

= Hurricane Henriette (2007) =

Hurricane Henriette was a minimal Category 1 hurricane that affected portions of Mexico in late August and early September 2007 . The storm , which caused nine fatalities , formed from an area of disturbed weather on August 30 , 2007 , and became a tropical storm the next day . The cyclone moved parallel to the Mexican Pacific coast , but its proximity to the shore resulted in heavy rainfall over land . The most affected city was Acapulco , Guerrero , where six people were killed by landslides , and where over 100 families had to be evacuated after the La Sabana River flooded . Henriette then turned north and headed towards the Baja California peninsula , and became a Category 1 hurricane on the Saffir @-@ Simpson Hurricane Scale . Henriette made its first landfall east of Cabo San Lucas at peak intensity , (Eye witness reports state the first landfall was directly over Cabo) causing the death of one woman due to high surf .

Hurricane Henriette then emerged over the Gulf of California , and made its second landfall near Guaymas , Sonora . After causing heavy rains in Sonora , the storm dissipated over the Sierra Madre Occidental and its remnants went on to cause flooding in New Mexico and Texas . Damage totaled about \$ 275 million (2007 MXN , \$ 25 million 2007 USD) . It hit Mexico on the same day Hurricane Felix hit Nicaragua , only one of two occurrences in which a North Atlantic hurricane and a Pacific hurricane made landfall on the same day .

= = Meteorological history = =

Henriette originated from a tropical wave that departed the west coast of Africa on August 20 , 2007 . The wave produced some convection while in the Caribbean Sea but reached Central America on August 28 before any significant development could occur . Early on August 30 , the area of low pressure , now 400 miles (640 km) south @-@ southeast of Acapulco , Mexico , started to gain clusters of strong convection . By the afternoon of August 30 the system continued to show strong convection and had developed a broad but well defined area of low to mid level cyclonic turning . By 0600 UTC that day the system became a tropical depression about 360 miles (579 km) southeast of Acapulco and was designated as Tropical Depression Eleven @-@ E.

Convection continued but the cyclone was encountering extensive easterly to north @-@ easterly wind shear which stunted the strengthening of this storm throughout its history . The cyclone initially headed toward the west @-@ northwest around a subtropical ridge that was centered over the western Gulf of Mexico . The depression moved north west , parallel with the west coast of Mexico due to being steered by the mid / upper @-@ level ridge . On August 31 , it strengthened to become Tropical Storm Henriette , 85 miles (137 km) south of Acapulco .

It continued to move along the Mexican coast bringing heavy rains . With continued strong convection , Henriette maintained its strengthening and was predicted to reach hurricane strength . However , despite the low wind shear and apparent warm waters . Henriette did not strengthen as expected . This is believed to be due to its proximity to land and colds waters being brought up due to Henriette 's slow movement . The convection and strengthening continued and maintained itself as it moved away from Jalisco . Henriette turned westward and away from the Pacific coast of Mexico late on September 1 as the subtropical ridge built westward over northern Mexico .

Henriette continued to improve in structure and with the formation of a distinct eye feature , reached hurricane strength on September 4 as it turned north @-@ northwestward toward the Baja California peninsula , ahead of a mid @-@ latitude trough approaching the west coast of the United States . The hurricane reached its peak intensity of 85 mph (135 km / h) that morning while centered about 75 miles (120 km) south @-@ southeast of Cabo San Lucas .

The center of Henriette made landfall just east of Cabo San Lucas on the afternoon of September 4 with winds of 80 mph (130 km / h) . It was over land for only about six hours before emerging into the Gulf of California . The brief interaction with land caused a slight weakening , but Henriette remained a Category 1 hurricane for most of that day . The next day it made final landfall near Guaymas in the state of Sonora . Henriette weakened quickly over land and dissipated over the mountains of northwestern Mexico early on September 6 . The remnants of Tropical Storm Henriette

continued to track across west Texas and southeastern New Mexico as it was being absorbed by a cold front moving through New Mexico . The flow of moisture from originating from these remnants , moderate instability , and marginal shear contributed to flash flooding and severe thunderstorms .

= = Preparations = =

The formation of Henriette was not anticipated well in NHC Tropical Weather Outlooks . The incipient system was first mentioned only about 31 hours before it became a tropical depression , and the potential for the formation of a depression was explicitly stated beginning only about 13 hours prior to genesis .

On August 31 , 2007 the National Meteorological Service in Mexico decreed zone of alert from Lagunas de Chacahua , Oaxaca to Cabo Corrientes , Jalisco . It requested the public to take precautions before the possible coming of rain , intense winds and storm surges in the south and southwestern coasts of Mexico . The Ministry of Education of Guerrero canceled classes at all schools in the evening and close the port navigation . Faced with the prospect of Henriette strengthening , The Head of the Harbor Bay in Acapulco stopped all travel for small craft and coastal fisheries . Also blue and yellow flags were raised as a preventive measure for swimmers . On September 4 , the port of Mazatlán , Sinaloa had to be shut down to all navigation due to the inclement weather produced by the hurricane . The port authority reported that Henriette produced waves surpassing 4 meters (13 ft) in height . The Carnival Pride cruise scheduled to arrive at the port had to be diverted out to sea as a result of the port 's closure . In the city itself , school was suspended for two days , and officials stated that approximately 600 families might have to be evacuated . Further north , the port of Topolobampo , Sinaloa was also closed due to Henriette 's threat , and 20 families were evacuated from their homes in an ejido .

In La Paz , the Municipal Direction of Civil defense informed that the first of 13 temporary shelters would be opened and anticipated the evacuation of more than 2000 people that lived in high @-@ risk zones . In some areas , the local police recommended to the population , mostly those living in areas of high risk , that they should take care not to leave their homes unless necessary and to find evacuation routes and temporary shelters . Both Manuel Márquez de León International Airport in La Paz and Los Cabos International Airport in San José del Cabo were shut down , stranding 7 @,@ 500 ? 8 @,@ 500 tourists . Henriette also forced the ports in Los Cabos to close completely , and the port in La Paz to close to small craft .

= = Impact = =

Henriette struck hardest in the resort town of Acapulco . Though the storm never passed closer than 70 mi (110 km) to the town , heavy rains along the coast saturated the ground , leading to mudslides . Six people were reported dead as a result of rockslides in two suburban neighborhoods of the city and in the port itself . Three were killed by a huge rock hitting their house , and the other three were killed when their dwellings partially collapsed . In addition , flooding from the overflowing of the River La Sabana , led to the evacuation of at least one hundred families from around the river by the Consejo Estatal de Proteccion Civil .

Jorge Antonio Pacheco Albert , Director of Civil Protection for the Port of Acapulco , reported that approximately 800 were injured during the passage of Henriette along the coast and that 337 people relocated to temporary shelters . In Michoacán , Henriette damaged 10 @,@ 000 square meters (107 @,@ 000 sq. ft) of beach near Ixtapilla , destroying approximately 5 @,@ 000 Olive Ridley turtle nests , comprising 10 % of the endangered species 's nests in the state .

In Sonora , the hurricane destroyed 450 homes and damaged another 5 @,@ 000 dwellings in Etchojoa and Huatabampo , which both have large Mayo Indian populations . The storm 's precipitation flooded nearby agricultural fields , stopping wheat production , forcing local government to fumigate the region to try to prevent a dengue fever outbreak . In the Yaqui River valley , two people were killed , and another 70 homes were destroyed by Henriette 's winds . Throughout the state , 24 @,@ 000 families were left homeless .

One woman died due to high surf near Cabo San Lucas on the Baja California peninsula . Two fishermen were reported killed off the Sonora coast . The road connecting Guaymas to Ciudad Obregón was closed due to damage from the overflow of the brook Cocoraque which stranded around 600 cars . Lázaro Cárdenas was affected when the Acalpican River broke its banks . At least 50 houses located in the community of El Habillal , were flooded by water levels of up to 1 m (3 @. @ 3 ft) . The residents had to leave their houses and be relocated in provisional housing . The remnants of Henriette caused flash floods and surface water 8 ? 12 inches (20 ? 30 cm) deep which covered roads with depths up to 1 @. @ 5 inches (4 cm) in the U.S. States of New Mexico and Texas . Hail also accumulated on roadways . Damage in Mexico totaled about \$ 275 million (2007 MXN , \$ 25 million 2007 USD) .