

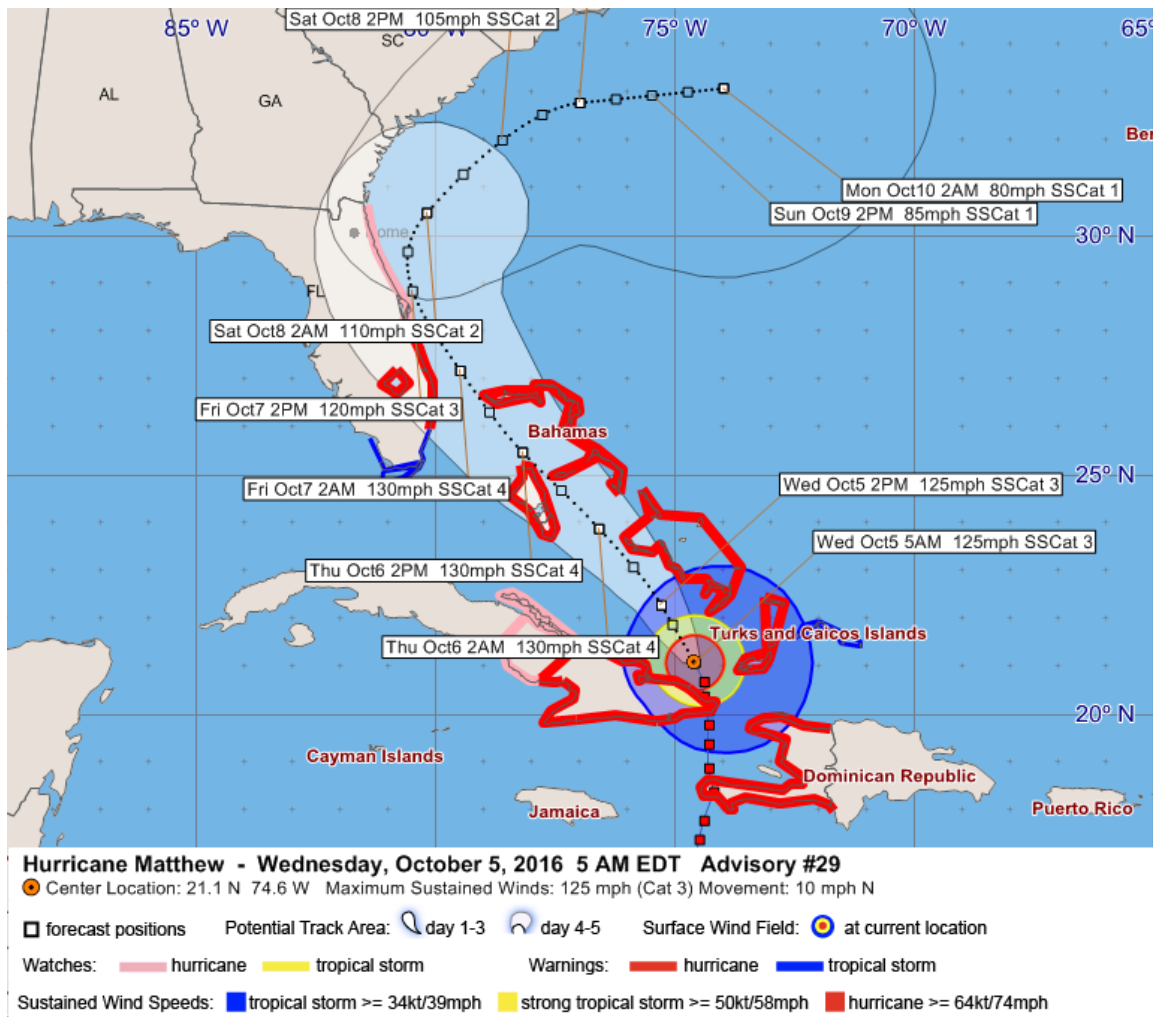
Storm Summary for Hurricane Matthew

Wednesday, October 05, 2016 at 5 AM EDT

(Output from Hurrevac, based on National Hurricane Center Forecast Advisory #29)

Matthew is currently a Category 3 major hurricane on the Saffir-Simpson Hurricane Wind Scale, with maximum sustained winds of 125 mph (110 kts), moving north at 10 mph. The estimated minimum central pressure is 962 mb. Hurricane-force winds extend outward up to 40 miles (65 km) from the storm center. Tropical storm-force winds extend outward up to 160 miles (260 km) from the storm center.

Certain coastal locations are under Hurricane Warning, Hurricane Watch, and Tropical Storm Warning. The geographic extents of these watches and warnings are detailed in the advisory text at the end of this report.



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WTNT34 KNHC 050850

BULLETIN
HURRICANE MATTHEW ADVISORY NUMBER 29
NWS NATIONAL HURRICANE CENTER MIAMI FL AL142016
500 AM EDT WED OCT 05 2016

...STRONG WINDS, HEAVY RAINS, AND A DANGEROUS STORM SURGE BEGINNING
TO SPREAD OVER THE BAHAMAS...

SUMMARY OF 500 AM EDT...0900 UTC...INFORMATION

LOCATION...21.1N 74.6W
ABOUT 65 MI...110 KM NNW OF THE EASTERN TIP OF CUBA
ABOUT 155 MI...250 KM SSE OF LONG ISLAND
MAXIMUM SUSTAINED WINDS...125 MPH...205 KM/H
PRESENT MOVEMENT...N OR 350 DEGREES AT 10 MPH...17 KM/H
MINIMUM CENTRAL PRESSURE...962 MB...28.41 INCHES

WATCHES AND WARNINGS

CHANGES WITH THIS ADVISORY:

The Hurricane Watch along the east coast of Florida has been
extended northward to Fernandina Beach.

SUMMARY OF WATCHES AND WARNINGS IN EFFECT:

A Hurricane Warning is in effect for...

- * Haiti
- * Cuban provinces of Guantanamo, Santiago de Cuba, Holguin, Granma,
and Las Tunas
- * Southeastern Bahamas, including the Inaguas, Mayaguana, Acklins,
Crooked Island, Long Cay, and Ragged Island
- * Central Bahamas, including Long Island, Exuma, Rum Cay,
San Salvador, and Cat Island
- * Northwestern Bahamas, including the Abacos, Andros Island,
Berry Islands, Bimini, Eleuthera, Grand Bahama Island, and
New Providence
- * North of Golden Beach to Sebastian Inlet
- * Lake Okeechobee

A Hurricane Watch is in effect for...

- * Cuban province of Camaguey
- * North of Sebastian Inlet to the Fernandina Beach

A Tropical Storm Warning is in effect for...

- * Dominican Republic from Barahona westward to the border with Haiti
- * Turks and Caicos Islands
- * Chokoloskee to Golden Beach
- * Florida Keys from Seven Mile Bridge eastward
- * Florida Bay

A Tropical Storm Watch is in effect for...

- * Dominican Republic from Puerto Plata westward to the border with
Haiti

Interests elsewhere in the Florida Peninsula and the Florida Keys should monitor the progress of Matthew.

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 500 AM EDT (0900 UTC), the center of Hurricane Matthew was located near latitude 21.1 North, longitude 74.6 West. Matthew is moving toward the north near 10 mph (17 km/h). A turn toward the north-northwest is expected today, followed by a northwest turn tonight. Matthew will be moving across the Bahamas through Thursday, and is expected to be very near the east coast of Florida by Thursday evening.

Maximum sustained winds are near 125 mph (205 km/h) with higher gusts. Matthew is a category 3 hurricane on the Saffir-Simpson Hurricane Wind Scale. Some slight strengthening is forecast during the next couple of days.

Hurricane-force winds extend outward up to 40 miles (65 km) from the center and tropical-storm-force winds extend outward up to 160 miles (260 km).

The estimated minimum central pressure is 962 mb (28.41 inches).

HAZARDS AFFECTING LAND

WIND: Hurricane conditions are expected to continue affecting the northwest portion of Haiti this morning. Hurricane conditions are likely occurring over eastern Cuba and portions of the southeastern Bahamas. Hurricane conditions are expected to spread over the central Bahamas later today and the northwestern Bahamas tonight.

Tropical storm conditions will continue over portions of Haiti and eastern Cuba this morning. Tropical storm conditions are spreading over the southeastern Bahamas and Turks and Caicos Islands, and should reach the central and northwestern Bahamas later today, making outside preparations difficult or dangerous. Tropical storm conditions should diminish within the warning area in the Dominican Republic this morning.

Hurricane conditions are possible in the hurricane watch areas in Cuba this morning with tropical storm conditions possible this morning.

Hurricane conditions are expected within the hurricane warning area in Florida by late Thursday, with tropical storm conditions expected by early Thursday. Tropical storm conditions should reach the tropical storm warning area in Florida by early Thursday.

RAINFALL: Matthew is expected to produce total rainfall amounts in

the following areas:

Southern Haiti and southwestern Dominican Republic...15 to 25 inches, isolated 40 inches
Eastern Cuba and northwestern Haiti...8 to 12 inches, isolated 20 inches
Eastern Jamaica...additional 1 to 2 inches, isolated storm totals 12 inches
The Bahamas...8 to 12 inches, isolated 15 inches
Turks and Caicos Islands...2 to 5 inches, isolated 8 inches
Northeastern Haiti and the Northern Dominican Republic...1 to 3 inches, isolated 5 inches
Upper Florida Keys northward to coastal east-central Florida...4 to 7 inches, isolated 10 inches
Middle to Lower Florida Keys...1 to 3 inches, isolated 5 inches

Life-threatening flash floods and mudslides are likely in southern and northwestern Haiti, the southwestern Dominican Republic, and eastern Cuba.

STORM SURGE: The combination of a dangerous storm surge and large and destructive waves could raise water levels by as much as the following amounts above normal tide levels...

Southern Coast of Cuba east of Cabo Cruz...7 to 11 feet
South Coast of Haiti...7 to 10 feet
Northern Coast of Cuba east of Camaguey...4 to 6 feet
Gulf of Gonave in Haiti...3 to 5 feet
The Bahamas...10 to 15 feet

The water could reach the following heights above ground if the peak surge occurs at the time of high tide...

North Palm Beach to the Flagler/Volusia county line...3 to 5 ft

Surge-related flooding depends on the relative timing of the surge and the tidal cycle, and can vary greatly over short distances. Large waves generated by Matthew will cause water rises to occur well in advance of and well away from the track of the center.

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. There is a danger of life-threatening inundation during the next 36 hours along the Florida east coast from North Palm Beach to the Sebastian Inlet. There is the possibility of life-threatening inundation during the next 48 hours from Sebastian Inlet to the Flagler/Volusia county line. For a depiction of areas at risk, please see the Prototype National Weather Service Storm Surge Watch/Warning Graphic. For information specific to your area, please see products issued by your local National Weather Service forecast office.

The Prototype Storm Surge Watch/Warning Graphic is a depiction of areas that would qualify for inclusion under a storm surge watch or warning currently under development by the National Weather Service and planned for operational use in 2017. The Prototype Graphic is available at hurricanes.gov.

SURF: Swells generated by Matthew will continue to affect portions of the coasts of Hispaniola, eastern Cuba, and the Bahamas during

the next few days. These swells are likely to cause life-threatening surf and rip current conditions. Please consult products from your local weather office.

NEXT ADVISORY

Next intermediate advisory at 800 AM EDT.
Next complete advisory at 1100 AM EDT.

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Forecaster Brown/Cangialosi

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WTNT44 KNHC 050902

HURRICANE MATTHEW DISCUSSION NUMBER 29
NWS NATIONAL HURRICANE CENTER MIAMI FL AL142016
500 AM EDT WED OCT 05 2016

The satellite presentation of Matthew has degraded since its interaction with the mountains terrain of eastern Cuba with the eye no longer discernible in infrared satellite pictures. Data from the Air Force Hurricane Hunter aircraft show that Matthew has weakened slightly. The aircraft measured peak 700-mb flight-level winds of 118 kt and SFMR winds of 109 kt to the northeast of the center. Based on these data the initial wind speed has been lowered to 110 kt. Matthew will be moving over sea surface temperatures of 29 to 30 degrees Celsius and the shear is expected to remain low during the next couple of days. These conditions should allow some slight restrengthening while it moves through the Bahamas. Increasing shear later in the forecast period is likely to cause gradual weakening.

Matthew is moving northward or 350/8 kt. A northwestward turn is expected to occur today as the ridge to the north of Matthew builds westward. This should steer the hurricane through the Bahamas and near the east coast of Florida during the next 48 hours. After that time, the global models turn the hurricane northward, then northeastward when a ridge to the northeast of Matthew shifts eastward and a mid- to upper-level trough approaches the eastern United States. The 0000 UTC GFS has shifted slightly west of the previous run, and is now close to the UKMET and ECWMF tracks. The new NHC forecast is very similar to the previous advisory through 72 hours, and shows a track very close to much of the east coast of the Florida peninsula. Only a slight deviation to the west of forecast track could result in landfall in Florida. The last few iterations of the global models have been trending toward a solution in which the trough is not deep enough to completely lift Matthew northeastward. As a result, the NHC track has been shifted significantly southward at day 5, but it remains well north of the GFS, ECMWF, and UKMET models.

KEY MESSAGES:

1. Matthew is likely to produce devastating impacts from storm surge, extreme winds, heavy rains, flash floods, and/or mudslides in

portions of the warning areas in Haiti, Cuba, and the Bahamas. Please consult statements from the meteorological services and other government officials in those countries.

2. When a hurricane is forecast to take a track roughly parallel to a coastline, as Matthew is forecast to do from Florida through South Carolina, it becomes very difficult to estimate impacts this far in advance. For example, only a small deviation of the track to the left of the NHC forecast could bring the core of a major hurricane onshore, while a small deviation to the right could keep all of the hurricane-force winds offshore. It will likely take another day or so for the potential impacts of Matthew in the United States to clarify.

3. Tropical storm or hurricane conditions could affect Georgia, South Carolina, and North Carolina later this week or this weekend, even if the center of Matthew remains offshore. It is too soon to specify what, if any, direct impacts Matthew might have on the remainder of the U.S. east coast farther to the north. At a minimum, dangerous beach and boating conditions are likely along much of the U.S. east coast later this week and weekend.

4. The National Hurricane Center is issuing Potential Storm Surge Flooding Maps, and Prototype Storm Surge Watch/Warning Graphics for Matthew. It is important to remember that the Potential Storm Surge Flooding Map does not represent a forecast of expected inundation, but rather depicts a reasonable worst-case scenario - the amount of inundation that has a 10 percent chance of being exceeded. In addition, because the Flooding Map is based on inputs that extend out only to about 72 hours, it best represents the flooding potential in those locations within the watch and warning areas.

FORECAST POSITIONS AND MAX WINDS

INIT	05/0900Z	21.1N	74.6W	110 KT	125 MPH
12H	05/1800Z	22.3N	75.3W	110 KT	125 MPH
24H	06/0600Z	23.9N	76.6W	115 KT	130 MPH
36H	06/1800Z	25.5N	78.2W	115 KT	130 MPH
48H	07/0600Z	27.2N	79.5W	115 KT	130 MPH
72H	08/0600Z	30.5N	80.2W	95 KT	110 MPH
96H	09/0600Z	32.8N	77.0W	85 KT	100 MPH
120H	10/0600Z	33.1N	74.0W	70 KT	80 MPH

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Forecaster Brown