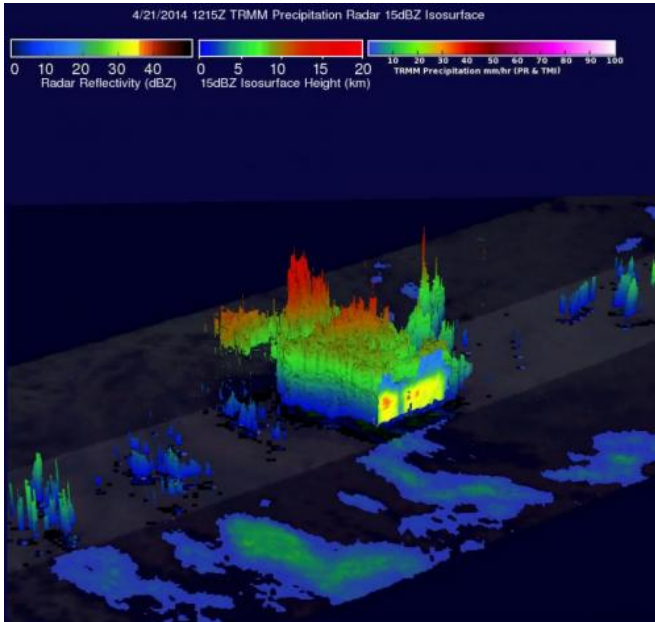


NASA gets two last looks at Tropical Cyclone Jack

22 April 2014, by Hal Pierce / Rob Gutro



This 3-D image of Tropical Cyclone Jack shows that some of the thunderstorms were shown by TRMM PR were still reaching height of at least 17 km (10.5 miles) on April 21 at 12:154 UTC. Credit: NASA/SSAI, Hal Pierce

Tropical Cyclone Jack lost its credentials today, April 22, as it no longer qualified as a tropical cyclone. However, before it weakened, NASA's TRMM satellite took a "second look" at the storm yesterday.

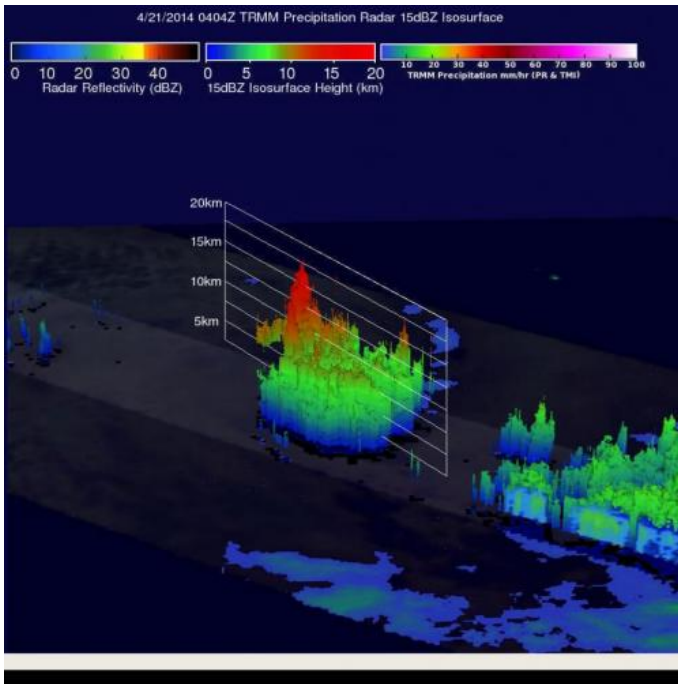
The Tropical Rainfall Measuring Mission or TRMM satellite had two good views of Tropical Cyclone Jack on April 21, 2014 at 0404 UTC/12:04 a.m. EDT and again at 1215 UTC/8:15 a.m. EDT. TRMM is managed by NASA and the Japan Aerospace Exploration Agency known as JAXA.

Jack was moving in a south-southeast direction over the open waters of the South Indian Ocean far to the northwest of Australia.

When TRMM first passed over Jack, the storm had estimated sustained winds of 90 knots (103.6 mph/166.7 kph). The second time TRMM gathered data about Jack's rainfall, the storm's maximum sustained winds had dropped to 75 knots (86.3 mph/138.9 kph). Rainfall from TRMM's Microwave Imager (TMI) and Precipitation Radar (PR) were used to create images of rainfall rates. Rain was found by TRMM PR to be falling at a maximum rate of over 197 mm/hr. (7.8 inches) with the first pass and still falling at a rate of over 167 mm/hr. (6.6 inches) at the later time.

Although Jack was weakening on April 21, powerful thunderstorms tops were shown by TRMM PR to be reaching height of at least 17 km (10.5 miles) with both observations.

By April 22 at 0900 UTC/5 a.m. EDT, Jack had weakened so much that it no longer qualified as a tropical cyclone. At that time Jack's maximum sustained winds were down to 30 knots (34.5 mph/55.5 kph). It was centered about 350 nautical miles (402.8 miles/648.2 km) southwest of Cocos Island, near 17.8 south latitude and 95.2 east longitude.



This 3-D image of Tropical Cyclone Jack shows that some of the thunderstorms were shown by TRMM PR to be reaching height of at least 17 km (10.5 miles) on April 21 at 4:04 UTC. Credit: NASA/SSAI, Hal Pierce

Strong [vertical wind shear](#) stretched out the low-level circulation center. Multi-spectral satellite data also showed the low-level center was interacting with an area of stratocumulus clouds to the south and it appears that dry air moving into the system, which will further weaken it.

Jack's remnants are expected to continue moving on a southeastward track over [open waters](#), where they will meet their end.

Provided by NASA's Goddard Space Flight Center

APA citation: NASA gets two last looks at Tropical Cyclone Jack (2014, April 22) retrieved 27 November 2022 from <https://phys.org/news/2014-04-nasa-tropical-cyclone-jack.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.