

= Hurricane Paul ( 1982 ) =

Hurricane Paul was a particularly deadly and destructive Pacific hurricane which killed a total of 1 @, @ 696 people and caused \$ 1 @. @ 156 billion in damage . The sixteenth named storm and tenth hurricane of the 1982 Pacific hurricane season , Paul developed as a tropical depression just offshore Central America on September 18 . The depression briefly moved inland two days later just before heading westward out to sea . The storm changed little in strength for several days until September 25 , when it slowly intensified into a tropical storm . Two days later , Paul attained hurricane status , and further strengthened to Category 2 intensity after turning northward . The hurricane then accelerated toward the northeast , reaching peak winds of 110 mph ( 175 km / h ) . Paul made landfall over Baja California Sur on September 29 , and subsequently moved ashore in Sinaloa , Mexico the next day .

Prior to making landfall near the El Salvador ? Guatemala border as a tropical depression , the precursor disturbance dropped heavy rainfall over Nicaragua , which later spread into El Salvador and Guatemala . Many rivers in the region burst their banks after five days of rainfall , causing severe flooding and multiple mudslides . Throughout Central America , at least 1 @, @ 432 people were killed , with most of the fatalities occurring in El Salvador and Guatemala . Another 225 deaths were attributed to floods from the depression in southern Mexico . In addition , Paul was responsible for moderate damage and 24 fatalities in northwestern Mexico , where it made landfall at hurricane strength .

= = Meteorological history = =

The precursor disturbance to Paul originated from an area of low barometric pressure and disorganized thunderstorms , which was first noted near the Pacific coast of Nicaragua on September 15 . Several days later , satellite imagery indicated it had developed a center of cyclonic circulation ; on 1800 UTC September 20 , the Eastern Pacific Hurricane Center initiated advisories on the system and classified it as Tropical Depression Twenty @-@ Two . At that time , it was located 200 mi ( 320 km ) west of Managua , Nicaragua and supported winds of 35 mph ( 50 km / h ) . The depression turned northward in response to a weak steering flow between two high pressure systems ? one near Cabo San Lucas and the other west of Central America . It then moved inland near the El Salvador ? Guatemala border , and dissipated overland .

Under the influence of a persistent stationary trough near California , the remains of the depression retraced westward back over the open waters of the Pacific . Advisories on the system were resumed late on September 20 . Though it was reconsidered a tropical cyclone , its wind circulation was poorly defined ; the depression again degenerated into an open trough at 0000 UTC September 22 . Its forward motion remained relatively unchanged for several days , and by September 24 the system was reclassified as a tropical cyclone . After briefly drifting northward , the system began tracking toward the west @-@ northwest . It gradually organized into a tropical storm at 0000 UTC September 25 . Since it was then situated over favorable sea surface temperatures between 28 ° C ( 82 ° F ) and 29 ° C ( 84 ° F ) , Paul underwent a phase of rapid intensification . This allowed it to reach Category 1 hurricane strength on the Saffir @-@ Simpson hurricane wind scale ( SSHWS ) just two days after its naming .

Upon becoming a hurricane , Paul turned to the north and continued to develop . As the storm neared Baja California Sur , it reached Category 2 intensity . An upper @-@ level trough forced the hurricane to accelerate towards the northeast , at which point it had reached peak wind speeds of 110 mph ( 180 km / h ) . From 1800 to 2100 UTC on September 29 , the eye of the hurricane made landfall along Baja California Sur , moving ashore less than 100 mi ( 160 km ) south of La Paz near San José del Cabo . After weakening slightly inland , Paul briefly reemerged over water and subsequently made its final landfall near Los Mochis , Sinaloa with winds of 100 mph ( 165 km / h ) . Tropical cyclone advisories were discontinued shortly thereafter , though exact information on the storm after it moved inland is unavailable due to a lack of data completion in the hurricane database .

## **= = Preparations = =**

An alert was issued for the Mexican states of Sonora and Sinaloa and Baja California Sur ; army and navy units were on standby in case of an emergency . Roughly 50 @, @ 000 people evacuated to storm shelters and thousands of others sought refuge in public buildings , such as schools and churches . Across La Paz , officials evacuated 3 @, @ 000 families from hurricane @-@ prone areas . In the towns of Altata and Guamúchil alone , army officials evacuated 5 @, @ 000 coastal residents .

## **= = Impact = =**

### **= = = El Salvador = = =**

The tropical depression that later became Paul produced the worst natural disaster in El Salvador history since 1965 . Although the death toll was initially believed to be lower it rose to a final toll of 761 after new victims were confirmed on September 28 . Of these deaths , 312 occurred in the capital city of San Salvador , which had also sustained the worst damage . Another 40 people perished in Actoo , a very small village located 42 mi ( 68 km ) west of San Salvador . Rescue workers searched through rocks and mud to find missing victims . About 25 @, @ 000 ? 30 @, @ 000 people were left homeless . Much of San Salvador was submerged by flood waters of up to 8 ft ( 2 @. @ 4 m ) high , and even after their recession hundreds of homes remained buried under trees , debris , and 10 ft ( 3 @. @ 0 m ) of mud . In all , property damage from the storm amounted to \$ 100 million ( 1982 US \$ ) in the country ; economic losses were estimated at \$ 280 million ( 1982 USD ) . The extensive floods swept through significant amounts of crops , causing destruction and damage worth \$ 250 million .

### **= = = Nicaragua , Guatemala , and southern Mexico = = =**

In Guatemala , widespread catastrophic floods claimed 615 lives and left 668 others missing . More than 10 @, @ 000 people were left homeless in the wake of the disaster . According to the highway department , the storm destroyed 16 bridges which left 200 communities isolated from surrounding areas . Overall , economic losses of \$ 100 million ( 1982 USD ) were reported in the country . In Nicaragua , similar extensive flooding killed 71 people and caused \$ 356 million ( 1982 USD ) in economic losses . Throughout southern Mexico , floods from the precursor depression to Paul killed another 225 people .

### **= = = Baja California Sur = = =**

Hurricane Paul produced heavy rainfall along its path through Baja California Sur . At least 85 homes in La Paz sustained damage , and many telephone lines in the region were down at the height of the storm . Wind gusts estimated at 120 mph ( 195 km / h ) swept through San José del Cabo , causing property damage and subsequently leaving 9 @, @ 000 homeless . Despite the damage , no deaths were reported in the wake of Paul .

### **= = = Northwest Mexico and southwest United States = = =**

Upon making its final landfall in Sinaloa , Paul produced hurricane @-@ force winds recorded at 100 mph ( 160 km / h ) in Los Mochis . The winds demolished numerous homes in the region , leaving 140 @, @ 000 residents homeless and another 400 @, @ 000 people isolated . The greatest damage occurred 70 miles ( 110 km ) south of Los Mochis in the city of Guamuchil ; some houses suffered total destruction , while many other had their roof blown off . A total of 24 people were killed

by the storm , although it produced beneficial rains over the region .

The worst flooding occurred near the Rio Sinaloa ; 7 @. @ 9 in ( 200 mm ) to 12 in ( 300 mm ) of rain fell in some locations . Over 25 @, @ 000 homes were damaged . Agricultural damage was severe in the state of Sinaloa , with up to 40 percent of the soybean crop destroyed . Sugar cane , tomato , and rice crops also sustained damage from the hurricane , and in its wake the state 's corn production was down by 26 percent from the previous year . Total storm damage in Mexico amounted to \$ 4 @. @ 5 billion ( 1982 MXN ; \$ 70 million USD ) .

The remnants of Paul moved into the United States , producing heavy rainfall in southern New Mexico and extreme West Texas . Inclement weather was observed as far inland as the Great Plains . A combination of rain and snow moved into Colorado ; 6 in ( 150 mm ) of snow was expected in Wyoming , thus winter storm warnings were required for parts of the state .

= = Aftermath = =

In the aftermath of the storm , the Government of El Salvador was criticized for failing to keep the public well informed . It provided over \$ 300 @, @ 000 in aid and declared a state of emergency ; additionally , a state of mourning was declared . The United Nations World Food program began distributing food set aside for victims of the El Salvador Civil War . The U.S. Embassy in Guatemala provided \$ 25 @, @ 000 in aid for the country . Mexican authorities rushed to supply food and water to the homeless .