



# TROPICAL UPDATE



5 PM EDT

Wednesday, September 4, 2019

Hurricane Dorian, Tropical Depression Fernand,  
Tropical Storm Gabrielle, Invest 92L (60%) &  
African Wave (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.hurricanes.gov](http://www.hurricanes.gov).

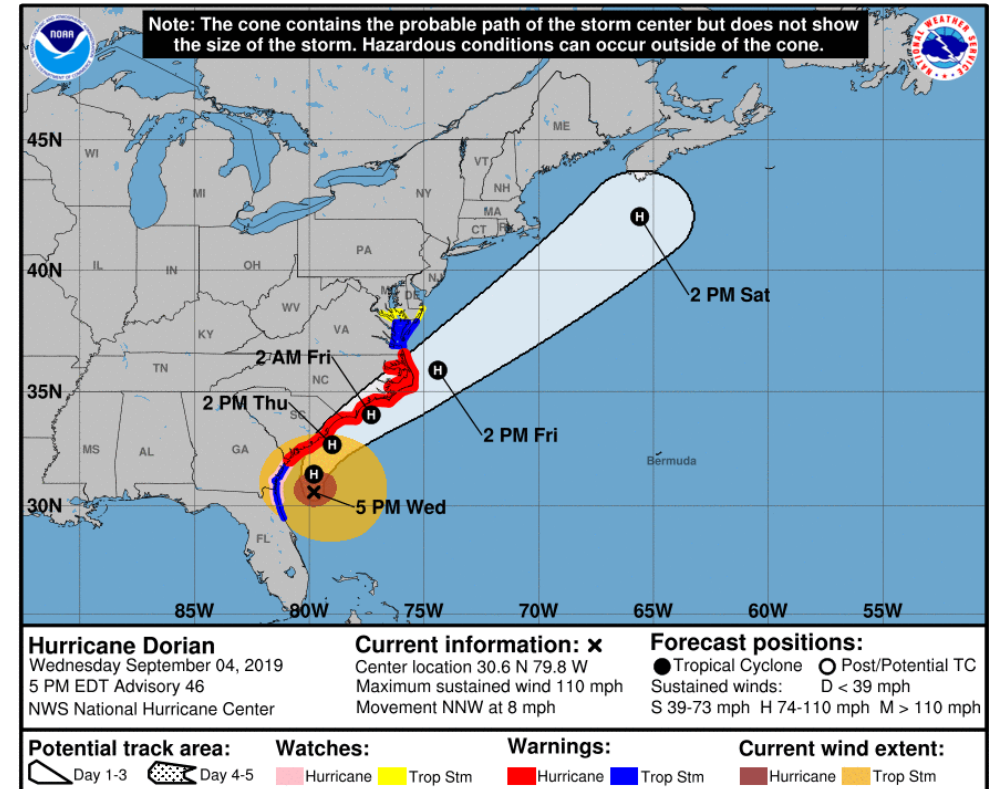
# Hurricane Dorian

Wed, September 4, 5 PM ET

	MINIMAL	Low	MODERATE	HIGH	EXTREME
 WINDS					
 STORM SURGE					
 FLOODING					
 TORNADOES					

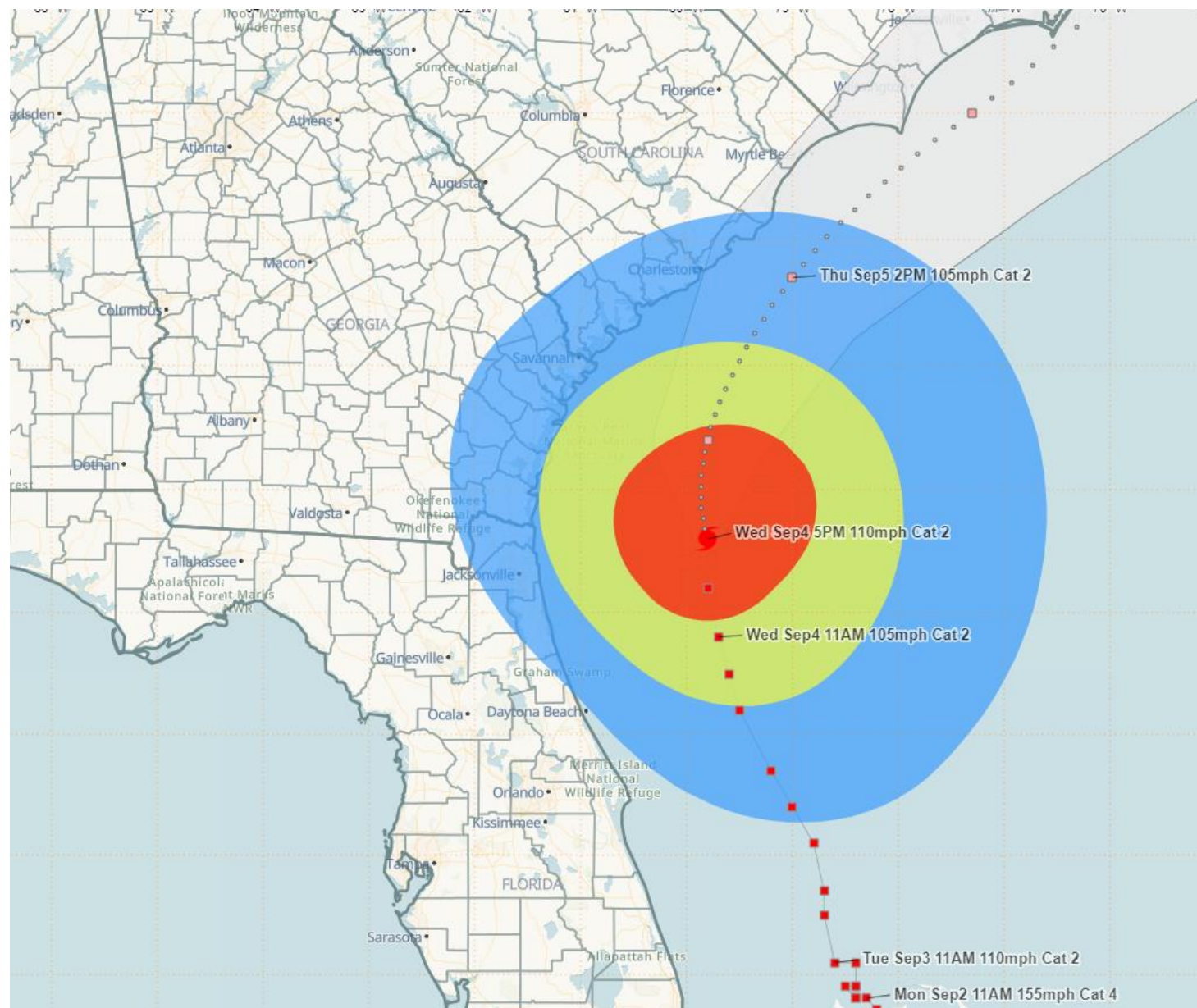
	Low	MODERATE	HIGH
 RIP CURRENTS			

## National Hurricane Center Map



## Changes Today:

- Dorian's winds have increased again to 110 mph as it moves over the Gulf Stream.
- Dorian is moving to the north-northwest parallel to the Florida coastline
- Tropical Storm Warnings and Storm Surge Warnings are canceled south of Flagler County.



Hurricane Dorian is located about **150 miles south of Charleston, South Carolina**. Dorian is moving parallel to the Florida coastline, to the north-northwest at 8 mph. Maximum **sustained winds** have increased to **110 mph**, making Dorian a **Category 2 Hurricane**.

Dorian will continue to the north through tonight before starting a turn to the northeast tomorrow

Hurricane force winds extend 70 miles from the center and **tropical storm force winds extend up to 195 miles**.

Tropical Storm Force winds will continue through tonight in Northeast Florida, primarily in gusts.

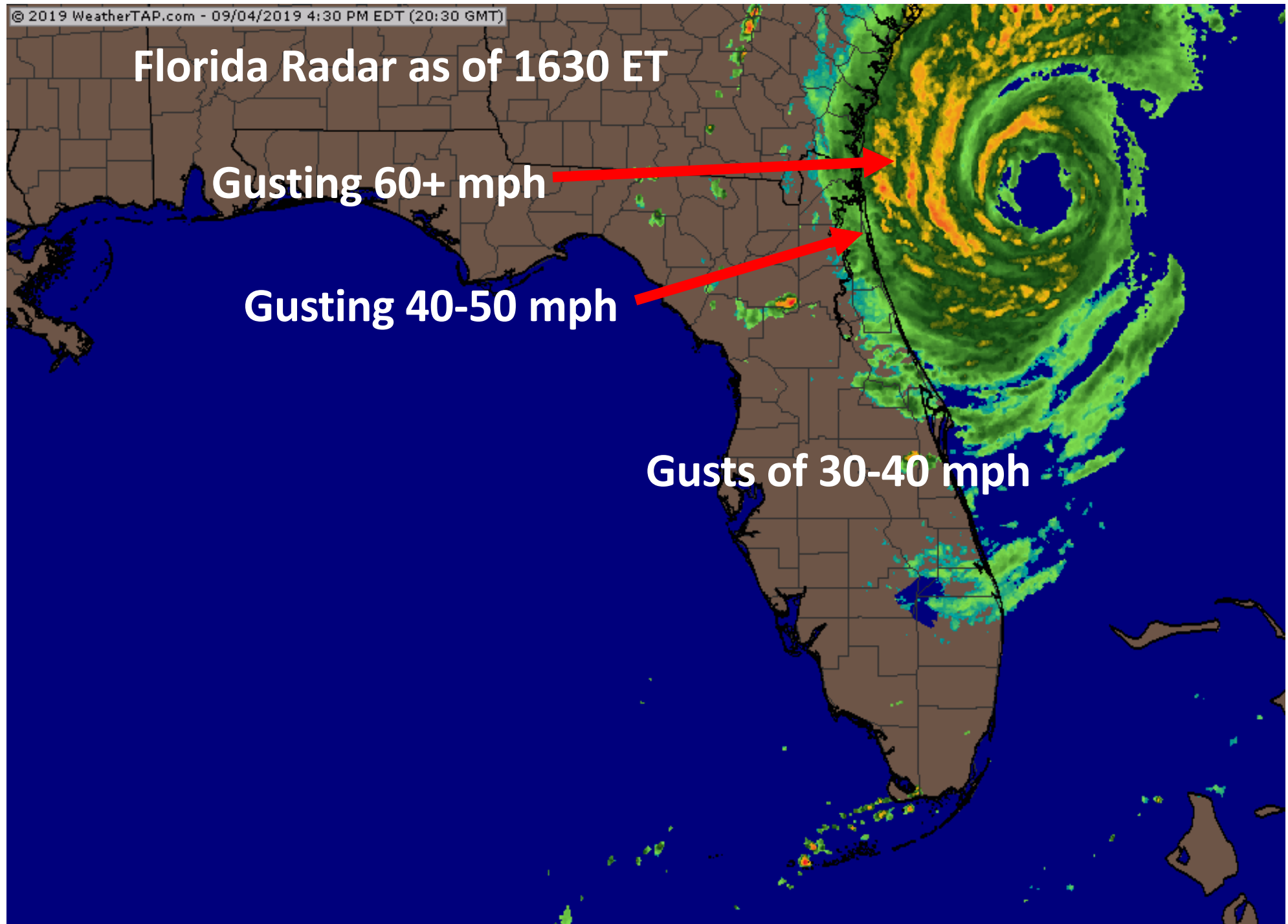
## Hurricane Dorian Forecast Track

# Florida Radar as of 1630 ET

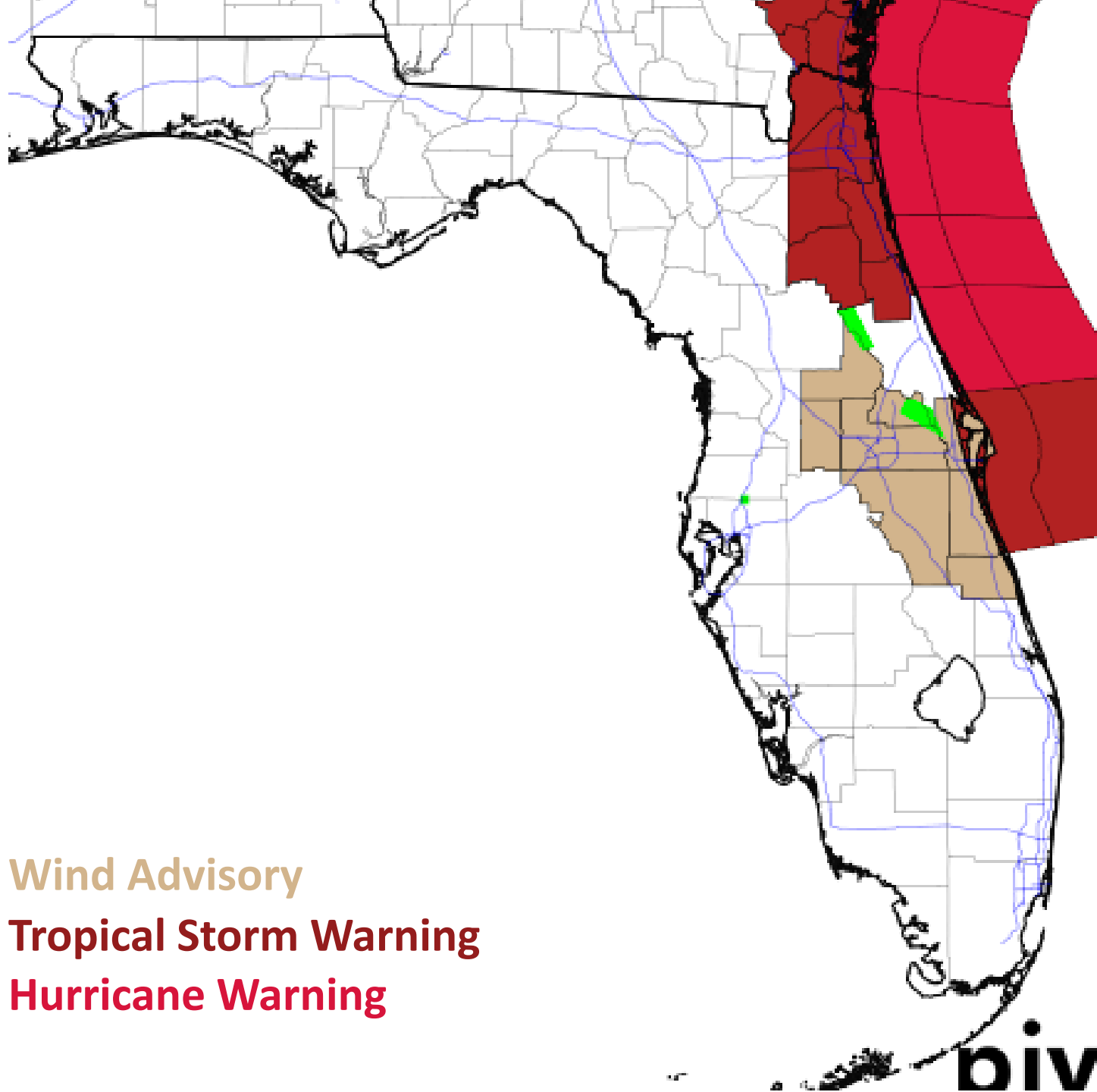
Gusting 60+ mph

Gusting 40-50 mph

Gusts of 30-40 mph

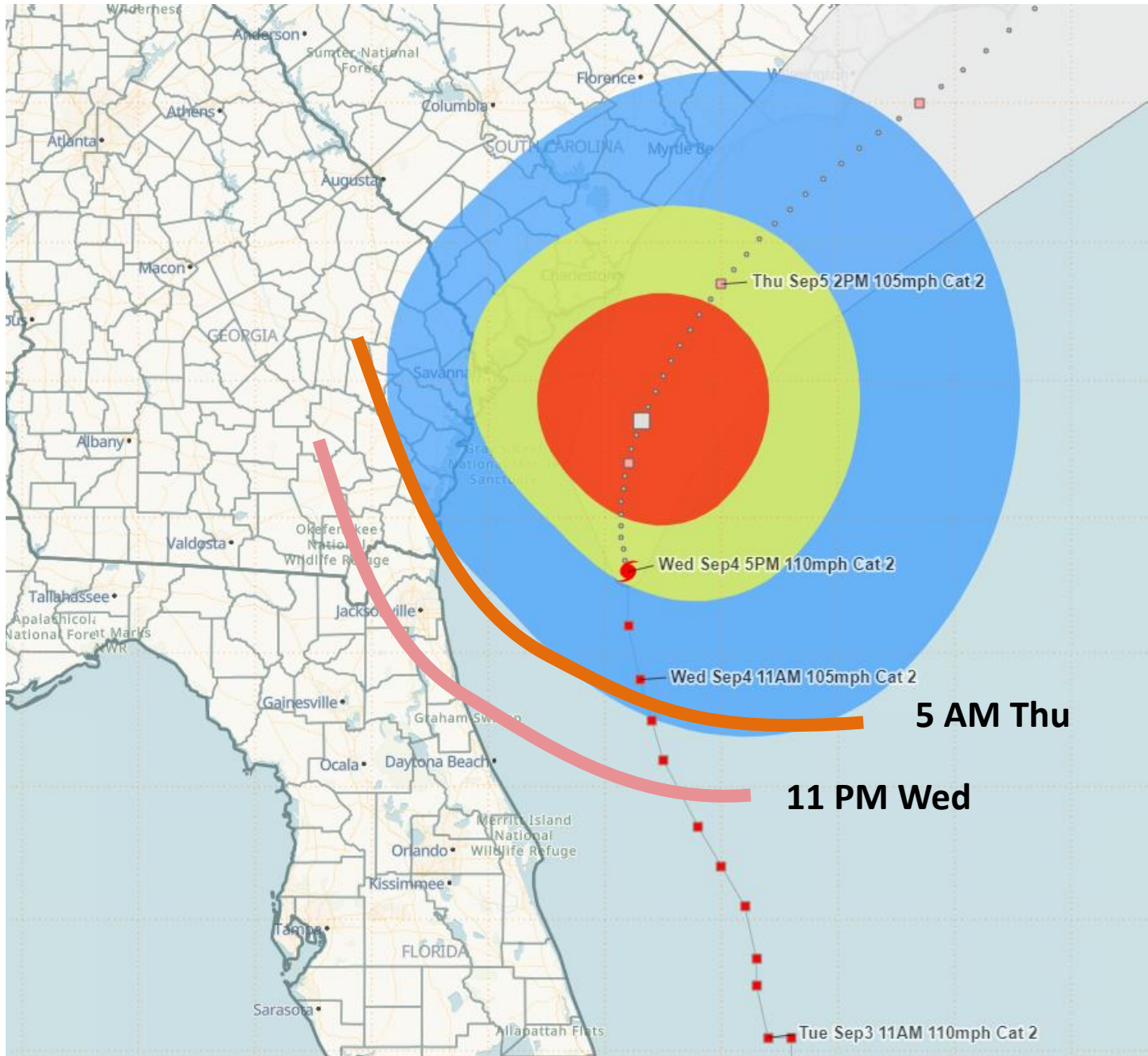






**Tropical Storm Warning**  
for Nassau, Duval, Clay,  
Putnam, St. Johns, and  
Flagler Counties

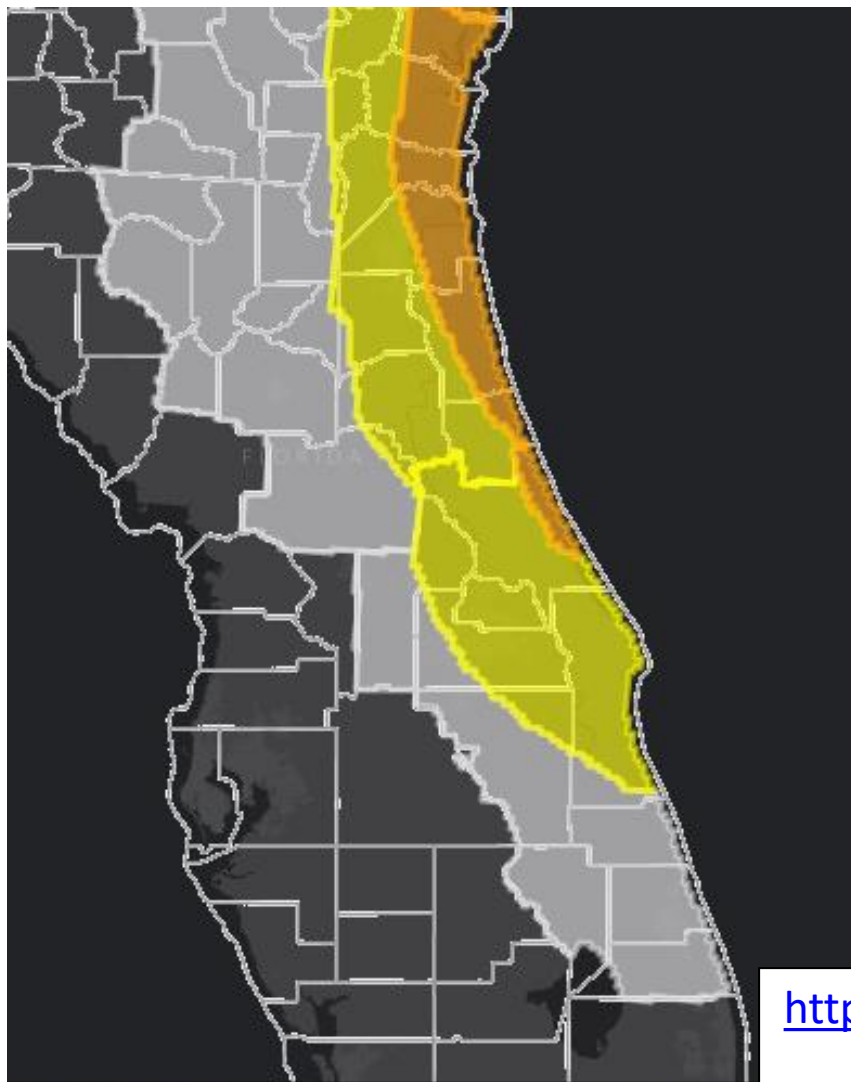
Wind Advisory  
Tropical Storm Warning  
Hurricane Warning



## Estimates of the Ending of Tropical Storm Force Winds

Note: Assumes a perfect forecast. Winds will come in intermittent bands.

Conditions should improve for the Space Coast for Northeast Florida overnight into early Thursday morning



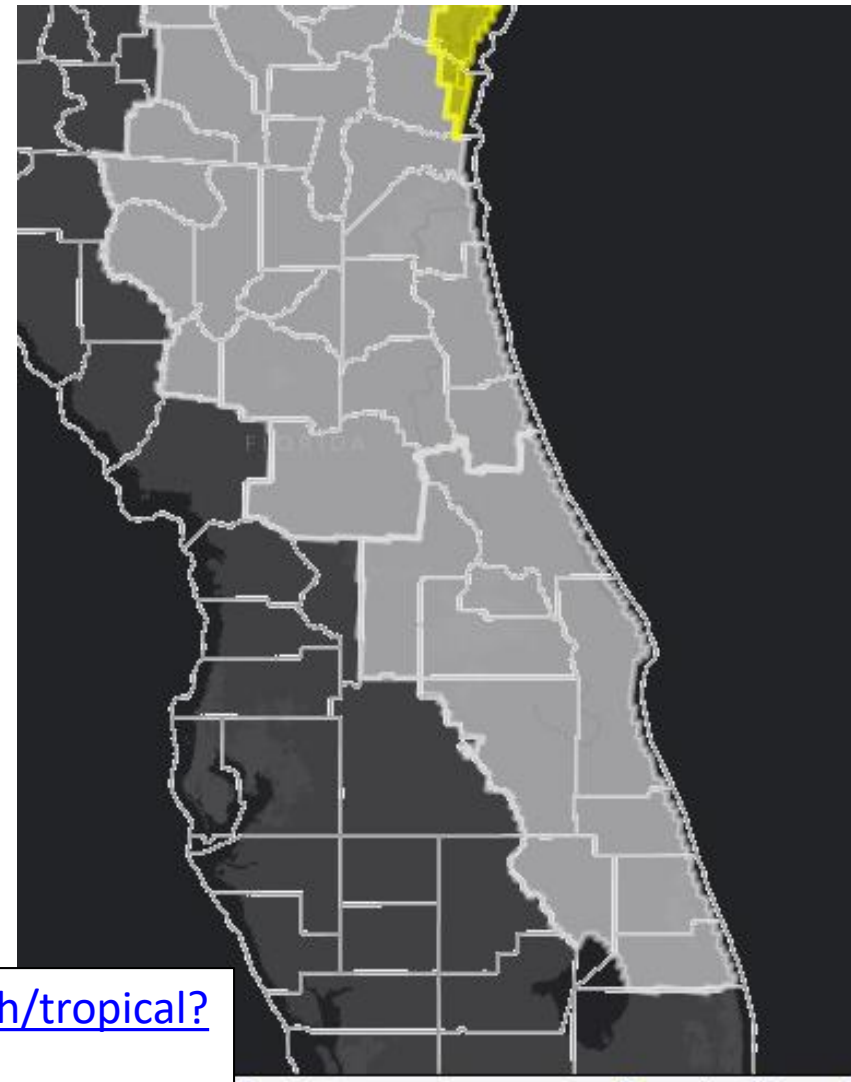
[Download KML]

[Download Image]

Wind Threat
Potential for wind greater than 110 mph
Potential for wind 74 to 110 mph
Potential for wind 58 to 73 mph
Potential for wind 39 to 57 mph
Wind less than 39 mph

<https://www.weather.gov/srh/tropical?office=mfl>

Click on "Threats and Impacts" Tab

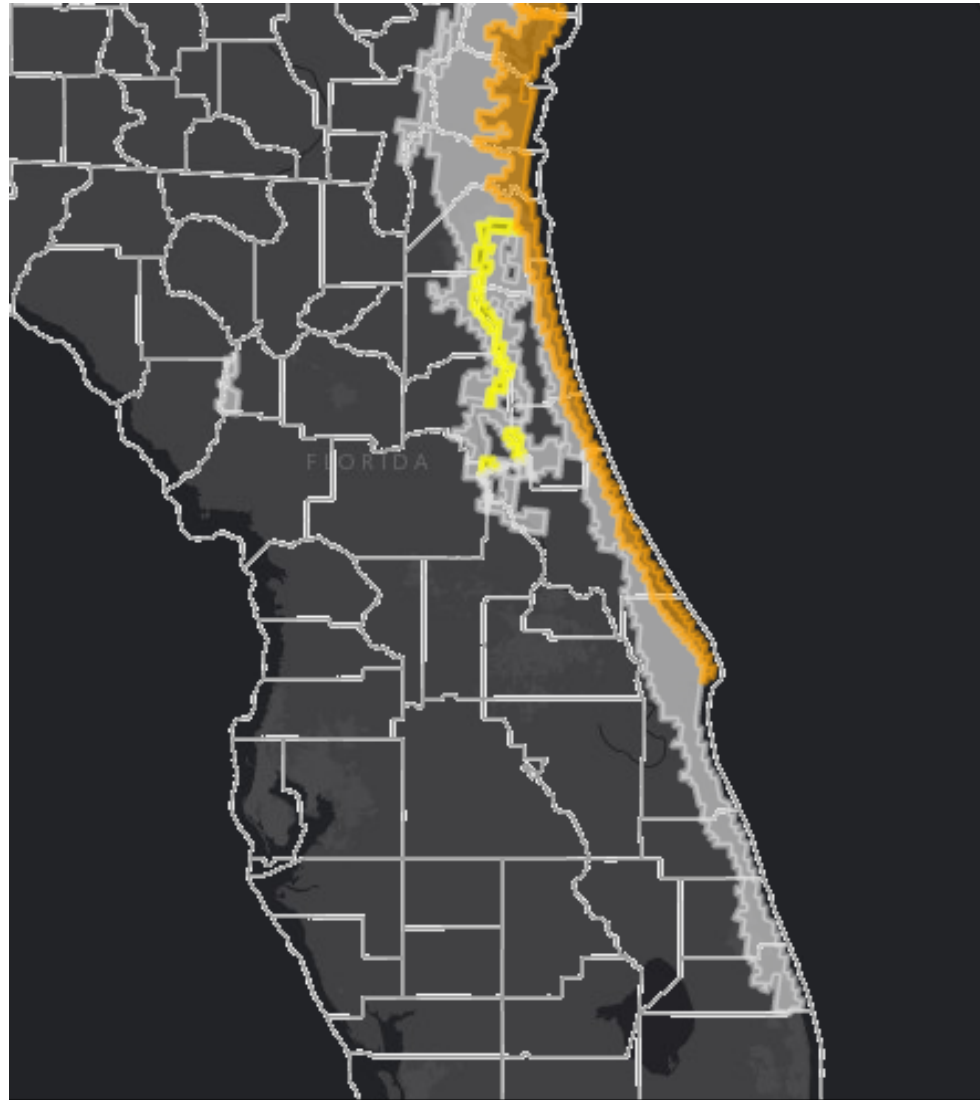


[Download KML]

[Download Image]

Tornado Threat
Potential for outbreak of tornadoes
Potential for many tornadoes
Potential for several tornadoes
Potential for a few tornadoes
Tornadoes not expected



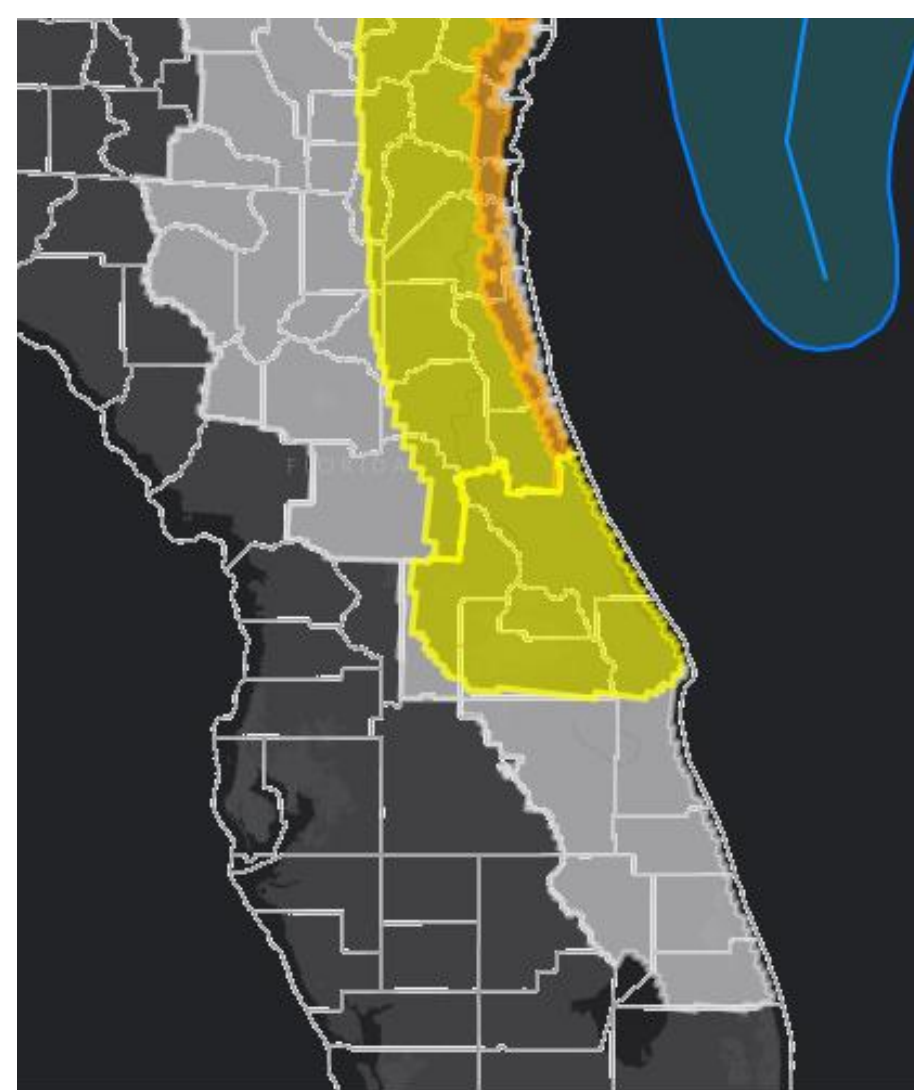


[\[Download KML\]](#)

[\[Download Image\]](#)

#### Storm Surge Threat

Potential for storm surge flooding greater than 9 ft above ground
Potential for storm surge flooding greater than 6 ft above ground
Potential for storm surge flooding greater than 3 ft above ground
Potential for storm surge flooding greater than 1 ft above ground
Little to no storm surge flooding



[\[Download KML\]](#)

[\[Download Image\]](#)

#### Flooding Rain Threat

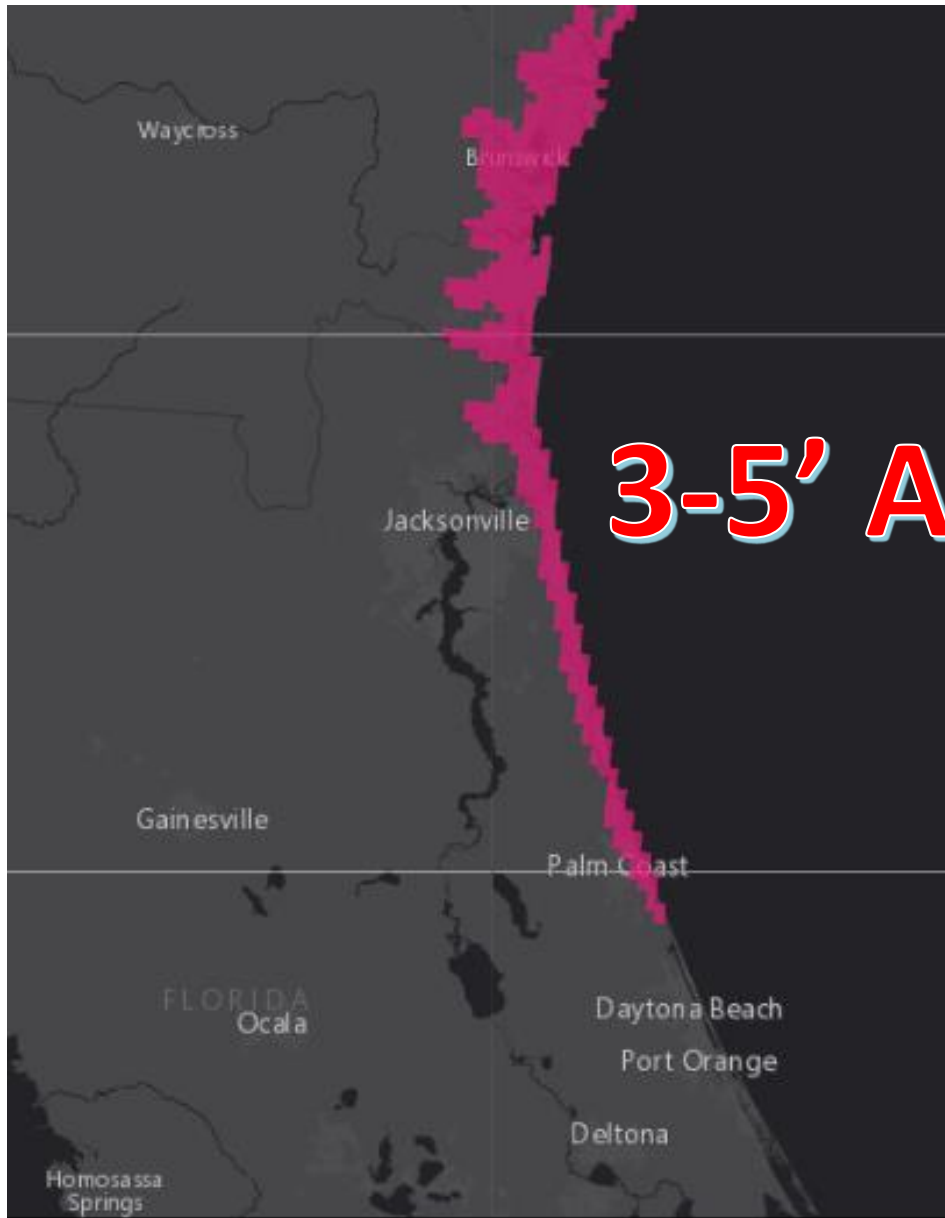
Potential for extreme flooding rain
Potential for major flooding rain
Potential for moderate flooding rain
Potential for localized flooding rain
Little to no potential for flooding rain



# Storm Surge Forecasts Watches/Warnings

- Storm Surge Warning
  - Nassau, Duval, St. Johns, and Flagler Counties
- Coastal Flood Warning (St. Johns River and Tributaries)
  - Inland Duval, Clay, Inland St. Johns, Putnam, and Inland Flagler Counties
  - 2-3' of inundation possible

**3-5' AGL**



[https://www.nhc.noaa.gov/refresh/graphics\\_at5+shtml/155815.shtml?inundation#contents](https://www.nhc.noaa.gov/refresh/graphics_at5+shtml/155815.shtml?inundation#contents)

Interactive P-Surge Inundation Map

# Rainfall Forecast Next 24 Hours

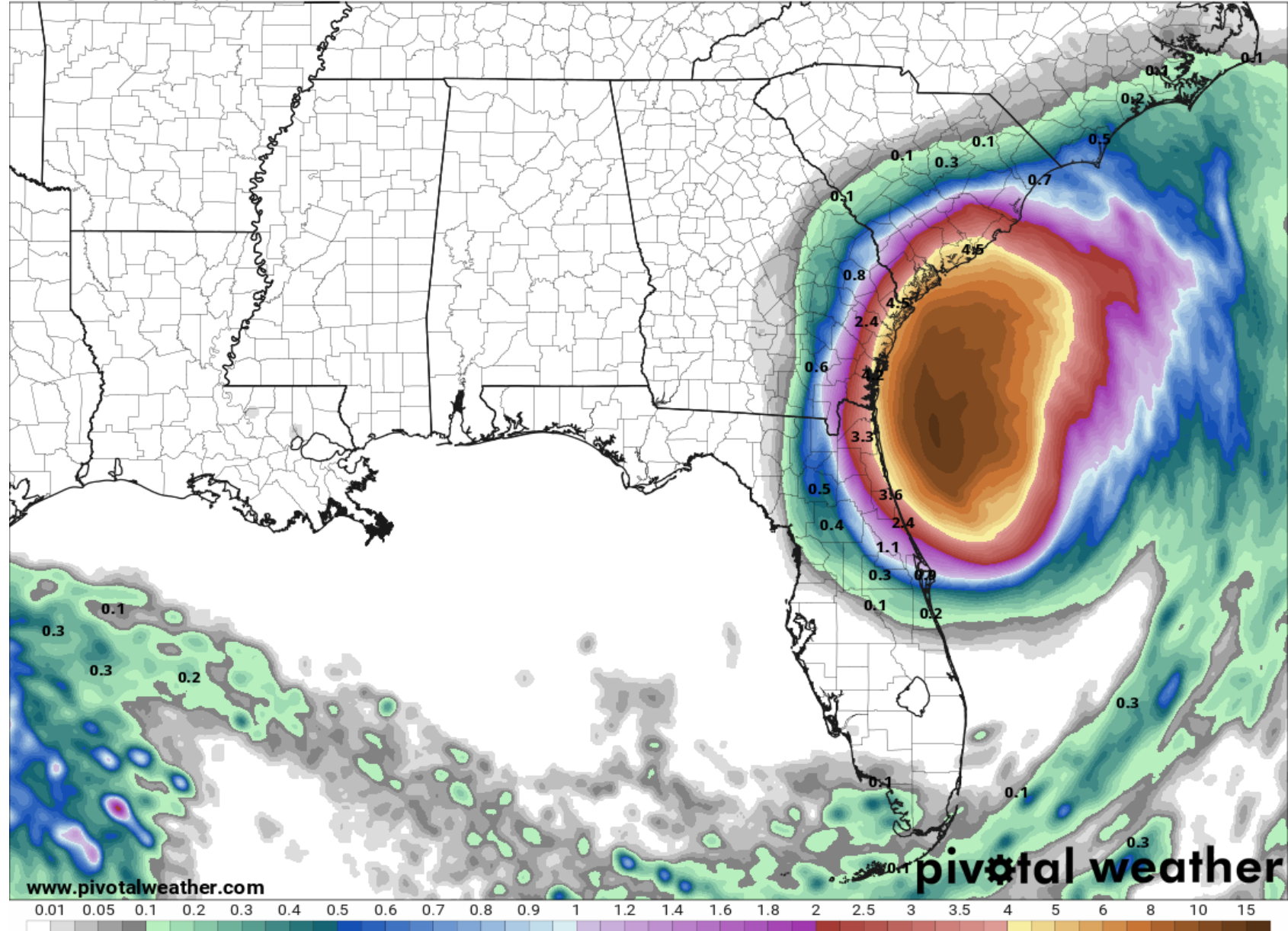
*Dorian is forecast to bring 2-4" of rain to Northeast Florida through the next 24 hours.*

*Given the recent stretch of wet weather, these rainfall amounts could still create urban and minor river flooding along the East Coast.*

*The highest rainfall totals will be near the coast in Northeast Florida.*

24-Hour Precipitation (in)  
Ending Thursday, Sep. 5, 2019 at 8 a.m. EDT

Init: Wed 2019-09-04 12z WPC



# Flash Flood Outlook Today

*Flash Flood Watch through late tonight for Nassau, Duval, St. Johns, and Flagler County.*

## **MARGINAL (MRGL)**

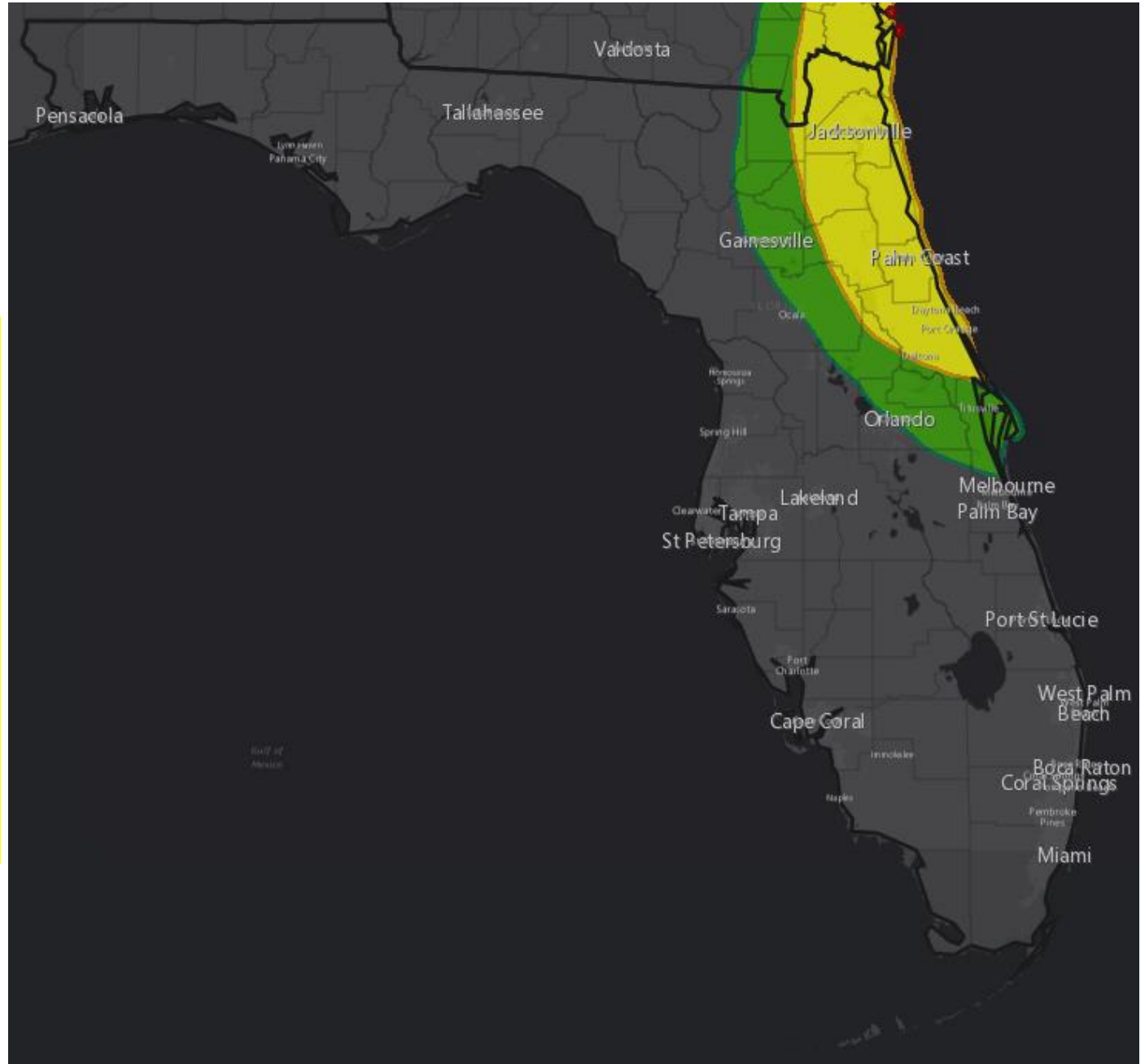
**Isolated flash  
floods possible**

Localized and  
primarily affecting  
places that can  
experience rapid  
runoff with heavy  
rainfall.

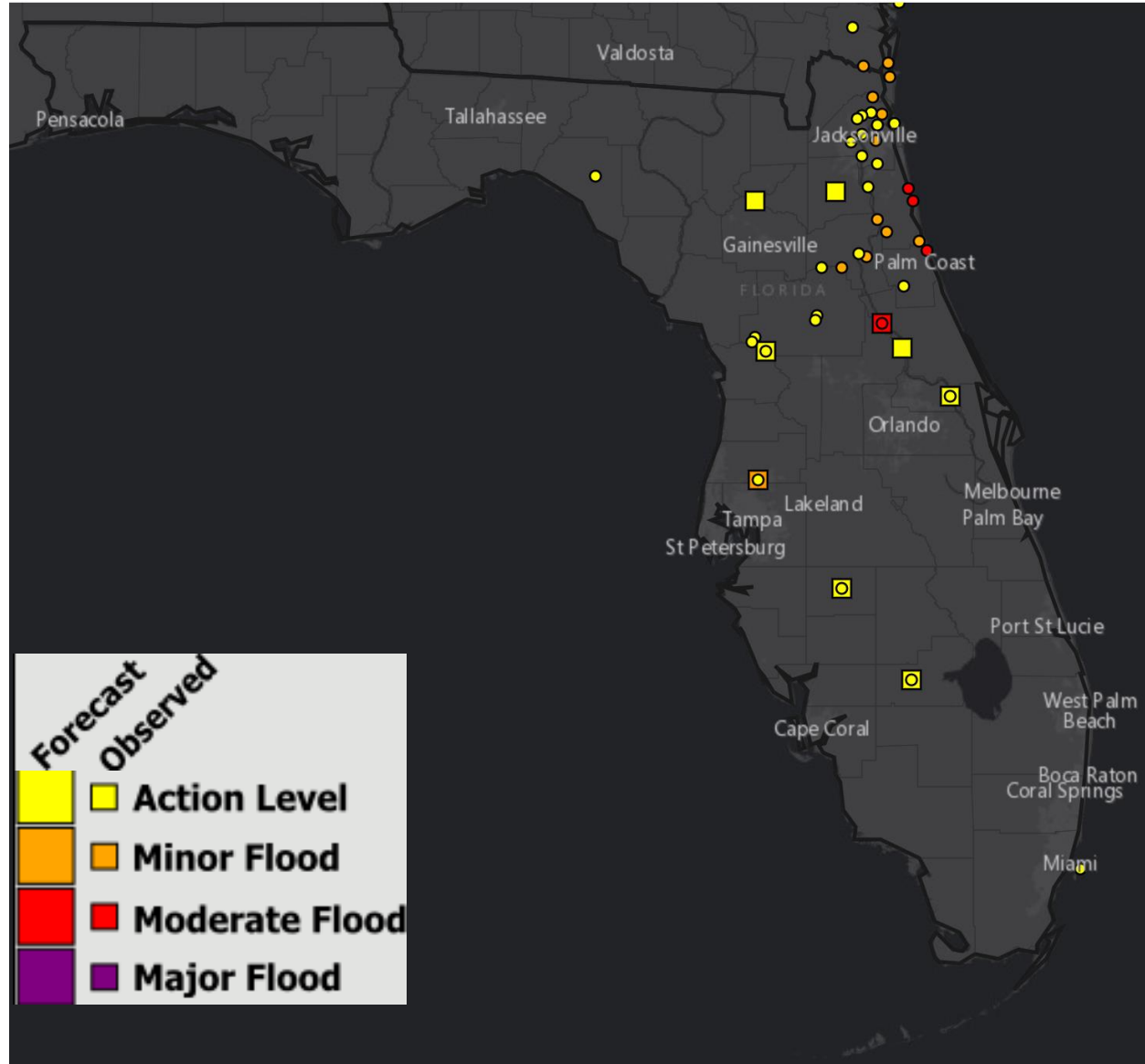
## **SLIGHT (SLGT)**

**Scattered flash  
floods possible**

Mainly localized. Most  
vulnerable are urban  
areas, roads, small  
streams and washes.  
Isolated significant  
flash floods possible.



# River Observations/Forecasts Across the Peninsula

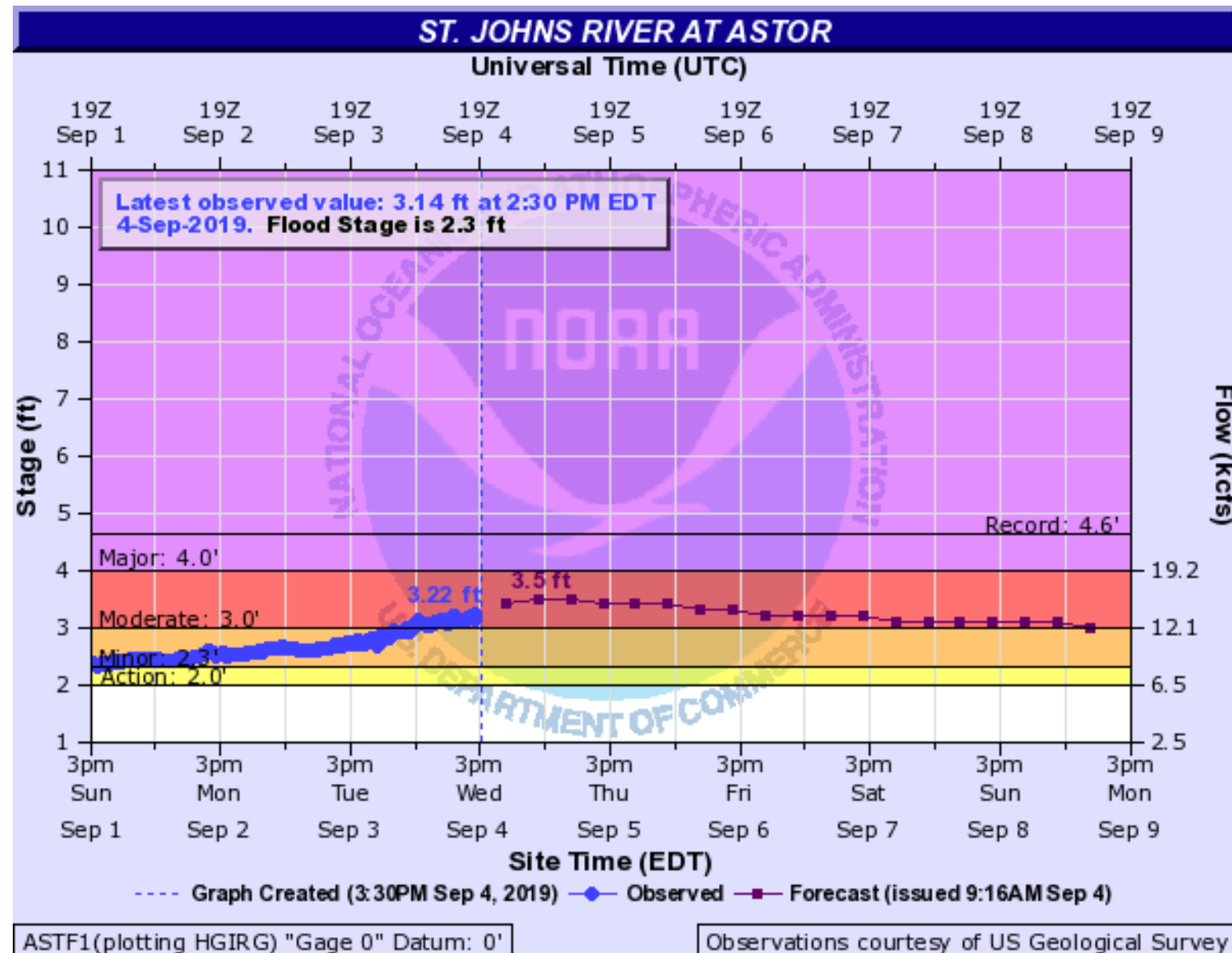


## Rivers Currently in or Forecast to Reach Flood Stage:

- [Cypress Creek at Worthington Gardens](#)
- [St. Johns River above Lake Harney](#)
- [St. Johns River at Astor](#)
- [St. Johns River at Racy Point](#)
- [St. Johns River at Shands Bridge](#)
- [St. Johns River at Dames Point Bridge](#)
- [St. Johns River at Buffalo Bluff](#)
- [Ocklawaha River at Rodman Dam](#)
- [Dunns Creek near Satsuma](#)
- [Nassau River near Tisonia](#)
- [St. Marys River at I-95 at FL/GA Line](#)
- [Clapboard Creek near Sheffield Road](#)
- [Pottsburg Creek at Beach Blvd. \(US 90\)](#)
- [Deep Creek at Spuds](#)

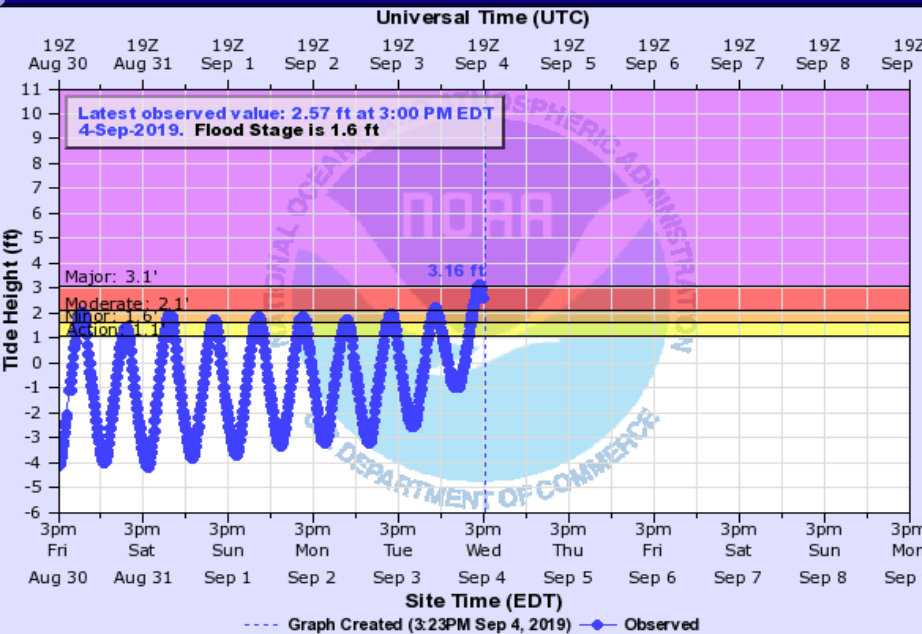


# St. Johns River at Astor – Moderate Flooding



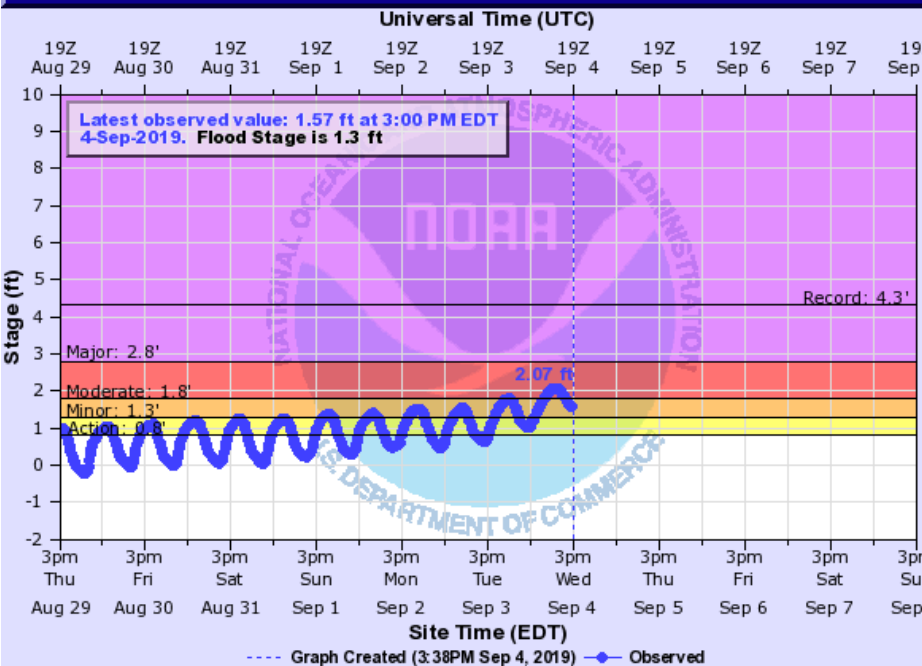
- **3.5 feet:** Many yards and streets along the river, and with canals flooded, water enters the first floor of low lying homes. Flooding to docks and yards at condominiums on Juno Trail and docks at Astor Bridge Marina. Roads flooded in South Moon Fish Camp and starting to move over the sea wall at Blair's Jungle Den.
- **3 feet:** Moderate flooding, with water covering yards and further encroaching on many low lying homes near the river. Flooding of many yards and low lying roads near the river.
- **2.8 feet:** Docks and boat ramps covered at South Moon Fish Camp and approaching sea wall at Blair's Jungle Den.
- **2.3 feet:** Minor flooding of low lying streets and yards north of Fox Road on Lake County side of Astor, and from River Road northward on Volusia side of river. Water begins to cover docks at South Moon Fish Camp.
- **2 feet:** Water begins to move into yards and cover boat ramps in low lying areas along the river.

TOLOMATO RIVER AT ST AUGUSTINE (IN MHHW)



RDEF1(plotting HMIRG) "Gage 0" Datum: 0'

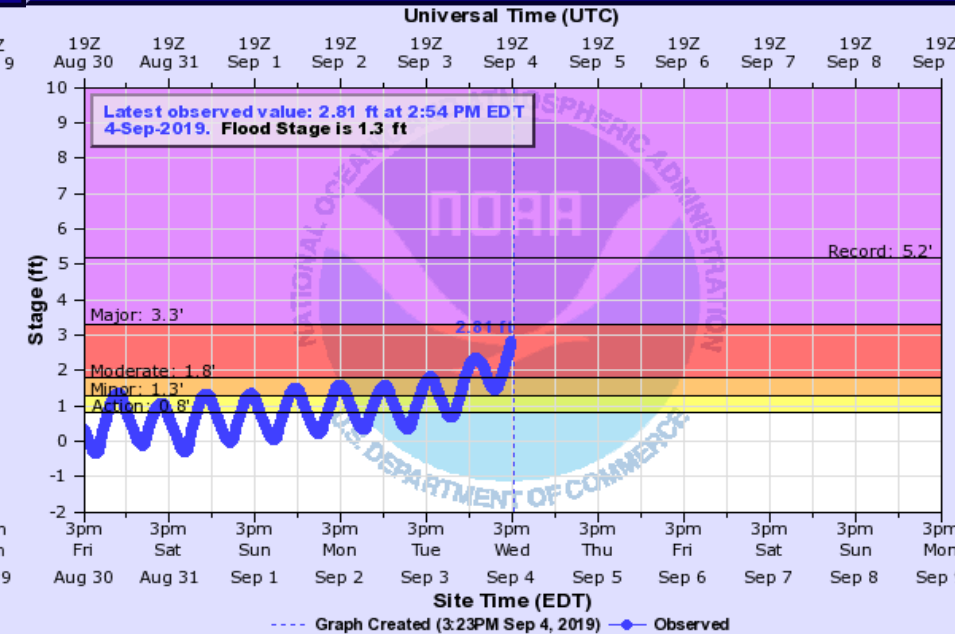
DUNNS CREEK NEAR SATSUMA (IN MHHW)



DNSF1(plotting HGIRG) "Gage 0" Datum: 0'

Observations courtesy of US Geological Survey

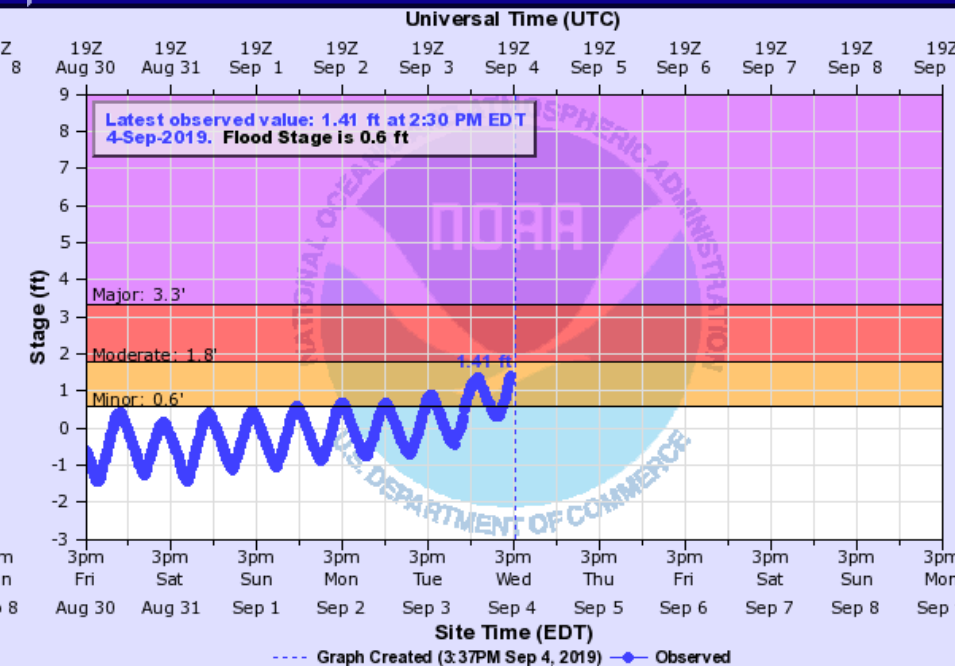
MATANZAS RIVER AT BINGS LANDING (IN MHHW)



BINF1(plotting HGIRG) "Gage 0" Datum: n/a

Observations courtesy of Florida DEP

PELLICER CREEK NEAR ESPANOLA (IN MHHW)



PELF1(plotting HGIRG) "Gage 0" Datum: n/a

Observations courtesy of US Geological Survey

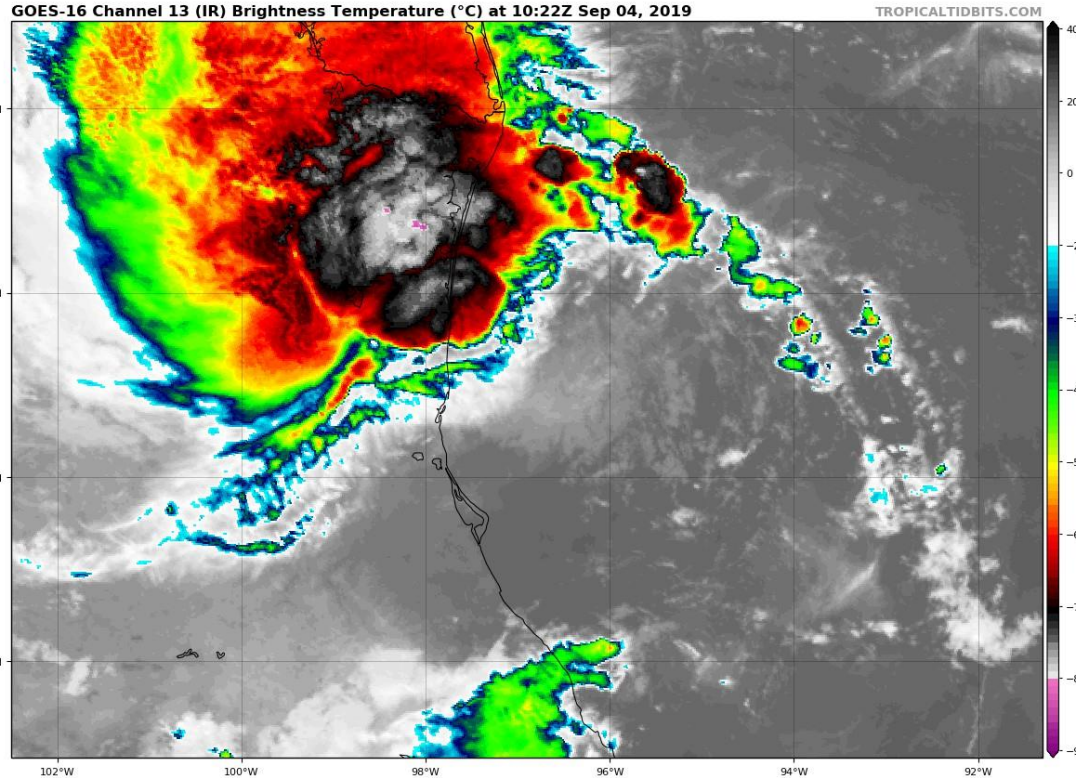
Moderate to potentially major flooding is occurring along the East Coast. These levels are peaking or have peaked. Overall tide levels will gradually subside through Thursday.



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.

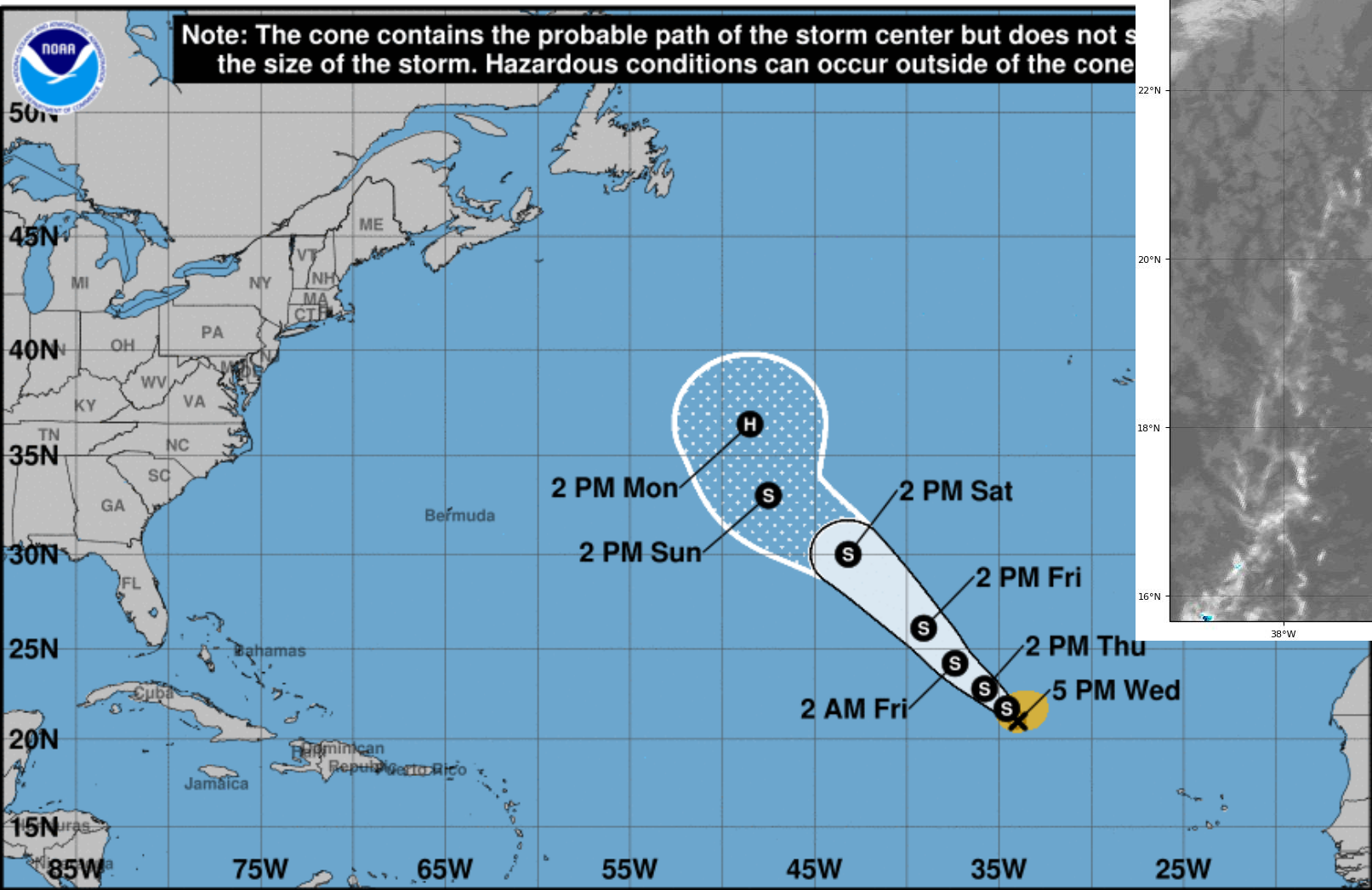


<b>Tropical Depression Fernand</b> Wednesday September 04, 2019 4 PM CDT Advisory 7 NWS National Hurricane Center		<b>Current information: X</b> Center location 24.4 N 98.3 W Maximum sustained wind 35 mph Movement WNW at 9 mph	<b>Forecast positions:</b> ● Tropical Cyclone ○ Post/Potential TC Sustained winds: D < 39 mph S 39-73 mph H 74-110 mph M > 110 mph
<b>Potential track area:</b> Day 1-3 (solid line) Day 4-5 (dotted line)	<b>Watches:</b> Hurricane (pink) Trop Stm (yellow)	<b>Warnings:</b> Hurricane (red) Trop Stm (blue)	<b>Current wind extent:</b> Hurricane (brown) Trop Stm (orange)

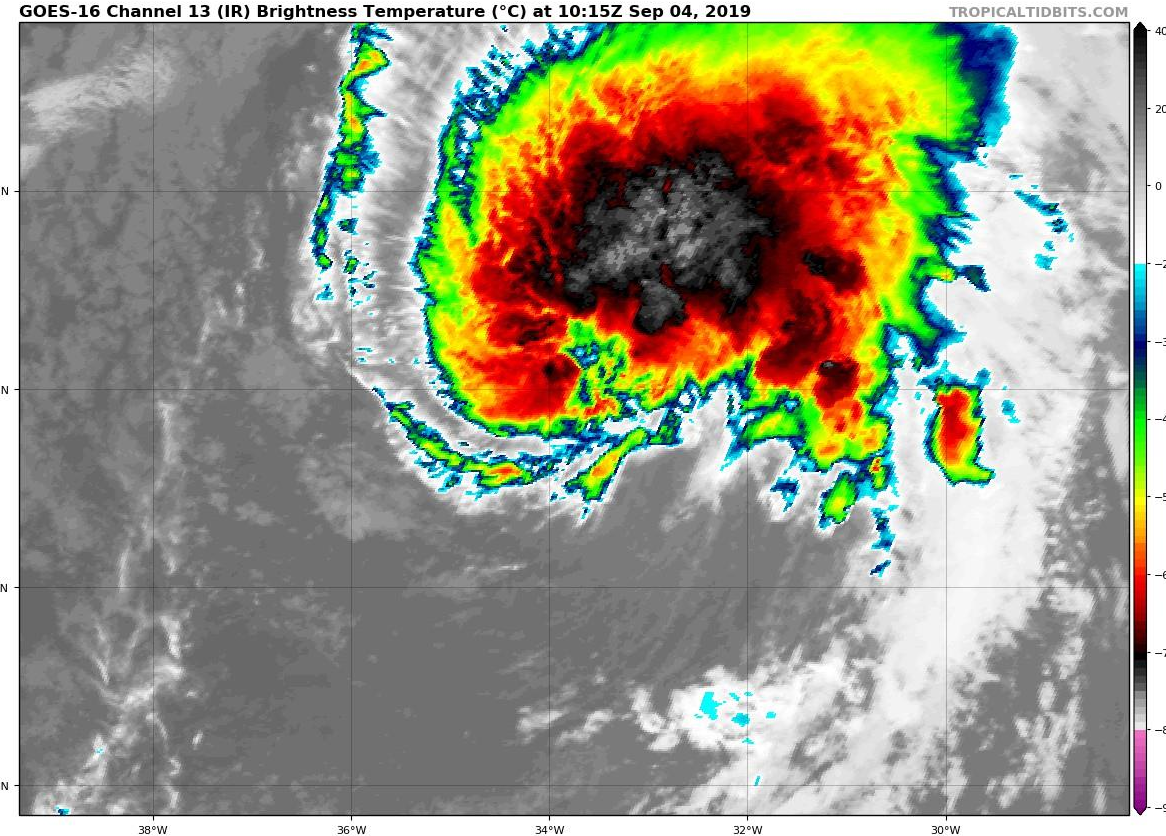


Fernand made landfall earlier this afternoon in northeast Mexico and has weakened to a tropical depression.





<b>Tropical Storm Gabrielle</b> Wednesday September 04, 2019 5 PM AST Advisory 5 NWS National Hurricane Center		<b>Current information: x</b> Center location 21.0 N 34.0 W Maximum sustained wind 50 mph Movement NW at 9 mph		<b>Forecast positions:</b> ● Tropical Cyclone ○ Post/Potential TC Sustained winds: D < 39 mph S 39-73 mph H 74-110 mph M > 110 mph	
<b>Potential track area:</b> Day 1-3 (solid line) Day 4-5 (dotted line)		<b>Watches:</b> Hurricane (pink) Trop Stm (yellow)		<b>Warnings:</b> Hurricane (red) Trop Stm (blue)	
		<b>Current wind extent:</b> Hurricane (brown) Trop Stm (orange)			



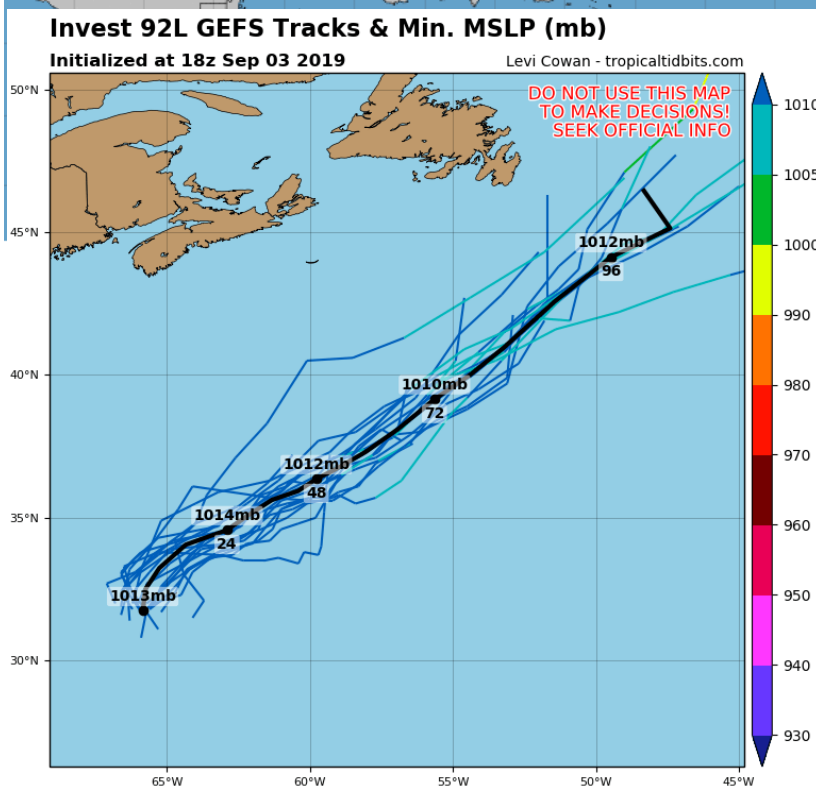
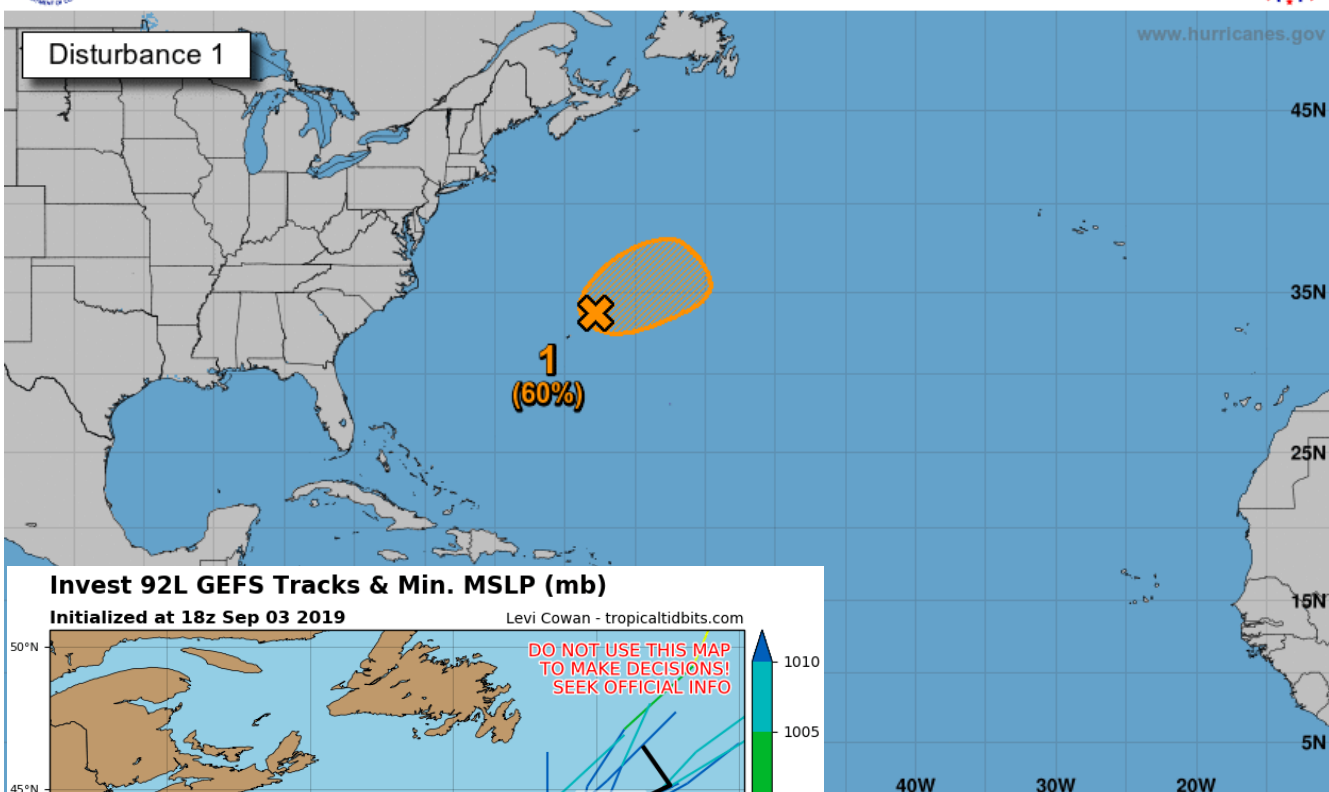
Tropical Storm Gabrielle will continue to move northwestward over the open Atlantic with little change in strength until over the weekend.





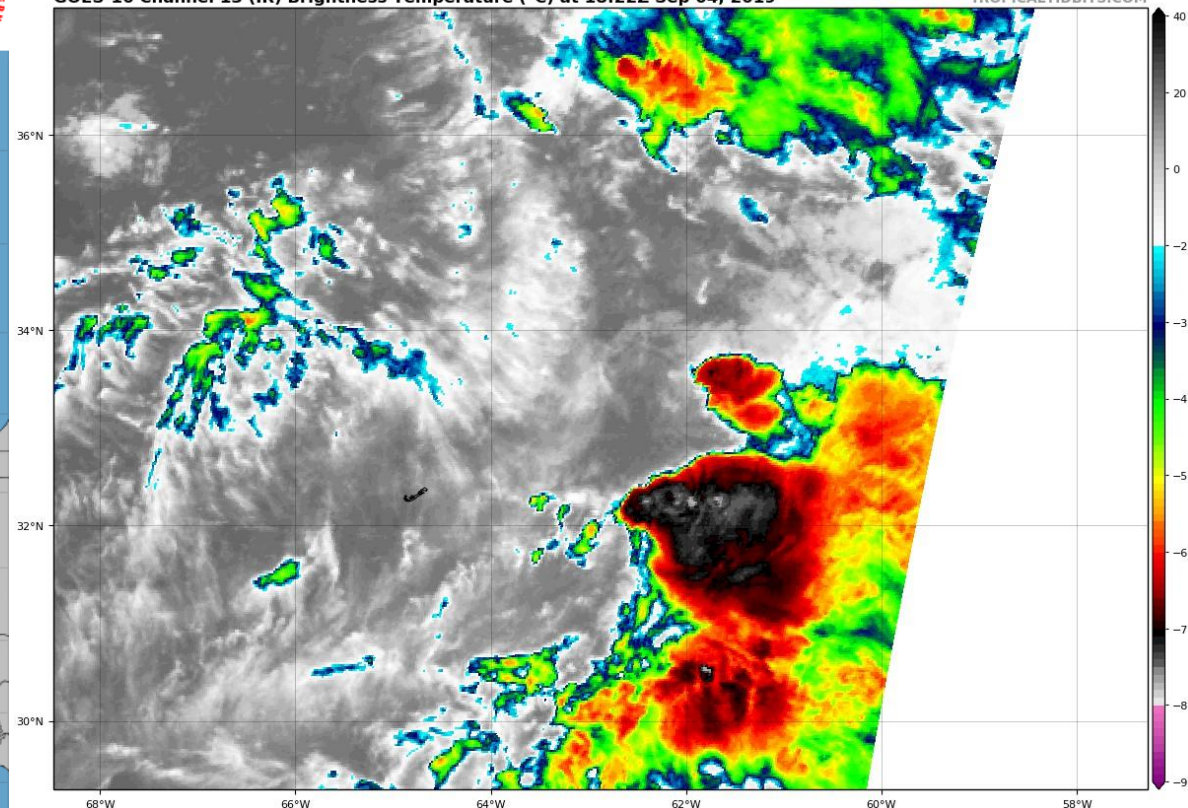
# Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



GOES-16 Channel 13 (IR) Brightness Temperature (°C) at 18:22Z Sep 04, 2019

TROPICALTIDBITS.COM

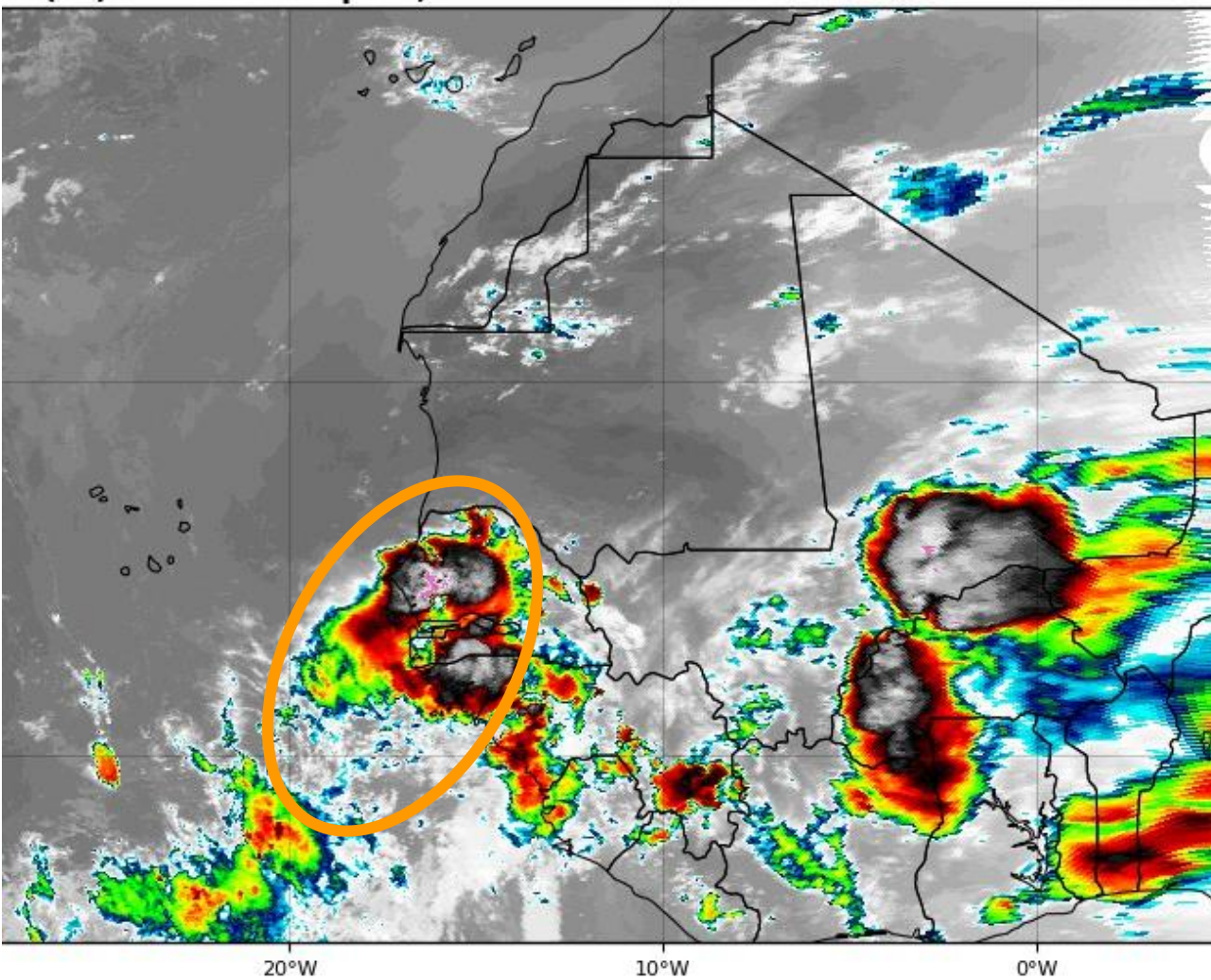


**Invest 92L** is still rather disorganized. There is still a small window of opportunity for development within the next 2-3 days. However, by Saturday, upper level winds become unfavorable for further development.

- \* Formation chance through 48 hours...medium...60 percent.
- \* Formation chance through 5 days...medium...60 percent.

re (°C) at 18:15Z Sep 04, 2019

TROPICALTIDBITS.COM

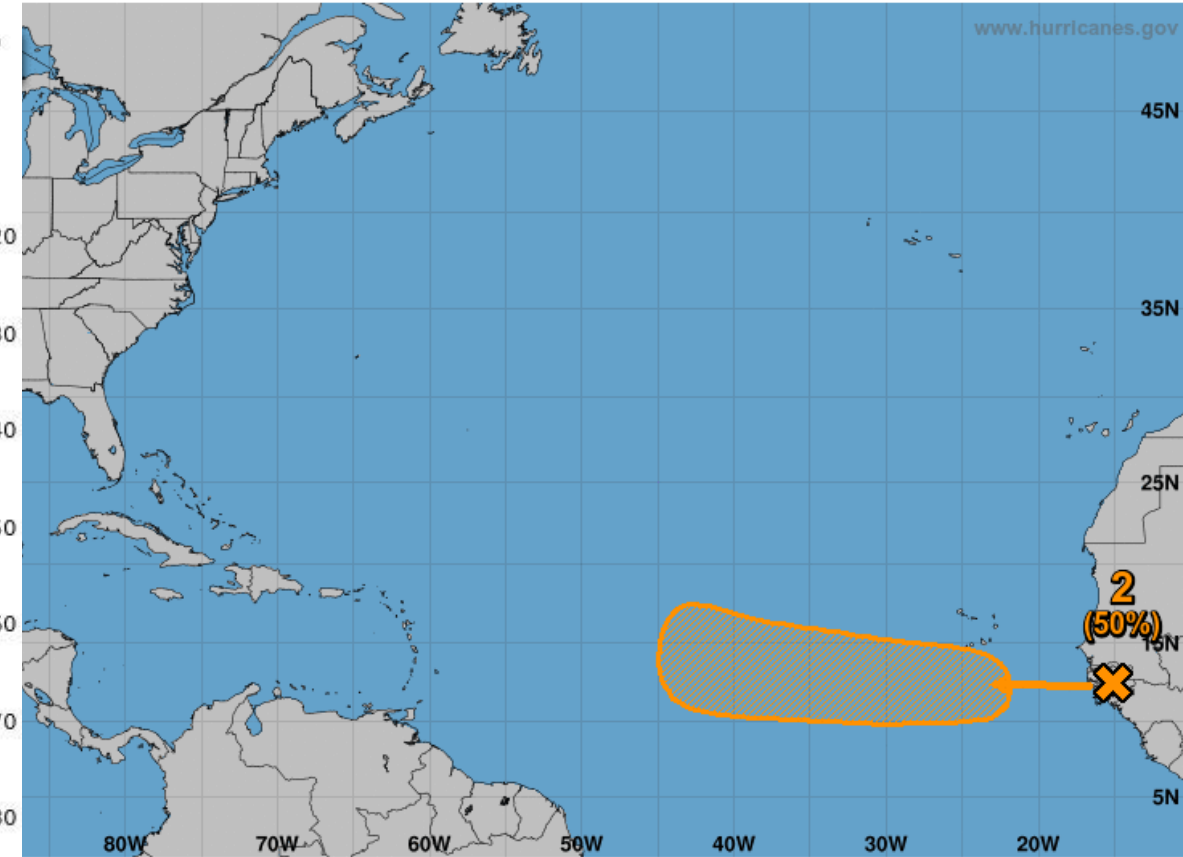


## Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



www.hurricanes.gov



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

**West African Wave:** A tropical wave along the west coast of Africa will emerge into the Atlantic later today. Some slow development is possible, and this system could become a tropical depression this weekend or early next week.

\* Formation chance through 48 hours...low...near 0 percent.

\* **Formation chance through 5 days...medium...50 percent.**



# Summary

## Hurricane Dorian

- At 5 PM ET Wednesday, the center of Hurricane Dorian was located about 150 miles south of Charleston, South Carolina, and continues to parallel the Florida coast. Dorian is moving to the north-northwest at 8 mph.
- Hurricane hunters have found that maximum sustained winds are near 110 mph, which is a Category 2 Hurricane. Dorian is forecast to maintain intensity through tonight with gradual weakening thereafter.
- Dorian will begin a north and northeast turn tonight and then accelerating towards the Carolinas on Thursday.
- Dorian's wind field is expanding and tropical storm conditions are expected to continue through Wednesday night, with hurricane force gusts possible along the immediate coast of Northeast Florida.
- **Tropical Depression Fernand**: Fernand has made landfall in northeast Mexico and has weakened to a tropical depression.
- **Tropical Storm Gabrielle**: Gabrielle is located several hundred miles northwest of the Cabo Verde Islands with maximum sustained winds of 50 mph. Gabrielle will begin to accelerate to the northwest into the North Atlantic, well away from land.
- **Invest 92L**: An area of low pressure near Bermuda remains disorganized, but still has a small window for possible development as it moves to the northeast into the North Atlantic. It has a 60% (medium) chance of development over the next 48 hours.
- **African Wave**: A tropical wave over western Africa will emerge into the Atlantic later tonight. Once it does so, the National Hurricane Center gives it a 50% (medium) chance of development.

Florida Outlook:

- A **Storm Surge Warning** is in effect for Nassau, Duval, St. Johns, and Flagler Counties
- A **Tropical Storm Warning** is in effect for Nassau, Duval, Clay, Putnam, St. Johns, and Flagler Counties
- A **Hurricane Watch** is in effect for coastal Nassau and coastal Duval.
- A **Coastal Flood Warning** is in effect for inland Duval, Clay, Putnam, inland St. Johns, inland Flagler.
- A **Flash Flood Watch** is in effect for Nassau, Duval, St. Johns, and Flagler County until late tonight.
- Damaging winds, storm surge, flash flooding, and isolated tornadoes are all possible with Dorian tonight in Northeast Florida, gradually subsiding overnight
- Sustained tropical storm force winds in Northeast Florida will remain possible through sunrise Thursday.
- By Thursday morning, all tropical storm conditions are forecast to have moved out of Florida.
- Storm Surge of 3-5' possible from Flagler/Volusia County Line northward.
- In addition, large battering waves in excess of 10-15' are causing erosion and coastal flooding during high tide.
- Rainfall amounts of 2-4" are expected along the coast of Northeast Florida. This may cause minor flooding issues along with post-landfall river/creek flooding.
- Minor river flooding is ongoing or forecast along parts of the Santa Fe River, Cypress Creek, and the St. Johns River. However, moderate flooding is ongoing at the St. Johns River at Astor.
  
- Fernand, Gabrielle, and the 2 systems being monitored for development pose no threat to Florida.
- The next names on the 2019 Atlantic storm name list are Humberto and Imelda.

The next tropics packet will be issued Thursday morning. For the latest information on the tropics, please visit the National Hurricane Center website at [www.hurricanes.gov](http://www.hurricanes.gov). For the latest flood updates, see the latest products from your local National Weather Service, the [Southeast River Forecast Center](#), and the [Weather Prediction Center](#).





# TROPICAL UPDATE



Created by:

Cameron Young, Assistant State Meteorologist

[Cameron.Young@em.myflorida.com](mailto:Cameron.Young@em.myflorida.com)

State Meteorological Support Unit

Florida Division of Emergency Management

Users wishing to subscribe (approval pending) to this distribution list, register at:

[https://public.govdelivery.com/accounts/FLDEM/subscriber/new?topic\\_id=SERT\\_Met\\_Tropics](https://public.govdelivery.com/accounts/FLDEM/subscriber/new?topic_id=SERT_Met_Tropics).

Other reports available for subscription are available at:

<https://public.govdelivery.com/accounts/FLDEM/subscriber/new?preferences=true>