



SCIENCE ADVISORY BOARD

January 3, 2024

Dr. Richard W. Spinrad
Under Secretary of Commerce for Oceans and
Atmosphere & NOAA Administrator
Herbert C. Hoover Building, Room 6811
14th Street & Constitution Avenue, NW
Washington, DC 20230

Dear Dr. Spinrad:

Subject: Transmittal of Climate Working Group (CWG) Report on Organizing U.S. Civilian Operational Oceanography Forecasting Services

On behalf of the NOAA Science Advisory Board (SAB), I am pleased to transmit to you the SAB Climate Working Group (CWG) *Report on Organizing U.S. Civilian Operational Oceanography Forecasting Services*. The CWG presented this report to the SAB, and the SAB approved it at its November 15-16, 2023 meeting. The report was developed by the SAB's CWG, in consultation with external subject matter experts and NOAA experts.

The report states that NOAA is falling behind other nations in civilian oceanographic forecasting and required observations, and calls for accelerated efforts to advance its global ocean modeling and forecasting capabilities to better serve the U.S. interests. The white paper is direct in recognizing NOAA's place and role in this regard, and makes four mainstream recommendations for NOAA consideration in implementation:

1. Clarify the objectives and goals of a civilian operational oceanographic and prediction service. Organize a multi-office work team to develop goals, objectives, and actions. The team should prepare and provide global ocean forecast products and services to support commerce, fisheries and climate needs. This should be framed in the context of a **global environmental intelligence network in a changing climate**, and organized as a cross-NOAA team tasked with its delivery.
2. Develop a cost-effective **targeted list of ocean products and services**, both at global and regional scales, that are **needed to maximize the reduction of uncertainty** for the multiple applications within NOAA and for the larger community. Observing System Simulation Experiments (OSSE's) should guide this development.
3. **Reconfigure the model and prediction development plans** to ensure the needed suite of ocean products and services are developed, tested and operationalized as soon as possible. Identify opportunities for near-term implementation to achieve early

successes in product delivery. Delaying implementation until 'full atmosphere and ocean coupling' is achieved is, in our view, a mistake.

4. Gather links to products into a **single 'ocean portal'** from the NOAA home page, where products and services are easily located and/or discoverable and accessible. Provide machine-to-machine services to download products and include the input observations. The ocean product portal will facilitate accessibility and value of both observations and model related products that better serve U.S. interests.

SAB members were supportive of transmitting this white paper to NOAA. Some felt that recognition should be given for NOAA's existing regional and global leadership efforts in advancing oceanographic science and services, engaging partners, including other nations to collaborate, and advancing global ocean observation system efforts. An increased level of priority should be given to better engage science partners and improve accessibility.

On behalf of SAB members, I request NOAA's due consideration of the CWG's important paper on advancing operational oceanographic forecasting and services to better service commerce, fisheries, climate goals and more skillful long-range weather forecasts.

The SAB encourages NOAA to utilize the SAB and its expertise to help move these recommendations forward where appropriate. Please let me know if you have any questions, comments, or concerns, or if the SAB can be of further assistance.

Very respectfully,

A handwritten signature in blue ink, reading "John R. Kreider". The signature is fluid and cursive, with the first name "John" being the most prominent.

John R. Kreider
SAB Chair

Cc: Sarah Kapnick
Karen Hyun
Michael Weiss
Joellen Russell
Kirstin Dow
Susan Wijffels
Casey Stewart
Joseph Fillingham

Attachment: Climate Working Group (CWG) Report on Organizing US Civilian Operational Oceanography Forecasting Services