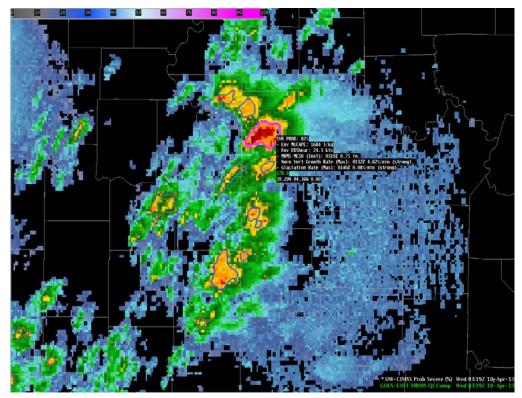# Probabilistic Forecasting of Severe Convection through Data Fusion

- GOES-derived cloud growth rates, NEXRAD-derived products, and NWP-derived fields are used as input into a statistical model to compute the probability that a storm will first produce severe weather in the near-term

- Satellite and radar object-tracking are used to keep a history of storm development

- FY15-16 R3 project will investigate total lightning data and additional NWP sources, as well as advantages to be gained using super-rapid scan data

- The product display will complement NWS warning operations

- The product will be evaluated in testbeds and proving ground experiments

Merged radar reflectivity with model probability of severe contours. The highlighted storm had strong satellite growth rates, contributing to a high probability prior to severe hail occurrence. No warning was issued.

Help NWS forecasters skillfully increase warning lead time to severe hazards

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