

Current Watches and Warnings

A *Hurricane Warning* is in effect for Grand Bahama and the Abacos Islands in the northwestern Bahamas; Jupiter Inlet to Ponte Vedra Beach, FL

A *Storm Surge Warning* is in effect from Lantana, FL to Altamaha Sound, GA

A *Hurricane Watch* is in effect from north of Deerfield Beach to Jupiter Inlet, FL; north of Ponte Vedra Beach to South Santee River, SC

A *Storm Surge Watch* is in effect from north of Deerfield Beach to south of Lantana, FL; Altamaha Sound, GA to South Santee River, SC

A *Tropical Storm Warning* is in effect from north of Deerfield Beach to Jupiter Inlet, 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: 26.8° north, 78.4° west

LOCATION: 25 miles (40 kilometers) northeast of Freeport, Grand Bahama Island

MOVEMENT: Stationary

WINDS: 145 mph (230 kph) with gusts to 170 mph (275 kph)

RADIUS OF TROPICAL STORM-FORCE WINDS: 150 miles (240kilometers)

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

MINIMUM CENTRAL PRESSURE: 940 millibars

SAFFIR-SIMPSON SCALE RANKING*: Category 4

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

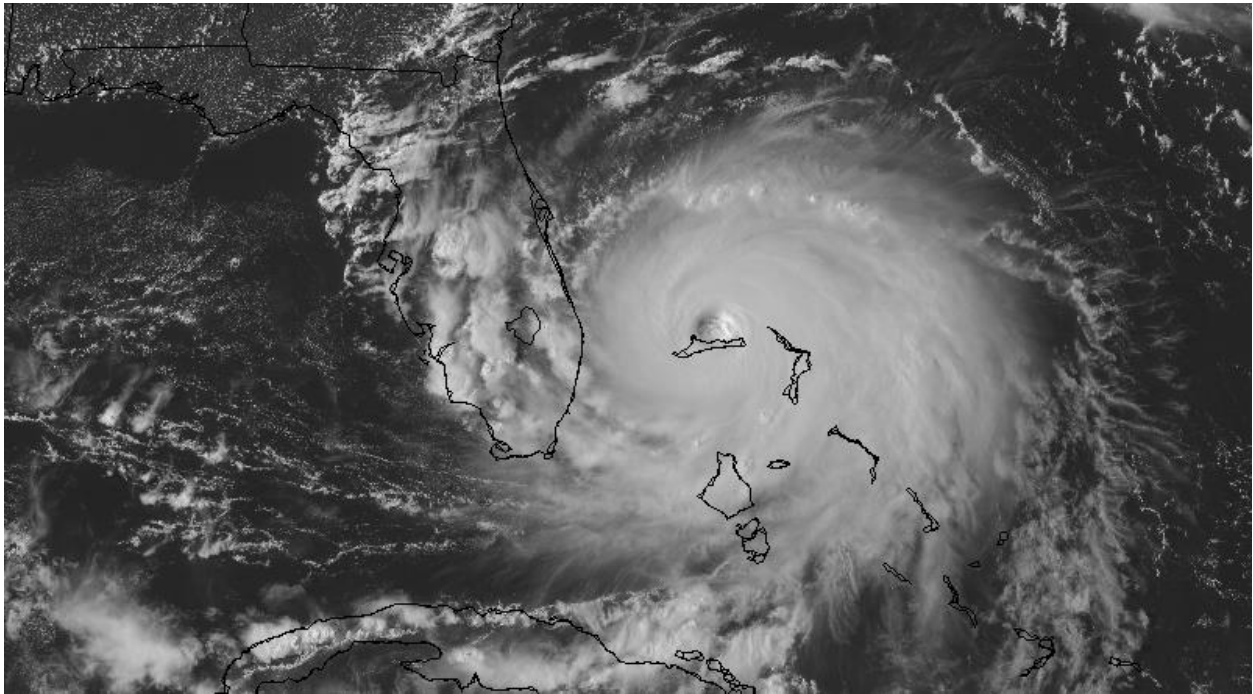
1st LANDFALL TIMEFRAME: approximately 12:45 PM local time (16:45 UTC) September 1

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

Latest Satellite Picture



Source: NASA/NOAA

Discussion

Hurricane Dorian, located approximately 25 miles (40 kilometers) northeast of Freeport, Grand Bahama Island and is currently stationary. Dorian remains an impressive hurricane in satellite imagery. Recent radar and aircraft observations are again showing signs of a concentric eyewall structure which might be one of the factors that has led to a decrease in the peak winds and a small expansion of the wind field. An Air Force Reserve Hurricane Hunter aircraft recently reported that flight-level and surface-adjusted winds have decreased, and the minimum central pressure has risen to 940 millibars. Based on these observations, the NHC has set the initial wind speed 145 mph (230 kph). Dorian remains a powerful Category 4 storm. Some additional decrease in wind speed is likely in the short term due to a possible eyewall replacement cycle and upwelling of cooler waters caused by the very slow motion of the hurricane. Although some additional slow weakening is forecast while the hurricane moves northward along the southeastern United States coastline due to increasing southwesterly shear, Dorian is forecast to remain a strong hurricane during that time.

Dorian has become nearly stationary this afternoon with the two most recent aircraft fixes showing essentially no motion. A slow westward to west-northwestward motion should resume overnight and continue into early Tuesday, with the eye and devastating winds only slowly pulling away from Grand Bahama Island. By Tuesday afternoon, Dorian should begin its much anticipated northwestward turn as a weakness becomes more pronounced in the steering ridge of high pressure. Although the center of Dorian is forecast to move near, but parallel to, the Florida east coast, only a small deviation of the track toward the west would bring the core of the hurricane onshore. An approaching frontal boundary should help turn Dorian northeastward by Wednesday night, and the track models show the center coming very close to the U.S. Southeast coast. The forecast models have remained largely consistent in their tracks.

Users are reminded that the hurricane is not a point, and that life-threatening storm surge and hurricane-force winds extend far from the center. Regardless of the exact forecast track, strong winds and a life-threatening storm surge are likely along a portion of the U.S east coast from Florida through the Carolinas.

Key Messages from the National Hurricane Center

1. Devastating winds and storm surge will continue to affect Grand Bahama Island through tonight. Everyone there should remain in shelter and not venture into the eye.
2. Life-threatening storm surge and dangerous hurricane-force winds are expected along portions of the Florida east coast and the coasts of Georgia and South Carolina, regardless of the exact track of Dorian's center. Water levels could begin to rise well in advance of the arrival of strong winds. Residents in these areas should follow advice given by local emergency officials.
3. The risk of life-threatening storm surge and hurricane-force winds continues to increase along the coast North Carolina. Residents in these areas should follow 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 through Friday.

Additional Information

WIND: Devastating 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 Tuesday. Hurricane conditions are possible in the Hurricane Watch area beginning Wednesday.

Tropical storm conditions are expected within the Tropical Storm Warning area through 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 12 to 18 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 South Santee River: 4 to 7 feet
North of Deerfield Beach to Lantana: 2 to 4 feet

Water levels could begin rise well in advance of the arrival of strong winds. 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 coast and can vary greatly over short distances.

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

Northwestern Bahamas: Additional 6 to 12 inches, isolated storm totals of 30 inches

Central Bahamas: Additional 1 to 3 inches, isolated storm totals of 6 inches

Coastal Carolinas: 5 to 10 inches, isolated 15 inches

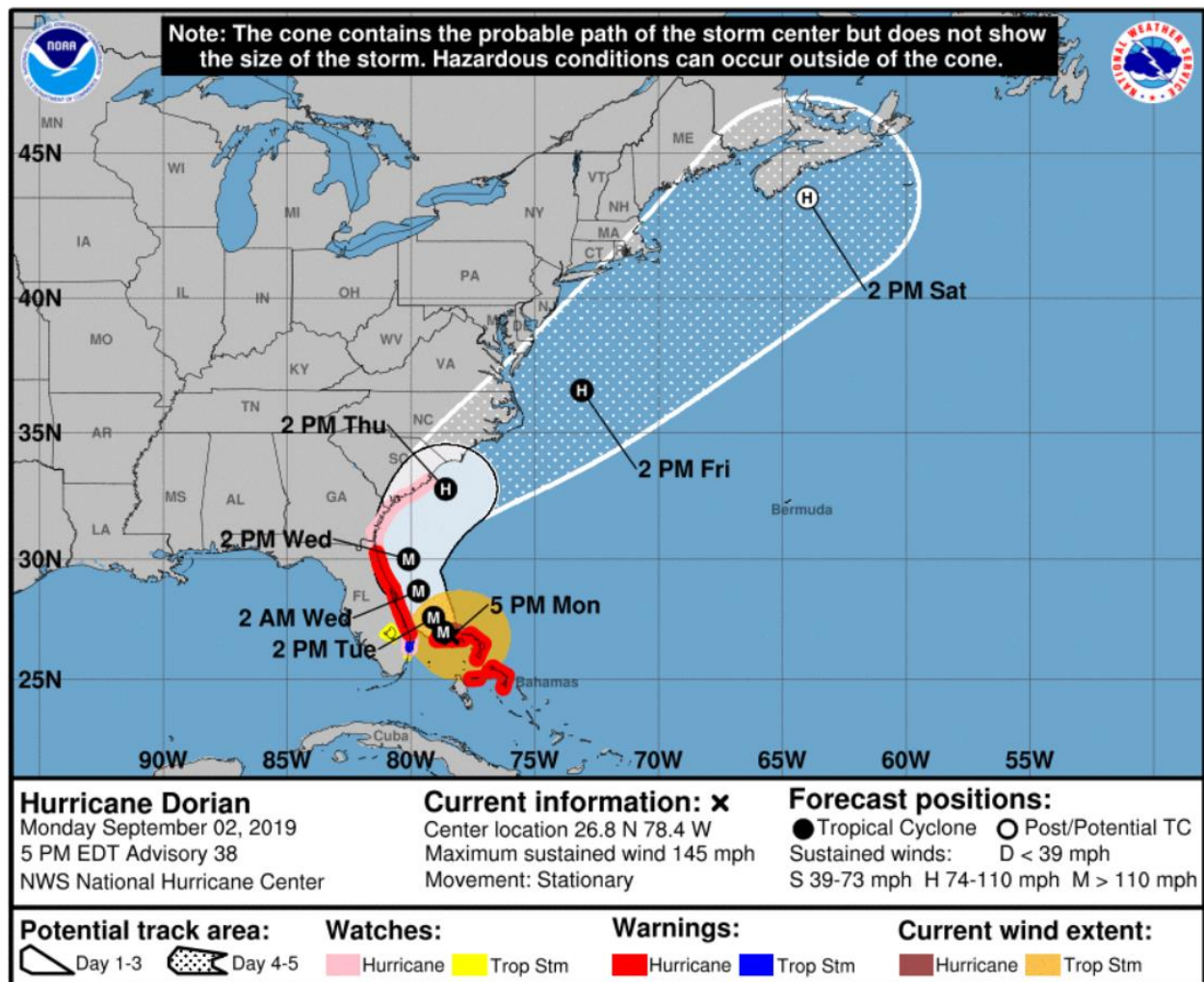
Atlantic Coast from the Florida peninsula through Georgia: 4 to 8 inches, isolated 10 inches

This rainfall may cause life-threatening flash floods.

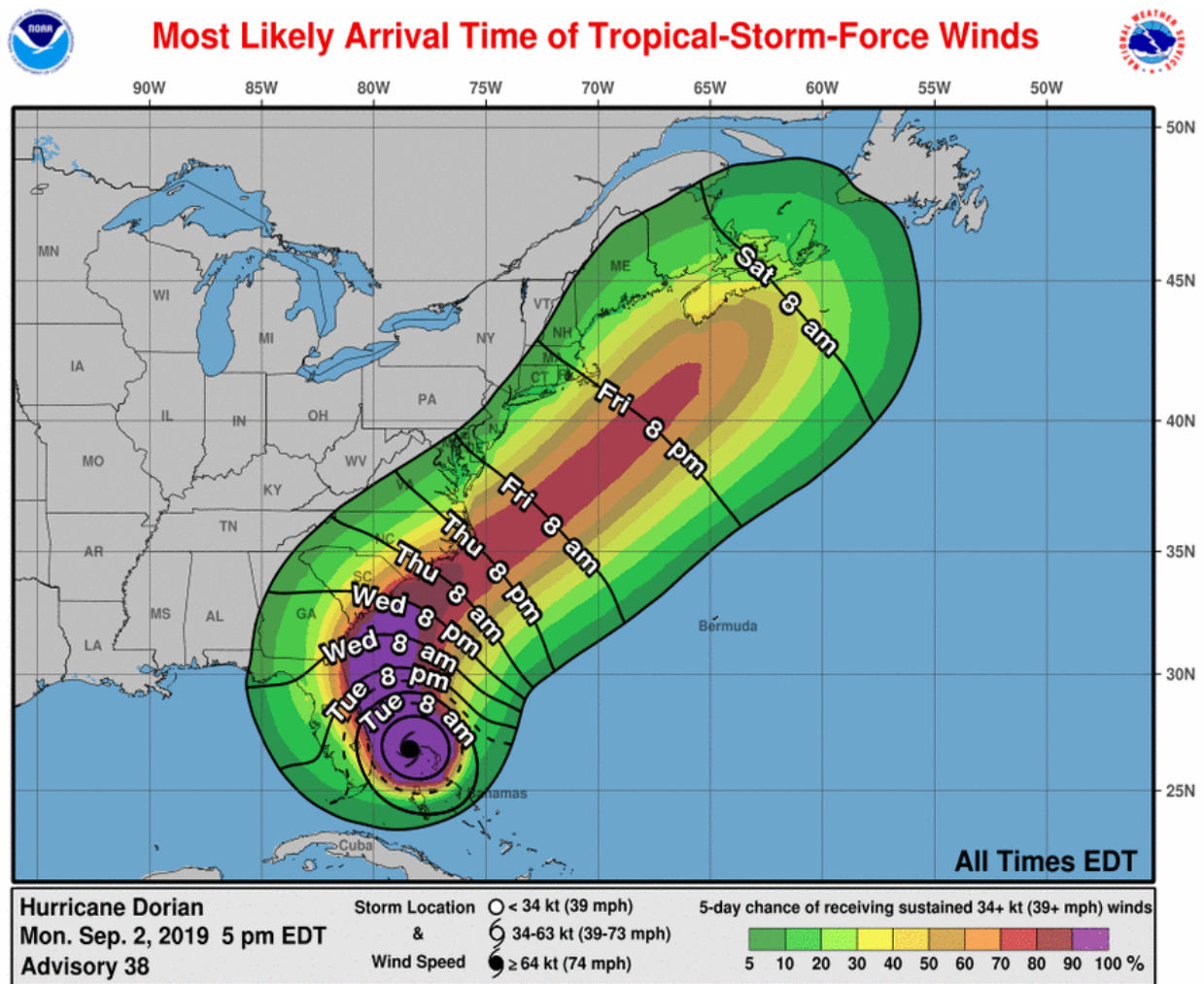
SURF: Large swells are affecting east-facing shores of the Bahamas and the Florida east coast and will spread northward along the southeastern United States coast during the next few days. These swells are likely to cause life-threatening surf and rip current conditions.

TORNADOES: Isolated tornadoes are possible through Tuesday along the eastern coast of Florida.

National Hurricane Center (NHC) Forecast

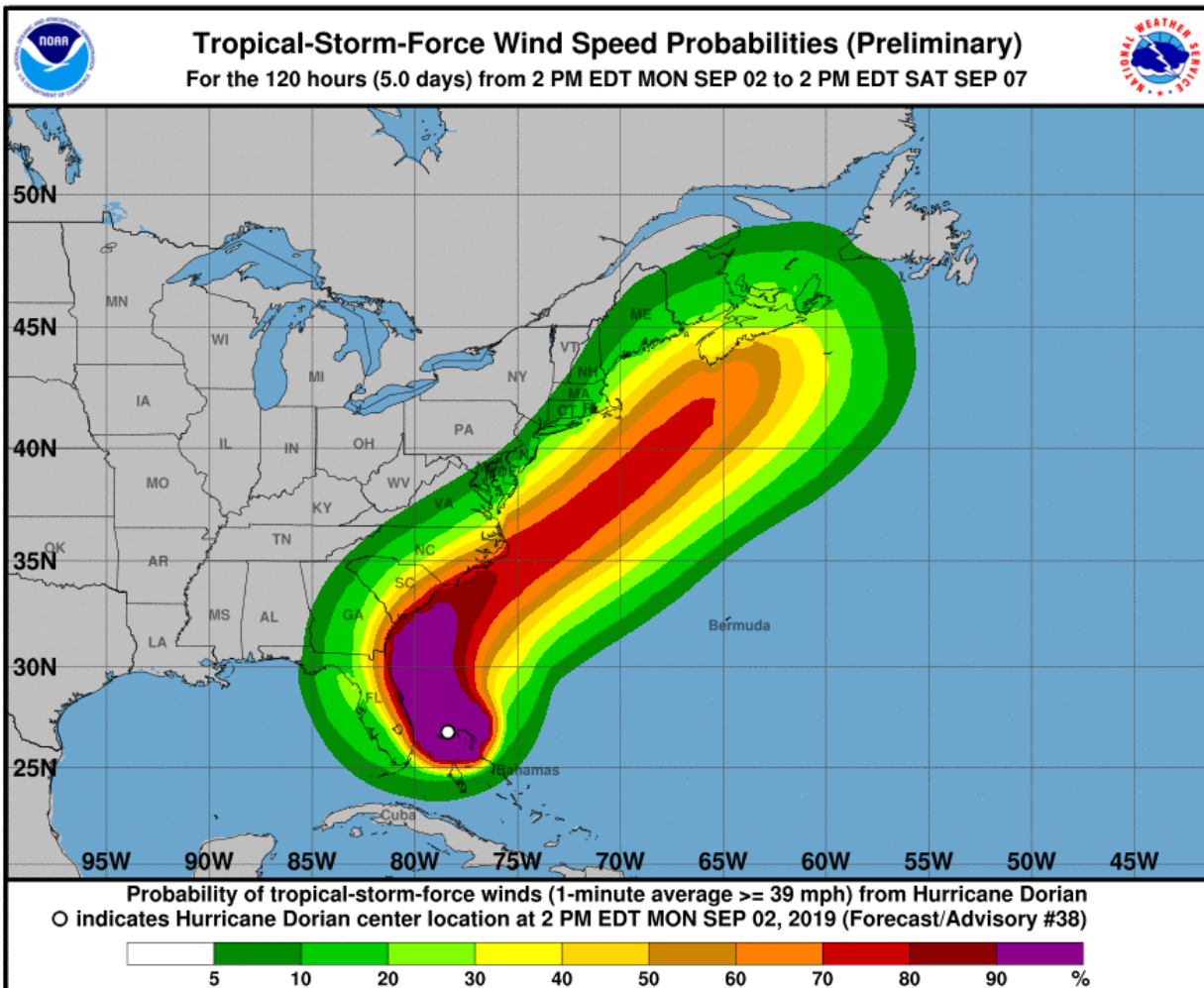


Most Likely Arrival Time of Tropical Storm-Force Winds

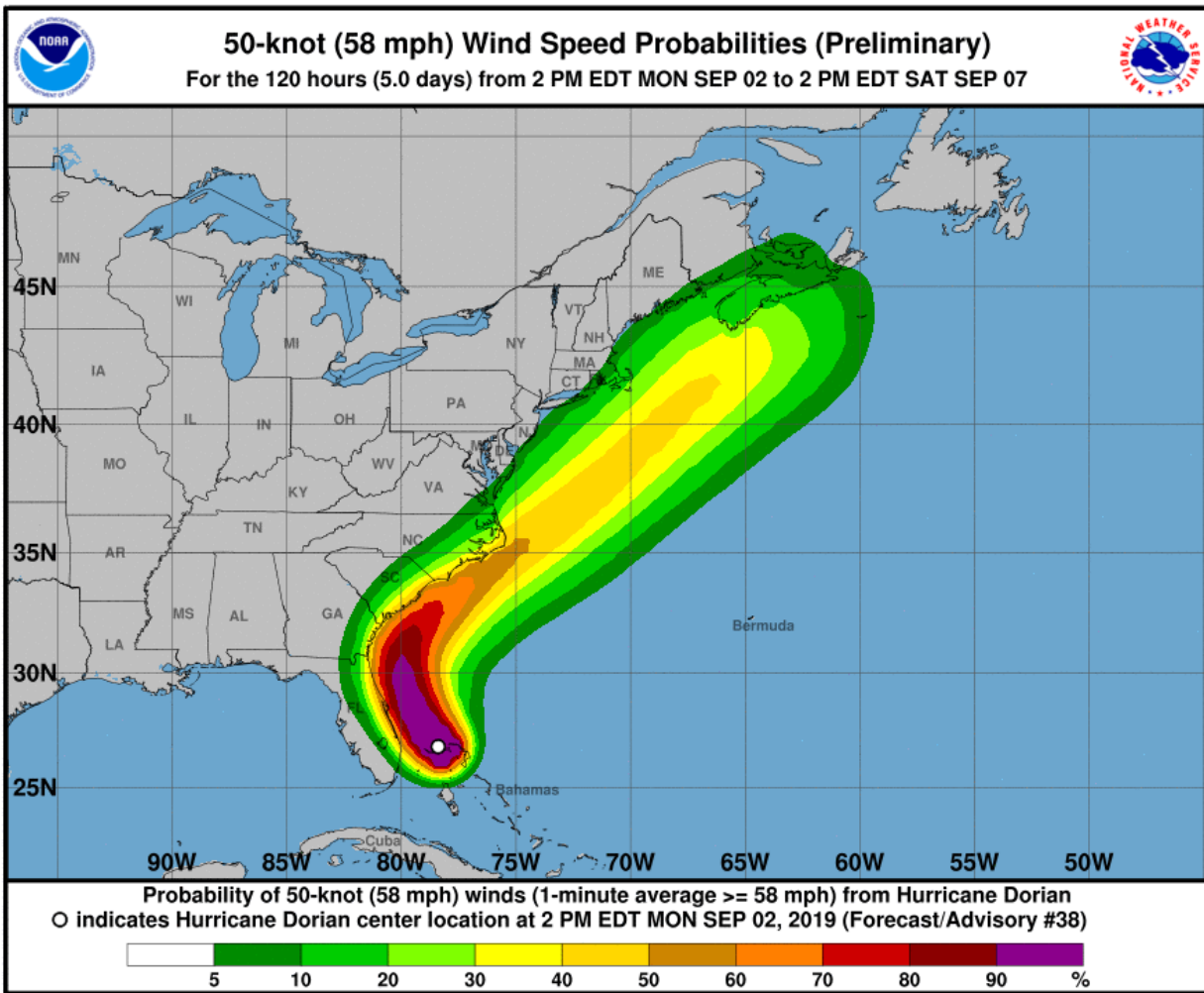


National Hurricane Center: Wind Speed Probabilities

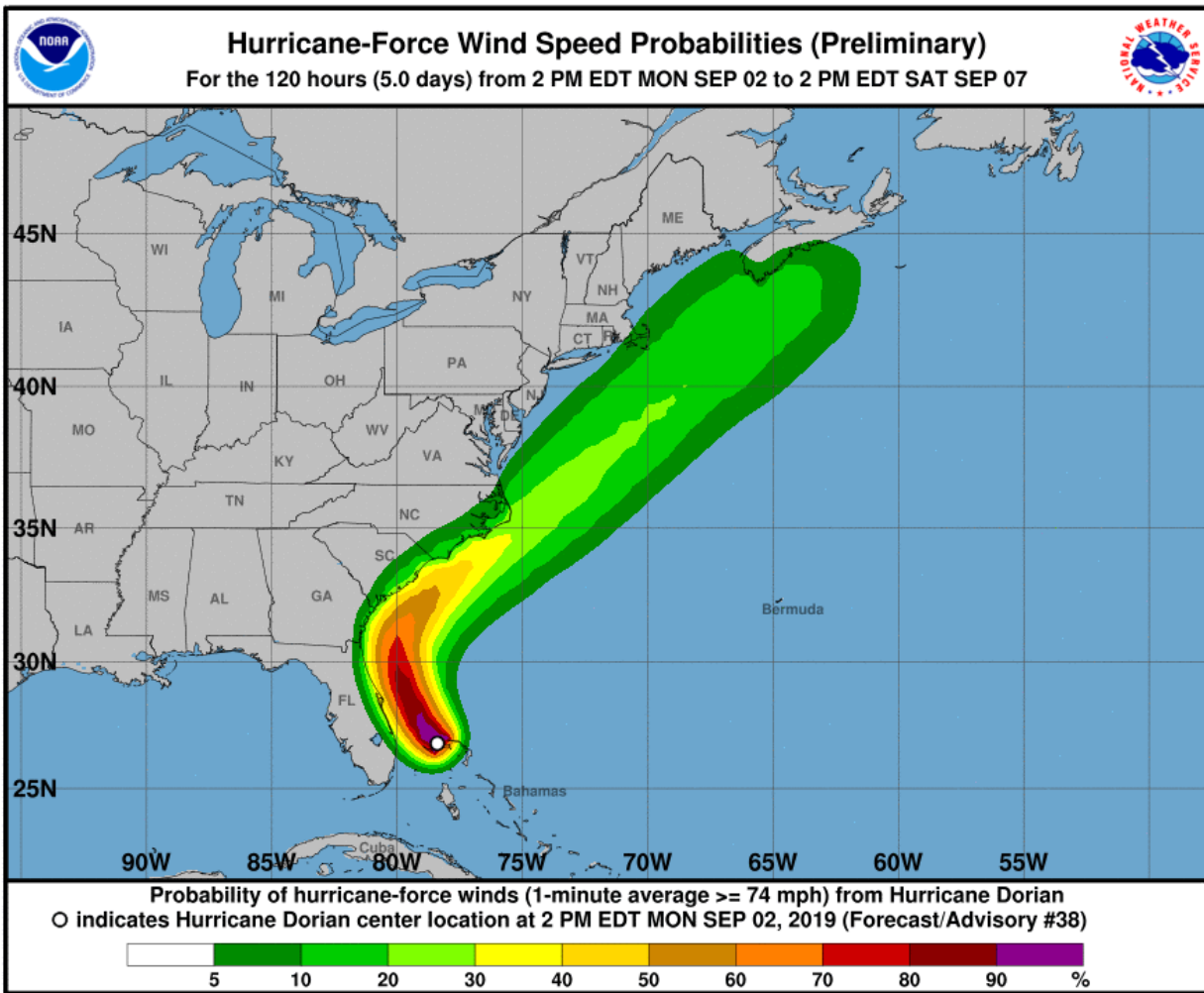
Tropical Storm-Force Wind Probabilities (≥ 40 mph (65 kph))



Wind Probabilities (≥ 60 mph (95 kph))



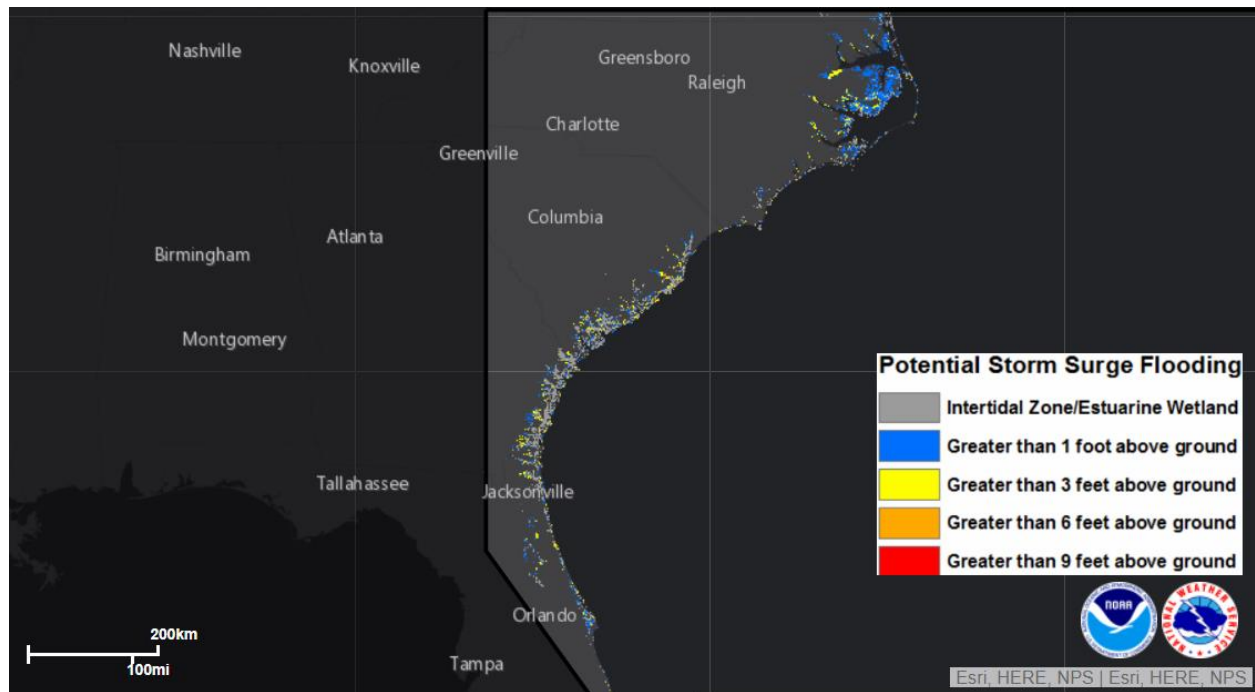
Hurricane-Force Wind Probabilities (≥ 75 mph (120 kph))



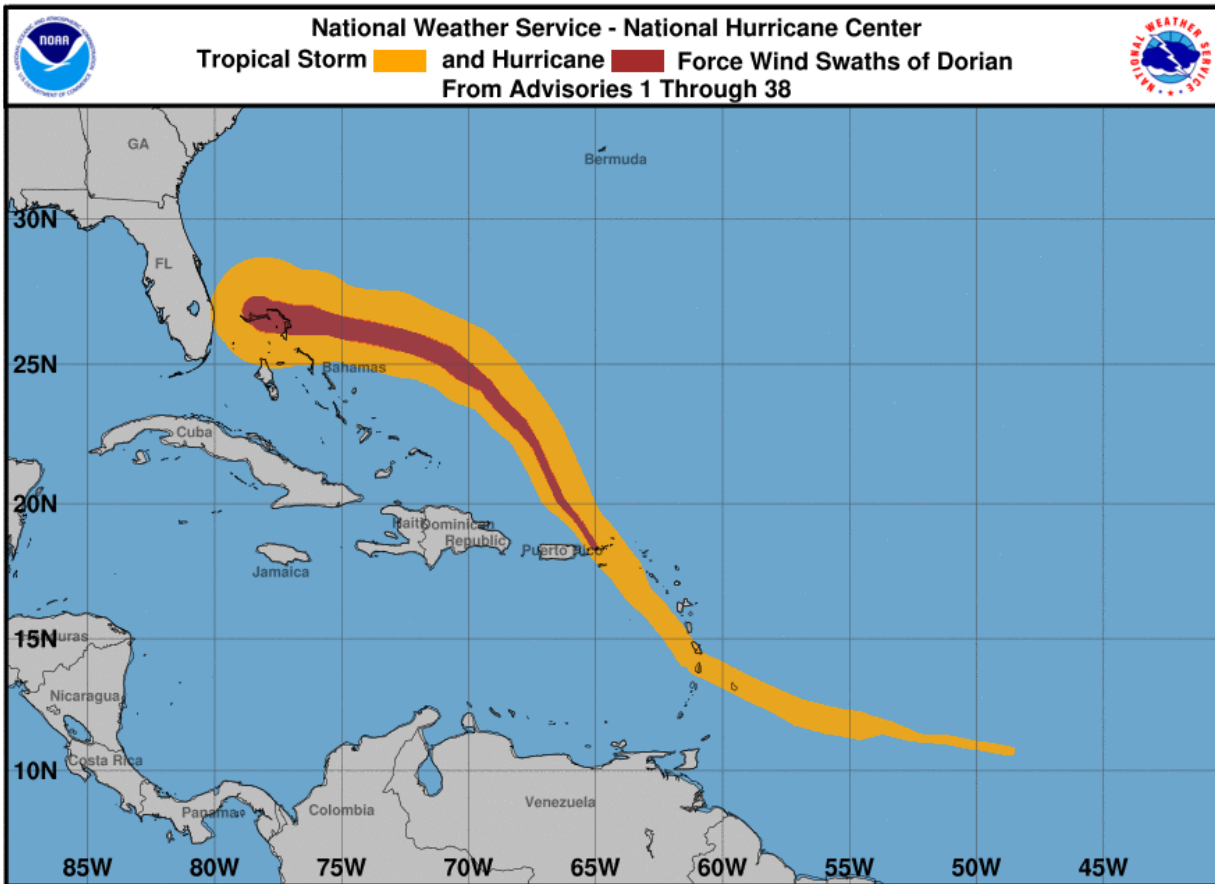
United States: Storm Surge Watches & Warnings



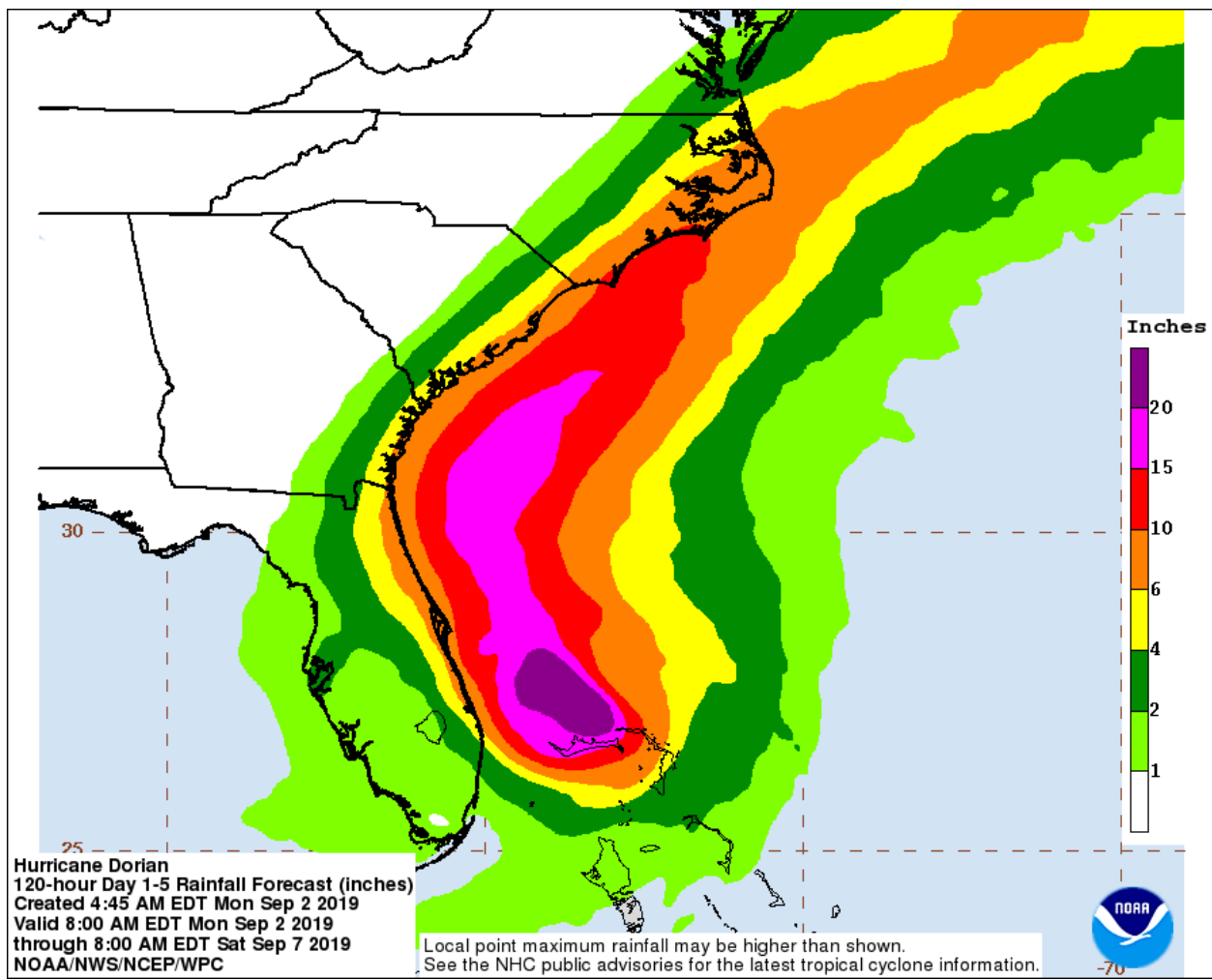
United States: Storm Surge Inundation



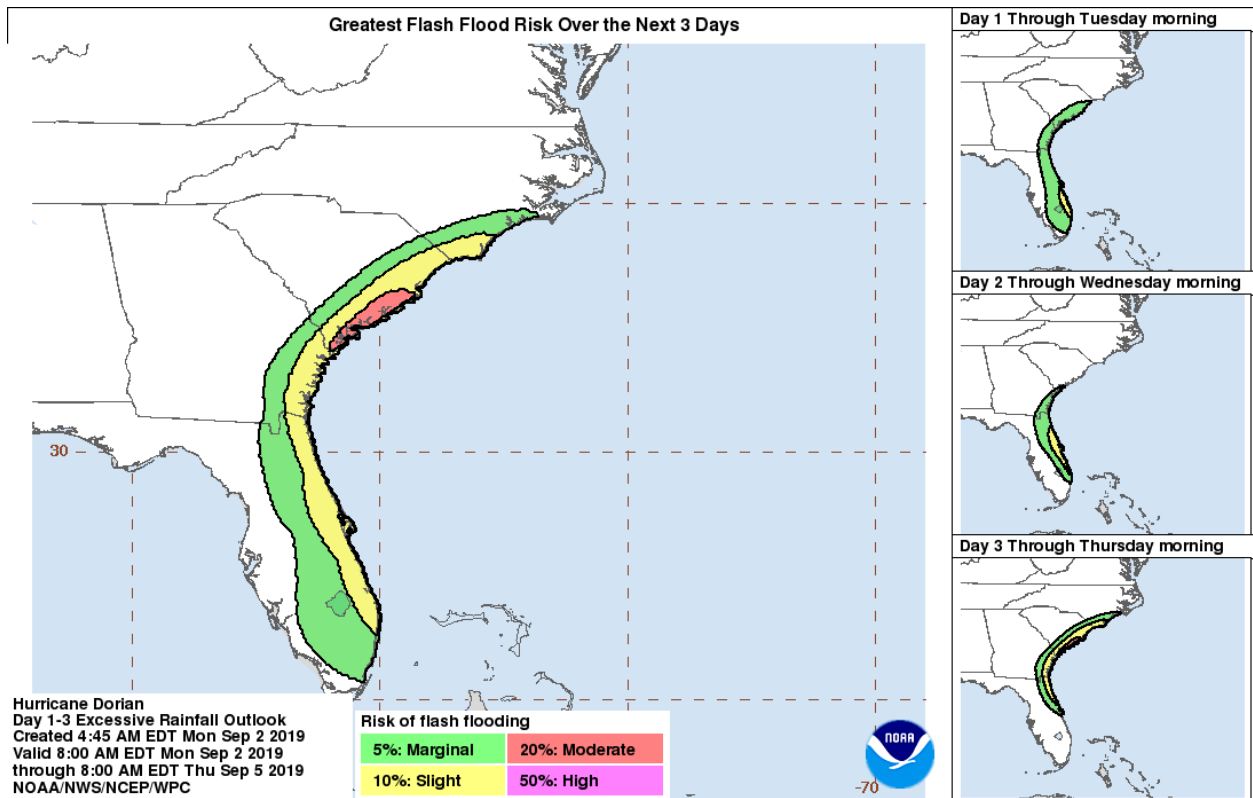
Wind Swath History



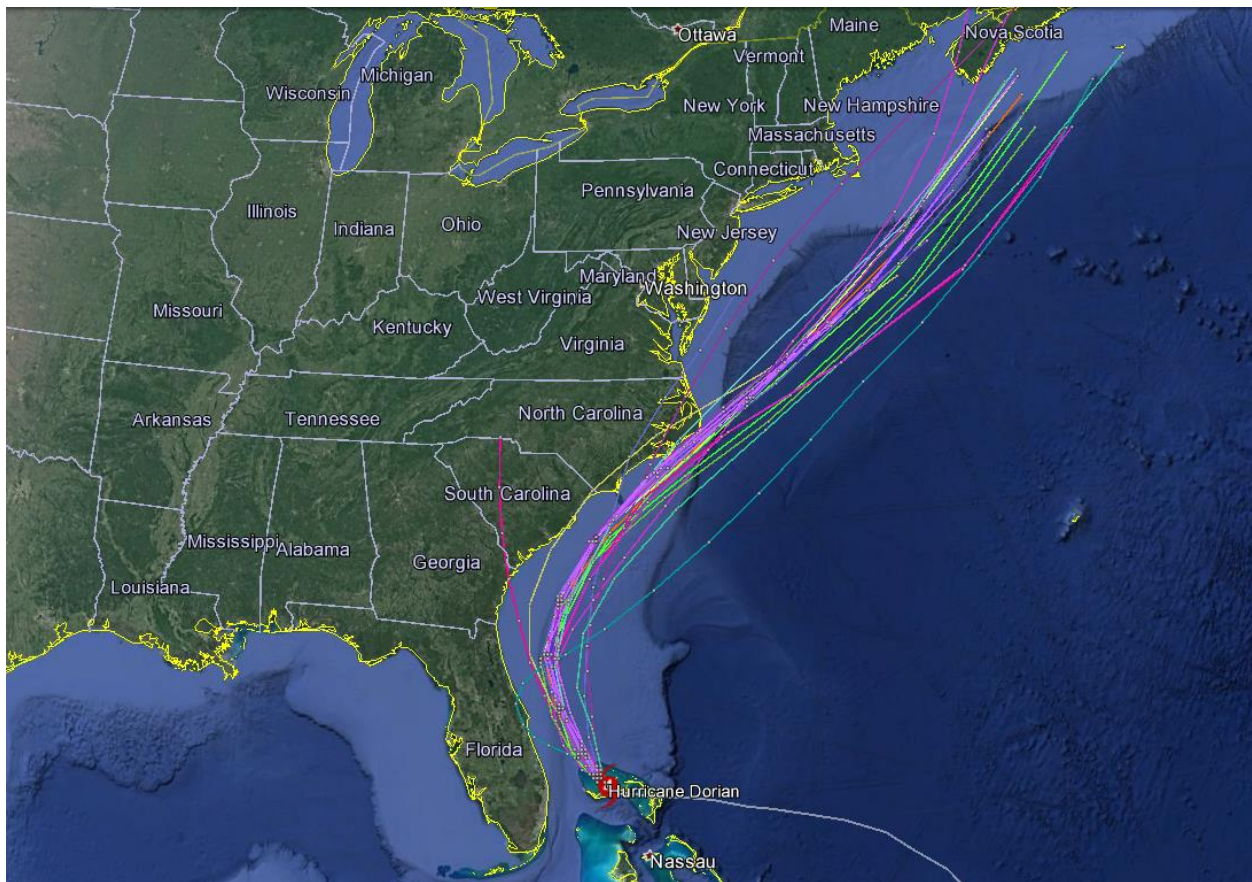
Weather Prediction Center: U.S. Rainfall Forecast



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: Tuesday morning after 10:00 AM Central Time (15:00 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			Cat. 4 Severe Tropical Cyclone	Cat. 4 Severe Tropical Cyclone	Intense Tropical Cyclone		
85	100	160								
90	105	170								
95	110	175	Cat. 3 Major Hurricane			Super Typhoon	Cat. 5 Severe Tropical Cyclone	Cat. 5 Severe Tropical Cyclone	Very Intense Tropical Cyclone	Super Cyclonic Storm
100	115	185								
105	120	195								
110	125	205								
115	130	210	Cat. 4 Major Hurricane		Cat. 5 Major Hurricane					
120	140	220								
125	145	230								
130	150	240								
135	155	250	Cat. 5 Major Hurricane							
140	160	260								
>140	>160	>260								

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