

NASA estimates heavy rainfall in Hurricane Dorian

29 August 2019



Estimated rainfall accumulations for the region affected by Hurricane Dorian over the 24 hour period of Aug. 27, 2019 at 11:59 UTC to Aug. 28, 2019 at 11:59 UTC. The imagery was generated using the Integrated Multi-satellite Retrievals for GPM (IMERG) "early run" product. The data indicates that up to 120 mm (4.72 inches) of rainfall accumulated in certain regions during the 24 hour period. Credit: NASA/Jacob Reed

Hurricane Dorian is packing heavy rain as it moves toward the Bahamas as predicted by NOAA's NHC or National Hurricane Center. NASA analyzed the storm and found heavy rainfall in the storm.

NASA has the ability to peer under the "hood" or clouds of a tropical cyclone and estimate the [rainfall](#) rates occurring. After looking into Dorian's clouds, imagery was generated using the Integrated Multi-satellite Retrievals for GPM or IMERG "early run" product, at NASA's Goddard Space Flight Center in Greenbelt, Maryland. IMERG uses a constellation of satellites united by the GPM Core Observatory to provide global observations of Earth's precipitation every 30 minutes.

IMERG estimated rainfall accumulations for the region affected by Hurricane Dorian over the 24

hour period of August 27 at (7:59 a.m. EDT) 11:59 UTC to August 28 at (7:59 a.m. EDT) 11:59 UTC. "The data indicates that up to 120 mm (4.72 inches) of rainfall accumulated in certain regions during the 24 hour period," said Jacob Reed of NASA Disasters Program, GPM at NASA Goddard.

NHC said that Dorian is expected to produce the following rainfall accumulations this weekend into early next week: The central Bahamas...2 to 4 inches, isolated 6 inches; the northwestern Bahamas and coastal sections of the Southeastern United States...4 to 8 inches, isolated 12 inches. This rainfall may cause life-threatening flash flood.

On Aug. 29 at 5 a.m. EDT (0900 UTC), NOAA's NHC said the center of Hurricane Dorian was located near latitude 20.5 degrees north and longitude 66.6 degrees west. That puts Dorian's center about 150 miles (240 km) north-northwest of San Juan, Puerto Rico and about 425 miles (685 km) east-southeast of the southeastern Bahamas.

Dorian is moving toward the northwest near 13 mph (20 kph), and this general motion is expected to continue through Friday. A west-northwestward motion is forecast to begin Friday night and continue into the weekend.

Maximum sustained winds are near 85 mph (140 kph) with higher gusts. Strengthening is forecast during the next few days, and Dorian is expected to become a major [hurricane](#) on Friday. The minimum central pressure based on earlier Air Force Reserve Hurricane Hunter data is 991 mb (29.27 inches).

NHC said "On this track, Dorian should move over the Atlantic well east of the southeastern and central Bahamas today and on Friday, and approach the northwestern Bahamas on Saturday."

Interests in the northwestern and central Bahamas should monitor the progress of Dorian. Swells are

likely to begin affecting the east-facing shores of the Bahamas and the southeastern United States coast during the next few days. These swells are likely to cause life-threatening surf and rip current conditions.

Provided by NASA's Goddard Space Flight Center

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