

# **Tropical Cyclone Isaac (AL092012)**

## **Event Briefing, Central Caribbean Impacts**

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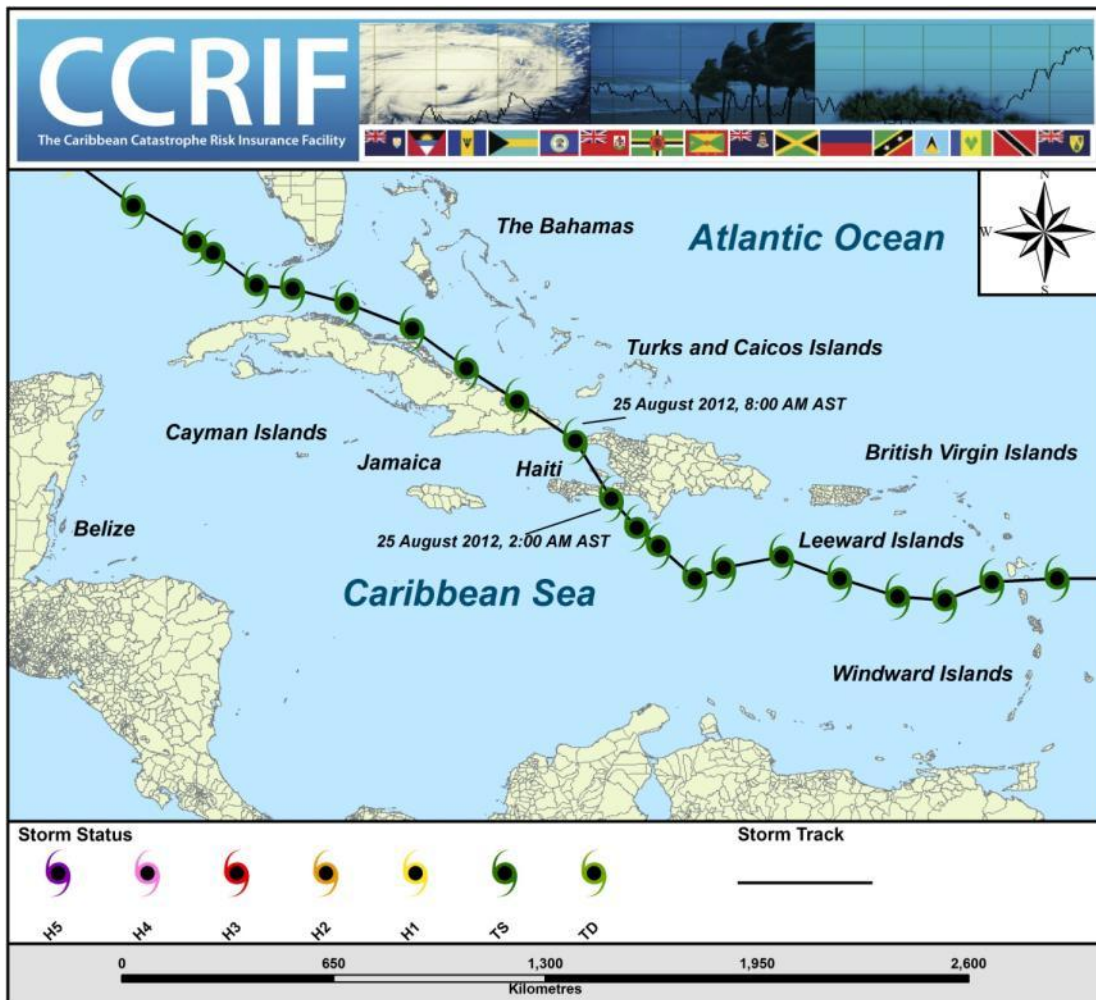
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# 1 INTRODUCTION

This report provides an update on Tropical Cyclone Isaac and its impact on CCRIF territories in the Central Caribbean. After impacting the Eastern Caribbean on 22 August and affecting Dominica (as reported in the earlier CCRIF briefing), Tropical Storm Isaac entered the Caribbean Sea. At 1500 UTC on 24 August, Isaac was located 185 miles (300 km) south-southeast of Port-au-Prince, Haiti with maximum sustained winds of 60 mph (95 km/h). It was moving in a west northwesterly direction at a speed of approximately 14 mph (22 km/h) with tropical storm force winds extended outward up to 185 miles (295 km) from the centre of Isaac.

By 25 August Isaac was moving in a northwesterly direction at a speed of approximately 13 mph (20 km/h) with tropical storm force winds extending outward up to 230 miles (370 km) from the centre. Isaac made landfall over the southwestern peninsula of Haiti just before dawn local time. The Hurricane Watch for Haiti was discontinued at 1530 UTC the same day. Figure 1 shows the path of Tropical Cyclone Isaac as it moved over Haiti and south of the Bahamas.



**Figure 1** Map showing the path of Tropical Cyclone Isaac. *Source: NHC.*

## **2 CCRIF MODEL OUTPUTS**

The wind footprint is one of the outputs from the CCRIF Multi-Peril Risk Estimation System (MPRES). TC Isaac achieved the requirements of a reported event under CCRIF's loss calculation protocol by having winds of greater than 39 mph affecting any of the sixteen member countries.

The modelled wind speed from the CCRIF model is very consistent with the most accurate surface wind speed estimates from NOAA (Hurricane Research Department's H\*WIND output, which rationalises all actual wind speed measurements collected on the ground and from flights and satellites), but the overall footprint from both CCRIF and H\*WIND is considerably smaller than the main NHC public output (which actually shows the maximum estimated extent of winds of a certain speed and is therefore very conservative). Figure 2 provides a comparison of all three wind footprint estimates. CCRIF will also be requesting ground-based wind and other storm information from the relevant national and/or regional meteorological agencies in order to further verify the modelled wind field and storm surge.

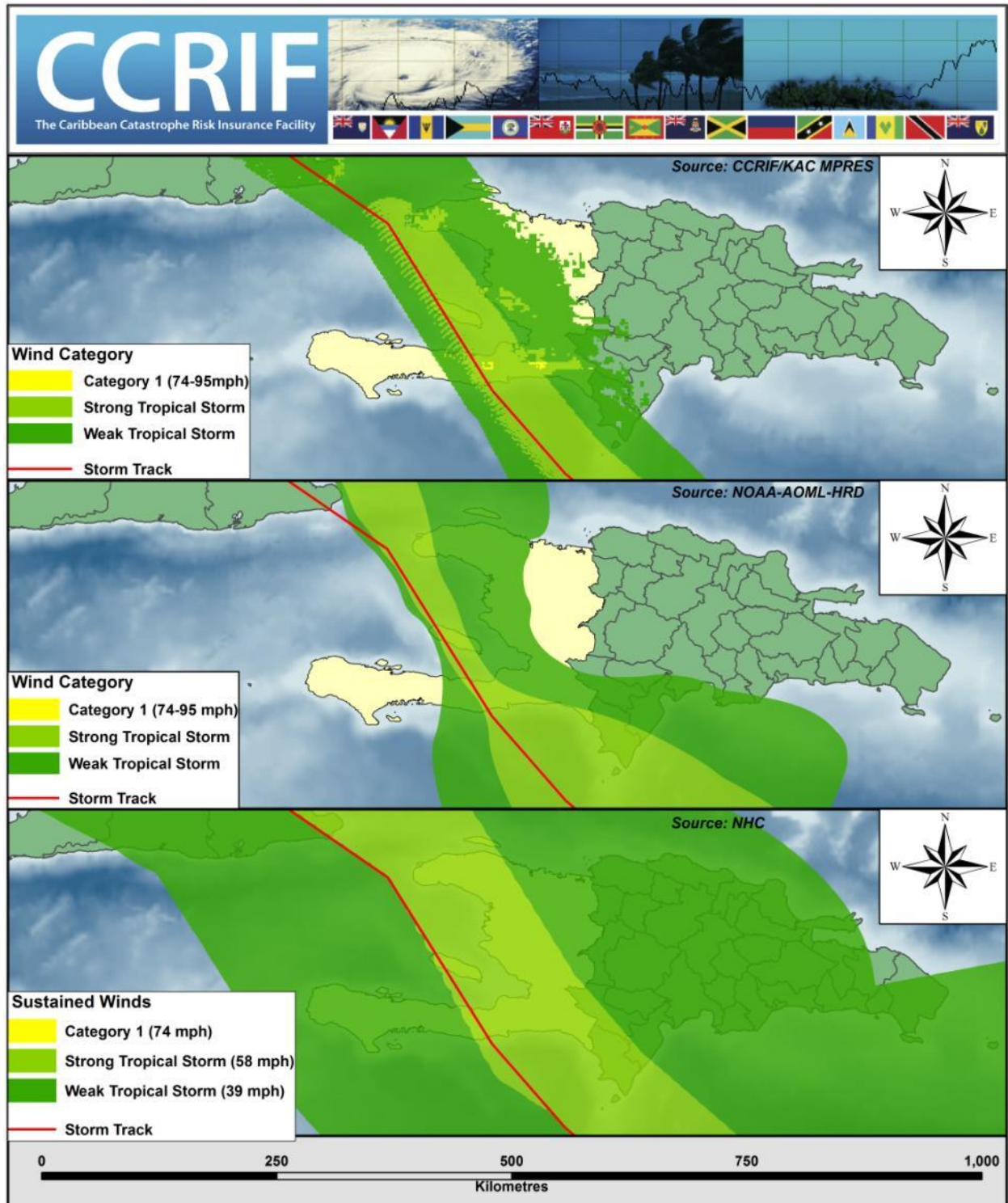
## **3 IMPACTS**

The CCRIF member countries affected by at least tropical storm force winds in the Central Caribbean Region from Isaac (based on the MPRES footprint) were Haiti and the Bahamas.

Isaac pounded Haiti with heavy rains during the early morning of 25 August which resulted in flooding and mudslides. The centre of Isaac passed approximately 50 miles west of the capital, Port-au-Prince. As the centre moved away to the northwest, the heaviest thunderstorms moved ashore with rainfall rates estimated to be up to 1 inch per hour.

Early reports indicate that the worst damage has been experienced in the southeast where the system made landfall. In the city of Jacmel, which is situated on the south coast, as many as 1,500 residents took refuge in hurricane shelters. The Government reported that more than 14,000 persons had left their homes and another 13,500 were living in temporary shelters until the night of 25 August.

Mega IV Camp which housed approximately 8,000 people in makeshift shelters was affected by flooding and fallen trees which damaged hundreds of tents. The Grise River which is situated to the north of Port-au-Prince overflowed its banks and affecting the shanty town of Cite Soleil. Many persons situated in that area were forced to evacuate their homes immediately as the water had reached a depth greater than 3 feet.



**Figure 2** Comparison of CCRIF model (top), H\*WIND model (middle) and NHC forecast (bottom) wind footprints. *Source: NOAA-HRD & CCRIF/KAC MPRES.*

The United Nations have confirmed that there has been damage to the country's banana crop; however the extent of damage has not as yet been confirmed. Preliminary reports indicate that there may have been as many as 19 fatalities as a result of this system. The UN has started to respond to the humanitarian needs of the local population by providing stocks of food and drinking water, therapeutic nutrition supply, hygiene kits and cholera response kits.

Haiti's national electricity supplier confirmed that at one point 30 of the country's 32 electricity grids were down. A dozen houses were destroyed and another 269 were damaged. However, Haiti's spokesman for the United Nation's Office of Coordination of Humanitarian Affairs stated that the damage appears to be less significant than expected.

There were no reports of significant damage as a result of the storm as it crossed the southern Bahamian islands.

Preliminary runs of the CCRIF loss model generated only small government losses in the affected countries, which in both cases were below each country's trigger level and therefore no payout is due.