



TROPICAL UPDATE

Midnight

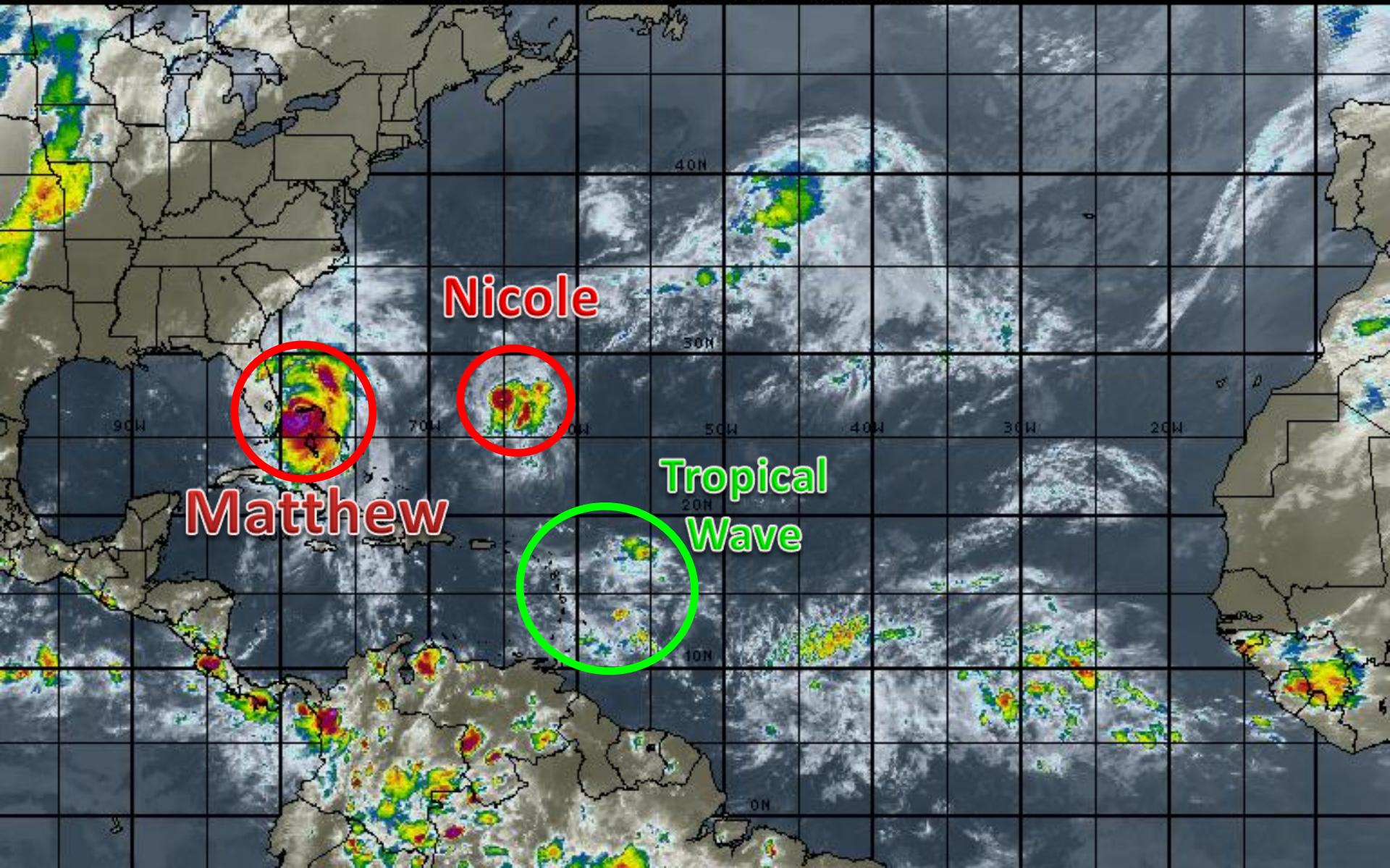
Friday, October 7, 2016

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

00:00 07-OCT-2016 GMT Copyright © 1998-2016 MSI Corporation <http://www.usi.com>



Hurricane Matthew

11 PM EDT, Thu Oct 06 2016

Position 27.1°N 79.2°W

Maximum Winds 130 mph

Gusts 160 mph

Movement NW at 12 mph

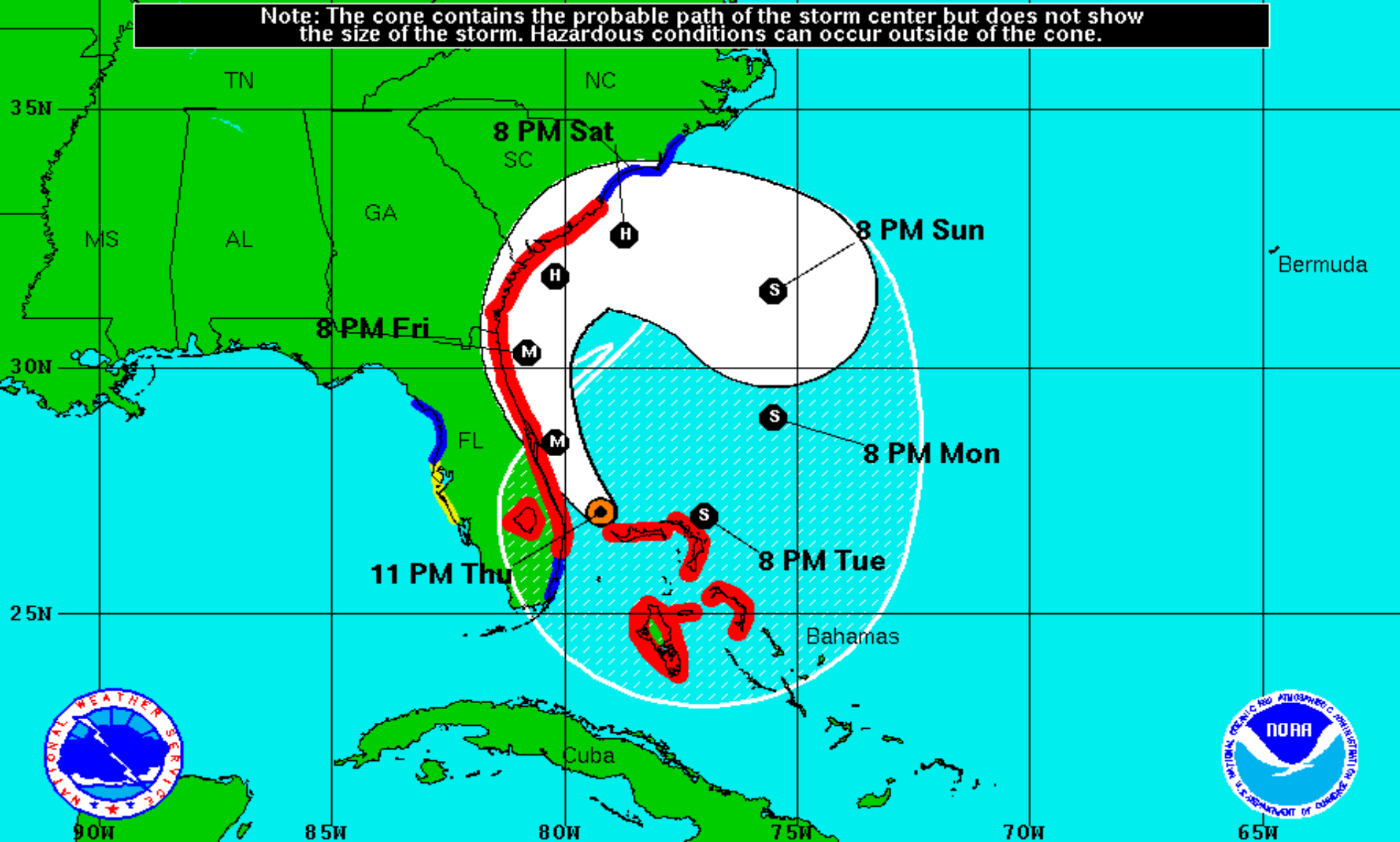
Minimum Pressure 939 mb (27.72 inches)

Blue Marble basemap imagery courtesy NASA


Satellite 2:57 AM UTC
10:57 PM EDT





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.



Hurricane Matthew
 Thursday October 6, 2016
 11 PM EDT Advisory 36
 NWS National Hurricane Center

Current Information: 
 Center Location 27.1 N 79.2 W
 Max Sustained Wind 130 mph
 Movement NW at 13 mph

Forecast Positions:
 Tropical Cyclone  Post-Tropical
 Sustained Winds: D < 39 mph
 S 39-73 mph H 74-110 mph M > 110mph

Potential Track Area:
 Day 1-3  Day 4-5

Watches:
 Hurricane  Trop.Storm

Warnings:
 Hurricane  Trop.Storm

HURRICANE MATTHEW

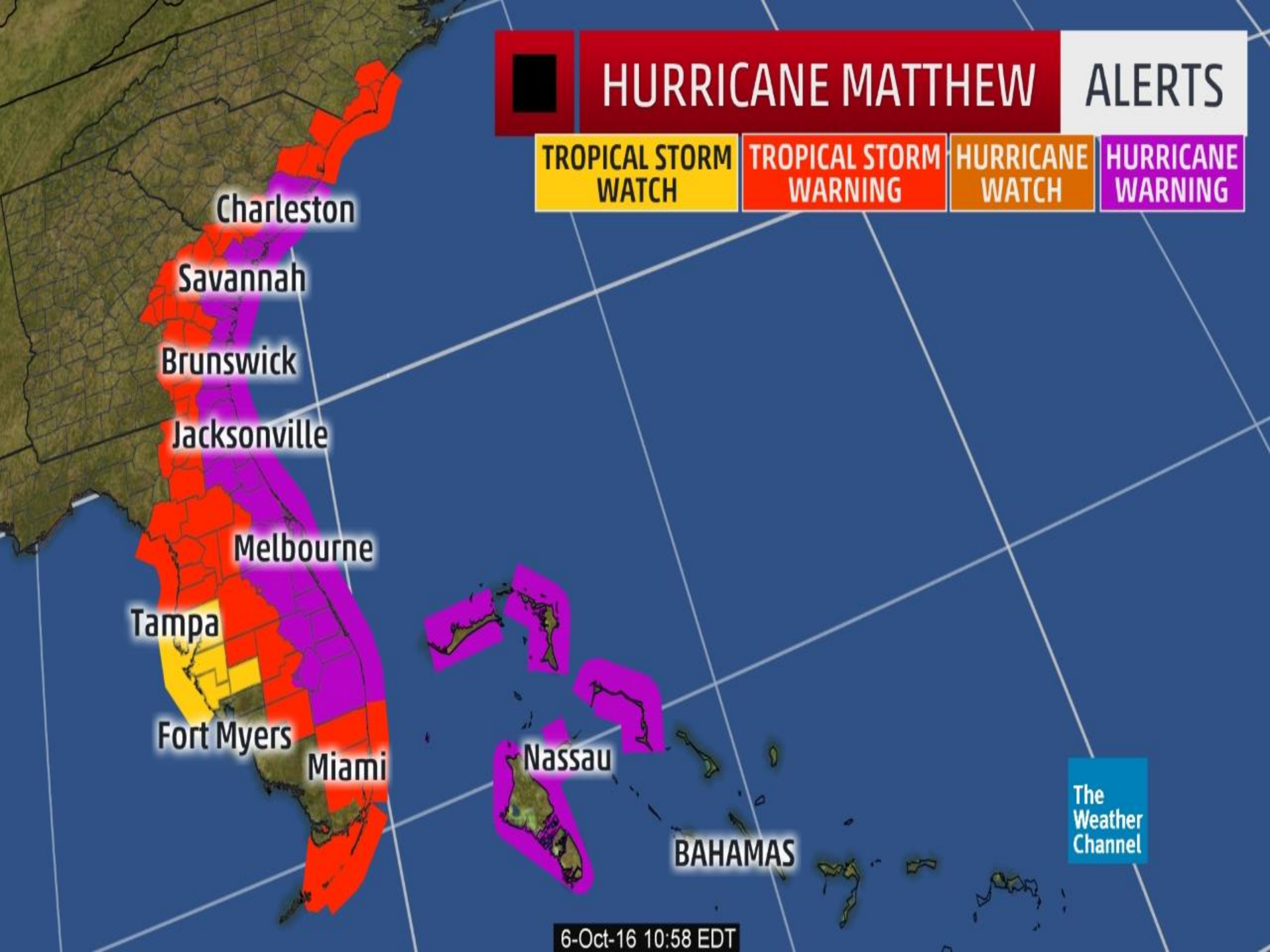
ALERTS

TROPICAL STORM
WATCH

TROPICAL STORM
WARNING

HURRICANE
WATCH

HURRICANE
WARNING



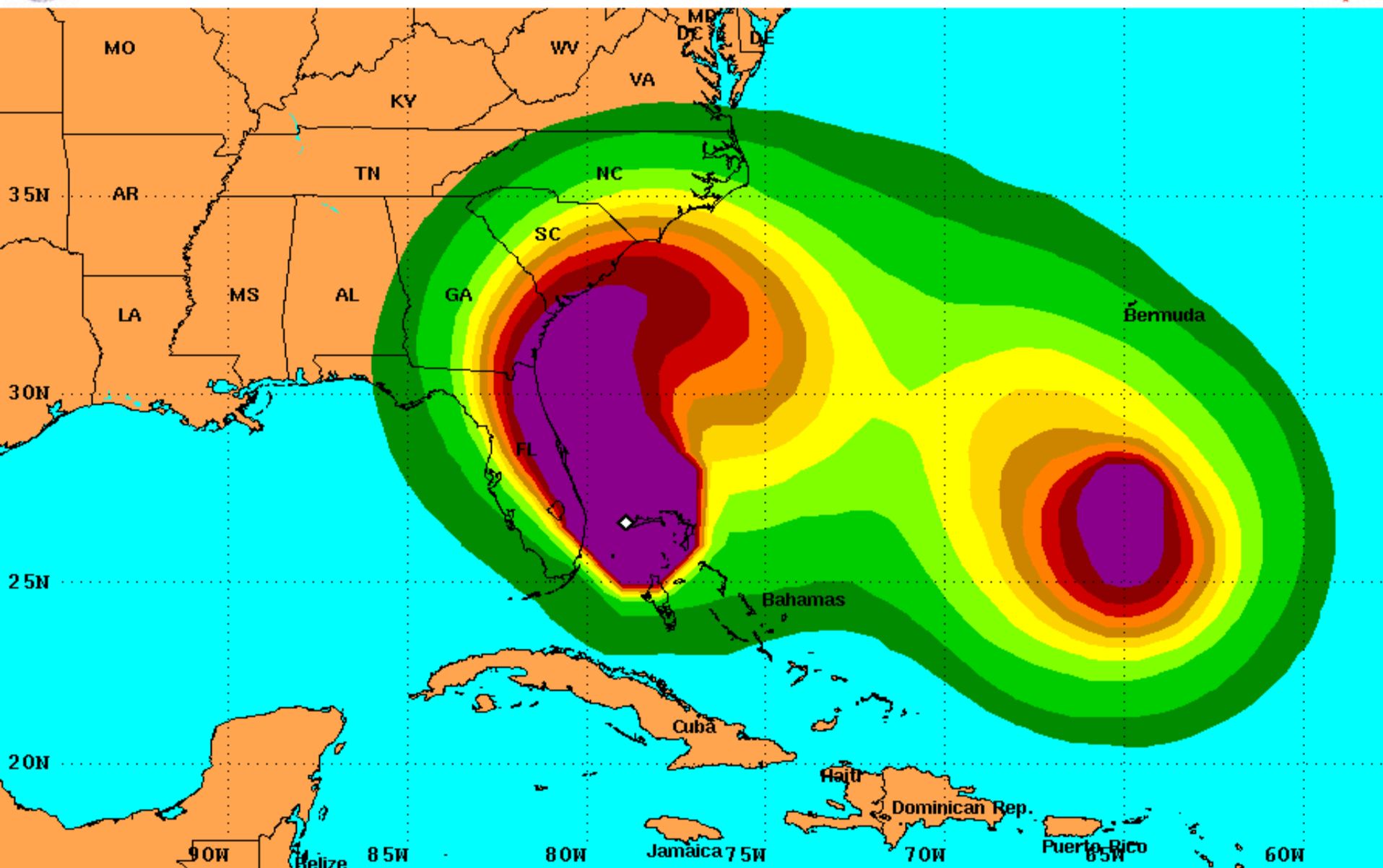
The
Weather
Channel

6-Oct-16 10:58 EDT



Tropical Storm Force Wind Speed Probabilities

For the 120 hours (5 days) from 8 PM EDT Thu Oct 6 to 8 PM EDT Tue Oct 11



Probability of tropical storm force surface winds (1-minute average ≥ 39 mph) from all tropical cyclones

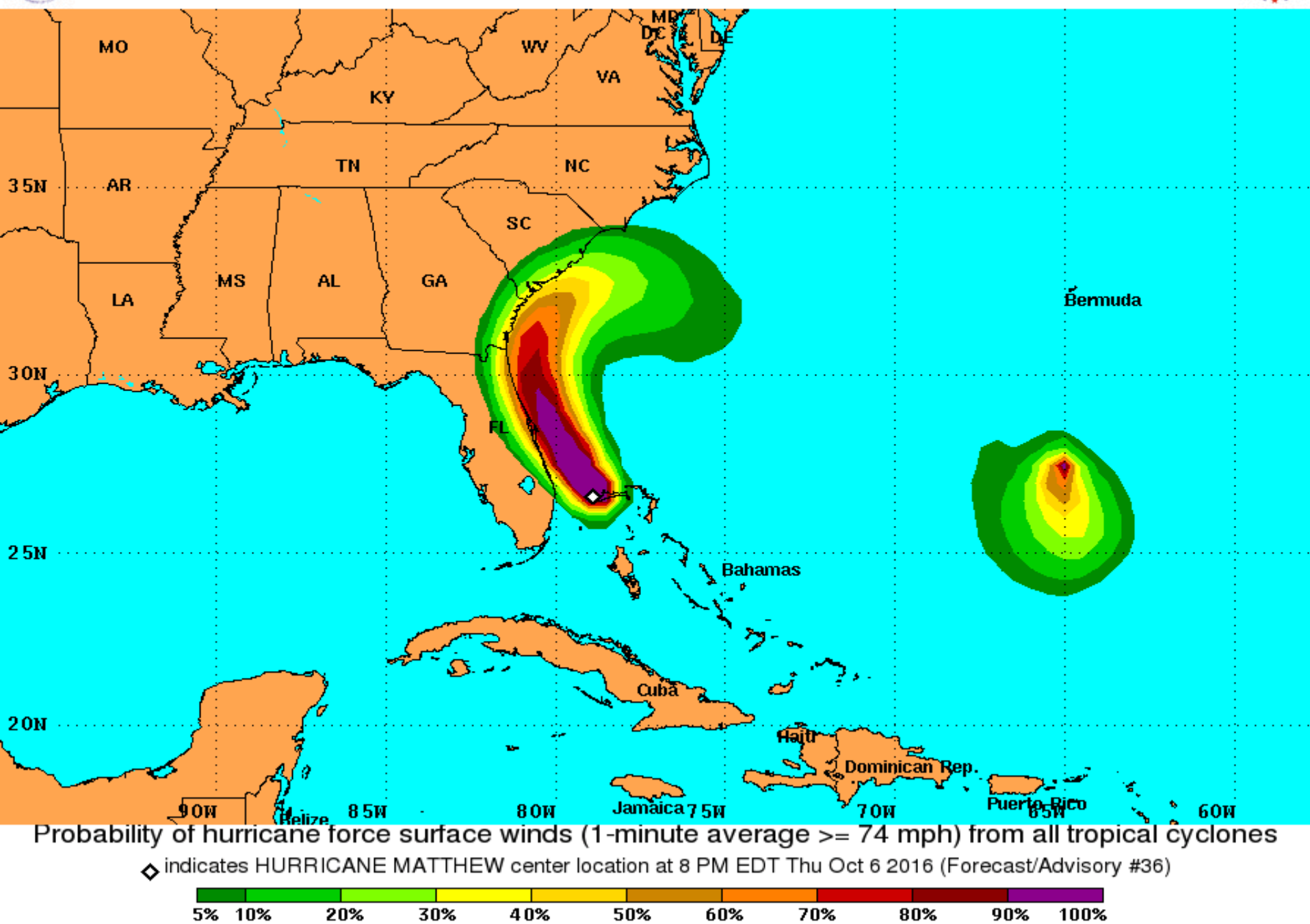
◇ indicates HURRICANE MATTHEW center location at 8 PM EDT Thu Oct 6 2016 (Forecast/Advisory #36)



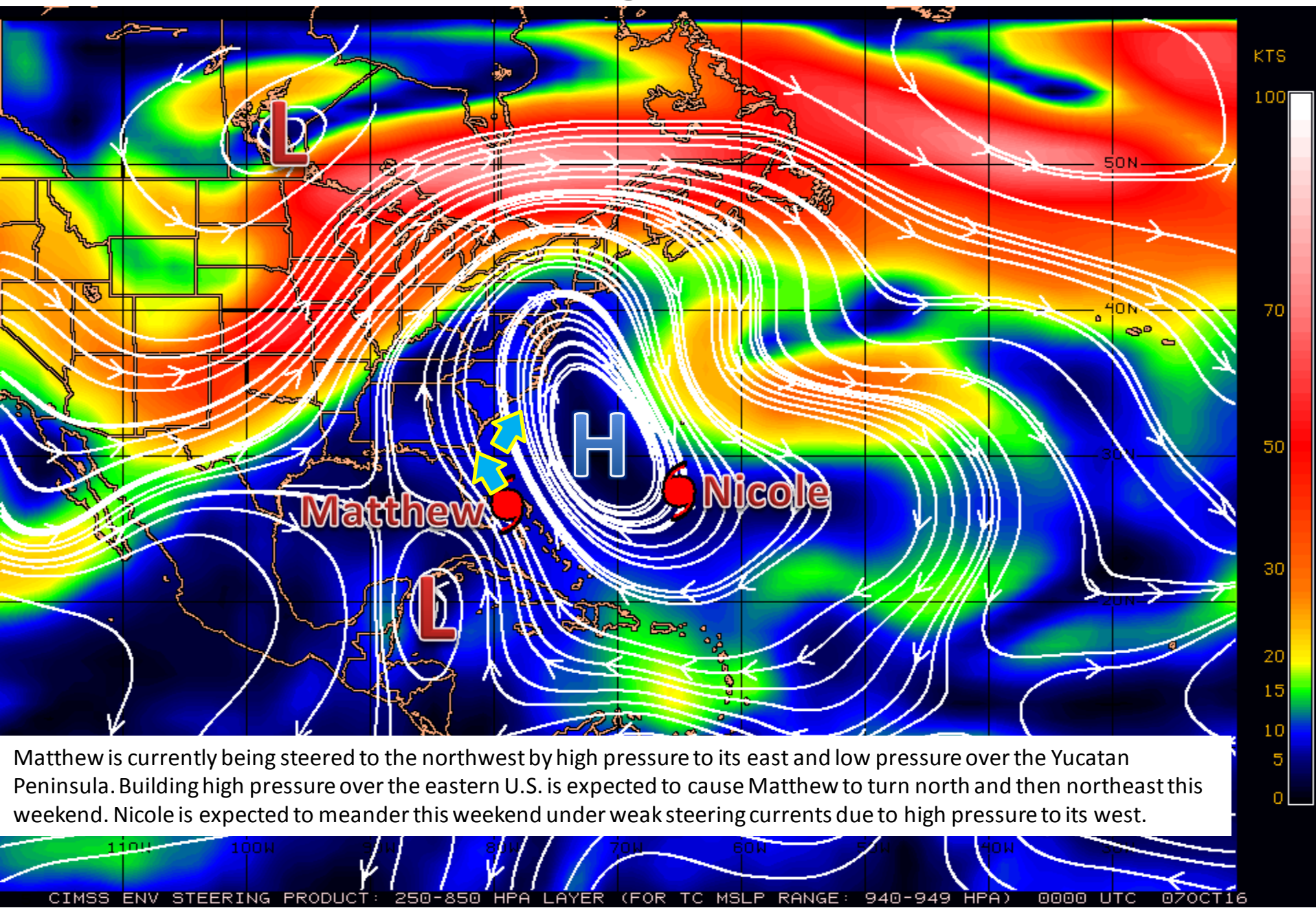


Hurricane Force Wind Speed Probabilities

For the 120 hours (5 days) from 8 PM EDT Thu Oct 6 to 8 PM EDT Tue Oct 11



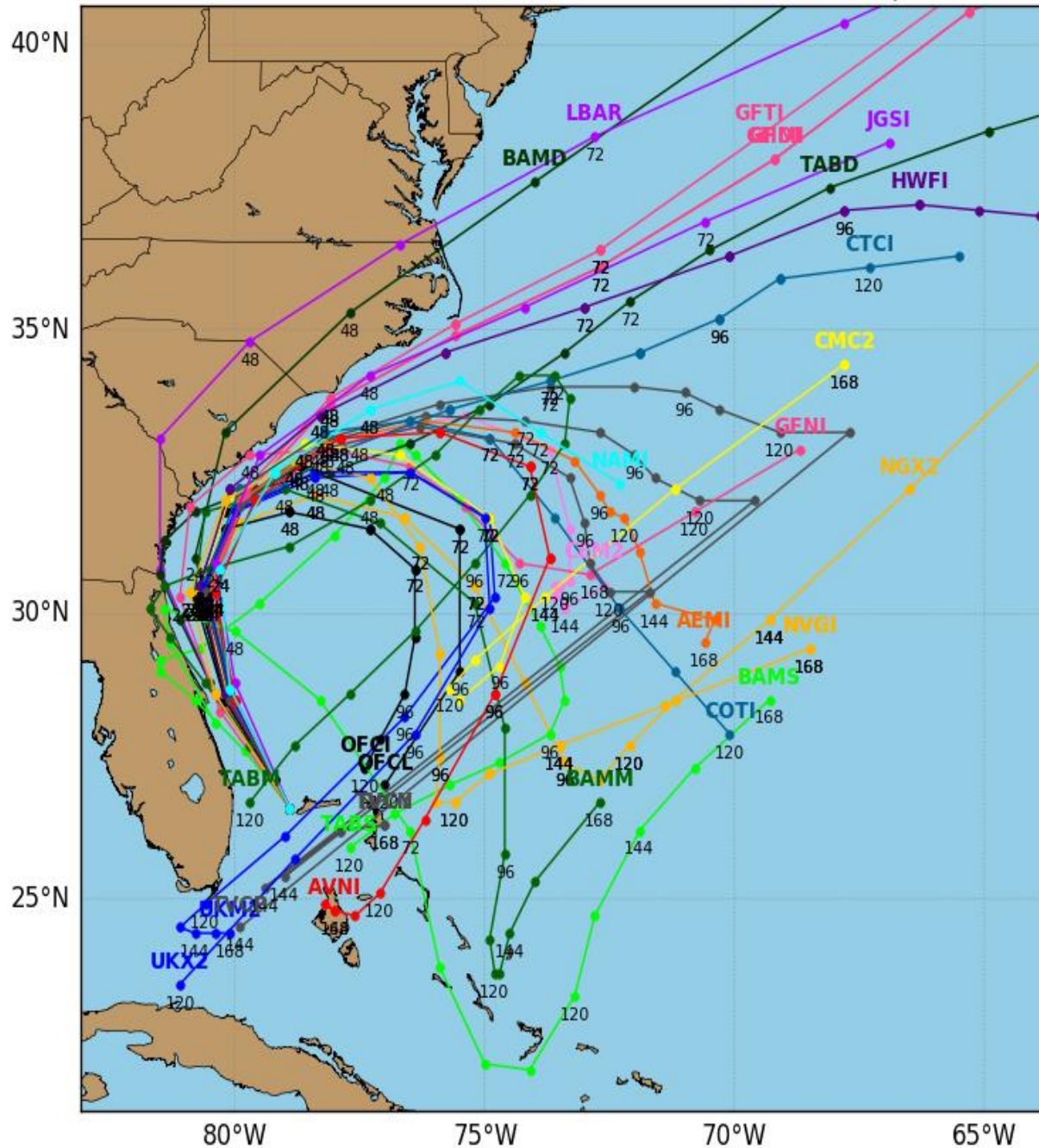
Steering Currents



Hurricane MATTHEW Model Track Guidance

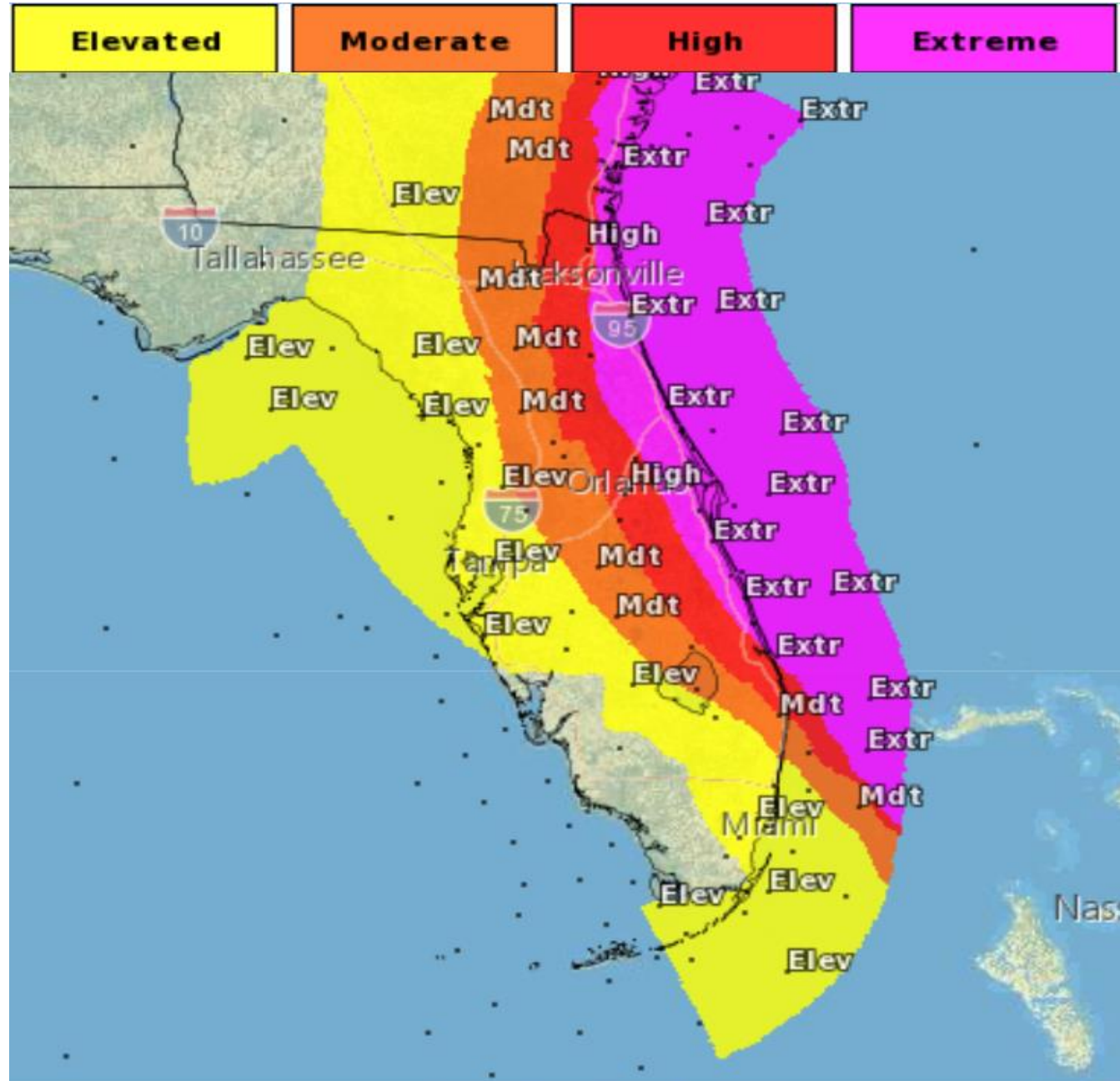
Initialized at 00z Oct 07 2016

Levi Cowan - tropicaltidbits.com



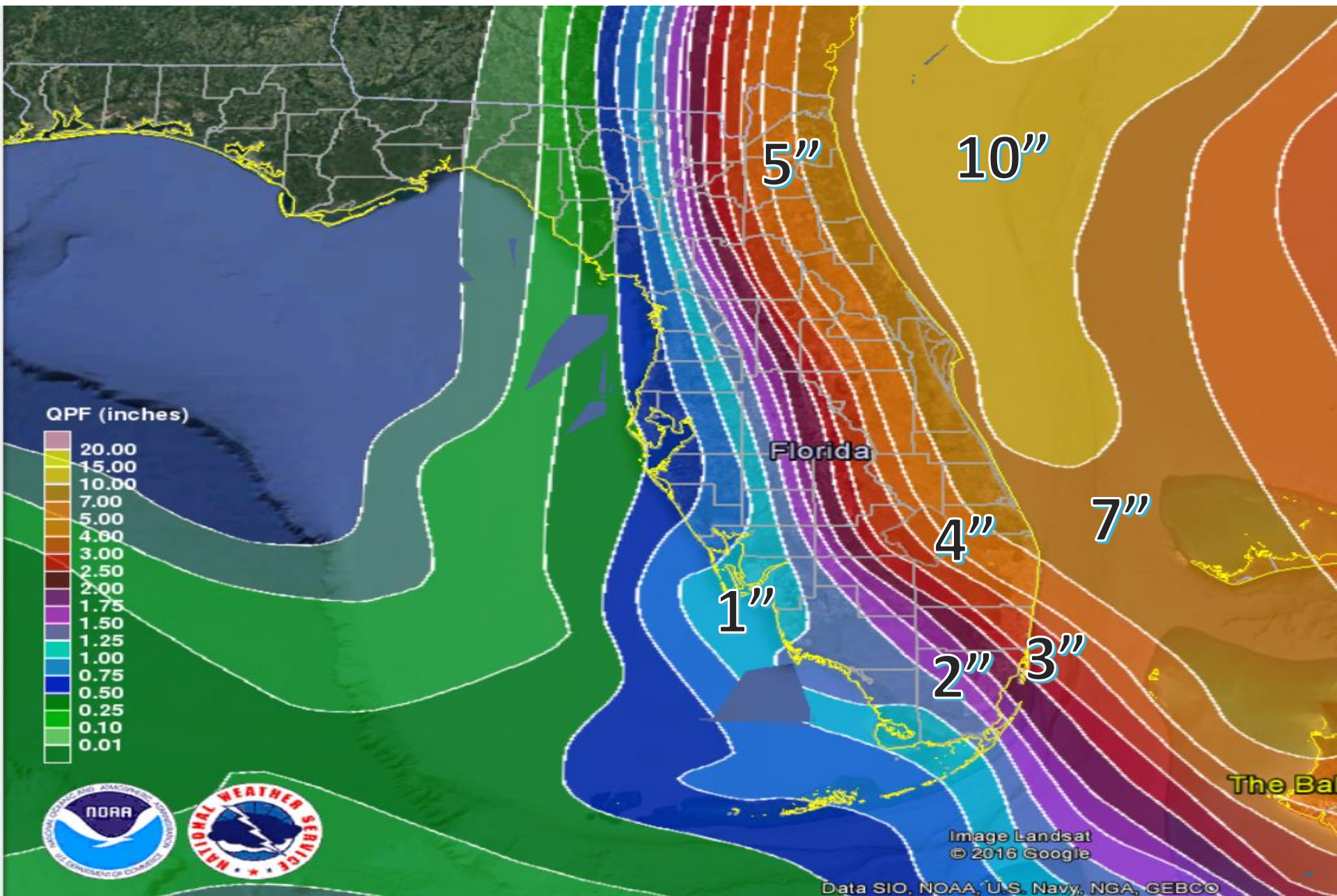
Models are in good agreement on Matthew's track over the next 48 hours, taking it near or over the Florida East Coast, followed by a track near Georgia and South Carolina. Beyond 72 hours, most models indicate Matthew making a loop back toward the Bahamas and possibly Florida, with some outliers continuing 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.



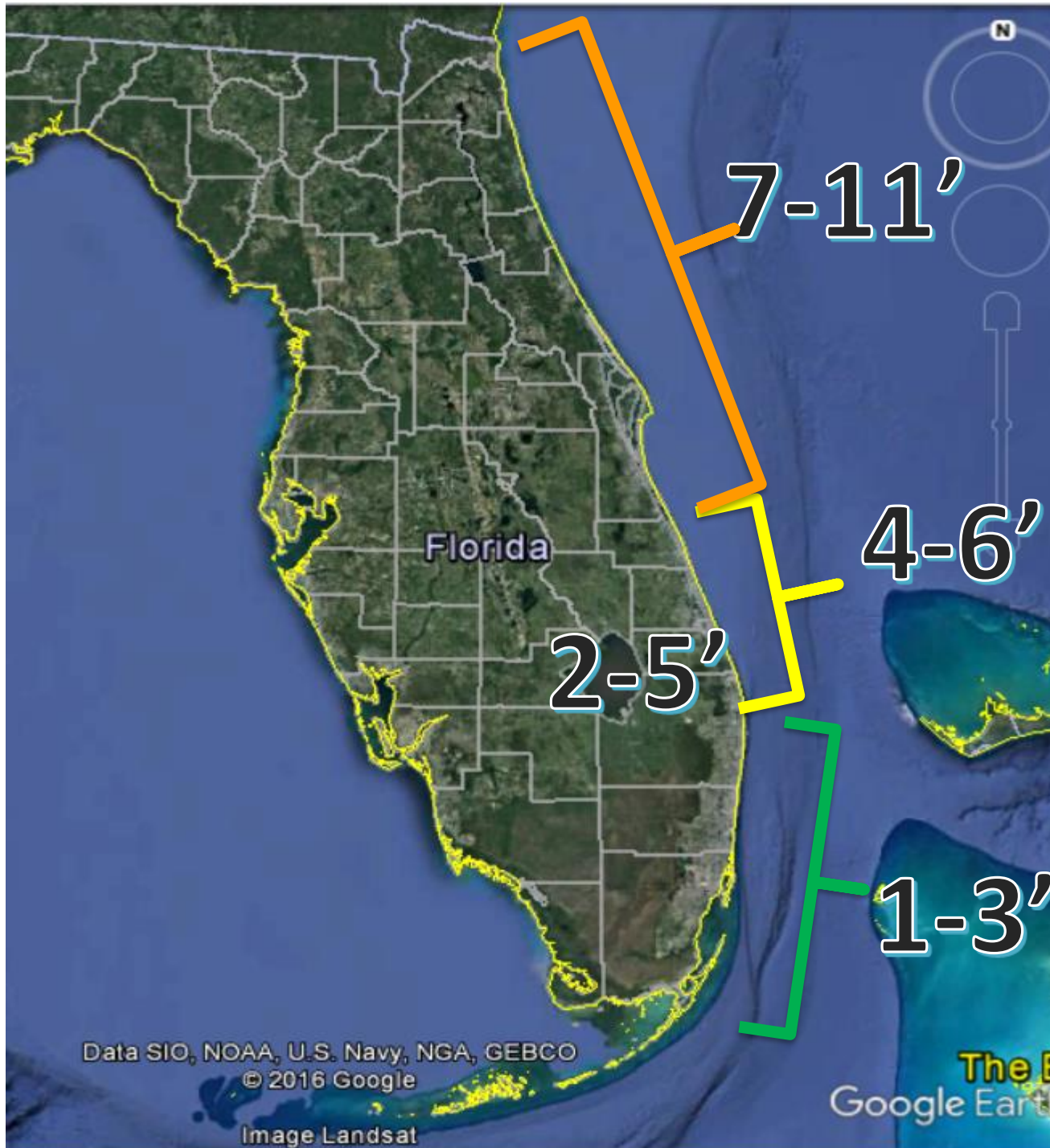
Hurricane Wind Threat
Through: Sun, Oct 9 2016, 8 PM EDT
Issued: Oct 06 at 10 PM EDT

Next 5 Day Forecast Rainfall

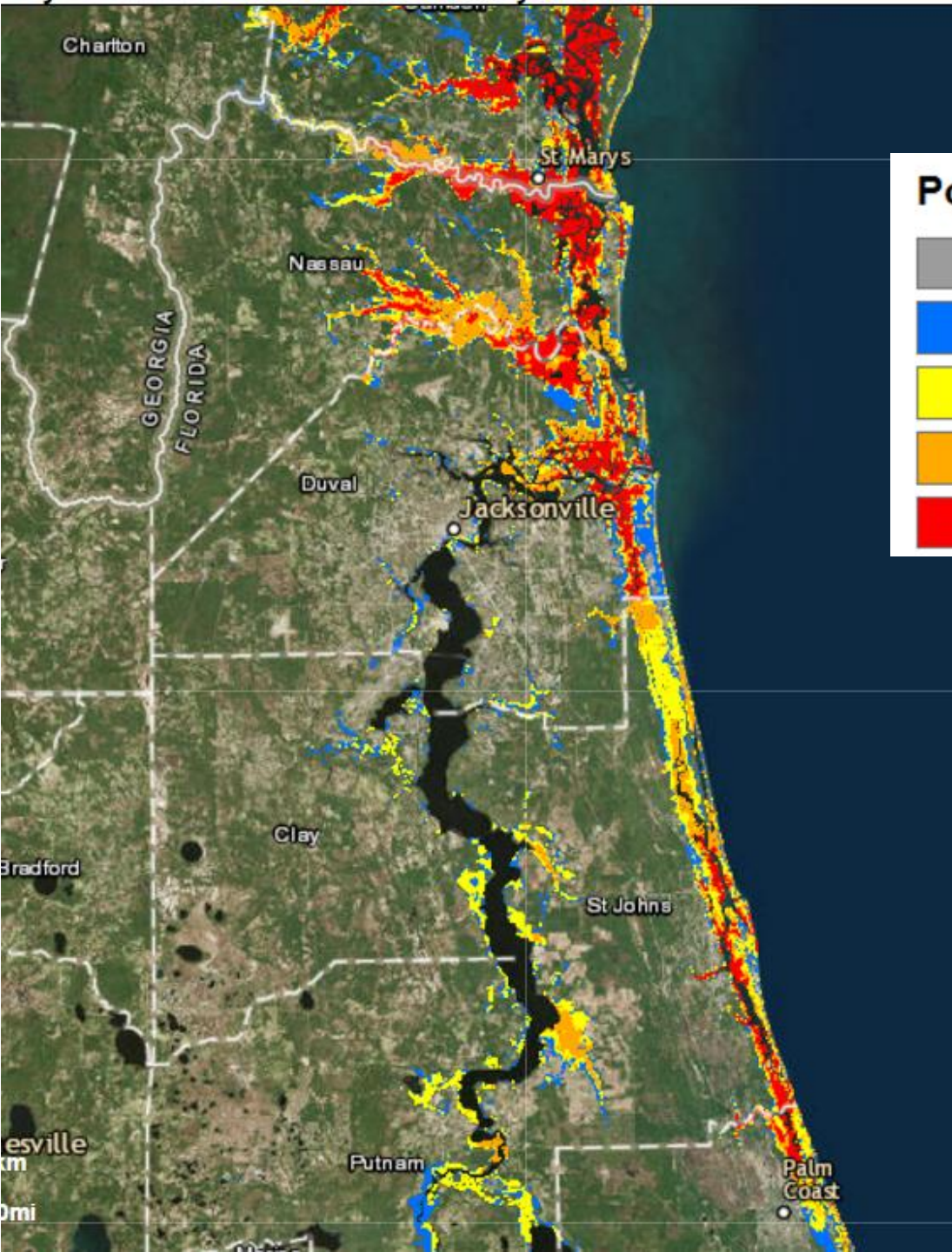


Prototype Storm Surge Watches/Warnings

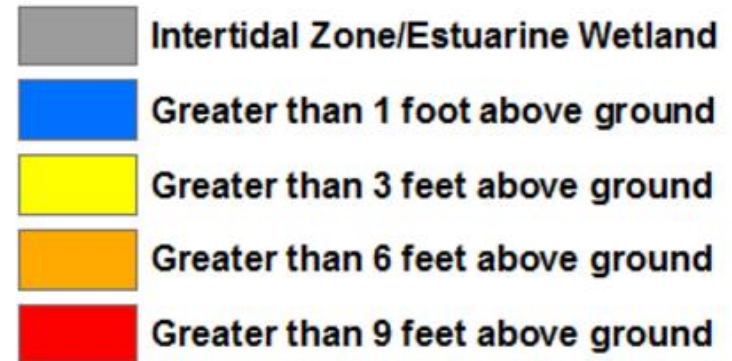


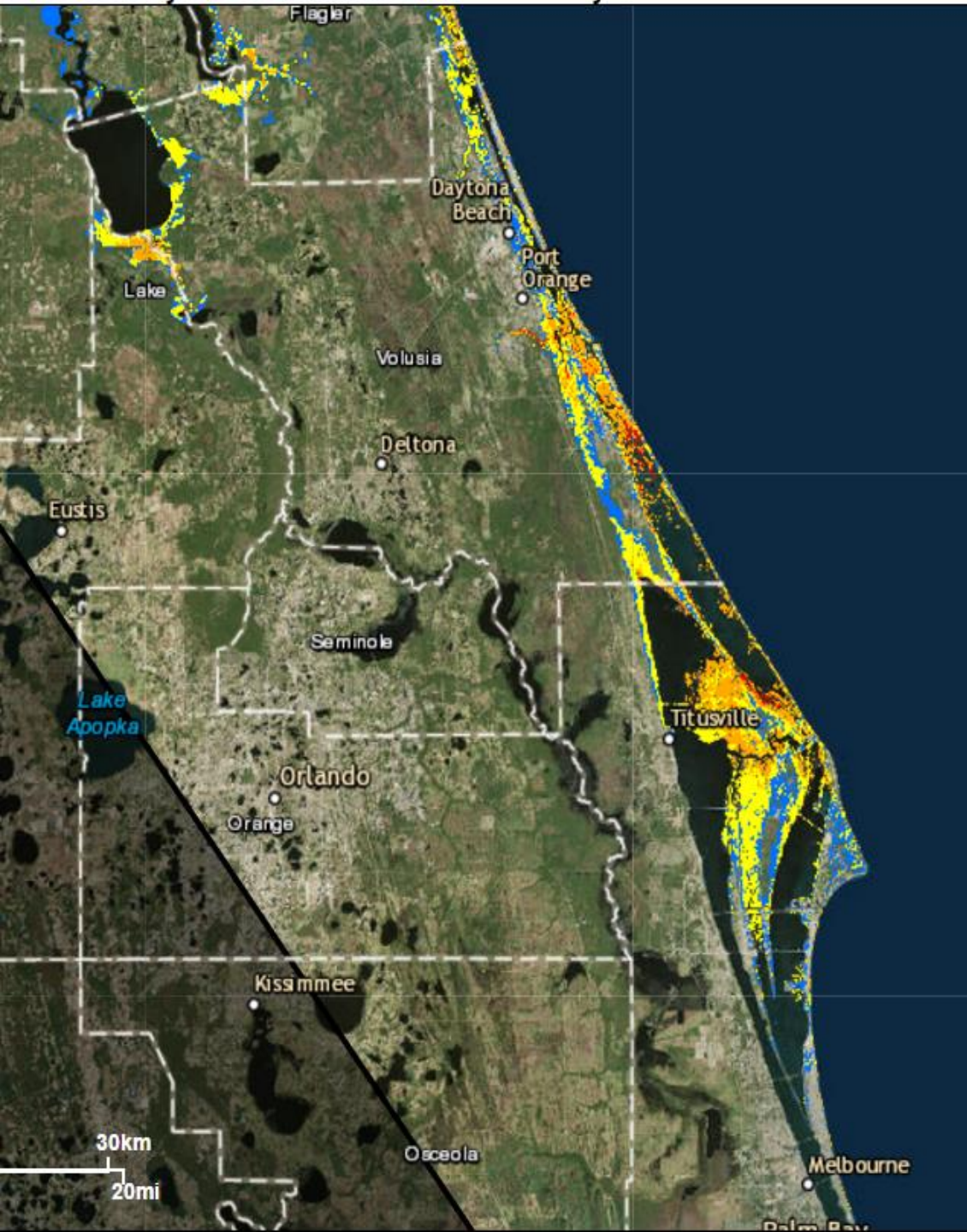


Storm Surge Estimates



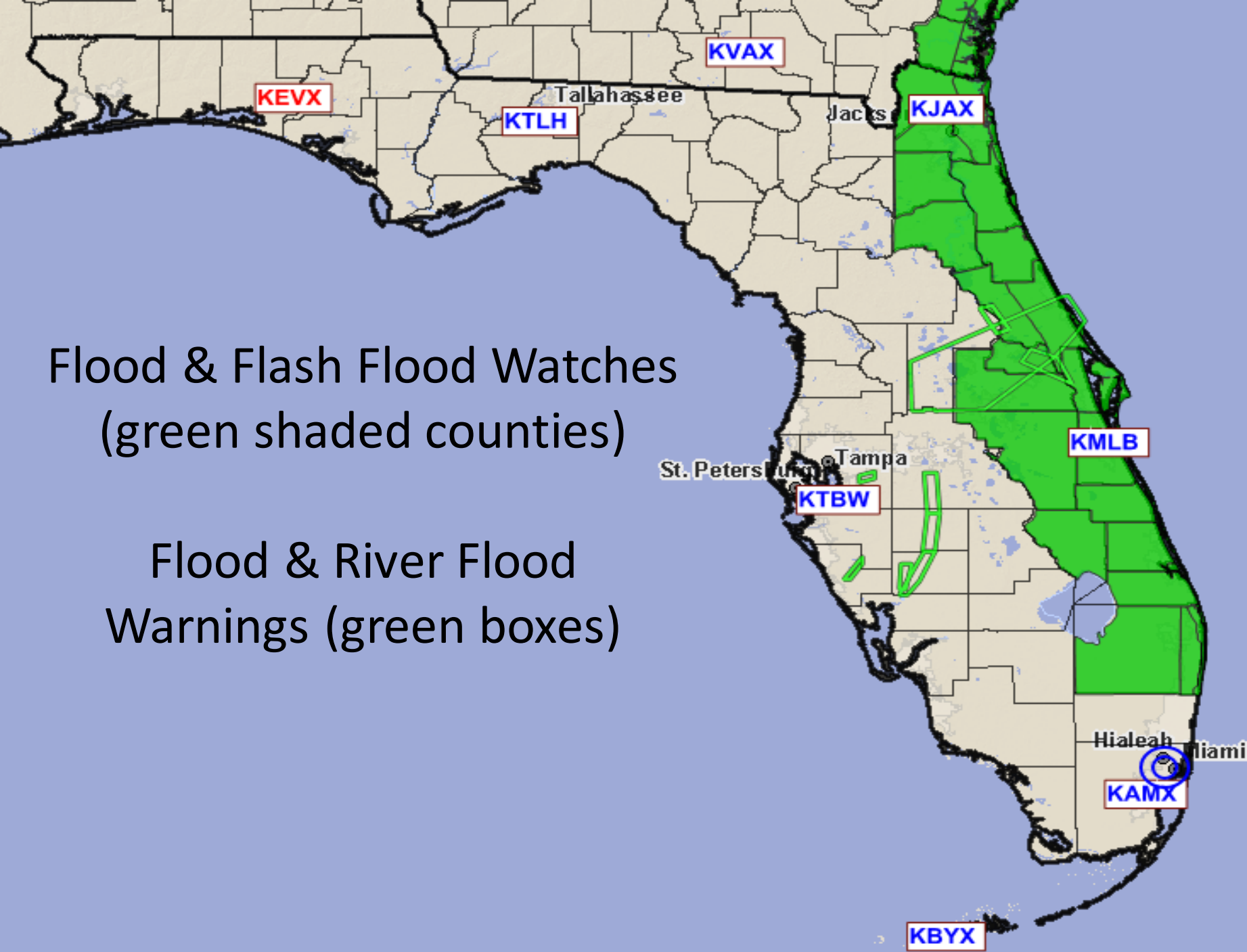
Potential Storm Surge Flooding*



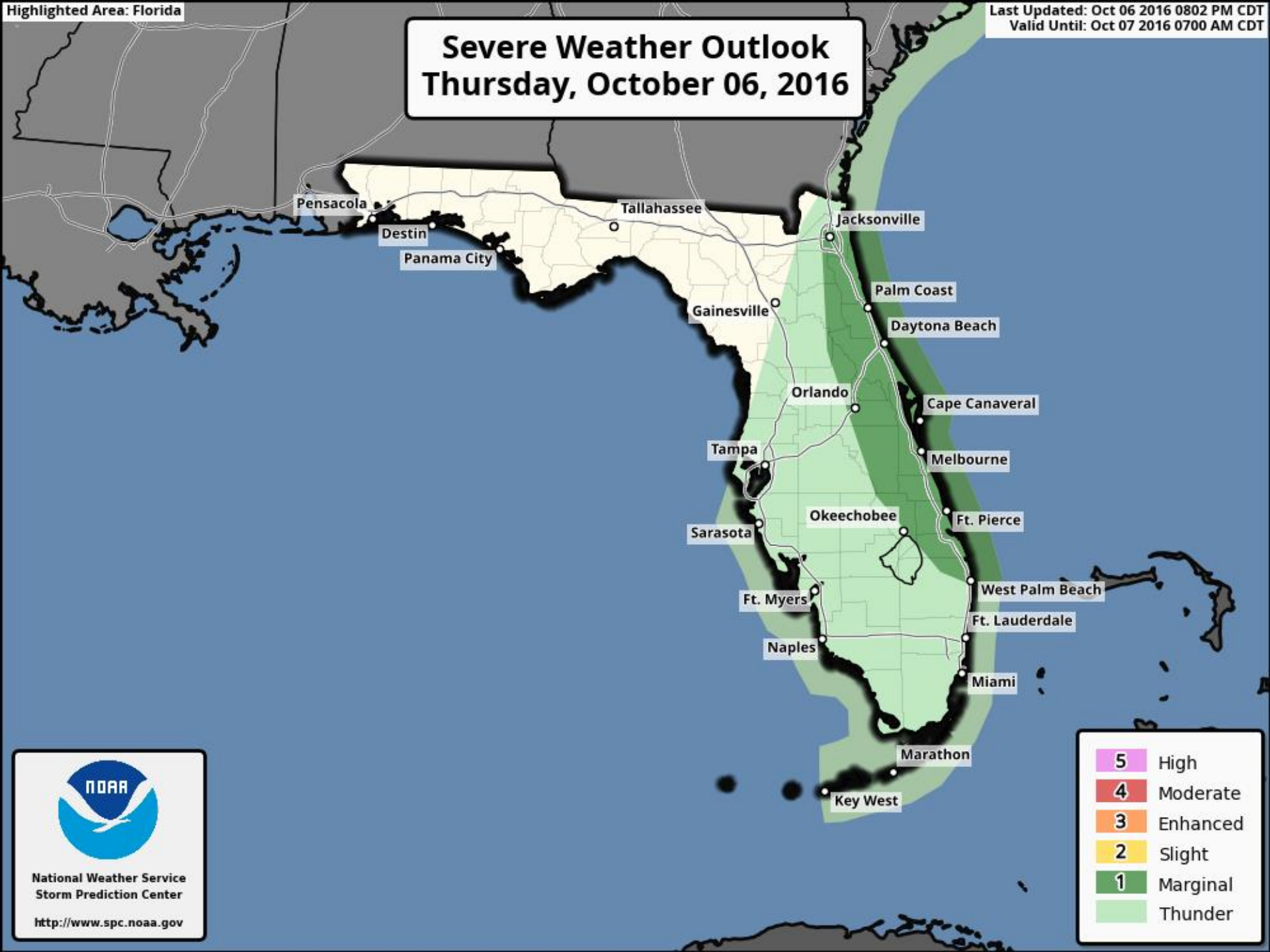


Potential Storm Surge Flooding*

- 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



Severe Weather Outlook Thursday, October 06, 2016



Pensacola

Destin

Panama City

Tallahassee

Jacksonville

Palm Coast

Daytona Beach

Gainesville

Orlando

Cape Canaveral

Tampa

Melbourne

Sarasota

Okeechobee

Ft. Pierce

Ft. Myers

West Palm Beach

Ft. Lauderdale

Naples

Miami

Marathon

Key West

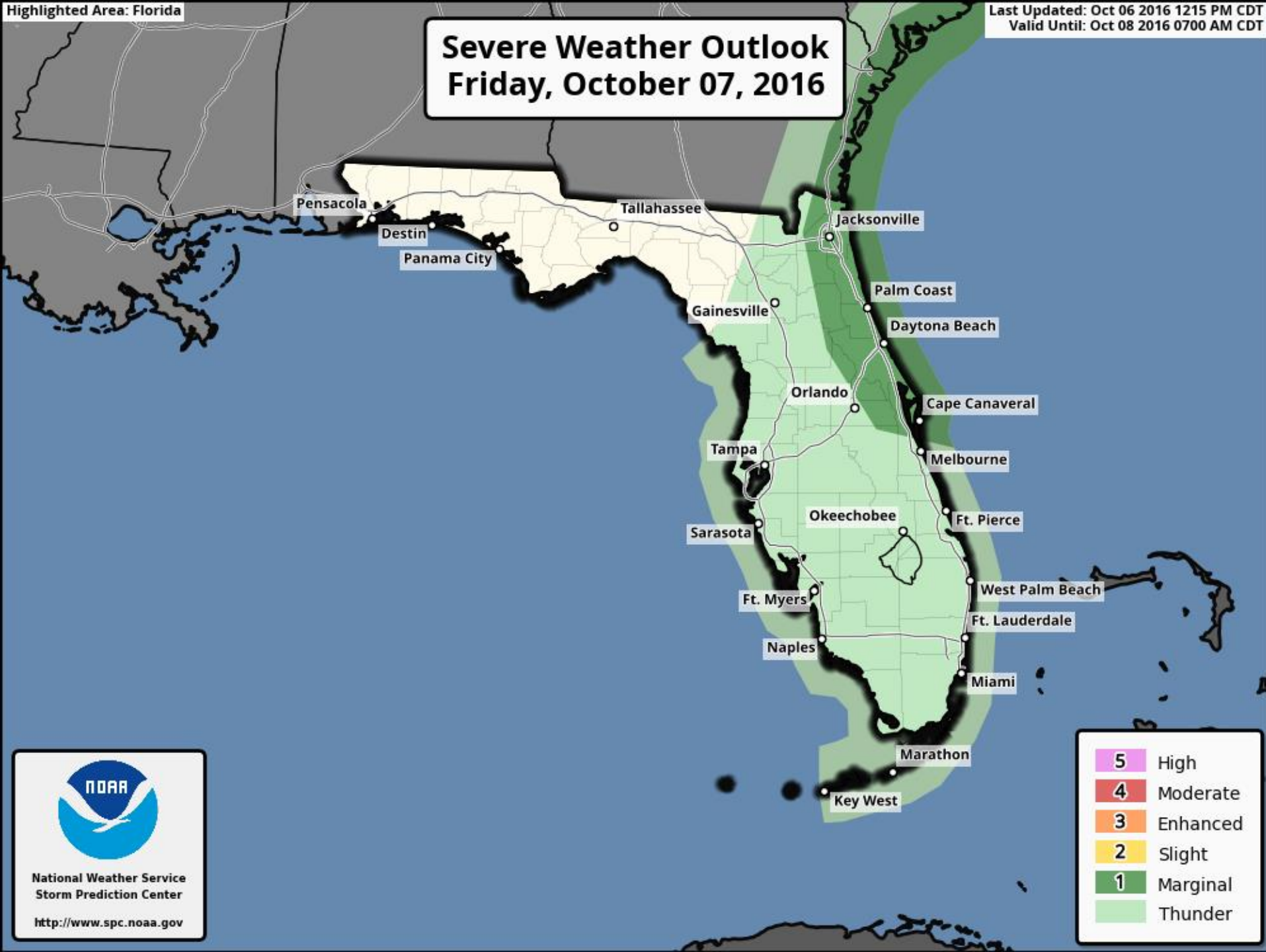


National Weather Service
Storm Prediction Center

<http://www.spc.noaa.gov>

5	High
4	Moderate
3	Enhanced
2	Slight
1	Marginal
	Thunder

Severe Weather Outlook Friday, October 07, 2016

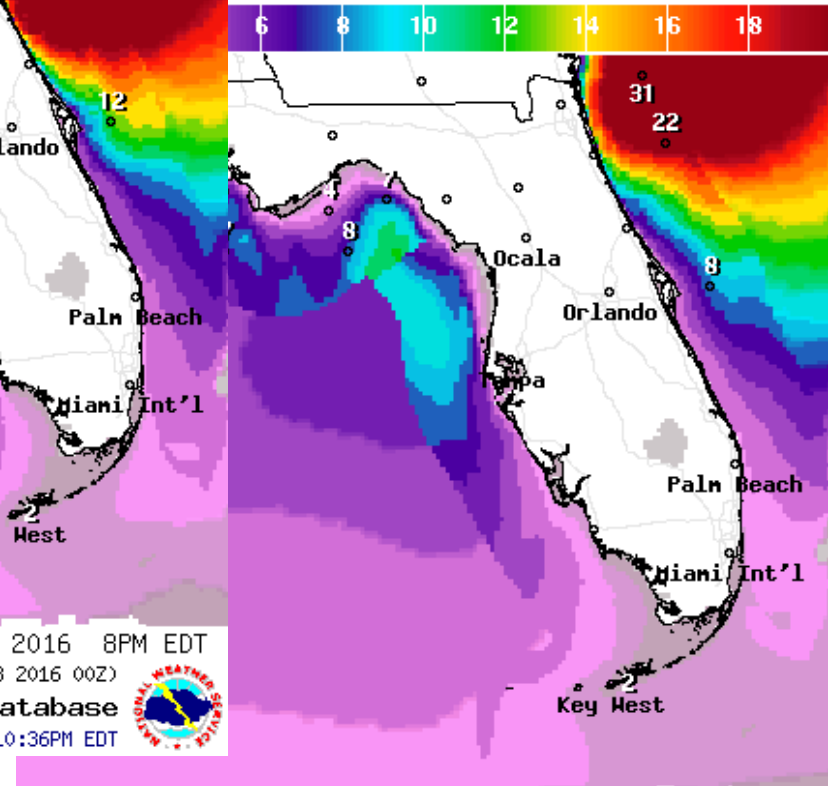
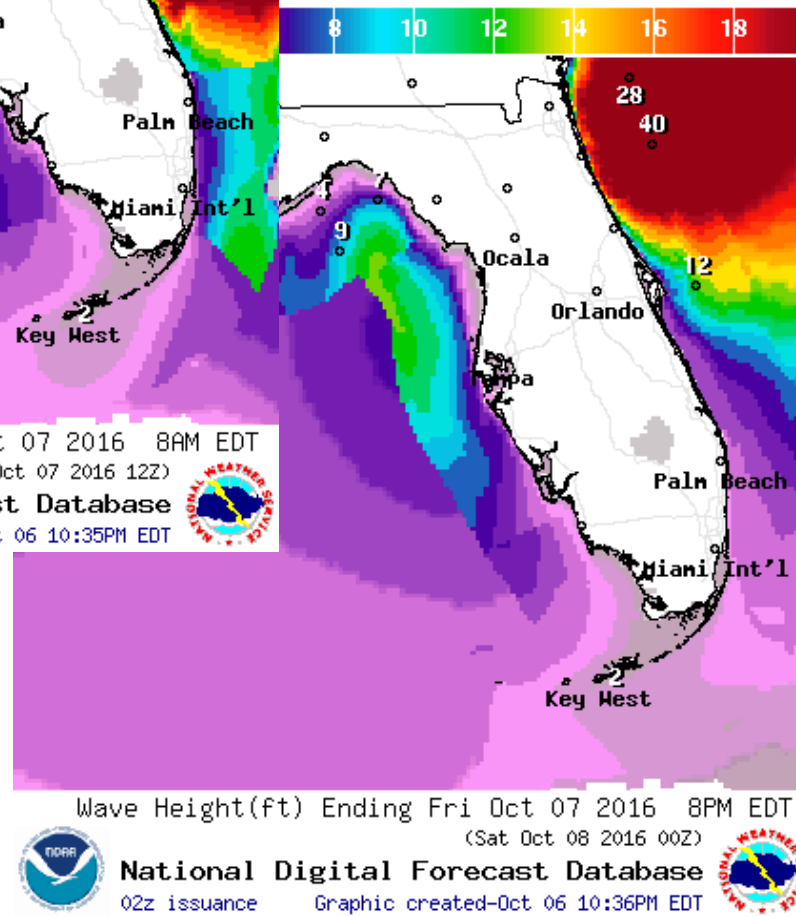
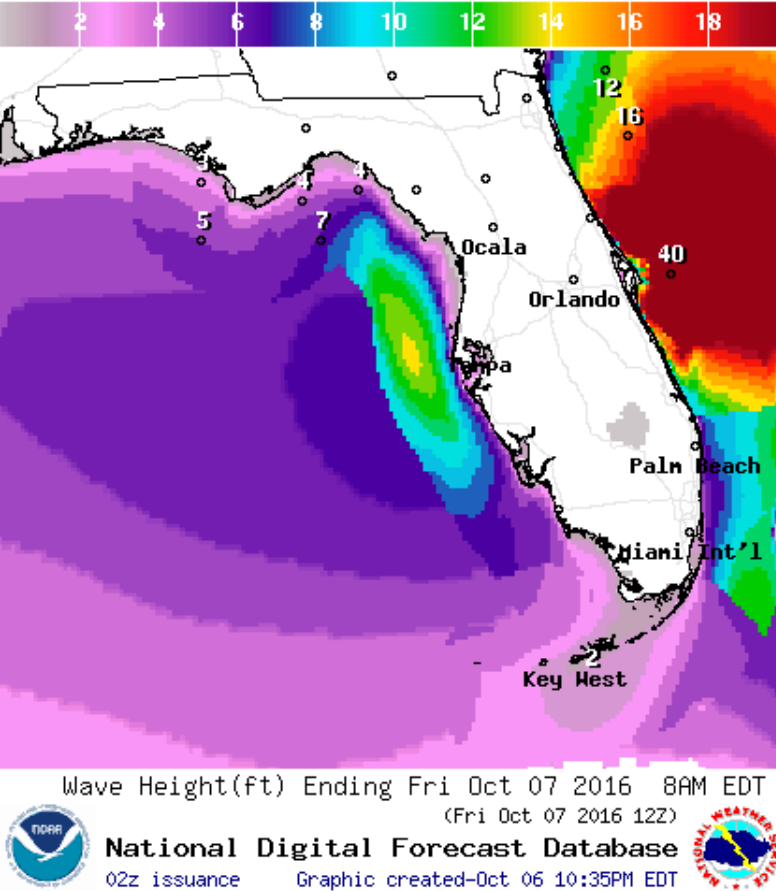


National Weather Service
Storm Prediction Center

<http://www.spc.noaa.gov>

5	High
4	Moderate
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1	Marginal
	Thunder

Forecast Wave Heights



Onset of Tropical and Hurricane Force Winds by Timing

	Onset of 34mph Winds	Onset of 58mph Winds	Onset of Hurricane Winds	End of Hurricane Winds	End of 58mph Winds	End of 34mph Winds	Estimated Peak Wind and Time
Location	34kt(39mph)	50kt(58mph)	64kt(74mph)	64ktEND(dur)	50ktEND(dur)	34ktEND(dur)	Peak Wind
FL Miami-Dade	Existing					10/07 03E [04]	38kt (44mph) 10/06 23E
FL Broward	Existing					10/07 07E [08]	45kt (52mph) 10/06 23E
FL Hendry	Existing					10/07 05E [06]	38kt (44mph) 10/07 01E
FL Palm Beach	Existing	Existing			10/07 04E [05]	10/07 12E [13]	58kt (67mph) 10/07 00E
FL Glades	Existing					10/07 11E [12]	43kt (49mph) 10/07 03E
FL Martin	Existing	Existing			10/07 06E [07]	10/07 13E [14]	62kt (71mph) 10/07 01E
FL St Lucie	Existing	Existing			10/07 09E [10]	10/07 16E [17]	62kt (71mph) 10/07 01E
FL Okeechobee	Existing	10/07 03E			10/07 06E [03]	10/07 15E [16]	53kt (61mph) 10/07 04E
FL Highlands	Existing					10/07 15E [16]	44kt (51mph) 10/07 05E
FL Brevard	Existing	10/07 01E	10/07 04E	10/07 14E [10]	10/07 17E [16]	10/08 00E [25]	91kt (105mph) 10/07 10E
FL Indian River	Existing	10/07 00E	10/07 04E	10/07 06E [02]	10/07 11E [11]	10/07 18E [19]	69kt (79mph) 10/07 05E
FL Osceola	Existing	10/07 05E	10/07 07E	10/07 09E [02]	10/07 14E [09]	10/07 21E [22]	67kt (77mph) 10/07 08E
FL Polk	10/07 00E					10/07 17E [17]	45kt (52mph) 10/07 06E
FL Volusia	10/07 00E	10/07 05E	10/07 07E	10/07 17E [10]	10/07 20E [15]	10/08 04E [28]	90kt (104mph) 10/07 10E
FL Orange	10/07 00E	10/07 05E	10/07 08E	10/07 11E [03]	10/07 15E [10]	10/07 22E [22]	69kt (79mph) 10/07 09E
FL Seminole	10/07 01E	10/07 06E	10/07 09E	10/07 12E [03]	10/07 16E [10]	10/07 23E [22]	70kt (81mph) 10/07 11E
FL Hardee	10/07 03E					10/07 09E [06]	36kt (41mph) 10/07 05E
FL Lake	10/07 04E	10/07 09E			10/07 16E [07]	10/07 23E [19]	59kt (68mph) 10/07 11E
FL Flagler	10/07 04E	10/07 09E	10/07 11E	10/07 19E [08]	10/07 22E [13]	10/08 05E [25]	80kt (92mph) 10/07 14E
FL Putnam	10/07 05E	10/07 10E			10/07 21E [11]	10/08 04E [23]	62kt (71mph) 10/07 14E
FL Marion	10/07 05E	10/07 12E			10/07 16E [04]	10/08 00E [19]	54kt (62mph) 10/07 13E
FL St Johns	10/07 06E	10/07 11E	10/07 13E	10/07 21E [08]	10/08 00E [13]	10/08 06E [24]	76kt (87mph) 10/07 16E

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)

Onset of Tropical and Hurricane Force Winds by Timing

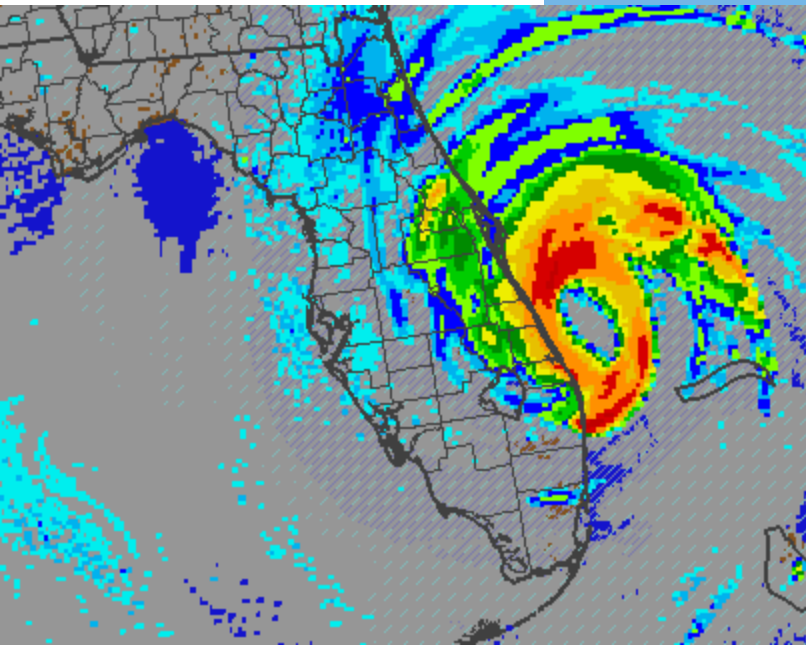
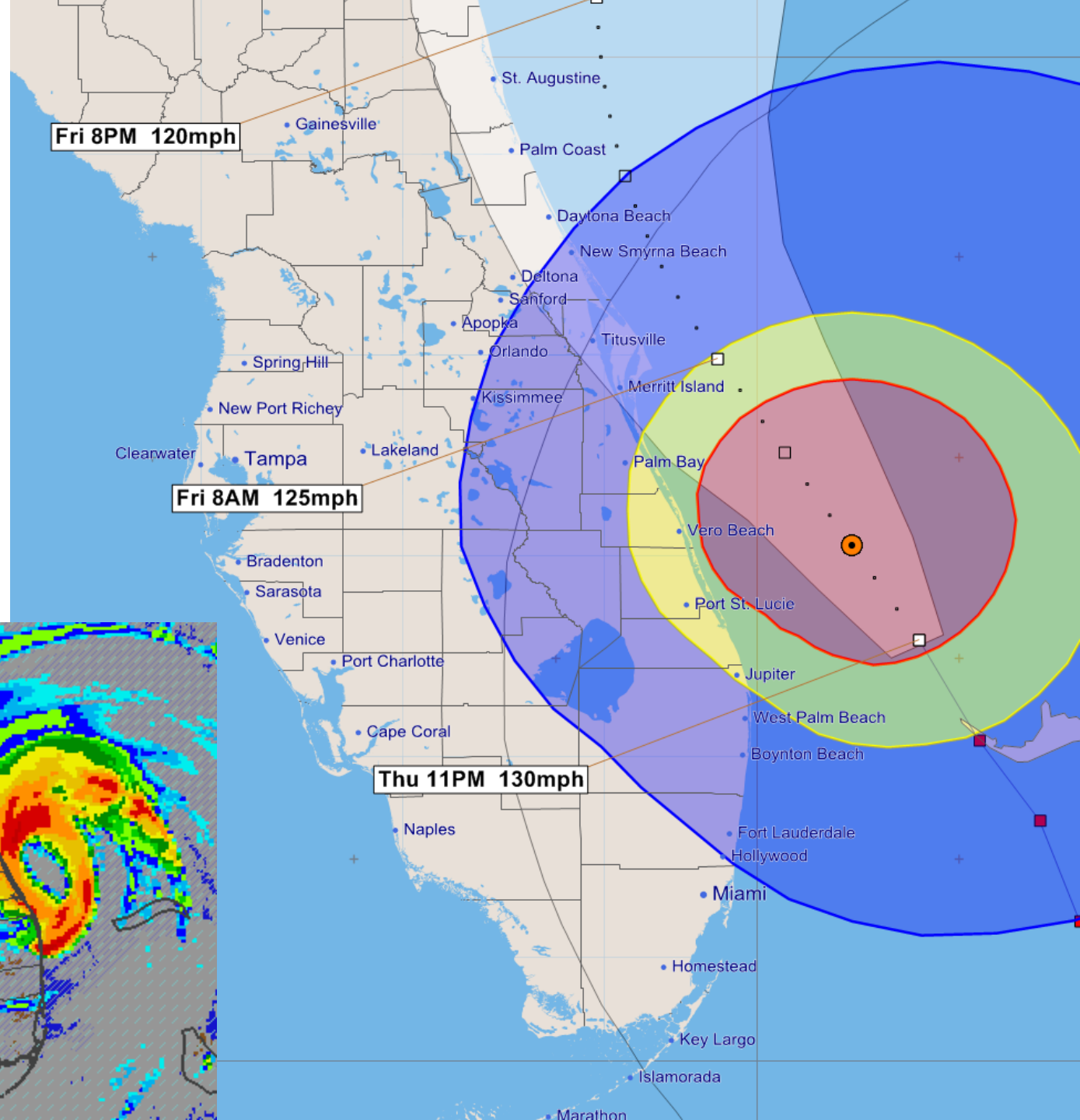
	Onset of 34mph Winds	Onset of 58mph Winds	Onset of Hurricane Winds	End of Hurricane Winds	End of 58mph Winds	End of 34mph Winds	Estimated Peak Wind and Time
Location	34kt(39mph)	50kt(58mph)	64kt(74mph)	64ktEND(dur)	50ktEND(dur)	34ktEND(dur)	Peak Wind
FL St Johns	10/07 06E	10/07 11E	10/07 13E	10/07 21E [08]	10/08 00E [13]	10/08 06E [24]	76kt (87mph) 10/07 16E
FL Hernando	10/07 07E					10/07 15E [08]	37kt (43mph) 10/07 09E
FL Sumter	10/07 07E					10/07 19E [12]	43kt (49mph) 10/07 12E
FL Clay	10/07 08E	10/07 13E			10/07 22E [09]	10/08 05E [21]	60kt (69mph) 10/07 18E
FL Pasco	10/07 08E					10/07 14E [06]	37kt (43mph) 10/07 10E
FL Duval	10/07 08E	10/07 13E	10/07 17E	10/07 22E [05]	10/08 02E [13]	10/08 07E [23]	70kt (81mph) 10/07 18E
FL Alachua	10/07 09E					10/08 00E [15]	46kt (53mph) 10/07 16E
FL Hillsborough	10/07 09E					10/07 11E [02]	35kt (40mph) 10/07 09E
FL Citrus	10/07 09E					10/07 17E [08]	38kt (44mph) 10/07 12E
FL Bradford	10/07 10E					10/08 02E [16]	49kt (56mph) 10/07 18E
FL Nassau	10/07 10E	10/07 16E			10/08 02E [10]	10/08 08E [22]	63kt (72mph) 10/07 21E
FL Union	10/07 11E					10/08 02E [15]	46kt (53mph) 10/07 18E
FL Levy	10/07 11E					10/07 20E [09]	38kt (44mph) 10/07 15E
FL Baker	10/07 11E					10/08 03E [16]	49kt (56mph) 10/07 18E
FL Columbia	10/07 14E					10/08 02E [12]	40kt (46mph) 10/07 18E
FL Gilchrist	10/07 18E					10/07 19E [01]	34kt (39mph) 10/07 18E
FL Hamilton	10/07 18E					10/07 23E [05]	36kt (41mph) 10/07 19E

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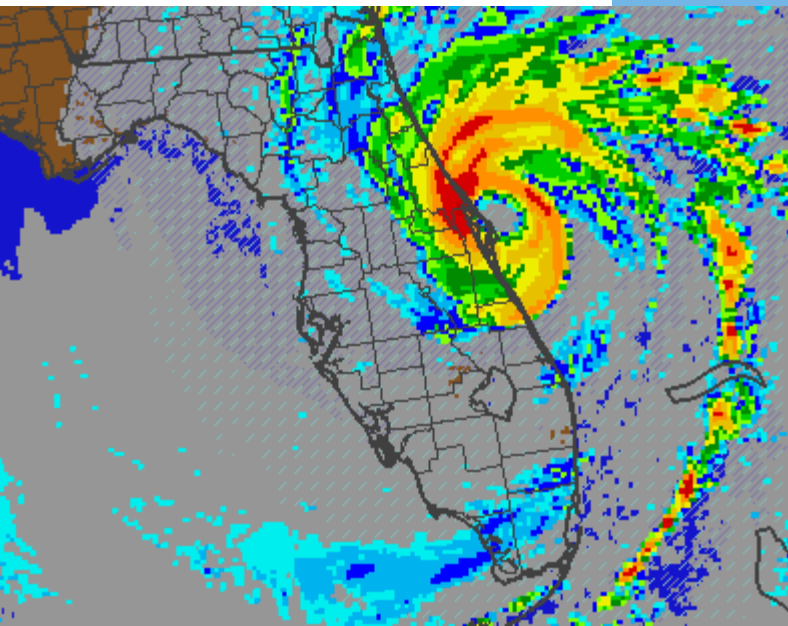
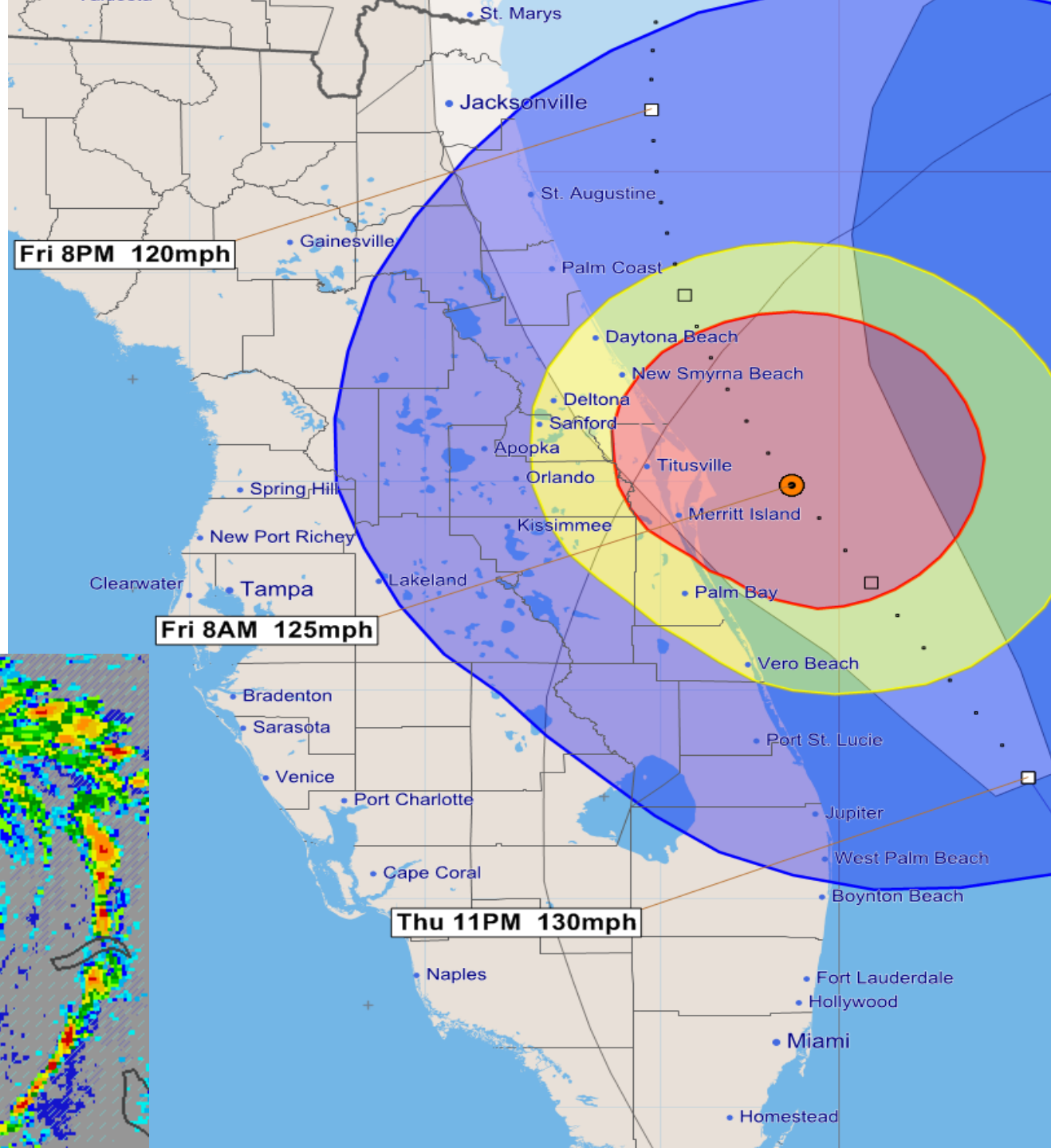
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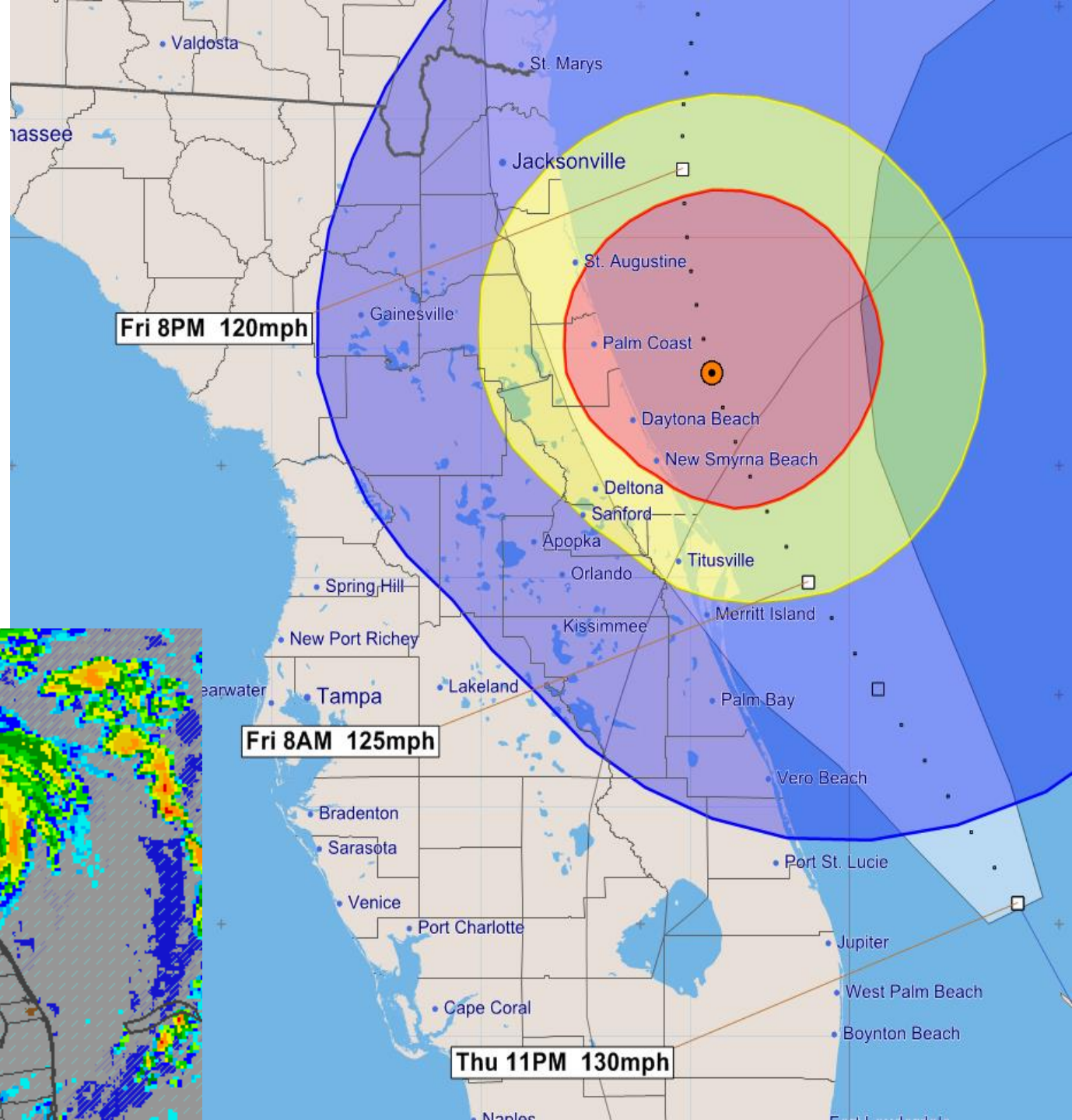
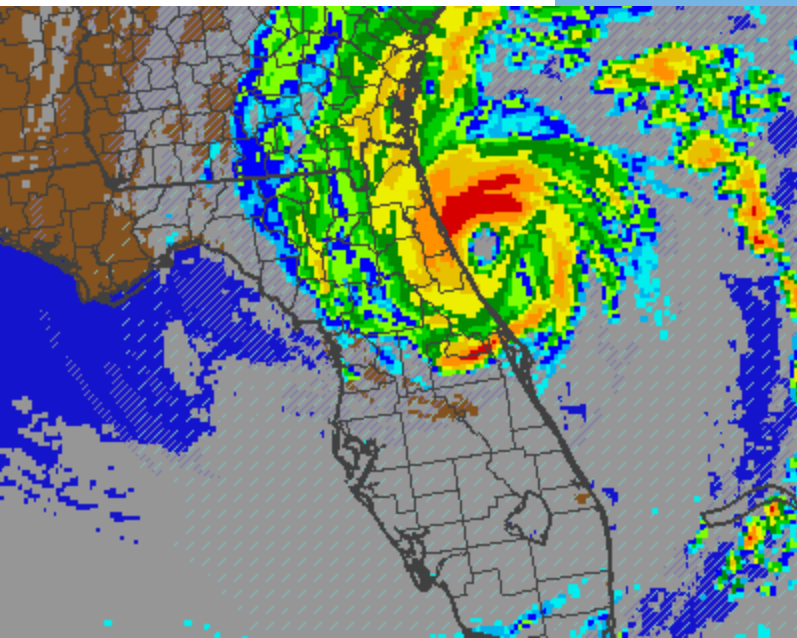
Friday
2am



Friday
8am



Friday
2pm



Hurricane Nicole

11 PM EDT-Thu Oct 06 2016

Position 27.4 N 65.2 W

Maximum Winds 105 mph

Gusts 125 mph

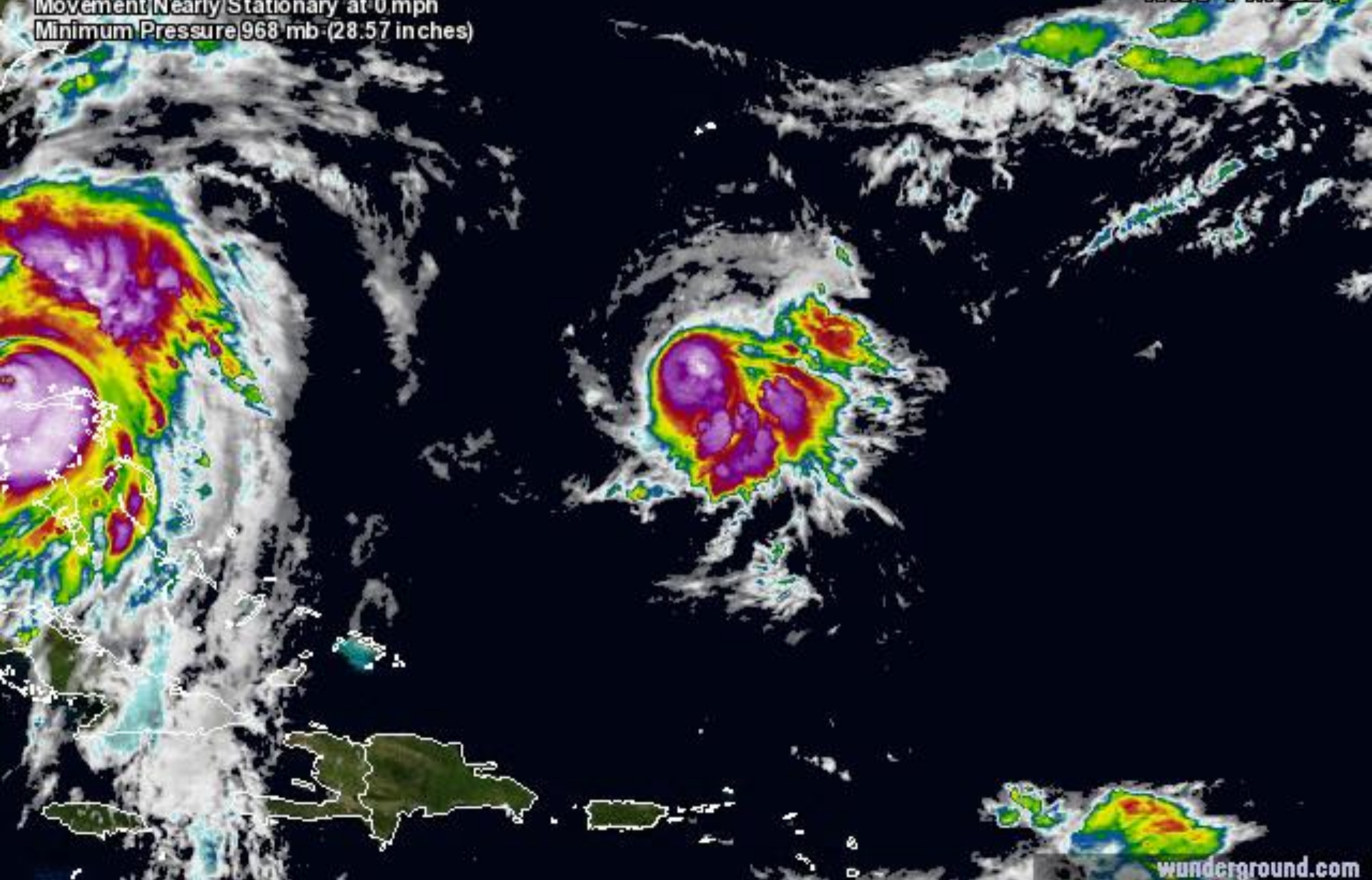
Movement Nearly Stationary at 0 mph

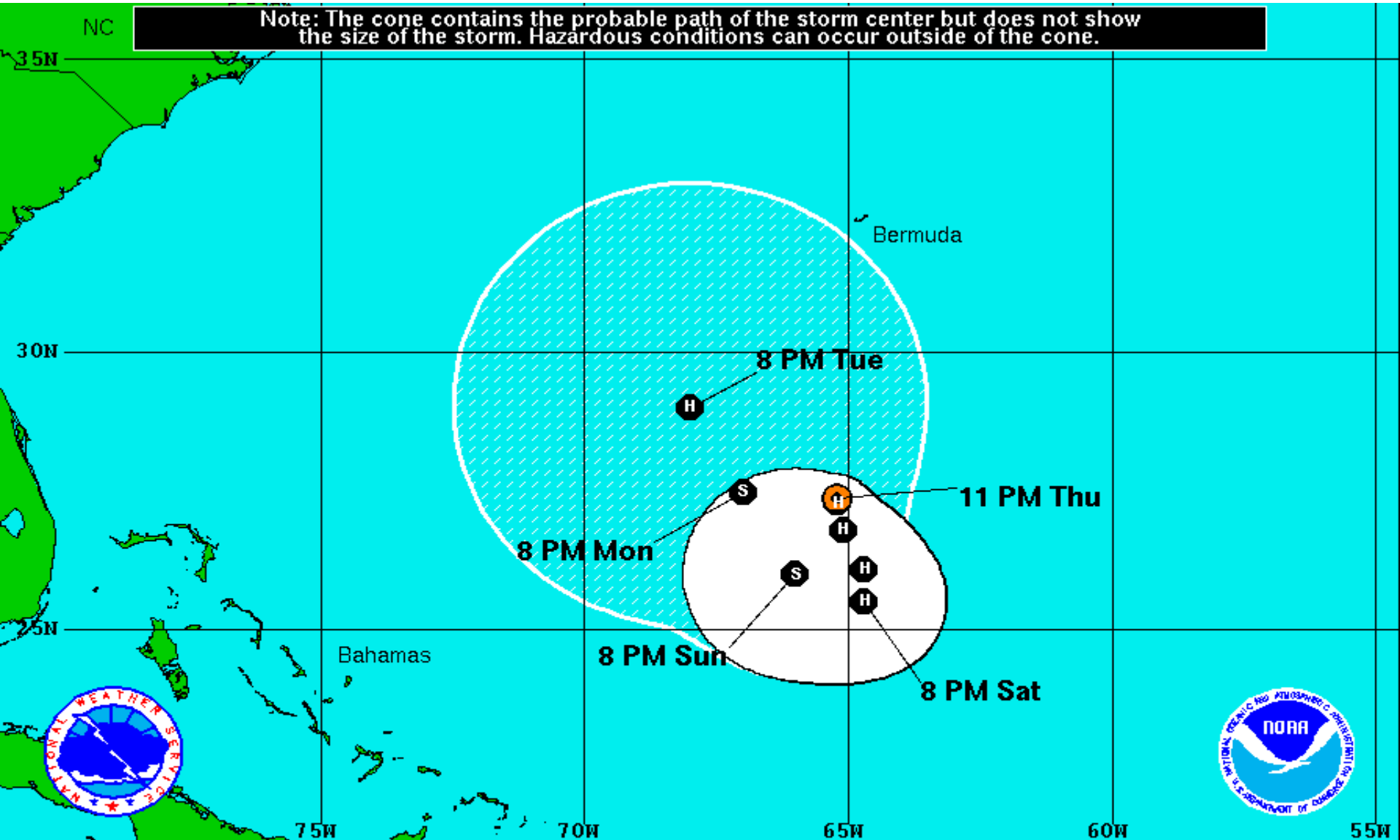
Minimum Pressure 968 mb (28.57 inches)

Blue Marble basemap imagery courtesy NASA

Satellite 2:59 AM UTC

10:59 PM EDT





Hurricane Nicole Thursday October 6, 2016 11 PM EDT Advisory 12 NWS National Hurricane Center	Current Information: Center Location 27.4 N 65.2 W Max Sustained Wind 105 mph Movement Stationary	Forecast Positions: Tropical Cyclone Post-Tropical Sustained Winds: D < 39 mph S 39-73 mph H 74-110 mph M > 110mph
Potential Track Area: Day 1-3 Day 4-5	Watches: Hurricane Trop.Storm	Warnings: Hurricane Trop.Storm

Tropical Summary:

- At 11pm EDT, Hurricane Matthew was located approximately 125 miles southeast of Cape Canaveral, FL.
- Maximum sustained winds are currently 130 mph with higher gusts, making Matthew a Category 4 hurricane on the Saffir-Simpson scale.
- Matthew is moving toward the northwest at 13 mph, a turn toward the north-northwest is expected on Friday, and a turn toward the north expected Friday night or Saturday. On the forecast track, the center of Matthew will be moving near 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 small deviation in the forecast track to the left 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.
- 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 favor this scenario, ,but this could certainly change over the next few days.
- At 11pm EDT, Hurricane Nicole is located is approximately located 340 miles south of Bermuda. Nicole is stationary, but is expected to generally drift southward on Friday and Saturday. Nicole is a Category 2 hurricane with maximum sustained winds of 105mph.

Florida Outlook:

- **Hurricane Warning** is in effect for Volusia, Brevard, Orange, Seminole, Osceola, Okeechobee, Indian River, Martin, St. Lucie, Palm Beach, Nassau, Duval, St. Johns, Flagler, Putnam, and Clay Counties, and this includes Lake Okeechobee.
- **Tropical Storm Warning** is in effect for Miami-Dade, Broward, Glades, Hendry, Highlands, Hardee, Polk, Lake, Sumter, Marion, Alachua, Union, Bradford, Baker, Columbia, Levy, Citrus, Hernando, and Pasco Counties.
- **Tropical Storm Watch** is in effect for Hillsborough, Pinellas, Sarasota, and Manatee Counties.
- **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 track, Matthew is a very large storm and will generate tropical storm force winds and rough seas along the East Coast of Florida, along with minor coastal flooding, beach erosion, and dangerous rip currents.
- Hurricane conditions will possibly affect the coastal areas of the Treasure Coast tonight, and moving northward to the Space Coast and First Coast tomorrow. Any deviation from the track could bring the destructive hurricane winds further inland.
- Tropical storm conditions are will continue to spread northward in the warning area along the East Coast tonight and tomorrow.
- The current forecast calls for 6-12" of rain along the east coast with isolated totals of 15" possible.
- Storm surge values of 1-3' is possible along the Southeast Florida coast, with storm surge heights of 3-6' possible from Palm Beach County through Indian River County. The highest surge of 7-11' will affect areas from Brevard to Nassau County. There is particular concern for storm surge flooding along the St. Johns and St. Marys Rivers.
- 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 24-36 hours along the Florida east coast from North Palm Beach to Nassau County.
- An isolated tornado or two is possible along the East Central Florida coast tonight, and along the Northeast Florida coast tomorrow.
- Hurricane Nicole does not pose a threat to Florida.

Another briefing packet will be issued on Friday morning. For more information on this system, please visit the NHC website at www.nhc.noaa.gov



TROPICAL UPDATE

Created by:

Kevin Rodriguez, Deputy State Meteorologist

Kevin.Rodriguez@em.myflorida.com

State Meteorological Support Unit

Florida Division of Emergency
Management