

## Tropical Cyclone Harvey (AL082011)

**Event Briefing** 

## Caribbean Risk Managers Ltd Facility Supervisor

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## 1 Introduction

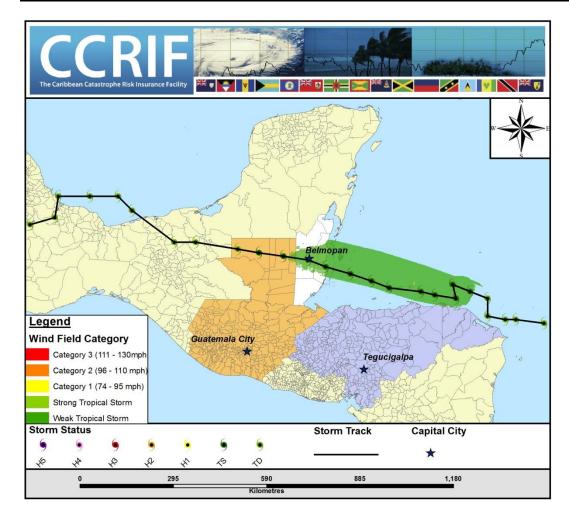
In mid-August 2011, a westward moving tropical wave entered the Caribbean Sea. It eventually gained enough organisation to be classified as Tropical Depression Eight on 18 August. As reported by the National Hurricane Centre (NHC), this system evolved into a Tropical Storm on 19 August at approximately 0600 UTC when it was situated 250km east of Roatan, Honduras. Now officially recognised as the eighth cyclone of the 2011 Atlantic hurricane season, the name Harvey was assigned to this storm.

By late 19 August, Harvey was intensifying rapidly as it moved in a westerly path across the northeast of Honduras headed towards Belize, where it was expected to make landfall as a Category 1 Hurricane on the Saffir Simpson Scale. Tropical Storm warnings were subsequently issued for northern regions of Honduras from Punta Sal to the northwest coast of the country and also for the coasts of Belize and Guatemala.

At around 1800 UTC on 20 August, Harvey made landfall in Belize as a weakening Tropical Storm, never having reached hurricane strength. This set a new Atlantic record, the first time that none of the first eight named cyclones of a season reached hurricane strength. As the storm moved over Belize, the eye passed 56km south of Belize City and produced maximum sustained winds of approximately 95kph (60mph). When the eye moved past to the southwest of the capital, Belmopan, towards the northern regions of Guatemala, Harvey was showing signs of degradation as its maximum wind speeds fell to 80kph (52mph).

Harvey continued to lose energy as it moved through the north of Guatemala until it was downgraded to a Tropical Depression at 1800 UTC on 21 August. Harvey proceeded westward as a Tropical Depression and dissipated on 22 August south of Mexico City. Harvey's remnants continued to move slowly across Mexico and into the Pacific Ocean, where they were absorbed by a trough on 23 August.

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



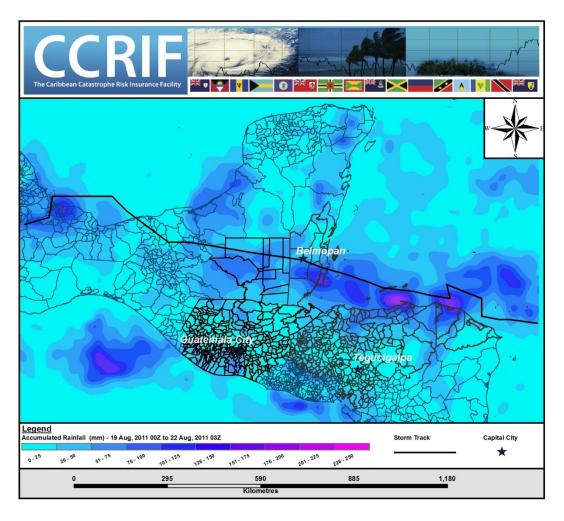
**Figure 1** Map showing the path of Tropical Storm Harvey the CCRIF model wind footprint. *Sources: NHC & CCRIF/KAC MPRES*.

## 2 IMPACTS

Prior to Harvey making landfall in Belize, accumulations of rainfall to the extent of 6 inches in the average case and as high as 10 inches in isolated cases were anticipated along with wind damage. There was also concern expressed by various disaster management agencies that rains brought by Harvey could trigger flash flooding and mudslides in areas of higher terrain. Figure 2 shows the actual accumulated rainfall in Belize associated with the passing of Harvey.

On Saturday 20 August, a few reports of flash flooding in southern regions of Belize came in. The Kendal River was reported to be rising and threatening to render the Kendal Bridge impassable. By 6pm local time, authorities had received news of a few damaged homes and a church in Crocked Tree Village (Belize District) and San Larazo Village (Orange Walk District) respectively. A few reports of damaged agricultural plots were also issued.

By the following day, 21 August, no official word of significant wind damage to infrastructure had been received. This was confirmed the same day by Belize's emergency services officials, who stated that the storm did not claim any lives or cause any major infrastructural damage. To date the general picture painted of Harvey's impact on Belize has been consistent with that described. Therefore, the general consensus is that this event has had minimal impact on Belize's overall economy.



**Figure 2** Map showing the accumulated rainfall from 00Z on 19 August to 03Z on 22 August 2011, associated with Tropical Storm Harvey's journey across Central America via Belize. *Sources: NASA/JSA-TRMM & NHC*.