



S2S Real Time Pilot Workshop

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Presentation Title: Experimental Subseasonal Forecasting of Atmospheric Rivers and Ridging Events Along the U.S. West Coast

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Session Title: Looking Forward: Lessons from the S2S RTP

Abstract:

The Center for Western Weather and Water Extremes (CW3E) and the National Aeronautics and Space Administration Jet Propulsion Laboratory (NASA JPL), supported by the California Department of Water Resources (CA DWR), have partnered together to improve the S2S prediction of precipitation to benefit water management in the western United States. Our team's primary objective is to produce experimental S2S prediction products for atmospheric rivers (ARs), ridging events, and precipitation, supported by research and hindcast skill assessments. Although the main quantity of interest for stakeholders is total precipitation (i.e., available water), ARs and ridging events are a focal point due to their strong influence on the presence (and absence, respectively) of precipitation in the western United States during wintertime.

A key pillar of this applied research endeavor is to collaborate with CA DWR's stakeholders regarding the target predictand, methodology, and data used for research along with the experimental product display and description for experimental S2S forecast products. Our team, which also includes collaborators at IRI, University of California, Los Angeles, The University of Arizona, and University of Colorado, has interacted regularly with stakeholders from CA DWR to facilitate communication and help with the development of the forecast products. This interaction ensures that the research and forecast product development are meeting the specific needs of end users while maintaining high standards for both quality of research and utility of the forecast products for the applications community. These experimental S2S forecast products, together with continued investment from CA DWR into S2S research, stand to benefit end users at CA DWR by providing information at subseasonal lead times to support flood risk management, emergency response, and situational awareness.