





# Covered Area Rainfall Event (20-22 May 2015)

## **Excess Rainfall**

**Event Briefing** 

15 June 2015

#### 1 INTRODUCTION

The Caribbean Rainfall Model (operated by Kinetic Analysis Corporation (KAC)) indicated that a Covered Area Rainfall Event (CARE) was generated in Haiti starting on 20 May 2015 and ending on 22 May 2015.

At the time of this briefing, CCRIF is in the process of attaining any official reports on actual rainfall measurements and damage on the ground from Haitian authorities through a liaison at CDEMA. However, given the small Rainfall Index Loss associated with the event and the lack of information online relating to heavy rainfall on the days concerned, official reports seem unlikely at this point.

#### 2 DAILY MODEL RAINFALL DATA

The maximum accumulated precipitation produced by the model was 525.28 mm which fell on the boundary between the departments of Nord and Nord-est. There was also significant rainfall on the boundary between the Artibonite, Centre and Ouest districts. At the boundary between Nord and Nord-est, the terrain is very mountainous with elevations of approximately 650 m. Although the terrain is steeply sloping and mountainous, it is not heavily forested or developed. The boundary between the Artibonite, Centre and Ouest districts is very mountainous with elevations of approximately 850 m. However, whilst the area has few developments, it is void of almost all vegetation. The area drains north towards the Artibonite.

Figure 1 shows the accumulated rainfall, as interpolated iTRMM values, over Haiti from 20 to 22 May 2015.

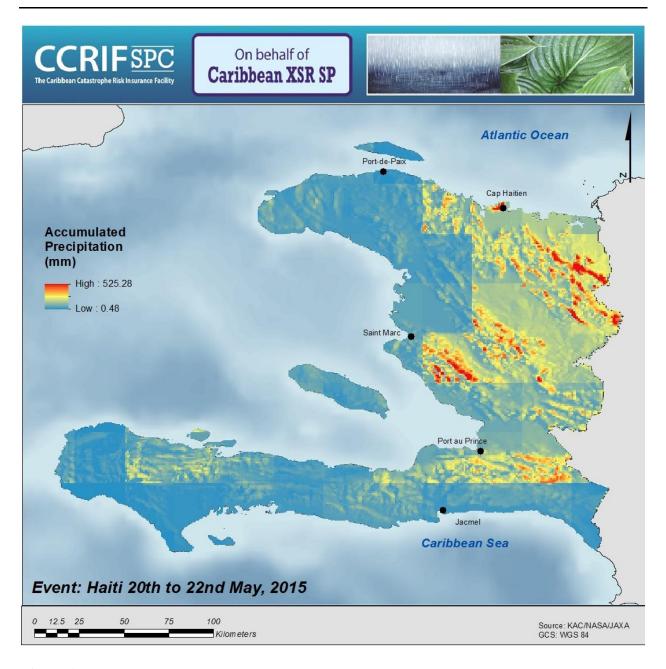


Figure 1 Map showing accumulated rainfall in Haiti, 20-22 May 2015

### 3 RAINFALL MODEL OUTPUTS

The Caribbean Rainfall Model uses a 3-day running aggregate of rainfall measurements for Haiti, meaning that the rainfall attributed to a particular day is the total sum of the rainfall on that day itself and the two following days.

The Caribbean Rainfall Model produced Maximum Aggregate Rainfall of 685.84 mm on 21 May 2015 (includes rainfall for 21, 22 and 23 May). The maximum number of ongoing iTRMM Grid Cell Events (iGCEs) was 11,357.

#### 4 TRIGGER POTENTIAL

The number of ongoing iGCEs in Haiti exceeded the required threshold (8,274) to trigger the CARE on 20 May and remained above the threshold until 22 May.

It must be noted that the Rainfall Index Loss for a CARE cannot be determined until the Aggregate Rainfall in each iTRMM Grid Cell that had an ongoing iGCE that contributed to the CARE has fallen below 75 mm for at least 2 days (1 day in the case of those countries for which the model uses 2-day Aggregate Rainfall). In this instance, the CARE's contributing iGCEs ended on 1 June.

The Rainfall Index Losses calculated for Haiti's CARE did not exceed the attachment point on its Excess Rainfall policy and therefore no payout is due.

For further information, please contact Caribbean Risk Managers Ltd., the CCRIF SPC Facility Supervisor.

Caribbean Risk Managers Ltd. Haggatt Hall St. Michael BB11059, Barbados Tel: +1 (246) 426-1525 Fax +1 (246) 426-1704 ccrif@ccrif.org

#### **DEFINITIONS**

Active Percentage

The percentage of the total number of iTRMM Grid Cells, within the Covered Area of the Insured, in which an iTRMM Grid Cell Event must be occurring to trigger a Covered Area Rainfall Event. The Active Percentage is defined in the Schedule.

Aggregate Rainfall

The value of Aggregate Rainfall, as measured in millimetres (mm), using the iTRMM Precipitation Data over the Covered Area and evaluated by the Calculation Agent as part of the Rainfall Index Loss Calculation Methodology. For a given day:

- (a) 2-day aggregate the total sum of rainfall on the day itself, and the day after; or
- (b) 3-day aggregate the total sum of rainfall on the day itself, and the two following days.

Caribbean Rainfall Model

The computer model used to calculate the iTRMM Grid Cell Event Loss and the Rainfall Index Loss.

Covered Area Rainfall Event

Any continuous period of days during which the number of iTRMM Grid Cell Events is greater than or equal to the product of (a) Active Percentage multiplied by (b) the total number of iTRMM Grid Cells within the Covered Area.

Covered Area

The territory of the Insured as represented in the Caribbean Rainfall Model.

iTRMM Grid Cell (grid cell)

The 30 arc-second by 30 arc-second grid of cells each of which is attributed with an exposure value and, for those with exposure value greater than zero, to which an Aggregate Rainfall Amount is attributed each day.

iTRMM Grid Cell Event (cell event) Any continuous period of days during which the Aggregate Rainfall value equals or exceeds the Rainfall Event Threshold in an iTRMM Grid Cell. For Covered Areas that have 3-day aggregation periods, an iTRMM Grid Cell Event is only considered to be over once there have been two or more consecutive days where the Aggregate Rainfall does not exceed the Rainfall Event Threshold.

Maximum Aggregate Rainfall The highest Aggregate Rainfall amount during an iTRMM

Grid Cell Event for each iTRMM Grid Cell in which there

is an iTRMM Grid Cell Event.

Rainfall Event Threshold Aggregate Rainfall level which, when exceeded, starts an

iTRMM Grid Cell Event.

Rainfall Index Loss For any Covered Area Rainfall Event affecting the Insured,

the US Dollar loss calculated by the Calculation Agent

using the Caribbean Rainfall Model.