

INDIAN RIVER COUNTY EMERGENCY MANAGEMENT



Post-Hurricane Season Newsletter for Emergency Support Function Representatives by Ryan Lloyd

December 2021

Goodbye 2021 Atlantic Hurricane Season!

The 2021 Atlantic Hurricane Season ended on November 30th, and it was the ***third busiest*** period on record with 21 named storms. This included 13 tropical storms, seven total hurricanes, four of which were major. 2021 was the sixth consecutive year of above-average storm activity.

Dry Season Forecast

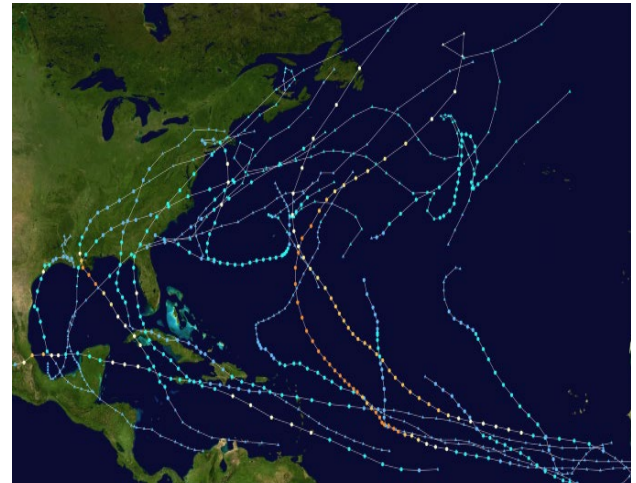
The Dry Season is a six-month period from November 2021 through April 2022. Currently, weak La Nina conditions exist in the Pacific Ocean. The NWS forecasts expect: Above normal temperatures, below normal precipitation, and below normal storm activity for the Central Florida Region through April 30, 2022. The NWS forecast can be viewed at:

<https://www.weather.gov/mlb/mlbnino>

Indian River County Region

Fortunately, Indian River County, and Florida's East Coast did not receive any significant Atlantic storm impacts during 2021.

With that said, eight storms hit United States Coastlines, and this was the fourth costliest hurricane season on record. According to Wikipedia, the 2021 storms caused over \$70 billion dollars in damage and claimed 161 lives.



2021 Hurricane Season Storm Track Map. The Florida East Coast was clear of storm activity!

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Highlights of the 2022 Atlantic Hurricane Season

Hurricane Ida was the strongest storm in 2021, and it made landfall near Port Fourchon (devastating the Town of Grand Isle), Louisiana. On August 26, 2021, Ida developed into a Tropical Storm near Grand Cayman. On August 27, 2021, Ida reached hurricane status and rapidly intensified in the Gulf of Mexico. Hurricane Ida reached its peak strength (Category 4) with maximum sustained winds of 150 MPH. After U.S. landfall, the remnants of Hurricane Ida accelerated through the Northeastern States causing tornadic destruction and catastrophic flooding.



Hurricane Ida Track Map: U.S. Landfall on August 29, 2021

2021 Hurricane Season Records:

- 2021 was the fourth costliest Hurricane Season behind 2005, 2012, and 2017. There was over 70 billion dollars in damages recorded.
- On May 29, 2021 Tropical Storm Ana formed. This marks the seventh year in a row where a storm has formed before the designated start of the season (June 1st).
- Hurricane Ida was the second strongest storm (tied with Hurricane Laura-2020 and the Last Island Hurricane-1856) to impact Louisiana. Hurricane Ida's landfall was on August 29, 2021, which was the 16-year anniversary of Hurricane Katrina's landfall (New Orleans).
- The National Oceanic and Atmospheric Administration (NOAA) deployed five Hurricane-Class Saildrones into the Atlantic Basin. On September 30, 2021, Saildrone 1045 captured the first video and data inside the middle of a major hurricane (Sam).
- The last tropical system dissipated on November 7, 2021, 23 days before the season ended.

References:

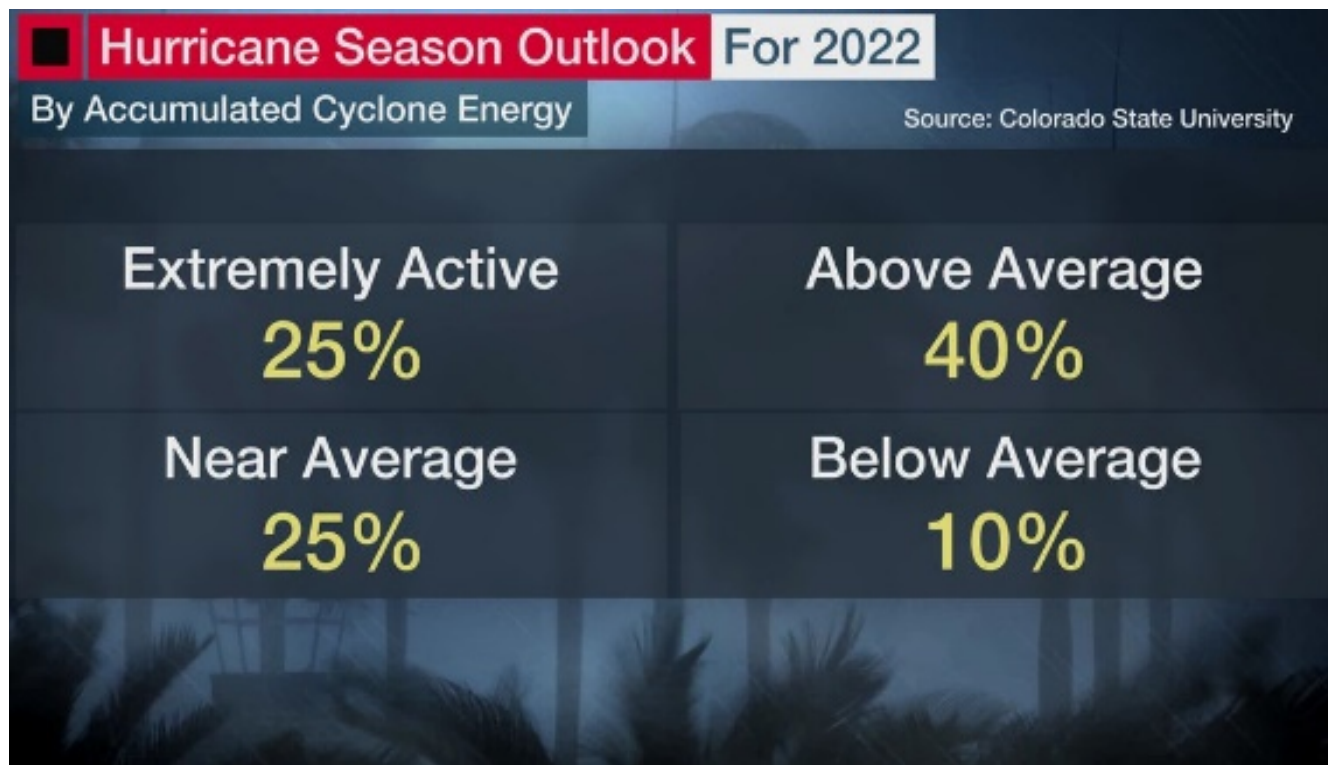
1. NOAA: <https://pmel.noaa.gov/news-story/when-saildrone-met-hurricane-sam#:~:text=Saildrone%201045%2C%20one%20of%20the,2021%20to%20record%20critical%20data>
2. Wikipedia: https://en.wikipedia.org/wiki/2021_Atlantic_hurricane_season

Forecasts of 2022 Hurricane Activity

On December 9, 2021, Colorado State University (CSU) released its first qualitative discussion for the 2022 Atlantic Hurricane Season. This provides an early general prediction for storm activity in 2022. The CSU uses Atlantic multi-decadal oscillation (AMO) and Accumulated Cyclone Energy (ACE) to formulate their initial prediction. The CSU forecast with the highest probability (currently) is noted below:

AMO is above average and no El Niño occurs (ACE ~ 130) – 40% chance/130 ACE – 13-16 named storms, 6-8 hurricanes, 2-3 major hurricanes.

<https://tropical.colostate.edu/Forecast/2021-12.pdf>

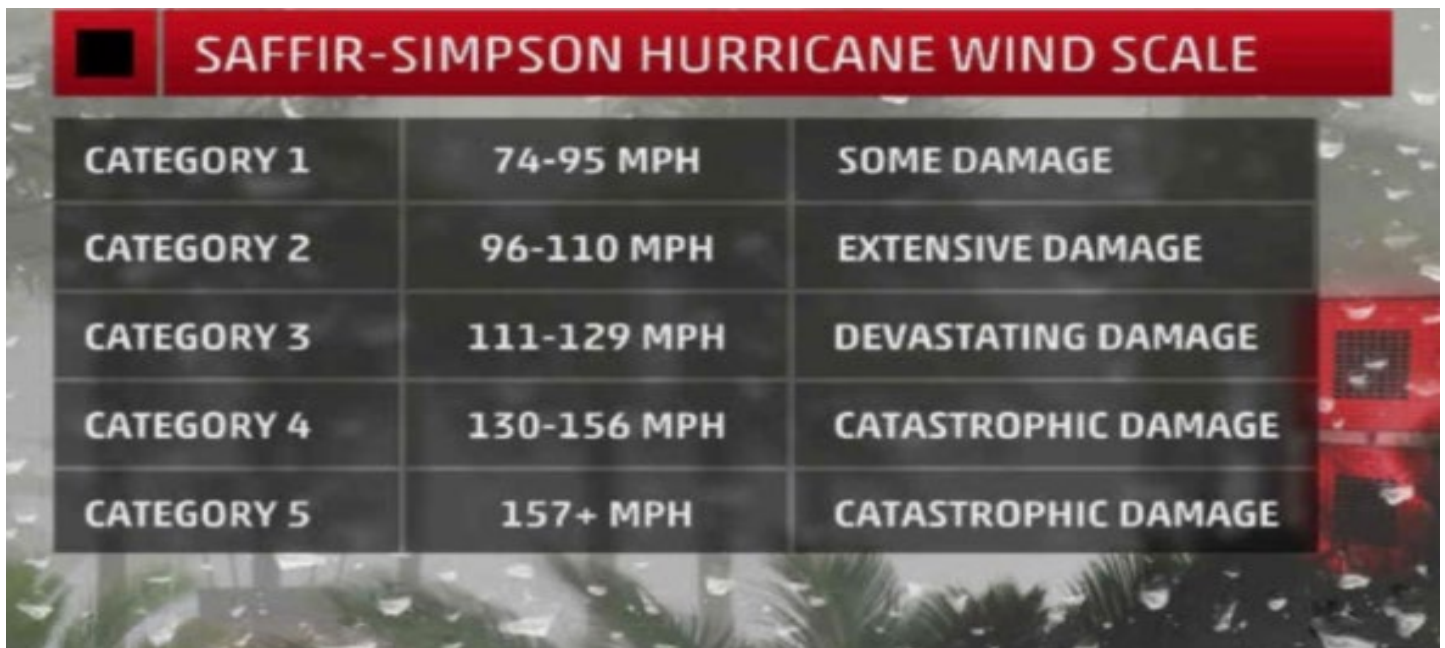


On April 7, 2022, the CSU is scheduled to release its first formal quantitative forecast for the 2022 Atlantic Hurricane Season. Updates will be provided by the Indian River County Department of Emergency Services when the forecast results are known.

Saffir-Simpson Hurricane Wind Scale

The Saffir-Simpson Hurricane Wind Scale (SSHWS) system classifies hurricane strength into five different categories and provides early guidance for landfall damage potential. SSHWS is based on the highest wind speed measured during a one-minute interval 10 meters above the surface. Wind speeds are then rounded to the nearest five mph point. SSHWS is used to describe hurricanes above the International Date Line in the Atlantic and Northern Pacific Oceans. SSHWS is not used to describe cyclones or typhoons.

The SSHWS was created by Herbert Saffir (Engineer) and Robert Simpson (Former Director of the U.S. National Hurricane Center) in 1971. H. Saffir studied low cost housing in hurricane prone areas. H. Saffir identified that there was no scale which described potential hurricane damages and his idea mirrored the Richter Scale, which describes earthquake strengths. Simpson then added storm surge and flooding effects, which was later removed. The SSHWS used today is based purely on wind speed and became standard in 2010. The five SSHWS categories is noted below:

A graphic titled "SAFFIR-SIMPSON HURRICANE WIND SCALE" with a red header. Below the header is a table with five rows, each representing a hurricane category. The table is set against a background of palm trees and a red fire hydrant. The table columns are: Category, Wind Speed (MPH), and Damage Potential.

SAFFIR-SIMPSON HURRICANE WIND SCALE		
CATEGORY 1	74-95 MPH	SOME DAMAGE
CATEGORY 2	96-110 MPH	EXTENSIVE DAMAGE
CATEGORY 3	111-129 MPH	DEVASTATING DAMAGE
CATEGORY 4	130-156 MPH	CATASTROPHIC DAMAGE
CATEGORY 5	157+ MPH	CATASTROPHIC DAMAGE

Special Events in 2022



Jan 12	8:00 AM until 5:00 PM: REP Practice Exercise - <u>MANDATORY</u> ESF participation.
Jan 18-20	9th Annual Florida Hazardous Materials Symposium in Daytona Beach, Florida.
Jan 31 – Feb 4	FEPA Annual Meeting & Work Session in Miramar Beach, Florida.
Feb 8	8:00 AM until 5:00 PM: Saint Lucie Nuclear Power Plant Exercise – <u>MANDATORY</u> ESF Participation IRC EOC.
March 28-30	8:00 AM – 5:30 PM: Intermediate ICS for Expanding Incidents (G-300) IRC EOC.
April 4-5	8:00 AM – 5:30 PM: Advanced Incident Command System Command & General Staff: Complex Incidents (G-400) IRC EOC.
April 11-14	National Hurricane Conference in Orlando, Florida.
April 30-May 1	Vero Beach Blue Angel Airshow: Partial Activation is possible from April 27-May 1.
May 8-13	Governor’s Hurricane Conference in West Palm Beach, Florida.
June (TBD)	Indian River County Hurricane Expo (Indian River Mall).
Ongoing:	Indian River County Community Emergency Response Team (CERT) has resumed in-person meetings at the IRCEOC.
TBD	National Weather Service Tsunami and Flood Exercise to occur in Spring.
TBD	FDEM Statewide Hurricane Exercise - <u>MANDATORY</u> ESF participation IRC EOC.

Contact Us

Indian River County Emergency Management

4225 43rd Avenue
Vero Beach, FL 32967
(772) 226-3900

Visit us on the web at:

www.ircgov.com

Brush up on your knowledge of WebEOC with our refresher course on January 26th! While attending, meet our new Emergency Management Coordinator, Ryan Lloyd. Ryan joined our team in September and we are so happy to have him! Join us for snacks and a formal meet-and-greet with Ryan to kick off the new year, to take place before our refresher course begins at 12:30 P.M. on January 26th!

For upcoming training opportunities or suggestions, please contact Lexi Nicholas at 226-3918 or ANicholas@ircgov.com.

