



# Tropical Update



8:30 AM EDT

Sunday, September 25, 2022

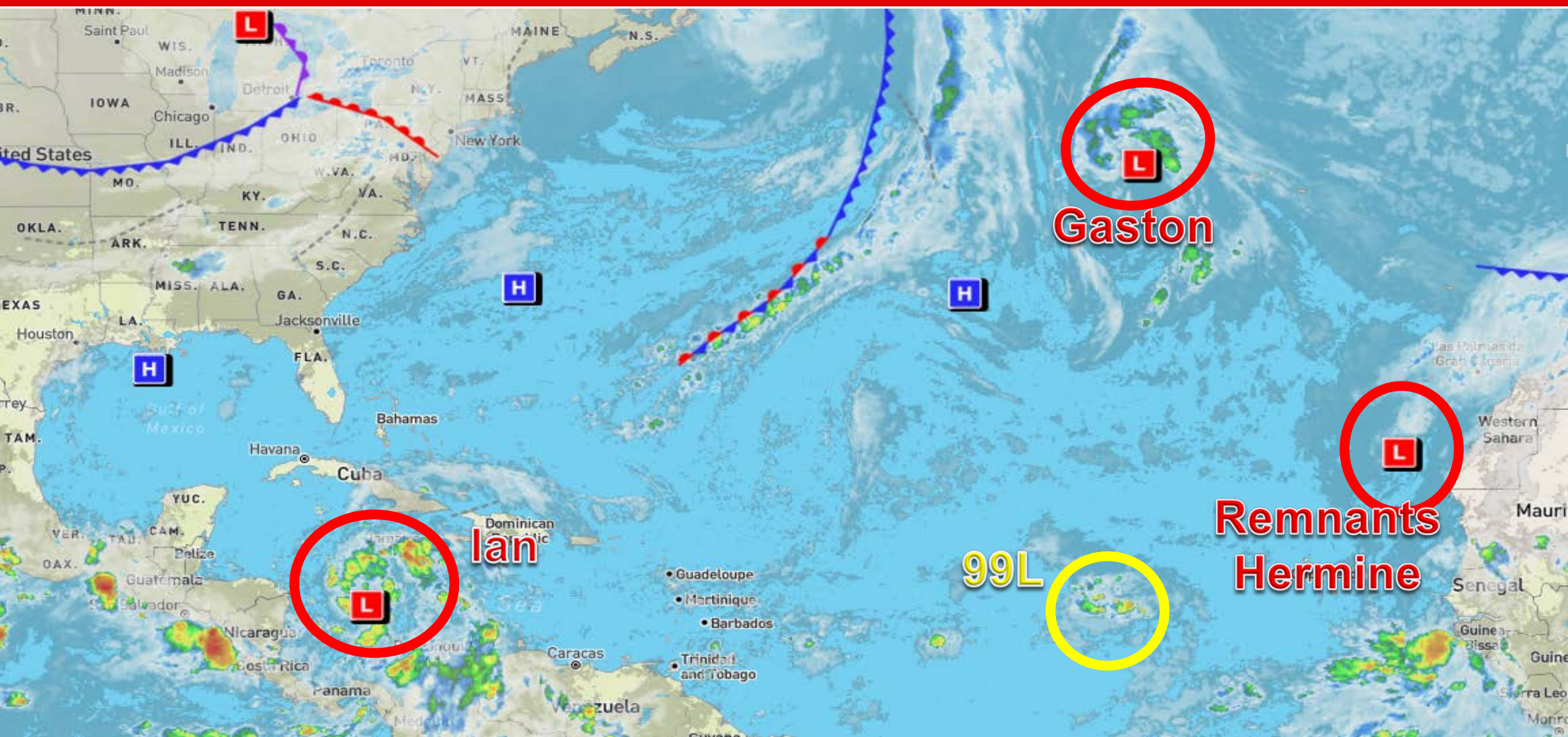
## Tropical Storm Ian

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

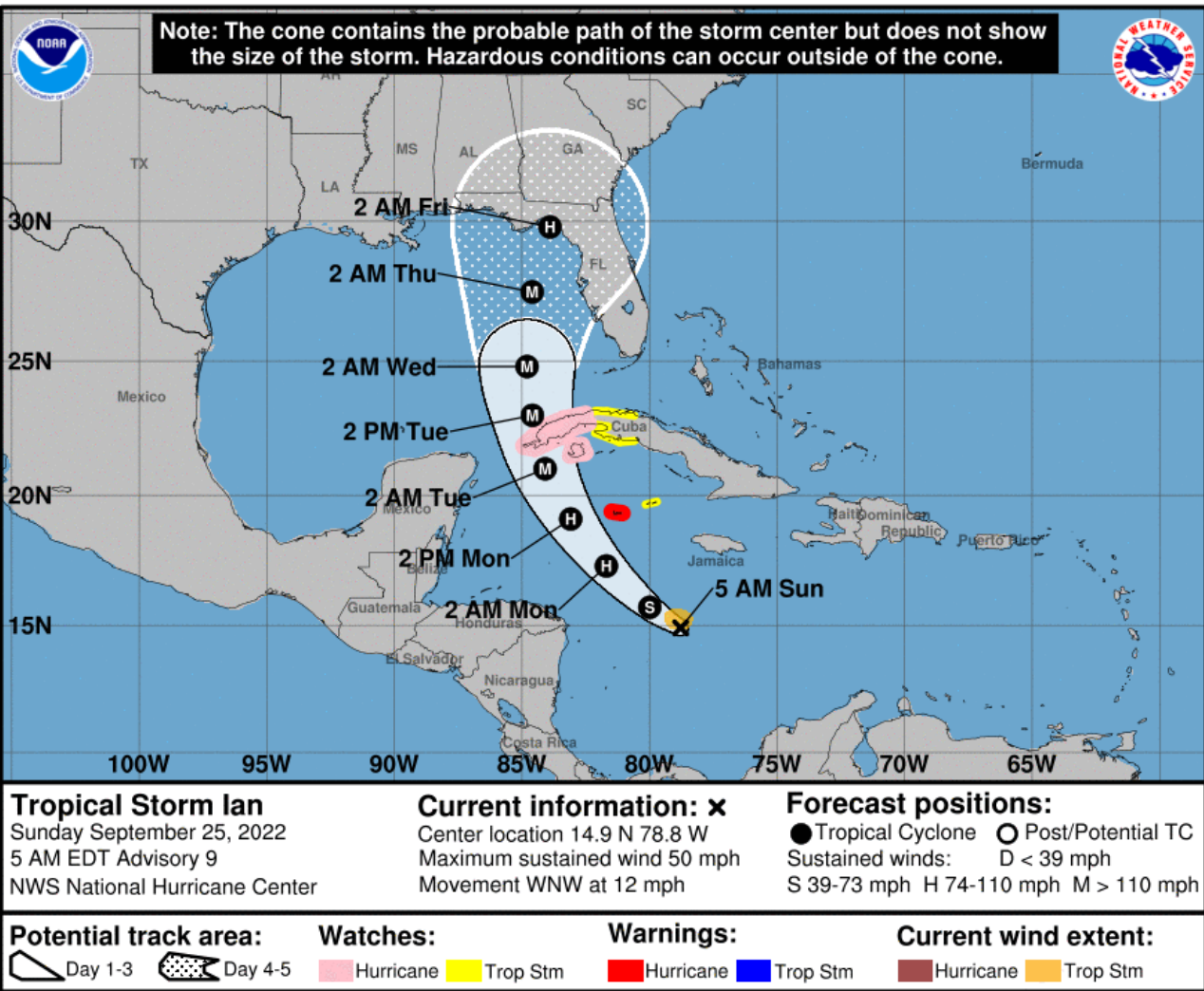






# Forecast Cone

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



- **Location:** 345 miles south-southeast of Grand Cayman Island, or about 695 miles south-southeast of Key West, Florida
- **Maximum Sustained Winds:** 50 mph
- **Current Movement:** WNW at 12 mph
- **FL Watches/Warnings:** None

A turn toward the northwest is expected later today, 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 later today or tonight and reach major hurricane strength by late Monday or Monday night before it reaches western Cuba.

Tropical-storm-force winds extend outward up to 60 miles from the center.

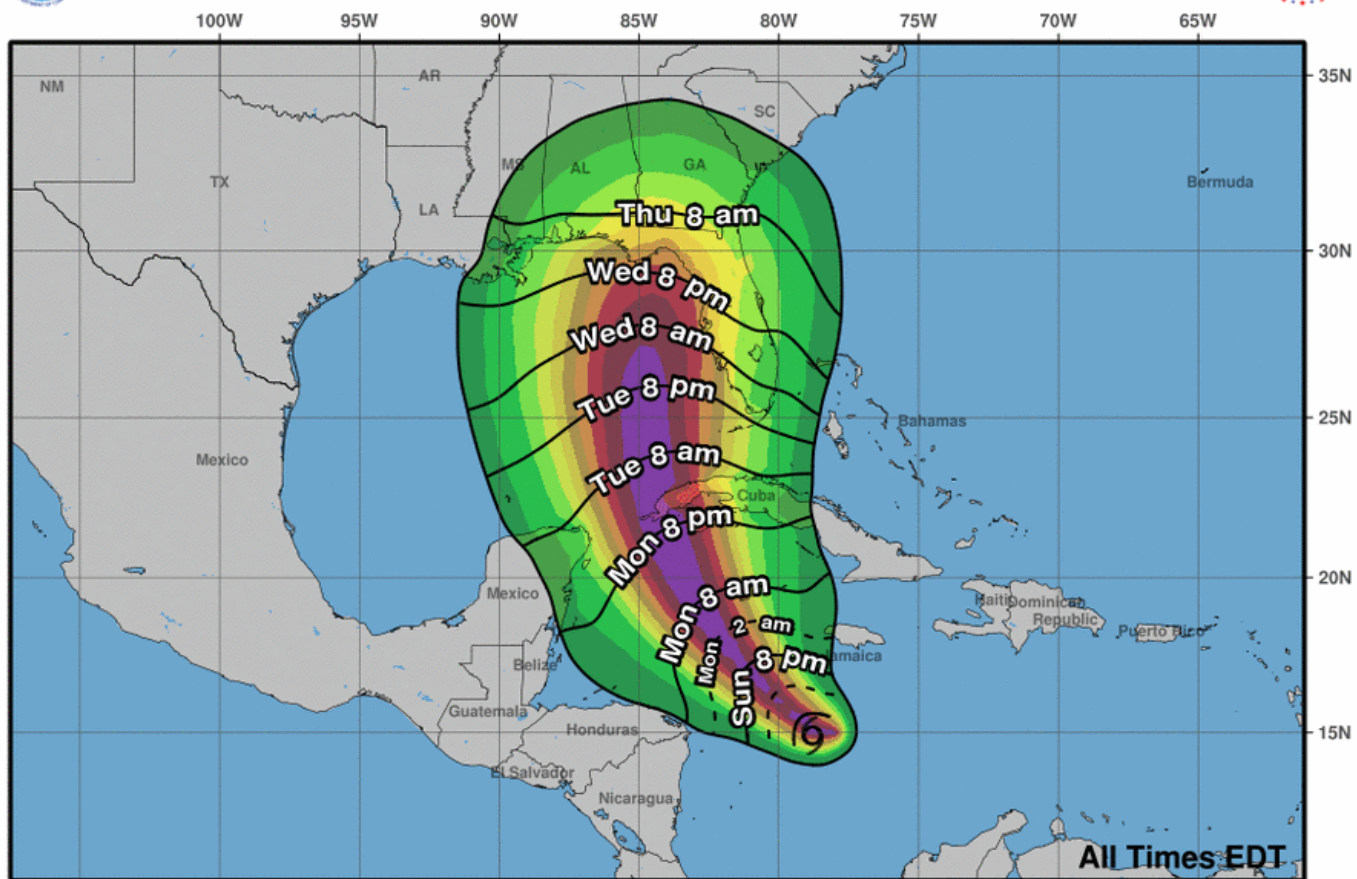


# Tropical Storm-Force Wind Probabilities

Tropical Storm Ian ([LINK](#))



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



**Tropical Storm Ian**  
Sun. Sep. 25, 2022 5 am EDT  
Advisory 9

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 – 49% (+6%)
- Naples – 52% (+3%)
- Miami – 17% (-1%)
- West Palm Beach – 25% (+1%)
- Tampa – 65% (+5%)
- Orlando – 33% (-1%)
- Cedar Key – 64% (+6%)
- Tallahassee – 47% (+11%)
- Apalachicola – 64% (+10%)
- Panama City – 55%
- Destin – 33%
- Jacksonville – 31% (+4%)

\*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.

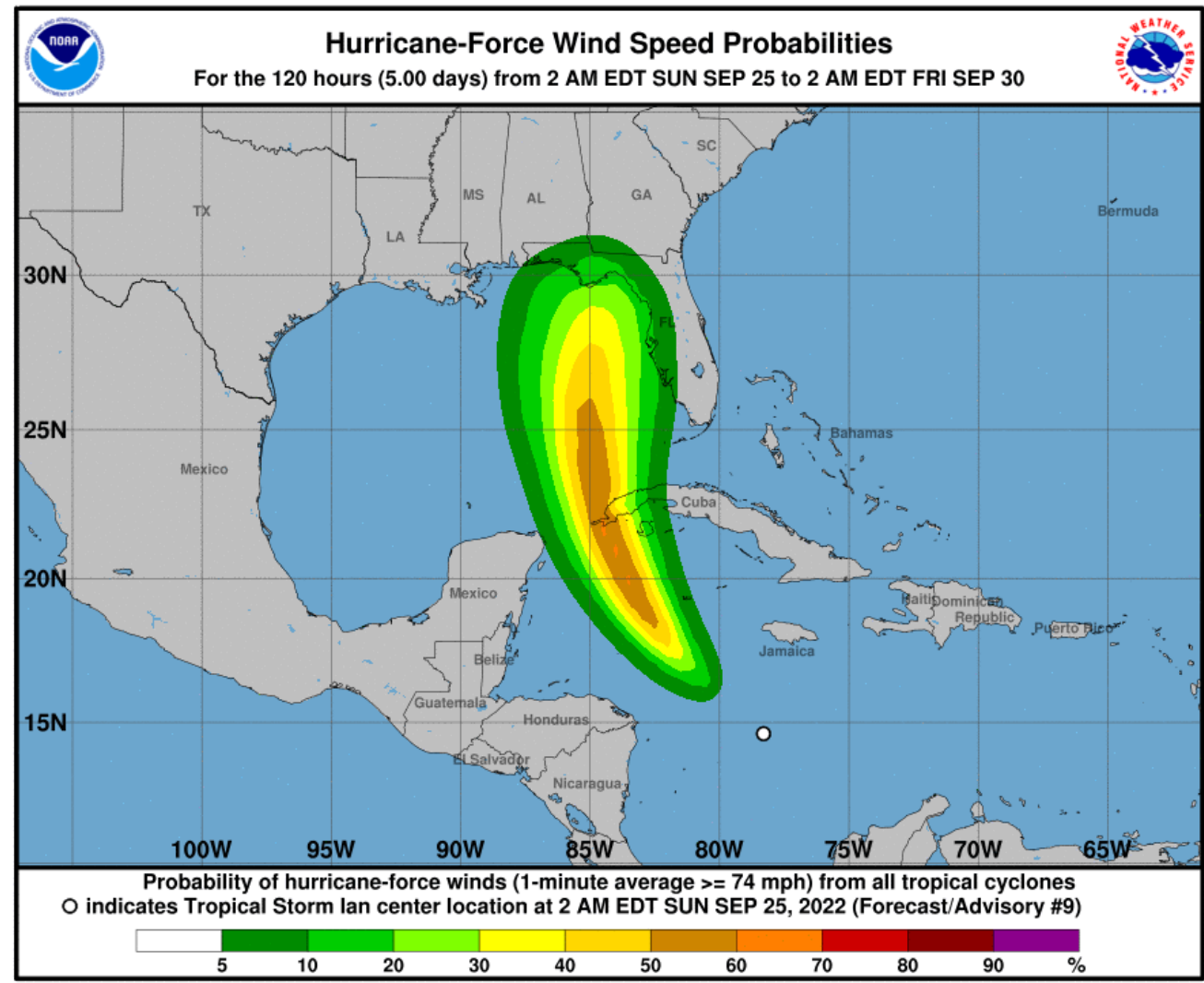
The chance for tropical storms conditions continues to increase for the Florida Big Bend and eastern Panhandle. Tropical storm-force winds may begin as early as late Monday night into early Tuesday morning along the Florida Keys and southern Peninsula, but are more likely to arrive on Tuesday. Tropical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



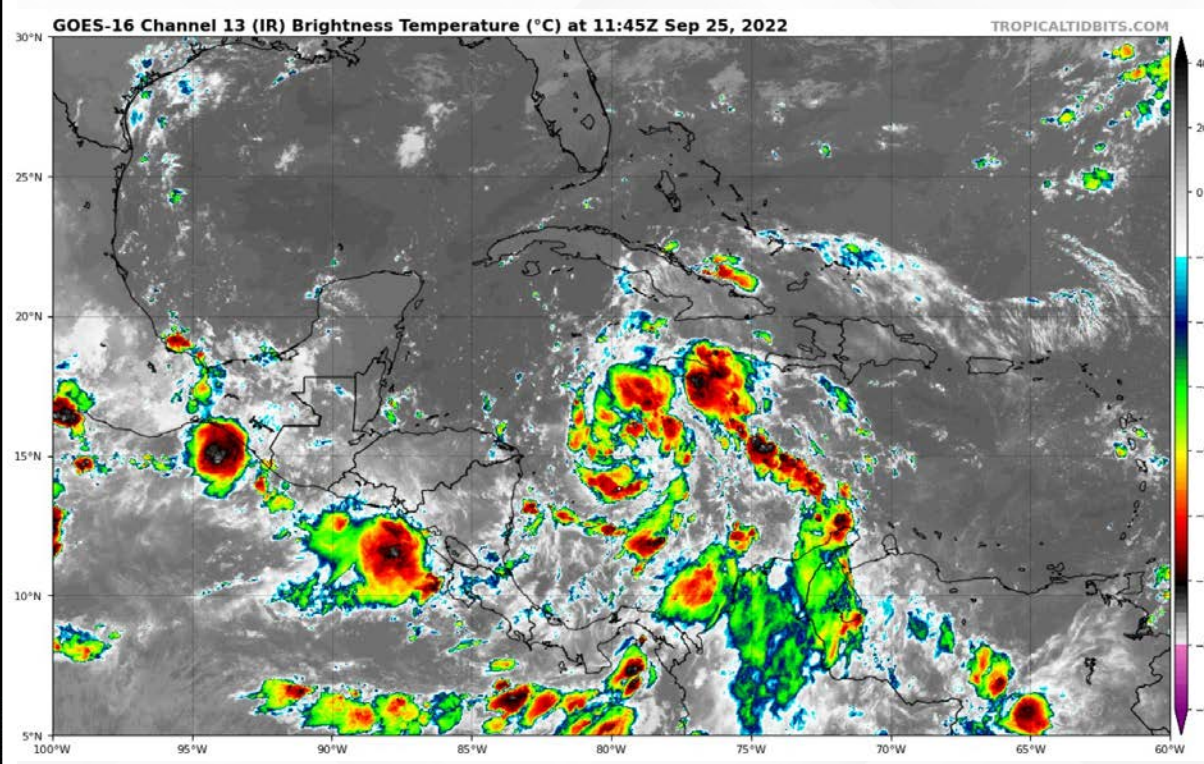


# Hurricane-Force Wind Probabilities & Satellite Imagery

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.





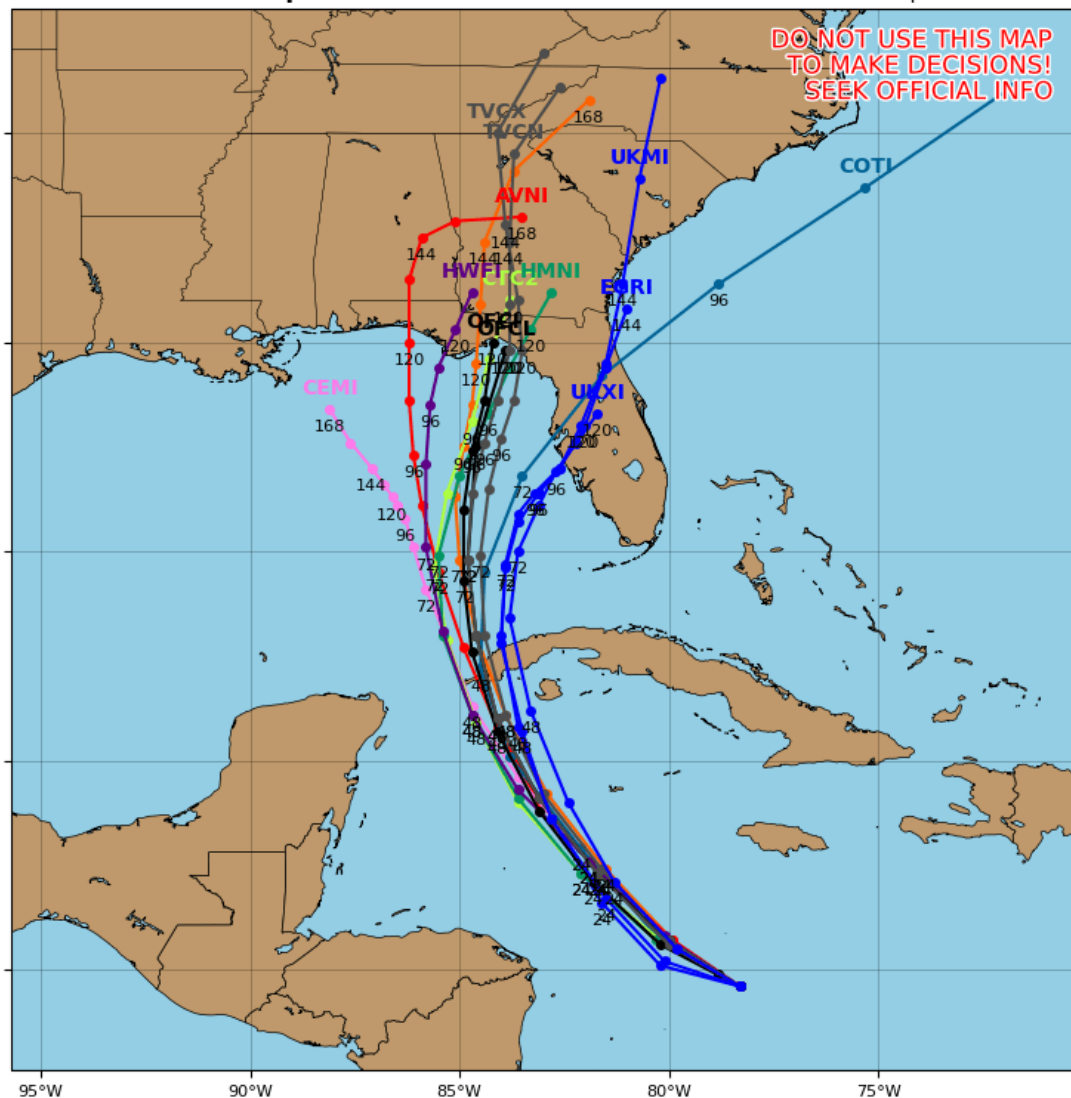
# Model Forecasts – Next 5 Days

## Tropical Storm Ian

### Tropical Storm IAN Model Track Guidance

Initialized at 06z Sep 25 2022

Levi Cowan - tropicaltidbits.com



Computer models are coming into better agreement this morning, 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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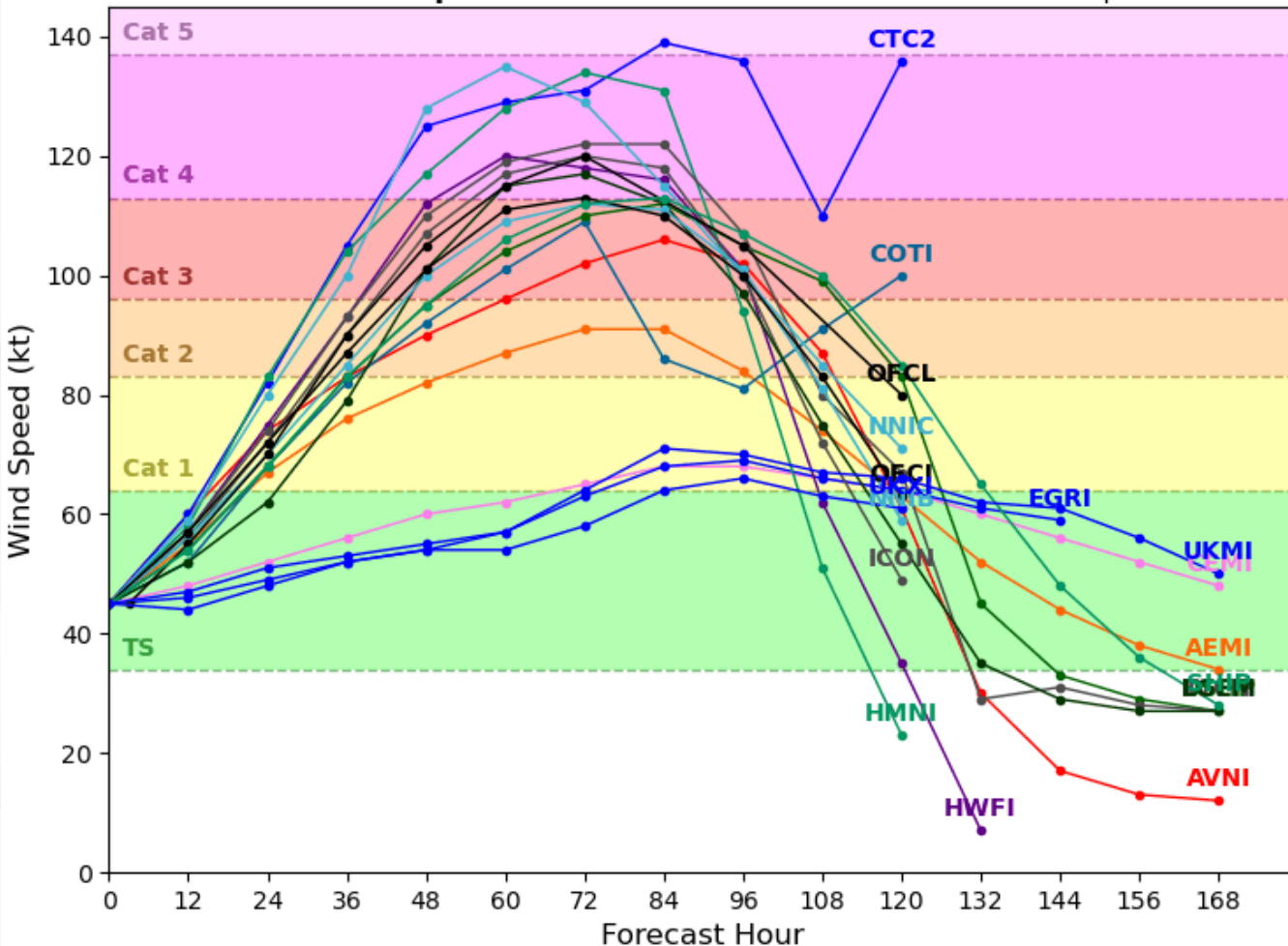
# Model Forecast Intensity

## Tropical Storm Ian

### Tropical Storm IAN Model Intensity Guidance

Initialized at 06z 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.





# Key Messages

## From the National Hurricane Center



### Key Messages for Tropical Storm Ian

#### Advisory 9: 5:00 AM EDT Sun Sep 25, 2022

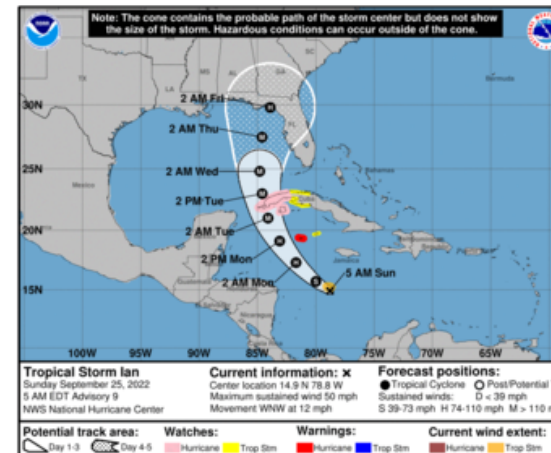


1. Ian is expected to produce heavy rainfall and instances of flash flooding and possible mudslides in areas of higher terrain, particularly over Jamaica and Cuba. Flash and urban flooding is possible with rainfall across the Florida Keys and Florida peninsula through mid week. Additional flooding on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

2. Hurricane or tropical storm conditions are expected on Grand Cayman beginning early Monday.

3. Ian is forecast to be a major hurricane when it passes near or over western Cuba, and there is increasing confidence in a life-threatening storm surge and hurricane-force winds in portions of western Cuba beginning late Monday. Hurricane and tropical storm watches are now in effect for much of western Cuba.

4. Ian is expected to remain a major hurricane when it moves generally northward across the eastern Gulf of Mexico during the middle of the week, but uncertainty in the long-term track and intensity forecast is 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 the 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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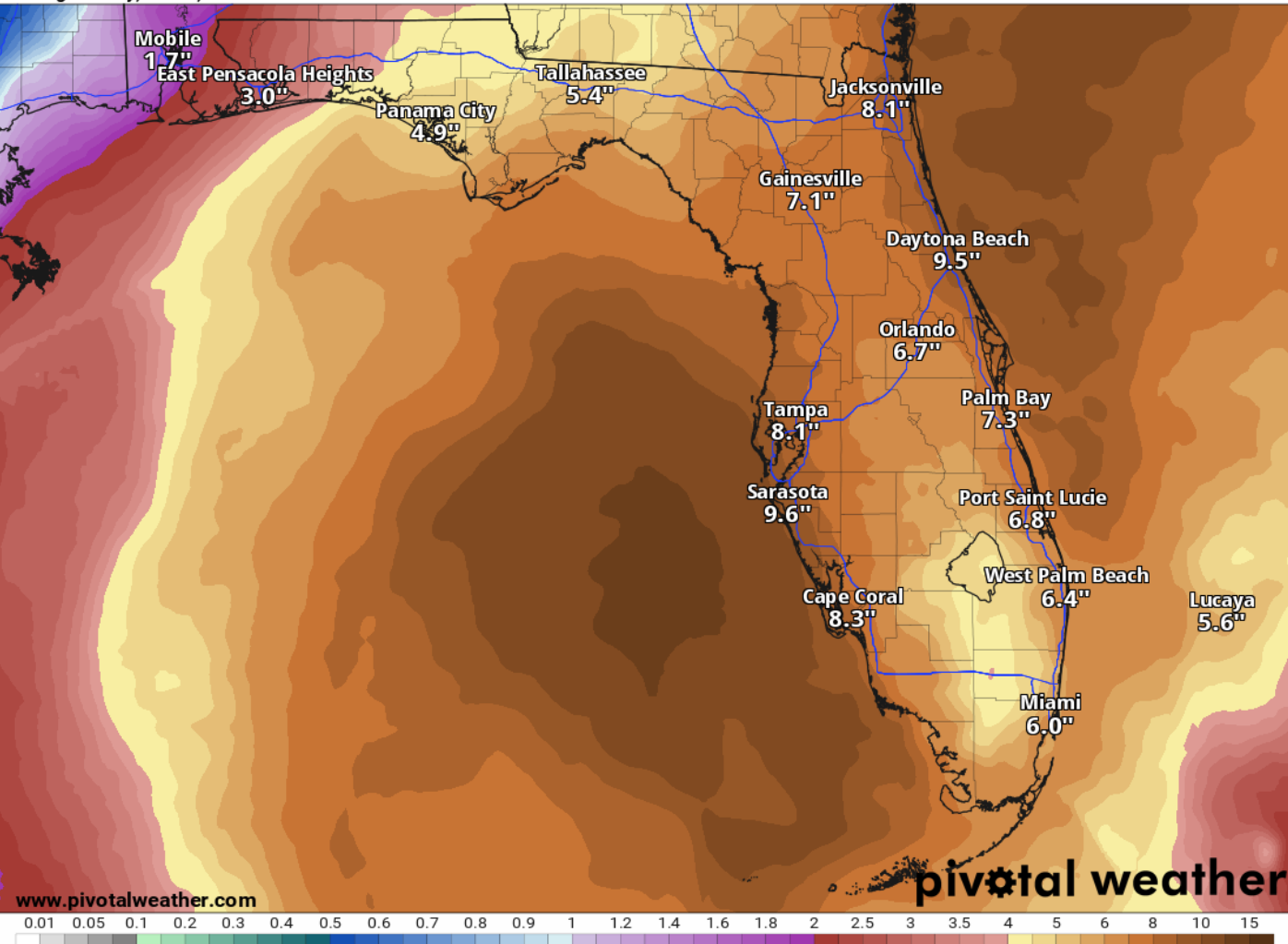
# 7-Day Forecast Rainfall

## From the Weather Prediction Center

7-Day Precipitation (in)

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

Init: Sun 2022-09-25 12z WPC



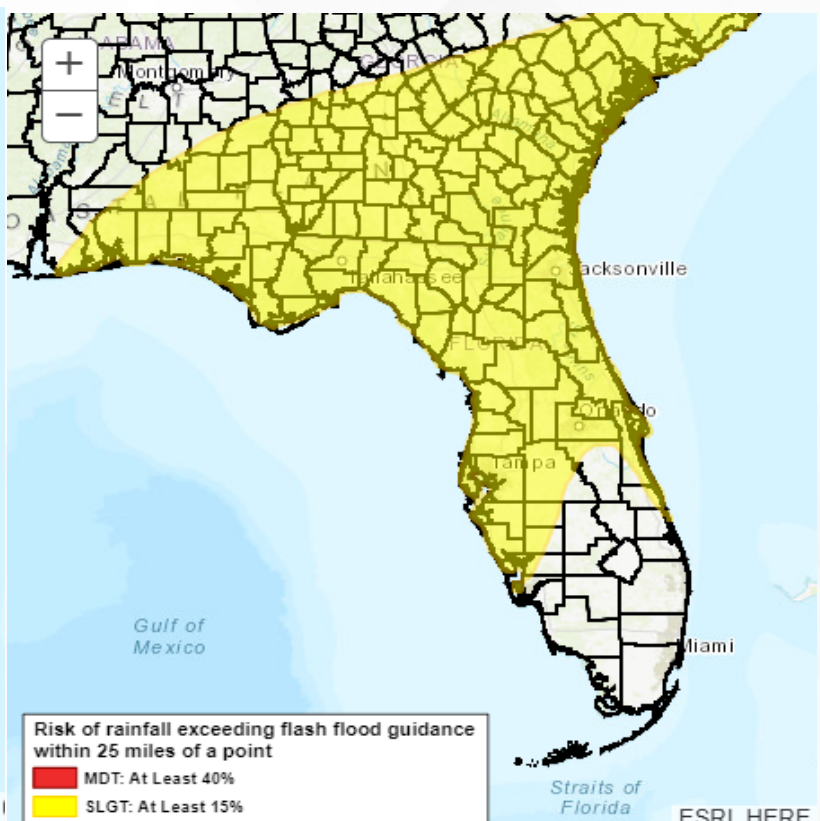
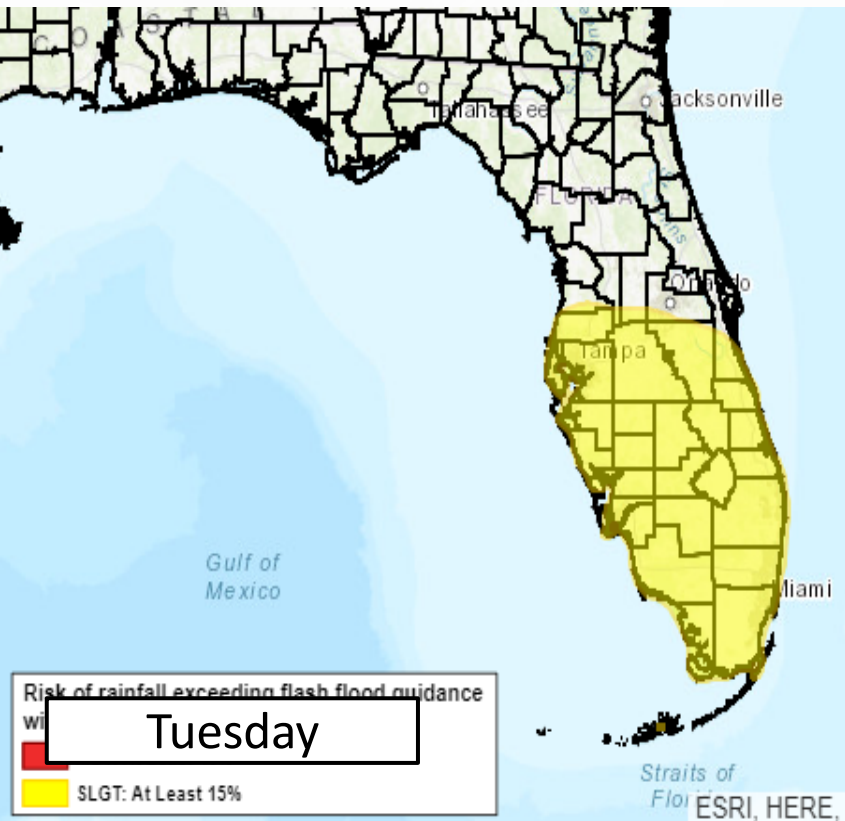
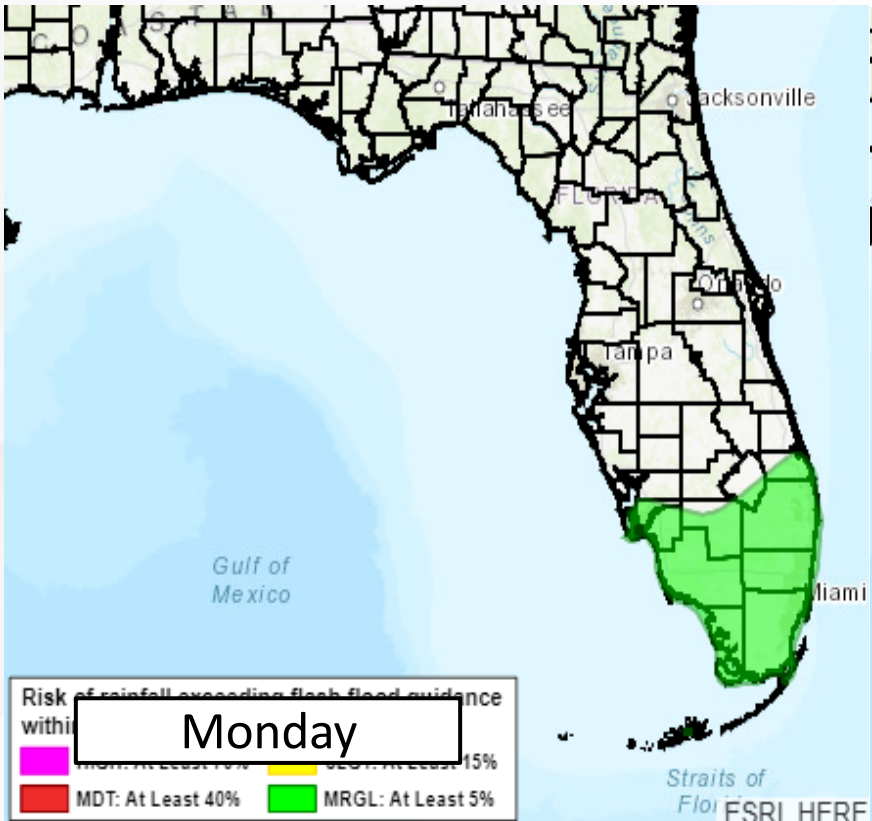
While it is still too early to determine where the heaviest rainfall totals will occur, widespread rainfall totals of 5-10" are possible as Ian moves northward, even over much of the Florida Peninsula.

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



# Flash Flood Outlooks

From the Weather Prediction Center



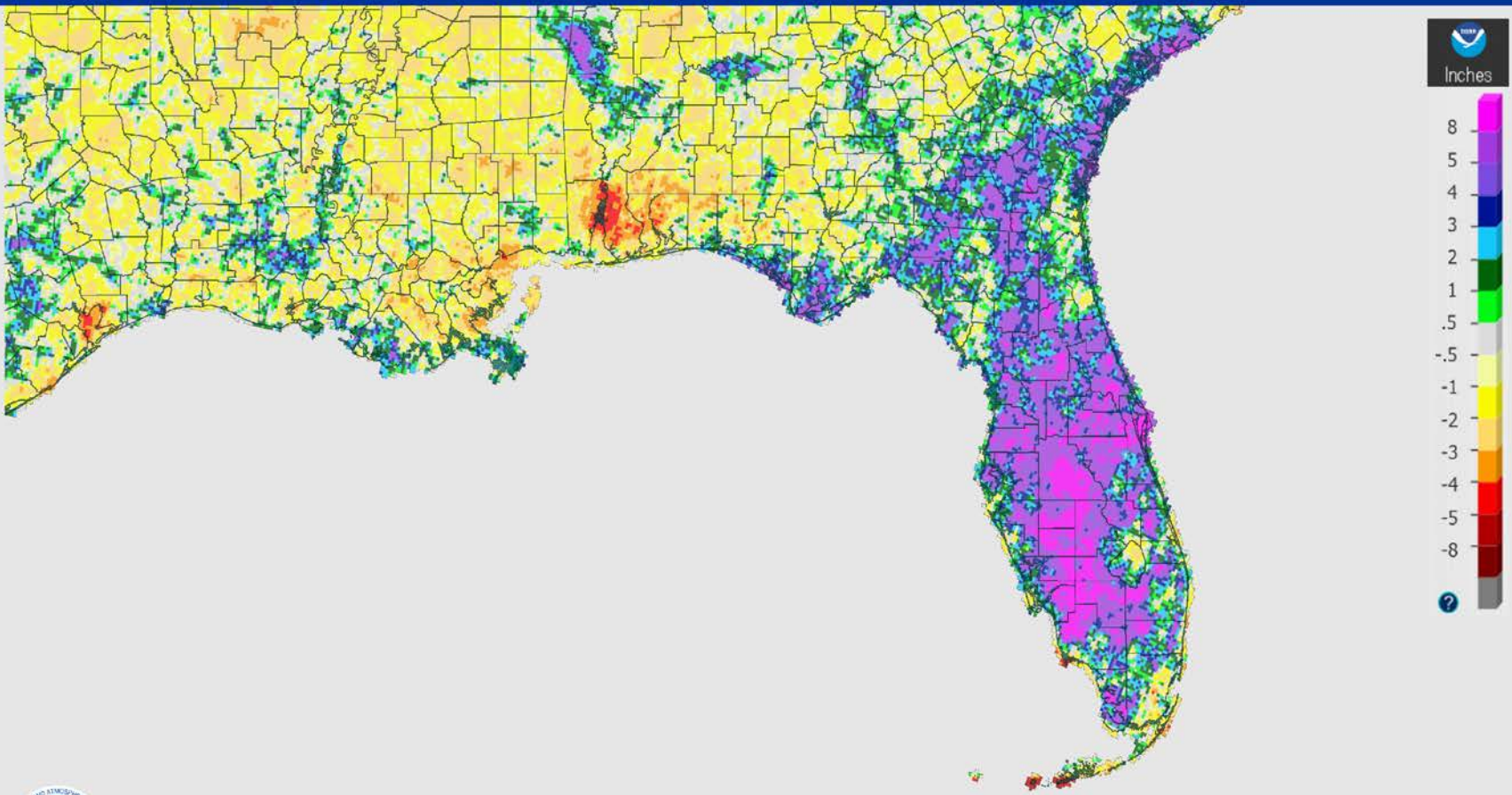
| Understanding WPC Excessive Rainfall Risk Categories |  |   |   |  |
|--|--|---|---|--|
| No Area/Label  | MARGINAL (MRGL)  | SLIGHT (SLGT)   | MODERATE (MDT)  | HIGH (HIGH)  |
| Flash floods are generally not expected.             | Isolated flash floods possible   | Scattered flash floods possible   | Numerous flash floods likely  | Widespread flash floods expected   |
|  | Localized and primarily affecting places that can experience rapid runoff with heavy rainfall. | Mainly localized. Most vulnerable are urban areas, roads, small streams and washes. Isolated significant flash floods possible. | Numerous flash flooding events with significant events possible. Many streams may flood, potentially affecting larger rivers. | Severe, widespread flash flooding. Areas that don't normally experience flash flooding, could. Lives and property in greater danger. |
| <a href="http://www.wpc.ncep.noaa.gov">@NWSWPC</a>   |  |   |   |  |





# 30 Rainfall Departure from Normal

September 24, 2022 30-Day Departure Precipitation  
Created on: September 24, 2022 - 21:12 UTC  
Valid on: September 24, 2022 12:00 UTC



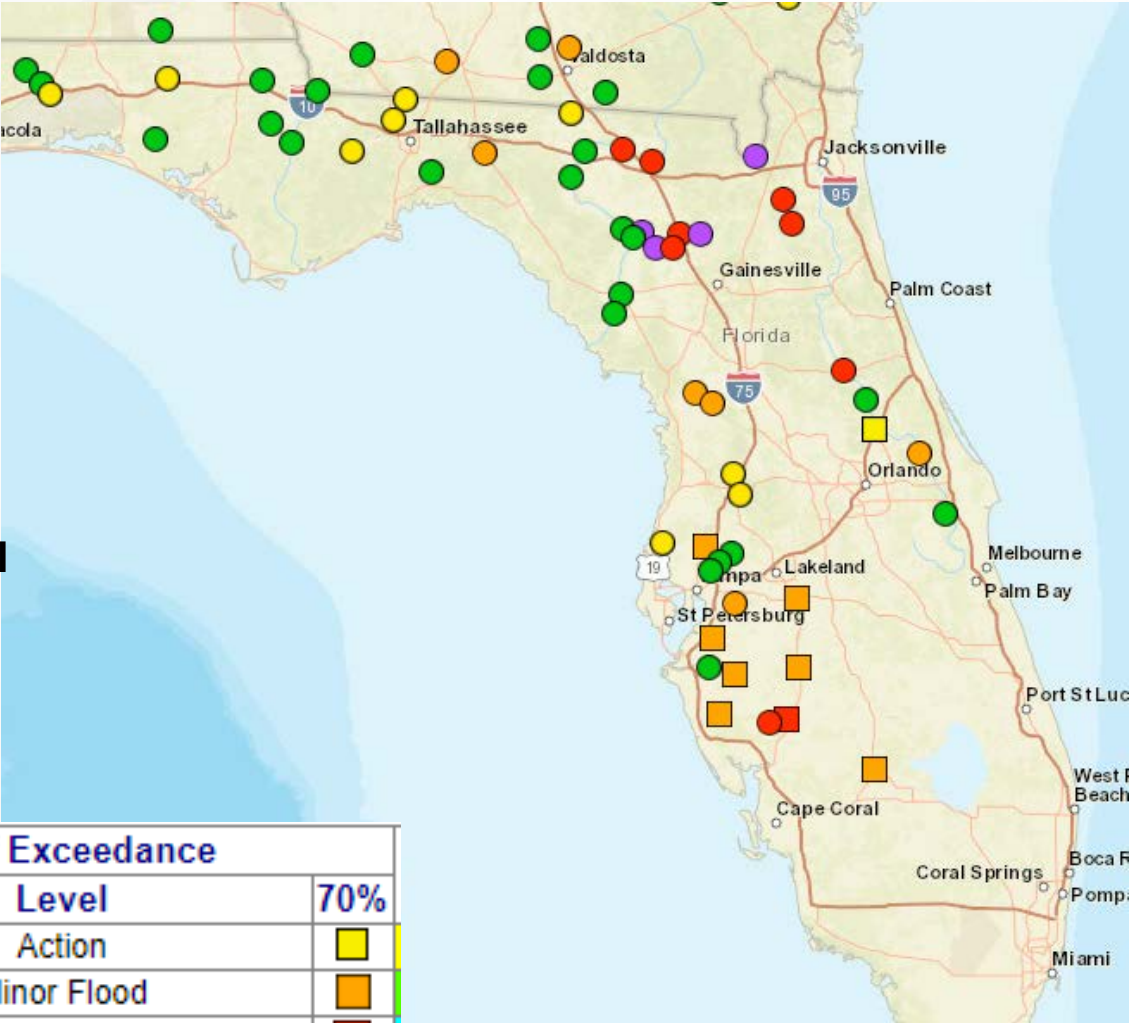
Much of the Florida Peninsula and Big Bend have rainfall surpluses of 3-10” and could lead to rapid onset of flooding as well as increased drainage into area rivers.





# Possible River Flooding

Chance of River Flooding Based on Range of Forecasted Rainfall



Based on rainfall modelling,  
**POSSIBLE** river crest levels

| Chance of Exceedance                            |                |     |
|---|----------------|-----|
| 30%   | Level          | 70% |
|   | Action         |     |
|   | Minor Flood    |     |
|   | Moderate Flood |     |
|   | Major Flood    |     |
| = less than 30% chance of reaching Action level |                |     |

## Minor to moderate riverine flooding

continues this morning in the Tampa Bay and Peace basins following several days of heavy rainfall in the Florida Peninsula. While these rivers are receding, the combination of additional heavy rainfall and wet antecedent conditions would leave these areas more susceptible for flooding.

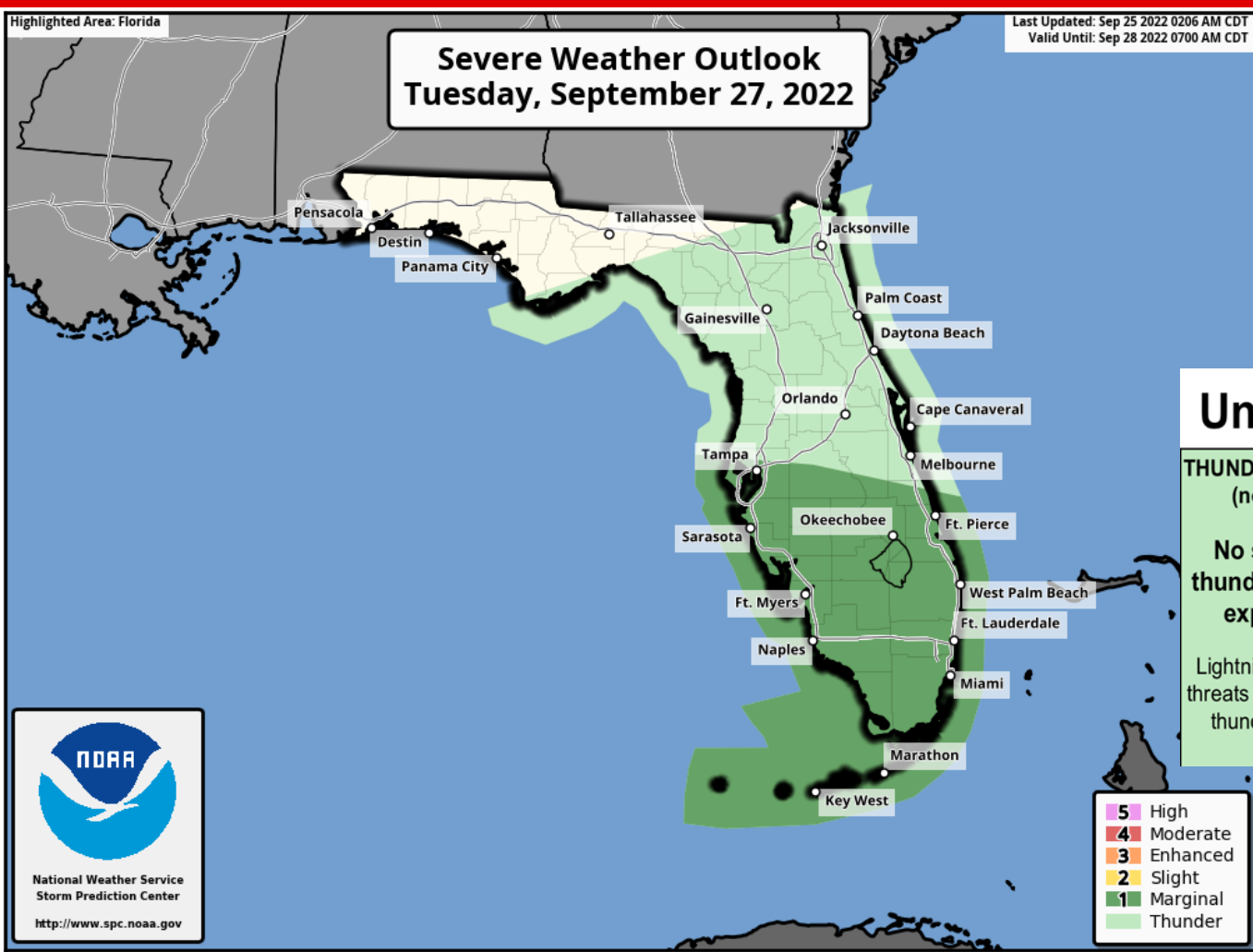
There is the potential for significant river flooding, particularly in the central and northern Florida Peninsula basins where some rivers are already above flood stage. Depending on the forecast track, some Panhandle rivers may also be at risk for flooding.





# Severe Weather Outlook

## From the Storm Prediction Center



Outer rain bands from Ian will result in isolated tornadoes across the southern Peninsula Tuesday. 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 AM EDT Sunday, Ian was located about 345 miles south-southeast of Grand Cayman Island, or about 695 miles south-southeast of Key West, Florida, and moving west-northwest around 12 mph.
- A turn toward the northwest is expected later today, 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 50 mph. Tropical-storm-force winds extend outward up to 60 miles from the center.
- Ian is expected to become a hurricane later today or tonight and reach major hurricane strength by late Monday or Monday night before it reaches 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:**

- There are no wind or surge watches in effect for Florida, but could be issued later today or tonight.
- 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.
- Lingering ocean swells from Fiona will continue the rip current risk along Florida’s East Coast into the weekend. 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 Sunday Evening. For the latest information, please visit the [National Hurricane Center website](#).





# Tropical Update

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