

= Tropical Storm Christine (1973) =

Tropical Storm Christine was the easternmost forming Atlantic tropical cyclone on record . Forming as a tropical depression over the country of Guinea on August 25 , 1973 , the system tracked nearly due west for several days before intensifying into a tropical storm on August 28 . However , the National Hurricane Center did not issue their first advisory on the system until its intensity was confirmed by a reconnaissance aircraft on August 30 . Turning slightly northward , Christine gradually intensified , attaining its peak strength on September 2 . At that time , the storm had winds of 70 mph (110 km / h) and a minimum pressure of 996 mbar (hPa ; 29 @. @ 41 inHg) , just below hurricane status . Shortly after , increasing wind shear caused the system to quickly weaken . By September 4 , Christine had been downgraded to a tropical depression as it tracked through the Leeward Islands . After degenerating into a tropical wave , the cyclone 's remnants fully dissipated on September 6 .

Although Christine had weakened to a tropical depression by the time it passed through the Leeward Islands , heavy rains from the storm , peaking at 11 @. @ 74 in (298 mm) , caused flooding in Puerto Rico . Over 600 homes were flooded and dozens of families had to be evacuated from several towns . One person died from electrocution after stepping on a downed wire on a flooded street . Minor damage was recorded in the Virgin Islands , mainly downed power lines which left roughly 500 people without telephone service .

= = Meteorological history = =

Tropical Storm Christine originated from a tropical wave over Africa in late @- @ August . As it neared the Atlantic Ocean , the wave spawned a tropical depression at 14 @. @ 0 ° W , over the country of Guinea , on August 25 . The formation of this depression was farther east than any other tropical cyclone on record in the Atlantic hurricane basin , although storms may have gone undetected prior to the start of satellite imagery in the 1960s . This record would not be approached by any other storm until Hurricane Jeanne in 1998 , which formed at 17 @. @ 4 ° W. This was unlike most cyclone producing waves which travel several hundred miles over water before spawning a depression . Tracking nearly due west , the depression moved over water several hours later and bypassed the Cape Verde Islands on August 27 .

The following day , the depression intensified into a tropical storm ; however , advisories were not issued by the National Hurricane Center (NHC) on the system until August 30 because of the lack of reconnaissance aircraft data . It was determined that Christine had become a tropical storm by this time after receiving reports of gale @- @ force winds from a German cargo ship in the vicinity of the storm . The first advisory from the NHC came after a reconnaissance plane found sustained winds of 50 mph (85 km / h) and a barometric pressure of 1007 mbar (hPa ; 29 @. @ 74 inHg) . At that time , Christine was located roughly 1000 mi (1 @, @ 500 km) east of Trinidad . Although the storm was relatively disorganized by this point , satellite imagery showed large outer bands extending hundreds of miles (kilometres) from the storm .

By August 31 , the storm began to slow and turn towards the west @- @ northwest . The NHC noted that they did not have a firm grip on the storm and were unsure of its future track and intensity . Below average sea surface temperatures ahead of the system would hamper significant development . Continuing on this track , Christine gradually intensified and on September 2 , the storm attained its peak intensity just below hurricane @- @ status while situated roughly 300 mi (500 km) east of Guadeloupe . At this time , a reconnaissance aircraft recorded sustained winds of 70 mph (110 km / h) and a minimum pressure of 996 mbar (hPa ; 29 @. @ 41 inHg) . Shortly after Christine attained this intensity , increasing wind shear caused the storm to weaken as it neared the Leeward Islands .

The NHC noted that a trough ahead of Christine would determine the future of the storm . This trough would either merge with the storm and allow significant intensification , or remain separate and cause Christine to dissipate . By September 3 , the low @- @ level circulation had been displaced from all convective activity and Christine weakened to a tropical depression . Several

hours after weakening , the depression passed over Antigua with winds of 35 mph (55 km / h) . The following day , the system degenerated into a tropical wave near the northeastern coast of the Dominican Republic . The remnants of Christine were monitored by the NHC for several days before dissipating near the trough on September 6 .

= = Observation = =

Throughout its existence , Christine was monitored by astronauts in the Skylab 3 project . During this project , active and passive microwave satellite imagery was used for the first time to determine the wind speed within a tropical cyclone . This was accomplished after the removal of regions of heavy rain from the data , a factor that gives inaccurate wind readings .

= = Preparations and impact = =

On September 2 , the National Hurricane Center issued gale warnings and hurricane watches for Guadeloupe , Desirade , Antigua and Barbuda . Later that day , the gale warnings were expanded southward to include islands north of Dominica . After Christine weakened to a tropical depression , the NHC discontinued all watches and warnings for the Leeward Islands . Schools were closed in Puerto Rico and the United States Virgin Islands as a precaution . Six scientists had to be evacuated from the small island of Aves once the storm posed a threat to them . On St. Thomas , nine emergency shelters were opened , mainly in schools . On September 5 , an emergency meeting was held by disaster officials in Puerto Rico about the threat of flooding from Christine . All residents were urged by government officials to have their disaster kits ready and be prepared to evacuate if told to do so . Firefighters , on and off @-@ duty , were advised about the possibility of evacuations and would be pulled into work if needed .

During its passage through the Leeward Islands , Christine produced torrential rainfall , peaking at 11 @.@ 74 in (298 mm) in eastern Puerto Rico . A maximum of 3 @.@ 16 in (80 mm) also fell in the United States Virgin Islands . Rainfall totals on other islands are unknown but are likely similar to those in the U.S. Virgin Islands . The precipitation led to flooding on several islands . One person was killed during the storm after being electrocuted by a downed power line on a flooded road . Public works crews worked throughout the storm to keep roads clear ; however , one road that was under construction became a " sea of mud " as crews could not clear the flood waters fast enough . The towns of Yabucoa , Humacao , Maunabo , Las Piedras and Carolinas sustained flood damage from the storm . In Yabucoa , 40 families were evacuated as 25 homes were damaged . The most substantial flooding took place in Humacao where 60 families were evacuated and 500 homes sustained damage . A total of six bridges , four sewer systems and 14 homes were damaged in Maunabo . An additional 21 people were evacuated from Las Piedras and 41 homes were damaged and in Carolinas , 23 more homes were damaged . Although there was extensive property damage , no monetary value is available .

Numerous calls were made to police in the United States Virgin Islands about downed power lines throughout the passage of the depression . High winds , gusting up to 40 mph (65 km / h) left roughly 500 people without telephone service on St. Croix . No major damage was reported on any of the affected islands in the wake of Christine . Residents in the drought @-@ stricken regions of Florida were hoping for increased rainfall from the remnant wave of Christine ; however , the system did not reach the United States before dissipating . The storm 's remnants only produced squally weather in Florida on September 7 and 8 .