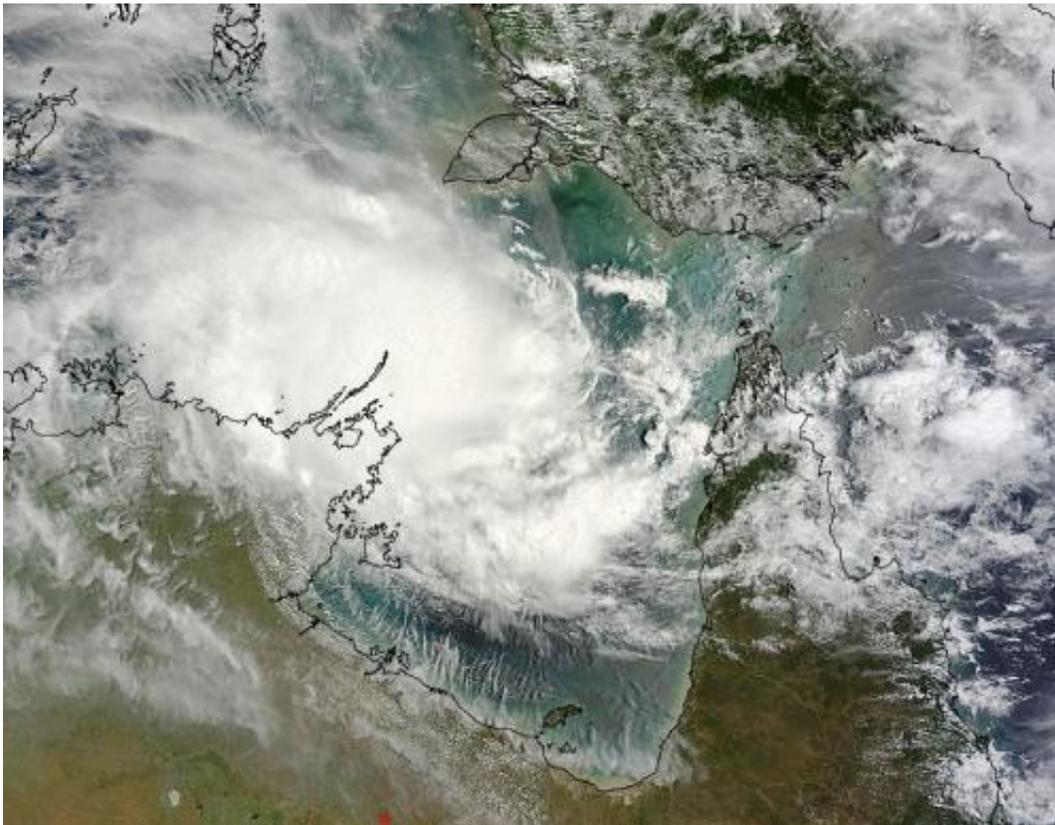


NASA satellites reveal Tropical Cyclone Lam strengthening

February 18 2015



This image of Tropical Cyclone Lam making landfall in Australia's Northern Territory was taken on Feb. 18 at 01:05 UTC by NASA's Terra satellite. Credit: NASA Goddard MODIS Rapid Response Team

NASA's Aqua satellite saw powerful, cold, high thunderstorms circling the center of strengthening Tropical Cyclone Lam as it appeared to cover

most of the northern half of Australia's Gulf of Carpentaria.

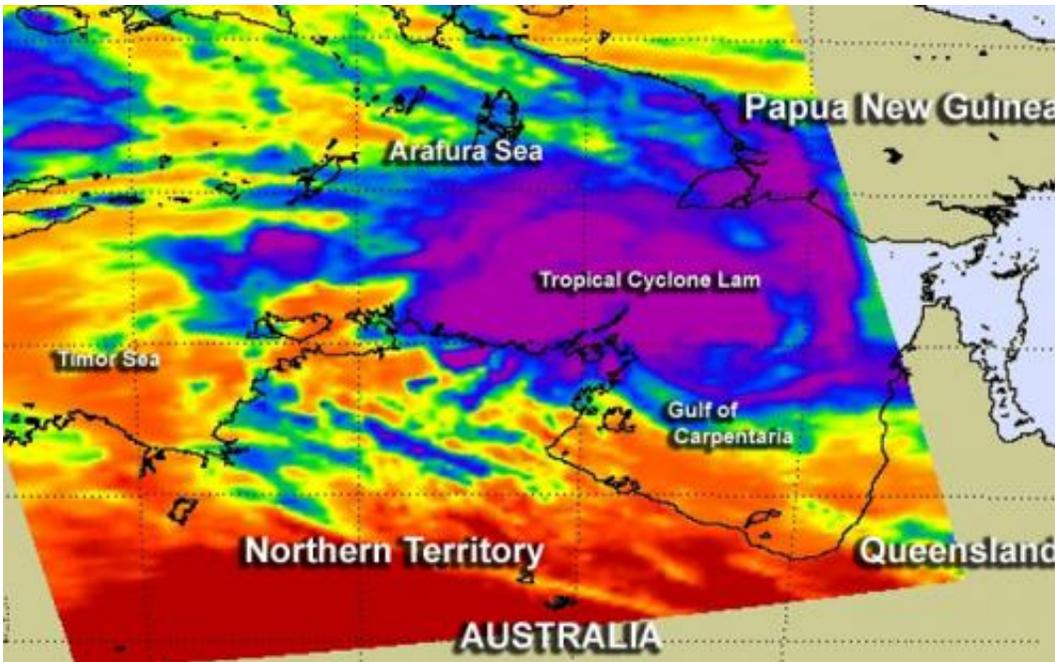
On Feb. 17 at 04:47 UTC, when NASA's Aqua satellite passed over Lam, the Atmospheric Infrared Sounder (AIRS) aboard captured infrared data on the storm. The [infrared data](#) measured temperatures of the cloud tops in the system. That data was made into an image at NASA's Jet Propulsion Laboratory in Pasadena, California and false-colored to highlight temperatures.

AIRS identified a large area of strong thunderstorms circling the center of the storm. Those thunderstorms stretched high in the troposphere and AIRS data showed they had cloud top temperatures near -63F/-53C. NASA research indicates that storms with [cloud tops](#) that cold and high have the potential for dropping heavy rainfall. The image also showed that Tropical Cyclone Lam extended almost entirely over the northern part of the Gulf of Carpentaria.

The Gulf of Carpentaria is bordered on three sides by northern Australia. It is a large, shallow sea with the Northern Territory to the west and southwest, and Queensland to the east and southeast. To the north of the gulf lies the Arafura Sea.

On Feb. 18 at 01:05 UTC the Moderate Resolution Imaging Spectroradiometer (MODIS) instrument aboard NASA's Terra satellite took a visible picture of Tropical Cyclone Lam.

Lam was approaching the northeastern peninsula of the Northern Territory. The bulk of the clouds and showers associated with Lam were over the northern Gulf of Carpentaria and a band of thunderstorms stretched southeast from the center, draping over the northeastern part of the Gulf.



This false-colored infrared image of Tropical Cyclone Lam approaching Australia's Northern Territory was taken on Feb. 17 at 04:47 UTC by NASA's Aqua satellite. Credit: NASA JPL, Ed Olsen

The Australian Bureau of Meteorology has issued Cyclone Warnings and Watches for Lam. A Cyclone Warning is in effect from Goulburn Island to Cape Shield, including Nhulunbuy. A Cyclone Watch is in effect from Croker Island to Goulburn Island and Cape Shield to Port Roper, including the island of Groote Eylandt (in the Gulf of Carpentaria).

On Feb. 18 at 0900 UTC (4 a.m. EST), the Joint Typhoon Warning Center (JTWC) noted that Tropical Cyclone Lam's maximum sustained winds were near 65 knots (74.8 mph/120.4 kph), making it a Category one hurricane on the Saffir-Simpson Wind Scale. Lam was centered near 11.1 south latitude and 136.6 east longitude, about 345 nautical miles east-northeast of Darwin, Australia. It was moving to the west at 6 knots (6.9 mph/11.1 kph). JTWC noted that a report from Cape Wessel indicated peak maximum sustained winds of 66 knots (75.7 mph/ 122.2

kph) (10-minute average) with peak gusts of 92 knots (105.9 mph/ 170.4 kph) from Feb. 8 at 0200 UTC to 0214 UTC.

Lam is expected to intensify to 85 knots (97.8 mph/ 157.4 kph) and move west then southwest. The Joint Typhoon Warning Center expects Lam to pass near Elcho Island early on Feb. 20, local time and make landfall into Arnhem Land shortly afterward.

Provided by NASA's Goddard Space Flight Center

Citation: NASA satellites reveal Tropical Cyclone Lam strengthening (2015, February 18)
retrieved 20 September 2024 from

<https://phys.org/news/2015-02-nasa-satellites-reveal-tropical-cyclone.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.