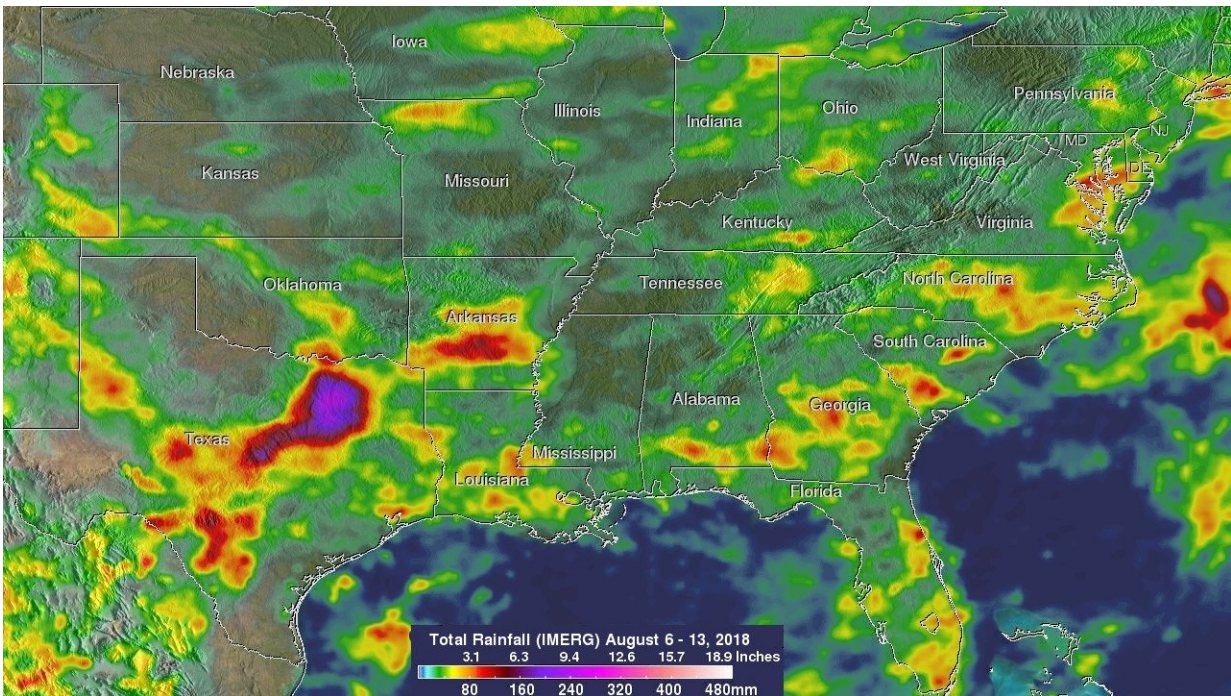


NASA's IMERG estimates heavy rainfall over the eastern US

August 13 2018



During the period from August 6 to early Aug. 13, 2018, IMERG data indicated that the highest rainfall accumulations of greater than 8 inches (203 mm) occurred over Texas. Areas of heavy rainfall accumulations above 4 inches (101.6 mm) were indicated in many other states from the south-central to northeastern United States. Credit: NASA/JAXA, Hal Pierce

Most of the Eastern half of the United States had rainfall during the past week. Some parts of the country experienced heavy rainfall that resulted

in flash floods and various other problems. NASA added up that rainfall using satellite data and a program called IMERG to provide a look at the amount of rainfall along the eastern U.S.

Slow-moving storm systems and nearly stationary fronts were the cause of heavy [rainfall](#) over Virginia this past weekend of Aug. 11 and 12. Several trees were brought down by a severe storm that hit Fredericksburg, Virginia Sunday Afternoon. Fallen trees blocked several roads, flash flooding occurred and electrical power was lost in that area.

Continuing heavy rain also fell in Texas over the weekend. This provided some badly needed drought relief in that area but heavy rainfall also resulted in over three dozen people being rescued on Sunday from flood waters along the Nueces River in south-central Texas.

The Global Precipitation Measurement mission or GPM's constellation of satellites provided [rainfall data](#) to provide the rainfall estimates. GPM is a joint mission between NASA and the Japan Aerospace Exploration Agency, JAXA.

At NASA's Goddard Space Flight Center in Greenbelt, Md. these rainfall accumulation estimates were derived from NASA's Integrated Multi-satellitE Retrievals data (IMERG). IMERG data were used to calculate estimates of precipitation totals from a combination of space-borne passive microwave sensors, including the GMI microwave sensor on the GPM satellite, and geostationary infrared data.

NASA's Precipitation Measurement Missions (PMM) science team has developed algorithms that support GPM Missions such as IMERG. This analysis shows an estimate of IMERG rainfall accumulation totals during the period from August 6 to early August 13, 2018. IMERG data indicated that the highest rainfall accumulations of greater than 8 inches (203 mm) occurred over Texas.

Areas of [heavy rainfall](#) accumulations above 4 inches (101.6 mm) were indicated in many other states from the south-central to northeastern United States.

On Aug. 13, the National Weather Service Weather Prediction Center (WPC), College Park Md. noted that more rainfall is expected along the U.S. East Coast. WPC said, "A quasi-stationary front extending from the Mid-Atlantic southward into the Southeast and the Eastern Gulf Coast will aid in producing showers and thunderstorms over the region through Tuesday evening. In addition, a quasi-stationary upper-level low over the Ohio Valley/Central Appalachians will slowly move eastward to the Northern Mid-Atlantic Coast by Tuesday evening[, Aug. 14]. The energy will aid in producing showers and thunderstorms from parts of the Ohio Valley/Lower Great Lakes to the Northeast through Tuesday evening into Monday. The system will have slight diurnal component with the greatest areal coverage during the late afternoon into the late evening on Monday and Tuesday."

Provided by NASA's Goddard Space Flight Center

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