

TROPICAL UPDATE

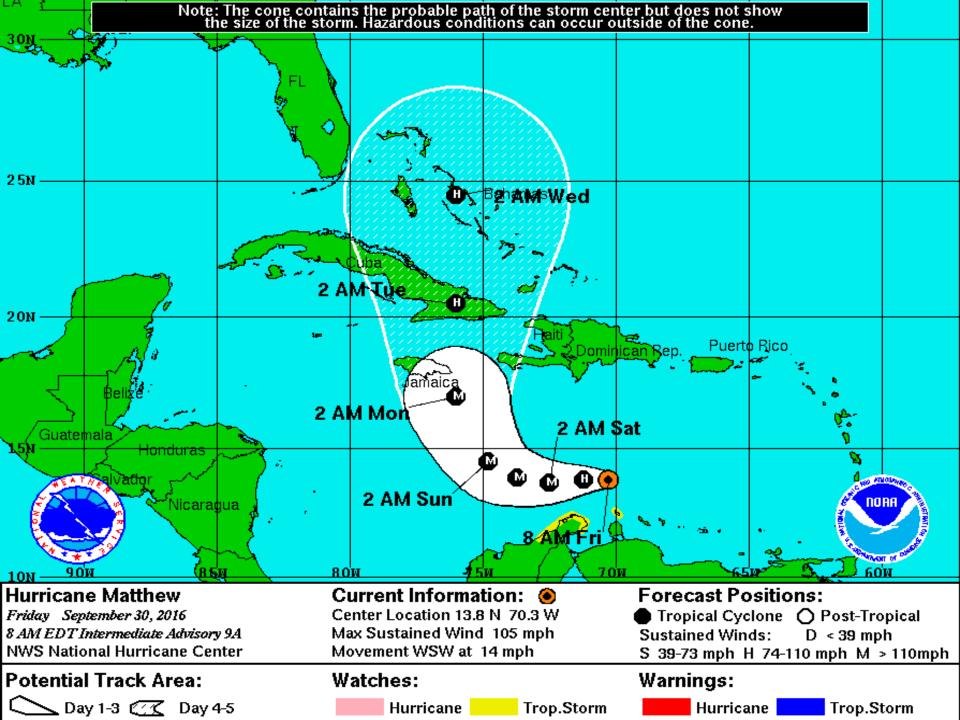
9 AM EDT
Friday, September 30, 2016
Hurricane Matthew

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



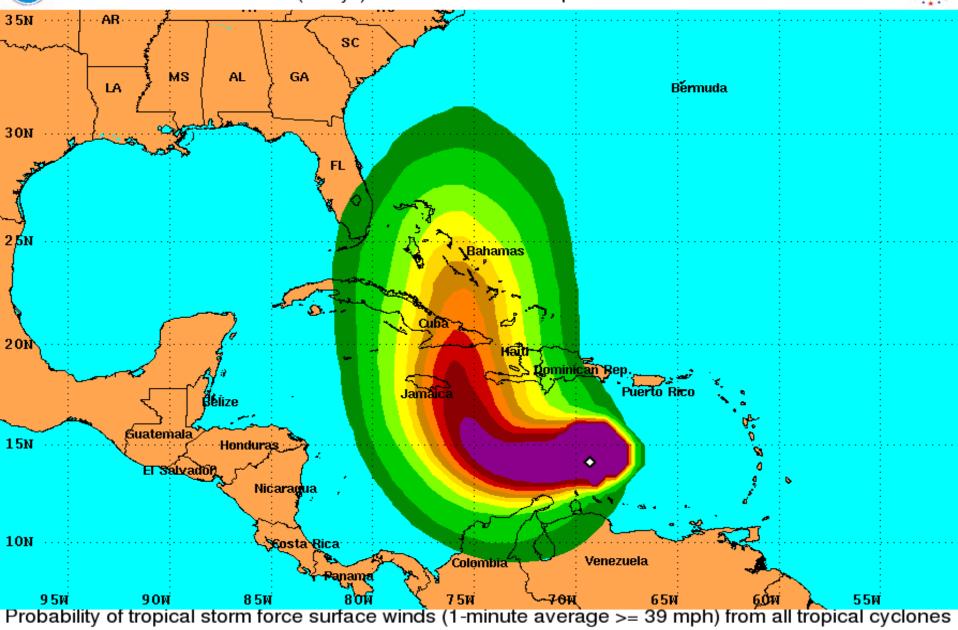






Tropical Storm Force Wind Speed Probabilities For the 120 hours (5 days) from 2 AM EDT Fri Sep 30 to 2 AM EDT Wed Oct 5

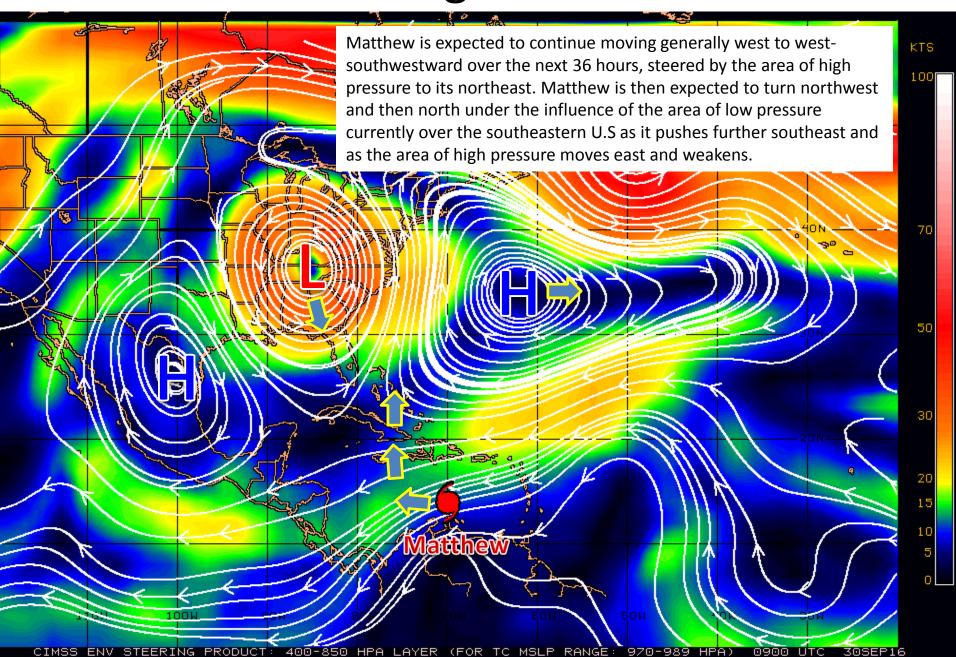


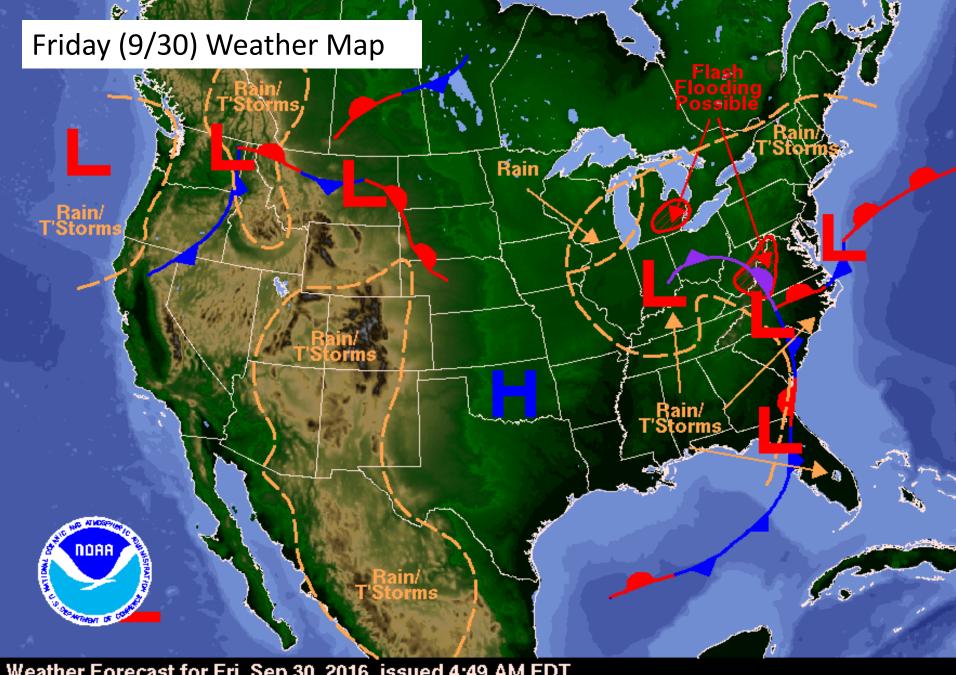


indicates HURRICANE MATTHEW center location at 2 AM EDT Fri Sep 30 2016 (Forecast/Advisory #9)

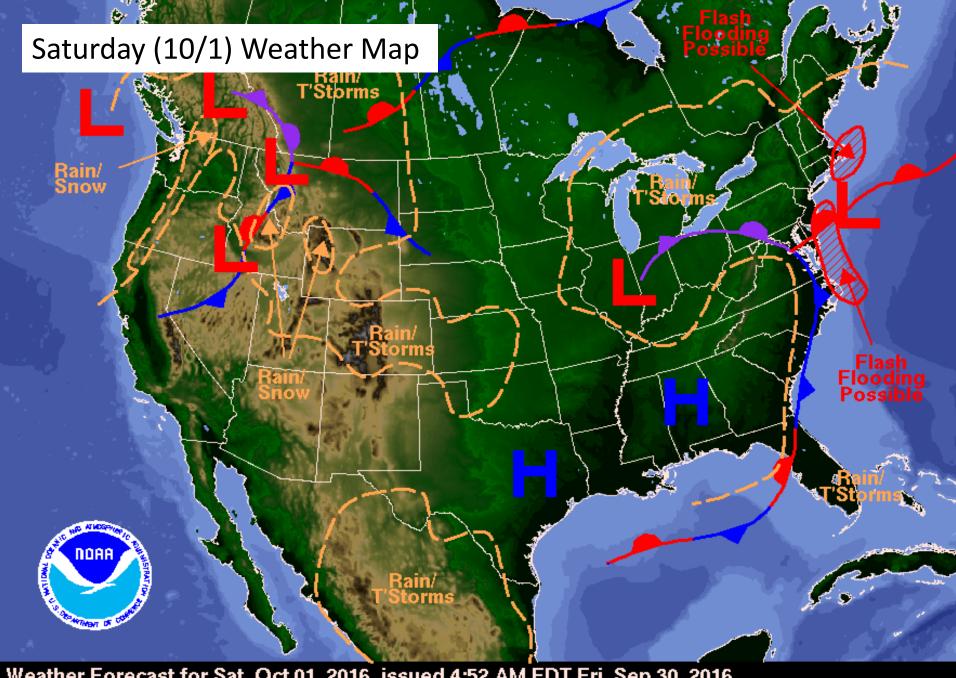


Steering Currents

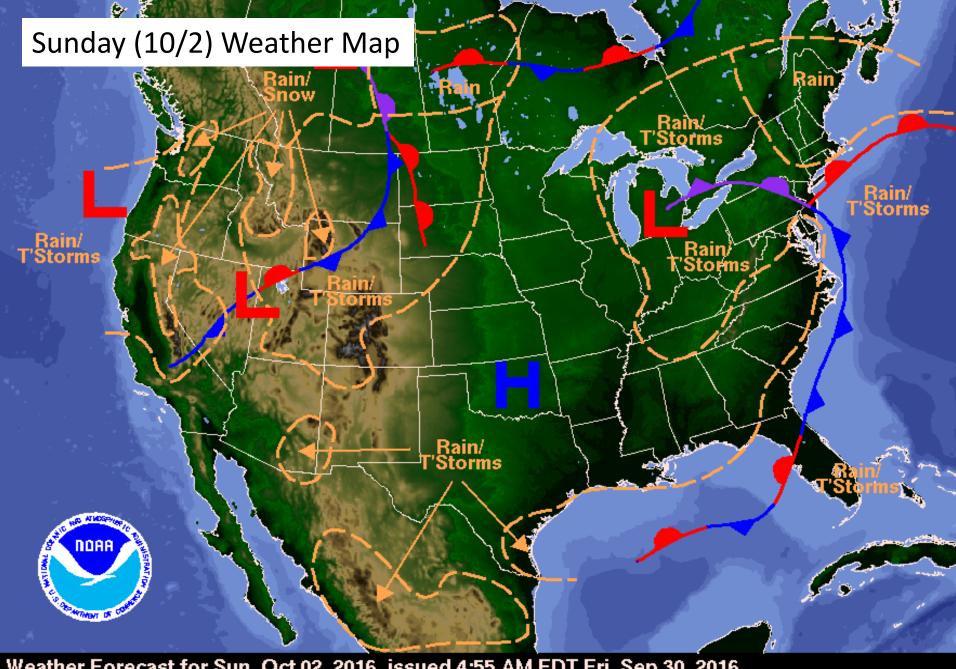




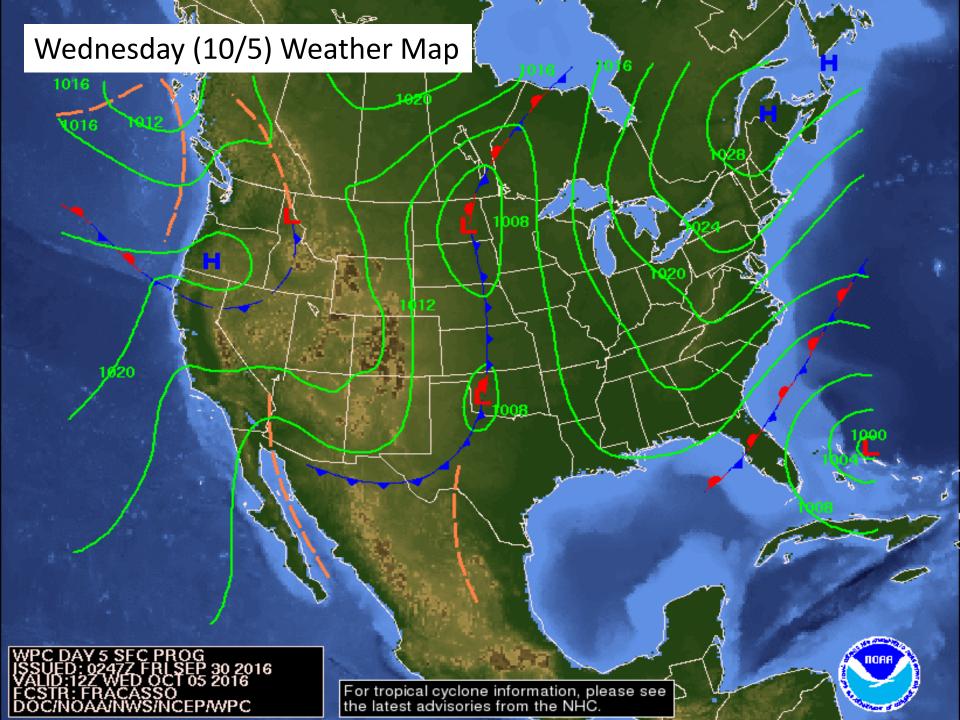
Weather Forecast for Fri, Sep 30, 2016, issued 4:49 AM EDT DOC/NOAA/NWS/NCEP/Weather Prediction Center Prepared by Mcreynolds based on WPC, SPC and NHC forecasts



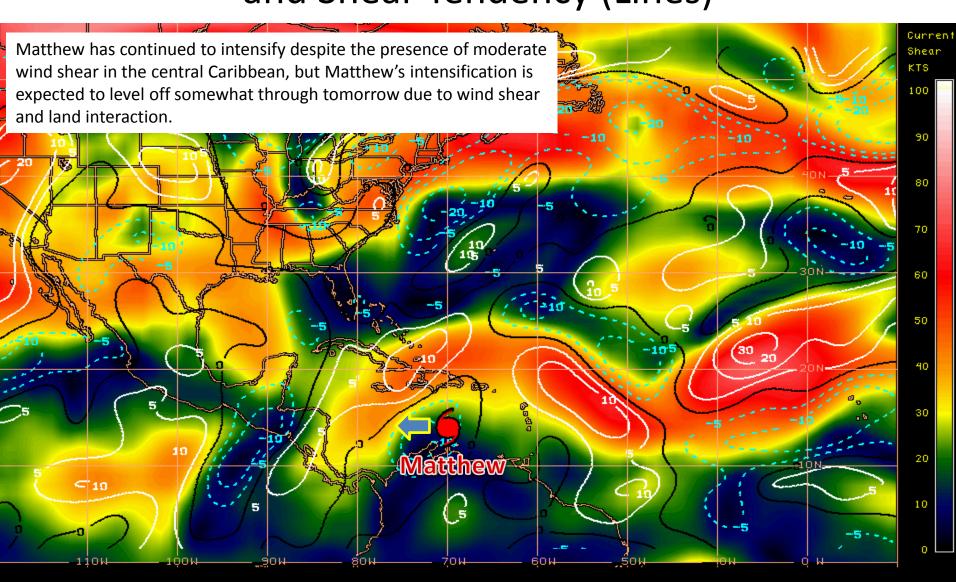
Weather Forecast for Sat. Oct 01, 2016, issued 4:52 AM EDT Fri, Sep 30, 2016 DOC/NOAA/NWS/NCEP/Weather Prediction Center Prepared by Mcreynolds based on WPC, SPC and NHC forecasts



Weather Forecast for Sun, Oct 02, 2016, issued 4:55 AM EDT Fri, Sep 30, 2016 DOC/NOAA/NWS/NCEP/Weather Prediction Center Prepared by Mcreynolds based on WPC, SPC and NHC forecasts



Current Wind Shear (Shaded) and Shear Tendency (Lines)



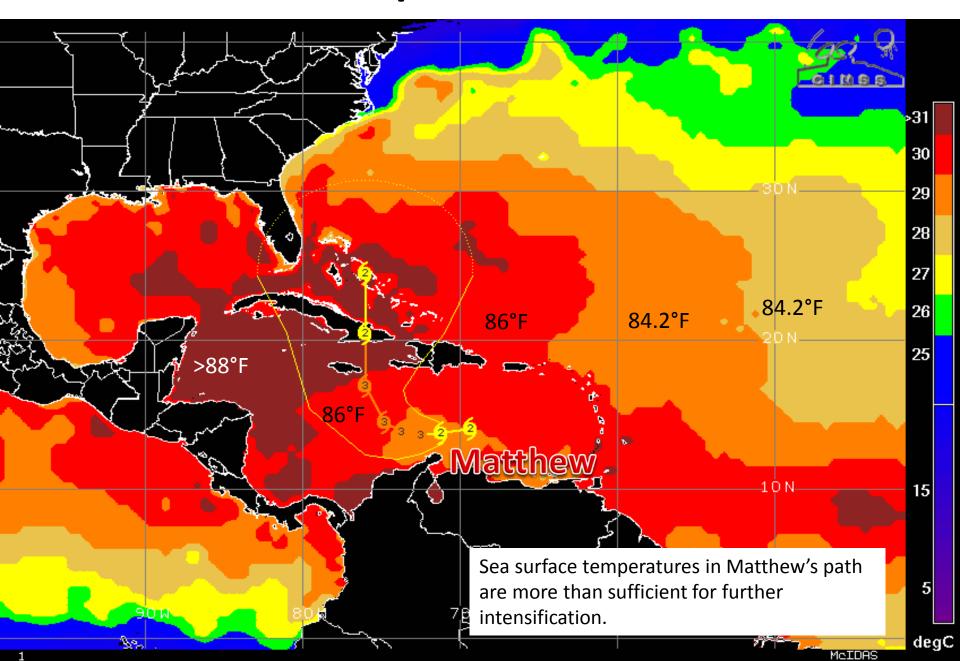
Increasing

Decreasing

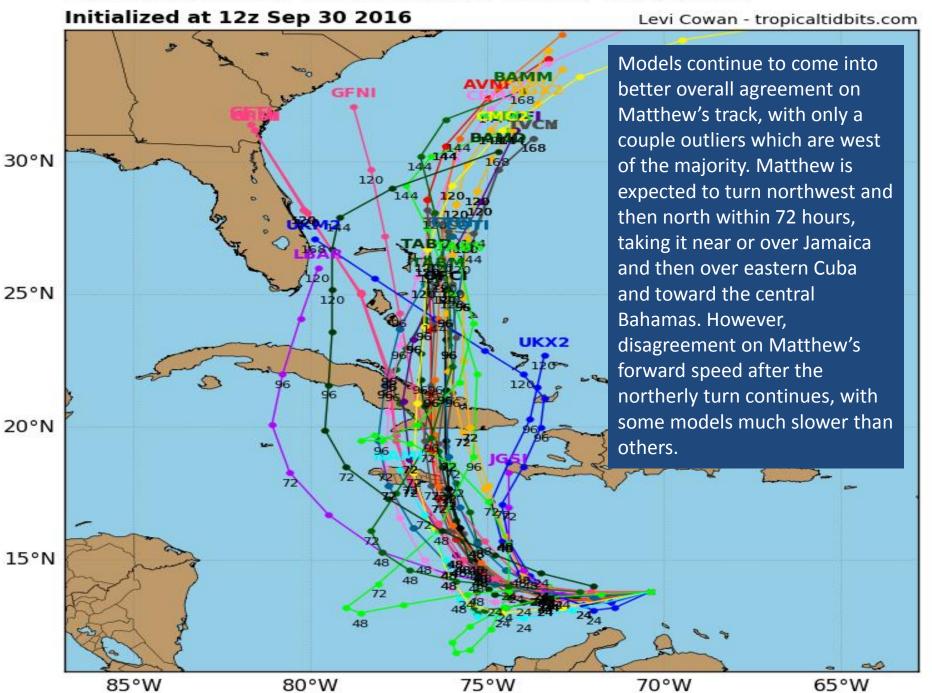
Shear Tendency (KTS) Over Past 24 Hours

24 HOUR WIND SHEAR TENDENCY PRODUCT

Sea Surface Temperatures Near Matthew



Hurricane MATTHEW Model Track Guidance



Hurricane MATTHEW Model Intensity Guidance Initialized at 12z Sep 30 2016 Levi Cowan - tropicaltidbits.com Intensity forecasts for Cat 5 Matthew so far have been difficult. Many models 130 indicate a leveling off or weakening through COTI Saturday due to continued 115 Cat 4 interaction with wind shear and land. A gradual weakening trend is possible next week, as indicated by many of the models here 100 Wind Speed (kt) due to interaction with the area of low pressure and its **LGEM** cold front. 85 70 DSHP Cat 1 ÇTCI 55 TCLP 40 TS 25 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 0 Forecast Hour



Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida





Tropical Cyclone Formation Potential for the Five-Day Period Ending at 8:00 am EDT Wed Oct 5 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 8am EDT, Hurricane Matthew was located about 520 miles east-southeast of Kingston, Jamaica, or approximately 1,040 miles southeast of Miami, Florida.
- Maximum sustained winds are 105 mph with higher gusts, making Matthew a Category 2 hurricane on the Saffir-Simpson scale.
- Matthew is moving to the west-southwest at 14 mph. A turn to the west is expected today, and a westward motion is expected to continue through Saturday along with a decrease in forward speed.
- Forecast models continue to come into better agreement on Matthew's forecast track, but are still in disagreement on its future intensity.
- Moderate wind shear in Matthew's path has had little effect, as Matthew strengthened to Category 2 much sooner than expected. In addition, the official forecast makes Matthew a Category 3 hurricane by the end of the day.
- Matthew is currently being steered west by a strong area of high pressure in the north-central Atlantic, but a strong area of low pressure is moving into the southeast U.S. and bringing a cold front into Florida.
- As the area of low pressure moves southeast and the area of high pressure shifts to the east, Matthew is expected to turn northwest and then north over the weekend toward extreme eastern Jamaica and eastern Cuba and continue north toward the central Bahamas early next week.
- However, there is still some uncertainty as to when Matthew makes the northward turn. A weaker and/or faster moving storm could
 make it to Jamaica before turning north across central Cuba, while a stronger and/or slower-moving storm may turn earlier toward
 the Windward Passage between Cuba and Haiti.
- The average NHC track errors at days 4 and 5 are on the order of 180 and 240 miles, respectively, so it is important not to focus on the "black skinny line" of the forecast track since the range of possibilities remains between central Cuba and Haiti.

Florida Outlook:

- At this time it is too early to say exactly what, if any, impacts Matthew will have on Florida.
- Florida remains outside of the 5-day average error cone. However, Southeast Florida now has a 5%-10% chance of seeing tropical storm force winds sometime over the next five days.
- Any possible impacts are 5-7 days away, but Matthew is a very large storm and has the potential to generate occasionally gusty winds
 and rough seas along the East Coast of Florida, with minor coastal flooding and erosion. Additional impacts are dependent on the
 future track of the storm.

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



TROPICAL UPDATE

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State Meteorological Support Unit Florida Division of Emergency Management

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