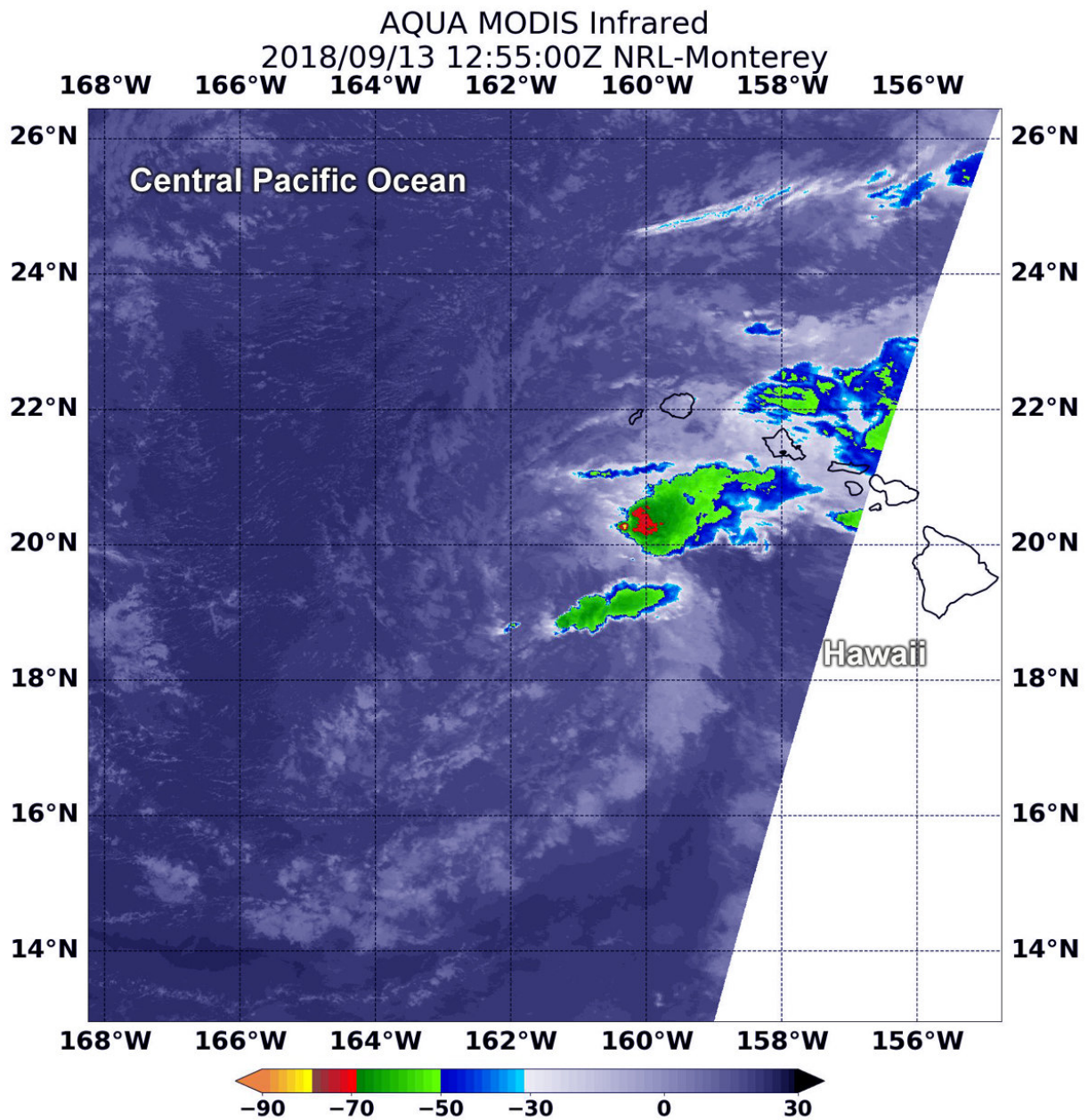


NASA sees Tropical Depression Olivia's strength waning

September 13 2018



At 8:55 a.m. EDT (1255 UTC) on Sept. 13, the MODIS instrument aboard NASA's Aqua satellite looked at Tropical Depression Olivia in infrared light. MODIS found a small area of powerful storms with cloud tops as cold as or colder than minus 70 degrees (red) Fahrenheit (minus 56.6 degrees Celsius) west of the Hawaiian Islands. Credit: NASA/NRL

NASA's Aqua satellite provided an infrared look at a weakening and now tropical depression Olivia in the Central Pacific Ocean. Olivia soaked the Hawaiian Islands on its east to west track through them.

The Central Pacific Hurricane Center or CPHC noted now that Olivia's center has moved west of the Hawaiian Islands, as such there are no coastal watches or warnings in effect. However, interests in the northwest Hawaiian Islands should monitor the progress of Olivia.

On Sept. 13, Olivia was moving rapidly toward the west-southwest, far southwest of Hawaii, however, flooding [rainfall](#) continues across parts of the main Hawaiian Islands.

At 2:20 a.m. EDT (0230 UTC) on Sept. 13, Moderate Resolution Imagine Spectroradiometer or MODIS instrument aboard NASA's Aqua satellite analyzed Tropical Depression Olivia in infrared light. MODIS found coldest cloud top temperatures in powerful storms with cloud tops as cold as or colder than minus 70F (minus 56.6C) west of the Hawaiian Islands. NASA research has found that cloud top temperatures as cold as or colder than the 70F/56.6C threshold have the capability to generate [heavy rainfall](#).

Despite the heaviest rainfall off-shore, the CPHC noted scattered thunderstorms continue to develop far northeast, southeast, and south of

the low-level circulation center, but the core of the system remains completely devoid of deep convection (developing strong thunderstorms).

The CHPC forecast said "Lingering moisture from Olivia continues to cause heavy rainfall across portions of the main Hawaiian Islands this morning. These wet conditions will likely persist through tonight. Since many areas are already saturated, any additional heavy rainfall could produce life-threatening flash flooding."

Olivia is being weakened by southwesterly vertical [wind shear](#) of over 30 knots (34.5 mph/55.5 kph). In general, [wind](#) shear is a measure of how the speed and direction of winds change with altitude. Wind shear can tear a tropical cyclone weaken it or even tear it apart.

At 11 a.m. EDT (5 a.m. HST/1500 UTC), the center of Tropical Depression Olivia was located near latitude 19.5 degrees north and longitude 162.2 degrees west. That's about 250 miles (400 km) southwest of Lihue, Hawaii.

CPHC said the depression is moving toward the west-southwest near 18 mph (30 kph), and this general motion is expected to continue through this morning with a slight decrease in forward speed, followed by a turn toward the west later today. Olivia, or its remnant low, is forecast to turn toward the west-northwest later tonight or Friday.

Maximum sustained winds are near 35 mph (55 kph) with higher gusts. Little change in strength is forecast through tonight. Olivia is expected to become a post-tropical remnant low by Friday.

Provided by NASA's Goddard Space Flight Center

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