

= Hurricane John (2006) =

Hurricane John was the eleventh named storm , seventh hurricane , and fifth major hurricane of the 2006 Pacific hurricane season . Hurricane John developed on August 28 from a tropical wave to the south of Mexico . Favorable conditions allowed the storm to intensify quickly , and it attained peak winds of 135 mph (215 km / h) on August 30 . Eyewall replacement cycles and land interaction with western Mexico weakened the hurricane , and John made landfall on southeastern Baja California Sur with winds of 110 mph (180 km / h) on September 1 . It slowly weakened as it moved northwestward through the Baja California peninsula , and dissipated on September 4 . Moisture from the remnants of the storm entered the southwest United States .

The hurricane threatened large portions of the western coastline of Mexico , resulting in the evacuation of tens of thousands of people . In coastal portions of western Mexico , strong winds downed trees , while heavy rain resulted in mudslides . Hurricane John caused moderate damage on the Baja California peninsula , including the destruction of more than 200 houses and thousands of flimsy shacks . The hurricane killed five people in Mexico , and damage totaled \$ 663 million (2006 MXN , \$ 60 @. @ 8 million 2006 USD) . In the southwest United States , moisture from the remnants of John produced heavy rainfall . The rainfall aided drought conditions in portions of northern Texas , although it was detrimental in locations that had received above @-@ normal rainfall throughout the year .

= = Meteorological history = =

The tropical wave that would become John moved off the coast of Africa on August 17 . It entered the eastern Pacific Ocean on August 24 , and quickly showed signs of organization . That night , Dvorak classifications were initiated on the system while it was just west of Costa Rica , and it moved west @-@ northwestward at 10 ? 15 mph (15 ? 25 km / h) . Conditions appeared favorable for further development , and convection increased late on August 26 over the area of low pressure . Early on August 27 , the system became much better organized about 250 miles (400 km) south @-@ southwest of Guatemala , although convection remained minimal . Early on August 28 , banding increased within its organizing convection , and the system developed into Tropical Depression Eleven @-@ E.

Due to low amounts of vertical shear , very warm waters , and abundant moisture , steady intensification was forecast , and the depression strengthened to Tropical Storm John later on August 28 . Deep convection continued to develop over the storm , while an eye feature developed within the expanding central dense overcast . The storm continued to intensify , and John attained hurricane status on August 29 while 190 miles (305 km) south @-@ southeast of Acapulco . Banding features continued to increase as the hurricane moved west @-@ northwestward around the southwest periphery of a mid- to upper @-@ level ridge over northern Mexico . The hurricane underwent rapid intensification , and John attained major hurricane status 12 hours after becoming a hurricane . Shortly thereafter , the eye became obscured , and the intensity remained at 115 mph (185 km / h) due to an eyewall replacement cycle . Another eye formed , and based on Reconnaissance data , the hurricane attained Category 4 status on the Saffir @-@ Simpson Hurricane Scale on August 30 about 160 miles (260 km) west of Acapulco , or 95 miles (155 km) south of Lázaro Cárdenas , Michoacán . Hours later , the hurricane underwent another eyewall replacement cycle , and subsequently weakened to Category 3 status as it paralleled the Mexican coastline a short distance offshore .

Due to land interaction and its eyewall replacement cycle , Hurricane John weakened to a 105 mph (170 km / h) hurricane by late on August 31 , but restrengthened to a major hurricane shortly after as its eye became better defined . After completing another eyewall replacement cycle , the hurricane again weakened to Category 2 status , and on September 1 it made landfall on Cabo del Este on the southern tip of Baja California Sur with winds of 110 mph (180 km / h) . John passed near La Paz as a weakening Category 1 hurricane on September 2 , and weakened to a tropical storm shortly thereafter over land . John continued to weaken , and late on September 3 the system

deteriorated to a tropical depression while still over land . By September 4 , most of the convection decoupled from the circulation towards mainland Mexico , and a clear circulation had not been discernible for 24 hours . Based on the disorganization of the system , the National Hurricane Center issued its last advisory on the system .

= = Preparations = =

The Mexican army and emergency services were stationed near the coast , while classes at public schools in and around Acapulco were canceled . Officials in Acapulco advised residents in low @-@ lying areas to be on alert , and also urged fishermen to return to harbor . Authorities in the twin resort cities of Ixtapa and Zihuatanejo closed the port to small ocean craft . Government officials in the state of Jalisco declared a mandatory evacuation for 8 @,@ 000 citizens in low @-@ lying areas to 900 temporary shelters . Temporary shelters were also set up near Acapulco . The state of Michoacán was on a yellow alert , the middle of a five @-@ level alert system . Carnival Cruise Lines diverted the path of one cruise ship traveling along the Pacific waters off Mexico .

On August 31 , the Baja California Sur state government ordered the evacuation of more than 10 @,@ 000 residents . Those who refused to follow the evacuation order would have been forced to evacuate by the army . Shelters were set up to allow local residents and tourists to ride out the storm . Just weeks after a major flood in the area , officials evacuated hundreds of citizens in Las Presas in northern Mexico area near a dam . All public schools in the area were closed , as well .

The United States ' National Weather Service issued flood watches and warnings for portions of Texas and the southern two @-@ thirds of New Mexico .

= = Impact = =

= = = Mexico = = =

The powerful winds of Hurricane John produced heavy surf and downed trees near Acapulco . The hurricane produced a 10 foot (3 m) storm surge in Acapulco that flooded coastal roads . In addition , John caused heavy rainfall along the western coast of Mexico , peaking at 12 @.@ 5 inches (317 @.@ 5 mm) in Los Planes , Jalisco . The rainfall resulted in mudslides in the Costa Chica region of Guerrero , leaving around 70 communities isolated .

In La Paz , capital of Baja California Sur , the hurricane downed 40 power poles . Authorities cut off the power supply to the city to prevent electrocutions from downed wires . Strong winds downed trees and destroyed many advertisement signs . Heavy rainfall totaling more than 20 inches (500 mm) in isolated areas resulted in ankle @-@ deep flooding , closing many roads in addition to the airport in La Paz . In La Paz , 300 families received damage to their homes , with another 200 families left homeless after their houses were destroyed . The combination of winds and rain destroyed thousands of flimsy houses across the region . The rainfall also destroyed large areas of crops , and also killed many livestock . The rainfall caused the Iguagil dam in Comondú to overflow , isolating 15 towns due to 4 feet (1 @.@ 5 m) floodwaters . In the coastal city of Mulegé , flash flooding caused widespread damage throughout the town and the death of a United States citizen . More than 250 homes were damaged or destroyed in the town , leaving many people homeless . Severe flooding blocked portions of Federal Highway 1 , and damaged an aqueduct in the region .

In all , Hurricane John destroyed hundreds of houses and blew off the roofs of 160 houses on the Baja California peninsula . Five people were killed , and damage in Mexico amounted to \$ 663 million (2006 MXN , \$ 60 @.@ 8 million 2006 USD) .

In Ciudad Juárez , Chihuahua , across the U.S. border from El Paso , Texas , rainfall from the storm 's remnants flooded 20 neighborhoods , downed power lines , and resulted in several traffic accidents . Rainfall from John , combined with continual precipitation during the two weeks before the storm , left thousands of people homeless .

= = = United States = = =

Moisture from the remnants of John combined with an approaching cold front to produce moderate amounts of rainfall across the southwest United States , including a total of 8 inches (200 mm) in Whitharral and more than 3 inches (75 mm) in El Paso , Texas . The rainfall flooded many roads in southwestern Texas , including a ½ mile (800 m) portion of Interstate 10 in El Paso . A slick runway at El Paso International Airport delayed a Continental Airlines jet when its tires were stuck in mud . Rainfall from John in El Paso , combined with an unusually wet year , resulted in twice the normal annual rainfall , and caused 2006 to be the ninth wettest year on record by September . Damage totaled about \$ 100 @, @ 000 (2006 USD) in the El Paso area from the precipitation . In northern Texas , the rainfall alleviated a severe drought , caused the Double Mountain Fork Brazos River to swell and Lake Alan Henry to overflow . The Texas Department of Transportation closed numerous roads due to flooding from the precipitation , including a portion of U.S. Route 385 near Levelland . Several other roads were washed out .

Moisture derived from John also produced rainfall across southern New Mexico , peaking at 5 @. @ 25 inches (133 mm) at Ruidoso . The rainfall overflowed rivers , forcing people to evacuate along the Rio Ruidoso . The rainfall also caused isolated road flooding . Rainfall in New Mexico canceled an annual wine festival in Las Cruces and caused muddy conditions at the All American Futurity at the Ruidoso Downs , the biggest day of horse racing in New Mexico . Flooding was severe in Mesquite , Hatch , and Rincon , where many homes experienced 4 feet (1 @. @ 5 m) of flooding and mud . Some homeowners lost all they owned . Tropical moisture from the storm also produced rainfall in Arizona and Southern California . In California , the rainfall produced eight separate mudslides , trapping 19 vehicles , but caused no injuries .

= = Aftermath = =

Branches of the Mexican Red Cross in Guerrero , Oaxaca and Michoacán were put on alert . The organization 's national emergency response team was on stand @- @ by to assist the most affected areas . Navy helicopters delivered food and water to remote areas of the Baja California peninsula . The Mexican Red Cross dispatched 2 @, @ 000 food parcels to the southern tip of Baja California Sur . In the city of Mulegé , gas supply , which was necessary to run generators , was low , drinking water was gone , and the airstrip was covered with mud . Many homeless residents initially stayed with friends or in government @- @ run shelters . Throughout the Baja California peninsula , thousands remained without water or electricity two days after the storm , although a pilot from Phoenix prepared to fly to the disaster area with 100 gallons (380 litres) of water . Other pilots were expected to execute similar flights , as well . The office of Baja California Sur Tourism stated that minimal damage occurred to the tourism infrastructure , with only minimal delays to airports , roads , and maritime facilities . The Episcopal Relief and Development delivered food , clothing , medicine , and transportation to about 100 families , and gave mattresses to about 80 families .

Many residents in Tucson , including more than 50 students , delivered supplies to flood victims in New Mexico , including clothing and other donations .