



TROPICAL UPDATE

9 AM EDT

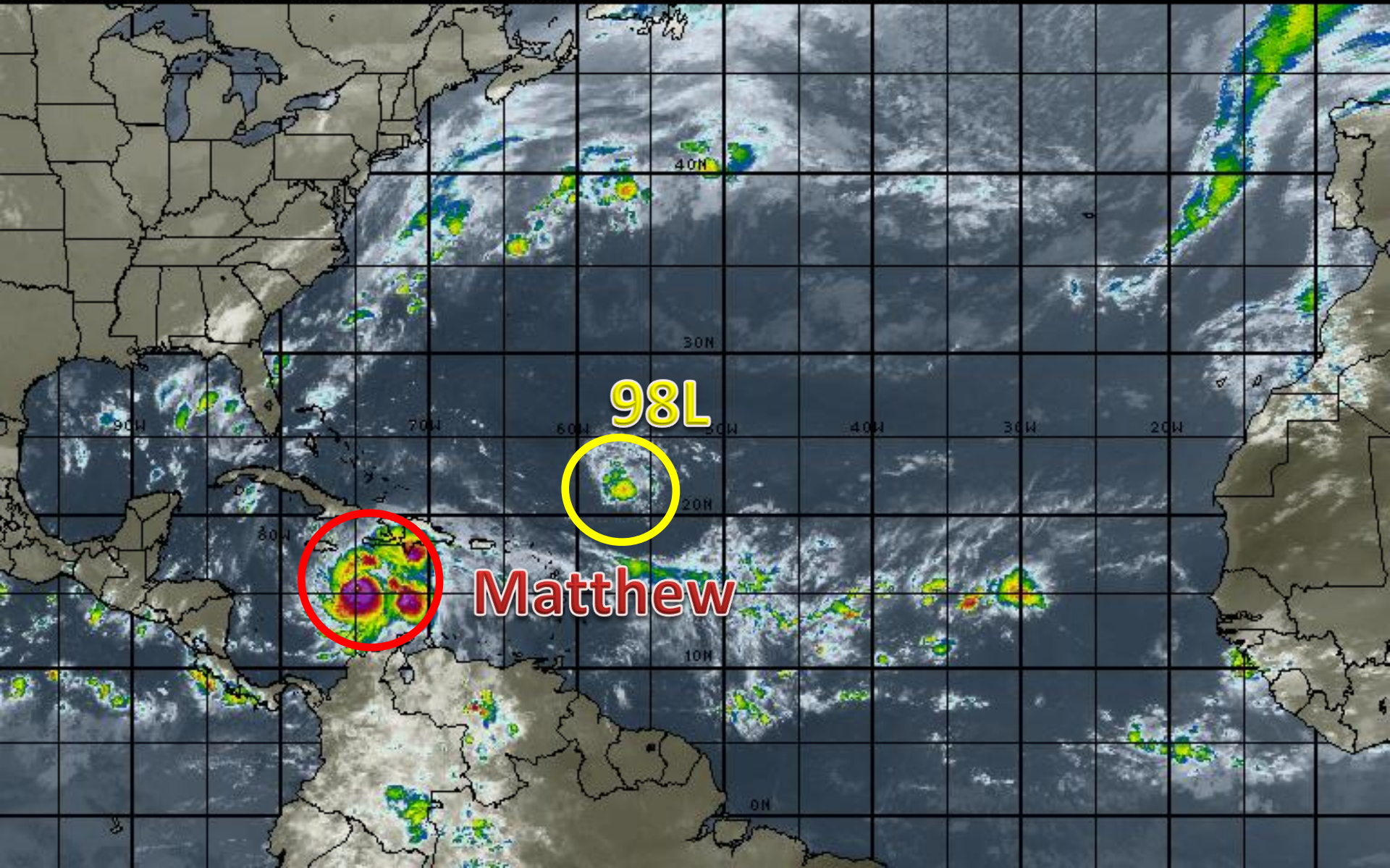
Monday, October 3, 2016

Hurricane Matthew & Invest 98L (40%)

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

12:00 03-OCT-2016 GMT Copyright © 1998-2016 MSI Corporation <http://www.usi.com>





Two-Day Graphical Tropical Weather Outlook

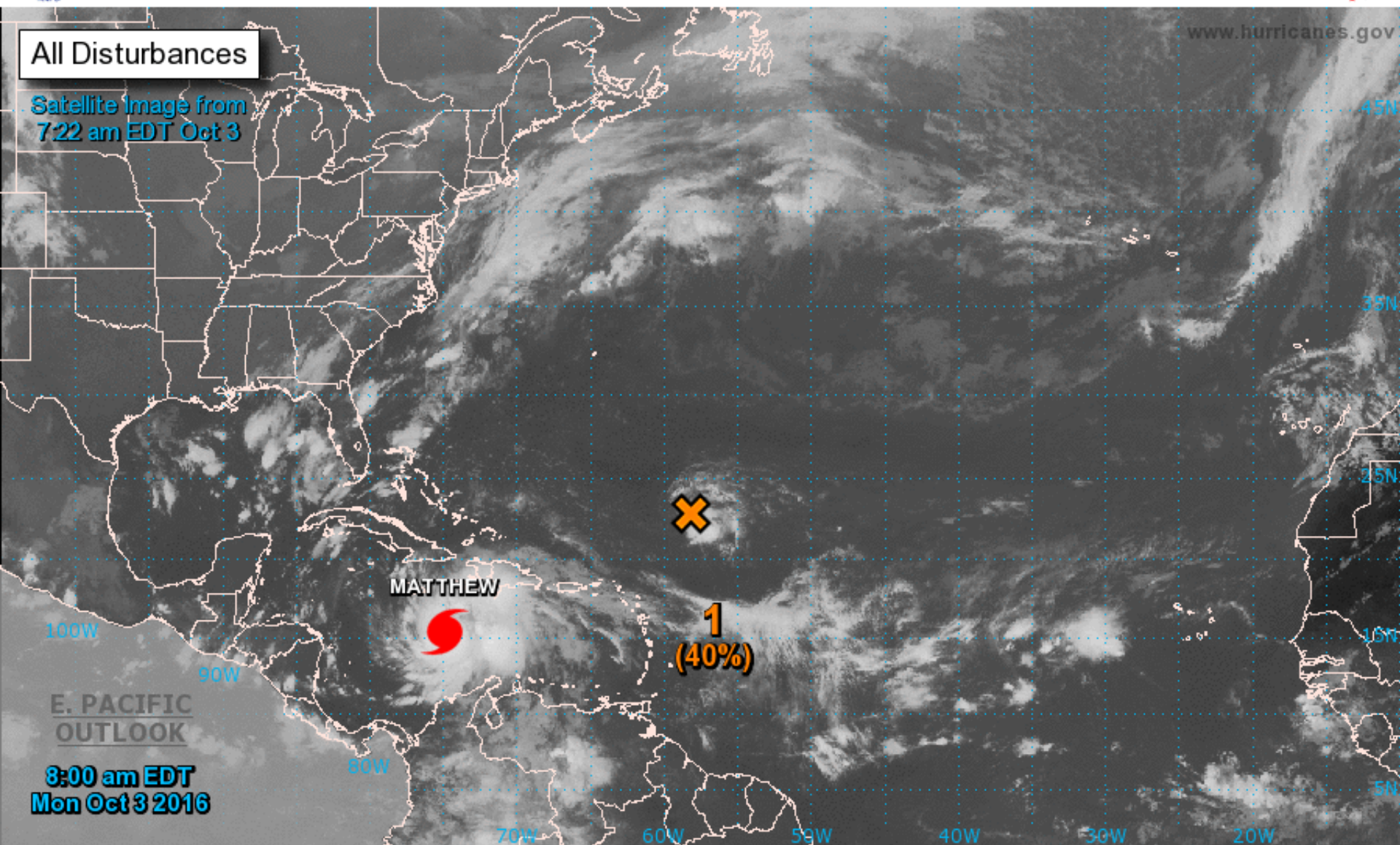
National Hurricane Center Miami, Florida



All Disturbances

Satellite Image from
7:22 am EDT Oct 3

www.hurricanes.gov



Current Disturbances and Two-Day Cyclone Formation Chance: < 40% 40-60% > 60%

Tropical or Sub-Tropical Cyclone: Depression Storm Hurricane

Post-Tropical Cyclone Remnants

Hurricane Matthew

8 AM EDT Mon Oct 03 2016

Position 15.4 N 74.9 W

Maximum Winds 130 mph

Gusts 160 mph

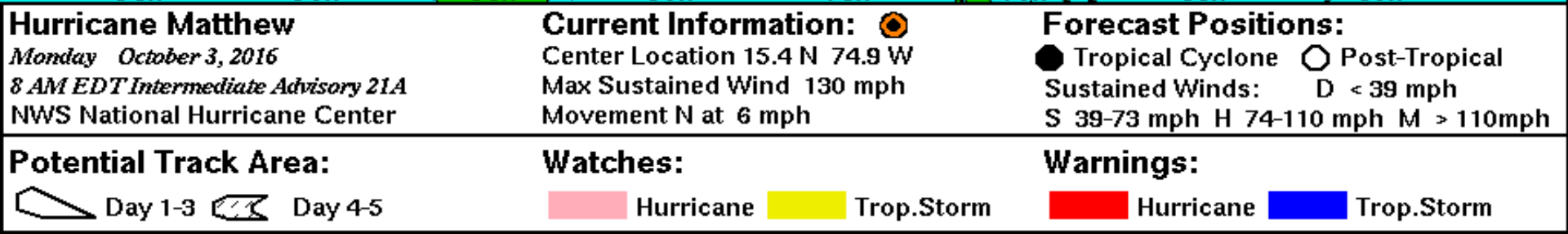
Movement N at 5 mph

Minimum Pressure 943 mb (27.84 inches)

Blue Marble basemap imagery courtesy NASA

Satellite 12:56 PM UTC
8:56 AM EDT

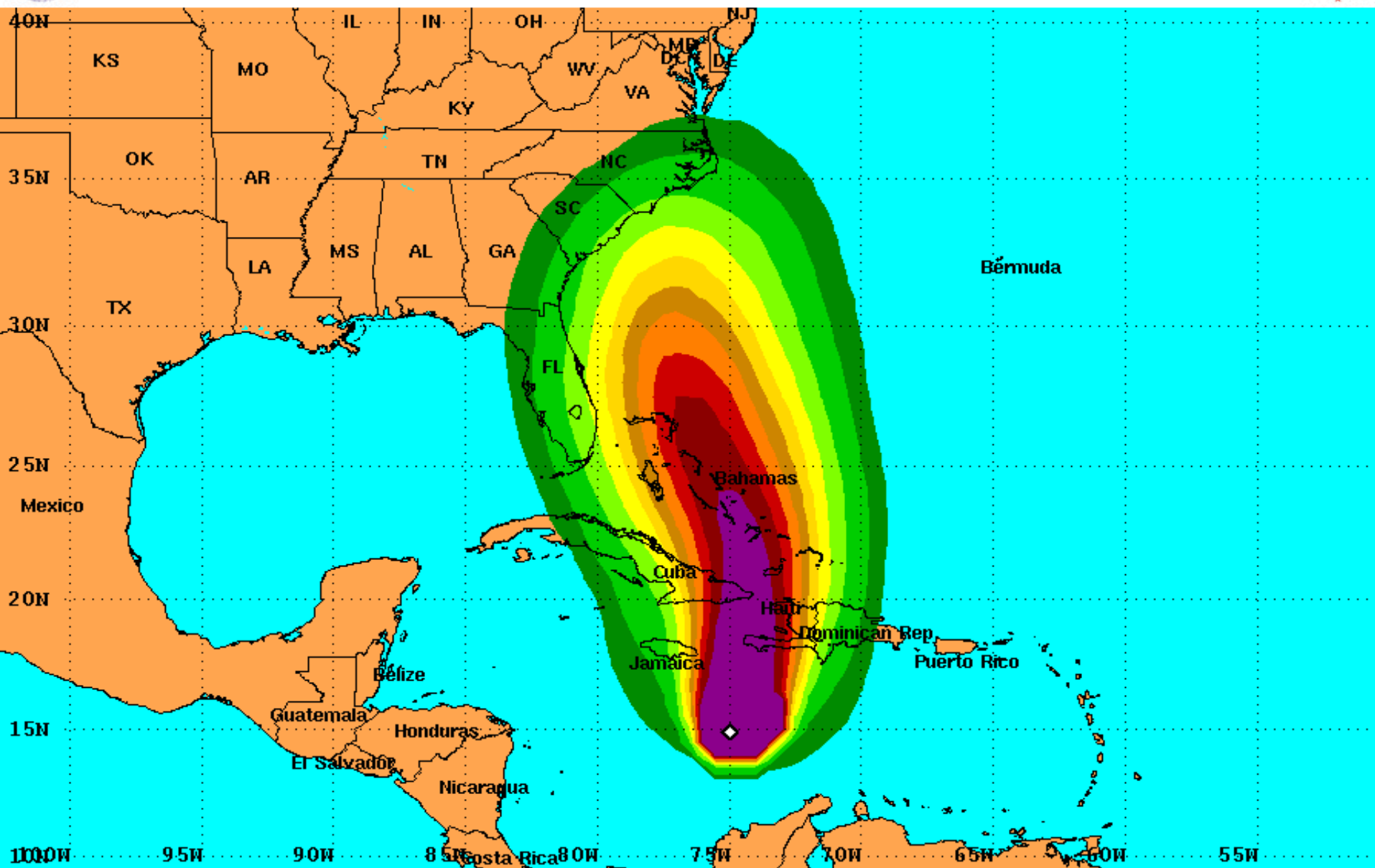






Tropical Storm Force Wind Speed Probabilities

For the 120 hours (5 days) from 2 AM EDT Mon Oct 3 to 2 AM EDT Sat Oct 8



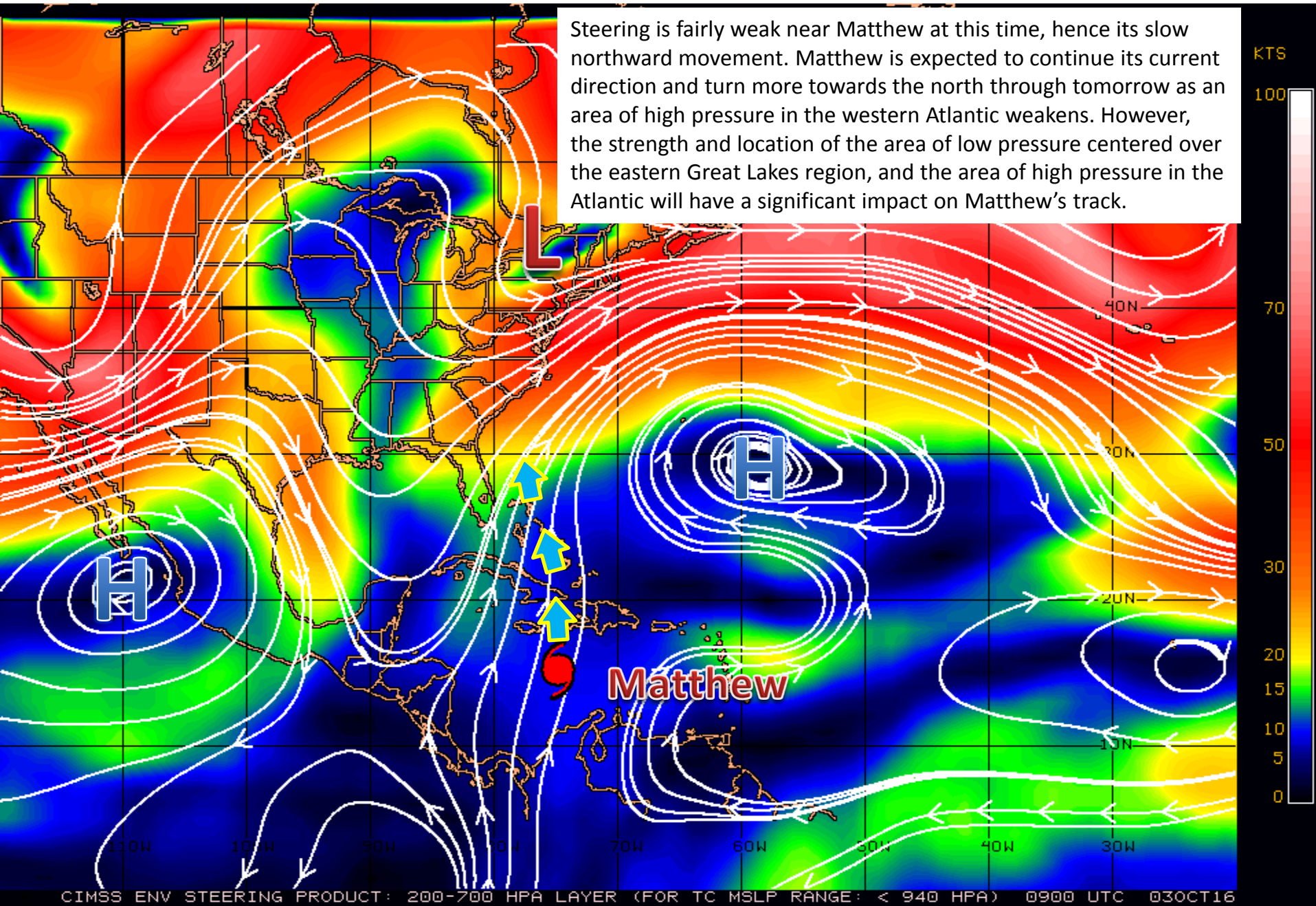
Probability of tropical storm force surface winds (1-minute average ≥ 39 mph) from all tropical cyclones

◊ indicates HURRICANE MATTHEW center location at 2 AM EDT Mon Oct 3 2016 (Forecast/Advisory #21)

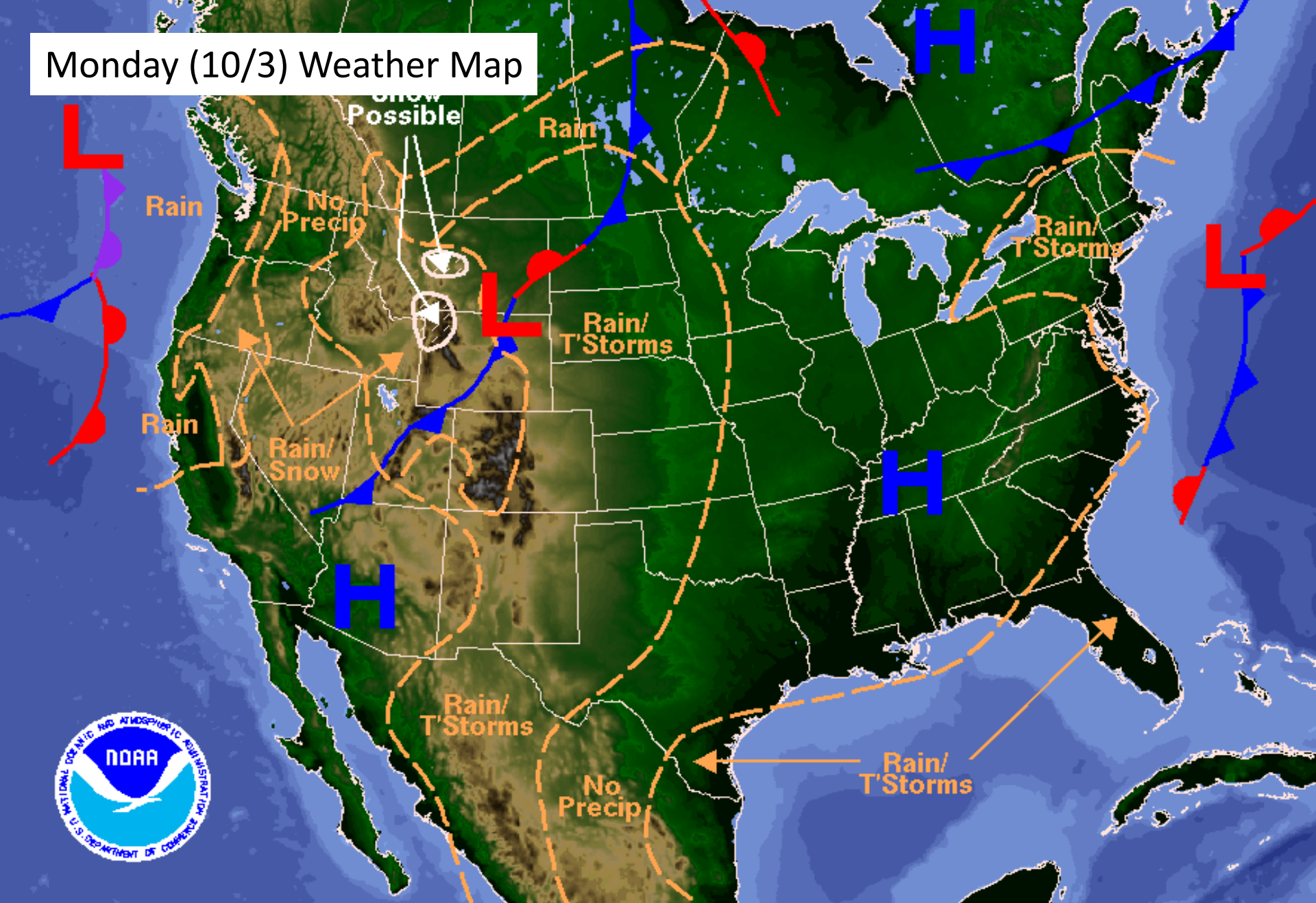


Steering Currents – Upper Levels

Steering is fairly weak near Matthew at this time, hence its slow northward movement. Matthew is expected to continue its current direction and turn more towards the north through tomorrow as an area of high pressure in the western Atlantic weakens. However, the strength and location of the area of low pressure centered over the eastern Great Lakes region, and the area of high pressure in the Atlantic will have a significant impact on Matthew's track.

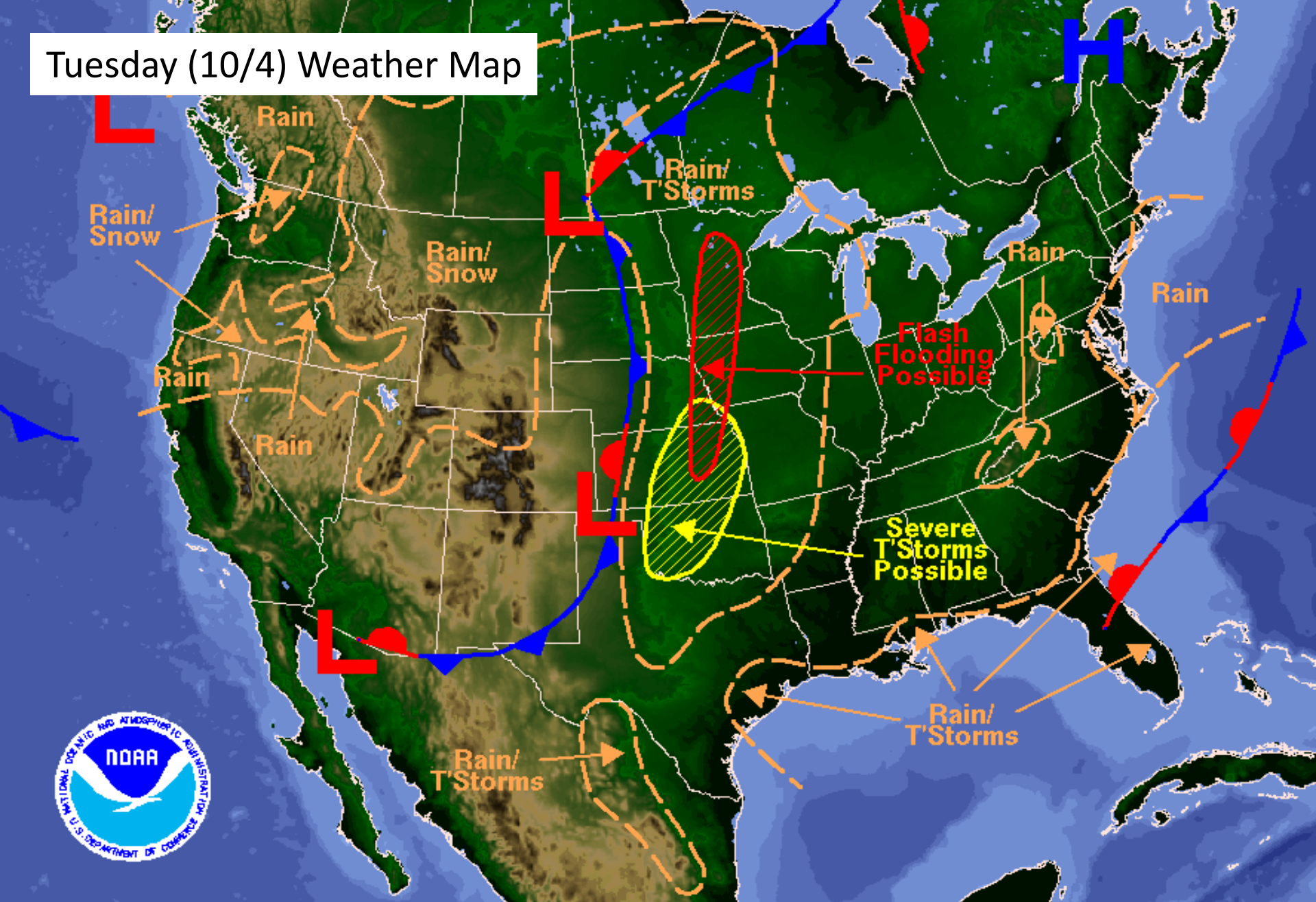


Monday (10/3) Weather Map



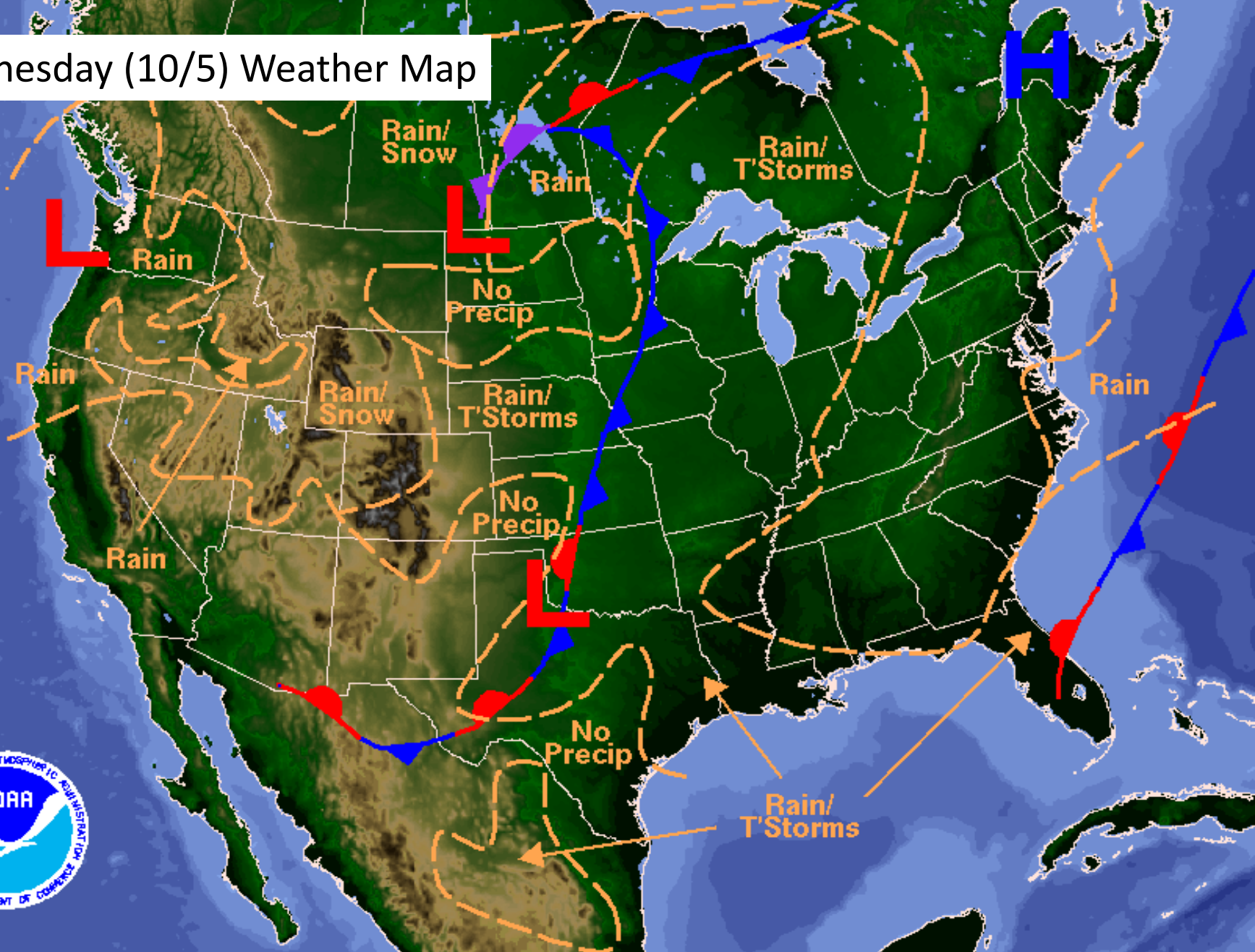
Weather Forecast for Mon, Oct 03, 2016, issued 4:46 AM EDT
DOC/NOAA/NWS/NCEP/Weather Prediction Center
Prepared by McCreynolds based on WPC, SPC and NHC forecasts

Tuesday (10/4) Weather Map



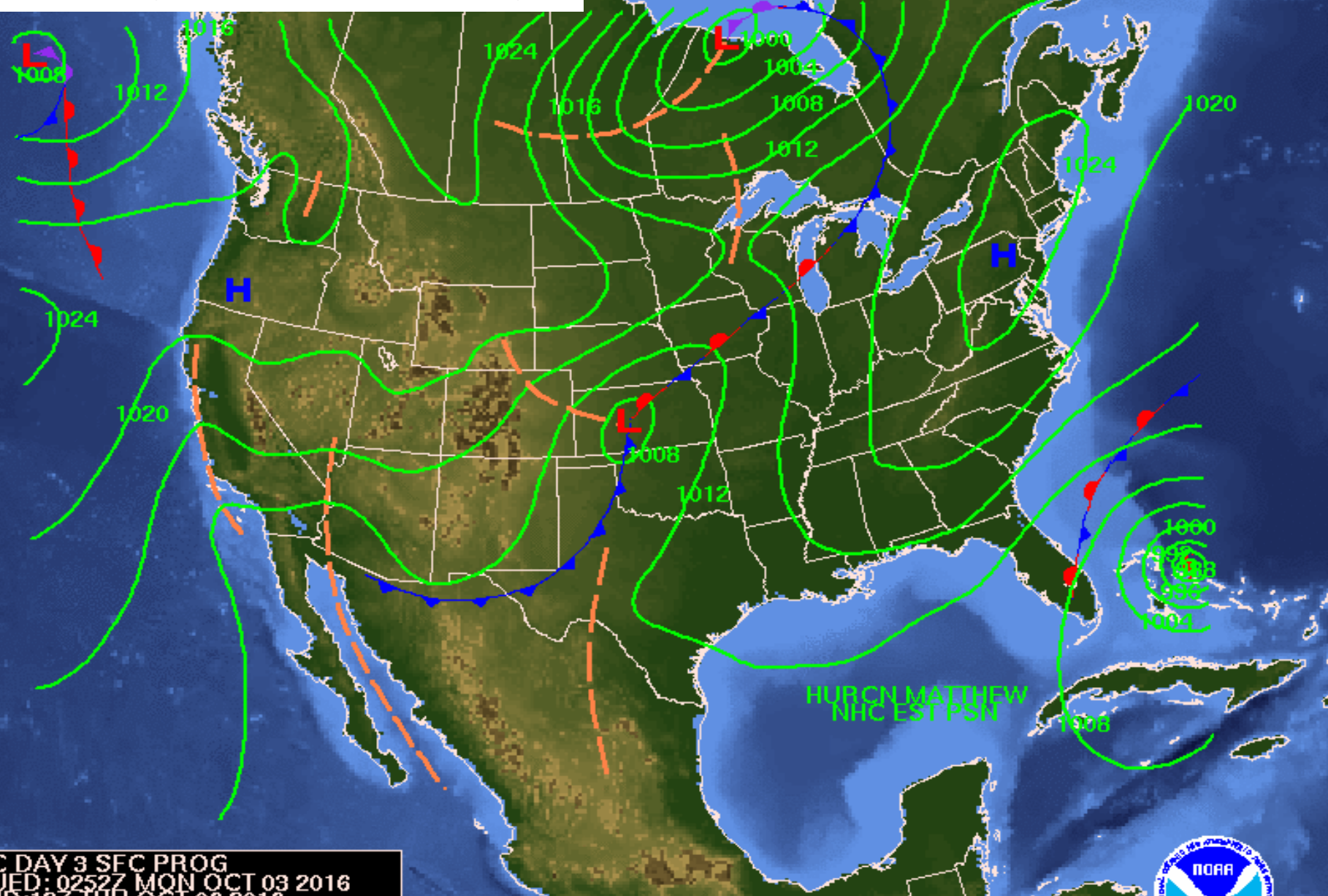
Weather Forecast for Tue, Oct 04, 2016, issued 4:49 AM EDT Mon, Oct 03, 2016
DOC/NOAA/NWS/NCEP/Weather Prediction Center
Prepared by McCreynolds based on WPC, SPC and NHC forecasts

Wednesday (10/5) Weather Map



Weather Forecast for Wed, Oct 05, 2016, issued 4:54 AM EDT Mon, Oct 03, 2016
DOC/NOAA/NWS/NCEP/Weather Prediction Center
Prepared by McCreynolds based on WPC, SPC and NHC forecasts

Thursday (10/6) Weather Map

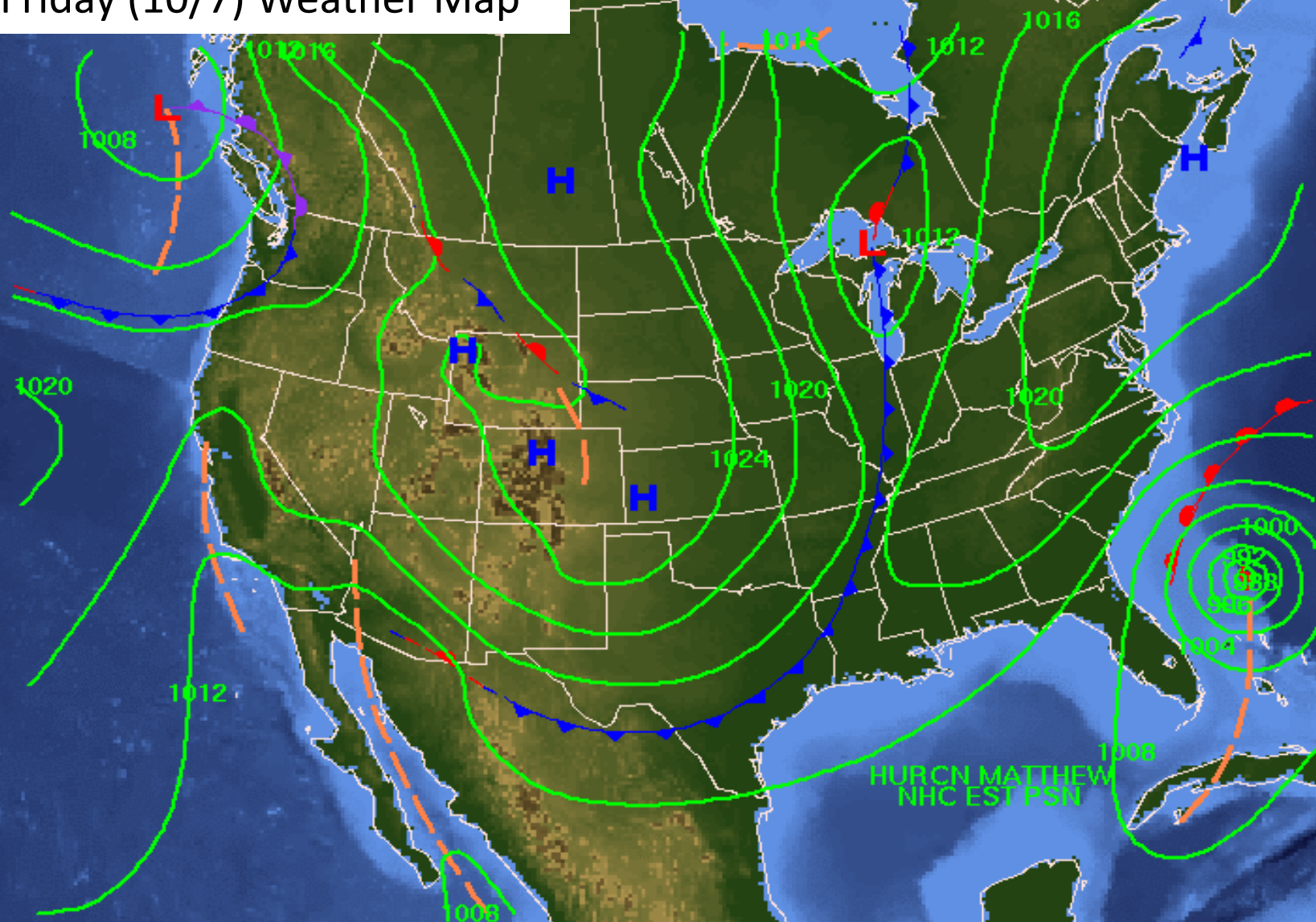


WPC DAY 3 SEC PROG
ISSUED: 0252Z MON OCT 03 2016
VALID: 12Z THU OCT 06 2016
FCSTR: FRACASSO
DOC/NOAA/NWS/NCEP/WPC

For tropical cyclone information, please see
the latest advisories from the NHC.



Friday (10/7) Weather Map

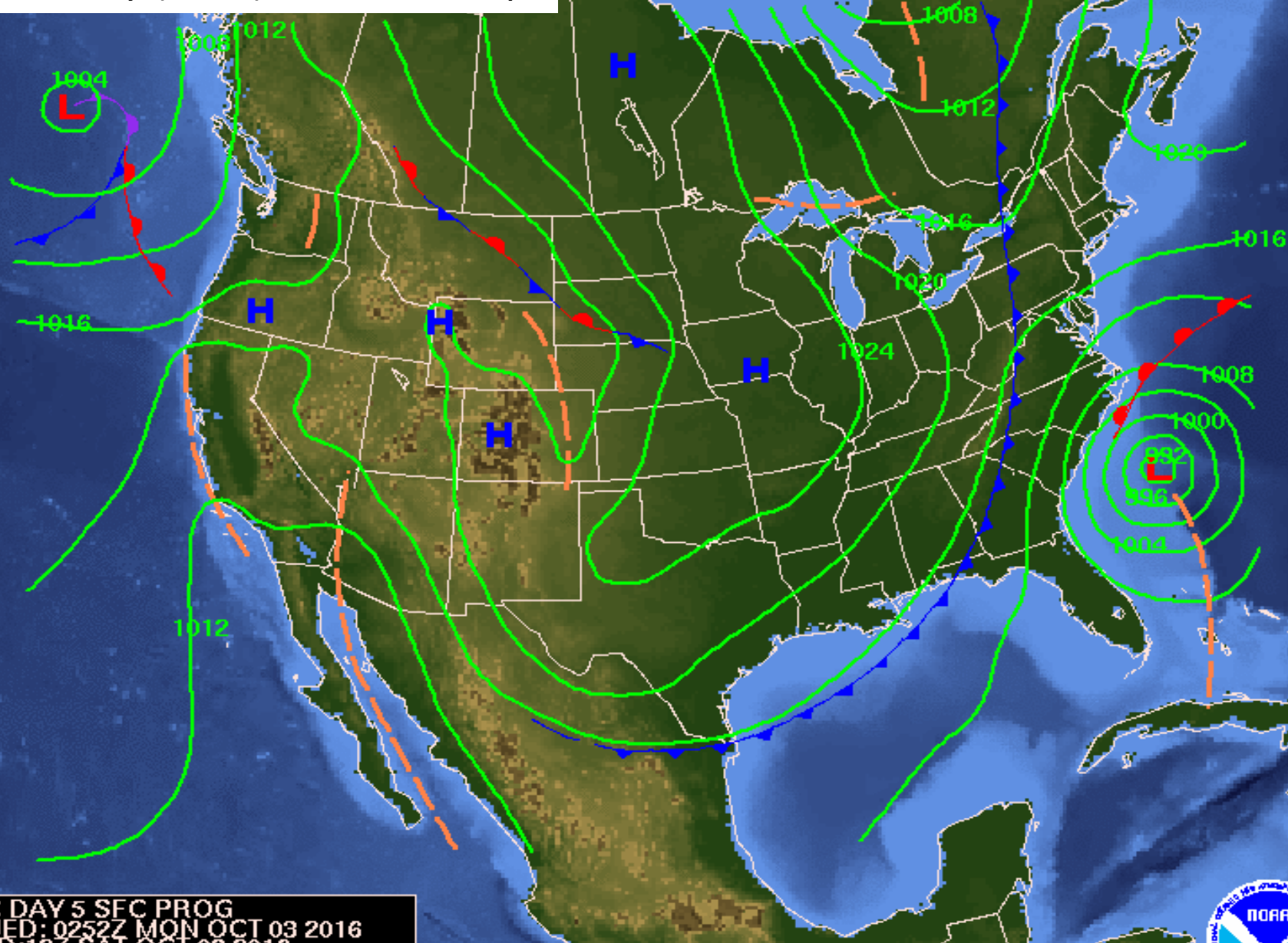


WPC DAY 4 SEC PROG
ISSUED: 0252Z MON OCT 03 2016
VALID: 12Z FRI OCT 07 2016
FCSTR: FRACASSO
DOC/NOAA/NWS/NCEP/WPC

For tropical cyclone information, please see
the latest advisories from the NHC.



Saturday (10/8) Weather Map

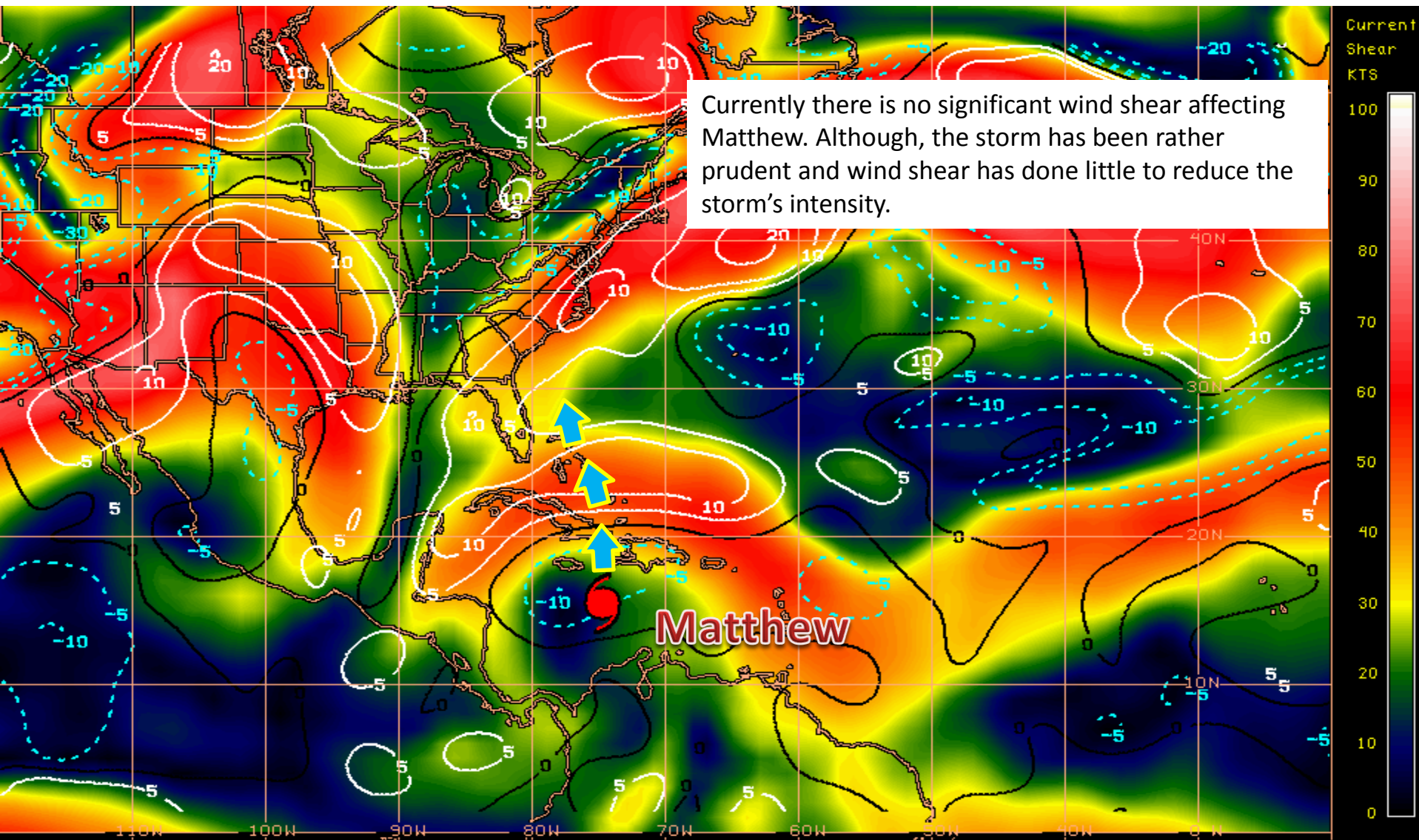


WPC DAY 5 SEC PROG
ISSUED: 0252Z MON OCT 03 2016
VALID: 12Z SAT OCT 08 2016
FCSTR: FRACASSO
DOC/NOAA/NWS/NCEP/WPC

For tropical cyclone information, please see
the latest advisories from the NHC.

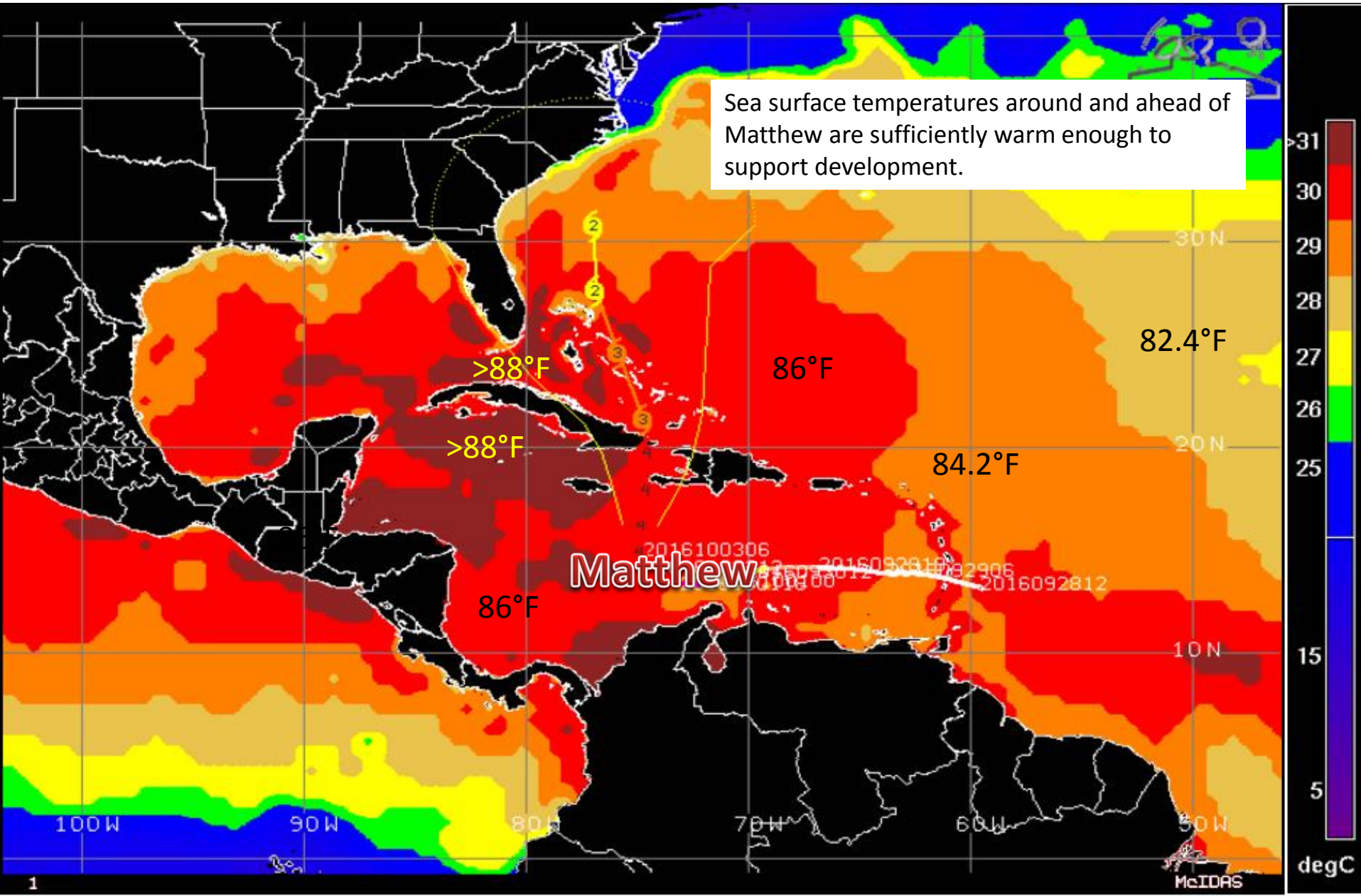


Current Wind Shear (shaded) and Shear Tendency (contours)



Shear Tendency (KTS) Over Past 24 Hours: Increasing — Decreasing ----

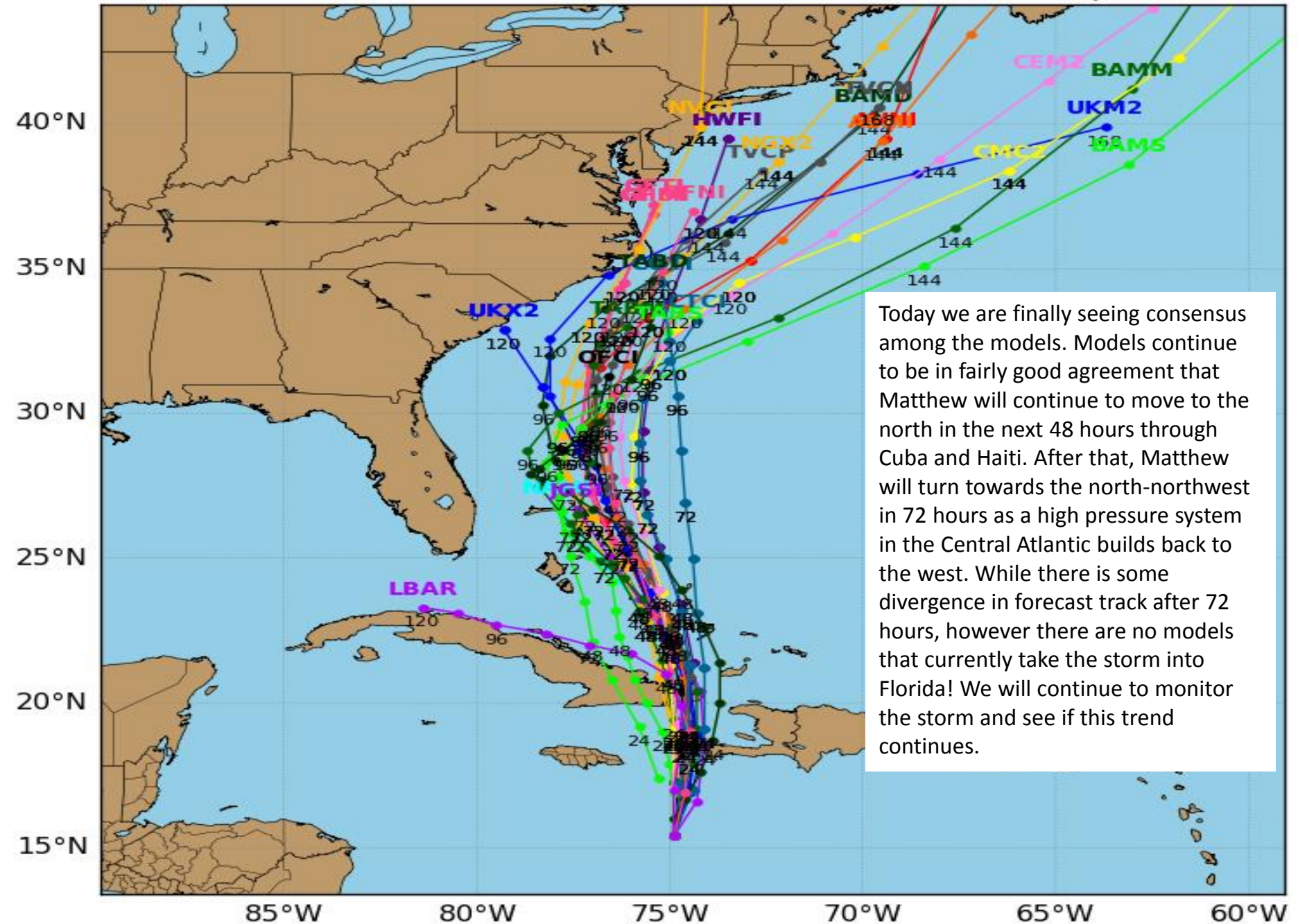
Sea Surface Temperatures Near Matthew



Hurricane MATTHEW Model Track Guidance

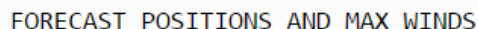
Initialized at 12z Oct 03 2016

Levi Cowan - tropicaltidbits.com



Today we are finally seeing consensus among the models. Models continue to be in fairly good agreement that Matthew will continue to move to the north in the next 48 hours through Cuba and Haiti. After that, Matthew will turn towards the north-northwest in 72 hours as a high pressure system in the Central Atlantic builds back to the west. While there is some divergence in forecast track after 72 hours, however there are no models that currently take the storm into Florida! We will continue to monitor the storm and see if this trend continues.

Levi Cowan - tropicaltidbits.com



The latest intensity forecast from the National Hurricane Center will likely prove a better indicator of Matthew's future strength than the guidance models.



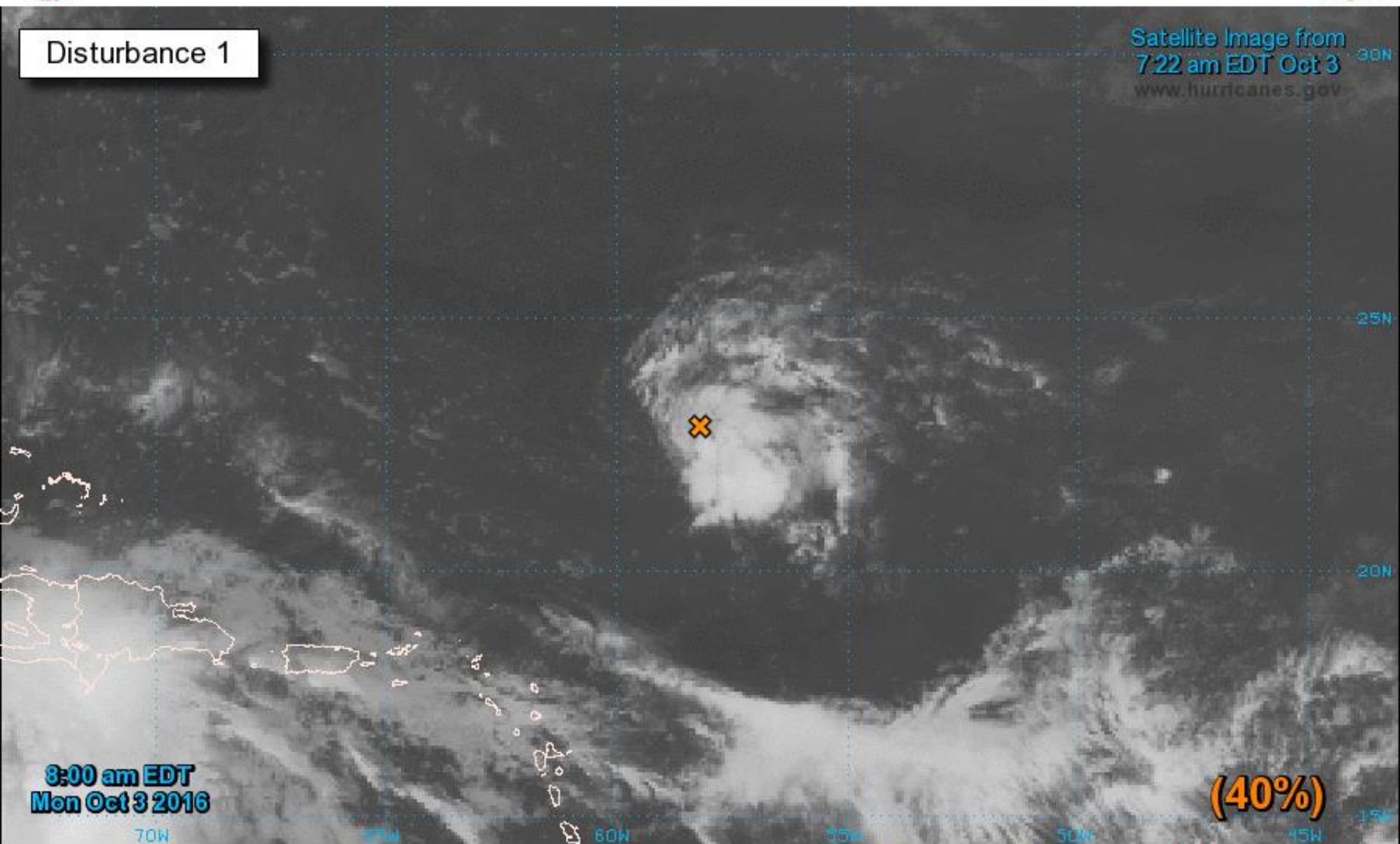
Two-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



Disturbance 1

Satellite Image from
7:22 am EDT Oct 3
www.hurricanes.gov



Current Disturbances and Two-Day Cyclone Formation Chance: < 40% 40-60% > 60%

Tropical or Sub-Tropical Cyclone: Depression Storm Hurricane

Post-Tropical Cyclone Remnants



Five-Day Graphical Tropical Weather Outlook

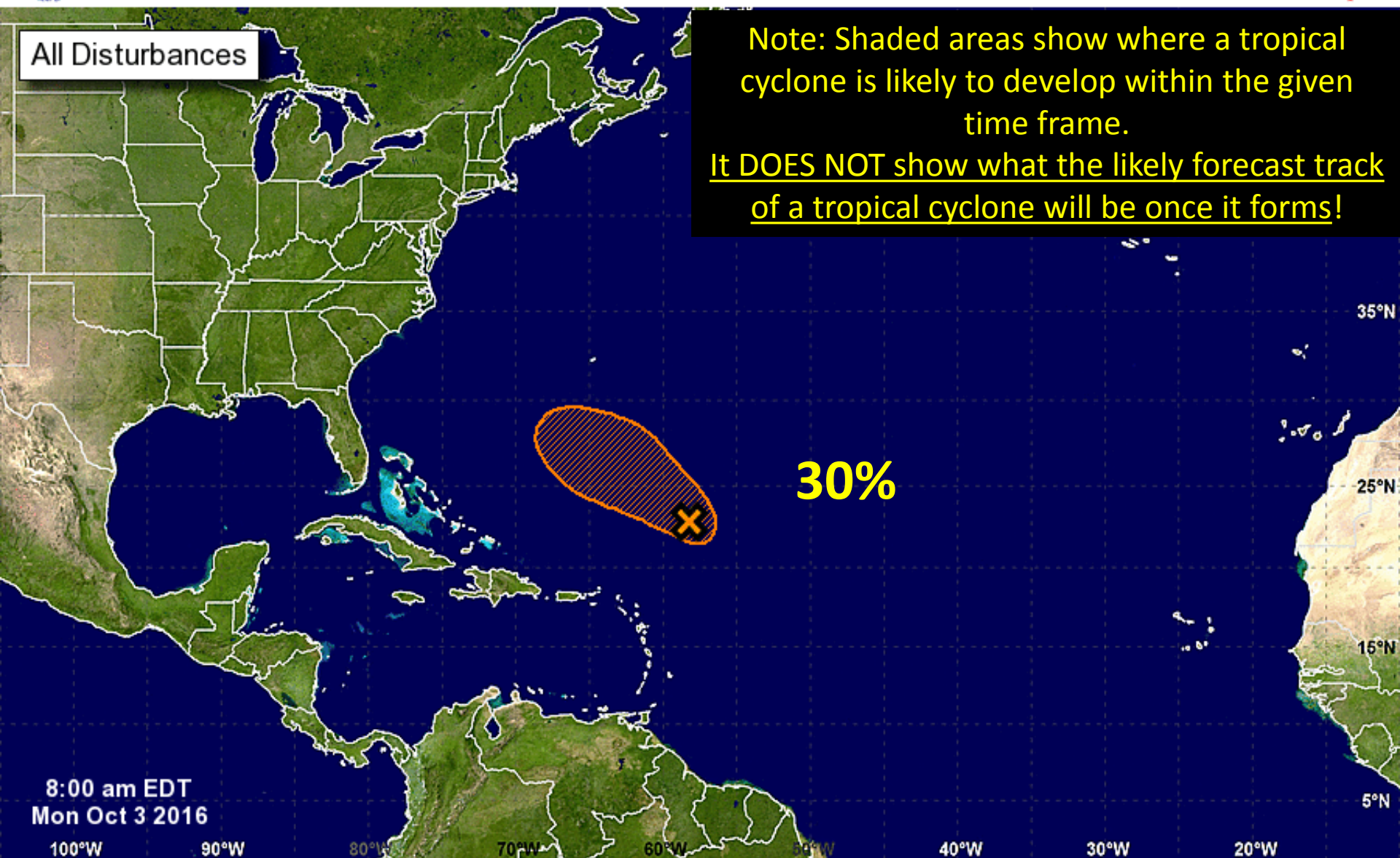
National Hurricane Center Miami, Florida



All Disturbances

Note: Shaded areas show where a tropical cyclone is likely to develop within the given time frame.

It DOES NOT show what the likely forecast track of a tropical cyclone will be once it forms!



8:00 am EDT
Mon Oct 3 2016

30%

Tropical Cyclone Formation Potential for the Five-Day Period Ending at 8:00 am EDT Sat Oct 8 2016

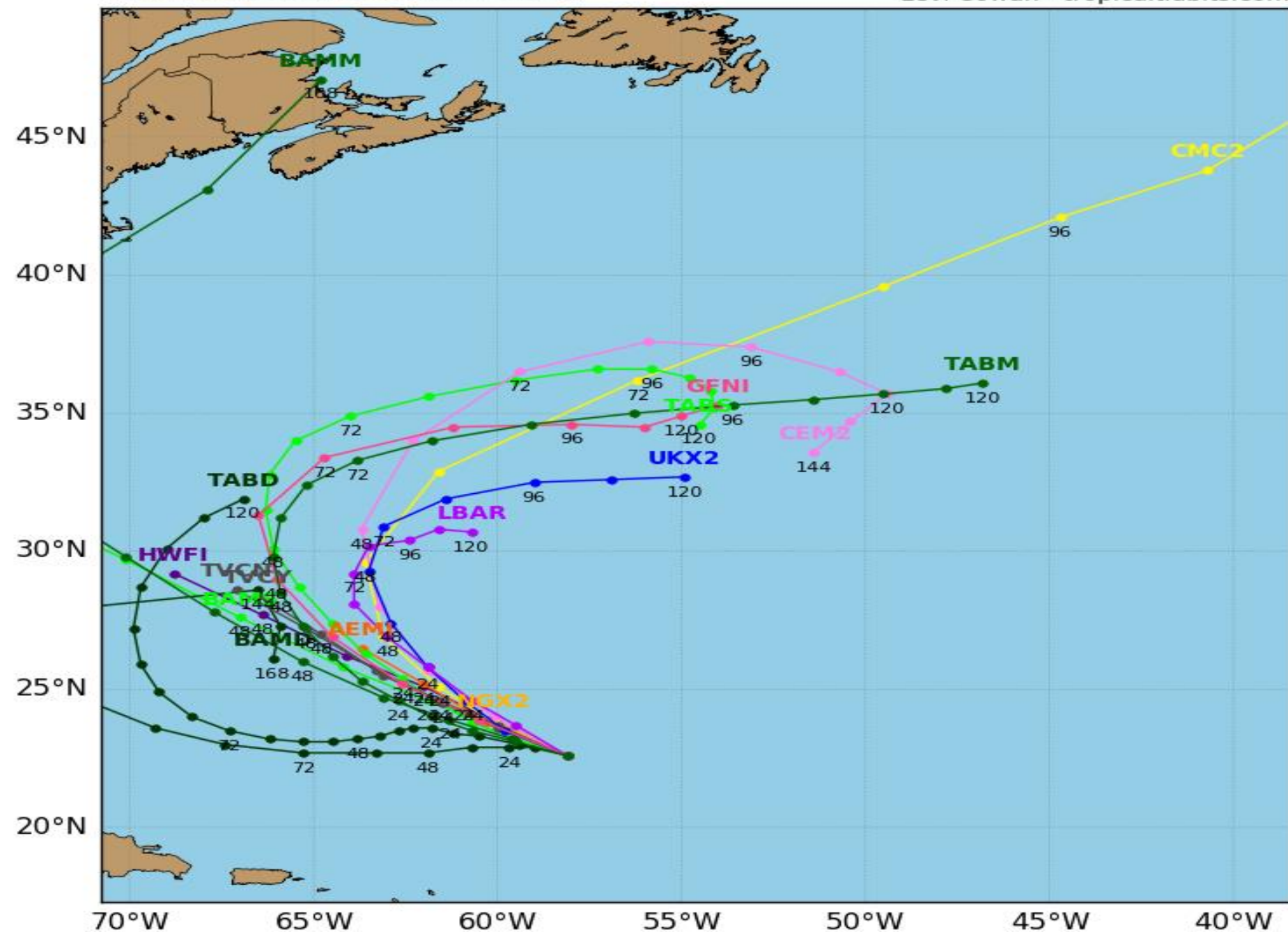
Chance of Cyclone Formation in Five Days: ■ Low < 40% ■ Medium 40-60% ■ High > 60%

X indicates current disturbance location; shading indicates potential formation area.

Invest 98L Model Track Guidance

Initialized at 12z Oct 03 2016

Levi Cowan - tropicaltidbits.com



Tropical Summary:

- At 8am EDT, Hurricane Matthew was located 220 miles south southeast of Kingston, Jamaica, or approximately 800 miles southeast of Miami, Florida.
- Maximum sustained winds are currently 130 mph with higher gusts, making Matthew a Category 4 hurricane on the Saffir-Simpson scale. Tropical storm force winds extend out to 130 miles from the circulation in the northwest quadrant.
- Matthew is moving toward the north near 6 mph. A general northward motion with some increase in forward speed is expected through Tuesday. On the forecast track, the center of Matthew will approach Jamaica and southwestern Haiti tonight, and eastern Cuba on Tuesday.
- Forecast models are in fairly good agreement on Matthew's forecast through the next 48-72 hours, but then begin to diverge towards 96-120 hours.
- Matthew is currently being steered around an area of high pressure in the Central Atlantic, while a weak area of low pressure continues to slowly push eastward in the Gulf of Mexico.
- The current forecast calls for the area of high pressure to continue weakening and shift east, this will continue Matthew's northward direction through tomorrow night as it heads towards Cuba and Hispaniola.
- By Wednesday, the high pressure in the Atlantic, to the northeast of Matthew, is expected to slightly intensify, which would induce a turn toward the left at some point in 2-4 days (Wednesday-Friday timeframe). The timing and magnitude of this turn is still uncertain. At that point, Matthew will be located over southeastern and central Bahamas.
- Any change in forecast strength and location of the area of high pressure and area of low pressure could affect Matthew's track significantly in days 3-4 and beyond. Confidence in the track forecast beyond 72 hours remains low, but is improving.
- The average NHC track errors at days 4 and 5 are on the order of 175 miles and 230 miles, respectively, so it is important not to focus on the line in the middle of the forecast track.
- Intensity forecasting for Matthew has been extremely difficult, and I would not put too much emphasis on model intensity guidance at this time.
- The official forecast from the National Hurricane Center calls for Matthew to retain its major hurricane status as it moves towards Eastern Cuba and Hispaniola over the next 24-36 hours.
- Gradual weakening is expected once Matthew begins interacting with land tomorrow, and then gradual strengthening is possible once the system emerges into the Atlantic and heads towards the Bahamas on Wednesday going into Thursday.
- Elsewhere, Invest 98L is a broad low pressure system located about 400 miles northeast of the Leeward Islands and continues to produce an area of showers and thunderstorms. Some development of this system is possible over the next few days before upper-level conditions become unfavorable. The system poses no threat to Florida.
- The system has a 40% (medium) chance of development over the next 48 hours, and a 40% (medium) chance of development through the next five days.

Florida Outlook:

- At this time, it is still too early to say exactly what, if any, impacts Matthew will have on Florida.
- Part of the eastern Florida Peninsula remains within the 5-day average error cone.
- Areas along the east coast of Florida have an approximately 30% chance of seeing tropical storm force winds sometime within the next five days.
- Any possible impacts remain 2-5 days away, but Matthew is a very large storm and it has the potential to generate occasionally gusty winds and rough seas along the East Coast of Florida, along with minor coastal flooding, beach erosion, and dangerous rip currents.
- Any additional impacts are dependent on the future track of the storm, which remains uncertain at this time.

Another briefing packet will be issued on Monday 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