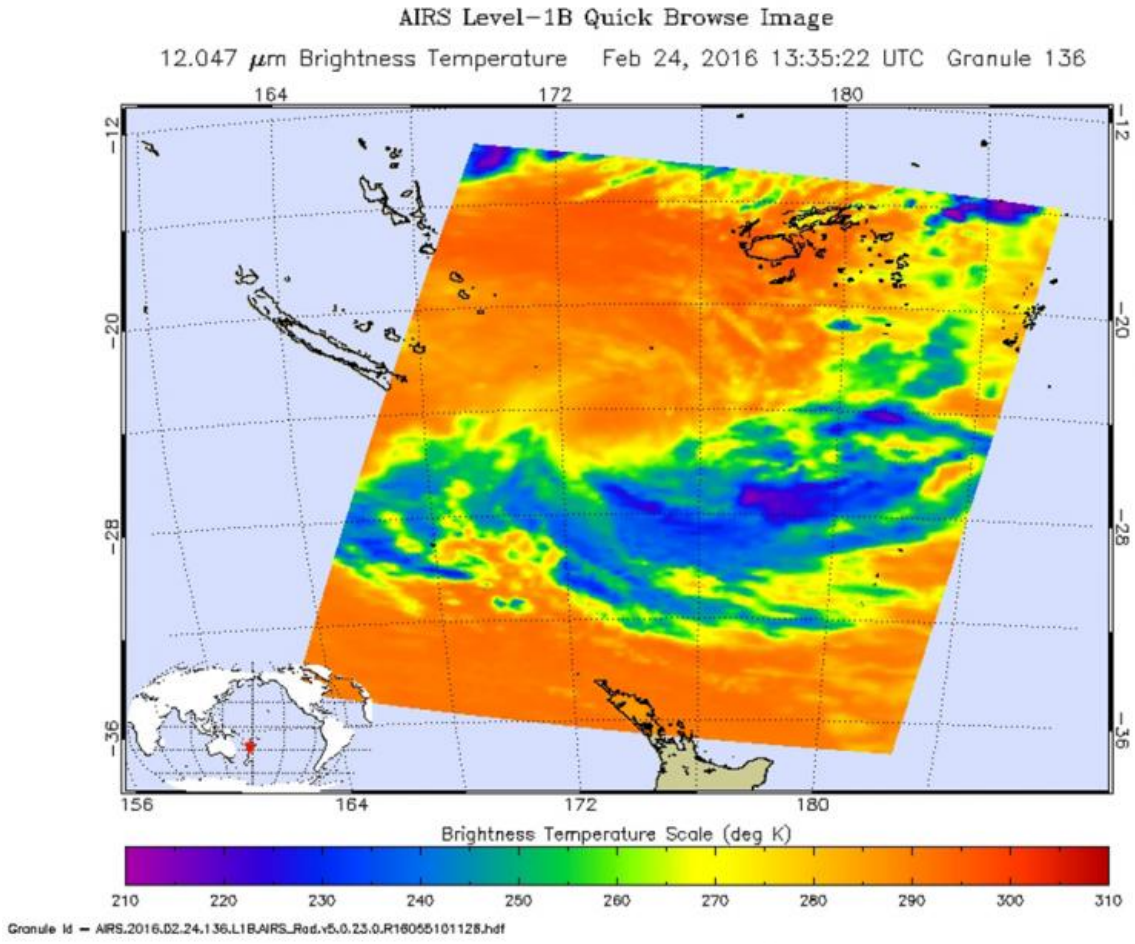
NASA sees strong vertical wind shear battering a weaker winston

February 24 2016, by Rob Gutro



On Feb. 24, 2016 at 11:47 UTC (6:47 a.m. EST) the AIRS instrument aboard NASA's Aqua satellite saw a few strong storms remaining in Winston being pushed to the southeast because of strong vertical wind shear. Credit: NASA JPL/Ed Olsen

Tropical Cyclone Winston has moved into an area with strong vertical wind shear in the Southern Pacific Ocean. The wind shear is battering the storm and has weakened it significantly. NASA's Aqua satellite passed over Winston and infrared data showed that the northerly wind shear had pushed the bulk of strongest storms to the south of the center.

The Joint Typhoon Warning Center upper-level analysis showed Winston had moved into an unfavorable environment with strong (30 to 40 knots/34.5 to 46 mph/55.5 to 74 kph) vertical wind shear.

At 1500 UTC (10 a.m. EST) on Feb. 24, 2016 Tropical cyclone Winston had weakened to a tropical storm. Maximum sustained winds were near 45 knots (51.7 mph/83.3 kph). It was centered near 24.5 degrees south latitude and 173.9 degrees east longitude, about 459 nautical miles (528.2 miles/850.1 km) south-southwest of Suva, Fiji. Winston was moving to the west at 9 knots (10.3 mph/16.6 kph).

The Atmospheric Infrared Sounder or AIRS instrument that flies aboard NASA's Aqua satellite measured temperatures in Tropical Storm Winston's cloud tops on Feb. 24, 2016 at 11:47 UTC (6:47 a.m. EST). AIRS saw a few strong storms remaining in the system, but they were pushed to the south because of strong vertical wind shear. Thunderstorms in that quadrant had coldest cloud tops near minus 63 degrees Fahrenheit (minus 53 degrees Celsius). Cloud tops around the rest of the tropical storm were much warmer indicating they were lower in the atmosphere and less potent storms.

Winston is forecast to move to the south-southwest and stay far to the south of New Caledonia. As it moves, it is expected to weaken and become sub-tropical south of New Caledonia within the next day.

Provided by NASA's Goddard Space Flight Center