



# Tropical Storm Debby Briefing

6 AM EDT

Tuesday, Aug 6, 2024

**Catastrophic flooding likely this week**



# Situation Overview

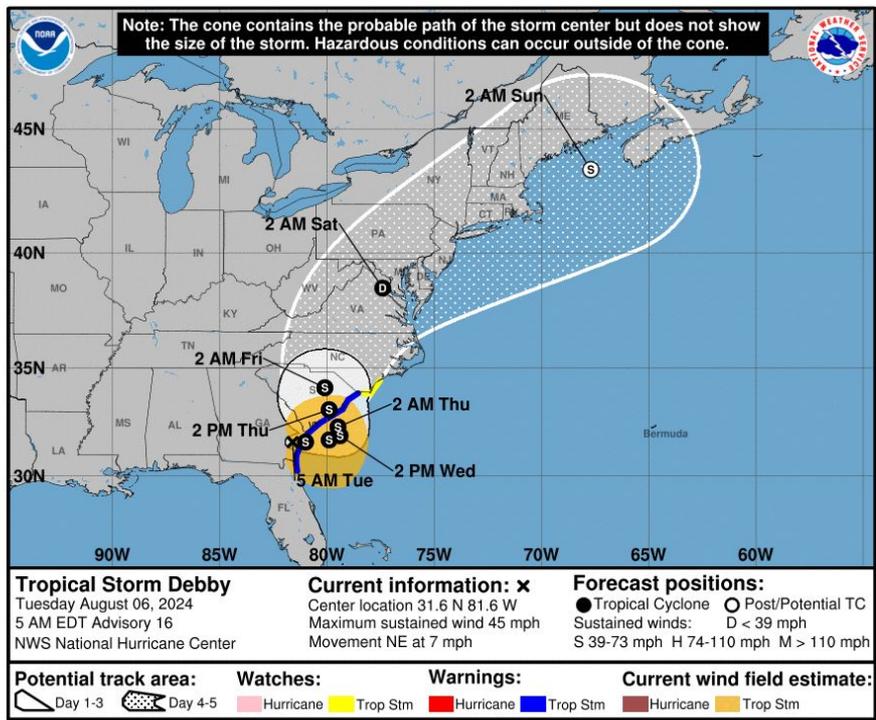
Tropical Storm Debby

- **Potentially historic rainfall totals will likely produce areas of catastrophic flooding through at least Friday morning.**
- **Impacts will continue through mid-to-late week. Tropical storm force winds, storm surge, and some tornadoes also possible for portions of the area.**
- **Longer term River Flooding will likely inhibit recovery efforts into next week and beyond.**



# Situation Overview

## Tropical Storm Debby



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

- Tropical Storm Debby continues to move slowly northeast.
- Slow movement northeast and then east with the storm moving off of the GA coast this afternoon.
- The movement of Debby will then slowly turn north late Wednesday with a second landfall along the SC coast forecast Thursday.
- Intensity and track forecast still somewhat uncertain Thursday and Friday.



# Threat Levels - Max Values for Debby

Hurricane Debby

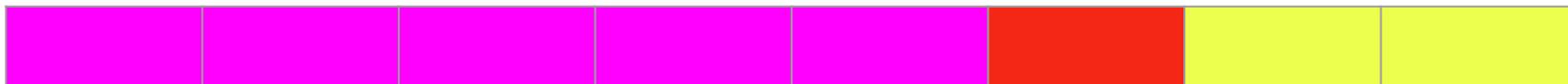
Tuesday

Wednesday

Thursday

Friday

Rain



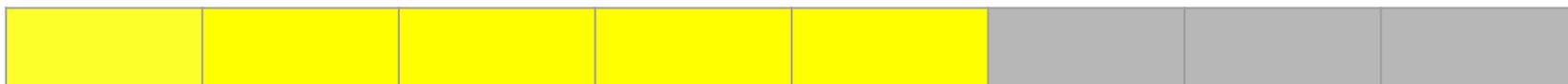
Surge



Wind



Tornado



Marine



## 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
 <b>Flooding Rain</b>	<b>Potentially historic rainfall totals</b> will likely produce areas of catastrophic flooding	Entire area, with highest amounts likely across coastal SC	Heavy rainfall now through Thursday
 <b>Storm Surge &amp; Inundation</b>	Surge impacts exacerbated by heavy rainfall. Prepare for 2-4 feet AGL	Entire coast, but area will change as storm moves northward	Greatest threat Tuesday through Thursday, especially SC
 <b>Wind</b>	Significant wind impacts, including scattered power/comms outages, possible	Within the Tropical Storm Warning area, especially southeast SC	Tonight through Thursday
 <b>Tornado</b>	Isolated tornadoes could produce locally enhanced damage	Highest chances coastal SC	Through Wednesday
 <b>Marine</b>	Winds and Seas dangerous to all mariners	All Atlantic waters	Through Wednesday (GA) and through Thursday (SC)

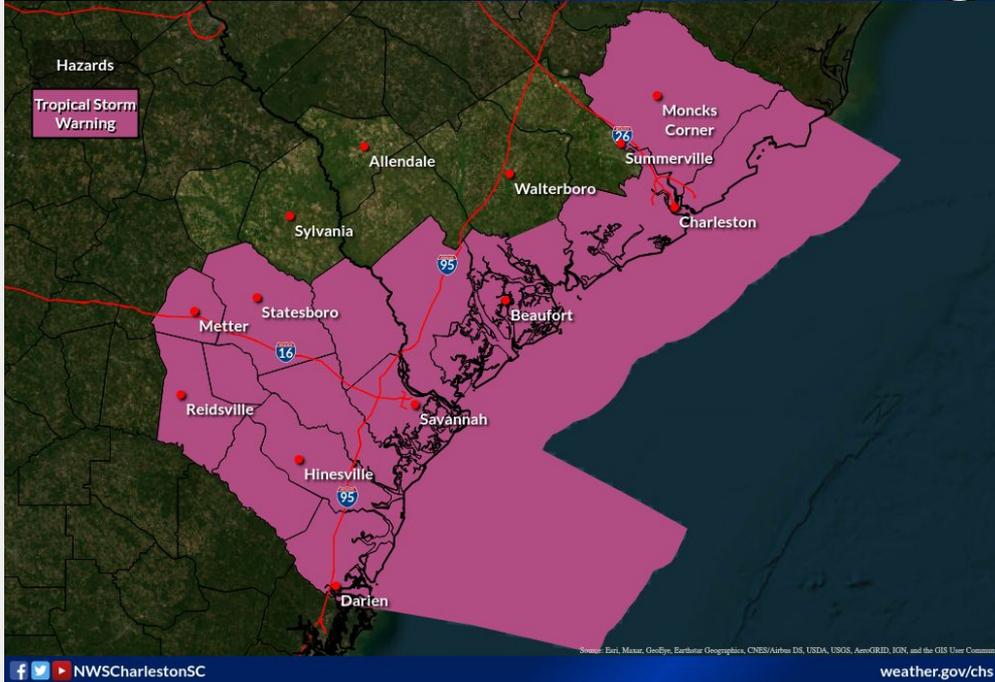


# Watch/Warnings in Effect

Tropical Storm Debby

## Tropical Storm Warning

Weather Forecast Office  
Charleston, SC  
Issued Aug 05, 2024 11:11 AM EDT

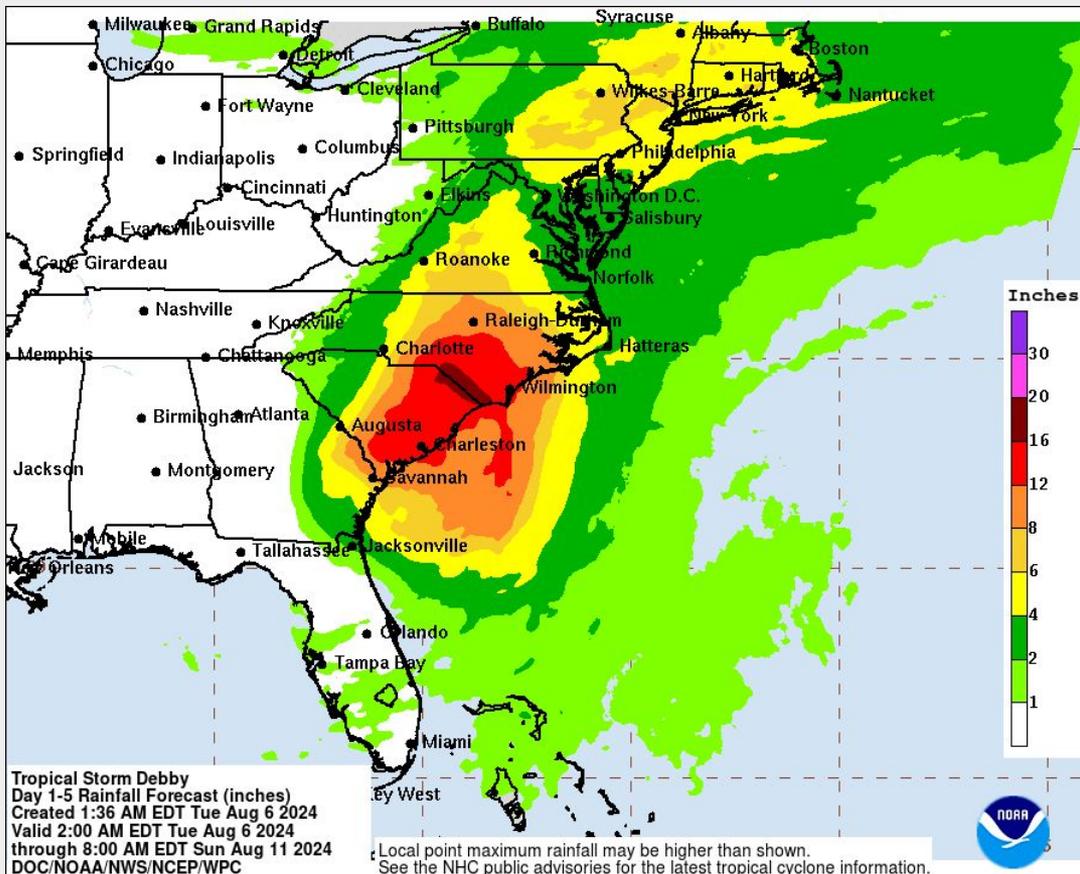


- **Tropical Storm *Wind* Warning** - Coastal SC, portions of southeast GA, ALL Atlantic waters
- **Flood Watch** - Entire area
- **Storm Surge Warning** - Entire coast
- **Tornado Watch** - Entire area



# Expected Storm Total Rainfall

## Tropical Storm Debby



**Storm Total Rainfall Amounts:** 10-20 inches, with locally higher amounts approaching 25 inches

**Additional Rainfall:** 10- 20" for SC and 5 - 10" for GA.

**NOTE:** *Successive rainfall forecasts now appear lower due to rainfall already having fallen. Really "additional" event rainfall*



# Inland Flooding Impacts

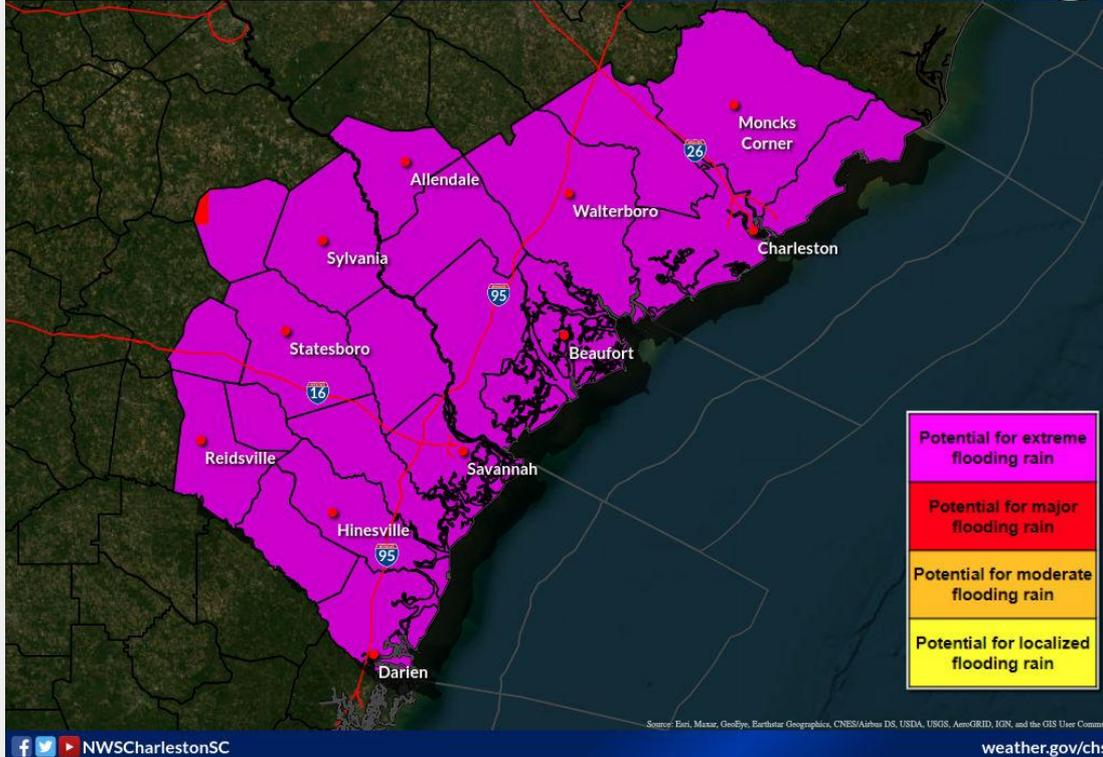
Tropical Storm Debby

## Flooding Rain Threat

Weather Forecast Office

Charleston, SC

Issued Aug 06, 2024 5:30 AM EDT



NWSCharlestonSC

There is a potential for:

- Potentially **Historic Rainfall** likely to bring areas of **catastrophic flooding**.
- Timing: GA: through at least Wednesday. SC through at least Thursday
- Impacts:
  - Numerous homes & structures flooded, damage to roadways (*washouts*)
  - Unprecedented small stream/creek flooding
  - Longer term major river flooding

Last updated: 8/6/2024 4:43 AM EDT

National Weather Service - Charleston, SC

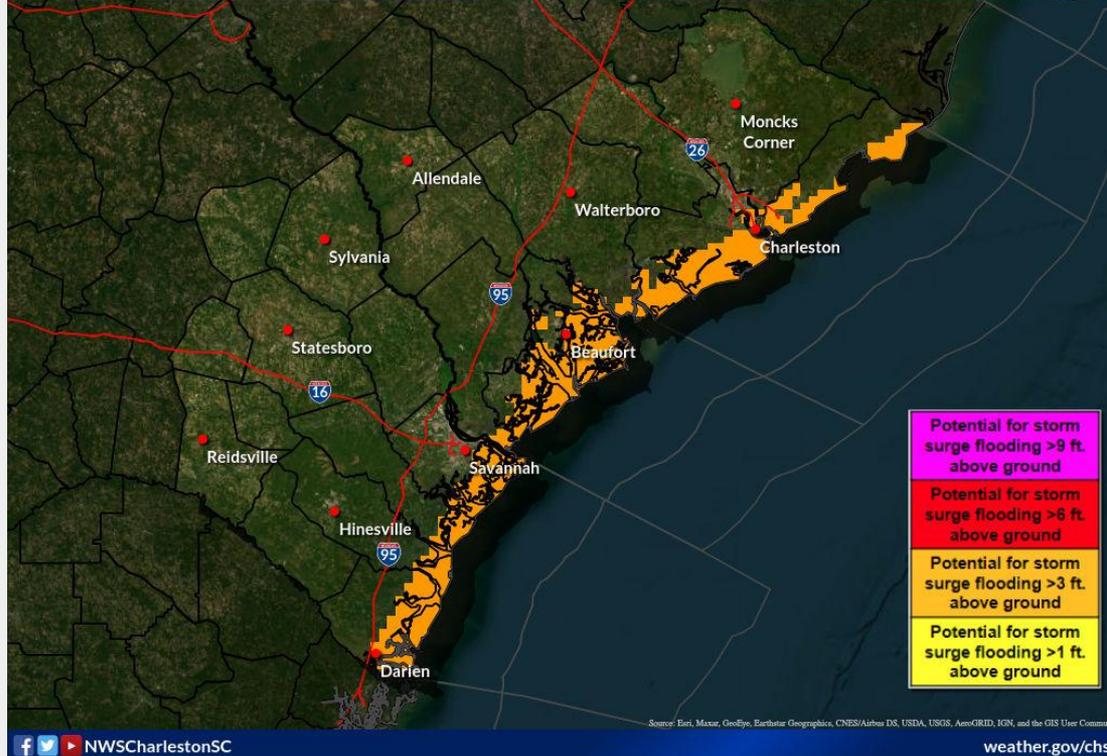


# Potential Storm Surge Impacts

Tropical Storm Debby

## Storm Surge Threat

Weather Forecast Office  
Charleston, SC  
Issued Aug 06, 2024 5:30 AM EDT



NWSCharlestonSC

There is a potential for:

- Storm Surge Warning for entire coastline
- Potential for 2-4 Feet of Storm Surge Inundation over normally dry tidal/near tidal region
- Timing: Greatest threat Tuesday through Thursday, especially SC
- Impacts:
  - Flooding of coastal/near coastal streets and roadways, especially low lying ones
  - Some coastal structures may be flooded
  - Minor to moderate beach erosion

Last updated: 8/6/2024 4:43 AM EDT

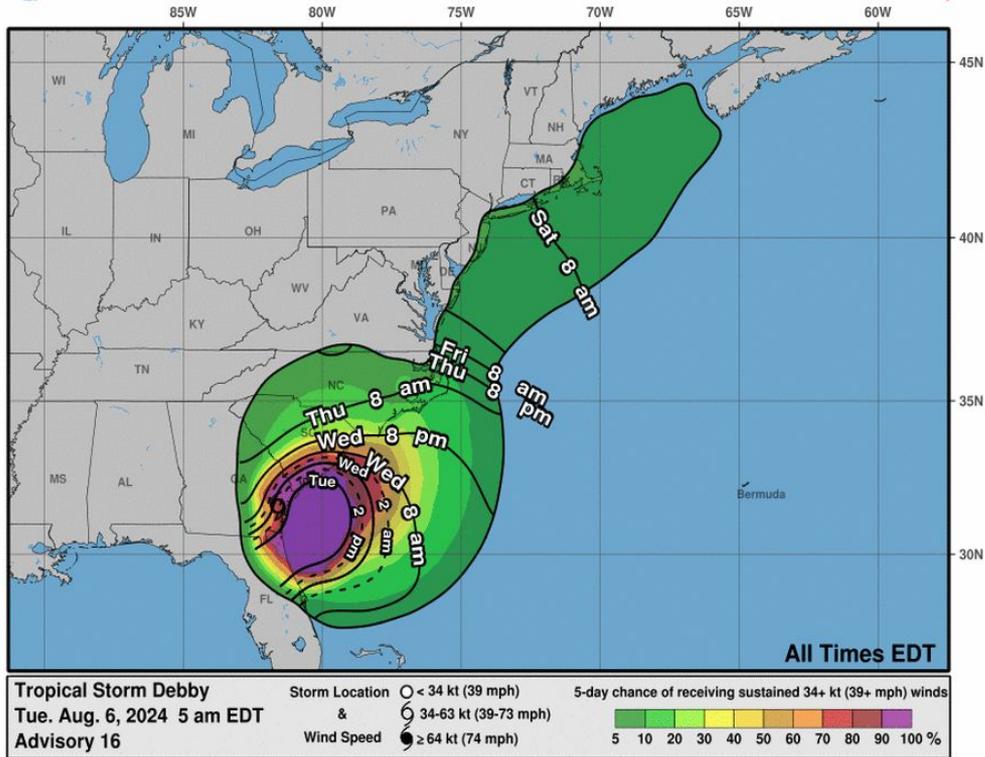
National Weather Service - Charleston, SC



# Most Likely Time of Arrival

## Tropical Storm Debby

### Most Likely Arrival Time of Tropical-Storm-Force Winds



- **Most Likely Time of Arrival** for Tropical Storm Force Winds, **GA** - Tonight through early Wednesday  
**SC** - Tuesday/Tuesday afternoon
- Best chances for Tropical Storm Wind/Wind gusts will be our southeast GA counties, all coastal areas, and/or within strong rainbands any location



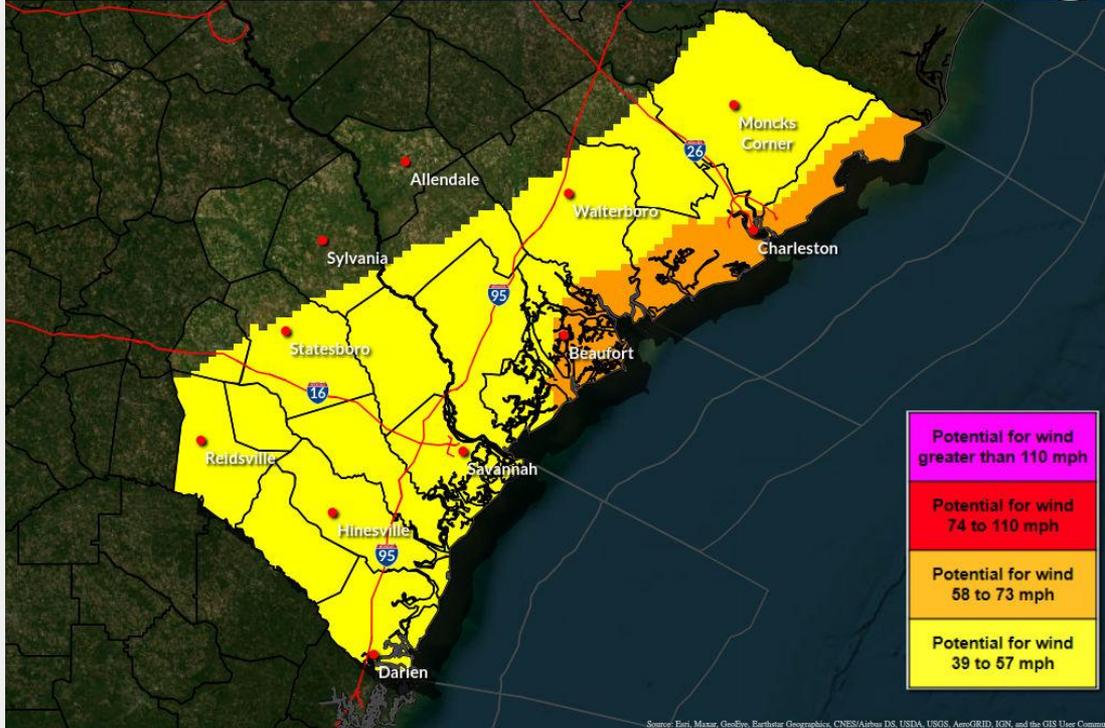
# Wind Threat / Potential Impact

Tropical Storm Debby

## Wind Threat

Weather Forecast Office  
Charleston, SC

Issued Aug 06, 2024 5:30 AM EDT



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

NWSCharlestonSC

[weather.gov/chs](https://weather.gov/chs)

There is a potential for:

- Tropical Storm winds/wind gusts possible, especially coastal areas and/or within rainbands
- Timing: GA: through at least tonight. SC: through Wed/Wed night
- Impacts:
  - Isolated to scattered power and communications outages
  - Downed trees and/or large tree limbs, could block roads
  - Stronger winds over bridges

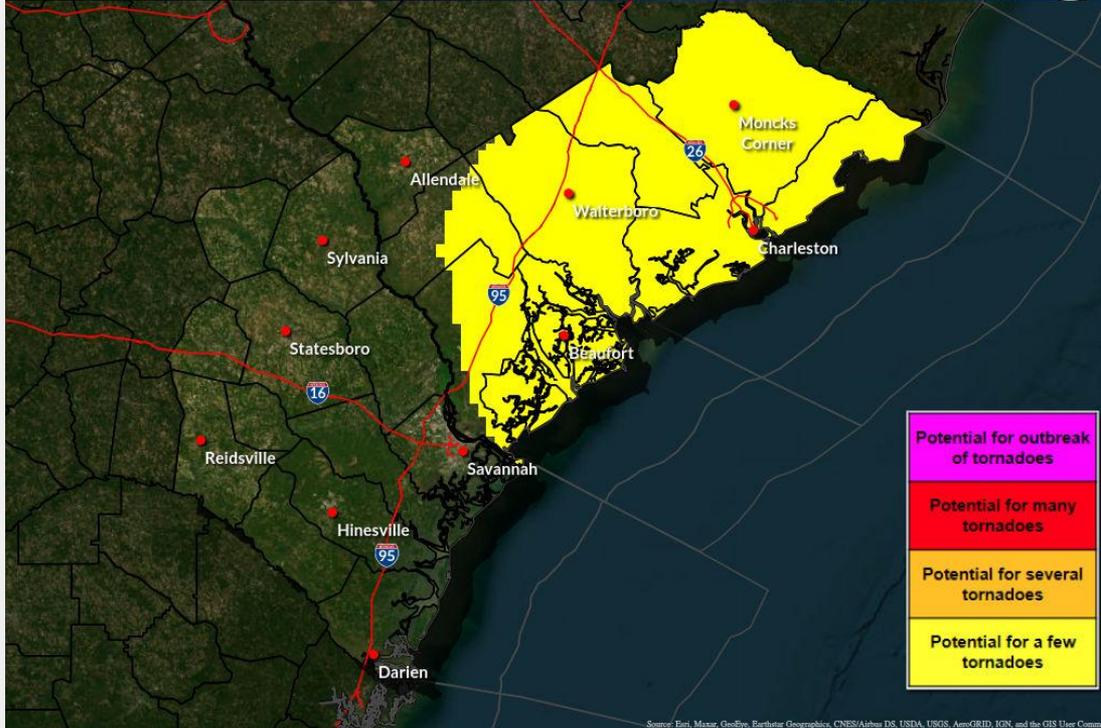


# Potential Tornado Impacts

Tropical Storm Debby

## Tornado Threat

Weather Forecast Office  
Charleston, SC  
Issued Aug 06, 2024 5:30 AM EDT



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

NWSCharlestonSC

[weather.gov/chs](http://weather.gov/chs)

There is a potential for:

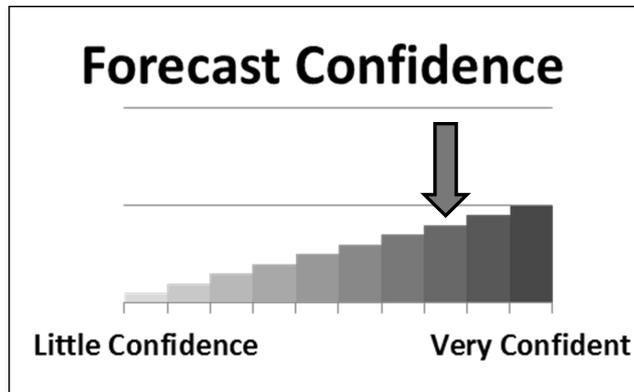
- Isolated to scattered tornadoes possible, with greatest threat near the coast
  - Especially within rainbands
  - Generally short-lived, with potential for short warning lead time(s)
- Timing: SC: Tues and Wed/  
Wed night
- Impacts: Locally enhanced damage possible



# Key Take-Aways

## Tropical Storm Debby

- **Highest impact remains to be potential for historic rainfall, with areas of catastrophic flooding through mid-to-late week**
- Expect a prolonged event with wind, surge, and tornado impacts also possible, but secondary to the flooding rainfall threat.



**Overall Confidence in Event - MODERATE**

**Confidence for Individual Impacts - LOW to MODERATE**



# Local Resources

Tropical Storm Debby

Next Briefing:  
Tuesday 1130 AM  
Method: Webinar



WWW

**Web:** [weather.gov/chs](https://weather.gov/chs)



**Phone:** 843-747-5860



**E-mail:** [nws.charlestonsc@noaa.gov](mailto:nws.charlestonsc@noaa.gov)



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