



Hurricane Preparedness

Town of Edisto Beach and Colleton County
Fire-Rescue (2024)

Introductions

Town of Edisto Beach

- Crawford Moore, Mayor
- Mark Aakhus, Town Administrator
- Dee Stalvey, Assistant Town Administrator
- Daniel Seyle, Police Chief
- Denney Conley, Fire Chief
- Patrick Brown, Building Official
- Patrick Zemp, Utilities Director
- Mike Casey, Colleton County EOC Representative
- Richard Barreto, Volunteer Fire Department President

Colleton County Fire-Rescue

- Dr. David Greene, Deputy Chief / Emergency Manager; Ms. Danielle Murdaugh
- SCEMD – Christina Vickers

South Carolina Hurricane History

Hurricane Dorian, 2019, Cat 3

Hurricane's Florence and Michael,
2018

Hurricane Irma, 2017

Hurricane Matthew, 2016, Cat 1

Hurricane Joaquin, 2015

Hurricane Gaston and Charley, 2004,
Cat 2

Hurricane Kyle, 2002, Cat 2

Hurricane Hugo, 1989, Cat 4

Hurricane Gracie, 1959, Cat 3

Hurricane Hazel, 1954, Cat 4





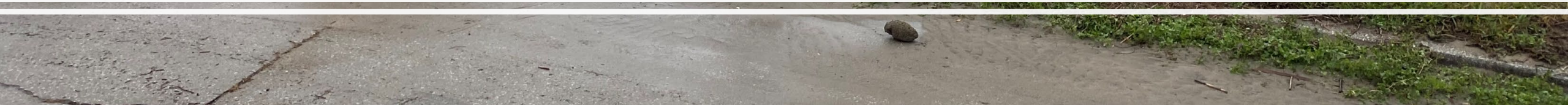
Tropical
Storm Idalia







What to avoid

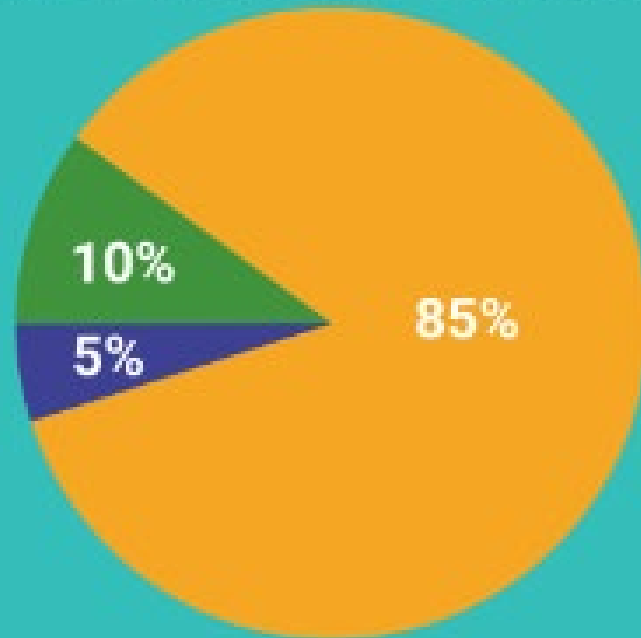




Hurricane Matthew - 2016



2024 Atlantic Hurricane Season Outlook



■ Above normal ■ Near normal ■ Below normal

Season probability

Named storms

17 - 25

Hurricanes

8 - 13

Major hurricanes

4 - 7

Be prepared: Visit hurricanes.gov and follow @NWS and @NHC_Atlantic on X.

May 2024

National Weather Service

Storm Surge Facts

- There will be more flooding if the highest surge occurs around high astronomical tide (compared to low tide)
- The coastal areas of SC/GA are very surge-prone given the low elevation and gently sloping continental shelf offshore
- In 1989, Hurricane Hugo produced the highest water levels ever recorded on the U.S. East Coast (~20 foot storm tide above Mean Sea Level at Bulls Bay, SC and ~10 foot storm tide above MSL in downtown Charleston, SC)

« Images courtesy of NWS



Romain Retreat, SC (near Bulls Bay) after Hugo (1989)



Edisto Beach, SC after Matthew (2016)

Know the difference between a Watch and a Warning

Hurricane Watch - Issued 48
hours in advance of threat

What do I do? – prepare your
belongings and plan to
evacuate if a Hurricane or
Tropical Storm Warning is
issued.

Danger is possible.

Hurricane Warning - Issued 36
hours in advance of threat

What do I do? – finish storm
preparations and immediately
evacuate if directed by local
officials. Plan housing and pet
arrangements in advance.

Danger is expected.

Threats to Edisto Beach

Hazards

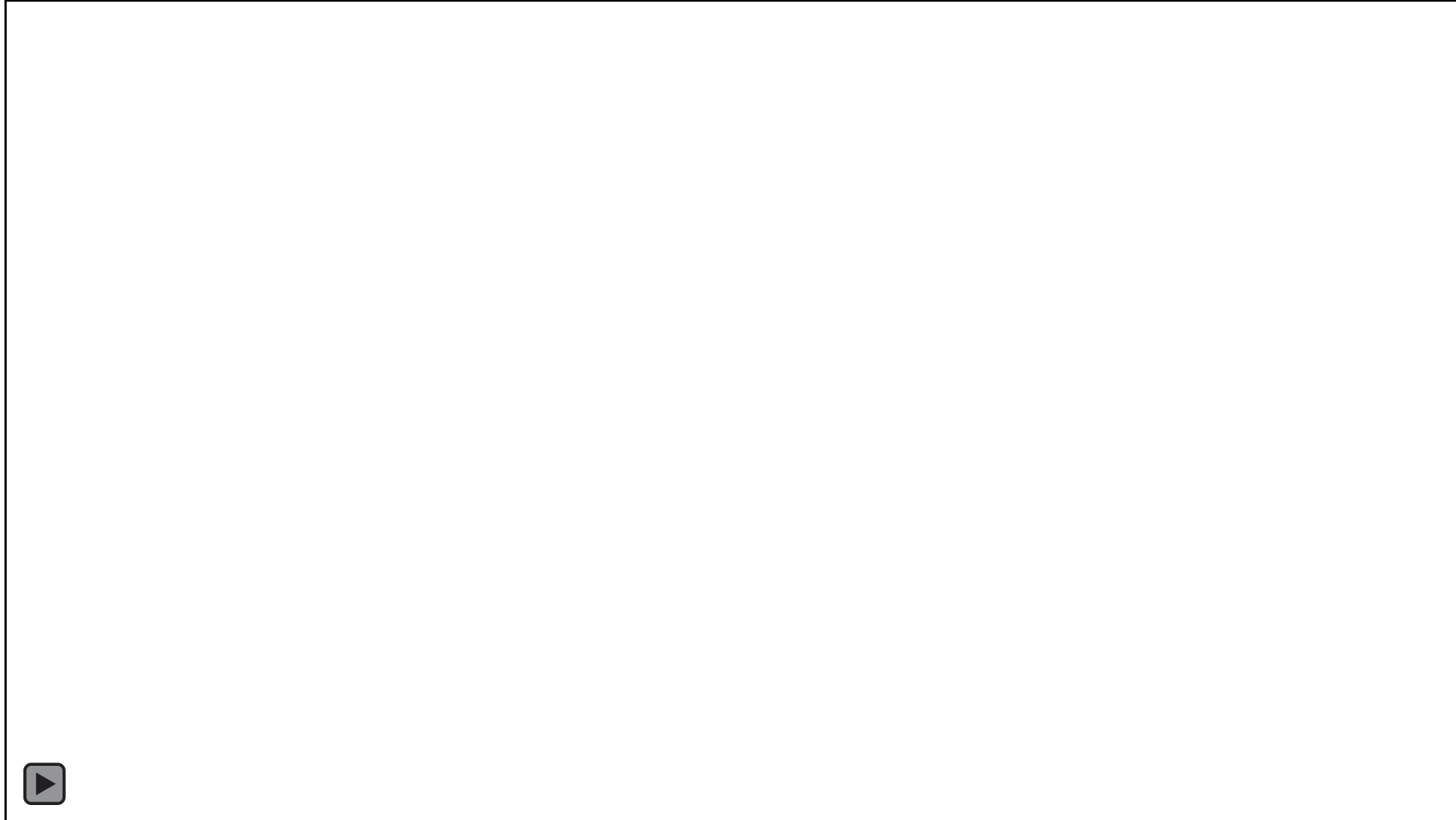
Storm Surge

Wind

Rainfall-Induced Flooding

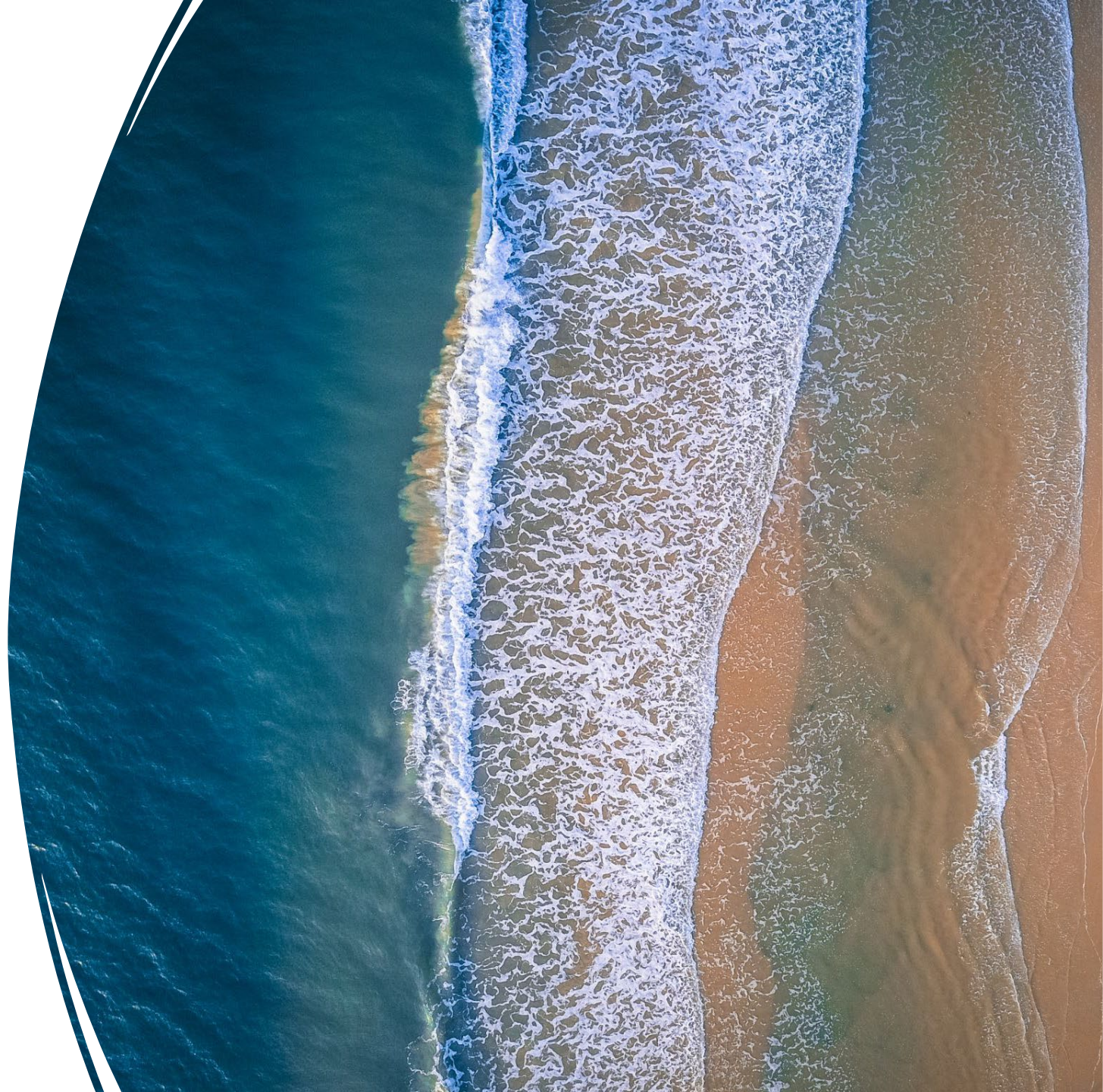
Tornadoes

Saffir-Simpson Hurricane Wind Scale



Town of Edisto Beach Preparations

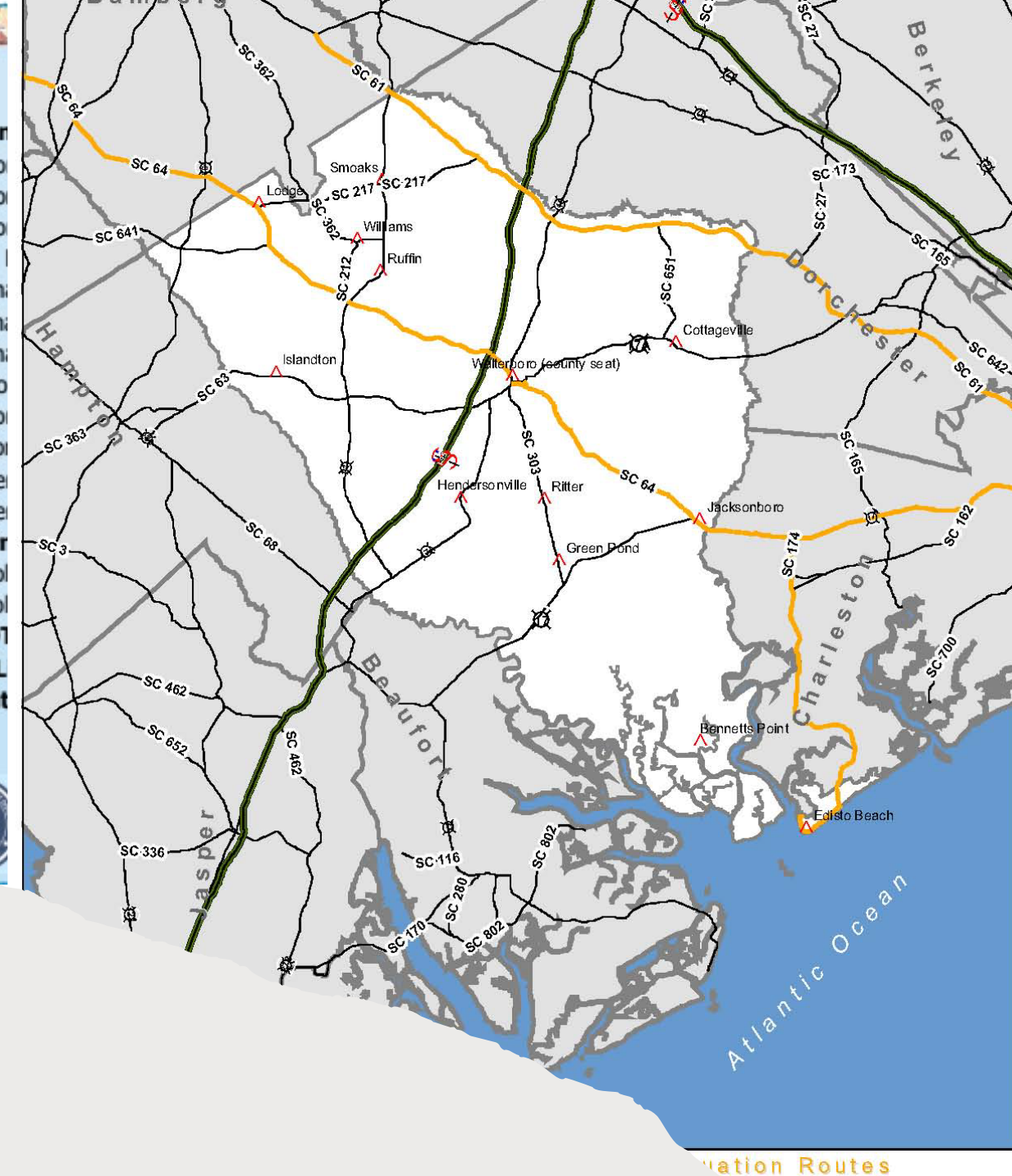
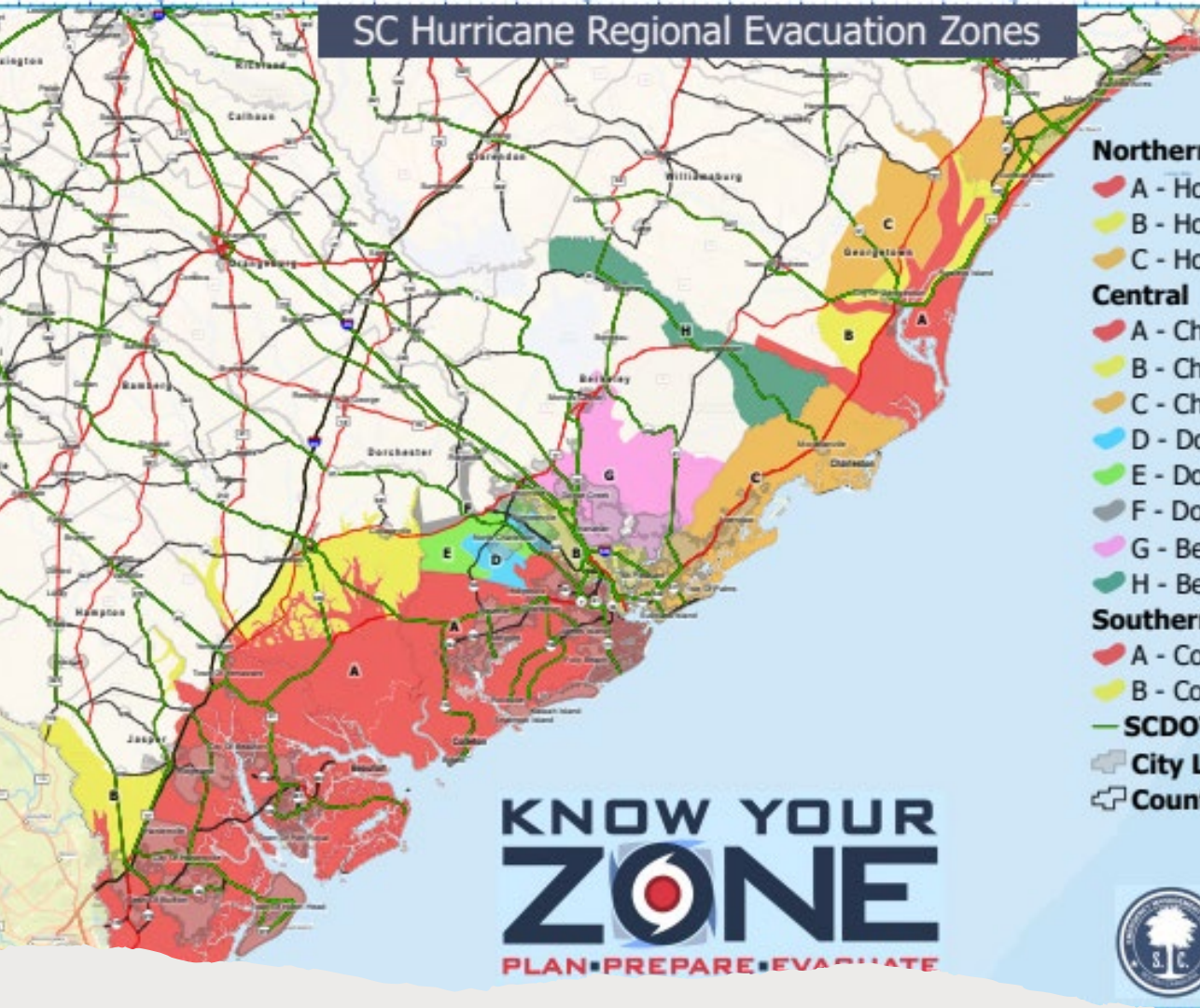
- Edisto Beach Emergency Operations Plan
- Staff meetings and Table-Top exercise with Colleton County
- Incident Command System (ICS)



Evacuations

- Notice will be provided through all available means of communications
 - CodeRED
 - Website
 - Email notifications
 - News media
 - No emergency shelters on the beach or island
 - Emergency personnel will evacuate





Evacuation Route

Evacuation Routes

Re-Entry to Edisto Beach

Re-Entry is phased and dependent on conditions.

Occurs only after safety and damage assessments.

Limited entry.

Property owner decals. Applications can be found in your chairs and on the Town [Website](#).

How to Prepare Your Home

- Insurance Coverage
- Remove outdoor objects
- Secure garbage cans
- Protect window openings with storm shutters
- Unplug appliances
- Lock doors and secure valuables

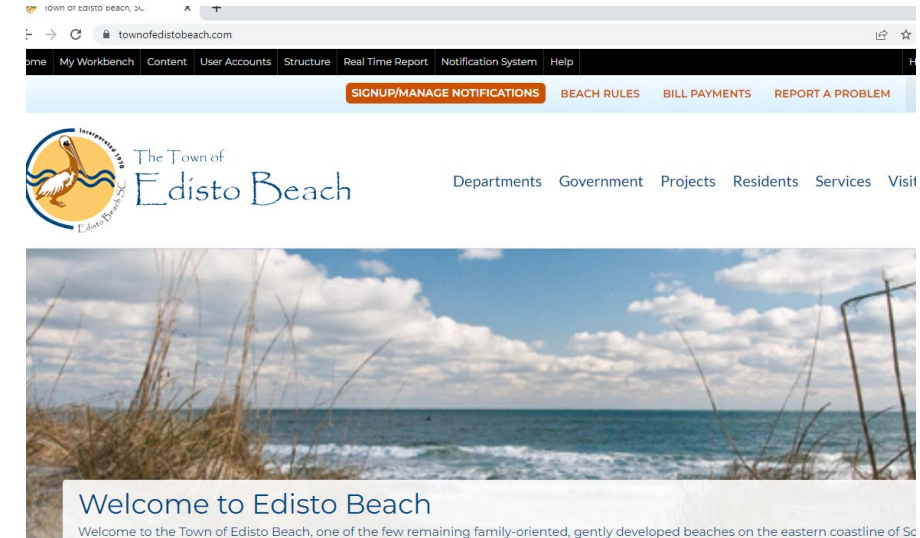
Resources

Sand and Sandbags

CodeRED – Community Notification System

South Carolina Emergency Manager App (iPhone and Android compatible)

<https://www.scemd.org/stay-informed/mobile-applications/>



Disaster Supply Kit

(Visit scemd.org for
more information)

3-day minimum preparation

Weather Alert Radio

Non-perishable food (don't forget a can opener)

Drinking water, two gallon per person per day

Flashlights, extra batteries

Cash or travelers' checks

First aid kit

Mess kit

Waterproof matches

Baby supplies

All prescription medication

Hygiene products

Sunscreen and bug spray

Important family documents

Planning for Your Pet

Crate/carrier

Leash/harness/bowls

3 days of water and food

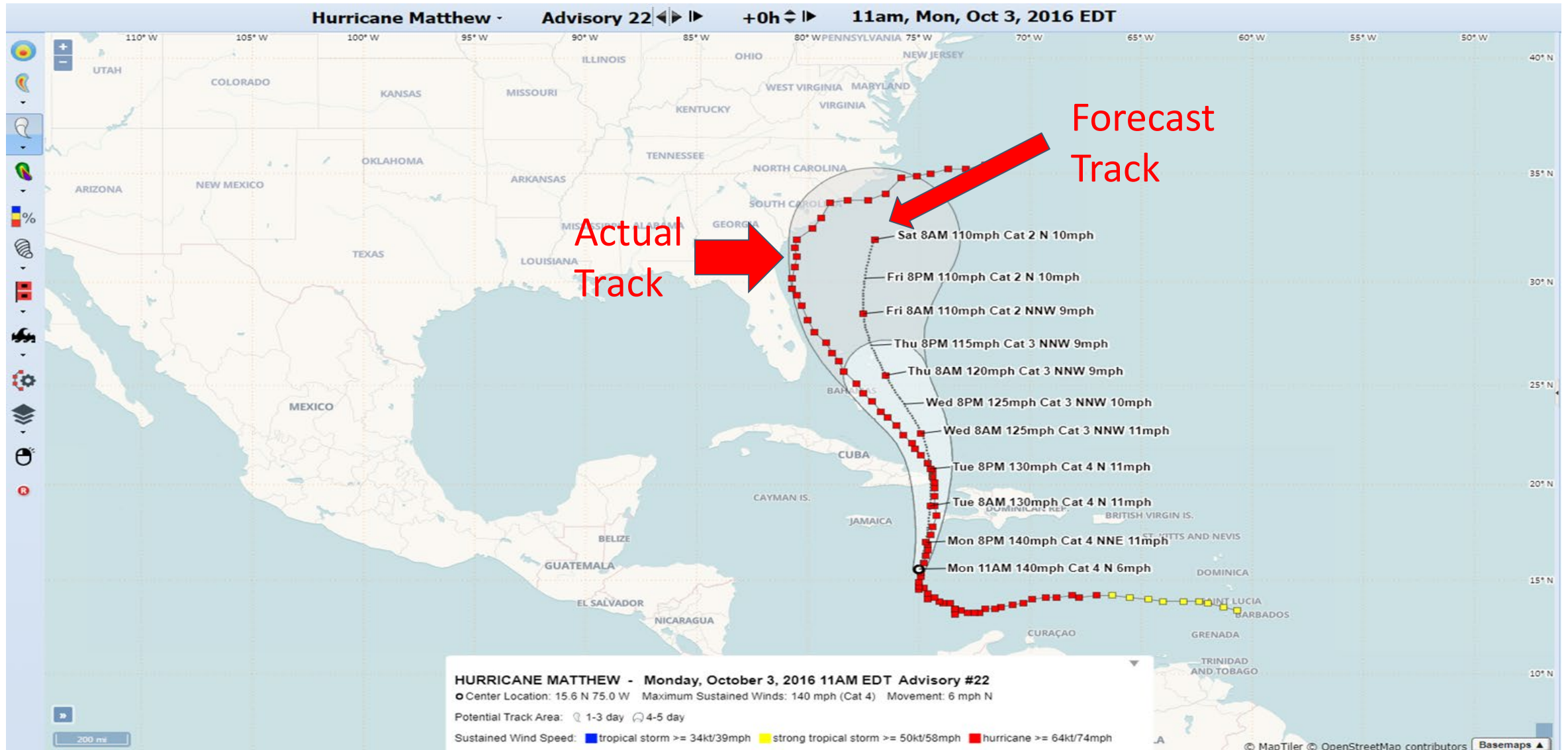
Medications, health/vaccinations records, microchip numbers, photo of your pet

Lost

Dr. David Greene

Deputy Chief / Emergency Manager
Colleton County Fire Rescue

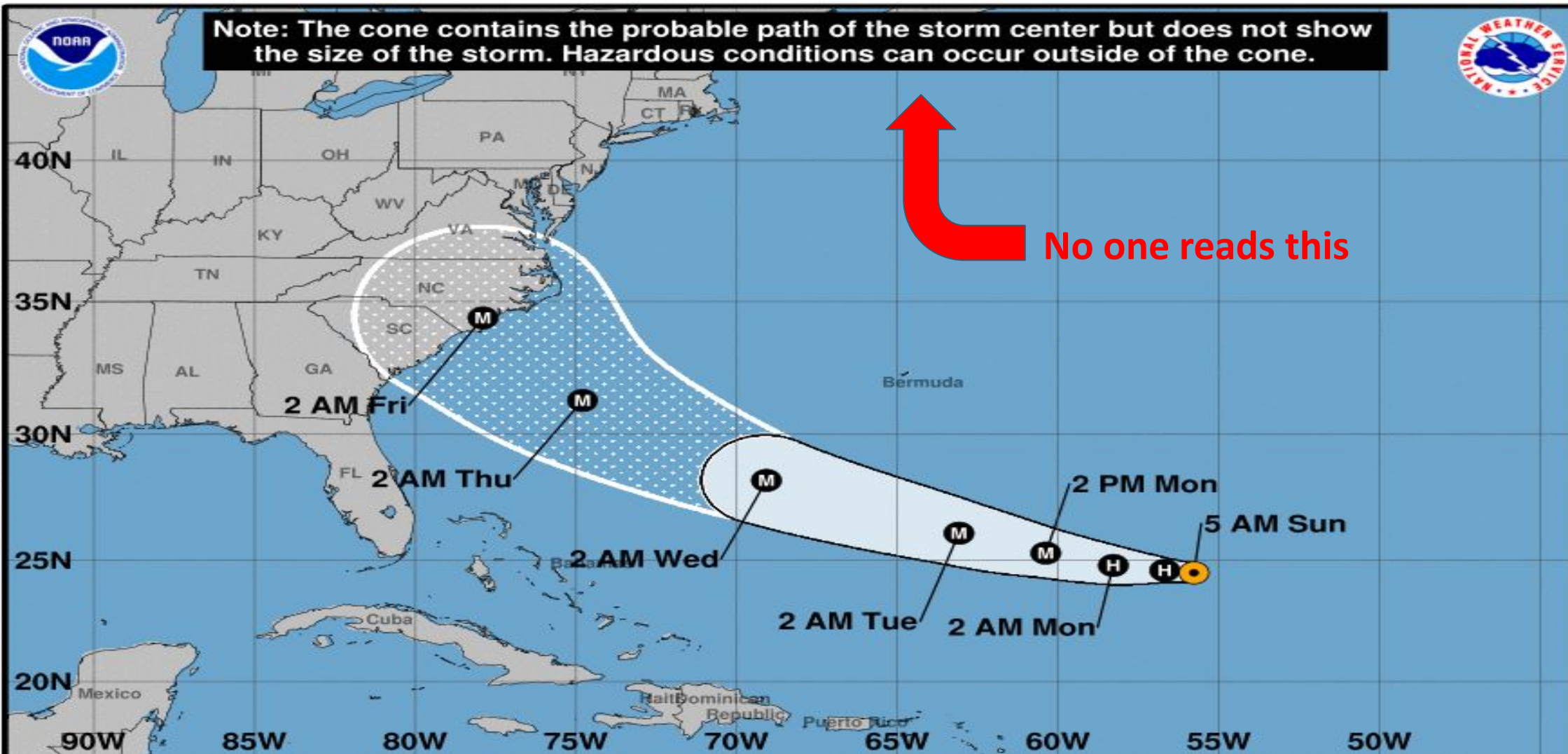
The Cone of “Uncertainty” NOT the Cone of “Certainty”





Note: The cone contains the probable path of the storm center but does not show the size of the storm. Hazardous conditions can occur outside of the cone.

No one reads this



Tropical Storm Florence

Sunday September 09, 2018

5 AM AST Advisory 40

NWS National Hurricane Center

Current information:

Center location 24.5 N 55.8 W

Maximum sustained wind 70 mph

Movement W at 6 mph

Forecast positions:

● Tropical Cyclone ○ Post/Potential TC

Sustained winds: D < 39 mph

S 39-73 mph H 74-110 mph M > 110 mph

Potential track area:



Day 1-3



Day 4-5

Watches:



Hurricane



Trop Storm

Warnings:



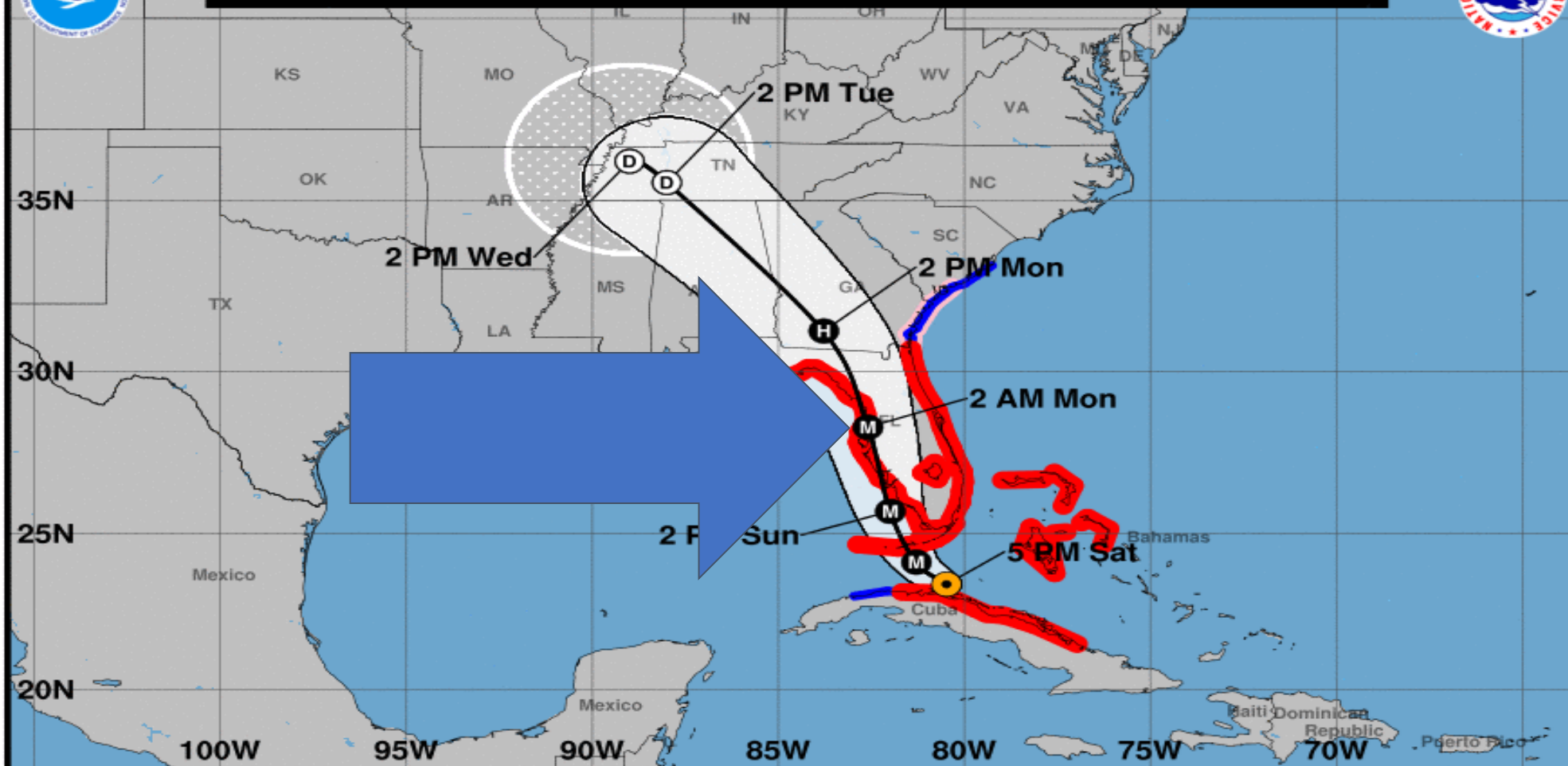
Hurricane



Trop Storm



Note: The cone contains the probable path of the storm center but does not show the size of the storm. Hazardous conditions can occur outside of the cone.



Hurricane Irma

Saturday September 09, 2017
5 PM EDT Advisory 43
NWS National Hurricane Center

Current information:

Center location 23.4 N 80.5 W
Maximum sustained wind 125 mph
Movement WNW at 9 mph

Forecast positions:

● Tropical Cyclone ○ Post/Potential TC
Sustained winds: D < 39 mph
S 39-73 mph H 74-110 mph M > 110 mph

Potential track area:

Day 1-3 Day 4-5

Watches:

Hurricane Trop Storm

Warnings:

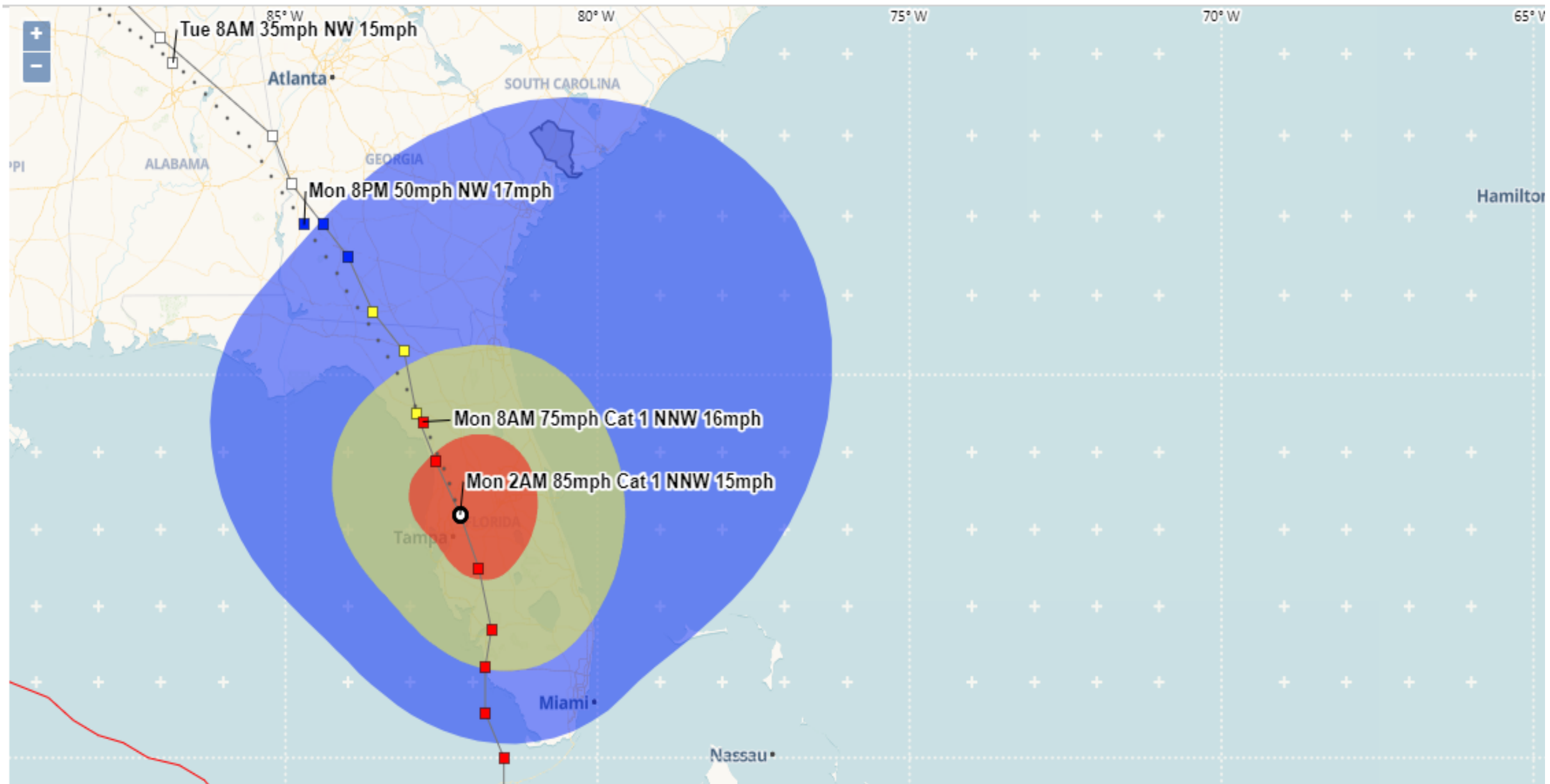
Hurricane Trop Storm

Hurricane Irma

Advisory 48A ◀ ▶ ⟳

+0h ↕ ▶

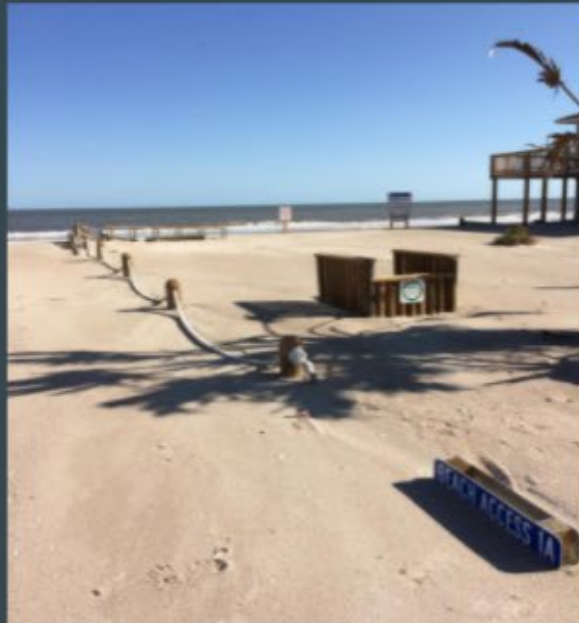
2am, Mon, Sep 11, 2017 EDT



Edisto Beach



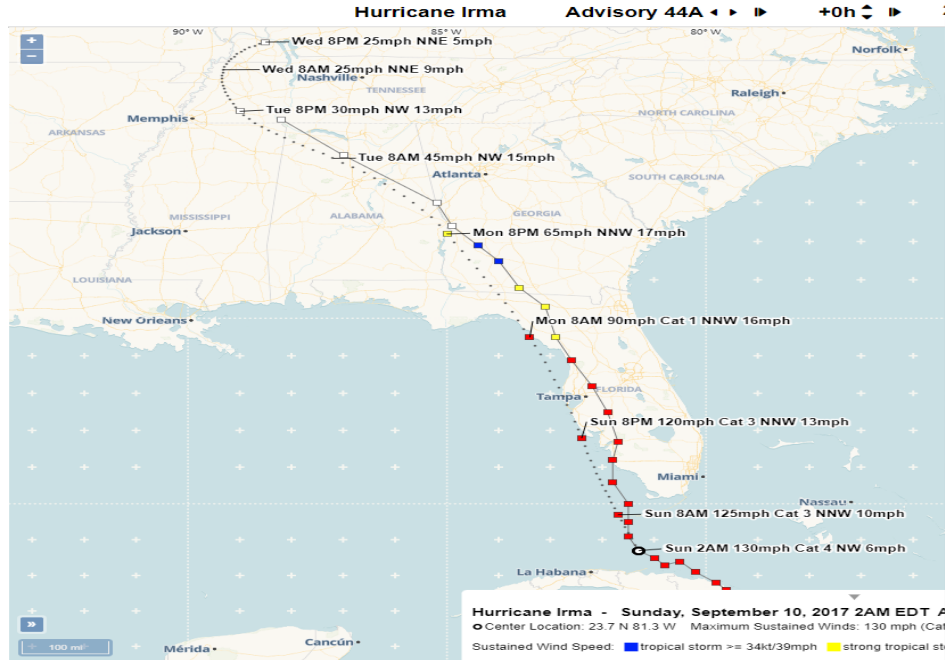
Hurricane Irma
2017



Tybee Island, GA



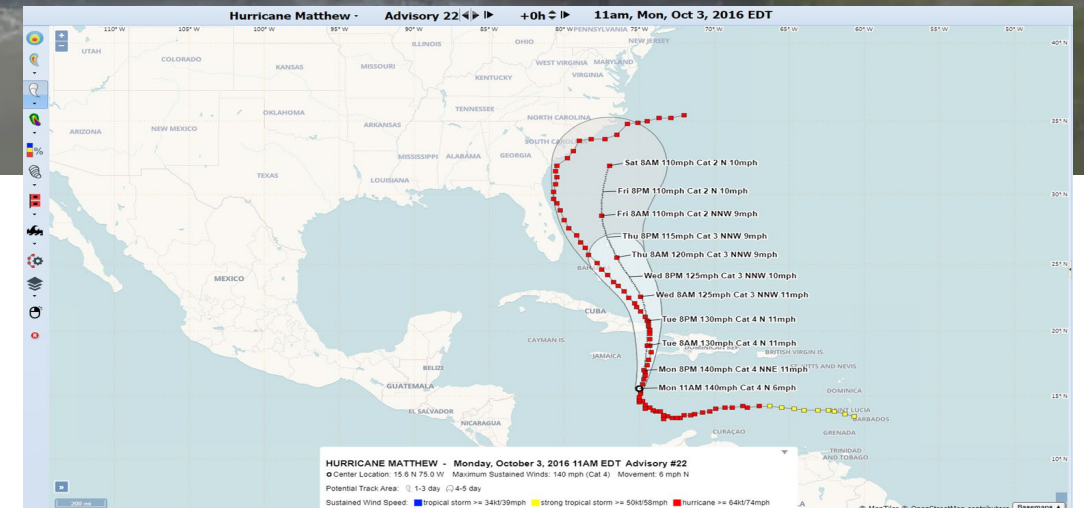
HISTORIC CRESTS DOWNTOWN



① Hugo September 22, 1989	12.52 FT
② 1940 SC Hurricane August 11, 1940	10.23 FT
③ Irma September 11, 2017	9.92 FT
④ Nor'easter December 17, 2023	9.86 FT
⑤ Matthew October 8, 2016	9.29 FT

Closest approaches to Colleton County

Hurricane Matthew = 25 miles
 Hurricane Irma = 174 miles

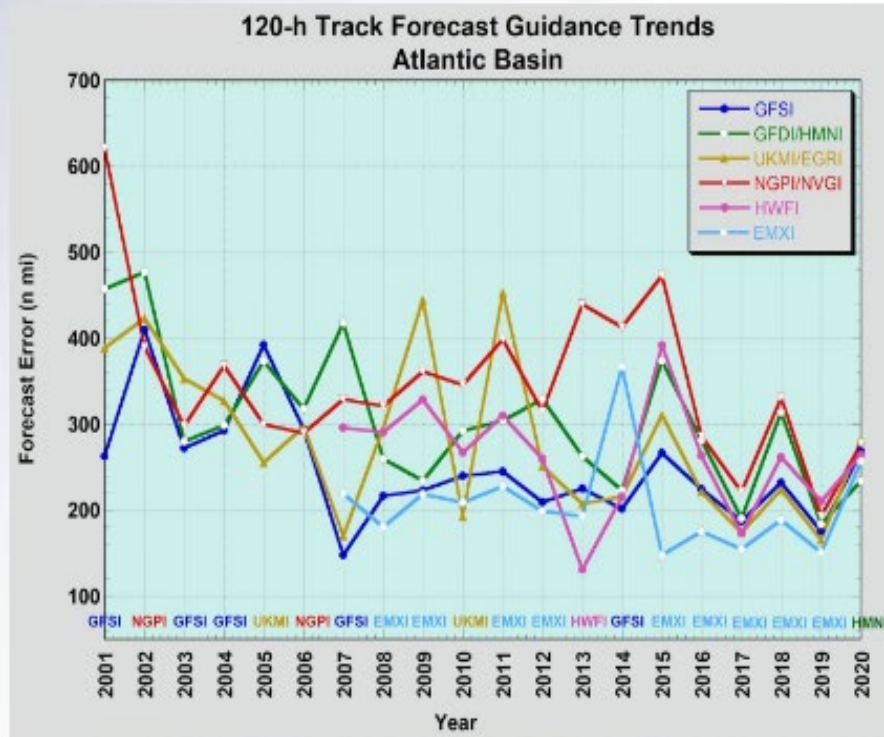


Remember, the NHC Cone represents where the center of the storm will travel 67% of the time and **NOT** the limit of the impacts of the storm.

Which model should we look at?

Track Model Trends

Best 5-day Track Model 2001-2020

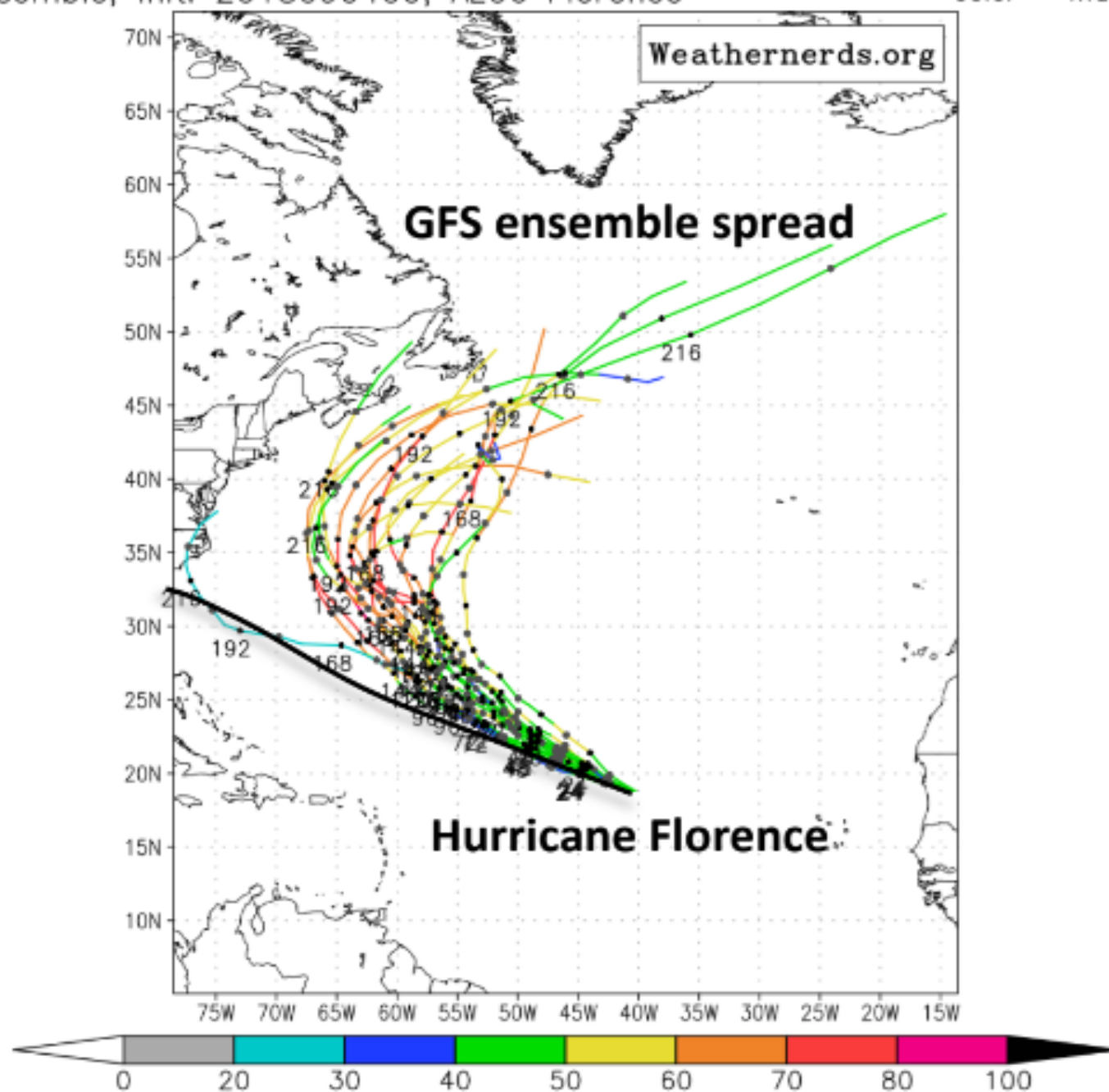


Due to model changes and other factors, the best performing model often varies from season to season

Euro model had a good run 2015 to 2019, but HMNI (Interpolated Hurricane Multi-Scale Ocean-coupled Non-hydrostatic model) did best in 2020 and preliminary data for 2021 and 2022 says GFS did best those two years.

GFS Ensemble, init: 2018090400, AL06 Florence

color = max wind (kt)





And of course, the Twitter posts



Sep 7

Updating yesterday's tidbit... as of Friday morning's advisory, 79 named storms have passed within 200 nautical miles of #Florence's position since 1851, and not one has ever come close to the U.S. coast.



The Official National Hurricane Center Forecast is
the only model that is touched by a human.

Rapid Intensification

The four Category 5 hurricanes to make landfall in the United States were all tropical storms just three days before landfall, providing a reminder of why you should be prepared before the season begins in case there are rapidly-intensifying storms

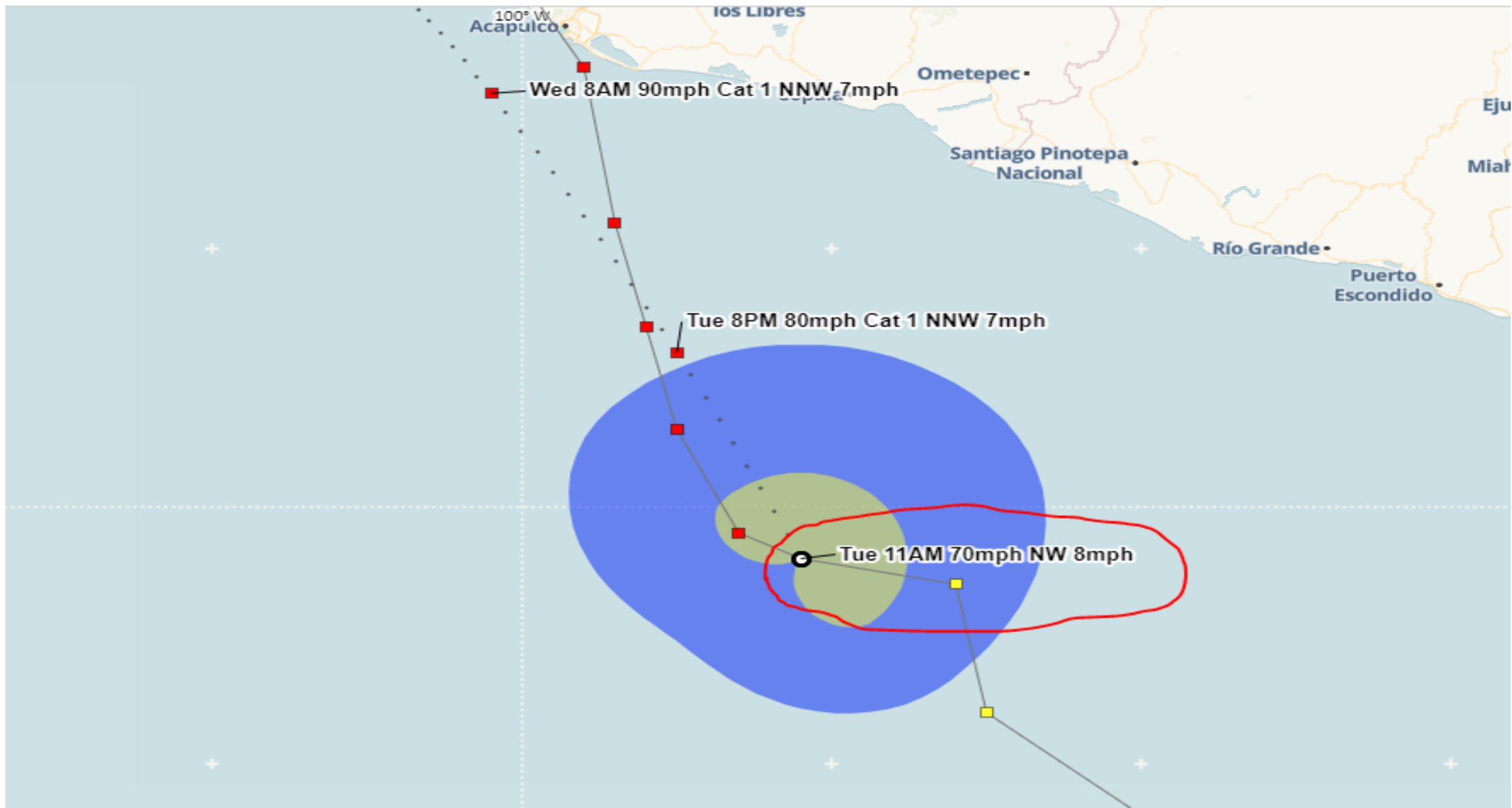
<u>Storm (Year)</u>	<u>Wind Speed 3 days prior to landfall (Date)</u>	<u>Wind Speed at Landfall (Date)</u>
Michael (2018)	50 mph (10/7/2018)	160 mph (10/10/2018)
Andrew (1992)	55 mph (8/21/1992)	165 mph (8/24/1992)
Camille (1969)	60 mph (8/14/1969)	175 mph (8/17/1969)
Labor Day (1935)	60 mph (8/31/1935)	185 mph (9/2/1935)

Tropical Storm Otis

Advisory 9 ◀ ▶ ▶

+0h ⬆ ⬆ ▶

11am, Tue, Oct 24, 2023 EDT

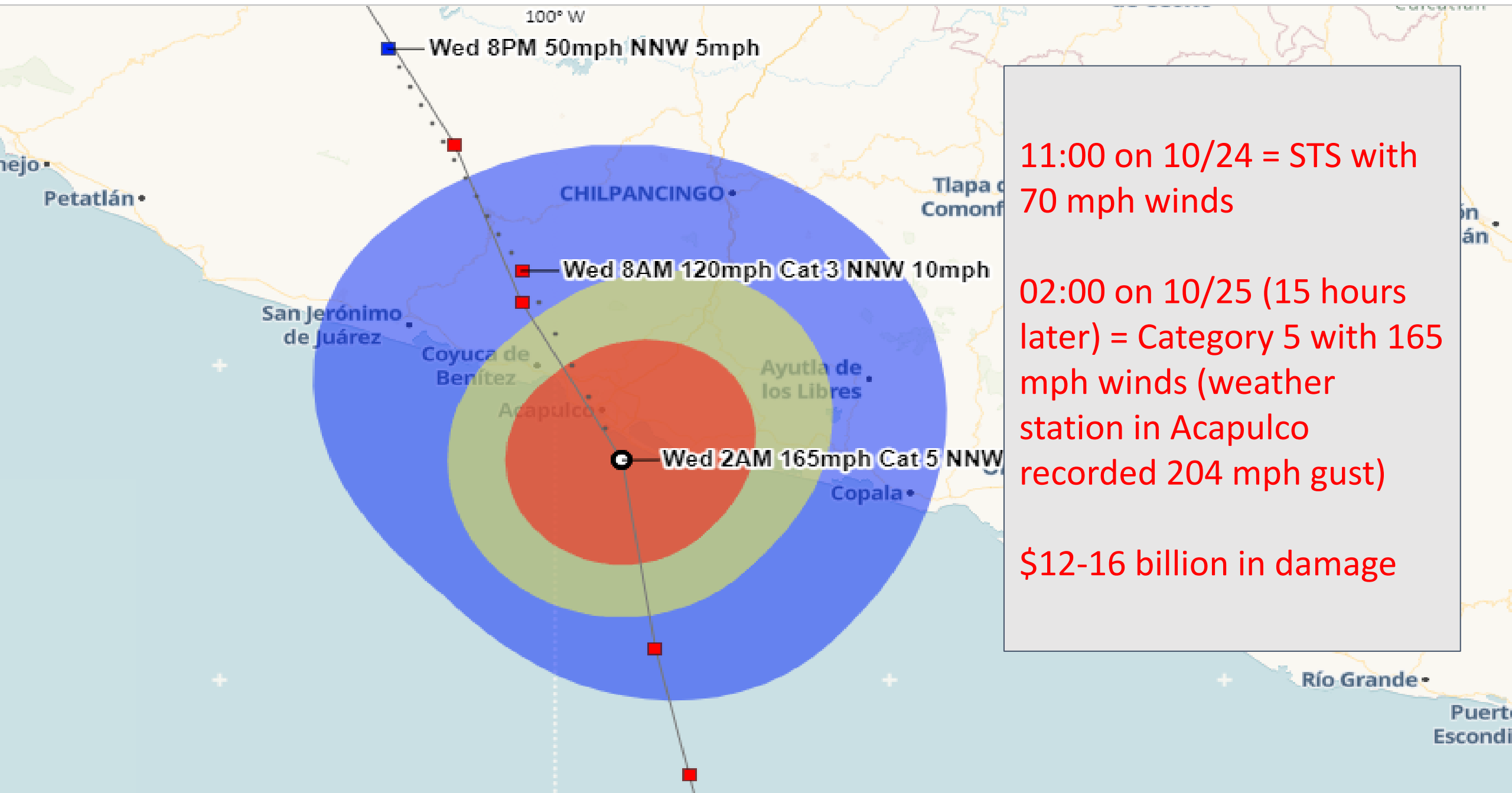


Hurricane Otis

Advisory 12A ◀ ▶ ▶

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2am, Wed, Oct 25, 2023 EDT



11:00 on 10/24 = STS with 70 mph winds

02:00 on 10/25 (15 hours later) = Category 5 with 165 mph winds (weather station in Acapulco recorded 204 mph gust)

\$12-16 billion in damage

Remember Category DOES NOT include surge

No More Surge in the Saffir-Simpson Scale!



FEMA

(it fits like a square peg in a round hole)

Category	Wind speed			Storm surge	
	mph	km/h	kn	ft	m
Five	≥ 156	≥ 250	≥ 136	> 18	> 5.5
Four	131–155	210–249	114–135	13–18	4.0–5.5
Three	111–130	178–209	96–113	9–12	2.8–3.7
Two	96–110	154–177	83–95	6–8	1.8–2.4
One	74–95	119–153	64–82	4–5	1.2–1.5
Additional classifications					
Tropical storm	39–73	63–117	35–63	0–3	0–0.9
Tropical depression	0–38	0–62	0–34	0	0

KATRINA (3)
IKE (2)

SANDY (1)
ISAAC (1)

CHARLEY (4)

New Bern, NC – Hurricane Florence



New Bern, NC – Hurricane Florence



Know Your Zone - Edisto is in Zone A

Follow Trusted Sources of Information (NHC,
NWS, SCEMD, Local Officials)

Have a plan, follow evacuation orders (we
will), and plan for pets

How do you get information before a storm?

1. Follow Edisto / Colleton / SCEMD Social Media

2. Register for Code RED at

www.colletonfire.com/codered

3. Monitor www.nhc.noaa.gov

Important Contact Information

Edisto Beach Town Hall: 843-869-2505,
townofedistobeach.com

Colleton County Fire-Rescue: 843-539-
1960, colletonfire.com/em

Colleton County Emergency Operations
Center: 843-549-5632

S.C. Emergency Management Division
(SCEMD): scemd.org

National Hurricane Center:
hurricanes.gov



Questions?