

# Tropical Cyclone Ernesto (AL052012)

**Event Briefing** 

## Caribbean Risk Managers Ltd Facility Supervisor

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#### 1 Introduction

On 30 July 2012 the National Hurricane Centre released its first weather outlook on a tropical wave system which had formed off of the coast of Africa 3 days earlier and now appeared to be well defined. Convection in this system became better organised and at approximately 2100 UTC on 1 August it intensified to form the fifth Tropical Depression of the year situated approximately 810 miles (1,305 km) east of the Lesser Antilles, moving in a WNW direction.

At approximately 2100 UTC on 2 August Tropical Depression 5 was upgraded to Tropical Storm Ernesto resulting in the implementation of tropical storm warnings for Barbados, St. Lucia, Guadeloupe, Martinique, Dominica and St. Vincent & the Grenadines. By 3 August at 1500 UTC Ernesto was situated about 90 miles (140 km) west of St. Lucia packing maximum sustained winds of 50 mph (85 km/h) with stronger gusts. Tropical storm winds extended outward up to 115 miles (185 km) from the centre of the storm as it continued to move across the Caribbean Sea in a westerly direction at a speed of 21 mph.

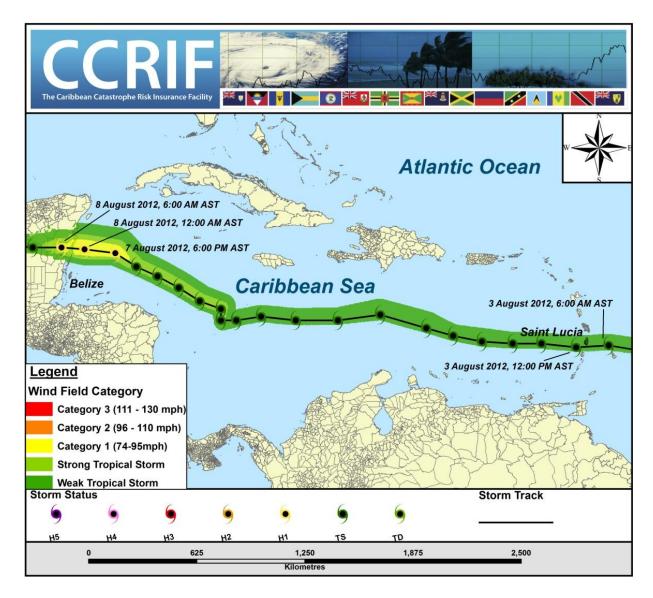
On 7 August at approximately 1200 UTC Tropical Storm Ernesto was situated about 250 miles (405 km) east of Belize City and 180 miles (285 km) north east of Isla Roatan, Honduras. Maximum sustained winds were reported at 65 mph (100 km/h) with stronger gusts and tropical storm force winds extended outward up to 125 miles (205 km) from the centre of Ernesto.

Figure 1 shows the path of Tropical Cyclone Ernesto from its inception to when it dissipated. As can be seen, St. Lucia was the only CCRIF country directly affected by Ernesto.

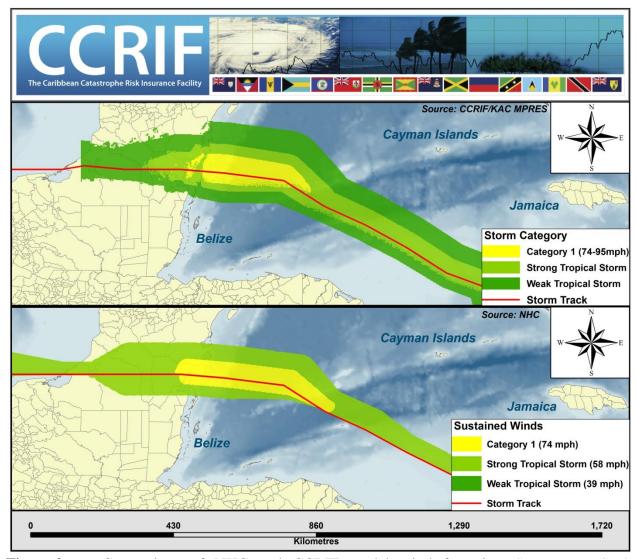
### 2 CCRIF MODEL OUTPUTS

The wind footprint (Figure 1) is one of the outputs from the CCRIF Multi-Peril Risk Estimation System (MPRES). As can be seen, Ernesto achieved the minimum requirements of a defined event under CCRIF's loss calculation protocol by having winds of greater than 39mph in a number of member countries.

The modelled wind speed is consistent with surface wind speed estimates from NOAA-NHC (both the public wind footprint issued with each Advisory – see Figure 2 - and from the NHC research department's H\*WIND algorithm, which rationalises all actual wind speed measurements collected on the ground and from flights and satellites.) CCRIF will also be requesting ground-based wind and rain information from the relevant national and/or regional meteorological agencies in order to further verify the modelled wind field and storm surge.



**Figure 1** Map showing the path of Tropical Cyclone Ernesto and the CCRIF model wind footprint. *Source: NHC & CCRIF/KAC MPRES*.



**Figure 2** Comparison of NHC and CCRIF model wind footprint. *Source: NHC & CCRIF/KAC MPRES.* 

#### 3 IMPACTS

The CCRIF member countries affected by at least tropical storm force winds from Ernesto (based on the MPRES footprint) were Belize, St. Lucia and St. Vincent & the Grenadines, with the tropical storm wind footprint just missing Barbados.

There were no reports of significant damage as a result of the storm as it crossed the Lesser Antilles chain. Reported peak sustained winds were only rarely above minimum Tropical Storm strength and rainfall was lower than had been anticipated due partly to the high forward speed of the system.

As expected for the level of modelled wind speed, the CCRIF loss model generated only a small government loss in the affected islands, which were below that each country's trigger level and therefore no payout is due.