



Tropical Storm Debby Briefing

6 AM ET

Wednesday, August 7, 2024

What has changed:

Slightly faster progression after landfall in SC.
Coastal Flood Advisory in effect for Carteret and Onslow Counties
High Surf Advisory in Effect from Oregon Inlet to Surf City



Situation Overview






Tropical Storm Debby

- Tropical Storm Debby will move slowly just offshore of the South Carolina coast today, make landfall in South Carolina late tonight, before lifting north through central North Carolina Thursday night and Friday morning.
- The biggest impact from TS Debby will be **life-threatening flash flooding** due to several days of heavy rainfall, lasting through Friday. Additional rainfall amounts will range **4-8 inches, with locally higher amounts possible**. A Flash Flood Watch remains in effect through Thursday night.
- Tropical Storm Force winds will be possible for coastal portions of Onslow and Carteret Counties, resulting in storm surge inundation of **1 to 3 feet above ground** for these locations as TS Debby passes through NC on Thursday and Friday.
- In addition, there is a limited threat for gusty winds and tornadoes Today through Friday.



Situation Overview

Tropical Storm Debby

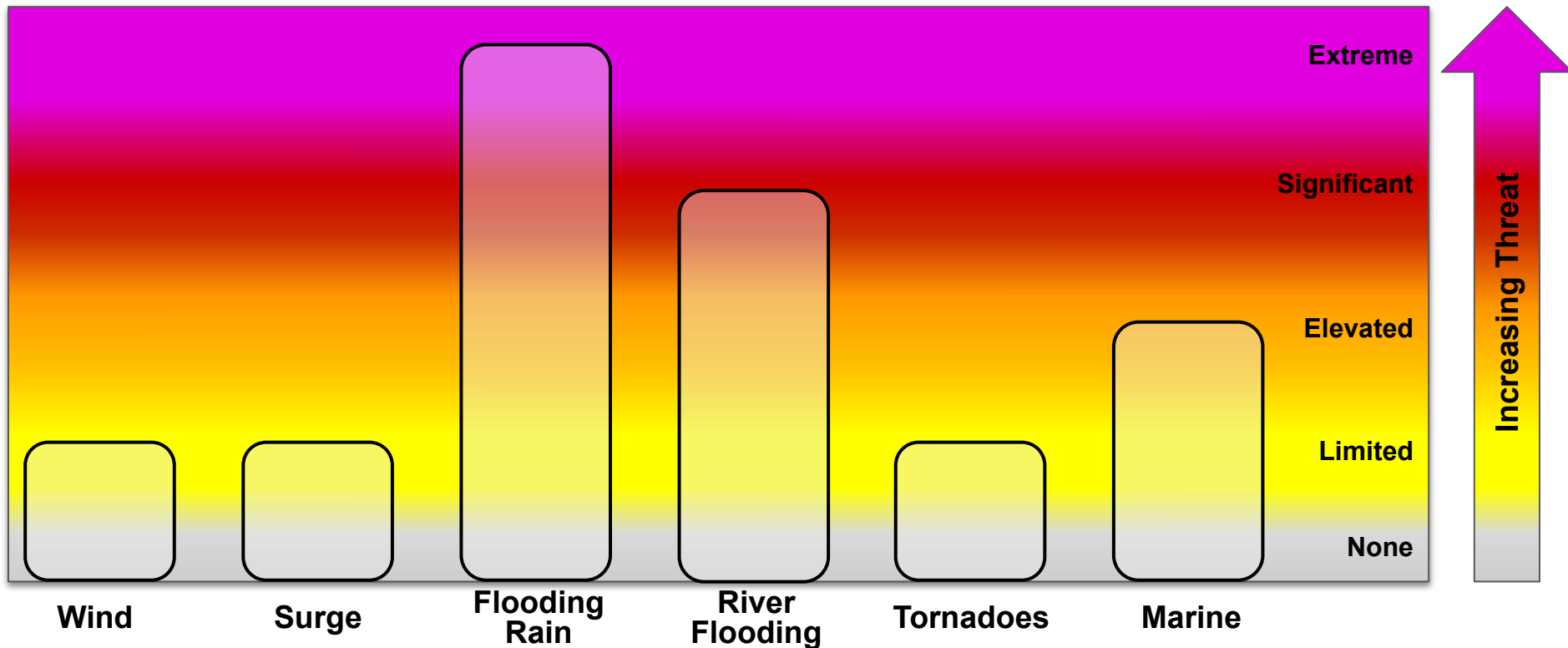
Hazard	Impacts	Location	Timing
 Wind	Limited impacts from tropical storm force winds will be possible	Mainly along the coast of Onslow & Carteret Counties, and adjacent coastal waters	Tonight through Friday
 Storm Surge & Inundation	Inundation of 1-3 feet above ground will be possible, limited impacts elsewhere	Mainly along the coast of Onslow & Carteret Counties	Thursday through Friday
 Flooding Rain	Life-threatening flash flooding will be possible due to heavy rain.	All of Eastern NC	Through Friday
 Tornado	A few tornadoes will be possible	All of Eastern NC	Through Friday
 Marine	Dangerous winds/seas likely, resulting in rough surf and high threat of rip currents	All coastal waters and beaches	Through Friday



Threat Levels

Tropical Storm Debby

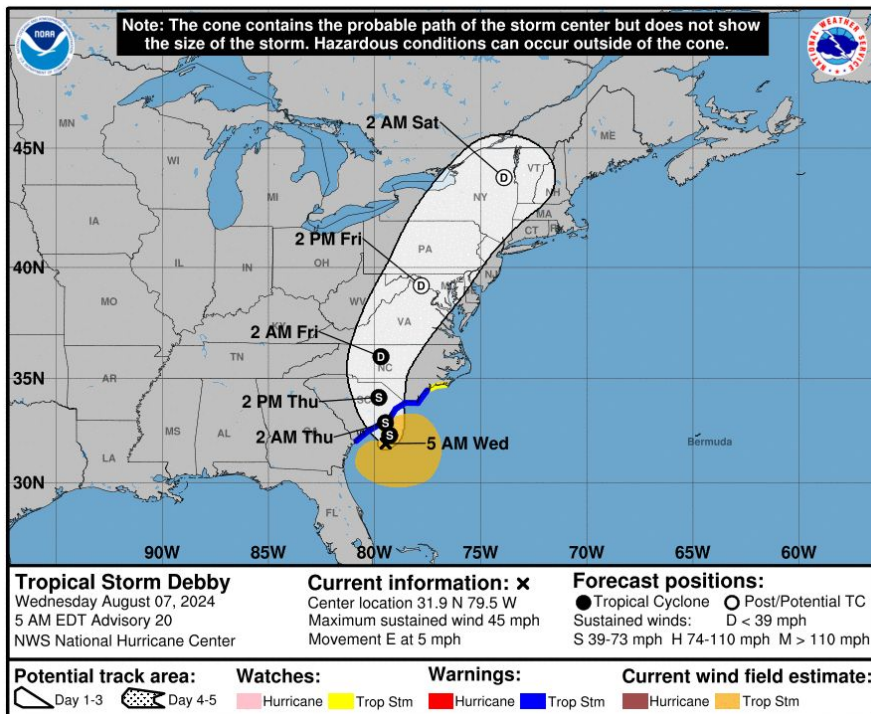
For information on specific hazards in this area, please go to: <https://www.weather.gov/mhx/tropical>





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 will move along the SC coast through Thursday, then lift through central NC Thursday night into Friday.
- Tropical Storm Watches remain in effect for Onslow and Carteret counties.
- Remember, the primary impact from TS Debby will be flash flooding from heavy rainfall that will last several days.



Inland Flooding Impacts

Tropical Storm Debby

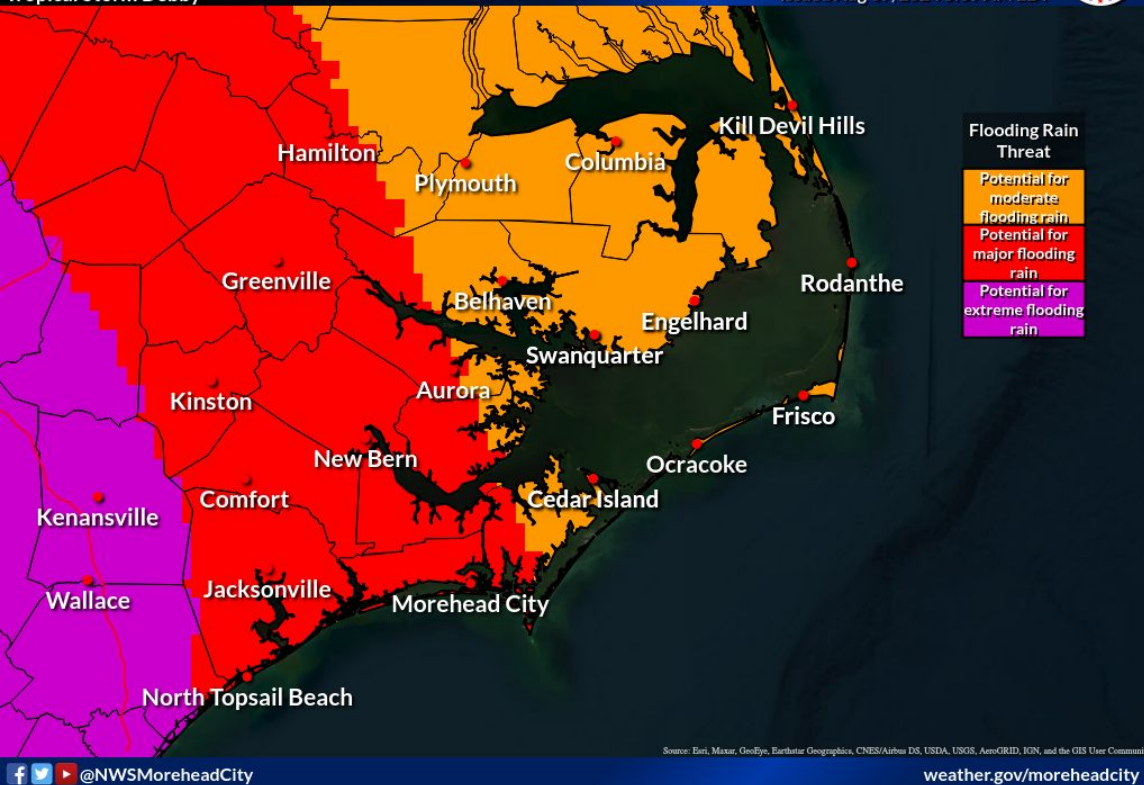
Flooding Rain Threat

Tropical Storm Debby

Weather Forecast Office

Newport/Morehead City, NC

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- Areas outlined in red and purple have the greatest potential for flash flooding from tonight through Friday.
- Extreme rainfall flooding may prompt evacuations and rescues.
- Rivers and tributaries may rapidly overflow their banks in multiple places. Small streams, creeks, canals, and ditches may become dangerous rivers.



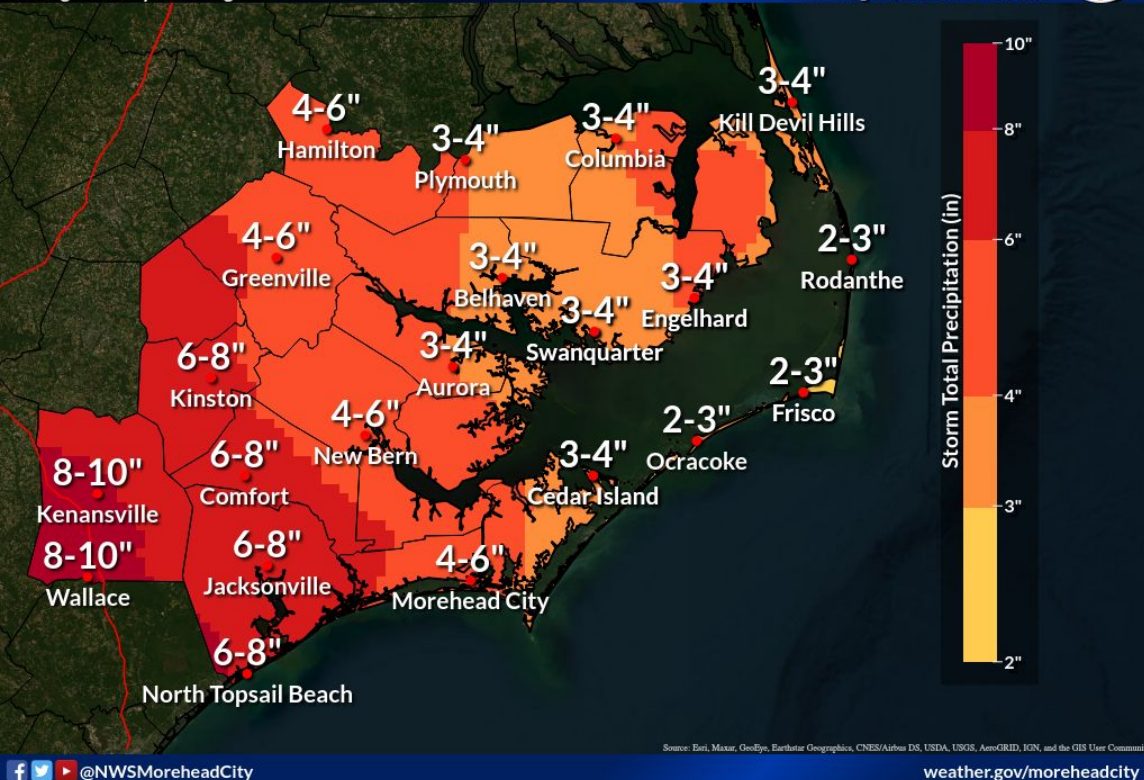
Expected Storm Total Rainfall

Tropical Storm Debby

Storm Total Rainfall

Through Sunday Morning

Weather Forecast Office
Newport/Morehead City, NC
Issued Aug 06, 2024 4:00 PM EDT



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

weather.gov/moreheadcity

- Storm Total Rainfall amounts will range 5-10 inches with locally higher amounts upwards of 15 inches.
- Greatest potential for Flash Flooding will be along and west of HWY 17.
- Do not drive through flooded roads. The majority of flood deaths are in vehicles. Turn around don't drown!

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Last updated: 8/7/2024 6 AM EDT

National Weather Service - Newport/Morehead City, NC



Wind Threat / Potential Impact

Tropical Storm Debby

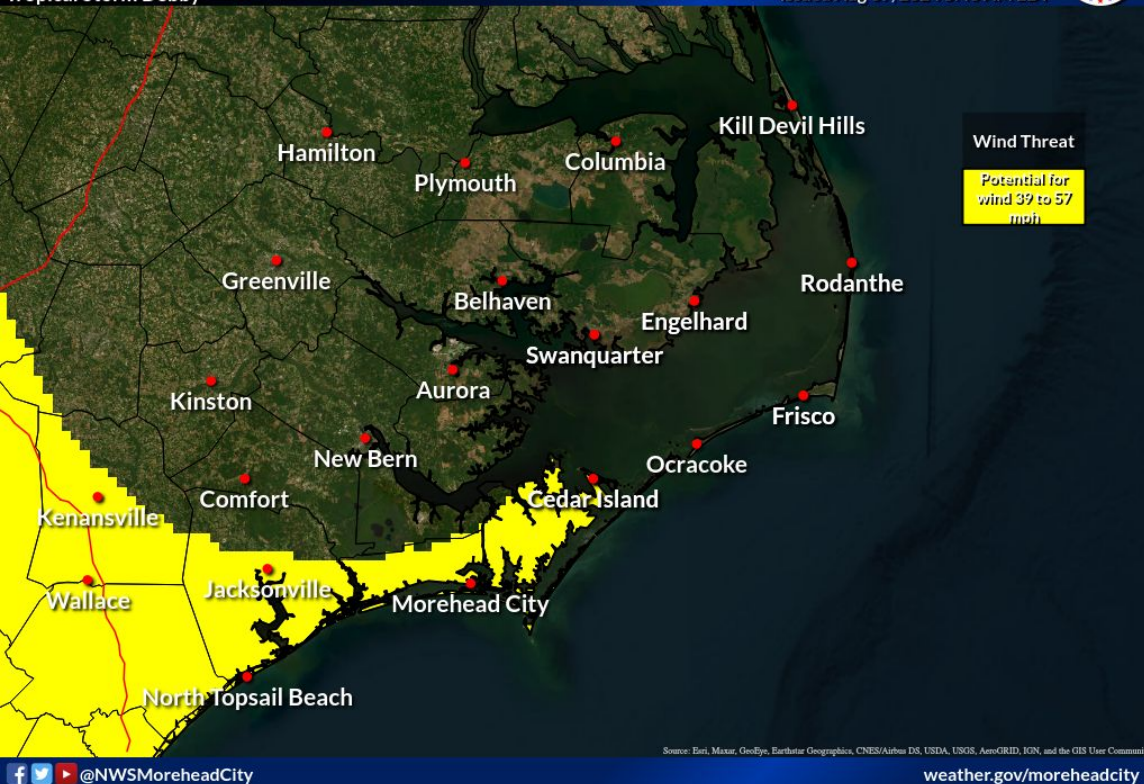
Wind Threat

Tropical Storm Debby

Weather Forecast Office

Newport/Morehead City, NC

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There is a potential for:

- Damage to porches, awnings, carports, sheds, and unanchored mobile homes. Unsecured lightweight objects blown about.
- Many large tree limbs broken off. A few trees snapped or uprooted, but with greater numbers in places where trees are shallow rooted and soils are saturated.
- Scattered power and communication outages.

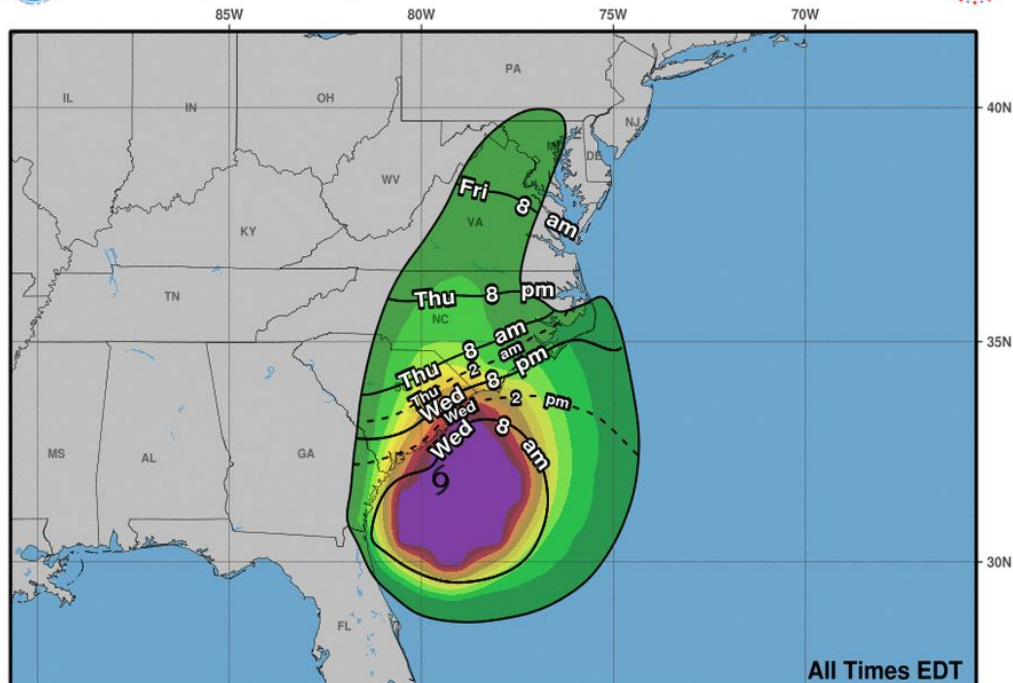


Most Likely Time of Arrival

Tropical Storm Debby



0-3 Day Most Likely Arrival Time of Tropical-Storm-Force Winds



Tropical Storm Debby
Wed. Aug. 7, 2024 5 am EDT
Advisory 20

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

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

- The most likely time of arrival of Tropical Storm Force Winds for the Eastern NC is tonight.
- However, Eastern NC could see Tropical Storm Force Winds as early as this afternoon for southern coastal locations.



Peak Storm Surge

Tropical Storm Debby

Storm Surge

Tropical Storm Debby

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Newport/Morehead City, NC
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- Storm surge inundation of 1 to 3 feet will be possible for coastal portions of Onslow and Carteret counties (Surf City to Cape Lookout).
- Elsewhere, limited storm surge inundation up to 1 foot will be possible.
- Coastal Flood Advisory in effect for Carteret and Onslow Counties.



Maximum Wind Gusts

Tropical Storm Debby

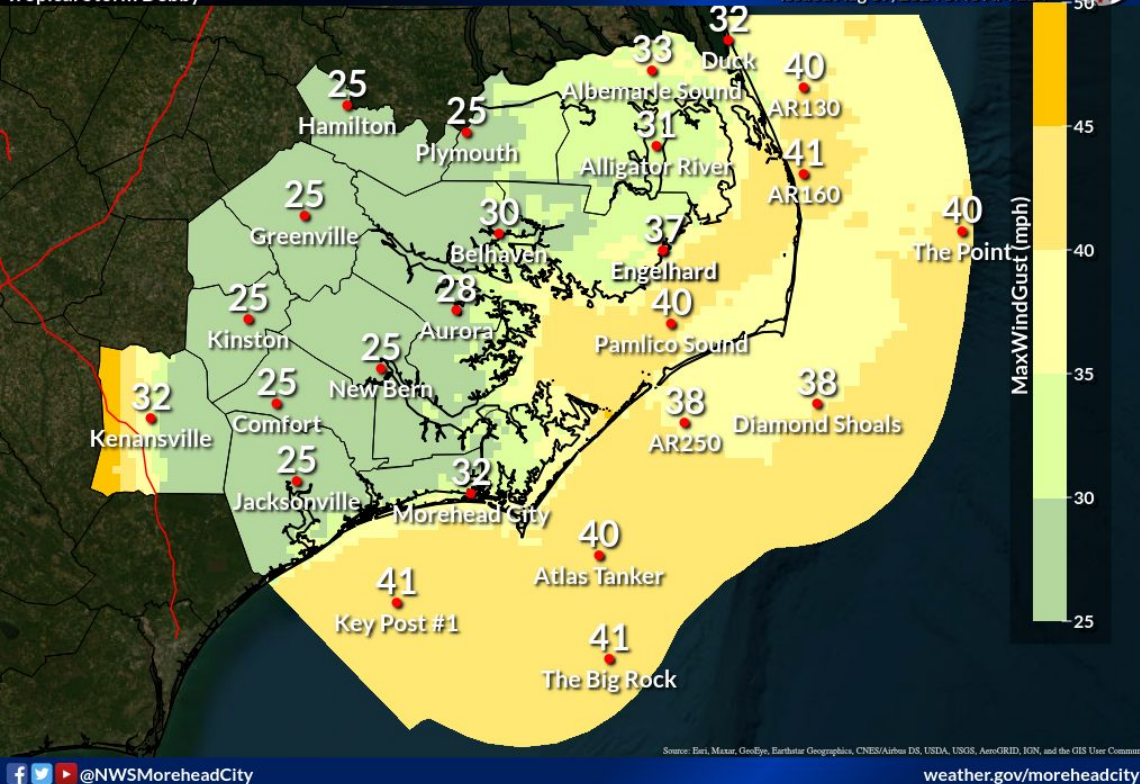
Maximum Wind Gust

Tropical Storm Debby

Weather Forecast Office

Newport/Morehead City, NC

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- A core of high winds is expected near and to the east of the final storm track, which currently takes the center of TS Debby through central NC.
- Higher winds are also expected near the coast and exposed areas to water.
- Strongest winds are expected Thursday into Friday.



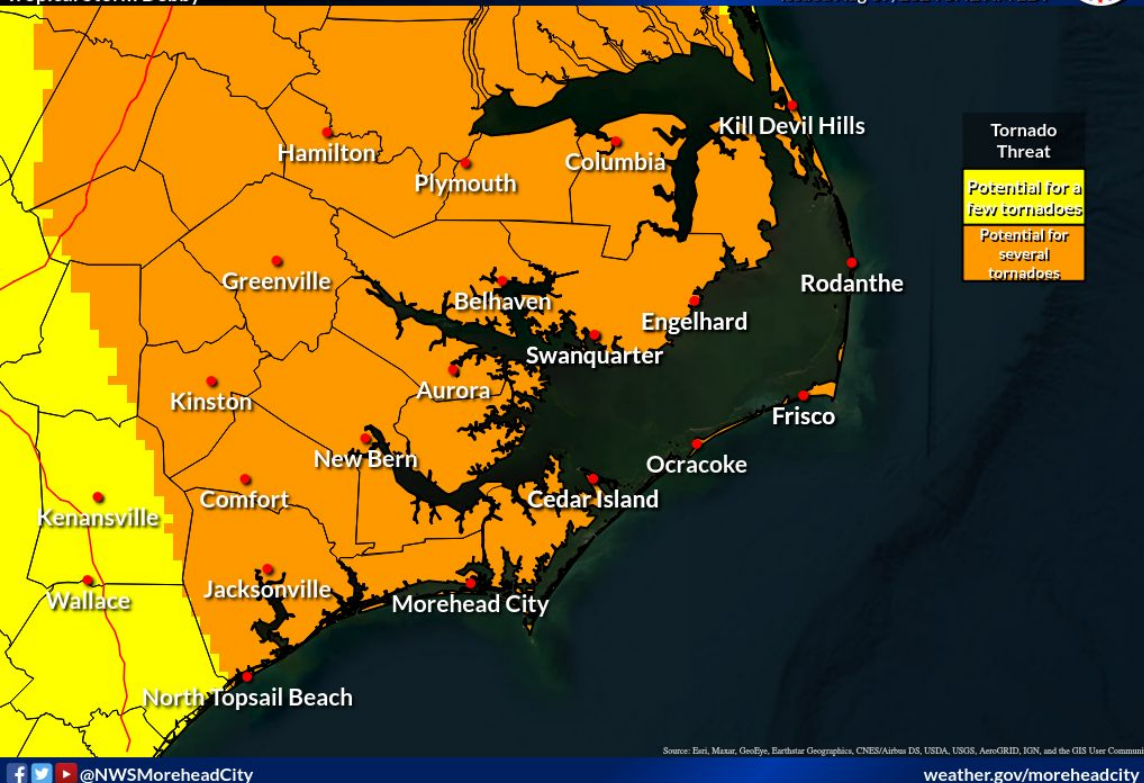
Potential Tornado Impacts

Tropical Storm Debby

Tornado Threat

Tropical Storm Debby

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Newport/Morehead City, NC
Issued Aug 07, 2024 5:42 AM EDT



- Main threat of tornadoes will be from this afternoon through Friday morning for all of Eastern NC.
- All residents should have multiple ways to receive tornado warnings should any be issued (NOAA Weather Radio, cell phone, TV, etc.).



Dangerous Rip Currents

Tropical Storm Debby

Rip Current Risk

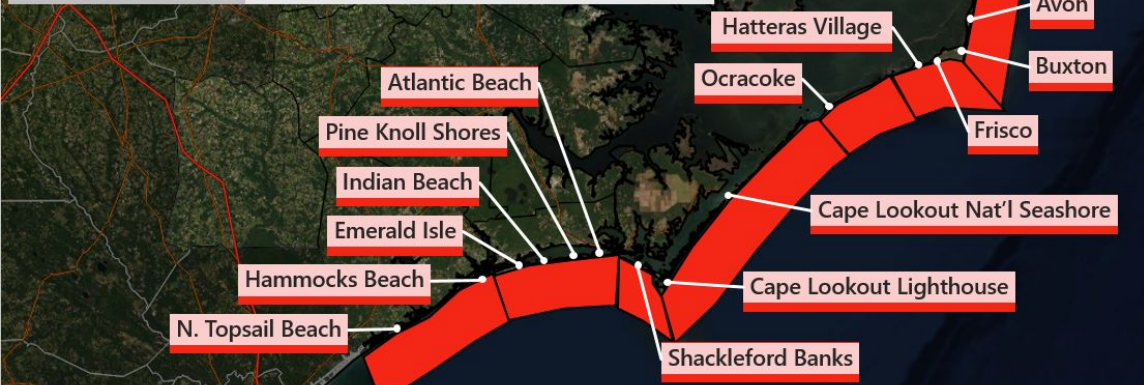
Weather Forecast Office
Newport/Morehead City, NC



Forecast for Wednesday, August 7th, 2024

Elevated Rips Currents Through Saturday

HIGH	Life-threatening rip currents are likely in the surf zone.
MODERATE	Life-threatening rip currents are possible in the surf zone.
LOW	The threat for rip currents is low. However, life-threatening rip currents may occur in the vicinity of jetties and piers.



For Wednesday, August 7th:

- High Rip Current Risk from Oregon Inlet south to Surf City
- High Surf advisory for breaking waves of 6-10 feet from Oregon Inlet to Surf City

For Thursday through Saturday:

- High Rip Current Risk from Duck to Surf City
- High Surf advisory for breaking waves of 6-10 feet from Oregon Inlet to Surf City.



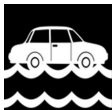
Key Take-Aways

Tropical Storm Debby

Confidence is HIGH that the event will occur
Confidence is MODERATE regarding impacts



Tropical storm force winds possible across portions of Eastern NC, with scattered tree damage and power outages possible.



Surge surge inundation of 1 to 3 ft above ground will be possible for coastal Onslow & Carteret counties. Elsewhere, limited impacts are anticipated, with 1 ft of inundation or less possible.



Life-threatening flash flooding will be possible due to several days of heavy rainfall, with amounts ranging 4 to 8 inches, locally upwards of 10+ inches across Eastern NC.



Isolated tornadoes will be possible for all of Eastern NC Tonight through Friday.



Dangerous marine conditions expected across the coastal waters. High threat of rip currents will continue through the weekend.



Local Resources

Tropical Storm Debby

Next Briefing:
6 PM ET - August 7, 2024
Method: Email



Web: www.weather.gov/mhx



Phone: 252-223-5737 ext. 6



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