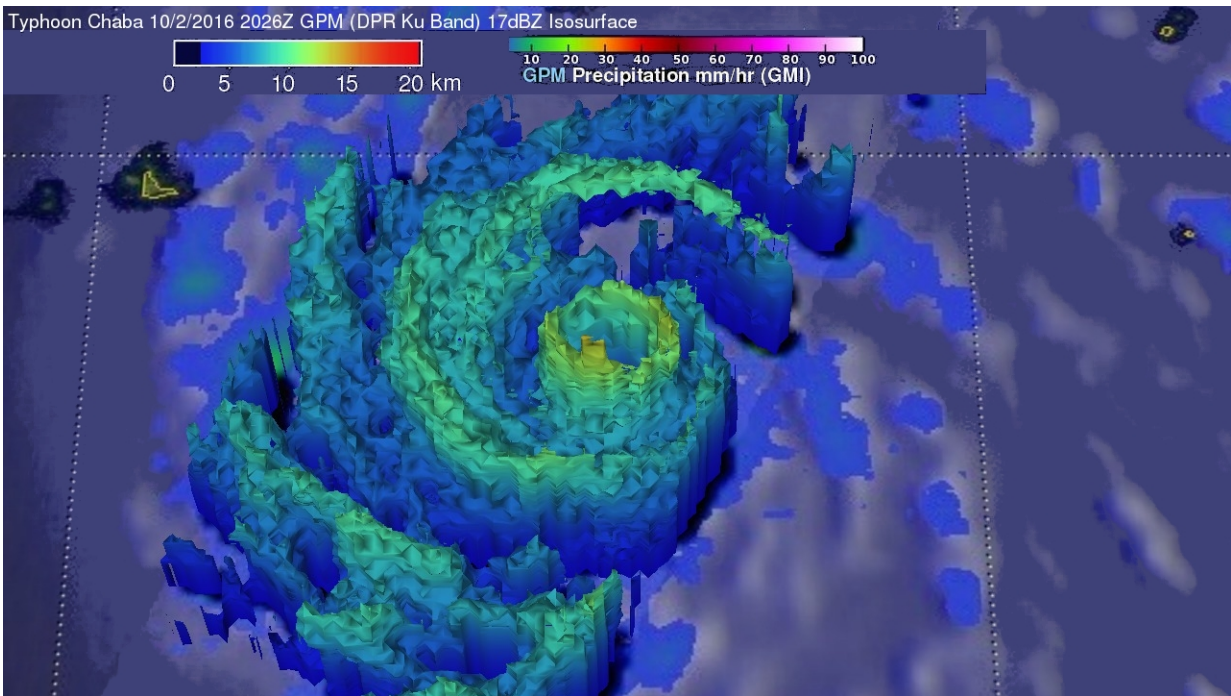


NASA sees Chaba intensifying to a super typhoon

October 3 2016



On Oct. 2, the GPM satellite saw some precipitation in the typhoon's small eye wall, falling at a rate of more than 234 mm (9.2 inches) per hour. The 3-D image of the GPM data shows some towering storm tops in Chaba's eye wall were found by DPR to reach to almost 17 km (10.5 miles). Credit: NASA/JAXA, Hal Pierce

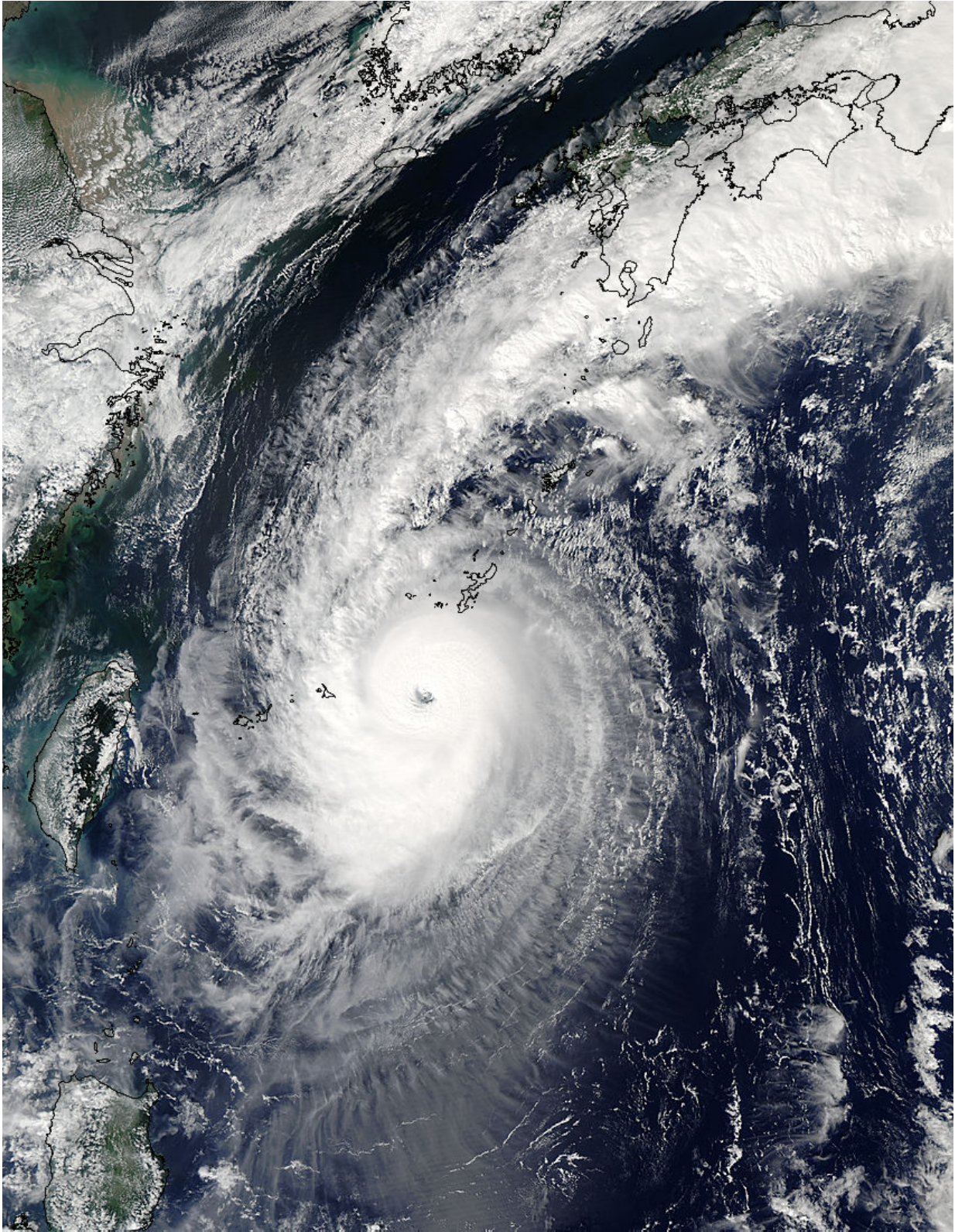
As Typhoon Chaba moved to the western Pacific Ocean south of Okinawa over the past few days wind speeds have increased. NASA

satellites got a look inside and outside of the storm as it intensified into a super typhoon.

The GPM or Global Precipitation Measurement mission core observatory satellite flew directly above Chaba's eye on Oct. 2, 2016 at 4:26 p.m. EDT (2026 UTC). GPM's Microwave Imager (GMI) and Dual-Frequency Precipitation Radar (DPR) instruments showed that Chaba was dropping extremely heavy precipitation. Some precipitation in the typhoon's small eye wall was measured by GPM's radar falling at a rate of more than 234 mm (9.2 inches) per hour.

At NASA's Goddard Space Flight Center in Greenbelt, Maryland GPM's Radar (DPR Ku Band) data were used to create a 3-D shape of precipitation inside typhoon Chaba. Some towering storm tops in Chaba's eye wall were found by DPR to reach to almost 17 km (10.5 miles).

Warm [sea surface temperatures](#) and low vertical wind shear are two factors that helped Chaba become a Super Typhoon on Oct. 3. That's when the MODIS instrument aboard NASA's Aqua satellite captured a stunning visible image of Super Typhoon Chaba. Chaba was moving through the Philippine Sea when Aqua passed overhead on Oct. 3 at 12:45 a.m. EDT (04:45 UTC). The MODIS image showed a clear eye surrounded by powerful thunderstorms.



The MODIS instrument aboard NASA's Aqua satellite captured this stunning

image of Super Typhoon Chaba in the Philippine Sea on Oct. 3 at 12:45 a.m. EDT (04:45 UTC). Credit: NASA Goddard MODIS Rapid Response

By 5 a.m. EDT (0900 UTC) Chaba's maximum sustained winds were near 167 mph (145 knots/268,5 kph). That makes Chaba a Category 5 hurricane on the Saffir-Simpson Hurricane Wind Scale. Typhoon-force winds extended 25 nautical miles from the center, but tropical storm-force winds extended 105 miles from the center.

Chaba was just 100 miles south-southwest of Kadena Air Base, Okinawa, Japan, centered near 20.5 degrees north latitude and 127.0 degrees east longitude. According to the KAB Facebook page on Oct. 3, "The 18th Wing Vice Commander has declared Tropical Cyclone Condition of Readiness (TCCOR) 1-Emergency for Okinawa, Japan effective (6:12 p.m.) 2212L on Oct. 3."

Chaba was moving to the north-northwest at 14 mph (12 knots/22 kph) and is expected to take a more northerly direction, curving to the northeast by Oct. 4 as it approaches the South Korean island of Jeju in the Korea Strait. Chaba is forecast to move between Jeju Island and the big island of Kyushu, Japan as it heads into the Sea of Japan.

Provided by NASA's Goddard Space Flight Center

Citation: NASA sees Chaba intensifying to a super typhoon (2016, October 3) retrieved 31 May 2023 from <https://phys.org/news/2016-10-nasa-chaba-super-typhoon.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.