

## **Precipitation Experiment for Atmospheric Rivers (PEAR)**

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The Hydrometeorology Testbed (HMT) at the Weather Prediction Center (WPC) added a new Atmospheric River (AR) forecast experiment in 2024, the Precipitation Experiment for Atmospheric Rivers (PEAR), to its set of testbed experiments. This new forecast experiment is part of the Water in the West project and aims to bring together modelers, researchers, and operational forecasters to subjectively evaluate operational and experimental model data for the active 2022-2023 West Coast AR season. In addition to several forecast activities targeted at AR characteristics and precipitation, this experiment also includes focus group activities to review the main forecast challenges for ARs as a function of forecast lead time, the utility of the experimental model guidance in predicting AR impacts, and to better inform plans for subsequent AR forecast experiments. This presentation will review the first PEAR experiment structure and objectives in more detail, present some preliminary findings from the first experiment, and present plans for subsequent experiments.