

Current Watches and Warnings

A *Hurricane Warning* is in effect for the Northwestern Bahamas, excluding Andros Island

A *Hurricane Watch* is in effect for Andros Island; north of Deerfield Beach to the Volusia/Brevard County Line, Florida

A *Storm Surge Watch* is in effect from north of Deerfield Beach to the Volusia/Brevard County Line, FL

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

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

Current Details from the National Hurricane Center (NHC)

COORDINATES: 26.5° north, 76.8° west

LOCATION: 20 miles (30 kilometers) east-northeast of Great Abaco Island, Bahamas

MOVEMENT: west at 7 mph (11 kph)

WINDS: 180 mph (285 kph) with gusts to 220 mph (350 kph)

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

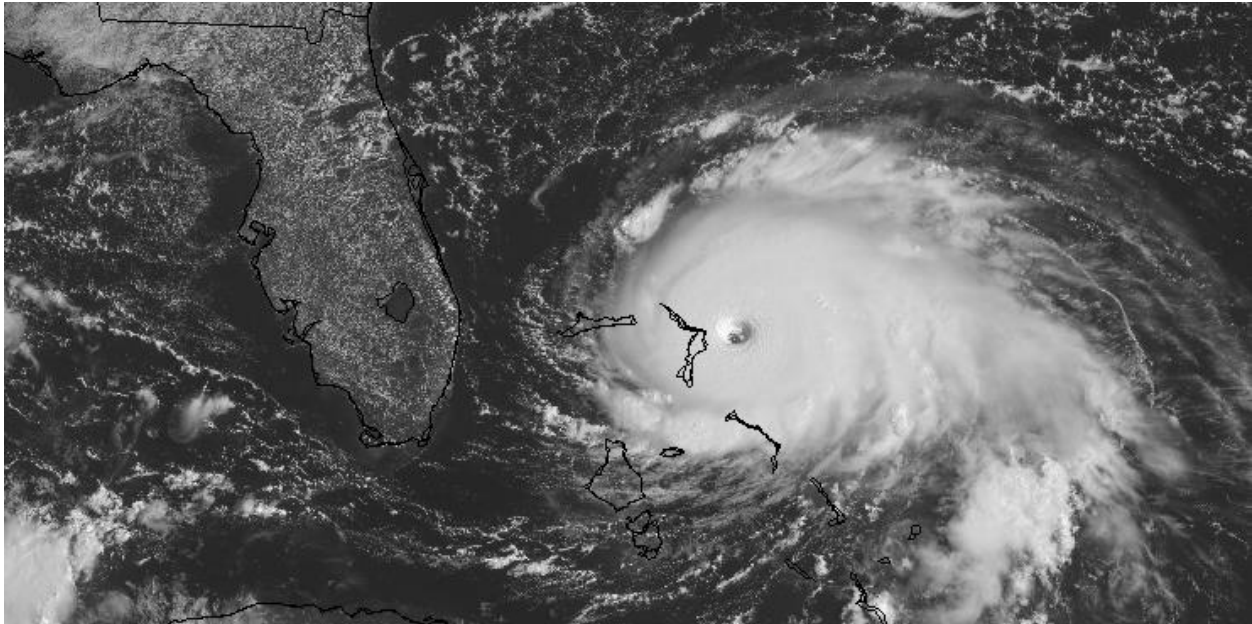
RADIUS OF HURRICANE-FORCE WINDS: 45 miles (75 kilometers)

MINIMUM CENTRAL PRESSURE: 913 millibars

SAFFIR-SIMPSON SCALE RANKING*: Category 5

24-HOUR LANDFALL POTENTIAL: HIGH (Northwestern Bahamas)

Latest Satellite Picture



Source: NASA/NOAA

Discussion

Hurricane Dorian, located approximately 20 miles (30 kilometers) east-northeast of Great Abaco Island, Bahamas, is currently tracking west at 7 mph (11 kph). Air Force and NOAA reconnaissance planes have been flying into Dorian all morning and found that the hurricane has become extremely intense with a stadium effect in the eye. The NOAA plane reported a peak flight-level and surface-adjusted winds that have caused the NHC to declare an initial intensity of 180 mph (285 kph). This makes Dorian the strongest hurricane on record to impact the northwestern Bahamas, and only one of eight hurricanes on in the official record to reach the 180 mph (285 kph) threshold in the Atlantic Ocean Basin. Official data records began in 1851. 2019 is now the fourth consecutive year with a Category 5 storm in the Atlantic Ocean – the first time such an occurrence has happened in the Satellite Era which began in the 1960s.

For the next few days, Dorian should experience some fluctuations in intensity, and in addition to eyewall replacement cycles, the interaction with the northwestern Bahamas should slightly weaken the hurricane. After 3 days, as Dorian moves northward along or offshore of U.S. Southeast coastline, wind shear is forecast to increase and should result in more distinct gradual weakening.

Reconnaissance plane and satellite fixes indicate that Dorian finally started to slow down while tracking towards the west. The steering currents are collapsing, and Dorian is expected to slow down even more, though this unfortunately means that prolonged catastrophic effects are likely in the northwestern Bahamas. The NHC forecast calls for a slow west to west-northwest motion during the next 48 hours, with a turn to the north and an increase in forward speed as the mid-level frontal boundary along the eastern United States deepens and becomes the dominant steering feature. The current NHC forecast is only a few miles west of the previous one and is basically on top of the multi-model consensus. The model guidance tracks have shown the usual variability in each run, but the overall trend is for the hurricane to turn northward offshore but very close to the Florida peninsula.

Given the uncertainty in the track forecast and the anticipated increase in size of the hurricane, a Hurricane Watch and Storm Surge Watch have been issued for a portion of the Florida East Coast. It is emphasized that although the official NHC track forecast does not show landfall, users should not focus on the exact track. A small deviation to the left could bring the intense core of the hurricane its dangerous winds closer to or onto the coast.

Key Messages from the National Hurricane Center

1. A prolonged period of catastrophic winds and storm surge will affect the Abaco Islands today. Everyone there should take immediate shelter and not venture into the eye. These catastrophic conditions are likely on Grand Bahama Island later today or tonight, and efforts to protect life and property there should be rushed to completion.
2. Storm surge and hurricane watches and tropical storm warnings are in effect for portions of the Florida east coast. Life-threatening storm surge and dangerous hurricane-force winds are possible along portions of the Florida east coast through mid-week, as only a slight deviation to the left of the official forecast would bring the core of Dorian near or over the 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.

4. Heavy rains, capable of producing life-threatening flash floods, are possible over northern portions of the Bahamas and coastal sections of the southeast and lower Mid-Atlantic regions of the United States through late this week.

Additional Information

WIND: Catastrophic hurricane conditions are occurring in the Abacos Islands and will spread across Grand Bahama Island later today and tonight.

Hurricane conditions are possible within the Hurricane Watch area in Florida by late Monday or early Tuesday.

Tropical storm conditions are expected within the Tropical Storm Warning area on Monday and Tuesday.

Tropical storm conditions are possible within the Tropical Storm Watch area by Monday night.

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 the Abaco Islands and Grand Bahama Island. 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:

Volusia/Brevard County Line to Jupiter Inlet FL: 4 to 7 feet
North of Deerfield Beach to Jupiter Inlet FL: 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.

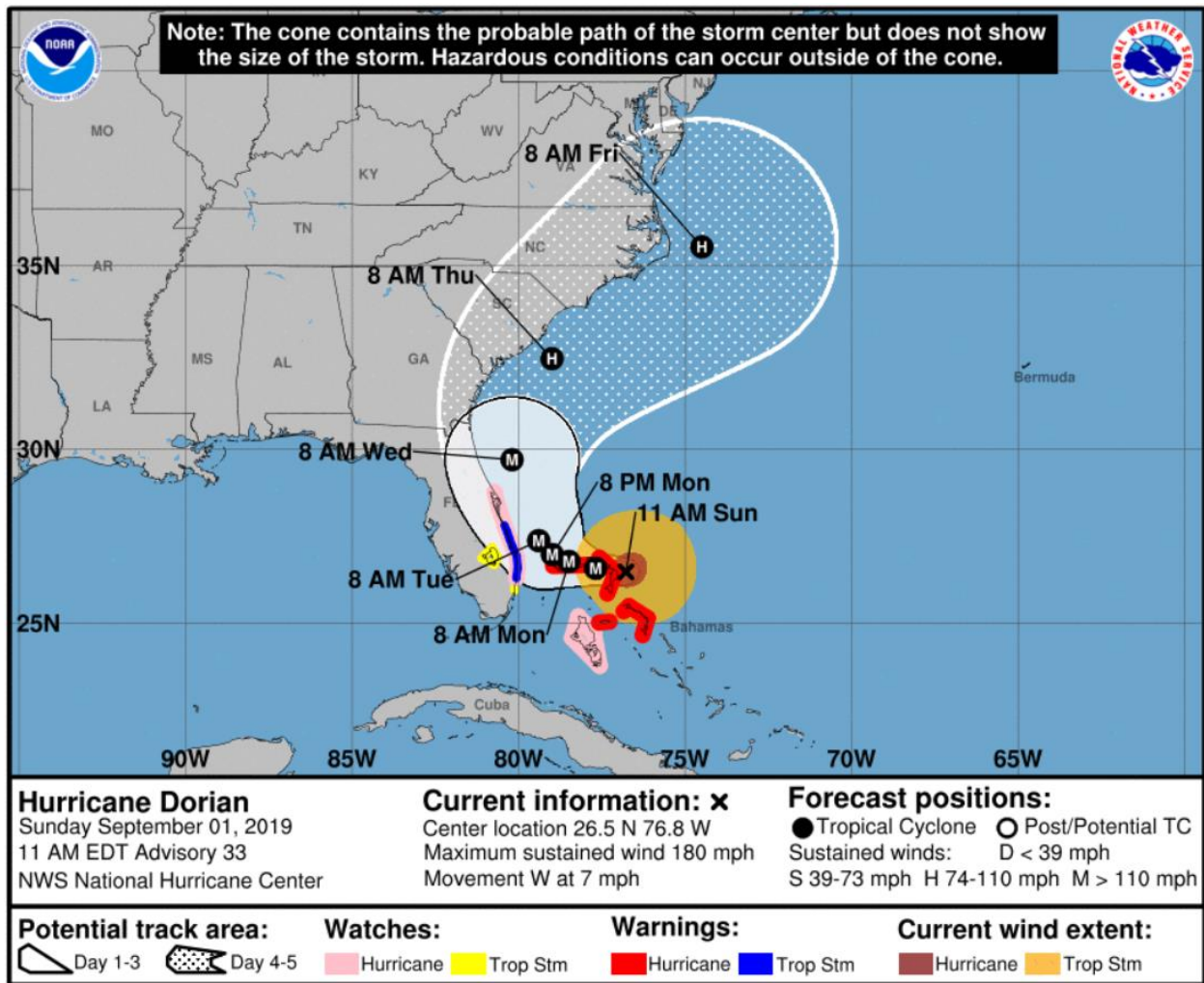
RAINFALL: Dorian is expected to produce the following rainfall totals through late this week:

Northwestern Bahamas: 12 to 24 inches, isolated 30 inches
Coastal Carolinas: 5 to 10 inches, isolated 15 inches
Central Bahamas and the U.S. East Coast from the FL peninsula to GA: 2 to 4 inches, isolated 6 inches

This rainfall may cause life-threatening flash floods.

SURF: Large swells are already affecting east-facing shores of the Bahamas, 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.

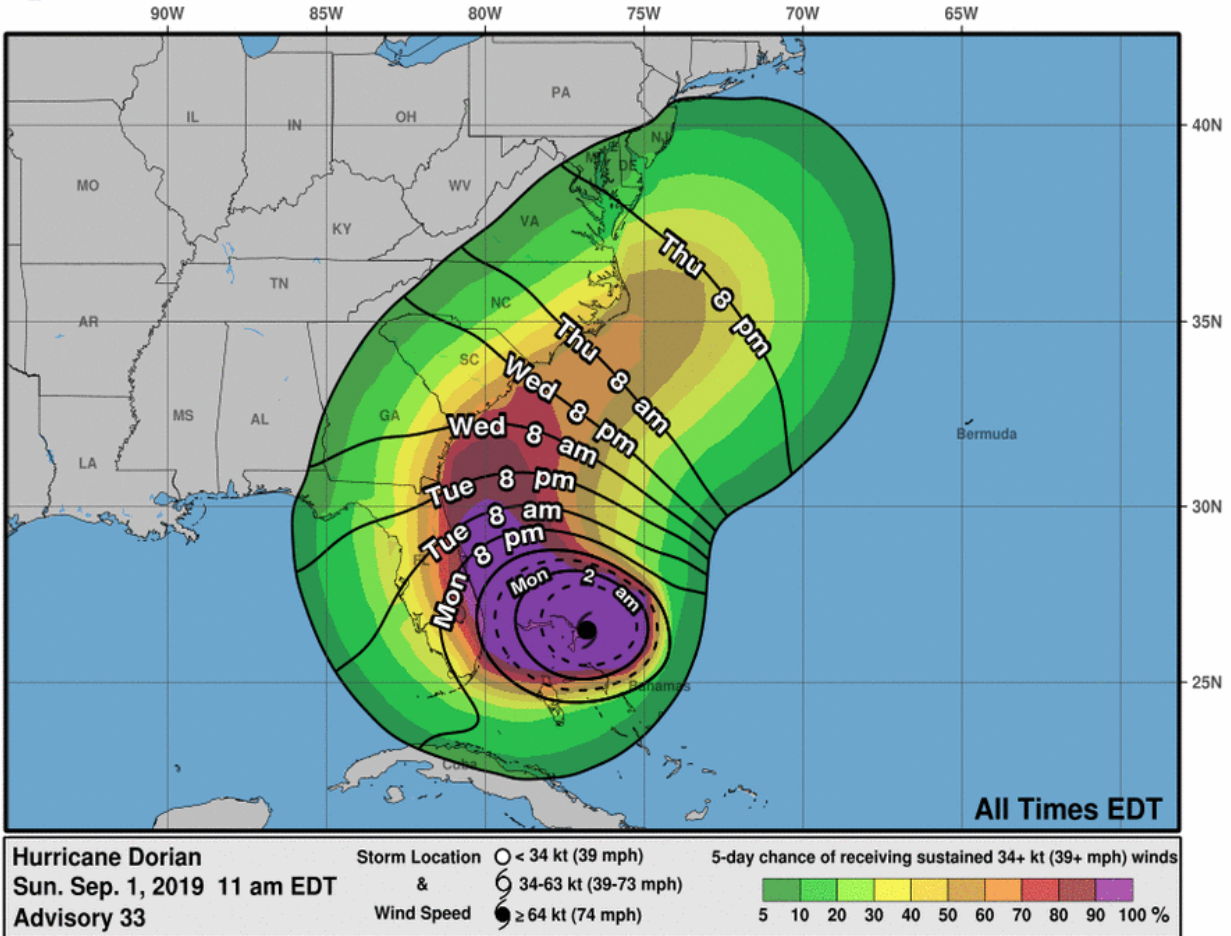
National Hurricane Center (NHC) Forecast



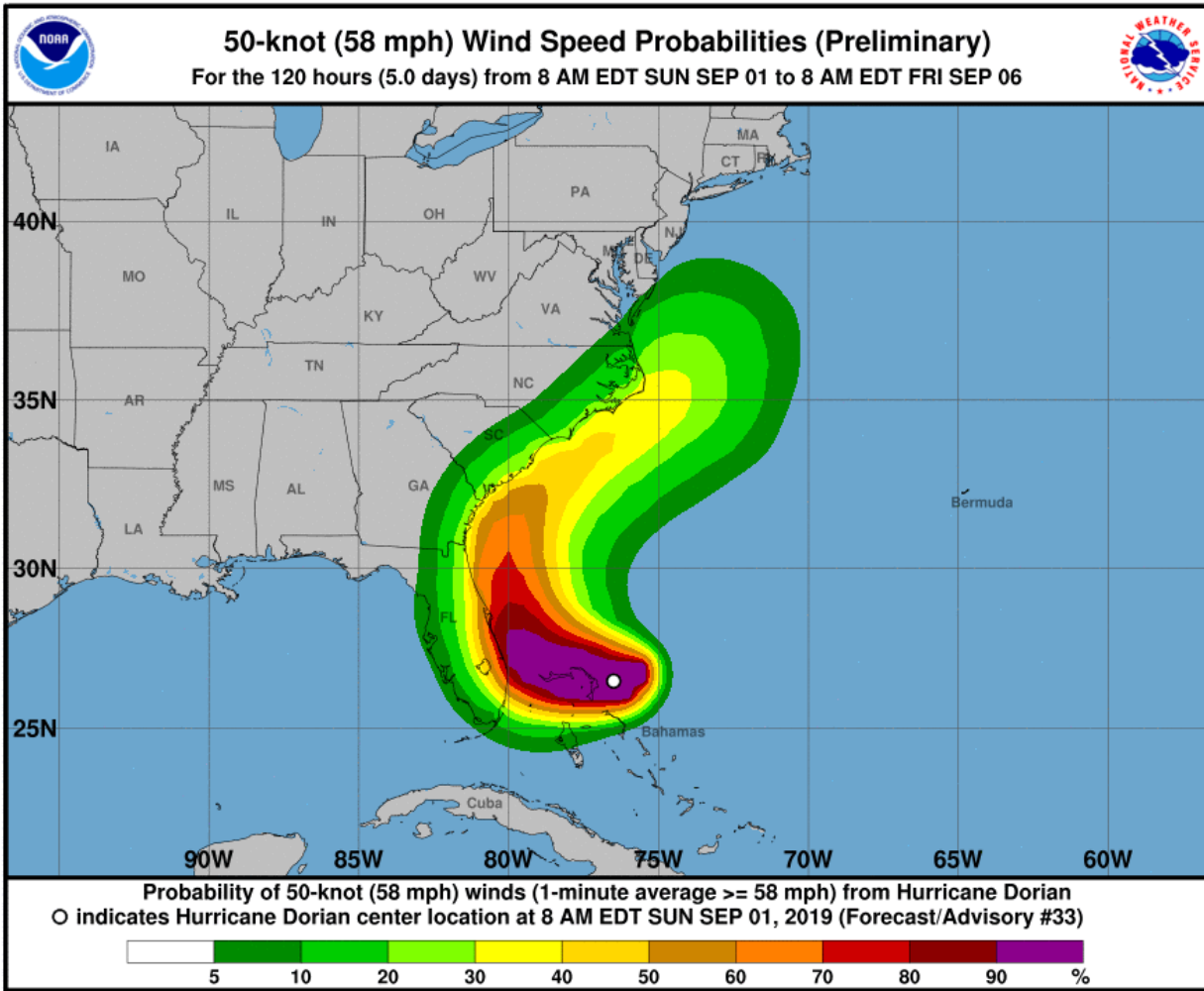
Most Likely Arrival Time of Tropical Storm-Force Winds



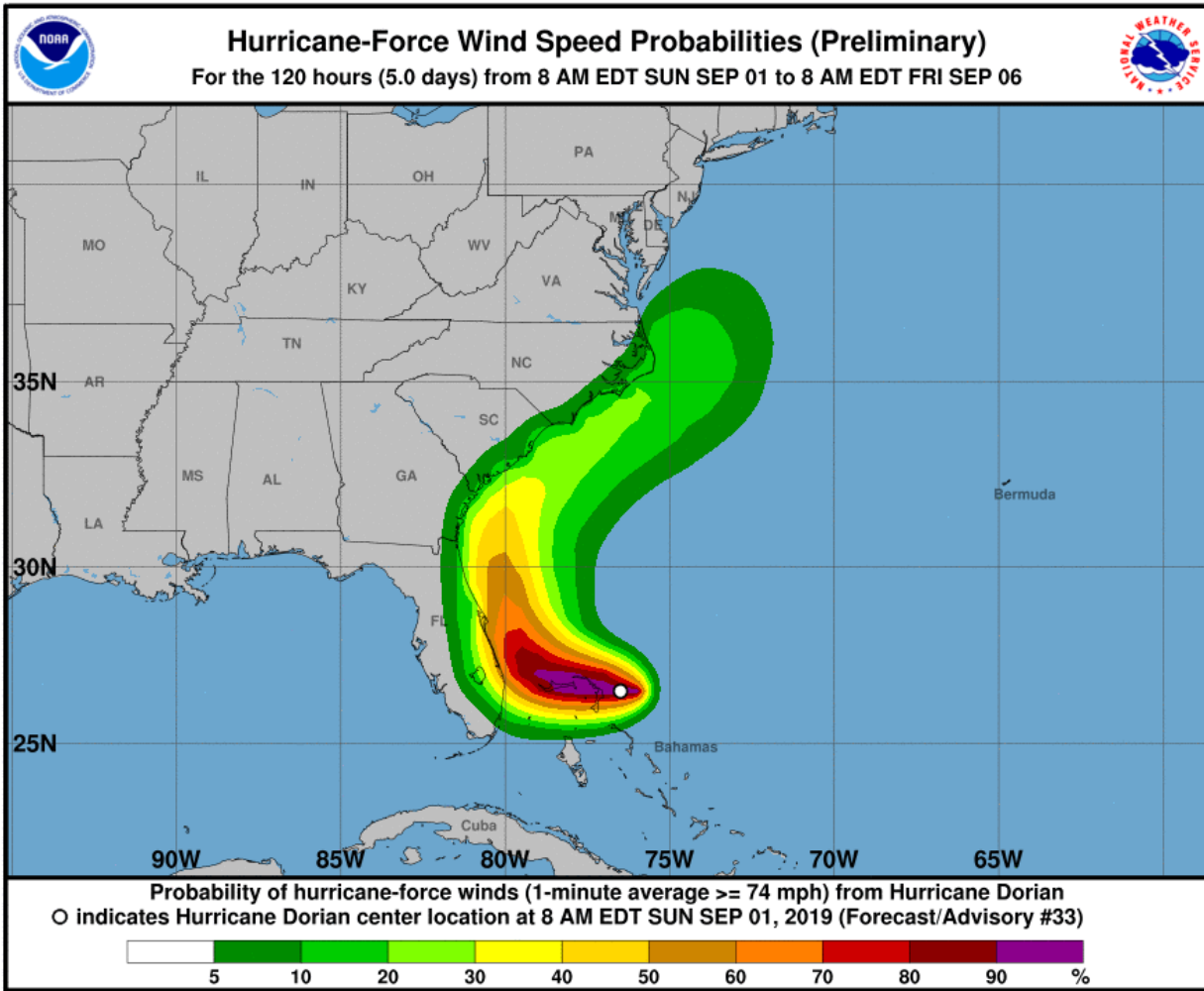
Most Likely Arrival Time of Tropical-Storm-Force Winds



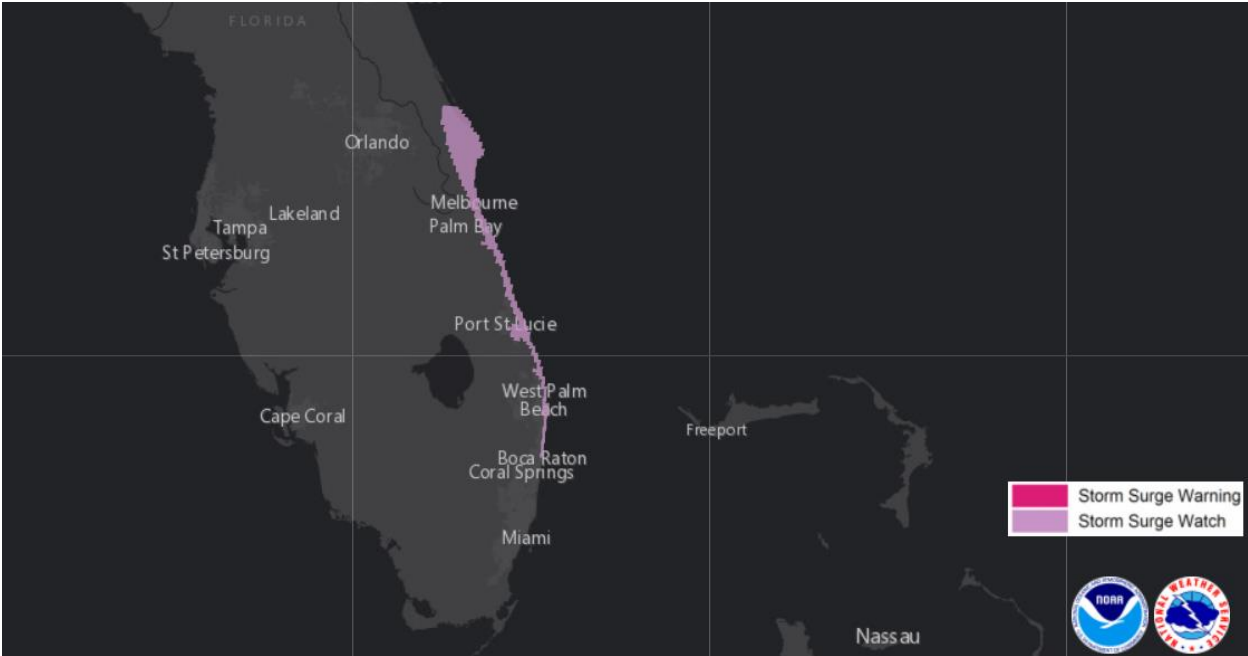
Wind Probabilities (≥ 60 mph (95 kph))



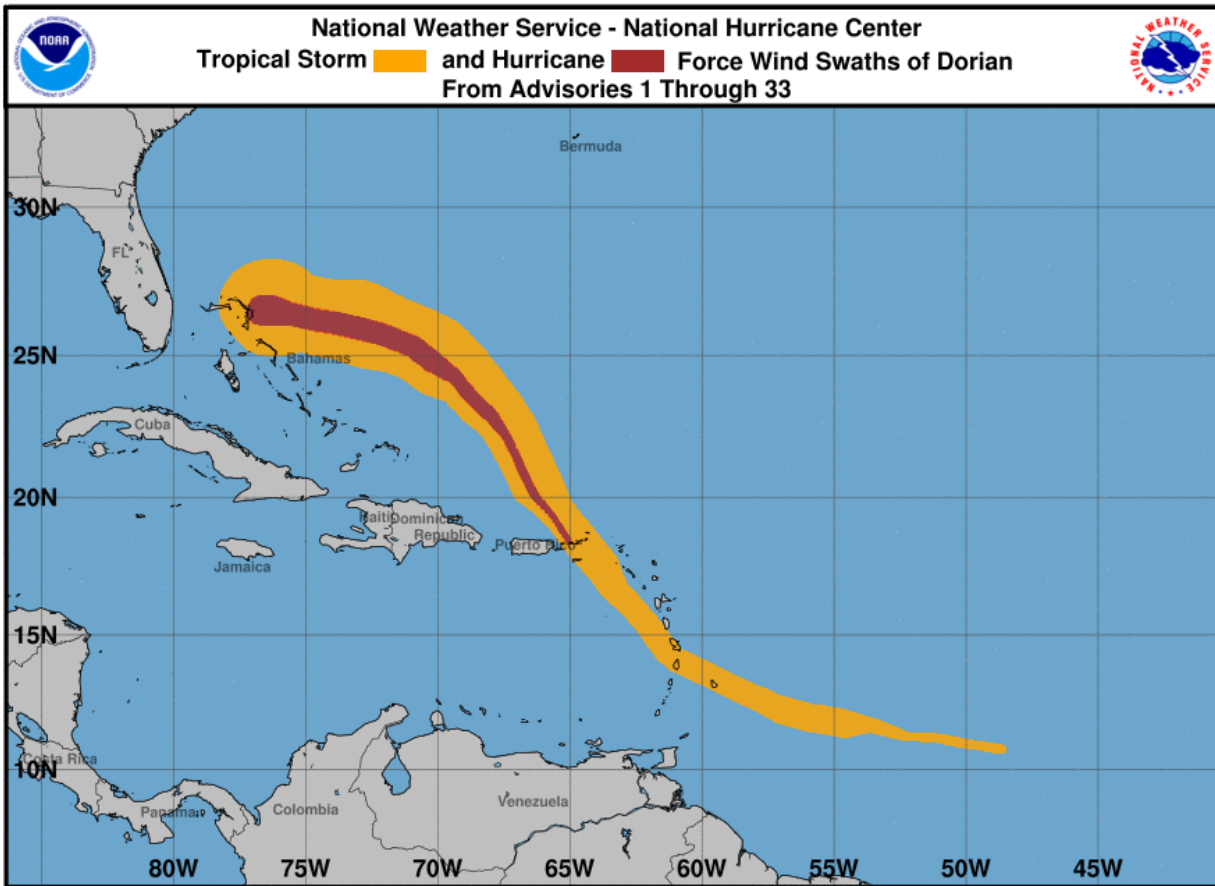
Hurricane-Force Wind Probabilities (≥ 75 mph (120 kph))



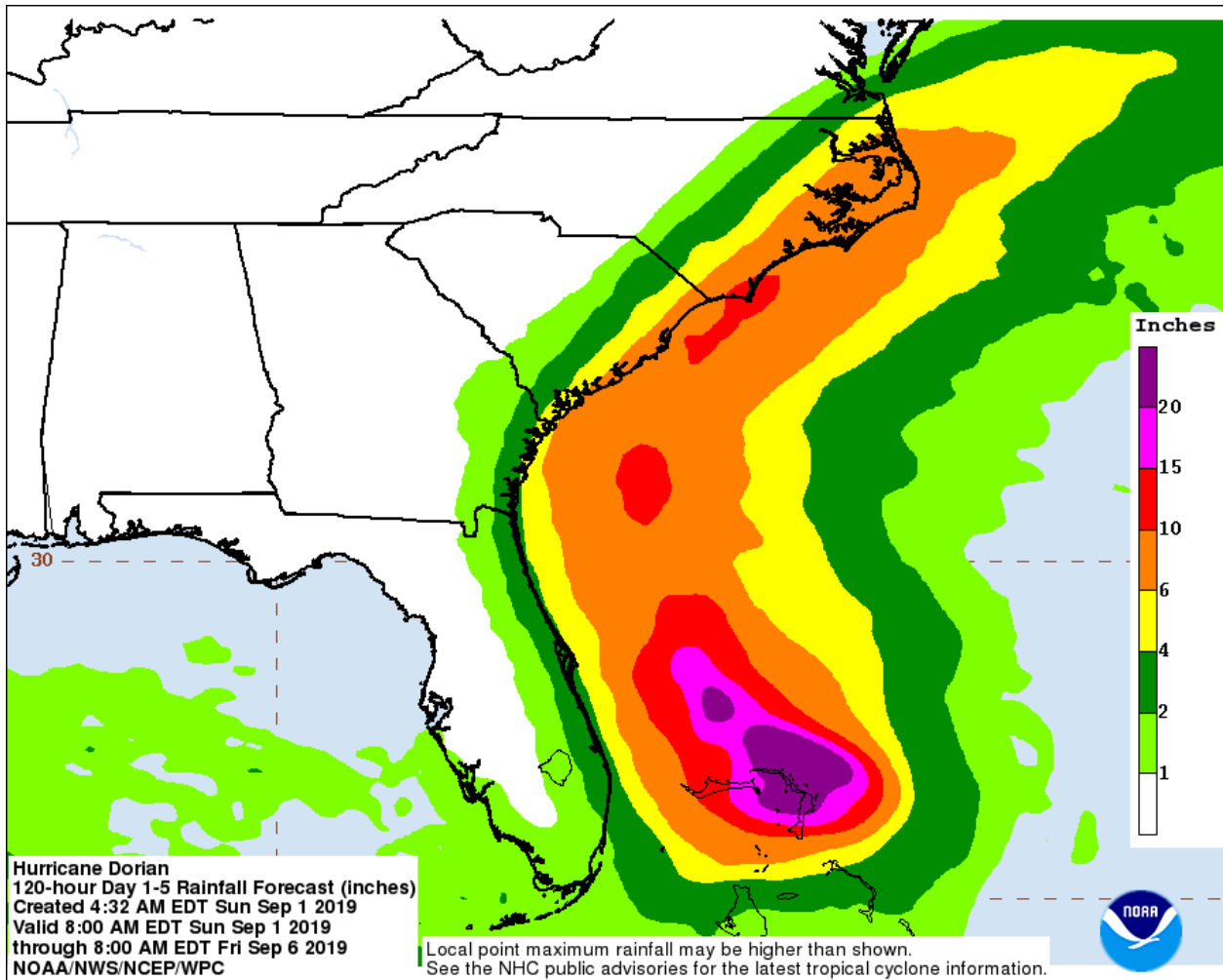
United States: Storm Surge Watches & Warnings



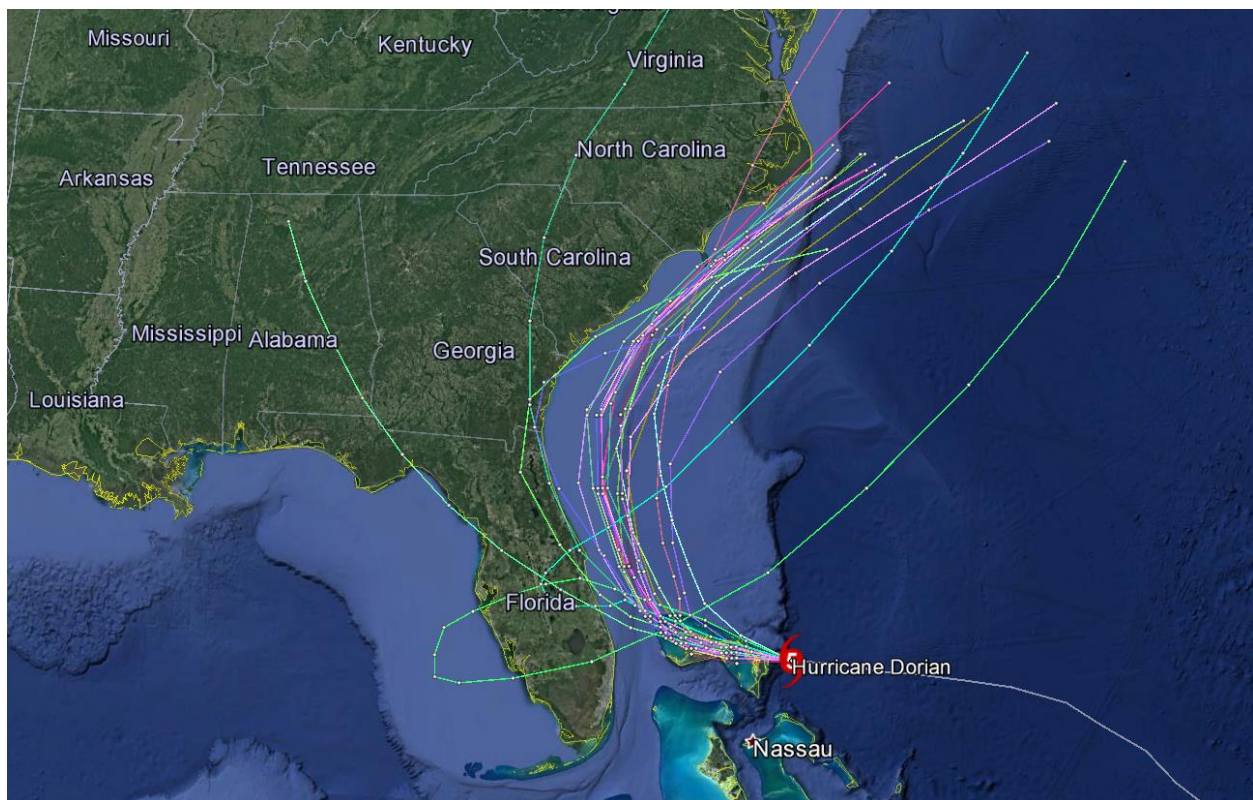
Wind Swath History



Weather Prediction Center: U.S. Rainfall Forecast



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: Sunday 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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