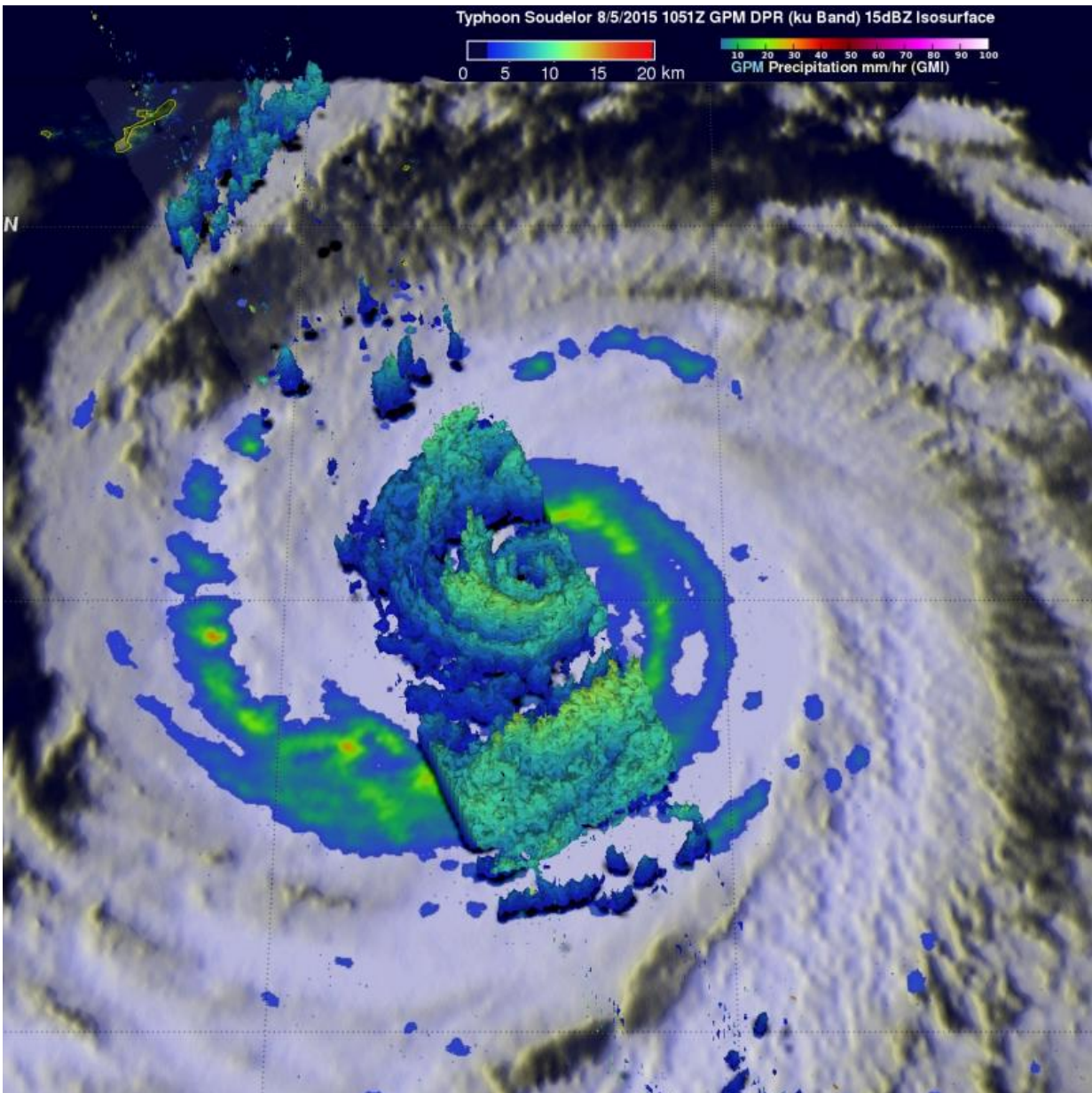


# NASA satellites analyze Typhoon Soudelor moving toward Taiwan

August 5 2015



On Aug. 5, the GPM satellite data was used to make a 3-D vertical structure of rainfall within Soudelor. Some storms examined with GPM's radar reached heights of over 12.9 km (about 8 miles) and were dropping rain at a rate of over 87 mm (3.4 inches). Credit: NASA/JAXA/SSAI, Hal Pierce

Heavy rain, towering thunderstorms, and a large area are things that NASA satellites observed as Typhoon Soudelor moves toward Taiwan on August 5, 2015.

NASA's Terra satellite passed over Soudelor on August 5, 2015 at 01:45 UTC and the Moderate Resolution Imaging Spectroradiometer (MODIS) instrument captured a visible image of the large storm in the Philippine Sea. The eye appeared to be cloud-filled as bands of thunderstorms spiraled into the center of the storm.

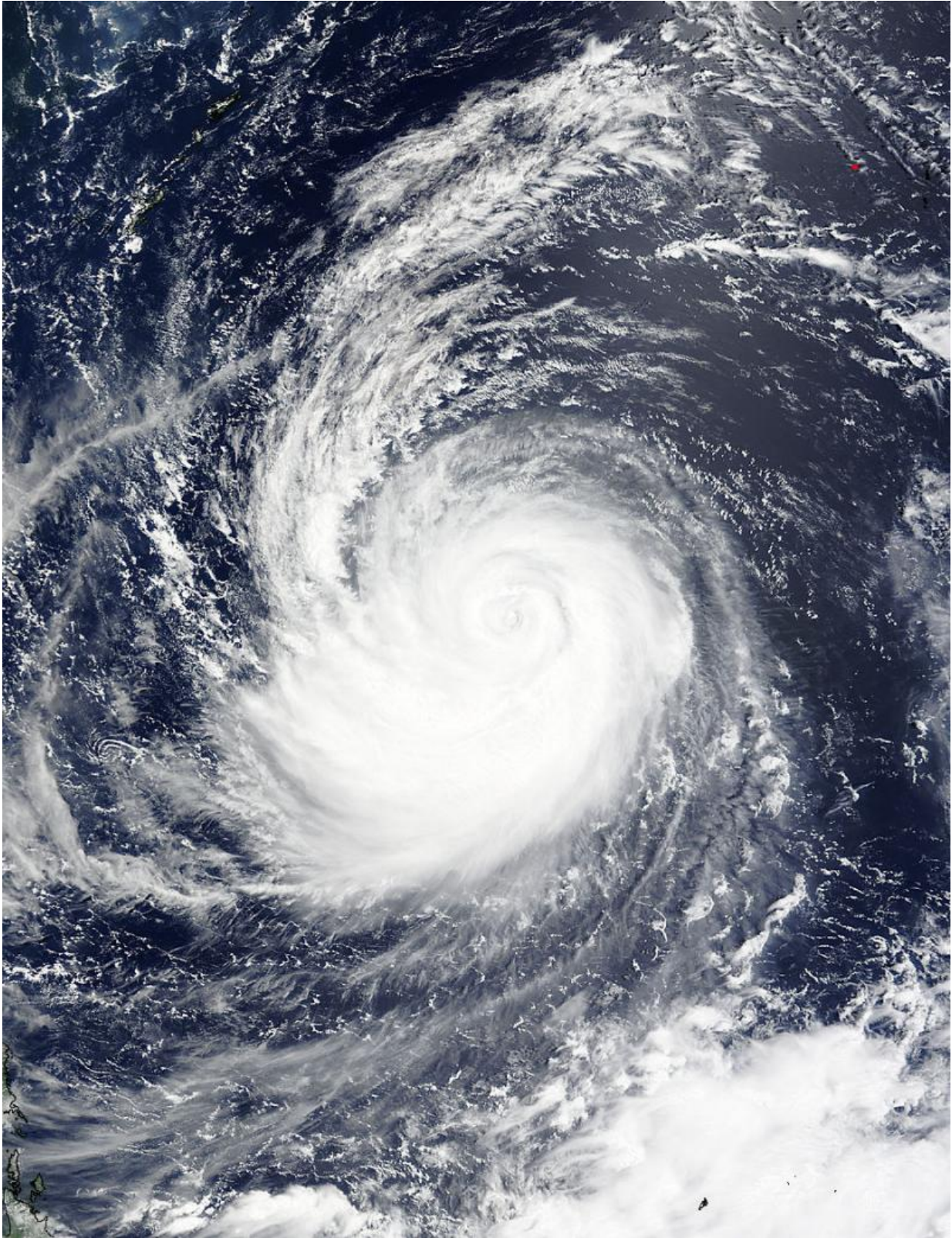
The Global Precipitation Measurement (GPM) mission core observatory, a satellite managed by both NASA and the Japan Aerospace Exploration Agency, took a look at rainfall and cloud heights.

Typhoon Soudelor's sustained winds were 105 knots (about 121 mph) when the GPM core observatory satellite flew above on August 5, 2015 at 1051 UTC. At NASA's Goddard Space Flight Center in Greenbelt, Maryland, a rainfall analysis was made from data collected from GPM's Microwave Imager (GMI) and Dual-Frequency Precipitation Radar (DPR) instruments. The analysis showed that Soudelor was very large and had a well-defined eye. Intense feeder bands are shown spiraling into the center.

Three dimensional radar reflectivity data from GPM's DPR (ku Band) were used to construct a simulated cross section through Typhoon Soudelor's center. A view from the south showed the 3-D vertical

structure of rainfall within Soudelor. Some storms examined with GPM's radar reached heights of over 12.9 km (about 8 miles) and were dropping rain at a rate of over 87 mm (3.4 inches).





On August 5, 2015 at 01:45 UTC NASA's Terra satellite captured this image of

Typhoon Soudelor in the Philippine Sea. Credit: NASA Goddard MODIS Rapid Response Team

On August 5, 2015 at 1500 UTC (11 a.m. EDT), Soudelor was centered near 20.0 North latitude and 132.7 East longitude, about 474 nautical miles (545.5 miles/ 877.8 km) southeast of Kadena Air Base, Okinawa, Japan. It was moving to the west at 10 knots (11.5 mph/18.5 kph). Maximum sustained winds were near 100 knots (115 mph/185 kph).

The Joint Typhoon Warning Center (JTWC) predicts that typhoon Soudelor will continue to be a powerful typhoon and winds are predicted to increase to 120 knots (138 mph) before impacting Taiwan in a couple days. Taiwan's rugged terrain is expected to take its toll on Soudelor but the [typhoon](#) is still expected to have wind speeds of 90 knots (103.5 mph) while approaching China.

Provided by NASA's Goddard Space Flight Center

Citation: NASA satellites analyze Typhoon Soudelor moving toward Taiwan (2015, August 5) retrieved 16 August 2024 from <https://phys.org/news/2015-08-nasa-satellites-typhoon-soudelor-taiwan.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--