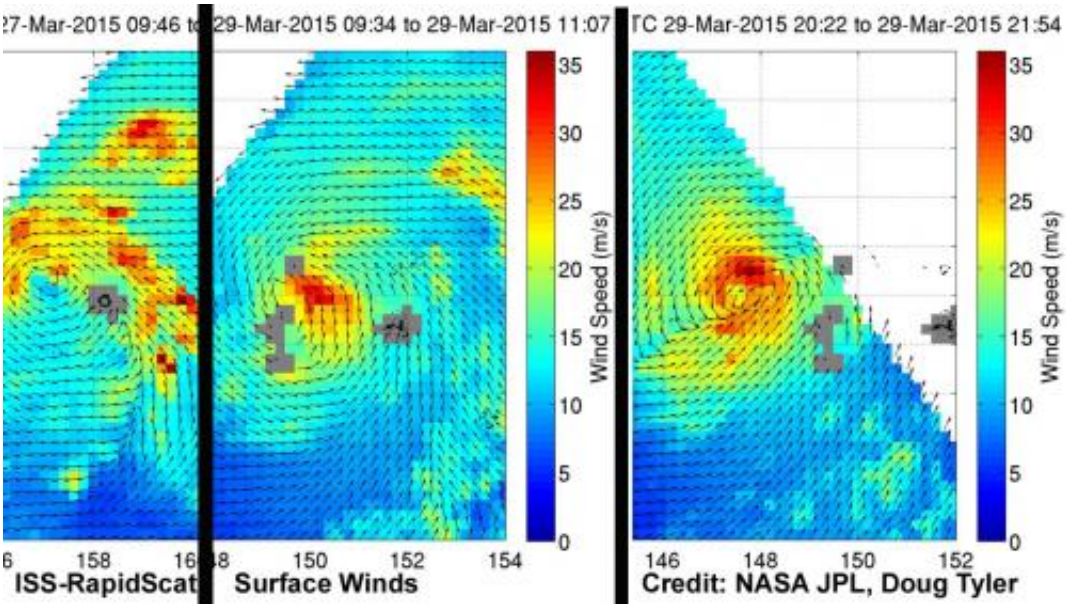
NASA's ISS-RapidScat sees Typhoon Maysak's stronger winds become more uniform

March 30 2015, by Rob Gutro



RapidScat captured three views of Typhoon Maysak, one on Mar. 27 and two on Mar. 29 as it intensified. Red indicates strongest winds, and they circled the center as it intensified. Credit: NASA JPL, Doug Tyler

A tropical cyclone does not always have consistently strong winds all the way around it, and NASA's ISS-RapidScat instrument confirmed that was the case with Typhoon Maysak as it was strengthening in the Northwestern Pacific Ocean. Over the course of three days, As the tropical cyclone strengthened, RapidScat saw strongest sustained winds

around Typhoon Maysak expand and spread from the northern quadrant to other quadrants of the storm.

The International Space Station (ISS)-RapidScat instrument measures surface winds over the ocean. The ISS-RapidScat instrument gathered surface wind data from three passes over Typhoon Maysak from March 27 (when it was a tropical storm) to March 29.

Typhoon Maysak started out as Tropical Depression 04W when it formed near Pohnpei on March 27, 2015. The depression began moving west-northwest through the Federated States of Micronesia. At 0900 UTC (5 a.m. EDT) on March 27, 04W's maximum sustained winds were near 30 knots (34.5 mph/55.5 kph). On March 27 from 09:46 to 11:18 UTC RapidScat saw isolated areas in the northeastern quadrant of the storm with sustained winds near 25 m/s (55.9 mph/90 kph).

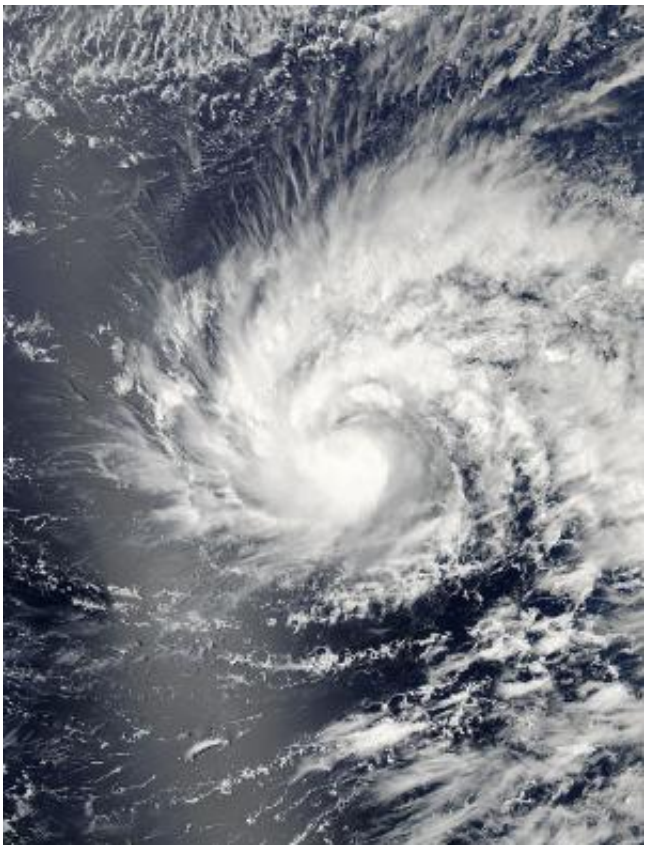
On March 28, Maysak's winds strengthened to near 65 knots (75 mph/120.4 kph). By March 29, Typhoon Maysak's winds increased to 85 knots (97.8 mph/157.4 kph).

On March 29 from 9:34 to 11:07 UTC those isolated areas of strongest winds appeared to concentrate in the northeastern quadrant around the storm's center of circulation. Later on March 29, when RapidScat viewed Maysak again between 20:22 and 21:54 UTC, wind speeds had increased and the strongest winds were near 35 m/s (78.2 mph/126 kph) over the northern quadrant with much stronger winds more uniform around the entire center near 30 m/s (67 mph/108 kph).

On March 30 at 1500 UTC (11 a.m. EDT), Typhoon Maysak's maximum sustained winds had again increased to 95 knots (109.3 mph/175.9 kph). It was centered near 9.0 north latitude and 144.8 east longitude, about 398 nautical miles east of Yap. Maysak was moving to the west at 10 knots (11.5 mph/18.5 kph). Maysak was generating very

high, rough seas with heights to 34 feet (10.3 meters).

Maysak is moving west-northwest through the Federated States of Micronesia and the Joint Typhoon Warning Center forecast calls for the storm to continue intensifying to 120 knots in a day or two. After two days, the storm is expected to weaken and begin curving to the west-northwest.



On March 28, the MODIS instrument aboard NASA's Aqua satellite saw Tropical Storm Maysak in the Northwestern Pacific Ocean. Credit: NASA Goddard MODIS Rapid Response Team

Provided by NASA's Goddard Space Flight Center