

## Current Watches and Warnings

A *Hurricane Warning* is in effect from Sebastian Inlet, FL to Ponte Vedra Beach, FL; north of Savannah River to Surf City, NC

A *Storm Surge Warning* is in effect from Jupiter Inlet, FL to Surf City, NC

A *Hurricane Watch* is in effect from north of Ponte Vedra Beach, FL to Savannah River; north of Surf City, NC to the North Carolina/Virginia border; Albemarle and Pamlico Sounds (NC)

A *Tropical Storm Warning* is in effect for Grand Bahama and the Abacos Islands in the northwestern Bahamas; north of Ponte Vedra Beach, FL to Savannah River; Jupiter Inlet, FL to Sebastian Inlet, FL

A *Tropical Storm Watch* is in effect from the North Carolina/Virginia border to Chincoteague, VA; Chesapeake Bay from Smith Point southward

A *Storm Surge Watch* is in effect from north of Surf City, NC to Duck, NC; Pamlico and Albemarle Sounds (NC); Neuse and Pamlico Rivers (NC)

## Current Details from the National Hurricane Center (NHC)

**COORDINATES:** 27.7° north, 78.7° west

**LOCATION:** 125 miles (200 kilometers) east-southeast of Cape Canaveral, Florida

**MOVEMENT:** northwest at 6 mph (9 kph)

**WINDS:** 110 mph (175 kph) with gusts to 130 mph (210 kph)

**RADIUS OF TROPICAL STORM-FORCE WINDS:** 175 miles (280 kilometers)

**RADIUS OF HURRICANE-FORCE WINDS:** 60 miles (95 kilometers)

**MINIMUM CENTRAL PRESSURE:** 959 millibars

**SAFFIR-SIMPSON SCALE RANKING\*:** Category 2

**1<sup>st</sup> LANDFALL LOCATION:** Elbow Cay, Abaco Islands, Bahamas

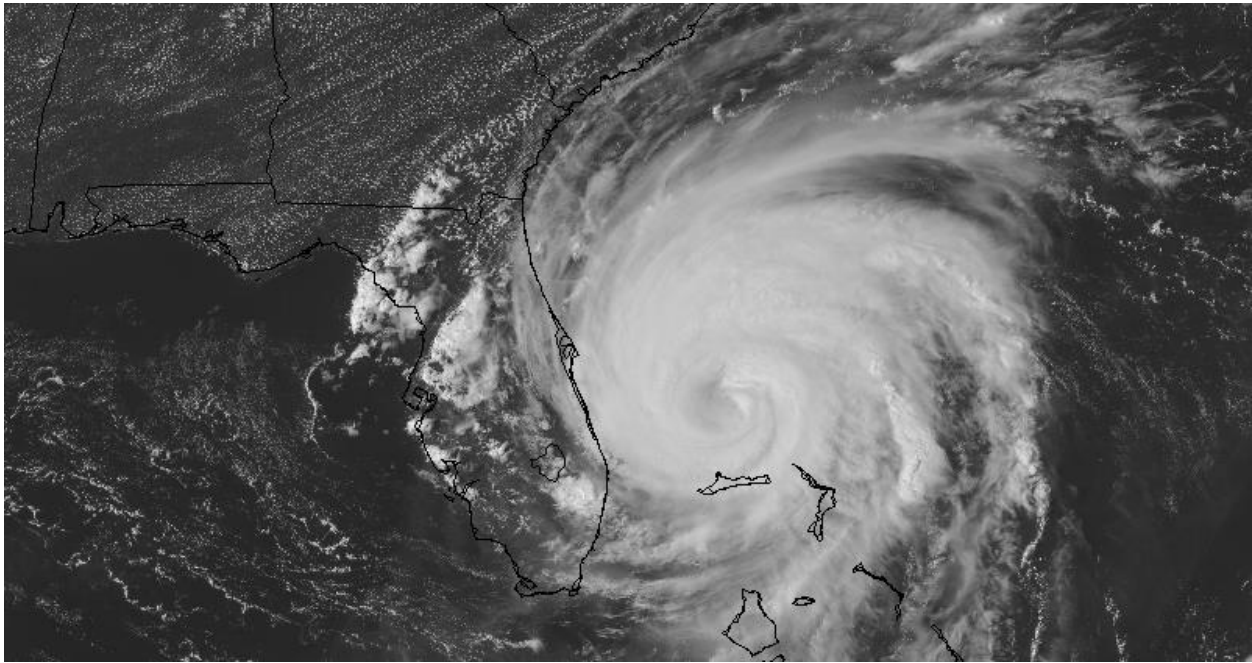
**1<sup>st</sup> LANDFALL TIMEFRAME:** approximately 12:40 PM local time (16:40 UTC) September 1

**1<sup>st</sup> 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:** LOW/MEDIUM

## Latest Satellite Picture



Source: NASA/NOAA

## Discussion

Hurricane Dorian, located approximately 125 miles (200 kilometers) east-southeast of Cape Canaveral, Florida and is currently tracking northwest at 6 mph (9 kph). Dorian has finally begun a more definitive northwestward motion this afternoon. The satellite presentation of the hurricane has become slightly better as the large eye is once again a bit more apparent. Reconnaissance aircraft data continues to show an expansion of the tropical storm and 60 mph (95 kph) wind radii, and it is likely that the area of hurricane-force winds will also increase somewhat during the next 24 to 36 hours. The initial intensity remains 110 mph (175 kph) and is a blend of the earlier reconnaissance data and the latest satellite estimates. Dorian will be moving northwestward across untapped waters east of the Florida peninsula, which may lead to some structural re-organization, but little overall change in intensity is expected during the next couple of days. After that time, a gradual decrease in the peak wind speed and an increase in storm size are predicted while the vertical wind shear increases and the storm moves farther north. An approaching mid-latitude frontal boundary will begin interacting with the hurricane on Saturday and Dorian is forecast to become a powerful extratropical low in about five days.

Dorian is now moving northwestward, and the dip in the jet stream along the U.S. East Coast is expected to amplify on Wednesday, which should cause Dorian to move at a slightly faster north-northwestward motion tonight and Wednesday. After that time, Dorian should turn northward, and then north-northeastward ahead of another frontal boundary moving into the eastern United States. Once Dorian is offshore of eastern North Carolina, it should accelerate northeastward within the mid-latitude westerlies. The forecast model guidance has edged closer to the coasts of South Carolina and North Carolina and the NHC track has been adjusted in that direction. A track that close to the coast, even if landfall does not occur, is likely to bring dangerous winds, life-threatening storm surge, and flooding rains across the eastern portions of the Carolinas.

### Key Messages from the National Hurricane Center

1. Life-threatening storm surge and dangerous winds are expected along portions of the Florida east coast and the coasts of Georgia, South Carolina, and North Carolina, regardless of the exact track of Dorian's center. Water levels could rise well in advance of the arrival of strong winds. Residents in these areas should follow advice given by local emergency officials.
2. The risk of wind and rain impacts along portions of the Virginia coast and the southern Chesapeake Bay are increasing. Residents in these areas should continue to monitor the progress of Dorian.
3. The flash flood threat will increase tonight along the Florida east coast and then spread up the Southeast and Mid-Atlantic coast during the middle and latter part of the week.

### Additional Information

WIND: Tropical storm conditions will continue on Grand Bahama Island and along the Treasure Coast of Florida tonight. Tropical storm conditions are expected to begin within the Tropical Storm Warning area in north Florida and Georgia late tonight or early Wednesday.

Hurricane conditions are expected somewhere within the Hurricane Warning area in Florida overnight. Tropical Storm conditions will begin within the Hurricane Warning area in the Carolinas Wednesday, with hurricane conditions by Wednesday night.

STORM SURGE: Water levels should very slowly subside on Grand Bahamas Island and the Abaco Islands through tonight. Near the coast, the surge will be accompanied by large and destructive waves.

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:

Savannah River to Cape Lookout NC: 4 to 7 feet

Volusia/Brevard County Line FL to Savannah River: 3 to 5 feet

Cape Lookout, NC to Duck, NC, including Pamlico and Albemarle Sounds and the Neuse and Pamlico Rivers: 3 to 5 feet

Jupiter Inlet, FL to Volusia/Brevard County Line, FL: 2 to 4 feet

Water levels could begin to 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 Friday:

Northwestern Bahamas: additional 1 to 3 inches, isolated storm totals over 30 inches

Coastal Carolinas: 5 to 10 inches, isolated 15 inches

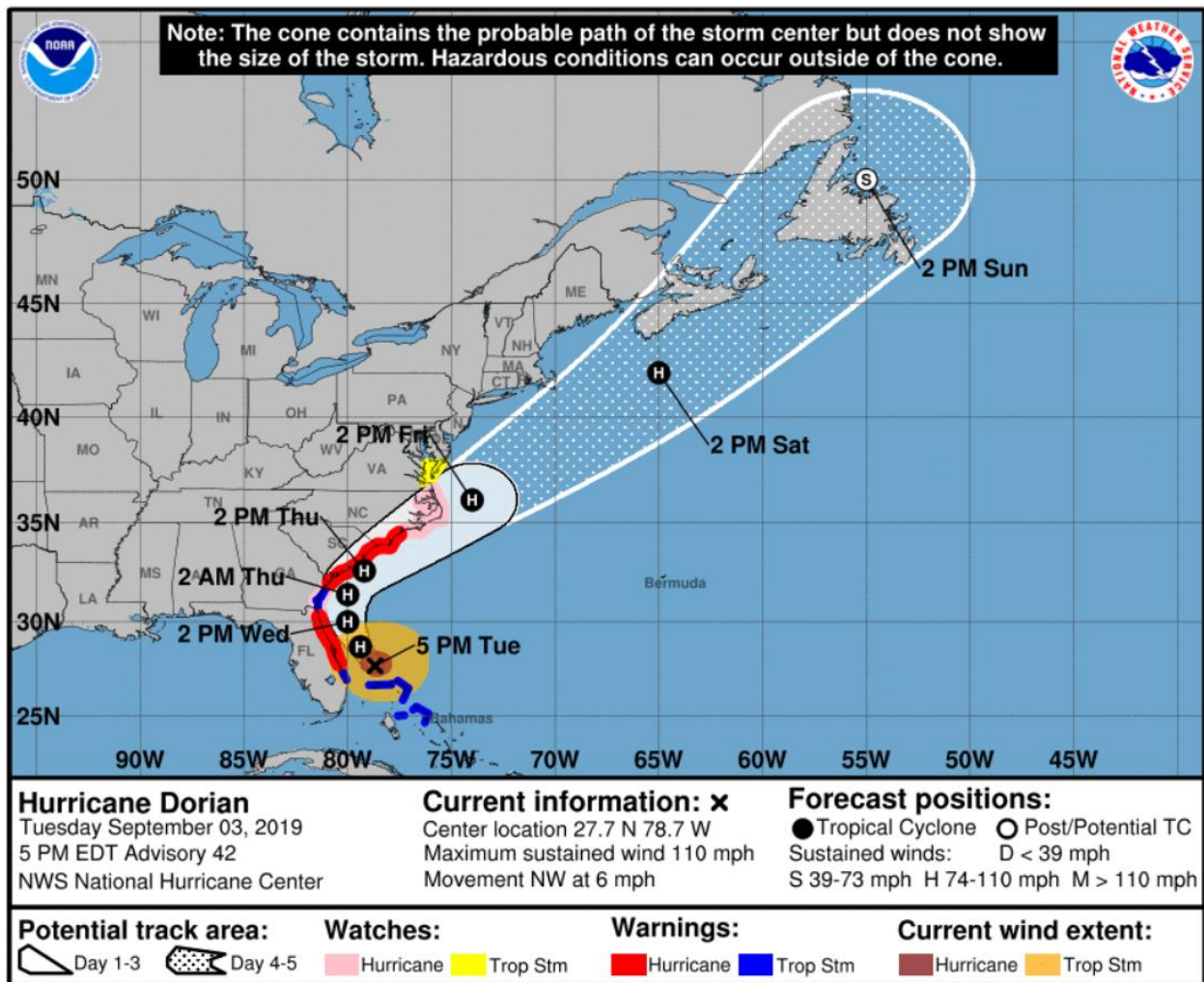
Atlantic Coast from the Florida peninsula north of West Palm Beach through Georgia and across southeast Virginia: 3 to 6 inches

This rainfall may cause life-threatening flash floods.

**SURF:** Large swells will affect the northwestern Bahamas, and the entire southeastern United States coast from Florida through North Carolina during the next several days. These swells are likely to cause life-threatening surf and rip current conditions.

**TORNADOES:** A tornado or two are possible near the immediate east coast of Florida through tonight. This risk will shift to along the immediate coastal Georgia and the coastal Carolinas on Wednesday into Thursday.

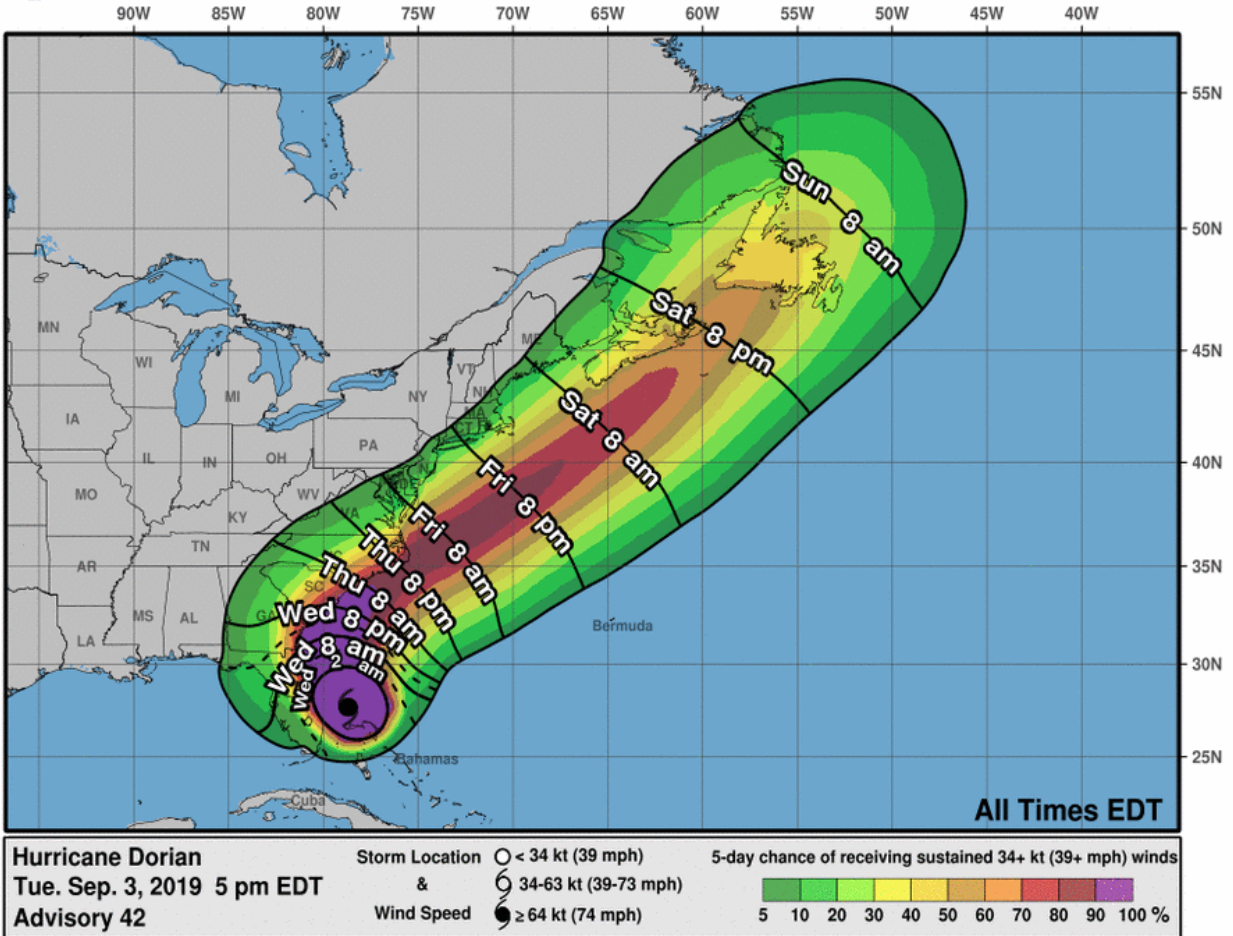
# National Hurricane Center (NHC) Forecast



# Most Likely Arrival Time of Tropical Storm-Force Winds

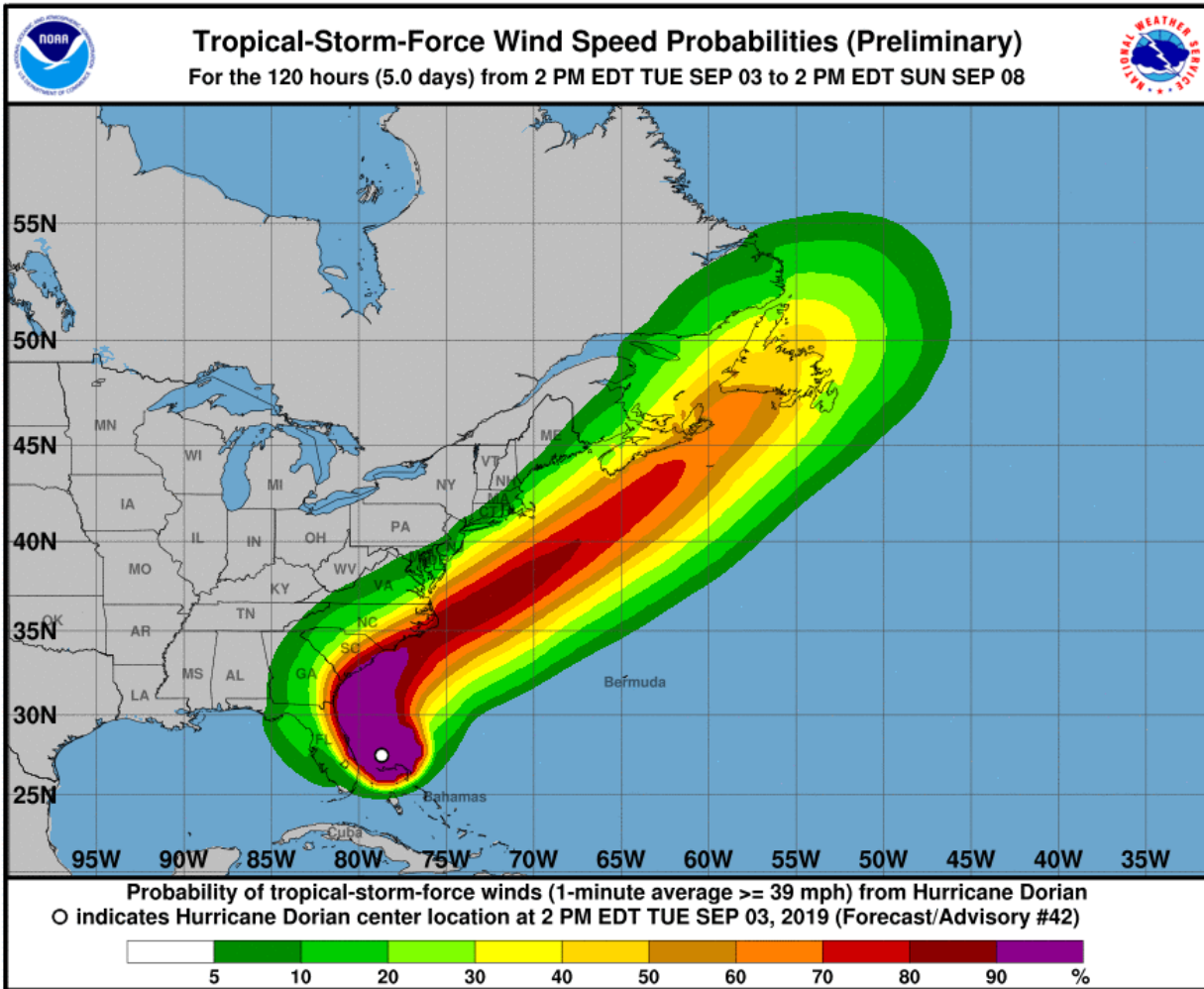


## Most Likely Arrival Time of Tropical-Storm-Force Winds

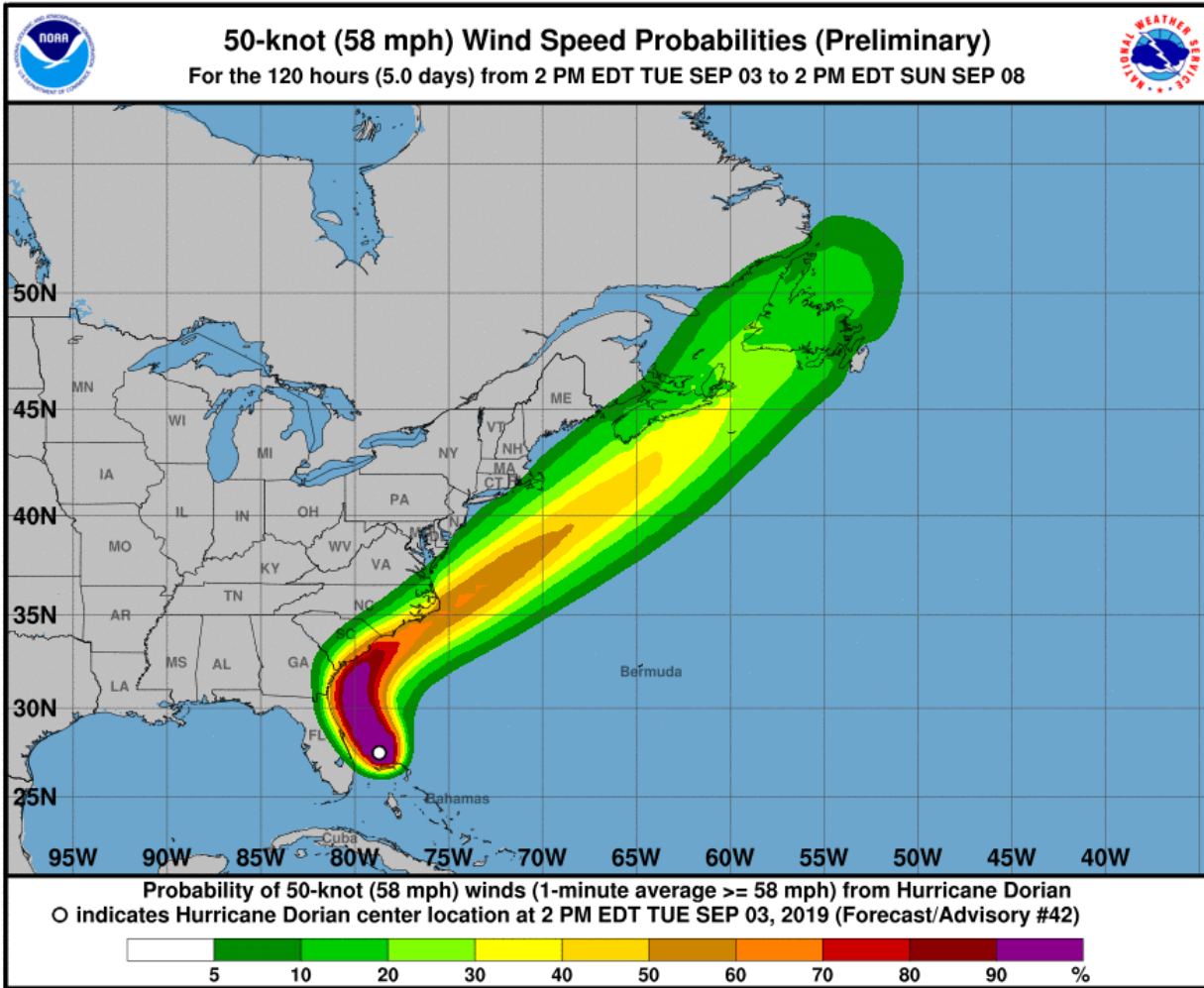


# National Hurricane Center: Wind Speed Probabilities

## Tropical Storm-Force Wind Probabilities ( $\geq 40$ mph (65 kph))

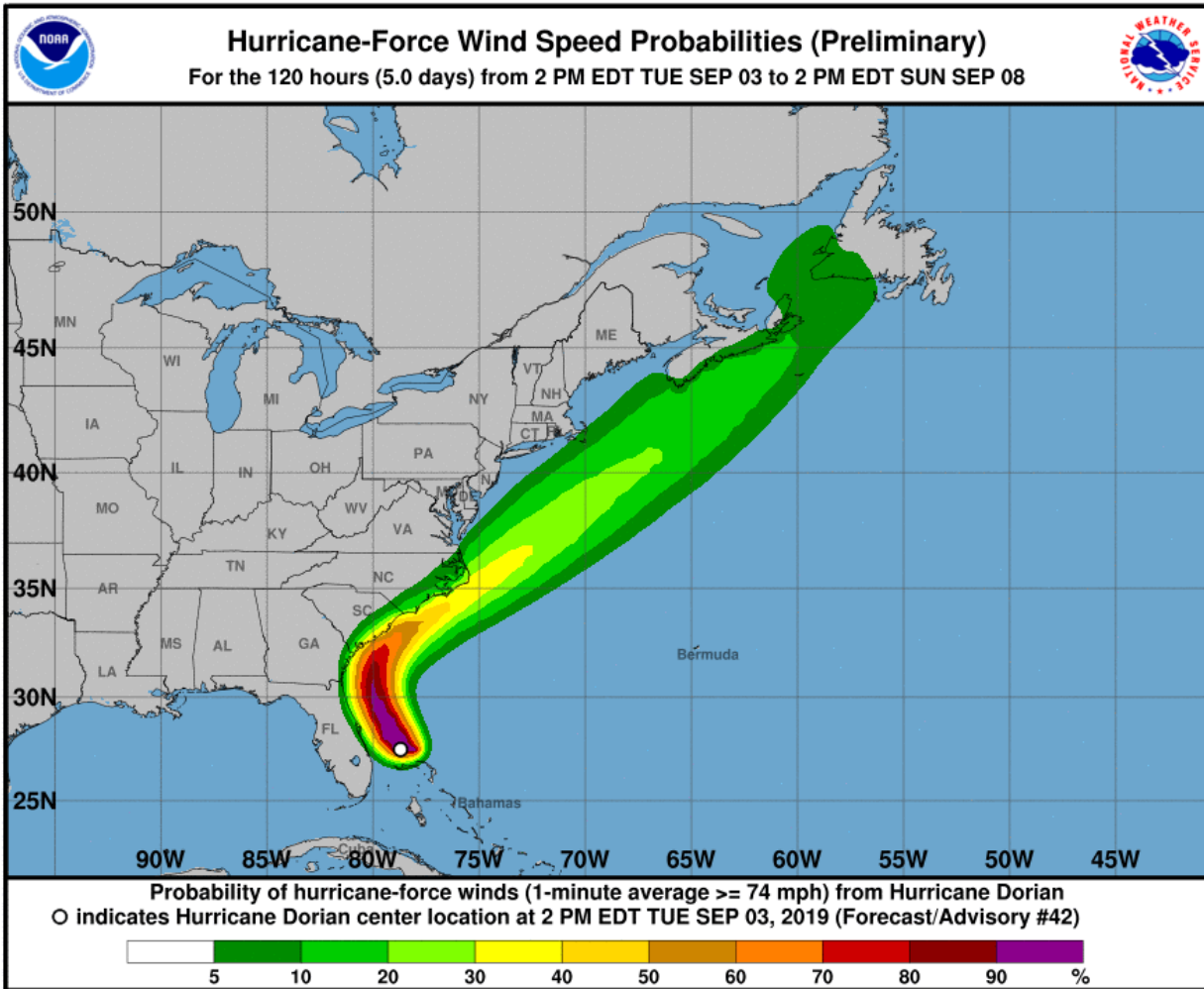


# Wind Probabilities ( $\geq 60$ mph (95 kph))

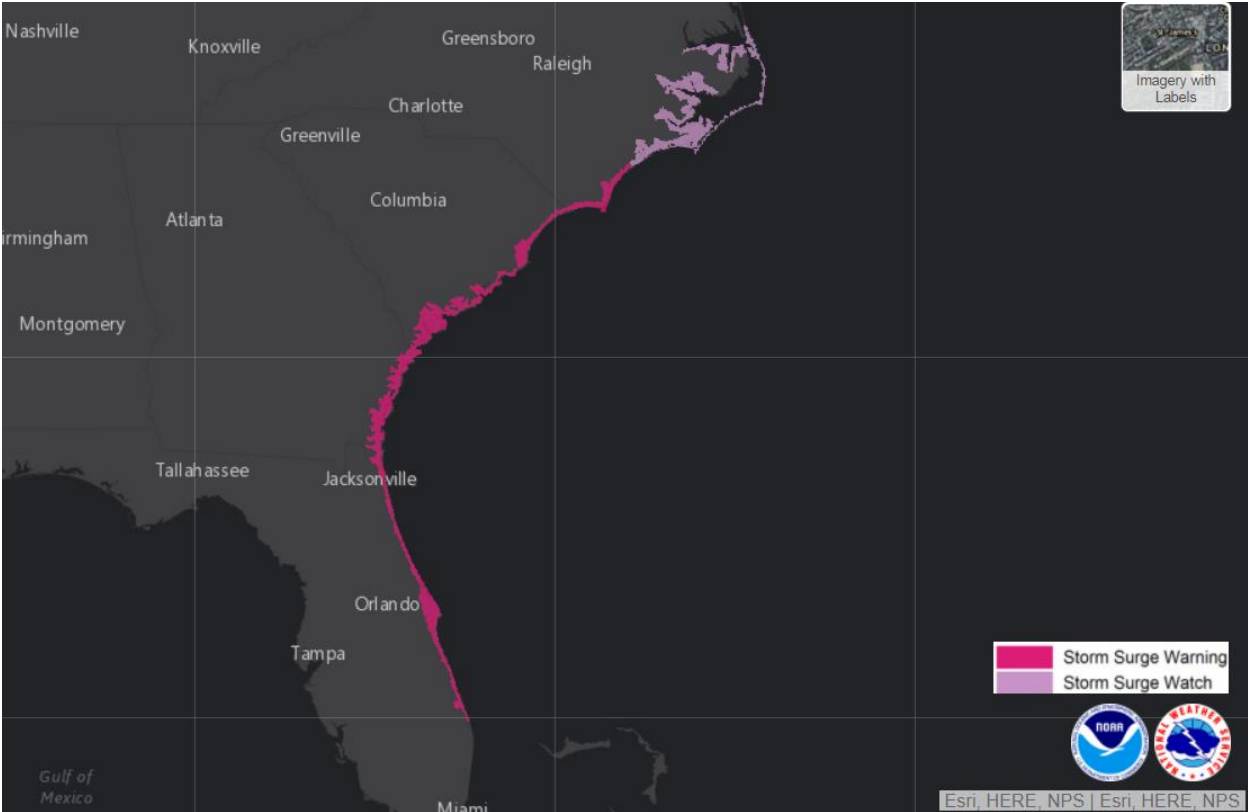




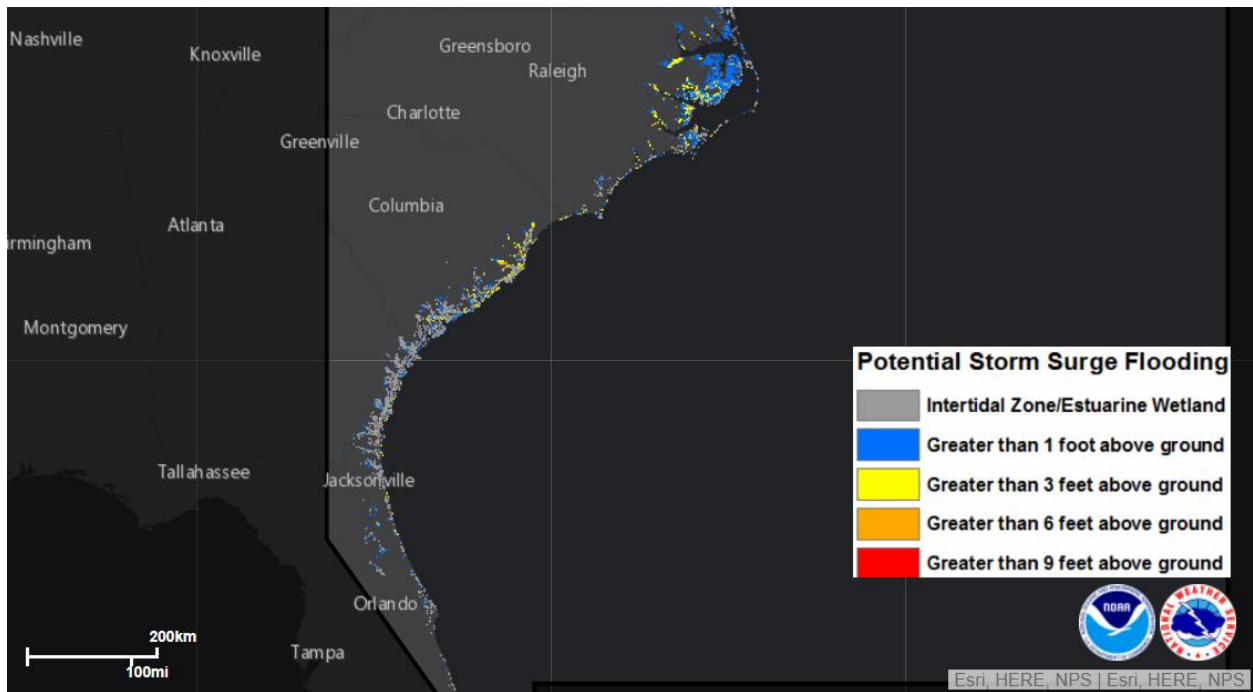
# Hurricane-Force Wind Probabilities ( $\geq 75$ mph (120 kph))



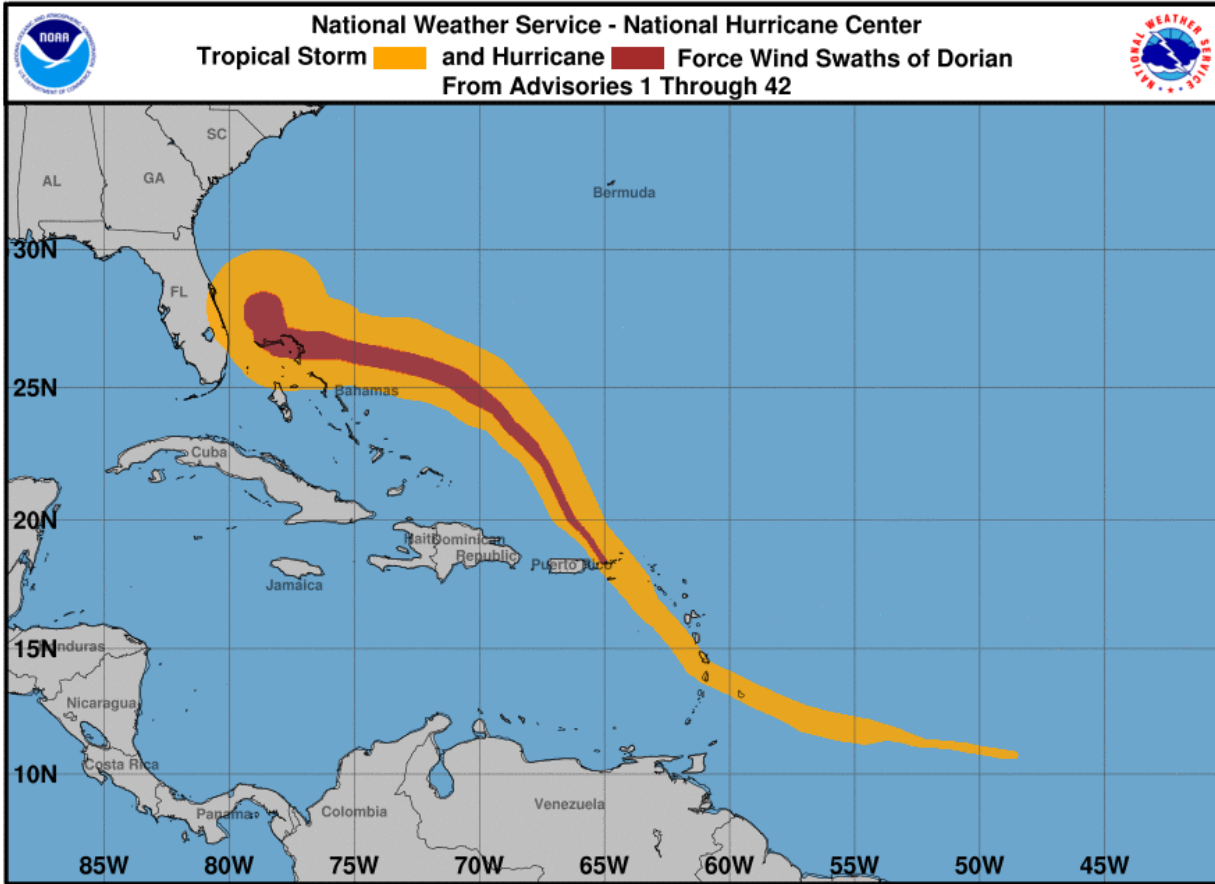
# United States: Storm Surge Watches & Warnings



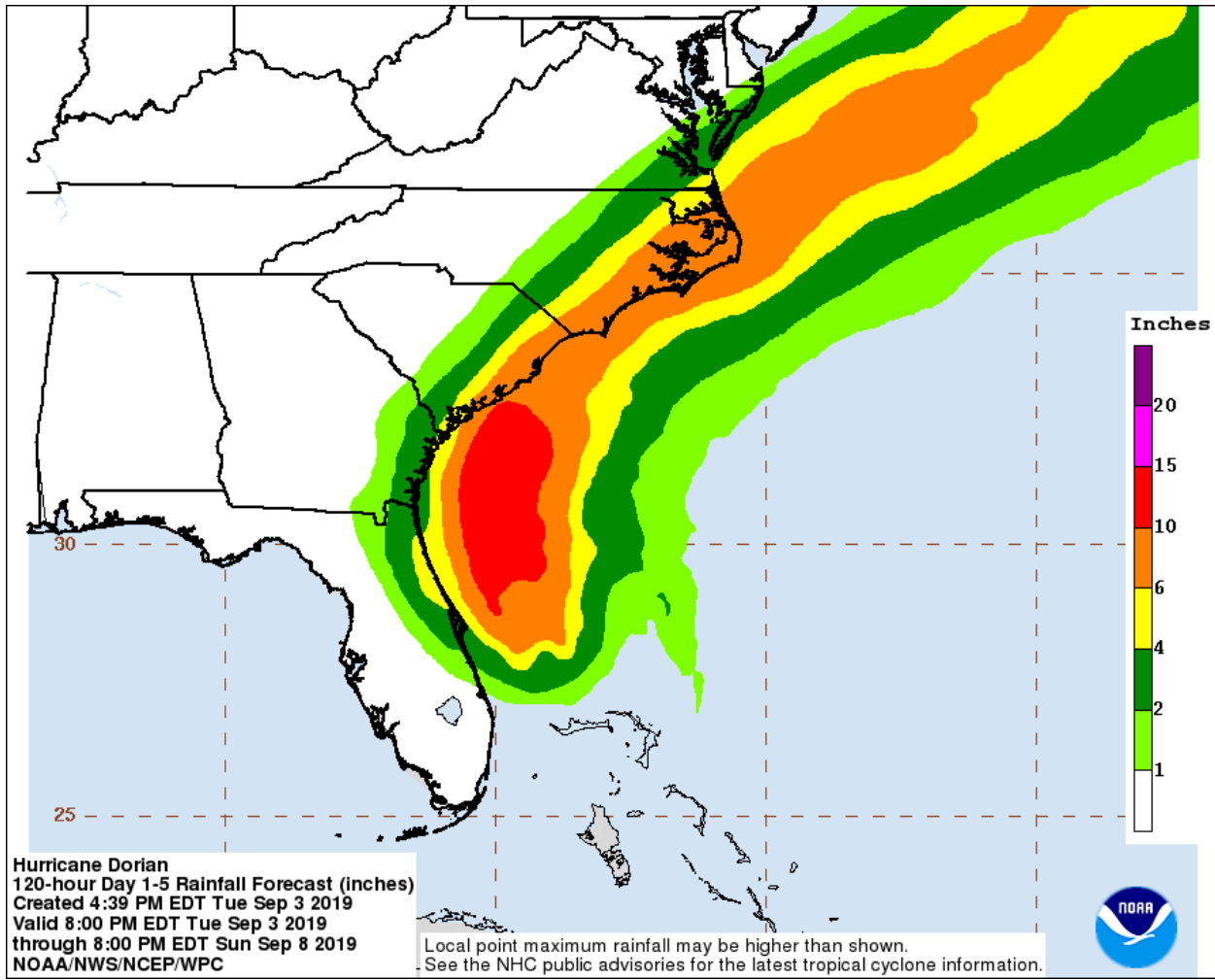
# United States: Storm Surge Inundation



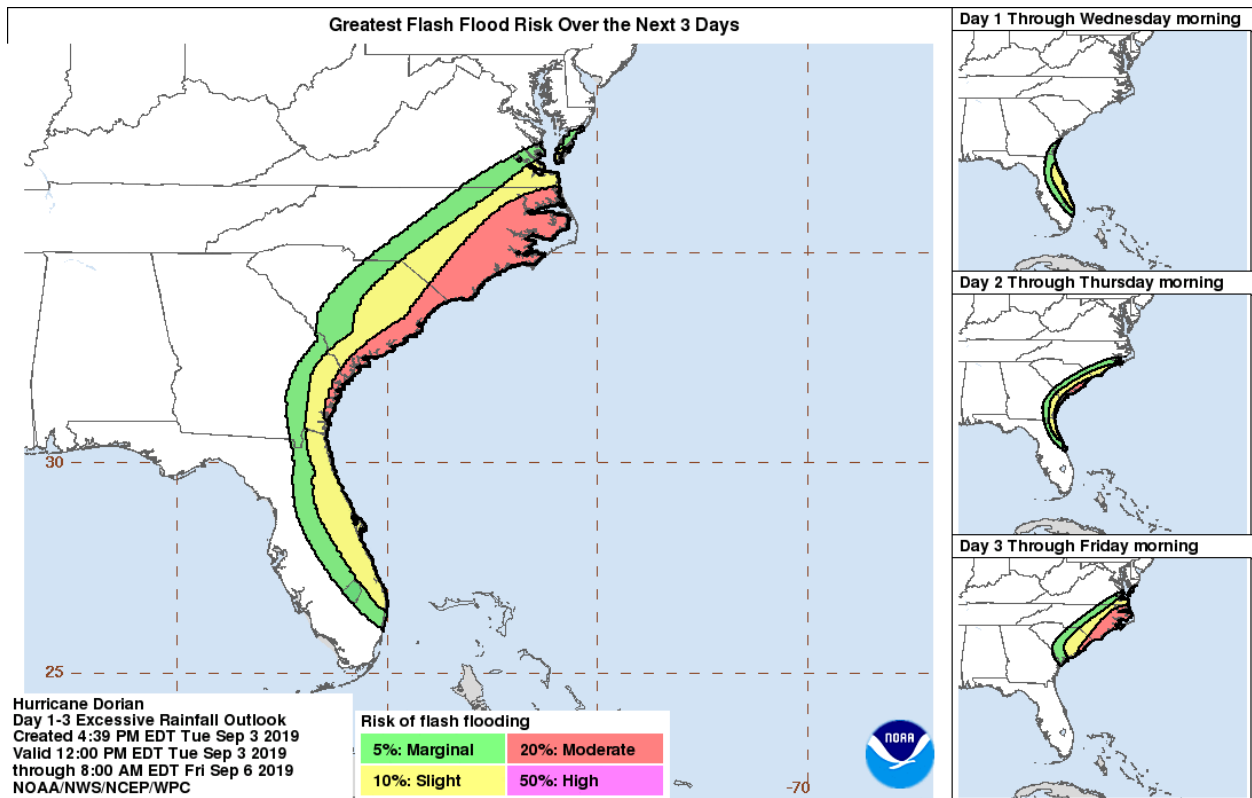
# Wind Swath History



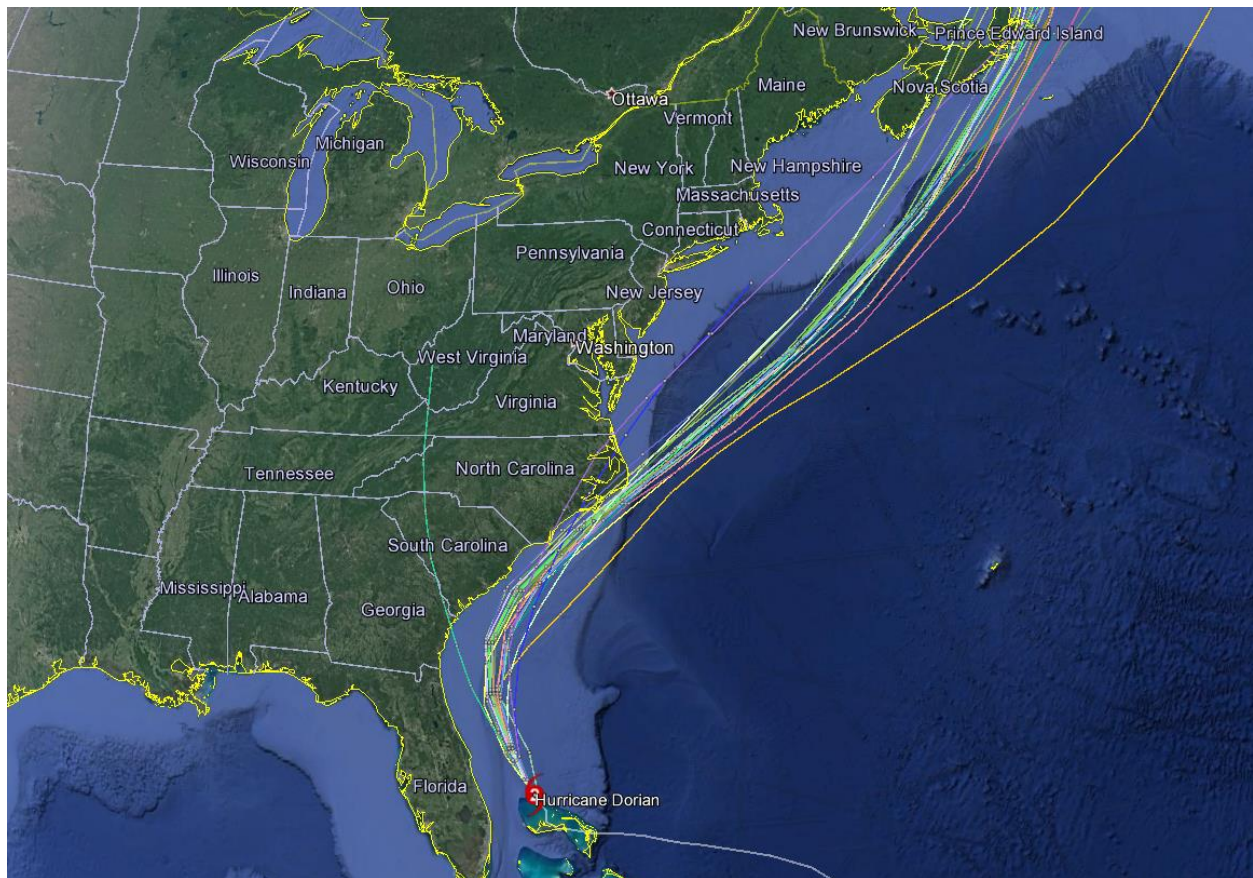
# Weather Prediction Center: U.S. Rainfall Forecast



# 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](http://www.nhc.noaa.gov)

**NEXT CAT ALERT:** Wednesday morning after 10:00 AM Central Time (15:00 UTC).

# \*Tropical Cyclone Intensity Classifications for Global Basins

WIND SPEED			BASINS AND MONITORING BUREAU						
KTS <sup>1</sup>	MPH <sup>1</sup>	KPH <sup>1</sup>	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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