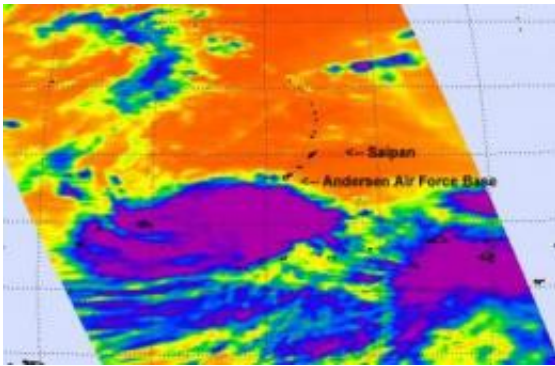


NASA sees dramatic temperatures around Tropical Depression 11W

July 27 2011



NASA's Aqua satellite passed over Tropical Depression 11W on July 26 at 0347 UTC (11:47 p.m. EDT on July 25). This infrared image was taken from the AIRS instrument on NASA's Aqua satellite and showed a large area of very cold cloud top temperatures (purple) from strong thunderstorms around the center of the storm. Credit: NASA JPL

Tropical Depression 11W appears as a huge and very cold area of clouds on infrared imagery from NASA. Infrared imagery basically provides temperature data of factors such as clouds and sea surface and there's quite a contrast between the two around Tropical Depression 11W.

The Atmospheric Infrared Sounder (AIRS) instrument that flies aboard NASA's Aqua satellite passed over Tropical Depression 11W (TD11W) on July 26 at 0347 UTC (11:47 p.m. EDT on July 25). It showed that within TD11W there was a large area of cloud-top temperatures that

were colder than -63 Fahrenheit (-52 Celsius), which indicates strong convection (rapidly rising air that form thunderstorms) and suggests heavy rainfall. The image showed that the northern fringe of TD11W was just south of Andersen Air Force Base in the Western North Pacific Ocean. Meanwhile, the southeastern side of the storm was already affecting Yap. A tropical storm watch is in effect for Fais and Ulithi in Yap State (Micronesia).

The dramatic temperatures are marked between the frigid cloud top temperatures and the warm water surrounding the [tropical depression](#). The [sea surface temperatures](#) exceed the 80 degree Fahrenheit mark, and compared with the cloud-top temperatures of -63 Fahrenheit, that's a difference of 143 degrees from cloud top to sea surface!

At 1500 UTC (11 a.m. EDT) on July 27, the center of TD11W was about 320 nautical miles south-southwest of Andersen Air Force Base, Guam, near 9.3 North and 142.0 East. It was moving to the northwest near 13 knots (15 mph) and had [maximum sustained winds](#) near 30 knots (34 mph).

TD11W is expected to intensify to typhoon strength and recurve to the northeast.

Provided by NASA's Goddard Space Flight Center

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