## Scientific Visualization of Ensemble and NBM probability fields in the Cloud

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## Overview

- SSD chiefs asked MDL to prepare visualization capability to provide forecasters information about what is significant in the forecast, the range of possible solutions, and the potential impacts in terms of sensible weather
- Three-year STI funded project FY18-FY20
- Incorporates existing software/ideas from NCAR, SPC, WR, and SR
- Uses AWS for development and viewing
- Can display model output not available via SBN or NOMADS
- Viewers currently available for <u>GEFS</u> and <u>NBM</u>
- Now includes plume, box & whisker, wind rose, and violin plots for GEFS
- Now includes slider for quick visualization of NBM percentile grids,
  categorical probabilities, or previous issuances for selected valid time
- Looking at adding paint balls, likelihood to achieve accumulation plots, running total plumes, as well as performance optimization on AWS