= Hurricane Elida (2008) =

Hurricane Elida was the sixth tropical cyclone , fifth named storm , and second hurricane of the 2008 Pacific hurricane season . Elida formed out of a weak tropical wave which formed off the western coast of Central America on July 8 . The wave remained poorly organized over the next two days before developing a surface low . The low was declared Tropical Depression Six @-@ E on July 11 while located to the south of Guatemala . The depression intensified into Tropical Storm Elida the next morning . It intensified steadily over the next two days before being upgraded to a hurricane . The storm fluctuated in intensity over the next several days before reaching its peak intensity on July 16 with winds of 105 mph (165 km / h) . Elida slowly weakened as it passed over cooling waters and was downgraded to a tropical storm on July 18 and further downgraded to a tropical depression on July 19 . The cyclone degenerated into a remnant low shortly after , and completely dissipated on July 21 over open waters .

= = Meteorological history = =

Hurricane Elida developed out of a weak tropical wave which formed off the western coast of Central America on July 8 . It is possible that the wave formed in the Atlantic Ocean , but there is little evidence to support this theory . The system remained poorly organized for two days before gaining enough convection to be classified using the Dvorak technique on July 10 , while located 290 mi (465 km) south of Guatemala . Later that day , a surface low developed but convection remained minimal . During the night and through the morning of July 11 , convection increased sufficiently and a tropical cyclone formation alert was issued . By the end of the day , the storm had become Tropical Depression Six @-@ E , six hours earlier than the operational data . At the time of the upgrade , the depression was located 360 mi (580 km) south @-@ southeast of Puerto Angel , Mexico . The depression was moving towards the west @-@ northwest at 16 mph (26 km / h) due to a low to mid @-@ level ridge located to the north of the storm .

The depression was upgraded to Tropical Storm Elida early on July 12 while located 200 mi (370 km) south of Puerto Angel , Mexico . Elida 's forward motion slowed somewhat as it neared the southwestern edge of the mid @-@ level ridge . Deep convection developed around the center of circulation and a strong banding feature formed along the western side of the storm . Slow strengthening took place throughout the morning as the center remained underneath the deep convection . Outflow to the north of the storm was slightly restricted , indicating that there was some easterly wind shear . During the afternoon , a well defined banding feature appeared , but the outflow to the north remained highly constricted . Elida began to move slightly faster , still being influenced by the mid @-@ level ridge . The foreword motion was forecast to slow down in the two- to three @-@ day range as it moved away from the ridge . Overnight , wind shear began to weaken and outflow to the north of Elida was established . By the morning of July 13 , banding features and outflow were present all around the storm , but wind shear managed to keep the center of Elida slightly displaced from the deepest convection . The movement of a weakening mid to upper @-@ level trough would allow Elida to make a westerly turn . Later in the morning , the wind shear lessened and in the early afternoon , a burst of convection near the center of Elida had formed , but subsequently weakened .

Although Elida initially failed to develop an eyewall. in the early afternoon hours , satellite indicated the formation of an eye . Based on this , Elida was upgraded into a hurricane . In the late morning hours , Elida intensified slightly. and a ragged eye appeared in the afternoon as the structure of the storm improved . At this point , forecasters thought the Elida had peaked in intensity or was near its peak . Elida 's direction shifted from a west @-@ northwest to west as the ridge located to the north of the storm began influencing the trajectory . The eye disappeared shortly afterwords. as easterly wind shear began to increase . Elida slowly weakened and by the afternoon , Elida was barely holding onto hurricane status . Despite this , Elida became better organized overnight as convection wrapped around the eye .

On the morning of July 16 , the eye appeared on infrared satellite and cirrus outflow improved all

around the system ; however , Elida was nearing cooler waters . The mid @-@ level ridge to the north of Elida was now forecast to move with the storm , ensuring westward motion and slightly increasing the foreword speed to 12 mph (19 km / h) . Elida accelerated slightly and maintained a westerly motion . The eye quickly disappeared from infrared satellite later in the morning , but deep convection persisted on the eastern side of the center of circulation . In the afternoon , an eye appeared embedded in the deep convection and Elida intensified into a category two hurricane with winds of 105 mph (165 km /) while located 630 mi (1015 km) southwest of Cabo San Lucas , Mexico . By the nighttime hours , thunderstorm activity in the northern semicircle of Elida waned and cold waters began to take their toll on Elida as the eye became cloud filled and less distinct . In the late morning , Elida weakened to a category one hurricane as determined in the tropical cyclone report . Despite continuing deep convection near the center of Elida and even an embedded eye , the center was lagging behind , making the storm slightly tilted . Elida produced a large amount of deep convection overnight , but the winds continued to lessen . The storm continued to move over colder waters , but wind shear was forecast to lessen , leading to slow , steady weakening .

By the morning of July 18 , thunderstorm activity associated with Elida diminished further and the storm was downgraded to a tropical storm . Despite being over very cool waters , Elida managed to maintain a small area of deep convection as it slowly weakened . By the afternoon , most of the convection had dissipated and all that remained . The small area of convection shifted to the east side of the center overnight , allowing Elida to remain a tropical storm with winds barely at 40 mph (65 km / h) . By the morning of July 19 , Elida was traversing waters of 23 ° C (73 ° F) and all the deep convection had dissipated . Due to the lack of convection , Elida was downgraded to a tropical depression . Cold waters prevented any convection from redeveloping in the late morning , and it was unlikely that any convection would form . Elida was later declared a remnant low that afternoon as the system had been devoid of convection for hours . The remnant low continued moving towards the west @-@ southwest before dissipating into an open trough on July 21 while located 690 mi (1 @,@ 110 km) east @-@ southeast of the Hawaiian Islands .

= = Preparations and impact = =

Due to the proximity of Elida to Mexico , the Government of Mexico warned residents about the possibility of heavy rains from the outer edges of the storm . Thunderstorms related to Elida developed over Oaxaca , Guerrero , Michoacán , Colima and Jalisco . In Nayarit , Elida produced storms that dropped torrential rainfall and hail that injured at least one person . The rainfall resulted in the formation of a lake roughly 45 cm (18 in) deep . Several trees feel , blocking streets for several hours . Street flooding reached a depth of 20 cm (7 @.@ 9 in) , inundating shops and some homes . Indirect effects , such as large swells , were felt along the Mexican coastline as the storm produced waves up to 4 m (13 ft) . However , as trade winds increased during the middle of July , the remnants of Elida brought rainfall to east @-@ facing slopes of the Island of Hawaii and Maui . Frequent rain showers produced 2 to 6 inches (51 to 152 mm) of precipitation in those regions , but no significant flooding occurred .