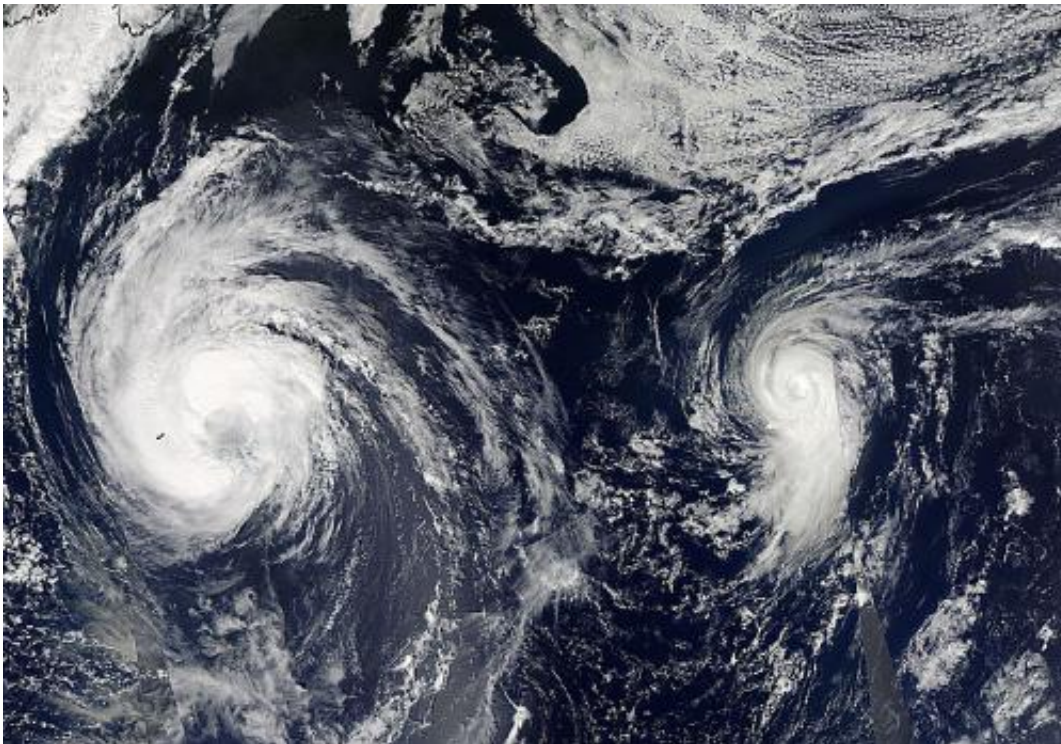


NASA catches Tropical Storm Leslie and Hurricane Michael in the Atlantic

September 10 2012



This visible image of Tropical Storm Leslie and Hurricane Michael was taken by the MODIS instrument aboard both NASA's Aqua and Terra satellites on Sept. 9 at 12:50 p.m. EDT. Credit: NASA Goddard/MODIS Rapid Response Team

Satellite images from two NASA satellites were combined to create a full picture of Tropical Storm Leslie and Hurricane Michael spinning in the Atlantic Ocean. Imagery from NASA's Aqua and Terra satellites showed Leslie now past Bermuda and Michael in the north central

Atlantic, and Leslie is much larger than the smaller, more powerful Michael.

Images of each storm were taken by the [Moderate Resolution Imaging Spectroradiometer](#), or [MODIS instrument](#) that flies onboard both the Aqua and Terra satellites. Both satellites captured images of both storms on Sept. 7 and Sept. 10. The image from Sept. 7 showed a much more compact Michael with a visible eye. By Sept. 10, the eye was no longer visible in Michael and the storm appeared more elongated from south to north.

Leslie Moves Past Bermuda Heads to North Atlantic

On Sept. 8 at 5 p.m. Leslie was a [tropical storm](#) with maximum sustained winds near 55 knots. It was about 240 miles (390 km) south-southeast of Bermuda near 29.4 North latitude and 62.5 West longitude. Leslie was moving north and expected to pass to the east of or close to Bermuda later in the day. A tropical [storm warning](#) was in force for Bermuda on Sept. 8 and 9, and [forecasters](#) at the National Hurricane Center expected rainfall totals of 1 to 2 inches in Bermuda.

By Sept. 9 at 5 p.m. EDT, Leslie had passed to the east of Bermuda and was centered about 175 miles (280 km) east-northeast of the island, near 33.4 North and 61.2 East. Leslie's maximum sustained winds were near 60 mph (95 kmh) as it continued moving to the north at 14 mph (22 kmh).

By Monday, Sept. 10, Leslie had moved north of Bermuda and was about 805 miles (1,300 km) south-southwest of Cape Race, Newfoundland, Canada, near 36.5 North latitude and 60.8 West longitude. Leslie was moving to the north-northeast at 18 mph (30 kmh) and had maximum sustained winds near 60 mph (95 kmh).

MODIS [satellite data](#) shows that Leslie has one main band of powerful thunderstorms and heavy rainfall, located to the northeast quadrant of the storm.

Watches have now been posted for Newfoundland, Canada as Leslie tracks northward. A hurricane watch is now in effect in Newfoundland, from Stones Cove to Charlottetown. A hurricane watch means that hurricane conditions are possible within the watch area, in this case within 24 to 36 hours, according to the National Hurricane Center.

In addition, a tropical storm watch is in effect for Newfoundland, from Indian Harbor to Stones Cove and from Fogo Island to Charlottetown.

Monday, Sept. 10 is expected to be Leslie's last day in warm waters and low-wind shear. After today the storm is forecast to move into cooler waters and the wind shear is expected to kick up. Those are two factors that weaken a tropical cyclone. Leslie is expected to start transitioning from a warm core system to a cold core system later on Sept. 10, which means the storm will be undergoing a change into an extra-tropical storm.

Michael, Once "Wide-Eyed," Now Weakening from Atmosphere and Ocean

Hurricane Michael experienced some adjustments in "vision" over the weekend when the storm's eye grew wider. On Sept. 8, Michael was still a hurricane with maximum sustained winds near 90 knots (150 kmh). Michael was located near 33.1 North latitude and 42.3 West longitude, about 925 miles (1,485 km) west-southwest of the Azores. Michael's tropical-storm-force wind field was about 70 miles (110 km) out from the center, making the storm about 140 miles (220 km) in diameter. Michael was weakening slowly due to atmospheric conditions and cooler

waters and by Sept. 9, Michael's maximum sustained winds were still near 90 mph (150 kmh) when it was 990 miles (1,590 km) west-southwest of the Azores islands. On Sunday, Michael's eye widened from 10 miles in diameter to 30 miles in diameter, as was seen in satellite imagery.

By Monday, Sept. 10, Michael's [maximum sustained winds](#) at 5 a.m. EDT were near 80 mph (130 kmh). Michael was centered about 1,065 miles (1,715 km) west of the Azores Islands near 33.5 North and 45.2 West. Michael was moving to the west at 7 mph (11 kmh) and is expected to turn northwestward later on Sept. 10, followed by a turn to the north and northeast. Michael could become a tropical storm by the end of the day on Sept. 10, according to the National Hurricane Center.

Another Storm Brewing in the Eastern Atlantic

Satellite imagery showed that another tropical depression may be forming in the eastern Atlantic. The low, called System 90L appears more organized on Monday, Sept. 10. It is located about 855 miles west of the Cape Verde Islands and is being carefully watched. The National Hurricane Center gives it a 90 percent chance of becoming a depression later on Sept. 1 as it moves west-northwestward at 15 to 20 mph.

Provided by NASA's Goddard Space Flight Center

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