



TROPICAL UPDATE

10 AM EDT

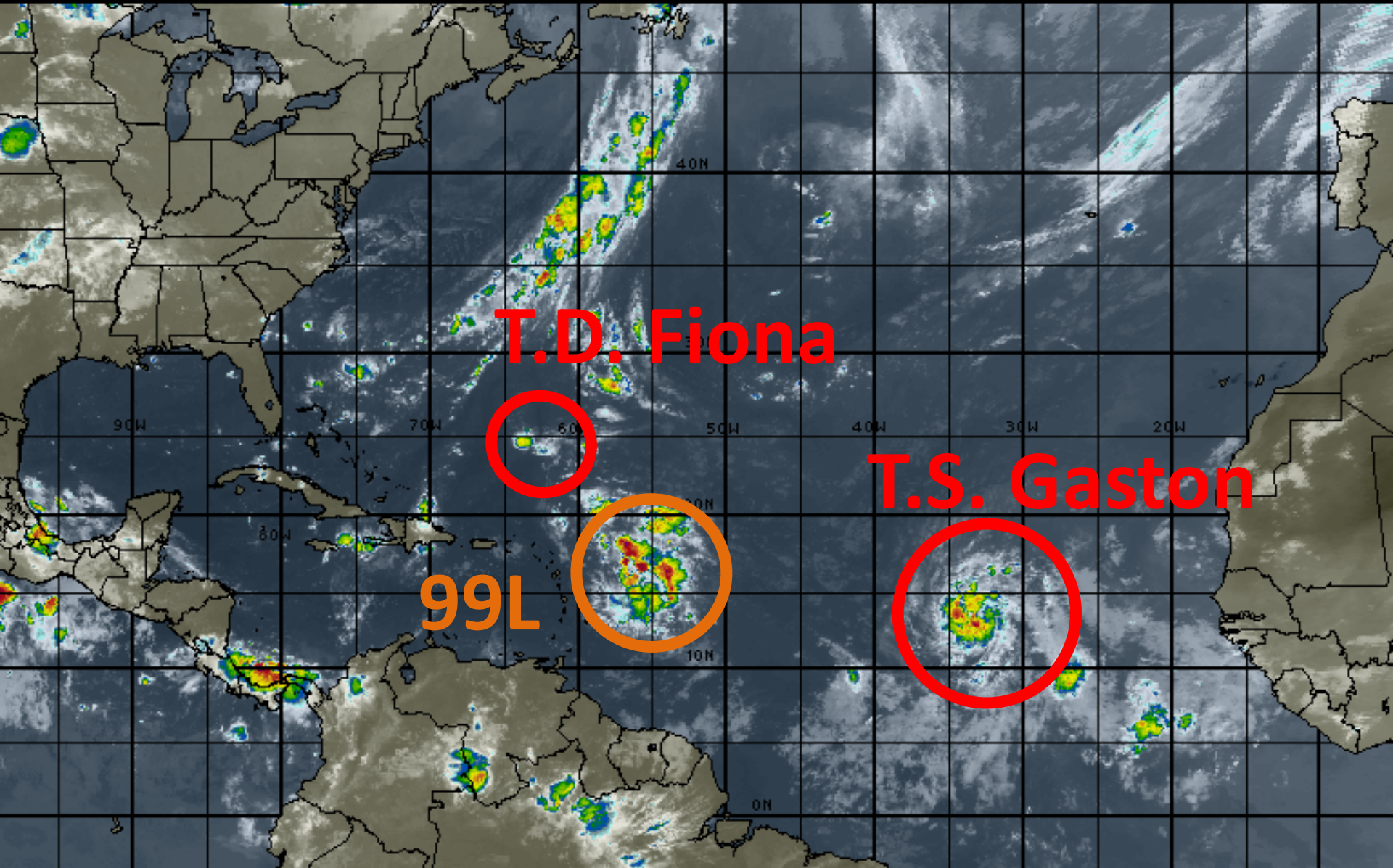
Tuesday, August 23, 2016

**Invest 99L (60%), T.D. Fiona,
& T.S. 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.

Atlantic Basin Satellite Image

12:00 23-AUG-2016 GMT ©Copyright WSI Corporation <http://www.wsi.com>





Two-Day Graphical Tropical Weather Outlook

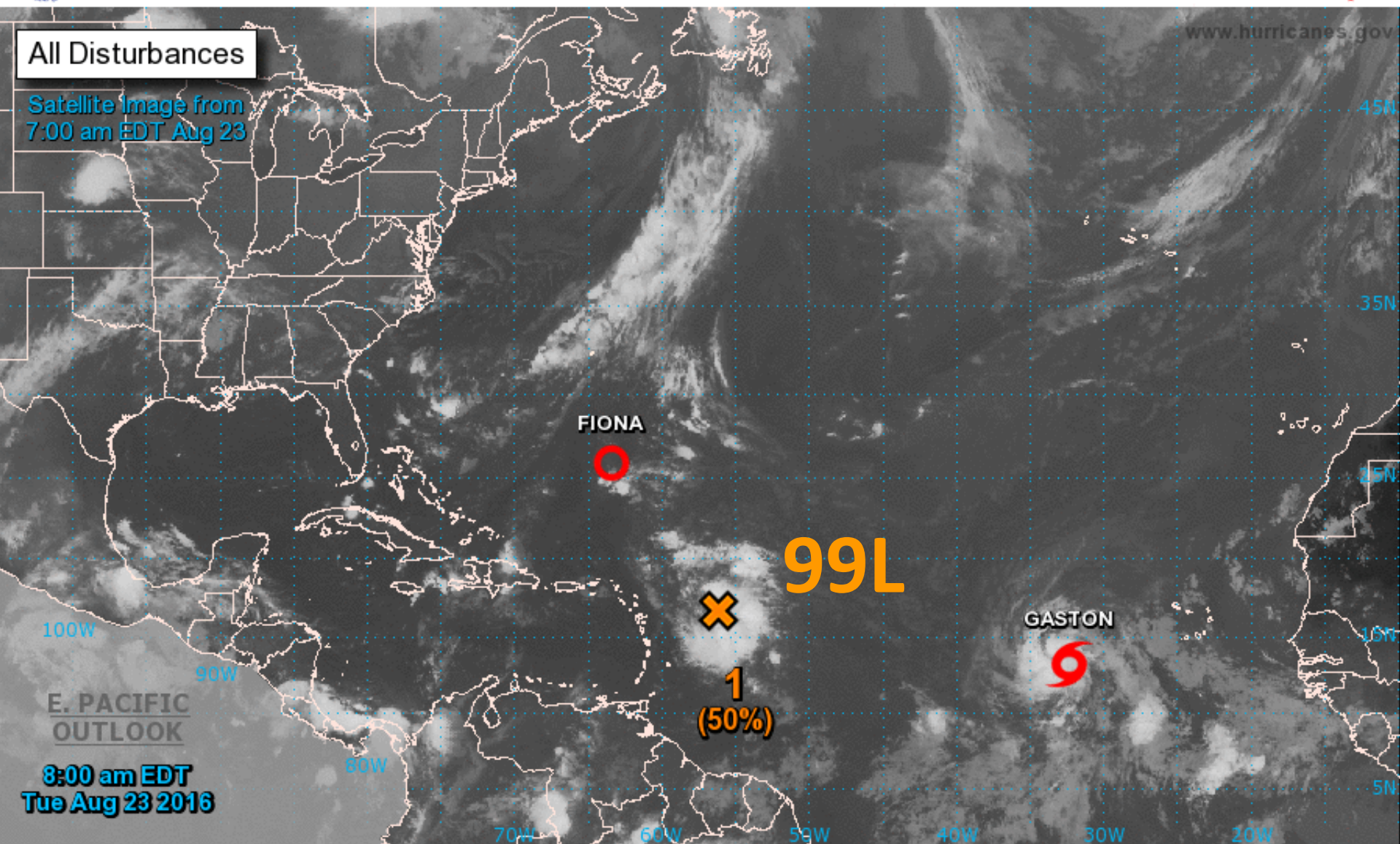
National Hurricane Center Miami, Florida



All Disturbances

Satellite Image from
7:00 am EDT Aug 23

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



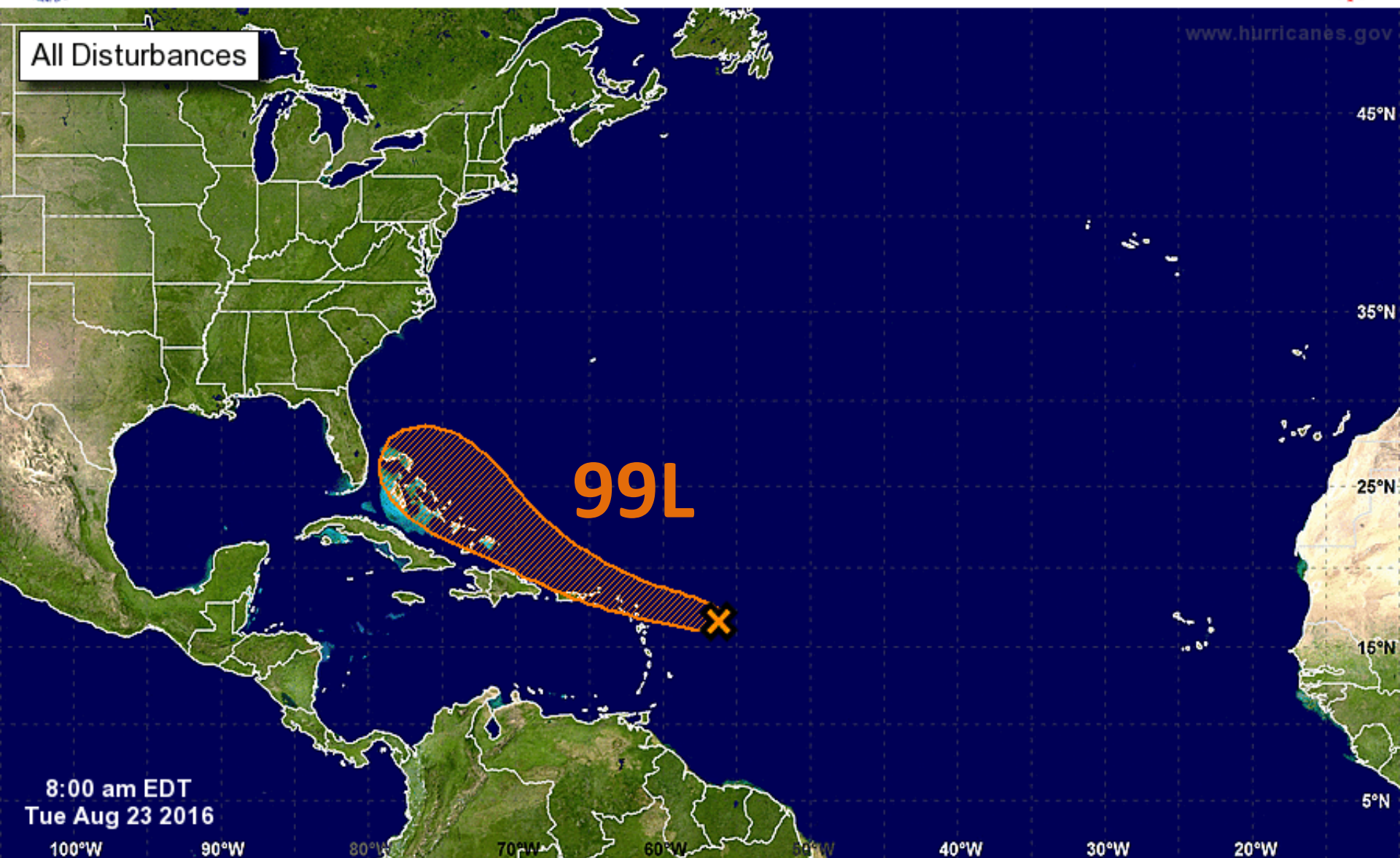
Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



www.hurricanes.gov

All Disturbances



8:00 am EDT
Tue Aug 23 2016

Tropical Cyclone Formation Potential for the Five-Day Period Ending at 8:00 am EDT Sun Aug 28 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 Tue Aug 23 2016

Position 16.4 56.5 W

Maximum Winds 35 mph

Movement W at 17 mph

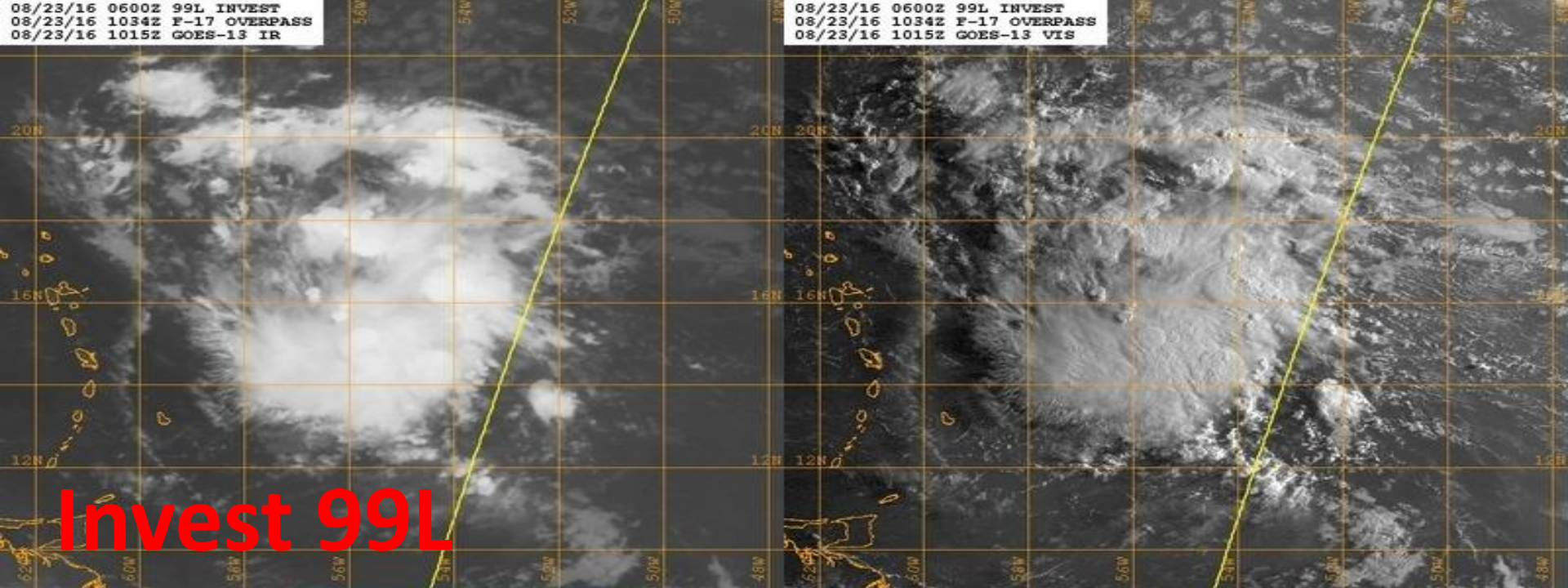
Blue Marble basemap imagery courtesy NASA

Satellite 1:14 PM UTC
1:14 PM GMT



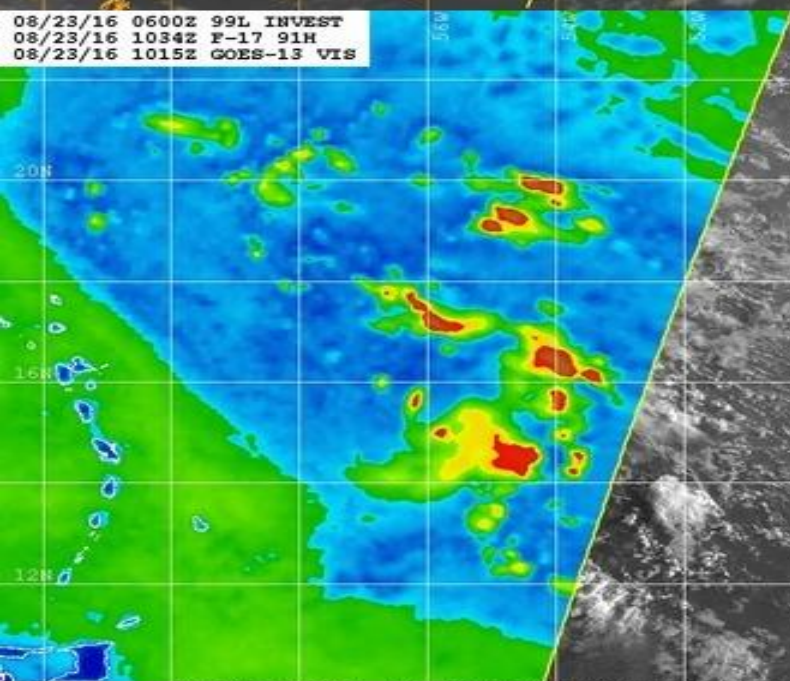
08/23/16 0600Z 99L INVEST
08/23/16 1034Z F-17 OVERPASS
08/23/16 1015Z GOES-13 IR

08/23/16 0600Z 99L INVEST
08/23/16 1034Z F-17 OVERPASS
08/23/16 1015Z GOES-13 VIS



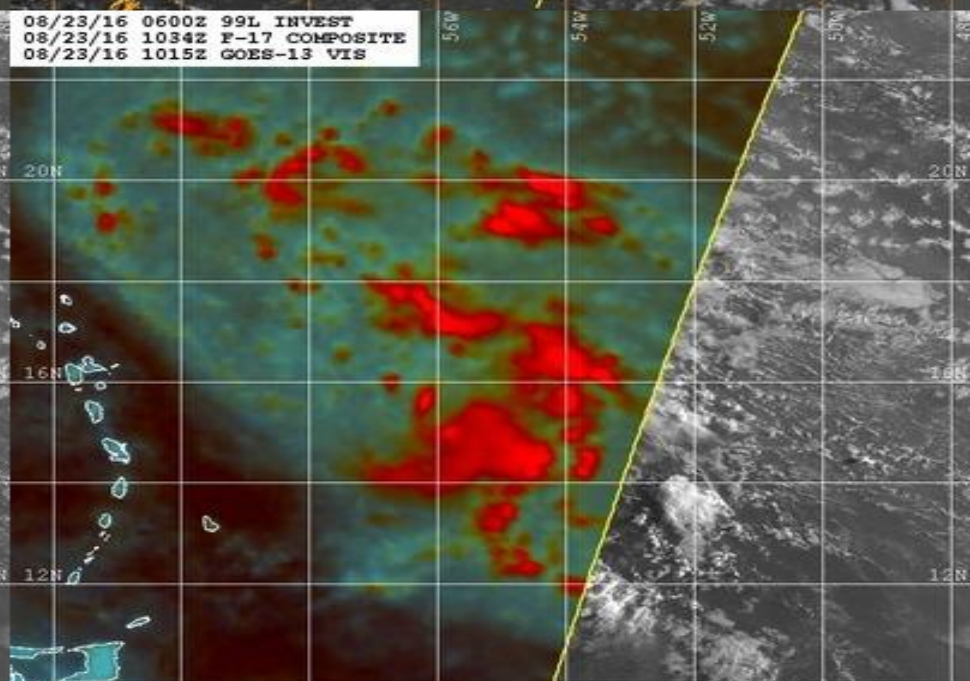
Invest 99L

08/23/16 0600Z 99L INVEST
08/23/16 1034Z F-17 91H
08/23/16 1015Z GOES-13 VIS



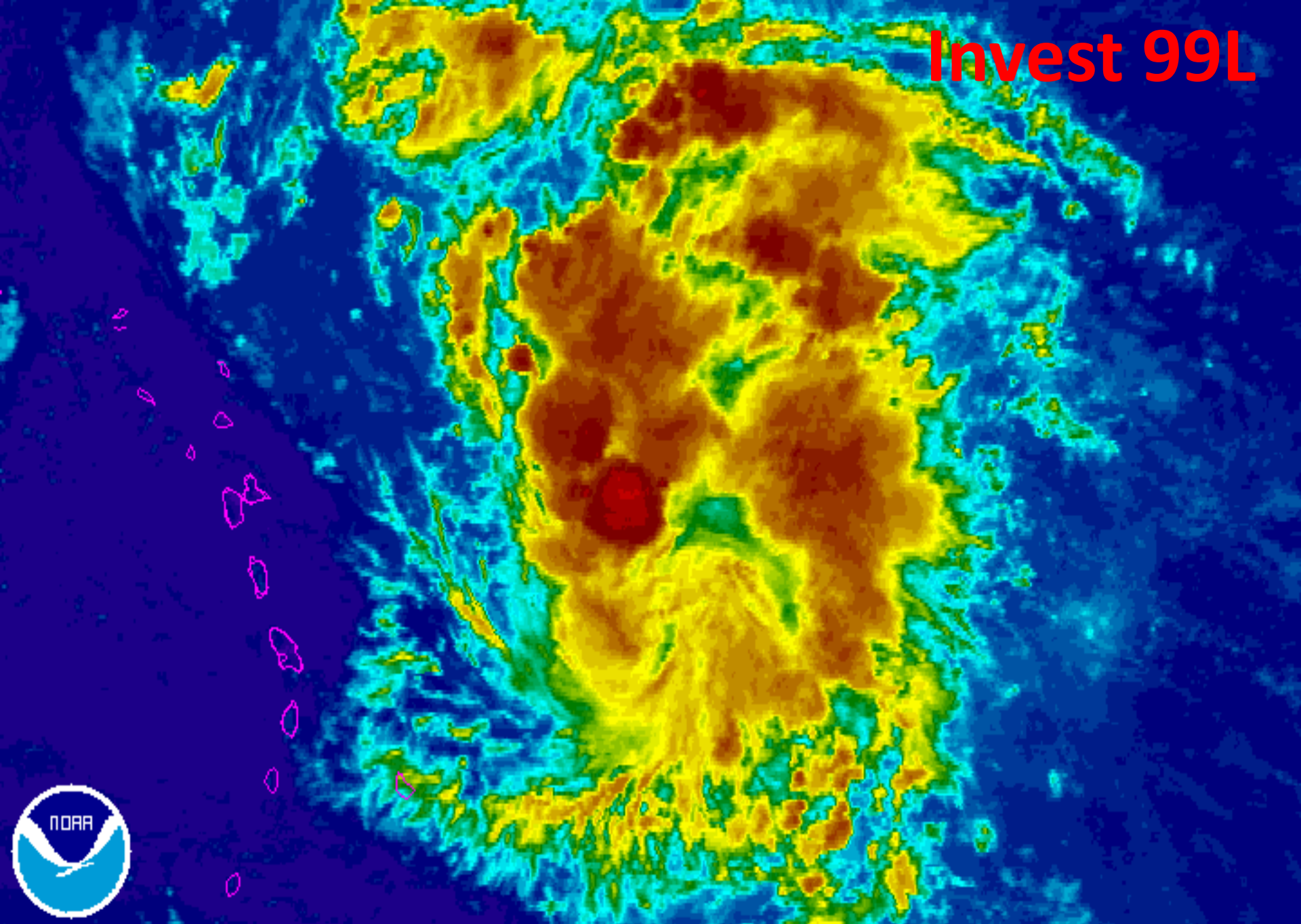
Naval Research Lab www.nrlmry.navy.mil/sat_products.html
-- 85H Brightness Temp (Kelvin) --

08/23/16 0600Z 99L INVEST
08/23/16 1034Z F-17 COMPOSITE
08/23/16 1015Z GOES-13 VIS



Naval Research Lab www.nrlmry.navy.mil/sat_products.html
Red-21PCT, Green-91H, Blue-21V

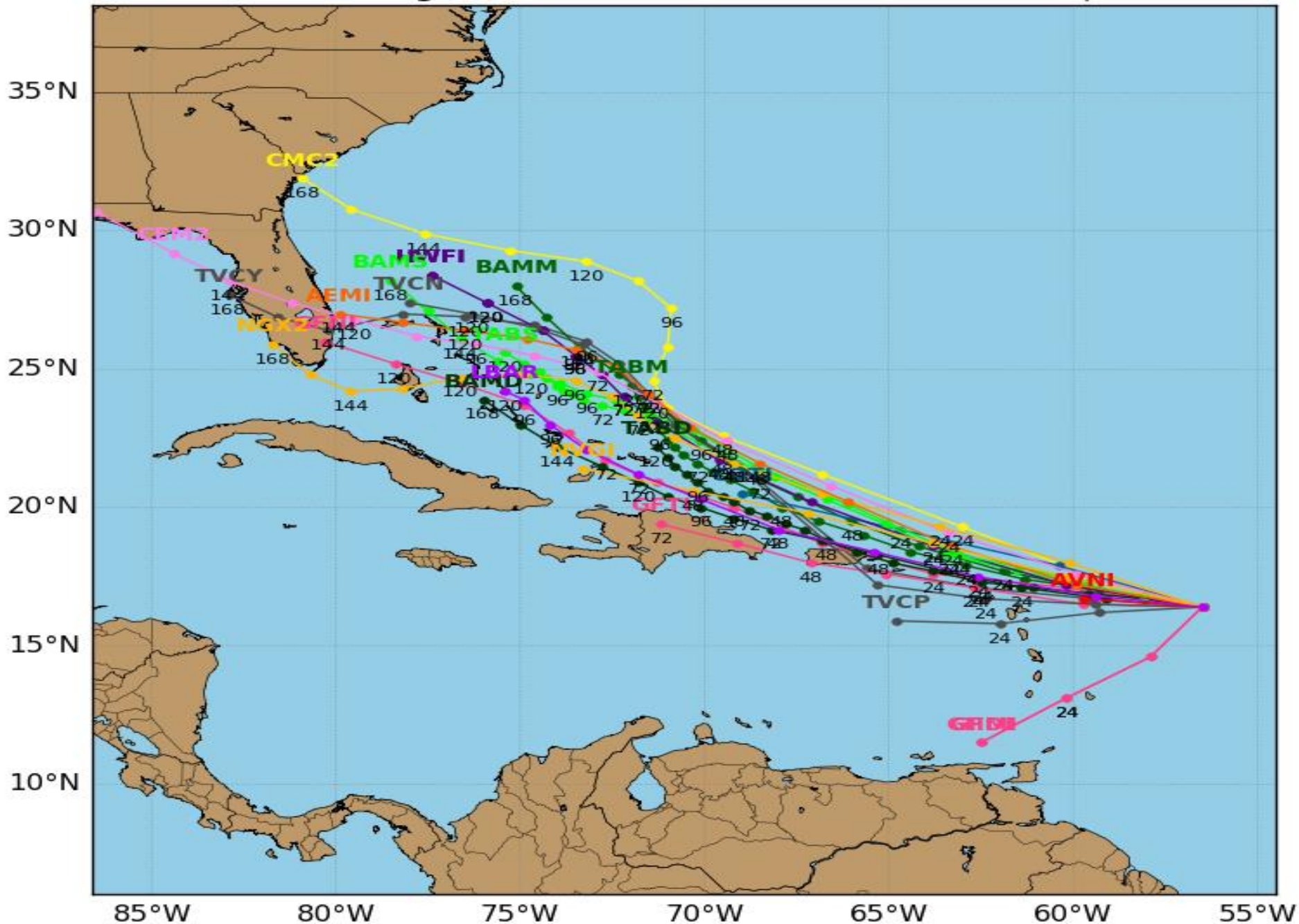
Invest 99L



Invest 99L Model Track Guidance

Initialized at 12z Aug 23 2016

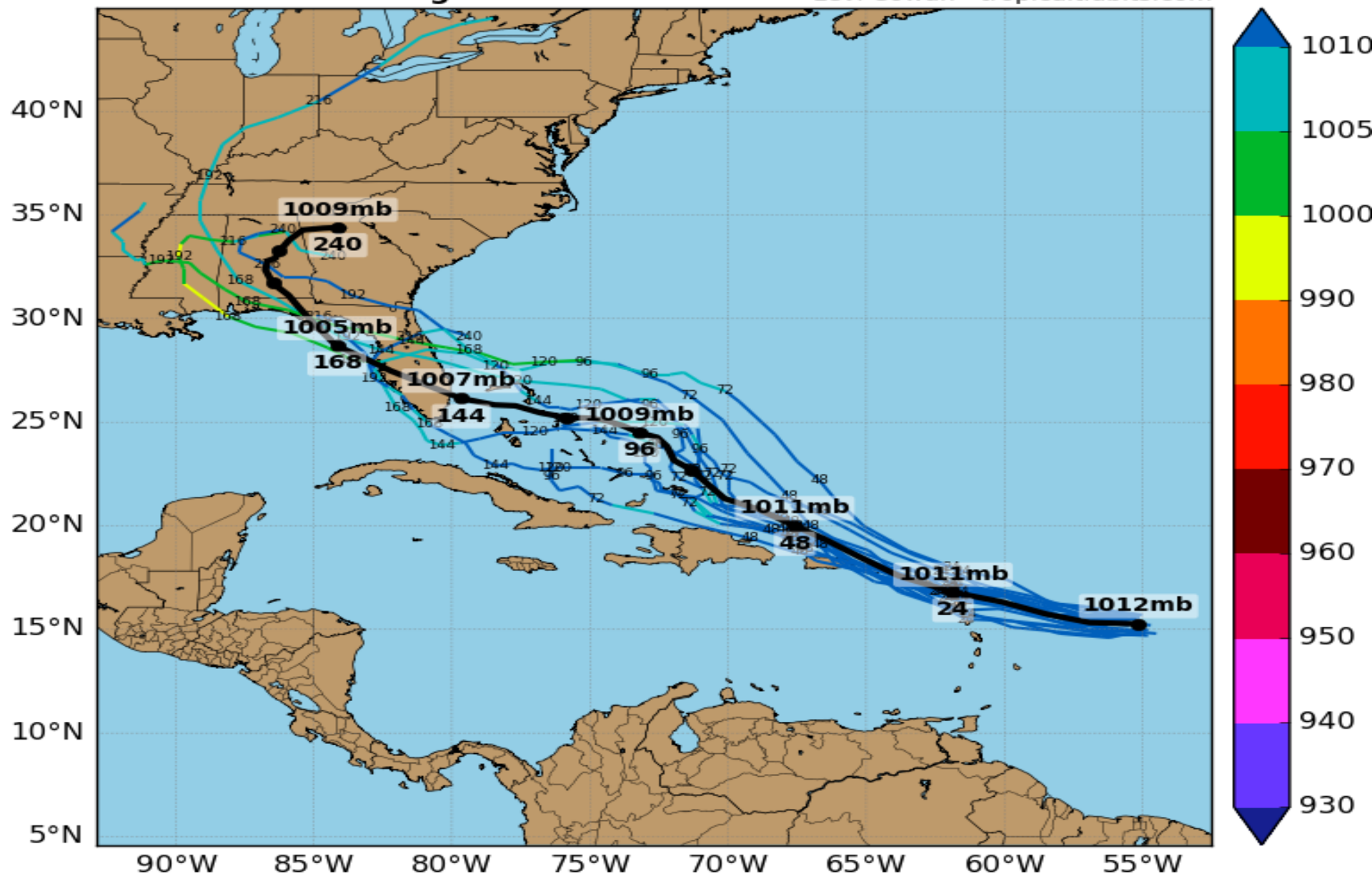
Levi Cowan - tropicaltidbits.com



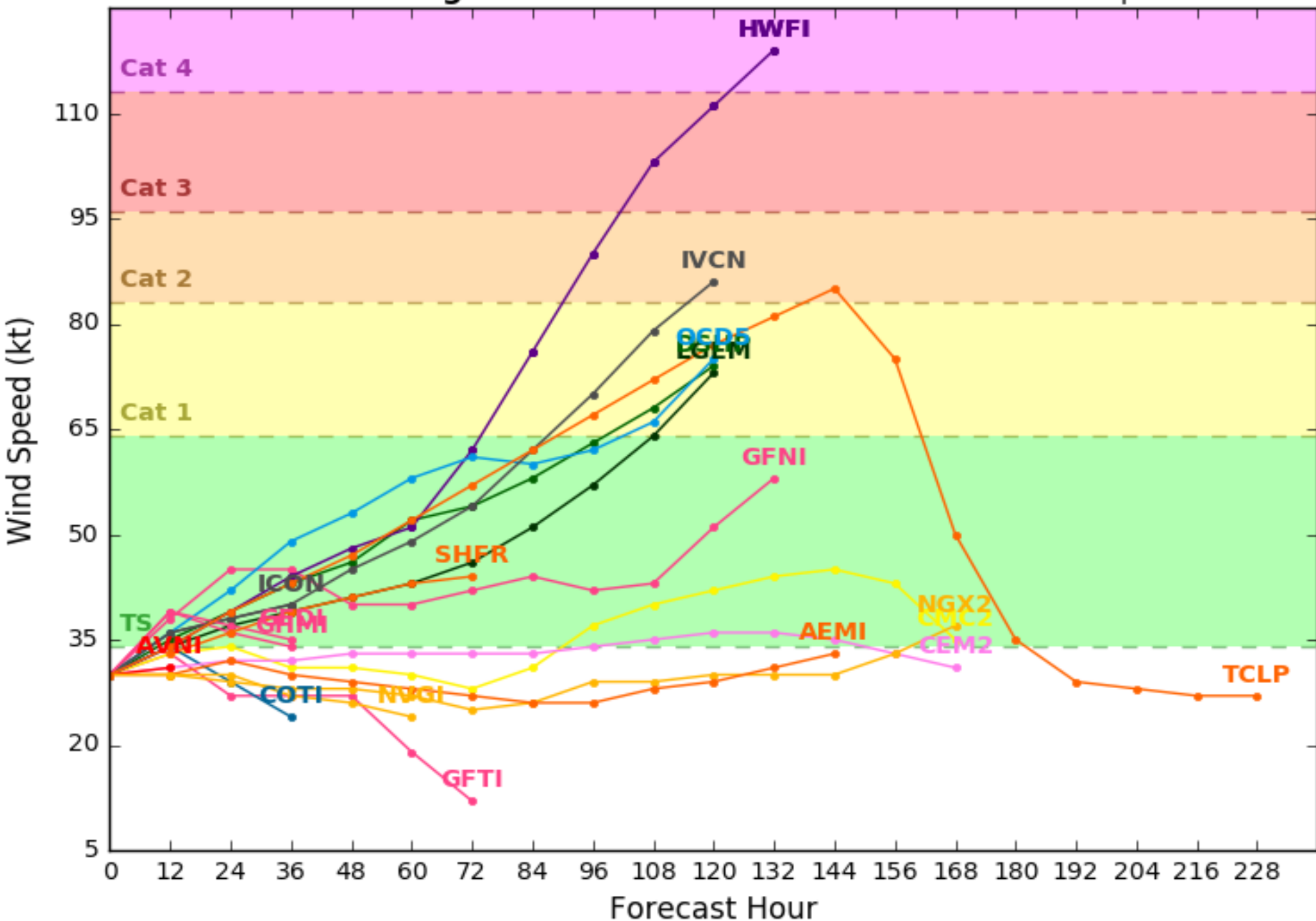
Invest 99L GEFS Tracks & Min. MSLP (mb)

Initialized at 06z Aug 23 2016

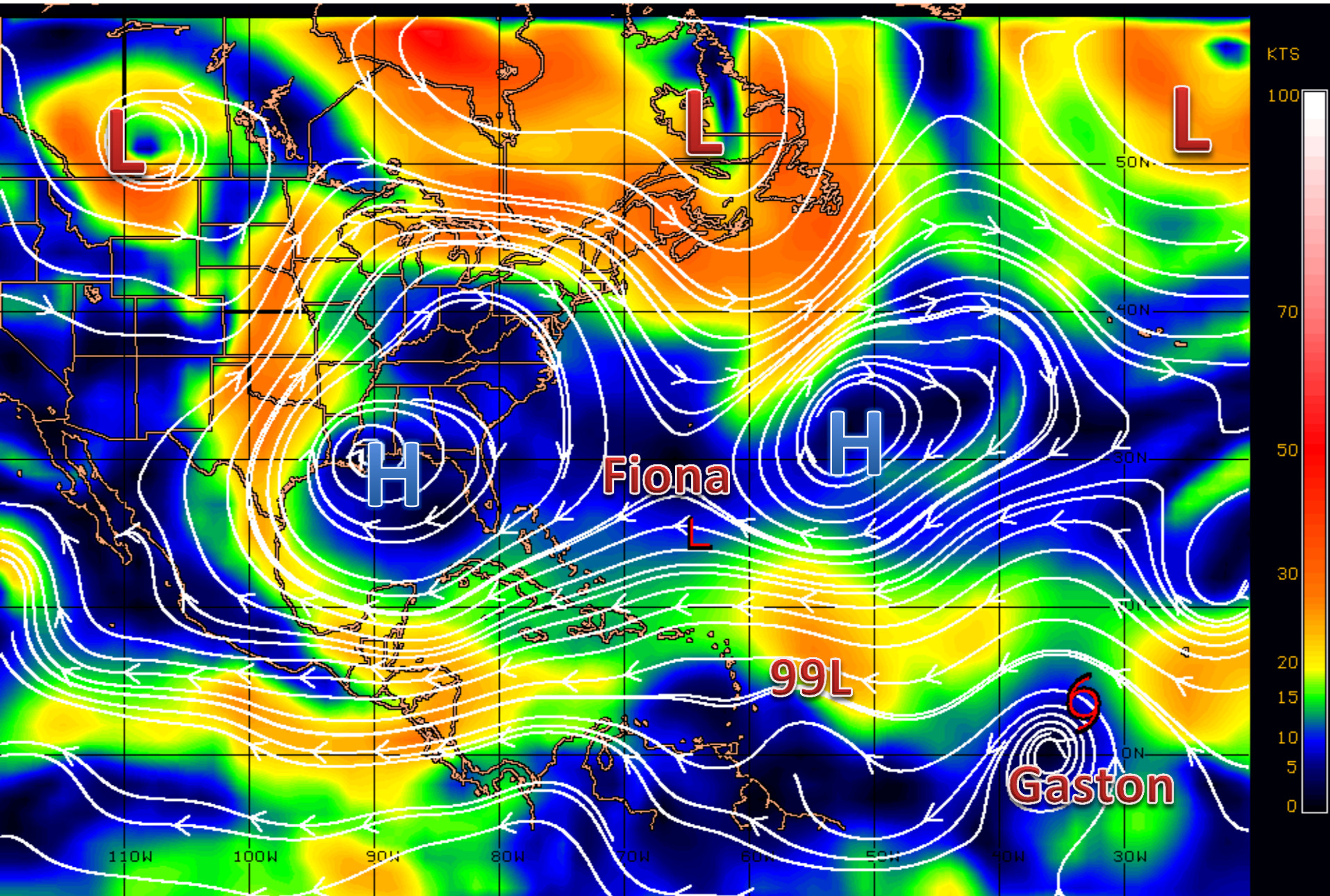
Levi Cowan - tropicaltidbits.com



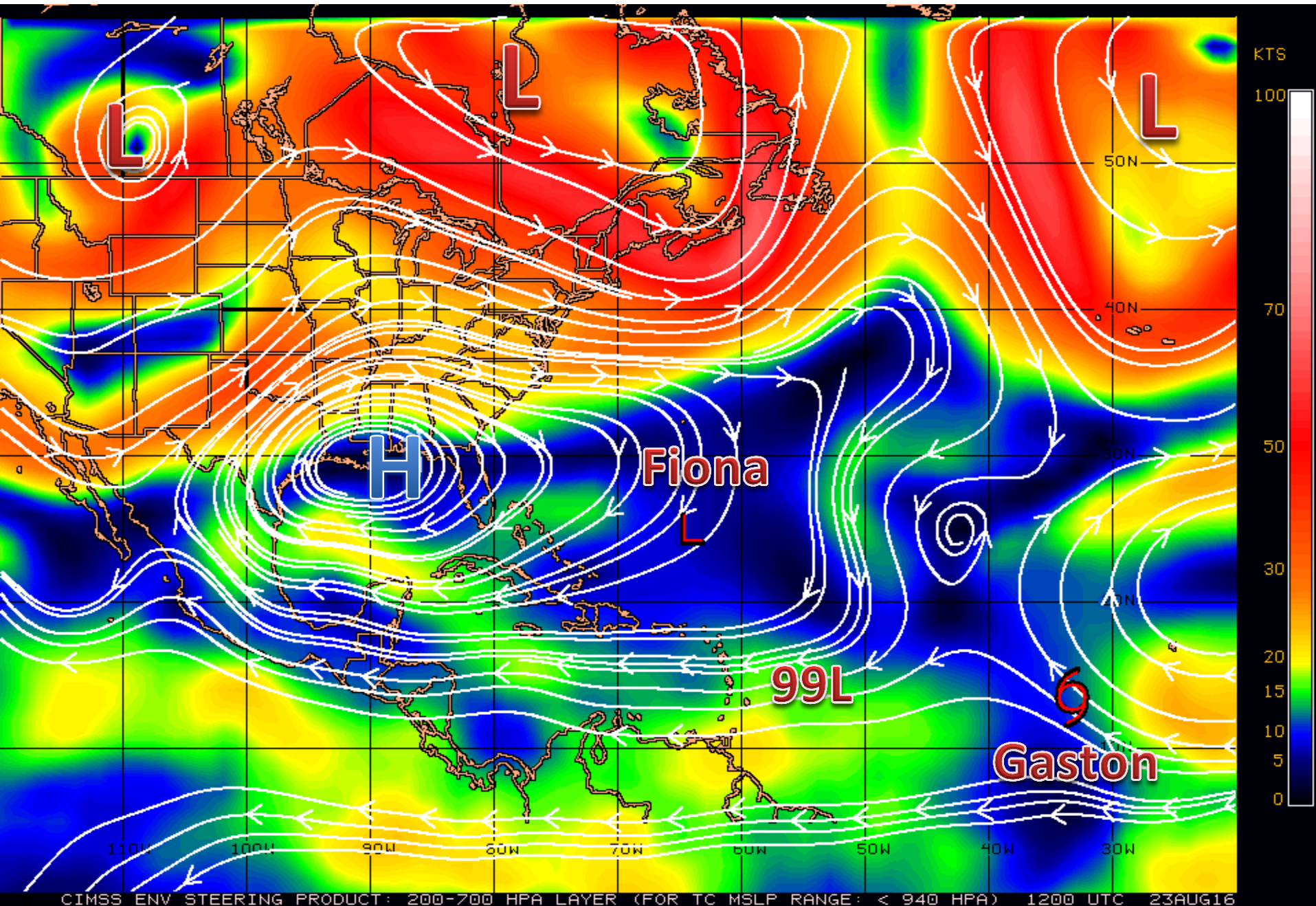
Levi Cowan - tropicaltidbits.com



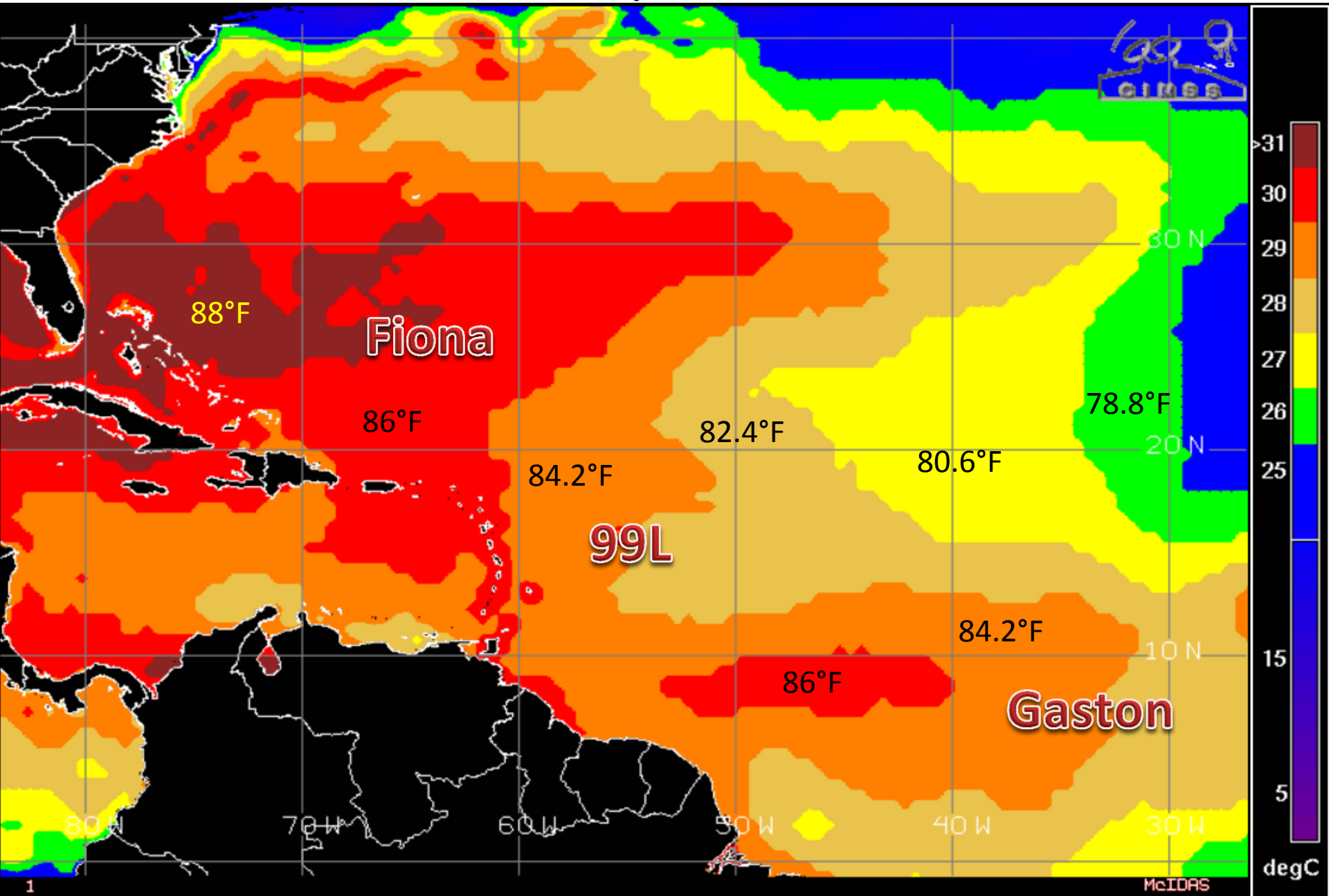
Steering Currents – Low Levels



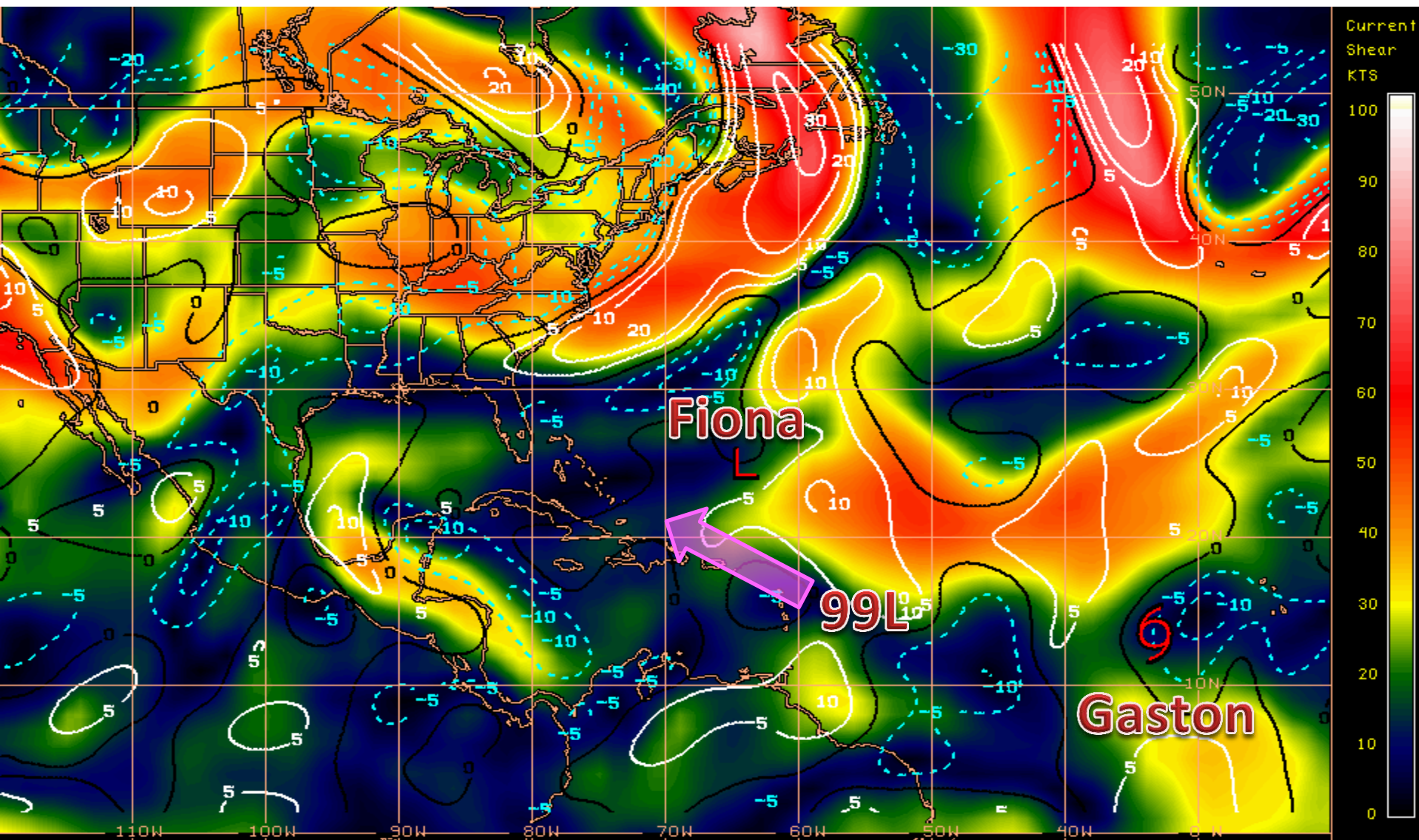
Steering Currents – Upper Levels



Sea Surface Temperatures Near 99L

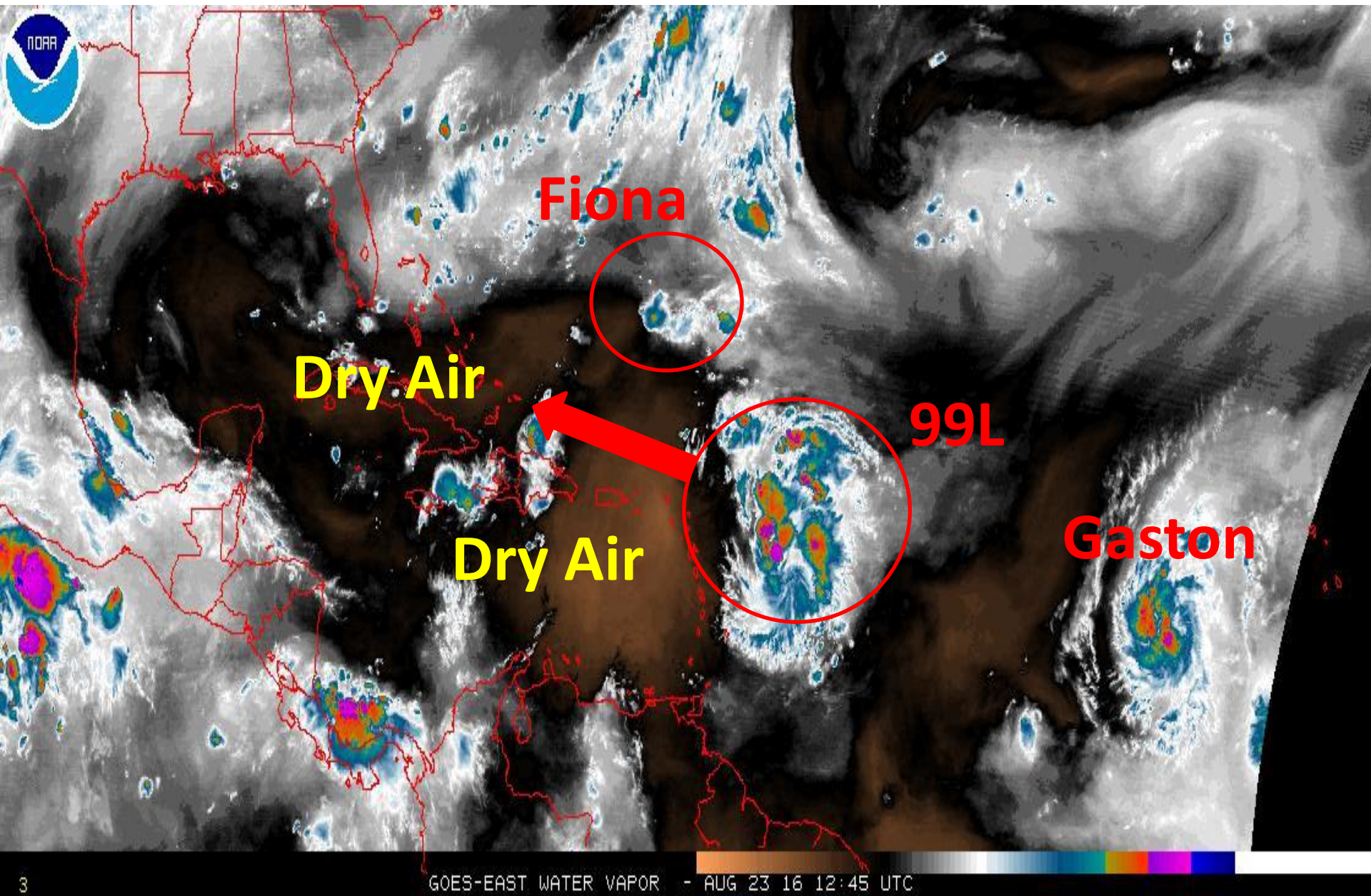


Current Wind Shear (shaded) and Shear Tendency (contours)

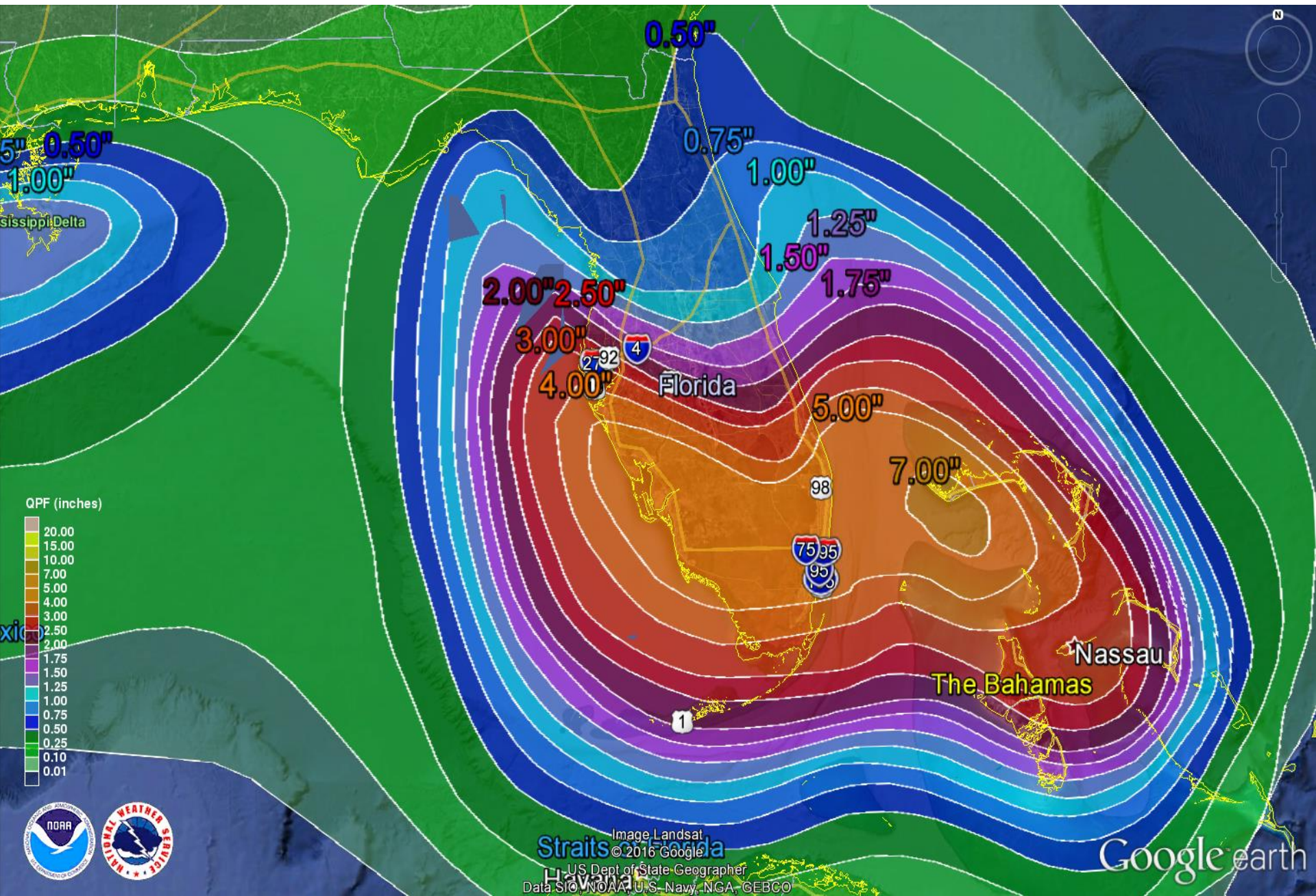


Shear Tendency (KTS) Over Past 24 Hours: Increasing — Decreasing ----

Water Vapor Satellite Image



Forecast Rainfall Total (Sun-Mon)



Tropical Depression Fiona

5 AM EDT Tue Aug 23 2016

Position 25.8 N 63.4 W

Maximum Winds 35 mph

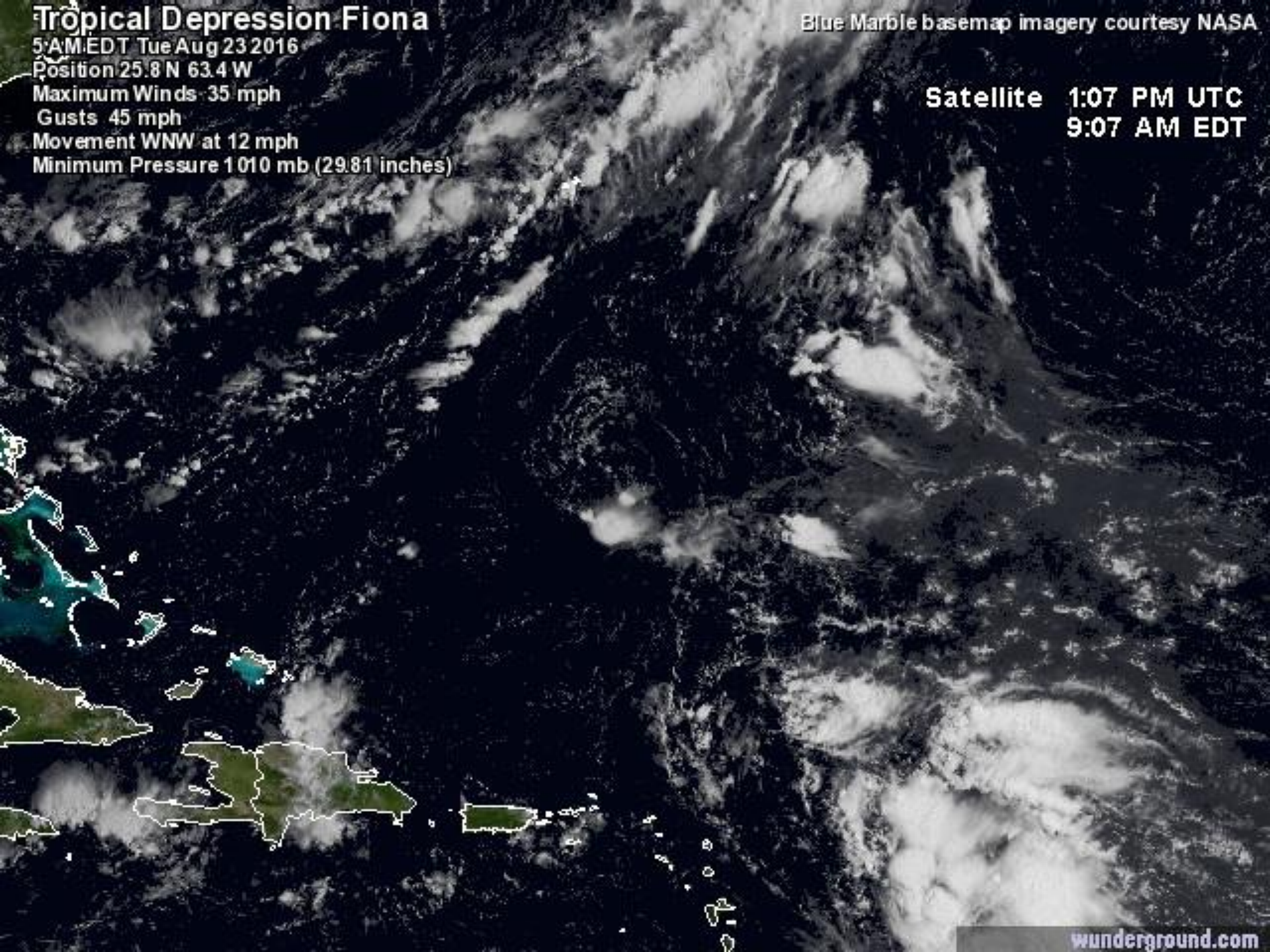
Gusts 45 mph

Movement WNW at 12 mph

Minimum Pressure 1010 mb (29.81 inches)

Blue Marble basemap imagery courtesy NASA

Satellite 1:07 PM UTC
9:07 AM EDT

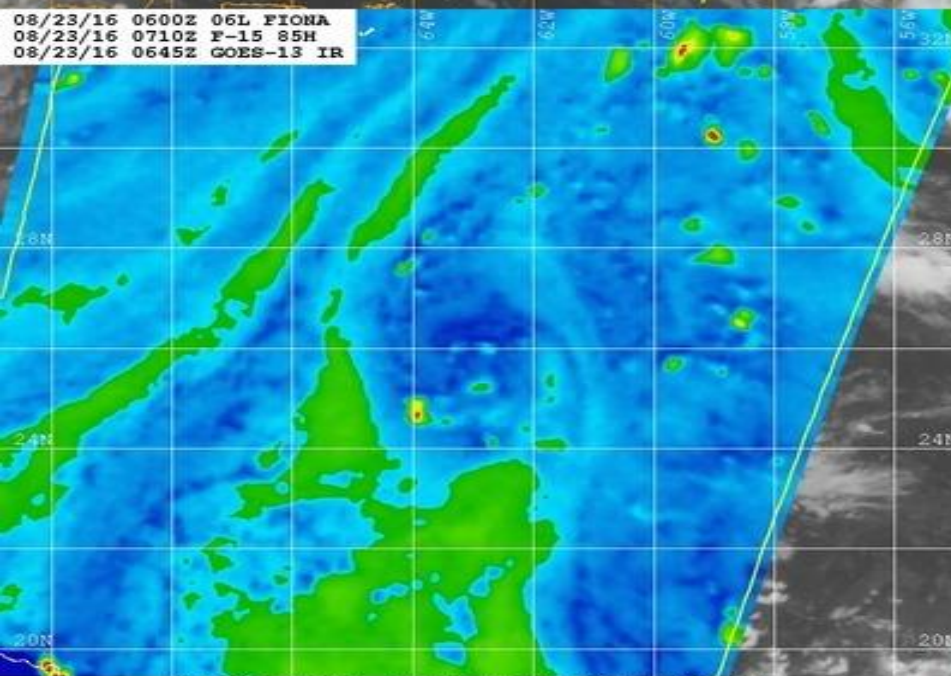


08/23/16 0600Z 06L FIONA
08/23/16 0710Z F-15 OVERPASS
08/23/16 0645Z GOES-13 IR

08/23/16 0600Z 06L FIONA
08/23/16 0710Z F-15 OVERPASS
08/23/16 0645Z GOES-13 IR-BD

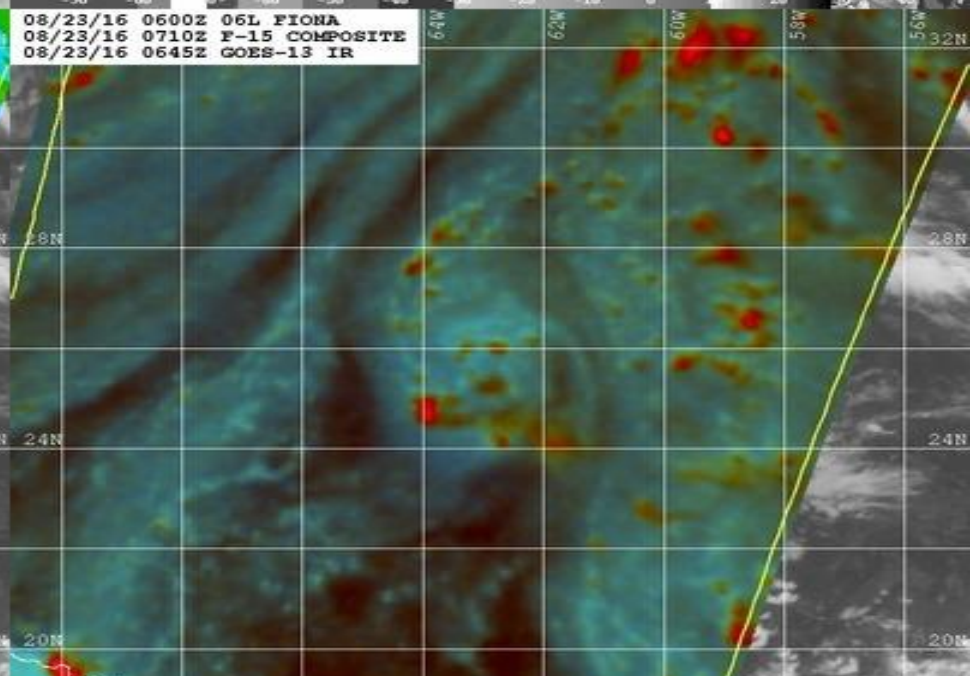
T.D. Fiona

08/23/16 0600Z 06L FIONA
08/23/16 0710Z F-15 85H
08/23/16 0645Z GOES-13 IR

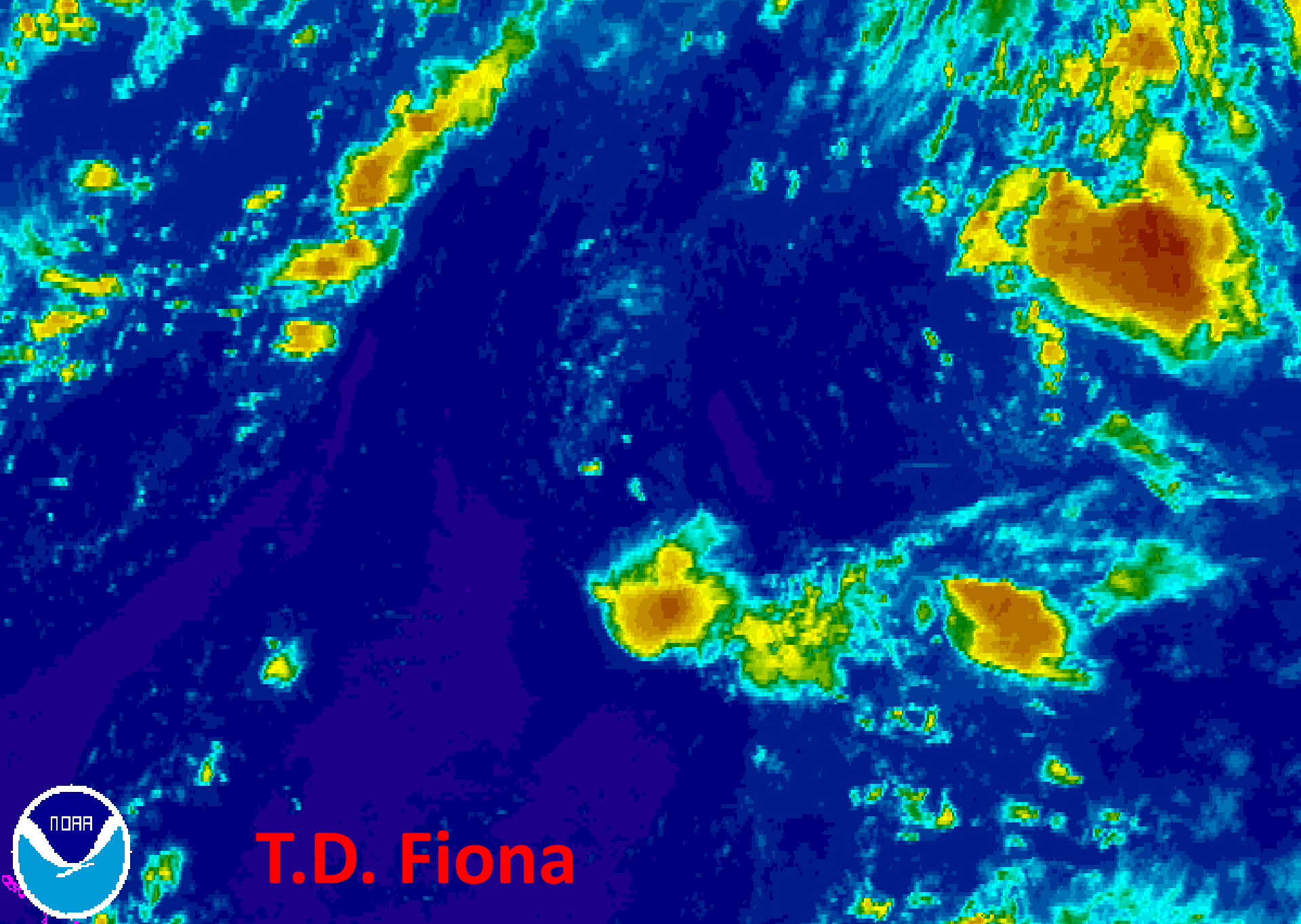


Naval Research Lab www.nrlmry.navy.mil/sat_products.html
85H Brightness Temp (Kelvin)

08/23/16 0600Z 06L FIONA
08/23/16 0710Z F-15 COMPOSITE
08/23/16 0645Z GOES-13 IR



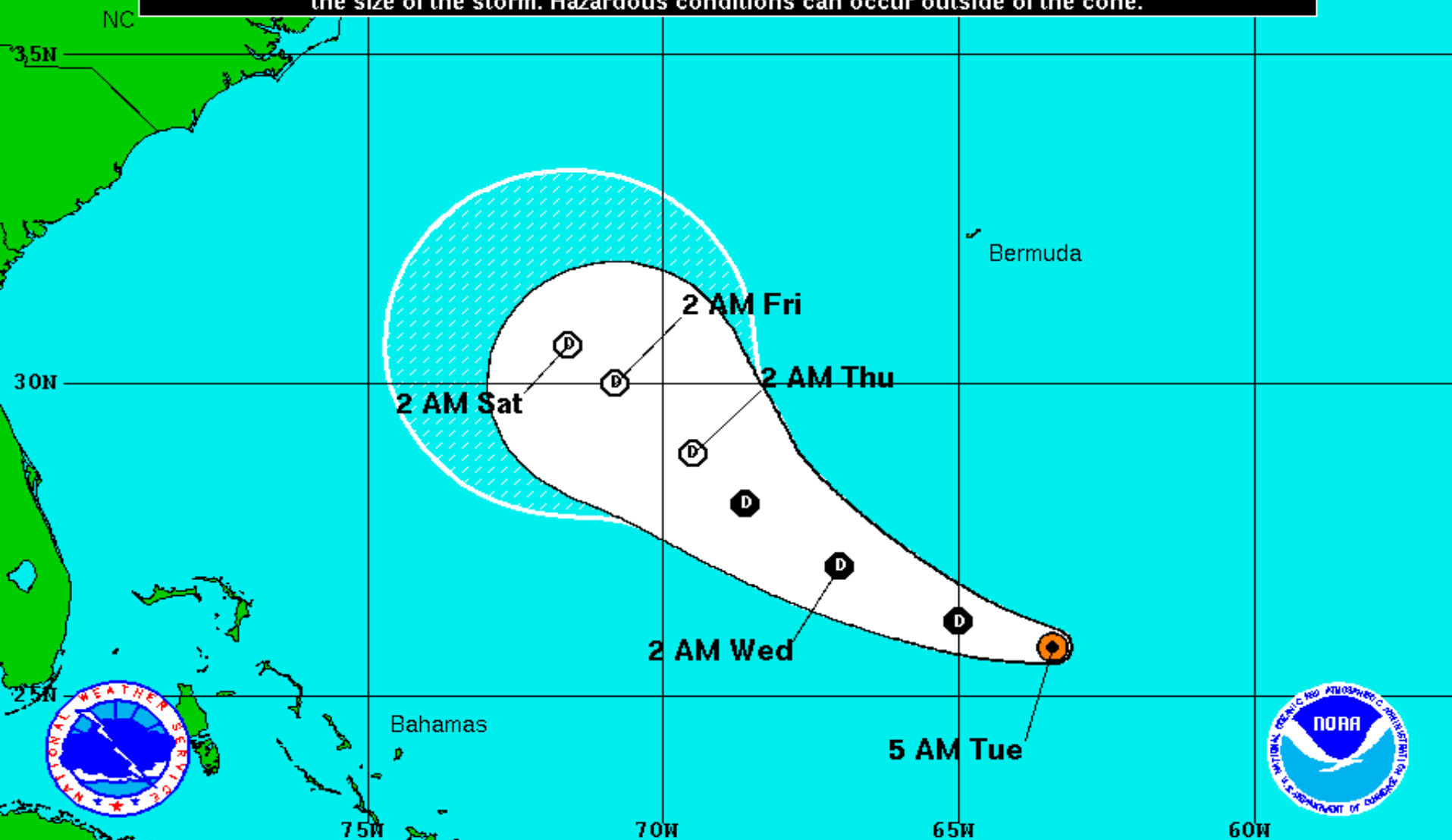
Naval Research Lab www.nrlmry.navy.mil/sat_products.html
Red=85PCT Green=85H Blue=85V



T.D. Fiona

GOES-FLOATER RAINBOW IR - AUG 23 16 13:15 UTC

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.



Tropical Depression Fiona

Tuesday August 23, 2016

5 AM EDT Advisory 26

NWS National Hurricane Center

Current Information:

Center Location 25.8 N 63.4 W

Max Sustained Wind 35 mph

Movement WNW 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:

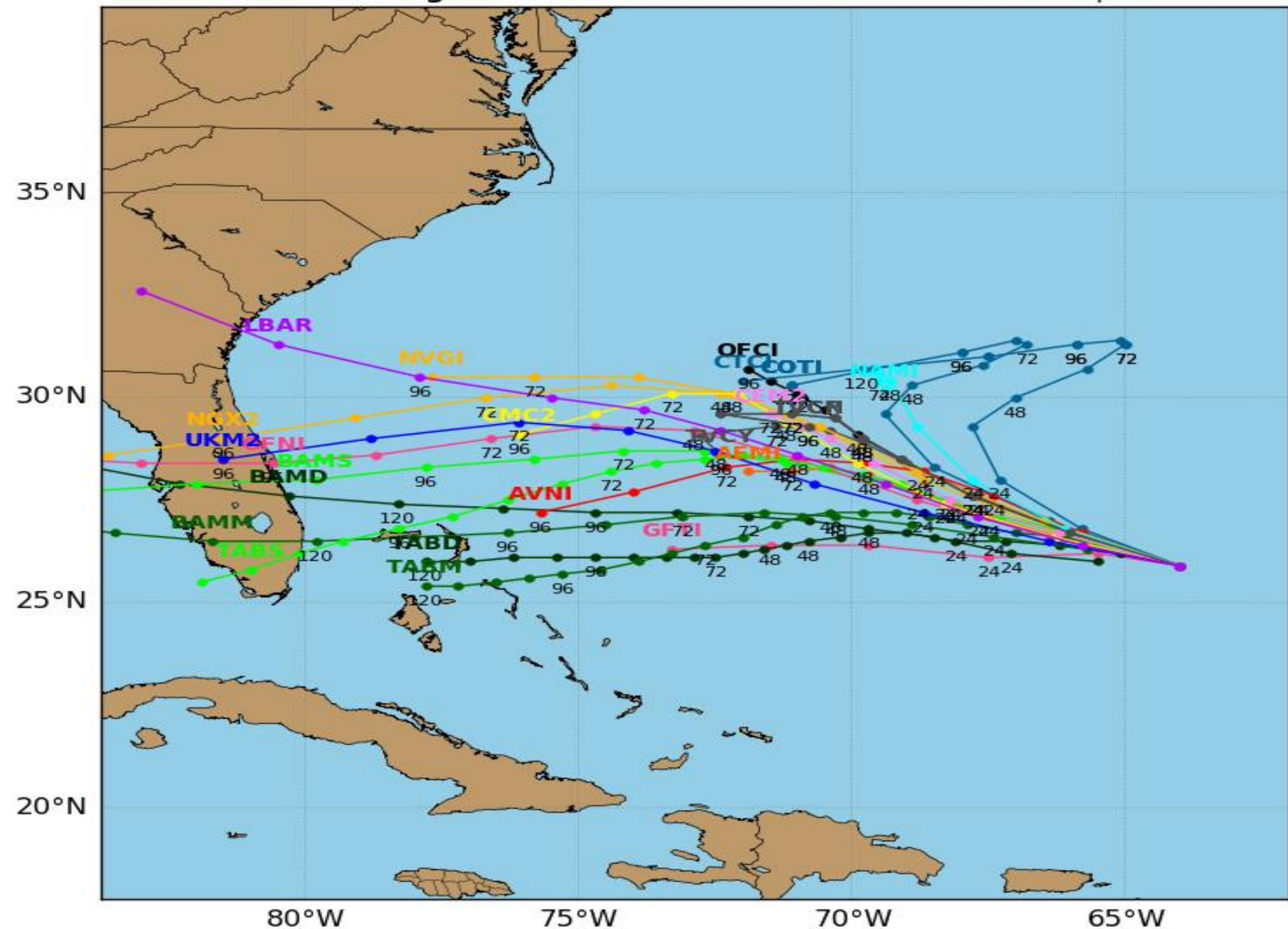
Day 1-3 Day 4-5

Watches:

Hurricane Trop.Storm

Warnings:

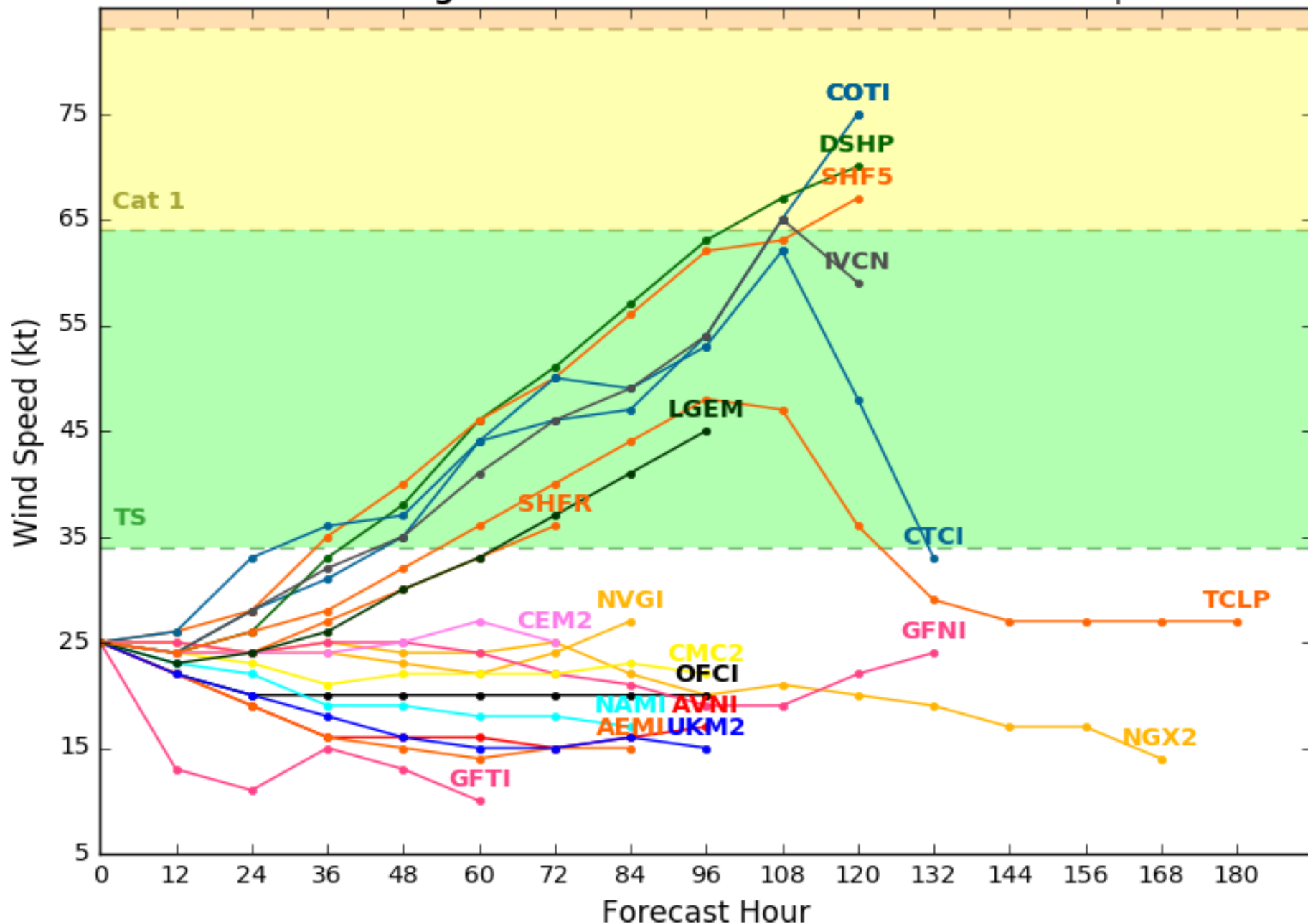
Hurricane Trop.Storm

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Tropical Depression 06L Model Intensity Guidance

Initialized at 12z Aug 23 2016

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Tropical Storm Gaston

5 AM EDT Tue Aug 23 2016

Position 13.2 N 32.4 W

Maximum Winds 50 mph

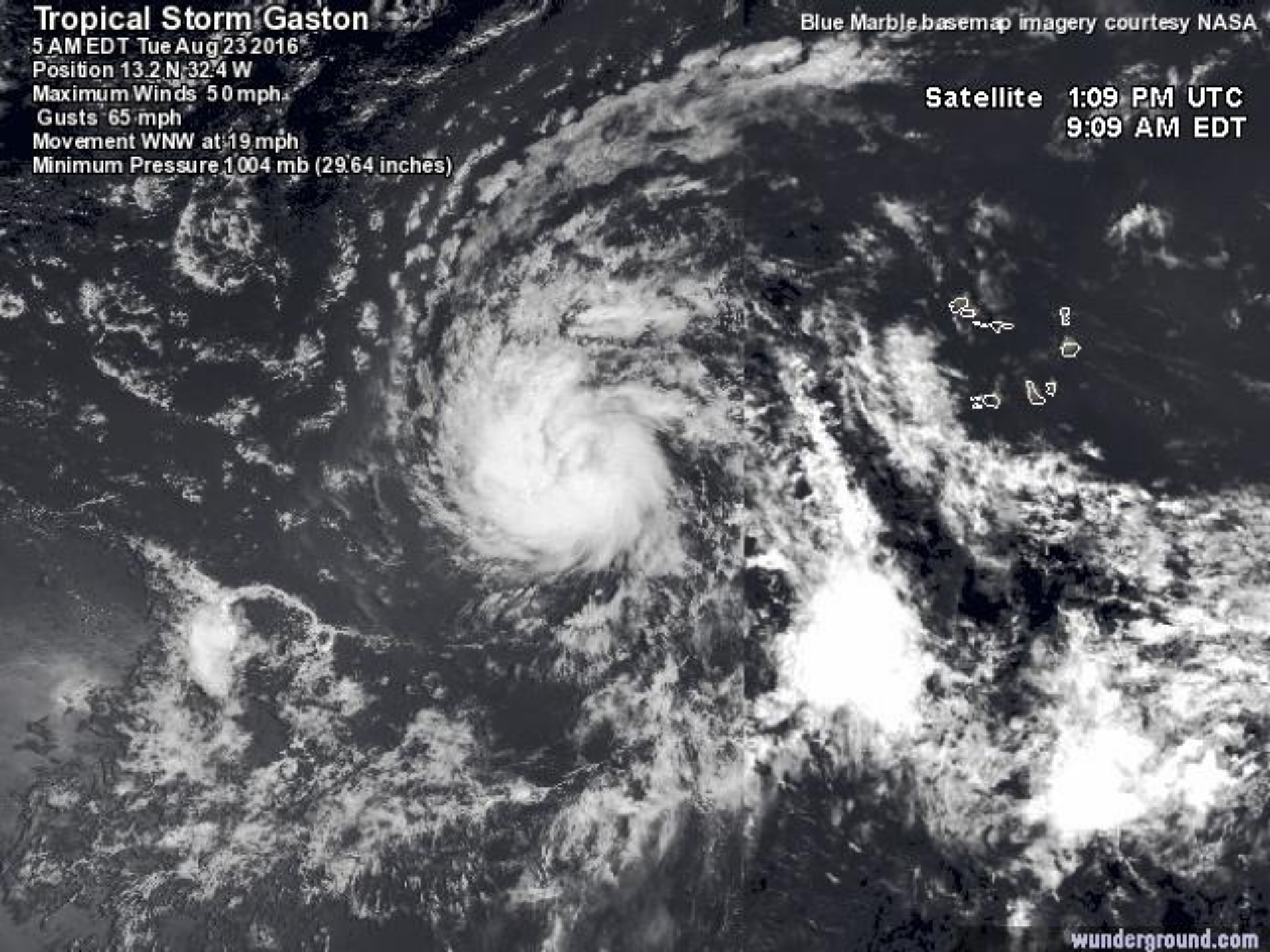
Gusts 65 mph

Movement WNW at 19 mph

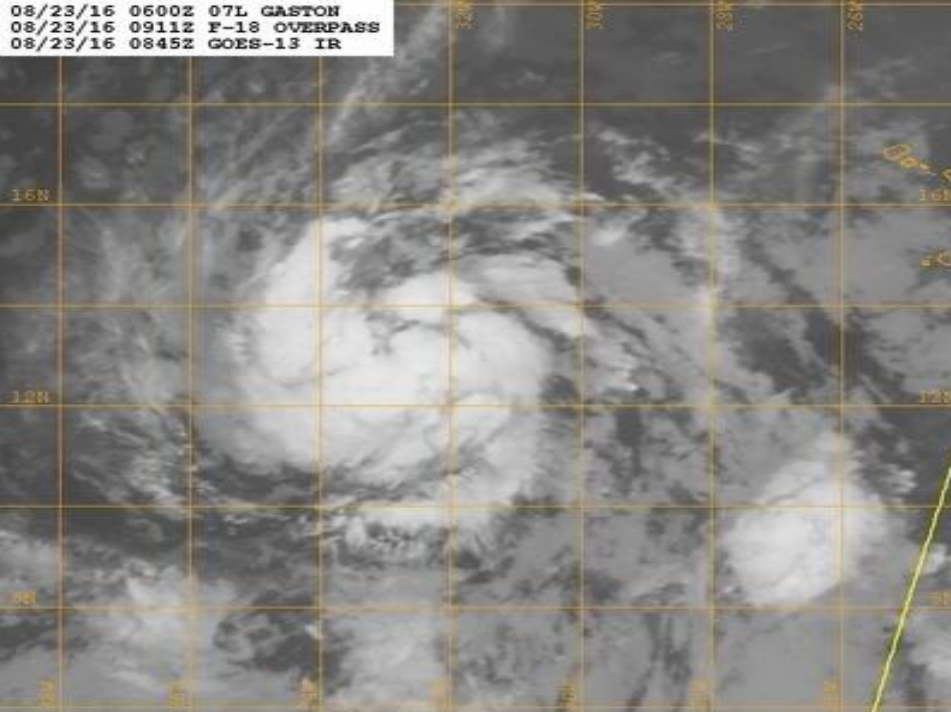
Minimum Pressure 1004 mb (29.64 inches)

Blue Marble basemap imagery courtesy NASA

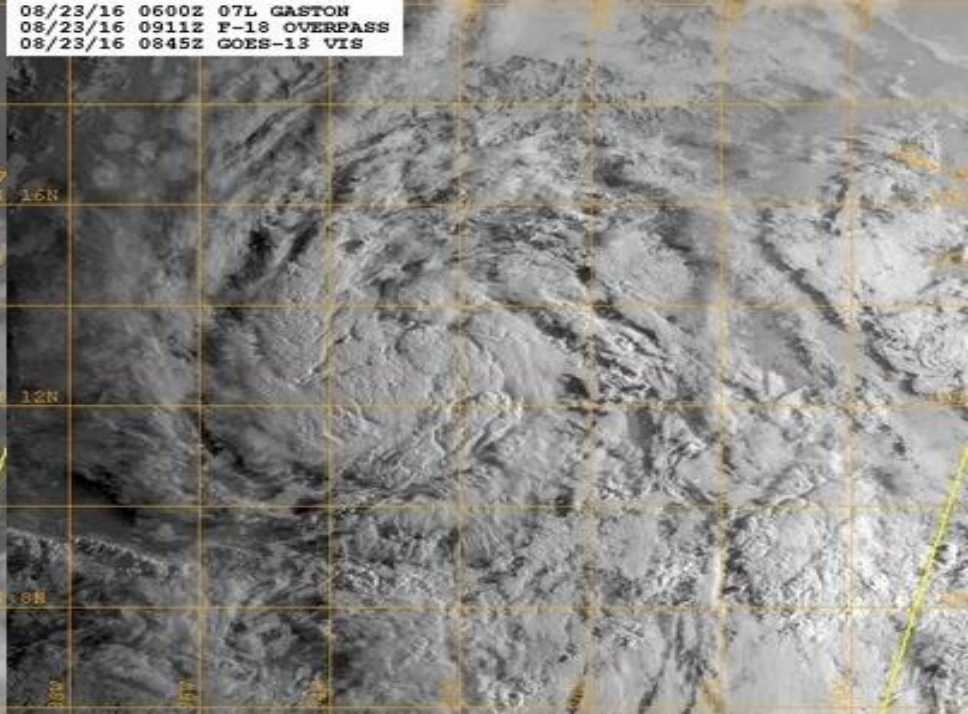
Satellite 1:09 PM UTC
9:09 AM EDT



08/23/16 0600Z 07L GASTON
08/23/16 0911Z F-18 OVERPASS
08/23/16 0845Z GOES-13 IR



08/23/16 0600Z 07L GASTON
08/23/16 0911Z F-18 OVERPASS
08/23/16 0845Z GOES-13 VIS

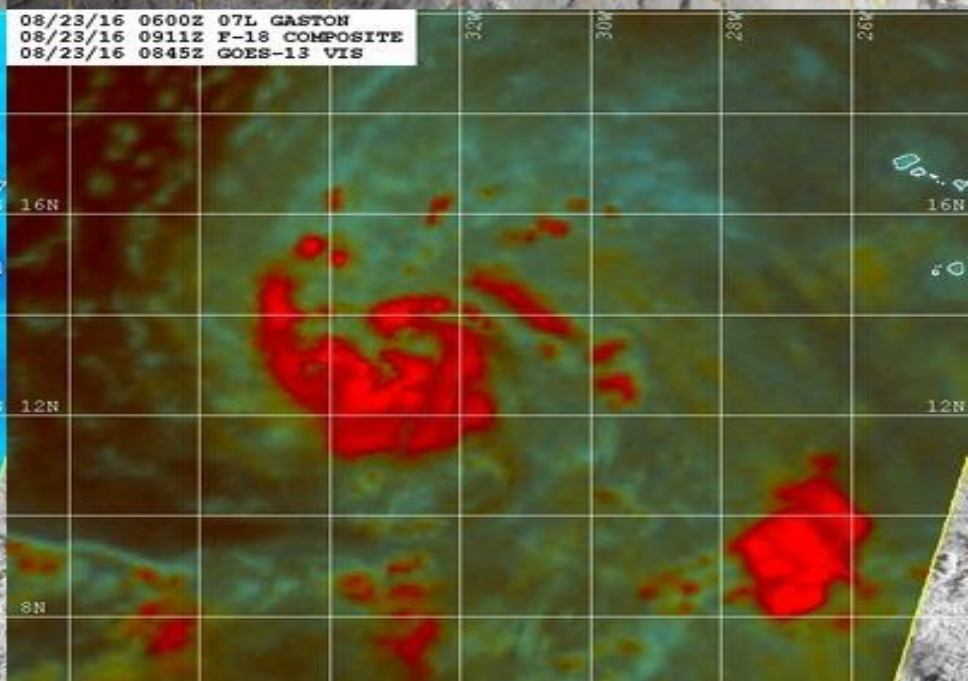


08/23/16 0600Z 07L GASTON
08/23/16 0911Z F-18 91H
08/23/16 0845Z GOES-13 VIS



T.S. Gaston

08/23/16 0600Z 07L GASTON
08/23/16 0911Z F-18 COMPOSITE
08/23/16 0845Z GOES-13 VIS

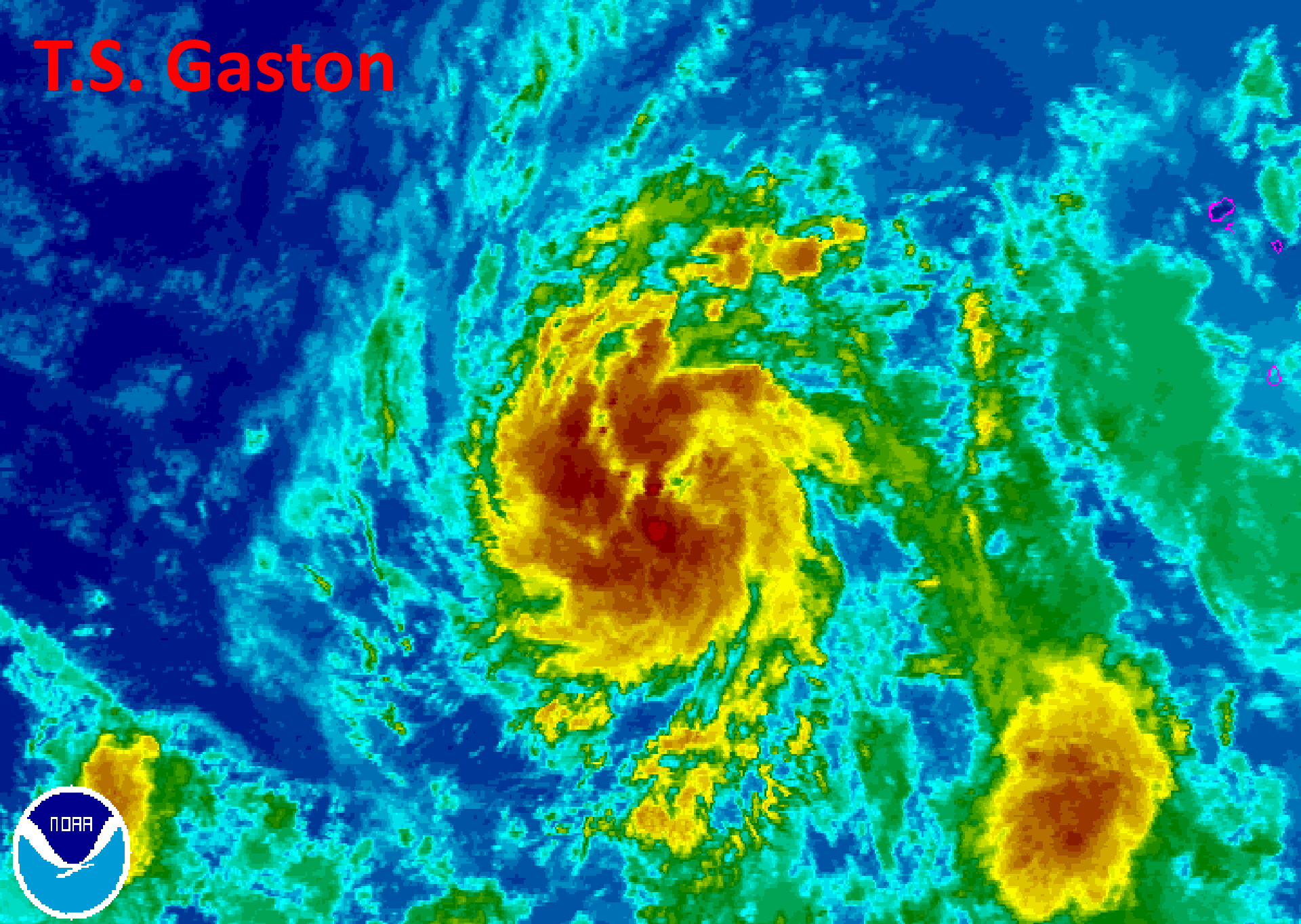


Naval Research Lab www.nrlmry.navy.mil/sat_products.html
85H Brightness Temp (Kelvin)



Naval Research Lab www.nrlmry.navy.mil/sat_products.html
Red=91PCT Green=91H Blue=91V

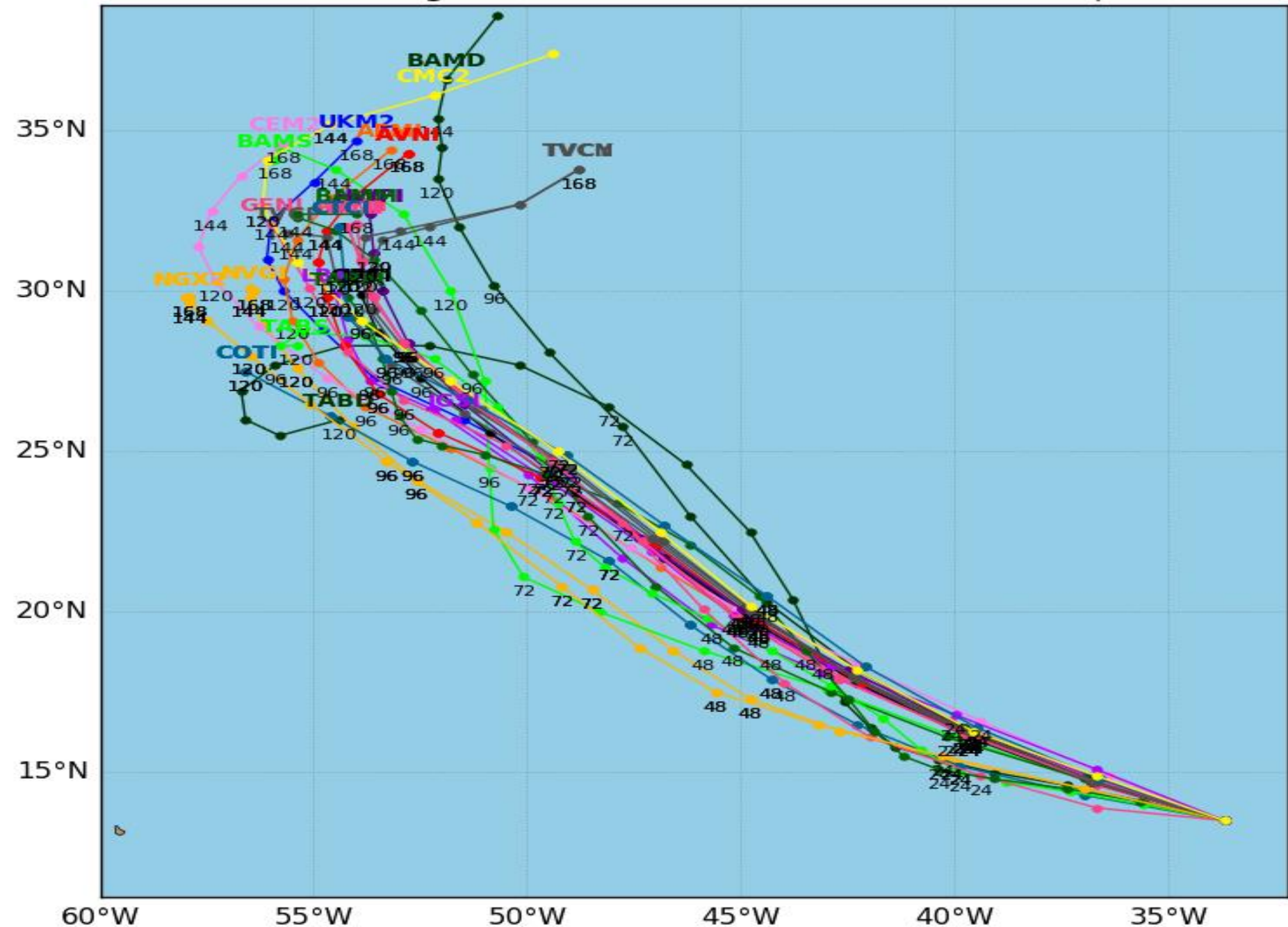
T.S. Gaston



Tropical Storm GASTON Model Track Guidance

Initialized at 12z Aug 23 2016

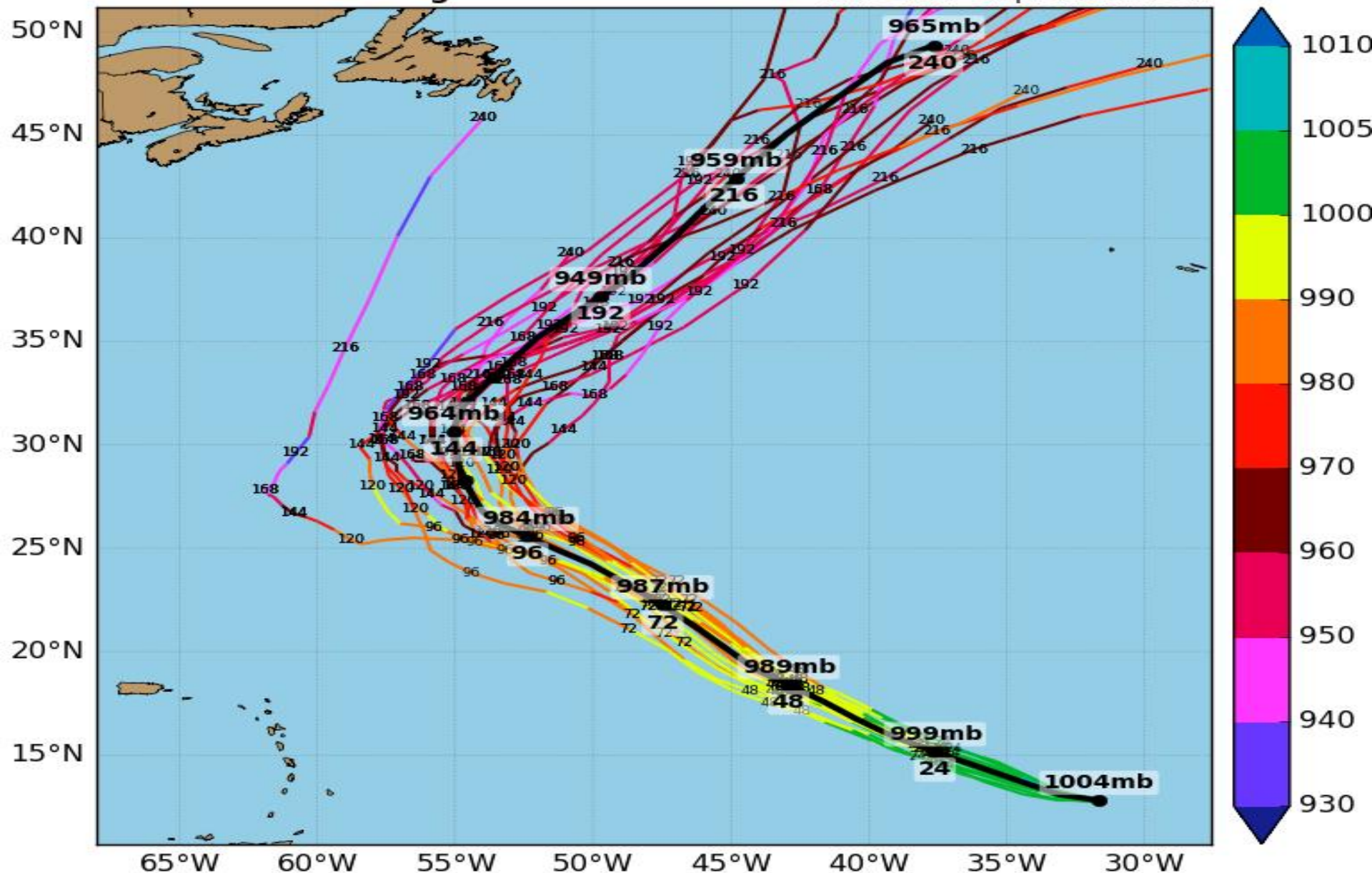
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Tropical Storm GASTON GEFS Tracks & Min. MSLP (mb)

Initialized at 06z Aug 23 2016

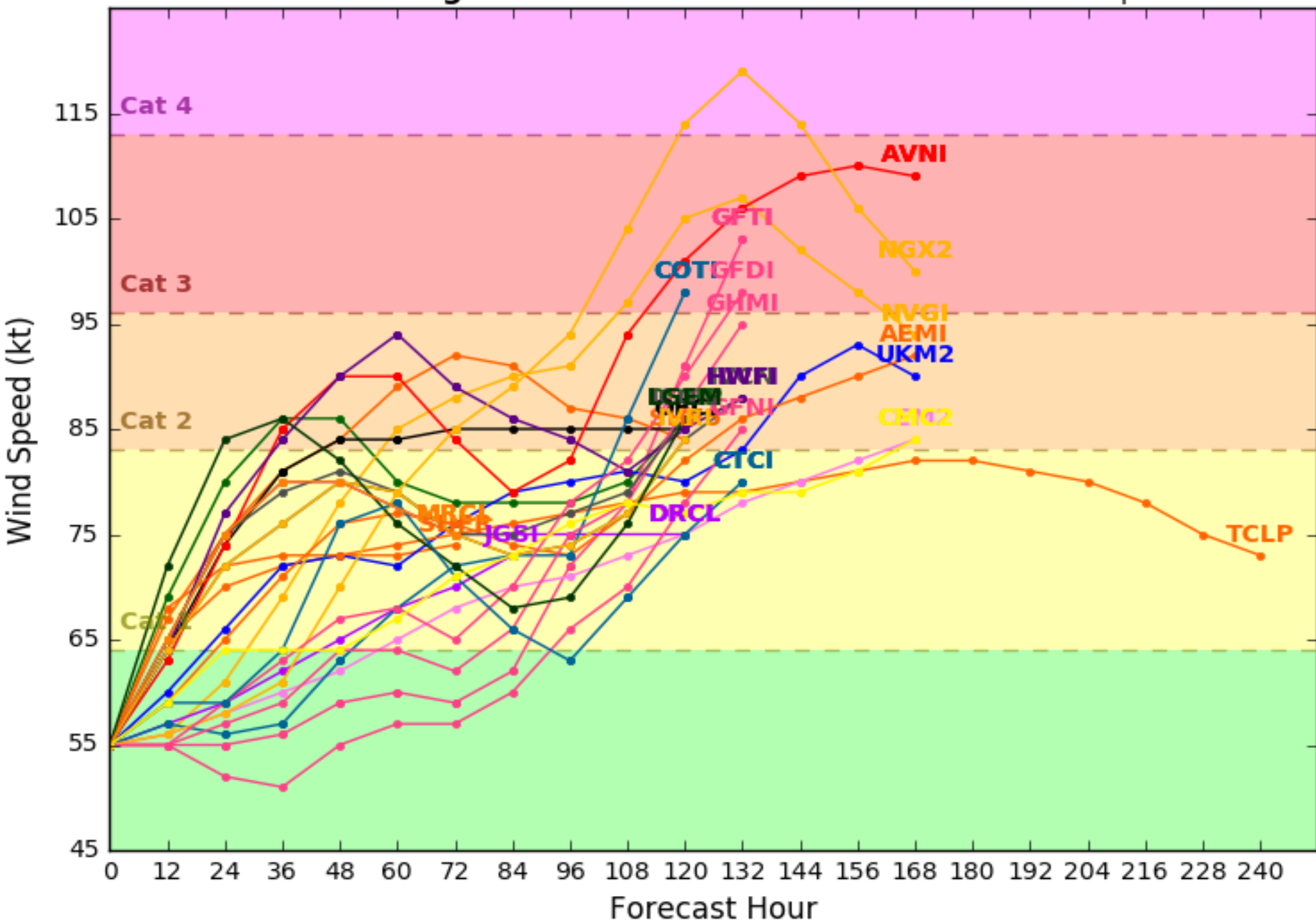
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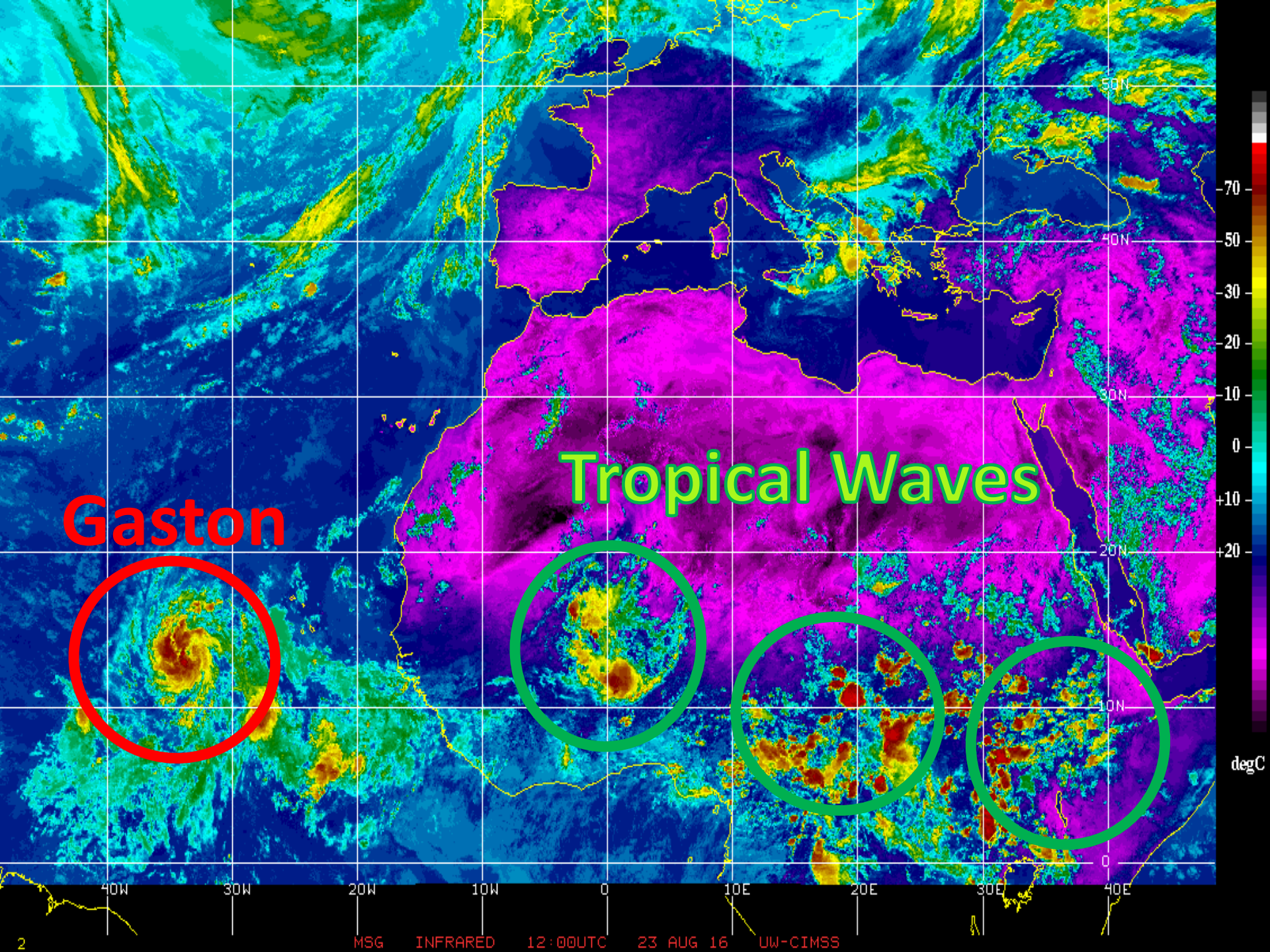


Tropical Storm GASTON Model Intensity Guidance

Initialized at 12z Aug 23 2016

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Invest 99L:

- A large area of disorganized showers and thunderstorms located a few hundred miles east of the Leeward Islands is moving west northwest at 15-20 mph.
- Environmental conditions are somewhat conducive for development of this system during the next couple of days, although dry air in the Caribbean should limit development.
- The system has a 50% (medium) chance of development within 48 hours, and a 60% (medium) chance of development through the next five days.
- Invest 99L is forecast to move into the southeastern and central Bahamas towards the end of this week, where environmental conditions are forecast to be more conducive for tropical cyclone development.
- An Air Force Reserve Hurricane Hunter aircraft is scheduled to investigate this disturbance later this morning.
- Forecast track models have come into slightly better agreement overnight on the possible track of Invest 99L. The system is expected to stall over the Bahamas for around 48 hours this weekend before a high pressure over the Southeastern U.S. forces the system towards the west on Sunday to Monday. But, models are in disagreement as to how far north or south the system will be in relation to Florida when it is forced to the west.
- 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.
- Regardless of tropical development, periods of heavy rain are possible across Central and South Florida at the beginning of next week.
- We will continue to monitor the progress of this system for the possibility of tropical development. We will have a better idea of where this system is headed and how strong it might be once it passes through the Caribbean into the southeastern Bahamas in 2-3 days.
- At this current time, Invest 99L poses a *potential threat, not a likely threat*, to Florida.

Tropical Depression Fiona:

- Tropical Depression Fiona is located 525 miles north of the Leeward Islands with maximum sustained winds of 35 mph; Fiona is moving to the west northwest at 13 mph.
- Gradual weakening of Fiona into a remnant low is expected over the next couple of days.
- Tropical Storm Fiona poses no threat to land or the United States. Models have the system turning towards the northwest and slowing down as it dissipates.

Tropical Storm Gaston:

- Tropical Storm Gaston is currently located 545 miles west of the Cabo Verde Islands with maximum sustained winds at 50 mph. Gaston is moving west northwest at 20 mph.
- Computer models are in good agreement that Gaston will continue moving towards the west, then turn towards the northwest and continue moving into the central Atlantic away from any land areas.
- Models are also in agreement that Invest 90L is likely to intensify into a hurricane due to environmental conditions over the central Atlantic Ocean becoming favorable for tropical cyclone intensification.

Florida Outlook:

- At this point it is too early to tell if Invest 99L will produce any impacts in Florida or the U.S. There are many factors that make this a very complicated forecast, and conditions are in flux and likely to change going forward.
- T.D. Fiona and T.S. Gaston do not pose a threat to Florida or U.S.

Another briefing packet will be issued on Wednesday morning. 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