= 1954 Atlantic hurricane season =

The 1954 Atlantic hurricane season resulted in over $ 750 million in damage , the most of any season at the time . The season officially began on June 15 , and nine days later the first named storm developed . Hurricane Alice developed in the Gulf of Mexico and moved inland along the Rio Grande , producing significant precipitation and record flooding that killed 55 people . Activity was slow until late August ; only Barbara , a minimal tropical storm , developed in July . In the span of two weeks , hurricanes Carol and Edna followed similar paths before both striking New England as major hurricanes . The latter became the costliest hurricane in Maine 's history .

In late September , Tropical Storm Gilda killed 29 people after drenching northern Honduras . A tropical depression in early October was captured by a high @-@ altitude photograph on a rocket , thus producing the first large @-@ scale image of a tropical cyclone . The strongest and deadliest hurricane of the season was Hurricane Hazel , which killed thousands in Haiti before striking near the North Carolina / South Carolina border in October . It caused heavy damage in the United States before becoming extratropical and affecting Ontario . Intense rainfall affected Toronto with severe flooding , leaving significant damage . The season officially ended on November 15 , although another hurricane named Alice developed on December 30 to the northeast of the Lesser Antilles ; it lasted until January 6 of the following year . In total , there were 16 tropical storms , 7 hurricanes , and 3 major hurricanes .

= = Season summary = =

= = Storms = =

The hurricane season officially began on June 15 , when the United States Weather Bureau in Miami , Florida began 24 ? hour operations . The agency , under the direction of Grady Norton had access to 43 other weather stations across the Atlantic basin . Norton died during the season from a stroke while tracking Hurricane Hazel . Additionally , a group of Hurricane Hunters planes were put on standby for the season , able to be flown out into storms and collect data . During the season , there were eight named storms , as well as an unnamed hurricane and a tropical depression . The season officially ended on November 15 , although an unnamed tropical storm formed a day later . In addition , Tropical Storm Alice developed on December 31 , the latest a tropical cyclone has developed in the calendar year .

Cumulatively , tropical cyclones left 193 deaths and $ 756 million in damage , becoming the costliest hurricane season at the time . The season was one of six to have three major hurricanes strike the country , along with 2005 (which had four) , 1893 , 1909 , 1933 , and 2004 . Two of the major hurricanes ? Carol and Edna ? struck New England ; this occurred despite an average of only 5 ? 10 New England hurricanes per century . Carol struck Connecticut as a hurricane and left widespread heavy damage . Only ten days later , Edna became the costliest hurricane in Maine 's history . The third major hurricane , Hazel , was the strongest hurricane of the season , attaining winds of 150 mph (240 km / h) . Unusually , no tropical cyclones affected Florida .

The season 's activity was reflected with a cumulative accumulated cyclone energy (ACE) rating of 113 , which is categorized as being " above normal " . ACE is , broadly speaking , a measure of the power of the hurricane multiplied by the length of time it existed , so storms that last a long time , as well as particularly strong hurricanes , have high ACEs . ACE is only calculated for full advisories on tropical systems at or exceeding 34 knots (39 mph , 63 km / h) or tropical storm strength .

= = Storms = =

= = = Tropical Storm One = = =

A broad trough developed over the eastern Gulf of Mexico on May 26 . A frontal disturbance formed over Florida along the trough , spawning an area of broad cyclonic turning . After emerging into the western Atlantic Ocean , a closed circulation developed within the system , and it is estimated that a tropical depression formed on May 28 about 100 mi (160 km) east of Jacksonville , Florida . Ship observations in the region suggested that the depression intensified into a tropical storm by late on May 28 . The system was small , and was not discovered to have been a tropical cyclone until a reanalysis of data in 2015 . The storm moved to the northeast ahead of an approaching trough , bypassing the Carolinas to the east ; rainfall brushed the coast of North Carolina . On May 29 , ship observations suggested peak winds of 50 mph (85 km / h) . On the next day , the storm became associated with a warm front , indicating that it became extratropical to the southeast of New England . Continuing to the northeast , the former storm crossed over the southeastern coast of Newfoundland before being absorbed by another nontropical low to the northwest on May 31 .

= = = Tropical Storm Two = = =

A trough formed over southern Florida on June 17 . Early the next day , a circulation formed , signaling that a tropical depression also developed over the Everglades . The system moved slowly north @-@ northeastward , emerging into the western Atlantic Ocean at 06 : 00 UTC on June 20 . Shortly thereafter , the depression intensified into a tropical storm , although the structure was broad and asymmetric due to association with a nearby upper @-@ level low , signaling that the system was possibly a subtropical cyclone . Ship reports in the region indicate that the storm continued to intensify . On June 22 , the structure became much more symmetrical while passing just off the Outer Banks , bringing winds of 33 mph (54 km / h) to Wilmington , North Carolina . That day , the Hurricane Hunters estimated winds of 80 mph (130 km / h) , and is possible that the storm briefly attained hurricane status . The peak winds were estimated at 70 mph (110 km / h) , due to a pressure reading of 994 mbar (29 @.@ 4 inHg) . The storm accelerated northeastward due to an approaching cold front . On June 24 , the storm became extratropical , and shortly thereafter made landfall along southwestern Nova Scotia . The system dissipated the next day over the northern Gulf of Saint Lawrence .

= = = Hurricane Alice (June) = = =

On June 24 , a tropical storm and later hurricane rapidly developed in the western Gulf of Mexico , giving the citizens of southern Texas and northeastern Mexico little time to prepare . Hurricane Alice rapidly intensified to at least a strong Category 2 storm (similar to 2010 's Hurricane Alex , moved ashore in northeastern Mexico and quickly weakened , producing minor damage and killing one person due to a fallen power line .
On June 26 , Alice dissipated , although the system dropped torrential rainfall across southern Texas and northeastern Mexico . The maximum rainfall officially peaked at 24 @.@ 07 in (611 mm) near Pandale , Texas , concentrated in an area around the Pecos River . High precipitation accumulations occurred in areas that had seen little rains in three years . This led to significant flooding along the Pecos River that produced " probably the greatest rate of runoff for a watershed of [that] size in the United States " , as reported by the International Boundary and Water Commission . Ozona , Texas sustained the most impact , estimated at $ 2 million in damage . Downstream , the Rio Grande rose to the highest level since 1865 , which flooded seven towns on either side of the border ; Eagle Pass , Texas was flooded with 8 ft (2 @.@ 4 m) of water . Overall there were at least 55 deaths .

= = = Tropical Storm Four = = =

A dissipating cold front stalled over the southeastern United States from Arkansas to North Carolina on July 9 . On the next day , a low pressure area developed along the coast of Georgia . Soon after , the front dissipated , and by 12 : 00 UTC on July 10 , the system developed into a tropical storm .

Observations from a coastal lighthouse and a nearby ship indicated that the storm attained peak winds of 50 mph (85 km / h) while moving slowly east @-@ northeastward , just offshore the Carolinas . The storm began weakening on July 13 , and dissipated the next day when it was absorbed by a larger extratropical storm that was developing to the north .

= = = Tropical Storm Barbara = = =

On July 27 , a tropical depression developed in the northern Gulf of Mexico , about 100 mi (160 km) south of Grand Isle , Louisiana . A map of the low pressure areas forming in July 1954 indicated that the system originated near the Mississippi Delta and tracked southward . After forming , the depression tracked northwestward , intensifying into Tropical Storm Barbara early on July 28 . Maximum sustained winds reached 45 mph (75 km / h) , although a tanker offshore named the Henry M. Dawes reported wind gusts of 60 mph (97 km / h) . Officials at the United States Weather Bureau posted a storm warning from Cameron to Burrwood , Louisiana , and also advised small craft to remain at port along the entire northern Gulf Coast . Without intensifying further , Barbara made landfall near Vermilion Bay , Louisiana on July 29 , dissipating the next day over Texas . The storm dropped heavy rainfall along its path , including over 2 in (51 mm) in New Orleans . The rains caused flooding as well as some damage to the rice crop . However , the Monthly Weather Review yearly summary described the precipitation as " far more beneficial than damaging " . There was no wind damage .

= = = Hurricane Carol = = =

Carol developed from a tropical wave near the Bahamas on August 25 . It quickly intensified as it tracked generally to the north , becoming a hurricane on August 27 . Moving parallel to the coastline of the southeastern United States , Carol passed just east of Cape Hatteras with winds estimated at 110 mph (175 km / h) . It intensified further as it accelerated , striking eastern Long Island as Category 3 hurricane . Carol made its final landfall on Old Saybrook , Connecticut late on August 31 . Within a few hours , the hurricane became extratropical over New Hampshire , which later dissipated over Quebec .
In North Carolina , hurricane @-@ force winds left minor damage to houses , estimated around $ 228 @,@ 000 . Rains from Carol alleviated drought conditions in the Washington , D.C. area . On Long Island , the storm surge flooded the Montauk Highway with 4 ft (1 @.@ 2 m) of water about a mile across . High winds left 275 @,@ 000 homes without power , and damage totaled $ 3 million on the island .
The hurricane moved ashore in Connecticut shortly after high tide , producing a storm surge of 10 ? 15 ft (3 ? 4 @.@ 5 m) from New London eastward . The surge in Narragansett Bay reached 14 @.@ 4 ft (4 @.@ 4 m) , which surpassed that of the 1938 New England hurricane , which flooded downtown Providence with 12 feet (3 @.@ 7 m) of water . In New London , rainfall peaked around 6 in (150 mm) . The hurricane produced winds of over 115 mph (185 km / h) in Connecticut and Rhode Island , including a record @-@ high gust of 135 mph (215 km / h) at Block Island . Widespread areas were left without power from eastern Connecticut to southern Massachusetts . Further north in Maine , Hurricane Carol downed hundreds of trees , as well as destroying widespread apple groves and corn fields . It became the costliest natural disaster in the state 's history , only to be surpassed by Hurricane Edna ten days later . Across New England , the hurricane destroyed about 4 @,@ 000 homes , 3 @,@ 500 cars , and 3 @,@ 000 boats . Damage totaled $ 460 million , and there were 60 deaths . In neighboring Canada , high rains caused flooding while strong winds downed trees and power lines .

= = = Hurricane Dolly = = =

A tropical wave spawned a tropical depression on August 31 to the northwest of Puerto Rico . It moved rapidly north @-@ northwestward , intensifying into Tropical Storm Dolly later that day and

into a hurricane early on September 1 . Early in the storm 's duration , the U.S. Weather Bureau noted the potential for Dolly to affect the same areas of New England that Hurricane Carol struck just days prior . However , the hurricane turned to the north away from land . The Hurricane Hunters estimated maximum sustained winds of 85 mph (140 km / h) on September 2 after the storm passed about halfway between the Outer Banks and Bermuda . Dolly turned to the northeast on September 2 and became extratropical later that day to the south of Nova Scotia . It was tracked until September 4 , until it was last located to the north of the Azores . There was no reported damage .

Hurricane Edna

As Dolly became extratropical , the tropical depression that later became Hurricane Edna developed east of the Lesser Antilles on September 2 . It moved northwestward , dropping heavy rainfall on Puerto Rico as it passed north of the island . On September 7 Edna became a hurricane , and the next day reached peak winds of 120 mph (195 km / h) . It turned to the north and northeast , bypassing the Outer Banks and skirting Cape Cod . On September 11 , Edna struck Massachusetts as a strong Category 2 hurricane . The hurricane later moved ashore near the border between Maine and New Brunswick around the time it became extratropical . The remnants persisted a few more days before dissipating south of Greenland .

Early in its duration , Edna produced high seas and gale force winds in the Bahamas , but there was no damage there . Hurricane force winds occurred in the Outer Banks , although damage was minor . As it passed New England , Edna produced a 6 ft (1 @.@ 8 m) storm surge during a high tide , which caused severe flooding in Martha 's Vineyard , Nantucket , and Cape Cod . Wind gusts peaked at 120 mph (190 km / h) on Martha 's Vineyard , and the strong winds across the region left widespread power outages . The hurricane dropped additional heavy rainfall to areas affected by Carol , resulting in flooding in Massachusetts and Rhode Island . In Long Island and New England , the hurricane left over $ 42 million in damage and 20 deaths , only 11 days after Carol affected the same area . About a third of the damage occurred in Maine , becoming the costliest hurricane on record in the state . Hurricane force winds extended into Canada , causing $ 6 million in damage (1954 CAD) , mostly from crop damage . There was one death in Nova Scotia .

Tropical Storm Nine

A surface trough persisted across the central Atlantic Ocean on September 2 . Over the next few days , the system moved slowly northeastward , independent of any frontal systems . On September 6 , nearby ships indicated that the a closed circulation had developed , marking the genesis of the system as a tropical depression . Accelerating to the northeast , the storm reached peak winds of 45 mph (75 km / h) on September 7 . By the next day , the system became extratropical , and soon after was absorbed by a larger extratropical storm to the north .

Tropical Storm Florence

A tropical storm formed in the Bay of Campeche on September 11 . Given the name Florence , the storm moved generally west @-@ southwestward with a small radius of maximum winds . Hurricane Hunters reported winds of 65 mph (105 km / h) , although winds were initially (before reanalysis confirmed it was a tropical storm) estimated to have reached minimal hurricane force , or 75 mph (120 km / h) . Before the storm moved ashore , officials in Veracruz evacuated residents from low @-@ lying areas , and overall about 90 @,@ 000 people left their homes . On September 12 , Florence moved ashore between Tuxpan , and Nautla , Veracruz and quickly dissipated . The hurricane flooded coastal cities with up to 3 ft (0 @.@ 91 m) of water , cutting off communications throughout the state . Damage was heaviest around Poza Rica , primarily from the destruction of banana plantations . Monetary damage was estimated around $ 1 @.@ 5 million , and there were five reported deaths .

Tropical Storm Eleven

A low pressure area was present north of the Yucatán Peninsula on September 14 . Nearby ship observations indicated that a tropical depression developed the next day in the central Gulf of Mexico , although the system 's large structure meant it could have been a subtropical cyclone . The system moved slowly westward , bringing winds of 30 mph (45 km / h) to the coast of Louisiana . It is estimated that the storm reached peak winds of 45 mph (75 km / h) on September 16 , based on reports from ships and the Hurricane Hunters . On the next day , the system began weakening over water , dissipating on September 18 without moving ashore .

Tropical Storm Gilda

On September 24 , Tropical Storm Gilda developed in the central Caribbean Sea about halfway between Jamaica and Colombia . A small storm , it moved westward throughout its duration . On September 26 , Gilda attained peak winds of 70 mph (110 km / h) while nearing northeastern Honduras . The storm paralleled the coastline a short distance offshore , maintaining its intensity before hitting and later weakening over Belize on September 27 . It re @-@ emerged in the Gulf of Mexico before making another landfall near Tampico as a tropical depression on September 29 . While moving just offshore the coast of Honduras , Gilda dropped intense rainfall , which flooding about 680 mi2 (1760 km2) of land along the Chamelecón and Ulúa rivers . The waters caused the widespread destruction of banana plantations and houses , leaving about 3 @,@ 000 people homeless . Honduras President Juan Manuel Gálvez appealed for aid from the United States . In response , U.S. Air Force planes flew food , medicine , rafts , and water purification tablets to the most affected regions . A total of 29 people were killed in Honduras . When Gilda made its landfall in Belize , it left little property damage and no deaths .

Hurricane Thirteen

A tropical depression formed in the Central Atlantic on September 25 . It drifted east @-@ northeastward , eventually becoming a tropical storm on September 29 . The storm curved to the west and west @-@ southwest , becoming a hurricane on October 2 . It turned to the northeast on October 3 , and reached a peak of 100 mph (155 km / h) winds about halfway between Bermuda and the Azores . By that point it began accelerating , and late on October 6 the hurricane became extratropical over the Northeastern Atlantic . Early the next day it was last observed to the south of Iceland . The hurricane was not named due to its presence in the eastern Atlantic and not being a threat to land .

Unnumbered Tropical Depression

On October 2 , a tropical depression moved westward from the coast of Cuba into the Gulf of Mexico . It moved westward without intensifying beyond winds of 35 mph (55 km / h) , moving ashore about 40 mi (65 km) north of Brownsville , Texas . The depression weakened as it moved across southern Texas and dropped heavy rainfall . Brownsville recorded over 3 in (75 mm) in a 45 minute period , as well as about 6 in (150 mm) in six hours . The rainfall rates of about an inch per hour was the heaviest since June 1950 . The depression also moved ashore with high waves and tides .
When the system reached the Big Bend region on October 5 it reintensified slightly . Around that time , the United States Navy conducted a rocket test from White Sands , New Mexico ; this was despite that such tests were rarely performed when the skies were cloudy . The rocket took an unintended photograph of the depression from an altitude of about 100 miles (160 km) , which became the first such large @-@ scale image of a tropical cyclone . The depression later moved into New Mexico and dropped additional rainfall , interacting with an approaching cold front .

Flooding was reported around Roswell , as well as along the Pecos River system . Rainfall in the state peaked at 9 @.@ 8 in (250 mm) in Canton , New Mexico . The system dissipated on October 7 .

= = = Hurricane Hazel = = =

Hurricane Hazel was the deadliest and costliest hurricane of the season . The storm killed as many as 1 @,@ 000 people in Haiti before striking the United States near the border between North and South Carolina , as a Category 4 hurricane . After causing 95 fatalities in the U.S. , Hazel struck Canada as an extratropical storm , raising the death toll by 81 people , mostly in Toronto .

Hazel formed on October 5 just east of the Windward Islands and intensified into a Category 1 hurricane while crossing the southeastern Caribbean Sea . After making a hard turn northward (similar to 2012 's Hurricane Sandy) , it rapidly intensified as it approached Haiti , reaching Category 3 intensity before landfall . In Haiti , Hazel destroyed 40 % of the coffee trees and 50 % of the cacao crop , affecting the economy for several years to come . It fluctuated in intensity before making landfall as a Category 4 hurricane in the Carolinas , which destroyed most waterfront dwellings near its point of impact . It affected several more states , including Delaware , Maryland , New Jersey , New York , Pennsylvania , Virginia , and West Virginia , bringing gusts near 100 mph (160 km / h) and causing $ 308 million in damage .

When Hazel arrived in Ontario , rivers and streams passing through the Greater Toronto Area overflowed their banks , causing severe flooding . As a result , many residential areas located in floodplains , such as the Raymore Drive area , were subsequently converted to parkland . In Canada alone , over C $ 135 million (2009 : $ 1 @.@ 1 billion) of damage was incurred . Hazel was particularly destructive in Toronto , as a result of a combination of a lack of experience in dealing with tropical storms and the storm 's unexpected retention of power . Hazel had traveled 680 mi (1 @,@ 090 km) over land , but while approaching Canada , it had merged with an existing powerful cold front . The storm stalled over the Greater Toronto Area , and although it was now extratropical , it remained as powerful as a category 1 hurricane . To help with the cleanup , 800 members of the military were summoned , and a Hurricane Relief Fund was established that distributed $ 5 @.@ 1 million (2009 : $ 41 @.@ 7 million) in aid .

= = = Tropical Storm Fifteen = = =

On November 16 , a tropical depression developed about halfway between the Lesser Antilles and the Azores . It moved to the west , intensifying into a tropical storm and reaching peak winds of 40 mph (65 km / h) (however , due to limited data , it is possible that the storm remained a tropical depression) . The storm maintained that intensity on November 21 when it began weakening , dissipating later that day .

= = = Hurricane Alice (December) = = =

The final storm of the season , Alice , developed on December 30 from a trough of low pressure in the central Atlantic Ocean in an area of unusually favorable conditions . The storm moved southwestward and gradually strengthened to reach hurricane status . It persisted into the following calendar year , passing through the Leeward Islands on January 2 . Alice reached peak winds of 90 mph (150 km / h) before encountering cold air and turning to the southeast . It dissipated on January 6 over the southeastern Caribbean Sea .

Alice produced heavy rainfall and moderately strong winds across several islands along its path . Saba and Anguilla were affected the most , with total damage amounting to $ 623 @,@ 500 (1955 USD) . Operationally , lack of definitive data prevented the U.S. Weather Bureau from declaring the system a hurricane until January 2 . It received the name Alice in early 1955 , though re @-@ analysis of the data supported extending its track to the previous year , resulting in two tropical cyclones of the same name in one season . It was one of only two storms to span two calendar

years , along with Tropical Storm Zeta in 2005 @-@ 06 .

= = Storm names = =

 The following names were used for named storms (tropical storms and hurricanes) that formed in the North Atlantic in 1954 . The list was the same as 1953 with the exception of Gilda , which replaced Gail due to the name 's confusion with the term gale . Names that were not assigned are marked in gray .

= = = Retirement = = =

 The name Carol was re @-@ used in the 1965 season , but was retroactively retired when the modern naming system was introduced . Edna was reused in 1968 and retired . Hazel was not re @-@ used and was retired .