



# TROPICAL UPDATE



5 AM EDT

Friday, August 30, 2019

Hurricane Dorian

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).

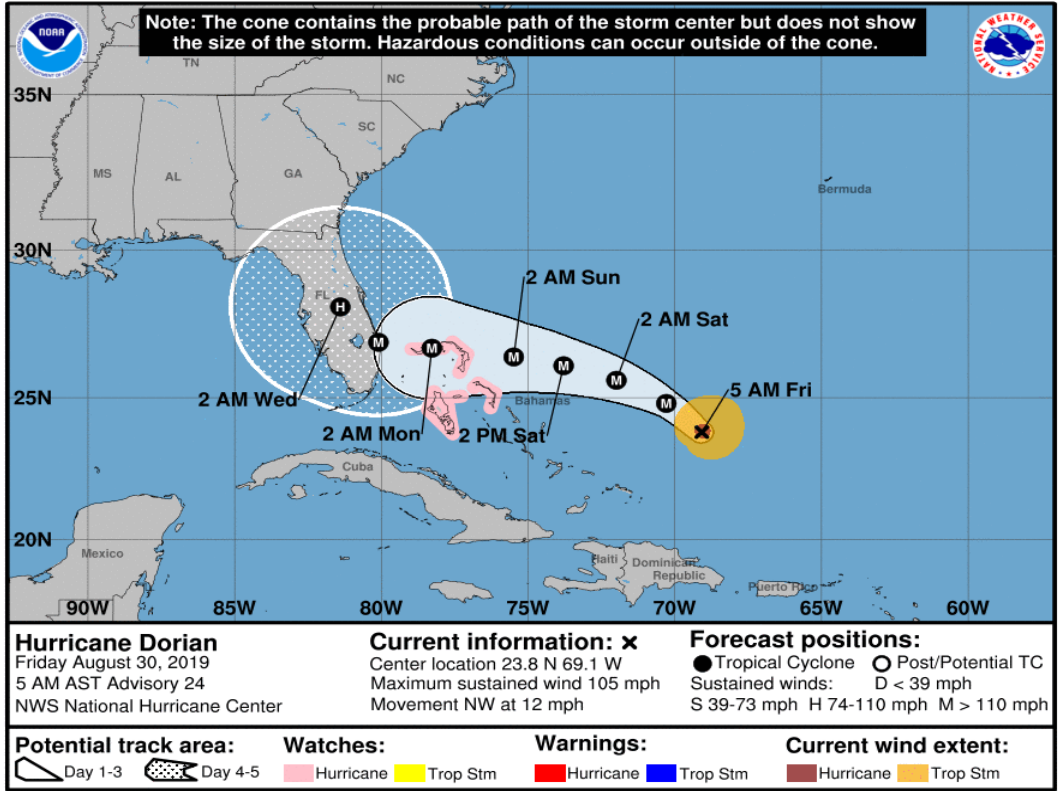
# Hurricane Dorian

Friday, August 30, 5 AM ET

	MINIMAL	Low	MODERATE	HIGH	EXTREME
 WINDS					
 STORM SURGE					
 FLASH FLOODING					
 TORNADOES					

	Low	MODERATE	HIGH
 RIP CURRENTS			

## National Hurricane Center Map



**Changes from Yesterday:**

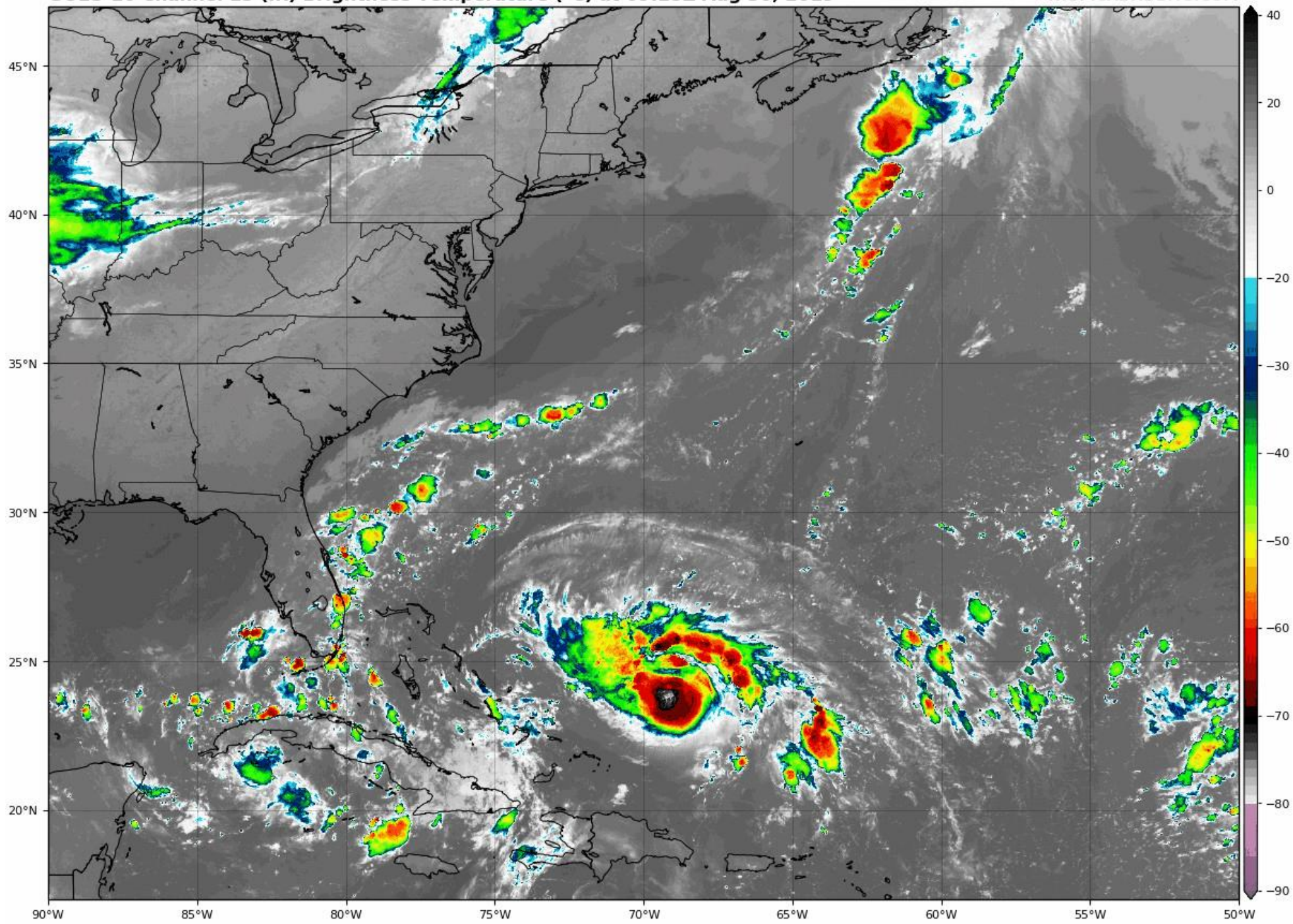
Dorian has strengthened overnight and is now a Category 2 hurricane with winds of 105 mph. Dorian is expected to become a major hurricane today. The forecast continues to call for Dorian to make landfall somewhere along the East Coast of Florida on early Tuesday as a Category 4 Hurricane. A slower movement is still expected near and after landfall, which WILL result in significant flash flooding and river flooding.



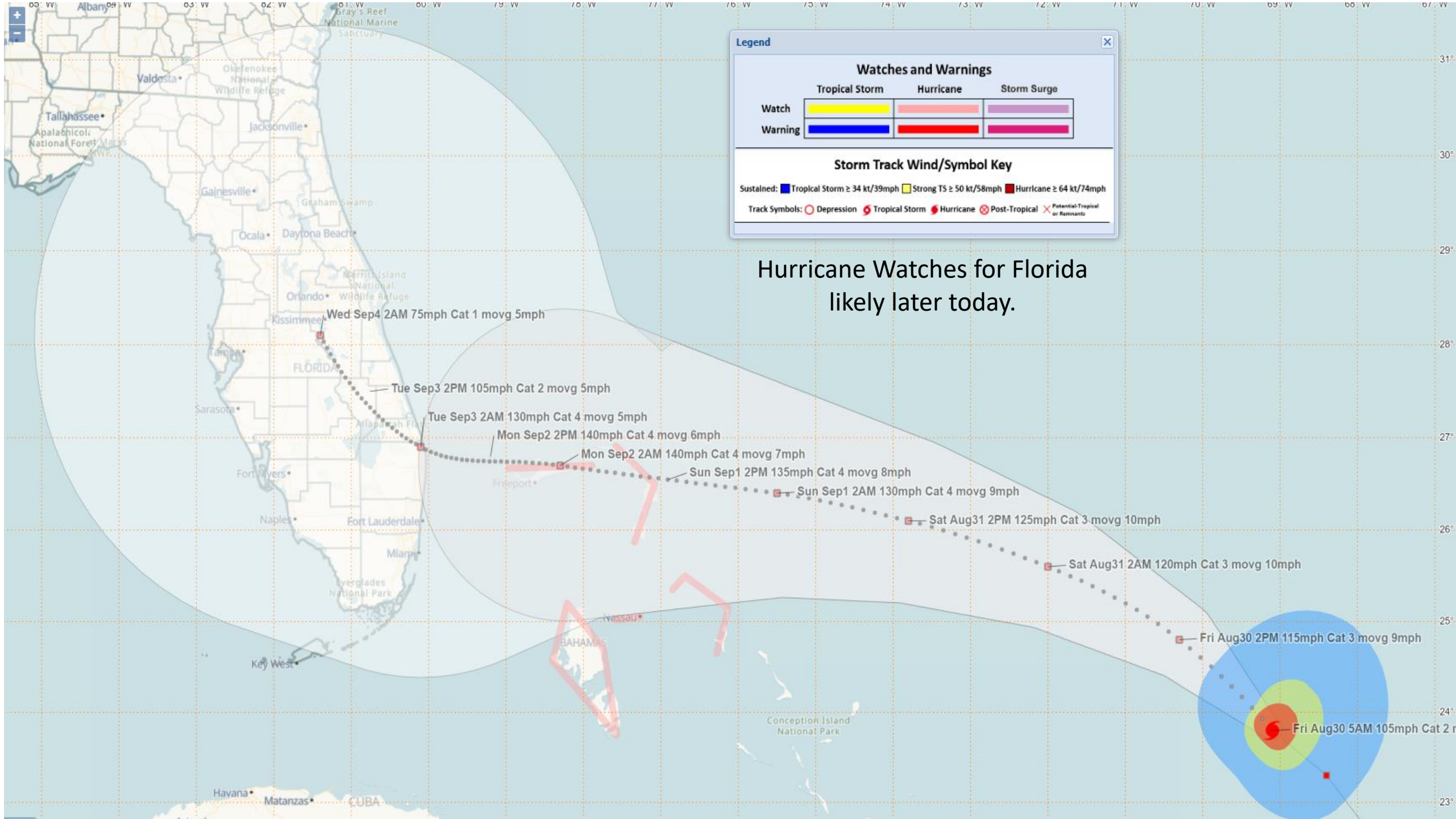
GOES-16 Channel 13 (IR) Brightness Temperature (°C) at 09:25Z Aug 30, 2019

TROPICALTIDBITS.COM

# Hurricane Dorian Satellite Image



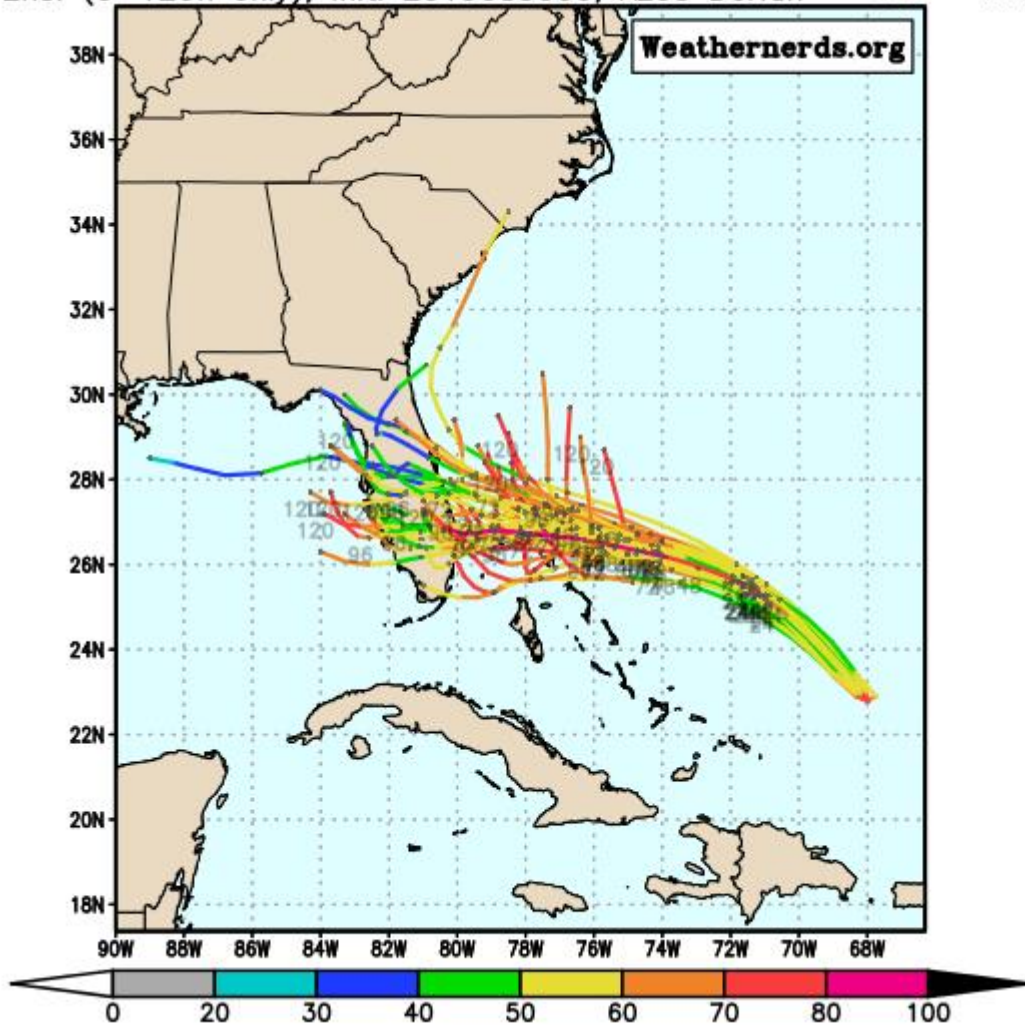




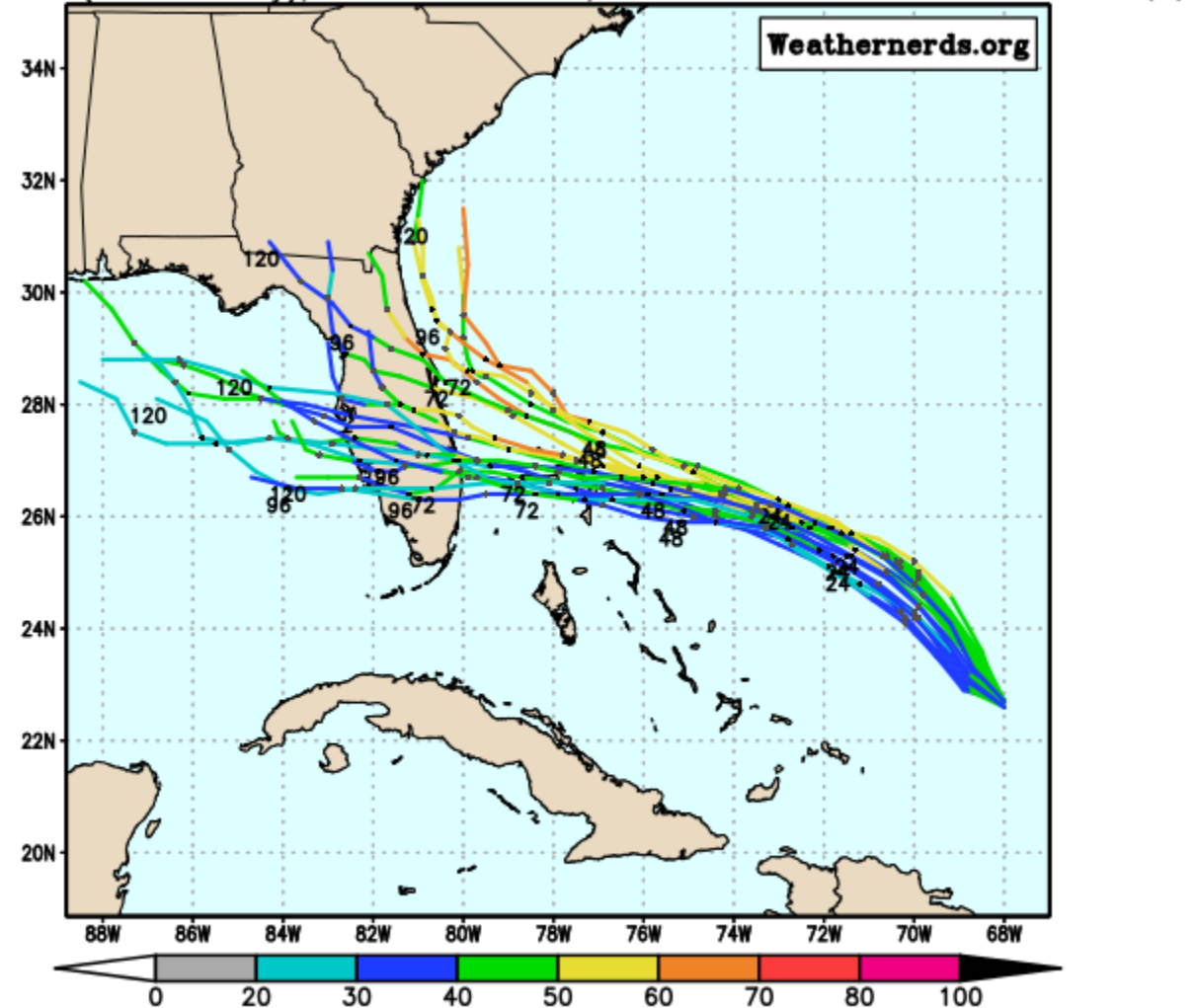
# Current Forecast Ensemble Model Guidance

There is still a wide spread in solutions for the track of Dorian next week, especially after landfall.

ECMWF Ens. (0–120h only), init: 2019083000, AL05 Dorian color = max wind (kt)



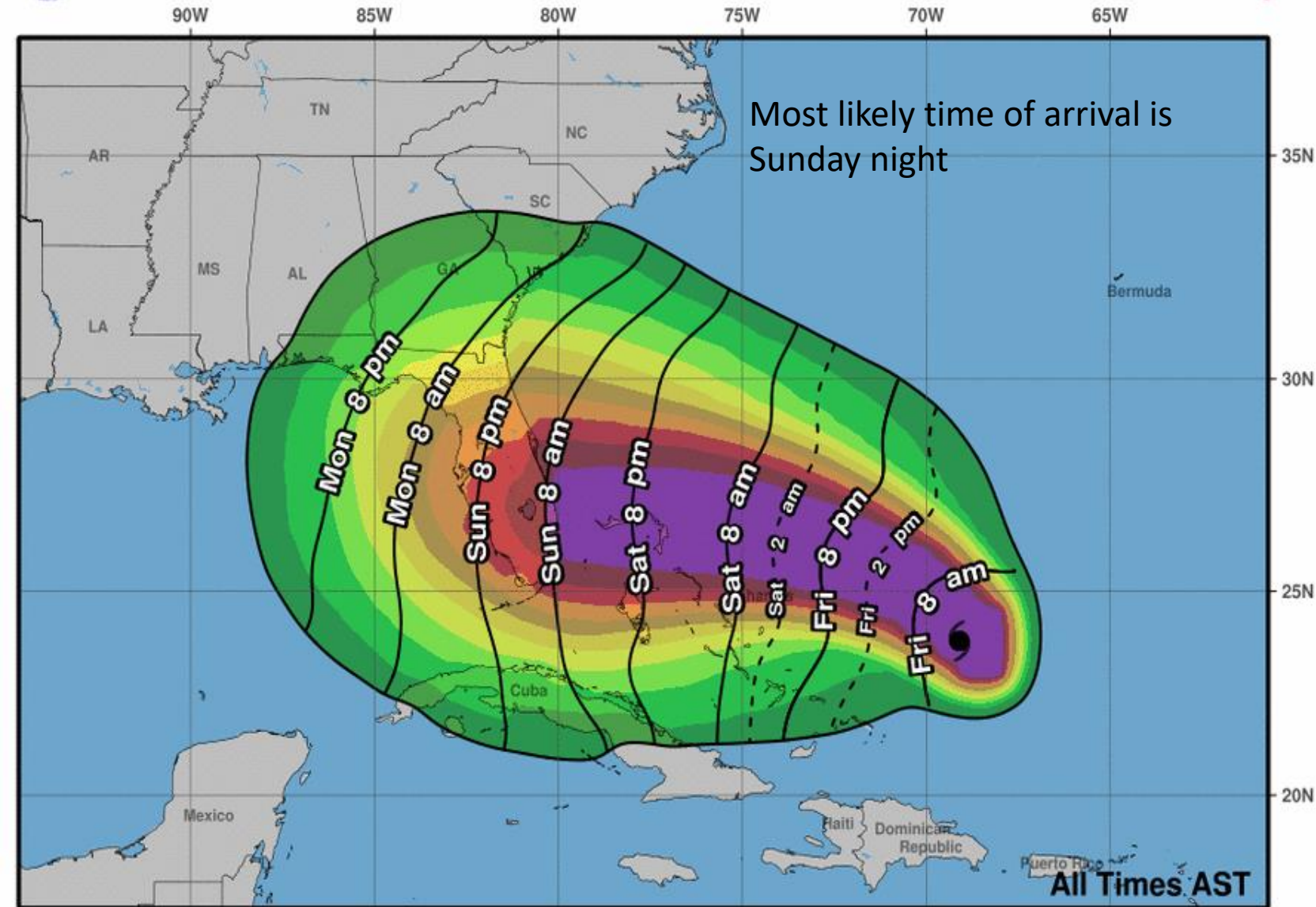
GFS Ens. (0–120h only), init: 2019083000, AL05 Dorian color = max wind (kt)







# Earliest Reasonable Arrival Time of Tropical-Storm-Force Winds



Chances of TROPICAL STORM FORCE WINDS (>39 mph) continue to increase:

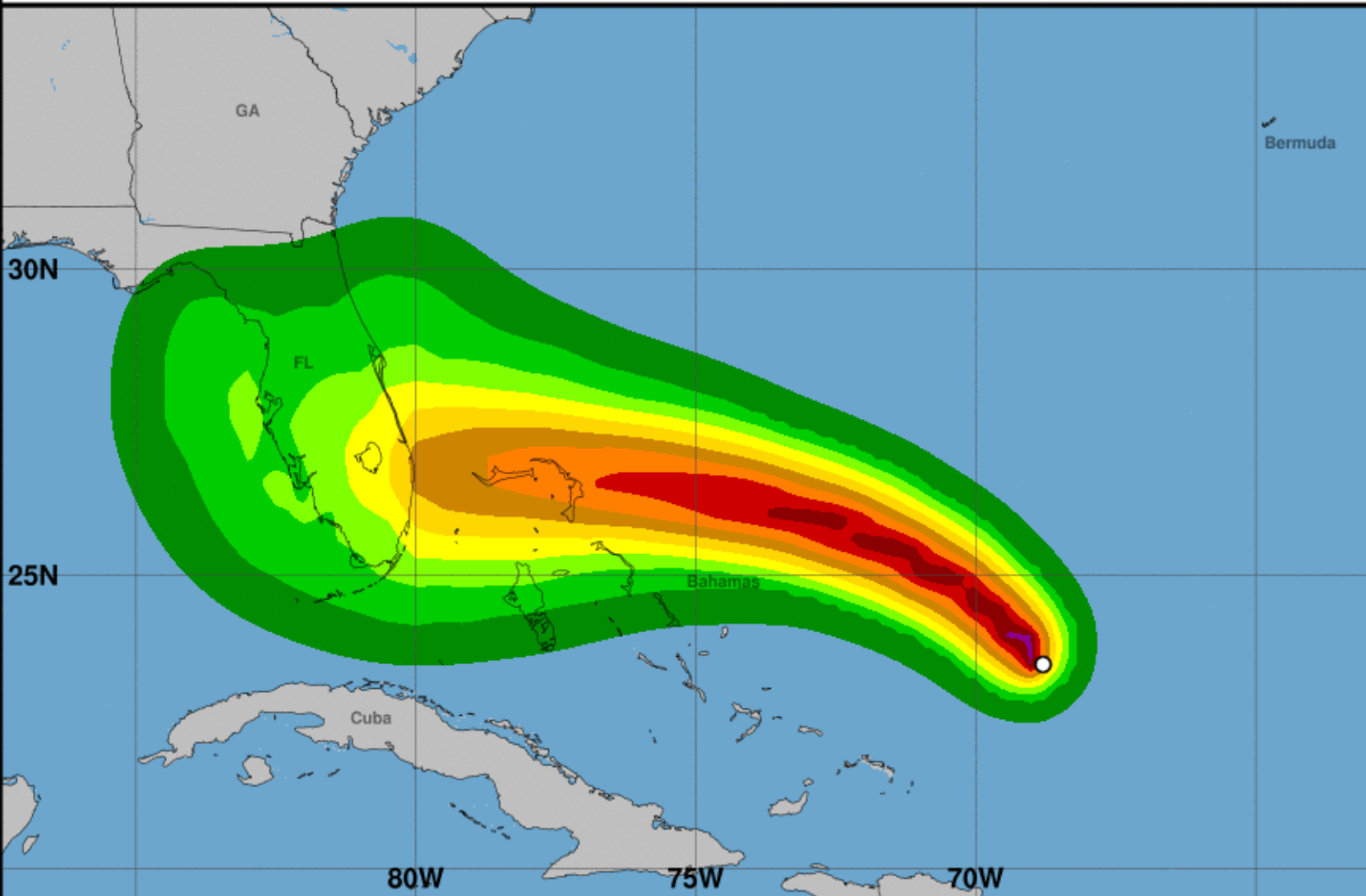
**Jacksonville: 38%**  
**Daytona Beach: 61%**  
**Orlando: 72%**  
**Cocoa Beach: 86%**  
**West Palm Beach: 95%**  
**Ft. Lauderdale: 94%**  
**Miami: 82%**  
**Naples: 72%**  
**Marathon: 59%**  
**Key West: 45%**  
**Tallahassee: 26%**  
**Panama City: 22%**  
**Pensacola: 5%**

**Chances in Miami and Cocoa are similar!**



## Hurricane-Force Wind Speed Probabilities

For the 120 hours (5.00 days) from 2 AM AST FRI AUG 30 to 2 AM AST WED SEP 04



Probability of hurricane-force winds (1-minute average  $\geq 74$  mph) from all tropical cyclones  
○ indicates Hurricane Dorian center location at 2 AM AST FRI AUG 30, 2019 (Forecast/Advisory #24)



**There are no tropical watches or warnings for Florida, but could be issued as early as Friday.**

Chances of HURRICANE FORCE WINDS ( $>74$  mph) continue to increase for parts of the East Coast:

- Jacksonville: 3%**
- Orlando: 19%**
- Cocoa Beach: 28%**
- West Palm Beach: 53%**
- Ft. Lauderdale: 44%**
- Miami: 30%**
- Naples: 18%**
- Marathon: 13%**
- Key West: 9%**
- Tallahassee: 3%**
- Panama City: 2%**





# Key Messages for Hurricane Dorian

Advisory 24: 5:00 AM AST Fri Aug 30, 2019



1. A Hurricane Watch is now in effect for the northwestern Bahamas, where the risk of life-threatening storm surge and hurricane-force winds this weekend has continued to increase. Residents should begin to execute their hurricane plans and listen to advice given by local emergency officials.

2. There is an increasing likelihood of a prolonged period of hazardous weather conditions that could last for a couple of days in parts of Florida early next week.

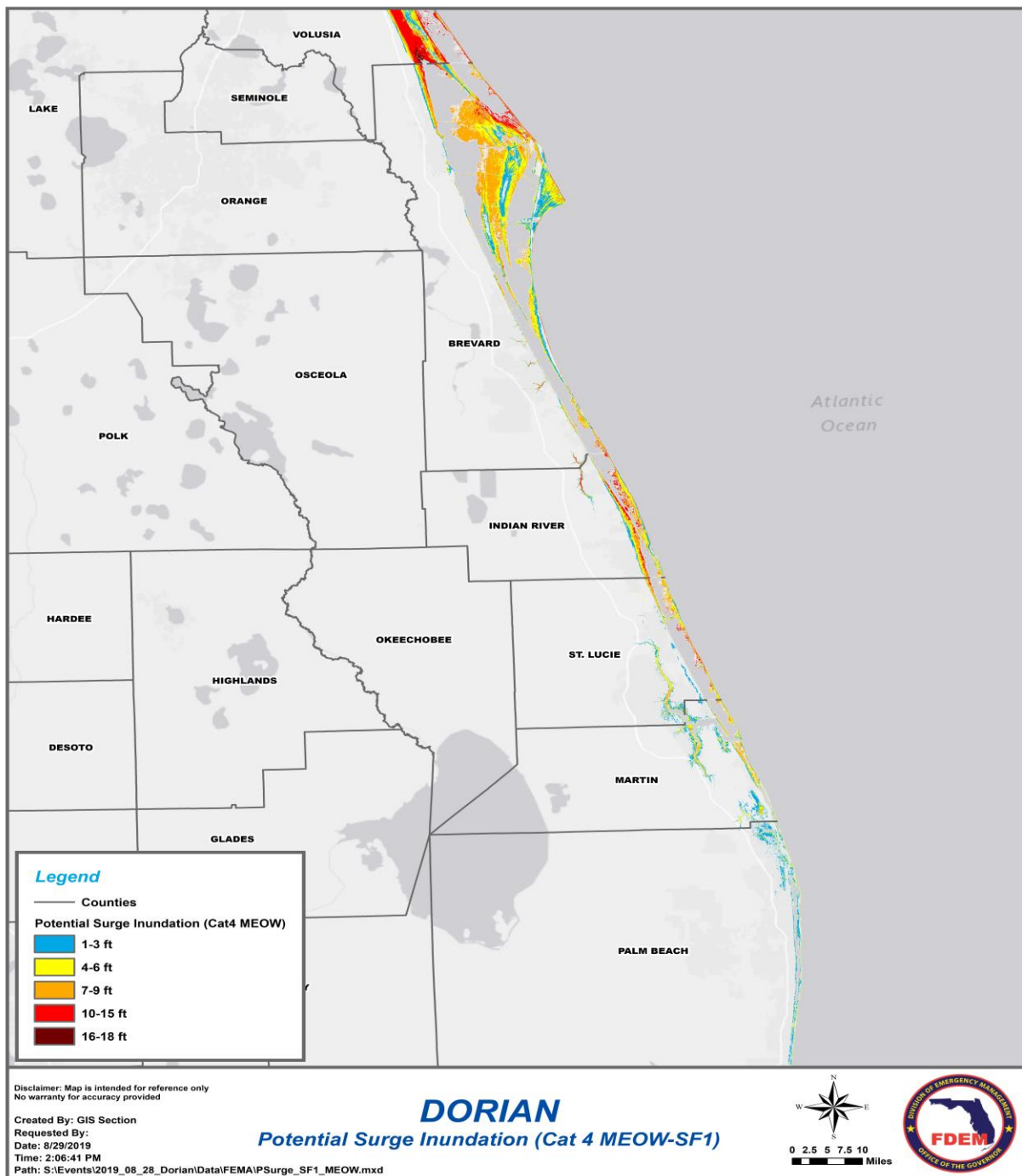
3. The risk of life-threatening storm surge along portions of the Florida east coast has increased, although it is too soon to determine where the highest storm surge will occur. The risk of devastating hurricane-force winds along the Florida east coast and peninsula early next week has also increased, although it is too soon to determine where the strongest winds will occur. Residents should have their hurricane plan in place, know if they are in a hurricane evacuation zone, and listen to advice given by local emergency officials.

4. Regardless of the exact track of Dorian, heavy rains are expected to occur over portions of the Bahamas, Florida, and elsewhere in the southeastern United States this weekend and into the middle of next week.



For more information go to [hurricanes.gov](https://hurricanes.gov)



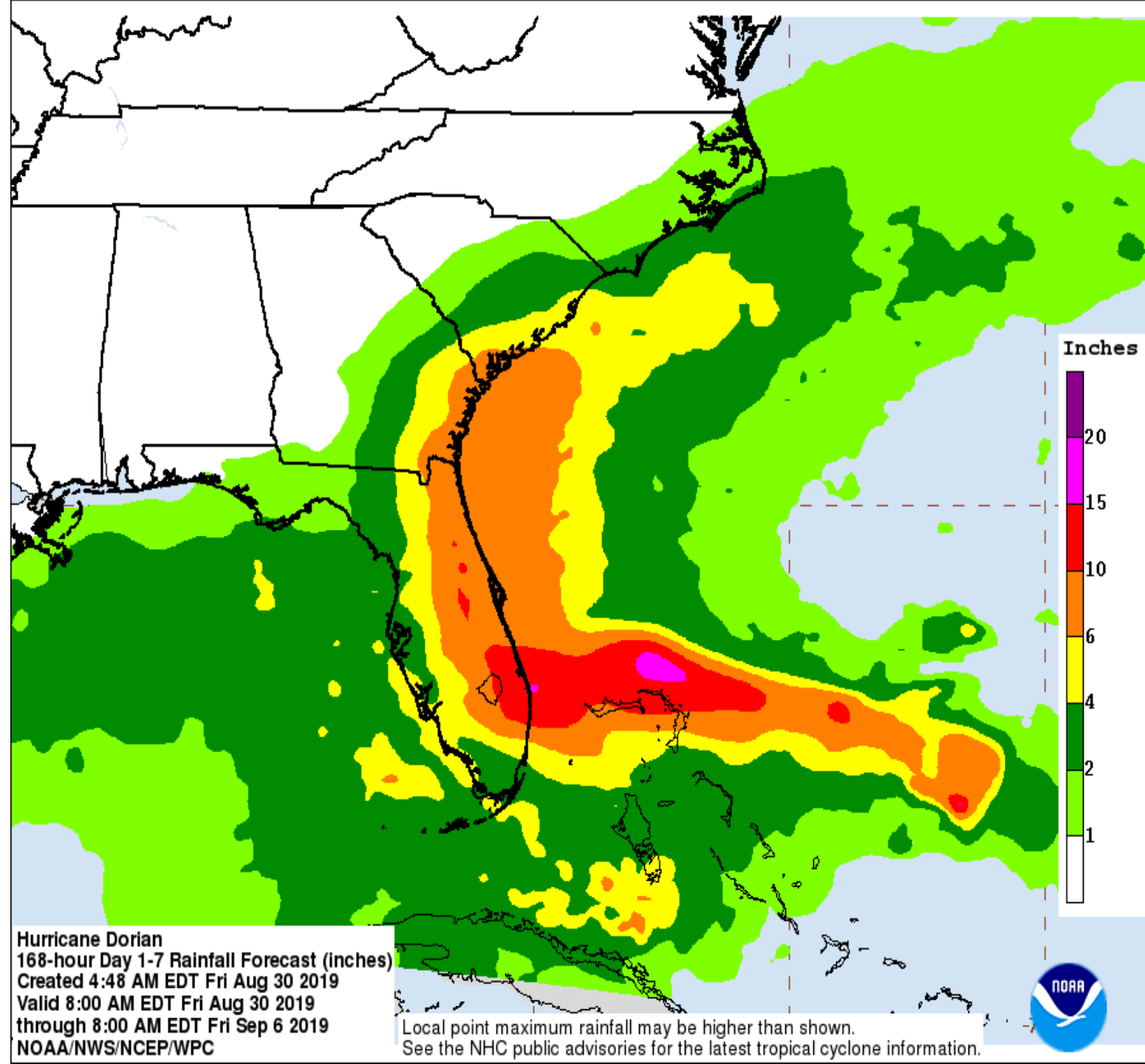


- Potential surge heights
  - Miami/Palm Beaches= 2-6'
  - Treasure Coast = 7-11'
  - Space Coast = 5-10'
- 
- Minor coastal flooding at high tide already occurring

# Official Rainfall Forecast Next 7 Days

*Given the recent stretch of wet weather, these rainfall amounts could create significant flash flooding and river flooding across the Peninsula.*

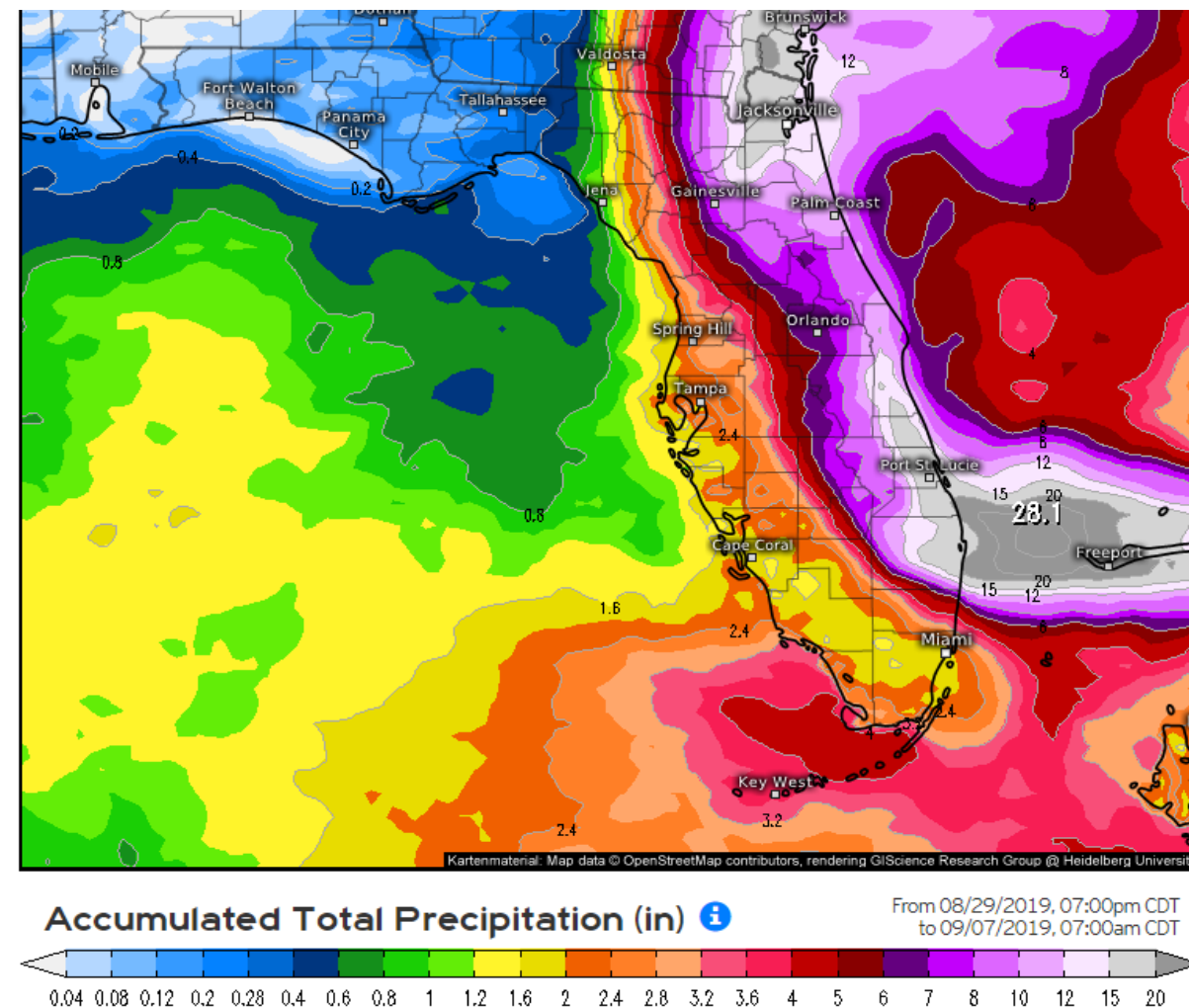
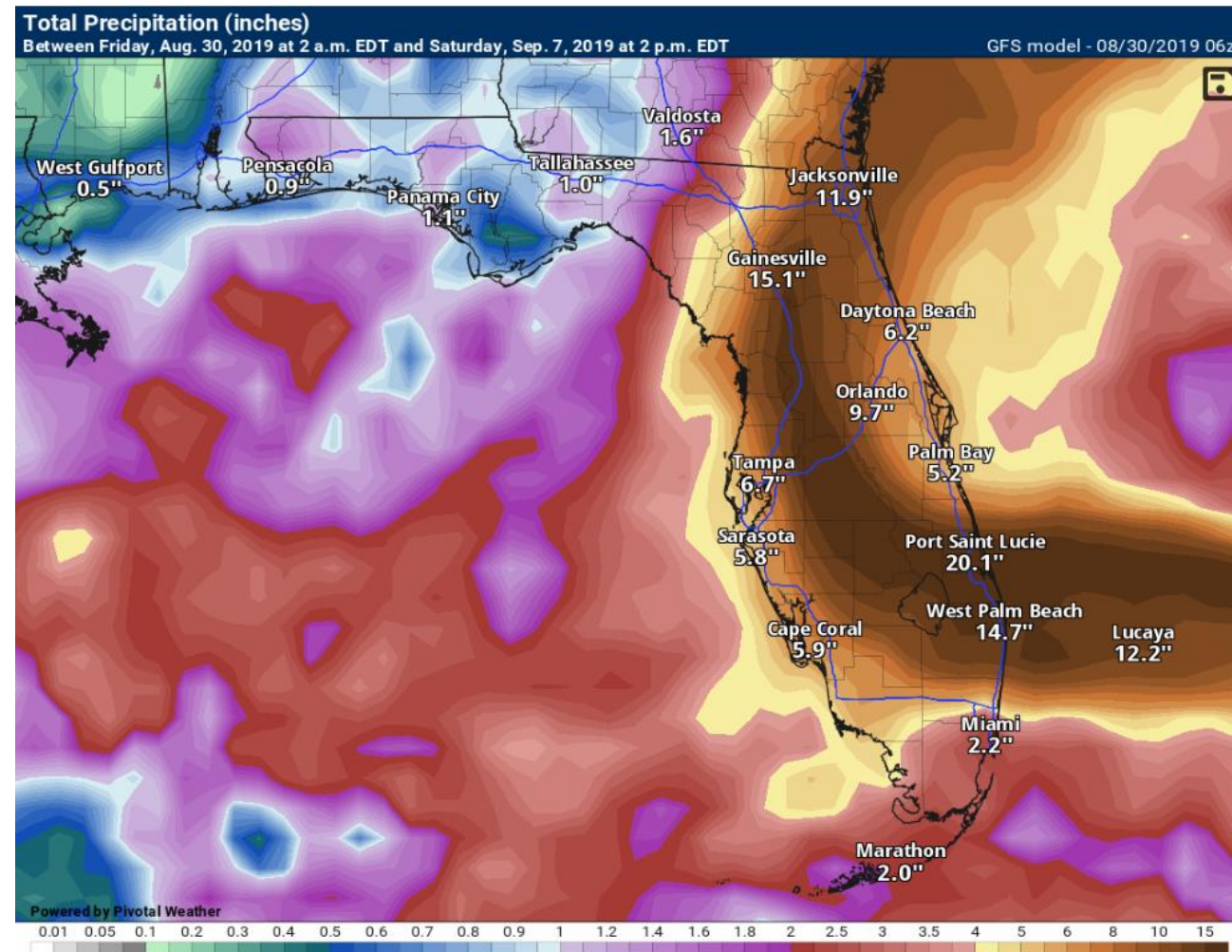
*These rainfall forecasts are track-dependent and will likely change with subsequent forecasts. **Wherever Dorian tracks, the heaviest rainfall totals will follow the eastern side of the track.** However, a widespread 6-10" of rain is expected across much of the eastern and central Peninsula, with higher totals of 15-20" possible.*





# Model Rainfall Forecasts Next 7 Days

**\*\*\*GUIDANCE ONLY\*\*\*** *Not an exact forecast. Rainfall totals will vary both in place and amount.*



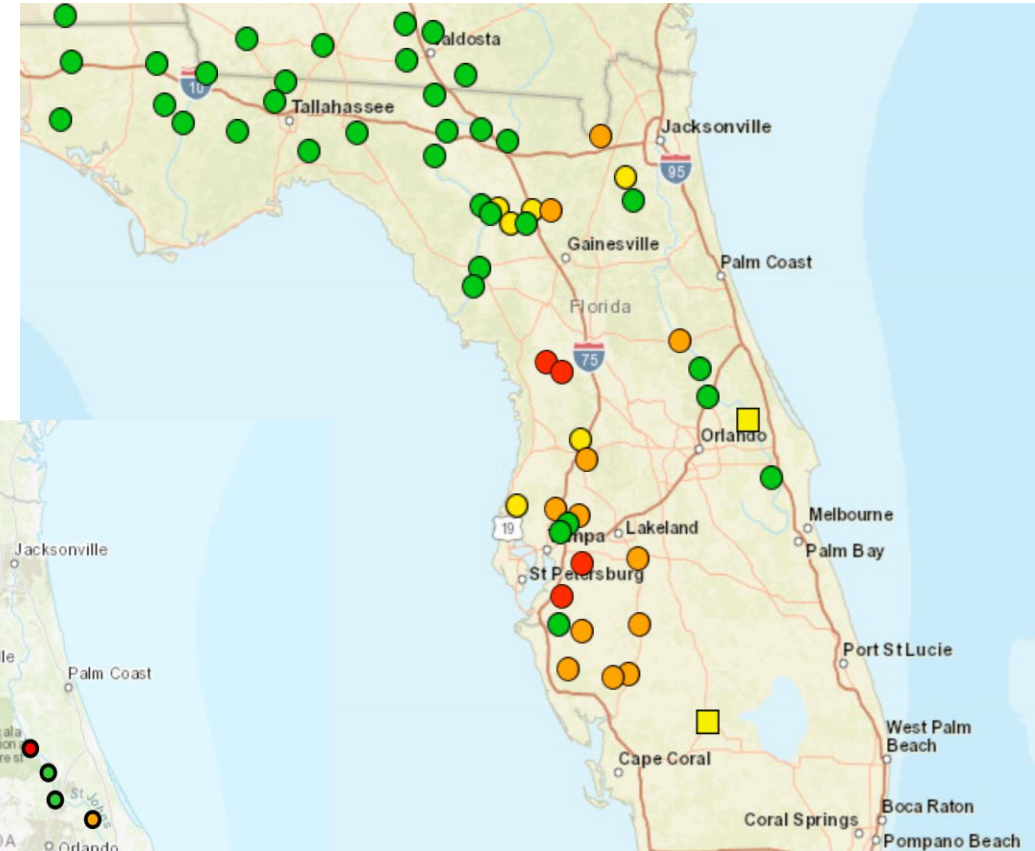
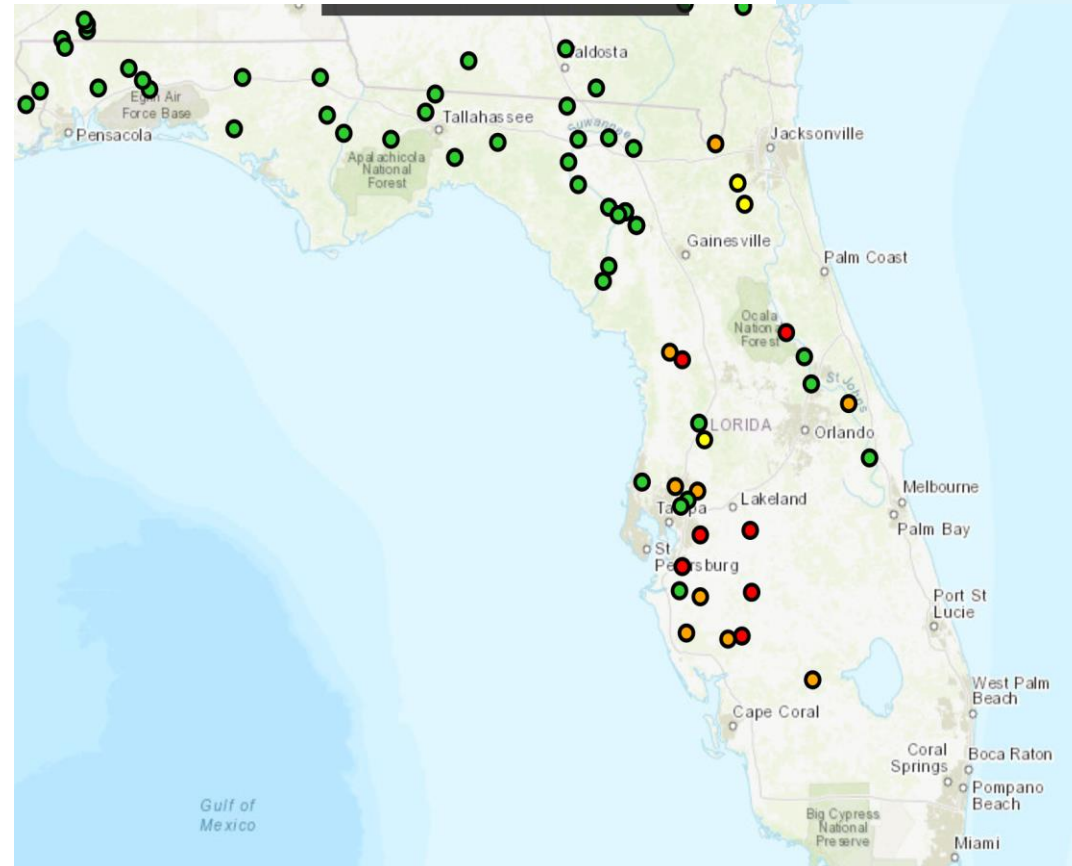
Very heavy rainfall is possible across much of the Peninsula. **Rainfall totals of 8-18"** are possible across much of the Peninsula with locally higher totals upwards of 20-24"+, very dependent on the track of Dorian.

# Current and Forecast River Conditions

Many rivers are elevated and additional rainfall will raise water levels over the next week. Large potential for moderate to major flooding, especially in West Central Florida and along the St. Johns and Santa Fe River basins.

*From the Southeast River Forecast Center: “Moderate and major river flooding is possible over much of Florida. Many rivers in Florida and in the southeast coastal plains could flood for days and weeks even after Dorian has moved out of the area.”*

**NOTE: Not current river stages – potential FUTURE river stages**



Chance of Exceedance		
30%	Level	70%
Yellow dot	Action	Yellow square
Orange dot	Minor Flood	Orange square
Red dot	Moderate Flood	Red square
Purple dot	Major Flood	Purple square
Green dot = less than 30% chance of reaching Action level		
Grey dot = no critical levels defined for this point		





# Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



www.hurricanes.gov

All Disturbances

1. A tropical wave is moving westward from the coast of Africa. Some development of this system is possible early next week over the eastern and central tropical Atlantic.

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

\* Formation chance through 5 days...low...30 percent.

DORIAN

8:00 am EDT  
Fri Aug 30 2019

100W 90W 80W 70W 60W 50W 40W 30W 20W

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

# Summary

## Hurricane Dorian

- As of the 5 AM ET advisory, Hurricane Dorian was located 690 miles east-southeast of Miami, and moving to the northwest at 12 mph.
- Maximum sustained winds have increased to 105 mph, which is a Category 2 Hurricane. Additional strengthening is expected, and Dorian is expected to become a major Category 3 hurricane today and strengthen to a Category 4 before this weekend as it approaches the Florida Coast.
- Dorian will begin a westward turn later today and continuing through the weekend. A northward turn is expected next week near or just after landfall, but when that northward turn occurs is still uncertain.
- Dorian is expected to slow its forward movement near and after landfall. A slower movement will increase the heavy rainfall and flash flood/river flood threat.
- Dorian could also expand in size as it moves toward the Florida Peninsula, which could increase the area of possible wind impacts.
- Hurricane Hunters will continue to investigate the system regularly over the next few days.
- Elsewhere, a tropical wave is emerging off the west coast of Africa. Some development if this wave is possible next week and the National Hurricane Center is predicting a 30% chance of becoming a tropical depression within the next 5 days.



## Florida Outlook:

- The entire Florida Peninsula and the eastern Florida Big Bend remain in the 5-day forecast cone.
- **Damaging winds, flash flooding, river flooding, storm surge, and isolated tornadoes are all possible with Dorian.**
- **The threat for significant river and flash flooding is increasing across the Peninsula, regardless of the strength of Dorian. Flooding impacts could last several days to weeks.**
- There are no wind or surge watches or warnings in effect, but tropical storm, hurricane and surge watches could be issued as early as this afternoon.
- Tropical storm force winds could arrive as early as Sunday morning, but will likely arrive Sunday afternoon or evening along the Florida East Coast and into the remainder of the Peninsula on Monday.
- Due to the slow movement of Dorian, widespread rainfall of 6-12” are expected across a majority of the Peninsula, with higher totals of 15-20” possible along the track of Dorian. This will cause both immediate flash flooding issues along with post-landfall river/creek flooding.
- Minor coastal flooding from the ongoing King Tides will continue along the Florida East Coast with tides running 1-2’ above normal.
- The rip current risk will be dangerously high for the holiday weekend at all Florida beaches.

The next tropics packet will be issued Friday evening. 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

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