

= Tropical Storm Fay ( 2002 ) =

Tropical Storm Fay was the sixth named storm of the 2002 Atlantic hurricane season ; it was a moderate tropical storm which caused flooding in parts of Texas and Mexico . In early September , a trough of low pressure moved south into the Gulf of Mexico , and became stationary . A low pressure center developed along this trough , and on September 5 , a Hurricane Hunter airplane reported that the system had gained sufficient organization to be a tropical depression , 95 miles ( 153 km ) southeast of Galveston . The depression drifted south @-@ southwest while strengthening , reaching its peak strength of 60 miles per hour ( 97 km / h ) on the morning of September 6 . The system then made an abrupt turn to the west @-@ northwest , and remained steady in strength and course until landfall the next day , near Matagorda . The system weakened at a fast rate after landfall , but its circulation would not totally dissipate for three more days .

The storm caused extremely heavy rainfall in inland areas ; damage totalled \$ 4 @.@ 5 million ( 2002 USD ; \$ 5 @.@ 2 million USD in 2007 ) ; no deaths occurred as a result of Fay .

= = Meteorological history = =

In the first few days of September 2002 , an upper @-@ level trough emerged in the Gulf of Mexico and stalled . Thunderstorms developed along the trough and concentrated around a weak low pressure system . Gradually , the trough and associated low pressure drifted south into the warm waters of the Gulf of Mexico . A low pressure area in the northwest Gulf of Mexico became the dominant circulation and slowly developed persistent convection near the center . On September 5 , a reconnaissance aircraft investigated the system . During the flight , a low @-@ level center became evident and some deep convection persisted ; as a result , it was classified as a tropical depression . Wind shear within the Gulf of Mexico was weak and remained favorable to tropical cyclone formation . A reconnaissance flight later that day discovered an ill @-@ defined circulation which led to low confidence of the location of the center of circulation . However , enough convection persisted for the depression to be upgraded into Tropical Storm Fay that evening .

Stationary in movement , the associated convection became removed from the center of circulation ; despite this , the system gradually intensified . On September 6 , the storm reached its peak intensity of 60 mph ( 100 km / h ) . Light wind shear prevented Fay from intensifying further , and the gradual movement was dictated by a weak mid @-@ level ridge to the north . A low pressure system to the south of Fay produced wind shear and resulted in decreased convection on the southern half of the circulation , with the majority of convective activity located on the northern half . Fay soon became disorganized which prompted National Hurricane Center forecaster Avila to state , " [ Fay ] rather resembles a subtropical storm " . Fay moved little , and intensified slightly late on September 6 .

On September 7 , Fay began to drift northwest towards the Texas coast as rainbands reached the northwest portion of the Texas coastline . Fay accelerated towards the Texas coast and made landfall early on September 7 . The storm meandered throughout inland Texas , and as the system moved inland , forward speed decreased and Fay weakened to a tropical depression . The last advisory was issued on Fay on September 7 , although the depression persisted for several days just inland of the Texas Coast .

= = Preparations = =

Coinciding with the development of the tropical depression , forecasters issued a tropical storm warning for parts of the Texas coast . When the depression was upgraded into Tropical Storm Fay , the warnings were extended from Matagorda , Texas to coastal Louisiana . On September 8 , forecasters extended the warnings to Port Aransas , Texas , and areas from Port O 'Connor to High Island , Texas were put under a hurricane watch as the storm was forecast to reach hurricane strength before making landfall . However , the hurricane watch for those areas were discontinued when Fay failed to reach hurricane strength . In addition , coastal Texas as well as coastal Louisiana

were under a coastal flood warning , while parts of inland Texas were under flash flood warnings and flood warnings .

Schools closed in Galveston and High Island on September 6 in anticipation of the storm , and voluntary evacuation orders were put into effect along low @-@ lying coastal areas . Some grocery stores in Angleton reported supply shortages .

= = Impact = =

In Louisiana and Mississippi , effects were minor , and limited to moderate rain up to three inches ( 76 mm ) .

The effects in Texas were moderate to severe in some locations , with flooding being the main source of damage . In total , 400 houses sustained damage from flooding . Along the coast , a waterspout spawned by Fay made landfall , and caused minor damage along the northern end of Galveston Island . Storm surge along the Texas coast was 4 @. @ 5 feet ( 1 @. @ 1 m ) above the normal high tide . Peak rainfall throughout the area was in the range of 10 @- @ 15 inches ( 250 ? 380 mm ) . Severe damage resulted from Fay in Sweeny , where about 1 @, @ 000 homes and businesses were damaged by the storm , and there was \$ 3 @. @ 5 million ( 2002 USD ; \$ 4 @. @ 1 million 2007 USD ) in damage . Rainfall totals up to 24 inches ( 600 mm ) caused severe flash flooding there , and in areas near there . Another area that received severe damage from Fay was Matagorda County , where flooding from the storm left \$ 1 @. @ 3 million ( 2002 USD ; \$ 1 @. @ 5 million 2007 USD ) in damage to roads and public facilities .

Twelve tornadoes were reported during Fay 's landfall ; the most notable one destroyed a mobile home , and damaged a barn . Heavy rain from Fay 's remnants also dropped 2 ? 3 inches ( 50 ? 75 mm ) of rain over Frio County . Rainfall of 8 inches ( 200 mm ) was reported near the Atascosca County line with an isolated report of 12 inches ( 300 mm ) in other areas . The rainfall caused severe flashflooding which forced people to flee to roof tops . Damage to buildings , roads and crops totaled up to \$ 800 @, @ 000 ( 2002 USD ; \$ 940 @, @ 000 2007 USD ) .

In Mexico , effects were mostly related to rainfall ; up to 16 inches ( 400 mm ) fell in some areas . When Fay flooded areas such as Nuevo Laredo , Tamaulipas , 100 families were evacuated from their homes , and 120 people were stranded in hotels . It is reported that in that town , 10 trees fell causing little or no damage . Also , the Rio Grande flooded its banks to 3 @. @ 3 meters ( 10 ft ) above flood stage . It is reported that 300 families were not able to return to their homes for several weeks as a result of the flooding .

= = Aftermath = =

Nine counties in Texas were declared disaster areas after Tropical Storm Fay : Brazoria , Frio , Galveston , La Salle , Live Oak , Matagorda , Nueces , San Patricio and Wharton . The declaration enabled business owners and residents to apply for federal and state government aid programs . Disaster housing checks handed out after the storm totaled to over \$ 2 @. @ 7 million ( 2002 USD ; \$ 3 @. @ 1 million 2007 USD ) and the Federal Emergency Management Agency ( FEMA ) had carried out over 2 @, @ 700 home and building inspections . Non @- @ government relief programs such as The Individual and Family Grant Program had distributed over \$ 400 @, @ 000 ( 2002 USD ; \$ 469 @, @ 000 2007 USD ) in checks , and over \$ 1 million ( 2002 USD ; \$ 1 @. @ 2 million 2007 USD ) in relief funds . The Small Business Administration also funded over \$ 250 @, @ 000 ( 2002 USD ; \$ 294 @, @ 000 2007 USD ) in relief aid . After Tropical Storm Fay , the Internal Revenue Service ( IRS ) announced that they would apply special tax relief for the nine counties in Texas that were declared disaster areas .