

NASA identifies heavy rainfall in South China Sea's Typhoon Utor

August 13 2013, by Rob Gutro



NASA's TRMM satellite captured rainfall rates of over 73mm/hr (~2.9 inches) happening in Typhoon Utor on Aug. 12 at 2:21 a.m. EDT as it was exiting the Philippines into the South China Sea. Credit: SSAI/NASA, Hal Pierce

As Typhoon Utor was exiting the northwestern Philippines, NASA's TRMM satellite passed overhead and detected some heavy rainfall in Utor's thunderstorm "feeder-bands" as it re-strengthened over the South China Sea.

NASA's Tropical Rainfall Measuring Mission or TRMM satellite passed over Utor on August 12, 2013 at 0621 UTC/2:21 a.m. EDT as it was exiting the Philippines into the South China Sea.

To form a complete picture of rainfall and cloud extent of Utor, TRMM's Microwave Imager (TMI) and Precipitation Radar (PR) data were added into a combination Infrared/Visible image from TRMM's Visible and InfraRed Scanner (VIRS) at NASA's Goddard Space Flight Center in Greenbelt, Md. TRMM PR found rain falling at a rate of over 73mm/~2.9 inches per hour in well-defined thunderstorm feeder bands extending over the South China Sea. TRMM PR also found that heavy rain in these lines of rain were returning radar reflectivity values greater than 50.5 dBZ.

When Utor was exiting the Philippines yesterday, Aug. 12, the storm's maximum sustained winds had fallen to 85 knots/97.8 mph/157.4 kph. By Aug. 13 at 1500 UTC/11 a.m. EDT the warm waters of the South China Sea had helped strengthen Utor, and [maximum sustained winds](#) were near 95 knots/109.3 mph/175.9 kph.

Utor's center is located near 19.5 north and 113.1 east, about 190 nautical miles south-southwestward of Hong Kong. Utor is moving to the west-northwestward at 6 knots/7 mph/11.1 kph. Utor's powerful winds are generating very high, and rough seas. Maximum significant wave heights were reported near 41 feet/12.5 meters.

Although Utor's winds had increased since yesterday, animated enhanced [infrared satellite imagery](#) today showed that the convective (rising air that forms the thunderstorms that make up the tropical cyclone) structure of the system has started to weaken, according to the Joint Typhoon Warning Center or JTWC. JTWC noted the convective bands had become shallower and weaker after 5 a.m. EDT today (Aug. 14). Infrared data also showed that the eye had become ragged in nature.

Typhoon Utor is predicted to move toward the west-northwest and make landfall in China tomorrow, Aug. 14 between Hainan Island and Hong Kong. More specifically, the forecast track from the Joint Typhoon Warning Center takes Utor's center somewhere between Zhanjiang and Maoming, Guangdong, China. The two cities are about 75 miles/121 kilometers apart.

The JTWC expects Utor to weaken after landfall and curve to the west-southwest over northern Vietnam, where it will begin to dissipate.

Provided by NASA's Goddard Space Flight Center

Citation: NASA identifies heavy rainfall in South China Sea's Typhoon Utor (2013, August 13) retrieved 19 September 2024 from

<https://phys.org/news/2013-08-nasa-heavy-rainfall-south-china.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>
--