

= Hurricane Hernan (1996) =

Hurricane Hernan was fourth and final tropical cyclone to strike Mexico at hurricane intensity during the 1996 Pacific hurricane season . The thirteenth tropical cyclone , eighth named storm , and fifth hurricane of the season , Hernan developed as a tropical depression from a tropical wave to the south of Mexico on September 30 . The depression quickly strengthened , and became Tropical Storm Hernan later that day . Hernan curved north @-@ northwestward the following day , before eventually turning north @-@ northeastward . Still offshore of the Mexican coast on October 2 , Hernan intensified into a hurricane . Six hours later , Hernan attained its peak as an 85 mph (140 km / h) Category 1 hurricane on the Saffir @-@ Simpson Hurricane Wind Scale (SSHWS) . After weakening somewhat , on 1000 UTC October 3 , Hurricane Hernan made landfall near Barra de Navidad , Jalisco , with winds of 75 mph (120 km / h) . Only two hours after landfall , Hernan weakened to a tropical storm . By October 4 , Tropical Storm Hernan had weakened into a tropical depression , and dissipated over Nayarit on the following day .

The storm dropped heavy rainfall along the west coast of Mexico , with some areas experiencing over 20 in (510 mm) of precipitation . As a result of the large amounts of rain , Hurricane Hernan caused moderate flooding . Despite impacting a relatively sparsely populated area of Mexico , no deaths were reported in the country , though one was reported missing . In all , flooding from the storm washed @-@ out highways , disrupted telephone service , caused power outages , and damaged at least 1 @, @ 000 homes . However , at least 100 injuries were recorded . In addition , the remnants caused flooding in southern Texas , and one person was presumed to have drowned .

= = Meteorological history = =

A tropical wave emerged off the west coast of Africa during mid @-@ September and moved westward across the Atlantic Ocean . Even though convection associated with the system increased on two separate occasions , the tropical wave did not develop further . After emerging into the Pacific Ocean , the system entered the Gulf of Tehuantepec on September 28 . Meanwhile , deep convection began to consolidate while the cloud pattern continued to improve . By late on September 29 , classifications began on the system via the Dvorak technique , a technique used to measure a tropical cyclones intensity . By 0600 UTC on September 30 , satellite imagery indicated that Tropical Depression Eleven @-@ E had developed while centered over 285 mi (460 km) south @-@ southeast of Acapulco . Three hours later , the National Hurricane Center (NHC) initiated advisories on the depression , stating that it was over warm sea surface temperatures and outflow was becoming well @-@ established . Subsequently , it was predicted that the depression would intensify into a hurricane before October 3 .

Later on September 30 , satellite intensity classifications estimated wind speeds of at least 40 mph (65 km / h) . Based on this , the NHC upgraded the depression to Tropical Storm Hernan . By October 1 , the atmospheric circulation of Hernan became difficult to locate on infrared satellite imagery . As a result , the NHC reported that it no longer anticipated that Hernan would intensify into a hurricane . Later that day , Hernan strengthened slightly ; subsequently , visible satellite images indicated that the center of the storm redeveloped . Most of the computer models anticipated that Hernan would parallel the coast of Mexico , though the Global Dynamics Fluid Model (GDFL) noted that Tropical Storm Hernan would turn sharply northward and eventually make landfall in Mexico . Early on October 2 , deep convection began wrapping around the center , and meteorologists noted that an eye feature may have been forming . Subsequently , Hernan also developed very cold cloud tops while tracking slowly to the northwest .

At 0600 UTC on October 2 , it is estimated that Hernan had intensified into a hurricane . Operationally , however , Hernan was not upgraded to a hurricane until nine hours later . The storm strengthened a little more , and at 1200 UTC on October 2 , Hernan attained its peak intensity with maximum sustained winds of 85 mph (140 km / h) and a minimum pressure of 980 mbar (hPa) ; 28 @. @ 94 inHg . By late on October 2 , radar imagery remarked that the northern eye wall was

affecting portions of the west coast of Mexico . Shortly thereafter , the eye of Hernan became less distinct on satellite images . By 0900 UTC on October 3 , based on data from radars in Cuyutlán , Colima , the NHC reported that Hurricane Hernan had executed a cyclonic loop to the southwest of Manzanillo . About an hour later , Hernan made landfall near Barra de Navidad , with winds of 75 mph (120 km / h) .

Hernan rapidly weakened inland , and it was estimated that it had weakened to a tropical storm only two hours after landfall . By 0000 UTC on October 4 , Hernan weakened further , and was downgraded to a tropical depression . Shortly thereafter , Hernan re-emerged into the Pacific Ocean , and the NHC noted that possibility for the depression to restrengthen into a tropical storm . Hernan weakened further as a large portion of its circulation remained on land , while the low-level center became difficult to locate . By 2100 UTC October 4 , satellite images and surface reports indicated that Hernan had degenerated into a broad area of low pressure . Hernan finally dissipated at 0000 UTC the next day while centered over Nayarit .

= = Preparations and Impact = =

Thirty-six hours after formation , on October 1 , a tropical storm warning was issued from Acapulco , to Manzanillo . Early on the following day , a hurricane watch was put into effect from Zihuatanejo , Guerrero , to Manzanillo , . Three hours later , the watch was upgraded to a hurricane warning . At 1500 UTC on that same day , a tropical storm warning was issued from Manzanillo , to San Blas , Nayarit . By 0300 UTC on October 3 , the hurricane warning was extended from Cabo Corrientes , Jalisco to San Blas ; the tropical storm warning was also extended , and included areas between Mazatlán and San Blas . As the storm rapidly weakened inland , all watches and warnings in effect were discontinued midday on October 3 . In addition to these warnings , several ports and harbors were closed in the states of Guerrero , Michoacan , Jalisco , and Colima , a span of some 680 mi (1,095 km) .

Much of Jalisco was drenched with rain for nearly 12 consecutive hours , resulting in flooding . Country-wide ; however , the highest total was recorded in Petacalco and La Union , with 21 in (550 mm) being measured at both locations . The National Water Commission reported waves of up to 14 ft (4.3 m) . Along the coasts of Colima and Jalisco , waves caused by Hernan were not as large , reaching 13 ft (3.9 m) in height . High winds were also recorded .

Because the storm made landfall in a sparsely populated area , no deaths were reported by the NHC . However , one boy was swept away in the Uxpana River and was thus reported missing . Due to flooding caused by the storm , three rivers in Veracruz overflowed their banks . Flooding from the storm also washed out portions of two Mexico highways . Furthermore , telephone service was interrupted and power outages occurred . Around 1,000 homes were damaged or destroyed and 100 people were injured . Overall , damage from the system was not widespread .

After dissipating , the remnants of Hernan , in combination with low pressure area that eventually became Tropical Storm Josephine , brought heavy downpours to southern Texas . Rainfall reached 5 in (140 mm) in Brownsville , which caused street flooding and forced several families to evacuate their homes . In addition , coastal flooding was reported in the town of South Padre Island . As a result of heavy rainfall , a flash flood watch and warning were issued for Cameron , Hidalgo , Kenedy , and Willacy Counties . One boy in Brownsville was classified as missing and later presumed to have drowned during the storm .