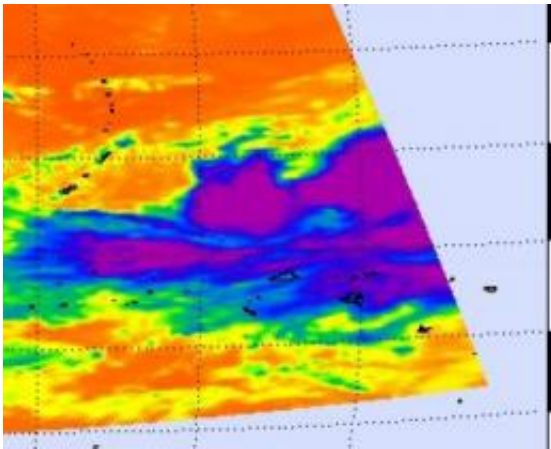


Marianas on alert: Melor joins the typhoon group

October 1 2009



The AIRS instrument showed the large extent of Melor's cold clouds and rains (in blue and purple) as it neared Guam on Oct. 1 at 3:47 UTC. The colder the clouds, the higher they are, and the stronger the thunderstorms. Purple indicates higher clouds than blue. Credit: NASA JPL, Ed Olsen

Being a typhoon seems to be the "in thing" lately for tropical cyclones in the Western Pacific, and Melor is now one of the "in crowd." NASA's QuikScat and Aqua satellites helped the U.S. Navy's Joint Typhoon Warning Center confirm that Melor now has sustained winds near 115 knots. The Marianas Islands have posted watches and warnings anticipating Melor's arrival.

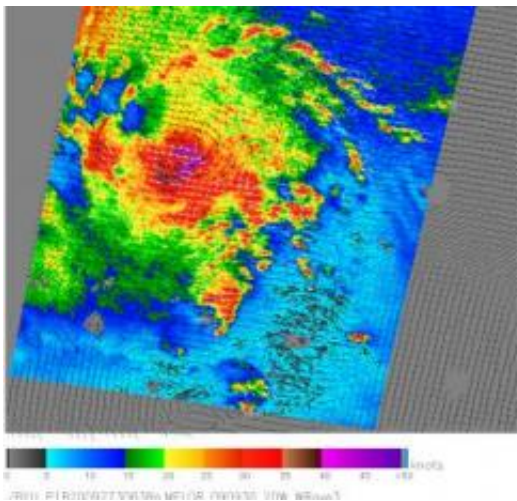
On October 1 at 15:00 Zulu Time (1 a.m. October 2, Pacific/Guam Time), [Typhoon](#) Melor was located approximately 420 nautical miles

east of Guam, near 14.4 North and 151 East. That also puts Melor 355 miles east of Saipan, and 360 miles east of Tinian. Melor has tracked northwestward at 6 mph while continuing to intensify. Melor is generating high surf, with waves as high as 26 feet.

A [tropical storm](#) warning is now in effect for Rota, Tinian and Saipan. That means tropical storm conditions are now happening there.

A typhoon watch remains in effect for Rota, Tinian and Saipan, and a tropical storm watch remains in effect for Guam. A watch means that conditions are expected to occur in 48 hours. Updated Watches and Warnings can be found at:

<http://forecast.weather.gov/wwamap/wwatxtget.php?cwa=gum&wwa=tropical%20storm%20warning>



QuikScat saw Melor's winds on September 30 at 7:39 UTC. QuikScat imagery is false-colored to show different wind speeds, the highest winds are always shown in purple, indicating winds over 40 knots (46 mph). Small barbs are used in the images to indicate wind direction and point to areas of heavy rain. Credit: NASA JPL, Pedro Falcon III

The National Weather Service in Guam issued the following statement: "Melor will be a large and dangerous system before it reaches the Marianas. The radius of damaging winds already extends far from the center. The onset of damaging winds is possible in the northern Marianas early Saturday morning and Saturday afternoon on Guam."

QuikScat saw Melor's winds swirling inside its clouds by using microwaves to peer into them. It flew over Melor and captured an image on September 30 at 7:39 UTC. QuikScat can actually determine the speed of a tropical cyclone's rotating winds using microwave technology. QuikScat imagery is false-colored to show different [wind](#) speeds, the highest winds are always shown in purple, indicating winds over 40 knots (46 mph). Small barbs are used in the images to indicate wind direction and point to areas of heavy rain.

While QuikScat took a look at Melor's winds, the Atmospheric Infrared Sounder (AIRS) instrument on NASA's Aqua satellite identified the storm's icy cloud temperatures. Those temperatures help determine the height the clouds and thunderstorms. The colder the clouds, the higher they are, and the stronger the thunderstorms. The satellite images, which false-color clouds based on their temperature, showed a large extent of cloud cover. In AIRS images, purple indicates the highest thunderstorms (and strongest), and blue areas are the second coldest and highest clouds.

Melor is approaching the island of Saipan, and is forecast to swing north of there on its journey northwest.

Source: NASA/Goddard Space Flight Center

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