



# **TROPICAL UPDATE**

**8 AM EDT**

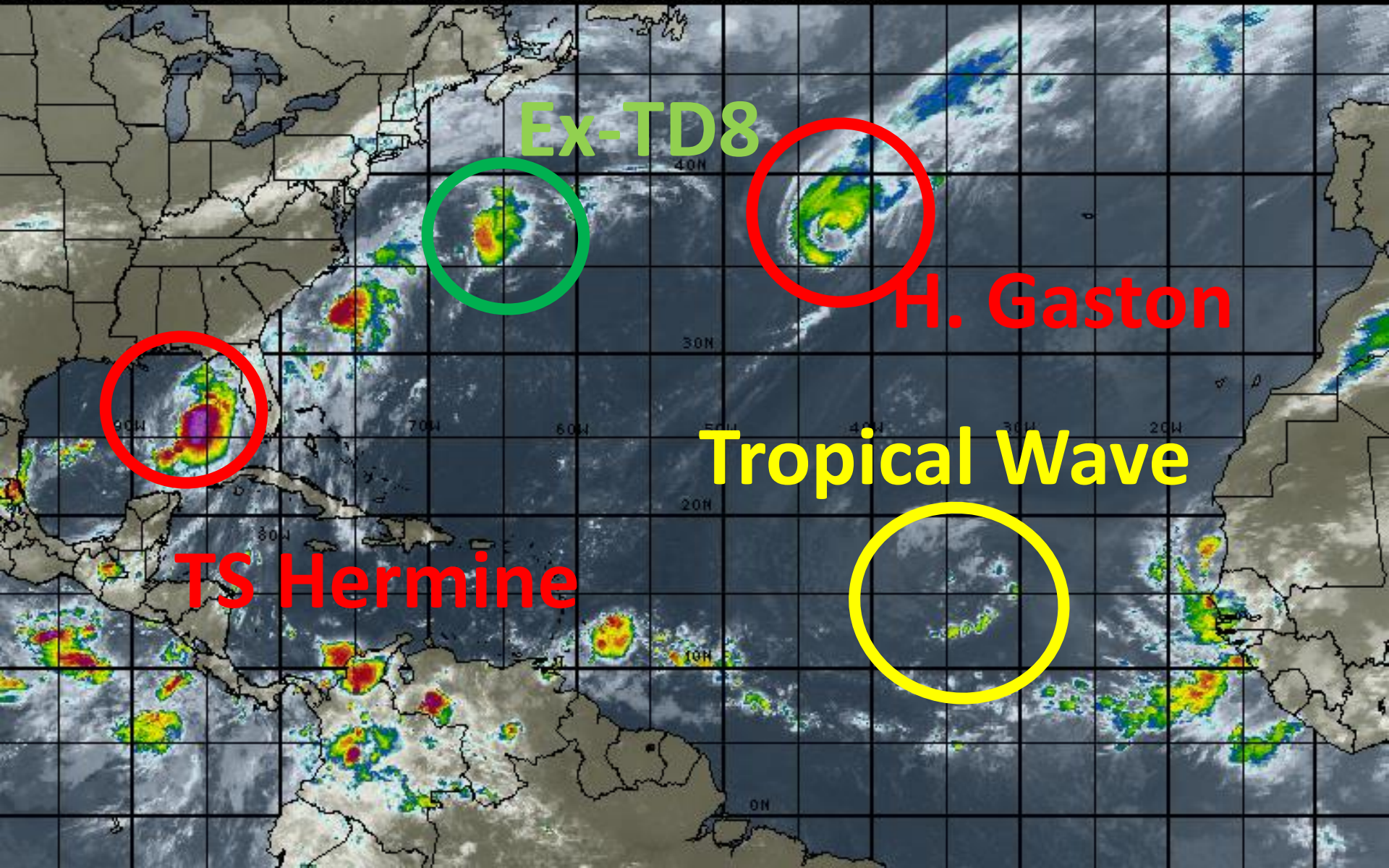
**Thursday, September 1, 2016**

**Hurricane Gaston, Tropical Storm Hermine and  
Invest 92L (20%)**

**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

09:00 01-SEP-2016 GMT ©Copyright MSI Corporation <http://www.usi.com>



# Tropical Storm Hermine

4AM CDT Thu Sep 01 2016

Position 26.4 N 86.6 W

Maximum Winds 60 mph

Gusts 70 mph

Movement NNE at 11 mph

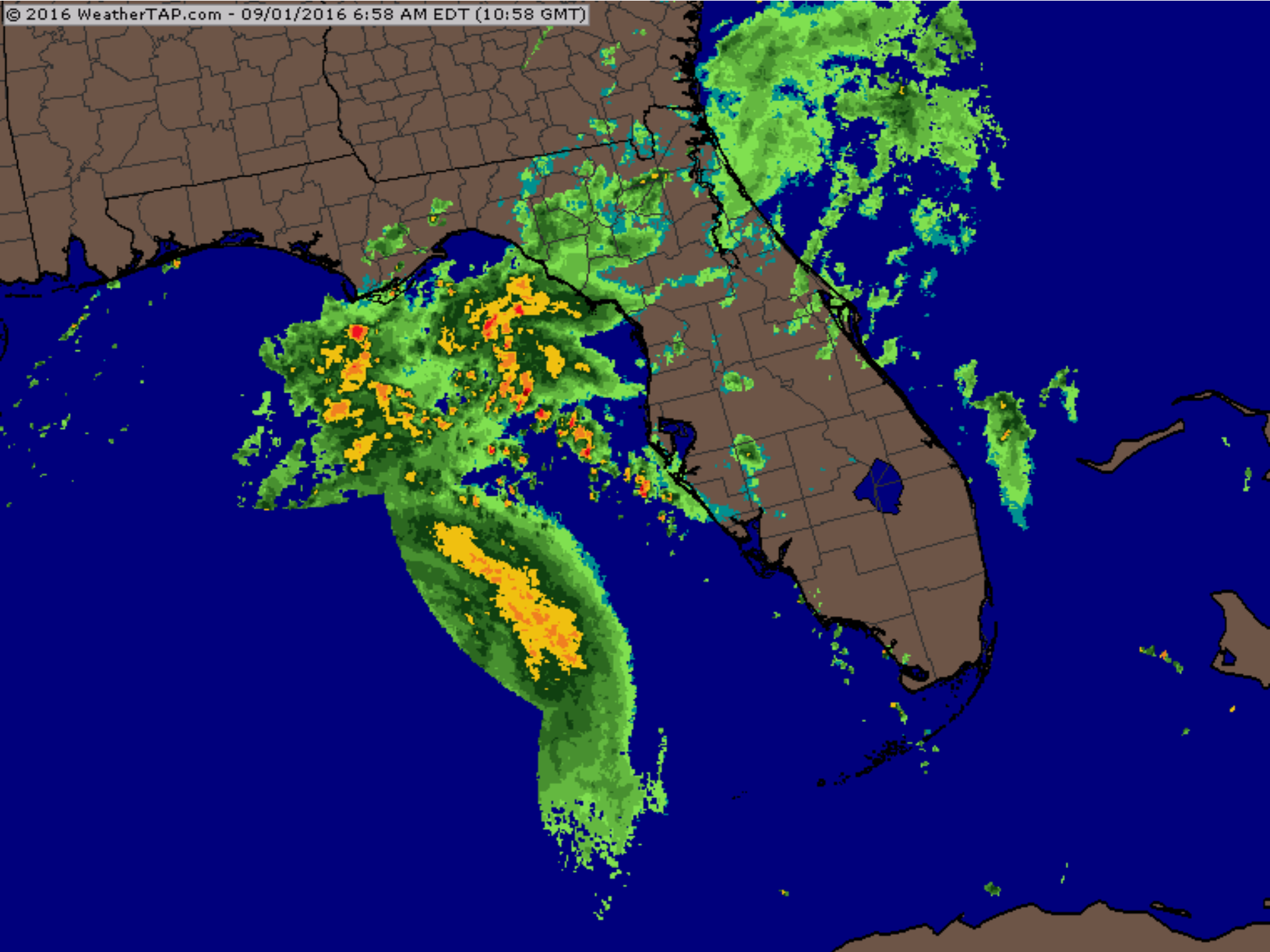
Minimum Pressure 996 mb (29.40 inches)

Blue Marble basemap imagery courtesy NASA

Satellite 10:51 AM UTC

5:51 AM CDT

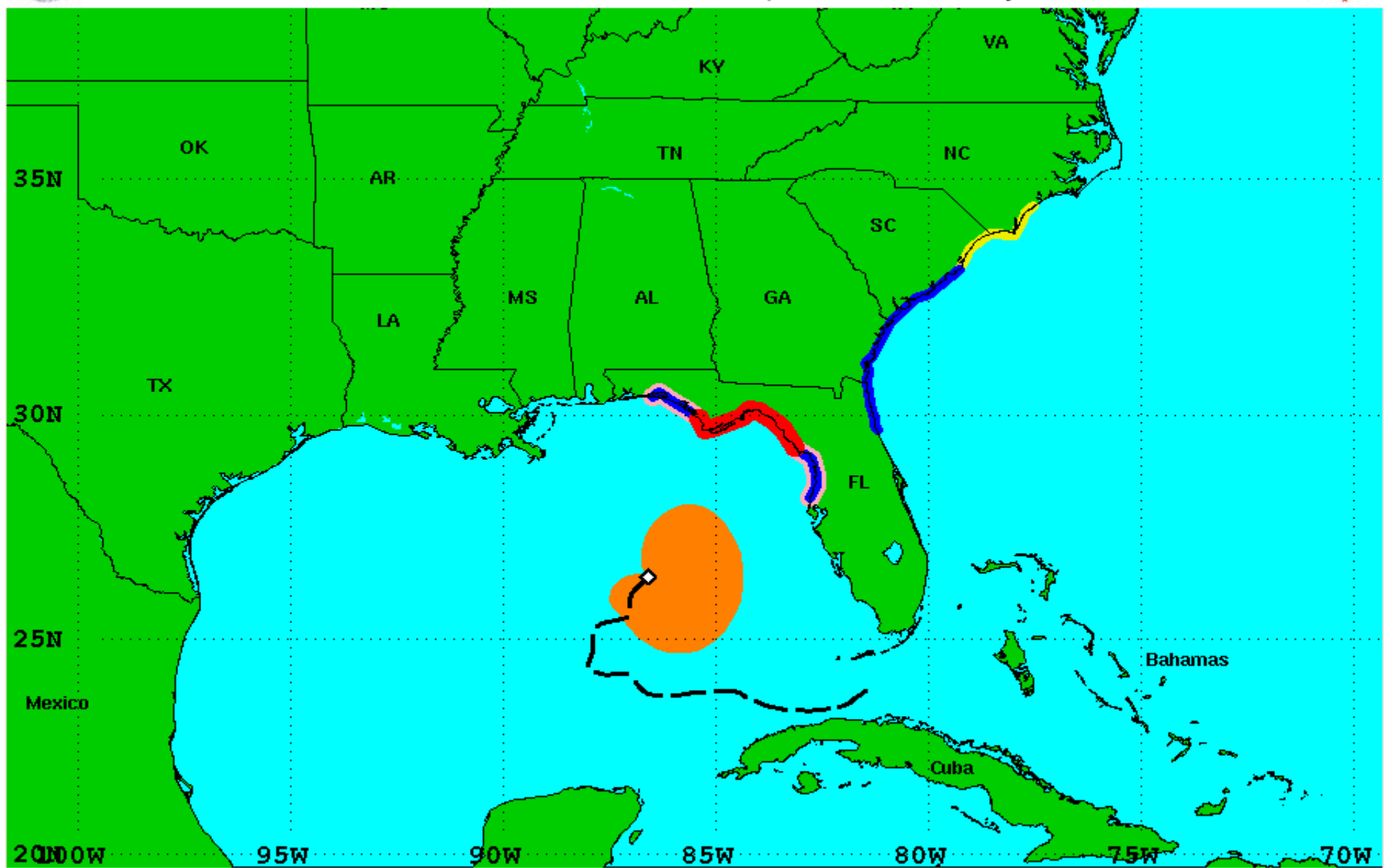






# Surface Wind Field of Tropical Storm Hermine

Sustained Winds as of 400 AM CDT Thu Sep 1, 2016    Advisory Number 15



**Watches:**

- Hurricane Watch
- Tropical Storm Watch

**Warnings:**

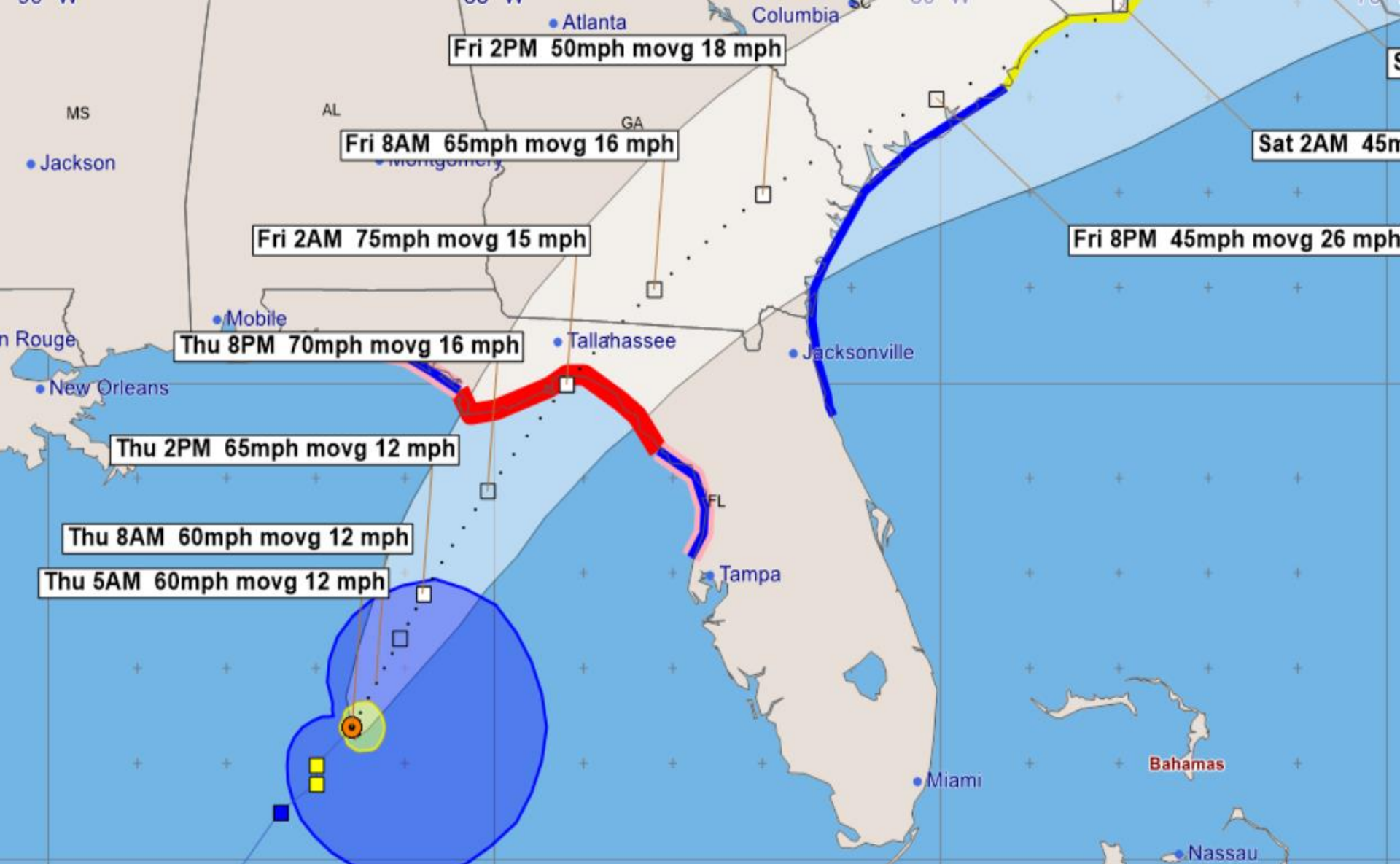
- Hurricane Warning
- Tropical Storm Warning

**Sustained Winds:**

- Hurricane Force
- Tropical Storm Force

**Position:**

- Center as of 400 AM CDT
- Past Track



# **Tropical Storm Hermine - Thursday, September 1, 2016 5 AM EDT Advisory #15**

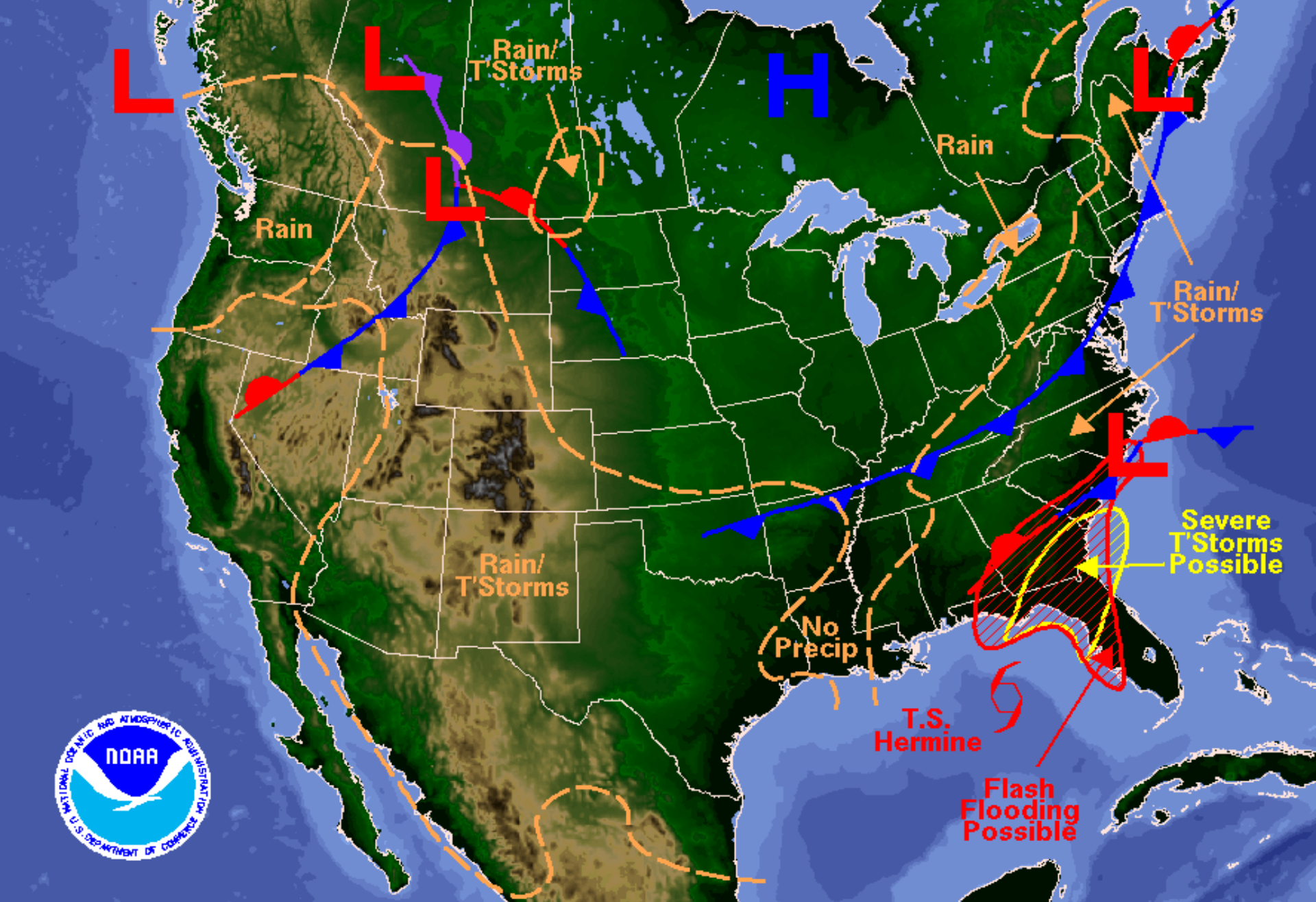
Center Location: 26.4 N 86.6 W Maximum Sustained Winds: 60 mph Movement: 12 mph NNE

forecast positions Potential Track Area: day 1-3 day 4-5 Surface Wind Field: at current location

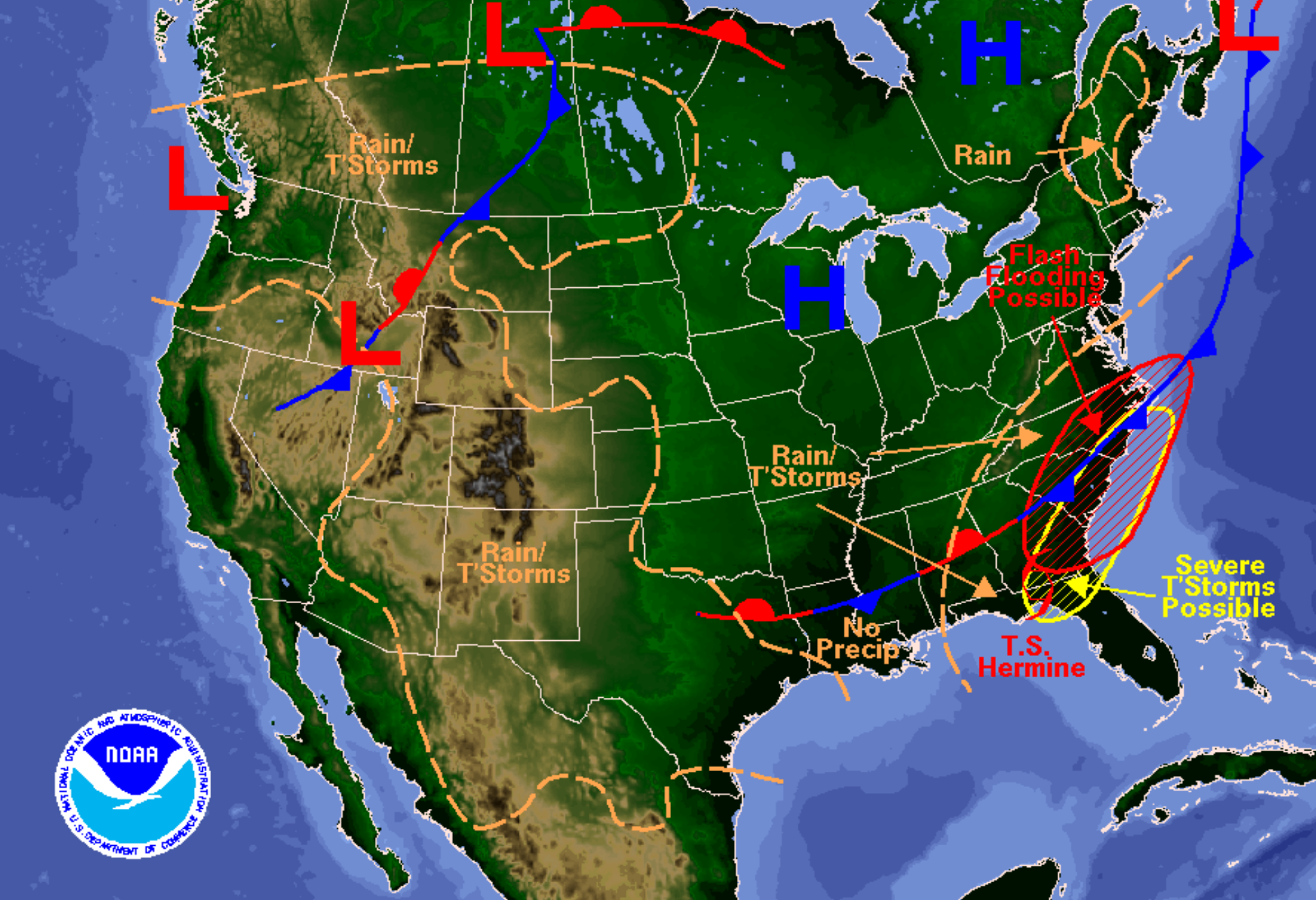
Watches: hurricane tropical storm

Warnings: hurricane tropical storm

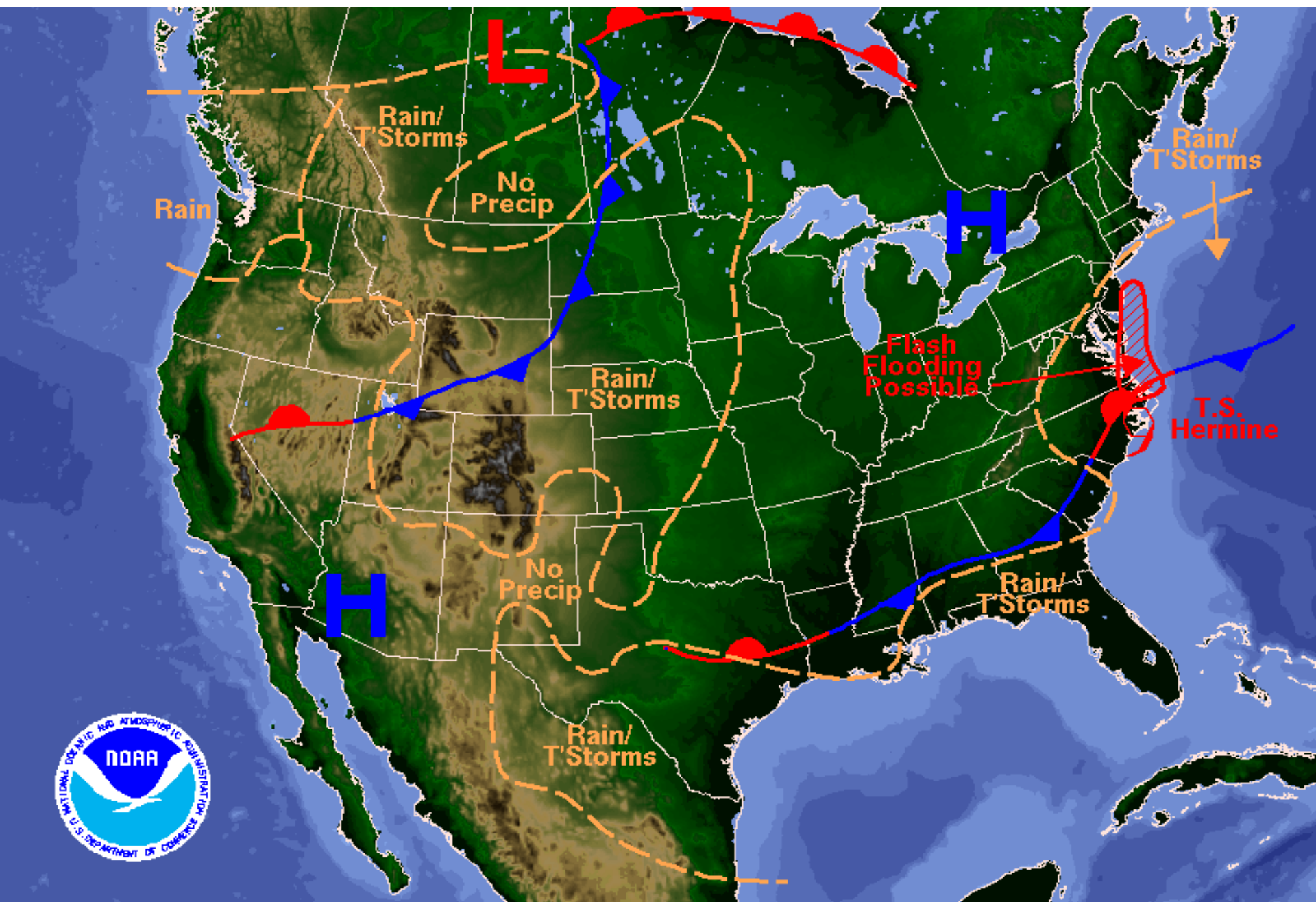
Sustained Wind Speeds: tropical storm ≥ 34kt/39mph strong tropical storm ≥ 50kt/58mph hurricane ≥ 64kt/74mph



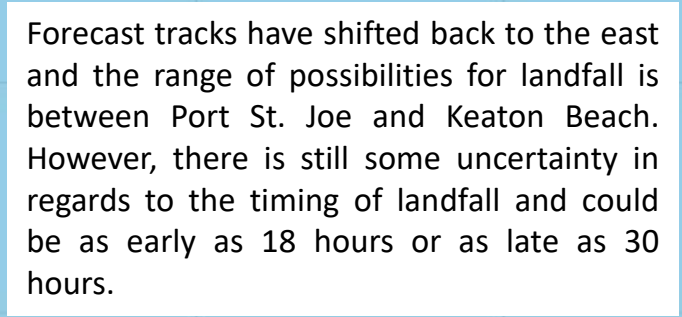
Weather Forecast for Thu, Sep 01, 2016, issued 4:32 AM EDT  
DOC/NOAA/NWS/NCEP/Weather Prediction Center  
Prepared by McCreynolds based on WPC, SPC and NHC forecasts



Weather Forecast for Fri, Sep 02, 2016, issued 4:38 AM EDT Thu, Sep 01, 2016  
DOC/NOAA/NWS/NCEP/Weather Prediction Center  
Prepared by McCreynolds based on WPC, SPC and NHC forecasts

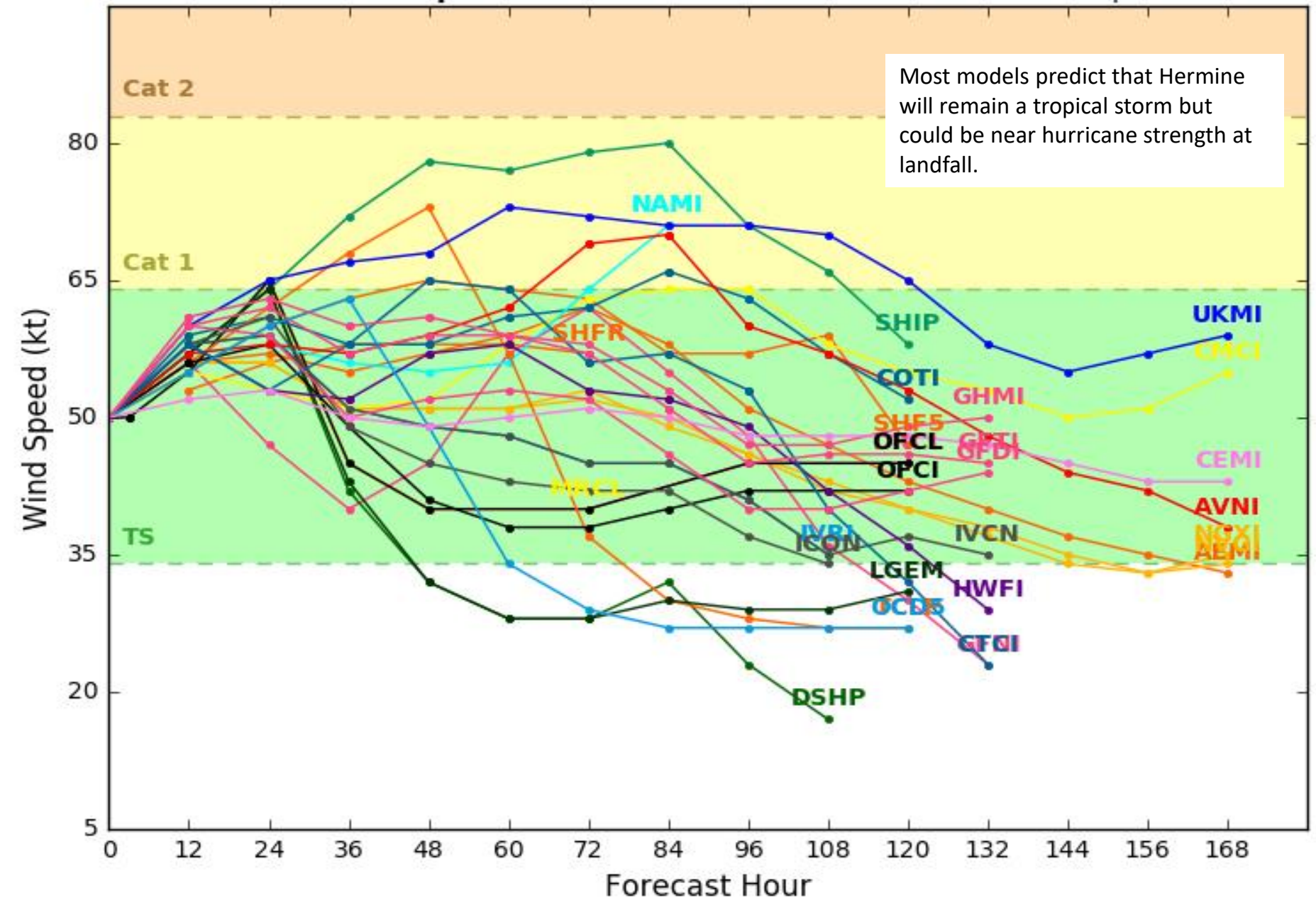


Weather Forecast for Sat, Sep 03, 2016, issued 4:42 AM EDT Thu, Sep 01, 2016  
DOC/NOAA/NWS/NCEP/Weather Prediction Center  
Prepared by McCreynolds based on WPC, SPC and NHC forecasts

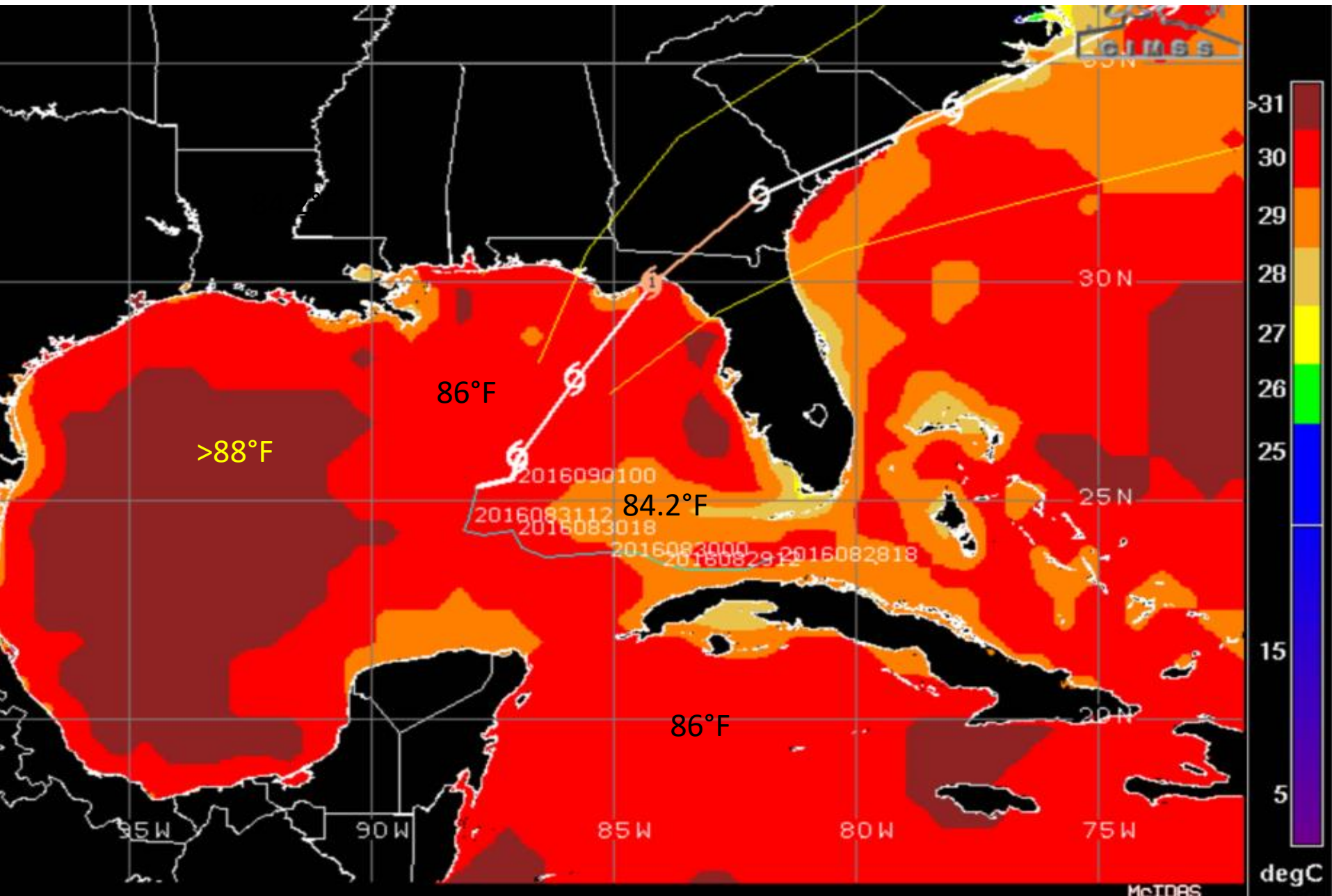
Levi Cowan - [tropicaltidbits.com](http://tropicaltidbits.com)

**Initialized at 06z Sep 01 2016**

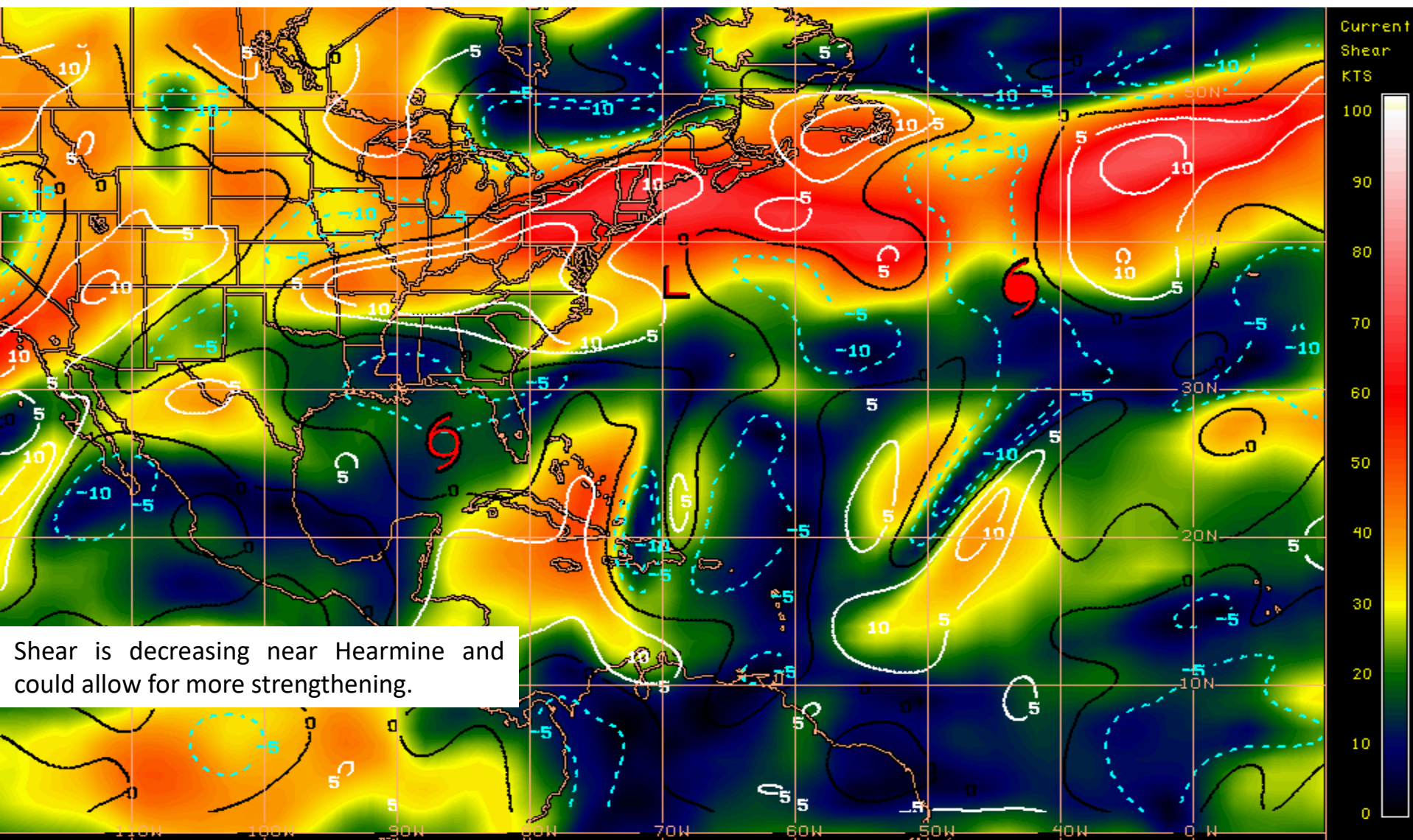
Most models predict that Hermine will remain a tropical storm but could be near hurricane strength at landfall.



# Sea Surface Temperatures Near TS Hermine

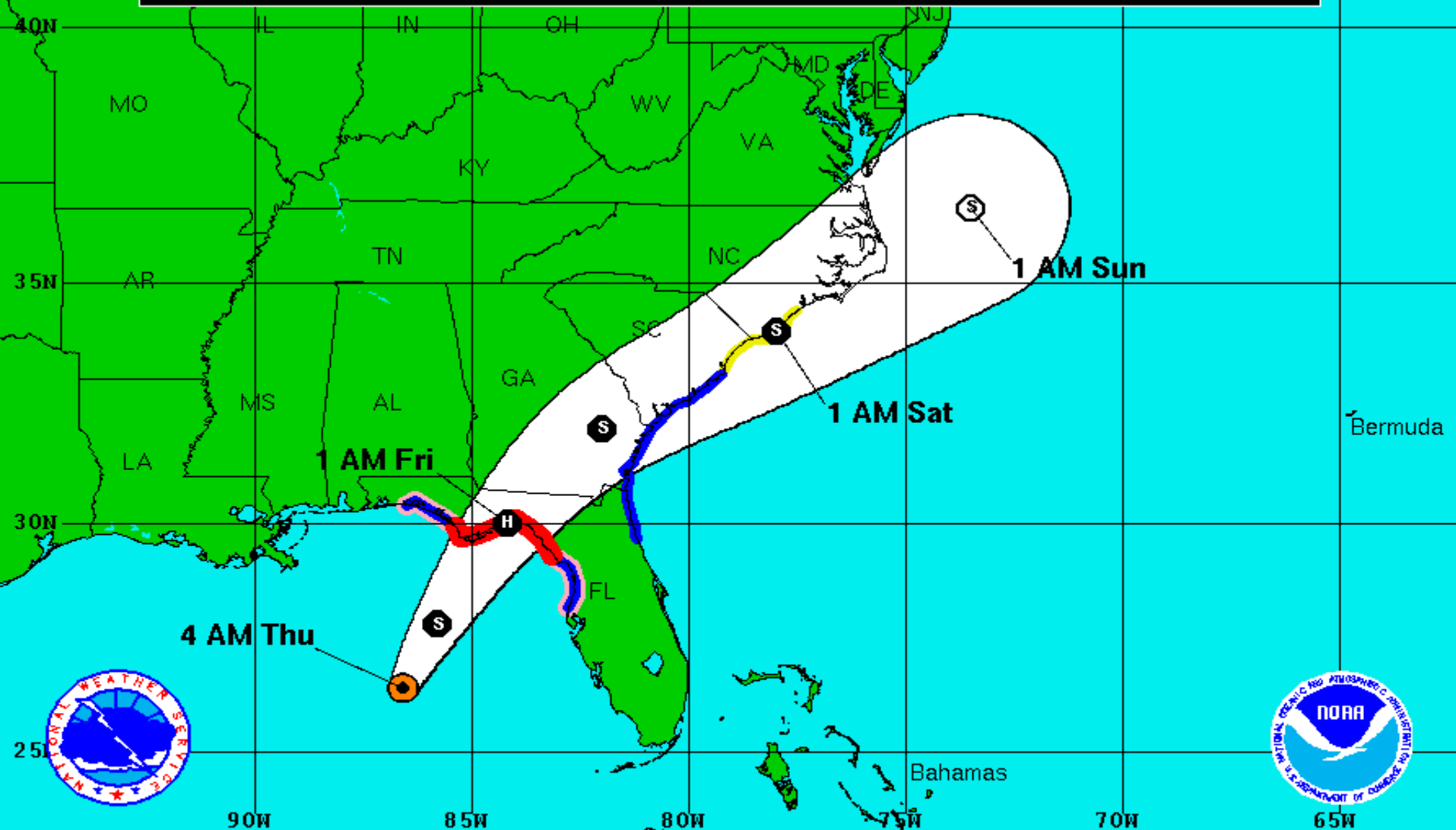


# Current Wind Shear (shaded) and Shear Tendency (contours)






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

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 Storm Hermine**  
 Thursday September 1, 2016  
 4 AM CDT Advisory 15  
 NWS National Hurricane Center

**Current Information:**   
 Center Location 26.4 N 86.6 W  
 Max Sustained Wind 60 mph  
 Movement NNE at 12 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

**Watches:**

 Hurricane  Trop.Storm

**Warnings:**

 Hurricane  Trop.Storm



TROPICAL STORM HERMINE

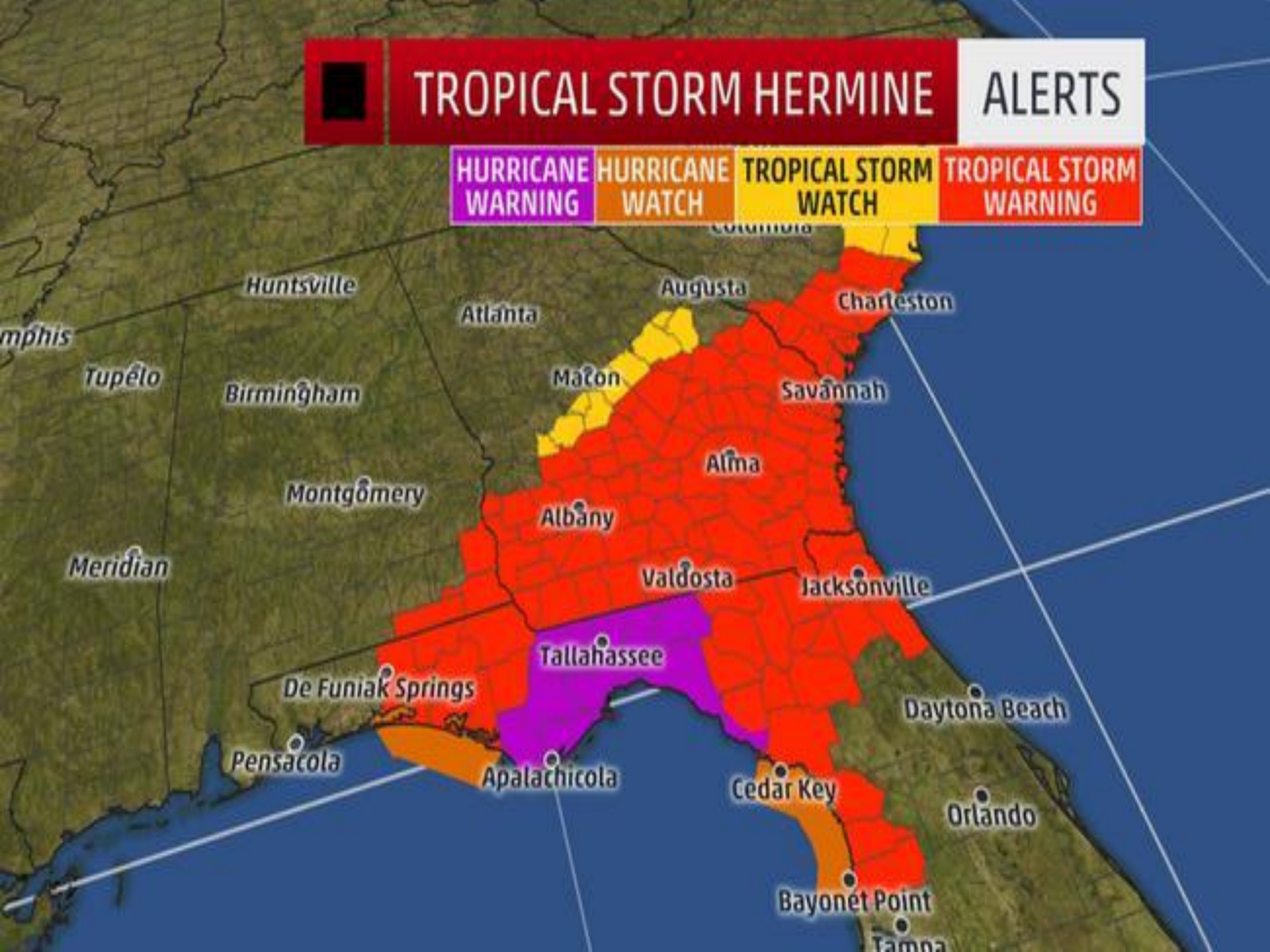
ALERTS

HURRICANE WARNING

HURRICANE WATCH

TROPICAL STORM WATCH

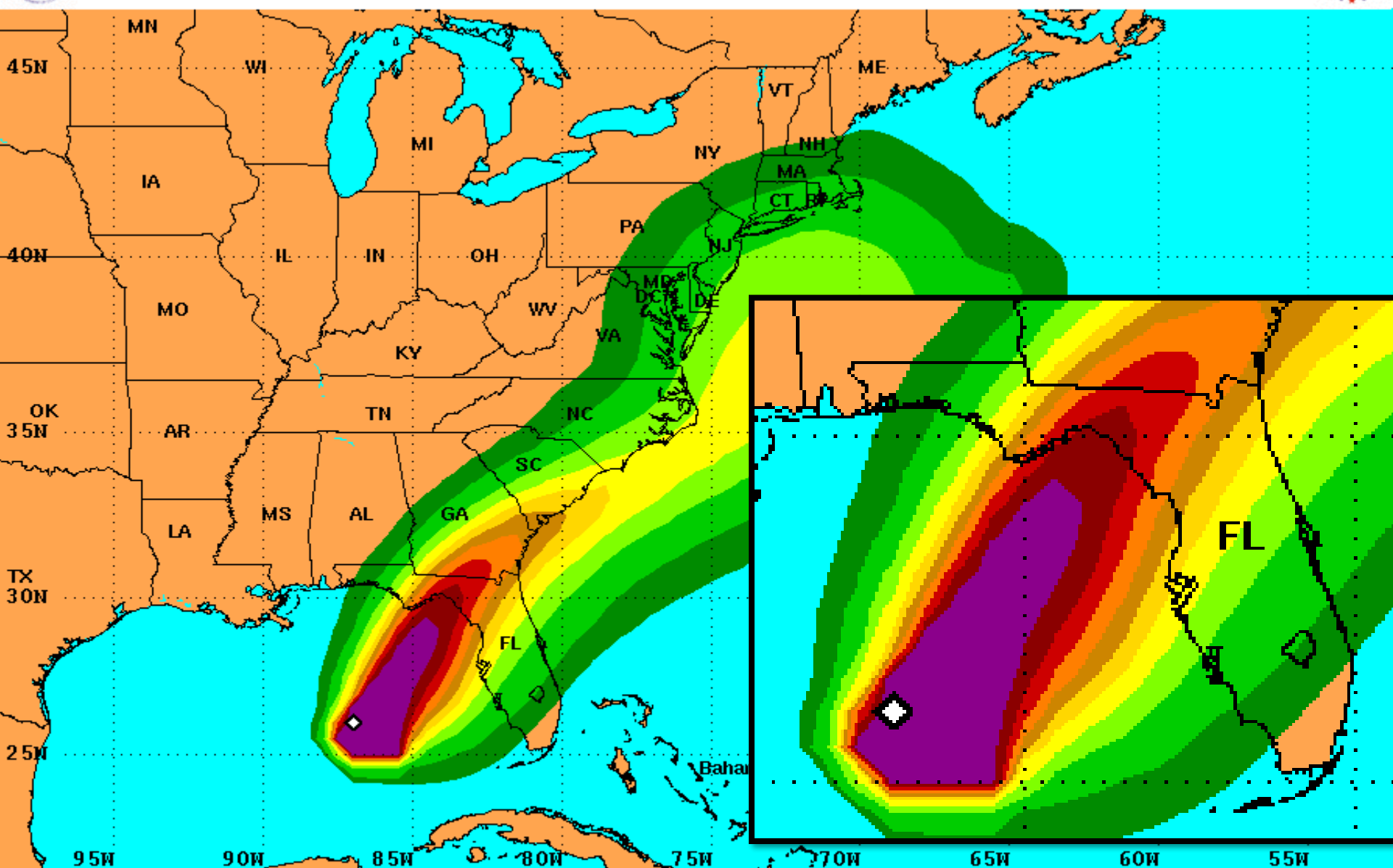
TROPICAL STORM WARNING





# Tropical Storm Force Wind Speed Probabilities

For the 120 hours (5 days) from 2 AM EDT Thu Sep 1 to 2 AM EDT Tue Sep 6



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

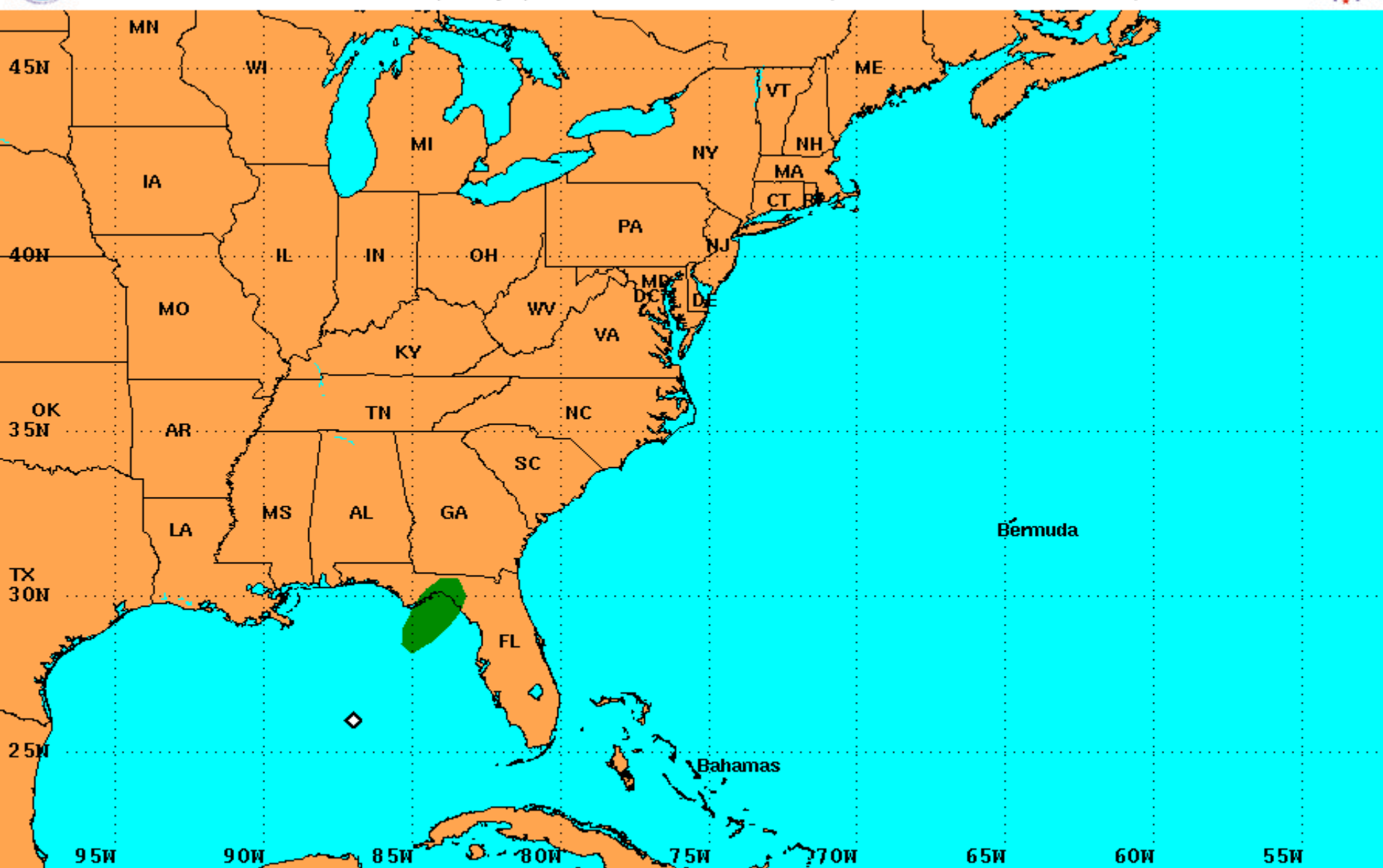
◇ indicates TROPICAL STORM HERMINE center location at 2 AM EDT Thu Sep 1 2016 (Forecast/Advisory #15)





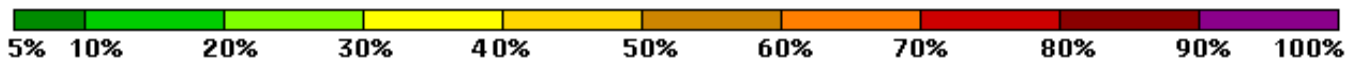
## Hurricane Force Wind Speed Probabilities

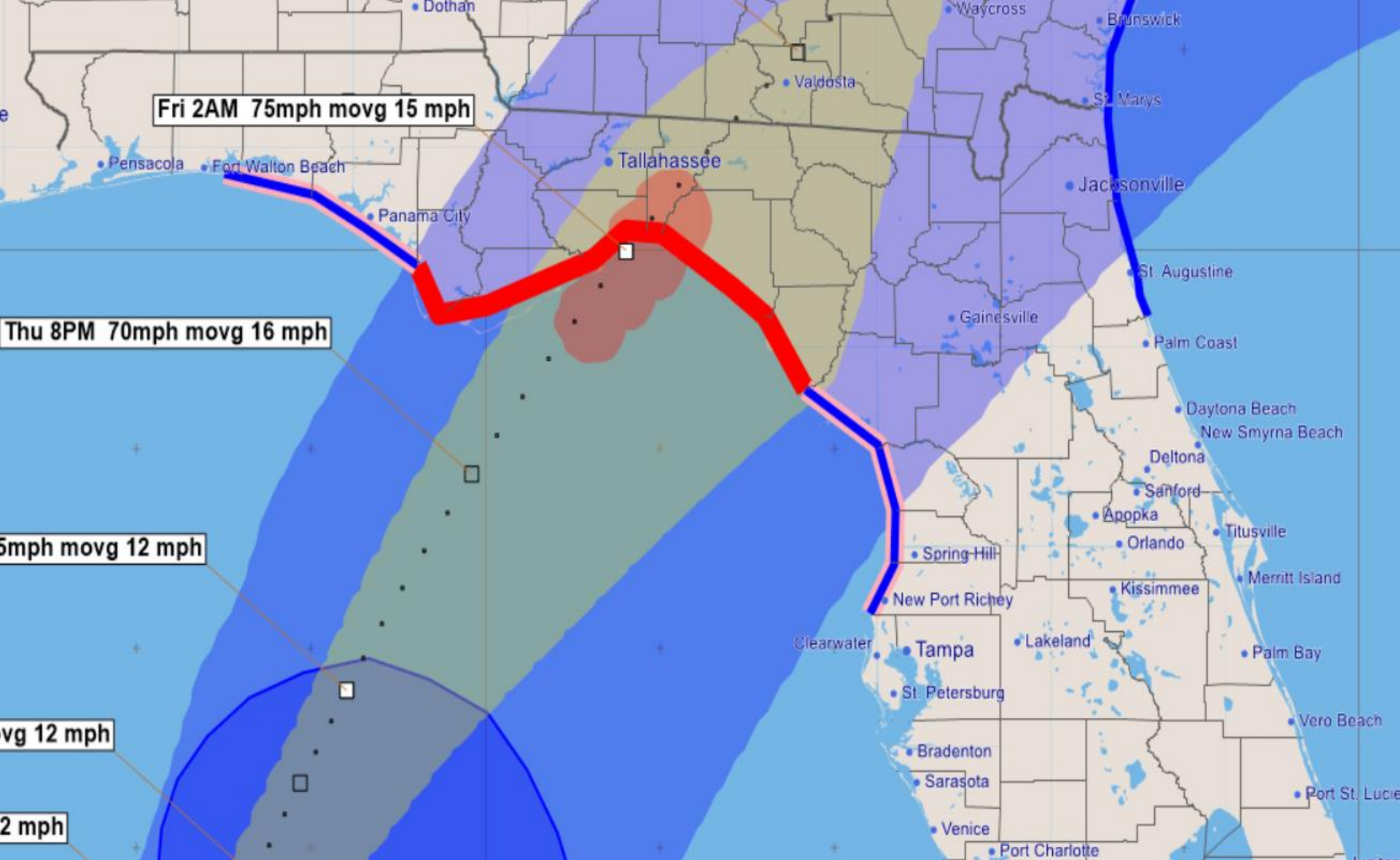
For the 120 hours (5 days) from 2 AM EDT Thu Sep 1 to 2 AM EDT Tue Sep 6



Probability of hurricane force surface winds (1-minute average  $\geq 74$  mph) from all tropical cyclones

◆ indicates TROPICAL STORM HERMINE center location at 2 AM EDT Thu Sep 1 2016 (Forecast/Advisory #15)





# **Tropical Storm Hermine - Thursday, September 1, 2016 5 AM EDT Advisory #15**

Center Location: 26.4 N 86.6 W Maximum Sustained Winds: 60 mph Movement: 12 mph NNE

forecast positions Surface Wind Field: at current location along 3-day forecast track

Watches: hurricane tropical storm Warnings: hurricane tropical storm

Sustained Wind Speeds: tropical storm >= 34kt/39mph strong tropical storm >= 50kt/58mph hurricane >= 64kt/74mph

Wind Timing for Local Areas Only (31 items) (31items)

Meaning Of Report

This list represents wind arrival and departure details for select locations that are currently forecast to have tropical storm or greater winds during the next 72 hours.

Cautionary Note:

This information is quite specific and is subject to large forecast errors. You should NOT use these wind forecasts until just before landfall, and then only as a general indication of the expected wind patterns.

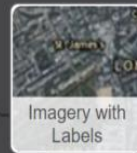
Location	34kt(39mph) ▲	50kt(58mph)	64kt(74mph)	64ktEND(dur)	50ktEND(dur)	34ktEND(dur)	Peak Wind
FL Gulf	09/01 17E					09/02 03E [10]	44kt (51mph) 09/01 22E
FL Franklin	09/01 17E	09/01 23E	09/02 01E	09/02 02E [01]	09/02 02E [03]	09/02 05E [12]	64kt (74mph) 09/02 01E
FL Wakulla	09/01 18E	09/01 23E	09/02 01E	09/02 04E [03]	09/02 04E [05]	09/02 07E [13]	65kt (75mph) 09/02 02E
FL Liberty	09/01 18E	09/01 23E			09/02 01E [02]	09/02 05E [11]	54kt (62mph) 09/02 00E
FL Taylor	09/01 19E	09/01 23E	09/02 02E	09/02 04E [02]	09/02 07E [08]	09/02 09E [14]	64kt (74mph) 09/02 02E
FL Leon	09/01 19E	09/02 00E	09/02 03E	09/02 04E [01]	09/02 05E [05]	09/02 07E [12]	64kt (74mph) 09/02 02E
FL Jefferson	09/01 19E	09/02 00E	09/02 02E	09/02 04E [02]	09/02 06E [06]	09/02 09E [14]	65kt (75mph) 09/02 03E
FL Levy	09/01 20E	09/02 02E			09/02 04E [02]	09/02 08E [12]	51kt (59mph) 09/02 02E
FL Dixie	09/01 20E	09/02 00E			09/02 06E [06]	09/02 10E [14]	56kt (64mph) 09/02 02E
FL Calhoun	09/01 20E					09/02 01E [05]	37kt (43mph) 09/01 22E
FL Gadsden	09/01 20E					09/02 06E [10]	48kt (55mph) 09/02 02E
FL Bay	09/01 20E					09/01 22E [02]	35kt (40mph) 09/01 20E
FL Madison	09/01 20E	09/02 00E	09/02 03E	09/02 04E [01]	09/02 08E [08]	09/02 10E [14]	64kt (74mph) 09/02 03E
FL Lafayette	09/01 20E	09/02 01E			09/02 07E [06]	09/02 10E [14]	57kt (66mph) 09/02 03E
FL Gilchrist	09/01 21E	09/02 02E			09/02 05E [03]	09/02 10E [13]	51kt (59mph) 09/02 03E
FL Suwannee	09/01 21E	09/02 02E			09/02 08E [06]	09/02 11E [14]	55kt (63mph) 09/02 03E
FL Jackson	09/01 22E					09/02 02E [04]	35kt (40mph) 09/01 23E
FL Hamilton	09/01 22E	09/02 02E			09/02 09E [07]	09/02 12E [14]	56kt (64mph) 09/02 06E
FL Citrus	09/01 22E					09/02 05E [07]	41kt (47mph) 09/02 02E
FL Alachua	09/01 23E					09/02 10E [11]	46kt (53mph) 09/02 04E
FL Columbia	09/01 23E	09/02 06E			09/02 09E [03]	09/02 12E [13]	50kt (58mph) 09/02 06E
FL Marion	09/02 00E					09/02 08E [08]	40kt (46mph) 09/02 03E
FL Union	09/02 00E					09/02 11E [11]	46kt (53mph) 09/02 04E
FL Baker	09/02 01E					09/02 13E [12]	48kt (55mph) 09/02 08E
FL Hemando	09/02 01E					09/02 02E [01]	35kt (40mph) 09/02 01E
FL Bradford	09/02 01E					09/02 12E [11]	44kt (51mph) 09/02 05E
FL Duval	09/02 03E					09/02 14E [11]	42kt (48mph) 09/02 07E
FL Clay	09/02 03E					09/02 12E [09]	42kt (48mph) 09/02 07E
FL Putnam	09/02 03E					09/02 10E [07]	38kt (44mph) 09/02 04E
FL Nassau	09/02 03E					09/02 14E [11]	45kt (52mph) 09/02 10E
FL St Johns	09/02 05E					09/02 12E [07]	38kt (44mph) 09/02 08E



A storm surge warning indicates there is a danger of life-threatening inundation from rising water moving inland from the shoreline somewhere within the specified area, generally within 36 hours.

The water could reach the following heights above ground if the peak surge occurs at the time of high tide...

- Destin to Indian Pass...1 to 3 feet
- Indian Pass to Chassahowitzka...4 to 7 feet
- Chassahowitzka to Aripeka...2 to 4 feet
- Aripeka to Bonita Beach...including Tampa Bay...1 to 3 feet
- Florida-Georgia line to Cape Fear...1 to 3 feet



HERE, DeLorme, NGA, USGS

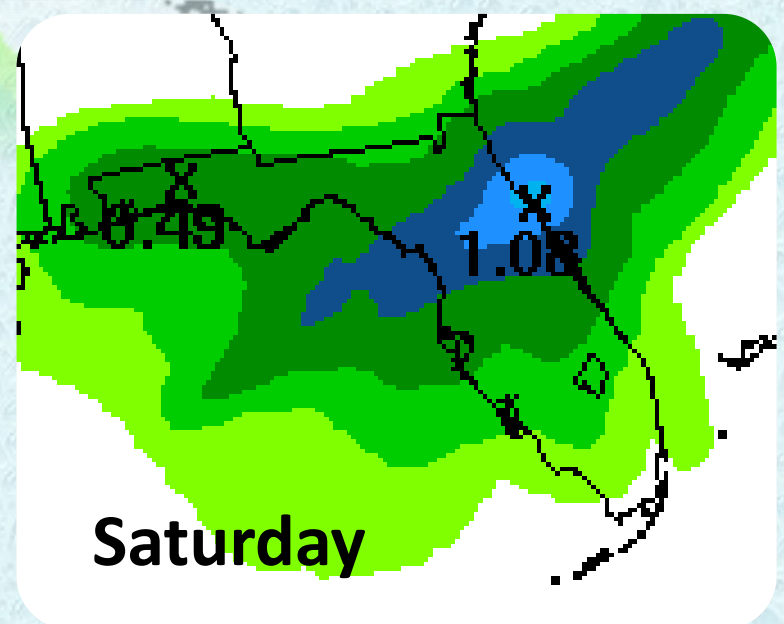
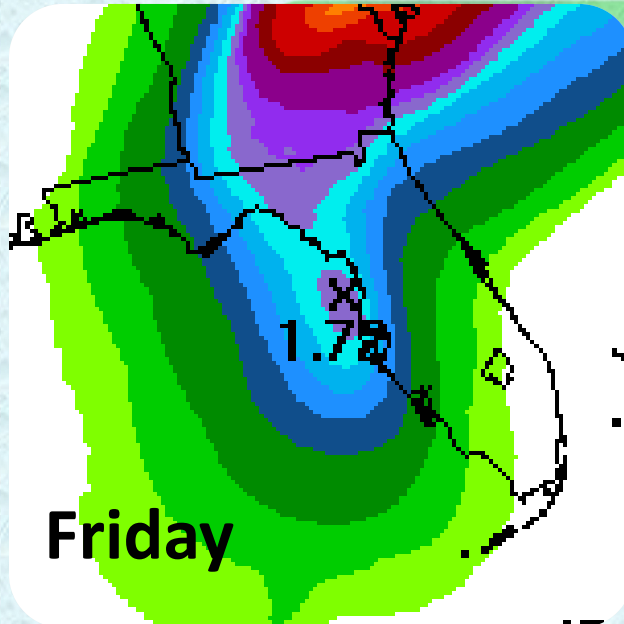
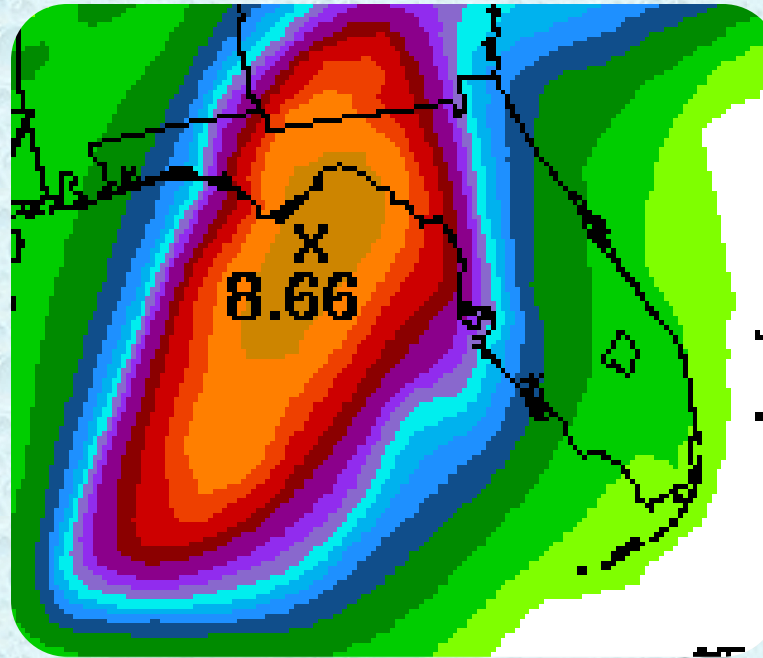
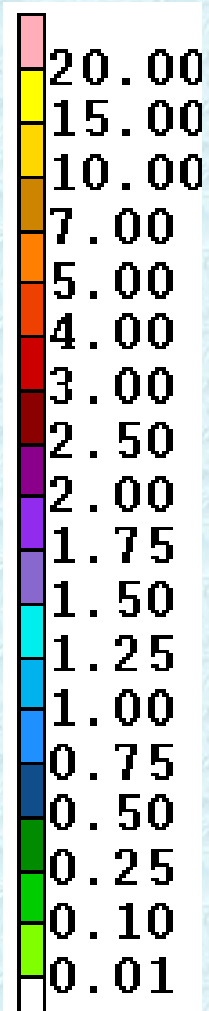
Holmossassa Springs  
Spring Hill

Esri, HERE, DeLorme, NGA, USGS

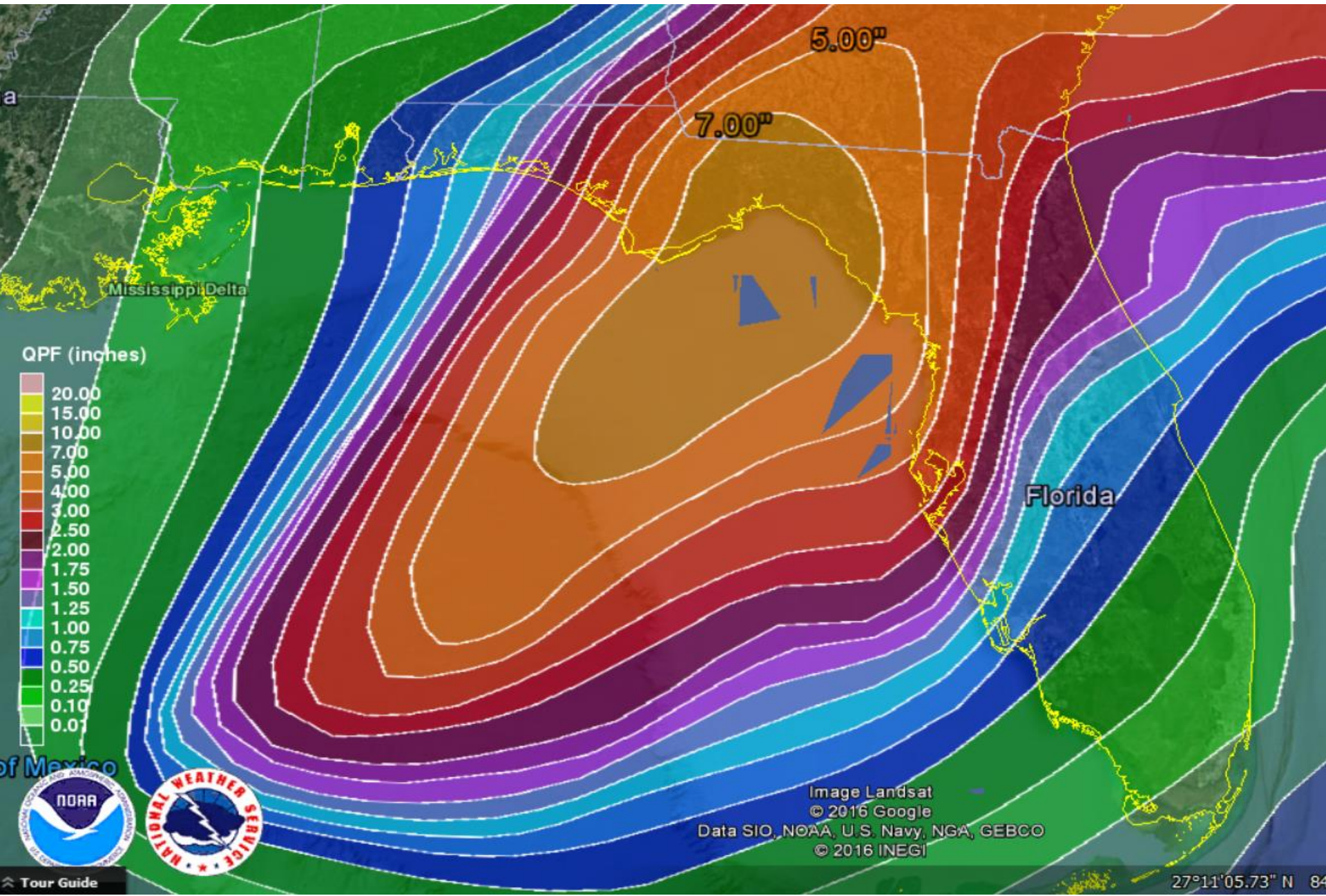
# Observed Rainfall Past 3 Days

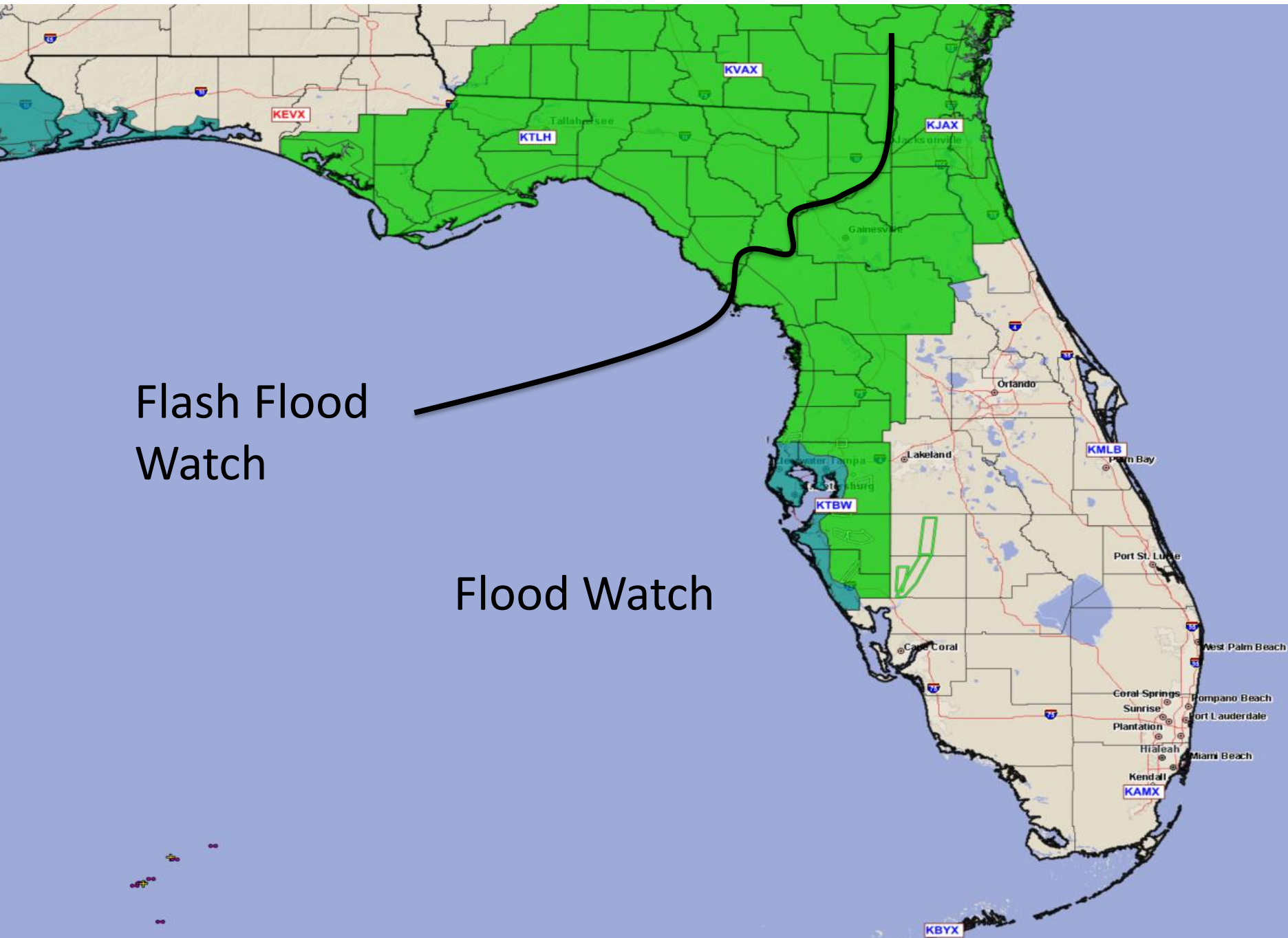


# ***Current Rainfall Forecast***



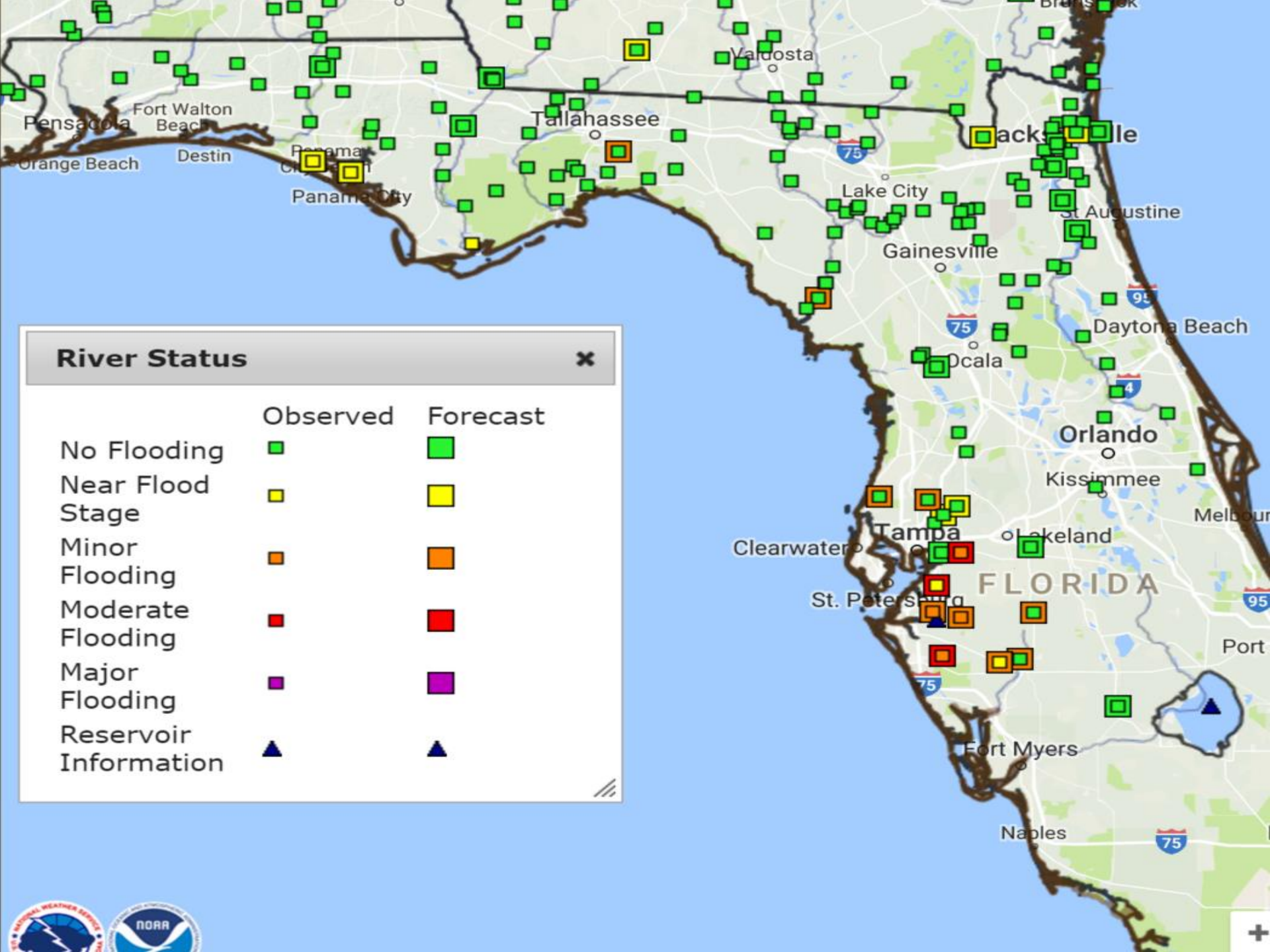
# Forecast Rainfall Total – Next 3 Days





Flash Flood  
Watch

Flood Watch



## River Status



Observed

Forecast

No Flooding



Near Flood  
Stage



Minor  
Flooding



Moderate  
Flooding



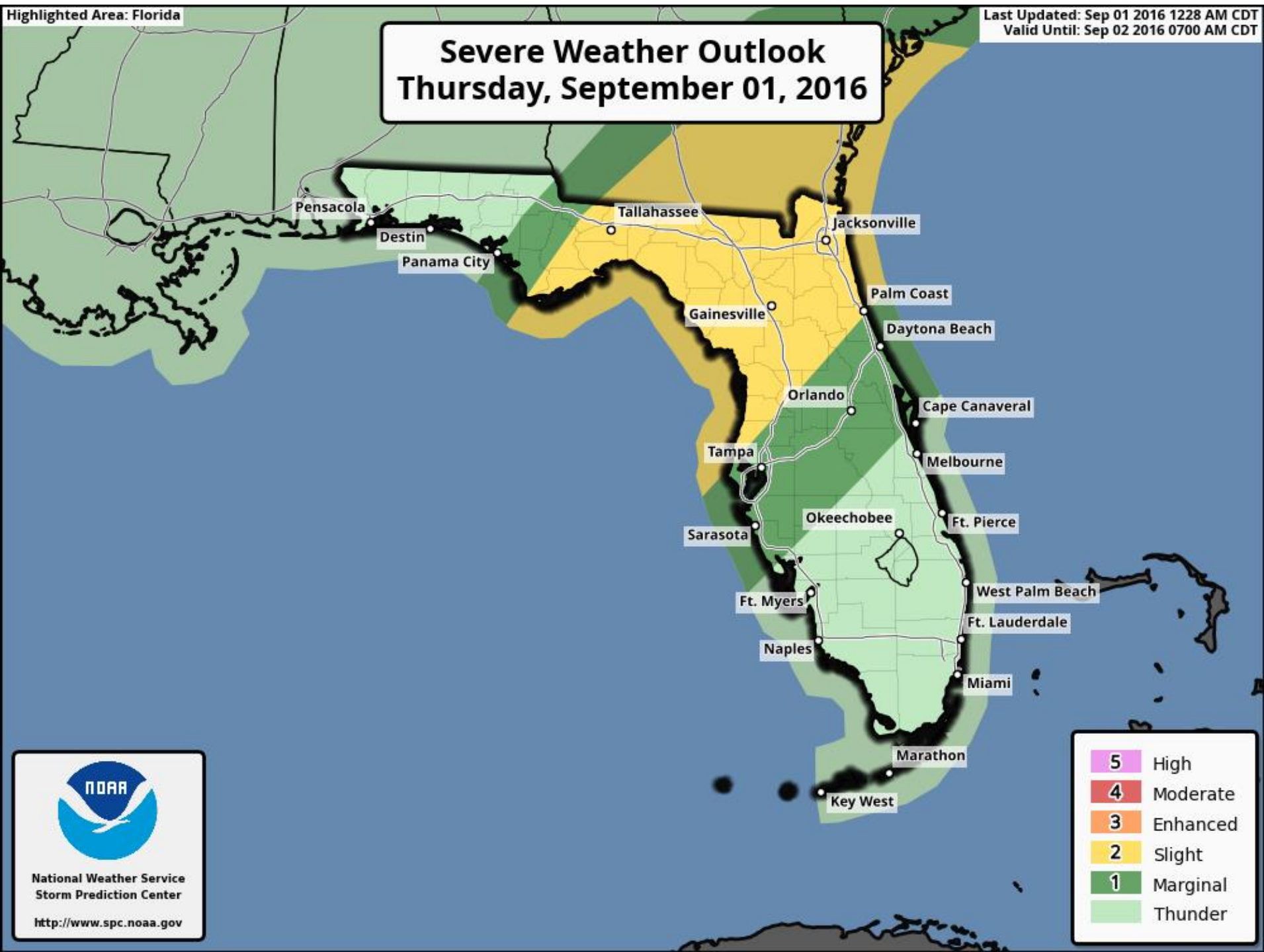
Major  
Flooding



Reservoir  
Information



# Severe Weather Outlook Thursday, September 01, 2016

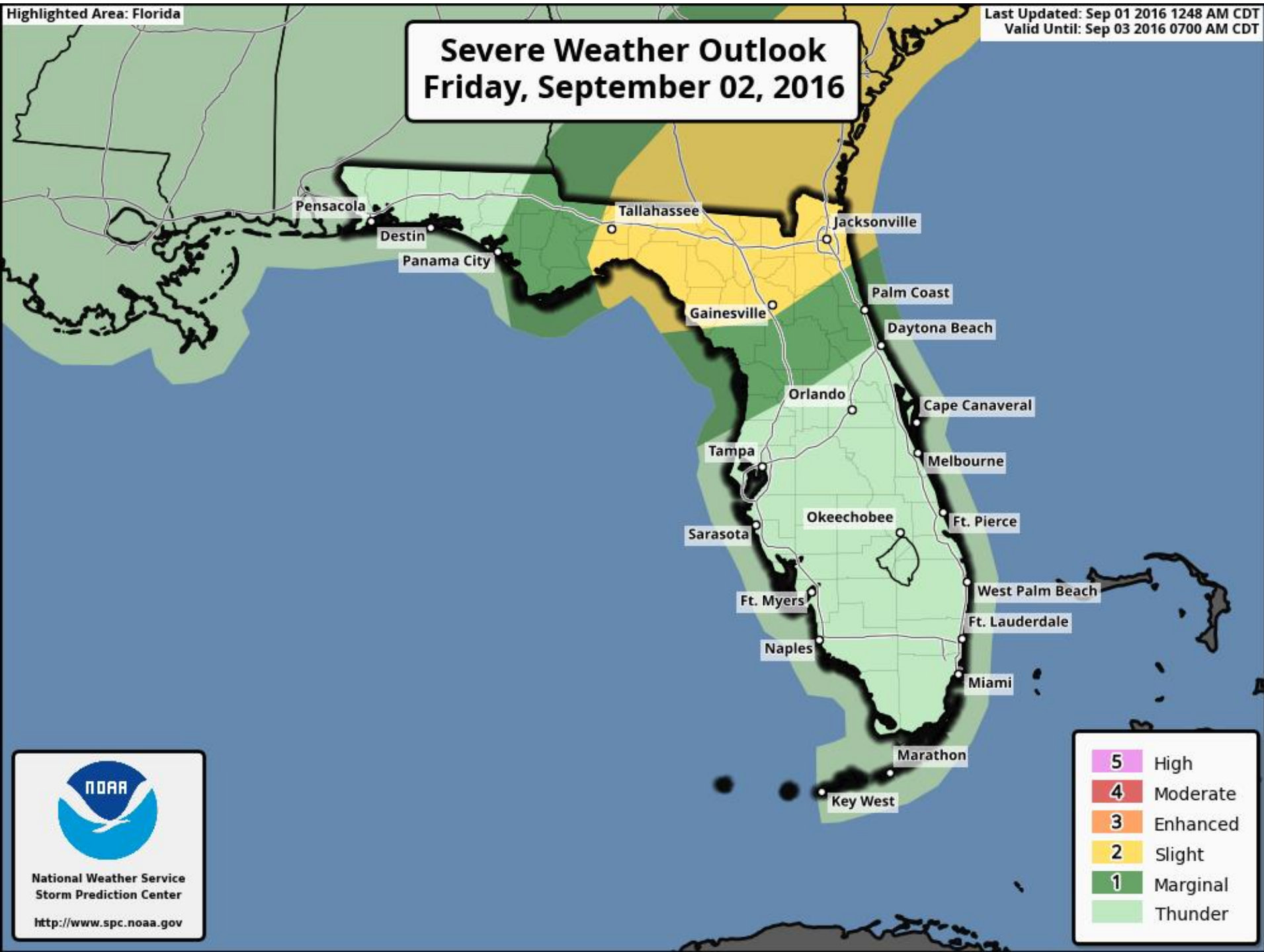




National Weather Service  
Storm Prediction Center  
<http://www.spc.noaa.gov>

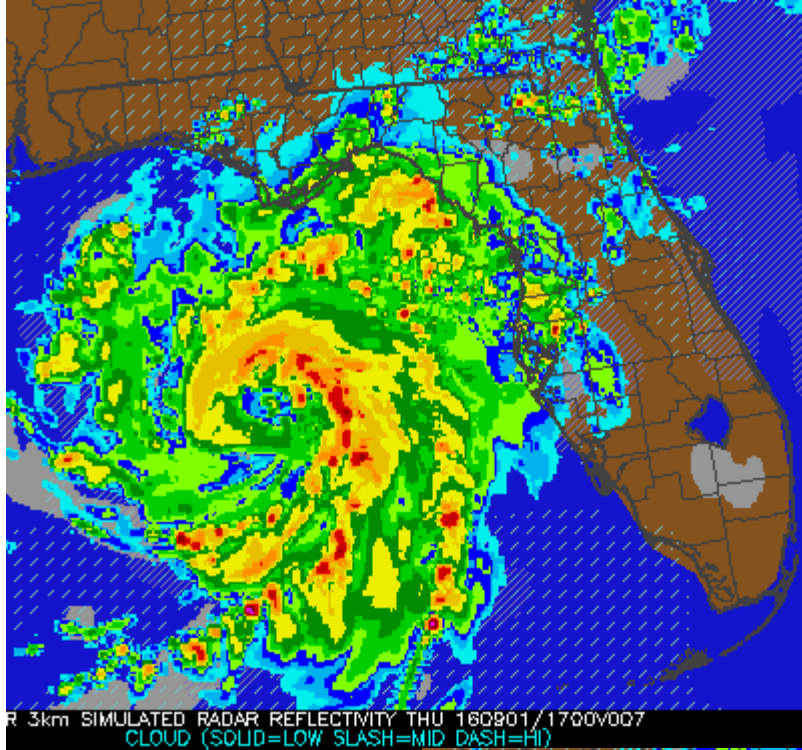
5	High
4	Moderate
3	Enhanced
2	Slight
1	Marginal
	Thunder

# Severe Weather Outlook Friday, September 02, 2016

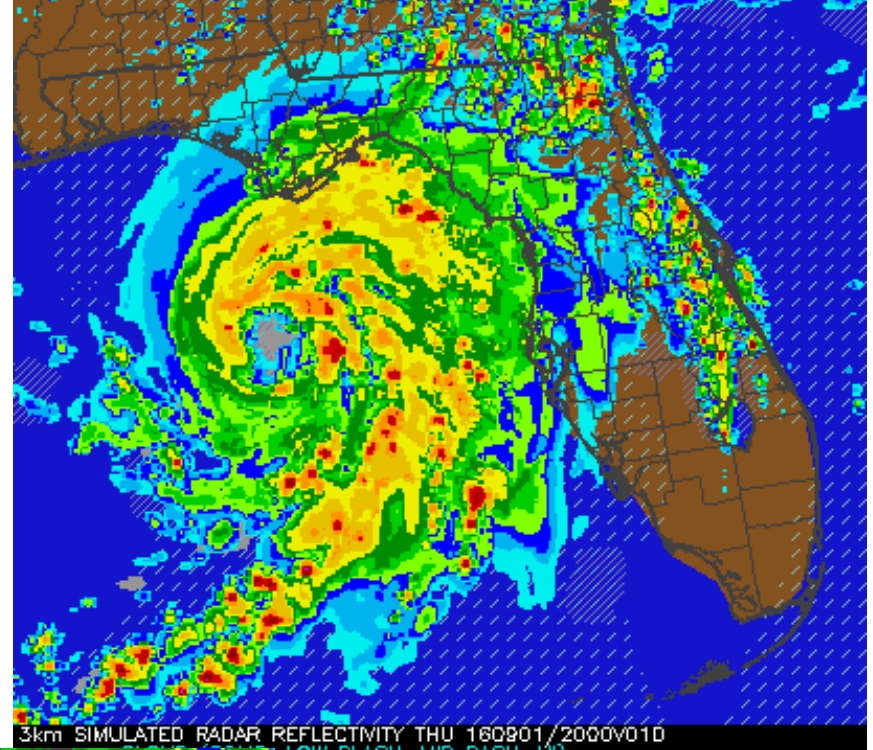


National Weather Service  
Storm Prediction Center  
<http://www.spc.noaa.gov>

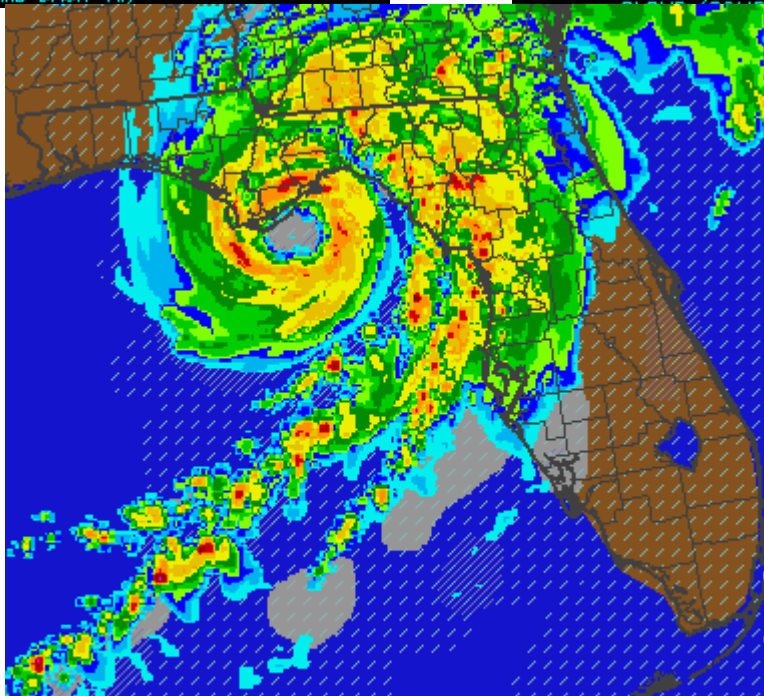
5	High
4	Moderate
3	Enhanced
2	Slight
1	Marginal
	Thunder



1pm



4pm



11pm

# Hurricane Gaston

5 AM EDT Thu Sep 01 2016

Position 36.8 N 43.3 W

Maximum Winds 90 mph

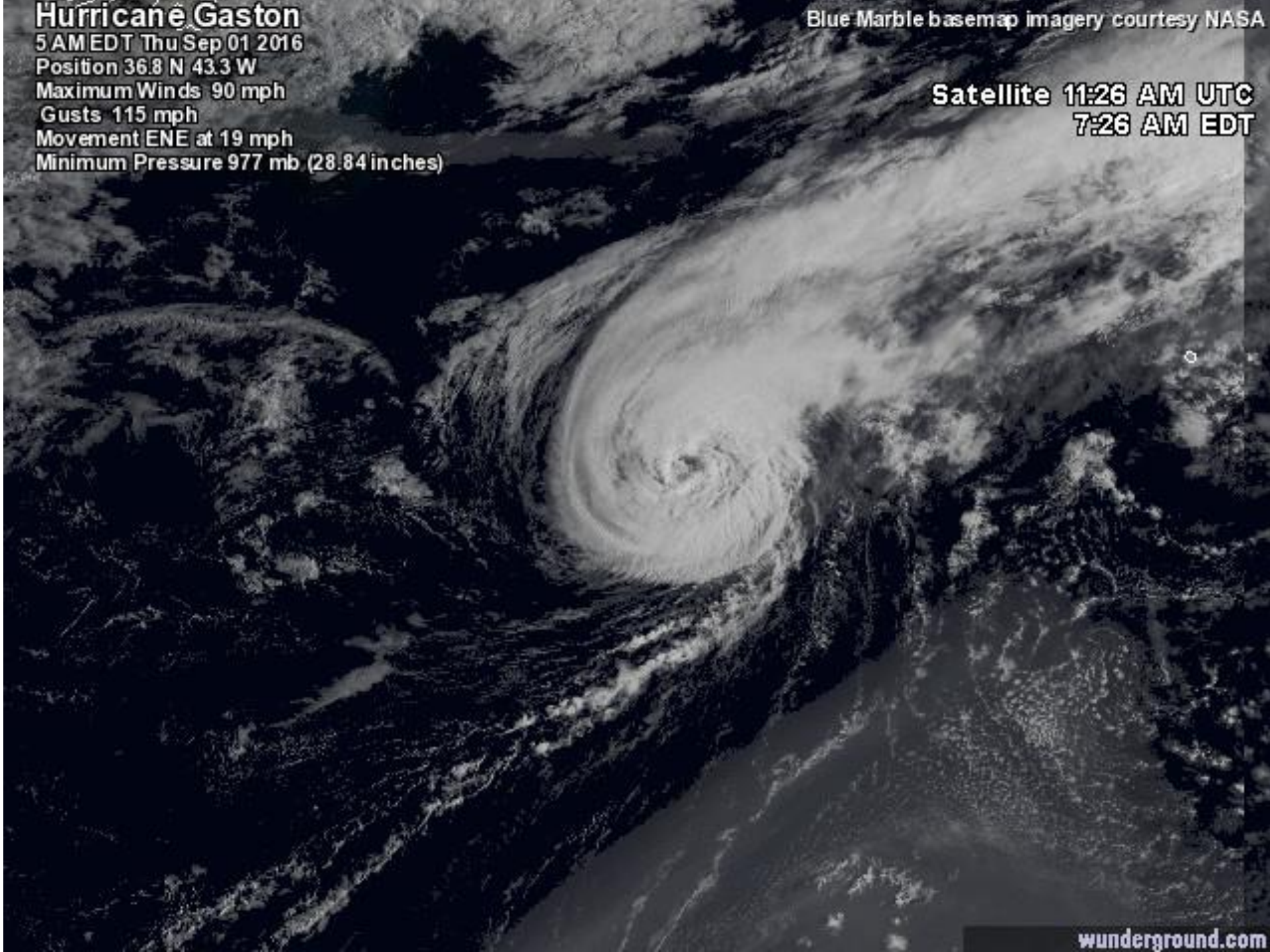
Gusts 115 mph

Movement ENE at 19 mph

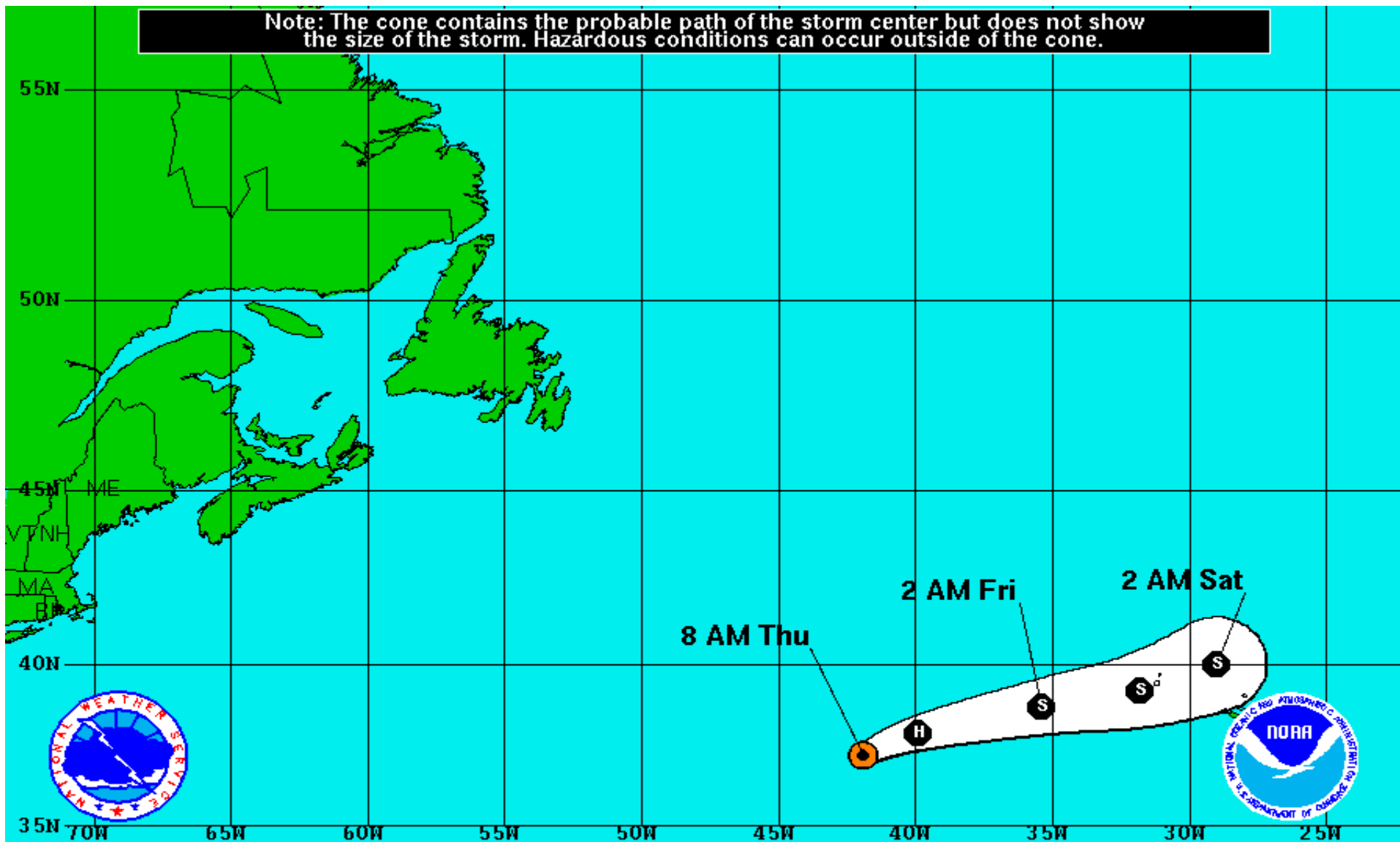
Minimum Pressure 977 mb (28.84 inches)

Blue Marble basemap imagery courtesy NASA

Satellite 11:26 AM UTC  
7:26 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



Thursday September 1, 2016  
8 AM EDT Intermediate Advisory 39A  
NWS National Hurricane Center

**Current Information:**   
Center Location 37.2 N 41.9 W  
Max Sustained Wind 85 mph  
Movement ENE at 26 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



# Two-Day Graphical Tropical Weather Outlook

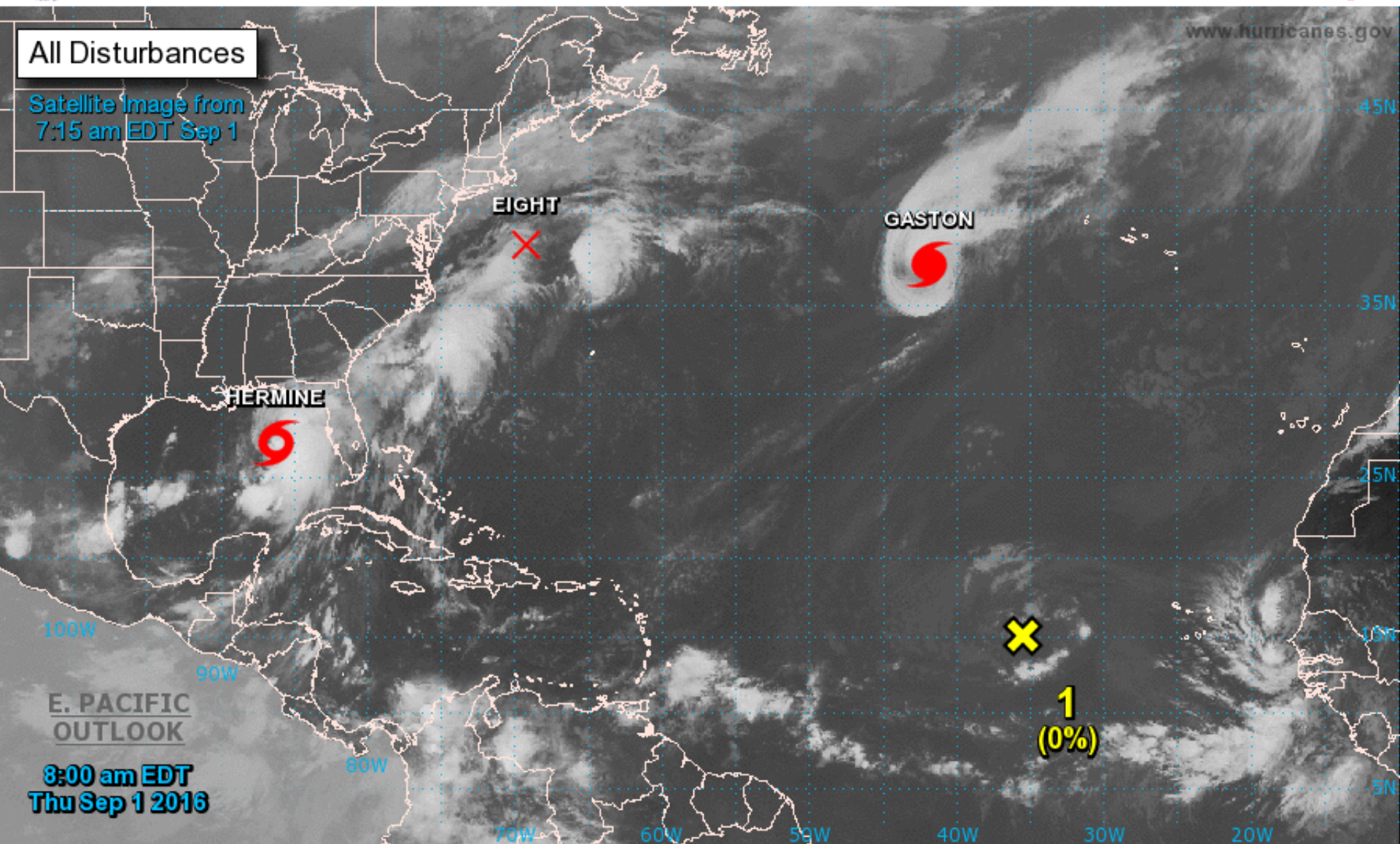
National Hurricane Center Miami, Florida



All Disturbances

Satellite Image from  
7:15 am EDT Sep 1

www.hurricanes.gov



8:00 am EDT  
Thu Sep 1 2016

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

Tropical or Sub-Tropical Cyclone: Depression Storm Hurricane

Post-Tropical Cyclone Remnants



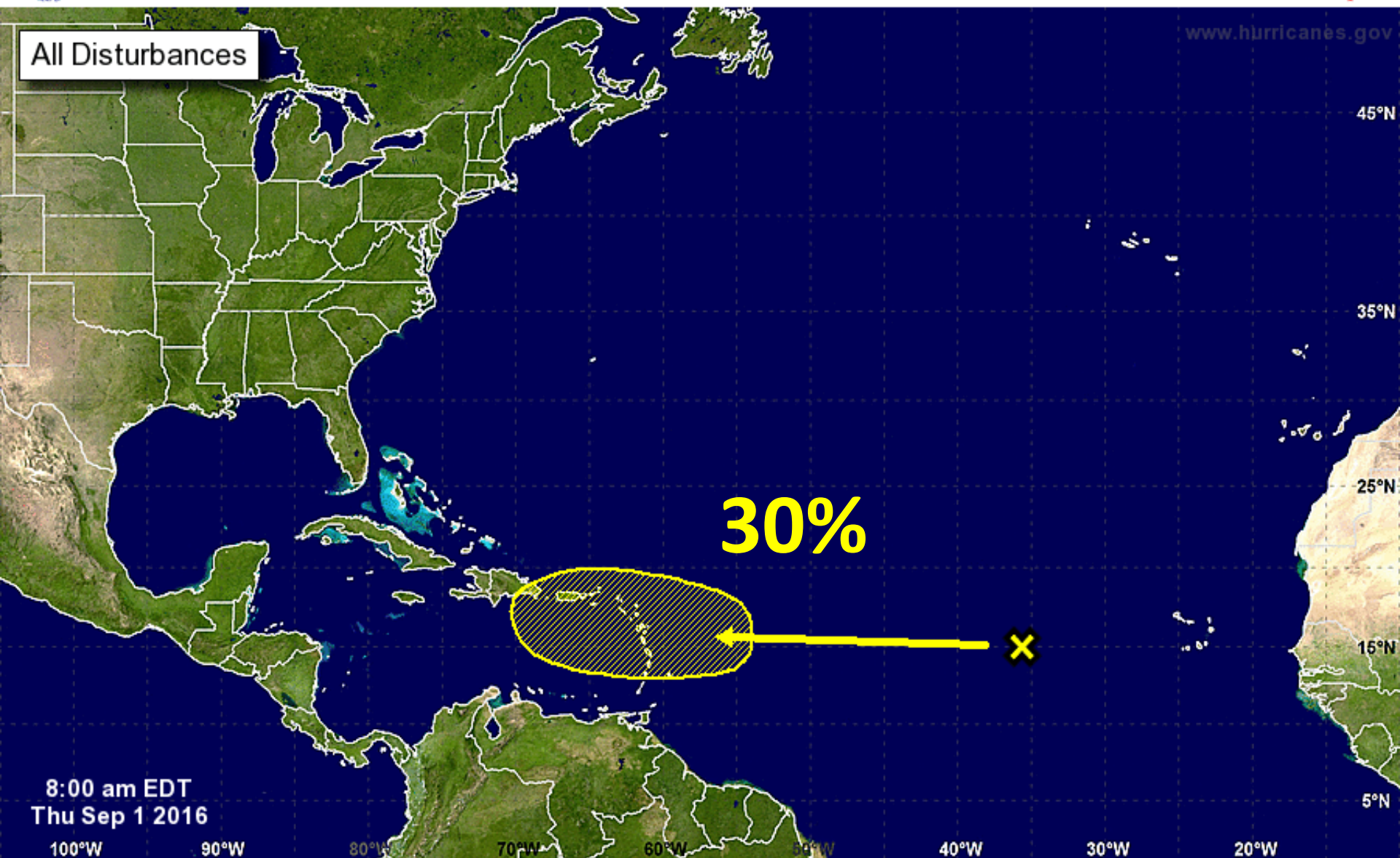
# Five-Day Graphical Tropical Weather Outlook

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 Tue Sep 6 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.

## Summary:

- At 5am EDT Thursday, the center of Tropical Storm Hermine was located about 275 miles south of Fort Walton Beach, or approximately 285 miles west of Cape Coral, Florida.
- Hermine is now moving north-northeast around 12mph. This motion is expected to continue along with a faster forward movement through Friday.
- Maximum sustained winds have increased to 60 mph with higher gusts. Additional strengthening is forecast during the next 24 hours and is forecast to be a hurricane tonight just prior to landfall.
- There is still a little uncertainty in regards to the location and timing of landfall. The current official forecast shows a potential landfall near Panacea around 2am Friday as a Category 1 hurricane.
- Tropical-storm-force winds extend outward up to 140 miles to the east of the center.
- Elsewhere, Gaston is now a Category 1 hurricane with winds of 85 mph and will continue moving east-northeast into the northeastern Atlantic.
- Tropical Depression #8 has dissipated.
- Further east, a broad area of low pressure and tropical wave located over the far eastern Atlantic near the Cabo Verde Islands, designated as Invest 92L, continues to produce only limited shower activity. This wave is expected to be in an unfavorable environment for the next few days, which should prevent development. Environmental conditions could become a little more conducive for some development when the wave is near the Lesser Antilles early next week. The National Hurricane Center is forecasting only a 20% chance of development within the next 5 days.

**Florida Outlook:**

- A **Hurricane Watch** is in effect for coastal areas of Walton, Bay, Levy, Citrus, Hernando and Pasco Counties.
- A **Hurricane Warning** is in effect for Gulf, Franklin, Wakulla, Liberty, Gadsden, Leon, Jefferson, Madison, Taylor, and coastal Dixie counties.
- A **Tropical Storm Warning** is in effect for Walton, Bay, Holmes, Jackson, Calhoun, Lafayette, inland Dixie, Levy, Citrus, Hernando, Pasco, Hamilton, Suwannee, Columbia, Baker, Gilchrist, Alachua, Bradford, Union, Nassau, Duval, Clay and St. Johns Counties.
- A **Storm Surge Warning** is in effect for coastal areas between Indian Pass and Aripeka (Franklin through Hernando Counties).
- **Flash Flood Watches** and **Flood Watches** are in effect for much of North and West Central Florida.
- **River Flood Warnings** have been issued for many West Florida rivers and creeks.
- Areas of the Gulf Coast (between Sarasota and Mexico Beach) and the northern Peninsula generally north of I-4 currently have a greater than 1 in 3 chance of receiving sustained tropical storm force winds within the next 2 days. Chances for hurricane force winds between 5% and 10% in the Florida Big Bend.
- Tropical storm force gusts could occur in heavy bands in advance of the storm, with sustained winds arriving in the warning area this evening and spreading northeast through Friday morning.
- Storm surge heights up to 7 feet are expected along the Big Bend and northern Nature Coast and could produce surge flooding of greater than 3 feet above ground in the surge warning area. A stronger storm than currently forecast could produce surge heights up to 9 feet if peak surge occurs at high tide.
- A high threat of rip currents is expected to continue for many Florida beaches into the weekend.
- Heavy rain will also be a threat as rainfall totals both ahead of the system and directly associated with Hermine could produce storm total rainfall amounts up to 5-10", with locally higher amounts up to 20 inches possible. Highest amounts will be near the coast.
- Isolated tornadoes will also be possible with the outer bands of Hermine. There is a slight risk of severe weather through tonight for much of North and Central Florida and Tornado Watches may be posted sometime today.



# TROPICAL UPDATE

Created by:

Amy Godsey, Chief State Meteorologist  
[amy.godsey@em.myflorida.com](mailto:amy.godsey@em.myflorida.com)

State Meteorological Support Unit  
Florida Division of Emergency  
Management

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

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