

= Tropical Storm Edouard ( 2008 ) =

Tropical Storm Edouard brought coastal and minor inland flooding to Louisiana and Texas in August 2008 . The fifth tropical cyclone and fifth named storm of the hurricane season , Edouard developed from a trough in the northern Gulf of Mexico on August 3 . After developing into a tropical depression , it gradually strengthened and was upgraded to Tropical Storm Edouard on August 4 . However , northerly wind shear initially halted any further significant intensification and also caused the storm to struggle to maintain deep convection over the center . Edouard eventually intensified further and peaked as a strong tropical storm with winds of 65 mph ( 100 km / h ) on August 5 . Shortly thereafter , the storm made landfall near Gilchrist , Texas later that day . Edouard quickly weakened and was downgraded to tropical depression by early on August 6 , six hours before degenerated into a remnant low pressure area .

Due to the relatively weak nature of the storm , impact was generally minor . Rip currents in Alabama and Florida led to five fatalities . The sixth death from the storm was also related to rough seas and occurred near the mouth of the Mississippi River in Louisiana . Storm surge and high tides also caused coastal flooding in the state , especially in Cameron Parish . Relatively strong winds left more than 2 @, @ 000 without electricity and damaged trees and the roofs of mobile homes . Storm surge caused coastal flooding in eastern Texas , particularly in the Gilchrist area . At least 25 homes sustained damage , while portions of a few major roads , such as Interstate 10 , were closed . Minor inland flooding occurred due to heavy rainfall , with a portion of Texas State Highway 36 being temporarily shutdown . Strong winds in the region damaged hundreds of homes , downed trees , and left about 300 @, @ 000 people without electricity . Overall , damage from Tropical Storm Edouard totaled slightly more than \$ 550 @, @ 000 ( 2008 USD ) .

= = Meteorological history = =

On August 2 , 2008 , a trough entered the northern Gulf of Mexico , with a low pressure area developing near Apalachicola , Florida . The system maintained scattered deep convection across offshore waters and environmental conditions favored tropical cyclogenesis . The system tracked generally west @-@ southwestward , due to its position south of a subtropical ridge extending from Texas through Florida . On the afternoon of August 3 , a Hurricane Hunters flight into the system confirmed the development of a well @-@ defined center of circulation , slightly exposed from a disorganized area of thunderstorms . As a result , the system developed into Tropical Depression Five at 1200 UTC on August 3 , while located about 85 miles ( 140 km ) south of the mouth of the Mississippi River . Because the depression was initially located in an area of northerly wind shear and dry air , the National Hurricane Center forecast it to slowly intensify .

After a burst in deep convection late on August 3 , Hurricane Hunter data indicated flight level winds of 65 miles per hour ( 105 km / h ) . At 0000 UTC on August 4 , the depression strengthened into Tropical Storm Edouard . Later that day , convection temporarily decreased around the center , though a brief convective flare up on its east side occurred early on August 5 . Due to decreasing westerly wind shear , the center was nearly surrounded by convection that afternoon . Further organization continued and at 1200 UTC on August 5 , Edouard attained its peak intensity with maximum sustained winds of 65 mph ( 100 km / h ) and a minimum barometric pressure of 996 mbar ( 29 @. @ 4 inHg ) . Simultaneously , the storm made landfall at the McFaddin and Texas Point National Wildlife Refuges near Gilchrist , Texas at the same intensity . It weakened rapidly after moving inland and was downgraded to a tropical depression late on August 5 . Edouard then re @-@ curved northwest over eastern Texas , before degenerating into a remnant low pressure area at 0600 UTC on August 6 . The remnant low continued northwestward until dissipating over northern Texas early on August 7 .

= = Preparations = =

Several tropical cyclone warnings and watches were issued in association with Tropical Storm

Edouard . At 2100 UTC on August 3 , a tropical storm watch was posted from Intracoastal City , Louisiana to Port O 'Connor , Texas . Simultaneously , a tropical storm warning was issued from Intracoastal City to the mouth of the Mississippi River in Louisiana . The tropical storm watch was upgraded to a hurricane watch early on August 4 . Around that time , the tropical storm warning was extended from the mouth of the Mississippi River to Cameron , Louisiana . At 0900 UTC on August 4 , the tropical storm warning was revised to reach San Luis Pass , Texas . The hurricane watch was modified from Grand Isle , Louisiana to Sargent , Texas . The tropical storm warning was extended to include the mouth of the Mississippi River to Port O 'Connor at 1500 UTC on August 5 . At that time , the tropical storm warning was modified again to stretch from San Luis Pass to Cameron . Late on August 5 , all tropical cyclones were discontinued .

In the Gulf of Mexico , Shell Oil evacuated about 40 workers from drilling operations . BP and Chevron also evacuated workers from platforms in the western and central Gulf , though neither predicted substantial effects on production . A few oil refineries on land were closed , such as one operated by Marathon Oil in Texas City , Texas . Governor of Texas Rick Perry issued a disaster declaration for 17 Texas counties that were threatened by Tropical Storm Edouard . Perry activated up to 1 @, @ 200 National Guard troops , a 70 member rescue team , six helicopters , and an incident management team that brings food and water to affected areas . Under the order , about 200 buses became available in San Antonio and Houston to help in evacuations . Dow Chemical shut down their plants in Clear Lake and La Porte . The United States Coast Guard also ceased cargo operations to the Galveston @-@ Houston area by late on August 4 . Governor of Louisiana Bobby Jindal declared a statewide emergency . In Cameron Parish , Louisiana the Office of Emergency Preparedness ordered a mandatory evacuation , where Sheriff 's deputies also erected roadblocks .

= = Impact = =

= = = Florida , Alabama , and Louisiana = = =

Rip currents in Florida and Alabama led to the deaths of five people , three of which occurred in Panama City , Florida . Along the coast , storm surge in Louisiana generally ran 4 to 5 feet ( 1 @. @ 2 to 1 @. @ 5 m ) above normal , although a slightly higher tide was reported near Intracoastal City . Due to the storm surge , part of Louisiana Highway 82 was closed between Holly Beach and Johnson Bayou . Additionally , Interstate 10 was also flooded by storm surge . Minor flooding from the surge traveled up the Calcasieu River to Lake Charles , where water flooded a local yacht club . Low @-@ lying areas of Intracoastal City were flooded , disrupting marine industries . A man fell overboard from a shrimp boat in rough seas from Edouard near the mouth of the Mississippi River .

Three locations reported tropical storm force winds , including 46 mph ( 74 km / h ) on Timbalier Island , 54 mph ( 87 km / h ) in Calcasieu Pass , and 48 mph ( 77 km / h ) on Marsh Island . In Cameron , Vermilion , and Calcasieu Parishes , wind gusts were mainly between 40 and 60 mph ( 64 and 97 km / h ) , though a gust of 62 mph ( 100 km / h ) was observed at Calcasieu Pass . Winds severely damaged several mobile homes in Cameron , mostly from roofs being torn off . More than 3 @, @ 000 people were left without electricity in Cameron Calcasieu Parishes combined as winds downed trees and power lines . A few mobile homes in that parish sustained minor wind damage . In Vermilion Parish , a few trees and power lines were downed . Rainfall in Louisiana reached 3 @. @ 81 inches ( 97 mm ) at Hackberry ; at other locations , precipitation was mainly between 1 and 3 inches ( 25 and 76 mm ) . Overall , Edouard caused about \$ 350 @, @ 000 in damage within the state of Louisiana .

= = = Texas = = =

Rainfall from Edouard peaked at 6 @. @ 48 inches ( 165 mm ) at Baytown , Texas , near Houston . In central Texas , a burst of thunderstorm activity near the storm 's center produced 6 @. @ 11

inches ( 155 mm ) of rain near Hamilton , Texas ; as a result , part of Texas State Highway 36 was closed due to flooding . Elsewhere , 3 to 5 inches ( 76 to 127 mm ) of precipitation was reported . The heavy rainfall was expected to help relieve persistent drought conditions in some locations . Winds gusted to over 50 mph ( 80 km / h ) , peaking at over 70 mph ( 110 km / h ) . Furthermore , a wind gust of 71 mph ( 114 km / h ) was reported at Texas Point . Due to the high winds , falling trees and power lines left at least 300 @, @ 000 customers in Southeastern Texas without electricity , most of them in Jefferson County . Hundreds of homes also suffered damage .

Storm surge ranged between 2 and 5 feet ( 0 @. @ 60 ? 1 @. @ 5 m ) along the coast . In addition , high surf battered the shore . Minor storm surge flooding along portions of the Bolivar Peninsula caused \$ 95 @, @ 000 in damage . The coastal flooding forced the closure of and caused \$ 5 @, @ 000 in damage to Interstate 10 in Chambers County . Near Baytown , water flooded a few garages . Additionally , at least 27 homes in Gilchrist flooded . Two mobile homes and fifteen single @- @ family homes had 6 inches ( 150 mm ) of water ; as much as 18 inches ( 460 mm ) of water was reported in ten other single @- @ family houses . At the McFaddin and Texas Point National Wildlife Refuges , losses in the park totaled to \$ 100 @, @ 000 . Overall , effects from Tropical Storm Edouard in the state of Texas resulted in approximately \$ 200 @, @ 000 in damage .