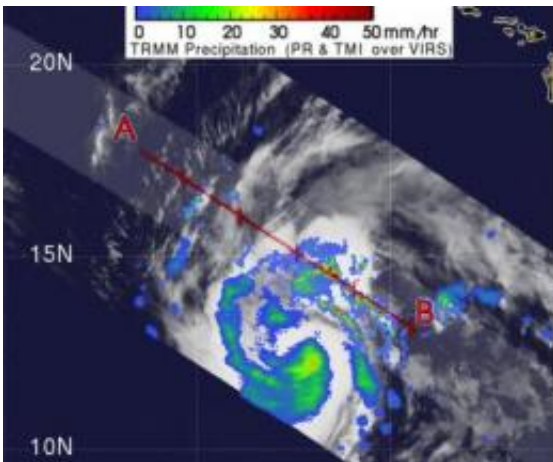


TRMM sees some heavy rains in Neki as it heads toward Johnston Island

October 20 2009



TRMM's analysis of rainfall within Neki showed areas of heavy rainfall. The yellow and green areas indicate moderate rainfall between .78 to 1.57 inches per hour. Red areas are heavy rainfall at almost 2 inches per hour. Credit: NASA/SSAI, Hal Pierce

NASA's Tropical Rainfall Measuring Mission, or TRMM satellite has been flying over Tropical Storm Neki in the Central Pacific Ocean and providing scientists with an idea of how much rainfall Johnston Island can expect from it.

A [Hurricane](#) Watch is already in effect for Johnston Island. That means hurricane conditions are possible within the next 48 hours. A Hurricane Warning may be issued later today, meaning hurricane conditions are

happening.

Johnston Island is the main island in the Johnston Atoll, a 50-square-mile atoll in the North Pacific Ocean. It's located 750 nautical miles west of Hawaii. The Atoll consists of four islands: Johnston, Sand, North Island and East Island.

The Tropical Rainfall Measuring Mission ([TRMM](#)) satellite, managed by NASA and the Japanese Space Agency (JAXA) passed over Tropical Storm Neki on October 20 at 1043 UTC (6:43 a.m. EDT/12:43a.m. HST) and captured a look at Neki's rainfall. TRMM found that there were some areas of heavy rainfall in the northeast quadrant of the storm. [Rainfall](#) rates were around 2 inches per hour in that part of Neki.

Rain rates are created from different instruments aboard TRMM. The rain rates in the center of TRMM images are derived from the TRMM Precipitation Radar, the only spaceborne radar of its kind, while those in the outer portion are from the TRMM Microwave Imager. The rain rates are then overlaid on infrared data from the TRMM Visible Infrared Scanner to create the entire image. The images are created at NASA's Goddard Space Flight Center, in Greenbelt, Md.

TRMM also has the ability to analyze how high the thunderstorms are in [tropical cyclones](#), and this morning's image indicated there were some "hot towers," that is, towering thunderstorms that are almost 15 kilometers (about 9 miles) high. That's an indication that the storm is strengthening.

At 2 a.m. HST (8 a.m. EDT) on October 20, Tropical Storm Neki's [maximum sustained winds](#) had increased from 40 mph to 50 mph, and it is expected to continue intensifying. Neki was located about 515 miles east-southeast of Johnston Island, and 640 miles south-southeast of Honolulu, Hawaii. It was near 13.0 North and 162.8 West. Neki is

moving northwest near 18 mph and will continue in that direction for the next two days, although it is forecast to slow down. Estimated minimum central pressure is 1005 millibars.

Neki will continue to strengthen as it moves northwest and could pass Johnston Island as a hurricane. [Tropical Storm](#) Neki is headed for a landfall over the tiny island by Thursday, October 22.

Source: JPL/NASA ([news](#) : [web](#))

Citation: TRMM sees some heavy rains in Neki as it heads toward Johnston Island (2009, October 20) retrieved 5 May 2024 from <https://phys.org/news/2009-10-trmm-heavy-neki-johnston-island.html>

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