= Tropical Storm Beryl (2012) =

Tropical Storm Beryl was the strongest off @-@ season Atlantic tropical cyclone on record to make landfall in the United States . The second tropical cyclone of the 2012 Atlantic hurricane season , Beryl developed on May 26 from a low @-@ pressure system offshore North Carolina . Initially subtropical , the storm slowly acquired tropical characteristics as it tracked across warmer sea surface temperatures and within an environment of decreasing vertical wind shear . Late on May 27 , Beryl transitioned into a tropical cyclone less than 120 miles (190 km) from North Florida . Early the following day , the storm moved ashore near Jacksonville Beach , Florida , with peak winds of 65 mph (100 km / h) . It quickly weakened to a tropical depression , dropping heavy rainfall while moving slowly across the southeastern United States . A cold front turned Beryl to the northeast , and the storm became extratropical on May 30 .

The precursor to Beryl produced heavy rainfall in Cuba , causing flooding , mudslides and two deaths . Torrential rain also affected south Florida and the Bahamas . After forming , Beryl produced rough surf along the US southeastern coast , leaving one person from Folly Beach , South Carolina missing . Upon making landfall in Florida , the storm produced strong winds that left 38 @,@ 000 people without power . High rains alleviated drought conditions and put out wildfires along the storm 's path . A fallen tree killed a man driving in Orangeburg County , South Carolina . In northeast North Carolina , Beryl spawned an EF1 tornado that snapped trees and damaged dozens of homes near the city of Peletier . Overall damage was minor , estimated at $ 148 @,@ 000 .

= = Meteorological history = =

The origins of Beryl were from a trough that developed over the Yucatán Peninsula on May 16 . It drifted eastward into the northwestern Caribbean Sea , spawning a low pressure area on May 18 . For the next three days , it remained nearly stationary without development , until the system became better defined on May 22 when it began moving to the northeast . On May 23 , the elongated low had an area of disorganized convection . While passing over the Cuban Island of Isla de la Juventud , an exposed center of circulation and transient convection was noted due to the effects of high wind shear across the region . The next day , the system moved through the Florida Keys , and the National Hurricane Center (NHC) noted the potential for increasingly favorable conditions over the next two days . The low became better defined as its cloud pattern consolidated . It moved further into the western Atlantic over the next 24 hours , and a band of convection extended across the Bahamas and Cuba to wrap around the southwestern edge of the circulation . On May 25 , the system interacted with a mid- to upper @-@ level low , causing the center to reform further to the northeast . After the system attained gale @-@ force winds near the center and sufficiently organized convection , the NHC initiated advisories on Subtropical Storm Beryl at 0300 UTC on May 26 , while the cyclone was 305 mi (490 km) east of Charleston , South Carolina . Post @-@ season analysis indicated that Beryl developed three hours prior .

Following Beryl 's formation , there was a receding trough over New England that initially created a weak steering environment . Marginally warm waters and dry air were expected to prevent significant intensification , and convection remained minimal through May 26 . Later that day , a building ridge caused Beryl to begin a steady southwest motion . By that time , the low @-@ level center became vertically aligned with the upper @-@ level center . The environment near the storm 's center became moister and the system began to pass over warmer sea surface temperatures , allowing convection to increase . On May 27 , the storm began to transition into a tropical cyclone , which it completed by 1800 UTC that day . As Beryl approached northeastern Florida , it became better organized , with increased convection in bands around the center . Late on May 27 , the Hurricane Hunters observed flight @-@ level winds of 92 mph (148 km / h) , suggesting maximum sustained winds of 70 mph (110 km / h) ; this would be Beryl 's peak intensity . It is possible , however , that Beryl briefly reached hurricane intensity early in the evening of May 27 based on Doppler radar velocities , although the data is inconclusive according to the post @-@ season report . At roughly 0410 UTC on May 28 , the storm made landfall near Jacksonville Beach , Florida , with

winds of about 65 mph (105 km / h) after weakening slightly on the final approach .

After moving ashore , Beryl quickly weakened to a tropical depression . It slowed due to the weakening ridge to its north , and an approaching cold front turned it to the north and northeast on May 29 . Despite being well inland , Beryl retained enough convection to remain a tropical cyclone . As Beryl approached the Atlantic Ocean on May 30 , its convection increased to the south and east of the center , although the intrusion of dry air resulted in a ragged appearance on satellite imagery . Based on reports from ships , Beryl was upgraded to a tropical storm on May 30 near the South Carolina coastline . The approaching front caused the storm to accelerate northeastward . Beryl 's circulation became elongated and its associated convection spread northward , suggesting the transition into an extratropical cyclone . By late on May 30 , Beryl became extratropical , prompting the NHC to discontinue advisories . The storm continued to the northeast , later turning to the east @-@ southeast . On June 2 , a larger extratropical storm absorbed the remnants of Beryl to the southeast of Newfoundland .

= = Preparations , impact , and records = =

When Beryl made landfall in Jacksonville Beach , Florida with 65 mph (105 km / h) , it became the strongest tropical cyclone at landfall in the U.S. outside of the official Atlantic hurricane season . Beryl was also the second tropical storm to form before the start of the season , which marked only the fifth such occurrence since records began in 1851 ; the other four occurrences were in 1887 , 1908 , 1951 and 2016 .

= = = Cuba and The Bahamas = = =

Before becoming a tropical cyclone , Beryl produced heavy rainfall over Cuba , especially Sancti Spíritus Province , where rainfall peaked at 21 @.@ 93 in (557 mm) . The rains caused mudslides and forced more than 8 @,@ 500 people to evacuate their homes . Two people died after trying to cross flooded rivers . Flooding damaged 1 @,@ 109 houses and destroyed 47 others . Although the rains flooded widespread areas of crop fields , the precipitation was beneficial in refilling reservoirs in drought @-@ struck areas of the country .

A band of thunderstorms and heavy rainfall moved across The Bahamas and dropped about 9 @.@ 7 in (250 mm) of precipitation in Freeport , Grand Bahama . Low @-@ lying areas in New Providence experienced flooding . Residents reported that a tornado touched down in Murphy Town , Abaco , downing power and telephone lines , overturning vehicles and damaging the roofs of three buildings . Rain from the system also affected the Berry Islands , Abaco , and Bimini , as well as several smaller island groups .

= = = Florida = = =

Prior to being classified as a tropical cyclone , the precursor to Beryl produced locally heavy rainfall in South Florida , reaching 9 @.@ 7 in (250 mm) at Miami International Airport . The total was the second highest daily rainfall ever recorded in the month of May at the station . The rain caused extensive street flooding , especially in Sweetwater and Doral , stranding drivers and afternoon commuters . Miami Dade College was forced to cancel morning classes on May 23 .

When the NHC issued their first advisory , the agency also issued a tropical storm warning from the Brevard / Volusia county line in Florida to Edisto Beach , South Carolina . A tropical storm watch was issued northward to the mouth of the Santee River in South Carolina . A state of emergency was issued in Jacksonville , Florida , causing the early ending of a jazz festival and Memorial Day events . When Beryl moved ashore , airports around Jacksonville canceled all flights except for JetBlue Airways and Delta Air Lines .

A teenager died in high seas in Daytona Beach , Florida . High surf and rip currents caused lifeguards in the region to restrict swimming in the ocean . The highest storm surge was 3 @.@ 73 ft (1 @.@ 14 m) at Fernandina Beach . When the storm moved ashore , Beryl produced strong winds

along the coast , peaking at 54 mph (87 km / h) at Huguenot Park in Jacksonville ; nearby Buck Island reported a peak wind gust of 72 mph (117 km / h) . The winds prompted the Mathews Bridge and Wonderwood Bridge to close . Toppled power lines left about 38 @,@ 000 residences in Jacksonville without power . In Jacksonville , flash flooding affected areas along Hogans Creek , and waves damaged a seawall and some docks . The waters entered a condominium and three vehicles . Flash flooding covered a portion of U.S. Route 129 in Suwannee County . Damage in Jacksonville was estimated at $ 20 @,@ 000 . South of Jacksonville , the outer circulation of Beryl spawned a short @-@ lived EF0 tornado in Port Saint Lucie that caused minor damage to two homes . Damage from the tornado was estimated at $ 20 @,@ 000 . Another tornado was reported in Yankeetown . Due to its slow motion , Beryl dropped heavy rainfall across Florida , peaking at 15 @.@ 0 in (380 mm) in Wellborn . Just South of Wellborn , a motorcyclist in Taylor County , Florida. was killed when a car hydroplaned on the flooded highway and struck him head @-@ on . First responders noted that it took them 20 minutes to cover the ten miles due to the nonexistent visibility . Gainesville reported 3 @.@ 25 in (83 mm) on May 28 , which broke the previous daily rainfall record . Hernando County Airport broke its daily rainfall record on May 29 with a total of 3 @.@ 65 in (93 mm) , which was also the greatest daily rainfall to date in 2012 . The rains extinguished 80 percent of the 25 wildfires in northern Florida . In Levy County , a waterspout dissipated while moving onshore . The high rains flooded several homes in Citrus County , causing about $ 108 @,@ 000 in damage .

= = = Georgia , South Carolina , and North Carolina = = =

Hours before the storm moved ashore on May 27 , officials in Cumberland Island , Georgia mandated that all campers evacuate the island . Although the storm made landfall in Florida , its storm surge flooded portions of St. Marys , Georgia . Rainfall in the state peaked at 7 @.@ 04 in (179 mm) at Woodbine . Beryl 's rainfall was beneficial in alleviating drought conditions , despite causing some minor flooding . Wind gusts along the Georgia coastline peaked at 55 mph (89 km / h) at Jekyll Island , and sustained tropical force winds extended into the state . Downed trees damaged two homes in McIntosh County , and in Orangeburg County , South Carolina , a falling tree killed a man driving on a state highway . This was the only direct death due to the storm ; the others were indirectly related . The highest wind gust in South Carolina was 46 mph (74 km / h) in Fort Johnson , although stronger winds occurred just offshore . Rains in the state peaked at 6 @.@ 00 in (152 mm) in Jasper County . High tides in Charleston Harbor sank a boat , forcing the crew to be rescued by the Coast Guard . In Folly Beach , South Carolina , one person went missing after swimming in rough surf , but it was not included in the overall death toll . After Beryl began accelerating to the northeast , it dropped heavy rainfall in the Carolinas , causing isolated flooding near Wilmington , North Carolina . Farther north in Peletier , the storm spawned an EF1 tornado on the Enhanced Fujita scale that damaged 67 homes and destroyed 3 others . Moisture from the storm spread northward into Maryland and West Virginia .