



# Tropical Update



12:30 PM EDT

Monday, August 5, 2024

**Debby Has Weakened To A Tropical Storm As It Continues to Move Across North Florida; Life Threatening Storm Surge and Major Flooding Expected**

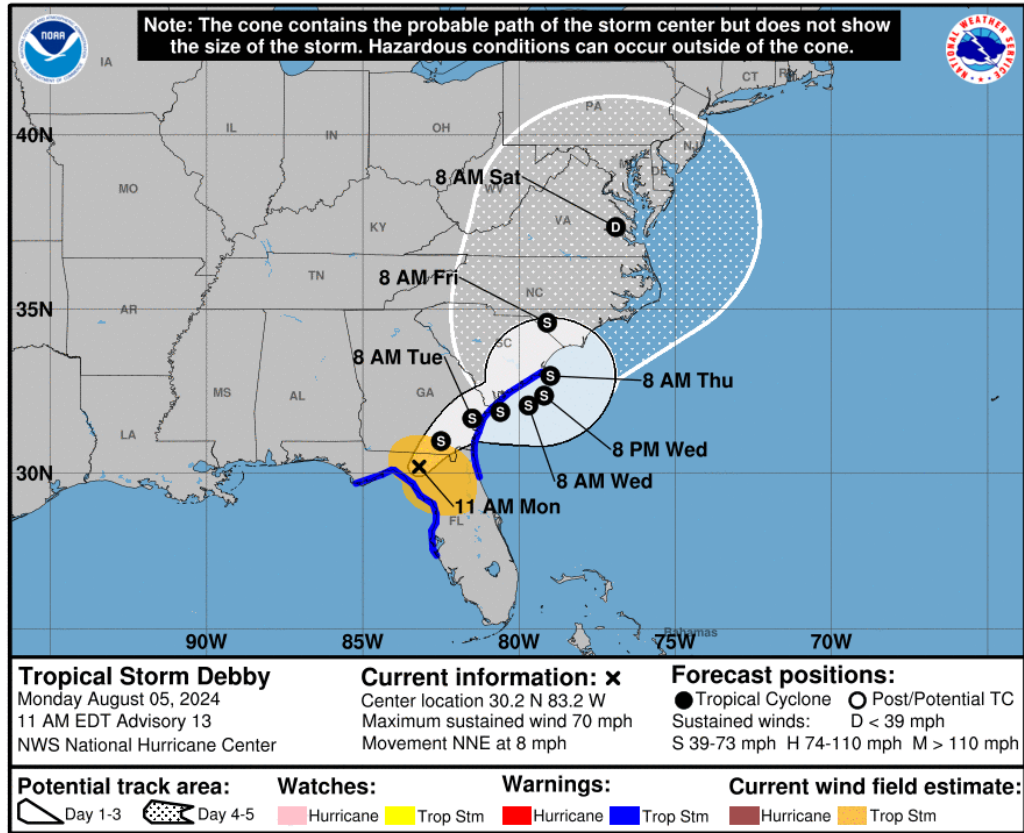
This update is intended for government and emergency response officials, and is provided for informational and situational awareness purposes only. Forecast conditions are subject to change based on a variety of environmental factors. For additional information, or for any life safety concerns with an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



# Tropical Storm Debby

11:00 AM EDT Monday: Florida Threats & Changes Since Last Packet

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



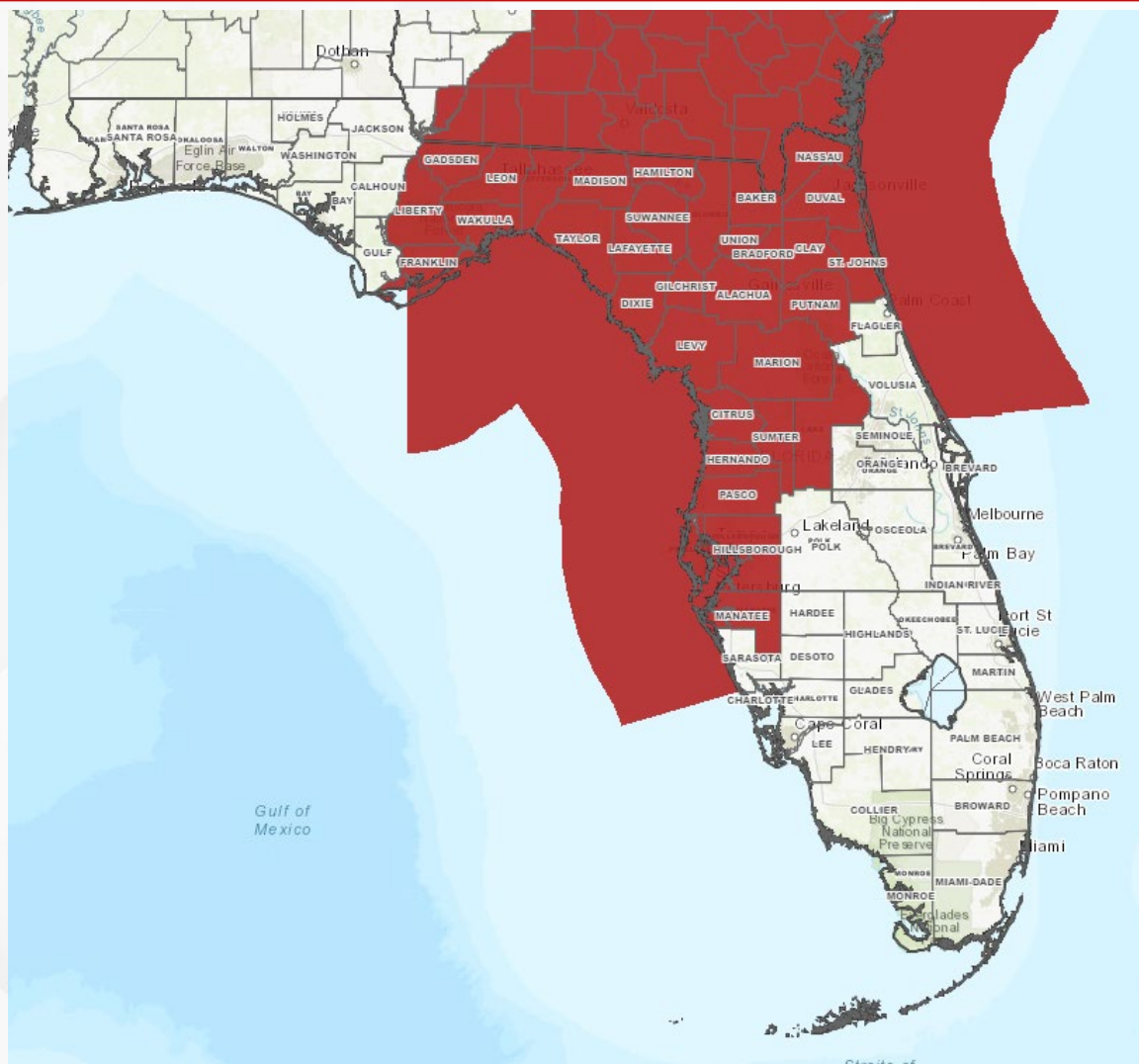
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**Overview/Recent Changes:** Around 7:00 AM EDT on Monday, August 5, 2024, Hurricane Debby made landfall as a Category 1 hurricane near Steinhatchee, Florida. As of 11:00 AM EDT on Monday, August 5, 2024, Debby has weakened to a tropical storm and is located about 35 miles west of Lake City, Florida, moving north-northeastward at 8 mph. A gradual decrease in forward speed with a turn toward the east is expected later today and Tuesday. On the forecast track, the center will move across southeastern Georgia tonight and Tuesday, and move offshore of the South Carolina coast by late Tuesday and Wednesday. Maximum sustained winds have decreased to near 70 mph with higher gusts, and additional weakening is forecast during the next 48 hours. There are no longer any Hurricanes Watches and Warnings, Tropical Storm Watches, or Storm Surge Watches in effect. Tropical Storm Warnings remains in effect across the Big Bend, Northern Peninsula, and along West-Central Florida. Storm Surge Warnings remain in effect from the middle of Longboat Key northward to the Ochlockonee River as onshore winds and the incoming high tide cycle will lead to storm surge and increasing tides to cause normally dry ground along the coastlines to become flooded with rising water moving onshore.



# Current Wind Watches/Warnings

Tropical Storm Debby – As of 11:00 AM EDT



- **Tropical Storm Warnings:**

- ***Gadsden, Liberty, Franklin, Leon, Wakulla, Jefferson, Madison, Taylor, Hamilton, Suwannee, Lafayette, Dixie, Levy, Citrus, Hernando, Pasco, Pinellas, Hillsborough, Manatee, Sumter, Lake, Marion, Alachua, Gilchrist, Columbia, Union, Baker, Nassau, Duval, Bradford, Clay, St. Johns, and Putnam Counties.***





# Threats & Impacts

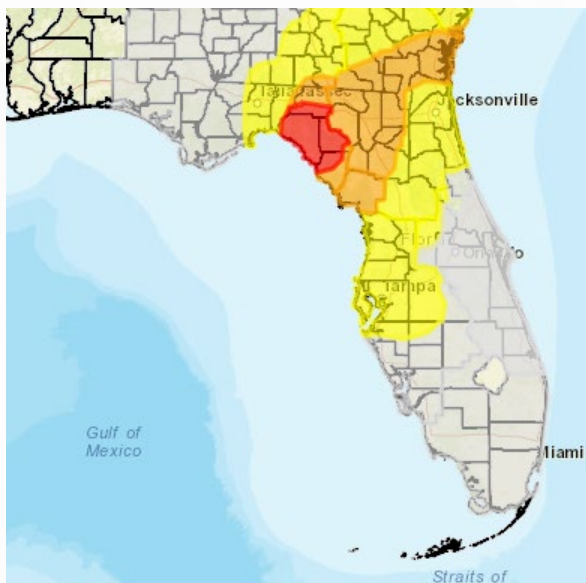
## From the National Weather Service

### Storm Surge



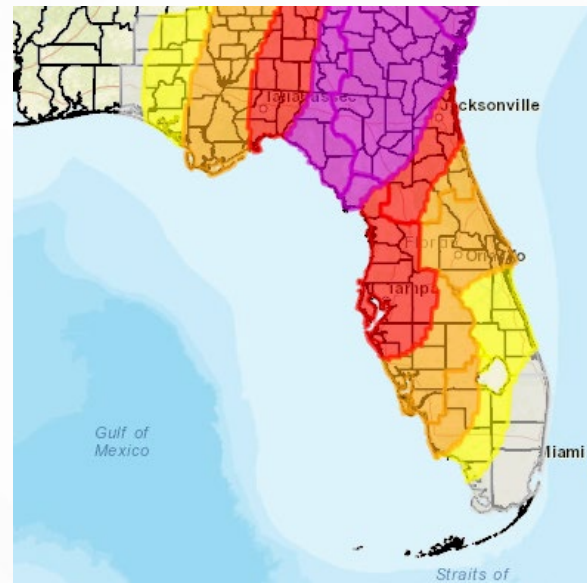
- Widespread deep inundation, with storm surge flooding greatly accentuated by powerful battering waves. Structural damage to buildings, with many washing away. Damage greatly compounded from considerable floating debris. Locations may be uninhabitable for an extended period.
- Near-shore escape routes and secondary roads washed out or severely flooded. Flood control systems and barriers may become stressed.
- Extreme beach erosion. New shoreline cuts possible.
- Massive damage to marinas, docks, boardwalks, and piers. Numerous small craft broken away from moorings with many lifted onshore and stranded.

### Wind



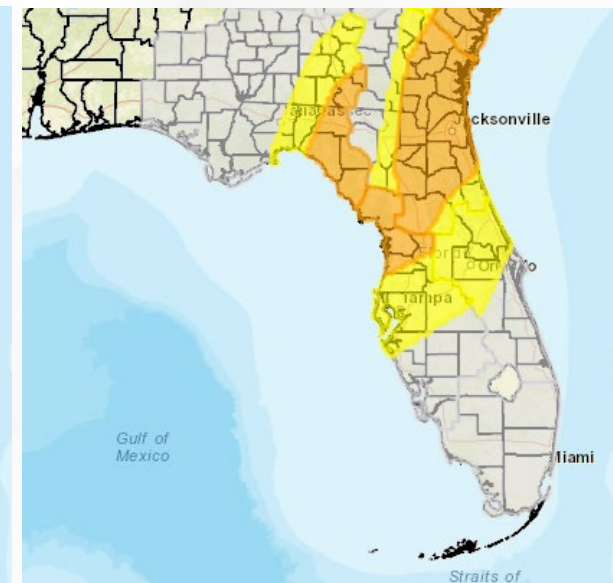
- Considerable roof damage to sturdy buildings, with some having window, door, and garage door failures leading to structural damage. Mobile homes severely damaged, with some destroyed. Damage accentuated by airborne projectiles. Locations may be uninhabitable for weeks.
- Many large trees snapped or uprooted along with fences and roadway signs blown over.
- Some roads impassable from large debris, and more within urban or heavily wooded places. Several bridges, causeways, and access routes impassable.
- Large areas with power and communications outages.

### Flooding



- Extreme rainfall flooding may prompt numerous evacuations and rescues.
- Rivers and tributaries may overwhelmingly overflow their banks in many places with deep moving water. Small streams, creeks, and ditches may become raging rivers. Flood control systems and barriers may become stressed.
- Flood waters can enter numerous structures within multiple communities, some structures becoming uninhabitable or washed away. Numerous places where flood waters may cover escape routes. Streets and parking lots become rivers of raging water with underpasses submerged. Driving conditions become very dangerous. Numerous road and bridge closures with some weakened or washed out.

### Tornadoes



- The occurrence of scattered tornadoes can hinder the execution of emergency plans during tropical events.
- Several places may experience tornado damage with a few spots of considerable damage, power loss, and communications failures.
- Locations could realize roofs torn off frame houses, mobile homes demolished, boxcars overturned, large trees snapped or uprooted, vehicles tumbled, and small boats tossed about. Dangerous projectiles can add to the toll.



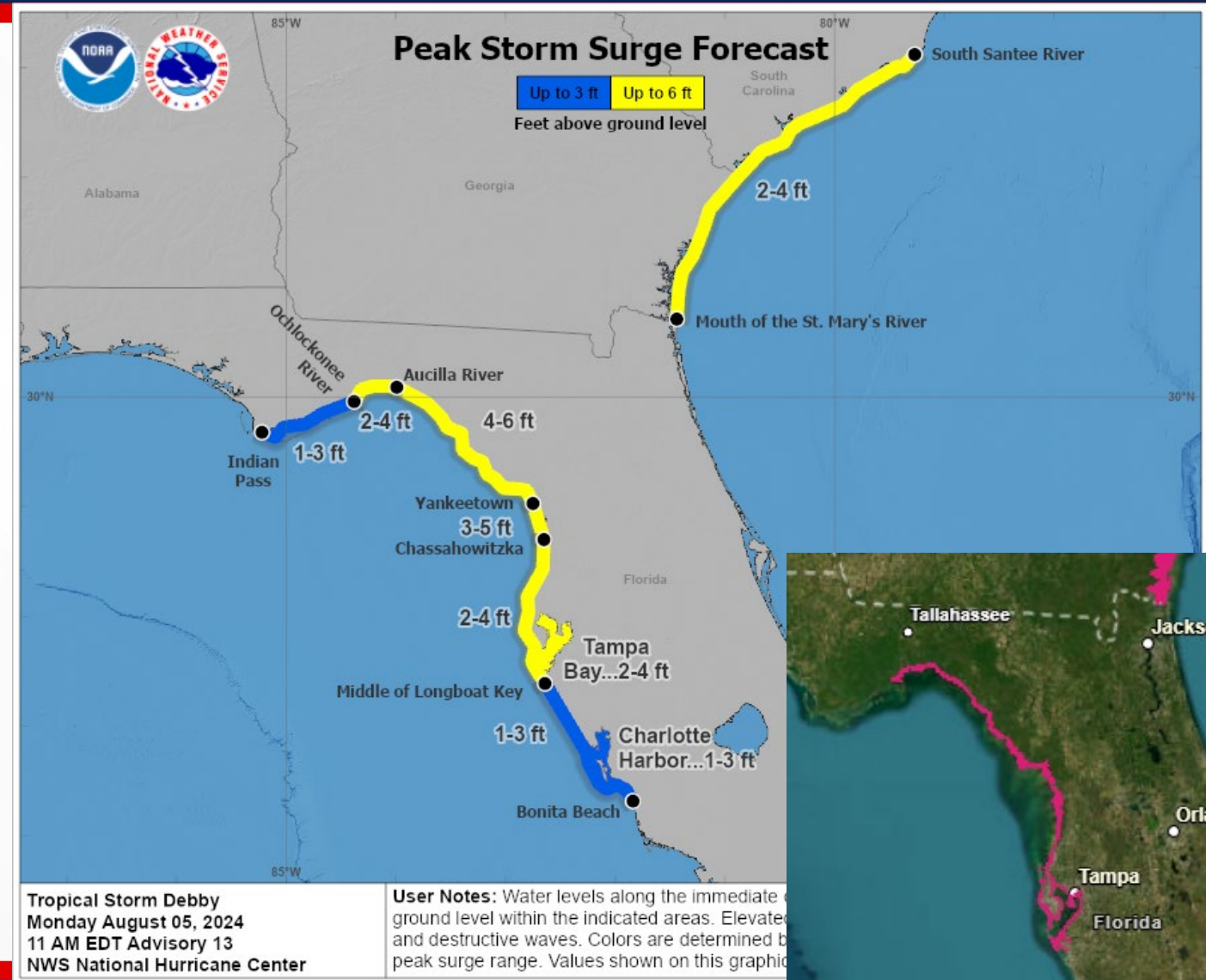
# Current Storm Surge Watch

As of 11:00 AM EDT Sunday

- Storm Surge Warning:**

*Coastal Manatee, Coastal Hillsborough (including Tampa Bay), Coastal Pinellas, Coastal Pasco, Coastal Hernando, Coastal Citrus, Coastal Levy, Coastal Dixie, Coastal Taylor, Coastal Jefferson, and Coastal Wakulla Counties.*

Onshore winds and the incoming high tide cycle will lead to storm surge and increasing tides to cause normally dry ground along the coastlines to become flooded with rising water moving onshore. Storm surge of **4-6'** will be possible from the Aucilla River to Yankeetown. West of the Ochlockonee River, storm surge could reach upwards of **4-6'**. 2-4' peak surge is still expected from the Ochlockonee River to the Aucilla River and from Chassahowitzka to the middle of Longboat Key (including Tampa Bay). Tampa Bay to Charlotte Harbor and Indian Pass to the Ochlockonee River will continue to see storm surge near **1-3'**.



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# Key Messages

## From the National Hurricane Center (NHC)



### Key Messages for Tropical Storm Debby Advisory 13: 11:00 AM EDT Mon Aug 05, 2024

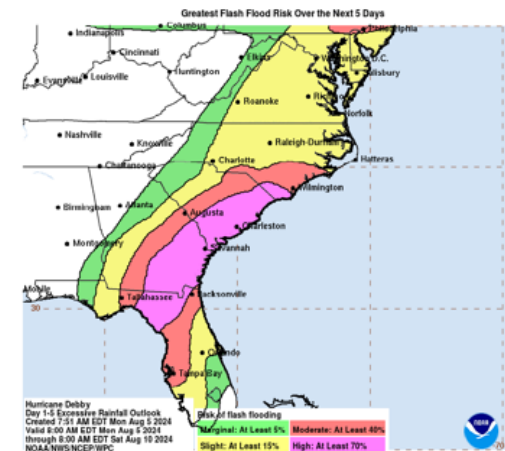
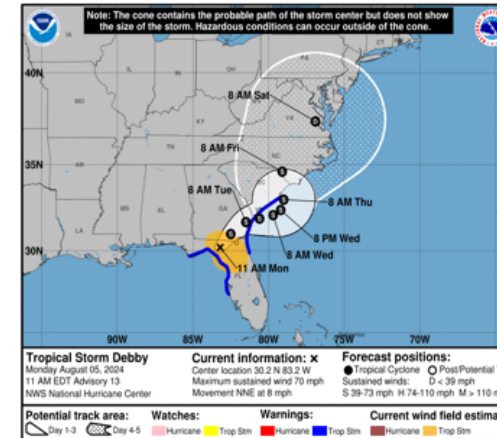


1. Potentially historic heavy rainfall across southeast Georgia and the coastal plain of South Carolina through Saturday morning will likely result in areas of catastrophic flooding. Heavy rainfall will likely result in considerable flooding impacts from portions of central and northern Florida and across portions of central and northeast North Carolina through Saturday morning.

2. Dangerous storm surge inundation will continue in the Storm Surge warning area along the Gulf Coast of Florida, including the Tampa Bay area, through this afternoon.

3. Tropical storm conditions will continue along portions of the Gulf Coast of Florida today within the Tropical Storm warning area.

4. Dangerous storm surge and tropical storm conditions will spread northward along the southeast U.S. coast from northeastern Florida to North Carolina through the middle of the week. Storm Surge and Tropical Storm warnings have been issued for portions of these areas, and additional watches and warnings will likely be issued later today. Residents in the Storm Surge Warning area should follow any advice given by local officials.



For more information go to [hurricanes.gov](https://hurricanes.gov)



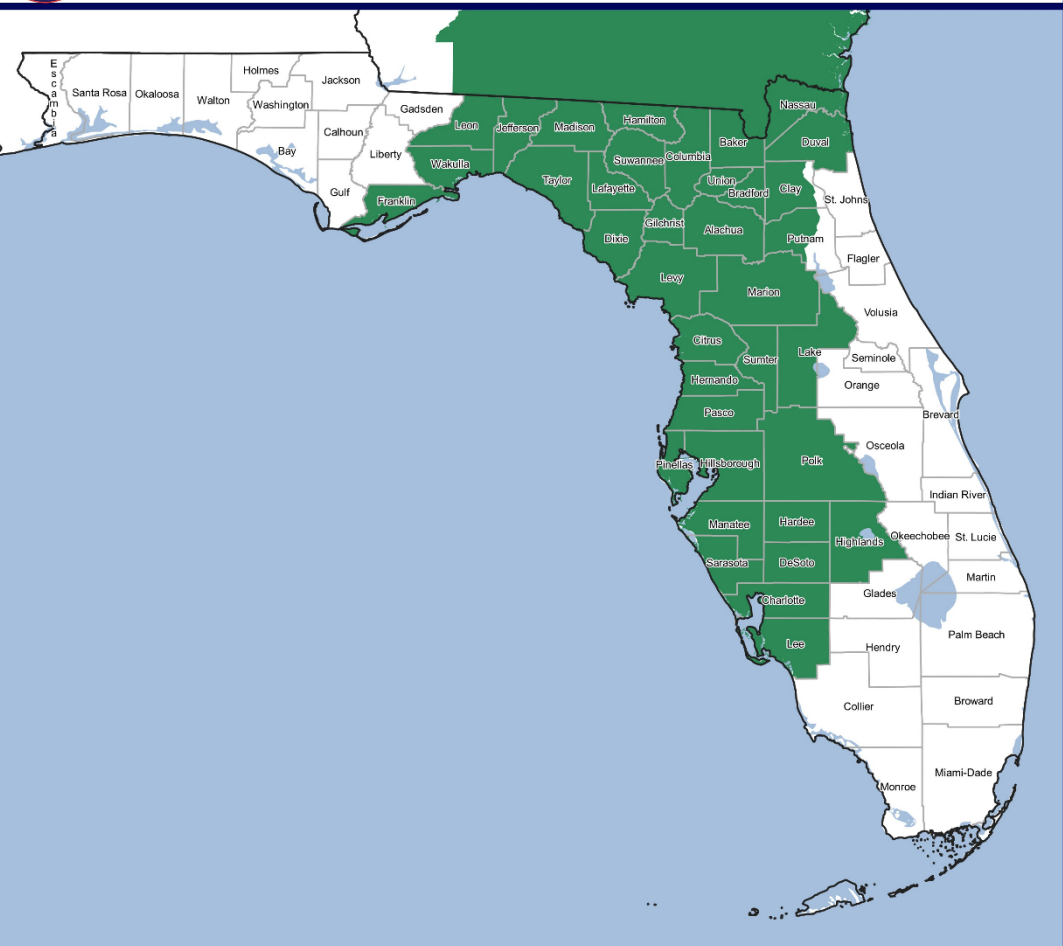
# Flood Watches in Effect

## From the National Weather Service



### Flood Watch: Friday

Created by FDEM State Meteorological Support Unit || Data from NWS, US Census Bureau, Natural Earth



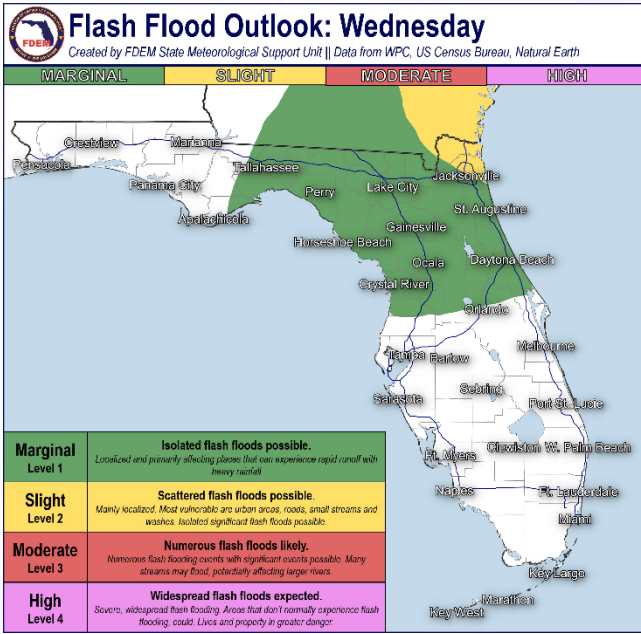
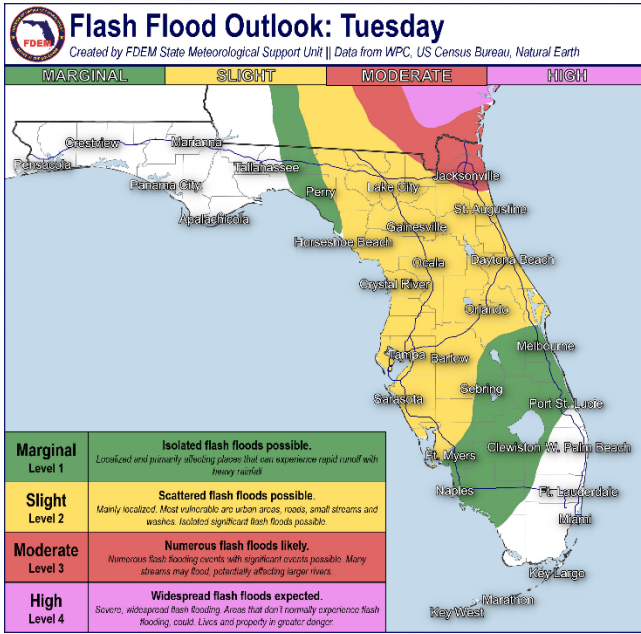
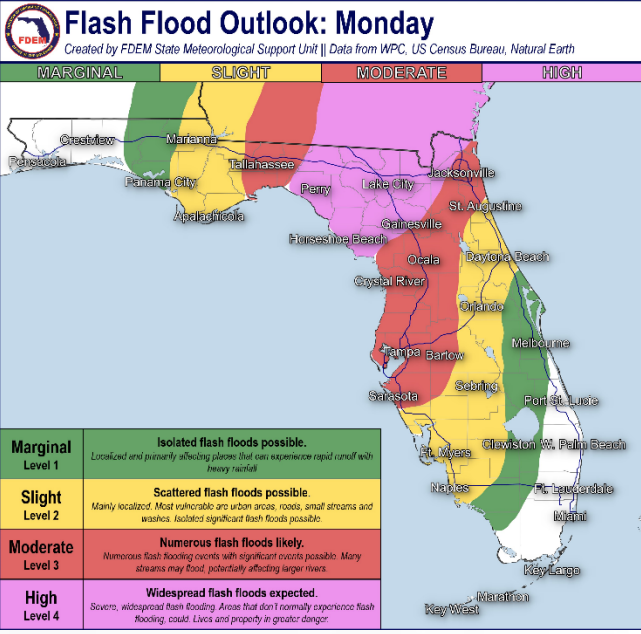
**Flood Watches** extend throughout the western Peninsula through this evening (8:00 PM EDT), Florida Big Bend through late Tuesday morning (11:00 AM EDT) and Northeast Florida through Tuesday evening (8:00 PM EDT) are multiple rounds of heavy rainfall associated with Hurricane Debby will bring instances of flooding. The following counties are under Flood Watches:

- Alachua
- Baker
- Bradford
- Charlotte
- Citrus
- Western Clay
- Columbia
- DeSoto
- Dixie
- Duval
- Franklin
- Gilchrist
- Hamilton
- Hardee
- Hernando
- Highlands
- Hillsborough
- Jefferson
- Lafayette
- Lee
- Leon
- Levy
- Madison
- Manatee
- Marion
- Nassau
- Pasco
- Pinellas
- Polk
- Western Putnam
- Taylor
- Union
- Wakulla
- Lake












# Flash Flood Outlooks – Monday through Wednesday

## From the Weather Prediction Center (WPC)



The Weather Prediction Center (WPC) is outlooking a rare **High Risk (level 4 of 4) for Flash Flooding** across the eastern Big Bend, Suwannee Valley, and portions of Northeast Florida today with a **Slight to Moderate Risk (level 2-3 of 4)** expanding across the Big Bend and along the northern Peninsula southward to the I-4 Corridor and extending into Southwest Florida as Hurricane Debby is forecast to move inland along the Florida Big Bend, nearly stalling and bringing numerous rounds of heavy rainfall. A **Slight Risk** is maintained across the Northern and Central Peninsula, extending into southwest Florida Tuesday with a **Moderate Risk** along far Northeastern Florida as Debby moves northeastward and eastward across North Florida towards southeast Georgia.

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>				
Flash flooding near me?	NO Flash Flooding			
				
WEATHER PREDICTION CENTER				

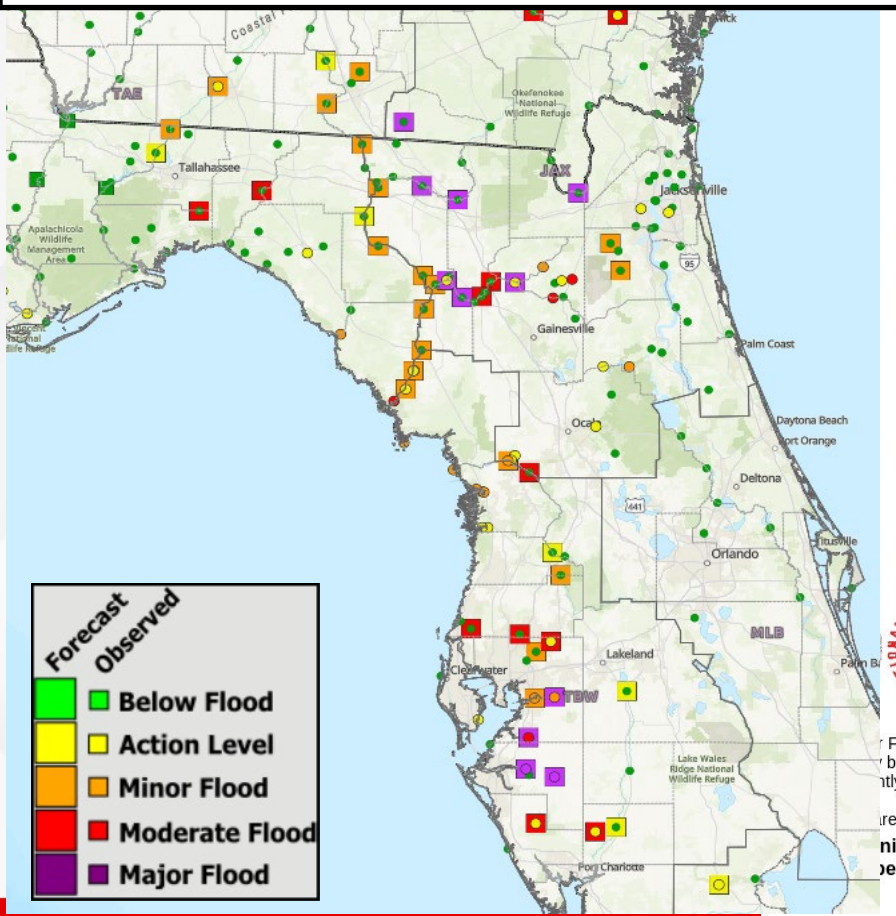




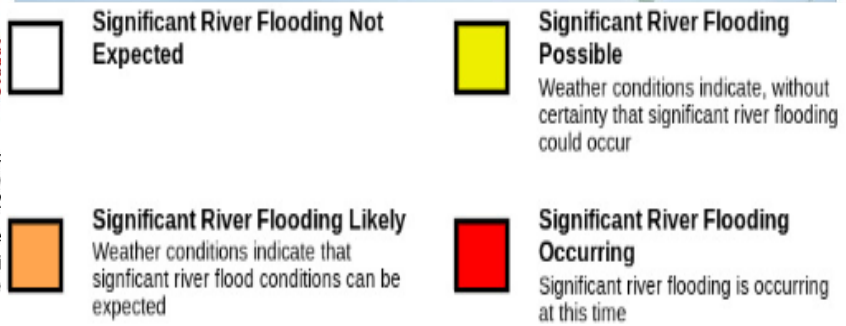
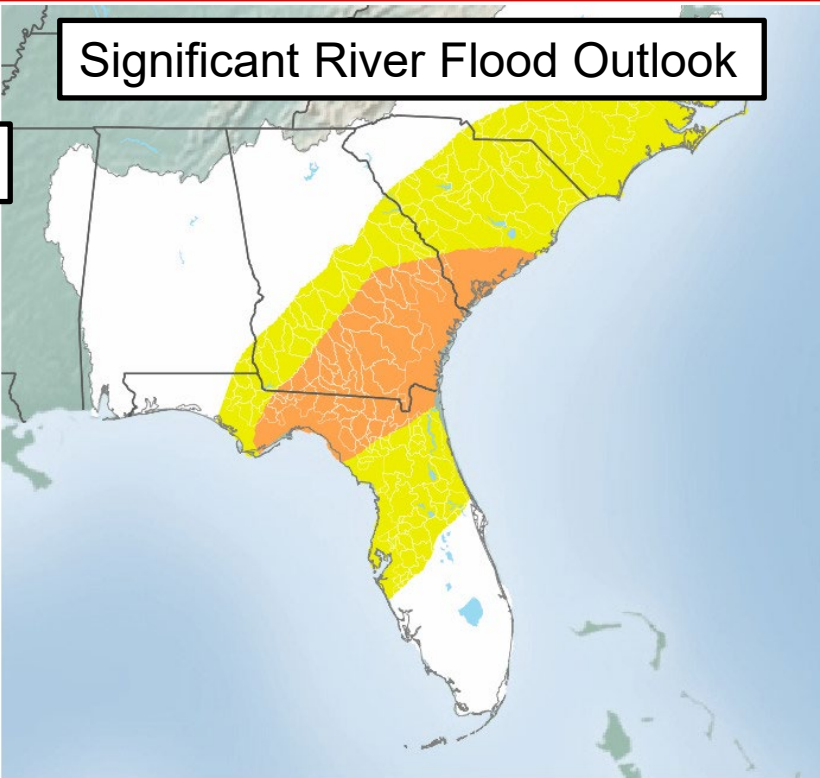
# Riverine Flooding

Chance of River Flooding Based on Range of Forecast Rainfall

Current River Observations and Forecast



Significant River Flood Outlook



**River Flood Warnings** have been issued across numerous North and West Florida Rivers this afternoon. Numerous rivers have reached or are forecast to reach **moderate to major flood stage** with several others forecast to reach **minor flood stage**. Additional River Flood Warnings will be possible over the next several days depending on rainfall across portions of the state, as well as portions of southern Georgia. Slight changes in the location of the highest rainfall totals can impact riverine forecasts as the rainfall event unfolds. Riverine forecasts will likely change in peak height in future updates as the full envelope of rainfall enters the forecast period.



# River Flood Warnings

From the National Weather Service

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River Gauge	County(ies) Affected	Current Level	Crest Level	Record Level	Status	Crest Date	Expires Day
<a href="#">Alafia River at Lithia Pinecrest Road at Lithia</a>	Hillsborough	Minor: 14.70 ft	Major: 19 ft	28.5 ft	Rising	6-Aug	Until Further Notice
<a href="#">Alafia River at Riverview near US 301</a>	Hillsborough	Minor: 4.37 ft	Minor	6.6 ft	Rising	5-Aug	2000 EDT 5-Aug
<a href="#">Anclote River near Elfers at Little Road</a>	Pasco	Below: 16.17 ft	Moderate: 23.30 ft	27.7 ft	Rising	7-Aug	Until Further Notice
<a href="#">Aucilla River at Lamont</a>	Madison, Jefferson, Taylor	Below: 50.22 ft	Moderate: 61.30 ft	58.8 ft	Rising	8-Aug	Until Further Notice
<a href="#">Hillsborough River near Zephyrhills at State Park</a>	Hillsborough	Action: 8.36 ft	Moderate: 13.60 ft	15.3 ft	Rising	7-Aug	Until Further Notice
<a href="#">Horse Creek near Arcadia at SR 72</a>	DeSoto	Action: 11.22 ft	Moderate: 14.5 ft	21.2 ft	Rising	8-Aug	Until Further Notice
<a href="#">Little Manatee River at Mimauma at US 301</a>	Hillsborough	Moderate: 15.54 ft	Major: 17.60 ft	20.1 ft	Rising	6-Aug	Until Further Notice
<a href="#">Manatee River at Rye Bridge</a>	Manatee	Major: 18.59 ft	Major: 19.4 ft	20 ft	Rising	5-Aug	0630 EDT 7-Aug
<a href="#">Manatee River near Myakka Head at SR 64</a>	Manatee	Major: 17.61 ft	Major: 19.40 ft	20.9 ft	Rising	5-Aug	Until Further Notice
<a href="#">North Fork Black Creek near Middleburg</a>	Clay	Below: 3.42 ft	Minor: 16.7 ft	27.9 ft	Rising	7-Aug	8-Aug
<a href="#">Santa Fe River at Fort White</a>	Gilchrist, Columbia	Below: 21.46 ft	Major: 30.40 ft	35.4 ft	Rising	10-Aug	Until Further Notice
<a href="#">Santa Fe River at Three Rivers Estates</a>	Gilchrist, Suwannee, Columbia	Action: 14.79 ft	Major: 24.20 ft	33.4 ft	Rising	10-Aug	Until Further Notice
<a href="#">Santa Fe River at Worthington Springs</a>	Alachua, Union	Action: 58.78 ft	Major: 66.50 ft	71.2 ft	Rising	8-Aug	Until Further Notice
<a href="#">Santa Fe River near High Springs</a>	Alachua, Columbia	Below: 31.95 ft	Moderate: 45.80 ft	48.5 ft	Rising	9-Aug	Until Further Notice
<a href="#">Santa Fe River near O'Leno State Park</a>	Alachua, Columbia	Below: 41.20 ft	Moderate: 54.80 ft	57.1 ft	Rising	8-Aug	Until Further Notice
<a href="#">South Fork Black Creek near Penney Farms</a>	Clay	Below: 5.5 ft	Minor: 14.6 Ft	29.4	Rising	7-Aug	8-Aug
<a href="#">St. Marks River near Newport on Old Magnolia</a>	Leon, Wakulla	Below: 6.68 ft	Moderate: 10 ft	13.9 ft	Rising	6-Aug	Until Further Notice
<a href="#">St. Mary's near Macclenny</a>	Baker, Nassau	Below: 7.51 ft	Major: 19.1 ft	24.4 ft	Rising	6-Aug	Until Further Notice
<a href="#">Suwannee River at White Springs</a>	Hamilton, Suwannee, Columbia	Below: 61.74 ft	Moderate: 86.3 ft	87.7 ft	Rising	7-Aug	Until Further Notice
<a href="#">Suwannee River near Suwannee Springs</a>	Hamilton, Suwannee	Below: 49.12 ft	Major: 74.10 ft	78.2 ft	Rising	9-Aug	Until Further Notice
<a href="#">Withlacoochee River near Holder at SR-200</a>	Citrus	Below: 4.09 ft	Moderate: 9.3 ft	13.3 ft	Rising	10-Aug	Until Further Notice

For more details on the hydrographs as well as impact statements, click the links for each river gauge.



# Tornado Watches in Effect

## From the National Weather Service

### Tornado Watch

Valid Until  
4:00 PM EDT Monday  
August 5, 2024

#### Threat Information



#### TORNADOES

A few Tornadoes  
Possible



#### HAIL

No Hail Expected



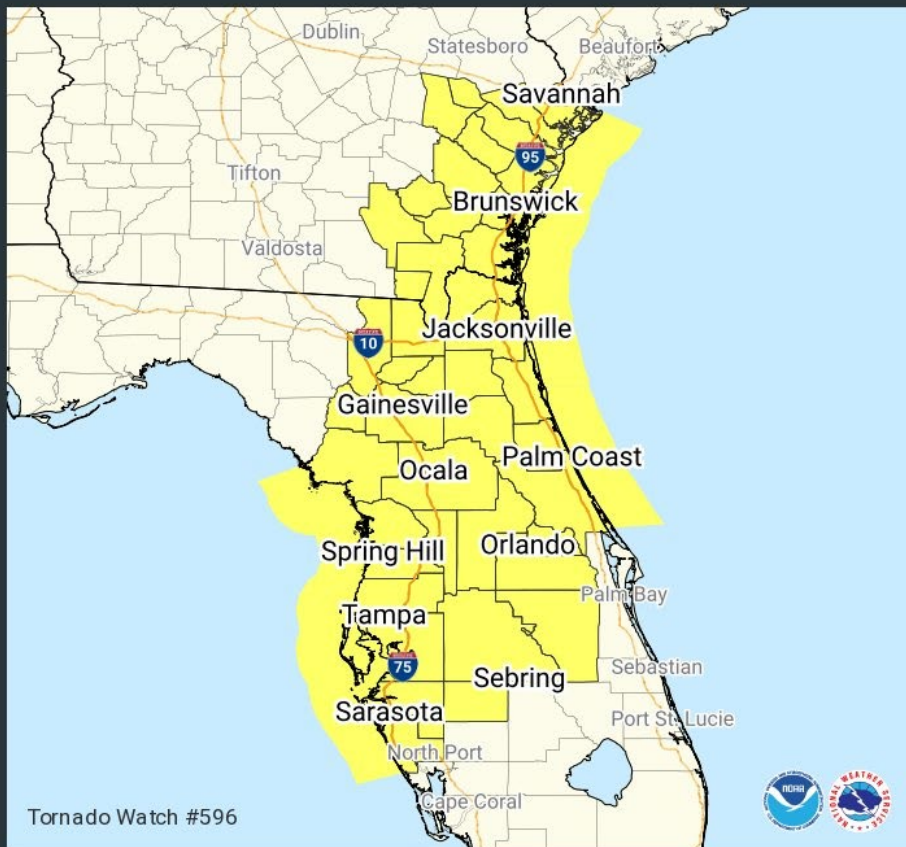
#### WIND

Isolated Gusts  
Up To 70 MPH Possible

#### Potential Exposure



Population: 11,655,106  
Schools: 2287  
Hospitals: 158



**Tornado Watch #596** has been issued and will remain in effect through 4:00 PM EDT this afternoon as convective bands associated with Tropical Storm Debby will continue to pose a risk for embedded tornadoes. This includes the following counties:

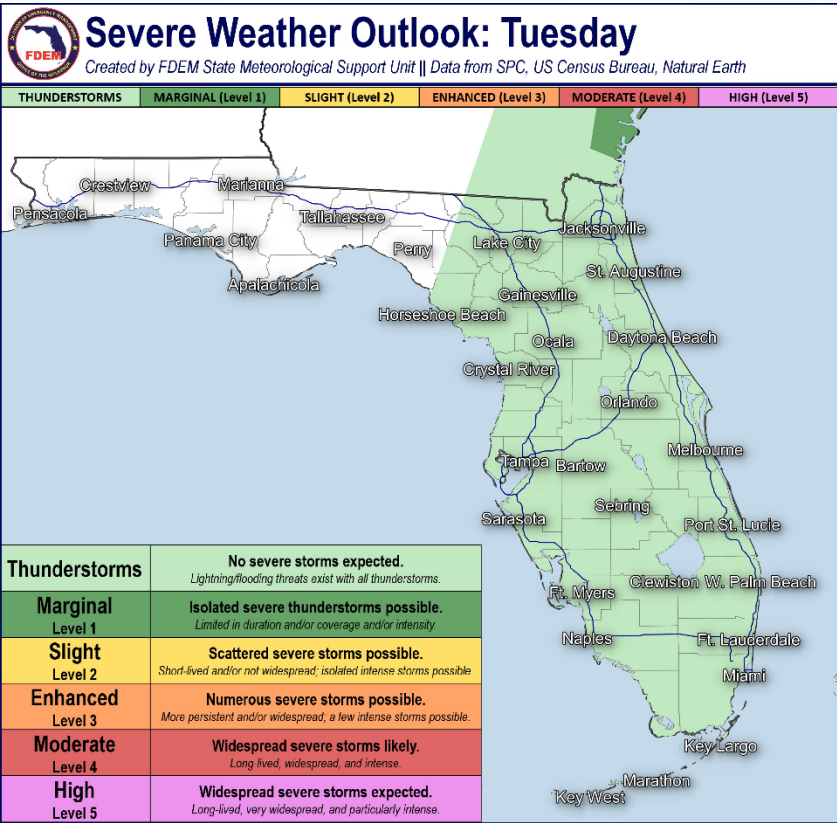
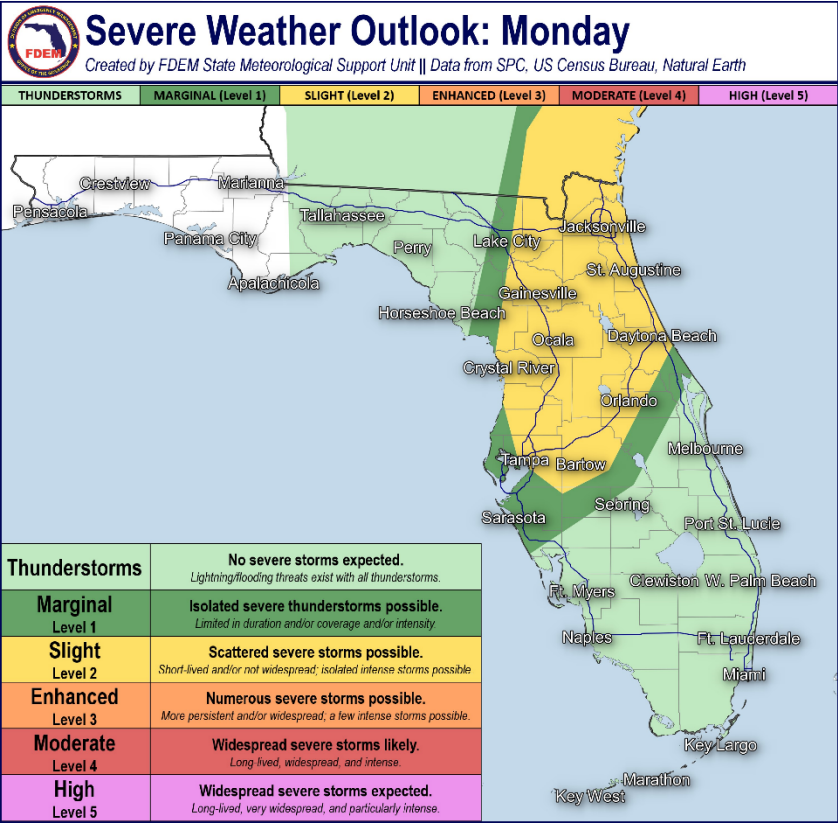
- Alachua
- Baker
- Bradford
- Citrus
- Clay
- Columbia
- Duval
- Flagler
- Gilchrist
- Hardee
- Hernando
- Hillsborough
- Lake
- Levy
- Manatee
- Marion
- Nassau
- Orange
- Osceola
- Pasco
- Pinellas
- Polk
- Putnam
- Sarasota
- Seminole
- St. Johns
- Sumter
- Union
- Volusia





# Severe Weather Outlooks – Monday & Tuesday

From the Storm Prediction Center (SPC)



The Storm Prediction Center (SPC) is outlooking a **Slight Risk (level 2 of 5) for Severe Weather** throughout the Northern Peninsula and southward to the I-4 corridor as Debby moves across the Northern Peninsula. A **Marginal Risk (level 1 of 5) for Severe Weather** extends from the Capital City and through the I-4 corridor. *Additional Tornado Watches and Warnings may be issued as conditions warrant.*



# Summary

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## Hurricane Debby:

- At about 7:00 AM EDT on Monday, August 5, 2024, Hurricane Debby made landfall as a Category 1 hurricane near Steinhatchee, Florida.
- As of 11:00 AM EDT on Monday, August 5, 2024, Debby has weakened to a tropical storm and is located about 35 miles west of Lake City, Florida, moving north-northeastward at 8 mph.
- A gradual decrease in forward speed with a turn toward the east is expected later today and Tuesday.
- On the forecast track, the center will move across southeastern Georgia tonight and Tuesday, and move offshore of the South Carolina coast by late Tuesday and Wednesday.
- Maximum sustained winds have decreased to near 70 mph with higher gusts, and additional weakening is forecast during the next 48 hours.

## Tropical Watches & Warnings Issued (NHC):

- **Tropical Storm Warnings:** *Gadsden, Liberty, Franklin, Leon, Wakulla, Jefferson, Madison, Taylor, Hamilton, Suwannee, Lafayette, Dixie, Levy, Citrus, Hernando, Pasco, Pinellas, Hillsborough, Manatee, Sumter, Lake, Marion, Alachua, Gilchrist, Columbia, Union, Baker, Nassau, Duval, Bradford, Clay, St. Johns, and Putnam Counties.*
- **Storm Surge Warnings:** *Coastal Manatee, Coastal Hillsborough (including Tampa Bay), Coastal Pinellas, Coastal Pasco, Coastal Hernando, Coastal Citrus, Coastal Levy, Coastal Dixie, Coastal Taylor, Coastal Jefferson, and Coastal Wakulla Counties.*

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



# Summary

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## Florida Outlook:

- The heaviest swath of rainfall within tropical systems will largely occur along and to the 'right' of the track, with computer forecast models coming into general agreement that the greatest swath of rainfall residing along the eastern Florida Panhandle, Florida Big Bend, and into the Suwannee River Valley.
  - Widespread rainfall totals of 6-12" can be expected across the Eastern Panhandle, Northern Peninsula, and Western Peninsula, with locally higher amounts exceeding 15-20" cannot be ruled out. **Catastrophic and life-threatening flash flooding** can be expected within these locations that experience the highest rainfall totals.
  - The Weather Prediction Center (WPC) is outlooking a **rare High Risk (level 4 of 4) for Flash Flooding** across the eastern Big Bend, Suwannee Valley, and portions of Northeast Florida today with a **Slight to Moderate Risk (level 2-3 of 4)** expanding across the Big Bend and along the northern Peninsula southward to the I-4 Corridor and extending into Southwest Florida as Hurricane Debby is forecast to move inland along the Florida Big Bend, nearly stalling and bringing numerous rounds of heavy rainfall.
    - *The WPC High Risk (level 4 of 4) for Flash Flooding are only outlooked for 4% of days, but High Risks have accounted for nearly 40% of all flood-related fatalities.*
  - A **Slight Risk for Flash Flooding** is maintained across the Northern and Central Peninsula, extending into southwest Florida Tuesday with a **Moderate Risk** along far Northeastern Florida as Debby moves northeastward and eastward across North Florida towards southeast Georgia.
- **River Flood Warnings** have been issued across several North and West Florida Rivers this afternoon as numerous rivers have reached or are forecast to reach moderate to major flood stage with several others forecast to reach minor flood stage.
  - Additional River Flood Warnings will be possible over the next several days depending on rainfall across portions of the state, as well as portions of southern Georgia.
  - Slight changes in the location of the highest rainfall totals can impact riverine forecasts as the rainfall event unfolds. Riverine forecasts will likely change in peak height in future updates as the full envelope of rainfall enters the forecast period.
- The Storm Prediction Center (SPC) is outlooking a **Slight Risk (level 2 of 5) for Severe Weather** throughout the Northern Peninsula and southward towards the I-4 corridor ahead of Debby turning towards the northeast ahead of landfall. A **Marginal Risk (level 1 of 5) for Severe Weather** extends from the Capital City and through the I-4 corridor.
  - **Tornado Watch #596** has been issued and will remain in effect through 4:00 PM EDT this afternoon as convective bands associated with Tropical Storm Debby will continue to pose a risk for embedded tornadoes.
  - Additional Tornado Watches will likely be issued as needed throughout the day.

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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Created by:

**Melissa James, Assistant State Meteorologist**

**[Melissa.James@em.myflorida.com](mailto:Melissa.James@em.myflorida.com)**

**State Meteorological Support Unit**

**Florida Division of Emergency Management**

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