



Tropical Storm Debby Briefing

6 AM EDT

Sunday, Aug 4, 2024

Latest:

Potential for Historic Rainfall producing widespread severe flash flooding.
Tropical wind and surge watches will likely be issued today.



Situation Overview

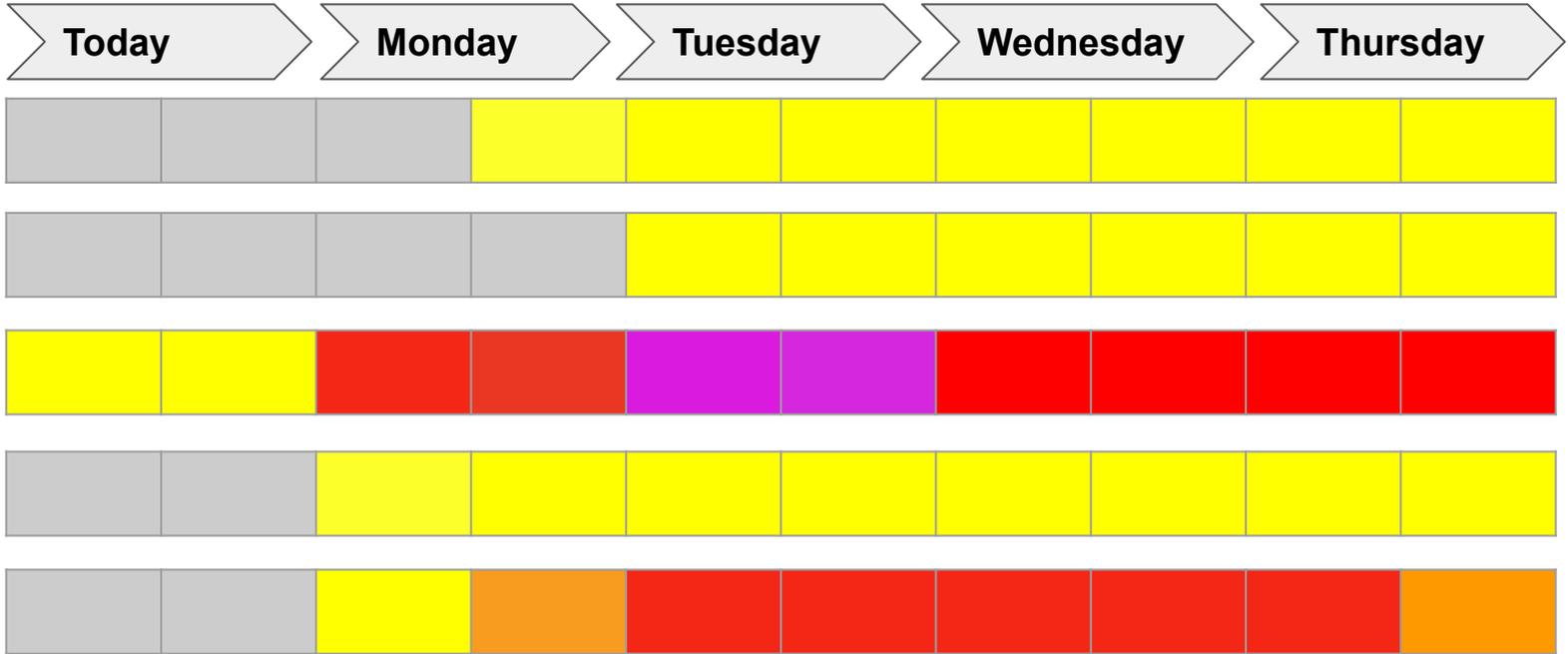
Tropical Storm Debby

- **Track Update:** There is increasing confidence that Tropical Storm Debby will stall near the area midweek. **HOWEVER, exact track and intensity details remain uncertain, especially as we move into late week, so additional forecast adjustments are likely.**
- **Rainfall Flooding:** There is potential for historic rainfall amounts. Expected rainfall amounts continue to increase as confidence increases that Debby will stall nearby for a prolonged period through the middle of (and perhaps late into) the coming week. Widespread severe flash flooding is likely.
- **Wind and Storm Surge:** Confidence is gradually increasing in elevated to moderate impacts and tropical wind and surge watches will likely be issued today.



Threat Levels - Max Values for the Storm

Tropical Storm Debby



Effects and Impacts Legend

- Little to No Impact
- Minor Impact
- Moderate Impact
- High Impact
- Extreme Impact



Situation Overview

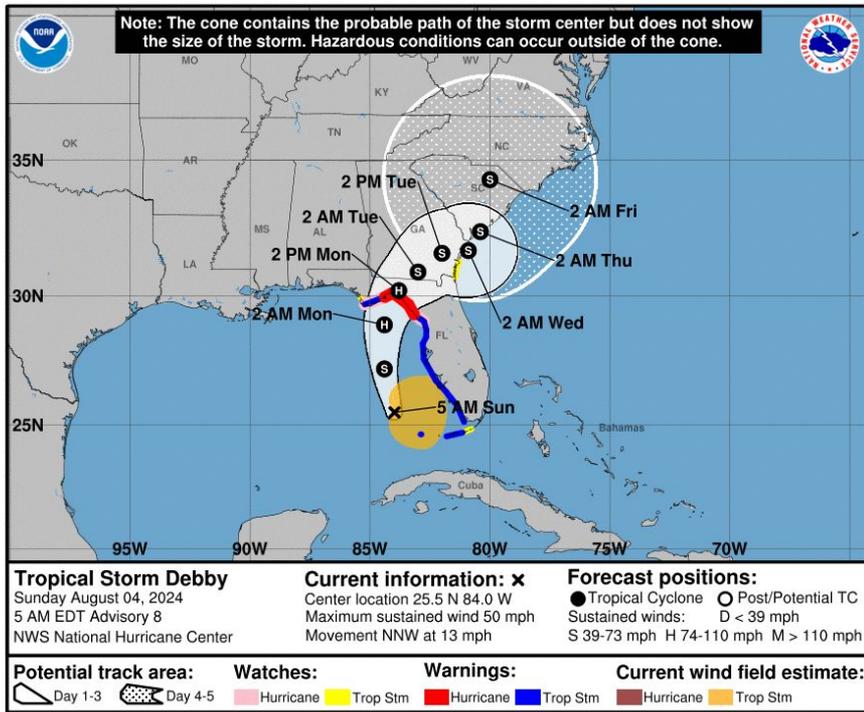
Tropical Storm Debby

Hazard	Impacts	Location	Timing
 Flooding Rain	Potentially historic rainfall amounts could produce widespread severe flash flooding.	Entire region, with highest amounts coastal counties.	Monday through through at least Thursday
 Storm Surge & Inundation	Still uncertain: Prepare for 1-3 feet AGL	Entire coast	Greatest threat Tuesday through Thursday
 Wind	Potential for TS Force Winds	Especially coastal counties and Atlantic waters	Most likely Monday into midweek
 Tornado	Isolated Tornadoes Possible	Highest chances coastal areas	Monday through much of the coming week
 Marine	Winds and seas dangerous for all mariners	All waters	Monday through much of the coming week



Situation Overview

Tropical Storm Debby



NOTE: Do not focus on the exact track.
Impacts can occur well outside the area enclosed by the cone.

- TS Debby expected strengthen to a hurricane before making landfall near the Big Bend FL area Monday.
- Major concern locally is the expectation that Debby will stall nearby midweek.
- Intensity and track forecast still very uncertain mid to late week.

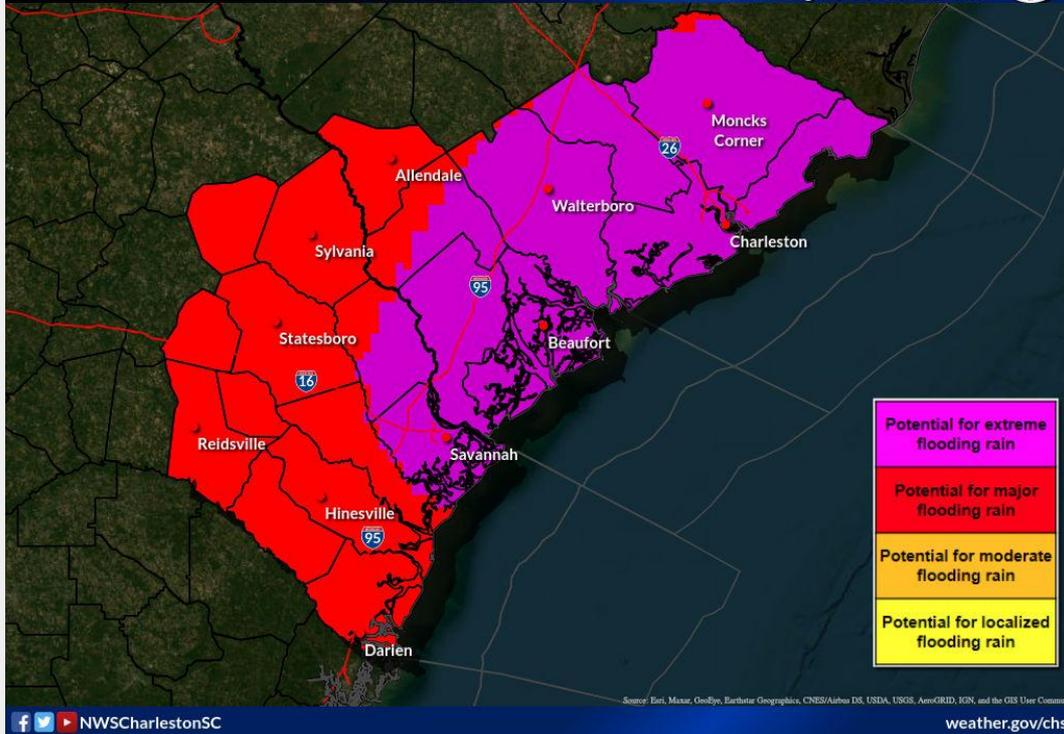


Inland Flooding Impacts

Tropical Storm Debby

Flooding Rain Threat

Weather Forecast Office
Charleston, SC
Issued Aug 04, 2024 5:50 AM EDT

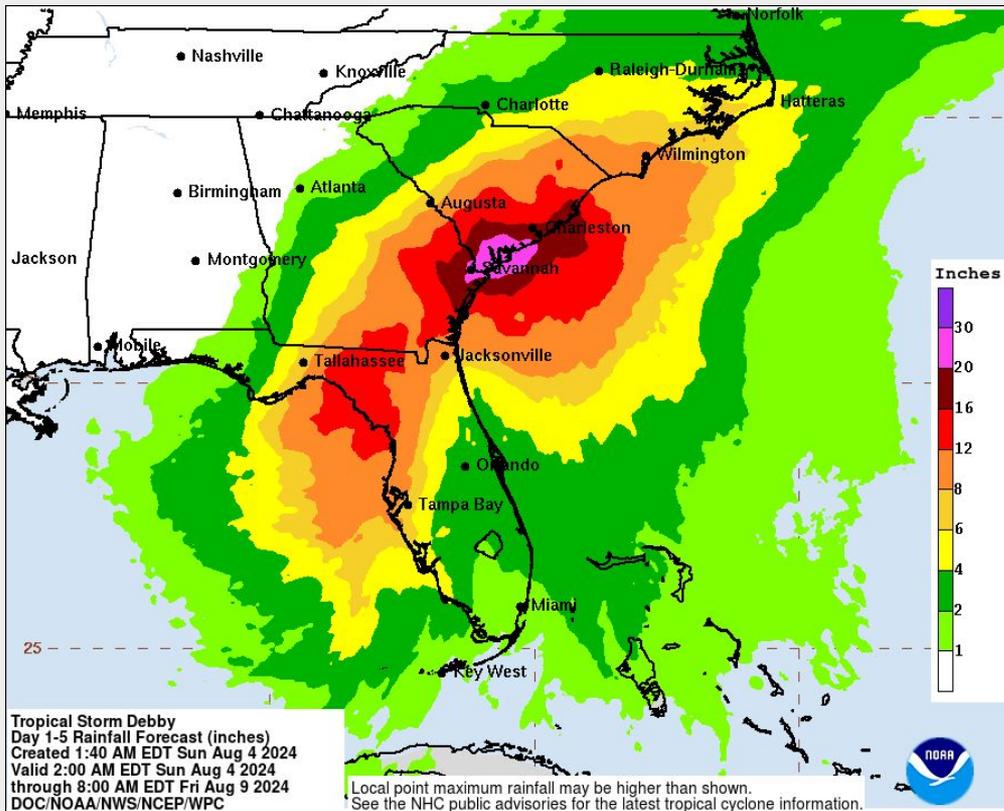


- **Potentially historic** rainfall totals through Thursday. Widespread severe flash flooding is likely for much of the area.
- Prepare for extreme flash flooding impacts on travel, homes, and businesses.
- Longer term significant river flooding is also expected.



Expected Storm Total Rainfall

Tropical Storm Debby



Rainfall Totals: 10-20 inches across much of the area, with local amounts approaching 30 inches.

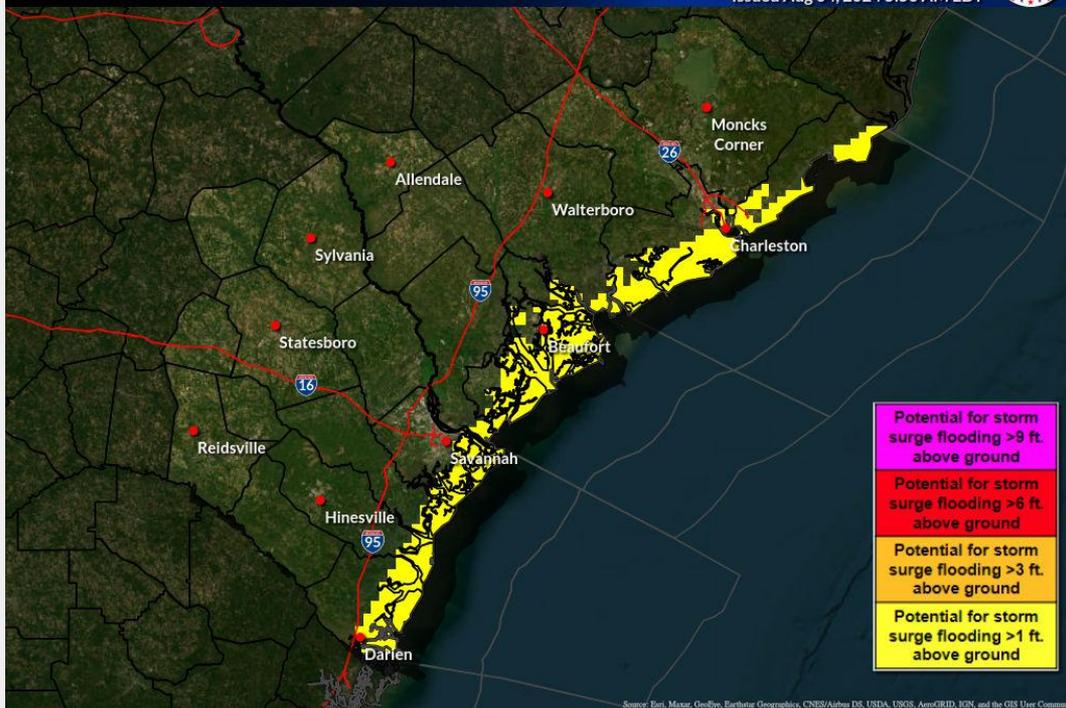


Potential Storm Surge Impacts

Tropical Storm Debby

Storm Surge Threat

Weather Forecast Office
Charleston, SC
Issued Aug 04, 2024 5:50 AM EDT



Source: Earthstar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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There is a potential for:

- 1-3 Feet of Storm Surge Inundation over normally dry tidal/near tidal regions.
- Impacts: Flooding of coastal, streets and roadways, especially low lying ones. Minor to moderate beach erosion.



Wind Threat / Potential Impact

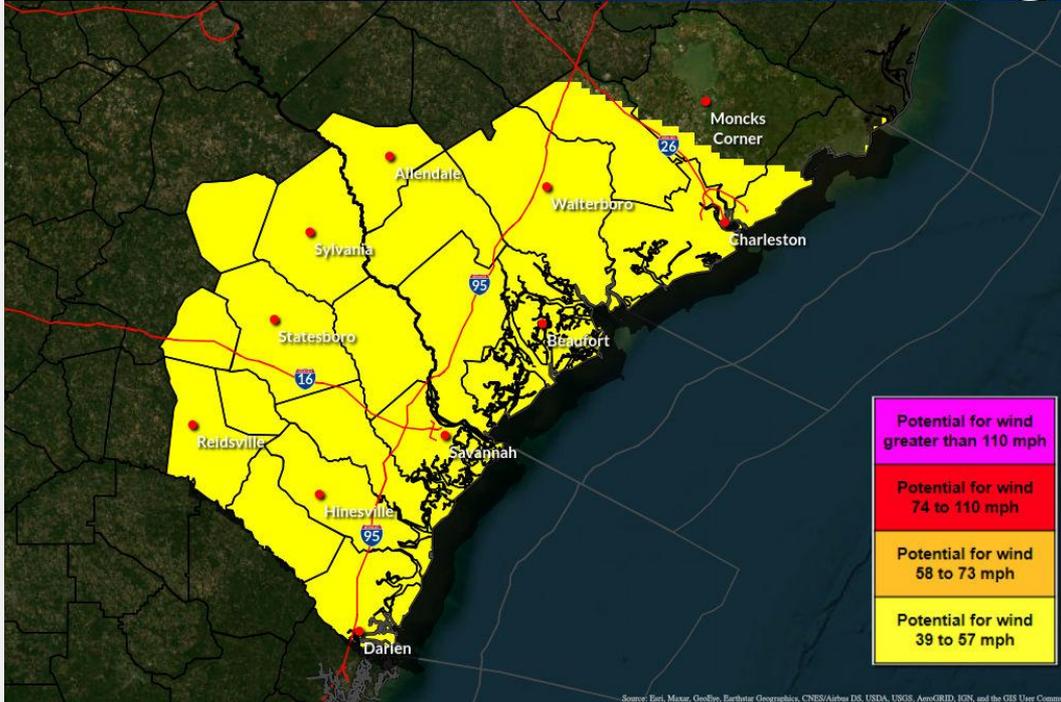
Tropical Storm Debby

Wind Threat

Weather Forecast Office

Charleston, SC

Issued Aug 04, 2024 5:50 AM EDT



Source: Earthstar, Geodys, Barthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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There is a potential for:

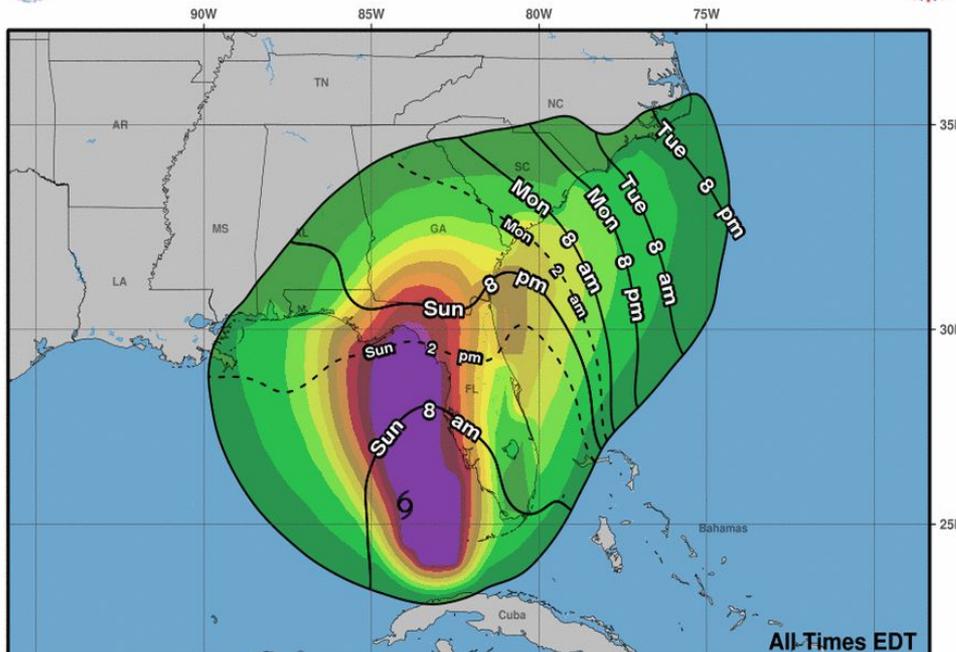
- Tropical Storm winds/wind gusts in the highlighted area
- Tropical wind headlines likely to be issued today.
- Isolated to scattered power outages and downed trees possible.



Earliest Reasonable Time of Arrival

Tropical Storm Debby

Earliest Reasonable Arrival Time of Tropical-Storm-Force Winds



Tropical Storm Debby
Sun. Aug. 4, 2024 5 am EDT
Advisory 8

Storm Location & Wind Speed
 ○ < 34 kt (39 mph)
 ◉ 34-63 kt (39-73 mph)
 ● ≥ 64 kt (74 mph)

5-day chance of receiving sustained 34+ kt (39+ mph) winds
 5 10 20 30 40 50 60 70 80 90 100 %

All-Times EDT

- The **Earliest Reasonable Time of Arrival of Tropical Storm Force Winds:**
 GA - tonight
 SC - early Monday morning
- However, the **Most Likely Time** this area could see Tropical Storm Force Winds:
 GA - Monday
 SC - Monday night



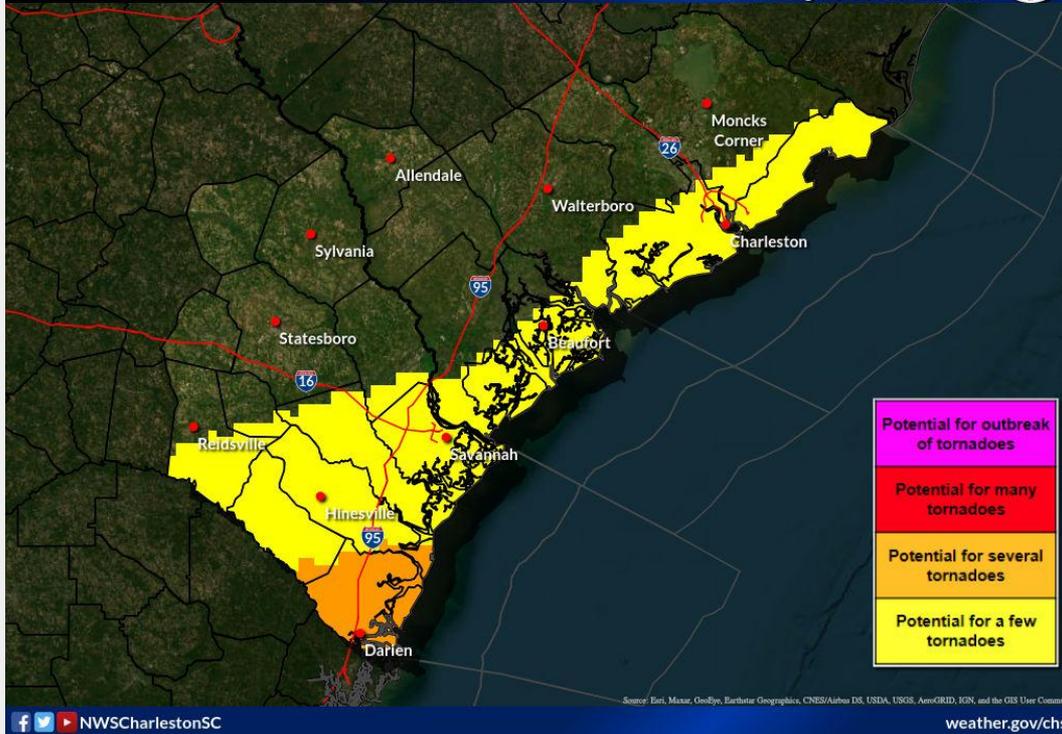
Potential Tornado Impacts

Tropical Storm Debby

Tornado Threat

Weather Forecast Office
Charleston, SC

Issued Aug 04, 2024 5:50 AM EDT



- A few to several tornadoes possible, with the greatest threat near the coast.
- Timing: Monday through Thursday.
- Impacts: Isolated enhanced damage possible.

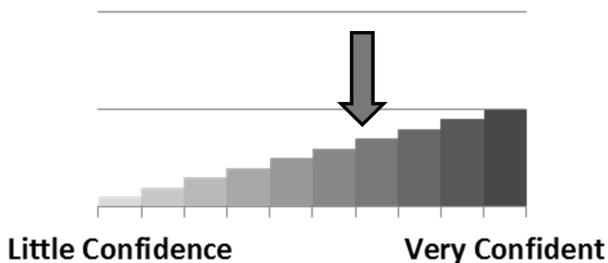


Key Take-Aways

Tropical Storm Debby

- **Rainfall Flooding:** Potential for historic rainfall amounts producing widespread severe flash flooding late tonight through Thursday.
- **Wind and Storm Surge:** Increasing confidence in elevated to moderate impacts, with tropical wind and surge watches likely issued today.
- A few to several **Tornadoes** also possible mainly near the coast with **dangerous marine conditions** also expected.

Forecast Confidence



Overall Confidence in Event - MODERATE to HIGH

Confidence for Individual Impacts - MODERATE



Local Resources

Tropical Storm Debby

Next Briefing:
11:30 AM EDT
Method: Webinar



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