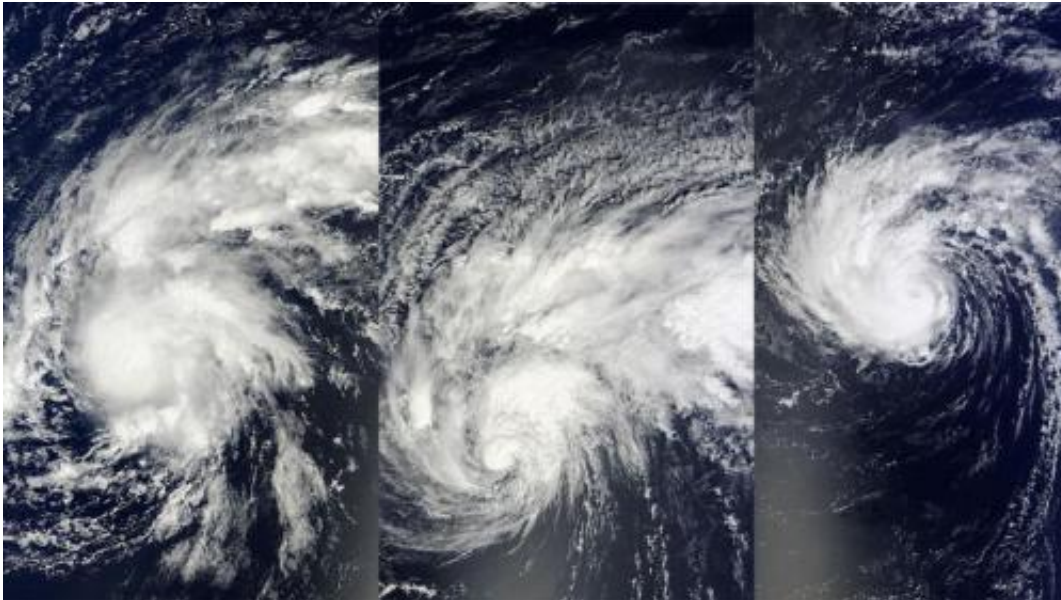


# Satellites show Edouard's transition into an Atlantic Hurricane

September 15 2014

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NASA's Terra satellite captured these three images of Edouard as it transitioned into a hurricane, from Sept. 12 (left) to Sept. 13 (center) and finally as a hurricane on Sept. 14 (right) in the Atlantic Ocean. Credit: NASA Goddard MODIS Rapid Response Team

NASA's Terra satellite passed over Tropical Storm Edouard each day from September 12 through 14 and captured imagery of the storm as it grew into a hurricane. NOAA's GOES-East satellite covers the Atlantic Ocean and takes visible images during the day and infrared images at night to show the movement of weather systems. Those images were compiled into a movie from Sept. 13 through 15 showing movement and

intensification of Edouard into a hurricane. NASA's HS3 Mission also investigated the storm.

NASA's Terra satellite captured the three [images](#) of Edouard as it transitioned into a [hurricane](#). When Terra flew over the [storm](#), the Moderate Resolution Imaging Spectroradiometer (MODIS) instrument captured visible images on September 12 at 9:10 a.m. EDT, September 13 at 9:50 a.m. EDT, and September 14 at 10:35 a.m. EDT. The three images together show that Edouard consolidated as it strengthened - that is, bands of thunderstorms became more tightly wrapped around the storm. By September 14, the bands of thunderstorms were concentrated over the northern quadrant of the storm and wrapping into the cloud-filled eye.

The NASA/NOAA GOES Project at NASA's Goddard Space Flight Center in Greenbelt, Maryland combined NOAA's GOES-East satellite imagery of Edouard taken over several days from September 13 through 15. The showed the storm consolidating. The eye of the hurricane became visible on and off during September 14 in between being obscured by high clouds, and the eye opened again on September 15.

On Sunday morning, September 14, 2014 at 1102 UTC (7:02 a.m. EDT) NASA's Global Hawk 872 took off from NASA's Wallops Flight Facility, Virginia on a flight toward Tropical Storm Edouard for a 24 hour mission. It was the sixth science flight for the Global Hawk during the Hurricane and Severe Storms Sentinel or HS3 mission. For more information about NASA's HS3 mission, visit: <http://www.nasa.gov/hs3>

On Sunday at 5 p.m. EDT Edouard's maximum sustained winds had increased to near 85 mph (140 mph) and additional strengthening is forecast. The National Hurricane Center (NHC) noted on Monday, September 15 at 11 a.m. EDT that Edouard's maximum sustained winds increased to 105 mph (165 kph) making it a Category 2 hurricane on the

## Saffir-Simpson Scale.

NHC forecaster Cangliaosi noted "Satellite images show that the eye of Edouard has become larger and more distinct during the past few hours, with a fairly symmetric inner-core convective pattern."

The center of Hurricane Edouard was near latitude 27.3 north and longitude 55.5 west. That's about 655 miles (1,055 km) east-southeast of Bermuda. Edouard was moving toward the northwest near 14 mph (22 kph) and a movement toward the north is expected on Tuesday, September 16. The estimated minimum central pressure is 966 millibars.

The NHC forecast calls for some strengthening through the end of the day on September 16 while the hurricane remains in favorable conditions. Beyond that time, cooler water, dry air, and a pronounced increase in wind shear is expected to cause Edouard to weaken steadily.

Provided by NASA's Goddard Space Flight Center

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