



Tropical Update



5:30 AM EDT

Monday, August 5, 2024

**Hurricane Debby Very Near Landfall In the Florida Big Bend;
Life Threatening Storm Surge and Major Flooding Expected**

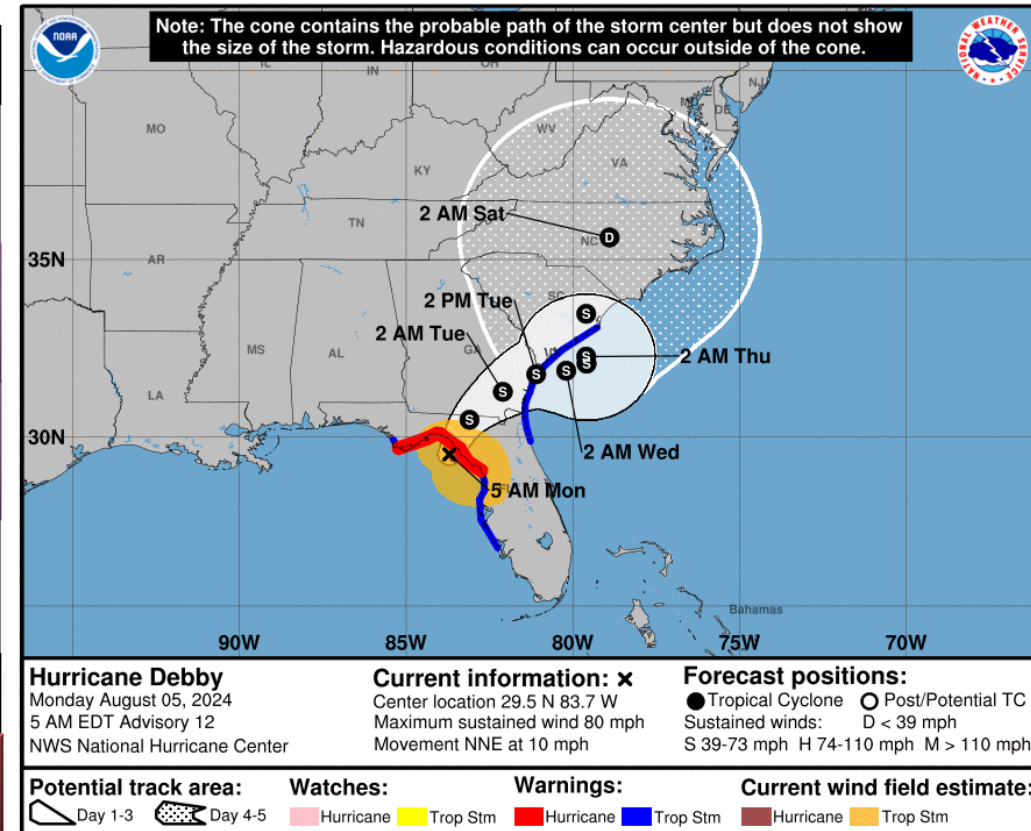
This update is intended for government and emergency response officials, and is provided for informational and situational awareness purposes only. Forecast conditions are subject to change based on a variety of environmental factors. For additional information, or for any life safety concerns with an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



Hurricane Debby

5:00 AM EDT Sunday: Florida Threats & Changes Since Last Packet

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



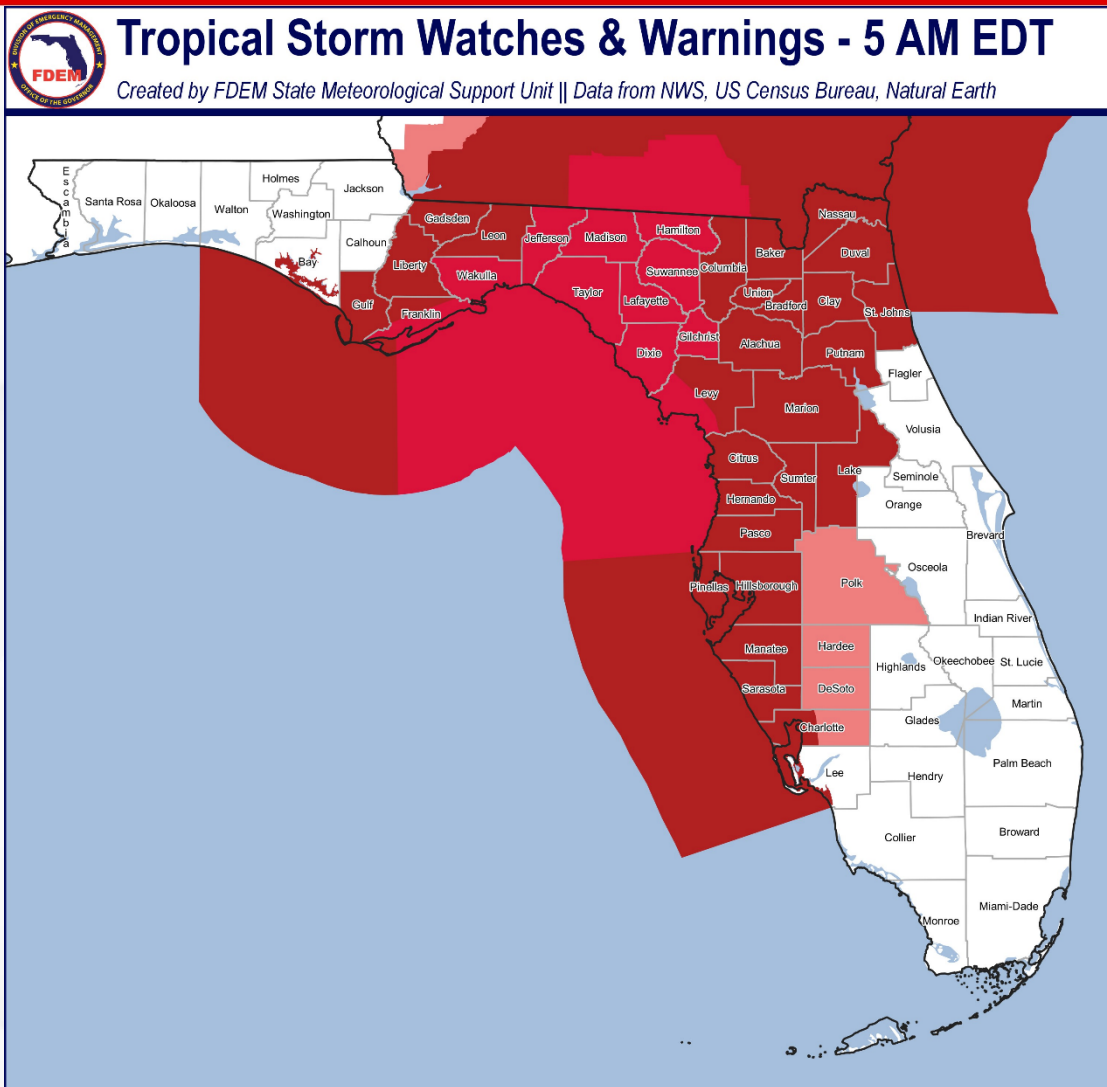
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Overview/Recent Changes: As of 5:00 AM EDT, Hurricane Debby is located about 45 miles northwest of Cedar Key, Florida and 70 miles south-southeast of Tallahassee, Florida, and is moving north-northeastward at 10 mph. A gradual decrease in forward speed with a turn toward the northeast and east is expected later today and Tuesday. Hurricane Debby is nearing landfall along the Big Bend Coast. On the forecast track, the center of Debby will reach the Florida Big Bend coast later this morning. Debby is then expected to move slowly across northern Florida and southern Georgia late today and Tuesday, and be near the Georgia coast by Tuesday night. Maximum sustained winds are near 80 mph with higher gusts, making Debby a Category 1 hurricane. Weakening is expected after Debby moves inland.



Current Wind Watches/Warnings

Hurricane Debby – As of 5:00 AM EDT



- **Hurricane Warnings:**

- Coastal Franklin, Wakulla, Jefferson, Madison, Taylor, Hamilton, Suwannee, Lafayette, Dixie, Gilchrist, and Coastal Levy

- **Hurricane Watches:**

- Inland Levy

- **Tropical Storm Warnings:**

- Gulf, Liberty, Gadsden, Leon, Columbia, Baker, Nassau, Duval, Union, Bradford, St. Johns, Alachua, Putnam, Inland Levy, Marion, Lake, Citrus, Sumter, Lake, Hernando, Pasco, Pinellas, Hillsborough, Manatee, Sarasota and Coastal Charlotte

- **Tropical Storm Watches:**

- Polk, Hardee, DeSoto, and Inland Charlotte



Threats & Impacts

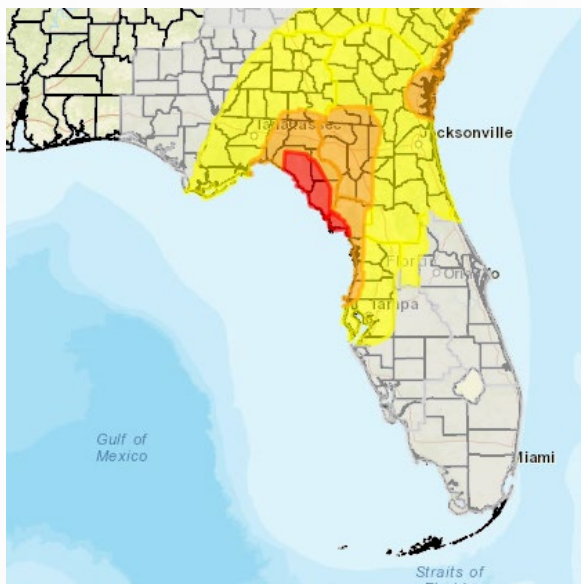
From the National Weather Service

Storm Surge



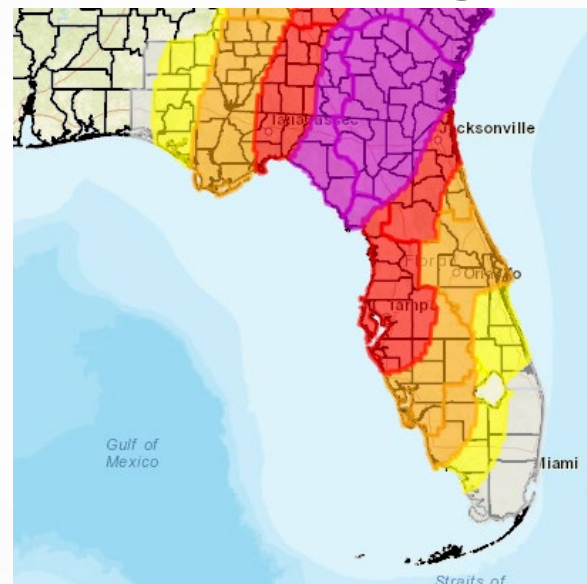
- Widespread deep inundation, with storm surge flooding greatly accentuated by powerful battering waves. Structural damage to buildings, with many washing away. Damage greatly compounded from considerable floating debris. Locations may be uninhabitable for an extended period.
- Near-shore escape routes 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



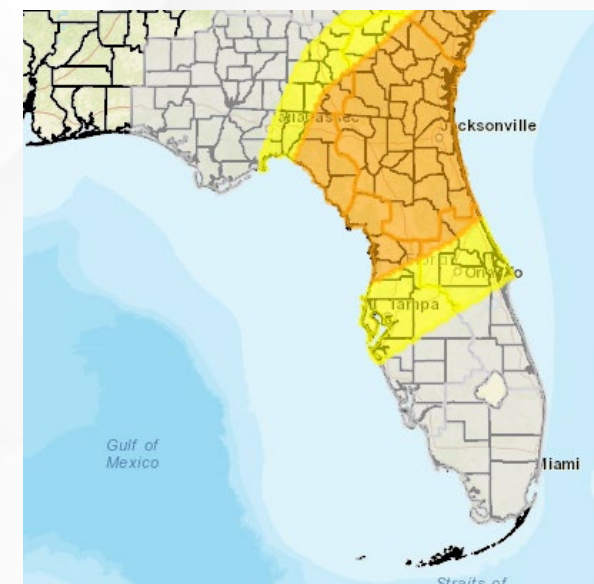
- Considerable roof damage to sturdy buildings, with some having window, door, and garage door failures leading to structural damage. Mobile homes severely damaged, with some destroyed. Damage accentuated by airborne projectiles. Locations may be uninhabitable for weeks.
- Many large trees snapped or 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 5:00 AM EDT Sunday

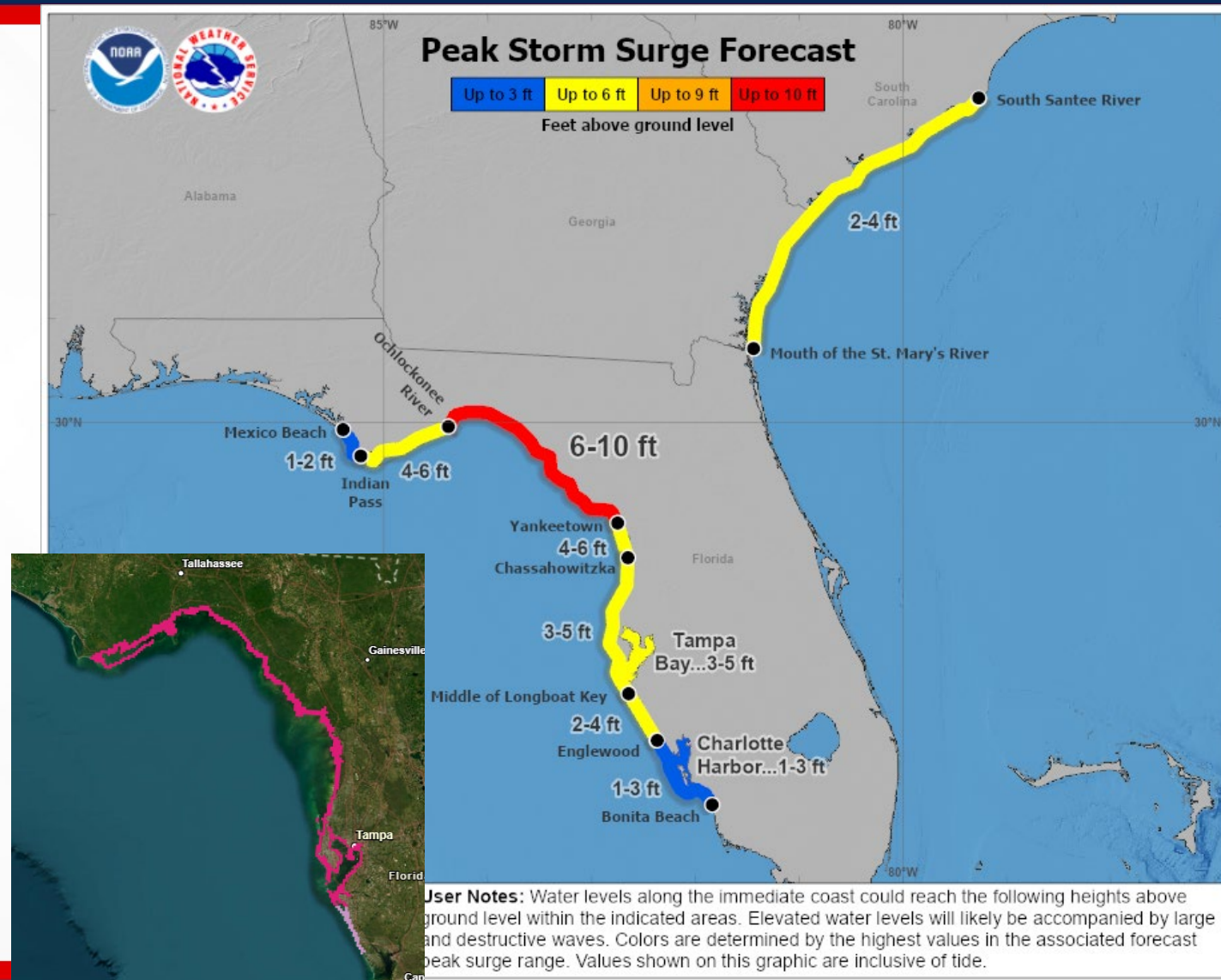
- Storm Surge Warning:**

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

Storm Surge Watch:

Coastal Sarasota County

Onshore winds 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 **6-10'** will be possible from the Ochlockonee River to Yankeetown. West of the Ochlockonee River, storm surge could reach upwards of **4-6'**. The western Peninsula can anticipate storm surge of **3-5'** from Yankeetown to Englewood. South of Englewood and through Middle of Longboat Key (including Charlotte Harbor) will see storm surge upwards of **1-3'**. Water levels at or near times of high tide will need to be closely monitored given the new moon cycle.



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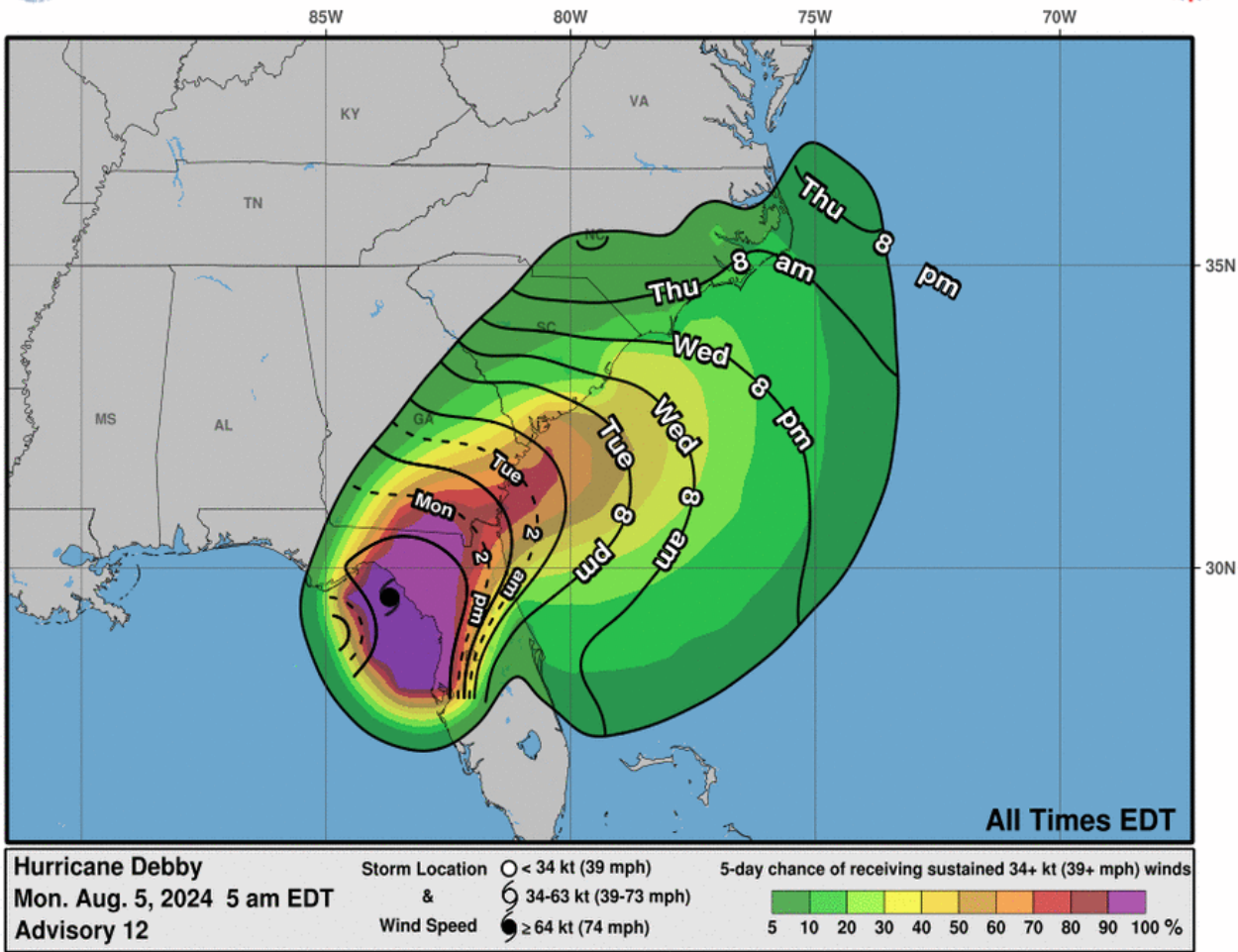


Tropical Storm-Force Wind Probabilities

Hurricane Debby



Most Likely Arrival Time of Tropical-Storm-Force Winds



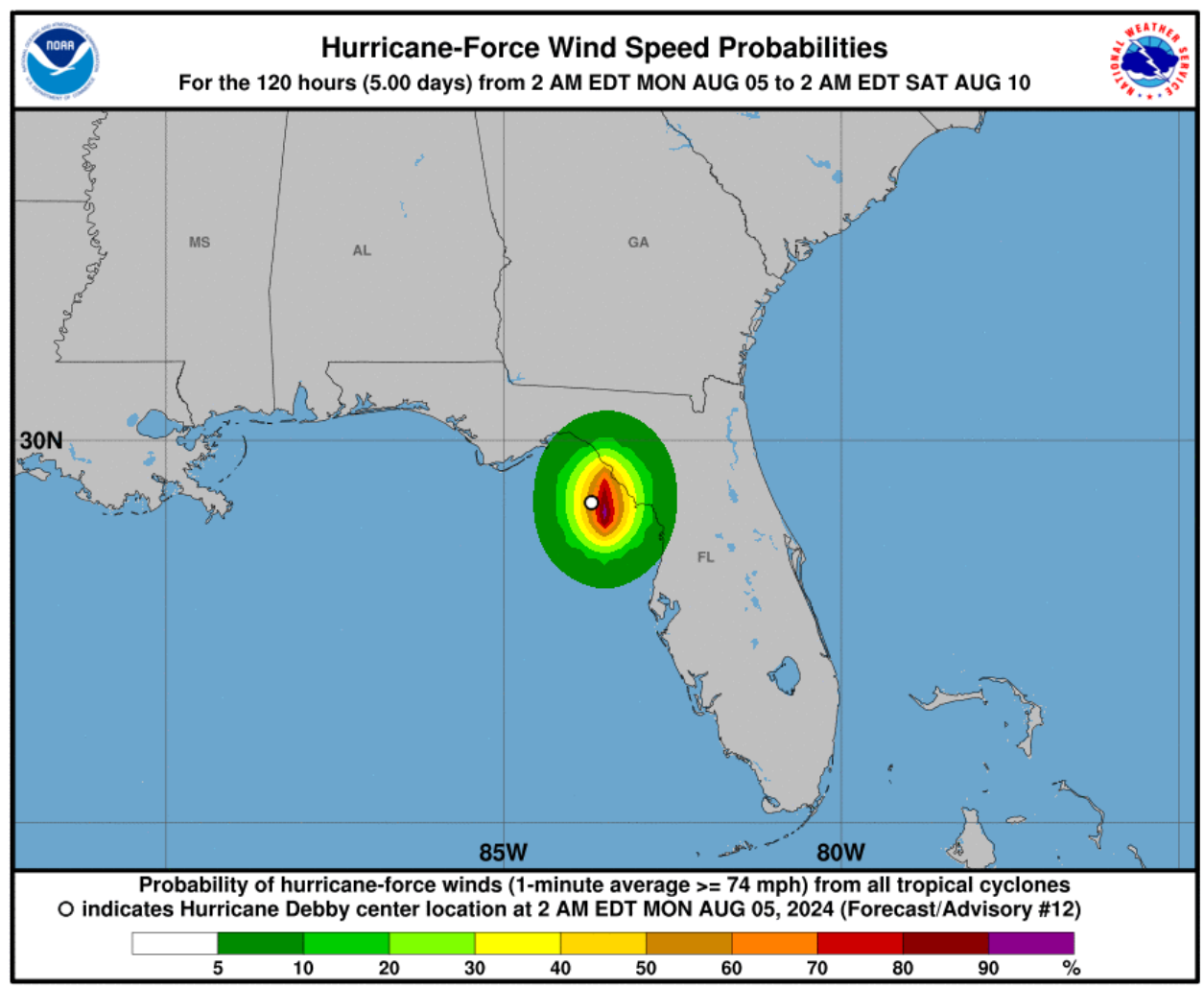
Tropical storm-force winds will continue to become increasingly widespread across the Suwannee Valley, Big Bend, and Northeastern Peninsula this morning. Conditions are forecast to deteriorate throughout the day today and continuing into Tuesday.

| City | Tropical Storm-Force Wind Probability | Percent Change from Previous Update |
|--------------|---------------------------------------|-------------------------------------|
| Venice | 4% | 0% |
| Tampa | 99% | 0% |
| Cedar Key | 99% | 0% |
| Orlando | 3% | -2% |
| Gainesville | 96% | +25% |
| Tallahassee | 18% | -48% |
| Jacksonville | 68% | +29% |
| Apalachicola | 5% | -49% |
| St. Marks | 52% | -28% |
| Panama City | 4% | -22% |



Hurricane-Force Wind Probabilities

Hurricane Debby



Hurricane-force winds are expected along portions of the Big Bend this morning as Debby nears landfall.

| City | Hurricane-Force Wind Probability | Percent Change from Previous Update |
|--------------|----------------------------------|-------------------------------------|
| Cedar Key | 0% | -8% |
| St. Marks | 0% | -3% |
| Tallahassee | 0% | 0% |
| Apalachicola | 0% | 0% |
| Panama City | 0% | 0% |



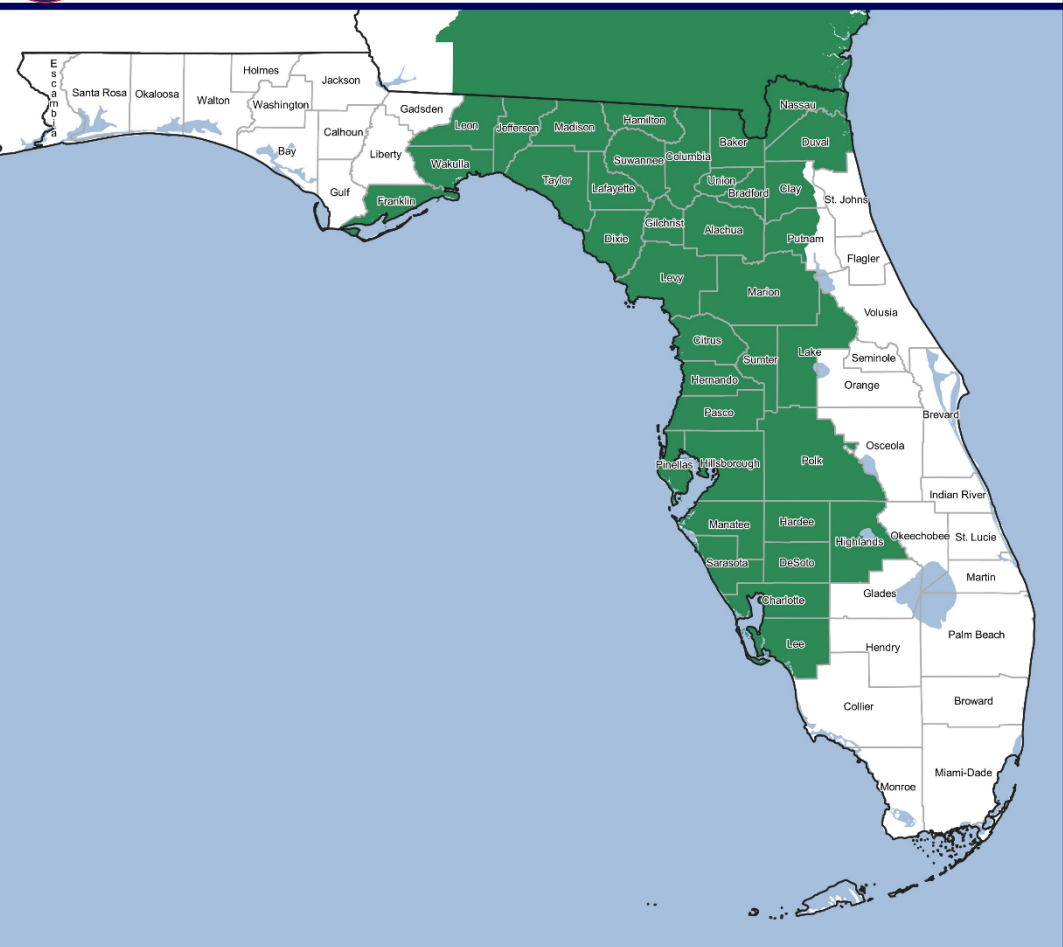
Flood Watches in Effect

From the National Weather Service



Flood Watch: Friday

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



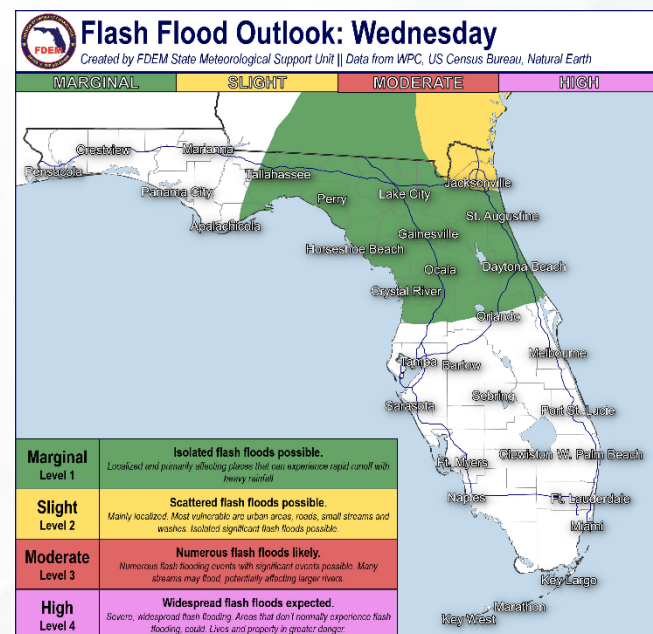
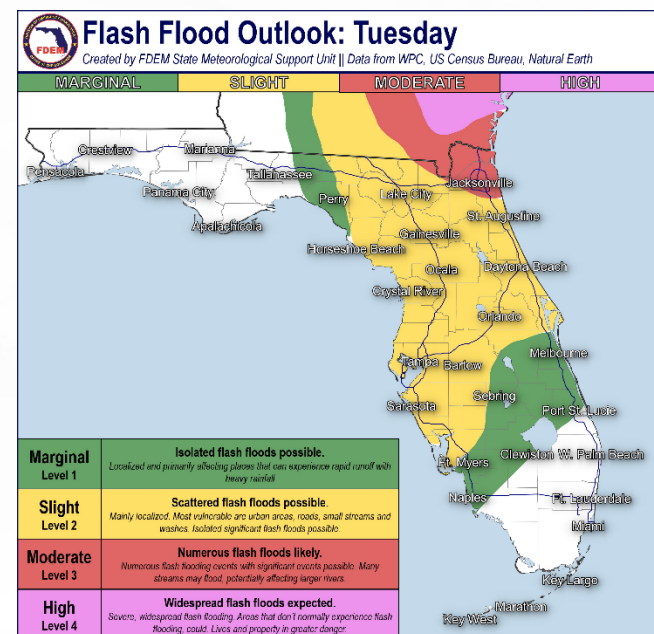
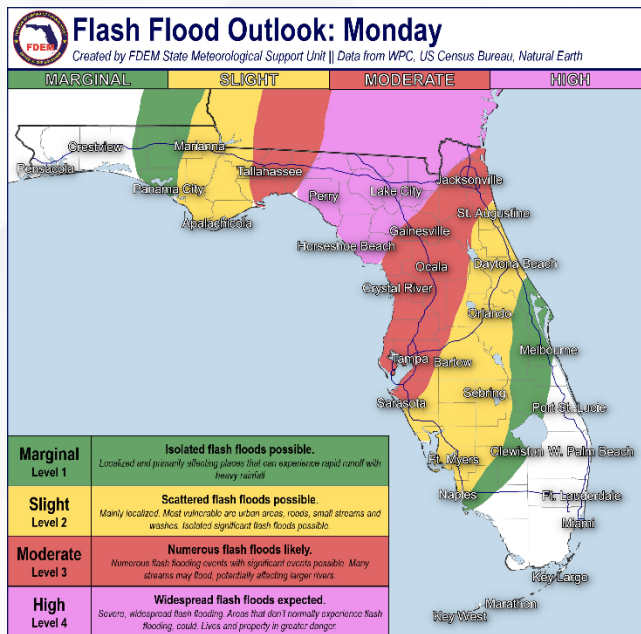
Flood Watches extend throughout the western Peninsula through Monday evening (8:00 PM EDT), Florida Big Bend through late Tuesday morning (11:00 AM EDT) and Northeast Florida through Tuesday evening (8:00 PM EDT) are multiple rounds of heavy rainfall associated with Hurricane Debby will bring instances 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 – Sunday through Tuesday

From the Weather Prediction Center (WPC)



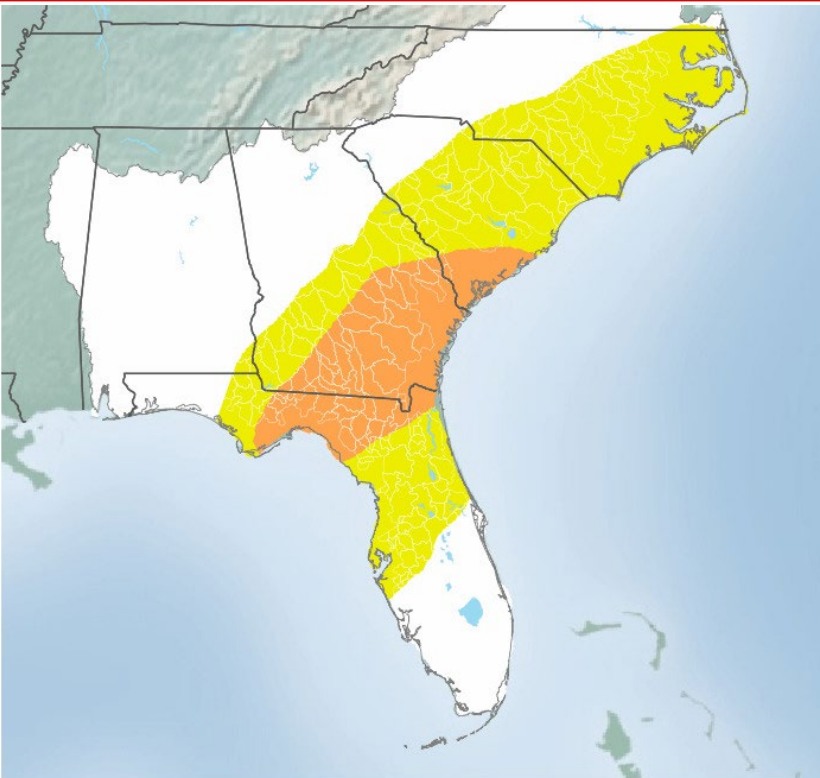
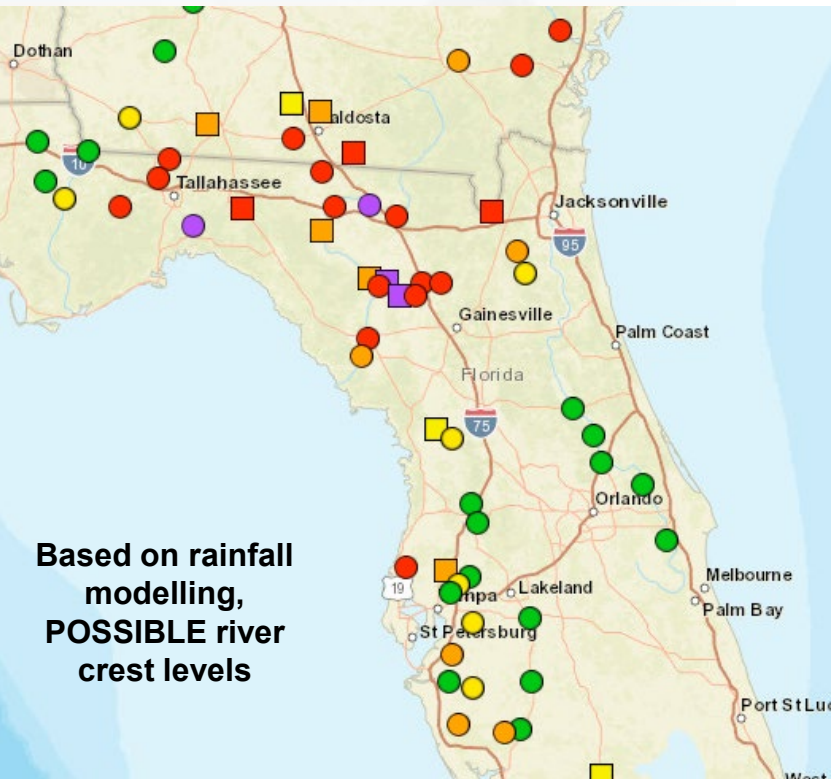
The Weather Prediction Center (WPC) is outlooking a rare **High Risk (level 4 of 4) for Flash Flooding** across the eastern Big Bend, Suwannee Valley, and portions of Northeast Florida today with a **Slight to Moderate Risk (level 2-3 of 4)** expanding across the Big Bend and along the northern Peninsula 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. |
| @NWSWPC | | | | |
| Flash flooding near me? | NO Flash Flooding | | | |
|  |  |  |  |  |
| WEATHER PREDICTION CENTER | | | | |



Riverine Flooding

Chance of River Flooding Based on Range of Forecast Rainfall



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 **moderate to major flooding** along several mainstems and branches including the Suwannee, Santa Fe, Withlacoochee, Aucilla, Myakka, and Alafia by Tuesday or Wednesday next week.

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

| 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
08/04/2024 11:31 AM EDT

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Significant River Flooding impacts include road hazards and damage to residential, commercial, and/or agricultural areas. Evacuation may be required. Flash flooding or Minor river flooding are NOT included in this outlook. Check your local weather 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 Not Expected



Significant River Flooding Possible
Weather conditions indicate, without certainty that significant river flooding could occur



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



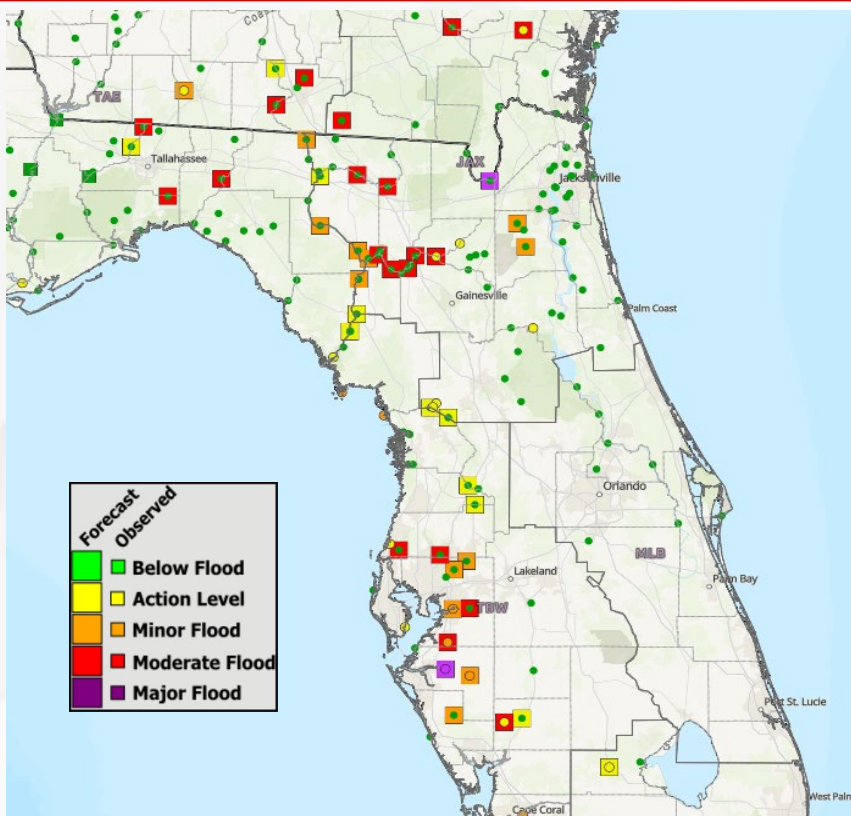
Significant River Flooding Occurring
Significant river flooding is occurring at this time



River Flood Warnings

From the National Weather Service

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River Flood Warnings have been issued across several North and West Florida Rivers this afternoon. 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. Rainfall totals will remain track dependent, and slight changes can impact riverine forecasts. Riverine forecasts will likely change in peak height in future updates as the full envelope of rainfall enters the forecast period.

| River Name | Current Status | Forecast Status |
|-------------------------------------------------------------------|---------------------------------|-----------------------------|
| Horse Creek near Arcadia at SR 72 | Below Flood Stage | Moderate Flood Stage |
| Little Manatee River at Mimauma at US 301 | Minor Flood Stage | Moderate Flood Stage |
| Manatee River near Myakka Head at SR 64 | Minor Flood Stage | Minor Flood Stage |
| Manatee River at Rye Bridge | Major Flood Stage | Major Flood Stage |
| Alafia River at Riverview near US 301 | Minor Flood Stage | Minor Flood Stage |
| Alafia River at Lithia Pinecrest Road at Lithia | Below Flood Stage | Moderate Flood Stage |
| North Fork Black Creek near Middleburg | Below Flood Stage | Minor Flood Stage |
| South Fork Black Creek near Penney Farms | Below Flood Stage | Minor Flood Stage |
| Santa Fe River at Worthington Springs | Action Stage (Bank-full) | Moderate Flood Stage |
| Santa Fe River at Three Rivers Estates | Below Flood Stage | Moderate Flood Stage |
| Santa Fe River near O'Leno State Park | Below Flood Stage | Moderate Flood Stage |
| Santa Fe River at Fort White | Below Flood Stage | Moderate Flood Stage |
| Santa Fe River near High Springs | Below Flood Stage | Moderate Flood Stage |
| Suwannee River at White Springs | Below Flood Stage | Moderate Flood Stage |
| Suwannee River near Suwannee Springs | Below Flood Stage | Moderate Flood Stage |
| St. Mary's near Macclenny | Below Flood Stage | Major Flood Stage |
| St. Marks River near Newport on Old Magnolia | Below Flood Stage | Moderate Flood Stage |
| Aucilla River at Lamont | Below Flood Stage | Moderate Flood Stage |
| Hillsborough River near Zephyrhills at State Park | Below Flood Stage | Minor Flood Stage |
| Anclote River near Elfers at Little Road | Below Flood Stage | Moderate Flood Stage |



Tornado Watches in Effect

From the National Weather Service

Tornado Watch

Valid Until
6:00 AM EDT Monday
August 5, 2024

Threat Information



TORNADOES

A few Tornadoes
Possible



HAIL

No Hail Expected



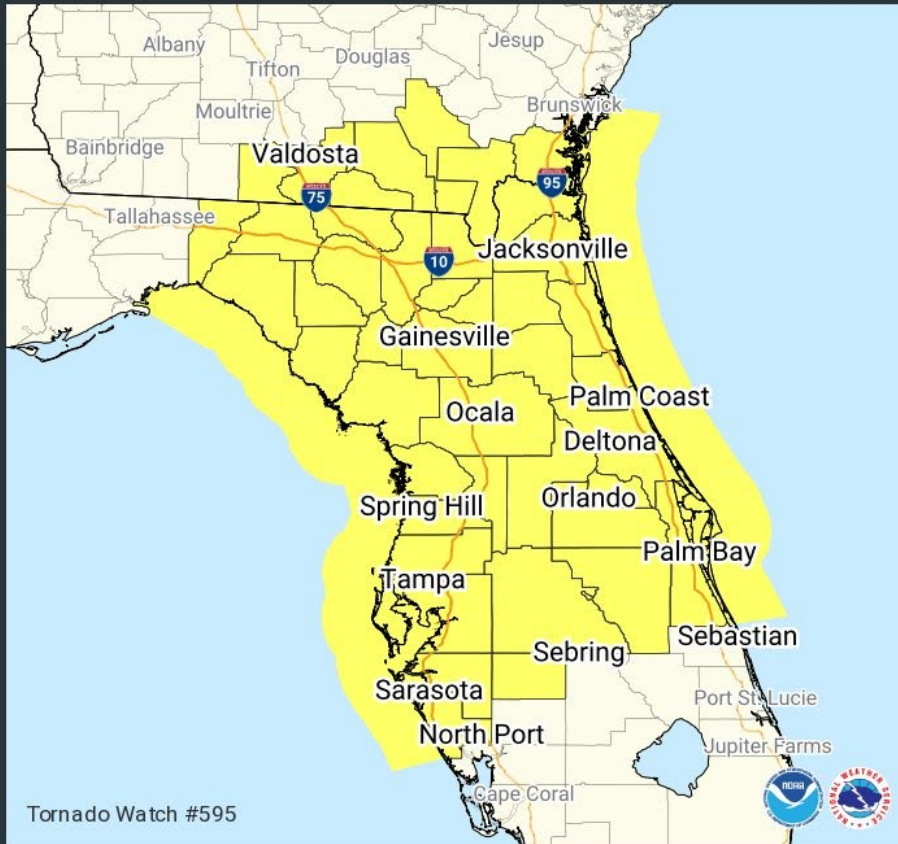
WIND

Isolated Gusts
Up To 65 MPH Possible

Potential Exposure



Population: 11,929,182
Schools: 2348
Hospitals: 166



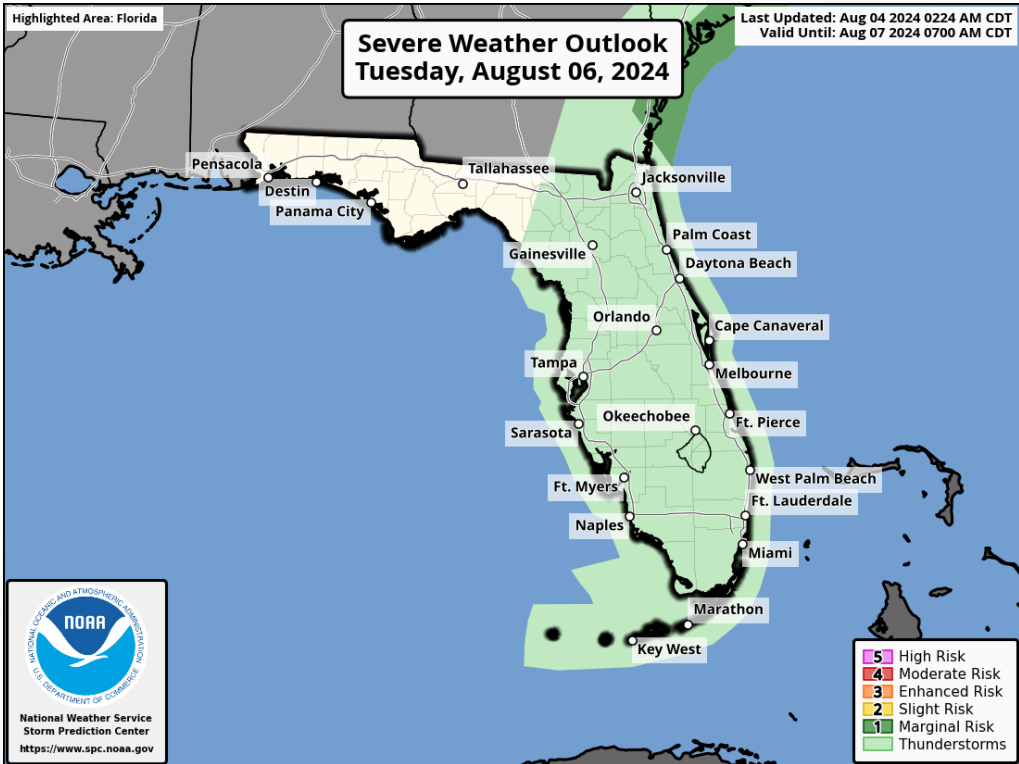
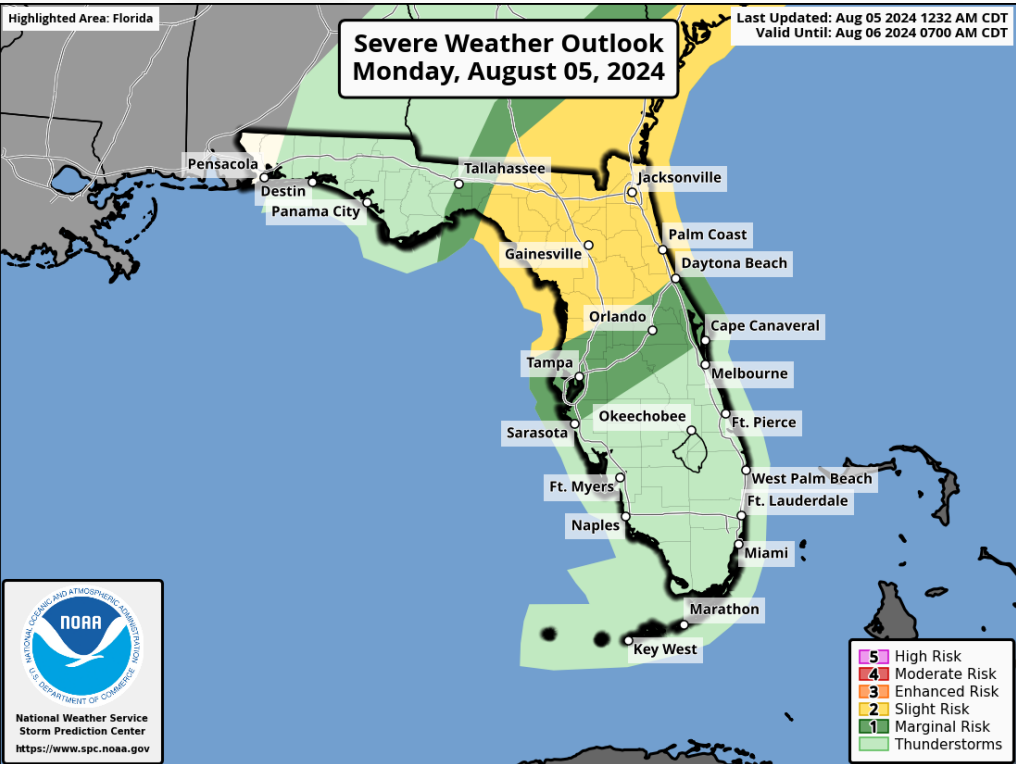
Tornado Watch #595 has been issued through 6:00 AM EDT Monday as convective bands associated with Hurricane Debby will continue to pose a risk for embedded tornadoes. The favorable environment for tornadoes will gradually shift northward this evening and into the overnight hours in conjunction with the northward movement of Debby. This includes the following counties:

- Alachua
- Baker
- Bradford
- Brevard
- Citrus
- Clay
- Columbia
- Dixie
- Duval
- Flagler
- Gilchrist
- Hamilton
- Hardee
- Hernando
- Hillsborough
- Jefferson
- Lafayette
- Lake
- Levy
- Madison
- Manatee
- Marion
- Nassau
- Orange
- Osceola
- Pasco
- Pinellas
- Polk
- Putnam
- Sarasota
- Suwannee
- Taylor
- Union
- Volusia



Severe Weather Outlooks – Sunday & Monday

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 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. *Additional Tornado Watches and Warnings may be issued as conditions warrant.*



Summary

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Hurricane Debby:

- As of 5:00 AM EDT, Hurricane Debby is located about 45 miles northwest of Cedar Key, Florida and 70 miles south-southeast of Tallahassee, Florida, and is moving north-northeastward at 10 mph.
- A gradual decrease in forward speed with a turn toward the northeast and east is expected later today and Tuesday.
- Hurricane Debby is nearing landfall. On the forecast track, the center of Debby will reach the Florida Big Bend coast later this morning.
- Debby is then expected to move slowly across northern Florida and southern Georgia late today and Tuesday, and be near the Georgia coast by Tuesday night.
- Maximum sustained winds are near 80 mph with higher gusts, making Debby a Category 1 hurricane.
- Weakening is expected after Debby moves inland.

Tropical Watches & Warnings Issued (NHC):

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

The next briefing packet will be issued this afternoon. 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. 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. Rainfall totals will remain track dependent, and slight changes can impact riverine forecasts. 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 #595** is in effect across throughout the Florida Big Bend, Northeast Florida and through the I-4 corridor as isolated tornadoes within outer bands of Tropical Storm Debby are possible through 6:00 AM EDT Monday morning.
 - Additional Tornado Watches will likely be issued as needed throughout the day.

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



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State Meteorological Support Unit

Florida Division of Emergency Management

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