

WEATHER SYSTEMS AFFECTING THE CAYMAN AREA DURING 2005

This year the Cayman Islands were more fortunate than last year. Though we were threatened by four storms, Arlene, Dennis, Emily and Wilma, none of these caused significant damages or created major disruptions. The Cayman Islands also experienced several occasions with rainfall of 2 or more inches during the Hurricane season.

January-April

A cold front moved across the Cayman area Saturday January 15 2005. The passage of the system resulted in fresh to strong northerly winds and very rough seas, especially along the west and southwest coasts. This caused the dock to be shut down for vessels Sunday through Tuesday January 16-18 2005.

Although several cold fronts moved across the Cayman area, little to no significant rainfall accumulation was measured. In fact only 2.64 inches of rainfall were measured from January through April. This coupled with the 0.26 inches measured in December 2004 represents the lowest rainfall accumulation for a dry season (December-April) since 1957, when weather records were first kept in the Cayman Islands.

May-November

Arlene

The first Tropical Depression of the 2005 Hurricane season formed southwest of Grand Cayman June 8. The system intensified to become Tropical Storm Arlene as it passed within 170 miles west of Grand Cayman. A Tropical Storm Warning was issued for this system 10 a.m. June 9 2005 and discontinued 4 p.m. that evening. The system supported cloudiness and a rainfall accumulation of 5.40 and 1.12 inches on June 8th and 9th respectively. Arlene also supported strong winds and very rough seas across the Cayman area and all boats were advised to remain in safe harbour for June 9th.

Dennis

Tropical Depression #4 developed from a strong tropical wave as it entered the eastern Caribbean Sea. The depression formed about 100 miles west-northwest of Grenada on Monday 4th July, 2005. The system became the fourth named storm, Dennis on 5th July, 2005, with the center 355 south of the Juan Puerto Rico.

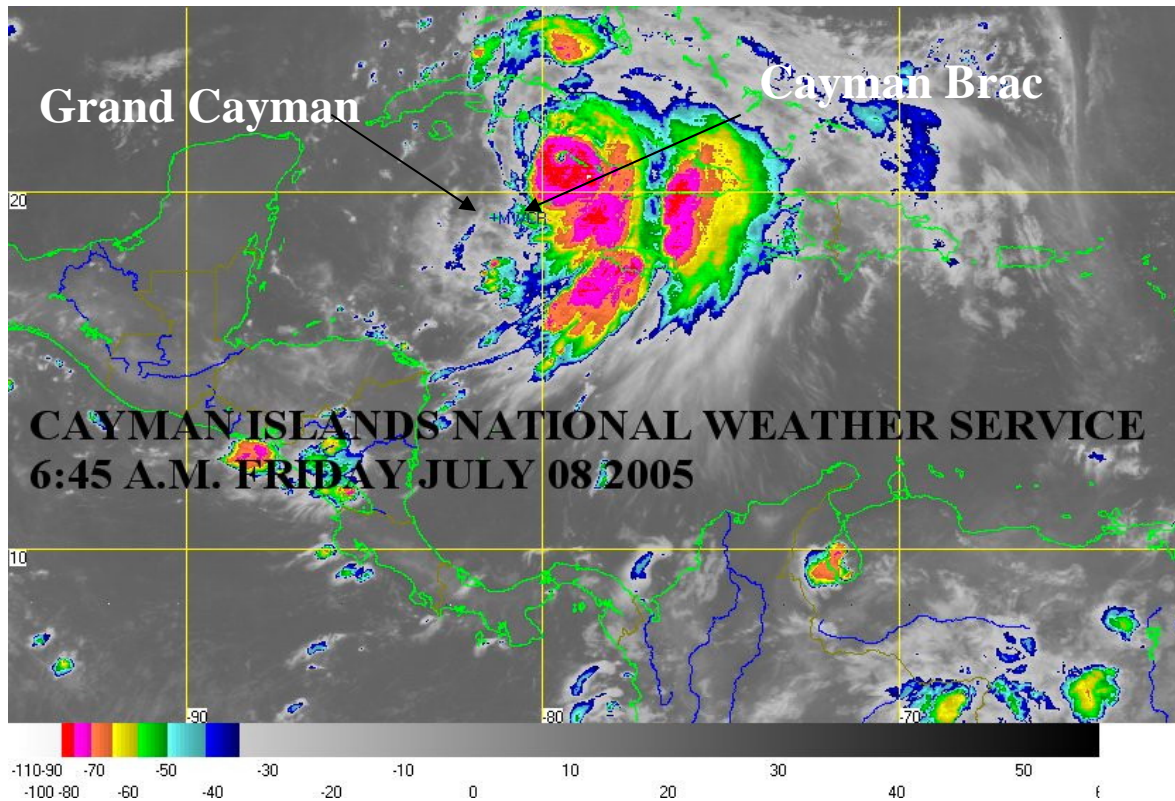
By 10 p.m. Tuesday July 5th Dennis had moved near 14.6 N 69.2 W or 555 east-southeast of Kingston, Jamaica with maximum sustained winds near 50 mph. Based upon this information the Government of the Cayman Islands issued a Hurricane Watch for all of the Cayman Islands. Dennis was then upgraded to the fourth named hurricane of the 2005 season with its center near 315 miles ESE of Kingston Jamaica, on the 6th July around 5 pm.

10 p.m. Wednesday 6th July, Hurricane Dennis moved near 16.5 N 73.4 W or 245 miles east-southeast of Kingston, Jamaica with maximum sustained winds near 85 mph. Shortly thereafter the Government of the Cayman Islands upgraded the Hurricane Watch to a Hurricane Warning for all of the Cayman Islands.

Dennis reached Cat IV intensity on July 5th, making this date the earliest date on record for 4 named storms to have formed in the Atlantic Basin. Tropical storm force winds first began to affect Cayman Brac 1 a.m. July 8, when Dennis was 94 miles east-northeast of Cayman Brac with maximum sustained winds near 132 mph. By 7 a.m. July 8th Dennis had moved to near 20.9 N 79.5 W or 84 miles north-northeast of Cayman Brac with maximum sustained winds near 135 mph. Based on this new information the Government of the Cayman Islands replaced the Hurricane Warning for the Cayman Islands with a Tropical Storm Warning for Cayman Brac and Little Cayman and discontinued all warnings for Grand Cayman.

Dennis passed within 82 miles north of the Cayman Brac around 5 am Friday morning with maximum sustained winds, reported by the NHC, Miami, near 135 mph. A peak of 150 mph was reported by the Hurricane Center in Miami around 10 a.m. July 8th when the hurricane was about 116 miles north of Cayman Brac. By 1 pm Friday 08th July, Dennis had moved to 22.1 N 80.6 W or 172 miles north-northwest of Cayman Brac with maximum sustained winds near 145 mph. The ALL CLEAR was given at this time.

Heavy showers associated with Dennis moved across Cayman Brac during the evening of July 7th (Began around 6:15 p.m.) and 1.12 inches of rain was measured by 7 p.m. No official wind speeds were recorded for Cayman Brac due to technical problems and Grand Cayman recorded gusty winds of 25 mph at the MET office.



Friday July 08, 2005 6:45 AM IR image showing Dennis 84 miles north of Cayman Brac

Emily

The fifth tropical depression of the 2005 hurricane season formed from a strong tropical wave as it moved over the tropical Atlantic waters near 10.8 N 42.9 W 10 p.m. Sunday 10th July, 2005. The depression was some 1280 miles east-southeast of the Lesser Antilles.

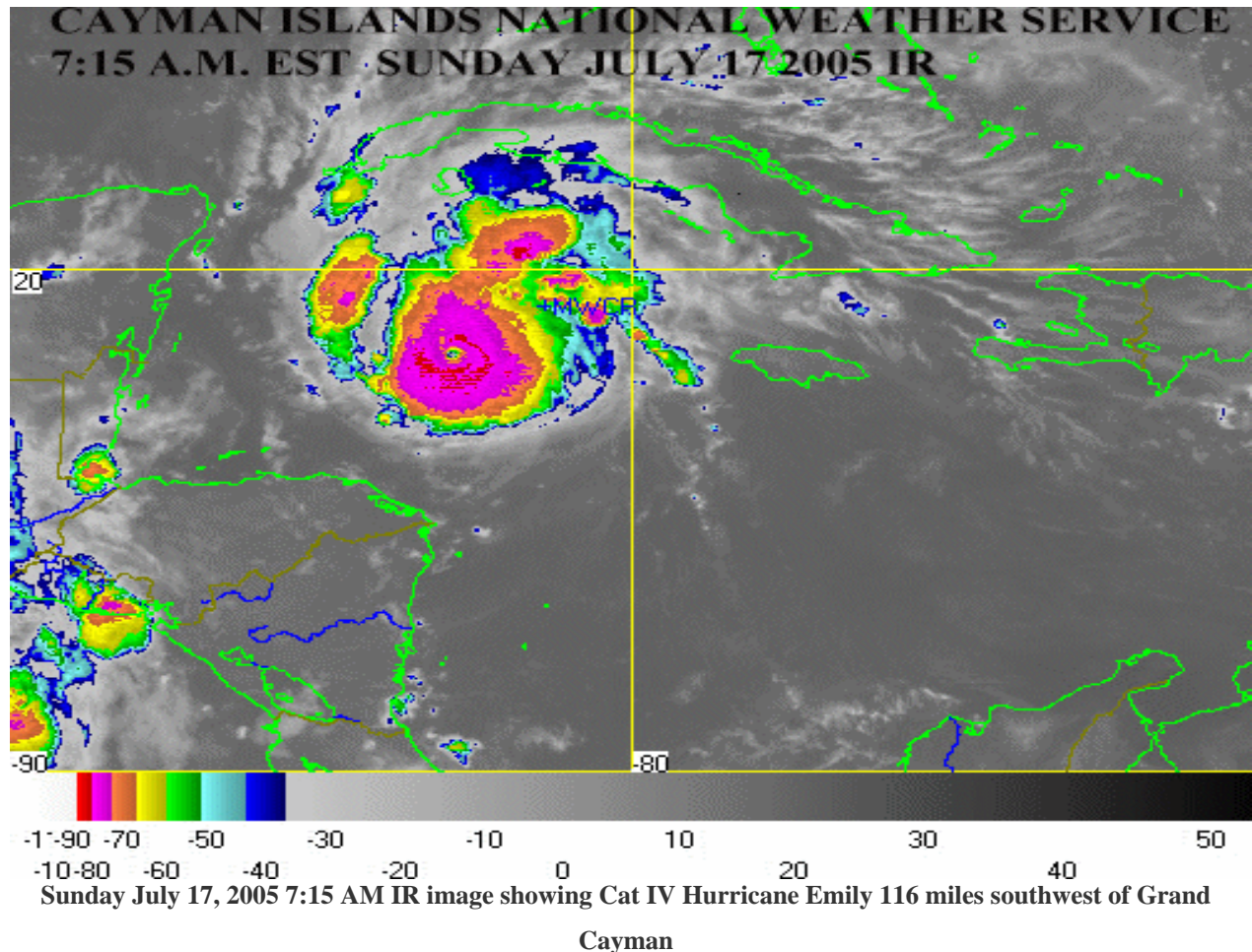
The depression intensified to become the fifth named storm, Emily at 4 a.m. the following morning and strengthen further to hurricane by 10 p.m. Wednesday 13th July, 2005. Hurricane Emily was now located near 11.9 N 61.1 W or 41 miles east of Grenada.

A hurricane watch was issued by Government of the Cayman Islands at 10 p.m. Thursday 14th July as Hurricane Emily moved near 13.6 N 67.5 W or 690 east-southeast of Kingston Jamaica. Emily had now strengthened to a Cat III storm with 125 mph maximum sustained winds.

A hurricane warning was issued by Government of the Cayman Islands at 4 p.m. Friday 15th July as Hurricane Emily moved near 14.7 N 72.8 W or 350 southeast of Kingston Jamaica. Emily had now weakened to a Cat II storm with 105 mph maximum sustained winds.

Hurricane Emily reached it highest strength 1 p.m. Saturday July 16th with maximum sustained winds of 155 mph making it a peak CAT IV storm. Tropical storm force winds affected Grand Cayman 10 p.m. Saturday July 16th as Emily weakened to 150 mph and passed within 98 miles southwest of Grand Cayman 4 a.m. Sunday July 17th. As the hurricane passed south of the islands the Hurricane Warning was downgraded to a Tropical Storm Warning 7 a.m. Sunday July 17th. Tropical storm force winds ceased over Grand Cayman 9 a.m. Sunday July 17th and the Tropical Storm Warning was discontinued.

The weather service measured a peak sustained wind speed of 31 knots or 36 mph 7 a.m. Sunday July 17th. The storm produced very rough seas along the south coast of Grand Cayman resulting in waves crossing the main road in the South Sound area. The weather service further measured 2.21 inches of rainfall from 7 a.m. Saturday July 16th through 1 p.m. Sunday July 17th. No structural damage was reported in connection with the storm.

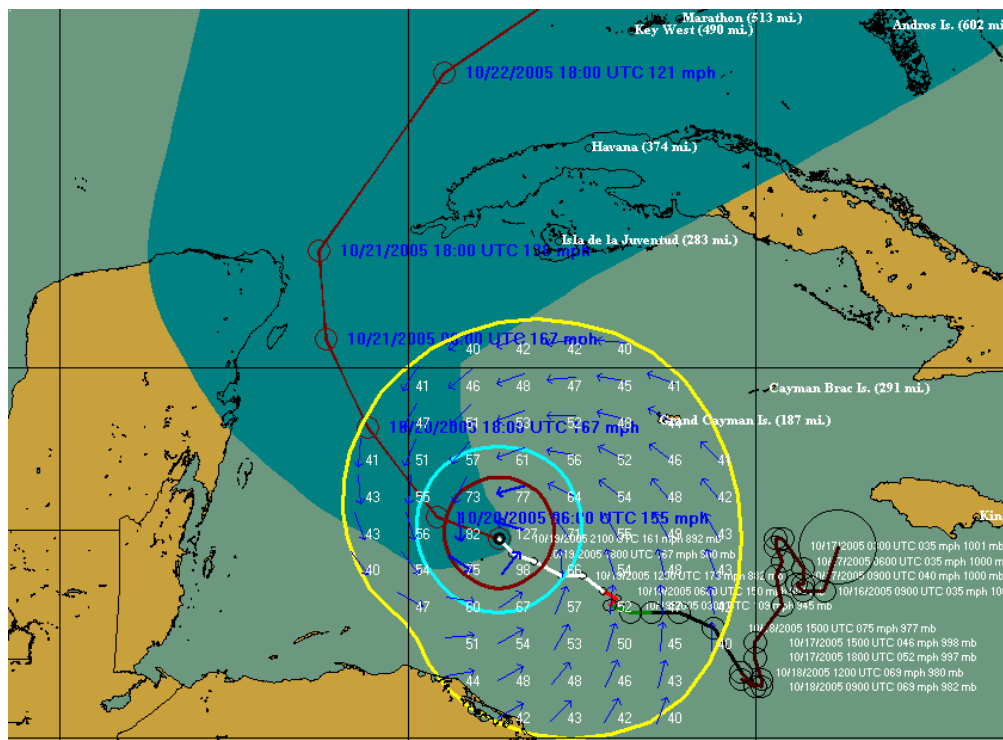


Wilma

A Hurricane Watch and a Tropical Storm Warning was issued for the Cayman Islands when Tropical Depression #24 was near 17.6 N 78.8 W or 205 miles southeast of Grand Cayman 4 p.m. Saturday October 15 2005. TD 24 passed within 156 miles southeast of Grand Cayman Sunday night October 16 2005. This system intensified to TS Wilma on October 17th and hurricane Wilma on October 18th.

Hurricane Wilma supported cloudiness and unsettled weather conditions across the Cayman area for a number of days with peaks in associated rainfall coming on October 18-19 when 2.81 inches was recorded. Heavy downpours produced localized flooding. The National Weather Service also recorded peak average wind speeds of 28 knots (32 mph) and winds gusts up to 40 knots (46 mph) on Oct 18 – 19. The very strong winds associated with the system caused very rough seas with wave height estimates of 9-12 feet. These large battering waves continued to pound the South, West & North coasts of Grand Cayman for up to 3 days after the passage of the hurricane. These waves caused the sea to cross the main roads in several areas notably in the vicinity of Tall-Tree, South Sound road and Seven Mile Beach near the Public Beach.

Hurricane Wilma reached peak intensity around 10 a.m. October 19th. All watches and warnings for the Cayman Islands were discontinued for the Cayman Islands 1 p.m. Wednesday October 19 2005 when the center of Hurricane Wilma moved to 185 miles southwest of Grand Cayman.



21 UTC Hurricane Wilma 187 miles SW of Grand Cayman 19th Oct., 2005

Beta

Weather charts indicate that a tropical wave and a stationary front interacted to produce an extensive area of cloudiness and heavy showers over the western Caribbean in Late October. The southern most section of this cloudiness formed Hurricane Beta which moved over Nicaragua. The unsettled weather associated with this system produced a rainfall accumulation of 9.53 inches from October 27-31. This extended period of heavy showers produce localized flooding.

Other Significant Weather Systems

Pacific hurricane Adrian weakened as it crossed Central America to an area of cloudiness and unsettled weather over the northwestern Caribbean May 20-21. Rainfall accumulation of 0.52 inches was measured on May 20 2005 in association with this system.

An upper level trough enhanced cloudiness and unsettled weather conditions across the Cayman area June 26th resulting in heavy showers and an accumulation of 1.20 inches

An upper level low pressure system moved across the Cayman area on July 21. The system supported an extensive area of cloudiness and showers with a recorded amount of 2.33 inches.

A tropical wave moved across the Cayman area on August 10. The system supported cloudy skies with scattered showers and a rainfall accumulation of 2.59 inches.

An upper level trough moved over the Cayman area on August 13. The system supported cloudy skies with scattered showers and an accumulation of 1.05 inches.

A tropical wave moved across the Cayman area on September 09. The system supported cloudy skies with scattered showers and a rainfall accumulation of 1.04 inches.

A tropical wave moved across the Cayman area on September 28-30. The system supported cloudy skies with scattered showers and a rainfall accumulation of 3.93 inches.

Weather charts indicate that a surface trough formed over the northwest Caribbean by October 6. This trough supported an extensive area of cloudiness and heavy showers over the Cayman area with an accumulation of 1.67 inches measured at the Owen Roberts International Airport October 6-7 2005.