

**NOAA SCIENCE ADVISORY BOARD
ENVIRONMENTAL INFORMATION SERVICES WORKING GROUP
JUSTIFICATION MEMORANDUM**

TO: John Kreider, Chair, NOAA Science Advisory Board (SAB)

FROM: Brad Colman, Co-chair, EISWG
Scott Glenn, Co-chair, EISWG

CC: Casey Stewart, NOAA SAB, Executive Director
Cindy Elsenheimer, NOAA/NWS Liaison
Carl Gouldman, NOAA/NOS Liaison
Martin Yapur, NOAA/NESDIS Liaison
Tamara Battle, NOAA/OAR Liaison
Zhaoxia Pu, SAB Liaison
David Grimes, SAB Liaison

DATE: 4 October 2023

SUBJECT: Request for EISWG membership renewals

Overview

The Environmental Information Services Working Group (EISWG) is requesting the review and approval of 3-year renewals of five current members.

The five EISWG members up for renewal have contributed significantly over the course of their first term. As such, we feel they would continue to be valued members of this working group to either (a) complete an ongoing EISWG review or work plan topic, or (b) participate in a NOAA response and EISWG comment cycle.

EISWG Member Renewals

The first three-year term for the following five members will expire on December 31, 2023. The EISWG requests that their terms be renewed for a second three-year term.

Julie Demuth ([CV attached](#))

Dr. Julie Demuth is a research scientist at the National Center for Atmospheric Research (NCAR) in the Mesoscale and Microscale Meteorology (MMM) Lab with the Weather Risks and Decisions in Society (WRaDS) research group. She has been working for nearly 15 years on integrating social science research with the meteorological research and practitioner communities. With a hybrid background in atmospheric science and in communication, Julie conducts research on hazardous weather risk communication, risk perceptions, and responses; her work is with both experts, such as weather forecasters, and members of the public. Her work centers on understanding how forecast information, in conjunction with other factors, influence

what people think and feel and how they respond. During Dr. Demuth's tenure on the EISWG she has been a critical advocate for social and behavioral sciences and will be a valuable asset during her second term.

Areas of expertise:

- Risk Communication
- Behavioral and Social Science

Jon A. Linker ([CV attached](#))

Dr. Jon A. Linker is the CEO and president of Predictive Science Incorporated (PSI), an employee-owned science and technology company. He has over thirty years of experience in the development and application of large-scale magnetohydrodynamic (MHD) simulations to problems in space plasma physics. Dr. Linker's interests in solar and heliospheric physics include the structure of the large-scale corona, the evolution and eruption of coronal magnetic fields, the initiation of coronal mass ejections, and the application of coronal and solar wind models to space weather forecasting. Jon has done an excellent job of representing space weather challenges and opportunities to the EISWG and was critical in identifying the ngGONG risk. He led the information collecting, writing and advocacy for the recently submitted report. His expertise and commitment to this area is critically valuable as we move ahead with this conversation with NOAA.

Areas of expertise:

- Space Weather

F. Martin "Marty" Ralph ([CV attached](#))

Marty Ralph is the Director of the Center for Western Weather and Water Extremes (CW3E) at the University of California San Diego/Scripps Institution of Oceanography. Prior to moving to Scripps, he worked for over two decades at NOAA, including Chief of the Water Cycle Branch at the Earth System Research Laboratory in Colorado where he led the development of the Hydrometeorology Testbed and managed NOAA's Science, Technology and Infusion Program. His research interests include the observation, understanding, and modeling of precipitation, streamflow, water supply and flood control. He has demonstrated success in integrating ground and aircraft measurements and modeling with decision support for water supply and flood control; his expertise covers atmosphere, land/water, ground and airborne measurements, multi-agency partnership, water management. Dr. Ralph was a Task-Team Co-lead for the Priorities for Weather Research report (PWR) and has contributed to several EISWG activities with significant benefit to the efforts. He is currently helping complete a study on radar gaps that will be submitted soon.

Areas of expertise:

- Water
- Atmospheric Science

Jonathan White ([CV attached](#))

Jon White is a member of the Center for Climate and Security's Advisory Board, and the past-President and CEO of the Ocean Leadership Consortium. Prior to these roles, he had a distinguished 32-year career in the U.S. Navy and retired at the rank of Rear Admiral. White joined the Navy's Oceanography Community in 1987, and had numerous operational assignments at sea and ashore. He commanded the Naval Training Meteorology and Oceanography Facility, Pensacola, Florida, and was the 50th superintendent of the United States Naval Observatory in Washington, DC. White was selected as a flag officer and honorary chief petty officer in 2009 and served as Commander, Naval Meteorology and Oceanography Command at Stennis Space Center, MS. He was promoted to the rank of rear admiral (upper half) in August 2012 as he assumed his duties as the Oceanographer and Navigator, which included duties as director of Navy's Task Force Climate Change, and Navy deputy to the National Oceanic and Atmospheric Administration. Jon White's dependability and important Naval METOC expertise have been highly valuable to the EISWG. He was also the lead on the EISWG's important review of the NOAA Sub-seasonal to Seasonal (S2S) report, and is expected to lead the EISWG replies to the NOAA S2S responses.

Areas of expertise:

- Coupled Meteorology and Oceanography

William Gail ([CV attached](#))

Bill was the co-founder and Chief Technology Officer of Global Weather Corporation (GWC), the leading innovator of real-time forecast data for weather-sensitive business sectors such as connected and autonomous vehicles. Among GWC's breakthroughs is the first reliable global forecast of road surface conditions (e.g., wet or snowy), available for every km along every road in the world - a key enabler for autonomous vehicles and mobility. Bill was previously a Director in the Startup Business Group at Microsoft, Vice President of mapping products at Vexcel Corporation, and Director of Earth science programs at Ball Aerospace. Dr. Gail is a Fellow and Past-President of the American Meteorological Society and is a lifetime Associate of the US National Academy of Sciences and he was the co-chair of their 2017 Earth Sciences Decadal Survey. He serves, or has served, on a variety of other editorial, corporate, and organizational boards including the US Commerce Data Advisory Council. Dr. Gail was a member of the PWR report steering team. Dr. Gail is also a recognized leader within the EISWG membership and brings considerable insight and wisdom into the discussions. He has also led several EISWG report efforts with several of his ideas resulting in best practice approaches for the working group.

Areas of expertise:

- Generalist
- Weather/IT Systems and Technology

Please let us know if you have any questions or if we can offer any additional information that will help facilitate this process.

Appendix A: Weather Act of 2017 Guidance on EISWG membership

In terms of the composition of the EISWG, the Weather Act of 2017 states the following:
Sec. 401(b) Composition.

(1) In general --The Working Group shall be composed of leading experts and innovators from all relevant fields of science and engineering including atmospheric chemistry, atmospheric physics, meteorology, hydrology, social science, risk communications, electrical engineering, and computer sciences. In carrying out this section, the Working Group may organize into subpanels.

(2) Number --The Working Group shall be composed of no fewer than 15 members. Nominees for the Working Group may be forwarded by the Working Group for approval by the Science Advisory Board. Members of the Working Group may choose a chair (or co-chairs) from among their number with approval by the Science Advisory Board.

Appendix B: Background on the Environmental Information Services Working Group.

- The purpose of the EISWG is to provide advice and broad direction to the SAB in support of NOAA regarding its environmental information services activities.
- The EISWG provides advice on prioritizing weather research initiatives at NOAA, existing or emerging technologies found in private industry or research communities that could be incorporated into NWS forecasting, and improving communications between relevant stakeholders.
- The EISWG currently consists of 22 members. Four current members will rotate off at the end of 2023. Approval of the five requested reappointments will maintain EISWG at the 18 member level, in compliance with The Weather Acts requirements in Appendix A. The full member list can be found on the [Science Advisory Board website](#). These members represent the government, academia, and private sectors.
- The EISWG's current and future activities include continuing to review NOAA reports released under the Weather Act, as well as identifying and providing advice on topics of importance identified by the working group members or the SAB.

Appendix C: Terms of Reference on EISWG Membership

Per the EISWG Terms of Reference. In general, the Working Group shall be composed of leading experts and innovators from all relevant fields of science and engineering including atmospheric chemistry, atmospheric physics, remote sensing, meteorology, hydrology, social and behavioral sciences (including risk communication), electrical engineering, and computer sciences. In carrying out its charge, the Working Group may organize into subpanels. The Working Group shall be composed of no fewer than 15 members. Nominees for the Working Group may be forwarded by the Working Group for approval by the Science Advisory Board. Members of the Working Group may choose a chair (or co-chairs) from among their number with approval by the Science Advisory Board. EISWG members will be appointed for one three-year term renewable for one additional three-year term.