

To: IOOS Advisory Committee Co-Chairs
Scott Rayder, Chair, Alabama Water Institute
Sara Graves, Vice-Chair, University of Alabama

CC: Designated Federal Officer
Krisa Arzayus, IOOS Program Office

From: IOOC Co-Chairs
David Legler, NOAA
Laura Lorenzoni, NASA
Bob Houtman, NSF
Deerin Babb-Brott, OSTP

Date: November 29, 2021

Re: Response to IOOS FAC Recommendations to the IOOC

Dear IOOS Federal Advisory Committee,

We appreciate the time and effort dedicated by the IOOS Advisory Committee (IOOS FAC) to advising the IOOC with the goal of enhancing and expanding IOOC activities. As the June 2021 report found, the IOOC has been successful in examining immediate agency commitments, and the committee's members and co-chairs play a critical role in leading interagency ocean observation initiatives. The IOOC welcomes [the recommendations provided by the IOOS FAC](#). Responses to each detailed recommendation are provided below.

Please let us know if you would like more information.

Thank you for your continued support.

Recommendation: Coordinated, Comprehensive Budget for IOOS

The IOOC should conduct the federal budget cross-cut mandated in both the ICOOS Act of 2009 and the Coordinated Ocean Observation and Research Act (COORA) of 2020, and ensure their membership has the expertise, resources, and influence in their agencies to accomplish this task. (from "Requirements" Chapter)

- The IOOC has considered a federal budget cross-cut; however, the composition of IOOC membership does not have adequate representation or authorization to develop budgetary recommendations and guidelines on behalf of their agencies. However, to understand the scope, parameters, and process in undertaking the federal budget cross-cut mandated in both the ICOOS Act of 2009 and the Coordinated Ocean Observation and Research Act (COORA) of 2020, the IOOC will take on the follow tasks:
 1. Investigate the benefits and pitfalls in conducting the cross-cut and endeavour defining ocean observing with guidance from previous interpretations.
 2. Share findings with the IOOS FAC, SOST, and OMB for feedback, consensus, and guidance on developing a repeatable process to obtain the budgetary information agreed upon as relevant.

Recommendation: New Task Teams

Consider new task teams to address critical U.S. government-wide priorities such as communications and messaging, ocean climate modeling, and environmental justice (underserved users).

- As part of regular activities, the IOOC is always considering new topics for task teams that address government priorities. The IOOC will consider the suggested task team topics (communications and messaging, ocean climate modeling, and environmental justice), which align well with current committee discussions, initiatives, and relevance to Executive priorities.
- Communications and messaging activities are on-going across the IOOC and its partners. Strategies for improving communication are being discussed in the context of NAS Ocean Studies Board Workshops on Sustaining Ocean Observations. IOOC task teams, including Ocean Societal Indicators and Metrics for Ocean Observing, are considering how to frame results and recommendations to successfully convey the value of observations to science and to society. The IOOC is also currently finalizing a 2-pager to serve as a communication tool for the committee's purpose, goals, and strategic vision. The IOOC welcomes further suggestions related to messaging, especially under the constraints of limited resources.
- Ocean-climate issues are currently a top priority for the IOOC. The committee recently engaged the National Academies on research strategies to observe, model, analyze, and communicate the physics and biogeochemistry of the climate system, consistent with their recommendations for the U.S. Global Climate Research Program. Future discussions will consider potential activities and products to carve out the IOOC's role, which may include a new task team, an inventory of interagency ocean-climate activities, and more. Given the IOOS FAC's recommendation to consider ocean-climate modeling, the IOOC will revisit outcomes with agency stakeholders from the previously active Modeling Task Team. We will also coordinate with external groups active in this space, including those affiliated with the UN Decade of Ocean Science such as the Observing Air-Sea Interactions Strategy (OASIS).
- The IOOC is working to place a greater emphasis on environmental justice within the context of ocean observing. The newly developed Ocean Societal Indicators Task Team within the IOOC will apply social sciences to characterize human interactions with the ocean, coasts, and Great Lakes, to include a selection of environmental justice (EJ) indicators within the context of ocean observing. The Team will engage social scientists across federal agencies and tribal nations to provide input on how EJ indicators can enhance current ocean observations and integrate data to inform critical management decisions.

Recommendation: List of Accomplishments

Generate a list of the IOOC's top ten accomplishments of the past decade, in order to provide context to the impacts of that committee on the federal ocean observing enterprise.

- IOOC staff has drafted a list of the committee's top ten accomplishments over the past decade. This list will be shared with the IOOS FAC in the coming months, once finalized. We would welcome the IOOS FAC's perspective and feedback on these accomplishments.

Recommendation: Linking OceanObs'19 and the Ocean Decade

Align outcomes of Ocean Obs'19 and Ocean Studies Board workshops focused on sustaining ocean observations with emerging priorities, programs, and concepts linked to the UN Decade for Ocean Science and Sustainable Development goals.

- This activity is currently underway. IOOC staff are conducting a gap analysis to determine which OceanObs'19 topics are being addressed by endorsed UN Decade programs. We are also discussing strategies to implement the topics not currently being addressed. One such strategy is continued collaboration with national and international stakeholders organized through the OceanObs Research Coordination Network (RCN), which helped facilitate OceanObs'19 follow-on activities through a series of meetings and partnerships. The IOOC agencies have been involved with contributing to the UN Decade in its early phases and through the US National Committee's OceanShot solicitation. The selected OceanShots are also being analysed for gaps in observing topics.

Recommendation: Compile Ocean Variables

Manage a crosswalk of the status of all essential ocean, biology, climate, and other relevant variables; and suggest best practices or standards to best integrate the data from a local-to-global scale.

- Recognizing the importance of essential variables, in particular for the implementation of a robust observing system, the IOOC is already undertaking this type of crosswalk exercise through the BIO-ICE Task Team. This Task Team is working to synthesize a crosswalk of essential biological and biodiversity variables, and have noted the extensive and time-consuming work required to suggest best practices and standards for only a few biological variables. It is anticipated that IOOC staff will also conduct a mapping exercise across the other disciplines and compile a list of essential variables from various groups. However, while the IOOC is committed to completing this crosswalk, we suggest the most valuable and efficient product would be the analysis of best practices for updating and integrating variables, based on lessons learned from the BIO-ICE Task Team.