



Tropical Update



12:15 PM EDT

Monday, September 23, 2024

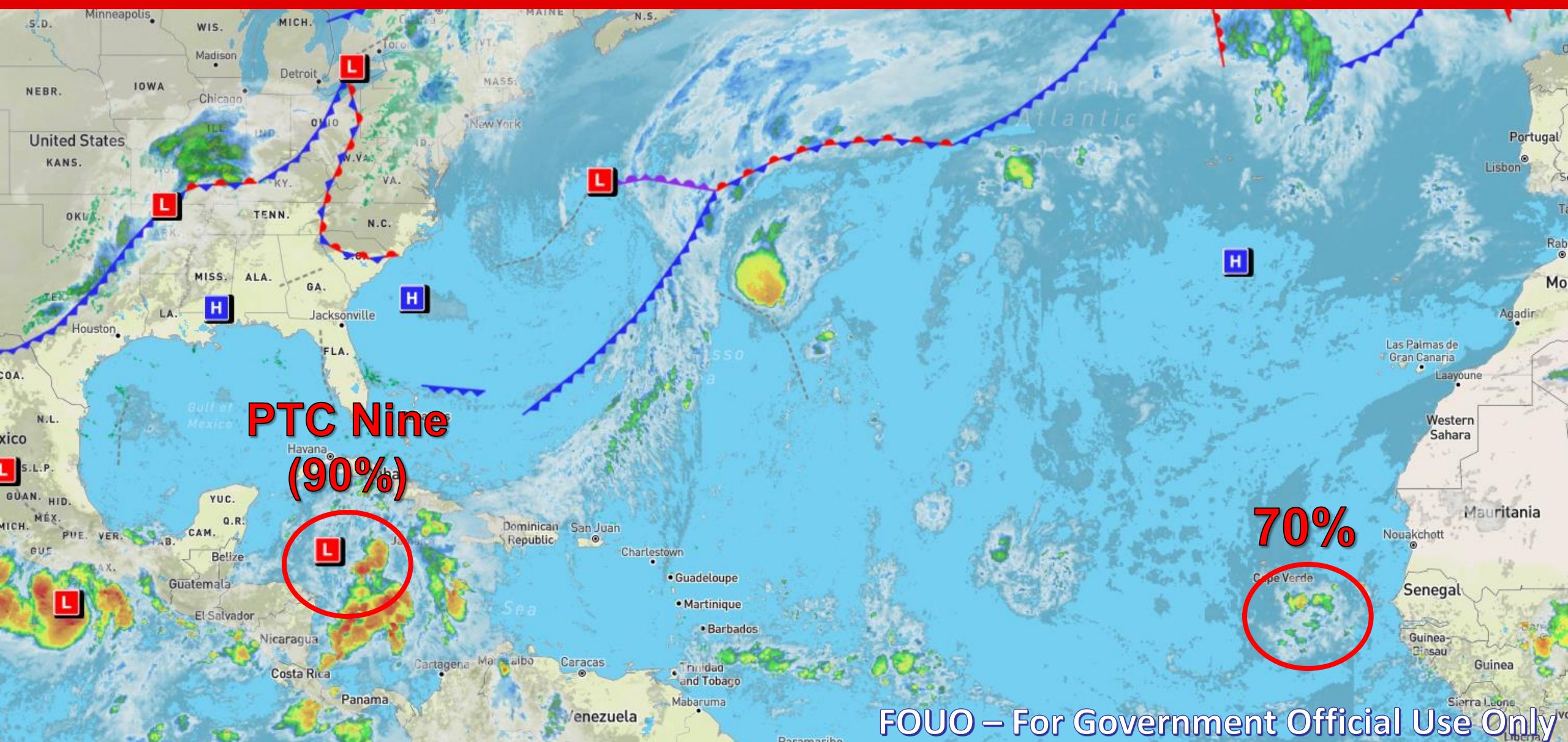
Potential Tropical Cyclone Nine Forms Over Northwestern Caribbean Sea (90%) & Florida Outlook Eastern & Central Tropical Atlantic (70%)

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.



Atlantic Basin Satellite Image

Chance of development: None Low Medium High



**PTC Nine
(90%)**

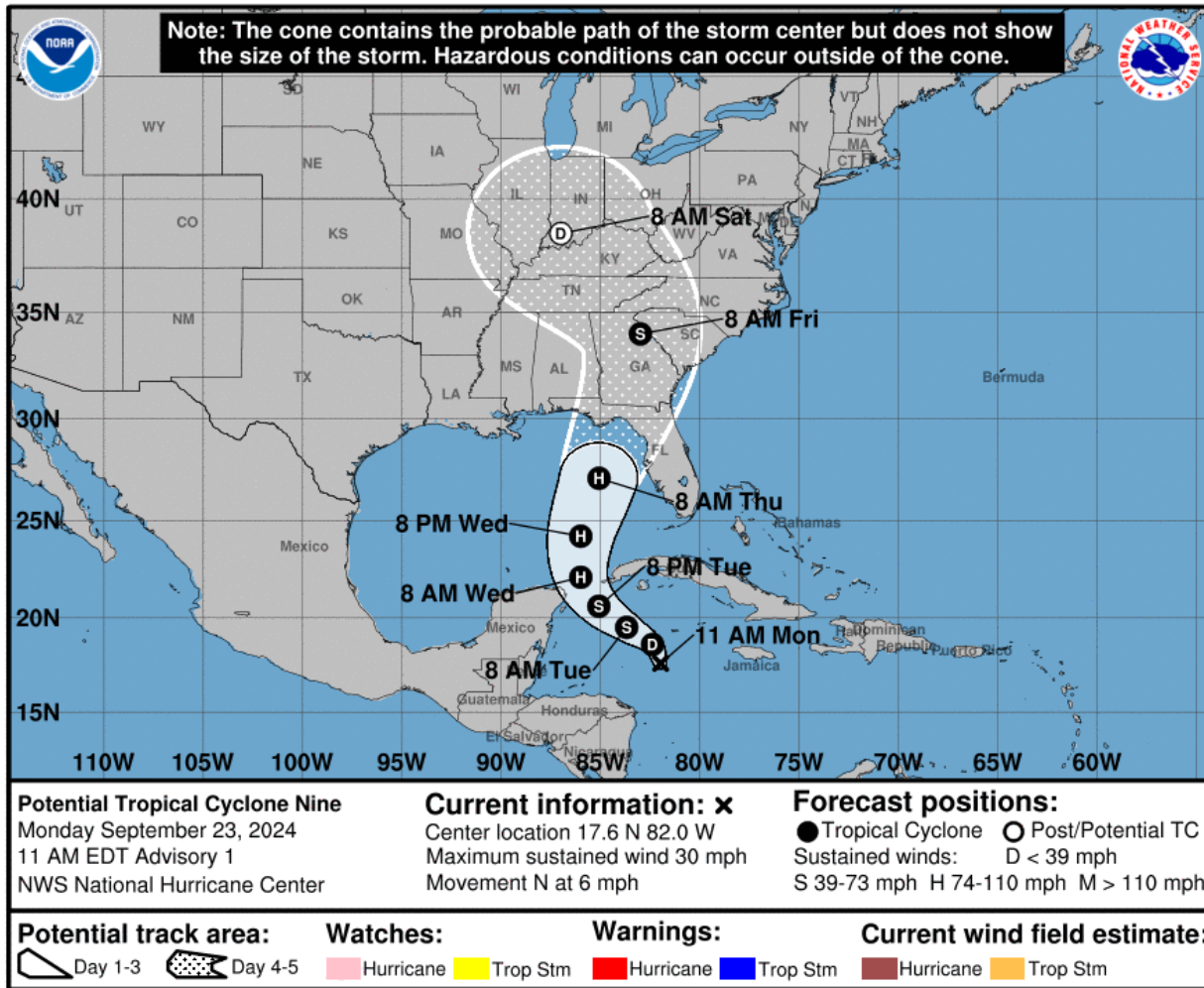
70%

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Potential Tropical Cyclone Nine

From the National Hurricane Center (NHC)



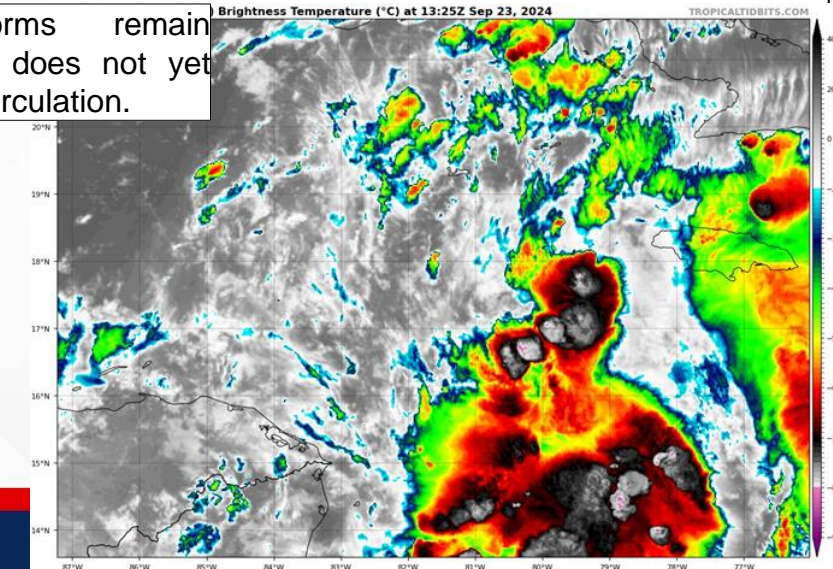
- **Location:** 130 miles SSW of Grand Cayman; 350 miles SSE Western Tip of Cuba
- **Maximum Sustained Winds:** 30 mph
- **Current Movement:** N at 6 mph
- **FL Watches & Warnings:** None

A northwestward motion is expected on Tuesday and Tuesday night, followed by a faster northward or north-northeastward motion on Wednesday and Thursday. On the forecast track, the center of the system is forecast to move across the northwestern Caribbean Sea and into the southeastern Gulf of Mexico during the next couple of days. Maximum sustained winds are near 30 mph with higher gusts. Strengthening is expected during the next few days, and the system is forecast to become a hurricane on Wednesday and continue strengthening as it moves across the eastern Gulf of Mexico.

*Formation chance through 48 hours...**high...90%.**

*Formation chance through 7 days...**high...90%.**

Showers and thunderstorms remain disorganized as this system does not yet have a well-defined center of circulation.



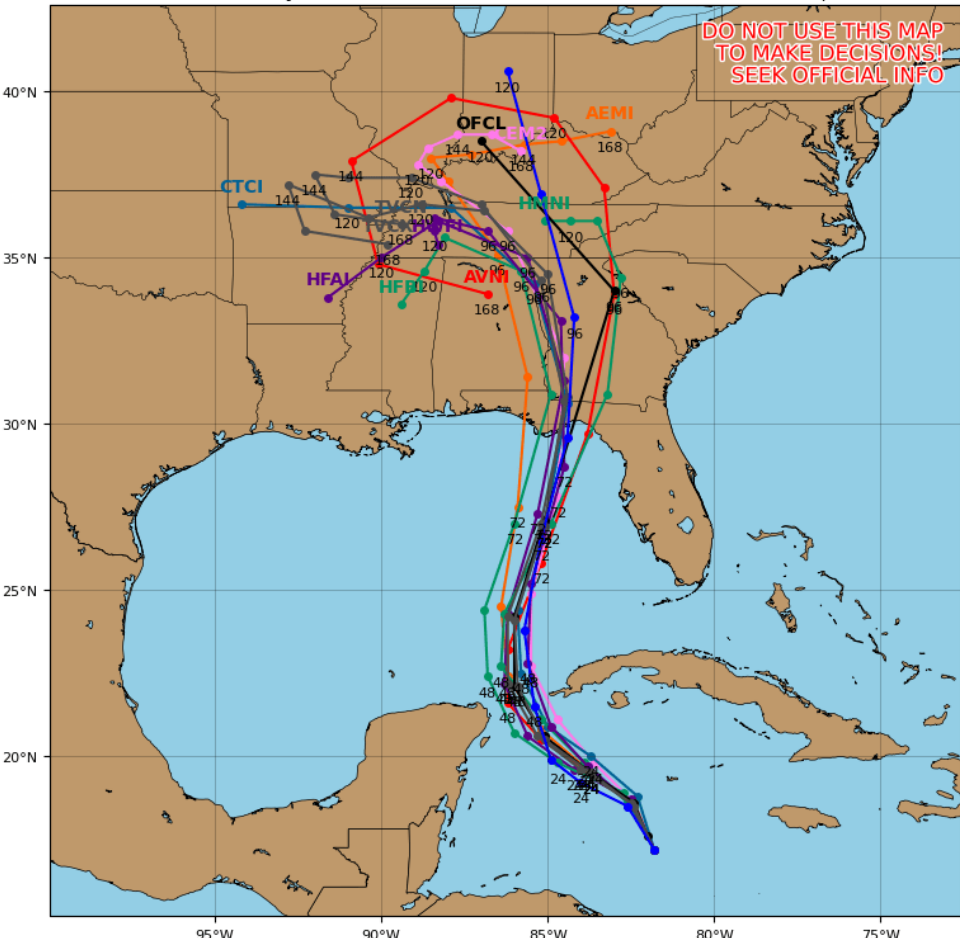


Model Forecasts – Next 5 Days

Potential Tropical Cyclone Nine

Potential Tropical Cyclone NINE Model Track Guidance

Initialized at 12z Sep 23 2024 Levi Cowan - tropicaltidbits.com

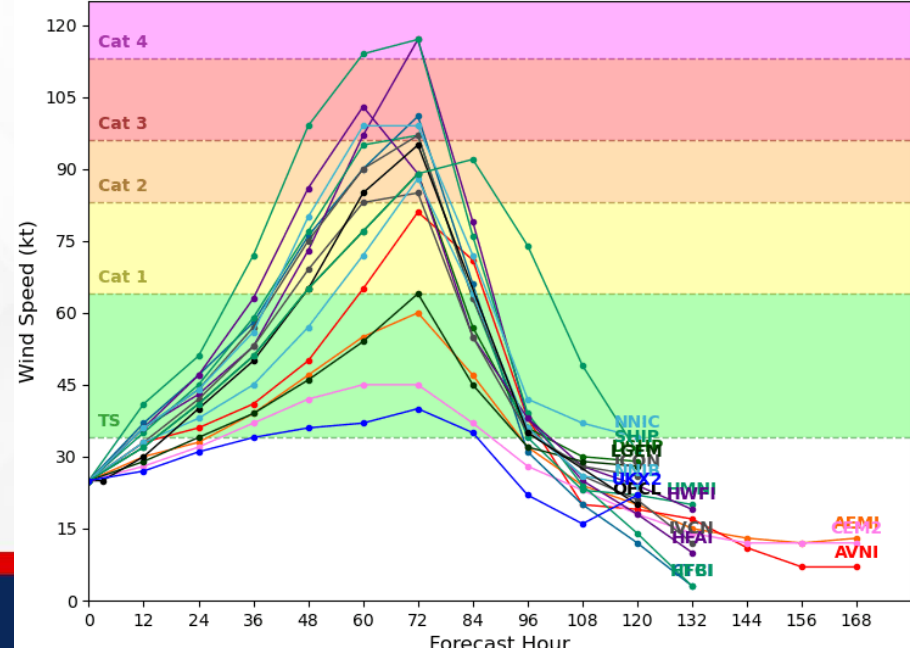


Computer models remain within a good general consensus that Potential Tropical Cyclone Nine will move northward to northwestward along the southwestern Caribbean Sea in between the Yucatan Peninsula and the western tip of Cuba through the next 48 hours. Afterwards, there is good agreement within computer models that the system will generally move northward, at a quicker forward motion, and enter the southern Gulf of Mexico, then continue moving northward and approach the upper Gulf Coast through the next 72-84 hours. It is too early to determine an exact landfall location as shifts within the track can be expected upon approach through the next few days. Without a well-defined center, there is greater forecast uncertainty regarding the track.

Computer model guidance is within good agreement that Potential Tropical Cyclone Nine will continue to become better organized and strengthen through the next 72 hours. Favorable conditions within the northwestern Caribbean Sea and Gulf of Mexico are favorable for significant strengthening. An Air Force Reserve reconnaissance aircraft is scheduled to investigate the system this afternoon.

Potential Tropical Cyclone NINE Model Intensity Guidance

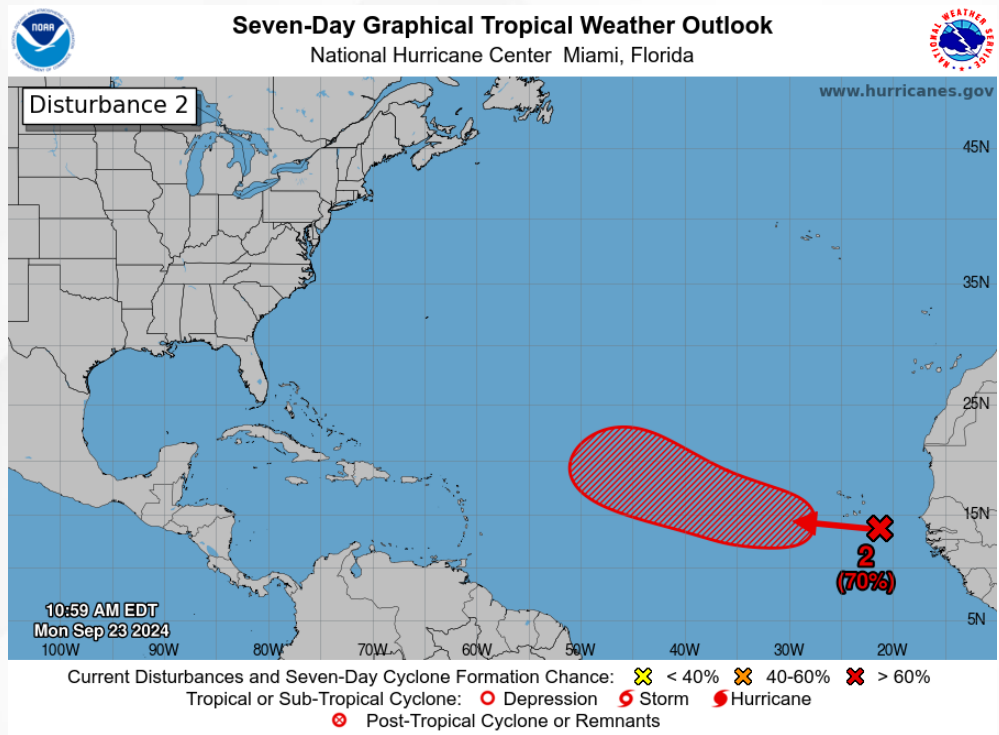
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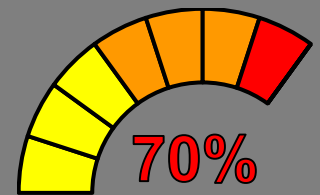


Tropical Weather Outlook

Disturbance 2 – Eastern & Central Tropical Atlantic



48 Hour Formation

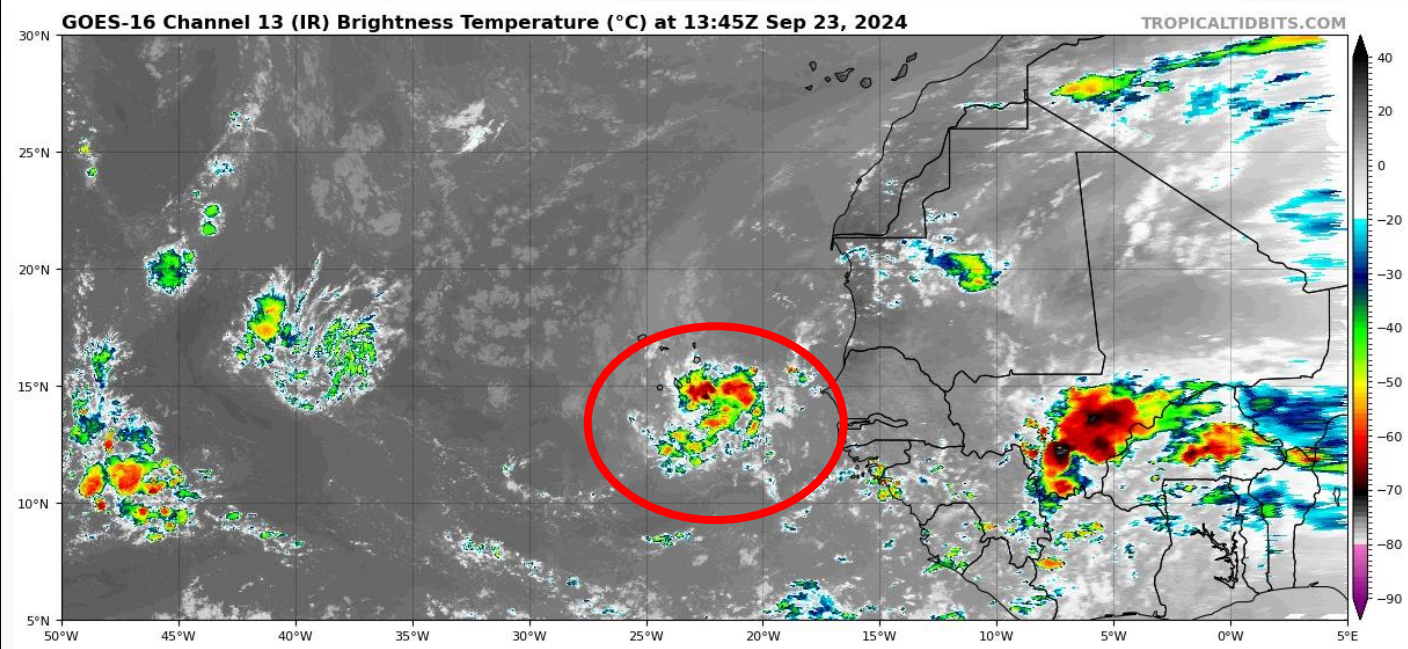


7 Day Formation

A tropical wave located between western Africa and the Cabo Verde Islands is producing disorganized shower and thunderstorm activity. Environmental conditions appear generally favorable for gradual development of this system. A tropical depression is likely to form during the middle to latter part of this week while it moves westward to west-northwestward across the eastern and central tropical Atlantic.

This system does not pose a threat to Florida through the next 7-10 days, at least.

Chance of development through 48 hours... **low...20%.**
Chance of development through 7 days... **high...70%.**





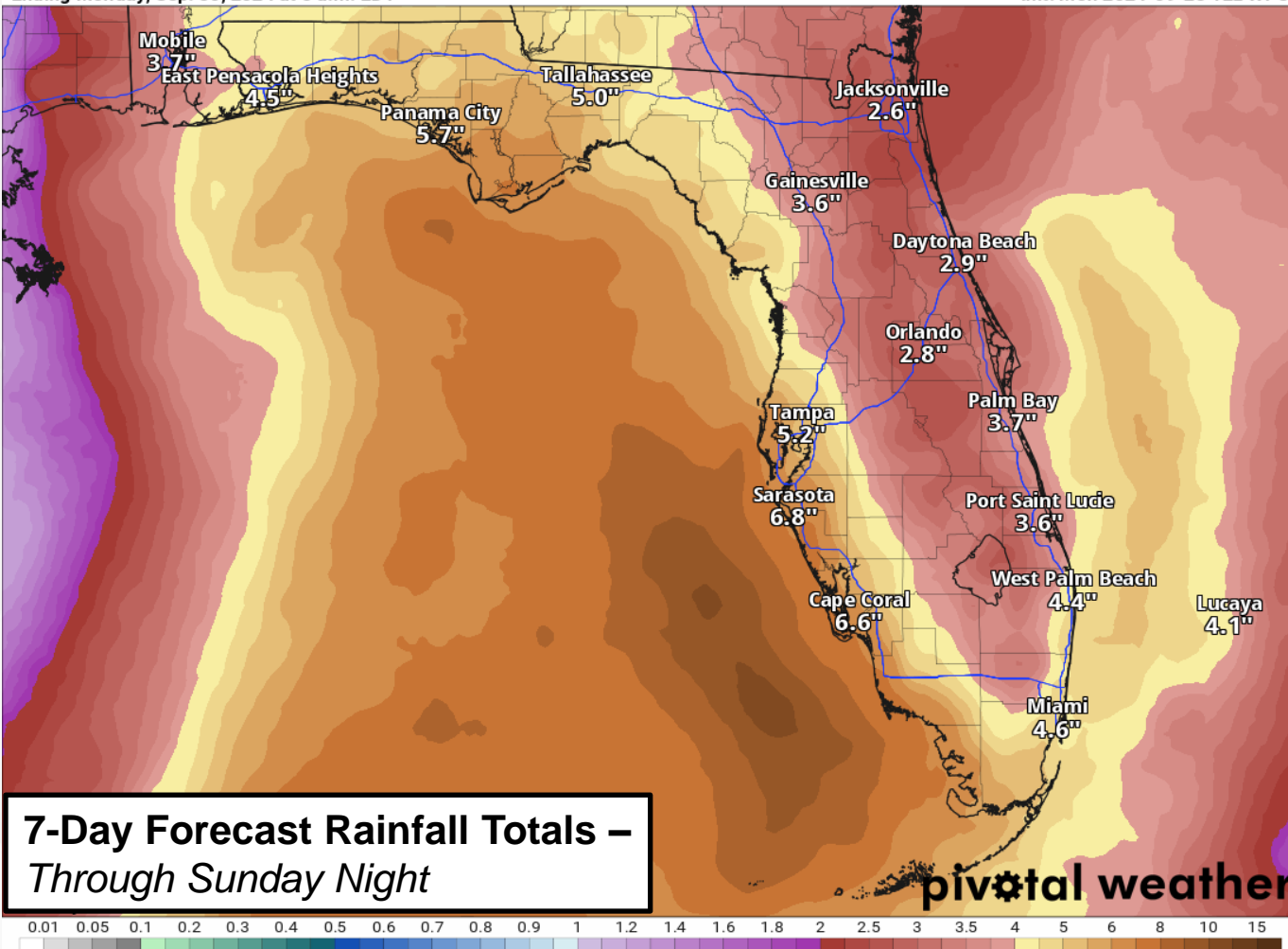
Rainfall Totals – Next 7 Days

From the Weather Prediction Center (WPC)

7-Day Precipitation (in)

Ending Monday, Sep. 30, 2024 at 8 a.m. EDT

Init: Mon 2024-09-23 12z WPC



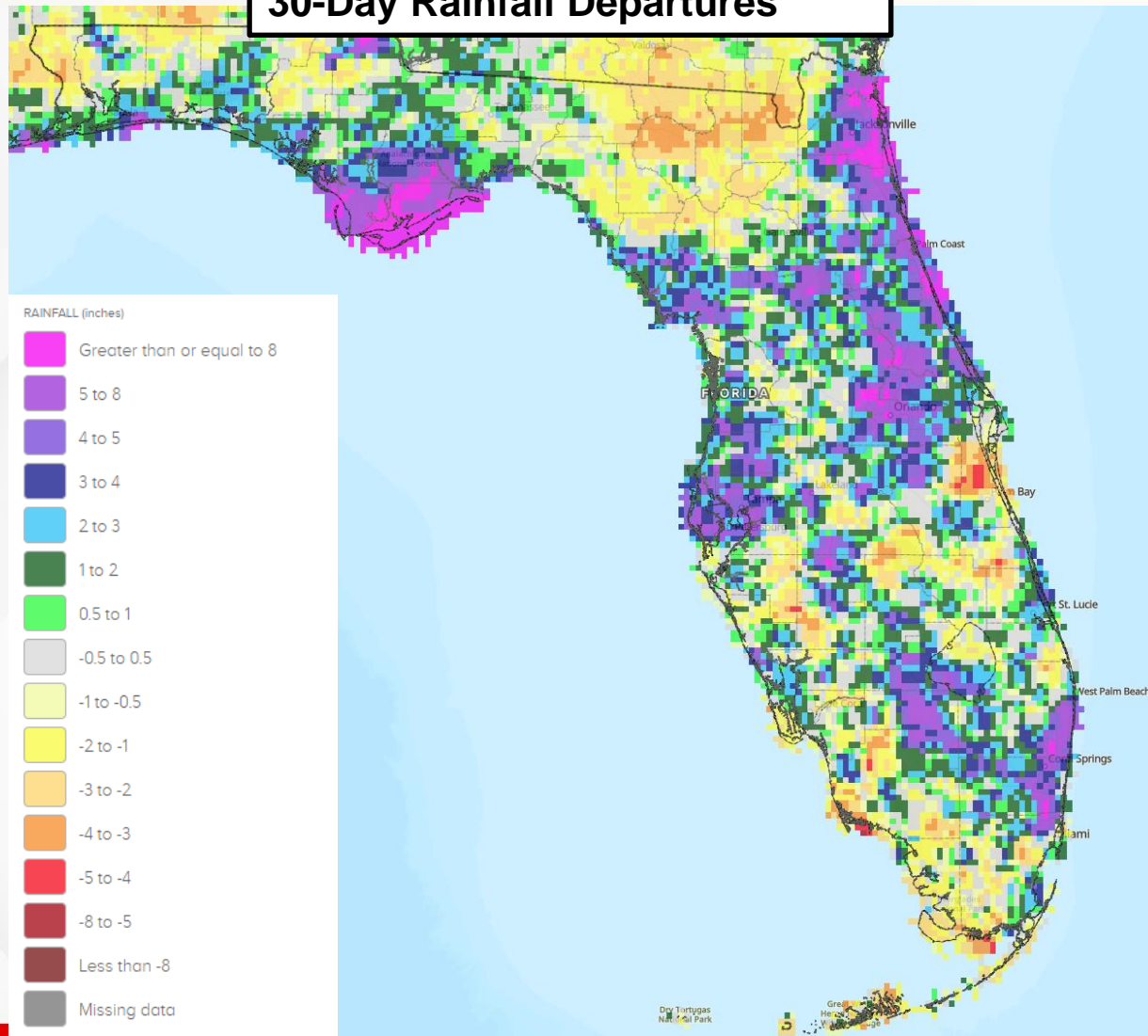
- Drier air and high pressure building in will limit shower and thunderstorm activity over the next few days across much of the state today and through the middle portions of this week. Shower and thunderstorm activity will become much more isolated and concentrated along the sea breeze.
- Increasing rain chances can be expected along to increase from south to north along the western Peninsula, then extend into northeastern Gulf of Mexico.
- *Rainfall totals heavily tied to the eventual track and forward speed of the system. With computer model guidance uncertainty regarding the exact track, there remains uncertainty as to where the heaviest rainfall can be expected.*
- Widespread rainfall totals of 2-4" can be expected across the state through the next 7 days, with locally higher totals upwards of 6-10" along the Panhandle and immediate Gulf Coast.



Rainfall Departures – 30 Days

How Saturated Are Our Soils?

30-Day Rainfall Departures

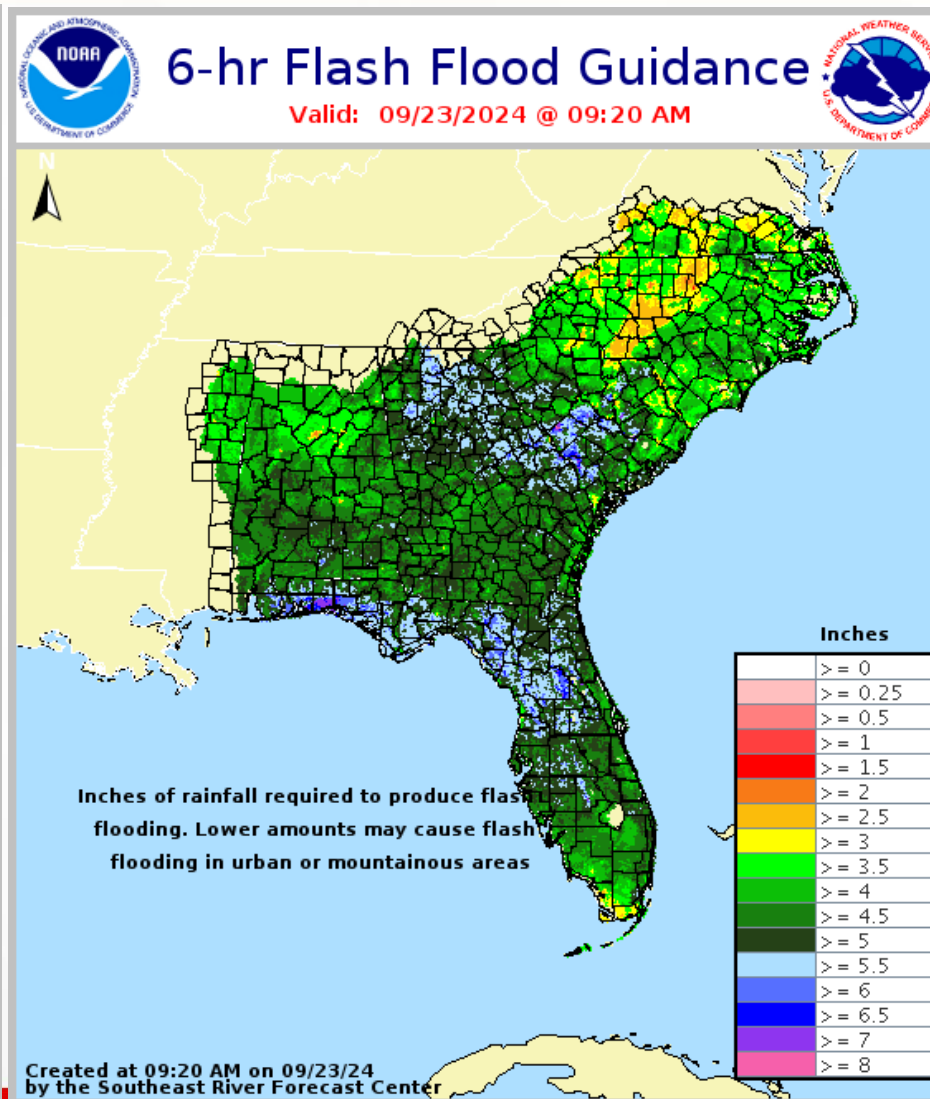
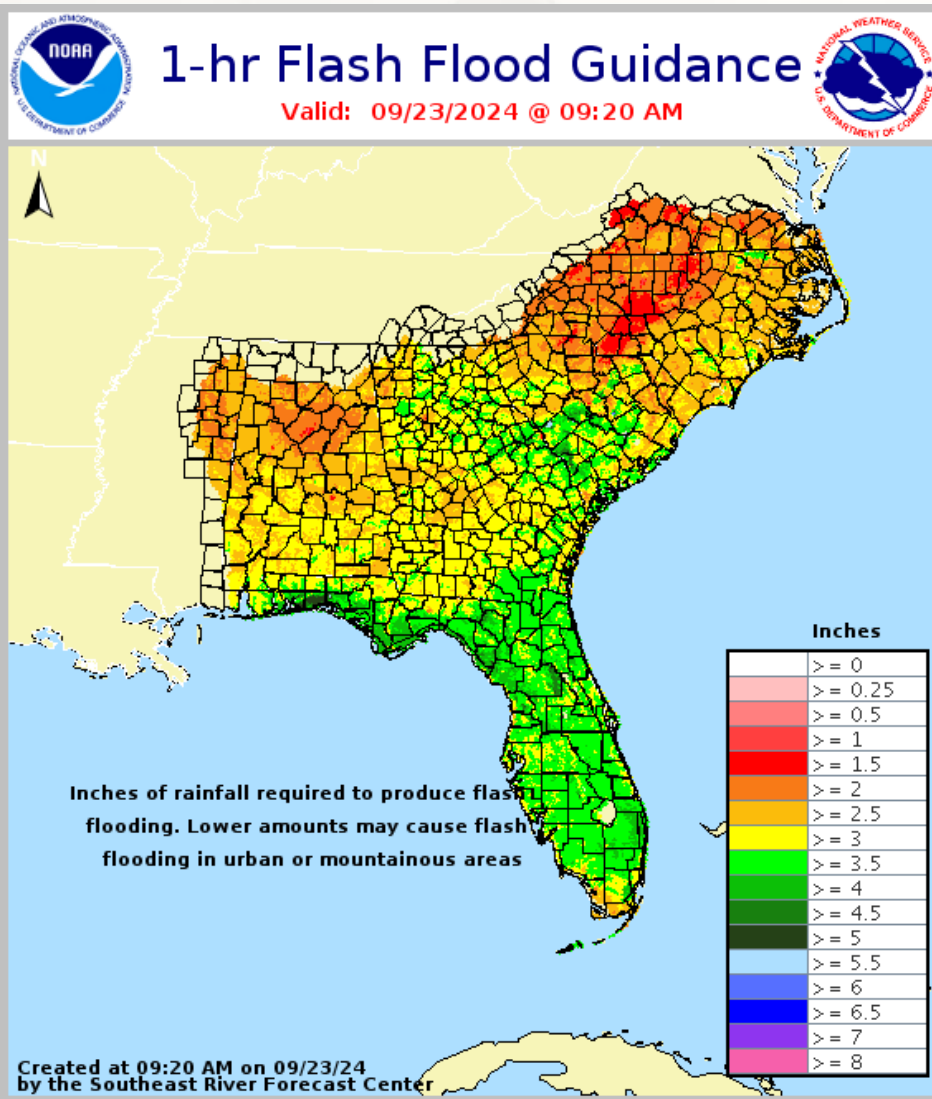


- Coastal portions of the Panhandle and south of the I-10 corridor are 5-8" above normal for rainfall from the last 30-days. This would increase the potential for onset flooding with additional heavy rainfall over the region.
- *Recent heavy rainfall over the Panhandle has allow for rises within water levels, but all rivers, creeks and waterways are currently below flood stage.*
- Interior portions of the Panhandle and Big Bend have seen below normal rainfall totals of 2-4" over the last 30-days.



Flash Flood Guidance

How Much Rain is Needed to Create Flash Flooding?

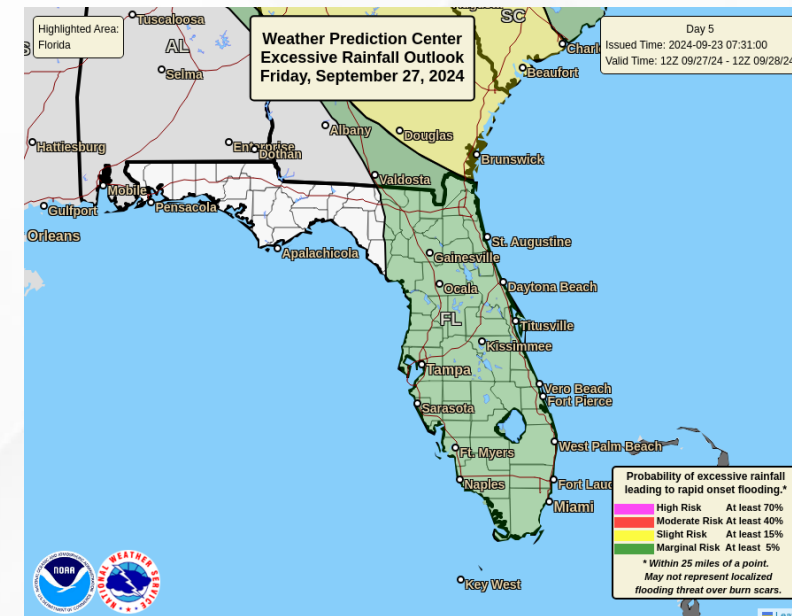
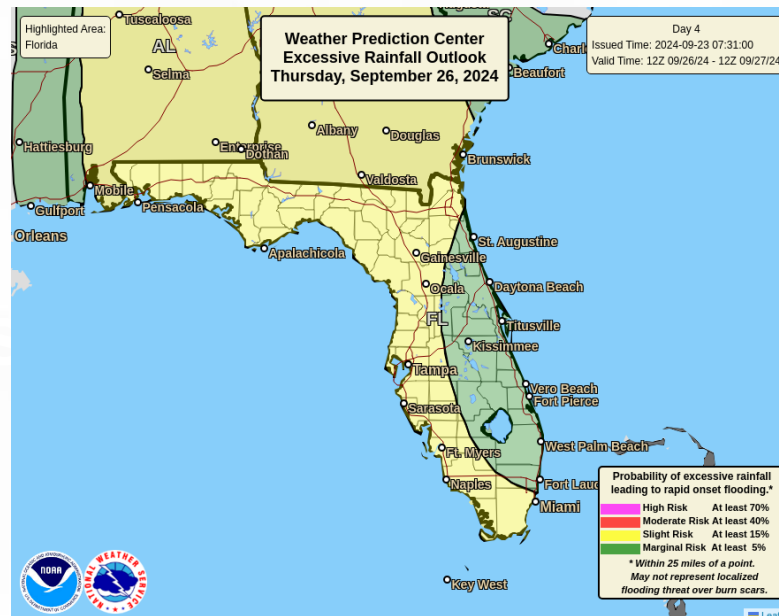
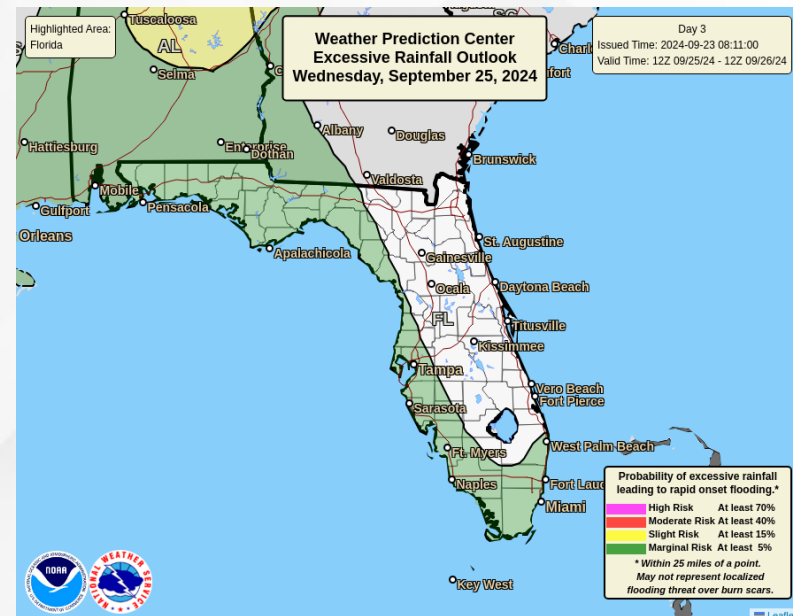


- Along the coastal Panhandle and Big Bend and into the interior Suwannee Valley, it would take 3-4" within an hours or 4-6" within 6 hours to cause flash flooding with some of the already saturated grounds and soils.
- Similarly, along the western Peninsula and, it would take about 3-4" within an hour or 4-6" within 6 hours.



Flash Flood Outlook

From the Weather Prediction Center (WPC)



The Weather Prediction Center (WPC) is outlooking a **Marginal Risk (level 1 of 4) for Flash Flooding** across West and South Florida on Wednesday. By Thursday, the Weather Prediction Center (WPC) is outlooking a **Marginal to Slight (level 1-2 of 4) for Flash Flooding** across the state. With computer model guidance hinting towards a quicker forward motion, hazards will likely extend well away from the center. Regardless, tropical downpours and multiple rounds of rainfall may be possible that lead to **instances of flash flooding** as the system moves into the southeastern Gulf of Mexico. There is a **Marginal Risk (level 1 of 4) for Flash Flooding** on Friday as well from the I-75 corridor and eastward and throughout the Peninsula.

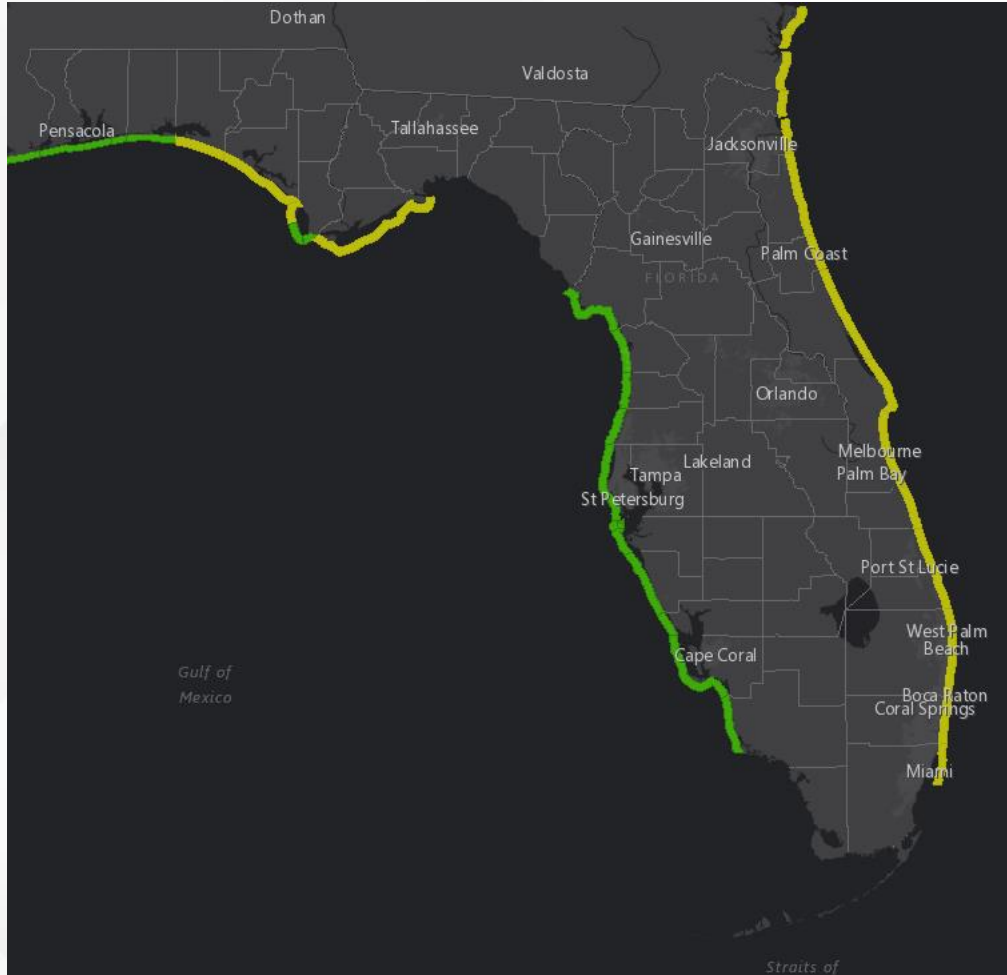
Understanding WPC Excessive Rainfall Risk Categories

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
www.wpc.ncep.noaa.gov @NWSWPC	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.



Rip Current Risk - Today

From the Weather Prediction Center (WPC)



Onshore winds and lingering ocean swells along the Florida East Coast will create a **moderate risk for rip currents**. Several Panhandle beaches can also anticipate a **moderate risk for rip currents** through today. As this system enters the southern Gulf of Mexico and moves northward over the next couple of days, **an increased risk for rip currents** can be expected for Panhandle and West Coast beaches. A **high risk for rip currents** can likely be expected nearly statewide by midweek.

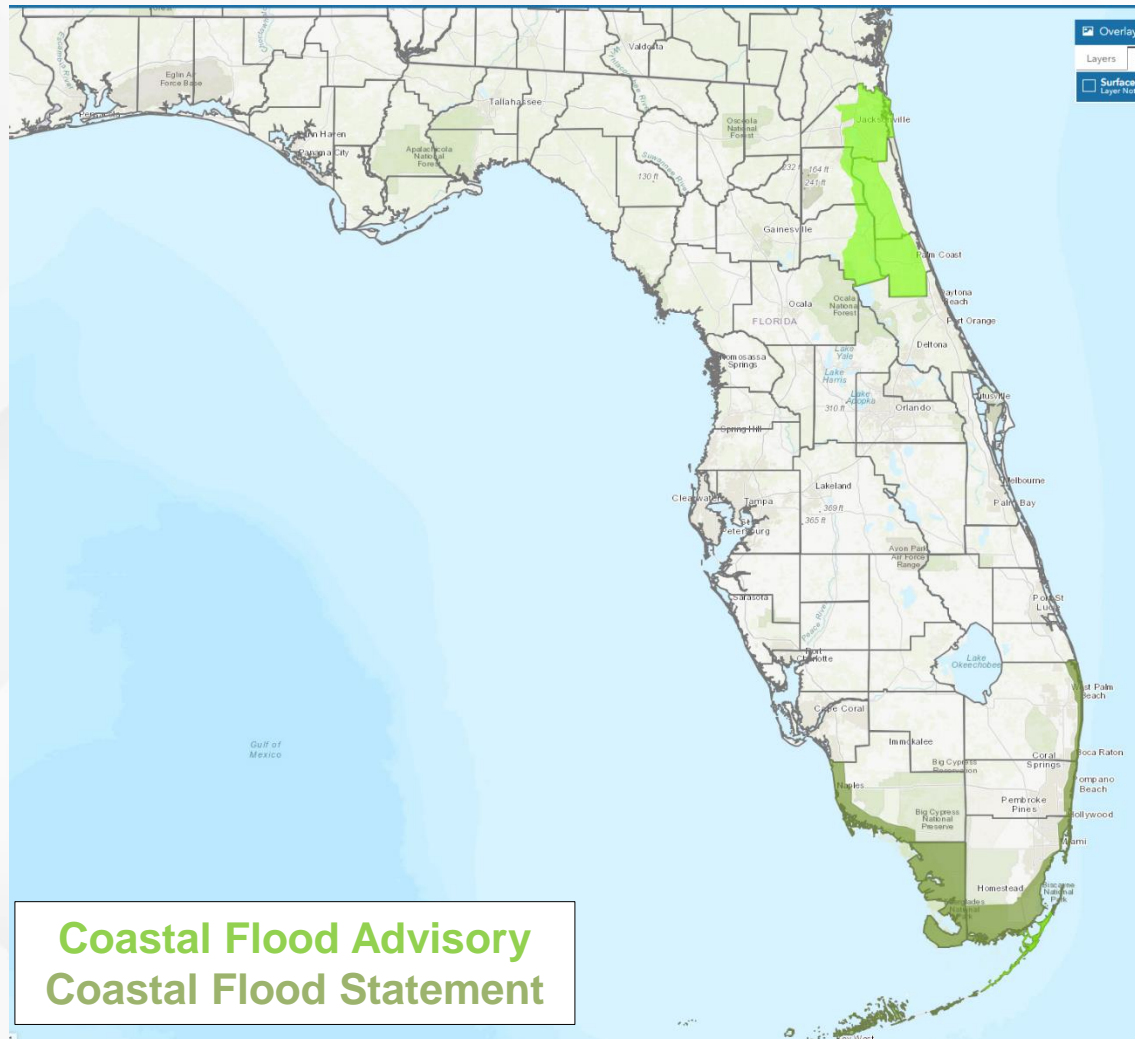
24 Hr Marine Hazard Risks

Filter Elements ▾		Today	Tue	Wed	Thu	Fri	Sat	Sun
i	Rip Current							
i	Marine Hazard							



Coastal Flooding Continues

From the National Weather Service (NWS)



Due to compounding effects of lingering runoff from recent heavy rainfall, onshore flow, and high astronomical tides (King tides) courtesy of the recent Full Moon, **minor coastal flooding** can be expected along the St. Johns River through the middle of the week. A **Coastal Flood Advisory** remains in effect throughout the basin and along the Intracoastal Waterway and Atlantic Coast.

Coastal Flood Statements extend across South Florida and the Middle and Lower Keys as **minor coastal flooding and saltwater flooding** is possible near and during times of high tide.

Minor beach erosion cannot be ruled out at times near and during times of high tide along the East Coast, especially for vulnerable beaches.



Summary

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Potential Tropical Cyclone Nine:

- As of 11:00 AM EDT, Potential Tropical Cyclone Nine was located about 130 miles south-southwest of Grand Cayman and about 350 miles south-southeast of the western tip of Cuba and moving northward at 6 mph.
- A northwestward motion is expected on Tuesday and Tuesday night, followed by a faster northward or north-northeastward motion on Wednesday and Thursday.
- On the forecast track, the center of the system is forecast to move across the northwestern Caribbean Sea and into the southeastern Gulf of Mexico during the next couple of days.
- Maximum sustained winds are near 30 mph with higher gusts.
- Strengthening is expected during the next few days, and the system is forecast to become a hurricane on Wednesday and continue strengthening as it moves across the eastern Gulf of Mexico.
- There are currently no watches or warnings in effect for Florida.
- The National Hurricane Center (NHC) is outlooking a **high (90%) chance of development** over the next 48 hours, and a **high (90%) chance of development** over the next 7 days.

Eastern and Central Tropical Atlantic:

- A tropical wave located between western Africa and the Cabo Verde Islands is producing disorganized shower and thunderstorm activity.
- Environmental conditions appear generally favorable for gradual development of this system.
- A tropical depression is likely to form during the middle to latter part of this week while it moves westward to west-northwestward across the eastern and central tropical Atlantic.
- *This system poses no direct threat to Florida over the next 7-10 days at least but will continue to be monitored.*
- The National Hurricane Center (NHC) is outlooking a **low (20%) chance of development** over the next 48 hours and a **high (70%) chance of development** 7 days.
- *The next names on the list is Helene (heh-LEEN) and Isaac (EYE-zik).*

The next briefing packet will be issued on Monday Evening. For the latest information, please visit the National Hurricane Center website.



Summary

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Florida Outlook:

- High pressure over the Southeast U.S. will create mostly dry conditions across North and Central Florida over the next day or two.
- Isolated showers and thunderstorms can be expected during the afternoon and evening along the sea breeze mostly south of the I-4 corridor (25-35% chance of rain).
- Drier conditions and upper-level conditions will limit thunderstorm development; however, an isolated thunderstorm or two cannot be ruled out along the sea breeze.
- High temperatures across the state will reach the upper 80s to low 90s, with heat index values in the middle 90s to low 100s this afternoon.
- Rainfall totals associated with Potential Tropical Cyclone Nine will remain dependent on the track of the system as it generally moves northward into the Gulf of Mexico over the next day or so.
 - *Trends within computer model guidance will continue to be monitored over the next day or so. Increased rain chances can be expected across the state by midweek, with the greatest chances along the West Coast then extending northward.*
 - Any tropical downpours or multiple rounds of heavy rainfall could lead to instances of localized flash flooding at times.
 - The Weather Prediction Center (WPC) is outlooking a **Marginal Risk (level 1 of 4) for Flash Flooding** across the Panhandle and West Coast on Wednesday. A **Marginal to Slight (level 1-2 of 4) for Flash Flooding** is outlooked throughout the entire state on Thursday.
- A **moderate risk for rip currents** extends along the entire Florida East Coast, with numerous beaches along the Panhandle also seeing a moderate risk for rip currents.
 - An **elevated risk for rip currents** and hazardous beach conditions can be expected across the Panhandle and West Coast by midweek.
- Lingering elevated tides and trapped water within the St. Johns River basin and its tributaries will continue to create potential for **minor coastal flooding** near and during times of high tide. **Coastal Flood Advisories** remain in effect throughout the basin as onshore winds persist, keeping tides trapped.
 - **Coastal Flood Statements** continue across South Florida and the Keys due to potential for **minor coastal and saltwater flooding** near and during times of high tide.

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Tropical Update

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State Meteorological Support Unit

Florida Division of Emergency Management

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