

Severe Weather Advisory: Caribbean and southeast USA

Hurricane Matthew

Issued on Saturday 8th October 2016 at 0600 (all times are based on UK local time)

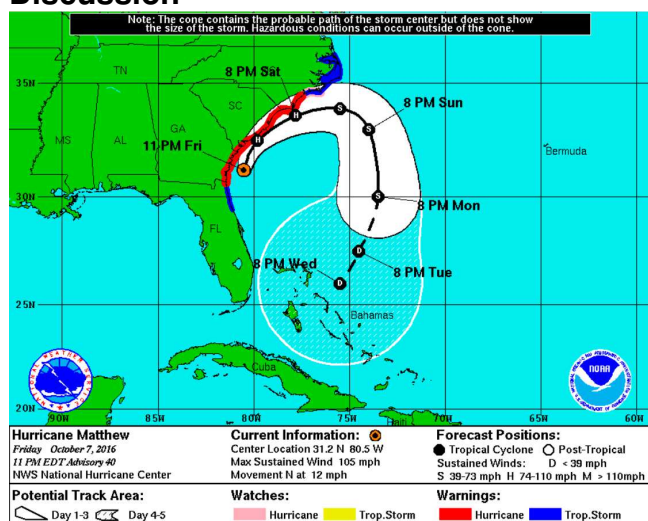
Headline

Hurricane Matthew is now a Category 2 storm and is tracking north, close to the coast of Georgia USA, just offshore. Matthew is expected to continue track north, then northeast close to the East coast of the USA through the rest of Saturday before turning east into the Atlantic during Sunday.

Impacts

- Hurricane force winds affecting the coastlines of Georgia, South Carolina and south-eastern North Carolina on Saturday and Sunday.
- Exceptional rainfall (200-300mm, potentially locally 400mm), dangerous storm surge (1.5-2.7 meters) and large, destructive waves are expected across Georgia and South Carolina as Matthew tracks across region.
- Significant risk of flooding with coastal inundation and erosion.

Discussion



Matthew is now a Category 2 hurricane with maximum 1 minute sustained winds of 105mph, located around 70 miles SSE of Savannah, Georgia and 115 miles SSW of Charleston, South Carolina at 08/03UTC. The hurricane is tracking N along, but just offshore, the east coast of Georgia at around 12mph. Matthew is likely to continue to slowly weaken whilst running roughly north parallel to the coast of Georgia and onto South Carolina. Through the course of Saturday, Matthew is expected to weaken from a category 3 to a category 1 storm before turning east into the Atlantic Ocean during Sunday.

So far, Matthew's eye and most destructive winds have remained just offshore. Only a small deviation to the left of the forecast track could bring these

damaging winds onshore. Hurricane force winds (>74mph) extend to around 50 miles from the centre of the storm.

Potentially severe impacts are also expected from the combination of heavy rain, flash flooding, high seas, and storm surge. Around 200-300mm, locally 400mm of rain is expected in some area on the east coast through the next 36 hours, stretching from Georgia to eastern North Carolina. High seas and storm surge may result in significant coastal inundation. NHC forecast a storm surge of perhaps 5-10 feet in places up the east coast of Georgia and South Carolina then into North Carolina.

There remains much uncertainty in the track of Matthew once it moves east from North Carolina from Sunday onwards. The weight of ensemble members, along with the EC and GFS deterministic runs continue to turn Matthew south then south-west with a much weaker system (probably a tropical depression) close to the Bahamas by Wednesday next week. This remains the official track favoured by NHC. However it is worth noting the last two deterministic GM solutions keep Matthew to the north west of Bermuda before forming a deep-extra tropical low which moves towards south-east Canada later next week.

Impacts from Matthews's passage through the Caribbean are still emerging. However reports from Haiti suggest now suggest almost 900 people have been killed, and 350000 are in need of urgent assistance.

Sources: Met Office, NHC, ECMWF, NCEP, GFDL.

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This forecast may be amended at any time

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