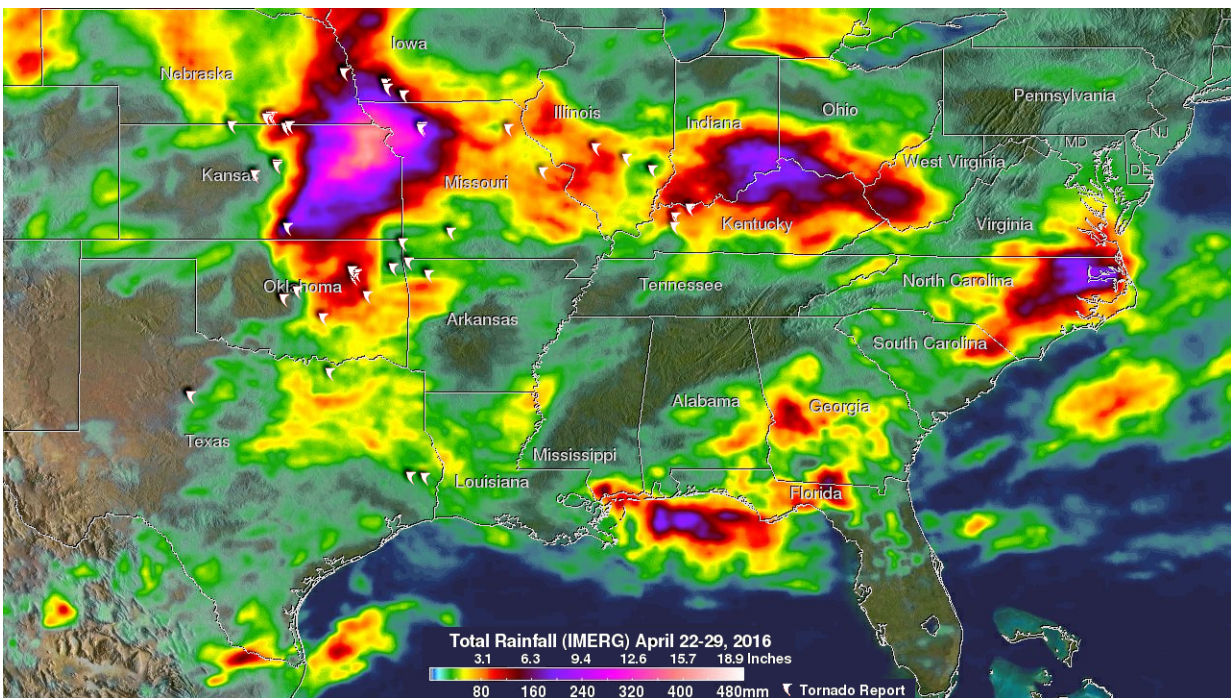


# IMERG analyzes severe weather in Tornado Alley and eastward

May 2 2016



Rain that fell from April 25 to May 2, 2016 is shown here. The locations of some of the tornadoes that hit this area over the past seven days are shown overlaid in white on this IMERG rainfall analysis. Very high rainfall totals (light purple) were found by this analysis in the states of Kansas, Nebraska, Missouri and Mississippi. Indiana, Kentucky, Ohio and North Carolina were also the recipients of heavy rainfall. Credit: NASA/JAXA/SSAI, Hal Pierce

Severe spring thunderstorms frequently spawned tornadoes from the

Gulf Coast north and eastward during the past seven days. NASA's IMERG data were used to estimate the amount of rain that fell from April 25 to May 2, 2016.

During that period there were over 67 tornadoes in the United States reported to the National Oceanic and Atmospheric Administration (NOAA). Many of these tornadoes were located in an area that includes the states of Texas, Oklahoma, Kansas, and Nebraska. This area of the Great Plains has been labeled Tornado Alley due to the many tornadoes that occur there this time of year. Gulf moisture clashing with frontal systems moving over the United States provided much of the fuel for intense showers and severe thunderstorms.

Flash flooding was often the result of the sudden onset of extremely heavy rainfall. Six fatalities were blamed on flooding that hit Palestine, Texas over the weekend of April 30 and May 1.

Global Precipitation Measurement (GPM) is an international satellite mission to provide next-generation observations of rain and snow worldwide every three hours. GPM is a joint mission between NASA and the Japanese space agency JAXA. The data they provide 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. That data goes into IMERG.

NASA's Integrated Multi-satellite Retrievals for GPM (IMERG) data were used to estimate the amount of rain that fell from April 25 to May 2, 2016. The locations of some of the tornadoes that hit this area over the past seven days were overlaid in white on an IMERG rainfall analysis made at NASA's Goddard Space Flight Center in Greenbelt, Maryland.

Rainfall totals greater than 305 mm (12 inches) were analyzed in several areas over the United States from Kansas to the East Coast. Over 305

mm (12 inches) of rain was reported in southern Mississippi in only a few hours on the morning of April 28, 2016. Very high rainfall totals were found by this analysis in the states of Kansas, Nebraska, Missouri and Mississippi. Indiana, Kentucky, Ohio and North Carolina were also the recipients of heavy rainfall.

The National Weather Service Weather Prediction Center in College Park, Maryland noted on May 2, "Severe thunderstorms with damaging winds, large hail and isolated [tornadoes](#) will continue over the central and lower Mississippi Valley. Heavy rain with localized flash flooding remains possible over the central Appalachians and lower Mississippi Valley. Heavy snow and cold temperatures continue from the central Plains to the northern Rockies."

Provided by NASA's Goddard Space Flight Center

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