Hurricane Dolly (1996) =

Hurricane Dolly caused flooding throughout Mexico in August 1996 . The fourth named storm and third hurricane of the season , Dolly developed from a tropical wave to the west @-@ southwest of Jamaica on August 19 . Initially a tropical depression , the system strengthened into a tropical storm about twelve hours later . Dolly headed westward and intensified into a Category 1 hurricane late on August 20 . It then made landfall near Chetumal , Quintana Roo . The system weakened to a tropical depression on August 21 . Later that day or early on August 22 , Dolly emerged into the Bay of Campeche and quickly re @-@ strengthened into a tropical storm . The storm deepened further and was upgraded to a hurricane again by midday on August 23 ; Dolly simultaneously peaked with winds of 80 mph (130 km / h) . Around that time , it struck between Tuxpan , Veracruz , and Tampico , Tamaulipas . Dolly quickly weakened to a tropical depression early on August 24 , but remained intact while crossing Mexico and dissipated over the eastern Pacific Ocean on August 25 .

The storm brought heavy rainfall to much of Mexico , peaking at 37 @.@ 41 inches (950 mm) . In Quintana Roo , flooding destroyed a large amount of farmlands . Widespread flooding occurred after a river in the Pueblo Viejo area overflowed its banks . Hundreds of homes were destroyed , displacing about 35 @,@ 000 people . Large scale evacuations occurred in San Luis Potosí , while about 6 @,@ 500 fled their homes in the Tampico area . Communications and power outages were reported as far west as Mazatlán , Sinaloa . Throughout Mexico , there were fourteen fatalities reported , including six in Veracruz , three in Nuevo León , one in Monterrey , and another in Pueblo Viejo . Additionally , two people were left missing in Nuevo León . The outer bands of Dolly brought rainfall to southern Texas , which caused minor flooding , but was mostly beneficial due to drought conditions in the state .

= Meteorological history = =

A large tropical wave , an elongated trough of low pressure , emerged into the Atlantic Ocean from the west coast of Africa around August 9 . Although deep convection was associated with the wave when it entered the Atlantic , showers and thunderstorms remained minimal for several days as the system tracked westward . Upon reaching the eastern Caribbean Sea , deep convection redeveloped , but failed to persist , until the wave reached an area southwest of Jamaica on August 18 . Around that time , a reconnaissance aircraft flight indicated a low to mid @-@ level circulation , but the system was too weak to classify using the Dvorak technique . After a center fix was made by another reconnaissance flight and satellite imagery , as well as a ship observing winds of 52 mph (84 km / h) , the system was classified as Tropical Depression Four at 06 : 00 UTC on August 19 , while situated about 140 mi (230 km) west @-@ southwest of South Negril Point , Jamaica .

With an initially poorly @-@ defined circulation , the depression moved west @-@ northwestward . Because it developed near a mid to upper @-@ level anticyclone , conditions were favorable for intensification , with the system becoming Tropical Storm Dolly around 18 : 00 UTC on August 19 . Convection became more organized , and the storm strengthened into a Category 1 hurricane on the Saffir ? Simpson hurricane wind scale just under twenty four hours later . At 17 : 30 UTC on August 20 , Dolly made landfall near Punta Herrero , Quintana Roo ? located northeast of Chetumal , with winds of 75 mph (120 km / h) . Early the following day , the hurricane weakened to a tropical storm , and then to a tropical depression several hours later .

Late on August 21 , Dolly emerged into the Bay of Campeche , with satellite imagery indicating that convection was displaced to the south of the center of circulation . However , the system soon began to restrengthening , regaining tropical storm intensity by 00 : 00 UTC on August 22 . Early on the following day , the cyclone began turning westward . At 12 : 00 UTC on August 23 , Dolly reintensified into a hurricane and attained its peak intensity with maximum sustained winds of 80 mph (130 km / h) and a minimum barometric pressure of 989 mbar (29 @.@ 2 inHg) . Simultaneously , the hurricane made landfall between Tuxpan , Veracruz , and Tampico , Tamaulipas . Six hours after moving inland , Dolly weakened to a tropical storm . Early on August 24

, the system deteriorated to a tropical depression . Dolly remained intact while crossing Mexico and emerged into the Pacific Ocean several hours later , but was not reclassified as an eastern Pacific tropical cyclone and dissipated about 40 mi (65 km) west of San Juanito in the Islas Marías .

= = Preparations = =

At 18 : 00 UTC on August 19 , a tropical storm warning was issued from Chetumal to Progreso , Yucatán , while a tropical storm watch was placed between Pinar del Río Province and Isle of Pines , Cuba . Just three hours later , another tropical storm warning was put into effect between between San Pedro Town , Belize , and the Mexican border . On August 20 , the tropical storm watch was discontinued for Cuba , as the system was moving away from the area . At 15 : 00 UTC , another tropical storm warning was issued from Progreso , Yucatán , to Ciudad del Carmen . Only an hour later , a tropical storm warning from Cozumel to Chetumal was upgraded to a hurricane warning . By 21 : 00 UTC on August 20 , all warnings south of Cozumel were discontinued . Just six hours later on August 21 , all tropical storm warnings east of 88 ° W were discontinued . Shortly after that , a tropical storm warning east of Progreso was removed . All warnings for Mexico were discontinued at 15 : 00 UTC on August 21 . When Dolly entered the Bay of Campeche on August 22 , a hurricane watch was put into action for Veracruz , La Pesca , and all areas in between , at 09 : 00 UTC . Only six hours later , the watch became a hurricane warning until Dolly made landfall at 18 : 00 UTC on August 23 , when all remaining warnings were removed .
Throughout the Yucatán Peninsula , airports and ports were closed , while regularly scheduled bus routes were canceled . About 180 locations were prepared to serve as a shelter if large scale evacuations were necessary . In Punta Allen and Punta Herrero , authorities ordered the evacuation of about 100 families . Dozens of oil and gas wells in the Bay of Campeche owned by Pemex were evacuated , while Shell Oil Company evacuated some people from an oil platform farther north . Approximately 6 @,@ 500 people were evacuated from low @-@ lying areas of Tampico and flood prone locations in San Luis Potosi . The General Francisco Javier Mina International Airport closed for most of the day on August 23 . A total of 37 ports along the Gulf Coast of Mexico were closed . In Texas , Cameron County officials purchased satellite telephones and generators and released 55 prisoners because of fear that the newly built jail might not withstand a hurricane .

= = Impact = =

= = = Belize and Mexico = = =

Just over 2 inches (51 mm) of rain fell into central Belize as the storm passed to the north . In Quintana Roo , 5 @.@ 73 in (146 mm) of precipitation fell in Chetumal , flooding large areas of farmland . A total of 16 homes were destroyed and 26 others were damaged . At least two fishermen were left missing .
In Tampico , near the location of the storm 's second landfall , the streets were littered with fallen trees branches , utility poles , and billboards . Additionally , many roads were inundated with water , leaving some impassable . Nearby , over 700 people fled their homes for shelter due to flooding in Ciudad Madero . One death occurred in Pueblo Viejo when a woman was crushed by a tree that fell on her house . Six other deaths occurred in Veracruz , five from a ship capsizing near Boca del Río and another after a person was caught in an undertow offshore Úrsulo Galván . Two landslides in northern Puebla left roads impassable , isolating some communities such as Tlatlauquitepec . Hundreds of homes were destroyed leaving 35 @,@ 000 people homeless and there was severe damage in Tuxpan , Tamiahua , Pueblo Viejo , Platon , Pánuco , Tampico Alto , and elsewhere along the coast of northeast Mexico .
In Nuevo León , the storm caused four fatalities , including one in the city of Monterrey . The place with the most rainfall received in a 24 @-@ hour @-@ period was in Micos , which observed 12 @.@ 94 in (329 mm) of rain . Some other high rainfall recordings were in Santa Rosa , which

recorded 10 @.@ 59 in (270 mm) , and Puerto de Valles , which received 10 in (254 mm) of rain . Although well south of the storm 's path , precipitation from Dolly peaked at 37 @.@ 41 in (950 mm) in Iguala de la Independencia , Guerrero , making it the wettest tropical cyclone on record in Guerrero . In Sinaloa , three fatalities occurred , two when two people stepped into a puddle of water electrified by a downed power line and another from a weather @-@ related traffic accident . According to newspaper reports , 14 people died in the storm 's passage . An additional two people from Nuevo León were reported to be missing .

= = = Texas = = =

 Though far from the United States , Dolly managed to bring heavy rain and high winds to southern Texas . Weekly rainfall totals in Corpus Christi reached 5 @.@ 53 in (141 mm) and 2 @.@ 82 in (71 @.@ 6 mm) in Brownsville . Corpus Christi daily rainfall measurements on August 23 and August 24 were as high as 1 @.@ 92 in (48 @.@ 8 mm) and 2 @.@ 55 in (64 @.@ 8) , respectively , a new daily record . The beach at the Padre Island National Seashore was closed after high tides began flooding the beaches and the John F. Kennedy Causeway , though other facilities such as the campground remained open . A tornado was spawned near Olmito , damaging a few homes and unroofing two others . Later , while passing north of Rancho Viejo , the twister inflicted impact on 10 dwellings and knocked over trees and signs .