

Ocean Exploration Advisory Board

A Federal Advisory Committee Act Board

January 17, 2025

VADM Nancy Hann
Acting NOAA Administrator,
National Oceanic and Atmospheric Administration
14th and Constitution Ave. NW
Washington, DC 20230

Dear VADM Hann,

On behalf of the Ocean Exploration Advisory Board (OEAB), I am pleased to submit the Board's five-year program review of NOAA Ocean Exploration. This review, conducted in October 2024 and formally approved by the Board on January 10, 2025, evaluates NOAA Ocean Exploration's contributions to NOAA's broader mission, its recent achievements, and strategic opportunities for improvement. The Board commends NOAA Ocean Exploration for its progress and offers recommendations to further enhance its role in advancing national and international ocean science objectives.

Key Findings and Recommendations

NOAA Ocean Exploration plays a critical role in supporting NOAA's broader mission by advancing scientific understanding of the deep ocean, informing resource management, and strengthening the nation's maritime security. Through its leadership in ocean mapping, technology development, and data accessibility, NOAA Ocean Exploration provides foundational knowledge that underpins multiple NOAA priorities, from climate resilience to sustainable economic development within the New Blue Economy.

The Board recognizes NOAA Ocean Exploration's success in fostering partnerships across federal agencies, academia, and the private sector. The Cooperative Institute for Ocean Exploration, Research, and Technology (OECI) and their "Explorer Model" have proven effective in advancing collaboration, standardizing data collection, and integrating new technologies into ocean exploration efforts. NOAA's commitment to expanding public engagement and outreach further reinforces its leadership in making ocean science more accessible and impactful.

There are, however, several challenges that require strategic attention. The transition from NOAA Ship *Okeanos Explorer* to NOAA Ship *Discoverer* presents operational complexities that necessitate careful planning to ensure continuity of exploration missions. Additionally, budgetary constraints and shifting federal priorities highlight the need for adaptive resource management strategies that sustain NOAA Ocean Exploration's capabilities and impact.

The Board recommends that NOAA Ocean Exploration continue investing in technological innovation including Artificial Intelligence (AI), Machine Learning (ML), and autonomous systems, to enhance data acquisition. At the same time, these investments must be accompanied by robust data integration layers, interoperability frameworks, and governance structures. Ensuring that collected data is standardized, accessible, and effectively shared across NOAA and its partners will maximize its utility and impact. A well-coordinated approach to data management will improve the efficiency and effectiveness of exploration efforts while broadening accessibility for a diverse range of stakeholders.

As NOAA advances its leadership in international ocean governance, the Board encourages deeper engagement in high seas exploration efforts. Strengthening NOAA's role in multilateral ocean science collaborations will enhance U.S. influence in shaping the future of deep-sea exploration and conservation, ensuring that NOAA's contributions support both scientific and policy objectives.

To maximize its contributions, NOAA Ocean Exploration should continue efforts to broaden workforce development initiatives, expand research participation, and increase transparency in funding allocation within OECEI programs. Strengthening partnerships with industry and academic institutions will ensure that NOAA's ocean exploration efforts remain aligned with national research priorities and emerging technological advancements.

Next Steps

The OEAB anticipates that this review will inform NOAA's ongoing strategic planning efforts and supports the incorporation of these findings into NOAA Ocean Exploration's updated strategic plan by the end of FY 2025. The Board remains available to assist NOAA leadership in implementing these recommendations and looks forward to continued collaboration in advancing ocean exploration priorities.

Thank you for your leadership and commitment to NOAA's ocean exploration mission. We appreciate the opportunity to contribute to NOAA's strategic direction and remain dedicated to supporting its long-term success.

Sincerely,

A handwritten signature in dark ink, appearing to read "Vicki Ferrini". The signature is fluid and cursive, with a large initial "V" and a stylized "F".

Dr. Vicki Ferrini
Chair, NOAA Ocean Exploration Advisory Board