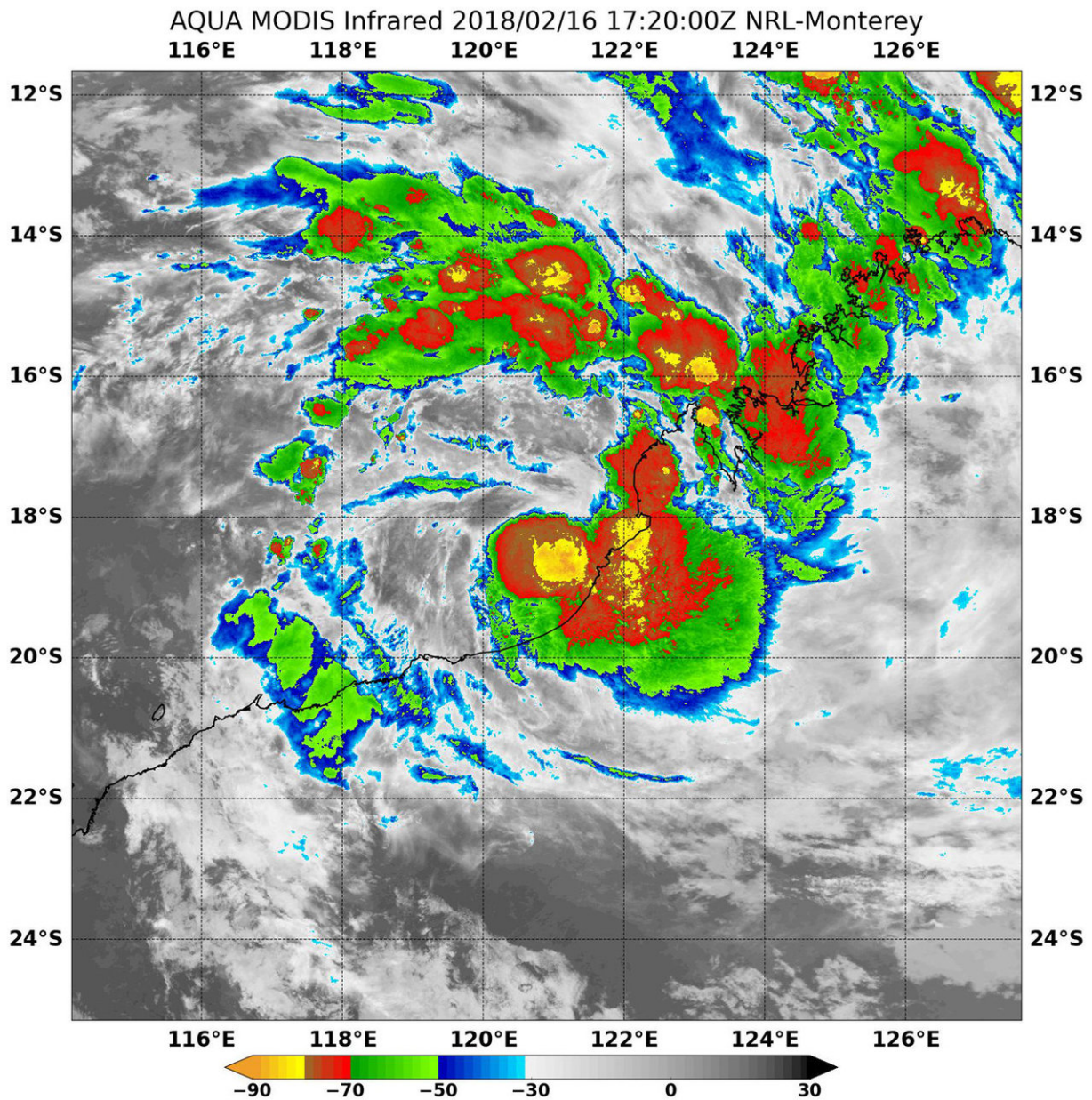


NASA sees Tropical Storm 10S form along Western Australia Coast

February 16 2018



On Feb.16 at 12:20 p.m. EDT (1720 UTC) NASA's Aqua satellite found top temperatures of strongest thunderstorms (yellow) in Tropical Storm 10S. Temperatures were as cold as or colder than minus 80 degrees Fahrenheit (minus 62.2 Celsius). Credit: NRL/NASA

After days of lingering off the west Kimberley coast of Western Australia as a slowly organizing low pressure area, Tropical Storm 10S has formed about 50 miles west of Broome, Australia.

Tropical Storm 10S was previously known as System 91S and strengthened into a tropical cyclone early today, Feb. 16. The Australian Bureau of Meteorology (ABM) issued warnings and watches on 10S. The Warning Zone covers Cape Leveque to Port Hedland, including Broome and Bidyadanga. The Watch Zone extends to the inland east Pilbara and the southwest Kimberley to include Marble Bar, Nullagine and Telfer.

ABM noted that there is a Blue Alert for residents between Cape Leveque and DeGrey, including Broome and Bidyadanga. Residents need to prepare for cyclonic weather and organize an emergency kit including first aid kit, torch, portable radio, spare batteries, food and water. In addition, communities between De Grey and Port Hedland and in the inland east Pilbara should listen for the next advice. For updated forecasts from ABM, visit: <http://www.bom.gov.au>.

Infrared light provides valuable [temperature](#) data to forecasters and cloud top temperatures give clues about highest, coldest, strongest storms within a hurricane. NASA's Aqua satellite provided an infrared view of Tropical Storm 10S that showed where the strongest storms were located.

On Feb.16 at 12:20 p.m. EDT (1720 UTC) the Moderate Resolution Imaging Spectroradiometer or MODIS instrument aboard NASA's Aqua satellite analyzed Tropical Storm 10S's cloud top temperatures in [infrared light](#). MODIS found a small area around the center of circulation where cloud top temperatures of strongest thunderstorms. Those temperatures were as cold as or colder than minus 80 degrees Fahrenheit (minus 62.2 Celsius). Cloud top temperatures that cold indicate strong storms that have the capability to create heavy rain.

The infrared imagery showed that the center of 10S remained off the coast, while a strong band of thunderstorms in the eastern quadrant were soaking the coast.

The Joint Typhoon Warning Center (JTWC) noted at 10 a.m. EDT (1500 UTC) 10S's maximum sustained winds were near 40 mph (35 knots/62 kph). 10S was moving to the southwest direction at 7 mph (6 knots/11 kph). 10S was located about 46 miles west of Broome, Australia near 18.4 degrees south latitude and 120.9 degrees east longitude.

JTWC expects 10S to strengthen rapidly to hurricane-force, as strong as 92 mph (80 knots/148 kph), before making landfall. The cyclone will parallel the coast of Western Australia, before heading inland between Broome and Port Hedland.

10S is expected to cross the west Kimberley or east Pilbara coast on Sunday, Feb. 18.

Provided by NASA's Goddard Space Flight Center

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