



RAL SEMINAR SERIES

The 2024 Atlantic Hurricane Season and a New Hurricane Categorization Scale

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The 2024 Atlantic hurricane season is expected to be an extremely active one, with most entities issuing seasonal forecasts calling for a hyperactive season. The first part of this presentation will focus on Colorado State University's recently updated seasonal hurricane forecast, which calls for a total of 23 named storms, 11 hurricanes and 5 major hurricanes and overall hurricane activity ~170% of the average season. The primary drivers of the forecast will be examined, including a record warm tropical North Atlantic and a likely trend to La Nina conditions. How these large-scale conditions impact landfall threats will also be considered.

The second portion of the presentation will examine how well maximum sustained wind and minimum sea level pressure have historically predicted damage from continental United States landfall hurricanes. Minimum sea level pressure has generally been a better predictor of damage, especially for hurricanes making landfall from Georgia to Maine. In addition to being a storm intensity metric, minimum sea level pressure is also effectively a size metric, and thus has a better relationship with a landfalling hurricane's wind and rainfall footprints as well as storm surge. Minimum sea level pressure is also much easier to measure than is maximum sustained wind, both by hurricane hunter aircraft when a hurricane is over the ocean and by surface observations when a hurricane is making landfall.