

= Hurricane Carmen =

Hurricane Carmen was the most intense tropical cyclone of the 1974 Atlantic hurricane season . A destructive and widespread storm , Carmen originated as a tropical disturbance that emerged from Africa toward the end of August . The disturbance traveled westward , spawning a tropical depression east of the Lesser Antilles on August 29 . The storm moved through the Caribbean Sea , and in an environment conducive to intensification , it quickly strengthened to its initial peak intensity as a Category 4 hurricane on the Saffir ? Simpson Hurricane Scale . Carmen moved ashore on the Yucatán Peninsula , where , despite striking a sparsely populated region , it caused significant crop damage and killed several people . Before the storm 's arrival , officials had set up several evacuation centers , and many residents had moved to higher ground .

Upon entering the Gulf of Mexico , Carmen turned northward and re @-@ intensified as it approached the United States . Initially threatening the major city of New Orleans , it veered westward and made landfall on the marshland of southern Louisiana , eventually dissipating over eastern Texas on September 10 . Tropical cyclone watches and warnings had been issued for the storm , and approximately 100 @, @ 000 residents left their homes and sought shelter . Damage was lighter than first feared , but the sugar industry suffered substantial losses . Throughout its course , the hurricane killed 8 people and caused \$ 162 million in damage . Due to the severity of the storm , the name Carmen was retired from the list of Atlantic tropical cyclone names .

= = Meteorological history = =

The origins of Hurricane Carmen can be traced to a weather disturbance over Africa during the middle of August 1974 . The disturbance moved slowly westward with little convective activity initially , although upon entering the Atlantic Ocean , it spawned a tropical wave within the Intertropical Convergence Zone . The wave had intensified and broadened by August 25 , and it eventually split into two components , the northernmost of which consolidated into an organized storm system . Moving westward , the system developed into a tropical depression on August 29 , more than 200 mi (320 km) east of Guadeloupe . Due to favorable outflow from an anticyclone nearby , the depression gradually strengthened as it moved through the Lesser Antilles . It attained tropical storm status on August 30 , south of Puerto Rico , and was named Carmen by the National Hurricane Center . At first , the storm 's proximity to Hispaniola prevented further strengthening , but by August 31 , it had managed to intensify into a Category 1 hurricane on the Saffir ? Simpson Hurricane Scale . As Carmen passed south of Jamaica , an eye feature briefly appeared .

On September 1 , the hurricane began to rapidly deepen over warm waters of the Caribbean Sea ; by 1800 Coordinated Universal Time (UTC) , it had strengthened to Category 4 intensity . Continuing westward , the storm passed north of Swan Island later that day . Early on September 2 , a double eyewall appeared on satellite imagery . Carmen 's forward movement gradually slowed as the storm took a west by north direction , and it reached its initial peak intensity with maximum sustained winds of 150 mph (240 km / h) , accompanied by a central barometric pressure of 928 mbar (hPa ; 27 @. @ 4 inHg) . Atmospheric steering currents became increasingly weaker , and Carmen slowed to a drift . Later on September 2 , the hurricane made landfall on the Yucatán Peninsula ; its northern jog spared Belize City from a direct hit . The storm 's center passed a few miles north of Chetumal , Quintana Roo .

The cyclone drifted inland , deteriorating to a tropical storm on September 3 . About a day later , Carmen emerged into the Gulf of Mexico , where it nearly stalled . Turning northward , the storm regained hurricane strength on September 5 . Carmen continued to strengthen and accelerated northward towards the United States Gulf Coast , reaching a forward speed of 12 mph (19 km / h) ; at 0000 UTC on September 7 , it once again became a Category 3 major hurricane . The storm reached its second peak intensity while located south of Louisiana ; although the wind speeds were identical to that of its initial peak , the barometric pressure was slightly higher . Carmen weakened and veered westward before landfall , ultimately striking south @-@ central Louisiana . After moving ashore , the hurricane quickly lost strength and late on September 9 degenerated into a tropical

depression . The depression moved westward and soon dissipated over eastern Texas .

= = Preparations = =

Initial reactions to the approaching hurricane in the Yucatán Peninsula were regarded as calm by the United States media . Mexican officials declared an emergency alert by September 2 , although they did not advise any evacuations . Meteorologists in the United States urged those living near the coast to move inland immediately . Fearing significant loss of life and property , the Red Cross began preparations for the approaching hurricane in Belize . The following day , the Mexican Army rushed to set up emergency operation centers and shelters in five cities . Mobile communication units and relief teams were prepared for deployment following the storm 's passage . Many of the nearly 35 @, @ 000 residents in and around the city of Chetumal evacuated to higher ground .

Although it initially threatened the United States city of New Orleans , the hurricane turned west prior to making landfall and spared the area from severe damage . Contrary to its actual path , forecasters predicted the hurricane to execute an eastward swerve toward Florida . Had the cyclone instead continued northward and traveled over Lake Pontchartrain , low @-@ lying areas could have suffered " catastrophic " flooding . Over 100 @, @ 000 residents of the Gulf Coast , mostly in Louisiana and Mississippi , evacuated in advance of the hurricane , causing heavy congestion on highways . About 60 @, @ 000 people sought shelter in facilities across the New Orleans region , according to Red Cross officials .

Hurricane warnings were issued along the coast , while Coast Guard personnel went door @-@ to @-@ door on Grand Isle urging residents to leave the area . From there through the coast of southwestern Florida , small craft were advised to remain near shore due to rough seas . Offshore , workers were removed from oil rigs . Many Mississippi citizens , having experienced the destruction of Hurricane Camille just five years earlier , quickly left their coastal homes .

= = Impact = =

As a tropical depression and storm , Carmen produced moderate rainfall across Puerto Rico and the northern Lesser Antilles , peaking at 5 @. @ 91 in (150 mm) in Jajome Alto , Puerto Rico . The storm spawned a tornado on Puerto Rico and triggered flash flooding , which collectively left over \$ 2 million in damage . Winds approaching gale force affected several islands . Heavy rain fell on Hispaniola as the storm progressed westward , and on Jamaica , the storm caused three drownings . High winds and heavy rainfall were reported there and in Cuba . The hurricane damaged local reefs on the north shore of Jamaica during its passage .

Following the storm , the name Carmen was retired from the annually rotating list of hurricane names . However , due to a change in the naming scheme in 1979 , it was not replaced by any particular name .

= = = Yucatán Peninsula = = =

Although Carmen made landfall as a powerful Category 4 hurricane , it caused significantly less damage than anticipated because it struck a sparsely populated region . However , torrential rainfall from the storm inundated farmland across the region , ruining rice crops . The fishing industry also sustained major losses . Communication with the hardest hit regions was lost following Carmen 's passage ; however , early reports stated that at least five people were injured . Several days later , officials in Mexico confirmed that three people had been killed by the storm . The city of Chetumal was described as a " disaster " , and hundreds of people were left homeless . More than 5 @, @ 000 people in the city lost their belongings as a result of the storm . Officials in the area estimated that damage in Chetumal alone reached \$ 8 million (1974 USD) . Throughout the Yucatán Peninsula , Hurricane Carmen claimed four lives and wrought \$ 10 million (1974 USD) in damage .

Following Carmen 's passage , officials feared the worst for an area of 1 @, @ 000 mi² (2 @, @ 590 km²) where communication was lost in Belize . A reconnaissance task force was sent out from

Belize City the day after Carmen made landfall to assist any residents stranded by the storm . One person was killed off the coast of Belize after being washed off his boat by large swells produced by Carmen . Three other fishermen were listed as missing following similar incidents . Thousands of people moved from coastal areas inland to escape the storm . Crop damage in the country was reportedly severe .

= = = United States = = =

Carmen dropped moderate rainfall along its path , though the heaviest rainfall occurred well to the east of the storm 's center , in southern Alabama and the northern Florida Panhandle . Precipitation peaked at over 13 in (330 mm) in Atmore , Alabama . Winds gusted up to 86 mph (138 km / h) , and along the coast tides ran as high as 6 ft (1 @. @ 8 m) above normal . Over northwestern Louisiana , winds ranged from 40 to 45 mph (64 to 72 km / h) and brought down several trees . In New Orleans , despite wind gusts to 72 mph (116 km / h) , minimal damage was reported . The hurricane 's effects in Baton Rouge were confined to strewn debris and a few downed trees . Because Carmen moved ashore over uninhabited marshland , it caused far less damage than initially feared . Nonetheless , tidal flooding from the Gulf of Mexico and coastal bodies of water was severe . Freshwater flooding was less extreme . In total , the storm inundated 2 @, @ 380 @, @ 500 acres (963 @, @ 400 ha) of land in Louisiana , including 742 @, @ 300 acres (300 @, @ 400 ha) in Terrebonne Parish and 590 @, @ 000 acres (240 @, @ 000 ha) in Plaquemines Parish .

The storm 's greatest impact was the loss of sugar cane crops in Louisiana . An estimated 308 @, @ 000 acres (125 @, @ 000 ha) of sugar cane in 16 parishes was damaged , and about 20 percent was completely ruined . After a tour of the affected area , then @- @ Governor Edwin Edwards estimated crop damage alone at \$ 400 million , although a more recent estimate placed total agricultural damage from the hurricane at \$ 74 million . The sugar cane crop was crucial to the country 's sugar supplies , rendering the losses " doubly bad " , and sugar futures rose drastically after the storm . Other crops damaged by Carmen included soybeans , rice , and cotton .

Tidal action along the coast affected the balance of salinity in coastal marshes and water bodies . The sudden intrusion of saltwater stressed delicate plants . Fish , shrimp and oysters also suffered the ecological effects of Hurricane Carmen . Flooding on land caused some wildlife to drown . Several parks in Louisiana sustained damage , either from flooding or high winds ; losses to Grand Island State Park in particular totaled \$ 114 @, @ 600 . The oil and gas industry was also affected , and its estimated \$ 24 @. @ 7 million in losses resulted mainly from damage to equipment and offshore facilities . The storm diminished oil production by 1 @. @ 4 million barrels when it shut down operations for 24 to 48 hours at various locations . Over 60 @, @ 000 electric cooperative customers lost power .

The hurricane caused two fatalities in Louisiana : a utility repairman who was electrocuted while working on power lines damaged by strong winds , and a motorist who was involved in a storm @- @ related traffic accident . Total monetary losses in the state was estimated \$ 150 million . Overall , the hurricane spawned four confirmed tornadoes . One touched down near Brandon , Mississippi , destroying a barn and causing other damage . Another struck Kaplan , Louisiana , injuring one person . The storm 's effects in Mississippi were described as minimal and were mainly confined to minor traffic accidents during bouts of heavy precipitation . Light to moderate rainfall from the storm extended as far east as Florida and Georgia and as far west as Oklahoma and Texas .