



Disclaimer: The information contained within is time-sensitive.

Tropical Storm Helene Briefing

6:00 PM

Tuesday September 24, 2024

NEW: Tropical Storm Watch – Altamaha to Savannah River, ALL GA counties, and GA Atlantic waters





Situation Overview

September 24, 2024
6:00 PM

- Little change in NHC track forecast, other than slightly slower timing
- Track and Impact Confidence: Continues to increase as “Helene” becomes better defined
- Helene forecast to be a **LARGE SYSTEM**, with **IMPACTS** reaching **WELL OUTSIDE/EAST** of the Track Cone of uncertainty, which covers our region!
- Potential Impacts include: tropical storm force winds, elevated tides/storm surge inundation, tornadoes, periods of heavy rainfall, high surf, and high rip current risk

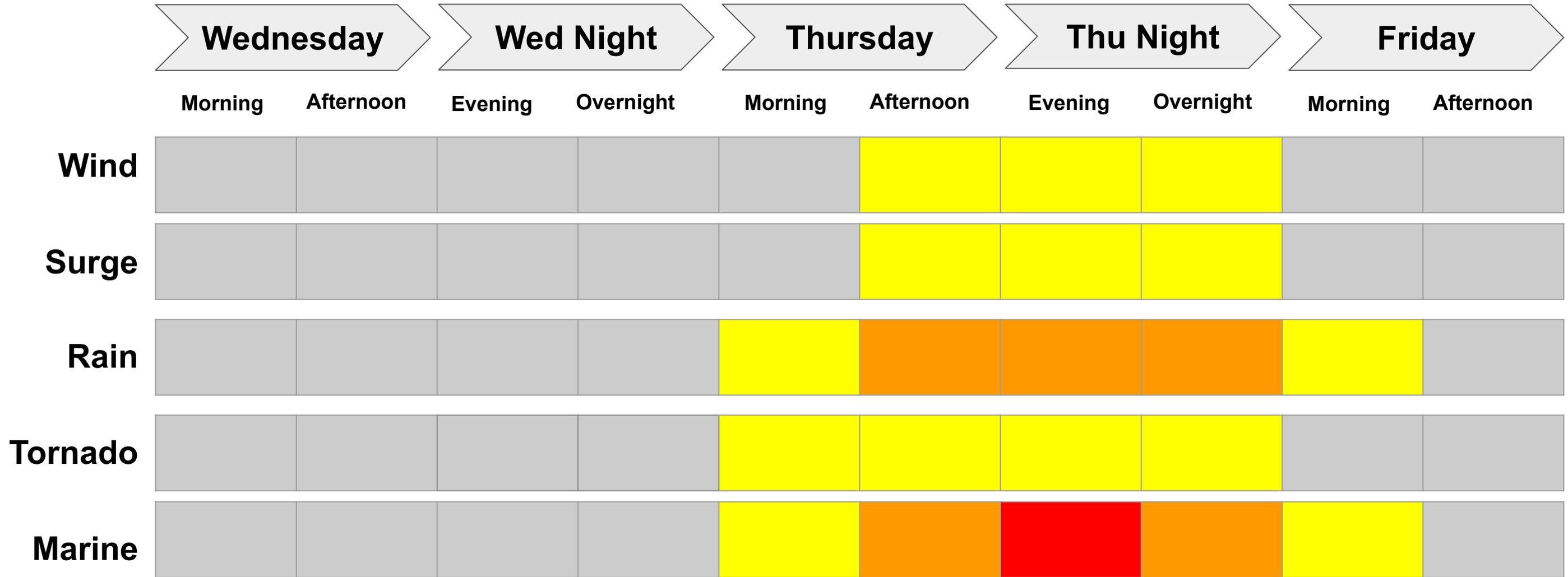




Threat Levels - *Max Values for the Storm*

September 24, 2024
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Changes: Lowered Wind and Surge Threats to Match HTI graphics



Effects and Impacts Legend

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



Situation Overview

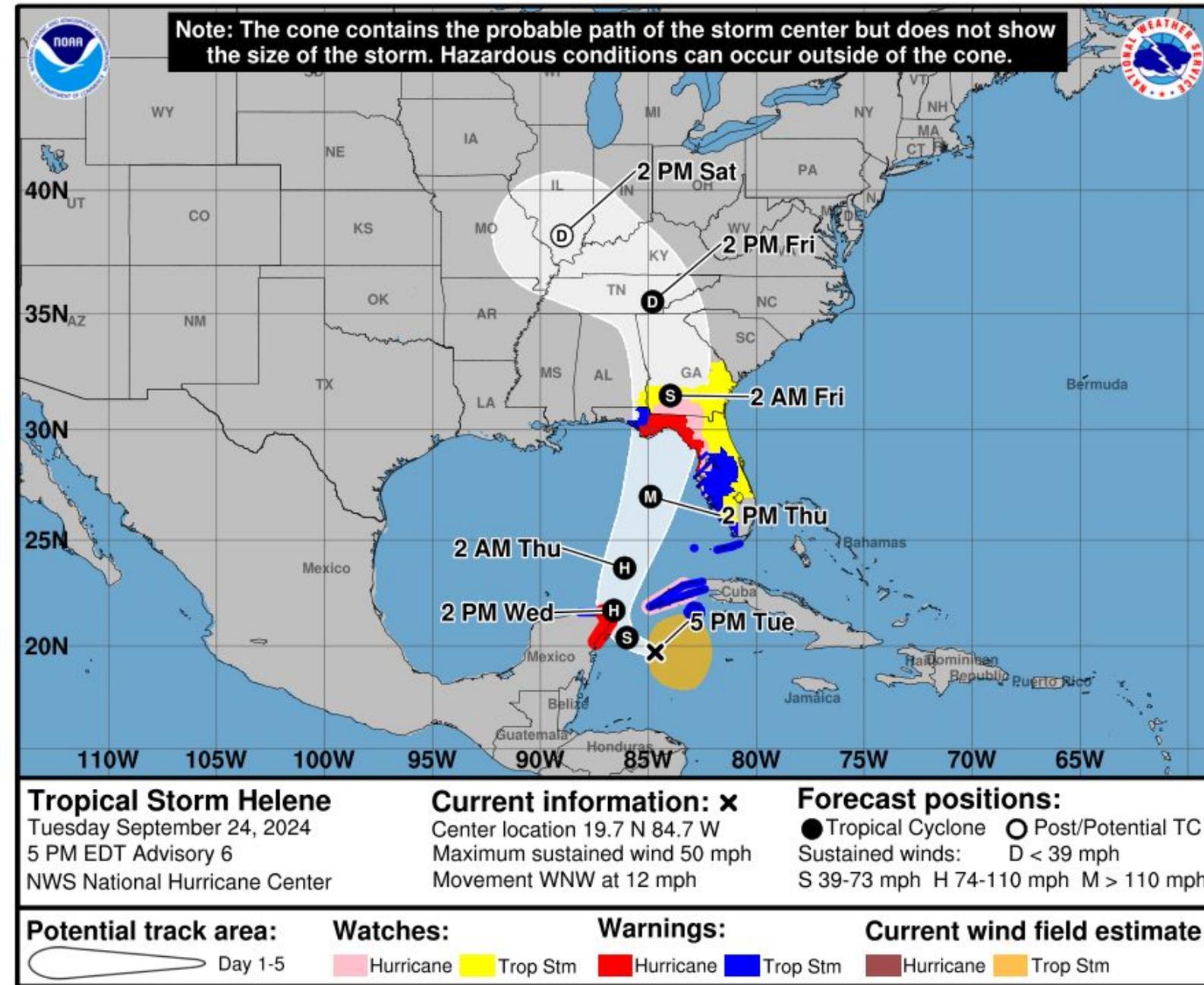
September 24, 2024
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| Hazard | Impacts | Location | Timing |
|--|---|--|---------------------------------------|
|  Wind | Potential for TS Wind/Wind Gusts. Downed and/or uprooted trees, Isolated to scattered power outages some roads impassable due to debris | Highest Threat for TS force wind/wind gusts roughly along and south of a line from Allendale, SC to Beaufort, SC | Thursday afternoon and Thursday night |
|  Storm Surge & Inundation | Storm Surge Inundation 1-3 feet above normally dry ground in/around tidal region. Localized saltwater flooding immediate shoreline, minor to moderate beach erosion | Entire coastline | Thursday afternoon and Thursday night |
|  Flooding Rain | Flooding of some roads/streets, especially in low lying, poorly drained areas, some storm drains and retention ponds may become full/overflow | Highest threat entire southeast GA region and generally west of I-95 in southeast SC region | Thursday and Thursday night |
|  Tornado | Isolated to scattered tornadoes could hinder preparedness activities, may produced localized areas of enhanced tree and/or structure damage | Entire region of southeast SC and southeast GA and Atlantic waters | Thursday and Thursday night |
|  Marine | Dangerous seas and tropical storm force wind/wind gust will make for dangerous to life-threatening conditions, especially for smaller crafts | Entire marine area from the Altamaha River, GA to the South Santee River, SC | Thursday and Thursday night |



Situation Overview

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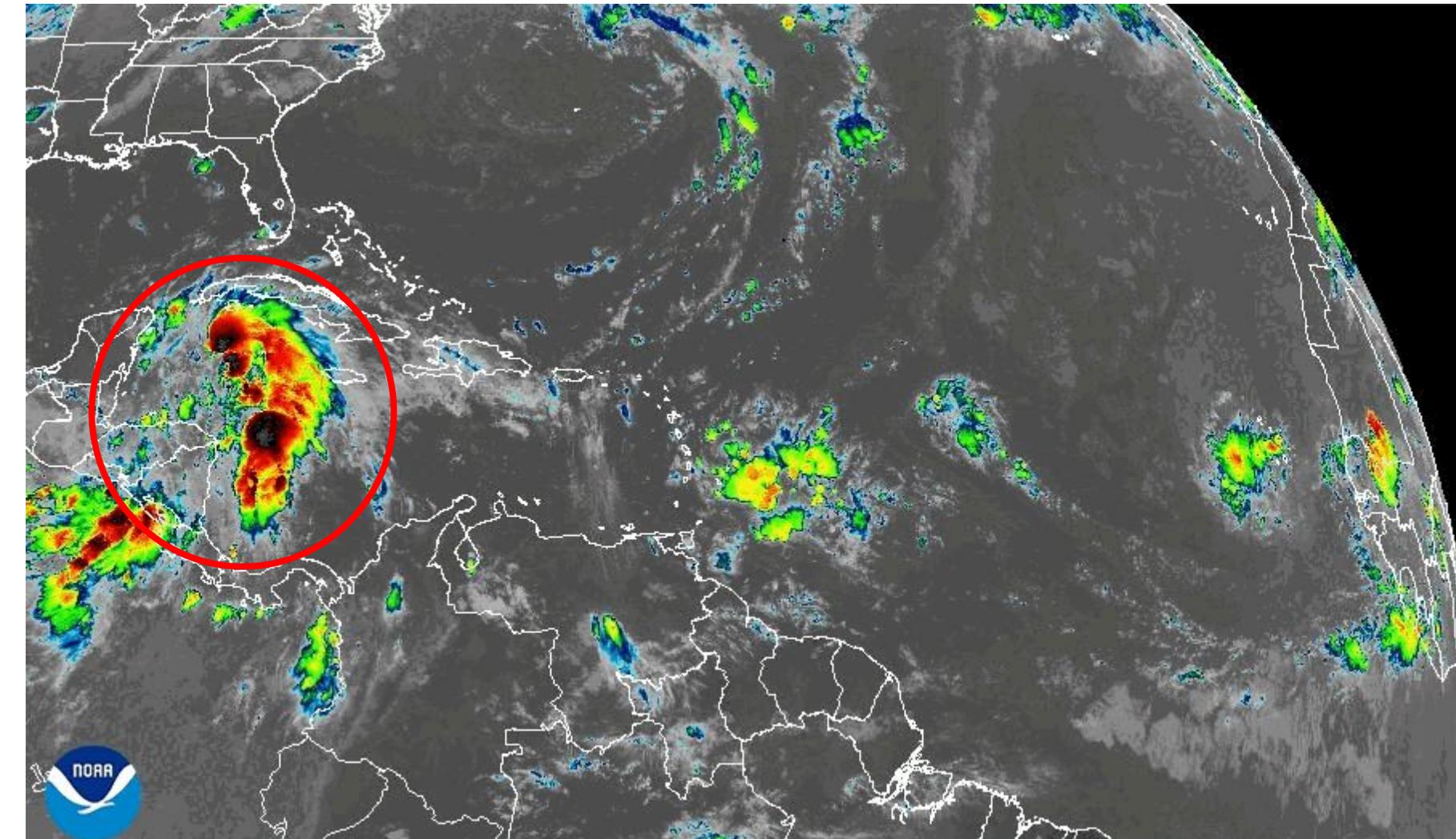
- **(NEW) Tropical Storm Watch for:** ALL southeast GA counties, along coast from Altamaha to the Savannah River, and GA Atlantic Waters
- Track Timing: *slightly slower than previous forecast*, but little change to impacts for our area
- Rapid Intensification Expected: Helene forecast to strengthen to a Hurricane by Wednesday afternoon, then Major Hurricane by Thursday afternoon
- Motion: Helene still expected to begin accelerating northward across the eastern Gulf of Mexico Wednesday and Thursday





Current Satellite View

September 24, 2024
6:00 PM



24 Sep 2024 13:00Z - NOAA/NESDIS/STAR - GOES-East - Band 13

- Helene continues to become better organized over the northwest Caribbean
- Helene is forecast to become a Hurricane by early Wednesday afternoon, then possibly a Major Hurricane by Thursday afternoon



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Charleston, SC



Tropical Storm Wind Speed Probabilities

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5 Day Probabilities of Tropical Storm Force Winds

- **Trend:** Little change in Tropical Storm Wind Speed probabilities from last Advisory
- Confidence in wind speed forecast increase as models now locking in on track of Helene
- Still NO probabilities for Hurricane Force winds in our area, BUT watch trends

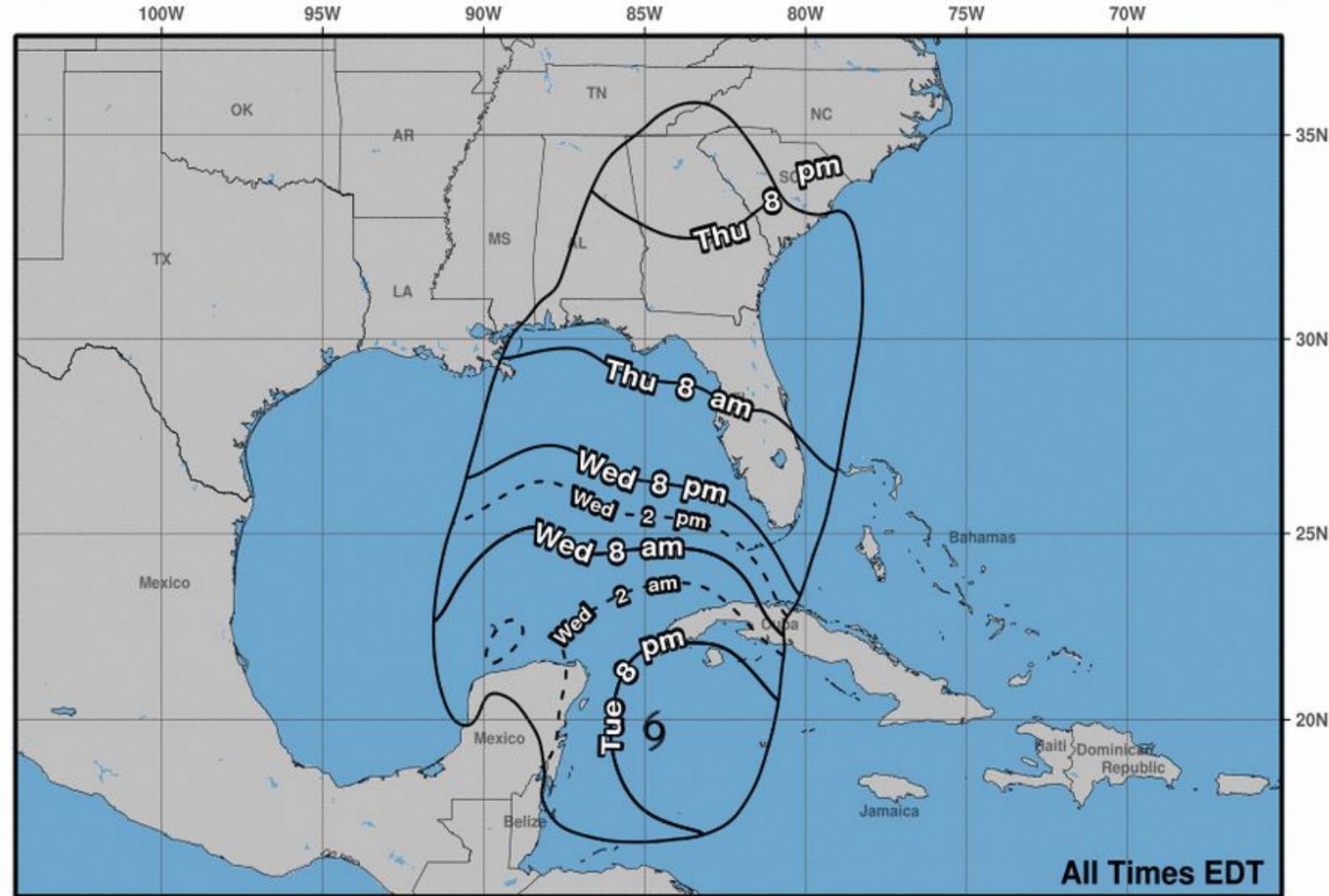




Earliest Reasonable Time of Arrival

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Earliest Reasonable Arrival Time of Tropical-Storm-Force Winds



Tropical Storm Helene
Tue. Sep. 24, 2024 5 pm EDT
Advisory 6

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

NOTE: Areas within the outermost black contour have at least a 5% chance of receiving winds of 34+ kt (39+ mph)

All Times EDT

- Tropical Storm Force winds could arrive as early as:
 - Southeast GA - Thursday afternoon
 - Southeast SC - Thursday evening
- However, the most likely time this area could see Tropical Storm Force Winds:
 - Southeast GA - Thursday evening
 - Southeast SC - Late Thursday night



Expected Storm Total Rainfall

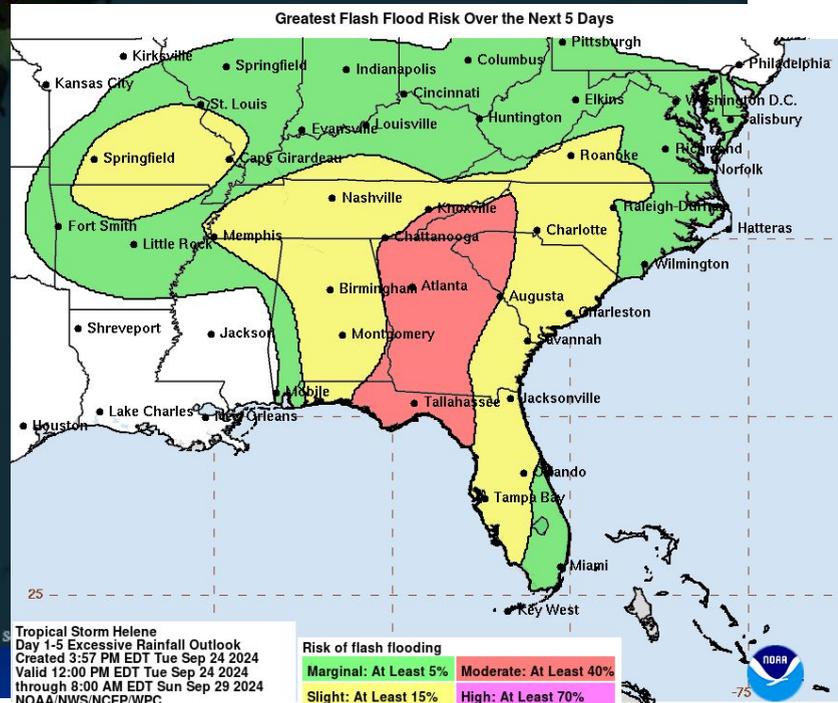
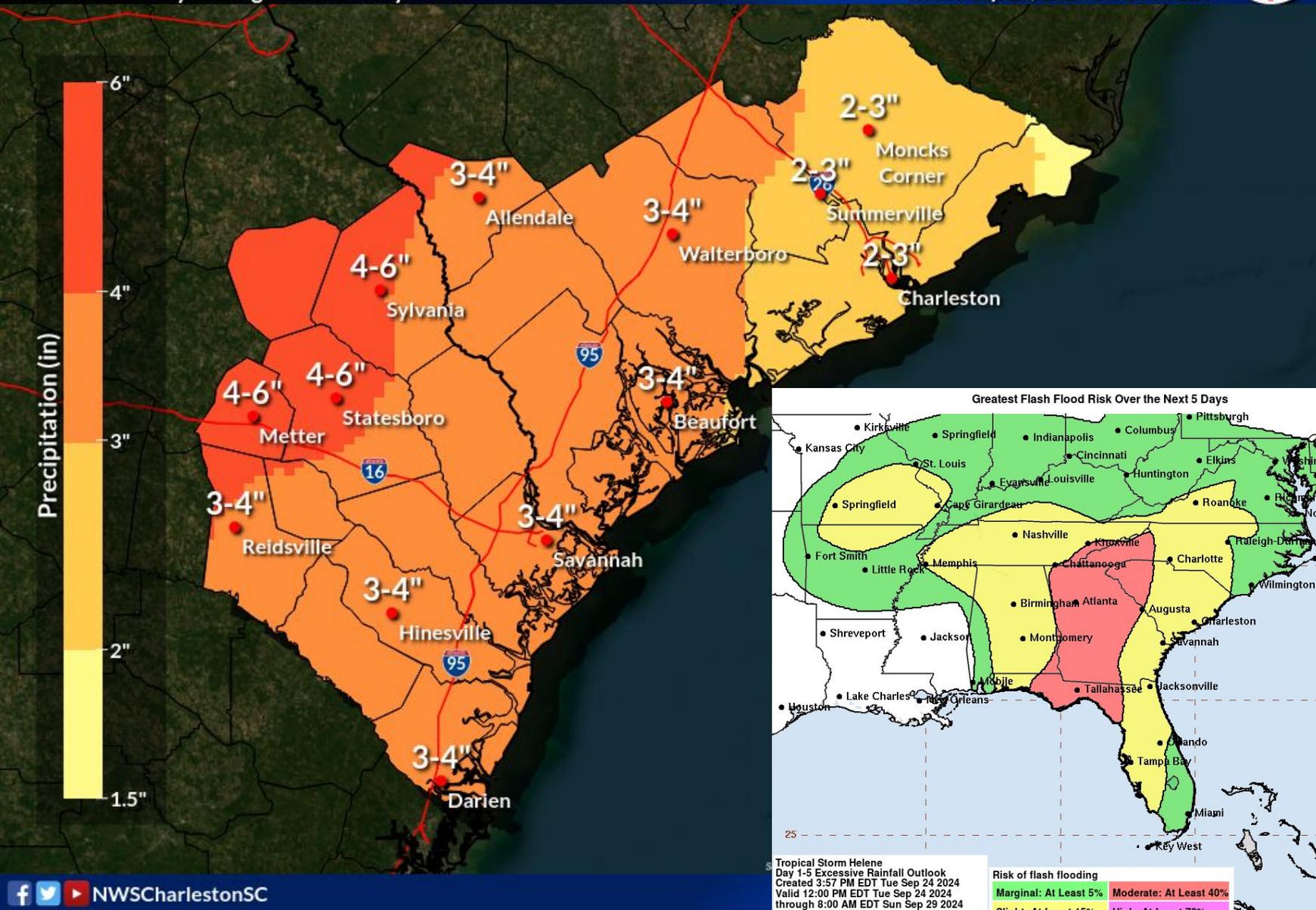
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Storm Total Rainfall

8 PM Wednesday through 8 PM Friday

Weather Forecast Office
Charleston, SC

Issued Sep 24, 2024 5:51 PM EDT



Rainfall 8 PM Wed - 8 PM Fri

- Most of the rainfall is expected to occur Thursday into Thursday night
- Heaviest rainfall across southeast GA and generally west of I-95 in southeast SC
- WPC has entire area in a Slight Risk of Excessive Rainfall, mainly for Thursday and Thursday night

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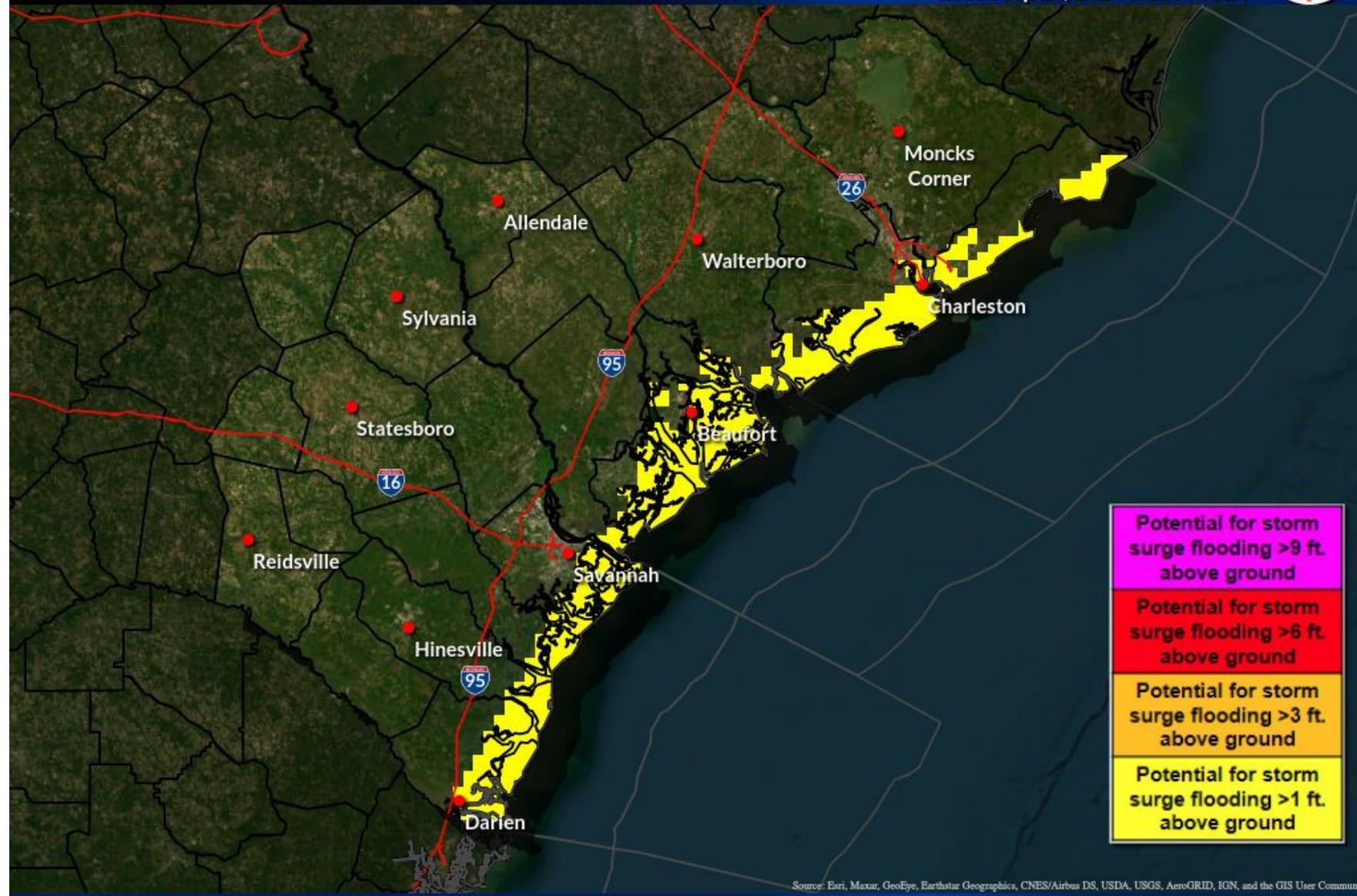


Potential Storm Surge Impacts

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Storm Surge Threat

Weather Forecast Office
Charleston, SC
Issued Sep 24, 2024 5:11 PM EDT



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

weather.gov/chs

There is a potential for:

- **Increasing Tide Levels**
 - Storm Surge Inundation of 1-3 feet above normally dry ground in/around tidal region
- **Impacts:** Minor flooding of some streets/roads near the coast, and in low lying areas
- **Timing:** Mainly Thursday afternoon through Thursday night



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Charleston, SC



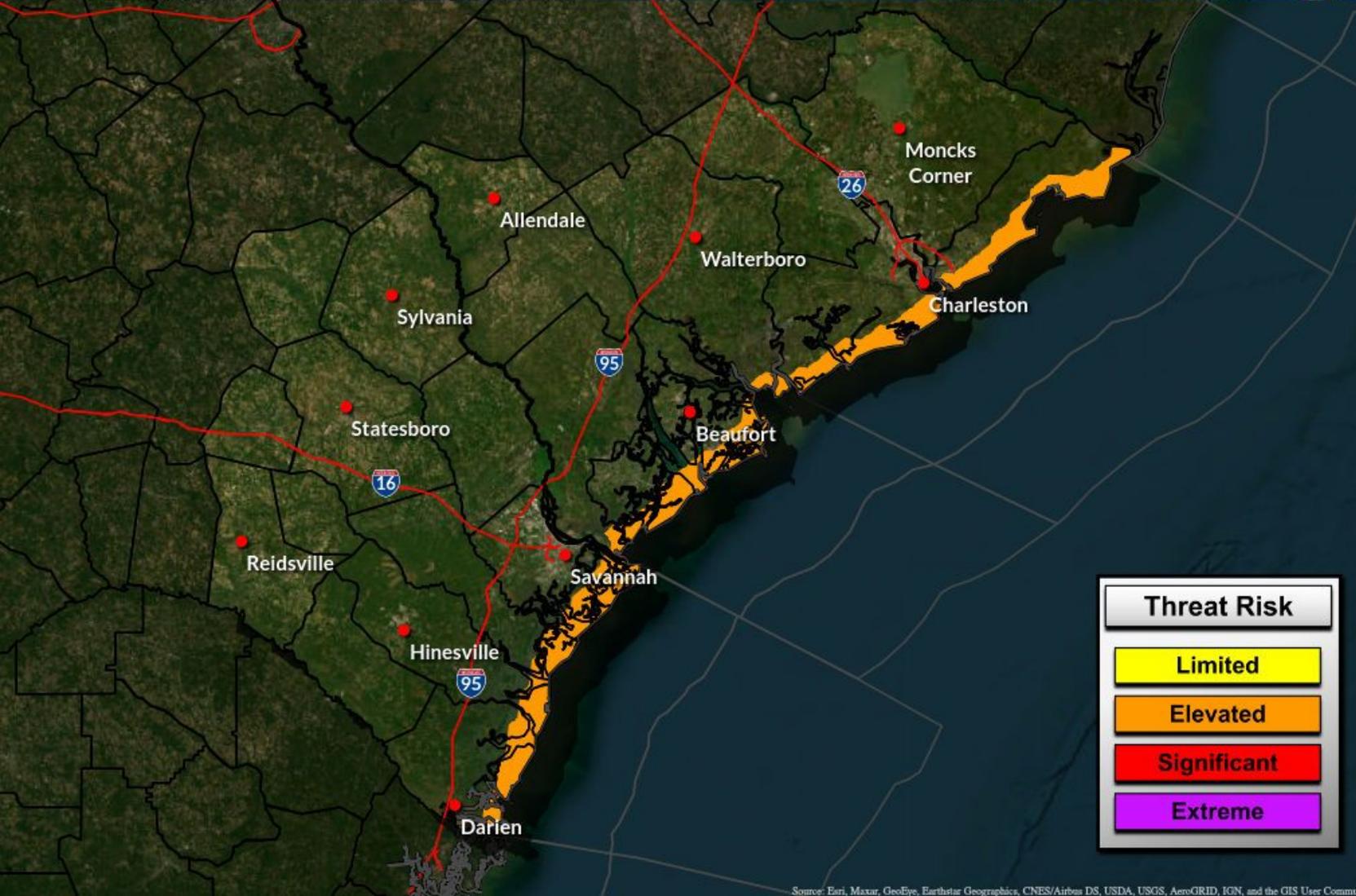
Potential Beach Impacts

September 24, 2024
6:00 PM

High Surf Risk for Thu/Thu Night

Valid 8 AM Thu Sep 26, 2024 to 8 AM Fri Sep 27, 2024

Weather Forecast Office
Charleston, SC
Issued Sep 24, 2024 5:10 PM EDT



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

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Potential For:

- **Beach Hazards:**
 - **High surf & significant beach erosion** Thursday into Friday morning
 - **High risk for deadly rip currents** Thursday and Friday



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Charleston, SC



Potential Marine Impacts

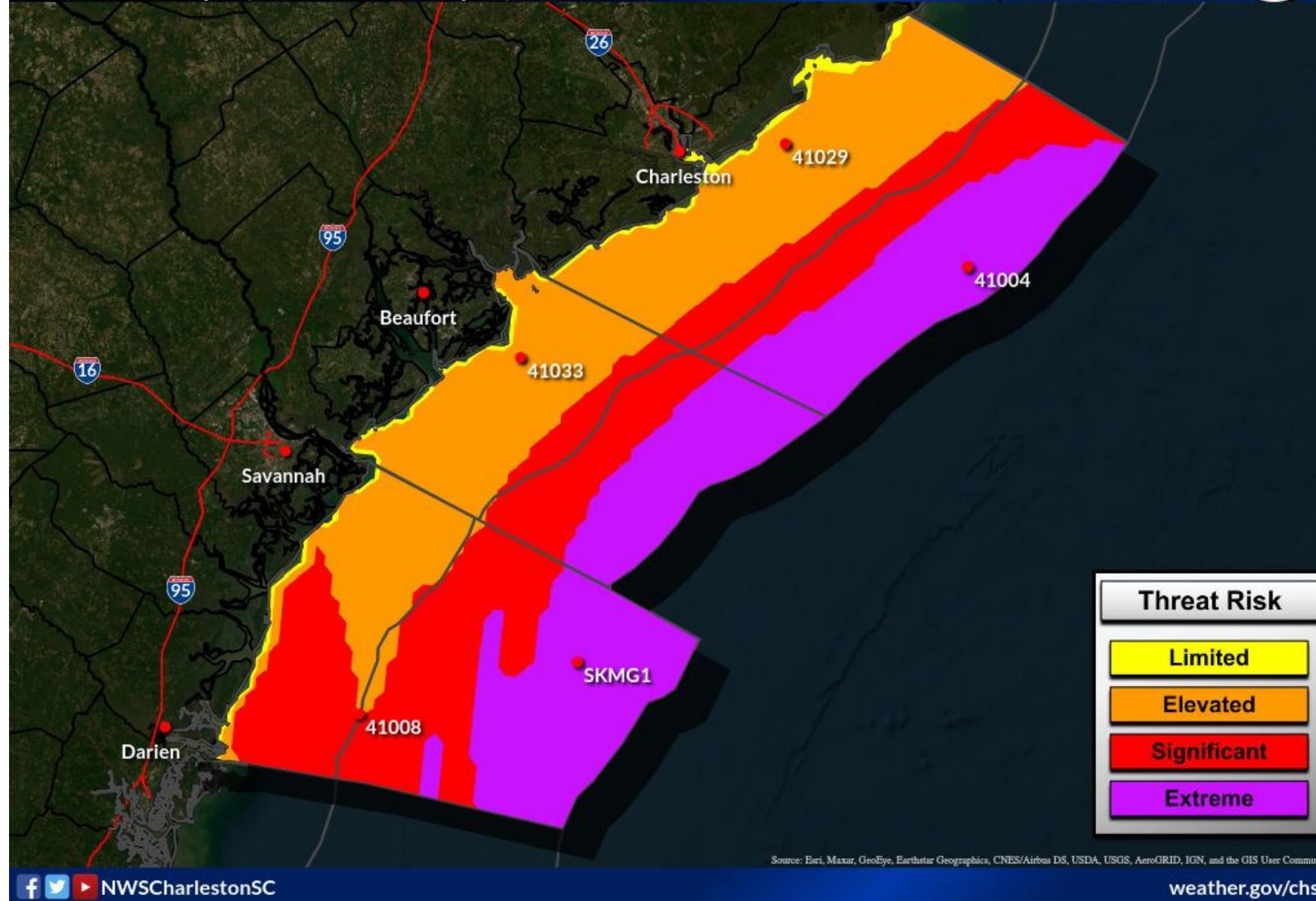
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Marine Hazard Risk for Thu/Thu Night

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Weather Forecast Office
Charleston, SC

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Potential For:

- **Dangerous Seas/Waves:**
 - Seas building to 6-15 feet out to 20 nm, 9-17 feet 20-40 nm, highest Thursday and Thursday night

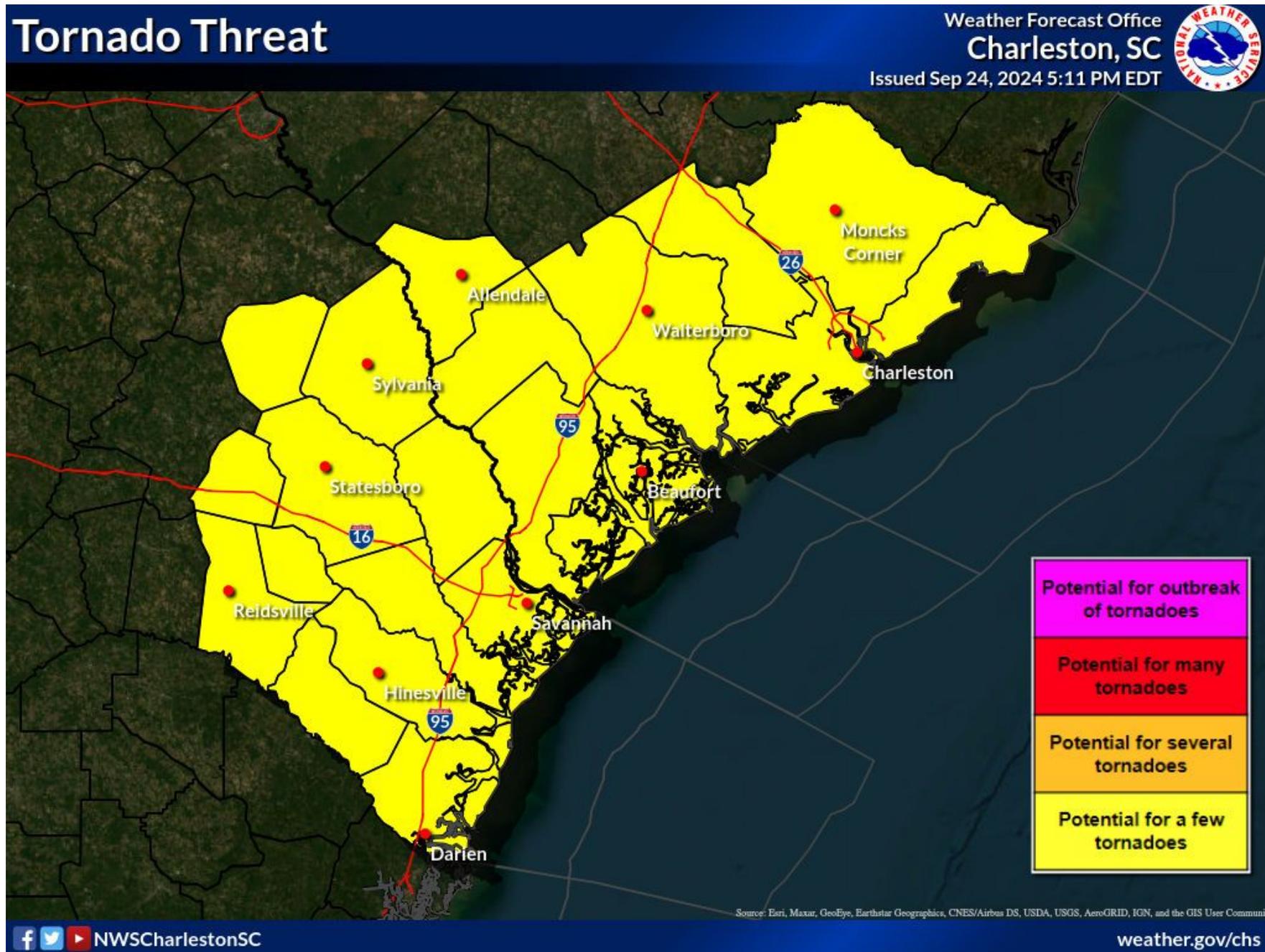
- **Tropical Storm Force Wind/Wind Gusts:**
 - Wind/Wind gusts of 40-50 knots possible Thursday into Friday morning, especially GA waters
 - Strongest winds likely within heavy rainbands
 - Waterspouts possible in rainbands





Potential Tornado Impacts

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- Conditions will become favorable for isolated to scattered tornadoes
- Timing: Mainly Thursday and Thursday night
- Highest threat for tornadoes within stronger rainbands



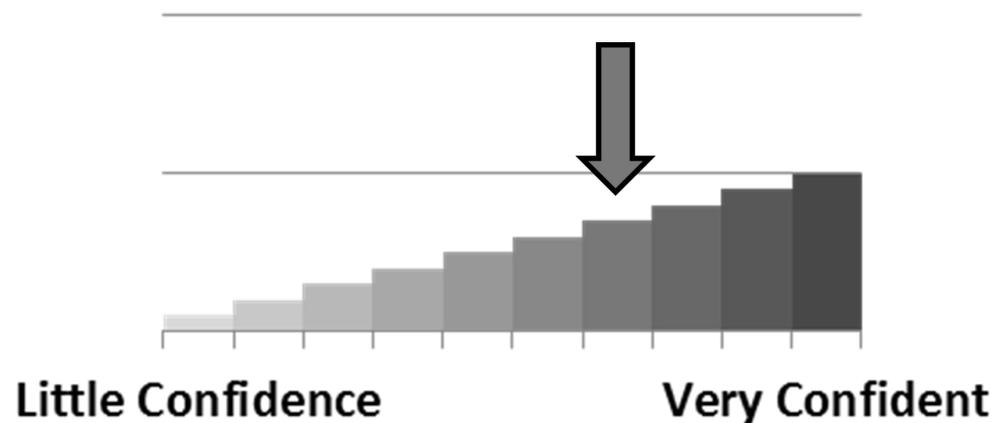


Key Take-Aways

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- Increased confidence in track forecast leading to increased confidence in level of impacts
- This is expected to be a large storm, with impacts reaching well beyond/east of the track cone of uncertainty
- Focus attention on expected impacts, NOT the centerline of the forecast track

Forecast Confidence



Overall Storm Formation and Track: Moderate to High Confidence

Local Level and Timing of Impacts: Moderate





Next Briefing:

Wednesday Sept. 25, 12 AM

Method: email

