

= Tropical Storm Karina (2008) =

Tropical Storm Karina was a weak , short @-@ lived tropical cyclone that developed during the 2008 Pacific hurricane season . The 12th tropical cyclone and 11th named storm of the season , it originated out of a tropical wave in the North Atlantic hurricane basin . The wave entered the Pacific Ocean on August 30 and spawned an area of low pressure off the western coast of Mexico on the morning of September 1 . The low had become sufficiently organized to be declared a tropical depression the next morning . The depression quickly developed into a tropical storm later in the morning , at which time it was named Karina and reached its peak intensity of 40 miles per hour (65 km / h) with a minimum pressure of 1000 mbar (hPa ; 29 @.@ 54 inHg) . Later that day , after being classified a tropical storm for 12 hours , wind shear weakened the storm to a depression on September 3 and it dissipated shortly thereafter .

= = Meteorological history = =

Tropical Storm Karina originated from the southern portion of the tropical wave ? a tropical wave is an elongated low pressure area embedded within the easterly trade winds ? that also spawned Hurricane Gustav in the Caribbean Sea . The wave crossed Central America and entered the eastern Pacific basin on August 28 . After two days , the wave spawned an area of low pressure south of Manzanillo , Mexico . The low was located beneath an area of moderate convection , but was nearing cooler waters and a moist , yet stable , air mass . By later that night , a low @-@ level circulation developed partially underneath deep thunderstorm activity . In an area favorable for development , a tropical cyclone formation alert was issued on September 2 . However , strong easterly shear separated the showers and thunderstorms from the center of circulation . Despite the shear , sufficient convection developed around the center ; the National Hurricane Center (NHC) classified it a tropical depression at 0600 UTC , while centered about 390 miles (630 km) south of the southern tip of Baja California . The NHC initially did not recognize the system as a tropical depression and did not initiate advisories on it until several hours later . The depression quickly intensified into a tropical storm due to a brief relaxation of the wind shear and was given the name Karina while located about 25 mi (40 km) north of Socorro Island .

Karina was located to the south of a weakening mid @-@ level ridge , leading to a relatively slow west @-@ northwest movement at 9 mph (15 km / h) . Upon becoming a tropical storm , Karina reached its peak with winds of 40 mph (65 km / h) . There was uncertainty as to the intensity of the storm , as the Dvorak technique ? a system used to estimate the intensity of a tropical cyclone ? rendered an intensity of 50 mph (80 km / h) ; but because the center of the storm had just moved under the deep convection , the winds were held at minimal tropical storm intensity . That night , 12 hours after being declared a tropical storm , Karina was downgraded to a tropical depression . Strong easterly wind shear of at least 25 mph (40 km / h) tore away the deep convection that previously surrounded Karina . Karina was moving into a stable environment over cooling waters which would prevent convection from redeveloping , despite a forecast of lessening wind shear . The forward motion gradually decreased . By the morning of September 3 , convection had been sheared 125 mi (200 km) from the center of circulation , leaving only a swirl of clouds . Karina degenerated into a remnant low @-@ pressure area later that morning and the NHC issued their final advisory . The remnant low quickly dissipated that afternoon .

= = Preparations and impact = =

When the National Hurricane Center issued its first advisory on Karina , the storm was near the island of Socorro . There were no known preparations taken before the storm , as the island is mainly a natural reserve and the only inhabitants reside in a military base . On Clarion Island , residents took minor actions to prepare for possible impact from the storm . Officials advised residents to cancel all coastal activities and comply with advice from the National Civil Protection . Small crafts were advised to exercise extreme caution . In Cabo San Lucas , officials closed the port

due to high waves produced by Karina ; small crafts such as water taxis and jet skis were to remain at the port . Port officials in Oaxaca and Chiapas advised boaters of strong winds , rain , and low visibility that they may encounter when nearing the seas around Karina . Despite the proximity to Socorro , no damage was reported and Karina remained far enough away from Clarion that there was no impact on the island . There were no ship reports of tropical storm @-@ force winds .