



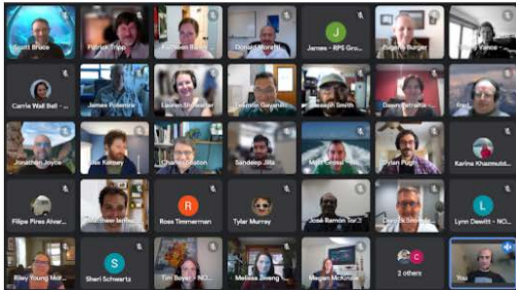
**2023 Integrated Ocean Observing System
National Office Updates**

IOOS Advisory Committee Public Meeting (June 27-29, 2023)

Data Management and Cyberinfrastructure (DMAC)



DMAC Annual Meeting (June 2022)



- DMAC continues to be a place for IOOS to engage with the community and develop data literacy and skills. Over the past year, we've hosted and coordinated a number of workshops, hackathons, and code sprints focusing on how to put the data and tools in the IOOS network to use. You can find some results of those sessions on the IOOS Github.
- Upcoming DMAC activities include the Annual DMAC meeting September 26-28, 2023 and the next IOOS Code Sprint, Spring 2024.
- IOOS was also selected to be a mentoring organization in the 2022 Google Summer of Code! We sponsored four projects, focusing on data visualization tools, cloud data formats, ocean biodiversity data, and data access tools.
- DMAC Topic 2: Reaching for the Cloud: The project team has completed interviewing IOOS' 11 RAs on usage and needs of cloud computing for DMAC. Work is ongoing to synthesize RA feedback with early prototyping work on handling ocean forecast model output to determine priority for developing new prototypes. Areas of interest include: coastal webcam data, offshore wind met/ocean data, real-time/streaming data, and passive acoustic data, among others.

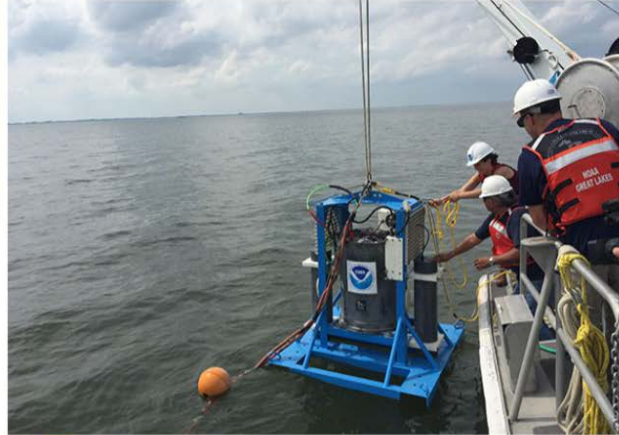
- DMAC Topic 2: Passive Acoustic Monitoring National Cyberinfrastructure Center (SoundCoop) project to pilot a community focused, national cyberinfrastructure capability for passive acoustic monitoring data. Among other activities (like hosting a February IOOS DMAC Tech Webinar), the project will be working on standardized processing for IOOS Regional Datasets, specifically on spatial analysis representing NERACOOS (and CenCOOS) assets in 2021.

National Harmful Algal Bloom Observing Network (NHABON)

Year	Award	# Pilot Projects	# RAs Involved
FY20	\$1M	5	6
FY21	\$1.5M	7	8
FY22	\$2.5M	10	11
FY23	\$3M	9	11

NHABON Implementation Plan in review and headed to Congress

Goal: Integrate existing assets and research efforts across NOAA into a more formal national observing network



IOOS | EYES ON THE OCEAN

- Congress is continuing to gently increase funding yearly. We now have projects in all 11 Regions.
- For FY23, project descriptions were due to Tiffany Vance April 3rd. Review is complete and all RAs have been notified. There is one two-RA project and one three-RA project - hence the overall drop of one project this year.
- An Implementation Plan has been requested from Congress in the FY22 Appropriation. This was a joint Integrated Ocean Observing System/National Centers for Coastal and Ocean Science effort with IOOS Association input.

Marine Biodiversity Observation Network (MBON)



National Oceanographic Partnership Program:



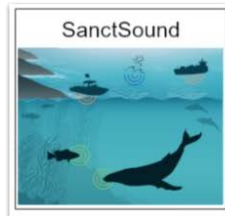
FY22 Marine Life solicitation
(NOAA, NASA, ONR)

5 new projects:
CeNCOOS, NERACOOS,
GCOOS, AOO, SECOORA

Global Efforts:



Products:



- We continue community building to advance standard approaches to biological data management, including through events such as code sprints and a 2022 workshop focused on mobilizing marine biological observation datasets to the Ocean Biodiversity Information System (OBIS) which we will repeat in 2023.
- Thank you to Henry and the MBARI team for finding creative solutions to enable a NOAA-Navy-CeNCOOS partnership for sound monitoring at Sur Rudge - at the confluence of commercial shipping lanes, marine mammal migrations, seasonal fishing and exposure to strong meteorological and oceanographic phenomena - to assist resource managers in making critical decisions based on the best available science.

Surface Currents Program: HF-Radar Network



Configuring HFRs to measure waves



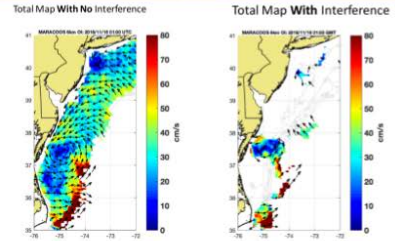
Retuning HFRs to FCC-approved radio broadcast frequencies



RATES: 5 High-res HFRs in Galveston Bay and Sabine Lake, TX



Continued siting for new HFR installations



Wind Turbine Interference mitigation software



Expansion of HFR modeling for U.S. Coast Guard search and rescue

- Major HFR efforts include: configuring HFRs to measure additional wave parameters (wave height, period, and direction); wind turbine interference mitigation; enhancing access to data; installation of new HFRs; retuning HFRs to FCC-approved radio broadcast frequencies; and expansion of HFR modeling for search-and-rescue.
- CeNCOOS member CODAR Ocean Sensors along with MARACOOS and CariCOOS are working on a pilot project to expand the HFR National Network to measure wave data in addition to surface current velocities. To date, wave measurement has been enabled for 13 of the HFRs in CeNCOOS!
- Wind turbine interference mitigation: CeNCOOS member CODAR has finished up a Dept. of Energy/National Offshore Wind Research & Development Consortium (NOWRDC) funded project, with the IOOS Surface Currents Program Manager on its advisory board. Results will be presented at Oceans 23.
- The BayCurrents iPhone and Android app is available for download as an official NOAA NOS mobile app, making regional current information readily available to boaters and the public.

Ocean Technology Transition (OTT) Program



NOFO: <https://www.grants.gov/web/grants/view-opportunity.html?oppld=342720>

Review Panel	6–10 March 2023
Funding Decisions	April 2023
Funding Announcement	<p>May 2023 - first round of IOOS funding announced.</p> <p>June 2023 - IRA funded projects pending NOAA Grants Management review.</p>

- We are excited to see the overall demand including 29 proposals and total requested funding of \$30.3M for this opportunity.
- We made funding recommendations and are waiting for the paperwork to make its way through NOAA Grants Management.

IOOS Glider Program

Successful Underwater Glider User Group (UG2) Workshop (September 2022)

- 160 participants in plenary talks and breakout sessions
- UG2 Slack channel has been active (sign up via underwatergliders.org)

Hurricane Monitoring:

- 5th year of the NOAA-Navy collaboration.
 - 12 gliders contributed by the U.S. Navy
- **Glider captured Hurricane Fiona** (AOML and CARICOOS)



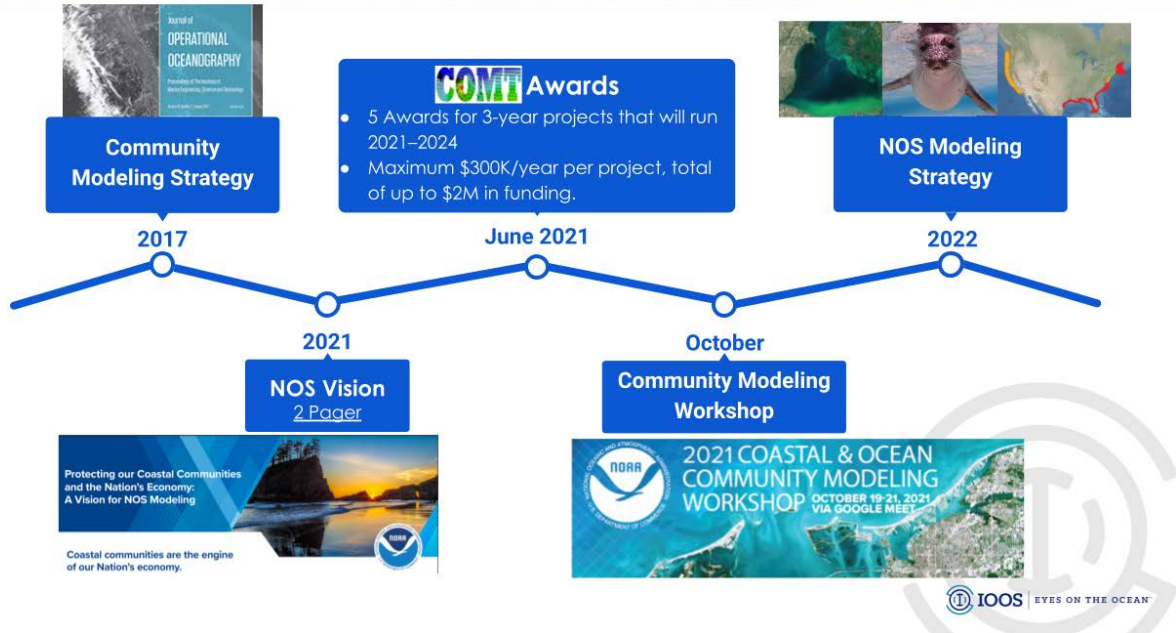
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Hurricane Monitoring:

- The U.S. Navy contributed 12 glider missions to help fill spatial gaps, resulting in the 5th year of the NOAA-Navy collaboration.
- Our gliders were also able to capture data from Hurricane Fiona in collaboration with AOML and CARICOOS.

Coastal and Ocean Modeling



23

- 3 BIL awards provided to the following coastal modeling projects:
 - East Coast Community Ocean Forecast System (ECCOFS)
 - Northeast Coast Community Ocean Forecast System (NECOFS)
 - Southeast Coast Community Ocean Forecast System (SECOFS)
- The Coastal Model System Acceleration has been established with the goal of deliver regional/national coastal models needed to inform coupled system development,
 - Funding: \$15.9M
- Coupling Capabilities has been established with the goal of coupling NextGen National Water Model to NOS' 3-D numerical coastal model delivered in the Coastal Model System Acceleration.
 - Funding: \$11.3M
- NOAA modeling sandbox has been established with the goal of demonstrating a community development platform for processing of information with a community governance process.
 - Funding: \$14M