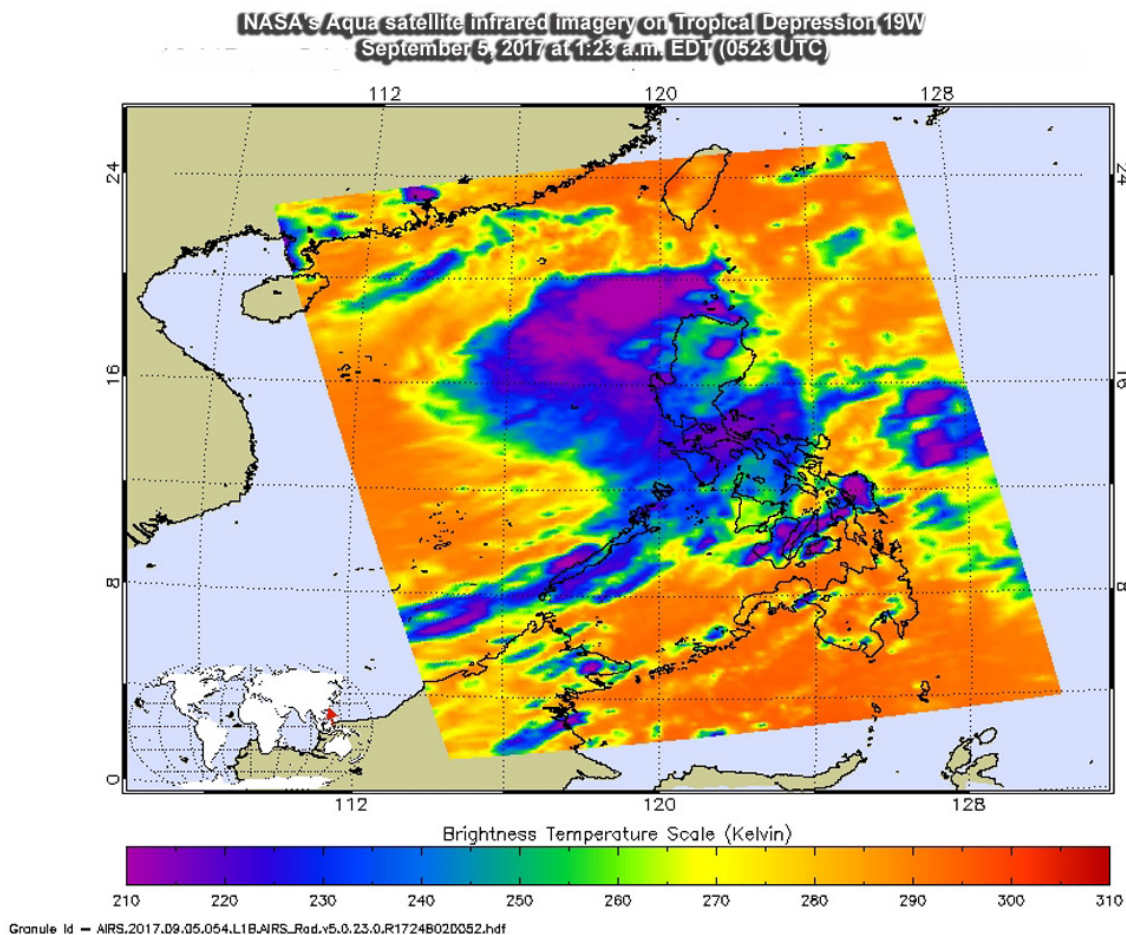


NASA sees development of Tropical Depression 19W

September 5 2017



On Sept. 5 at 1:23 a.m. EDT (0523 UTC) the AIRS instrument aboard NASA's Aqua satellite captured this false-colored infrared image of Tropical Depression 19W just north of the Philippines. 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 looked at cloud top temperatures in Tropical Depression 19W as it developed just north of northern coast of Luzon, Philippines. Satellite imagery showed that the depression was already battling wind shear.

The Atmospheric Infrared Sounder or AIRS instrument aboard NASA's Aqua satellite passed over Tropical Depression 19W in the Northwestern Pacific Ocean and analyzed the storm 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.

NASA's Aqua satellite flew over 19W on Sept. 5 at 1:23 a.m. EDT (0523 UTC) AIRS detected some strong thunderstorms southwest of the center with cloud top temperatures 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.

On Sept. 5 at 0300 UTC (Sept. 4 at 11 p.m. EDT), the Joint Typhoon Warning Center (JTWC) noted the development of the depression. Maximum sustained winds were near 25 knots (28.7 mph/46.3 kph). The center was located near 17.8 degrees north latitude and 124.5 degrees east longitude. That's about 284 nautical miles northeast of Manila, Philippines. 19W was moving to the north-northwest at 8 knots (9.2 mph/14.8 kph).

The JTWC said vertical [wind shear](#) has increased to 25 to 30 knots. As a result, deep convection is now displaced approximately 100 nautical miles to the west of the exposed low-level [center](#). JTWC expects 19W to

continue tracking to the northwest and into the South China Sea over the next couple of days.

Provided by NASA's Goddard Space Flight Center

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