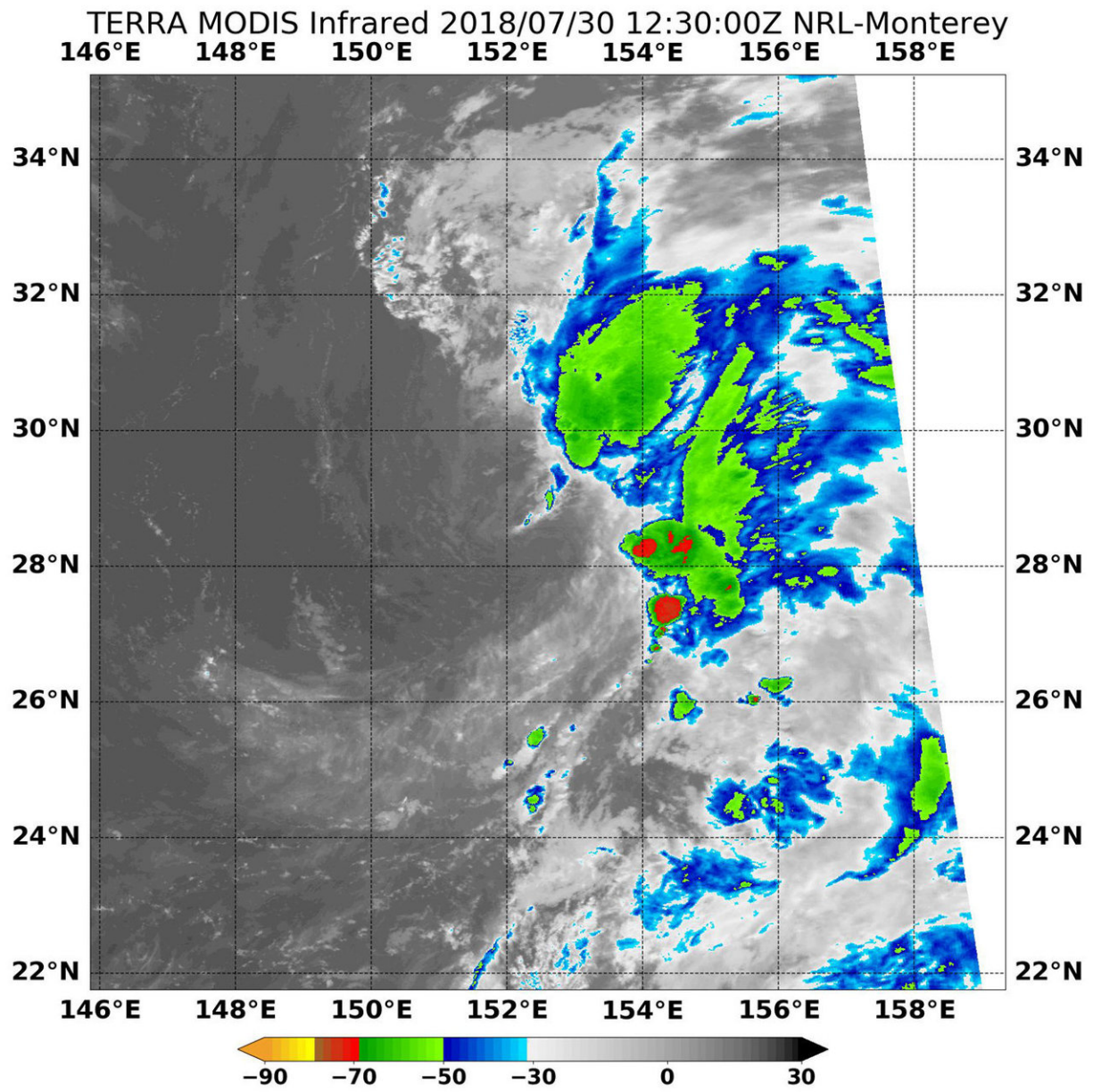


NASA finds development of Tropical Depression 16W

July 30 2018



On July 30, NASA's Terra satellite provided an infrared image of an elongated Tropical Depression 16W. Wind shear was pushing most of the storms east of the center. Credit: NASA/NRL

Tropical Depression 16W formed in the northwestern Pacific Ocean despite vertical wind shear. Wind shear was elongating the newly formed tropical depression when NASA's Terra satellite passed overhead and analyzed the storm in infrared light.

On July 30, the Moderate Resolution Imaging Spectroradiometer or MODIS instrument that flies aboard NASA's Terra satellite provided an infrared image of Tropical Depression 16W. 16W appeared elongated and fragmented because of westerly vertical wind shear. Two small areas showed thunderstorms with cloud tops colder than minus 70 degrees Fahrenheit (minus 56.6 degrees Celsius), and NASA research has shown that cloud tops that cold have the capability to produce heavy rainfall.

The Joint Typhoon Warning Center noted "Infrared satellite imagery depicts a partially-exposed, broad low-level circulation center with deep convection displaced over the eastern semicircle due to moderate to strong (20 to 30 knots/23 to 34.5 mph/37 to 55.5 kph) west-southwesterly [vertical wind shear](#).

On July 30 at 11 a.m. EDT (1500 UTC) Tropical Depression 16W was located near 29.0 degrees north latitude and 154.2 degrees east longitude. That's about 269 nautical miles north-northwest of Minami Tori Shima, Japan. 16W was moving to the north at 9 knots (10.3 mph/16.6 kph). Maximum sustained winds 25 knots (28.7 mph/46.3 kph).

The Joint Typhoon Warning Center or JTWC noted that 16W is expected to stay over the open waters of the Northwest Pacific Ocean and curve to the northeast while transitioning into an extra-tropical storm in three days by August 2. JTWC noted that forecast models show the depression should become fully embedded within the mid-latitude westerlies and gains frontal characteristics.

Provided by NASA's Goddard Space Flight Center

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