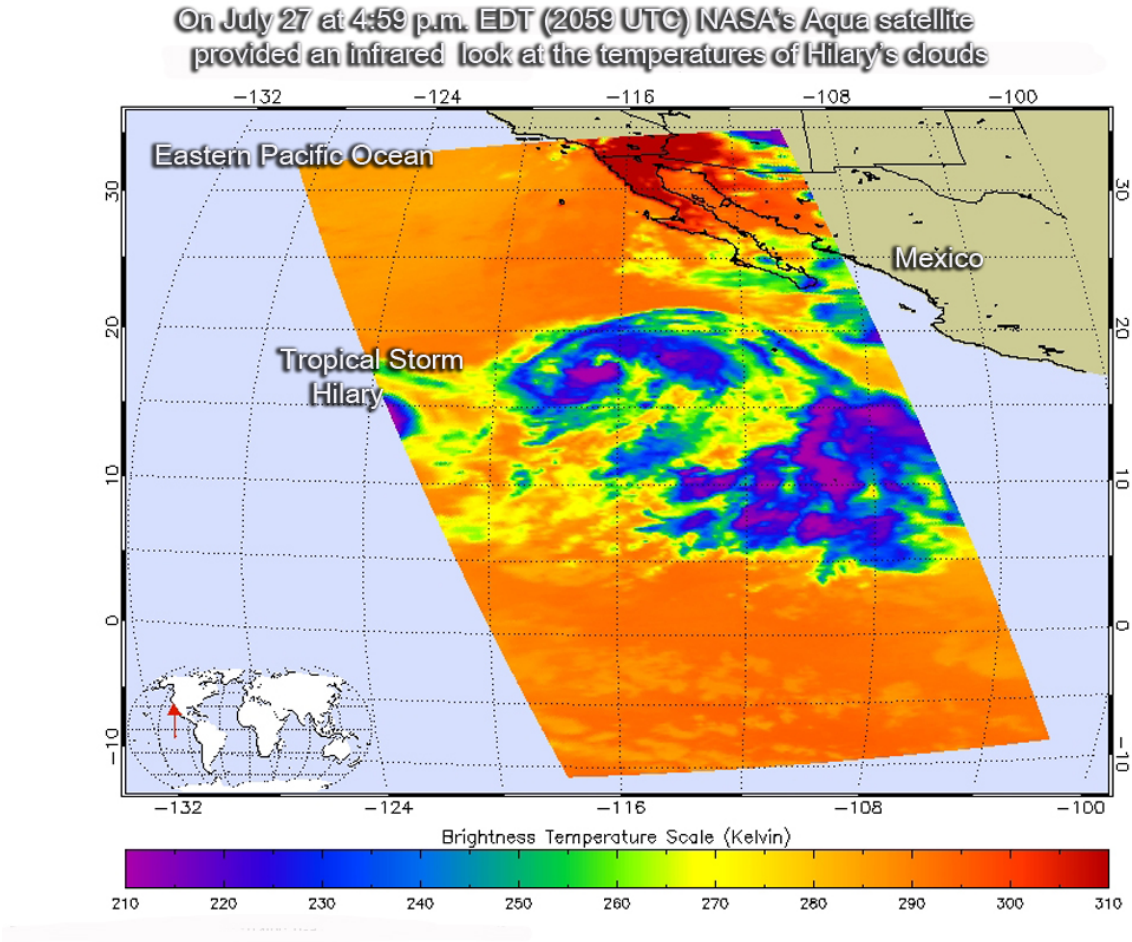
NASA sees Hilary weaken to Tropical Storm status

July 28 2017, by Rob Gutro



On July 27 at 4:59 p.m. EDT (2059 UTC) NASA's Aqua satellite provided a look at the temperatures of Hilary's clouds and saw strong storms (purple) limited to a small area south of the center as it continued weakening. Credit: NASA JPL/Ed Olsen

NASA's Aqua satellite provided infrared imagery Hurricane Hilary that showed it weakening. Within 12 hours the storm weakened to a tropical storm.

Infrared satellite imagery from the Atmospheric Infrared Sounder or AIRS instrument that flies aboard NASA's Aqua satellite taken on July 27 at 4:59 p.m. EDT (2059 UTC) provided a look at the temperatures of Hilary's clouds. That data was false colored and made into an image at NASA's Jet Propulsion Laboratory in Pasadena, California to highlight cloud top temperatures.

The data showed that the deep convection and building thunderstorms associated with Hilary was decreasing late on July 27. The convective pattern became limited to a ragged central dense overcast. This loss of convection appears to be associated with dry air that has wrapped into the circulation.

In infrared imagery, the coldest cloud tops indicate towering thunderstorms high into the troposphere. The colder the clouds, the stronger the storms. AIRS data showed that a small area of cloud tops around the south of the center of circulation were as cold as minus 63 degrees Fahrenheit or minus 53 degrees Celsius. Cloud top temperatures that cold have been shown to generate heavy rainfall.

On July 27, a small area of convection persisted near the center mainly in the southeastern quadrant,

At 5 a.m. EDT (0900 UTC), the center of Tropical Storm Hilary was located near 18.7 degrees north latitude and 117.9 degrees west longitude. Hilary was moving toward the west-northwest near 8 mph (13 kph) and this general motion is expected to continue with some increase in forward speed during the next couple of days. The estimated minimum central pressure is 992 millibars.

Maximum sustained winds are near 70 mph (110 kph) with higher gusts. Weakening is forecast during the next 48 hours as Hilary moves over cooler water as seen in the infrared imagery from NASA's Aqua satellite. The AIRS instrument data showed the waters north of Hilary were cooler than the 80 degree Fahrenheit (26.6 degree Celsius) threshold needed to maintain a tropical cyclone. Cooler waters will sap the strength from the storm and continue to weaken it further.

Because Tropical Storm Hilary is far from land, there are no coastal watches or warnings in effect.

Provided by NASA's Goddard Space Flight Center

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