

# Expressing Forecast Uncertainty

Jeff Craven

Science and Operations Officer

NWS Jackson MS

WAS\*IS



# Background

- Forecasters can provide more information on the uncertainty of forecast products
- Users often ask us about the range of possibilities, which we provide verbally or briefly describe in forecast discussions



# Problem Statement

- Not all forecasts carry the same level of confidence
- How do we describe this “level of confidence?”
- What medium do we use to communicate it?



# Research Objectives

- Discover how this is best done for the majority of users
- How detailed can we provide this without becoming overly complex?



# Methods

- Focus group with Customers (select group of about 8 (including local Emergency Managers, Media, and academia))
- Survey at annual NWS Jackson hosted Emergency Manager/Media Workshop



# Identify Potential Major Obstacles

- Calibrating forecasters internally
- Defining different levels of uncertainty in easy to use/understand terms



# Timeline

- Develop plan of implementation
- Train forecasters by Dec 1<sup>st</sup>
- Focus Group by Dec 10<sup>th</sup>
- Web brief/conference call to train power users by Dec 15<sup>th</sup>
- Implement by Jan 1<sup>st</sup>
- Obtain and analyze feedback January
- Forum and discussion at EM/Media workshop early in February

# Deliverables

- Product (likely text product within current Area Forecast Discussion)



# Deliverables (example)

| <u>Period</u> | <u>Confidence Level</u> |
|---------------|-------------------------|
| • Tonight     | High                    |
| • Tomorrow    | High                    |
| • Monday      | Moderate                |
| • Tuesday     | Low                     |
| • Wednesday   | Moderate                |
| • Thursday    | High                    |
| • Friday      | Moderate                |
| • Saturday    | Low                     |