

# **Tropical Cyclone Earl (AL072010)**

## **Event Briefing**

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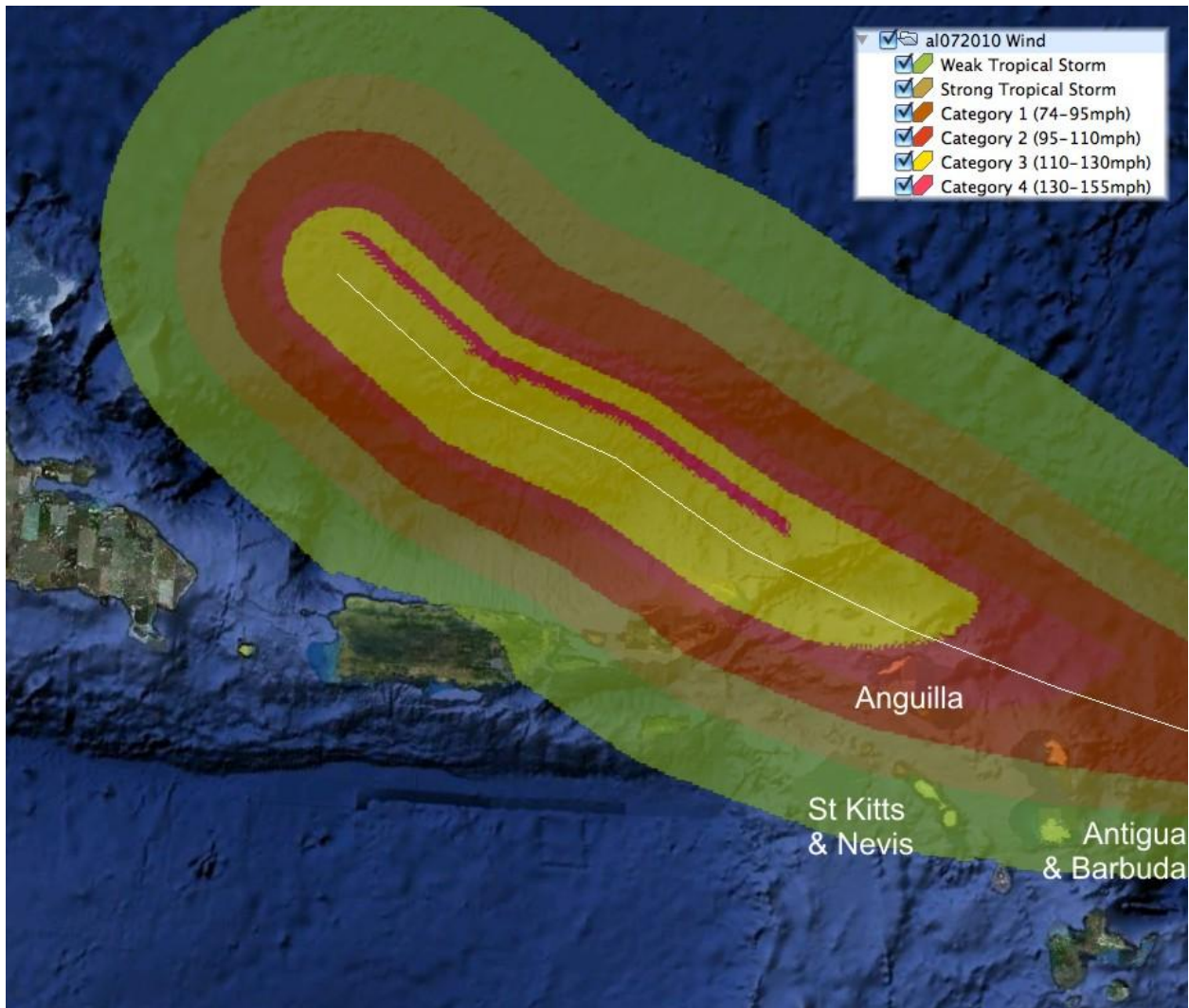
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## 1 INTRODUCTION

Tropical Cyclone Earl emerged off the African coast as an area of low pressure on 22 August 2010. It became Tropical Depression Seven and then Tropical Storm Earl on 25 August before intensifying into a hurricane on 29 August. Classified as a Cape Verde-type hurricane, it was the seventh depression, fifth storm, third hurricane and second major hurricane of the 2010 Tropical Atlantic Hurricane Season.

As shown in the wind footprint graphic below, Earl swung slightly north of west as it reached the northern part of the eastern Caribbean, strengthening as it did so. It passed close to the north of Barbuda, and then even closer to Anguilla before passing the northernmost of the British Virgin Islands, Anegada and heading towards the southern Bahamas.



## **2 CCRIF MODEL OUTPUTS**

The wind footprint above is one of the outputs from the CCRIF Second-Generation Hazard & Risk Model. As can be seen, Earl did achieve the minimal requirements of a defined event under the CCRIF Policy by having winds of greater than 39mph somewhere in three member states; Antigua & Barbuda, St Kitts & Nevis and Anguilla.

The islands of Antigua, St Kitts and Nevis all have modelled sustained winds of weak tropical storm force (less than 50 mph), while Barbuda encountered Category 1 hurricane winds (74-95 mph) and Anguilla Category 2 winds (96-110 mph). These modelled windspeeds are generally consistent with, though somewhat higher than, surface windspeed estimates from NOAA-NHC (from their H\*WIND algorithm, which rationalises all actual windspeed measurements collected on the ground and from flights and satellites.)

As expected for the level of modelled windspeed, the CCRIF loss model generated small government losses in Antigua & Barbuda and St Kitts & Nevis, both below their trigger levels, while the loss in Anguilla was much more substantial, and triggered their policy. The explicit modelling of coastal damage and loss in CCRIF's second-generation model, which now underpins CCRIF policies, had greatest influence in Anguilla, where the vast majority of economic activity is exposed to coastal hazards (waves and storm surge.)

## **3 CCRIF SUPPORT**

Based on preliminary calculations undertaken using CCRIF's catastrophe loss model and the most recent data from the National Hurricane Center, Anguilla will receive just over US\$4M after 14 days, during which time a final calculation of loss and payout will be made.

Beyond this, CCRIF is also collaborating with the Caribbean Institute for Meteorology and Hydrology (CIMH) in sending a team into the affected area. The team will be collecting and collating all available meteorological data to support further technical work by both institutions. Similarly, CCRIF has also been working closely with on ground contacts to gather information on impacts in the affected islands, including the disaster management offices and Ministries of Finance.

Collecting good, accurate information in the immediate aftermath of an event is an important component of enhancing the support provided to countries after catastrophe impacts, and will also be useful in further refining CCRIF products and services.

A further event report, including on-the-ground data and model validation, will be issued at a later date.