

= Tropical Storm Arthur (2008) =

Tropical Storm Arthur was the first Atlantic tropical storm that formed during the month of May since 1981 . The first tropical cyclone of the 2008 Atlantic hurricane season , the storm formed on May 30 , 2008 from the interaction of two tropical waves and the remnants of the eastern Pacific Tropical Storm Alma , which had crossed into the western Caribbean Sea . The system quickly organized and was named Tropical Storm Arthur on May 31 , while crossing the shore of Belize . It dissipated two days later over the Yucatán Peninsula in Mexico . Arthur and its remnants triggered severe flooding which killed a reported nine people and affected 100 @, @ 000 more in Belize . Damage was light to moderate , estimated at \$ 78 million (2008 USD) .

= = Meteorological history = =

By May 29 , 2008 , the western Caribbean Sea became tropically active due to the presence of two tropical waves and Tropical Storm Alma , which was located in the east Pacific Ocean . The system generated a broad surface low pressure system , as well as clusters of convection . The next day , Alma made landfall on Nicaragua , pulling deep tropical moisture into the region . Upper level outflow was spreading outwards from the tropical storm with a high pressure system over the Caribbean . A surface trough developed and extended from inland Honduras to just south of the Cayman Islands , which sparked further development of strong convection .

On May 31 , the remnants of Alma were situated along the coast of Belize as a 1004 mbar low pressure system . A broad upper @-@ level ridge was anchored over the Gulf of Honduras , which covered the entire region and maintained deep tropical moisture . Satellite imagery and a NOAA buoy reported sustained tropical storm @-@ force winds . Despite moving ashore , the system was named Tropical Storm Arthur about 45 mi (72 km) north @-@ northwest of Belize City . In post @-@ analysis , it was determined that Arthur had developed more than 12 hours earlier , late on May 30 , and made landfall early on May 31 with 45 mph (75 km / h) winds in northeastern Belize . While over land , Arthur maintained minimal tropical storm force winds , concentrated primarily over open waters to the east and northeast . Despite being over land for several hours , the storm maintained a fairly organized structure . The storm contained a large low @-@ level center , accompanied by convective banding , and was developing new convective cells . Initially , it was thought Arthur would continue generally westward due to a ridge to its north , and later re @-@ intensify in the Bay of Campeche .

The associated thunderstorm activity became separated from the center of circulation , and early on June 1 , the center became difficult to locate due to becoming disorganized . It remained a tropical storm over land for nearly 24 hours before weakening to a tropical depression later that day . While drifting southwestward over land , Arthur weakened further , and the National Hurricane Center issued its last advisory on the system late on June 1 . By June 4 , the remnants of Arthur were diminishing over southeastern Mexico without any redevelopment . Thunderstorms briefly redeveloped two days later , as its associated circulation crossed over the Bay of Campeche into Veracruz , although it dissipated soon after .

= = Impact and records = =

In preparation for the storm , ports were closed in the Mexican state of Quintana Roo , while residents and tourists were encouraged to take precautions in coastal areas . Also , ports were closed on the islands of Cozumel , Isla Mujeres and in Chetumal . Small boats were restricted from leaving some ports , but evacuations were deemed unnecessary . Tropical storm warnings were issued as soon as the storm was first classified for the coast of Belize and the coast of Mexico south of Cabo Catoche , and remained in effect until Arthur weakened to a tropical depression .

While crossing Belize , Arthur dropped heavy rainfall , estimated as high as 15 in (380 mm) . The storm produced rainfall as far south as Belize City and kicked up strong surf on the island of Ambergris Caye . Winds from Arthur forced the closure of two of Mexico 's three main oil exporting

ports in the Gulf of Mexico due to rough seas . The storm 's remnants , combined with recent heavy rains from Tropical Storm Alma , triggered flash flooding and caused rivers in southern and northern Belize to overflow . The flooding damaged one bridge and one highway , and several other bridges were under water . One village was evacuated , and shelters in Corozal and Orange Walk were opened . In rural areas the electricity was cut off due to safety issues . Dozens were stranded on their roof due to high water , and work to repair an important highway was halted when flood waters washed away the repaired section . Papaya plantations , shrimp farms and rice crops were also affected by the unsettled weather .

In all , about 100 @, @ 000 people were affected by the flooding , and nine fatalities were reported ; five of which were directly attributed to Arthur . A total of 714 houses were damaged , and damage in Belize was estimated at \$ 78 million (2008 USD) . British helicopters helped rescue stranded people following the storm , and Mexico provided a helicopter to help carry supplies to areas affected by the flooding . Prime Minister Dean Barrow declared a disaster area in southern Belize 's Stann Creek Valley . Additionally , the government rushed food , water and clothing to about 13 @, @ 000 people .

When Arthur later moved over Mexico , it dropped heavy rainfall , with a maximum 24 @-@ hour total of 8 @. @ 34 in (212 mm) in Pijijiapan , Chiapas . There were no reports of damage or deaths in the country . Arthur was the first tropical storm to form in May in the Atlantic since Tropical Storm Arlene in 1981 , and the last until Tropical Storm Alberto in May 2012 .