RAL SEMINAR SERIES

The Ever-Present & Growing Risk of Flash Drought in an Accelerating Hydroclimate: An Update

JEFFREY BASARA

Department of Environmental
Earth & Atmospheric Sciences
University of Massachusetts Lowell

Wednesday, August 6, 2025, 1-2 PM (MT)

HYBRID MEETING FL2-1022 | Watch Live

Drought is a key environmental feature within the dynamic water cycle. Yet not all droughts are the same. In some cases, drought rapidly intensifies at subseasonal to seasonal scales with significant impacts to agriculture and water resources along with the increased propensity for heatwaves and wildfires. Like all droughts, flash drought begins with a precipitation deficit. However, both evaporative demand and soil moisture are critical flash drought variables, and identifying and monitoring the desiccation of the terrestrial surface is key for determining flash drought development and associated impacts. Recent integration of observations and modeling has led to increased understanding of flash drought occurrence and impacts across the contiguous United States (CONUS) and beyond. Yet, fundamental research tasks remain within the science related to flash drought, especially given its propensity to operate as an impactful extreme event. This study highlights the key new flash drought insights and associated challenges from local to global. Event website