

= Hurricane Erika (2003) =

Hurricane Erika was a weak hurricane that struck extreme northeastern Mexico near the Texas @-@ Tamaulipas border in mid @-@ August of the 2003 Atlantic hurricane season . Erika was the eighth tropical cyclone , fifth tropical storm , and third hurricane of the season . At first , the National Hurricane Center (NHC) operationally did not designate it as a hurricane because initial data suggested winds of 70 mph (115 km / h) at Erika 's peak intensity . It was not until later data was analyzed that the NHC revised it to Category 1 intensity in the Saffir @-@ Simpson Hurricane Scale . The storm developed from a non @-@ tropical area of low pressure that was tracked for five days before developing in the eastern Gulf of Mexico on August 14 . Under the influence of a high pressure system , Erika moved quickly westward and strengthened under favorable conditions . It made landfall as a hurricane on northeastern Mexico on August 16 and rapidly dissipated inland .

While Erika 's precursor disturbance was moving across Florida , it dropped heavy rainfall . In south Texas , Erika produced moderate winds of 50 to 60 mph (80 to 95 km / h) along with light rain , causing minor and isolated wind damage in the state . In northeastern Mexico , Erika produced moderate amounts of rainfall , resulting in mudslides and flooding . There , two people were killed when their vehicle was swept away by floodwaters .

= = Meteorological history = =

A weak surface area of low pressure detached from a frontal system on August 8 while 1 @, @ 150 miles (1 @, @ 850 km) to the east of Bermuda . It moved southwestward , and on August 9 , it generated convection as it passed beneath a cold @-@ core upper @-@ level low . The surface low and the upper @-@ level low turned westward as it revolved around a common center , and by August 11 , the surface low developed into a trough while 440 miles (700 km) south of Bermuda . As the system rapidly continued westward , much of the convection remained near the center of the upper @-@ level low , preventing development of a closed surface circulation . On August 13 , while located near the northwestern Bahamas , a substantial increase in convection resulted in the upper @-@ level low building downwards to the middle levels of the troposphere , coinciding with the development of an upper level anticyclone .

A closed low @-@ level circulation nearly developed on August 14 to the east of Key Largo , Florida , but it weakened due to the deep convection remaining to the north over the mid @-@ level center . The mid @-@ level storm continued westward and moved across Florida . After crossing Florida , Hurricane Hunters indicated a poorly defined circulation , but with winds exceeding tropical storm strength , and the system was designated as Tropical Storm Erika late on August 14 while located 85 miles (135 km) west of Fort Myers .

With well @-@ established outflow and low levels of wind shear , Erika strengthened as the circulation became better defined . A high pressure system persisted over the south @-@ central United States , forcing the storm to move just south of due west at 25 mph (40 km / h) . On August 15 , convection organized into bands , and as its winds approached hurricane strength , an eye developed within the storm . Erika turned to the west @-@ southwest on August 16 , and attained hurricane status just prior to making landfall near Boca San Rafael , Tamaulipas in northeastern Mexico , or about 40 miles (70 km) south of the United States ? Mexico border . The storm rapidly weakened over the mountainous Sierra Madre Oriental , and Erika dissipated early on August 17 . The mid @-@ level circulation maintained integrity as it crossed Mexico , and led to the formation of a tropical disturbance after entering the Gulf of California on August 18 . It turned to the northwest and weakened on August 20 .

Operationally Erika was never upgraded to hurricane status . Based on a persistent eye feature on radar and Doppler weather radar @-@ estimated surface winds of 75 mph (120 km / h) , the National Hurricane Center posthumously upgraded Erika to a hurricane .

= = Preparations = =

The threat of Erika 's onslaught prompted the evacuation of 51 oil platforms and 3 oil rigs in the western Gulf of Mexico . The lack of production led to a loss of production of 8 @, @ 708 barrels (1 @, @ 384 @. @ 5 m3) of oil per day and 173 @. @ 14 million cubic feet (4 @, @ 903 @, @ 000 m3) of natural gas per day . On the day of its landfall , the lack of production led to 1 @, @ 979 less barrels of oil for the day , or about 0 @. @ 12 % of the total daily production for the Gulf of Mexico , while the loss of 32 million cubic feet (910 @, @ 000 m3) of gas for the day was equivalent to 0 @. @ 23 % of the total production . However , due to its rapid motion , the passage of the storm resulted in minimal effects on operations .

While the storm was located in the eastern Gulf of Mexico on August 15 , the National Hurricane Center issued a Hurricane Watch and Tropical Storm Warning from Brownsville to Baffin Bay , Texas . The center also recommended a Hurricane Watch spanning from Soto la Marina , Tamaulipas to the international border . Late that same day , when strengthening was underway , a Hurricane Warning was either issued or recommended from La Pesca , Mexico to Baffin Bay , Texas , though the warnings for south Texas were dropped when a more southward motion occurred . Just one month after Hurricane Claudette caused millions in damage in south Texas , the fast movement of Erika caught citizens by surprise as it was forecast to make landfall near Brownsville . Citizens and business owners boarded up for the storm . About 10 @, @ 000 were evacuated from northeastern Mexico due to the threat for flooding , including 2 @, @ 000 in Matamoros .

= = Impact = =

The precursor disturbance was expected to bring heavy , yet needed rainfall to the Bahamas . The precursor disturbance dropped heavy precipitation while moving across Florida , including in Indian River County , and also produced 6 ? 8 ft (1 @. @ 8 ? 2 @. @ 4 m) waves with moderate wind gusts .

Erika produced light rainfall across southern Texas , peaking at 3 @. @ 83 inches (97 mm) in Sabinal , though most locations reported less than two inches (50 mm) of precipitation . In addition , weather radar estimated isolated accumulations of 4 to 6 inches (100 to 150 mm) of precipitation in Kenedy and Brooks Counties . Sustained winds from Erika in south Texas peaked at 39 mph (62 km / h) in Brownsville , where a gust of 47 mph (75 km / h) was also recorded . Strong waves were reported northwards to Corpus Christi . The storm caused minor flooding and beach erosion along South Padre Island . Strong wind gusts of up to 60 mph (95 km / h) caused isolated , minor wind damage in south Texas , including in South Padre Island , where the winds damaged the roof of a business . The winds also uprooted a large tree and caused limb damage to several small- to medium @- @ sized trees in Brownsville . In Texas , damage totaled to \$ 10 @, @ 000 (2003 USD , \$ 12 @. @ 9 thousand 2016 USD) .

In Mexico , Hurricane Erika primarily affected the states of Tamaulipas and Nuevo León , but also had effects on Coahuila as well . Rainfall peaked at 6 @. @ 71 inches (170 @. @ 5 mm) in Magueyes in Tamaulipas . Several other locations reported over 3 inches (76 mm) , including 4 @. @ 02 inches (102 mm) in Cerro Prieto , which was the maximum amount in the state of Nuevo León , and 3 @. @ 42 inches (86 @. @ 8 mm) in Monterrey , where 30 people were injured . Sustained winds peaked at 40 mph (65 km / h) in San Fernando , where a gust of 65 mph (105 km / h) was also reported . The heavy rainfall resulted in severe flooding and mudslides , blocking several highways in northeastern Mexico . In Matamoros , the storm damaged roofs and cars . Moderate winds snapped tree branches and spread debris across roads , though locals considered the storm minor . In the Nuevo León city of Montemorelos , two people died when they were swept away after they drove their truck across a partially flooded bridge . Throughout Mexico , 20 @, @ 000 people were left without power due to the storm . The remnant circulation produced heavy amounts of precipitation in western Mexico and Baja California .