



Tropical Update



10:45 AM EDT

Tuesday, July 30, 2024

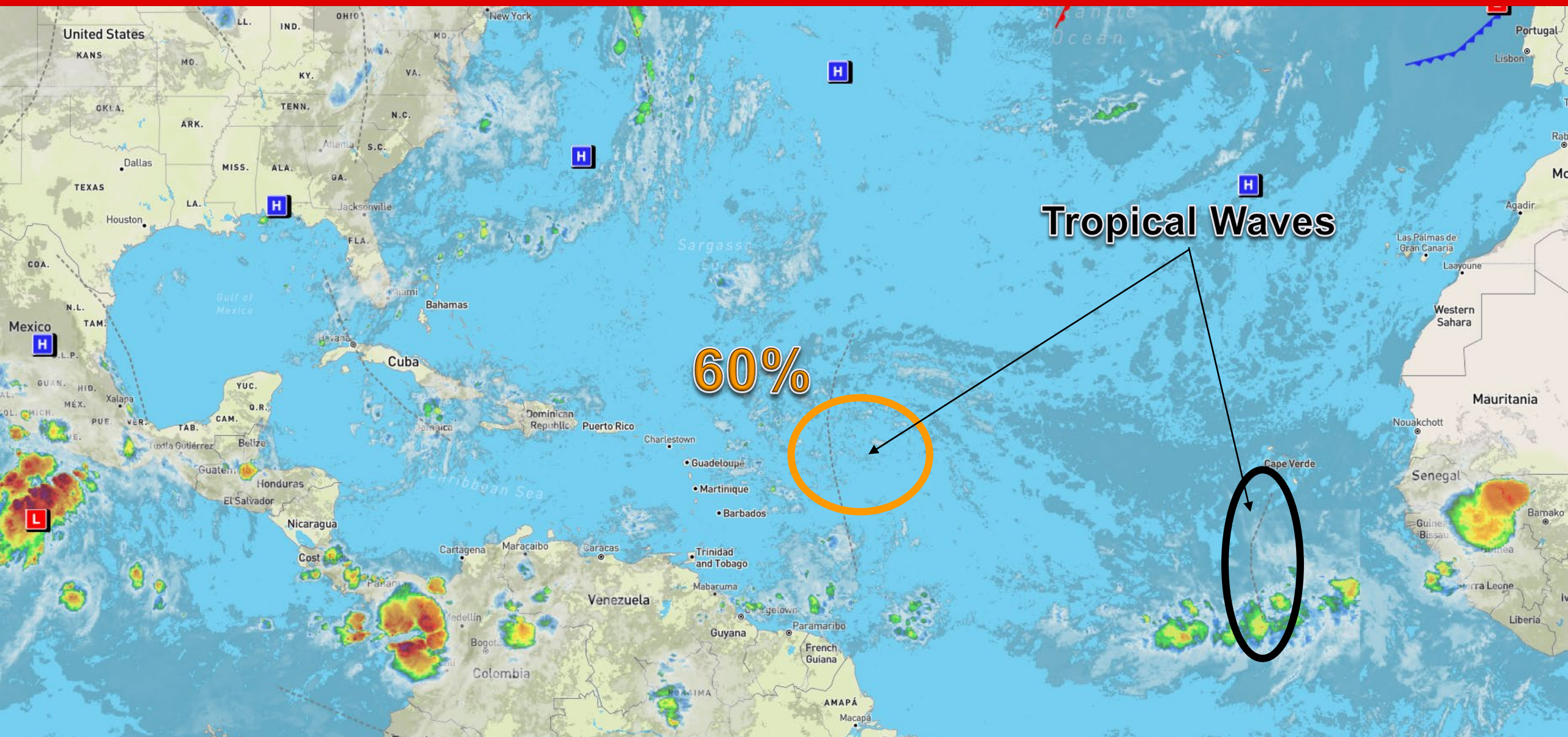
**Continuing to Monitor Tropical Wave for Development
Near the Greater Antilles & Bahamas Later This Week
(60% - Medium Chance)**

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





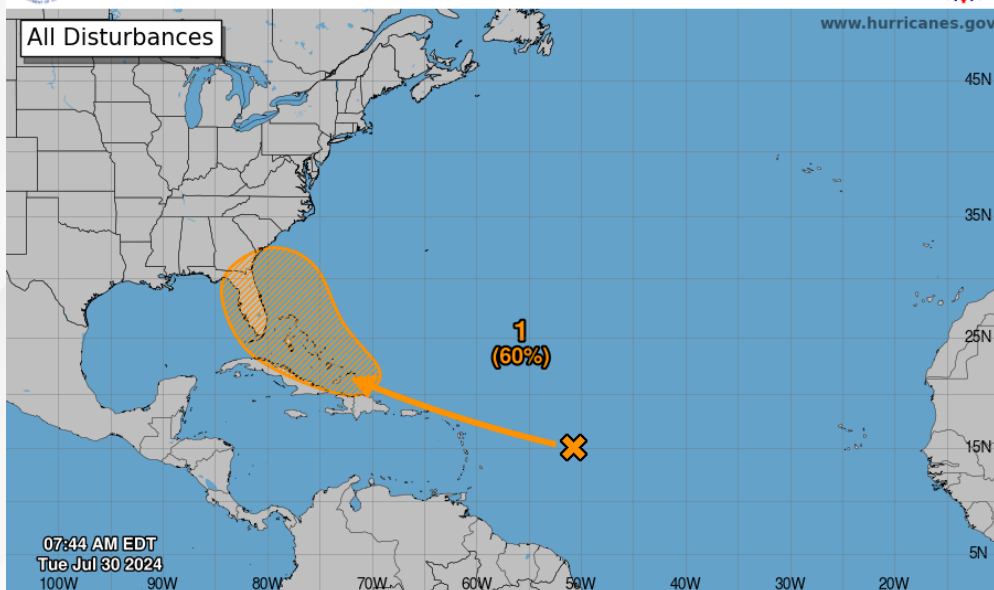
Tropical Weather Outlook

Disturbance 1 – Near the Greater Antilles & the Bahamas ([LINK](#))



Seven-Day Graphical Tropical Weather Outlook

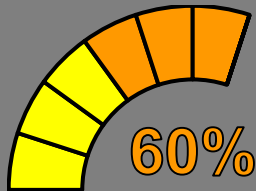
National Hurricane Center Miami, Florida



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



60%

7 Day Formation

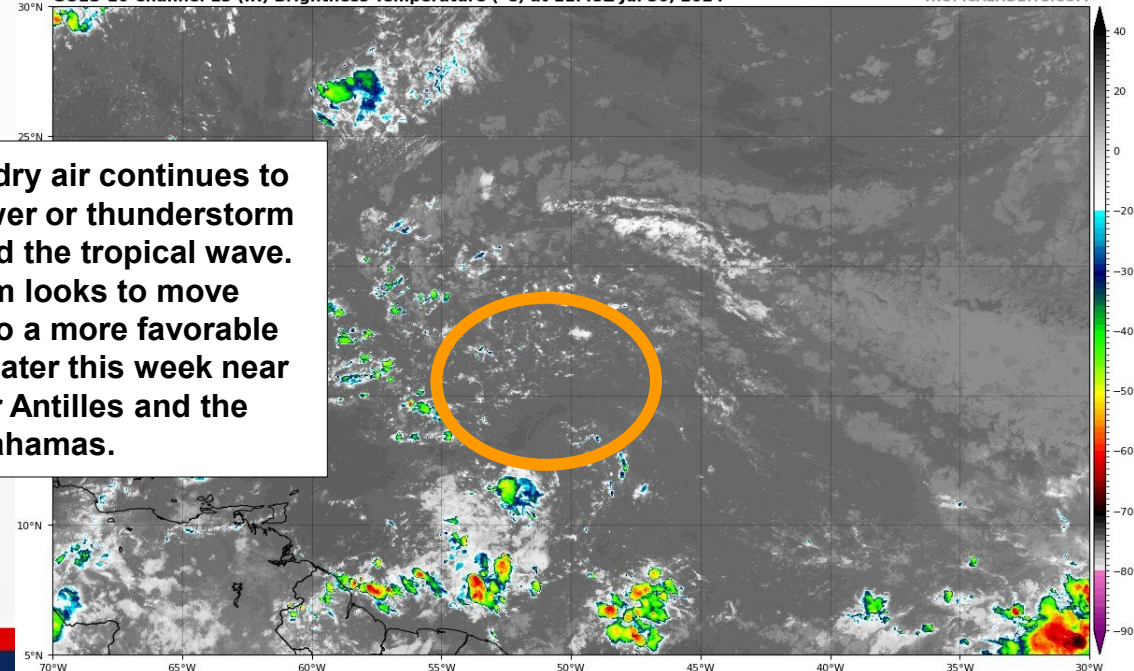
A large tropical wave centered several hundred miles east of the Lesser Antilles is producing limited shower activity due to dry air. Conditions are forecast to become a little more conducive for development over the warmer waters of the southwestern Atlantic Ocean, and a tropical depression could form late this week while the system is in the vicinity of the Greater Antilles or the Bahamas. *This system poses no direct threat to Florida during the next 3-5 days, but this system will continue to be monitored as it works to move into a more favorable environment for organization later this week.*

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

* Formation chance through 7 days...**medium...60%.**

GOES-16 Channel 13 (IR) Brightness Temperature (°C) at 11:45Z Jul 30, 2024

TROPICALTIDBITS.COM



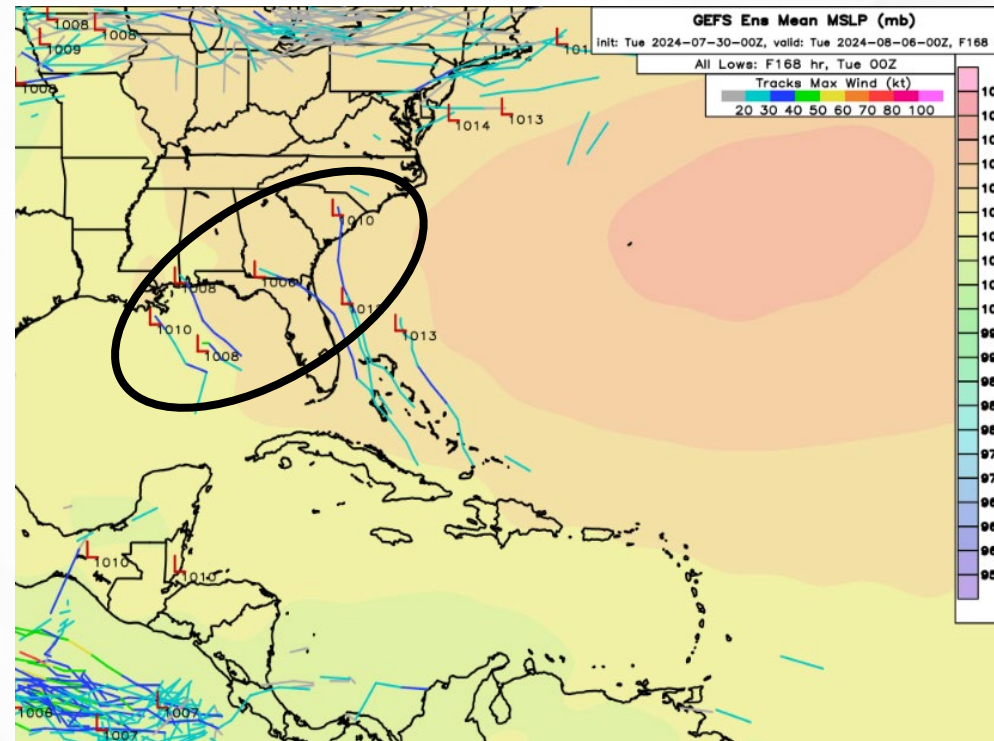
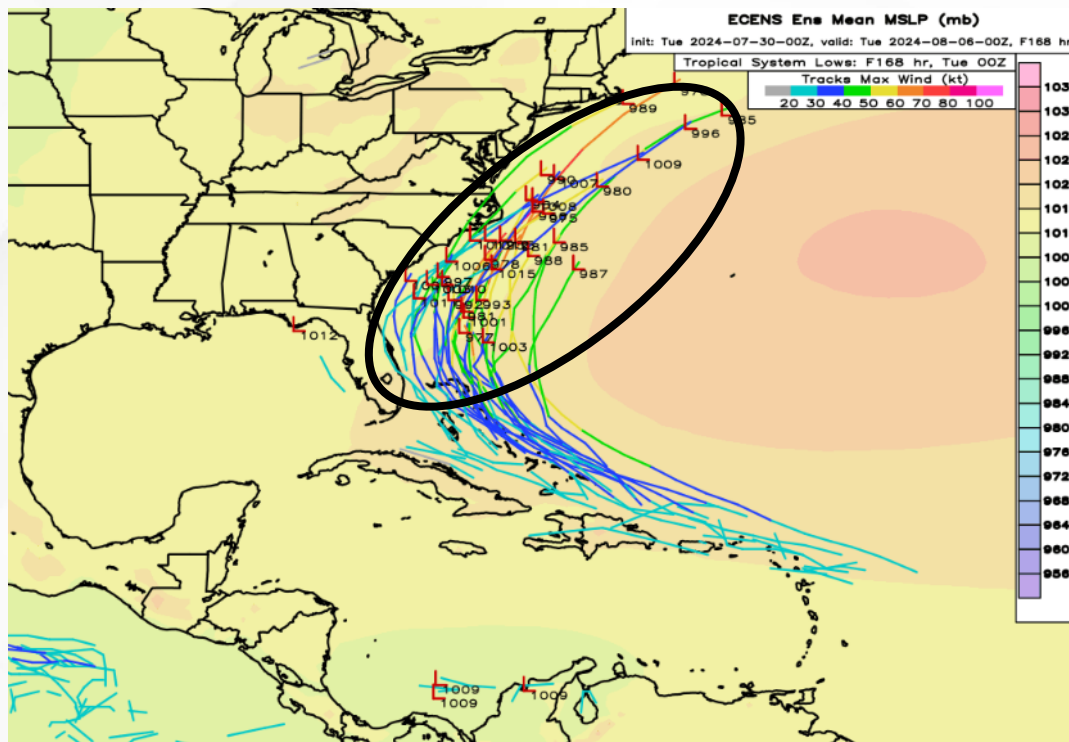
Surrounding dry air continues to limit any shower or thunderstorm activity around the tropical wave.

The system looks to move westward into a more favorable environment later this week near the Greater Antilles and the Bahamas.



Model Forecasts – Next 7 Days

Atlantic Basin



Computer model guidance has been struggling with the evolution of this system for the last several days. Both the European computer forecast model (left) and the American computer forecast model (right) continue to show disagreement and uncertainties indicated by the large spread of potential outcomes. The level of uncertainty with this system is not unsurprising given the disorganized and broad nature of the tropical wave and its lack of an established low-level center of circulation. While the European computer forecast model has been the most consistent regarding the tropical wave's development, shifts within the forecast track guidance cannot be ruled out and trends will continue to be monitored.

A general west-northwestward motion can be expected over the next several days along the southern fringe of a dominant area of high pressure over the Atlantic basin. This tropical wave will then approach the Leeward Islands and Greater Antilles mid to late this week as an unorganized, weak system. Forecast uncertainty greatly increases near the weekend as the timing of organization and strength of the developing tropical system will have a pivotal role within its eventual path. A weaker and more disorganized system favors a westward track (maintaining a west-northwest motion), while a more organized system favors a more easterly track (curving northwestward and northward). 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.



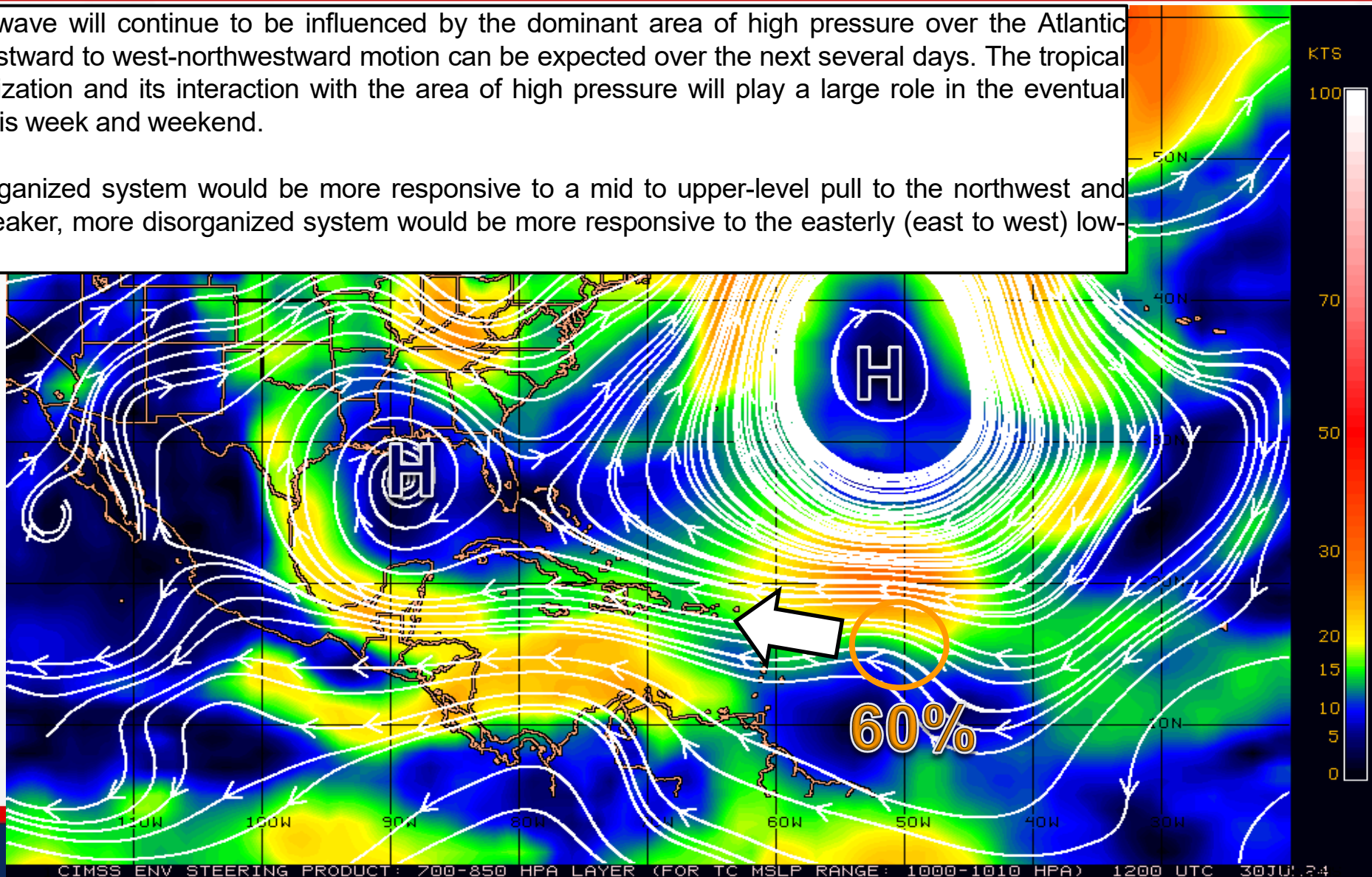
Steering Currents

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 broad tropical wave will continue to be influenced by the dominant area of high pressure over the Atlantic basin. A general westward to west-northwestward motion can be expected over the next several days. The tropical disturbance's organization and its interaction with the area of high pressure will play a large role in the eventual steering flow later this week and weekend.

A stronger, more organized system would be more responsive to a mid to upper-level pull to the northwest and north; whereas a weaker, more disorganized system would be more responsive to the easterly (east to west) low-level flow.



Fast Moving Storm

Fast Moving Storm

Typical Moving Storm

Slow Moving Storm

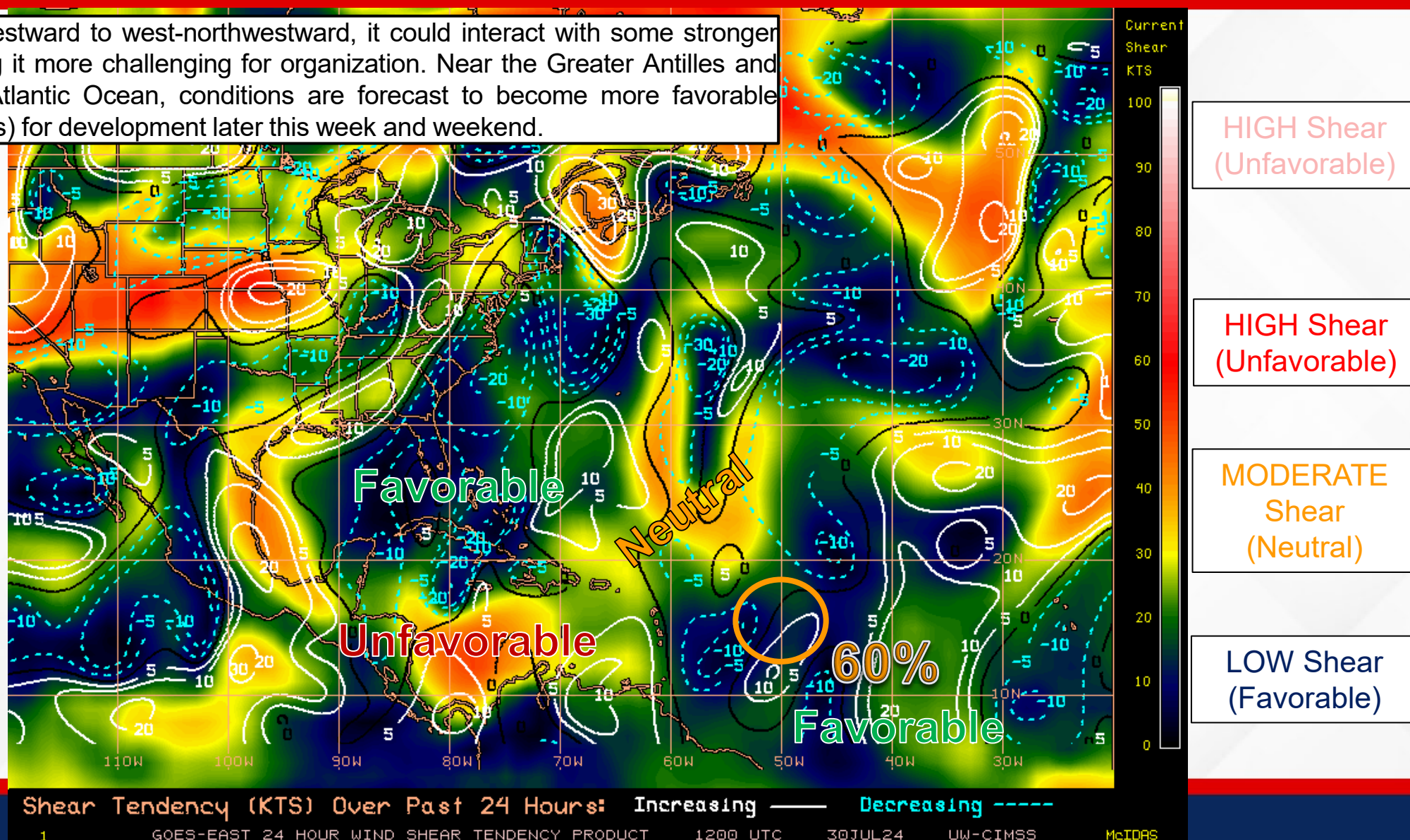


Wind Shear

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).

As the system moves westward to west-northwestward, it could interact with some stronger upper-level winds making it more challenging for organization. Near the Greater Antilles and over the southwestern Atlantic Ocean, conditions are forecast to become more favorable (weaker upper-level winds) for development later this week and weekend.



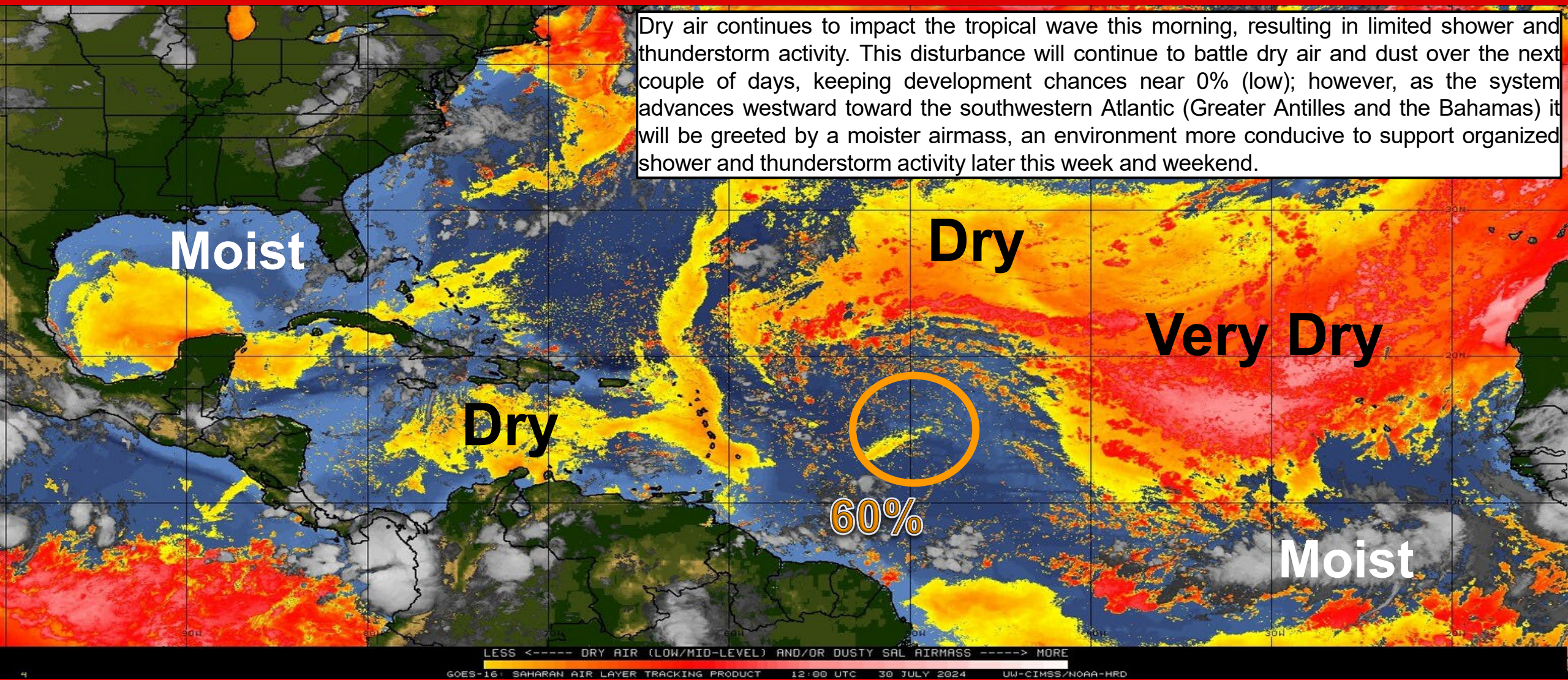


Dry Air & Saharan Dust

Is the environment favorable for the system?

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

Dry air continues to impact the tropical wave this morning, resulting in limited shower and thunderstorm activity. This disturbance will continue to battle dry air and dust over the next couple of days, keeping development chances near 0% (low); however, as the system advances westward toward the southwestern Atlantic (Greater Antilles and the Bahamas) it will be greeted by a moister airmass, an environment more conducive to support organized shower and thunderstorm activity later this week and weekend.



LESS <----- DRY AIR (LOW/MID-LEVEL) AND/OR DUSTY SAL AIRMASS -----> MORE

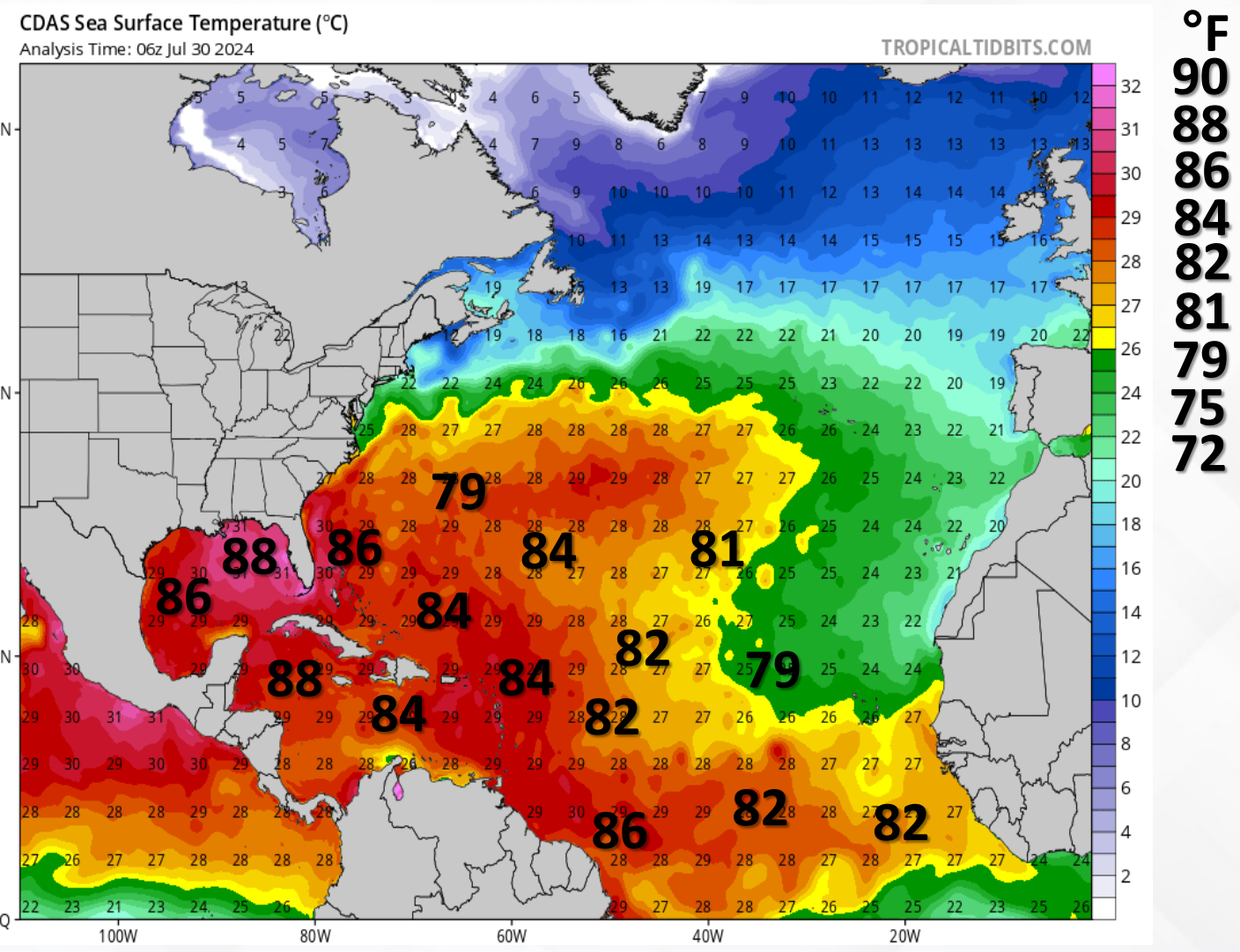
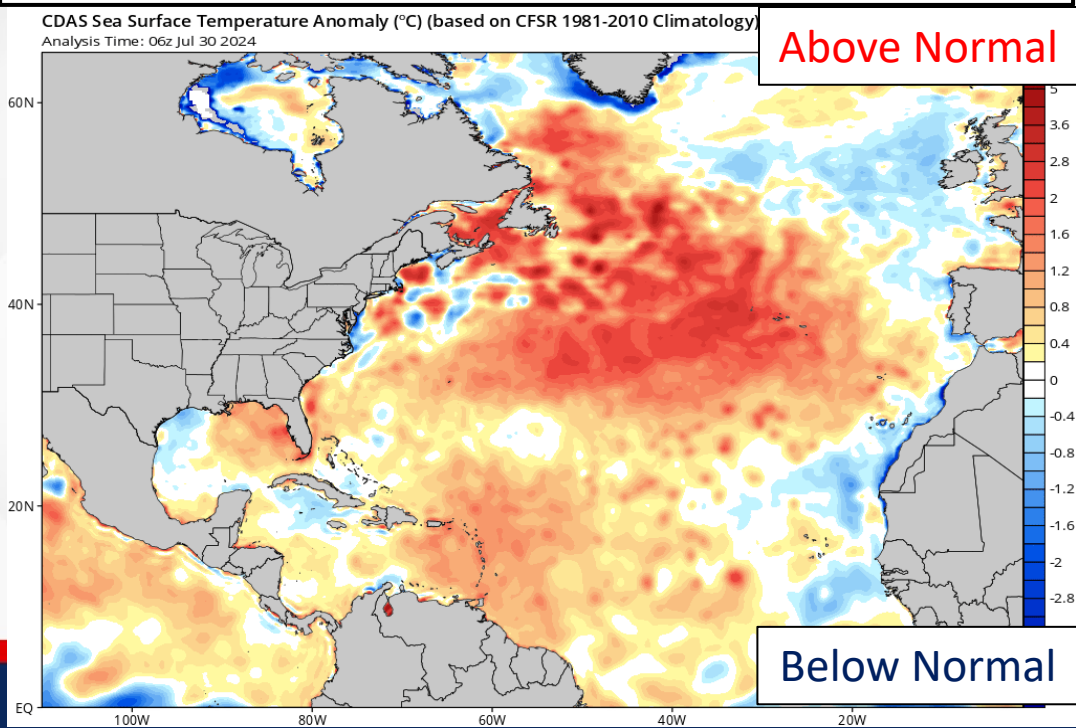
GOES-16: SAHARAN AIR LAYER TRACKING PRODUCT 12:00 UTC 30 JULY 2024 UW-CIMSS/NOAA-HRD



Sea Surface Temperatures & Anomalies

Is the ocean favorable for the system?

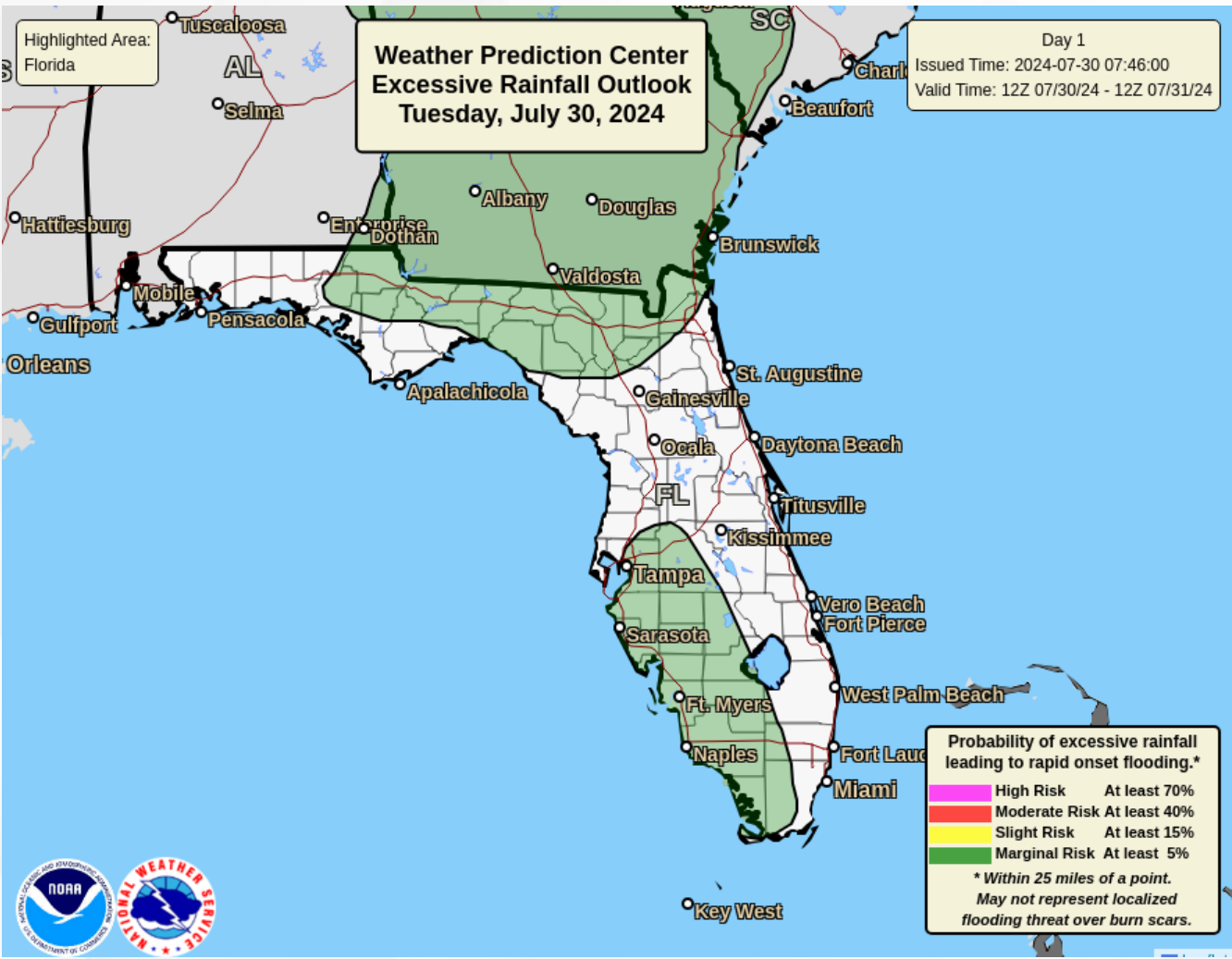
Temperatures across the Atlantic Basin are supportive of tropical cyclone development. Waters across the deep tropical Atlantic and Gulf of Mexico 0.5 to 1.5-degrees above normal for this time of year.





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. Scattered to numerous showers and thunderstorms this afternoon will be capable of producing heavy downpours. Instances of **localized flooding** will be possible nearly statewide, especially across urban and low-lying/poor drainage areas. Given the recent active summertime pattern, recent heavy rainfall may lead to a quicker onset to **flooding** for some locations.

Understanding WPC Excessive Rainfall Risk Categories

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.
www.wpc.ncep.noaa.gov @NWSWPC				
Flash flooding near me?	Flash Flooding			
WEATHER PREDICTION CENTER				



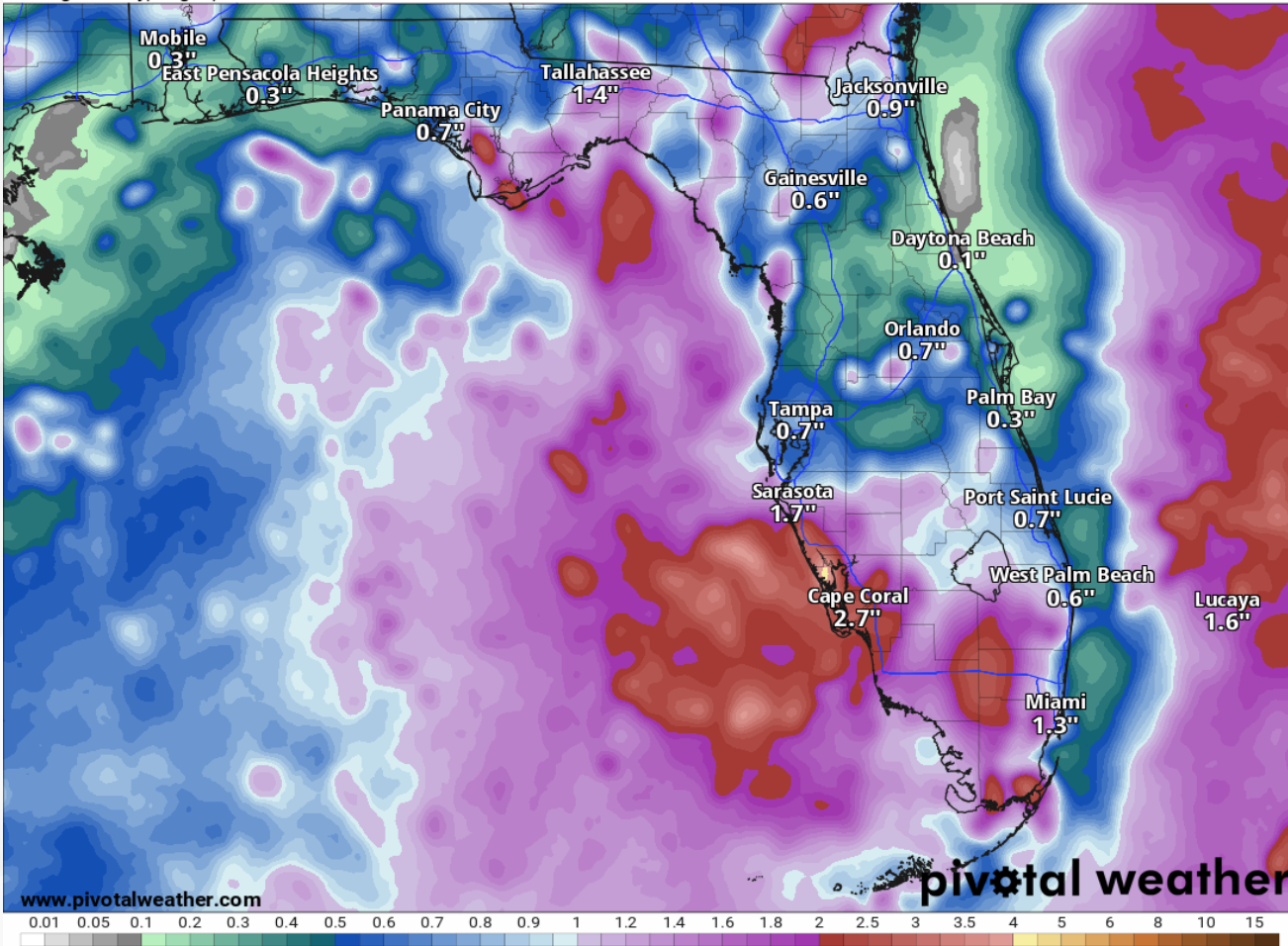
Rainfall Totals – Next 7 Days

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 typical summertime pattern can be expected to continue across the Sunshine State over the next several days. Daily showers and thunderstorms will develop along the inland-moving sea breezes late morning and early afternoon, increasing in coverage and intensity with daytime heating.

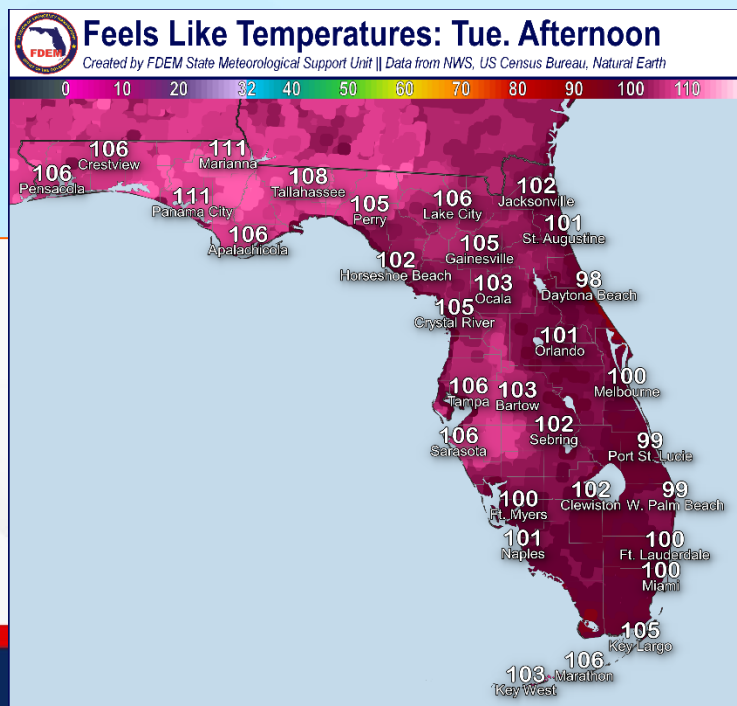
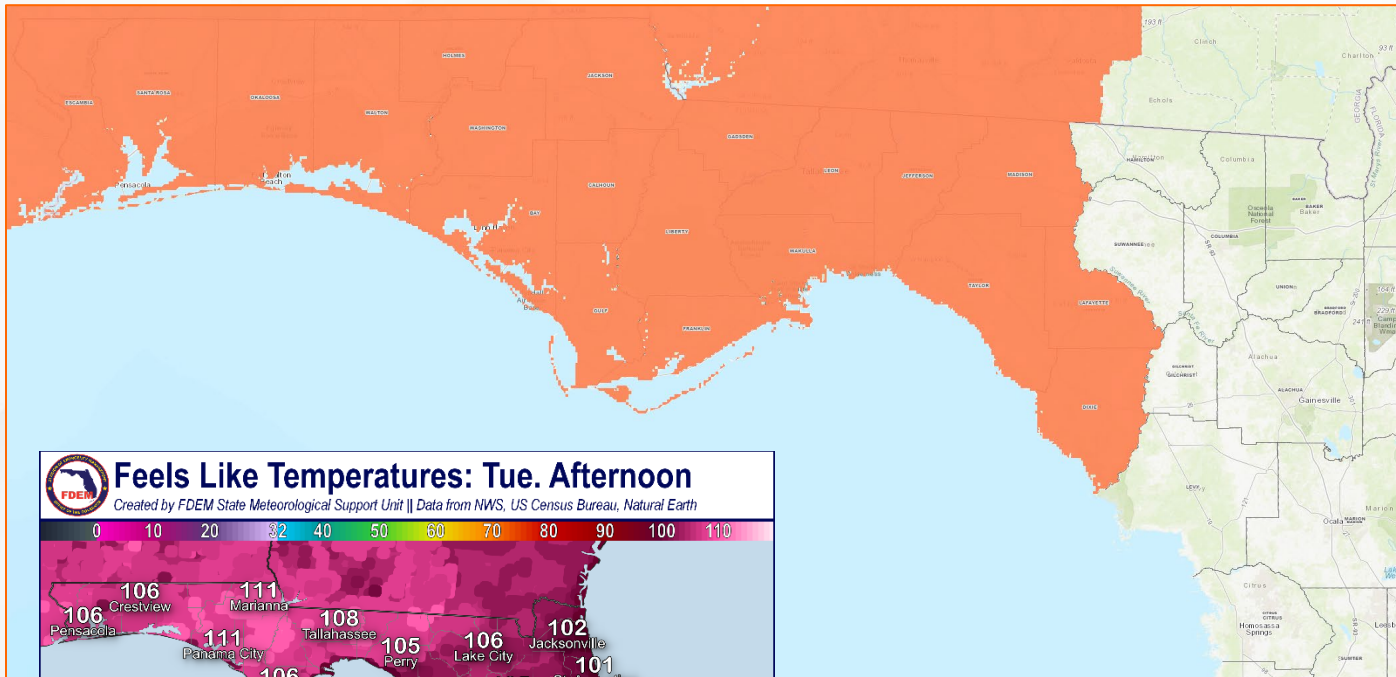
Rainfall totals of 1-3" can be expected, with locally higher totals of 4-6" possible within the stronger, slower thunderstorms. **Localized flooding cannot** be ruled out each afternoon, especially for areas that have experienced recent rain and thunderstorm activity.

Rainfall totals associated with any approaching tropical disturbance are typically one of the last details of the 'forecasting puzzle'. Trends within the computer forecast models will be monitored through the week. A more disorganized tropical system may produce higher rain chances and greater rainfall totals over portions of the Florida Peninsula this weekend into early next week.



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 have been issued across the Florida Panhandle and into the Florida Big Bend through the afternoon, with temperatures **feeling like 106 to 112-degrees** during the peak heating hours of the day.

Heat Advisory in Effect:
11:00 AM EDT/10:00 AM CDT until 8:00 PM EDT/7:00 PM CDT this evening.

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



Summary

Near the Greater Antilles & the Bahamas:

- A large tropical wave centered several hundred miles east of the Lesser Antilles is producing limited shower activity due to dry air.
- Conditions are forecast to become a little more conducive for development over the warmer waters of the southwestern Atlantic Ocean, and a tropical depression could form late this week while the system is in the vicinity of the Greater Antilles or the Bahamas.
- This system poses no direct threat to Florida during the next 3-5 days, but this system will continue to be monitored as it works to move into a more favorable environment for organization later this week.
- The National Hurricane Center is outlooking a **low (near 0%) chance of development** over the next 48 hours, but a **medium (60%) chance of development** over the next 7 days. The next name on the list is Debby (*DEH-bee*).

Florida Outlook:

- The typical summertime pattern can be expected to continue across the Sunshine State over the next several days. Daily showers and thunderstorms will develop along the inland-moving sea breezes late morning and early afternoon, increasing in coverage and intensity with daytime heating.
 - The Weather Prediction Center (WPC) is outlooking two areas for a **Marginal Risk (level 1 of 4) for Flash Flooding**; however, the risk for localized flooding and ponding water can be expected across statewide urban corridors and low-lying/poor drainage areas.
- Rainfall totals associated with any approaching tropical disturbance are typically one of the last details of the '*forecasting puzzle*'.
 - Trends within the computer forecast models will be monitored through the week. A more disorganized tropical system may produce higher rain chances and greater rainfall totals over portions of the Florida Peninsula this weekend into early next week.
- 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** have been issued across the Florida Panhandle and into the Florida Big Bend through the afternoon, with temperatures feeling like 106 to 112-degrees during the peak heating hours of the day.

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



Tropical Update



Created by:

Caitlyn Gillespie, Deputy State Meteorologist

Caitlyn.Gillespie@em.myflorida.com

State Meteorological Support Unit

Florida Division of Emergency Management

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