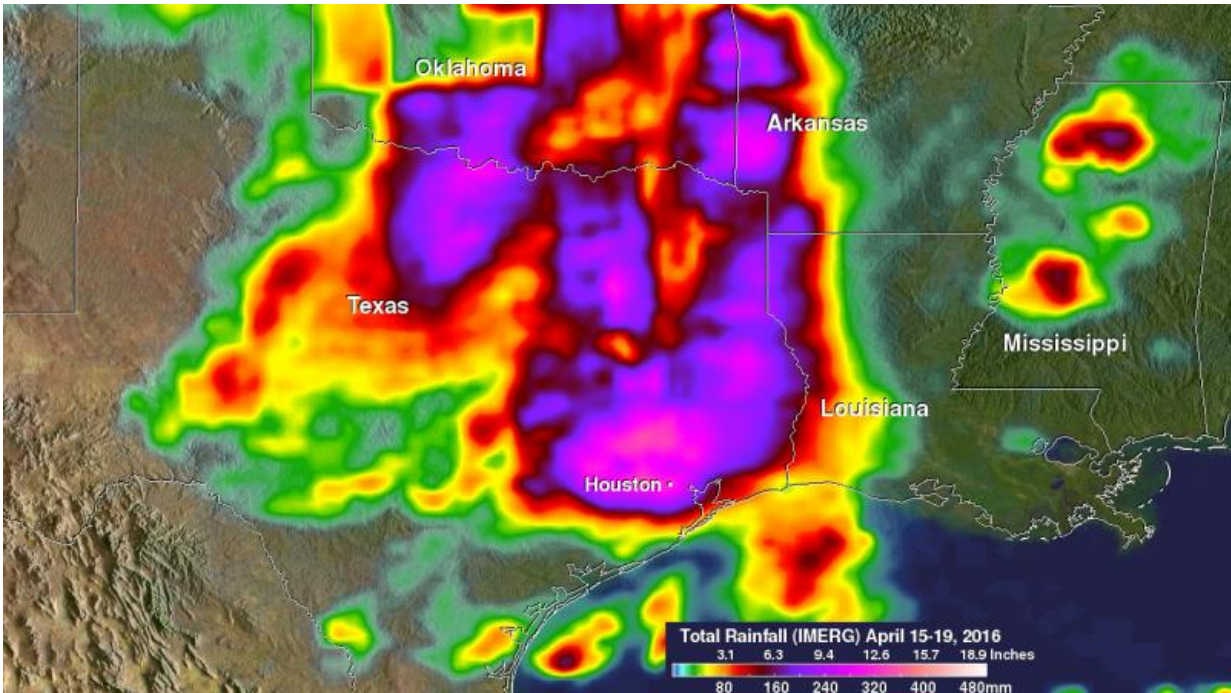


NASA's GPM looks at Texas heavy rainfall

April 21 2016, by Steve Lang



NASA's IMERG showed heavy rainfall from April 15 to 19 for eastern Texas and the surrounding region,. At least 6 to 12 inches (shown in dark red, purple and pink) covering most of East Texas, eastern Oklahoma and the far western portions of Arkansas and Louisiana. North and west of Houston almost 15 inches of rain fell (coral). Credit: NASA/JAXA/SSAI, Hal Pierce

The Global Precipitation Measurement or GPM mission core satellite provides next-generation observations of rain and snow worldwide every three hours. NASA and the Japanese Aerospace Exploration Agency (JAXA) co-manage the satellite. The data provided is used to unify

precipitation measurements made by an international network of partner satellites to quantify when, where, and how much it rains or snows around the world.

On Monday, April 18 the National Weather Service reported that Houston International Airport broke its all-time daily rainfall record with 9.92 inches of rain. Elsewhere in Harris County, over 17 inches of rain was recorded as of Monday evening. The main culprit was a stationary upper-level low pressure center spinning over the Central Rockies that had become detached from the main jet stream, causing it to remain in place.

At the surface, the corresponding north-south oriented frontal system, which extended from the Southern into the Northern Plains, pulled up stationary across Central Texas. The result was a steady flow of warm, moist unstable air being drawn up from the Gulf of Mexico northward across East Texas, which set the stage for and fueled numerous showers and thunderstorms across the region, including a massive thunderstorm complex that slowly moved across East Texas.

The Integrated Multi-satellite Retrievals for GPM or IMERG is used to make estimates of precipitation from a combination of passive microwave sensors, including the GMI microwave sensor onboard the GPM satellite, and geostationary IR (infrared) data.

The data was created into an image at NASA's Goddard Space Flight Center in Greenbelt, Maryland and included IMERG rainfall estimates for the period from April 15 at 00:00 UTC (April 14 at 8 p.m. EDT) to April 19 at 08:30 UTC (4:30 a.m. EDT) for eastern Texas and the surrounding region.

IMERG showed rainfall amounts of at least 6 to 12 inches covering most of East Texas, eastern Oklahoma and the far western portions of

Arkansas and Louisiana. The highest totals are located north and west of Houston and are near 15 inches. So far 5 persons are reported to have died in the area as a result of the some of the worst flooding there since Tropical Storm Allison in 2001. For updated forecasts, visit: www.weather.gov.

On Wednesday, April 20, 2016, the National Weather Service Weather Prediction Center in College Park, Maryland said "Showers and thunderstorms will continue over already soaked portions of the Texas Gulf Coast and portions of the southern Plains. The system that brought widespread heavy precipitation flooding to portions of the southern and central plains will slowly track to the east through the end of the week."

More information: For more information about GPM, visit: www.nasa.gov/gpm

Provided by NASA

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