

Reviewer Panel Member Bios

Dr. Amy Clement is a Professor in the Department of Atmospheric Sciences at the University of Miami's Rosenstiel School of Marine and Atmospheric Science. Clement is an expert in climate modeling, and in her research she strives to understand the mechanisms of past, present, and future climate change. One of her primary research topics focuses on the role of the cloud albedo feedback in a warming climate. Clement's studies examine low-altitude clouds, which are capable of reflecting incoming solar radiation back into space. She studies the relationship between the cover of these clouds and the rate of warming to examine the role of clouds. In addition, Clement has also pursued research on the role of atmospheric and ocean dynamics in the El Niño-Southern Oscillation (ENSO) as well as ENSO's impact on the climate system. In 2007 she received the James B. Macelwane Medal in recognition of her significant contributions in changing the way the paleoclimate community thinks about the tropics and how they influence global climate.

Dr. James Hurrell is the Colorado State University Scott Presidential Chair in Environmental Science and Engineering and a professor in the Department of Atmospheric Science. Hurrell is a former director of the National Center for Atmospheric Research, where he also served as director and senior scientist in the Climate and Global Dynamics Laboratory, and Director of the Earth System Laboratory. His research has centered on empirical and modeling studies and diagnostic analyses to better understand climate, climate variability and climate change. Hurrell has been extensively involved in the World Climate Research Programme (WCRP) on Climate Variability and Predictability (CLIVAR), including roles as co-chair of the Scientific Steering Group of both U.S. and International CLIVAR, and as a member of the CLIVAR Past Global Changes working group and several other CLIVAR panels. He is currently a member of the Joint Scientific Committee of WCRP. Hurrell also served the International Geosphere-Biosphere Programme as a member of the Global Ocean Ecosystem Dynamics Scientific Steering Group. He has been involved in assessment activities of the Intergovernmental Panel on Climate Change, and the U.S. Climate Change Science Program. Hurrell has served on several National Research Council panels, and has provided briefings and testimonies to both the U.S. Senate and the House of Representatives on climate change science. He has authored or co-authored more than 100 peer-reviewed journal articles and book chapters, as well as dozens of other planning documents, workshop papers and editorials.

Dr. Reza Khanbilvardi is a professor of civil engineering at the City College of New York at City University of New York (CUNY), Director of the National Oceanic and Atmospheric Administration-Cooperative Remote Sensing Science and Technology (NOAA-CREST) Center, Executive Director of the CUNY Remote Sensing of the Earth Institute, and Director of the Center for Water Resources and Environmental Research. Khanbilvardi is also Editor-In-Chief of

the *International Journal for Water*. He has worked extensively with agencies like NOAA, NASA, NSF, USAID, UN, USDA, and CRDF. Khanbilvardi's research interests include satellite-based remote sensing applications in hydro-climate, hydrology and land Processes, surface water hydraulics and hydrology, flash-flood monitoring and mapping, climate change impacts on water resources, and snow-water equivalent studies.

Dr. Art Miller is a Research Oceanographer and a Senior Lecturer in Climate Sciences at Scripps Institution of Oceanography (UCSD). Miller is also currently Head of the Oceans and Atmosphere Section, which includes the Climate, Atmospheric Sciences, and Physical Oceanography Division, and the Marine Physical Laboratory. He is a physical oceanographer who studies oceanic influences on climate variability using a combination of computer simulation models and observational analysis. Miller is also increasingly involved in working with biologists to try to understand how physical oceanographic changes affect oceanic ecosystems. He is the author or co-author of more than 100 peer-reviewed publications and has had funding from the National Science Foundation, NOAA, NASA, DOE, the Office of Naval Research, and the California Department of Boating and Waterways.

Dr. David Raff serves as the U.S. Bureau of Reclamation Chief Engineer, directing Reclamation's engineering and scientific programs in Technical Services, Dam Safety and Infrastructure, Hydropower, Research and Development, and Water Planning. Raff began his career with Reclamation providing technical leadership to assessments of Dam Safety and developing new and novel approaches to water resources forecasting and projections. He was also instrumental in developing Reclamation's implementation of the SECURE Water Act and drafting its first report to Congress, which identified the vulnerabilities and risks to water management in the major basins of the western United States. For a number of years, Raff was the Senior Hydrologic and Hydraulic Engineer with the Institute for Water Resources in the U.S. Army Corps of Engineers, working with the water resources community to identify opportunities to incorporate climate variability information to promote reliable water resources management across the United States. From 2014-2020 he served as Reclamation's Science Advisor and Scientific Integrity Officer, and oversaw the Research and Development and Water Resources and Planning Offices. Raff works with multiple federal interagency committees, including the National Drought Resilience Partnership.

Dr. Robert A. Weller is a senior scientist in Physical Oceanography at the Woods Hole Oceanographic Institution. Weller's research focuses on atmospheric forcing, surface waves on the upper ocean, prediction of upper ocean variability, and the ocean's role in climate. He has been a pioneer in developing tools and technologies that enable scientists to more accurately investigate upper ocean processes. In recognition of his distinguished contributions to ocean science, Weller was named Secretary of the Navy/Chief of Naval Operations Oceanographic Research Chair by the Office of Naval Research. He has served as a member and co-chair of the

U.S. Climate Variability and Change Scientific Steering Group, and on several National Research Council committees and its Board on Atmospheric Sciences and Climate. Weller serves on the International Ocean Observing Panel for Climate and the NOAA Climate Observing System Council and Climate Working Group.

Dr. Sandra Yuter is a North Carolina State University Distinguished Professor and Faculty Fellow at the Center for Geospatial Analytics. Yuter's research interests focus on using geospatial analytics to distill information on weather and climate, to address basic and applied science questions related to shallow marine clouds, winter storms and other weather systems. She develops new capabilities from remote sensing data products, leveraging over 30 years of experience in data fusion and image analysis using multispectral satellite, radar, lidar and other meteorological observations. Current research activities focus on shallow marine clouds and winter storms. Yuter is a Fellow of the American Meteorological Society, an Editor for the American Meteorological Society *Journal of Applied Meteorology and Climatology*, and a member of the National Center for Atmospheric Research Earth Observing Laboratory Advisory Council.