



# Tropical Update



6:00 PM EDT

Sunday, September 25, 2022

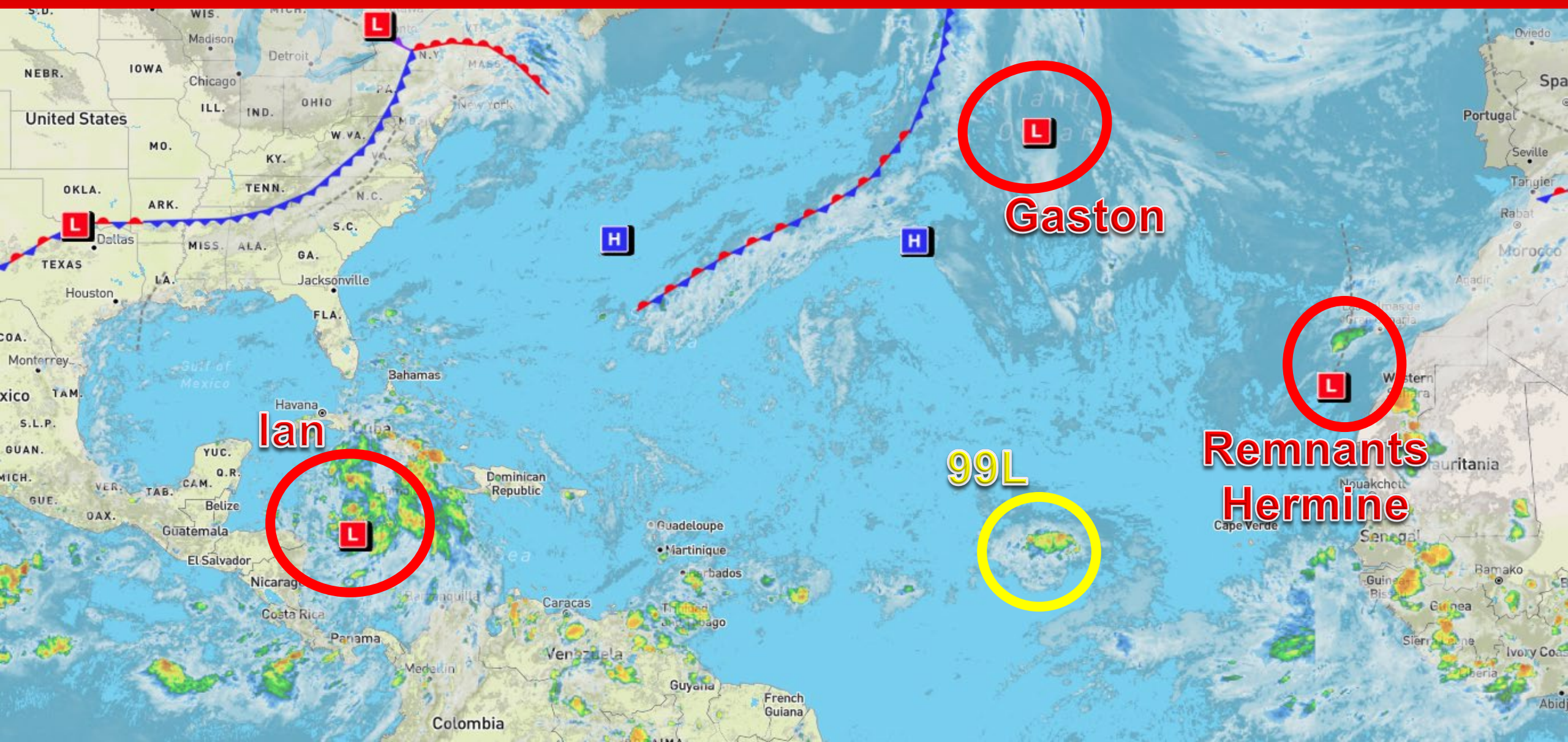
## Tropical Storm Ian

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).



# Atlantic Basin Satellite Image

Chance of development: — None — Low — Medium — High

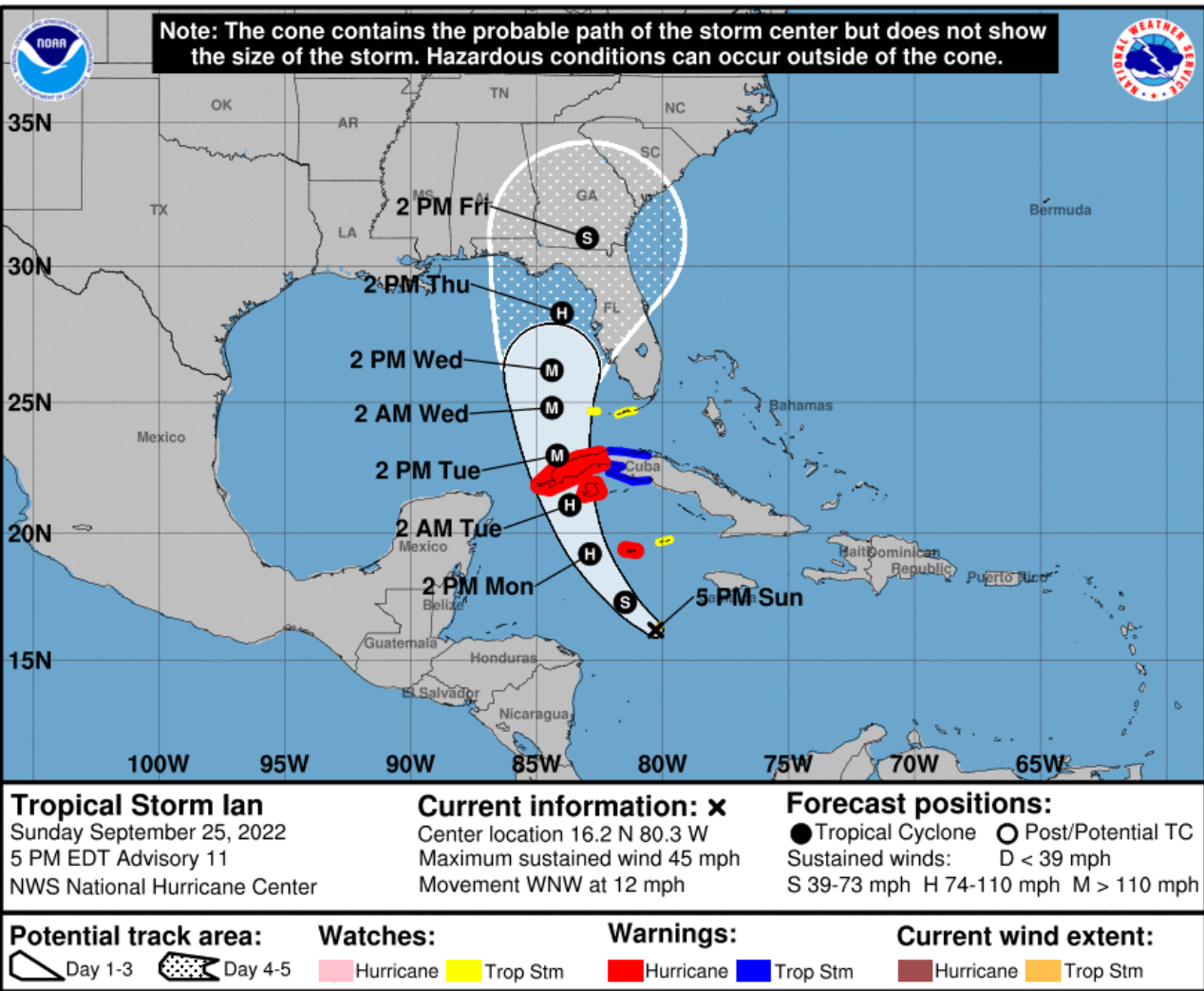






# Forecast Cone

## Tropical Storm Ian ([LINK](#))



- **Location:** 220 miles south-southeast of Grand Cayman Island, or about 585 miles south-southeast of Key West, Florida
- **Maximum Sustained Winds:** 45 mph
- **Current Movement:** WNW at 12 mph
- **FL Watches/Warnings:**
  - **Tropical Storm Watches** in effect for the Lower Keys from 7 Mile Bridge southward to Key West, including the Dry Tortugas.

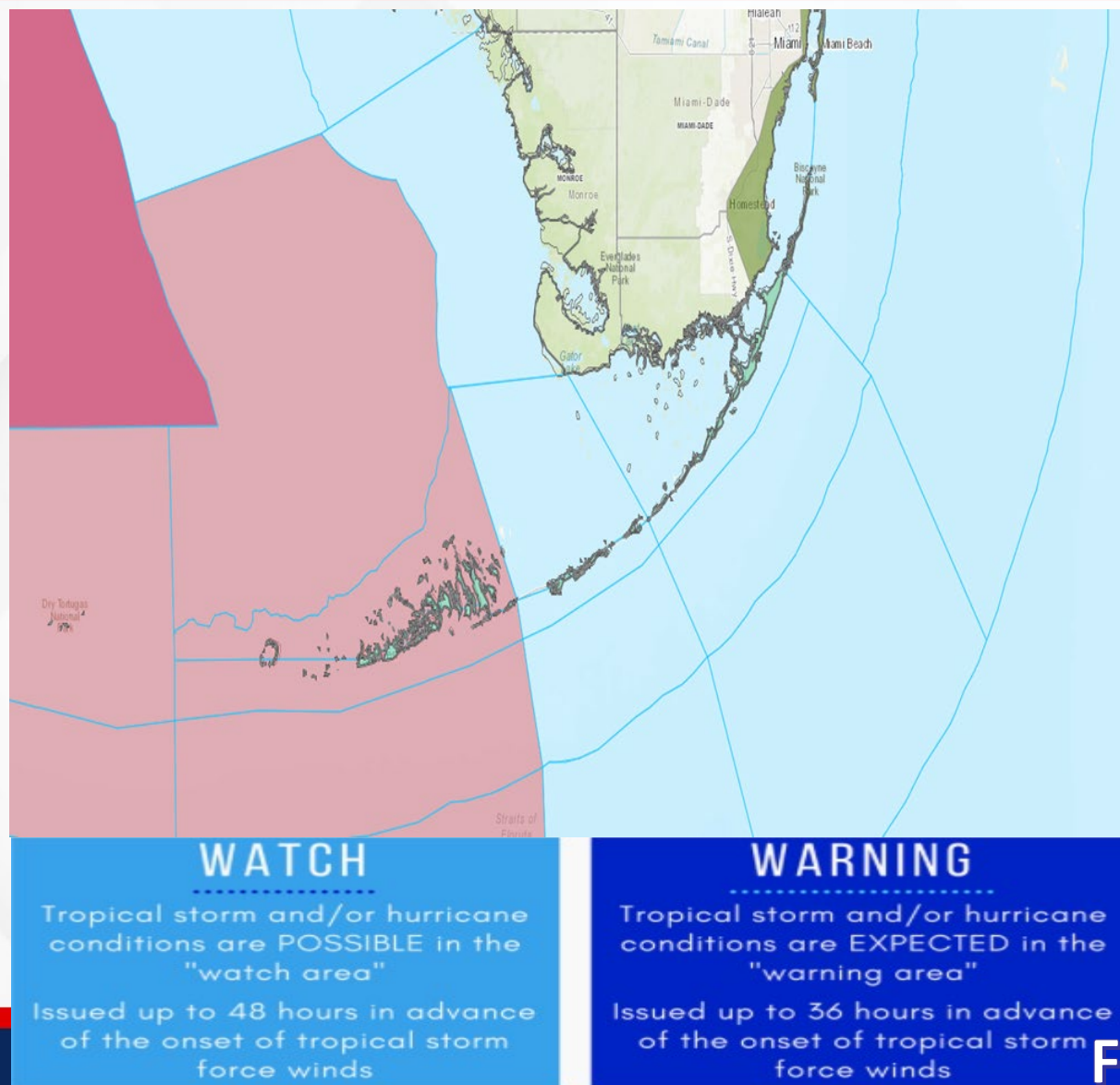
A turn toward the northwest is expected tonight, followed by a turn toward the north-northwest on Monday and north on Tuesday as it emerges into the southeastern Gulf of Mexico.

Ian is expected to become a hurricane within the next 24 hours and reach major hurricane strength by Tuesday near the western tip of Cuba.

Tropical-storm-force winds extend outward up to 35 miles from the center.



# Active Tropical Watches/Warnings



- A Tropical Storm Watch has been issued for the Lower Florida Keys from the 7 Mile Bridge southward to Key West, including the Dry Tortugas.
  - Tropical storm-force winds are possible from Tuesday morning until early Thursday morning.

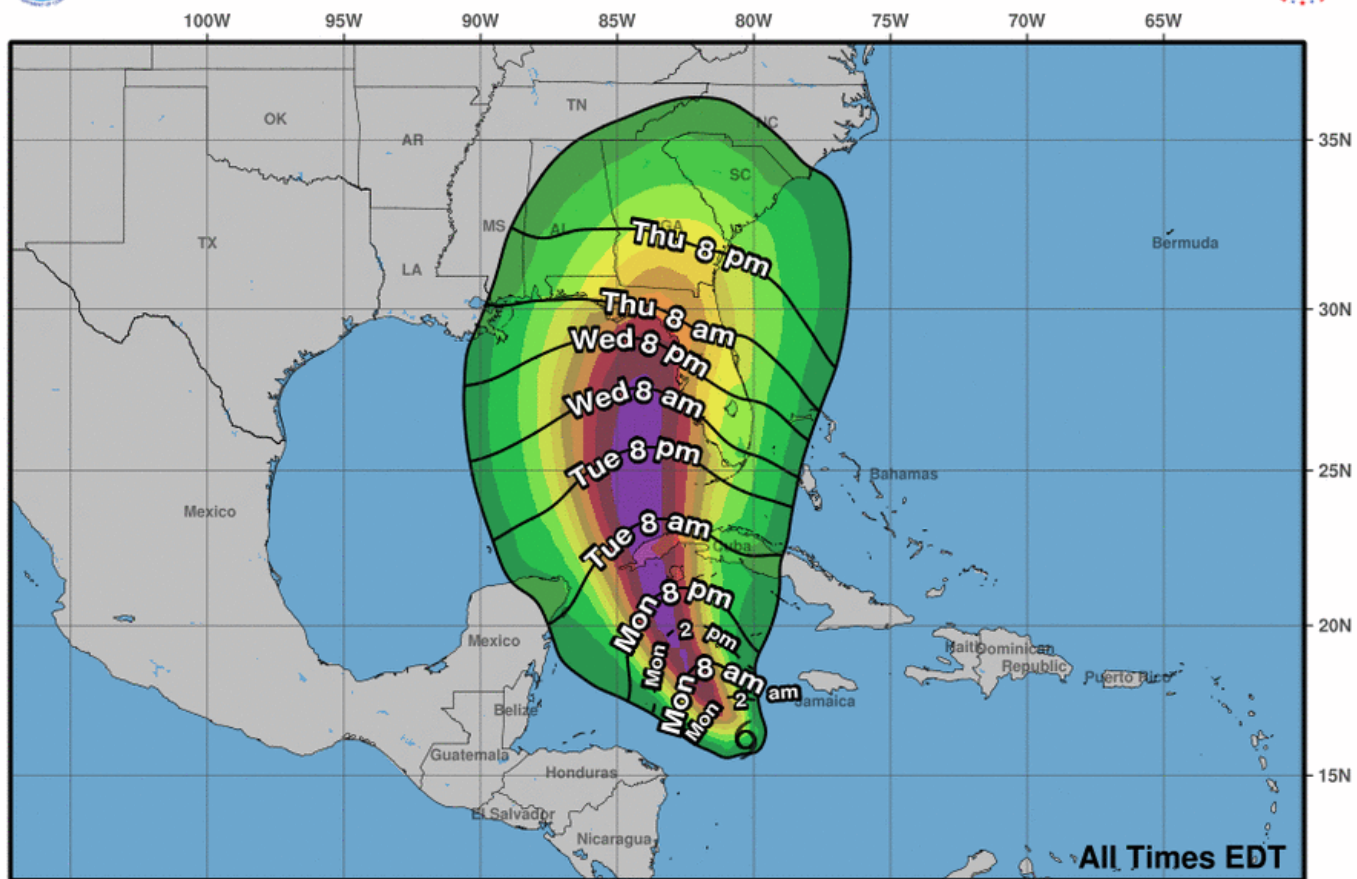


# Tropical Storm-Force Wind Probabilities

Tropical Storm Ian ([LINK](#))



## Most Likely Arrival Time of Tropical-Storm-Force Winds



**Tropical Storm Ian**  
Sun. Sep. 25, 2022 5 pm EDT  
Advisory 11

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

5 10 20 30 40 50 60 70 80 90 100 %

- Key West – 53% (+4%)
  - Naples – 59% (+7%)
  - Tampa – 74% (+9%)
  - Orlando – 40% (+7)
  - Cedar Key – 72% (+8%)
  - Tallahassee – 50% (+3%)
  - Apalachicola – 62% (-2%)
  - Panama City – 51% (-4%)
  - Destin – 28% (-5%)
  - Jacksonville – 45% (+14%)
- \*The numbers in parenthesis show the change in probability since the last briefing packet.\***

**Note:** A reduction in percentages does not necessarily mean a lower threat. These probabilities are dependent on the track, wind radii and intensity and may fluctuate up and down.

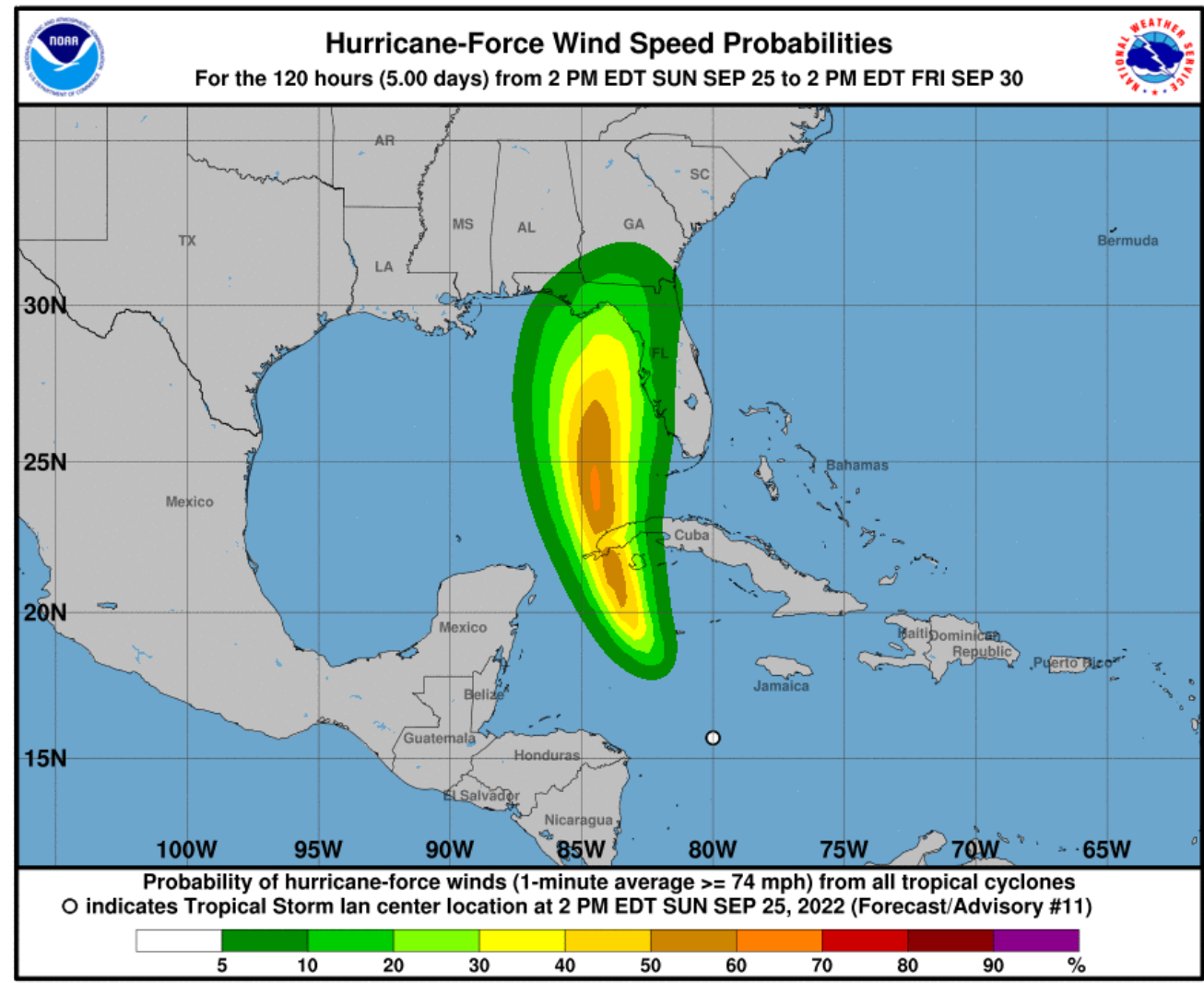
The chance for tropical storms conditions continues to increase for the Florida Big Bend and eastern Panhandle. Tropical storm-force winds may begin as early as late Monday night into early Tuesday morning along the Florida Keys and southern Peninsula, but are more likely to arrive on Tuesday. Tropical storm-force winds may begin as early as Tuesday morning and afternoon across the Peninsula (from south to north). Tropical storm-force winds may begin as early as Wednesday across the Big Bend & North Florida, but are more likely to begin Wednesday night.





# Hurricane-Force Wind Probabilities

Tropical Storm Ian ([LINK](#))



There is now a 5-15% chance of hurricane-force winds affecting the West Coast of Florida and Big Bend. These probabilities will increase as we get closer to landfall.



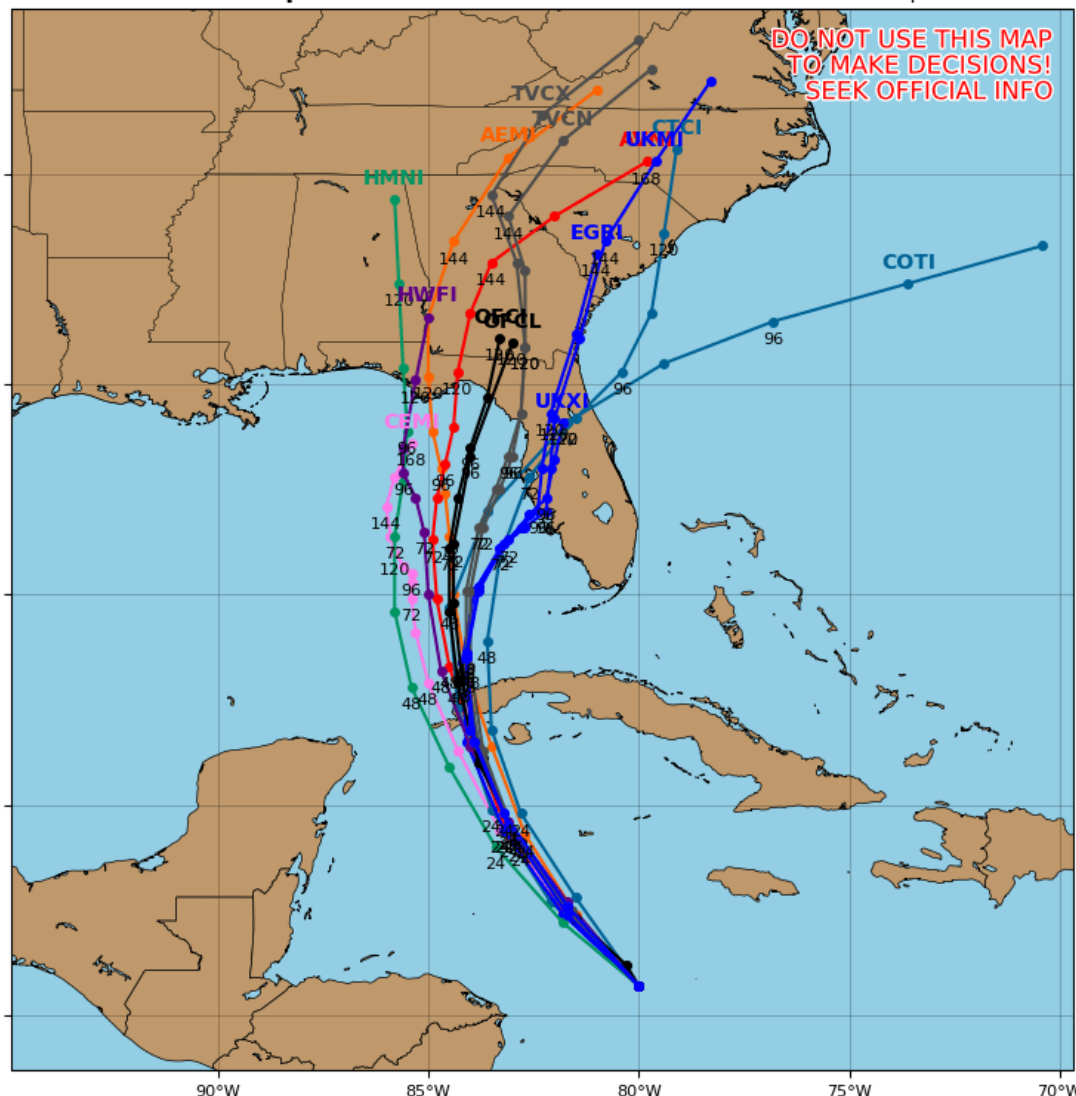
# Model Forecasts – Next 5 Days

## Tropical Storm Ian

### Tropical Storm IAN Model Track Guidance

Initialized at 18z Sep 25 2022

Levi Cowan - tropicaltidbits.com



Computer models are coming into better agreement this afternoon, but still in some disagreement on landfall location, with the range of possibilities between the central Florida Panhandle and Tampa Bay. However, many are predicting a landfall in the Florida Big Bend on Friday.

It is important to note that these model tracks do not depict intensity nor the envelope of impacts. Ian is forecast to grow in size as it enters the eastern Gulf of Mexico and impacts could still be felt from the Florida Keys to the Florida Panhandle.

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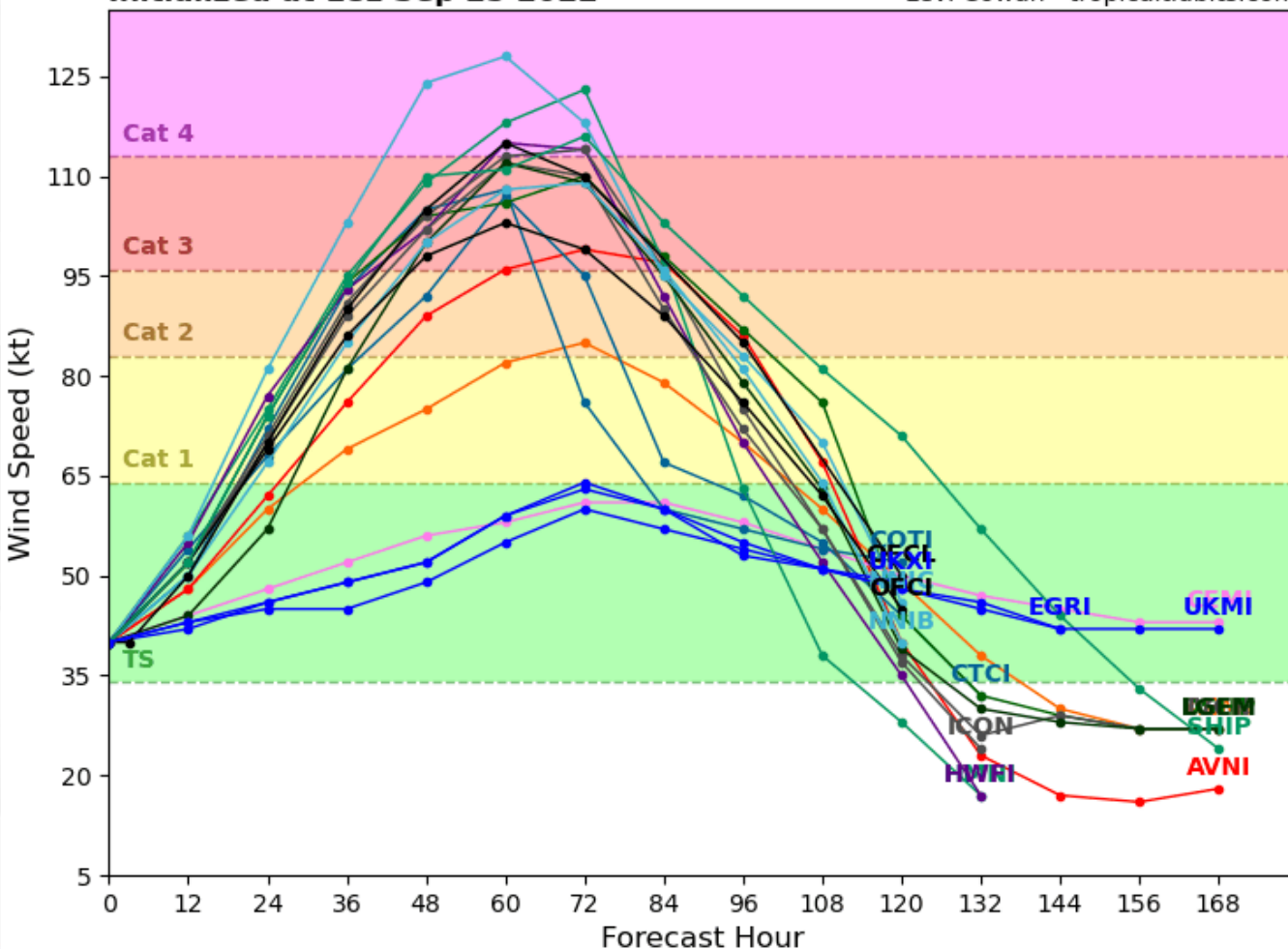
# Model Forecast Intensity

## Tropical Storm Ian

### Tropical Storm IAN Model Intensity Guidance

Initialized at 18z Sep 25 2022

Levi Cowan - tropicaltidbits.com



The northeasterly wind shear that has been impacting Ian will continue to decrease over the next day or two while the cyclone moves over the warm waters of the northwestern Caribbean Sea. Computer models are in decent agreement that Ian will strengthen to hurricane intensity within the next 24 hours. A more significant strengthening period is expected between the 24-hour and 72-hour period. Computer model guidance is in good agreement that Ian is likely to be a major hurricane when it approaches western Cuba and moves into the Gulf of Mexico.

Some models are indicating a weakening trend as it approaches the Florida Coast due to the presence of dry air and increasing wind shear, but similar to track uncertainties, there is also a great deal of uncertainty in the intensity of Ian as it makes landfall in Florida.

**It is important to note that Ian will grow into a large storm, and wind impacts will be felt well beyond the center of the storm.**





# Key Messages

## From the National Hurricane Center



### Key Messages for Tropical Storm Ian

Advisory 11: 5:00 PM EDT Sun Sep 25, 2022



1. Ian is expected to produce heavy rainfall, flash flooding, and possible mudslides in areas of higher terrain, particularly over Jamaica and Cuba. Flash and urban flooding is possible with rainfall across the Florida Keys and the Florida peninsula through the middle of the week. Additional flooding on rivers across northern Florida and parts of the southeast U.S. cannot be ruled out later this week.

2. Life-threatening storm surge and hurricane-force winds are expected in portions of western Cuba beginning late Monday, and Ian is forecast to be at or near major hurricane strength when it is near western Cuba. Efforts to protect life and property should be rushed to completion.

3. Ian is expected to be a major hurricane in the eastern Gulf of Mexico during the middle of this week, but uncertainty in the track and intensity forecasts remains higher than usual. Regardless of Ian's exact track and intensity, there is a risk of dangerous storm surge, hurricane-force winds, and heavy rainfall along the west coast of Florida and the Florida Panhandle by the middle of this week, and residents in Florida should ensure they have their hurricane plan in place. Follow any advice given by local officials and closely monitor updates to the forecast.



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

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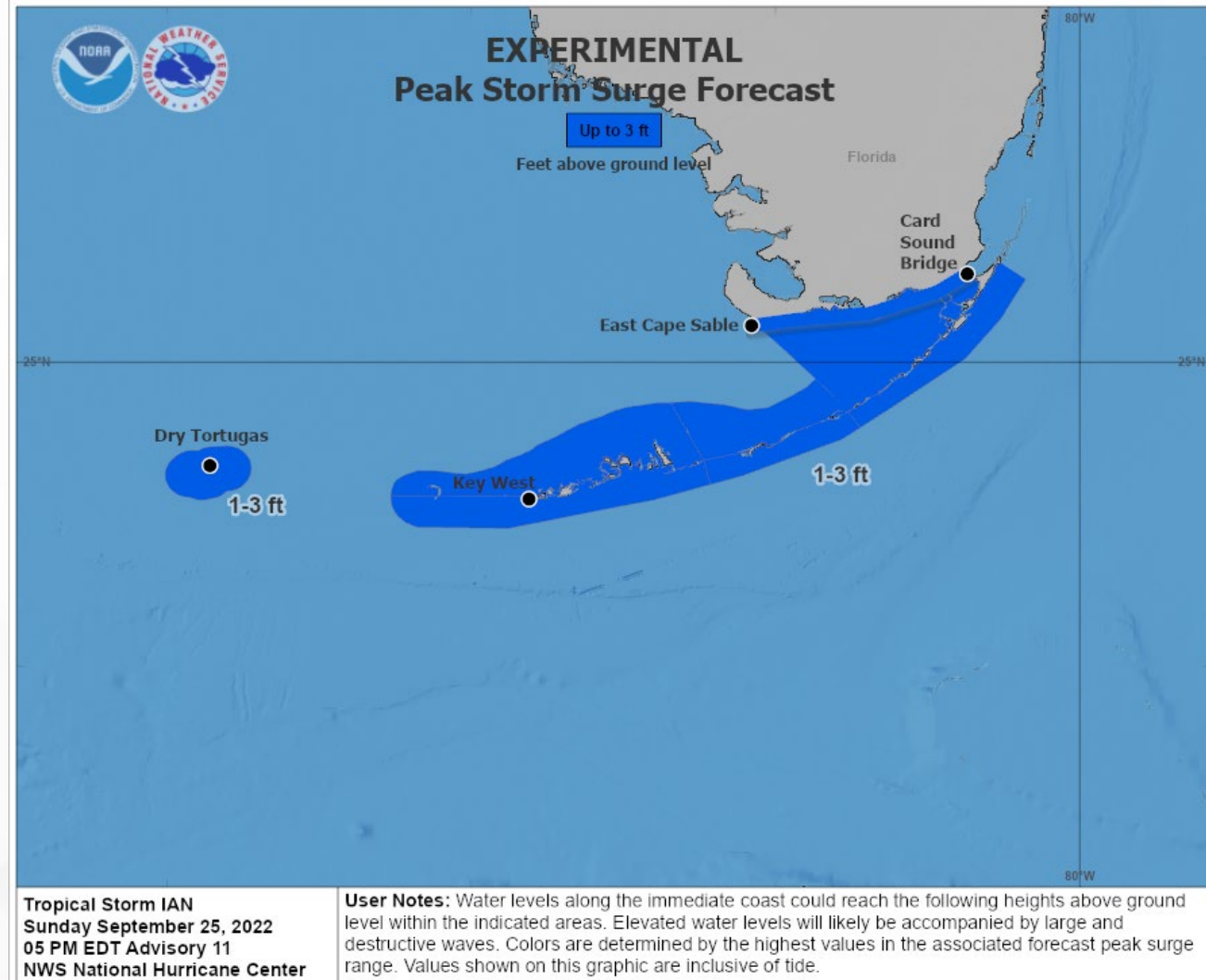
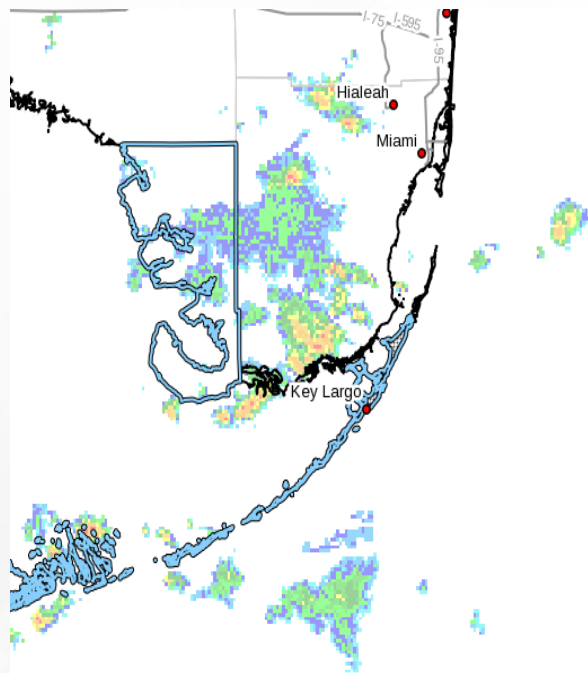
# Peak Storm Surge & Coastal Flooding

Water levels along the Florida Keys may reach 1-3' above ground level.

Coastal Flood Watches have been issued along the Upper Keys beginning early Tuesday morning.

\* WHEN...Current coastal flooding and high tides will be exacerbated by the passage of potential Major Hurricane Ian on Tuesday and Wednesday.

\* IMPACTS...Secondary roads may be closed. Low lying property including homes, businesses, and some critical infrastructure may flood. Some shoreline erosion may occur.



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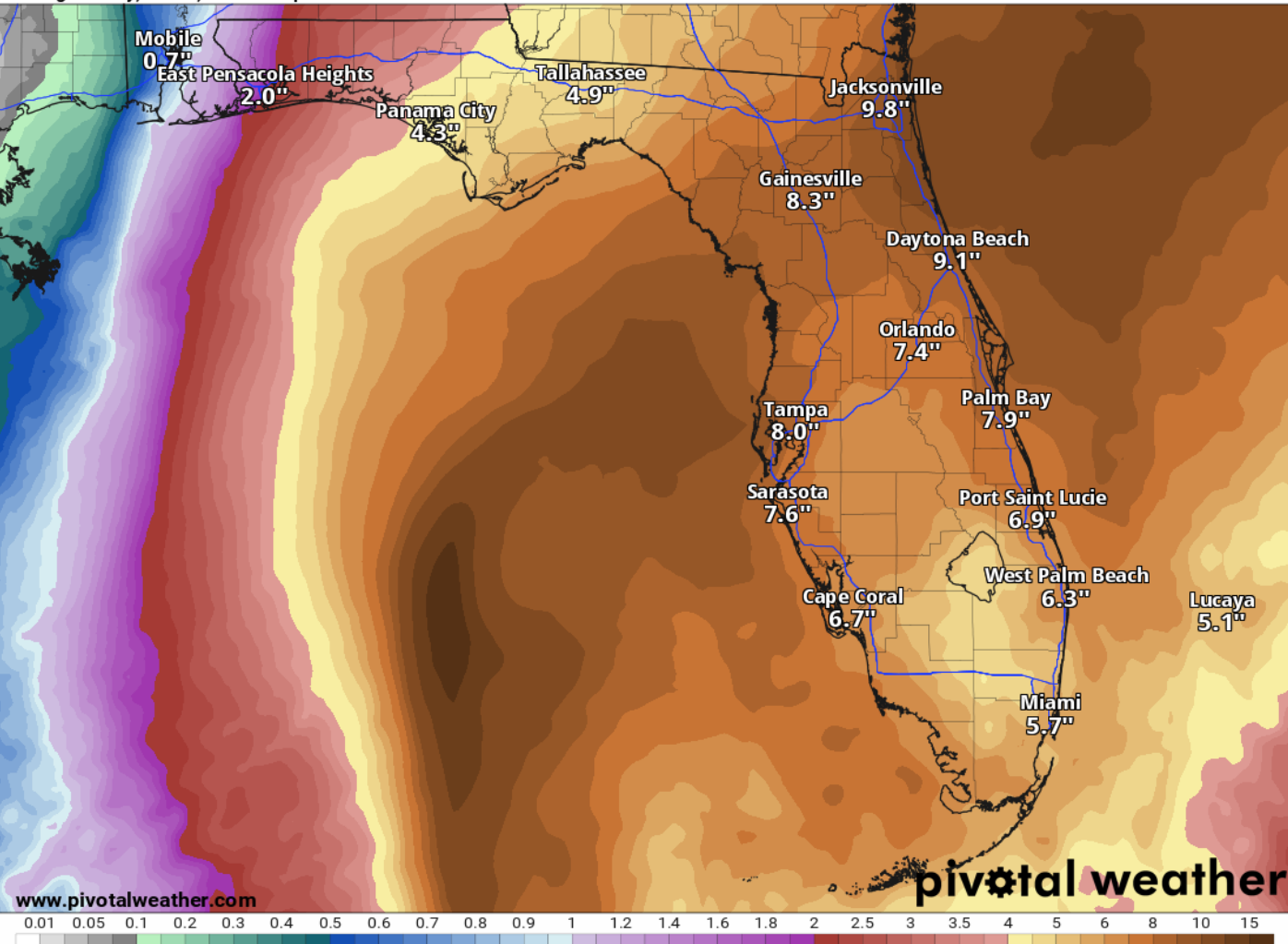
# 7-Day Forecast Rainfall

## From the Weather Prediction Center

### 7-Day Precipitation (in)

Ending Sunday, Oct. 2, 2022 at 8 p.m. EDT

Init: Mon 2022-09-26 00z WPC



While it is still too early to determine where the heaviest rainfall totals will occur, widespread rainfall totals of 5-10" are possible as Ian moves northward, even over much of the Florida Peninsula.

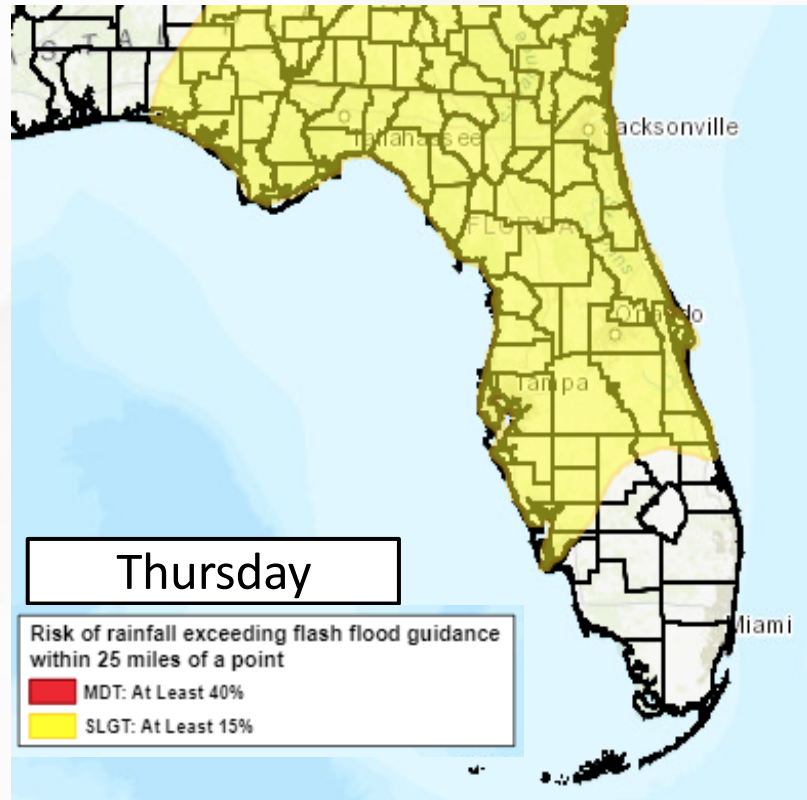
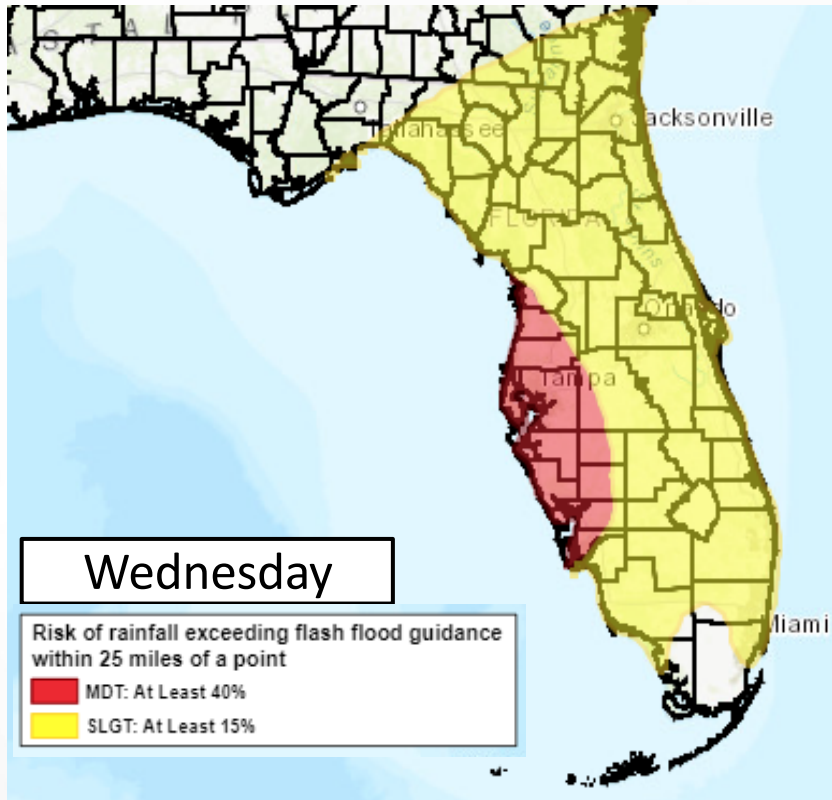
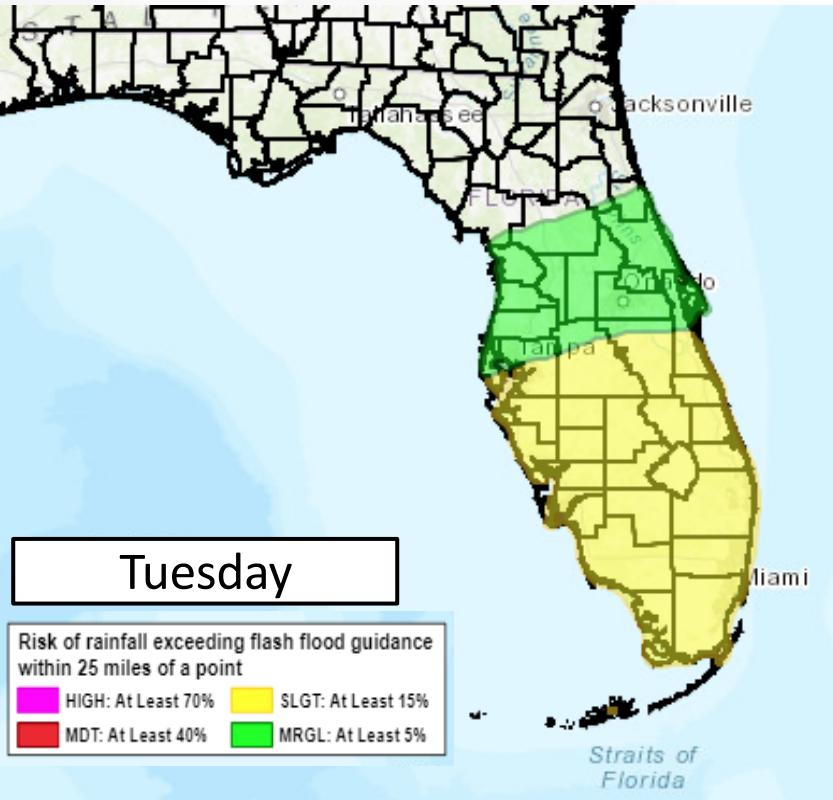
Heavier rainfall totals in the Big Bend and eastern Panhandle are also possible.





# Flash Flood Outlooks

From the Weather Prediction Center



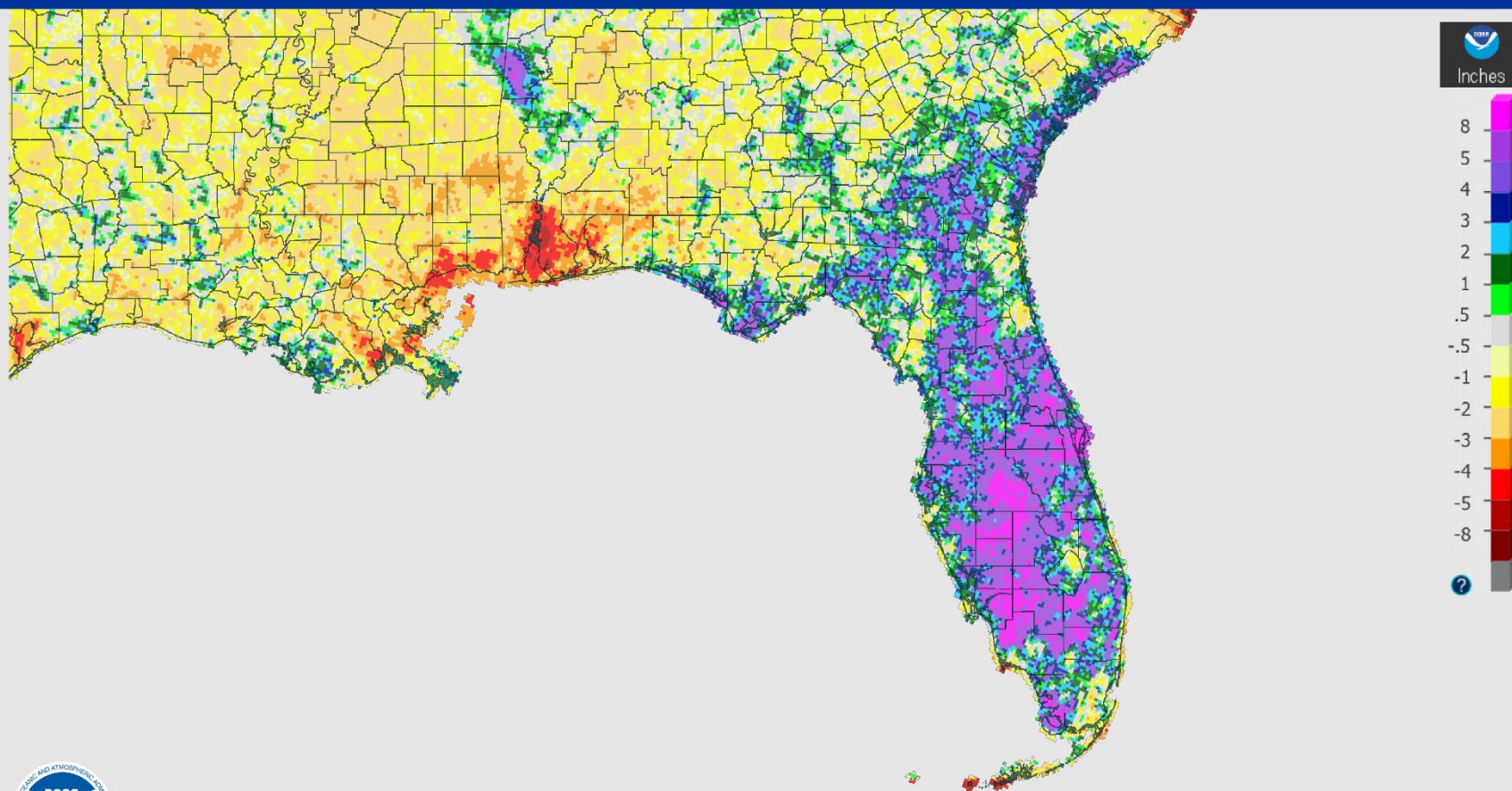


# 30-Day Rainfall Departure from Normal

September 25, 2022 30-Day Departure Precipitation

Created on: September 25, 2022 - 19:44 UTC

Valid on: September 25, 2022 12:00 UTC



Much of the Florida Peninsula and Big Bend have rainfall surpluses of 3-10" and could lead to rapid onset of flooding as well as increased drainage into area rivers.

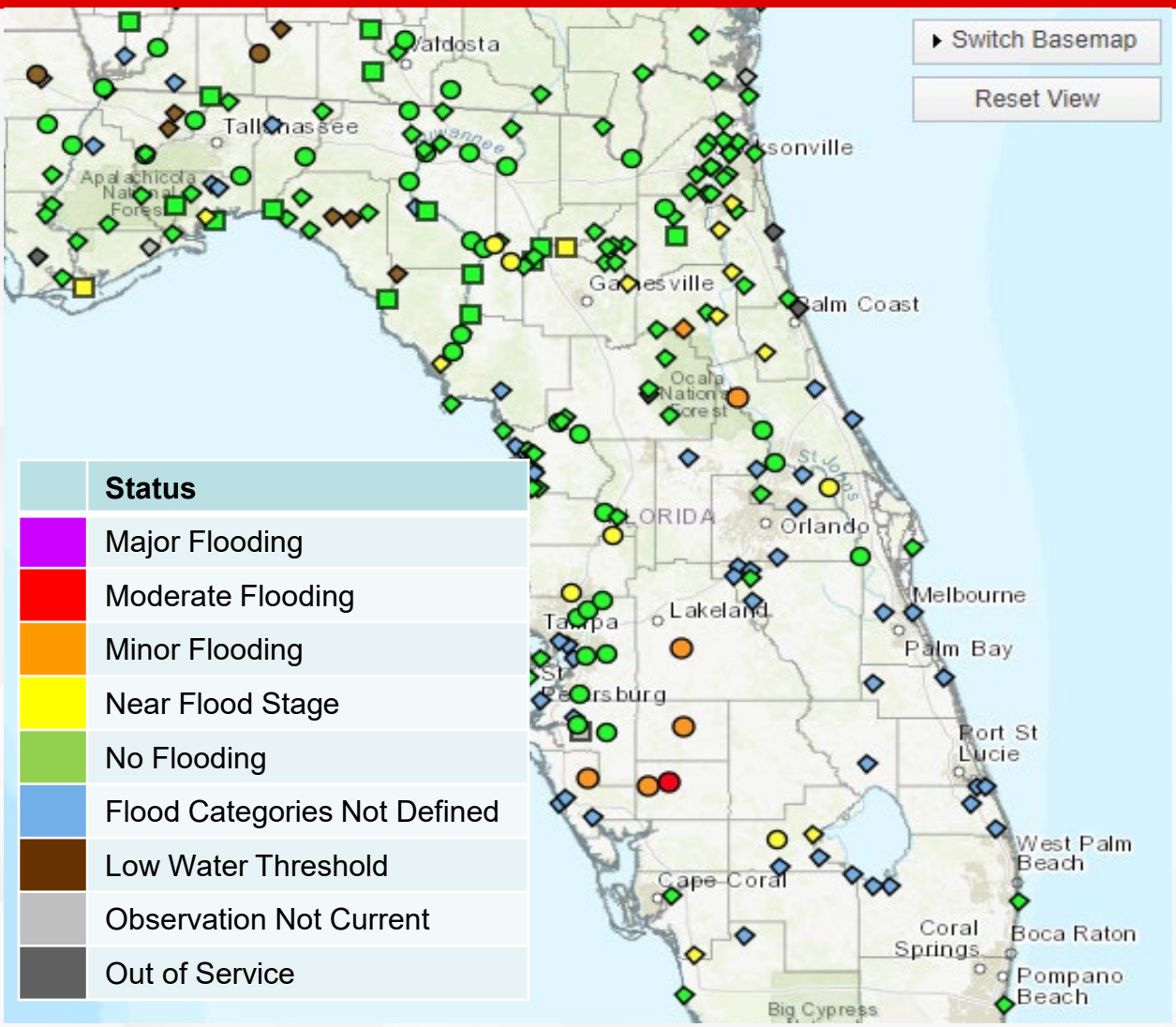






# Current River Observations

As of Sunday Afternoon



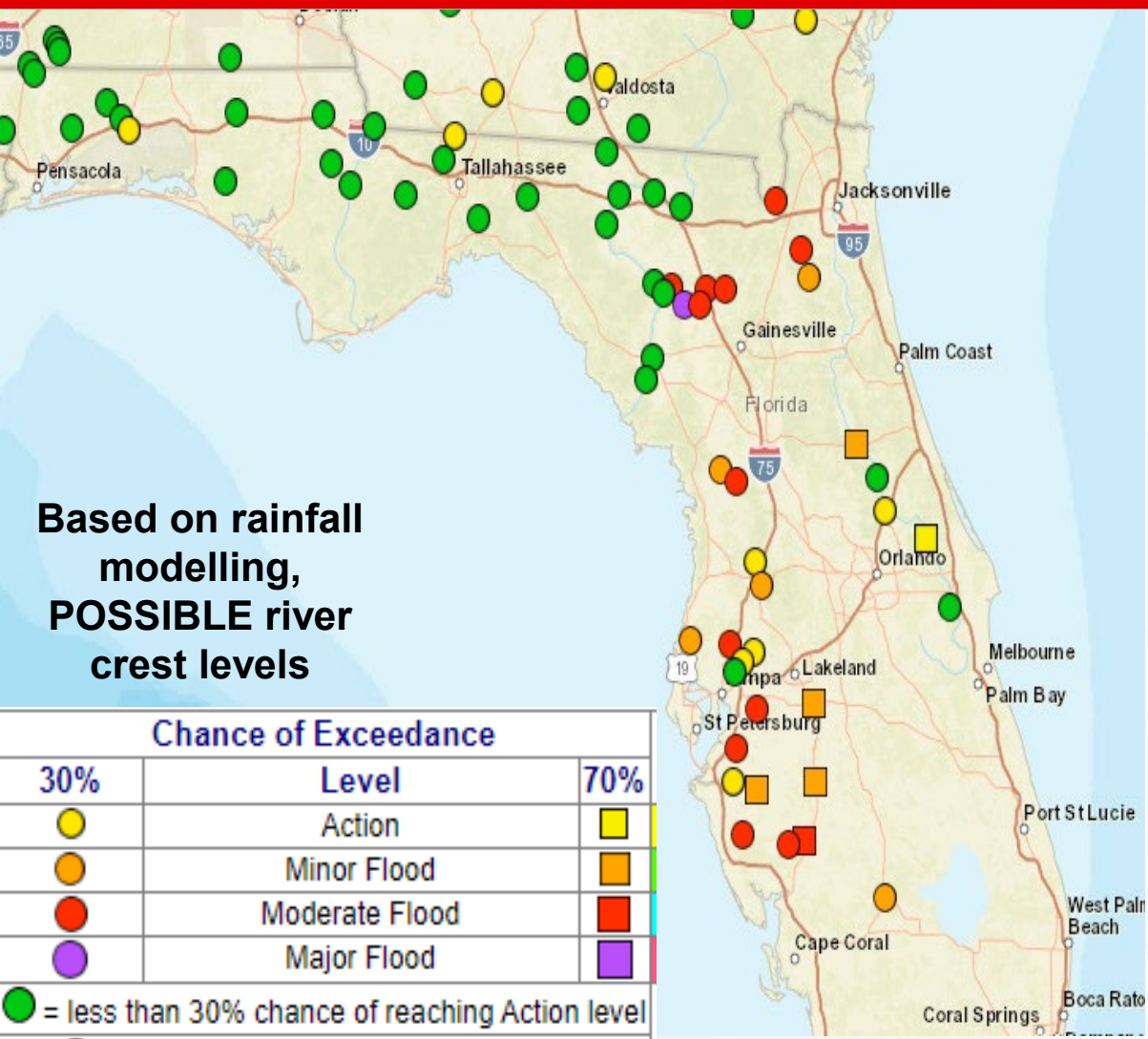
**Minor to moderate riverine flooding** continues on the Peace River, as well as Horse Creek and Myakka River in West Central Florida. Minor flooding is also still occurring on the St. Johns River at Astor as well as the Ocklawaha River in Northeast Florida. While these rivers are receding, the combination of additional heavy rainfall and wet antecedent conditions would leave these areas more susceptible for flooding.



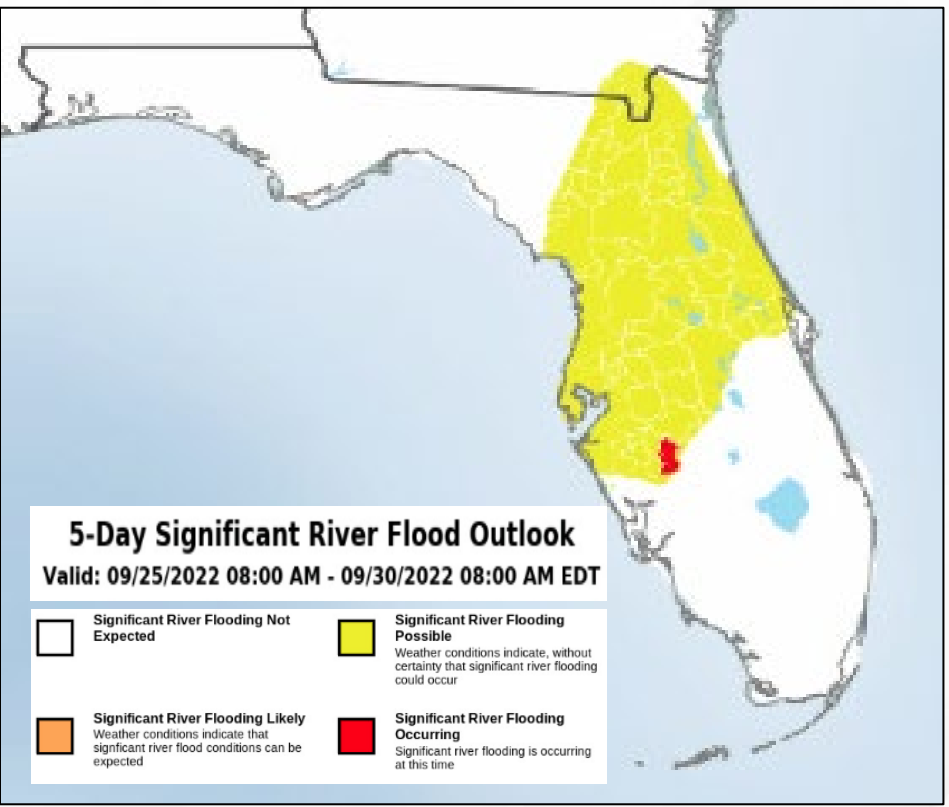


# Possible River Flooding

Chance of River Flooding Based on Range of Forecast Rainfall



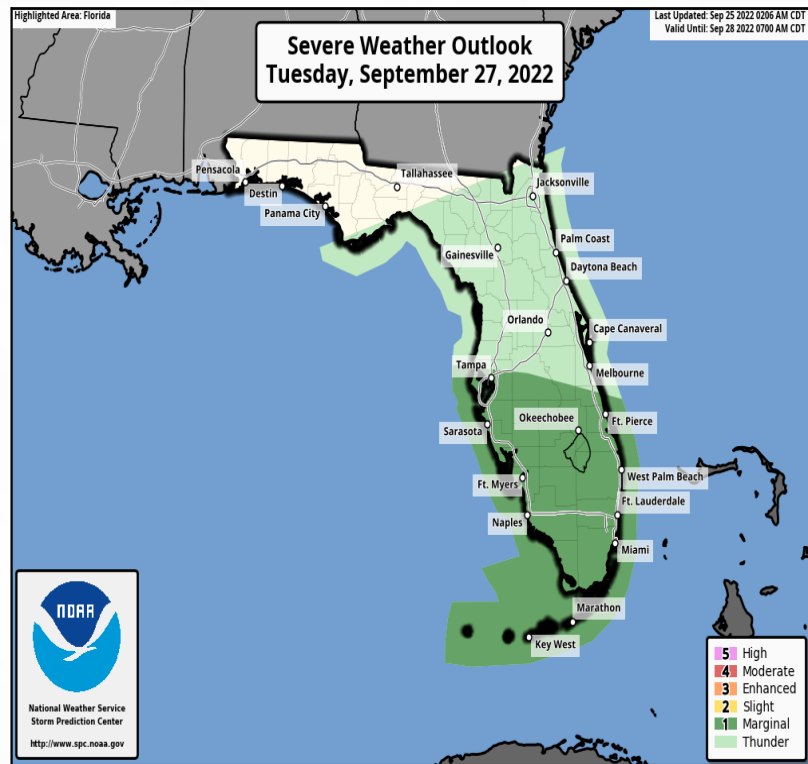
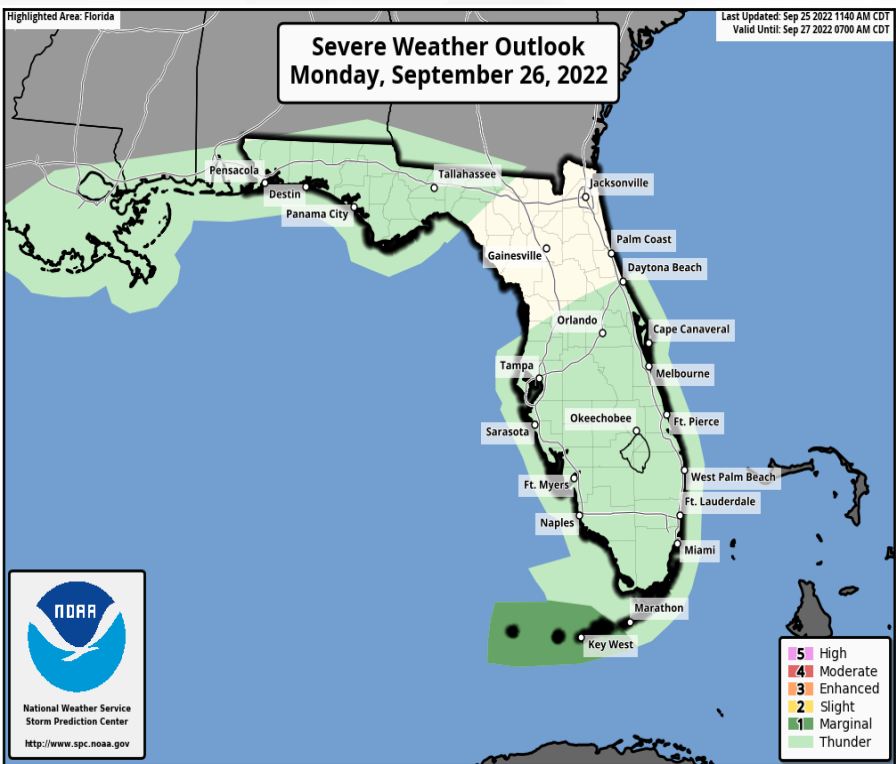
There is the potential for significant river flooding, particularly in the central and northern Florida Peninsula basins where some rivers are already near bank full or above flood stage. Depending on the forecast track, some Panhandle rivers may also be at risk for flooding.





# Severe Weather Outlook

From the Storm Prediction Center



Outer rain bands from Ian will result in isolated tornadoes across the Lower and Middle Keys on early Tuesday morning, and expanding into the southern Peninsula Tuesday and Wednesday.

This risk will expand northward on Wednesday and Thursday.

## Understanding Severe Thunderstorm Risk Categories

| THUNDERSTORMS<br>(no label)  | 1 - MARGINAL<br>(MRGL)                                     | 2 - SLIGHT<br>(SLGT)   | 3 - ENHANCED<br>(ENH)                                  | 4 - MODERATE<br>(MDT)                    | 5 - HIGH<br>(HIGH)   |
|--|--|--|--|--|--|
| No severe*<br>thunderstorms<br>expected                              | Isolated severe<br>thunderstorms<br>possible               | Scattered<br>severe storms<br>possible                                       | Numerous<br>severe storms<br>possible                  | Widespread<br>severe storms<br>likely    | Widespread<br>severe storms<br>expected                    |
| Lightning/flooding<br>threats exist with <u>all</u><br>thunderstorms | Limited in duration<br>and/or coverage<br>and/or intensity | Short-lived and/or<br>not widespread,<br>isolated intense<br>storms possible | More persistent<br>and/or widespread,<br>a few intense | Long-lived,<br>widespread and<br>intense | Long-lived, very<br>widespread and<br>particularly intense |



# Summary

## Tropical Storm Ian:

- As of 5:00 PM EDT Sunday, Ian was located about 220 miles south-southeast of Grand Cayman Island, or about 585 miles south-southeast of Key West, Florida, and moving west-northwest around 12 mph.
- A turn toward the northwest is expected tonight, followed by a turn toward the north-northwest on Monday and north on Tuesday as it emerges into the southeastern Gulf of Mexico.
- Maximum sustained winds have increased to 45 mph. Tropical-storm-force winds extend outward up to 35 miles from the center.
- Ian is expected to become a hurricane Monday and reach major hurricane strength by Tuesday before it near western Cuba.
- Ian could make landfall along the Florida Gulf Coast on Friday, however, impacts could start in southern Florida on Tuesday and spread northward through the remainder of the week. Therefore, it is important to not focus on the exact forecast track of Ian.

## Florida Outlook:

- A **Tropical Storm Watch** has been issued along the Lower Keys from the 7 Mile Bridge southward to Key West, and including Dry Tortugas.
- Peak storm surge values of 1-3' above normally dry ground may occur along the Florida Keys as then Major Hurricane Ian passes to the west.
- It is too early to determine the exact magnitude and location of storm-specific threats such as storm surge values, highest winds, exact location of the heaviest rainfall totals, and isolated tropical tornadoes; therefore, do not focus on the "center point" on the forecast cone, but remember that hurricane impacts can extend well beyond the forecast cone.
- Tropical rains may begin to overspread across the Florida Keys and southern Peninsula late Monday and tropical storm-force winds may arrive on Tuesday. Tropical storm-force winds may then spread from south to north along portions of the Peninsula through Wednesday and could arrive in the eastern Panhandle/Big Bend on Wednesday.
- Isolated tornadic activity may begin as early as early Tuesday morning along the Florida Keys, expanding from south to north across the Peninsula mid-next week.
- Rip currents will increase along the Florida Gulf Coast by Tuesday as swells from Ian move through the Gulf of Mexico.
- The next name on the list is Julia.

The next briefing packet will be issued Monday Morning. For the latest information, please visit the [National Hurricane Center website](#).





# Tropical Update

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State Meteorological Support Unit

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