

= Tropical Depression Five (2010) =

Tropical Depression Five was an Atlantic tropical cyclone that lasted for 12 hours , although its remnants persisted for almost another week . Its precursor was from a non @-@ tropical trough east of Florida , and on August 10 it developed in the southeastern Gulf of Mexico . It was the fifth depression of the 2010 Atlantic hurricane season . The system was declassified as a tropical cyclone the following day , a remnant circulation later moved over Louisiana and Mississippi , producing heavy rainfall and causing flooding . Along the Florida coast , the system produced heavy waves that contributed to two deaths . Moving inland , the remnants of the depression reached central Alabama before turning southward . The system nearly redeveloped into a tropical cyclone on August 16 after it again reached the Gulf of Mexico , but it became disorganized and turned northward into Mississippi . The depression twice caused BP to delay work in building a relief well to combat the Deepwater Horizon oil spill .

= = Meteorological history = =

The origins of the depression were from a dissipating cold front that extended from the northeast Gulf of Mexico across Florida on August 7 , connected to a weak non @-@ tropical low pressure area located several hundred miles east @-@ southeast of Jacksonville , Florida . The system had disorganized convection ? thunderstorms ? and moved generally southwestward after drifting against the Gulf Stream . Conditions were initially unfavorable for development , due to strong upper @-@ level wind shear and land interaction . By late August 9 , the low reached the southeastern Gulf of Mexico , and the National Hurricane Center (NHC) noted a medium chance for tropical or subtropical development , due to an anticipated decrease in wind shear . The convection gradually increased and became better organized , and a Hurricane Hunters flight late on August 10 confirmed the development of Tropical Depression Five about 120 miles (190 km) west of Fort Myers , Florida .

Upon being classified as a tropical cyclone , the tropical depression had a broad circulation and organized deep convection . It was located over very warm water temperatures , although the upper @-@ level environment was not conducive for significant intensification . Easterly wind shear was forecast , but the NHC anticipated the depression strengthening to 45 mph (75 km / h) before making landfall in Louisiana . Under the influence of a mid @-@ level ridge to its north , the depression was forecast to track generally northwestward . Early on August 11 , the convection diminished significantly due to the entrainment of dry air and vertical wind shear from a nearby upper @-@ level low . The circulation became difficult to locate ; however , conditions favored the redevelopment of the thunderstorm activity . One tropical cyclone prediction model forecast significant intensification to a minimum pressure of 968 mbar , and other models forecast the depression would reach hurricane status upon making landfall . As it continued to the northwest , the circulation remained broad and disorganized , and convection remained minimal . Late on August 11 , a Hurricane Hunters flight reported that the depression was no longer a tropical cyclone , and in post @-@ analysis , the NHC determined that the depression was only a tropical cyclone for 12 hours . Redevelopment was not anticipated .

The remnants of Tropical Depression Five moved ashore on Louisiana on August 12 , by which time the circulation had become better defined . A small circular area of convection was observed on radar approaching New Orleans , supported by diffluence from an anticyclone over Georgia . The system moved slowly , turning northeastward and tracking inland along southern Mississippi on August 13 . By late on August 14 , the remnants reached central Alabama and began to move southward due to a ridge to its north . The next day it reached the Florida Panhandle , and before the low reached open waters , the NHC assessed a 50 % chance for redevelopment due to favorable conditions . Early on August 16 , the low reached the Gulf of Mexico , and a Hurricane Hunters flight reported a weak circulation and convection that was disorganized and disassociated . Upper @-@ level conditions remained only marginally favorable , although the NHC noted that " only a small increase in organization would result in the formation of a tropical depression . " Early

on August 18 , the remnants of the system dissipated over Southwestern Mississippi .

= = Preparations and impact = =

Prior to becoming a tropical cyclone , the system dropped locally heavy rainfall in portions of southern Florida . Palm Beach International Airport recorded 2 @. @ 25 inches (5 @. @ 7 cm) on August 8 , a record for the date . The system spawned a weak tornado near Boca Raton , which downed a few trees and damaged shingles from one house . In Sarasota , high tides from the system affected 200 sea turtle nests , of which 20 had to be transported to a safer location . Once in the Gulf of Mexico , the developing system threatened the area affected by the Deepwater Horizon oil spill ; this prompted BP to stop operations temporarily in constructing a relief well . The same event occurred a week later when the depression was threatening to redevelop .

Upon issuing the first advisory on Tropical Depression Five , the NHC issued a tropical storm warning from Destin , Florida to Intracoastal City , Louisiana , including Lake Pontchartrain and New Orleans . Louisiana governor Bobby Jindal issued a state of emergency due to the threat from the depression . The remnants of the depression produced rough surf and riptides along the coast . In Panama City Beach , Florida , one man was hospitalized , and on Anna Maria Island , two elderly people died after being swept away by rip currents ; the deaths were believed to have been fatigue @- @ induced heart attacks , and not drowning . In the final advisory on the depression , the NHC noted the potential for the system to produce heavy rainfall across the southern United States . Accordingly , local National Weather Service offices issued flood watches for 12 Louisiana parishes and 8 Mississippi counties . While the depression moved through the region , it dropped heavy rainfall of up to 8 in (20 cm) around the New Orleans area , flooding streets as well as entering one apartment complex . Rainfall from the system extended as far inland as Atlanta , Georgia , where thunderstorms damaged three houses .

As the remnants moved southward toward the Gulf of Mexico , its associated thunderstorms struck Mobile , Alabama and produced heavy rainfall , estimated up to 4 in (10 cm) . The rainfall flooded several streets and damaged the city 's water line , and 1 @, @ 921 customers were left without power . When the remnants affected Mississippi a second time , the system dropped heavy rainfall that resulted in flash flooding near Sibley . The system caused about \$ 1 million in damage after floodwaters washed out a bridge and entered several buildings . As the system approached Louisiana for a second time , local National Weather Offices issued a coastal flood watch and a flash flood watch . Sixteen hours of intense rainfall occurred in Avoyelles Parish , flooding at least 40 buildings . Lightning killed three cows and destroyed a house , and damage was estimated around \$ 750 @, @ 000 . Further inland , the remnants interacted with a stationary cold front over central Tennessee , causing \$ 22 million in damage after heavy rainfall affected bridges , roads , and properties .