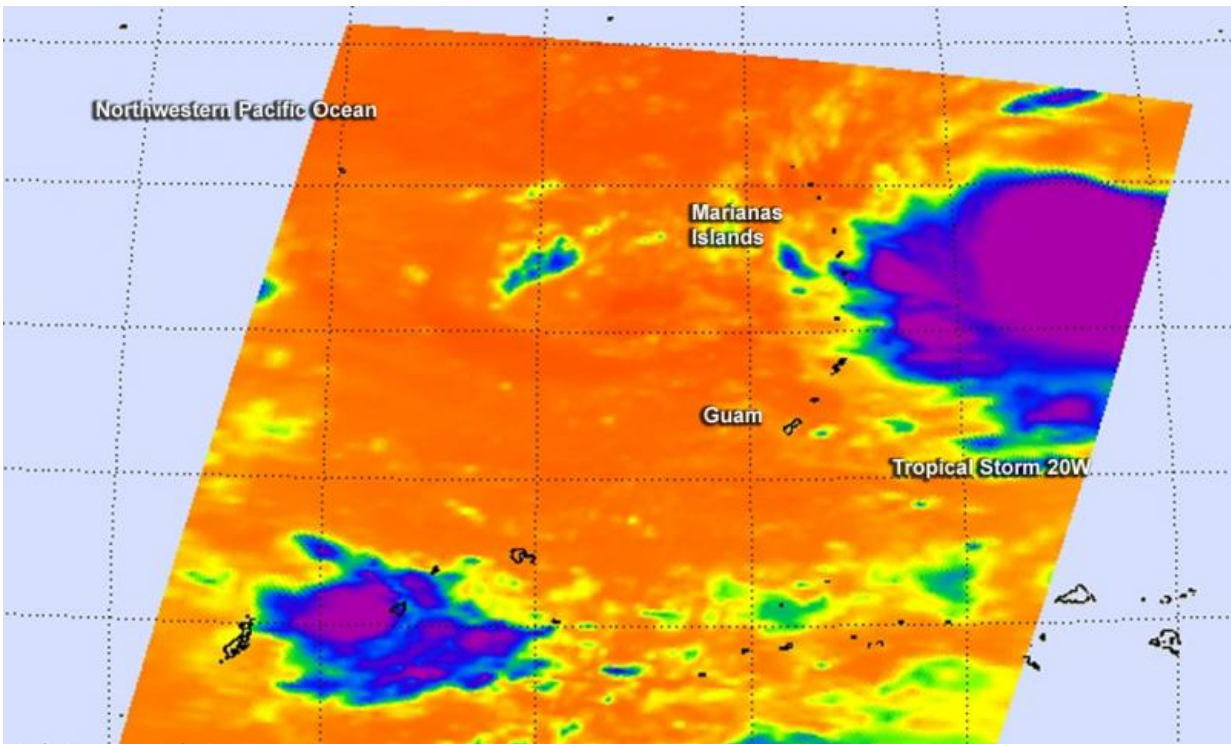


NASA gets infrared view of new Tropical Storm 20W

September 15 2015



NASA's Aqua satellite captured this infrared look at the low that became Tropical Storm 20W on Sept. 14 at 1611 UTC (2:11 p.m. EDT). Strongest storms (purple) circled the center. Credit: NASA JPL, Ed Olsen

The twentieth tropical depression of the Northwestern Pacific Ocean formed early on September 14 and became a tropical storm the next day, triggering a tropical storm watch. NASA's Aqua satellite passed over the

low pressure area as it was consolidating and saw powerful thunderstorms circling the center.

The Atmospheric Infrared Sounder or AIRS instrument that flies aboard NASA's Aqua satellite gathers data in infrared light that provides information about temperatures. The colder the cloud top temperature, the higher the storms are in the troposphere (because the higher you go in the troposphere, the colder it gets). When storms get very high, cloud top temperatures get as cold or colder than -63 Fahrenheit/-53 Celsius, which is what AIRS data showed around Tropical Depression 20W's (TD 20W) center on September 14 at 1611 UTC (2:11 p.m. EDT). Storms with cloud top temperatures that high have been shown to produce heavy rainfall.

By September 14 at 2100 UTC (7 p.m. EDT), TD 20W had formed about 373 nautical miles (429 miles/690 km) east-northeast of Saipan.

At 0900 UTC (5 a.m. EDT) on September 15, TD 20W was located about 418 nautical miles (481 miles/774 km) northeast of Andersen Air Force Base, Guam. That put its center near 18.0 North latitude and 150.6 East longitude. TD 20W had maximum sustained winds near 30 knots (35 mph/55 kph) and was moving to the west-northwest at 9 knots (10.3 mph/16.6 kph).

At 1200 UTC (7 a.m. EDT) on September 15, the depression had strengthened into a tropical storm. Maximum sustained winds have increased to 40 mph. The center of Tropical Storm 20W was located by satellite near latitude 18.3 north and longitude 149.7 East. That put the center about 265 miles east of Agrihan, 255 miles east of Pagan and Alamagan and 470 miles northeast of Guam. A [tropical storm](#) watch was in effect for Alamagan, Pagan and Agrihan.

Tropical Storm 20W was moving west-northwest at 10 mph and is

expected to continue in that general direction for the next day or two before turning north.

Is expected to continue intensifying during the next couple of days.

On Sept. 15 at 0358 UTC (Sept. 14 at 11:58 p.m. EDT) a microwave image from the NOAA-19 satellite showed that the bulk of the deep convection (rising air that forms thunderstorms) was over the northwestern quadrant (indicating wind shear was pushing it) with curved bands of thunderstorms wrapping into the center.

For forecast updates from the National Weather Service Office in Guam, visit: <http://www.prh.noaa.gov/guam/>.

The Joint Typhoon Warning Center (JTWC) forecast takes 20W toward the Northern Marianas Islands and later toward Iwo To island, Japan. JTWC forecasters expect TD 20W to strengthen, peaking near 105 knots (120.8 mph/194.5 kph) by September 19.

Provided by NASA's Goddard Space Flight Center

Citation: NASA gets infrared view of new Tropical Storm 20W (2015, September 15) retrieved 1 July 2024 from <https://phys.org/news/2015-09-nasa-infrared-view-tropical-storm.html>

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