

Severe Weather Advisory for the Caribbean - Hurricane Jose

Issued on Saturday, 9th September 2017 at 05:15 local time.

Headline

Hurricane Jose is an Extremely Dangerous Category 4 Hurricane and is approaching the northern Leeward Islands today.

Discussion

Hurricane Jose strengthened during Friday morning (today) with maximum sustained winds currently of 135KT (155mph). This makes Jose a Category 4 hurricane, and only 2kt (3mph) below Category 5 status. Jose was located around 265 miles ESE of the Northern Leeward Island at 09/0300UTC. Jose is moving WNW at 14 mph, with Jose expected to turn northwestwards, taking the core just to the east of the northern Leeward Islands. Jose is then expected to slow down while moving northwesterly across the Western Atlantic, then turn more northerly in the next 3 or 4 days.

Some slight fluctuations in strength are likely during the evolution of Jose, but Jose is expected to remain a Category 4 hurricane when it is closest to the northern Leeward Islands later today. From that time Jose is expected to begin to weaken somewhat as it moves into an environment of drier air and increased wind shear. The National Hurricane Centre reports that its wind speed forecast are in the high end of model expectations in the short period, but more towards the model consensus from Monday.

The eye of the hurricane is expected to track just to the north of the northern Leeward Islands, just to the east of Barbuda, during late Saturday local time. The global models have come into very good agreement on the track of Jose for the next 2 days, and there is finally a high degree of confidence in this part of the forecast. As with any hurricane we should not focus too much on the track of the eye, as hurricane-force winds extend outward up to 35 miles from the centre and tropical-storm-force winds extend outward up to 140 miles.

The greatest risk (80-90%) of hurricane force (>74 mph) winds affecting land is across Barbuda, with a 80-90 % risk across Anguilla and Saint-Martin. However there is a greater risk (>40%) of tropical storm force (>39mph) winds affecting the northern Leeward Islands north of a line from Guadeloupe and Montserrat, to the British Virgin Islands.

Although the eye of the hurricane continues to look to most likely to pass to the north of any land, clearly given that Hurricane Irma devastated this region recently, any further strong winds and heavy rain are likely to hamper recover efforts, and further damage infrastructure already weakened by Irma.

Consistent signal from the models for Jose to gradually slow down as it continues to move northwesterly across the Atlantic and away from the Northern Leeward Islands during Sunday and into Monday. Thereafter the weakening hurricane turning more northerly as it moves around the ridge and toward a large mid- to upper-level low over the north Atlantic.

Latest information of track of Jose can be found here at http://www.nhc.noaa.gov/graphics_at2.shtml?cone#contents . The National Hurricane Centre is the official agency for issuing forecasts and warnings for tropical storms and hurricanes in the North Atlantic basin. Decision making should be based on these official forecasts.

This forecast may be amended at any time

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Impacts: Tropical Storm Force winds are likely to further damage infrastructure already weakened by Irma. Populations will be living in temporary shelters which may be of poor quality and will be especially vulnerable. We must be vigilant to any further southward shift in the forecast track. If this were the case impacts would be typical of a major hurricane and include potentially destructive winds, dangerous waves, storm surge, torrential rains and an enhanced risk of landslides. A combination of these hazards will lead to a risk of fatalities and significant impacts to local infrastructure and transport links. Total and extremely long-lived power outages and water losses are to be expected.

Winds: Winds within 30-40 miles of the centre of the hurricane will be strong enough to cause roof failure on some residences and industrial buildings, and a risk of some complete building failures with small buildings blown over or away. Tropical storm force winds extend some 120 to 140 miles from the centre of the storm.

Storm Surge & Flooding: Flooding, through a combination of heavy rainfall and storm surge (2 to 4ft) is possible. The Northern Leeward Islands, from Guadeloupe to Anguilla are most at risk. However at present Jose is expected track to the NE of the islands, with the heaviest rain away from the islands. The current track is also likely to limit the storm surge potential across the islands, with a northerly, then westerly flow, with the greatest risk of storm surge impact expected on the northern flank of the hurricane. Nevertheless there remains a significant risk of flooding, especially as the ground pre-conditioned from Hurricane Irma, plus significant impacts to sea defences.

Rainfall: Potentially 50 to 100 mm of rain could fall from Hurricane Jose across the Northern Leeward Islands from Jose. However any slight southward shift could bring three or four times this amount to the northern Leeward Islands, though this is thought to be unlikely at this stage.

Context

Hurricane Jose may impact islands severely affected by the Category 5 hurricane Irma a few days ago, hampering the recovery and humanitarian efforts.

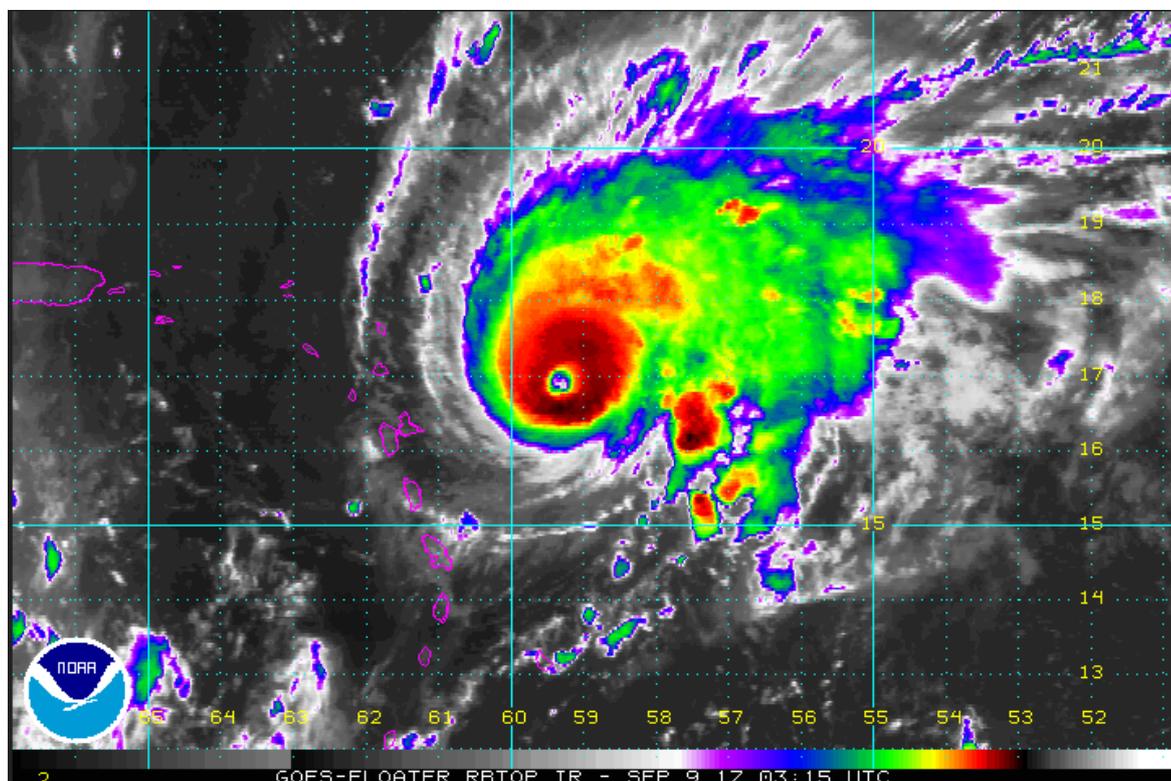


Figure 1: 09/0315 UTC IR satellite image.

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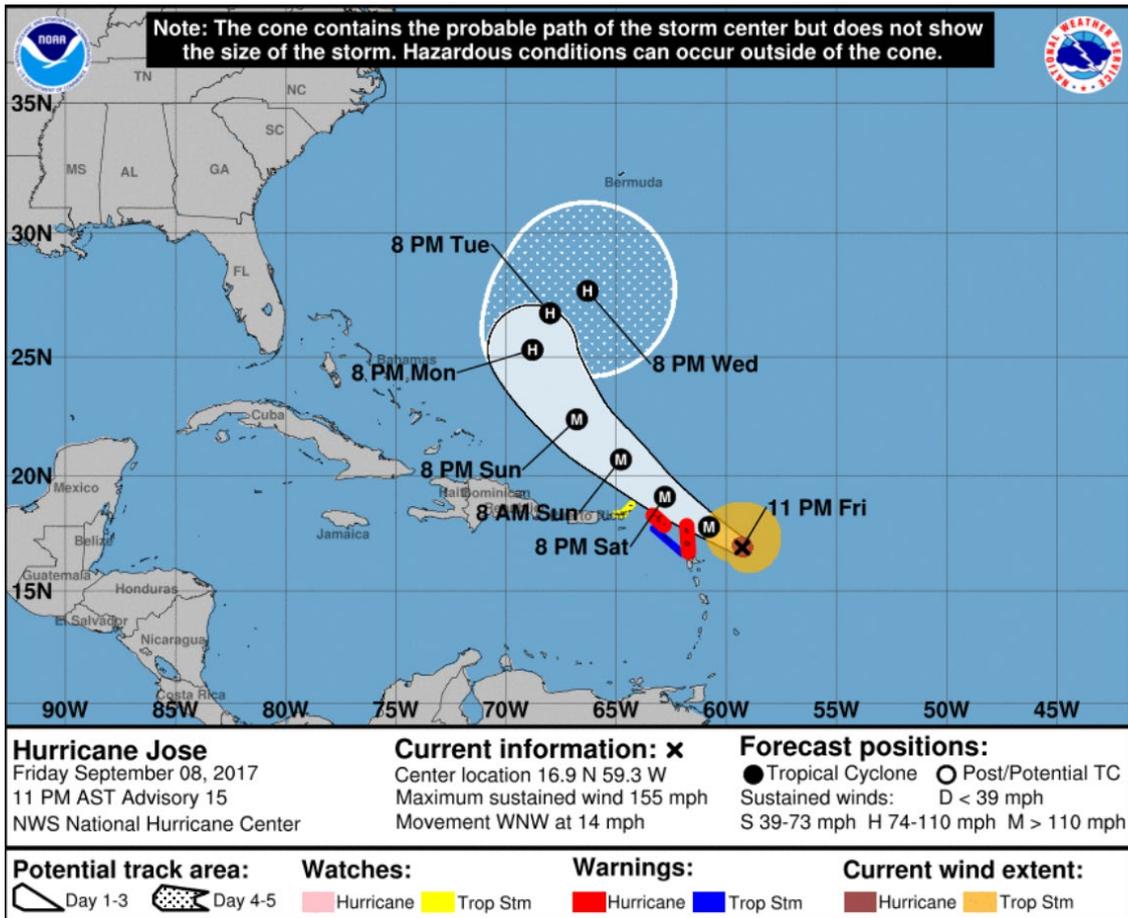


Figure 2: 09/0300 UTC official forecast track and cone of uncertainty for Hurricane Jose from the National Hurricane Centre. Times on the graphic are in AST (UTC-4).

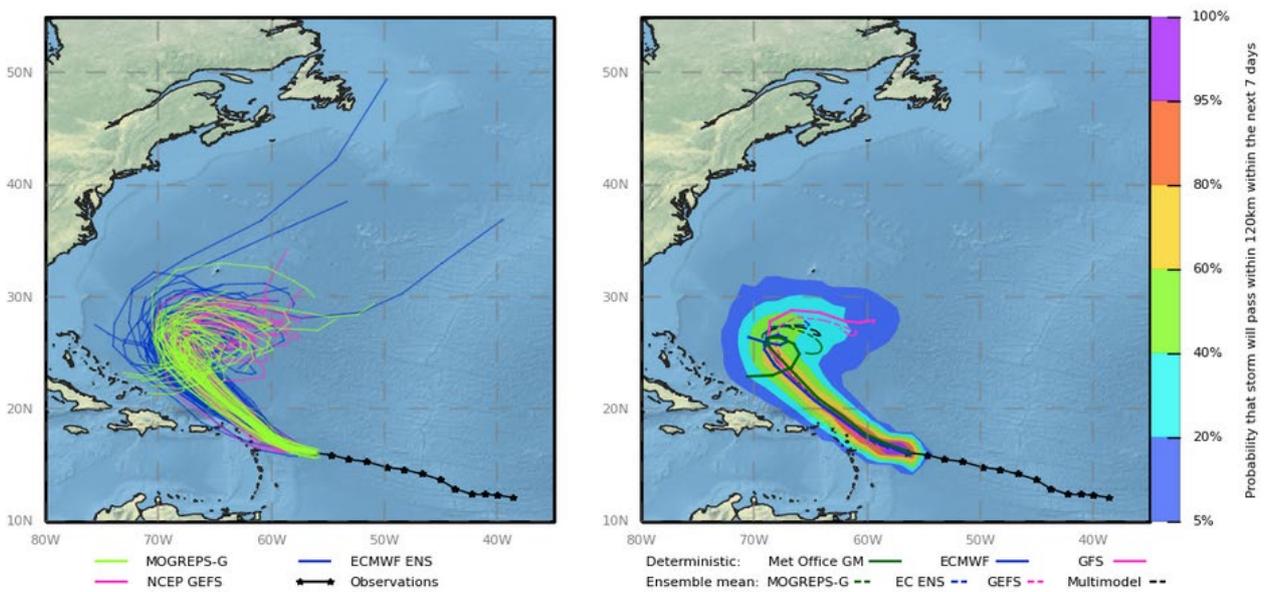


Figure 3: Latest ensemble spread of tracks from the Met Office, ECMWF and NCEP.

This shows the range of possibilities for the track of Jose during the next 7 days. This latest run is consistent with previous issues. Note the consistent tracks from the ensemble members for the next few days.

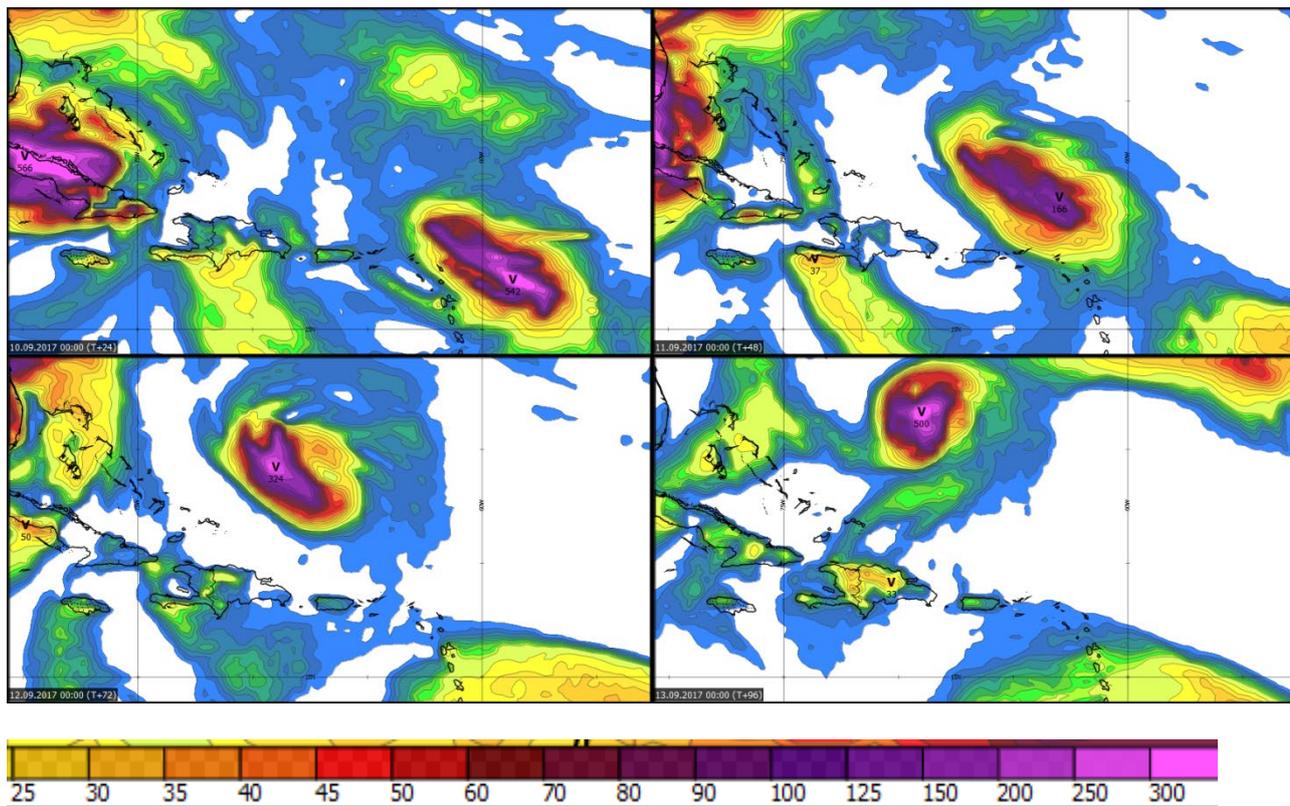


Figure 4: 08/12Z UKGM 24 hour rainfall totals for the next 4 days in millimetres. Saturday (top left), Sunday (top right), Monday (bottom left) and Tuesday (bottom right).

Note the risk of 250 to 300 millimetres along the track of Jose, but with significantly less to the southwest of the track

Sources

NHC, UK Met Office, ECMWF, NCEP, and various media reports.

Issued at: 090415 Z

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