



# Hurricane Matthew

## Life Threatening Flash Flooding Likely

Threat Assessment for northeast South Carolina & southeast North Carolina

National Weather Service Wilmington NC

630 PM EDT Friday October 7, 2016

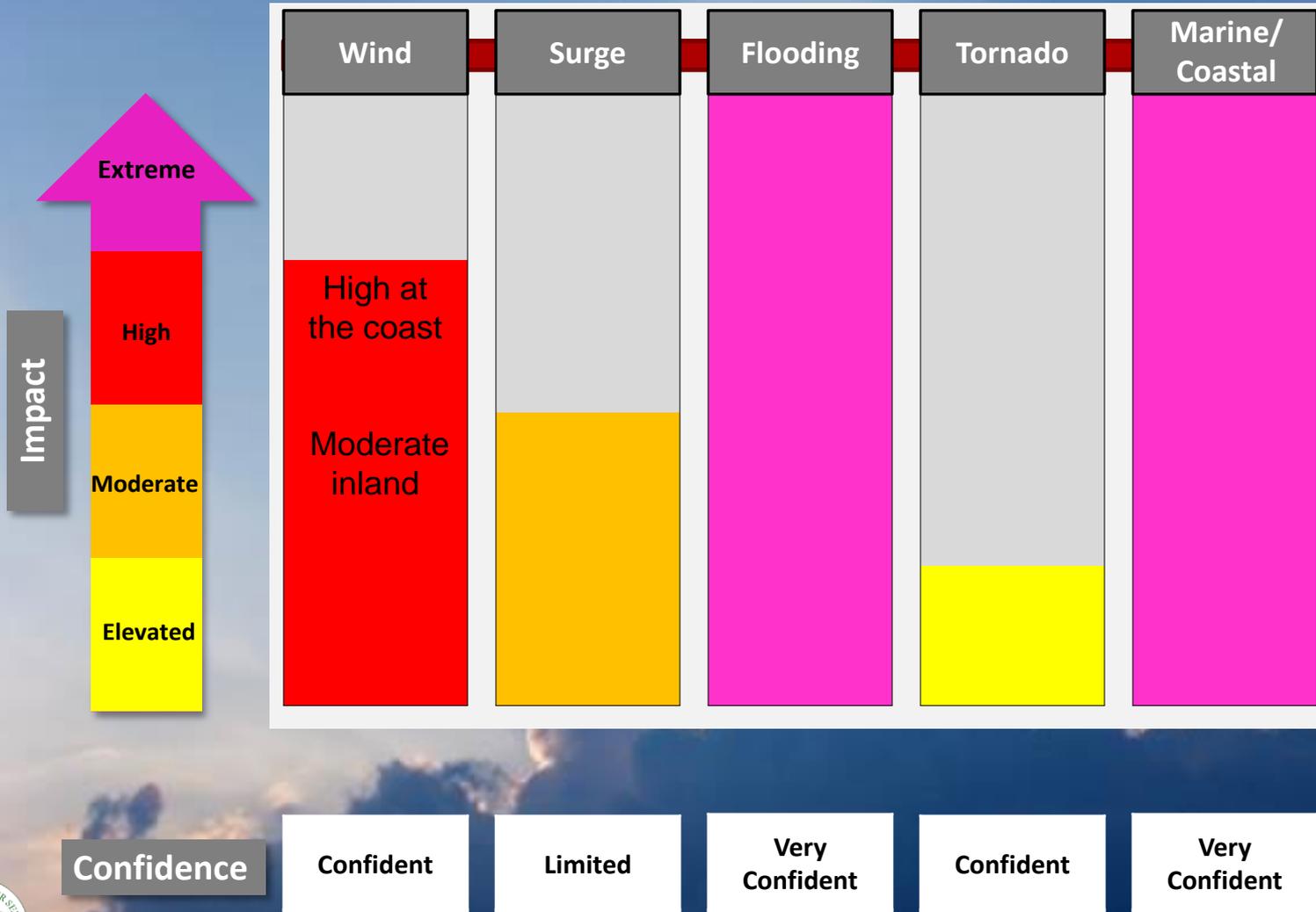
Josh Weiss, Meteorologist



## New Information

- **Hurricane Warning** remains in effect from Surf City, NC to the South Santee River, SC including Pender, New Hanover, Brunswick, Horry, and Georgetown Counties. The Hurricane Warning is also in effect for the adjacent coastal and offshore waters.
- **Tropical Storm Warning** remains in effect for Darlington, Marlboro, Florence, Marion, Dillon, Williamsburg, Robeson, Columbus, and Bladen Counties.
- **Storm Surge Warning** is in effect for Georgetown, Horry, and Brunswick counties. **Storm Surge Watch** is in effect for New Hanover and Pender counties.
- The wind forecast and surge values have **increased** as a result of slight track adjustment to the west.
- Rainfall forecast has **increased significantly**. Life threatening flash flooding is becoming more likely.

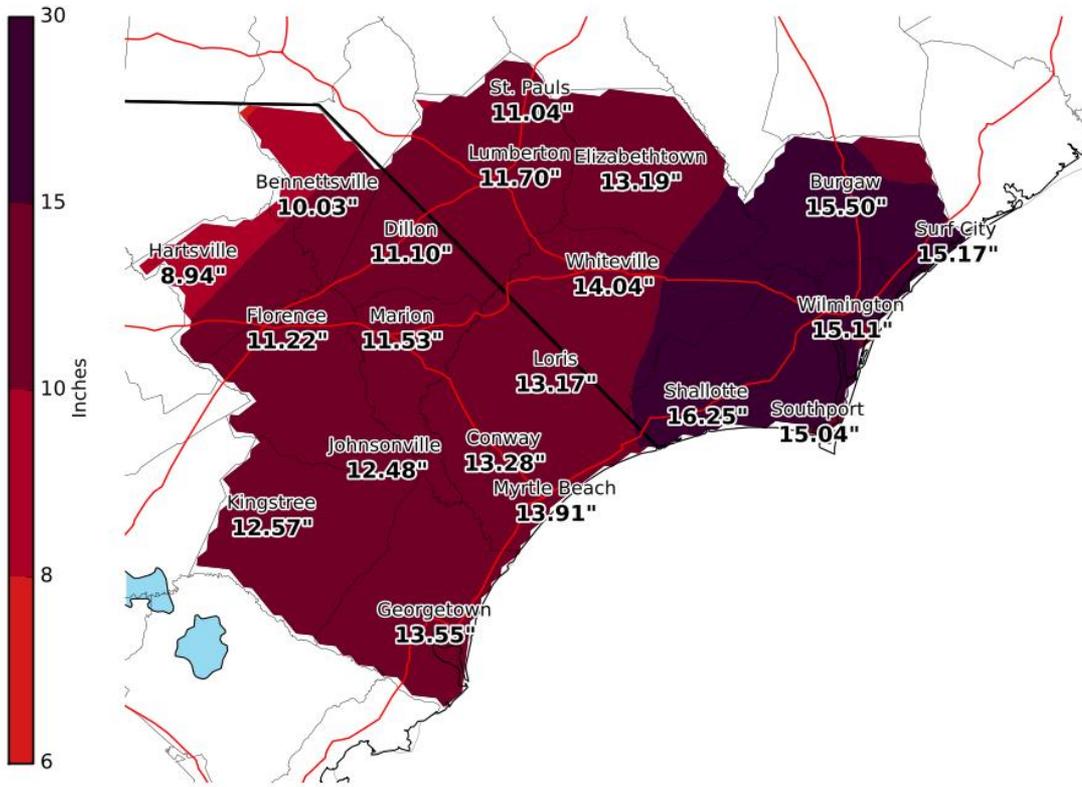
# Initial Look at Potential Impacts and Confidence



# Rainfall Information

## Storm Total Rain

Valid: 10/07/2016 08:00 AM - 10/11/2016 02:00 AM EDT



- **Life Threatening Flash Flooding Becoming More Likely!**
- Heavy rain is expected, and the potential for flash flooding has increased. Most of the rain will fall late tonight through Sunday 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.



**National Weather Service**  
 Wilmington North Carolina  
 10/07/2016 02:24 PM EDT

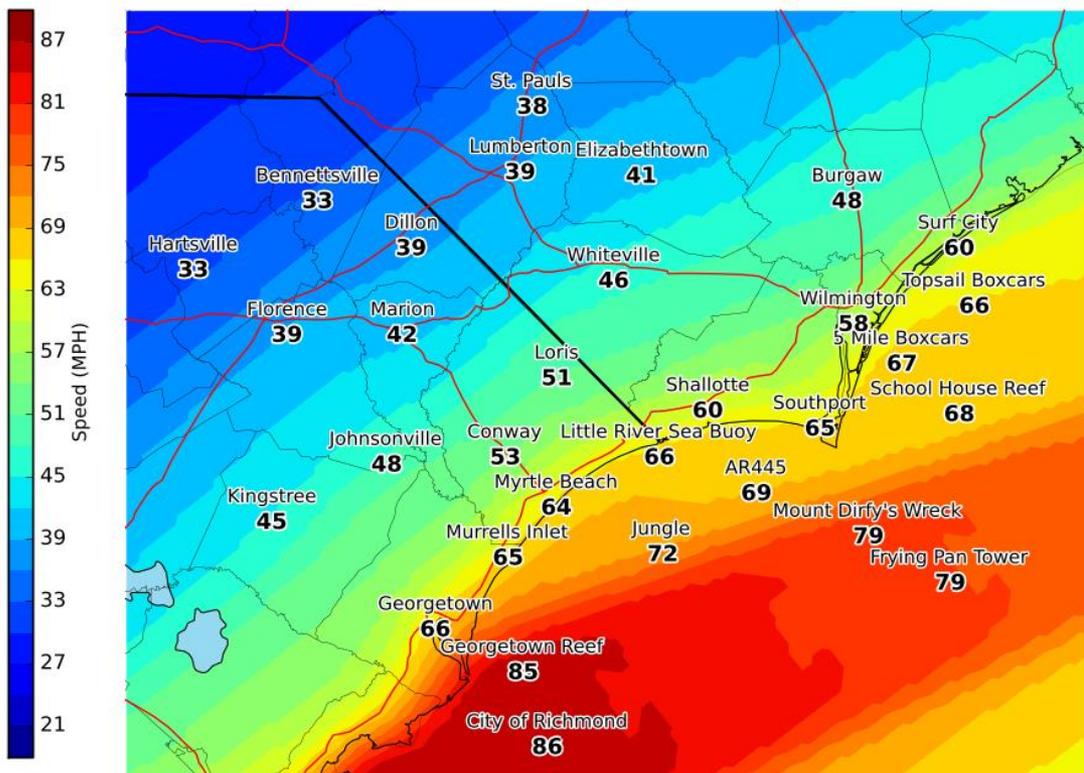
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Weather Prediction Center Rainfall Totals valid through 8 PM Sunday

## Peak Sustained Wind Information

### Max Wind Speed

Valid: 10/07/2016 08:00 AM - 10/10/2016 02:00 PM EDT



- Winds will begin to increase late tonight across northeast SC, and then spread NE through daylight Saturday. The strongest winds are expected early Saturday morning through late Saturday night.
- Strong winds may also occur on the backside as Matthew pulls away from the area Saturday night.
- 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 begin decreasing Sunday.



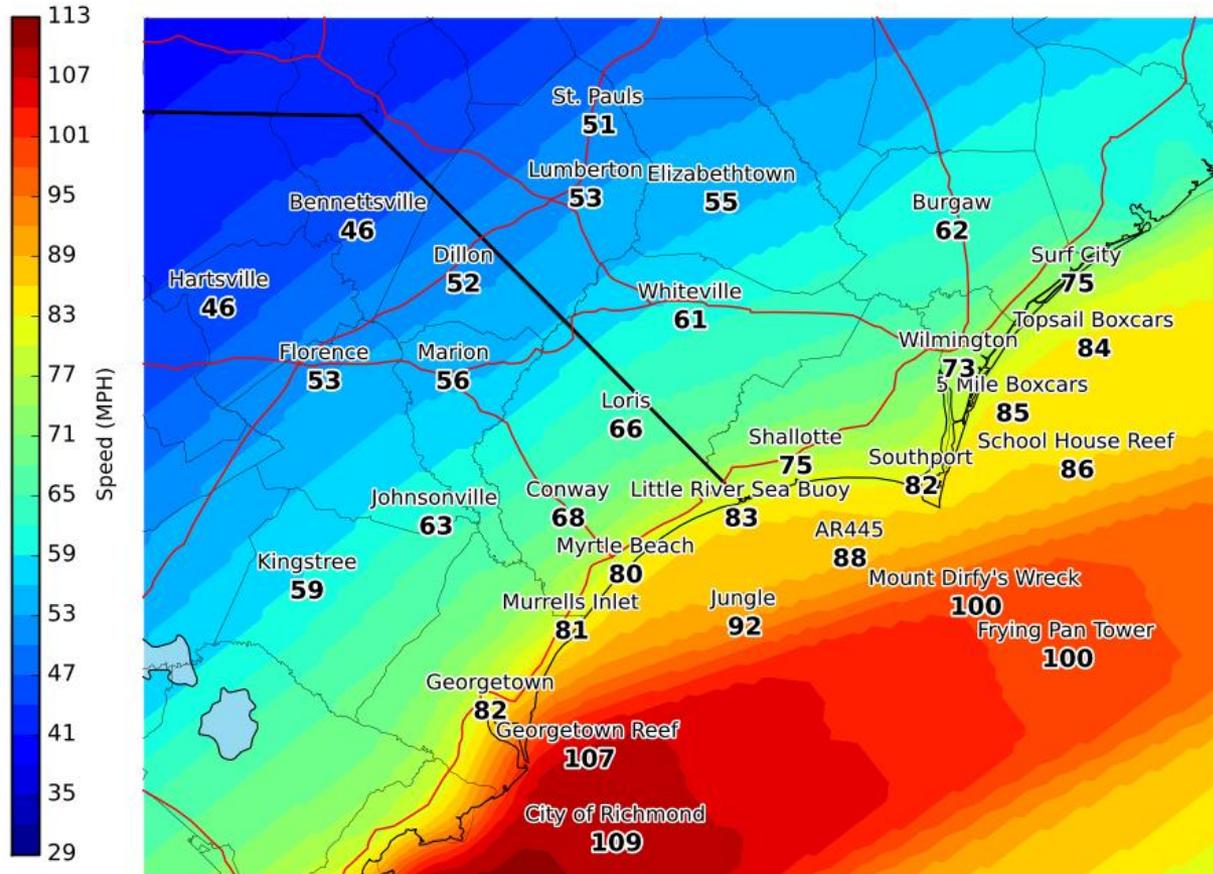
National Weather Service  
Wilmington North Carolina  
10/07/2016 05:01 PM EDT

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# Peak Wind Gust Information

## Max Wind Gusts

Valid: 10/07/2016 08:00 AM - 10/10/2016 02:00 PM EDT



National Weather Service  
Wilmington North Carolina  
10/07/2016 05:02 PM EDT

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## 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](http://www.nhc.noaa.gov/refresh/graphics_at4+shtml/094542.shtml?inundation#contents)



Locations of Storm Surge Watches and Warnings as of 5pm Friday, October 7, 2016

- A Storm Surge Warning is in effect from Cape Fear NC to South Santee River, SC. A Storm Surge Watch is 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 Friday night & again Saturday 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

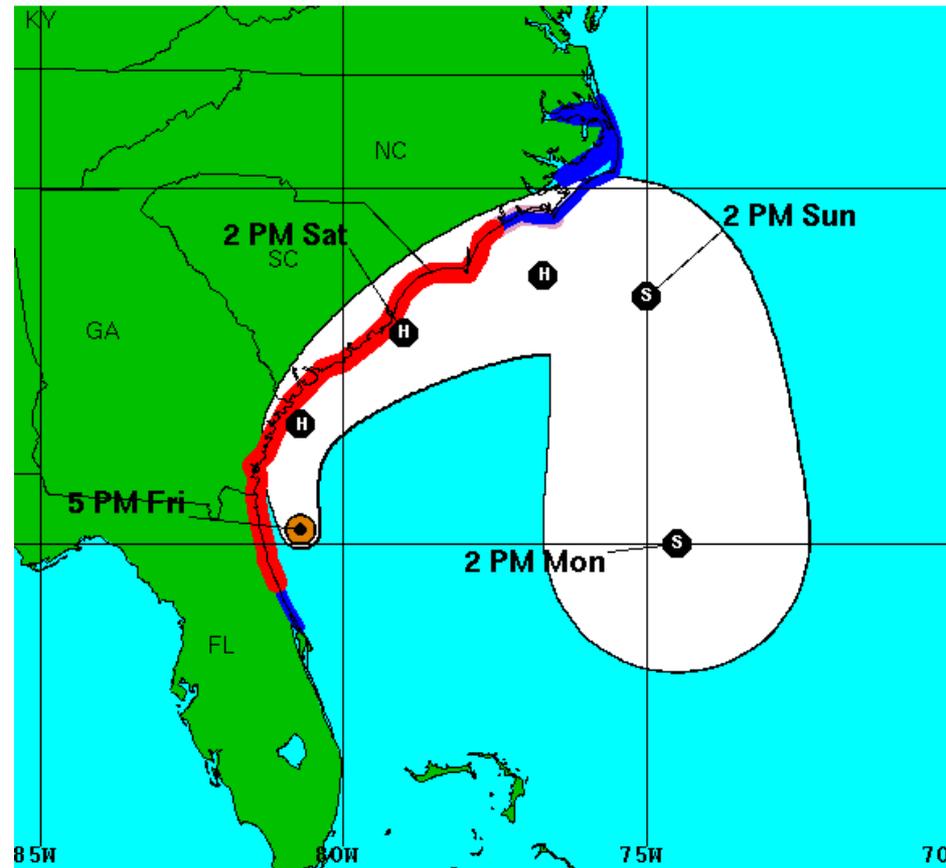
- **Marine/Coastal** – Hazardous marine impacts are expected with large ocean waves and breakers in the surf with the potential for significant beach erosion. Inlet entrances will be hazardous as well with steep waves in/near the entrances. Marine impacts will continue to increase through tonight and peak this weekend. Large waves could continue into next week as well since Matthew is expected to meander off the Southeast U.S. coast, and swells from Nicole will enter the coastal waters.
- **Tornado** – The occurrence of tornadoes is not likely at this time given the current track. An isolated tornado cannot be ruled out late tonight and on Saturday for areas northeast of the center.
- **Aviation** – Impacts to flight operations are expected at all terminals late tonight through Sunday morning as a result of the increasing winds and areas of heavy rain.
- **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 brushing the SC coast overnight before passing just south for Cape Fear Saturday evening. The forecast cone still includes all coastal portions of northeast SC and southeast NC.
- Hurricane Matthew's closest approach to northeast SC is forecast Saturday afternoon, and southeast NC is late Saturday evening.
- Do not focus on the exact track of Matthew as it will shift over time and the storm's effects will be felt far outside the center. Note, this is not an impact cone.

Advisory #39 5 PM EDT Fri Oct 7, 2016

<b>Position:</b>	30.2N / 80.7W (40 Mi. E of Jacksonville Beach, FL)
<b>Movement:</b>	Toward the NNW at 12 mph
<b>Intensity:</b>	110 MPH (Category 2)
<b>Min. Pressure:</b>	948 MB or 28.00 inches



5 PM EDT NHC Advisory #39 Fri Oct 7, 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



- Life threatening flash flooding is likely, especially Saturday and Saturday night. Do not drive through any flooded areas. Rainfall amounts are expected to be more than 10 inches in many areas, with over 15 inches possible in some locations.
- Strong winds will likely lead to downed trees and subsequent power outages, especially given saturated ground conditions from heavy rain. Winds will be strongest across the area Saturday and Saturday night.
- A **Hurricane Warning** is in effect from Surf City, NC to the South Santee River, SC including the adjacent coastal and offshore waters. A **Tropical Storm Warning** is in effect for all inland counties of northeast SC and southeast NC.
- A **Storm Surge Warning** is in effect for the coast of Georgetown, Horry, and Brunswick counties. A **Storm Surge Watch** is in effect for New Hanover and Pender counties.