= Hurricane Danny (2015) =

Hurricane Danny in August 2015 was the first major hurricane to develop between the Lesser Antilles and Western Africa since Hurricane Julia in 2010 . The hurricane originated from a well @-@ defined tropical wave that emerged over the Atlantic Ocean on August 14 . Traveling west , the system gradually coalesced into a tropical depression by August 18 . After becoming a tropical storm later that day , dry air slowed further development . On August 20 ? 21 , dry air became removed from the system , and Danny rapidly intensified into a Category 3 on the Saffir ? Simpson hurricane wind scale . Its peak was short @-@ lived as wind shear soon increased and prompted significant weakening . Degrading to a tropical storm by August 23 , Danny approached the Lesser Antilles . It degenerated into a tropical wave as it traversed the archipelago on August 24 and was last noted over Hispaniola the following day .

The hurricane prompted the issuance of several tropical storm warnings for the Lesser Antilles . Leeward Islands Air Transport cancelled 40 flights and sandbags were distributed in the United States Virgin Islands . Danny ultimately only brought light rain to the region , with its effects considered beneficial due to a severe drought .

= = Meteorological history = =

On August 14 , 2015 , a well @-@ defined tropical wave , accompanied by significant surface pressure falls , traversed Western Africa and emerged over the Atlantic Ocean that evening . A broad surface low developed along the wave on August 15 . Embedded within monsoon flow , various environmental factors enabled gradual development of the disturbance , including low wind shear , above @-@ average sea surface temperatures , moderate moisture content , and favorable diffluence . A subtropical ridge to the north steered the system generally west @-@ northwest throughout its entire existence . On August 17 , the surface low became increasingly defined and convection more persistent . It subsequently acquired enough organization to be classified a tropical depression ? the fourth of the 2015 season ? at 06 : 00 UTC on August 18 . At this time , it was situated about 825 mi (1 @,@ 325 km) west @-@ southwest of Praia , Cape Verde .

The depression traversed a region generally favoring further development ; however , occasional intrusions of dry air from the Saharan Air Layer initially inhibited rapid growth . The system reached tropical storm @-@ status by 12 : 00 UTC on August 18 ? based on satellite intensity estimates using the Dvorak Technique ? and it was assigned the name Danny accordingly . Banding features developed around the circulation early on August 19 . A temporary intrusion of dry air caused convection to collapse later that day , but cloud cover redeveloped within hours . Improving upper @-@ level outflow supported the formation of a central dense overcast and a 12 mi (19 km) wide @-@ eye soon developed . Danny reached hurricane @-@ strength by 12 : 00 UTC on August 20 , by which time it was located 1 @,@ 095 mi (1 @,@ 760 km) east of the Windward Islands . A trough over the mid @-@ Atlantic weakened the subtropical ridge and caused the hurricane to move at a relatively slow pace of 10 mph (16 km / h) .

An unusually small hurricane , with gale @-@ force winds extending only 60 mi (95 km) from its center , Danny was prone to significant fluctuations in intensity , making forecasts particularly difficult . Indeed , the storm soon underwent an unpredicted period of rapid intensification aided by nearly non @-@ existent upper @-@ level wind shear . Low @-@ level moisture wrapped around the circulation during this phase , mitigating the influence of the Saharan Air Layer . Danny achieved its peak intensity around 12 : 00 UTC on August 21 as a Category 3 on the Saffir ? Simpson hurricane wind scale ; maximum sustained winds were estimated at 125 mph 205 km / h) alongside a barometric pressure of 960 mbar (hPa) ; 28 @.@ 35 inHg) . Shortly thereafter , increasing shear and dry air initiated a rapid weakening phase . The storm 's eye became obscured by clouds and disappeared from satellite image late on August 21 .

Throughout August 22 , Danny 's structure deteriorated with its surface and mid @-@ level circulations becoming tilted with height due to the shear . The surface low soon became exposed with convection displaced to the northeast , and Danny weakened to a tropical storm by 00 : 00 UTC

on August 23 . The storm briefly leveled off in intensity somewhat later that day , with its circulation back under convection ; intense lightning was observed near the cyclone 's center . Late on August 23 , Danny 's structure began degrading once more with its circulation becoming significantly displaced from the remaining ragged convection . Early on August 24 , Hurricane Hunters struggled to find a circulation center as Danny neared the Lesser Antilles , and the system weakened to a tropical depression by 12 : 00 UTC as it passed between Guadeloupe and Dominica . Hours later it degenerated into a tropical wave , marking its dissipating as a tropical cyclone . The remnants of Danny continued to the west @-@ northwest for another day and was last noted over Hispaniola .

= = Preparations and impact = =

On August 22 , governments across the Lesser Antilles issued tropical storm watches . The islands of Antigua , Anguilla , Barbuda , Montserrat , Nevis , Saba , St. Eustatius , and St. Kitts were placed under a tropical storm warning the following day . These advisories were discontinued following Danny 's degradation to a tropical depression on August 24 . Leeward Islands Air Transport cancelled 40 flights across the eastern Caribbean due to the hurricane and cruise ships altered their courses . Although members of the Haiti Office of Civil Protection issued an official statement to residents saying Danny was not a threat to the country , they convened to discuss potential preparations and the status of emergency supplies . Officials in the United States Virgin Islands distributed sandbags and opened shelters . Météo @-@ France issued an " orange " alert for Guadeloupe Saint Barthélemy , and Saint Martin , advising residents about heavy rain and strong winds . Officials in Guadeloupe shut down several roads a precautionary measure . The expected rainfall was welcomed across the entire affected region , which was suffering from a severe drought .

About 2 in (51 mm) of rain fell in Dominica , leading to minor rockslides , and 1 @.@ 5 in (38 mm) was observed in Antigua . Some disruption to electrical and water supplies occurred on Guadeloupe . Rainfall was less than expected across Puerto Rico , with most areas receiving less than 1 in (25 mm) ; a peak value of 2 @.@ 01 in (51 mm) was observed in Naguabo . The Carraízo Dam , then at a critically low 110 @.@ 7 ft (33 @.@ 74 m) , received 1 @.@ 5 in (38 mm) . Though relatively light , the accumulations increased the water level by 12 in (30 cm) . Similarly , water levels at the Fajardo Dam rose by 9 @.@ 8 in (25 cm) .

Just a few days after Danny , Tropical Storm Erika brought devastating floods to Dominica , killing 30 people and wrecking tremendous damage . Other Caribbean islands received additional rainfall from the storm .