

## **GREMLIN & LxCast Atmospheric River & Winter Weather Applications**

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Satellite imagery has long been helpful for monitoring weather and updating forecasts in the short range. Recently, the use of machine learning has helped create simulated and predictive satellite-derived products, increasing lead time for decision-making. Two satellite products, GOES Radar Estimation via Machine Learning to Inform NWP (GREMLIN) and LightningCast, will be discussed. This presentation will focus on both products' impact and potential benefit to NWS Weather Prediction Center (WPC) operations, specifically when dealing with atmospheric rivers and winter weather.