Outside Witness Testimony for the House Subcommittee on Commerce, Justice, Science, and Related Agencies of the Committee on Appropriations

From: Kristen Yarincik, Executive Director, IOOS Association

Chairman Rogers, Ranking Member Meng, and Members of the Subcommittee,

This testimony supports fiscal year 2026 appropriations to the National Oceanic and Atmospheric Administration's (NOAA) National Ocean Service to provide robust funding for Integrated Ocean Observing System (IOOS) Regional Observations. It is submitted by the IOOS Association, a nonprofit organization representing the 11 federally certified IOOS Regional Associations located around our coasts and Great Lakes, including U.S. territories in the Caribbean and Pacific. Our priority is to ensure that the IOOS regional network is optimally sustained, and we respectfully request that the Committee provides $56 million for the IOOS Regional Observations line in the fiscal year 2026 appropriations legislation.

The U.S. Exclusive Economic Zone supports a growing $476.2 billion portion of the nation's gross domestic product and 2.4 million jobs. Ocean-dependent industries—such as shipping, offshore energy, fisheries, tourism, and recreation—rely on timely and accurate coastal, ocean, and Great Lakes data to improve efficiency and manage risk from hazardous conditions, harmful algal blooms, and extreme weather events. The IOOS regional network operates through a unique, competitive grant program that supports the collection and delivery of essential observations needed to forecast ocean conditions. As part of our national infrastructure, IOOS supports navigation, maritime safety, offshore operations, emergency response, and weather forecasting, playing a vital role in keeping America's ocean-based economy strong and competitive.

The IOOS Regional Associations are proven federal-private partnerships that maximize efficiency in serving the public with federally certified, real-time data critical to the success of coastal economies, seafood competitiveness, and maritime operation. IOOS is a cohesive and quality-assured system that supports a wide range of applications across multiple sectors and 17 federal agencies, making it a highly cost-effective investment for American taxpayers. A recent study[1] concluded that the economic value of the IOOS regional observing system is at least five times greater than the current annual federal investment in the system. Another way to approach the value of IOOS is by impact on lives saved; the investment in IOOS is justified by as few as five lives[2] saved by improved preparedness, warnings, and models.

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[1] Colgan, Charles S. and Castelletto, Anthony 2021. *The Economic Value of Ocean Observing Systems in the United States: A Prototype User Valuation.* Monterey, CA: Center for the Blue Economy, Middlebury Institute of International Studies at Monterey.

[2] Department of Transportation Guidance on Valuation of a Statistical Life in Economic Analysis: https://www.transportation.gov/office-policy/transportation-policy/revised-departmental-guidance-on-valuation-of-a-statistical-life-in-economic-analysis?utm_source=chatgpt.com

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As non-federal entities, the IOOS Regional Associations partner with private industry and businesses, academia, and state and local governments to operate more than 1,000 observing assets, including buoys, underwater gliders, all kinds of sensors, models, and the nation's only network of high frequency radars. They use these technologies to collect ocean and coastal data and provide publicly accessible information, tools, and products that are tailored to the needs of regional users, such as offshore industries, commercial fisheries, aquaculture, vessel operators, and recreational ocean users. The data collected also enhance weather models, forecasts, and the U.S. Coast Guard Search and Rescue Optimal Planning System. While the Regional Associations operate as a coordinated system, their operational and respective investment plans are guided by local stakeholder engagement to prioritize activities that address specific geographic needs. IOOS is a prime example of a program that should be leveraged and expanded to meet growing ocean and coastal economy needs, foster private sector innovation in data tools, technologies, and forecasts, and advance U.S. leadership in the maritime domain.

In its 2004 landmark report, the U.S. Commission on Ocean Policy, chaired by Admiral James D. Watkins, USN (ret), called for the establishment of IOOS. The report stated, "the United States simply cannot provide the economic, environmental, and security benefits…, achieve new levels of understanding and predictive capability, or generate the information needed by a wide range of users, without implementing the IOOS." The IOOS program was established in law shortly after and was reauthorized unanimously by Congress in 2020 in a bill that was signed into law by President Trump. Our appropriations request of $56M is at the program's authorized funding level as outlined in that law.

The $56 million request for IOOS Regional Observations includes $50 million to sustain core operations and maintenance of the regional system, and $6 million for competitive grants to support innovations—such as sensor development, autonomous sampling, and coastal modeling—as well as high-priority initiatives, like enhancing the National Harmful Algal Bloom Observing Network, which Congress has supported since fiscal year 2020. While this request is an increase over current enacted funding to IOOS Regional Observations, it is not about expanding the program. This level of funding is about preserving core capabilities, keeping pace with inflation, and meeting rising demands for critical data that support public safety, weather and ocean forecasting, flood and water level monitoring, and the economic health of U.S. fisheries, maritime, and coastal economies.

Investing in ocean observing saves lives, protects communities, and reduces disaster costs. For example, funding at this level would allow the IOOS regions to continue the pan-regional Hurricane Glider Program that was initiated by and has only been sustained through disaster supplementals. Subsurface ocean data collected by underwater autonomous vehicles has been shown to improve hurricane intensity forecasts by up to 50%, helping better prepare and protect people and infrastructure from hurricane and typhoon threats in the Atlantic and Pacific. These actionable data also support military base planning and resource allocation, ensuring timely and cost-effective operations. For example, Typhoon Mawar in 2023 caused an estimated $2B in damage to military installations on Guam, underscoring the need for reliable ocean intelligence. By maintaining and expanding these capabilities, IOOS plays a vital role in safeguarding U.S. sovereignty, economic security, and military readiness.

IOOS delivers real-time weather and ocean current data that support safe navigation and decision-making for both commercial and recreational vessel operators. Continued funding is needed to strengthen these forecasting systems and ensure mariner safety. IOOS data are also used by Marine Exchanges across the country that monitor weather conditions and vessel traffic in and out of our major ports, and by the U.S. Coast Guard to support search and rescue operations. In particular, data from the IOOS high frequency radar network feed into the Coast Guard's Search and Rescue Optimal Planning System (SAROPS), which has been shown to reduce search areas by up to a factor of five[3], enabling faster and more effective rescues.

IOOS data support U.S. seafood competitiveness. Regional observations help fishermen determine where conditions may result in a successful fishing day as well as where and when it is unsafe to go to sea. Shellfish growers depend on IOOS data to monitor ocean temperature and acidity, helping them protect their operations from marine heatwaves and acidification. IOOS is also advancing the use of emerging technologies to collect data and is committed to providing this information in usable formats to improve regional fisheries assessments and support informed decision-making by resource managers.

IOOS is a critical component of the weather enterprise. In 2024, the IOOS Regional Associations provided NOAA with ~14.5 million meteorological and wave observations from a national network of 260 platforms, including data from 47 different partner institutions. This comprises a significant portion (25%) of all stations reporting through the National Data Buoy Center and more than one-third of National Ocean Service stations. These data undergo the same rigorous quality assurance and quality control processes as federally collected data and are used by NOAA's National Weather Service to improve their weather research and forecasting capabilities. These data are so important to the weather service that this relationship was codified in the 2017 Weather Act Reauthorization, which mandates that the National Weather Service "integrate additional coastal and ocean observations, and other data and research, from the Integrated Ocean Observing System (IOOS) into regional weather forecasts". IOOS Regional Associations are more than external grantees, they are essential data providers that directly improve NOAA's forecasts, products, and services.

We are grateful that the Committee supported IOOS at its authorized level of $56M in its fiscal year 2025 appropriations bill. We respectfully request that the Committee again provide $56 million to IOOS Regional Observations under NOAA's National Ocean Service.

Thank you for the opportunity to provide this statement.

[3] Futch, V. and Allen, A. 2019. Search and Rescue Applications: On the Need to Improve Ocean Observing Data Systems in Offshore or Remote Locations. *Frontiers in Marine Science.* https://doi.org/10.3389/fmars.2019.00301