

= Tropical Depression Ten ( 2005 ) =

Tropical Depression Ten was the tenth tropical cyclone of the record @-@ breaking 2005 Atlantic hurricane season . It formed on August 13 from a tropical wave that emerged from the west coast of Africa on August 8 . As a result of strong wind shear , the depression remained weak and did not strengthen beyond tropical depression status . The cyclone degenerated on August 14 , although its remnants partially contributed to the formation of Tropical Depression Twelve , which eventually intensified into Hurricane Katrina . The cyclone had no effect on land , and did not directly result in any fatalities or damage .

= = Meteorological history = =

On August 8 , a tropical wave emerged from the west coast of Africa and entered the Atlantic Ocean . Tracking towards the west , the depression began to exhibit signs of convective organization on August 11 . The system continued to develop , and it is estimated that Tropical Depression Ten formed at 1200 UTC on August 13 . At the time , it was located about 1 @, @ 600 miles ( 2 @, @ 600 km ) east of Barbados . Upon its designation , the depression consisted of a large area of thunderstorm activity , with curved banding features and expanding outflow . However , the environmental conditions were predicted to quickly become unfavorable . The depression moved erratically and slowly towards the west , and wind shear inhibited any significant intensification . Late on August 13 , it was " beginning to look like Irene @-@ junior as it undergoes southwesterly mid @-@ level shear beneath the otherwise favorable upper @-@ level outflow pattern " . The wind shear was expected to relent within 48 hours , prompting some forecast models to suggest the depression would eventually attain hurricane status .

By early August 14 , the shear had substantially disrupted the storm , leaving the low @-@ level center of circulation exposed from the area of convection , which was also deteriorating . After meandering , the storm began to move westward . Forecasters expected it to resume a northwestward track as high pressure to the south of Bermuda was forecast to weaken and another high was predicted to form southwest of the Azores . By 1800 UTC on August 14 , the strong shear had further weakened the storm , and it no longer met the criteria for a tropical cyclone . It degenerated into a remnant low , and the National Hurricane Center issued their final advisory on the cyclone . Moving westward , it occasionally produced bursts of convective activity , before dissipating on August 18 .

Tropical Depression Twelve formed over the southeastern Bahamas at 2100 UTC on August 23 , partially from the remains of Tropical Depression Ten . While the normal standards for numbering tropical depressions in the Atlantic stipulate that the initial designation be retained when a depression regenerates , satellite imagery indicated that a second tropical wave had combined with Tropical Depression Ten north of Puerto Rico to form a new , more complex weather system , which was then designated as Tropical Depression Twelve . In post @-@ season reanalysis , it was found that the low @-@ level circulation of Tropical Depression Ten had completely detached and dissipated ; only the remnant mid @-@ level circulation moved on and merged with the second tropical wave . As a result , the criteria for keeping the same name and identity were not met . Tropical Depression Twelve later became Hurricane Katrina .

= = Impact = =

Because Tropical Depression Ten never approached land as a tropical cyclone , no tropical cyclone watches and warnings were issued for any land masses . No effects , damages , or fatalities were reported , and no ships reported tropical storm @-@ force winds in association with the depression . The system did not attain tropical storm status ; as such , it was not given a name by the National Hurricane Center . The storm partially contributed to the formation of Hurricane Katrina , which became a Category 5 hurricane on the Saffir @-@ Simpson Hurricane Scale and made landfall in Louisiana , causing catastrophic damage . Katrina was the costliest hurricane , and one of the five

deadliest , in the history of the United States .