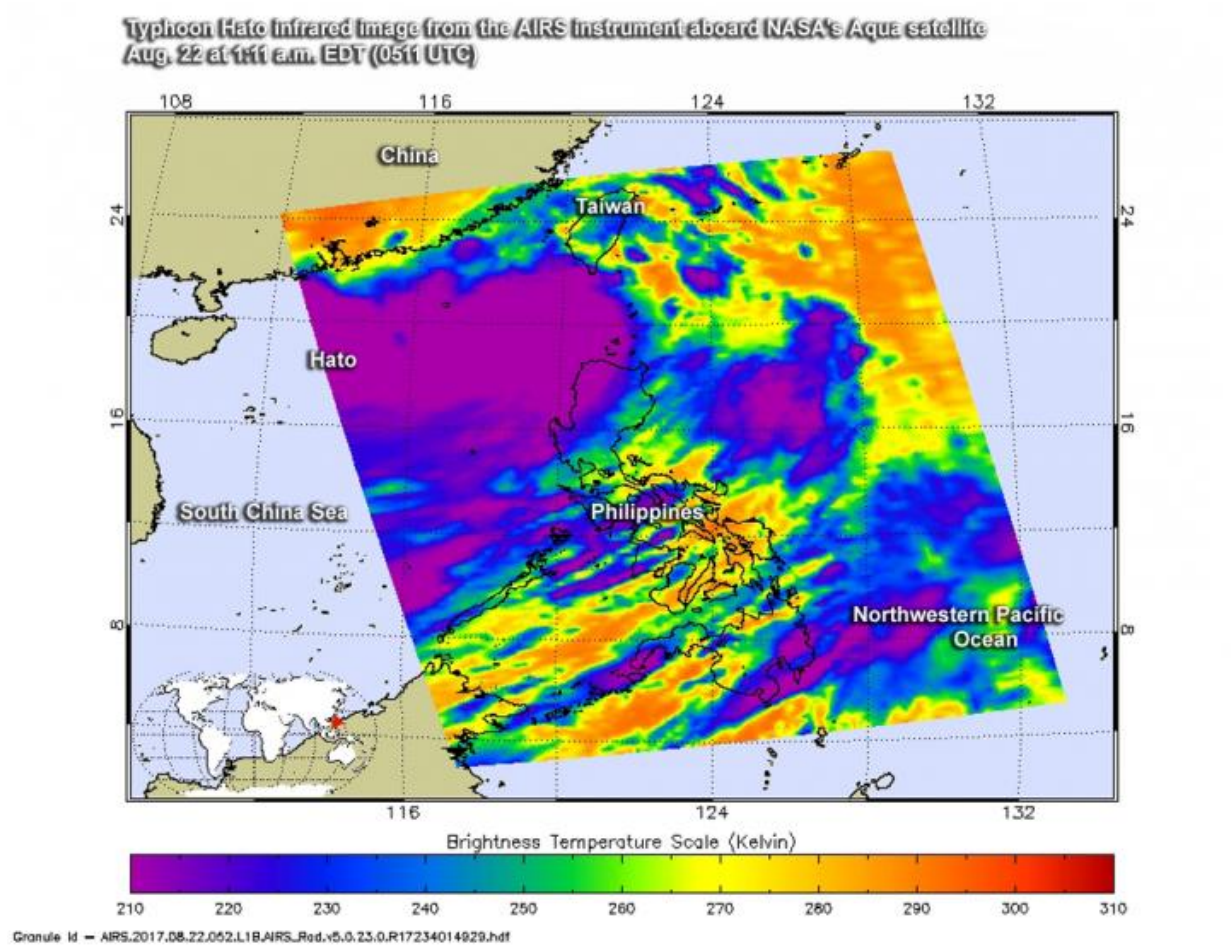
NASA infrared image shows Typhoon Hato in South China Sea

August 23 2017



On Aug. 22 at 1:11 a.m. EDT (0511 UTC) NASA's Aqua satellite analyzed cloud top temperatures in the Typhoon Hato and found cold temperatures and strong storms (purple) in the northern part of the South China Sea. Credit: NASA JPL/Ed Olsen

NASA's Aqua satellite provided an infrared look at the Typhoon Hato as it continued to move toward China. Hato is strengthening as it heads toward landfall.

The Atmospheric Infrared Sounder or AIRS instrument aboard NASA's Aqua satellite looked at cloud top temperatures in Hato using infrared light. The AIRS data were taken on Aug. 22 at 1:11 a.m. EDT (0511 UTC). The image showed a large area of very cold cloud top temperatures in thunderstorms over the northern part of the South China Sea. The eastern edge of the storm was between Taiwan and northern Philippines.

A large area of storms wrapping around Hato's center were as cold as minus 63 degrees Fahrenheit (minus 53 degrees Celsius). NASA research has shown that storms with cloud tops that cold are high up in the troposphere and can generate heavy rainfall.

Infrared imagery showed a consolidating low-level circulation center with bands of thunderstorms wrapping around a defined center. Hato briefly formed an eye around 5 a.m. EDT (0900 UTC) on Aug. 22, but weakened and lost the eye feature.

The infrared data was false-colored at NASA's Jet Propulsion Laboratory in Pasadena, California, where AIRS data is managed.

At 11 a.m. EDT (1500 UTC) on Aug. 22 Hato was located about 198 nautical miles east-southeast of Hong Kong, China, near 20.7 degrees north latitude and 117.3 degrees east longitude. Hato's maximum sustained winds were near 65 knots (75 mph/120 kph). The storm is expected to strengthen to 75 knots (86 mph/139 kph) before it makes landfall. It was moving to the west-northwest at 13 knots (15 mph/24 kph).

As Hato closes in on mainland China, There is a strong wind signal #3 in effect for Hong Kong.

Hato is expected to make landfall early on Aug. 23 just south of Hong Kong.

Provided by NASA's Goddard Space Flight Center