



TROPICAL UPDATE

9 AM EDT

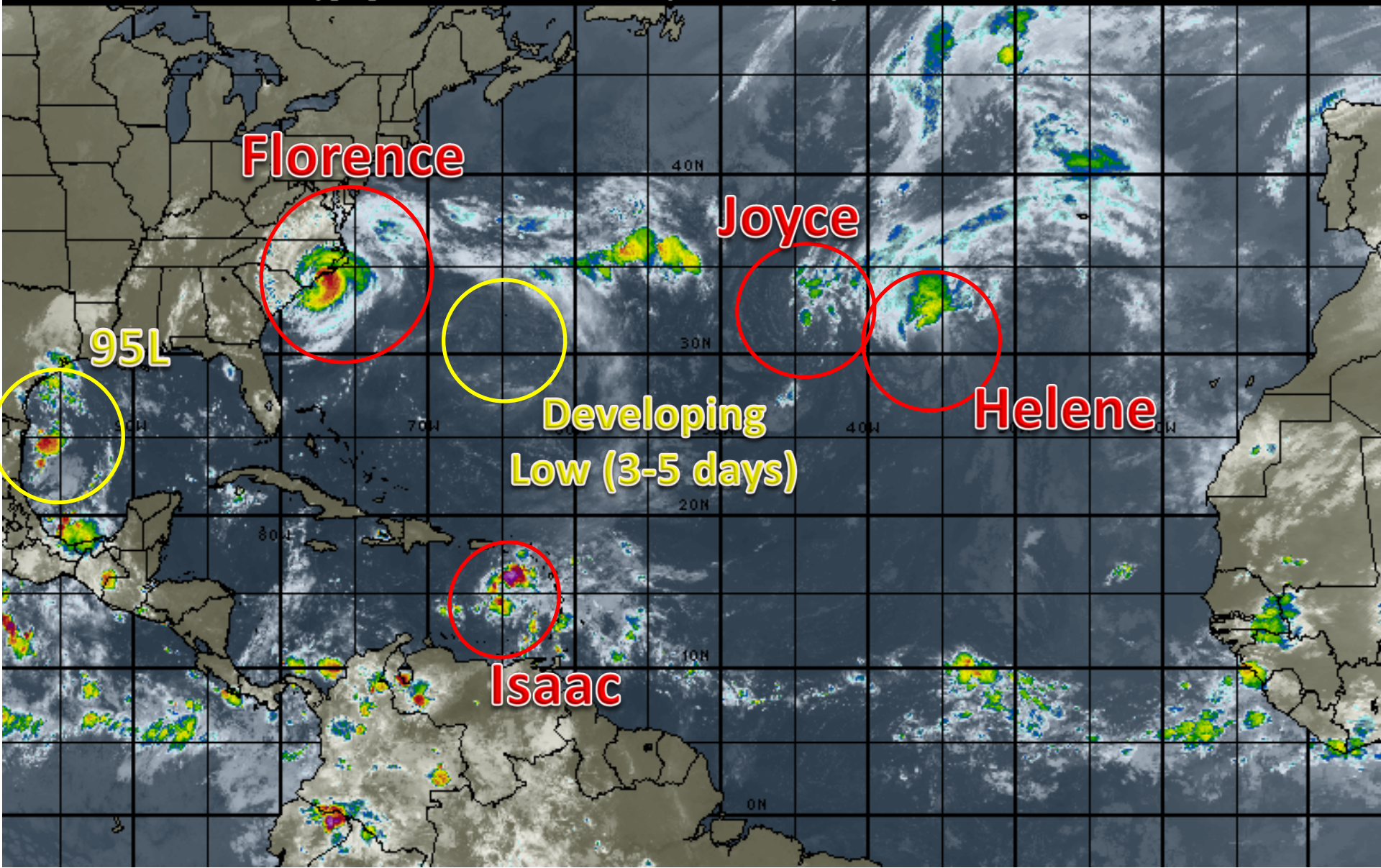
Friday, September 13, 2018

**Hurricane Florence, Tropical Storm Helene,
Tropical Depression Isaac, Tropical Storm Joyce,
Invest 95L (20%) & Bermuda Low (10%)**

This update is intended for government and emergency response officials, and is provided for informational and situational awareness purposes only. Forecast conditions are subject to change based on a variety of environmental factors. For additional information, or for any life safety concerns with an active weather event please contact your County Emergency Management or Public Safety Office, local National Weather Service forecast office or visit the National Hurricane Center website at www.nhc.noaa.gov.

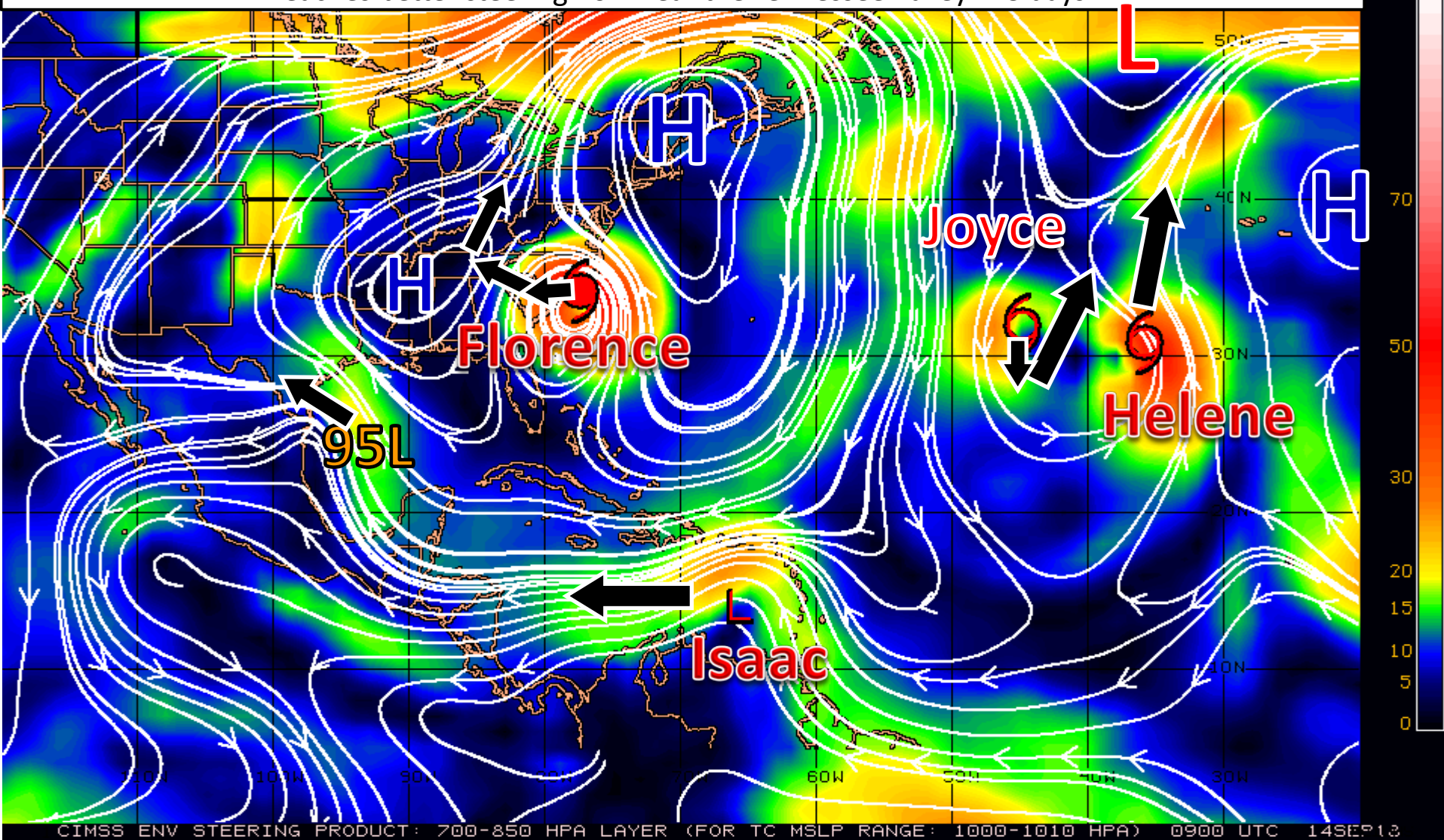
Atlantic Basin Satellite Image

09:00 14-SEP-2018 GMT Copyright © 1998-2018 MSI Corporation <http://www.wsi.com>



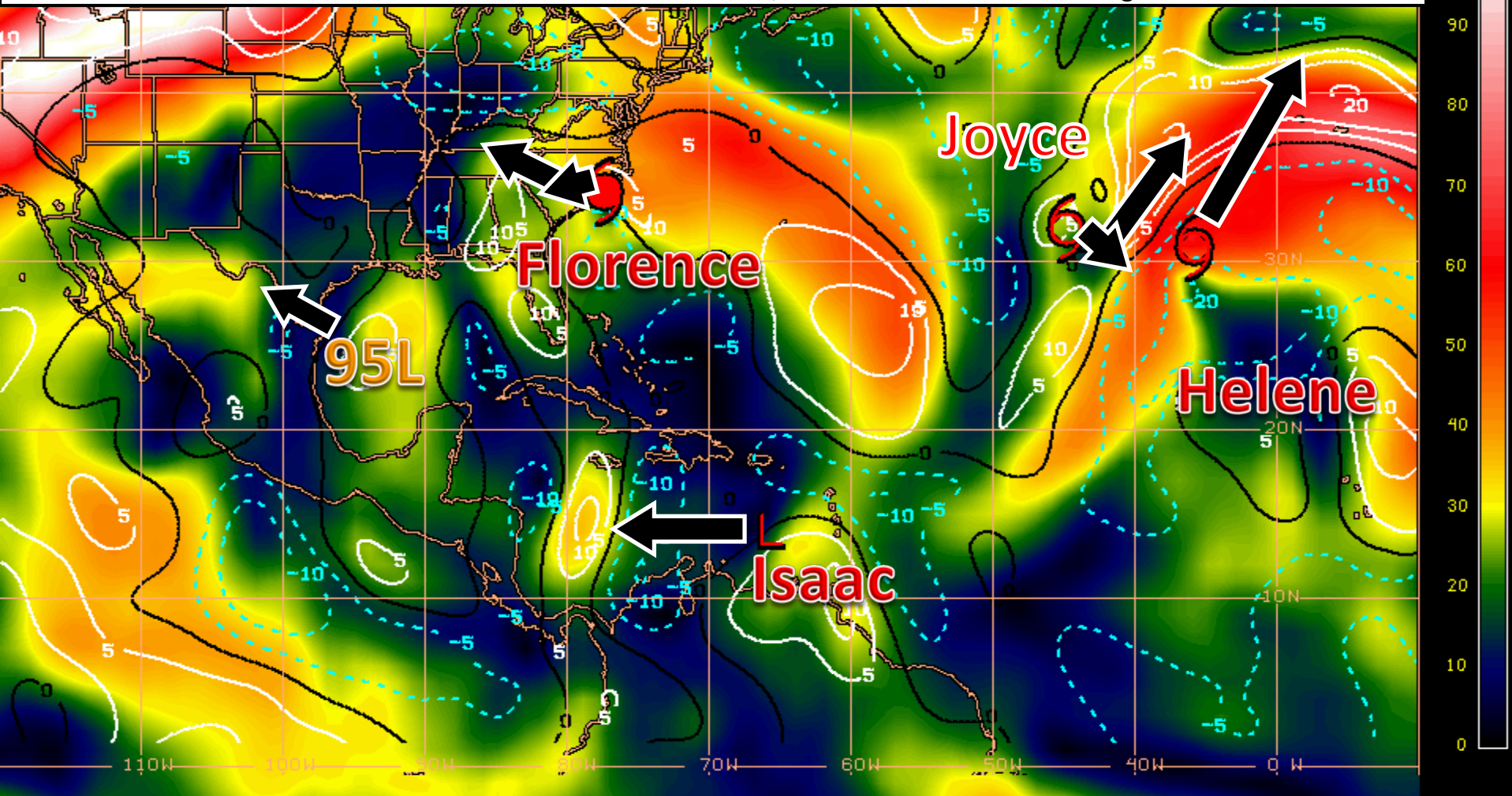
Steering Currents

A large and strong high pressure system in the western Atlantic will steer Florence, Isaac, and 95L while an area of low pressure in the northeastern Atlantic pulls Helene and Joyce northward. Another smaller area of high pressure to the west of Florence will be responsible for the slow westward drift of Florence until it reaches better steering flow near the Tennessee Valley in 3 days.



Wind Shear (shaded) and Wind Shear Tendencies (contoured)

Florence is battling some wind shear, and this along with interaction with land will result in a gradual weakening trend. Isaac will continue to encounter some pockets of low to moderate wind shear over the next 4 days and may cause the already weakened system to dissipate. 95L in the Gulf is in a relatively low shear environment, but it is running out of time to take advantage of the hospitable conditions before moving inland. Helene and Joyce will encounter strong wind shear, which when combined with cooler waters, will lead to further weakening.

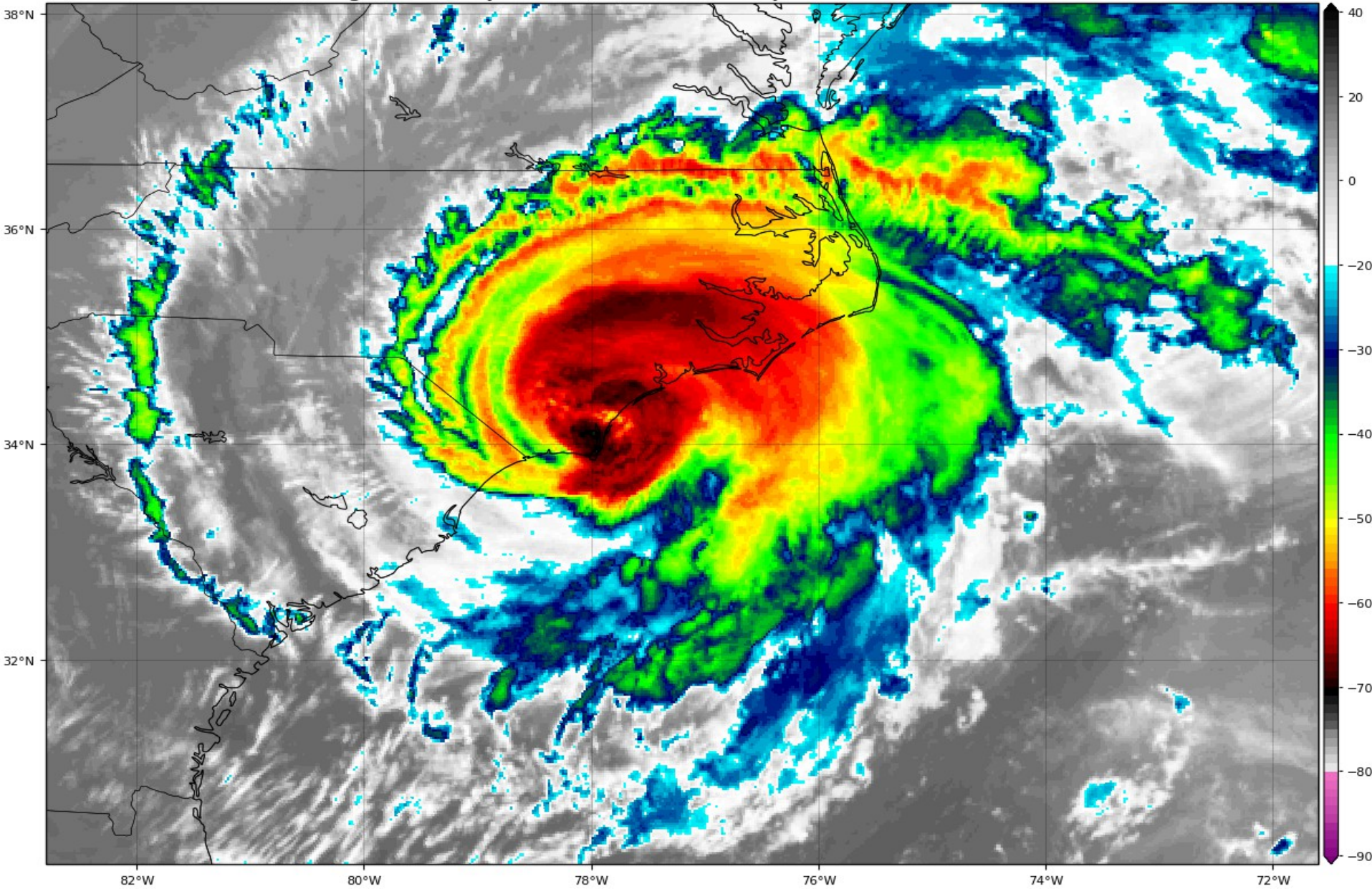


Shear Tendency (KTS) Over Past 24 Hours: Increasing — Decreasing ----

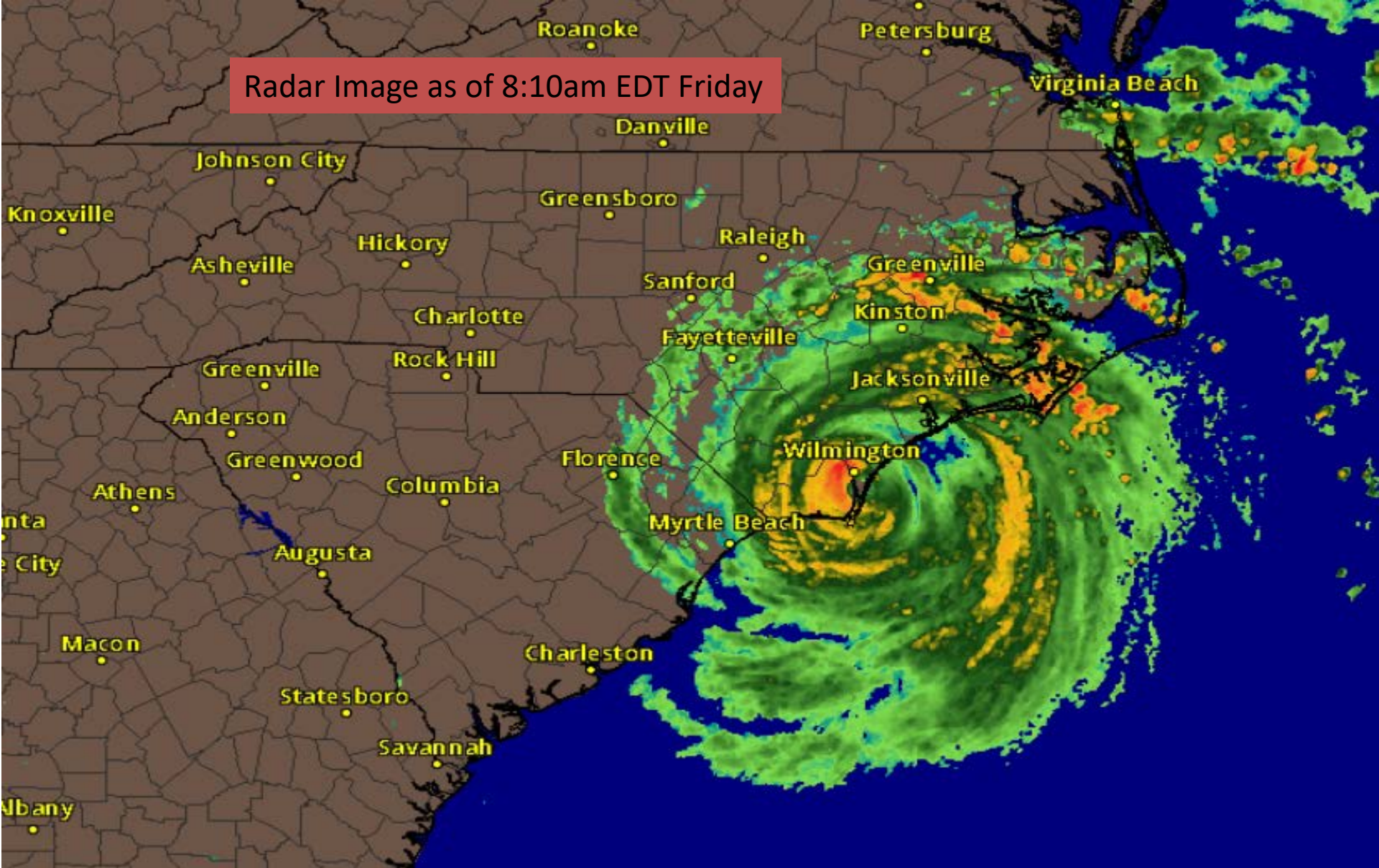
Hurricane Florence Satellite Image

GOES-16 Channel 13 (IR) Brightness Temperature (°C) at 12:08Z Sep 14, 2018

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Radar Image as of 8:10am EDT Friday



5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 dbZ



Light

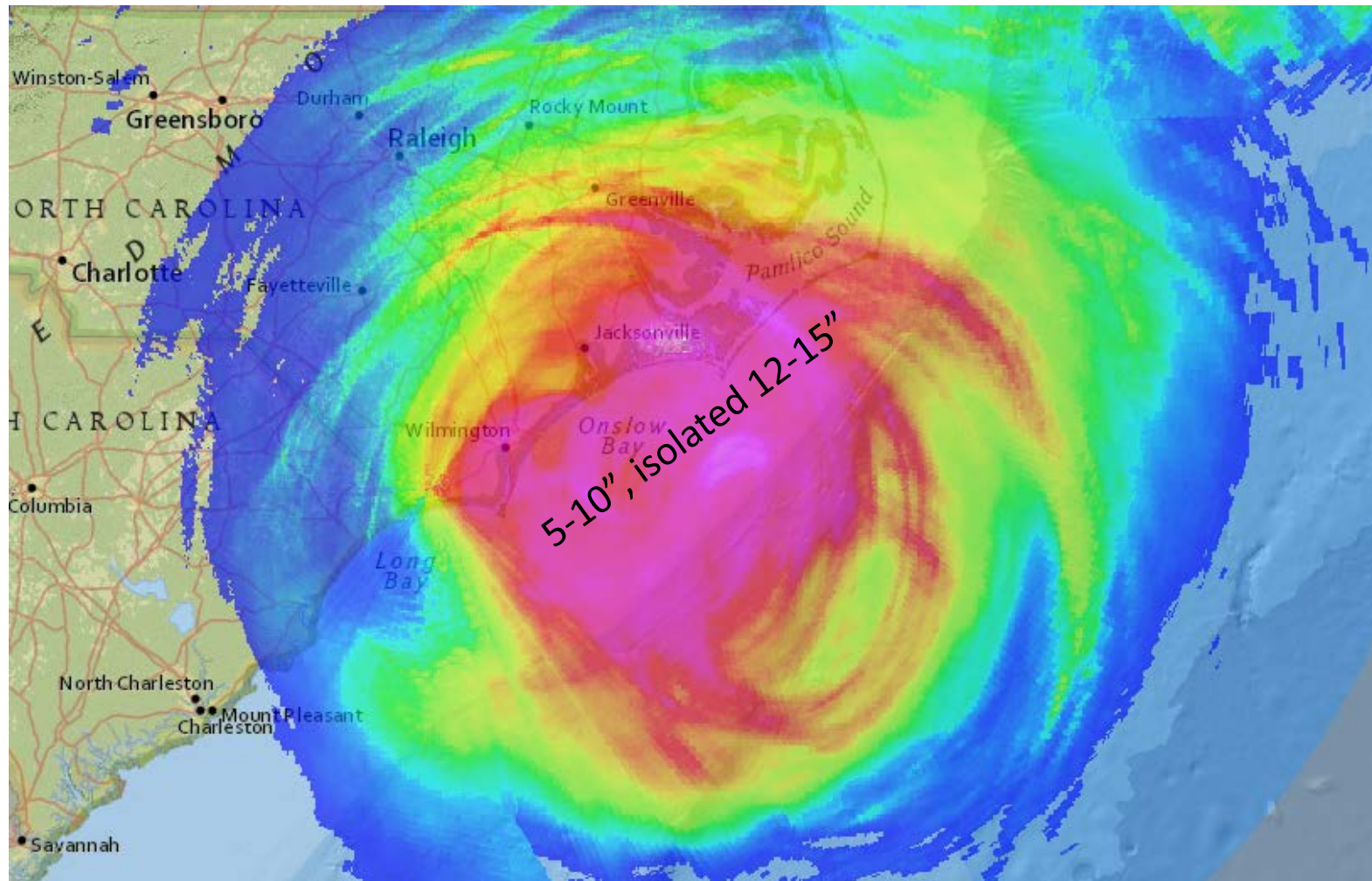
Moderate

Heavy

Severe

winds have reached eastern North Carolina. The eye is visible on radar. Tornadoes are possible in the outer bands to the north of Florence. Florence will slowly approach southeastern North Carolina tonight and Friday morning.

Radar Estimated Rainfall – Past 24 hours



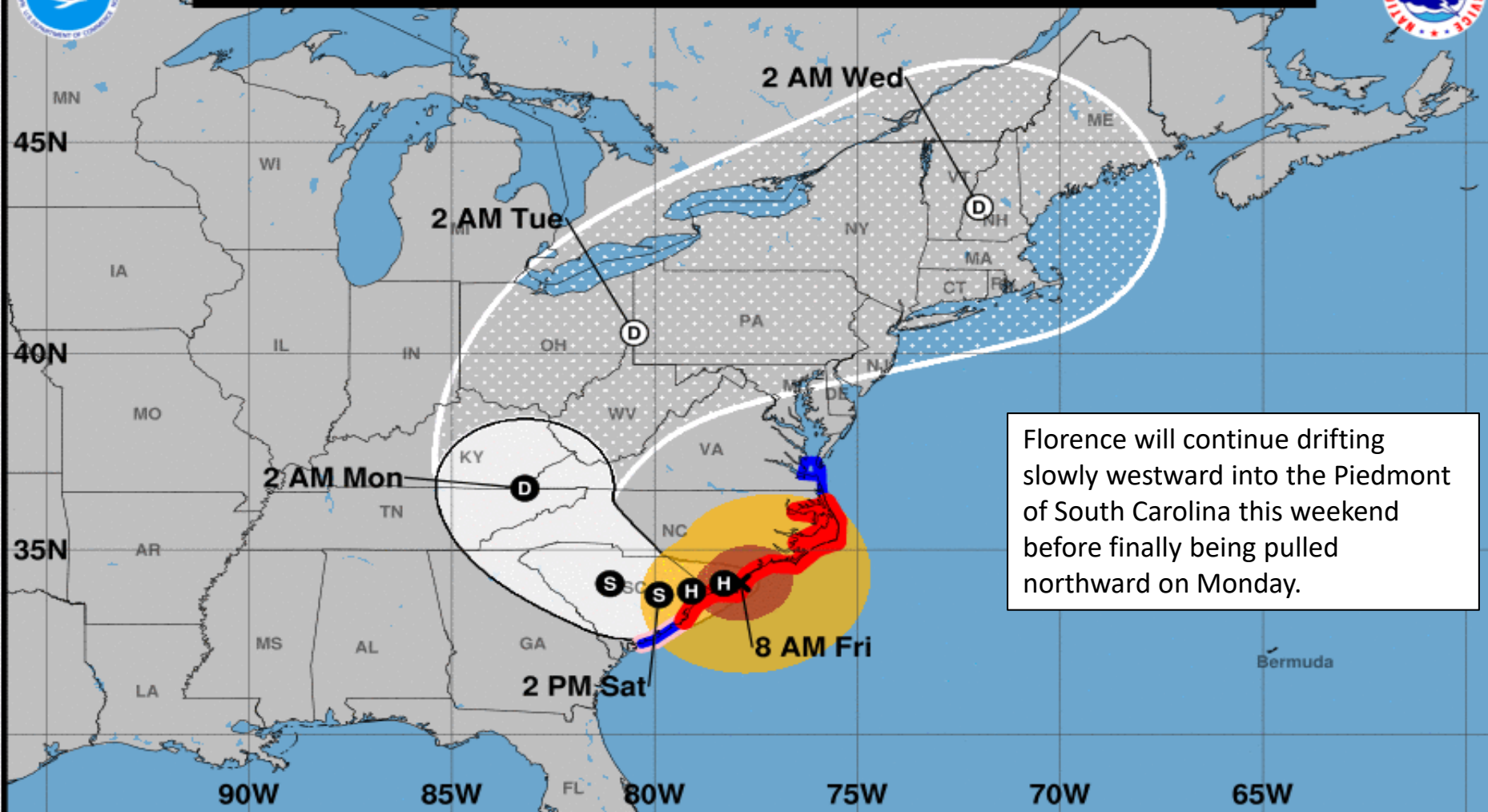
24 Hour Precipitation CONUS

Valid: 8:00 AM EDT, September 13th to 8:00 AM EDT, September 14th





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 Florence

Friday September 14, 2018

8 AM EDT Intermediate Advisory 60A

NWS National Hurricane Center

Current information: x

Center location 34.1 N 77.9 W

Maximum sustained wind 90 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 Stm

Warnings:

Hurricane Trop Stm

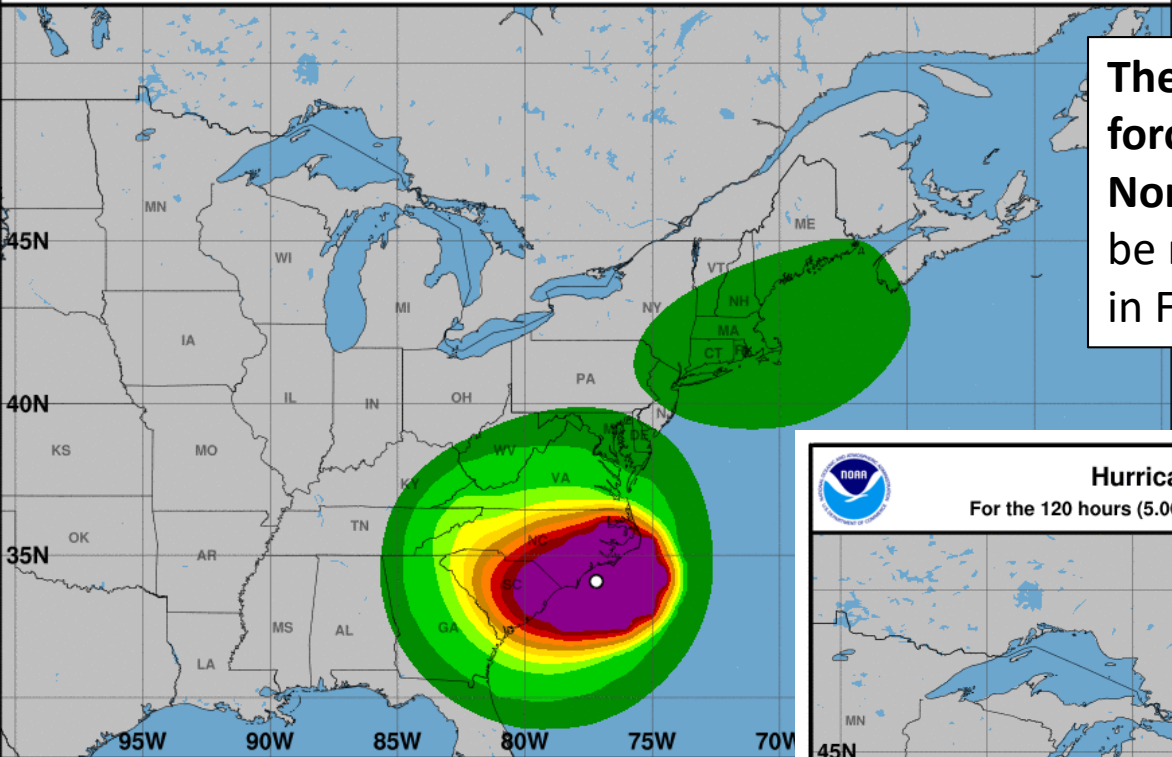
Current wind extent:

Hurricane Trop Stm

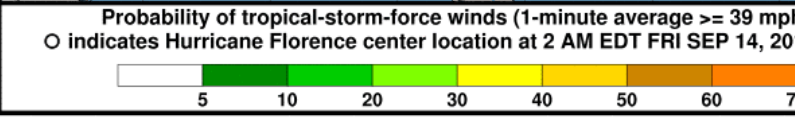


Tropical-Storm-Force Wind Speed Probabilities

For the 120 hours (5.00 days) from 2 AM EDT FRI SEP 14 to 2 AM EDT WED SEP 19

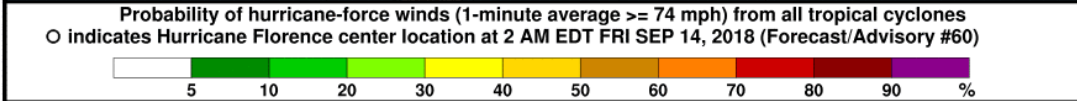
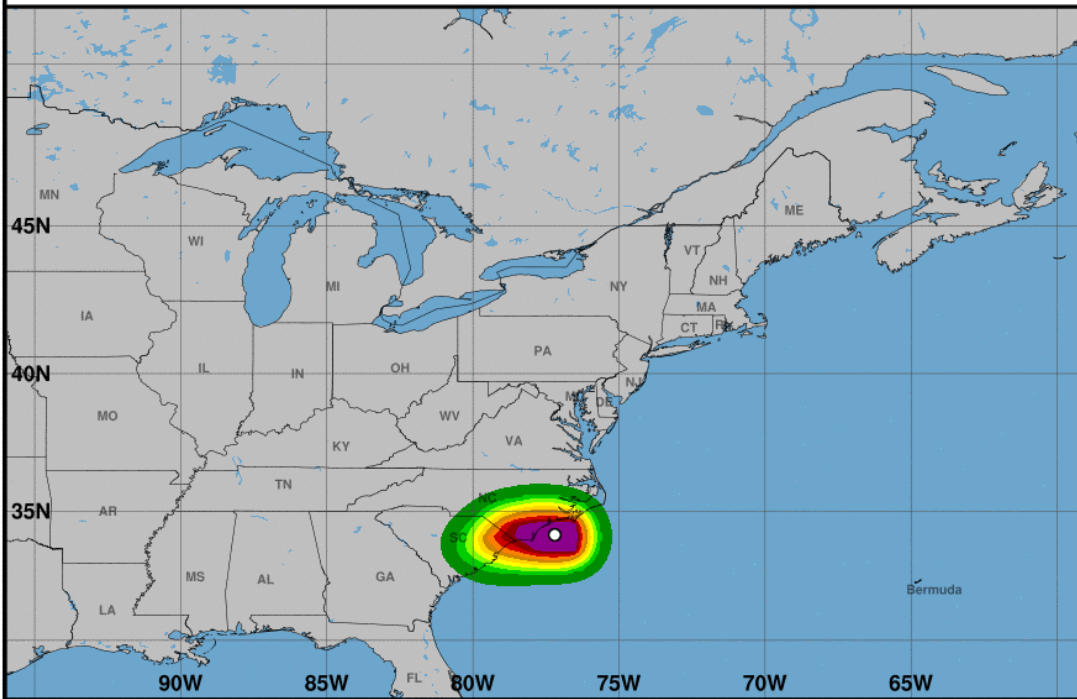


The odds of sustained tropical storm force winds have decreased for **Northeast Florida**. There continues to be no chance of hurricane force winds in Florida.

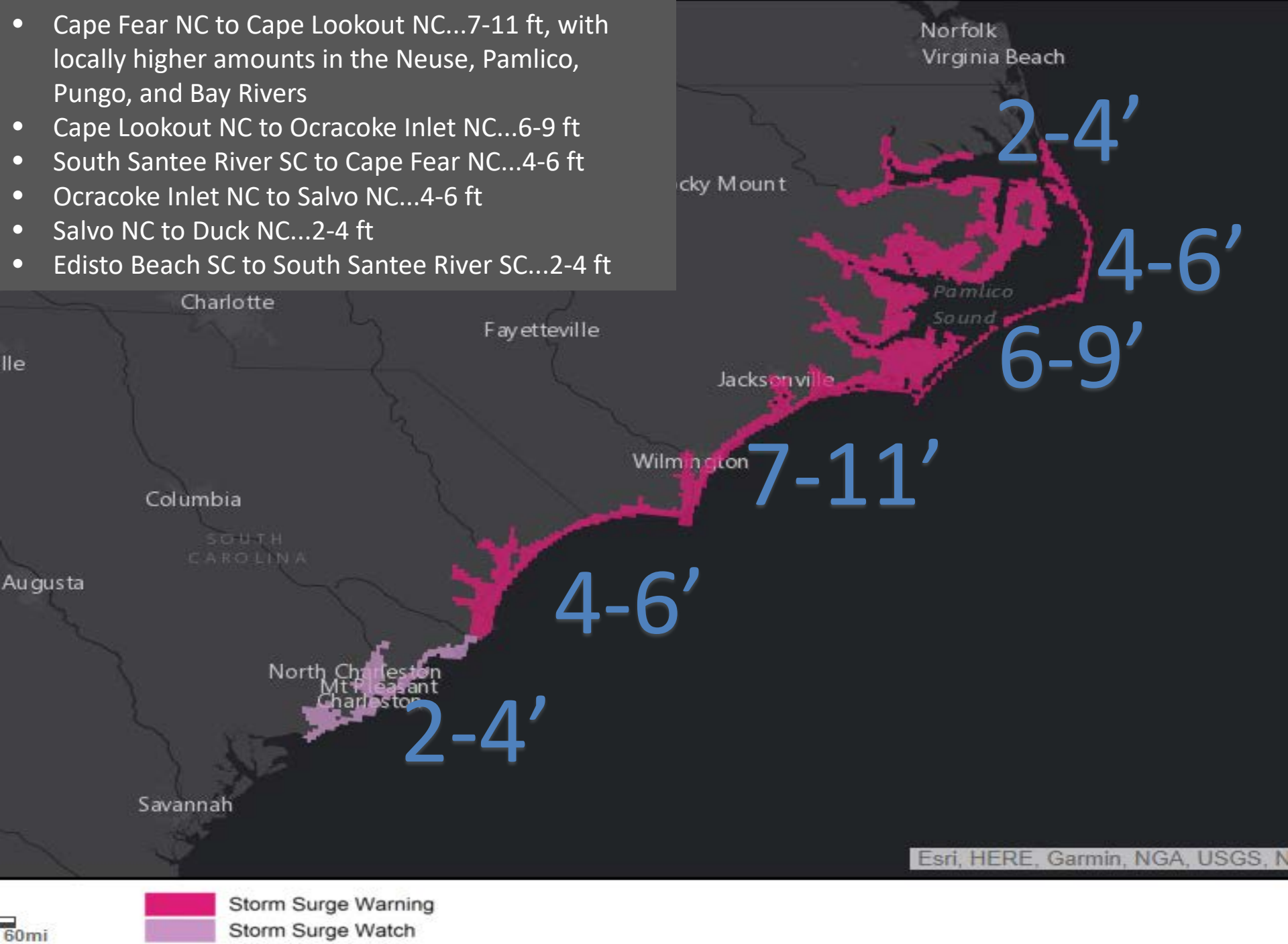


Hurricane-Force Wind Speed Probabilities

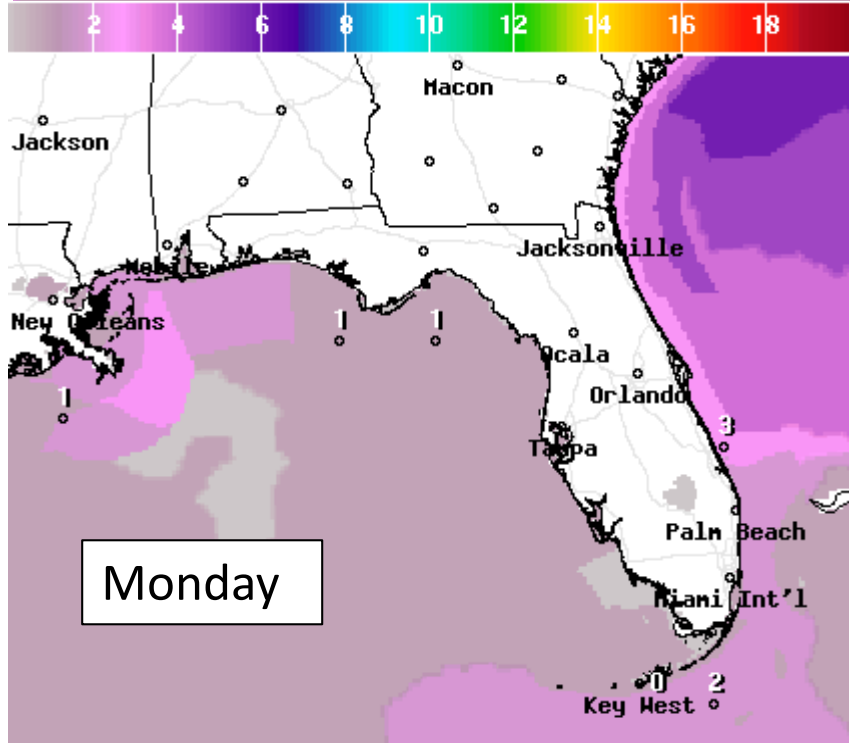
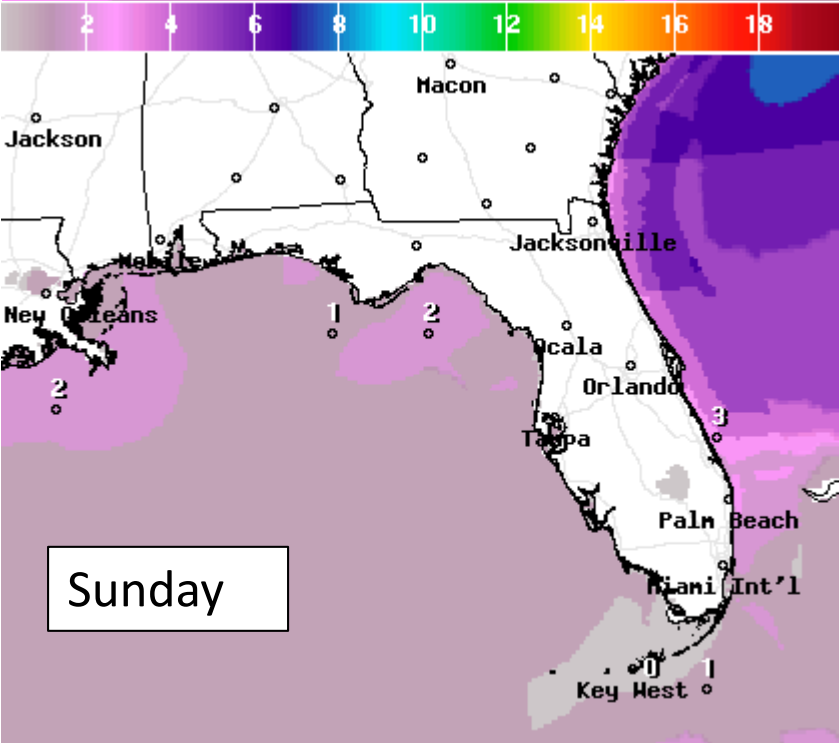
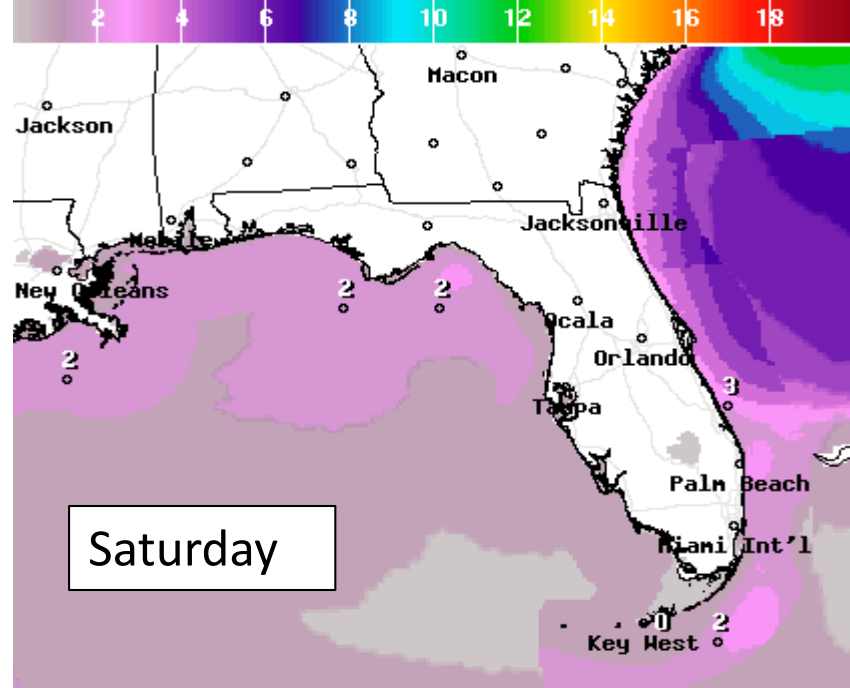
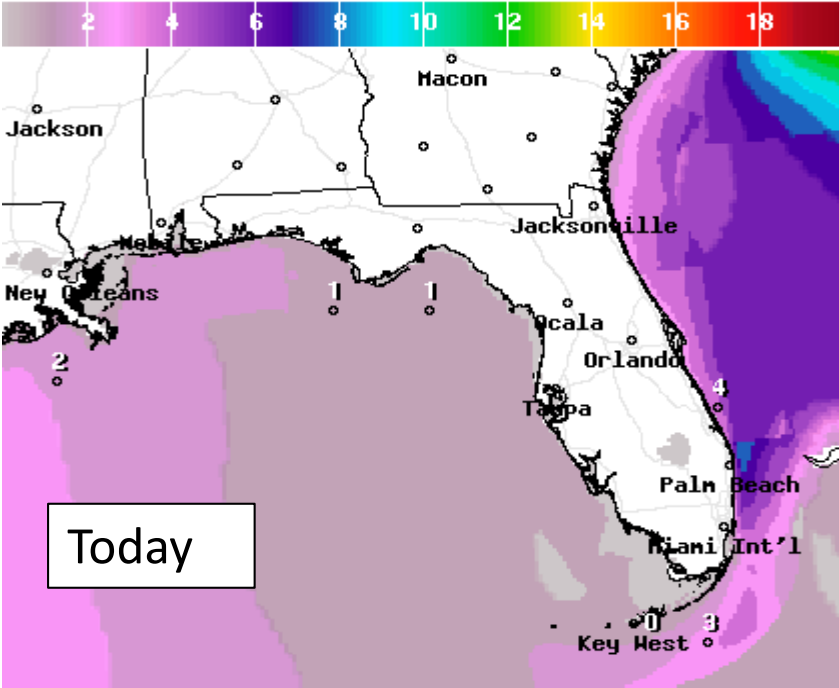
For the 120 hours (5.00 days) from 2 AM EDT FRI SEP 14 to 2 AM EDT WED SEP 19



- Cape Fear NC to Cape Lookout NC...7-11 ft, with locally higher amounts in the Neuse, Pamlico, Pungo, and Bay Rivers
- Cape Lookout NC to Ocracoke Inlet NC...6-9 ft
- South Santee River SC to Cape Fear NC...4-6 ft
- Ocracoke Inlet NC to Salvo NC...4-6 ft
- Salvo NC to Duck NC...2-4 ft
- Edisto Beach SC to South Santee River SC...2-4 ft



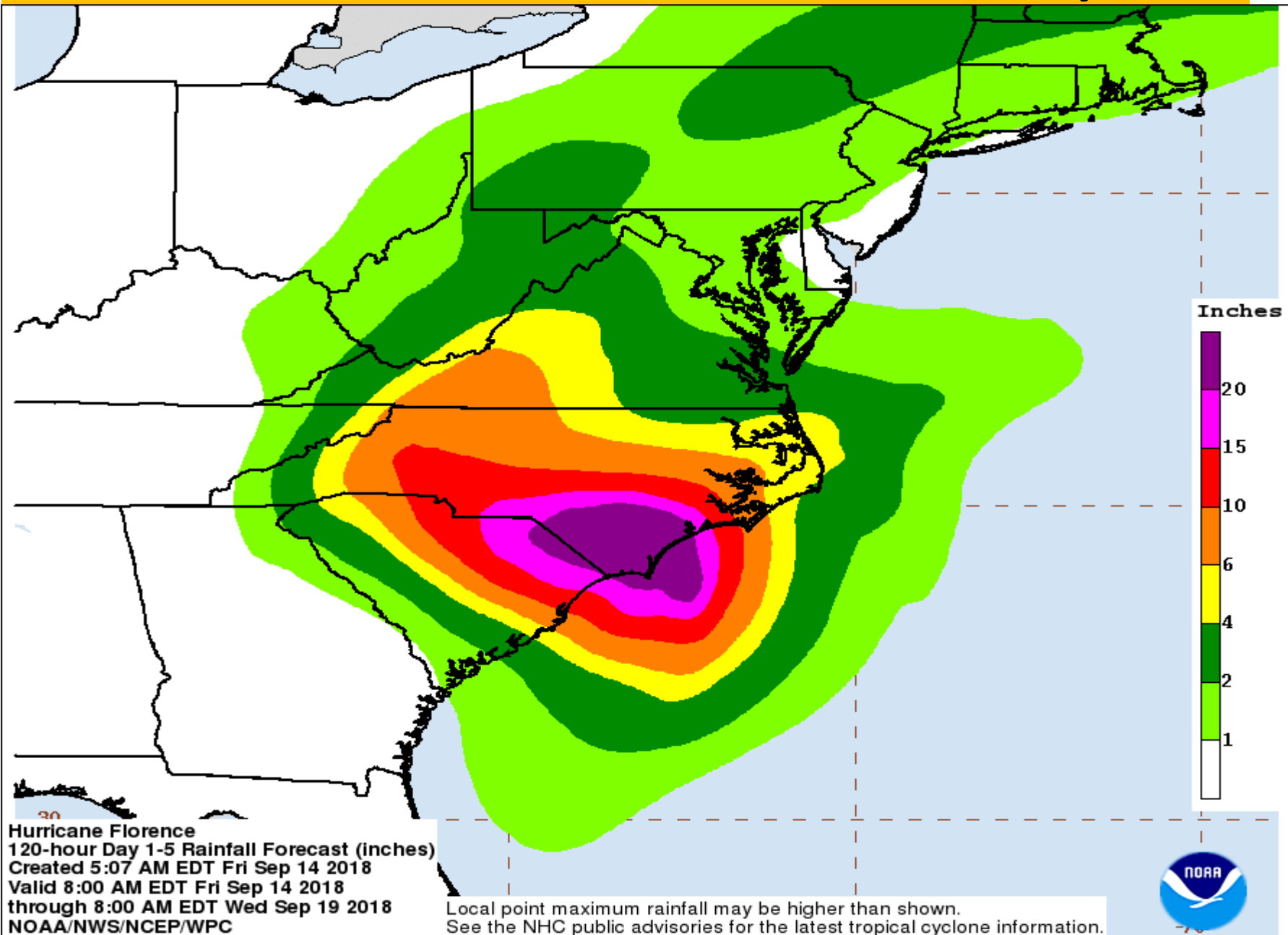
Forecast Wave Heights



Rip Current Forecast Today



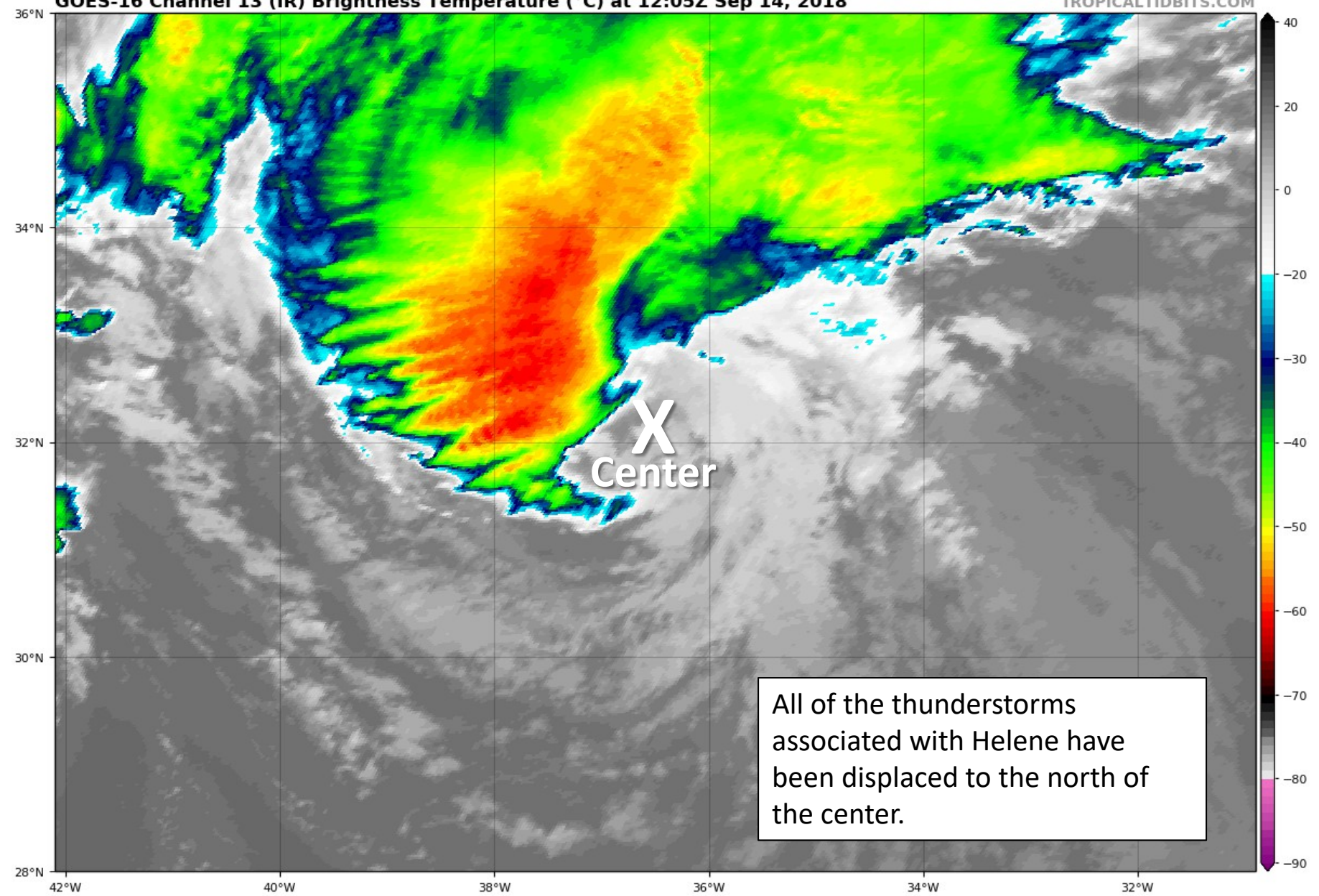
Forecast rainfall – Next 7 Days



Tropical Storm Helene Satellite Image

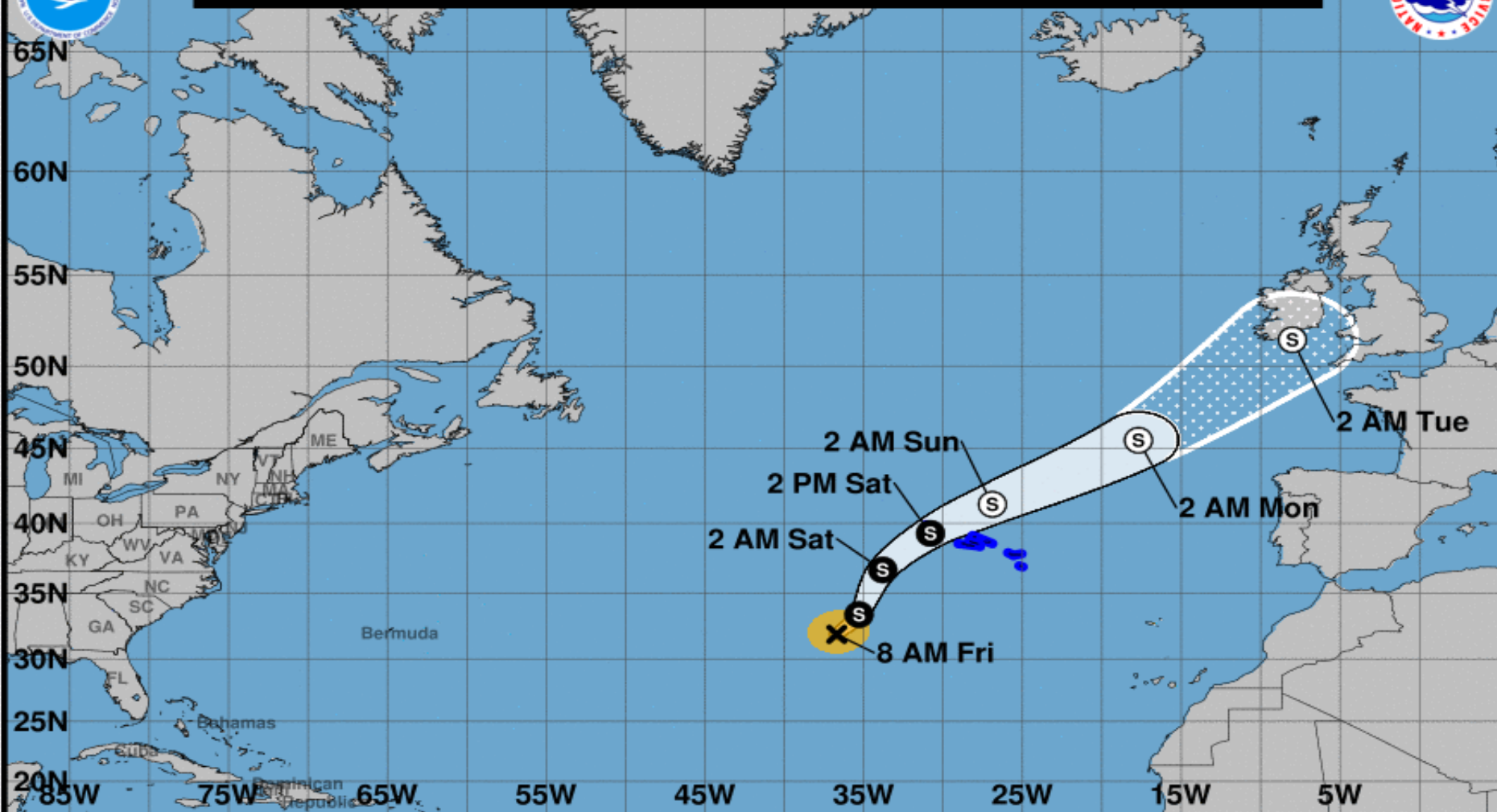
GOES-16 Channel 13 (IR) Brightness Temperature (°C) at 12:05Z Sep 14, 2018

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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.



Tropical Storm Helene

Friday September 14, 2018

8 AM AST Intermediate Advisory 28A

NWS National Hurricane Center

Current information: x

Center location 31.9 N 36.7 W

Maximum sustained wind 65 mph

Movement N at 23 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 Stm

Warnings:

Hurricane Trop Stm

Current wind extent:

Hurricane Trop Stm

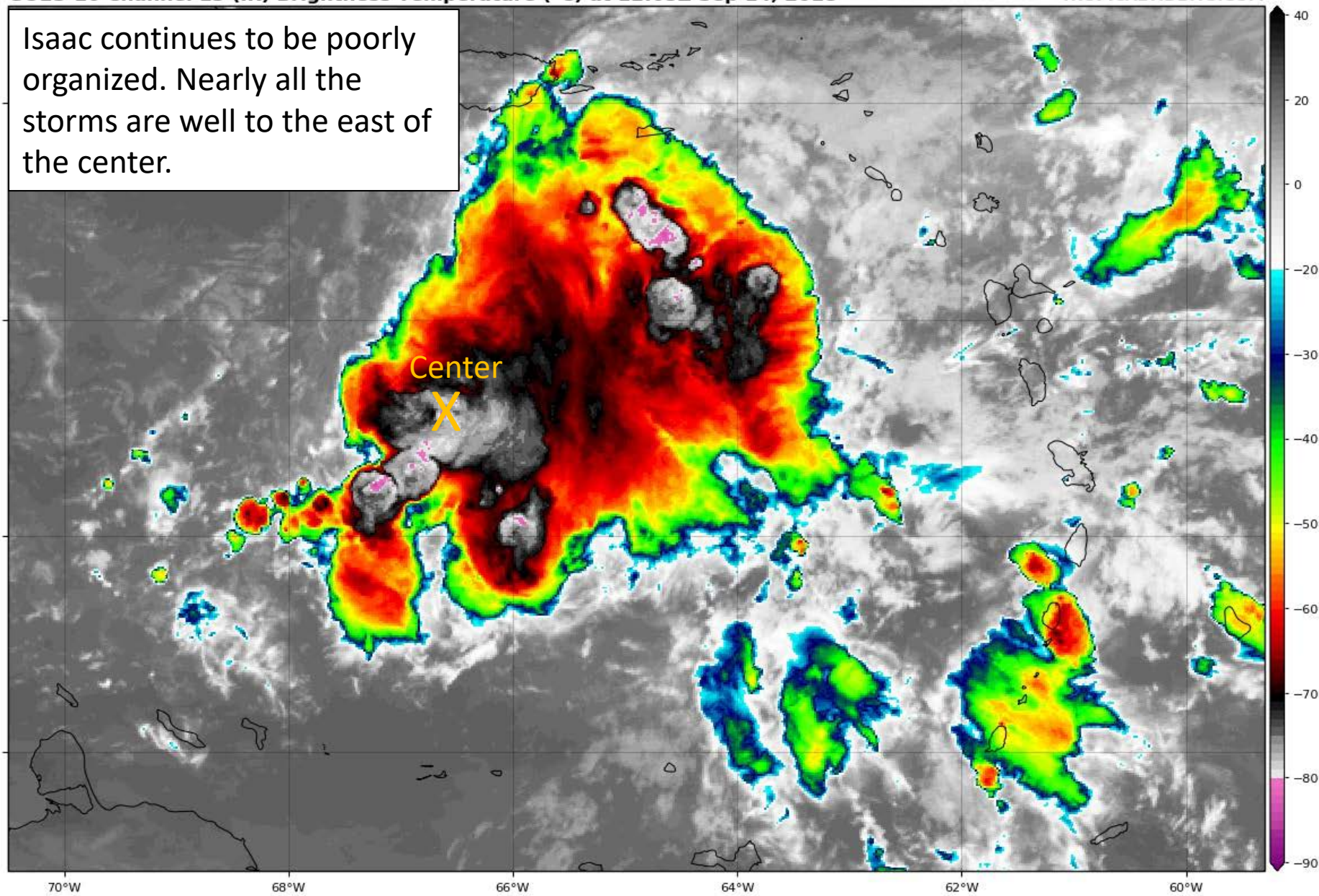
Tropical Depression Isaac Satellite Image

GOES-16 Channel 13 (IR) Brightness Temperature (°C) at 12:05Z Sep 14, 2018

TROPICALTIDBITS.COM

Isaac continues to be poorly organized. Nearly all the storms are well to the east of the center.

Center
X





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.



Isaac is forecast to remain weak before dissipating in the western Caribbean. It is possible that Isaac dissipates earlier than forecast.



Tropical Depression Isaac

Friday September 14, 2018

5 AM AST Advisory 27

NWS National Hurricane Center

Current information: x

Center location 15.0 N 65.5 W

Maximum sustained wind 35 mph

Movement W at 15 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 Stm

Warnings:



Hurricane



Trop Stm

Current wind extent:



Hurricane



Trop Stm

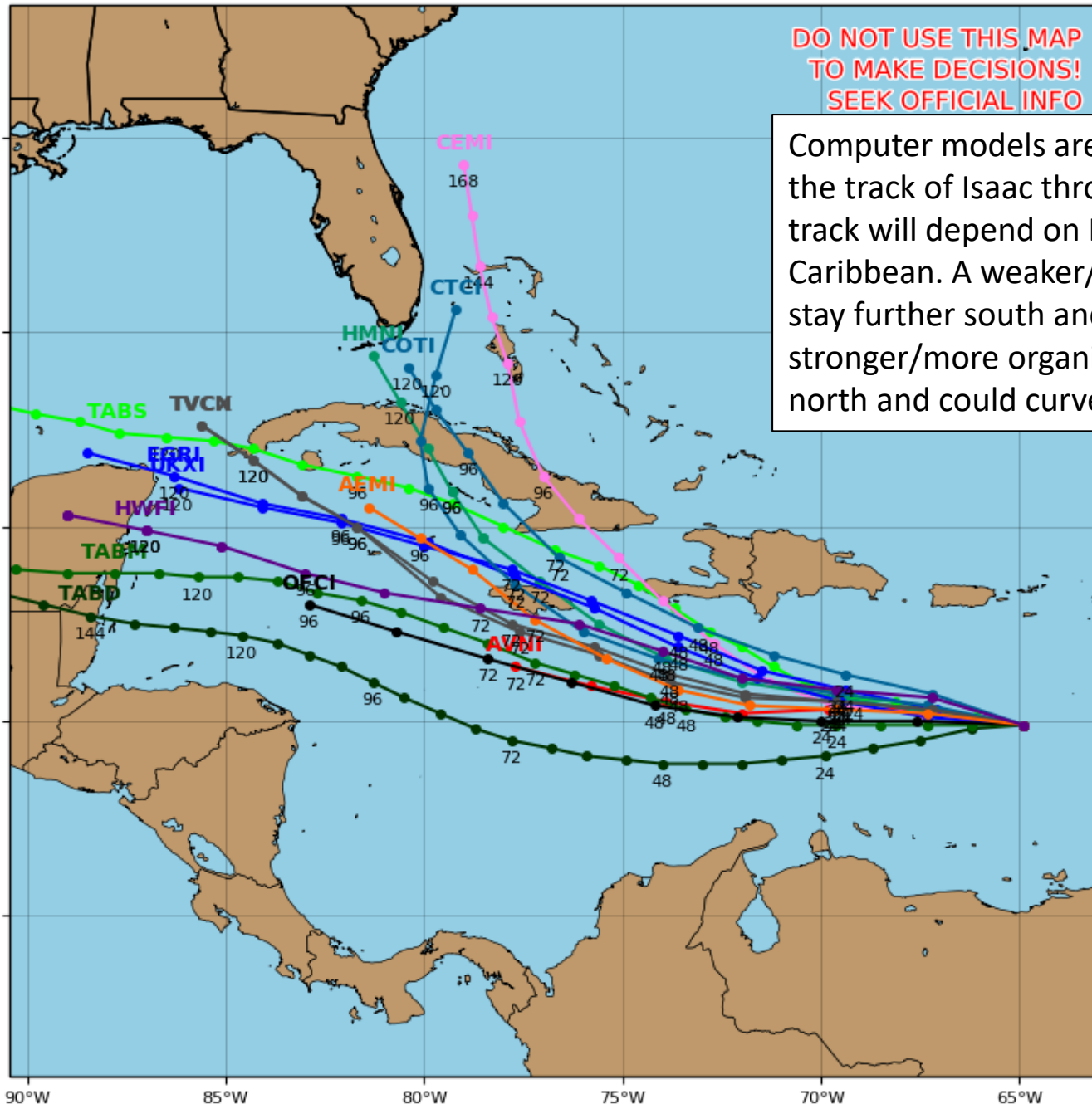
Tropical Depression 09L Model Track Guidance

Initialized at 06z Sep 14 2018

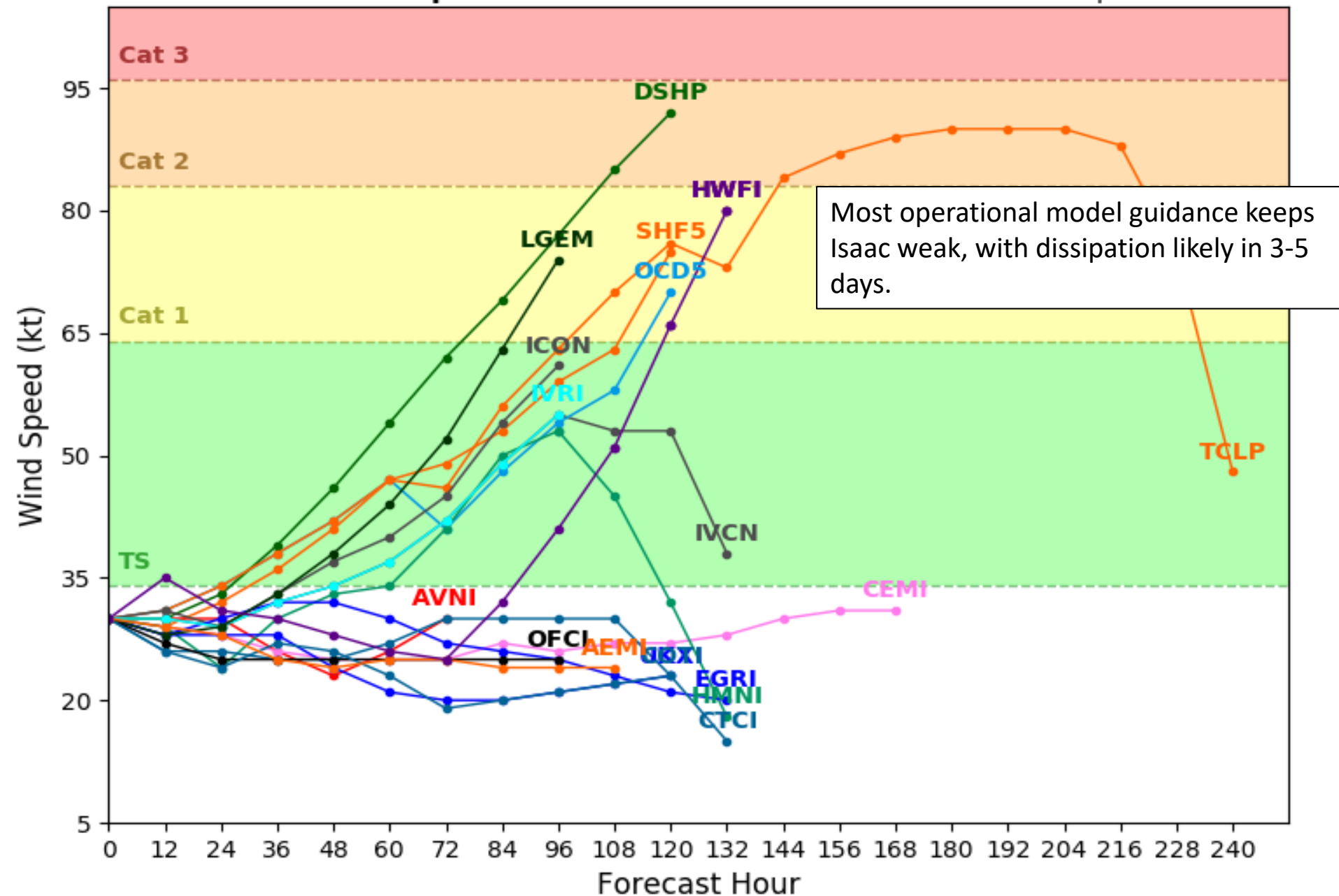
Levi Cowan - tropicaltidbits.com

**DO NOT USE THIS MAP
TO MAKE DECISIONS!
SEEK OFFICIAL INFO**

Computer models are in general agreement on the track of Isaac through 4-5 days. However, the track will depend on Isaac's survival through the Caribbean. A weaker/disorganized Isaac will likely stay further south and head further west. A stronger/more organized Isaac will stay further north and could curve northwestward.

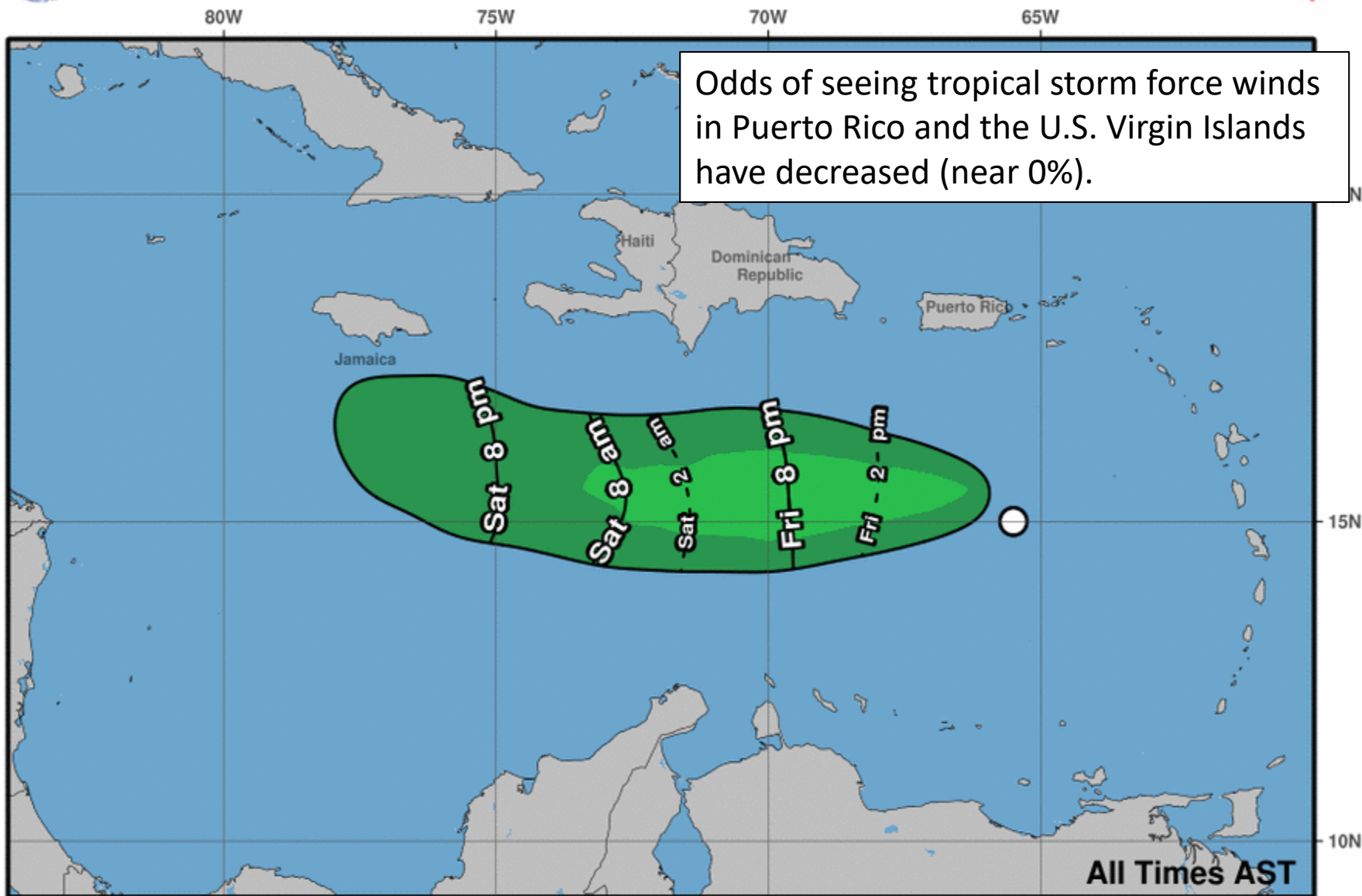


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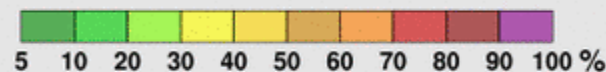
Earliest Reasonable Arrival Time of Tropical-Storm-Force Winds



Tropical Depression Isaac
Fri. Sep. 14, 2018 5 am AST
Advisory 27

Storm Location & Wind Speed
○ < 34 kt (39 mph)
◌ 34-63 kt (39-73 mph)
● ≥ 64 kt (74 mph)

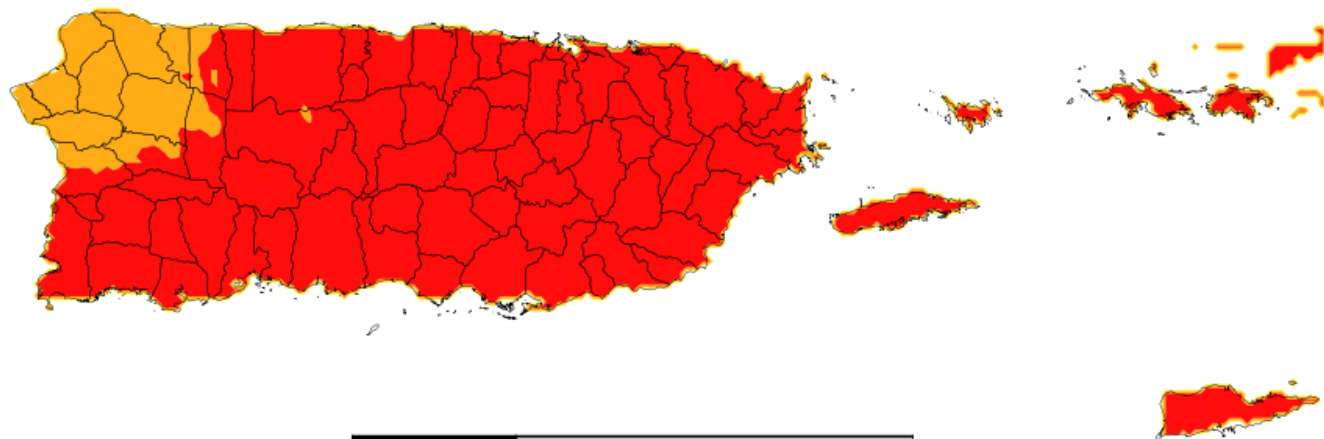
5-day chance of receiving sustained 34+ kt (39+ mph) winds



The areas with the highest rainfall accumulations are expected to be across the eastern half of Puerto Rico with particular emphasis in the southeastern sections, where 2 to 4 inches are possible with isolated higher amounts. The USVI will experience brief moments of heavy rain and rainfall totals of 1 to 2 inches are expected.

Flood Threat

Valid from 6 AM AST Sep 14, 2018 to 6 PM AST Sep 14, 2018



Threat	Flood
SLIGHT	Ponding of water in roads and poorly drained areas.
MODERATE	Urban and small stream flooding.
HIGH	Widespread flooding possible, having major impact on structures & road closures.



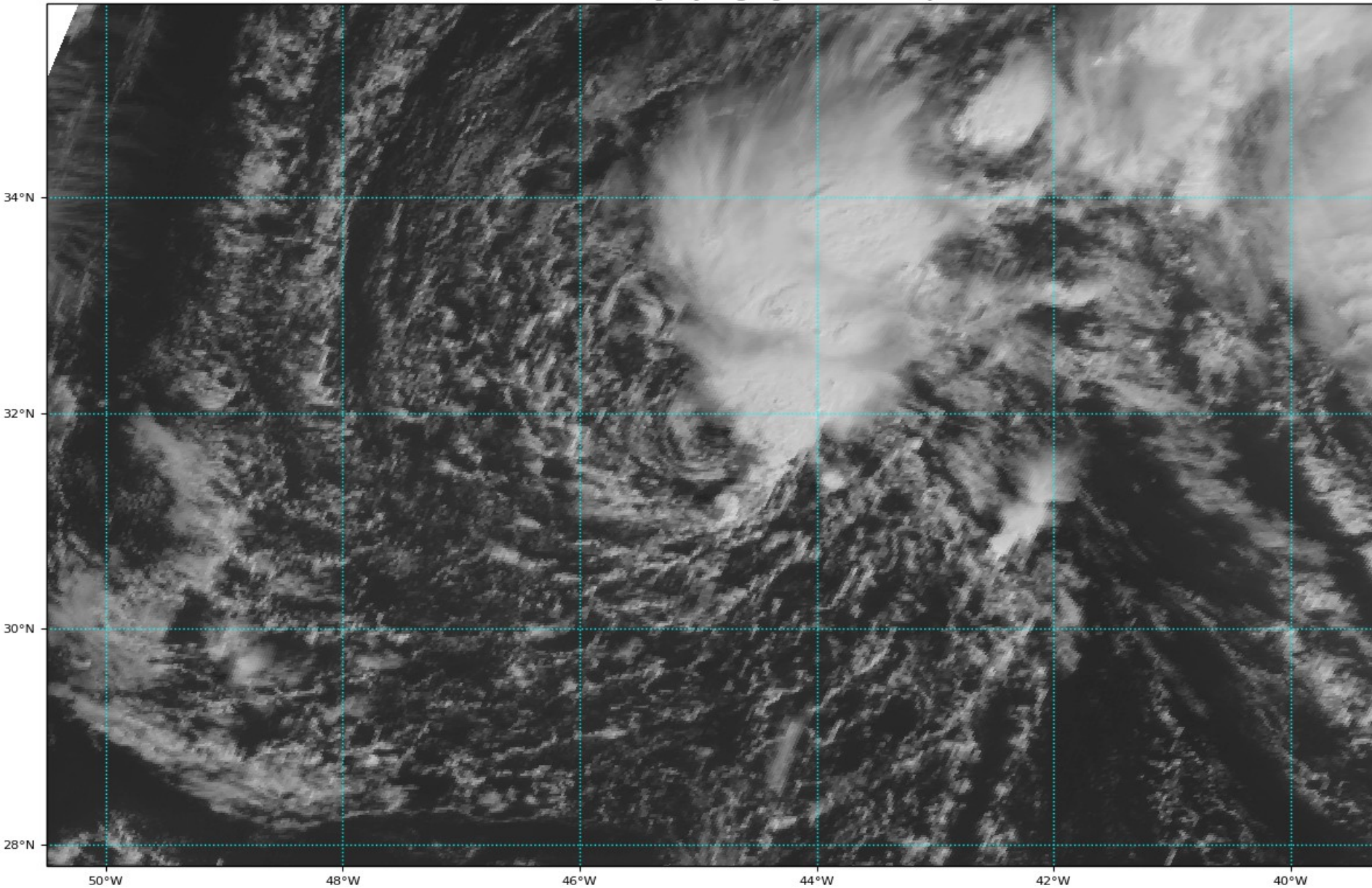
National Weather Service
San Juan, PR
09/14/2018 07:02 GMT

Follow Us:   
weather.gov/sju

Tropical Storm Joyce Satellite Image

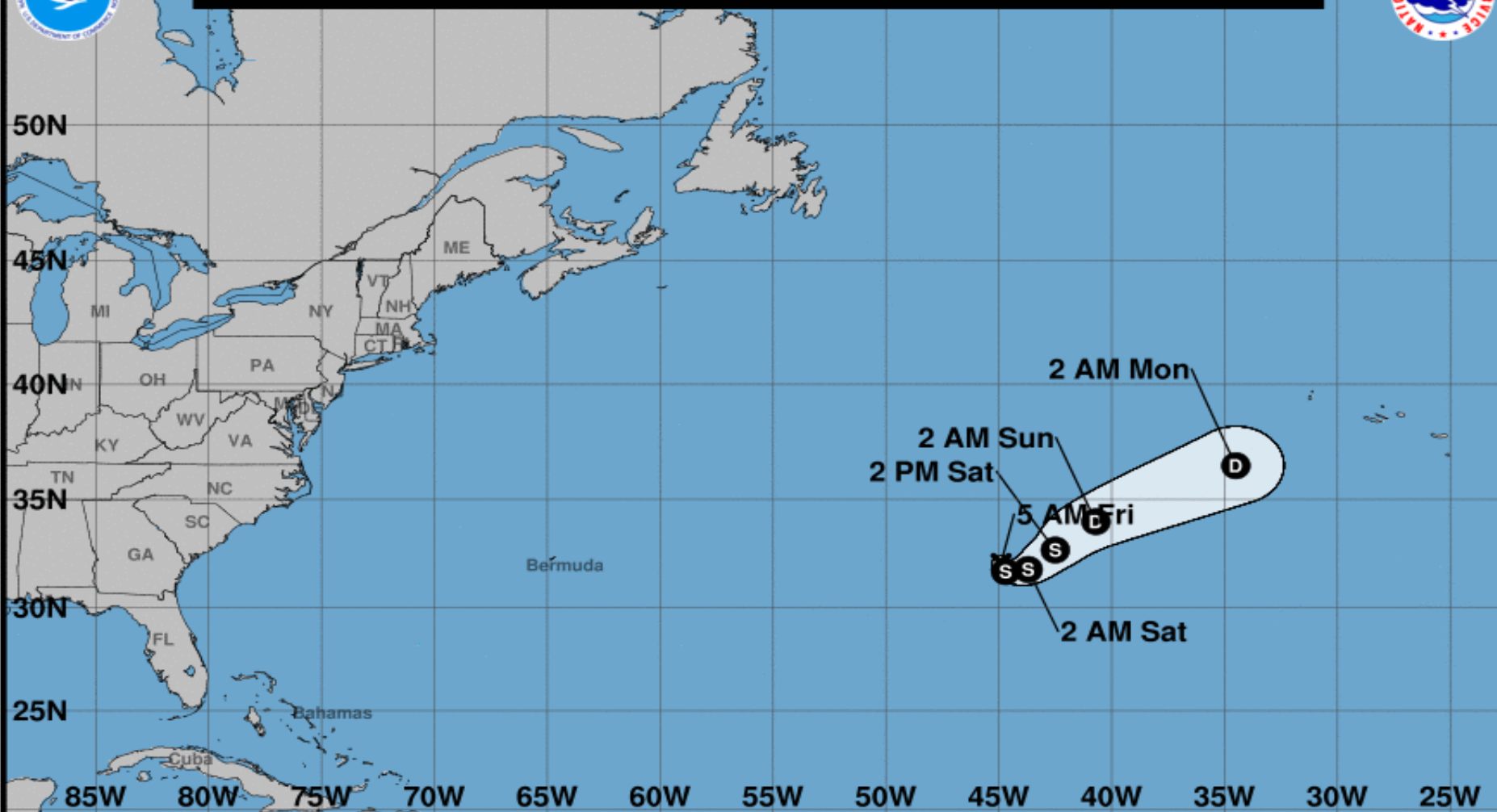
GOES-16 Channel 2 (visible) / Channel 7 (shortwave IR) [Day/Night] at 12:05Z Sep 14, 2018

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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.



Tropical Storm Joyce

Friday September 14, 2018

5 AM AST Advisory 7

NWS National Hurricane Center

Current information: x

Center location 32.1 N 44.9 W

Maximum sustained wind 40 mph

Movement SSW at 8 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 Stm

Warnings:

Hurricane Trop Stm

Current wind extent:

Hurricane Trop Stm

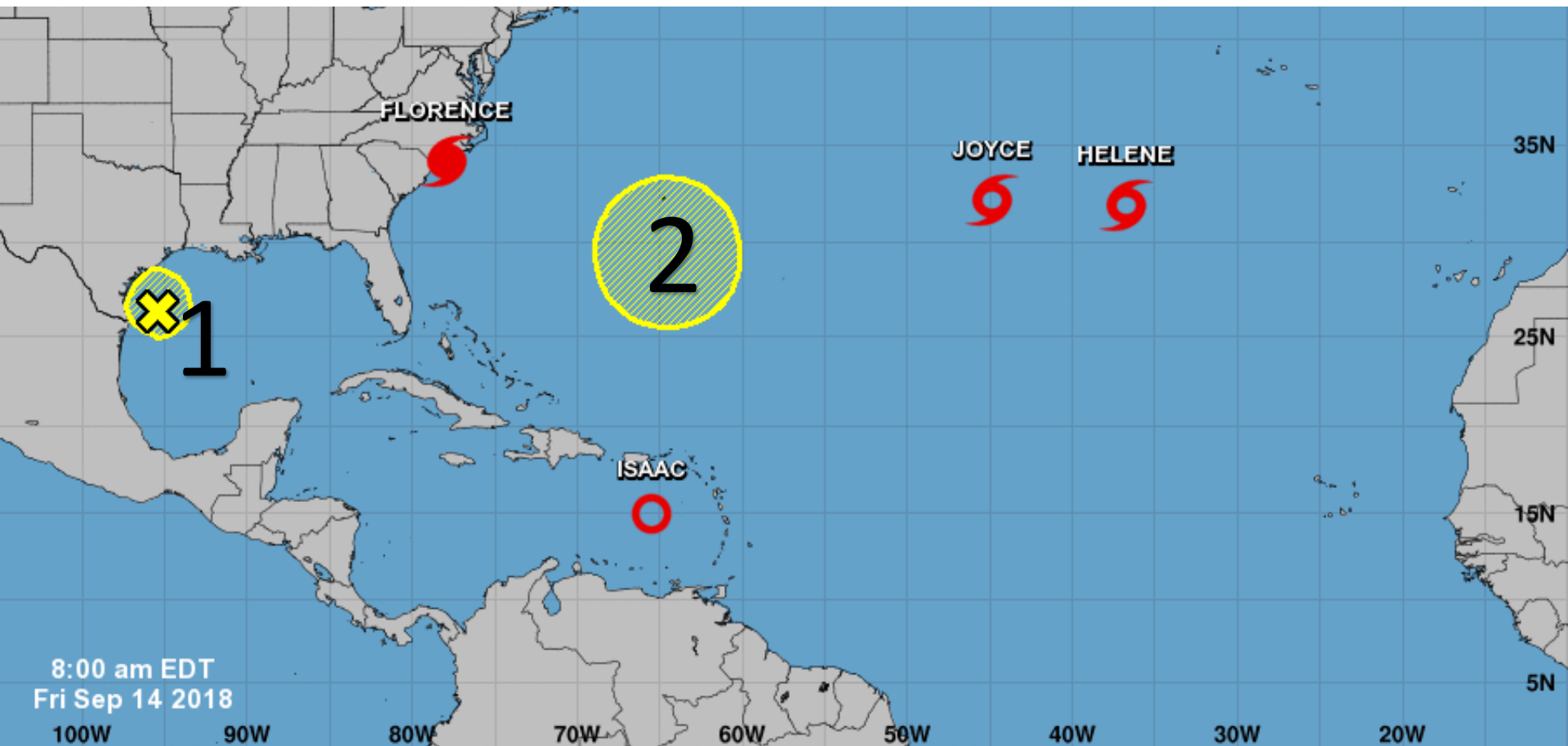


Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida

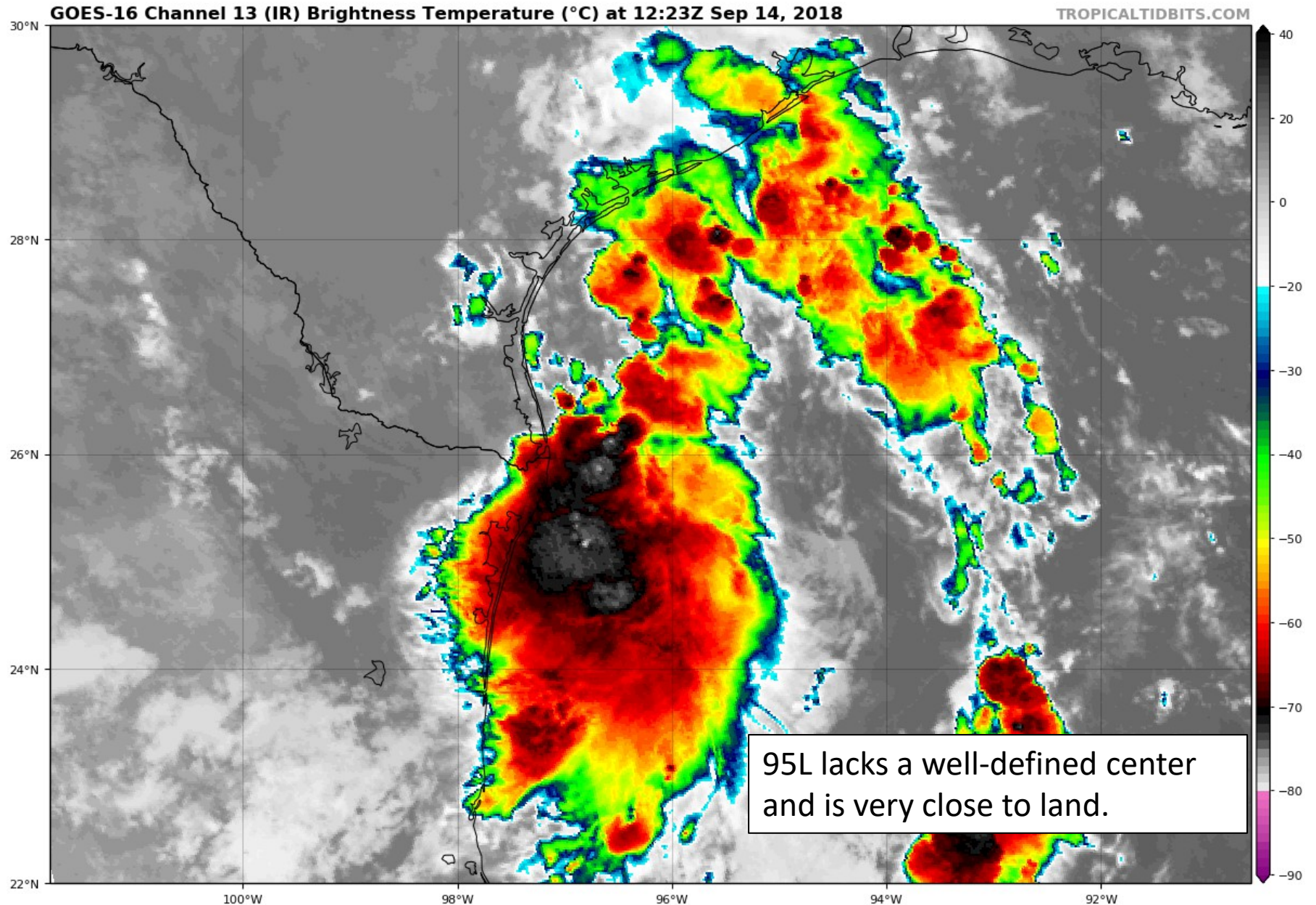


1. An elongated area of low pressure located over the western Gulf of Mexico will probably not develop into a tropical depression before it moves onshore of Texas later today. * Formation chance through 48 hours...low...20 percent. * Formation chance through 5 days...low...20 percent.
2. A broad area of low pressure could form near Bermuda late this weekend or early next week. Additional development, if any, is expected to be slow while the system moves little. * Formation chance through 48 hours...low...near 0 percent. * Formation chance through 5 days...low...10 percent.



Current Disturbances and Five-Day Cyclone Formation Chance: < 40% 40-60% > 60%
Tropical or Sub-Tropical Cyclone: Depression Storm Hurricane
 Post-Tropical Cyclone or Remnants

Invest 95L Satellite Image



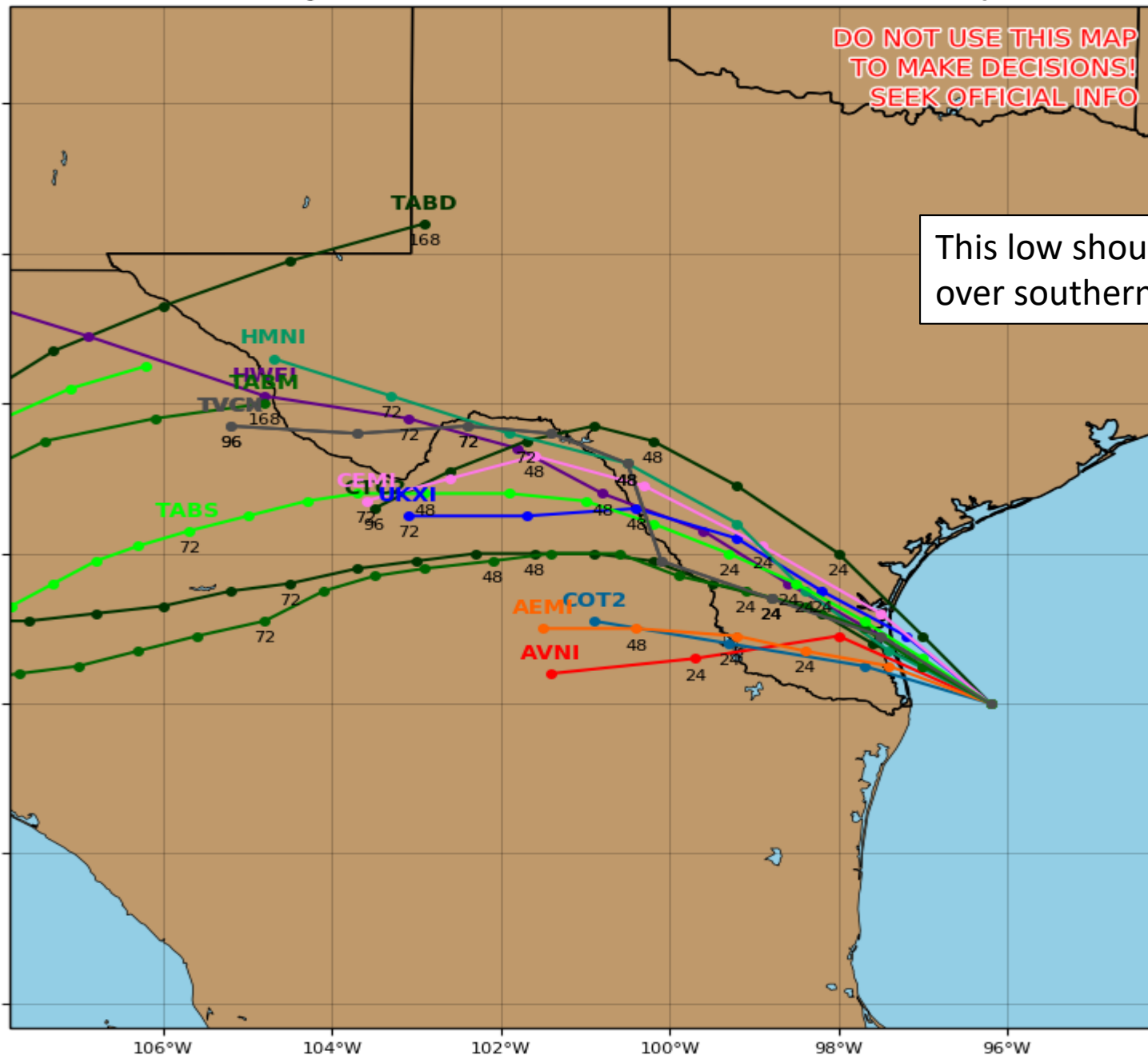
Invest 95L Model Track Guidance

Initialized at 06z Sep 14 2018

Levi Cowan - tropicaltidbits.com

DO NOT USE THIS MAP
TO MAKE DECISIONS!
SEEK OFFICIAL INFO

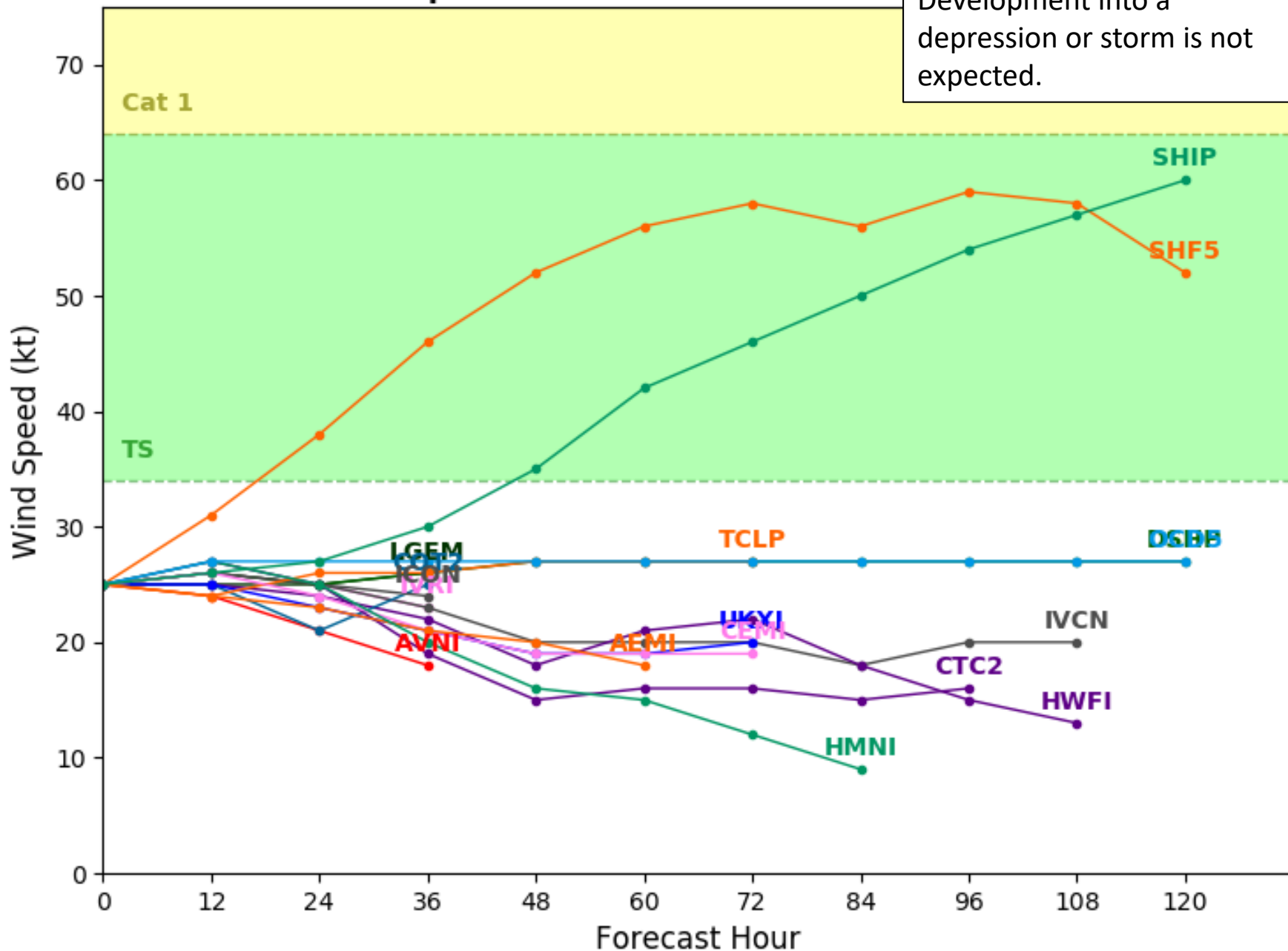
This low should move inland
over southern Texas today.



Invest 95L Model Intensity Guidance

Initialized at 06z Sep 14 2018

Development into a depression or storm is not expected.



Summary

Florence:

- At 7:15 AM EDT Friday, Hurricane Florence made landfall near Wrightsville Beach, North Carolina, as a Category 1 hurricane with maximum sustained winds of 90 mph.
- At 8 AM EDT, Hurricane Florence was located 10 miles south of Wilmington, North Carolina, or 65 miles northeast of Myrtle Beach, South Carolina.
- Florence still has a very large wind field of tropical storm force winds extending up to 195 miles from the center and hurricane force winds up to 80 miles from the center.
- Florence has slowed down considerably, moving to the west at 6 mph. A continued slow west or southwest motion is expected today and tonight.
- Florence will then slowly drift west or west-southwest through Saturday across South Carolina under very light steering currents while gradually weakening before finally being pulled north on Sunday and Monday.

Helene:

- At 8 AM EDT Friday, Helene remains a tropical storm with winds of 65 mph.
- Helene's intensity will remain nearly steady over the next several days, and Tropical Storm Warnings are in effect for the Azores.

Isaac:

- At 5 AM EDT Friday, Isaac weakened to a tropical depression with maximum sustained winds of 35 mph. Isaac is located 190 miles south-southwest of St. Croix, moving west at 15 mph.
- This motion is expected to continue through the next 2 days before moving more to the west-northwest early next week.
- Isaac is forecast to degenerate into a tropical wave by Monday or Tuesday in the central or western Caribbean.
- There is still some model disagreement on dissipation in 3-4 days and some suggest the remnants of Isaac or a weak system could enter the southern Gulf of Mexico in 5-6 days. The chances of this happening is currently low and therefore not reflected in the official forecast.
- Some locally heavy rainfall and high seas are possible as Isaac passes south of Puerto Rico on Friday.
- A Flash Flood Watch is in effect for approximately 40% of Puerto Rico, and a High Surf Advisory is in effect for the Virgin Islands and southeastern parts of Puerto Rico.

Joyce:

- Tropical Storm Joyce is located in the far north central Atlantic with maximum sustained winds of 40 mph.
- Joyce will meander in the north central Atlantic before moving toward the northeast and gradually weakening this weekend.

Other Disturbances:

- A weak low pressure center (designated as Invest 95L) is near the mouth of the Rio Grande. However, showers and thunderstorms remain disorganized.
- While conditions are conducive for development of a tropical depression, the system only has about 12 hours before it reaches the Texas/Mexico coast. The chances for development have decreased to 20%.
- An area of low pressure is expected to develop near Bermuda late this weekend or early next week. Some gradual development is possible after that time while the system drifts westward over the western Atlantic.
- The chances for development have decreased to near 10%.
- The next name on the list is Kirk, or if it becomes a tropical depression or potential tropical cyclone, the number would be #11.

Florida Outlook:

- Chances of direct impacts to Northeast Florida from Florence remain very low, with a less than 15% chance of experiencing tropical storm force winds. Gusts near 20 mph are possible near the Northeast Florida coast on Saturday.
- Large swells emanating from the storm will continue to impact the Florida East Coast through weekend, resulting in life-threatening rip currents.
- A Coastal Flood Advisory is in effect through this evening for Nassau, Duval, St. Johns, and Flagler Counties. Minor coastal flooding at high tide will be possible.
- Tropical Depression Isaac should continue to be monitored over the next 5-7 days as it moves through the Caribbean, but is not a direct threat to Florida at this time.
- Tropical Storm Helene, Tropical Storm Joyce, Invest 95L in the Gulf and the developing low near Bermuda pose no threat to the Florida at this time.

Another briefing packet will be issued Friday afternoon. For the latest information on the tropics, please visit the National Hurricane Center website at www.hurricanes.gov.



TROPICAL UPDATE

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State Meteorological Support Unit

Florida Division of Emergency Management

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