

Current Watches and Warnings

A *Hurricane Warning* is in effect for Grand Bahama and the Abacos Islands in the northwestern Bahamas; Jupiter Inlet to the Volusia/Brevard County Line

A *Storm Surge Warning* is in effect from Lantana to the Volusia/Brevard County Line, FL

A *Tropical Storm Warning* is in effect from north of Deerfield Beach to Jupiter Inlet, FL

A *Hurricane Watch* is in effect from north of Deerfield Beach to Jupiter Inlet, FL; Volusia/Brevard County Line to the Mouth of the St. Mary's River, FL

A *Storm Surge Watch* is in effect from north of Deerfield Beach to south of Lantana, FL; Volusia/Brevard County Line to the Mouth of the St. Mary's River, FL

A *Tropical Storm Watch* is in effect from north of Golden Beach to Deerfield Beach, FL; Lake Okeechobee

Current Details from the National Hurricane Center (NHC)

COORDINATES: 26.7° north, 78.2° west

LOCATION: 35 miles (50 kilometers) east-northeast of Freeport, Grand Bahama Island

MOVEMENT: west at 1 mph (2 kph)

WINDS: 165 mph (270 kph) with gusts to 200 mph (325 kph)

RADIUS OF TROPICAL STORM-FORCE WINDS: 140 miles (220 kilometers)

RADIUS OF HURRICANE-FORCE WINDS: 45 miles (75 kilometers)

MINIMUM CENTRAL PRESSURE: 916 millibars

SAFFIR-SIMPSON SCALE RANKING*: Category 5

1st LANDFALL LOCATION: Elbow Cay, Abaco Islands, Bahamas

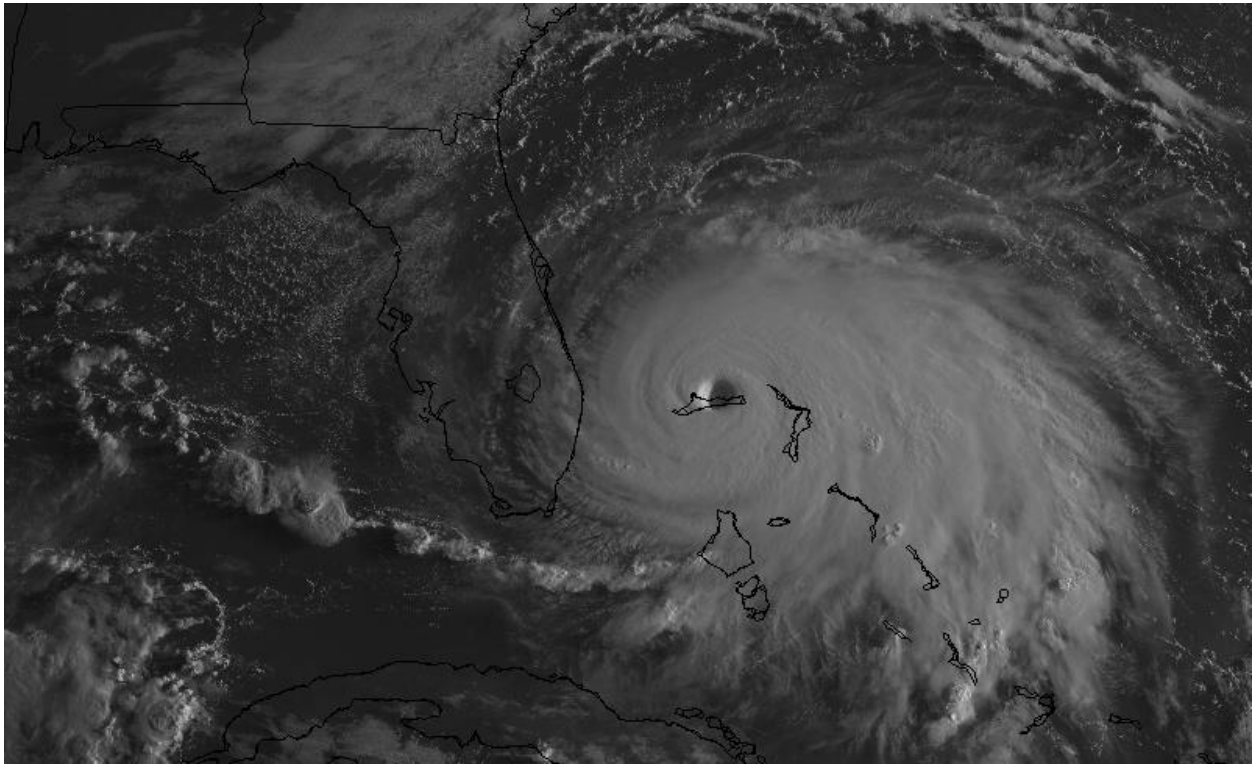
1st LANDFALL TIMEFRAME: approximately 12:45 PM local time (16:45 UTC) September 1

1st LANDFALL INTENSITY: 185 mph (295 kph) – Category 5*

*Tied the 1935 Labor Day Hurricane as the strongest hurricane on record to make landfall in the Atlantic Ocean

24-HOUR LANDFALL POTENTIAL: HIGH (currently over Grand Bahama Island)

Latest Satellite Picture



Source: NASA/NOAA

Discussion

Hurricane Dorian, located approximately 35 miles (50 kilometers) east-northeast of Freeport, Grand Bahama Island, is currently tracking west at 1 mph (2 kph). Satellite imagery continues to show that Dorian has an extremely well-defined eye embedded within very cold cloud tops. The diameter of the eye appears to have expanded, and radar data from the Bahamas Department of Meteorology shows that there are concentric eyewalls. The hurricane also continues to exhibit strong upper-level outflow in all quadrants, signifying a healthy system. The NHC initial intensity estimate has slightly reduced to 165 mph (270 kph), but Dorian remains an extremely dangerous Category 5 hurricane. The lowering of the initial intensity is consistent with the development of a concentric eyewall. During the next few days, Dorian should be encountering some increase in wind shear, which will likely result in weakening, though the system is likely to remain a powerful major hurricane for the next several days. The official NHC intensity forecast lies between most of the computer model guidance.

Steering currents have further weakened, and Dorian has nearly become stationary over eastern Grand Bahama Island. The initial steering ridge of high pressure to the north of the hurricane and pushed it westward has collapsed. The forecast model guidance indicates that in the coming days a weakness in the ridge will develop. This would likely cause Dorian to move northwestward and eventually northward towards and through this weakness. Later in the forecast period, the system is expected to accelerate northeastward on the southern side of a broad approaching frontal boundary. The official NHC track forecast is very close to the previous one.

Although the official NHC forecast does not explicitly show Dorian making landfall along the Florida east coast, it is still possible for the hurricane to deviate from this forecast and move very near or over the coast. It is also expected to move very close to the South Carolina and North Carolina coastlines. Users are reminded not to focus on the center of forecast track, but the entire cone of uncertainty.

Key Messages from the National Hurricane Center

1. A prolonged period of catastrophic winds and storm surge will continue to affect Grand Bahama Island through today and tonight. Everyone there should remain in shelter and not venture into the eye.
2. Life-threatening storm surges and dangerous hurricane-force winds are expected along portions of the Florida east coast through mid-week, and storm surge and hurricane warnings are in effect. Only a slight deviation to the left of the official forecast would bring the core of Dorian near or over the Florida east coast. Residents should listen to advice given by local emergency officials.
3. There is an increasing likelihood of strong winds and dangerous storm surge along the coasts of Georgia, South Carolina, and North Carolina later this week. Residents in these areas should continue to monitor the progress of Dorian and listen to advice given by local emergency officials.
4. Heavy rains, capable of producing life-threatening flash floods, are expected over northern portions of the Bahamas and coastal sections of the Southeast and lower Mid-Atlantic regions of the United States into Friday.

Additional Information

WIND: Catastrophic hurricane conditions continue on Grand Bahama Island. Do not venture out into the eye, as winds will suddenly increase after the eye passes.

Hurricane conditions are expected within the Hurricane Warning area in Florida by late tonight or Tuesday. Hurricane conditions are possible in the Hurricane Watch area on Wednesday.

Tropical storm conditions are expected within the Tropical Storm Warning area today and Tuesday, and are possible in the Tropical Storm Watch area by tonight.

STORM SURGE: A life-threatening storm surge will raise water levels by as much as 18 to 23 feet above normal tide levels in areas of onshore winds on Grand Bahama Island. Near the coast, the surge will be accompanied by large and destructive waves. Water levels should very slowly subside on the Abaco Islands during the day.

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 could reach the following heights above ground somewhere in the indicated areas if the peak surge occurs at the time of high tide:

Lantana to the Mouth of the St. Mary's River, FL: 4 to 7 feet
North of Deerfield Beach to Lantana: 2 to 4 feet

The surge will be accompanied by large and destructive waves. Surge-related flooding depends on the how close the center of Dorian comes to the Florida east coast and can vary greatly over short distances.

RAINFALL: Dorian is expected to produce the following rainfall totals through late this week:

Northwestern Bahamas: 12 to 24 inches, isolated 30 inches

Coastal Carolinas: 5 to 10 inches, isolated 15 inches

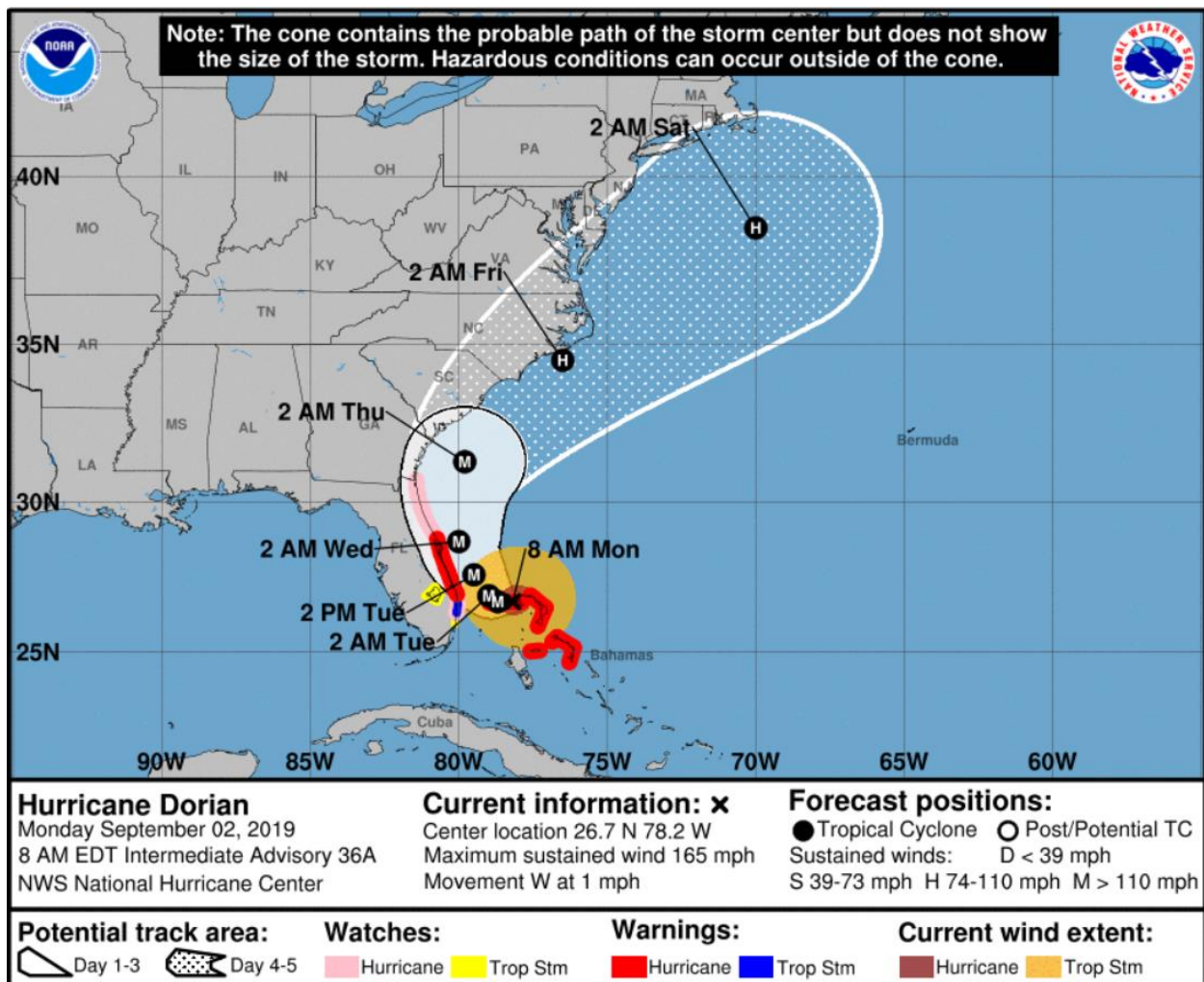
Central Bahamas & U.S. Coast from the FL peninsula through Georgia: 2 to 4 inches, isolated 6 inches

This rainfall may cause life-threatening flash floods.

SURF: Large swells are affecting east-facing shores of the Bahamas and the Florida east coast and will spread northward along the southeastern United States coast during the next few days. These swells are likely to cause life-threatening surf and rip current conditions.

TORNADOES: Isolated tornadoes are possible this afternoon into tonight along the immediate coast of east-central Florida.

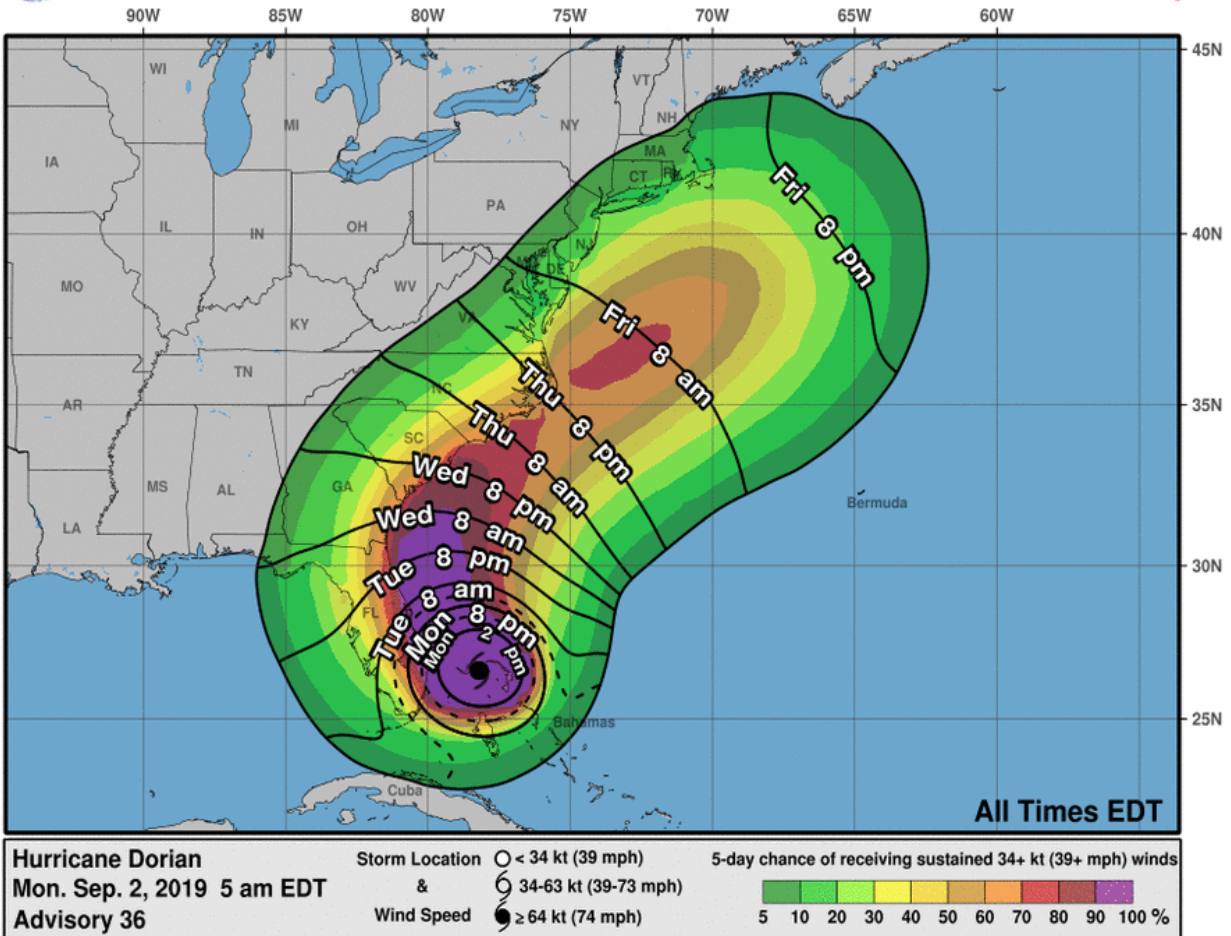
National Hurricane Center (NHC) Forecast



Most Likely Arrival Time of Tropical Storm-Force Winds



Most Likely Arrival Time of Tropical-Storm-Force Winds

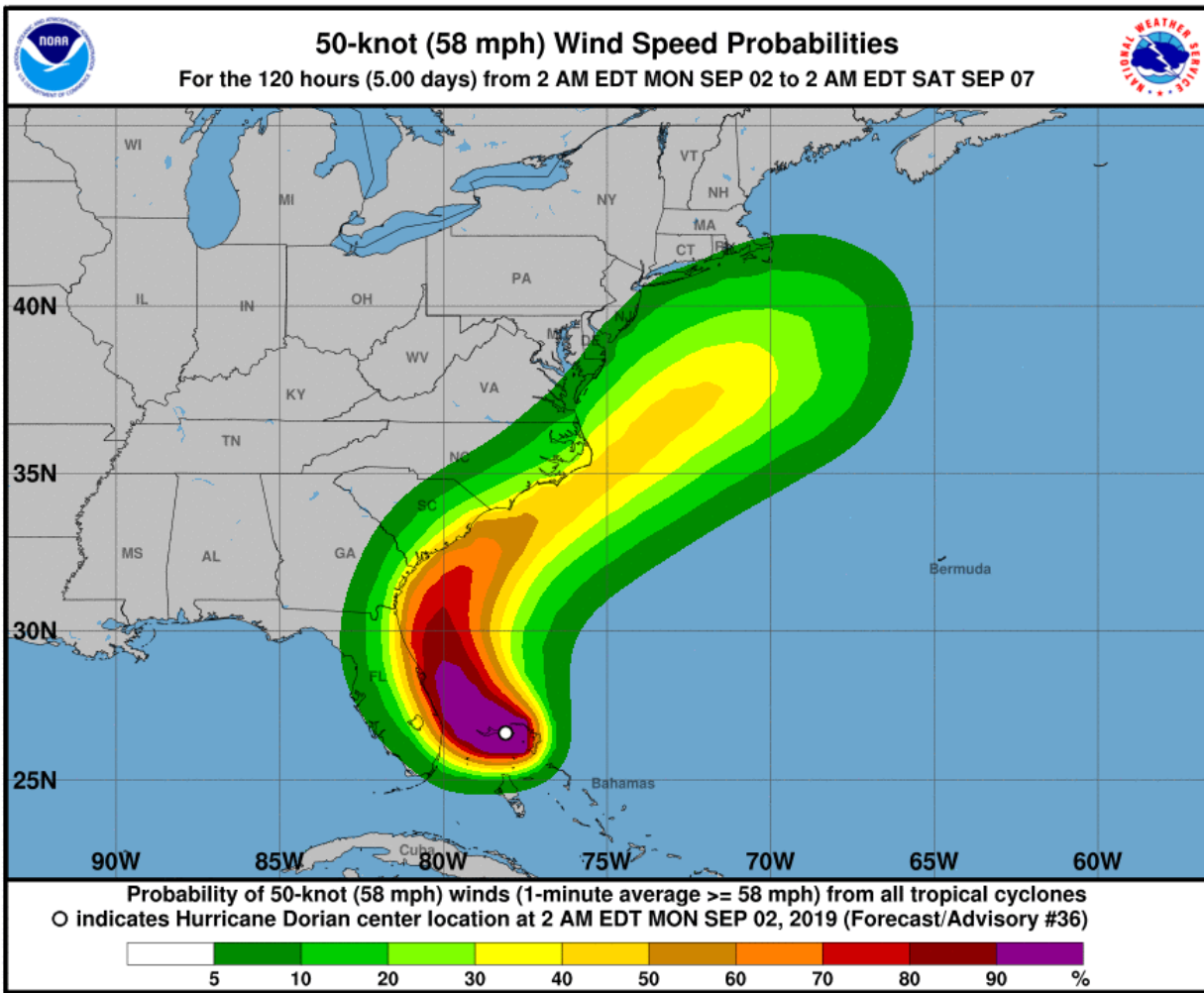


National Hurricane Center: Wind Speed Probabilities

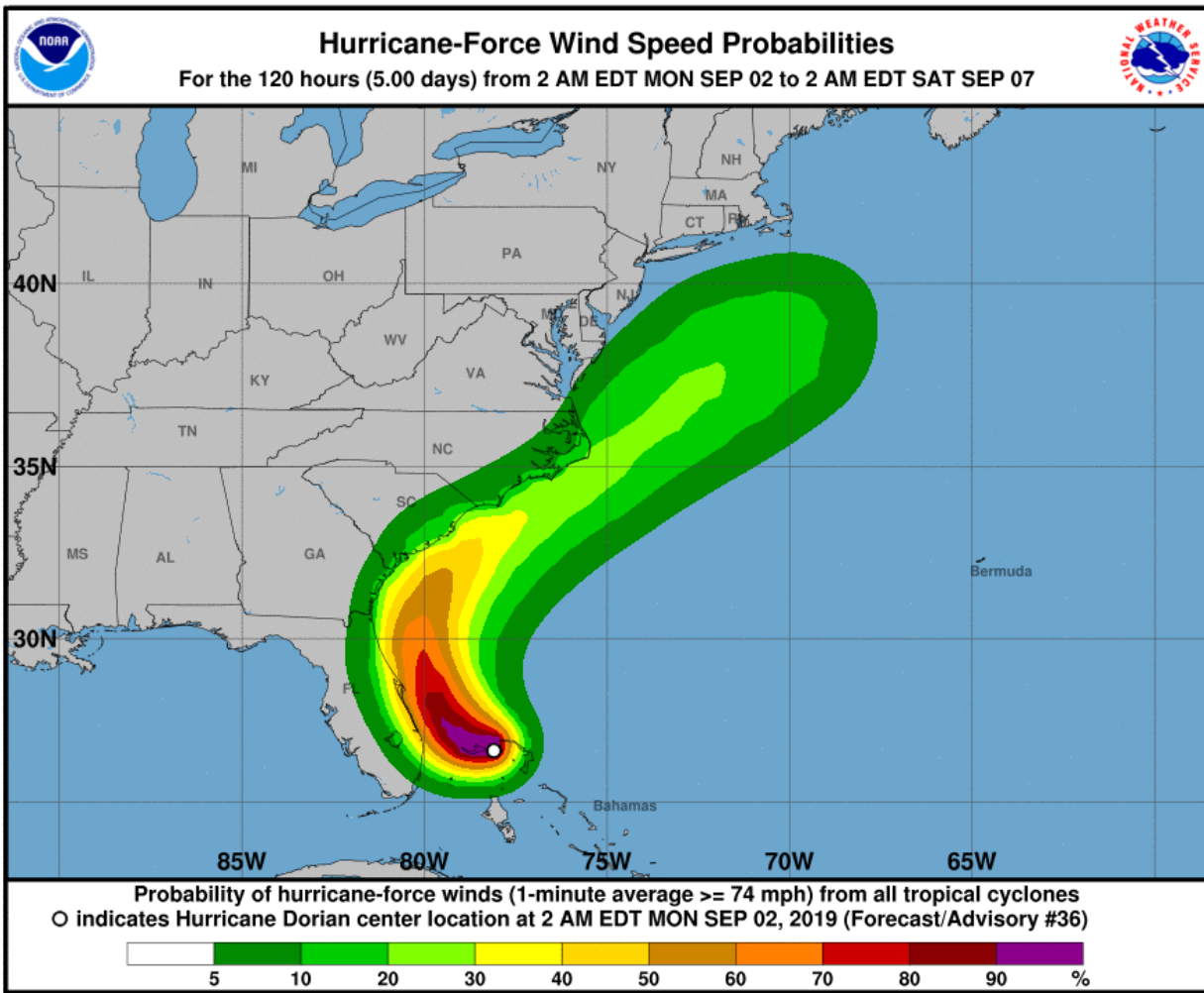
Tropical Storm-Force Wind Probabilities (≥ 40 mph (65 kph))



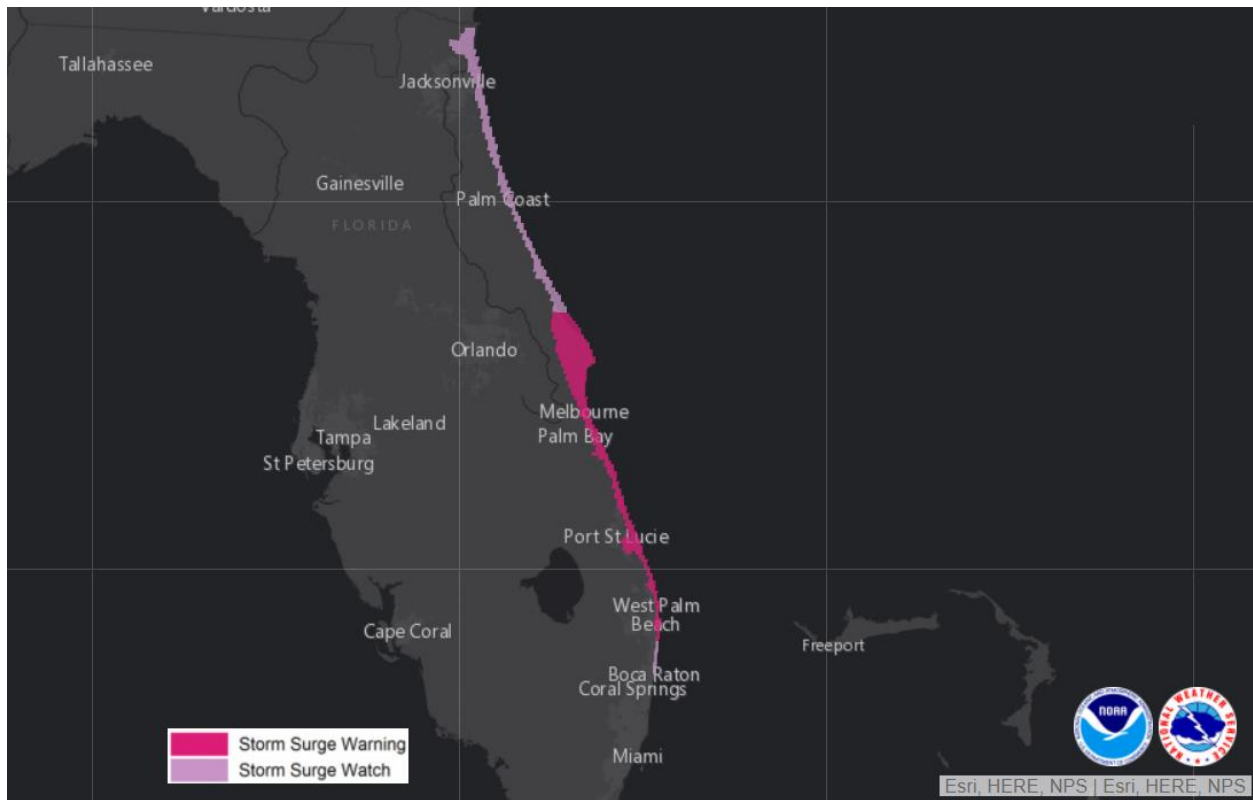
Wind Probabilities (≥ 60 mph (95 kph))



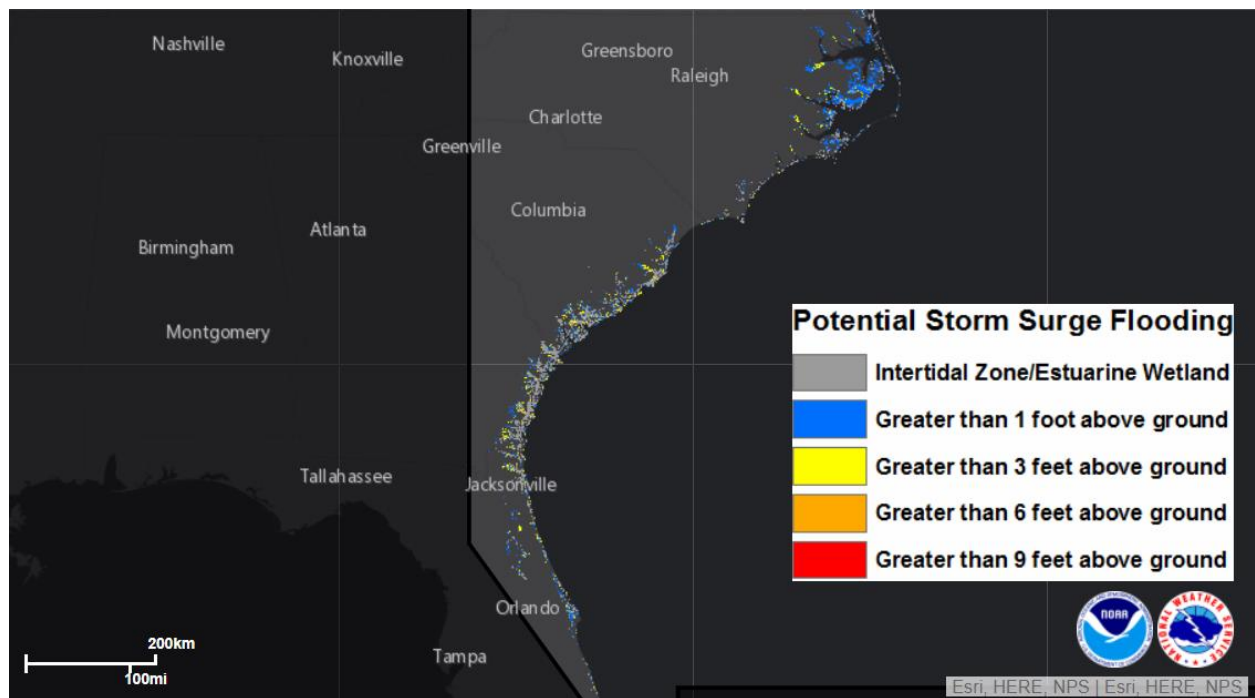
Hurricane-Force Wind Probabilities (≥ 75 mph (120 kph))



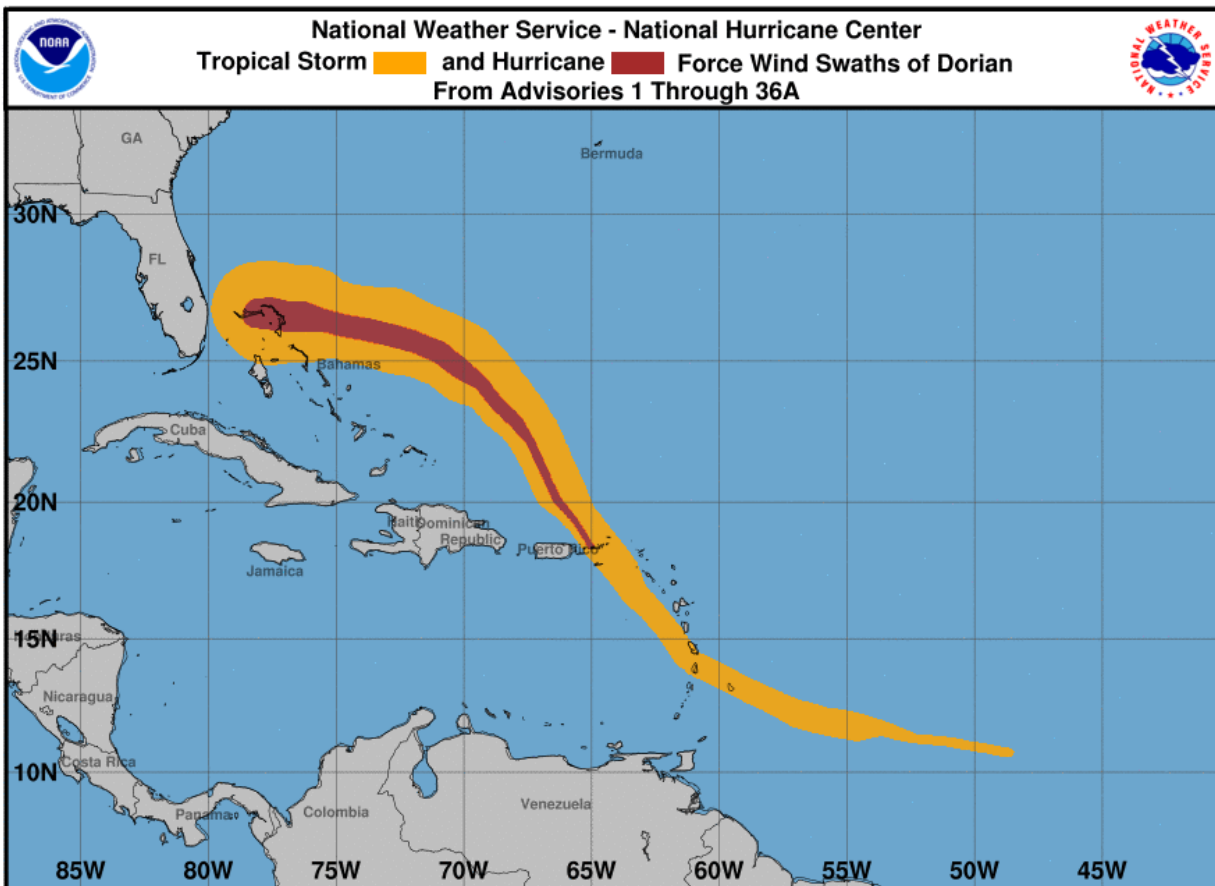
United States: Storm Surge Watches & Warnings



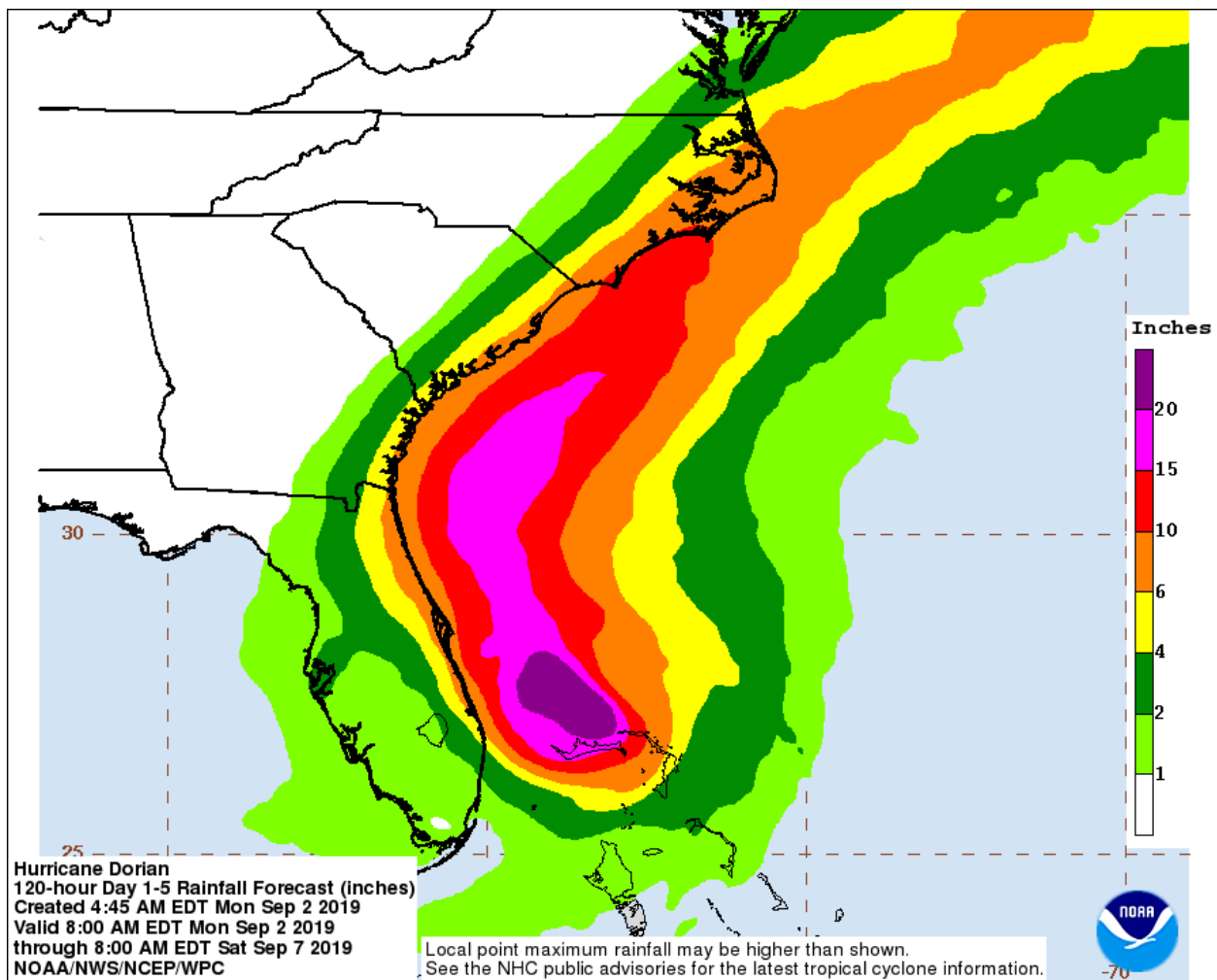
United States: Storm Surge Inundation



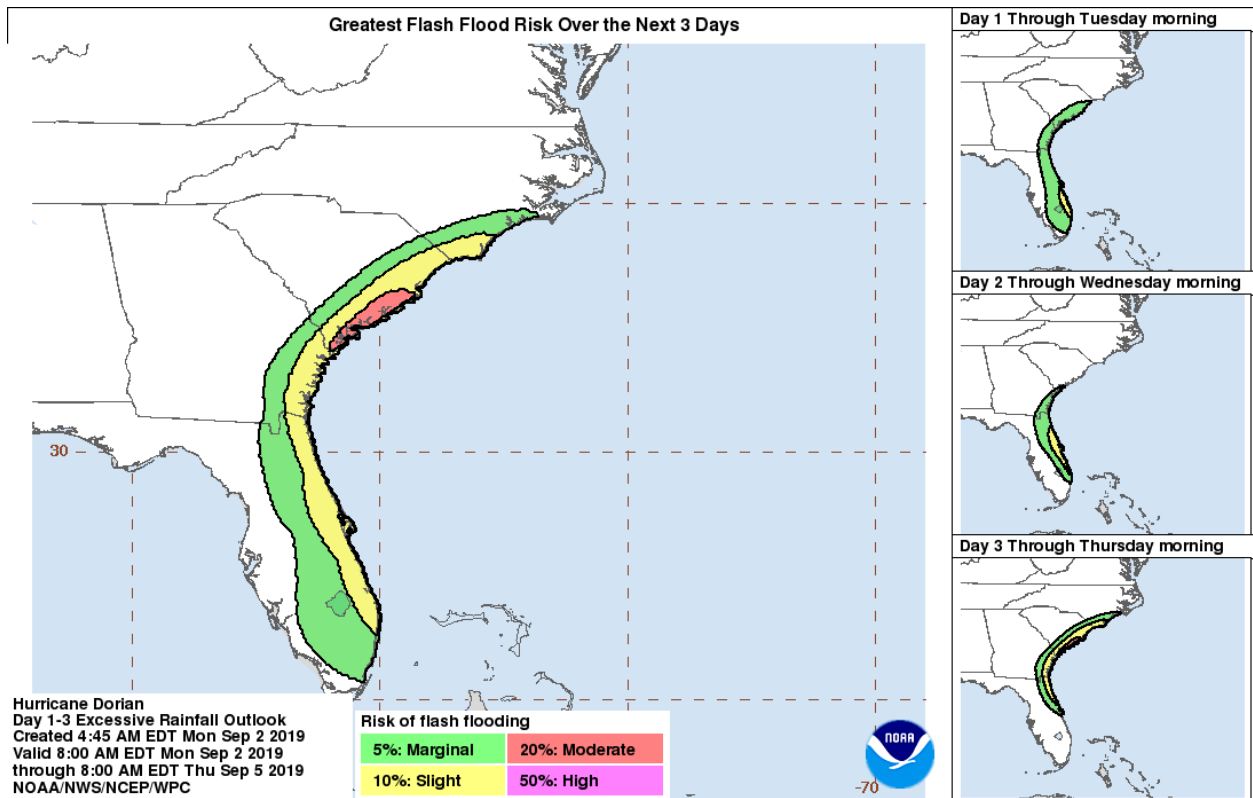
Wind Swath History



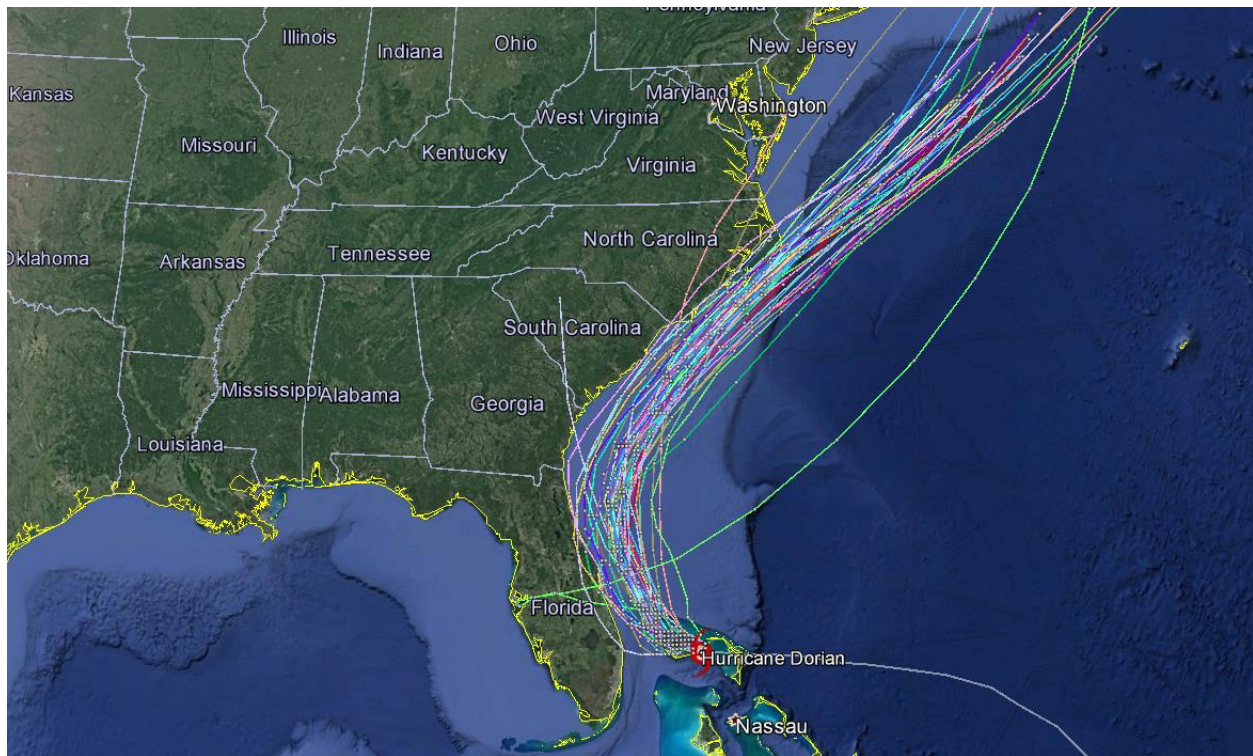
Weather Prediction Center: U.S. Rainfall Forecast



United States: 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: Monday 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			Severe Tropical Storm	Cat. 2 Tropical Cyclone	Cat. 2 Tropical Cyclone	Severe Tropical Storm	Severe Cyclonic Storm	
50	60	95								
55	65	100								
60	70	110								
65	75	120	Cat. 1 Hurricane	Typhoon	Typhoon	Cat. 3 Severe Tropical Cyclone	Cat. 3 Severe Tropical Cyclone	Tropical Cyclone	Very Severe Cyclonic Storm	
70	80	130								
75	85	140								
80	90	150	Cat. 2 Hurricane			Intense Tropical Cyclone				
85	100	160								
90	105	170								
95	110	175	Cat. 3 Major Hurricane			Super Typhoon				
100	115	185								
105	120	195								
110	125	205	Cat. 4 Major Hurricane							
115	130	210								
120	140	220								
125	145	230								
130	150	240	Cat. 5 Major Hurricane							
135	155	250								
140	160	260								
>140	>160	>260								

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