

= Hurricane Ethel (1960) =

Hurricane Ethel was one of two major hurricanes in the 1960 Atlantic hurricane season . The sixth known tropical cyclone , fifth named storm , and fourth hurricane of the season , Ethel developed from a disturbance in the Gulf of Mexico on September 14 . After becoming a tropical storm , Ethel rapidly intensified and became a hurricane six hours later . By early on September 15 , the storm reached major hurricane intensity when it became a Category 3 hurricane on the Saffir ? Simpson Hurricane Scale . At 0600 UTC on September 15 , Ethel intensified to its peak as a Category 5 hurricane . However , shortly thereafter , Ethel rapidly weakened back to a Category 1 hurricane while brushing eastern Louisiana . Later on September 15 , Ethel weakened to a tropical storm . Early on the following day , Ethel made landfall in Pascagoula , Mississippi . The storm gradually weakened inland , before eventually dissipating over southern Kentucky on September 17 .

Because the storm rapidly weakened before landfall , a potential " worst @-@ case scenario " was avoided . In Louisiana , the western edge of the storm produced light rainfall and hurricane @-@ force winds , though no damage occurred in that state . Offshore of Mississippi , rough seas inundated Horn Island and split Ship Island . Tropical storm force winds in the southern portion of the state littered broken glass , trees , and signs across streets in Pascagoula , as well as down power lines , which caused some residents to lose electricity . In Alabama , winds damaged beach cottages in cities along the Gulf Coast , and damaged crops in five counties in the southern portion of the state . Although large amounts of precipitation fell in the extreme western portions of the state , no flooding occurred in Florida . A lightning strike to a power station near Tallahassee caused a briefly city @-@ wide blackout . The storm spawned four tornadoes in Florida , one of which destroyed 25 homes . Outside the Gulf Coast of the United States , rain fell in other states , but no damage is known to have occurred . Overall , Ethel caused 1 fatality and \$ 1 @.@ 5 million (1960 USD) in damage .

= = Meteorological history = =

Hurricane Ethel originated from a small tropical disturbance over the Gulf of Mexico on the morning of September 14 , 1960 . It is estimated that Ethel developed into a tropical storm at 1200 UTC on that day , with an initial intensity of 45 mph (75 km / h) . The disturbance quickly developed within a region favoring intensification and the New Orleans Hurricane Warning Office issued their first advisory on the system , classifying it as an area of low pressure , at 1500 UTC . Roughly six hours after becoming a tropical storm , Ethel was upgraded to a hurricane as it underwent an intense phase of explosive deepening . By this time , gale @-@ force winds extended 150 miles (240 km) to the north of the center and 80 miles (130 km) to the south . Ethel further intensified into a major hurricane , as it approached the Gulf Coast of the United States .

Following a pass through the storm by a United States Navy reconnaissance plane , Ethel was declared a " severe hurricane " with winds reaching 160 mph (260 km / h) , equivalent to a modern @-@ day Category 5 hurricane on the Saffir ? Simpson Hurricane Scale . At the time these winds were measured , a barometric pressure of 972 mbar (hPa ; 28 @.@ 7 inHg) was recorded , the lowest in relation to the hurricane . However , shortly thereafter , cool , dry air began to entrain the storm , causing it to rapidly weaken . In a six @-@ hour span , the storm suddenly weakened to a Category 1 hurricane , a decrease of 70 mph (110 km / h) .

As Ethel neared landfall , forecasters within the United States Weather Bureau were unsure of the future track and intensity of the hurricane due to the unusual strengthening and weakening . Around 1100 UTC on September 15 , the center of Ethel brushed the coastline of Plaquemines Parish , Louisiana with winds of 90 mph (150 km / h) . Continuing northward , the hurricane further weakened to a tropical storm as it was approaching the Gulf Coast of the United States . Shortly before 0000 UTC on September 16 , Ethel made landfall in Pascagoula , Mississippi with winds of 70 mph (110 km / h) . Gradual weakening took place as the storm moved inland over Mississippi and by 1800 UTC on September 16 , Ethel was further downgraded to a tropical depression . The remnants of the former hurricane continued moving towards the north @-@ northwest before

dissipating on September 17 over southern Kentucky .

== Intensity ==

Although the US Navy reconnaissance plane recorded winds of 160 mph (260 km / h) , the actual peak intensity of Ethel has been in dispute since . Due to an abnormally high minimum barometric pressure of 972 mbar (hPa ; 28 @. 7 inHg) , it is believed that Ethel may have only peaked as a Category 2 hurricane , which is calculated with the pressure to wind relationship . In addition , the extreme intensification and rapid weakening deems it more unlikely that Ethel had peaked as a Category 5 hurricane . Ethel is expected to be downgraded to a low @-@ end Category 3 hurricane , with peak maximum sustained winds of 115 mph (185 km / h) , as part of the Atlantic hurricane reanalysis project .

== Preparations ==

Prior to Ethel 's arrival , adequate warning allowed roughly 12 @, @ 000 residents along the Mississippi coastline to evacuate to shelters , set up at churches and schools . Along a 200 miles (320 km) stretch of the Gulf Coastline , all fishing villages fully evacuated to safer places . In Louisiana , at least 2 @, @ 000 people had been evacuated from Grand Isle . Other towns were placed under emergency evacuations where Coast Guard boats were used to move residents to safer areas . Military aircraft were also moved from Keesler Air Force Base to other airfields across the country . Numerous schools and businesses were closed on September 15 in fears of a worst @-@ case scenario , a storm with 160 mph (260 km / h) winds passing directly over Mobile , Alabama , a city of roughly 150 @, @ 000 people . In Florida , the National Weather Bureau stated that preparations were not being undertaken fast enough nor as extensive as warranted . According to the Red Cross , 48 @, @ 000 people in the threatened region sought refuge in shelters ; civil defense stated that 65 @, @ 000 residents moved to shelters .

== Impact ==

Before the storm weakened rapidly , people feared a large storm surge over much of southeastern Louisiana . Preparing for the storm induced stress , which in one person contributed a fatal heart attack . In Louisiana , a compact , rapidly weakening Hurricane Ethel brought significant wind and rain primarily east and southeast of New Orleans . However , the storm caused a maximum surge of only 7 feet (2 @. 1 m) . Although Ethel weakened significantly , the hurricane still lashed far southeastern Louisiana . At the United States Coast Guard station in Quarantine in Plaquemines Parish , Louisiana , sustained winds reached 92 miles per hour (148 km / h) . A weather station in Venice reported a sustained wind speed of 90 miles per hour (140 km / h) and gusts to 105 miles per hour (169 km / h) . Rainfall totals included 7 @. 45 inches (189 mm) at Quarantine , 5 @. 66 inches (144 mm) at Hopedale , 5 @. 50 inches (140 mm) at Buras , 4 @. 85 inches (123 mm) at Burrwood , and 2 @. 90 inches (74 mm) at Port Sulfur .

Hurricane Ethel caused substantial beach erosion throughout the barrier islands of Mississippi but brought a relatively small storm surge of 5 feet (1 @. 5 m) along the populated coastline . Roughly 1 @. 8 miles (2 @. 9 km) of the east end of Horn Island (Mississippi) was lost . The storm also split Ship Island into two islands , east and west Ship Islands . However , few knew of this split until Hurricane Camille in 1969 Atlantic hurricane season substantially widened the split . The sustained wind reached a maximum of 56 miles per hour (90 km / h) in Biloxi , Mississippi . Throughout the Mississippi Gulf Coast , winds reached gusts approached 70 miles per hour (110 km / h) . In Pascagoula , Mississippi , broken glass , fallen trees and signs covered the streets . Several areas were also flooded and power was lost in area where power lines were downed by high winds . Following the storm , Governor of Mississippi Ross Barnett ordered 100 Mississippi National Guard to Pascagoula and requested other troops in other areas .

High winds also affected Alabama , reaching 60 miles per hour (97 km / h) and gusts of 70 miles

per hour (110 km / h) at Fort Morgan (Alabama) . Slight damage to beach cottages occurred in Dauphin Island and Gulf Shores and along Mobile Bay . Minor crop losses were reported in Clarke , Escambia , Mobile , Monroe , and Washington counties . The storm spawned at least one tornado in the state , which demolished a barn , damaged a house , uprooted several trees , and destroyed a cotton field in Gosport .

Hurricane Ethel also brought heavy rains and strong winds to much of the Florida Panhandle . A maximum of 12 @.@ 94 inches (329 mm) of rain fell at an agricultural experiment station near Milton , Florida , the highest total measured at an official station and attributed to this storm . Hurricane Donna struck Tampa , Florida , particularly hard earlier in the month , causing major flooding of Hillsborough River (Florida) at Zephyrhills , Florida on 12 September . People feared severe flooding of the Hillsborough River into Tampa , which did not occur . The highest wind gust in the state was 50 miles per hour (80 km / h) , measured in both Pensacola and Apalachicola . A thunderstorm associated with Ethel produced lightning that hit a power station near Tallahassee , causing a city @-@ wide blackout for 10 minutes (600 s) . According to Florida Highway Patrol , Ethel directly caused damage of \$ 100 @,@ 000 (1960 USD) in the state . Additionally Ethel spawned four tornadoes in Florida , one of which reached F2 intensity and damaged or destroyed 25 homes near Panama City .

Beyond the Gulf Coast of the United States , Ethel dropped rainfall in the states of Georgia , South Carolina , North Carolina , causing little if any damage . Throughout its path , Ethel caused \$ 1 @.@ 5 million (1960 USD) in damage and one indirect fatality .