Hurricane Joanne was one of four tropical cyclones to bring gale @-@ force winds to the Southwestern United States in the 20th century . A tropical depression developed on September 30 , 1972 . It then moved west northwest and intensified into a hurricane on October 1 . Hurricane Joanne peaked as a Category 2 hurricane , as measured by the modern Saffir @-@ Simpson hurricane wind scale ( SSHWS ) , October 2 . Joanne then slowed down and began to re @-@ curve . Joanne made landfall along the northern portion of the Baja California Peninsula as a tropical storm . The tropical storm moved inland over Sonora on October 6 and was believed to have survived into Arizona as a tropical storm . In Arizona , many roads were closed and some water rescues had to be performed due to a prolonged period of heavy rains . One person was reportedly killed while another was electrocuted . A few weeks after the hurricane , Arizona would sustain additional flooding and eight additional deaths .

## = = Meteorological history = =

On September 26 , ship reports and satellite imagery indicated an area of squally weather about 300 miles (  $485\ km$  ) south of Guatemala . During September 27 and September 28 , the disturbance moved westward . On September 29 , the disturbance developed a closed low @-@ level atmospheric circulation . The following day , the system was designated as a tropical storm after a ship reported winds of 45 mph (  $70\ km$  / h ) . A Hurricane Hunter aircraft investigated the growing storm on October 1 and estimated maximum sustained winds of 75 mph (  $120\ km$  / h ) , making Joanne a Category 1 hurricane . However , very few ships reported winds greater than 30 mph (  $50\ km$  / h ) at that time . On October 2 , the Eastern Pacific Hurricane Database , noted that the hurricane had intensified into a Category 2 system , with winds peaking at 100 mph (  $160\ km$  / h ) while turning towards the northwest .

On October 4 , Joanne began to recurve , and developed winds of 90 mph ( 145 km/h ) . Later that day , the Eastern Pacific Hurricane Center ( EPHC ) downgraded Joanne into a tropical storm as the system weakened . Accelerating north and later northeast , Joanne made landfall near Laguna Chapala on Baja California while a tropical storm late on October 5 . Although records from the EPHC suggest that the tropical storm moved inland over Sonora on October 6 , it is likely that Joanne moved northeast into western Pima County as a minimal tropical storm . Tropical Storm Joanne weakened to a depression near Ajo , but made it all the way to Flagstaff before finally dissipating .

## = = Impact = =

The initial disturbance to Joanne brought squally weather to Guatemala . Upon making landfall in Mexico , the highest rainfall total was 9 @.@ 45 in ( 240 mm ) in San Felipe / Mexicali . Puerto Penasco recorded winds of 50 mph ( 80 km / h ) . Further north , Joanne caused heavy surf in California , and brought tropical storm @-@ force winds to the state .

Prior to landfall , flash flood watches were issued for the southern portion of the state . Heavy rainfall was reported throughout Arizona . Over 5 inches ( 100 mm ) was measured at the Mogollon Rim . Many areas of the state received between 1 to 3 inches ( 25 to 76 mm ) of rainfall , with isolated locations receiving over 5 inches ( 130 mm ) . In Phoenix , .78 in ( 20 mm ) of rain fell in a four @-@ hour period , compared to the October average of .46 in ( 12 mm ) . The Nogales Highway Bridge over the Santa Cruz River was washed away by the flooding . Some secondary roads near Tucson were flooded . Numerous water rescues were conducted in central Tucson since several major streets turned into rivers . Severe flooding was recorded in Clifton , Duncan , and Safford . An official in Maricopa County lost track on the exact number of roads that were closed because of the hurricane . Many neighborhoods in northern Phoenix were evacuated early on October 7 when a canal overflowed its banks due to prolonged rainfall . Downtown , a young man was electrocuted when he tried to remove a downed power line that was on his car . One person

was also killed in the city . Following the storm , heavy rain from Joanne set the stage for additional flooding in mid @-@ to late October from a Gulf of Alaska extratropical cyclone that brought more moisture to the area , causing \$ 10 million (  $1972\ USD$  ) in property damage and eight deaths . Further west in New Mexico , the hurricane produced 2 @.@ 48 in (  $63\ mm$  ) of precipitation .

Hurricane Joanne is one of only four known Pacific hurricanes to bring gale @-@ force winds to the Continental United States , and was the first since the 1939 California tropical storm . According to the National Weather Service , it was the first time in recorded history that a tropical cyclone had brought gale force winds to Arizona .