= Hurricane Fay (2014) =

Hurricane Fay was the first hurricane to make landfall on Bermuda since Emily in 1987 . The sixth named storm and fifth hurricane of the 2014 Atlantic hurricane season , Fay evolved from a broad weather disturbance several hundred miles northeast of the Lesser Antilles on October 10 . Initially a subtropical cyclone with an expansive wind field and asymmetrical cloud field , the storm gradually attained tropical characteristics as it turned north , transitioning into a tropical storm early on October 11 . Despite being plagued by disruptive wind shear for most of its duration , Tropical Storm Fay steadily intensified . Veering toward the east , Fay briefly achieved Category 1 hurricane status while making landfall on Bermuda early on October 12 . Wind shear eventually took its toll on Fay , causing the hurricane to weaken to a tropical storm later that day and degenerate into an open trough early on October 13 .

A few tropical cyclone warnings and watches were issued in anticipation of Fay 's impact on Bermuda , and public schools were closed as a precaution . Despite its modest strength , Fay produced extensive damage on Bermuda . Winds gusting over 100 mph (160 km / h) clogged roadways with downed trees and utility poles , and left a majority of the island 's electric customers without power . The terminal building at L.F. Wade International Airport was flooded after the storm compromised its roof and sprinkler system . Along the coast , the storm unmoored and destroyed numerous boats . Immediately after the hurricane , 200 Bermuda Regiment soldiers were called to clear debris and assist in initial damage repairs . Cleanup efforts overlapped with preparations for the approach of the stronger Hurricane Gonzalo , which struck the island less than six days later and compounded the damage . Fay and Gonzalo marked the first recorded instance of two Bermuda hurricane landfalls in one season .

= = Meteorological history = =

Hurricane Fay originated in a disturbance calved from a mid- to upper @-@ level trough over the east @-@ central Atlantic . On October 7 , a broad region of showers and thunderstorms formed around it , possibly enhanced by moisture from a tropical wave to the south . Tracking westward , the energy coalesced into an upper @-@ level cold @-@ core low on the following day , and an associated trough formed at the surface . Southwesterly wind shear initially hindered development , but as the system became more vertically aligned on October 9 , the hostile winds calmed . In turn , a curved banding feature was able to take form . Early on October 10 , satellite imagery indicated that the center of circulation had become better @-@ defined , with a swath of deep convection to the north and west of the low . It became a subtropical storm at 06 : 00 UTC on October 10 , though it was not named " Fay " until later that day , after initially being classified Subtropical Depression Seven . Its involvement with the upper @-@ level low and wide radius of maximum winds precluded designation as a fully tropical cyclone .

Immediately after forming , the storm moved northwestward around the periphery of a ridge of high pressure in the central Atlantic . As Fay moved away from its parent upper low , wind shear once again increased . The National Hurricane Center originally expected the cyclone to remain weak , but Fay began organizing more quickly than anticipated . Relatively strong winds sampled by a Hurricane Hunters aircraft necessitated a special off @-@ hour advisory to raise the cyclone 's intensity estimate . The storm started to acquire characteristics of a fully tropical system , and despite strong southerly wind shear preventing thunderstorms from developing near the center , Fay 's wind speeds steadily increased . Upper @-@ level air divergence from the nearby non @-@ tropical low may have contributed to the storm 's resilience . After convection became more symmetrical and the wind field contracted , Fay transitioned into a tropical storm at 06 : 00 UTC on October 11 . At the same time , the system turned toward the north around the central Atlantic ridge , soon gaining an easterly component to its movement . Fay remained heavily sheared , with the deepest convection still displaced from the center .

Forecasters originally believed Fay to have only briefly been a hurricane , but post @-@ season reanalysis revealed that the system had actually strengthened into a Category 1 hurricane by early

on October 12 and maintained that strength for 12 hours . The upgrade was confirmed by buoy and land observations and weather radar data . At 08 : 10 UTC , the cyclone made landfall on Bermuda with maximum sustained winds of 80 mph (130 km / h) , the hurricane 's peak intensity . Fay was the first hurricane to make landfall on the island since Emily in 1987 . Its satellite presentation improved as a mid @-@ level eye feature formed , though the system remained lopsided . Fay then accelerated toward the east @-@ northeast ahead of a shortwave trough to the north , which also acted to further enhance shear in the area . The hurricane finally succumbed to the persistent wind shear when the low @-@ level center decoupled from the mid @-@ level low and became elongated . By the early morning hours of October 13 , Fay started transitioning into an extratropical cyclone as it entered a baroclinic environment and ingested colder , drier air . The circulation rapidly deteriorated ; consequently , the NHC issued its last operational advisory on the system at 21 : 00 UTC on October 12 . Early the following day , the storm degenerated into an open trough , ending its existence as a tropical cyclone . Shortly after , the system became reestablished as a frontal cyclone , which lost its definition over the northeastern Atlantic on October 15 .

= = Preparations = =

In advance of Fay , a tropical storm watch was issued on October 10 and upgraded to a tropical storm warning the next day . Additionally , in response to the storm 's unexpected strengthening , a hurricane watch was posted at 21 : 00 UTC on October 11 . All public schools on the island were closed for the storm . Bus and ferry services were canceled , and two cruise ships delayed their arrival into port to avoid the cyclone .

= = Impact = =

Fay produced unexpectedly strong winds across Bermuda , especially over western and southern parts of the territory . L.F. Wade International Airport reported 10 @-@ minute sustained winds of 61 mph (98 km / h) , with gusts to 82 mph (132 km / h) . Several stations at higher elevations recorded gusts in excess of 115 mph (185 km / h) , reaching 123 mph (198 km / h) at Commissioner 's Point , about 150 ft (46 m) above sea level . The most intense winds occurred in a relatively quick burst on the backside of the storm , within a large band of thunderstorms that affected the island a couple hours after the official landfall . Local radar imagery indicated possible tornadic activity coinciding with the period of most damaging winds , though this could also have been an artifact of radar velocity folding . A gauge at St. George 's recorded a 1 @.@ 78 ft (0 @.@ 54 m) storm surge , though higher water rises may have affected the southern and western sides of the island . Rainfall unofficially amounted to 3 @.@ 70 in (94 mm) as reported by a member of the public , and the airport recorded 1 @.@ 87 in (47 mm) of rain , though the observing equipment was compromised in both cases .

The hurricane brought down thousands of trees and tree limbs , making streets impassable . The winds also toppled utility poles and inflicted roof damage on buildings . Over 27 @,@ 000 of the Bermuda Electric Light Company 's 36 @,@ 000 customers lost power at the height of the storm . Several roads , including Front Street in Hamilton , were flooded . Many boats up to 60 ft (18 m) in length broke free from their moorings and were damaged or destroyed upon being driven aground . Hamilton city parks sustained considerable damage , and were closed due to safety hazards . The combined effects of Fay and Gonzalo forced the Botanical Gardens and Arboretum to stay closed until mid @-@ November , while cleanup of vegetation damage was underway .

Fay damaged the roof of the airport 's terminal building , causing the sprinkler system to malfunction and inundate parts of the structure with water ; the resultant flooding crippled computer systems crucial to processing passenger information . The airport 's radar was also impacted by the storm . In response to the damage , the airport was closed to all flights , though it quickly reopened to emergency diversions and non @-@ commercial flights . Including subsequent damage from Gonzalo , about $ 2 million was spent on airport repairs , and the storms were later cited as evidence of the need for a newer terminal in a more protected location .

Overall , the cyclone 's effects were greater than anticipated , with destruction at least partially facilitated by saturated soils from nearly 14 inches (360 mm) of rain in August and above @-@ normal precipitation in September . Farmers reported that much of their autumn and winter crops had been lost , along with a few head of livestock . Fay and Gonzalo had a significant cumulative impact on Bermuda 's agriculture and fishing industries , contributing to a slight GDP decline . By about a week after Fay 's landfall , a local insurance company had received nearly 400 claims resulting from the storm , accounting for $ 3 @.@ 8 million in damage . However , with several insurers on the island , the actual damage total was likely much higher ; in a report to the World Meteorological Organization , the Bermuda Weather Service speculated that all insurance claims from Fay totaled " tens of millions of dollars " . Ten people suffered minor storm @-@ related injuries , but no fatalities were attributed to the storm .

= = Aftermath = =

Cleanup efforts after the storm were hastened as Hurricane Gonzalo approached from the south , amid concerns that strewn debris from Fay could become airborne and exacerbate future destruction . The unanticipated heavy damage from Fay prompted residents to prepare more thoroughly for Gonzalo , as evidenced by stores reporting an influx of customers purchasing emergency supplies . Two hundred Bermuda Regiment soldiers helped clear debris and began repairing structural damage . On October 13 , crews of soldiers put tarpaulins on 30 homes with roof damage , as well as distributing another 150 tarps to homeowners .

Early on October 16 , the Bermuda Electric Light Company (BELCO) switched its focus from service restoration after Fay to preparations for the onslaught of Gonzalo , leaving about 1 @,@ 500 households without power . The remaining affected customers were asked to refrain from calling in to report outages , as further repairs would not be attempted before Gonzalo 's passage unless " an easy fix can be made [and] resources are available " . With the same 1 @,@ 500 customers still without electricity by October 23 , BELCO tasked several crews with restoring the residual Fay outages on a priority basis , aided by Caribbean Electric Utility Services Corporation linemen who arrived in the aftermath of Gonzalo . Following the two hurricanes , service was not completely restored to the island until November 3 ; BELCO ultimately spent $ 2 @.@ 9 million on system repairs , having replaced 228 utility poles and over 4 mi (6 @.@ 5 km) of wire .