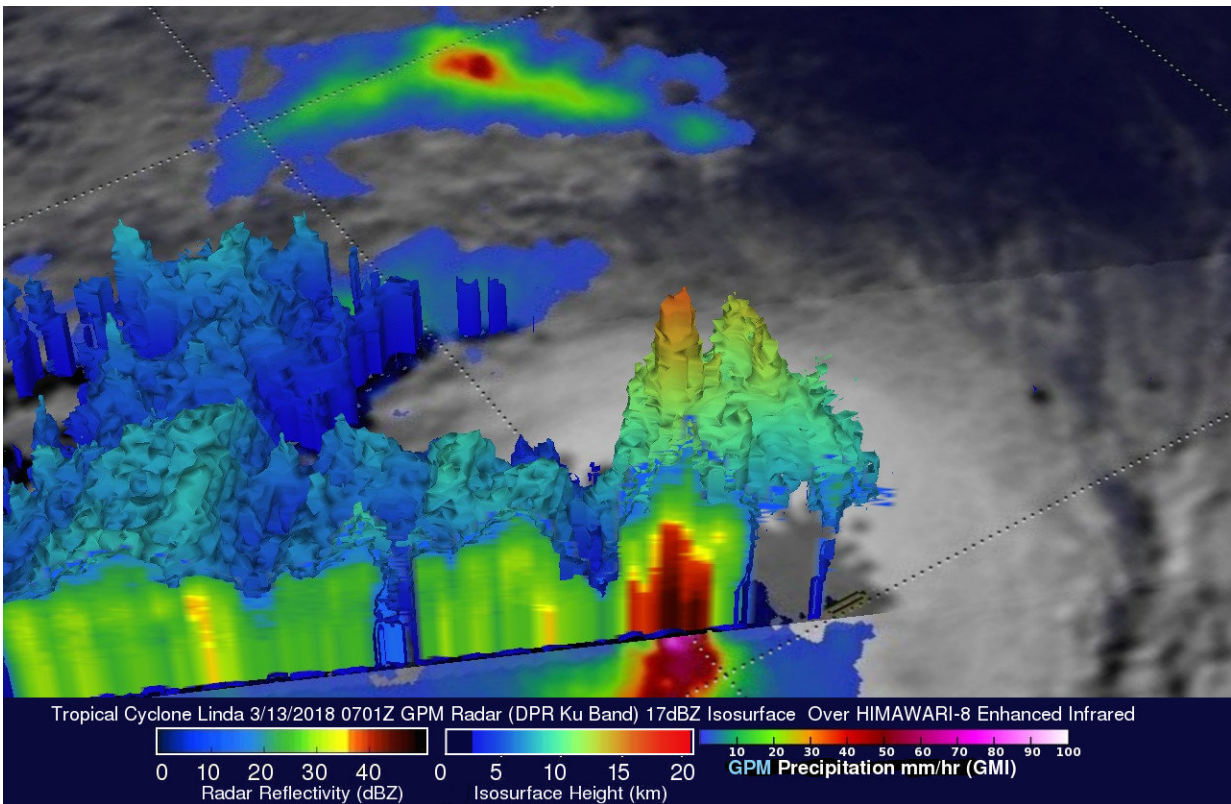


NASA finds towering storms in Tropical Cyclone Linda

March 14 2018



The GPM core satellite showed that convective storms close to Linda's center of circulation were producing very heavy rainfall. Storms in an area of strong convection just southeast of Linda's center of circulation were dropping precipitation at a rate greater than 181 mm (7.1 inches) per hour. Tallest storms stretched to heights of above 17 km (10.5 miles). Credit: NASA/JAXA, Hal Pierce

Towering thunderstorms were found southeast of Tropical Cyclone Linda's center when the Global Precipitation Measurement mission or GPM core satellite passed overhead and analyzed the storm.

Tropical cyclone Linda formed in the Coral Sea west of Vanuatu on March 12, 2018. Linda's winds have increased slightly while the tropical cyclone moved toward the south-southwest.

Tropical cyclone Linda had winds of about 45 knots (52 mph) when the GPM core observatory satellite flew above on March 13, 2017 at 0701 UTC. Data collected by GPM's Microwave Imager (GMI) and Dual Frequency Precipitation Radar (DPR) showed that convective storms close to Linda's center of circulation were producing very heavy rainfall. GPM's [radar](#) (DPR Ku Band) probed storms in an area of strong convection just southeast of Linda's center of circulation that were dropping precipitation at a rate greater than 181 mm (7.1 inches) per hour.

?GPM's radar revealed that the powerful convective storms just southeast of Linda 's center of circulation were reaching very high altitudes. A 3-D view employed GPM's radar to show a simulated cross section through the tallest storms that were stretching to heights of above 17 km (10.5 miles). A vertical slice shows that radar reflectivity values returned to the satellite were exceeding 57 dBZ in downpours at the center of this area of convective storms. GPM is a joint mission between NASA and the Japan Aerospace Exploration Agency, JAXA.

On March 14 at 10 a.m. EST (1500 UTC) Tropical Cyclone Linda had maximum sustained winds are near 45 knots (52 mph/74 kph). Linda is expected to weaken because of cooler waters and increasing [vertical wind shear](#).

Linda was located near 21.3 degrees south latitude and 156.3 degrees

east longitude, approximately 347 nautical miles east-northeast of Brisbane, Australia. Linda has tracked south-southwest at 11 knots (12.6 mph/20.3 kph).

Dry air is moving into the tropical [cyclone](#) and sapping the moisture needed to create the thunderstorms that make up the [storm](#).

The Joint Typhoon Warning Center predicts Linda to move toward the southwest and turn south.

Provided by NASA's Goddard Space Flight Center

Citation: NASA finds towering storms in Tropical Cyclone Linda (2018, March 14) retrieved 10 April 2024 from <https://phys.org/news/2018-03-nasa-towering-storms-tropical-cyclone.html>

<p>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.</p>
--