

TROPICAL UPDATE 6 PM EDT Thursday, October 6, 2016

Hurricane Matthew & Hurricane Nicole

This update is intended for government and emergency response officials, and is provided for informational and situational awareness purposes only. Forecast conditions are subject to change based on a variety of environmental factors. For additional information, or for any life safety concerns with an active weather event please contact your County Emergency Management or Public Safety Office, local National Weather Service forecast office or visit the National Hurricane Center website at www.nhc.noaa.gov.

Atlantic Basin Satellite Image



Hurricane Matthew 2 PM EDT Thu Oct 062016 Position 25.7N 78.4 W Maximum Winds 140mph Gusts 165 mph Movement NW at 13 mph Minimum Pressure 939 mb (27.72 inches)

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Blue Marble basemap imagery courtesy NASA

Satellite 8:37 PM UTC 4:37 PM EDT

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PRELIMINARY (SINGLE STORM) Tropical Storm Force Wind Speed Probabilities For the 120 hours (5 days) from 2 PM EDT Thu Oct 6 to 2 PM EDT Tue Oct 11







PRELIMINARY (SINGLE STORM) Hurricane Force Wind Speed Probabilities For the 120 hours (5 days) from 2 PM EDT Thu Oct 6 to 2 PM EDT Tue Oct 11





Steering Currents

KTS

100

50

Matthew is currently being steered to the northwest by high pressure to its east and low pressure over the Yucatan. Building high pressure over the eastern U.S. is expected to cause Matthew to turn north and then northeast this weekend. Nicole is expected to meander this weekend under weak steering winds due to the high pressure to its east.

Matthe

CIMSS ENV STEERING PRODUCT: 250-850 HPA LAYER (FOR TC MSLP RANGE: 940-949 HPA) 1800 UTC 060CT16

Nicole





Models are in good agreement on Matthew's track over the next 48 hours, taking it near or over the Florida East Coast and near the Georgia and S.C. coasts. Beyond 72 hours, most models now indicate Matthew making a loop back toward the Bahamas and possibly Florida, with some outliers continuing Matthew's path northeast and into the Atlantic. Matthew's track will need to be watched closely over the next few days.

- Elevated The potential for winds 39 mph -58 mph.
- Moderate the potential for winds 58 mph 74 mph.
- High potential
 for winds 74
 mph 111 mph.
- Extreme the potential for winds greater than 111 mph.



Next 5 Day Forecast Rainfall





Storm Surge Estimates

Potential Storm Surge Flooding*

+

osta

Intertidal Zone/Estuarine Wetland Greater than 1 foot above ground Greater than 3 feet above ground Greater than 6 feet above ground Greater than 9 feet above ground



Brunswi ck











National Digital Forecast Database 19z issuance Graphic created-Oct 06 3:31PM EDT



Wind Timing

County	Onset of 35 mph winds	Onset of 58 mph winds	Onset of Hurricane winds	End of Hurricane winds	End of 58 mph winds	End of 35 mph winds	Est. peak wind and time of peak
Location	34kt(39mph)	50kt(58mph)	64kt(74mph)	64ktEND(dur)	50ktEND(dur)	34ktEND(dur)	Peak Wind
FL Miami-Dade	Existing					10/07 04E [11]	40kt (46mph) 10/06 18E
FL Broward	Existing					10/07 07E [14]	46kt (53mph) 10/06 20E
FL Palm Beach	Existing	10/06 20E	10/06 23E	10/07 02E [03]	10/07 05E [09]	10/07 12E [19]	70kt (81mph) 10/06 23E
FL Martin	Existing	10/06 20E	10/06 22E	10/07 04E [06]	10/07 06E [10]	10/07 13E [20]	78kt (90mph) 10/07 00E
FL St Lucie	Existing	10/06 21E	10/06 23E	10/07 06E [07]	10/07 08E [11]	10/07 16E [23]	85kt (98mph) 10/07 03E
FL Indian River	10/06 18E	10/06 23E	10/07 00E	10/07 08E [08]	10/07 10E [11]	10/07 18E [24]	94kt (108mph) 10/07 04E
FL Okeechobee	10/06 19E	10/07 00E	10/07 03E	10/07 04E [01]	10/07 08E [08]	10/07 15E [20]	66kt (76mph) 10/07 03E
FL Glades	10/06 20E					10/07 12E [16]	46kt (53mph) 10/07 01E
FL Brevard	10/06 20E	10/07 00E	10/07 01E	10/07 13E [12]	10/07 16E [16]	10/08 00E [28]	110kt (127mph) 10/07 07E
FL Highlands	10/06 21E					10/07 15E [18]	48kt (55mph) 10/07 04E
FL Hendry	10/06 21E					10/07 09E [12]	40kt (46mph) 10/06 23E
FL Osceola	10/06 21E	10/07 02E	10/07 04E	10/07 10E [06]	10/07 13E [11]	10/07 21E [24]	88kt (101mph) 10/07 07E
FL Orange	10/06 23E	10/07 03E	10/07 05E	10/07 11E [06]	10/07 14E [11]	10/07 22E [23]	88kt (101mph) 10/07 08E
FL Polk	10/06 23E	10/07 04E			10/07 06E [02]	10/07 19E [20]	51kt (59mph) 10/07 05E
FL Volusia	10/07 00E	10/07 04E	10/07 06E	10/07 17E [11]	10/07 20E [16]	10/08 04E [28]	105kt (121mph) 10/07 09E
FL Seminole	10/07 00E	10/07 04E	10/07 06E	10/07 13E [07]	10/07 16E [12]	10/08 00E [24]	85kt (98mph) 10/07 10E
FL Desoto	10/07 01E					10/07 10E [09]	38kt (44mph) 10/07 03E
FL Hardee	10/07 01E					10/07 13E [12]	41kt (47mph) 10/07 04E
FL Lake	10/07 02E	10/07 06E	10/07 09E	10/07 13E [04]	10/07 17E [11]	10/08 00E [22]	71kt (82mph) 10/07 10E
FL Flagler	10/07 02E	10/07 07E	10/07 09E	10/07 19E [10]	10/07 22E [15]	10/08 07E [29]	98kt (113mph) 10/07 13E
FL Charlotte	10/07 03E					10/07 04E [01]	34kt (39mph) 10/07 03E

Rows in blue indicate the county will only see winds below 50kts (58mph) Rows in yellow indicate the county will see winds between 50-63kts (59-74mph) Rows in red indicate the county will see hurricane force winds >64kts (>74mph)

Wind Timing

County	Onset of 35 mph winds	Onset of 58 mph winds	Onset of Hurricane winds	End of Hurricane winds	End of 58 mph winds	End of 35 mph winds	Est. peak wind and time of peak
FL Marion	10/07 03E	10/07 08E			10/07 17E [09]	10/08 01E [22]	62kt (71mph) 10/07 12E
FL Sumter	10/07 04E					10/07 21E [17]	48kt (55mph) 10/07 11E
FL Hillsborough	10/07 04E					10/07 15E [11]	40kt (46mph) 10/07 08E
FL Putnam	10/07 04E	10/07 08E	10/07 11E	10/07 18E [07]	10/07 21E [13]	10/08 06E [26]	75kt (86mph) 10/07 12E
FL St Johns	10/07 04E	10/07 09E	10/07 11E	10/07 21E [10]	10/08 00E [15]	10/08 09E [29]	95kt (109mph) 10/07 15E
FL Pasco	10/07 04E					10/07 17E [13]	42kt (48mph) 10/07 08E
FL Hernando	10/07 05E					10/07 17E [12]	42kt (48mph) 10/07 08E
FL Clay	10/07 06E	10/07 11E	10/07 14E	10/07 19E [05]	10/07 23E [12]	10/08 08E [26]	74kt (85mph) 10/07 16E
FL Duval	10/07 06E	10/07 11E	10/07 14E	10/07 23E [09]	10/08 02E [15]	10/08 13E [31]	88kt (101mph) 10/07 17E
FL Citrus	10/07 06E					10/07 19E [13]	43kt (49mph) 10/07 10E
FL Alachua	10/07 07E	10/07 13E			10/07 18E [05]	10/08 01E [18]	53kt (61mph) 10/07 15E
FL Bradford	10/07 08E	10/07 13E			10/07 20E [07]	10/08 04E [20]	55kt (63mph) 10/07 17E
FL Nassau	10/07 08E	10/07 14E	10/07 17E	10/08 00E [07]	10/08 03E [13]	10/08 15E [31]	78kt (90mph) 10/07 20E
FL Baker	10/07 09E	10/07 14E			10/07 21E [07]	10/08 06E [21]	55kt (63mph) 10/07 17E
FL Levy	10/07 09E					10/07 21E [12]	44kt (51mph) 10/07 14E
FL Union	10/07 10E	10/07 17E			10/07 19E [02]	10/08 03E [17]	51kt (59mph) 10/07 16E
FL Columbia	10/07 11E					10/08 04E [17]	45kt (52mph) 10/07 16E
FL Gilchrist	10/07 11E					10/07 22E [11]	40kt (46mph) 10/07 14E
FL Suwannee	10/07 13E					10/07 23E [10]	39kt (45mph) 10/07 17E
FL Dixie	10/07 14E					10/07 19E [05]	35kt (40mph) 10/07 15E
FL Hamilton	10/07 14E					10/08 01E [11]	41kt (47mph) 10/07 16E
FL Lafayette	10/07 14E					10/07 20E [06]	36kt (41mph) 10/07 18E

Rows in blue indicate the county will only see winds below 50kts (58mph) Rows in yellow indicate the county will see winds between 50-63kts (59-74mph) Rows in red indicate the county will see hurricane force winds >64kts (>74mph)

Thursday 11pm



Friday 5am



Friday 11am



Hurricane Nicole 2 PM EDT Thu Oct 06 2016 Position 27.3 N 65.0 W Maximum Winds 80 mph Gusts 95 mph Movement NW at 8 mph Minimum Pressure 985 mb (29.08 in ches)

Blue Marble basemap imagery courtesy NASA

Satellite 8:39 PM UTC 4:39 PM EDT

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Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida





Tropical Cyclone Formation Potential for the Five-Day Period Ending at 2:00 pm EDT Tue Oct 11 2016 Chance of Cyclone Formation in Five Days: Low < 40% Medium 40-60% High > 60% X indicates current disturbance location; shading indicates potential formation area.

Tropical Summary:

•At 5pm EDT, Hurricane Matthew was located approximately 25 miles south-southeast of Freeport, Grand Bahama, or about 100 miles east-southeast of West Palm Beach.

•Maximum sustained winds have increased to 140 mph with higher gusts, making Matthew a Category 4 hurricane on the Saffir-Simpson scale.

•Matthew is moving toward the northwest near 13 mph, and this general motion is expected to continue tonight with a turn toward the north-northwest expected early Friday. On the forecast track, the eye of Matthew should move over Freeport in the next hour or so and move very close to or over the east coast of the Florida peninsula through Friday night.

•It is important not to focus on the center line of the forecast cone. Only a small deviation in the forecast track to the left (west) could bring the core of a major hurricane onshore, while a small deviation to the right could keep most or all of the hurricane force winds offshore.

•Matthew remains a large storm, with tropical storm force winds extending 185 miles from the center, and hurricane force winds extending 60 miles from the center.

•There is uncertainty in the forecast track for Matthew beyond 72 hours. The official forecast calls for Matthew to turn southeast and then southwest, taking Matthew back toward the Bahamas as a tropical storm.

•The latest model track guidance favors this scenario, but this could certainly change over the next few days. Regardless, Matthew should be monitored for any potential impact to Florida next week.

•At 2pm EDT, Tropical Storm Nicole was upgraded to a hurricane with maximum sustained winds of 80 mph. It is located approximately 380 miles south of Bermuda.

•Nicole is moving to the north-northwest at 6 mph. A turn toward the north-northwest is expected later today. A slow meandering motion is expected tonight and Friday.

•Elsewhere, a tropical wave located near the Lesser Antilles is producing showers and storms. This system is not expected to develop, but locally heavy rains and gusty winds are possible in the Windward and southern Leeward Islands during the next day or two as the wave moves through the area.

•The system has a 0% (low) chance of development over the next 48 hours, and a 0% (low) chance of development through the next five days.

Florida Outlook:

•A Hurricane Warning is in effect for Broward, Palm Beach, Martin, St. Lucie, Indian River, Brevard, Volusia, Osceola, Orange, Seminole, Okeechobee, Flagler, Nassau, Duval, St. Johns, Putnam, and Clay counties, along with Lake Okeechobee.
•A Tropical Storm Warning is in effect for Miami-Dade, Monroe, Inland Collier, Hendry, Glades, Highlands, Lake, Sumter, Polk, Hardee, Marion, Alachua, Union, Bradford, Columbia, Baker, Pasco, Hernando, Citrus, and Levy counties.
•A Tropical Storm Watch is in effect for coastal Collier, Charlotte, Sarasota, Manatee, Desoto, Hillsborough, and Pinellas counties.

•A **Flood Watch** is in effect for Nassau, Duval, St. Johns, Flagler, Clay, Putnam, Volusia, Brevard, Indian River, Martin, Okeechobee, Orange, Osceola, Seminole, St. Lucie, and Palm Beach counties.

•Regardless of its eventual track and whether it makes landfall or not, Matthew is a very large storm and it will produce damaging winds and rough seas along the East Coast of Florida, along with coastal flooding, beach erosion, and dangerous rip currents.

•Hurricane conditions are expected to reach the warned area this evening and spread northward within the warned area through Friday.

•Tropical storm conditions will continue to spread northward in the warning area along the Florida East Coast tonight and Friday.

•Hurricane force winds will affect the Treasure and Space Coasts, and any westward deviation of the current track will bring destructive hurricane force winds inland.

•The current forecast calls for 5 to 10 inches of rain near the I-95 corridor with isolated totals of 12 inches possible, but this is highly dependent on the eventual track of the storm.

•In addition, isolated tornadoes are possible in association with Matthew as rain bands move ashore. There is a **marginal risk** for severe weather along the East Coast from Broward County to St. Johns County through tomorrow morning, and from Brevard County north to Nassau County on Friday.

•Storm surge heights of 1 to 3 feet are possible along the Southeast Florida coast, and storm surge heights of 4 to 6 feet are possible from Palm Beach County through Indian River County. The highest surge of 7 to 11 feet are possible from Brevard County north to Nassau County. Some areas may see higher surge values depending on the final track of the storm. •Nicole is not a threat to Florida.

Another briefing packet will be issued Friday morning. For more information, please visit the NHC website at <u>www.nhc.noaa.gov</u>.



TROPICAL UPDATE

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State Meteorological Support Unit

Florida Division of Emergency Management

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