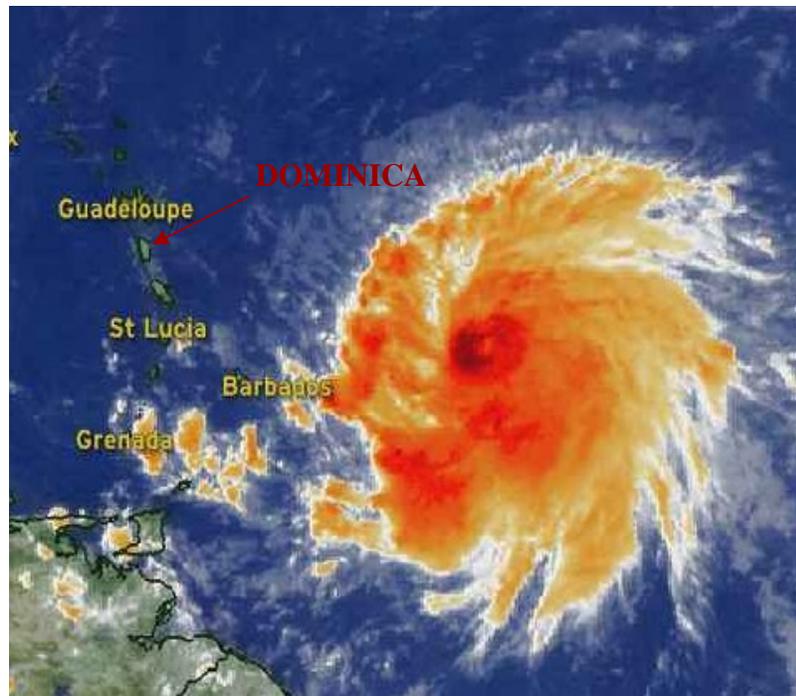




The Impact of 2007 Atlantic Hurricane Season on Dominica



November 2007

Main Activities

Freak Twister on June 21st 2007.

Hurricane Dean on August 16th to 17th 2007

Active Tropical Wave on September 9th 2007

Trough System on October 27th.

The 2007 Hurricane Season

The 2007 Tropical Atlantic Hurricane Season has had some significant impact on the island. Of the fourteen (14) named storms; Hurricane Dean on the 16th and 17th of August had the greatest impact. Other activities of significance were a small twister on June 21st, an active tropical wave on the 9th of September and a trough system on October 27th.



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Figure 1: Image of a hurricane

The Freak Twister

About 3:35pm on June 21st with just about two octas of clouds in the sky a twister moved across from the east of the Canefield Airport to the west destroying the Stevenson screen and its contents to the amazement of all who saw it.

The nearest automatic weather station recorded wind gusts of up to 63kts/72mph at that time. Prior to the twister it had been hazy for the entire day and gusty, a gust of 25kt and 30kts had been recorded at 1500z and at 1800z respectively. It was also noted that the winds at 700mb was about 45mph.



Figure 2: Damage associated with the funnel cloud

The METARs before and after the twister were as follows:

METAR TDCF 211900Z 08014KT 9999 SCT022 33/21 Q1014 HZ=

METAR TDCF 212000Z 09010KT 9999 FEW022 32/20 Q1014 HZ=



Figure 3: Image of the cloud cover 5 minutes after the funnel cloud occurred

Tropical wave

On September 9th as an active tropical wave approached Dominica, heavy rainfall forced the cancellation of schools and diversion of various flights bounded for Dominica. At the Melville Hall Airport, a total of 101.7mm/4.0in of rainfall was measured for that day about 75mm/2.9in fell in about 4 hours while at Canefield a total of 180.4mm/7.1in.

Many rivers over flowed their banks and the island suffered road blocks in various sections due to rock falls and mud slides.



Figure 4: Roseau River in flood from rainfall associated with the Tropical Wave

Trough System

A trough system affected Dominica during the 26th and 27th of October again producing excessive amounts of rainfall in a short period of time. The Melville Hall Airport recorded 217.5mm/8.6in. of rainfall on that day, an automatic weather station recorded intensities as high as 45.4mm/1.8in, in one hour (between 5 and 6pm).

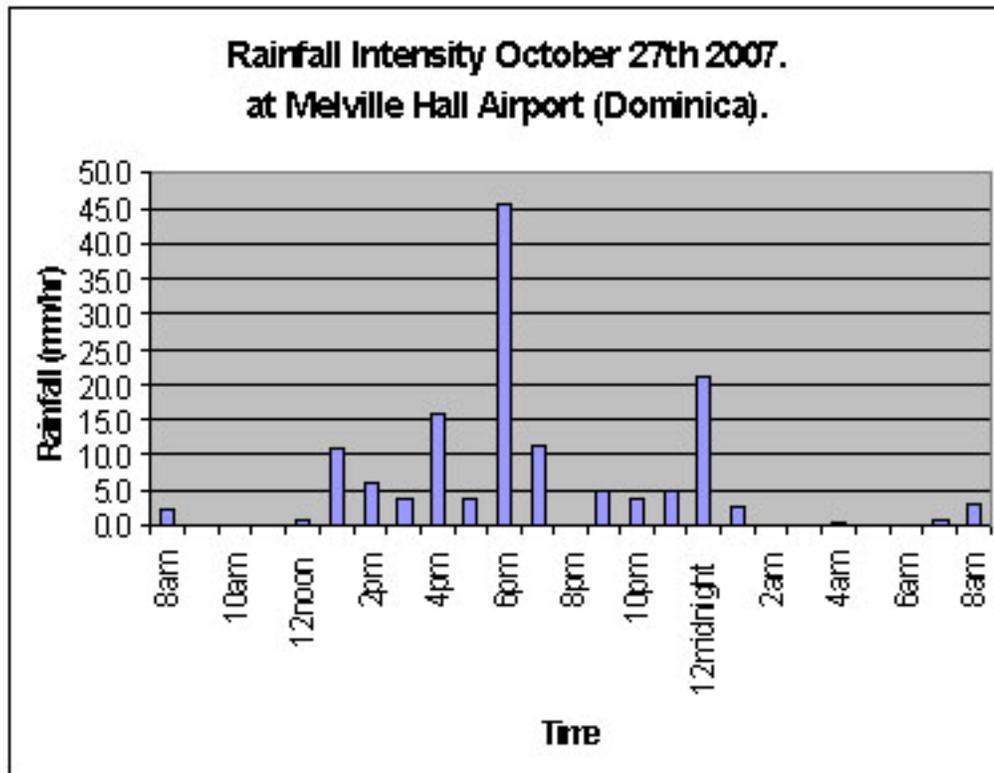


Figure 5: Rainfall Graph

Hurricane Dean

The highlight of the hurricane season this year is Hurricane Dean, the first hurricane of the season which affected the island on the 16th and 17th of August 2007. By 5pm Wednesday when Dean had shifted more north-westward, it seemed that Dominica was surely in Dean's path.

At 5am Thursday 16th a hurricane warning was issued for the island. The public was alerted via our website and the radio and various disaster groups were asked to take the necessary action

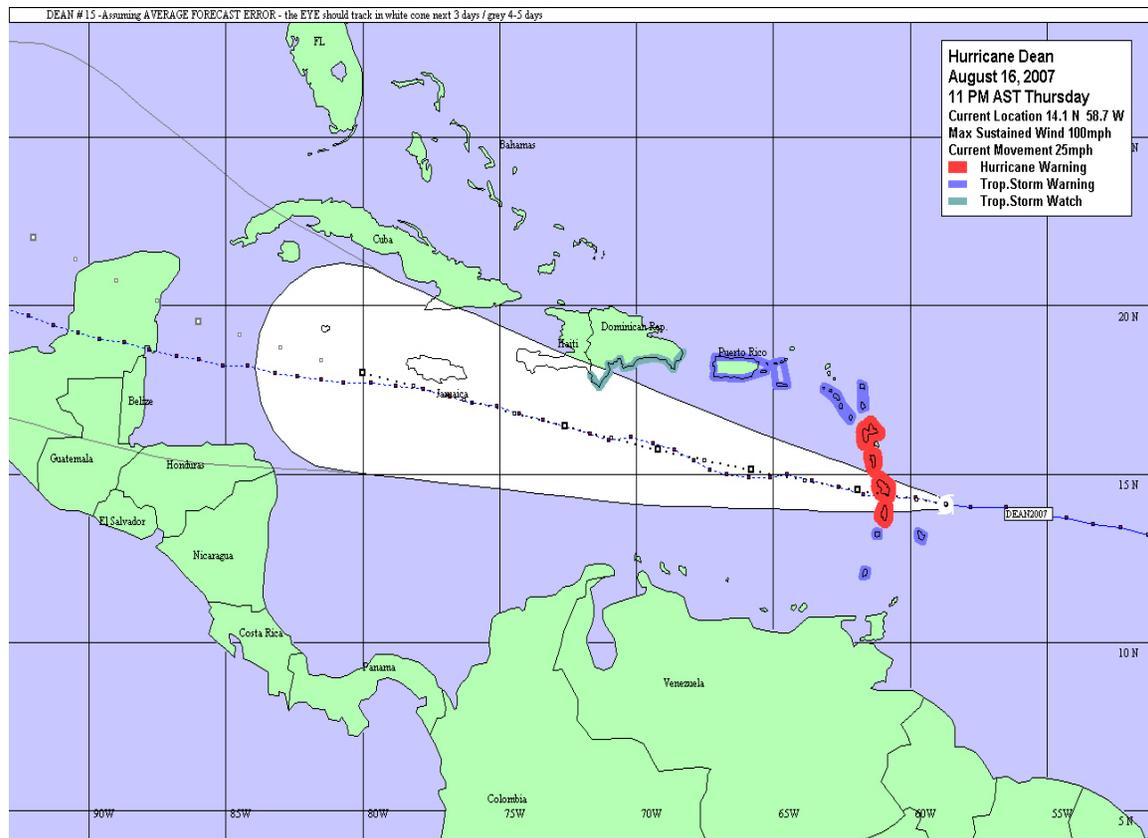


Figure 6: Track of Hurricane Dean on 16th August at 11:00 p.m. AST

A press conference was convened by midday with the then Acting Prime Minister, Cabinet Secretary, Disaster coordination and the Senior Meteorological officer. Plans were finalized to protect life and property as Dean inched nearer by the hours.

Schools were cancelled that day, employers were urged to send employees home to prepare their homes and get supplies. By evening supermarket shelves had been emptied, residences moved to shelters, homes boarded and Dominicans waited for an overnight hit by Dean.

The rains did not start until about 1 am in the Canefield Area, which is southwest of the island, a total of 199.3mm/7.9in was measured in an 18hr period. Highest intensity was 9.1mm/0.4in in 10minutes.

Wind gust of above 20kts started about midnight in the South-west of Dominica and the highest gust of 68kt/78mph was recorded about 7:40 am. The lowest pressure recorded was 1002.6mbs//29.61in hg and that pressure was recorded around 5:50am on the 17th.

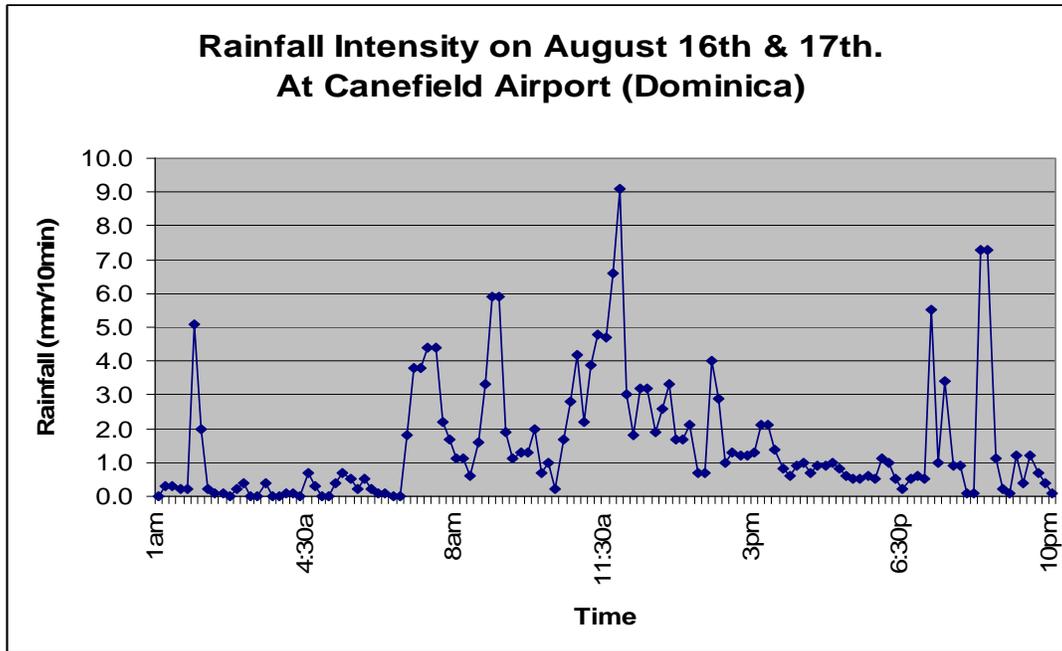


Figure 7: 10-minute Rainfall Intensity

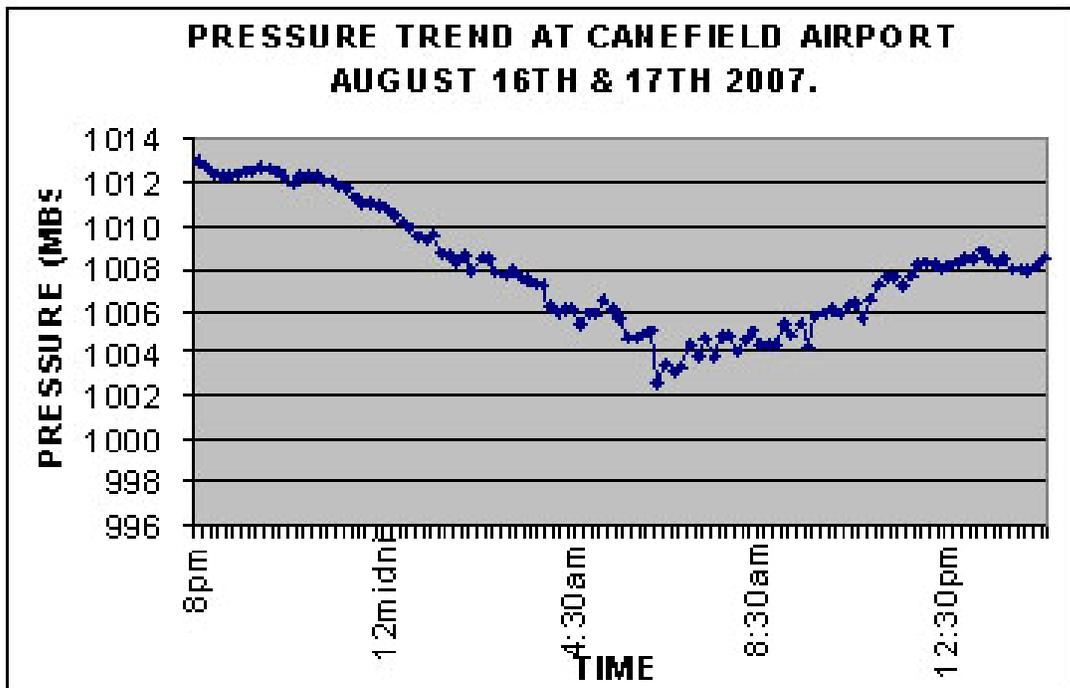


Figure 7: Pressure Trend

By 4pm on Friday the 17th the winds had subsided and people began moving about to investigate the damage. Roads were blocked, rivers over flowed their banks, landslides affected major road networks and had also taken the lives of a mother and son. Infrastructural damage was assessed to be in the region of about \$114,290,000.00.



Figure 8: Roseau River in flood from Hurricane Dean

Number of roofs were blown off, houses damaged and electricity was out in a number of communities. Total cost of damage done to buildings on the island including schools, hospitals and other public building was about \$20,958,731.61.

The agricultural sector was severely affected mainly the banana sector which suffered 100% loss. Export of the crop was immediately suspended, in fact production is not expected to resume to its full capacity until some time next year. Loss of earnings from Agriculture is estimated about \$33,723,000.00.



Figure 9: Damage from Hurricane Dean



Figure 10: Banana devastation from Dean



Figure 11: River in flood from Dean



Figure 12: Another river in flood from Dean
