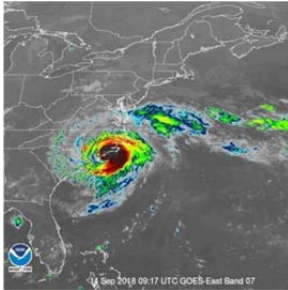




Hurricane Florence

Information from NHC Advisory 60, 5:00 AM EDT Fri Sep 14, 2018

On the forecast track, the center of Florence is expected to move inland across extreme southeastern North Carolina and extreme eastern South Carolina today and Saturday. Florence will then move generally northward across the western Carolinas and the central Appalachian Mountains early next week. Maximum sustained winds remain near 90 mph (150 km/h) with higher gusts. Gradual weakening is forecast later today and tonight. Significant weakening is expected over the weekend and into early next week while Florence moves farther inland.

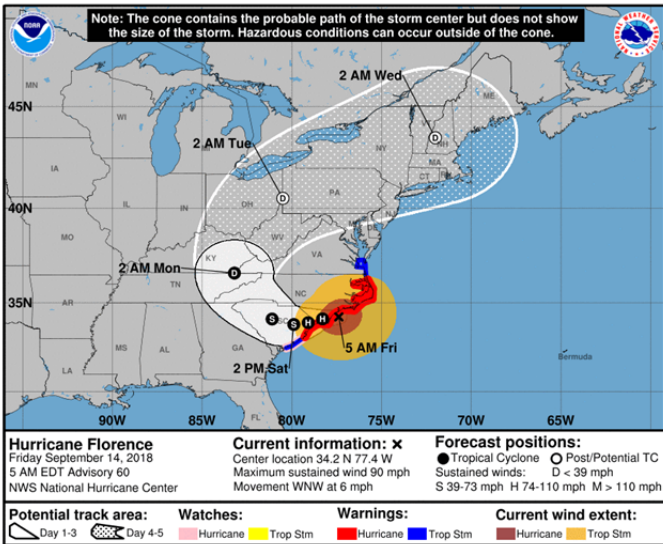


Intensity Measures		Position & Heading		U.S. Landfall (NHC)	
Max Sustained Wind Speed:	90 mph (category 1)	Position Relative to Land:	100 miles ESE of Wilmington NC 155 miles E of Myrtle Beach SC	Est. Time & Region:	in the next few hours near Wilmington North Carolina
Min Central Pressure:	958 mb	Coordinates:	34.2 N, 77.4 W		
Trop. Storm Force Winds Extent:	195 miles	Bearing/Speed:	WNW or 285 degrees at 6 mph	Est. Max Sustained Wind Speed:	90 mph (category 1)

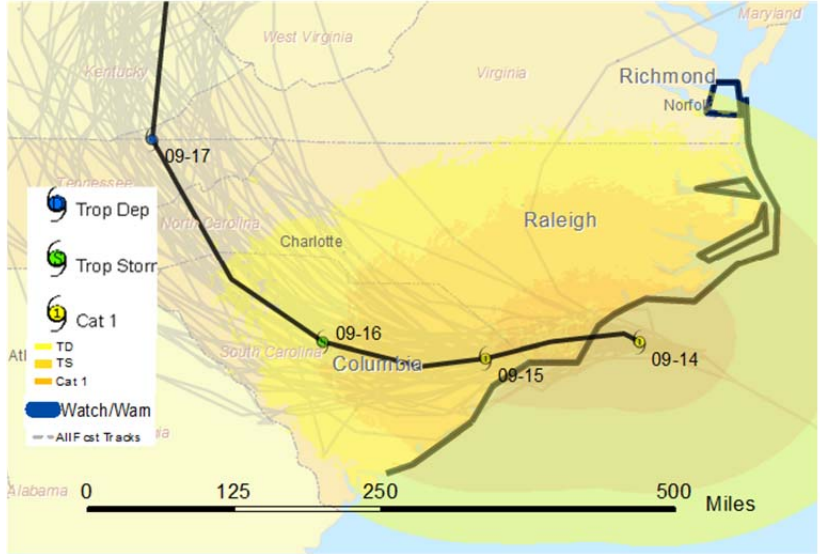
Forecast Summary

- The NHC forecast map (below left) and the wind-field map (below right), which is based on the NHC's forecast track, both show Florence making landfall near Wilmington North Carolina in the next few hours at category 1 hurricane intensity with 90 mph maximum sustained winds.
- The combination of a dangerous storm surge and the tide will cause normally dry areas near the coast to be flooded by rising water moving inland from the shoreline. The water has the potential to reach the following heights above ground: 7-11 ft from Cape Fear NC to Cape Lookout NC, with locally higher amounts in the Neuse, Pamlico, Pungo, and Bay Rivers; 6-9 ft from Cape Lookout NC to Ocracoke Inlet NC; 4-6 ft from South Santee River SC to Cape Fear NC, and from Ocracoke Inlet NC to Salvo NC; 2-4 ft from Salvo NC to Duck NC, and from Edisto Beach SC to South Santee River SC.
- Florence is expected to produce total rainfall accumulations of 20 to 30 inches with isolated maxima to 40 inches near Florence's track over portions of the Carolinas and Mid-Atlantic states from late this week into early next week.
- A few tornadoes are possible in eastern North Carolina today.
- Swells generated by Florence are affecting Bermuda, portions of the U.S. East Coast, and the northwestern and central Bahamas.

Forecast Track for Hurricane Florence



Forecast Wind-field for Hurricane Florence



© Copyright 2018 Willis Limited / Willis Re Inc. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, whether electronic, mechanical, photocopying, recording, or otherwise, without the permission of Willis Limited/Willis Re Inc. Some information contained in this report may be compiled from third party sources; however, we do not guarantee and are not responsible for the accuracy of such. This report is for general information only, is not intended to be relied upon, and any action based on or in connection with anything contained herein should be taken only after obtaining specific advice. The views expressed in this report are not necessarily those of Willis Limited/Willis Re Inc., or any of its/their parent or sister companies, subsidiaries or affiliates, Willis Towers Watson PLC or any member companies thereof (hereinafter "Willis Towers Watson"). Willis Towers Watson accepts no responsibility for the content or quality of any third party websites to which we refer.

The TAOS real-time hazard and impact forecast information is provided "as is" and without warranties as to performance or any other warranties whether expressed or implied. The user is strongly cautioned to recognize that natural hazards modeling and analysis are subject to many uncertainties. These uncertainties include, but are not limited to, the uncertainties inherent in weather and climate, incomplete or inaccurate weather data, changes to the natural and built environment, limited historical records, and limitations in the state of the art of modeling, as well as limits to the scientific understanding of storm weather phenomena. Anyone making use of the hazard and impact information provided by KAC, or the information contained within, assumes all liability deriving from such use, and agrees to "hold harmless" any and all agencies or individuals associated with its creation. The user agrees to provide any subsequent users of this data with this disclaimer. The publication of the material contained herein is not intended as a representation or warranty that this information is suitable for any general or particular use.

Hazard and damage potential maps produced by Willis are based on numerical modeling results from Kinetic Analysis Corporation.



Coastal Watches and Warnings

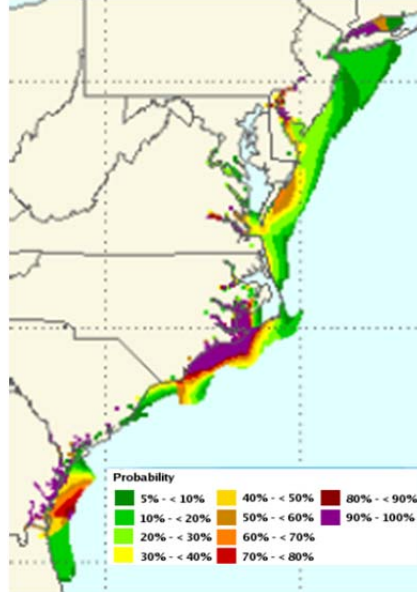
A Hurricane Warning – meaning that hurricane conditions are expected - is in effect for: South Santee River South Carolina to Duck North Carolina, Albemarle and Pamlico Sounds. A Hurricane Watch – meaning that hurricane conditions are possible - is in effect for: Edisto Beach South Carolina to South Santee River South Carolina. A Tropical Storm Warning – meaning that tropical storm conditions are expected - is in effect for: North of Duck North Carolina to Cape Charles Light Virginia, Chesapeake Bay south of New Point Comfort, Edisto Beach South Carolina to South Santee River South Carolina.

Storm Surge Watches, Warnings, and Potential

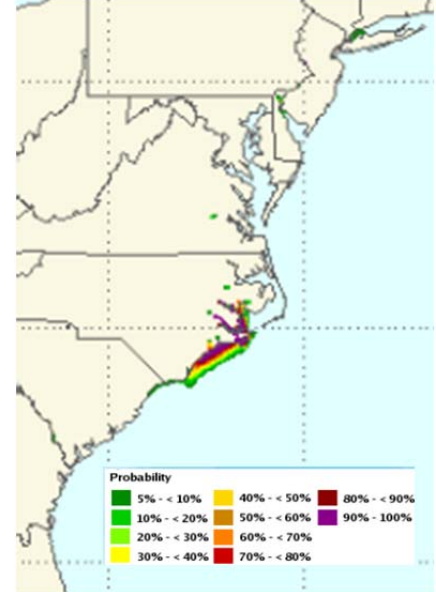
The images at right show the NHC’s probabilities for a storm surge exceeding 3 feet (near right) and exceeding 5 feet (far right), For the 77 hours from 01 AM EST Fri Sep 14 to 7 AM EST Tue Sep 18. Probabilities for a surge exceeding 5 feet are highest (60% - 70%) along the southern coast of North Carolina.

A Storm Surge Warning – meaning there is a danger of life-threatening inundation, from rising water moving inland from the coastline – is in effect for: South Santee River South Carolina to Duck North Carolina; Albemarle and Pamlico Sounds, including the Neuse and Pamlico Rivers. A Storm Surge Watch – meaning there is a possibility of life-threatening inundation, from rising water moving inland from the coastline – is in effect for: Edisto Beach South Carolina to South Santee River South Carolina.

Probability of Surge exceeding 3 feet



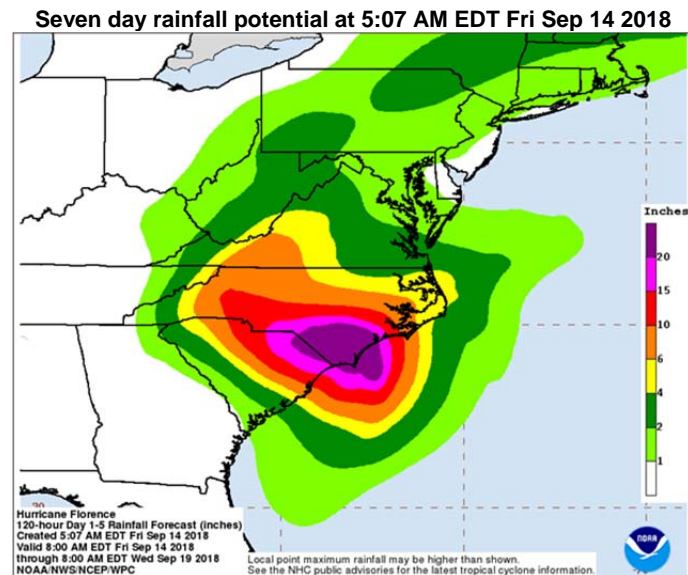
Probability of Surge exceeding 5 feet



Rainfall Potential and Most Likely Arrival Time of Tropical Storm Force Winds

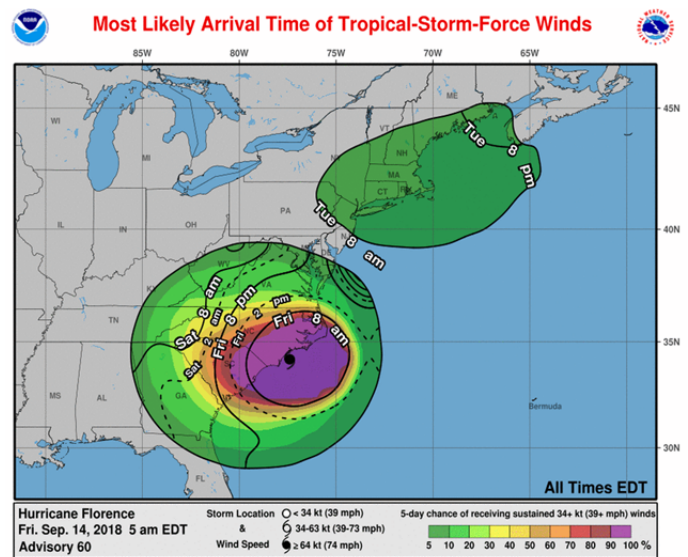
48-Hour Rainfall Potential

The graphic below shows rainfall potential over the next seven days. The area near Florence’s expected landfall could exceed 20 inches of rain in the coming days.



Most Likely Arrival Time of Tropical-Storm-Force Winds

The graphic below shows the most likely arrival time of tropical storm force winds - the time before or after which the onset of tropical-storm-force winds is equally likely. It also shows probabilities of sustained (1-minute average) surface wind speeds equal to or exceeding 34 kt (39 mph) for the next five days. This graphic is based on the official National Hurricane Center (NHC) track, intensity, and wind radii forecasts, and on NHC forecast error statistics for those forecast variables during recent years.



Contact us

Roy Cloutier
roy.cloutier@willistowerswatson.com
+1 (952) 841-6652

Ryan Vesledahl
ryan.vesledahl@willistowerswatson.com
+1 (952) 841-6672

Matt Nicolai
matt.nicolai@willistowerswatson.com
+1 (952) 841-6657