

= Hurricane Helene (2006) =

Hurricane Helene was the ninth tropical storm , fourth hurricane , and strongest hurricane of the 2006 Atlantic hurricane season .

Helene was a long @-@ lived Cape Verde @-@ type hurricane that formed in the extreme southeastern part of the North Atlantic Ocean , peaking as a Category 3 hurricane on the Saffir @-@ Simpson hurricane scale as it traversed the central Atlantic . It never affected land until the very end of its lifespan as a weak extratropical system , which had minor impact in the northern British Isles .

= = Meteorological history = =

In the second week of September , a strong tropical wave began to emerge off the coast of Africa . It was well @-@ organized from the start , and on September 11 , even before it emerged off the coast , the National Hurricane Center believed that it could quickly develop into a tropical depression . That is indeed what happened , and it became Tropical Depression Eight on the morning of September 12 . The enormous size of the depression made it fairly slow to develop , combined with some easterly wind shear in the eastern Atlantic and influence of the Saharan Air Layer to the north as it tracked south of the Cape Verde islands . Convection was also slow to build in , with little banding at first . The initial strengthening was delayed as a result . However , on September 13 , the organization improved as banding became better defined , and that evening , the depression strengthened into Tropical Storm Helene .

The storm slowly strengthened over the warm waters of the eastern Atlantic thereafter as it tracked west @-@ northwest . Some dry air from the Saharan Air Layer continued to slow development on September 14 as Helene remained a low @-@ end tropical storm . However , a bout of intensification took place on September 15 as shear diminished . The storm became much better organized with well @-@ defined banding , and leveled off that evening at just under hurricane intensity . On the morning of September 16 , the storm began to develop a ragged eye , and the storm strengthened to hurricane status . The intensity leveled off for a while as a marginal Category 1 hurricane , as the intensification was slowed by the presence of moderate wind shear despite the absence of significant dry air . Late that evening , the storm began to slowly intensify once again .

On September 17 , the intensification became more rapid and Helene quickly became a Category 2 hurricane that morning as the eye became clearer and surrounded by deep convection . Helene also turned more northward and slowed down in the central Atlantic , which was in response to a weakness in the subtropical ridge farther north created by Gordon to the north . The northward turn shifted the course away from any land areas . The intensification continued through the afternoon , and that evening , Helene strengthened into a major hurricane with 115 mph (185 km / h) and a minimum central pressure of 962 mbar . As shear remained low and the oceans remained warm , Helene intensified slightly more , peaking as a solid Category 3 hurricane with 120 mph (195 km / h) winds early on September 18 . At that time , Helene and Gordon were at roughly the same longitude in the open ocean . Operationally , Helene was estimated to have had 125 mph (205 km / h) winds , but the post @-@ storm analysis downgraded it slightly . As Gordon moved eastward on the afternoon of 18th , a narrow ridge built in , forcing Helene westward . The eyewall collapsed somewhat , and Helene weakened slightly to a Category 2 hurricane , where it leveled off for about 48 hours until September 20 due to a lengthy eyewall replacement cycle and an elongated cloud pattern . On the 20th , Helene turned back to the northwest and weakened slightly due to a slight increase in wind shear . That afternoon , it was downgraded to a Category 1 hurricane , which Helene remained until becoming extratropical .

Early on September 21 , the motion shifted to the north as it moved along the northwest periphery of the subtropical ridge . That general motion continued throughout the day , however , Helene began to turn more northeastward that evening along the edge of the subtropical ridge , east of Bermuda . A decrease in wind shear and relatively warm water around 81 ° F (27 ° C) kept the intensity mostly stationary , keeping Helene as a Category 1 hurricane . The intensity held around

80 mph (130 km / h) before strengthening slightly late on September 22 , despite losing some tropical characteristics (it was operationally downgraded to a tropical storm for a brief period) as it accelerated northeast in the north Atlantic . A QuikSCAT analysis early on September 23 confirmed a high @-@ end Category 1 hurricane with 90 mph (145 km / h) winds .

Helene transitioned into a " hybrid " storm with both tropical and extratropical characteristics that afternoon , with both a deep warm core and an asymmetric , frontal @-@ like appearance . After that , increased shear weakened Helene once again , although it remained a hurricane @-@ strength storm until it was fully extratropical on the morning of September 24 . After becoming extratropical , the storm weakened as it tracked eastward , becoming a gale center west of Ireland early on September 27 . It eventually merged with a larger extratropical low near the northern end of the British Isles late on the 27th .

= = Impact = =

While a tropical system , Helene never approached land . Three ships were caught in the outer bands of Helene ; the strongest of which reported 56 mph (91 km / h) sustained winds early on September 23 in the north Atlantic . Though it remained far away from the island , the hurricane produced rough waves in Bermuda . As a weakened extratropical system , strong wind gusts were reported in Ireland and northern Scotland . The strongest reported wind gust in Ireland was at the Valentia Observatory , where 56 mph (91 km / h) gusts were reported . In Scotland , the strongest gust was on South Uist Island in the Outer Hebrides , where 74 mph (118 km / h) gusts were reported . No damage or fatalities were reported as a result of Helene .