

**REPORT ON 2007 HURRICANE SEASON
TO THE ANNUAL DMS MEETING
Kingstown, St. Vincent – November 2007-11-28**

Introduction

Coming out of the phenomenally active Hurricane Season of 2005 and the anti-climax of unfulfilled forecasts for the ensuing 2006, the Jamaican public entered the 2007 Hurricane Season with some degree of trepidation. Based on prediction from the U.S. National Ocean and Atmospheric Administration (NOAA) and other meteorological researchers, activity for the Hurricane Season was expected to be near 150% of normal, in terms of the number of tropical cyclones forecast to develop.

Dean

Twenty-three (23) Bulletins were issued by the Meteorological Service on Hurricane Dean as it traced a path through the Caribbean threatening life in Jamaica. Ironically, the first was issued on August 17, exactly 56 years since the island was devastated by Hurricane Charlie. Dean was then a Category 2 hurricane, about 1500 kilometres east-southeast of Jamaica, and its centre was being forecast to move over or very close to the islands in about 48 hours. At the time, the Service also ordered the evacuation of its cays and banks, the source of livelihood of hundreds of fisher folk. With Dean consistently gaining strength and maintaining its course towards the country, a Hurricane Watch was issued later that evening and was upgraded to a hurricane Warning before midday on August 18.

At that time, the Meteorological Service advised small craft operators to remain in safe harbour, and residents were warned that the system had the potential to produce flash flooding, landslides, hurricane-force winds and storm surges. Eventually, all these conditions materialized. Weather conditions associated with what had now become a Category 4 hurricane began to affect Jamaica during the morning of August 19, and Dean's eye began its passage just south of the island, making its closest pass at about 6:00 p.m. when its centre was located about 35 kilometres off the coast. The Hurricane Warning was lowered to a Tropical Storm Warning on August 20 at 11:00 a.m. and this was lifted after 3 hours when Hurricane Dean was located about 500 kilometres off the west coast.

Reports out of Jamaica's Office of Disaster Preparedness and Emergency Management (ODPEM) indicate the 4 lives were lost as a consequence of Hurricane Dean in diverse circumstances in 4 southern parishes. Fortunately, a group of 19 fishermen on the Pedro Cays, who chose to ignore evacuation orders and later pleaded with authorities to make arrangements for their rescue during Dean's onslaught, had their lives spared. Mandatory evacuations are still not legislated in Jamaica.

During the passage of the hurricane there was fair amount of instrument failure and damage experienced by the Meteorological Service. The minimum atmospheric pressure measured at the Norman Manley International Airport in Kingston during the event, was 991 millibars. The automatic weather station at the easternmost point of Jamaica, Morant Point, measured wind speeds reaching 54.5 knots (101 km/h or 63 mph). Significantly higher winds were detected by Ham Radio Operators in the hills of

St. Elizabeth in the southwest of the island, reaching 89 knots (165 km/h or 103 mph). With regard to the rainfall, the highest 24-hour value reported was 342.9 millimetres (13.5 inches) in hilly areas of south-central Jamaica.

Worth of note is the fact that Jamaica's General Election had to be postponed from its originally set date of August 27 due to the expected effects of Dean. The new date of September 3 also ran the risk of postponement when another system began to develop over Caribbean waters.

Felix

The month of September is notorious to Jamaicans as it brings to vivid memory the devastations suffered at the hands of Hurricane Gilbert in 1988 and Ivan in 2004. It was, therefore, not surprising that alertness was heightened on the first day of the month with the development of Tropical Storm Felix near Grenada. Its location was also *déjà vu* for the country, being reminiscent of Hurricane Ivan's path. The Meteorological Services started issuing Bulletins that afternoon and followed with a Tropical Storm Watch and Fisherman Evacuation Orders at 8:00 p.m. At this time the storm's centre was expected to pass near 250 kilometres south of the mainland within 36 hours.

As time progressed, the chance of Felix posing a direct threat to the island decreased, even as the cyclone continued to intensify, reaching Category 5 hurricane status in just 24 hours. Outer bands of the hurricane were being forecast to begin affecting Jamaica very early on September 3. This occurred, mainly in respect of storm surges along southeastern coastal areas as the hurricane passed close to 400 kilometres south of the mainland. The Tropical Storm Watch was lifted during the afternoon of September 3.

Although the rainfall experienced over Jamaica was not significantly enhanced by the tropical cyclone, sea swells created some anxiety along southeastern coastal areas of the island.

Rainy Season

Climatologically, Jamaica experiences its primary peak in annual average rainfall during the month of October. In 2007, stating that October was a rainy month would have been the understatement of the year. A total of 313.8 millimetres of rainfall was recorded in the northwestern city of Montego Bay during the month, while Kingston recorded 623.6 millimetres. The 30-year Mean for the entire month is about 166 mm for Montego Bay and 167 mm for Kingston. The average numbers of raindays for Montego Bay being 13 and for Kingston being 14, both were exceeded with 22 and 18 days of rainfall detected, respectively.

The National Meteorological Centre issued Flash Flood Watches for cumulative period of 72 hours (3 days) for sections of the country and Flash Flood Warnings for a total of 204 hours (8.5 days) during October.

Noel

In this context, and with the precedent set by Hurricane Wilma in 2005 dumping eight (8) consecutive days of rainfall over the country from October 13-20, Tropical Storm Noel contributed another 3-4 days from October 28 to November 1. This storm started out as

Tropical Depression Number 16, which formed near 10:00 p.m. on October 27 while just over 500 kilometres east-southeast of Jamaica.

The Meteorological Service issued its first Bulletin at 5:00 the next morning advising that the centre of the storm could pass between Jamaica and Haiti late that night or early the next morning. A Tropical Storm Watch was issued by 8:00 a.m.; however, the evacuation of the cays and banks was delayed until 2:00 p.m. as the expected impact of the system was further deliberated. Noel eventually passed close to 400 kilometres away from Jamaica's east coast during the morning of October 30 and the Tropical Storm Watch was discontinued at 11:00 p.m.

Two (2) Jamaican deaths have been attributed to Noel; one caused by a mudslide and the other by flood waters.

Conclusion

The 2007 Hurricane Season eventually produced a total of 13 Tropical Storms (within the range predicted by NOAA), 5 Hurricanes (below forecast) and 2 Major Hurricanes (below forecast). Both major hurricanes, Dean and Felix, along with Hurricane Noel passed through the Caribbean Sea and posed a threat to Jamaica. These threats occurred during the traditionally most active portion of the Season, which is in August (Dean), September (Felix) and October (Noel), and produced the hazards of flooding, storm surge, landslides and strong winds.