

= Hurricane Allen =

Hurricane Allen was a rare and extremely powerful Cape Verde @-@ type hurricane which struck the Caribbean , eastern and northern Mexico then southern Texas . It was the first and strongest hurricane of the 1980 Atlantic hurricane season . The first named storm and first tropical cyclone of the 1980 Atlantic hurricane season , it was one of the strongest hurricanes in recorded history and one of the few hurricanes to reach Category 5 status on the Saffir ? Simpson Hurricane Scale on three separate occasions , and spent more time as a Category 5 than any other Atlantic hurricane . Allen is the only hurricane in the recorded history of the Atlantic basin to achieve sustained winds of 190 mph ( 305 km / h ) , thus making it the strongest Atlantic hurricane by wind speed . Until Hurricane Patricia in 2015 , this was also the highest sustained winds in the entire Western Hemisphere .

Throughout its life , Allen moved through the deep tropics on a west @-@ northwesterly course through the tropical Atlantic Ocean , Caribbean Sea , and Gulf of Mexico before making its final landfall near the United States ? Mexico border . At peak strength , it passed near Haiti , causing hundreds of deaths and heavy damage . After crossing the Gulf of Mexico , Allen weakened as it struck the lower Texas coast , causing high winds , a significant storm surge , and heavy rainfall , which caused damage to southern Texas . Overall , Allen killed 290 people and left just over 1 @.@ 24 billion in damage ( 1980 USD ) , mostly within the United States and Haiti . Due to its impact , the name Allen was retired from the six @-@ year revolving list of Atlantic tropical cyclone names in 1981 and the name was replaced by Andrew . The name Andrew was subsequently retired after the 1992 season 's Hurricane Andrew . The dissipating storm precipitated the end of the Heat Wave of 1980 in places like Dallas / Fort Worth , Texas , which had recorded 69 days of 100 ° F ( 38 ° C ) heat .

= = Meteorological history = =

Allen was an early Cape Verde @-@ type hurricane which originated from a tropical wave that previously moved off the African coastline on July 30 . The system developed as it moved westward , becoming a tropical depression on August 1 . However , the National Hurricane Center did not initiate advisories on Allen until almost 24 hours later , while centered 1 @,@ 300 mi ( 2 @,@ 100 km ) east of the Windward Islands . Early on August 2 , as the depression moved towards the Caribbean , it had intensified , and became the first named storm of the season . The National Hurricane Center noted that conditions appeared favorable for further intensification . However , it was also noted that a large cold @-@ low north of Puerto Rico was producing strong westerly wind shear , which would cause Allen to possibly encounter unfavorable conditions within 72 hours . Although slower forward movement was anticipated , Allen kept at generally the same westward pace between 17 and 23 mph ( 27 and 37 km / h ) . By August 3 , the National Hurricane Center retracted predictions of less favorable conditions from the cold @-@ low north of Puerto Rico , since that weather system was weakening and moving westward .

At 1600 UTC on August 3 , the National Hurricane Center upgraded Allen to hurricane status , as an Air Force Plane recorded winds of 100 mph ( 155 km / h ) . However , in post @-@ analysis , it was discovered that Allen had been a hurricane since 0000 UTC on August 3 . Shortly after the upgrade , Allen began a period of rapid deepening , and intensified into a major hurricane at 0000 UTC August 4 , while roughly 38 mi ( 61 km ) northwest of Bridgetown , Barbados . Six hours later , Allen passed only 8 mi ( 13 km ) south of St. Lucia at 0600 UTC . Although the National Hurricane Center noted that conditions favored slow strengthening , Allen continued to rapidly intensify , and became a Category 4 hurricane only two hours after that advisory . Later on August 4 , the National Hurricane Center noted a barometric pressure of 946 mbar ( 946 hPa ; 27 @.@ 9 inHg ) , and that the it would not drop significantly within 24 hours . Shortly before 0000 UTC on August 5 , the minimum pressure decreased to 924 mbar ( 924 hPa ; 27 @.@ 3 inHg ) , which was noted as equivalent to Hurricane David in the previous season .

By August 5 , Allen intensified into a Category 5 hurricane while south of Puerto Rico . This made

Allen the earliest Category 5 hurricane in the Atlantic on record , but was later surpassed by Hurricane Emily which reached that intensity on July 16 , 2005 . During this time , Allen attained a central pressure of 911 mbar ( 911 hPa ; 26 @. @ 9 inHg ) , the lowest pressure on record in the eastern Caribbean sea . Hence , the barometric pressure dropped by 35 mbar ( 35 hPa ; 1 @. @ 0 inHg ) less than 10 hours after the National Hurricane Center stated that the pressure would not decrease significantly within 24 hours .

The eye passed between Hispaniola and Jamaica as a Category 4 hurricane . After weakening due to friction with the mountains of Haiti and Jamaica , Allen intensified back to a Category 5 hurricane , retaining this intensity for over a day . It then moved past the islands of Cayman Brac and Little Cayman causing moderate damage on Cayman Brac with winds near 135 mph . The storm then moved between Cuba and the Yucatán Peninsula , reaching its peak intensity of 190 mph ( 310 km / h ) and a minimum pressure of 899 mbar ( 899 hPa ; 26 @. @ 5 inHg ) while crossing the Yucatán Channel . During Allen 's trek through the Caribbean Sea and the Gulf of Mexico , its center of circulation never crossed over land despite its close passage to various islands in and around the Caribbean sea .

Allen again weakened to a Category 4 storm due to friction with Mexico and Eyewall replacement cycle , but restrengthened into a Category 5 hurricane for a third time as it moved over the open waters of the Gulf of Mexico , keeping this intensity for nearly a full day and with a pressure drop to 909 mbar ( 909 hPa ; 26 @. @ 8 inHg ) , the lowest pressure ever recorded in the western Gulf of Mexico . Shortly before landfall , a dry air mass in the western Gulf of Mexico caused the storm to weaken substantially . Allen made landfall north of Brownsville , Texas as a Category 3 storm with maximum sustained winds of 115 mph ( 185 km / h ) . Allen became extratropical on August 11 .

= = Preparations = =

As Allen approached the Caribbean Sea , gale warnings and a hurricane watch were issued for the islands of Barbados , St. Lucia , St. Vincent , Dominica , Grenada , Martinique , and Guadeloupe during the daylight hours of August 3 . Gale warnings were in effect for Antigua from 11 am on August 3 until 11 am on August 4 . Hurricane warnings were raised for Barbados , St. Vincent , St. Lucia , Martinique , and Dominica from the early afternoon of August 3 until the late morning of August 4 . As Allen moved into the Caribbean sea , hurricane watches were issued for southeastern sections of the Dominican Republic and the southwestern peninsula of Haiti from 11 am on August 4 until the morning of August 5 . Gale warnings were then in effect for the southern Dominican Republic from the night of August 4 into the night of August 5 , while southern Haiti maintained the warnings from the night of August 4 into the morning of August 5 . The hurricane watch was issued for Jamaica during the morning hours of August 5 , while hurricane warnings were raised for the southwest peninsula of Haiti from the late morning of August 5 into the morning of August 6 . Hurricane warnings went into effect for Jamaica from around noon on August 5 until late in the afternoon of August 6 . The Cayman Islands saw hurricane watches issued from the afternoon of August 5 into the morning of August 6 before the watches were upgraded to hurricane warnings from the morning until late afternoon of August 6 .

As Allen approached the Gulf of Mexico , hurricane warnings were raised for the northeast Yucatán peninsula of Mexico from the afternoon of August 6 into the morning of August 8 . Gale warnings were in effect for the Florida Keys from the evening of August 6 into the early morning of August 8 . As Allen approached its final landfall , the northeast Mexican coast and Texas coast were placed under a hurricane watch from the morning of August 8 until the morning of August 9 for Mexico and the afternoon of August 9 for Texas . Hurricane warnings were posted for the Texas coast during the afternoon of August 8 , and were lowered north of Freeport , Texas during the afternoon of August 9 and south of Freeport during the afternoon of August 10 . Gale warnings and a hurricane watch were issued for the Louisiana coast from Vermilion Bay westward from the afternoon of August 8 into the afternoon of August 9 . Hurricane warnings were in effect for northeast Mexico from the early afternoon of August 9 into the late afternoon of August 10 . Hurricane warnings were downgraded to gale warnings between High Island , Texas and Freeport , Texas between the late

afternoon of August 9 and the late afternoon of August 10 . Hurricane watches were dropped for the Louisiana coast during the late afternoon of August 9 . Hurricane warnings were downgraded to gale warnings for the lower Texas coast south of Freeport from the late afternoon of August 10 into the early morning of August 11 .

= = Impact = =

Allen caused just under \$ 1 billion ( 1980 USD ) in damages and killed at least 269 people throughout its course ( including indirect deaths ) .

= = = Caribbean islands = = =

In Barbados , preliminary damages were estimated to be \$ 1 @. @ 5 million ( 1980 USD ) . About 500 houses were either damaged or destroyed . No deaths were reported . St. Lucia sustained catastrophic damage from the strong category 3 hurricane . Sustained winds of 90 knots ( 170 km / h ) and a sea level pressure as low as 967 millibars ( 28 @. @ 6 inHg ) were reported at Hewanorra . Eighteen people lost their lives as a result of the storm 's passage . One death in Guadeloupe was attributed to Allen . In Martinique , damage was extensive as the storm passed 50 miles ( 80 km ) south of the island . Waves 6 metres ( 20 ft ) high battered the coast of the island during the storm .

In the central Caribbean , Cayman Brac was hit by winds in excess of 115 mph ( 185 km / h ) which caused considerable property damage . A coral reef at Discover Bay , Jamaica was devastated by the wave action from the storm . Offshore Jamaica , greater numbers of smaller @- @ sized Damselfishes was witnessed in the wake of Allen . Eight deaths in Jamaica were attributed to Allen . Damage was very significant along the northeast coast , where the hurricane made its closest approach to the island and created a 12 metres ( 39 ft ) storm surge . Three deaths were attributed to Allen in Cuba .

Extensive damage occurred in Haiti due to high winds and flash flooding . Total costs for that country were estimated to be at more than \$ 400 million ( 1980 USD ) . Roughly 60 % of the nation 's coffee crop was destroyed . In all , 220 people were killed and 835 @, @ 000 were left homeless . In Port @- @ au @- @ Prince , 41 deaths were caused by tin roofs flying off and around 1200 were made homeless by flooding . Another 140 people were reported dead from flooding .

= = = Mexico = = =

Areas of northeastern Mexico saw heavy rains with the passage of Allen , with the highest totals exceeding 7 inches ( 180 mm ) . The hurricane earlier brushed the Yucatán Peninsula . As Allen only affected sparsely populated regions of Mexico , there were no reports of significant damage .

= = = United States = = =

In Texas , the storm surge was reported as high as 12 feet ( 3 @. @ 7 m ) at Port Mansfield , though it may have been higher elsewhere along the Texas coast . A peak wind gust of 129 mph ( 208 km / h ) was also measured at Port Mansfield . Tropical storm @- @ force winds in Corpus Christi , Texas blew roof gravel through the city , which led to substantial glass breakage to the 18 @- @ story Guarantee Bank Building and a 12 @- @ story wing of Spohn hospital . The storm caused seven deaths in Texas and 17 in Louisiana ( most resulting from the crash of a helicopter evacuating workers from an offshore platform ) . Allen spawned several tornadoes in Texas . One tornado caused \$ 100 million in damage when it hit Austin , Texas , making it the costliest tropical cyclone @- @ spawned tornado in recorded history . Overall , however , the storm caused limited damage in the United States due to its suddenly diminished power and because its highest tides and winds hit a sparsely @- @ populated portion of the Texas coast .

Allen dumped 10 inches ( 250 mm ) to 20 inches ( 510 mm ) of rain in south Texas , ending a summer @- @ long drought during the Heat Wave of 1980 .

## = = Retirement = =

Because of the destruction , extreme death tolls and intensity , the name Allen was retired from the Atlantic tropic storms list by the World Meteorological Organization in the spring of 1981 , and will never be used again for a future Atlantic hurricane . It was replaced with Andrew in the 1986 season , which was also retired due to widespread damage in Florida following its second usage in 1992 and was replaced with Alex in 1998 .

## = = Records = =

When Allen reached Category 5 intensity on August 5 , it became the earliest Category 5 storm ever recorded . This record stood until Hurricane Emily surpassed it on July 16 , 2005 . Allen is one of three Atlantic hurricanes to reach Category 5 on the Saffir @-@ Simpson hurricane scale on three separate occasions , the others being Hurricane Ivan and Hurricane Isabel . Allen also produced the fifth @-@ lowest minimum pressure ever recorded in the Atlantic basin at 899 mbar ( hPa ) and was the strongest known hurricane in the basin , in terms of pressure , since 1935 . Until then , it was the second strongest hurricane by pressure in the Atlantic Basin , but was since pushed down to fifth , and no hurricane has achieved 190 miles per hour ( 310 km / h ) winds in this basin since then . It remains the most intense storm ever in August . Allen spent nearly 3 days as a Category 5 storm , initially the longest stretch of any previous Atlantic hurricane on record . However , a reanalysis of the 1932 Cuba hurricane showed that it spent 3 hours longer at Category 5 intensity than Allen . Five typhoons have spent longer as Category 5 storms , including most recently Karen and Nancy in the early 1960s .