



# Hurricane Matthew

Threat Assessment for northeast South Carolina & southeast North Carolina

National Weather Service Wilmington NC

630 AM EDT Thursday October 6, 2016

Steven Pfaff, WCM

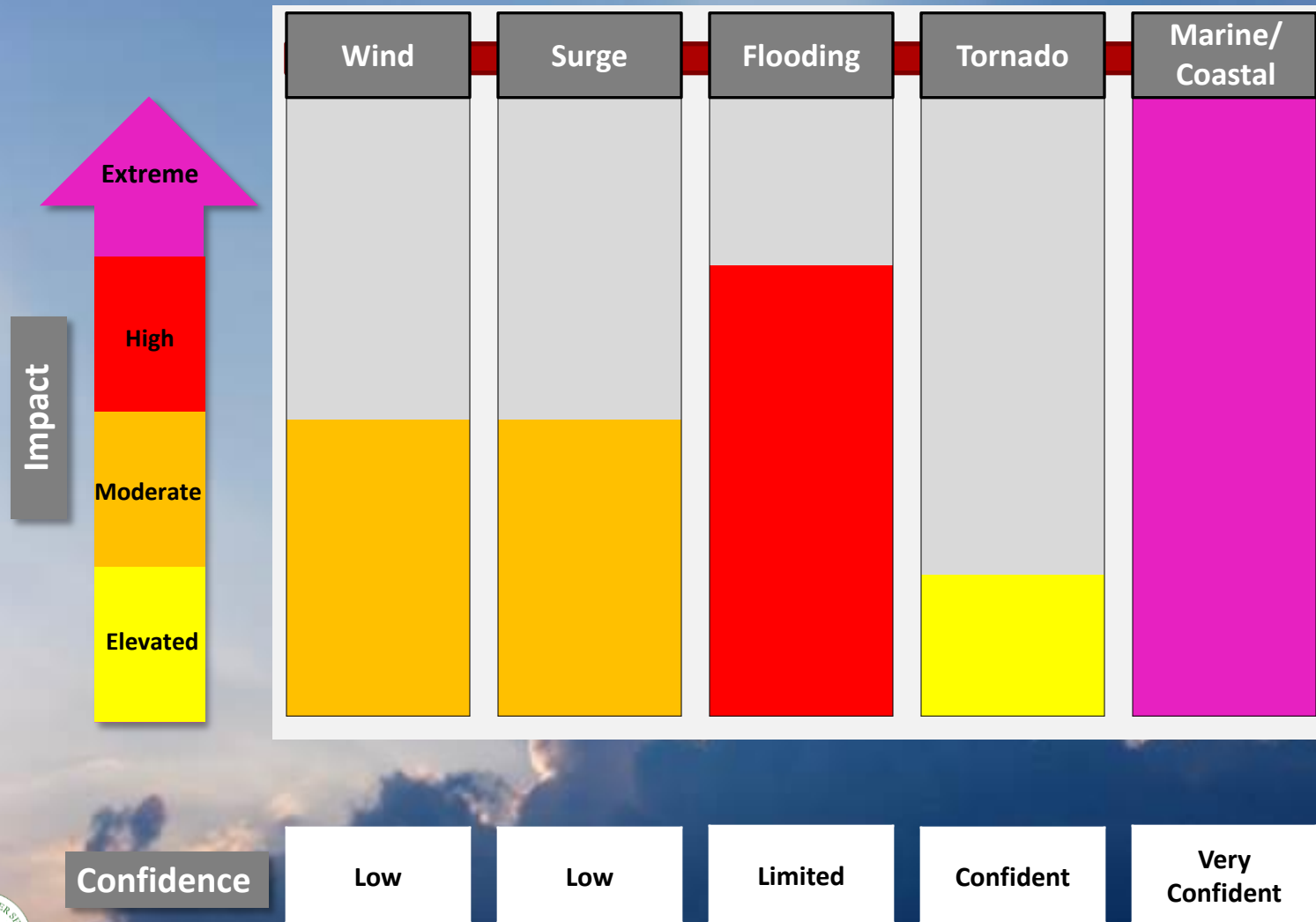
[Steven.Pfaff@noaa.gov](mailto:Steven.Pfaff@noaa.gov)



## New Information

- No significant changes made to the latest forecast track along with low confidence in the track as it approaches southeastern NC and northeastern SC.
- Increased storm total rainfall amounts with a potential for more than 10 inches along coastal areas. If this trend continues then the impact level may need to be increased to extreme, especially given antecedent rainfall and soil saturation conditions across the area.

## Initial Look at Potential Impacts and Confidence



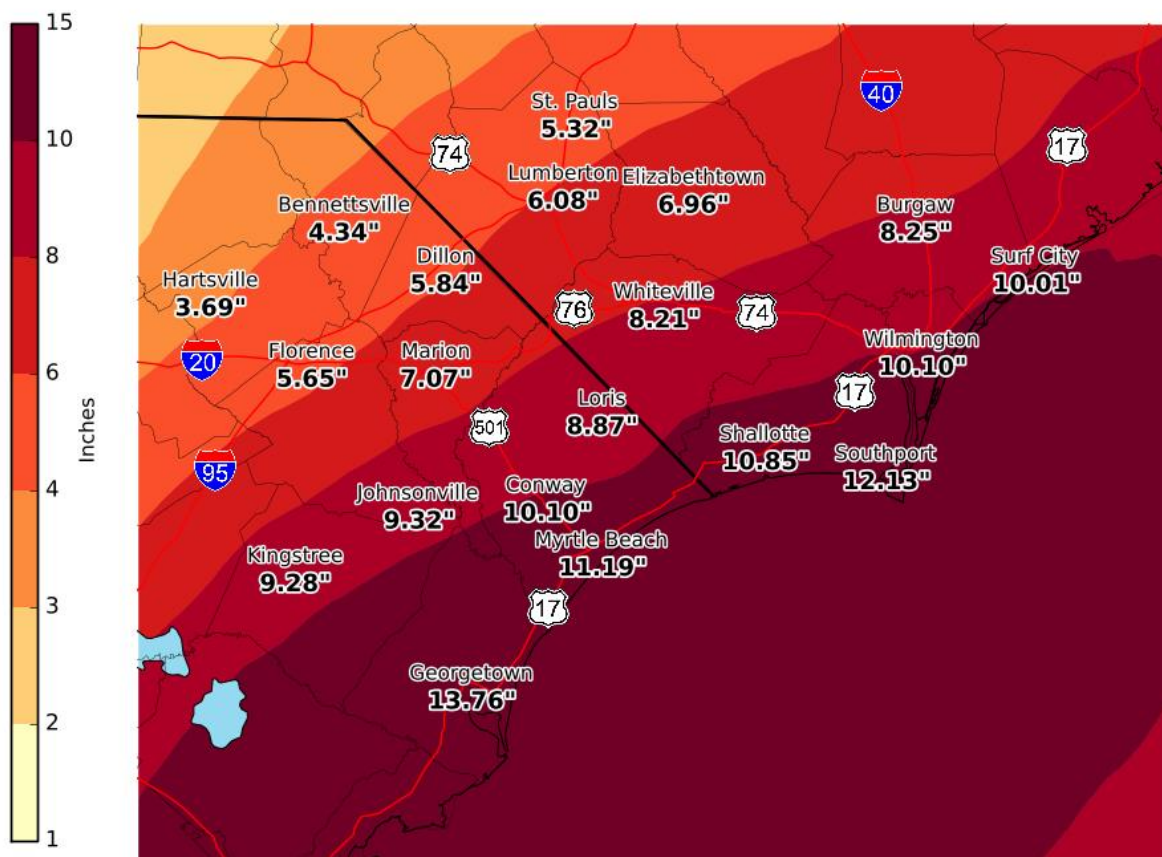
## Potential Impacts

- **Marine/Coastal** – Extreme impacts are possible with very large waves, dangerous boating/shipping and surf conditions, and the potential for significant erosion. Inlet entrances will be especially hazardous as well. Marine impacts will increase today and peak this weekend.
- **Flooding** – Major rainfall flooding may prompt rescues and flood vulnerable structures in low-lying areas. Rivers and streams may rapidly overflow their banks. Many people may become cut-off by the water as roads are significantly flooded creating dangerous driving conditions and possibly sinkholes. Road washouts/failures are possible. The potential for flash flooding will be greatest Saturday and Saturday night.
- **Surge** – Given the current track, moderate surge impacts could occur with inundation of 2 to 4 feet north of Cape Fear to 4 to 6 feet south of Cape Fear with the highest values from Myrtle Beach southward. Surge impacts would be greatest during Saturday. Some impacts include: coastal inundation enhanced by large breakers along the barrier islands, damage to vulnerable buildings along the ocean front, and some sections of near-shore roads may become flooded by the surge.
- **Wind** – . Moderate impacts include: some damage to roofing/siding, porches, car ports, and sheds. Trees will be downed, especially along the coast and with greater numbers where trees are poorly rooted due to saturated soil conditions. Scattered power outages would also be expected, possibly a little more widespread along the coastal areas..
- **Tornado** – The occurrence of an isolated tornado or two can affect preparedness actions during tropical events. They can cause structural damage, trees to snap or become uprooted, power outages, and communications failures. The risk for tornadoes is very low at this point.

## Rainfall Information

### Storm Total Rain

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



- Rain chances will increase during Friday ahead of the storm. Heavy rain is possible with an increasing potential for flash flooding, especially Sat and Sat night.
- Rainfall totals >10 inches are possible, especially along coastal areas. Lesser, but still significant amounts, are expected farther inland. These values will be adjusted depending on the storm track. Confidence in rainfall total is limited.



**National Weather Service**  
Wilmington North Carolina  
10/06/2016 05:34 AM EDT

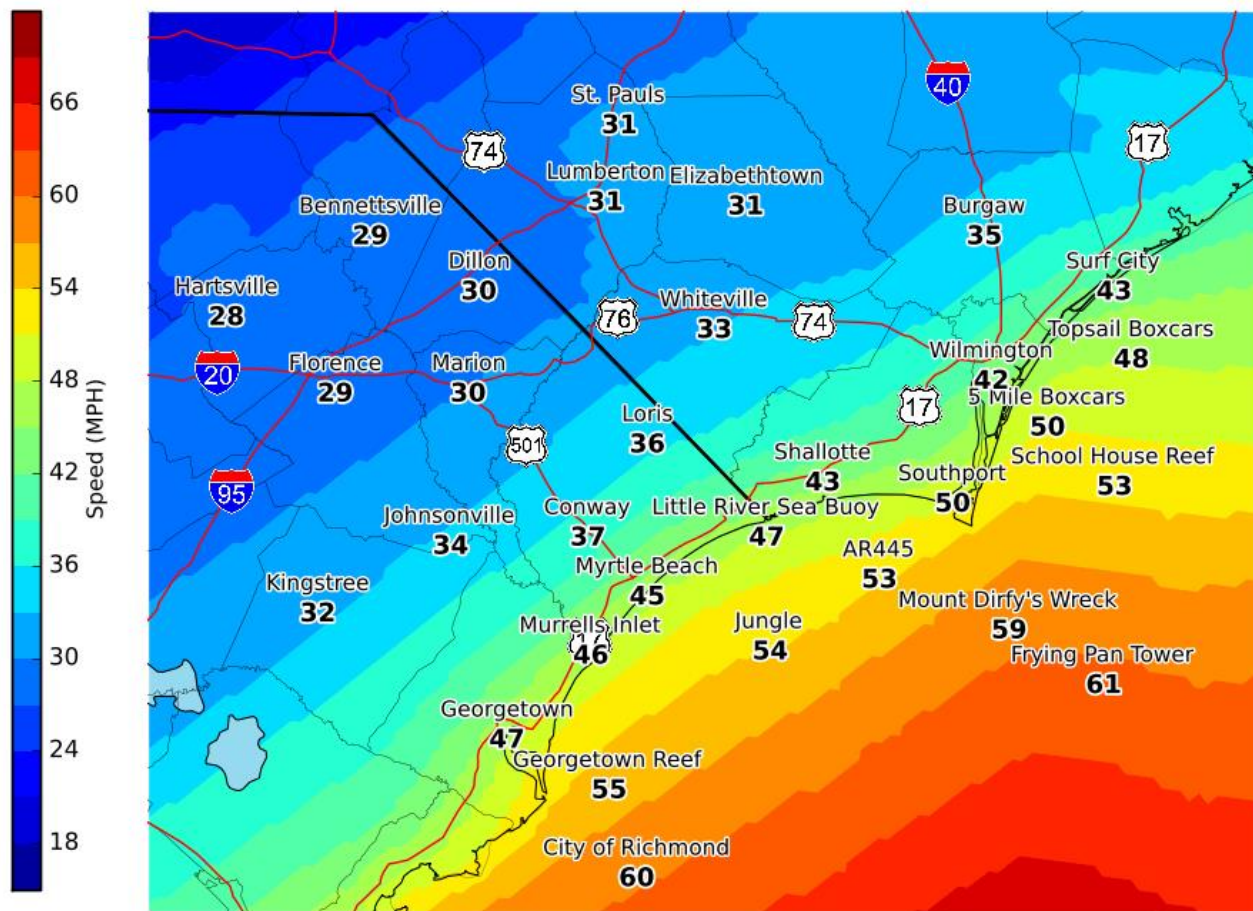
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## Peak Sustained Wind Information

### Max Wind Speed

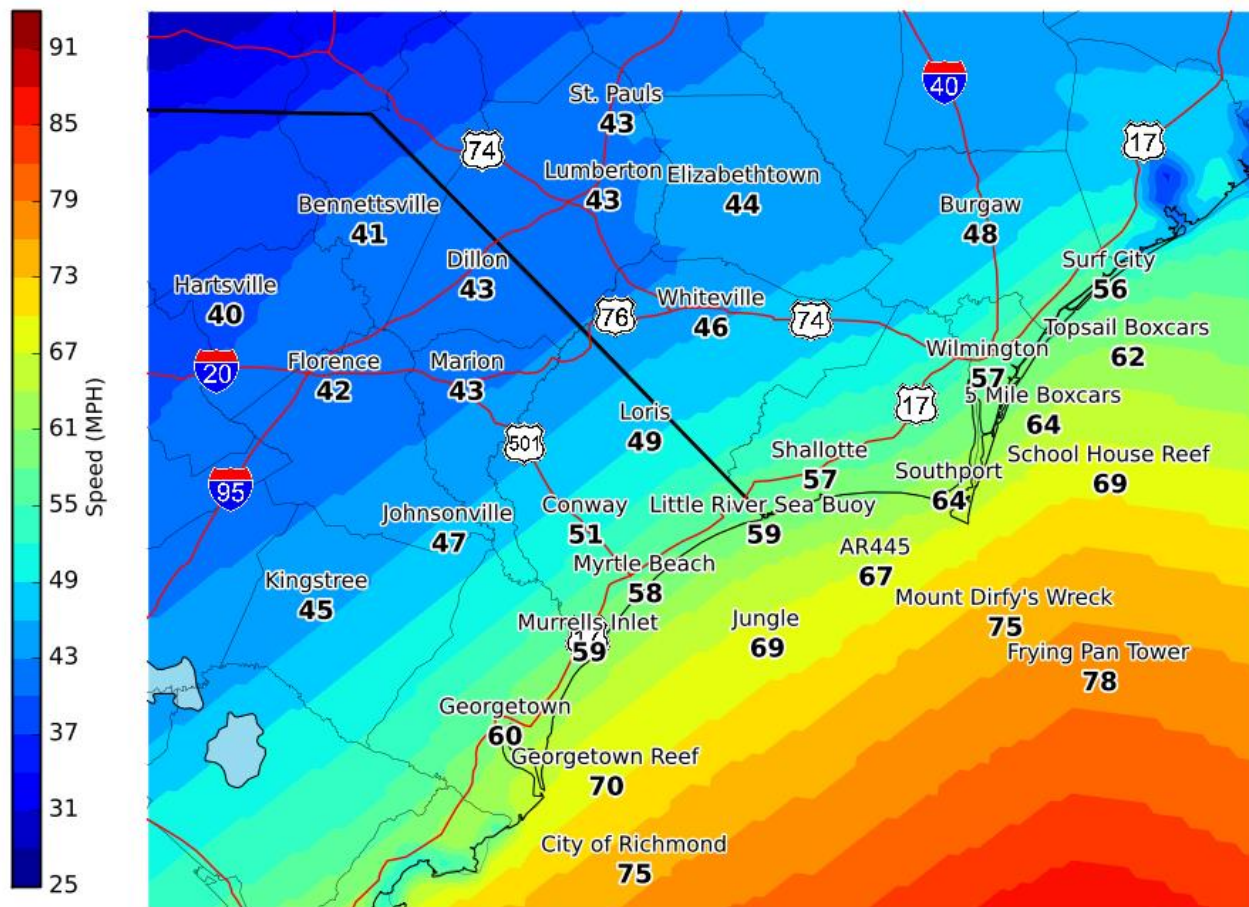
Valid: 10/08/2016 08:00 AM - 10/10/2016 02:00 PM EDT



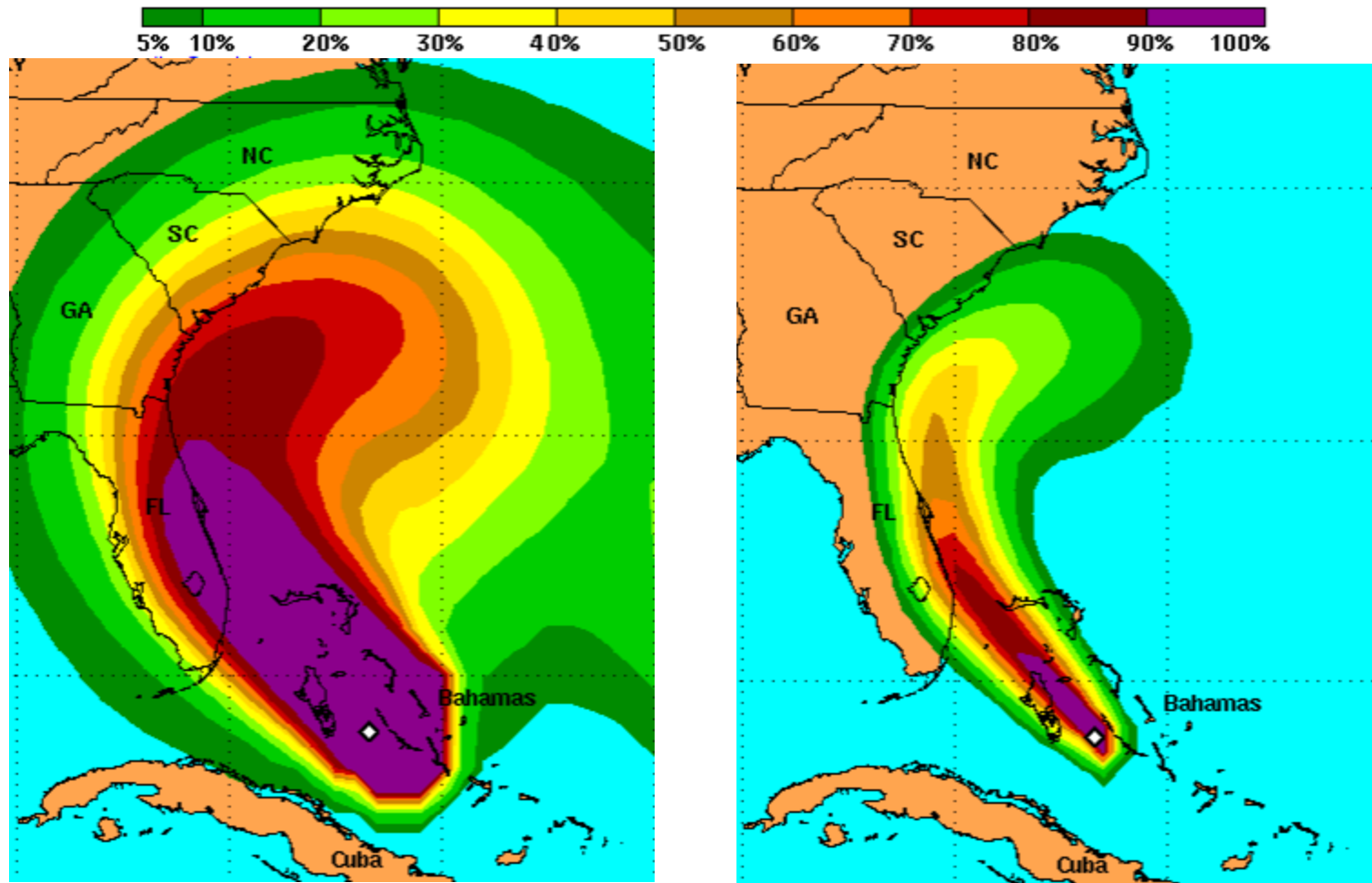
## Peak Wind Gust Information

### Max Wind Gusts

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



## Tropical Storm and Hurricane Wind Probabilities



No large changes along the southeast NC & northeast SC coast with the probability for Tropical Storm Winds & Hurricane Force Wind Speed Probabilities. Still a few scenarios that bring hurricane conditions to northeast SC and southeast NC; however, the axis of highest probabilities remains off the coast. These graphics are for a 120 hour period from 2 AM EDT Thu Oct 6<sup>th</sup> to 2 AM EDT Tue Oct 11<sup>th</sup>.

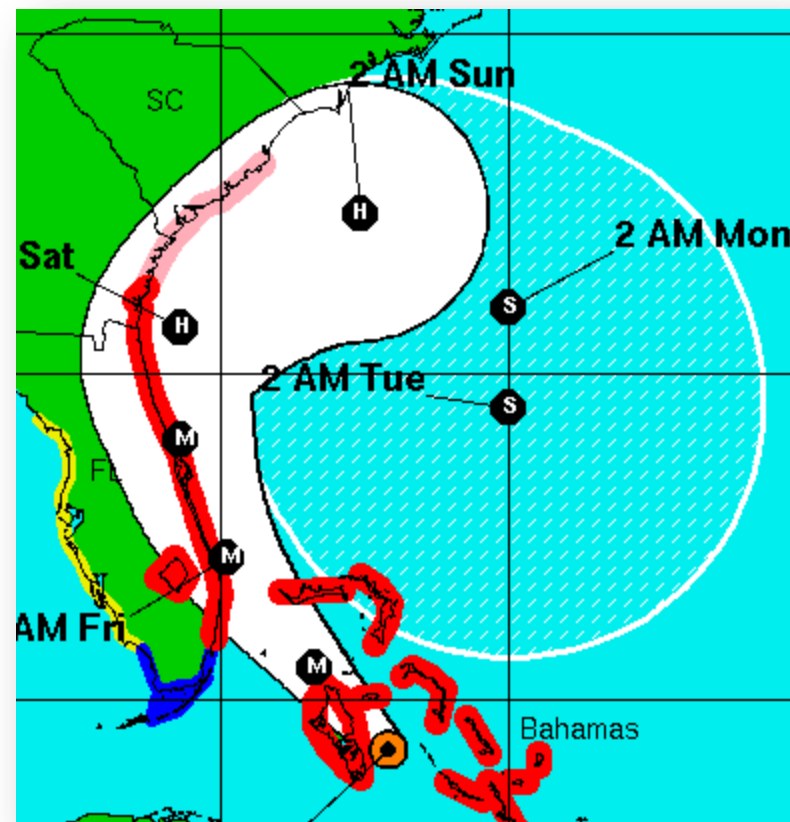


## Official NHC 5 Day Forecast Track

- The official track continues just off the South Carolina coast and passing south of Cape Fear during Saturday night.
- Hurricane Matthew's closest approach to northeast SC and southeast NC is expected Saturday and Saturday night.
- Do not focus on the exact track of Matthew as it will shift overtime. Note, this is not an impact cone.

Advisory #33 5 AM EDT Thu Oct 6, 2016

<b>Position:</b>	24.2N / 77.1W (60 Mi. SSE of Nassau Bahamas)
<b>Movement:</b>	Toward the NW at 12 mph
<b>Intensity:</b>	125 MPH (Category 3)
<b>Min. Pressure:</b>	944 MB or 27.88inches



5 AM NHC Advisory #33 Thu Oct 6, 2016 Hurricane Matthew 5 Day Forecast Cone

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

## Key Points



- Minor track adjustment. Do not let your guard down as any adjustment to the west would support greater impacts.
- Rainfall will begin during Friday, while direct rainfall associated with Matthew would occur Friday night through Saturday night. Rain may be heavy at times with the risk for flash flooding increasing.
- Gusty winds could lead to downed trees and subsequent power outages, especially where they are poorly rooted given saturated ground conditions from heavy rain.

NEXT PDF BRIEFING: [2 PM EDT - Thursday October 6, 2016](#)