



TROPICAL UPDATE



4:00 PM EDT

Tuesday, September 7, 2021

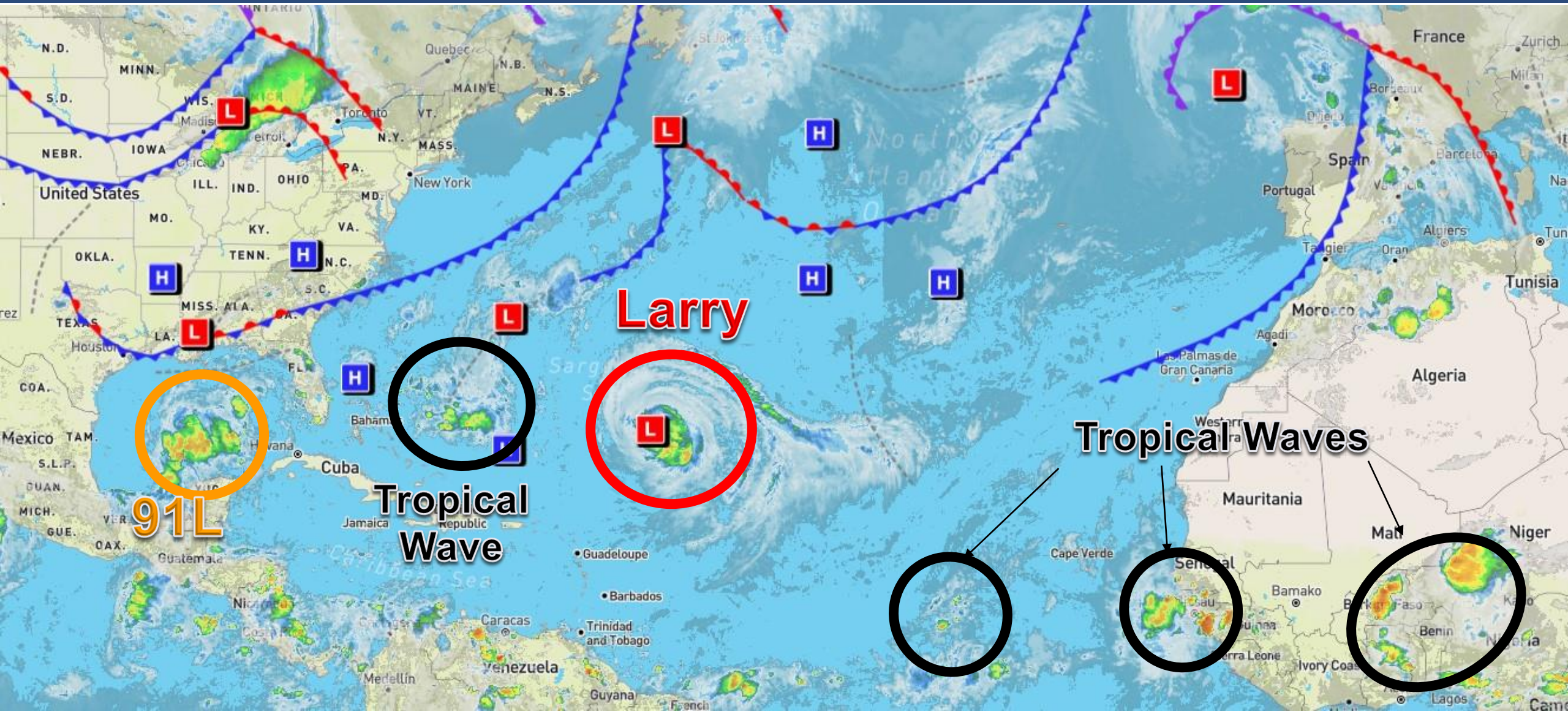
Invest 91L – Gulf of Mexico (40%)

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

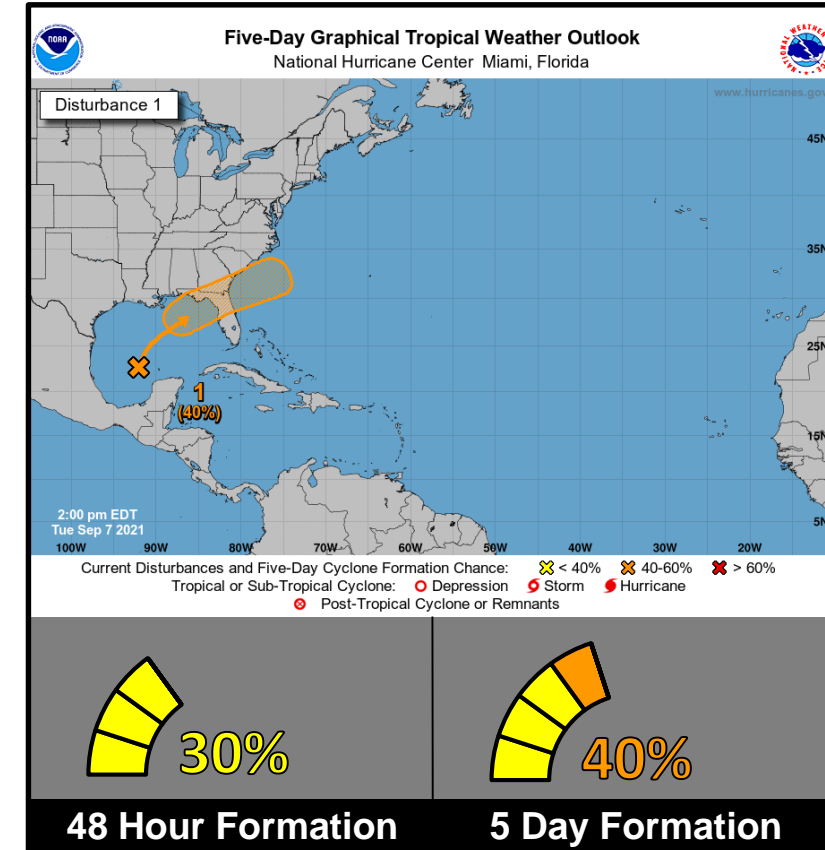




Invest 91L

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 10% to 30% over the next 48 hours and 30% to 40% over the next 5 days. Regardless of development, heavy rainfall is forecast for the northern half of the state on Wednesday and Thursday that could result in localized flooding.



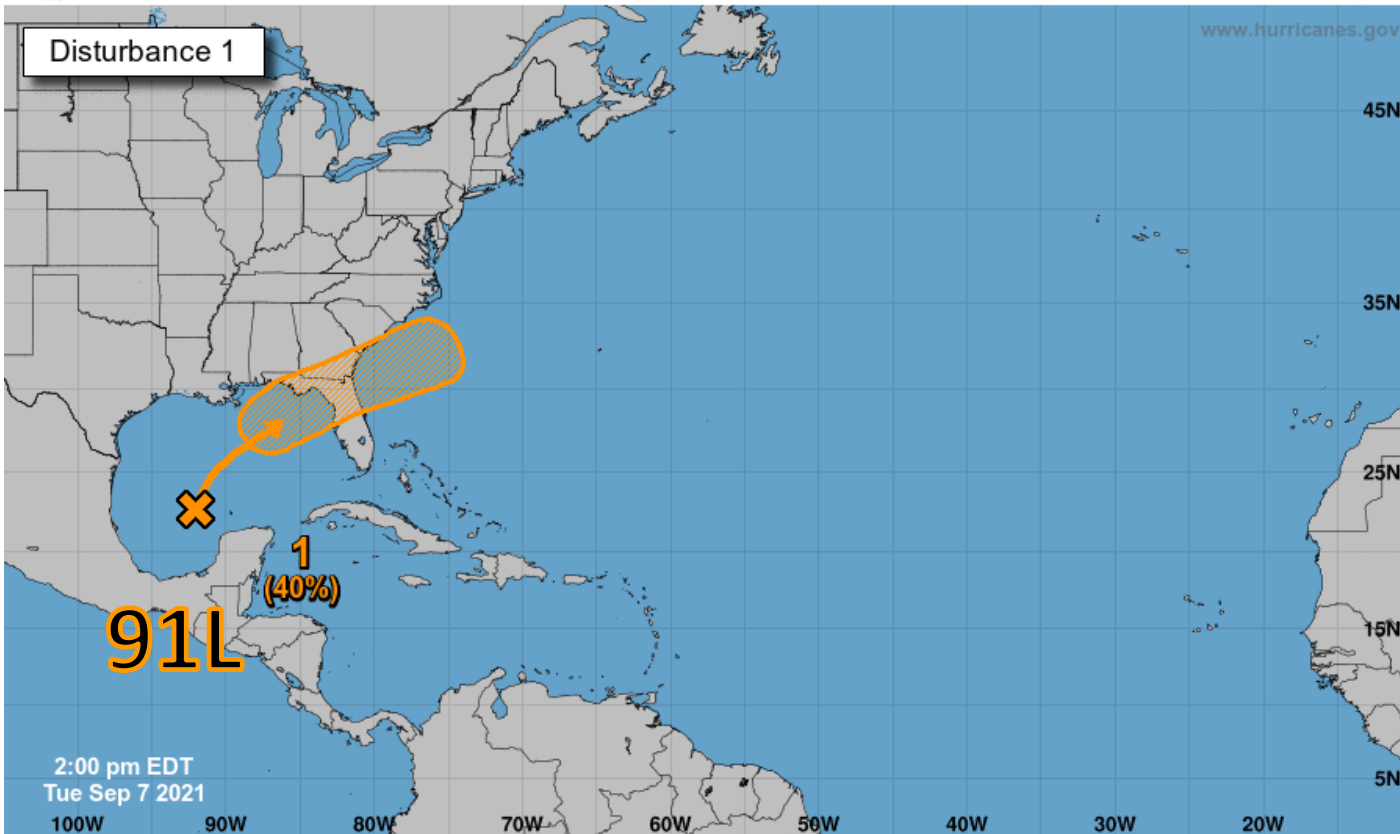
Tropical Weather Outlook

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

Showers and thunderstorms have increased today over the south-central Gulf of Mexico in association with a surface trough and an upper-level disturbance. The system is expected to move slowly northeastward over the central and northeastern Gulf of Mexico during the next couple of days.

Upper-level winds are currently unfavorable for development, but they are forecast to become more conducive for some limited tropical or subtropical cyclone development as the system nears the northern Gulf coast on Wednesday and Wednesday night. The disturbance is then expected to cross the southeastern United States, and some slight additional development will be possible after it emerges off the southeastern United States coast late this week.

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

*** Formation chance through 48 hours...low...30%**

*** Formation chance through 5 days...medium...40%**

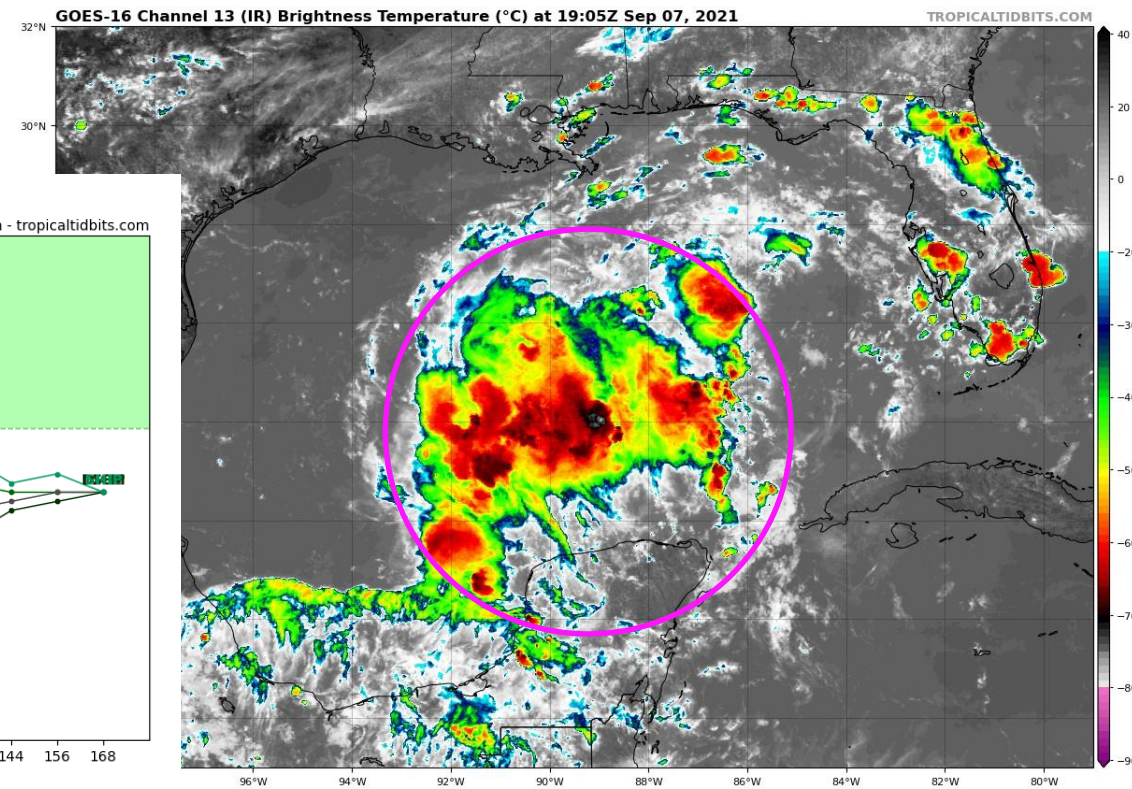
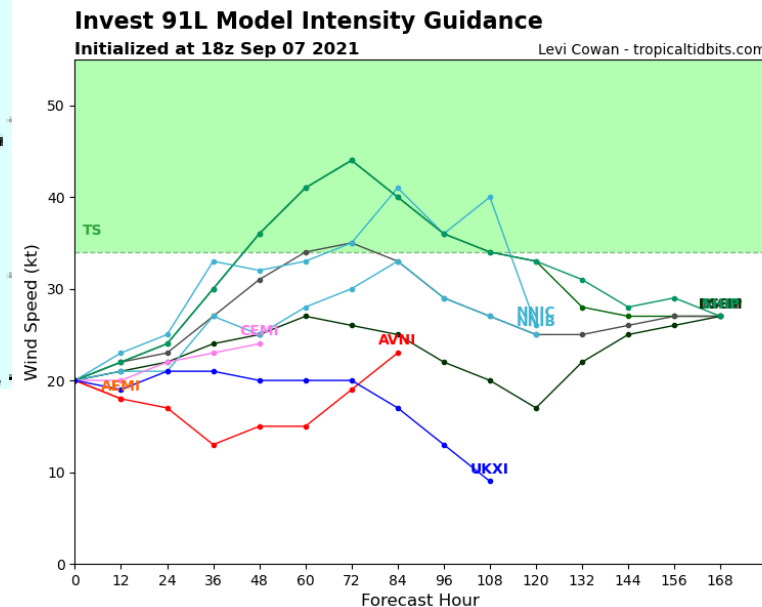
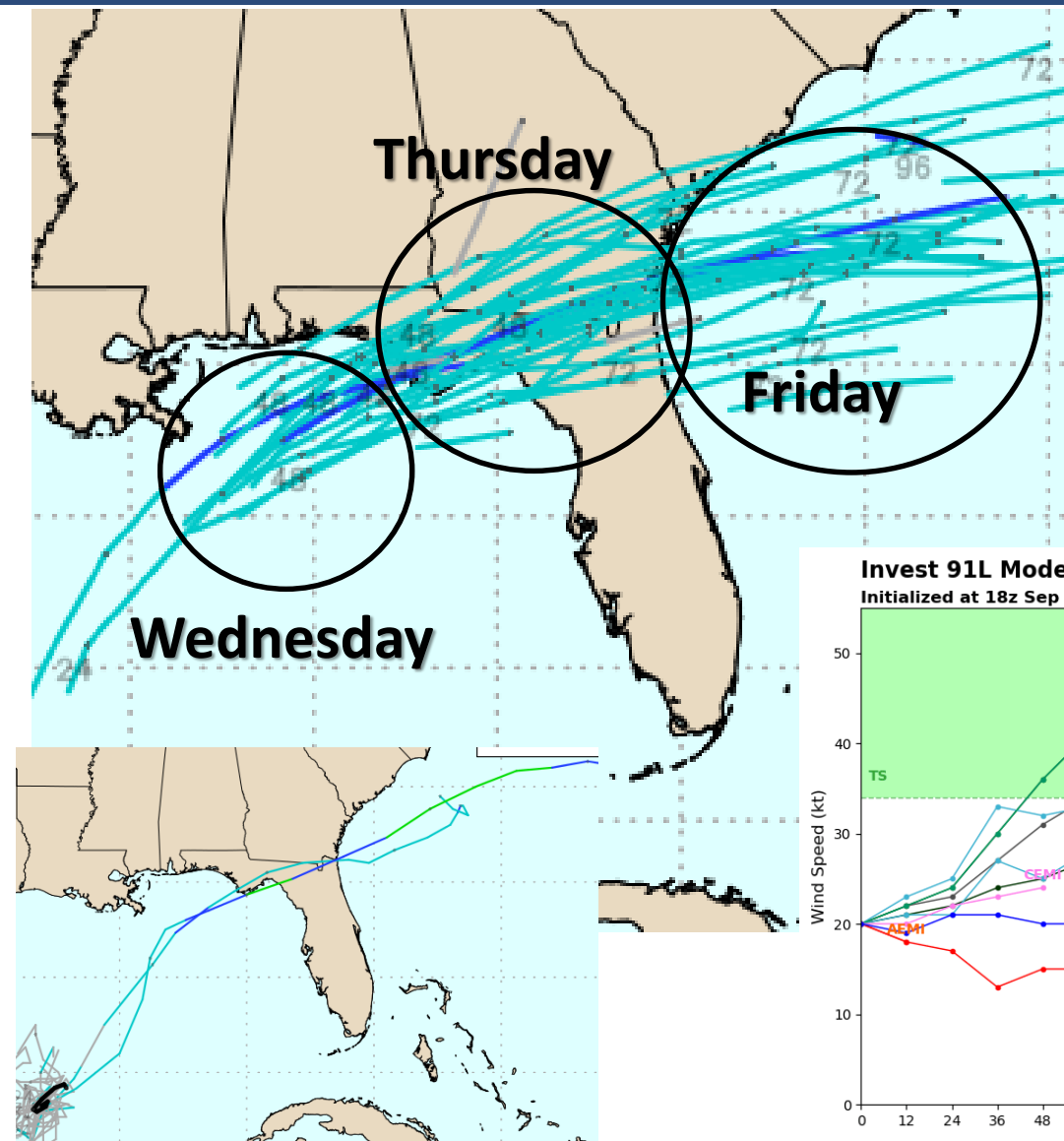


Current Satellite Image and Track Guidance

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 Wednesday night.

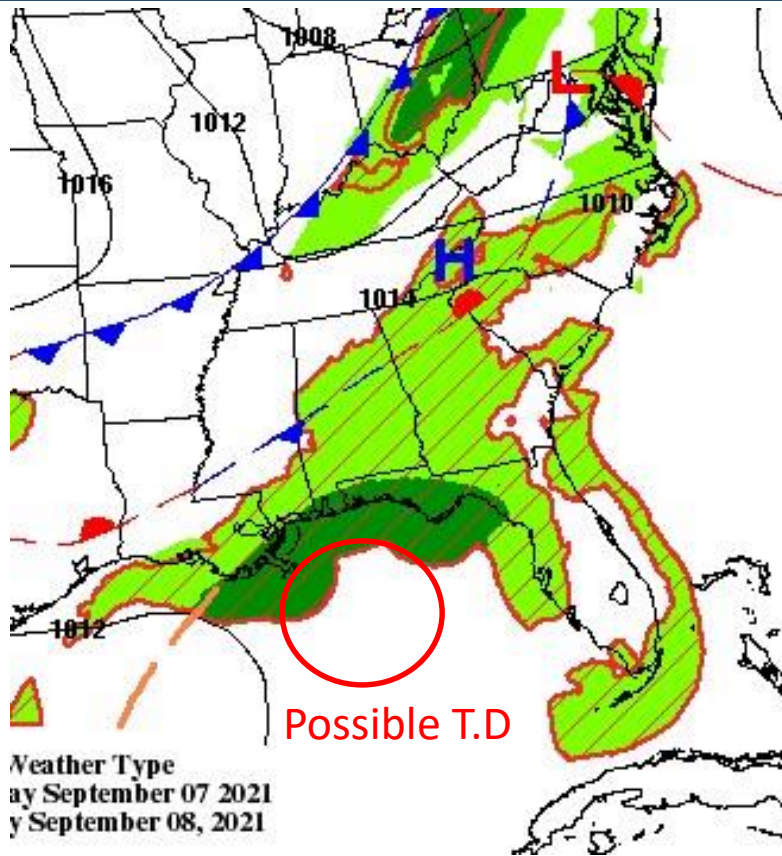
Track forecasts remain in agreement that the system will move northeast across portions of North Florida on Thursday and into the Atlantic by Friday.



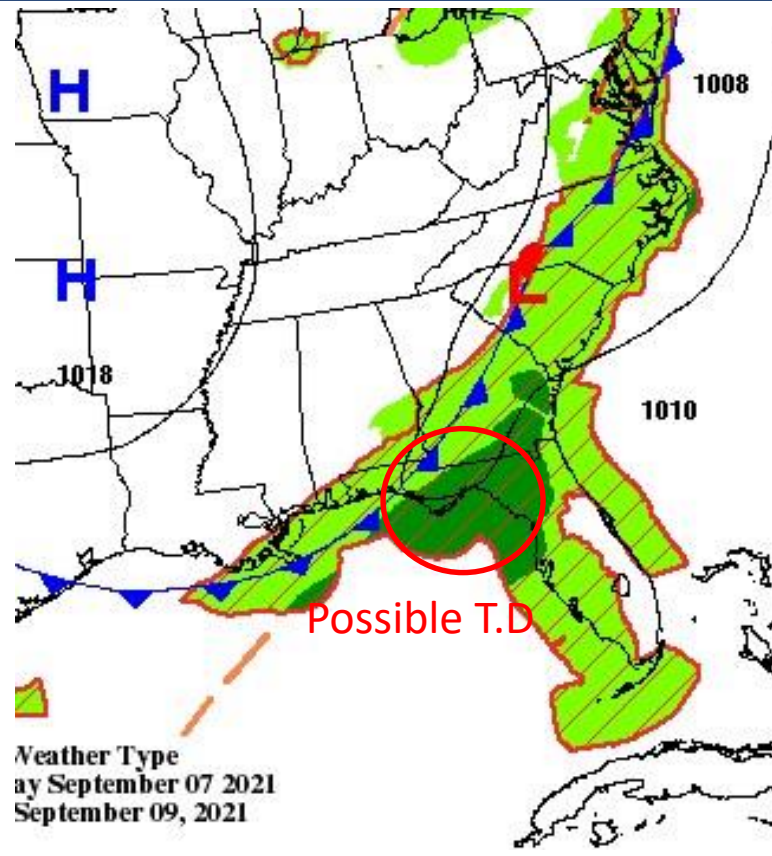


Forecast Mid-Week

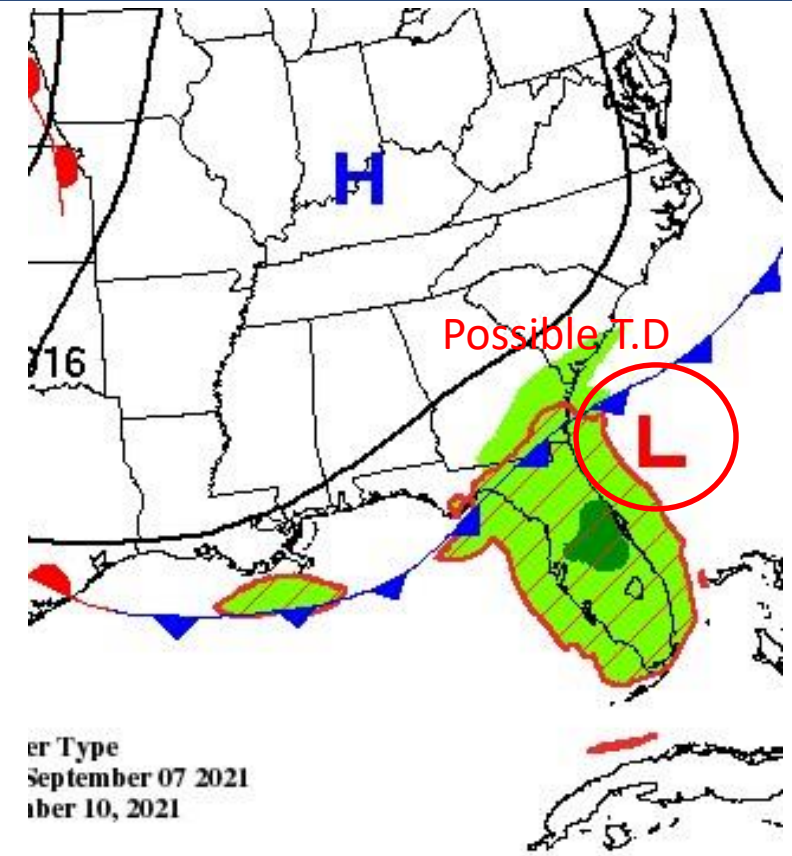
Surface Maps from the Weather Prediction Center



Wednesday



Thursday



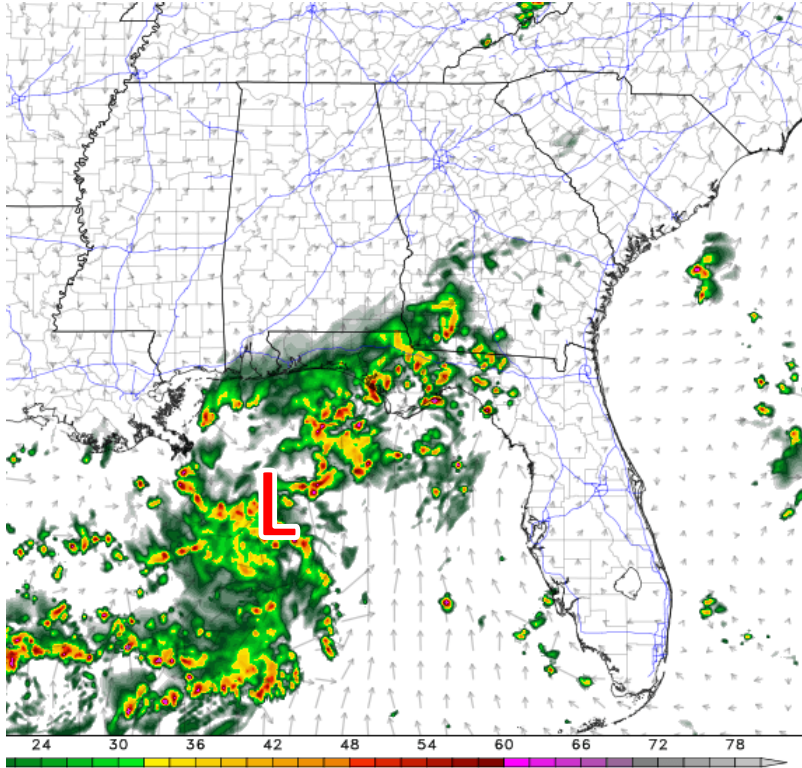
Friday

Invest 91L will bring tropical moisture northward regardless if it develops or not. When combined with an approaching cold front, heavy rainfall is forecast for North Florida mid-week.

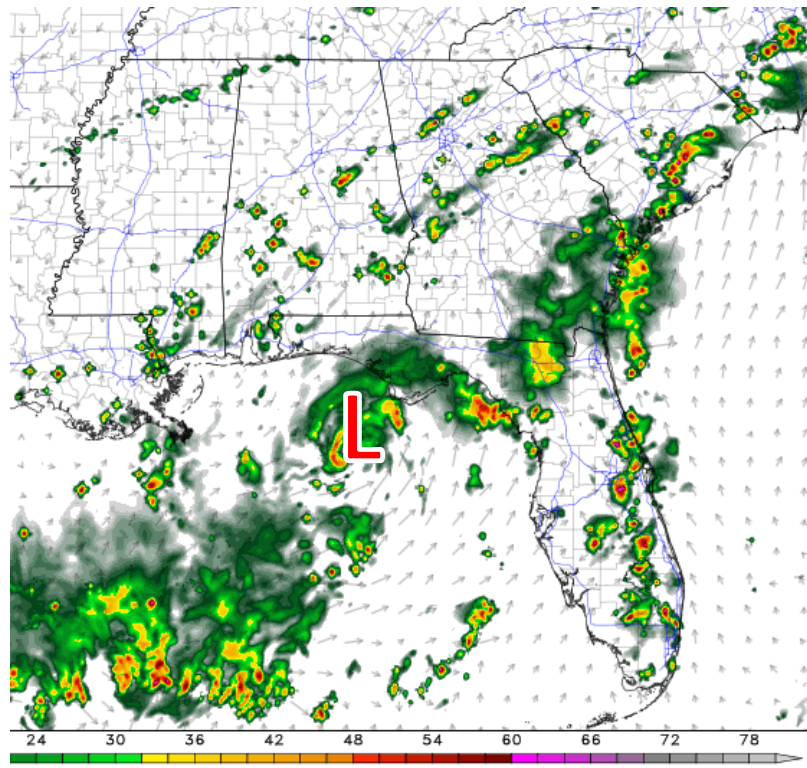


Model Forecast Radar

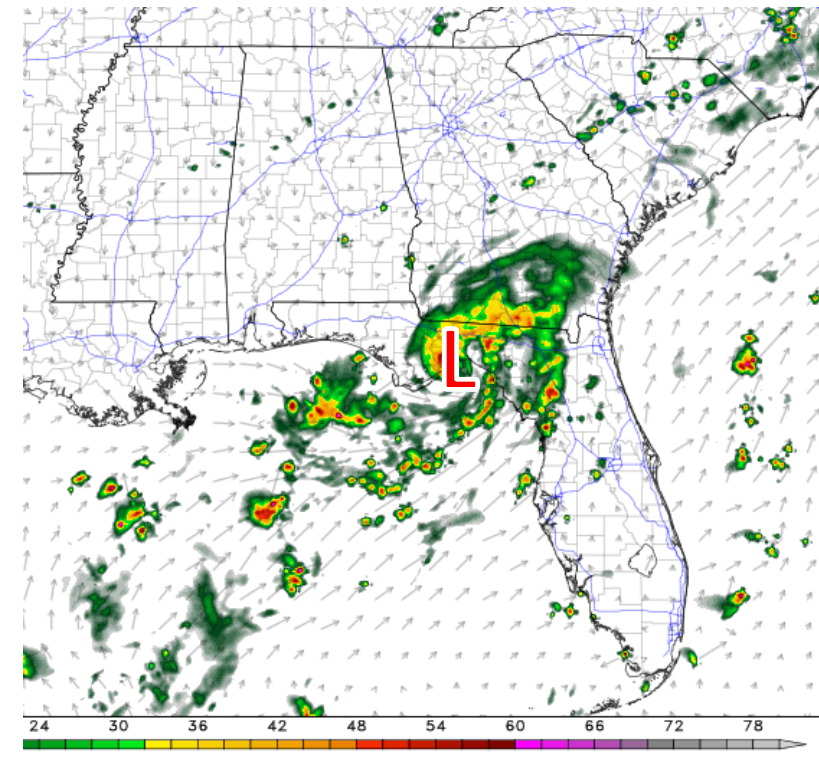
*****Only Model Guidance – Time & Position Will Vary*****



Wednesday Morning



Wednesday Afternoon



Wednesday Night

Showers and thunderstorms will likely be ongoing tomorrow morning across the Panhandle and Big Bend. If 91L were to develop into a tropical depression or minimal tropical storm, it would occur Wednesday afternoon as the system nears the coast (short notice!). It would then make landfall Wednesday night in the eastern Panhandle or Big Bend of Florida.



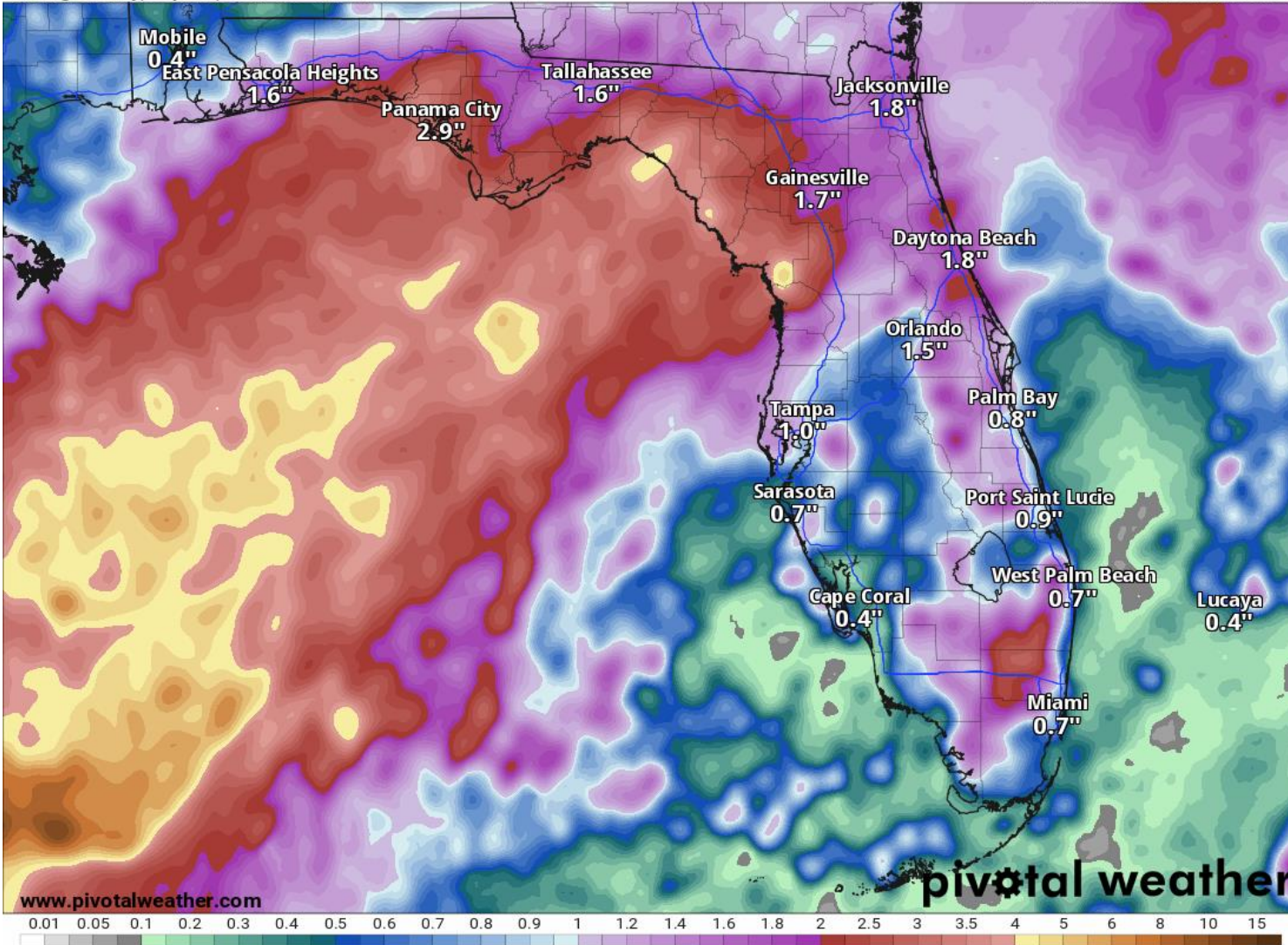
Rainfall Totals Next 5 Days

Ending 8 AM ET Sunday

120-Hour Precipitation (in)

Ending Sunday, Sep. 12, 2021 at 8 a.m. EDT

Init: Tue 2021-09-07 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" 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

**MARGINAL
(MRGL)**

Isolated flash
floods possible

Localized and
primarily affecting
places that can
experience rapid
runoff with heavy
rainfall.

Tonight

**MARGINAL
(MRGL)**

Isolated flash
floods possible

Localized and
primarily affecting
places that can
experience rapid
runoff with heavy
rainfall.

Wednesday

**MARGINAL
(MRGL)**

Isolated flash
floods possible

Localized and
primarily affecting
places that can
experience rapid
runoff with heavy
rainfall.

Thursday

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, an isolated case of flash flooding is possible across the northern half of the state mid-week as Invest 91L moves through the region.



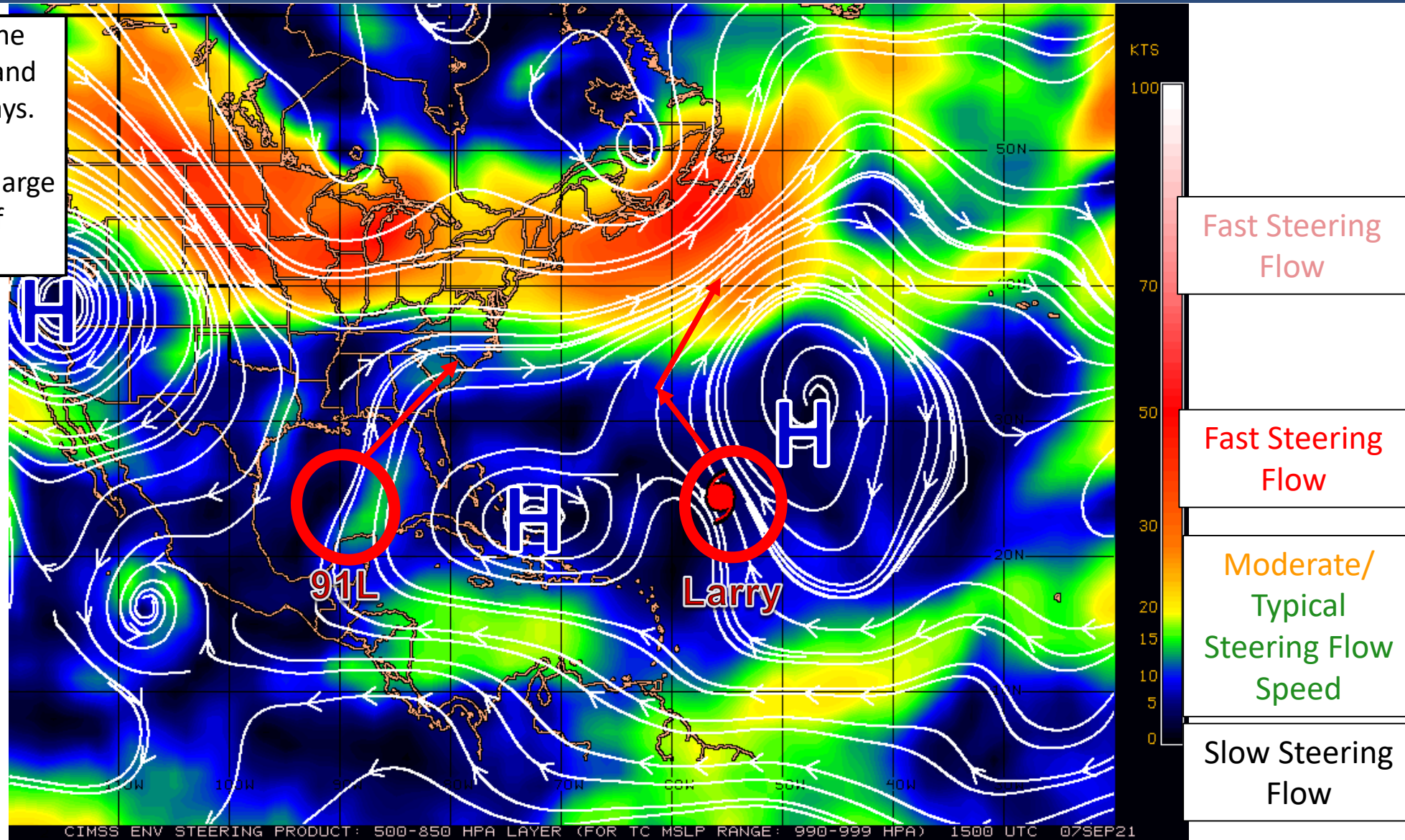
Steering Currents

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.

A high pressure system over the Bahamas will move 91L north and northeast over the next few days.

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



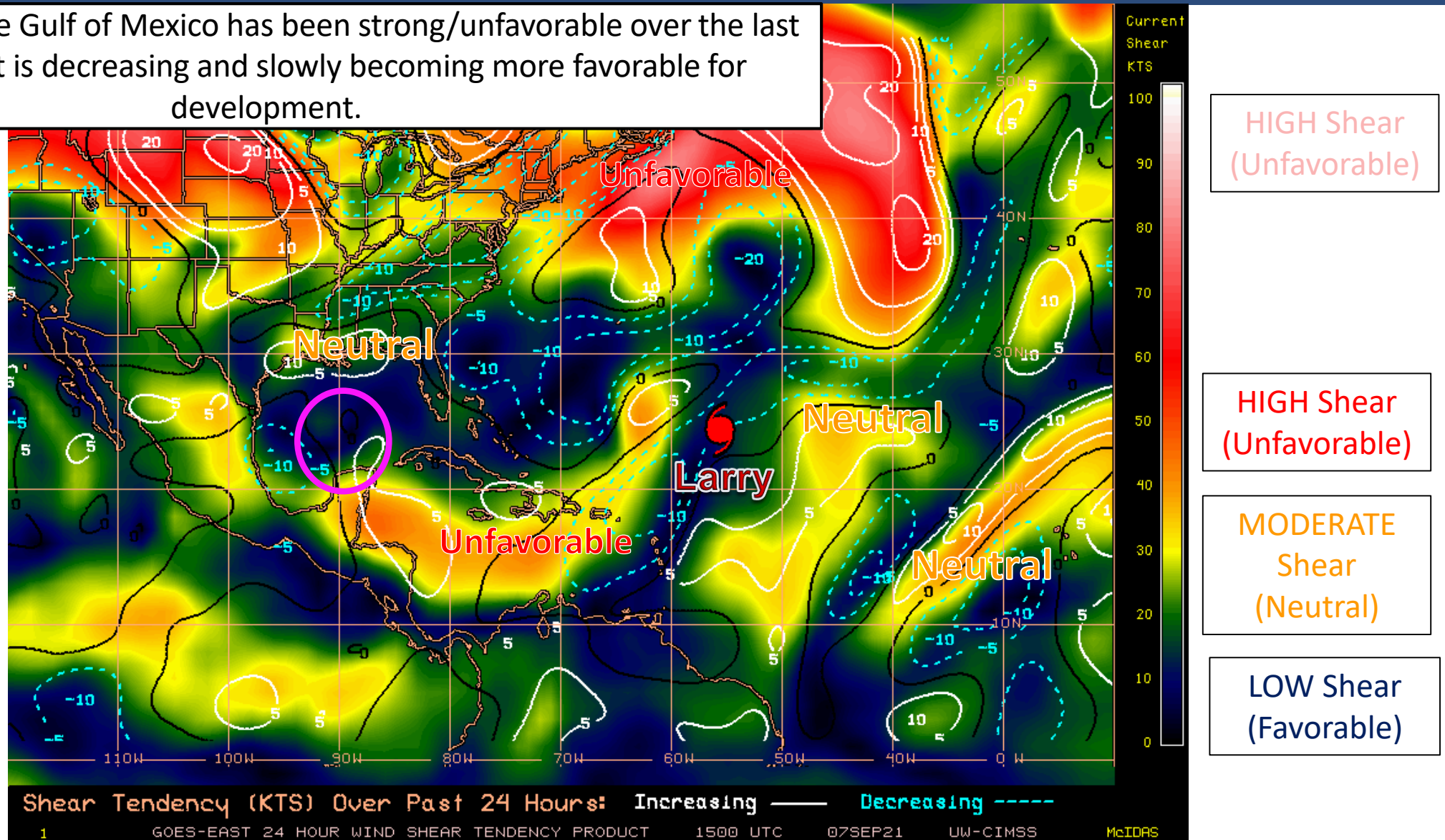


Wind Shear

Is the environment favorable for the system?

Color denotes the amount of wind shear and the lines denote how it have changed over the last 24 hours (dotted lines show decreasing shear and solid lines show increasing).

Wind shear over the Gulf of Mexico has been strong/unfavorable over the last several days but is decreasing and slowly becoming more favorable for development.



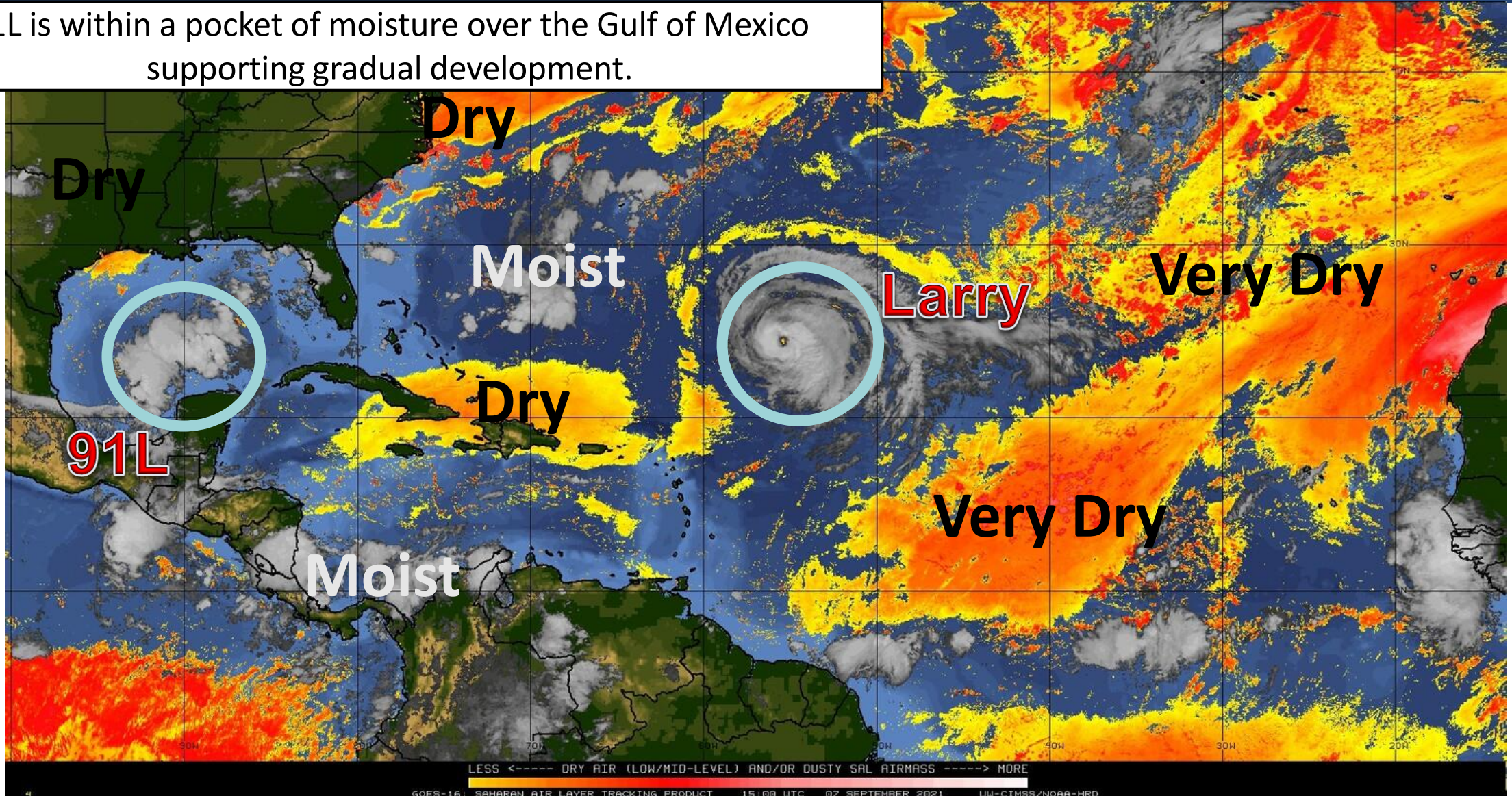


Dry Air & Saharan Dust

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

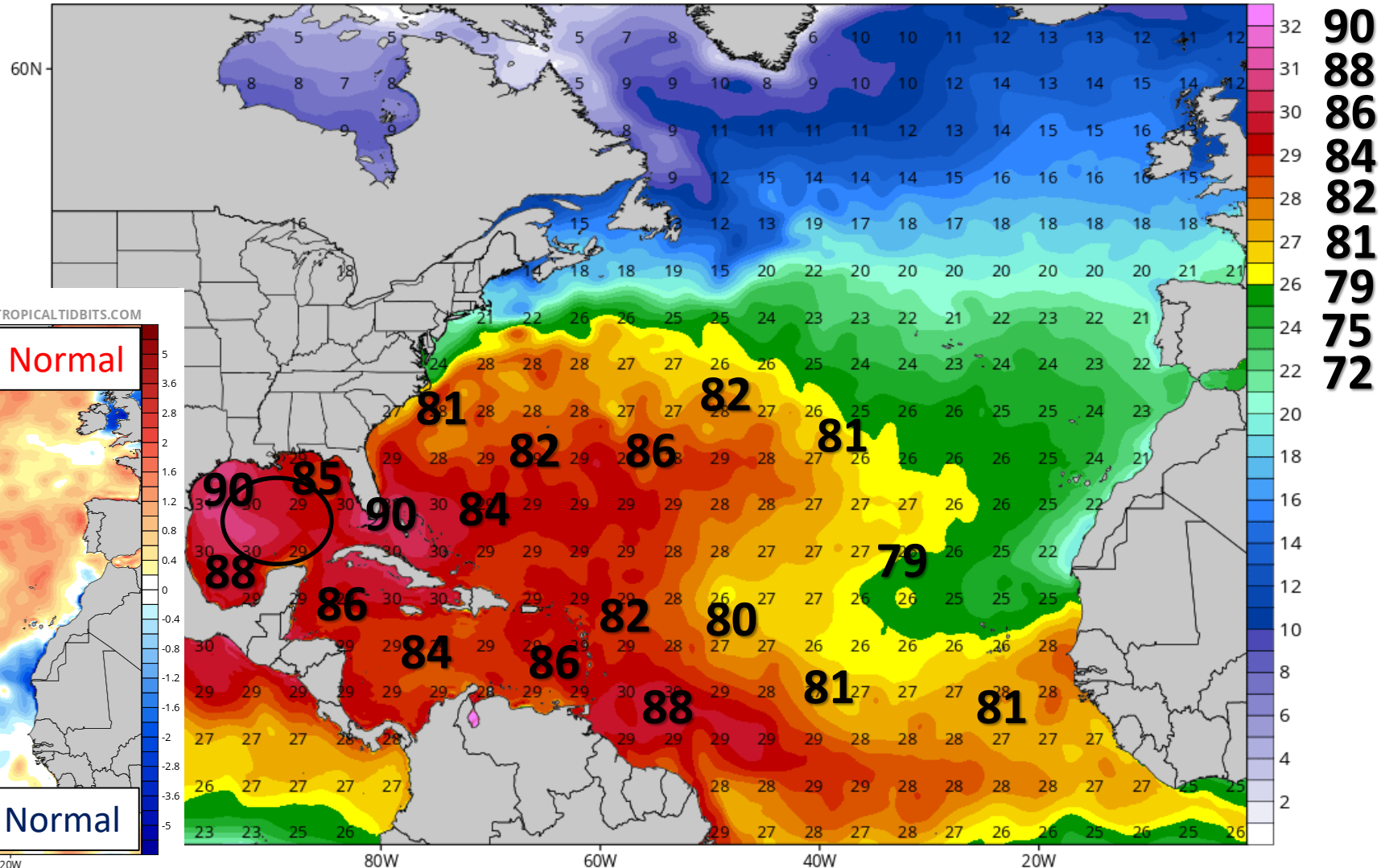
Is the ocean favorable for the system?

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: 06z Sep 07 2021

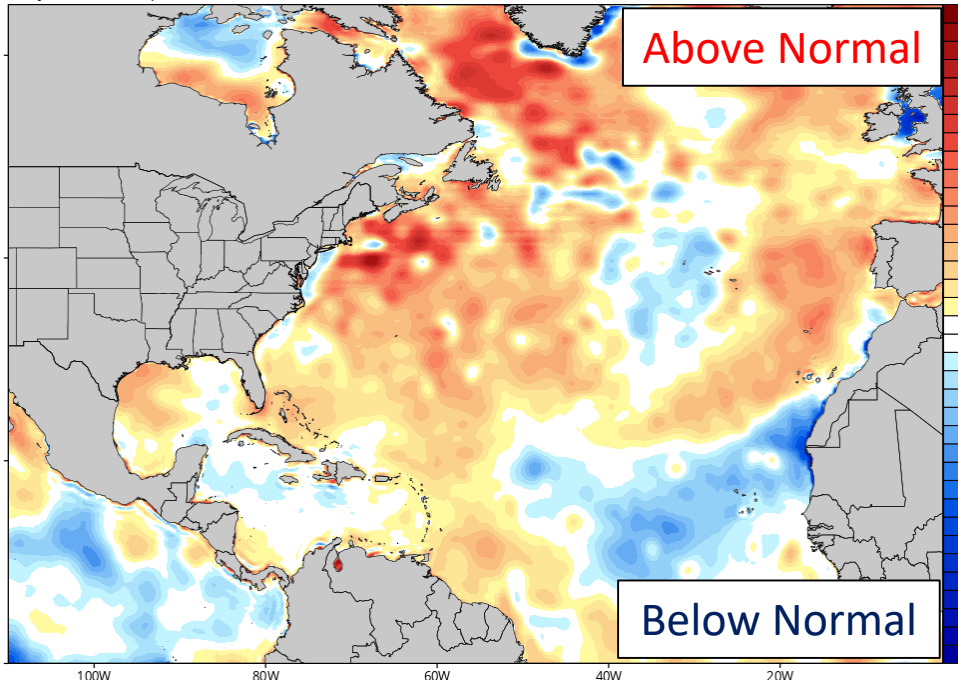
TROPICALTIDBITS.COM



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

Analysis Time: 06z Sep 07 2021

TROPICALTIDBITS.COM

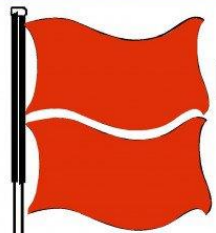




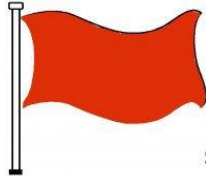
Rip Current Outlook

Today

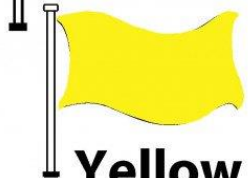
BEACH FLAG WARNING SYSTEM



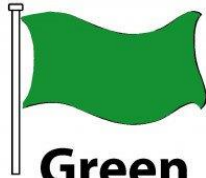
Double Red
Water Closed to
Public Use



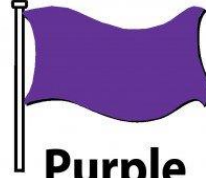
Red
High Hazard
(rough conditions,
such as strong surf
and or currents)



Yellow
Medium Hazard
(light surf and or
currents)

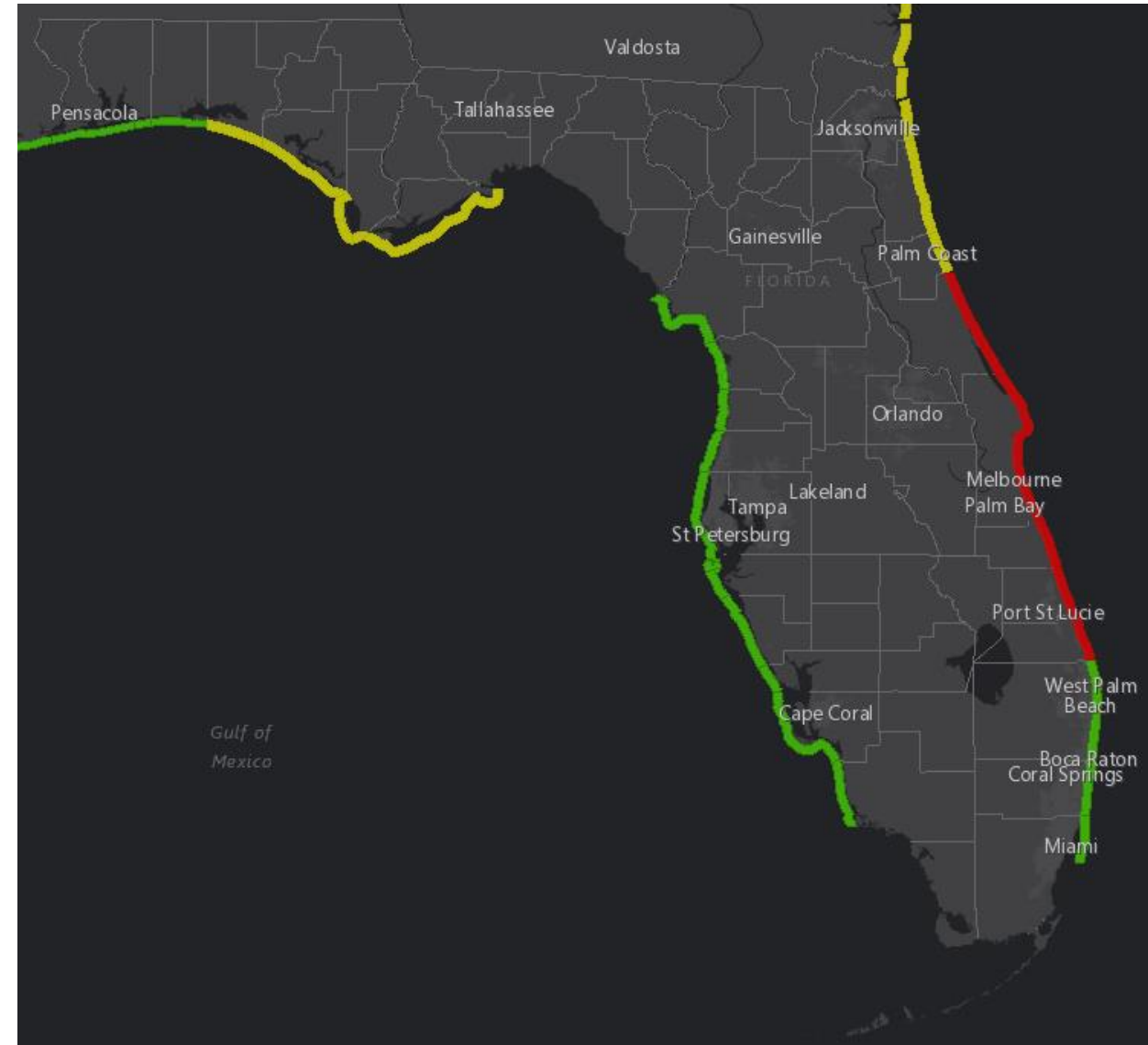


Green
Low Hazard
(calm conditions)



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 the stormy weather from 91L keeping the rip current risk moderate at Panhandle beaches.





Overall Summary

Gulf of Mexico Low (Invest 91L):

- A low pressure disturbance, identified as Invest 91L, has shown some signs of organization of showers and thunderstorms in the central Gulf of Mexico, and development chances have increased some today.
- The National Hurricane Center is currently giving this system a 30% (low) chance of development within the next 48 hours, and a 40% (medium) chance of development over the next 5 days.
- 91L is forecast to move northeast over the Gulf of Mexico tonight/tomorrow and then across North Florida on Thursday. It will then move into the southwestern Atlantic by Friday where development may continue.
- 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 tomorrow. 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).
- Given that impacts are anticipated to be limited (focused on heavy rainfall) and confidence on development is low, advisories on a Potential Tropical Cyclone are not anticipated.
- 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 increase the rip current threat for Atlantic beaches.
- **Regardless of development** of Invest 91L, increased rain chances are expected across North Florida Wednesday and Thursday. Isolated flash flooding is possible with widespread rainfall totals of 2-4" and localized totals of 6".
- Elevated risk of rip currents is expected at Panhandle beaches through Thursday.
- Significant development with a damaging wind and storm surge threat is not anticipated from 91L at this time.
- If it develops into a 40-45 mph tropical storm, a small area of gusty winds and a brief tornado will be possible near the landfall location.

The next briefing packet will be issued Thursday morning. For the latest information, please visit the National Hurricane Center website at

www.hurricanes.gov.



TROPICAL UPDATE



Created by:

Michael Spagnolo, Deputy State Meteorologist

Michael.Spagnolo@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>