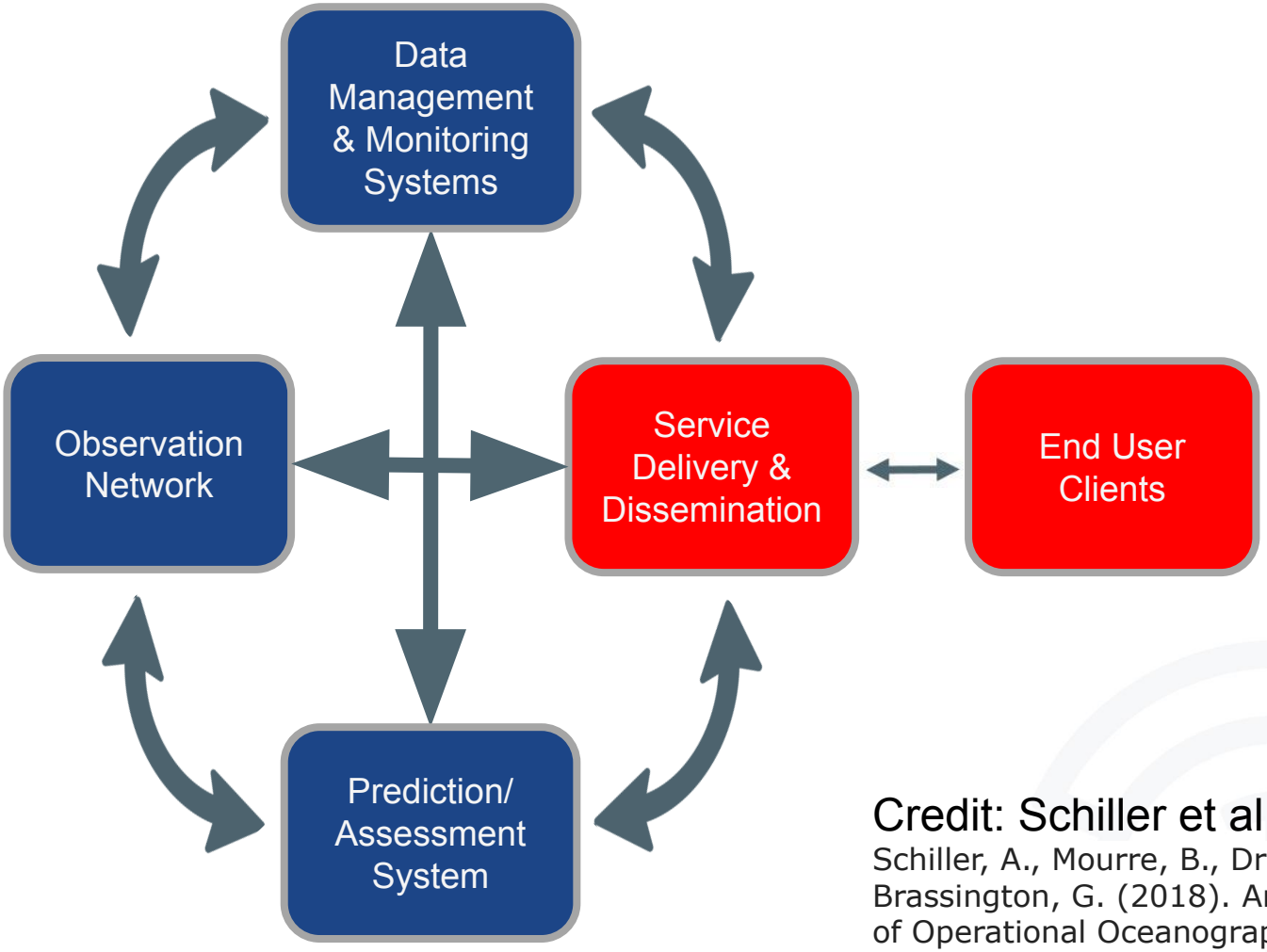
Sub-surface gliders

Ships



Water Levels

Elements of an Operational Oceanography System



Credit: Schiller et al. (2018)

Schiller, A., Mourre, B., Drillet, Y., & Brassington, G. (2018). An Overview of Operational Oceanography. *New Frontiers In Operational Oceanography*.

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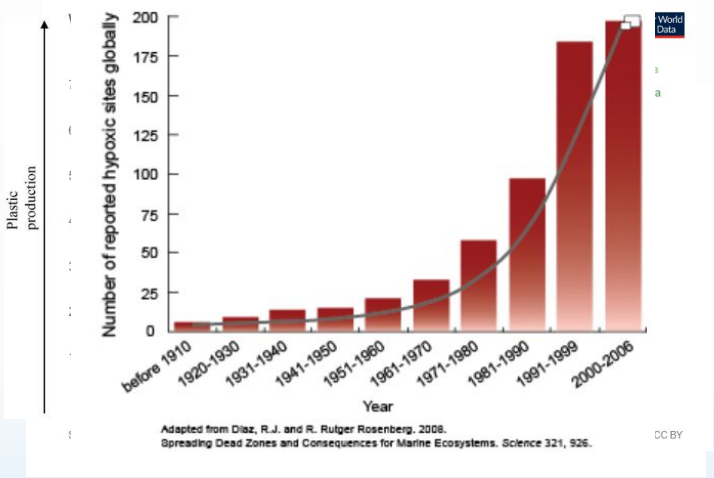
Model Development to Meet Our Nation's Needs

Stakeholder Driven Products



Increasing Requirements

Community Modeling

A Vision for NOS Modeling

Protecting our coastal communities and the nation's economy

- *SAFE, EFFICIENT MARINE NAVIGATION*
- *PROTECTING HUMAN HEALTH*
- *COASTAL RESILIENCE AND RISK REDUCTION*
- *IMPROVED MAPS AND COASTAL MANAGEMENT*
- *HAZARDOUS SPILL RESPONSE & SEARCH AND RESCUE*
- *MANAGING COASTAL AND MARINE LIVING*
- *RESOURCES IN CHANGING CLIMATE*

Coastal and Ocean Modeling Testbed (COMT) funds transition oriented projects in the extramural community

Mission: To use applied research and development to accelerate the transition of scientific and technical advances from the coastal ocean modeling research community to improved operational ocean products and services (i.e. via research to operations and also operations to research).

Funded Projects FY 21-24

1. Rutgers - This project proposes to couple ROMS to BGC models, and improve ROMS data assimilation using HF radar and satellite altimetry. This project also proposes use of the Cloud Sandbox with an outcome of enabling the community to experiment with data assimilation.

2. Virginia Institute of Marine Science - The goal of this project is to (1) advance the development of forecasts for harmful algal blooms (HABs) and pathogens in the Chesapeake Bay, and (2) accelerate the transition of these forecasts.

3. Louisiana State University - The goal of this project is to further develop the coupling between a process-based land surface/hydrological model and a 3D ocean circulation model to better predict temperature, salinity, water level, buoyancy, sediment, and contaminant transport through the River - Estuary - Ocean Continuum

Funded Projects FY 21-24

4. Notre Dame - The broad goal of this proposal is to improve weather and baroclinic forcing scales that drive Global ESTOFS, implement recently developed sub-grid scales methods to work with the current operational 120m mesh, and extensively validate the system

5. University of Washington - The LiveOcean forecast system has been running pre-operationally for several years, so the goals of this project are (1) testing alternate forcing products such as the National Water Model, (2) adding enhancements such as high-resolution nested sub-models, (3) documenting the model software more formally, and (4) training technical staff to take over daily operation of the model and transition it fully to NANOOS.

Expectations - what we expect from PIs

- Progress meetings - quarterly at start
- Semi-annual progress reports submitted to Grants Online→ Text used to update comt.ioos.us project pages
- Any sub-projects must be identified by first progress report, if applicable. Descriptions included on project pages.
- Submission of seminal datasets (COMT)
- Annual meeting
- Transition Plan **draft** by end of first year
- Success stories
- Content for web pages at comt.ioos.us

Early notice of problems or challenges - tell us before the train heads off the tracks and we can help

Resources - what IOOS provides to PIs

- Google Meet
- Cyberinfrastructure
- Transition Plan - *a transition plan provides situational awareness of the work and approval to move forward and does not represent a binding agreement and/or funding availability*
    - Template - here
    - Support - guidance, review, OTT transition managers community
- NOS (CO-OPS and OCS) and NWS Technical POCs
    - to improve development, ease transitions to NOAA and benefit fully from lessons learned, we're providing each project with technical POC
    - include POC(s) in your team meetings (monthly)
    - Nov. 2018: meetings with PIs to introduce the POC
- Quarterly meetings with PIs to provide an opportunity to discuss project communications (web page https://comt.ioos.us/), POCs, transition plans, and/or cyberinfrastructure, if needed

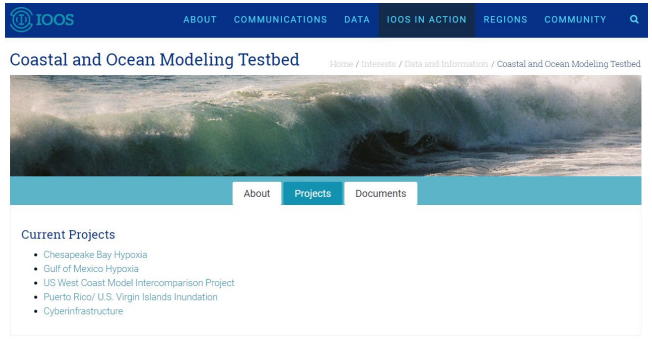
Communications plan

Success Stories

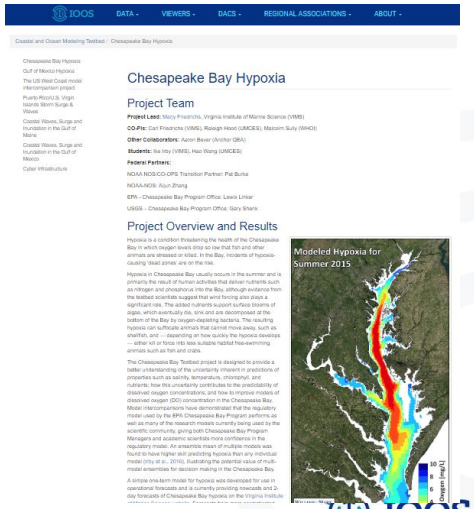
Accomplishments, large or small, that can be used to highlight the significance of your project. These have a wide variety of uses and are part of progress reports.

IOOS web presence

ioos.noaa.gov: Will carry a highline summary of the all COMT and OTT projects and push traffic to…



ioos.us: which will contain detailed project information, documentation, and data.



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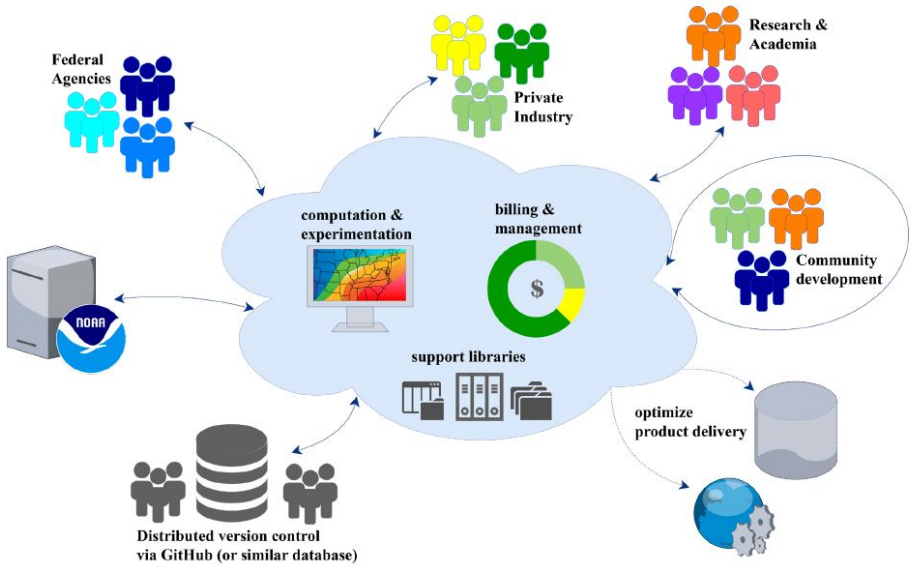
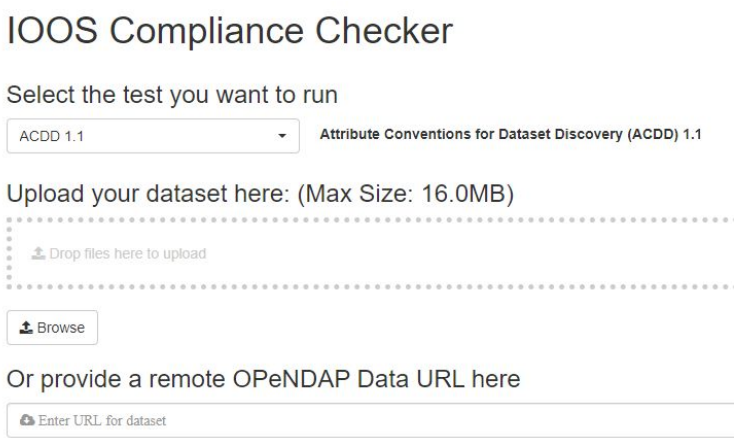
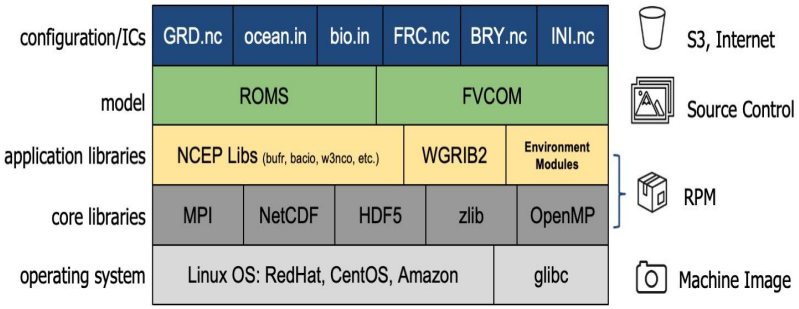
Cyberinfrastructure Resources

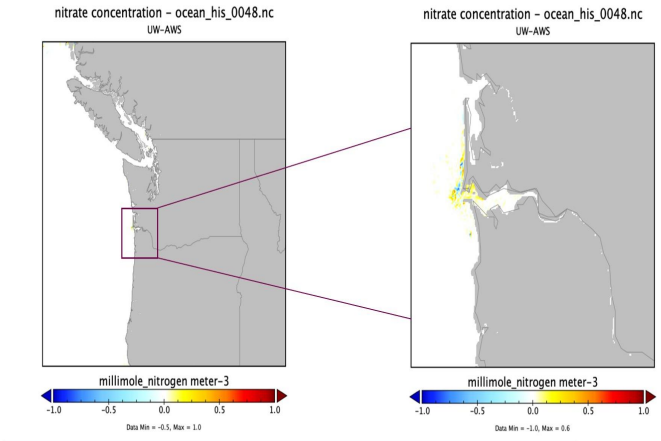
Here are some tools we have:

- Cloud Sandbox
- Compliance Checker
- Data Upload Tool









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Cyberinfrastructure Needs

Question to PIs- WHAT DO YOU NEED?

- Other utilities?
- Access to the Sandbox?
- A tool for uploading to the NOAA Big Data Program cloud repository
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NOAA Grants Management Requirements

Grants Managements Division (GMD) and others have specific requirements

Debra Esty coordinates

Research Performance Progress Report

- COMT Projects Research Performance Progress Reports due semi-annually
  - **31 March**
  - **30 September**

- Final Progress Reports due
  - **120 days after the project's end date**

- Research Performance Progress Report Template

Award Action Requests (AAR)

Award Action Requests

- Equipment Request
  - $5,000 or greater - If the item was not included in the original proposal requires approval.

- Budget Reallocation
  - Allowed to re-budget without written approval of the grant officer if moving **less than 10% of the total award budget** (for the entire life of the award)

- Change of Key Personnel
  - Change of PI
  - Manage Recipient User - Adding Co-PIs - does not require NOAA permission.

Award Action Requests (AAR)

Award Action Requests (continued)

- Domestic Travel/Foreign Travel - Open Skies Agreement
  - If travel was not included in the approved original proposal requires approval.
  - Air carrier not on the approved Open Skies Agreement requires a waiver.
- Change of Scope
  - Discuss with Tracy prior to submitting the AAR in Grants Online
- Award Action Requests Hints and Required Documentation

Grants Online Contact Information

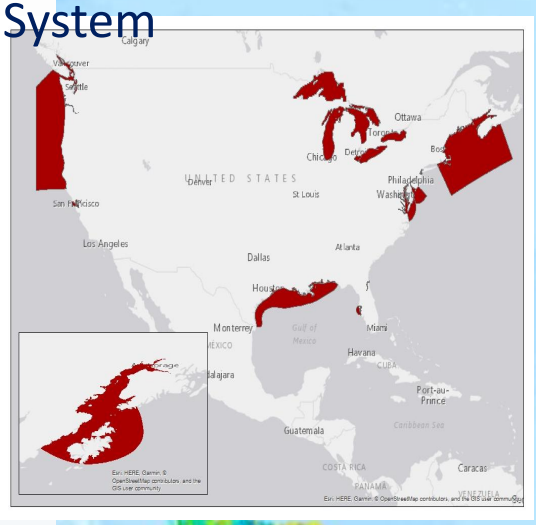
- Grants Online Website
  - https://grantsonline.rdc.noaa.gov/flows/home/Login/LoginController.jpf
- Grants Online Access
  - Monday – Friday, 8:00 am – 6 pm Eastern Standard Time
  - (877)662-2478 Toll Free
  - GrantsOnline.HelDesk@noaa.gov

Contacts

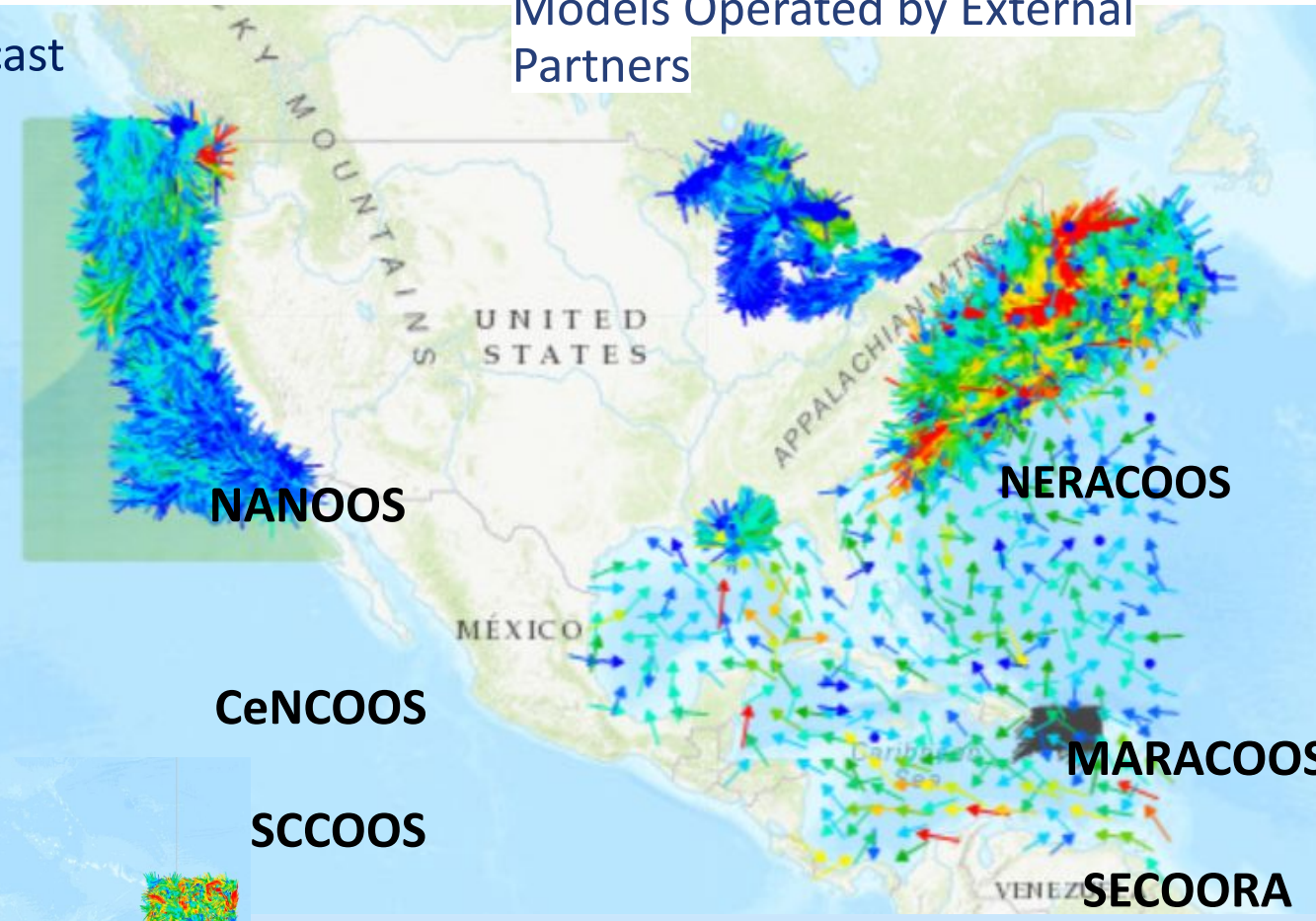
- Cyberinfrastructure: tracy.fanara@noaa.gov and tiffany.c.vance@noaa.gov (Cloud Sandbox)
- Communications: Kate.Culpepper@noaa.gov
- Grants OnLine, Reporting: Debra.Esty@noaa.gov
- Progress Report, Resources, NOS/NWS POCs: tracy.fanara@noaa.gov
- General backup/Transition Plans: Tiffany.C.Vance@noaa.gov

NOS Development, Operations, and Extramural Modeling Efforts

Current Operational Forecast System

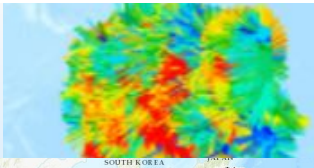


Models Operated by External Partners



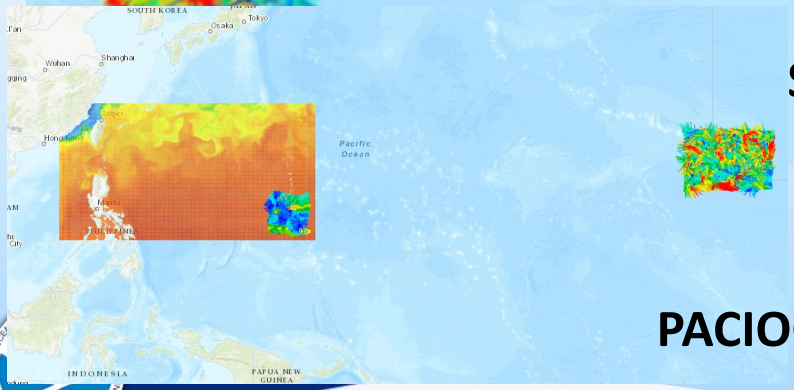
NANOOS

NERACOOS



CeNCOOS

MARACOOS



SCCOOS

SECOORA

PACIOOS

CARICOOS

Coastal & Ocean Community Modeling Workshop - October 19-21, 2021

A gathering of government, academic, and private industry to enhance collaboration and make the NOAA and NOS Modeling Vision, along with the visions of external partners, a reality

Workshop Themes.Workshop Outcomes.

- Enhance communication and collaboration between Federal and non-federal modeling communities.
- Identify recommendations that will increase the efficiency of transitioning modeling systems from research to operations.
- Ensure the concerns, needs, and aspirations in building a community of practice across government and non-government entities are understood.
- Understand the community models NOS will develop for the UFS next generation ocean and coastal components.
- Enhancing communication and coordination between NOAA and external partners
- Understanding NOAA's priorities for collaborative coastal and ocean model development
- Enhancing processes and paths for transitioning R2O2R

92 Cross line office NOAA scientists, 96 from academia, over 10 from the private sector and representation from each IOOS Regional Association

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