

A stylized map of the Gulf of Mexico and Caribbean region, rendered in various shades of blue and green. The map is hand-drawn with a visible outline. The text is centered over the Gulf of Mexico area.

2024 Hurricane Season

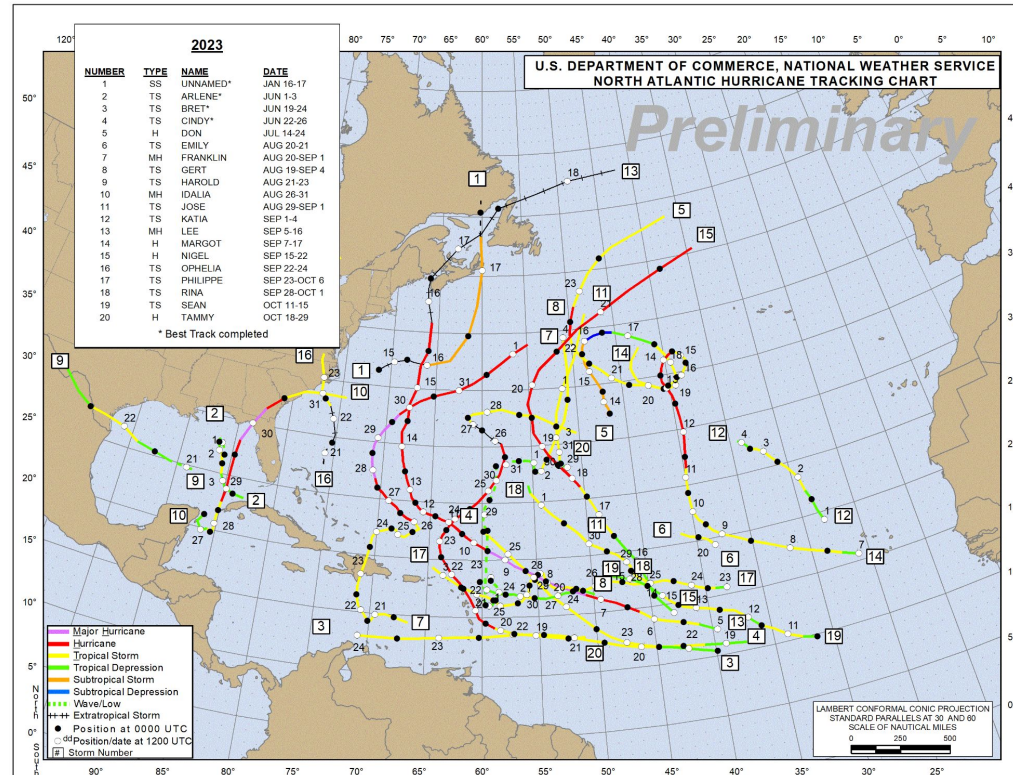
Kevin Gilmore & Jacob Zeringue
NWS New Orleans/Baton Rouge

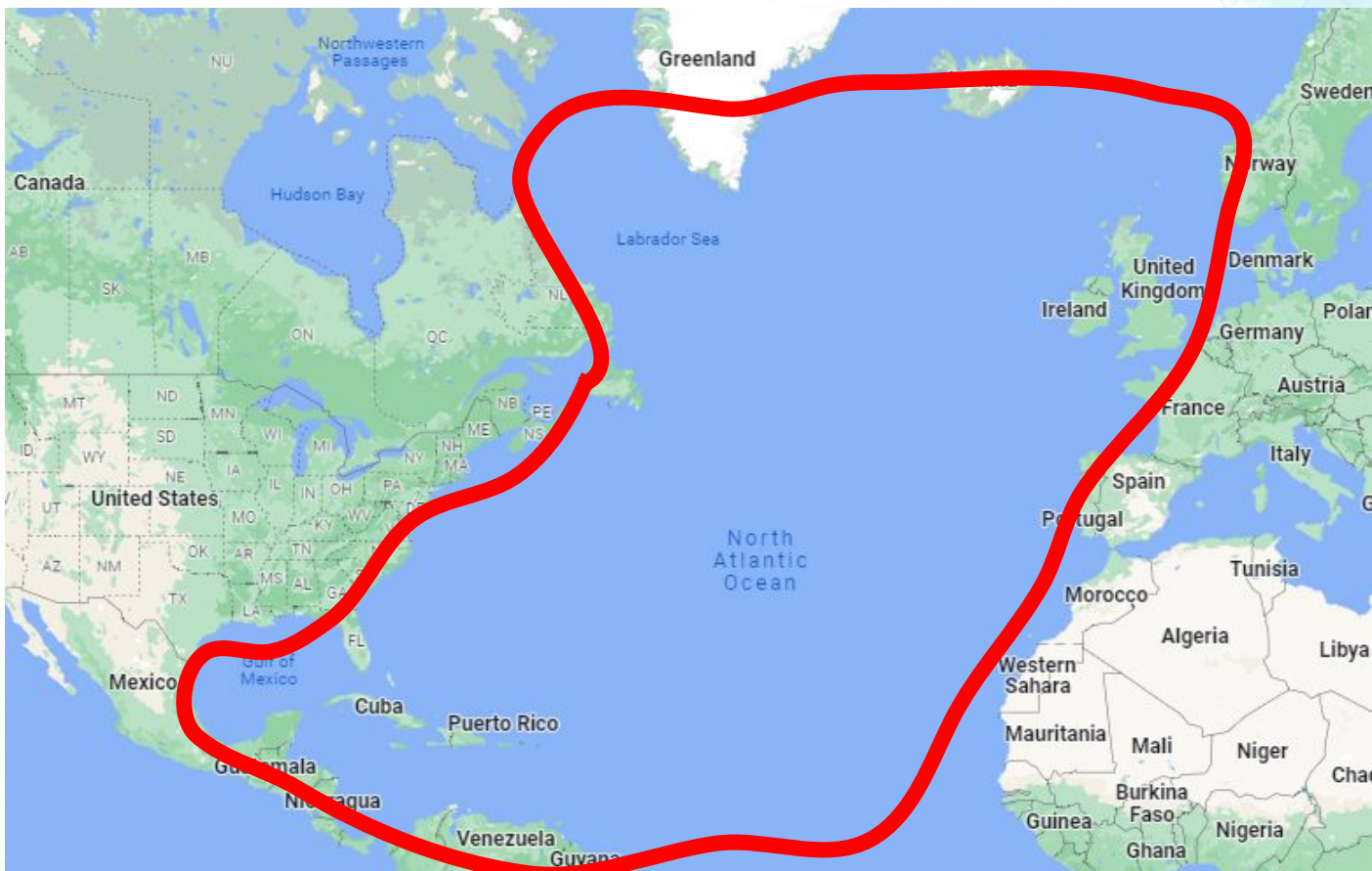
A simple, hand-drawn outline of a hand, showing the fingers and palm, located at the bottom center of the page.

2023 Season in Review

- 4th Most Active season on record

- This is what we mean when we say that seasonal outlooks are NOT good for local decision makers. This was well forecast in the seasonal outlook but had no impact to our local areas.





Forecast is a SEASONAL and BASIN wide forecast. The forecast is for this whole basin from June 1 to November 30!



2024 Atlantic Tropical Cyclone Names

Alberto

Beryl

Chris

Debby

Ernesto

Francine

Gordon

Helene

Isaac

Joyce

Kirk

Leslie

Milton

Nadine

Oscar

Patty

Rafael

Sara

Tony

Valerie

William

La Nina is BACK!

- 83% chance of a transition to Neutral by June and a 62% chance of transition to La Nina by August 2024
- A reminder that 2023 was El Nino and 2022 was La Nina and we got nothing....proving that neither of these can tell us if LA/MS will get a hurricane!
- Sea Surface temperatures are still at record highs
- Outlook will likely be for at least an average to probably above average season.
- There is exactly 0% skill when it comes to guessing which state will get a hurricane.

NOAA Seasonal Hurricane Forecast

Average
is:

14

7

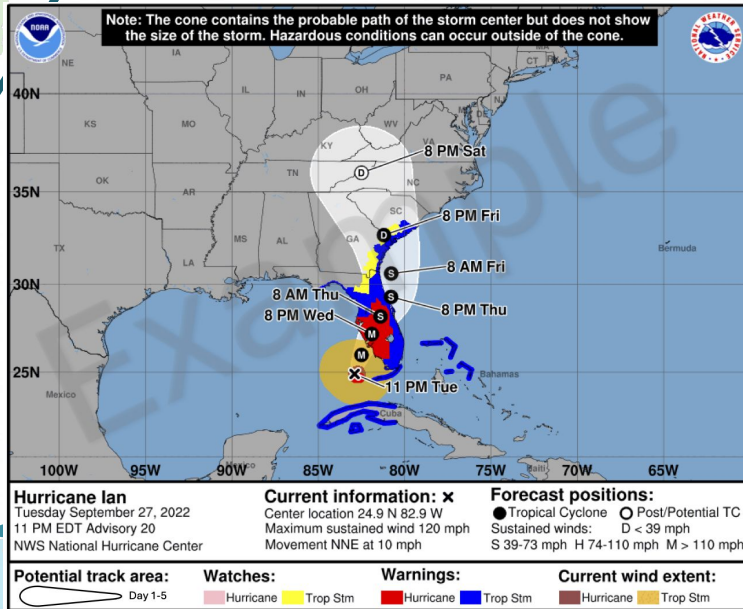
3





New Stuff!

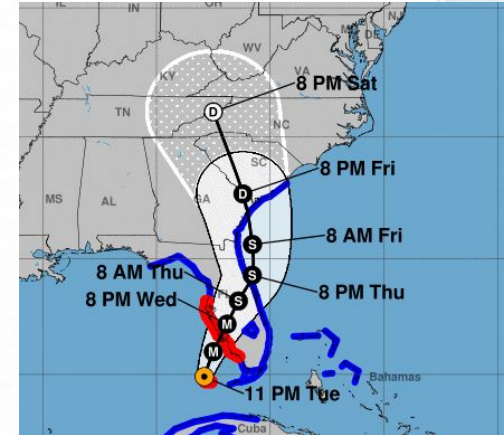
NEW (Ish) Cone Graphic! ~ August 15



New experimental cone graphic depicting inland U.S. tropical storm and hurricane watches and warnings will become available mid-season in 2024.

Yes, it's just wind but it's a start towards showing hazards versus "the cone."

All 5 days will be solid white. No more hatched.

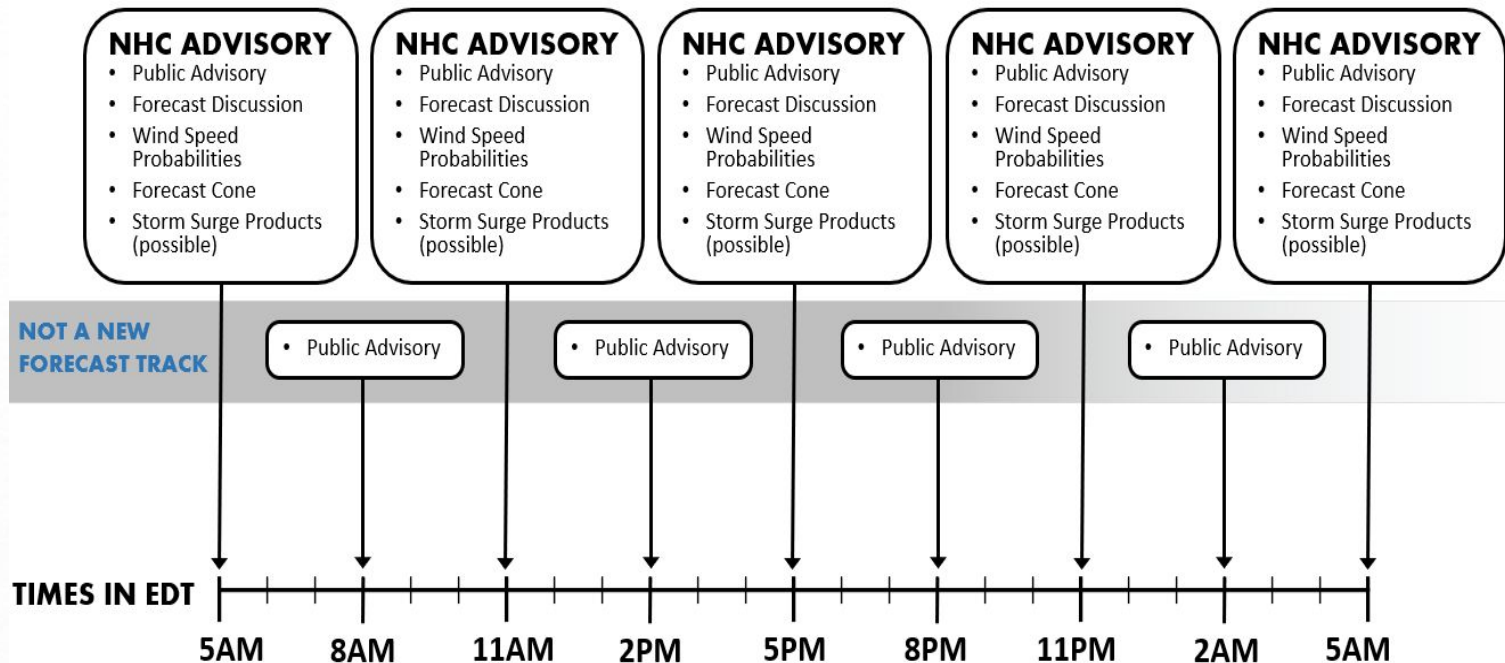


Old graphic for reference

Graphic may not be available as soon as the current cone graphic. Both graphics available this year.

Intermediate Watches/Warnings

Can now update and/or change watches and warnings during these public advisory times.



A hand-drawn map of a landmass, possibly representing a continent or island, with a green landmass and blue water. The text "Let's talk about social media.." is written in a bold, dark blue font across the center of the landmass. A hand-drawn arrow points from the left edge of the map towards the text. The map has a rough, hand-drawn border and some scattered blue dots in the water areas.

**Let's talk about
social media..**

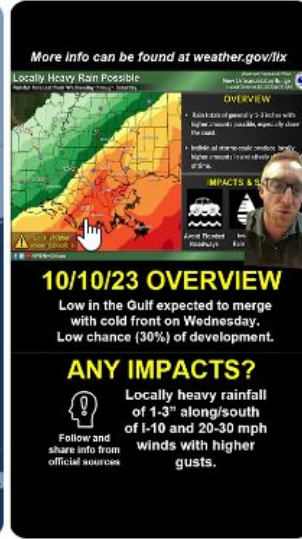
Click Bait will always win



Lifting the radome onto the relocated KHDC radar...
639 views



Our 2023 #Weather Wrapped #shorts
270 views



October 10, 2023 Heavy Rain Update #shorts #youtube...
160 views



2023-24 #Winter Outlook #shorts #ytshorts #weather
2K views



#WeatherUpdate for 10/1/23 #shorts #louisiana...
68 views



TOP 5: Strongest Hurricanes to Impact Our Area #shorts...
415 views

The most views of our shorts list is the one we made "look" like Click Bait. Click bait is FALSE information that flags the algorithms so their information can be spread.

How to know the page is not reputable....

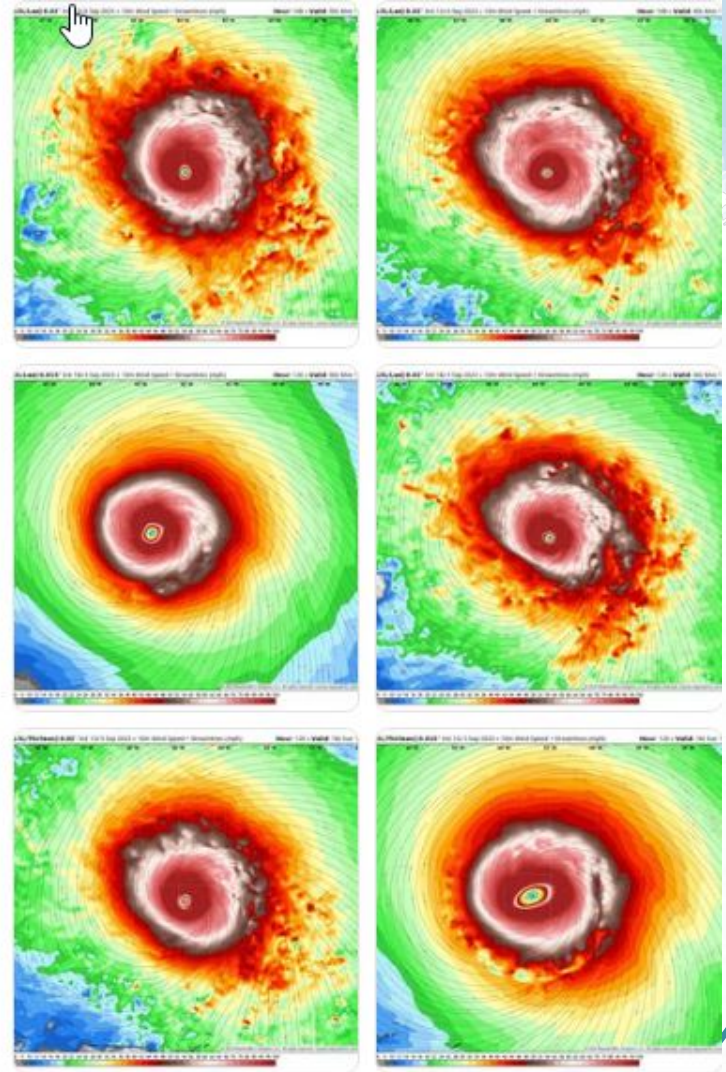
- If they use caps for almost every post
- If they frequently post weather models and say this is going to happen
 - If they often post things that aren't weather related

What to do if you or a family Did you fall victim to click bait?

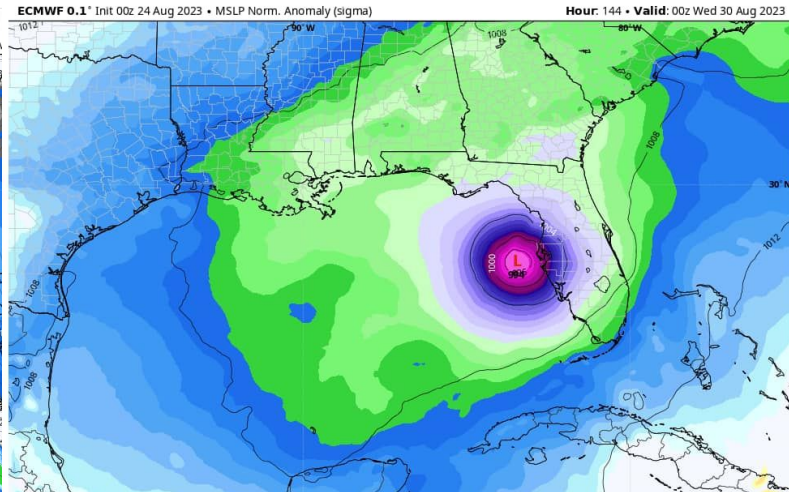
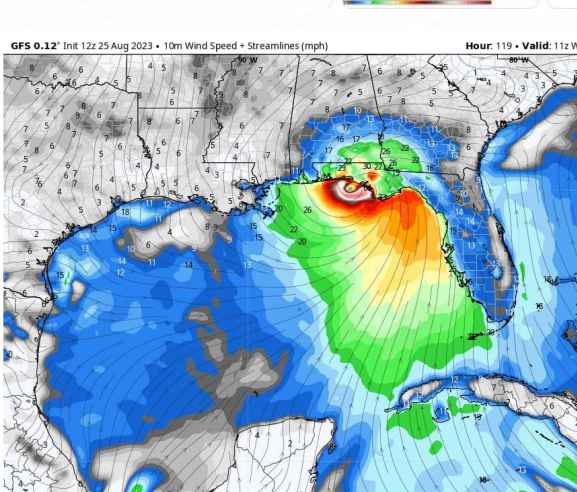
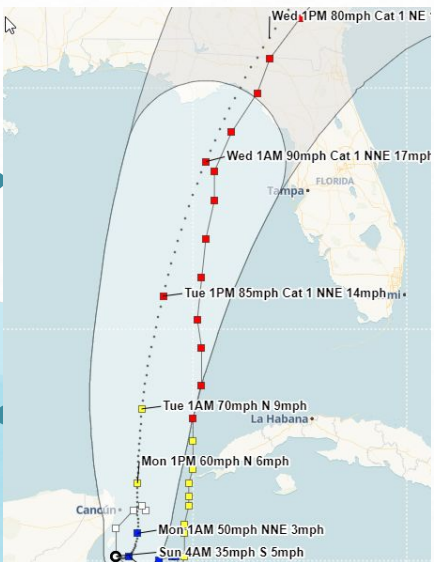
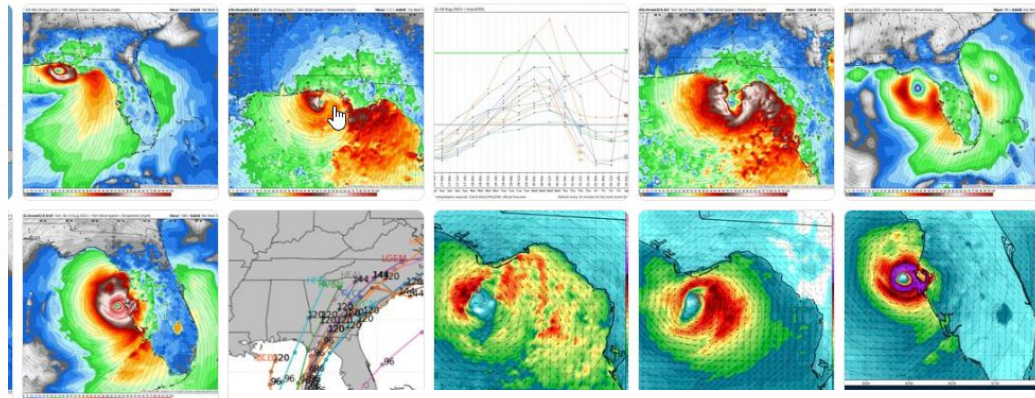
- Don't reshare the information!
- If on Social Media, type "National Weather Service New Orleans" or "National Hurricane Center"
- If online, go to "Weather.Gov"
- Find your favorite broadcast meteorologist



Does seeing this
image help you
make a decision?



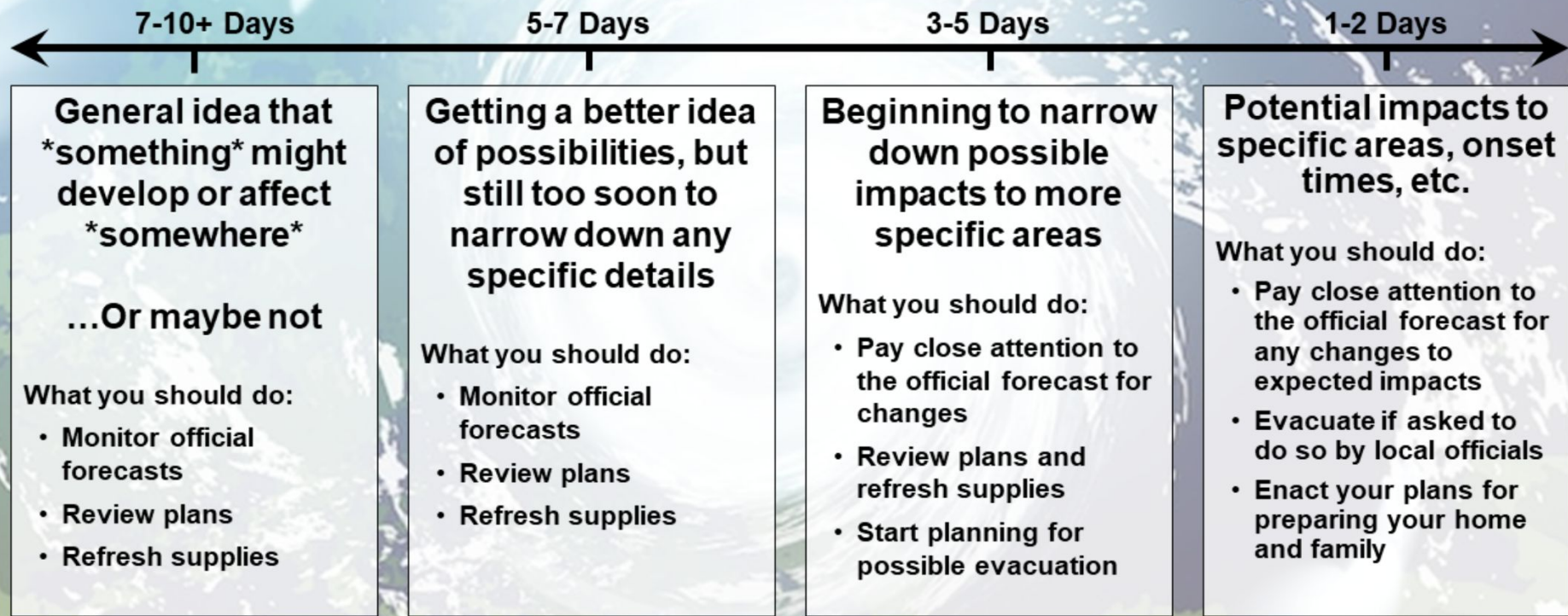
Imagine you're trying to make decisions and you see all of these "models" with a NHC cone...you could very quickly make the wrong decision or a poor decision.



Reminders

- Just because a model image goes viral doesn't mean it's likely to happen.
- Individual models constantly create tropical systems. 99% of them don't actually happen.
 - A picture of a potential hurricane on a map tells you nothing about uncertainty or impacts
- There is a 175 mile track error out 5 days. Imagine what that is at 10 days?!
- **We will NEVER hide a hurricane from you!**

What details can you REASONABLY expect from a hurricane forecast at different lead times?

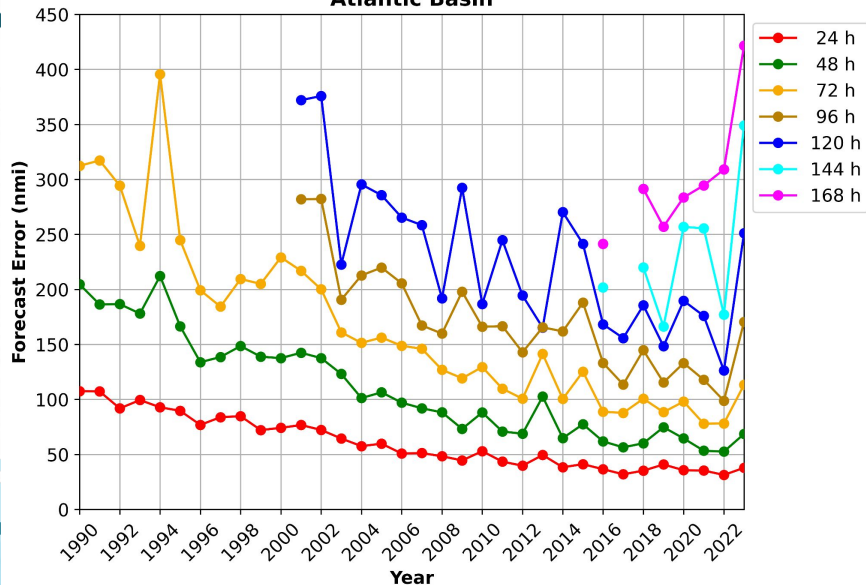




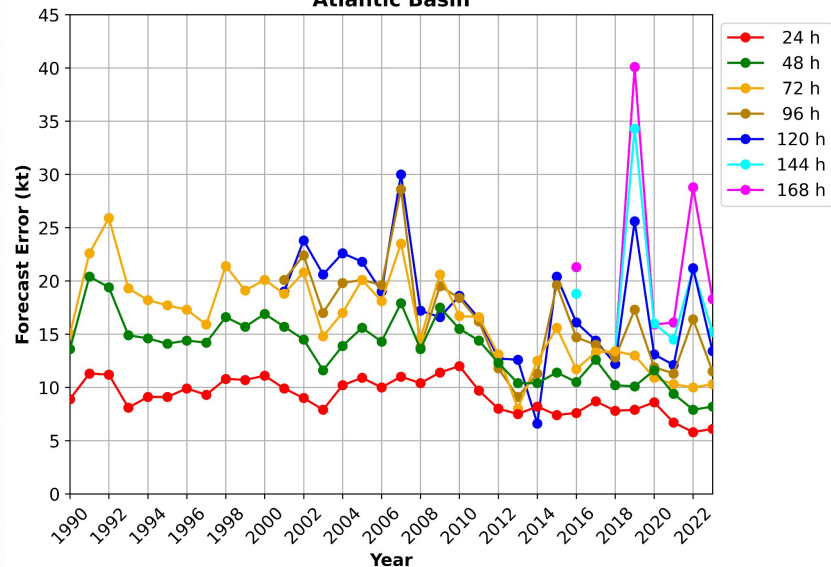
**A little on rapid
intensification...**

NHC Track and Intensity Errors

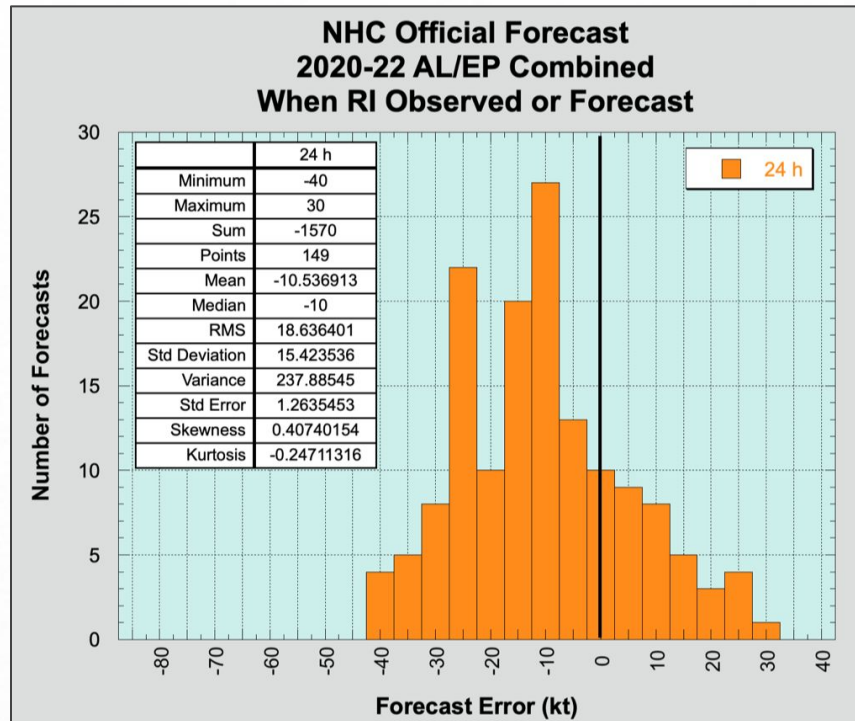
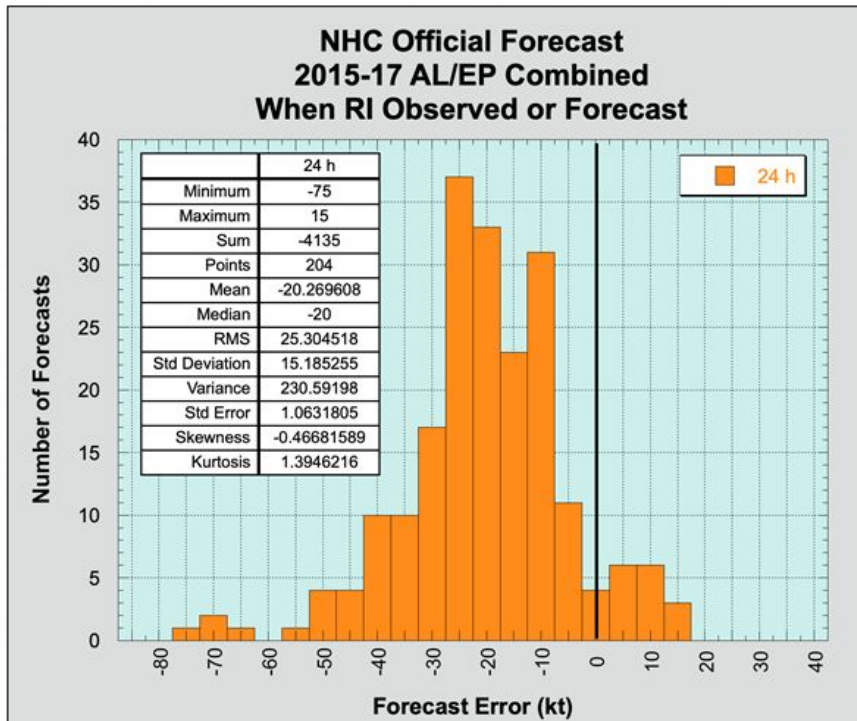
**NHC Official Track Forecast Error Trend
Atlantic Basin**



**NHC Official Intensity Forecast Error Trend
Atlantic Basin**



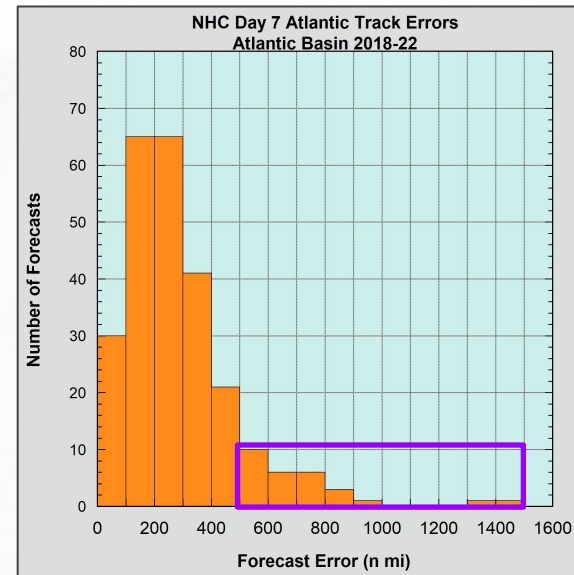
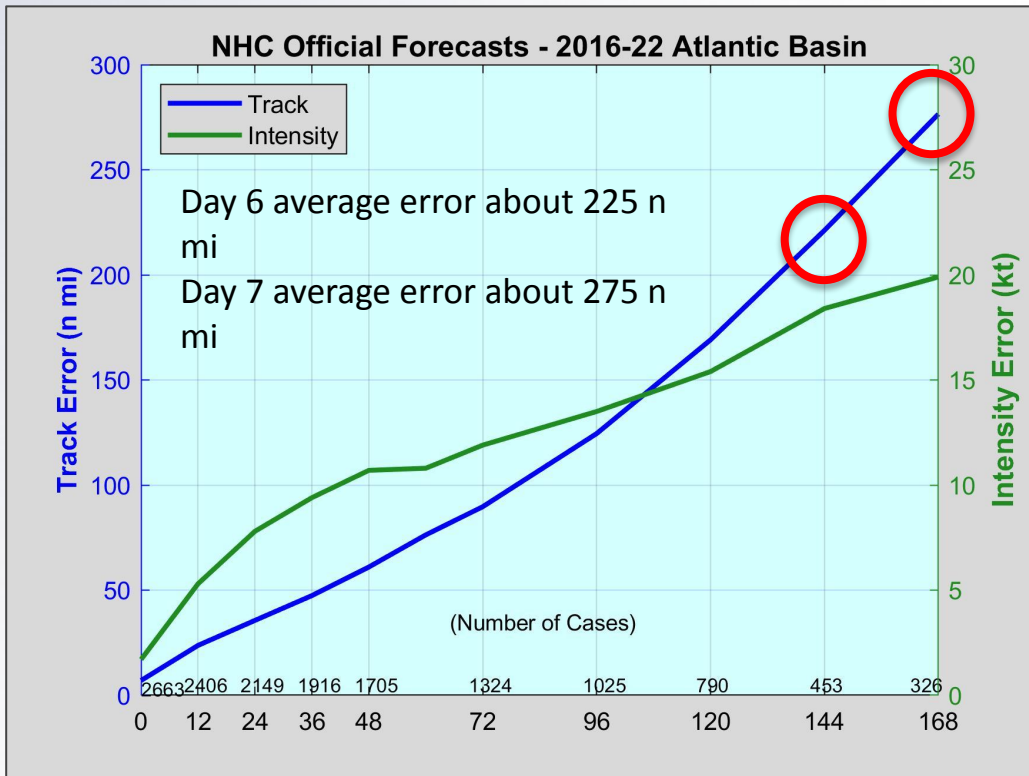
Progress in Forecasting Rapid Intensification



- **NHC's 24-h intensity error during rapid intensification events has been cut in half since 2017 – 10 kt compared to 20 kt**
- **Largest under-forecast error reduced by 46% (40 kt compared to 75 kt)**

Possible Future Enhancements

6 & 7 day Track and Intensity Forecasts

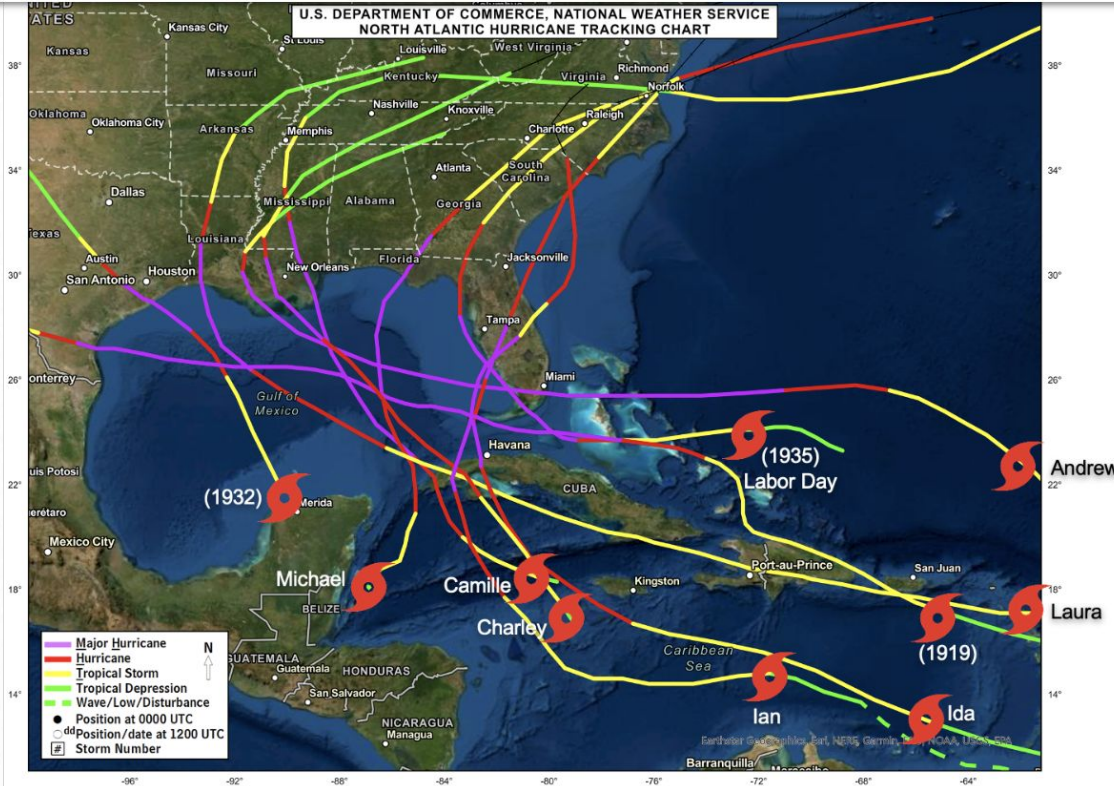


Average track error at day 7 is about 275 n mi, however ~10% of forecasts have errors ≥ 500 n mi (about the distance from Miami to Myrtle Beach!)

Challenge: Short Lead Times

The Nation's Strongest – 150 MPH or Greater
All But 1 Were Tropical Storms 3 Days Before Landfall

- U.S. 150 mph+
- 1919 – Storm 2
- 1932 – Storm 2
- 1935 – Labor Day
- 1969 – Camille
- 1992 – Andrew
- 2004 – Charley
- 2018 – Michael
- 2020 – Laura
- 2021 – Ida
- 2022 – Ian



Average time to become a hurricane is 50 h before landfall



Reminders!

7 Days Out

- Tropical Weather Outlook



60 Hours Out

- PSurge (for select, well-behaved storms)

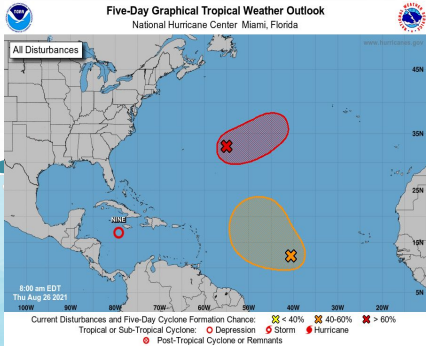


5 Days Out

- NHC Advisory Packages (cone, wind speed probabilities, TOA)
- SLOSH Surge Models

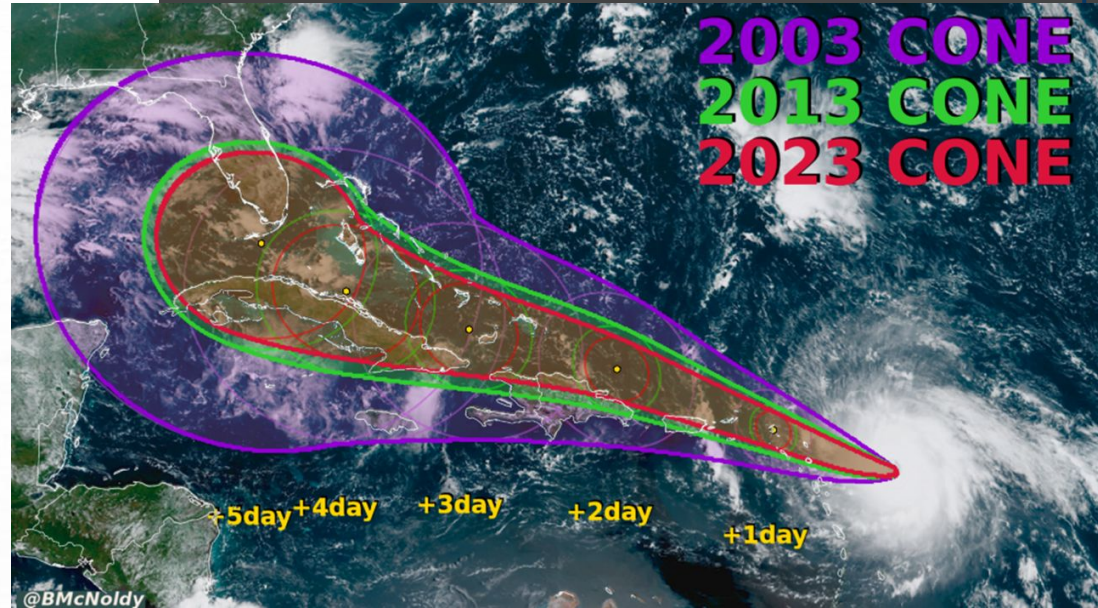
48 Hours Out

- Watch/Warning Products
- Hurricane Threats and Impacts Graphics
- PSurge/Inundation Forecasts

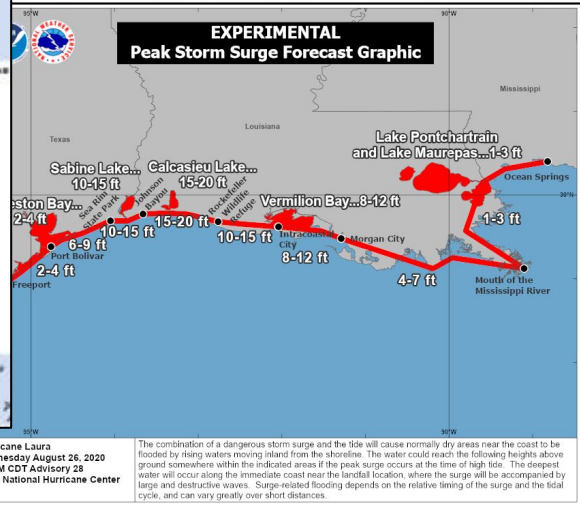
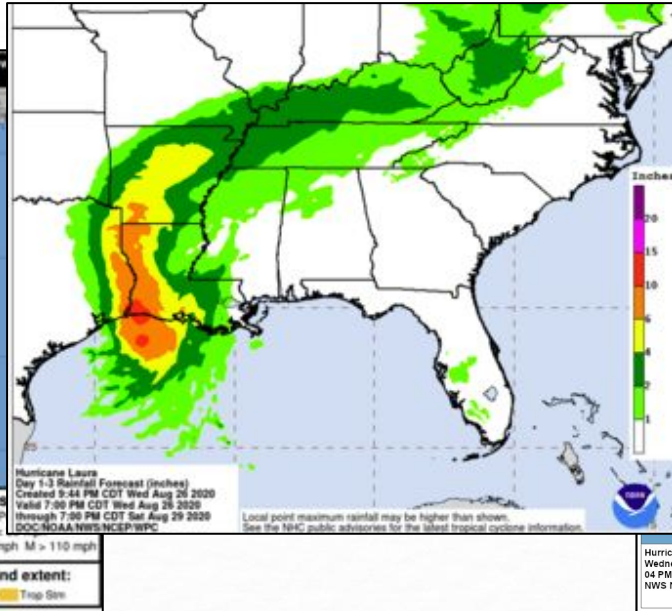


What the cone actually is

- Represents the most likely path of the CENTER of the storm- NO forecast of impacts.
- Created by connecting imaginary circles that represent 2/3 the average track error over the past 5 years.
- Small changes in size every year
- **Does NOT change for every storm.**



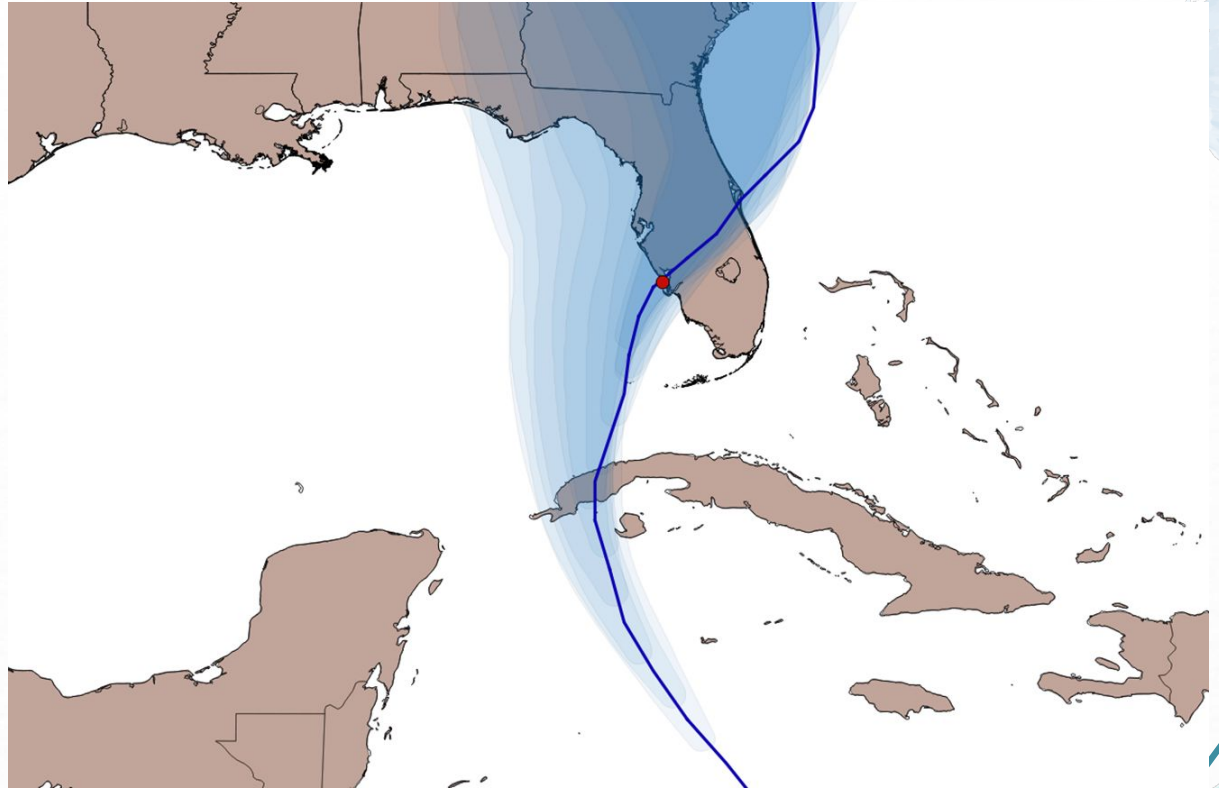
Reminder: The Cone Doesn't Tell You About Impacts!



Ian: Cone of Uncertainty

Location of Ian's Florida landfall was within the forecast cone of uncertainty.

Cone only says that the center will stay in it 66% of the time.





Wind hazards and communication

Saffir-Simpson Hurricane Wind Scale



Category 1 - 5



WIND: 74-95 mph

DAMAGE: Very dangerous winds will produce some damage



WIND: 96-110 mph

DAMAGE: Extremely dangerous winds will cause extensive damage



WIND: 111-129 mph

DAMAGE: Devastating damage will occur



WIND: 130-156 mph

DAMAGE: Catastrophic damage will occur

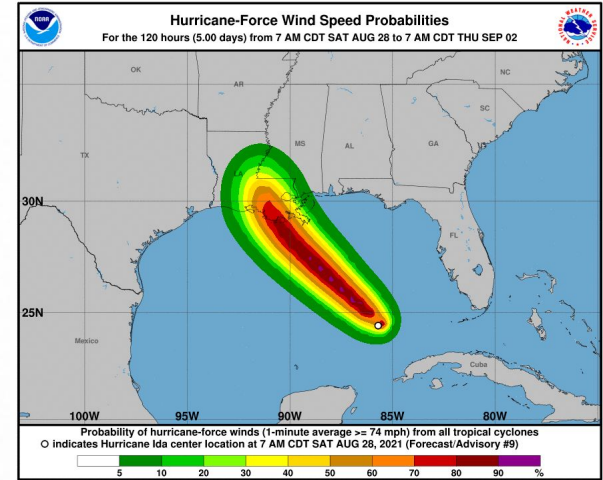
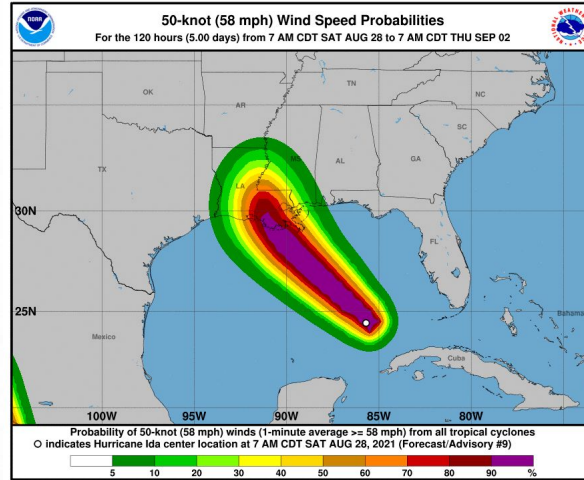
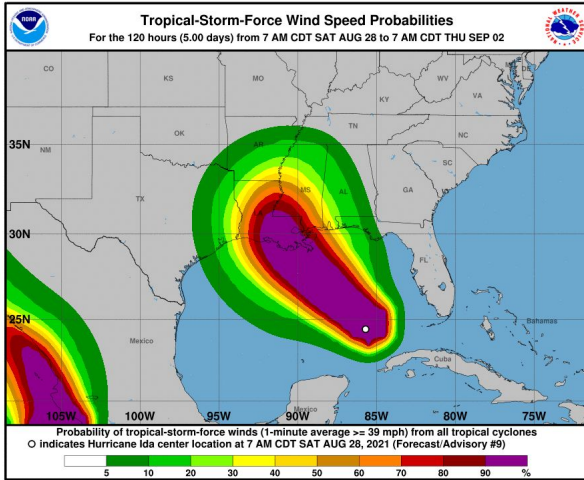


WIND: 157 mph or higher

DAMAGE: Catastrophic damage will occur

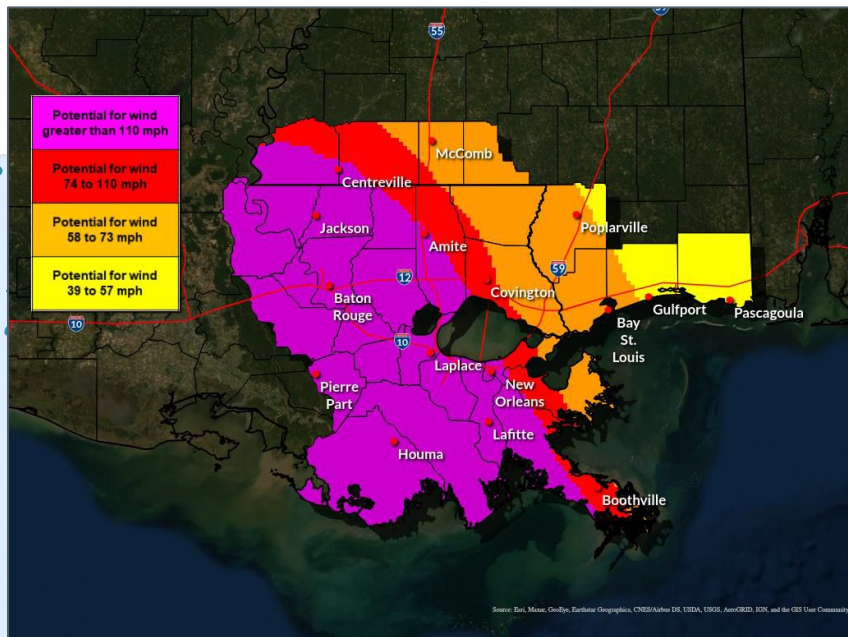


Wind Speed Probabilities



- Available for 39MPH, 58MPH, 74MPH wind speeds out 5 days
- Remember, low probabilities can be significant!

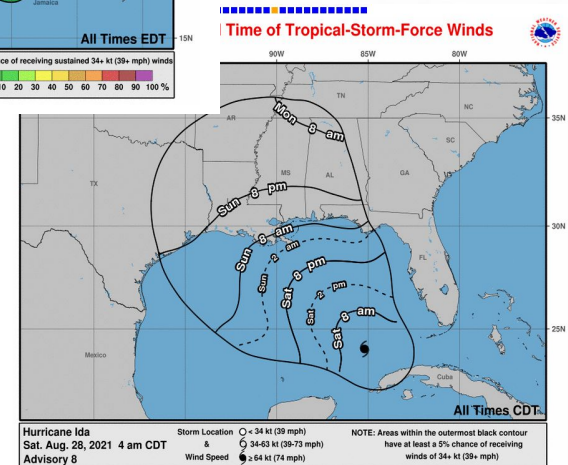
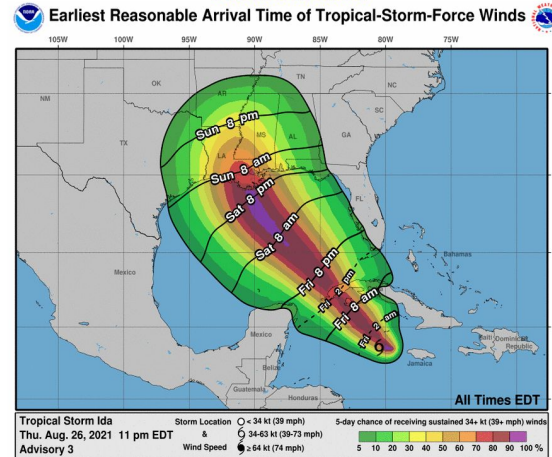
Hurricane Threats and Impacts Graphics (HTI)



- Probabilistic forecast based on the current NHC advisory and accounting for reasonable forecast errors
- Wind, Tornado, Surge, Flooding
- Provides the POTENTIAL of what you should prepare for- likely will **be higher** than what is in the forecast
- Example from Hurricane Ida 10am 8/28.

Time of Arrival Graphics

- Provides probabilistic time of arrival of 34 KT/39 MPH winds
- Earliest reasonable is based on 10% threshold- 90% chance that the storm will arrive AFTER the time on the graphic.
- Most likely is based on 50% threshold.

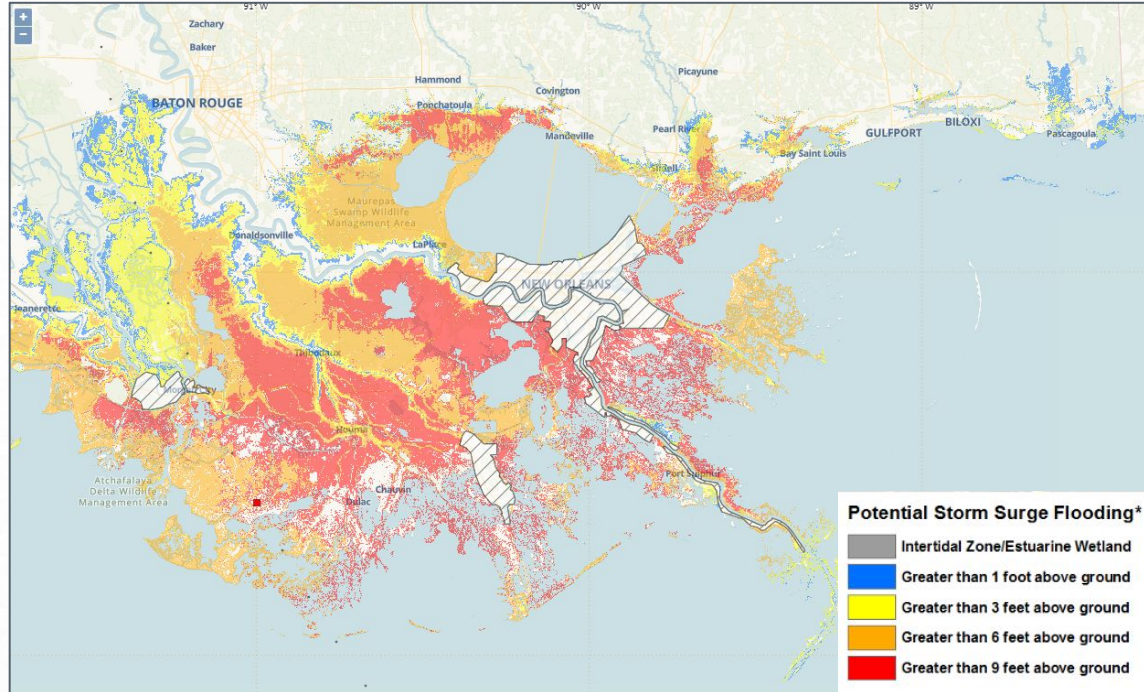




Storm Surge

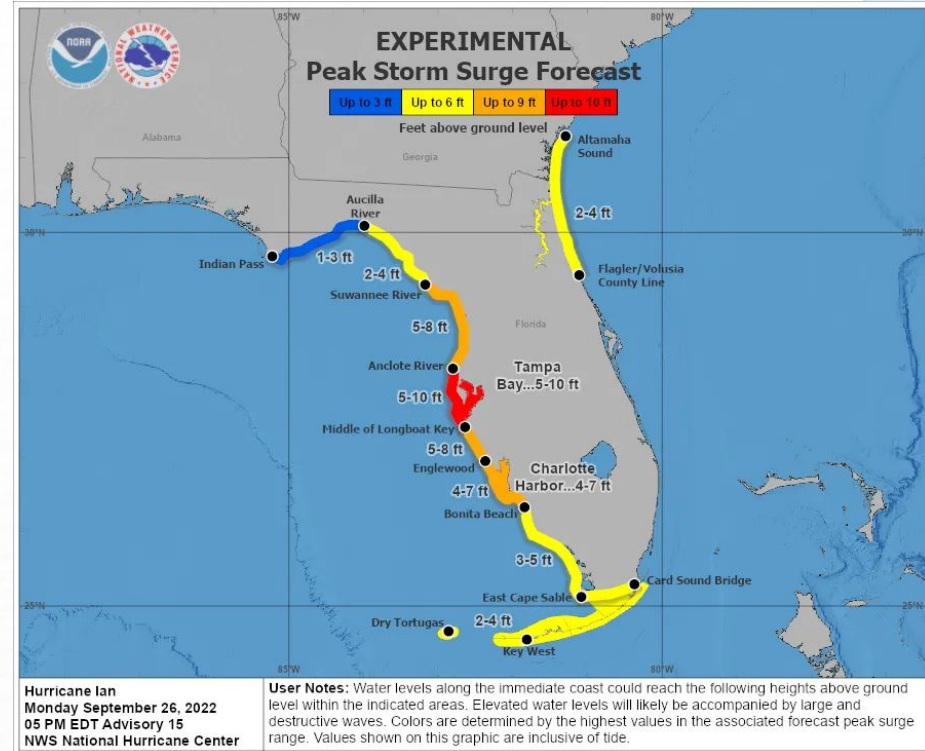
Storm Surge Flooding Map

- Based on probabilistic surge forecasts
- Provides a reasonable worst case inundation at each location based on the current NHC forecast track and intensity.
- Shows how high above ground the water is forecast to go, in 3 feet intervals.



Peak Storm Surge Forecast Graphic

- Provides potential peak inundation values along the open coast
- Not everywhere will see these values
- Does NOT indicate potential depths away from the open coast
- Available around advisory time when watches/warnings are in effect.





NOFD

Flooding Rain

Don't forget about flooding!

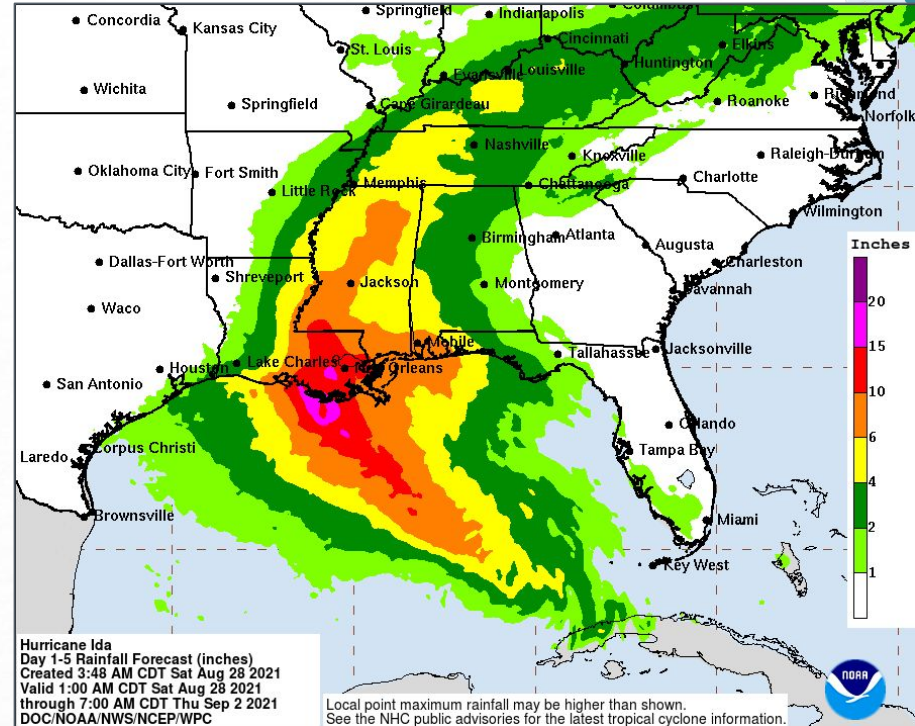
- **Still the most deadly hurricane hazard.**
- Most people are worried about the wind and don't think about flood waters.



ABC7 New York after Ida

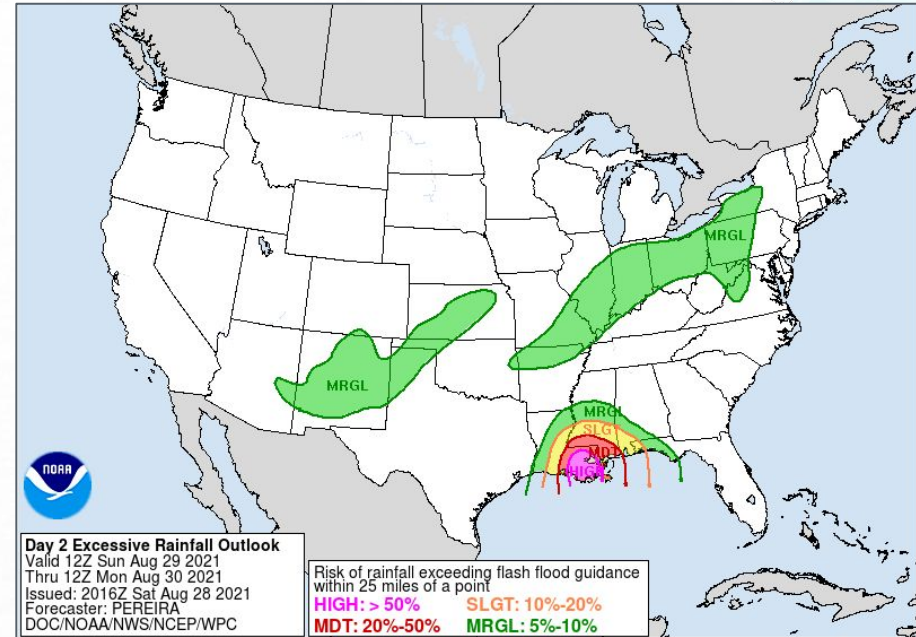
Deterministic Rainfall Forecast

- Rainfall forecast graphics for tropical systems are created with a broader color scale .
- They are hosted on both the WPC and NHC website and typically include 3 to 5 days of rainfall depending on the storm.



Excessive Rainfall Outlooks (ERO)

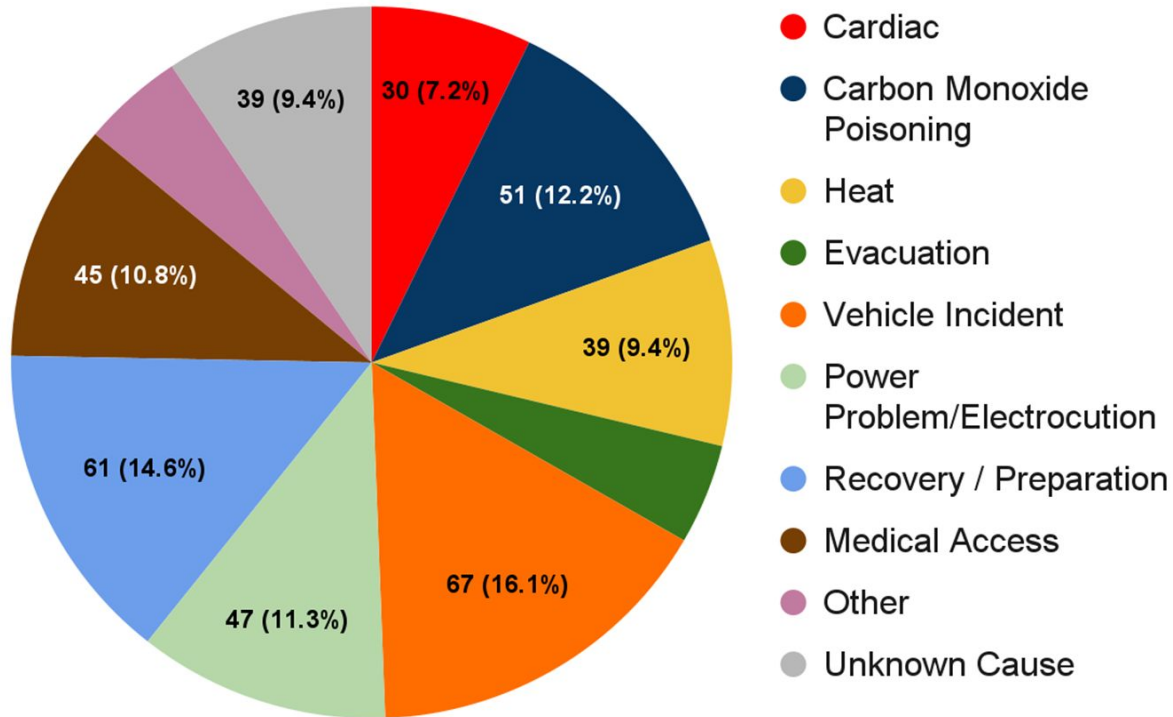
- Describes flash flood threat
- Probabilistic product accounting for forecast rainfall, uncertainty and antecedent conditions
- High Risk context:
 - 54% result in at least 1 fatality
 - 73% result in at least \$1M damage





**Other
important
topics**


Indirect Fatalities 2013-2023



Public Support

Gale Warning & Small Craft Advisories in Effect
High winds over marine waters Saturday Night.

Weather Forecast Office
New Orleans/Baton Rouge
Issued April 28, 2023 6:15 PM



HAZARDS

WHAT... Strong westerly winds 25 to 30kt with gusts upwards of 40kt in the warning areas. Seas 6 to 11ft expected.

WHERE... All of the tidal lakes, sounds, and open Gulf waters.

WHEN... 7 PM Saturday to 7 AM Sunday

IMPACTS & SAFETY

- Increased Waves/Seas
- Strong Winds
- Caution If Boating

weather.gov/NewOrleans

MY FORECAST
3 Miles NNW Gretna LA



Fair

Weather Forecast Office Rouge



[Weather.gov](https://www.weather.gov) > New Orleans/Baton Rouge

[Current Hazards](#) [Current Conditions](#) [Rad](#)

Submit a Storm Report

Briefing Page

[weather.gov/neworleans](https://www.weather.gov/neworleans)

My Tweets NWSNewOrle...   ...

In reply to PezznolaPezz and 8 more

NWS New Orleans @NWSNewOrleans
1 hour ago

What a great picture! Could we save this for our graphics and use it with your permission/name attached? Thanks!

US National Weather Service New Orleans Louisiana
3 hours ago

Much warmer today with highs in the 70s under mostly sunny skies early but clouds should start to return this afternoon. A strong cold front is then...

Read more

Forecast for Today
TUE 4/30/2023
Mostly Sunny Early and
76°
New Orleans
76°
Baton Rouge
72°
Gulfport

Severe Weather
OVERVIEW
THREATS

of Flash Flooding
WAC-NNW GRETTA LA
IMPACTS & SAFETY
THREATS & SV

of Rainfall
WAC-NNW GRETTA LA
IMPACTS & SAFETY
THREATS & SV

Show Conversation

NWS New Orleans @NWSNewOrleans
4 hours ago

We will also see locally heavy rain with the cold front. Widespread 1 to 2.5" of rain with locally higher amounts will be possible and with that there is a Marginal risk of excessive rainfall leading to isolated flash flooding. #LAWx #MSWx

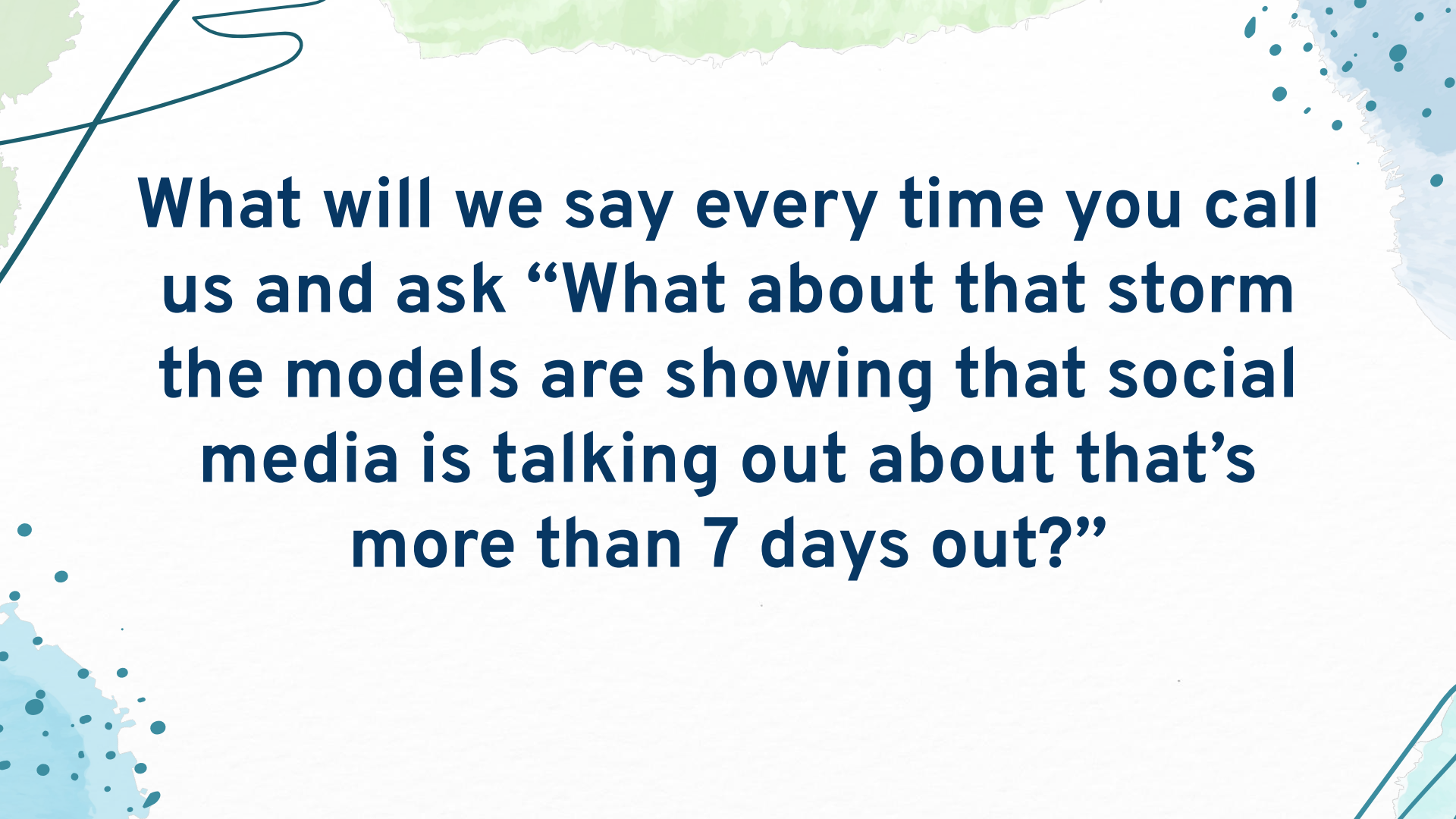
of Rainfall
WAC-NNW GRETTA LA
IMPACTS & SAFETY
THREATS & SV

of Flash Flooding
WAC-NNW GRETTA LA
IMPACTS & SAFETY
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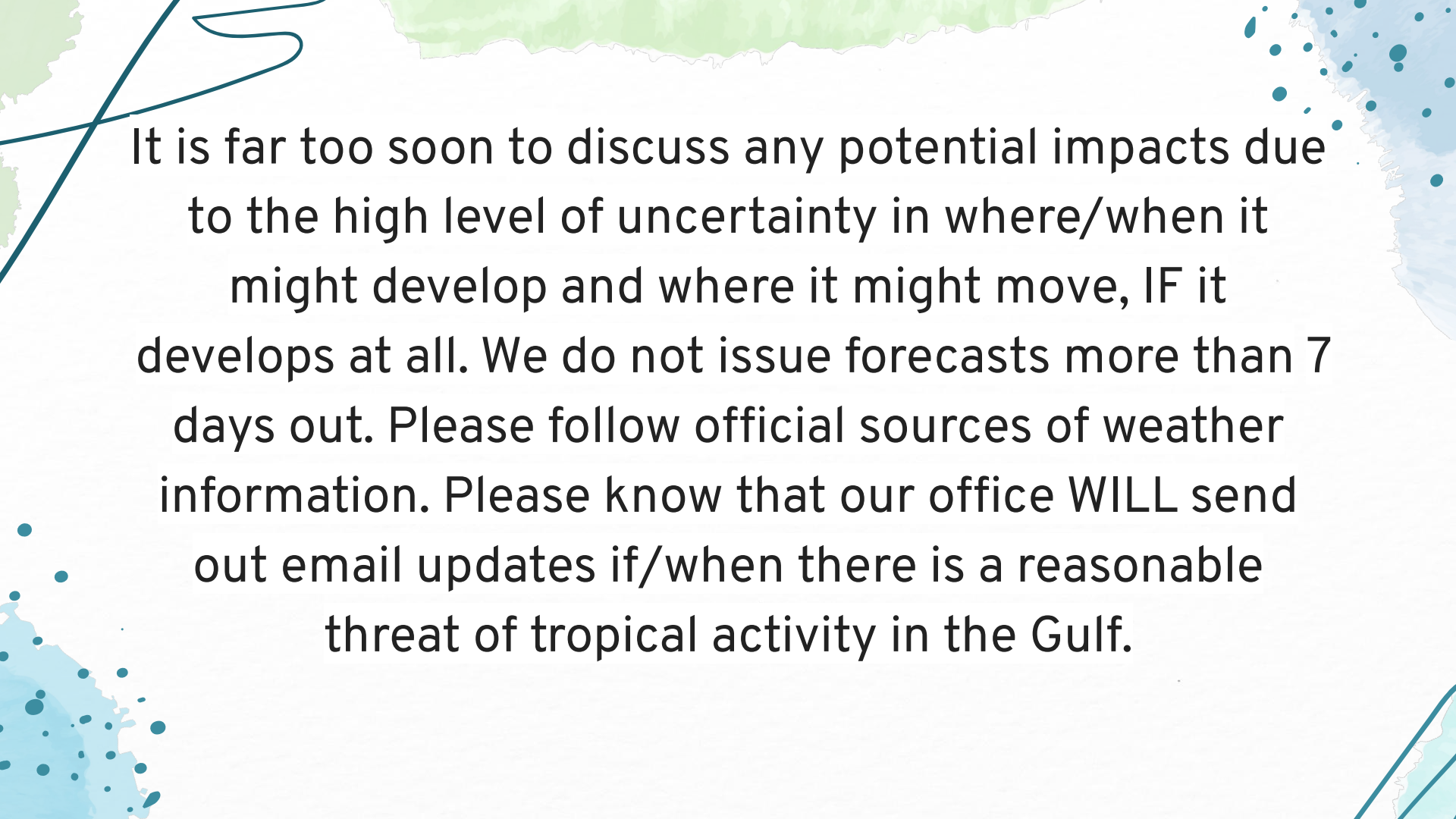
of Rainfall
WAC-NNW GRETTA LA
IMPACTS & SAFETY
THREATS & SV

Boost post

8



What will we say every time you call us and ask “What about that storm the models are showing that social media is talking out about that’s more than 7 days out?”



It is far too soon to discuss any potential impacts due to the high level of uncertainty in where/when it might develop and where it might move, IF it develops at all. We do not issue forecasts more than 7 days out. Please follow official sources of weather information. Please know that our office WILL send out email updates if/when there is a reasonable threat of tropical activity in the Gulf.



Questions?

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Lauren Nash [WCM]: lauren.nash@noaa.gov