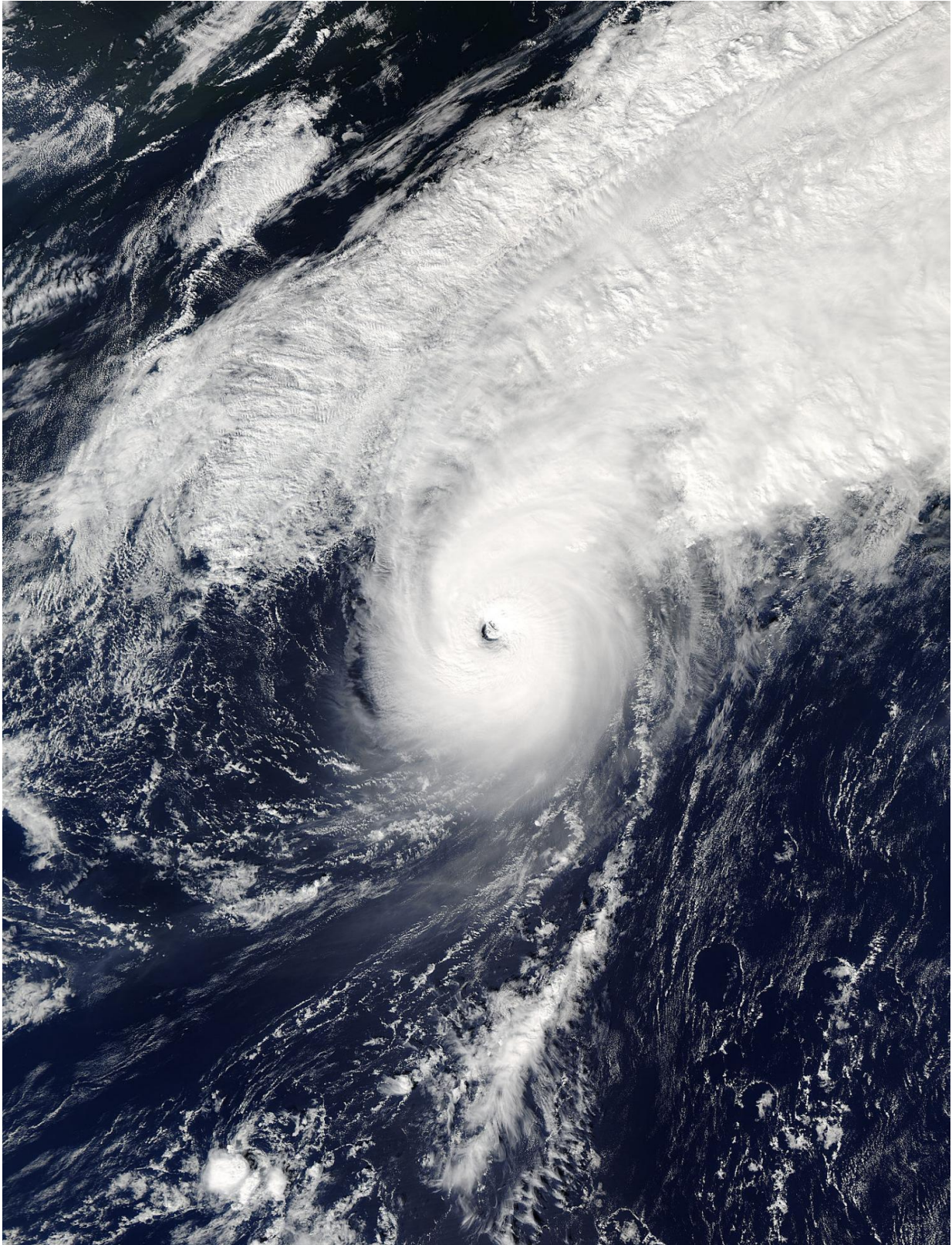


NASA gets an eye-opening image of Typhoon Songda becoming extra-tropical

October 12 2016



On Oct. 12 at 03:05 UTC (Oct. 11 at 11:05 p.m. EDT) NASA's Aqua satellite

captured a visible image of Typhoon Songda in the Northwestern Pacific, and the eye has re-emerged. Credit: NASA Goddard MODIS Rapid Response Team

It was an eye-opening event when NASA's Aqua satellite passed over Typhoon Songda early on Oct 12. The storm was transitioning into an extra-tropical storm far away from any land areas as it moves through the Northwestern Pacific Ocean.

Satellite imagery on Oct. 10 showed high clouds had covered the eye. On Oct. 12 at 03:05 UTC (Oct. 11 at 11:05 p.m. EDT) the Moderate Resolution Imaging Spectroradiometer or MODIS instrument aboard NASA's Aqua satellite captured a visible image of Typhoon Songda as the eye re-emerged. The Joint Typhoon Warning Center (JTWC) estimates that the ragged eye is about 23 nautical miles (26.4 miles/42.6 km) wide.

JTWC forecasters said "[Infrared imagery showed that] central convection has begun to collapse as evidenced by the warming cloud tops. Additionally, the overall structure has become more asymmetric with severe elongation and dispersion along the northern peripheries."

The National Hurricane Center defined a tropical cyclone's transition to an extra-tropical storm as when "a cyclone has lost its "tropical" characteristics. The term implies both poleward displacement of the cyclone and the conversion of the cyclone's primary energy source from the release of latent heat of condensation to baroclinic (the temperature contrast between warm and cold air masses) processes. It is important to note that cyclones can become extra-tropical and still retain winds of hurricane or tropical storm force."

The final advisory on Songda was issued at 5 a.m. EDT (0900 UTC) by

the JTWC. At that time, [maximum sustained winds](#) were near 120.8 mph (105 knots/194.5 kph). Songda was far from any [land areas](#). It was centered near 32.5 degrees north latitude and 153.8 degrees east longitude, about 770 nautical miles (886 miles/1,426 km) southeast of Misawa, Japan. Songda was speeding through the open waters of the Northwestern Pacific Ocean at 31 mph (27 knots/50 kph) and was quickly becoming extra-tropical.

Provided by NASA's Goddard Space Flight Center

Citation: NASA gets an eye-opening image of Typhoon Songda becoming extra-tropical (2016, October 12) retrieved 27 April 2024 from <https://phys.org/news/2016-10-nasa-eye-opening-image-typhoon-songda.html>

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