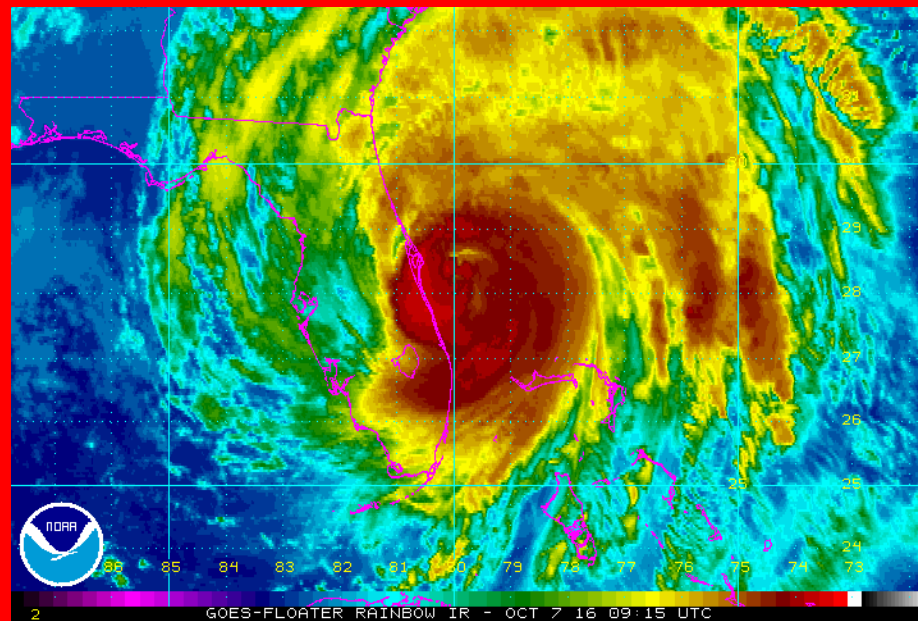


Hurricane Matthew Threats and Impacts Briefing for Eastern NC

October 7th, 2016



National Weather Service
Newport/Morehead City, NC

Date/Time Created: 10/7/2016, 6 AM EDT

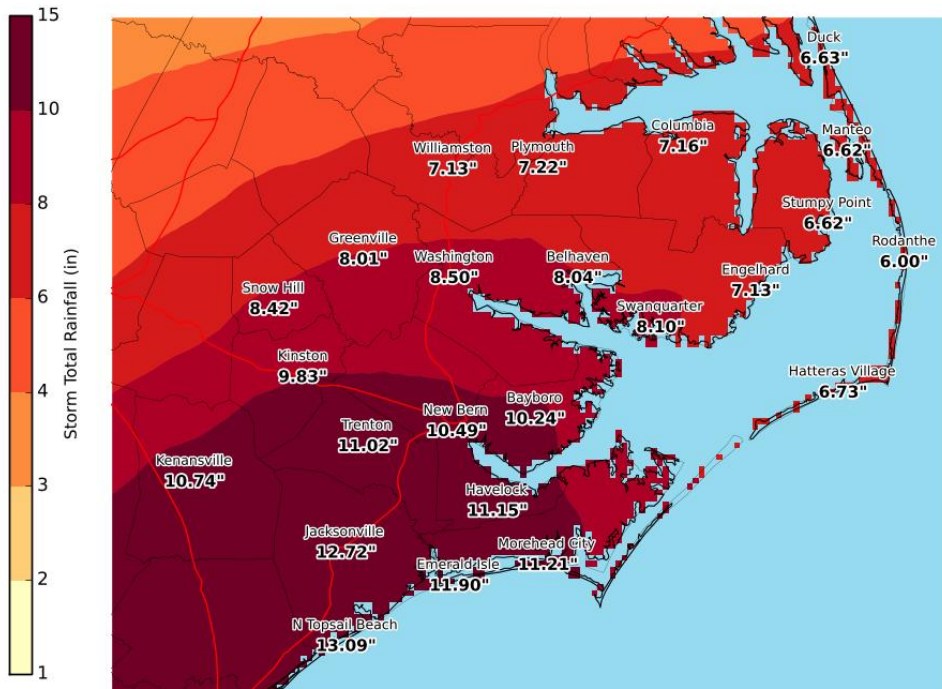
Hurricane Matthew Key Points

- The rainfall forecast has further increased to 6 to 12 inches with local amounts up to 15 inches. This is a dangerous and life threatening flooding event this weekend!
- The combination of abnormally high coastal water levels, additional storm surge, and extremely heavy rainfall, will produce increased dangerous flood levels, from flash flooding and storm surge combined.
- This event has the potential to create once in a lifetime flooding levels for some areas! Rivers could flood in the days to come, reaching moderate to major flood levels. This could be the worst flooding seen in Eastern NC since Hurricane Floyd!
- There is the potential for significant inundation of water that could result in three feet or more across low lying roadways and homes and other buildings on low lying properties being inundated!
- Travel this weekend is highly discouraged!
- Residents in low lying areas should take action to elevate property and move cars to higher ground!
- Higher winds are now forecast across portions of the area and a Tropical Storm Watch has been issued for our southern coastal waters. Should confidence increase and the current trend continue, tropical storm watches or warnings may be extended inland and further north with future updates.
- With higher winds and rainfall, potential for downed trees has increased and power outages could be more numerous. Vulnerable homes and buildings near tall trees should be aware of the potential for downed trees falling on them!
- Areas accessible by low lying roads will likely be cut off. Residents, especially those with medical needs in these locations should consider re-locating to safer and more accessible locations if possible!
- Complete your disaster preparedness kits and other safety preparations today!
- Evacuate if asked to do so!

Dangerous Flooding!

Hurricane Matthew Total Rainfall Forecast

Valid: 10/06/2016 08:00 PM - 10/09/2016 08:00 PM EDT



National Weather Service
Newport/Morehead City North Carolina
10/07/2016 05:13 AM EDT

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- This is a dangerous and life threatening flooding event!
- The rainfall forecast has increased to **6 to 12 inches with locally higher amounts up to 15 inches possible** across Eastern NC.
- Given already high water levels, **rainfall will have a difficult time draining in coastal areas, making the potential for rainfall flooding higher, possibly combining with storm surge to create higher inundation along coastal areas.**
- Heavy rainfall could arrive **beginning Friday Night well ahead of the winds and continue through Sunday.**
- River flooding could reach moderate to major levels in the coming days!
- If you are in a low lying area, consider re-locating to higher ground this weekend

A Flash Flood Watch Is In Effect

Stay home if you can!

If you can't, remember to **“Turn Around,
Don't Drown!”**

Hurricane Matthew Details

Storm Surge

- Storm surge impacts across the sounds and rivers - Minor to Moderate. The primary threat is for ***inundation of 1 to 3 feet above ground, which equates to 2 to 5 feet above normal.*** These numbers will be refined as the storm gets closer.
- Water levels across a large portion of the area have been running 1 to 2.5 feet above normal, so ***it will not take much to push additional water onto land in low lying areas, creating widespread minor nuisance type flooding.***
- Most vulnerable areas:
 - ***Adjacent to the Southern Pamlico Sound and Neuse and Pamlico Rivers, including portions of Southern Hatteras Island and Ocracoke.***
- ***Timing of water level rises will begin Saturday night, but some of the highest inundation amounts may occur on Sunday as winds intensify a bit as the storm departs the area.***
- There will be a prolonged period of moderate northeast flow into next week that may keep water levels above normal across the southern Pamlico and Outer Banks.

Hurricane Matthew Details

High Surf/Beach Erosion

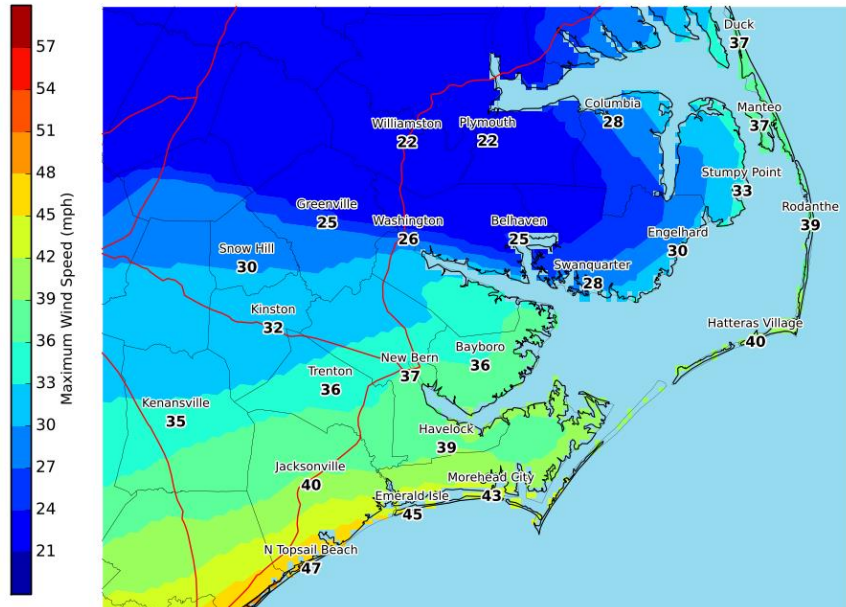
- Ocean front: High surf and breaking waves will likely result in minor erosion and isolated ocean over wash.
- Most vulnerable areas:
 - The Crystal Coast could have some of the worst erosion. ***North Topsail Beach will be especially vulnerable to erosion and some ocean front surge flooding. This would peak Saturday night.***
 - ***The combination of isolated dune breaches, over wash, and sound side flooding could cause mostly isolated inundation issues on portions of Highway 12 on the Outer Banks and Ocracoke. This could occur Saturday night through Sunday.***
 - ***High surf across the Outer Banks from Cape Hatteras North will continue Sunday into Monday. Vulnerable spots like Kitty Hawk could experience issues from erosion at multiple high tide cycles and suffer some over wash.***

Hurricane Matthew Details

Wind Impacts

Hurricane Matthew Max Wind Forecast

Valid: 10/08/2016 08:00 AM - 10/10/2016 02:00 AM EDT



National Weather Service
Newport/Morehead City North Carolina
10/07/2016 05:15 AM EDT

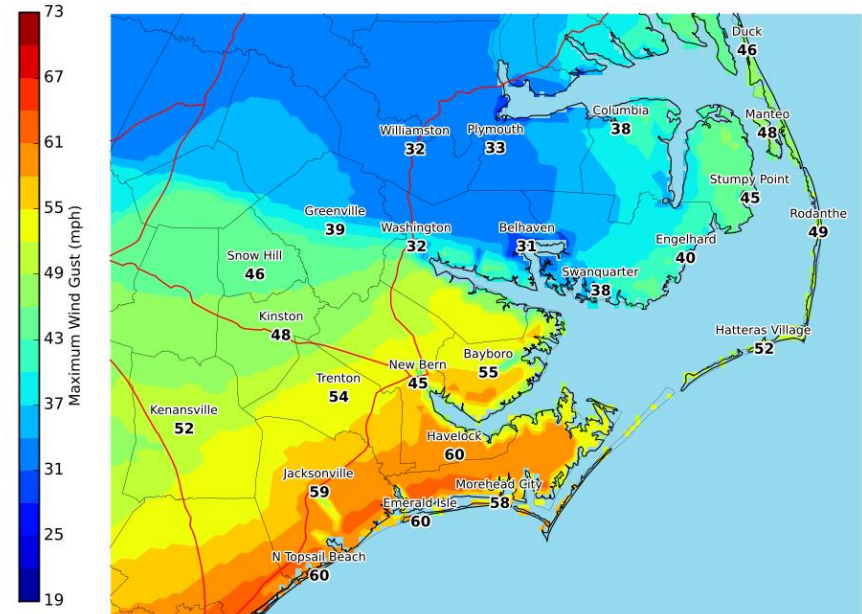
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Hurricane Matthew Max Wind Gust Forecast

Valid: 10/08/2016 08:00 AM - 10/10/2016 02:00 AM EDT



National Weather Service
Newport/Morehead City North Carolina
10/07/2016 05:16 AM EDT

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- With the northward shift in track, it appears sustained tropical storm force winds are more possible along the coast, and gusts as high as 60 mph are possible across the southern coast.
- With the current track, ***timing of the strongest winds would likely be beginning Late Saturday afternoon, peaking during the day on Sunday along the coast.***
- **The very saturated ground will increase the potential for downed trees, we expect dangerous impacts with trees falling on buildings and cars and more widespread power outages!**

Hurricane Matthew Details

Additional Impacts

- **Tornadoes**

- With the offshore forecast track, the threat of tornadoes is low. The forecast for Matthew would have to shift significantly back across our coast to increase the threat of tornadoes.

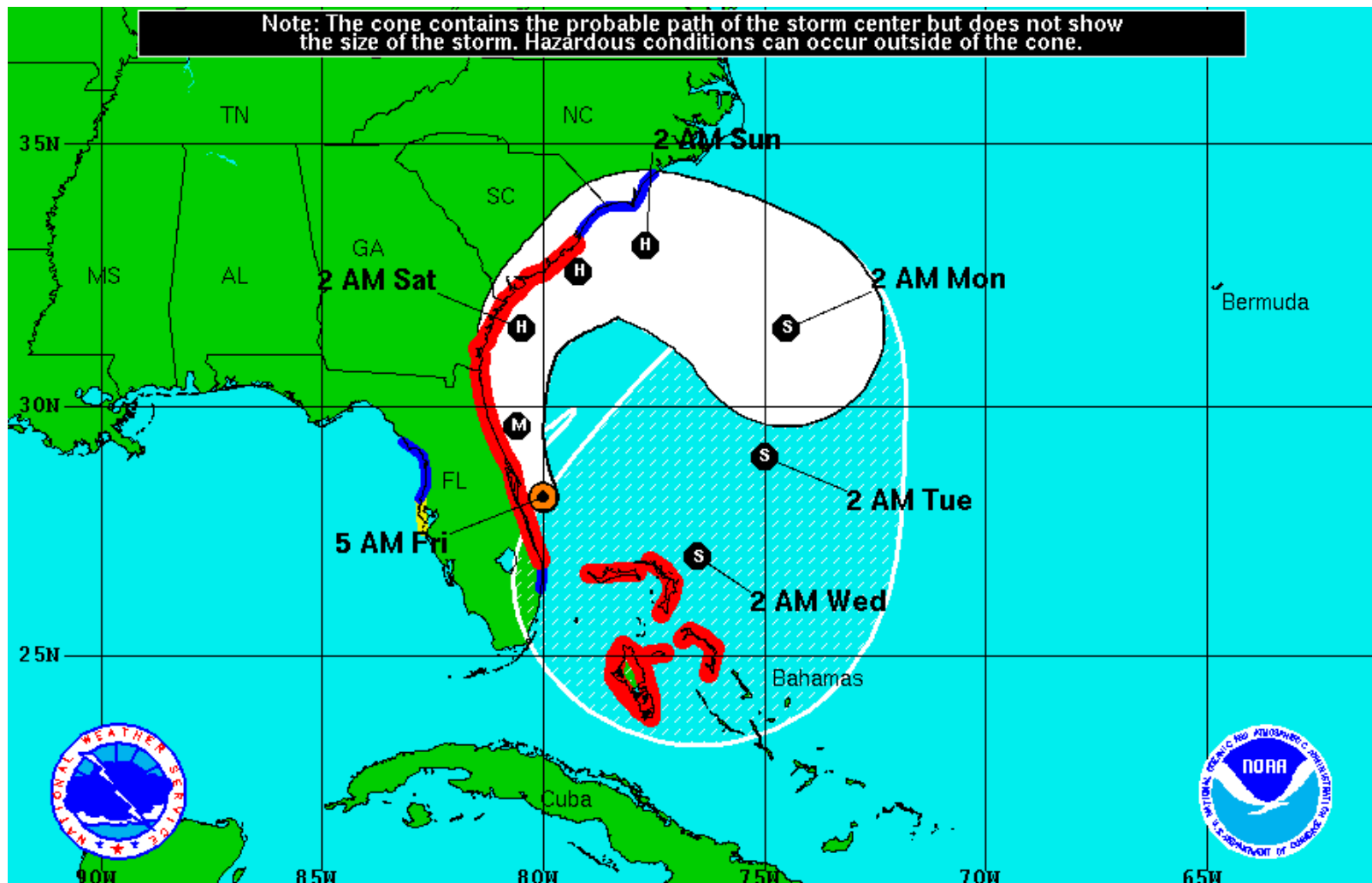
- **Marine (Coastal Waters) Threats**

- A tropical storm watch has been issued for our southern coastal waters and could be expanded northward! The forecast for seas through the event is 10 to 20 feet.
- Conditions on the waters will deteriorate rapidly as Matthew approaches. ***Boaters are urged to stay in port, and be prepared to secure their vessels to deal with the potential water level rises associated with storm surge.***

- **Rip Currents**

- ***There is a high threat of rip currents across the entire area, and very rough surf.***
- ***It is recommended to avoid swimming as surf conditions deteriorate, or at a minimum swim near life guards.***

Hurricane Matthew Forecast Track



Hurricane Matthew

Friday October 7, 2016

5 AM EDT Advisory 37

NWS National Hurricane Center

Current Information:

Center Location 28.2 N 80.0 W
Max Sustained Wind 120 mph
Movement NNW at 13 mph

Forecast Positions:

● Tropical Cyclone ○ Post-Tropical
Sustained Winds: D < 39 mph
S 39-73 mph H 74-110 mph M > 110mph

Potential Track Area:

Day 1-3 Day 4-5

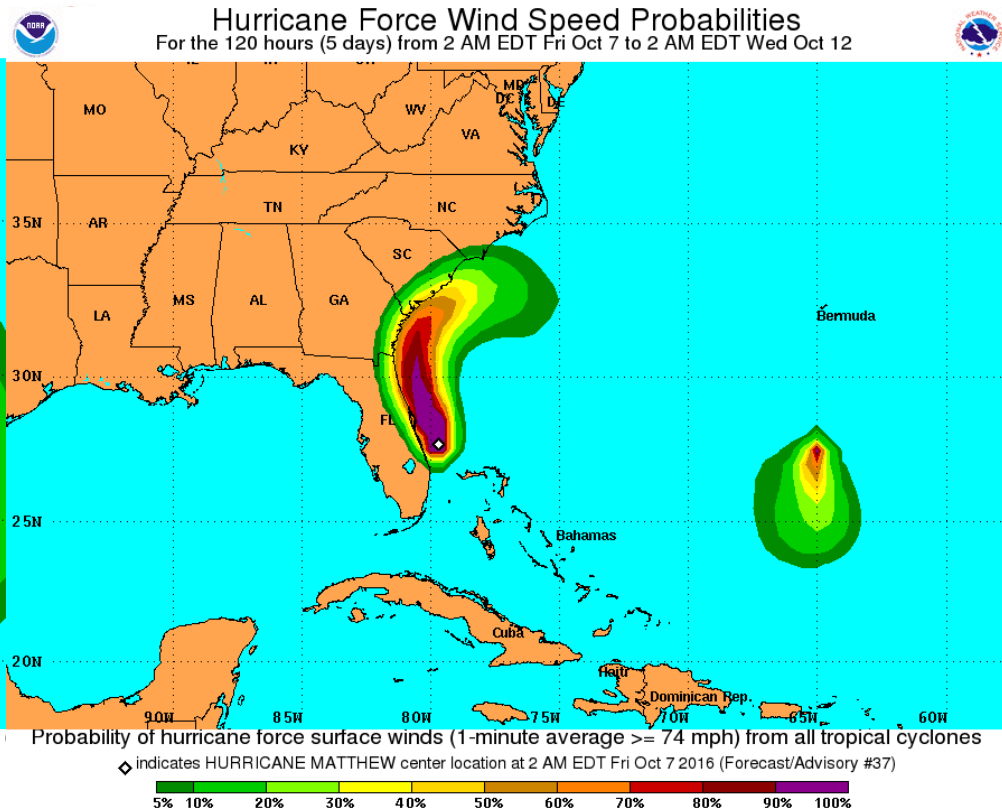
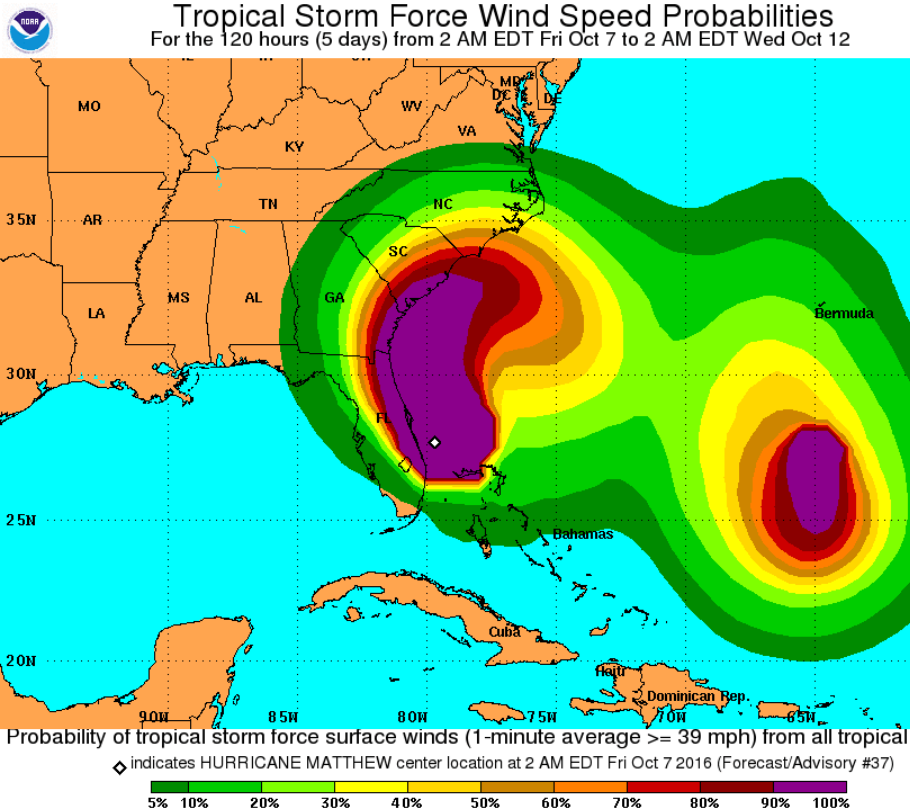
Watches:

Hurricane Trop.Storm

Warnings:

Hurricane Trop.Storm

Hurricane Matthew Wind Speed Probabilities



Probability of tropical storm
force winds.

Probability of hurricane force
winds.

Tropical storm force wind speed probabilities have increased over our area.

Be Aware, Be Prepared, Stay Safe!

- This has evolved into an extremely dangerous and life threatening situation! This could be the worst flooding event the area has faced since Hurricane Floyd.
- It is important to *have multiple ways to receive warnings, especially at night*. NOAA Weather Radio is an excellent resource to be alerted to warnings, as well as newer cell phones that are Wireless Emergency Alert capable.
- Move property to the highest ground possible, especially if you live in low lying areas, especially if close to the sound, rivers, or small creeks.
- Consider relocating to higher ground if you are in a particularly vulnerable low lying location.
- Avoid travel if at all possible this weekend.
- Complete all preparedness actions today and evacuate if asked to do so!

For updates call the forecaster on Duty
(252) 223-5122 x5

References:

[NWS Newport/Morehead City Webpage](#)

[WPC Rainfall Forecasts \(QPF\)](#)

[National Hurricane Center](#)

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