



# **TROPICAL UPDATE**

**10 AM EDT**

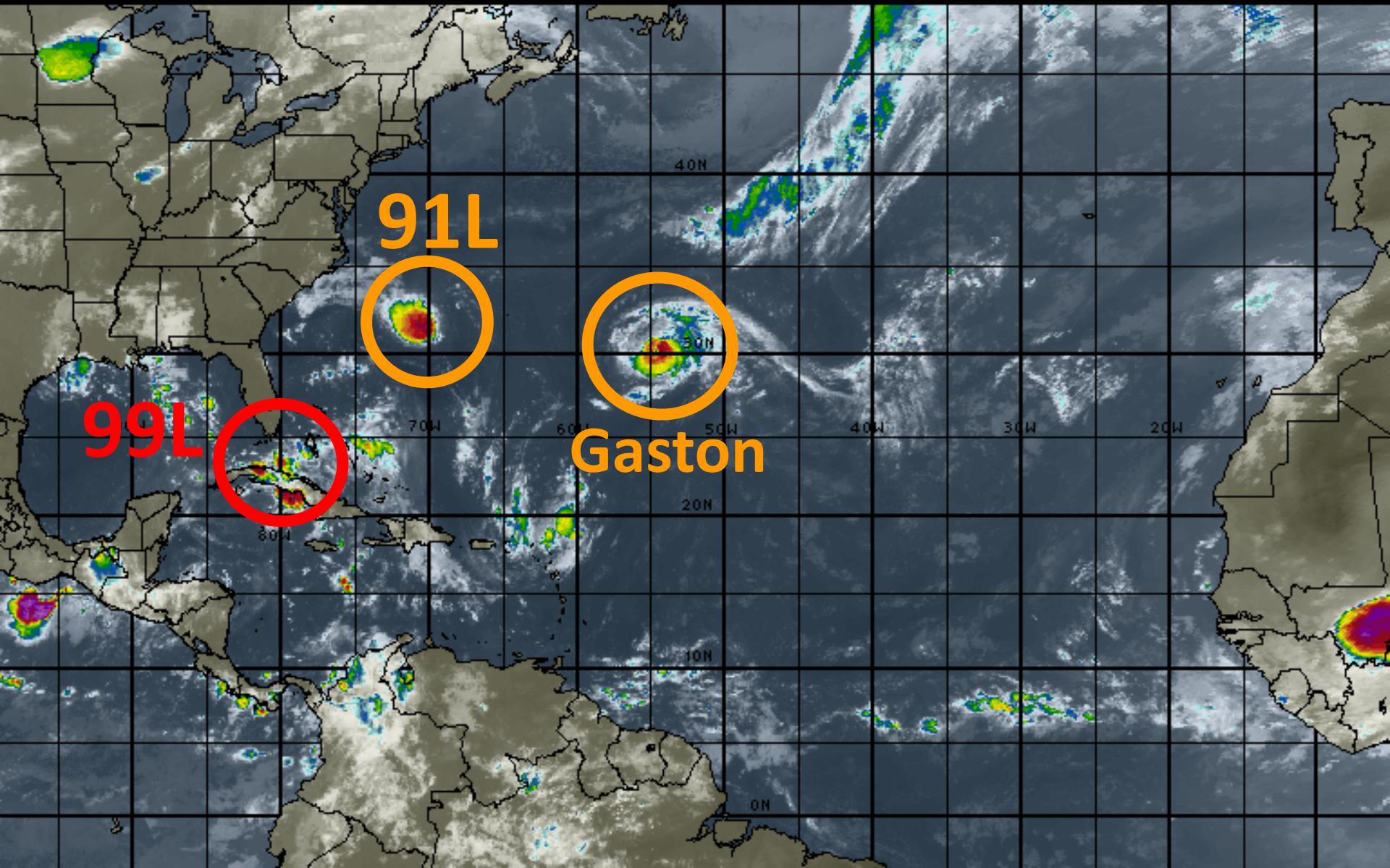
**Sunday, August 28, 2016**

**Invest 99L (60%), Invest 91L (40%), &  
Hurricane Gaston**

**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 28-AUG-2016 GMT ©Copyright WSI Corporation <http://www.wsi.com>







# Two-Day Graphical Tropical Weather Outlook

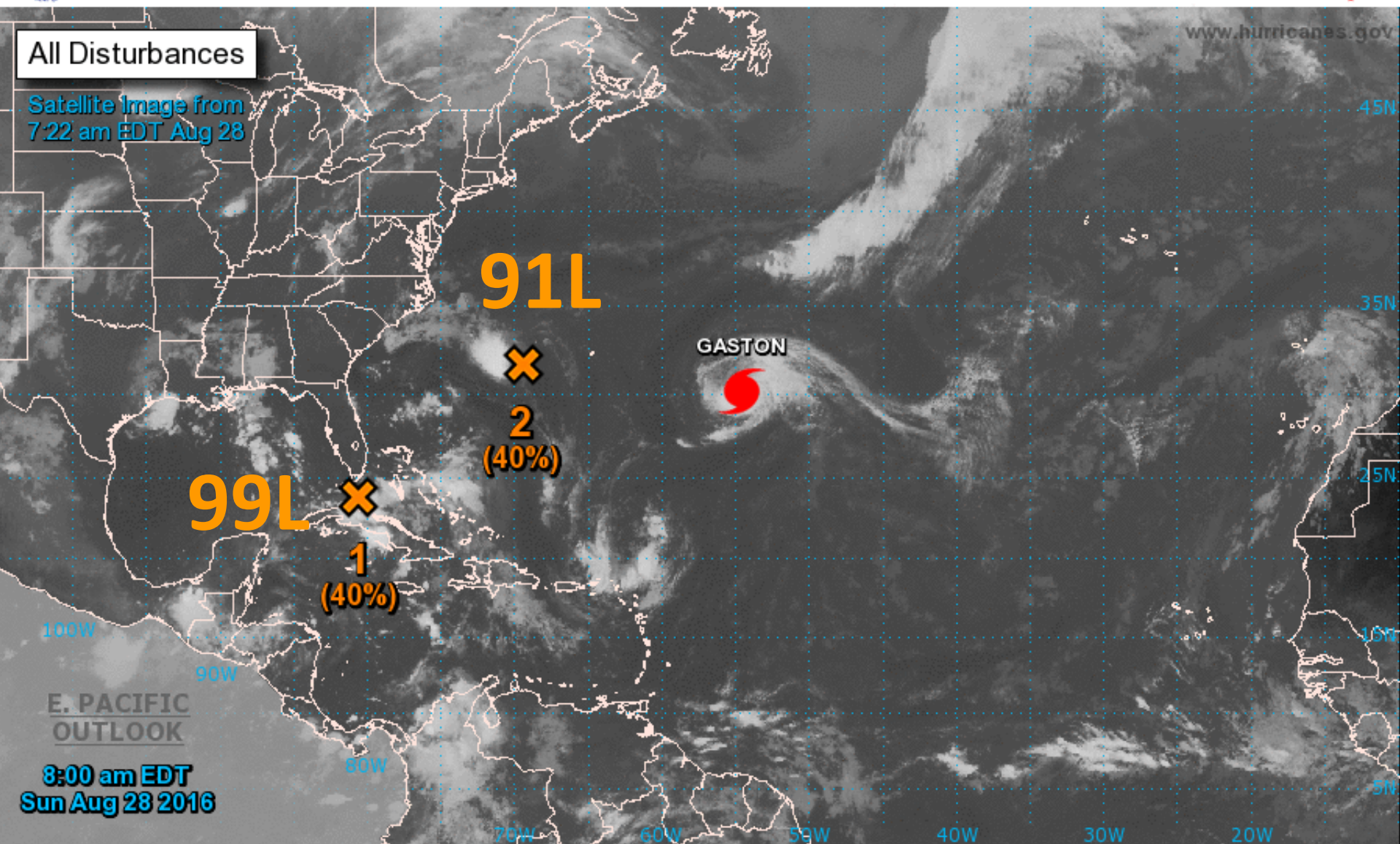
National Hurricane Center Miami, Florida



All Disturbances

Satellite Image from  
7:22 am EDT Aug 28

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





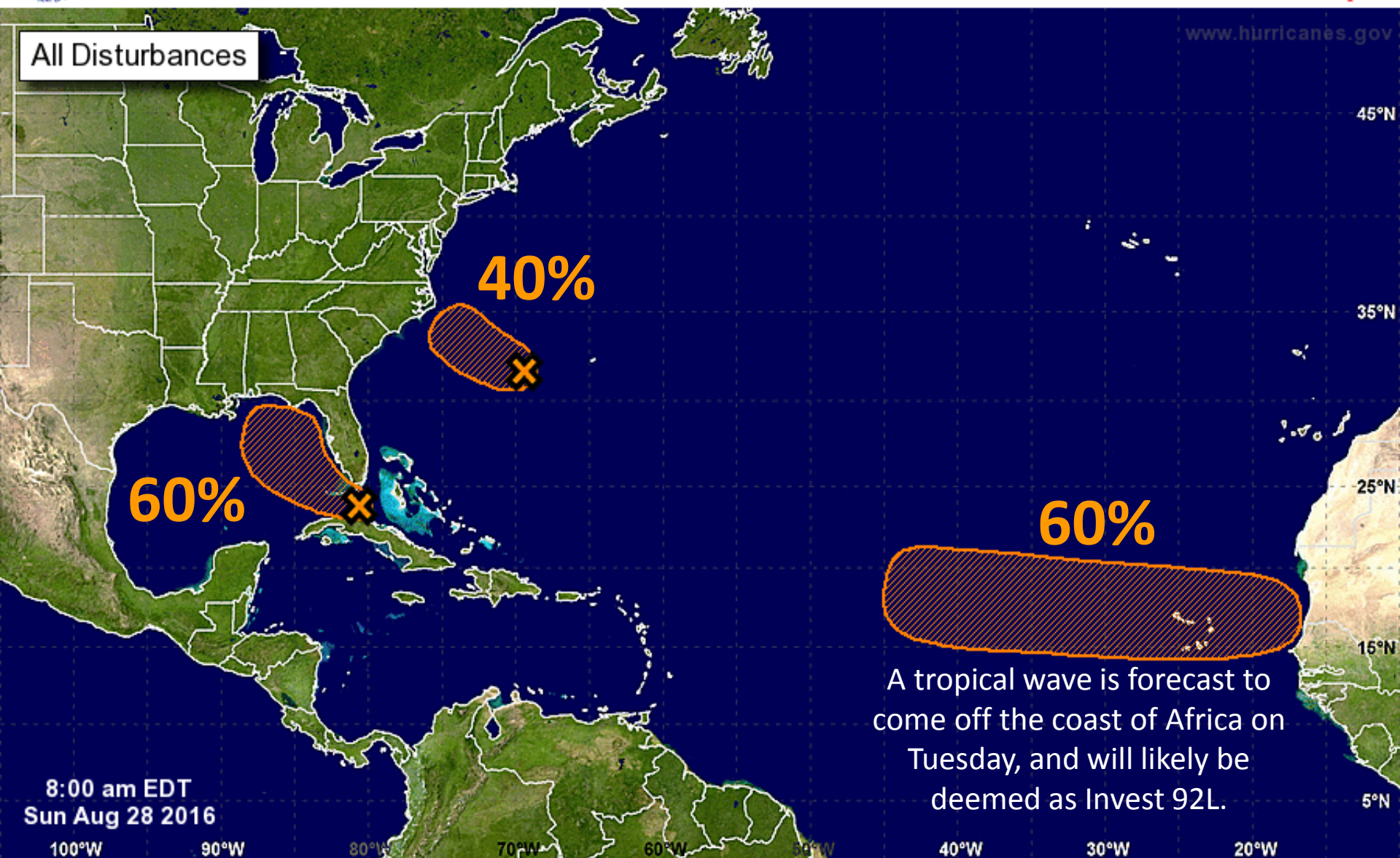
# Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



www.hurricanes.gov

All Disturbances



Tropical Cyclone Formation Potential for the Five-Day Period Ending at 8:00 am EDT Fri Sep 2 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 99L**

8 AM Sun Aug/28 2016

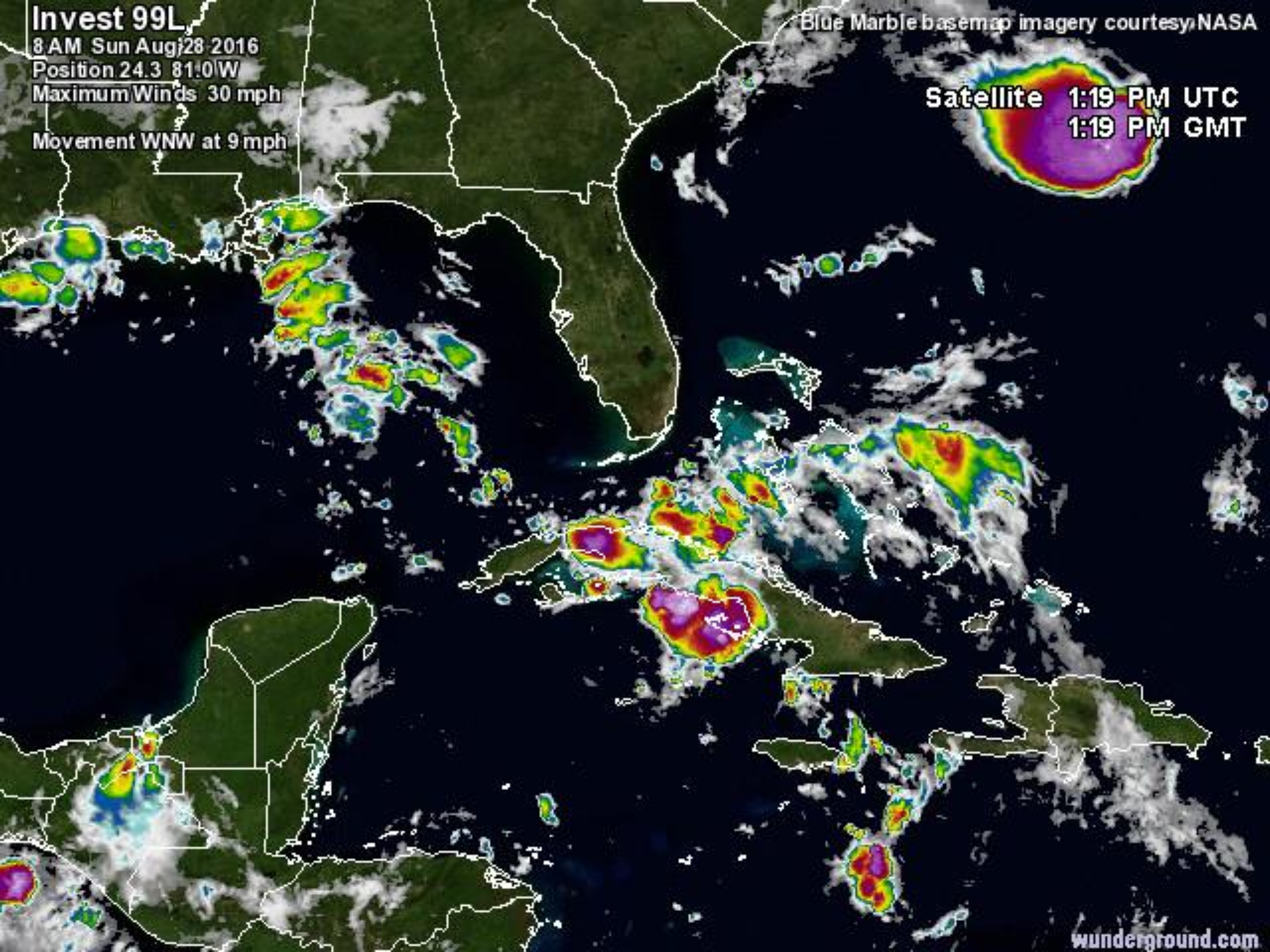
Position 24.3 81.0W

Maximum Winds 30 mph

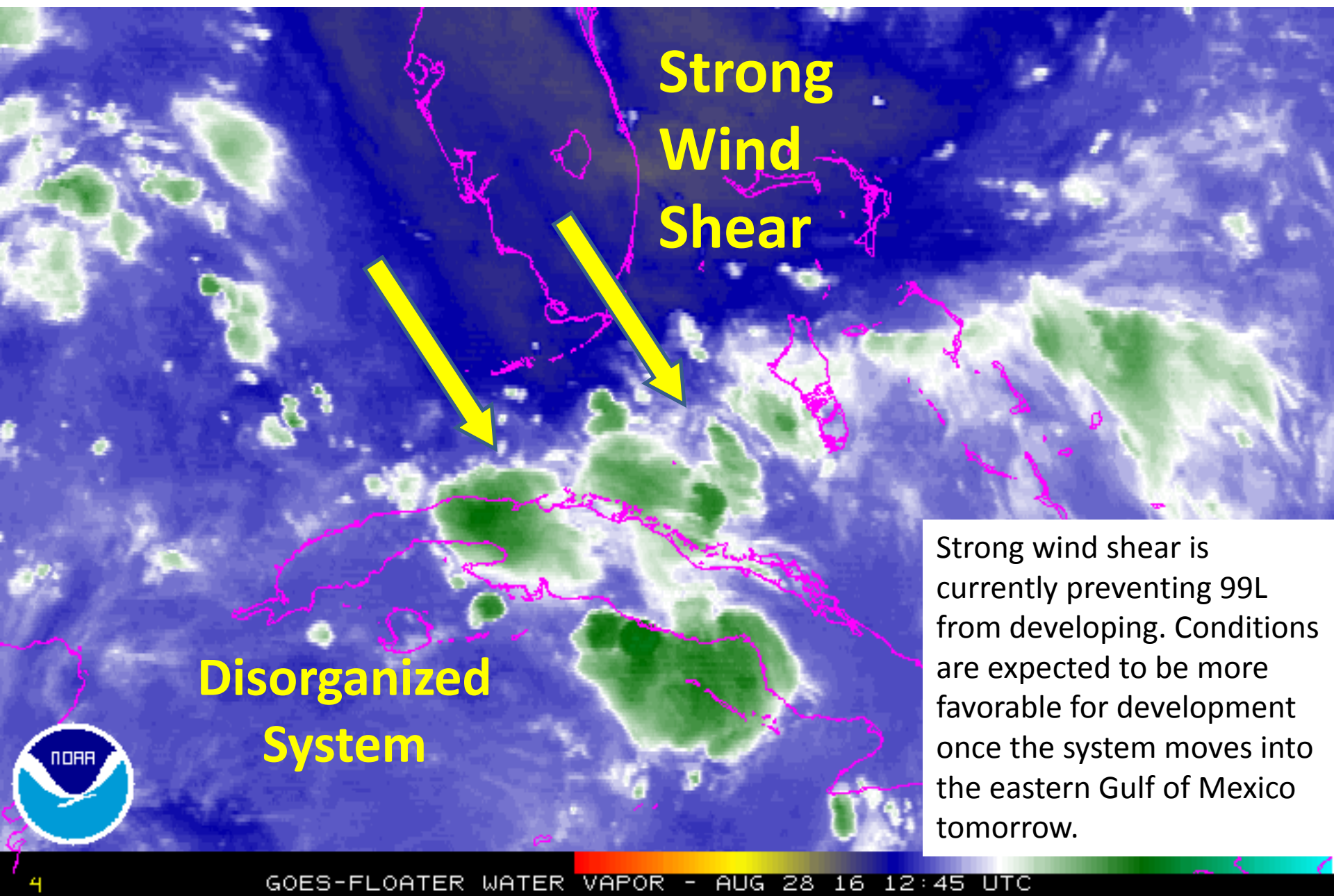
Movement WNW at 9 mph

Blue Marble basemap imagery courtesy NASA

Satellite 1:19 PM UTC  
1:19 PM GMT



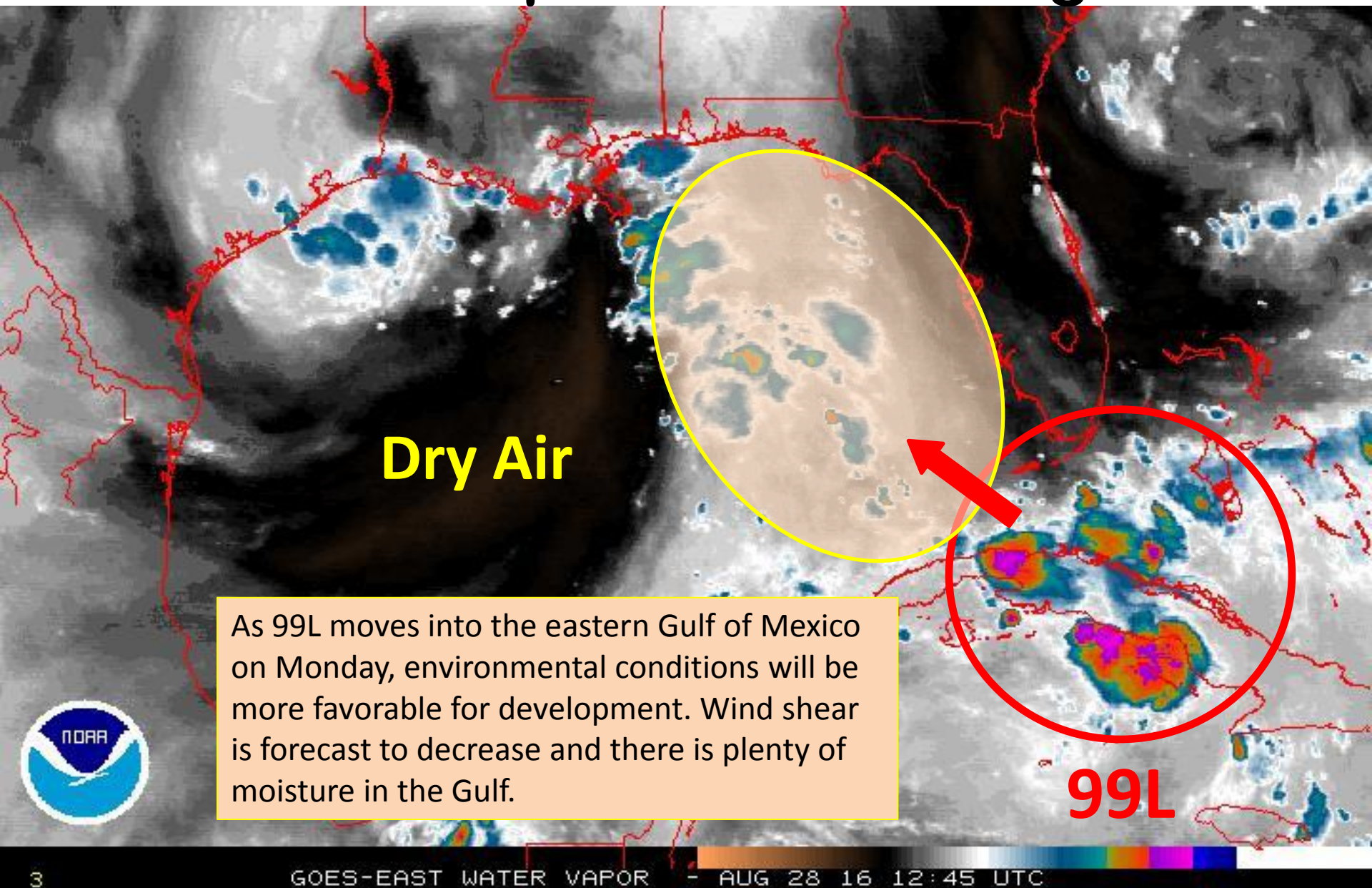
# Invest 99L Water Vapor Image



Strong wind shear is currently preventing 99L from developing. Conditions are expected to be more favorable for development once the system moves into the eastern Gulf of Mexico tomorrow.



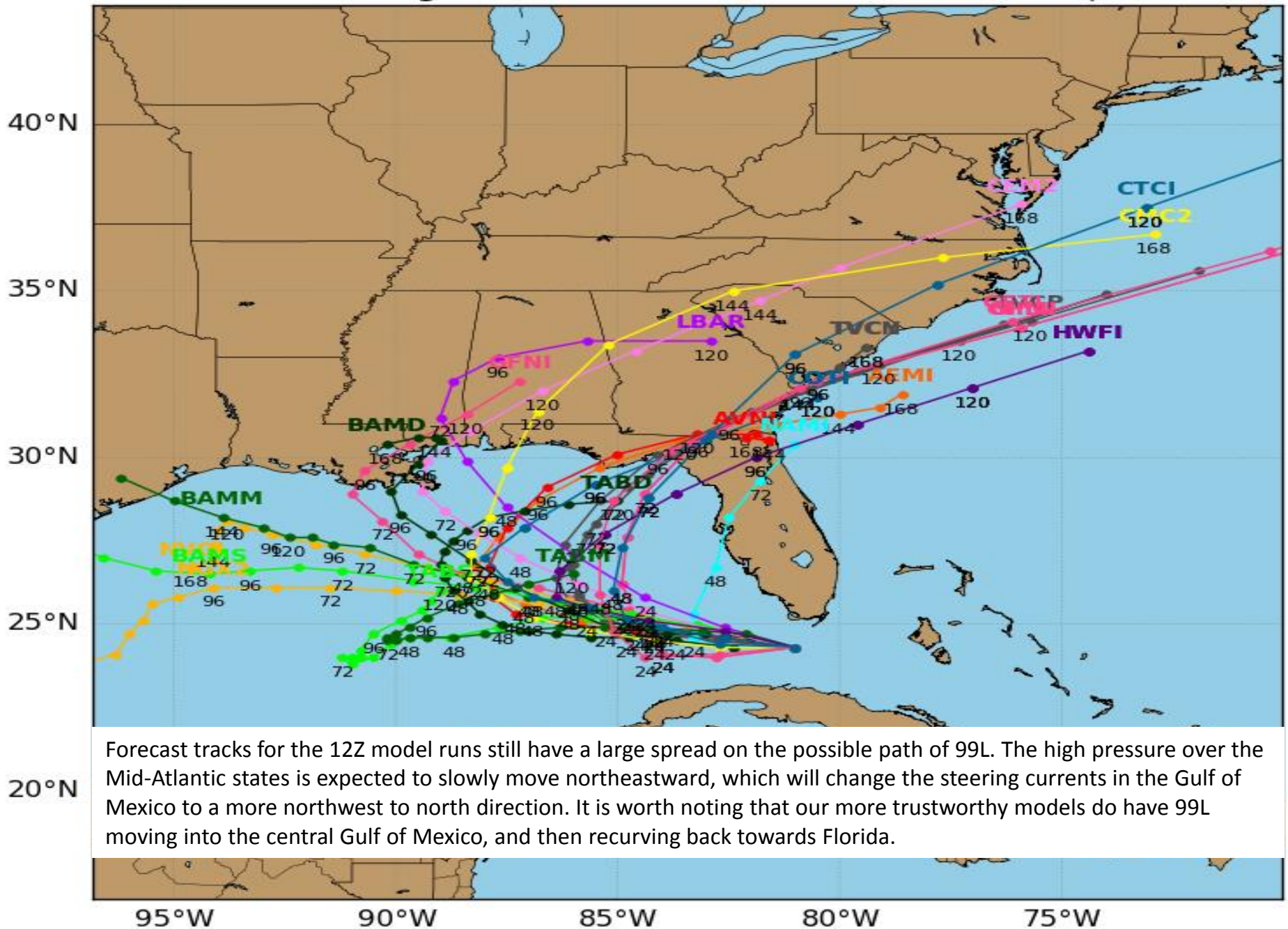
# Looking Ahead: Water Vapor Satellite Image



# Invest 99L Model Track Guidance

Initialized at 12z Aug 28 2016

Levi Cowan - tropicaltidbits.com

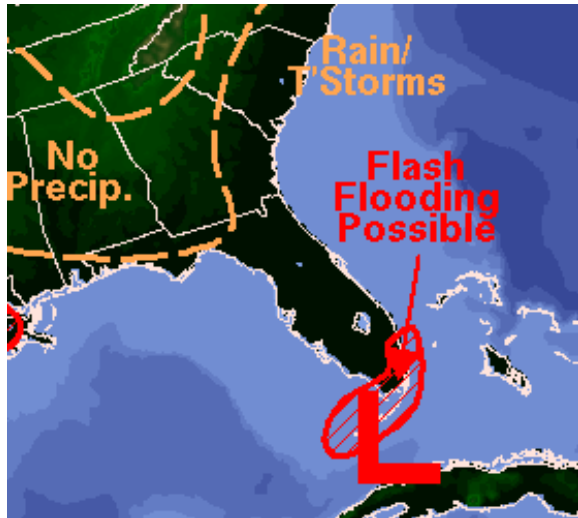


Forecast tracks for the 12Z model runs still have a large spread on the possible path of 99L. The high pressure over the Mid-Atlantic states is expected to slowly move northeastward, which will change the steering currents in the Gulf of Mexico to a more northwest to north direction. It is worth noting that our more trustworthy models do have 99L moving into the central Gulf of Mexico, and then recurving back towards Florida.

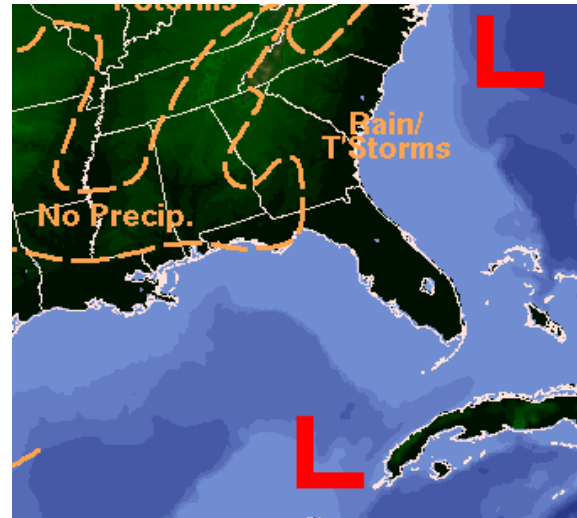


# Forecast Weather Maps

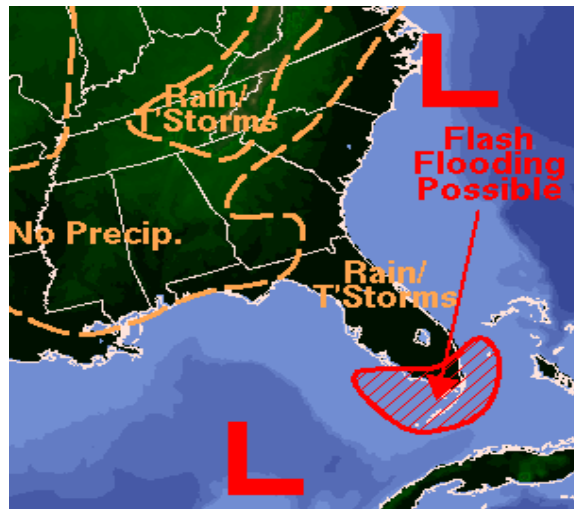
Sunday



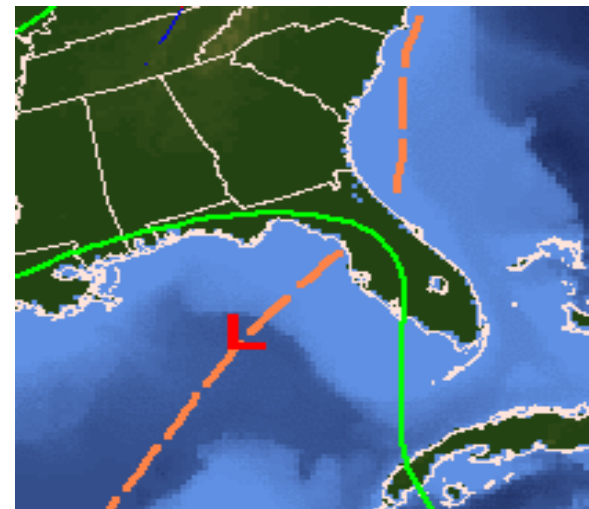
Monday



Tuesday



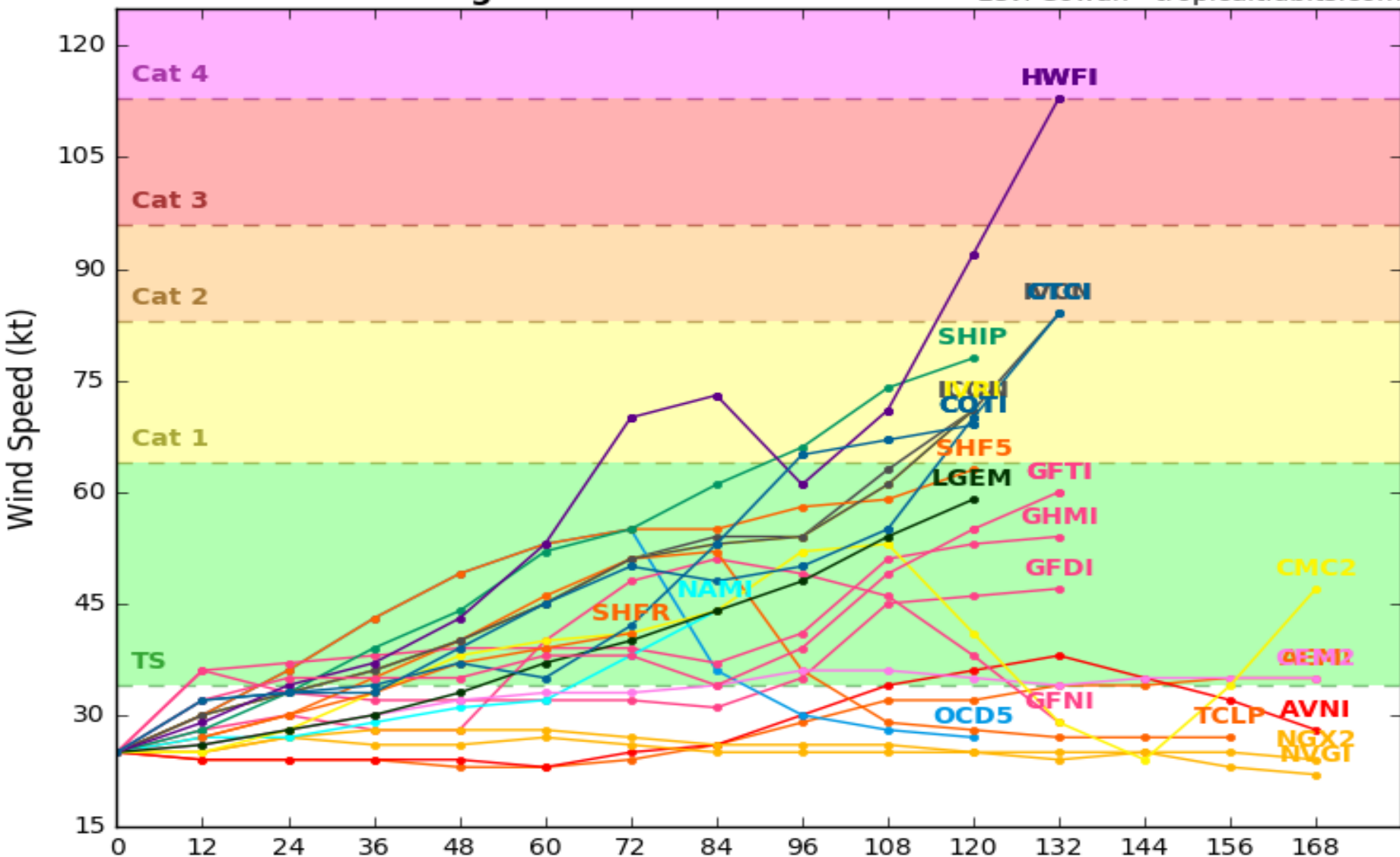
Wednesday



# Invest 99L Model Intensity Guidance

Initialized at 12z Aug 28 2016

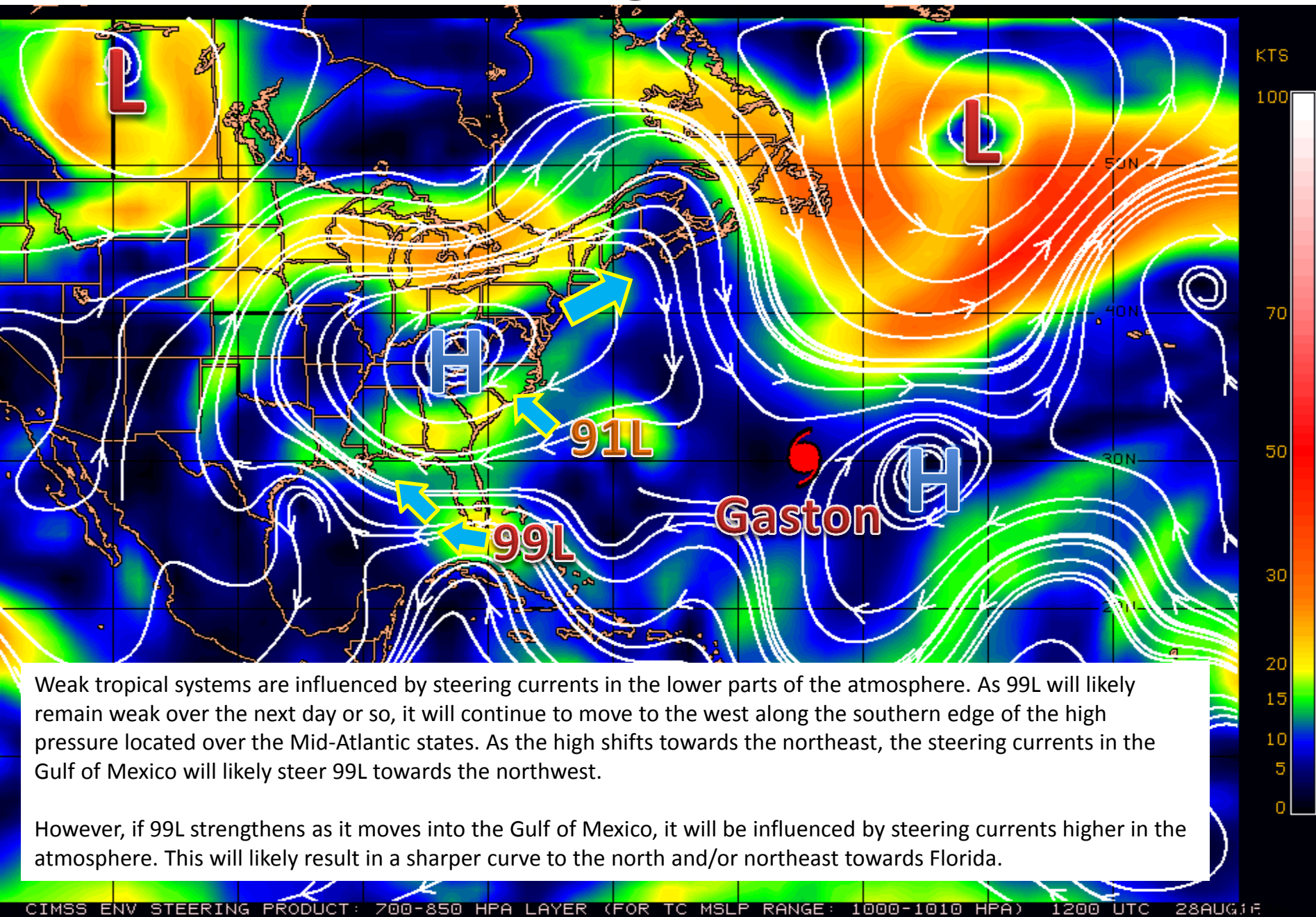
Levi Cowan - [tropicaltidbits.com](http://tropicaltidbits.com)



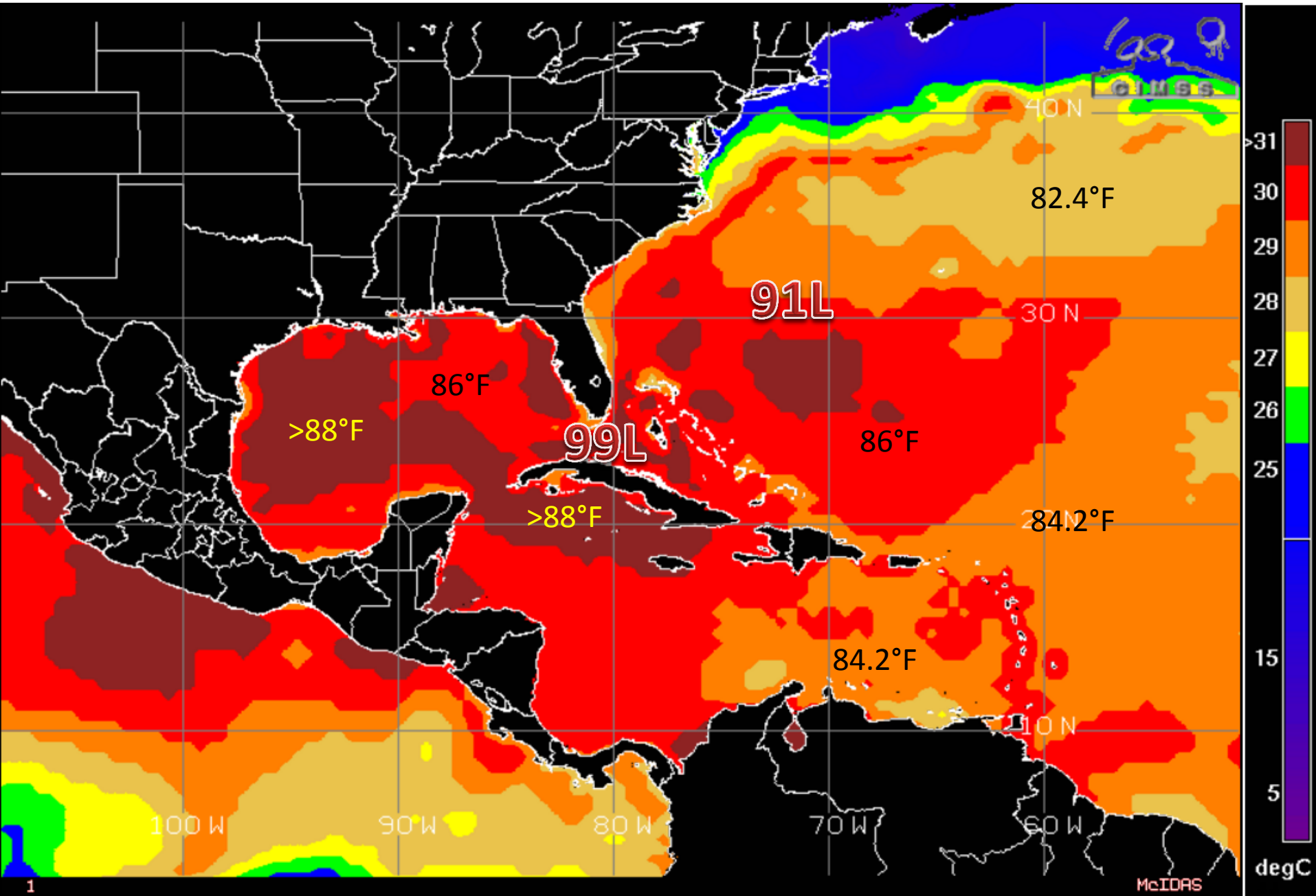
**Note:** Statistical models (SHF5, SHIP, DSHP, LGEM) are based on historical relationships between hurricane-specific information, such as the location and time of year, and the behavior of historical hurricanes. Due to their simplicity, statistical models are generally less skillful than dynamical models. Several dynamical models have the system intensifying into a hurricane, while others don't develop the storm at all. So much uncertainty in models is due to lack of an organized system.



# Steering Currents

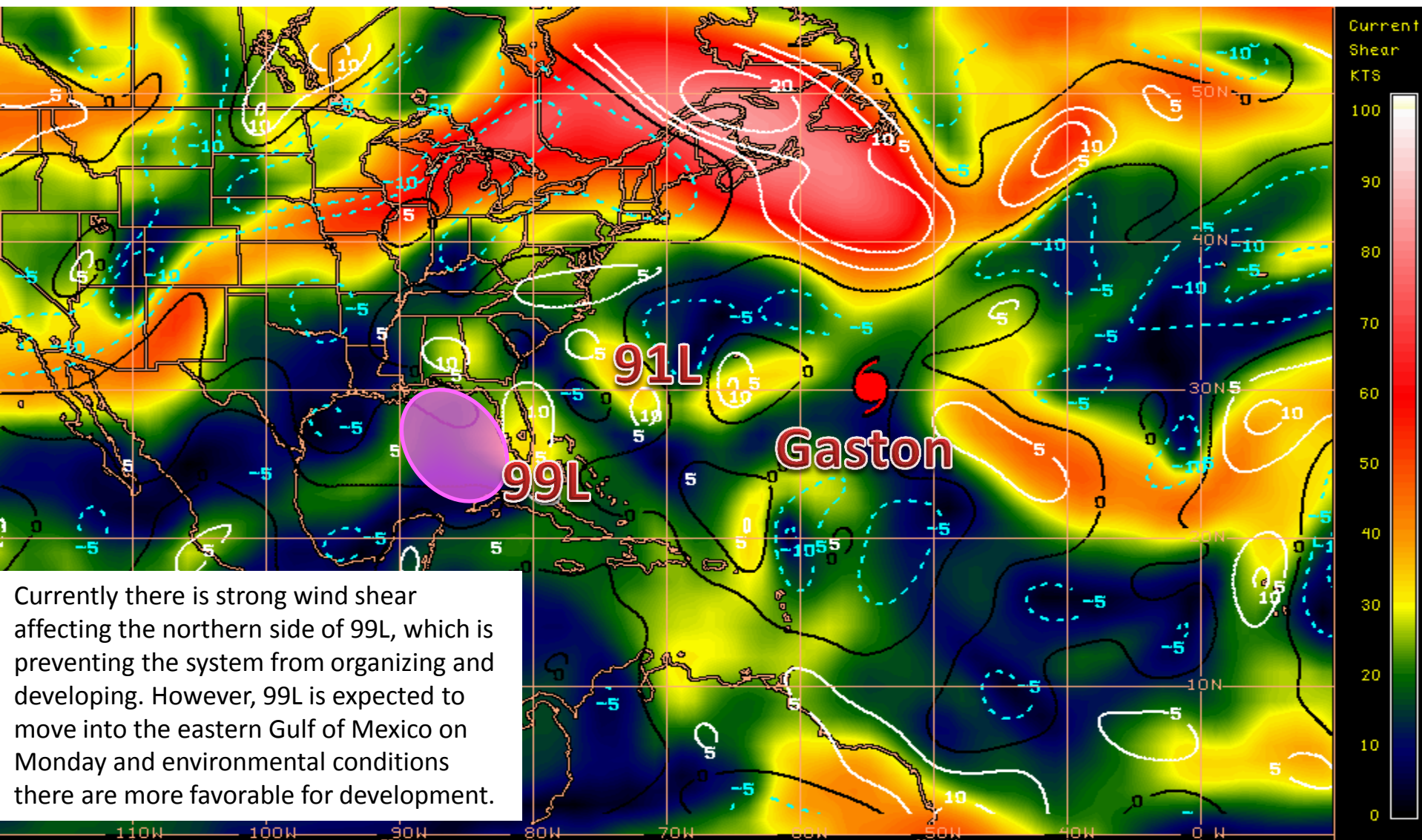


# Sea Surface Temperatures Near 99L





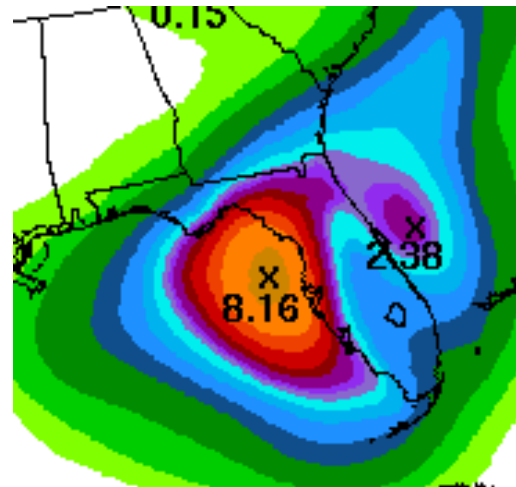
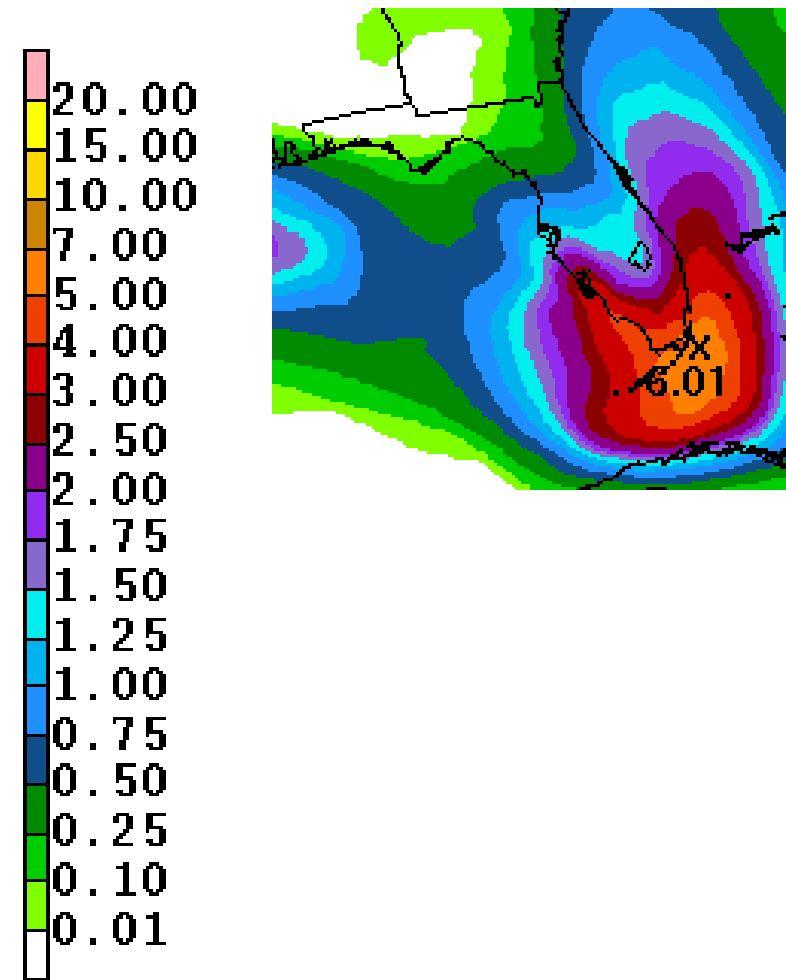
# Current Wind Shear (shaded) and Shear Tendency (contours)



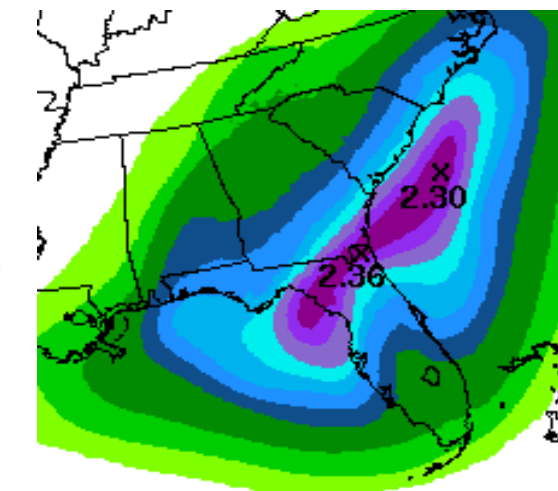
Currently there is strong wind shear affecting the northern side of 99L, which is preventing the system from organizing and developing. However, 99L is expected to move into the eastern Gulf of Mexico on Monday and environmental conditions there are more favorable for development.

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

# Current Rainfall Forecast

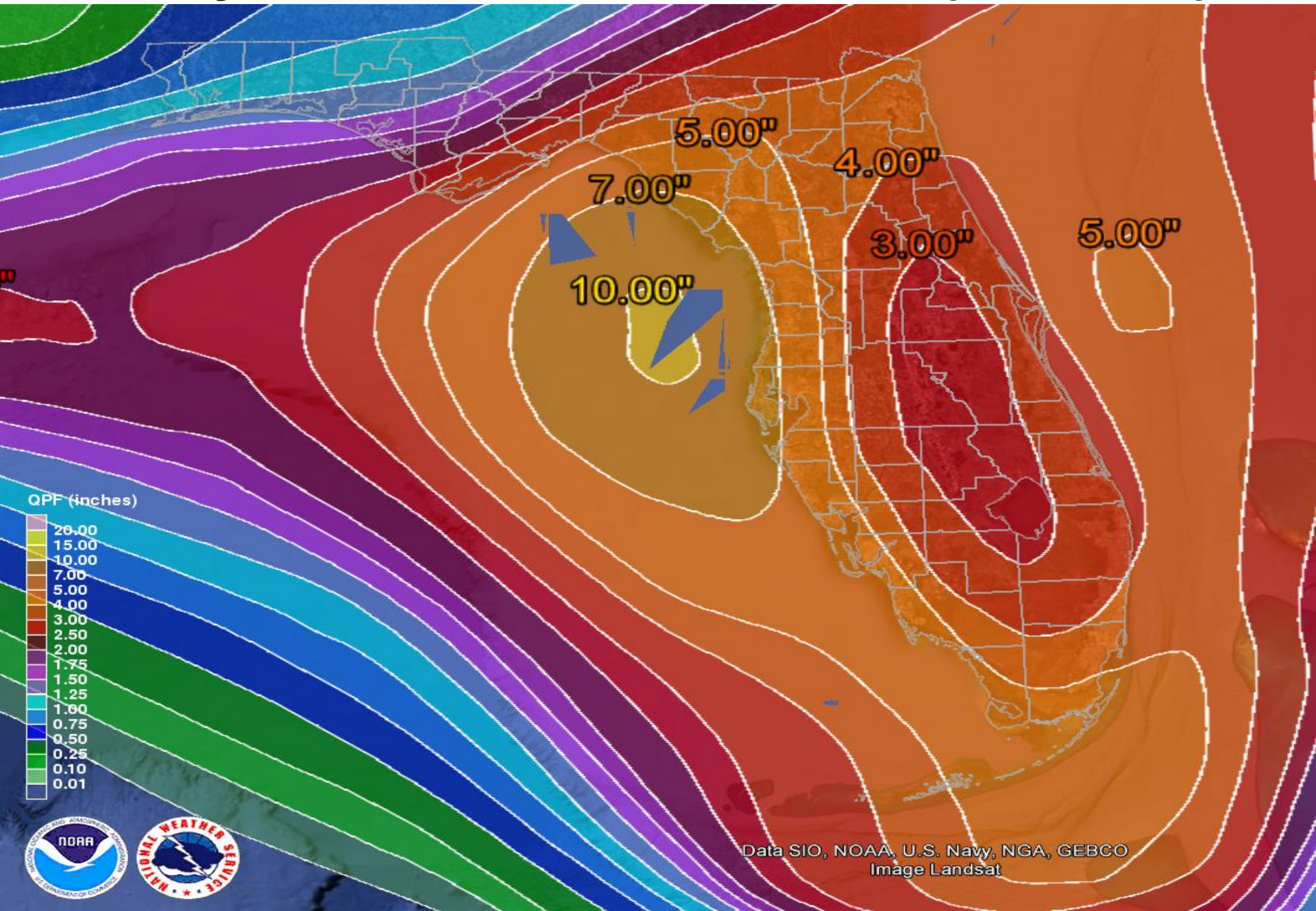


Friday-Saturday





# 7-Day Forecast Rainfall Total (Sun-Sat)





# Hurricane Gaston

5 AM EDT Sun Aug 28 2016

Position 30.1 N 54.6 W

Maximum Winds 90 mph

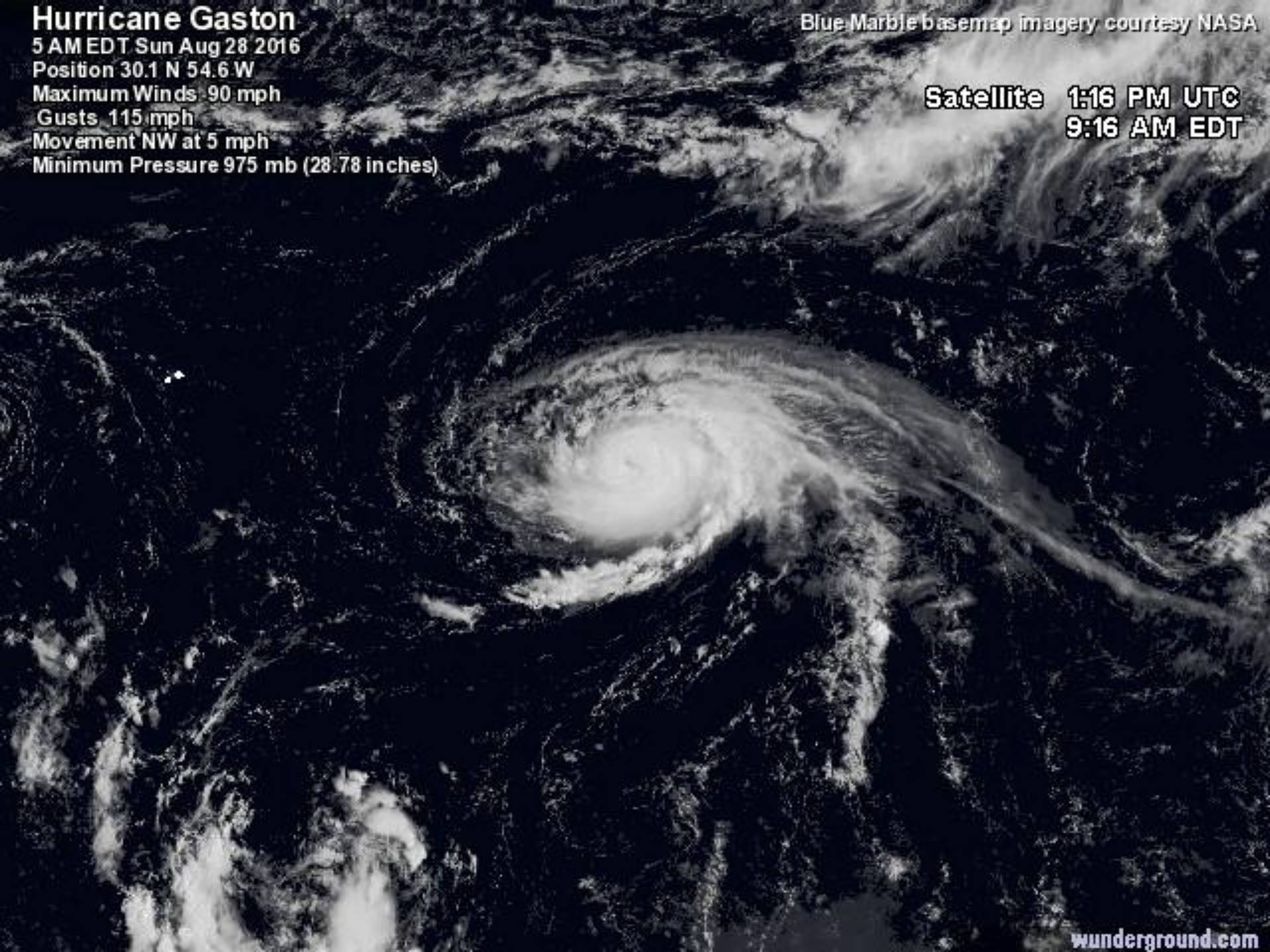
Gusts 115 mph

Movement NW at 5 mph

Minimum Pressure 975 mb (28.78 inches)

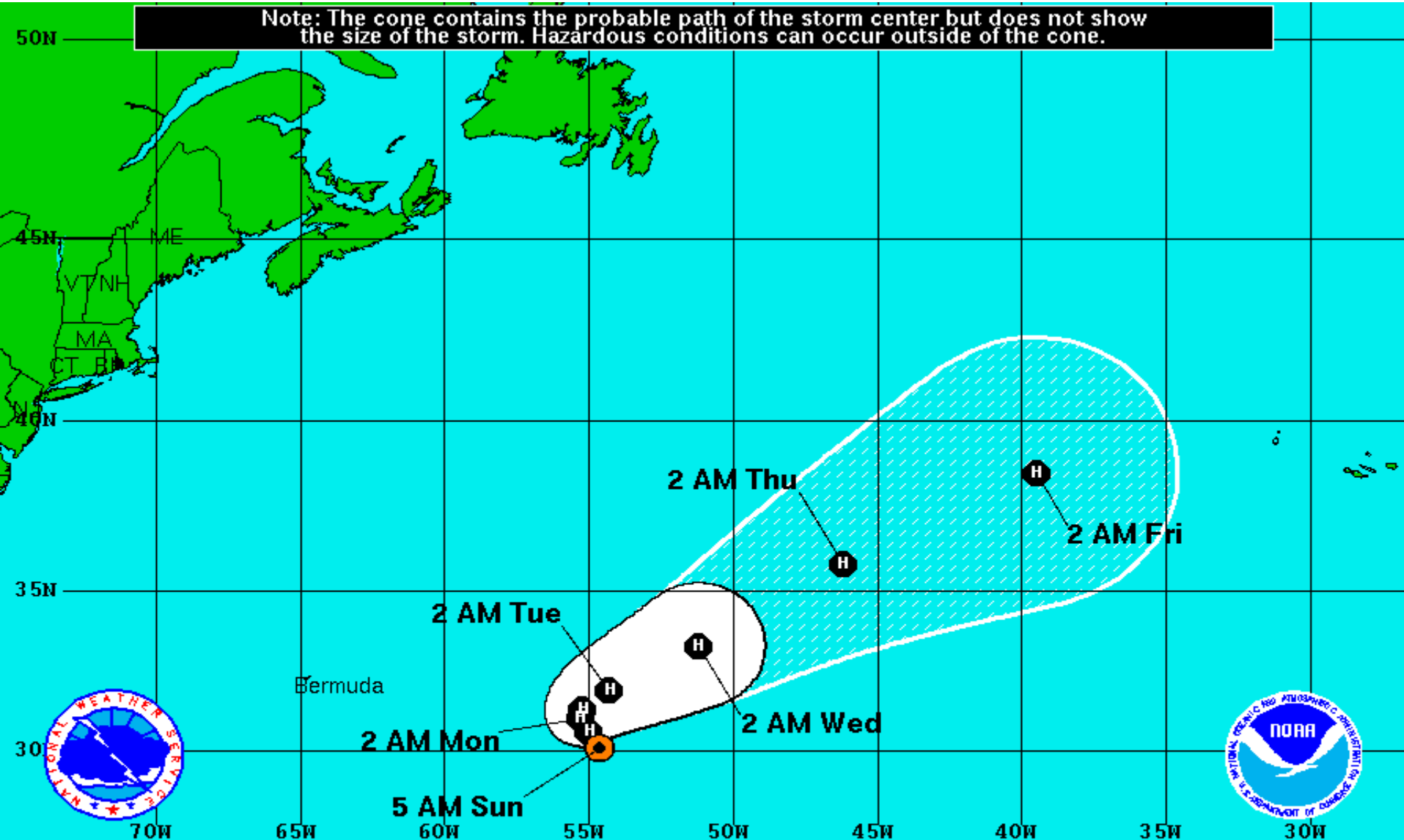
Blue Marble basemap imagery courtesy NASA

Satellite 1:16 PM UTC  
9:16 AM 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 Gaston

Sunday August 28, 2016

5 AM EDT Advisory 23

NWS National Hurricane Center

## Current Information:

Center Location 30.1 N 54.6 W

Max Sustained Wind 90 mph

Movement NW at 6 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



**Invest 91L**

8 AM Sun Aug 28 2016

Position 31.6 69.6 W

Maximum Winds 35 mph

Movement W at 9 mph

Blue Marble basemap imagery courtesy NASA

Satellite 1:08 PM UTC

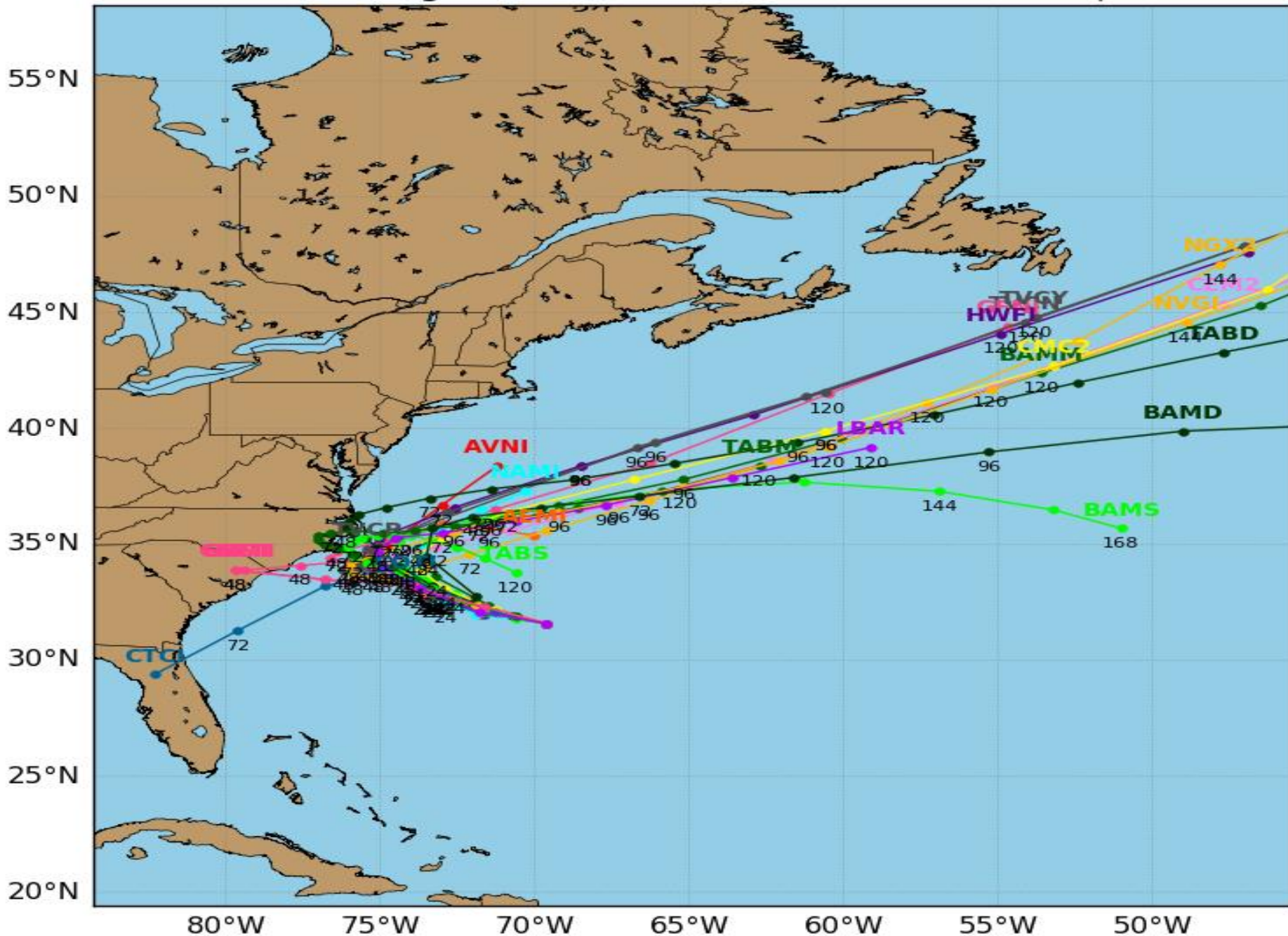
1:08 PM GMT



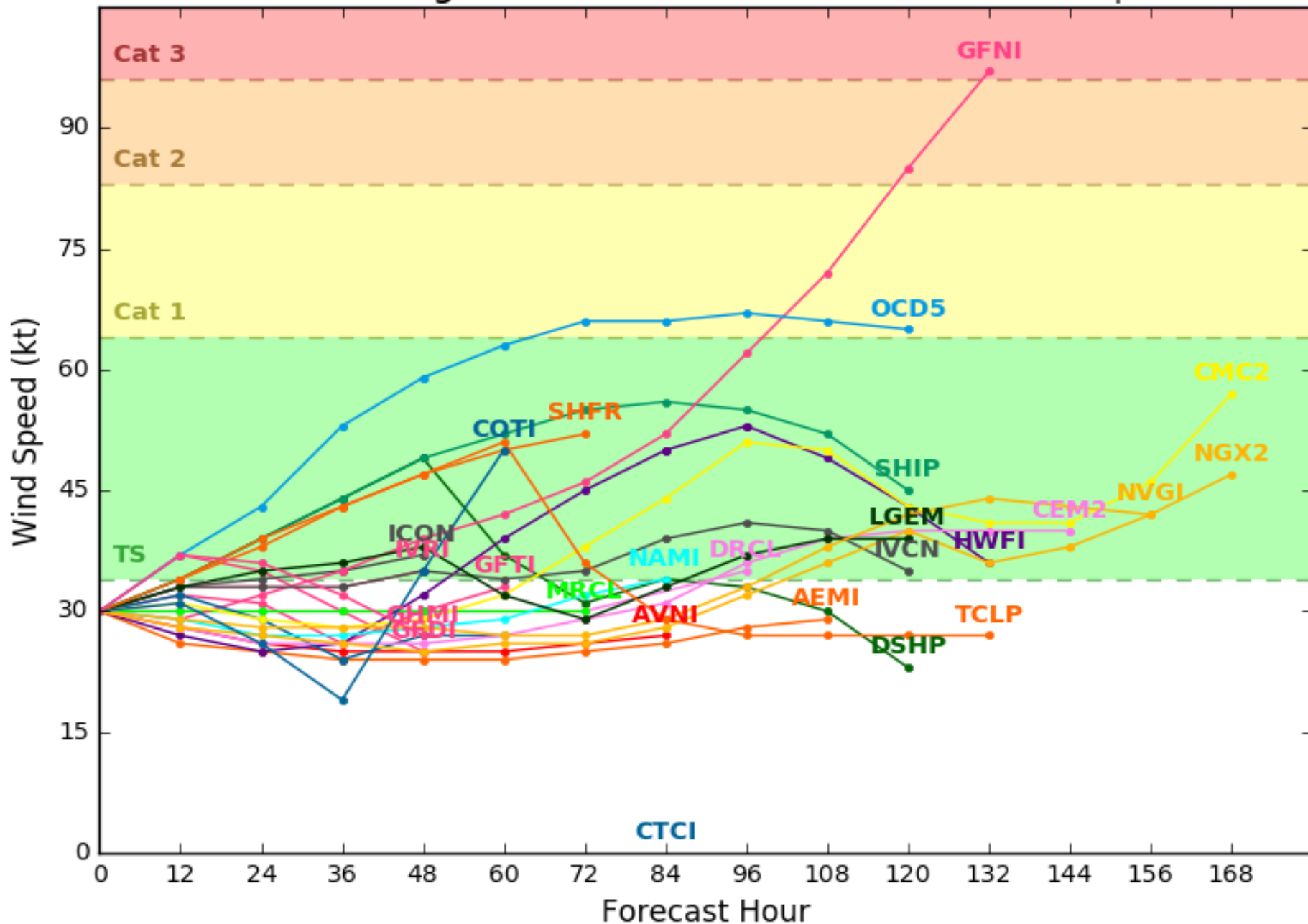
# Invest 91L Model Track Guidance

Initialized at 12z Aug 28 2016

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



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## **Invest 99L:**

- A weak area of low pressure located near the north coast of central Cuba continues to produce a large area of disorganized showers and thunderstorms.
- Upper level winds are not conducive for significant development today while the system moves Westward through the Straights of Florida.
- The low is expected to move into the southeastern Gulf of Mexico on Monday where environmental conditions are more conducive for tropical development.
- The system has a 40% (medium) chance of development within 48 hours, and a 60% (medium) chance of development through the next five days.
- A NOAA Hurricane Hunter aircraft is scheduled to investigate the system this afternoon, if necessary.
- Computer models are in agreement that 99L will track west-northwestward through the Straights and into the Gulf of Mexico tomorrow. Beyond that, models diverge with some taking the system as far west as Texas, and others recurve the storm towards Florida.
- Note that it is important to focus on trends and consistency in the models rather than a specific model.
- Also, there is A LOT of disagreement in the computer models regarding the possible intensity of Invest 99L, which is common with weak and developing systems. At this point, there is no correlation between the storms strength and it taking a path through the Central or Eastern Gulf of Mexico.
- It is likely that we will continue with this high degree of uncertainty until the system becomes better organized and the models are able to hone in on a defined center of circulation.
- The next two names on the Atlantic storm list are Hermine and Ian.

## **Hurricane Gaston:**

- Hurricane Gaston has maximum sustained winds of 90 mph and is located in the Central Atlantic Ocean.
- Computer models are in good agreement that Gaston will continue moving towards the northwest today, then turn towards the north and northeast tomorrow.
- Gaston poses no threat to the U.S. or Florida.

### **Invest 91L:**

- Shower and thunderstorm activity has increased during the past few hours in association with an area of low pressure located about 250 miles west of Bermuda. While environmental conditions are only marginally conducive, some additional development of this system is possible during the next day or so while it moves west-northwestward at about 10 mph.
- As the low approaches the coast of North Carolina by mid-week, conditions are expected to become unfavorable for further development. The system has a 40% (medium) chance of development over the next 48 hours.
- The next two names on the Atlantic storm list are Hermine and Ian.

### **Florida Outlook:**

- As computer models continue to struggle with 99L's future track and intensity, it is imperative that we continue to monitor the system over the next couple of days.
- Regardless of tropical development, periods of heavy downpours and gusty winds are likely across South Florida today, and spreading northward throughout the Peninsula as the week progresses.
- Strong life threatening rip currents are likely along all east coast beaches today.
- At this time it is too early to tell what specific impacts 99L will have along the Florida Gulf Coast, although strong rip currents and other coastal hazards are possible throughout the upcoming week.
- Hurricane Gaston and Invest 91L do not pose a threat to Florida.

Another briefing packet will be issued on Sunday Afternoon. For more information on this system, please visit the NHC website at [www.nhc.noaa.gov](http://www.nhc.noaa.gov)





# TROPICAL UPDATE

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State Meteorological Support Unit

Florida Division of Emergency  
Management