



SCIENCE ADVISORY BOARD

April 2, 2021

Ben Friedman
Deputy Under Secretary for Operations,
Performing the duties of Under Secretary of Commerce for
Oceans and Atmosphere and NOAA Administrator
Herbert C. Hoover Building, Room 6811
14th Street & Constitution Avenue, NW
Washington, DC 20230

Dear Mr. Friedman:

Subject: Transmission of the Science Advisory Board Report: Advancing Earth System Prediction

On behalf of the NOAA Science Advisory Board (SAB), I am pleased to transmit to you a SAB report "Advancing Earth System Prediction." The SAB approved this report at its March 17, 2021 virtual meeting. The report was drafted by the SAB's Climate Working Group (CWG). Purpose of the report is to provide recommendations on advancing Earth system prediction in six categories: 1) Observations; 2) Ice and Inundation; 3) Operational Oceanography and Forecasting; 4) Decision Maker Needs; 5) Enhancing Coordination; and 6) Model Technology.

The CWG outlined for NOAA twenty-two (22) recommendations in these categories, which are described in Appendix A of the attached report. The SAB accepted the report as-is, while also recognizing this is a complex topic with both urgent and long-term implications for decision makers. Significant discussion occurred at the meeting, with key discussion points as follows:

- The report is comprehensive in nature and provides the high-level organization necessary for NOAA to fully advance its Earth system prediction. Level of detail in the recommendations is appropriate for goals of the report.
- The SAB feels that all 22 recommendations are relevant. Instead of providing suggestions for prioritization, the SAB believes NOAA should have flexibility to prioritize the recommendations.
- While it was noted that most recommendations would eventually be completed by NOAA, the SAB would like to emphasize a sense of urgency to identify and implement the most leveraging recommendations to meet NOAA's mission of preventing loss of life and property in the face of a rapidly changing climate.
- The SAB supports NOAA developing a comprehensive implementation plan, which integrates activities across the organization to meet the crucial, yet complex, challenge of advancing Earth system prediction.

The SAB values the advice and expertise of CWG and appreciates its contribution to this vital topic.

The SAB looks forward to hearing NOAA's response to these recommendations at the first opportunity. Please let me know if you have any questions, comments, or concerns.

Very Respectfully,

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

John Kreider
Chair, NOAA Science Advisory Board

Attachment: SAB Final Report "Advancing Earth System Prediction"

CC: Karen Hyun
Letise LaFeir
Michael Weiss
Craig McLean
Adrian Mahoney
Wayne Higgins
Benjamin DeAngelo
Joellen Russell
Kirstin Dow
Cynthia Decker
Tiffany Atkinson