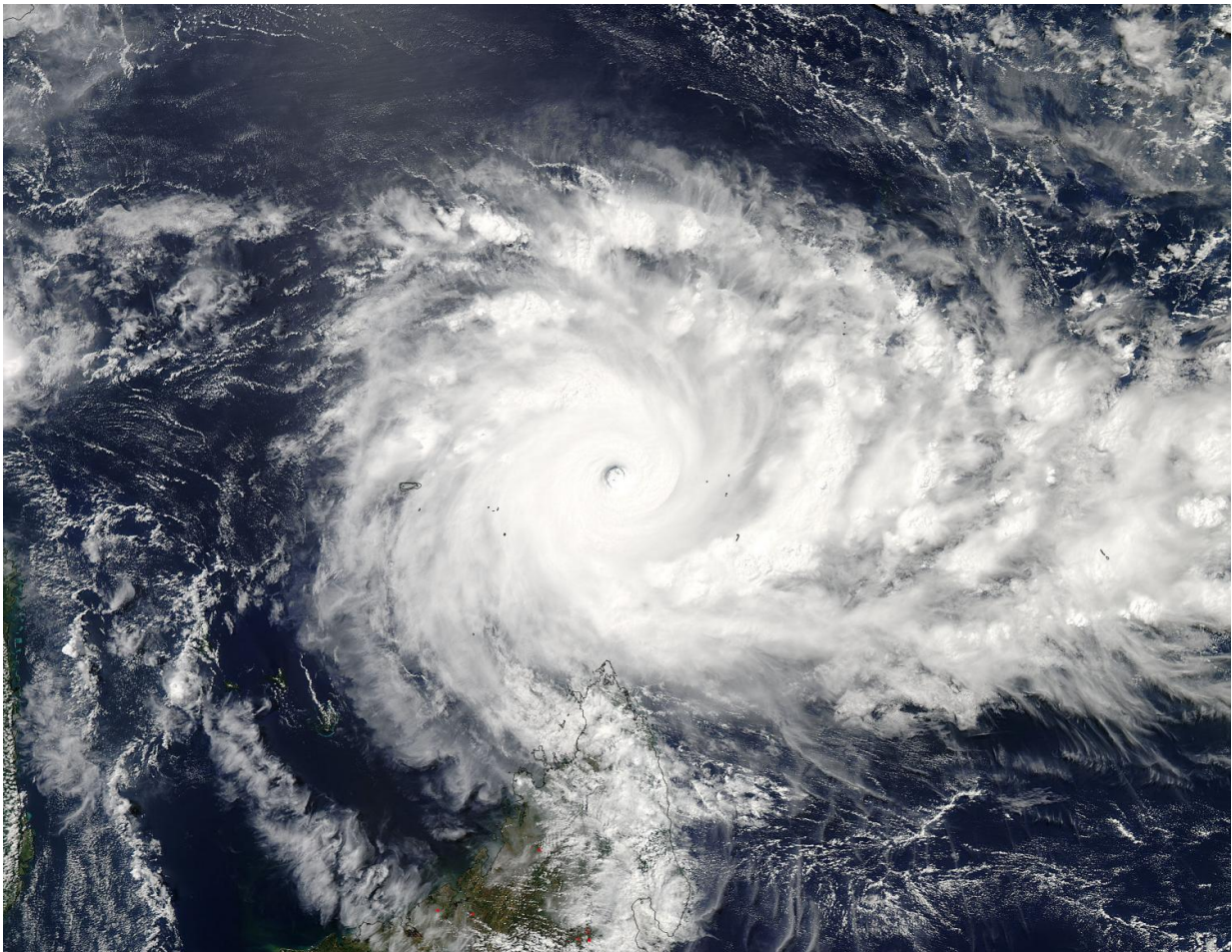


NASA examines Category 5 Tropical Cyclone Fantala near Madagascar

April 18 2016



On April 18 at 10:25 UTC (6:25 a.m. EDT) the MODIS instrument aboard NASA's Aqua satellite saw Tropical Cyclone Fantala off Madagascar. Credit: NASA Goddard MODIS Rapid Response Team

Tropical Cyclone Fantala has become a major tropical cyclone in the Southern Indian Ocean reaching Category 5 status on the Saffir-Simpson Hurricane Wind Scale. NASA's RapidScat instrument observed powerful winds wrapped tightly around the eye, and NASA's Aqua satellite saw the well-structured storm with a wide eye as it was due north of Madagascar early on April 18.

On Apr. 17 at 6 a.m. UTC (2 a.m. EDT) the RapidScat instrument that flies aboard the International Space Station (ISS) measured Fantala's surface [wind speed](#) and direction over the Southern Indian Ocean. Wind speeds exceeded 30 meters per second (67 mph/108 kph) around the entire center of the storm. Surface wind speed is always lower than speeds at higher altitude. At the time RapidScat passed overhead from the ISS, Fantala was at about its closest point of approach to Madagascar.

RapidScat is an important tool for meteorologists, because it shows forecasters the location of the strongest winds in different quadrants of an area of low pressure or tropical cyclone as they are not always equally distributed.

On April 18 at 10:25 UTC (6:25 a.m. EDT) the Moderate Resolution Imaging Spectroradiometer or MODIS instrument aboard NASA's Aqua satellite saw Tropical Cyclone Fantala off Madagascar. The MODIS instrument revealed a 16 nautical-mile-wide eye surrounded by a powerful ring of convective (rising air that forms storms) thunderstorms with a second convective ring beginning to develop. The MODIS image also showed powerful thunderstorms wrapping into the center from the northern and southern quadrants of the storm.

At 0900 UTC (5 a.m. EDT), Tropical Cyclone Fantala was located north of the northern tip of Madagascar, and about 783 nautical miles (901 miles/1,450 km) northwest of Port Louis, Mauritius. Fantala as about

217 miles (350 kilometers) north of Antsiranana. Antsiranana is a city in the far north of Madagascar.

Its eye was centered near 9.3 degrees south latitude and 49.7 degrees east longitude. Fantala's maximum sustained winds were near 150 knots (172 mph/ 277.8 kph). The hurricane-force winds only extended 25 miles (28.7 miles/46.3 km) from the center, making for a very powerful, compact storm. Tropical-storm-force winds extended 100 miles (115 miles/185.2 km) from the center.

Fantala was moving to the west-northwest at 4 knots (4.6 mph/7.4 kph) and generating 40-foot (12.1 meter)-high seas.

The factors steering Fantala are changing, so there's a change in the forecast direction of the storm. The Joint Typhoon Warning Center (JTWC) noted that the steering mechanism is beginning to shift from the mid-latitude ridge (elongated area of high -pressure) positioned to the south to a building near-equatorial ridge (elongated area of high pressure) to the north of Fantala.

Residents of northern Madagascar should continue to monitor the storm as it is expected approach the island. According to the Joint Typhoon Warning Center forecasters, Fantala will gradually turn on a southeasterly course and begin moving in that direction while slowly weakening. By April 22, the storm is expected to steer toward northeastern Madagascar.

For more information on RapidScat, visit <http://winds.jpl.nasa.gov/missions/RapidScat/> and <http://www.nasa.gov/rapidscat>.

Provided by NASA's Goddard Space Flight Center

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