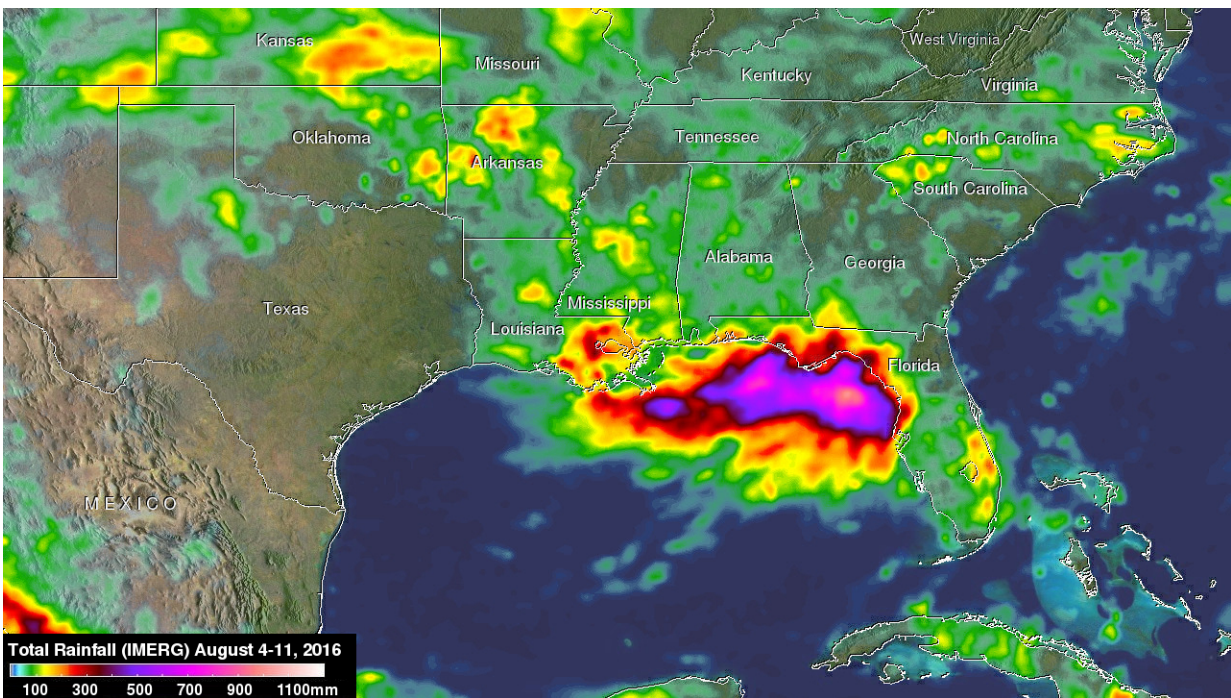


Extreme rainfall along gulf coast measured by NASA's IMERG

August 11 2016



From Aug. 4 to Aug. 11, 2016, IMERG showed the most extreme rainfall fell over the waters of the northern Gulf of Mexico, south of the Florida Panhandle, where between 20 inches (500 mm, shown in purple) to more than about 35 inches (900 mm, shown in pink) may have fallen. Over coastal areas, about 12 to 16 inches (300 to 400 mm, shown in dark red) occurred, mostly along the northeast and north-central Florida Gulf Coast, along with parts of southeastern Louisiana. Credit: NASA/JAXA/Hal Pierce

For the better part of a week, a persistent, mid-level area of low pressure has been tapping into warm, moist air to produce stormy weather in the northeastern Gulf of Mexico, and satellite data of rainfall was collected and calculated at NASA.

The National Hurricane Center (NHC) monitored this stormy area for possible development but unfavorable upper-level winds and the close proximity to land prevented development into a tropical system. However, during the past week from as much as 4 inches (101.6 mm) to more than 15 inches (381 mm) of rain fell along the Gulf Coast from Tampa, Florida, northward through the state's Big Bend to as far west as central Louisiana. So far the highest rainfall totals have been offshore, nevertheless street flooding has been common in Florida counties along the Gulf Coast due to locally heavy downpours.

NASA's Integrated Multi-satellite Retrievals for GPM (IMERG) data were used to make estimates of total rainfall over the Gulf of Mexico during the period from Aug. 4 to Aug. 11, 2016. GPM is the Global Precipitation Measurement mission and is a joint mission between NASA and the Japan Aerospace Exploration Agency.

The results were made into an image and animation at NASA's Goddard Space Flight Center in Greenbelt, Maryland. These results show that the most extreme rainfall during this period fell over the waters of the northern Gulf of Mexico south of the Florida Panhandle, where IMERG estimates indicate that from about 20 inches (about 500 mm) to more than about 35 inches (about 900 mm) of precipitation may have fallen. Over coastal areas, the highest totals are on the order of 12 to 16 inches (about 300 to 400 mm) and occur mostly along the northeast and north-central Florida Gulf Coast, along with parts of southeastern Louisiana.

The lower pressure center responsible for triggering the showers and thunderstorms is expected to slowly retreat towards the northwest into

the Lower Mississippi Valley bringing the threat for heavy rains and flooding to Louisiana. Parts of Louisiana, including New Orleans, and the Mississippi Gulf Coast are forecast to see as much as 10 inches of additional rain over the coming days.

Provided by NASA's Goddard Space Flight Center

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