

= Tropical Storm Zeta =

Tropical Storm Zeta was a late @-@ developing tropical storm over the central Atlantic that formed after the 2005 Atlantic hurricane season had officially ended ( on November 30 ) and continued into January 2006 . Becoming a tropical depression at approximately midnight on December 30 ( UTC ) , it became the record @-@ breaking thirtieth tropical cyclone of the 2005 Atlantic hurricane season and after intensifying into Tropical Storm Zeta six hours later , it became the season 's twenty @-@ seventh named storm . Zeta was one of only two Atlantic tropical cyclones to span two calendar years ( the other being Hurricane Alice in 1954 ? 55 ) .

Zeta originated from an area of low pressure on December 29 , which previously developed within an upper @-@ level trough . After becoming a tropical storm , the National Hurricane Center continually predicted it would weaken rapidly . Like the previous tropical cyclone , Hurricane Epsilon , Zeta defied these predictions . The storm reached its peak strength on January 2 , 2006 before finally dissipating on January 6 . As Zeta never approached land there was no impact from the storm other than minor shipping problems . Several ships encountered the storm , and several crews in the 2005 Atlantic Rowing Race were affected by rough seas and high winds .

= = Meteorological history = =

Tropical Storm Zeta originated from an upper @-@ level trough that interacted with a weakening frontal system in late @-@ December 2005 . By December 28 , the trough had developed into a low pressure area roughly 750 mi ( 1 @,@ 210 km ) west @-@ northwest of the Cape Verde Islands . The following day , a low @-@ level circulation developed and convective activity began to increase around the low . By December 30 , sufficient shower and thunderstorm activity had developed for the National Hurricane Center ( NHC ) to classify it as a tropical cyclone . Over the following several hours , convective banding developed around the storm 's center and by 0600 UTC , the depression intensified into Tropical Storm Zeta , the record 28th tropical or subtropical cyclone to form during the 2005 Atlantic hurricane season . Operationally , however , the NHC did not begin issuing advisories on Zeta until 1700 UTC . Traveling slowly northwestward in response to a mid @-@ level low to the southwest , the storm gradually intensified in a region of favorable anticyclonic outflow .

By the afternoon of December 30 , dry air caused the system to become slightly disorganized and led forecasters to anticipate further weakening of the storm and dissipating within three days . The following day , a mid @-@ level ridge to the north caused Zeta turn westward before nearly stalling due to upper @-@ level westerlies . By this time , the storm attained winds of 60 mph ( 95 km / h ) but increasing wind shear caused convection to become disorganized , resulting in a brief weakening period . Despite the shear , the shallow structure of Zeta allowed convection to regenerate and the storm gradually re @-@ intensified . Around 1800 UTC on January 1 , 2006 , Zeta attained its peak intensity with winds of 65 mph ( 100 km / h ) and a barometric pressure of 994 mbar ( hPa ; 29 @.@ 35 inHg ) roughly 1 @,@ 035 mi ( 1 @,@ 665 km ) northwest of the Cape Verde Islands . By January 2 , the storm began tracking towards the southwest in response to a mid @-@ level trough located east of the storm . Tropical Storm Zeta continued to defy forecasts of weakening .

The effects of wind shear finally took their toll late on January 4 , and Zeta 's convection began to die down . This led to Tropical Storm Zeta weakening to a minimal tropical storm . The NHC continued to overestimate how quickly Zeta would dissipate and early on January 5 they operationally downgraded Zeta to a depression , which was later confirmed to have been an error . Zeta continued to move west @-@ northwestward , barely holding on to tropical storm status before becoming disorganized again . Zeta weakened into a tropical depression on January 6 and dissipated into a remnant later that day . With this transition , the very active 2005 hurricane season finally came to a close . The remnant low retained its identity for a further day before it dissipated 660 miles ( 1060 km ) southeast of Bermuda .

= = Impact and records = =

Several of the crews that were taking part in the 2005 Atlantic Rowing Race were affected with heavy seas and strong adverse winds from Tropical Storm Zeta . Several teams encountered winds up to 50 mph ( 85 km / h ) and large swells up to 12 ft ( 3 @. @ 7 m ) . Although battered by torrential rain and high winds , the direction of the winds assisted some of the ships in the race by speeding them closer to Antigua . One Welsh vessel was blown 25 mi ( 40 km ) off @-@ course , ending with an encounter with a 12 ft ( 3 @. @ 7 m ) shark that battered their boat . The ship Liberty Star made several reports of strong winds from Tropical Storm Zeta , including one of 40 mph ( 65 km / h ) winds early on December 31 , when the ship was about 45 miles ( 75 km ) north of the storm .

When Zeta formed at 0600 UTC on December 30 , it became the second latest @-@ forming tropical cyclone ever recorded in the Atlantic . Only Hurricane Alice of December 1954 formed later than Zeta , becoming a tropical storm around 1200 UTC . Additionally , Zeta became the second known Atlantic tropical cyclone , along with Alice , to exist in two calendar years . Tropical Storm Zeta also extended the record number of storms to form in the 2005 season to twenty @-@ eight , seven more than the previous record held by the 1933 season .

Although the storm affected several vessels during its existence , no land areas were threatened by Zeta . As a result , the NHC did not issue any tropical storm watches or warnings .