= Hurricane Blanca (2015) =

Hurricane Blanca was the earliest recorded tropical cyclone to make landfall in Baja California in any given year . Forming as a tropical depression on May 31 , Blanca initially struggled to organize due to strong wind shear . However , once this abated , the system took advantage of high sea surface temperatures and ample moisture . After becoming a tropical storm on June 1 , Blanca rapidly intensified on June 2 ? 3 , becoming a powerful Category 4 hurricane on the Saffir ? Simpson hurricane wind scale ; maximum sustained winds reached 145 mph (230 km / h) at this time . The hurricane 's slow motion resulted in tremendous upwelling of cooler water , resulting in a period of weakening . Blanca gradually recovered from this and briefly regained Category 4 status on June 6 as it moved generally northwest toward the Baja California peninsula . Cooler waters and increased shear again prompted weakening on June 7 and the system struck Baja California Sur on June 8 as a weak tropical storm . It quickly degraded to a depression and dissipated early the next day .

Although Blanca remained far from Jalisco , large swells and rip currents produced by the hurricane claimed four lives . In Northwestern Mexico , watches and warnings were raised prior to the storm 's landfall . Blanca caused generally light damage in the region , consisting of downed trees and power lines . Remnant moisture from the system spread across the Southwestern United States , resulting in several days of scattered thunderstorms . Flash flooding occurred in multiple states , washing out roads and damaging homes , though the overall effects were limited .

= = Meteorological history = =

On May 26 , 2015 , a tropical wave traversed Central America and entered the Eastern Pacific . Little development occurred over the following few days as the system drifted westward . Convective activity finally blossomed on May 30 and following the consolidation of a surface low , it was classified as a tropical depression by 12 : 00 UTC on May 31 . At this time , the depression was situated 370 mi (595 km) south @-@ southwest of Acapulco , Mexico . The system initially drifted northwest along the edge of a weak ridge ; however , steering currents soon collapsed and left the depression to meander in the same general region for four days . Strong wind shear stemming from the nearby Hurricane Andres precluded intensification of the nascent depression . Other factors , including a moist atmosphere and sea surface temperatures of 86 ° F (30 ° C) presented favorable conditions for development once the shear relaxed . Formation of a central dense overcast on June 1 marked the transition into a tropical storm , at which time the system was assigned the name Blanca . As shear steadily relaxed , conditions became exceptionally favorable for rapid intensification . Accordingly the Statistical Hurricane Intensity Prediction Scheme showed a 90 percent chance of winds increasing by 45 mph (75 km / h) in 24 hours , among the highest probabilities seen by National Hurricane Center (NHC) forecaster Michael Brennan .

The upper @-@ level environment became even more favorable during the overnight of June 1 ? 2 as anticyclonic outflow developed above Blanca , providing necessary ventilation for intensification . Turning south along an erratic , drifting course , an eye feature developed within the storm 's convective mass on June 2 . Blanca reached hurricane strength by 18 : 00 UTC and underwent rapid intensification thereafter . A small , pinhole eye soon appeared on visible and infrared satellite imagery . Reaching major hurricane intensity by 12 : 00 UTC on June 3 , Blanca marked the earliest occurrence of a season 's second such storm on record . The system featured a small , well @-@ defined eye surrounded by intense convection . Hours later , at 18 : 00 UTC , the hurricane achieved its estimated peak strength as a Category 4 on the Saffir ? Simpson hurricane wind scale with maximum sustained winds of 145 mph (230 km / h) and a barometric pressure of 936 mbar (hPa ; 27 @.@ 64 inHg) . Given continued favorable conditions , forecasters at the NHC predicted Blanca to achieve Category 5 status ? the highest ranking on the scale , indicating winds in excess of 156 mph (251 km / h) .

Contrary to forecasts , the still quasi @-@ stationary Blanca soon degraded . The hurricane 's persistence over the same location for several days resulted in tremendous upwelling of cooler

waters , with temperatures underneath the storm falling from 30 to 21 ° C (86 to 70 ° F) . Compounding the effects of cooler water was an eyewall replacement cycle . This resulted in rapid weakening , with Blanca 's winds falling to 90 mph (150 km / h) by 12 : 00 UTC on June 5 . The previously small core of Blanca dramatically expanded to 65 mi (100 km) across , with convection asymmetrically wrapping around it . During this period , a mid @-@ level ridge north of the hurricane moved east and allowed Blanca to acquire a steady northwest track . Re @-@ intensification ensued on June 6 as the hurricane moved away from its cold wake and traversed an area of warmer water .

Throughout June 6 , Blanca 's convective structure became more symmetric as it completed its eyewall replacement cycle . Aided by impressive outflow , the hurricane regained Category 4 status by 12 : 00 UTC , marking its secondary peak intensity with winds of 130 mph (215 km / h) . Soon thereafter , Blanca moved back over cooler waters and began weakening . A turn to the north @-@ northwest also occurred at this time as it rounded a mid @-@ level ridge over Mexico . The hurricane passed roughly 30 mi (45 km) northeast of Socorro Island on June 7 . An automated weather station there recorded sustained winds of 74 mph (119 km / h) , with a peak gust of 101 mph (163 km / h) , before it ceased reporting . Additionally , a pressure of 977 @.@ 3 mbar (hPa ; 28 @.@ 86 inHg) was observed . Deep convection steadily weakened and the hurricane 's eye filled as the winds decreased .

Increasing wind shear accelerated the rate of weakening , causing Blanca 's mid- and low @-@ level circulation centers to decouple . By 18 : 00 UTC on June 7 , the hurricane degraded to a tropical storm . Around 10 : 30 UTC on June 8 , Blanca made landfall over Isla Santa Margarita off the coast of Baja California Sur before striking the mainland , near Puerto Argudin , at 11 : 15 UTC . This marked the earliest known landfall in the state , and peninsula , on record during a calendar year . It surpassed the previous earliest ? Tropical Storm Calvin on July 8 , 1993 ? by a month . Turning back to the northwest , the system briefly emerged back over the Pacific Ocean before weakening to a tropical depression . Blanca made its third and final landfall near El Patrocinio around 20 : 30 UTC . With deep convection no longer present , the depression degraded into a remnant low early on June 9 over the central Baja California peninsula before dissipating hours later .

= = Preparations and impact = =

= = = Mexico = = =

On June 3 , precautionary alerts were raised across the southern Baja California Peninsula and much of Western Mexico , due to potential impacts from the hurricane . Two days later , the Government of Mexico issued a tropical storm watch for parts of Baja California Sur before upgrading it to a warning on June 6 . Warnings ultimately extended northward to Punta Abreojos . A hurricane watch was temporarily in place ; however , Blanca 's abrupt weakening on June 7 prompted its discontinuation . All schools were closed in Baja California Sur on June 8 . A collective 3 @,@ 300 troops from the Mexican Army and Navy were deployed to Baja California Sur to ensure the safety of residents . Under the threat of 16 ft (5 m) waves , the port of Los Cabos suspended operations . Within Sonora , all schools in the Empalme , Guaymas , and Hermosillo municipalities were canceled for June 8 .

Waves up to 16 ft (5 m) damaged coastal installations in Puerto Vallarta , Jalisco . A surfer was pulled out by rip currents near Villa Obregón and required rescue ; however , the rescuer was also overcome and both drowned . Two fishermen ignored warnings to remain at port and died amid rough seas from the hurricane . Striking Baja California Sur on June 8 , Blanca brought tropical storm @-@ force winds and heavy rain to the region . The highest sustained winds were observed at Cabo San Lucas International Airport , reaching 46 mph (74 km / h) while gusts were measured at 52 mph (84 km / h) in San Juanico . Across the state , high winds downed power lines and left 104 @,@ 106 residents without electricity . However , around 90 percent of the outages were fixed

within 12 hours of the storm . The winds also broke a few windows . Sinaloa experienced similar effects , with strong winds downing many trees and tearing apart billboards , primarily in Los Mochis and Guasave .

= = = United States = = =

The remnants of Blanca , aided by an unusually late @-@ season coastal low , later brought several days of scattered thunderstorms to the Southwestern United States . Effects in California were primarily concentrated across the Mojave Desert and southern Great Basin . Daily rainfall records were broken in several areas , though accumulations were generally less than 1 in (25 mm) . Maricopa and Taft received 1 @.@ 5 in (38 mm) of rain in 30 minutes , triggering flash flooding that stranded vehicles and prompted the temporary closure of State Route 166 . Flooding and mud flows covered parts of State Route 190 in Inyo County , resulting in an accident that injured two people . Thunderstorm winds downed several trees , two of which fell on mobile homes . Hail up to 1 in (2 @.@ 5 cm) in diameter was observed in Ford City . Some flooding took place in Santa Barbara County . Damage across the state amounted to $ 67 @,@ 000 .

Record rainfall was observed in parts of Arizona , with Yuma recording measurable precipitation for only the seventeenth time in June since records began in 1876 . Rainfall amounted to 0 @.@ 31 in (7 @.@ 9 mm) in the city , and 0 @.@ 21 in (5 @.@ 3 mm) fell in Tucson . In Six Mile Canyon in Nevada , near the border of Lyon and Storey counties , 1 @.@ 13 in (29 mm) of rain fell in an hour , resulting in flash flooding . Damage was primarily to landscaping with minor effects to homes . The normally dry Pine Nut Creek in Dresslerville rose 4 to 5 ft (1 @.@ 2 to 1 @.@ 5 m) in a short period of time , inundating nine homes and covering low water crossings . Multiple roads across Esmeralda , Eureka , and Lander counties were subjected to flooding . Damage across Nevada was $ 46 @,@ 000 .

Following above @-@ average rainfall since April , renewed precipitation in New Mexico led to flash flooding . Roads were washed away near Conchas Dam and minor flooding took place near Pojoaque . A strong thunderstorm over the Navajo Nation in New Mexico spawned a brief EF0 tornado near Napi Headquarters . Hail up to 1 @.@ 75 in (4 @.@ 4 cm) in diameter was observed and rainfall caused the Animas River to overflow . Damage in the state reached $ 20 @,@ 000 . Flash flooding also took place in Utah , including along the Paria River ; a stream gauge observed a peak flow of 1 @,@ 160 ft3 (32 @.@ 8 m3) per second . A peak wind gust of 70 mph (110 km / h) was observed on Flattop Mountain in Emery County .