Current Watches and Warnings

A Hurricane Warning is in effect for Antigua, Barbuda, Anguilla, Montserrat, St. Kitts, and Nevis; Saba, St. Eustatius, and Sint Maarten; Saint Martin and Saint Barthelemy; British Virgin Islands; U.S. Virgin Islands; Puerto Rico, Vieques, and Culebra

A Hurricane Watch is in effect for Guadeloupe; Dominican Republic from Cabo Engano to the northern border with Haiti; Haiti from the northern border with the Dominican Republic to Le Mole St. Nicholas; Turks and Caicos Islands; Southeastern Bahamas

A Tropical Storm Warning is in effect for Guadeloupe; Dominica

A Tropical Storm Watch is in effect for Dominican Republic from south of Cabo Engao to Isla Saona; Haiti from south of Le Mole St. Nicholas to Port-Au-Prince

Current Details from the National Hurricane Center (NHC)

COORDINATES: 16.8° north, 58.4° west
LOCATION: 225 miles (365 kilometers) east of Antigua
MOVEMENT: west at 14 mph (22 kph)
WINDS: 180 mph (285 kph) with gusts to 220 mph (350 kph)
RADIUS OF TROPICAL STORM-FORCE WINDS: 160 miles (260 kilometers)
RADIUS OF HURRICANE-FORCE WINDS: 60 miles (95 kilometers)
MINIMUM CENTRAL PRESSURE: 931 millibars
SAFFIR-SIMPSON SCALE RANKING*: Category 5 Hurricane

24-HOUR LANDFALL POTENTIAL: HIGH
24-HOUR SIGNIFICANT INSURED LOSS POTENTIAL: HIGH

Latest Satellite Picture

Source: NOAA
Discussion

Hurricane Irma, located approximately 225 miles (365 kilometers) east of Antigua, is currently tracking west at 14 mph (22 kph). Irma is an extremely impressive hurricane in both infrared and visible satellite images. The new experimental GOES-16 one-minute visible satellite pictures show a distinct large eye feature and an incredibly impressive inner structure. Aircraft has yet to sample data within the northeastern eyewall in the last few hours, but a new plane is scheduled to arrive shortly. An earlier estimate of flight-level and surface-adjusted wind speeds has justified the NHC to set the initial intensity at 180 mph (295 kph). This makes Irma the strongest hurricane in the Atlantic basin outside of the Caribbean Sea and Gulf of Mexico in the NHC records.

Irma is expected to remain within low vertical wind shear, a moist mid-level atmosphere, and high upper-ocean heat content as it moves west-northwestward during the next several days. These conditions should allow the hurricane to remain very intense throughout much of the forecast period. However, fluctuations in intensity are likely to occur as eyewall replacement cycles take place. The NHC intensity forecast is near the upper-end of the forecast model guidance and assumes little overall interaction of Irma with the islands of the Greater Antilles.

Irma continues to move westward, and a strong ridge of high pressure centered over the central Atlantic should steer Irma generally westward today. The ridge is expected to remain in place over the western Atlantic during the next several days and Irma is forecast to move west-northwestward throughout the most of remainder of the forecast period. Around Day 5, a frontal boundary dropping southward over the central United States is expected to begin eroding the western portion of the ridge, allowing a Irma to gain some latitude. The new NHC track forecast is very similar to the previous forecast.

Since Irma is a large hurricane, users are reminded to not focus on the exact forecast track since tropical-storm and hurricane-force winds and life-threatening storm surge extend far from the center. Residents in the Leeward Islands should complete their preparations very soon as the weather will begin to deteriorate over the easternmost Leeward Islands later this afternoon.

Key Messages from the National Hurricane Center

1. Irma is a potentially catastrophic category 5 hurricane and will bring life-threatening wind, storm surge, and rainfall hazards to portions of the northeastern Leeward Islands beginning later today and the Virgin Islands and Puerto Rico beginning tomorrow. Preparations should be rushed to completion before the arrival of tropical-storm force winds later today in the Leeward Islands and tomorrow morning in Virgin Islands and Puerto Rico.

2. Hurricane watches have been issued for portions of the Dominican Republic and Haiti, the southeastern Bahamas and Turks and Caicos, and Irma could bring dangerous wind, storm surge, and rainfall to those areas on Thursday and Friday.

3. Irma could directly affect the remainder of the Bahamas and Cuba as an extremely dangerous major hurricane later this week. Residents in these areas should monitor the progress of Irma and listen to advice given by officials.

4. The chance of direct impacts from Irma later this week and this weekend is increasing in the Florida Keys and portions of the Florida Peninsula. However, it is too soon to specify the timing and magnitude of the impacts. Elsewhere, it is too early to determine what direct impacts Irma might have on the continental United States. Those in hurricane-prone areas should ensure that they have their hurricane plan in place.
Additional Information

STORM SURGE: The combination of a life-threatening storm surge and large breaking waves will raise water levels by as much as 7 to 11 feet above normal tide levels along the coasts of the extreme northern Leeward Islands within the Hurricane Warning area near and to the north of the center of Irma. Near the coast, the surge will be accompanied by large and destructive waves.

The combination of a life-threatening 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 is expected to reach the following heights above ground if the peak surge occurs at the time of high tide:

*British and U.S. Virgin Islands except St. Croix:* 7 to 11 feet  
*Northern coast of Puerto Rico:* 3 to 5 feet  
*Southern coast of Puerto Rico and St. Croix:* 1 to 2 feet

The deepest water will occur along the immediate coast in areas of onshore winds, where the surge will be accompanied by large and destructive waves. Surge-related flooding depends on the relative timing of the surge and the tidal cycle, and can vary greatly over short distances.

WIND: Hurricane conditions are expected within the Hurricane Warning area in the Leeward Islands by tonight, with tropical storm conditions beginning later today. Tropical storm conditions are expected within the tropical storm warning area where hurricane conditions are also possible. Hurricane conditions are expected to begin within the Hurricane Warning area in the British and U.S. Virgin Islands and Puerto Rico on Wednesday, with tropical storm conditions beginning tonight.

Hurricane and tropical storm conditions are possible within the watch area in the Dominican Republic, Haiti, the Turks and Caicos, and the southeastern Bahamas by early Thursday.

RAINFALL: Irma is expected to produce total rain accumulations of 8 to 12 inches with isolated maximum amounts of 18 inches across the northern Leeward Islands. Irma is expected to produce total rain accumulations of 4 to 10 inches with isolated maximum amounts of 15 inches across northeast Puerto Rico and the British and U.S. Virgin Islands, and amounts of 2 to 4 inches over southwest Puerto Rico, the southern Leeward Islands, and Saint Croix. This rainfall may cause life-threatening flash floods and mudslides.

SURF: Swells generated by Irma will affect the northern Leeward Islands, Puerto Rico, and the U.S. and British Virgin Islands during the next several days. These swells are likely to cause life-threatening surf and rip current conditions.
National Hurricane Center Forecast

Cat Alert: Hurricane Irma

Hurricane Irma
Tuesday September 05, 2017
11 AM AST Advisory 25
NWS National Hurricane Center

Current information: x
Center location 16.8 N 58.4 W
Maximum sustained wind 180 mph
Movement W at 14 mph

Forecast positions:
- Tropical Cyclone
- Post/Potential TC
- Sustained winds: D < 39 mph
  S 39-73 mph H 74-110 mph M > 110 mph

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

Watches:
- Hurricane
- Trop Stm

Warnings:
- Hurricane
- Trop Stm

Current wind extent:
- Hurricane
- Trop Stm
Most Likely Arrival Time of Tropical Storm-Force Winds

Hurricane Irma
Tue. Sep. 5, 2017  11 am AST
Advisory 26

Storm Location &
Wind Speed (knots)
O <34  Φ 34-63  ⚡ ≥64

Five-day chance of receiving sustained 34+ knot (39+ mph) winds

[Map showing 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 (≥60 mph (95 kph))

50-knot (58 mph) Wind Speed Probabilities (Preliminary)
For the 120 hours (5.0 days) from 8 AM AST TUE SEP 05 to 8 AM AST SUN SEP 10

Probability of 50-knot (58 mph) winds (1-minute average >= 58 mph) from all tropical cyclones
O indicates Hurricane Irma center location at 8 AM AST TUE SEP 05, 2017 (Forecast/Advisory #26)
Hurricane-Force Wind Probabilities (≥75 mph (120 kph))

Hurricane-Force Wind Speed Probabilities (Preliminary)
For the 120 hours (5.0 days) from 8 AM AST TUE SEP 05 to 8 AM AST SUN SEP 10

Probability of hurricane-force winds (1-minute average ≥ 74 mph) from all tropical cyclones
O indicates Hurricane Irma center location at 8 AM AST TUE SEP 05, 2017 (Forecast/Advisory #26)
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 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>NE Pacific, Atlantic</th>
<th>NW Pacific</th>
<th>SW Pacific</th>
<th>Australia</th>
<th>SW Indian</th>
<th>North Indian</th>
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<tbody>
<tr>
<td>KTS</td>
<td>MPH</td>
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<td>National Hurricane Center (NHC)</td>
<td>Joint Typhoon Warning Center (JTWC)</td>
<td>Japan Meteorological Agency (JMA)</td>
<td>Fiji Meteorological Service (FMS)</td>
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<td>75</td>
<td>Severe Tropical Storm</td>
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<td>85</td>
<td>Cat. 1 Hurricane</td>
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<td>50</td>
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<td>Cat. 3 Major Hurricane</td>
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