As of 09/06/2017 00:00 AST, water levels at Barbuda and across Puerto Rico and the U.S. Virgin Islands are slowly rising and range between 0.3 and 0.65 feet above normal tide levels. Winds are also slowly increasing across Barbuda, the U.S. Virgin Islands and eastern Puerto Rico with speeds between 10 and 15 knots and intermittent gusts of 20 to 25 knots. Barometric pressure continues to fall across the region.
Water Level and Meteorological plots available below are updated automatically. A line denoting Mean Higher High Water (MHHW) is displayed to provide an approximate indication of when flooding inundation may occur.

For additional data, please see the Center for Operational Oceanographic Products & Services website. For more information or archived products and reports, please see the Storm QuickLook Homepage.

Analyst: AC

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SELECT NATIONAL HURRICANE CENTER ADVISORY INFORMATION:

Hurricane Irma Advisory Number 28

NWS National Hurricane Center Miami FL

1100 PM AST Tue Sep 05 2017

...POTENTIALLY CATASTROPHIC CATEGORY 5 HURRICANE IRMA GETTING VERY CLOSE TO THE NORTHERN LEEWARD ISLANDS...

SUMMARY OF 1100 PM AST...0300 UTC...INFORMATION

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LOCATION...17.4N 61.1W

ABOUT 50 MI...80 KM ENE OF ANTIGUA

ABOUT 50 MI...75 KM ESE OF BARBUDA

MAXIMUM SUSTAINED WINDS...185 MPH...295 KM/H

PRESENT MOVEMENT...WNW OR 285 DEGREES AT 15 MPH...24 KM/H

MINIMUM CENTRAL PRESSURE...916 MB...27.05 INCHES

WATCHES AND WARNINGS

CHANGES WITH THIS ADVISORY:

None.

SUMMARY OF WATCHES AND WARNINGS IN EFFECT:

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
* Dominican Republic from Cabo Engano to the northern border with Haiti
* Guadeloupe

A Hurricane Watch is in effect for...
* Haiti from the northern border with the Dominican Republic to Le Mole St. Nicholas
* Turks and Caicos Islands
* Southeastern Bahamas
* Cuba from Matanzas province eastward to Guantanamo province

A Tropical Storm Warning is in effect for...
* Dominica
* Dominican Republic from south of Cabo Engano westward to the southern border with Haiti

A Tropical Storm Watch is in effect for...
* Haiti from south of Le Mole St. Nicholas to Port-Au-Prince

A Hurricane Warning means that hurricane conditions are expected somewhere within the warning area. Preparations to protect life and property should be rushed to completion.

A Hurricane Watch means that hurricane conditions are possible within the watch area. A watch is typically issued 48 hours before the anticipated first occurrence of tropical-storm-force winds, conditions that make outside preparations difficult or dangerous.

A Tropical Storm Warning means that tropical storm conditions are expected somewhere within the warning area.

A Tropical Storm Watch means that tropical storm conditions are possible within the watch area, generally within 48 hours.

Interests elsewhere in the Dominican Republic and Haiti, as well as Cuba, the central and northwestern Bahamas, and Florida should monitor the progress of Irma.

For storm information specific to your area in the United States, including possible inland watches and warnings, please monitor products issued by your local National Weather Service forecast office. For storm information
specific to your area outside the United States, please monitor products issued by your national meteorological service.

DISCUSSION AND 48-HOUR OUTLOOK

At 1100 PM AST (0300 UTC), the eye of Hurricane Irma was located near latitude 17.4 North, longitude 61.1 West. Irma is moving toward the west-northwest near 15 mph (24 km/h), and this motion is expected to continue for the next couple of days. On the forecast track, the extremely dangerous core of Irma will move over portions of the northern Leeward Islands tonight and early Wednesday, move near or over portions of the northern Virgin Islands Wednesday, and pass near or just north of Puerto Rico late Wednesday and Wednesday night.

Maximum sustained winds remain near 185 mph (295 km/h) with higher gusts. Irma is a category 5 hurricane on the Saffir-Simpson Hurricane Wind Scale. Some fluctuations in intensity are likely during the next day or two, but Irma is forecast to remain a powerful category 4 or 5 hurricane during the next couple of days.

Hurricane-force winds extend outward up to 50 miles (85 km) from the center and tropical-storm-force winds extend outward up to 175 miles (280 km).

The minimum central pressure estimated from Air Force and NOAA Hurricane Hunter aircraft observations is 916 mb (27.05 inches).

HAZARDS AFFECTING LAND

STORM SURGE: The combination of a life-threatening storm surge and large breaking waves will raise water levels above normal tide levels by the following amounts 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.

Northern Leeward Islands...7 to 11 ft
Turks and Caicos Islands...15 to 20 ft
Southeastern Bahamas...15 to 20 ft
Northern coast of the Dominican Republic...3 to 5 ft
Northern coast of Haiti and the Gulf of Gonave...1 to 3 ft

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 ft
Northern coast of Puerto Rico...3 to 5 ft
Southern coast of Puerto Rico and St. Croix...1 to 2 ft
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. For information specific to your area, please see products issued by your local National Weather Service forecast office.

WIND: Hurricane conditions are expected within the hurricane warning area in the Leeward Islands tonight, with tropical storm conditions beginning within a couple of hours. 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 conditions are expected to begin within the hurricane warning area in the Dominican Republic early Thursday, with tropical storm conditions beginning Wednesday night.

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

RAINFALL: Irma is expected to produce the following rain accumulations through Thursday:

Northern Leeward Islands...8 to 12 inches, isolated 20 inches

Northeast Puerto Rico and the British and U.S. Virgin Islands except St. Croix...4 to 10 inches, isolated 15 inches

Southwest Puerto Rico, the southern Leeward Islands, and St. Croix...2 to 4 inches

Irma is expected to produce the following rain accumulations Wednesday through Saturday:

Southeast Bahamas and Turks and Caicos...8 to 12 inches, isolated 20 inches

Northern Dominican Republic and northern Haiti...4 to 10 inches, isolated 15 inches

Southwest Haiti...1 to 4 inches

These rains could cause life-threatening flash floods and mudslides.

SURF: Swells generated by Irma will affect the northern Leeward Islands, Puerto Rico, the Virgin Islands, the southeastern Bahamas, the Turks and Caicos Islands, and the northern coast of the Dominican Republic during the next several days. These swells are likely to cause life-threatening surf and rip current conditions. Please consult products from your local weather office.

NEXT ADVISORY

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Next intermediate advisory at 200 AM AST.

Next complete advisory at 500 AM AST.

Forecaster Pasch

For the purpose of timely release, data contained within this QuickLook have undergone a "limited" NOS Quality Assurance/Control; however, the data have not yet undergone final verification. All data subject to NOS verification.
Last Observed Sample: 09/05/2017 23:18 (AST). Data relative to MHHW
Observed: 0.35 ft. Predicted: -0.16 ft. Residual: 0.51 ft.
Historical Maximum Water Level: Aug 23 2012, 1.05 ft.
Next High Tide: 09/06/2017 04:37 (AST), 0.04 ft.

Last Observed Sample: 09/05/2017 23:18 (AST)
Wind Speed: 36 knots  Gusts: 53 knots  Direction: 2° T
NOAA/NOS/CO-OPS 9761115 Barbuda

Barometric Pressure

Barometric Pressure: 989.9 mb

NOAA/NOS/CO-OPS 9751364 Christiansted Harbor, St Croix, VI

Preliminary Water Level, relative to Mean Higher High Water (MHHW)

Last Observed Sample: 09/05/2017 23:12 (AST). Data relative to MHHW

Observed: 0.46 ft. Predicted: 0.03 ft. Residual: 0.43 ft.


Next High Tide: 09/06/2017 06:54 (AST), -0.11 ft.
Last Observed Sample: 09/05/2017 23:12 (AST)

Wind Speed: 16 knots  Gusts: 22 knots  Direction: 38° T

Barometric Pressure

Last Observed Sample: 09/05/2017 23:12 (AST)
Barometric Pressure: 1010.0 mb
NOAA/NOS/CO-OPS 9751381 Lameshur Bay, St John, VI

Preliminary Water Level, relative to Mean Higher High Water (MHHW)

Last Observed Sample: 09/05/2017 23:24 (AST). Data relative to MHHW
Observed: 0.55 ft. Predicted: 0.01 ft. Residual: 0.54 ft.
Historical Maximum Water Level: Aug 30 2010, 0.89 ft.
Next High Tide: 09/06/2017 08:26 (AST), -0.18 ft.

NOAA/NOS/CO-OPS 9751401 Lime Tree Bay, St. Croix, VI

Preliminary Water Level, relative to Mean Higher High Water (MHHW)

Last Observed Sample: 09/05/2017 23:18 (AST). Data relative to MHHW
Observed: 0.38 ft. Predicted: 0.07 ft. Residual: 0.31 ft.
Historical Maximum Water Level: Nov 17 1999, 1.88 ft.
Next High Tide: 09/06/2017 21:27 (AST), 0.07 ft.
Wind Speed / Gusts / Direction

Last Observed Sample: 09/05/2017 23:18 (AST)
Wind Speed: 11 knots Gusts: 15 knots Direction: 38° T

Barometric Pressure

Last Observed Sample: 09/05/2017 23:18 (AST)
Barometric Pressure: 1010.9 mb
Last Observed Sample: 09/05/2017 23:18 (AST). Data relative to MHHW
Observed: 0.48 ft. Predicted: 0.05 ft. Residual: 0.43 ft.
Historical Maximum Water Level: Sep 16 1995, 2.93 ft.
Next High Tide: 09/06/2017 08:15 (AST), -0.14 ft.

Last Observed Sample: 09/05/2017 23:18 (AST)
Wind Speed: 8 knots Gusts: 17 knots Direction: 58° T
NOAA/NOS/CO-OPS 9752235 Culebra, PR

Last Observed Sample: 09/05/2017 23:18 (AST). Data relative to MHHW
Observed: 0.38 ft. Predicted: -0.17 ft. Residual: 0.55 ft.
Historical Maximum Water Level: Nov 6 2006, 0.84 ft.
Next High Tide: 09/06/2017 08:24 (AST), -0.14 ft.

NOAA/NOS/CO-OPS 9752619 Isabel Segunda, Vieques Island, PR

Last Observed Sample: 09/05/2017 23:18 (AST). Data relative to MHHW
Observed: 0.28 ft. Predicted: -0.25 ft. Residual: 0.53 ft.
Historical Maximum Water Level: n/a
Next High Tide: 09/06/2017 08:31 (AST), -0.18 ft.
NOAA/NOS/CO-OPS 9752619 Isabel Segunda, Vieques Island, PR

Wind Speed / Gusts / Direction

Last Observed Sample: 09/05/2017 23:18 (AST)

Wind Speed: 7 knots  Gusts: 11 knots  Direction: 43° T

NOAA/NOS/CO-OPS 9752695 Esperanza, Vieques Island, PR

Preliminary Water Level, relative to Mean Higher High Water (MHHW)

Last Observed Sample: 09/05/2017 23:18 (AST). Data relative to MHHW

Observed: 0.56 ft.  Predicted: 0.04 ft.  Residual: 0.52 ft.

Historical Maximum Water Level: Aug 22 2011, 0.99 ft.

Next High Tide: 09/06/2017 06:08 (AST), -0.10 ft.
NOAA/NOS/CO-OPS 9752695 Esperanza, Vieques Island, PR

Wind Speed / Gusts / Direction

Wind Speed: 4 knots Gusts: 10 knots Direction: 62° T

NOAA/NOS/CO-OPS 9753216 Fajardo, PR

Preliminary Water Level, relative to Mean Higher High Water (MHHW)

Last Observed Sample: 09/05/2017 23:18 (AST). Data relative to MHHW

Observed: 0.30 ft. Predicted: -0.44 ft. Residual: 0.74 ft.

Historical Maximum Water Level: Aug 30 2010, 0.84 ft.

Next High Tide: 09/06/2017 08:29 (AST), -0.17 ft.
NOAA/NOS/CO-OPS 9753216 Fajardo, PR

Wind Speed / Gusts / Direction

Last Observed Sample: 09/05/2017 23:18 (AST)
Wind Speed: 14 knots Gusts: 17 knots Direction: 35° T

NOAA/NOS/CO-OPS 9754228 Yabucoa Harbor, PR

Preliminary Water Level, relative to Mean Higher High Water (MHHW)

Last Observed Sample: 09/05/2017 23:18 (AST). Data relative to MHHW
Observed: 0.63 ft. Predicted: 0.06 ft. Residual: 0.57 ft.
Historical Maximum Water Level: n/a
Next High Tide: 09/06/2017 21:24 (AST), 0.07 ft.
NOAA/NOS/CO-OPS 9754228 Yabucoa Harbor, PR

Wind Speed / Gusts / Direction

Last Observed Sample: 09/05/2017 23:18 (AST)
Wind Speed: 1 knots Gusts: 1 knots Direction: 264° T

NOAA/NOS/CO-OPS 9755371 San Juan, La Puntilla, San Juan Bay, PR

Preliminary Water Level, relative to Mean Higher High Water (MHHW)

Last Observed Sample: 09/05/2017 23:18 (AST). Data relative to MHHW
Observed: 0.20 ft. Predicted: -0.26 ft. Residual: 0.46 ft.
Historical Maximum Water Level: Sep 18 1989, 2.77 ft.
Next High Tide: 09/06/2017 08:44 (AST), -0.14 ft.
Wind Speed / Gusts / Direction

Last Observed Sample: 09/05/2017 23:18 (AST)
Wind Speed: 10 knots  Gusts: 14 knots  Direction: 64° T

Barometric Pressure

Last Observed Sample: 09/05/2017 23:18 (AST)
Barometric Pressure: 1011.9 mb
NOAA/NOS/CO-OPS 9757809 Arecibo, PR

Preliminary Water Level, relative to Mean Higher High Water (MHHW)

Last Observed Sample: 09/05/2017 23:30 (AST). Data relative to MHHW
Observed: -0.20 ft. Predicted: -0.62 ft. Residual: 0.42 ft.
Historical Maximum Water Level: Oct 8 2010, 0.90 ft.
Next High Tide: 09/06/2017 08:19 (AST), -0.27 ft.

NOAA/NOS/CO-OPS 9757809 Arecibo, PR

Wind Speed / Gusts / Direction

Last Observed Sample: 09/05/2017 23:30 (AST)
Wind Speed: 8 knots Gusts: 13 knots Direction: 63° T
NOAA/NOS/CO-OPS 9759110 Magueyes Island, PR

Last Observed Sample: 09/05/2017 23:18 (AST). Data relative to MHHW

- Observed: 0.45 ft
- Predicted: 0.12 ft
- Residual: 0.33 ft

Historical Maximum Water Level: Sep 22 1998, 1.60 ft

Next High Tide: 09/06/2017 21:35 (AST), 0.13 ft

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NOAA/NOS/CO-OPS 9759110 Magueyes Island, PR

Last Observed Sample: 09/05/2017 23:18 (AST)

- Wind Speed: 2 knots
- Gusts: 3 knots
- Direction: 25° T
NOAA/NOS/CO-OPS 9759394 Mayaguez, PR

Preliminary Water Level, relative to Mean Higher High Water (MHHW)

Last Observed Sample: 09/05/2017 23:18 (AST). Data relative to MHHW

Observed: 0.15 ft. Predicted: -0.32 ft. Residual: 0.47 ft.

Historical Maximum Water Level: n/a

Next High Tide: 09/06/2017 08:32 (AST), -0.11 ft.

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NOAA/NOS/CO-OPS 9759394 Mayaguez, PR

Wind Speed / Gusts / Direction

Last Observed Sample: 09/05/2017 23:18 (AST)

Wind Speed: 4 knots Gusts: 7 knots Direction: 84° T
NOAA/NOS/CO-OPS 9759938 Mona Island, PR

Preliminary Water Level, relative to Mean Higher High Water (MHHW)

Last Observed Sample: 09/05/2017 23:24 (AST). Data relative to MHHW

Observed: 0.46 ft. Predicted: -0.06 ft. Residual: 0.52 ft.

Historical Maximum Water Level: Dec 23 2010, 1.24 ft.

Next High Tide: 09/06/2017 07:48 (AST), -0.18 ft.

NOAA/NOS/CO-OPS 9759938 Mona Island, PR

Barometric Pressure

Last Observed Sample: 09/05/2017 23:24 (AST)

Barometric Pressure: 1011.7 mb
## Latest Water Level Observations on MHHW

<table>
<thead>
<tr>
<th>Station ID</th>
<th>Station Name</th>
<th>Date/Time</th>
<th>Observed Water Level</th>
<th>Predicted Tide</th>
<th>Residual Water Level</th>
<th>24 Hour Maximum Storm Tide</th>
</tr>
</thead>
<tbody>
<tr>
<td>9761115</td>
<td>Barbuda</td>
<td>09/05/2017 23:18 (AST)</td>
<td>0.35 ft</td>
<td>-0.16 ft</td>
<td>0.51 ft</td>
<td>0.96 ft</td>
</tr>
<tr>
<td>9751364</td>
<td>Christiansted Harbor, St Croix, VI</td>
<td>09/05/2017 23:12 (AST)</td>
<td>0.46 ft</td>
<td>0.03 ft</td>
<td>0.43 ft</td>
<td>0.53 ft</td>
</tr>
<tr>
<td>9751381</td>
<td>Lameshur Bay, St John, VI</td>
<td>09/05/2017 23:24 (AST)</td>
<td>0.55 ft</td>
<td>0.01 ft</td>
<td>0.54 ft</td>
<td>0.70 ft</td>
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<tr>
<td>9751401</td>
<td>Lime Tree Bay, St. Croix, VI</td>
<td>09/05/2017 23:18 (AST)</td>
<td>0.38 ft</td>
<td>0.07 ft</td>
<td>0.31 ft</td>
<td>0.44 ft</td>
</tr>
<tr>
<td>9751639</td>
<td>Charlotte Amalie, VI</td>
<td>09/05/2017 23:18 (AST)</td>
<td>0.48 ft</td>
<td>0.05 ft</td>
<td>0.43 ft</td>
<td>0.72 ft</td>
</tr>
<tr>
<td>9752235</td>
<td>Culebra, PR</td>
<td>09/05/2017 23:18 (AST)</td>
<td>0.38 ft</td>
<td>-0.17 ft</td>
<td>0.55 ft</td>
<td>0.70 ft</td>
</tr>
<tr>
<td>9752619</td>
<td>Isabel Segunda, Vieques Island, PR</td>
<td>09/05/2017 23:18 (AST)</td>
<td>0.28 ft</td>
<td>-0.25 ft</td>
<td>0.53 ft</td>
<td>0.68 ft</td>
</tr>
<tr>
<td>9752695</td>
<td>Esperanza, Vieques Island, PR</td>
<td>09/05/2017 23:18 (AST)</td>
<td>0.56 ft</td>
<td>0.04 ft</td>
<td>0.52 ft</td>
<td>0.70 ft</td>
</tr>
<tr>
<td>9753216</td>
<td>Fajardo, PR</td>
<td>09/05/2017 23:18 (AST)</td>
<td>0.30 ft</td>
<td>-0.44 ft</td>
<td>0.74 ft</td>
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<tr>
<td>9754228</td>
<td>Yabucoa Harbor, PR</td>
<td>09/05/2017 23:18 (AST)</td>
<td>0.63 ft</td>
<td>0.06 ft</td>
<td>0.57 ft</td>
<td>0.74 ft</td>
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<td>9755371</td>
<td>San Juan, La Puntilla, San Juan Bay, PR</td>
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<td>0.20 ft</td>
<td>-0.26 ft</td>
<td>0.46 ft</td>
<td>0.52 ft</td>
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<tr>
<td>9757809</td>
<td>Arecibo, PR</td>
<td>09/05/2017 23:30 (AST)</td>
<td>-0.20 ft</td>
<td>-0.62 ft</td>
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<td>0.53 ft</td>
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<td>9759110</td>
<td>Magueyes Island, PR</td>
<td>09/05/2017 23:18 (AST)</td>
<td>0.45 ft</td>
<td>0.12 ft</td>
<td>0.33 ft</td>
<td>0.48 ft</td>
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<tr>
<td>9759394</td>
<td>Mayaguez, PR</td>
<td>09/05/2017 23:18 (AST)</td>
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<td>-0.32 ft</td>
<td>0.47 ft</td>
<td>0.68 ft</td>
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<tr>
<td>9759938</td>
<td>Mona Island, PR</td>
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<td>-0.06 ft</td>
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Center for Operational Oceanographic Products & Services (CO-OPS) | National Ocean Service (NOS) | National Oceanic and Atmospheric Administration | U.S. Department of Commerce