



Tropical Update



11:30 AM EDT

Sunday, July 28, 2024

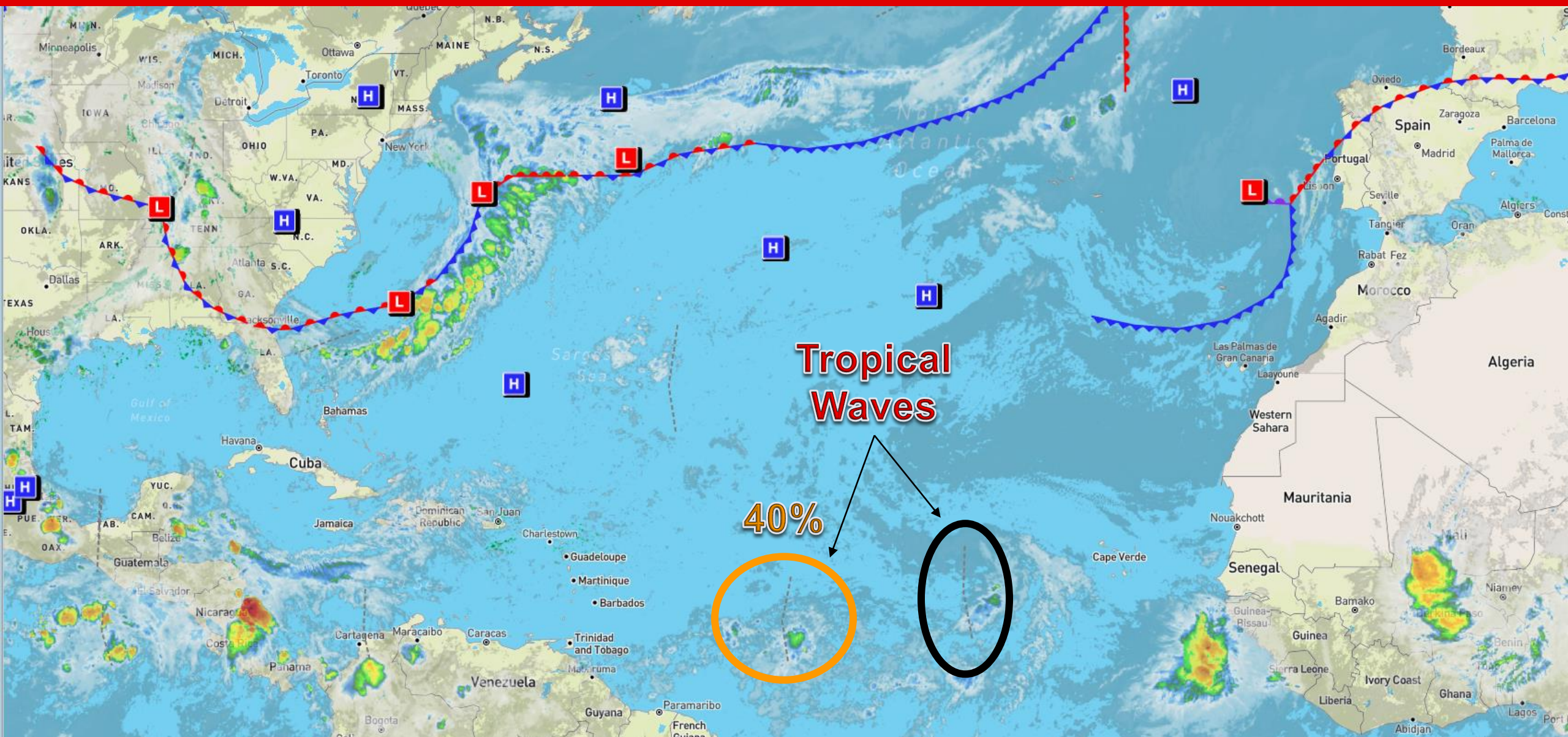
Area of Disturbed Weather Has Medium Chance (40%) for Development Over Next 7 Days & Florida Weather

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





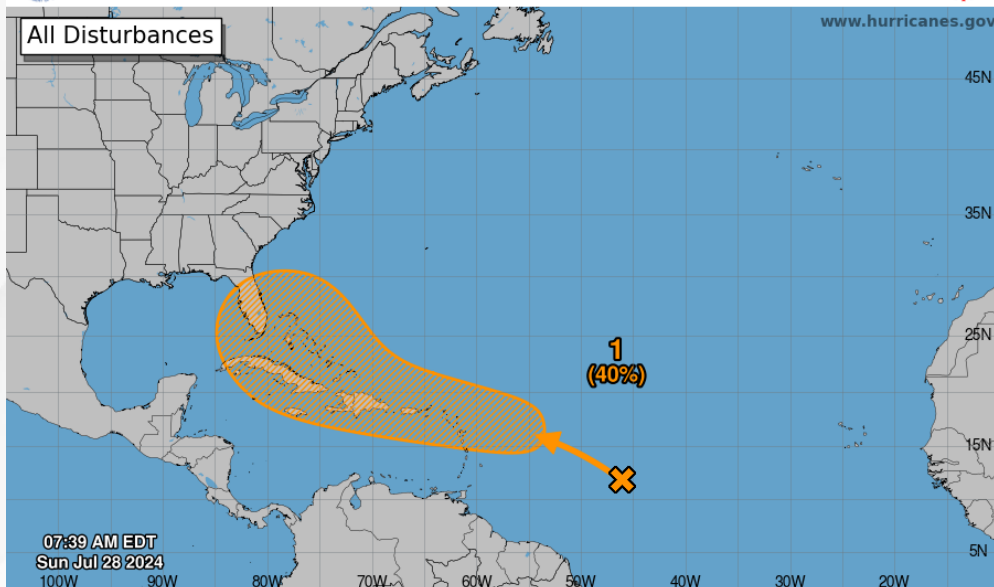
Tropical Weather Outlook

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



Seven-Day Graphical Tropical Weather Outlook

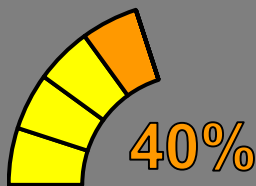
National Hurricane Center Miami, Florida



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

0%

48 Hour Formation

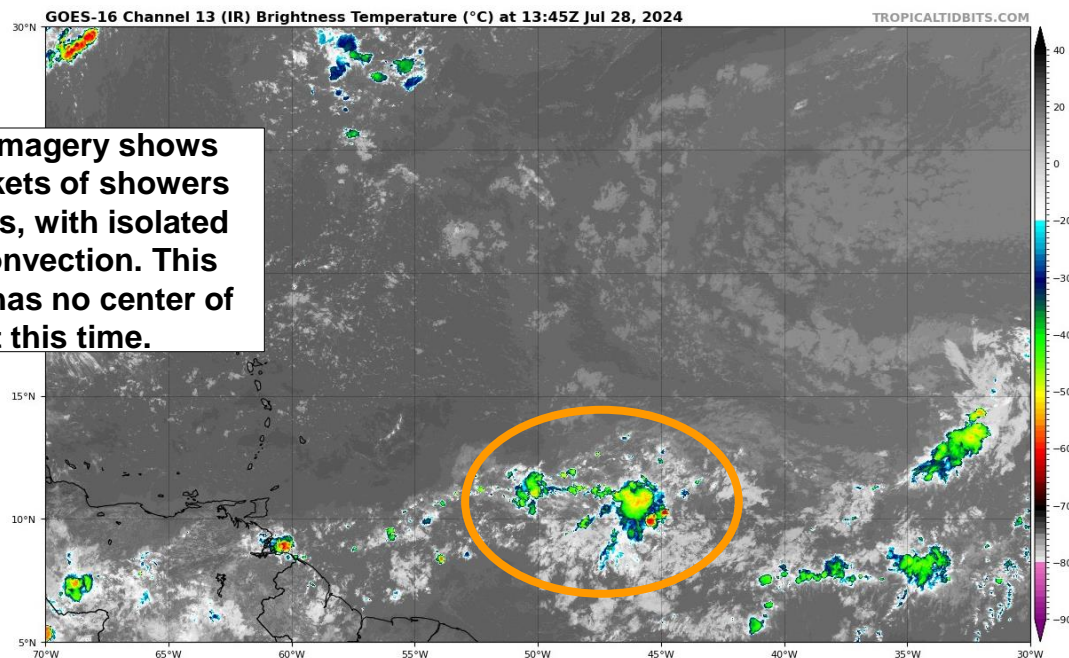


7 Day Formation

An area of disturbed weather over the central tropical Atlantic Ocean is expected to interact with an approaching tropical wave during the next several days. Environmental conditions are forecast to become conducive for some development in a day or two. A tropical depression could form around midweek while the system is near or over the northern Leeward Islands, Greater Antilles, or southwestern Atlantic Ocean. *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...40%**.

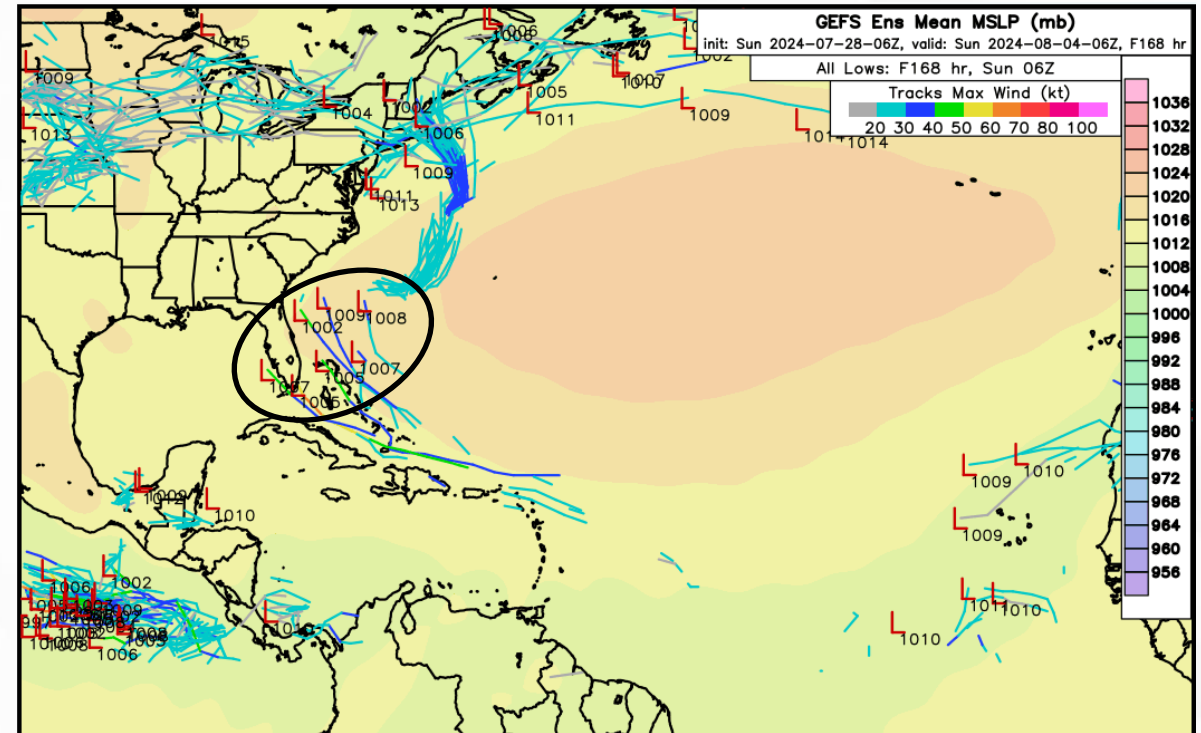
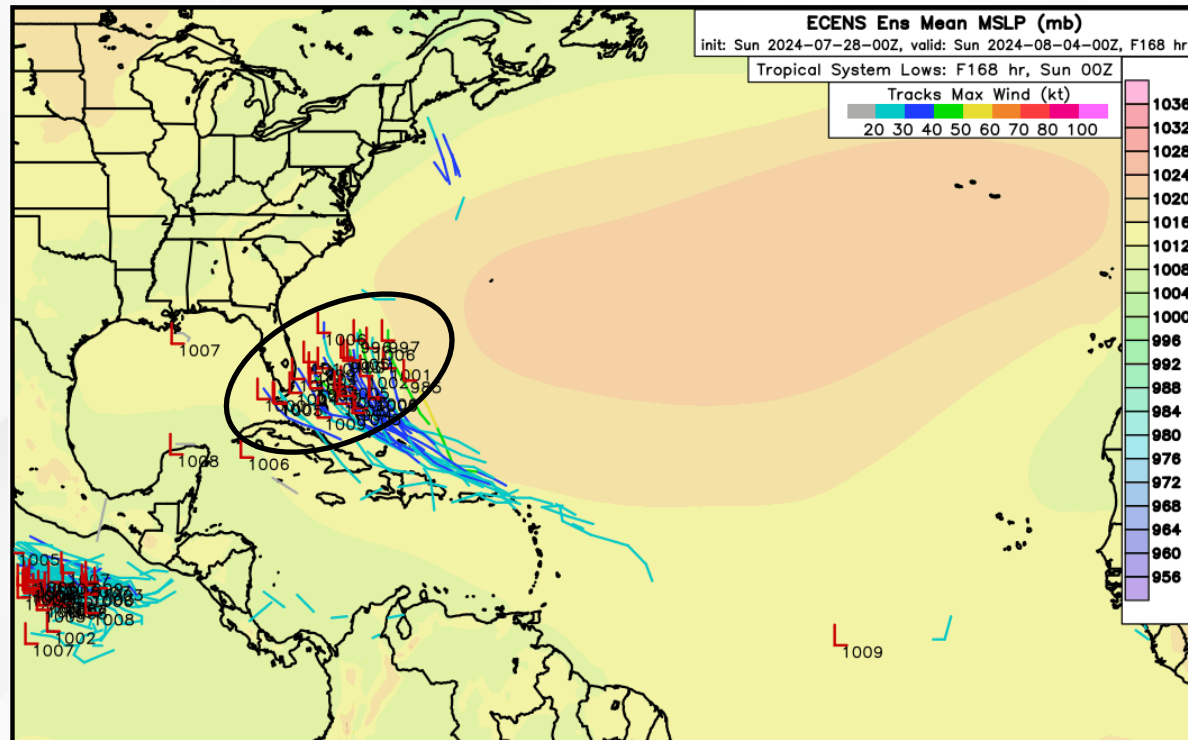


Current satellite imagery shows disorganized pockets of showers and thunderstorms, with isolated bursts of deep convection. This area of disturbed has no center of circulation at this time.



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.

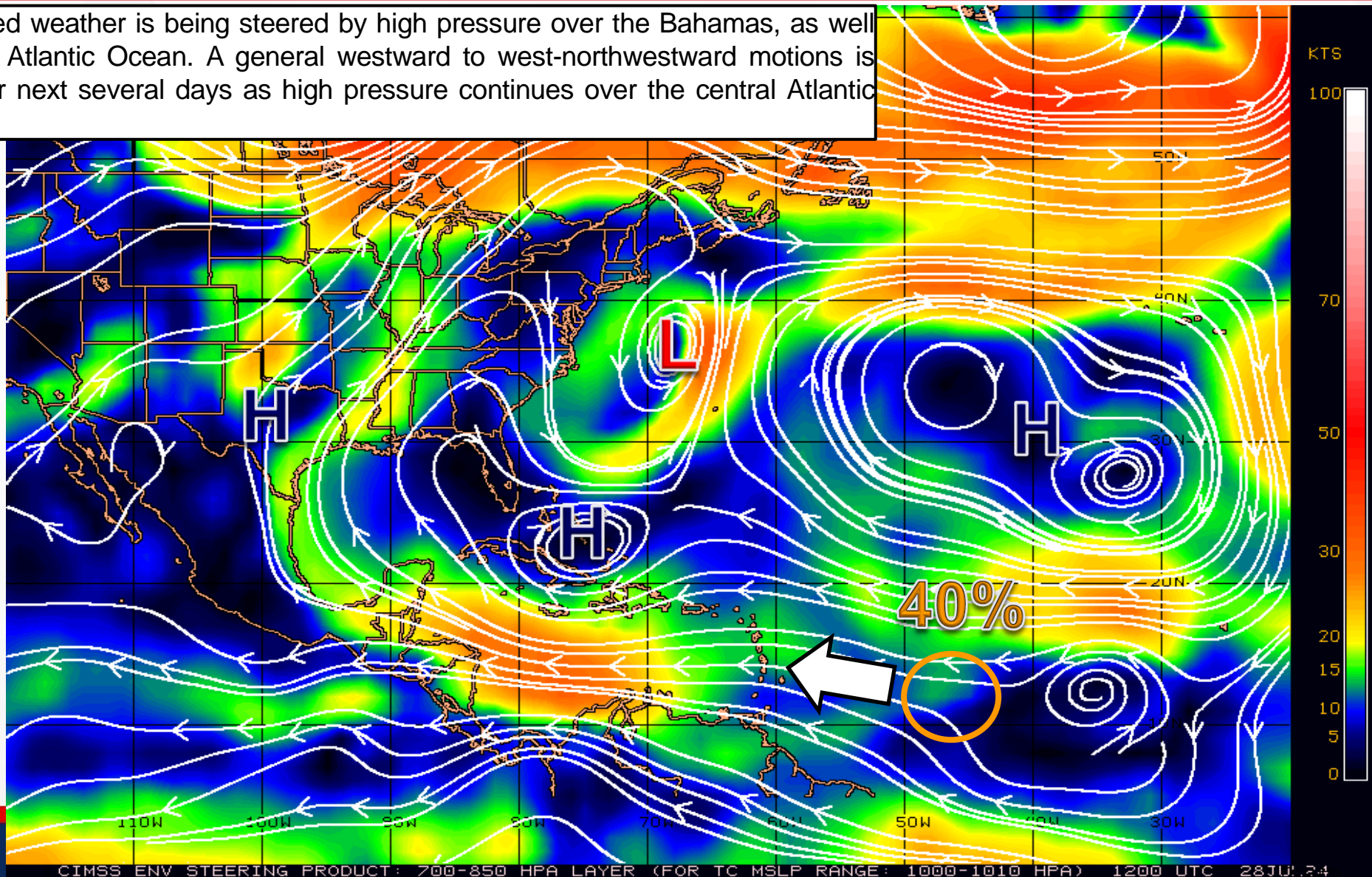


Steering Currents

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 Bahamas, 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

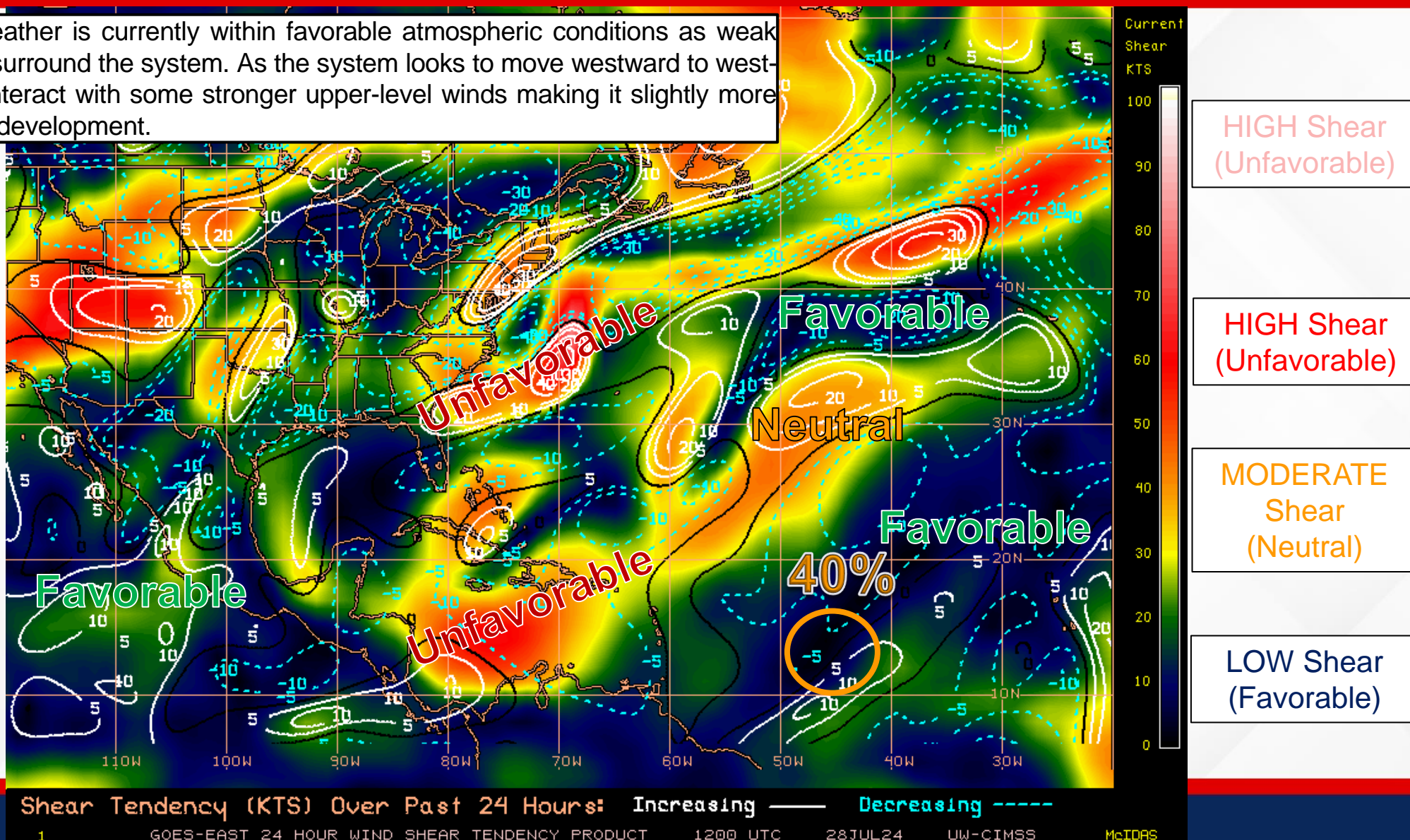


Wind Shear

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.

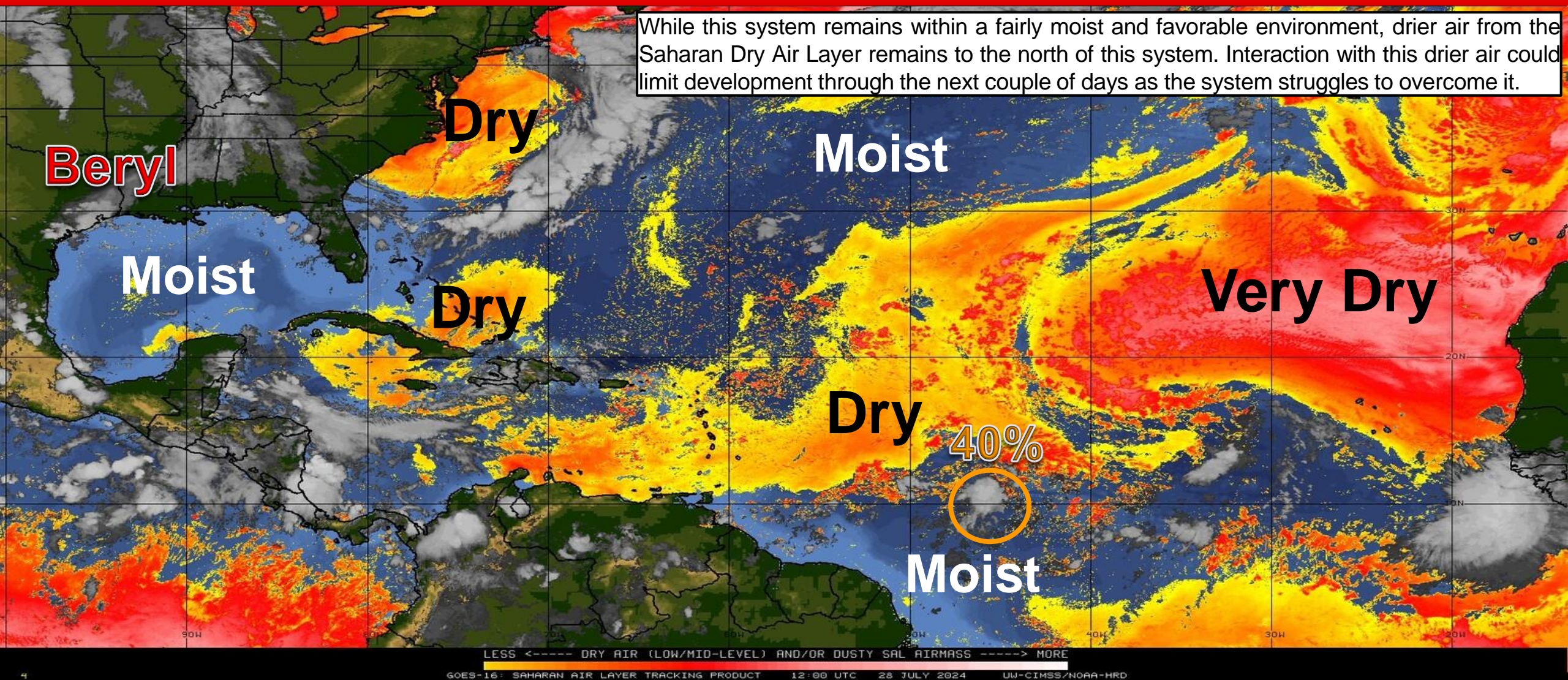




Dry Air & Saharan Dust

Is the environment favorable for the system?

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

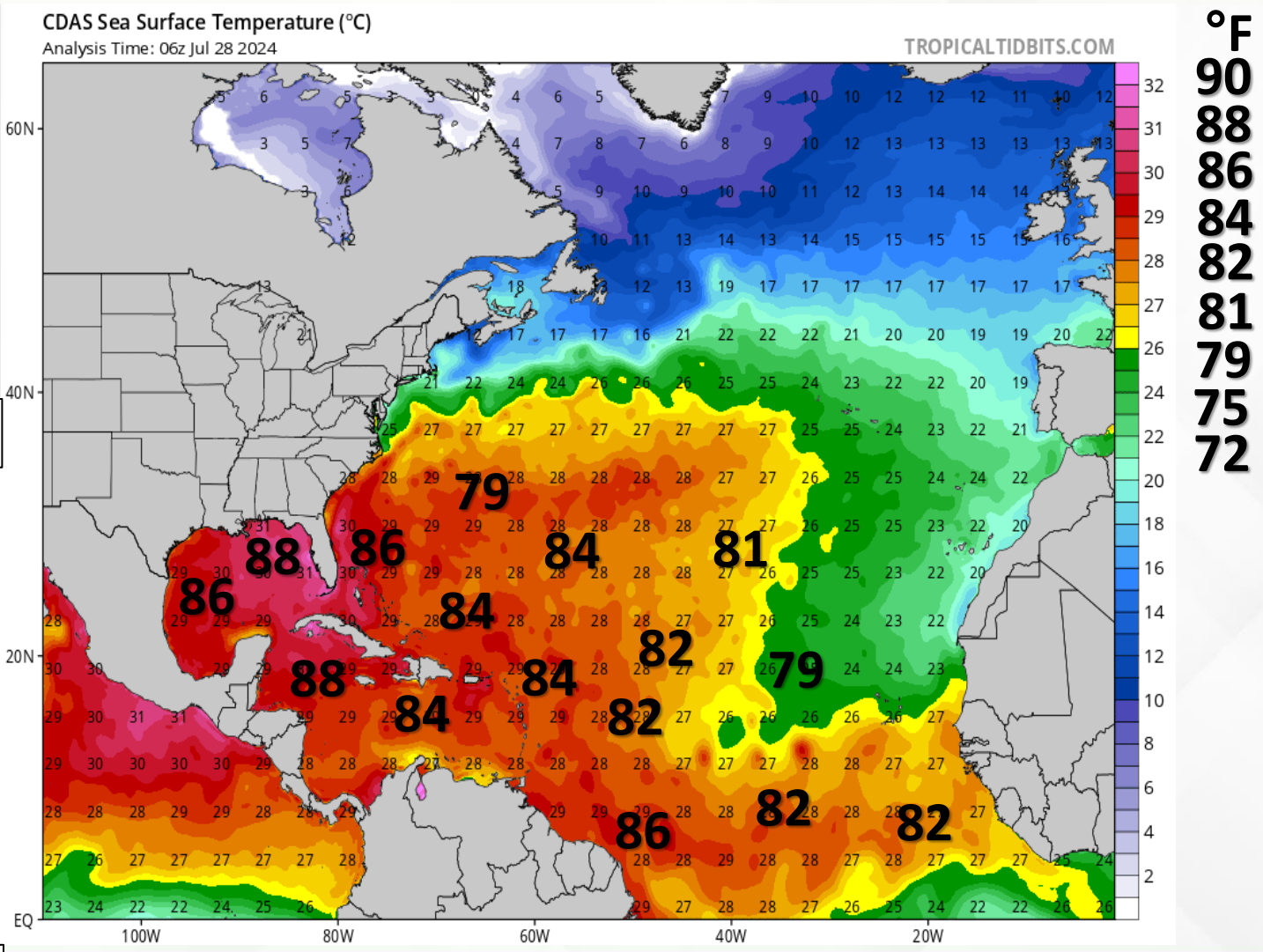
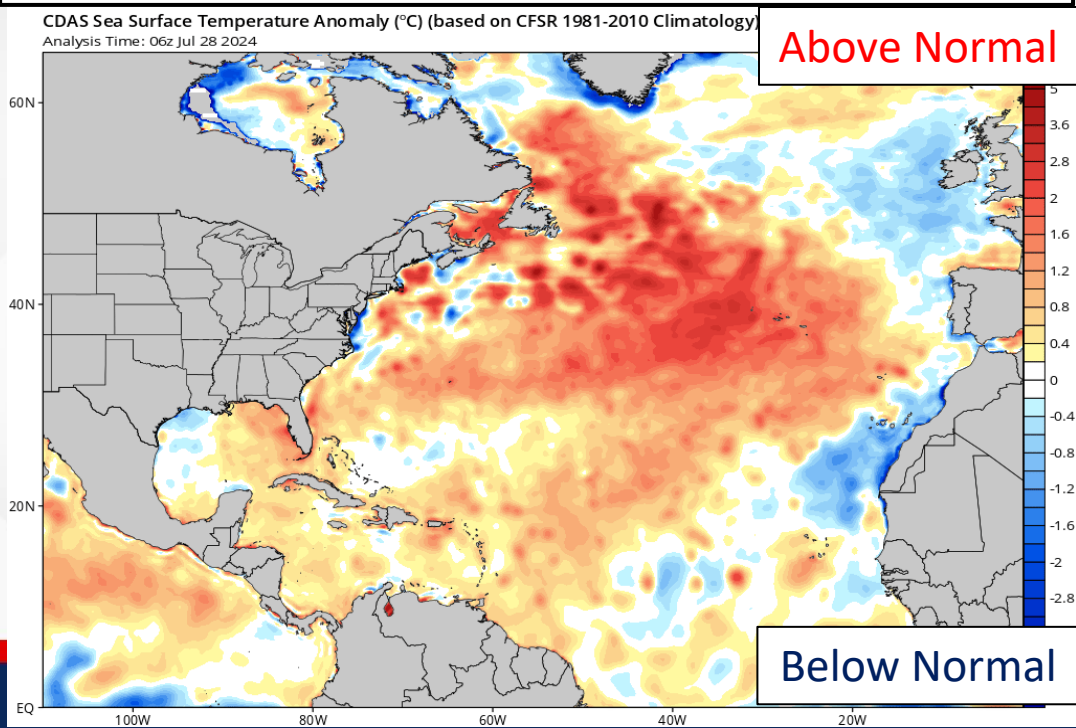




Sea Surface Temperatures & Anomalies

Is the ocean favorable for the system?

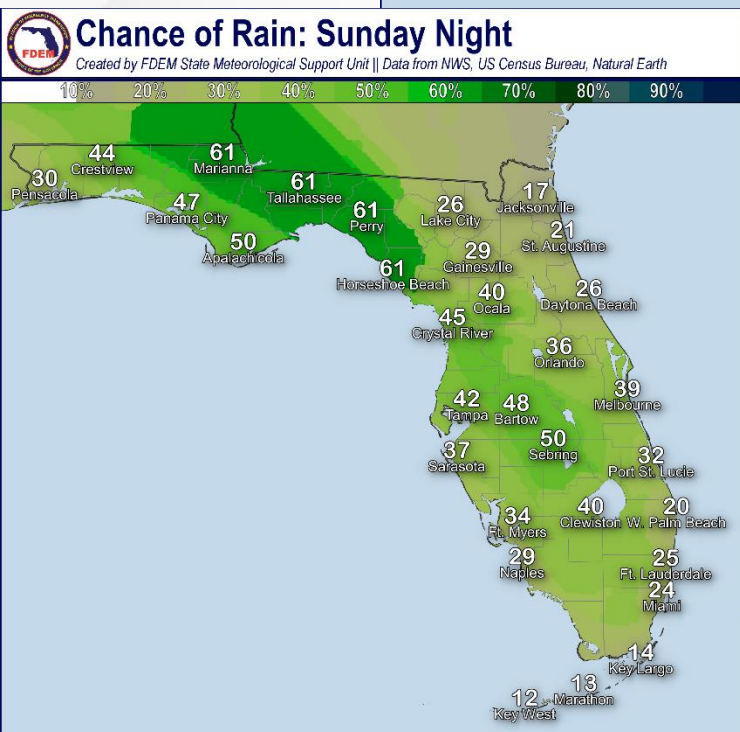
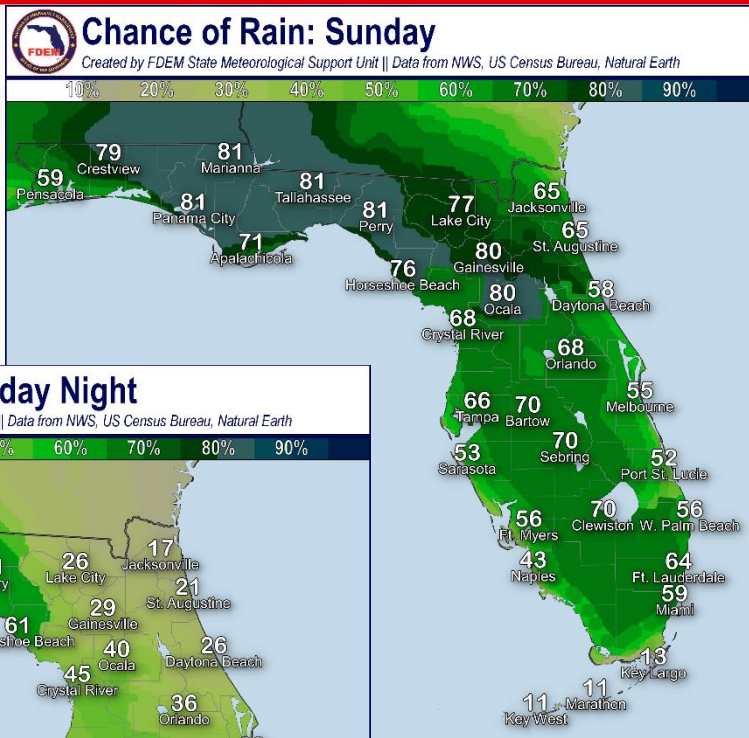
Temperatures across the Atlantic Basin are supportive of tropical cyclone development. Waters across the deep tropical Atlantic and Gulf of Mexico 0.5 to 1.5-degrees above normal for this time of year.





Chances of Rain - Today

From the National Weather Service

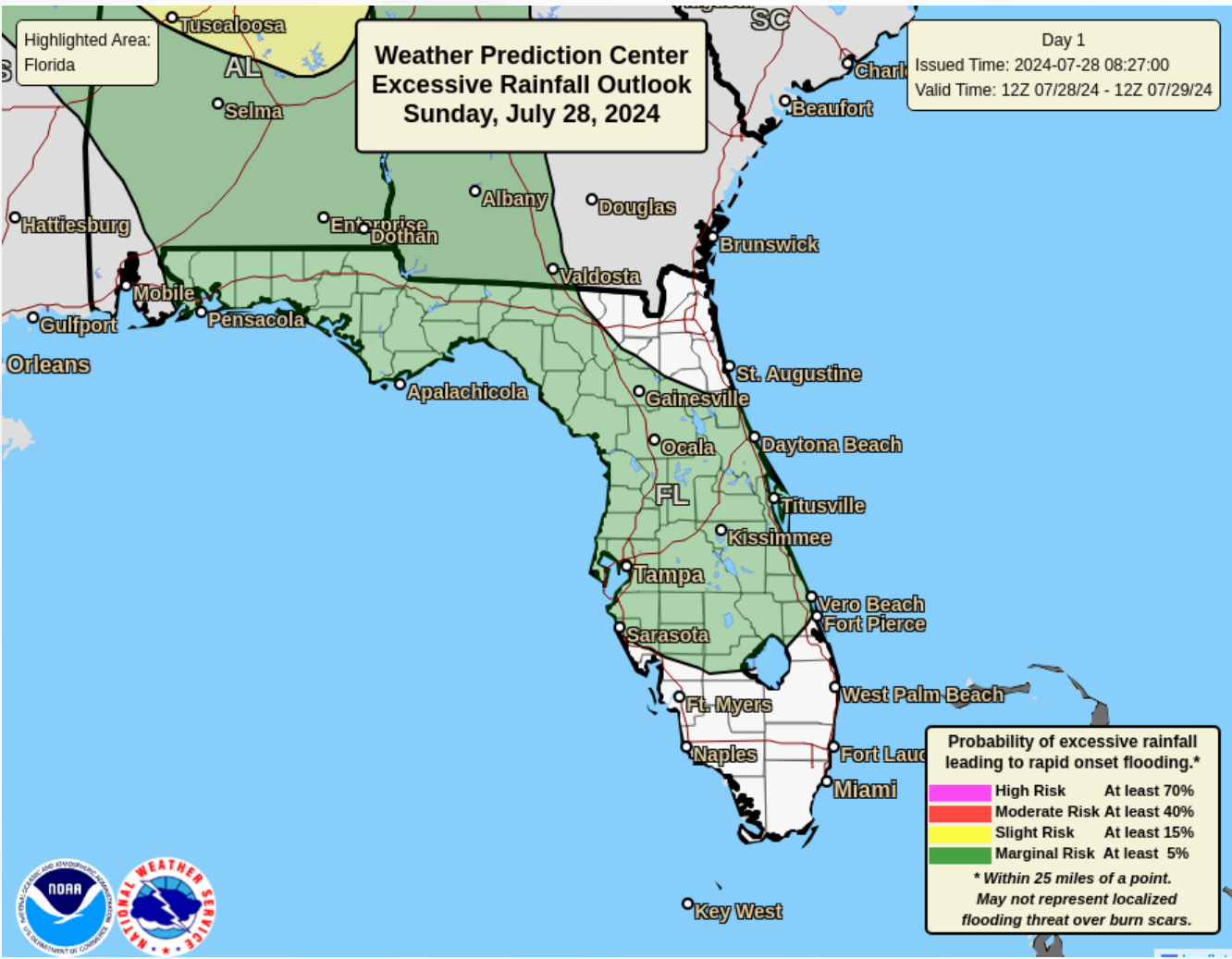


A weak frontal boundary sagging southward into Northeast and northern East-Central Florida will bring showers and thunderstorms this morning that will continue throughout the rest of the day. Additional scattered to numerous showers and thunderstorms can be expected to develop throughout the afternoon and evening hours across the state along the sea breeze (55-80% chance of rain). While organized severe weather is not expected, locally strong to severe thunderstorms cannot be ruled out. Any thunderstorm that develops may be capable of producing 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 a **Marginal Risk (level 1 of 4) for Flash Flooding** today throughout much of North and Central Florida towards northern Lake Okeechobee where heavy and intense downpours could bring **localized flooding**. Abundant tropical moisture will fuel showers and thunderstorms, leading to heavy downpours at times throughout the afternoon and evening hours. Locally heavy rainfall across urban and low-lying/poor drainage areas could lead to instances of **localized flash flooding**, especially with any slow-moving or near stationary storms. Recent heavy rainfall has made ground and soils saturated, which may **exacerbate the potential for localized flooding** today with any addition heavy rainfall.

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
WEATHER PREDICTION CENTER				



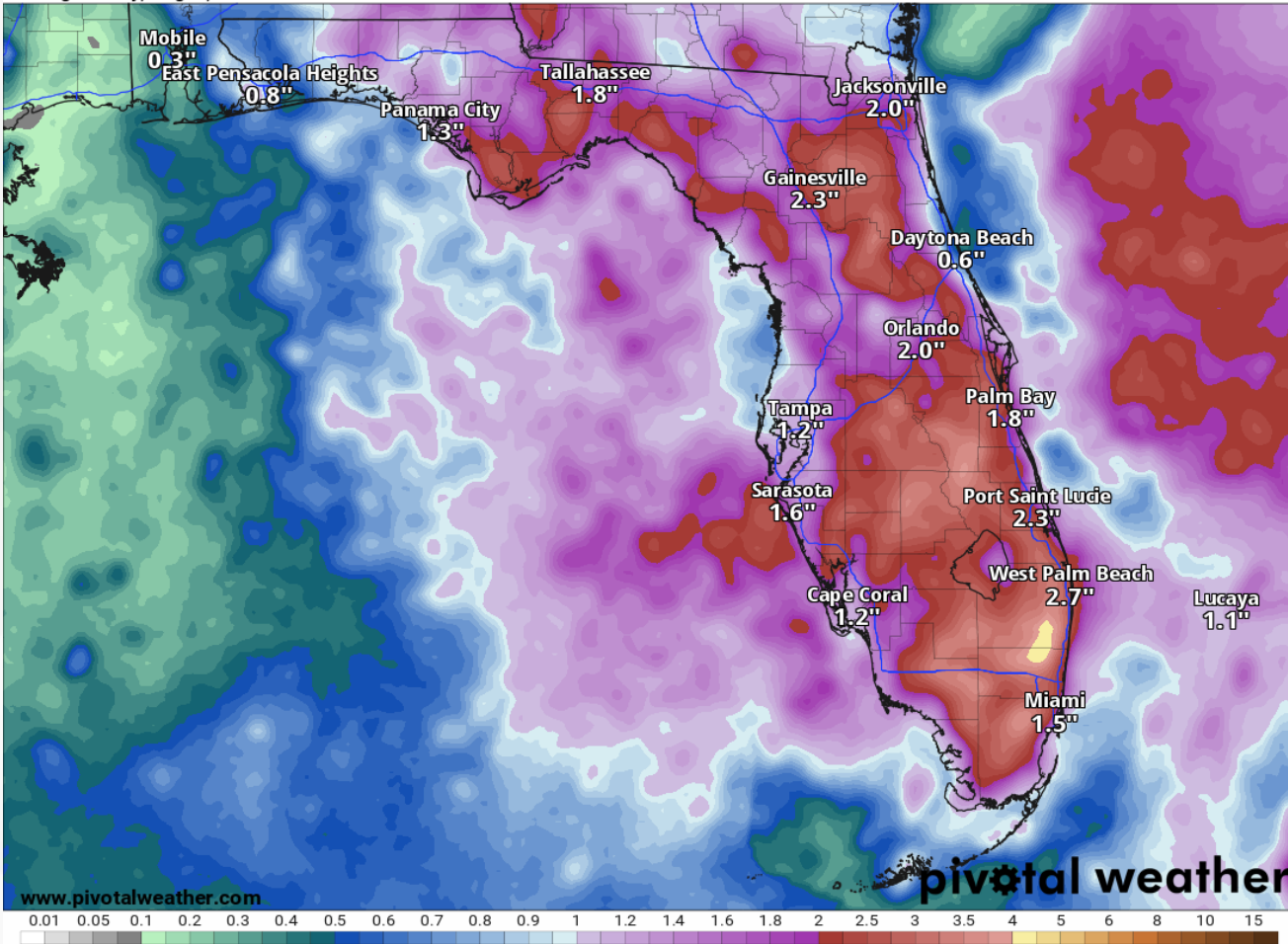
Rainfall Totals – Next 7 Days

From the Weather Prediction Center (WPC)

7-Day Precipitation (in)

Ending Sunday, Aug. 4, 2024 at 8 a.m. EDT

Init: Sun 2024-07-28 12z WPC

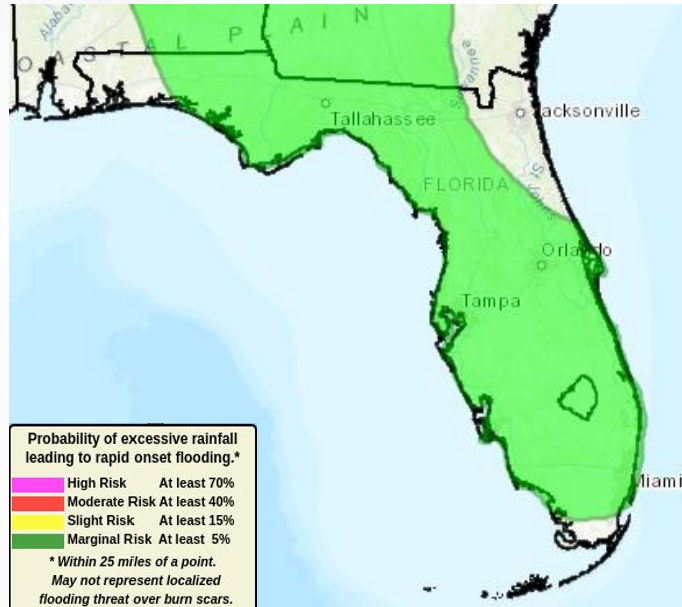


The active weather pattern associated with typical summertime thunderstorms can be expected each day. Daily showers and thunderstorms will develop along the sea breeze boundaries with the help of abundant moisture. Rainfall totals over the next 7 days are likely to reach 1-3", with **locally higher totals**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

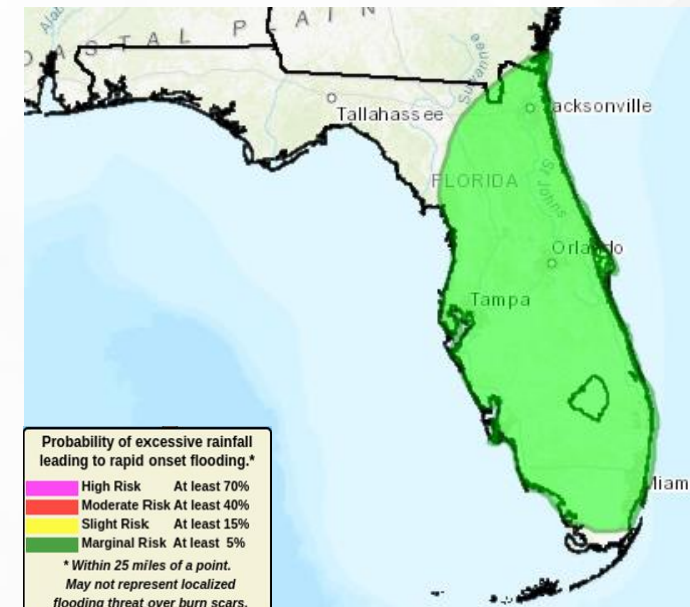


Weather Prediction Center (WPC) Flash Flood Outlooks Monday & Tuesday

Monday



Tuesday

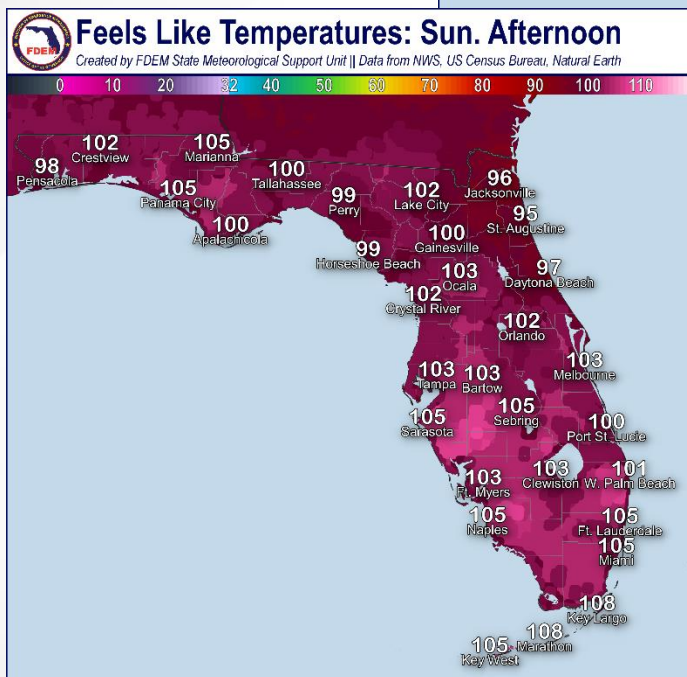
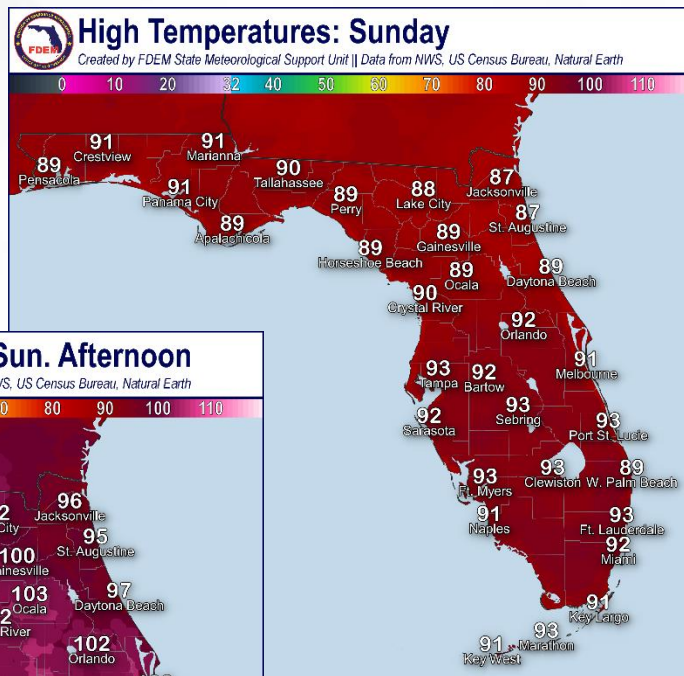


A tropical air mass across the state will aid summertime thunderstorm development throughout the afternoon and evening hours each day. Heavy and intense downpours can be expected with the help of tropical moisture, which could lead to instances of localized flooding at times. The Weather Prediction Center (WPC) is outlooking a **Marginal Risk (level 1 of 4) for Flash Flooding** throughout much of the state each day as **locally heavy rainfall** over saturated grounds and soils could lead to potential **localized flash flooding**. Any slow-moving or near stationary showers and thunderstorms with heavy downpours could bring **localized 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 will remain in effect across Southeast Florida through 6:00 PM EDT as hot and humid conditions will create **heat index values upwards of 104-109-degrees** throughout the afternoon.

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 several days.
- Environmental conditions are forecast to become conducive for some development in a day or two.
- A tropical depression could form around midweek while the system is near or over the northern Leeward Islands, Greater Antilles or southwestern Atlantic Ocean.
- 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 (40%) 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:

- A tropical air mass and a weak frontal boundary will aid shower and thunderstorm development across the state along the sea breeze throughout the afternoon and evening hours (55-80% chance of rain).
- 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** throughout North and Central Florida through northern portions of Lake Okeechobee where heavy downpours could lead to **instances of localized flooding** across urban and low-lying/poor drainage areas.
- Abundant moisture will continue to remain steady for the next few days across the state, allowing for daily showers and thunderstorms to produce locally heavy rainfall that could bring instances of localized flooding.
 - The Weather Prediction Center (WPC) is outlooking a **Marginal Risk (level 1 of 4) for Flash Flooding** throughout the Big Bend and the Peninsula on Monday and from Northeast Florida through South Florida on Tuesday where heavy rainfall over saturated grounds and soils could bring **localized flooding** for urban and low-lying/poor drainage areas.
- 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.
 - A **Heat Advisory** remains in effect for portions of Southeast Florida where hot and humid conditions will create **heat index values of 104-109-degrees** this afternoon.

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



Tropical Update



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State Meteorological Support Unit

Florida Division of Emergency Management

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