

GC Briefing

September 15, 2018

Weather Sentinel Tropical Storm Florence

The National Hurricane Center (NHC) downgraded Florence to tropical storm status at 5PM EDT September 14. As of today Florence retains tropical storm status with maximum sustained winds of 45 mph. As Florence continues to drift to the west while producing heavy rainfall, the flood and flash-flood threat has amplified for areas of eastern North Carolina. Flash-flood emergencies are active for certain affected areas where well over 20 inches of rainfall has already been unofficially reported by the National Weather Service.

Status at 11 AM EDT (15 UTC) Today (NHC)

Maximum Sustained Winds: 45 mph

Approximate Location: About 40 miles west of Myrtle Beach, South Carolina

Motion: West at 2 mph

Minimum Central Pressure: 995 mb

Extent of Tropical-Storm-Force Winds from the Center: 150 miles

Status: Tropical Storm

Discussion

- As of 11AM EDT (15 UTC), the center of Hurricane Florence now sits about 40 miles west of Myrtle Beach, South Carolina according to the NHC. The storm is drifting to the west at 2 mph. Florence should continue its westward drift today due to very weak steering currents. As a ridge shifts to the north and east of the storm the resulting steering flow should take Florence on a gradual turn to the north and then northeast into next week, crossing parts of the Ohio Valley and Appalachians in the meantime. Gusty winds and heavy rainfall will continue extending well away from the center.
- Concerning intensity, Florence was downgraded by the NHC to tropical storm status at 5PM EDT (21 UTC) on September 14. As of this morning, Florence maintains status as a tropical storm with maximum sustained winds of 45 mph. As Florence continues drifting inland with reduced influence from the Atlantic the storm will continue to weaken. Florence should weaken to tropical depression status within 24 hours and then transform into a frontal system (asymmetric and large extent by Wednesday morning).
- Storm surge and tropical storm warnings remain active for areas under active threat in the Carolinas; specifics can be found at www.nhc.noaa.gov. Meanwhile the NWS maintains watches and warnings for both coastal and inland hazards including coastal flood, flood, flash-flood and tornado, for areas of the Carolinas and Virginia; specifics are available at www.weather.gov. Flood and flash-flood warnings are active for large areas of the eastern Carolinas for areas under active threat. Flash-flood emergencies are active for areas including portions of Lenoir, Jones, Onslow, Wayne, Sampson, Johnston and Duplin Counties. Flood and wind hazards extend well inland. Updates will be necessary as the situation evolves.
- Ongoing hazards of concern include:
 - Tropical storm wind conditions remain a threat for areas along the coastal Carolinas and extending inland over eastern North Carolina and parts of extreme eastern South Carolina. Tropical-storm-force gusts will extend well inland. As a result, damaging wind gusts can be expected to render some property damage along with downed trees and powerlines and resulting power outages. The wind threat will continue to subside as the storm weakens.

- Residual coastal flooding due to storm surge continues to affect areas near the coast and connected waterways. Inundation heights above ground may reach as high as 3-5 feet for certain areas according to the NHC, with greatest threat from Cape Fear to Cape Lookout including the Neuse, Pamlico, Pungo and Bay Rivers. Wave battering along immediate coastal areas will amplify impacts.
 - Heavy rainfall will maintain the threat of flooding and flash-flooding for areas well inland from the Carolinas to the Mid-Atlantic. The threat of mudslides may also affect areas of higher terrain in the Appalachians. The most significant rainfall amounts and flooding are expected for central and eastern sections of North Carolina and extreme eastern areas of South Carolina according to the NHC; isolated storm-total rainfall amounts as high as 30-40 inches remain possible. Amounts in excess of twenty inches have already been unofficially reported in eastern North Carolina.
 - Some tornadoes remain possible through tonight.
2. Life-threatening, catastrophic flash floods and prolonged significant river flooding are likely over portions of the Carolinas and the southern to central Appalachians from western North Carolina into west-central Virginia and far eastern West Virginia through early next week, as Florence moves slowly inland. In addition to the flash flood and flooding threat, landslides are also possible in the higher terrain of the southern and central Appalachians across western North Carolina into southwest Virginia.
 3. Tropical storm conditions will continue along the coast within the tropical storm warning area and also well inland across portions of South Carolina and North Carolina today.
 4. Large swells affecting Bermuda, portions of the U.S. East Coast, and the northwestern and central Bahamas will continue this week, resulting in life-threatening surf and rip currents.

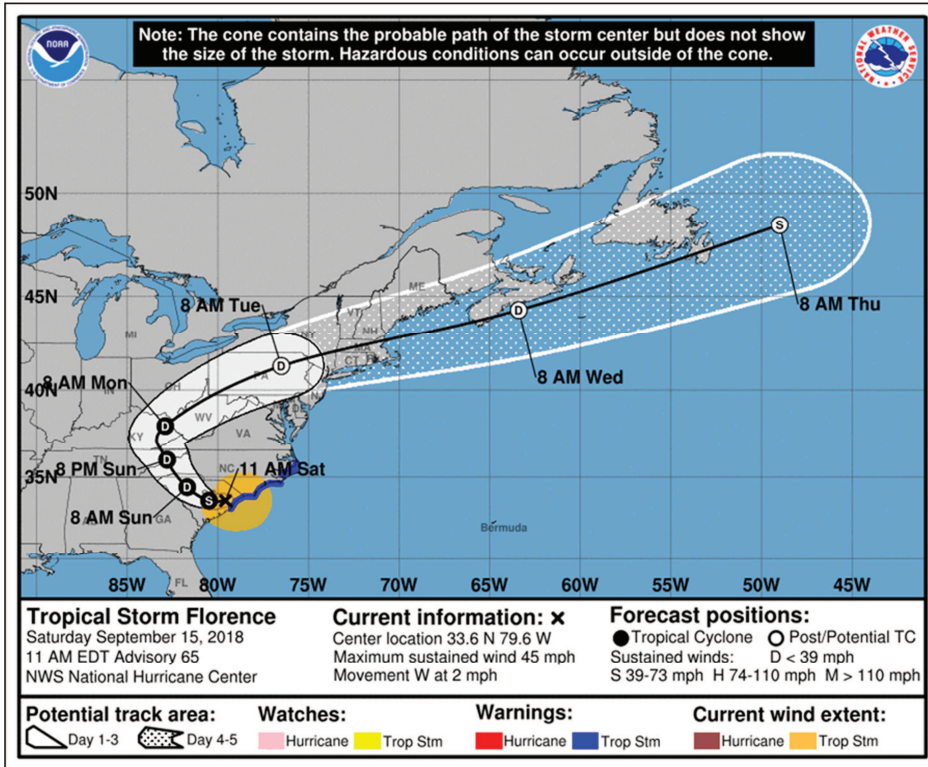
The next Sentinel update on this feature will be issued on Monday.

Statements from the National Hurricane Center can be found at www.nhc.noaa.gov. Local National Weather Service watches, warnings and advisories can be found at www.weather.gov (type in the location or zip code, or click on the map).

Local watches and warnings from official meteorological agencies, and statements from local emergency management agencies supersede this update, and should be closely heeded concerning matters of personal safety.

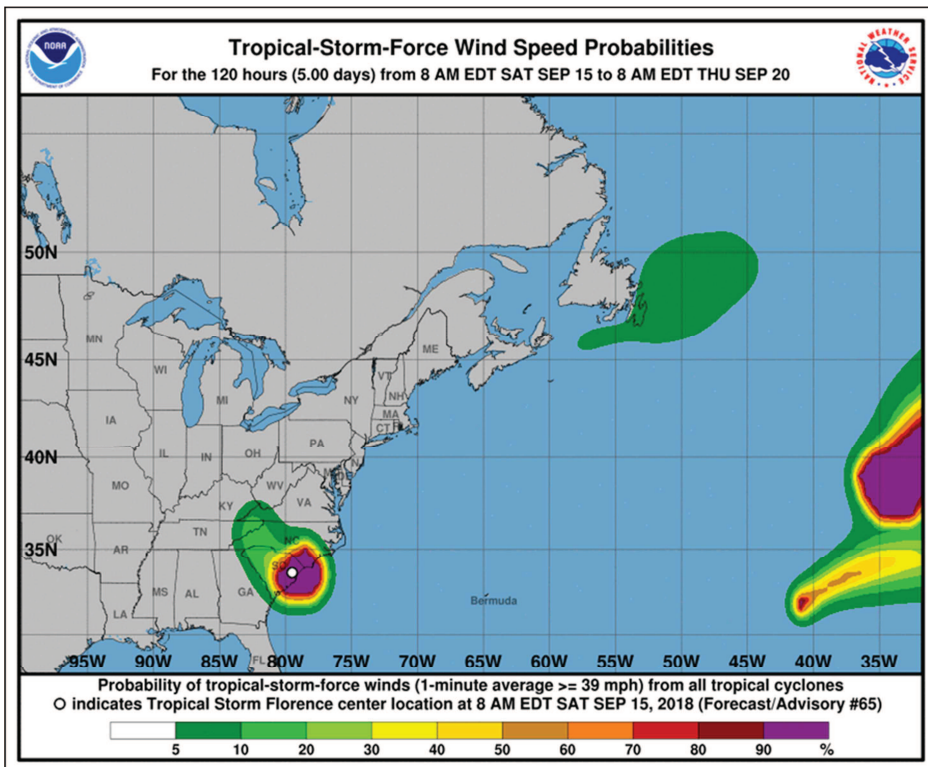
Key Messages from the NHC

1. Life-threatening storm surge will continue along portions of the North Carolina coast through today, and also along the Neuse and Pamlico Rivers in western Pamlico Sound, where rainfall and freshwater flooding will also contribute to high water levels. Dangerous storm surge could also affect portions of the northeast coast of South Carolina coast today.



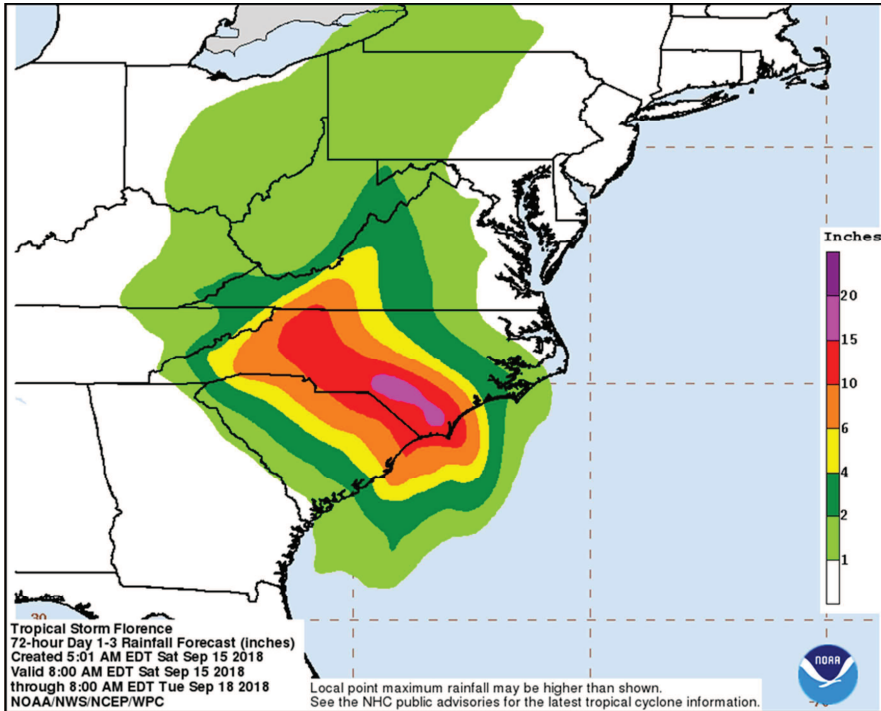
NHC Position and Best Forecast

SOURCE: NOAA/NHC

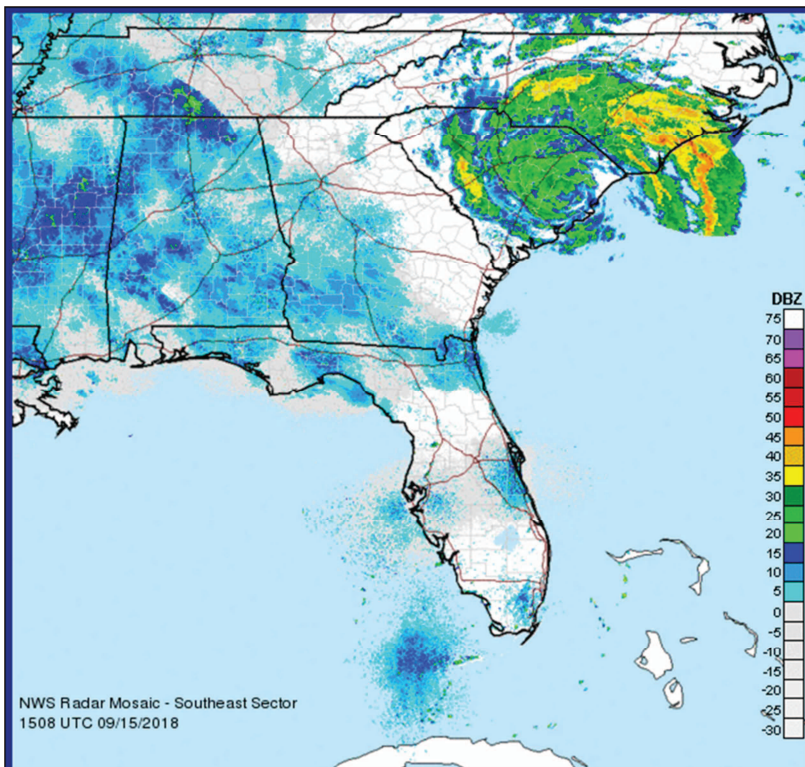


Probability of Tropical-Storm-Force Winds (Shaded)

SOURCE: NOAA/NHC



Forecast Rainfall Amounts
3-Days Ending 8AM EDT (12 UTC) September 18
 SOURCE: NOAA/NHC



Radar Image – Southeast Sector
11:08 EDT (1508 UTC) September 15
 SOURCE: NOAA/NHC

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