



# **TROPICAL UPDATE**

**5 PM EDT**

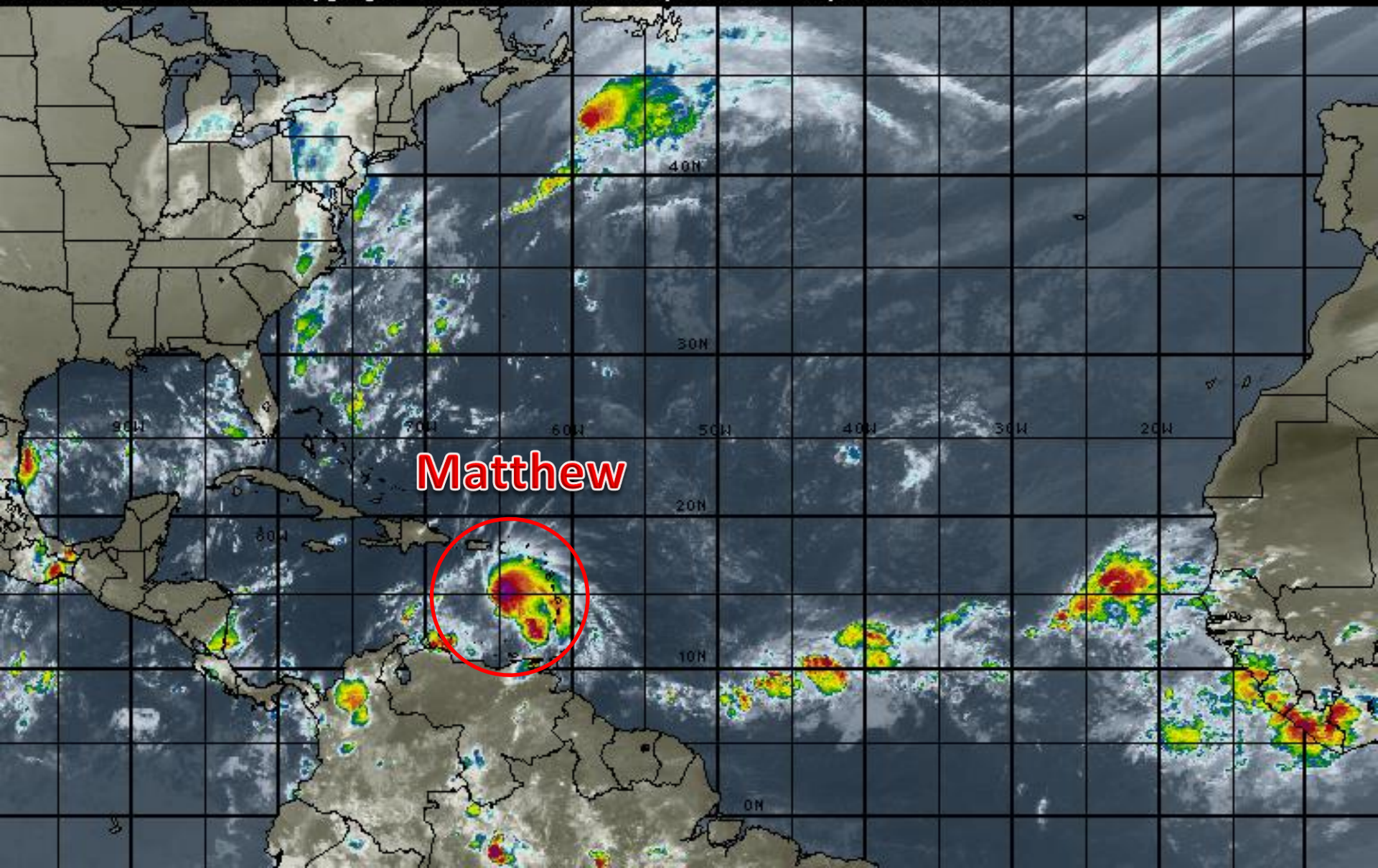
**Thursday, September 29, 2016**

**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](http://www.nhc.noaa.gov).**

# Atlantic Basin Satellite Image

12:00 29-SEP-2016 GMT Copyright © 1998-2016 WSI Corporation <http://www.wsi.com>



# Hurricane Matthew

2 PM EDT Thu Sep 29 2016

Position 14.2 N 67.0 W

Maximum Winds 75 mph

Gusts 85 mph

Movement W at 17 mph

Minimum Pressure 993 mb (29.31 inches)

Blue Marble basemap imagery courtesy NASA

Satellite 7:37 PM UTC

3:37 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 September 29, 2016  
 5 PM EDT Advisory 6  
 NWS National Hurricane Center

**Current Information:** ●  
 Center Location 14.1 N 67.8 W  
 Max Sustained Wind 75 mph  
 Movement W at 17 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

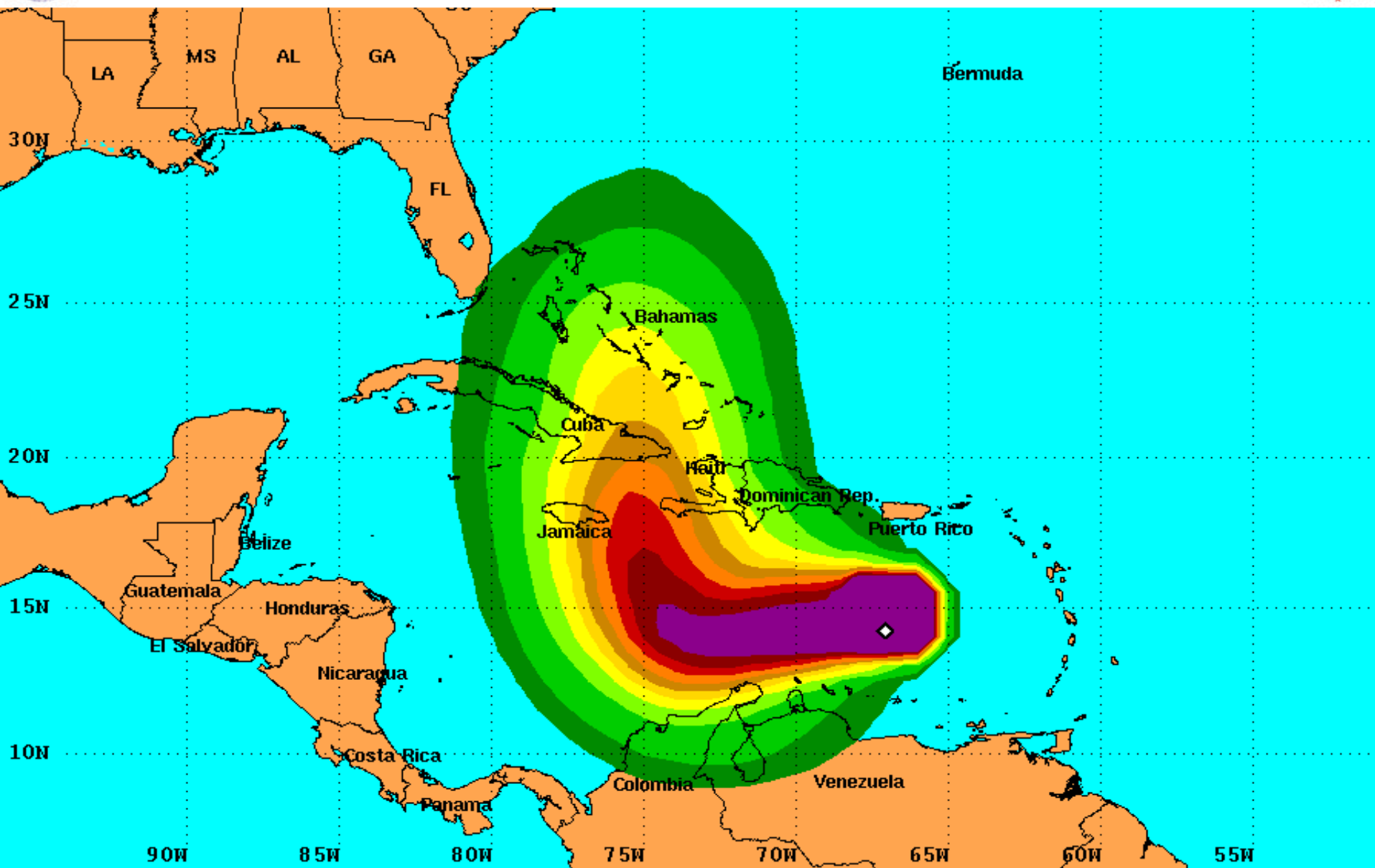
**Watches:**  
 Hurricane Trop.Storm

**Warnings:**  
 Hurricane Trop.Storm



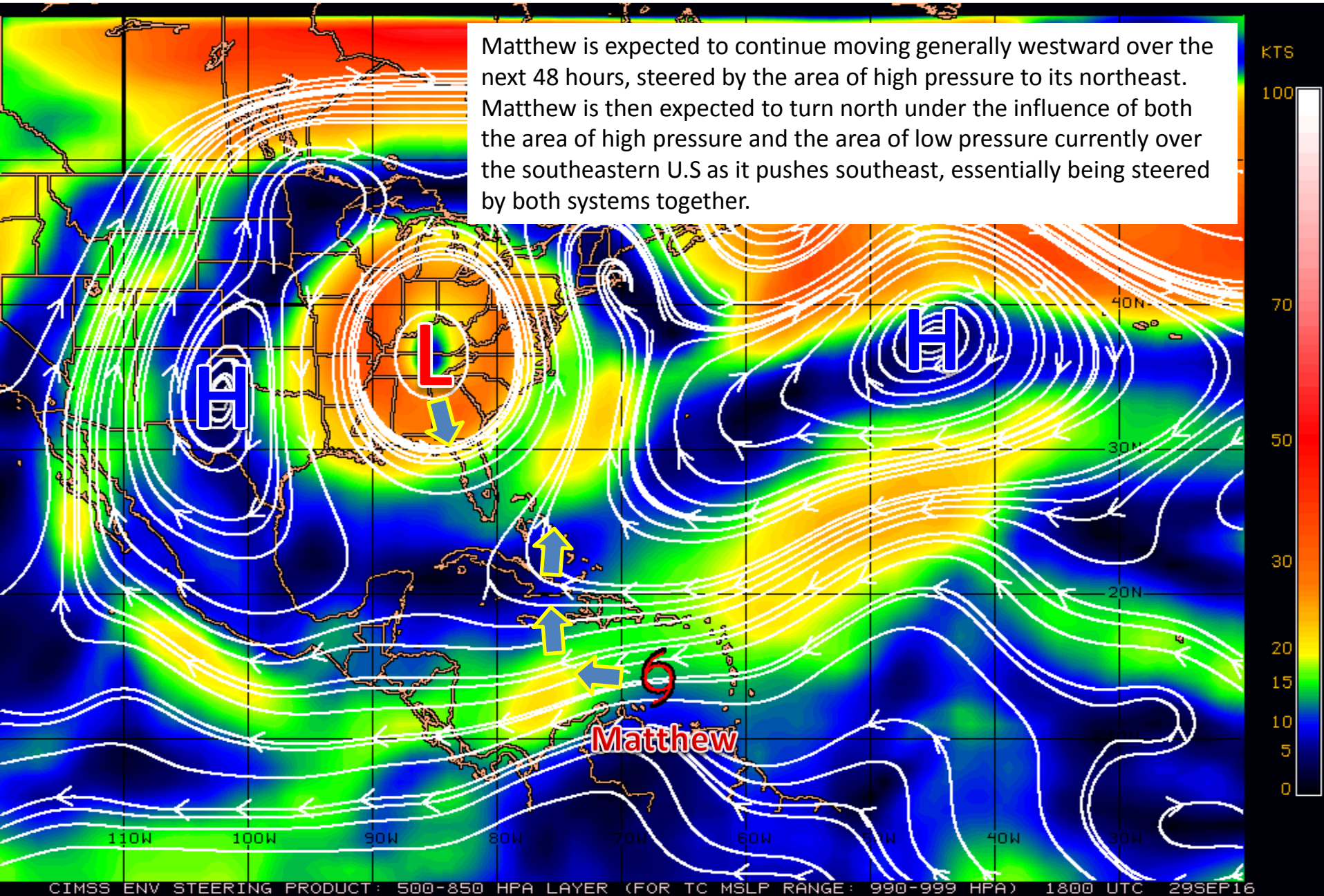
# PRELIMINARY (SINGLE STORM) Tropical Storm Force Wind Speed Probabilities

For the 120 hours (5 days) from 2 PM EDT Thu Sep 29 to 2 PM EDT Tue Oct 4

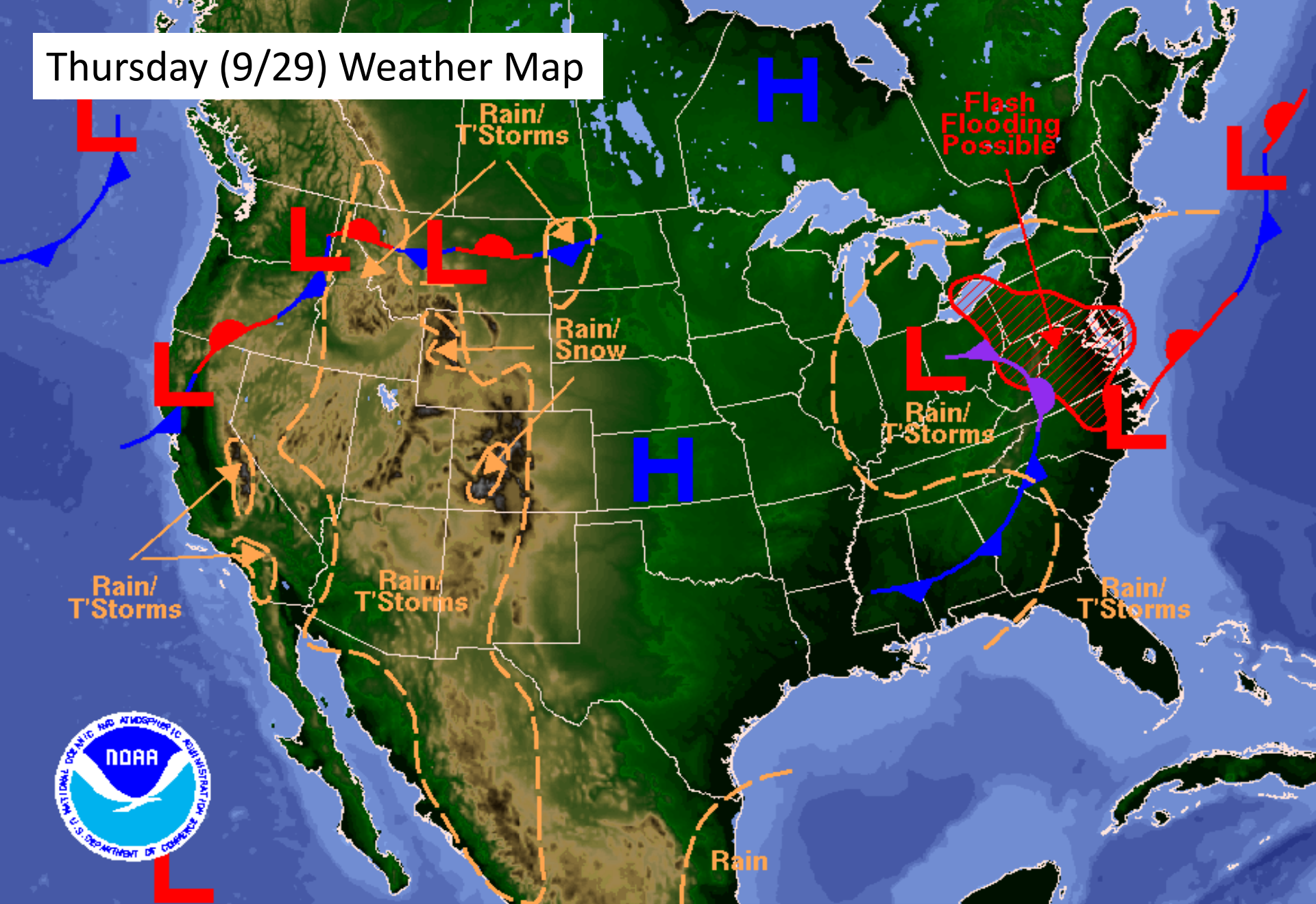


# Steering Currents

Matthew is expected to continue moving generally westward over the next 48 hours, steered by the area of high pressure to its northeast. Matthew is then expected to turn north under the influence of both the area of high pressure and the area of low pressure currently over the southeastern U.S as it pushes southeast, essentially being steered by both systems together.

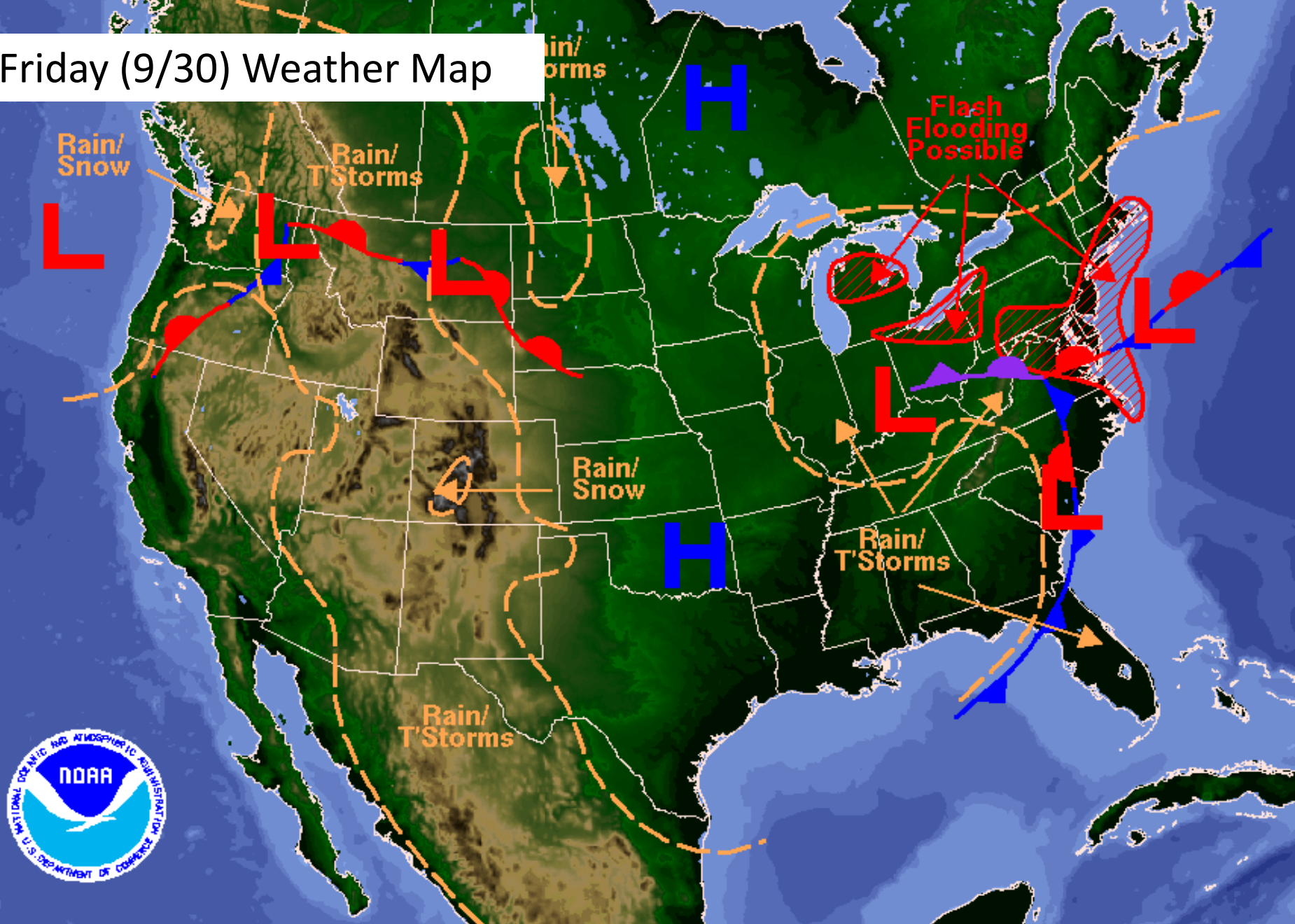


# Thursday (9/29) Weather Map



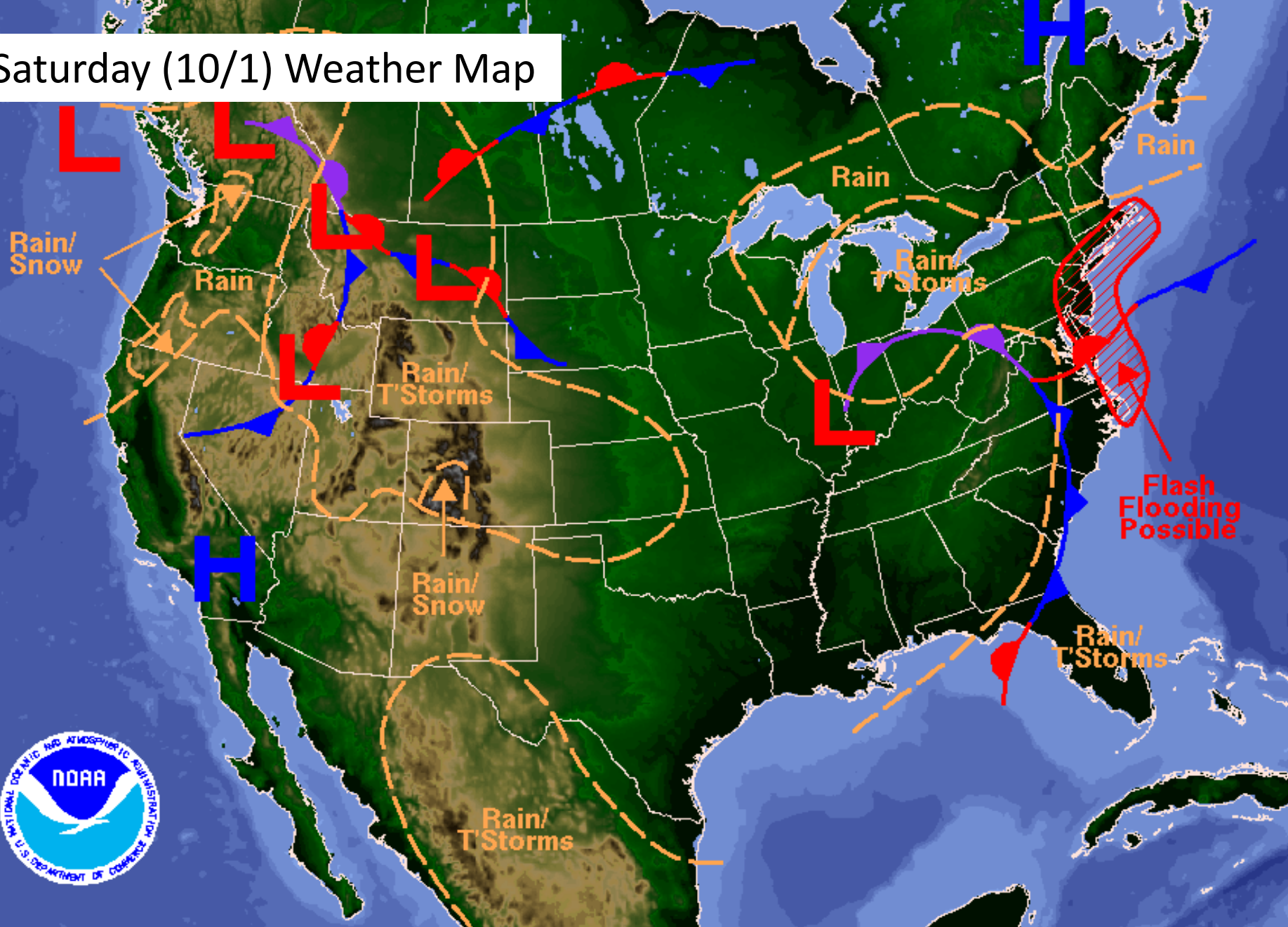
Weather Forecast for Thu, Sep 29, 2016, issued 4:47 AM EDT  
DOC/NOAA/NWS/NCEP/Weather Prediction Center  
Prepared by McCreynolds based on WPC, SPC and NHC forecasts

# Friday (9/30) Weather Map



Weather Forecast for Fri, Sep 30, 2016, issued 4:51 AM EDT Thu, Sep 29, 2016  
DOC/NOAA/NWS/NCEP/Weather Prediction Center  
Prepared by McCreynolds based on WPC, SPC and NHC forecasts

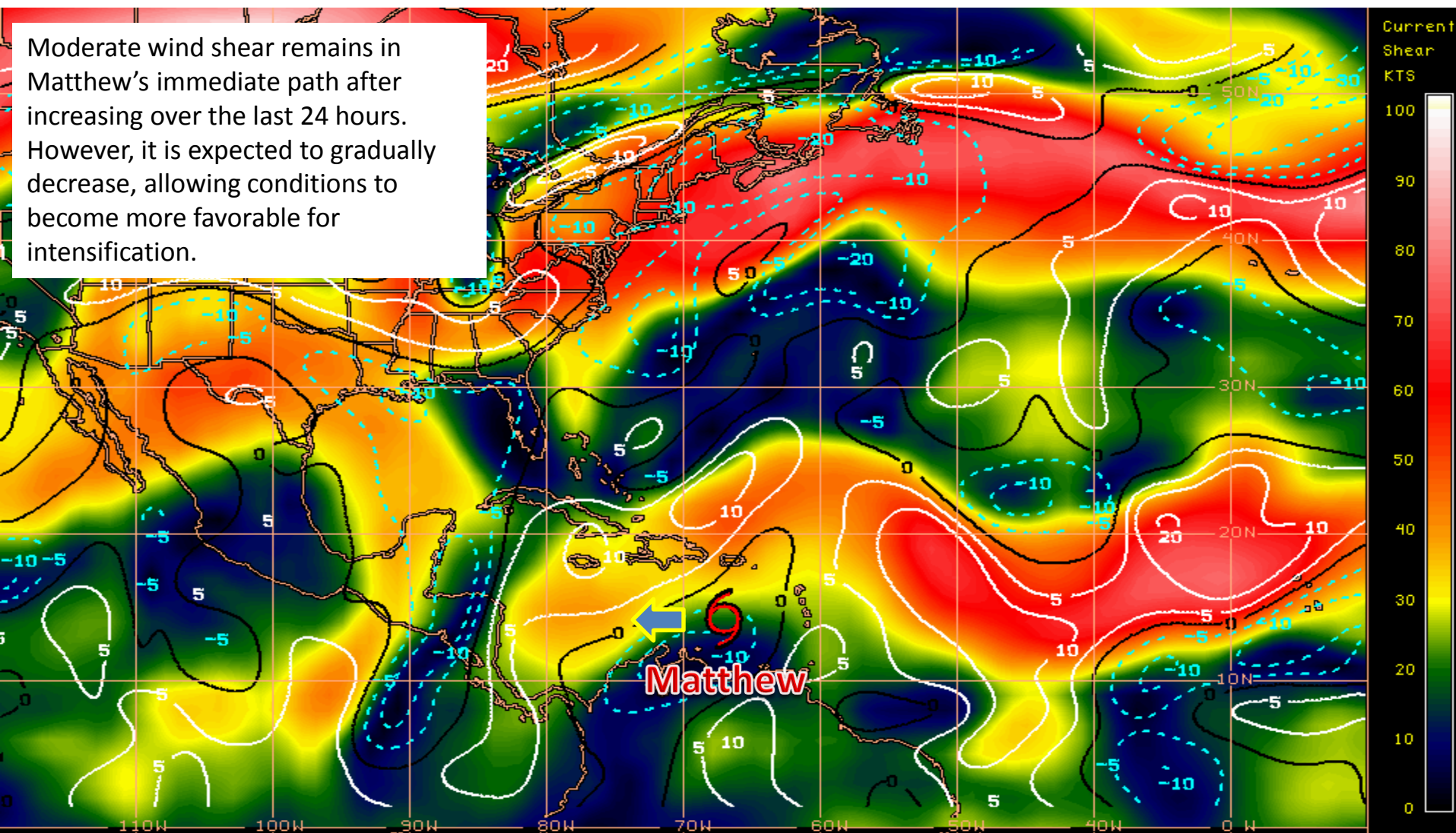
# Saturday (10/1) Weather Map



Weather Forecast for Sat, Oct 01, 2016, issued 4:54 AM EDT Thu, Sep 29, 2016  
DOC/NOAA/NWS/NCEP/Weather Prediction Center  
Prepared by McCreynolds based on WPC, SPC and NHC forecasts

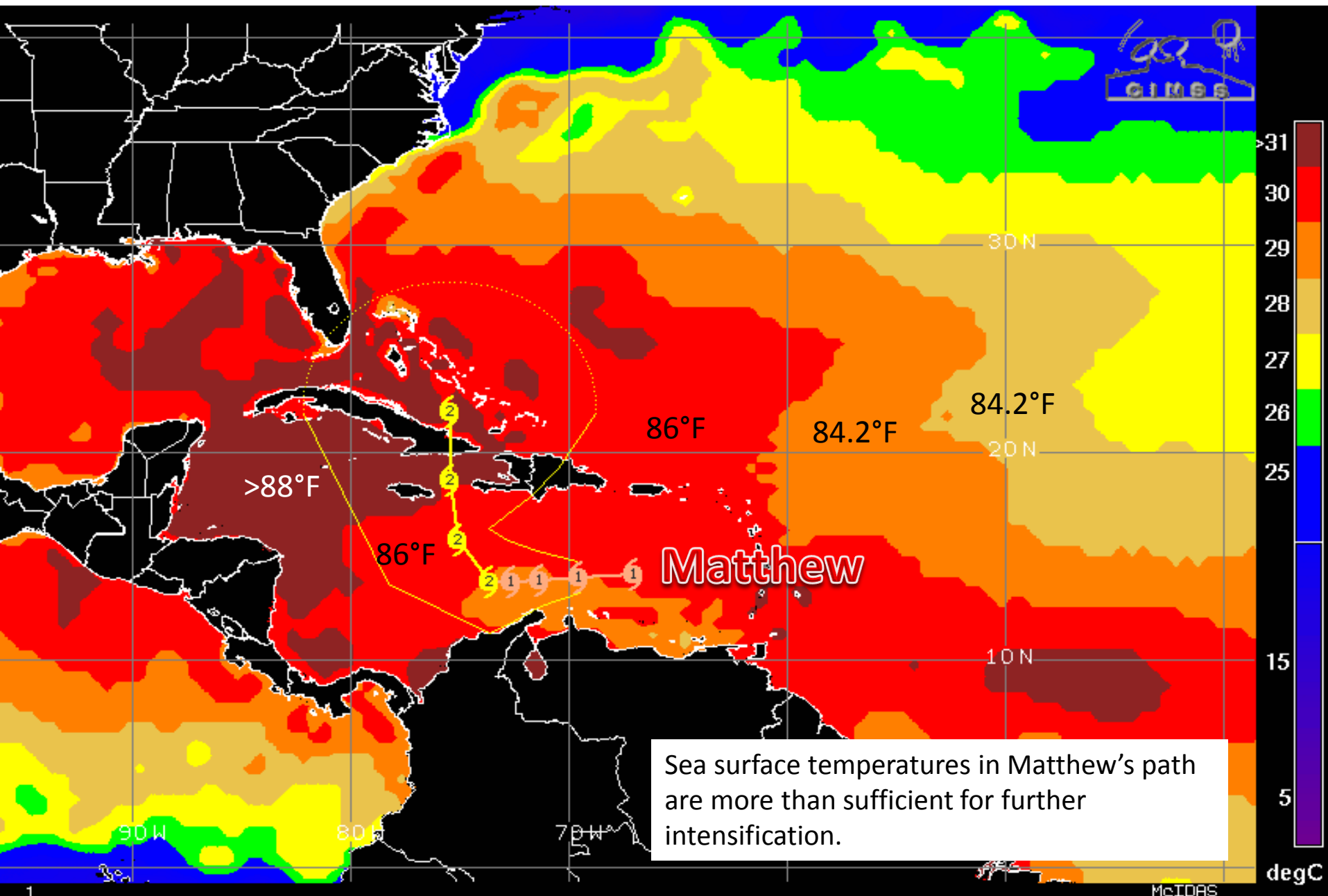
# Current Wind Shear (Shaded) and Shear Tendency (Lines)

Moderate wind shear remains in Matthew's immediate path after increasing over the last 24 hours. However, it is expected to gradually decrease, allowing conditions to become more favorable for intensification.



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

# Sea Surface Temperatures Near Matthew

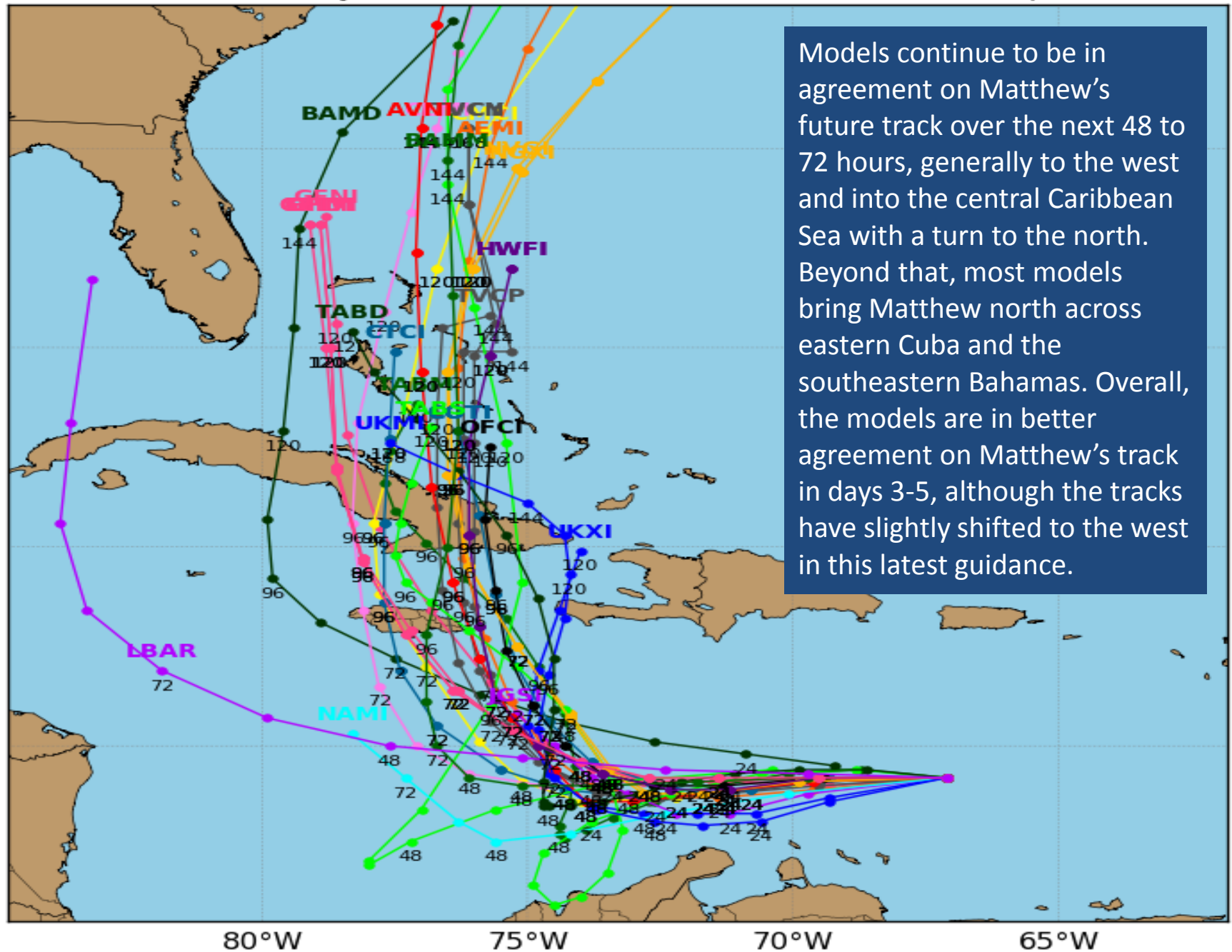


# Hurricane MATTHEW Model Track Guidance

Initialized at 18z Sep 29 2016

Levi Cowan - [tropicaltidbits.com](http://tropicaltidbits.com)

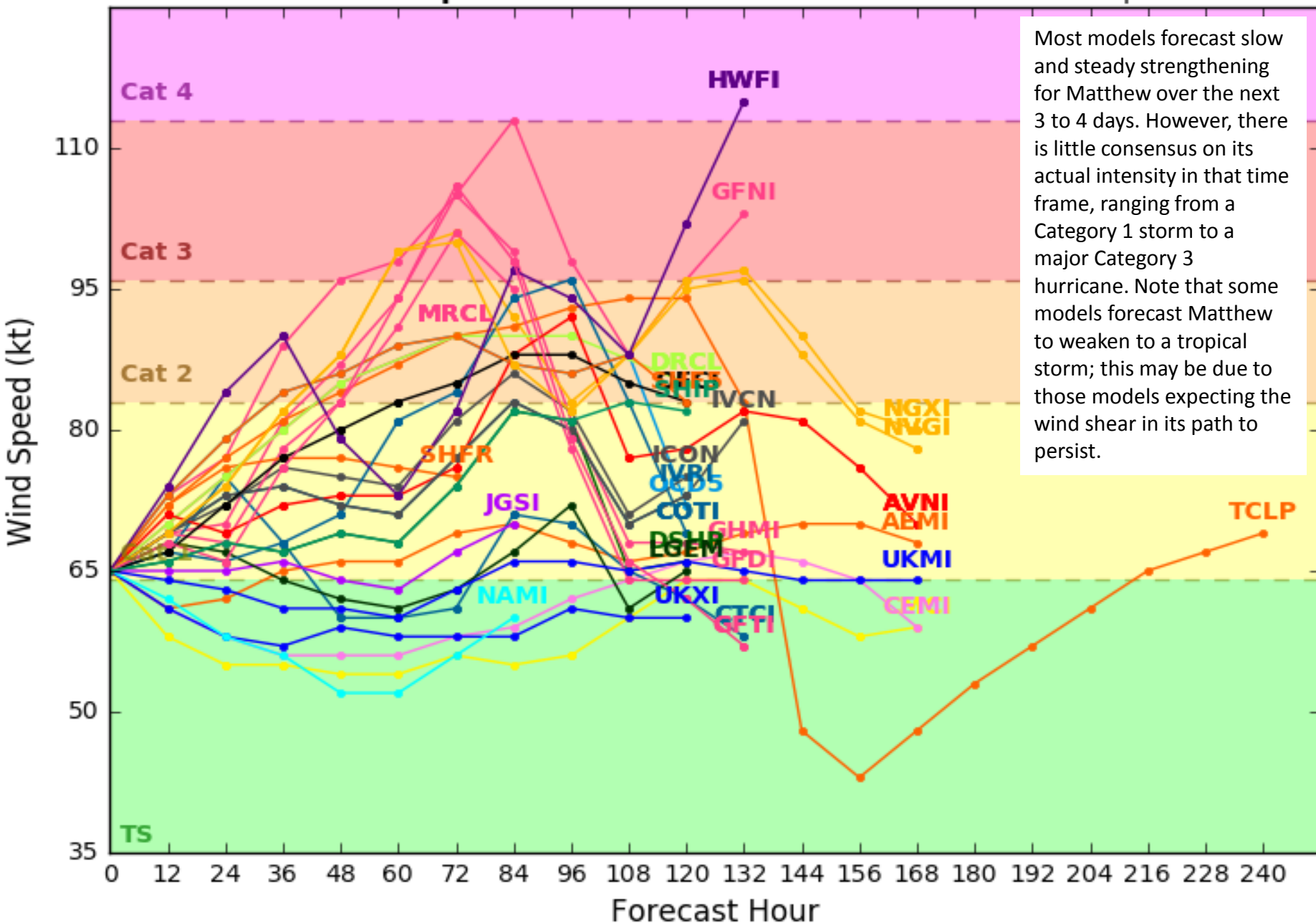
Models continue to be in agreement on Matthew's future track over the next 48 to 72 hours, generally to the west and into the central Caribbean Sea with a turn to the north. Beyond that, most models bring Matthew north across eastern Cuba and the southeastern Bahamas. Overall, the models are in better agreement on Matthew's track in days 3-5, although the tracks have slightly shifted to the west in this latest guidance.



# Hurricane MATTHEW Model Intensity Guidance

Initialized at 18z Sep 29 2016

Levi Cowan - tropicaltidbits.com





# Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



[www.hurricanes.gov](http://www.hurricanes.gov)

No Disturbances

No new tropical cyclones are expected during the next five days.

2:00 pm EDT  
Thu Sep 29 2016

100°W 90°W 80°W 70°W 60°W 50°W 40°W 30°W 20°W

Tropical Cyclone Formation Potential for the Five-Day Period Ending at 2:00 pm EDT Tue Oct 4 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 2pm EDT, Tropical Storm Matthew became a hurricane with maximum sustained winds of 75 mph.
- At 5pm EDT, Hurricane Matthew was located about 150 miles north of Curacao, or approximately 1,145 miles southeast of Miami, Florida.
- Maximum sustained winds remain at 75 mph with higher gusts. Continued strengthening is expected through the weekend and the official forecast takes Matthew to Category 2 status by Saturday evening.
- Matthew is moving quickly to the west at 17 mph. A westward to west-southwestward motion with some decrease in forward speed is expected over the couple of days before a turn to the northwest or north-northwest sometime late Saturday or early Sunday.
- Forecast models continue to come into better agreement on Matthew's forecast track, but are still in disagreement on its future intensity.
- While sea surface temperatures are favorable for intensification, wind shear is expected to remain in Matthew's path through Friday. As a result, some models keep Matthew a minimal hurricane or even weaken it to a strong tropical storm, while others predict that Matthew could become a major hurricane within 4 or 5 days.
- 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 currently moving into the southeast U.S. and bringing a cold front into Florida.
- As this system moves southeast and Matthew continues moving west away from the high pressure, Matthew is expected to turn northward over the weekend towards the Windward Passage between Cuba and Haiti and towards 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 Cuba, while a stronger and/or slower-moving storm may turn earlier toward 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 is 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, extreme Southeast Florida, Biscayne Bay, and areas between Key Biscayne and Key Largo now have a 5%-10% chance of seeing tropical storm force winds sometime over the next five days.
- Any possible impacts are 5-9 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 morning. For more information on this system, please visit the NHC website at [www.nhc.noaa.gov](http://www.nhc.noaa.gov).



# TROPICAL UPDATE

Created by:

William Watson, Assistant State Meteorologist  
[william.watson@em.myflorida.com](mailto:william.watson@em.myflorida.com)

State Meteorological Support Unit

Florida Division of Emergency Management

Users wishing to subscribe (approval pending) to this distribution list, register at  
[https://public.govdelivery.com/accounts/FLDEM/subscriber/new?topic\\_id=SERT\\_Met\\_Tropics](https://public.govdelivery.com/accounts/FLDEM/subscriber/new?topic_id=SERT_Met_Tropics).

Other reports available for subscription are available at  
<https://public.govdelivery.com/accounts/FLDEM/subscriber/new?preferences=true>