= Hurricane Nora (2003) =

Hurricane Nora was the final of five tropical cyclones to make landfall in the 2003 Pacific hurricane season . The fourteenth named storm and fifth hurricane of the season , Nora developed on October 1 from a tropical wave . It slowly intensified as it moved northwestward , intensifying into a hurricane on October 4 . That day , Nora rapidly intensified to its peak of 100 mph (160 km / h) , but the larger Hurricane Olaf to its east prevented further strengthening . An approaching trough turned the rapidly weakening system to the east toward Mexico . By October 7 , it was downgraded to a tropical depression . Although it no longer met the criteria for being a tropical cyclone , the National Hurricane Center continued issuing advisories due to the cyclone 's proximity with land . Nora unexpectedly redeveloped an area of thunderstorms and moved ashore near Mazatlán , Sinaloa on October 9 before dissipating . The depression dropped locally heavy rainfall in western Mexico , but there were no reports of damage . Later , the remnants combined with Olaf and an upper @-@ level low to produce flooding and a tornado in central Texas .

= = Meteorological history = =

The origins of Nora were from a tropical wave that exited the west coast of Africa on September 13 . It moved westward across the Atlantic Ocean and Caribbean Sea without developing . The wave axis crossed Central America on September 25 , with its convection tracking westward along the southern Mexican coastline . On September 29 , the system became better organized when it reached a position about 100 mi (160 km) south of Acapulco . Although upper @-@ level wind shear was only marginally favorable , the National Hurricane Center first noted the potential for tropical cyclogenesis on September 30 over the subsequent few days . This verified on October 1 after the thunderstorms organized enough for the system to be classified as Tropical Depression Fourteen @-@ E. At the time , it was located about 600 mi (975 km) south of the southern tip of the Baja California peninsula .

Upon developing , the depression had a well @-@ defined low @-@ level circulation , and with a ridge to the north , it moved south of due west . Conditions favored further development , including low wind shear and warm water temperatures . The convection gradually organized , and the depression intensified into Tropical Storm Nora early on October 2 . Its motion briefly became nearly stationary as Nora rounded the furthest extent of the ridge , although a steady motion to the northwest began on October 3 . That day , an eye feature developed in the center of the deep convection , and Nora attained hurricane status early on October 4 . Steady intensification continued to winds of 100 mph (160 km / h) by later that day , and favorable conditions were expected to allow the hurricane to reach major hurricane status , or winds of 115 mph (185 km / h) . However , Nora did not intensify further , due to unfavorable increased wind shear from the developing Tropical Storm Olaf to its east .

By October 5 , the eye of Nora was no longer evident on satellite imagery , which indicated the beginning of a weakening trend . However , a Special Sensor Microwave / Imager observed a small eye that was open to the northwest . The convection became ragged , and on October 6 the winds decreased below hurricane @-@ force . Around the same time , a strong approaching mid @-@ level trough caused Nora to slow and turn to the east . Continued wind shear and the presence of dry air stripped the thunderstorms away from the center , and by October 7 all of the deep convection had dissipated . As a result , it was downgraded to a tropical depression , and Nora weakened to the extent that it barely met the criteria for being a tropical cyclone . The NHC maintained advisories due to the circulation 's proximity to western Mexico , as well as the unlikely potential for redeveloping thunderstorms due to its movement over warmer waters . Nora accelerated to the east @-@ northeast and later to the northeast due to the advancing trough . As it approached western Mexico , an area of curved convection unexpectedly developed over the center . Without additional redevelopment , the poorly defined circulation of Nora made landfall near Mazatlán , Sinaloa early on October 9 . It dissipated shortly thereafter over the high terrain of western Mexico .

= = Preparations and impact = =

As Nora was expected to move ashore as a tropical depression , the National Hurricane Center did not issue any tropical storm warnings or watches . However , the Servicio Meteorológico Nacional , or Mexico 's National Weather Service , issued 46 advisories and 16 caution bulletins on the storm . As the storm moved parallel to the Mexican coastline , it produced high waves . Later , when Nora moved ashore in Sinaloa , it dropped locally heavy rainfall . The peak 24 ? hour total was 3 @.@ 75 in (95 @.@ 3 mm) in Mazatlán , Sinaloa , recorded on October 8 . The rainfall maximum for the previous day was 3 @.@ 43 in (87 @.@ 0 mm) in Gaviotas , Nayarit . Rainfall from Nora extended was also reported along the Baja California peninsula , and also extended from the coastline northward to near Texas . Its impact was minimal in western Mexico , and there were no reports of damage , deaths , or injuries .

Moisture from the remnants of Nora and Olaf interacted with an upper @-@ level low to produce heavy rainfall across Texas , producing flooding near Waco that forced a family to evacuate in McGregor . The floodwaters closed portions of Interstate 35 , U.S. Route 84 , and Texas State Highway 36 . The system also spawned a tornado in Sugar Land that damaged four buildings , including a school .

Nora was the final Pacific storm of the season to strike Mexico . The others were hurricanes Ignacio and Marty , and tropical storms Carlos and Olaf .