Current Watches and Warnings

A *Hurricane Warning* is in effect for the northwestern Bahamas, excluding Andros Island; Jupiter Inlet to the Volusia/Brevard County Line, FL

A *Hurricane Watch* is in effect for Andros Island, Bahamas; north of Deerfield Beach to Jupiter Inlet, FL; Volusia/Brevard County Line to the Flagler/Volusia County Line, FL

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

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

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: 26.6° north, 77.3° west
LOCATION: 95 miles (150 kilometers) east of Freeport, Grand Bahama Island
MOVEMENT: west at 5 mph (7 kph)
WINDS: 185 mph (295 kph) with gusts to 225 mph (360 kph)
RADIUS OF TROPICAL STORM-FORCE WINDS: 140 miles (220 kilometers)
RADIUS OF HURRICANE-FORCE WINDS: 45 miles (75 kilometers)
MINIMUM CENTRAL PRESSURE: 910 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 (Northwestern Bahamas)

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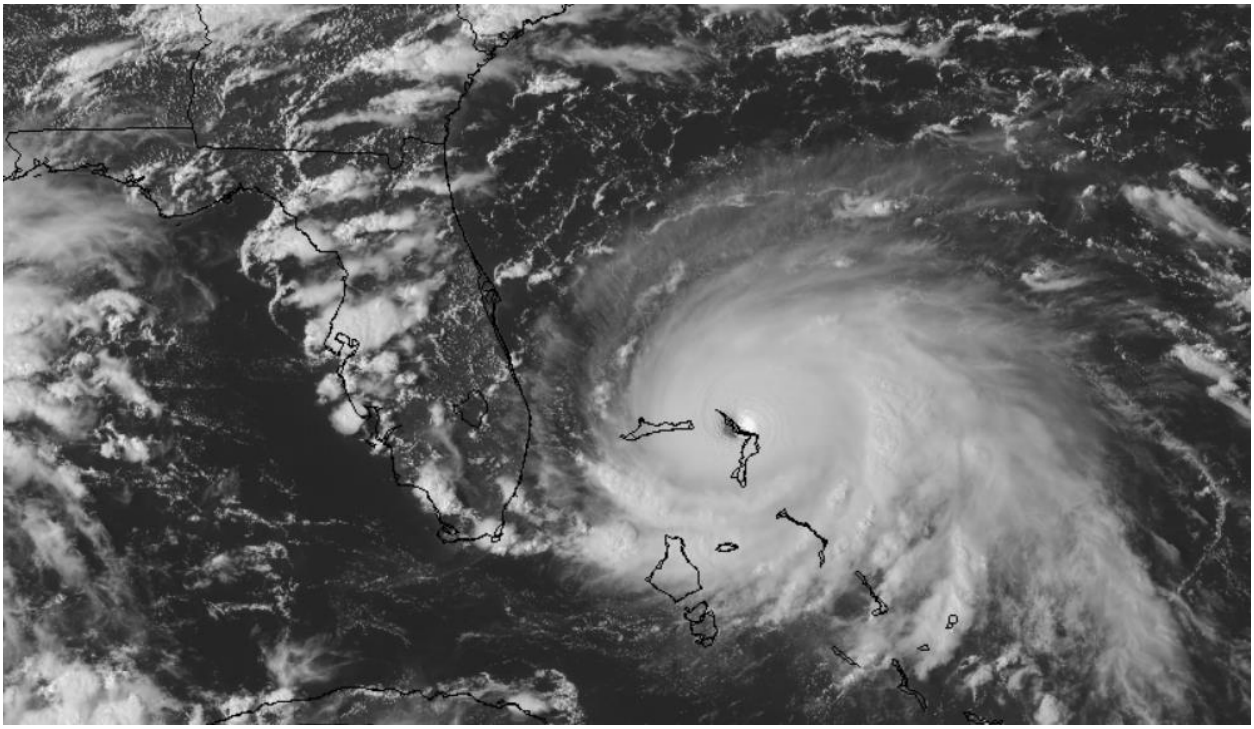
Latest Satellite Picture



Source: NASA/NOAA

Discussion

Hurricane Dorian, located approximately 95 miles (150 kilometers) east of Freeport, Grand Bahama Island, is currently tracking west at 5 mph (7 kph). The distinct eye of powerful Hurricane Dorian is continuing to slowly move over Great Abaco in the Bahamas. The latest wind and pressure data from an Air Force reconnaissance plane just before the eye hit the island indicated that the winds reached 185 mph (295 kph), which the NHC has maintained as the initial intensity for this advisory. The minimum pressure measured by the plane was 910 millibars.

The eye has been shrinking, and an eyewall replacement cycle is possibly occurring. The effect of the island terrain and the eyewall replacement cycle should result in some slight fluctuations in intensity during the next 24 to 36 hours, but the hurricane will continue to be extremely dangerous storm during that time. After 3 days, a more definite weakening trend should begin as the hurricane encounters stronger wind shear. However, Dorian is forecast to remain a hurricane for the next 5 days.

Dorian has slowed down even more as it moves towards the west and the steering currents are collapsing. This should lead to a further reduction in forward speed, but this unfortunately means prolonged catastrophic impacts in the northwestern Bahamas. The NHC forecast calls for a slow west to west-northwest motion during the next 48 hours. A turn to the north and northeast with a gradual increase in forward speed is expected after that time as a frontal boundary over the eastern United States deepens. The current forecast is not much different from the previous one, and it is very close to the multi-model consensus. The overall model guidance suite has shown its standard variability to the left or right from run to run, but the overall trend is for the hurricane to turn northward offshore but dangerously close to the Florida peninsula.

Given the uncertainty in the track forecast and the anticipated increase in size of the hurricane, a Hurricane Warning and Storm Surge Warning has been issued for a portion of the Florida east coast. It is once again emphasized that although the official NHC track forecast does not show landfall, users should not focus on the middle of the track. A small deviation to the left could bring the intense core of the hurricane and its dangerous winds very close or onto the Florida coast.

Dorian has tied the 1935 Labor Day Hurricane as the strongest hurricane on record – in terms of maximum sustained winds – to ever make landfall in the Atlantic Basin. The 185 mph (295 kph) winds make Dorian one of the five strongest hurricanes ever recorded in the Atlantic Ocean. Dorian is tied for second place with the 1935 Labor Day Hurricane, Gilbert (1988), and Wilma (2005); and was just 5 mph shy of the 190 mph (305 kph) winds confirmed in Hurricane Allen (1980).

Key Messages from the National Hurricane Center

1. A prolonged period of catastrophic winds and storm surge will affect the Abaco Islands and Grand Bahama Island tonight. Everyone there should take immediate 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 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, 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 through late this week.

Additional Information

WIND: Catastrophic hurricane conditions are occurring in the Abacos Islands and will spread across Grand Bahama Island tonight. Do not venture out into the eye, as winds will suddenly increase as the eye passes.

Hurricane conditions are expected within the Hurricane Warning area in Florida by late Monday or Tuesday.

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

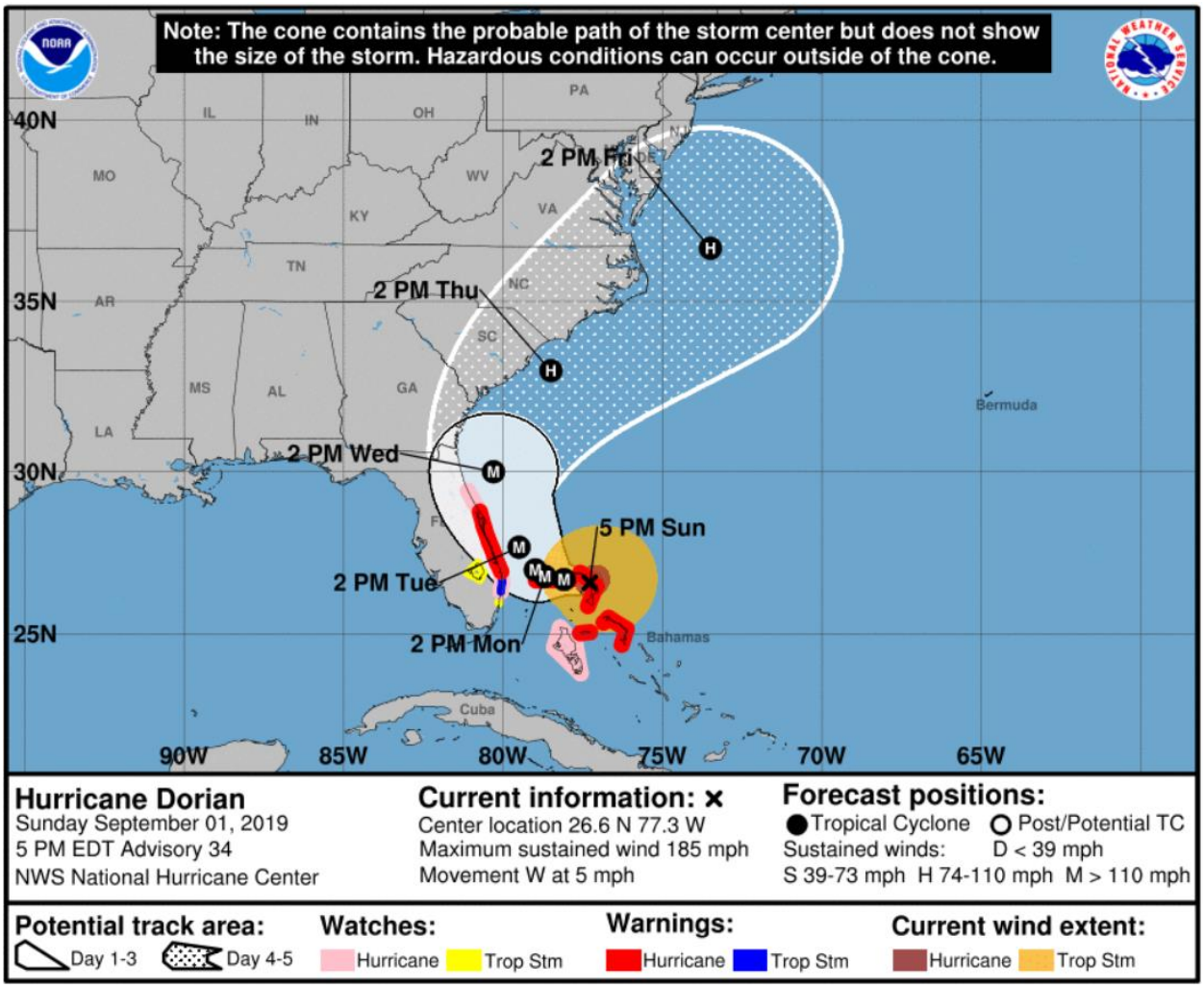
RAINFALL: Dorian is expected to produce the following rainfall totals through late this week:

Northwestern Bahamas: 12 to 24 inches, isolated 30 inches
Coastal Carolinas: 5 to 10 inches, isolated 15 inches
The Atlantic Coast from the Florida peninsula through Georgia: 3 to 6 inches, isolated 9 inches
Southeastern Virginia: 2 to 4 inches, isolated 6 inches
Central Bahamas: 2 to 4 inches, isolated 6 inches

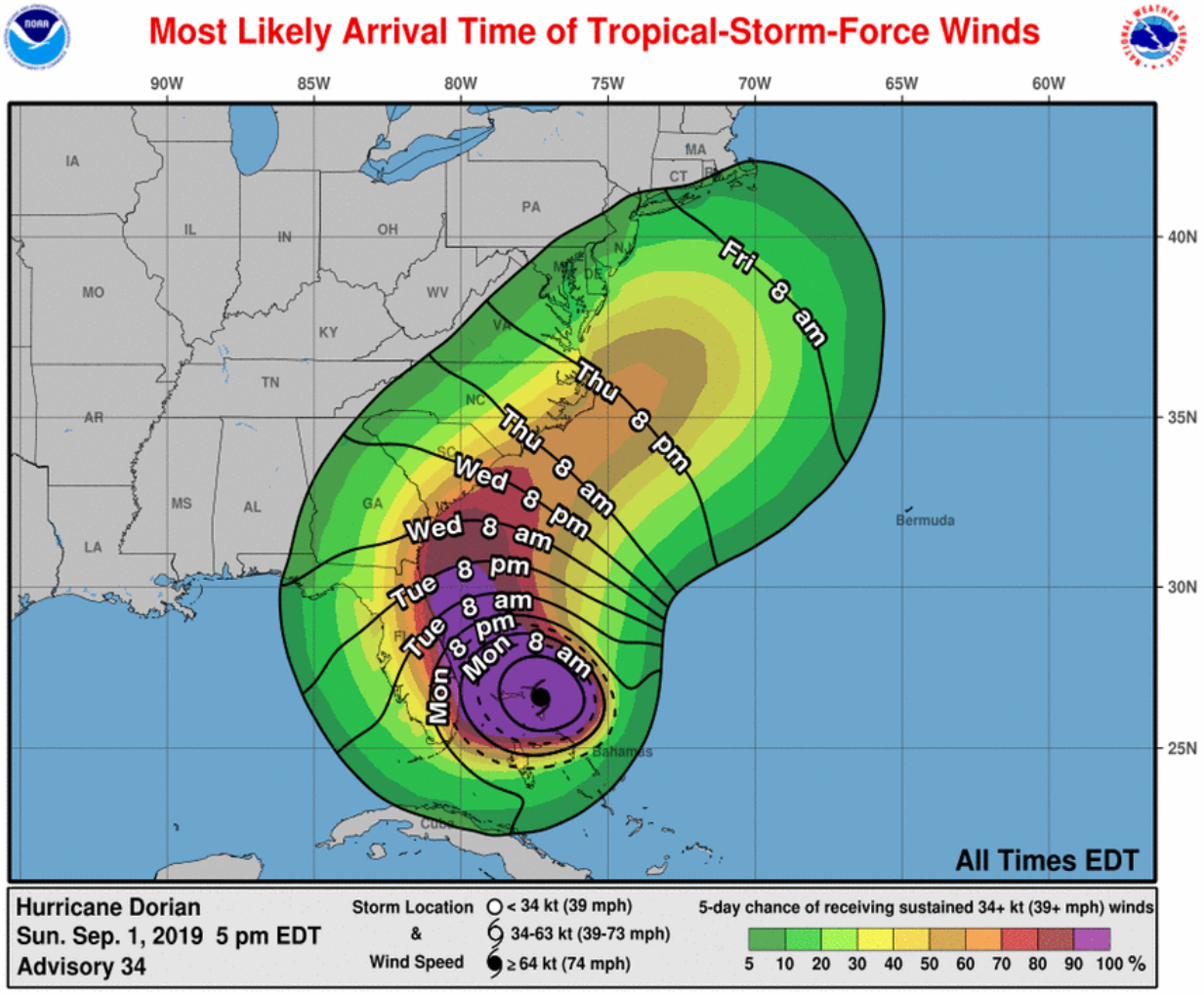
This rainfall may cause life-threatening flash floods.

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

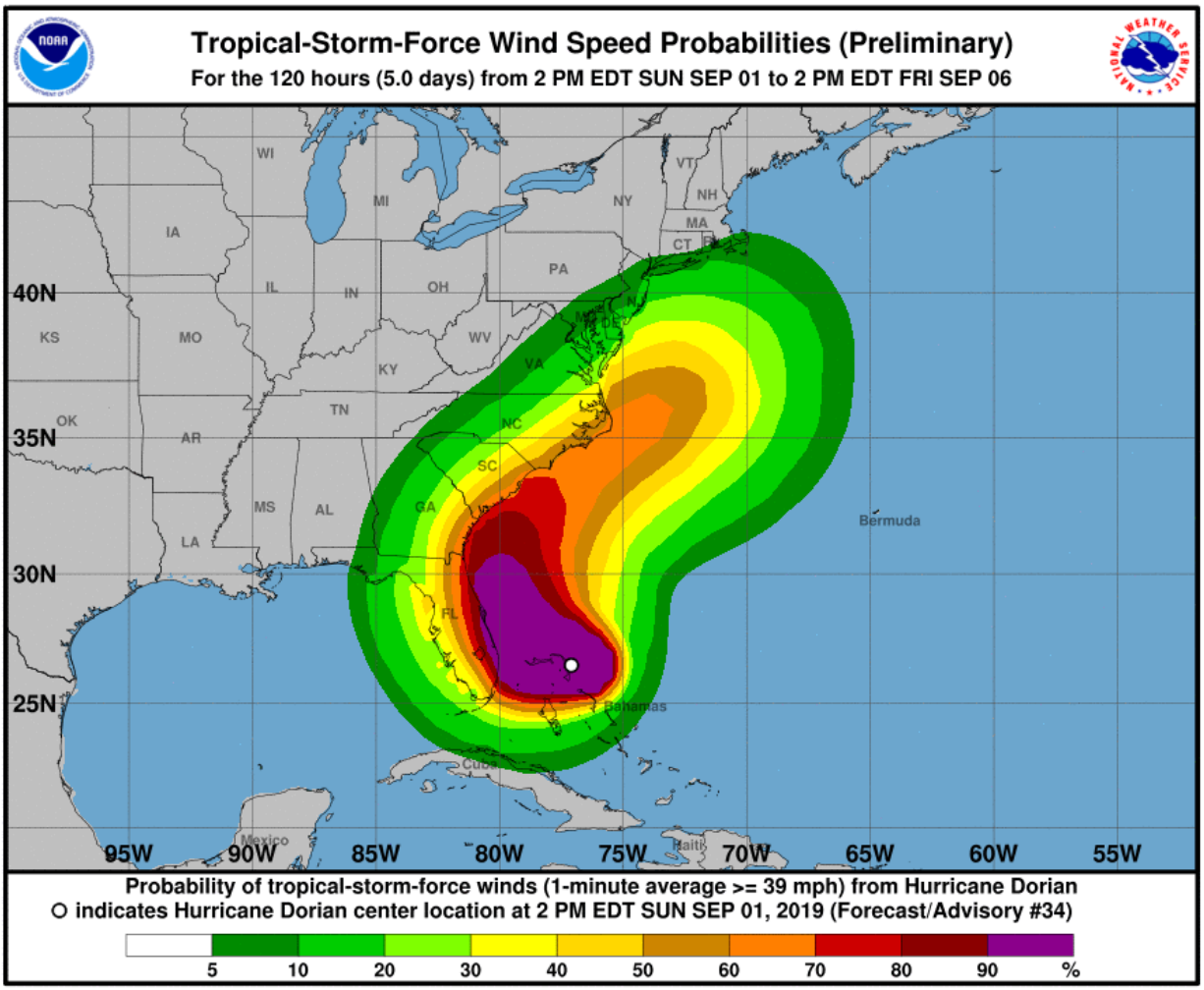


Most Likely Arrival Time of Tropical Storm-Force Winds

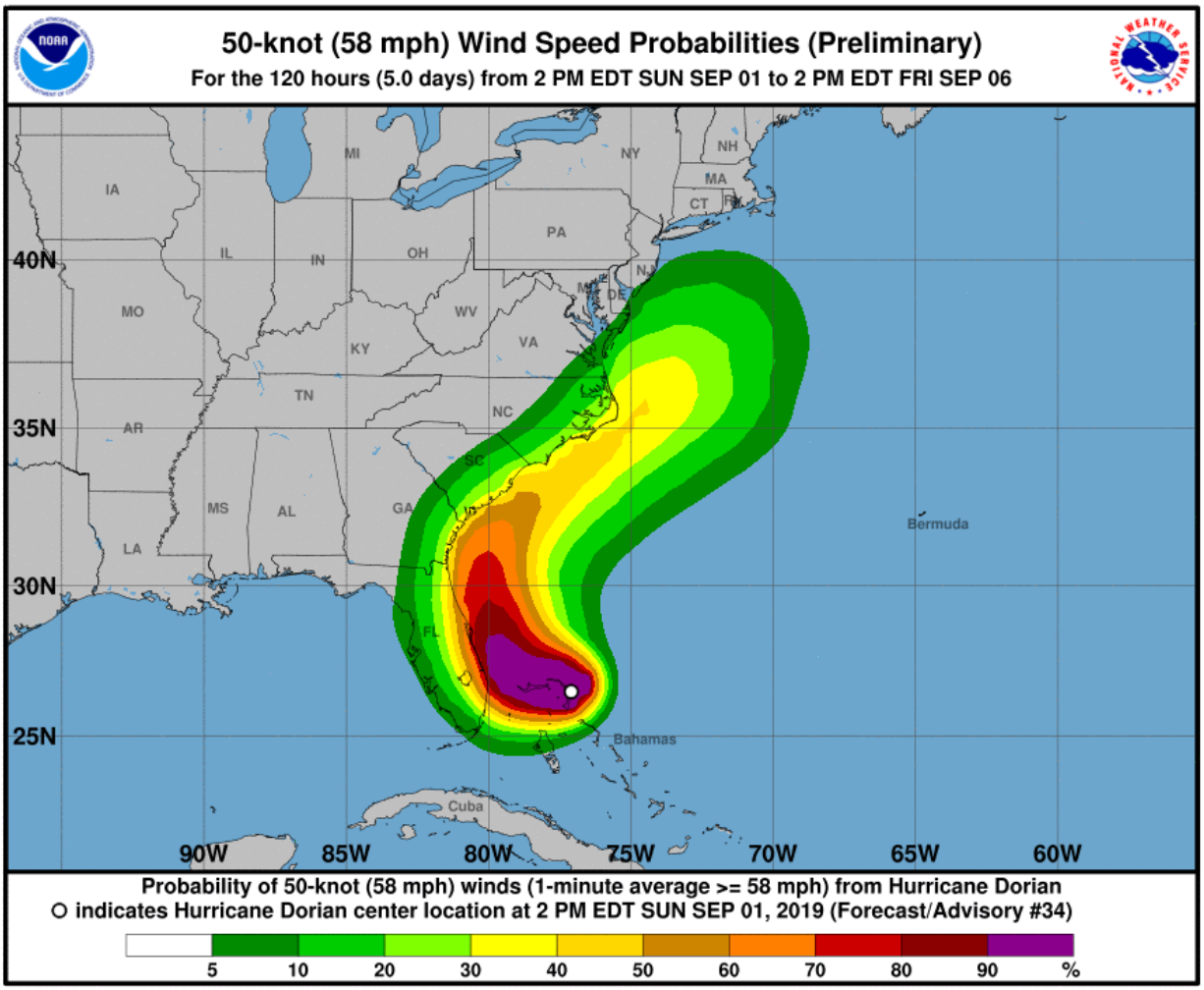


National Hurricane Center: Wind Speed Probabilities

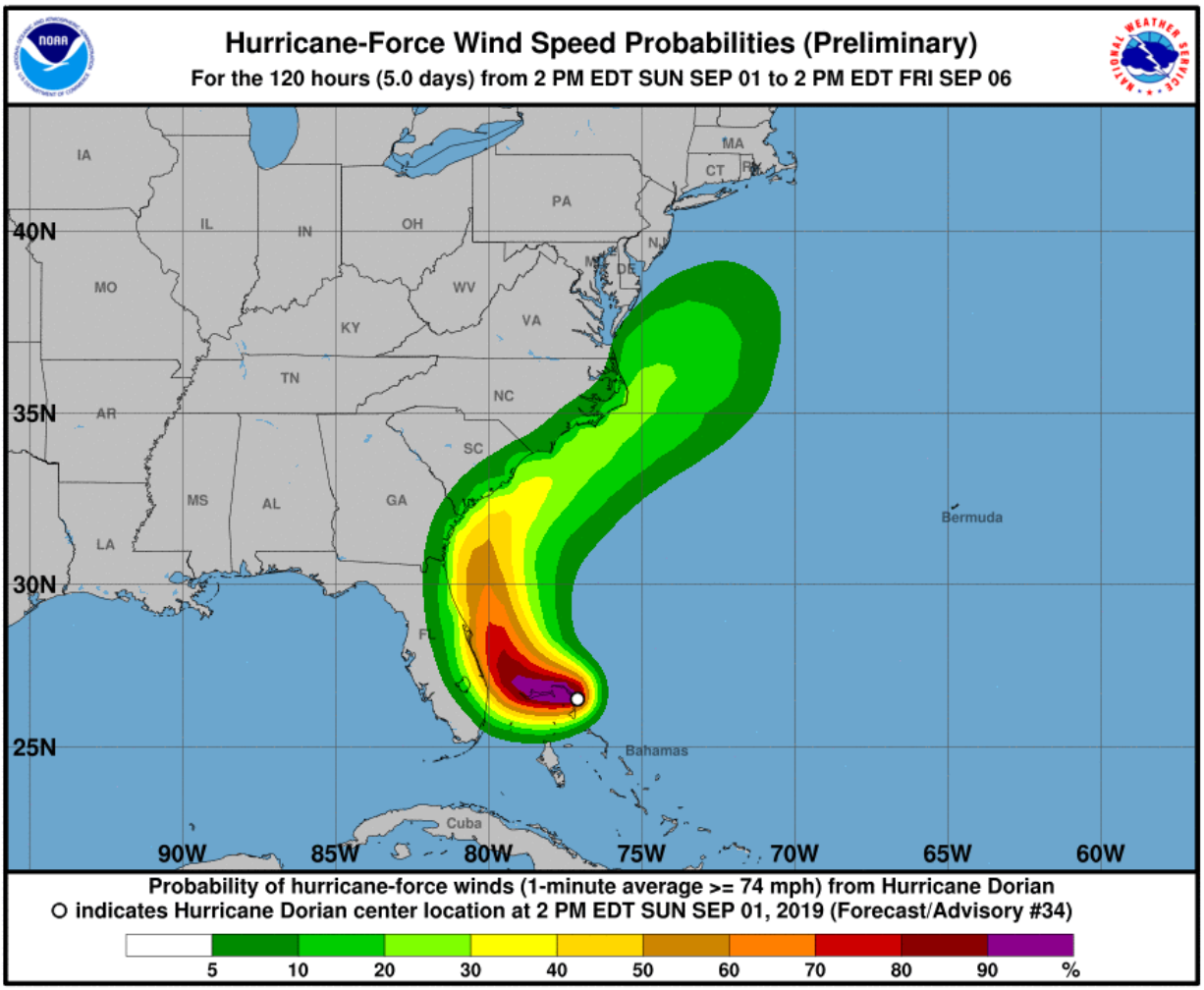
Tropical Storm-Force Wind Probabilities (≥40 mph (65 kph))



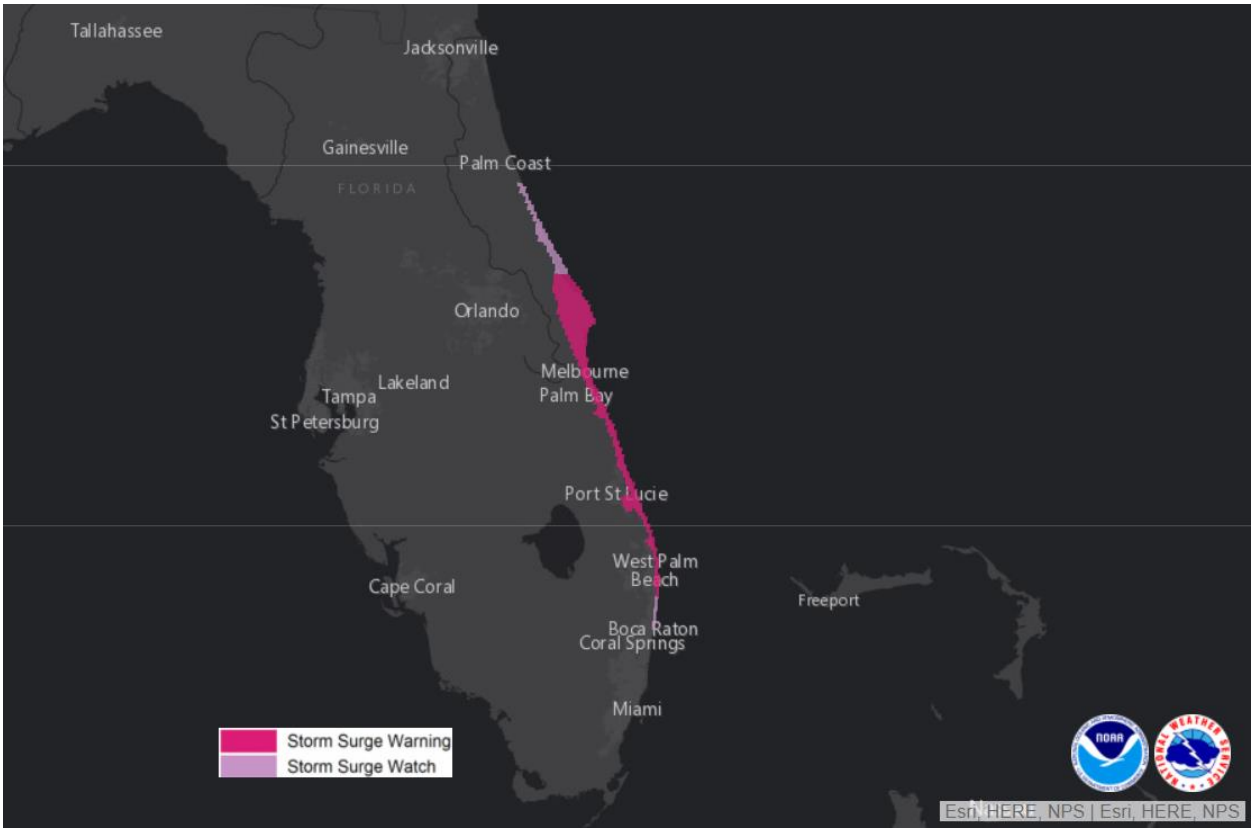
Wind Probabilities (≥60 mph (95 kph))



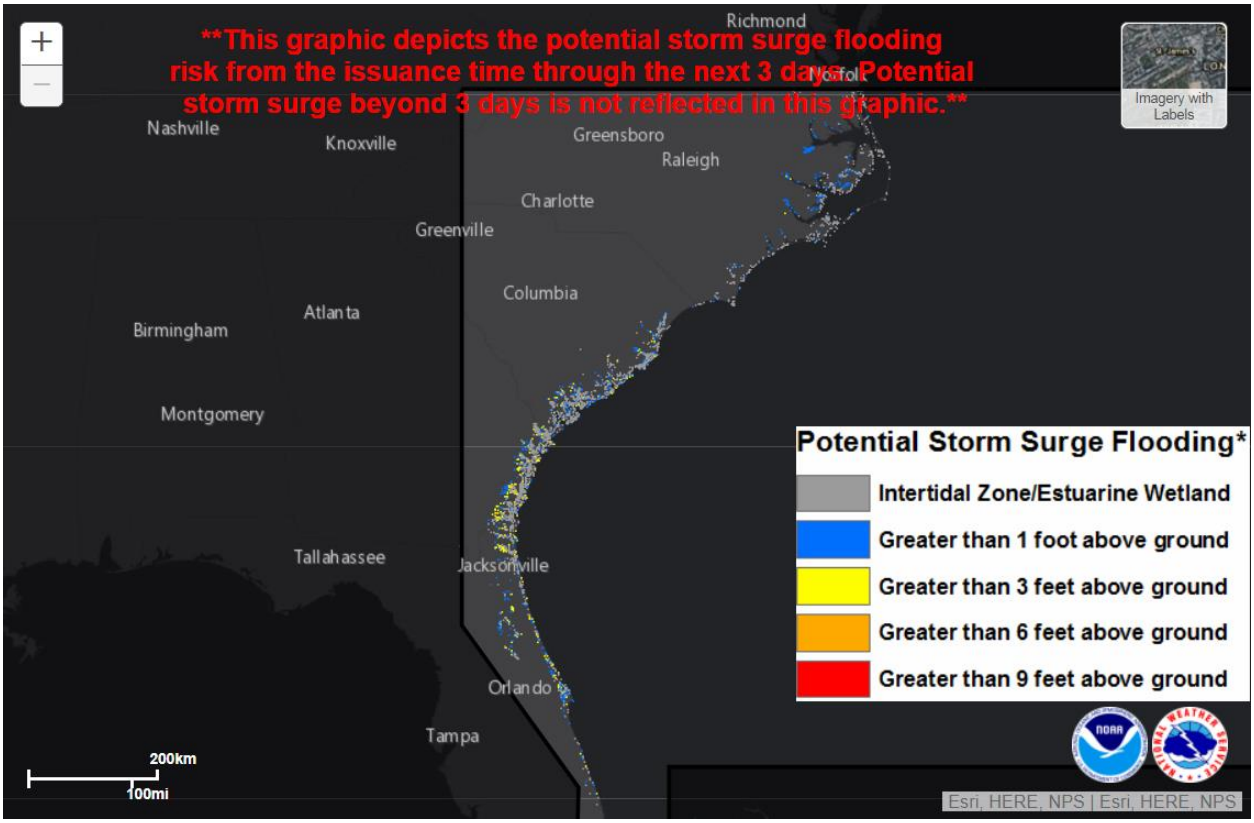
Hurricane-Force Wind Probabilities (≥75 mph (120 kph))



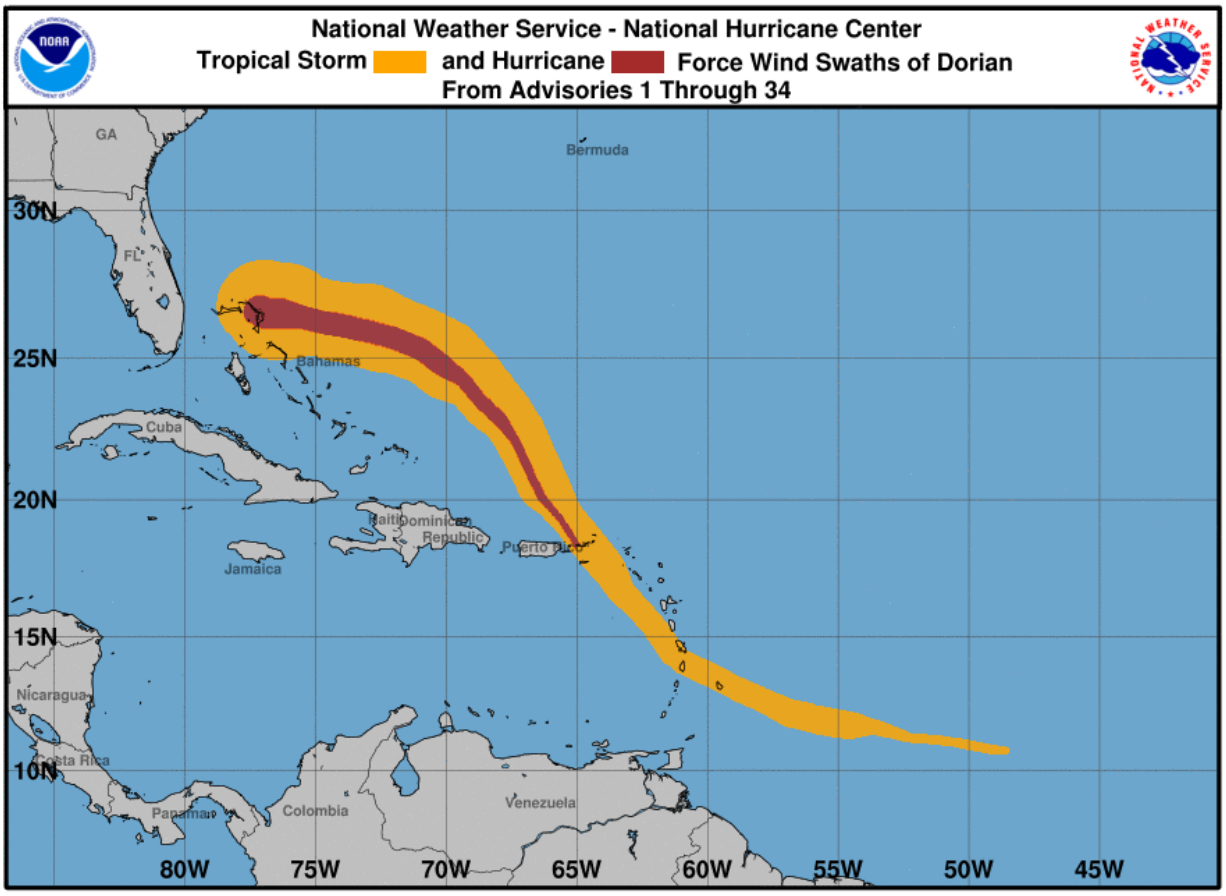
United States: Storm Surge Watches & Warnings



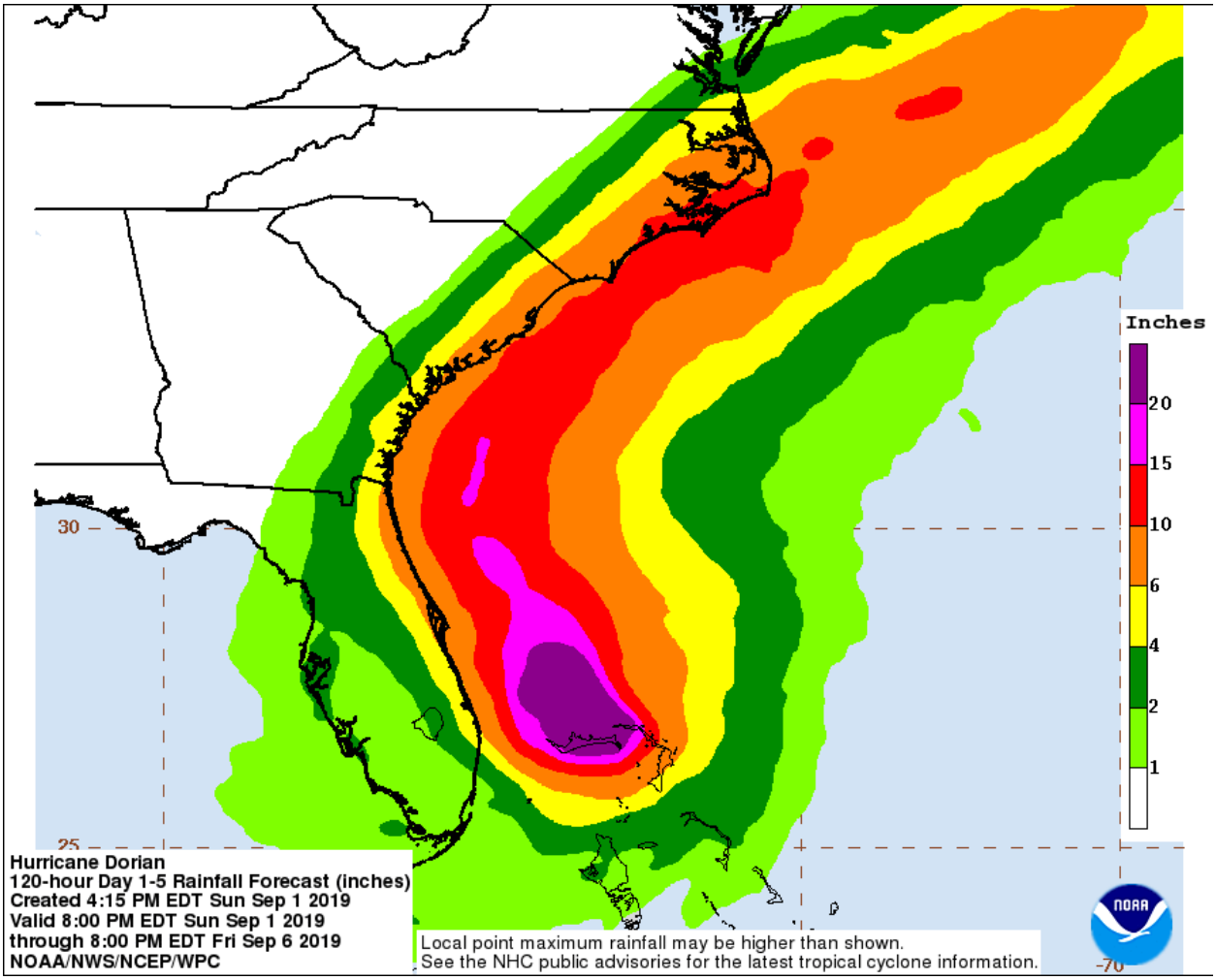
United States: Storm Surge Inundation



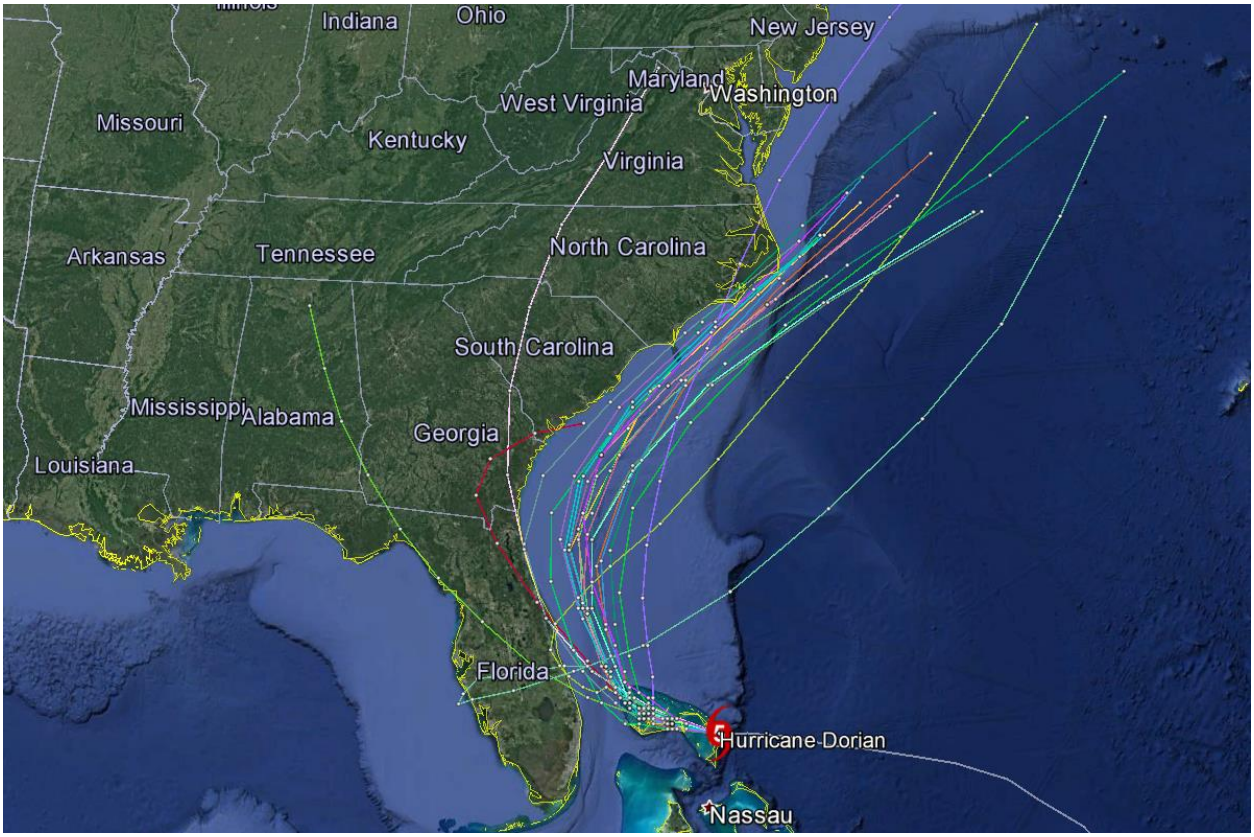
Wind Swath History



Weather Prediction Center: U.S. Rainfall Forecast



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 morning after 8:00 AM Eastern Time (12:00 UTC).

*Tropical Cyclone Intensity Classifications for Global Basins

<table>
<tr><th colspan="3">WIND SPEED</th><th colspan="7">BASINS AND MONITORING BUREAU</th></tr>
<tr><th rowspan="2">KTS[1]</th><th rowspan="2">MPH[1]</th><th rowspan="2">KPH[1]</th><th>NE Pacific, Atlantic</th><th>NW Pacific</th><th>NW Pacific</th><th>SW Pacific</th><th>Australia</th><th>SW Indian</th><th>North Indian</th></tr>
<tr><th>National Hurricane Center (NHC)</th><th>Joint Typhoon Warning Center (JTWC)</th><th>Japan Meteorological Agency (JMA)</th><th>Fiji Meteorological Service (FMS)</th><th>Bureau Of Meteorology (BOM)</th><th>Meteo-France (MF)</th><th>India Meteorological Department (IMD)</th></tr>
<tr><td>30</td><td>35</td><td>55</td><td>Tropical Depression</td><td>Tropical Depression</td><td>Tropical Depression</td><td>Tropical Depression</td><td>Tropical Low</td><td>Tropical Depression</td><td>Deep Depression</td></tr>
<tr><td>35</td><td>40</td><td>65</td><td rowspan="6">Tropical Storm</td><td rowspan="6">Tropical Storm</td><td rowspan="3">Tropical Storm</td><td rowspan="3">Cat. 1 Tropical Cyclone</td><td rowspan="3">Cat. 1 Tropical Cyclone</td><td rowspan="3">Moderate Tropical Storm</td><td rowspan="3">Cyclonic Storm</td></tr>
<tr><td>40</td><td>45</td><td>75</td></tr>
<tr><td>45</td><td>50</td><td>85</td></tr>
<tr><td>50</td><td>60</td><td>95</td><td rowspan="3">Severe Tropical Storm</td><td rowspan="3">Cat. 2 Tropical Cyclone</td><td rowspan="3">Cat. 2 Tropical Cyclone</td><td rowspan="3">Severe Tropical Storm</td><td rowspan="3">Severe Cyclonic Storm</td></tr>
<tr><td>55</td><td>65</td><td>100</td></tr>
<tr><td>60</td><td>70</td><td>110</td></tr>
<tr><td>65</td><td>75</td><td>120</td><td rowspan="4">Cat. 1 Hurricane</td><td rowspan="9">Typhoon</td><td rowspan="12">Typhoon</td><td rowspan="4">Cat. 3 Severe Tropical Cyclone</td><td rowspan="4">Cat. 3 Severe Tropical Cyclone</td><td rowspan="4">Tropical Cyclone</td><td rowspan="9">Very Severe Cyclonic Storm</td></tr>
<tr><td>70</td><td>80</td><td>130</td></tr>
<tr><td>75</td><td>85</td><td>140</td></tr>
<tr><td>80</td><td>90</td><td>150</td></tr>
<tr><td>85</td><td>100</td><td>160</td><td rowspan="3">Cat. 2 Hurricane</td><td rowspan="3">Cat. 4 Severe Tropical Cyclone</td><td rowspan="3">Cat. 4 Severe Tropical Cyclone</td><td rowspan="5">Intense Tropical Cyclone</td></tr>
<tr><td>90</td><td>105</td><td>170</td></tr>
<tr><td>95</td><td>110</td><td>175</td></tr>
<tr><td>100</td><td>115</td><td>185</td><td rowspan="4">Cat. 3 Major Hurricane</td></tr>
<tr><td>105</td><td>120</td><td>195</td></tr>
<tr><td>110</td><td>125</td><td>205</td><td rowspan="6">Cat. 5 Severe Tropical Cyclone</td><td rowspan="6">Cat. 5 Severe Tropical Cyclone</td></tr>
<tr><td>115</td><td>130</td><td>210</td></tr>
<tr><td>120</td><td>140</td><td>220</td><td rowspan="4">Cat. 4 Major Hurricane</td><td rowspan="6">Very Intense Tropical Cyclone</td><td rowspan="6">Super Cyclonic Storm</td></tr>
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<tr><td>130</td><td>150</td><td>240</td><td rowspan="5">Super Typhoon</td></tr>
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<tr><td>>140</td><td>>160</td><td>>260</td></tr>
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