

Severe Weather Advisory for the Caribbean - Hurricane Jose

Issued on Friday, 8th September 2017 at 22:15 local time.

Headline

Hurricane Jose strengthens to an Extremely Dangerous Category 4 Hurricane as it approaches the northern Leeward Islands this weekend.

Discussion

Hurricane Jose strengthened during Friday morning (today) with maximum sustained winds currently of 130KT (150mph). This makes Jose a category 4 hurricane. Jose was located around 335 miles ESE of the Northern Leeward Island at 08/2100UTC. Jose is moving WNW at 17 mph, with Jose expected to turn northwestwards in the next 36 to 48 hours. On the forecast track, the core of Jose will pass close or just east of the northern Leeward Islands.

The current estimate of the maximum sustained winds are thought to be conservative by the National Hurricane Centre. Further reconnaissance flights are due, and will give a better estimate of the intensity.

Jose is expected to maintain or slightly decrease in intensity in the next 18 hours. Beyond that a gradual weakening of the system is forecast, however it is worth noting that Jose has already exceeded all previous forecasts. 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 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 60-80 % 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 now look 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.

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.

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.

This forecast may be amended at any time

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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, although this is highly dependent on track. A slight southward shift would bring as much as five 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.

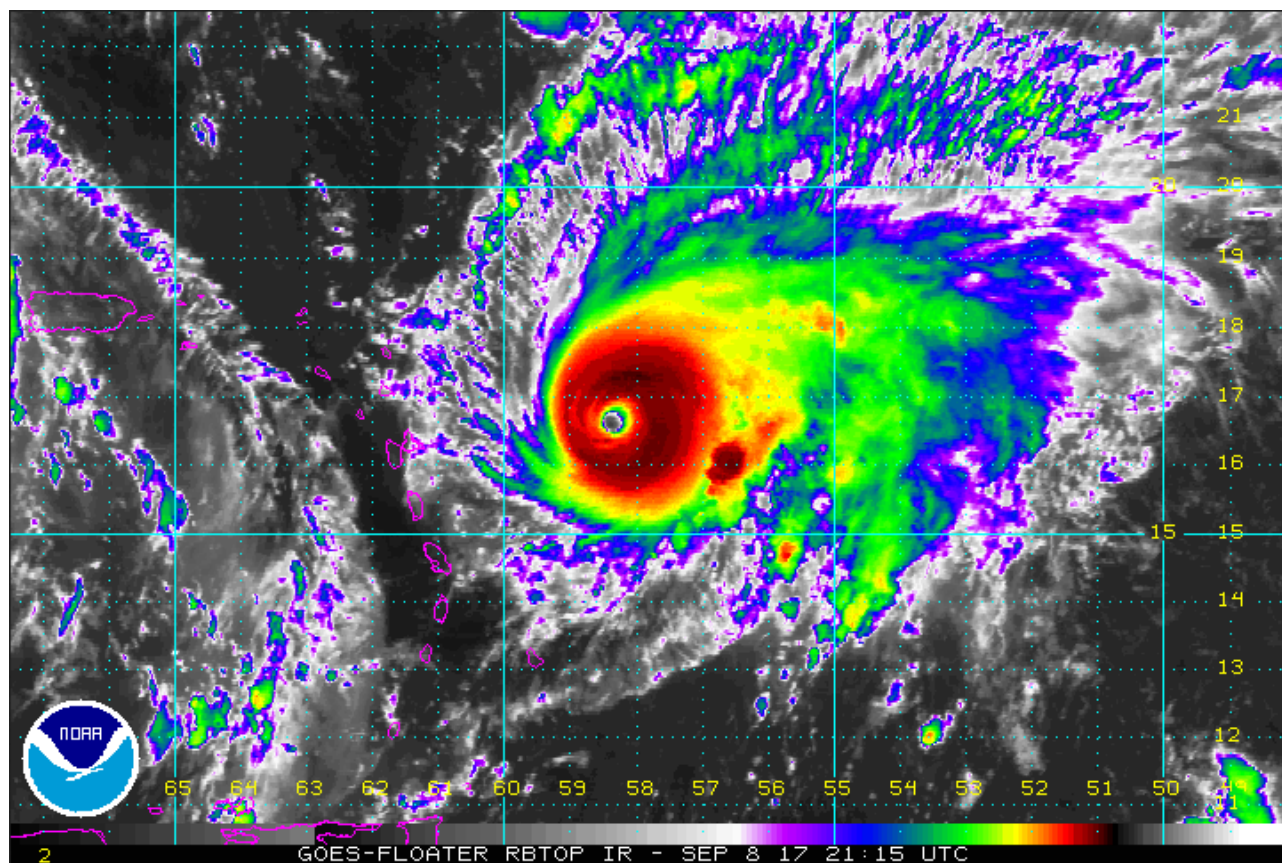


Figure 1: 08/2115 UTC IR satellite image.

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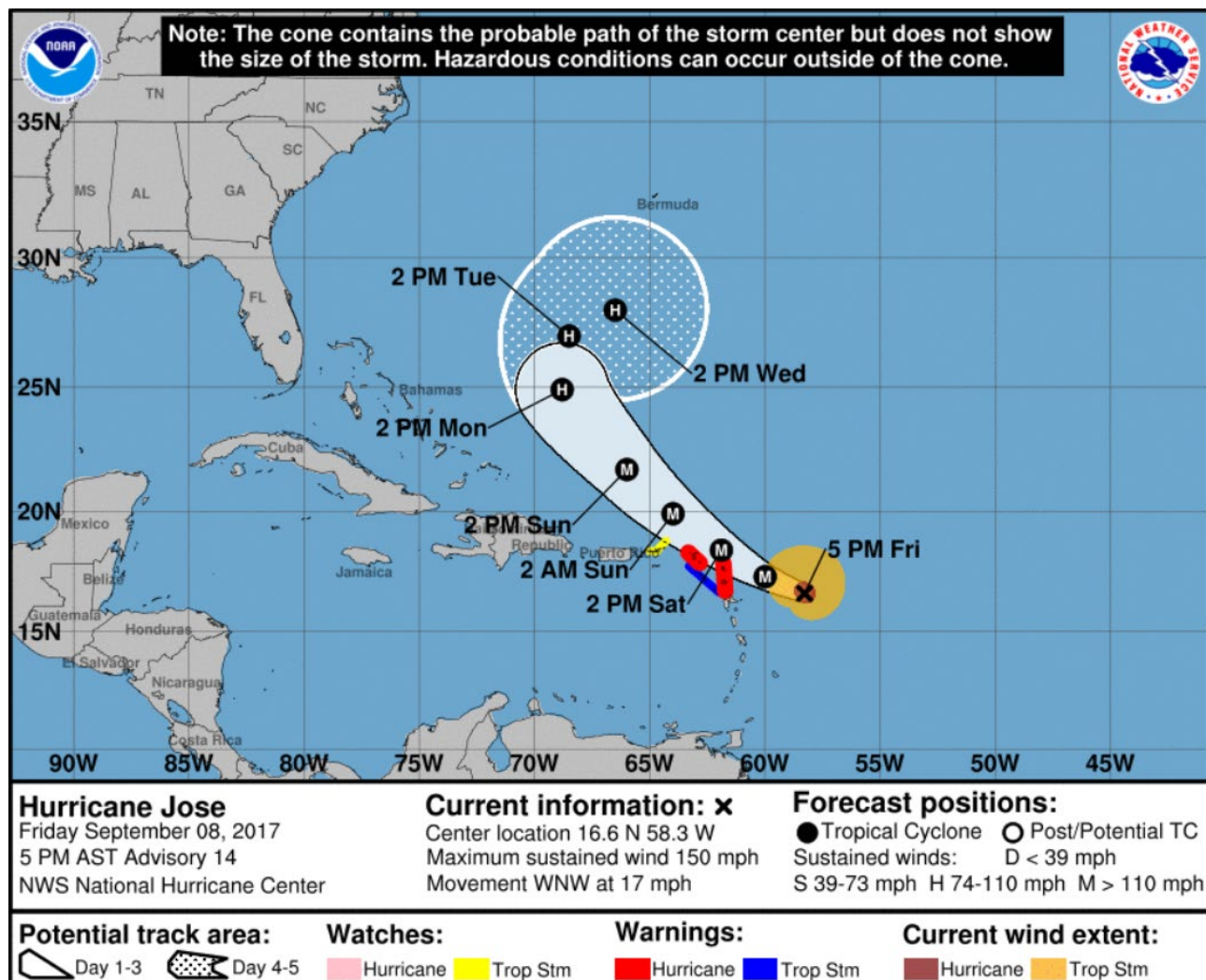


Figure 2: 08/2100 UTC official forecast track and cone of uncertainty for Hurricane Jose from the National Hurricane Centre. Times on the graphic are in AST (UTC-4).

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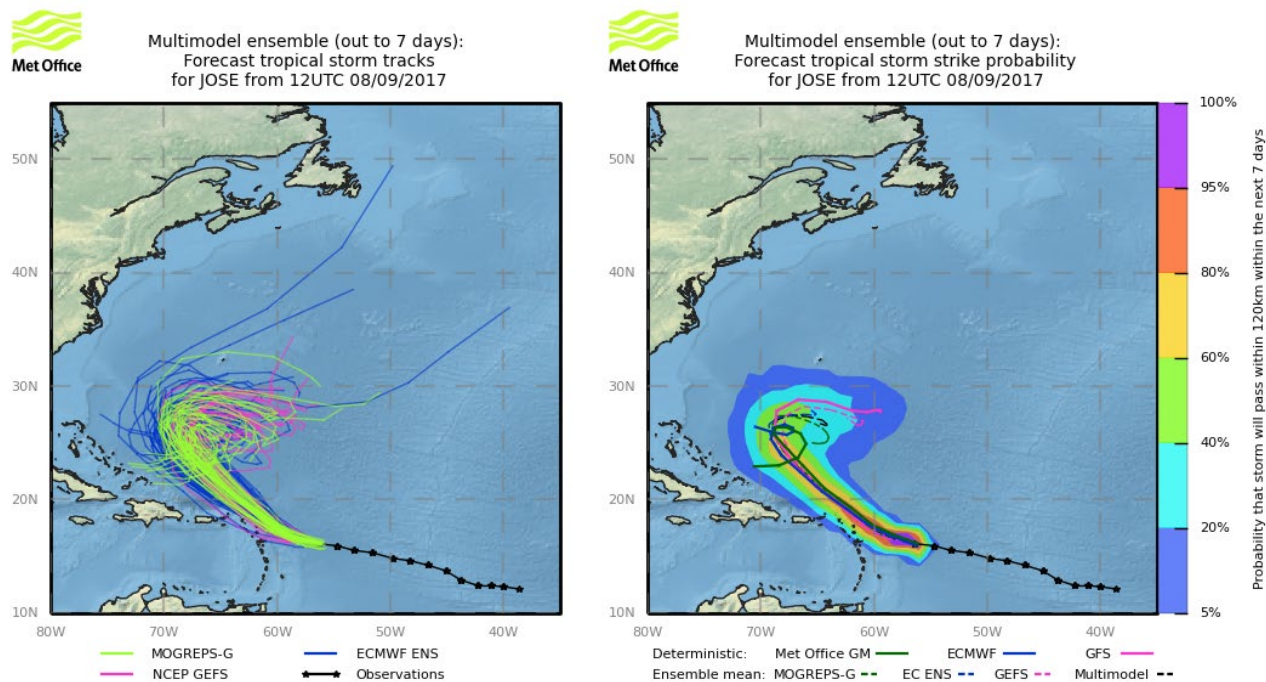


Figure 3: Latest ensemble spread of tracks from the Met Office, ECMWF and NCEP.

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

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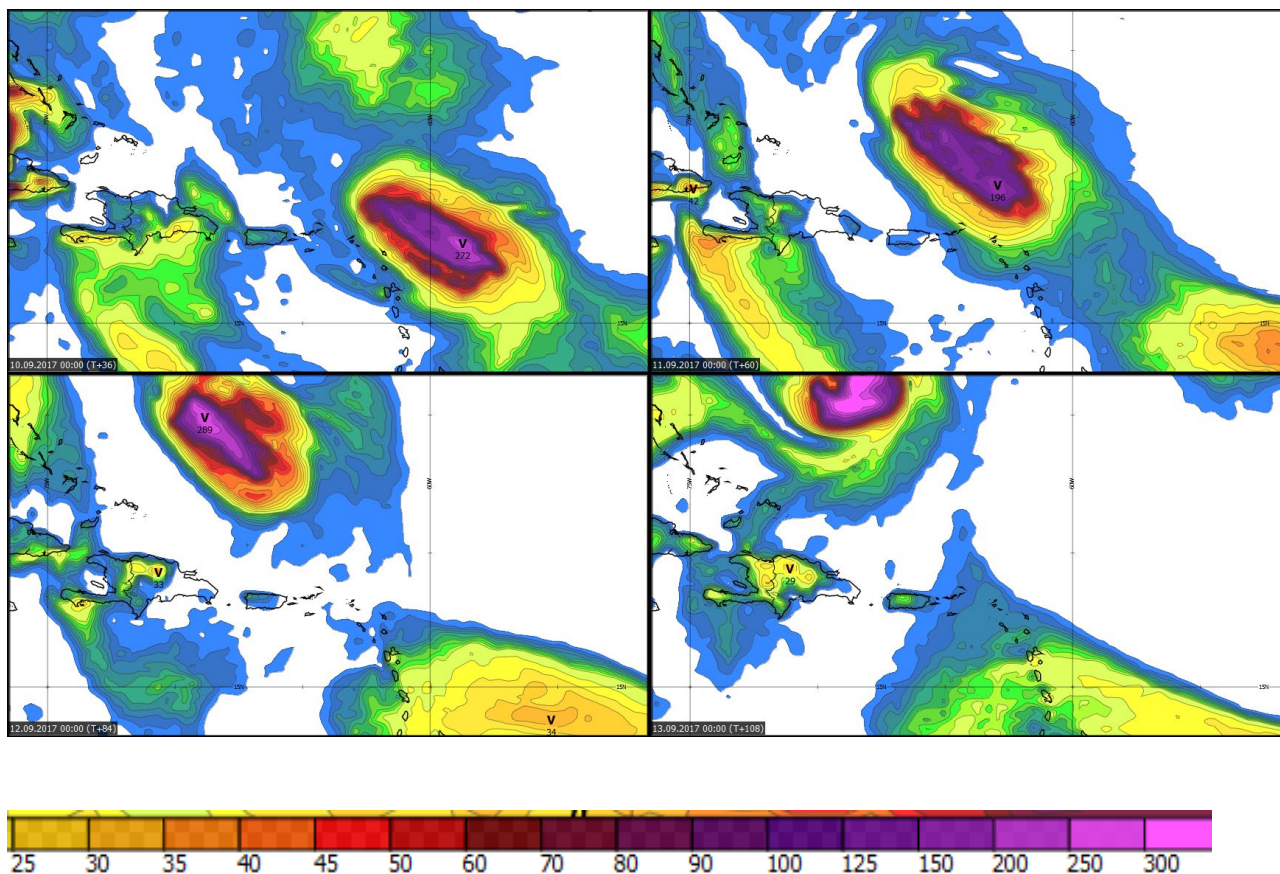


Figure 4: 08/12Z UKGM 24 hour rainfall totals for the next 4 days in millimetres.

Note the risk of 250 to 300 millimetres along the track of Jose, but with 10 times less to the southwest of the track

Sources

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

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