

September 23, 2019

Neil A. Jacobs, Ph.D.

Assistant Secretary of Commerce for Environmental Observation and Prediction
Performing the duties of Under Secretary of Commerce for Oceans and Atmosphere
Herbert C. Hoover Building, Room 6811
14th Street & Constitution Avenue, NW
Washington, DC 20230

Dear Neil:

On behalf of the NOAA Science Advisory Board (SAB), I am pleased to transmit to you a report from the SAB entitled “*Environmental Information Services Working Group Report and recommendations to the NOAA Science Advisory Board concerning the Earth Prediction Innovation Center*”. This report was generated in response to the prominence of EPIC in the amendment of the Weather Research and Forecasting Innovation Act of 2017 (P.L. 115-25) by the National Integrated Drought Information System Reauthorization Act of 2018 (P.L. 115-423). These recommendations are also a result of the assessment of EISWG members of the EPIC workshop that was held in Boulder, CO, on August 6-8, 2019. The EISWG transmitted this report to the SAB on September 3, 2019, and the SAB approved it at its September 9, 2019 meeting.

In general, the report offers a strong endorsement of the EPIC initiative by the EISWG, noting it is both timely and critical to the U.S. Earth-system modeling efforts and has the potential to bring value to public and private stakeholders. The report offers six recommendations to NOAA.

Recommendation 1: NOAA should implement EPIC’s governance structure and processes as soon as possible, with a focus on the managing institution, leadership team, and advisory boards, and providing the community clear statements of the EPIC vision, mission, and values.

Recommendation 2: NOAA should work with the broader community to develop inclusive community engagement processes, and to anticipate and articulate the appropriate roles NOAA and other entities will play in EPIC.

Recommendation 3: Early and direct efforts should be made to welcome into the Unified Forecast System (UFS) research and development sandbox contributions from other dynamic cores, physical parameterization schemes, Earth-system observation strategies and data assimilation techniques (atmosphere and ocean) and models (e.g., MPAS, UKMO Unified Model).

Recommendation 4: NOAA should initiate a multi-agency R&D partnership program into which NOAA and other agencies contribute significant multi-year resources.

Recommendation 5: NOAA should organize its Cooperative Institutes that have existing capabilities in NWP and related areas into a nascent, distributed EPIC co-laboratory charged with quickly carrying out one or two narrowly focused R&D thrusts that have potential for near-term success.

Recommendation 6: NOAA should immediately invest in and execute a Cloud implementation plan to promote community engagement and in support of research-to-operations.

In conclusion, EISWG notes that EPIC is a program which will offer great potential, but the delivery is dependent upon leadership, community engagement, successfully meeting early milestones, and long-term funding. Although the SAB approved the report, members acknowledged that a follow-up discussion would be needed to address several outstanding questions raised at the meeting. Such topics include the absence of cybersecurity and the role of the private sector, to what extent EPIC should remain an internal effort by NOAA, and the ability of NOAA to get funding for EPIC as outlined in Recommendation 6.

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.

Sincerely,



Lynn Scarlett
Chair, NOAA Science Advisory Board
Vice President for Policy & Government Relations, The Nature Conservancy

Attachment: Final Report

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