



SCIENCE ADVISORY BOARD

May 23, 2023

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 Environmental Information Services Working Group (EISWG) Report on GONG and its Successor Data Source for Space Weather Operations

On behalf of the NOAA Science Advisory Board (SAB), I am pleased to transmit to you the SAB Environmental Information Services Working Group (EISWG) *Report on the National Solar Observatory's Global Oscillation Network Group (GONG) and its Successor Data Source for Space Weather Operations*. The EISWG presented this report to the SAB, and the SAB approved it at its April 26-27, 2023 meeting. SAB's Environmental Information Services Working Group (EISWG) developed the report, in consultation with external subject matter experts and NOAA experts.

The report discusses the role of the GONG, which is a network of six observatories around the globe providing continuous observations of the sun. This network plays a key role in forecasting solar drivers of geomagnetic storms and associated geomagnetic activity, which can impact global positioning systems (GPS), electric power transmission, satellite communications, and satellite drag. Anticipating the onset of these events is one of the major priorities for the NOAA Space Weather Prediction Center (SWPC). The current GONG network is reaching the end of its operational life, and the National Solar Observatory (NSO) has planned for design of a next generation Ground-based solar Observing Network (ngGONG).

The EISWG report concludes that "GONG provides a vital data source for space weather operations, and it is nearing end of life. The ngGONG project is the most straightforward replacement. It will maintain present operational capabilities and provide observations for future requirements. The time window to complete ngGONG prior to demise of GONG is closing." The report recommends that NOAA/NWS financially support the design phase for ngGONG to ensure initiation of the project in a timely manner.

The SAB encourages NOAA to utilize the SAB and its expertise to help move these plans 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 black ink that reads "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
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Brad Colman
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Jon Linker
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Attachment: Environmental Information Services Working Group (EISWG) Report on GONG and its Successor Data Source for Space Weather Operations