Tropical Cyclone Weather Impacts Tropical Storm Arthur

Eastern North Carolina
Threat Assessment
Wednesday, July 2nd

National Weather Service
Newport/Morehead City, NC

Time/Date Created: Noon EDT 7/2/2014

Information/Impacts

- A Tropical Storm Warning and a Hurricane Watch are now in effect from Bogue Inlet to Oregon Inlet including the Pamlico Sound and the Pamlico, Pungo, Neuse and Bay Rivers, and Carteret, Craven, Beaufort, Hyde and Dare counties.

- A tropical storm warning is now in effect south of Bogue Inlet, and north of Oregon Inlet including Albemarle Sound, Alligator River, and Onslow, Jones, and Tyrrell counties.

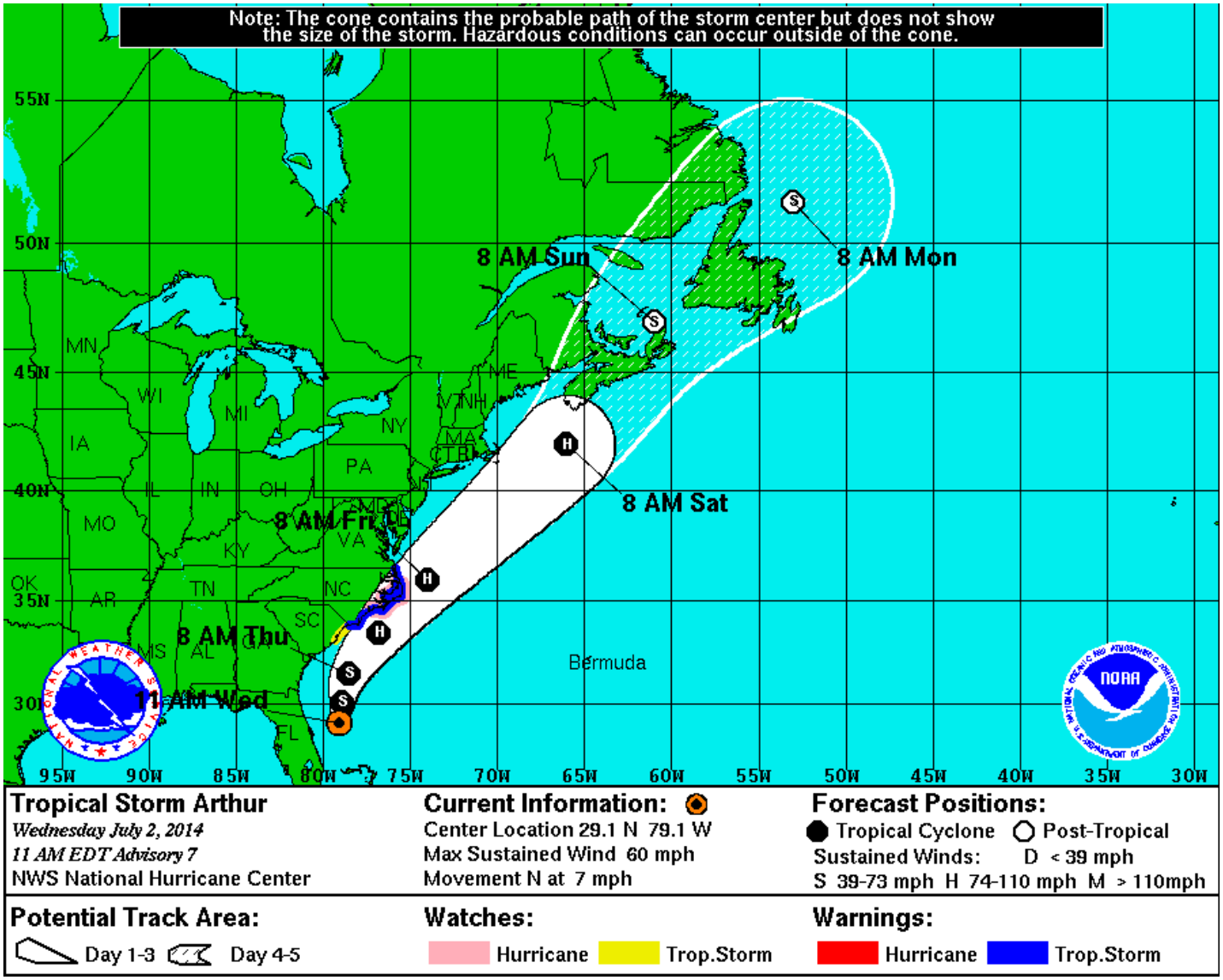
- Tropical Storm Arthur was located about 105 miles east northeast of Cape Canaveral Florida late this morning moving north at 7 mph.

- A turn toward the north northeast is expected tonight then northeast with an increase in forward speed on Thursday. The official National Hurricane Center forecast track takes the storm to just off the North Carolina Coast as a minimal hurricane Thursday night into Friday morning.

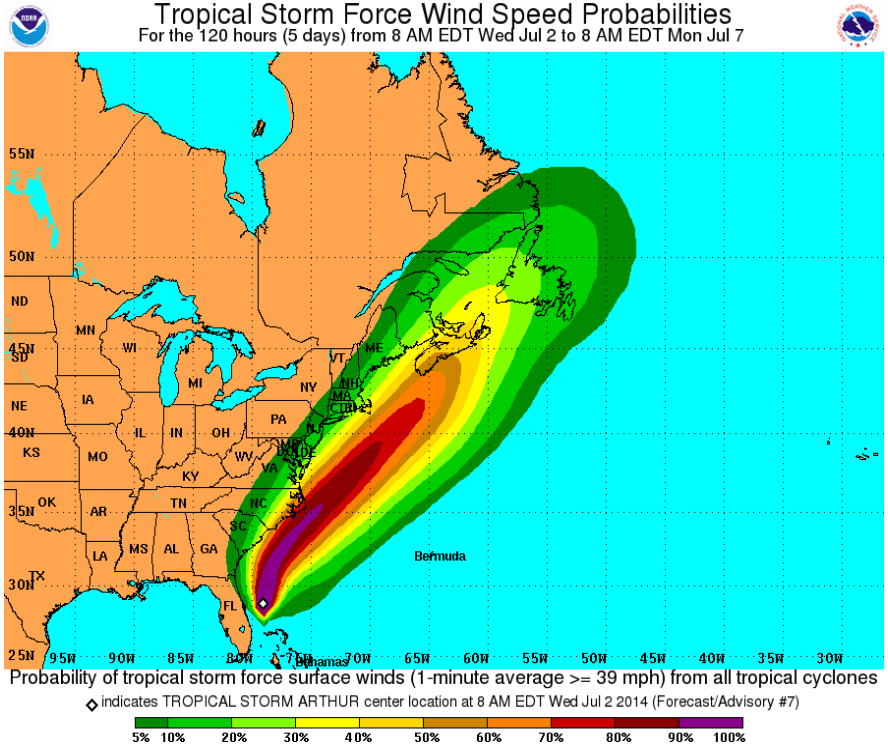
- There is still some uncertainty regarding the impacts of this still developing system, however there is the potential for locally heavy rains, gusty winds, isolated tornadoes, and coastal flooding . A 2 to 4 ft. surge above ground level inundation is expected along Outer Banks Dare and Hyde counties coast and sound side. A 1 to 3 ft. surge inundation above ground level is expected elsewhere along coastal sections and areas and rivers adjacent to the Sounds. Moderate beach erosion is expected with high surf and dangerous rip currents.

- Seas across the coastal waters are expected to build to 15 to 25 feet.

NHC track for Tropical Storm Arthur

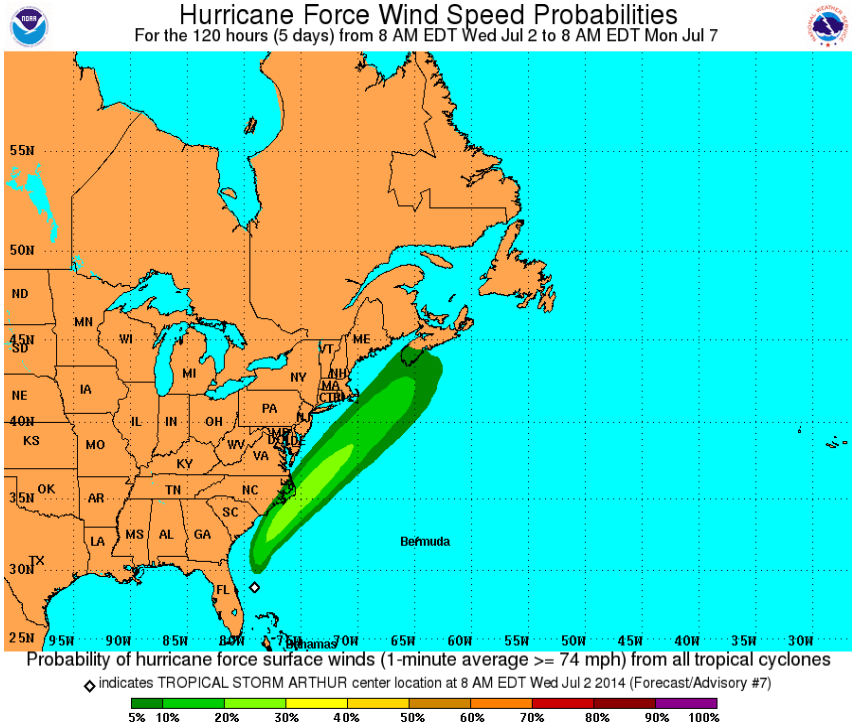


Probabilities of tropical storm force and hurricane force winds.

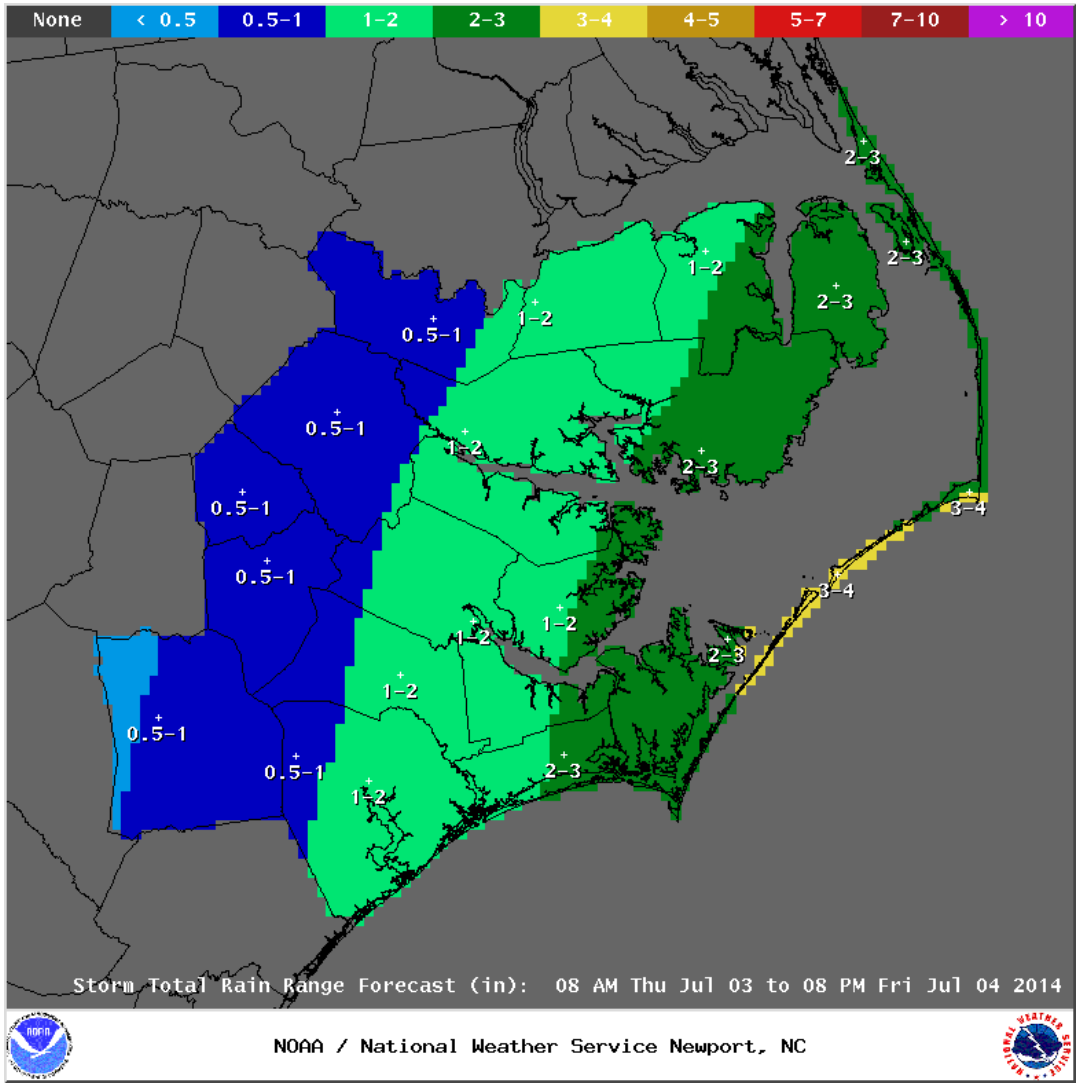


Probability of Tropical Storm force winds 70-80% along coastal sections

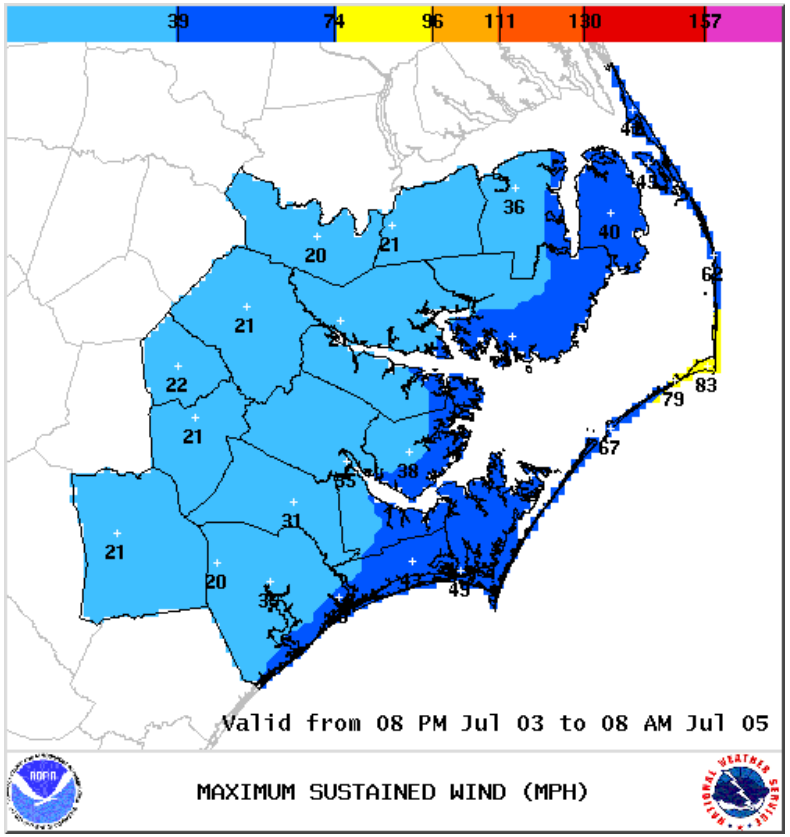
Probability of Hurricane force winds 10-20% along coastal sections

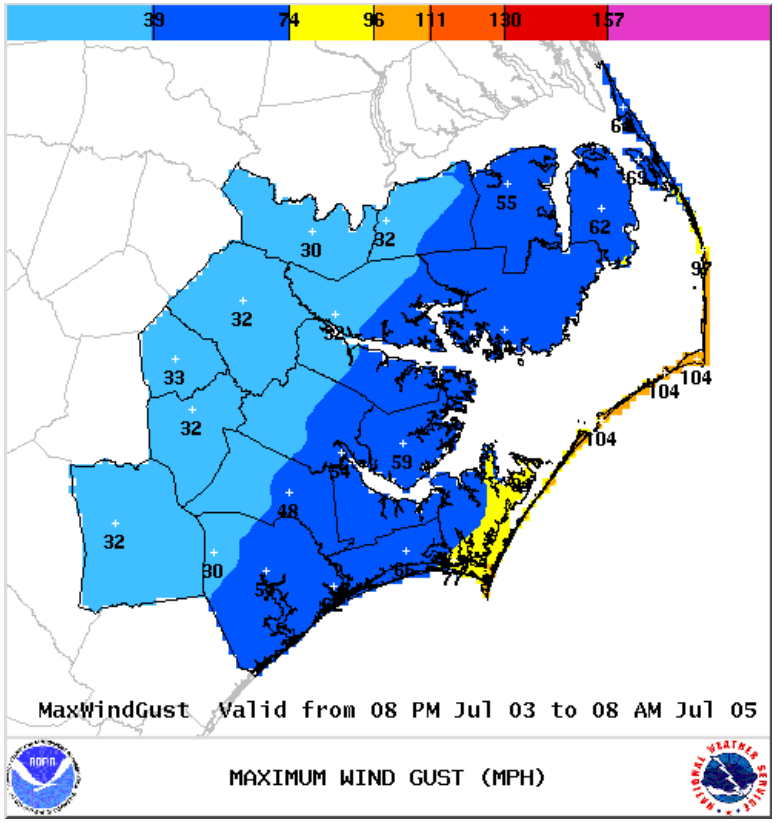


Storm Total Rainfall
Thursday through Friday



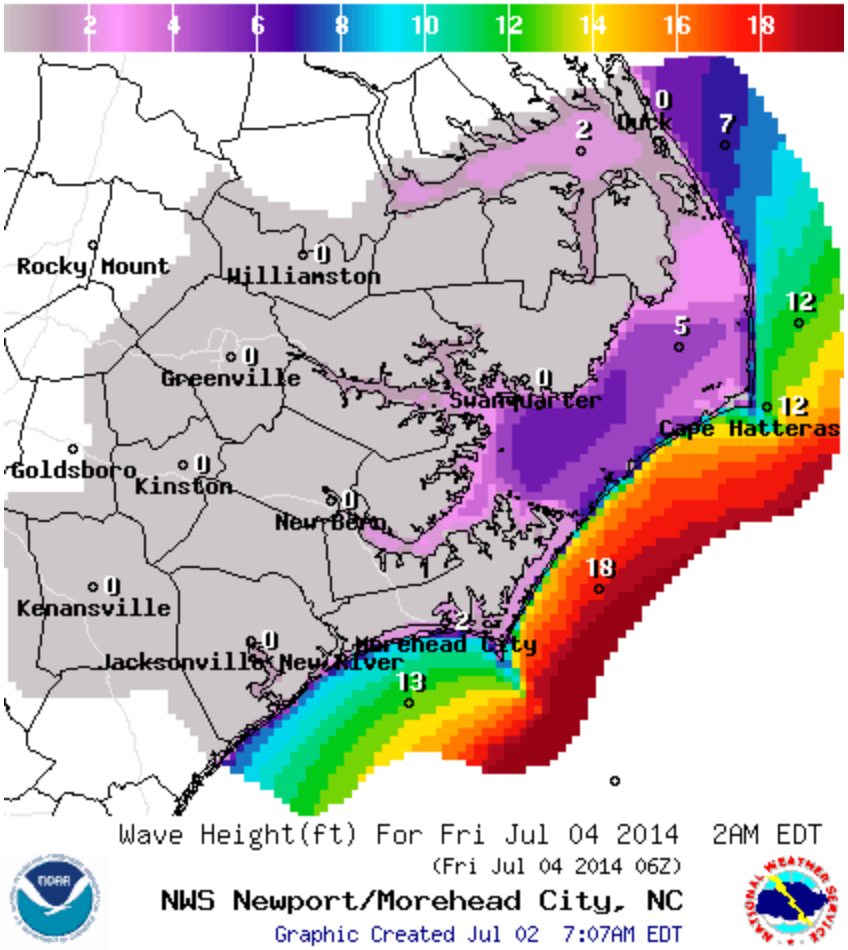
Projected Maximum Sustained Wind and Wind Gust



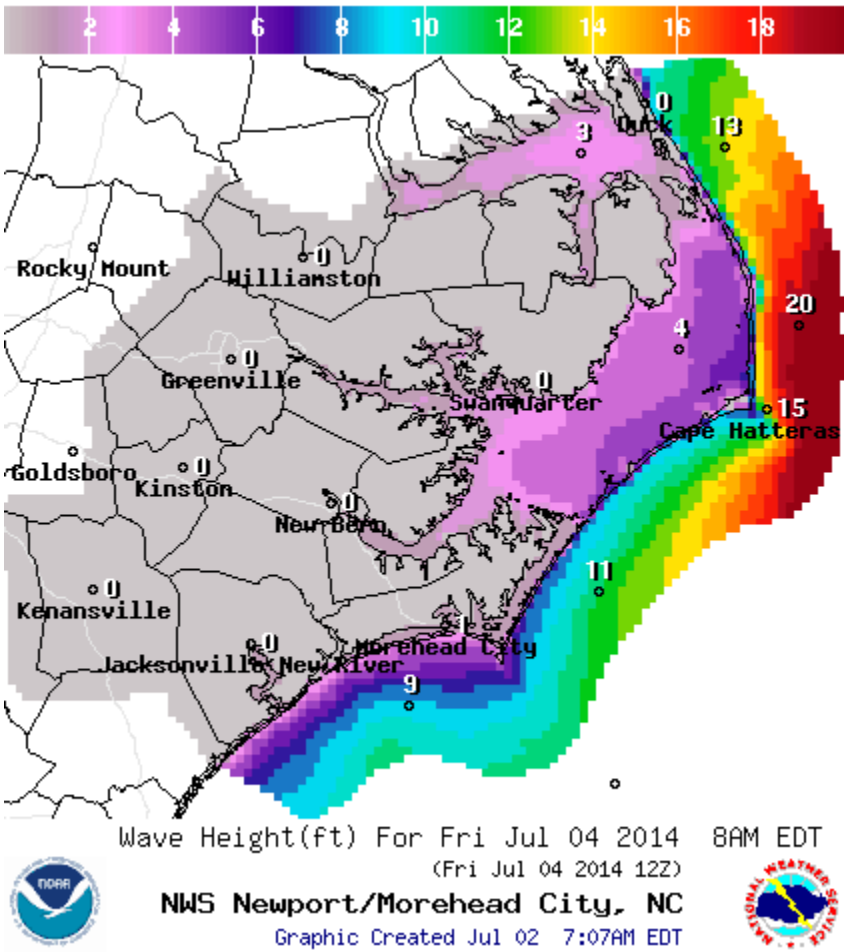


Projected Waves for Friday

Wave Graphic 2 AM Friday



Wave Graphic 8 AM Friday



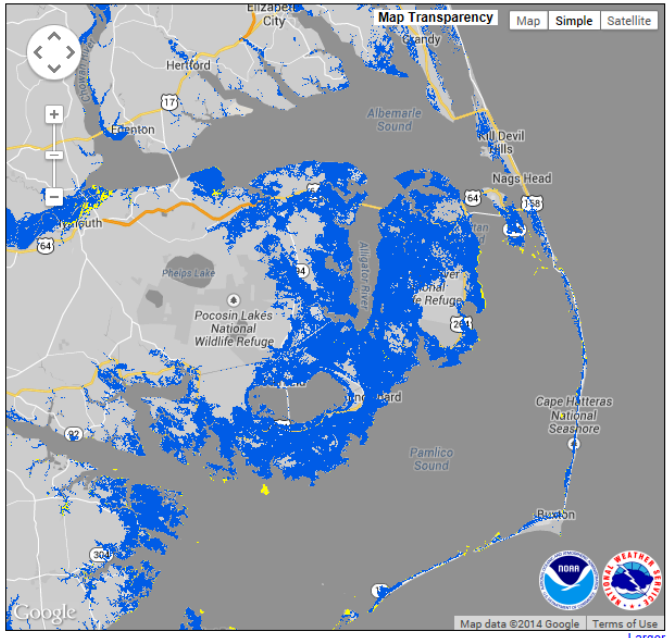
NHC Potential Storm Surge Flood Map

Experimental

Water level rises up to 3 feet above ground possible

in typically vulnerable areas.

From 05 AM EDT Wednesday July 02 to 10 AM EDT Saturday July 05



Larger

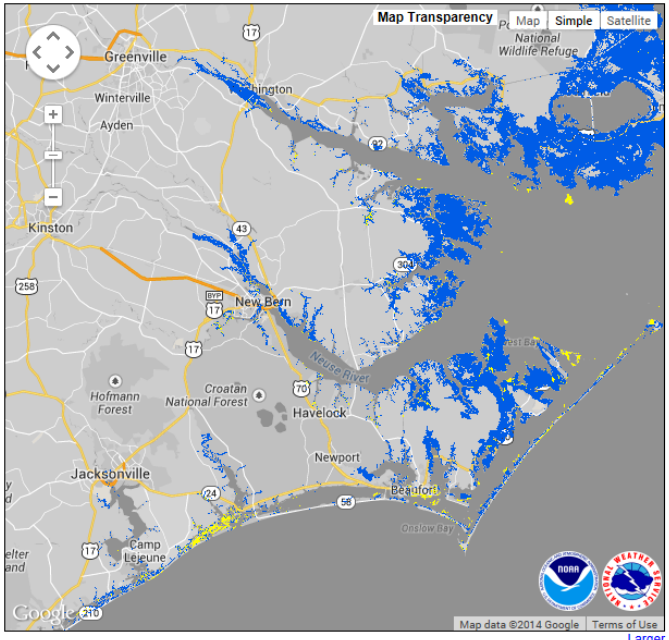
Potential Storm Surge Flooding*

- Up to 3 feet above ground
- Greater than 3 feet above ground
- Greater than 6 feet above ground
- Greater than 9 feet above ground

*Displayed flooding values indicate the water depth that has about a 1-in-10 (10%) chance of being exceeded.

Experimental Potential Storm Surge Inundation GIS datasets will not be disseminated during the 2014 Atlantic Hurricane Season.

From 05 AM EDT Wednesday July 02 to 10 AM EDT Saturday July 05



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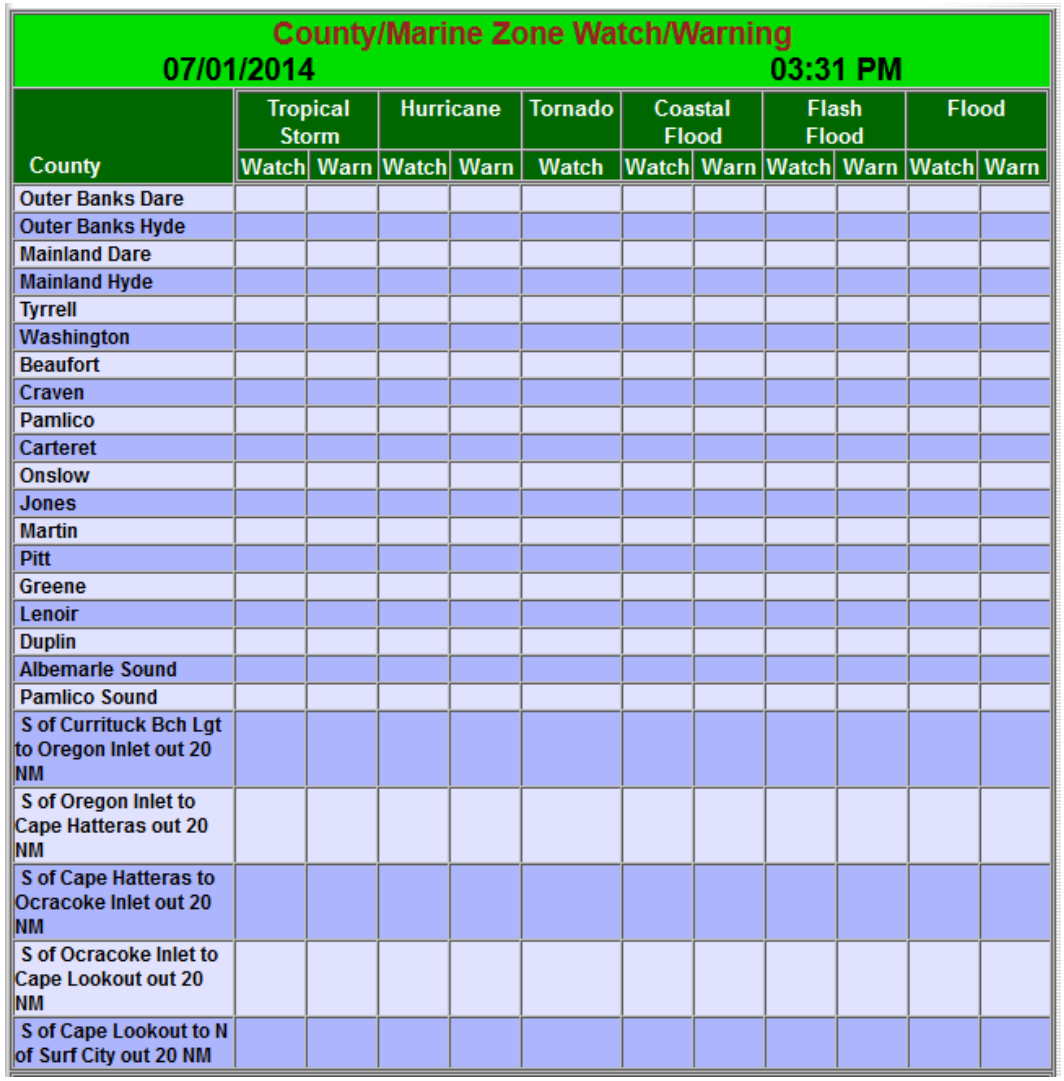
MHX Tropical Web Briefing Tool

Experimental



County/Marine Zone Watch/Warning

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County	Tropical Storm		Hurricane		Tornado	Coastal Flood		Flash Flood		Flood	
	Watch	Warn	Watch	Warn	Watch	Watch	Warn	Watch	Warn	Watch	Warn
Outer Banks Dare											
Outer Banks Hyde											
Mainland Dare											
Mainland Hyde											
Tyrrell											
Washington											
Beaufort											
Craven											
Pamlico											
Carteret											
Onslow											
Jones											
Martin											
Pitt											
Greene											
Lenoir											
Duplin											
Albemarle Sound											
Pamlico Sound											
S of Currituck Bch Lgt to Oregon Inlet out 20 NM											
S of Oregon Inlet to Cape Hatteras out 20 NM											
S of Cape Hatteras to Ocracoke Inlet out 20 NM											
S of Ocracoke Inlet to Cape Lookout out 20 NM											
S of Cape Lookout to N of Surf City out 20 NM											

http://www.erh.noaa.gov/mhx/EM_Brief.php

- NWS Newport has a new experimental Tropical Briefing webpage. Follow the link above for a summary of hazards that incorporates probability and uncertainty into the timing of impacts across Eastern North Carolina by individual county.

For updates call the forecaster on Duty

(252) 223-5122 x5

References: NWS Newport/Morehead City

http://www.erh.noaa.gov/mhx/

Rainfall Forecasts (QPF)

http://www.hpc.ncep.noaa.gov/qpf/qpf2.shtml

National Hurricane Center

http://www.nhc.noaa.gov/