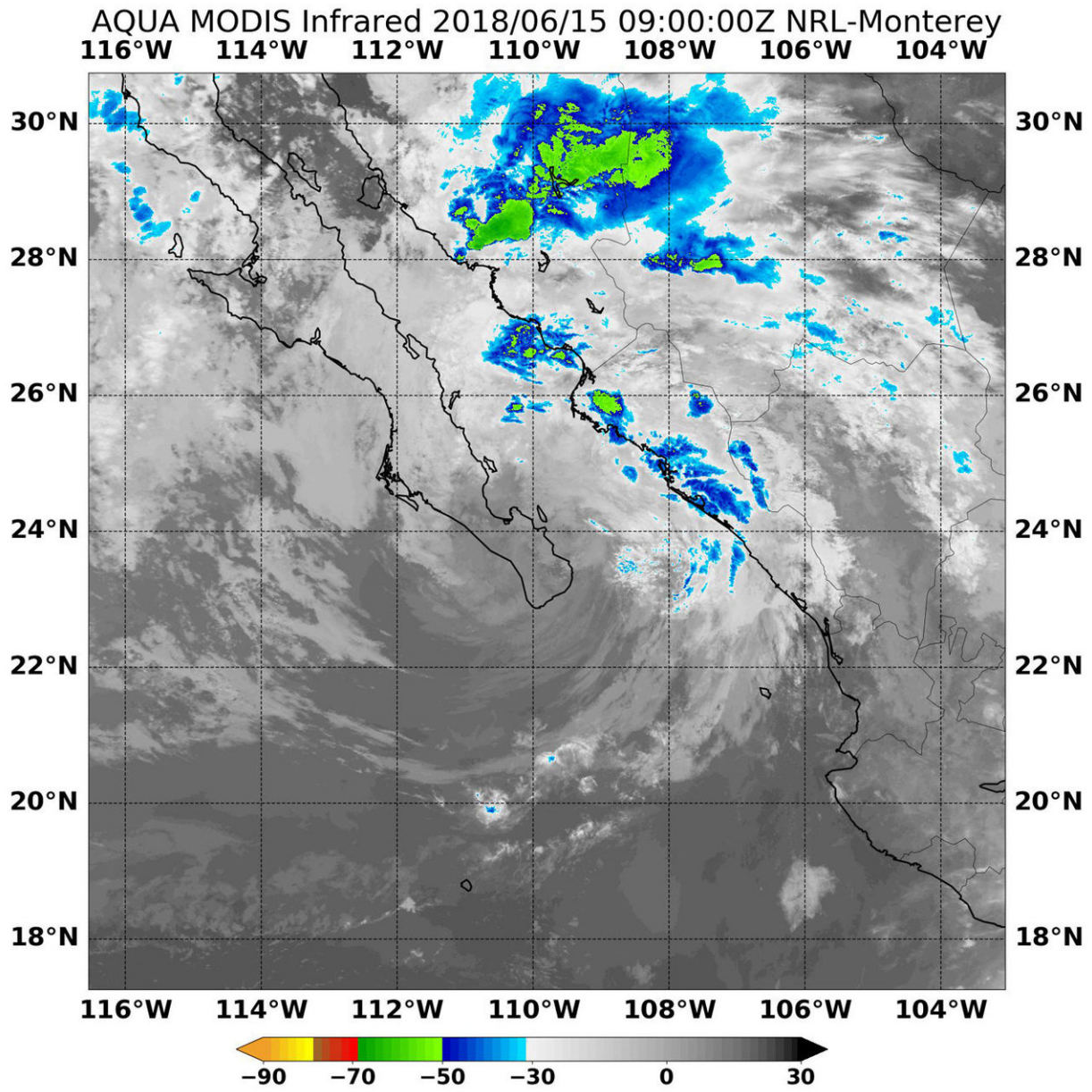


NASA finds Tropical Depression Bud's rains over mainland Mexico

June 15 2018



NASA's Aqua satellite passed over Tropical Depression Bud on June 15 and saw the coldest cloud top temperatures (green/yellow) east of the storm's center and over mainland Mexico. Credit: NASA/NRL

Tropical Depression Bud's rains were falling over western Mexico when NASA's Aqua satellite passed overhead on June 15.

NASA's Aqua satellite passed over Bud after it weakened to a depression on June 15, 2018 at 5 a.m. EDT (0900 UTC) and analyzed the storm in [infrared light](#). Infrared light provides 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.

Infrared data from the Moderate Resolution Imaging Spectroradiometer or MODIS instrument showed coldest cloud top temperatures were in thunderstorms flaring east of Bud's center. Bud's center was still over the Eastern Pacific Ocean, off the coast of western Mexico, but thunderstorms and rainfall extended over land from Bud's northeastern quadrant. Thunderstorms in that quadrant showed 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.

At 11 a.m. EDT on June 15, the National Hurricane Center (NHC) noted that "Bud and its remnants are expected to produce [heavy rainfall](#) over the Mexican state of Sonora and the southwestern United States." The Government of Mexico has discontinued the Tropical Storm Watch from Altata to Huatabampito, and there are no coastal watches or warnings in effect.

At that time, the center of Tropical Depression Bud was located near latitude 25.3 degrees north and longitude 110.0 degrees west. That's about 100 miles (160 km) east-southeast of Loreto, Mexico. NHC said the depression was moving toward the north near 12 mph (19 kph) and this motion is expected to continue through early Saturday, June 16. Maximum sustained winds have decreased to near 35 mph (55 kph) with higher gusts. The estimated minimum central pressure is 1002 millibars.

On the forecast track, the center of Bud is expected to move inland over southern Sonora by tonight, June 15. Bud is expected to become a remnant low by tonight and dissipate on Saturday, June 16.

Bud is expected to bring rainfall over the U.S. over the next two days. NHC said "Remnant moisture from Bud is expected to produce 1 to 2 inches of rain with isolated totals of 3 inches across the southwestern U.S. into the southern and central Rockies through Saturday. These rains could cause life-threatening flash floods and mud slides."

For updated forecasts, visit: <http://www.nhc.noaa.gov>

Provided by NASA's Goddard Space Flight Center

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