HURRICANE DORIAN BRIEFING

6:00 AM EDT
Thursday, September 5, 2019
Prepared by: *WFO Wakefield, VA*

What has changed: Moderate to High Excessive Rainfall Outlook for southeastern Virginia and Northeast North Carolina.
Next Briefing: By 6:00 PM EDT Thursday
Disclaimer: The information contained within is time-sensitive. **Do not use after 6:00 PM EDT Thursday**

Situation Overview

Hurricane Dorian

Wakefield, VA

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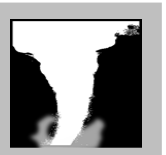
Hazard	Impacts	Location	Timing
Flooding Rain	Prolonged periods of heavy rainfall is expected to lead to flash flooding and water covered roads.	Eastern VA and Northeast NC (Highest threat across coastal Northeast NC).	Tonight and Friday.
Wind	Life threatening winds/wind damage is expected to lead to downed trees, power outages, and communication issues.	Eastern VA, Northeast NC, and Southeast MD (Highest threat across coastal Northeast NC).	Tonight and Friday.
Storm Surge/ Inundation	Moderate to major tidal flooding is expected. Low-lying roadways will be inundated and become impassible.	Anywhere along the coast, but most likely along lower Chesapeake Bay, southeast Virginia, and northeast North Carolina.	Friday into Saturday.
Tornado 	There is the potential for increased tornado activity.	Northeast NC.	Tonight and Friday.
Marine	Very dangerous to extreme marine conditions are likely.	All coastal waters/nearshore waters, Chesapeake Bay, Sounds and lower tidal rivers.	Through Saturday.

Situation Overview

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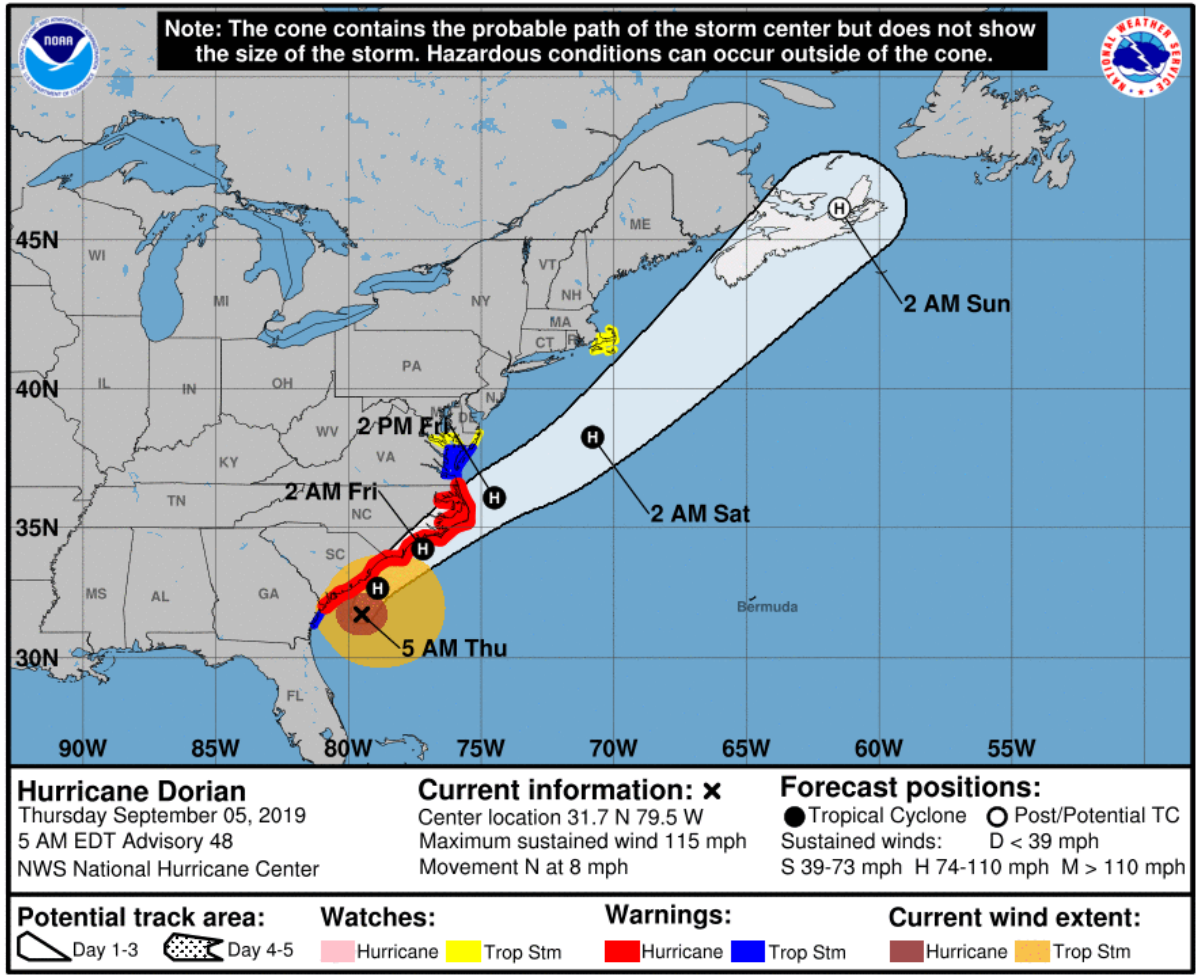

NOTE: *Do not focus on the exact track. Impacts can occur well outside the area enclosed by the cone.*

Immediate Concerns for the Local Area

- Confidence is **high** that we will see life-threatening storm surge, heavy rain, and strong winds across portions of the area.

Key Takeaways

- **Do not focus on the track alone.** Impacts will occur well away from the center.
- Preparations need to be completed by Thursday afternoon.
- Do NOT cross flooded roads.
- Listen to local evacuation orders if they are given.

Threat Levels

Hurricane Dorian

Wakefield, VA

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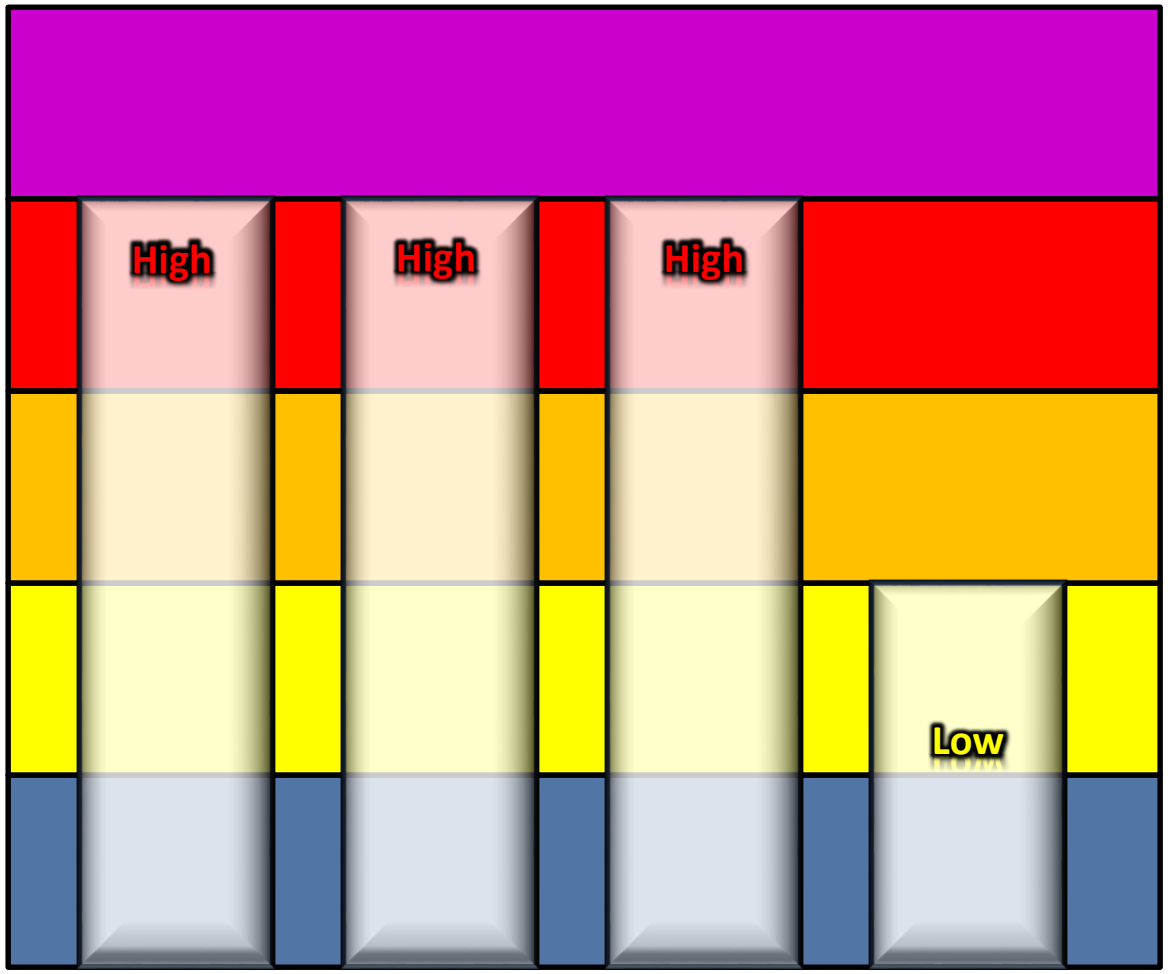

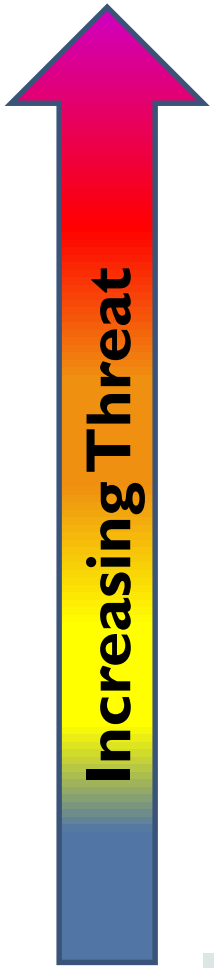

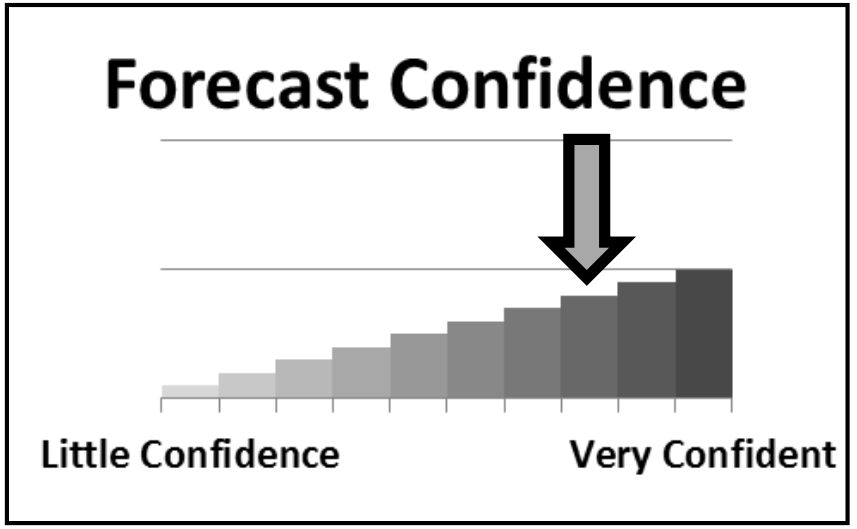

Confidence has increased that life threatening storm surge, flash flooding, and strong winds will all be possible across portions of the region. In addition, the threat for tornado activity has increased over northeast NC.

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

Hazard Overview – Tropical

Hurricane Dorian

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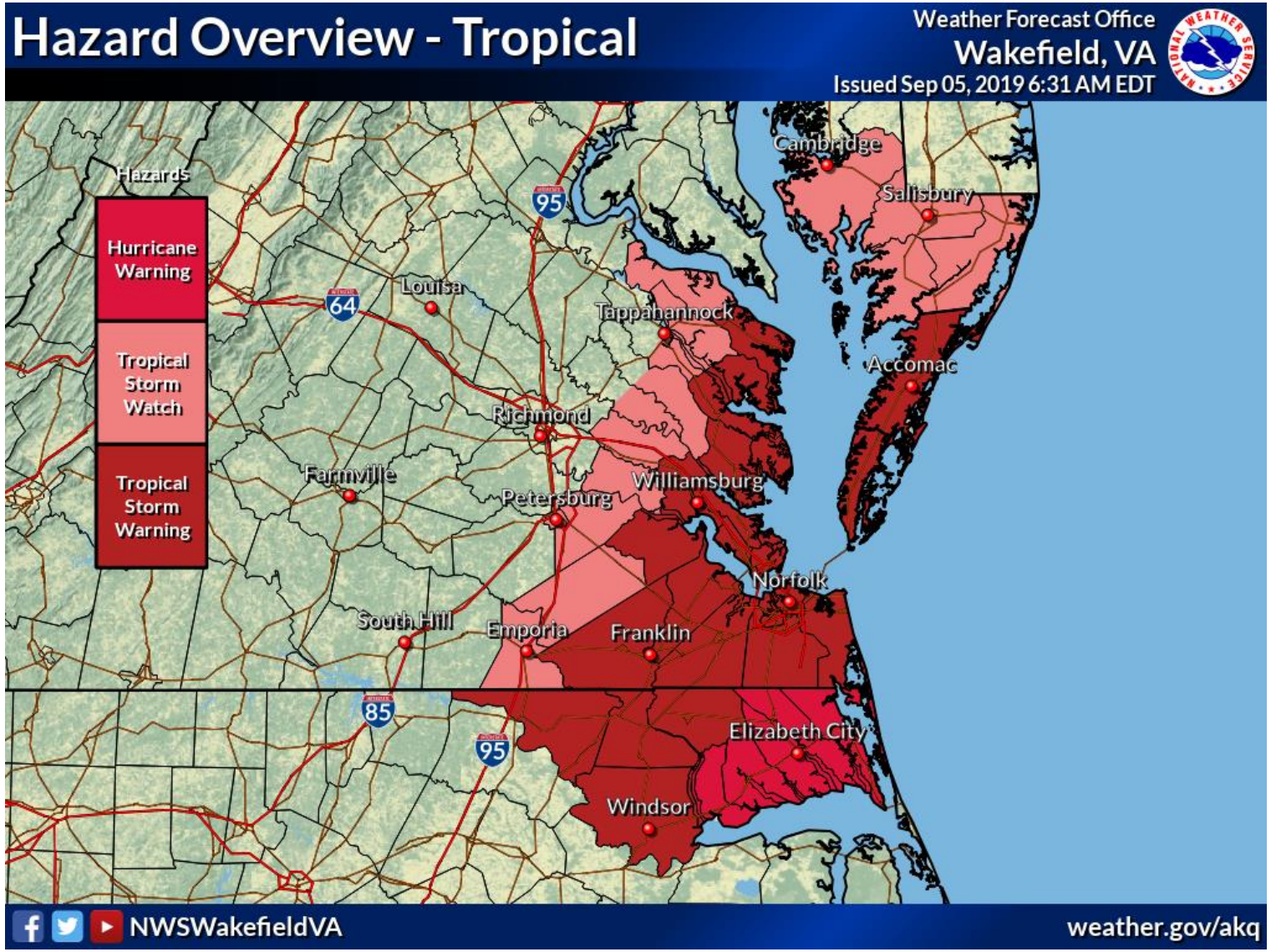

- A Hurricane Warning remains in effect for portions of Northeast North Carolina, including Elizabeth City.
- A Tropical Storm Warning remains in effect for much of Eastern Virginia (including Hampton Roads) and Northeast North Carolina.
- A Tropical Storm Watch remains in effect for portions of Eastern Virginia and the Maryland Eastern Shore.

Hazard Overview – Surge/Coastal Flood

Hurricane Dorian

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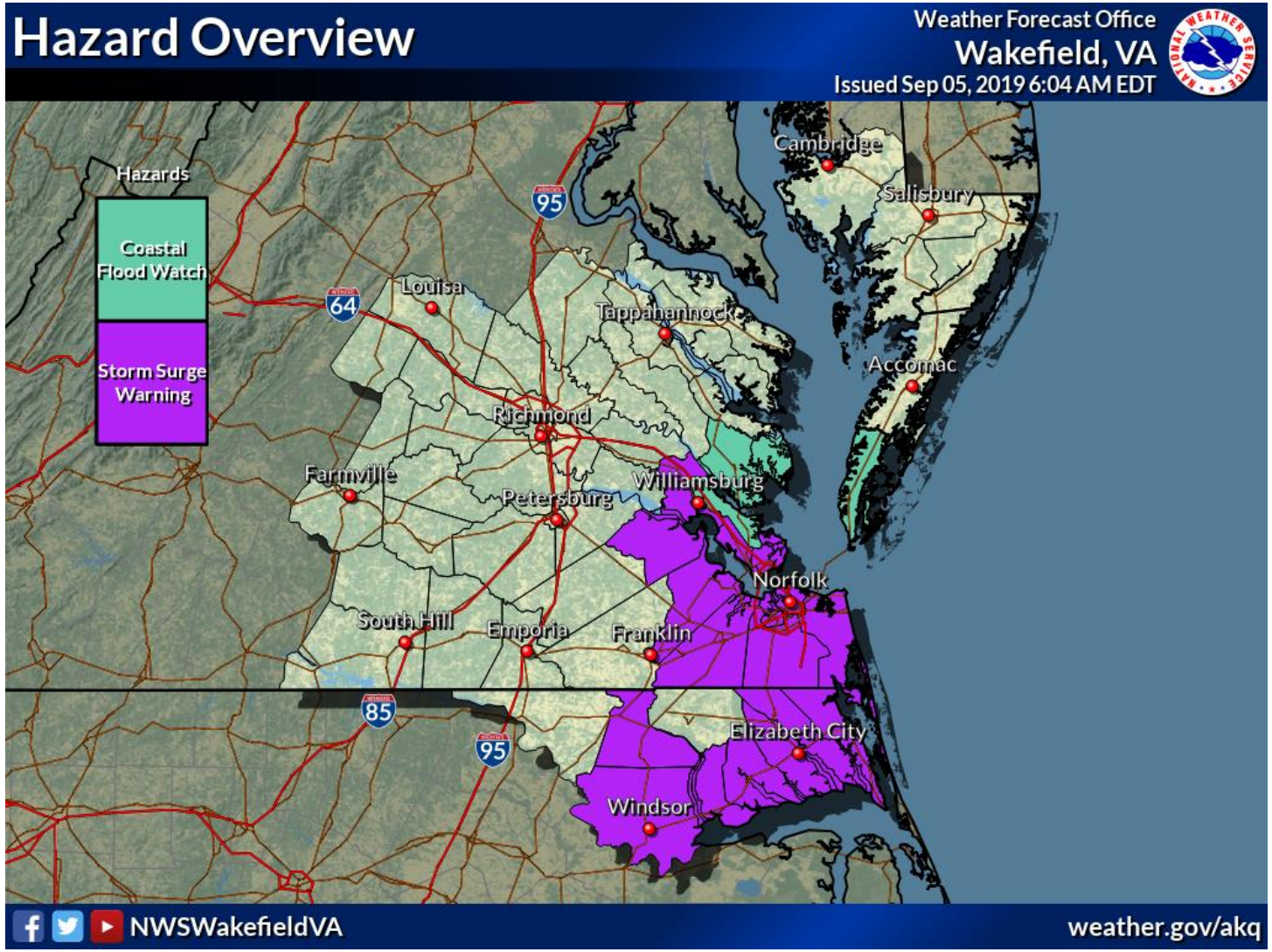

- A Storm Surge Warning is in effect for coastal northeast North Carolina and Hampton Roads.
- A Coastal Flood Watch is in effect for portions of eastern Virginia and Northampton, VA.

Earliest Reasonable Time of Arrival

Hurricane Dorian

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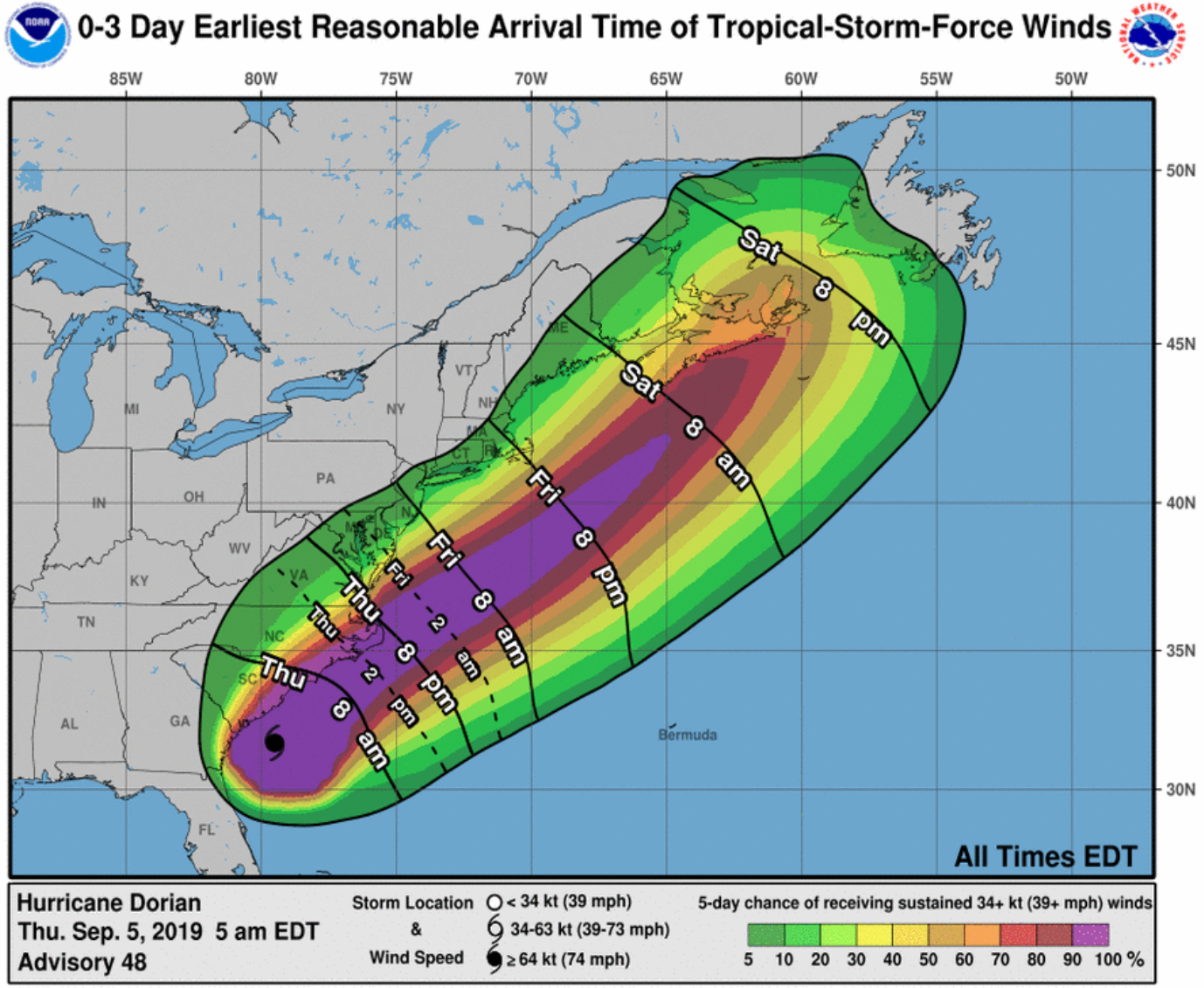

- The earliest reasonable time of arrival of Tropical Storm Force Winds for Northeast NC and Eastern VA is Thursday afternoon.
- *However*, the most likely time this area could see Tropical Storm Force Winds will be late Thursday night into Friday morning.

Most Likely Time of Arrival

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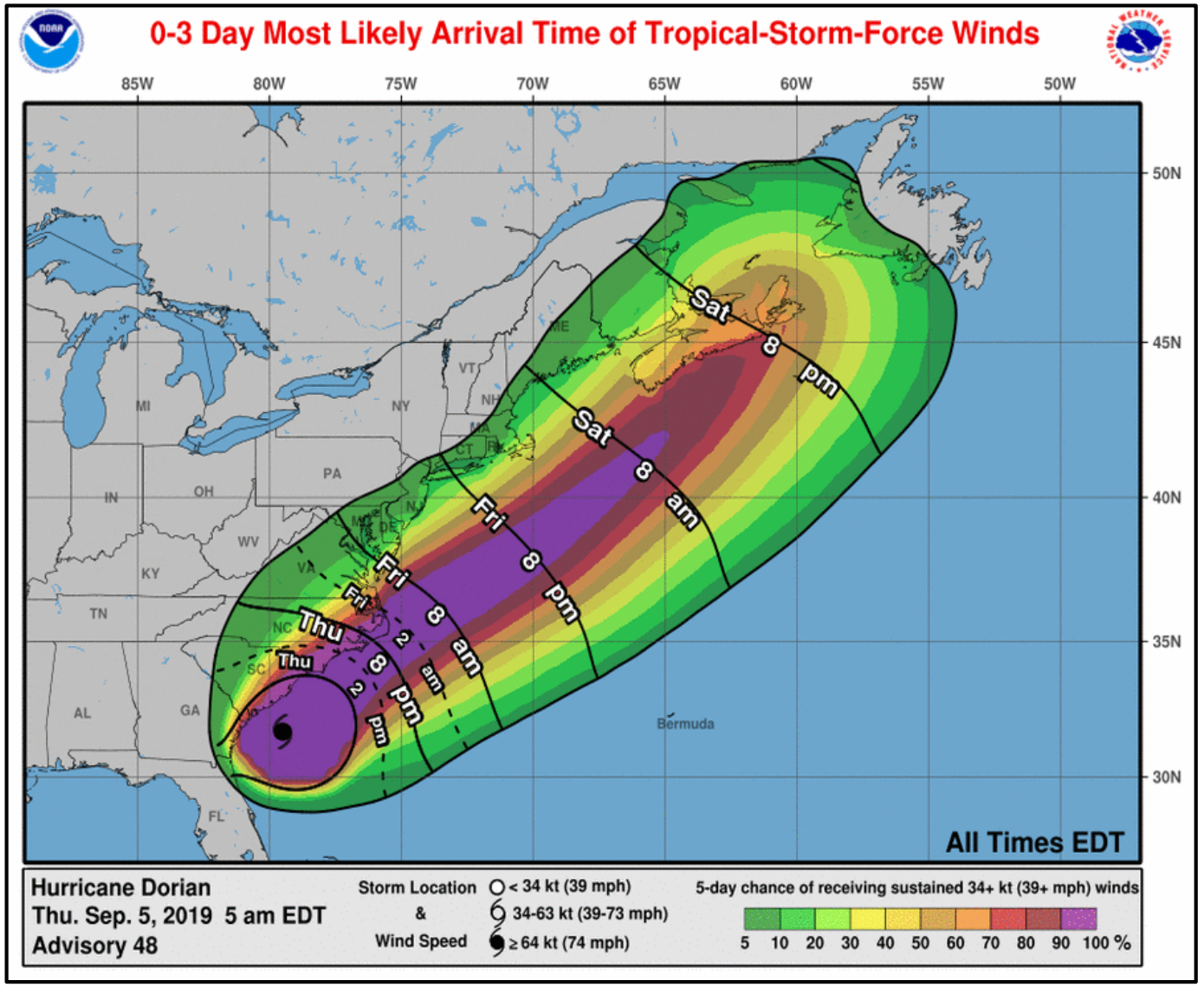

- The most likely time of arrival of Tropical Storm Force Winds for the Northeast NC and Eastern VA is Thursday night into Friday morning.

- *However*, this area could see Tropical Storm Force Winds as early as Thursday afternoon.

Maximum Wind Gusts

Hurricane Dorian

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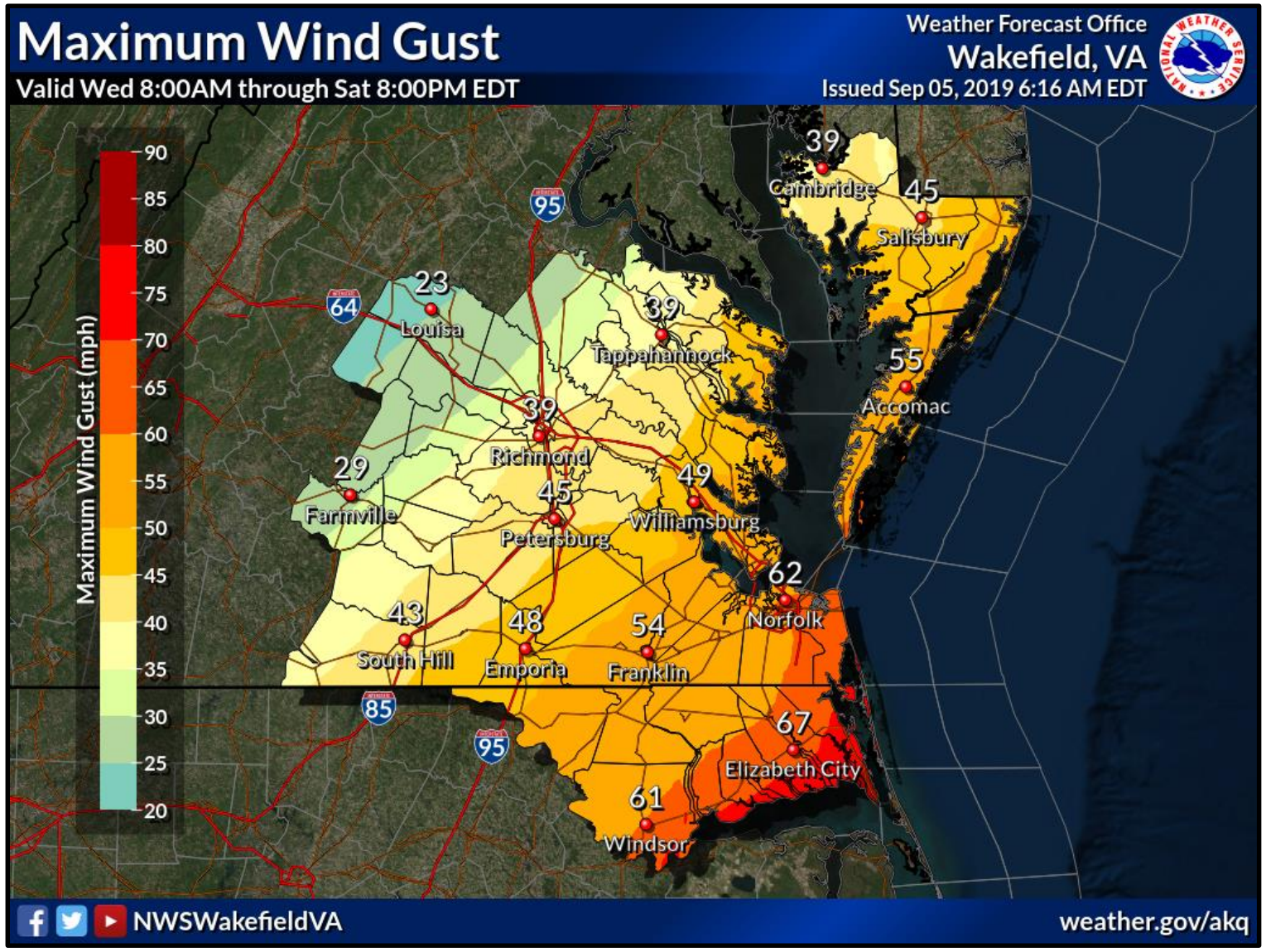

- These winds are highly dependent on storm track.
- Immediate coast: Gusts as high as 75 to 85 mph.
- Eastern VA and interior NE NC: Gusts as high as 55 to 65 mph.
- I-95 Corridor including Richmond: Gusts as high as 35 to 45 mph.

Wind Threat / Potential Impact

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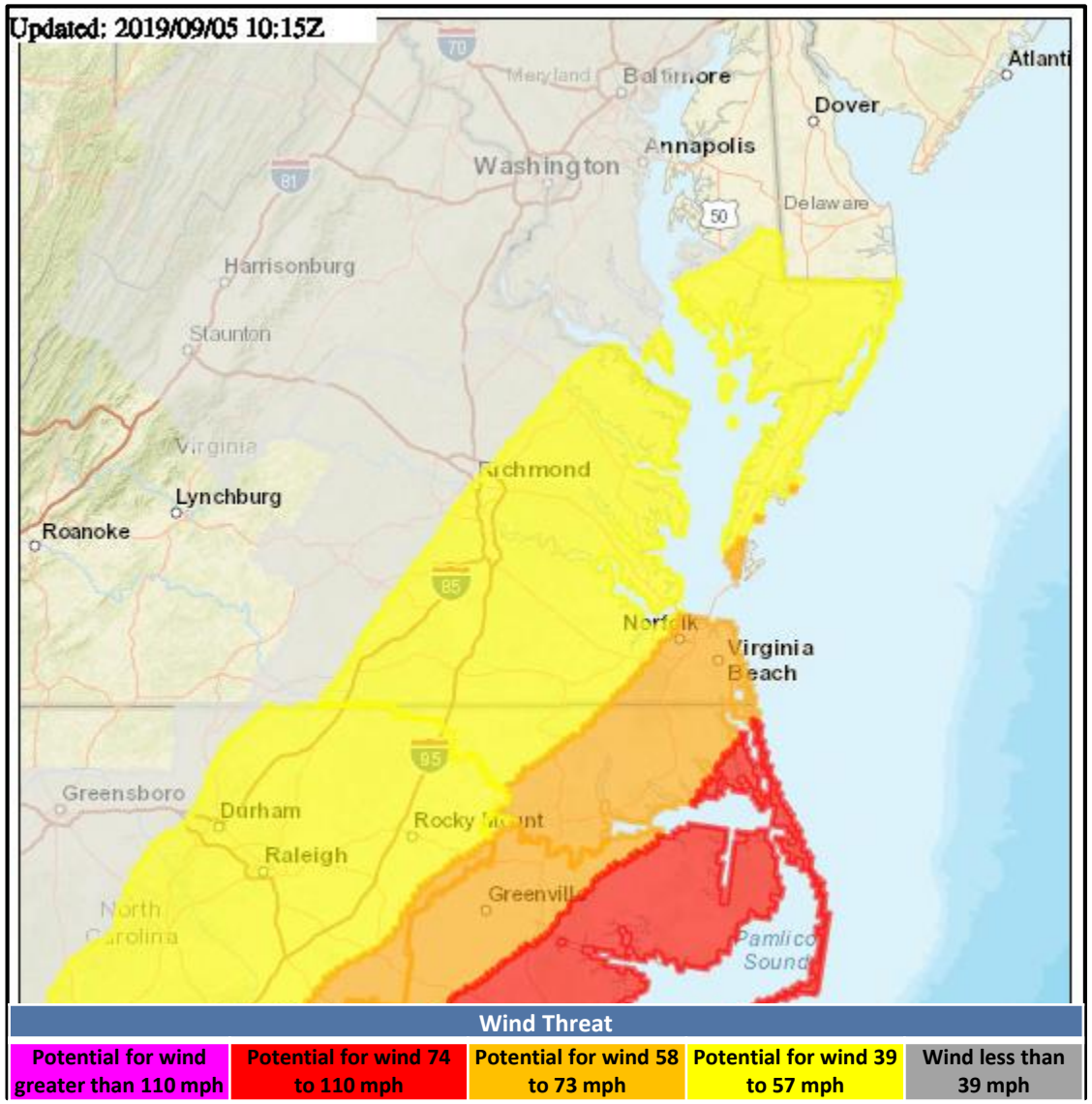

Impacts

- Damage to porches, awnings, carports, sheds, and unanchored mobile homes. Unsecured lightweight objects blown about.
- Large trees snapped or uprooted, especially in areas where soils are saturated. Some roadway signs will be blown over.
- Some roads will be impassable from debris. Hazardous driving conditions on bridges and other elevated roadways.
- Scattered to widespread power and communication outages can be expected.

Potential Storm Surge Flooding

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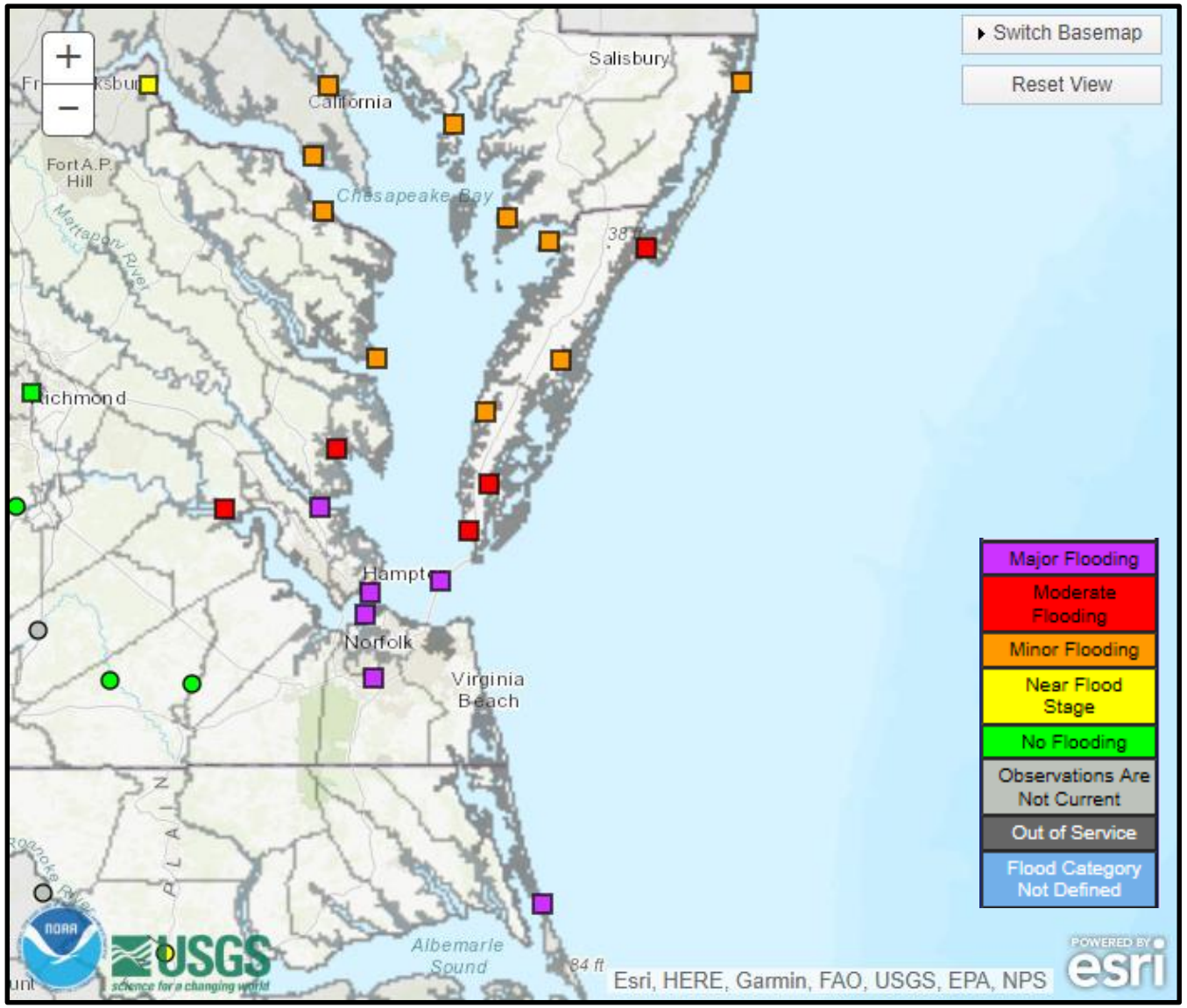

- Moderate to major flooding coastal flooding is expected.
- Locations of greatest risk: Anywhere along the coast, but most likely along lower Chesapeake Bay, southeast Virginia, and northeast North Carolina.
- Timing: Storm surge inundation could begin as early as tonight. **Period of greatest concern is with high tide cycle Friday afternoon and Friday night**.

Note: *Visit https://water.weather.gov/ahps2/forecasts.php?wfo=akq for the latest tidal flooding forecasts.*

Tidal Flooding/Surge – Lower Bay/James

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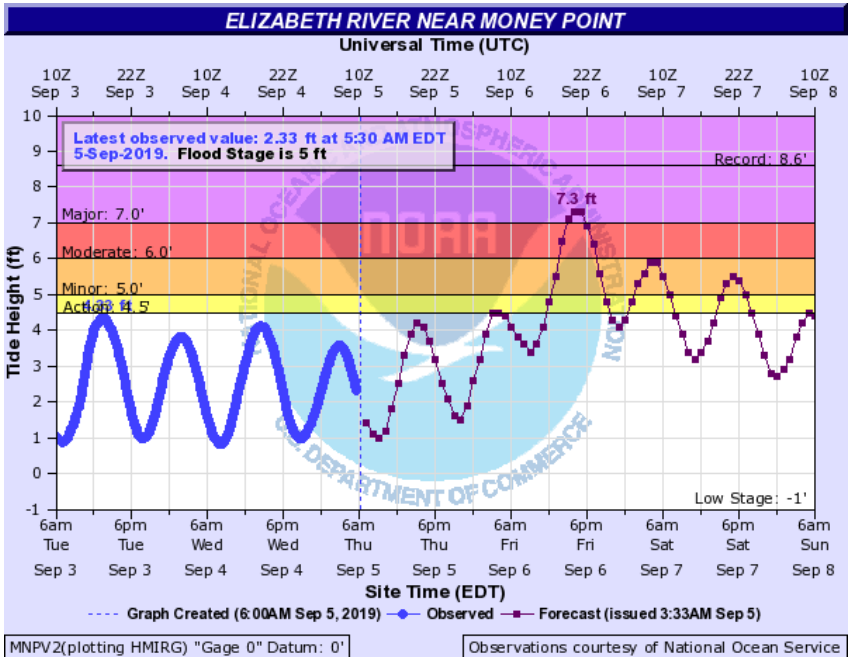

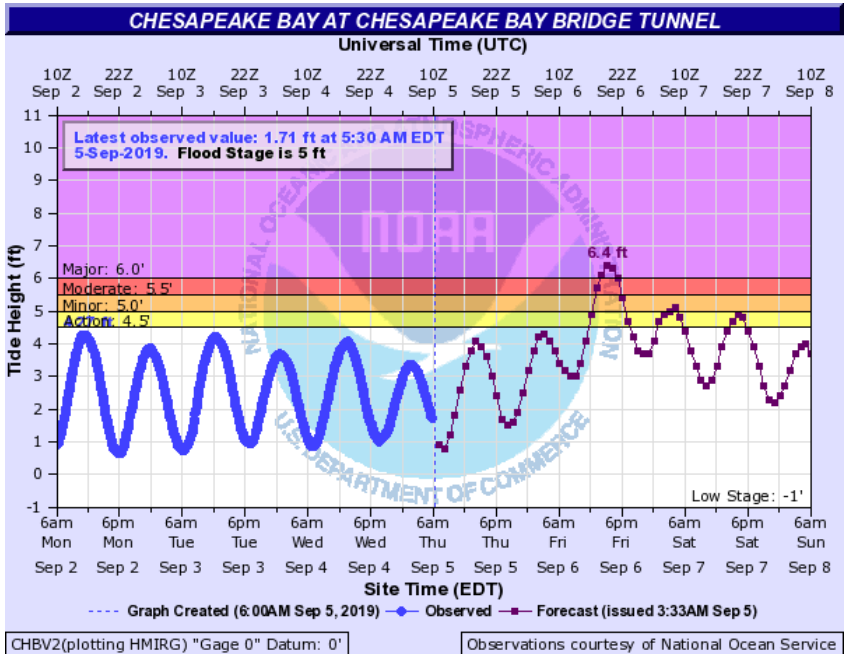

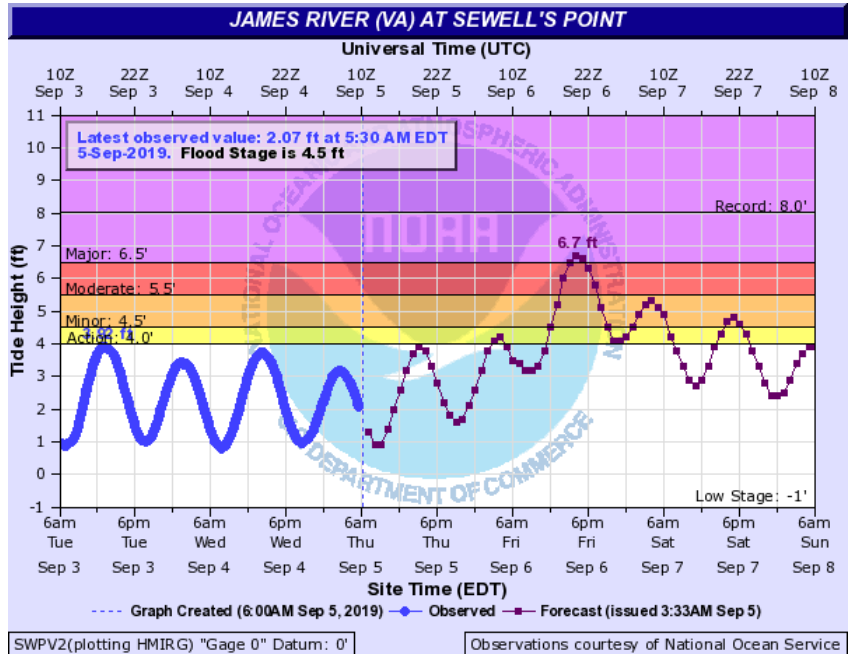

- 2 to 4 feet above ground of inundation within surge prone areas.

- Severe flooding will cause extensive inundation and flooding of numerous roads and buildings, resulting in a significant threat to life and property.

Potential Storm Surge Impacts

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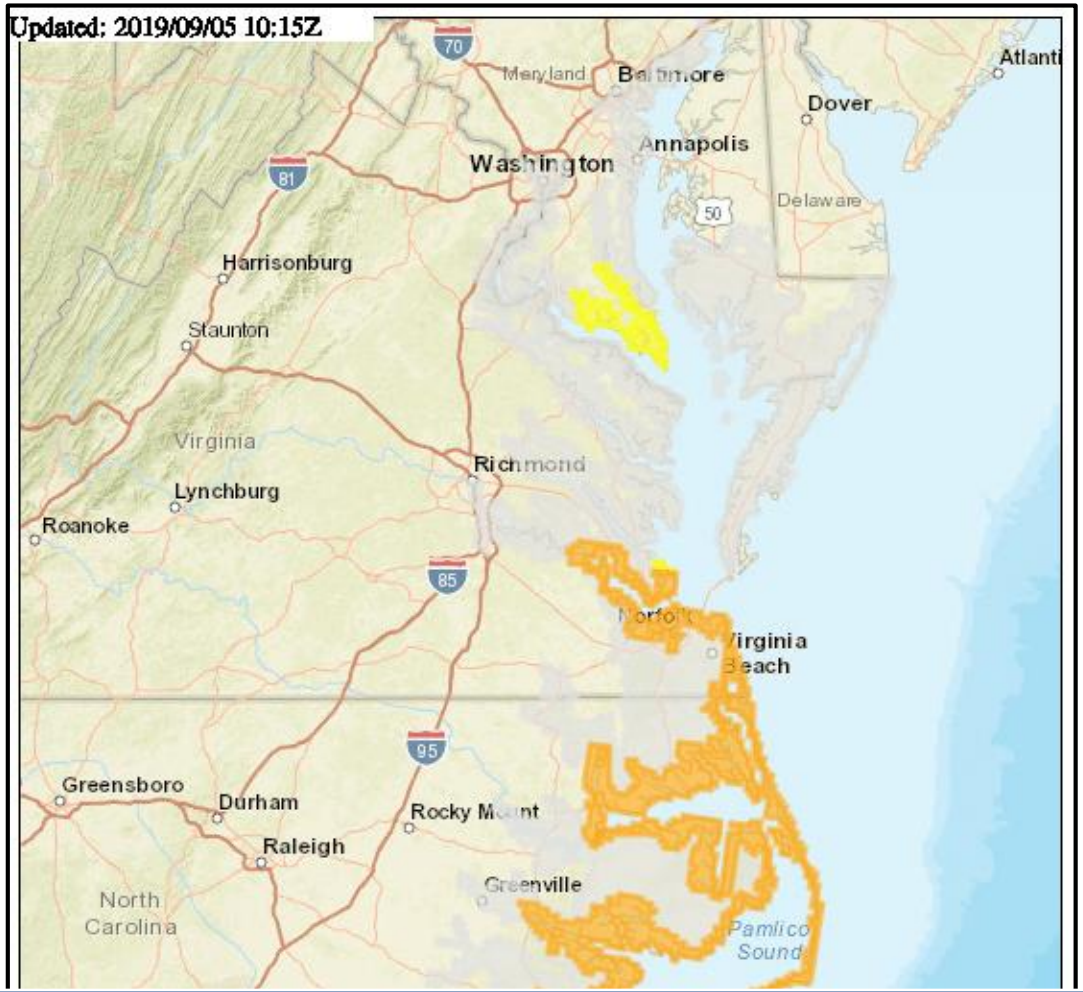

Storm Surge Threat				
Potential for storm surge flooding greater than 9 ft above ground	Potential for storm surge flooding greater than 6 ft above ground	Potential for storm surge flooding greater than 3 ft above ground	Potential for storm surge flooding greater than 1 ft above ground	Little to no storm surge flooding

Impacts

- Severe flooding will cause extensive inundation and flooding of numerous roads and buildings resulting in a significant threat to life and property.
- Substantial coastal damage and severe erosion to dunes is expected.
- Numerous roads will be impassable, with many unprotected cars submerged.
- Flood waters may extend well away from the coast.

Marine Threat Potential

Hurricane Dorian

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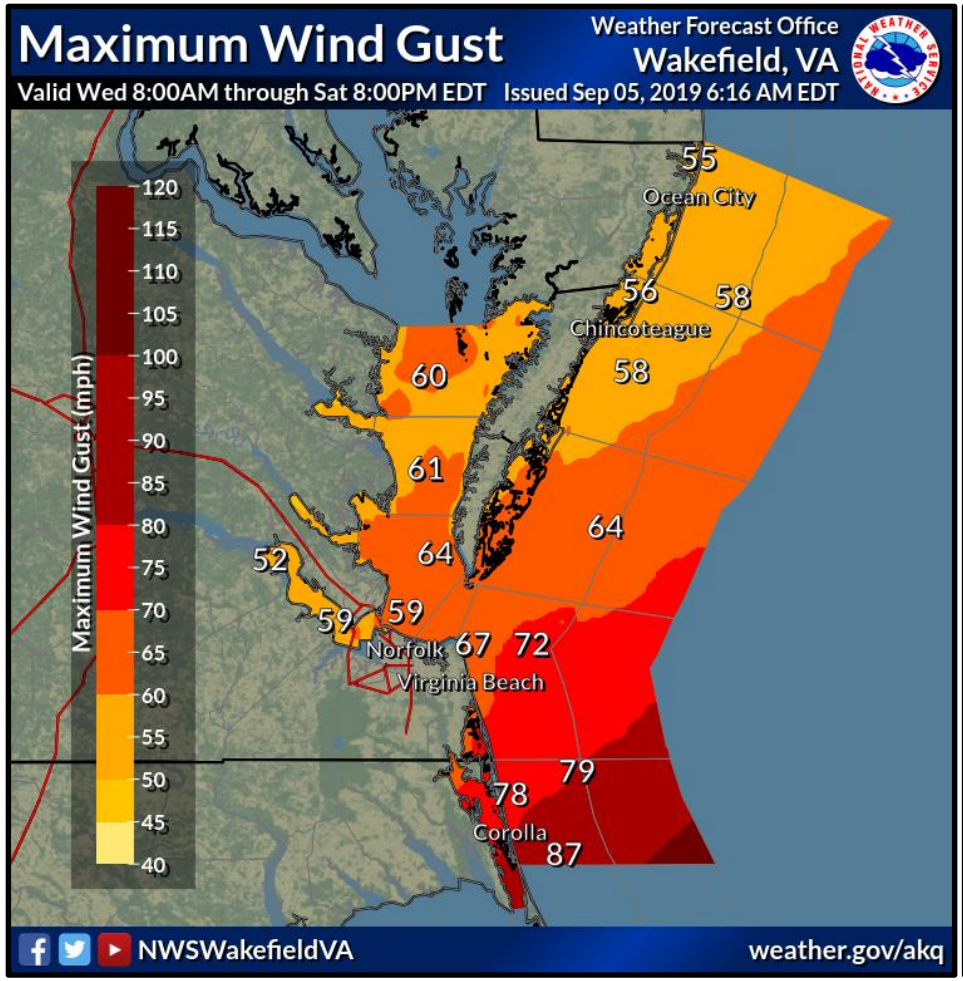

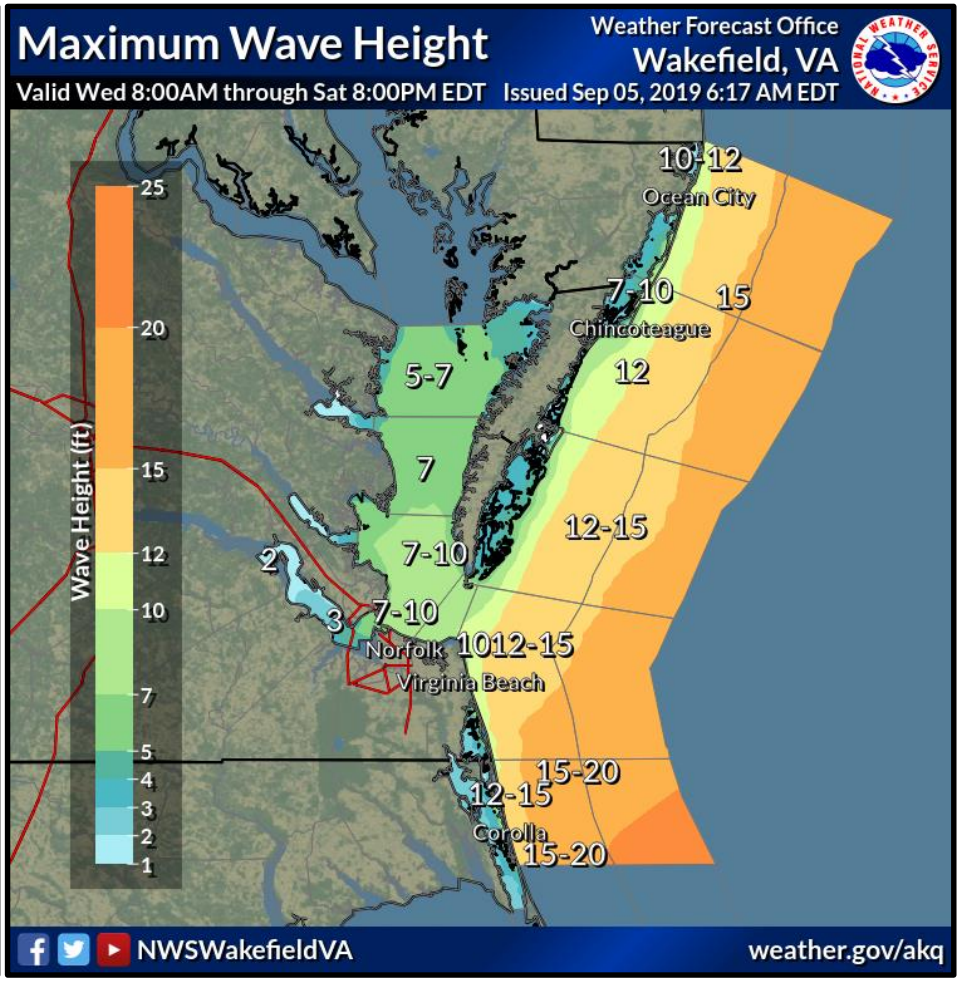

- Very dangerous to extreme marine conditions are likely Thursday through Saturday.
- **Do not focus on the track alone.** Impacts will occur well away from the center.

Expected Storm Total Rainfall

Hurricane Dorian

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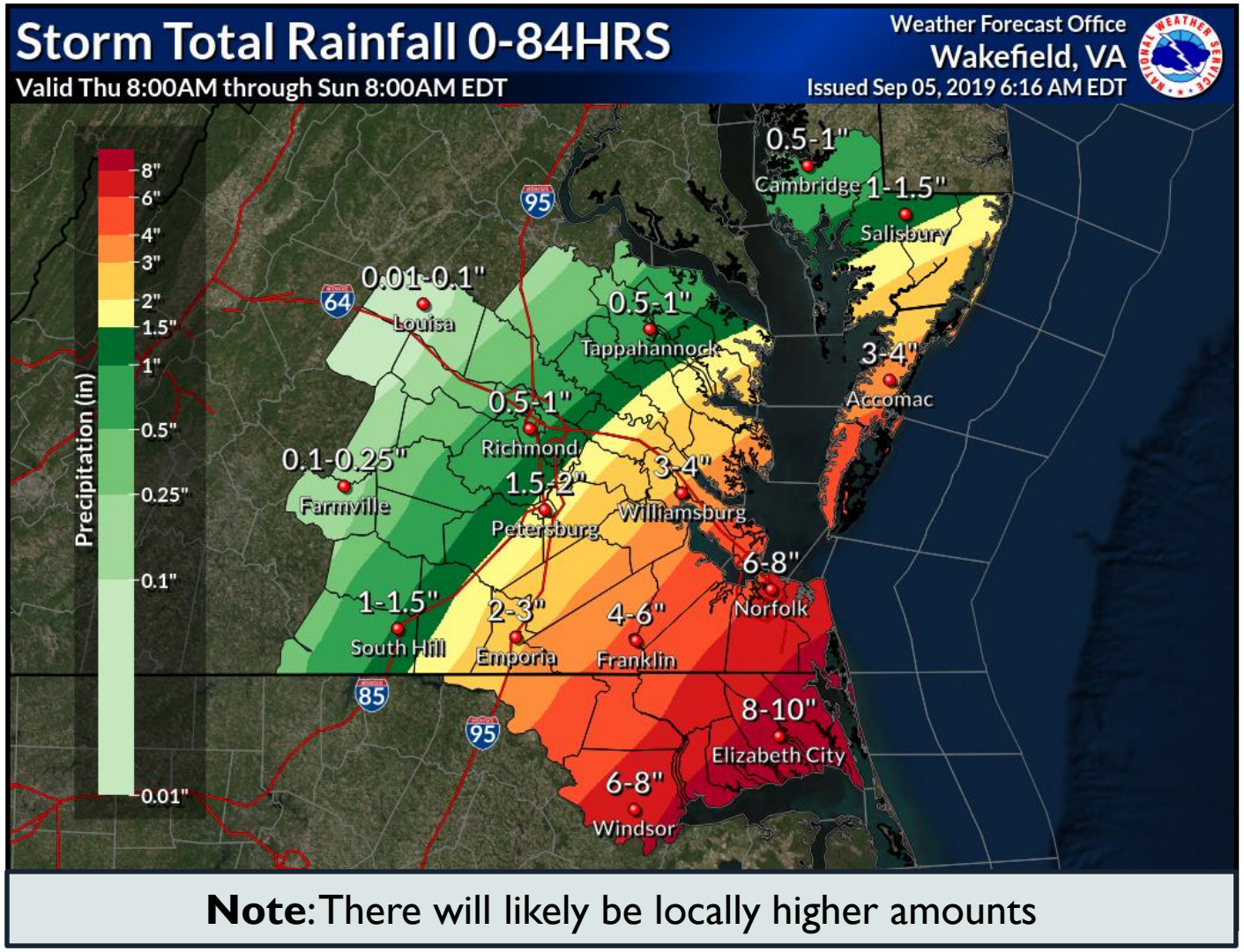

Note: There will likely be locally higher amounts

- A Flash Flood Watch is in effect for Northeast NC and Southeast VA through Friday
- Storm Total rainfall forecast valid Thursday afternoon through Saturday morning.
- Locally, most rain will occur Thursday night into Friday afternoon, lingering into Friday night along the coast.

Inland Flooding Impacts

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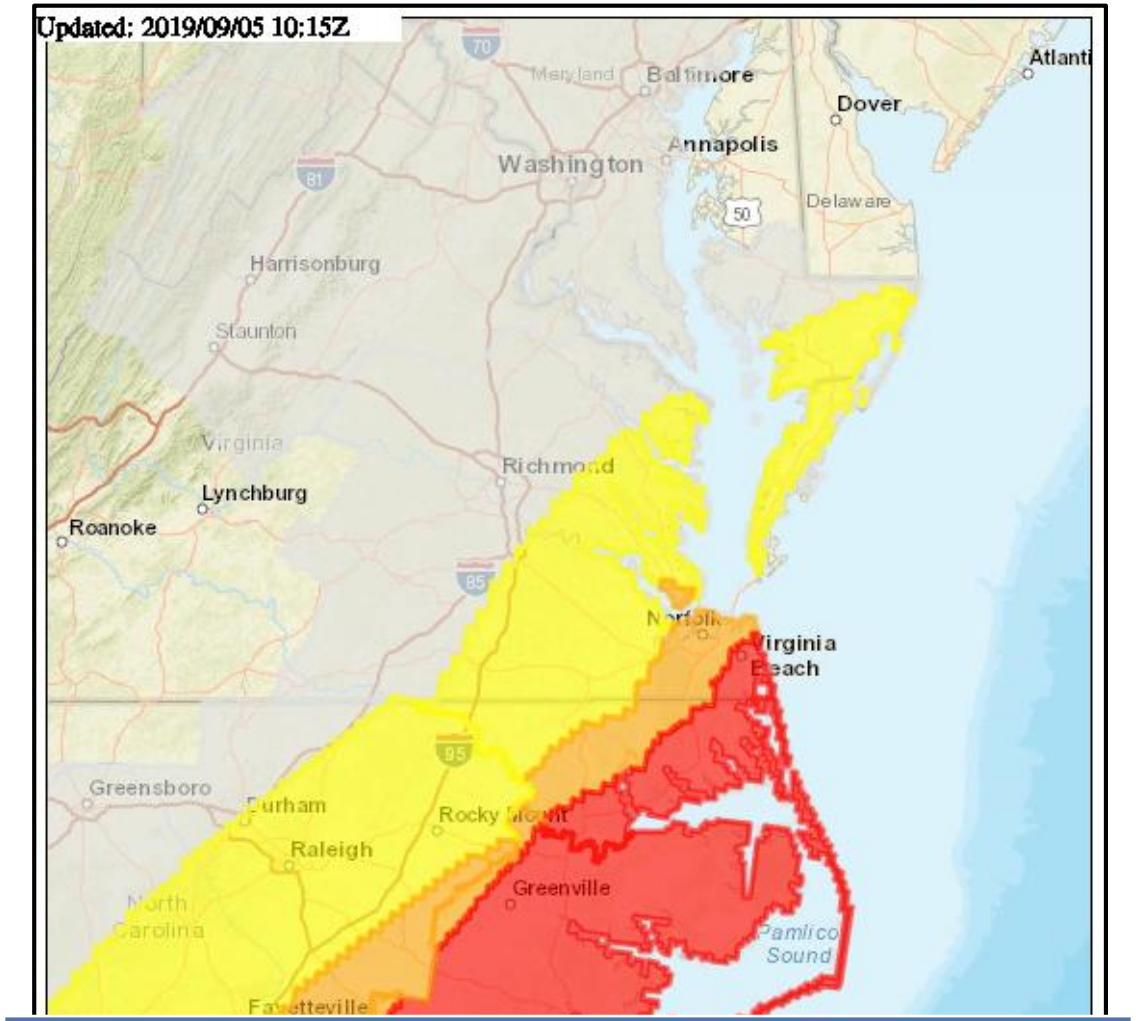

Impacts

- Flooding from heavy rainfall may prompt evacuations and rescues.
- River and tributaries may quickly become swollen, with swift currents, and overspill their banks. Small streams, creeks, and ditches may also overflow.
- Flood waters may enter structures and/or weaken foundations.
- Some areas may experience areas of rapid inundation at underpasses, low-lying spots, and poor drainage areas. Driving conditions may become hazardous.

Excessive Rainfall Outlook

Hurricane Dorian

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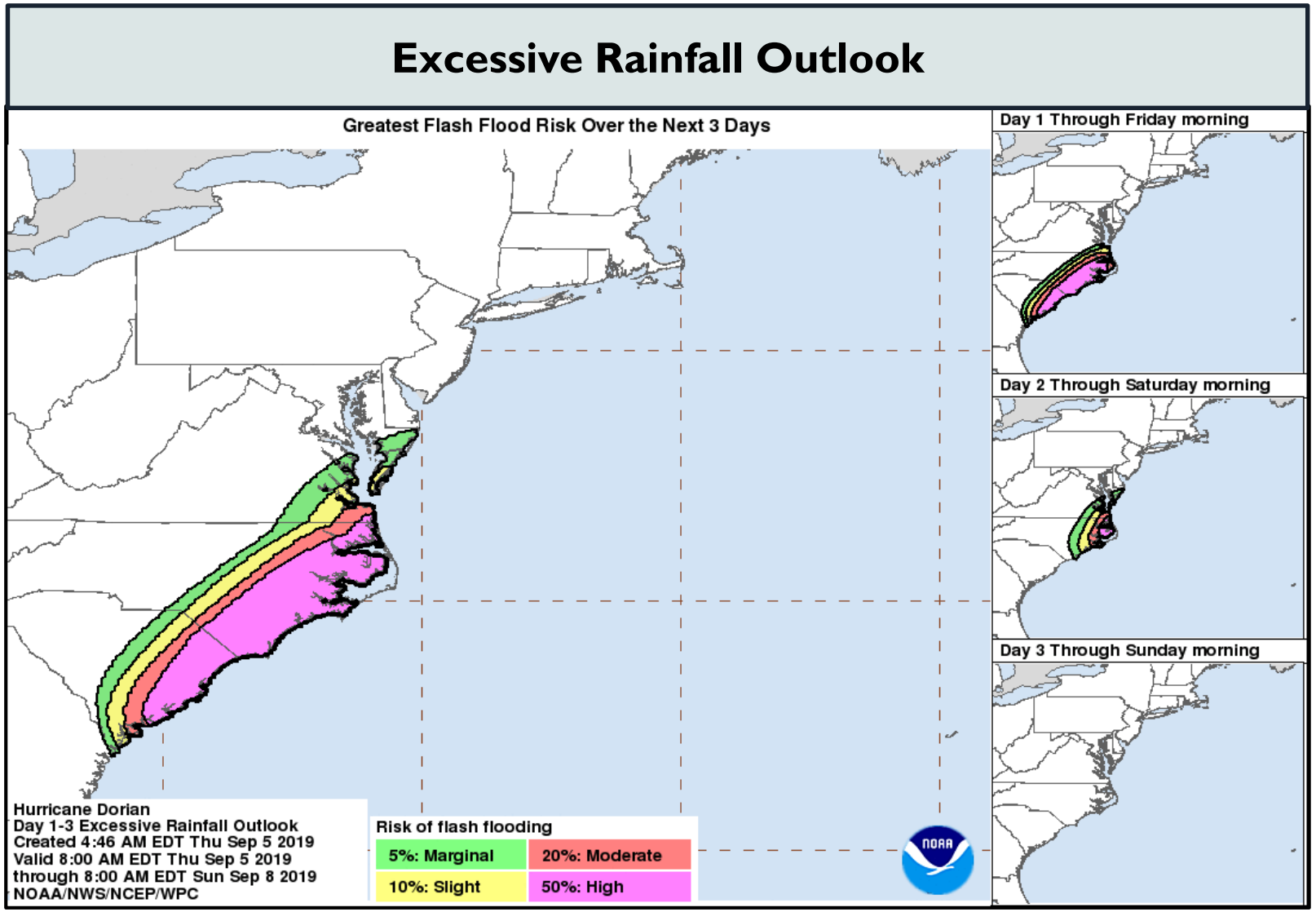

- Areas outlined have the greatest potential for flash flooding Thursday through Saturday.

Potential Tornado Impacts

Hurricane Dorian

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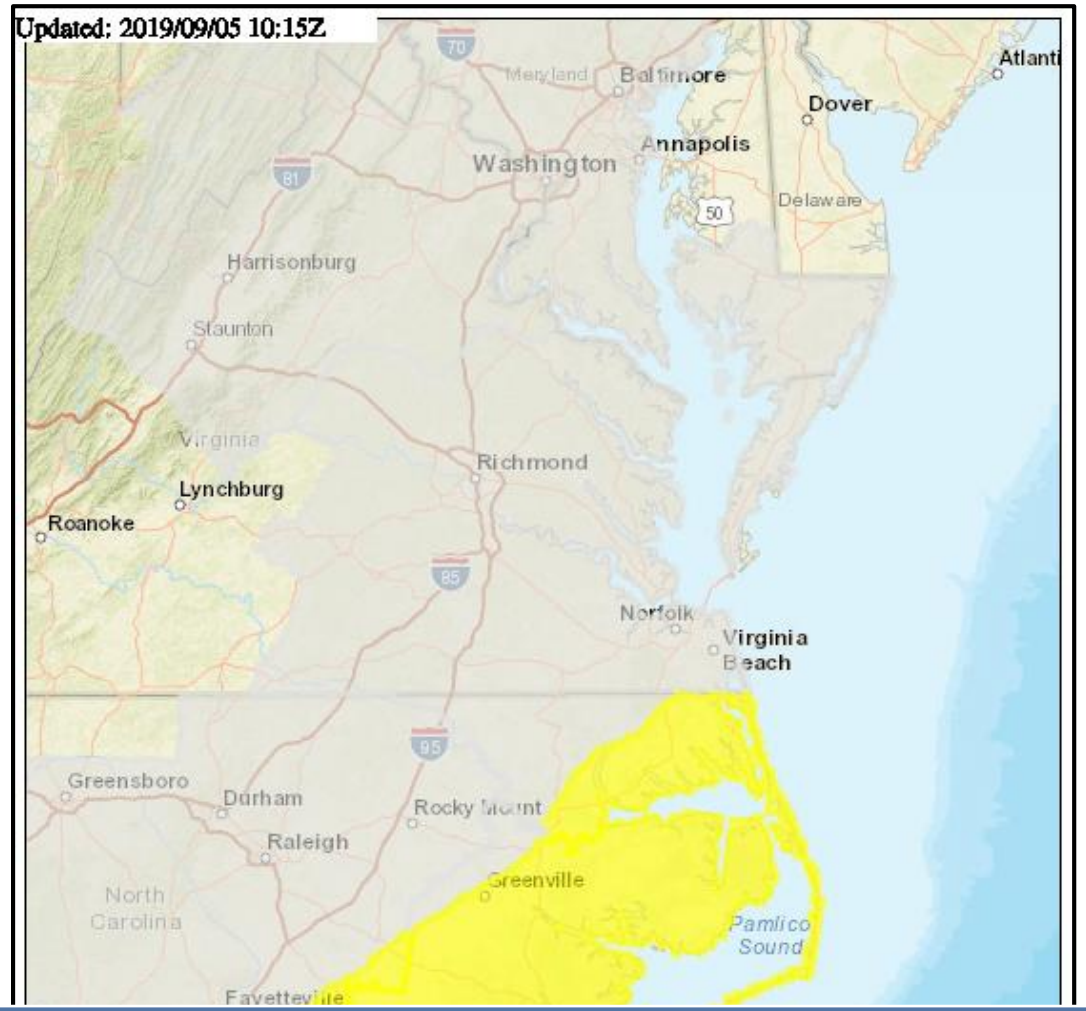

Impacts

- A few places may experience tornado damage, mainly across Northeast NC.
- Execution of emergency plans could be hindered in affected areas.

Key Take-Aways

Hurricane Dorian

Wakefield, VA

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✓Confidence is **HIGH** that the event will occur
✓Confidence is **HIGH** regarding impacts

Prolonged periods of heavy rainfall is expected to lead to areas of flash flooding and water covered roads for portions of Eastern VA and Northeast NC.

Life threatening winds/wind damage is expected to lead to downed trees, power outages, and communication issues across potions of Eastern VA, Northeast NC, and Southeast MD. The most likely time of arrival is tonight into Friday morning based on the current NHC track.

Moderate to major tidal flooding is expected late tonight through Friday in the Bay and along the coast.

There is the potential for increased tornado activity, mainly across Northeast NC.

Marine conditions will become very dangerous to extreme due to increasing waves and the potential for tropical storm or hurricane force winds Thursday night into Saturday.

Contact and Next Briefing Information

Next Briefing:
When: By 6:00 PM EDT Thursday
Method: E-mail

Web: http://weather.gov/akq

Phone: (757) 899-4200

E-mail: akq-report@noaa.gov

Facebook: NWSWakefieldVA

Twitter: NWSWakefieldVA

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AKQ Tropical Briefing Webpage: https://www.weather.gov/akq/Tropical