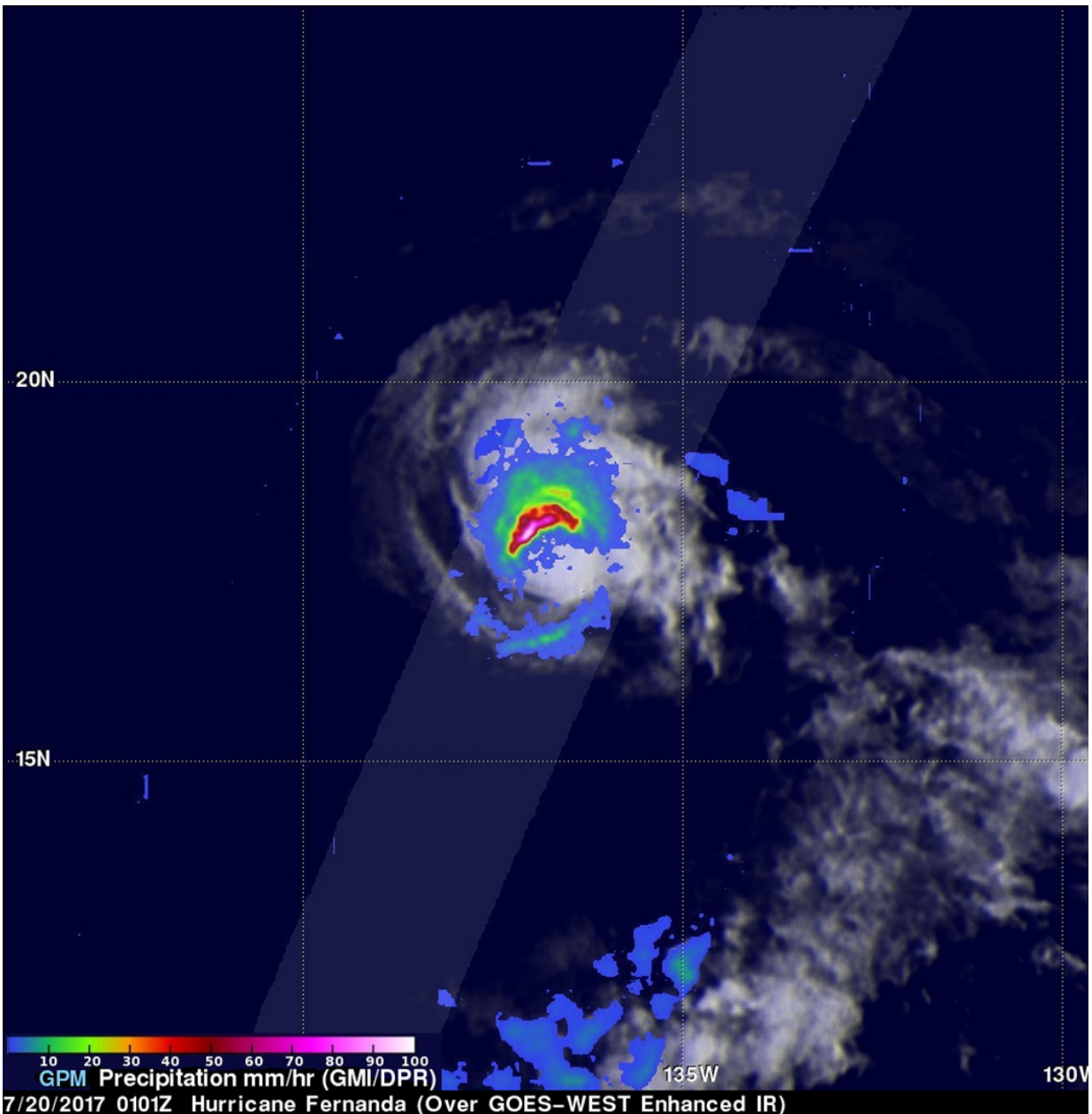


NASA sees Tropical Storm Fernanda sliding into central Pacific

July 21 2017



On July 20, 2017, GPM saw rain falling at a rate of almost 7.2 inches (183 mm) per hour in the northwestern quadrant of Fernanda. Credit: NASA/JAXA, Hal Pierce

Tropical Storm Fernanda has crossed the 140 degree longitude line and entered the central Pacific Ocean. NASA's Global Precipitation Measurement mission, or GPM, satellite took a look at the rainfall the weakening system was still generating as it moves toward Hawaii.

The GPM Core Observatory, a mission jointly operated by NASA and the Japan Aerospace Exploration Agency known as JAXA, had an exceptional view of hurricane Fernanda when it flew overhead on July 19 at 5:01 p.m. (July 20, 0101 UTC). GPM saw a much different hurricane than it viewed a couple days earlier. GPM's Microwave Imager (GMI) and Dual-Frequency Precipitation Radar (DPR) radar instruments found that the dissipating hurricane only contained heavy rainfall in its northwestern quadrant.

Cooler water, dry air, and southwesterly vertical wind shear had caused Fernanda to weaken. GPM's radar revealed that powerful convective storms in the northwestern quadrant of the dissipating hurricane were still dropping rain at a rate of almost 7.2 inches (183 mm) per hour. Very little rainfall was found by GPM in Fernanda's southeastern side.

An examination of the hurricane's precipitation structure showed that the highest [storm](#) tops were located in the strong storms northwest of Fernanda's center. GPM showed that a few of these storms had tops that were reaching heights above 6.696 miles (10.8 km).

At 5 a.m. EDT on July 21 satellite data showed that deep convection has

flared up to the northeast of the low level circulation center of Fernanda.

On Friday, July 21, 2017, at 5 a.m. EDT (0900 UTC/11 p.m. HST on July 20), the center of Tropical Storm Fernanda was located near 18.4 degrees north latitude and 142.5 degrees west longitude. That's about 825 miles (1,330 km) east of Hilo, Hawaii. Fernanda was moving toward the west near 12 mph (19 kph) and a general motion toward the west-northwest is expected during the next couple of days. Maximum sustained winds are near 50 mph (85 kph) with higher gusts.

The forecast track for Fernanda takes the center of circulation just east of Maui, Molokai and Oahu late Sunday, July 23.

Forecaster Jelsema of NOAA's Central Pacific Hurricane Center noted, "Fernanda remains in an unfavorable environment, with sea surface temperatures around 25 degrees Celsius, very dry air aloft, as well as strong southwesterly shear of around 30 knots. As a result, the forecast will continue to show slow and steady weakening, with Fernanda expected to become a tropical depression in a day, a remnant low in two days, then dissipating after three days."

Provided by NASA's Goddard Space Flight Center

Citation: NASA sees Tropical Storm Fernanda sliding into central Pacific (2017, July 21)
retrieved 27 April 2024 from

<https://phys.org/news/2017-07-nasa-tropical-storm-fernanda-central.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.