



Tropical Update



11:15 AM EDT

Monday, July 29, 2024

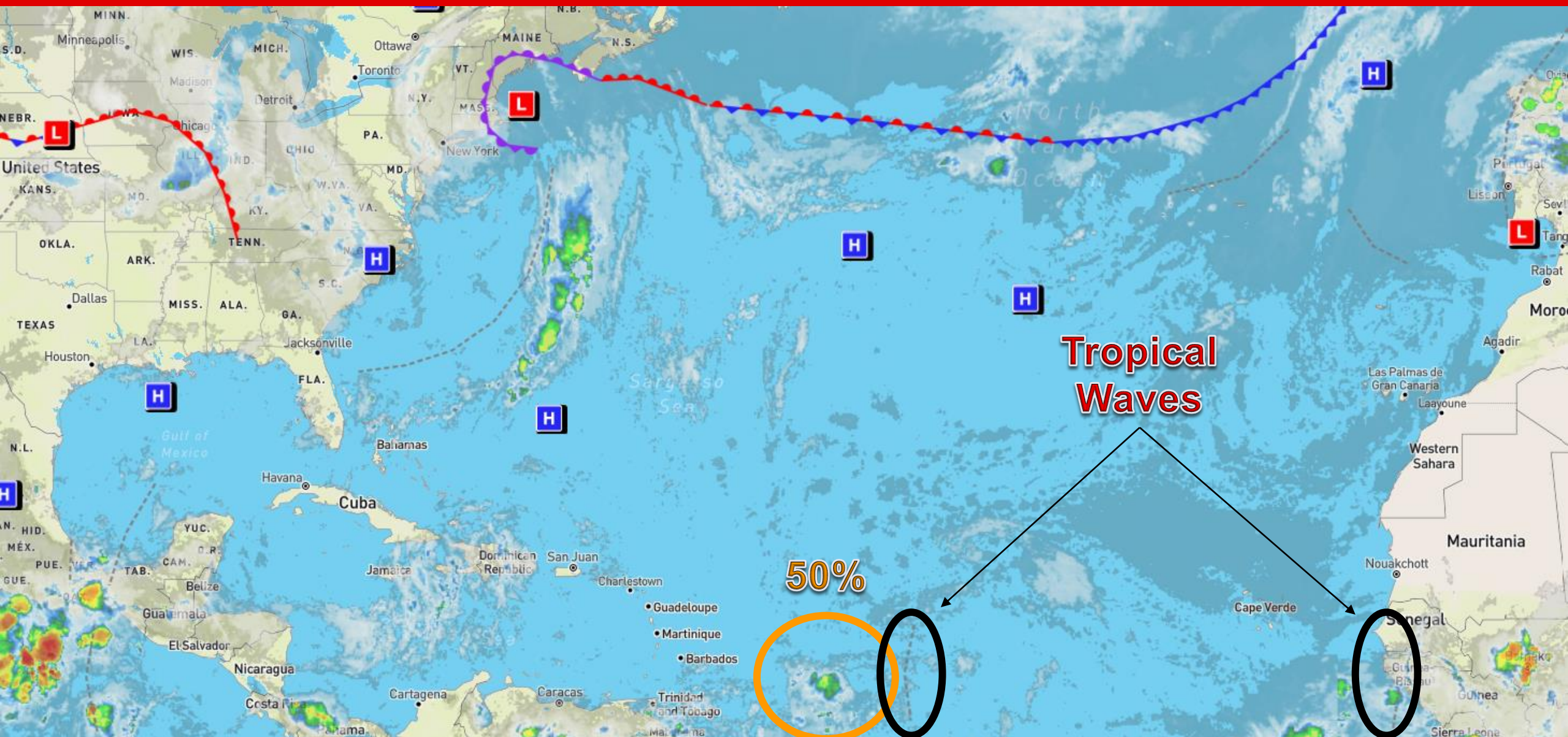
Area of Disturbed Weather Maintains a Medium Chance (50%) for Development Over Next 7 Days & Florida Weather

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





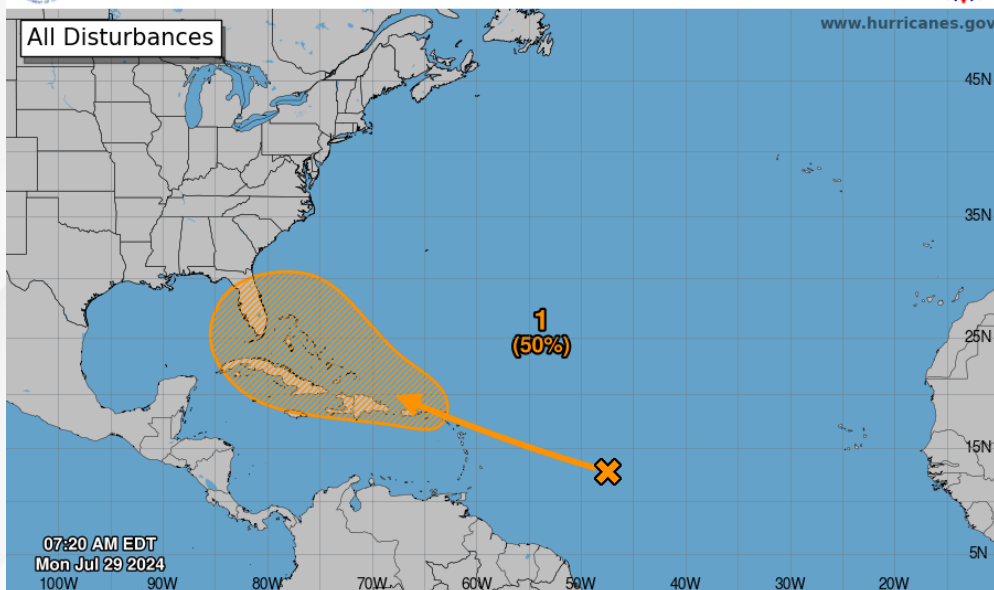
Tropical Weather Outlook

Disturbance 1 – Near Leeward Islands & Greater Antilles ([LINK](#))



Seven-Day Graphical Tropical Weather Outlook

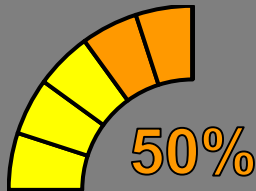
National Hurricane Center Miami, Florida



Current Disturbances and Seven-Day Cyclone Formation Chance:
 Tropical or Sub-Tropical Cyclone: ○ Depression ○ Storm ● Hurricane
 ○ Post-Tropical Cyclone or Remnants

0%

48 Hour Formation



50%

7 Day Formation

An area of disturbed weather over the central tropical Atlantic Ocean is expected to interact with an approaching tropical wave during the next couple of days. Environmental conditions are forecast to become conducive for some development thereafter. A tropical depression could form later this week while the system is in the vicinity of the Greater Antilles or the Bahamas. *This system poses no direct threat to Florida through the next 5-7 days will continue to be monitored.*

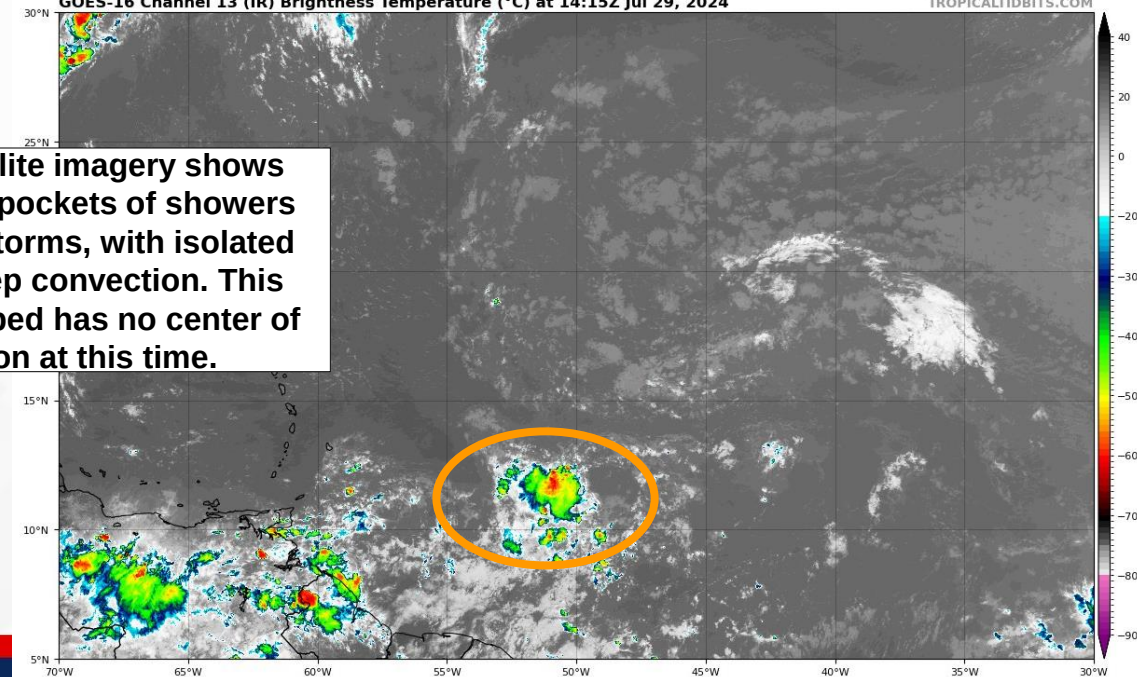
* Formation chance through 48 hours...**low...near 0%**.

* Formation chance through 7 days...**medium...50%**.

GOES-16 Channel 13 (IR) Brightness Temperature (°C) at 14:15Z Jul 29, 2024

TROPICALTIDBITS.COM

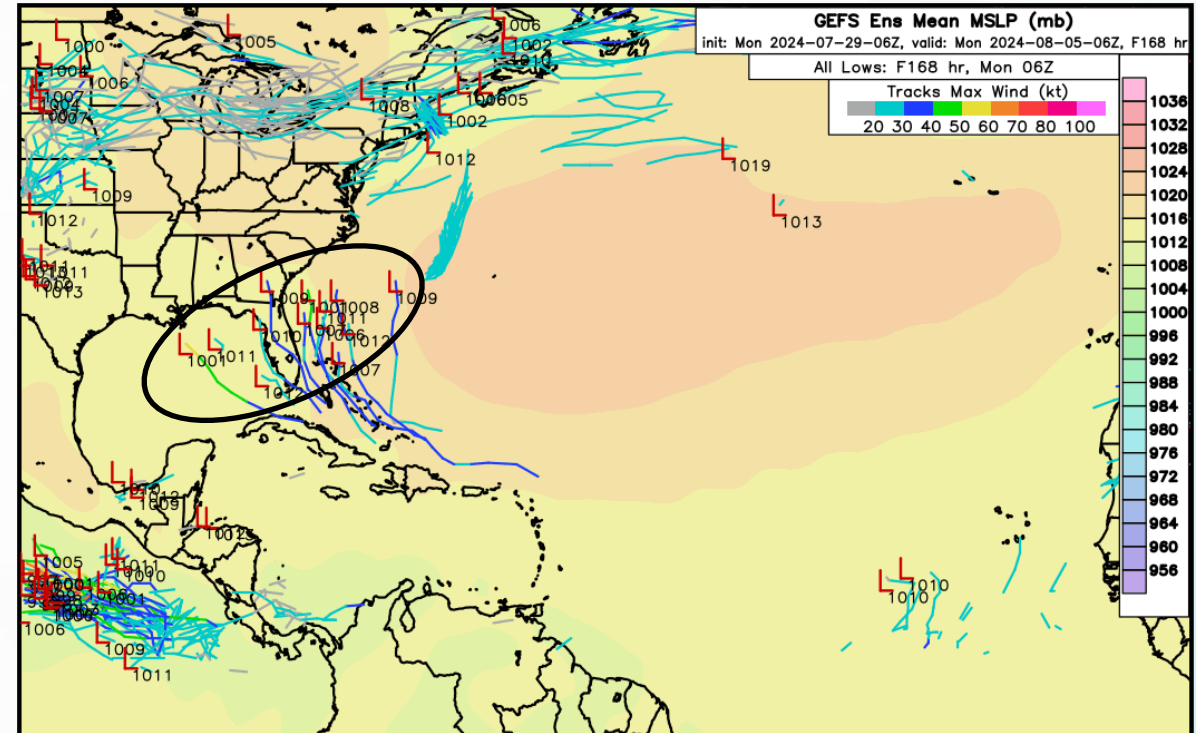
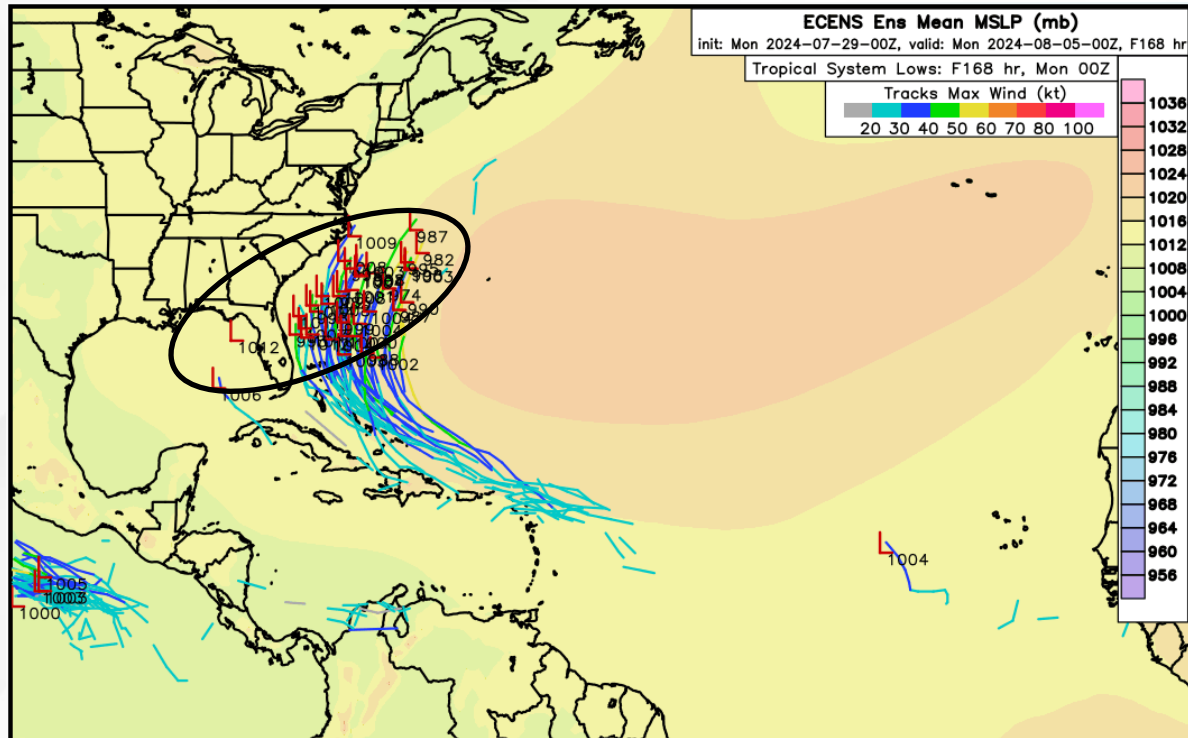
Current satellite imagery shows disorganized pockets of showers and thunderstorms, with isolated bursts of deep convection. This area of disturbed has no center of circulation at this time.





Model Forecasts – Next 7 Days

Atlantic Basin



Computer model guidance has been struggling with the potential development of this system for the last several days. Both the European (left) and the GFS (right) continue to show disagreement and uncertainties indicated by the large spread of potential outcomes.

This system currently does not have a defined center of circulation, which makes it difficult for computer models to be consistent with potential development and a track. Both models do agree that a general northwestward motion can be expected through the next 5-7 days across the central and western Atlantic Ocean. Both computer models are hinting towards a weaker system maintaining a more westward motion, while a stronger system would take a more northerly direction. This system will be steered by the area of high pressure over the central Atlantic Ocean, but computer models are showing disagreements on the placement and the strength of this high pressure. Trends within these computer models will continue to be monitored for the next couple of days for the placement and strength of this high pressure.

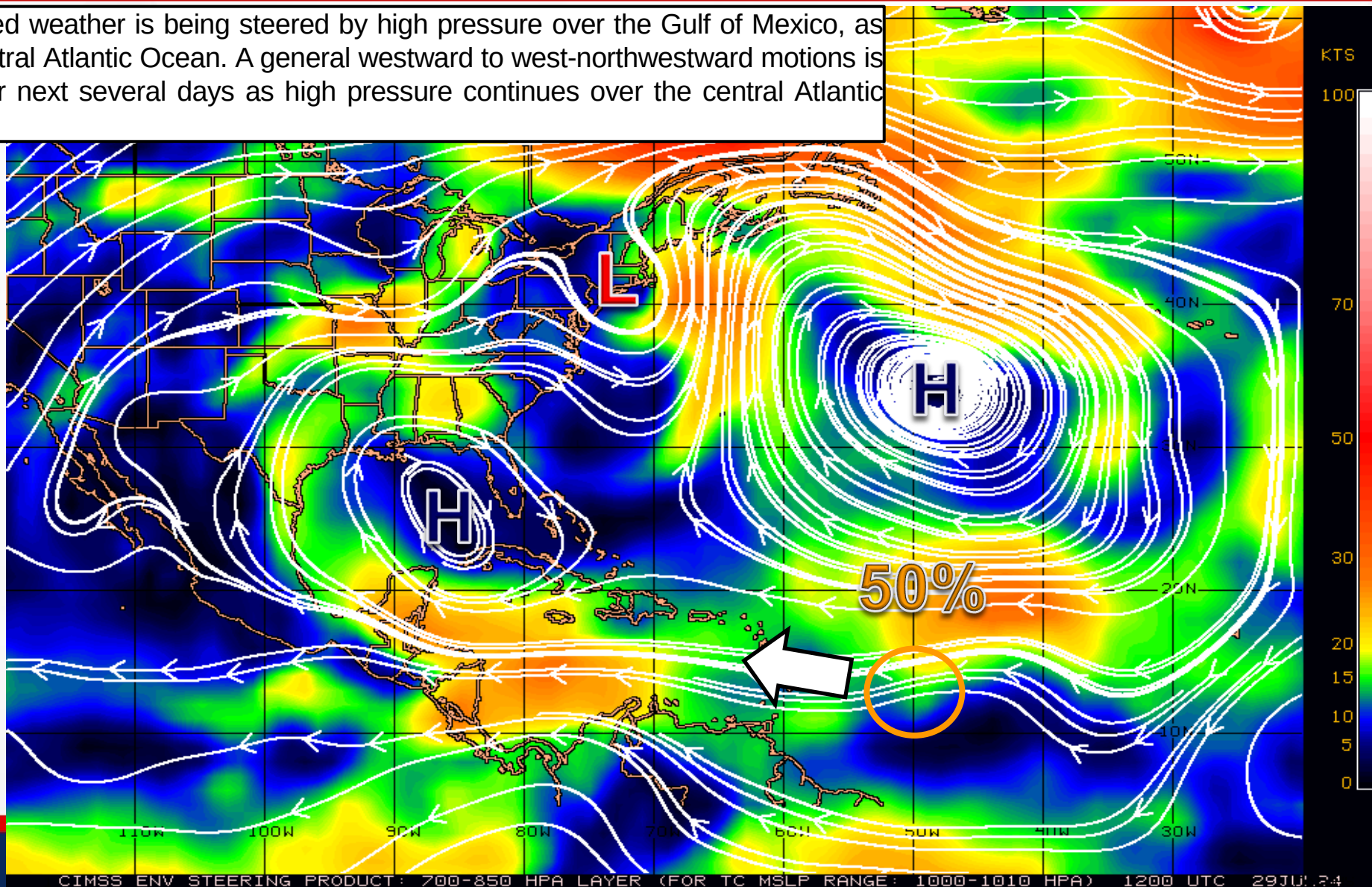


Steering Currents

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.

The area of disturbed weather is being steered by high pressure over the Gulf of Mexico, as well as over the central Atlantic Ocean. A general westward to west-northwestward motions is likely to continue for next several days as high pressure continues over the central Atlantic Ocean.



Fast Moving Storm

Fast Moving Storm

Typical Moving Storm

Slow Moving Storm

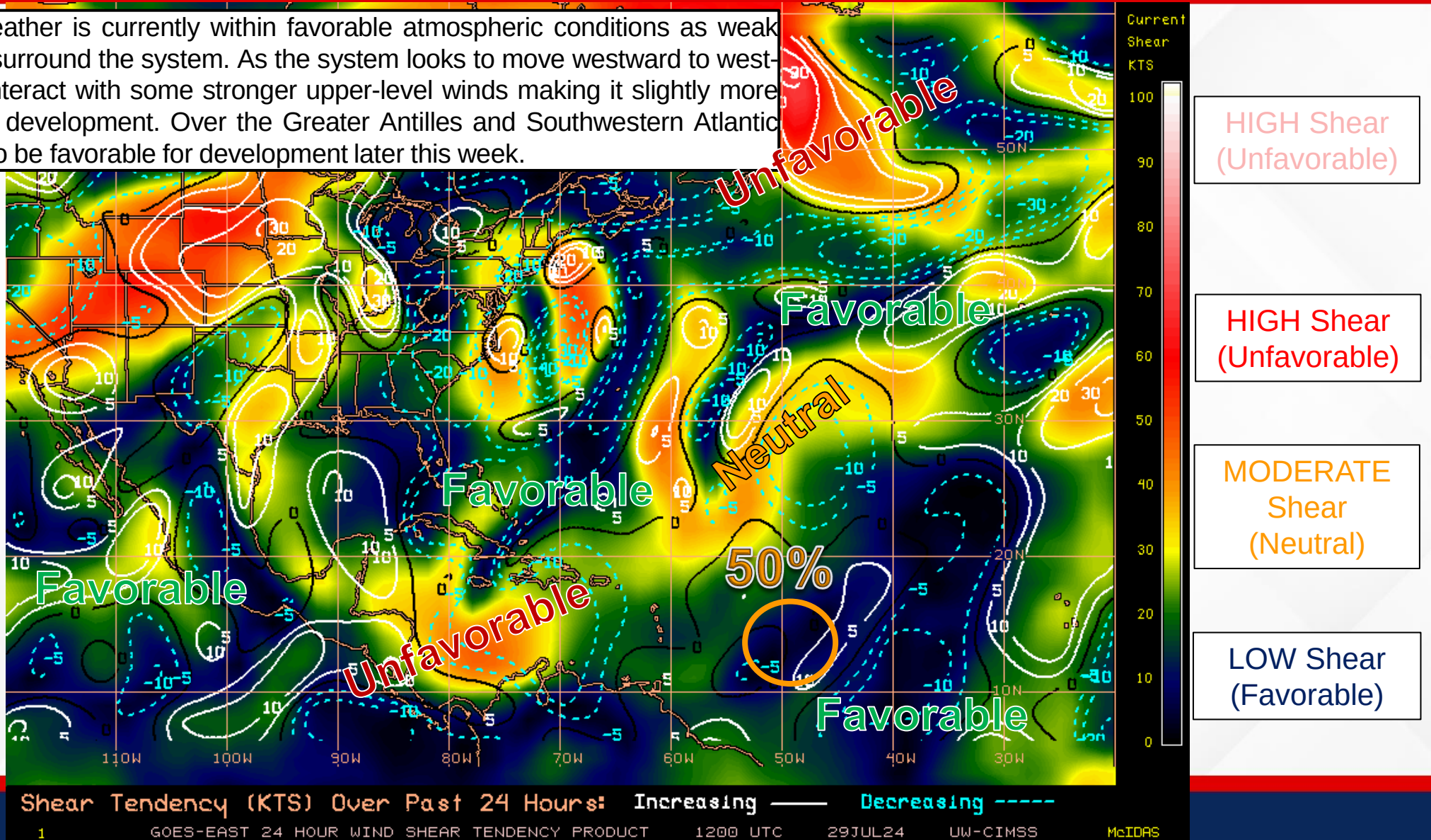


Wind Shear

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).

The disturbed area of weather is currently within favorable atmospheric conditions as weak upper-level winds nearly surround the system. As the system looks to move westward to west-northwestward, it could interact with some stronger upper-level winds making it slightly more challenging for additional development. Over the Greater Antilles and Southwestern Atlantic Ocean, conditions looks to be favorable for development later this week.



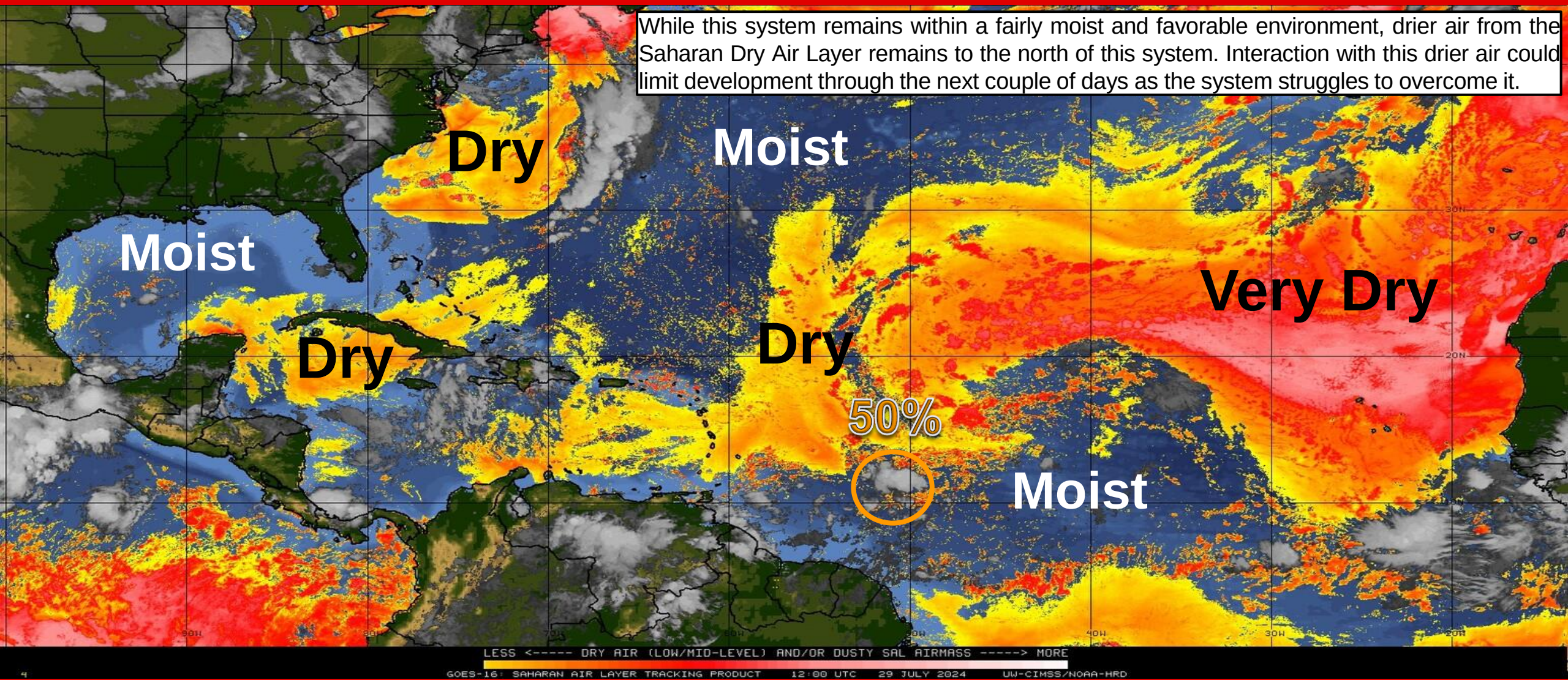


Dry Air & Saharan Dust

Is the environment favorable for the system?

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

While this system remains within a fairly moist and favorable environment, drier air from the Saharan Dry Air Layer remains to the north of this system. Interaction with this drier air could limit development through the next couple of days as the system struggles to overcome it.

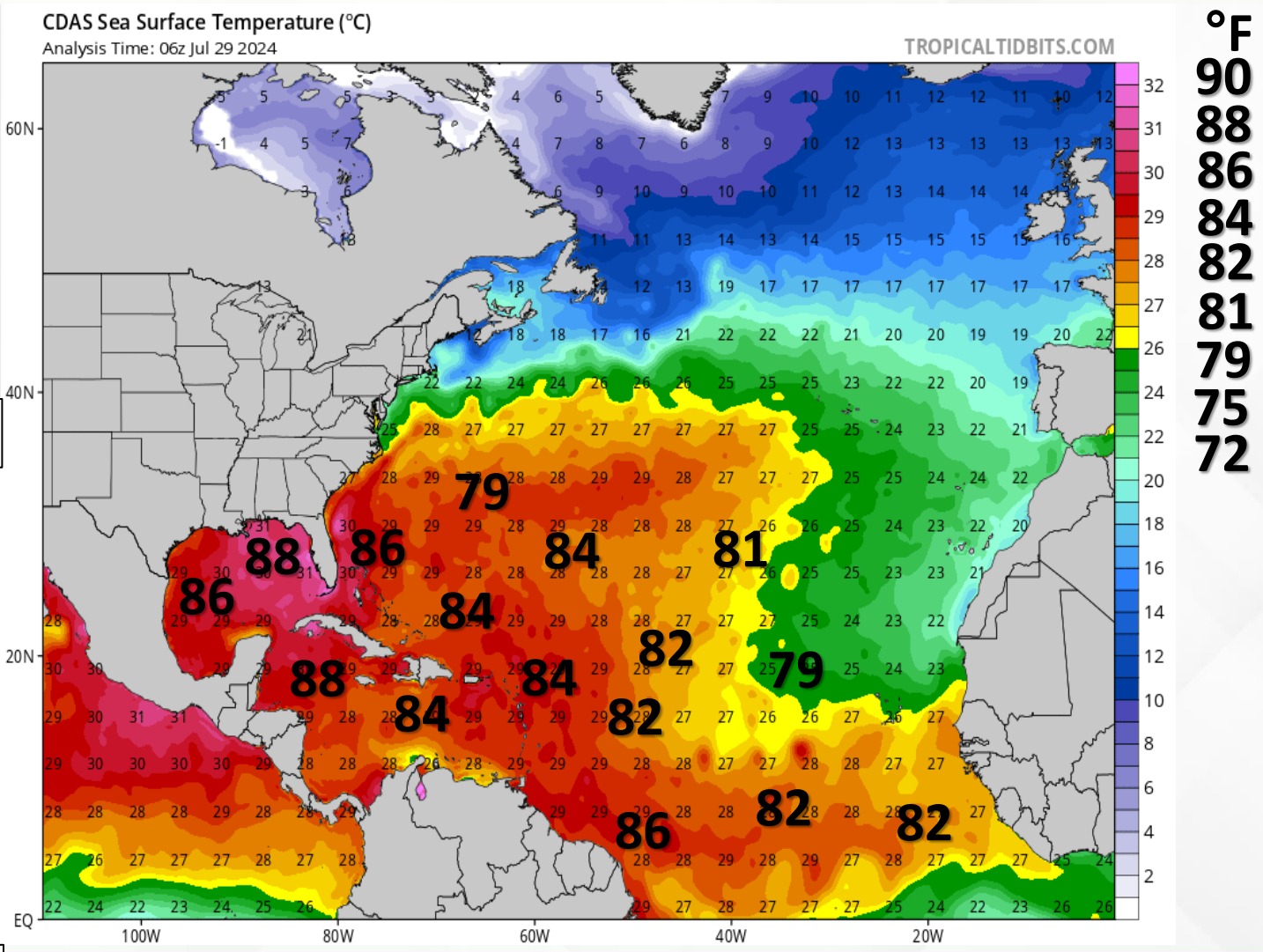
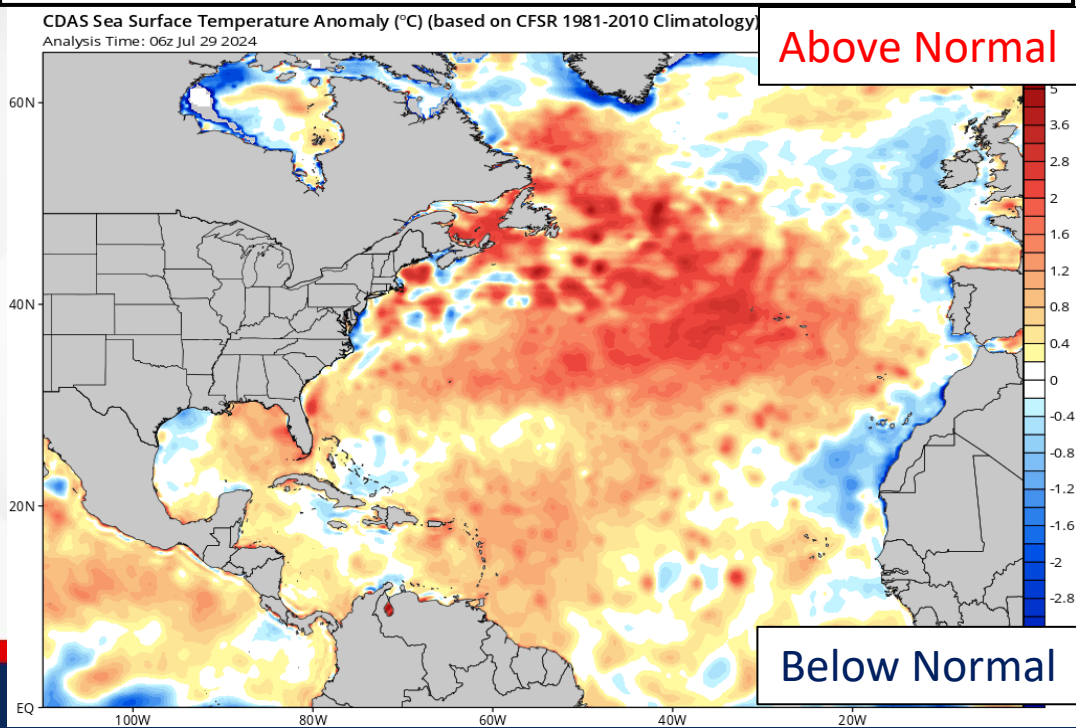




Sea Surface Temperatures & Anomalies

Is the ocean favorable for the system?

Temperatures across the Atlantic Basin are supportive of tropical cyclone development. Waters across the deep tropical Atlantic and Gulf of Mexico 0.5 to 1.5-degrees above normal for this time of year.

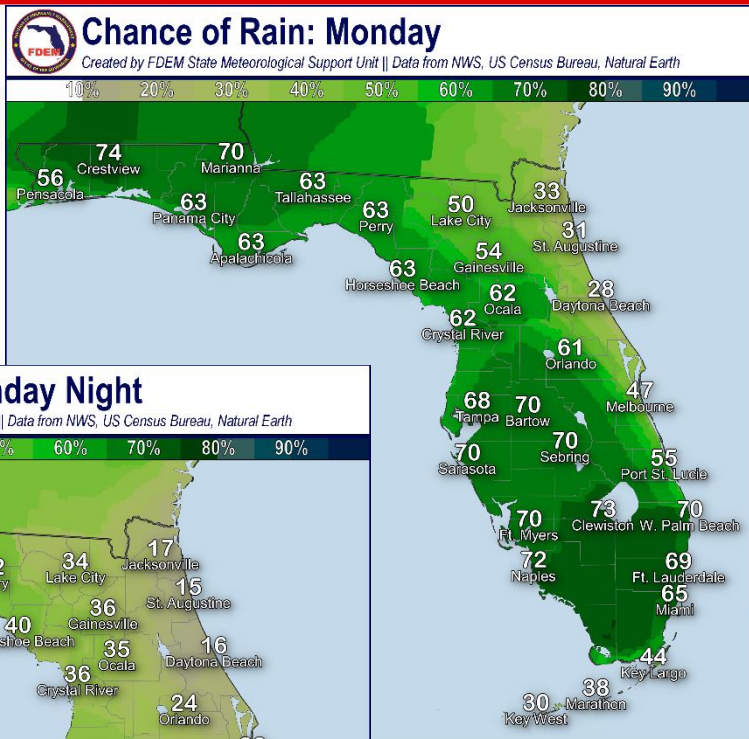


°F
90
88
86
84
82
81
79
75
72



Chances of Rain - Today

From the National Weather Service

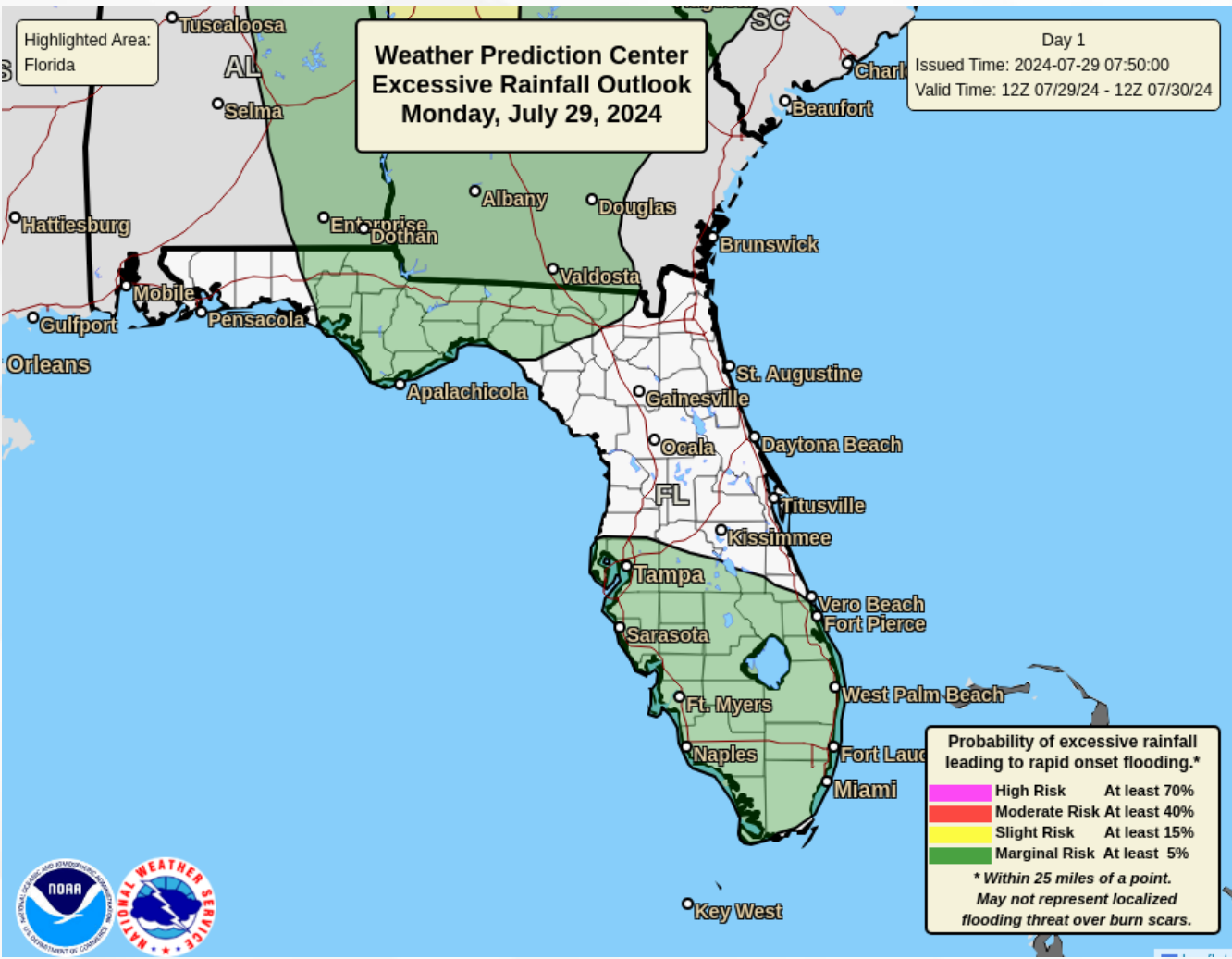


A lingering frontal boundary draped over Northeast Florida will gradually dissipate throughout the day, allowing for slightly drier conditions compared to the rest of the state. The typical summertime thunderstorm pattern can be expected to develop throughout the afternoon and evening hours along the sea breeze (55-70% chance of rain). The greatest coverage for showers and thunderstorms looks to be along the western half of the state, especially along the western Peninsula. **Any thunderstorm that develops could become strong to severe**, and produce frequent lightning, gusty winds (40-50 mph) and heavy downpours.



Flash Flood Outlook – Today

From the Weather Prediction Center (WPC)



The Weather Prediction Center (WPC) is outlooking two areas for a **Marginal Risk (level 1 of 4) for Flash Flooding**. Tropical moisture remains in place throughout the state courtesy of high pressure over the northern Gulf of Mexico. This tropical moisture will fuel showers and thunderstorms throughout the afternoon, allowing for heavy and intense downpours at times that could create **localized flooding**. Any slow-moving or near stationary thunderstorms could produce heavy downpours over areas, leading to **localized flash flooding** over urban and low-lying/poor drainage areas. With recent heavy rainfall for some of these areas, additional rainfall today may **exacerbate the potential for localized flash flooding**.

No Area/Label	MARGINAL (MRGL)	SLIGHT (SLGT)	MODERATE (MDT)	HIGH (HIGH)
Flash floods are generally not expected.	Isolated flash floods possible	Scattered flash floods possible	Numerous flash floods likely	Widespread flash floods expected
	Localized and primarily affecting places that can experience rapid runoff with heavy rainfall.	Mainly localized. Most vulnerable are urban areas, roads, small streams and washes. Isolated significant flash floods possible.	Numerous flash flooding events with significant events possible. Many streams may flood, potentially affecting larger rivers.	Severe, widespread flash flooding. Areas that don't normally experience flash flooding, could. Lives and property in greater danger.
@NWSWPC				
Flash flooding near me?	Flash Flooding	Flash Flooding	Flash Flooding	Flash Flooding
NO Flash Flooding				
WEATHER PREDICTION CENTER				



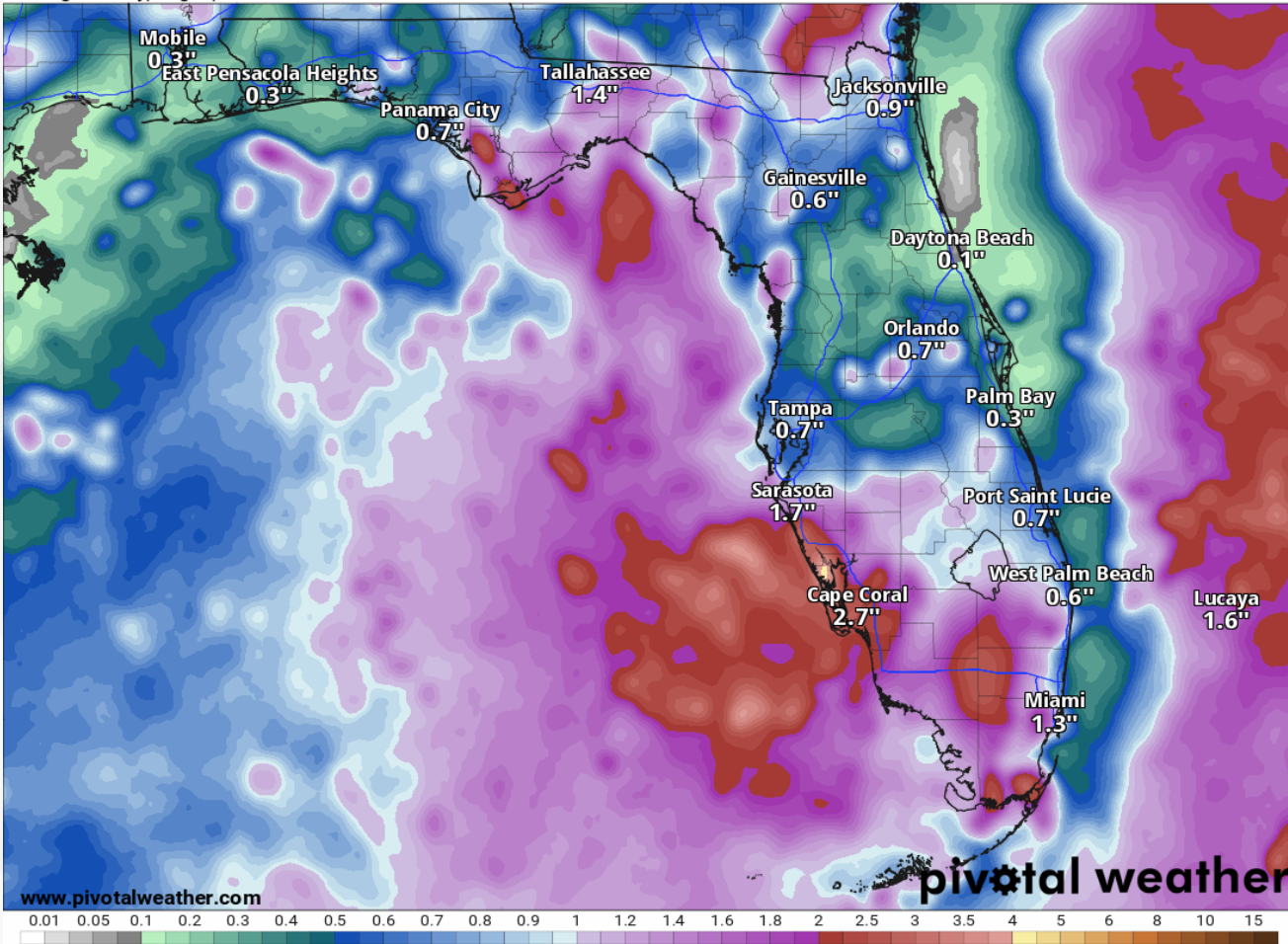
Rainfall Totals – Next 7 Days

From the Weather Prediction Center (WPC)

7-Day Precipitation (in)

Ending Monday, Aug. 5, 2024 at 8 a.m. EDT

Init: Mon 2024-07-29 12z WPC

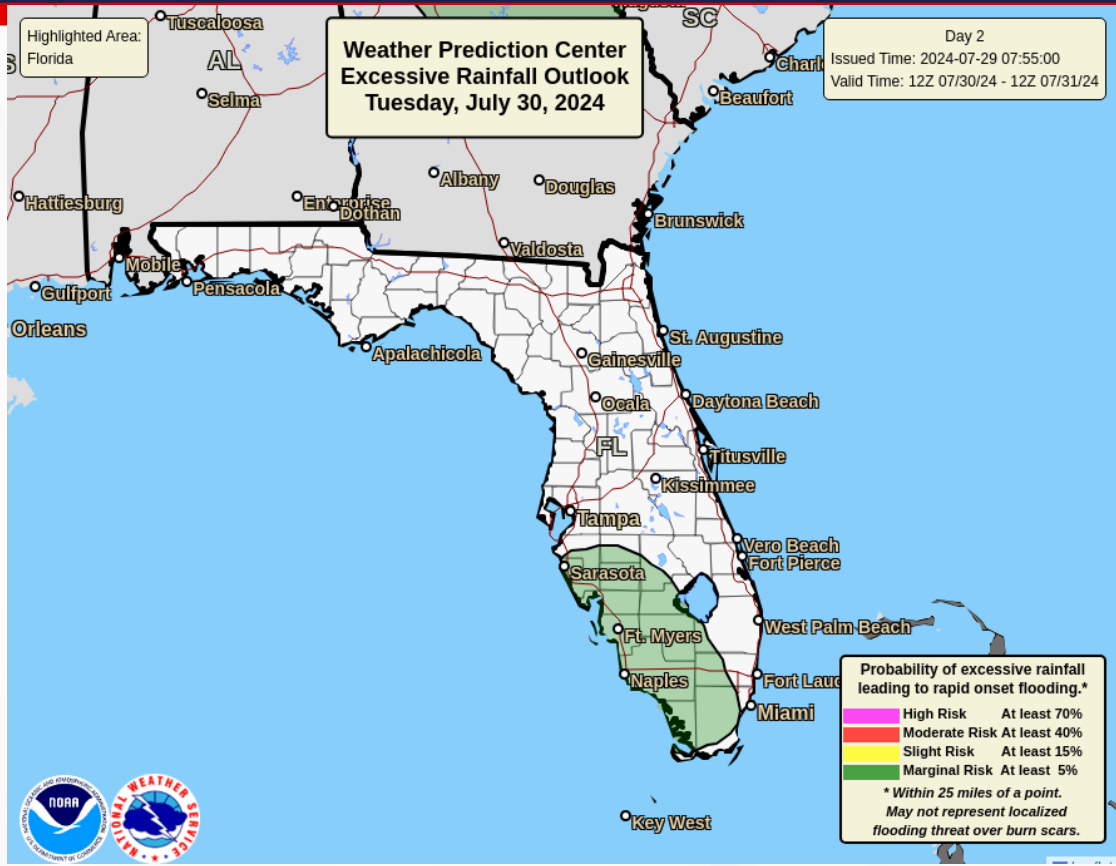


The active weather pattern associated with typical summertime thunderstorms can be expected each day. Daily showers and thunderstorms will develop along the sea breeze boundaries with the help of abundant moisture. Rainfall totals over the next 7 days are likely to reach 1-3", with **locally higher totals** upwards of 4-6" possible in locations.



Weather Prediction Center (WPC) Flash Flood Outlooks

Tuesday

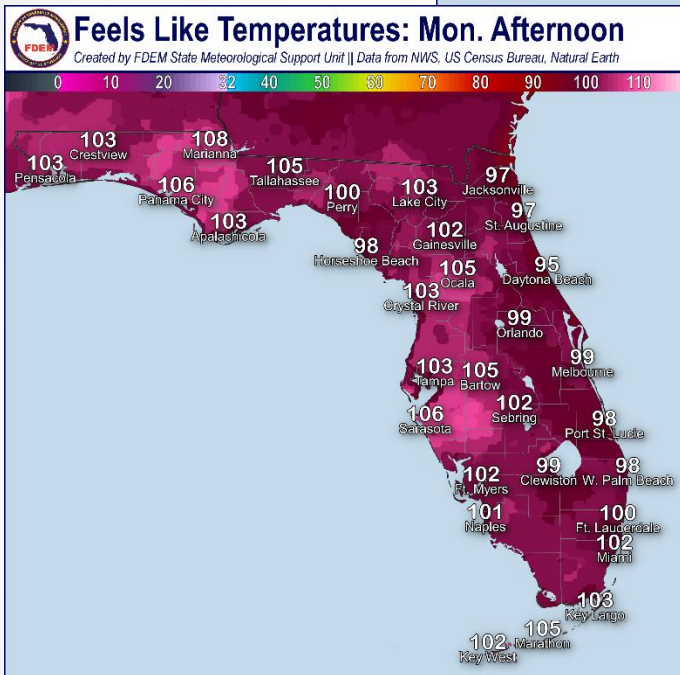
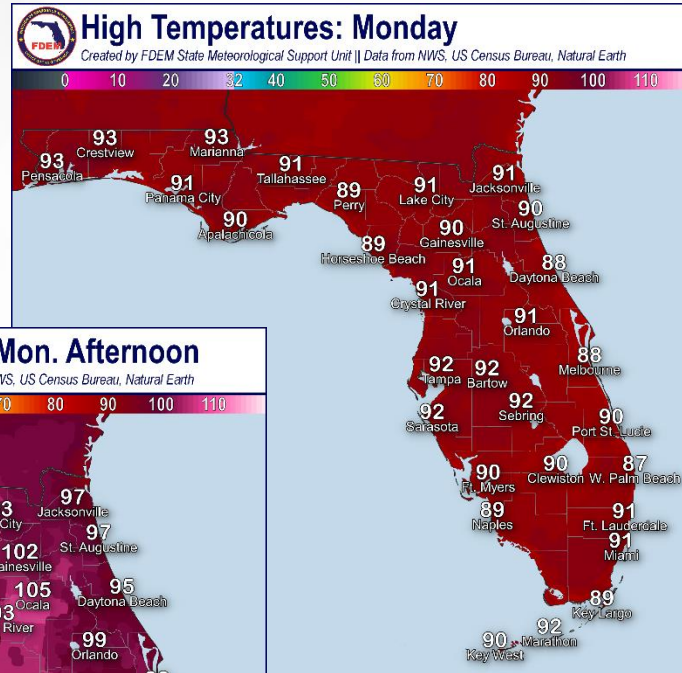


Tropical moisture will continue to aid shower and thunderstorm development each day, but locally heavy rainfall can be anticipated throughout portions of Southwest Florida on Tuesday. The Weather Prediction Center (WPC) is outlooking a **Marginal Risk (level 1 of 4) for Flash Flooding** on Tuesday as showers and thunderstorms developing along the sea breeze will be capable of producing heavy downpours with the help of tropical moisture. With anticipated heavy rainfall from Monday, grounds and soils will remain saturated, which could increase the potential for **localized flash flooding** for urban and low-lying/poor drainage areas.



Hot & Humid Conditions

From the National Weather Service (NWS)



Warm and muggy conditions can be expected across the state today as high temperatures will reach the upper 80s to middle 90s. **Heat index values** across the state will reach the **upper 90s to middle 100s** by the afternoon hours.

Heat Advisories are not anticipated today due to earlier onset of cloud cover and thunderstorms. Portions of the Panhandle and the western Peninsula could **briefly see heat index values reach criteria** before cloud cover or thunderstorms develop.

Remember to take frequent breaks from outdoor activities, wear light clothing, and drink plenty of water.



Summary

Near the Leeward Islands and Greater Antilles:

- An area of disturbed weather over the central tropical Atlantic is expected to interact with an approaching tropical wave during the next couple of days.
- Environmental conditions are forecast to become conducive for some development thereafter.
- A tropical depression could form later this week while the system is in the vicinity of the Greater Antilles or the Bahamas.
- Computer model guidance contains disagreement and uncertainties regarding the potential development and path of the system through the next 7 days as it does not contain a defined center of circulation at this time.
- A weaker system would likely take a more westerly path, while a stronger system would likely take a more northerly path, guided by high pressure over the central Atlantic Ocean.
- There is a **low (near 0%) chance** for development through the next 48 hours. There is a **medium (50%) chance** for development through the next 7 days.
- *This system poses no direct threat to Florida through the next 5-7 days but will continue to be monitored.*
- The next name on the list is Debby (DEH-bee).

Florida Outlook:

- Tropical air will continue to aid shower and thunderstorm development along the sea breeze boundaries throughout the afternoon and evening across the state (55-70% chance of rain).
 - The weak frontal boundary draped over Northeast Florida will continue to dissipate throughout the day, but will bring slightly drier conditions for the area allowing for a more isolated to scattered thunderstorm pattern.
- While organized severe weather is not expected, any thunderstorms could become **strong to severe** and produce frequent lightning, gusty winds (40-50 mph), and heavy downpours.
- The Weather Prediction Center (WPC) is outlooking a **Marginal Risk (level 1 of 4) for Flash Flooding** along the Florida Big Bend, as well as south of the I-4 corridor through South Florida, where tropical moisture will allow for heavy and torrential downpours that could lead to localized flooding for urban and low-lying/poor drainage areas.
- High pressure along the northern Gulf of Mexico will continue to bring tropical moisture northward and allow for daily showers and thunderstorms to develop.
 - The Weather Prediction Center (WPC) is outlooking a **Marginal Risk (level 1 of 4) for Flash Flooding** across Southwest Florida on Tuesday where locally heavy rainfall over saturated grounds and soils, as well as urban and low-lying/poor drainage areas, could lead to instances of localized flooding at times.
- Warm and muggy conditions can be expected to continue statewide with high temperatures in the upper 80s to middle 90s and heat index values in the upper 90s to middle 100s.
 - Heat advisories are not anticipated today; however, heat index values for portions of the Panhandle and western Peninsula could briefly reach heat advisory criteria before cloud cover or thunderstorms develop.

The next briefing packet will be issued on Tuesday. For the latest information, please visit the [National Hurricane Center website](#).



Tropical Update



Created by:

Kennedy Tartt, Assistant State Meteorologist

Kennedy.Tartt@em.myflorida.com

State Meteorological Support Unit

Florida Division of Emergency Management

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