

= Hurricane Celia ( 2010 ) =

Hurricane Celia was a powerful , early @-@ season Category 5 tropical cyclone that existed over the open waters of the eastern Pacific Ocean during late June 2010 . Forming out of a tropical wave about 370 mi ( 595 km ) southeast of Acapulco , Mexico on June 18 , Celia quickly organized as deep convection consolidated around the center , attaining hurricane status by June 20 . Over the following days , the hurricane 's winds fluctuated as wind shear impeded significant development hindering it from becoming potentially dangerous . Once this shear lightened on June 24 , the storm rapidly intensified to attain its peak strength with winds of 160 mph ( 260 km / h ) and an estimated barometric pressure of 921 mbar ( hPa ; 27 @.@ 2 inHg ) . Not long after reaching this strength , wind shear increased and the system entered a dry , stable environment . Over the following 42 hours , Hurricane Celia 's sustained winds decreased to tropical storm force and the system began to stall over the open ocean by June 27 . Despite highly unfavorable conditions , the storm managed to retain tropical storm status through June 28 and degenerated into a non @-@ convective remnant low that evening . The remnants of Celia drifted northward , completing a counter @-@ clockwise loop , and dissipated on June 30 .

Although Celia remained far away from any populated landmasses , waves from the storm prompted storm advisories along the southern coastline of Mexico . Additionally , its outer bands brought moderate rainfall to parts of Oaxaca and Guerrero . Due to the high intensity and longevity of the hurricane , it significantly contributed to the record @-@ high accumulated cyclone energy value for June 2010 in the eastern Pacific basin .

= = Origins = =

The precursor to Hurricane Celia was first identified on June 5 , 2010 by the National Hurricane Center ( NHC ) as a disorganized area of disturbed weather associated with a tropical wave off the western coast of Africa in the Atlantic Ocean . Tracking westward , little development took place and the system eventually crossed Central America and entered the Pacific Ocean on June 17 . Situated several hundred miles south @-@ southeast of the Gulf of Tehuantepec , the disturbance moved slowly towards the west @-@ northwest and little development was expected to occur . By June 18 , scatterometer data of the system indicated that a surface circulation had developed and the system 's overall structure had become increasingly organized . Later that day , a Tropical Cyclone Formation Alert was issued for the system as it was now anticipated to become a tropical cyclone within 48 hours . At this time , convective banding features had begun wrapping around the system ; however , it lacked deep , central cloud cover . Further development was expected to be slow due to moderate wind shear in the region of the low . Around 1800 UTC , the system had become sufficiently organized for the NHC to designate it as a tropical depression . At this time , the depression was situated roughly 370 mi ( 595 km ) southeast of Acapulco , Mexico . Operationally , the depression was not warned upon until early the next morning .

Roughly 18 hours after being classified a depression , deep convection wrapped around the center of the system , prompting the NHC to upgrade the depression to a tropical storm , and to give it the name Celia . Satellite overpasses of the storm revealed that Celia had already begun developing an eye @-@ like feature at the surface , an indication that rapid intensification may ensue . The storm tracked relatively slowly towards the west @-@ southwest in response to a mid @-@ level ridge to the north . By the evening of June 19 , Celia displayed a well @-@ organized structure with an eye beginning to appear within the storm 's central dense overcast . Due to the presence of easterly wind shear , intensification was briefly stalled for several hours ; however , at 1800 UTC on June 20 , the NHC upgraded Celia to a minimal hurricane as it attained winds of 75 mph ( 120 km / h ) . An intermittent eye was seen on visible satellite image throughout the day , but it failed to fully consolidate by the afternoon of June 21 , by which time the system appeared to be vertically tilted , having the low @-@ level circulation displaced to the northeast of the mid @-@ level circulation . Only modest strengthening took place during this time as the system 's outflow was being restricted by continuing easterly shear .

Late on June 21 , Celia turned due west as it moved around the south side of the ridge previously steering the hurricane to the west @-@ southwest . A secondary eyewall was noted as it made the turn , indicating that the storm would further intensify once this feature further developed . Several hours later , the storm intensified into a Category 2 hurricane on the Saffir ? Simpson Hurricane Scale . After briefly developing a prominent central dense overcast , the storm 's structure began to degrade for unknown reasons . By the evening of June 22 , Celia was downgraded to a Category 1 hurricane and the eye was no longer apparent on satellite imagery , mainly due to cirrus clouds over the system . The following morning , the eye reformed and the storm became more vertically aligned , allowing Celia to re @-@ attain Category 2 status . Throughout the day , Celia became increasingly organized and intensified , nearly attaining major hurricane status during the afternoon . Operationally , the hurricane was thought to have reached this intensity but post @-@ storm analysis indicated that winds did not exceed 110 mph ( 175 km / h ) .

= = Peak intensity and dissipation = =

Although there were no factors inhibiting the development of Celia , the storm unexpectedly weakened again later on June 23 . The storm 's eye rapidly dissipated and the central dense overcast became asymmetric . Forecaster Todd Kimberlain at the NHC referred to the unexplained shifts in strength as " puzzling . " However , as suddenly as the weakening took place , strengthening ensued . Very strong convection formed over the center of the storm , with some cloud tops being as cold as ? 86 ° C ( ? 123 ° F ) but no eye had reformed by the morning of June 24 . Throughout the day , Celia became increasingly organized , with the eye fully reforming and the structure becoming more symmetrical . Rapid intensification soon followed as the storm reached Category 4 status , becoming one of only a handful of tropical cyclones to do so during the month of June in the eastern Pacific . That evening , the storm further intensified into a Category 5 hurricane , the second storm to reach this strength during June in the Eastern Pacific basin on record . Hurricane Celia attained its peak intensity around 0000 UTC with sustained winds of 160 mph ( 260 km / h ) and a barometric pressure estimated at 921 mbar ( hPa ; 27 @. @ 2 inHg ) . The storm also displayed a well @-@ defined eye estimated to be 17 to 23 mi ( 27 to 37 km ) in diameter .

During the late morning of June 25 , Celia started rapidly weakening as it began to take a more northwesterly track into a more stable environment with cooler water temperatures and higher wind shear ; all of these conditions are highly unfavorable for tropical cyclones . By June 26 , convection associated with the hurricane had substantially lessened and cloud tops warmed . The storm also began to resume a westward track as it moved into an area of weaker steering currents . Traversing water temperatures estimated at 25 ° C ( 77 ° F ) , Celia continued to degenerate as it weakened to tropical storm status , by which time it was situated about 955 mi ( 1 @, @ 535 km ) southeast of the southern tip of Baja California Sur . Most of the convection associated with the system had dissipated and the center of circulation became exposed , with a small area of showers and thunderstorms to the north . Throughout June 27 , the system gradually lost its forward momentum over the open water of the Pacific Ocean but managed to maintain minimal tropical storm status longer than initially anticipated .

Intermittent bursts of deep convection kept satellite intensity estimates at 40 mph ( 65 km / h ) through the morning of June 28 . After becoming embedded within a low @-@ level westerly flow , the system began to slowly execute a small counter @-@ clockwise loop . That afternoon , Celia degenerated into a non @-@ convective remnant low pressure system ; operationally , the system was monitored as a tropical depression for an additional six hours before the final advisory from the NHC was issued . The remnants of Celia continued to drift towards the north before finally dissipating on June 30 , about 990 mi ( 1 @, @ 590 km ) southwest of the southern tip of Baja California Sur .

= = Impact and records = =

Throughout the hurricane 's track , it posed little to no threat to any major landmasses or populated

islands . During Celia 's early development stages , it brought moderate rainfall to parts of Oaxaca and Guerrero ; however , no loss of life or structural damage was reported . Beaches in both states increased the number of lifeguards on duty since the threat of rip currents would remain high for several days . On June 22 , the Sistema Nacional de Protección Civil ( National System of Civil Protection ) in the Mexican state of Jalisco raised the alert level to stage two for coastal areas . People were urged to be cautious about venturing out into coastal waters as the storm produced rough seas near the coast . The alert was later expanded upon to include coastal areas of Michoacán and Colima . Although out of the storm 's projected path , a precautionary alert was issued for Socorro Island . However , between June 22 and 23 , the outer bands of the storm brought unsettled weather to France 's Clipperton Island . Since this island is unpopulated , the NHC did not issue any warnings for it .

During the evening of June 24 , Hurricane Celia intensified into a powerful Category 5 storm , further solidifying it as the strongest of the 2010 Pacific hurricane season . At its peak , the cyclone attained winds of 160 mph ( 260 km / h ) along with a minimum pressure of 921 mbar ( hPa ; 27 @. @ 2 inHg ) . This ranks it as the second @-@ strongest June hurricane on record , as well as the eleventh @-@ strongest in the basin , and the second known Category 5 to develop during the month on record . The strongest and first known storm of this intensity in June was Hurricane Ava in 1973 . Additionally , it also marked the first time on record that two consecutive seasons featured Category 5 hurricanes , with Hurricane Rick in October 2009 reaching this intensity , the second time two consecutive seasons had a category 5 hurricane was when hurricanes Marie and Patricia formed in 2014 and 2015 respectively . In the National Hurricane Center 's monthly tropical weather summary for June 2010 , it was stated that the accumulated cyclone energy ( ACE ) for the month was the highest on record , most of which is attributed to Hurricane Celia .