Identifying Inland Impacts of Decaying Hurricanes Rita, Gustav, and Ike over Northern Louisiana and Northeast Texas

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Introduction

- From 1850 to 2008, 195 tropical systems have made landfall in the states of Texas and Louisiana.

- During that time period, the National Weather Service (NWS) in Shreveport, LA has been involved with forecasting the weather conditions that have impacted inland communities as far as 150-200 miles inland from the coast.

- The most recent and significant hurricanes that have impacted the Shreveport County Warning Area (CWA) are Hurricanes Rita, Gustav, and Ike.

Impacts of Hurricane Rita Over Shreveport CWA

- **Wind Impacts** – Strong tropical force winds with peak sustained winds that were in the range of 25 mph to 60 mph. Peak wind gusts were up to 100 mph.

- **Tornado occurrences** – Largest tornado outbreak for the NWS in Jackson, MS with 55 tornadoes in 36 hours. Shreveport CWA did not experience any tornadoes during Rita.

- **Flooding Impacts** – Rainfall amounts were up to 10 inches in east Texas.

Impacts of Hurricane Gustav Over Shreveport CWA

- **Wind Impacts** – Gustav’s highest winds were far south.

- **Tornado occurrences** – The NWS in Jackson, MS reported a total of 26 tornadoes. Shreveport CWA did not experience any tornadoes during Gustav.

- **Flooding Impacts** – Amounts of rainfall were up to 13 inches.

Impacts of Hurricane Ike Over Shreveport CWA

- **Wind Impacts** – Strong winds with peak sustained winds that were in the range of 25 mph to 75 mph.

- **Tornado occurrences** – The NWS in Shreveport, LA reported a total of 18 tornadoes on September 13, 2008.

- **Flooding Impacts** – Ike was not a significant producer of rainfall across Shreveport CWA. From September 13 until September 15, 2008, rainfall amounts were up to 6 inches.

Comparisons of the Impacts

- Ike and Rita produced higher winds farther inland and higher peak wind gusts than Gustav due to their fast forward speed.

- Ike had the biggest inland extent of the peak sustained winds.

- Correlating tracks and location, the tornadoes that were spawned were located at an average distance of 150-200 miles northeast and east of the tracks of the hurricanes.

- Hurricane Gustav was the largest producer of rainfall amounts (up to 13 inches) due to its slow forward speed.

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