

Current Watches and Warnings

A *Hurricane Warning* is in effect from South Santee River, South Carolina (SC) to Bogue Inlet, North Carolina (NC); Pamlico Sound

A *Hurricane Watch* is in effect from Edisto Beach, SC to South Santee River, SC

A *Tropical Storm Warning* is in effect from Edisto Beach, SC to South Santee River, SC; Bogue Inlet, NC to Duck, NC; Albemarle Sound

A *Storm Surge Warning* is in effect from South Santee River, SC to Duck, NC; Albemarle and Pamlico Sounds, including the Neuse and Pamlico Rivers

A *Storm Surge Watch* is in effect from Edisto Beach, SC to South Santee River, SC

Current Details from the National Hurricane Center (NHC)

COORDINATES: 34.0° north, 78.0° west

LOCATION: 20 miles (30 kilometers) southwest of Wilmington, North Carolina

MOVEMENT: west-southwest at 3 mph (6 kph)

WINDS: 80 mph (130 kph) with gusts to 100 mph (160 kph)

RADIUS OF TROPICAL STORM-FORCE WINDS: 195 miles (315 kilometers)

RADIUS OF HURRICANE-FORCE WINDS: 70 miles (110 kilometers)

MINIMUM CENTRAL PRESSURE: 958 millibars

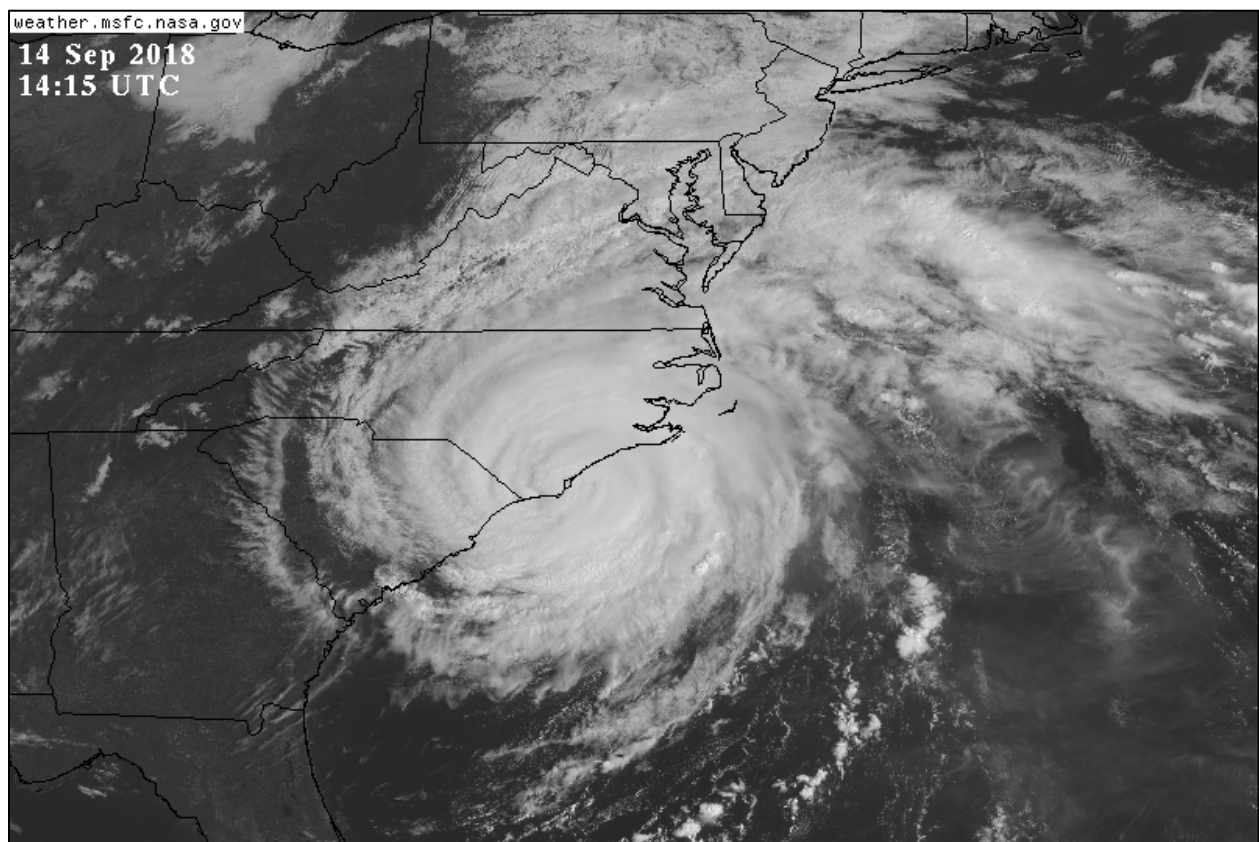
SAFFIR-SIMPSON SCALE RANKING*: Category 1

LANDFALL LOCATION: Wrightsville Beach, North Carolina

LANDFALL TIMEFRAME: 7:15 AM local time (11:15 UTC) September 14

LANDFALL INTENSITY: 90 mph (150 kph) – Category 1

Latest Satellite Picture



Source: NASA/NOAA

Discussion

Hurricane Florence, located approximately 20 miles (30 kilometers) southwest of Wilmington, North Carolina, is currently tracking west-southwest at 3 mph (6 kph). Florence's satellite signature remains very impressive even though the eye is now located just inland over southeastern North Carolina near Cape Fear. However, land interaction has taken its toll on the inner-core circulation, and the previously well-defined eye feature seen in radar imagery has shrunk and become filled with rain echoes. The NHC has lowered the initial intensity to 80 mph (130 kph) based on earlier reports from an Air Force Reserve reconnaissance aircraft, NOAA Doppler weather radar velocity data from Wilmington and Morehead City, and nearby surface observations. The central pressure of 958 millibars is based on observations from a NOAA NOS site in Wrightsville Beach. Another Air Force Hurricane Hunter aircraft will be sampling the portion of Florence's circulation over water during the next few hours.

Florence has turned west-southwestward and is expected to remain embedded within a weak steering flow within a weakness in the ridge of high pressure, resulting in a slow westward motion for the next 36 to 48 hours across South Carolina. As a mid/upper level frontal boundary – currently located from the eastern Great Lakes to Maryland – moves eastward away from the region in the next 2 days, the ridge will begin to build back in and shift eastward, allowing Florence or its remnants to gradually turn northward. It will then move northeastward into the mid-latitude westerlies as an extratropical low.

Wind data from the earlier aircraft mission, along with Doppler radar velocity data and surface observations, indicate that Florence has weakened. Additional slow weakening is expected today as the center of Florence moves farther inland, with more rapid weakening forecast over the weekend as Florence moves westward across South Carolina. The new NHC intensity forecast is a little lower than the previous advisory.

It is worth noting that the NHC continues to explicitly detail that while coastal storm surge flooding will gradually subside later today, it cannot be emphasized enough that another serious hazard associated with slow-moving Florence is and will be extremely heavy rainfall. More than 14 inches of rain has already fallen in many areas across southeastern North Carolina, and more rain is still to come, which will cause disastrous flooding that will spread inland through the weekend.

Key Messages from the National Hurricane Center

1. A life-threatening storm surge is already occurring along portions of the North Carolina coast and will continue through today and tonight. This surge is also likely along portions of the South Carolina coast. The greatest storm surge inundation is expected between Cape Fear and Cape Hatteras, including the Neuse and Pamlico Rivers and western Pamlico Sound.
2. Life-threatening, catastrophic flash flooding and prolonged significant river flooding are likely over portions of the Carolinas and the southern and central Appalachians through early next week, as Florence is expected to slow down while it moves inland.
3. Damaging hurricane-force winds are occurring along portions of the North Carolina coast and are expected to spread to portions of the South Carolina coast later today. Strong winds could also spread inland into portions of the Carolinas over the next couple of days.
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.

Additional Information

STORM SURGE: The combination of a dangerous storm surge and the tide will cause normally dry areas near the coast to be flooded by rising waters moving inland from the shoreline. The water has the potential to reach the following heights above ground:

Cape Fear, NC to Cape Lookout, NC: 7-11 ft, with locally higher amounts in the Neuse, Pamlico, Pungo, and Bay Rivers

Cape Lookout, NC to Ocracoke Inlet, NC: 6-9 feet

South Santee River, SC to Cape Fear, NC: 4-6 feet

Ocracoke Inlet, NC to Salvo, NC: 4-6 feet

Salvo, NC to Duck, NC: 2-4 feet

Edisto Beach, SC to South Santee River, SC: 2-4 feet

The deepest water will occur along the immediate coast in areas of onshore winds, where the surge will be accompanied by large and destructive waves. Surge-related flooding can vary greatly over short distances.

RAINFALL: Florence is expected to produce heavy and excessive rainfall in the following areas:

Southeastern coastal North Carolina into far northeastern South Carolina: an additional 20 to 25 inches, with isolated storm totals of 30 to 40 inches. **This rainfall will produce catastrophic flash flooding and prolonged significant river flooding.**

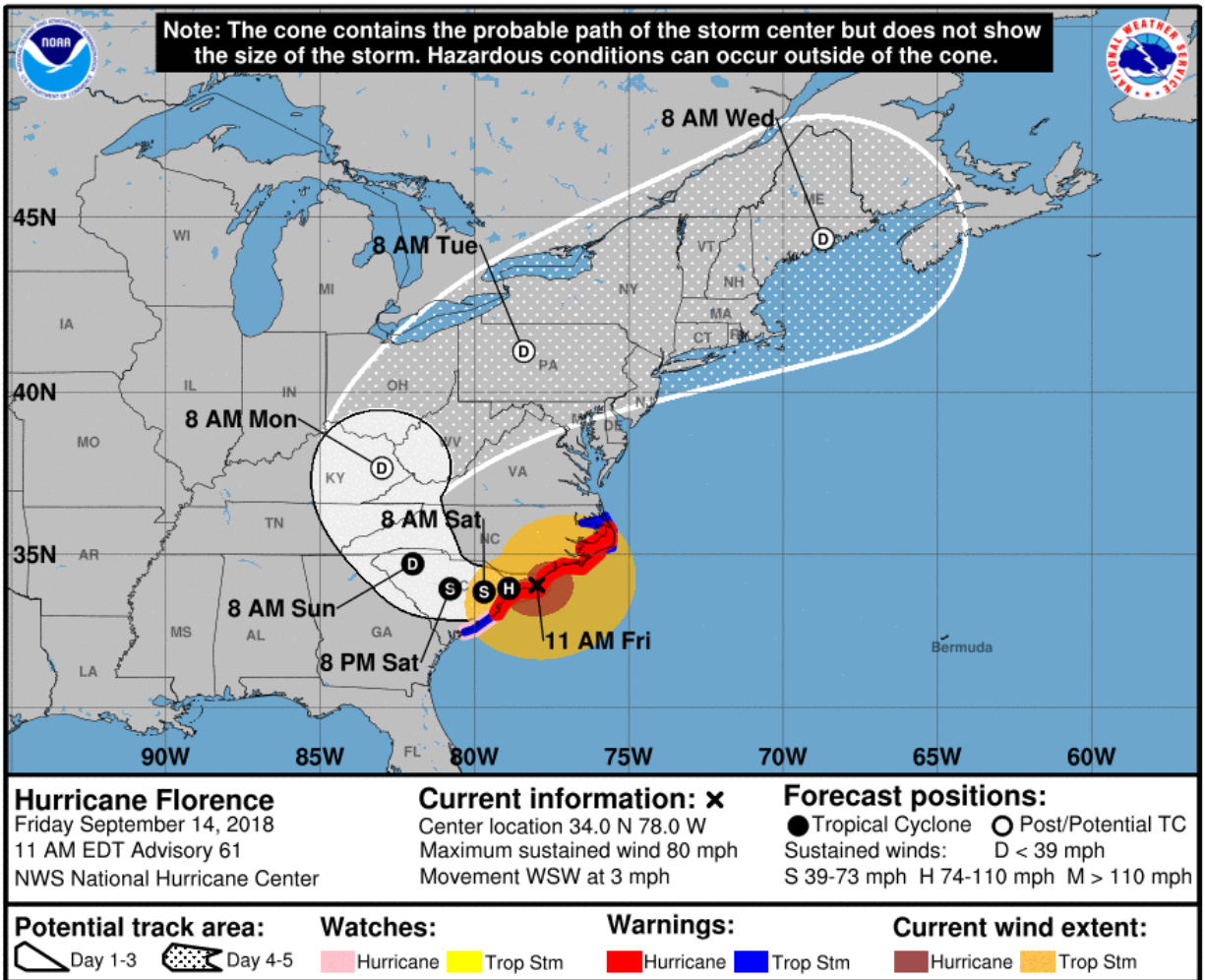
Remainder of South Carolina and North Carolina into southwest Virginia: 5 to 10 inches, isolated 15 inches. This rainfall will produce life-threatening flash flooding.

Rainfall totals exceeding 14 inches thus far have been reported at several locations across southeastern North Carolina.

TORNADOES: A few tornadoes are possible in eastern North Carolina today.

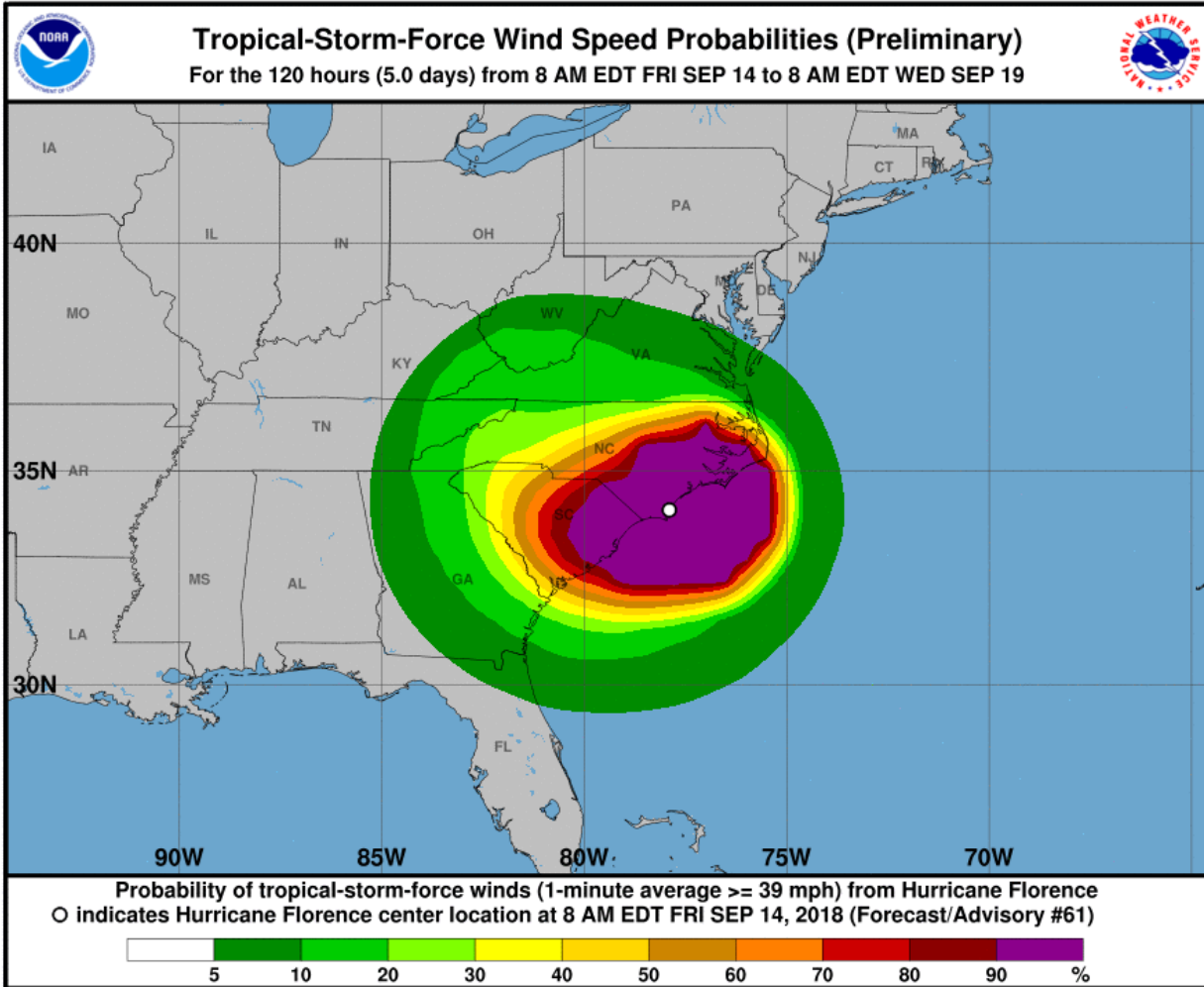
SURF: Swells generated by Florence are affecting Bermuda, portions of the U.S. East Coast, and the northwestern and central Bahamas. These swells are likely to cause life-threatening surf and rip current conditions.

Hurricane Center (NHC) Forecast

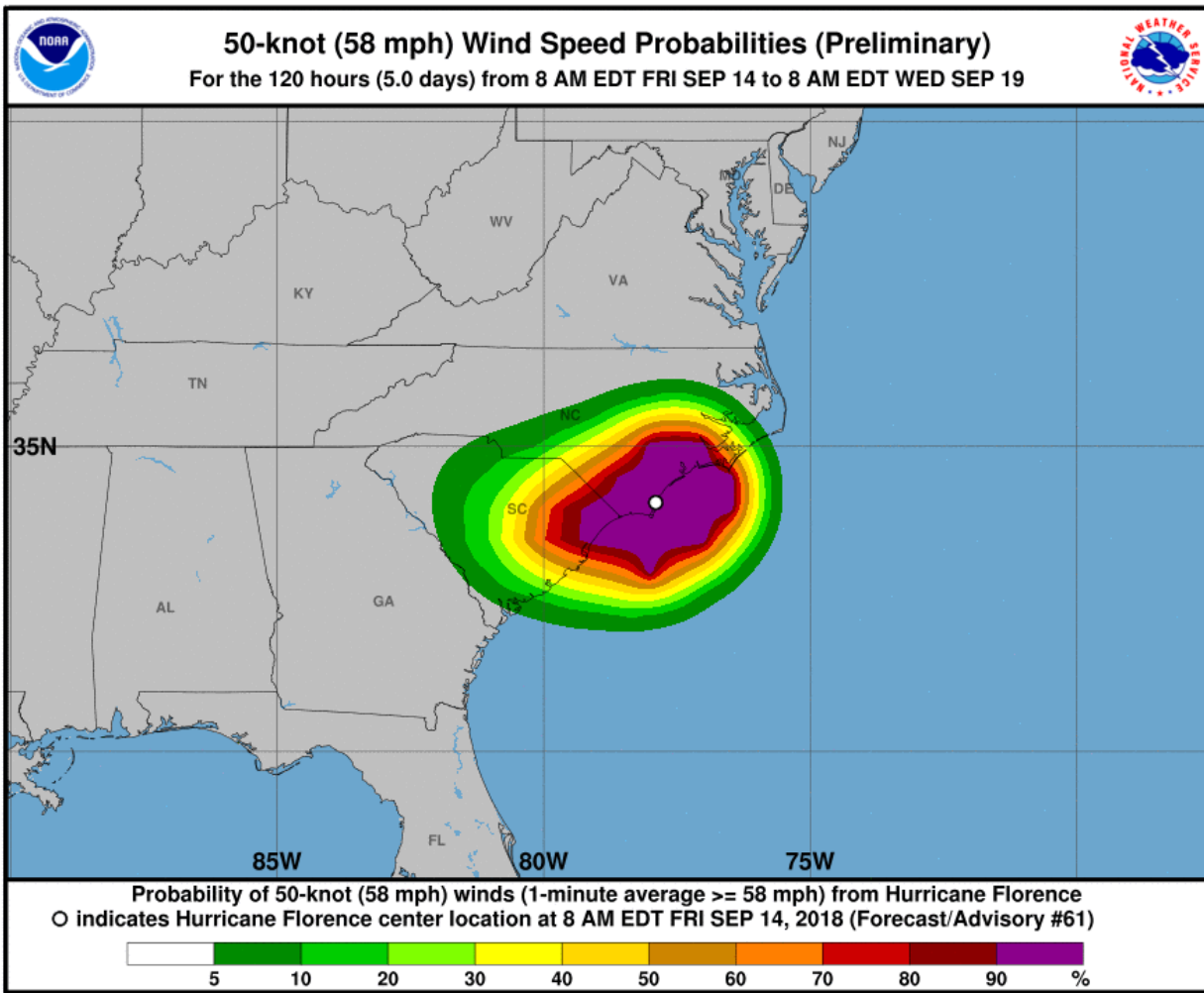


National Hurricane Center: Wind Speed Probabilities

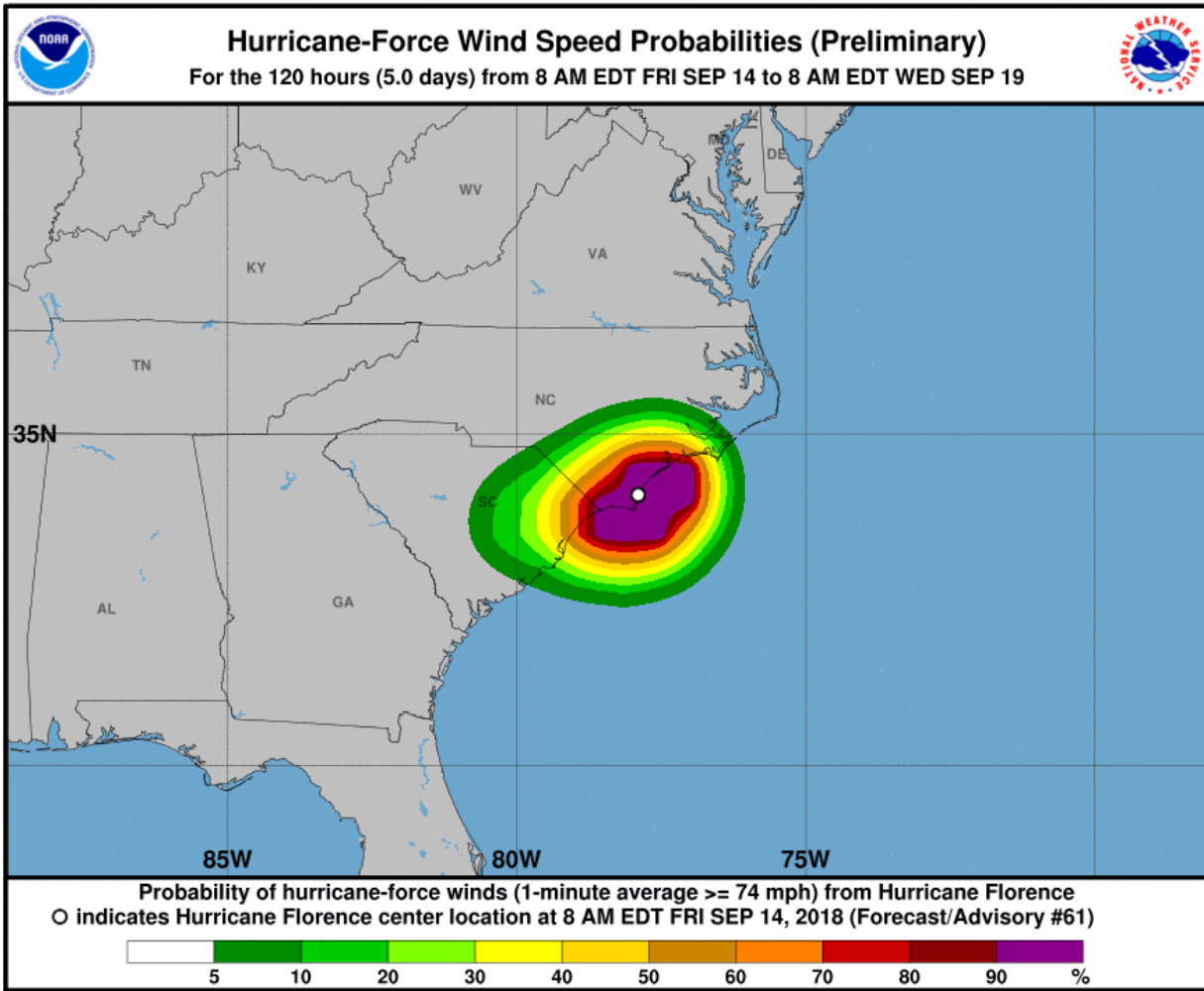
Tropical Storm-Force Wind Probabilities (≥ 40 mph (65 kph))



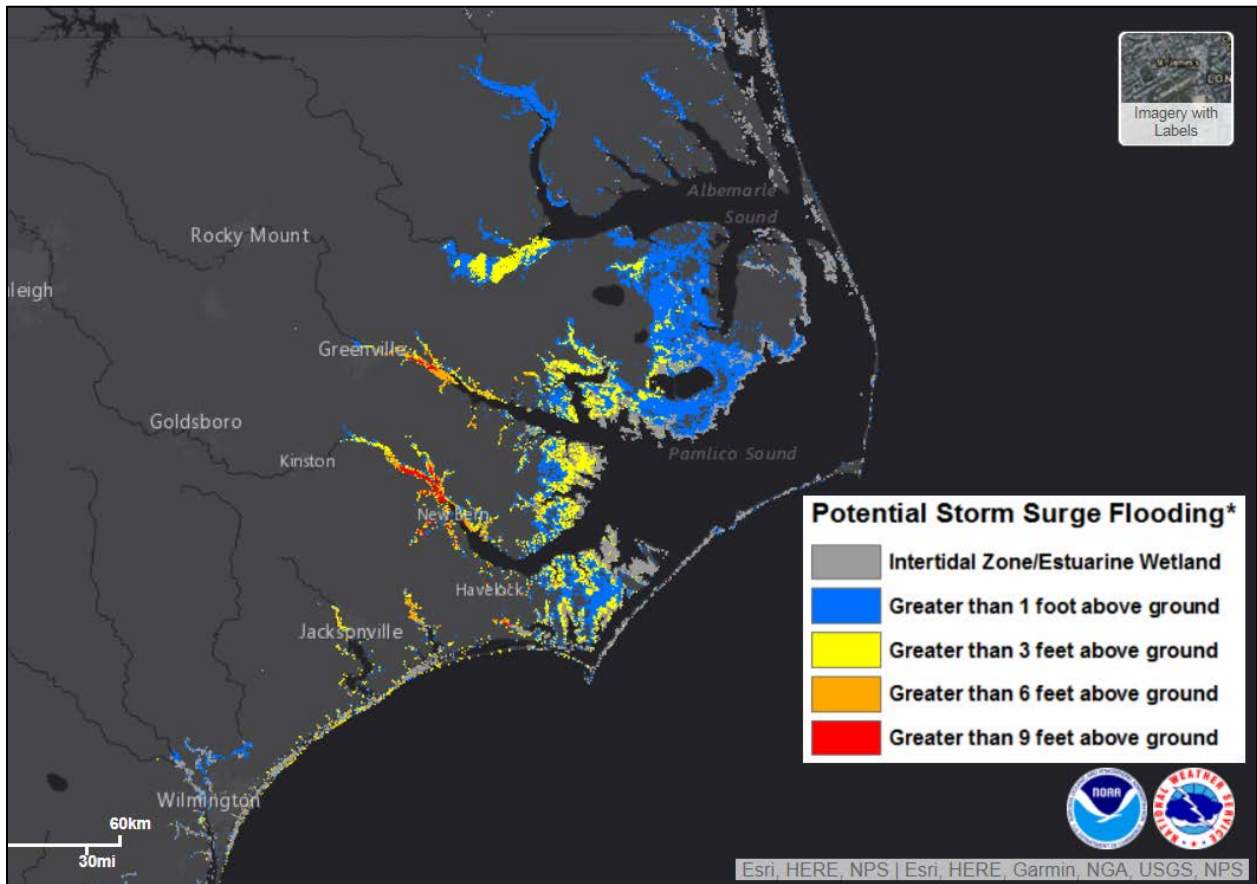
Wind Probabilities (≥ 60 mph (95 kph))



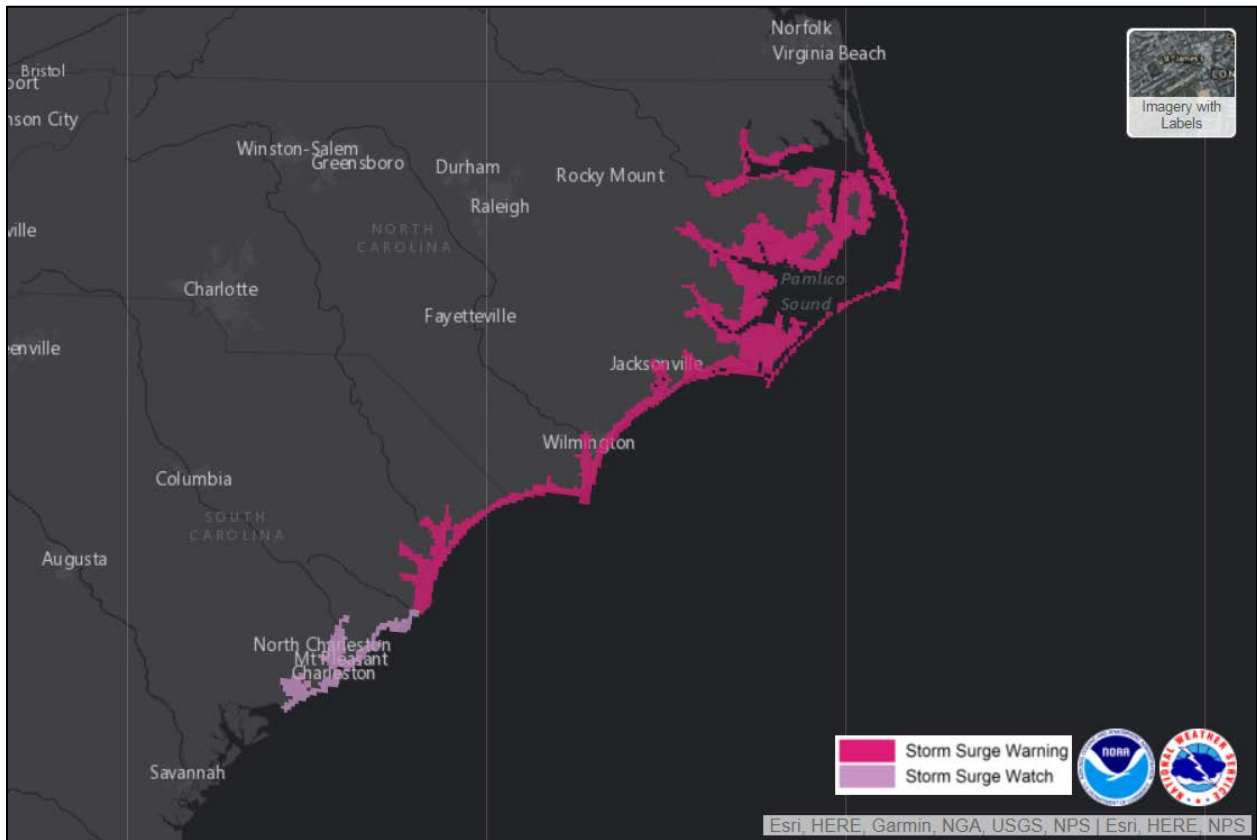
Hurricane-Force Wind Probabilities (≥ 75 mph (120 kph))



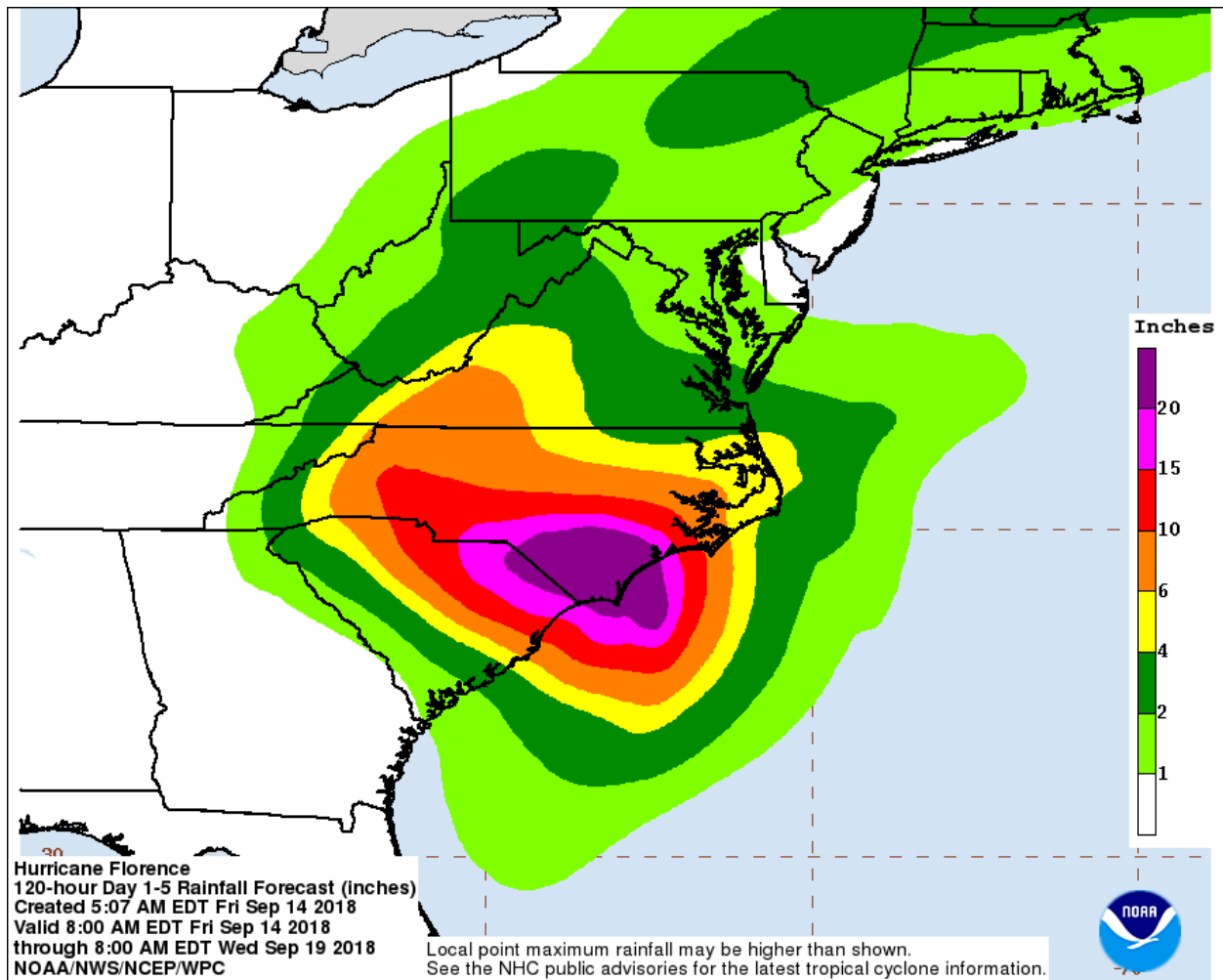
NHC: Storm Surge Inundation



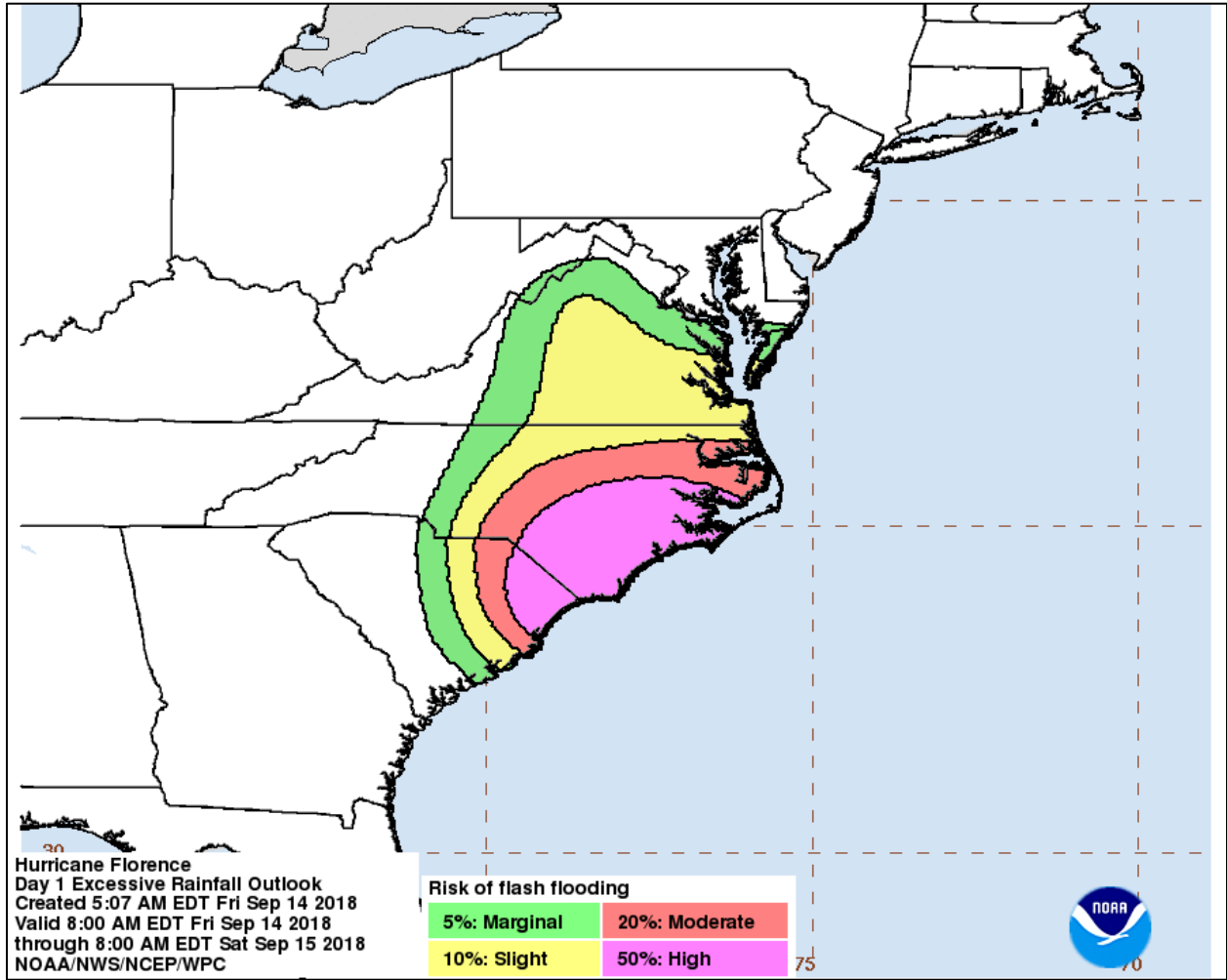
NHC: Storm Surge Watches/Warnings



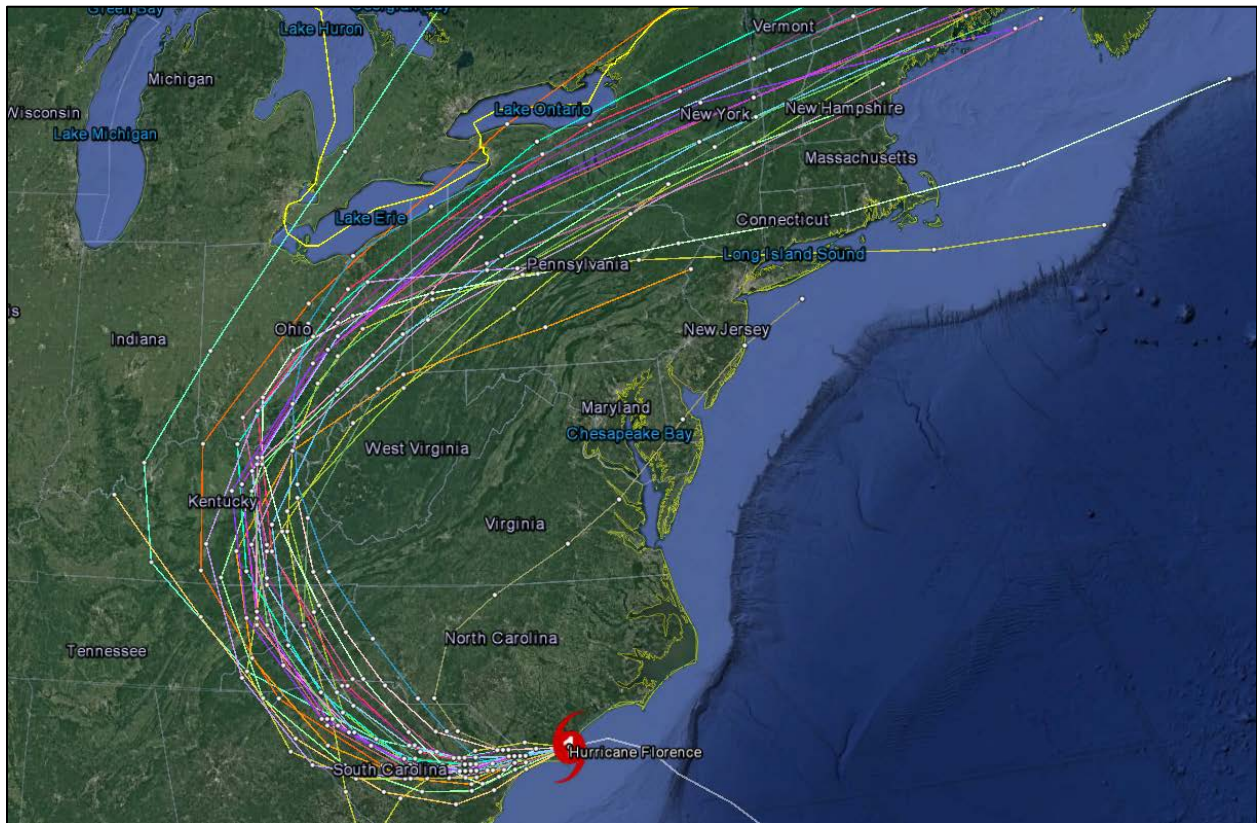
Weather Prediction Center: Rainfall Potential



Weather Prediction Center: Flash Flood Potential



Current 'Spaghetti' Model Output Data



Source: NHC

Additional Information and Update Schedule

Wind intensity forecasts and forecast track information can be found via the National Hurricane Center at www.nhc.noaa.gov

NEXT CAT ALERT: Friday afternoon after 4:00 PM Central Time (21:00 UTC).

*Tropical Cyclone Intensity Classifications for Global Basins

WIND SPEED			BASINS AND MONITORING BUREAU						
KTS ¹	MPH ¹	KPH ¹	NE Pacific, Atlantic	NW Pacific	NW Pacific	SW Pacific	Australia	SW Indian	North Indian
			National Hurricane Center (NHC)	Joint Typhoon Warning Center (JTWC)	Japan Meteorological Agency (JMA)	Fiji Meteorological Service (FMS)	Bureau Of Meteorology (BOM)	Meteo-France (MF)	India Meteorological Department (IMD)
30	35	55	Tropical Depression	Tropical Depression	Tropical Depression	Tropical Depression	Tropical Low	Tropical Depression	Deep Depression
35	40	65	Tropical Storm	Tropical Storm	Tropical Storm	Cat. 1 Tropical Cyclone	Cat. 1 Tropical Cyclone	Moderate Tropical Storm	Cyclonic Storm
40	45	75							
45	50	85							
50	60	95							
55	65	100							
60	70	110	Cat. 1 Hurricane	Typhoon	Typhoon	Cat. 3 Severe Tropical Cyclone	Cat. 3 Severe Tropical Cyclone	Tropical Cyclone	Very Severe Cyclonic Storm
65	75	120							
70	80	130							
75	85	140							
80	90	150							
85	100	160	Cat. 2 Hurricane	Typhoon	Typhoon	Cat. 4 Severe Tropical Cyclone	Cat. 4 Severe Tropical Cyclone	Intense Tropical Cyclone	Very Severe Cyclonic Storm
90	105	170							
95	110	175	Cat. 3 Major Hurricane	Typhoon	Typhoon	Cat. 4 Severe Tropical Cyclone	Cat. 4 Severe Tropical Cyclone	Intense Tropical Cyclone	Very Severe Cyclonic Storm
100	115	185							
105	120	195							
110	125	205	Cat. 4 Major Hurricane	Super Typhoon	Super Typhoon	Cat. 5 Severe Tropical Cyclone	Cat. 5 Severe Tropical Cyclone	Very Intense Tropical Cyclone	Super Cyclonic Storm
115	130	210							
120	140	220							
125	145	230							
130	150	240	Cat. 5 Major Hurricane	Super Typhoon	Super Typhoon	Cat. 5 Severe Tropical Cyclone	Cat. 5 Severe Tropical Cyclone	Very Intense Tropical Cyclone	Super Cyclonic Storm
135	155	250							
140	160	260							
>140	>160	>260	Cat. 5 Major Hurricane	Super Typhoon	Super Typhoon	Cat. 5 Severe Tropical Cyclone	Cat. 5 Severe Tropical Cyclone	Very Intense Tropical Cyclone	Super Cyclonic Storm

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