



Covered Area Rainfall Events (16/08/2025 to 18/08/2025)

Excess Rainfall

Event Briefing

British Virgin Islands

29 August 2025

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1 INTRODUCTION

This event briefing describes the impact of rainfall on British Virgin Islands, which was associated with a Covered Area Rainfall Event (CARE) starting on 16 August and ending on 18 August 2025, this CARE is associated to Hurricane Erin. The Rainfall Index Loss (RIL) for the Covered Area Rainfall Event was below the attachment point of the British Virgin Islands' Excess Rainfall policy, and therefore no payout is due to the Government of the British Virgin Islands. This CARE did not activate the Wet Season Trigger or Localized Event Trigger endorsement of the Excess Rainfall policy and therefore no payout under either endorsement is due.

2 EVENT DESCRIPTION

On 15 August at 1500 UTC, the Tropical Storm Erin was upgraded to a hurricane while located approximately 460 mi (740 km) east of the northern Leeward Islands and rapidly intensified due to warm sea surface temperatures over the Atlantic waters east of the northern Caribbean Sea.

By 1000 UTC on 16 August, Erin had become a Category 4 hurricane with sustained winds of 130 mph (215 km/h), as it approached the northern Leeward Islands. At that time, the hurricane's centre was located at latitude 19.6° North, longitude 61.5° West, approximately 200 mi (322 km) east-northeast of the British Virgin Islands. It was moving west-north-westward at 20 mph (31 km/h) (see Figure 1).

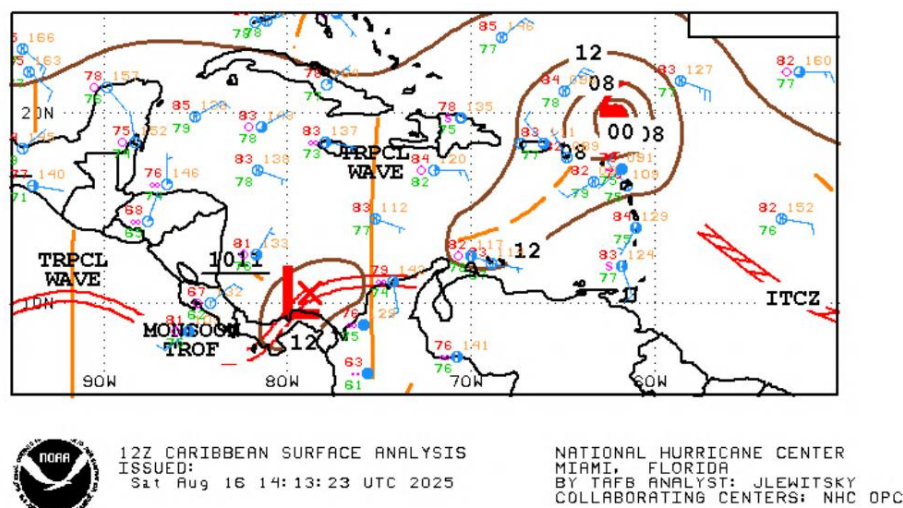
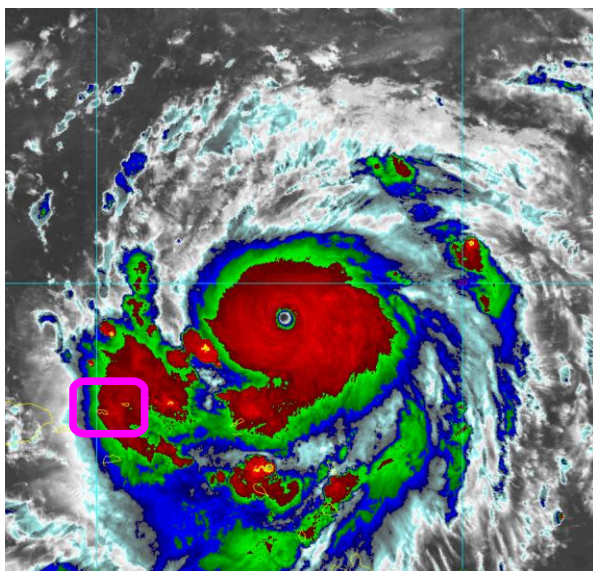


Figure 1 Surface analysis over the Caribbean area on 16 August at 1200UTC. Source: US National Hurricane centre¹

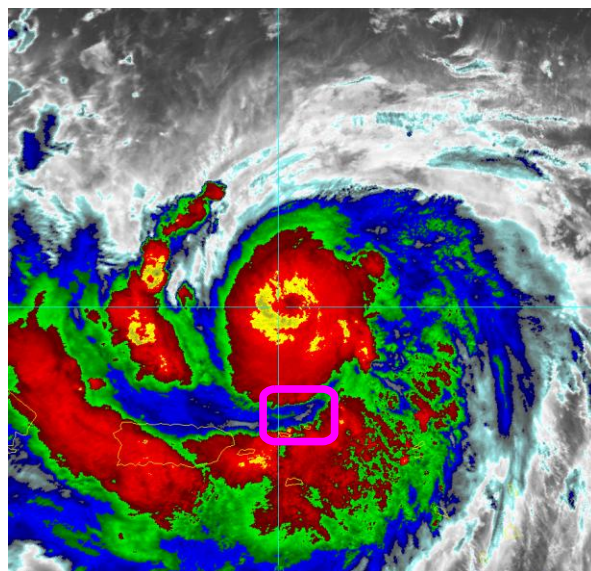
Satellite imagery (Figure 2a) showed a well-organized hurricane, characterized by a small eye, a compact and symmetric inner core, and a large area of deep convection southwest of the centre.

¹ National Oceanic and Atmospheric Administration - FTP, National Hurricane centre, review date: 16 August 2025, available at: <https://www.nhc.noaa.gov/tafb/CAR12Z.gif>

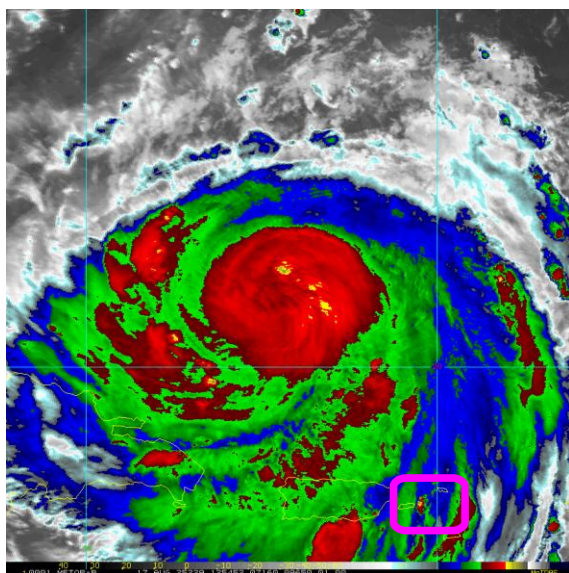
Those outer rainbands were beginning to affect the northern Leeward Islands, including the British Virgin Islands, with moderate to locally intense precipitation (Figure 2a).



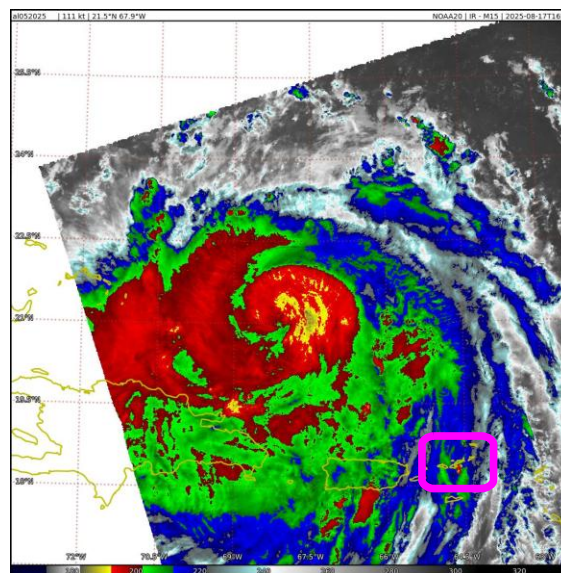
a) 16 August at 1336UTC



b) 17 August at 0006UTC



c) 17 August at 1256UTC



d) 17 August at 1658UTC

Figure 2 Satellite imagery on 16 and 17 August 2025 at different times as indicated by the labels from the thermal infrared channel enhanced with colour. Blue/green colours represent high-altitude clouds (top cloud temperature between -50°C and -70°C), while the red/yellow colours represent very high altitude clouds (top cloud lower than -70°C). High altitude clouds indicate strong convection associated with intense precipitation. The violet square indicates the location of the British Virgin Islands. Source: NOAA, National Environmental Satellite, Data and Information Service².

² RAMSDIS Online Archive, NOAA Satellite and Information Service, available at: https://rammb-data.cira.colostate.edu/tc_realtime/storm.asp?storm_identifier=a1052025

Over the following six hours, Erin continued its rapidly intensification and, by 1520 UTC, reached Category 5 status, with maximum sustained winds near 160 mph (255 km/h) and a minimum central pressure of 917 mb. At that time, the hurricane's centre was located at latitude 19.7° N and longitude 62.8° W, approximately 130 mi (210 km) northeast of the British Virgin Islands. Moderate to locally heavy rainfall continued to affect the country, driven by intense convection within the outer rainbands located to the southwest of the hurricane's inner core (Figure 2a). These conditions persisted and gradually intensified throughout the remainder of the day over the British Virgin Islands (Figure 2b), while the Category 5 hurricane continued westward at approximately 16 mph (26 km/h). Satellite imagery in Figure 2b showed that as the hurricane's core reached its closest distance to the British Virgin Islands on 17 August at 0000 UTC—approximately 87 mi (141 km) from the Island of The Settlement—the country was under the influence of intense rainfall associated with the southern outer rainband.

On 17 August, Erin underwent an eyewall replacement cycle—a structural change that occurs in the most intense hurricanes—resulting in a temporary weakening of intensity but an increase in size. In the meanwhile, the system continued moving west-north-westward at 14 mph (22 km/h), traversing the Atlantic waters north of Puerto Rico and gradually moving away from the Leeward Islands. Despite the increasing distance from the British Virgin Islands, the expanded rainbands situated southeast of the hurricane's core continued to produce scattered moderate to locally intense precipitation over the British Virgin Islands until 1800 UTC (Figures 2c and 2d).

Localized showers associated with the periphery of the hurricane continued to occur over the British Virgin Islands during the first hours of 18 August, with rainfall ceasing afterward.

3 REPORTED IMPACTS

According to the Department of Disaster Management (DDM), no significant structural damage was reported; however, impacts included flooded homes, mudslides, and road blockages³.

4 RAINFALL MODEL OUTPUTS

All data sources used by the XSR 3.1 model, CMORPH, IMERG, WRF5, WRF7, WRF11 and WRF15⁴, detected the occurrence of precipitation over the British Virgin Islands and the

³ CDEMA Hurricane Erin INFORMATION NOTE No. 2

⁴ CMORPH Model: the satellite-based rainfall precipitation estimates provided by the NOAA Climate Prediction centre (CPC) using the so-called Morphing Technique http://www.cpc.ncep.noaa.gov/products/janowiak/cmorph_description.html. Further details are provided in the Definitions section of this report. IMERG Model: The satellite-based rainfall estimation model developed by NASA, expressed in mm, derived by aggregating the IMERG 30-minute Rainfall Data at 10km spatial resolution and available at <https://jsimpsonhttps.pps.eosdis.nasa.gov/imerg/late>. Further details in the Definitions section of this report. WRF5, WRF7, WRF11 and WRF15 Models: the Weather Research and Forecasting Model weather model-based Configuration #1 and #2 data <https://www.mmm.ucar.edu/weather-research-and-forecasting-model>. These data are initialised by the NCEP FNL dataset. (NCEP FNL Operational Model Global Tropospheric Analyses [<http://rda.ucar.edu/datasets/ds083.2/>]). Further details are provided in the Definitions section of this report.

surrounding waters during the period 14 to 18 August 2025. Each data source reported a specific distribution and accumulation of rainfall, as discussed below and shown in Figure 3. A CARE for the British Virgin Islands was activated on 16 August and closed on 18 August. The CARE was activated based on the use of the 12-hour and the 48-hour aggregation intervals for precipitation⁵ and thus the period considered by the XSR 3.1 model for the loss estimate based on the accumulated precipitation in the British Virgin Islands was 14 to 18 August 2025.

Table 1: Report from XSR 3.1 Data Sources on the Precipitation over the British Virgin Islands, August 14 to 18, 2025

CMORPH	CMORPH reported total accumulated values of precipitation higher than 150 mm over most of the British Virgin Islands, with the highest values, between 200 mm and 250 mm, over a small portion of The Settlement.
IMERG	IMERG reported total accumulated precipitation exceeding 200 mm across the entire territory of the British Virgin Islands, with amounts increasing from west to east. The highest values, ranging between 400 mm and 450 mm, were reported over Virgin Gorda.
WRF5	WRF5 showed total accumulated values of precipitation ranging between 50mm and 100 mm over most of the British Virgin Islands. Higher values, between 100mm and 150mm, were reported over Peter Island.
WRF7	WRF7 showed total accumulated values of precipitation ranging between 50mm and 100 mm over most of the British Virgin Islands. Higher values, between 100mm and 150mm, were reported over The Settlement.
WRF11	WRF11 showed total accumulated values of precipitation ranging between 100 mm and 150 mm over most of the British Virgin Islands. Lower values, between 50mm and 100mm, were reported over a portion of The Settlement, Jost Van Dyke and Normand Island.
WRF15	WRF15 reported accumulated values of precipitation ranging between 50 mm and 100 mm over the northern part of The Settlement, the eastern part of Tortola and Normand Island. The highest values, between 100 mm and 150 mm, were showed over the central region of Tortola. Lower values were reported over the rest of the British Virgin Islands.

⁵ The two aggregation periods correspond to the Rainfall Aggregation Period #1 and Rainfall Aggregation Period #2, as indicated in the Schedule. Further details in the Definitions section of this report.

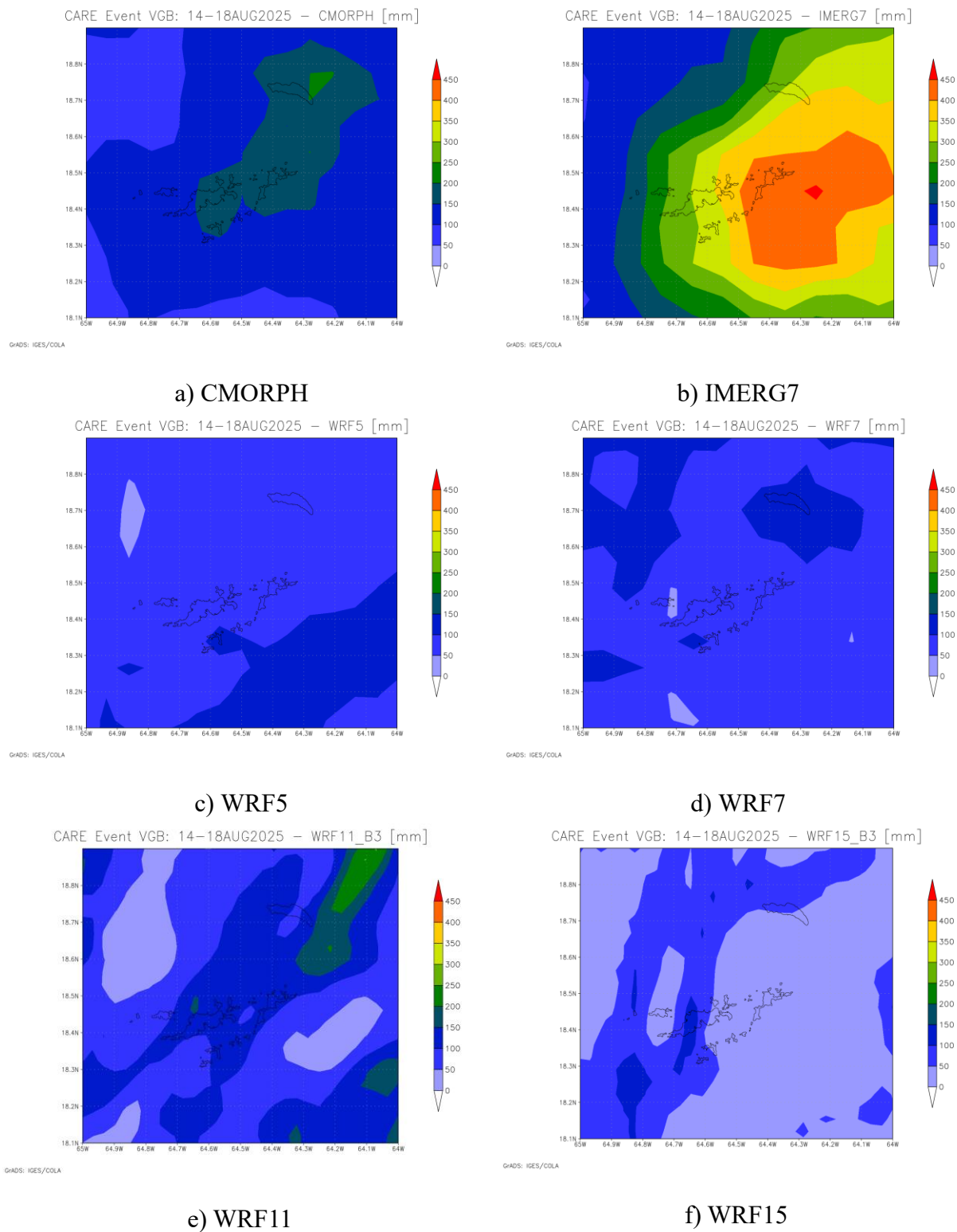


Figure 3 Total accumulated precipitation during the period 14 to 18 August 2025 estimated by CMORPH (a), IMERG7 (b), WRF5 (c), WRF7 (d), WRF11 (e), WRF15 (f). Source: CCRIF SPC

The Rainfall Index Loss (RIL) was above the loss threshold for the British Virgin Islands for five of the data sources used by XSR3.1: CMORPH, IMERG, WRF5, WRF7 and WRF11. The RIL was the highest for IMERG.

The final RIL (RIL_{FINAL}) was calculated as the average of the five RILs from CMORPH, IMERG, WRF5, WRF7 and WRF11. The RIL_{FINAL} was below the attachment point of the Excess Rainfall policy for the British Virgin Islands, and thus the policy was not triggered. Therefore, no payout is due under this Excess Rainfall policy to the Government of the British Virgin Islands.

The Wet Season Trigger (WST) endorsement of the XSR3.1 model did not identify this CARE as a “Wet Season” event⁶. Therefore, no payout is due under the Wet Season Trigger endorsement of the British Virgin Islands’ Excess Rainfall policy.

5 TRIGGER POTENTIAL

The Rainfall Index Loss calculated for the Covered Area Rainfall Event (CARE) for British Virgin Islands was below the attachment point of British Virgin Islands Excess Rainfall policy, and therefore no payout is due. This CARE did not activate the Wet Season Trigger endorsement of the Excess Rainfall policy and therefore no payout under either this endorsement is due.

For additional information, please contact CCRIF SPC at: pr@ccrif.org

⁶ The WST endorsement is designed to provide a predetermined payout for rainfall events occurring amidst already saturated soil conditions, effectively capturing the heightened risk of flooding and landslides. It is activated based on two factors: the Wet Index (the average 1-month Standardized Precipitation Index for all grid cells in the country) and Wet Periods (the period of time where the Wet Index exceeds 1, which indicates that the soil is wetter than its long-term average and serves as an indicator of soil saturation). The WST policy endorsement provides a payment when one or more CAREs with a modelled loss greater than zero and lower than the policy Attachment Point occur within a Wet Period and the corresponding value of the Wet Index during the Wet Period exceeds a predetermined threshold. Wet season event (WE). Any period of consecutive days, during which the Wet Index (WI) is equal or greater than 1.

DEFINITIONS

<i>Active Exposure Cell Percentage Threshold</i>	The percentage of the total number of XSR Exposure Grid Cells within the Covered Area of the Insured, that must be exceeded to trigger a Covered Area Rainfall Event.
<i>Active Exposure Grid Cells</i>	The XSR Exposure Grid Cells for which in the same single day the Aggregate Rainfall #1 value computed using the CMORPH-based Rainfall Estimate equals or exceeds the Rainfall Event Threshold #1 or the Aggregate Rainfall #2 value computed using the CMORPH-based Rainfall Estimate equals or exceeds the Rainfall Event Threshold #2.
<i>Aggregate Rainfall #1</i>	The rainfall amount accumulated over the Rainfall Aggregation Period #1 (as defined in the Schedule) measured in millimeters (mm) in any of the XSR Exposure Grid Cells in the Covered Area of the Insured. For a given day and a Rainfall Aggregation Period #1 of n hours, the Aggregate Rainfall #1 is the maximum amount of rainfall accumulated over any of the n-hour windows that intersect the day itself considering a time interval of 3 hours.
<i>Aggregate Rainfall #2</i>	The rainfall amount accumulated over the Rainfall Aggregation Period #2 (as defined in the Schedule) measured in millimeters (mm) in any of the XSR Exposure Grid Cells in the Covered Area of the Insured. For a given day and a Rainfall Aggregation Period #2 of n hours, the Aggregate Rainfall #2 is the maximum amount of rainfall accumulated over any of the n-hour windows that intersect the day itself considering a time interval of 3 hours.
<i>Calculation Agent</i>	Entity charged with undertaking the primary calculation of the Rainfall Index Loss.
<i>CMORPH-based Maximum Aggregate Rainfall #1</i>	The maximum value during the Covered Area Rainfall Event of the Aggregate Rainfall #1 computed using the CMORPH-based Rainfall Estimates in any given XSR Exposure Grid Cell over the Covered Area of the Insured.
<i>CMORPH-based Maximum Aggregate Rainfall #2</i>	The maximum value during the Covered Area Rainfall Event of the Aggregate Rainfall #2 computed using the CMORPH-based Rainfall Estimates in any given XSR Exposure Grid Cell over the Covered Area of the Insured.
<i>CMORPH-based Covered Area Rainfall Parameters</i>	The CMORPH Model information provided on a continuous basis by the XSR Model Data Reporting Agency used by the

	Calculation Agent to obtain the CMORPH-based Rainfall Estimates using the XSR Rainfall Model. Parameters are drawn from XSR Exposure Grid Cells within the Covered Area of the Insured, by their respective latitude and longitude. Measurement units and precision of data ingested by the XSR Rainfall Model are identical to those provided by the XSR Model Data Reporting Agency and are further elaborated in the Attachment entitled ‘Calculation of Rainfall Index Loss and Policy Payment’.
<i>CMORPH Model</i>	The satellite-based rainfall estimation model provided by NOAA CPC as described in the Rainfall Estimation Models section of the Policy.
<i>Covered Area</i>	The territory of the Insured as represented in the XSR Rainfall Model.
<i>Covered Area Rainfall Event</i>	Any period of days, with an interruption less than or equals to the Event Tolerance Period, during which the number of Active Exposure Grid Cells is greater than or equal to the product of (a) Active Exposure Cell Percentage Threshold multiplied by (b) the total number of XSR Exposure Grid Cells within the Covered Area.
<i>Country Disaster Alert</i>	An official disaster alert issued by ReliefWeb (http://reliefweb.int/) for the country in question for one of the following types of events: tropical cyclone, flood, flash flood and severe local storm. Any disaster alert issued later than seven (7) days after the completion of the Covered Area Rainfall Event (CARE) event will not be considered. The Disaster Alert description issued by ReliefWeb and/or its attached documentation must include specific reference to the CARE dates with a tolerance period of 2 calendar days.
<i>Maximum Aggregate Rainfall #1</i>	The highest value during a Covered Area Rainfall Event of the Aggregate Rainfall #1 amount in any of the XSR Exposure Grid Cells in the Covered Area of the Insured computed.
<i>Maximum Aggregate Rainfall #2</i>	The highest value during a Covered Area Rainfall Event of the Aggregate Rainfall #2 amount in any of the XSR Exposure Grid Cells in the Covered Area of the Insured computed.
<i>Rainfall Event Threshold #1</i>	Aggregate Rainfall #1 level as defined in the Schedule which should be exceeded to trigger an Active Exposure Cell.

<i>Rainfall Event Threshold #2</i>	Aggregate Rainfall #2 level as defined in the Schedule which should be exceeded to trigger an Active Exposure Cell.
<i>Rainfall Aggregation Period #1</i>	The number of hours over which the Aggregate Rainfall #1 is computed for all XSR Exposure Grid Cells during a Covered Area Rainfall Event.
<i>Rainfall Aggregation Period #2</i>	The number of hours over which the Aggregate Rainfall #2 is computed for all XSR Exposure Grid Cells during a Covered Area Rainfall Event.
<i>Rainfall Index Loss</i>	For any Covered Area Rainfall Event affecting the Insured, the US Dollar loss calculated by the Calculation Agent using the XSR Rainfall Model, as described in the Attachment entitled ‘Calculation of Rainfall Index Loss and Policy Payment’. The Rainfall Index Loss can only be calculated once the Covered Area Rainfall Event is completed.
<i>WRF5 Model</i>	The weather research and forecasting rainfall model by NOAA with Configuration #5 data initialized with and assimilating the data provided by the National Center for Environmental Prediction as described in the Rainfall Estimation Models and in the Input Data to the Rainfall Estimation Models sections of this Attachment.
<i>WRF7 Model</i>	The weather research and forecasting rainfall model by NOAA with Configuration #7 data initialized with and assimilating the data provided by the National Center for Environmental Prediction as described in the Rainfall Estimation Models and in the Input Data to the Rainfall Estimation Models sections of this Attachment.
<i>XSR Rainfall Model</i>	The computer model used to calculate the Rainfall Index Loss, as described in the Attachment entitled ‘Calculation of Rainfall Index Loss and Policy Payment’.
<i>XSR Exposure Grid Cells</i>	The 30 arc-second by 30 arc-second grid of cells each of which is attributed with an XSR Grid Cell Exposure Value greater than zero.
<i>XSR Grid Cell Exposure Value</i>	The value, used to calculate the CMORPH-based Exposure Grid Cell Loss, the WRF5-based Exposure Grid Cell Loss, and the WRF7-based Exposure Grid Cell Loss.