



Tropical Update



6:00 PM EDT

Friday, August 2, 2024

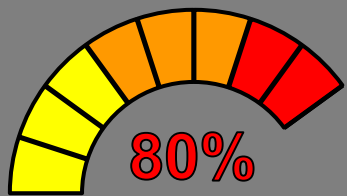
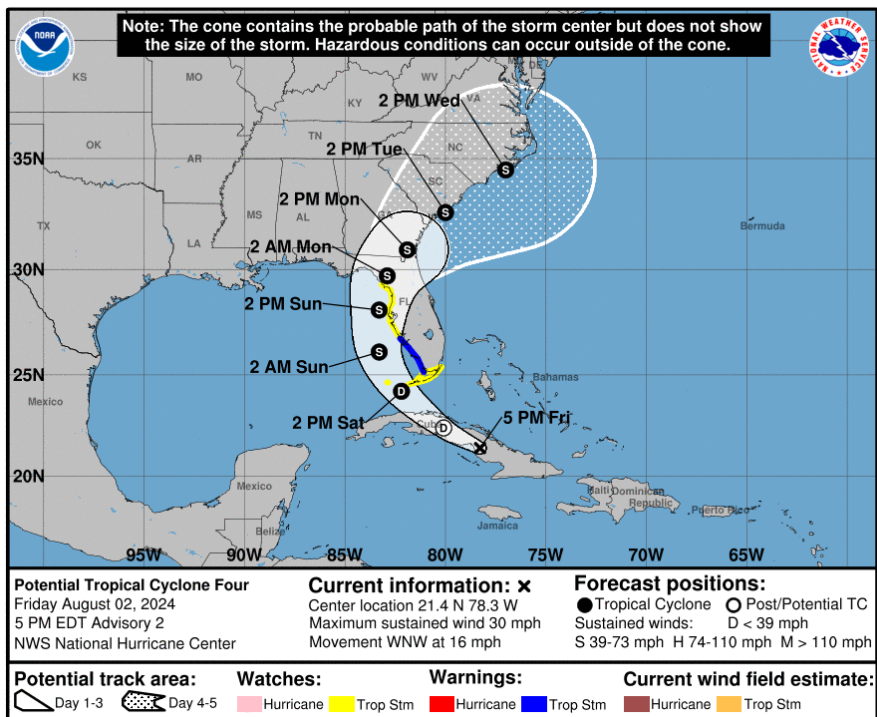
Potential Tropical Cyclone (PTC) Four Now Passing Over Central Cuba; New Tropical Storm & Storm Surge Watches Issued for the Florida Peninsula

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.

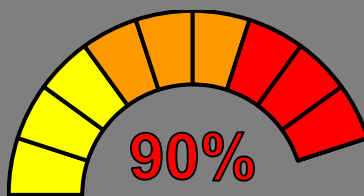


Tropical Weather Outlook

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



48 Hour Formation



7 Day Formation

- **Location:** 315 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 the Florida Peninsula from East Cape Sable to Boca Grande
 - **Tropical Storm Watch:** The Florida Keys (south of the Card Sound Bridge), East Cape Sable to the Cape Sound Bridge, North of Boca Grande to the mouth of the Suwannee River
 - **Storm Surge Watch:** West Coast of the Florida Peninsula from Bonita Beach northward to the mouth of the Suwannee River, including Tampa Bay and Charlotte Harbor

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 tonight, cross the Florida Straits into the southeastern Gulf of Mexico on Saturday, and then move near or over the west coast of Florida Saturday night through Sunday night. Maximum sustained winds are near 30 mph, and the disturbance is expected to develop into a tropical depression on Saturday as it moves across the Florida Straits, followed by intensification to a tropical storm by Saturday night.

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

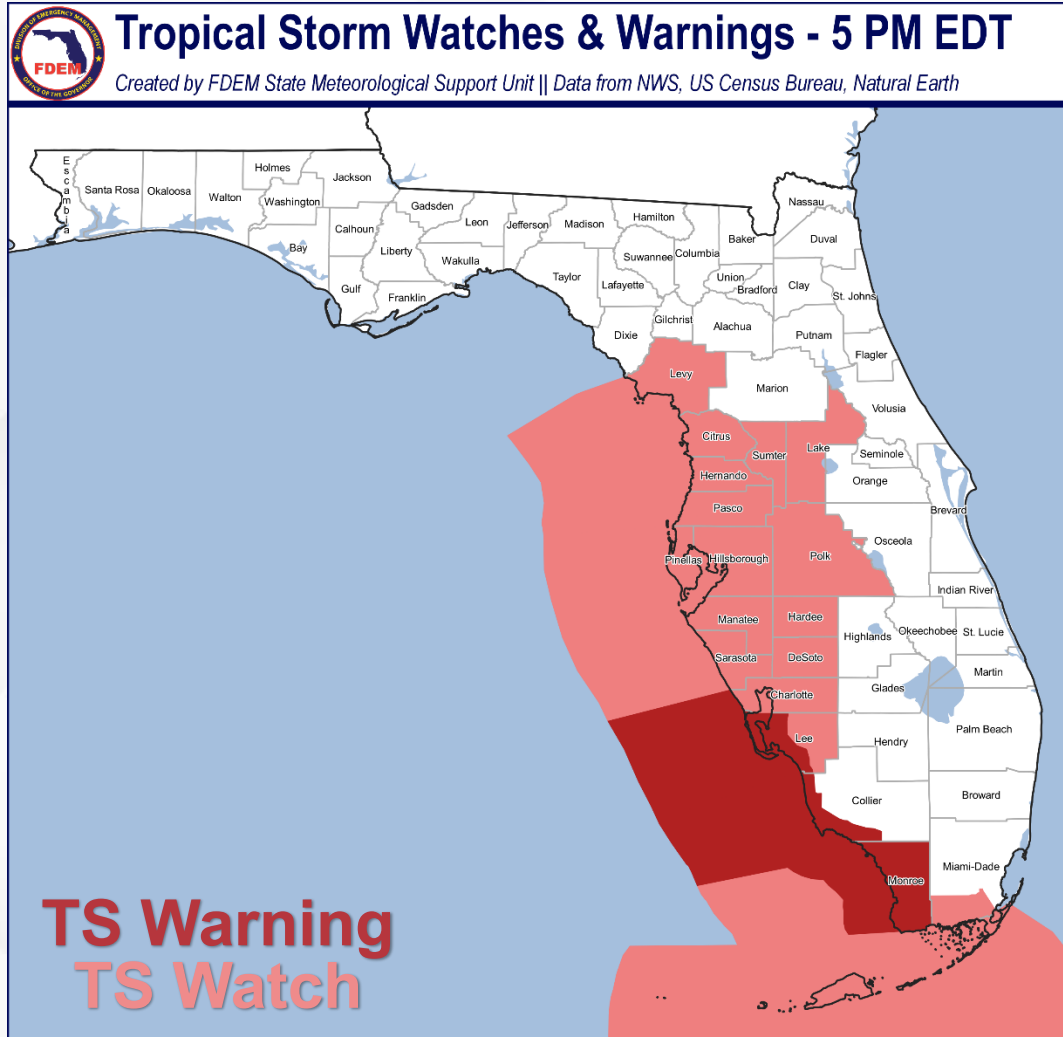
* Formation chance through 48 hours...**high...80%.**

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



Current Tropical Wind Watches/Warnings

As of 5:00 PM EDT Friday



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



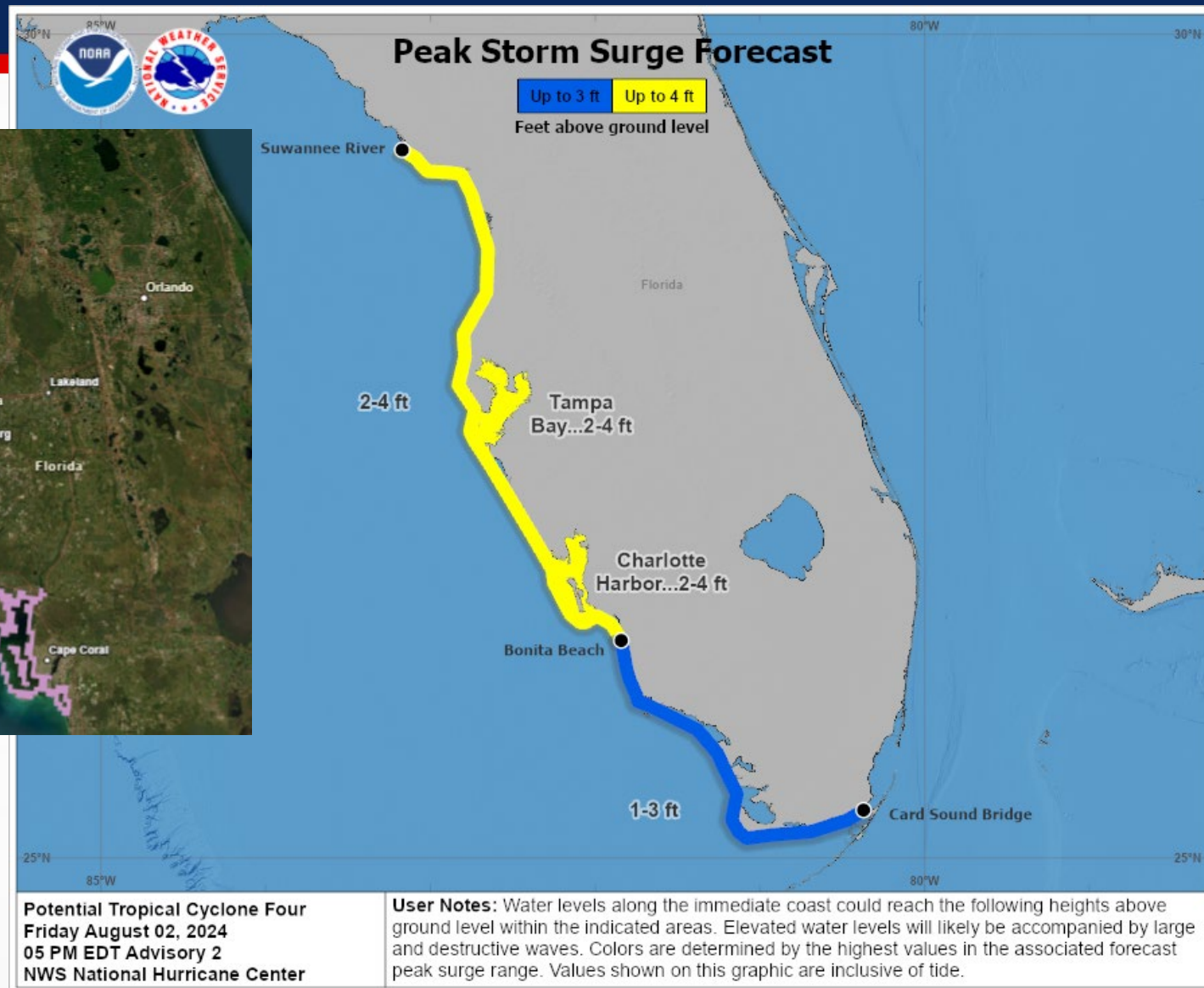
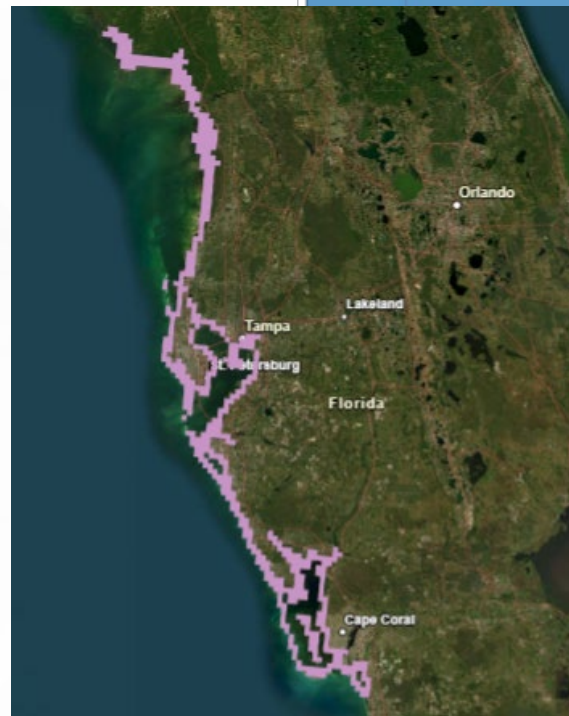
Current Storm Surge Watch

As of 5:00 PM EDT Friday

- Storm Surge Watch:**

Lee, Charlotte (including Charlotte Harbor), Sarasota, Manatee, Hillsborough (including Tampa Bay), Pinellas, Pasco, Hernando, Citrus, Levy

The combination of storm surge and tide will cause normally dry areas near the coast to be flooded by rising waters moving inland from the shoreline. The water could reach the 2-4' along the Florida West Coast, including Tampa Bay and Charlotte Harbor.





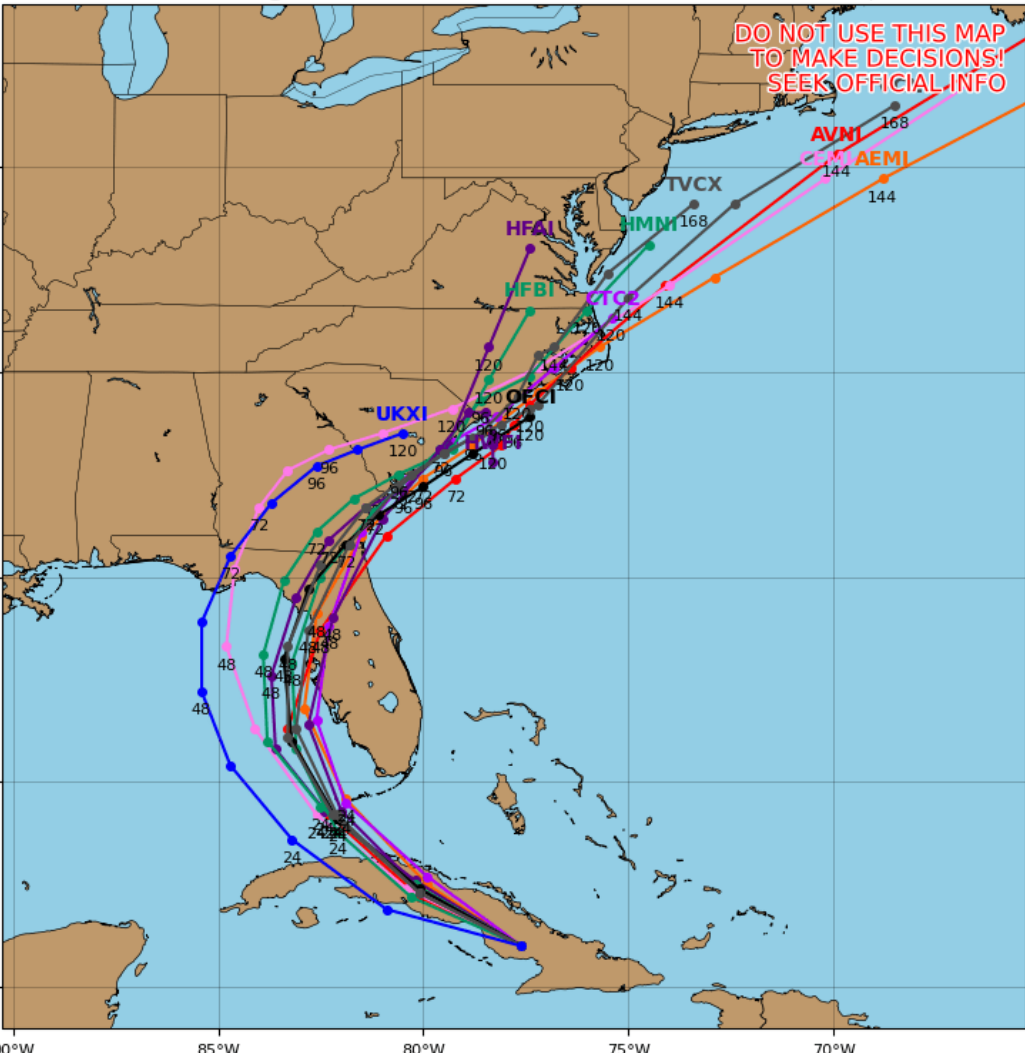
Model Forecasts – Next 5 Days

Potential Tropical Cyclone Four

Potential Tropical Cyclone FOUR Model Track Guidance

Initialized at 18z Aug 02 2024

Levi Cowan - tropicaltidbits.com



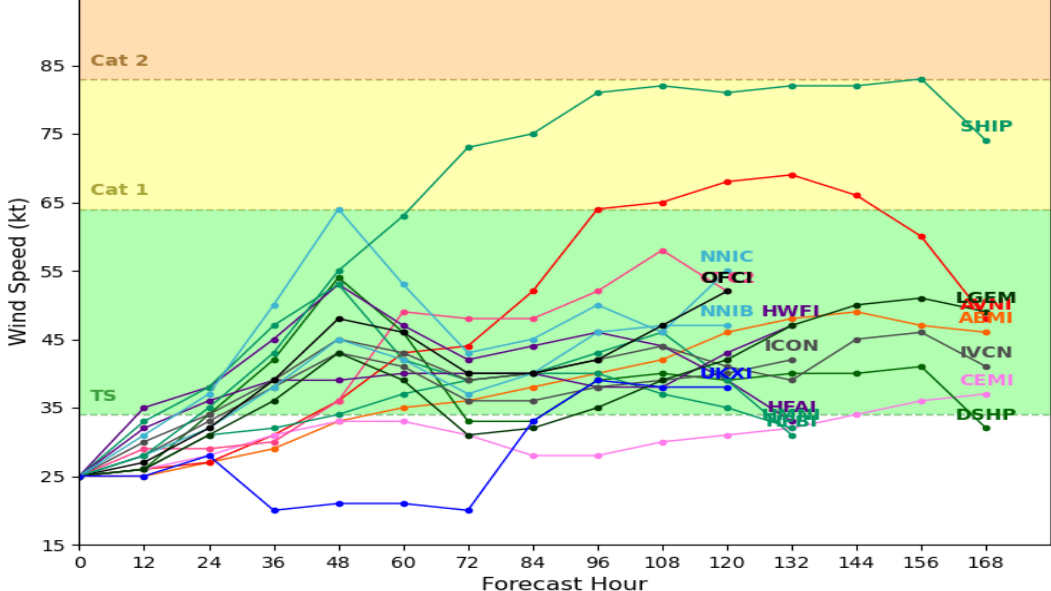
The circulation associated with Potential Tropical Cyclone Four is still not well-defined; however, the unorganized center has moved more westward since this afternoon. Computer models are in good agreement that the system will move generally west-northwestward into the Florida Straits in the next 12-18 hours, followed by a more northward motion Saturday night into Sunday. There remains a bit of computer forecast model disparity after the 36-hour timeframe off the Southwest Florida Coast; however, computer models will continue to work toward consensus once the system emerges over open water. *Given the proximity to the Florida Peninsula coastline, small track changes could cause large differences in landfall and impacts.*

Computer forecast models are in decent agreement that the system will likely become a tropical depression shortly moving offshore Saturday, and increasing in intensity over the warm Gulf of Mexico waters. The forecast concerns with the intensity forecast are how long the system will remain offshore of Florida and how long it will take to organize into a better-defined system.

Potential Tropical Cyclone FOUR Model Intensity Guidance

Initialized at 18z Aug 02 2024

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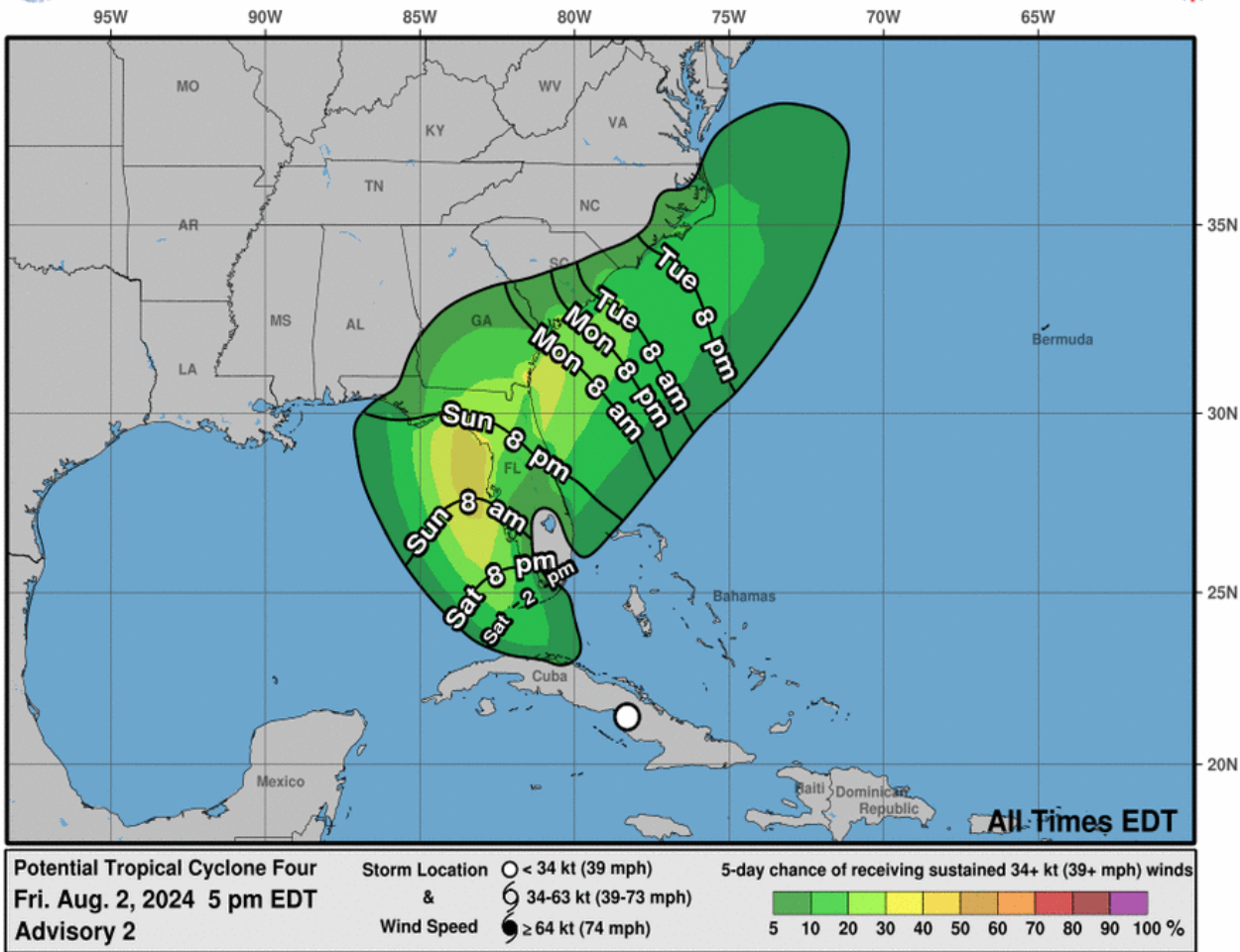


Tropical Storm-Force Wind Probabilities

Potential Tropical Cyclone Four



Most Likely Arrival Time of Tropical-Storm-Force Winds



Tropical storm-force winds will most likely arrive to the Florida Keys Saturday afternoon and evening, spreading northward throughout the Saturday evening and overnight. Tropical storm-force winds look to reach the I-4 corridor Sunday morning, and expanding through the Florida Big Bend, Suwannee River Valley, and Northeast Florida through the Sunday daytime hours.

However, tropical-storm force conditions may begin as early as Saturday morning along the Florida Keys and southern Florida Peninsula, Saturday evening along the I-4 corridor, and Sunday morning for the Nature Coast north and eastward.

Wind speed probabilities will likely continue to increase in future packets as the eventual forecast track and intensity forecast become realized.

City	Tropical Storm-Force Wind Probability
Key West	19%
Naples	17%
Fort Myers	5%
Tampa	38%
Cedar Key	46%
Orlando	9%
Gainesville	22%
Tallahassee	13%
Jacksonville	20%



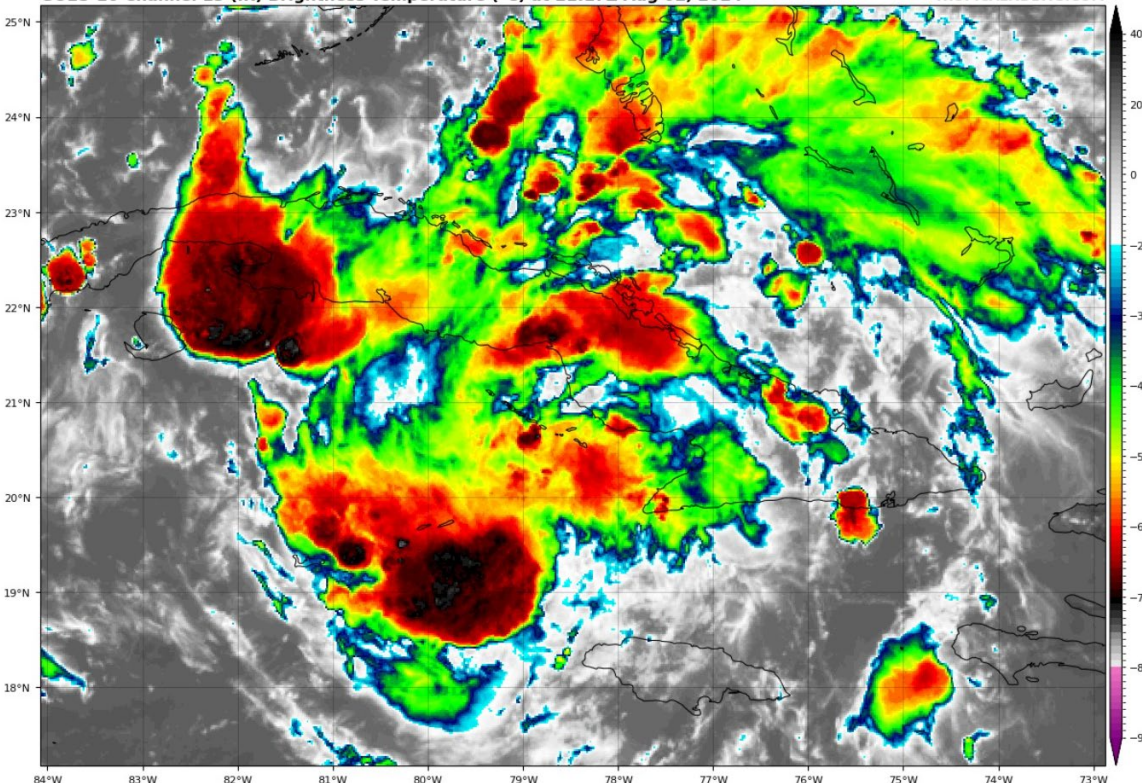
Key Messages

From the National Hurricane Center (NHC)

Current satellite imagery shows Potential Tropical Cyclone Four trying to organize its shower and thunderstorm activity; however, it remains unorganized at this time.

GOES-16 Channel 13 (IR) Brightness Temperature (°C) at 21:17Z Aug 02, 2024

TROPICALTIDBITS.COM



Key Messages for Potential Tropical Cyclone Four

Advisory 2: 5:00 PM EDT Fri Aug 02, 2024

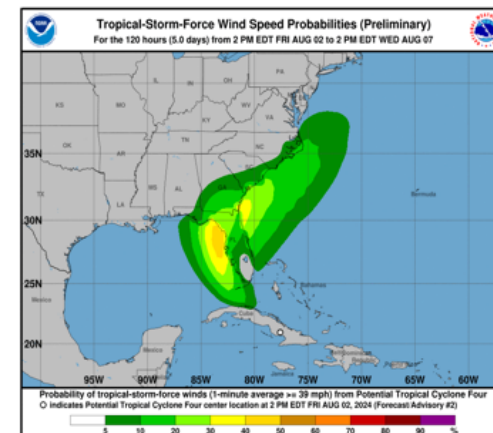
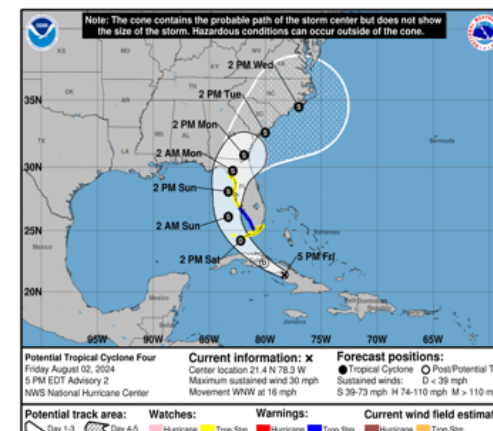


1. Heavy rainfall may result in flash and urban flooding across portions of Florida and the coastal areas of the Southeast this weekend through Wednesday morning. Isolated river flooding will also be possible.

2. Tropical storm conditions are expected Saturday night within the Tropical Storm Warning area in southwest Florida from East Cape Sable to Boca Grande. Tropical storm conditions are possible in the Florida Keys on Saturday and along the Florida west coast north of Boca Grande to Suwannee River Saturday night and Sunday where a Tropical Storm Watch is in effect.

3. There is a possibility of life-threatening inundation from storm surge along portions of the west coast of Florida from Bonita Beach to Suwannee River, including Tampa Bay and Charlotte Harbor, where a Storm Surge Watch is in effect.

4. Impacts from storm surge, strong winds, and heavy rains are possible elsewhere in Florida and along the southeast coast of the United States from Georgia to North Carolina through the middle of next week, and interests in those areas should continue to monitor the progress of this system. Additional watches and warnings will likely be required later tonight and on Saturday.



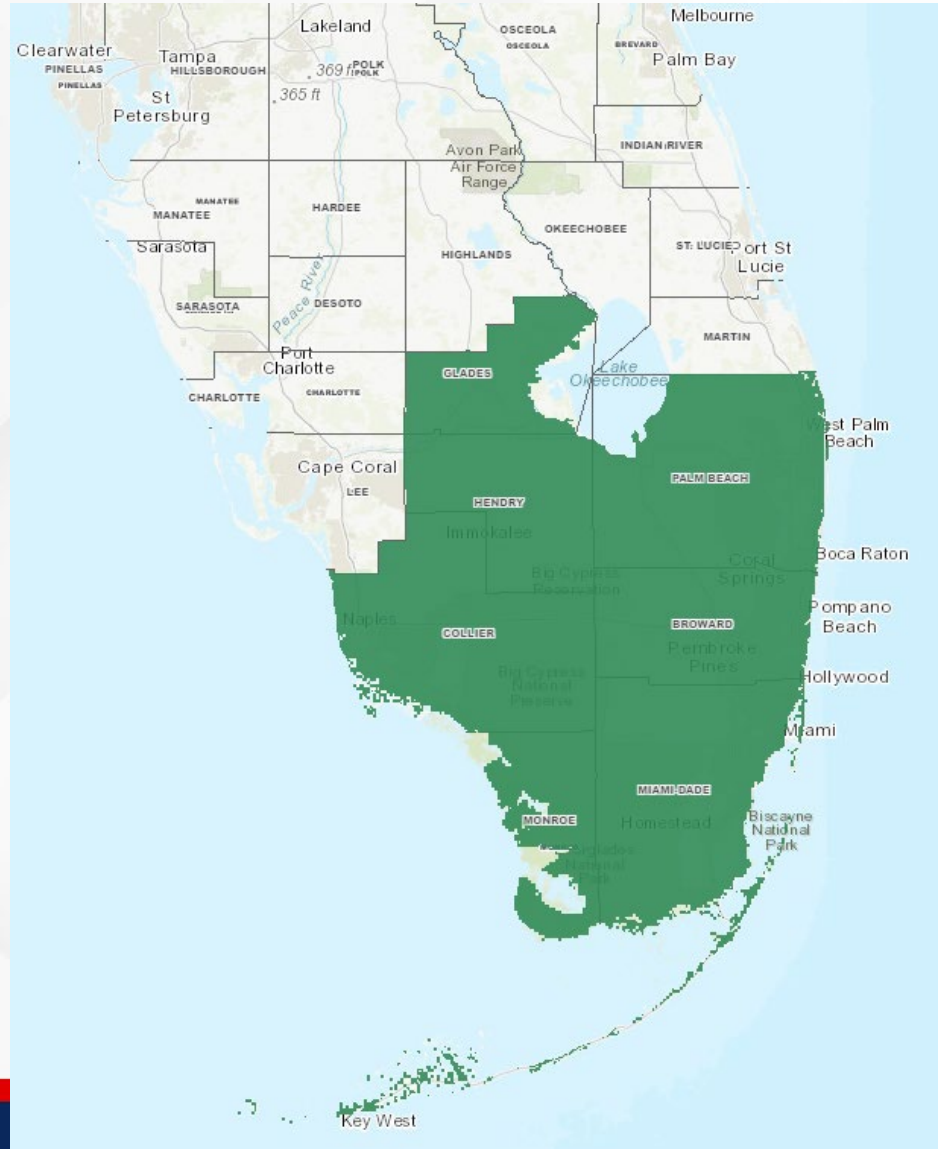
For more information go to hurricanes.gov

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Flood Watches in Effect

From the National Weather Service



Flood Watches have been issued for portions of South Florida and the Keys through 8:00 PM EDT Sunday evening. Additional Flood Watches further north will be issued as conditions warrant. This **Flood Watch** impacts the following counties:

- Broward
- Collier
- Glades
- Hendry
- Miami-Dade
- Monroe
- Palm Beach



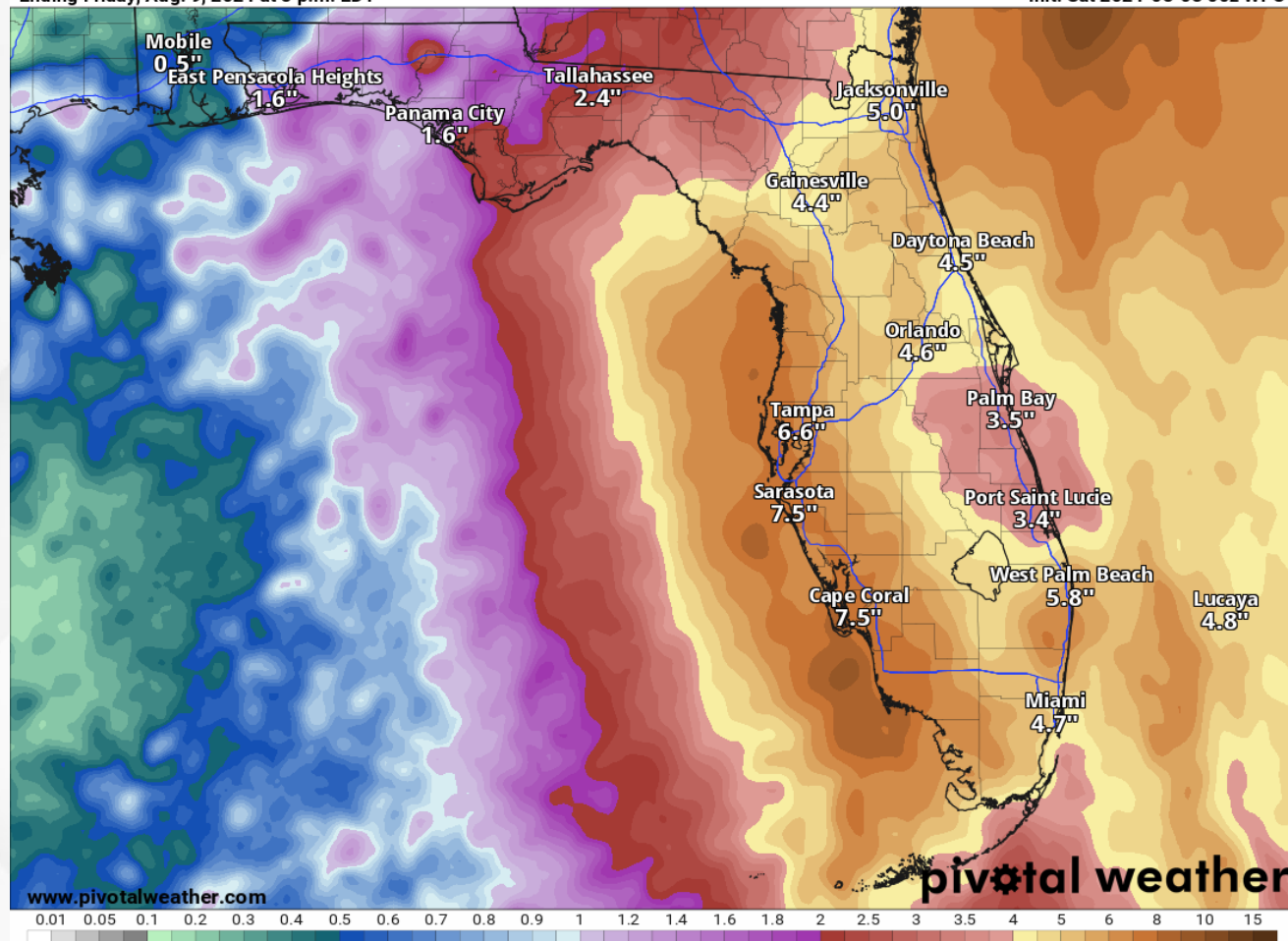
Rainfall Totals – Next 7 Days

From the Weather Prediction Center (WPC)

7-Day Precipitation (in)

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

Init: Sat 2024-08-03 00z 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.

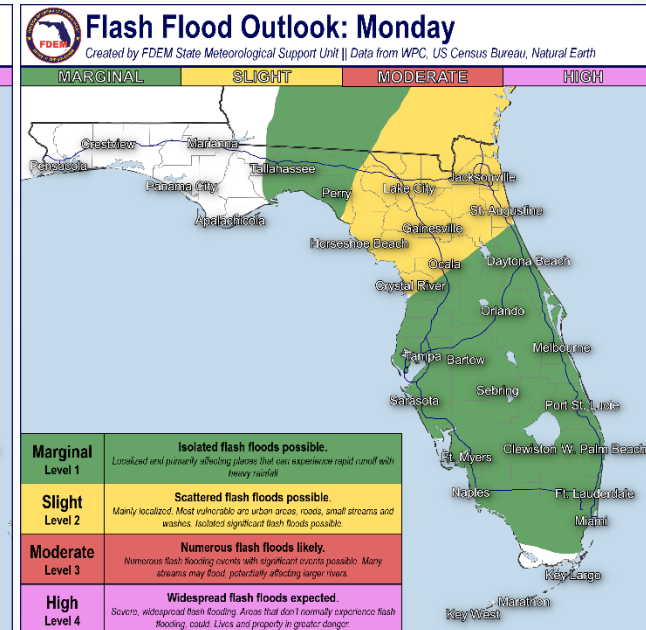
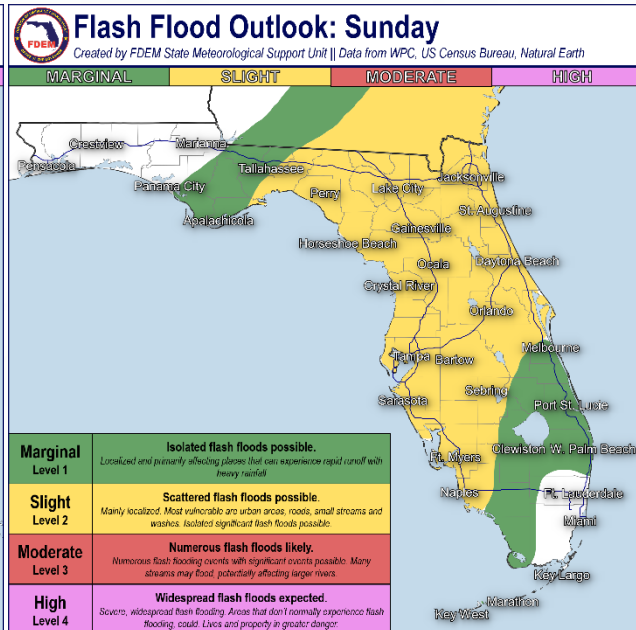
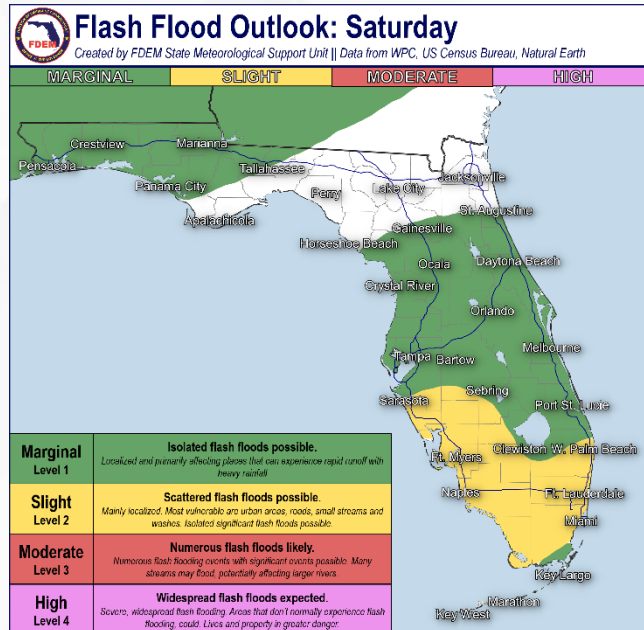
The heaviest swath of rainfall within tropical systems will largely occur along and to the 'right' of the track.

Widespread rainfall totals of 4-8" can be expected across the majority of the state, with locally higher amounts exceeding 10-12" 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.

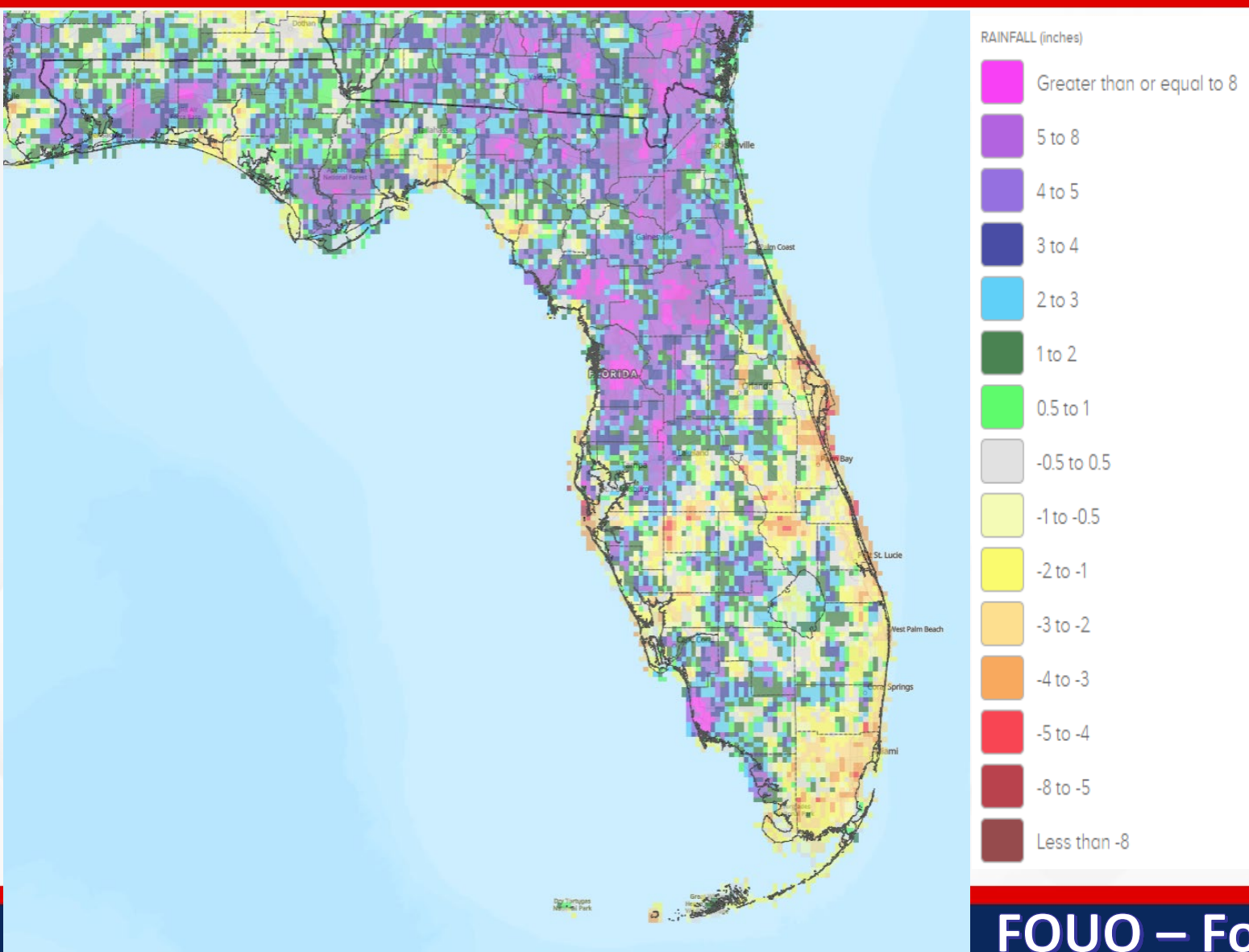
Understanding WPC Excessive Rainfall Risk Categories

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.
www.wpc.ncep.noaa.gov @NWSWPC				
Flash flooding near me?	Flash Flooding	Flash Flooding	Flash Flooding	Flash Flooding
WEATHER PREDICTION CENTER				



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

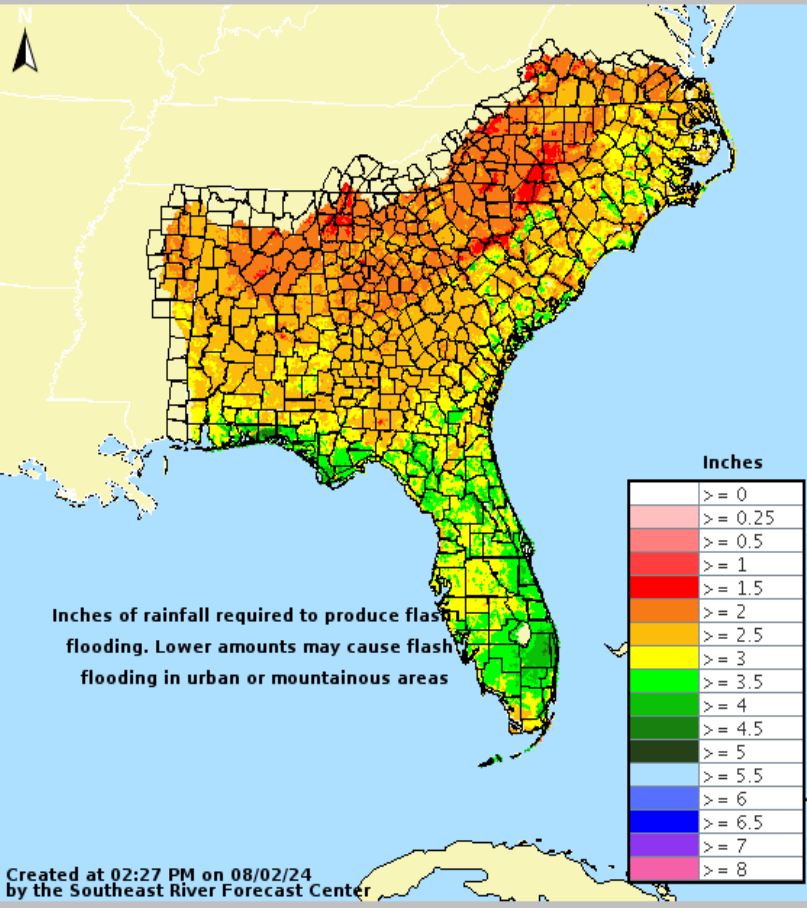
How Much Rain is Needed to Create Flash Flooding?



1-hr Flash Flood Guidance

Valid: 08/02/2024 @ 02:27 PM



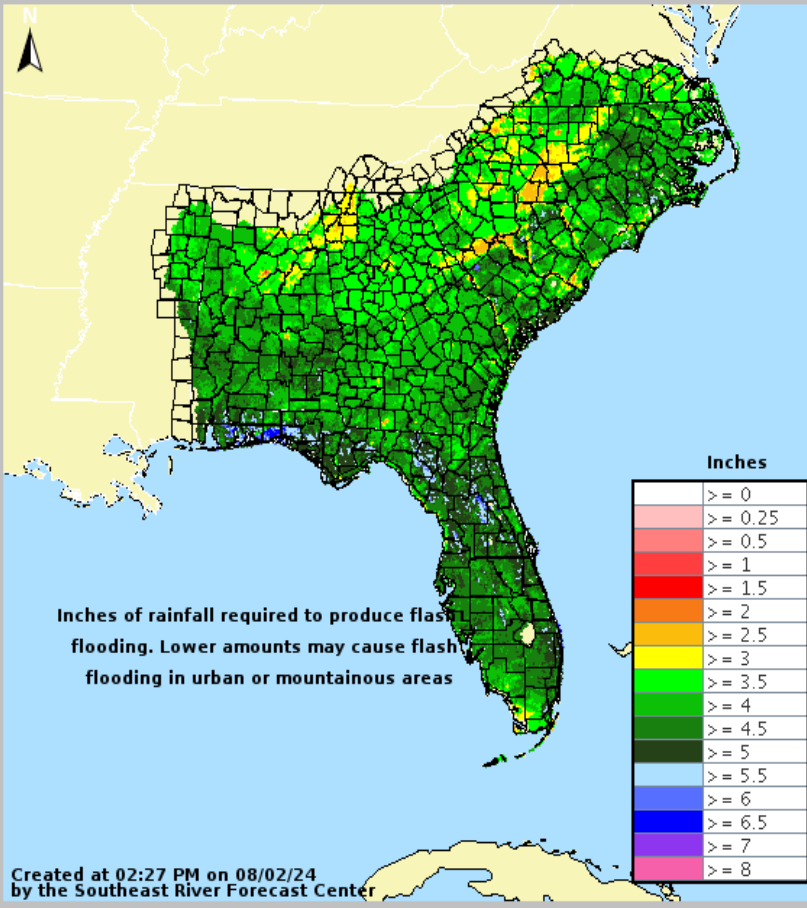




6-hr Flash Flood Guidance

Valid: 08/02/2024 @ 02:27 PM





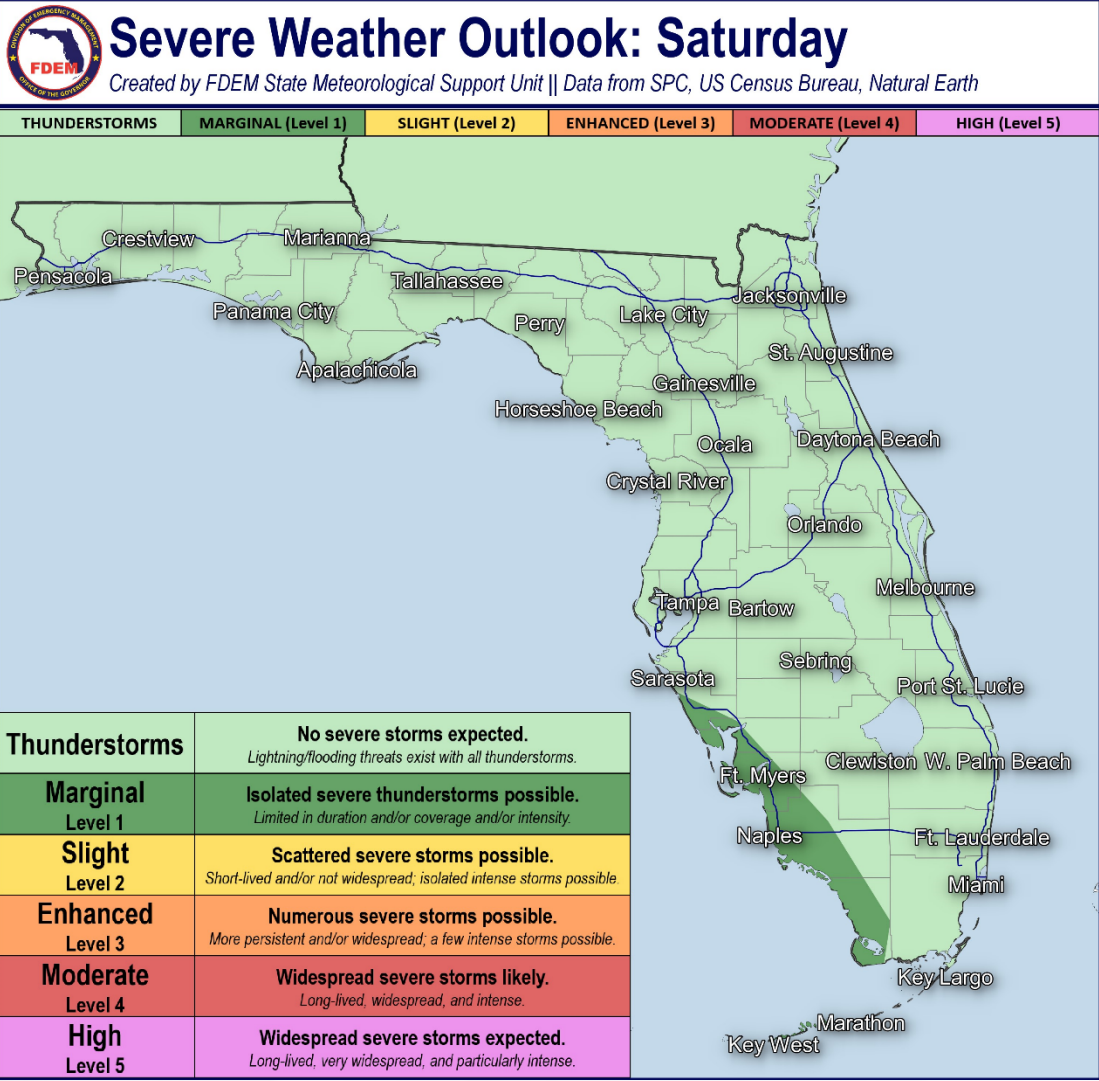
Along portions of the Florida Panhandle, Nature Coast, and Southwest Florida, it will only take about 1-2" within 1 hour or 3-4" within 6 hours to produce flash flooding due to already saturated grounds.

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



Severe Weather Outlook – Saturday

From the Storm Prediction Center (SPC)



- The Storm Prediction Center (SPC) is outlooking a **Marginal Risk (level 1 of 5) for Severe Weather** along the Southwest Florida Coast Saturday.
- Brief tropical tornadoes will be possible with stronger cells within PTC Four's rainbands, primarily on the east side of the center of circulation.
- Additional expansions to the isolated tornado threat cannot be ruled out Sunday into Monday as the eventual track forecast becomes realized.



Summary

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Potential Tropical Cyclone Four (PTC Four):

- As of 5:00 PM EDT, Potential Tropical Cyclone 4 is located about 315 miles southeast of Key West, Florida and is moving west-northwest 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. The disturbance is expected to move over Cuba tonight, cross the Florida Straits into the southeastern Gulf of Mexico on Saturday, and then move over the west coast of Florida Saturday night through Sunday night.
- Maximum sustained winds are near 30 mph, and the disturbance is forecast to develop into a tropical depression on Saturday as it moves across the Florida Straits, followed by intensification into a tropical storm by Saturday night.
- The National Hurricane Center (NHC) is outlooking a **high (80%) chance of development** in the next 48 hours, and a **high (90%) chance of development** in the next 7 days.
- The next name on the list is Debby (*DEH-bee*).

Florida Outlook:

- **Tropical Storm Warnings** have been issued for Coastal Lee, Coastal Collier, and Mainland Monroe Counties.
- **Tropical Storm Watches** have been issued for Florida Keys including the Dry Tortugas (Coastal Monroe), Coastal Miami-Dade, Inland Lee, Charlotte, Sarasota, Manatee, Hillsborough, Pinellas, Pasco, Polk, Hardee, DeSoto, Sumter, Lake, Hernando, Citrus, and Levy Counties.
- **Storm Surge Watches** are in effect from Bonita Beach north to the mouth of the Suwannee River (Coastal Lee, Charlotte (including Charlotte Harbor), Sarasota, Manatee, Hillsborough (including Tampa Bay), Pinellas, Pasco, Hernando, Citrus, and Levy 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 10-12" 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.
- The Storm Prediction Center (SPC) is outlooking a **Marginal Risk for Severe Weather (level 1 of 5)** for the risk of isolated tropical tornadoes along the Florida Keys and Southwest Florida Coast Saturday into Sunday. Additional expansions of the tornado threat will be possible Sunday into Monday as the track forecast becomes better in focus.

The next briefing packet will be issued Saturday morning. 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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