



Tropical Update



9:30 AM EDT

Saturday, August 3, 2024

Hurricane Watches Issued for the Florida Big Bend; Tropical Depression Four Expected to Become a Tropical Storm Later Today or Tonight Over the Southeastern Gulf of Mexico

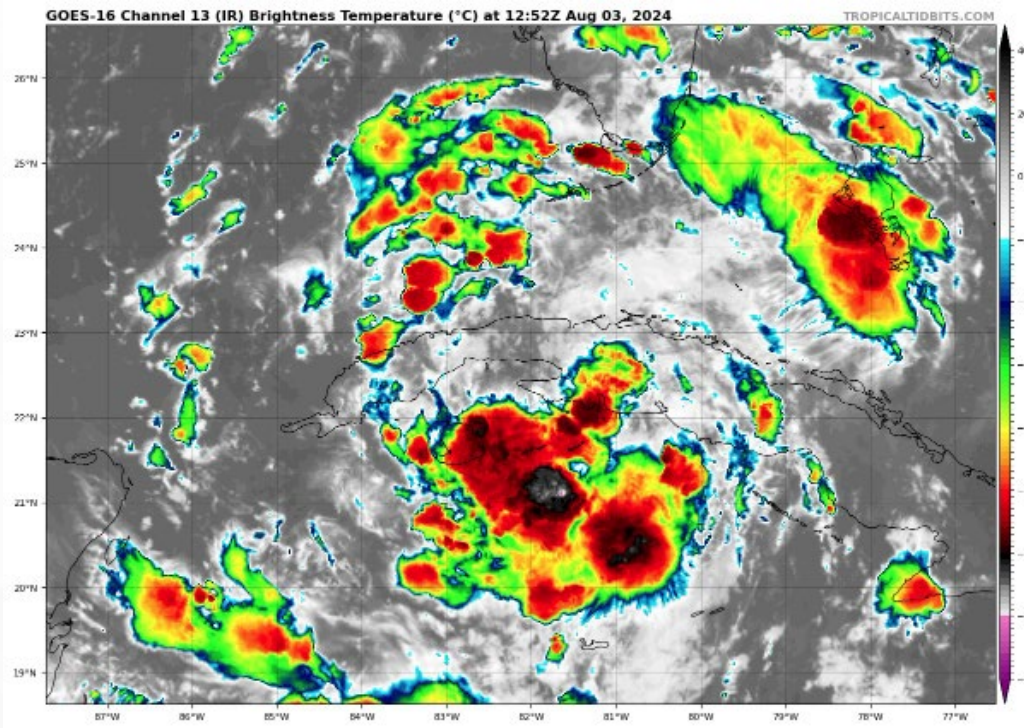
This update is intended for government and emergency response officials, and is provided for informational and situational awareness purposes only. Forecast conditions are subject to change based on a variety of environmental factors. For additional information, or for any life safety concerns with an 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 Depression Four

8:00 AM EDT Saturday: Florida Threats & Changes Since Last Packet

	MINIMAL	Low	MODERATE	HIGH	EXTREME
WINDS					
STORM SURGE					
FLASH FLOODING					
TORNADOES					
	Low	MODERATE	HIGH		
RIP CURRENTS					

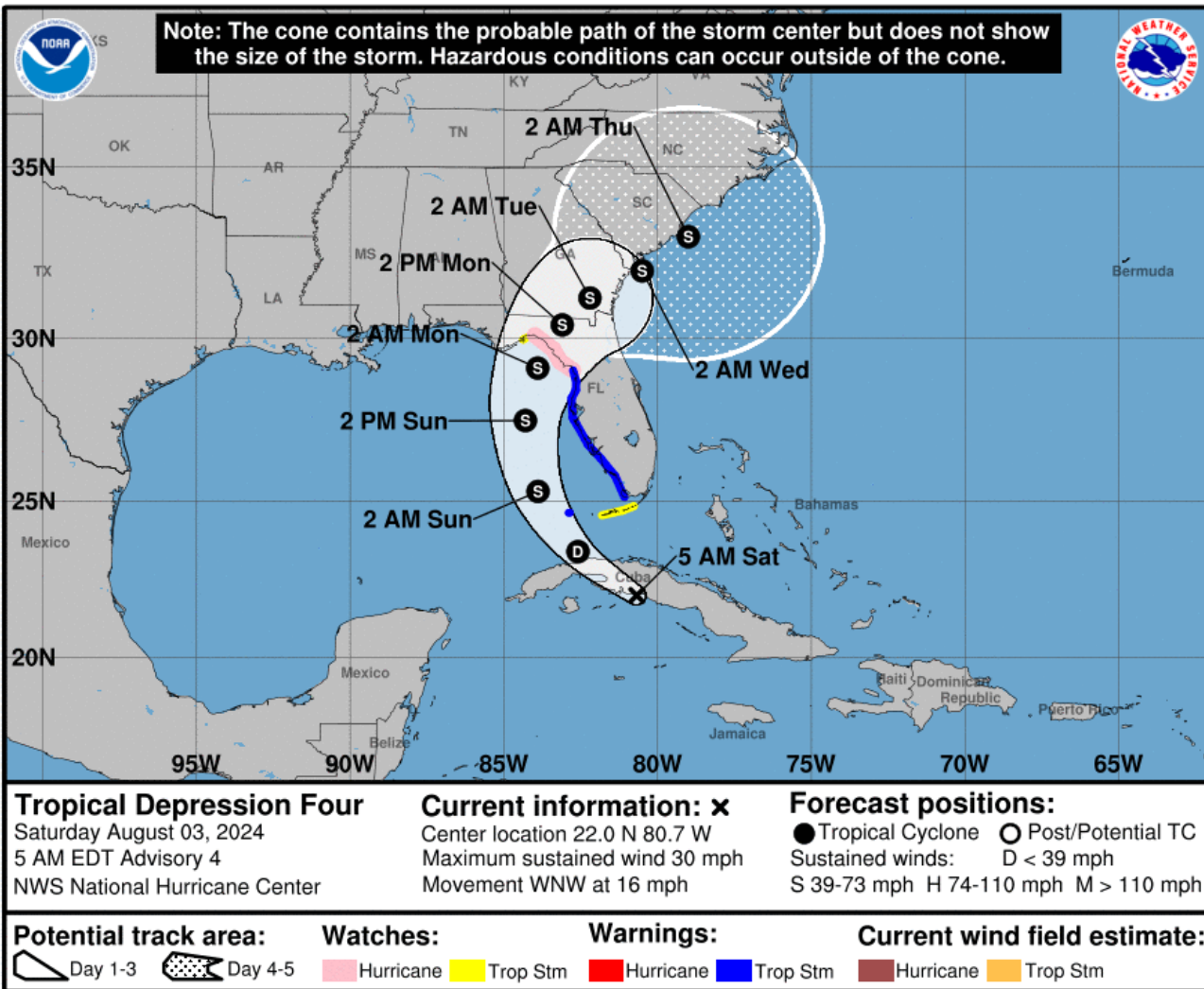


Overview/Recent Changes:
As of 8:00 AM EDT, Tropical Depression Four is located 170 miles south of Key West, Florida and is moving west-northwestward at 16 mph. A turn toward the northwest is forecast today, followed by a northward motion on Sunday and then a slower northeastward motion Sunday night and Monday. On the forecast track, the center of the depression will move across western Cuba this morning, and then move over the eastern Gulf of Mexico later today and Sunday, reaching the Florida Gulf Coast late Sunday or Monday. Maximum sustained winds are near 30 mph, and strengthening is forecast during the next couple of days, and the depression is expected to become a tropical storm later today and continue strengthening over the eastern Gulf of Mexico through the weekend. Hurricane Watches have been issued for portions of the Florida Big Bend, with Tropical Storm Warnings extending along the Florida Gulf Coast. Storm Surge Watches have been issued for the Florida Gulf Coast, stretching from the mouth of the Suwannee River (Taylor County) through Lee County.



Forecast Cone

Tropical Depression Four ([LINK](#))



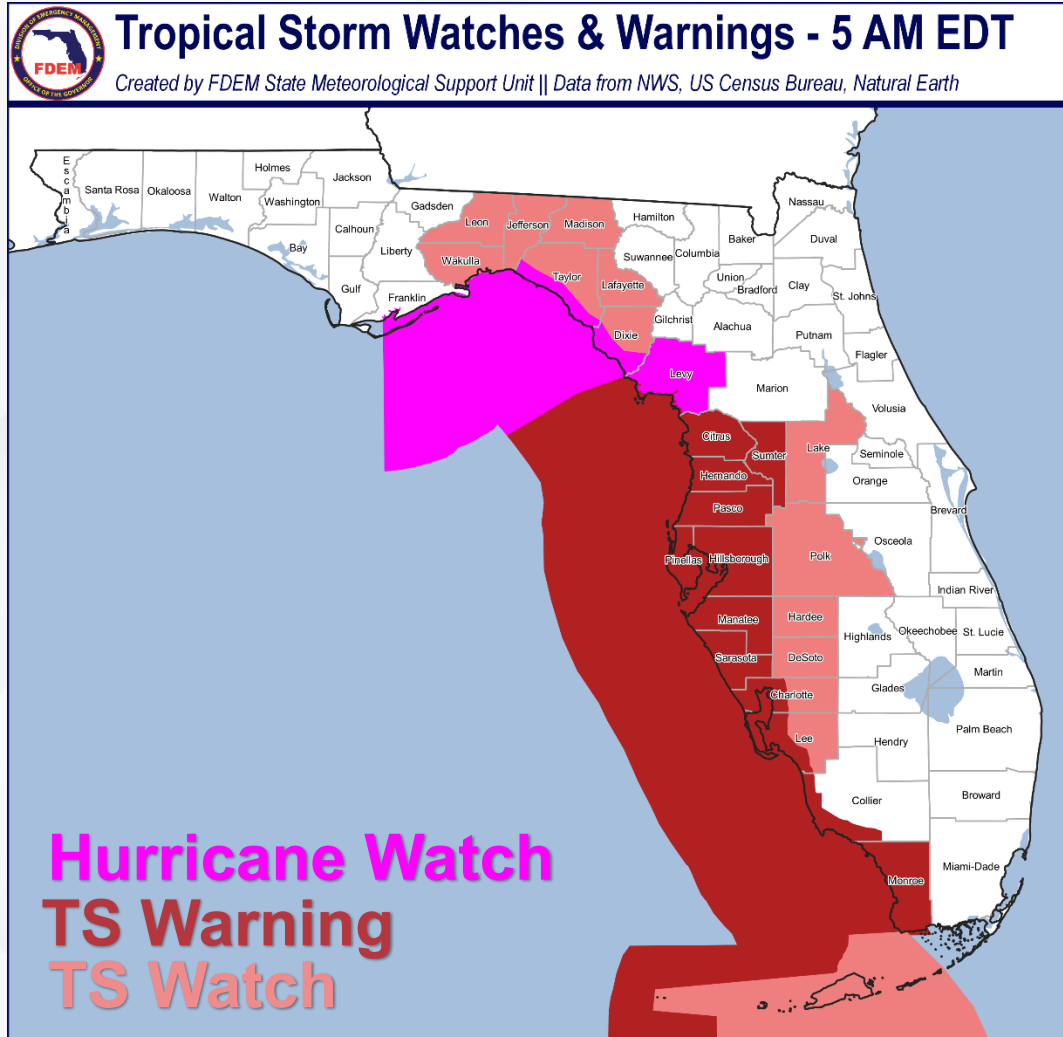
- **Location:** 170 miles SSE of Key West
- **Maximum Sustained Winds:** 30 mph
- **Current Movement:** WNW at 16 mph

A turn toward the northwest is forecast today, followed by a northward motion on Sunday and then a slower northeastward motion Sunday night and Monday. On the forecast track, the center of the depression will move across western Cuba this morning, and then move over the eastern Gulf of Mexico later today and Sunday, reaching the Florida Gulf Coast late Sunday or Monday. Maximum sustained winds are near 30 mph, and strengthening is forecast during the next couple of days, and the depression is expected to become a tropical storm later today and continue strengthening over the eastern Gulf of Mexico through the weekend.



Current Tropical Wind Watches/Warnings

As of 5:00 AM EDT Saturday



- **Hurricane Watches:**

- *Coastal Taylor, Coastal Dixie, and Levy Counties.*

- **Tropical Storm Warnings:**

- *Coastal Collier, Coastal Lee, Mainland Monroe, Sarasota, Manatee, Hillsborough, Pasco, Hernando, Citrus, and Sumter Counties.*

- **Tropical Storm Watches:**

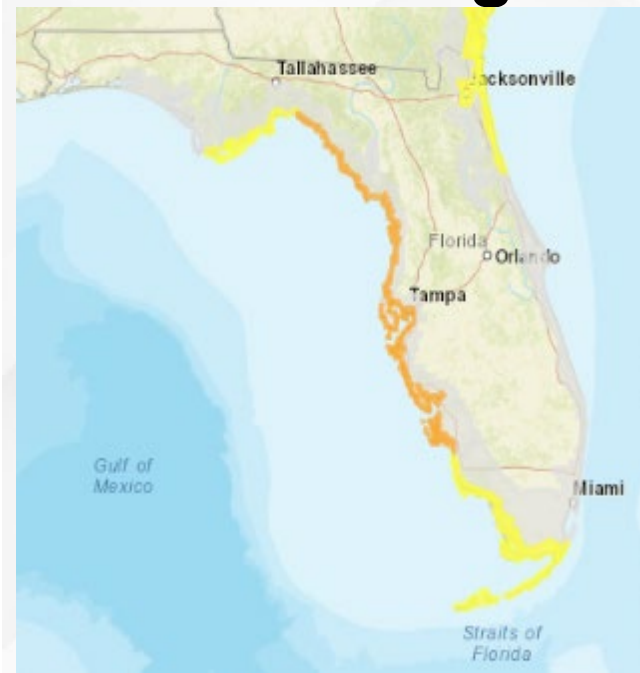
- *Florida Keys including the Coastal Collier, Coastal Lee, Mainland Monroe, Sarasota, Manatee, Hillsborough, Pasco, Hernando, Citrus, and Sumter Counties.*



Threats & Impacts

From the National Weather Service

Storm Surge



Storm Surge Threat

Potential for storm surge flooding greater than 9 ft above ground
Potential for storm surge flooding greater than 6 ft above ground
Potential for storm surge flooding greater than 3 ft above ground
Potential for storm surge flooding greater than 1 ft above ground
Little to no storm surge flooding

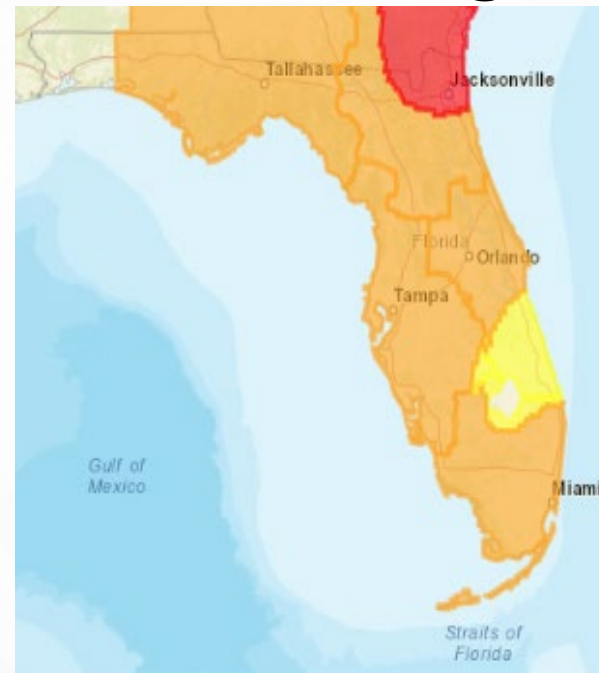
Wind



Wind Threat

Potential for wind greater than 110 mph
Potential for wind 74 to 110 mph
Potential for wind 58 to 73 mph
Potential for wind 39 to 57 mph
Wind less than 39 mph

Flooding



Flooding Rain Threat

Potential for extreme flooding rain
Potential for major flooding rain
Potential for moderate flooding rain
Potential for localized flooding rain
Little to no potential for flooding rain

Tornadoes



Tornado Threat

Potential for outbreak of tornadoes
Potential for many tornadoes
Potential for several tornadoes
Potential for a few tornadoes
Tornadoes not expected



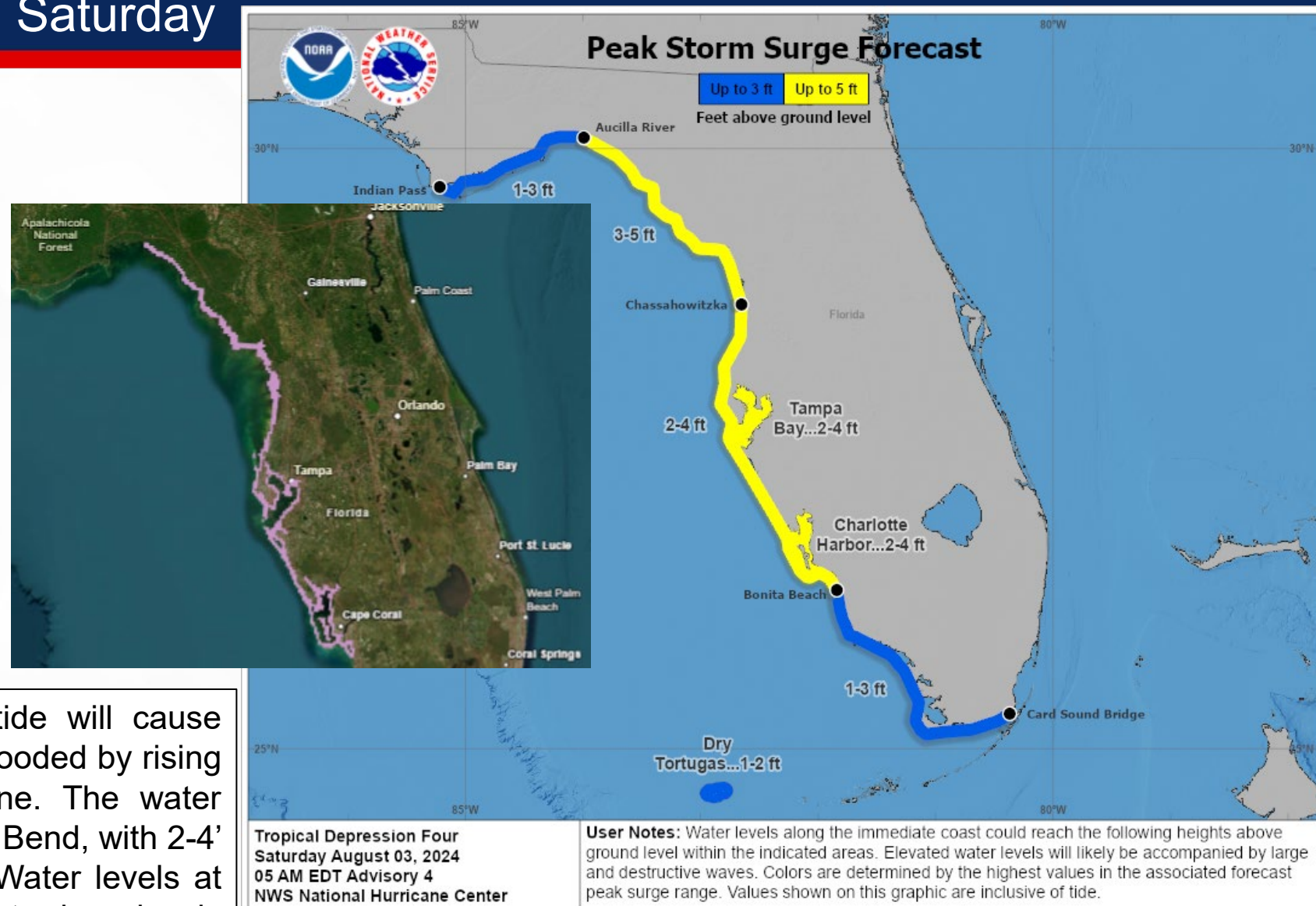
Current Storm Surge Watch

As of 5:00 AM EDT Saturday

- Storm Surge Watch:**

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

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 3-5' along the Florida Big Bend, with 2-4' possible along the Florida West Coast. Water levels at or near times of high tide will need to be closely monitored given the new moon cycle.



FOUO – For Government Official Use Only

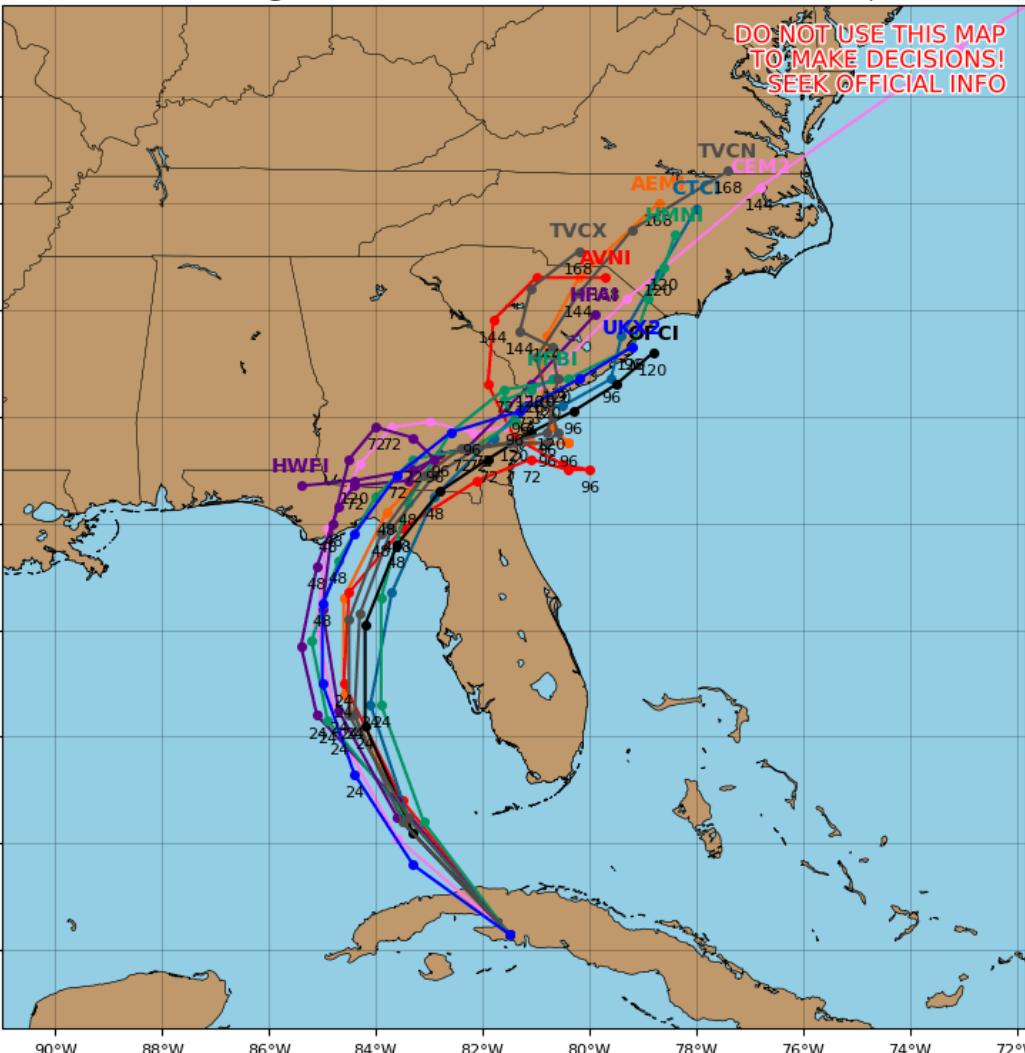


Model Forecasts – Next 5 Days

Tropical Depression Four

Tropical Depression 04L Model Track Guidance

Initialized at 12z Aug 03 2024 Levi Cowan - tropicaltidbits.com

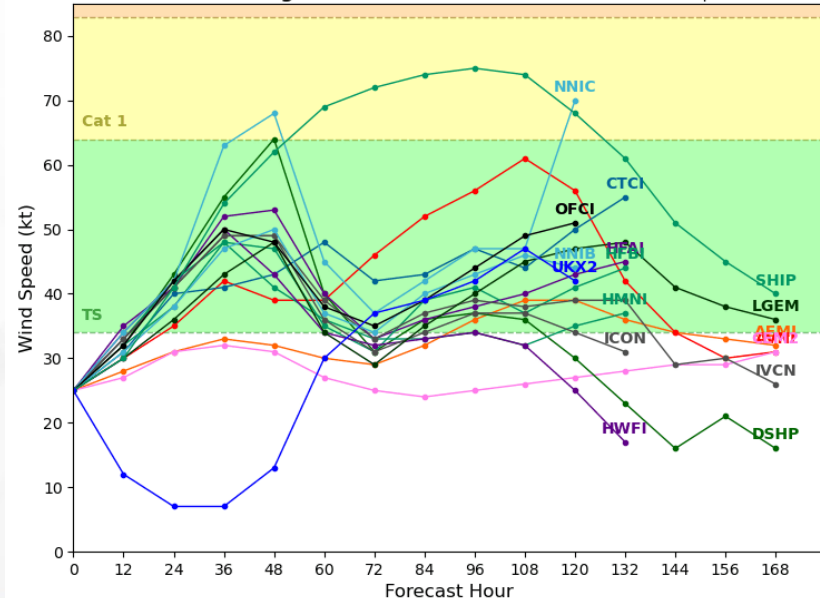


Computer forecast models continue to work toward agreement this morning as Tropical Depression Four continues to advance west-northwestward. There is decent model agreement that a turn toward to the northwest and north during the next 24 to 48 hours can be expected; however, there are still computer forecast models that maintain a more westward solution toward the Forgotten Coast. Tropical Depression Four will be approaching the eastern Florida Panhandle and Florida Big Bend, moving onshore Sunday night into Monday.

Oceanic and atmospheric conditions are favorable for additional organization and intensification through landfall. Tropical Depression Four will likely become a tropical storm within the next 24 hours over the southeastern Gulf of Mexico, and will work to attain strong tropical storm-status in the next 48 hours. This system could become a hurricane before landfall.

Tropical Depression 04L Model Intensity Guidance

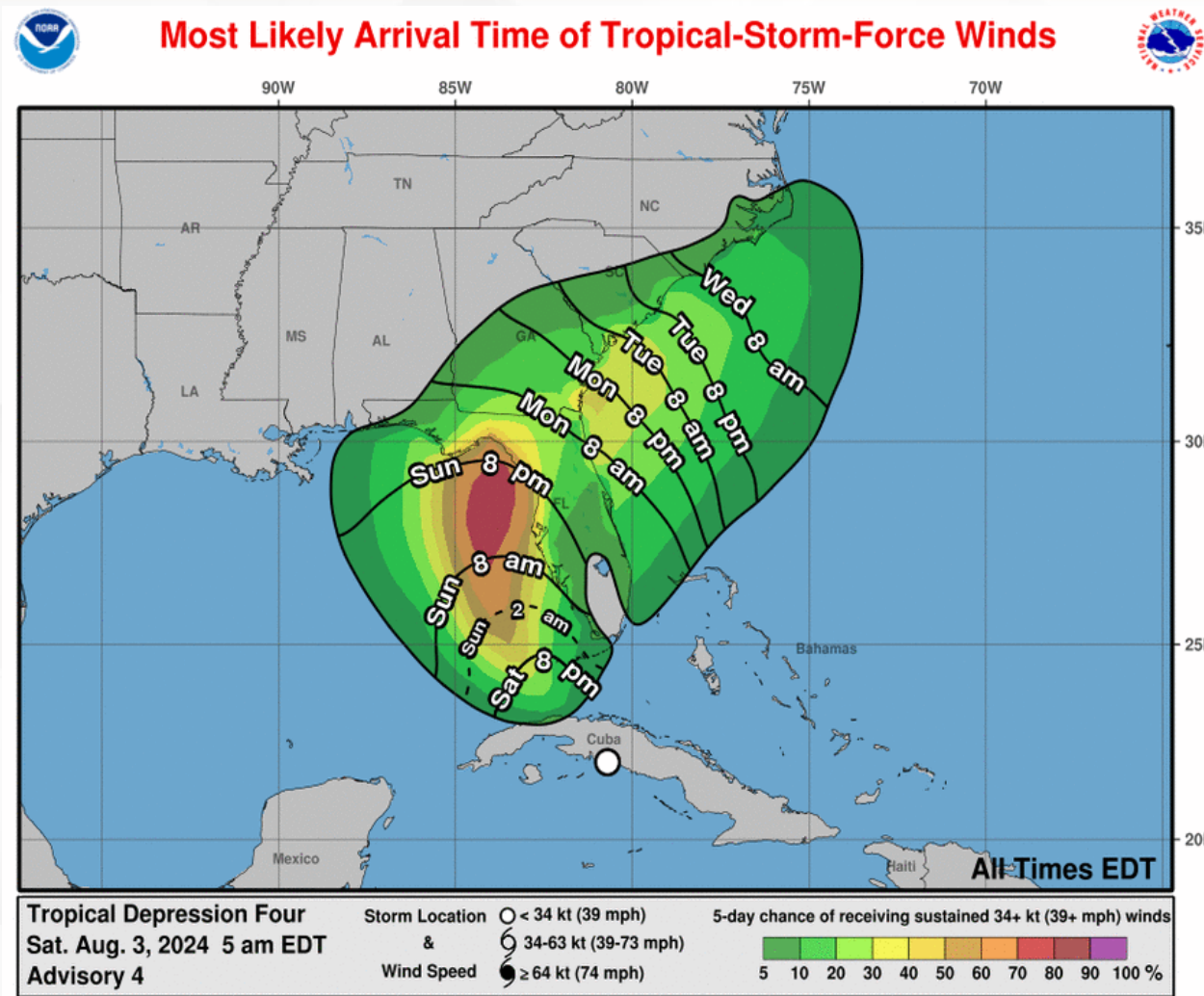
Initialized at 12z Aug 03 2024 Levi Cowan - tropicaltidbits.com





Tropical Storm-Force Wind Probabilities

Potential Tropical Cyclone Four



Tropical storm-force winds will most likely arrive to the Florida Keys this evening, spreading northward throughout the tonight. 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 this morning along the Florida Keys and southern Florida Peninsula (especially within gusty outer rainbands), tonight along the I-4 corridor, and Sunday afternoon 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	Percent Change from Previous Update
Key West	11%	-8%
Naples	18%	+1%
Fort Myers	5%	0
Tampa	46%	+7%
Cedar Key	62%	+16%
Orlando	8%	-1%
Gainesville	22%	0
Tallahassee	23%	+10%
Jacksonville	17%	-3%



Key Messages

From the National Hurricane Center (NHC)



Key Messages for Tropical Depression Four Advisory 4: 5:00 AM EDT Sat Aug 03, 2024

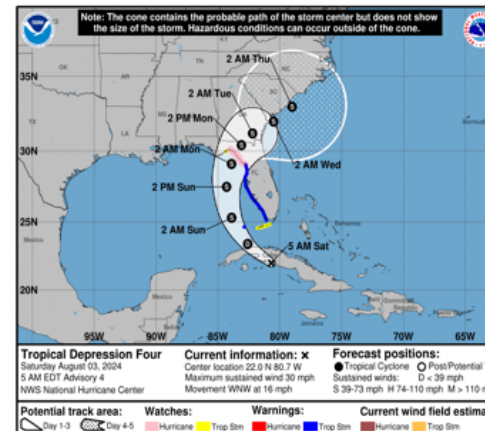


1. Heavy rainfall may result in locally considerable flash and urban flooding across portions of Florida and the coastal areas of the Southeast U.S. this weekend through Wednesday. Isolated river flooding will also be possible.

2. A Hurricane Watch has been issued for portions of west-central Florida and the Big Bend region, where hurricane conditions are possible late Sunday. Tropical storm conditions are expected farther south along Florida's west coast, including the Tampa Bay area, and across the Dry Tortugas where Tropical Storm Warnings are 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 Aucilla 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 today.

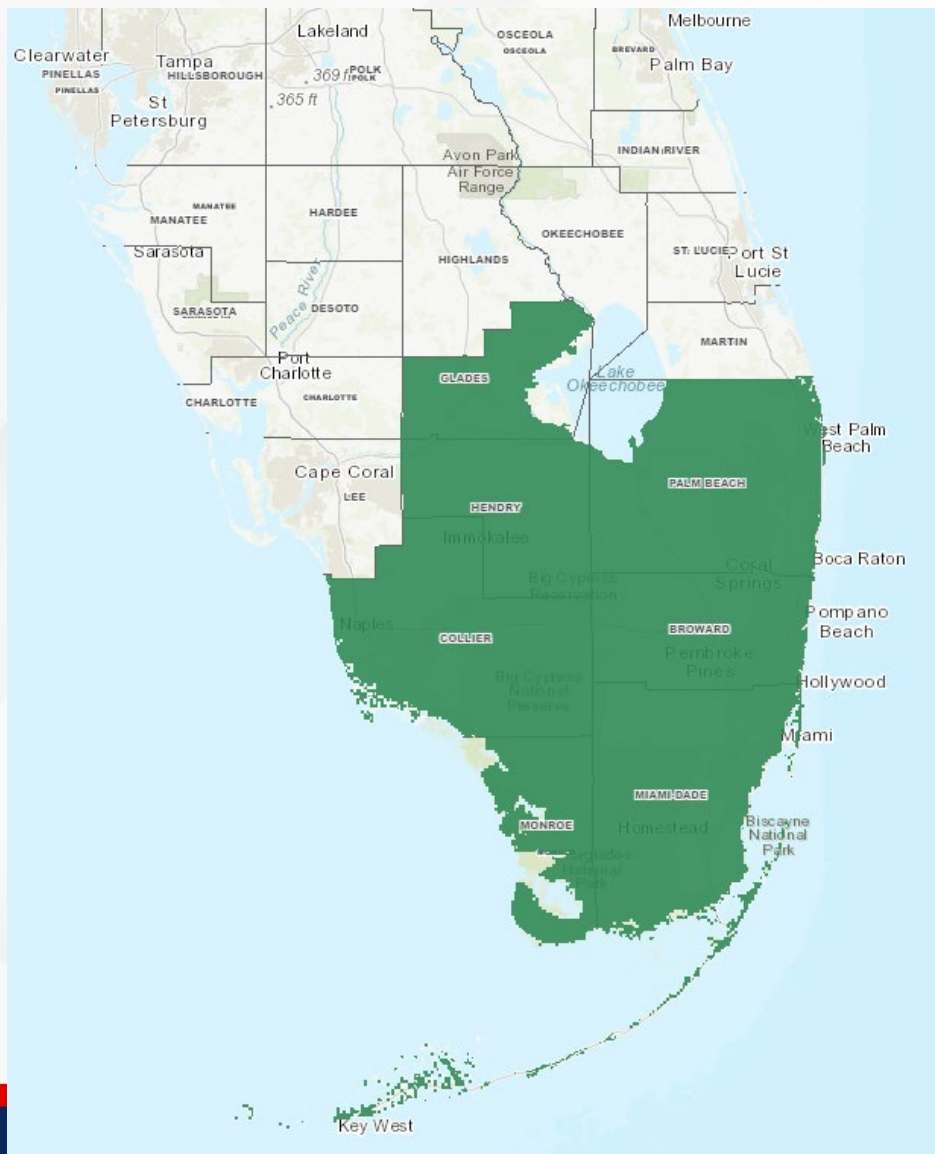


For more information go to hurricanes.gov



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



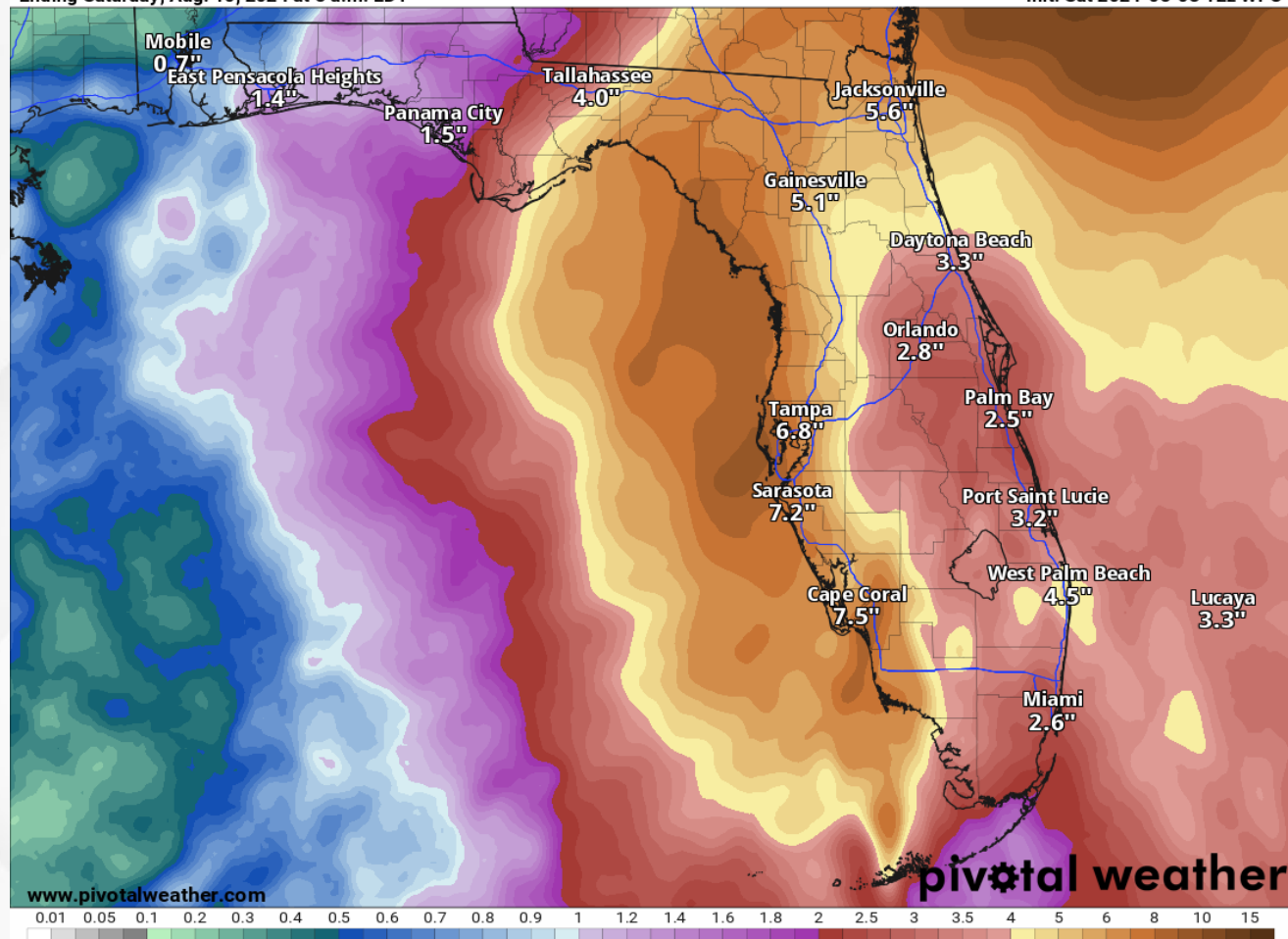
Rainfall Totals – Next 7 Days

From the Weather Prediction Center (WPC)

7-Day Precipitation (in)

Ending Saturday, Aug. 10, 2024 at 8 a.m. EDT

Init: Sat 2024-08-03 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.

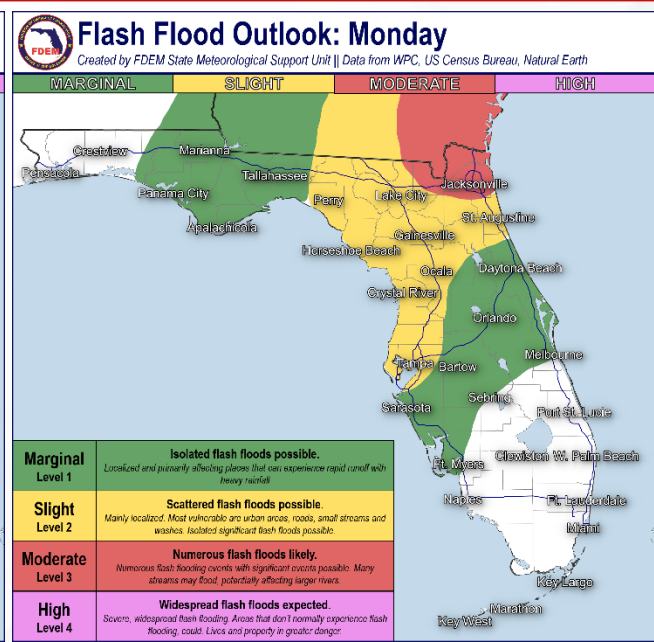
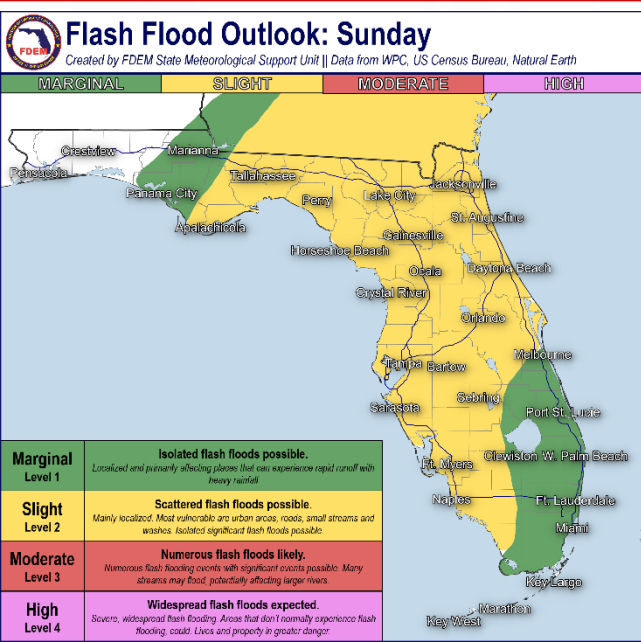
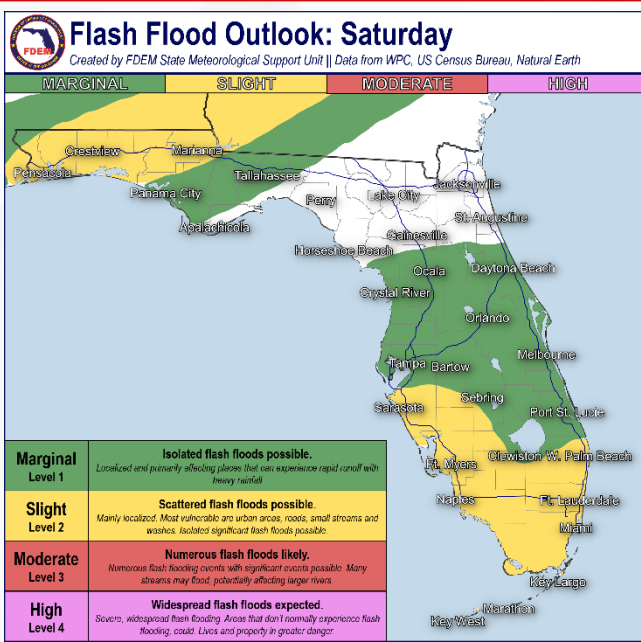
The heaviest swath of rainfall within tropical systems will largely occur along and to the 'right' of the track.

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)



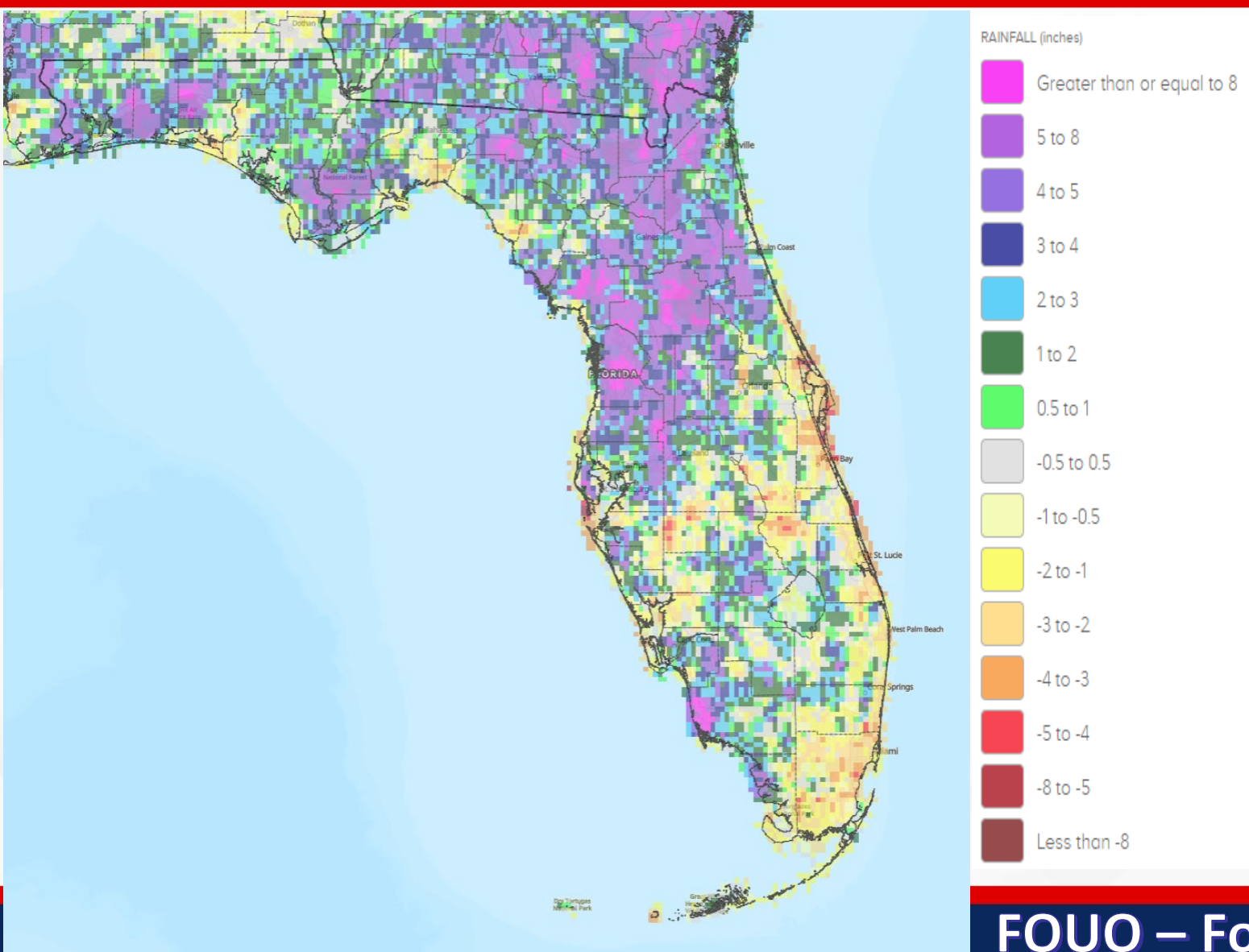
A **Slight Risk (level 2 of 4)** for Flash Flooding is maintained across the southern Peninsula, becoming more widespread on Sunday as Tropical Depression Four approaches the region. The Weather Prediction Center has introduced a **Moderate (level 3 of 4) Risk** across Northeast Florida into the eastern Suwannee River Valley on Monday. Additional rounds of heavy rainfall can be expected into early next week as this system works to gradually moves northeastward further inland.

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

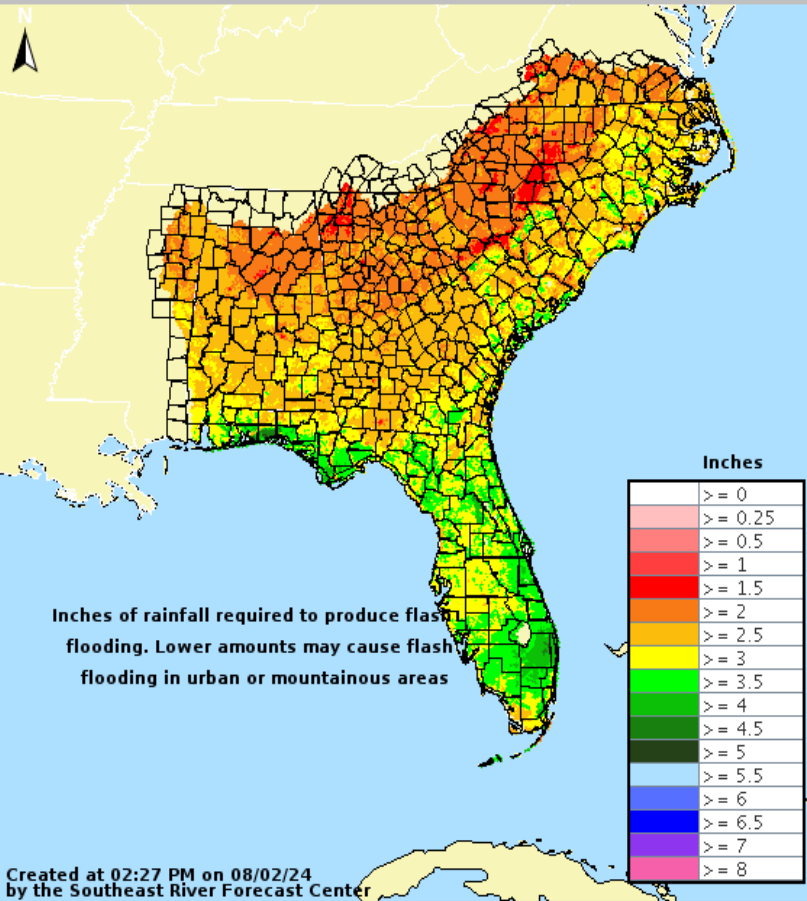
How Much Rain is Needed to Create Flash Flooding?



1-hr Flash Flood Guidance

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



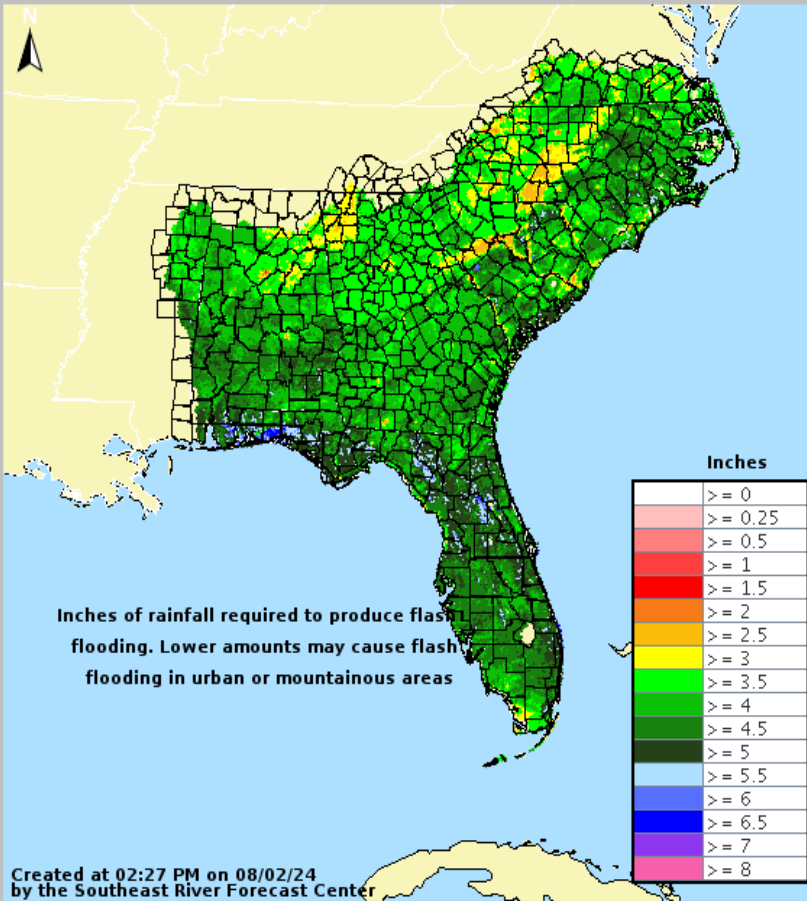




6-hr Flash Flood Guidance

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





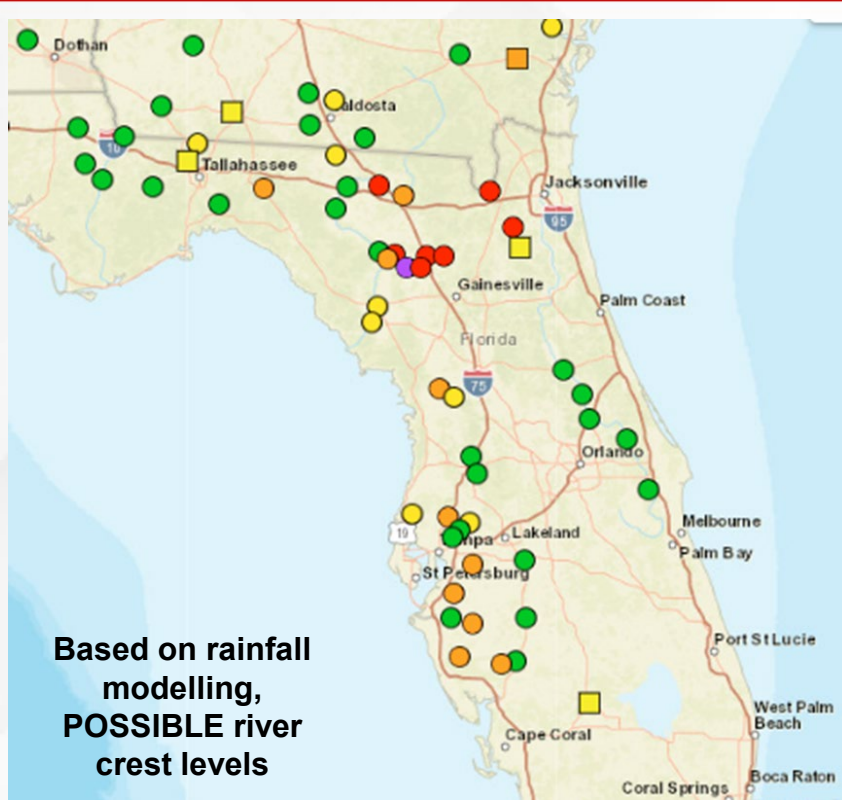
Along portions of the Florida Panhandle, Nature Coast, and Southwest Florida, it will only take about 1-2" within 1 hour or 3-4" within 6 hours to produce flash flooding due to already saturated grounds.

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

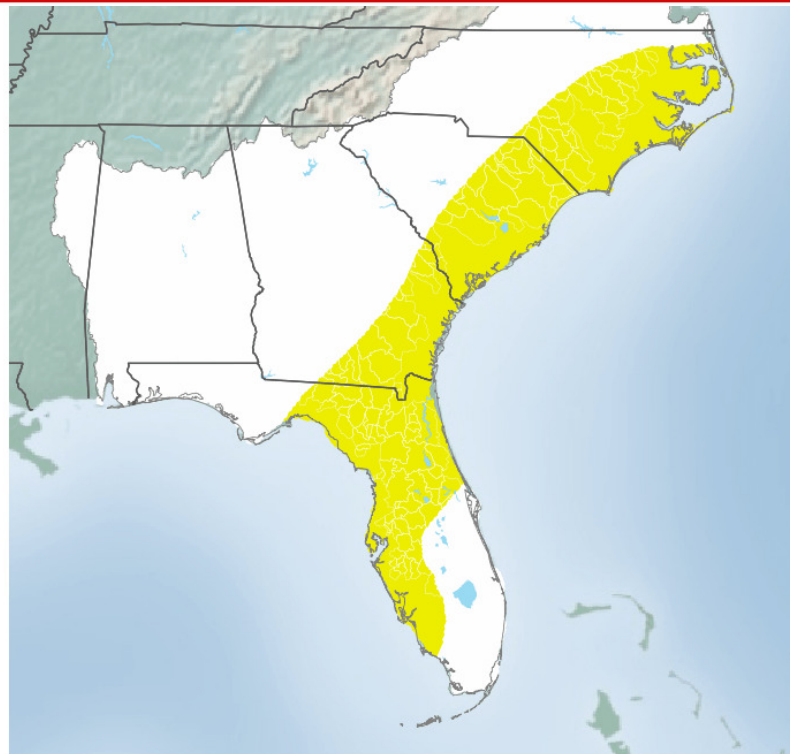


Riverine Flooding

Chance of River Flooding Based on Range of Forecast Rainfall



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



National Weather Service
Peachtree City, GA
08/02/2024 10:51 AM EDT

Follow
weather



Significant River Flooding Not
Expected



Significant River Flooding
Possible

Weather conditions indicate, without certainty that significant river flooding could occur

Significant River Flooding impacts include road hazards and damage to residential, commercial, Evacuation may be required. Flash flooding or Minor river flooding are NOT included in this outlo forecast frequently for the most up-to-date information for your area.

Shaded areas are the forecast region of the Southeast River Forecast Center



Significant River Flooding Not
Expected



Significant River Flooding
Possible

Weather conditions indicate, without certainty that significant river flooding



Significant River Flooding Likely
Weather conditions indicate that significant river flood conditions can be expected



Significant River Flooding
Occurring

Significant river flooding is occurring at this time

Rivers, creeks/streams, and waterways across North Florida are already running above normal for this time of year. Computer forecast models are indicating the potential for **minor to moderate flooding** along several mainstems and branches including the Suwannee, Santa Fe, Withlacoochee, Aucilla, Myakka, and Alafia.

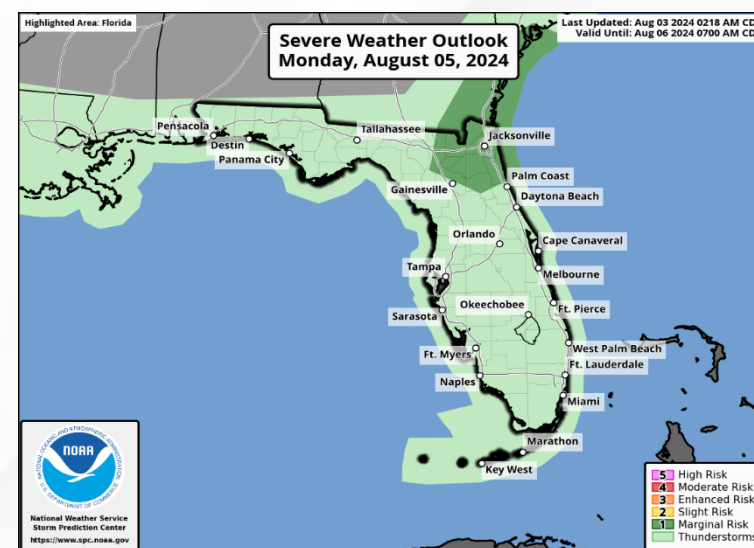
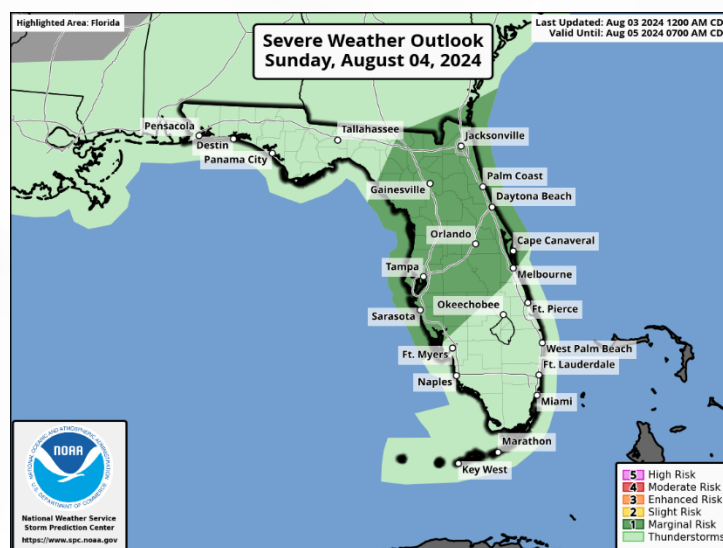
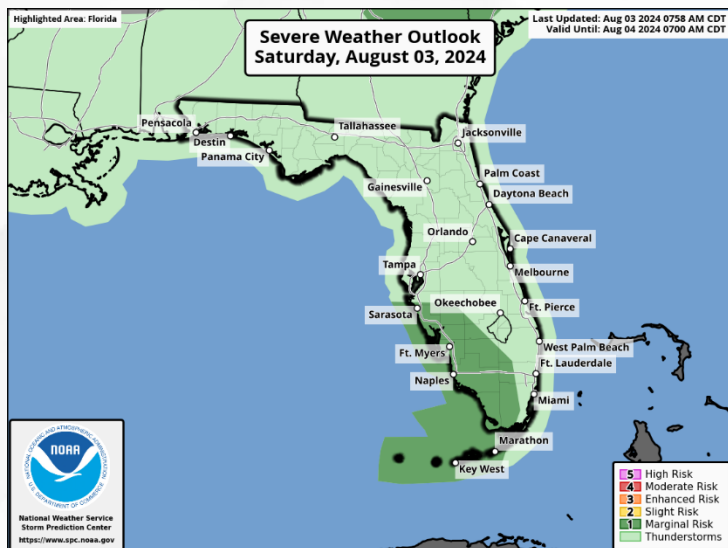
Riverine flooding will be closely tied to which basin receives the greatest swath of rainfall. Trends will continue to be monitored.

FOUO – For Government Official Use Only



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** across the Florida Keys and Southwest Florida today into tonight, expanding further north throughout the Florida Peninsula on Sunday. The greatest tropical tornado threat will exist along and to the east of the eventual path.

Tornado Watches and Warnings will be issued as conditions warrant.



Summary

FOUO – For Government Official Use Only

Tropical Depression Four (TD Four):

- As of 8:00 AM EDT, Tropical Depression Four is located about 170 miles southeast of Key West, Florida and is moving west-northwest at 16 mph.
- A turn toward the northwest is forecast today, followed by a northward motion on Sunday and then a slower northeastward motion Sunday night and Monday.
- On the forecast track, the center of the depression will move across western Cuba this morning, and then move over the eastern Gulf of Mexico later today and Sunday, reaching the Florida Gulf Coast late Sunday or Monday.
- Maximum sustained winds are near 30 mph, and strengthening is forecast during the next couple of days, and the depression is expected to become a tropical storm later today and continue strengthening over the eastern Gulf of Mexico through the weekend.
- The next name on the list is Debby (DEH-bee).

Florida Outlook:

- **Hurricane Watches** have been issued for Coastal Taylor, Coastal Dixie, and Levy Counties.
- **Tropical Storm Warnings** have been issued for Coastal Collier, Coastal Lee, Mainland Monroe, Sarasota, Manatee, Hillsborough, Pasco, Hernando, Citrus, and Sumter Counties.
- **Tropical Storm Watches** have been issued for the Florida Keys including the Coastal Collier, Coastal Lee, Mainland Monroe, Sarasota, Manatee, Hillsborough, Pasco, Hernando, Citrus, and Sumter Counties.
- **Storm Surge Watches** are in effect from Bonita Beach north to the mouth of the Aucilla River (Coastal Lee, Charlotte (including Charlotte Harbor), Sarasota, Manatee, Hillsborough (including Tampa Bay), Pinellas, Pasco, Hernando, Citrus, Levy, Dixie, and Taylor Counties).
- A **Coastal Flood Watch** has been issued for the Florida Keys (Coastal Monroe). **Coastal Flood Advisories** are in effect along portions of the coastal Southern Peninsula and along the Florida Keys as minor coastal flooding is expected (Coastal Collier, Monroe, and Miami-Dade).
- 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. Tropical Rainfall totals up to 4-8" are forecast 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.
 - Given already saturated soils, the Weather Prediction Center (WPC) has introduced a **Slight Risk (level 2 of 4) for Flash Flooding** across South and West-Central Florida and the Keys and across western portions of the Florida Panhandle today with a **Marginal Risk (level 1 of 4)** reaching north of the I-4 corridor and into the Big Bend. 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 across Southwest Florida and the Keys today, North and Central Florida Sunday, and along Northeast Florida Monday. 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 this afternoon. For the latest information, please visit the National Hurricane Center website.



Tropical Update

FOUO – For Government Official Use Only



Created by:

Caitlyn Gillespie, Deputy State Meteorologist

Caitlyn.Gillespie@em.myflorida.com

State Meteorological Support Unit

Florida Division of Emergency Management

Users wishing to subscribe (approval pending) to this distribution list, register at:

https://public.govdelivery.com/accounts/FLDEM/subscriber/new?topic_id=SERT_Met_Tropics

Other reports available for subscription are available at:

<https://public.govdelivery.com/accounts/FLDEM/subscriber/new?preferences=true>