



TROPICAL UPDATE

5 PM EDT

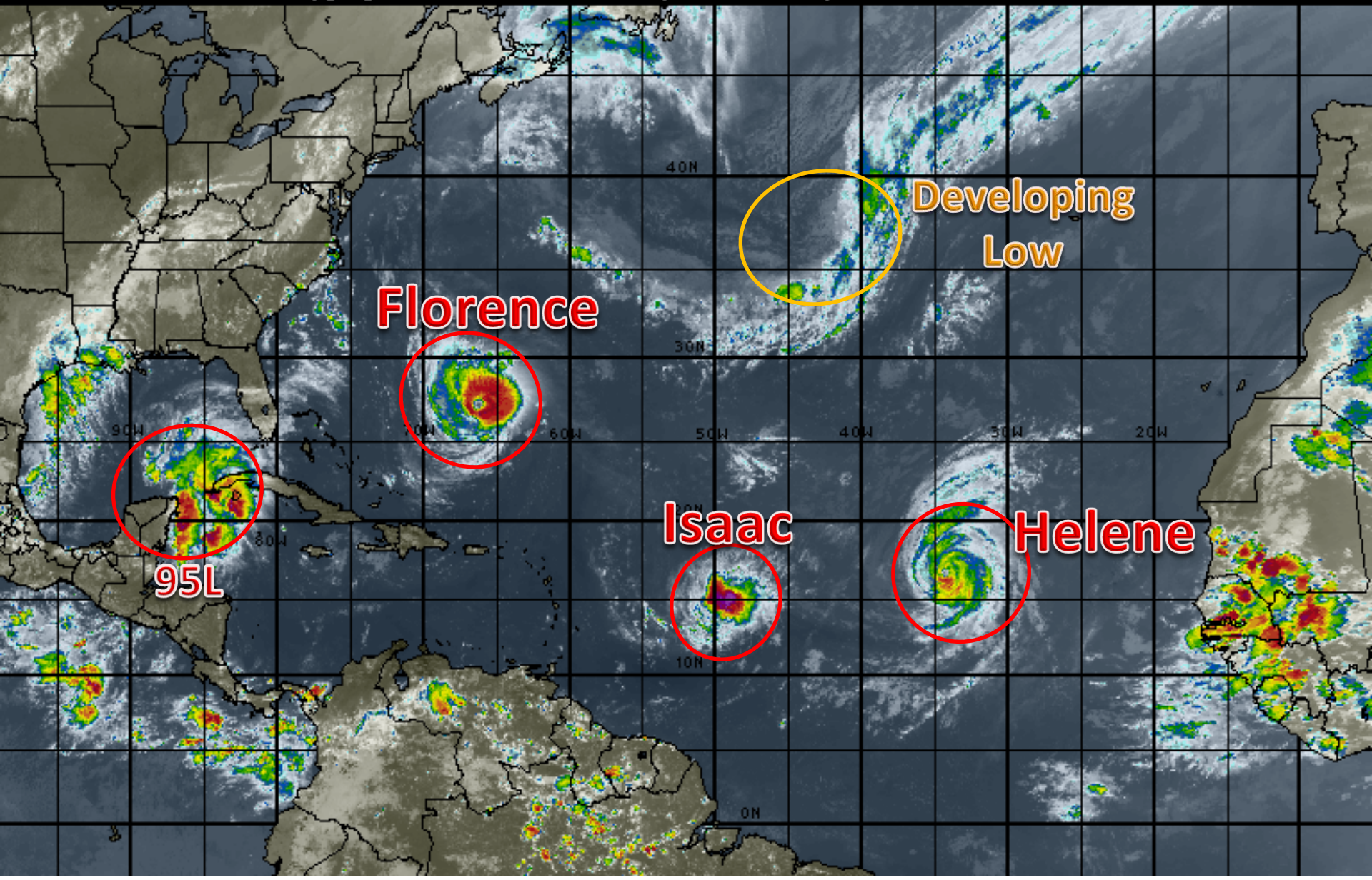
Tuesday, September 11, 2018

**Major Hurricane Florence, Hurricane Helene,
Tropical Storm Isaac, Invest 95L (70%), & North
Atlantic Low (50%)**

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.

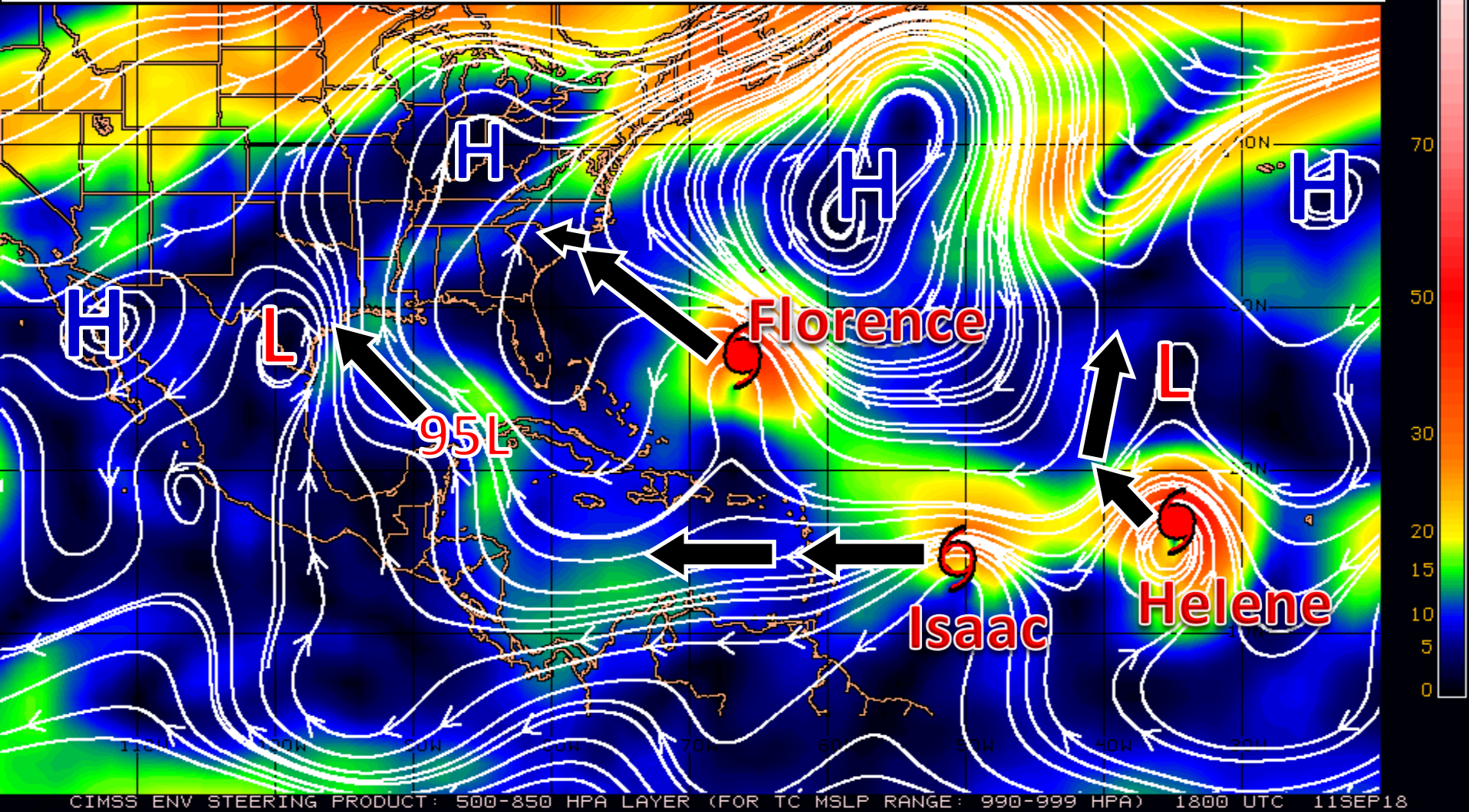
Atlantic Basin Satellite Image

18:00 11-SEP-2018 GMT Copyright © 1998-2018 MSI Corporation <http://www.usi.com>



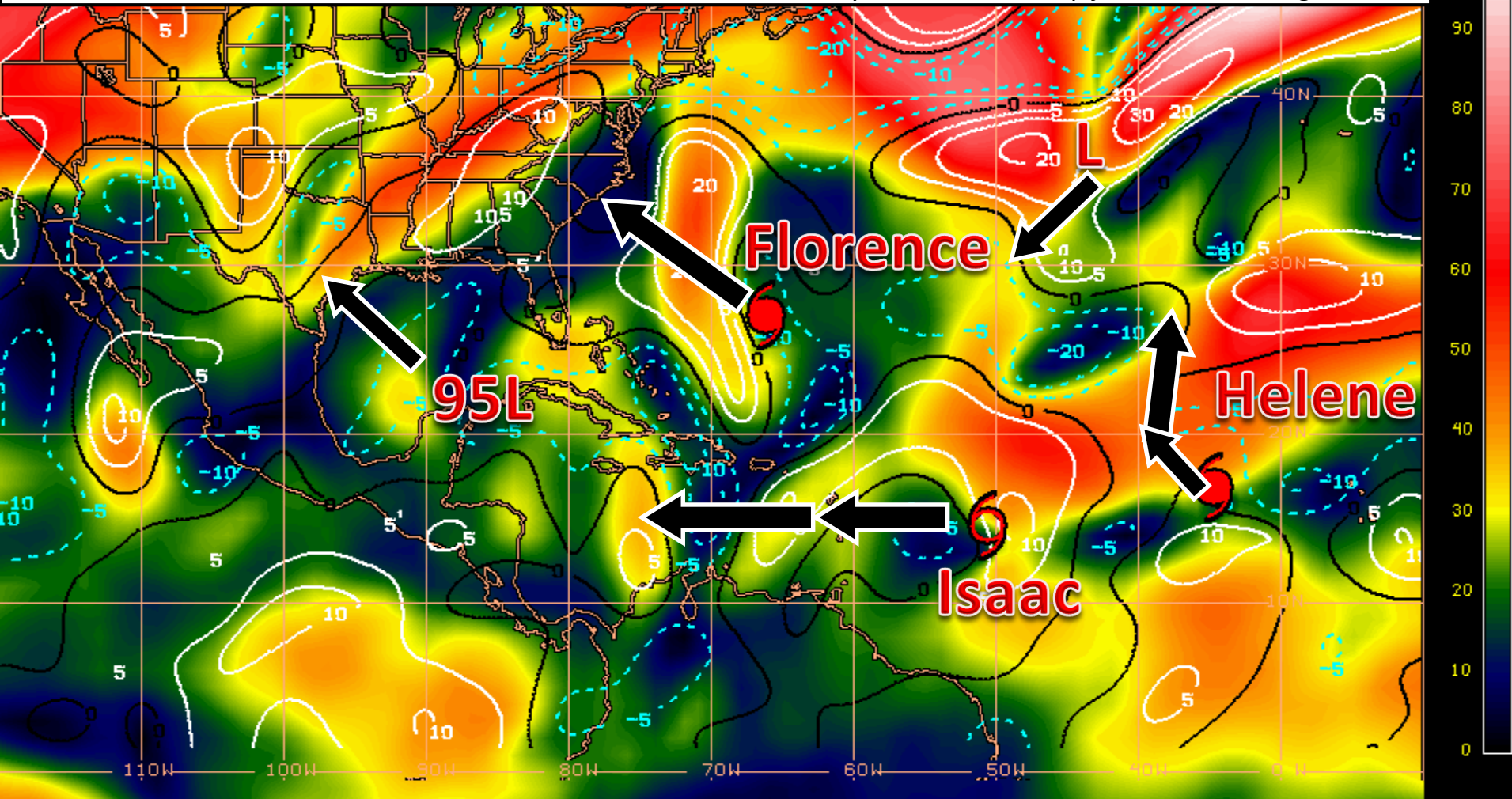
Steering Currents

A large and strong high pressure system in the western Atlantic (plus a developing high pressure system near the Great Lakes) will steer Florence, Isaac and 95L while an area of low pressure in the eastern Atlantic pulls Helene northward. The high over the Great Lakes will slowly move towards New England and will be responsible for “blocking” Florence from moving too far inland after landfall and promoting a slow west or southwest movement in 3-5 days.



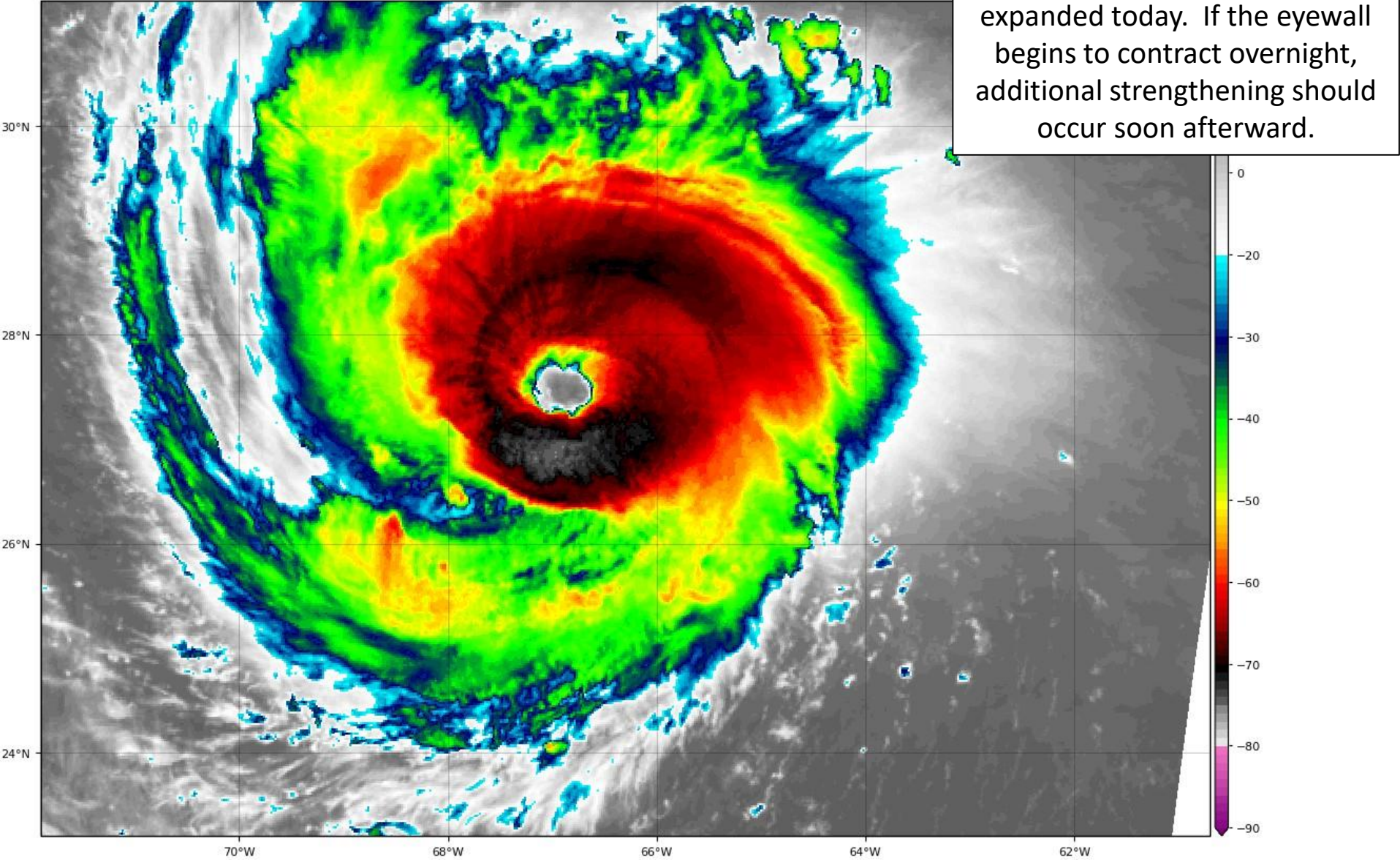
Wind Shear (shaded) and Wind Shear Tendencies (contoured)

A small pocket of wind shear is near Florence, but should not cause any significant weakening. Low shear near the Carolina coast will promote strengthening up until landfall. Isaac will encounter some pockets of low to moderate wind shear and may strengthen again before encountering higher shear in the central Caribbean. Helene will move into much higher wind shear this week, gradually weakening the system. 95L in the Gulf will experience some moderate wind shear in the southern Gulf of Mexico, but low shear near the Texas coast may allow it to develop just before moving inland.



Hurricane Florence Satellite Image

GOES-16 Channel 13 (IR) Brightness Temperature (°C) at 20:13Z Sep 11, 2018

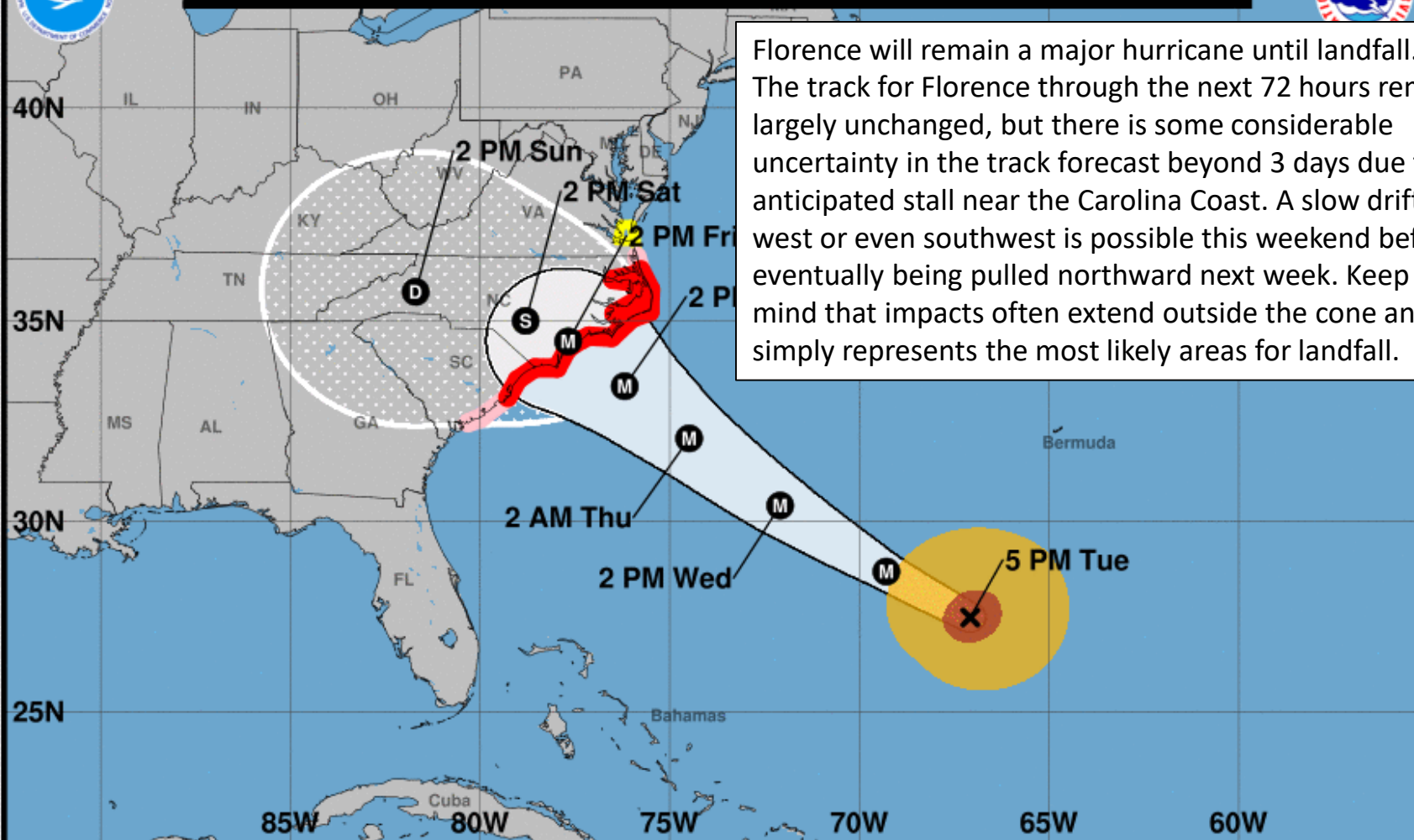


Florence's eye and wind field expanded today. If the eyewall begins to contract overnight, additional strengthening should occur soon afterward.



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.

Florence will remain a major hurricane until landfall. The track for Florence through the next 72 hours remains largely unchanged, but there is some considerable uncertainty in the track forecast beyond 3 days due to an anticipated stall near the Carolina Coast. A slow drift west or even southwest is possible this weekend before eventually being pulled northward next week. Keep in mind that impacts often extend outside the cone and this simply represents the most likely areas for landfall.



Hurricane Florence
Tuesday September 11, 2018
5 PM AST Advisory 50
NWS National Hurricane Center

Current information: x
Center location 27.5 N 67.1 W
Maximum sustained wind 140 mph
Movement WNW at 17 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:

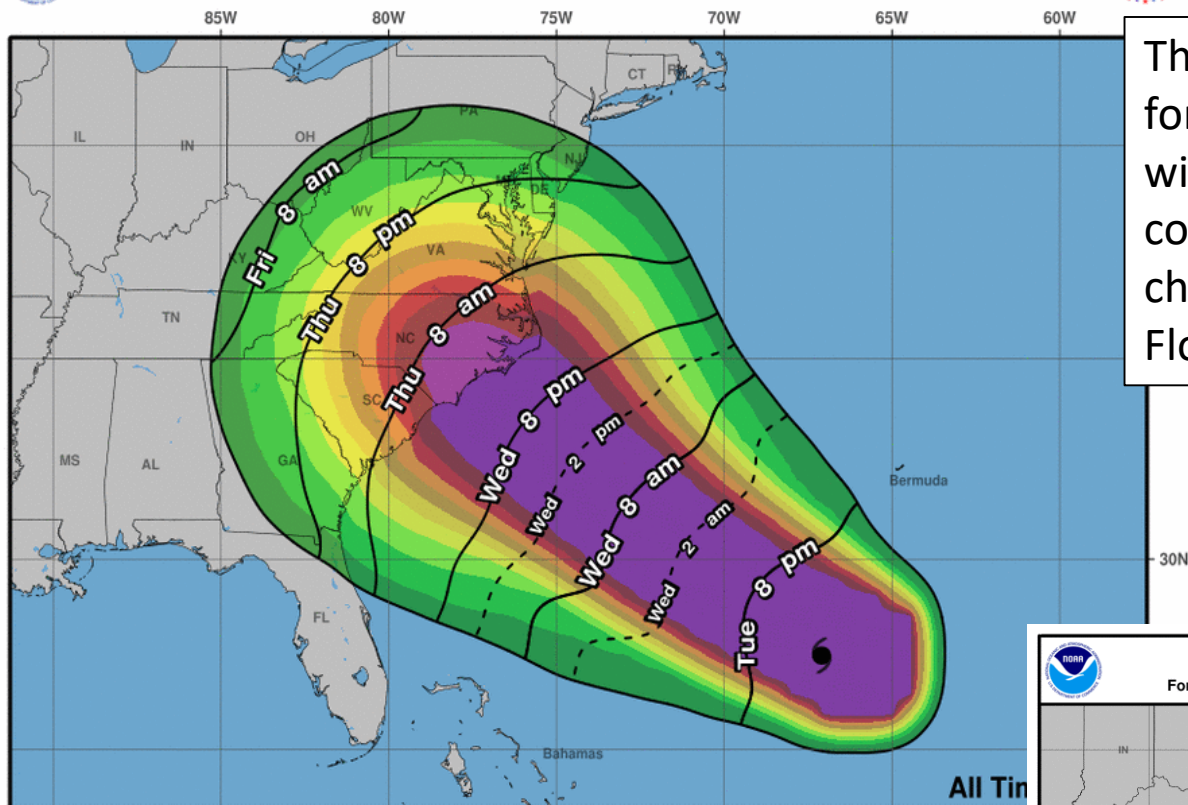
Hurricane Trop Stm

Current wind extent:

Hurricane Trop Stm



Earliest Reasonable Arrival Time of Tropical-Storm-Force Winds



Hurricane Florence
Tue. Sep. 11, 2018 5 pm AST
Advisory 50

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 (70 mph) winds

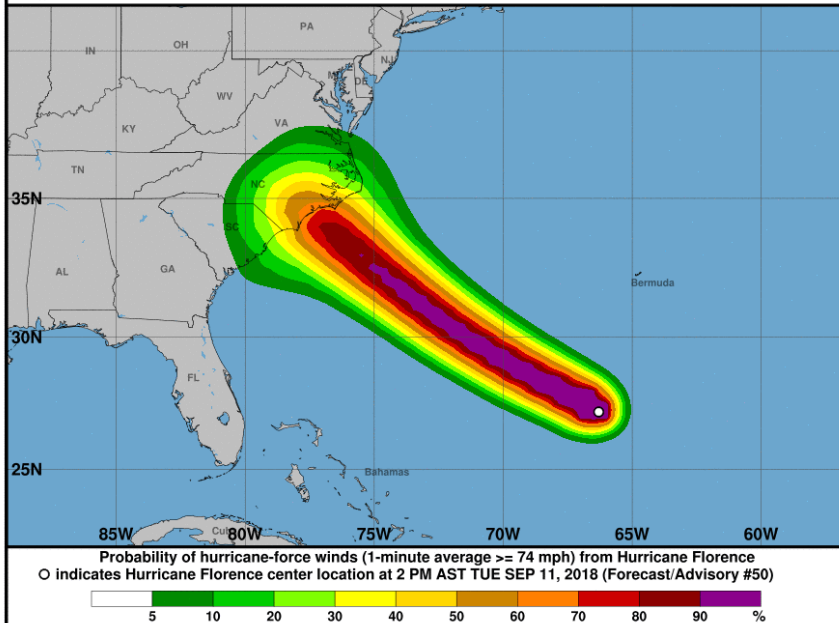
5 10 20 30 40 50 60 70 80 %

The odds of sustained tropical storm force winds in Florida remain low, with less than a 10% chance in coastal Northeast Florida. The chance for hurricane winds in Florida is 0%.

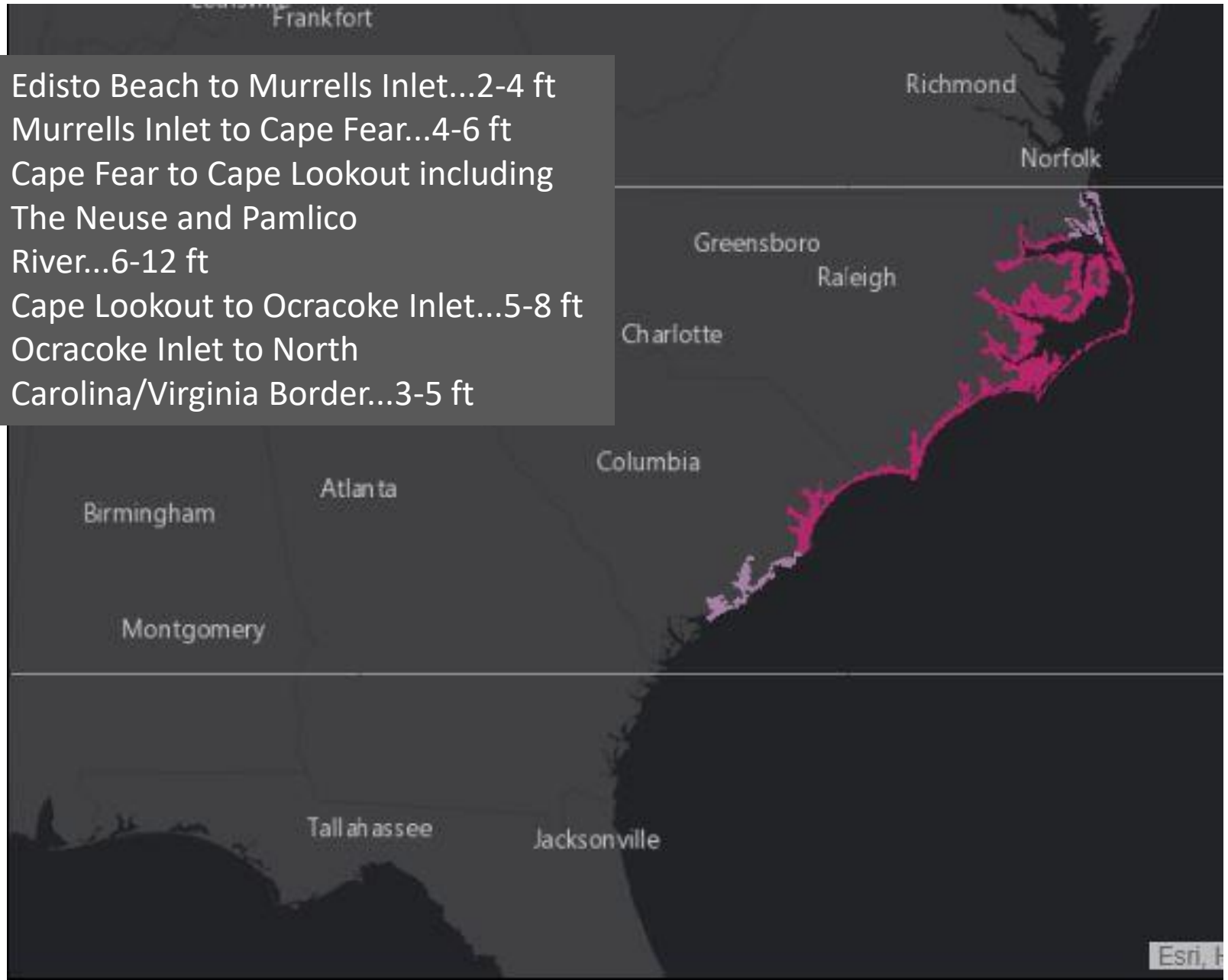


Hurricane-Force Wind Speed Probabilities (Preliminary)

For the 120 hours (5.0 days) from 2 PM AST TUE SEP 11 to 2 PM AST SUN SEP 16



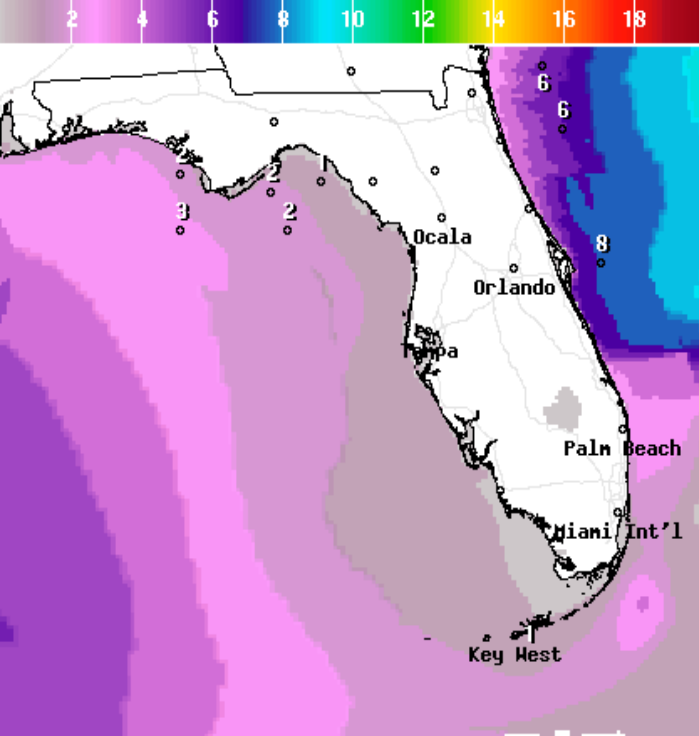
Edisto Beach to Murrells Inlet...2-4 ft
Murrells Inlet to Cape Fear...4-6 ft
Cape Fear to Cape Lookout including
The Neuse and Pamlico
River...6-12 ft
Cape Lookout to Ocracoke Inlet...5-8 ft
Ocracoke Inlet to North
Carolina/Virginia Border...3-5 ft



0 50 100mi

Storm Surge Warning
Storm Surge Watch

Forecast Wave Heights



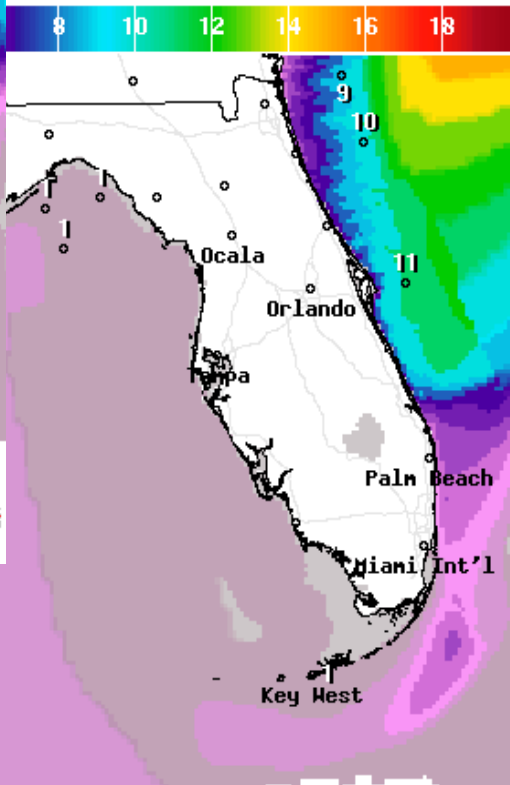
Wave Height(ft) Ending Wed Sep 12 2018 2PM EDT
(Wed Sep 12 2018 18Z)



National Digital Forecast Database

19z issuance

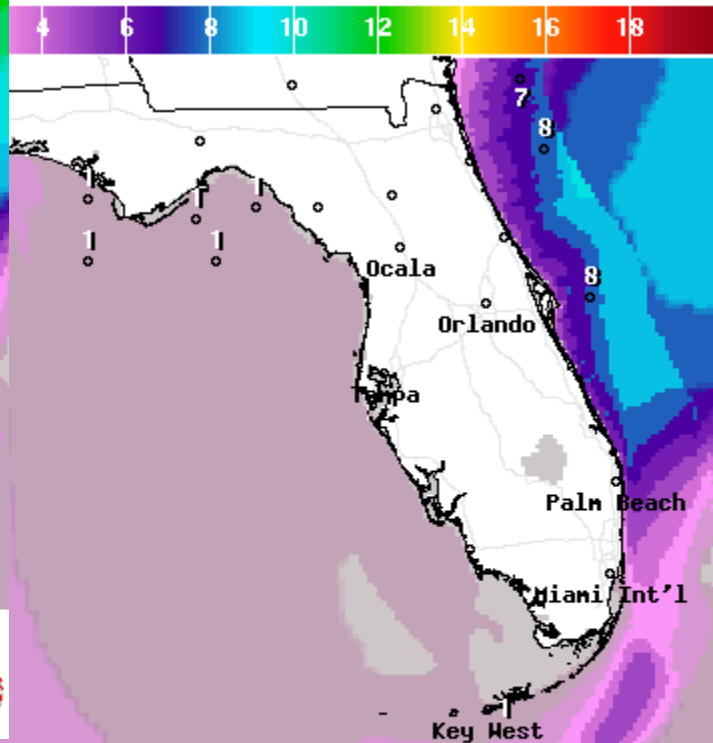
Graphic created-Sep 11 3:49PM EDT



Wave Height(ft) Ending Thu Sep 13 2018 8AM EDT
(Thu Sep 13 2018 12Z)



National Digital Forecast Database



Wave Height(ft) Ending Fri Sep 14 2018 2AM EDT
(Fri Sep 14 2018 06Z)



National Digital Forecast Database

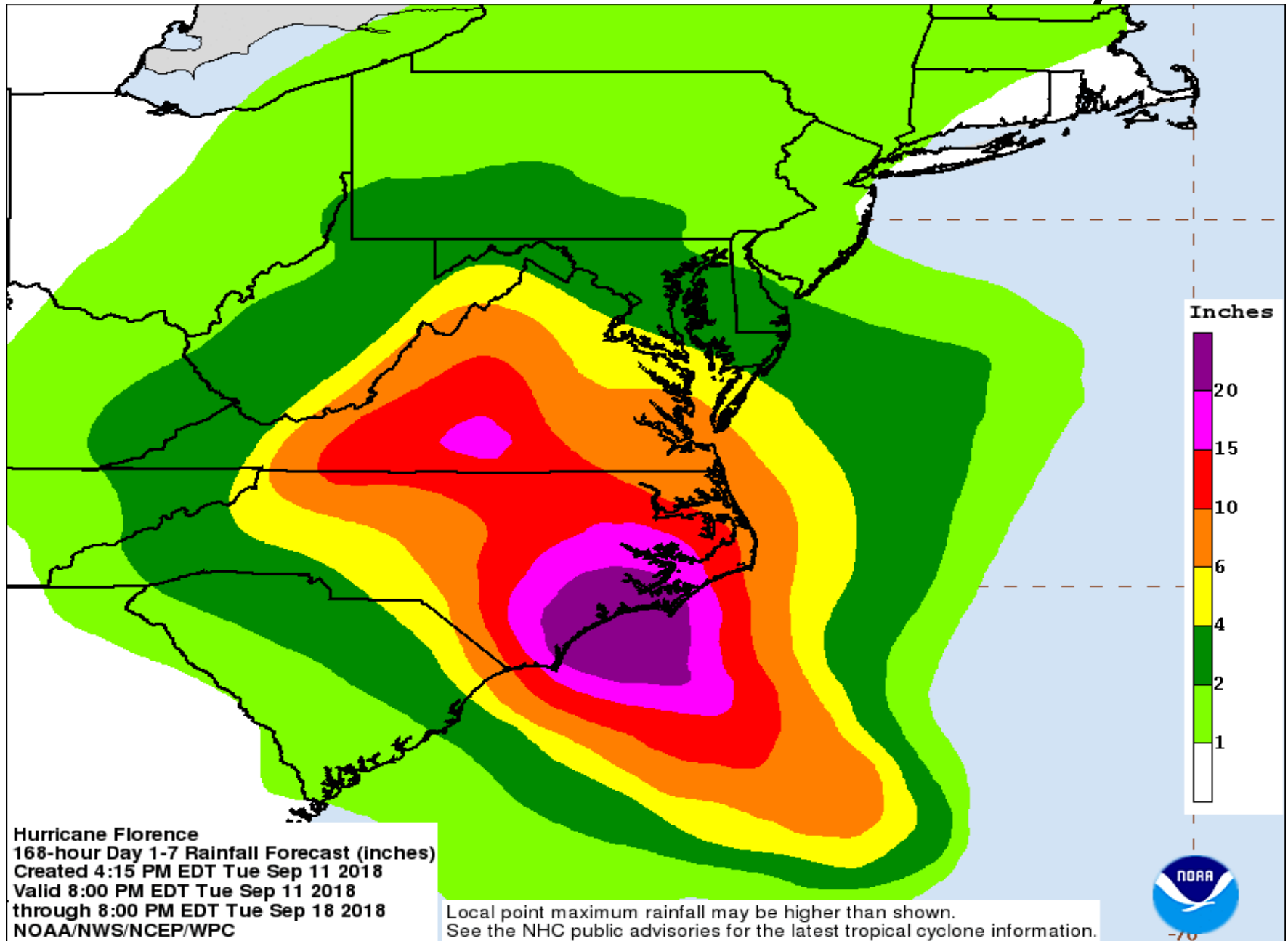
18z issuance

Graphic created-Sep 11 2:56PM EDT



Wave heights will increase along the East Coast of Florida beginning tomorrow and peak on Thursday before beginning to decrease on Friday. This will result in a high risk of rip currents, minor beach erosion, and possible coastal flooding issues during high tide.

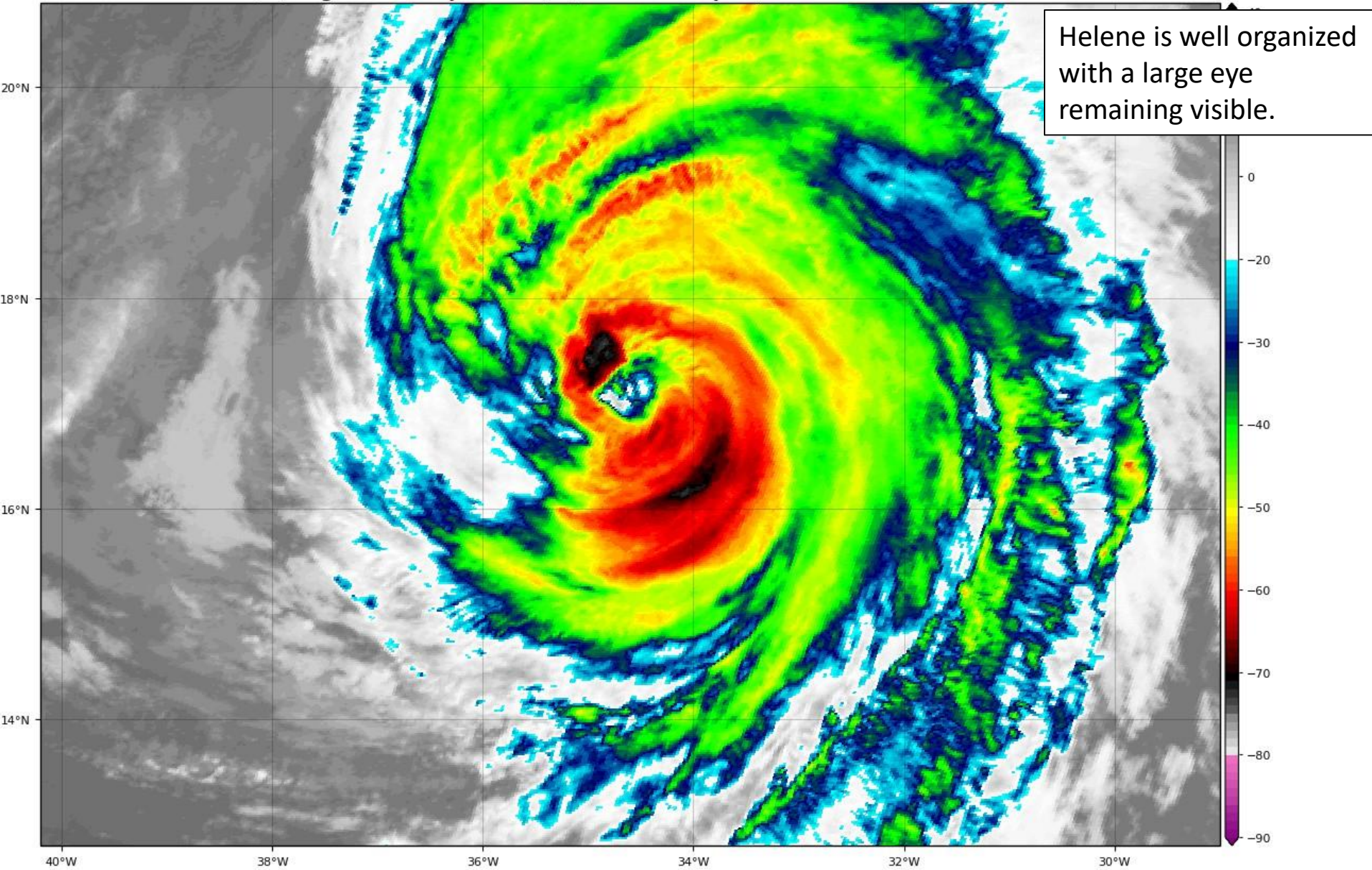
Forecast rainfall – Next 7 Days



Hurricane Helene Satellite Image

GOES-16 Channel 13 (IR) Brightness Temperature (°C) at 20:05Z Sep 11, 2018

TROPICALTIDBITS.COM

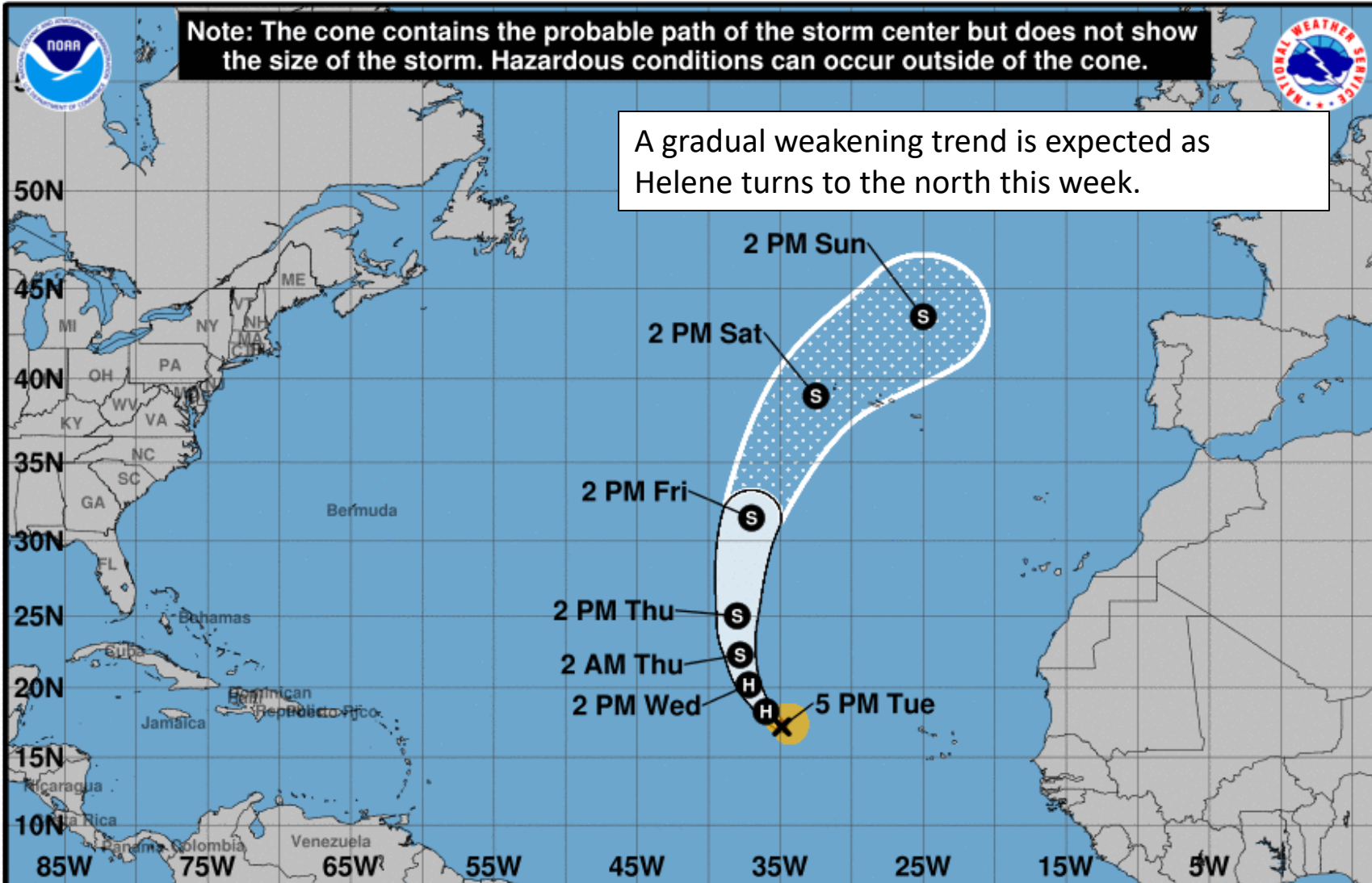




Note: The cone contains the probable path of the storm center but does not show the size of the storm. Hazardous conditions can occur outside of the cone.



A gradual weakening trend is expected as Helene turns to the north this week.



Hurricane Helene

Tuesday September 11, 2018

5 PM AST Advisory 18

NWS National Hurricane Center

Current information: x

Center location 17.2 N 34.9 W

Maximum sustained wind 105 mph

Movement NW at 12 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



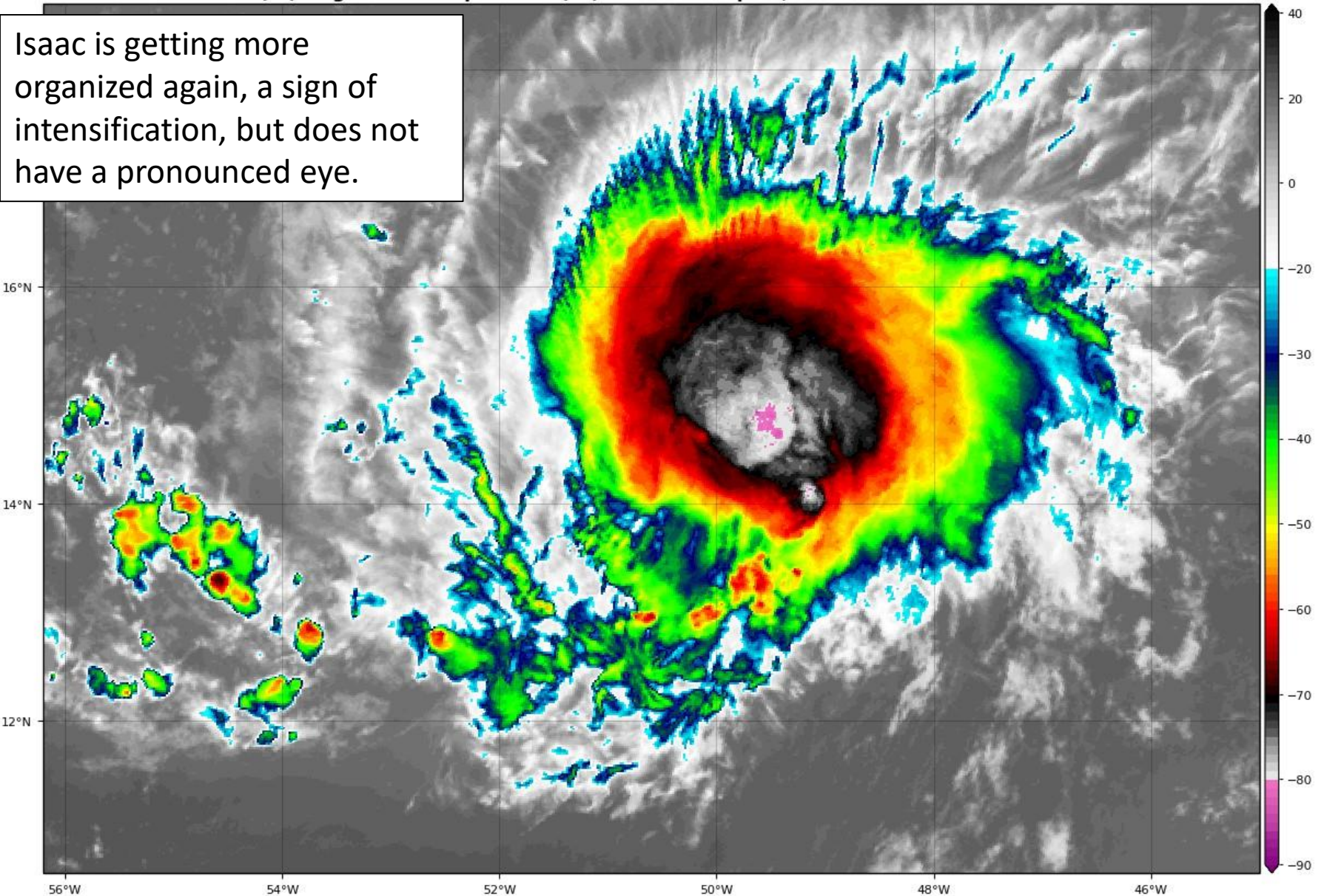
Trop Stm

Tropical Storm Isaac Satellite Image

GOES-16 Channel 13 (IR) Brightness Temperature (°C) at 20:05Z Sep 11, 2018

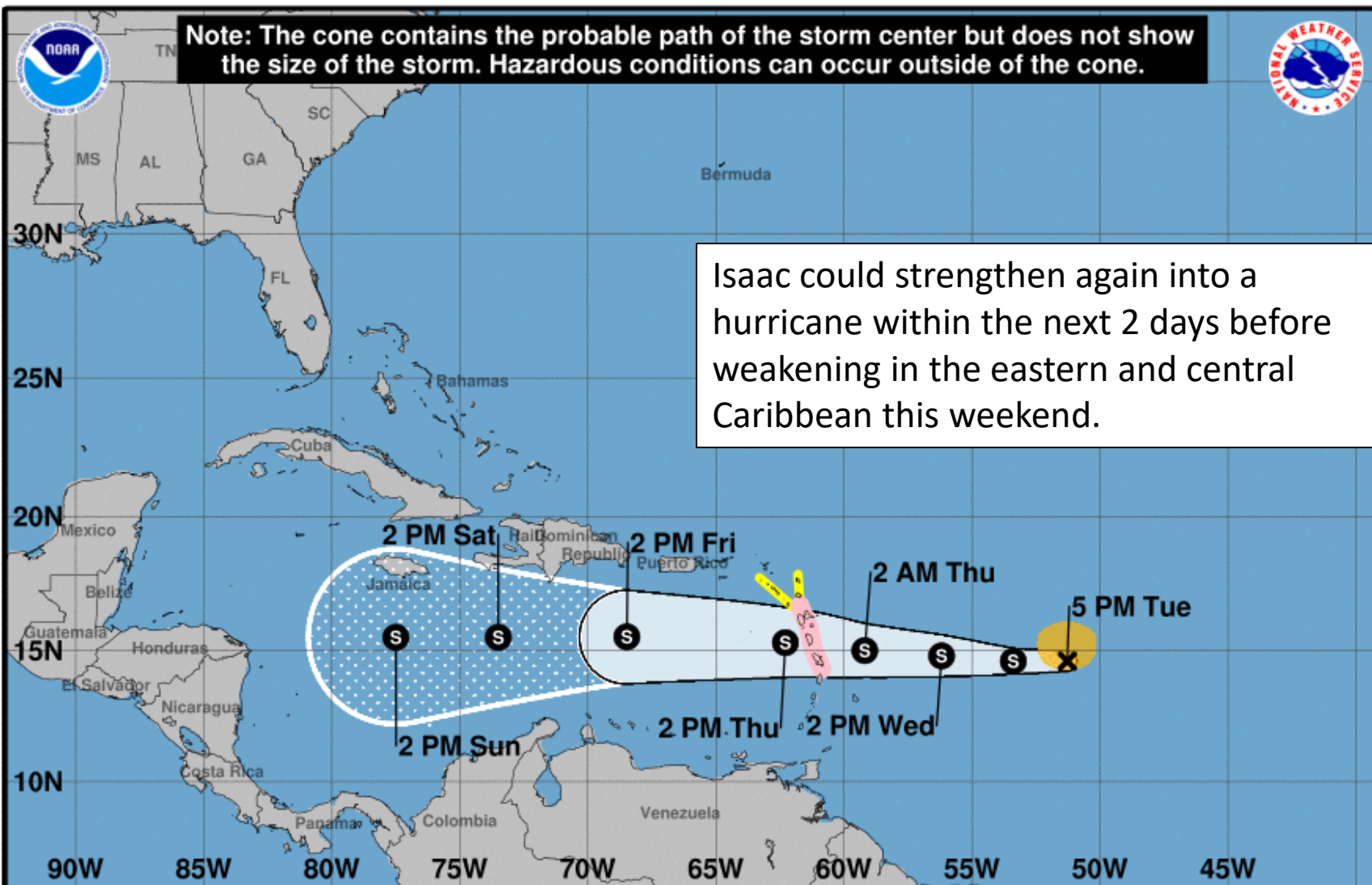
TROPICALTIDBITS.COM

Isaac is getting more organized again, a sign of intensification, but does not have a pronounced eye.





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 Isaac

Tuesday September 11, 2018
5 PM AST Advisory 17
NWS National Hurricane Center

Current information: X

Center location 14.6 N 51.3 W
Maximum sustained wind 70 mph
Movement W at 17 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

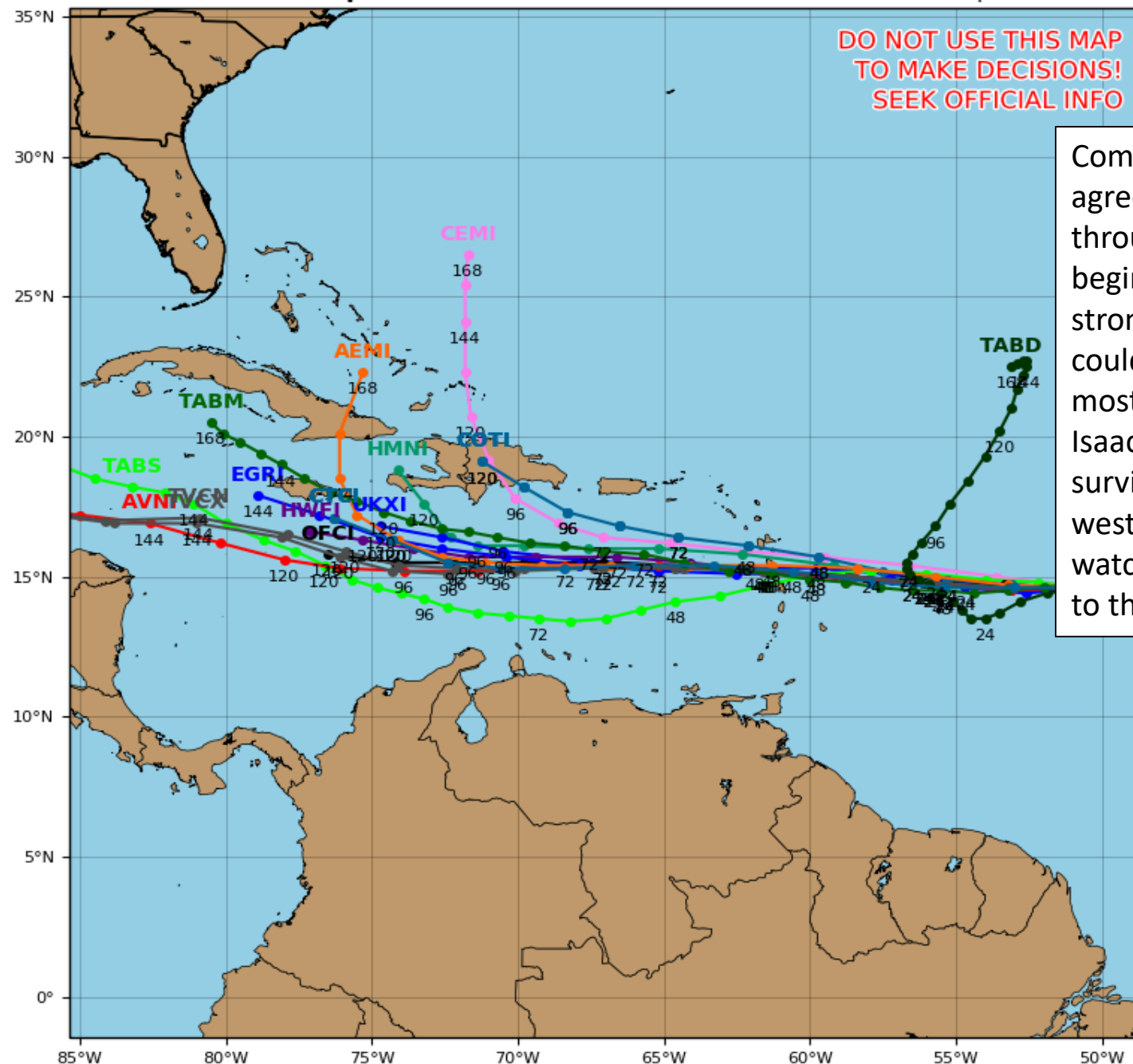
Tropical Storm ISAAC Model Track Guidance

Initialized at 18z Sep 11 2018

Levi Cowan - tropicaltidbits.com

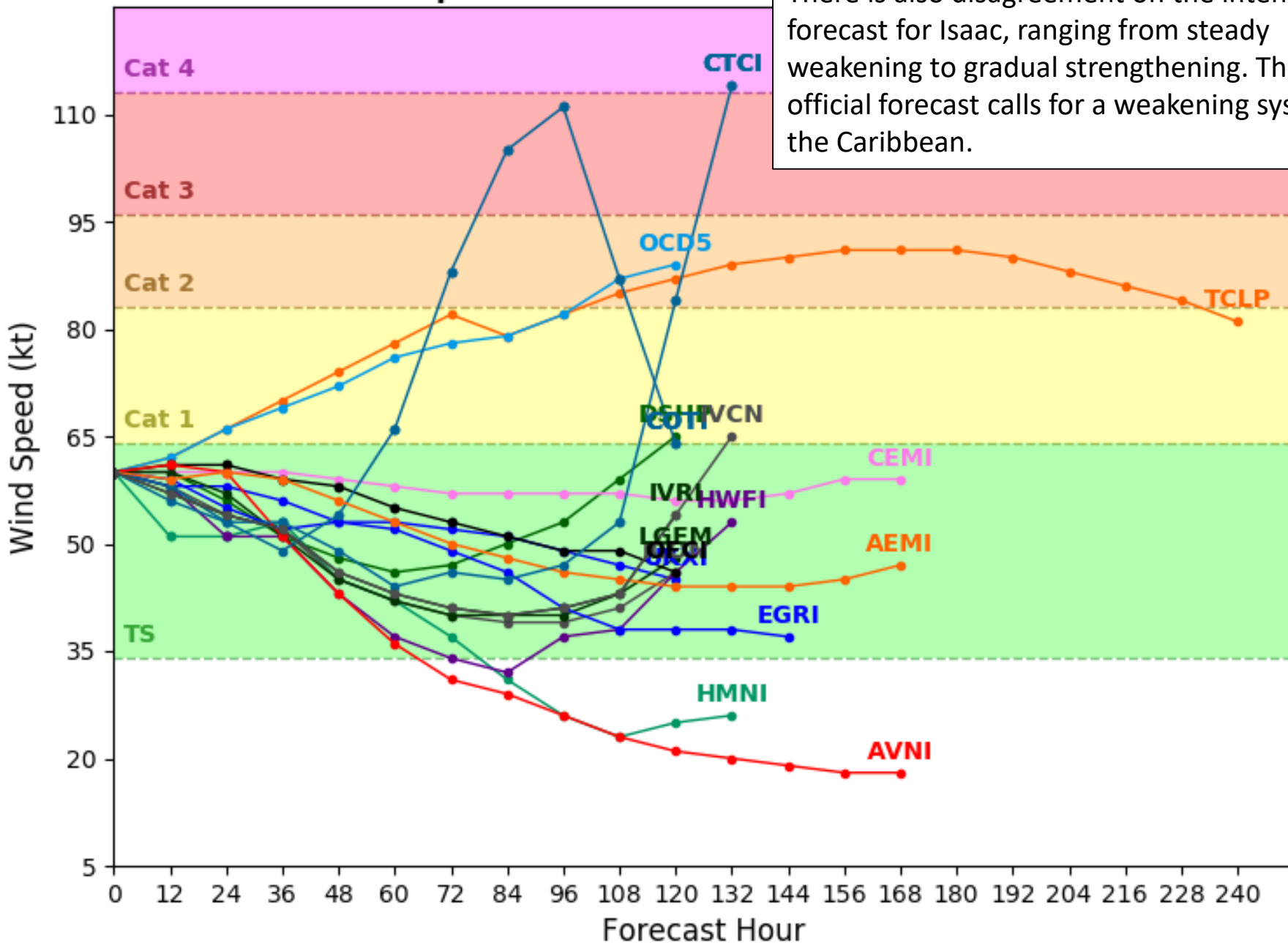
DO NOT USE THIS MAP
TO MAKE DECISIONS!
SEEK OFFICIAL INFO

Computer models are in agreement on the track of Isaac through 3-4 days before beginning to diverge. A stronger system than forecast could curve northward while most models take a weaker Isaac westward. If Isaac survives its trek into the western Caribbean, it is worth watching for potential impacts to the Caribbean or even U.S.



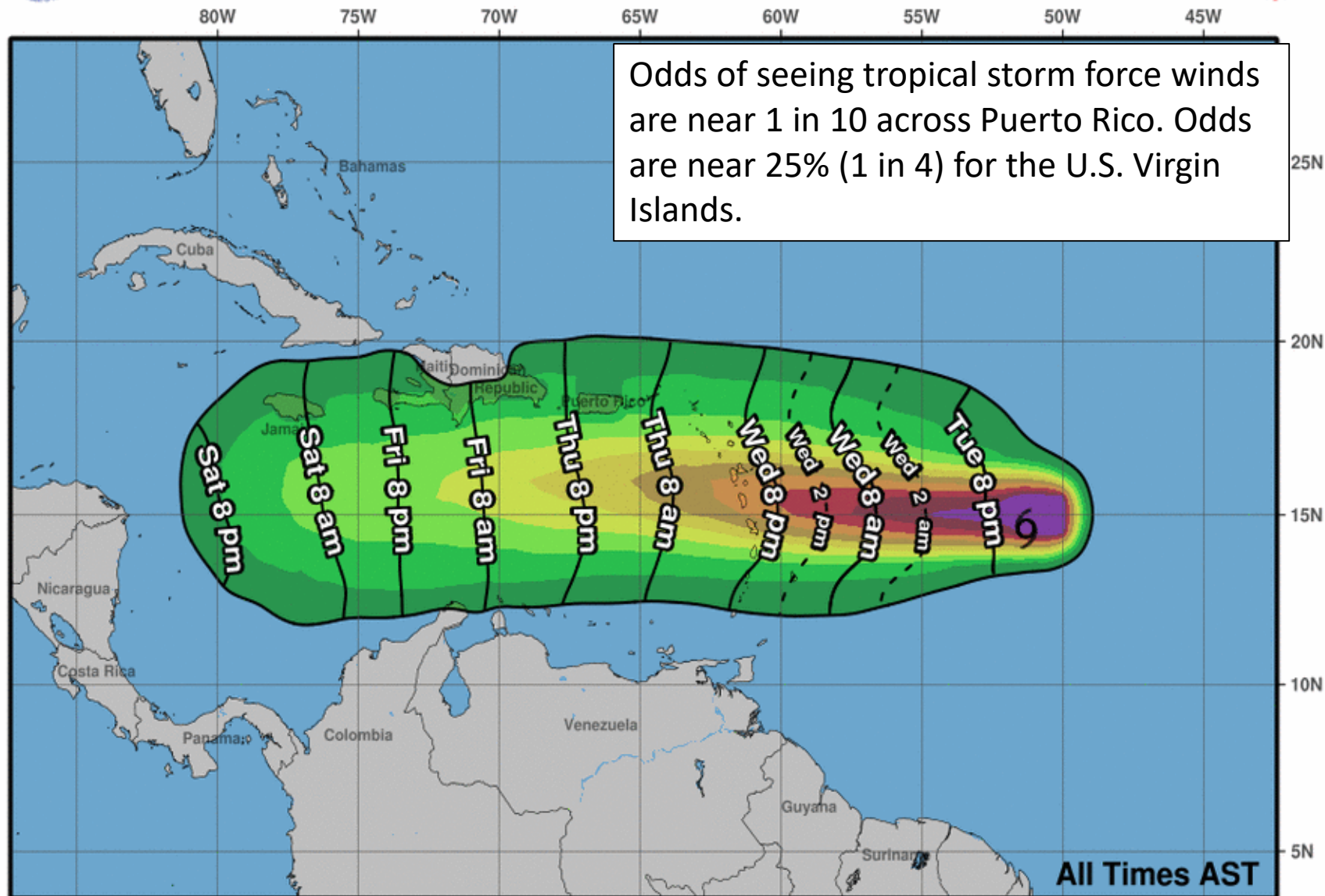
Initialized at 18z Sep 11 2018

There is also disagreement on the intensity forecast for Isaac, ranging from steady weakening to gradual strengthening. The official forecast calls for a weakening system in the Caribbean.





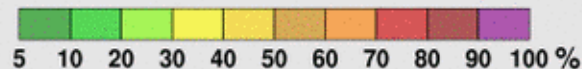
Earliest Reasonable Arrival Time of Tropical-Storm-Force Winds



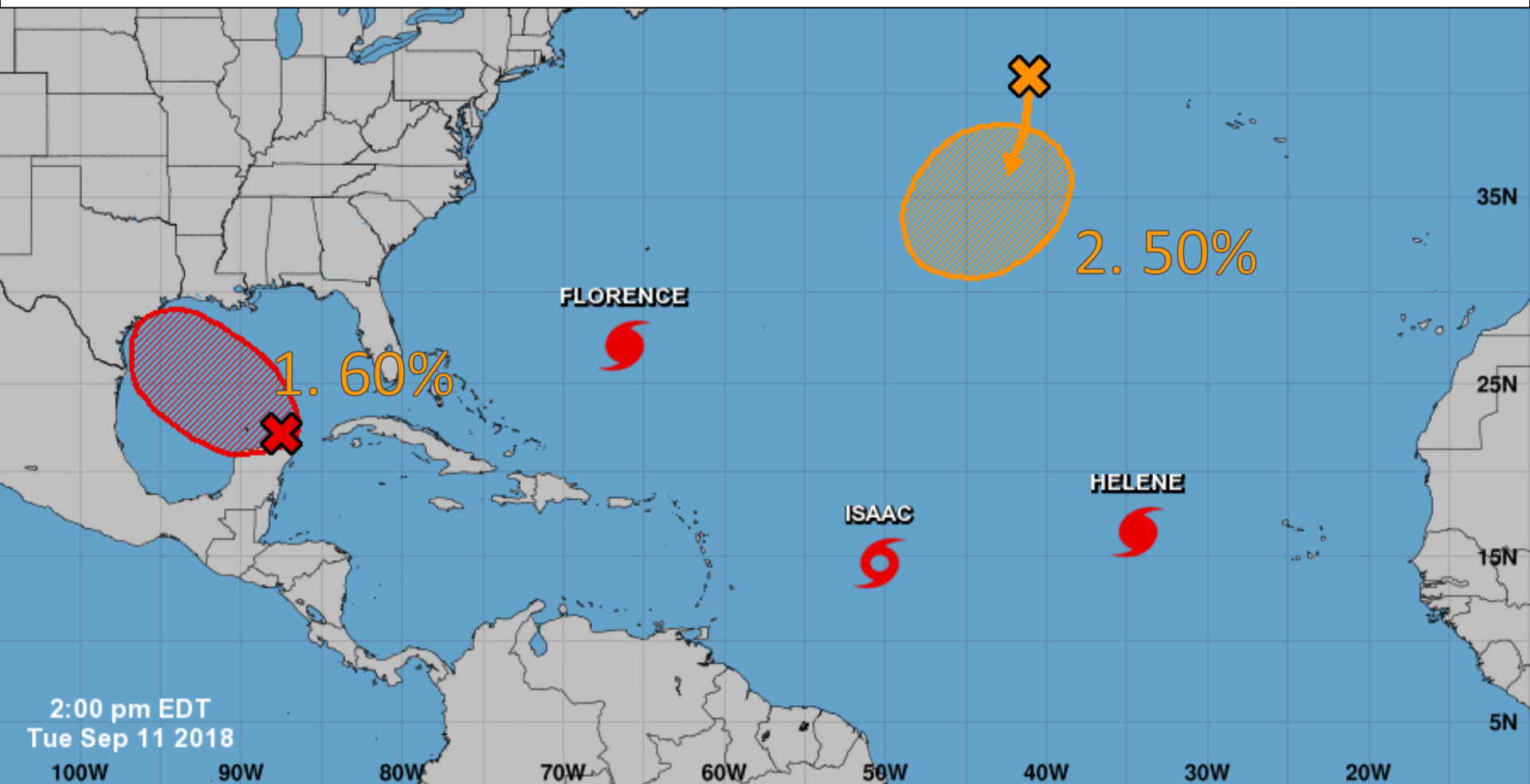
Tropical Storm Isaac
Tue. Sep. 11, 2018 5 pm AST
Advisory 17

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

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



1. A large disturbance near the Yucatan Peninsula is showing signs of organization, but still lacks a surface circulation. Upper-level winds are forecast to become conducive for development, and a tropical depression could form by Thursday night while it moves across the western Gulf of Mexico. * Formation chance through 48 hours...**medium**...50%. * Formation chance through 5 days...**high**...70%.
2. An area of low pressure is forecast to form over the northeastern Atlantic Ocean and a tropical or subtropical depression could form by the end of the week while the low meanders over the northeastern Atlantic Ocean. * Formation chance through 48 hours...**low**...20 percent. * Formation chance through 5 days...**medium**...50 percent.



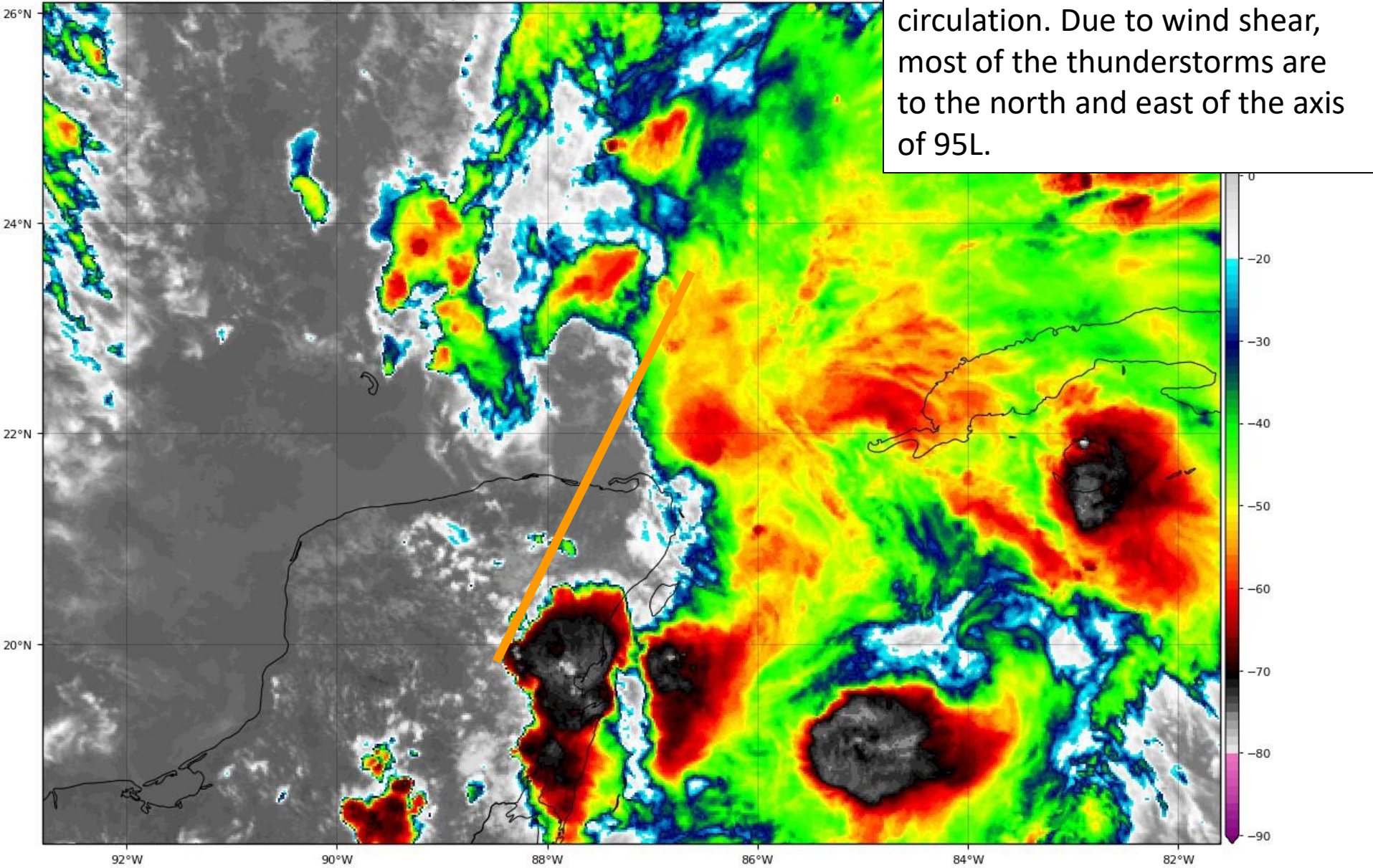
Current Disturbances and Five-Day Cyclone Formation Chance: < 40% 40-60% > 60%

Tropical or Sub-Tropical Cyclone: Depression Storm Hurricane

Post-Tropical Cyclone or Remnants

Invest 95L Satellite Image

GOES-16 Channel 13 (IR) Brightness Temperature (°C) at 20:33Z Sep 11, 2018

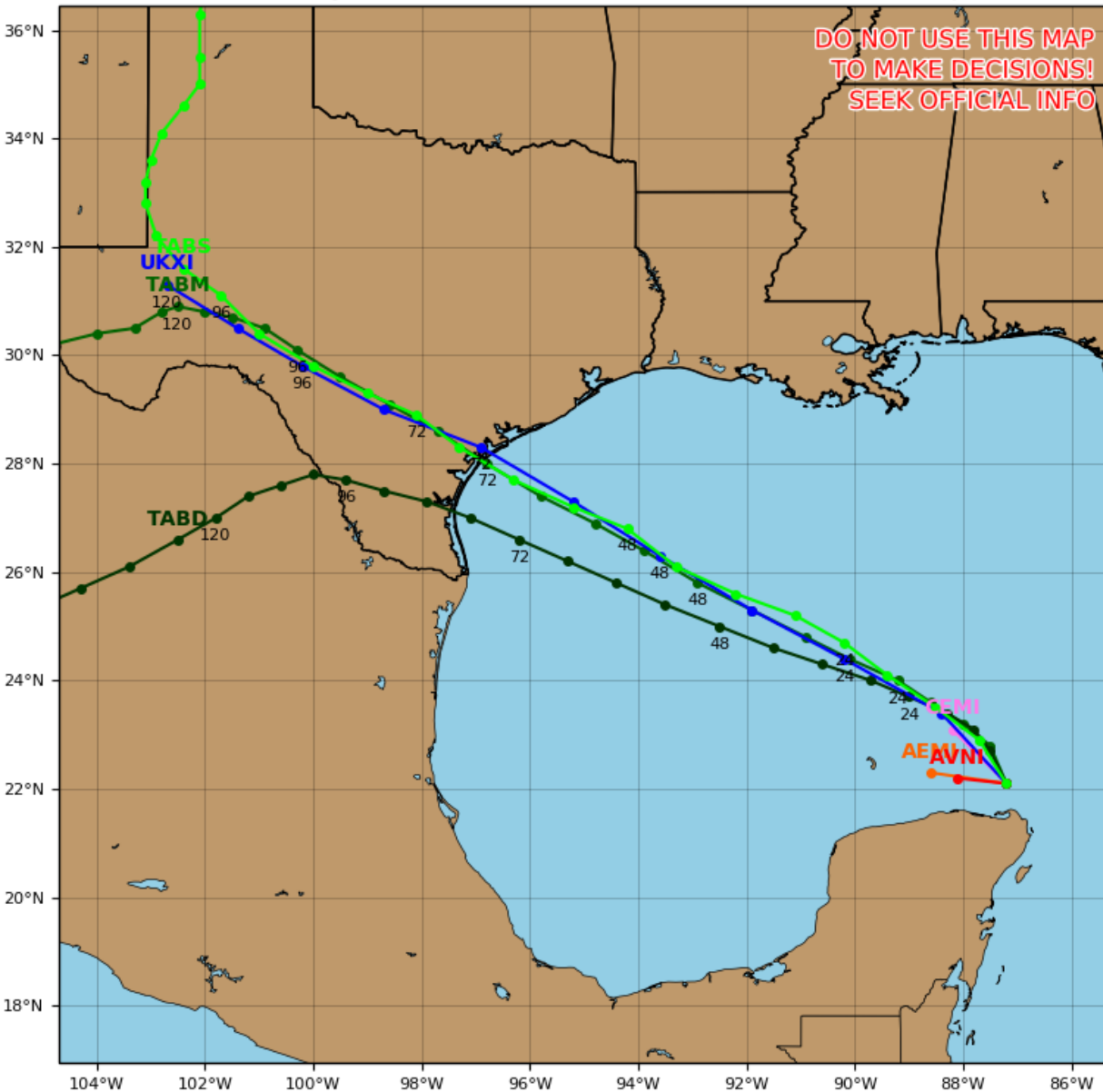


Track Models (95L)

Invest 95L Model Track Guidance

Initialized at 18z Sep 11 2018

Levi Cowan - tropicaltidbits.com

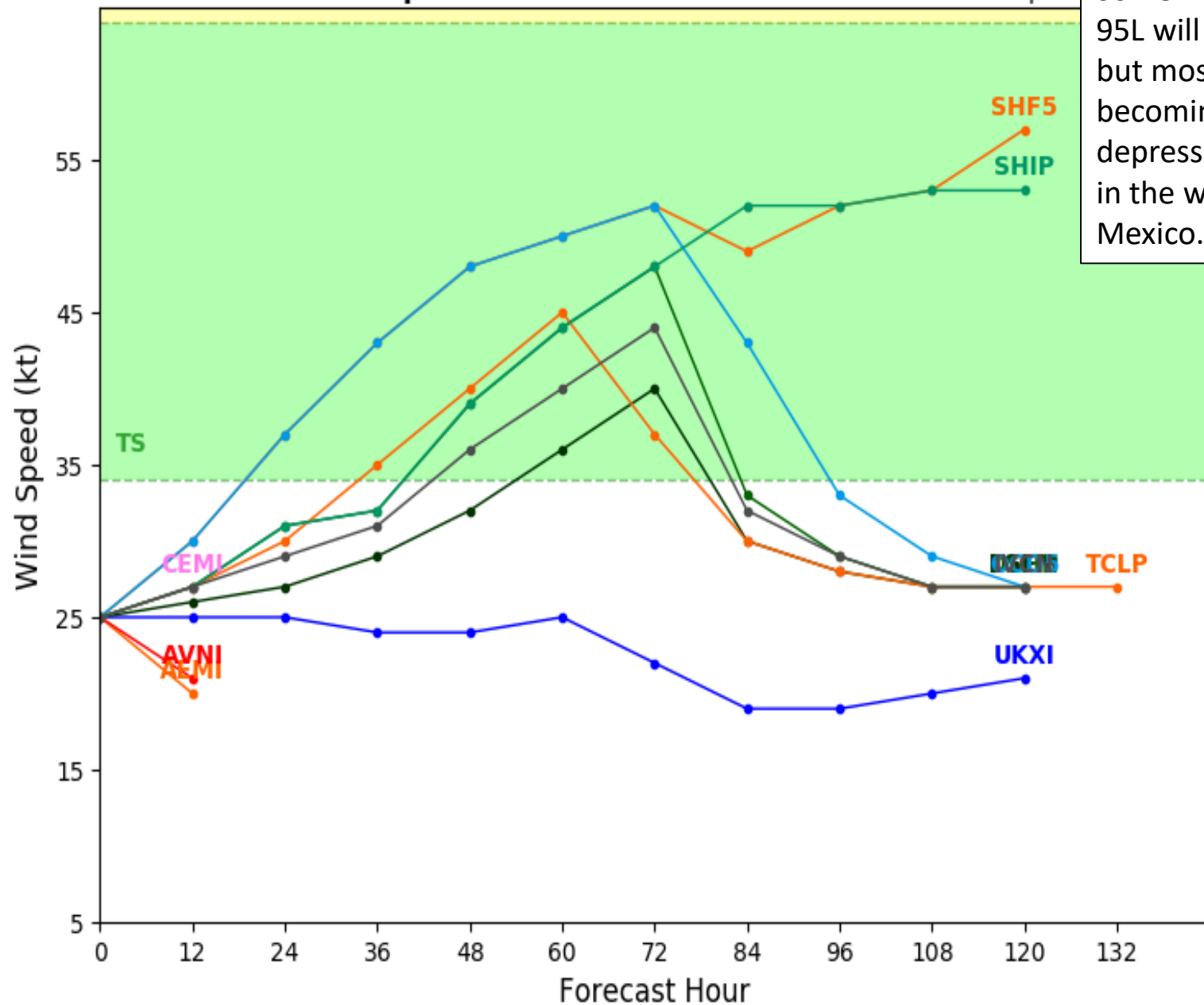


Track models are confident on a northwest trajectory toward the Texas coast in 3 days.

Invest 95L Model Intensity Guidance

Initialized at 18z Sep 11 2018

Levi Cowan - tropical



Some models do not think 95L will become a cyclone, but most agree on 95L becoming a tropical depression or tropical storm in the western Gulf of Mexico.

Summary

- At 5 PM EDT Tuesday, Hurricane Florence was located in the western Atlantic Ocean about 785 miles east-southeast of Cape Fear, North Carolina, or approximately 875 miles east of Boynton Beach, Florida.
- Maximum sustained winds have increased to 140 mph due to an eyewall replacement cycle have completed and Florence remains a Category 4 on the Saffir-Simpson Hurricane Wind Scale.
- Florence will largely maintain strength and may approach category 5 status tomorrow. Some additional intensity fluctuations are possible due to any other eyewall replacement cycles until landfall. These cycles also act to increase the size of the wind field of the storm.
- Florence continues to accelerate, now moving to the west-northwest at 17 mph. This motion with a further increase in forward speed is expected to occur during the next few days before slowing back down Thursday as it approaches the U.S. coast and moves inland.
- Landfall is becoming increasingly likely along the Carolina coast late Thursday or early Friday as a major hurricane.
- The forecast track beyond landfall is still somewhat uncertain and the remnants of Florence could stall or meander around the southern Appalachians or Carolina coast through early next week.
- Hurricane Hunters and NOAA research aircraft are investigating the system and the surrounding environment daily.
- At 5 PM EDT Tuesday, Hurricane Helene was located in the eastern Atlantic Ocean about 725 miles west of the Cabo Verde Islands.
- Maximum sustained winds have decreased to 105 mph, making Helene a Category 2 on the Saffir-Simpson Hurricane Wind Scale.
- Helene is making the turn toward the north, now moving quickly northwest near 12 mph.
- Wind shear is expected to increase on Wednesday and Thursday and the system will move over cooler water temperatures resulting in a gradual weakening trend through the weekend in the open Atlantic.
- At 5 PM EDT Tuesday, Tropical Storm Isaac was located about 670 miles east of the Windward Islands, or about 2,000 miles southeast of Miami, FL and moving west at 17 mph.
- This motion is expected to continue through the next five days and Isaac should move into the eastern Caribbean Sea on Thursday night.
- Maximum sustained winds are near 70 mph. Isaac could once again become a hurricane over the days or so before a possible weakening trend occurs later this week when as it approaches the Leeward Islands and eastern Caribbean Sea.
- The forecast track past 5 days remains uncertain as the system may be drawn northward by a trough or continue westward into the central and western Caribbean. However, trends have been towards a weaker system that dissipates in the western Caribbean as it moves into Central America in 7-10 days.
- A non-tropical area of low-pressure will develop in the northeast Atlantic in the coming days. There is a 50% (medium) chance of it acquiring some tropical characteristics later this week, but this system poses no threat to the U.S as it meanders over the open waters.

- A tropical wave, designated as invest 95L, will be moving into the western Gulf of Mexico over the next day or so and has a 70% (high) chance of becoming a depression by Thursday night. The system has become better organized today near the Yucatan Peninsula.
- Regardless of development, this system will bring increased rain chances to Texas and Louisiana later this week.
- The next names on the list are Joyce and Kirk, or number 10 and 11 if first designated a Potential Tropical Cyclone or Tropical Depression.

Florida Outlook:

- Chances of direct impacts to Northeast Florida from Florence continue to decrease, but are still not zero. Northeast Florida should continue to monitor the track of Florence closely during the next few days.
- The odds of seeing tropical storm force winds along the immediate coast of far Northeast Florida have decreased and are between 5-10%.
- Regardless of Florence's eventual track, large swells emanating from the storm will impacts portions of the Florida East Coast throughout this week, resulting in life-threatening rip currents. Increasing impacts include large breaking waves, erosion, and minor coastal flooding during high tide. The high rip current risk will continue through this weekend.
- Breaking waves along the beach in Northeast and east-central Florida will peak on Wednesday and Thursday at 6-8' and as high as 12' offshore.
- A Coastal Flood Advisory is in effect through Friday for Nassau, Duval, St. Johns, and Flagler Counties. Minor coastal flooding at high tide will be possible. Tides along much of the east coast may run 1-1.5' above normal later this week.
- Hurricane Isaac should continue to be monitored over the next 5-10 days as it moves into the Caribbean, but is not a direct threat to Florida at this time.
- There is higher than usual uncertainty about track and intensity of Isaac once in the Caribbean, but rends have been for the system to dissipate before it reaches the western Caribbean and moves into Central America.
- The chance of tropical storm force winds along the southern coast of Puerto Rico remains near 1 in 10 (10%) and less inland. Odds are slightly higher across the U.S. Virgin Islands at 1 in 4 (25%).
- The tropical wave moving into the western Gulf of Mexico does not pose a direct threat to Florida at this time, but should be monitored.
- Hurricane Helene poses no threat to the U.S. or Caribbean Islands.
- The non-tropical low developing in the northeast Atlantic poses no threat to the U.S. or Caribbean Islands.

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



TROPICAL UPDATE

Created by:

Amy Godsey, Chief State Meteorologist

Amy.Godsey@em.myflorida.com

Michael Spagnolo, Deputy State Meteorologist

Michael.Spagnolo@em.myflorida.com

State Meteorological Support Unit

Florida Division of Emergency Management

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