

2020 Hurricane Season Summary

The season officially started on June 1 and officially ended on November 30; however, the formation of tropical cyclones is possible at any time (see table below), as illustrated by the early formation of Tropical Storms Arthur and Bertha, on May 16 and 27, respectively.

Month of formation Number of recorded storms

January	4
February	2
March	1
April	7
May	52
November	10
December	17
Total	93

Source Hurricane Research Division

Seasonal Predictions

Early seasonal analysis called for cool neutral ENSO appear likely to transition to a weak La Niña by this summer/fall and somewhat above normal Tropical Atlantic Sea surface temperatures.

As a result the *Colorado State team* April 2020 forecast for the Atlantic Basin Hurricane Season calls for slightly above average season with 20 named storms, 9 hurricanes and 4 major hurricanes. The NOAA June 1 2020 forecast for the Atlantic Basin Hurricane Season calls for above normal season with 13-19 named storms, 6-10 hurricanes and 3-6 major hurricanes.

An average hurricane season produces around 12 named storms, 6 hurricanes and 3 major hurricanes. So far in 2020 we have had 5 named storms.





Hurricane season

The **2020 Atlantic hurricane season** is the most active Atlantic Hurricane Season on record. A total of 31 tropical and subtropical depressions, 30 named storms, 13 hurricanes, and 6 major hurricanes have formed throughout the season. It is the second season to use the Greek Letter storm naming system, the first being 2005. The season was also the fifth consecutive season in which at least one Category 5 hurricane formed. This unprecedented activity has been fueled by an ongoing La Nina. It has been the fifth consecutive above average season, from 2016 onward, and the first extremely active season since 2017.





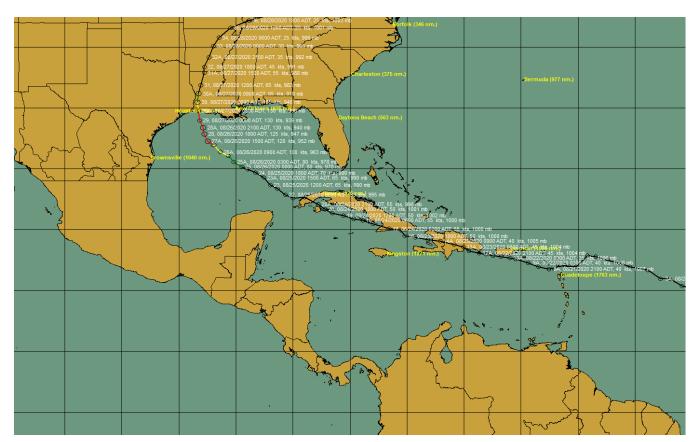


Cayman Islands impact

The 2020 Hurricane Season was also very active for the Cayman Islands with direct impacts from 6 systems. The 6 systems are devided into into two sets: Higher level impacts including Tropical Storm Laura, Hurricane Delta and Tropical Storm Eta; Lower level impacts including Tropical Storm Marco, Tropical Storm Nana and Hurricane Zeta.

Tropical Storm Laura

On August 16, the National Hurricane Center (NHC) began tracking a large tropical wave that had emerged off the West African coast, and moving toward the Windward Islands. As the system moved across the central tropical Atlantic toward the Windward Islands, satellite imagery revealed that the system had developed a well-defined center of circulation with sufficient organized deep convection to be classified as a tropical depression at 10 p.m. on August 20. The next day at 7 a.m., NOAA Hurricane Hunter Aircraft found that the depression had strengthened and become Tropical Storm Laura. See below image.







As Laura moved across the Windward Passage on August 23rd 2020 the track of the storm drifted south of Cuba and the Government of the Cayman Islands issued a Tropical Storm Warning for the Sister Islands 4 p.m. August 23rd 2020. Laura passed within 71 nautical miles north of Cayman Brac 4 a.m. August 24th 2020 (Closest point of approach – see below image). The Government of the Cayman Islands discontinued the Tropical Storm Warning for the Sister Islands 4 p.m. August 24th 2020.



In terms of impacts the Cayman Islands experienced cloudy rainy weather with a rainfall accumulation of 40.60 mm or 1.60 inches measured at Owen Roberts International Airport on August 24th 2020. Maximum recorded winds speeds in Grand Cayman was 25 knots 10 a.m. August 24th 2020 and a 37 knots gust was recorded at Charles Kirkconell International Airport 8 a.m. August 24th 2020.

In terms of impacts Cayman Brac reported only minimal impacts while in Grand Cayman a number of boats broke moorings and were washed up on 7-Mile Beach.







Tropical Storm Marco

The NHC began to track a tropical wave located over the central tropical Atlantic at 7 p.m. on August 15th 2020. Initially hindered by its speed and unfavorable conditions in the eastern Caribbean, the wave began organizing once it reached the central Caribbean on August 19th 2020. At 10 a.m. on August 20, the NHC designated the wave as Tropical Depression Fourteen. The depression passed within 191 nautical miles (CPA) southwest of Grand Cayman 3 p.m. August 21st 2020 before strengthening into Tropical Storm Marco at 10 p.m. on August 22nd 2020.

In terms of impacts the Cayman Islands experienced cloudy rainy weather with a rainfall accumulation of 25.20 mm or 0.99 of an inch measured at Owen Roberts International Airport on August 21st 2020. No significant winds were recorded.





Tropical Storm Nana

On August 27, the NHC began to monitor a tropical wave that was moving westward over the Atlantic. A hurricane hunter aircraft investigated the disturbance on September 1st 2020, as it moved across the southern Caribbean. Although it was not yet clear as to whether or not there was a well-defined low-level circulation, the system managed to achieve gale-force winds and because it was an imminent threat to land, the NHC initiated advisories on Potential Tropical Cyclone Sixteen at 10 a.m. that day; one hour later, the system was upgraded to Tropical Storm Nana. Nana passed within 137 nautical miles (CPA) south of Grand Cayman 1 a.m. September 2nd 2020.

In terms of impacts the Cayman Islands experienced cloudy rainy weather with a rainfall accumulation of 25.20 mm or 0.99 of an inch measured at Owen Roberts International Airport on September 2nd 2020. No significant winds were recorded.

Hurricane Delta

On October 1, the NHC began to monitor a tropical wave located a few hundred miles east of the Lesser Antilles for potential development. Shower and thunderstorm activity become more consolidated October 3, as the wave moved over the central Caribbean, The consolidation trend continued through the next day, and at 4 p.m. the system was classified as Potential Tropical Cyclone Twenty-Six. The Government of the Cayman Islands issued a Tropical Storm Warning for the Cayman Islands based upon its forecast track and intensity. By 10 p.m. on October 3, it had become sufficiently organized to be labeled a tropical depression. The system continued to gain strength and at 7 a.m. it was designated Tropical Storm Delta, while located roughly 100 miles south of Jamaica. Delta soon began to rapidly intensify, attaining hurricane strength 12 hours later.

By 10 a.m. on October 6, as the hurricane passed within 93 miles southwest of Grand Cayman (CPA) a Hurricane hunter reconnaissance aircraft found that the system had continued to rapidly intensify into a Category 4 major hurricane with maximum sustained winds near 130 mph. The Government of the Cayman Islands issued a Tropical Storm Warning for the Cayman Islands based upon its forecast track and intensity.







In terms of impacts the Cayman Islands experienced cloudy rainy weather with a rainfall accumulation of 29.20 mm or 1.60 inches measured at Owen Roberts International Airport on October 5/6th 2020. No significant winds were recorded but marine warnings were issued for rough seas associated with the system, especially along the west coast (See below).



Delta produced forecast tracking problems for the weather service as the system was forecast to move northwest across the Cayman Islands from its formation. Delta instead drifted southwest for over 24 hours before starting a turn to the northwest. By the time it completed its drift the forecast shifted from having the system pass east of Grand Cayman to the system passing west of Grand Cayman.

Hurricane Zeta

On October 15, the NHC began to monitor the southwestern Caribbean for the possible gradual development of a broad area of low pressure over the region. Satellite images and radar data reviewed on October 19 showed that a trough of low pressure, located just west of Grand Cayman and extending northward across western Cuba, had formed. By 4 p.m. on October 24, the system had organized enough to be designated as Tropical Depression Twenty-Eight when the system passed within 113 miles southwest of Grand Cayman (CPA) 4 p.m. October 24th 2020 (Depression). At 4 a.m. the following morning, the depression strengthened into Tropical Storm Zeta.

CAYMAN ISLANDS G O V E R N M E N T

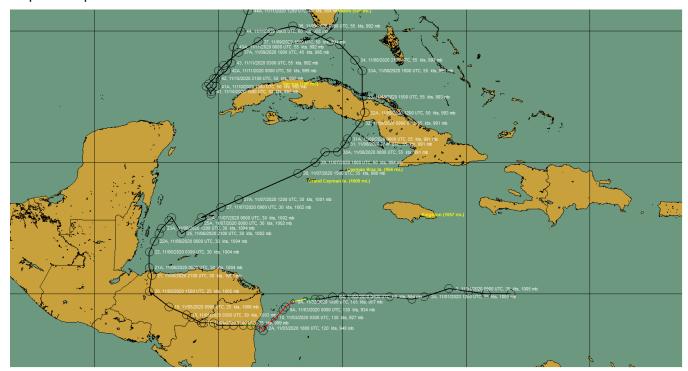


The Cayman Islands National Weather Service issued Marine and flood warnings for the Cayman Islands on October 24/25th 2020 in association with the passage of the system.

In terms of impacts the Cayman Islands experienced cloudy rainy weather with a rainfall accumulation of 43.18 mm or 1.70 inches measured at Owen Roberts International Airport on October 24/25th 2020. While no significant winds were recorded from the system, marine warnings were issued for expected 5 to 7 foot seas.

Tropical Storm Eta

On October 29, the NHC began monitoring two merging tropical waves moving into the Eastern Caribbean. The system organized and became Tropical Depression Twenty-Nine at 4 p.m. on October 31. The depression became Tropical Storm Eta at 10 p.m. on October 30. This tied 2020 with 2005 for the most tropical storms on record. Eta rapidly intensified later that day, reaching hurricane status by 4 a.m. on November 2 as it slowed down. Eta rapidly intensified into a Category 4 hurricane by 4 p.m. Eta reached its peak intensity of 150 mph at 2 a.m. on November 3. Eta then made landfall at 4 p.m. south of Puerto Cabezas, Nicaragua, with winds of 140 mph. Eta rapidly weakened over land while moving slowly westward, downgrading to a tropical storm by 4 a.m. on November 4. The next day, Eta weakened to a tropical depression.







The Government of the Cayman Islands issued a Tropical Storm Warning for the Cayman Islands based upon its forecast track and intensity 4 a.m. November 06 2020. Eta turned northeastward back over the Caribbean by November 7, and it became a tropical storm again at 10 a.m. Eta strengthened to have sustained winds of 65 mph by 7 p.m. on November 8. The Government of the Cayman Islands issued a Tropical Storm Warning for the Cayman Islands based upon its forecast track and intensity.



In terms of impacts the Cayman Islands experienced cloudy rainy weather with a rainfall accumulation of 250.7 mm or 9.87 inches measured at Owen Roberts International Airport from November 03 to 07th 2020. Maximum recorded wind speeds of 32 knots was recorded at the Owen Roberts International Airport 9 a.m. November 07th 2020, however Radar winds show 50-55 knots around Grand Cayman. Maximum recorded wind speeds of 47 knots was recorded at the Charles Kirkconnel International Airport 9 a.m. November 07th 2020.













Eta produced a number of problems for the weather service as the system weakened to a very weak ill-defined tropical depression over western Honduras and east of Belize. Additionally the NHC had to issue two center relocations (3 p.m. November 06 2020 and 10 a.m. November 07 2020) as the system approached the Cayman Islands from the southwest.

