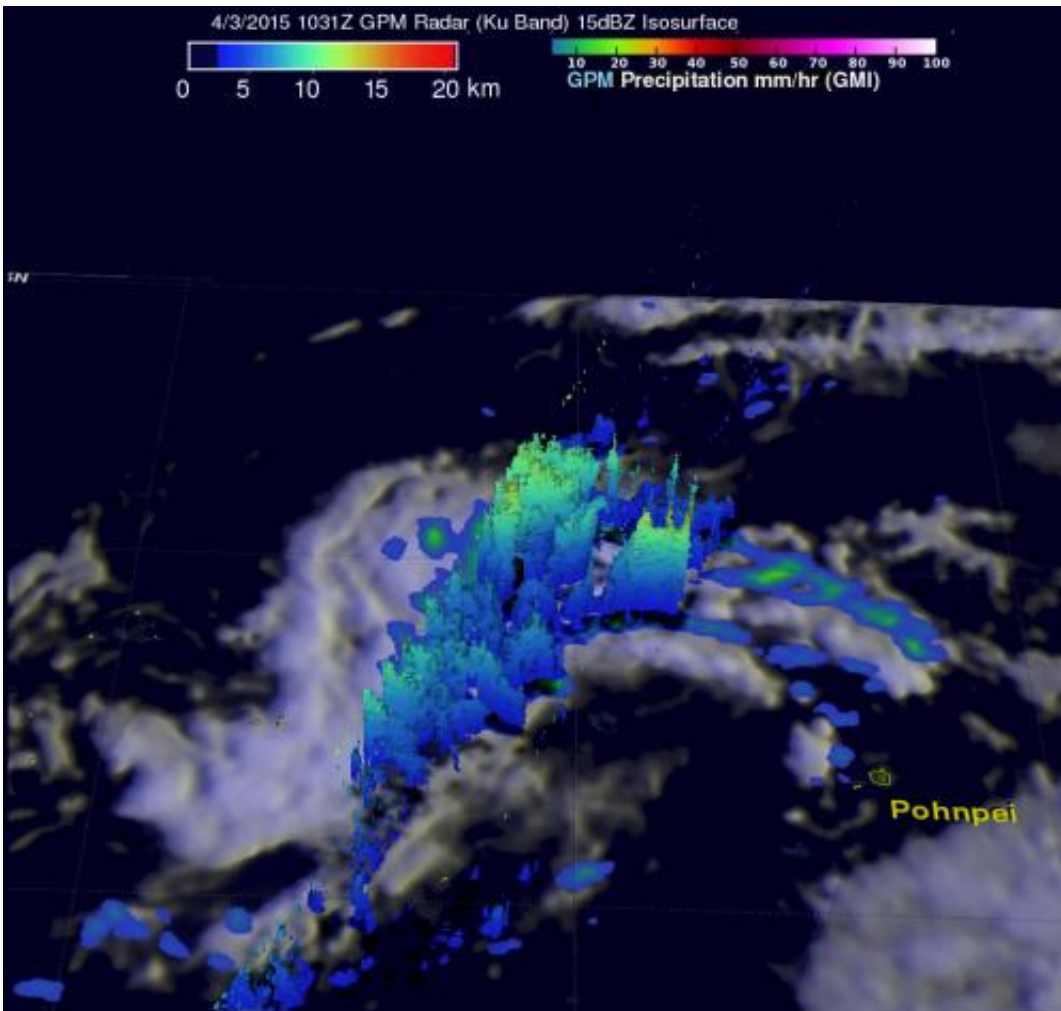


NASA catches a tropical cyclone's birth in 3-D

April 3 2015, by Harold F. Pierce



The 3-D view of Tropical Depression 05W on April 3 from GPM showed that some thunderstorms within were over 14.7 km (9.1 miles) high. Credit: JAXA/NASA/SSAI, Hal Pierce

Tropical Cyclone 05W was born in the Northwestern Pacific Ocean on April 3 west of the island of Pohnpei when the GPM satellite passed over it and analyzed its rainfall rates. That GPM data was made into a 3-D image that showed some high thunderstorms northwest of its center.

NASA-JAXA's Global Precipitation Measurement (GPM) core observatory passed over tropical depression five on April 3, 2015 at 1031 UTC (6:31 a.m. EDT). GPM's Microwave Imager (GMI) found that rain was dropping at a rate of 22.4 mm (0.9 inches) per hour in bands of convective storms located northwest of the [center](#) of circulation. The rainfall data was used to make a 3-D image at NASA's Goddard Space Flight Center in Greenbelt, Maryland. The 3-D view from GPM's Dual-Frequency Precipitation Radar (Ku Band) showed that some of these storms were reaching heights of over 14.7 km (9.1 miles). GPM is co-managed by NASA and the Japan Aerospace Exploration Agency, JAXA.

On April 3, 2015 at 1500 UTC (11 a.m. EDT), the Joint Typhoon Warning Center (JTWC) noted that 05W was centered near 8.5 north latitude and 154.4 east longitude, about 175 nautical miles east-northeast of Chuuk. Chuuk is one of the four states of the Federated States of Micronesia.

JWTC noted that 05W's maximum sustained winds were near 30 knots (34.5 mph/55.5 kph). It was moving to the west-northwest at 11 knots (*12.6 mph/20.3 kph) through Micronesia.

The JTWC forecast calls for 05W to become a tropical storm and intensify to 45 knots (51.7 mph/83.3 kph). When it does reach tropical storm status it will be renamed Haishen. The system is then expected to turn to the northeast when it gets near Fananu on April 6.

Provided by NASA's Goddard Space Flight Center

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