

= Hurricane Bret (1999) =

Hurricane Bret was the first of five Category 4 hurricanes that developed during the 1999 Atlantic hurricane season and the first tropical cyclone since Hurricane Jerry in 1989 to make landfall in Texas at hurricane intensity . Forming from a tropical wave on August 18 , Bret slowly organized within weak steering currents in the Bay of Campeche . By August 20 , the storm began to track northward and underwent rapid intensification on August 21 . After this period of strengthening , Bret attained its peak intensity with winds of 145 mph (230 km / h) and a barometric pressure of 944 mbar (hPa ; 27 @. @ 88 inHg) . Later that day , the storm weakened to a Category 3 hurricane and made landfall on Padre Island , Texas . Shortly thereafter , the storm weakened further , becoming a tropical depression 24 hours after moving inland . The remnants of the storm eventually dissipated early on August 26 over northern Mexico .

Along the Texas coastline , Bret threatened several cities , prompting 180 @, @ 000 residents to evacuate . Numerous shelters were opened throughout the region and prisons were evacuated . Several days prior to the storm 's arrival , the NHC issued hurricane watches , and later warnings for areas near the Texas ? Mexico border . Several major roads leading to barrier island towns were shut down to prevent residents from crossing bridges during the hurricane . In nearby Mexico , roughly 7 @, @ 000 people left coastal areas in advance of the storm . Officials also set up hundreds of shelters in northern regions of the country in case of major flooding .

Bret made landfall in a sparsely populated region , resulting in relatively little damage in comparison to its intensity . Nevertheless , seven people were killed in relation to storm , four in Texas and three in Mexico . Most of the deaths were due to car accidents caused by slippery roads . Upon making landfall , the hurricane produced a maximum storm surge of 8 @. @ 8 ft (2 @. @ 7 m) at Matagorda Island , Texas . Heavy rains produced by Bret peaked at 13 @. @ 18 in (335 mm) in Texas and were estimated over 14 in (360 mm) in Mexico . Numerous homes in the affected regions were damaged or destroyed , leaving roughly 150 people homeless . In all , the storm caused \$ 15 million (1999 USD ; \$ 19 @. @ 7 million 2009 USD) in damage .

= = Meteorological history = =

Hurricane Bret originated from a tropical wave that moved off the west coast of Africa on August 5 . The wave tracked generally westward , interacting with an upper @- @ level low on August 15 in the western Caribbean Sea , and spawned a low pressure area . Convective activity developed around the low , and by August 18 the system was over the Yucatán Peninsula . Later that day , the disturbance emerged into the Bay of Campeche and a Hurricane Hunter reconnaissance mission into the system revealed that it had matured into a tropical depression around 1 : 00 pm CDT (1800 UTC) , the third of the 1999 season . Initially , moderate wind shear prevented the depression from strengthening as it moved slowly and erratically in response to weak steering currents over the system . By August 19 , the wind shear relented , allowing deep convection to develop over the center ; later that day , the National Hurricane Center (NHC) upgraded the system to a tropical storm , assigning it the name Bret . A small tropical cyclone , Bret gradually strengthened for several days as it tracked towards the north . By the morning of August 20 , rainbands began to form .

By the evening of August 20 , Bret was designated a hurricane following reports of 75 mph (120 km / h) winds during a Hurricane Hunter mission . At around the same time , Bret established a north @- @ northwest track under the influences of a mid @- @ level ridge . The following day , Bret began to undergo rapid intensification , as a well @- @ defined eye developed . On the morning of August 22 , the storm attained its peak intensity as a Category 4 hurricane with winds of 145 mph (230 km / h) and a barometric pressure of 944 mbar (hPa ; 27 @. @ 88 inHg) . Shortly thereafter , an upper @- @ level trough to the west of the storm began to erode its cloud pattern .

Late on August 22 , Bret turned northwestward in response to a mid @- @ tropospheric ridge over the Gulf of Mexico and a mid @- @ tropospheric circulation over the Rio Grande Valley . Several hours before landfall , the hurricane weakened to Category 3 intensity and its forward motion slowed . At around 7 : 00 pm CDT (0000 UTC ; August 23) , Hurricane Bret passed over Padre Island ,

Texas , with winds of 115 mph (185 km / h) and a barometric pressure of 951 mbar (hPa ; 28 @. @ 08 inHg) , which marked its landfall . The hurricane rapidly weakened upon moving inland , and roughly 12 hours after landfall , Bret weakened to a tropical storm . It further degenerated into a tropical depression by the evening of August 23 . The remnants of Bret persisted until August 26 , at which time they dissipated over the mountains of northern Mexico .

= = Preparations = =

= = = Texas = = =

On August 21 , when Bret was first expected to approach the Texas coastline , the NHC issued a hurricane watch for coastal areas between the border of Mexico and Baffin Bay , Texas . Hours later , the watch was upgraded to a warning as the storm intensified and posed a more direct threat to the area . A tropical storm warning and hurricane watch were subsequently posted from Baffin Bay northward to Port Aransas . The following day , the hurricane warning was extended to include locations through Port O 'Connor and the advisories were extended to Freeport . As Bret neared landfall , the hurricane watch between Port O 'Connor and Freeport was discontinued . The hurricane warning for Port Aransas to Port O 'Connor was discontinued hours after Bret made landfall and began to weaken . By late August 23 , all watches and warnings in relation to the hurricane were discontinued .

By August 22 , city officials in Corpus Christi , Texas declared a state of emergency as Bret was considered a significant threat to the region . Tens of thousands of residents were urged to evacuate coastal areas and seek refuge in local shelters or with relatives further inland . An estimated 180 @, @ 000 people in the state left their residences ahead of the storm . The Corpus Christi International Airport closed midday on August 22 . Later that day , Texas State Highway 361 and docks in Port Aransas were shut down . Highways throughout the area were congested due to the large @-@ scale evacuations and long lines for gas and emergency items developed . Three schools , two universities and a college were closed on August 23 and remained closed for several days .

Eleven shelters were opened in the San Antonio area , collectively able to accommodate 3 @, @ 525 people . About 325 prisoners were evacuated from a Nueces County jail as the building they were in was deemed unsafe during hurricane conditions . About 1 @, @ 000 sailors working in the area were evacuated to the USS Inchon prior to the storm . Originally , the ship was meant to ride out the storm at sea ; however , inadequate repair work inhibited the ship from leaving port . The ship reportedly had enough supplies to maintain the sailors for roughly 45 days . By 12 : 00 pm CDT on August 22 , Mustang Island and Padre Island were completely evacuated and officials shut down roads leading in and out of the islands to prevent anyone from re @-@ entering them before the area was deemed safe to enter . A strict order against price gouging was put in place by city officials in Corpus Christi .

= = = Mexico = = =

In Mexico , officials closed 18 ports on the Gulf of Mexico to small- and medium @-@ sized craft in preparation for the storm . In northern Mexico , more than 500 shelters were opened as thousands of residents were advised to evacuate from low @-@ lying areas . The Mexican Army , Red Cross , and firefighters were put on standby to deal with emergency calls during the storm . On August 22 , a state of emergency was declared for Tamaulipas . The following day , at least 120 firefighters were dispatched to Monterrey , Nuevo Leon to swiftly respond to emergencies . The Mexican government emphasized the safety of residents in the city , which was anticipated to bear the brunt of the hurricane . Around 7 @, @ 000 fishermen evacuated coastal regions near the Texas border . In Matamoros an additional 31 shelters were opened . Schools throughout northern Mexico were closed for several days .

= = Impact = =

= = = Mexico = = =

Prior to developing into a tropical depression , the disturbance produced scattered rainfall across the Yucatán Peninsula , locally exceeding 7 in (180 mm) . As the system stalled in the Bay of Campeche , coastal areas received minor rainfall from the outer bands of the system . Although Bret made landfall near the Texas @-@ Mexico border , the small size of the system resulted in limited impacts in Mexico . In Nuevo Leon , an estimated 14 in (360 mm) of rain fell within a 24 @-@ hour span and similar amounts likely fell in nearby Tamaulipas . In Tamaulipas , Nuevo Leon and Coahuila , ten villages were isolated by floodwaters that washed out roads . Ten people , all members of one family , were injured during a head @-@ on collision . In Nogales , heavy rains caused water to accumulate on streets , leading to traffic jams ; high winds also downed power lines . During the evacuation prior to Bret , one person was trampled to death . Following landfall , a man was electrocuted by downed power lines and another drowned in floodwaters . At least 150 families were left homeless following a flash flood in Cadereyta that inundated most of the town .

= = = Texas = = =

Upon making landfall , Bret produced a storm surge up to 8 @. 8 ft (2 @. 7 m) on Matagorda Island , Texas . Around Galveston , minor beach erosion was recorded due to large swells produced by the hurricane . Twelve new inlets were created on Padre Island , one of which was large enough to be mistaken as Mansfield Pass . Heavy precipitation , reaching 13 @. 18 in (335 mm) in central Kenedy County , was confined to a small area . The lowest barometric pressure recorded overland was at the Brooks County Airport at 976 mbar (hPa ; 28 @. 84 inHg) . The Aransas River rapidly reached flood stage due to heavy rains and the Rio Grande produced minor flooding close to the Gulf of Mexico . In beaches near Corpus Christi , upwards of 40 ft³ (1 @. 1 m³) of sand was lost . About 24 @. 7 acres (10 @. 0 ha) of cropland were destroyed by the storm .

A damaged electric tower in Kenedy County resulted in power outages for thousands of people . At the height of the storm , an estimated 64 @, 000 people were without power in south Texas . Portions of Texas State Highway Loop 281 were submerged in floodwaters , leaving \$ 50 @, 000 (1999 USD) in damage . Damage in Corpus Christi were estimated at \$ 100 @, 000 (1999 USD) . In Duval County , 200 homes were damaged by flooding and large areas of agricultural land were flooded . Damage in the county amounted to roughly \$ 2 million (1999 USD) . Five other F0 tornadoes touched down in the state . Damage to homes and businesses in Corpus Christi was estimated up to \$ 500 @, 000 (1999 USD) ; agricultural damage reached \$ 1 million and another \$ 500 @, 000 (1999 USD) was reported in losses . Slick roads from Bret 's heavy rains caused the collision of a truck and a tractor , killing four people . Damage amounted to \$ 15 million (1999 USD) throughout southern Texas .

= = Aftermath = =

On August 23 , the Federal Emergency Management Agency (FEMA) deployed 717 personnel , mainly from the disaster response team , to the affected regions in the United States . The following day , 564 National Guard troops were deployed in the state . In the days following the storm , many mosquitoes and other insects laid eggs in areas of standing water , causing a large increase in their numbers . Authorities sprayed insecticide to minimize the potential for disease outbreaks . By August 25 , all shelters opened prior to Bret were closed as residents were allowed to return home . On August 26 , President Bill Clinton added the counties of Brooks , Duval , Jim Wells and Webb to the major disaster declaration area . This allowed residents in those counties to receive federal funding .

Reconstruction of public facilities , roads , and water pipes received increased funding on September 3 to speed up the program . The following day , twelve disaster recovery centers were opened in the affected counties for residents to apply for federal funding . On September 9 , two more disaster recovery centers were opened for residents in south Texas . Later that day , \$ 831 @, @ 593 @. @ 28 (1999 USD) in disaster housing grants was distributed to affected residents . On September 15 , roughly 10 @, @ 200 people applied for disaster loans , amounting to \$ 3 @. @ 1 million (1999 USD) . A total of 167 also received crisis intervention from FEMA . In Corpus Christi , winds and rain covered the city in debris and brush , costing \$ 200 @, @ 000 (1999 USD) for clean @- @ up .