= Tropical Storm Bret (2011) =

Tropical Storm Bret was the second named storm of the 2011 Atlantic hurricane season . Bret formed along the southwestern periphery of a weather front north of the Bahamas on July 17 . At first , the storm moved little and gradually strengthened in response to favorable upper @-@ level conditions , reaching peak sustained winds of 70 mph (110 km / h) . Steering currents in the area subsequently became better established , and Bret turned toward the northeast only to encounter a substantial increase in vertical wind shear . Despite the shear , the storm maintained a well @-@ defined wind circulation for several days , with intermittent bursts of thunderstorms near its center . By July 22 , Bret had been devoid of strong thunderstorm activity for several hours , prompting the National Hurricane Center to discontinue public advisories when it was located about 375 miles (605 km) north of Bermuda .

Since Bret remained over the open Atlantic for most of its existence , its effects on land were limited . While moving little , the storm produced inclement weather and widespread cloudiness over much of the north @-@ central Bahamas . Squalls off the eastern coast of Florida generated rough seas along coastlines , injuring a number of people . Although it stayed well offshore , the storm enhanced tropical moisture over Bermuda , causing beneficial rainfall in dry areas .

= = Meteorological history = =

In mid @-@ July , 2011 , a broad upper trough dropped southward over the northwest Atlantic , supporting a cold front that extended westward across Bermuda to inland over Georgia . The front produced a large area of light showers to its north , with its westernmost component remaining quasi @-@ stationary over northeastern Florida . On July 16 , a surface low developed along the decaying boundary , just off the coast , generating an area of sporadic convection north of the Bahamas . Although a wind circulation was initially absent and surface pressures were relatively high , the low later became better organized under abating shear conditions . At 2100 UTC on July 17 , the National Hurricane Center (NHC) declared it a tropical depression , after reconnaissance confirmed the presence of a closed circulation center about 100 mi (160 km) northwest of Great Abaco Island . It strengthened into Tropical Storm Bret just three hours later , owing to a quick increase in winds and deep central convection .

Situated along a weakness in the subtropical ridge , Bret drifted very slowly southward during the initial stages of its existence . Though traces of dry air approached it from the west , the cyclone continued to strengthen , as prominent bands of deep thunderstorms tightened around it eastern semicircle . Satellite images displayed a disorganized eye @-@ like feature on July 18 , suggesting a rather sharp increase in strength . Indeed , an additional reconnaissance flight into the cyclone found peak surface winds of around 70 mph (110 km / h) , just below hurricane strength . Following its peak , Bret began to accelerate toward the northeast in response to building high pressure in the area . It fluctuated little in intensity for several hours , although a combination of high wind shear and a lack of tropical moisture inhibited further development . By July 19 , the circulation center had become exposed and devoid of deep convection , and the storm weakened to 50 mph (85 km / h) winds upon moving through the increasingly hostile environment . Despite the unfavorable conditions , Bret retained this intensity for the next couple of days as it briefly slowed , with a distinct low @-@ level circulation and a few patches of persistent thunderstorms over its southwestern quadrant .

Early on July 20 , the heavily sheared cyclone began to reaccelerate within the deepening southwesterly wind flow . Over the next day , Bret continued to deteriorate in organization ; however , a brief decline in the upper winds allowed intermittent bursts of convection to redevelop south of the exposed center . Bret eventually weakened to a tropical depression over cool ocean temperatures early on July 22 , once again lacking significant convection while increasing in forward speed . Forecasters at the NHC noted that Bret remained " a maverick tropical cyclone by refusing to dissipate despite experiencing very hostile wind shear conditions , " with ship data indications of prevailing strong winds . By 1500 UTC , however , the circulation had become ill defined , prompting

the NHC to declassify Bret as a tropical system about 375 mi (605 km) north of Bermuda . During the next several hours , the remnant low of Bret continued to move northeastward out into the Atlantic , until it dissipated on June 23 .

= = Preparations and impact = =

= = = Bahamas = = =

Upon the formation of a depression , the government of the Bahamas issued a tropical storm watch for northwestern islands of the nation . It was upgraded to a tropical storm warning on July 18 , when the storm showed signs of intensification . Further south , a severe weather warning was in effect for New Providence and Andros Island , and authorities urged small craft operators to secure their vessels . The warnings were discontinued later that day as Bret turned away from the territory .

Since it initially moved little , Bret brought prolonged overcast conditions to much of the northern Bahamas , with most of the activity over the Abaco Islands and Grand Bahama . An estimated 3 in (75 mm) of precipitation fell in Abaco over the weekend of July 16 ? 17 . In addition , a weather station on the island reported gale @-@ force gusting of up to 48 mph (77 km / h) at the height of the storm . The rain led to the cancellation of a local Little League baseball match . Outer rainbands spawned a waterspout that touched down on eastern Paradise Island , accompanied by lightning strikes and torrents . Nevertheless , locals considered the storm 's impact to be generally positive , as its rains aided in alleviating mild drought conditions across the nation .

= = = United States and Bermuda = = =

Off the coast of Florida , the storm generated rough sea conditions with waves of up to 5 ft (1 @.@ 9 m) ; high surf lightly injured several swimmers and surfers in Brevard County . Strong rip currents swept dozens of people out to sea , but all remained unharmed and were quickly rescued . Additionally , the waves washed ashore venomous jellyfish that stung more than 200 people near coastal beaches . Scattered funnel clouds and waterspouts were reported overseas , though the phenomena dissipated soon thereafter without affecting land . Onshore , Bret 's effects were minimal ; weak morning showers and breezy winds briefly brushed Brevard and Volusia Counties . As the storm lifted out of the area , it drew in a large mass of dry air , limiting chances of much @-@ needed rain to subdue a large wildfire in the Okefenokee Swamp .

Light showers from the precursor front skirted Bermuda prior to tropical development , with 24 @-@ hour precipitation totals of no more than 0 @.@ 87 in (22 mm) recorded on the territory . Moisture brought on by the storm from afar enhanced rainfall that ended months of dry conditions in Bermuda ; 1 @.@ 75 in (45 mm) of precipitation fell at L.F. Wade International Airport on July 18 , with an additional 1 @.@ 6 in (40 mm) recorded the next day . Although the rains proved to be mostly beneficial , minor flooding affected some local businesses in poor @-@ drainage areas .