

= Tropical Storm Laura (2008) =

Tropical Storm Laura was a large but short lived tropical cyclone that developed over the north central Atlantic Ocean in late September during the 2008 Atlantic hurricane season . The 12th named storm of the season , Laura formed out of a large extratropical area of low pressure located about 1015 miles (1635 km) west of the Azores on September 29 . Laura slowly developed tropical characteristics throughout the day as it moved over warmer waters . On the afternoon of September 30 , Laura had acquired enough tropical characteristics to be designated a Tropical Storm . Shortly after being declared tropical , Laura began to undergo an extratropical transition , which did not fully take place until the morning of October 1 . Laura degenerated into a post tropical cyclone later that morning , and the final advisory by the National Hurricane Center was issued . The remnants of Laura contributed to heavy rainfall and power outages in the British Isles , the Netherlands , and Norway on October 5 to 8 .

= Meteorological history =

On September 26 , an extratropical area of low pressure developed along a quasi stationary frontal system a few hundred miles west of the Azores . The low intensified into the equivalent of a Category 1 hurricane with winds of 80 mph (130 km / h) at 12 : 00 UTC on September 27 . Over the following days , the low began to lose its frontal features and began to transition into a subtropical cyclone as it traveled in a general westward direction . By September 29 , the low had developed sufficient convection and was declared Subtropical Storm Laura . Upon being upgraded , cold cloud tops began to wrap around the center of Laura and consolidate near the center of circulation . The convection organized around the center quickly and a satellite pass over the storm revealed that it could be intensifying . A later satellite pass disregarded the possibility of intensification as the intensity was confirmed to be at 60 mph (95 km / h) . The overall structure of Laura remained subtropical but there were indications that it was acquiring tropical characteristics .

During the afternoon , satellites revealed that Laura had developed a deep warm core , a characteristic of a tropical cyclone , but the wind field remained subtropical in nature . By the nighttime hours , the radius of the strongest winds contracted to 80 mi (130 km) , much smaller than what is typical of a subtropical cyclone . However , Laura was still under the influence of an upper level low and cloud tops remained shallow . However , the cloud tops became colder overnight and Laura was on the verge of becoming a tropical cyclone by the morning of September 30 , but strong interaction with the upper level low meant it was still subtropical . Despite moving over colder waters , a water vapor satellite image determined that Laura had separated itself from the upper level low , signifying it had developed into a tropical cyclone . Laura was reclassified as a tropical storm at a relatively high latitude , 40 ° N . Not long after being declared tropical , early signs of an extratropical transition appeared . Cold air began to enter the storm on the west side and forecast models showed Laura becoming extratropical the next morning and non tropical later the next day .

Overnight , convection associated with Laura began to diminish and lose tropical characteristics , but still retained its status . Early on October 1 , the extratropical transition was fully apparent . Laura remained tropical but the cloud pattern was becoming frontal and there was little convection around the center of the system . With minimal shower and thunderstorm activity remaining around the center of Laura , the storm degenerated into a remnant low pressure area on October 1 while still producing tropical storm force winds . The next day , the remnant system transitioned into an extratropical cyclone and began to re-intensify as it rapidly tracked towards the north . Early on October 3 , the system slowed down as it turned towards the east and strengthened into a hurricane force cyclone with winds of 75 mph (120 km / h) . After accelerating towards the east , another large extratropical cyclone absorbed the remnants of Laura while located several hundred miles west of the British Isles on October 4 .

= Impact =

As a tropical cyclone , Laura never approached land , and no damages or fatalities occurred . Since the storm remained over open waters for most of its life , several ships and oil platforms recorded tropical storm @-@ force winds . The highest recorded winds were at an oil platform with the call sign VEP717 at 03 : 00 UTC on October 1 . Winds were recorded up to 47 knots (54 mph ; 87 km / h) . Despite the lack of impact , the storm 's remnants were caught in an upper @-@ level jet stream , and steered towards Europe . There , they contributed to heavy rainfall across portions of Britain on October 5 , causing localized accumulation of flood waters . As a result , Glebe Road near Windermere , England was closed in both directions , and along the A65 road between Old Hutton and Kirkby Lonsdale , previously saturated soil , combined with overwhelmed storm drains resulted in localized flooding . Traffic on the M6 Motorway was slowed due to poor driving conditions . One person had to be rescued from her car after driving into a flooded street . The UK Environment Agency issued 76 flood watches and 21 severe flood warnings as a result of the rainfall .

On October 8 , the remnants of Laura reached the Netherlands . At the time , its rain bands began interacting with a cold front associated with a well @-@ developed low west of Norway , dropping up to 113 mm (4 @.@ 4 in) of precipitation in the northwestern Netherlands . Consequently , streets and homes in the village of Hippolytushoef were reportedly inundated . The large amounts of precipitation broke the daily and monthly rainfall records for October , which were previously set in 2006 . Gradually passing through Norway , the remnants of the storm caused significant damage to electric utilities . As a result , more than 10 @,@ 000 people lost power in southern parts of the country .