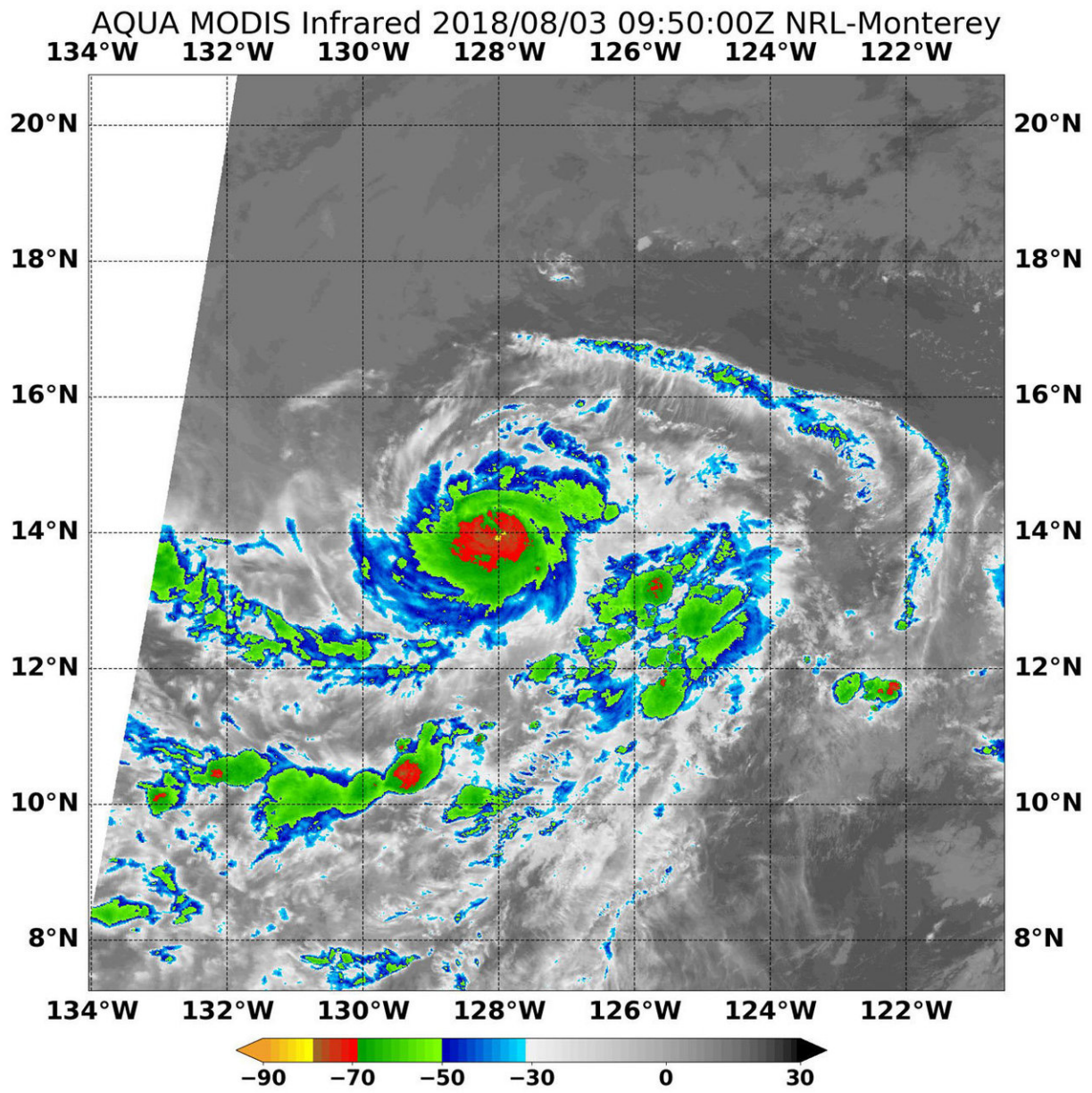


# NASA finds a compact center in Hurricane Hector

August 3 2018



On Aug. 3 at 5:50 a.m. EDT (0950 UTC) NASA's Aqua satellite revealed some cloud top temperatures in strong storms around Hurricane Hector's compact center were as cold or colder than minus 70 degrees (red) Fahrenheit (minus 56.6 degrees Celsius). Credit: NASA/NRL

Hurricane Hector has a small, tight center surrounded by strong storms. Infrared satellite imagery provides temperature data, and when NASA's Aqua satellite passed over Hector the coldest cloud tops circling the center were compact.

Cloud top temperatures determine strength of the thunderstorms that make up a tropical cyclone. The colder the cloud top, the stronger the uplift in the storm that helps thunderstorm development. Basically, infrared data helps determine where the most powerful storms are within a tropical cyclone.

The Moderate Resolution Imaging Spectroradiometer or MODIS instrument aboard Aqua provided that [infrared data](#) on Aug. 3 at 5:50 a.m. EDT (0950 UTC). MODIS data showed the strongest thunderstorms were as cold or colder than minus 70 degrees Fahrenheit (minus 56.6 degrees Celsius). NASA research indicates very cold cloud tops with the potential to generate very heavy rainfall.

The compact center was confirmed by the National Hurricane Center or NHC in their advisory on Aug. 3 at 5 a.m. EDT (0900 UTC) when they noted "Hurricane-force winds extend outward up to 15 miles (30 km) from the center and tropical-storm-force winds extend outward up to 70 miles (110 km)."

At that time, the eye of Hurricane Hector was located near latitude 14.0

degrees north and longitude 127.8 degrees west. That's about 1,320 miles (2,125 km) west-southwest of the southern tip of Baja California, Mexico. The estimated minimum central pressure is 975 millibars.

Hector was moving toward the west near 12 mph (19 km/h). This general motion is expected to continue through the weekend. Maximum sustained winds are near 105 mph (165 kph) with higher gusts.

The NHC said that "Some gradual strengthening is forecast, and Hector is expected to become a major hurricane within the next day or two."

Provided by NASA's Goddard Space Flight Center

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