

2022 Washington Forum Preliminary Agenda

25–27 April 2022

All times noted are Eastern Daylight Time

Monday, April 25

10:00 AM

Mahoney Lecture - Solvable: How Environmental Success Gives Hope for The Planet

- **Moderator:** *Dr. Keith Seitter, Executive Director Emeritus, American Meteorological Society*
- **Speaker:** *Dr. Susan Solomon, Lee and Geraldine Martin Professor of Environmental Science, MIT*

12:00 PM

Call to Order and Forum Preview

- **Speaker:** *Jennifer Sprague-Hilderbrand, Senior Advisor and Social, Behavioral and Economic Science Program Manager, Office of Planning and Programming for Service Delivery, National Weather Service*

12:10 PM

Washington Forum Keynote: The Honorable Eddie Bernice Johnson (D-TX-30)

- **Moderator:** *Dr. Marshall Shepherd, Director of Atmospheric Sciences Program, University of Georgia*
- **Speaker:** *The Honorable Eddie Bernice Johnson (D-TX-30), Chairwoman of the U.S. House Committee on Science, Space and Technology*

12:50 PM

Budget and Appropriations Roundtable - The annual federal budget and appropriations process for U.S. science agencies is crucial to the pursuit of science across the country and the world. This is especially the case for weather, water and climate science and the stakeholders that rely on this funding for life saving research and operations. This session will be a discussion with senior Congressional staff from key Senate and House committees to get their view on the recent supplementals, infrastructure funds and the Omnibus bill as well as the outlook for the FY 2023 federal budget in light of the 2022 midterm elections.

- **Moderator:** *Renee A. Leduc, Founder & Principal, Narayan Strategy*
- **Speakers:**
 - *Mr. TJ Lowdermilk, Professional Staff Member (Majority), House Appropriations Subcommittee on Commerce, Justice, Science, and Related Agencies*

- *Mr. Blaise Sheridan, Professional Staff Member (Majority), Senate Appropriations Subcommittee on Commerce, Justice, Science, and Related Agencies*
- *Mr. Kevin Wheeler, Professional Staff Member (Minority), Senate Appropriations Subcommittee on Commerce, Justice, Science, and Related Agencies*
- *Ms. Jennifer Quan, Senior Professional Staff (Majority), Senate Committee on Commerce, Science and Transportation, Subcommittee on Oceans, Fisheries, Climate Change and Manufacturing*
- *Mr. Brent Blevins, Senior Policy Advisor (Minority), House Committee on Science, Space and Technology*

2:00 PM

Break

2:30 PM

Update on Interagency Council on Advancing Meteorological Services (ICAMS)

- **Moderator:** *Jennifer Sprague-Hilderbrand, Senior Advisor and Social, Behavioral and Economic Science Program Manager, Office of Planning and Programming for Service Delivery, National Weather Service*
- **Speaker:** *Dr. Scott Weaver, Executive Director, Interagency Meteorological Coordination Office (IMCO), White House Office of Science and Technology Policy*

2:45 PM

Session 1: Saving Lives and Property -- Evolving Weather Solutions for a

Changing World - Weather forecasting and prediction continue to improve, greatly reducing the degree of uncertainty around impending weather events. Weather information dissemination has also improved, especially with respect to timeliness and communication routes. In addition, ongoing efforts are taking a multi-disciplinary approach to develop information products that are refined for the end user – also referred to as Impact-based Decision Support (IDSS). Yet we continue to see too many lives lost and property damaged under adverse weather events. This leads to questions asking why and what it will take to alleviate these impacts.

- **Moderators:**
 - *Ms. Carmen Jenkins, Solutions Lead, Palantir Technologies*
 - *Mr. Paul Pisano, Director, Paul Pisano LLC*
- **Speakers:**
 - *Dr. Tesfaye Bayleyegn, Senior Service Fellow Team Lead at National Center for Environmental Health, Health Studies Section (HSS), Disaster Epidemiology and Response Team, CDC*
 - *Mr. Douglas Hilderbrand, NWS Headquarters Preparedness & Resilience Program Lead, National Weather Service*

- *Mr. Richard Nelson, Snow & Ice Cooperative Program Coordinator, Amer. Assoc. of State Highway & Transportation Officials*
- *Mr. Chris Magenheimer, Ret. Battalion Chief, North Lake Tahoe Fire District*
- *Ms. Kiran Jain, Chief Policy Officer + General Counsel, Replica, Former Chief Resilience Officer, City of Oakland*

4:00 PM

Break

4:15 PM

Session 2: Truth in Science (Part 3) -- Justice for all - A Discussion on Social Equity in the Atmospheric Sciences - This session is focused on social equity in the atmospheric sciences and the importance of communication to our enterprise stakeholders and community.

- **Moderator:**
 - *Dr. Kandis Boyd - Strategic Advisor, National Science Foundation*
 - *Ms. Heidi Centola, Senior AI Applications Account Executive, IBM*
- **Speakers:**
 - *Dr. Stella Kafka, Executive Director, AMS*
 - *Ms. Isha Renta Lopez, Program Analyst, NOAA*
 - *Dr. Marshall Shepherd, Director of Atmospheric Sciences Program, University of Georgia*

5:30 PM

Closing Remarks

Tuesday, April 26

10:00 AM

Call to Order and AMS Commission on the Weather, Water and Climate Enterprise (CWWCE) Remarks

- **Speaker:** *Jennifer Sprague-Hilderbrand, Senior Advisor and Social, Behavioral and Economic Science Program Manager, Office of Planning and Programming for Service Delivery, National Weather Service*
- **Speaker:** *Dr. Sue Ellen Haupt, Senior Scientist & Deputy Director, Research Applications Lab, NCAR*

10:10 AM

Student Keynote: Diversity, Equity, Inclusion, Accessibility in the Weather, Water, Climate Enterprise

- **Moderators**

- *Dr. Yáitza Luna-Cruz, Support Scientist, Chief Science Data Office, Earth Science Data Systems, NASA HQ*
- *Dr. Andrea Lopez Lang, Associate Professor, Department of Atmospheric & Environmental Sciences, University at Albany, SUNY*

- **Speakers:**

- *Paulette Blanchard (PhD Candidate, Absentee Shawnee Citizen, University of Kansas),*
- *Joseph Trujillo-Falcón (PhD Student, Graduate Research Assistant at CIWRO/NOAA National Severe Storms Laboratory/NWS SPC),*
- *Ryder Fox (PhD Candidate, University of Miami RSMAS, DOE CSGF Fellow)*

11:00 AM

Break

11:15 AM

Session 3: Open Source Science -- What it means for our WWC Enterprise &

How we can engage - Open Science is an evolving paradigm that centers around open sharing of scientific data, development and distribution of free and open software, tools, and services, and free and open dissemination of information and knowledge within the scientific community and the greater public. In addition to increasing transparency and reproducibility of the scientific process, Open Science fosters greater inclusivity, diversity, and participation in science. As Open Science continues to gain momentum, attention, and discussion within the scientific community, this session will serve as an introduction to Open Science and initiate a conversation about its implications for the Weather, Water, and Climate Enterprise.

- **Moderators:**

- *Dr. Yáitza Luna-Cruz, Support Scientist, Chief Science Data Office, Earth Science Data Systems, NASA HQ*
- *Renee A. Leduc, Founder & Principal, Narayan Strategy*

- **Speakers:**

- *Mr. Kevin Murphy (Chief Science Data Officer, NASA's Science Mission Directorate, HQ)*
- *Dr. Chelle Gentemann (TOPS Science Lead, NASA HQ)*
- *Derek Hanson (Attorney-Advisor, Weather, Satellites, & Research Section, NOAA GC)*
- *Dr. Lea Shanley (Director and President, International Computer Science Institute (ICSI))*
- *Dr. Fernando Pérez, Assistant Professor in Statistics at UC Berkeley, Faculty Scientist, Data Science and Technology Division, LBNL*

12:30 PM

Break

1:30 PM

Ocean Enterprise Keynote:

- **Moderators:**
 - *Dr. Pamela Emch, Director, Emch & Associates Consulting*
 - *Dr. Sue Ellen Haupt, Senior Scientist & Deputy Director, Research Applications Lab, NCAR*
- **Speaker:** *Ms. Kris Sarri, President and CEO of the National Marine Sanctuary Foundation*

2:30 PM

Break

2:45 PM

Session 4: Social Inequalities of Climate Linked Economics - In this session, The Financial Weather / Climate Justice Initiative will explore the impacts that economic decisions can have on the weather and climate and the social justice impacts intertwined within these events. Panelists from the private sector, government, and grassroots environmental organizations will detail what Economic Justice is, why it matters to Environmental / Climate Justice, how we are reacting to adapting with and learning about this intersection, and the impacts already seen in the real world.

- **Moderators:**
 - *Dr. Kandis Boyd - Strategic Advisor, National Science Foundation*
 - *Mr. Mark Papier, Principal Meteorologist at AT&T*
- **Speakers:**
 - *Mr. Noah Patton - Housing Policy Analyst for Disaster Recovery, National Low Income Housing Coalition*
 - *Dr. Adam Smith - Applied Climatologist, National Oceanic and Atmospheric Administration (NOAA) National Centers for Environmental Information, Climate Science and Services Division*
 - *Ms. Karyn Bigelow - Co-Executive Director at Creation Justice Ministries*

4:00 PM

Session 5: Self-driving Automated Vehicles --- Role of Public and Private Sector

Development of self-driving or automated vehicles (AVs) is occurring at a rapid pace. As the technology advances, manufacturers must grapple with the operability, safety, and reliability challenges caused by various weather conditions. Panelists from public, private, and academic institutions will discuss the role public and private sectors play in addressing weather needs and concerns, as well as the public policy required in tandem with these roles.

- **Moderators:**
 - *Ms. Amanda Siems-Anderson, Associate Scientist IV, National Center for Atmospheric Research*

- *Dr. Curtis Walker, Project Scientist I, National Center for Atmospheric Research*
- **Speakers:**
 - *Mr. Mike Chapman, Director of Commercial Data and Senior Atmospheric Scientist, MyRadar/ACME AtronOmatic, LLC*
 - *Dr. Daniel Rothenberg, Atmospheric Science Lead, Waymo*
 - *Ms. Brittany Welch, Doctoral Candidate and Graduate Research Assistant, Department of Atmospheric Science, University of Utah*
 - *Ms. Tina Greenfield, RWIS Coordinator and Winter Operations Team Member, Iowa Department of Transportation*

Wednesday, April 27

8:30 AM

Coffee & Conversation with Colleagues

10:00 AM

Call to Order and Welcome from AMS President

- **Speaker:** *Jennifer Sprague-Hilderbrand, Senior Advisor and Social, Behavioral and Economic Science Program Manager, Office of Planning and Programming for Service Delivery, National Weather Service*
- **Speaker:** *Dr. Richard Clark, Chair of the Department of Earth Sciences and Professor of Meteorology, Millersville University*

10:15 AM

Keynote - NOAA Leadership

- **Moderator:** *Dr. Paul Higgins, Associate Executive Director and Senior Scientist, American Meteorological Society*
- **Speaker:** *The Honorable Richard W. Spinrad, Ph.D. Under Secretary of Commerce for Oceans and Atmosphere & National Oceanic and Atmospheric Administration Administrator*

11:00 AM

Break

11:15 AM

NOAA Policy Panel Discussion

- **Moderator:** *Dr. Shalini Mohleji, Senior Advisor, Office of the Under Secretary, National Oceanic and Atmospheric Administration*

- **Speakers:**

- *Dr. Letise LaFeir, Senior Advisor, Office of the Under Secretary, National Oceanic and Atmospheric Administration*
- *Ms. Perry Brody, Senior Advisor, Office of the Under Secretary, National Oceanic and Atmospheric Administration*
- *Ms. Ko Barrett, Senior Advisor for Climate, Office of the Under Secretary, National Oceanic and Atmospheric Administration*
- *Mr. Wayne Mackenzie, Technology Transfer Program Manager, Technology Partnerships Office, National Oceanic and Atmospheric Administration*

12:15 PM

Break

1:15 PM

Session 6: Priorities for Weather Research (PWR)

The U.S. Congress, in the December 2020 Appropriations Act, directed the NOAA Science Advisory Board (SAB) to complete a decadal study of U.S. weather research and forecasting to provide decision makers the information necessary to prioritize future Federal investments in related programs. The SAB formed the Priorities for Weather Research (PWR) study team that engaged over 150 subject matter experts from across the broader weather enterprise and developed 11 priority areas for investment, 33 recommendations and 102 critical actions. Speakers will describe the PWR Study process, outline the results, and allow time for comments and discussion regarding next steps and enterprise involvement.

- **Moderators/Speakers:**

- *Dr. Brad Colman, Director of Weather Strategy, Bayer/The Climate Corporation*
- *Dr. Scott Glenn, Board of Governors Professor, Department of Marine and Coastal Sciences, Rutgers University*
- *Dr. Frederick Carr, Professor Emeritus at the University of Oklahoma*

2:15 PM

Break

2:45 PM

Session 7: Data: Driving Science. Informing Decisions. Enriching Humanity

Environmental Earth and space system data has one of the largest digital footprints and is a central component of scientific inquiry, but we have not yet collectively solved the problem of data access, discovery, and service. This session theme will be the catalyst for a year-long inclusive and collaborative discourse on the challenges posed by the data deluge with a focus on how to stage environmental data to make it efficiently useful and accessible for the plethora of applications important to driving science, informing decisions, and enriching humanity within our community and beyond.

- **Moderator:** *Dr. Rich Clark, AMS President; Millersville University*
- **Speakers:**
 - *Dr. Beth A. Plale, Michael A. and Laurie Burns McRobbie Professor of Computer Engineering, Intelligent Systems Engineering Department, Indiana University Bloomington*
 - *Dr. Christopher Lynnes, Earth Observation Data System Architect*
 - *Dr. Kandis Boyd, Strategic Advisor, National Science Foundation*

4:00 PM

Break

4:30 PM

Session 8: AI Nexus - Statistical Modeling & Physics Modeling Crossroads - This session will explore the convergence of physics-based modeling with AI/ML techniques. Subject matter experts in this space will discuss: Where are we seeing real progress in applying ML techniques for environmental prediction today? How do we see ML techniques complementing our physics-based numerical weather prediction techniques? How do policy, infrastructure, culture, and skills need to evolve in order to realize this value operationally?

- **Moderator:**
 - *Ms. Carmen Jenkins, Solutions Lead, Palantir Technologies*
 - *Ms. Heidi Centola, Senior AI Applications Account Executive, IBM*
- **Speakers:**
 - *Dr. Paul Roebber Distinguished Professor Atmospheric Science Group, University of Wisconsin - Milwaukee, WI*
 - *Dr. Amy McGovern, Lloyd G. and Joyce Austin Presidential Professor, School of Computer Science and School of Meteorology, and Director of the NSF AI Institute for Research on Trustworthy AI in Weather, Climate, and Coastal Oceanography, University of Oklahoma*
 - *Dr. Karthik Kashinath, Senior Machine Learning Scientist-Technologist, NVIDIA*
 - *Mr. John Cintineo, Research meteorologist, University of Wisconsin -- Madison; Cooperative Institute for Meteorological Satellite Studies (CIMSS)*

5:30 PM

Closing Remarks