# NASA's GPM observes newly formed Tropical Storm Georgette 

July 222016


On July 22, NASA/JAXA's GPM found extremely heavy rain (red) falling at a rate of over 224 mm ( 8.8 inches) per hour and cloud top heights over 14 km ( 8.7 miles) high in storms south of Georgette's center. Credit: NASA/JAXA/SSAI, Hal Pierce

As Tropical Storm Georgette was forming, the Global Precipitation Measurement mission or GPM core satellite flew overhead and gathered data that showed an intensifying storm.

The eastern Pacific Ocean continues to show that its environment is favorable for the birth of tropical cyclones. Tropical Depression 8-E developed early on July 22 hours later strengthened into Tropical Storm Georgette. Georgette quickly follows Tropical Storm Frank as the latest example of tropical cyclogenesis in the eastern Pacific Ocean.

The Global Precipitation Measurement mission or GPM core observatory satellite examined Tropical Depression 8E (TD8E) when it flew directly above on July 22, 2016 at 0931 UTC (5:31 a.m. EDT). At that time maximum sustained winds were only estimated to be about 30 knots ( 34.5 mph ). Rainfall was examined in TD8E using data collected by GPM's Microwave Imager (GMI) and Dual-Frequency Precipitation Radar (DPR) instruments. Extremely heavy rain falling at a rate of over 224 mm ( 8.8 inches) per hour was found by DPR in convective storms southwest of TD8's center of circulation.

GPM's Dual-Frequency Precipitation Radar (DPR) instrument (Ku Band), developed by JAXA and NICT (also of Japan) was used to measure the three-dimensional structure of precipitation within TD08E. Several storm top heights southwest of TD8E's center were found by DPR to reach altitudes of over 14 km ( 8.7 miles). GPM is a joint
mission between NASA and the Japanese space agency JAXA.

On July 22 at 11 a.m. EDT (1500 UTC) Tropical Depression 8E strengthened into a tropical storm and was named Georgette. At that time, the center of Tropical Storm Georgette was located near 12.3 north latitude and 117.1 west longitude

Georgette is moving toward the west-northwest near $13 \mathrm{mph}(20 \mathrm{kph})$, and this motion is expected to continue through Saturday. A westnorthwestward motion at a slower forward speed is forecast late Saturday and Sunday.

Maximum sustained winds have increased to near $45 \mathrm{mph}(75 \mathrm{kph})$ and the National Hurricane Center said additional strengthening is forecast during the next 48 hours. Georgette is expected to become a hurricane by late Saturday, July 23. For updated forecasts, visit the NHC webpage: http://www.nhc.noaa.gov.

## Provided by NASA's Goddard Space Flight Center

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