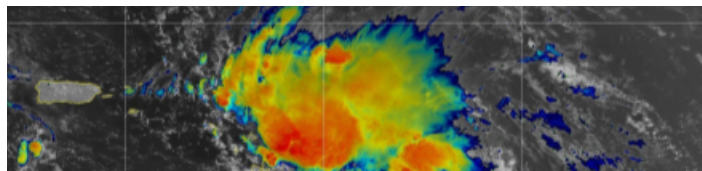
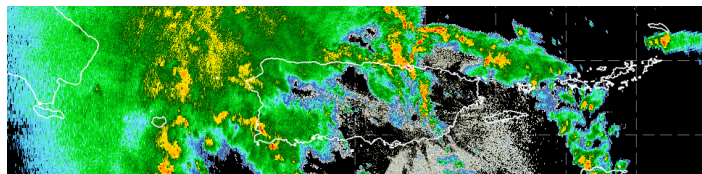
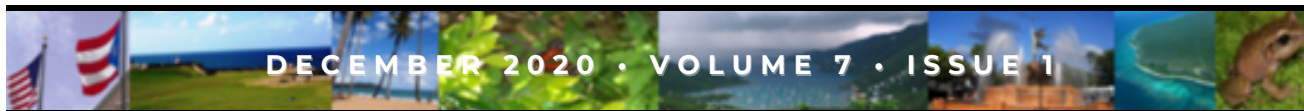


The Whispering Trades



OFFICIAL NEWSLETTER OF THE NATIONAL WEATHER SERVICE
WFO SAN JUAN, PUERTO RICO



TROPICAL STORMS ISAIÁS & LAURA

By: Ernesto Rodríguez

This hyperactive hurricane season produced two tropical storms that directly affected Puerto Rico and the U.S. Virgin Islands. Tropical Storm Isaias was the first storm to threaten the islands as it moved about 150 miles south of Puerto Rico on July 29th, 2020.

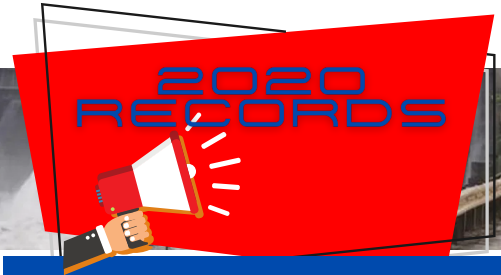
Although the center of Isaias passed further south than anticipated, it produced tropical force wind gusts and significant rainfall across Puerto Rico. This broad and disorganized storm resulted in total rainfall accumulations between 4 and 8 inches over west and southwest Puerto Rico, with some areas of the central interior and eastern Puerto Rico reporting an excess of 10 inches during the event. During the passage of Isaias, strong gusty winds ranging between 55 and 65 mph were observed over portions of Puerto Rico. In contrast, the impacts over the U.S. Virgin Islands were minimal, although windy conditions and some rainbands were also reported from time to time. Roughly a month later, Tropical Storm Laura moved remarkably close to the local islands. Laura passed approximately 15-20 miles south of St. Croix on the morning of August 22nd generating showers and thunderstorms with wind gusts to around 45 mph. Later that day, the center of the tropical storm passed about 10 miles south of Guayanilla moving at 18 mph. Rainbands with strong gusty wind were felt by most of Puerto Rico, Culebra and Vieques during its passage. The tropical storm continued moving west-northwest later affecting the islands of the Greater Antilles. Laura strengthened into a hurricane as it moved over the Gulf of Mexico eventually becoming a deadly and destructive major hurricane before making landfall over the state of Louisiana.

HURRICANE SEASON 2020

Summary

By: Gabriel Lojero

The 2020 Atlantic Hurricane Season is considered historic as a record setting of 30 storms developed, breaking the record previously established during the 2005 Season of 28 storms. It is also the second time ever that the Greek Alphabet had to be used to name storms. Many outlooks developed by different agencies before the season started called for a very busy season. There were two main factors that resulted in a busy season across the Atlantic Basin. The first factor was the development of La Niña conditions (below normal sea surface temperatures in the equatorial Pacific). When La Niña occurs, upper-level winds become weaker than normal across the Atlantic Basin, resulting in a favorable environment for the development of storms. Another factor was the well-above normal sea surface temperatures that persisted across the tropical Atlantic, Caribbean Sea and Gulf of Mexico. This also favored the development as well as the intensification of storms.



EFFECTS ON DROUGHT 2020

By: Odalys Martínez

The peak of the Atlantic basin hurricane season brought above normal rainfall to Puerto Rico and the U.S. Virgin Islands, resulting in significant improvements in the drought conditions. The drought conditions peaked across the area during the first week of July, with 32% of Puerto Rico in severe drought (D2), including nearly the entire southern coast and portions of the eastern interior extending north to near the San Juan metro area. Isaias' rains, however, improved the drought conditions across Puerto Rico with "Moderate Drought" (D1) and "Severe Drought" (D2) classification being removed. A second round of widespread wetting rains were observed during Tropical Storm Laura which brought additional improvements in drought conditions, particularly across the U.S. Virgin Islands. The rainfall deficits decreased across all islands, with soil moisture and streamflows recovering as well. As a result, there is no drought (D1 or worse) currently being observed across Puerto Rico or the U.S. Virgin Islands. Despite the dryness across the area, 24 out of 110 river gauges in the U.S. Geological Survey (USGS) streamflow network rose above the minor or moderate flood stage during the passage of Tropical Storm Isaias which left rainfall totals ranging between 4 to 8 inches. Each river gauge along Río Grande de Manatí, Río Grande de La Plata, Río Grande de Arecibo, and Río Grande de Loíza rose above flood stage with several points rising above moderate flood stage. Significant flooding was observed along Río Yagüez, Río Hondo and Quebrada Grande in Mayagüez where dozens of homes were affected. No major flooding problems were associated with the passage of Tropical Storm Laura which left rainfall totals ranging between 2 and 4 inches.

RECORDS FOR HURRICANE SEASON 2020

By: Lee Ann Inglés Serrano

HISTORICAL HURRICANE SEASON with 30 named storm

The 2020 Atlantic hurricane season was the most active Atlantic hurricane season on record.

The greek alphabet was used for the second time ever, the first time was in 2005.

31 tropical or subtropical cyclones, 30 named storms, 13 hurricanes, and 6 major hurricanes, including one Category 5 hurricane (Iota).

Of the 30 named storms, 12 made landfall

Nine named storms have made landfall over the mainland U.S. this season, and four of those were hurricanes.

On September 18, 2020, 3 Storms formed in a single day, tying the previous record.

September was the season's busiest month with 10 named storms forming by September 21.

On September 14th, for a brief period of time the Atlantic Basin had 5 active tropical cyclones, which included Paulette, Rene, Sally, Teddy Tropical Depression Twenty-One.

A "COVID19" SEASON

Who would've thought the day we were celebrating our office holiday party, four months later we would be interacting virtually from our homes? As for many other agencies, this became our new reality. We were sent to our homes to work remotely, something that the majority of us had never done before. This brought each of us a vast amount of uncertainty, many doubts and concerns arose. Along with all of the situations that were filling our minds with insecurity towards how we would continue to give our public the best service possible, also came the prediction of what was to be an extremely active hurricane season.

Management's Perspective

"Hurricane season 2020 will definitely be remembered as one of the most, if not the most, difficult season for the National Weather Service. Not only did it break the record in terms of the number of tropical storms, hurricanes and major hurricanes, but also the forecast offices dealt with a considerable amount of cyclones in the middle of the COVID-19 pandemic. WFO San Juan, as other offices, had to make significant changes in operations long before the beginning of the hurricane season. In order to ensure the safety of the staff, changes in the schedule had to be made. To keep the number of employees in the building to a minimum, many of the staff members were put in teleworking status. Many of the outreach and decision support services had to be either cancelled or done virtually. Tours and visits to the office were cancelled as well. Nevertheless, we strived to achieve our mission 24/7 thanks to the forecasters that were working on different shifts to provide the best forecasts and warnings for Puerto Rico and the U.S. Virgin Islands." -Roberto Garcia-Hirald, Meteorologist in Charge



Holiday Party December 2019



Virtual Group Meetings 2020

"The outreach program, along with other programs, has been significantly affected by the COVID-19 restrictions. All of our interaction changed to virtual platforms and this caused a major impact on how we communicated with our partners during the hurricane season. Skywarns courses, StormReady and TsunamiReady recognitions and renewals, NWS presence during press conferences were all affected. It is to my understanding that this has changed the relationship with the state and municipal emergency managers across the island. Trust is key to maintain a good relationship with our partners and this is earned through face to face interactions." -Ernesto Morales, Warning and Coordination Meteorologist

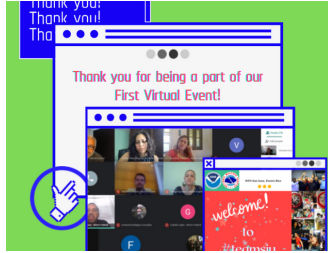
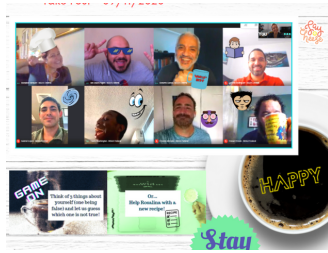
Observing Program Leader's Perspective

"The most important part of the Cooperative Observer Program (COOP) is to visit observers to fix, install, or remove equipment. Not being able to do that, due to the COVID19 pandemic, the COOP Program has been hugely affected. In person interaction with observers was modified to sending emails or making phone calls to confirm if equipment was in good condition. Phone calls and emails are not a substitute for annual visits, therefore complying with the COOP Program requirements has been extremely challenging since we are only authorized to visit stations in emergency situations. On a positive note, the observations from our stations haven't been affected since the stations were in good conditions prior to the pandemic. During the pandemic, I reaffirmed that time is key. We should seize the time and do the most of it to have things in order." -Rosalina Vázquez-Torres, Observing Program Leader

BEFORE



AFTER



A "COVID19" SEASON

A Forecaster's Perspective

"Working through Tropical Cyclones in times of COVID definitely changed the workload and procedures. Having less people in the office and having to rely on many people working remotely posed many new challenges. When a Tropical Cyclone threatens the local area, having the staff in the office allows for better situational awareness for everyone involved."

A New Hire's Perspective

"It was hectic! This was my first hurricane season that I worked as a meteorologist and it turned out to be the most active hurricane season on record plus under COVID-19 circumstances. Future hurricane seasons will definitely be different, but I am sure that this experience will help me handle it and continue learning from them, hopefully in a non-COVID 19 circumstance with other staff present which would make the work much better."

"NOT TODAY COVID-19"

After this "out of the norm" hurricane season, we want to assure our public that we will continue to work hard to protect life and property in Puerto Rico and the U.S. Virgin Islands under any circumstance life might throw at us. We are here to serve our public and keep them informed at all times... COVID-19 or not.

As an office that celebrates almost any and everything, we definitely miss spending time with each other. From office parties to outdoor activities, we have now adapted to virtual activities such as coffee breaks, new hire welcomings, costume parties, and even some karaoke! We are determined to overcome all challenges and keep strong as an office and a family.

Thank you for all of the support throughout Hurricane Season 2020! Happy Holidays and Keep Safe!



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