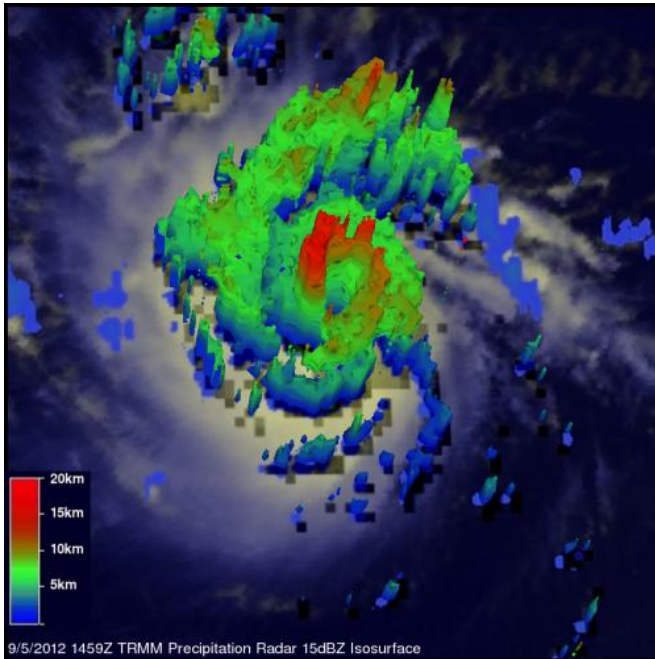


NASA saw Michael become an Atlantic hurricane, wind speed more than doubled

6 September 2012



NASA's TRMM satellite captured data on Michael on Sept. 5, 2012 at 10:59 am EDT. TRMM saw Michael forming an eye, measured some areas of very heavy rain falling at a rate greater than 3 inches (75 mm) per hour and saw "hot towers" reaching heights of about 9.3 miles (15km). Credit: NASA/SSAI, Hal Pierce

The Atlantic Ocean hurricane season spawned two hurricanes this week and NASA satellites have been monitoring them and providing valuable data to forecasters. NASA's TRMM satellite saw very heavy rainfall and powerful towering thunderstorms in Michael when the storm became a hurricane. Michael's wind speeds more than doubled in 24 hours and it is now a major hurricane on the Saffir-Simpson scale.

Tropical Storm Michael became a hurricane on Sept. 5 and NASA's [Tropical Rainfall Measuring Mission \(TRMM\)](#) satellite passed by and collected data on rainfall and cloud heights. The [TRMM](#)

[satellite](#) had an outstanding daytime view of intensifying tropical storm Michael on Sept. 5, 2012 at 1459 UTC (10:59 a.m. EDT). Michael was located about 1,125 miles (1,815 km) west-southwest of the Azores at that time moving slowly toward the northeast over open waters of the Atlantic. Rainfall was very intense in the forming eye and the TRMM satellite measured some areas of very heavy rain falling at a rate greater than 3 inches (75 mm) per hour.

TRMM's [Precipitation Radar](#) instrument showed that towering thunderstorms called "hot towers" within the forming eye wall were reaching heights of about 9.3 miles (15km). "Hot towers" are towering clouds that emit a tremendous amount of latent heat (thus, called "hot"). NASA research indicates that whenever a hot tower is spotted, a tropical cyclone will likely intensify and that's what happened with Michael.

Over the course of 24 hours, Michael's [maximum sustained winds](#) had more than doubled. On Sept. 6 at 11 a.m. EDT, Michael had maximum sustained winds were near 115 mph (185 kmh). Just twenty four hours before, Michael's maximum sustained winds were near 50 mph (85 kmh). Michael's center was about 980 miles (1,580 km) west-southwest of the Azores islands, near latitude 28.3 north and longitude 43.3 west. Michael is moving toward the northeast near 7 mph (11 kmh) and is expected to turn northwest by Sept. 8.

The National Hurricane Center noted that Michael is a category three hurricane on the Saffir-Simpson hurricane wind scale and some gradual weakening is expected beginning Friday, Sept. 7 and continuing through the weekend.

In addition to Michael in the Atlantic Ocean basin today, Leslie is moving toward Bermuda over the weekend, and another low pressure area is being watched in the Gulf of Mexico. That other low pressure area, called System 90L, is located near

29.3 North and 88.3 West over the north central Gulf of Mexico. That broad area of low pressure is drifting southward into the Gulf and has a 40% chance of developing into a tropical depression in the next two days.

Provided by NASA's Goddard Space Flight Center

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