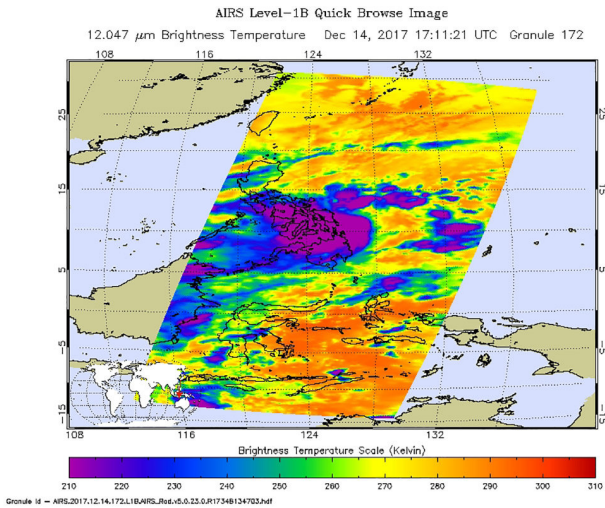


# NASA sees Tropical Storm Kai-Tak moving over the Philippines

15 December 2017



The AIRS instrument aboard NASA's Aqua satellite captured an infrared image of Tropical Storm Kai-Tak on Dec. 14 at 12:11 p.m. EST (1711 UTC). Coldest cloud tops and strongest storms appear in purple. Credit: NASA JPL/Ed Olsen

NASA's Aqua satellite provided infrared imagery of Tropical Storm Kai-Tak that revealed the western side of storm had moved into the southern and central Philippines. Infrared data revealed very cold cloud top temperatures with the potential for heavy rainfall.

The Atmospheric Infrared Sounder aboard NASA's Aqua satellite captured an infrared image of Tropical Storm Kai-Tak on Dec. 14 at 12:11 p.m. EST (1711 UTC). Infrared data provides cloud top temperatures and the coldest [cloud tops](#) and strongest storms were blanketing the southern and central Philippines. Infrared data showed persistent central cold cover obscuring the low-level circulation center where cloud top temperatures were as cold as minus 115.6 degrees Fahrenheit or minus 82 degrees Celsius. NASA research has shown that storms with cloud tops that cold have

the potential to generate [heavy rainfall](#).

On Dec. 15 at 10 a.m. EST (1500 UTC) the Joint Typhoon Warning Center reported that Tropical storm Kai-tak, known as Urduja in the Philippines had maximum sustained winds near 45 knots (52 mph/83 kph). The storm had slowed to a crawl, moving west at just 2 knots (2.3 mph/3.7 kph). When a tropical cyclone slows over land, it increases the likelihood for inland flooding.

Kai-Tak was centered near 11.6 degrees north latitude and 127.6 degrees east longitude, just east of the Eastern Visayas region and about 436 miles east-southeast of Manila, Philippines.

On Dec. 15, the Philippine Atmospheric Geophysical and Astronomical Services Administration (PAGASA) issued Heavy Rainfall Warning No.17 at 8:40 p.m. local time on Friday, December 15, 2017. PAGASA issued orange and yellow level warnings.

There is an Orange Warning Level for Eastern Samar and Samar, where flooding is threatening in low-lying areas and landslides in mountainous areas. There is a Yellow Warning Level for Leyte, Southern Leyte, Biliran, Cebu, Bohol, Siquijor and Negros Oriental where flooding is possible in low-lying areas and landslides in mountainous areas.

The Joint Typhoon Warning Center expects Kai-tak to continue moving westward through the Philippine archipelago, while intensifying slightly. After landfall in the Eastern Visayas region, the [storm](#) will weaken and turn to the southwest where it is expected to track into the South China Sea by Dec. 18.

For updated forecasts and warnings from PAGASA, visit: <https://www1.pagasa.dost.gov.ph/>

Provided by NASA's Goddard Space Flight Center

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