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 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

Note: The cone contains the probable path of the storm center but does not show the size of the storm. Hazardous conditions can occur outside of the cone.

Potential track area:  
- Day 1-3  
- Day 4-5  

Watches:  
- Hurricane  
- Trop Stm

Warnings:  
- Hurricane  
- Trop Stm

Current wind extent:  
- Hurricane  
- Trop Stm

Current information:  
- X

Forecast positions:  
- Tropical Cyclone  
- Post/Potential TC

- Sustained winds:  
  - D < 39 mph  
  - S 39-73 mph  
  - H 74-110 mph  
  - M > 110 mph

Hurricane Dorian  
- Sunday September 01, 2019  
- 11 AM EDT Advisory 33  
- NWS National Hurricane Center
Most Likely Arrival Time of Tropical Storm-Force Winds

Hurricane Dorian
Sun. Sep. 1, 2019 11 am EDT
Advisory 33

Storm Location
○ < 34 kt (39 mph)
□ 34-63 kt (39-73 mph)
● ≥ 64 kt (74 mph)

5-day chance of receiving sustained 34+ kt (38+ mph) winds

5 10 20 30 40 50 60 70 80 90 100 %

Cat Alert: Hurricane Dorian
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
Wind Swath History

National Weather Service - National Hurricane Center
Tropical Storm and Hurricane Force Wind Swaths of Dorian From Advisories 1 Through 33

Cat Alert: Hurricane Dorian
Weather Prediction Center: U.S. Rainfall Forecast

Local point maximum rainfall may be higher than shown. See the NHC public advisories for the latest tropical cyclone information.
Current ‘Spaghetti’ Model Output Data

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

<table>
<thead>
<tr>
<th>WIND SPEED</th>
<th>BASINS AND MONITORING BUREAU</th>
</tr>
</thead>
<tbody>
<tr>
<td>KTS(^1)</td>
<td>MPH(^1)</td>
</tr>
<tr>
<td>------------</td>
<td>-------------</td>
</tr>
<tr>
<td>30</td>
<td>35</td>
</tr>
<tr>
<td>35</td>
<td>40</td>
</tr>
<tr>
<td>40</td>
<td>45</td>
</tr>
<tr>
<td>45</td>
<td>50</td>
</tr>
<tr>
<td>50</td>
<td>60</td>
</tr>
<tr>
<td>55</td>
<td>65</td>
</tr>
<tr>
<td>60</td>
<td>70</td>
</tr>
<tr>
<td>65</td>
<td>75</td>
</tr>
<tr>
<td>70</td>
<td>80</td>
</tr>
<tr>
<td>75</td>
<td>85</td>
</tr>
<tr>
<td>80</td>
<td>90</td>
</tr>
<tr>
<td>85</td>
<td>100</td>
</tr>
<tr>
<td>90</td>
<td>105</td>
</tr>
<tr>
<td>95</td>
<td>110</td>
</tr>
<tr>
<td>100</td>
<td>115</td>
</tr>
<tr>
<td>105</td>
<td>120</td>
</tr>
<tr>
<td>110</td>
<td>125</td>
</tr>
<tr>
<td>115</td>
<td>130</td>
</tr>
<tr>
<td>120</td>
<td>140</td>
</tr>
<tr>
<td>125</td>
<td>145</td>
</tr>
<tr>
<td>130</td>
<td>150</td>
</tr>
<tr>
<td>135</td>
<td>155</td>
</tr>
<tr>
<td>140</td>
<td>160</td>
</tr>
<tr>
<td>&gt;140</td>
<td>&gt;160</td>
</tr>
</tbody>
</table>

\(^1\)KTS = Knots, MPH = Miles per Hour, KPH = Kilometers per Hour

*Cat Alert: Hurricane Dorian*
About Aon

Aon plc (NYSE:AON) is a leading global professional services firm providing a broad range of risk, retirement and health solutions. Our 50,000 colleagues in 120 countries empower results for clients by using proprietary data and analytics to deliver insights that reduce volatility and improve performance.

© Aon plc 2019. All rights reserved.
The information contained herein and the statements expressed are of a general nature and are not intended to address the circumstances of any particular individual or entity. Although we endeavor to provide accurate and timely information and use sources we consider reliable, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.

Copyright © by Impact Forecasting®
No claim to original government works. The text and graphics of this publication are provided for informational purposes only. While Impact Forecasting® has tried to provide accurate and timely information, inadvertent technical inaccuracies and typographical errors may exist, and Impact Forecasting® does not warrant that the information is accurate, complete or current. The data presented at this site is intended to convey only general information on current natural perils and must not be used to make life-or-death decisions or decisions relating to the protection of property, as the data may not be accurate. Please listen to official information sources for current storm information. This data has no official status and should not be used for emergency response decision-making under any circumstances.

Cat Alerts use publicly available data from the internet and other sources. Impact Forecasting® summarizes this publicly available information for the convenience of those individuals who have contacted Impact Forecasting® and expressed an interest in natural catastrophes of various types. To find out more about Impact Forecasting or to sign up for the Cat Reports, visit Impact Forecasting’s webpage at impactforecasting.com.

Copyright © by Aon plc. All rights reserved. No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise. Impact Forecasting® is a wholly owned subsidiary of Aon plc.