

= Effects of Hurricane Dean in Mexico =

The effects of Hurricane Dean in Mexico were more severe than anywhere else in the storm's path . Hurricane Dean , the most intense storm of the 2007 Atlantic hurricane season , formed in the Atlantic Ocean west of Cape Verde on August 14 , 2007 . The Cape Verde @-@ type hurricane sped through the Caribbean Sea , rapidly intensifying before making landfall on Mexico 's Yucatán Peninsula . Accurate forecasts of the storm 's location and intensity enabled thorough preparations ; nevertheless when the massive storm made landfall on the Yucatán Peninsula as a catastrophic Category 5 hurricane on the Saffir @-@ Simpson Hurricane Scale it damaged thousands of homes .

Weakening as it crossed the peninsula , Dean emerged into the Bay of Campeche and re @-@ strengthened before making a second landfall in Veracruz . Although the second landfall did not bring winds as intense as the first , it brought more rainfall and caused devastating landslides in the states of Veracruz and Tabasco . Between the two landfalls , Dean caused MXN \$ 2 billion (US \$ 184 million ; 2007 dollars) of damage and killed 13 people .

= = Preparations = =

= = = First landfall = = =

Forecasters and computer models at the Miami @-@ based National Hurricane Center predicted that Hurricane Dean would impact the Yucatán Peninsula a full 6 days before the storm actually arrived . The hurricane 's stable and well predicted path gave all of the countries in the region ample time to prepare for its arrival . On August 17 , at the request of the Quintana Roo state government , which was expecting their state to suffer a direct hit , the Civil Protection Office of Mexico 's federal Interior Ministry declared a state of emergency for the entire state . This included the towns and cities of Cancún , Playa del Carmen , and Chetumal as well as the islands of Cozumel , Isla Mujeres and Holbox .

On August 18 authorities began evacuating people from parts of Quintana Roo , moving 2 @,@ 500 people from Holbox Island and a further 80 @,@ 000 tourists from elsewhere in the state . Air @-@ evacuations of tourists were stopped when Dean 's outer rainbands closed almost a dozen Cancún and Cozumel airports on the evening of August 20 . The Campeche airport closed shortly thereafter . The state government set up 530 storm shelters in schools and other public buildings , prepared to hold 73 @,@ 000 people . With 20 @,@ 000 food packages ready , the state of Yucatán , Quintana Roo 's neighbor to the northwest , declared a green alert indicating a low but significant level of danger .

World Vision and other international aid agencies prepared blankets , sheets , personal hygiene items and medicines for quick transport to affected areas . The United States pre @-@ positioned a three @-@ person disaster management team into the Yucatán before the storm 's arrival with the intent of helping coordinate disaster management if necessary . The U.S. State Department urged its citizens in Quintana Roo , Yucatán , and Campeche to prepare for the storm and to evacuate if necessary . The department also relocated its non @-@ essential personnel from those states to Mexico City . At 1500 UTC on August 19 a hurricane watch was issued on the Yucatán Peninsula from Chetumal to San Felipe and final preparations were rushed to completion .

= = = Second landfall = = =

On August 20 , warnings for Dean 's second landfall were issued . The coast from Progreso to Ciudad del Carmen was put under a hurricane warning and the coast from Cancún at the tip of the Yucatán Peninsula west to Progreso . At 0300 UCT , August 21 , a tropical storm watch was issued for the coast from Chilitepec to Veracruz , and a hurricane watch was issued from Chilitepec to Tampico , Tamaulipas . As Dean began to cross the Yucatán Peninsula and maintained its structure

better than forecasters had expected , these watches and warnings were expanded . At their peak , a hurricane warning covered the area from Campeche , Campeche , to Coatzacoalcos , Veracruz , and a tropical storm warning stretched from Tampico to La Cruz , Tamaulipas .

Residents in Veracruz stocked up on essential supplies , especially food and water , ahead of the storm 's second landfall . At the request of the government of Veracruz , federal Secretary of the Interior Francisco Ramírez Acuña declared a state of emergency for 81 municipalities ahead of Hurricane Dean 's expected landfall in the state . This gave local authorities access to the resources of the Revolving Fund of the National Natural Disaster Fund to take care of the nutrition , health , and shelter their populations should the storm 's damage require it .

Although Dean was still a hurricane and was expected to re @-@ strengthen slightly before making its second landfall , the fact that it had weakened caused some residents to let down their guard . As a result , residents of Veracruz and Campeche were much less prepared for the storm than those on the Yucatán Peninsula .

= = Impact = =

= = = First landfall = = =

The hurricane hit land near Majahual on the Quintana Roo coast of the Yucatán Peninsula at 0830 UTC on August 21 . Wind gusts of 200 mph (320 km / h) were reported . The state 's tourist cities of Cancún and Cozumel were spared the worst of the storm , but it wreaked havoc in the state capital Chetumal , some 40 mi (65 km) south of landfall , causing significant flooding . Communication with the Mayan communities near the landfall location was initially difficult , but the town of Majahual , which had a population of 200 , was " almost flattened " by the storm . Storm surge and high winds severely damaged or destroyed hundreds of buildings and had the strength to crumple steel girders . About 15 @,@ 000 families were left homeless , primarily in small villages around Quintana Roo . At the Costa Maya cruise port , waves tore away portions of the concrete docks and destroyed the boardwalk . The damage made the port unsuitable for cruise ships , effectively freezing the region 's tourism industry until they could be repaired . The hurricane 's winds damaged 2 @.@ 3 million ha (5 @.@ 7 million acres) of jungle , almost all of it in Quintana Roo , Yucatán , and Campeche .

At its first landfall , the bulk of Hurricane Dean 's damage was to agriculture . 12 @,@ 000 producers suffered losses , mostly in the states of Quintana Roo and Yucatán . 30 @,@ 000 ha (74 @,@ 000 acre) of habanero peppers were destroyed , along with 150 @,@ 000 ha (370 @,@ 000 acre) of corn and 60 @,@ 000 ha (150 @,@ 000 acre) of citrus . Extensive damage to fields planted with bananas , avocados , cucumbers , squash , jalapeño peppers , and other crops were also reported on the Yucatán Peninsula .

President Felipe Calderón cut short a visit to Canada to return to Mexico and assess the damage . Hurricane Dean 's Category 5 landfall ? the first such landfall in the Atlantic basin in 15 years ? took no lives . International organizations , including the United Nations , attributed this to the government 's thorough preparations and forecasters ' ample warning .

= = = Second landfall = = =

The next day , at 1630 UTC on August 22 , Hurricane Dean made a second landfall , this time near the town of Tecolutla , Veracruz , as a Category 2 hurricane . Following the second landfall on the Veracruz coast , Joloapan town saw the Dean ´ s eye , then in a 30 @-@ minute period free clouds and sunny conditions and after that the last strongest eyewall which caused many trees felled and blew roof off ; two rivers in the mountains of the state of Hidalgo overflowed , and rain fell as far west as the Pacific coast . Veracruz Governor Fidel Herrera said there was " a tremendous amount of damage " . Petroleum production was not severely damaged and quickly returned to normal , although its brief interruption was responsible for a 6 % year @-@ on @-@ year decrease in third

quarter .

Hurricane Dean , at its second landfall , dropped 4 to 8 in (100 to 200 mm) of rainfall across the western states of Jalisco and Nayarit . This rainfall triggered a mudslide in Jalisco which fell on 10 houses and killed one of the occupants . Landslides in Puebla killed five people , and another was crushed when a wall in his house collapsed . One person in Veracruz was electrocuted after touching a power line while repairing his roof . In Michoacán , as the outer bands of the storm swept over the state , a man sheltering under a tree was struck by lightning . Two women died in Hidalgo when heavy rain collapsed their house 's roof . Another man drowned while trying to cross a rain @-@ swollen river in Tlacolula , Oaxaca . The heavy rains caused dozens of smaller landslides throughout the country , particularly in Veracruz and Tabasco , but most of them caused no fatalities . At least 50 @,@ 000 houses were damaged to varying degrees throughout the country . Although Dean 's rains caused flooding as far inland as Mexico City , where they closed a portion of Puebla @-@ Mexico highway , the damage was concentrated in the states of Quintana Roo and Veracruz .

As with its first landfall , Hurricane Dean damaged crops throughout its impact area . In Puebla it destroyed 135 @,@ 000 ha (335 @,@ 000 acre) of corn and more than 22 @,@ 000 ha (54 @,@ 000 acre) of coffee , while in Veracruz 15 @,@ 000 ha (37 @,@ 000 acre) of various crops were lost . Unlike in Belize and the Eastern Caribbean , the storm spared the sugarcane crop in Veracruz .

Between the hurricane 's two landfalls , Dean affected an estimated 207 @,@ 800 people in the states of Quintana Roo , Campeche , Veracruz , Hidalgo , Puebla and Tabasco . The storm damaged 85 miles (140 km) of power lines and left more than 100 @,@ 000 people without electricity . Landslides , storm tides , and widespread structural damage combined to compromise water sources throughout the country . The extent of the damage was never calculated at a federal level , but hundreds of villages lost access to fresh water in the days following the storm . Hurricane Dean killed 12 people in Mexico but none of the deaths occurred during its first and most powerful landfall on the Yucatán Peninsula . Between the two landfalls the storm caused a total of Mex \$ 2 billion (US \$ 184 million) of damages .

= = Aftermath = =

Post @-@ storm analysis showed that , while less deadly , Dean 's first and more powerful landfall caused significantly more infrastructural damage than its second . Where the landfall occurred at the town of Majahual specifically , and the state of Quintana Roo generally , communities took longer to recover than in the rest of the country . Quintana Roo Governor Félix González Canto reported that although the cleanup in the state capital of Chetumal was completed within three weeks , it took more than six months to fix all of the region 's rural roads . Unable to handle the hurricane 's aftermath , the state government appealed to federal authorities and secured Mex \$ 755 million (US \$ 74 @.@ 8 million) of aid . Combined with the state 's contribution of \$ 270 million (US \$ 26 @.@ 7 million) , a housing @-@ repair fund of over \$ 1 @,@ 025 million (US \$ 101 @.@ 5 million) was established . In the three months immediately following the storm , over 37 @,@ 000 houses were rebuilt or repaired using monies from this fund .

In the days following the hurricane , immediate access to clean water was a priority for international aid agencies working in Mexico . The National Commission of Water spent another \$ 25 million (US \$ 2 @.@ 47 million) of federal funds repairing the damaged infrastructure for irrigation and drinking water .

Carnival Cruise Lines and Royal Caribbean Cruises , the world 's two largest cruise operators , diverted their ships away from the damaged cruise port of Puerto Costa Maya . Their plans originally expected diversions until at least 2009 , but the central government was quick to fund rebuilding of the destroyed concrete piers . By June 2008 they were rebuilt to accommodate even larger ships than before , and ships scheduled stops there for September 2008 .

The federal government was initially lauded for its swift and thorough preparation to which most observers , including the United Nations , attributed Dean 's low death toll . However , after the storm there were several accusations of political motivation in the distribution of aid . Members of

President Felipe Calderón 's Partido Accion Nacional (PAN) distributed bags of bread , funded by the nation 's disaster relief coffers , carrying the party 's logo . In Veracruz Governor Fidel Herrera was accused by both the PAN and his own Partido Revolucionario Institucional (PRI) of using state resources , including hurricane relief , to support the campaigns of PRI candidates .