



# Tropical Update



9:45 AM EDT

Wednesday, July 31, 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](http://www.hurricanes.gov).



A map of the Atlantic Ocean and surrounding landmasses, including the United States, Mexico, Central America, the Caribbean Sea, and parts of South America and Europe. The map highlights tropical waves, which are indicated by green and yellow areas. A large orange circle is drawn around a cluster of waves in the Caribbean Sea, with the text "60%" written above it. A black circle is drawn around a cluster of waves further east in the Atlantic. Two arrows point from the text "Tropical Waves" to these two circles. High-pressure systems (H) are marked in the United States and the Atlantic. The map also shows the Gulf of Mexico, the Sargasso Sea, and the Caribbean Sea.





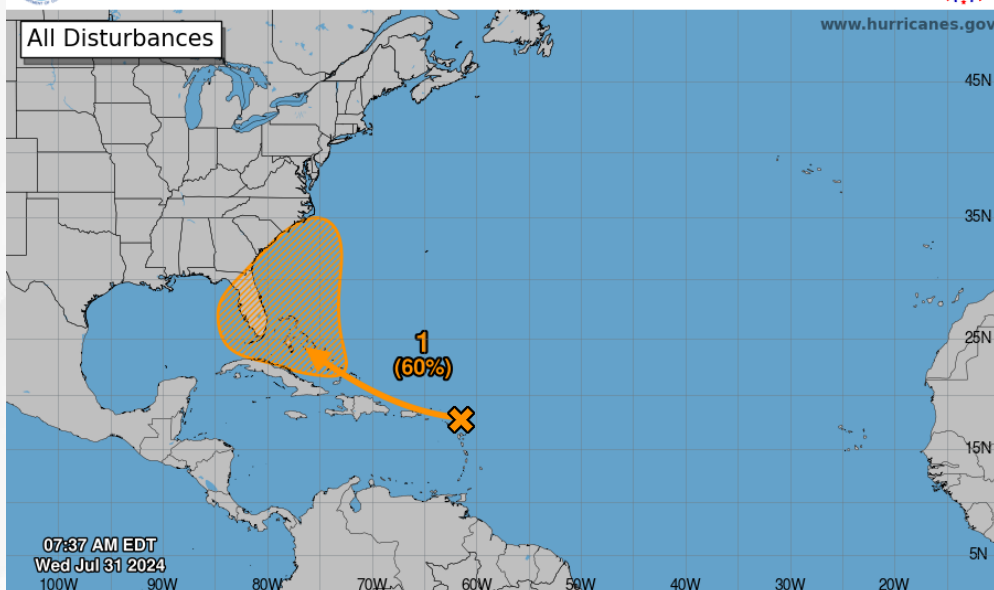
# Tropical Weather Outlook

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



## Seven-Day Graphical Tropical Weather Outlook

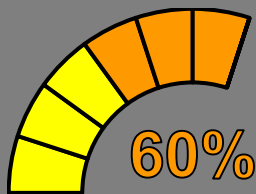
National Hurricane Center Miami, Florida



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



7 Day Formation

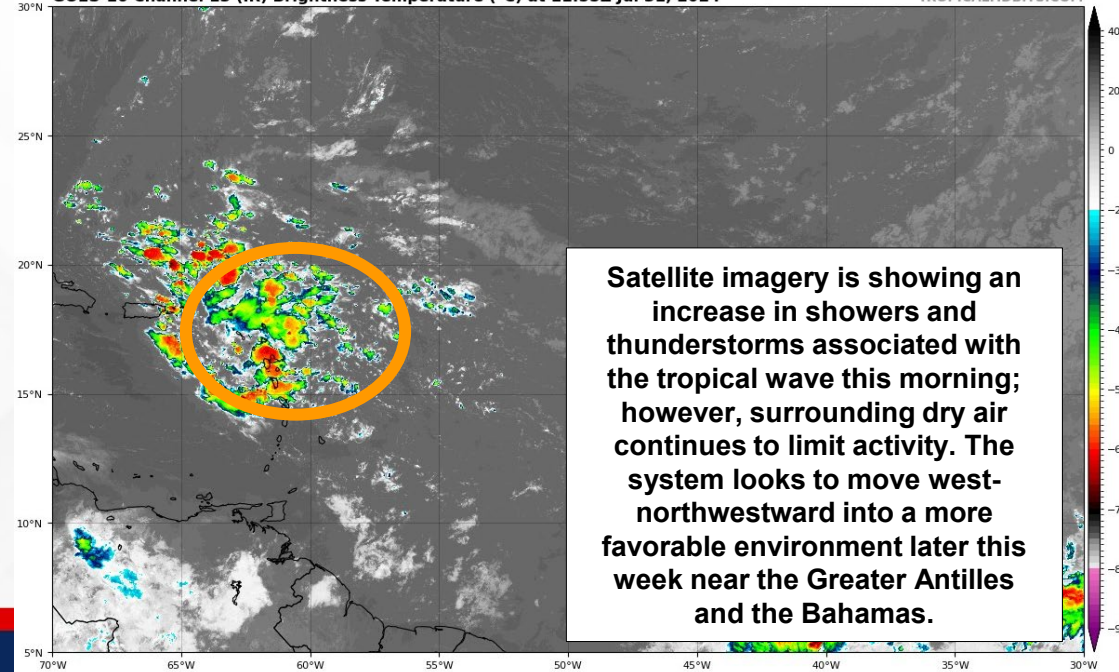
A large tropical wave located near the Lesser Antilles continues to produce a broad area of disorganized shower and thunderstorm activity. Environmental conditions are forecast to gradually become more conducive for development while the system moves generally west-northwestward over the Greater Antilles and towards the Bahamas. A tropical depression could form by this weekend while the system is in the vicinity of the Greater Antilles, the Bahamas, or near Florida. *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 11:55Z Jul 31, 2024

TROPICALTIDBITS.COM

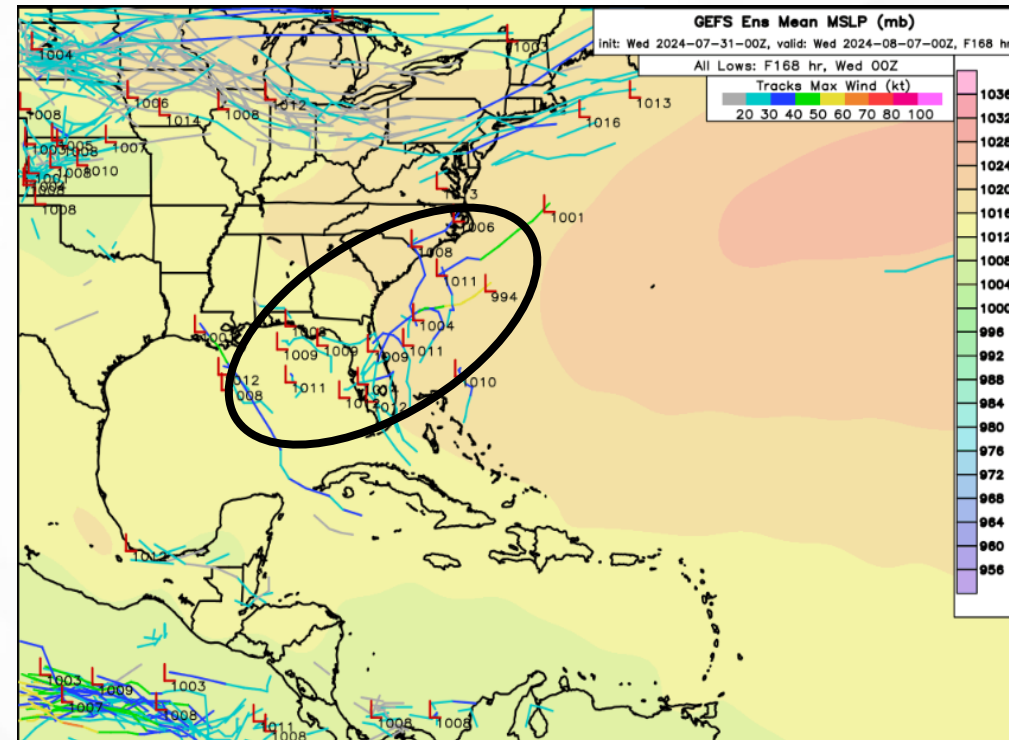
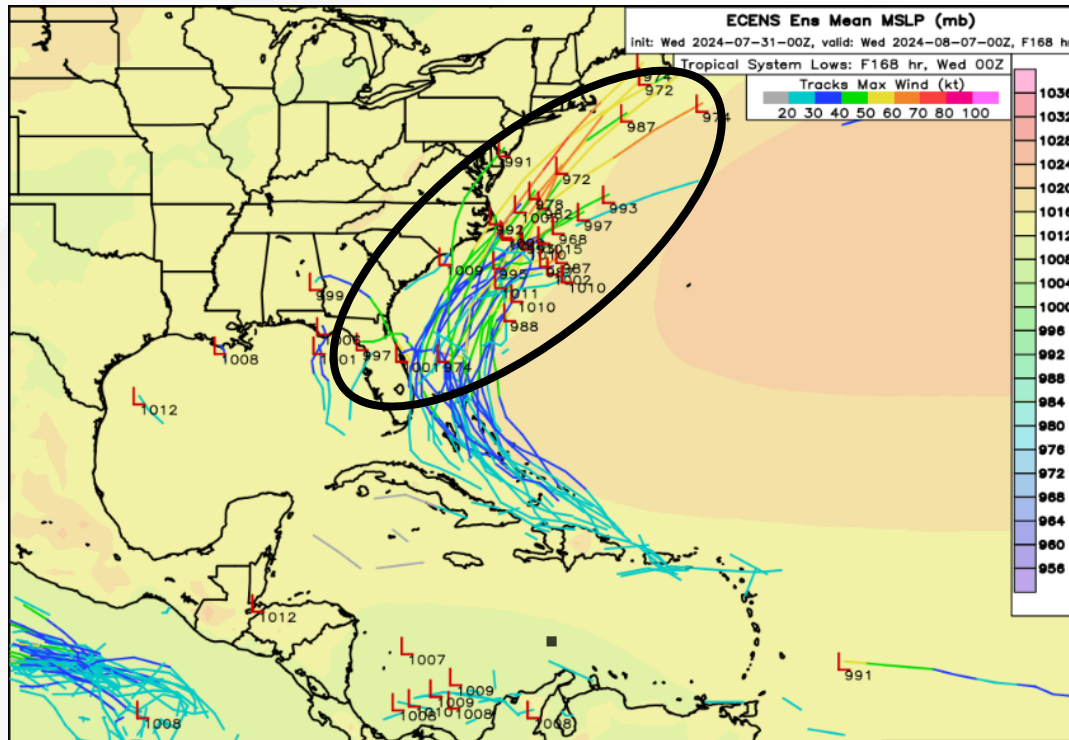


Satellite imagery is showing an increase in showers and thunderstorms associated with the tropical wave this morning; however, surrounding dry air continues to limit activity. The system looks to move west-northwestward into a more favorable environment later this week near the Greater Antilles and the 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.





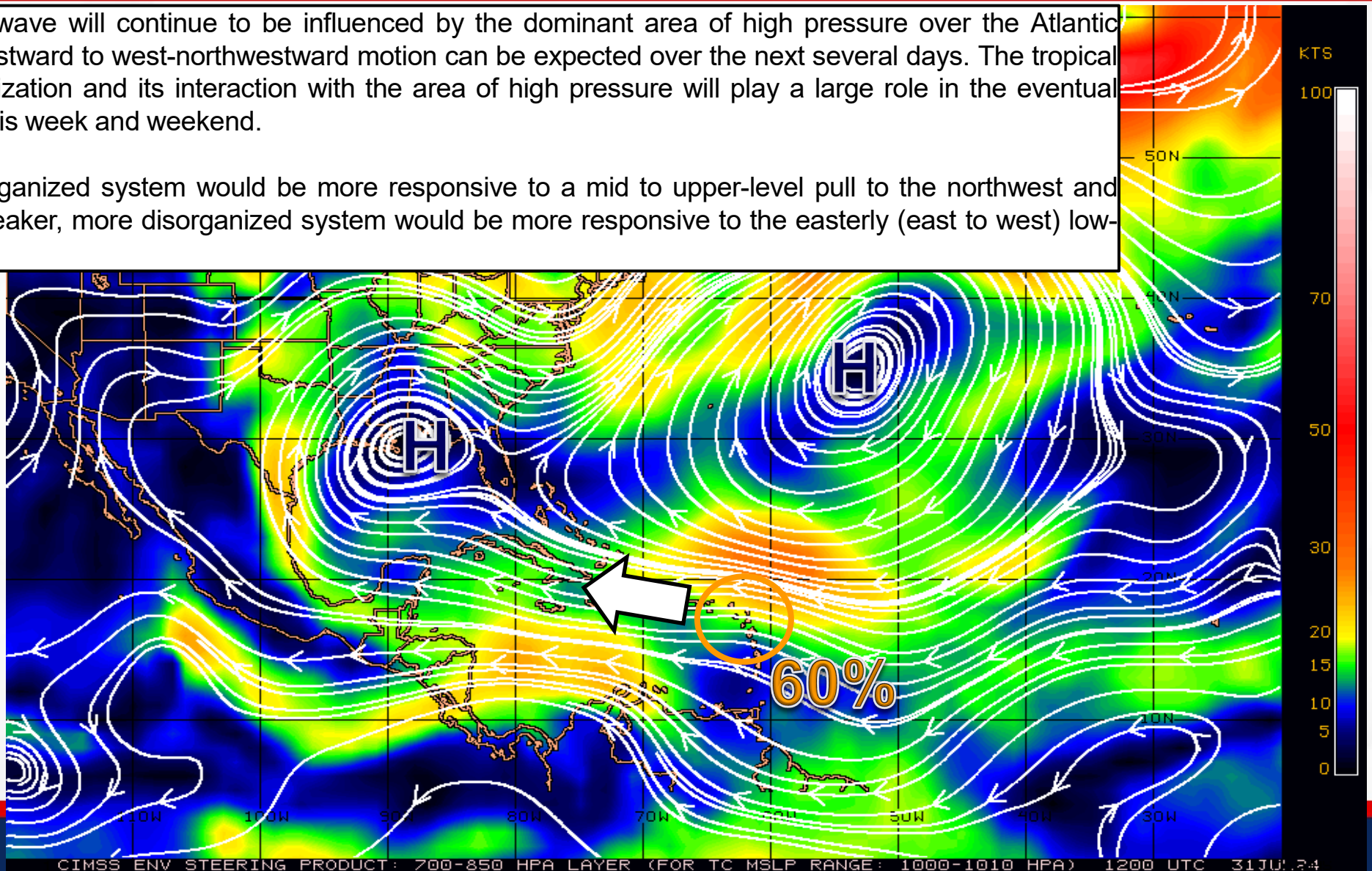
# Steering Currents

## 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

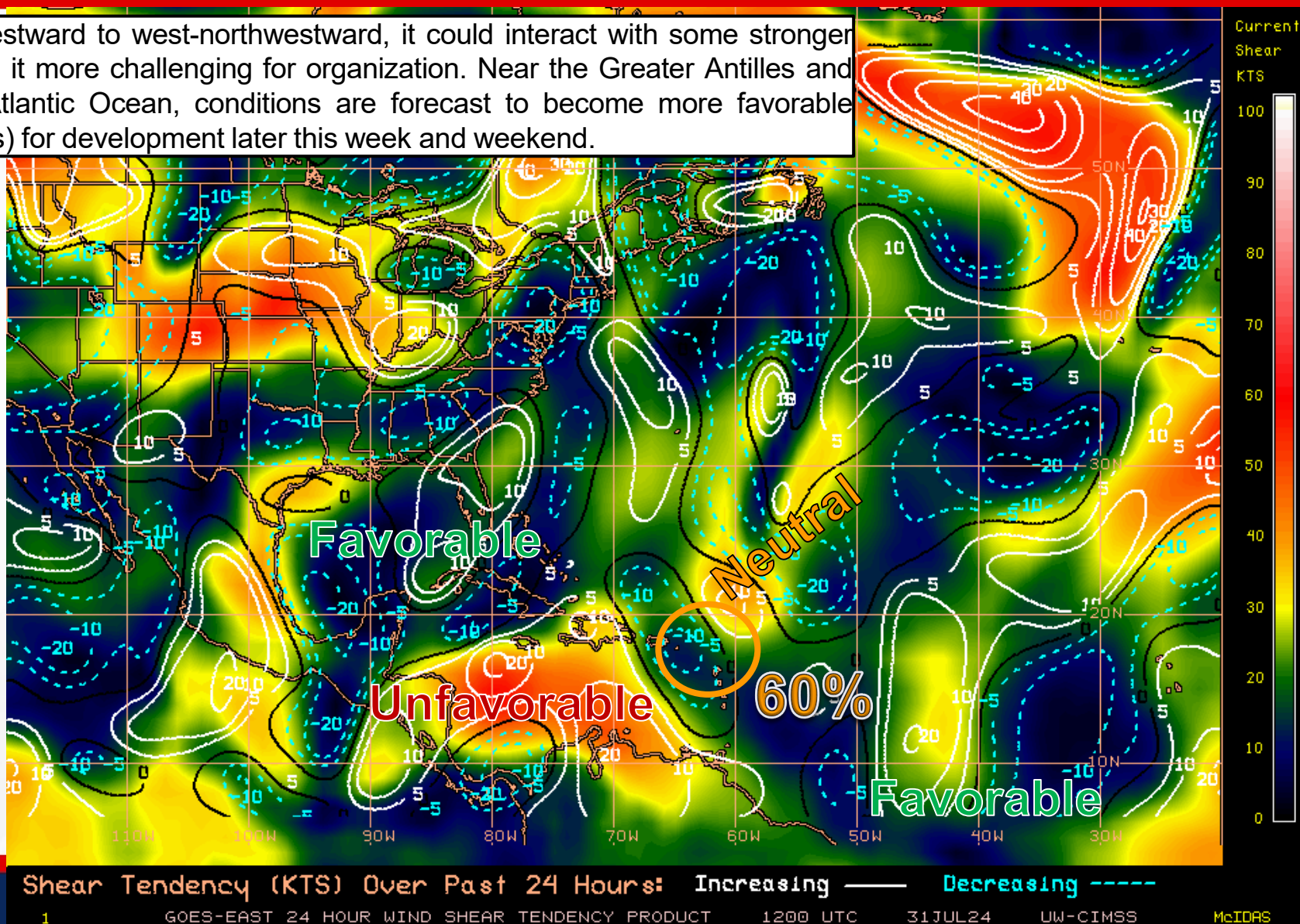


# Wind Shear

## 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.



HIGH Shear  
(Unfavorable)

HIGH Shear  
(Unfavorable)

MODERATE  
Shear  
(Neutral)

LOW Shear  
(Favorable)

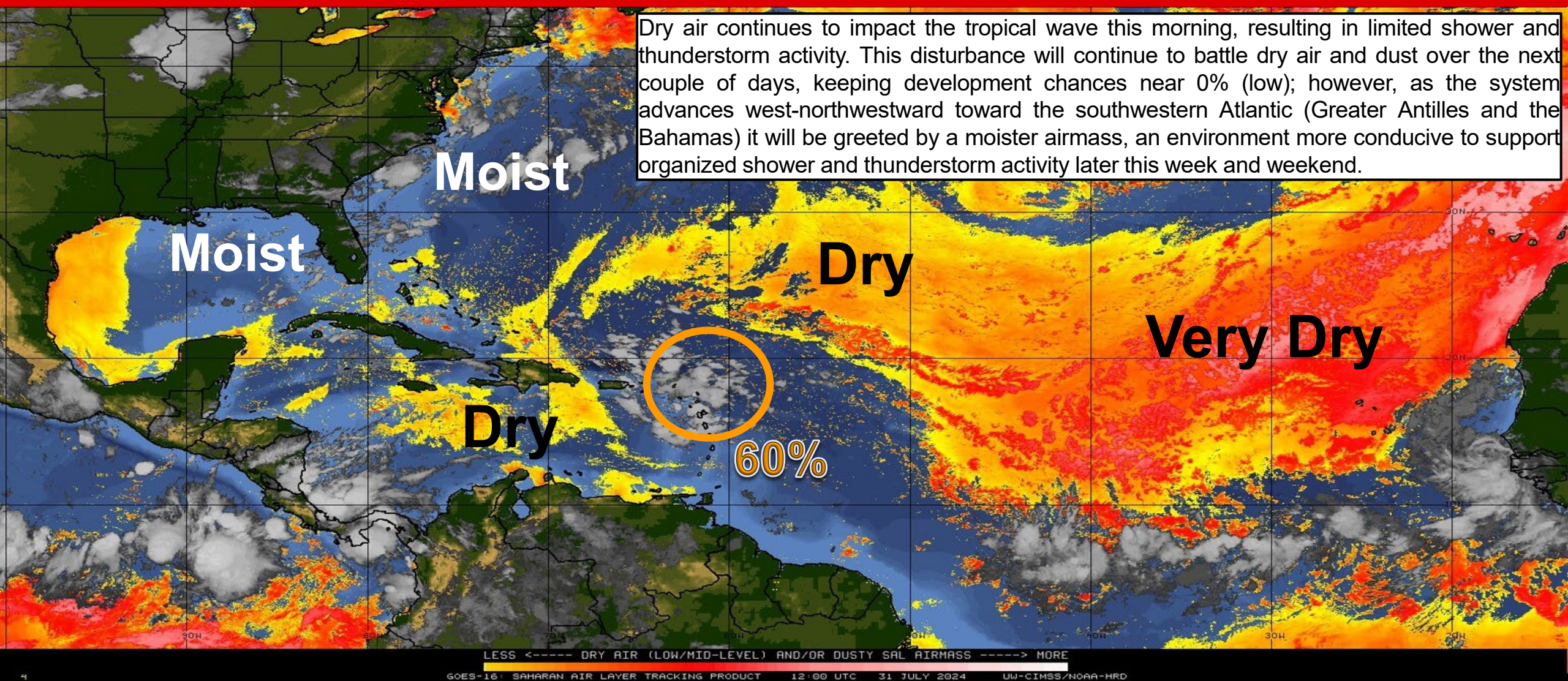




# Dry Air & Saharan Dust

Is the environment favorable for the system?

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



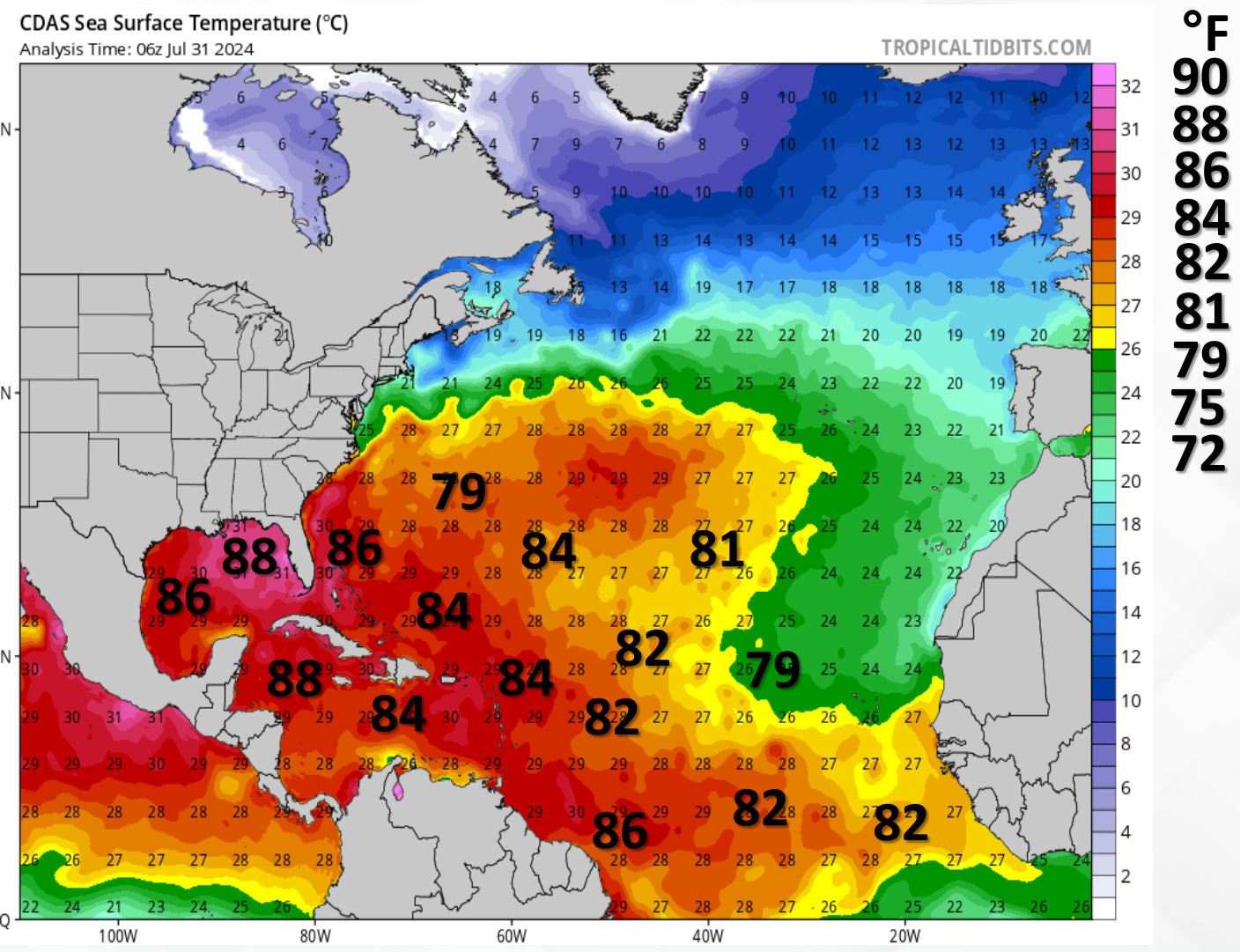
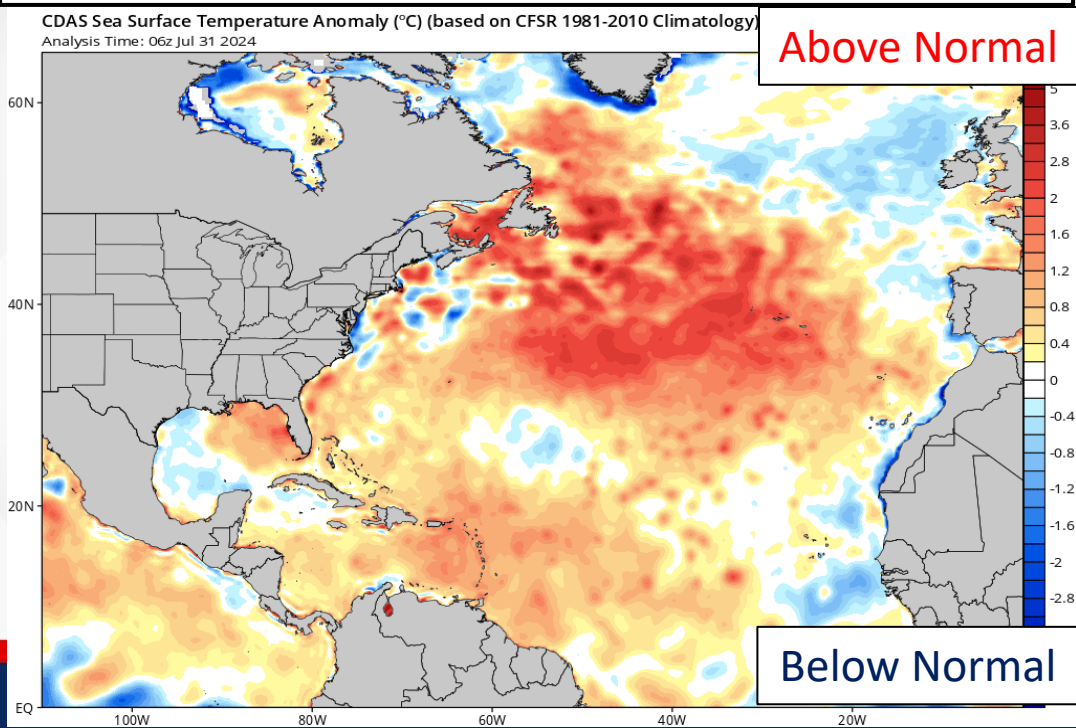




# Sea Surface Temperatures & Anomalies

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.

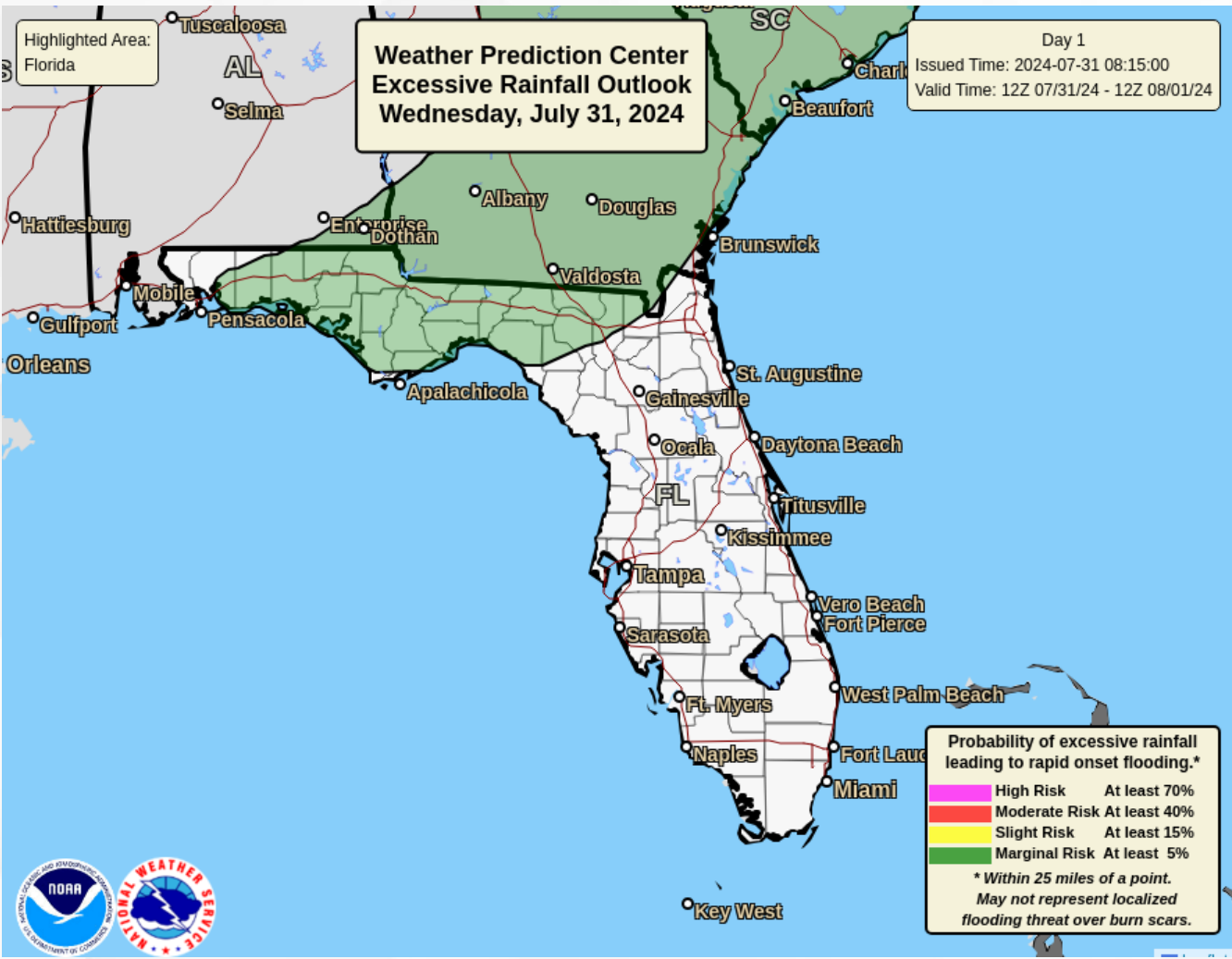






# Flash Flood Outlook – Today

From the Weather Prediction Center (WPC)



The Weather Prediction Center (WPC) is outlooking a **Marginal Risk (level 1 of 4) for Flash Flooding** along the Florida Panhandle and I-10 Corridor. 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
<a href="http://www.wpc.ncep.noaa.gov">@NWSWPC</a>	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.
Flash flooding near me?	Flash Flooding	Flash Flooding	Flash Flooding	Flash Flooding
WEATHER PREDICTION CENTER				



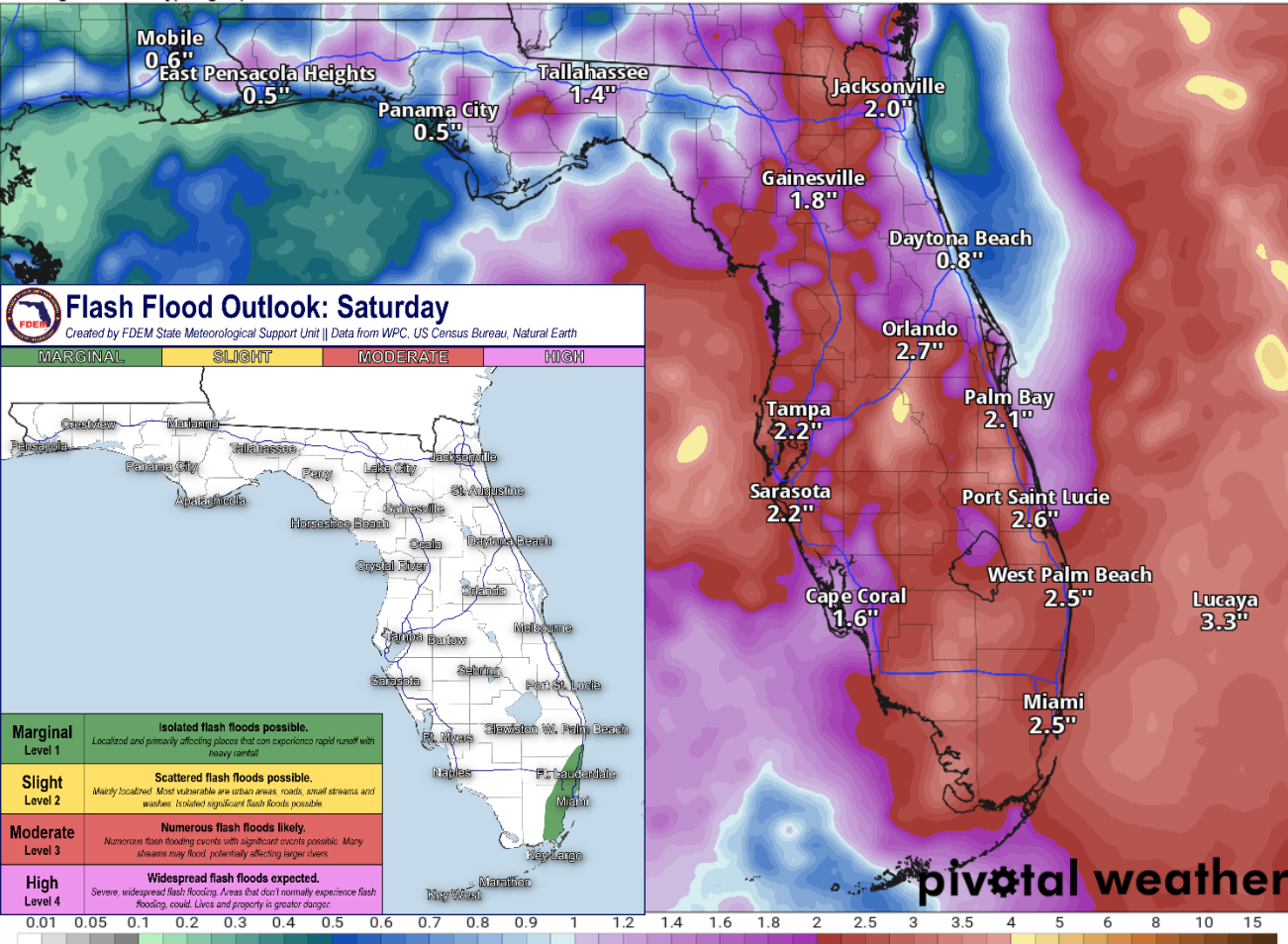
# Rainfall Totals – Next 7 Days

## From the Weather Prediction Center (WPC)

### 7-Day Precipitation (in)

Ending Wednesday, Aug. 7, 2024 at 8 a.m. EDT

Init: Wed 2024-07-31 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.

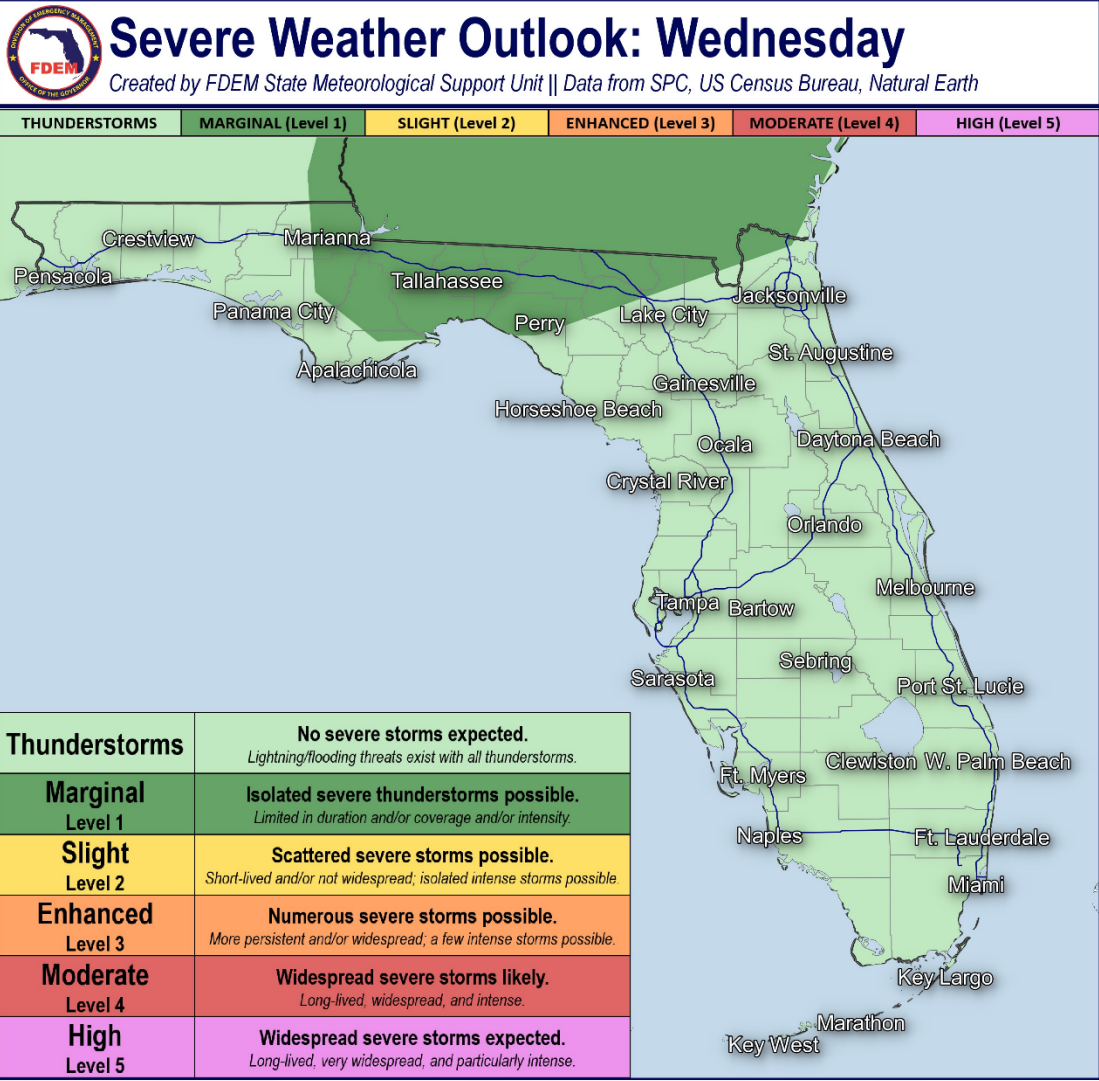
Rainfall totals associated with any approaching tropical disturbance are typically one of the last details of the 'forecasting puzzle'. Trends within the computer forecast models will be monitored through the week. A more disorganized tropical system may produce higher rain chances and greater rainfall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





# Severe Weather Outlook – Today

From the Storm Prediction Center (SPC)

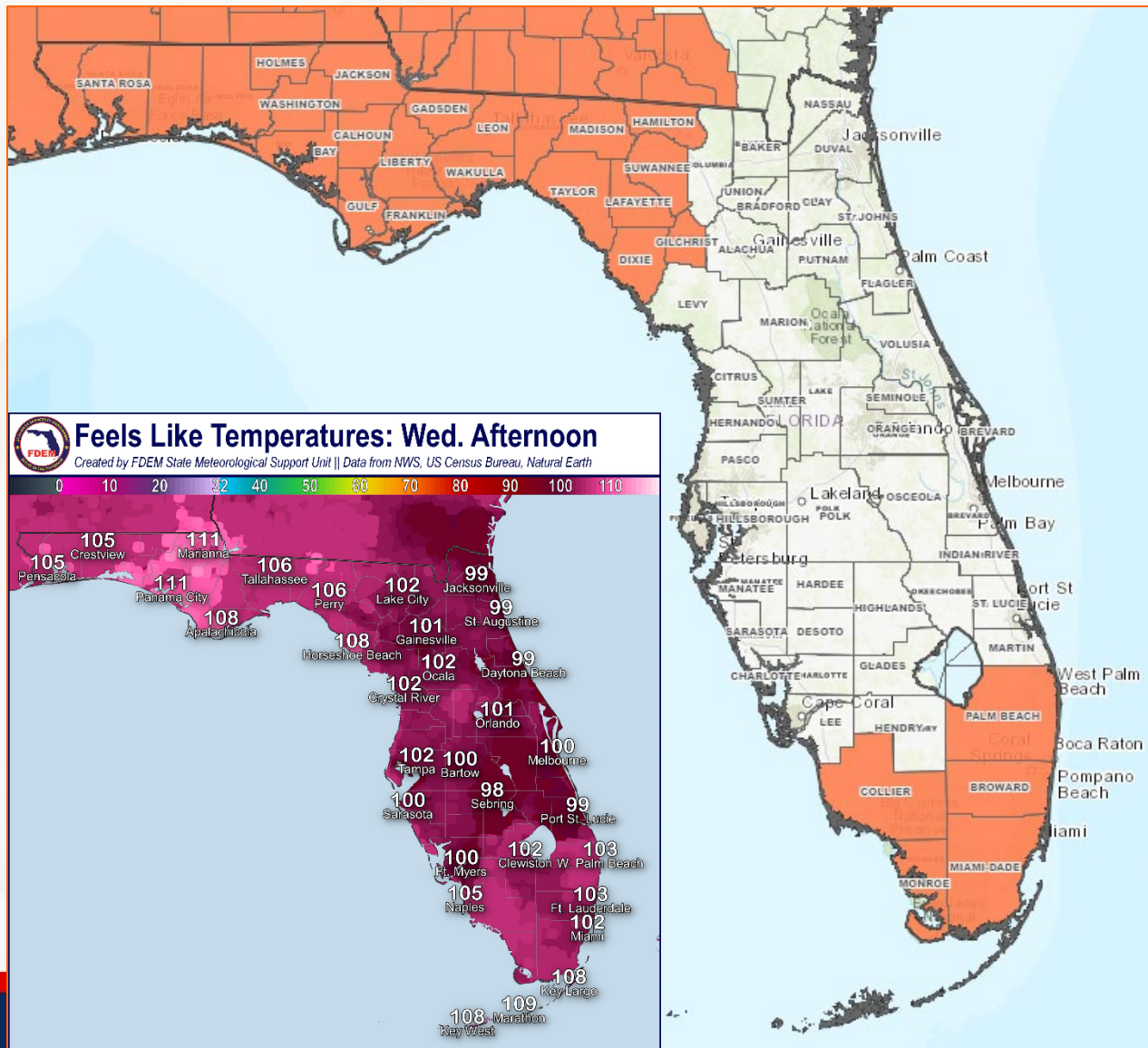


The Storm Prediction Center (SPC) is outlooking a **Marginal Risk (level 1 of 5) for Severe Weather** across the Eastern Panhandle, Big Bend, and far Northern Peninsula. Upper-level disturbances will trigger complexes of thunderstorms over the southern Appalachians today. Thunderstorms from these thunderstorm complexes could reach portions of North Florida later this evening into the night. Any thunderstorms that manage to reach Florida will be capable of producing frequent lightning, gusty winds (40-60 mph), and heavy downpours.



# 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 western Suwannee Valley from 11 AM EDT/10 AM CDT to 8 PM EDT/7 PM CDT, with temperatures **feeling like 108 to 114-degrees** during the peak heating hours of the day. **Excessive Heat Warnings** cannot be ruled out along the eastern Panhandle and Big Bend should showers and thunderstorms develop later in the day than expected.

**Heat advisories** have also been issued across South Florida and the Keys from 10 AM EDT to 7 PM EDT with temperatures **feeling like 105 to 110-degrees**.

*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 located near the Lesser Antilles continues to produce a broad area of disorganized shower and thunderstorm activity.
- Environmental conditions are forecast to gradually become more conducive for development while the system moves generally west-northwestward over the Greater Antilles and towards the Bahamas.
- A tropical depression could form by this weekend while the system is in the vicinity of the Greater Antilles, the Bahamas, or near Florida.
- 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 a **Marginal Risk (level 1 of 4) for Flash Flooding** along the Florida Panhandle and I-10 Corridor today; however, the risk for localized flooding and ponding of water can be expected across statewide urban corridors and low-lying/poor drainage areas.
  - The Storm Prediction Center (SPC) is outlooking a **Marginal Risk (level 1 of 5) for Severe Weather** across the Eastern Panhandle, Big Bend, and far Northern Peninsula as thunderstorms from thunderstorm complexes to the north could reach portions of North Florida later this evening into the night.
- 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 Suwanee through the afternoon, with temperatures feeling like 108-114-degrees during the peak heating hours of the day; **Excessive Heat Warnings** cannot be ruled out along the eastern Panhandle and Big Bend.
  - **Heat Advisories** have also been issued across South Florida and the Keys through the afternoon, with temperatures feeling like 105-110-degrees.

The next briefing packet will be issued on Thursday. 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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