

NASA sees Tropical Storm Hernan near Mexico's Baja California

July 28 2014



This visible image of Tropical Storm Hernan (as Tropical Depression 8E) near Baja California, Mexico was taken on July 26 at 2:05 p.m. EDT by NASA's Terra satellite. Credit: NASA Goddard MODIS Rapid Response Team

Tropical Storm Hernan developed over this past weekend and reached hurricane strength before vertical wind shear kicked in and kicked the

storm down. NASA's Terra satellite passed over Hernan when it was developing as a tropical depression near Baja California, Mexico.

Tropical Storm Hernan was born on Saturday, July 26 at 5 a.m. EDT as Tropical Depression 8-E. By 5 p.m. EDT it strengthened into Tropical Storm Hernan. At 11 a.m. EDT on Sunday, July 27, Hernan's maximum sustained winds were already up to 70 mph, just four miles per hour shy of [hurricane](#) status. As Hernan passed west of Socorro Island at 5 p.m. EDT on July 28 it reached hurricane status when its maximum sustained winds reached 75 mph (120 kph). It remained a hurricane for about 12 hours before dropping back to a [tropical storm](#) on July 29 at 5 a.m. EDT when maximum sustained winds were near 70 mph (110 kph).

Hernan moved into an area of persistent westerly [wind shear](#) blowing at between 15 to 20 knots (17.2 to 23.0 mph/27.8 to 37.0 kph). That wind shear is deteriorating the cyclone's organization. Infrared satellite data from instruments like the Atmospheric Infrared Sounder (AIRS) aboard NASA's Aqua satellite showed that the cloud top temperatures were warming. Warming cloud tops means that the uplift of air had weakened. Uplift is air that pushes thunderstorms into the top of the troposphere. The higher the thunderstorm cloud top, the colder it is (because the troposphere cools as you go higher). Higher, colder cloud tops in thunderstorms mean stronger thunderstorms.

Visible satellite data today indicated "a rather shapeless cloud pattern," according to the National Hurricane Center. That means the circulation is less organized.

At 11 a.m. EDT (1500 UTC) on July 28, Tropical Storm Hernan's [maximum sustained winds](#) were down to 65 mph (100 kph). It was centered near 20.5 north latitude and 115.9 west longitude, about 420 miles west-southwest (675 km) of the southern tip of Baja California. Hernan is moving toward the northwest near 16 mph (26 kph) and is

forecast to continue through Tuesday night, July 29, followed by a turn to the west.

Forecaster Roberts at the National Hurricane Center noted today, July 28 that in addition to being battered by wind shear, "an increasingly stable air mass and decreasing sea surface temperatures should ultimately weaken Hernan into a shallow post-tropical cyclone in 48 hours."

Provided by NASA's Goddard Space Flight Center

Citation: NASA sees Tropical Storm Hernan near Mexico's Baja California (2014, July 28)
retrieved 26 April 2024 from

<https://phys.org/news/2014-07-nasa-tropical-storm-hernan-mexico.html>

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