

= Tropical Storm Cristobal ( 2002 ) =

Tropical Storm Cristobal was a relatively weak tropical cyclone that meandered in the western Atlantic Ocean prior to being absorbed into a frontal zone . The third named storm of the 2002 Atlantic hurricane season , Cristobal developed on August 5 near the coast of South Carolina from the same trough that spawned Tropical Storm Bertha . The storm tracked slowly southeastward in the early portion of its duration , and initially remained disorganized . Cristobal attained peak winds of 50 mph ( 85 km / h ) , and lost the characteristics of a tropical cyclone on August 8 . The remnants brought moderate precipitation to Bermuda , and in combination with a high pressure system the storm caused three drownings on Long Island from rip currents .

= = Meteorological history = =

A trough extended from the northern Gulf of Mexico to the western Atlantic Ocean in early August . The trough remained nearly stationary , spawning Tropical Storm Bertha in the Gulf of Mexico and a tropical disturbance off the coast of South Carolina . The weak low pressure area off South Carolina drifted southward , with its associated deep convection increasing in organization on August 4 . By 1800 UTC on August 5 , the system had acquired sufficient organization to be classified as Tropical Depression Three , while located about 175 miles ( 280 km / h ) east @-@ southeast of Charleston , South Carolina .

Upon becoming a tropical depression , the cyclone maintained outer rainbands and fair outflow . It tracked southeastward around the northeastern periphery of an anticyclone over Florida . By August 6 , the convection had diminished as outflow became restricted due to northeasterly wind shear ; with a relatively dry environment , most of the convection was confined to the southern semicircle of the depression . Despite the circulation becoming elongated in the southwesterly flow of a southward moving cold front , a Hurricane Hunters flight late on August 6 reported that the depression intensified into Tropical Storm Cristobal about 315 miles ( 505 km ) east of Jacksonville , Florida .

Tropical Storm Cristobal initially continued tracking southeastward , with its circulation reforming closer to the thunderstorms during each increase in convection . On August 7 the storm turned eastward , due to the influence of a large approaching mid to upper @-@ level frontal zone . As the convection organized further , Cristobal intensified somewhat and attained peak winds of 50 mph ( 85 km / h ) . On August 8 , increased dry air weakened the convection and caused Cristobal to accelerate east @-@ northeastward . The low @-@ level circulation interacted with the approaching frontal zone , and by 0000 UTC on August 9 Tropical Storm Cristobal was absorbed by the cold front about 350 miles ( 560 km ) southeast of Cape Hatteras , North Carolina . The remnants continued northeastward , passing near Newfoundland on August 10 before weakening near Greenland on August 14 .

= = Impact = =

As a tropical cyclone , Cristobal had minimal effect to any land masses . Its remnants brought unsettled conditions to Bermuda , including a 45 mph ( 72 km / h ) wind gust at the Bermuda International Airport . The combination of moisture from Cristobal and a cold front produced 2 @.@ 78 inches ( 71 mm ) in a 24 ? hour period . The interaction between the remnants of Cristobal and a high pressure system over the Mid @-@ Atlantic States produced rip currents and 4 foot ( 1 @.@ 2 m ) waves along the south shore of Long Island , New York ; three people drowned from the rip currents . Two ships recorded tropical storm force winds in association with the storm ; the vessel with the sign WUQL reported sustained winds of 47 mph ( 76 km / h ) from the west @-@ southwest on August 7 .