



Hurricane Matthew

Life Threatening Flash Flooding Likely

Threat Assessment for northeast South Carolina & southeast North Carolina

National Weather Service Wilmington NC

630 AM EDT Saturday October 8, 2016

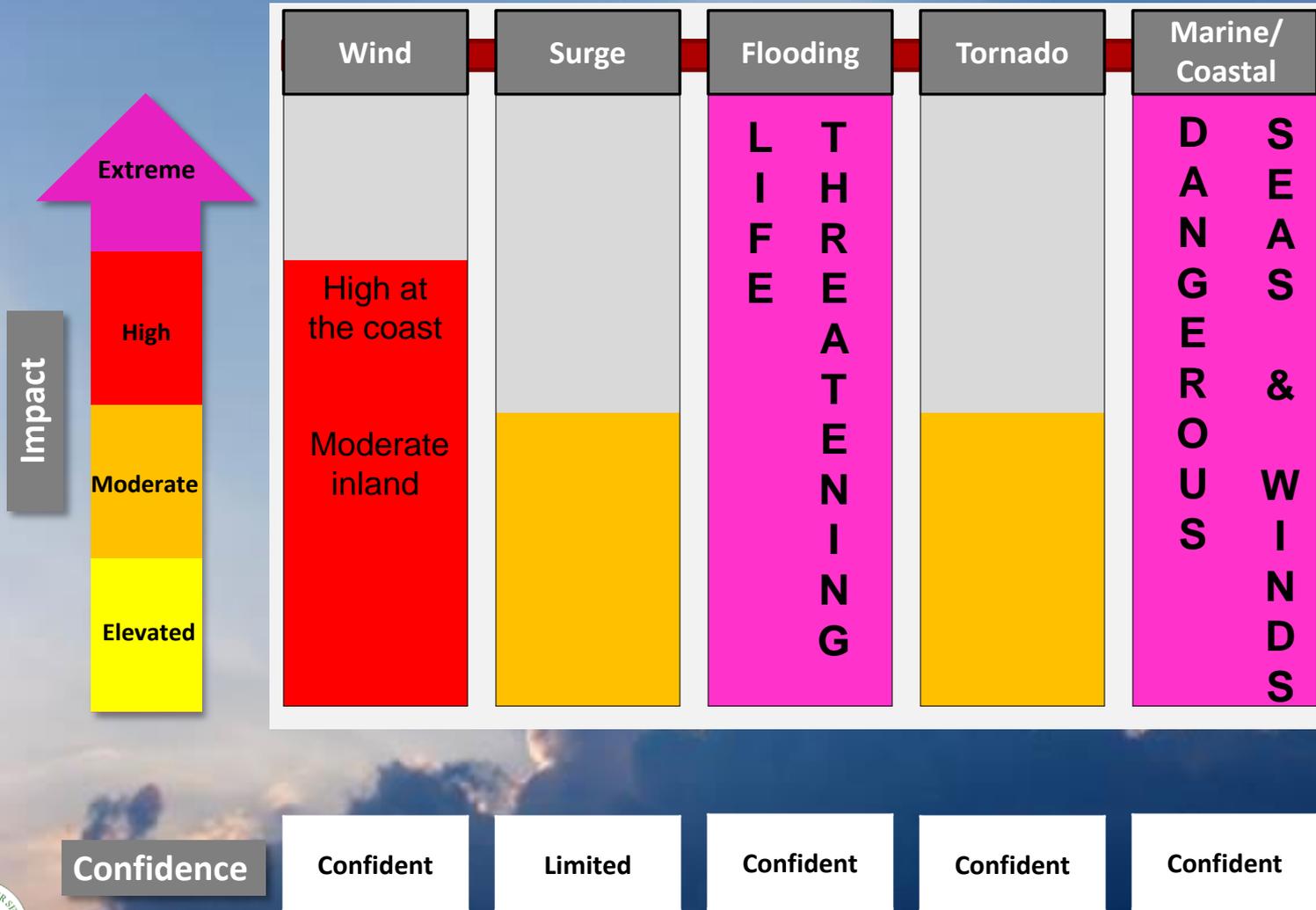
Steven Pfaff, WCM



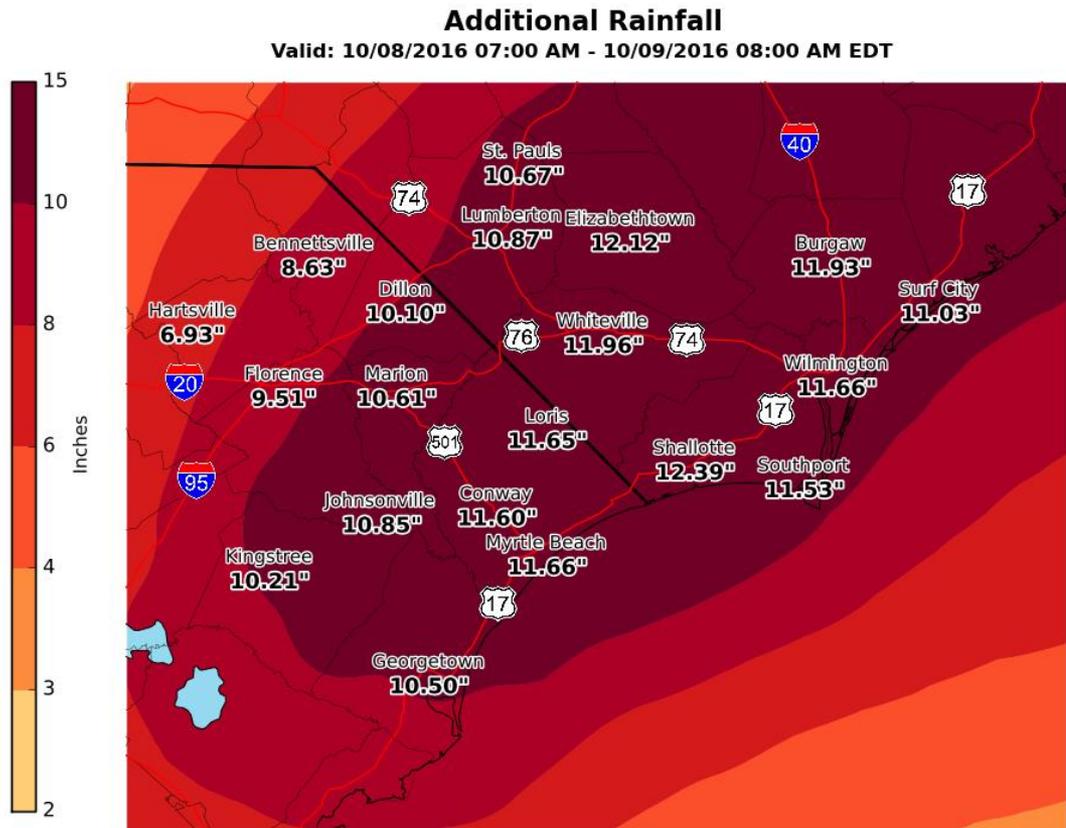
New Information

- An isolated tornado or two is possible over the next several hours.
- Recent wind gust reports include: 70 mph at Winyah Bay SC, 66 mph at Murrells Inlet SC, 61 mph at Myrtle Beach Airport SC, and 52 mph at Kure Beach NC.
- Doppler Radar rainfall estimates show a large swath of 6 to 8 inches has already fallen across northeast SC, especially south of a Darlington to Nichols to Little River, SC line.

Initial Look at Potential Impacts and Confidence



Additional Rainfall Totals



- **Life Threatening Flash Flooding is Likely!**
- Heavy rain will continue across northeast SC and increase across southeast NC this morning.
- Rainfall totals >10" are forecast across the entire area. Highest rain amounts, up to 15" with isolated higher totals, are possible near the coast.
- Impacts include: impassable roads, road wash-outs, many low-lying and prone areas flooded, structures in low-lying areas flooded.
- Rainfall coming to an end across the Pee Dee and Lumberton areas this evening, and ending later at the coast.

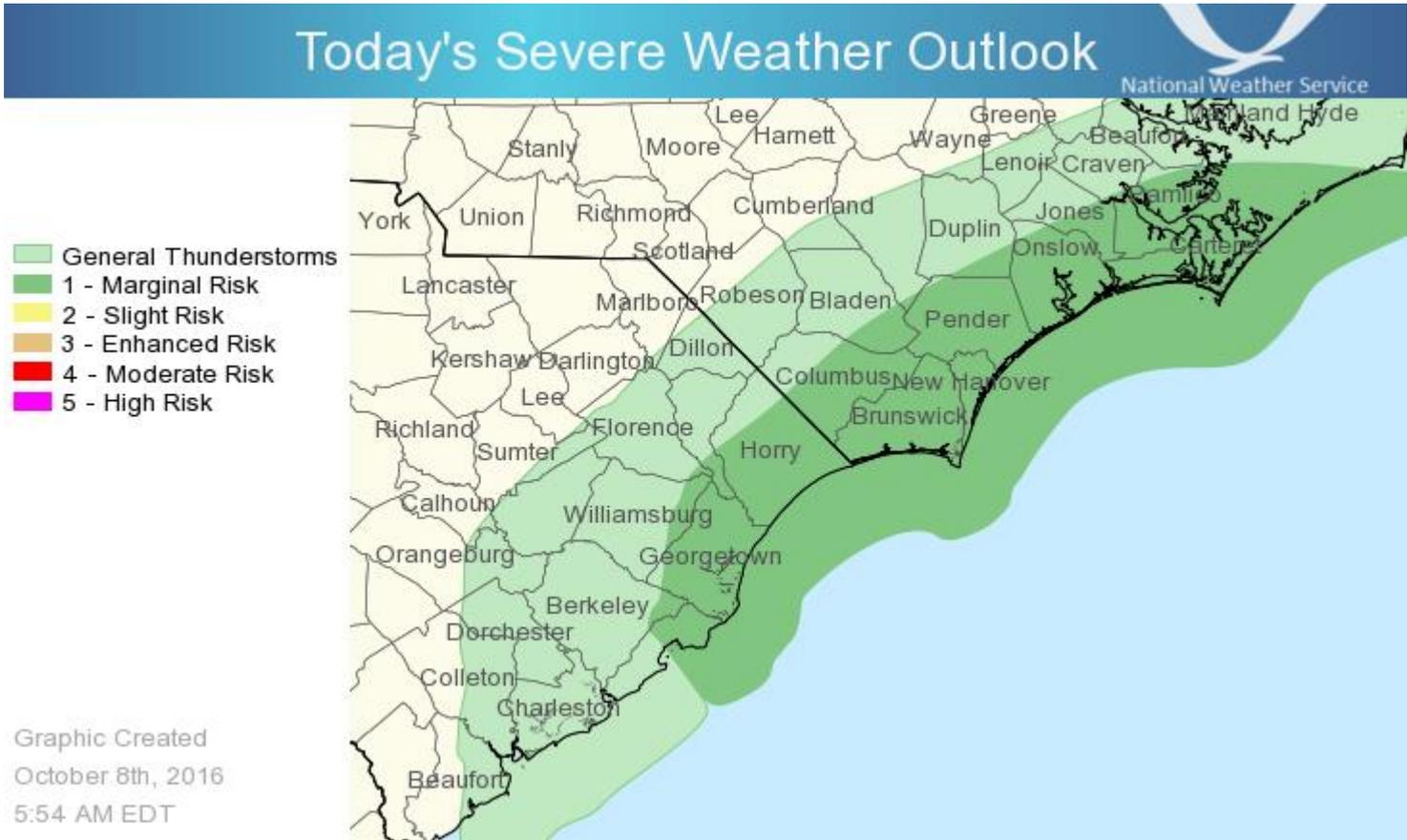


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Tornado Threat



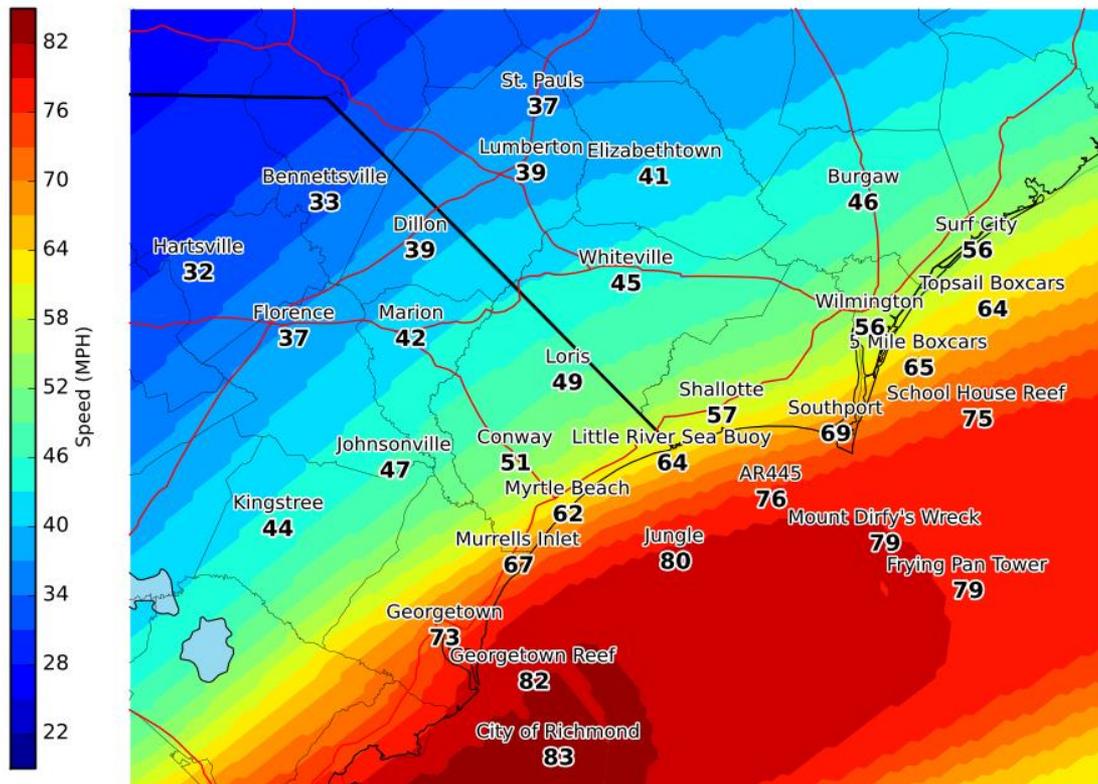
Storm Prediction Center Outlook valid through today

- Isolated tornado or two possible through the early afternoon

Peak Sustained Wind Information (mph)

Max Wind Speed

Valid: 10/08/2016 08:00 AM - 10/09/2016 08:00 AM EDT



- The strongest winds are expected later this morning and afternoon for northeast SC, and this evening for southeast NC.
- Since soils will be saturated winds could easily topple trees.
- Wind impacts include: downed trees, downed trees blocking roads and damaging homes, power outages, and some damage to structures.
- Winds will remain gusty out of the north Sunday but will be decreasing.



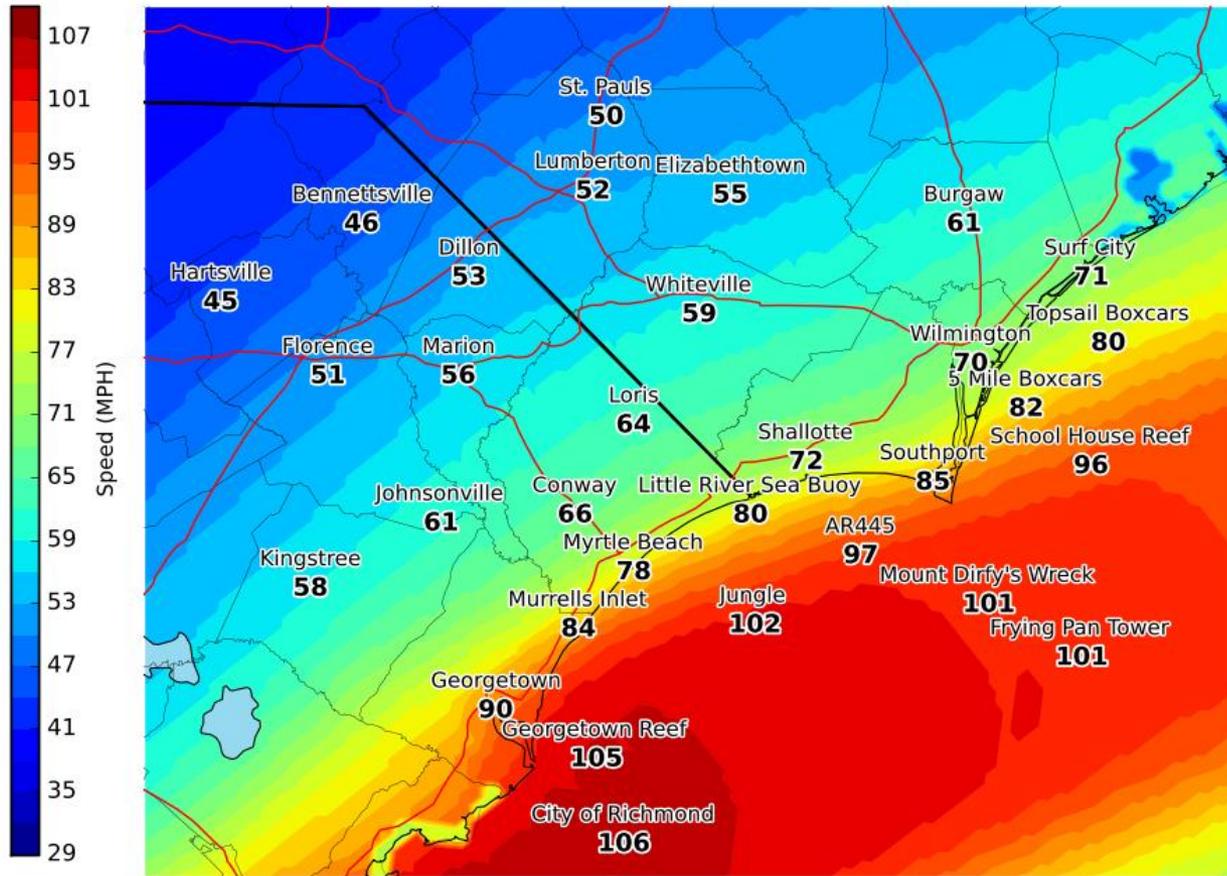
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Peak Wind Gust Information (mph)

Max Wind Gusts
 Valid: 10/08/2016 08:00 AM - 10/09/2016 08:00 AM EDT



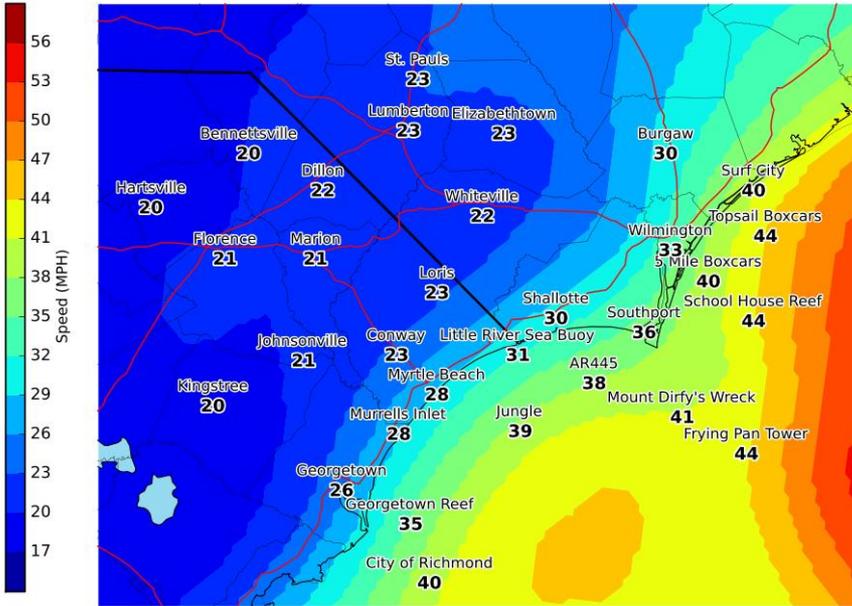
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Peak Wind Information (mph) for Sunday

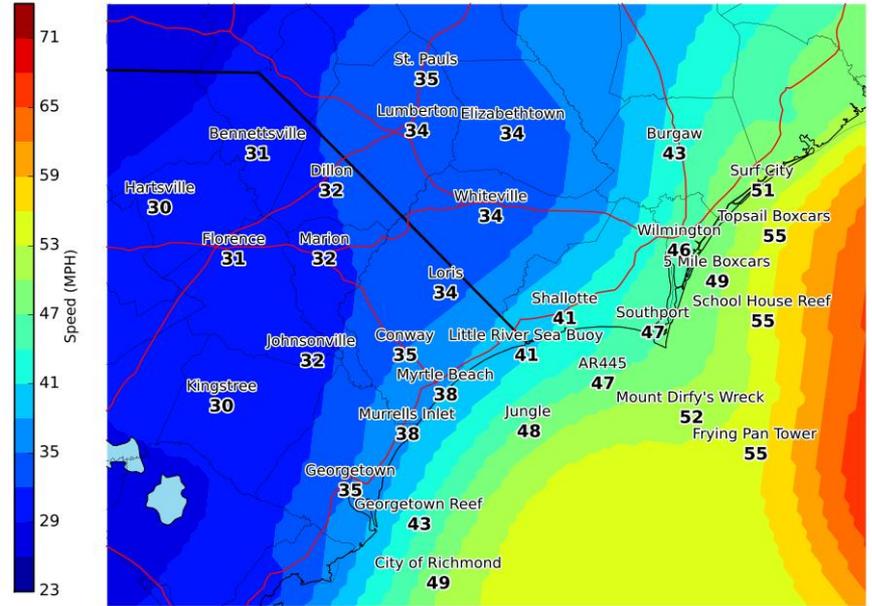
Max Wind Speed

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



Max Wind Gusts

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



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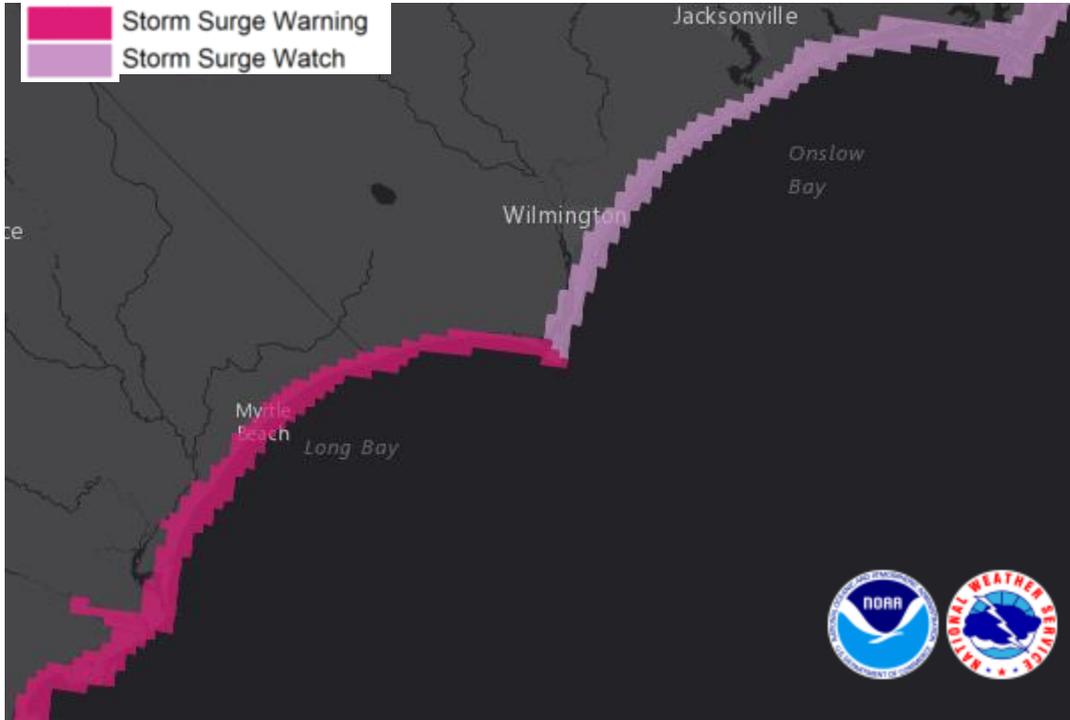
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- Gusty winds possible, especially Sunday morning, as the storm pulls farther away from the coast.



Storm Surge Inundation Threat Information

*For Probabilistic Storm Surge please visit the National Hurricane Center link for a more detailed map of your area:
http://www.nhc.noaa.gov/refresh/graphics_at4+shtml/094542.shtml?inundation#contents



Locations of Storm Surge Watches and Warnings as of 5AM EDT Saturday, Oct 7, 2016

- A Storm Surge Warning remains in effect from Cape Fear NC to South Santee River, SC. A Storm Surge Watch remains in effect north of Cape Fear, NC.
- In the Storm Surge Watch area, surge inundation of **2 to 4 ft** above ground level is possible along the ocean front, and low-lying tidal areas/creeks.
- Within the Storm Surge Warning area, inundation of **5 to 7 ft** above ground level is possible along the ocean front, and low-lying tidal areas, including those along Winyah Bay & adjoining rivers feeding into the bay.
- Any coastal inundation will likely be highest with high tide Sat. afternoon.

- Potential storm surge impacts include: damage to vulnerable buildings along the coast, impacts to drinking water and sewer services, sections of coastal roads flooded, damage to marinas, docks, and piers (especially in the higher threat areas). Aids to navigation may come off station as well.

Other Impacts

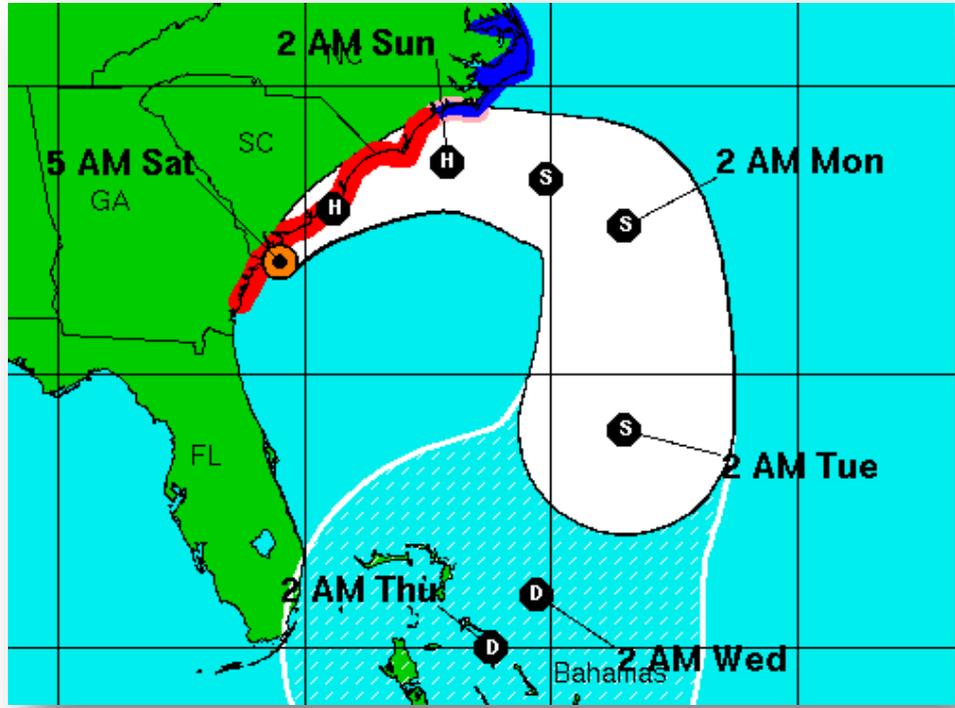
- **Marine/Coastal** – Hazardous marine impacts are expected with large ocean waves and breakers in the surf with the potential for significant beach erosion. Inlet entrances will be hazardous as well with steep waves in/near the entrances. Marine impacts will peak today and tonight. Large waves could continue into next week as well since Matthew is expected to meander off the Southeast U.S. coast.
- **Aviation** – Impacts to flight operations are expected at all terminals through Sunday morning as a result of the increasing winds and areas of heavy rain. Widespread LIFR/IFR conditions expected today.
- **River Flooding** – Widespread river flooding is likely. Please see the river threat assessment sent in a separate briefing Friday afternoon. **Moderate to Major flooding is probable.**

Official NHC 5 Day Forecast Track

- The official track has Matthew along the SC coast today before passing just south for Cape Fear this evening.
- Matthew is expected to weaken as it moves south of Cape Fear but will still cause impacts. Remain vigilant for flash flooding and strong gusty winds.

Advisory #41 5 AM EDT Saturday Oct 8, 2016

Position:	31.2N / 80.5W (70 Mi. SSE of Savannah, GA)
Movement:	Toward the NNE at 12 mph
Intensity:	105 MPH (Category 2)
Min. Pressure:	955 MB or 28.20 inches



*Note: statistically, one third of the time the storm can be outside of the 5 day error cone



Key Points

- Life threatening flash flooding is likely. Do not attempt to drive through flooded areas.
- Winds will be on the increase today as Matthew makes its closest approach to the area. Strong winds will easily topple trees causing power outages.
- **Storm Surge Warning** remains in effect for Georgetown, Horry, and Brunswick counties. A **Storm Surge Watch** remains in effect for New Hanover and Pender counties. Storm surge impacts will increase during the day.
- An isolated tornado or two is possible.

Note: This is the last PDF briefing package that will be sent. Additional information about specific impacts will be sent during the day as they develop. Another river flood briefing will be sent later this morning.