Hurricane Humberto (2007)

Hurricane Humberto was a minimal hurricane that formed and intensified faster than any other North Atlantic tropical cyclone on record before landfall . Developing on September 12 , 2007 , in the northwestern Gulf of Mexico , the tropical cyclone rapidly strengthened and struck High Island , Texas , with winds of about 90 mph (150 km / h) early on September 13 . It steadily weakened after moving ashore , and on September 14 it began dissipating over northwestern Georgia as it interacted with an approaching cold front .

Damage was fairly light , estimated at approximately $ 50 million (2007 USD) . Precipitation peaked at 14 @.@ 13 inches (358 @.@ 9 mm) , while wind gusts to 85 mph (137 km / h) were reported . The heavy rainfall caused widespread flooding , which damaged or destroyed dozens of homes , and closed several highways . Trees and power lines were downed , knocking out power to hundreds of thousands of customers . The hurricane caused one fatality in the State of Texas . Additionally , as the storm progressed inland , rainfall was reported throughout the Southeast United States .

Meteorological history

The origins of Humberto are from the remnants of a frontal trough ? the same that spawned Tropical Storm Gabrielle ? that moved offshore south Florida on September 5 . The combination of a weak surface trough and an upper @-@ level low pressure system produced disorganized showers and thunderstorms from western Cuba into the eastern Gulf of Mexico . Tracking slowly west @-@ northwestward , unfavorable wind shear initially inhibited tropical cyclone development . By late on September 11 , environmental conditions became more favorable , and the following morning convection increased over the disturbance . Tracking around the western periphery of a mid @-@ level ridge , the system turned on a slow northwest drift and quickly organized . Radar imagery reported loose banding features , and buoy data indicated the presence of a surface circulation ; based on the observations , the National Hurricane Center classified the system as Tropical Depression Nine , while located roughly 60 miles (100 km) southeast of Matagorda , Texas .

Upon becoming a tropical cyclone , the depression was forecast to strengthen slowly to reach peak winds of 45 mph (75 km / h) . Within three hours of forming , the depression intensified into Tropical Storm Humberto . A small cyclone , the storm continued to organize quickly as it turned north @-@ northeastward , while radar imagery suggested the formation of an eye by early on September 13 . Based on reports from Hurricane Hunters , Humberto was upgraded to a hurricane at 0515 UTC on September 13 , while located about 15 miles (20 km) off the coast of Texas . The hurricane made landfall a few miles to the east of High Island at around 0700 UTC . A well @-@ defined eye was maintained with strong convection around it , and Hurricane Hunters reported sustained winds of 85 mph (140 km / h) about two hours after landfall . However , post @-@ storm analysis later determined that the winds were a bit stronger ? about 90 mph (150 km / h) .

Based on operational estimates of a wind speed increase of 50 mph (85 km / h) , the National Hurricane Center reported that " no tropical cyclone in the historic record has ever reached this intensity at a faster rate near landfall . " The path of the eye continued northeastward and passed over Port Arthur , Nederland , Port Neches , Groves , and Bridge City , Texas at Category 1 hurricane strength . This was the second time within two years (following Hurricane Rita on September 24 , 2005) that these cities experienced a direct hit from a hurricane . By eight hours after landfall , Humberto weakened to a tropical storm as it crossed into southwestern Louisiana . Increased upper @-@ level wind shear caused the storm to weaken rapidly over land , and late on September 13 Humberto weakened to a tropical depression . Upon issuing its last advisory , the National Hurricane Center remarked on the potential for the remnants of the storm to turn southward into the Gulf of Mexico . However , the storm continued northeastward through the southeastern United States , and on September 14 , the storm began dissipating over northwestern Georgia , and shortly thereafter degenerated into a remnant low pressure area .

= = Preparations = =

Upon becoming a tropical cyclone , a tropical storm warning was issued from Port O 'Connor , Texas , to Cameron , Louisiana , and a tropical storm watch was posted from Cameron to Intracoastal City , Louisiana ; after Humberto became a tropical storm , the watch was upgraded to a warning . Upon reaching hurricane status , the National Hurricane Center issued a hurricane warning from High Island , Texas , to Cameron , Louisiana . An inland tropical storm warning was declared for several parishes in southwestern Louisiana . The National Weather Service Storm Prediction Center posted a tornado watch for southwestern coastal parishes .

Prior to moving ashore , officials in Calcasieu Parish , Louisiana , advised residents in low @-@ lying or flood @-@ prone areas to consider moving to a safer location . A shelter was opened in Lake Charles , where 29 people stayed during the storm . Flood watches and warnings were issued for portions of Mississippi and Louisiana as the storm tracked across the region . Texas Governor Rick Perry , prepared state resources for the potentially impacted areas , including the deployment of 200 Texas Military Forces soldiers and six Black Hawk helicopters and two water rescue teams for search and rescue missions . The Texas State Operations Center was activated shortly after the cyclone developed .

= = Impact = =

= = = Texas = = =

A few hours prior to its development , outer rainbands from the depression began moving over portions of the Texas coast . Heavy rainfall from intense thunderstorms caused minor flooding as they crossed the coastline during the subsequent days ; precipitation in the state peaked at 14 @.@ 13 inches (358 @.@ 9 mm) at East Bay Bayou , the highest recorded rainfall total in association with the hurricane . Sustained winds peaked at 69 mph (112 km / h) with gusts to 85 mph (137 km / h) at Sea Rim State Park ; the National Weather Service estimates gusts exceeded 90 mph (145 km / h) in southwestern Jefferson County and extreme southeastern Chambers County . In the Golden Pass Ship Channel , an unofficial report of a 115 mph (185 km / h) wind gust was relayed to the National Hurricane Center . Upon moving ashore , Humberto produced a minor storm surge in the state , peaking at 2 @.@ 86 feet (0 @.@ 87 m) at Rollover Pass ; the combination of surge and waves resulted in light beach erosion .

Hurricane Humberto left 10 homes completely destroyed in Galveston County , with an additional 19 severely damaged in the county ; several homes received minor shingle damage , and road closures left about 5 @,@ 000 houses isolated in the county . The combination of saturated grounds and strong winds uprooted many trees and downed power lines across the path of the hurricane , with at least 50 high voltage transmission poles blown down or seriously damaged ; over 120 @,@ 000 power customers in Orange and Jefferson counties lost power , with 118 @,@ 000 Entergy customers in the state without electricity . Widespread flooding occurred in Jefferson and Orange counties , and at least 20 homes in Beaumont were flooded . Additionally , several roadways were flooded . The passage of the hurricane caused one fatality in the state ; a Bridge City man was killed when his carport crashed on him outside his house . Initially , press reports indicated that the storm wrought up to $ 500 million in damage ; however , final damage estimates were about $ 50 million .

Oil production was slowed as a result of Humberto , as at least four refineries ? the Valero , ExxonMobil , Total SA and Motiva Enterprises LLC plants in Port Arthur ? were halted due to the loss of power . Oil prices rose above $ 80 a barrel in intraday trading on September 12 as a result , ending the next day at a record high of $ 80 @.@ 09 a barrel . Natural gas futures rose 8 percent ahead of the storm , but lost most of those gains the next day .

According to the Federal Emergency Management Agency (FEMA) , 1 @,@ 464 residences throughout Texas were affected by Hurricane Humberto . Of these , 25 were destroyed , 96 sustained major damage and 240 sustained minor damage . The cost of individual assistance for

those impacted by Humberto would cost $ 4 @,@ 776 @,@ 334 ; the cost of debris removal and other public assistance amounted to $ 6 @,@ 682 @,@ 074 . In terms of per capita income , Jefferson County sustained the most impact , decreasing by $ 22 @.@ 38 .

= = = Louisiana = = =

Tracking through the state as a weakening tropical storm , Humberto produced light to moderate winds across southwestern Louisiana . Gusts officially peaked at 43 mph (69 km / h) in the state , although an unofficial reading of 55 mph (89 km / h) was reported in Vinton . Heavy rainfall occurred across the area , reaching a peak of 8 @.@ 25 inches (210 mm) in DeRidder . The rainfall triggered minor river flooding along the Vermilion River in Lafayette . Storm surge was minor in the state , peaking at 2 @.@ 13 feet (0 @.@ 65 m) in Cypremont Point ; no beach erosion was reported .

Widespread freshwater flooding occurred in Beauregard Parish , leaving homes in DeRidder flooded . High water across the southwestern portion of the state resulted in the closure of several roadways , including U.S. Route 171 and various state highways . Isolated wind damage was reported , particularly near the Texas border , with some trees and power lines blown down . A total of about 13 @,@ 000 power customers lost electricity in southwestern Louisiana . One F1 tornado briefly touched down in Vermilion Parish , blowing the roof off one home and downing trees and power lines . Damage throughout Louisiana was estimated at $ 525 @,@ 000 .

= = = Southeast United States = = =

After the circulation dissipated , the remnants of Humberto brought moderate rainfall to the southeastern states and spawned several tornadoes across portions of South Carolina and North Carolina and caused widespread damage in some locations . Heavy rains in Mississippi led to flooding in low @-@ lying areas . In Hinds County , a small rail bridge was washed out , forcing all passengers Amtrak train to take a bus to their destinations . One person was injured after driving his car into a flooded street . In Alabama , rainfall up to 5 @.@ 06 in (129 mm) caused minor ponding in low @-@ lying areas but aided in short @-@ term drought relief . In northern Georgia , locally heavy rainfall led to flash flooding , resulting in several road closures . Strong thunderstorms associated with the remnants of Humberto also produced winds up to 51 mph (82 km / h) and penny @-@ sized hail . Throughout North Carolina , ten F0 tornadoes were confirmed , resulting in minor damage to homes , though none caused injuries or fatalities . Heavy rains associated with the system also triggered flash flooding along some roads , resulting in their closure . In South Carolina , one F1 tornado touched down in Laurens County , causing moderate damage to several homes before lifting .

= = Aftermath = =

Hours after Humberto made landfall , Rick Perry declared Galveston , Jefferson , and Orange counties as disaster areas , which allocated state resources to assist the affected residents . The governor applied for a presidential disaster declaration on September 21 . Four Federal Emergency Management Agency (FEMA) teams assessed the hurricane damage in the three most affected counties . Following their assessment , they determined that the damage caused by Humberto was not significant enough to require a disaster declaration . As such , Governor Rick Perry 's request from FEMA was denied . Across the Bolivar Peninsula , an estimated 1 @,@ 500 cubic yards of structural debris and 3 @,@ 000 cubic yards of tree limbs were needed to be removed in the wake of the storm .