



TROPICAL UPDATE



9:00 AM EDT

Wednesday, September 8, 2021

Invest 91L – Gulf of Mexico (50%), Hurricane Larry,
& West Africa Tropical Wave (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.hurricanes.gov.



Atlantic Basin Satellite Image

Chance of development: — None — Low — Medium — High

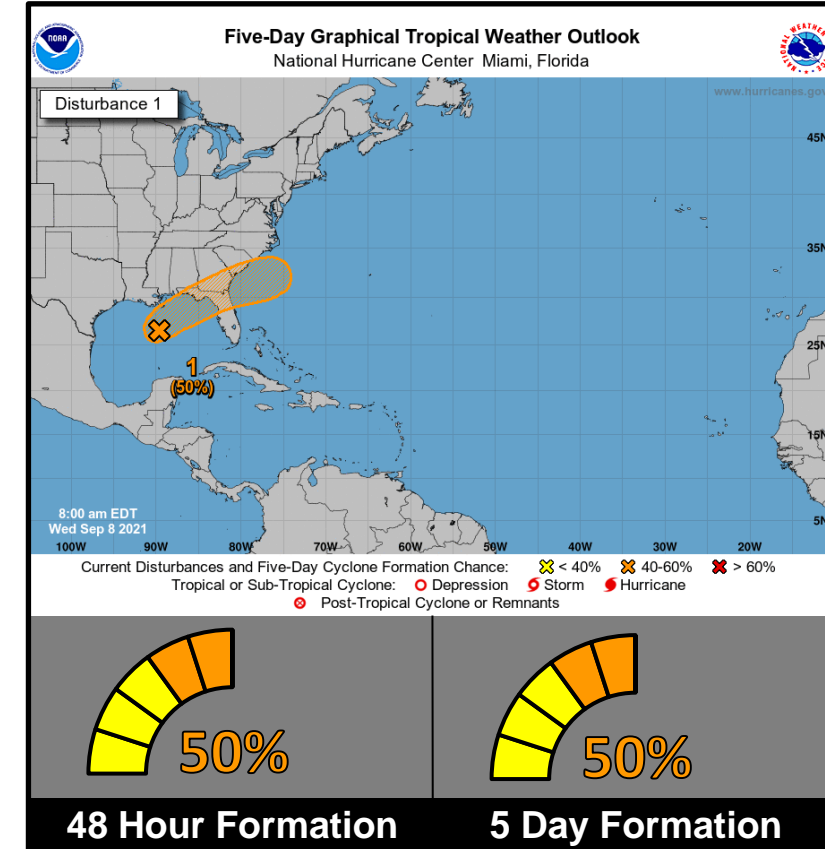




Invest 91L

4 PM ET Tuesday: Florida Threats & Changes Since Last Packet

	MINIMAL	Low	MODERATE	HIGH	EXTREME
WINDS					
STORM SURGE					
FLASH FLOODING					
TORNADOES					
	Low	MODERATE	HIGH		
RIP CURRENTS					



Overview/Recent Changes:

Development chances have increased from 30% to 50% over the next 48 hours and 40% to 50% over the next 5 days. Thunderstorms this evening and tonight may produce locally damaging winds, a brief tornado, and heavy rainfall. A moderate to high risk of rip currents can be expected along Panhandle and Atlantic beaches. *Regardless of development, heavy rainfall is forecast for North Florida and the Panhandle today into Thursday that could result in flash flooding.*



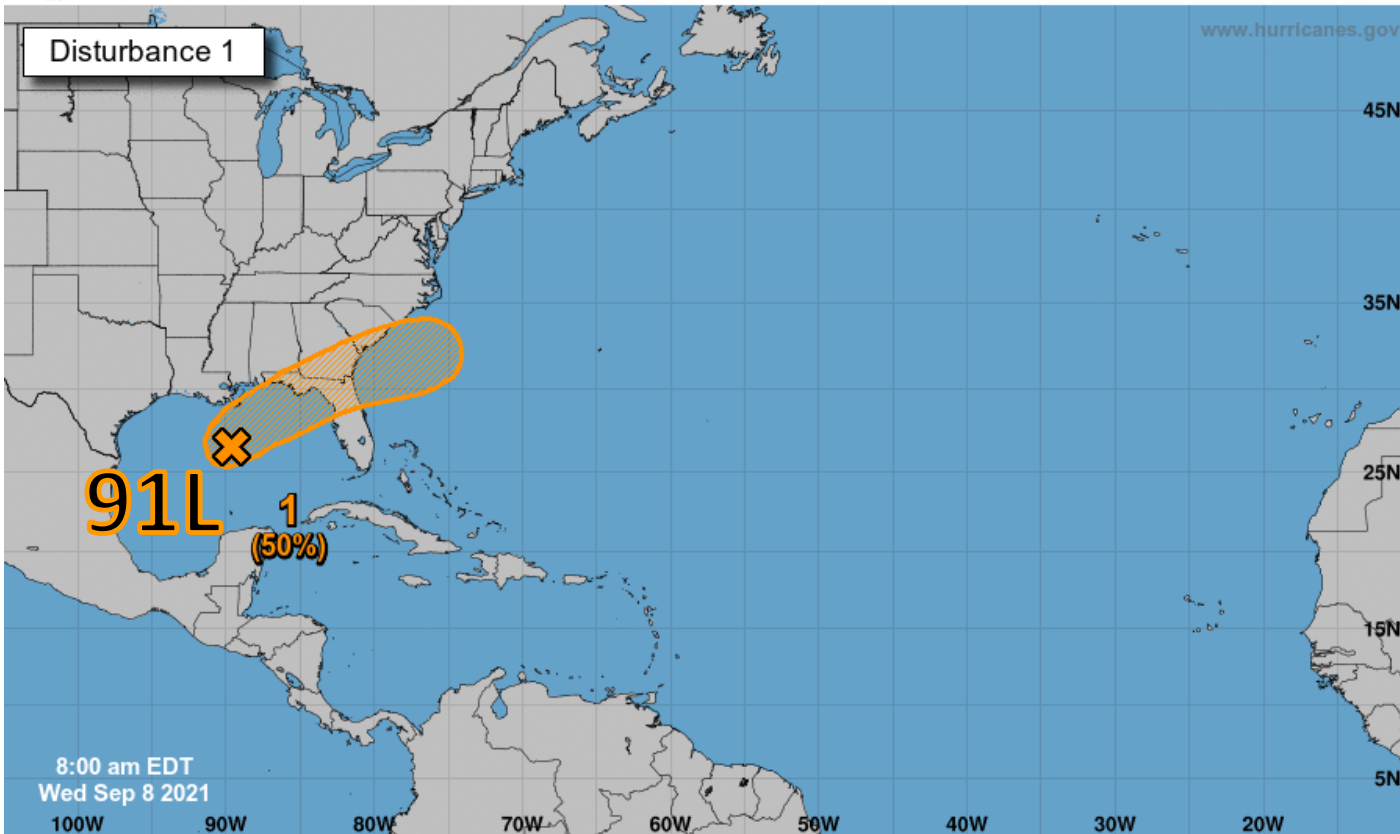
Tropical Weather Outlook

Possible Areas of Development During the Next 5 Days ([LINK](#)) – Invest 91L



Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



Current Disturbances and Five-Day Cyclone Formation Chance:
 Tropical or Sub-Tropical Cyclone:
 < 40% 40-60% > 60%
 Depression Storm Hurricane
 Post-Tropical Cyclone or Remnants

Disorganized cloudiness and a few thunderstorms continuing over the central and eastern Gulf of Mexico are associated with a surface trough and upper-level disturbance. The system is expected to move northeastward over the northeastern Gulf of Mexico later today.

Upper-level winds could become more favorable to support some tropical or subtropical development as the system nears the northern Gulf coast tonight or early Thursday. The disturbance is expected to cross the southeastern United States, and some additional development will be possible after it emerges off the southeastern coast late this week.

Regardless of development, areas of heavy rainfall will be possible across portions of North Florida and southern Georgia on today and Thursday, with flash flooding possible.

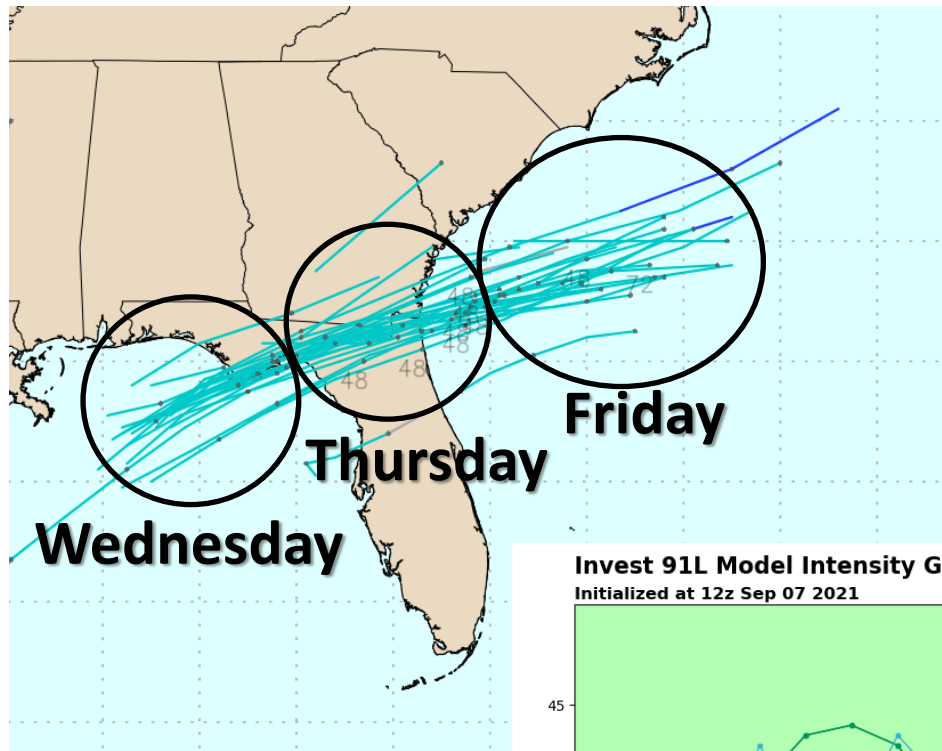
*** Formation chance through 48 hours...medium...50%**

*** Formation chance through 5 days...medium...50%**



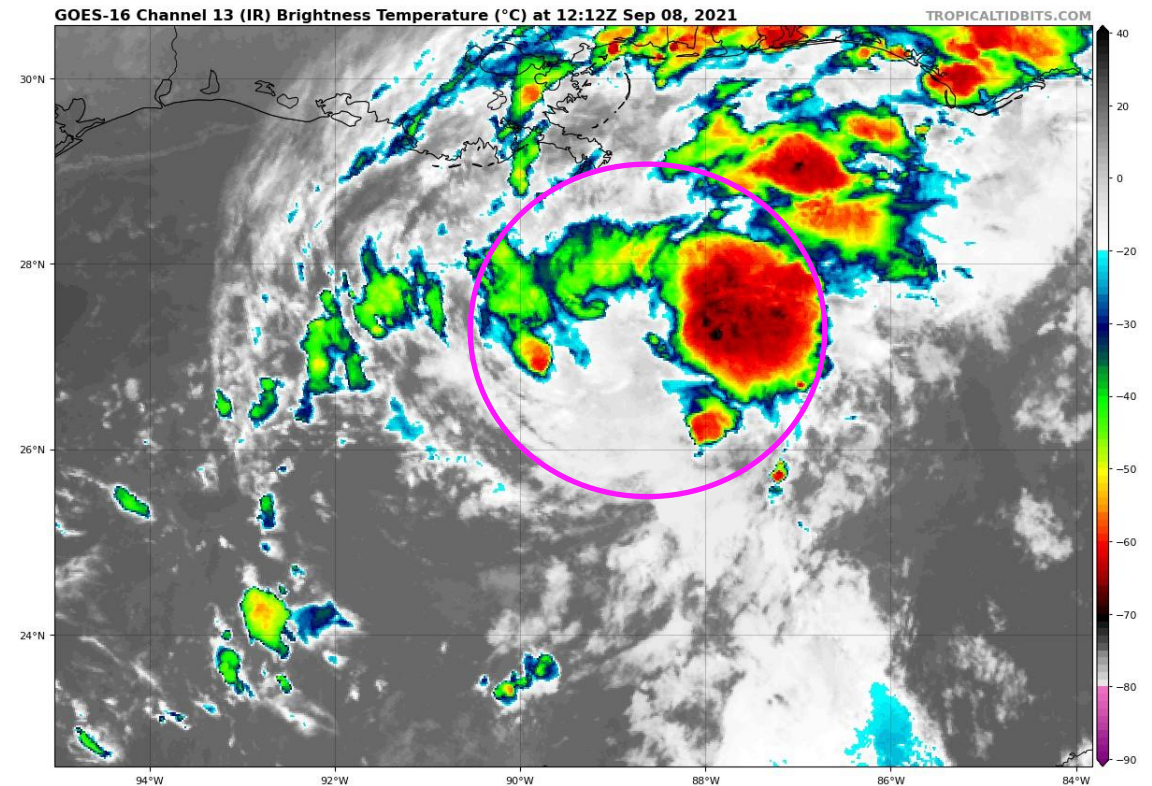
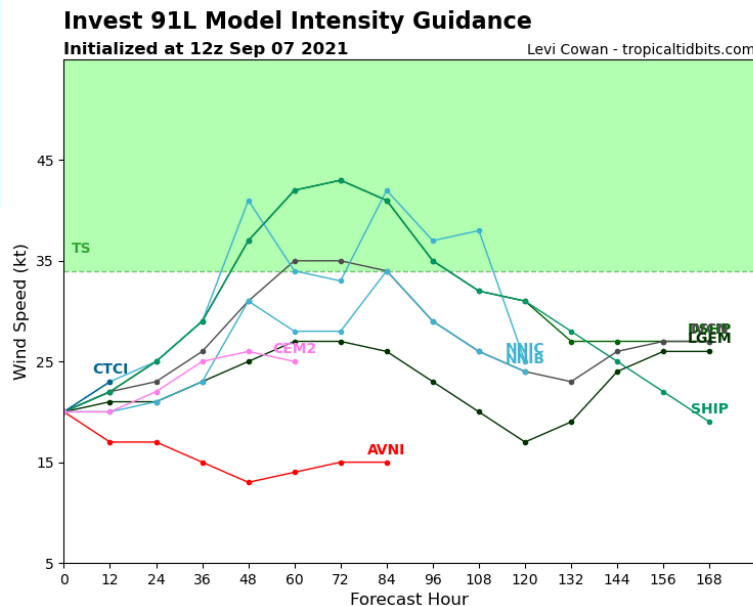
Current Satellite Image and Track Guidance

Invest 91L



Computer models are in good agreement that development will be minimal and if it were to occur, it would be right as the system is approaching the coastline. Landfall would be tonight.

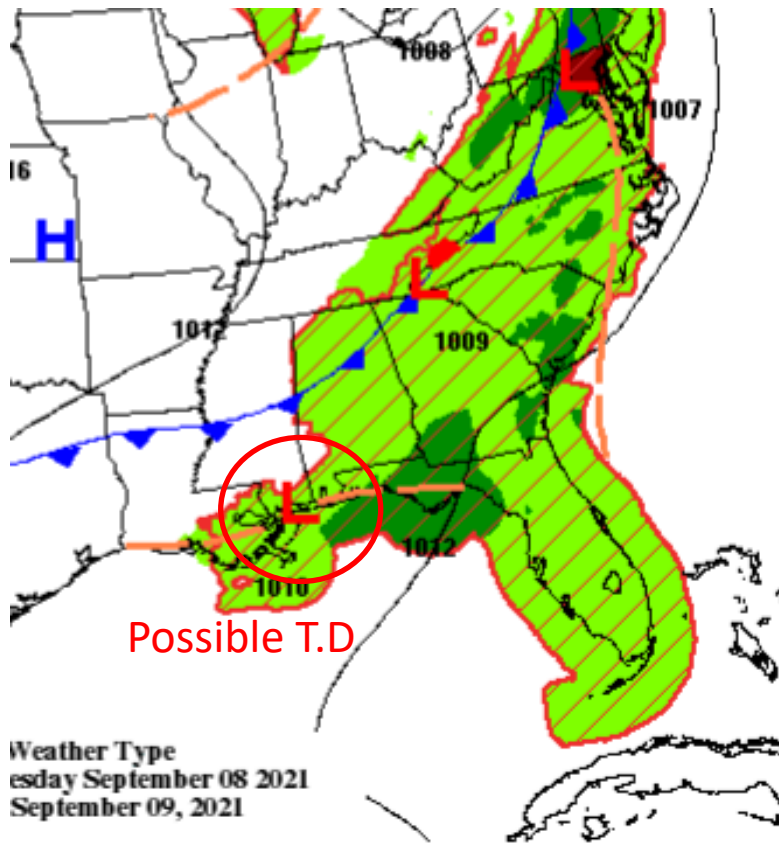
Track forecasts remain in agreement that the system will move northeast across portions of North Florida on Thursday and into the Atlantic by Friday.



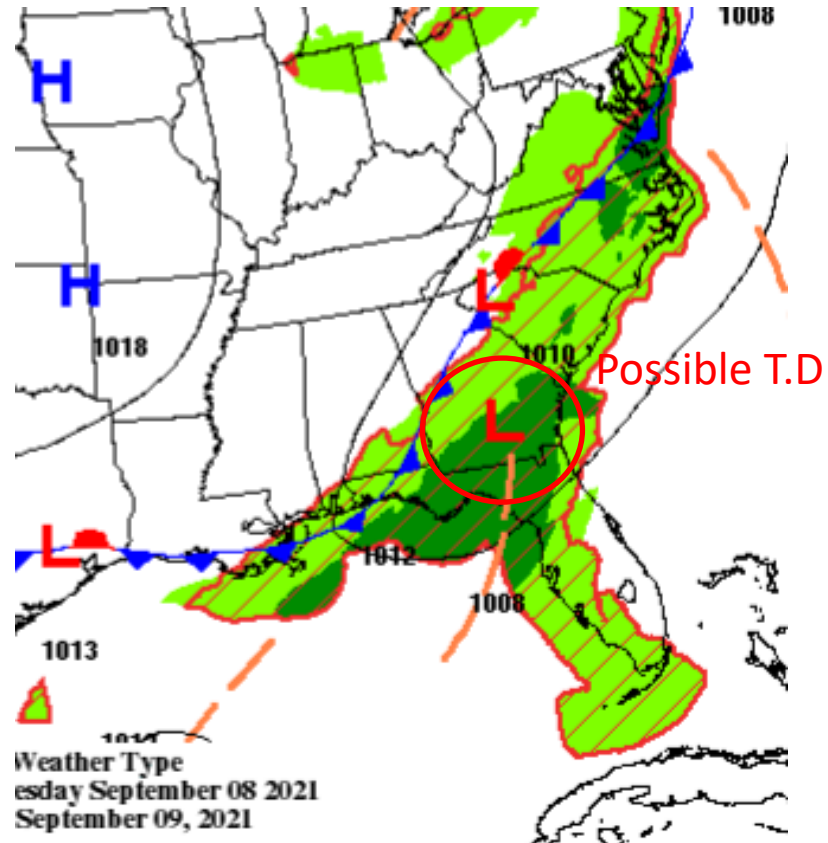


Forecast Mid-Week

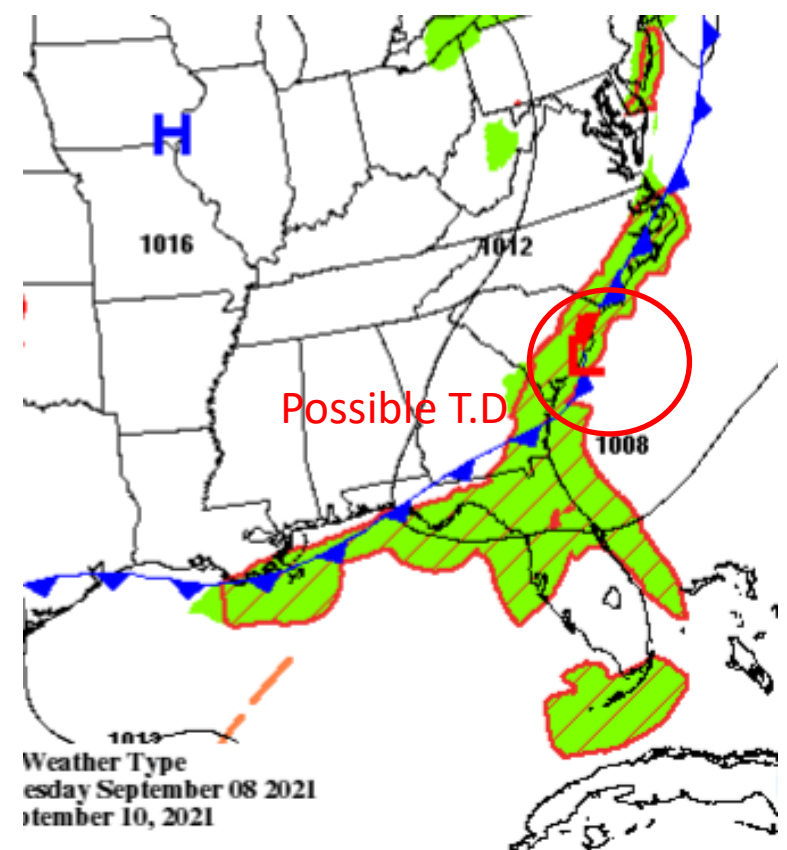
Surface Maps from the Weather Prediction Center



Tonight



Thursday



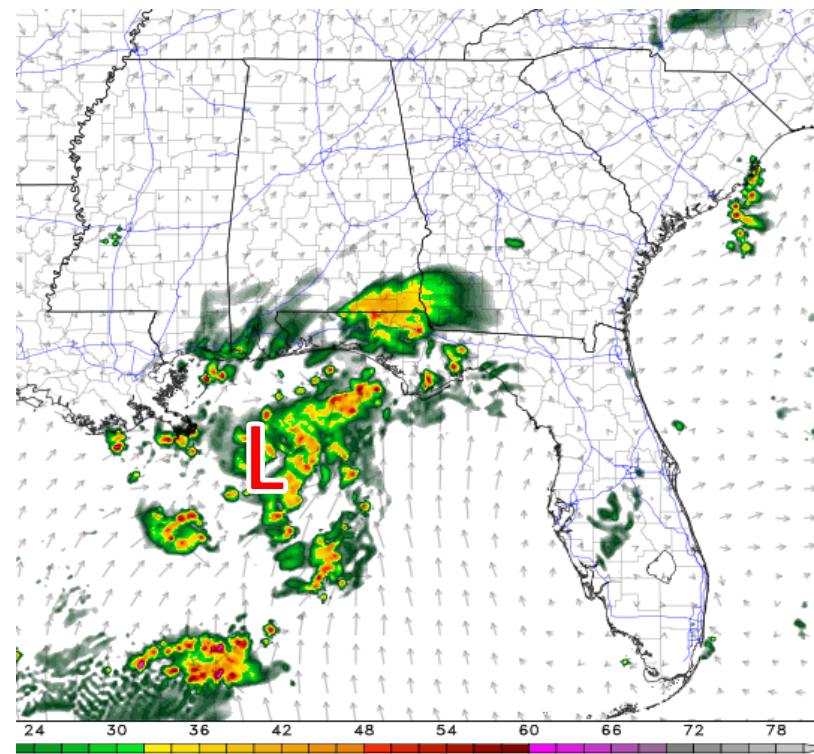
Friday

Invest 91L will bring abundant tropical moisture northward regardless of development. When combined with an approaching cold front, heavy rainfall is forecast for North Florida through the week.

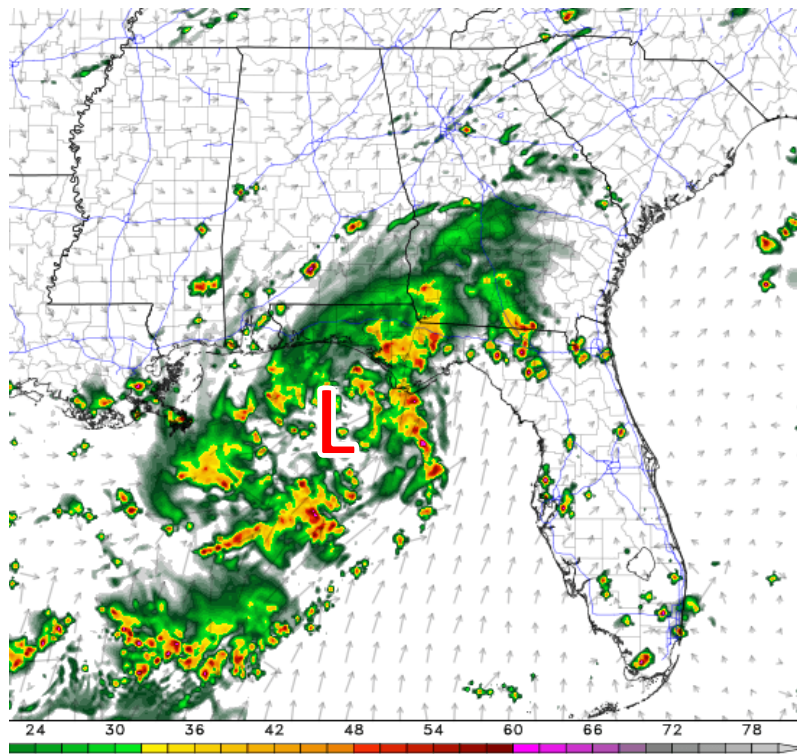


Model Forecast Radar

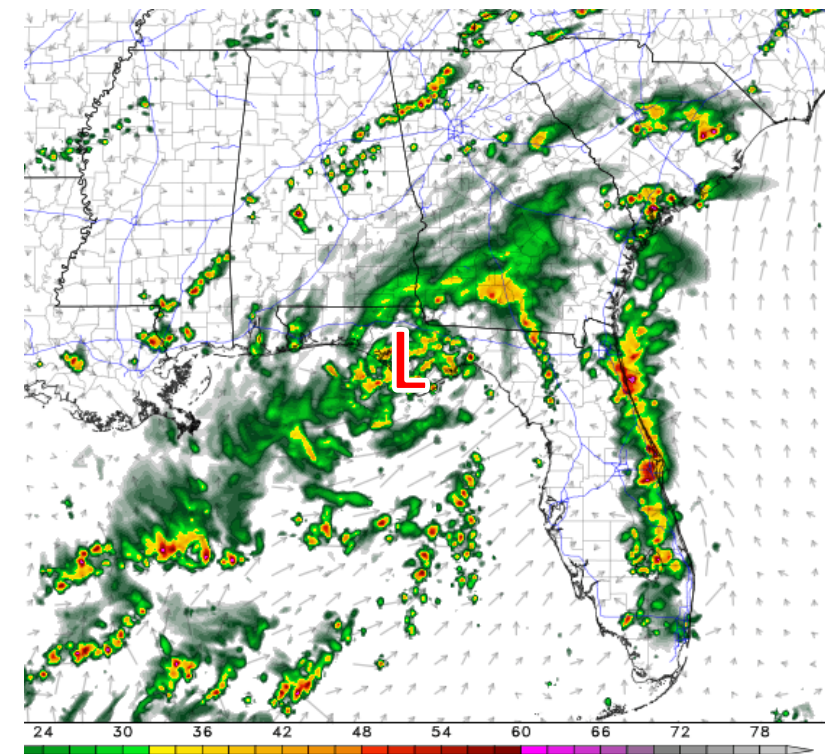
*****Only Model Guidance – Time & Position Will Vary*****



This Morning



This Afternoon



Tonight

Widespread showers and thunderstorms are already ongoing this morning across the Panhandle and Big Bend. Rounds of heavy rainfall will continue through the day into tonight. If 91L were to develop into a tropical depression or minimal tropical storm, it would occur this afternoon as the system nears the coast. It would then make landfall in the eastern Panhandle or Big Bend of Florida tonight.



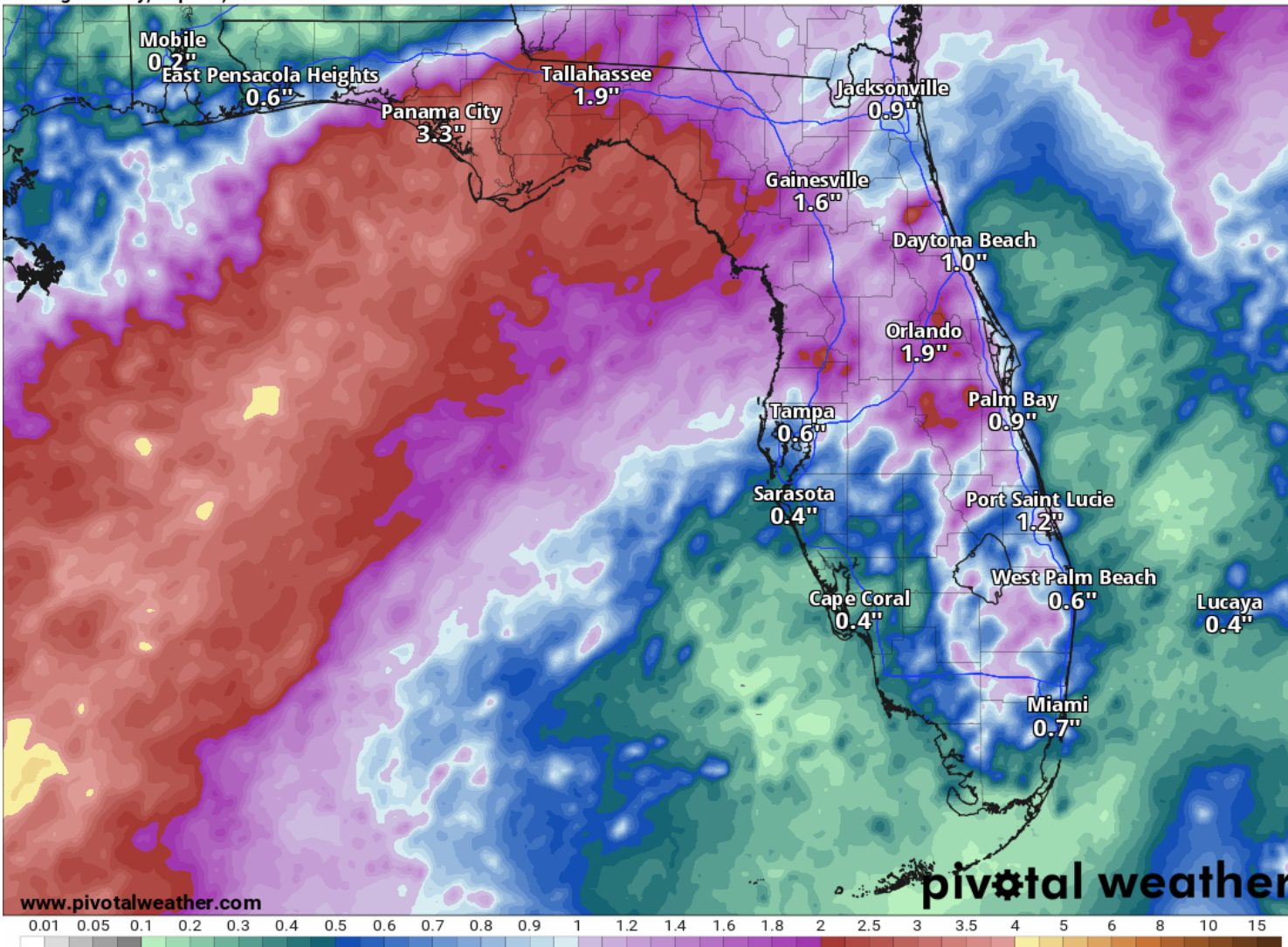
Rainfall Totals Next 5 Days

Ending 8 AM ET Monday

120-Hour Precipitation (in)

Ending Monday, Sep. 13, 2021 at 8 a.m. EDT

Init: Wed 2021-09-08 12z WPC



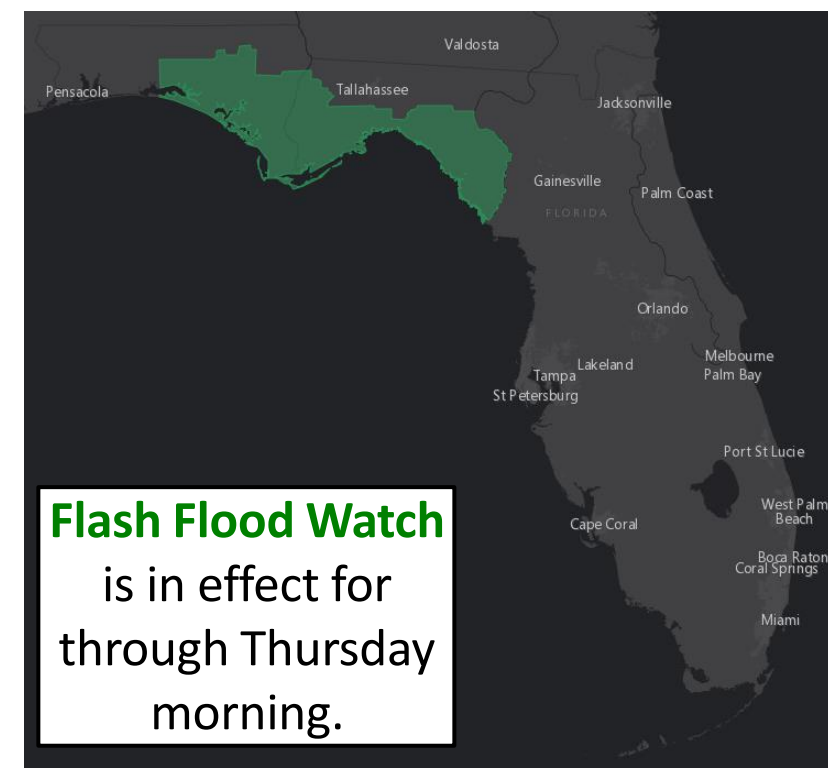
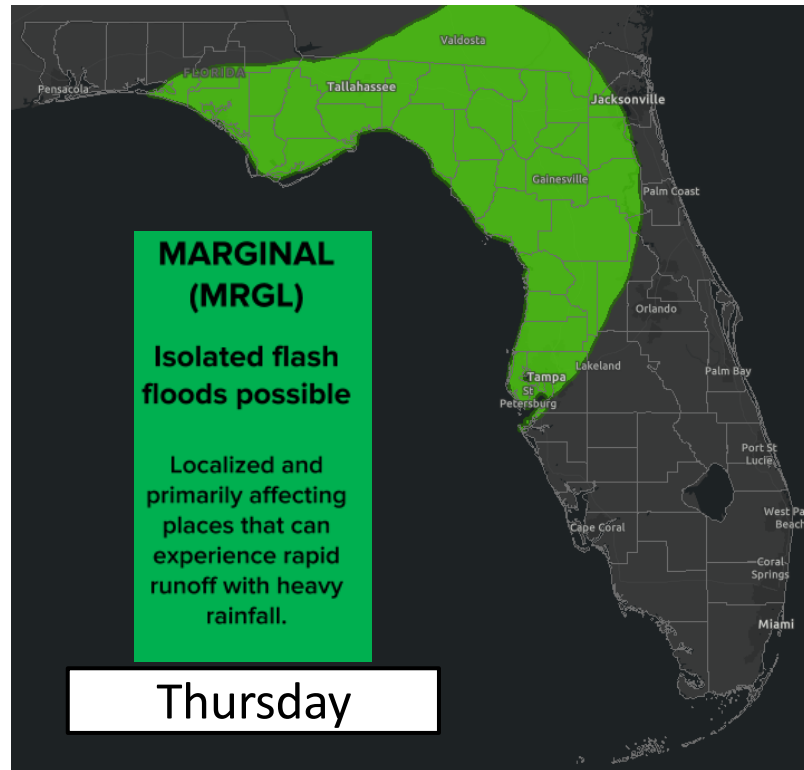
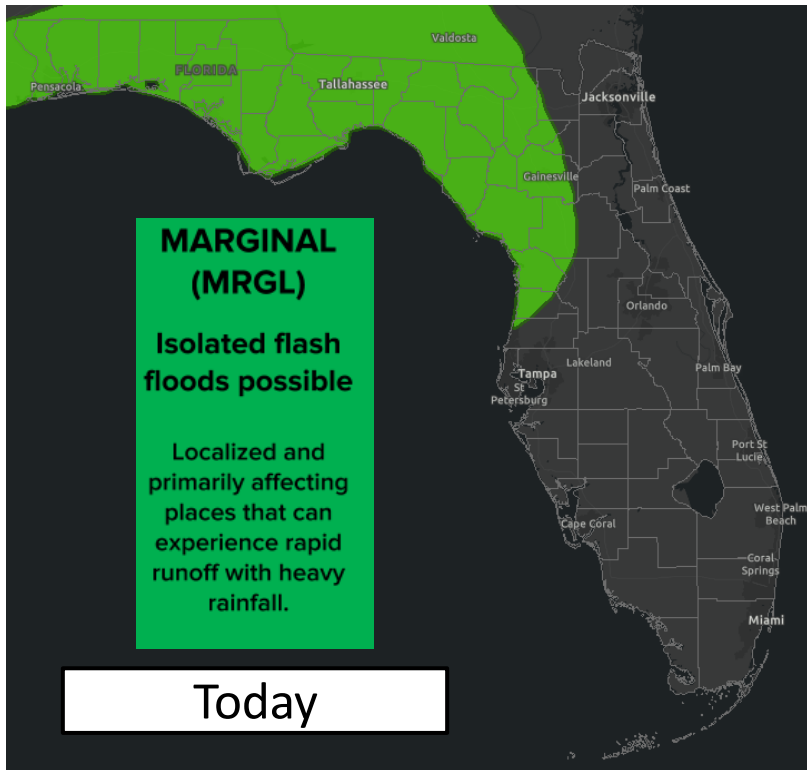
Through the week, a widespread 2-4" of rain is forecast for much of North Florida as tropical moisture from 91L moves into the region and a cold front approaches from the North. **Locally higher totals of 6-7" are possible.**

Pockets of heavy rainfall are also possible over the next couple of days along the Treasure Coast and in Southeast Florida.



Flash Flood Outlooks

From the Weather Prediction Center



Risk of rainfall exceeding flash flood guidance within 25 miles of a point to the right of a line

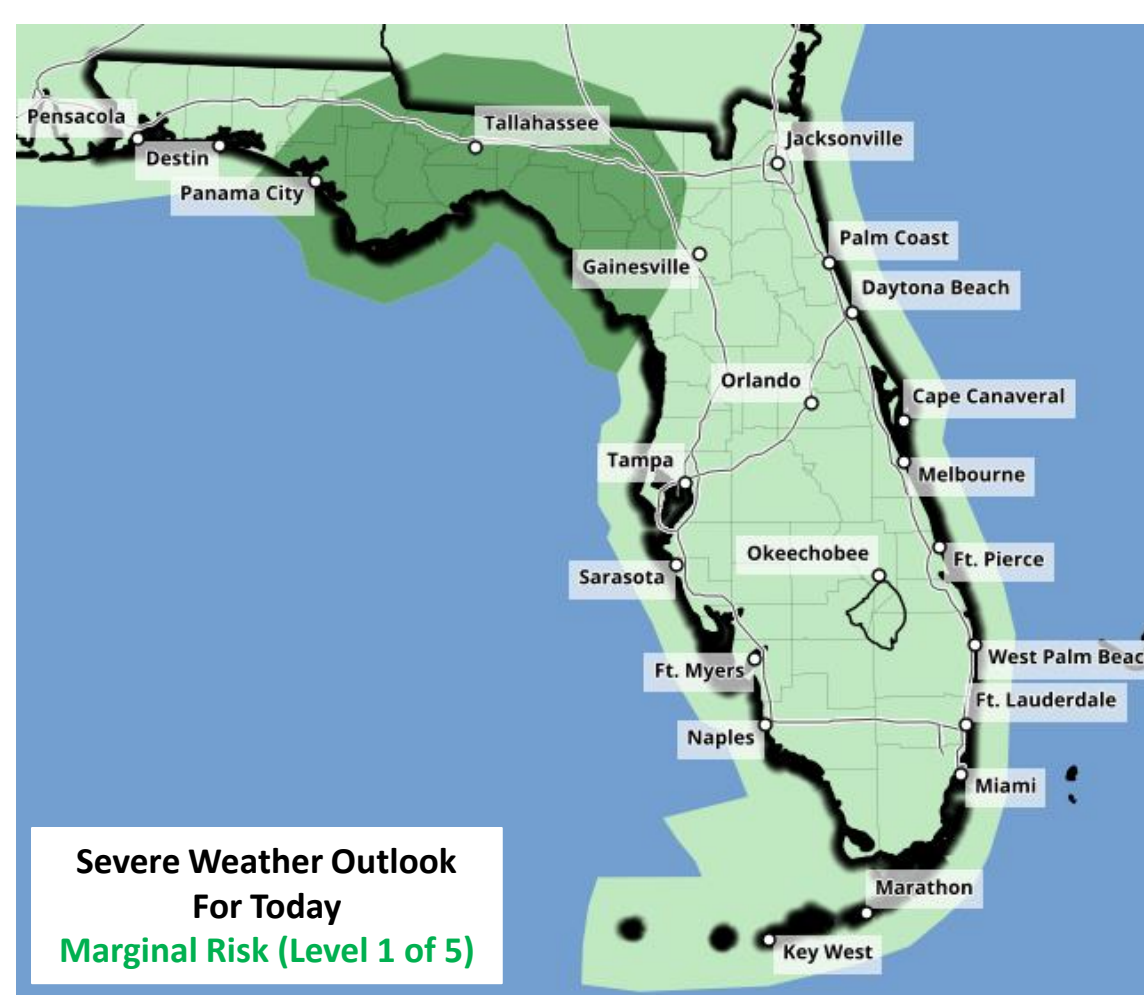
HIGH: > 50% **SLGT: 10%-20%**
MDT: 20%-50% **MRGL: 5%-10%**

Because of the recent heavy rainfall, some flash flooding is possible across portions of the Panhandle and Big Bend as Invest 91L moves through the region. Rapidly rising water on roads and in low-lying areas can be expected.



Severe Weather Outlook

From the Storm Prediction Center



Threats: Stronger, more organized thunderstorms associated with 91L will be capable of producing locally damaging winds, a brief tornado, and frequent lightning.

Location: Panhandle and Big Bend (locations along the coast may see a more focused area of heavy rainfall and gusty winds).

Timing: Today into the overnight hours. The severe weather threat will dissipate from south to north as 91L progresses northeastward Thursday.

Understanding Severe Thunderstorm Risk Categories

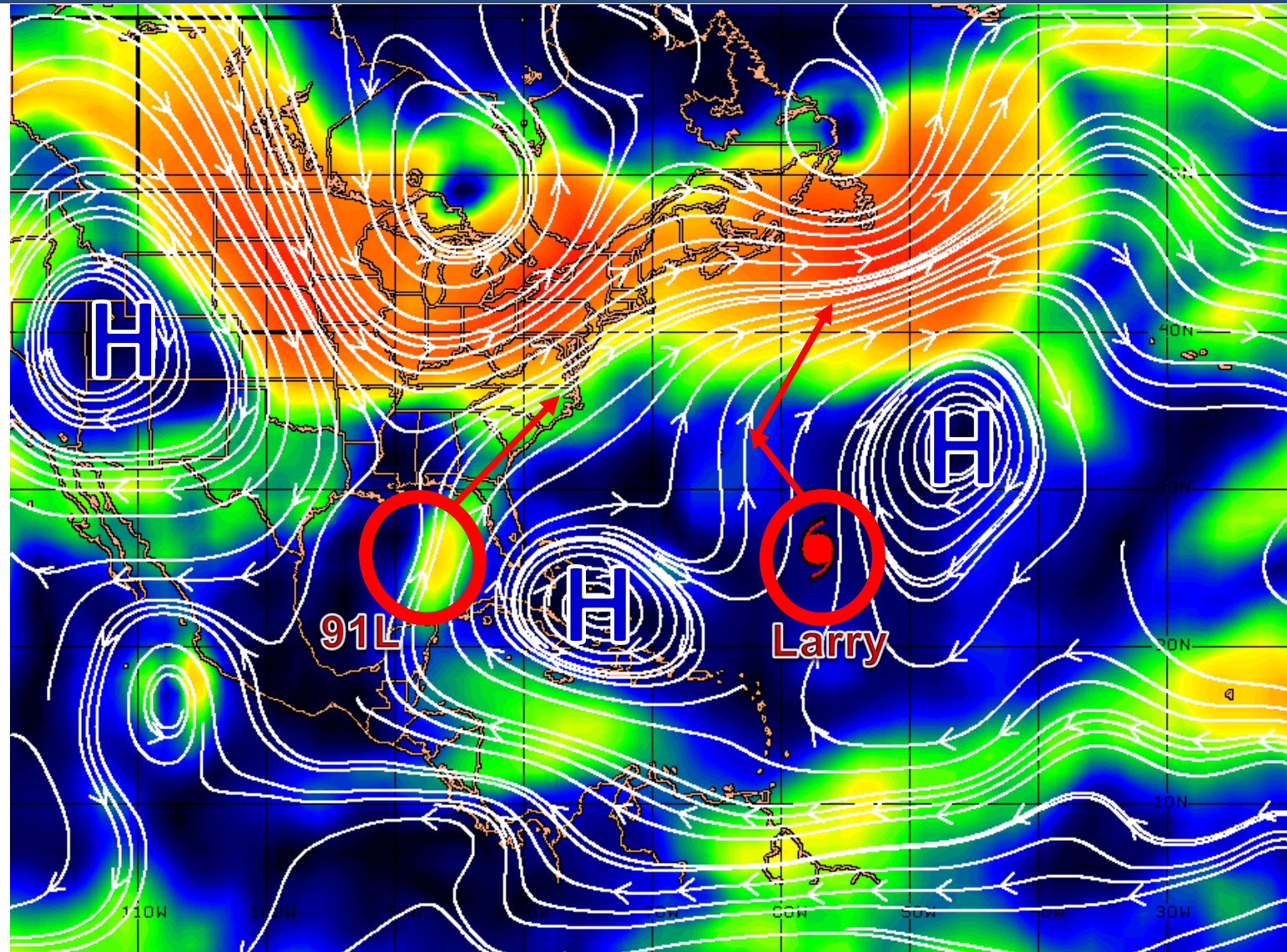
THUNDERSTORMS (no label)	1 - MARGINAL (MRGL)	2 - SLIGHT (SLGT)	3 - ENHANCED (ENH)	4 - MODERATE (MDT)	5 - HIGH (HIGH)
No severe* thunderstorms expected	Isolated severe thunderstorms possible	Scattered severe storms possible	Numerous severe storms possible	Widespread severe storms likely	Widespread severe storms expected
Lightning/flooding threats exist with <u>all</u> thunderstorms	Limited in duration and/or coverage and/or intensity	Short-lived and/or not widespread, isolated intense storms possible	More persistent and/or widespread, a few intense	Long-lived, widespread and intense	Long-lived, very widespread and particularly intense



Steering Currents

What is Moving the System?

Color denotes the movement speed through the atmosphere and thin white lines denote direction. Tightly clustered white lines represent faster movement as well.



KTS

100

70

50

30

20

15

10

5

0

Fast Steering Flow

Fast Steering Flow

Moderate/
Typical
Steering Flow
Speed

Slow Steering Flow

CIMSS ENV STEERING PRODUCT: 500-850 HPA LAYER (FOR TC MSLP RANGE: 990-999 HPA) 0600 UTC 08SEP21

A high pressure system over the Bahamas will allow 91L to move northeastward over the next few days.

Larry is moving around another large area of high pressure east of Bermuda.

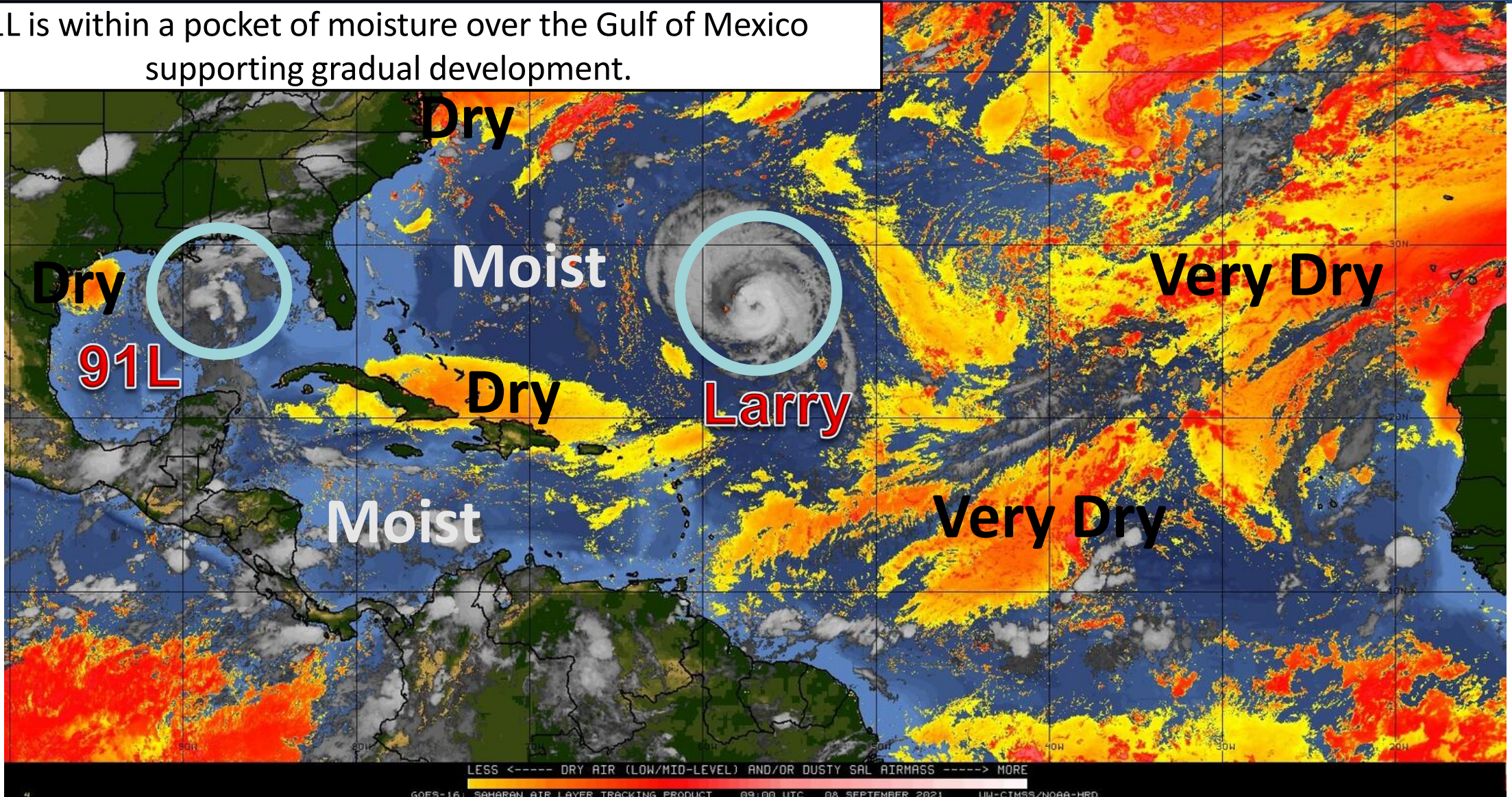


Dry Air & Saharan Dust

Is the environment favorable for the system?

Color denotes concentration of Saharan Dust or dry, stable air.

91L is within a pocket of moisture over the Gulf of Mexico supporting gradual development.





Sea Surface Temperatures & Anomalies

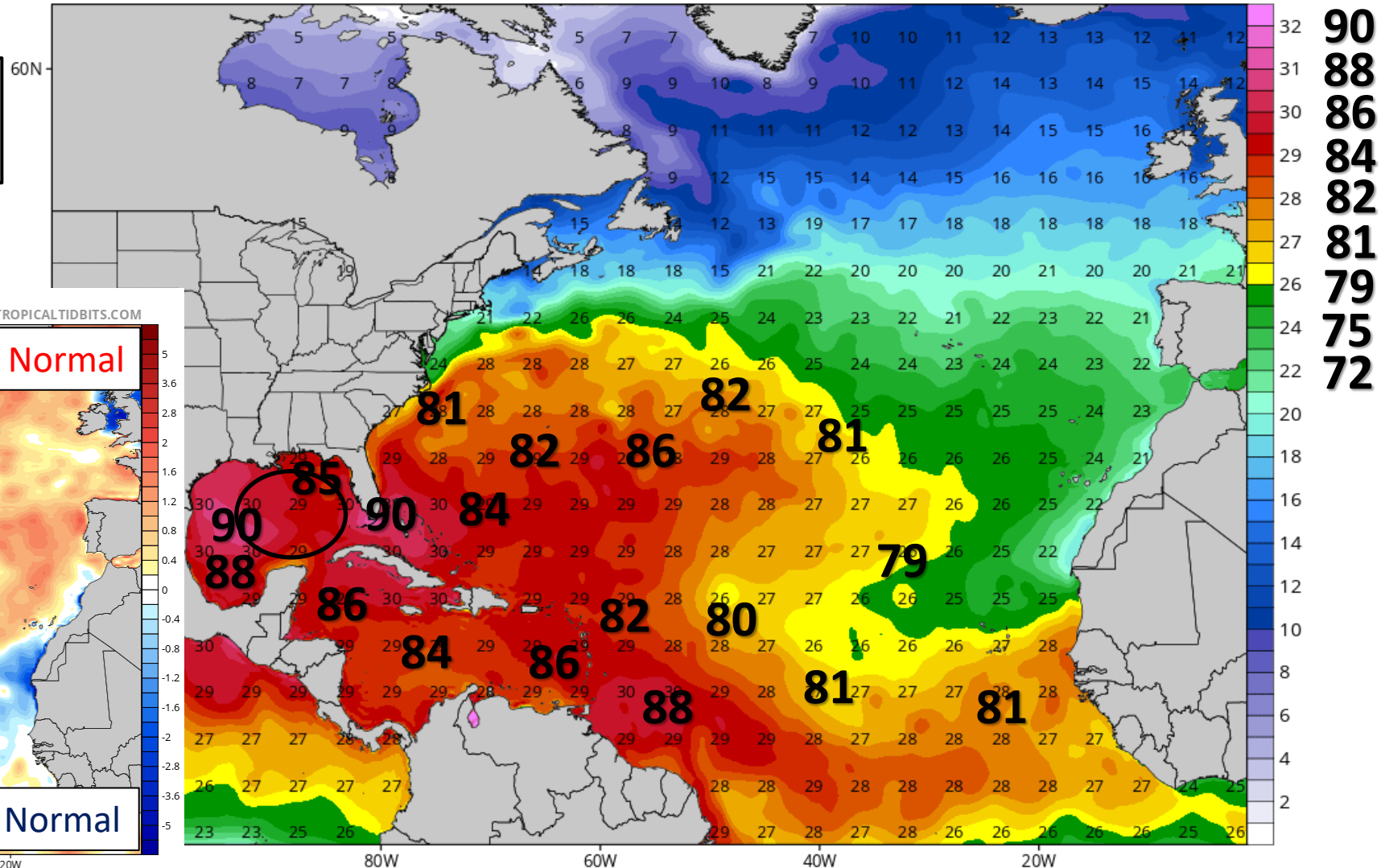
Is the ocean favorable for the system?

Water temperatures are supportive of development as much of the Gulf of Mexico remains above normal for this time of year.

CDAS Sea Surface Temperature (°C)

Analysis Time: 00z Sep 08 2021

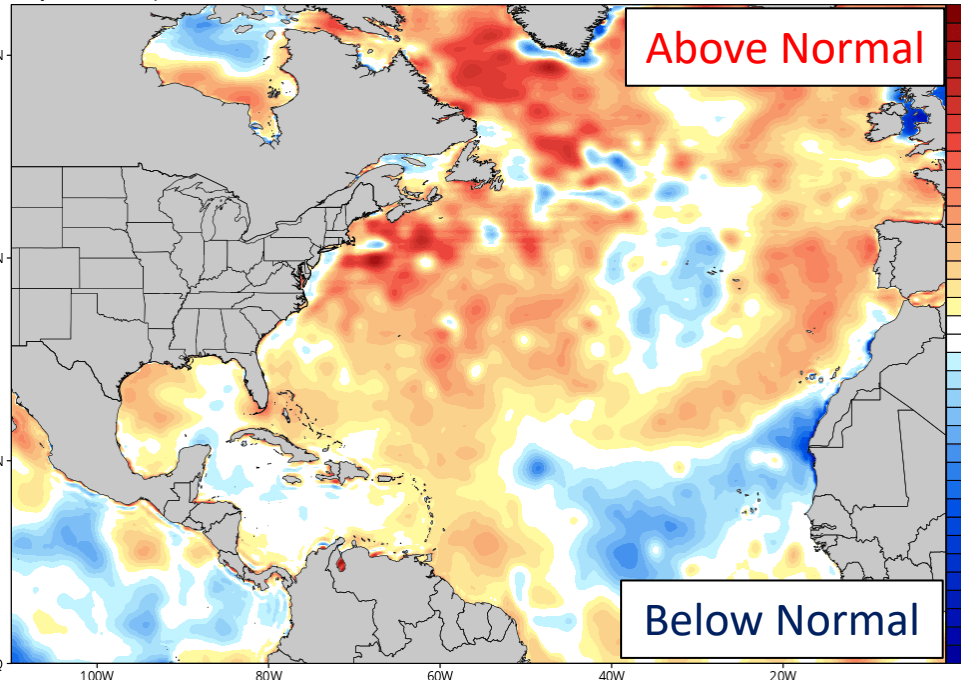
TROPICALTIDBITS.COM



CDAS Sea Surface Temperature Anomaly (°C) (based on CFSR 1981-2010 Climatology)

Analysis Time: 00z Sep 08 2021

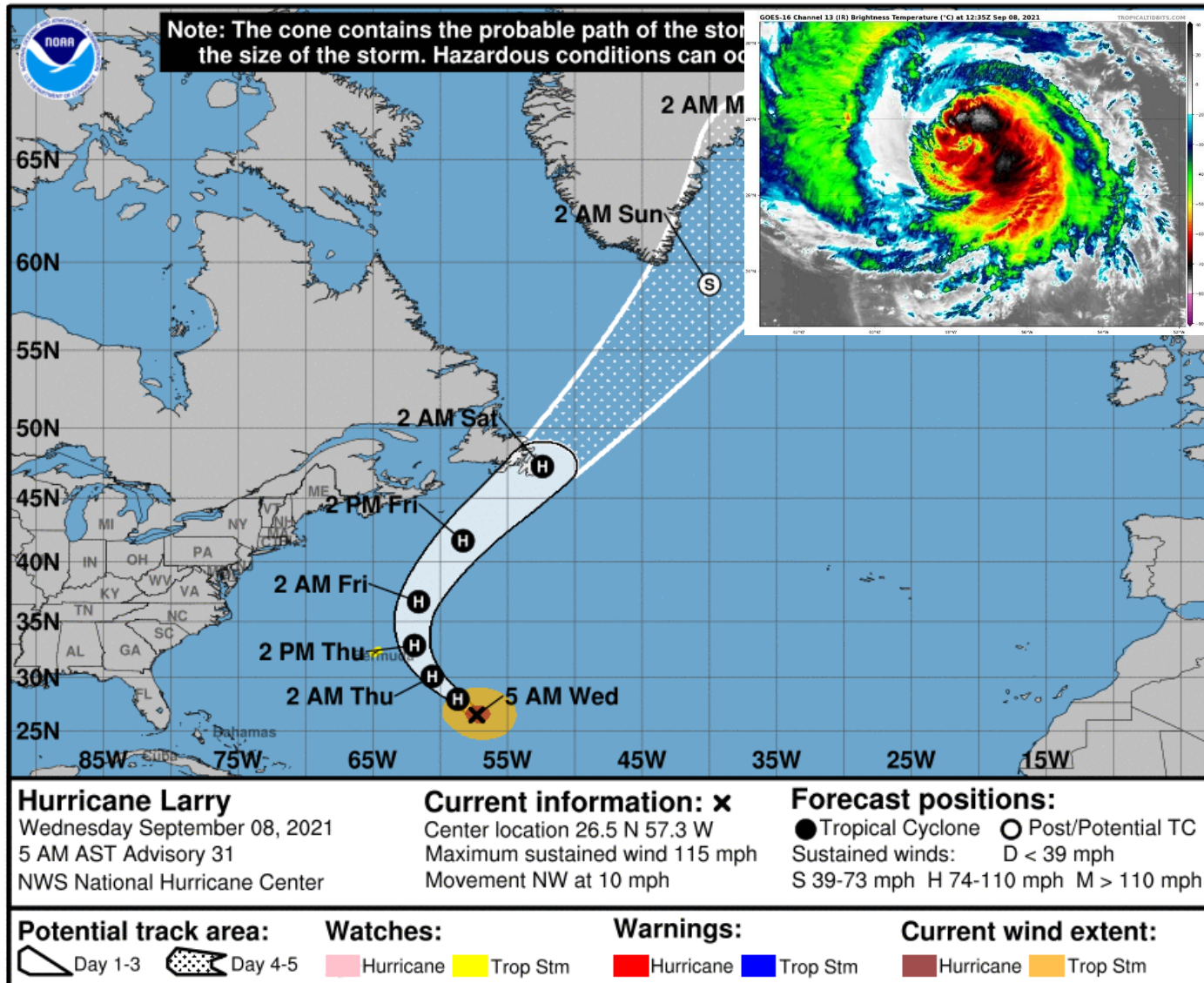
TROPICALTIDBITS.COM





Official Forecast Track

From the National Hurricane Center – Major Hurricane Larry

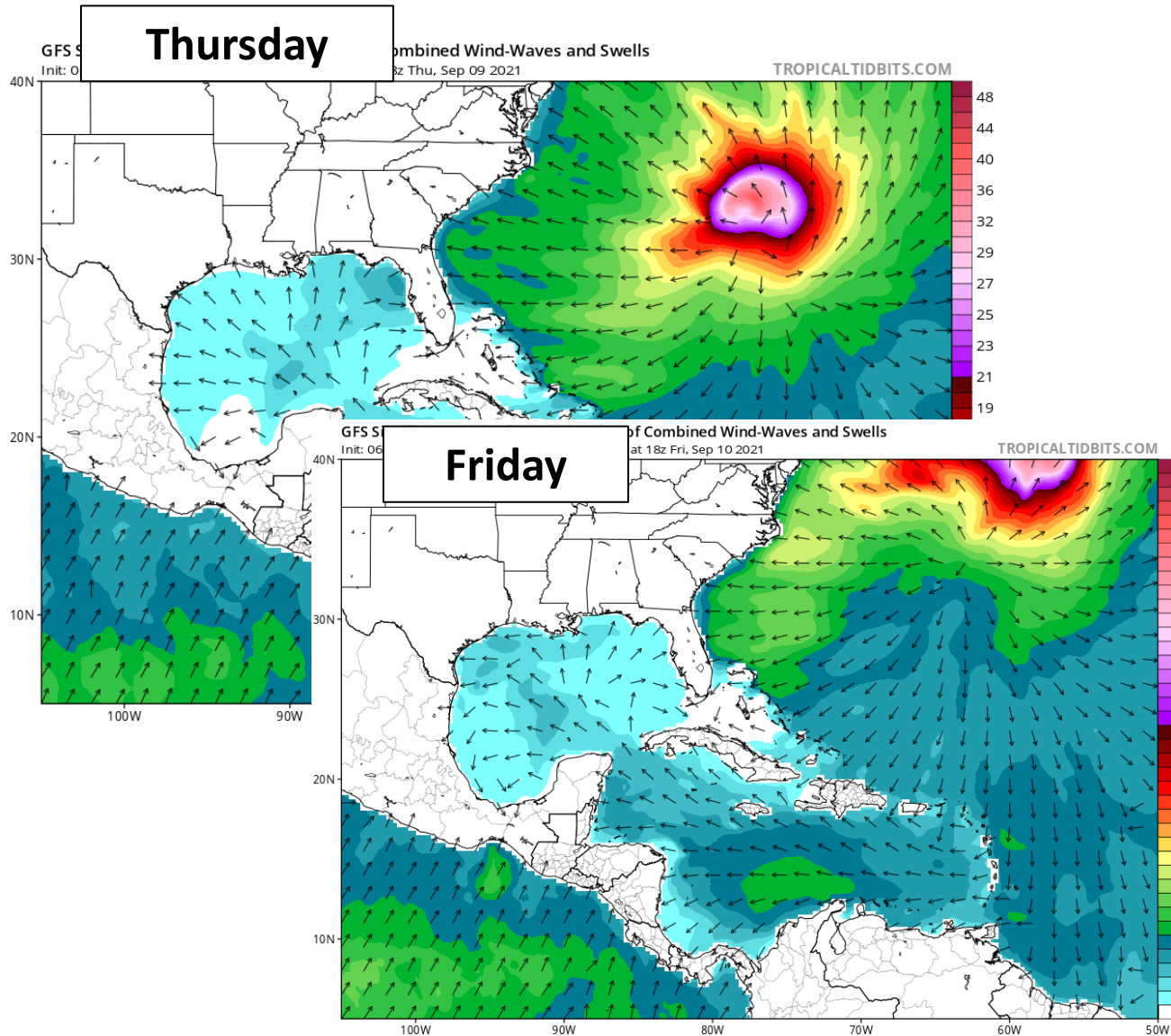


- **Location:** 560 miles southeast of Bermuda
- **Maximum sustained winds:** 115 mph (Category 3)
- **Movement:** NW at 10 mph
- **Forecast:** Larry will continue northwest through Wednesday at or near Major Hurricane intensity. As Larry turns northward on Thursday it may begin to weaken as it passes near Bermuda and turns northeast over colder waters near Atlantic Canada.
- This system poses no direct threat to Florida, but swells from Larry will continue to arrive at Atlantic beaches over the next few days.



Forecast Wave Heights

Late Week



Hurricane Larry:

The only threat to Florida will be the potential for ocean swells increasing the rip current risk along the East Coast continuing through the weekend, with increased waves noticeable by today and Thursday.

Invest 91L:

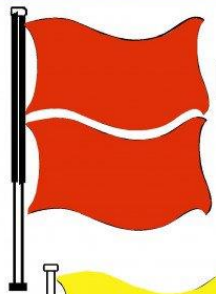
Regardless of development, portions of the northern Gulf Coast may experience elevated ocean swells and an increased risk of rip currents mid-week.



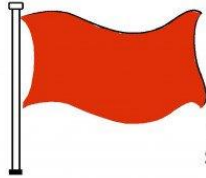
Rip Current Outlook

Today

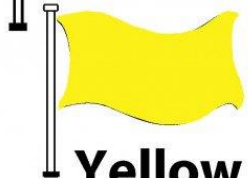
BEACH FLAG WARNING SYSTEM



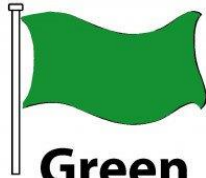
Double Red
Water Closed to
Public Use



Red
High Hazard
(rough conditions,
such as strong surf
and or currents)



Yellow
Medium Hazard
(light surf and or
currents)

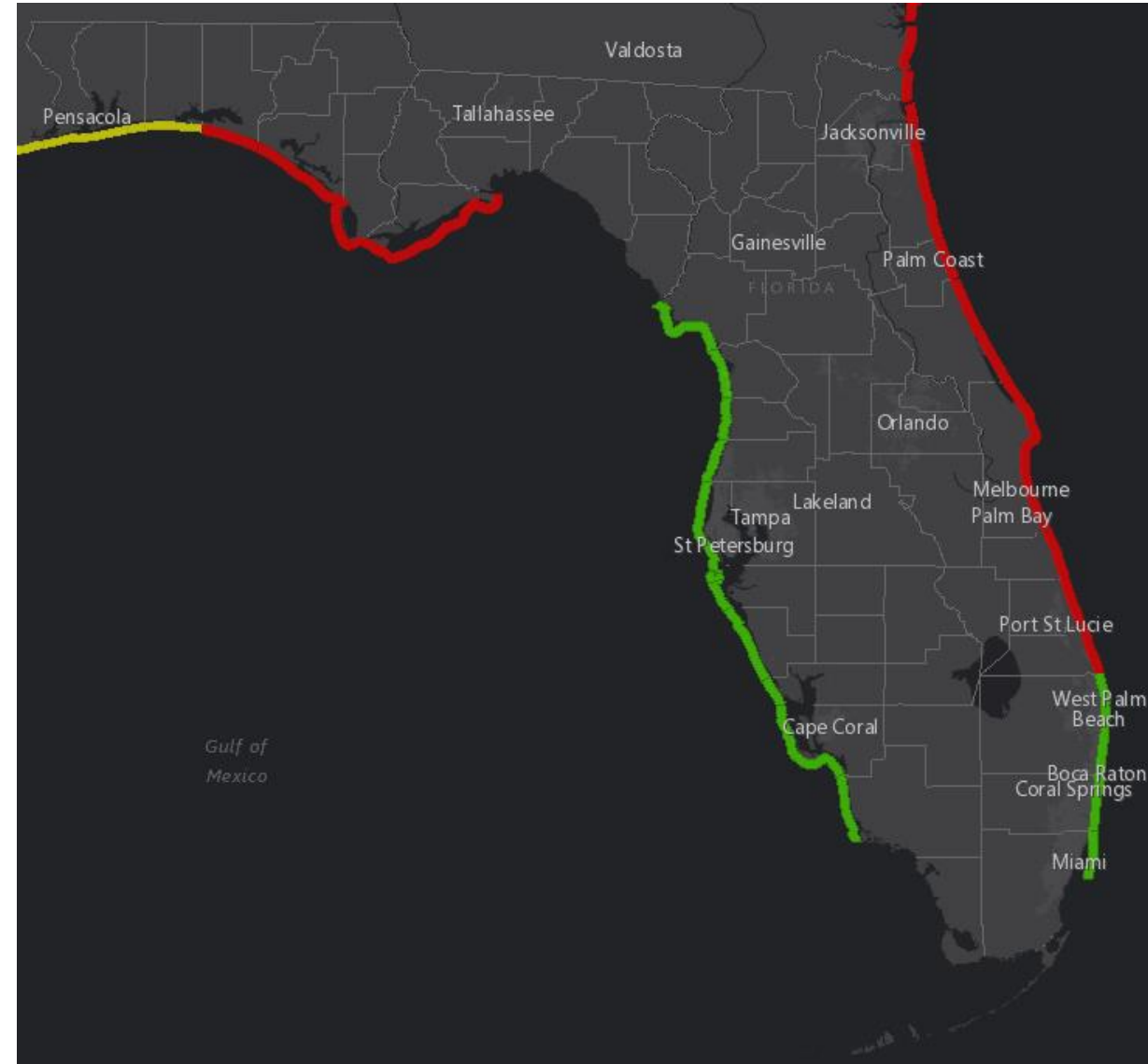


Green
Low Hazard
(calm conditions)



Purple
Marine Pest
(jellyfish, stingrays
& dangerous fish)

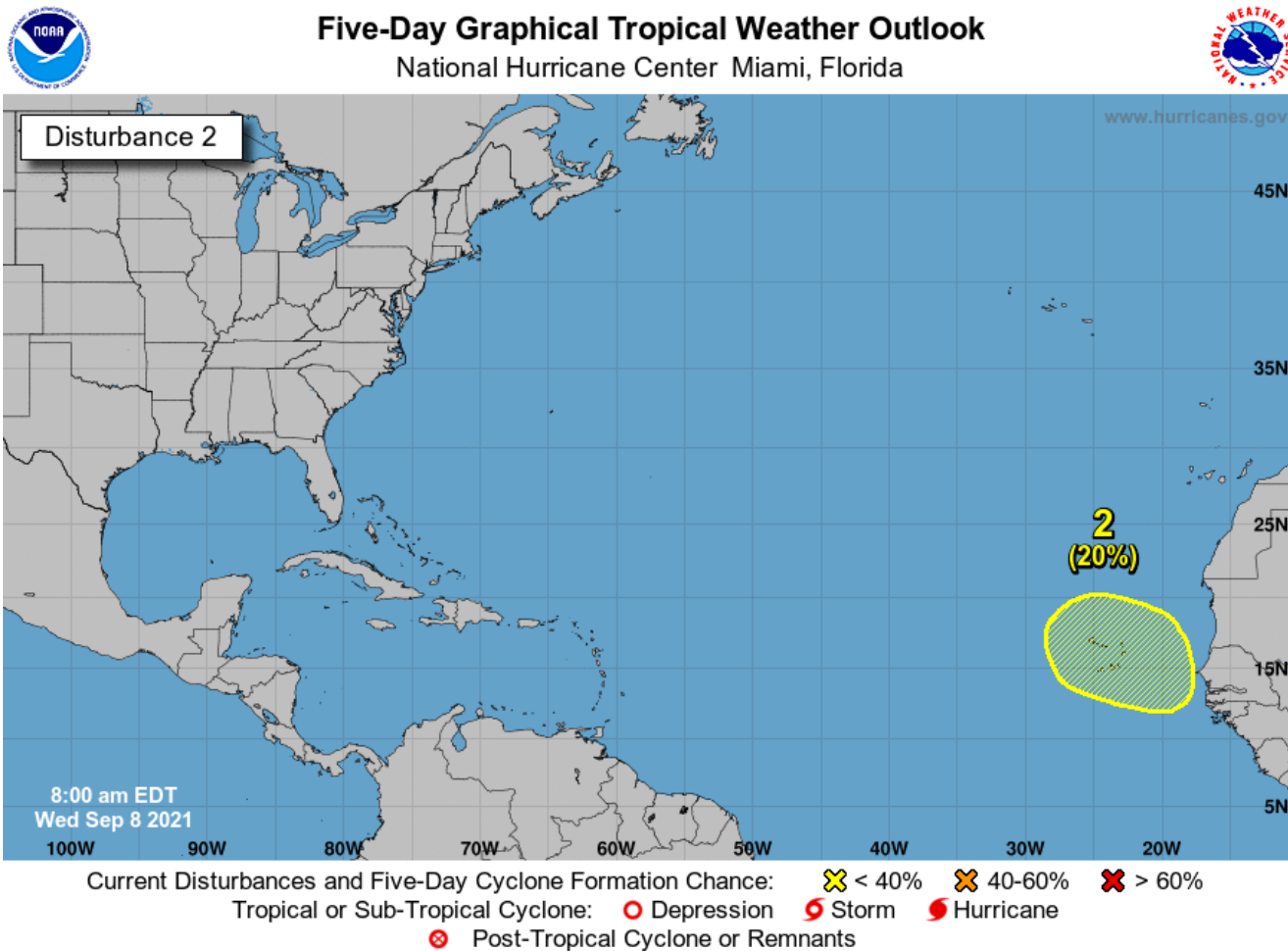
Long period swells from distant Hurricane Larry will keep the rip current risk high at Atlantic beaches, with approaching 91L increasing the rip current risk to a high along Panhandle beaches.





Tropical Weather Outlook

Possible Areas of Development During the Next 5 Days ([LINK](#)) – West Africa Tropical Wave



A tropical wave is expected to emerge off of the western coast of Africa in a few days. Some development of this system is possible, thereafter it moves west-northwest over the far eastern Atlantic.

This system poses no threat to Florida at this time.

- * Formation chance through 48 hours...low...near 0%
- * Formation chance through 5 days...low...20%



Overall Summary

Gulf of Mexico Low (Invest 91L):

- A low pressure disturbance, identified as Invest 91L, continues to produce disorganized cloudiness and a few thunderstorms over the central and eastern Gulf of Mexico.
- The National Hurricane Center is currently giving this system a 50% (medium) chance of development within the next 48 hours, and a 50% (medium) chance of development over the next 5 days.
- 91L is forecast to move northeastward over the northeastern Gulf of Mexico today and then across North Florida on Thursday. This disturbance will then emerge off the southeastern United States coast late this week.
- Atmospheric conditions are marginally conducive for some gradual development as the system nears North Florida, and a tropical depression or minimal tropical storm could develop this afternoon. This system is not expected to be significant or rapidly intensify.
- The time from when the system develops to when it makes landfall somewhere in the Panhandle or Big Bend Wednesday night could be short (less than 12 hours).
- The next name on the list is Mindy, or if it remains a tropical depression, it would be Thirteen.

Florida Outlook:

- Hurricane Larry poses no direct threat to Florida, but large ocean swells from the hurricane will continue an increased rip current threat for Atlantic beaches.
- A **Flash Flood Watch** is in effect across portions of North Florida through Thursday morning. *Regardless of the development of 91L*, flash flooding is possible with widespread rainfall totals of 2-4" and localized totals of 6-7".
- A **high risk of rip currents** is expected at Panhandle beaches through Thursday.
- The Storm Prediction Center (SPC) is outlooking a **marginal risk of severe weather (level 1 of 5)** today and tonight across the Panhandle and Big Bend. Thunderstorms associated with 91L may produce locally damaging winds and a brief tornado today and tonight.
- Significant development with a damaging wind and storm surge threat is not anticipated from 91L at this time.
- If 91L develops into a 40-45 mph tropical storm, a more focused area of gusty winds and heavy rainfall will be possible near the landfall location.

The next briefing packet will be issued this afternoon. For the latest information, please visit the National Hurricane Center website at www.hurricanes.gov.



TROPICAL UPDATE



Created by:

Caitlyn Gillespie, Assistant State Meteorologist

Caitlyn.Gillespie@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.

Other reports available for subscription are available at:

<https://public.govdelivery.com/accounts/FLDEM/subscriber/new?preferences=true>