## = Hurricane Winifred (1992) =

Hurricane Winifred was the last tropical cyclone to make landfall in the busy 1992 Pacific hurricane season . Impacting western Mexico , especially Colima and Michoacán , Hurricane Winifred brought heavy rain and destruction to the area . Rains flooded farms and roads , and caused more than \$ 5 million ( 1992 USD , \$ 8 @.@ 43 million 2016 USD ) in damage and a total of three people were killed .

The last major hurricane of its season, Winifred existed in October 1992. It formed southeast of Acapulco on October 6 as the twenty @-@ fourth east Pacific tropical cyclone of its season, and recurved as it strengthened. It peaked as a Category 3 hurricane on the Saffir @-@ Simpson Hurricane Scale. It made landfall southeast of Manzanillo, Colima and dissipated inland.

## = = Meteorological history = =

On October 1 , a disorganized area of thunderstorms existed south of Panama . It gradually headed west @-@ northwestward , slowly organized , and developed deep and concentrated convection . The disturbed area had become organized enough to be considered a tropical depression . Numbered Twenty @-@ Four @-@ E , the cyclone was located about 460 mi ( 740 km ) south @-@ southeast of Acapulco . It moved towards the west @-@ northwest at a speed of about 12 mph ( 19 km / h ) , and by the time it was located about 550 km ( 340 mi ) south of Zihuatanejo , it had intensified into Tropical Storm Winifred .

Winifred steadily became more organized , and late on October 7 , the National Hurricane Center ( NHC ) was anticipating Winifred to reach hurricane intensity within the next 36 hours . A large cyclone , Winifred continued to intensify . Its forward speed decreased as it started to turn to the northwest . By October 8 , Winifred become a hurricane while located approximately 340 mi (  $550\,$  km ) south @-@ southeast of Manzanillo . A small eye became evident on satellite imagery , and thus the winds increased to 85 mph (  $145\,$  km / h ) .

Winifred then intensified into a moderate Category 2 hurricane on October 9 . Although the eye briefly disappeared , slight intensification was anticipated . The hurricane was curved north by an upper @-@ level trough . Winifred peaked in intensity as a major hurricane ( Category 3 or higher on the Saffir @-@ Simpson Scale ) . At this time , Winifred , had central pressure of 960 mb ( 28 inHg ) and winds of 115 mph ( 185 km / h ) . This made Winifred the final hurricane ? major or otherwise ? of the 1992 Pacific hurricane season . However , it was operationally believed to have peaked as a Category 2 hurricane ; the NHC did not issue any advisories with winds any higher than 110 mph ( 175 km / h ) .

Hurricane Winifred re @-@ curved to the north @-@ northeast , increased in forward speed , and slightly weakened as it approached land . On October 9 , it made landfall about east @-@ southeast of Manzanillo . At the time it was a Category 2 hurricane with winds of 110 mph (  $175~\rm km\/\/h$  ) and a central pressure of 975 mb (  $28~\rm @.@$  8 inHg ) . Hurricane Winifred quickly weakened after landfall , and weakened to a tropical storm less than three hours later , which was early on October 10 . Later on October 10 , Winifred weakened to a tropical depression , before dissipating over the mountains of central Mexico .

## = = Preparations and impact = =

Five thousand people were evacuated to emergency shelters as Winifred neared . With the approach of the hurricane , watches and warnings were issued . On October 9 a tropical storm warning was issued from Zihuatanejo to Cabo Corrientes . At the same time , a hurricane watch went into effect in the same area . The watch was later replaced with a hurricane warning 12 hours later . On October 10 , all watches and warnings were dropped .

Starting on October 8, Hurricane Winifred caused rainfall over an extensive area of Mexico. The highest point maximum reported was of 16 @.@ 7 in ( 420 mm ) at Lázaro Cárdenas, Michoacán, a point to the right of its track. That rain caused flooding, which was blamed for three deaths.

Damage was heaviest in the states of Colima and Michoacán . In areas of the former , utilities were knocked out . Waves flooded portions of Highway 200 between Zihuatenajo , Ixtapa , and Lázaro Cárdenas . Other roads were also flooded . Waves 12 ft ( 3 @.@ 7 m ) forced the closure of Playa de Oro International Airport and port facilities in Manzanillo . Throughout the affected area , trees were blown down on cars , roughly 1 @,@ 500 houses were damaged , as were hotels and restaurants . About 84 @,@ 000 ha ( 210 @,@ 000 acres ) of farmland were damaged , especially those of plantains and corn . Carlos de la Madrid Virgen , the Governor of Colima , estimated that the total damage in his state was 16000 pesos ( 1992 MXP ) or \$ 5 million ( 1992 USD , \$ 8 @.@ 43 million 2016 USD ) . Elsewhere , Winifred forced a temporary closure of the port of Acapulco .