



Tropical Cyclone Bret (AL022017)

Wind and Storm Surge

Preliminary Event Briefing

22 June 2017

1 SUMMARY

Bret is the second named storm of the 2017 Atlantic Hurricane Season and was formed as a Tropical Storm on 19 June 2017 at 21UTC southwest of Trinidad and Tobago. Heavy rain was experienced over this country between 19 June at 21UTC and 20 June at 09UTC. It was associated with tropical-storm-force winds (greater than 39 mph or 62 km/h) and strong gusty winds particularly between 00UTC and 09UTC on 20 June.

This event briefing is designed to review damages from wind and storm surge but not rainfall (XSR). For that a briefing under XSR policy will be issued soon.

2 INTRODUCTION

On 18 June 2017 at 21UTC, the US National Hurricane Center (NHC) reported that a potential tropical storm had developed off the coast of French Guyana. Its centre was approximately located at 7.5° N and 50.4° W, with estimated minimum central pressure of 1008 mb and maximum sustained winds of 34 mph (54.7 km/h).

During the next 24 hours, the system strengthened, with a drop of the minimum central pressure to 1005 mb and an increase in the maximum sustained winds reaching 40 mph (64.4 km/h). During this period the disturbance moved toward the west at approximately 23-25 mph (37-40 km/h).

On 19 June 2017 at 21UTC, the disturbance was upgraded to a tropical storm and was named Bret, the second storm of the 2017 Atlantic Hurricane Season. At this time, its centre was located at approximately 9.4° N and 59.8° W, to the east-southeast of Trinidad and Tobago (Figure 2a). The maximum sustained winds were 40 mph (64.4 km/h) with gusts up to 52 mph (83.4 km/h). The tropical storm was moving west-northwest at 30 mph (48.3 km/h).

At approximately 03UTC on 20 June, the centre of the tropical storm was near Trinidad and Tobago (Figure 1). Its strength was unchanged with respect to 00UTC and Bret was producing heavy rains locally (Figure 2c) and strong gusty winds over Trinidad and Tobago and the southern Windward Islands. This activity continued up to 09UTC (Figure 2d, Figure 2e).

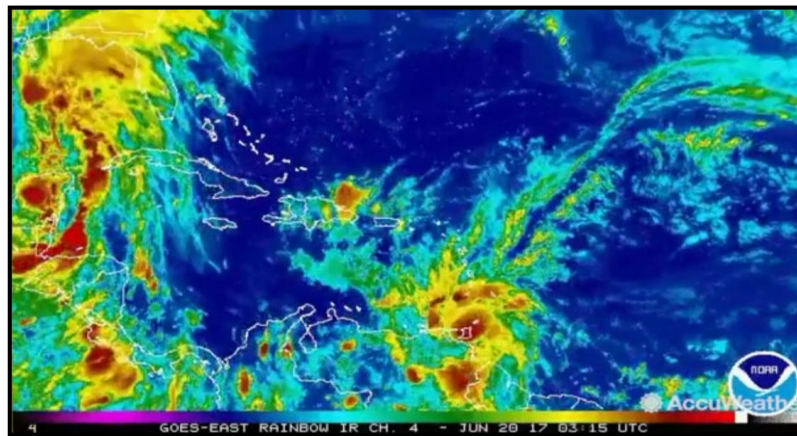


Figure 1 Satellite image of Tropical Storm Bret 20 June 2017 03:15 UTC. Source: <http://www.nhc.noaa.gov/>

Locally heavy rain associated to the storm rain bands started to affect Trinidad and Tobago, as shown by the radar map in Figure 2a.

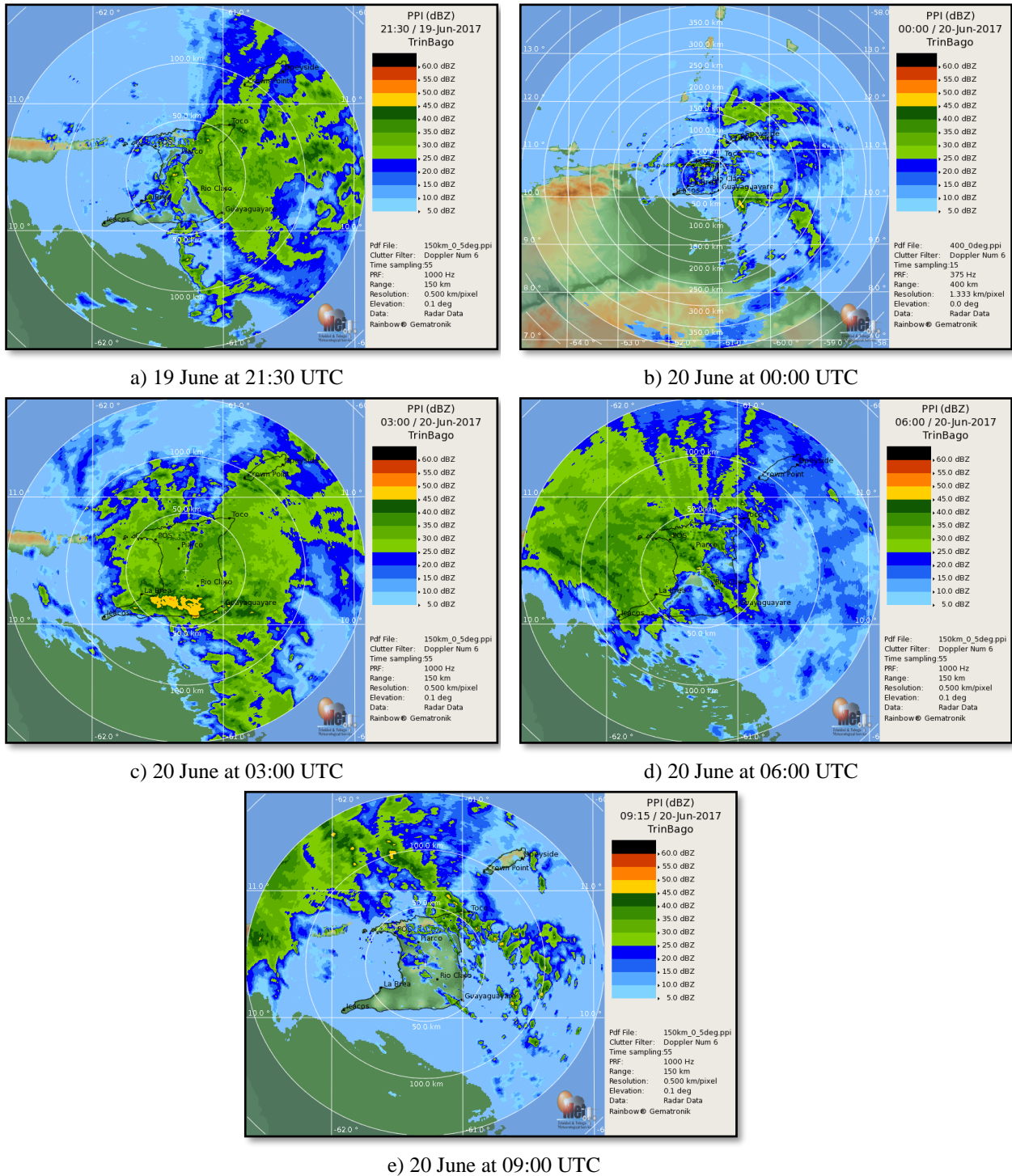


Figure 2 Reflectivity maps of the radar centred over Trinidad and Tobago (source: <http://www.metoffice.gov.tt/Radar>)

On 20 June at 00UTC, Trinidad and Tobago continued to be affected by heavy rain bands (Figure 2b), associated with tropical-storm-force winds (maximum sustained winds were 40 mph, 64.4 km/h). The latter extended outward up to 80 miles (128.7 km) from the centre, located at 9.5° N and 60.5° W. The tropical storm was still moving west-northwest but its forward velocity had decreased to 25 mph (40.2 km/h) at that time.

At 09UTC, Bret had left Trinidad and Tobago, moving toward the west-northwest at almost 21 mph (33.8 km/h) along the northeastern coast of South America into the southeastern Caribbean Sea. The tropical storm activity continued up to 20 June at 21UTC, when Bret degenerated into a tropical wave. At that time, the remnants of Bret were located near latitude 12.0° N and longitude 67.3° W.

CCRIF SPC MODEL OUTPUTS

Under CCRIF’s loss calculation protocol, a CCRIF Multi-Peril Risk Estimation System (MPRES) report is required for any tropical cyclone affecting at least one member country with winds greater than 39 mph (62.7 km/h). Tropical Cyclone Bret qualified as a Reportable Event¹ with Trinidad and Tobago experiencing at least tropical-storm-force winds. The wind footprint (Figure 3) and surge field (Figure 4) are two of the outputs from the CCRIF model.

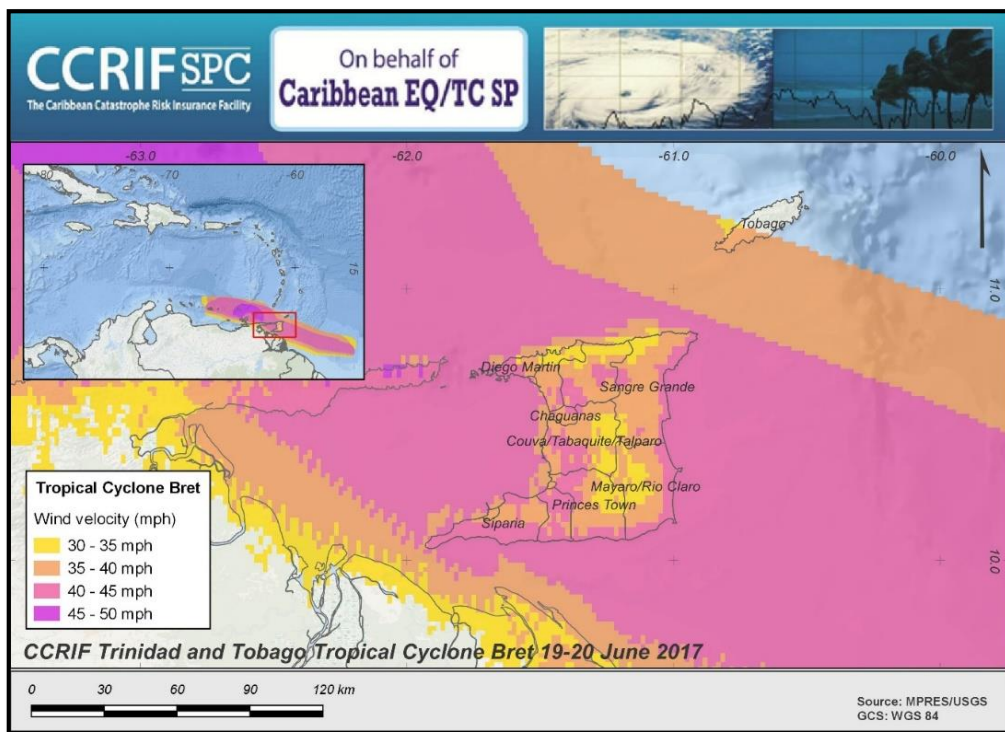


Figure 3 Map showing the path and wind field associated with Tropical Cyclone Bret.
Source: NHC & CCRIF/MPRES

¹ An event occurs but does not register a loss in any CCRIF country within the MPRES loss model.

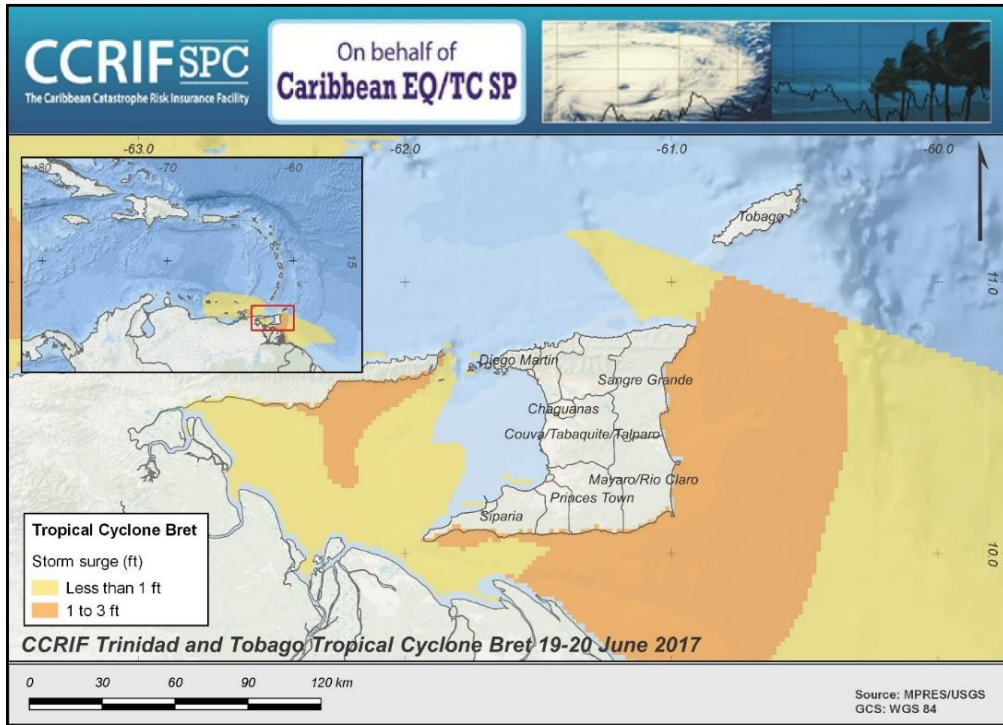


Figure 4 Map showing the path and storm surge field associated with Tropical Cyclone Bret.
Source: NHC & CCRIF/MPRES

3 IMPACTS

According to Captain Neville Wint, Director General of Office of Disaster Preparedness and Management (ODPM), damages had not been quantified at the time of this report.

As of the date of this report, the following information had been published in the local and regional news^{2 3}:

- Trinidad closed all public schools, while Tobago shuttered all schools and government offices. The storm prompted the cancellation of many flights.
- Schools, banks and some commercial businesses remained closed.
- Winds downed trees and blocked several roads.
- Flash floods were reported in low lying areas, and there were power outages across many parts of Trinidad and Tobago.

The worst hit areas are in the Penal/Debe, Siparia and Mayaro/Rio Claro regions of southern Trinidad.

² The Habari Network, review date: 21 June 2017, available in: <http://www.thehabarinetwork.com/>

³ Trinidad Express Newspapers; review date: 21 June 2017, available in: <http://www.trinidadexpress.com/>



Figure 5 Damage caused by Tropical Storm Bret in Trinidad and Tobago – June 2017.

Source: <http://www.trinidadexpress.com/>

4 CCRIF LOSS MODEL

These reports indicate interruption of services and some local damage, and thus corroborate preliminary runs of the CCRIF loss model that generated no government losses for Trinidad and Tobago. Therefore no payout is due.

CCRIF expresses sympathy with the Government and people of Trinidad and Tobago for the impacts on communities and infrastructure caused by this event.

For further information, please contact ERN-RED, the CCRIF SPC Risk Management Specialist.

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