= 1983 Atlantic hurricane season =

The 1983 Atlantic hurricane season was the least active Atlantic hurricane season in 53 years , during which only four tropical storms formed . The season officially began on June 1 , 1983 , and lasted until November 30 , 1983 . These dates conventionally delimit the period of each year when most storms form in the Atlantic basin . The season had very little activity , with only seven tropical depressions , four of which reached tropical storm strength or higher . This led to the lowest Accumulated Cyclone Energy count since 1950 , but not since 1900 .

The season began later than normal ; the first tropical depression formed on July 29 and the second on July 31 . Neither tropical depression strengthened and they dissipated soon thereafter . Hurricane Alicia formed as Tropical Depression Three on August 15 , quickly intensified into a hurricane on August 16 and made landfall in Texas on August 18 . Alicia caused over $ 3 billion in damage in Texas . Hurricane Barry formed on August 25 , crossed Florida and strengthened into a hurricane . Barry made landfall near Brownsville , Texas and dissipated over land on August 30 .

Hurricane Chantal , the third of three hurricanes in 1983 , formed on September 10 . It strengthened into a hurricane , but stayed out at sea , and became absorbed by a front on September 15 . Tropical Depression Six formed on September 19 and caused heavy rains in the Caribbean before degenerating into a wave on September 21 . Tropical Storm Dean was the final storm of the season , forming on September 26 . It originally tracked to the north , peaking at 55 mph (89 km / h) winds (85 km / h) , and made landfall in the Delmarva Peninsula on September 29 . It dissipated over the coast of Virginia on September 30 .

= = Seasonal forecasts and activity = =

Forecasts of hurricane activity are issued before each hurricane season by noted hurricane experts like Dr. William M. Gray , and his associates at Colorado State University . A normal season , as defined by NOAA , has six to fourteen named storms , with four to eight of those reaching hurricane strength , and one to three major hurricanes . The July 23 , 1983 forecast predicted that after the slow start to the season , that a total of eight storms would form , and five of the storms would reach hurricane status . The forecast did not specify how many of the hurricanes would reach major hurricane status . However , the predictions proved to be too high , with only four named storms forming by the end of the season and three of those reaching hurricane status .

The season , which began on June 1 and ended on November 30 , was very inactive because of strong upper @-@ level wind shear . The wind shear was unusually strong throughout the Caribbean and open Atlantic , and disrupted convection in areas of disturbed weather so they could not develop . Over sixty African systems had formed and made it westward , but when they reached the Lesser Antilles , they were dissolved easily . The only area where the shear was minimal ? a region encompassing the Gulf of Mexico and the Atlantic north of the Bahamas and east of Florida ? was where the four named storms developed . This makes the 1983 season the least active season since the 1930 Atlantic hurricane season which had only two storms . 1983 and the prior season became the first example of two consecutive years to have no storms form in the Caribbean Sea since 1871 , when reliable record began . 1983 also proved to be the first season since 1871 that a storm did not form south of 25 ° N latitude .

1983 was the first season for which the National Hurricane Center issued numeric landfall probabilities . Probabilities had been calculated for prior storms for use in the issuing of hurricane watches and warnings , but this was the first time the raw numeric probabilities were released to the public . The probabilities issued were accurate during Alicia , indicating that Galveston and surrounding portions of the upper Texas coast were the most likely area to be struck .

The season 's activity was reflected with a low cumulative accumulated cyclone energy (ACE) rating of 17 , which is classified as " below normal " . ACE is , broadly speaking , a measure of the power of the hurricane multiplied by the length of time it existed , so storms that last a long time , as well as particularly strong hurricanes , have high ACEs . ACE is only calculated for full advisories on tropical systems at or exceeding 34 knots (39 mph , 63 km / h) or tropical storm strength .

Subtropical cyclones are excluded from the total .

= = Storms = =

= = = Tropical Depression One = = =

Tropical Depression One formed from a tropical disturbance near the Lesser Antilles on July 29 . The National Hurricane Center indicated the possibility of the depression strengthening into a tropical storm in media reports but upper @-@ level wind shear inhibited any development . The depression dissipated the next day .

= = = Tropical Depression Two = = =

An area of disturbed weather in the central Atlantic managed to gain enough organization to be designated Tropical Depression Two on July 31 . The depression moved across the Atlantic without strengthening due to high upper @-@ level wind shear , and dissipated near the Lesser Antilles on August 3 .

= = = Hurricane Alicia = = =

The system that would become Hurricane Alicia originated from the western end of a frontal trough that stretched from New England to the Gulf of Mexico . Satellite pictures showed a meso @-@ scale low pressure area that had moved off the Alabama and Mississippi coasts near the trough and was possibly the precursor system to Alicia . Pressures in the Gulf of Mexico were high and stayed high during the early development stages . On August 15 , a ship recorded a minimal pressure of 1015 millibars (29 @.@ 99 inHg) , when the system was upgraded into Tropical Storm Alicia . With high environmental pressures around it , Alicia remained a small system .

Steering currents above Alicia remained weak during the storm 's lifetime . However , a ridge was well formed to the north of the developing storms . With fluctuations in the pressures , Alicia began to drift to west on August 16 . This was short @-@ lived , as Alicia turned to the northwest towards Texas . During the period of August 16 to August 18 , an anticyclone had formed over Alicia and along with slow movement over warm waters , caused Alicia to intensify rapidly . The pressure in Alicia decreased one millibar an hour in the 40 hours before landfall . Alicia peaked at 115 mph (185 km / h) in winds and 962 millibars (28 @.@ 39 inHg) in pressure on August 18 . Alicia made landfall near Galveston , Texas on August 18 as a Category 3 hurricane . Alicia weakened quickly over land and accelerated over the Midwest , before dissipating over Nebraska on August 21 .

As Alicia moved northward , the remnants caused moderate to heavy rainfall in several states . Houston suffered heavy damage , including thousands of shattered glass panes from downtown skyscrapers . In the end , Alicia killed 22 people and caused $ 2 billion (1983 US $) in damage ($ 4 @.@ 1 billion , 2007 USD) .

= = = Hurricane Barry = = =

Hurricane Barry originated from a tropical disturbance that left the Northwestern African coast on August 13 . Most of the season , the northwestern tropical Atlantic Ocean had upper @-@ level wind shear , which had inhibited development of systems . Due to these conditions , the disturbance was unable to strengthen until August 22 as it was approaching the Bahamas . A weak trough moved the disturbance into an area of low wind shear , and the disturbance intensified into Tropical Depression Four on the evening of August 23 . The depression was just to the northeast of the northern Bahamian Islands where it strengthened into Tropical Storm Barry on the morning of August 24 .

Tropical Storm Barry turned to the west and with returning wind shear , weakened into a tropical

depression . The depression made landfall near Melbourne , Florida on the morning of August 25 . After Tropical Depression Barry emerged from central Florida , it was still under pressure from high @-@ level winds . The depression entered the central Gulf of Mexico and returned to tropical storm strength . Barry rapidly intensified , becoming a hurricane on August 28 , making landfall near Brownsville , Texas that afternoon . Before landfall , Barry peaked with 80 mph (130 km / h) winds and a pressure of 986 millibars (29 @.@ 11 inHg) . The remnants dissipated over the northern Mexican mountains on August 29 .

= = = Hurricane Chantal = = =

The area of disturbed weather that would soon become Chantal began in a large envelope of low pressure on the morning of September 10 . The disturbed weather , nested off the coast of Bermuda , was one of the remnants of an old frontal trough that had extended from Hispaniola to the central north Atlantic Ocean . This particular area of disturbed weather become part of the northeast portion of a low @-@ pressure system . On September 10 , a reconnaissance aircraft found sustained winds of 30 mph (50 km / h) and a 1010 millibar (29 @.@ 83 inHg) pressure reading . This reading indicated the system developed into the fifth tropical depression of the 1983 season .

The depression moved to within 100 miles (160 kilometers) of Bermuda and slowly intensified . Late that afternoon , Tropical Depression Five had intensified into a 40 mph (60 km / h) storm and was named Chantal . Chantal intensified rapidly , intensifying to hurricane status late on September 11 . Chantal turned to the east and gained a weak outflow with cirrus clouds . The structure changed little over the next 24 hours , until becoming disorganized on the night of the 12th . Chantal was downgraded to a tropical storm around the same time .

Overnight , all convection in Chantal dissipated , and its forward speed decreased as it headed to the north . A weak wave caused Chantal to speed up and the system was absorbed in the frontal system by the night of September 14 . Effects on Bermuda were minimal , with the island getting winds of up to 20 mph (25 km / h) and few thundershowers . Chantal generated swells of 30 ? 40 ft (9 ? 12 m) offshore .

= = = Tropical Depression Six = = =

Tropical Depression Six formed on September 19 . The depression caused heavy rainfall in the Lesser Antilles before degenerating into a tropical wave on September 21 near the Dominican Republic .

= = = Tropical Storm Dean = = =

Tropical Storm Dean originated from inside a frontal cloud band , which had moved off the Eastern Coast of the United States on September 22 . During the next few days , the band became stationary from The Bahamas to beyond Bermuda . During this period , a 1035 millibar (30 @.@ 56 inHg) high pressure cell had become settled over the northeastern United States . This resulted in a strong pressure gradient and winds near gale force along the eastern coast .

A low @-@ level circulation formed from the frontal cloud band on September 26 about 460 miles (740 km) east of central Florida . Dean was first identified on the afternoon of September 26 as a subtropical storm . An Air Force reconnaissance flight was sent to Dean on September 27 and only reported winds of 35 mph (55 km / h) at 23 miles (37 kilometres) from the center . A pressure of 999 millibars (29 @.@ 50 inHg) indicated that Dean was strengthening as it headed northward . Additionally , satellite pictures showed that the subtropical cyclone was emerging from the cloud . This data also showed that the storm was gaining tropical characteristics and was given the name Dean on the afternoon of September 27 .

Dean 's winds peaked at 55 mph (80 km / h) on September 28 as it headed northward . Dean 's circulation turned to the northwest on September 29 then made landfall in the Delmarva Peninsula and dissipated over land on September 30 . Gale warnings were from North Carolina to Rhode

Island in association with Dean . Dean produced rainfall spreading from the North Carolina / Virginia border all the way to New England . Virginia reported rains of 1 inch (25 @.@ 4 mm) with 3 inches (76 @.@ 2 mm) at the border . Rains peaked at 4 @.@ 62 inches (117 mm) at Cockaponset Ranger Station in Connecticut . Damage was limited to minor beach erosion and flooding along the portion of Mid @-@ Atlantic coast states .

= = Seasonal effects = =

= = Storm names = =

The following names were used for named storms that formed in the North Atlantic in 1983 . The names not retired from this list were used again in the 1989 season . It was the first time these names had been used since the post @-@ 1978 change in the National Hurricane Center 's naming policy .

= = = Retirement = = =

The World Meteorological Organization retired one name in the spring of 1984 : Alicia . It was replaced in the 1989 season by Allison .