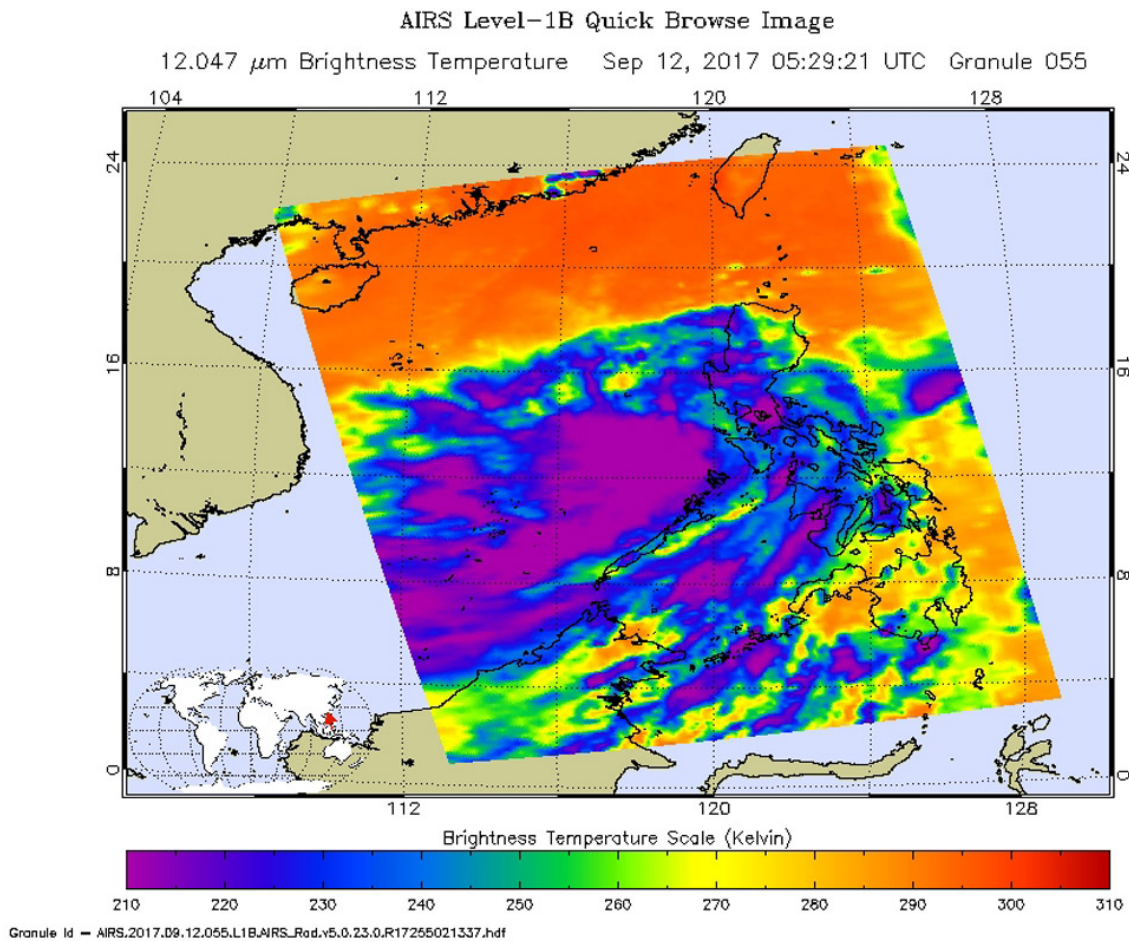


NASA gets infrared look at Tropical Depression 21W

September 12 2017



On Sept. 12 at 5:29 a.m. EDT (0929 UTC) the AIRS instrument aboard NASA's Aqua satellite captured this false-colored infrared image of Tropical Depression 21W in the South China Sea. Some cloud top temperatures in strong storms were as cold as minus 63 degrees Fahrenheit (minus 53 degrees Celsius). Credit: NASA JPL, Ed Olsen

NASA's Aqua satellite measured cloud top temperatures in newly formed Tropical Depression 21W in the South China Sea and found a large area of strong thunderstorms around the center of circulation.

Tropical Depression 21W developed just west of the Philippines.

The Atmospheric Infrared Sounder or AIRS instrument aboard NASA's Aqua satellite analyzed Tropical Depression 21W (21W) in [infrared light](#). Infrared light provides scientists with temperature data and that's important when trying to understand how strong storms can be. The higher the [cloud tops](#), the colder and the stronger they are. So infrared light as that gathered by the AIRS instrument can identify the strongest sides of a tropical cyclone.

When NASA's Aqua satellite flew over 21W on Sept. 12 at 5:29 a.m. EDT (0929 UTC) AIRS detected a large area of strong thunderstorms around the center and in a band of thunderstorms stretching over the eastern Philippines. Cloud top temperatures in those three areas were as cold as minus 63 degrees Fahrenheit (minus 53 degrees Celsius). Storms with cloud top temperatures that cold have the capability to produce heavy rainfall.

At 11 a.m. EDT (1500 UTC), the center of Tropical Depression 21W was located near 14.5 degrees north latitude and 118.2 degrees east longitude. That's about 163 miles west of Manila, Philippines.

The depression is moving toward the west near 19 knots (21.8 mph/35.1 kph). Maximum sustained winds are near 30 knots (34.5 mph/55 kph) with higher gusts.

21W is forecast to strengthen and move west across the South China Sea.

It is expected to make landfall in northern Vietnam.

Provided by NASA's Goddard Space Flight Center

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