

# Cyclone Rene slams Tonga, moves into open waters

February 16 2010

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NASA's Aqua satellite captured an image of Tropical Cyclone Rene (15P) when it was off Pago Pago on February 14 at 01:15 UTC. Credit: NASA MODIS Rapid Response Team

Tropical Cyclone Rene slammed Tonga early yesterday, February 15, with maximum sustained winds near 100 mph (160 kilometers). NASA's Aqua satellite captured an image of Tropical Cyclone Rene when it was off Pago Pago yesterday, February 14 at 01:15 UTC. Rene has since moved southward and is now expected to dissipate in the next couple of days.

Tonga is an archipelago located in the South Pacific Ocean. It is made up of 169 islands, and 133 of those are uninhabited. The Kingdom of Tonga stretches over 500 miles (800 km) from north to south. The islands that make up the archipelago are all south of Samoa.

Rene passed over the northern island of Vava'u this weekend. Nuku'alofa, the capital city of the islands was lashed with gusty winds and heavy rainfall and residents experienced some power outages. In the center of the archipelago, the Ha'apai island group was hit by wind gusts as high as 143 miles (228 km) an hour.

By 4 a.m. ET (0900 UTC) on February 16, Rene's [maximum sustained winds](#) had decreased to 45 knots (52 mph or 83 km/hr). Rene was located near 24.7 South and 179.6 West, about 440 nautical miles southeast of Nadi, Fiji. Rene was moving about 16 knots (18 mph or 29 km/hr) west-southwest.

Satellite data revealed that Rene's low-level center of circulation is now fully exposed to wind shear. In addition, the deep convection (rapidly rising air that creates the thunderstorms that power [tropical cyclones](#)) has been sheared off to the south of the storm's center, cutting of its power.

Rene is now moving over waters cooler than 80 degrees Fahrenheit (26.6 Celsius), so it is expected to continue weakening. 80F (26.6C) is the minimum warm water temperature threshold that a tropical cyclone needs to maintain strength. In addition to cooler waters an upper-level low pressure area to the northwest is helping to suppress convection from occurring. Wind shear is battering Rene, too, so the storm is being weakened from three major factors.

Before Rene struck Tonga, the nation was hit by a 6.1 magnitude earthquake on Saturday, February 13. The quake was 6.2 miles deep and was located about 60 miles southeast of Nuku'alofa. No injuries or

fatalities were reported.

Residents of Tonga are grateful that Rene has passed so the clean up can begin.

Provided by NASA's Goddard Space Flight Center

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