



TROPICAL UPDATE



5 PM EDT

Tuesday, September 3, 2019

Hurricane Dorian, Tropical Storm Fernand, Tropical Depression #8, Invest 92L (50%) & African Wave (70%)

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.

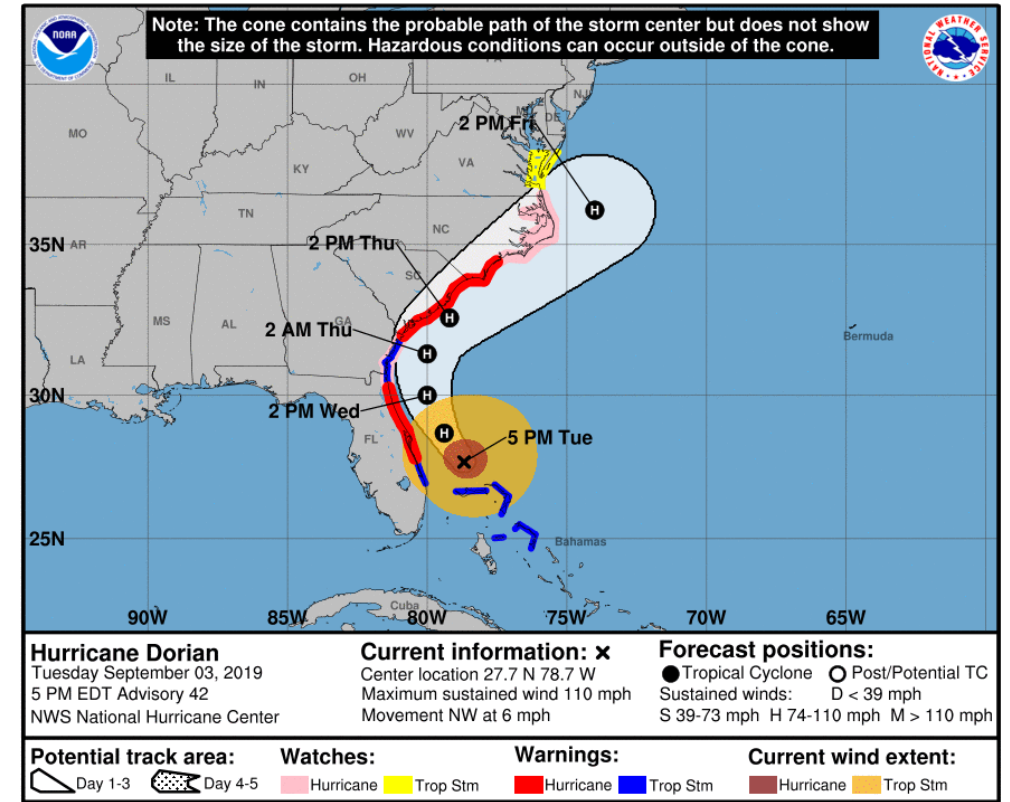
Hurricane Dorian

Tuesday, September 3, 5 PM

	MINIMAL	Low	MODERATE	HIGH	EXTREME
 WINDS					
 STORM SURGE					
 FLOODING					
 TORNADOES					

	Low	MODERATE	HIGH
 RIP CURRENTS			

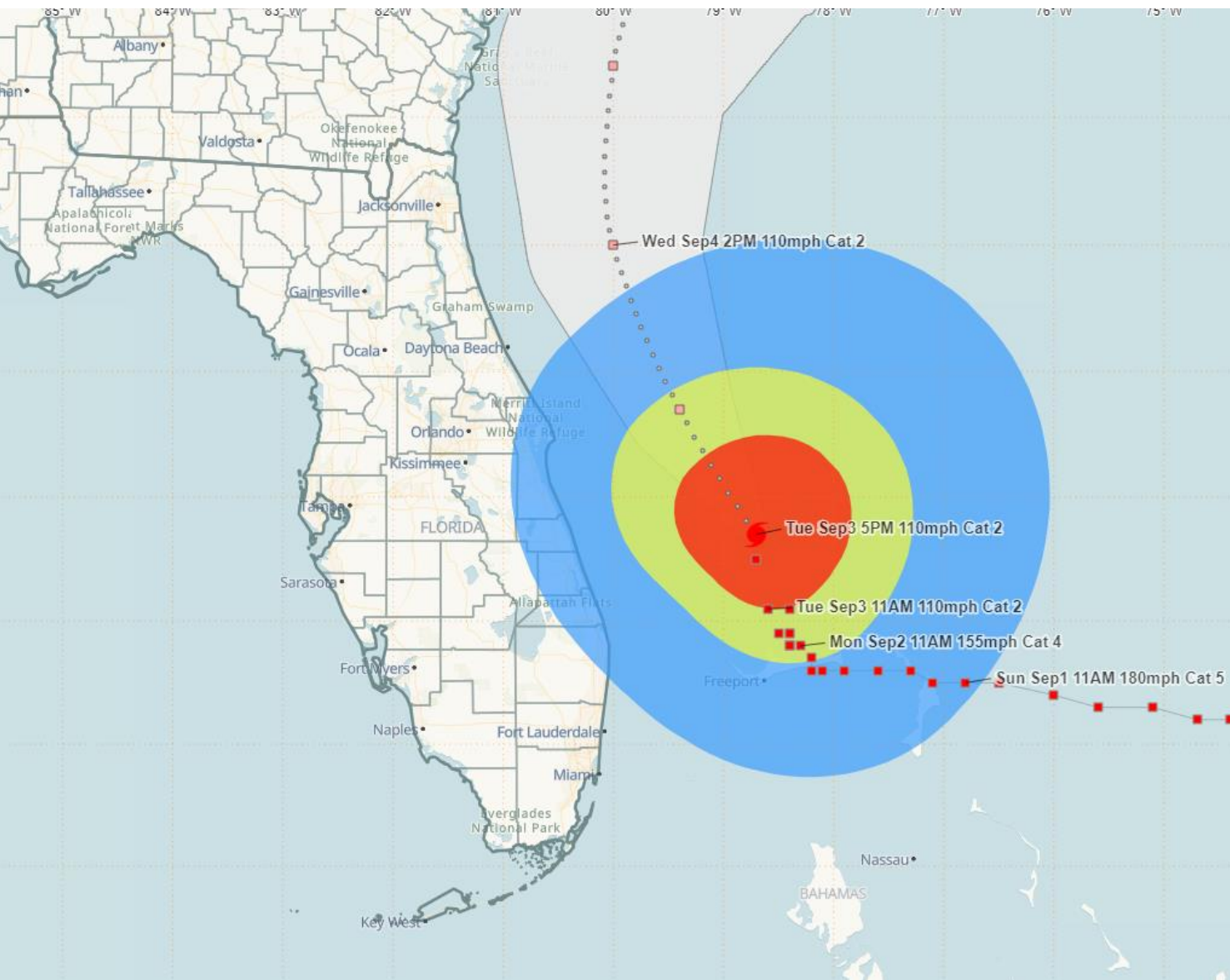
National Hurricane Center Map



Changes Since This Morning:

- Dorian is now a Category 2 hurricane with maximum sustained winds of 110 mph, but the wind field is expanding.
- Dorian now moving northwest at 6 mph.
- Tropical Storm and Hurricane Watches for Southeast Florida have been cancelled.

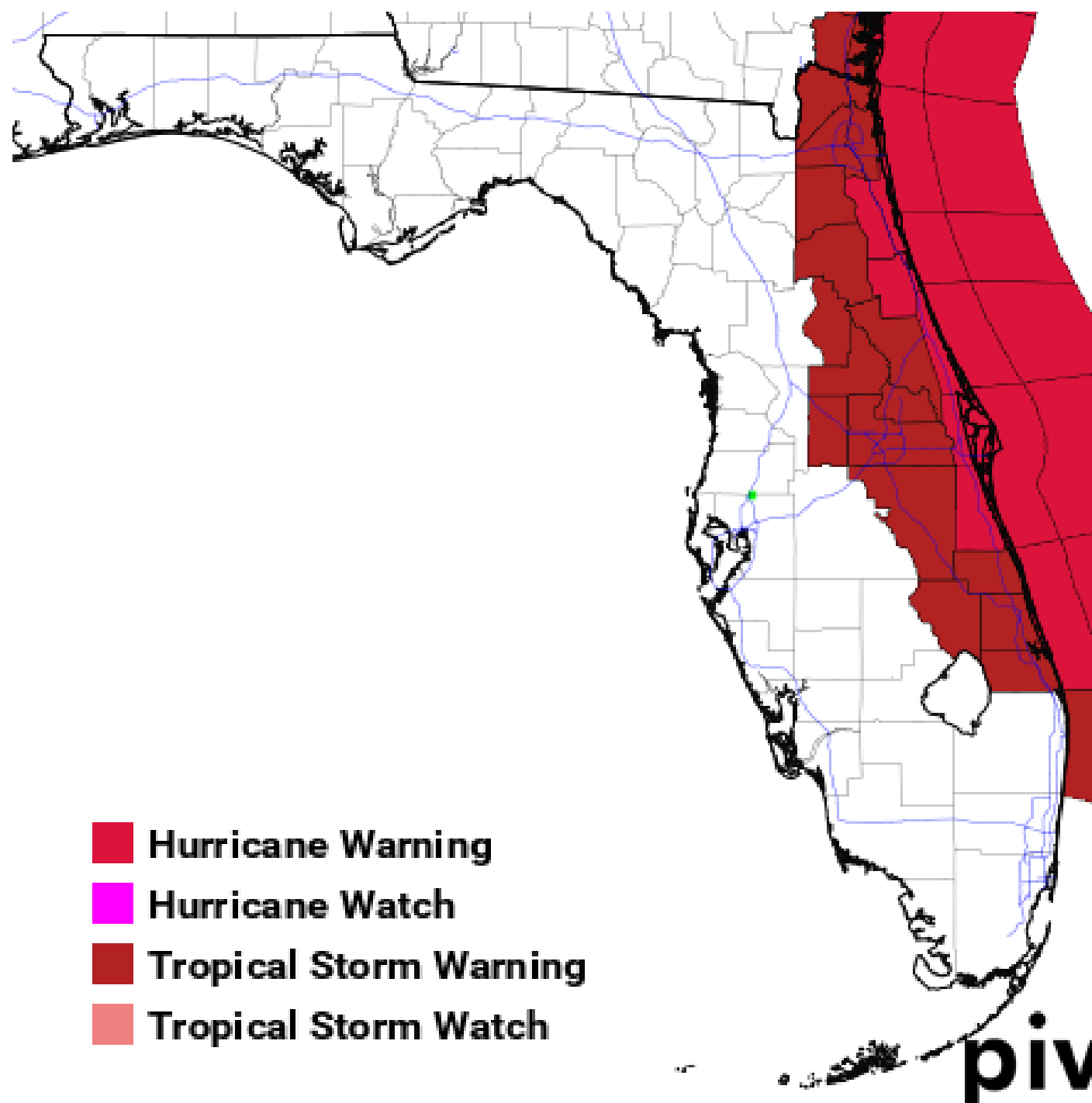
Hurricane Dorian Forecast Track



Hurricane Dorian is located about **105 miles east of Vero Beach** and moving northwest at 6 mph. Maximum **sustained winds** have decreased to **110 mph**, making Dorian a **Category 2 Hurricane**. Dorian is forecast to maintain this intensity next 2-3 days.

A faster forward motion is expected by tonight. A turn to the north is forecast by Wednesday evening, followed by a turn to the north-northeast Thursday morning. On this track, the core of Hurricane Dorian parallel the Florida east coast late today through Wednesday evening, very near the Georgia and South Carolina coasts Wednesday night and Thursday, and near or over the North Carolina coast late Thursday.

Hurricane force winds now extend 60 miles from the center and tropical storm force winds extend outward up to 175 miles.

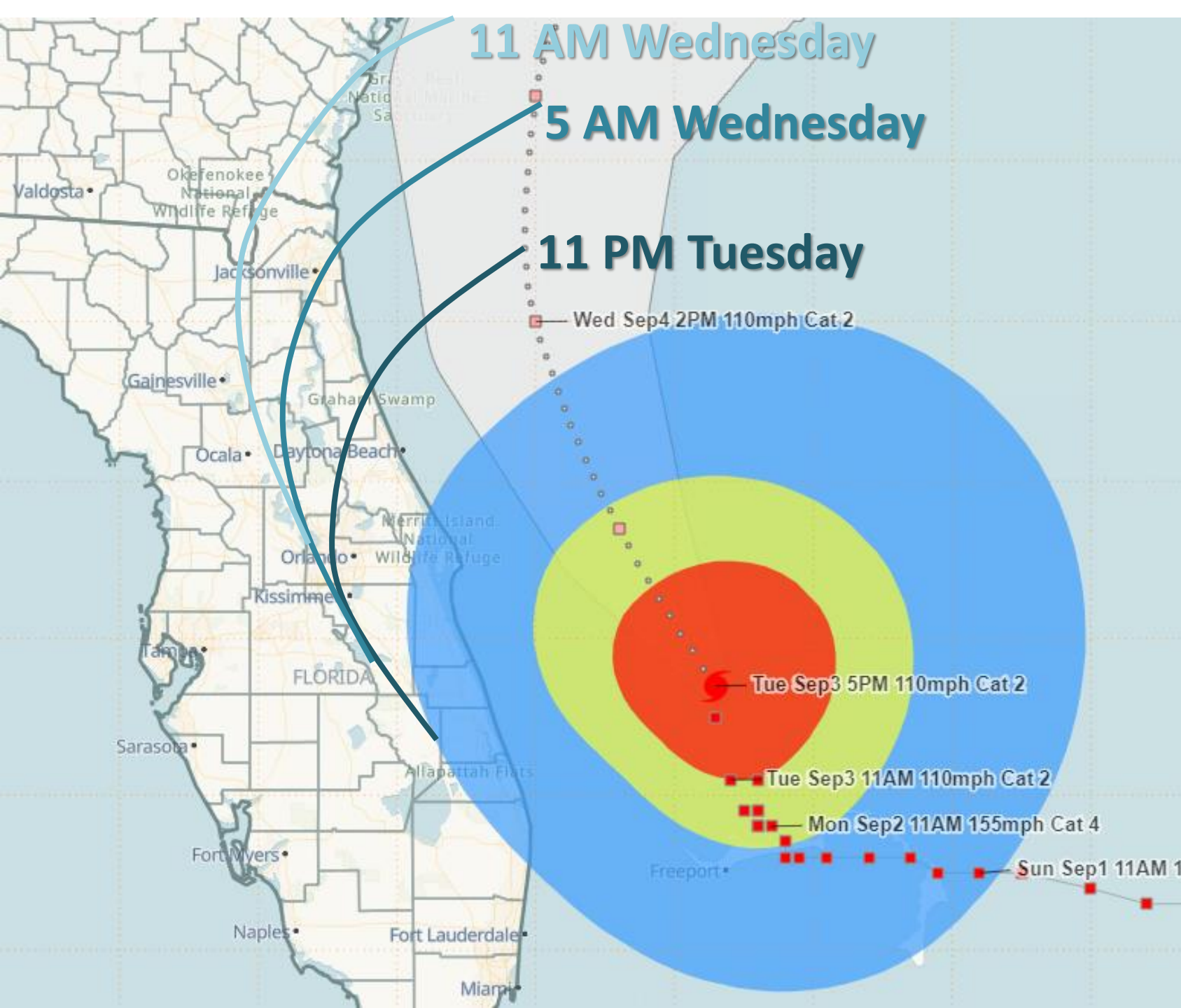


-  Hurricane Warning
-  Hurricane Watch
-  Tropical Storm Warning
-  Tropical Storm Watch

Hurricane Warning in effect for St. Johns, Flagler, coastal Volusia, Brevard Counties

Hurricane Watch for coastal Nassau, coastal Duval Counties

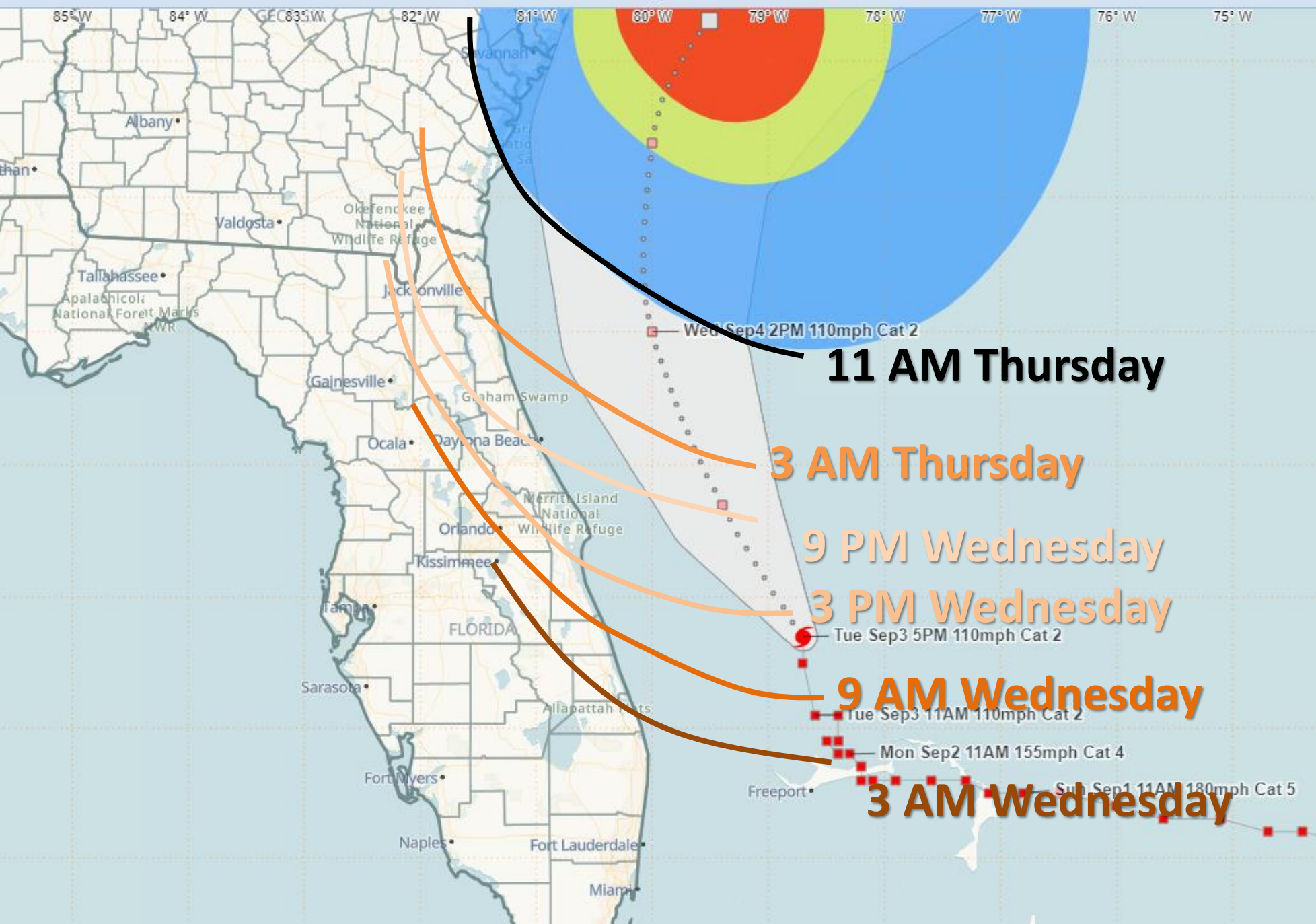
Tropical Storm Warning for Nassau, Duval, Clay, Putnam, eastern Marion, Lake, inland Volusia, Seminole, Orange, Osceola, Okeechobee, Indian River, St. Lucie, Martin Counties



Onset of Tropical Storm Force Wind Timing Estimates

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

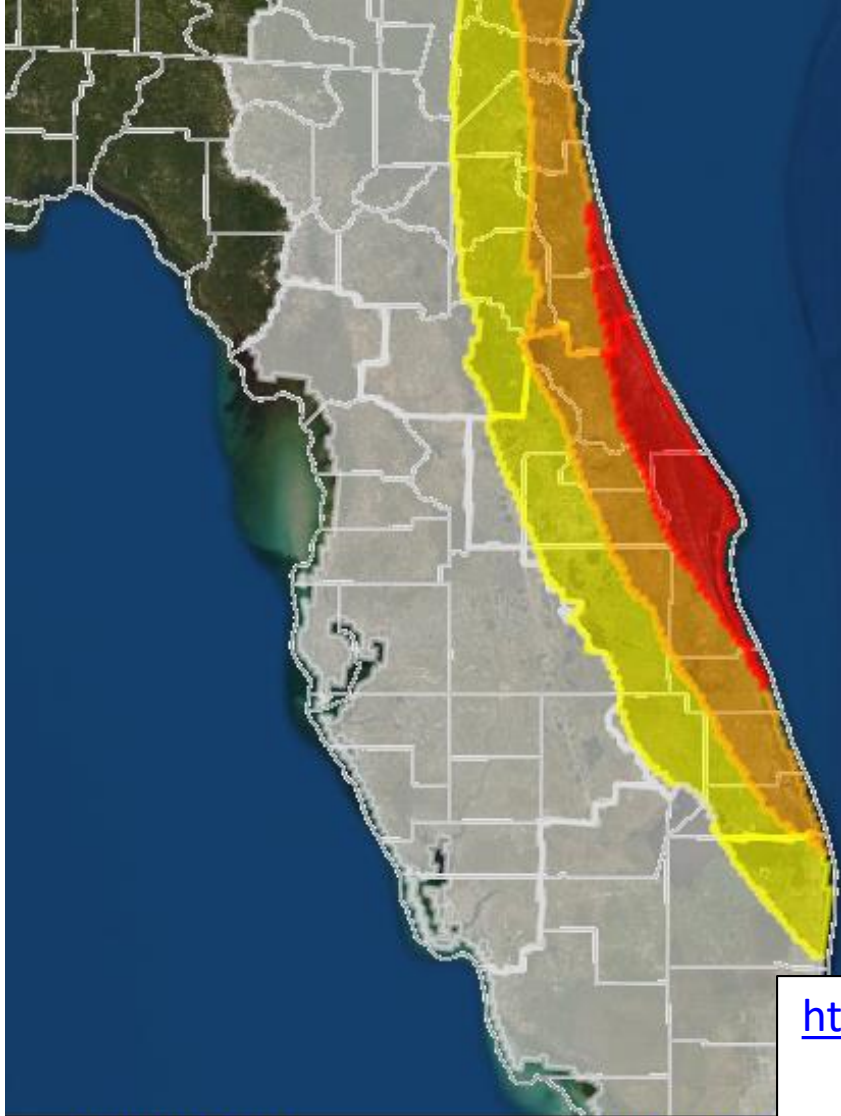
Winds will slowly expand northward along the Treasure Coast today and then expand into the Space Coast tonight through sunrise Wednesday.



Recession of Tropical Storm Force Winds Timing

*Note: Assumes a
perfect forecast.*

Winds will gradually
subside through
Wednesday.



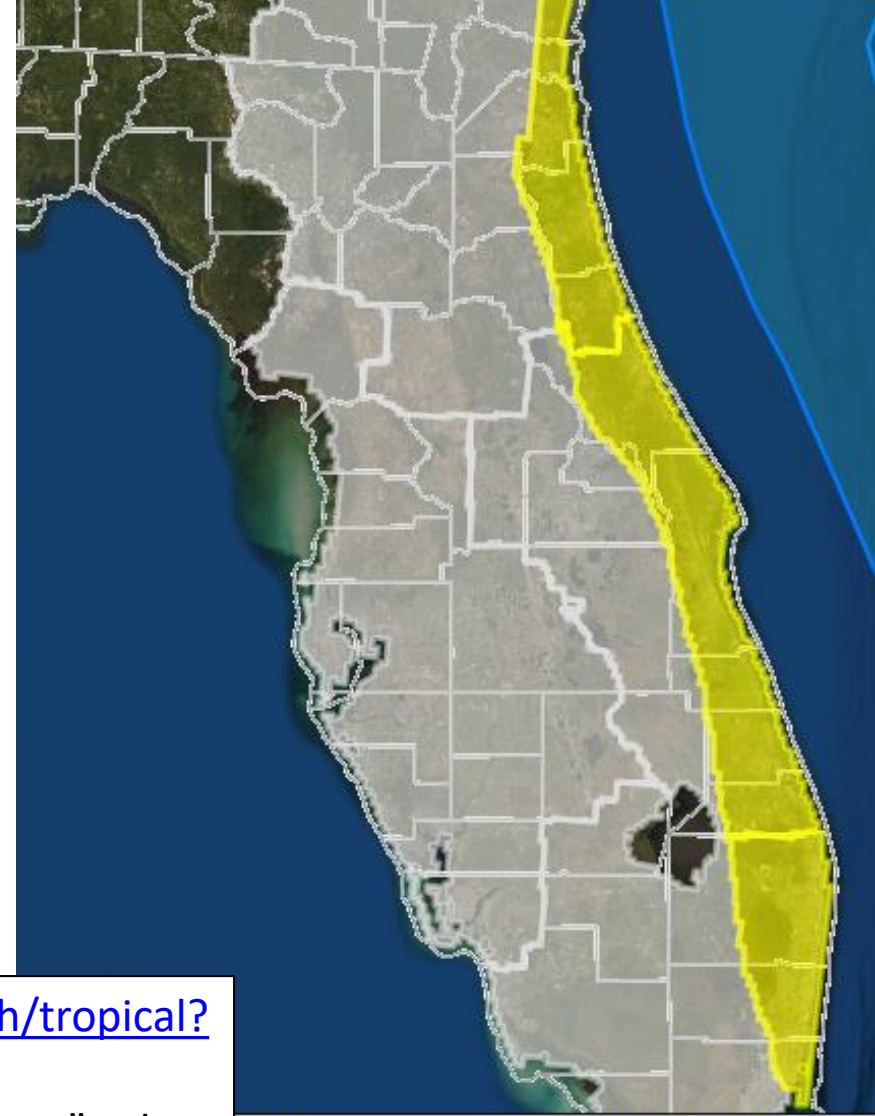
[Download KML]

[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>

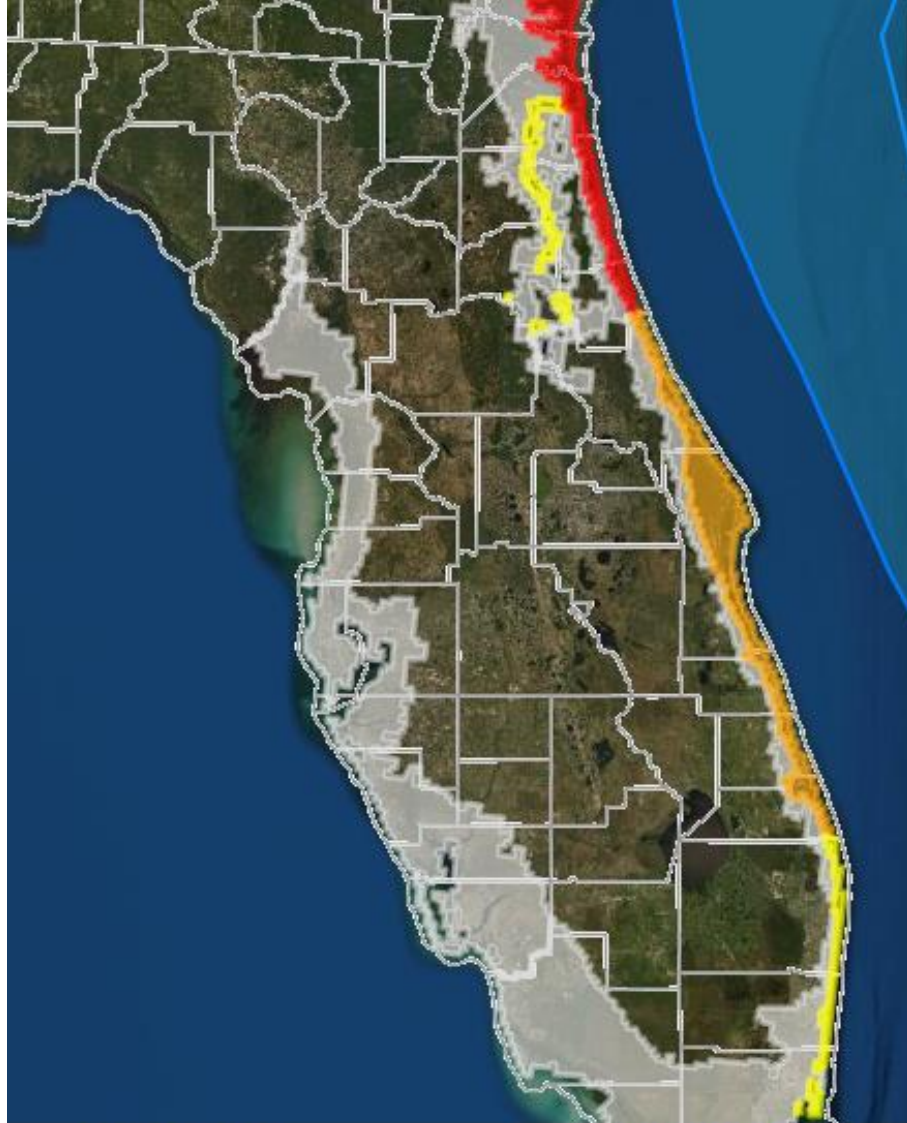
Click on “Threats and Impacts” Tab



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

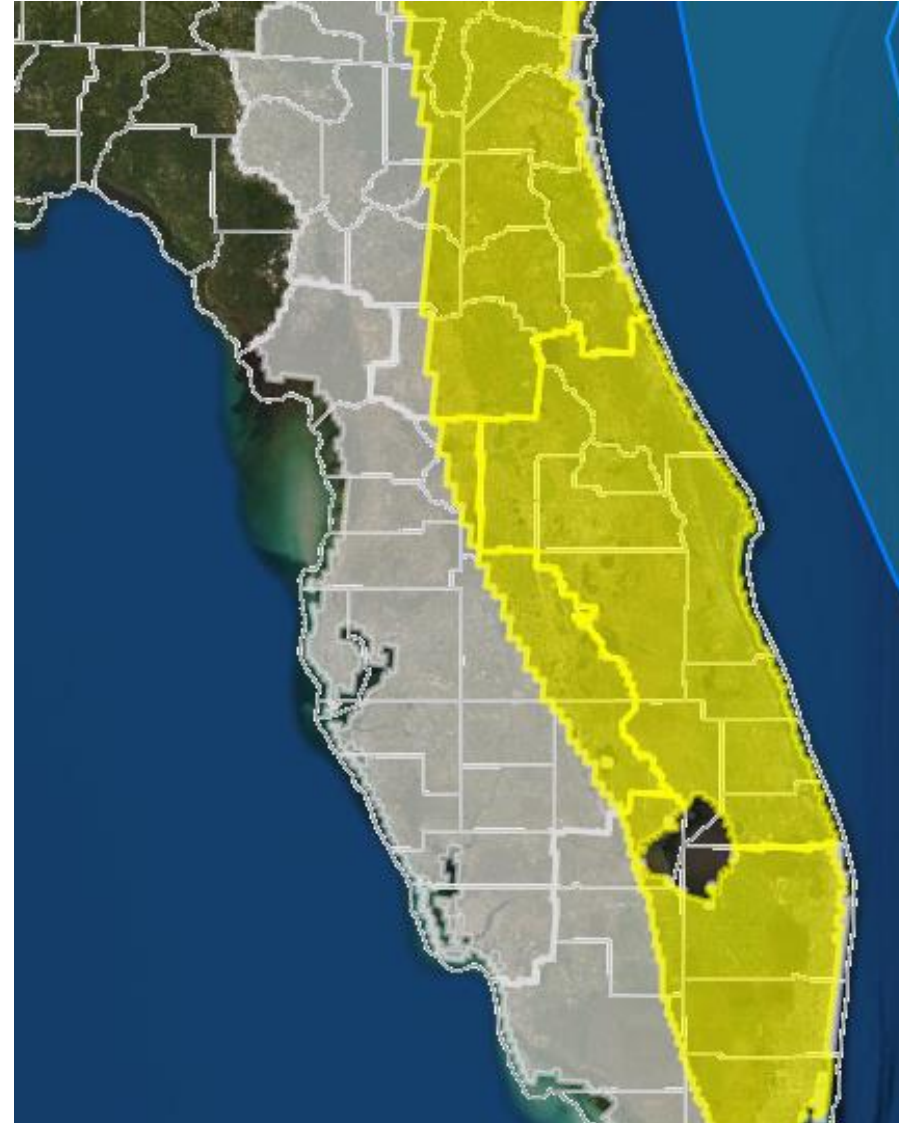


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Storm Surge Threat

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



[\[Download KML\]](#)

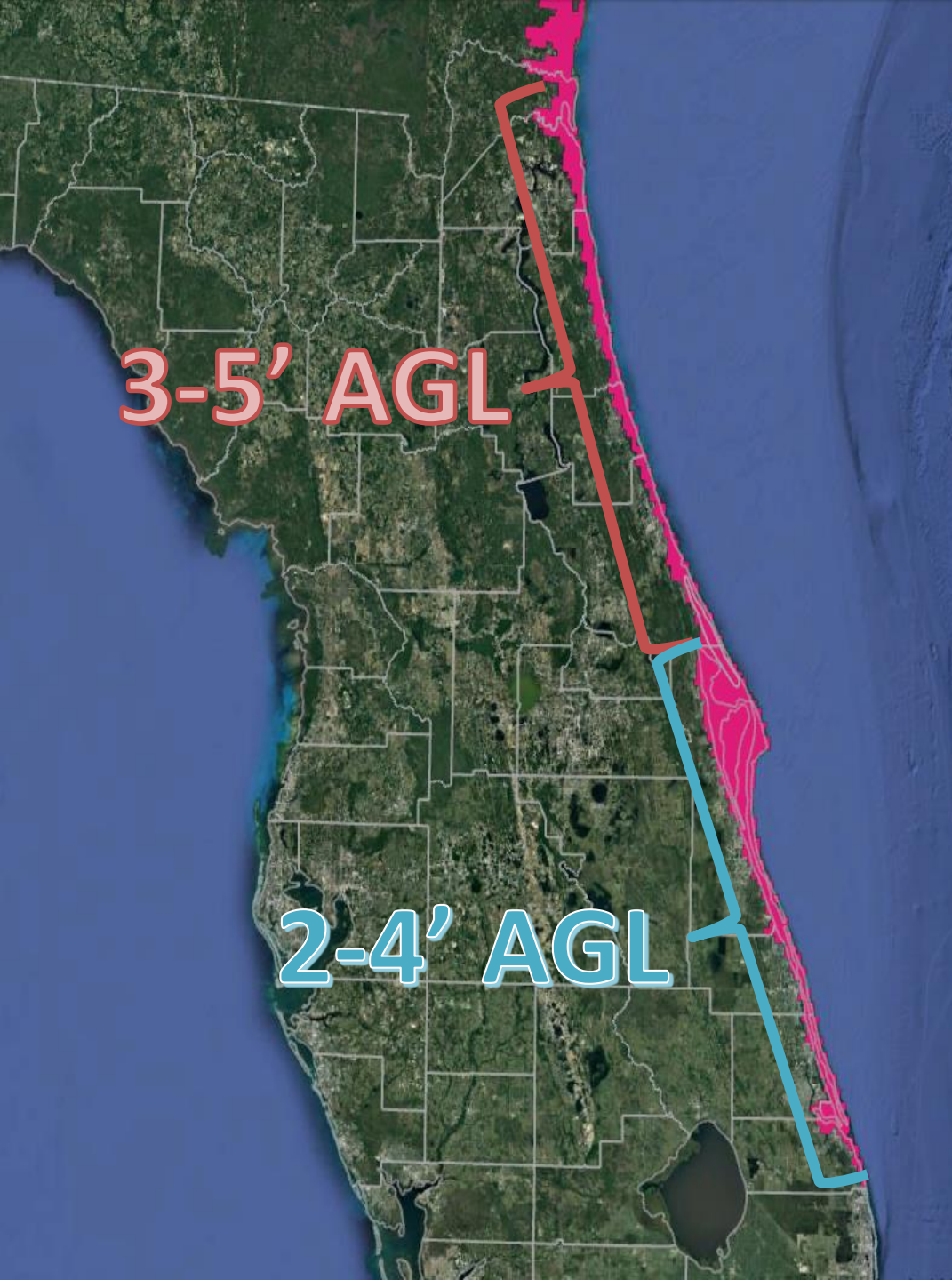
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Flooding Rain Threat

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, Flagler, Brevard, Indian River, St. Lucie, Martin 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



https://www.nhc.noaa.gov/refresh/graphics_at5+shtml/155815.shtml?inundation#contents

Interactive P-Surge Inundation Map



USGS Modeling

- Probability of overwash, or the likelihood that wave runup and storm surge will overtop the dune crest, during Hurricane Dorian
- Potential overwash spots:
 - St. Lucie Inlet & Hutchinson Island (St. Lucie/Martin Co)
 - Orchid Island (Indian River Co)
 - Patrick AFB & Cape Canaveral (Brevard Co)
 - Flagler Beach, Palm Coast, Marineland (Flagler Co)
 - St. Augustine Inlet, Villano Beach, Ponte Vedra Beach (St. Johns Co)
 - Jacksonville Beach, Neptune Beach, Little Talbot Island (Duval Co)

Rainfall Forecast Next 3 Days

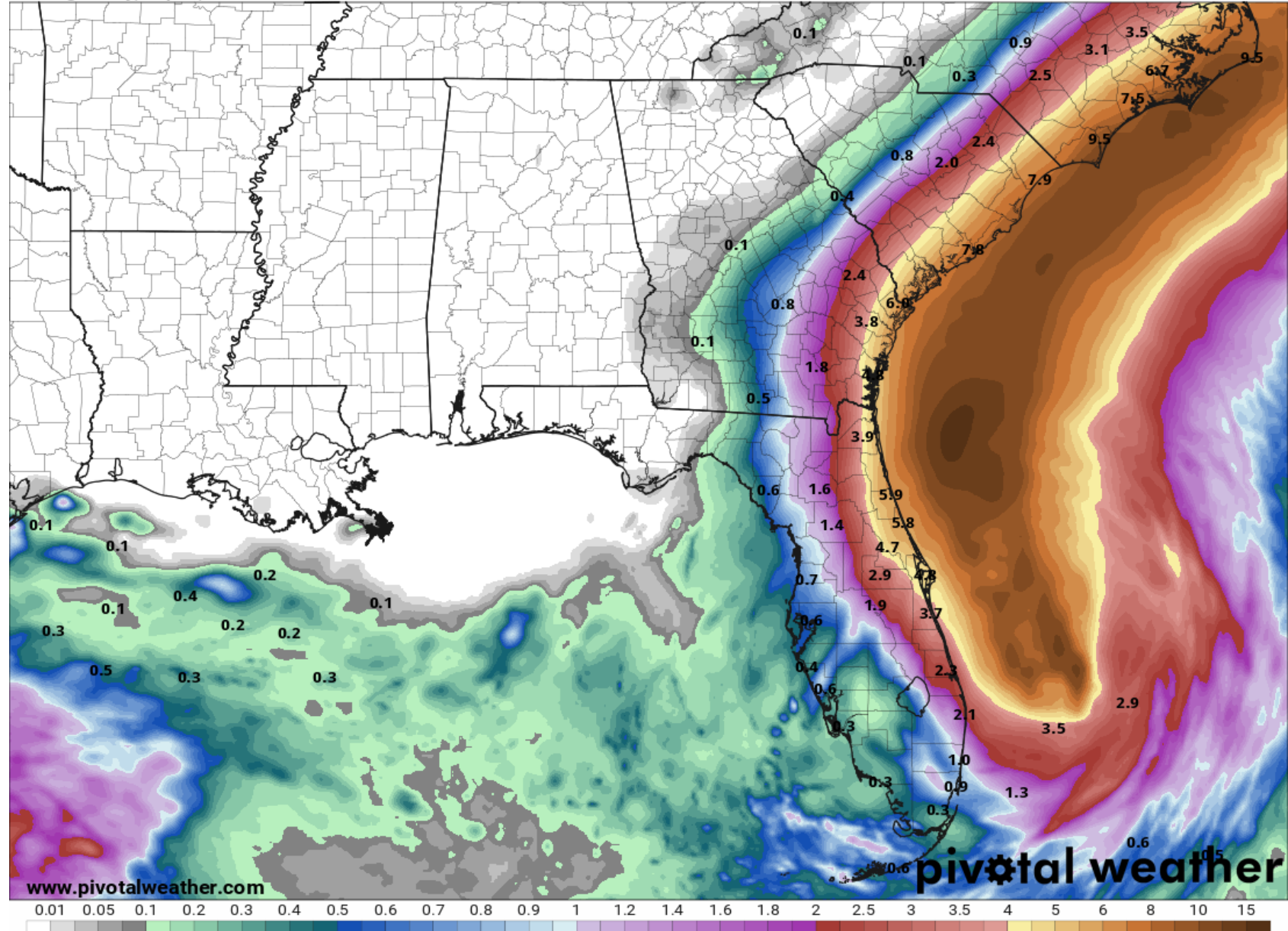
Dorian is forecast to bring 2-6" of rain to the Florida East Coast through the next 3 days.

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, and likely in Northeast Florida.

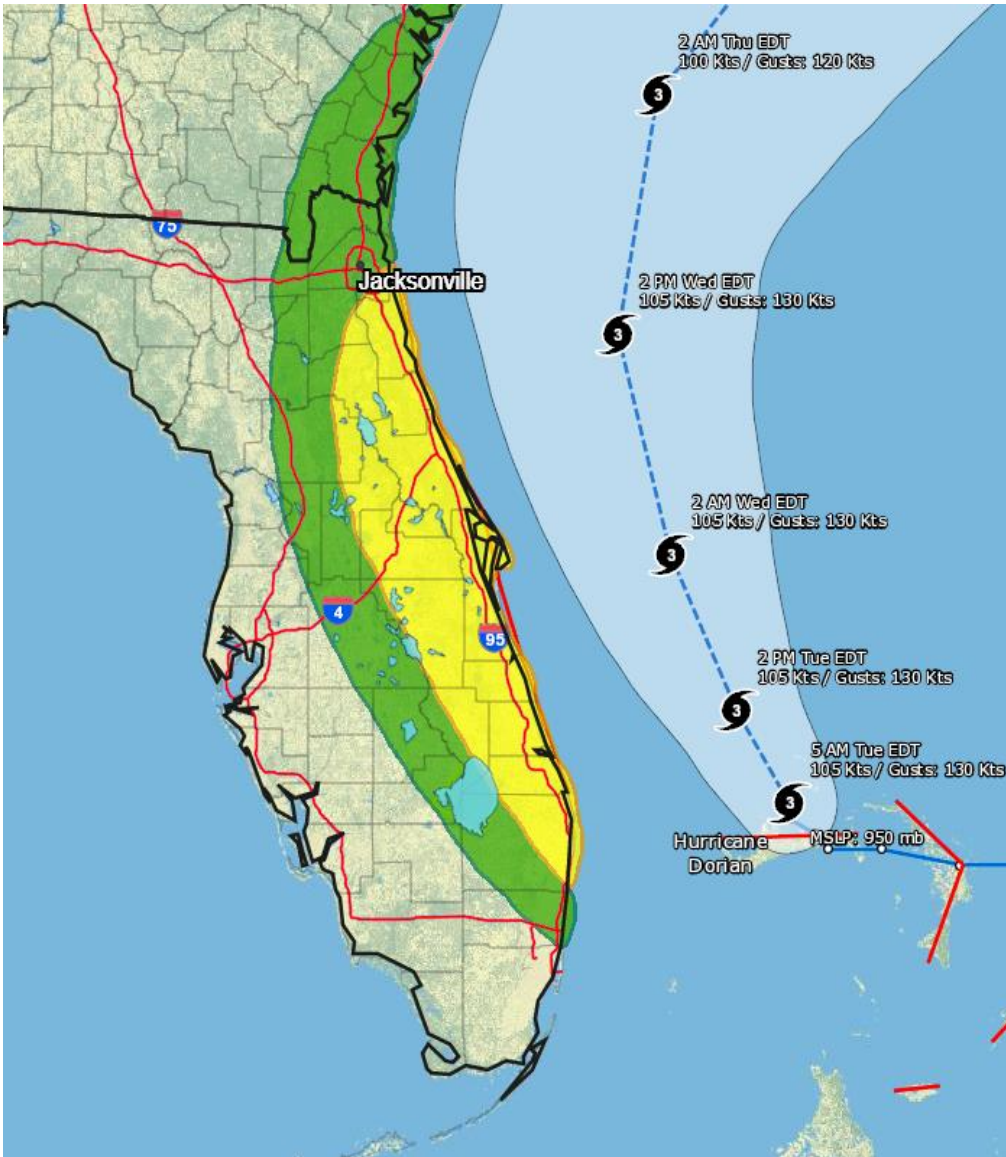
72-Hour Precipitation (in)
Ending Friday, Sep. 6, 2019 at 8 a.m. EDT

Init: Tue 2019-09-03 12z WPC

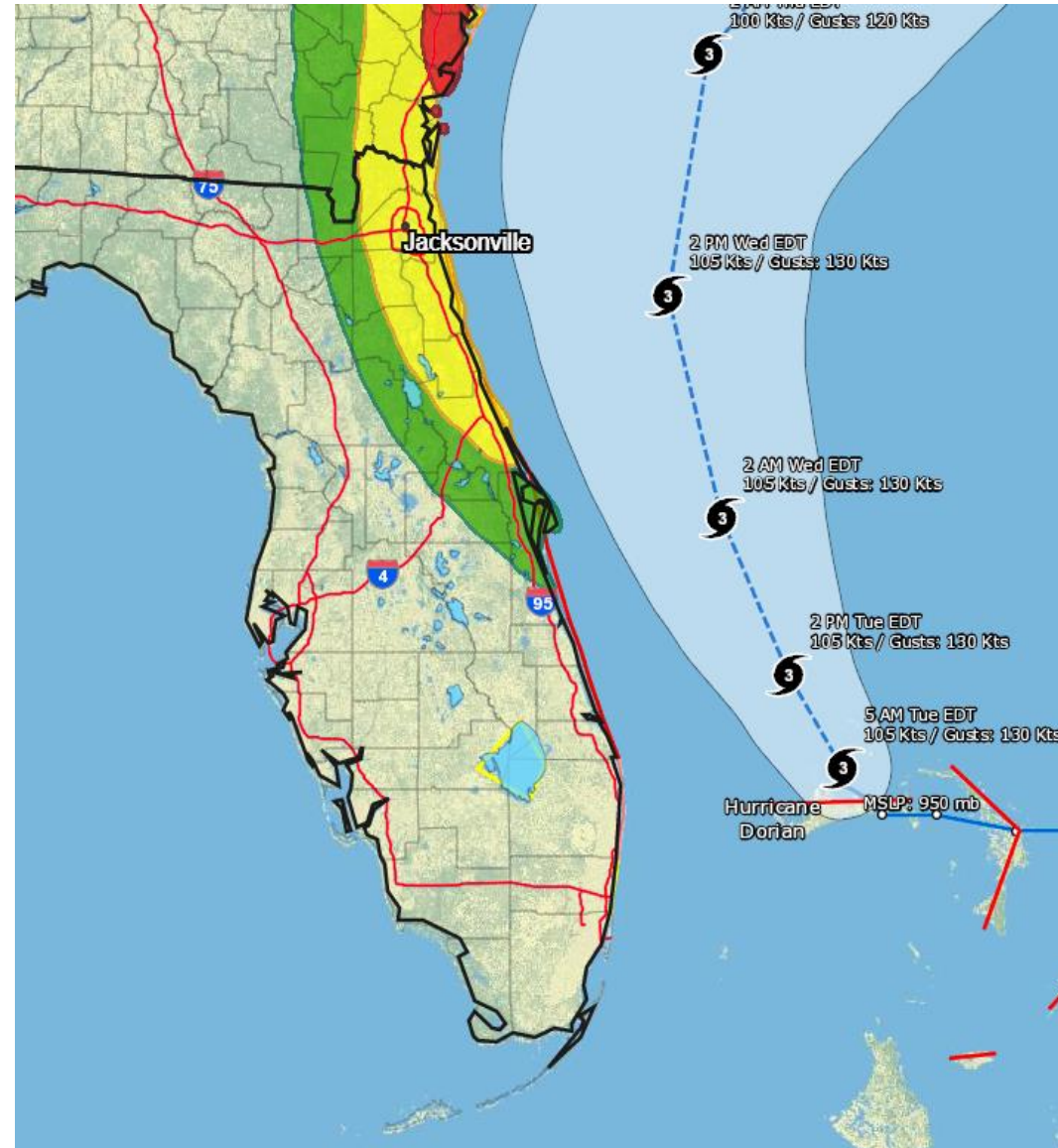


Flash Flood Outlooks

Tuesday



Wednesday



**MARGINAL
(MRGL)**

**Isolated flash
floods possible**

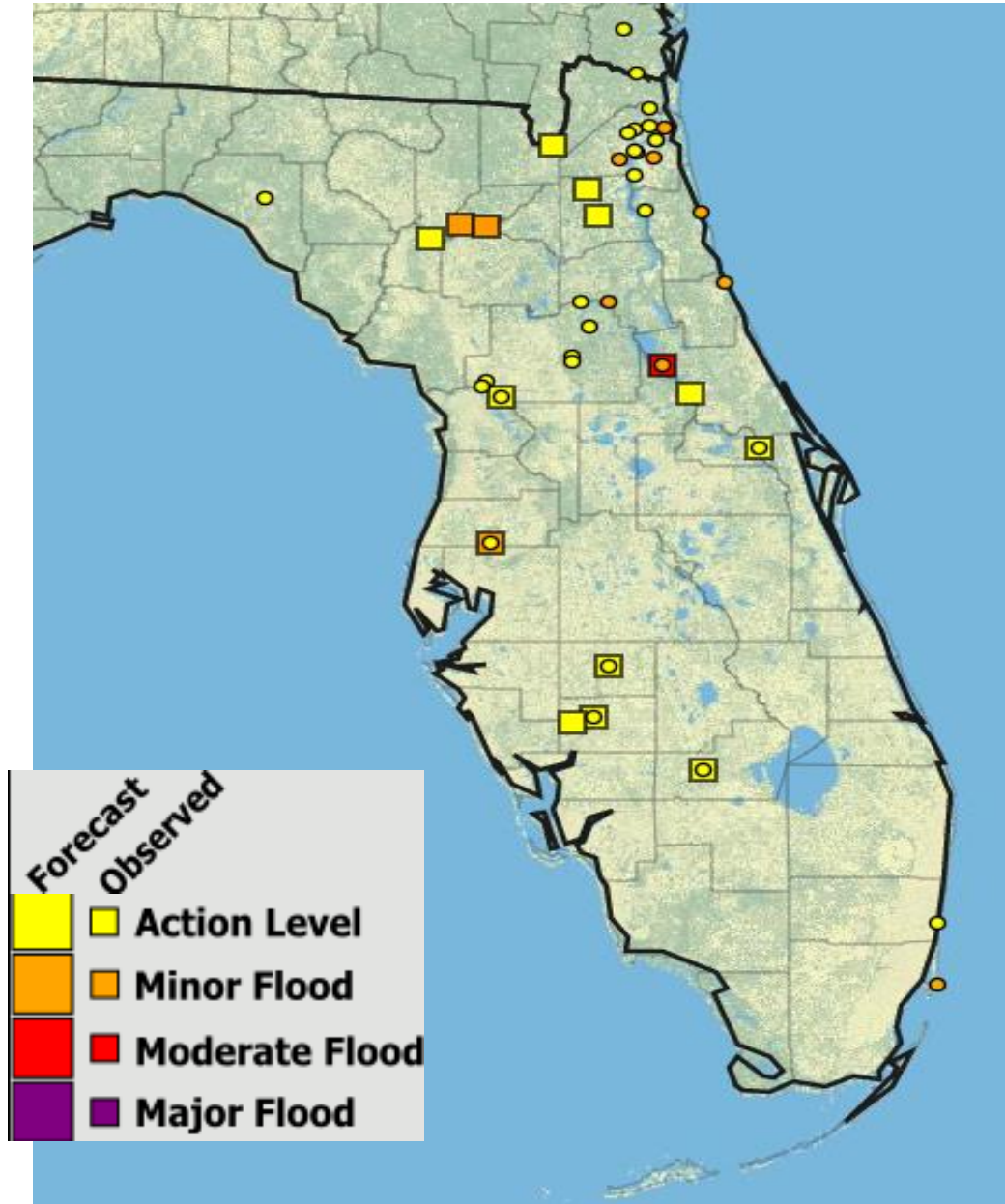
Localized and
primarily affecting
places that can
experience rapid
runoff with heavy
rainfall.

**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

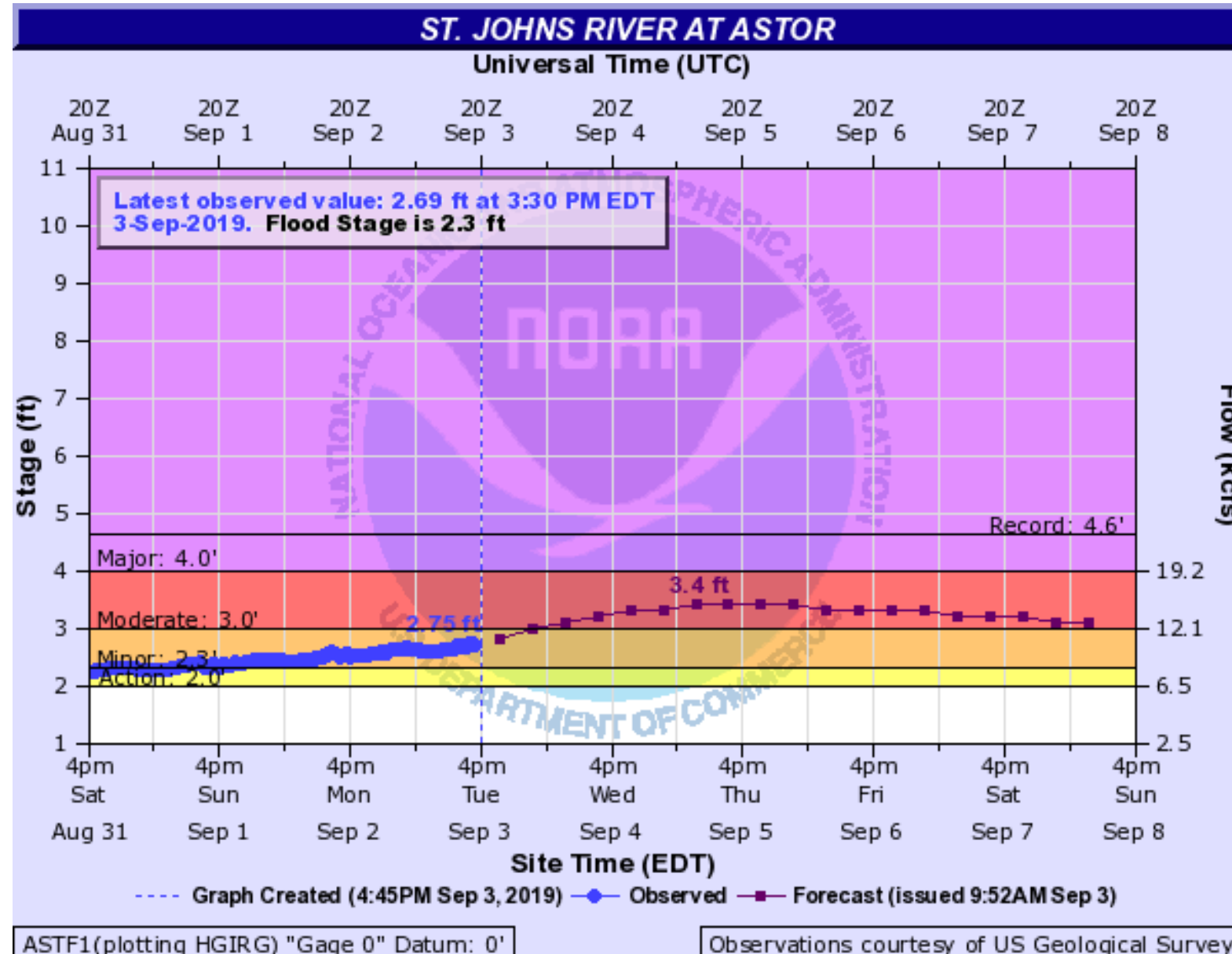


Rivers Currently in or Forecast to Reach At Least Minor Flood Stage:

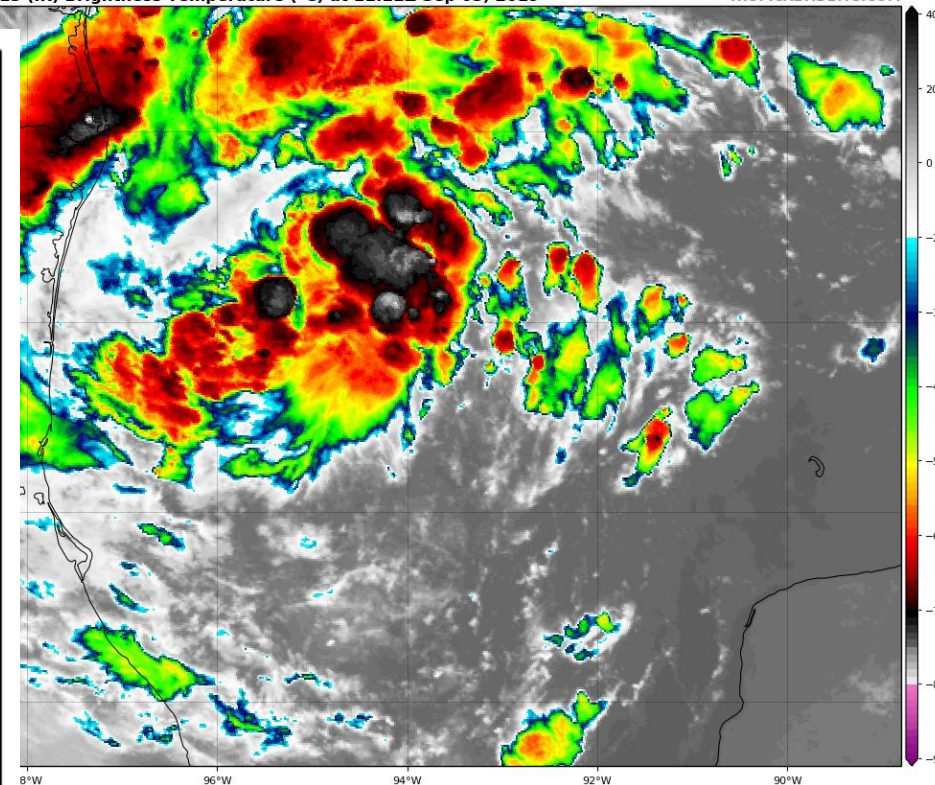
- [Clapboard Creek near Sheffield Road](#)
- [Cedar River at San Juan Avenue in Jacksonville](#)
- [Pottsburg Creek at Beach Boulevard \(US 90\)](#)
- [St. Johns River at Astor](#) (**moderate flooding**)
- [St. Johns River above Lake Harney](#)
- [Ocklawaha River at Rodman Dam](#)
- [Santa Fe River at Worthington Springs](#)
- [Santa Fe River at O'Leno State Park](#)
- [Cypress Creek at Worthington Gardens](#)

Additional Points along the St. Johns River and its tributaries could reach flood stage as surge increases.

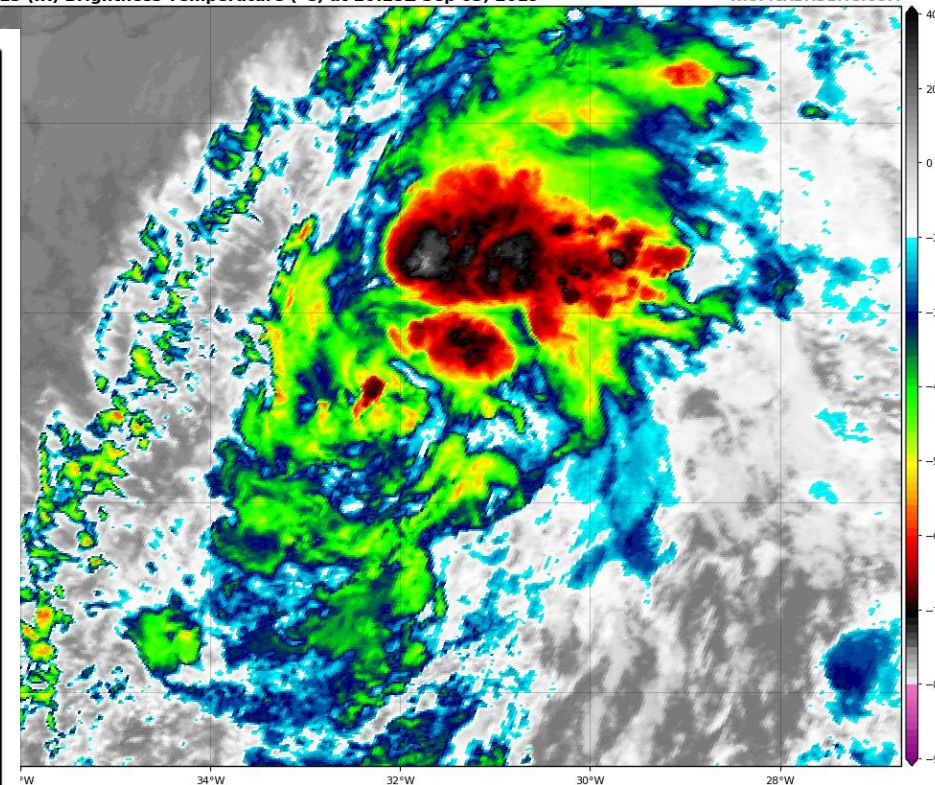
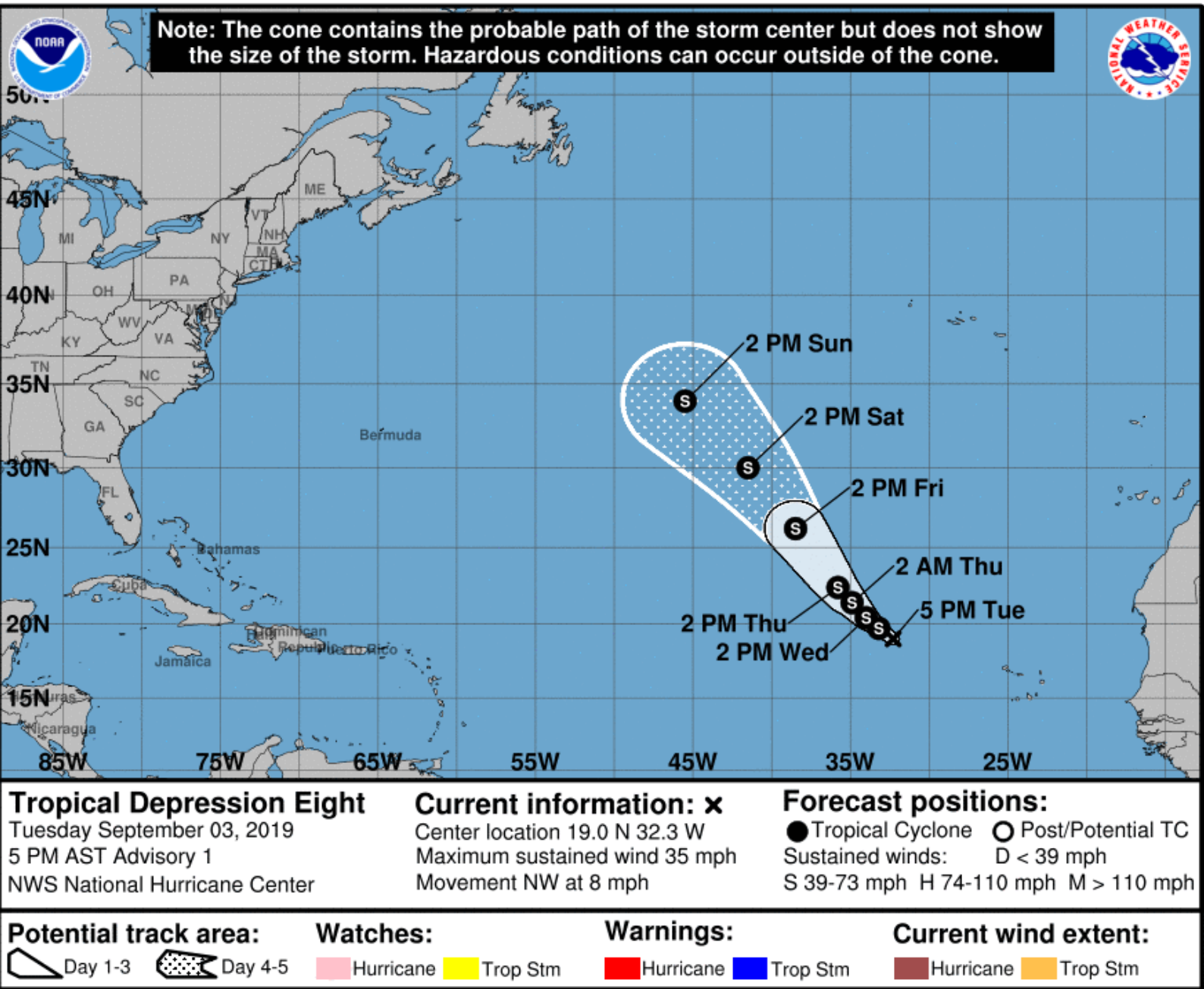
St. Johns River at Astor – Moderate Flooding



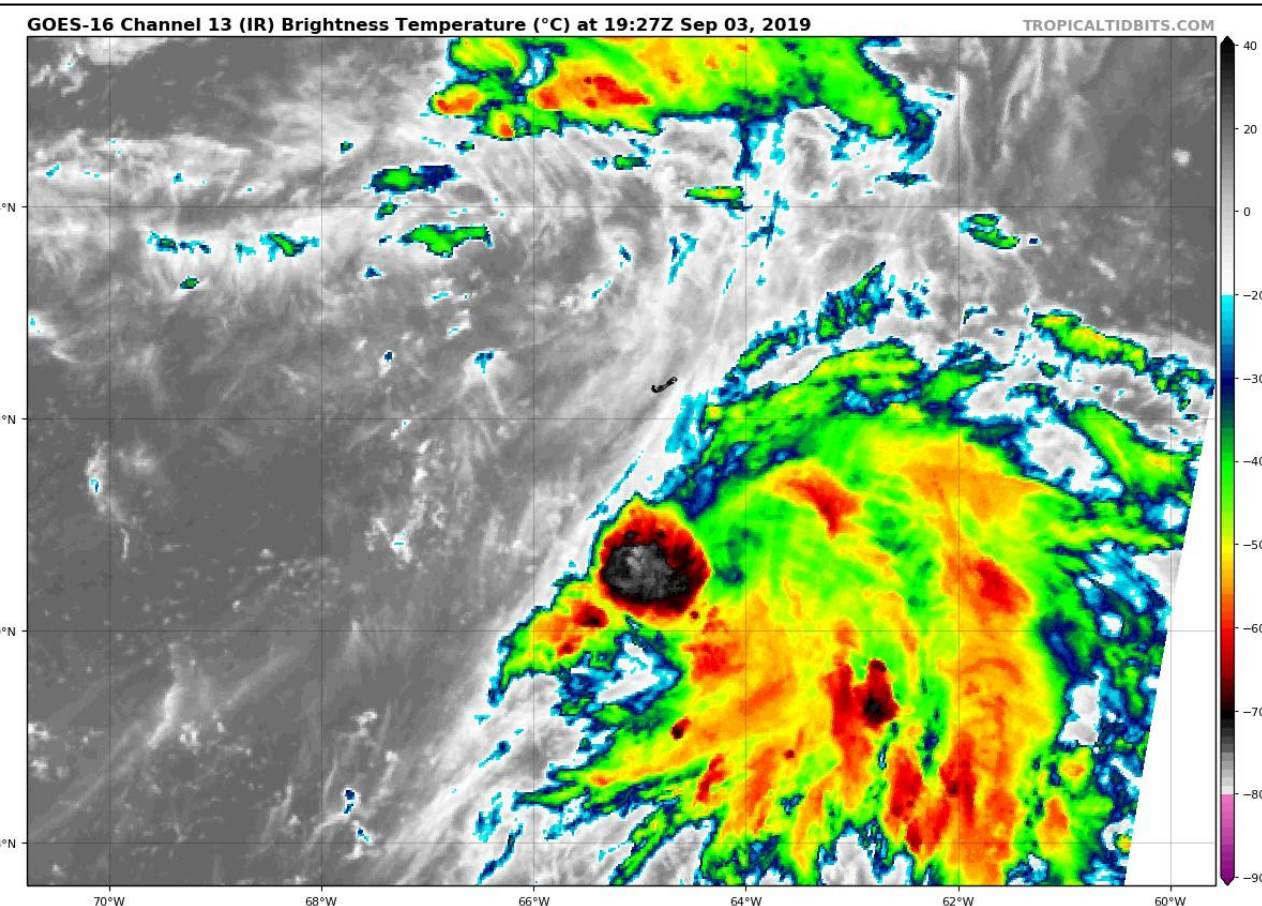
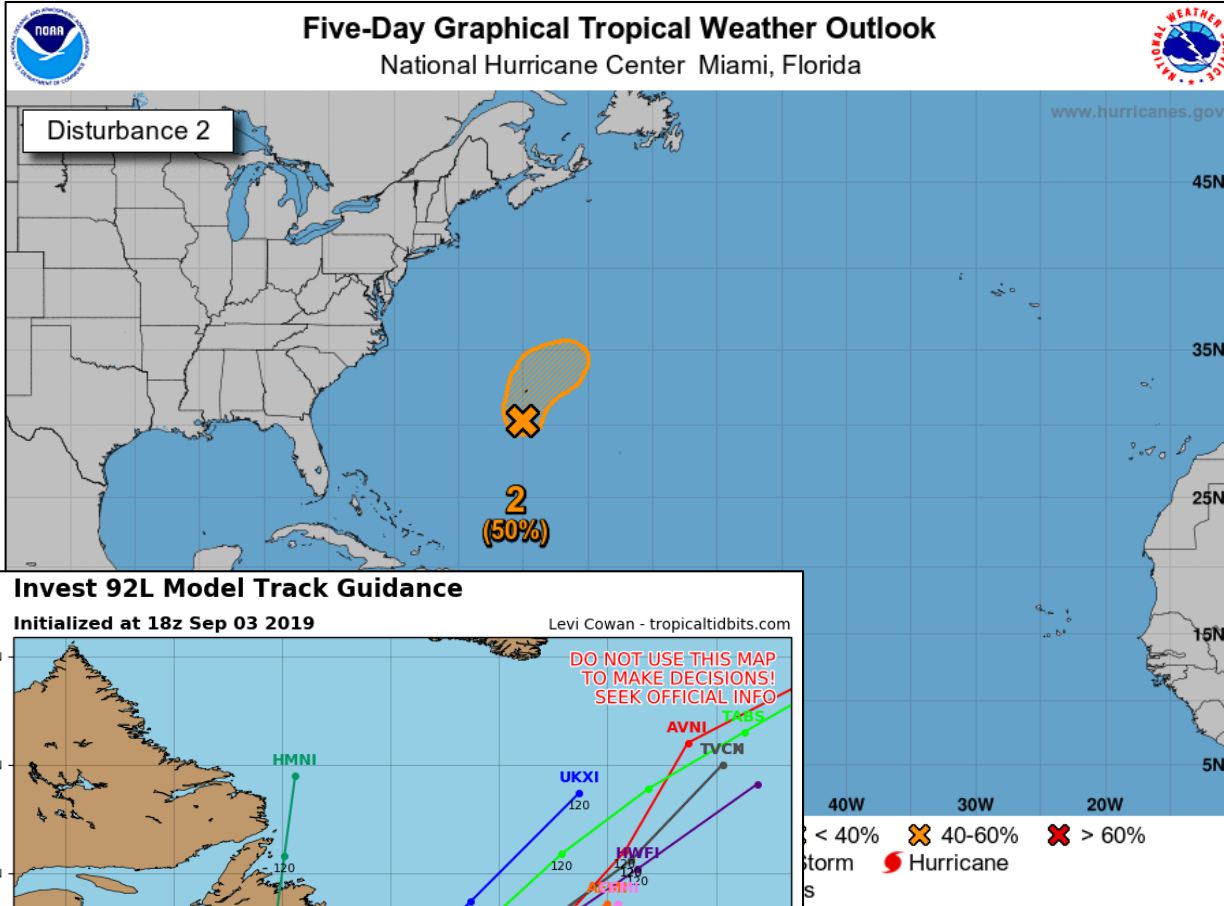
- **3.5 feet:** Many yards and streets along the river, and with canals flooded, water enters the first floor of low lying homes. Flooding to docks and yards at condominiums on Juno Trail and docks at Astor Bridge Marina. Roads flooded in South Moon Fish Camp and starting to move over the sea wall at 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.



Tropical Depression #8 has strengthened this afternoon into Tropical Storm Fernand. This storm will move into Mexico and poses no threat to Florida.



Invest 91L has continued to get better organized. Thus, the National Hurricane Center has initiated advisories on Tropical Depression #8. This system poses no threat to Florida.



Invest 92L: Showers and thunderstorms associated with a trough of low pressure, located several hundred miles south of Bermuda were showing some signs of organization. Development of this system is possible during the next couple of days while it moves northward near Bermuda.

***Formation chance through 48 hours...medium...50 percent.**

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



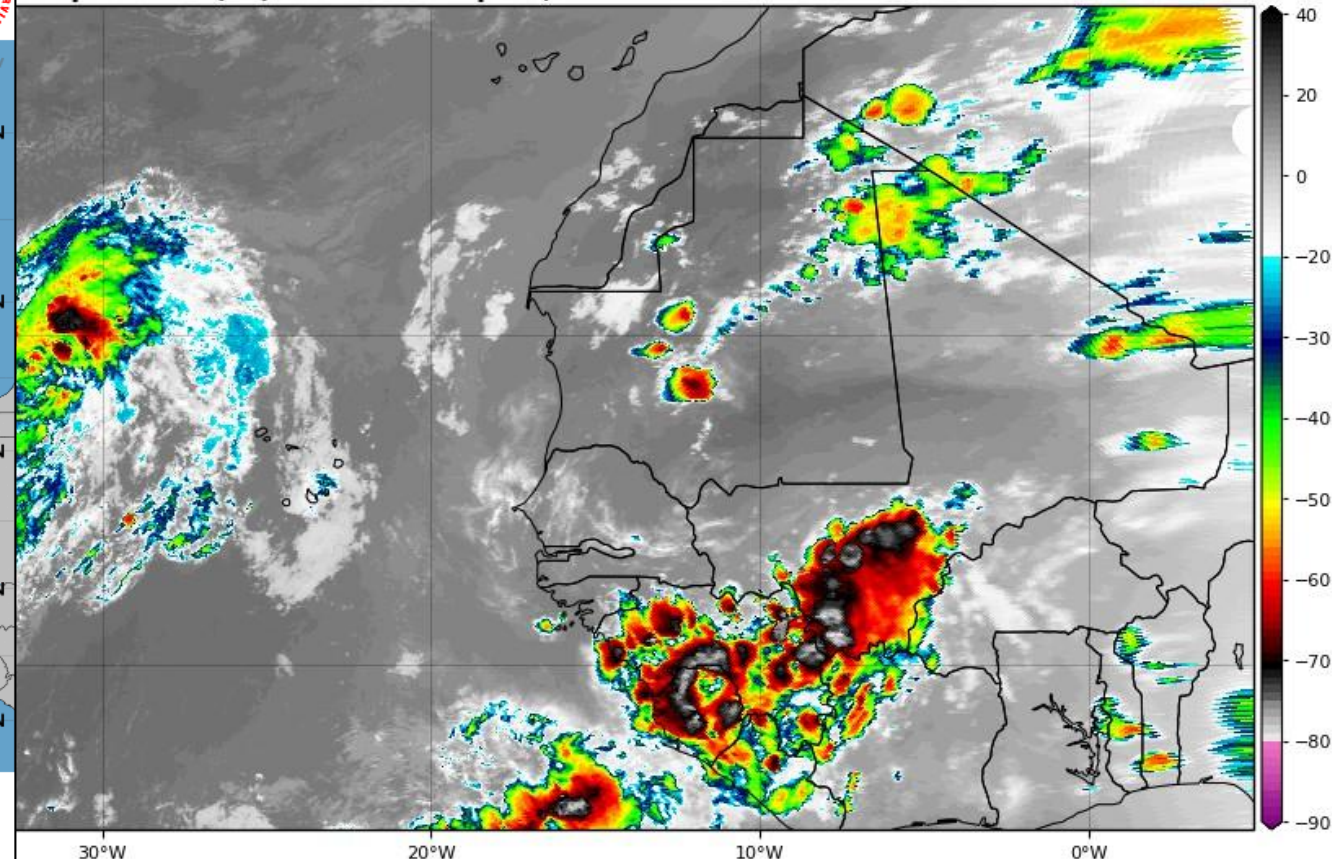
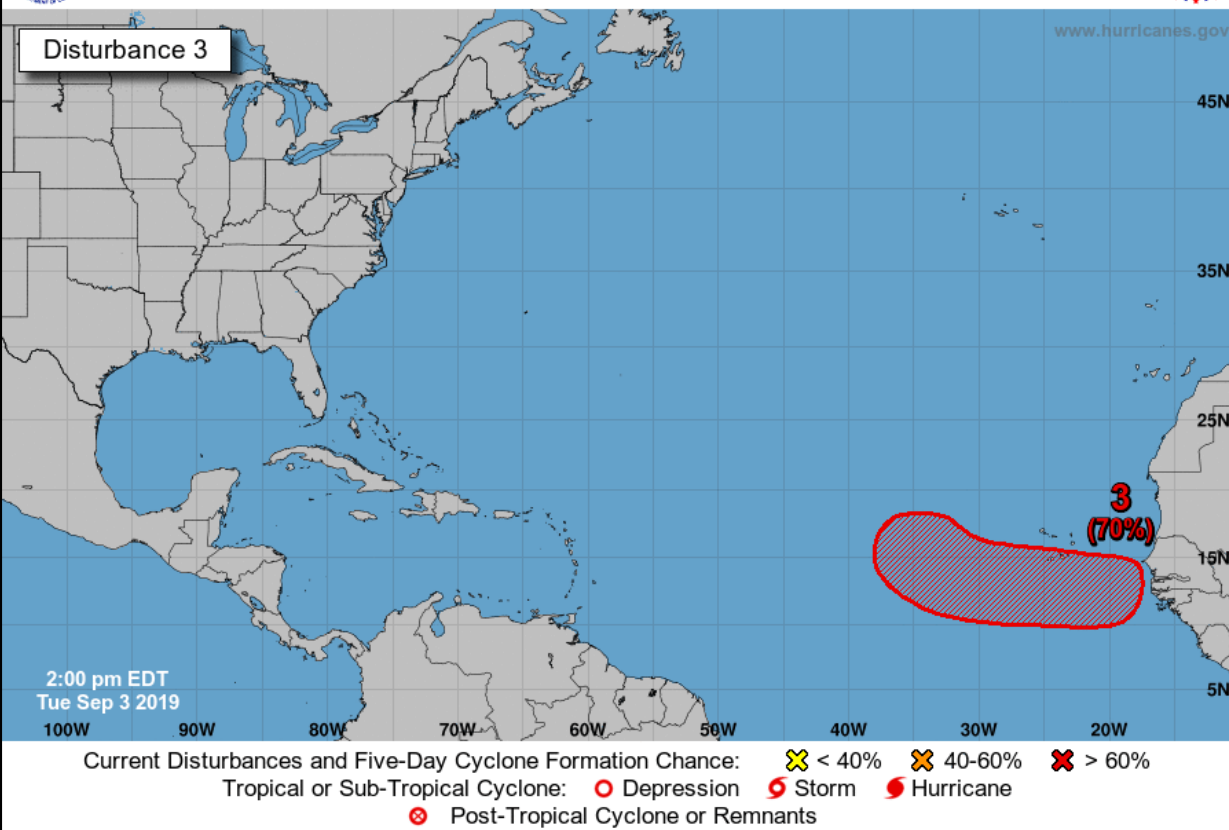
Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



Temperature (°C) at 19:25Z Sep 03, 2019

TROPICALTIDBITS.COM



West African Wave: A tropical wave is forecast to emerge over the far eastern tropical Atlantic between Africa and the Cabo Verde Islands by Thursday. Environmental conditions are forecast to be conducive for development and a tropical depression is likely to form by late this week while the system moves westward to west-northwestward

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

***Formation chance through 5 days...high...70 percent.**

Summary

Hurricane Dorian

- At 5 PM ET Tuesday, Hurricane Dorian was located 105 miles east of Vero Beach, and moving northwest at 6 mph.
- Maximum sustained winds remain near 110 mph, which is a Category 2 hurricane.
- Dorian will begin a slightly faster north-northwest movement later today, and a further increase in forward motion is expected tonight and Wednesday as it parallels the Florida East Coast. Dorian will turn northward Wednesday night with a turn to the north-northeast 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 tonight as Dorian makes it closest approach.
- Dorian is forecast to also parallel the Georgia and South Carolina coasts on Thursday.
- **Tropical Storm Fernand:** TD #7 strengthened this afternoon, and became Tropical Storm Fernand (fair-NAHN) with maximum sustained winds of 40 mph. It will move generally westward toward northeast Mexico with no threat to Florida.
- **Tropical Depression #8:** Invest 91L has become better organized today, and the National Hurricane Center has initiated advisories on TD #8. This will likely become a tropical storm over the next 24 hours. The next name would be Gabrielle.
- **Invest 92L:** An area of low pressure south of Bermuda could develop as it slowly moves northward near Bermuda. It has a 50% (medium) chance of becoming a tropical depression during the next 2 days.
- **African Wave:** A tropical wave over western Africa will emerge into the Atlantic by Thursday. Once it does so, the National Hurricane Center gives it a 70% (high) chance of development.

Florida Outlook:

- A **Hurricane Warning** is in effect for St. Johns, Flagler, coastal Volusia, and Brevard Counties.
- A **Storm Surge Warning** is in effect for Nassau, Duval, St. Johns, Flagler, Volusia, Brevard, Indian River, St. Lucie, Martin Counties
- A **Tropical Storm Warning** is in effect for Nassau, Duval, Clay, Putnam, eastern Marion, Lake, Volusia, Seminole, Orange, Osceola, Okeechobee, Indian River, St. Lucie, and Martin Counties
- A **Hurricane Watch** is in effect for coastal Nassau, coastal Duval Counties
- Damaging winds, storm surge, flash flooding, and isolated tornadoes are all possible with Dorian's squalls.
- Sustained tropical storm force winds are already occurring across coastal East Central Florida, and these will continue to spread northward tonight and Wednesday.
- Storm Surge: Flagler/Volusia County Line FL to Savannah River GA...3 to 5 ft; Jupiter Inlet FL to the Flagler/Volusia County Line FL...2 to 4 ft
- In addition, large battering waves in excess of 10-15' are already causing erosion and coastal flooding during high tide. This will continue through Wednesday.
- Rainfall amounts of 2-6" are expected along the East Coast. 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, Withlacoochee River, Cypress Creek, Peace River, and the St. Johns River. However, moderate flooding may occur at the St. Johns River at Astor.
- None of the 4 systems being monitored for development currently poses a threat to Florida. The next names on the 2019 Atlantic storm name list are Fernand, Gabrielle, Humberto, and Imelda.

The next tropics packet will be issued Wednesday morning. For the latest information on the tropics, please visit the National Hurricane Center website at 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

State Meteorological Support Unit

Florida Division of Emergency Management

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