

Hurricane Matthew

Advisory #35 Briefing
630 PM EDT Thursday October 06, 2016



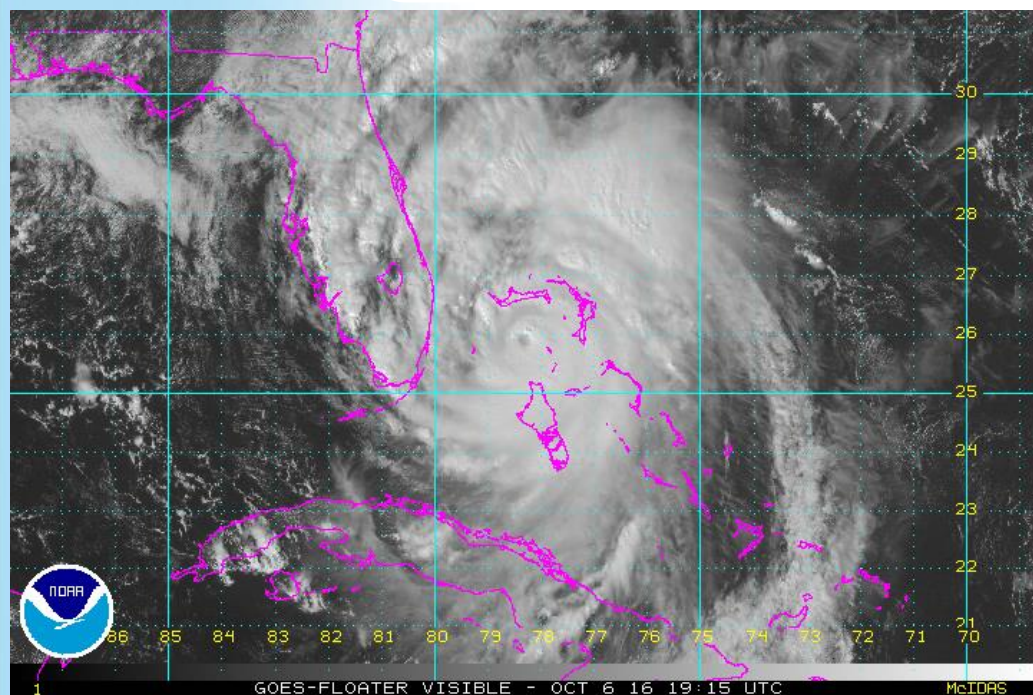
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Next Webinar Update: 1030 am 10/7/16.

Current Conditions: Thursday evening

Changes since last briefing

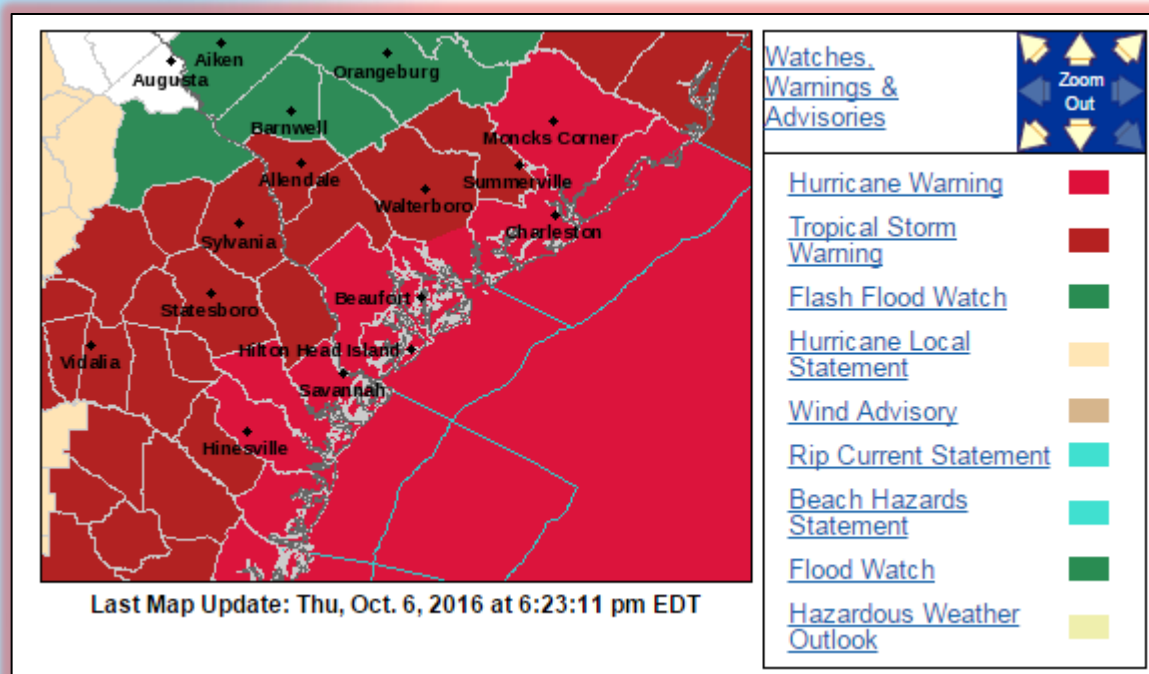
- ❑ Hurricane Warning entire coast, Atlantic waters and Charleston Harbor
- ❑ Tropical Storm Warning ALL other land areas/counties
- ❑ Flash Flood Watch ALL areas



Advisory: 6 PM October 6

Max Winds:	140 mph (CAT 4)
Location:	430 miles SE Savannah, GA
Movement:	Northwest 14 mph
Pressure:	938 mb/ 27.70 inches

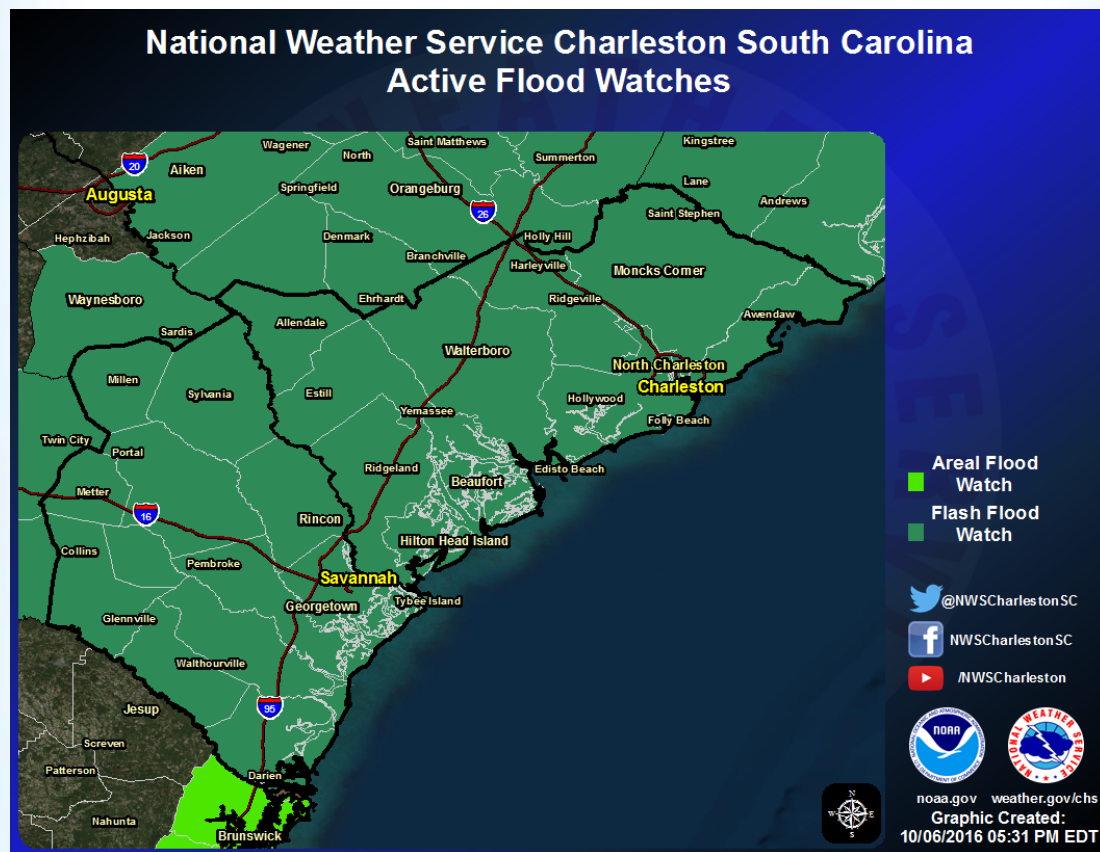
Current Watches, Warnings, Advisories



Headlines

- **Hurricane Warning**
All coastal counties AND Atlantic waters, including Charleston Harbor
- **Tropical Storm Warning**
ALL other land areas

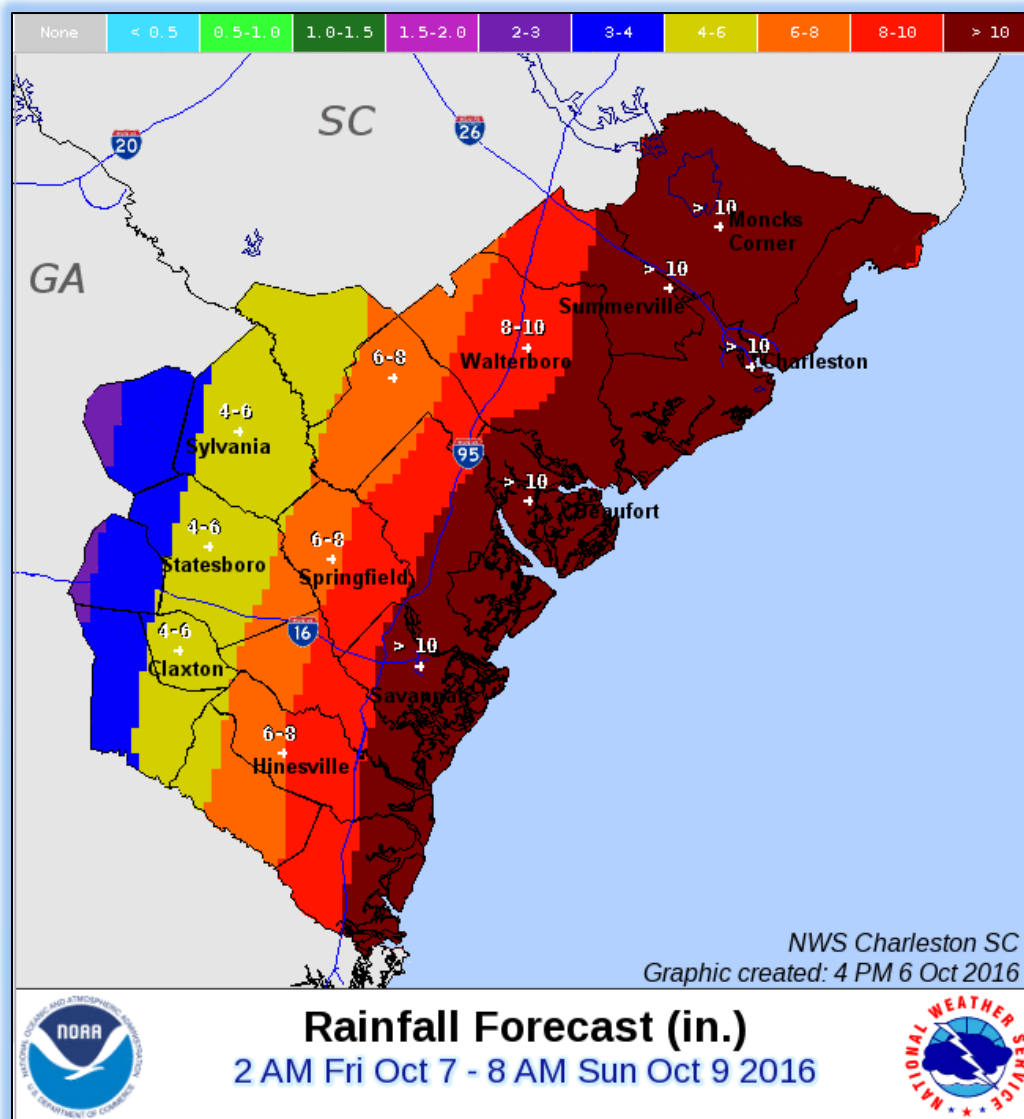
Flash Flood Watch as of Thursday Evening



Headline

 **Flash Flood Watch entire area**

Storm Total Rainfall Forecast



Main Points As Of Thursday Evening

Dangerous Hurricane Matthew continues to approach the SE U.S. Coast



High Wind : Tropical Storm force winds with Hurricane force gusts becoming more likely, especially near the coast



Surge/Inundation: Life-threatening inundation possible. Inundations up to 7 to 9 feet (isolated 11 feet) above ground GA, and 4 to 8 feet above ground SC coast



Flooding Rainfall: Highest storm totals of 8 to 14 inches possible, with locally higher amounts especially Charleston tri-county south down the SC and GA coast. Lesser but still locally excessive amounts up to 6 inches farther inland



Tornado/Waterspout: Elevated risk for isolated tornadoes/waterspouts Charleston and Beaufort County coast



Marine: Hurricane force winds expected, especially beyond 20 nm Friday night and Saturday



Rip Currents: Life-threatening conditions in surf zone through Saturday.

Mathew Potential Impact Summary (Track Dependent)

Greatest Expected Impacts

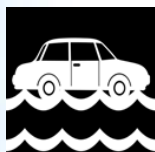
High Wind



**Surge/
Inundation**



**Flooding
Rainfall**



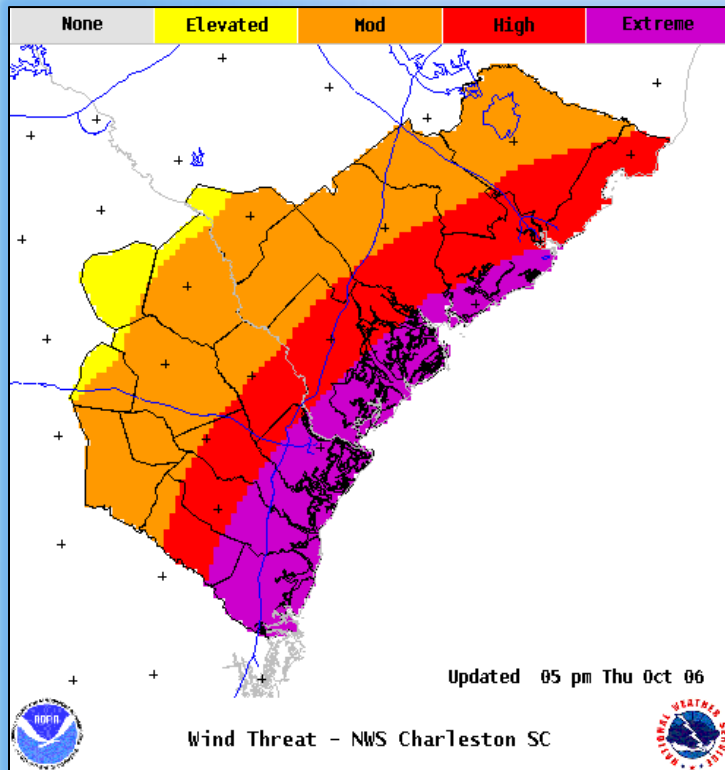
**Tornado/
Waterspout**




Marine




High Winds: Impacts




Max Wind Threat: High-Extreme

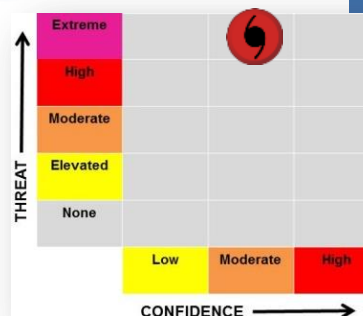
-  Sustained tropical storm force winds with hurricane force wind gusts (74 mph+) possible, mainly immediate coast

Potential Impacts:

-  Refer to next slide for detailed description of the impact

Timing:

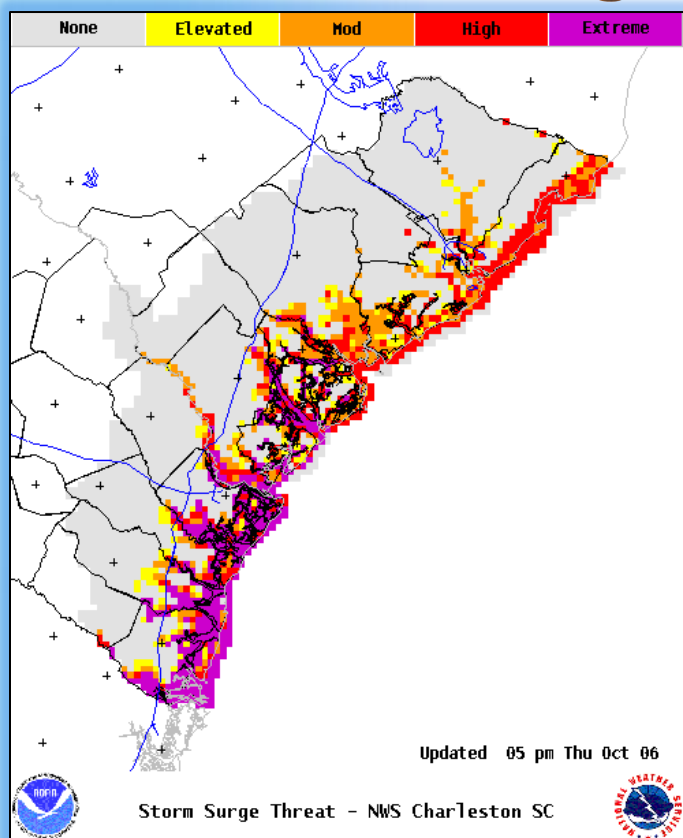
-  Tropical storm force wind/wind gusts possible by Friday morning GA, expanding northward along the coast in SC Friday Afternoon/evening



High Wind Potential Impact Categories/Definitions

Extreme	Preparations should be made for the threat of catastrophic wind damage. If realized, expect structural damage to buildings, with some having complete wall and roof failures. Complete destruction of mobile homes. Numerous large signs and trees blown down. Numerous roads impassable due to large debris. Bridges and other access routes to/from barrier islands suffer damage and become impassable. Widespread power outages. Descriptions are consistent with damage caused by major hurricane force winds of Category 3, 4, or 5 intensity (e.g., sustained winds 111 mph or greater) in hardest hit places.
High	Preparations should be made for the threat of major wind damage. If realized, expect significant damage to roofing material, siding, doors, fences, and windows of buildings, but with some occurrences of structural damage. Considerable damage to mobile homes. Many large signs and trees blown down with further damage to standing trees. Many roads impassable due to large debris. Several bridges and other access routes to/from barrier islands suffer damage and become impassable. Widespread power outages. Descriptions are consistent with damage caused by strong hurricane force winds of Category 2 intensity (e.g., sustained winds 96 to 110 mph) in hardest hit places.
Moderate	Preparations should be made for the threat of moderate wind damage. If realized, expect significant damage to mobile homes, especially if unanchored. Some damage to roofing material, siding, doors, fences, and windows of buildings. Several large signs and trees blown down, especially shallow-rooted and diseased trees. Some roads impassable due to large debris. Scattered power outages, but widespread in areas with above ground lines. Descriptions are consistent with damage caused by hurricane force winds of Category 1 intensity (e.g., sustained winds 74 to 95 mph) in hardest hit places.
Elevated	Preparations should be made for the threat of minor to locally moderate wind damage. If realized, expect damage to unanchored mobile homes, porches, carports, and awnings along with some damage to shingles and siding. Large branches broken off trees, but several shallow-rooted and diseased trees blown down. Unsecured light-weight objects easily blown about and become dangerous projectiles. Dangerous driving conditions on bridges and other elevated roadways, especially for high profile vehicles. A few roads impassable due to large debris. Scattered power outages, especially in areas with above ground lines. Descriptions are consistent with damage caused by tropical storm force winds (e.g., sustained winds 39 to 73 mph) in hardest hit places.
None	Preparations are not needed as appreciable damage is unlikely. However, breezy to windy conditions may still occur.

Surge/Inundation Impacts



Max Surge/Inundation Threat: High-Extreme

- Threat for significant, life threatening inundation

Potential Impacts:

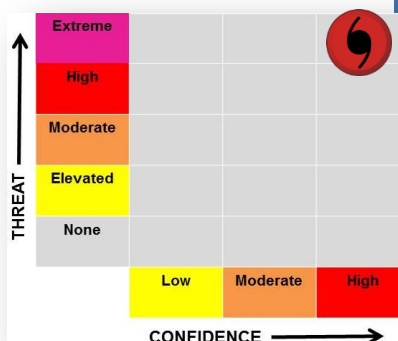
- Refer to next slide for detailed description of the impact

Maximum Inundation:

- GA: 7 - 9 feet inundation (isolated 11 feet), SC: 4 - 8 feet inundation (isolated higher)

Timing:

- Most significant inundations to begin Friday, increase surge/inundation threat Friday night/Saturday



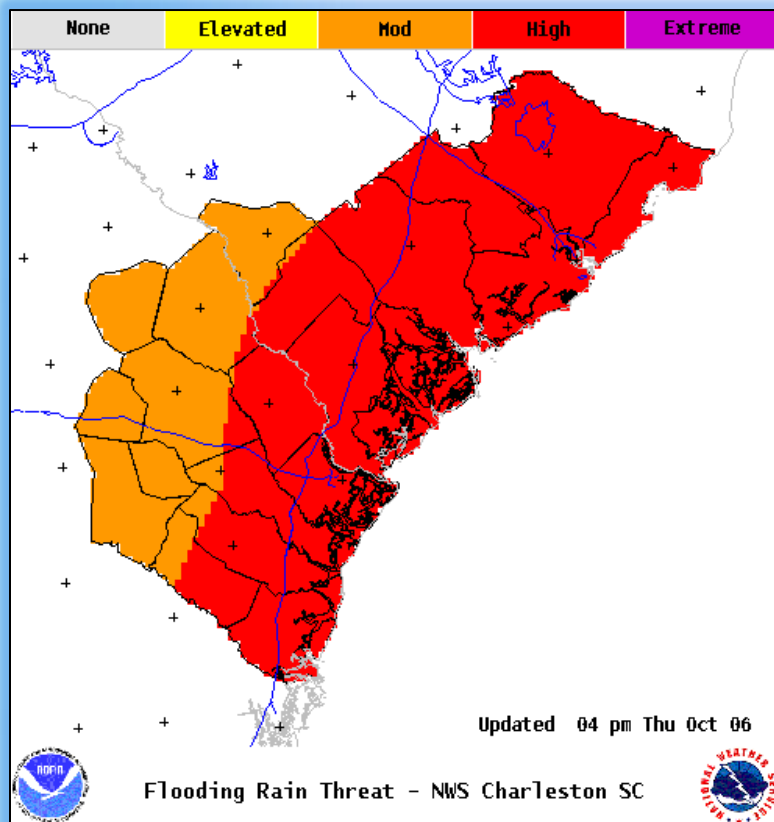


Surge/Inundation Potential Impact Categories/Definitions

Extreme	Preparations should be made for the threat of catastrophic coastal flood damage from sea water. If realized, expect widespread inundation within the flood zone, possibly reaching several miles inland. Extreme beach erosion with several new inland cuts. Many large sections of near-shore roads washed out and/or low-lying escape routes severely flooded. Powerful storm surge and tide greatly accentuated by intense battering wind waves breaching dunes and possibly seawalls in widespread locations resulting in structural damage to shoreline buildings, with several washing into the sea. Damage greatly compounded from considerable floating debris. Extensive damage to marinas, docks, and piers. Numerous small craft broken away from moorings, lifted onshore and stranded. Descriptions are consistent with damage caused by coastal flooding 7 feet or more in depth (above ground level) in hardest hit places.
High	Preparations should be made for the threat of major coastal flood damage from sea water. If realized, expect large areas of inundation within the flood zone. Severe beach erosion. Several sections of near-shore roads washed out and/or low-lying escape routes severely flooded. Scouring storm surge and tide accentuated by battering wind waves breaching dunes and possibly seawalls in scattered locations resulting in structural damage to shoreline buildings, with a few washing into the sea. Damage compounded by floating debris. Moderate to major damage to marinas, docks, and piers. Many small craft broken away from moorings, especially in unprotected anchorages, lifted onshore and stranded. Descriptions are consistent with damage caused by coastal flooding of 5 to 7 feet in depth (above ground level) in hardest hit places.
Moderate	Preparations should be made for the threat of moderate coastal flood damage from sea water. If realized, expect partial inundation within the flood zone. Major beach erosion. A few sections of near-shore escape roads weakened or washed out, especially in historically vulnerable low spots. Storm surge and tide accentuated by wind waves breaching dunes and possibly seawalls in scattered locations to result in damage to shoreline buildings, mainly in historically vulnerable spots. Moderate damage to marinas, docks, and piers. Several small craft broken away from moorings, especially in unprotected anchorages. Descriptions are consistent with damage caused by coastal flooding of 3 to 5 feet in depth (above ground level) in hardest hit places.
Elevated	Preparations should be made for threat of minor to locally moderate coastal flood damage from sea water. If realized, expect partial inundation within the flood zone, especially for low-lying areas. Moderate to locally major beach erosion. Very heavy surf breaching dunes in isolated locations, mainly in historically vulnerable spots. Descriptions are consistent with damage caused by coastal flooding of 1 to 3 feet in depth (above ground level) in hardest hit places.
None	Preparations are not needed as appreciable damage is unlikely. However, rough surf conditions, minor beach erosion, nominal sea water encroachment, and stronger than normal rip currents may still occur.



Flooding Rainfall: Impacts



Max Flooding Threat: High

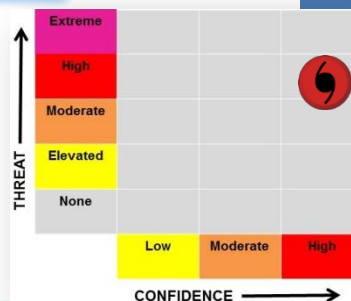
- Storm total rainfall totals: Highest values of 8 to 14 inches with isolated higher amounts possible, especially coastal areas east of I-95

Potential Impacts:

- Refer to next slide for detailed description of the impact

Timing:

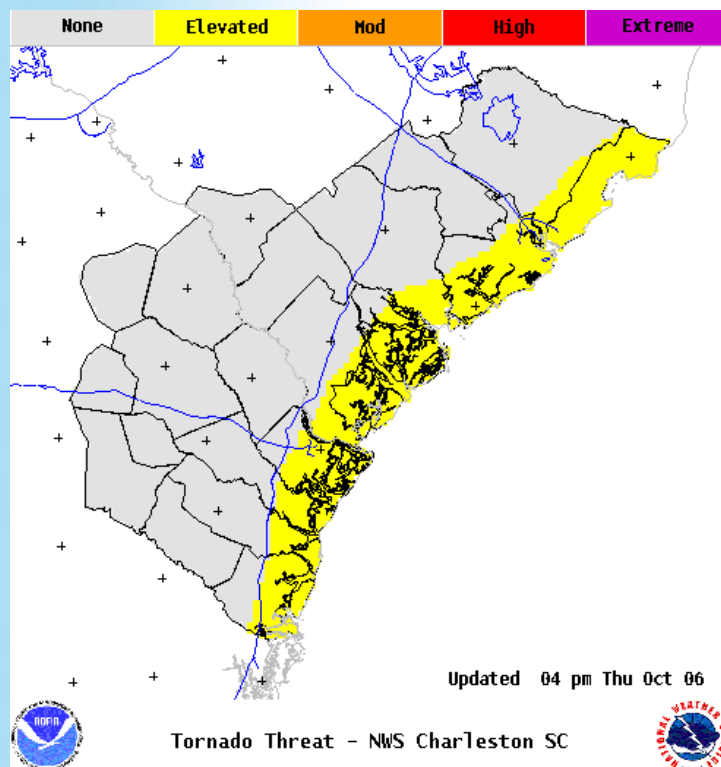
- The greatest threat for heavy rainfall and possible flooding will be Thursday night through Saturday



Flooding Rainfall Potential Impact Categories/Definitions

Extreme	Preparations should be made for the threat of catastrophic inland flood damage from heavy rain. If realized, expect several to many inland locations to experience major fresh water flooding at or near historic levels with highest (flash) flood waters capable of causing rivers and tributaries to significantly overflow their banks in multiple places. Small streams, creeks, canals, and ditches become raging rivers. Widespread rapid inundation covers both primary and secondary roads. Streets and parking lots become rivers of fast-moving water. Storm drains and retention ponds overflow. Flood waters will affect buildings and homes and may prompt many evacuations and road closures. Rescues may be necessary. Descriptions are consistent with damage caused by heavy rain where highest totals greatly exceed amounts conducive for (flash) flooding.
High	Preparations should be made for the threat of major inland flood damage from heavy rain. If realized, expect several inland locations to experience major fresh water flooding with highest (flash) flood waters capable of causing rivers and tributaries to overflow their banks in multiple places. Small streams, creeks, canals, and ditches become dangerous rivers. Widespread rapid inundation covers both primary and secondary roads. Streets and parking lots become rivers of moving water. Storm drains and retention ponds overflow. Flood waters may affect buildings and homes and could prompt many evacuations and road closures. Rescues may be necessary. Descriptions are consistent with damage caused by heavy rain where highest totals well exceed amounts conducive for (flash) flooding.
Moderate	Preparations should be made for the threat of moderate inland flood damage from heavy rain. If realized, expect several inland locations to experience moderate fresh water flooding with highest (flash) flood waters capable of causing rivers and tributaries to become swollen and overspill their banks in a few places, mainly in historically vulnerable places. Small streams, creeks, canals, and ditches overflow. Expanded areas of rapid inundation occur at underpasses, low-lying spots, and poor drainage areas. Some streets and parking lots take on moving water. Storm drains and retention ponds overflow. Flood waters may prompt several evacuations and road closures. Descriptions are consistent with damage caused by heavy rain where highest totals notably exceed amounts conducive for (flash) flooding.
Elevated	Preparations should be made for the threat of minor inland flood damage from heavy rain. If realized, expect several inland locations to experience minor fresh water flooding with highest (flash) flood waters capable of causing small streams, creeks, canals, and ditches to become swollen and overflow in a few places. Quick ponding of water occurs at underpasses, low-lying spots, and poor drainage areas. Storm drains and retention ponds become near-full and begin to overflow in a few places. Flood waters may prompt a few evacuations and brief road closures. Descriptions are consistent with damage caused by heavy rain where highest totals are near amounts conducive for (flash) flooding.
None	Preparations are not needed as appreciable damage is unlikely. However, heavy rain and nuisance flooding may still occur.

Tornado/Waterspout: Impacts



Max Tornado Threat : Elevated

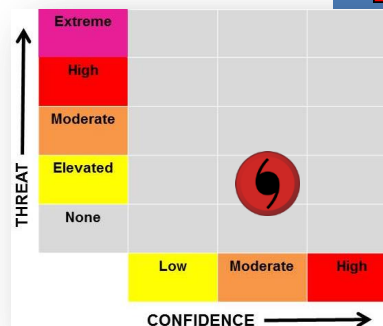
- Elevated threat for isolated tornadoes/waterspouts near the coast

Potential Impacts:

- Refer to next slide for detailed description of the impact

Timing:

- Mainly later Friday through Saturday



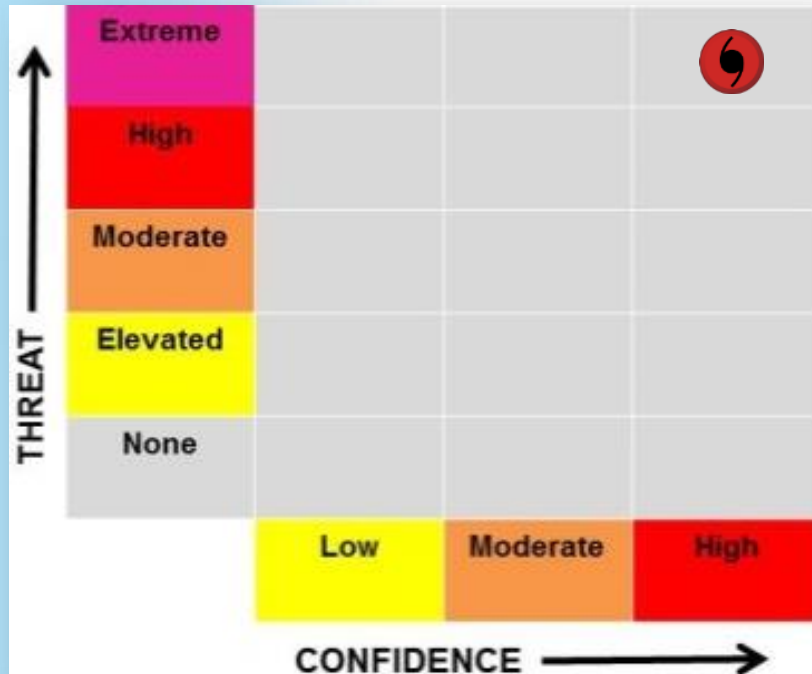


Tornado/Waterspout Potential Impact Categories/Definitions

Extreme	Preparations should be made for the threat of major to catastrophic tornado and/or waterspout damage. If realized, expect numerous locations to experience tornadoes and waterspouts, with many possibly strong to violent in intensity and having longer and wider damage tracks. Descriptions are consistent with a historic outbreak where significant tornadoes and waterspouts are very likely to occur.
High	Preparations should be made for the threat of major tornado and/or waterspout damage. If realized, expect numerous locations to experience tornadoes and waterspouts, with several of them possibly strong to violent in intensity and having longer and wider damage tracks. Descriptions are consistent with an outbreak where tornadoes and waterspouts are likely to occur.
Moderate	Preparations should be made for the threat of moderate tornado and/or waterspout damage. If realized, expect scattered locations to experience tornadoes and waterspouts, with a few of them possibly strong to violent in intensity. Descriptions are consistent with an event where tornadoes and waterspouts are more likely to occur than not to occur.
Elevated	Preparations should be made for the threat of minor to locally moderate tornado and/or waterspout damage. If realized, expect isolated to widely scattered locations to experience tornadoes and waterspouts. Descriptions are consistent with an event where tornadoes and waterspouts are less likely to occur than to occur.
None	Preparations are not needed as appreciable damage is unlikely. However, showers and thunderstorms with strong wind gusts may still occur.



Marine Impacts



Threat to Mariners: Extreme

- ❑ Sustained hurricane force winds (74 mph/64 Kt+) likely with higher gusts of 100 kt +, mainly beyond 20 nm

Potential Impacts:

- ❑ Wind and seas will result in dangerous/life threatening conditions for ***all*** vessels







Winds and Seas:

- ❑ Seas building as high as 20-30 feet, especially beyond 20 nm offshore.

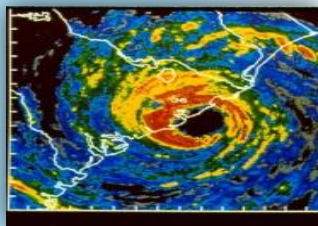
Timing:

- ❑ Deteriorating conditions later tonight through Friday, dangerous conditions Friday night until later Saturday

Summary

Hazard		Greatest Impacts	Timing	Location
High Wind		Major tree damage, potential damage to structures, widespread power outages possible.	Later Friday through Saturday	Worst conditions along the coast
Storm Surge/ Inundation		Life-threatening. Roads near the coast flooded or washed out. Moderate to Severe coastal erosion. Floating debris and wave action could damage or destroy coastal structures. Heavy rainfall during times of high tide will exacerbate coastal flooding.	Friday through Saturday	Highest for GA coast, including sounds/bays and inlets. SC also should prepare for dangerous/life threatening inundations
Flooding Rain		Flash flooding possible. Small rivers, streams/creeks could overflow. Flooding of poorly drained/low lying areas. Roads could be flooded/damaged especially close to coast.	Later tonight through Saturday	Mainly from I-95 east to the coast
Tornado/ Waterspout		Elevated threat for isolated tornadoes.	Later Friday through Saturday	Immediate coast
Marine		Strongest/hurricane force winds over coastal waters. Wind gusts exceeding 100 knots, seas building to at least 20-30 feet will create dangerous conditions for all vessels	Later tonight through early Saturday	All waters of southeast SC and GA, highest seas and strongest winds offshore
Beach/ Surf		Dangerous, life threatening surf conditions, rip currents and beach erosion	Later tonight through Saturday	All beaches

Contact and Next Briefing Information



Next Webinar Briefing

When: 1030 am Friday
(Weekly Briefing time)



Briefing Available At:

<http://www.weather.gov/media/chs/briefings/LatestBriefing.pdf>

Briefing Webpage:

<http://weather.gov/chs/briefing>



Web:

<http://weather.gov/chs>



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