



# Tropical Update



12:15 PM EDT

Friday, August 2, 2024

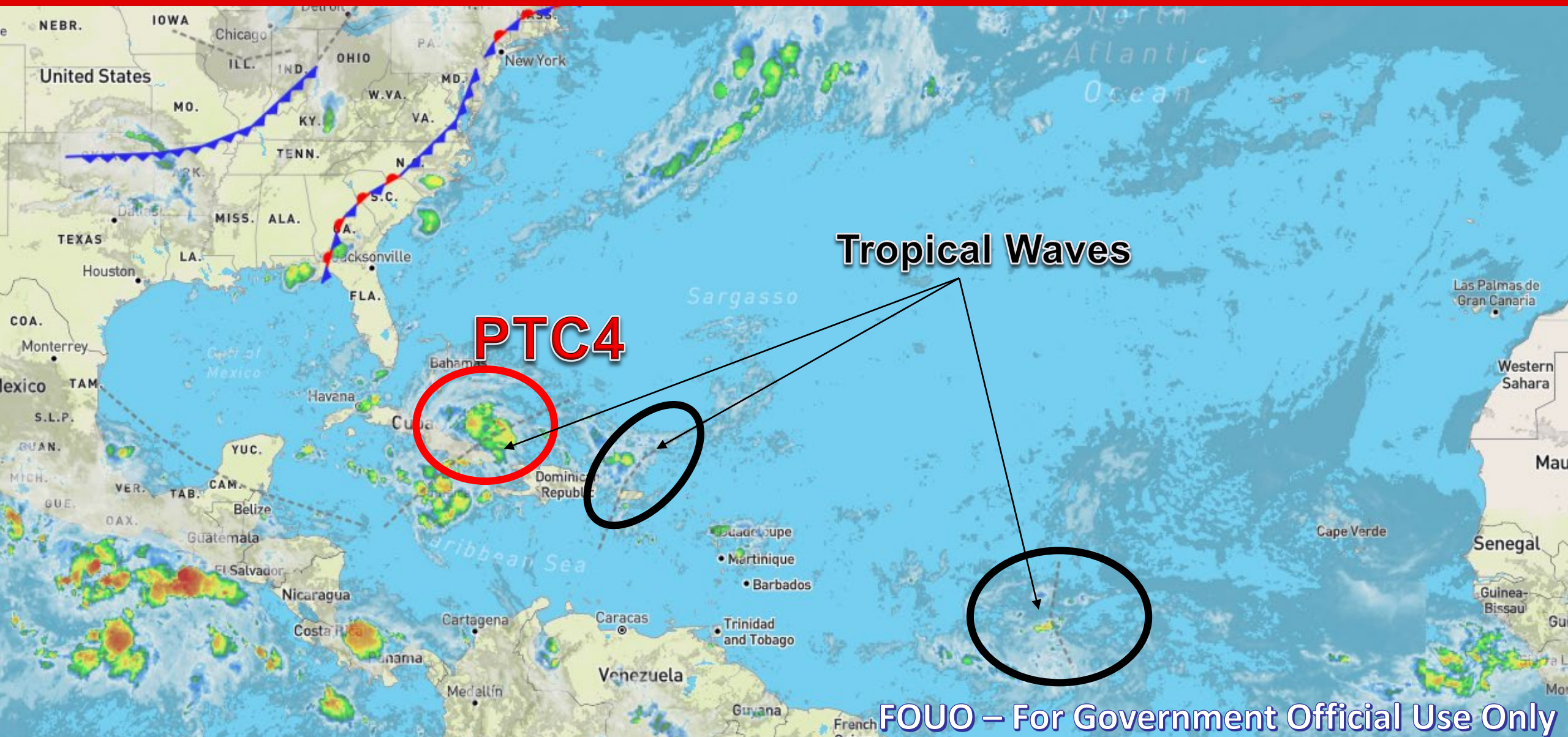
**Potential Tropical Cyclone Four Likely to Become a Tropical Depression Saturday Over the Straits of Florida (90% - High); Tropical Storm Watches & Warnings Issued For Portions of South and Central Florida**

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



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# Tropical Weather Outlook

## Potential Tropical Cyclone Four ([LINK](#))

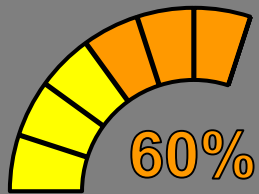
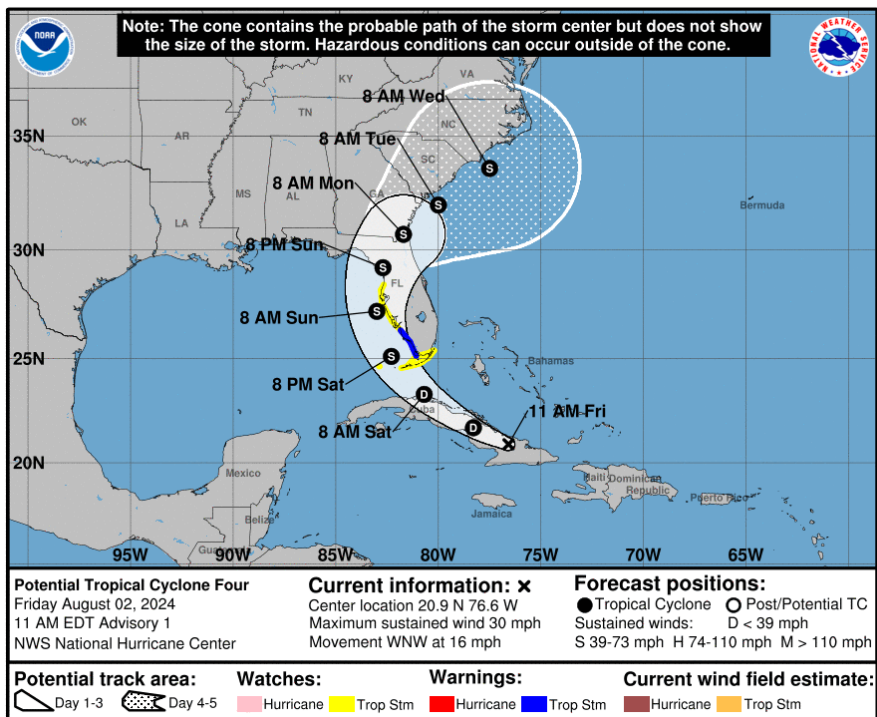
- **Location:** 420 miles southeast of Key West, FL
- **Maximum Sustained Winds:** 30 mph
- **Current Movement:** WNW at 16 mph
- **FL Watches & Warnings:** Tropical Storm Warning (southwest coast of Florida Peninsula from East Cape Sable to Bonita Beach); Tropical Storm Watch (Florida Keys south of the Card Sound Bridge, the southern coast of the Florida Peninsula east of East Cape Sable to the Card Sound Bridge, and for the west coast of the Southern Peninsula north of Bonita Beach to Aripeka)

A turn toward the northwest at a slower forward speed is expected tonight or Saturday, followed by a turn toward the north on Sunday. On the forecast track, the disturbance is expected to move over Cuba today, cross the Straits of Florida Saturday, and then move near or over the west coast of Florida Saturday night through Sunday night. The disturbance is expected to develop into a tropical depression on Saturday as it moves across the Straits of Florida, followed by intensification into a tropical storm by Saturday night.

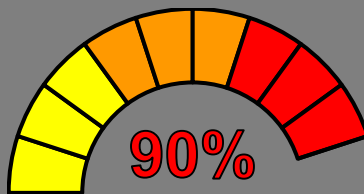
Regardless of development, heavy rains could cause areas of flash flooding across Florida through the weekend.

\* Formation chance through 48 hours...**medium...60%.**

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

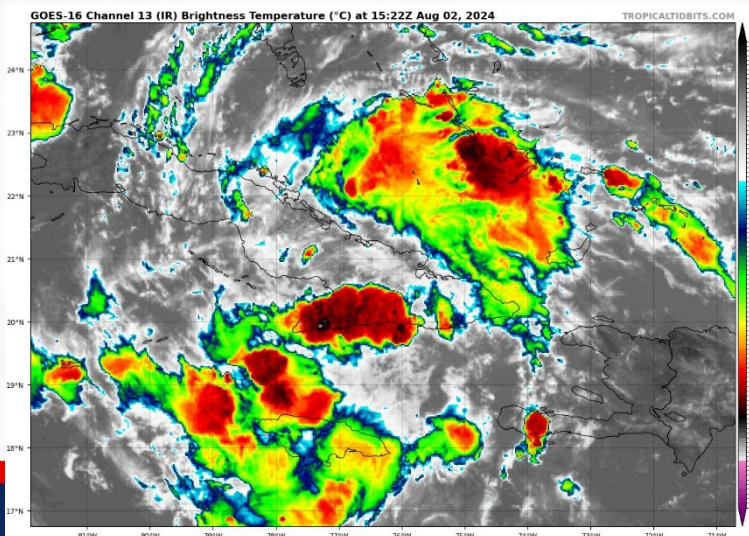


48 Hour Formation



7 Day Formation

Shower and thunderstorm activity associated with Invest 97L continues to struggle to organize over the mountainous terrain of Cuba. The tropical wave will have to migrate over the adjacent waters of the Florida Straits to work toward developing an organized center of circulation.





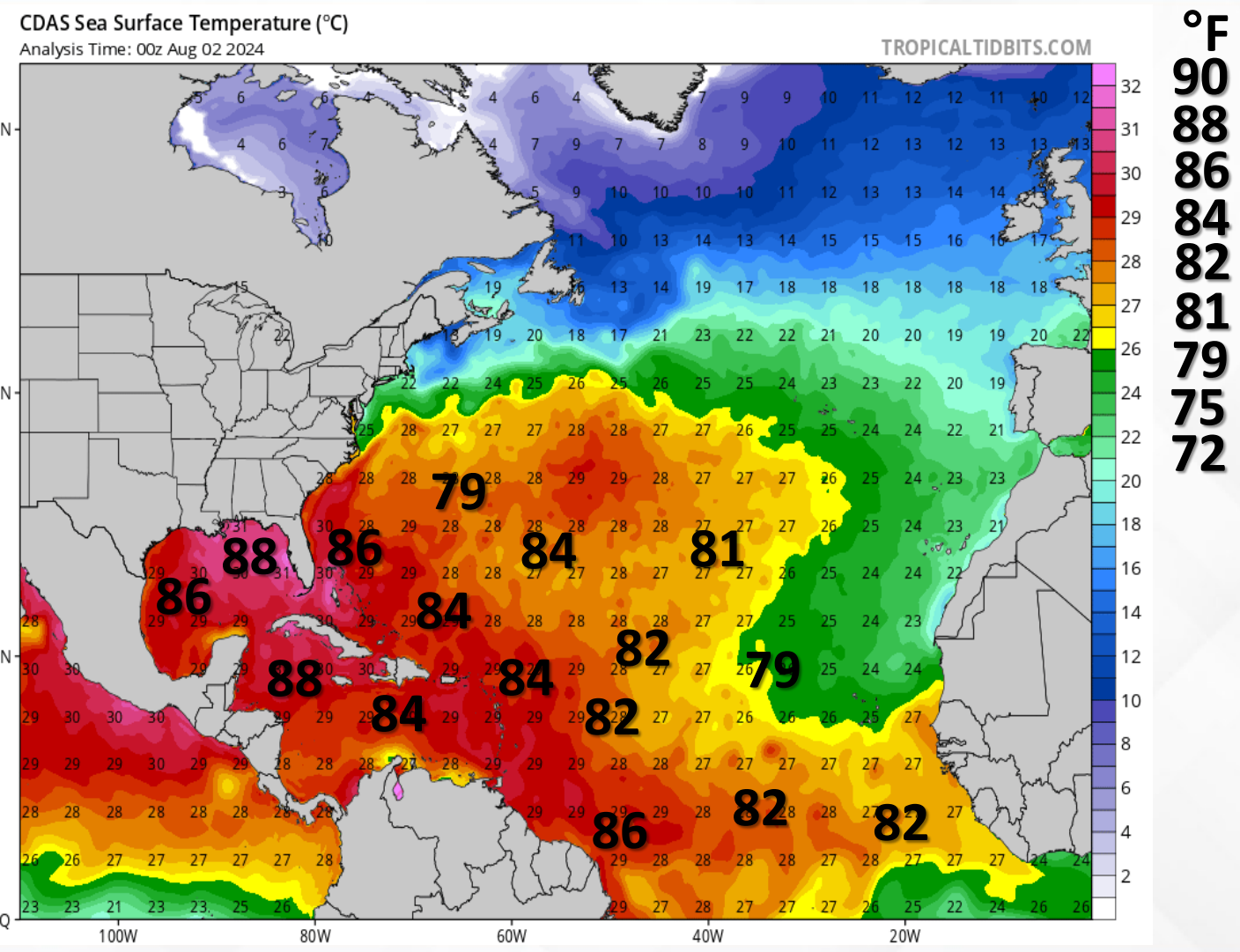
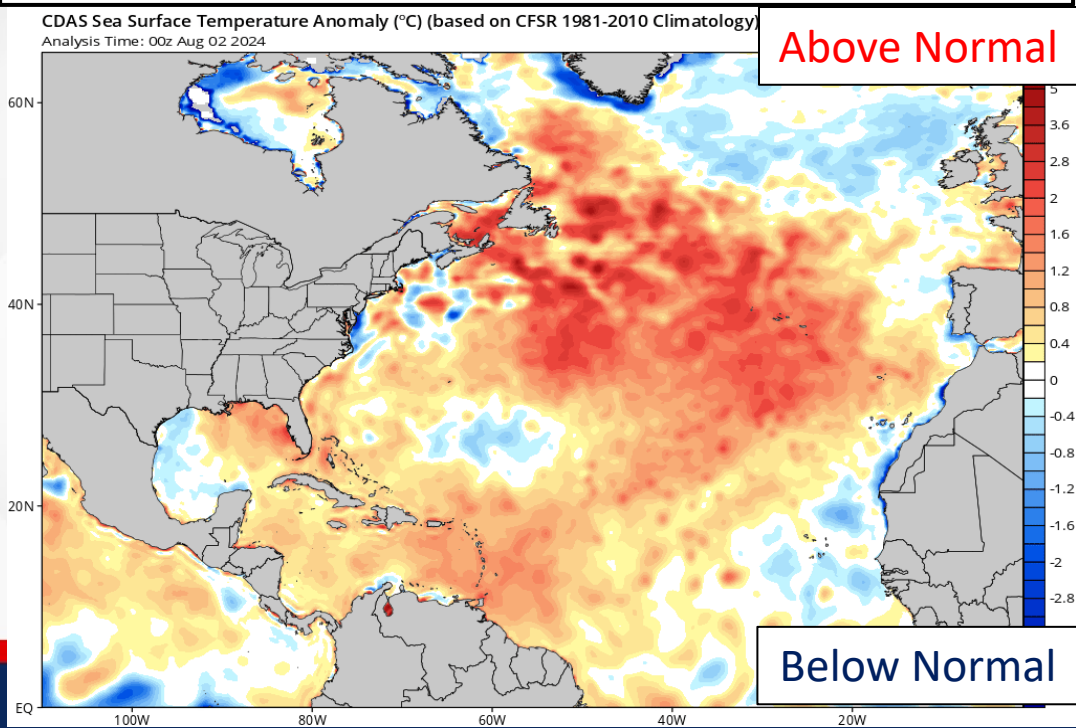




# Sea Surface Temperatures & Anomalies

Is the ocean favorable for the system?

Temperatures across the Atlantic Basin are supportive of tropical cyclone development. Waters across the deep tropical Atlantic and Gulf of Mexico 0.5 to 1.5-degrees above normal for this time of year.

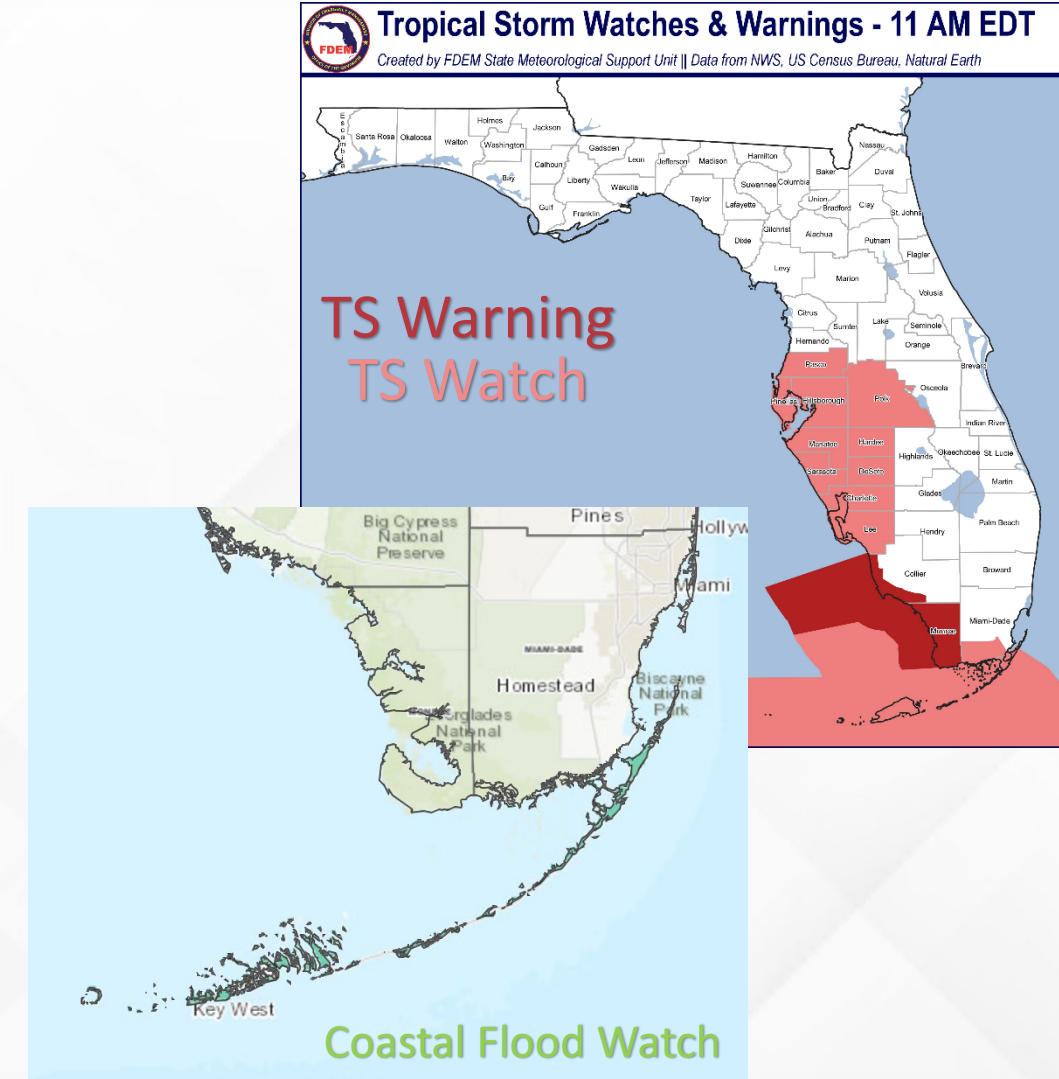




# Current Watches/Warnings

As of 11:00 AM EDT Friday

- **Tropical Storm Warning:**
  - Coastal Collier, Mainland Monroe
- **Tropical Storm Watch:**
  - Florida Keys including the Dry Tortugas (Coastal Monroe), Coastal Miami-Dade, Lee, Charlotte, Sarasota, Manatee, Hillsborough, Pinellas, Pasco, Polk, Hardee, DeSoto
- **Coastal Flood Watch:**
  - Florida Keys (Coastal Monroe)





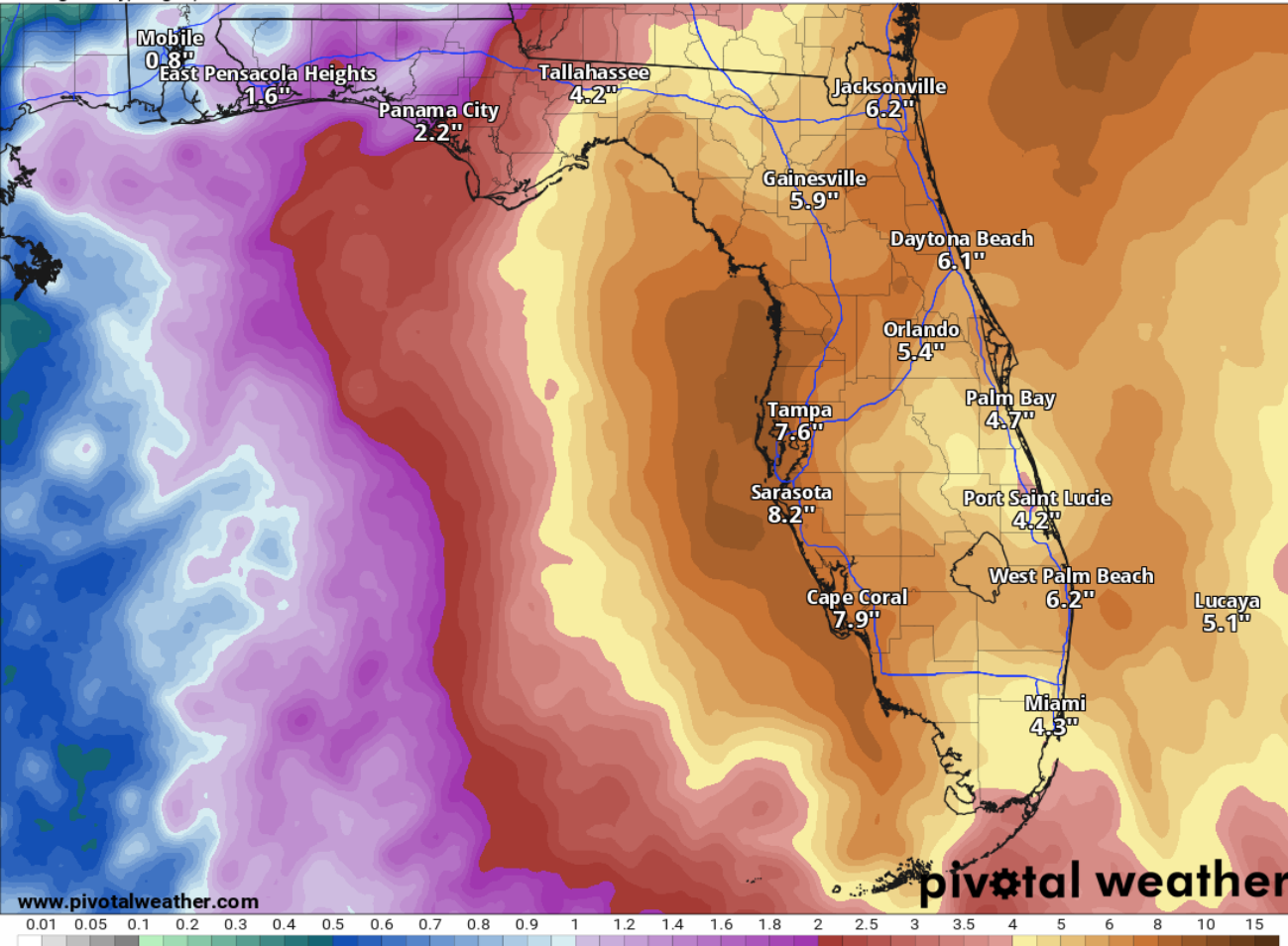
# Rainfall Totals – Next 7 Days

## From the Weather Prediction Center (WPC)

7-Day Precipitation (in)

Ending Friday, Aug. 9, 2024 at 8 a.m. EDT

Init: Fri 2024-08-02 12z WPC



Rainfall totals are heavily tied to the eventual track and forward speed of the tropical system, so there remains forecast uncertainty regarding where the heaviest totals will occur.

The heaviest swath of rainfall within tropical systems will largely occur along and to the 'right' of the track.

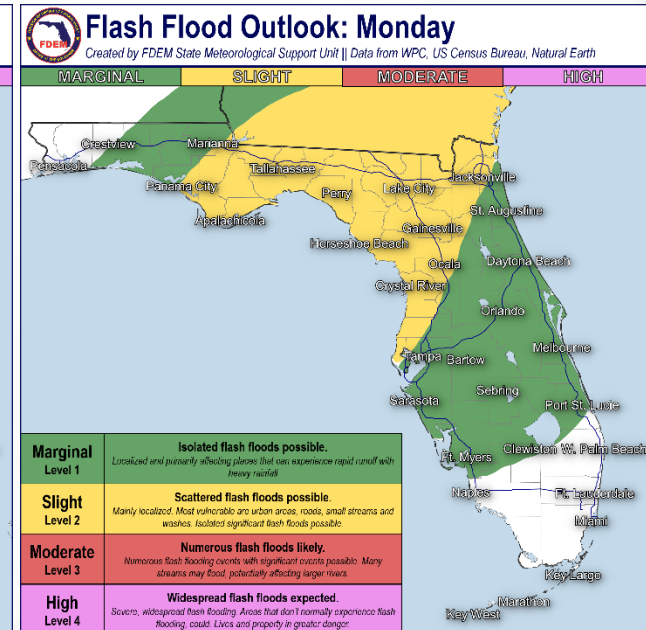
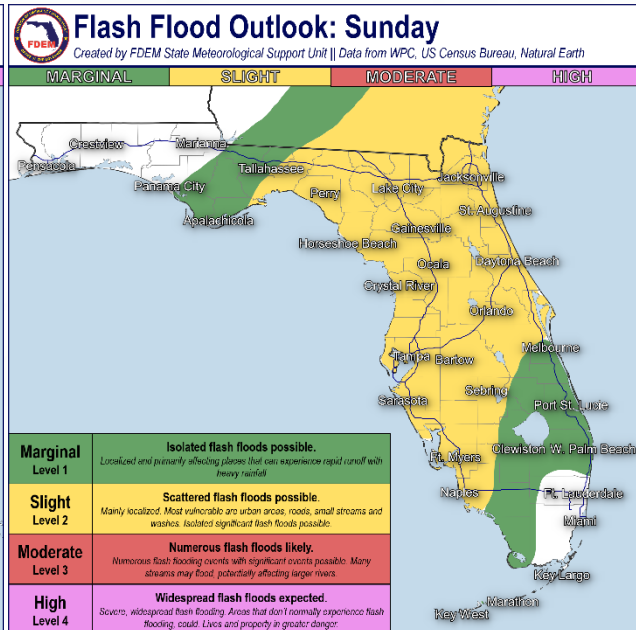
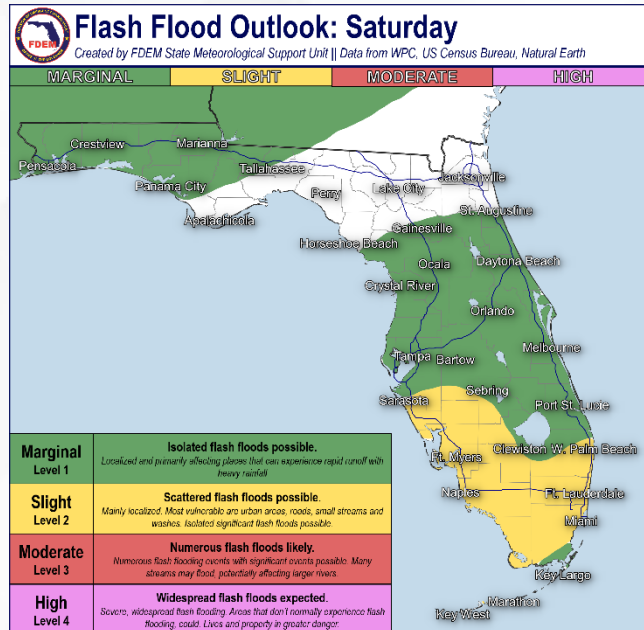
Widespread rainfall totals of 4-8" can be expected across the majority of the state, with locally higher amounts exceeding 10-15" cannot be ruled out.










# Flash Flood Outlooks – Saturday through Monday

## From the Weather Prediction Center (WPC)



Given already saturated soils, the Weather Prediction Center (WPC) has introduced a **Slight Risk (level 2 of 4)** for **Flash Flooding** across southern portions of the Florida Peninsula beginning on Saturday, with a **Marginal Risk (level 1 of 4)** reaching north of the I-4 corridor. A **Slight Risk (level 2 of 4)** expands further north and west Sunday into Monday as PTC4 advances toward the Florida Gulf Coast. An upgrade to the flash flood risk cannot be ruled out later in the forecast period once the forecast track of PTC4 comes into better agreement.

### 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">www.wpc.ncep.noaa.gov</a> @NWSWPC				
Flash flooding near me?	NO Flash Flooding			
 WEATHER PREDICTION CENTER				

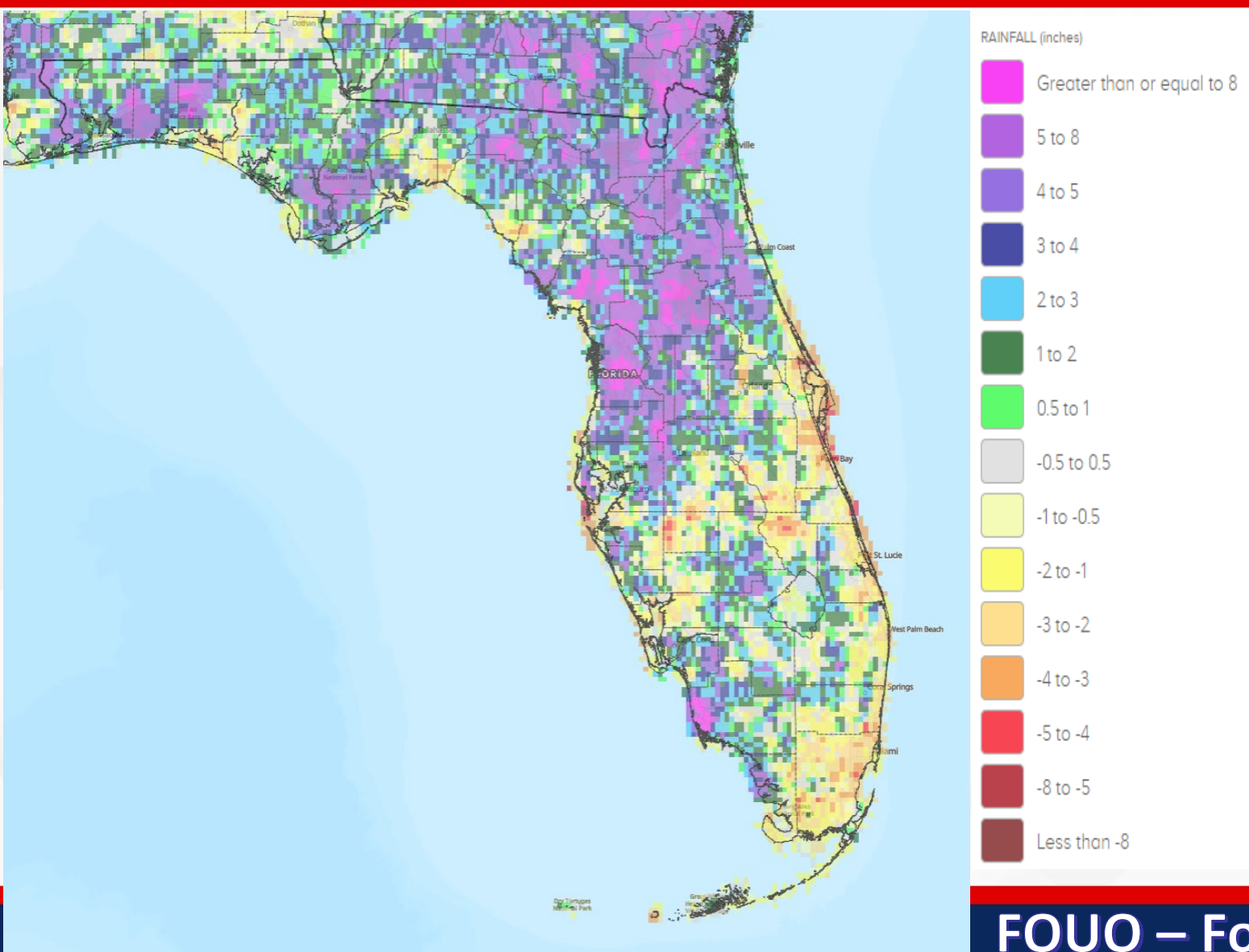
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# 30-Day Rainfall Departure from Normal

From the National Water Prediction Service (NWPS)




Much of North Florida and southward the Florida Gulf Coast have experienced rainfall 6-10" above normal over the past 30 days. This would likely lead to rapid onset of flooding as well as increased drainage into area rivers.

Several eastern Panhandle and North Florida rivers are already running high at this time. Flooding in coastal riverine basins could be exacerbated with multiple days of onshore winds and ocean waves.

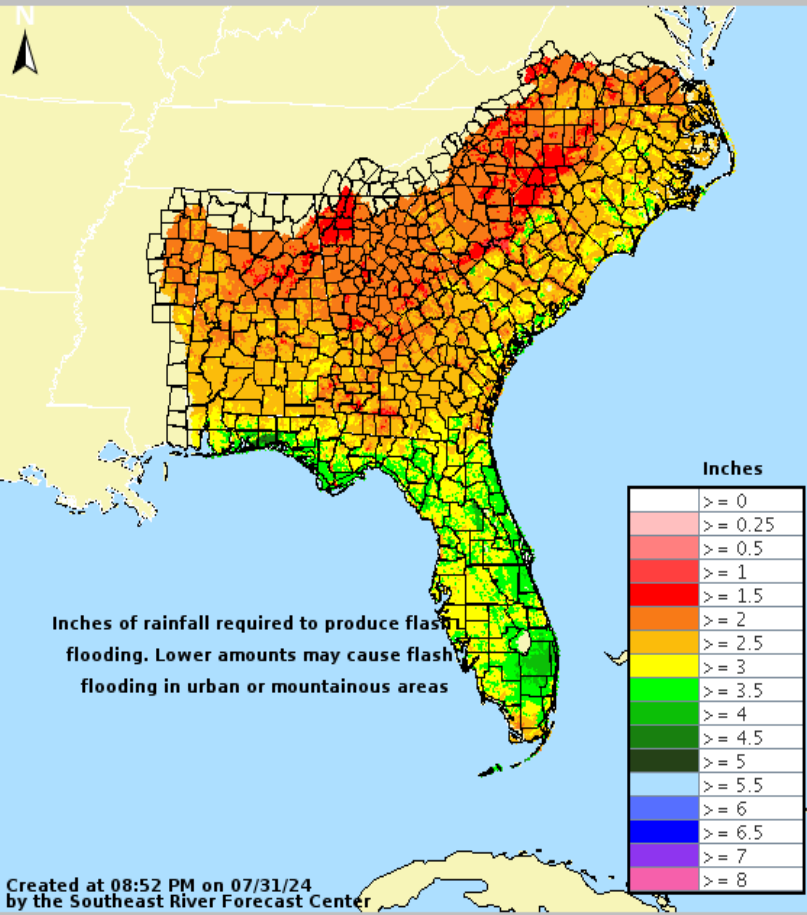


# Flash Flood Guidance

## How Much Rain is Needed to Create Flash Flooding?

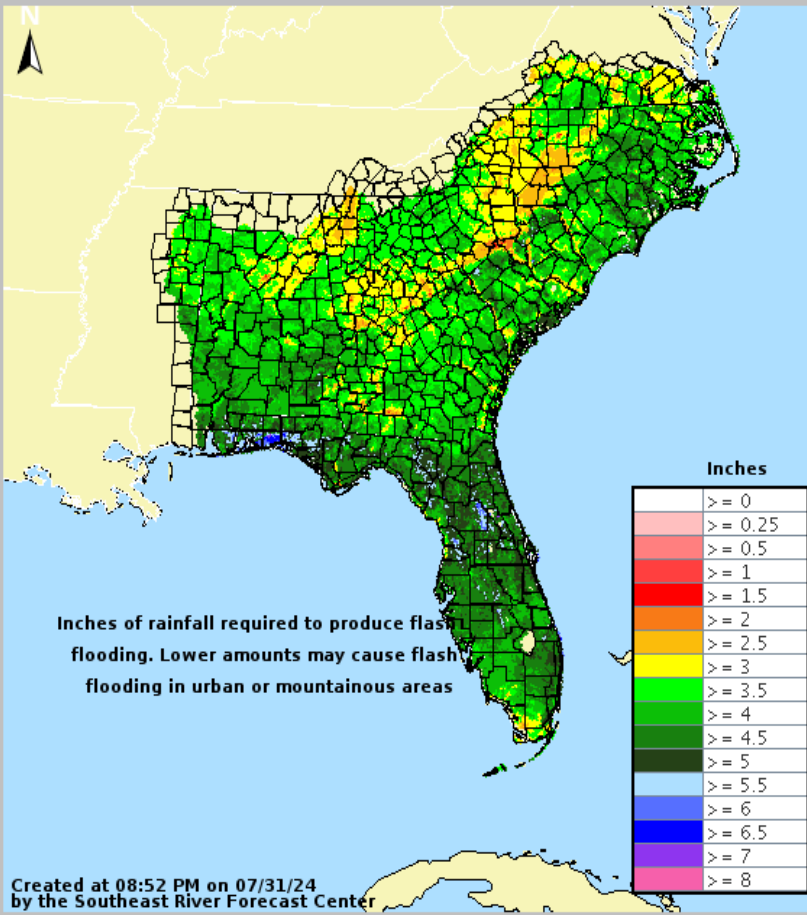
**1-hr Flash Flood Guidance**

Valid: 07/31/2024 @ 08:52 PM



**6-hr Flash Flood Guidance**

Valid: 07/31/2024 @ 08:52 PM



Along portions of the Florida Panhandle, Nature Coast, and Southwest Florida, it will only take about 1-2" within 1 hour or 3-4" within 6 hours to produce flash flooding due to already saturated grounds.

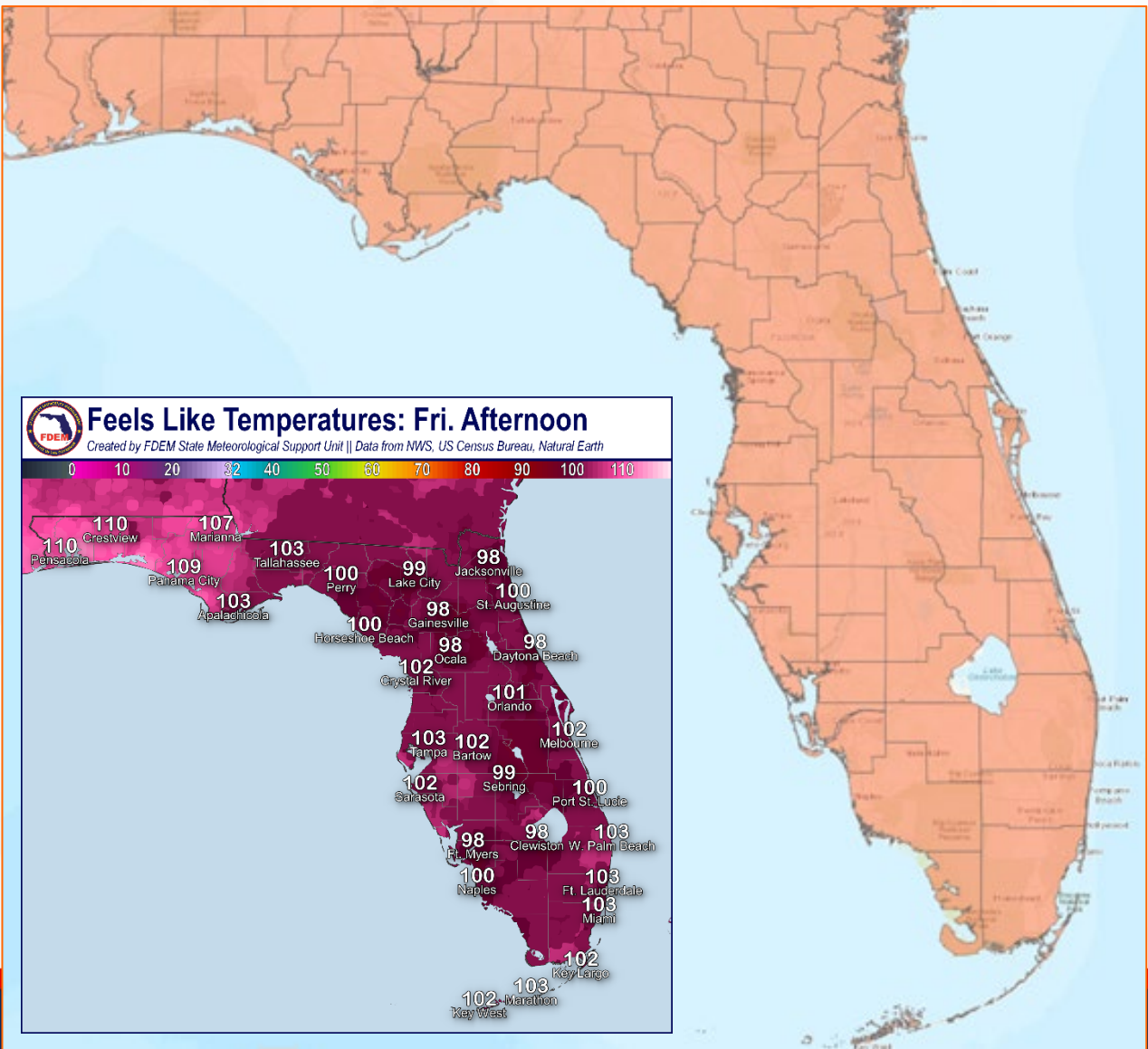
Elsewhere, it will take about 2-4" in 1 hour or 4-6" within 6 hours to cause flash flooding.





# Hot & Humid Conditions

From the National Weather Service (NWS)



**Warm and muggy conditions** can be expected across the state today as high temperatures will reach the upper 80s to middle 90s. **Heat index values** across the state will reach the **triple digits** by the afternoon hours.

**Heat Advisories** will go into effect statewide by mid-to-late morning and remain in effect through this evening as **heat indices** are expected to **reach 105-112-degrees** this afternoon.

*Remember to take frequent breaks from outdoor activities, wear light clothing, and drink plenty of water.*



# Summary

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## Potential Tropical Cyclone Four (PTC4):

- As of 11:00 AM EDT, Invest 97L is now designated as Potential Tropical Cyclone Four (PTC4) and is located about 420 miles southeast of Key West, FL and moving west-northwestward at 16 mph.
- A turn toward the northwest at a slower forward speed is expected tonight or Saturday, followed by a turn toward the north on Sunday.
- On the forecast track, the disturbance is expected to move over Cuba today, cross the Straits of Florida Saturday, and then move near or over the west coast of Florida Saturday night through Sunday night.
- The disturbance is expected to develop into a tropical depression on Saturday as it moves across the Straits of Florida, followed by intensification into a tropical storm by Saturday night.
- The National Hurricane Center is outlooking a **medium (60%) chance of development** over the next 48 hours and a **high (90%) chance of development** over the next 7 days. The next name on the list is Debby (DEH-bee).

## Florida Outlook:

- **Tropical Storm Warnings** have been issued for Coastal Collier and Mainland Monroe Counties.
- **Tropical Storm Watches** have been issued for Florida Keys including the Dry Tortugas (Coastal Monroe), Coastal Miami-Dade, Lee, Charlotte, Sarasota, Manatee, Hillsborough, Pinellas, Pasco, Polk, Hardee, and DeSoto Counties.
- A **Coastal Flood Watch** has been issued for the Florida Keys (Coastal Monroe).
- Rainfall totals are heavily tied to the eventual track and forward speed of the tropical system, so there remains forecast uncertainty regarding where the heaviest totals will occur. PTC4 is forecast to produce rainfall totals up to 4-8" across much of the state, but locally higher amounts exceeding 10-15" cannot be ruled out.
  - Trends within the computer forecast models will be monitored through the week. A more disorganized tropical system may produce higher rain chances and greater rainfall totals over portions of the Florida Peninsula this weekend into early next week.
  - The Weather Prediction Center (WPC) is outlooking a **Marginal Risk (level 1 of 4) for Flash Flooding** across the Panhandle Saturday with a **Marginal to Slight Risk (level 1-2 of 4)** across the Peninsula and Keys. A **Marginal to Slight Risk for Flash Flooding** is outlooked nearly statewide Sunday and Monday.
- Peak storm surge totals are currently forecast to reach up to 1-3' along the Florida Peninsula from the Card Sound Bridge northward to Aripeka; however, these totals are strongly track dependent and updates can be expected in the coming days. There are no storm surge watches or warnings issued at this time.
- Warm and muggy conditions can be expected across the state today as high temperatures will reach the upper 80s to middle 90s. Heat index values across the state will reach the triple digits by the afternoon hours; **Heat Advisories** in effect statewide through this evening as heat indices are expected to reach 105-112-degrees.

The next briefing packet will be issued this evening. For the latest information, please visit the National Hurricane Center website.





# Tropical Update

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**State Meteorological Support Unit**

**Florida Division of Emergency Management**

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