

= Hurricane Gladys (1964) =

Hurricane Gladys was a tropical cyclone that caused minor impact along the East Coast of the United States and in Bermuda and Atlantic Canada . The ninth named storm and fifth hurricane of the 1964 Atlantic hurricane season , Gladys developed from a tropical wave located east of the Lesser Antilles on September 13 . Shortly thereafter , it strengthened into a tropical storm . On September 14 , Gladys abruptly intensified into a Category 2 hurricane on the Saffir ? Simpson hurricane wind scale . However , early on the following day , Gladys weakened slightly to a Category 1 hurricane . Between late on September 16 and late on September 17 , the storm rapidly strengthened , peaking as a 145 mph (230 km / h) Category 4 hurricane on the latter . Gladys began weakening on the following day and curved northward on September 19 .

The storm turned northwestward on September 22 and briefly threatened the East Coast of the United States . However , it veered northeastward on September 23 and moved rapidly toward Atlantic Canada . By 0000 UTC on September 25 , Gladys became extratropical while centered between Sable Island and Nova Scotia . Along the East Coast of the United States , Gladys produced light rainfall , gusty winds , and storm surge . Coastal flooding was reported in North Carolina and Virginia . In the former , high tides inundated homes and buildings with 2 feet (0 @. @ 61 m) of water in two small villages on the Outer Banks and flooded a highway to Manteo . In the state of Virginia , one death occurred when a man was fatally struck in the throat by debris . Tides also effected the Mid @-@ Atlantic , New England , and Atlantic Canada .

= = Meteorological history = =

A tropical wave was first observed over western Africa on September 8 and moved offshore in the vicinity of Dakar , Senegal on the following day . At 0600 UTC on September 13 , a tropical depression developed while centered about halfway between Cape Verde and the Lesser Antilles . Later that day , the S.S. Gerwi reported heavy rain and winds of 63 mph (101 km / h) , confirming the existence of Tropical Storm Gladys at 1200 UTC on September 13 . Four hours later , the Weather Bureau Office in San Juan , Puerto Rico initiated advisories on Gladys . A hurricane hunter plane flew into Gladys on the afternoon of September 13 was unable to obtain wind data due to darkness . A reconnaissance flight into the storm on September 14 noted that it had strengthened into a hurricane , while moving west @-@ northwestward at about 18 mph (29 km / h) . HURDAT records indicate that around that time , Gladys became a Category 2 hurricane as winds reached 100 mph (155 km / h) . However , early on September 15 , Gladys weakened slightly to a Category 1 hurricane .

Early on September 17 , the storm began to rapidly intensify . By 1800 UTC , Gladys attained its peak intensity with maximum sustained winds of 145 mph (230 km / h) and a minimum barometric pressure of 945 mbar (27 @. @ 9 inHg) . The storm later began to weaken and fell to a Category 3 hurricane early on September 19 . Around that time , Gladys curved northward in response to a weak trough in the westerlies . Early on September 20 , it further weakened to a Category 2 hurricane . Rising atmospheric pressures to the north forced the storm to curve northwestward on September 21 . Later that day , Gladys weakened to a Category 1 hurricane . The storm posed a threat to the East Coast of the United States , and passed about 140 miles (230 km) east of Cape Hatteras , North Carolina , before a deepening low pressure area over the Great Lakes region caused it to veer northeastward . Gladys then accelerated and approached Atlantic Canada , before transitioning into an extratropical cyclone at 0000 UTC on September 25 , while located between Nova Scotia and Sable Island . The extratropical remnants continued northeastward into Newfoundland and dissipated later on September 25 .

= = Preparations = =

As Gladys strengthened in the Atlantic Ocean , forecasters at the United State Weather Bureau predicted that the storm would bring high surf to areas as far north as North Carolina . Additionally ,

it was suggested that Gladys could have threatened northern Florida , as the storm was on a similar path as Hurricane Dora . As a result , residents along the coast of the Southeastern United States were advised to remain alert and small craft advisories were issued . On September 20 , small craft advisories were issued for The Bahamas . After Gladys turned northwestward on September 21 , forecasters at the United State Weather Bureau issued hurricane watches for North Carolina , Virginia , and some Mid @-@ Atlantic states . Gale warnings and small craft advisories were issued on September 23 from Massachusetts to Rhode Island . In Rhode Island , ships of the United States Navy were diverted to Narragansett Bay as a precaution . At 0400 UTC on September 24 , the gale warnings for New England were lowered as Gladys turned northeastward away from the coast however , small water craft were advised to remain in port until the seas subsided .

= = Impact = =

= = = United States = = =

In the United States , Gladys produced high tides as far south as Florida and Georgia . Hurricane Gladys ' effects on South Carolina was minimal as the center of the hurricane was a considerable distance from the coastline . The only effects Gladys was minor rainfall , peaking at 1 inch (25 @.@ 4 mm) in Myrtle Beach , as well as storm tides of 2 feet (0 @.@ 6 m) above normal along the upper coast of South Carolina .

In North Carolina , the large wind field of Gladys produced tropical storm force winds near Manteo . Waves produced by the strong winds flooded a highway leading away from Manteo . Between Kill Devil Hills and Nags Head , U.S. Route 158 was inundated by 2 feet (0 @.@ 61 m) of water . Near Cape Hatteras , a weather station recorded sustained winds of 40 mph (65 km / h) and gusts up to 41 mph (66 km / h) . Additionally , tides in the area ranged from 2 ? 2 @.@ 5 feet (0 @.@ 6 @-@ 0 @.@ 76 m) above normal . The abnormal tides and heavy wave action flooded two small villages , leaving many homes and buildings under 2 feet (0 @.@ 6 m) of water and washed away grasses that were planted to stabilize the sand dunes . In Wilmington , sustained winds of 25 mph (40 km / h) and gusts of 28 mph (45 km / h) were reported , as well as tides 2 ? 3 feet (0 @.@ 6 @-@ 0 @.@ 9 m) above normal . Elsewhere in the Outer Banks , high winds caused a mobile home to fall off its foundations and blew down two television antennas .

A weather station in Norfolk , Virginia recorded gusts of 38 ? 44 mph (61 ? 71 km / h) and 0 @.@ 17 inches (4 @.@ 31 mm) of rainfall . In Cape Henry , sustained winds of 42 mph (68 km / h) and a precipitation total of 0 @.@ 02 inches (0 @.@ 5 mm) were reported . Coastal sections of southeastern Virginia experienced tides 2 @.@ 2 ? 6 @.@ 1 feet (0 @.@ 6 ? 1 @.@ 8 m) above normal , resulting in minor tidal flooding . One indirect fatality was attributed from Gladys when a man suffered fatal wounds to his throat due to flying debris . High winds and strong ocean currents from Gladys produced beach erosion in New Jersey , New York and Massachusetts . In Rhode Island , the outer bands of Gladys produced light rainfall , peaking at 0 @.@ 38 inches (9 @.@ 6 mm) . A boy was washed into the sea by the waves offshore Narragansett and was rescued by United States Coast Guard servicemen , who dove into the water after two previous attempts to rescue him failed .

= = = Elsewhere = = =

Hurricane Gladys produced rough seas that affected Puerto Rico , the Virgin Islands , the northern Leeward Islands and the northern Bahamas . The outer bands of Gladys also lashed Bermuda with winds but little damage if any was reported . In Atlantic Canada , Gladys passed over Newfoundland as a 70 mph (120 km / h) extratropical storm but no damage was reported . At St. John 's Harbor , 65 ships took shelter as a precaution . Some ships suffered damage , including two foreign freighters .