

= Hurricane Gladys (1975) =

Hurricane Gladys was the farthest tropical cyclone from the United States to be observed by radar in the Atlantic basin since Hurricane Carla in 1961 . The seventh named storm and fifth hurricane of the 1975 Atlantic hurricane season , Gladys developed from a tropical wave while several hundred miles southwest of Cape Verde on September 22 . Initially , the tropical depression failed to strengthen significantly , but due to warm sea surface temperatures and low wind shear , it became Tropical Storm Gladys by September 24 . Despite entering a more unfavorable environment several hundred miles east of the northern Leeward Islands , Gladys became a Category 1 hurricane on the Saffir ? Simpson hurricane wind scale on September 28 . Shortly thereafter , the storm reentered an area favorable for strengthening . Eventually , a well @-@ defined eye became visible on satellite imagery .

As the storm tracked to the east of the Bahamas , a curve to the north began , at which time an anticyclone developed atop the cyclone . This subsequently allowed Gladys to rapidly intensify into a Category 4 hurricane , reaching maximum sustained winds of 140 mph (230 km / h) on October 2 . Thereafter , Gladys began to weaken and passed very close to Cape Race , Newfoundland before merging with a large extratropical cyclone the next day . Effects from the system along the East Coast of the United States were minimal , although heavy rainfall and rough seas were reported . In Newfoundland , strong winds and light precipitation were observed .

= = Meteorological history = =

On September 17 , a tropical wave emerged into the Atlantic Ocean off the western coast of Africa . The disturbance followed another tropical wave which became Hurricane Faye several days later , before turning west near the 11th parallel . Based on estimates from the Dvorak Technique , the wave was designated a tropical depression at 18 : 00 UTC on September 22 . Due to favorable conditions such as low wind shear and warm sea surface temperatures , the depression strengthened into a tropical storm and was named Gladys by the National Hurricane Center (NHC) on September 24 . After becoming a tropical storm , Gladys slowly intensified as winds increased to 50 mph (80 km / h) . The storm then moved west @-@ northwest , and on September 25 , Gladys strengthened into a Category 1 hurricane on the Saffir ? Simpson hurricane wind scale (SSHWS) . Despite strong wind shear , the storm maintained minimal hurricane status . However , early on September 28 , the barometric pressure increased to 1 @, @ 000 mb (30 inHg) ; the NHC notes that Gladys may have briefly weakened into a tropical storm at this time .

After passing through the trough that generated the wind shear , the storm began to strengthen again . While moving about 350 miles (560 km) north of Puerto Rico on September 30 , the winds of the storm increased to 90 mph (145 km / h) . By this time , an eye was clearly visible on satellite imagery . After holding steady for 36 hours , the storm recurved around a ridge on October 1 . Gladys then began to undergo rapid deepening , becoming a Category 2 hurricane at 18 : 00 UTC and Category 3 hurricane the following day . Early on October 2 , the storm strengthened into a Category 4 hurricane . At 08 : 46 UTC on October 2 , Hurricane Hunters measured maximum sustained winds of 140 mph (225 km / h) and a minimum barometric pressure of 939 mbar (27 @. @ 7 inHg) . Moving northeast , the hurricane hunters soon observed a pressure of 940 mbar (28 inHg) , making it the one of the most intense high @-@ latitude storms ever observed . Despite its distance from Cape Hatteras , the system was briefly observed on radar . It became one of few hurricanes at the time to be seen on radar over 150 mi (240 km) from the continental United States . Thereafter , the storm weakened slightly , and was downgraded to a Category 3 hurricane early on October 3 . Accelerating at unusually high speeds , Gladys passed 70 miles (115 km) southeast of Cape Race , Newfoundland on October 3 . The storm finally merged with a large extratropical cyclone on October 4 .

= = Observation , preparations and impact = =

While over the Atlantic Ocean , a National Oceanic and Atmospheric Administration (NOAA) C-130 hurricane hunter aircraft flew into Gladys on October 1 on a research mission . The mission was to study the storm and use the information to improve seeding operations for the now defunct Project Stormfury .

Gladys was the strongest storm to threaten the East Coast of the United States since Hurricane Hazel in 1954 . Although initially not expected to threaten , meteorologists at the NHC forecast the storm to make landfall along the East Coast of the United States within three days . A hurricane watch was issued for North Carolina 's Outer Banks on October 1 , extending from Cape Lookout to Kitty Hawk . However , the watch discontinued as Gladys pulled away , though the storm was still considered a threat to the nation . In Manteo , residents began laying sandbags and filling their cars up with fuel in anticipation for possible evacuation , and the United States Coast Guard sent a plane equipped with a loudspeaker to warn fishermen of the hurricane . However , despite warnings , about 40 fishermen went to Cape Point near Cape Hatteras due to the " increased feeding activities " of fish during rough seas . All small crafts were advised to stay out of the water . Elsewhere in the Outer Banks , residents evacuated to hotels in Elizabeth City and four United States Coast Guard servicemen stationed at a lighthouse in Cape Hatteras were evacuated .

While passing the Outer Banks , a campground and road was closed due to 8 ft (2 m) waves . As the cyclone moved northward . In all , the effects of the storm on North Carolina were minimal . While tracking rapidly to the southeast of Newfoundland , light rainfall was observed , including 1.46 in (37 mm) of precipitation in St. John 's . Strong winds were also reported on the island .