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

From: Dr. Gerhard F. Kuska, Chair, IOOS Association

Addressing: Appropriations for the National Oceanic and Atmospheric Administration's National Ocean Service

Chairwoman Shaheen, Ranking Member Moran, and Members of the Subcommittee,

This testimony supports fiscal year 2025 appropriations to the National Oceanic and Atmospheric Administration's (NOAA) National Ocean Service to ensure sustained ocean and Great Lakes observation to improve the resilience and economic prosperity of the nation's coastal communities. It is submitted on behalf of the IOOS Association, a nonprofit organization representing the 11 federally certified Regional Associations (RAs) of the Integrated Ocean Observing System (IOOS) located around our coasts and Great Lakes, including U.S. territories in the Caribbean and Pacific. IOOS is the nation's premier coastal and Great Lakes observing program. The RAs are tasked with filling critical gaps in the federal system as required to provide information that helps protect lives, economies, and our environment.

We are deeply concerned by the Fiscal Year 2025 President's Budget, which reduces funding to the IOOS regions by more than 76%. If enacted, the proposed $10 million in funding would completely shut down the regional observing networks, cutting off critical data that impact local, national, and global economies including search and rescue, shipping, fishing, coastal resilience, coastal tourism, and more.

Forty percent of the United States population lives in coastal counties, and the population in coastal areas continues to increase. These coastal and Great Lakes communities are experiencing dramatic changes from coastal flooding, sea level rise, increasing coastal storm frequency and intensity, erosion, hypoxia, harmful algal blooms, ocean acidification, biodiversity changes, and more. These impacts threaten human lives and critical coastal infrastructure, homes and livelihoods, water and food supplies, and weaken the ability of marine ecosystems to provide essential ecological services and natural infrastructure for resilience. Coastal communities and businesses that rely on marine resources and maritime safety need information and forecasts about the ocean environment to make decisions that protect lives and ensure safety, security, and economic prosperity.

IOOS is the nation's leading resource for community-driven coastal, ocean, and Great Lakes information. This vital program supports a vast network of buoys, gliders, high frequency radars, and other sensors that monitor U.S. waters. IOOS provides critical, publicly accessible data and data products that enable coastal and Great Lakes communities to protect their people, economies, and ecosystems. This efficient, reliable, and cost-effective system supports emergency

preparedness, underpins a thriving blue economy, and bridges the gap between scientific research, federally certified data, and timely informed management.

Our priority is to provide robust funding for IOOS and its national network of 11 IOOS RAs to further understanding of our dynamic and resource-rich coastal areas, and to prepare communities for risks associated with floods, extreme weather events, harmful algal blooms, hypoxia, and other hazards. We respectfully request that the Committee provide $56 million for the IOOS Regional Observations line under NOAA's National Ocean Service in the fiscal year 2025 appropriations legislation.

Sustained, reliable, and accessible data are the foundation for understanding and making decisions about our coastal oceans and Great Lakes. The 11 IOOS RAs underpin coastal economies by generating and delivering information tailored to the needs of local forecasters, shippers, fishermen, emergency and resource managers, public health officials, aquaculture farmers, coastal communities, and recreationalists, while simultaneously providing data to improve federal models, forecasts, and other tools. The RAs deploy, operate, and maintain more than 1,000 observing assets (buoys, water level gauges, estuary and coastal stations, web cameras, underwater gliders, and high frequency radars) in partnership with local universities and marine technology industries, and integrate and serve data from federal and non-federal sources through federally certified regional data centers.

IOOS is a single system that supports many needs, making it a cost-effective investment for American taxpayers. In fact, a recent study by the Center for the Blue Economy[1] concluded that the value of the IOOS regional observing system, just to initial users (i.e., an underestimate of the broader value), lies between $192 million and $233 million per year, creating an economic value approximately five times greater than the current annual investment in the system. Further, IOOS data and information products and services support decision-making and innovation for the more than $360 billion (GDP) ocean-based economy.

The IOOS program was reauthorized unanimously by Congress in 2020 in a bill that was signed into law by former-President Trump. This appropriations request is at the program's authorized funding level as outlined in that law. The $56 million request for the Regional IOOS program includes $50 million for core support for the sustained operation and maintenance of the system at the regional level. Like any business, the IOOS RAs are feeling the impact of inflation on their ability to provide the services that their users and stakeholders have come to expect. We are thankful for the maintained funding enacted in fiscal year 2024 ($42.5 million), but it does not keep up with inflation and the costs associated with the many services provided and enabled through the IOOS RAs. Increased support for IOOS to authorized levels will continue and enhance service delivery to users across the regional network and the 17 federal agencies whose missions IOOS supports. This funding will provide the sustained operational backbone for the regional systems to support safe and efficient maritime transportation and commerce, U.S. Coast Guard search and rescue operations, offshore energy development and operations, resource management and

[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.

protection, environmental prediction (e.g., marine heat waves), improved understanding and notification of hazards (e.g., hurricanes, flooding), and more.

Additionally, $6 million of the total IOOS regional request will support competitive grants for innovations and partnerships, including sensor development, autonomous sampling, and coastal modeling, as well as other priority initiatives, such as building capacity for detection and forecasting of harmful algal blooms, through projects that Congress has supported since fiscal year 2020, toward an operational National Harmful Algal Bloom Observing Network.

If the Fiscal Year 2025 President's Budget request is enacted, taxpayer dollars, through appropriations to build and sustain this critical and cost effective network, as well as through investments made to IOOS through the Bipartisan Infrastructure Law (BIL) and the Inflation Reduction Act (IRA), would be wasted as the core functions of IOOS, essential for the proper management of both initiatives, would essentially go away overnight. The IOOS RAs have proposed activities to recapitalize their systems (funding from the BIL) and increase the reach and utility of IOOS data for more user groups and to meet the growing needs of frontline coastal communities (funding from the IRA). The benefits these enhancements will bring are only possible because of the existing infrastructure. Further, these activities are based on the specific requirements from NOAA and the intent of the laws; these funds do not support the basic ongoing maintenance of the observing systems supported by the program.

We are grateful for the Committee's support of IOOS in the fiscal year 2025 appropriations bill, and again emphasize the importance of maintaining funding to a network that provides crucial information about our coasts and waterways to millions of Americans. Continued investment in the nation's sustained observations is key to protecting our coastal communities and unlocking the economic potential of our oceans, coasts, and Great Lakes. The annual appropriations to the Regional IOOS program are the funds that sustain the infrastructure, data collection, and data product delivery on which our uses have come to depend. A well-funded IOOS furthers understanding of our dynamic and resource-rich coastal areas and prepares communities for risks associated with environmental impacts, such as damage from floods, extreme weather events, harmful algal blooms and hypoxia, and oil spills and other hazards.

Twenty years ago in its landmark report, the U.S. Commission on Ocean Policy, chaired by Admiral James D. Watkins, USN (ret), called for the establishment of a US Integrated Ocean Observing System. 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." Many Regional Associations saw their beginnings in those early years. In 2009, Congress showed strong bipartisan support, establishing IOOS in law, paving the way for the realization of the IOOS vision. This body has supported the strengthening of U.S. IOOS through successive Congresses, including reauthorizing IOOS in 2020, to serve the economic, health, and security needs of our nation. Therefore, we respectfully request that the Committee provide $56 million to the Regional IOOS program under NOAA's National Ocean Service.

Thank you for the opportunity to provide this statement.