



Tropical Update



12:00 PM EDT

Monday, September 30, 2024

Helene Recovery Weather

Active Atlantic Basin (Post-Tropical Isaac, TD Joyce, & TS Kirk)

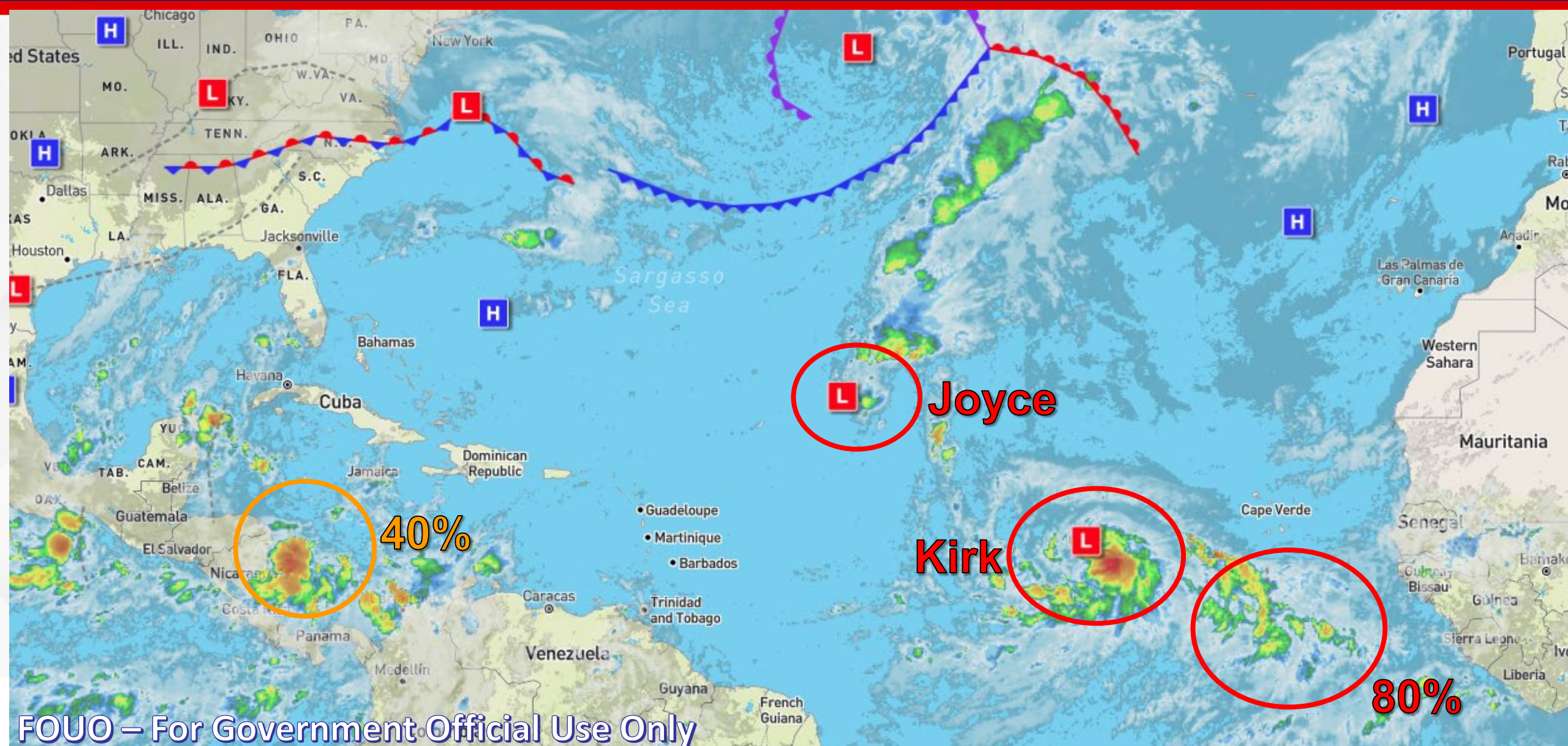
Monitoring Two Disturbances (Western Caribbean & Eastern Atlantic)

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

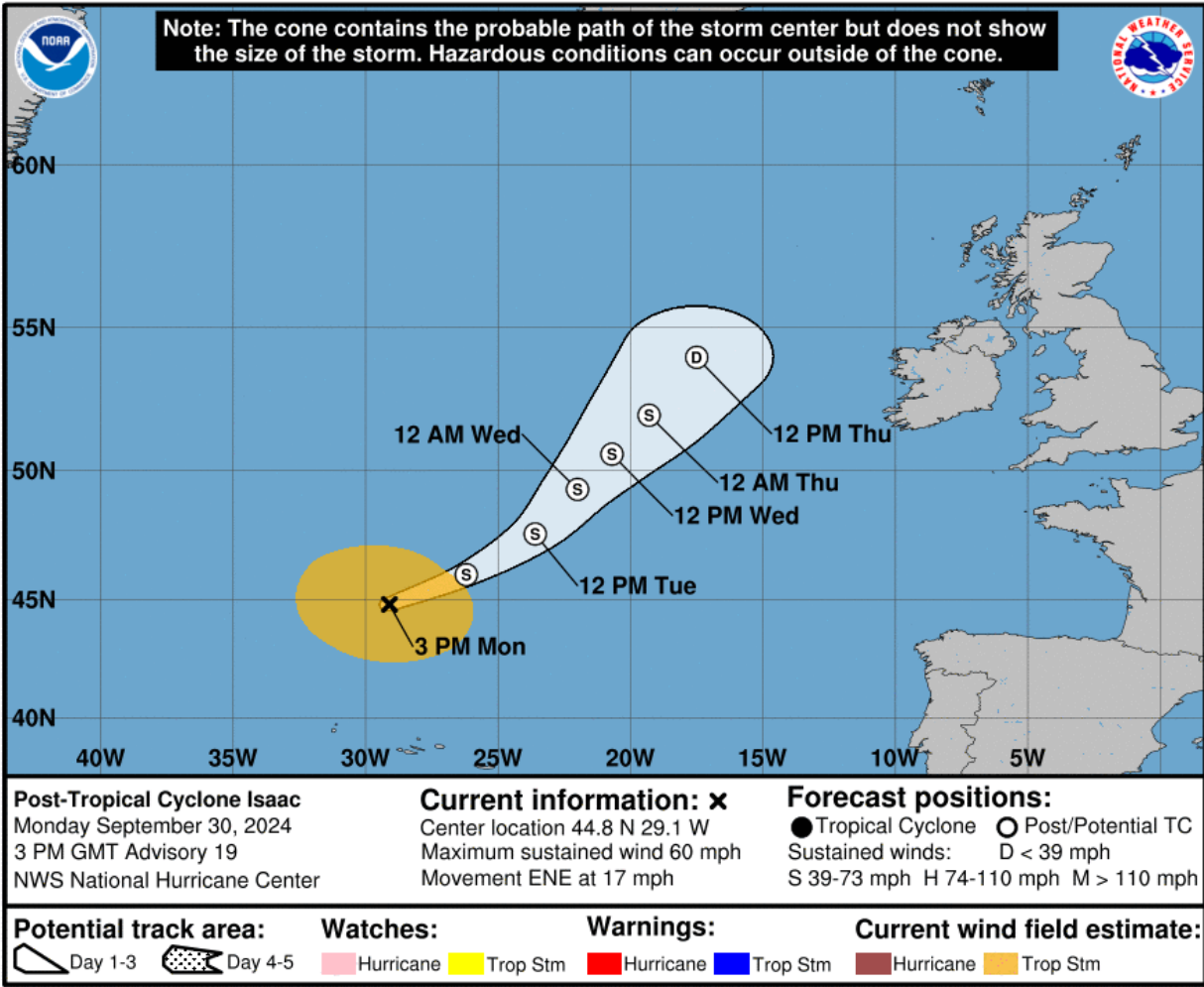
Chance of development: None Low Medium High





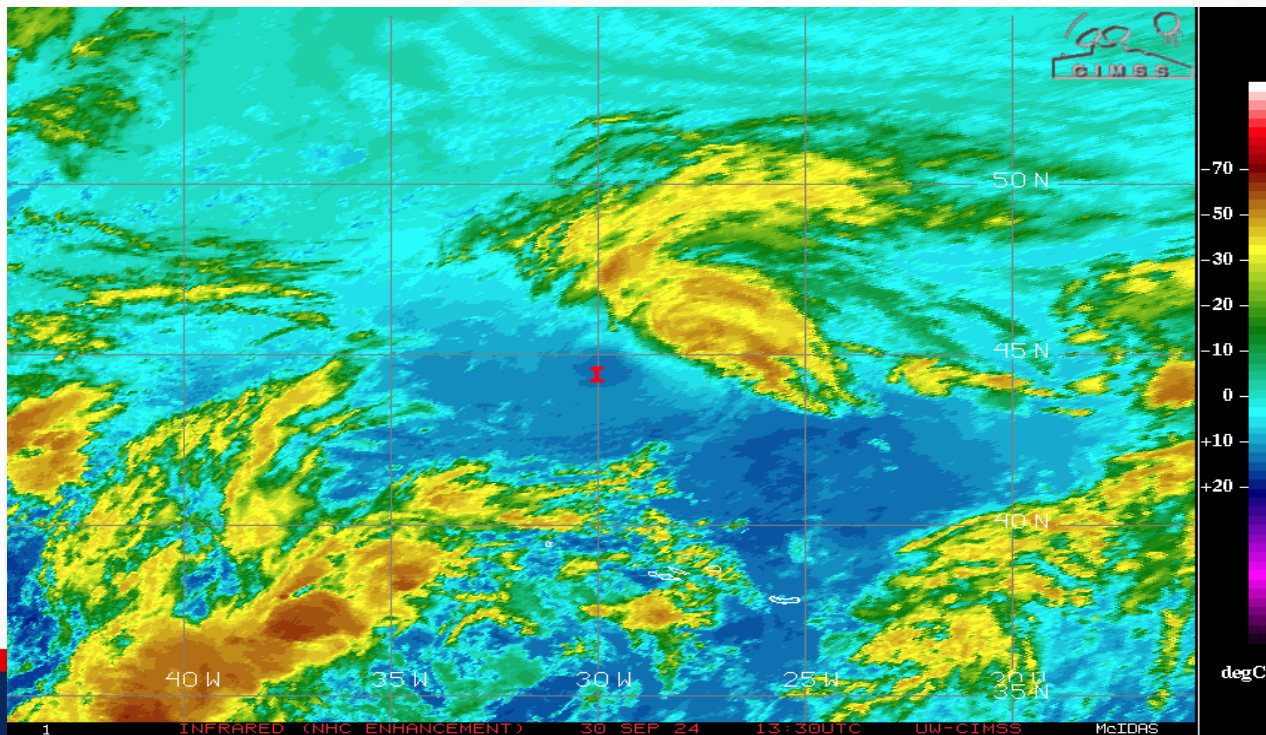
Post-Tropical Cyclone Isaac

From the National Hurricane Center (NHC)



- **Location:** 480 miles NNW of the Azores
- **Maximum Sustained Winds:** 60 mph
- **Current Movement:** ENE at 17 mph

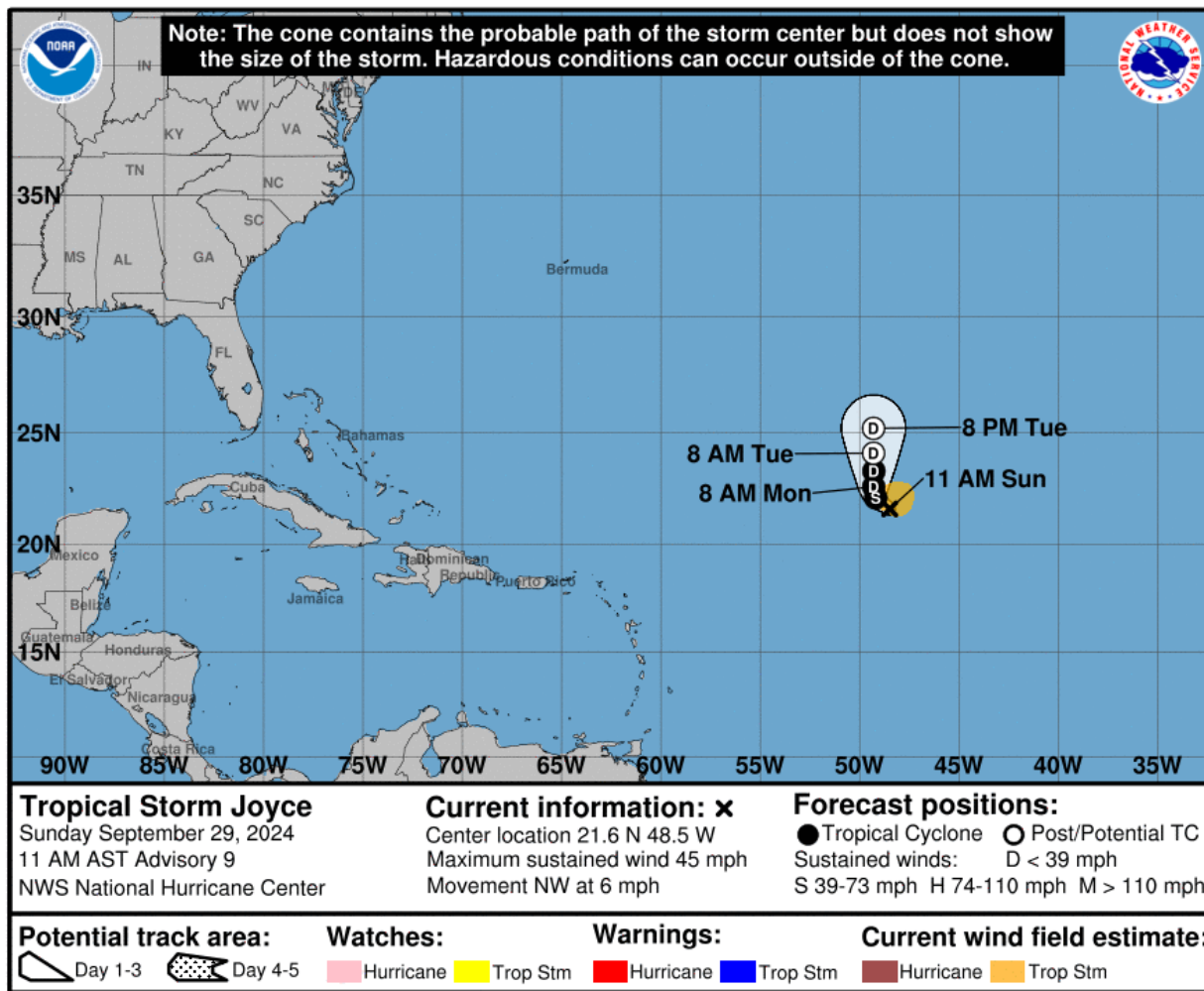
A turn toward the northeast is expected with a similar forward motion for the next several days. Gradual weakening is forecast over the next several days. This is the final public advisory issued by the National Hurricane Center on this system. *Isaac poses no threat to Florida.*





Tropical Depression Joyce

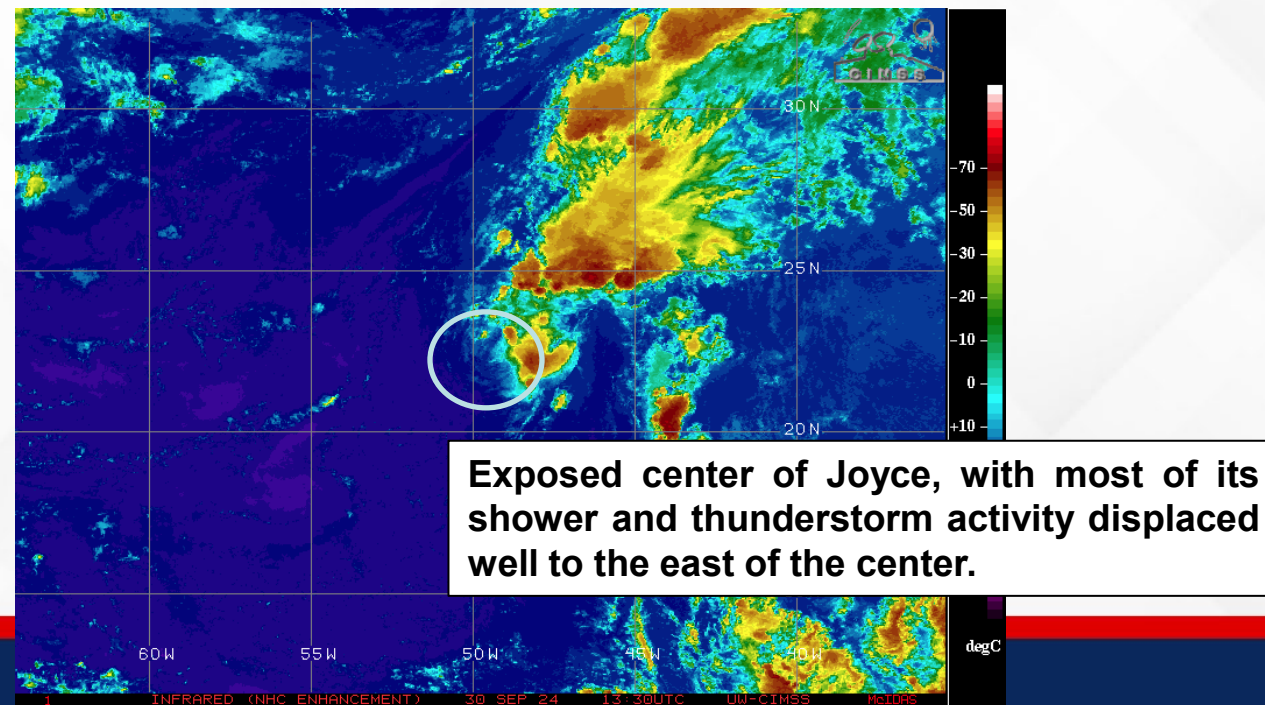
From the National Hurricane Center (NHC)



- **Location:** 940 miles ENE of the Northern Leeward Islands
- **Maximum Sustained Winds:** 35 mph
- **Current Movement:** N at 2 mph

A general northward motion is expected for the next couple of days. Some weakening is forecast during the next 48 hours, and Joyce is expected to become a remnant low soon.

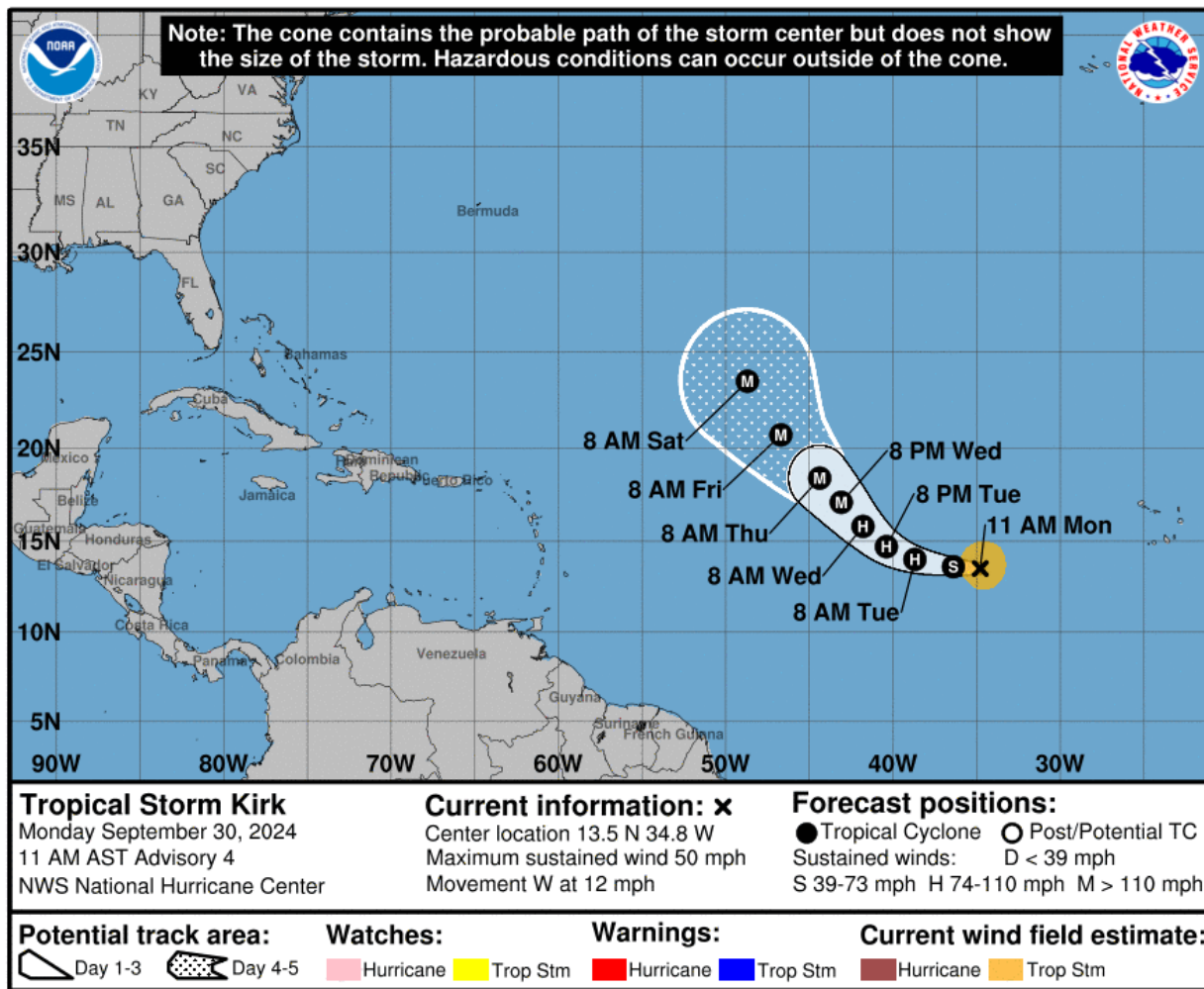
Joyce poses no threat to Florida.





Tropical Storm Kirk

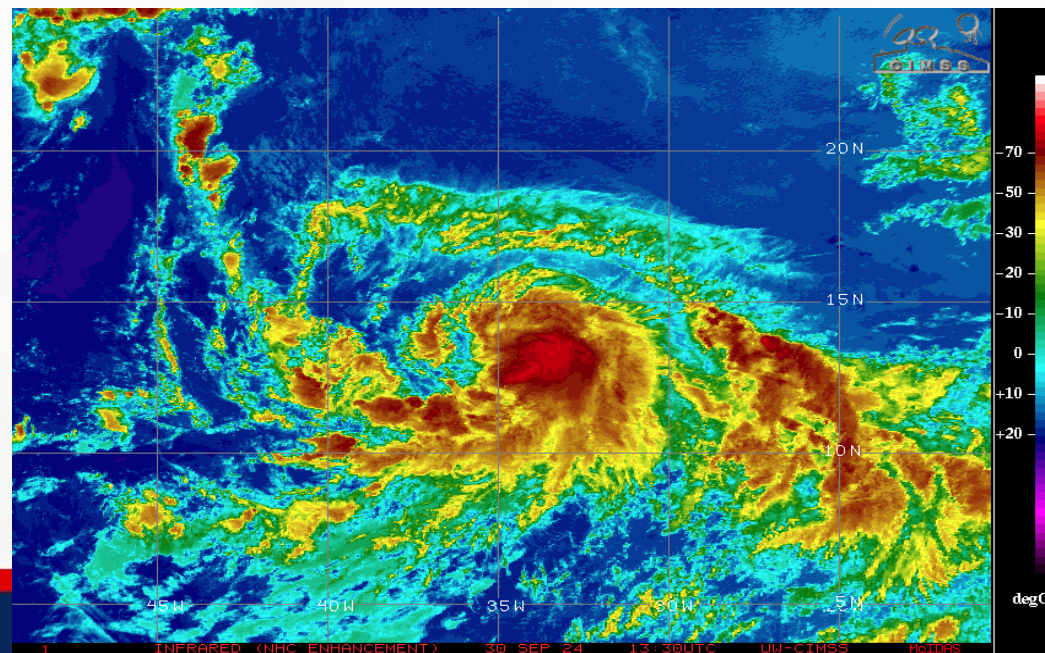
From the National Hurricane Center (NHC)



- **Location:** 740 miles WSW of the Cabo Verde Islands
- **Maximum Sustained Winds:** 50 mph
- **Current Movement:** W at 12 mph

A general westward to west-northwestward motion is expected to continue through Tuesday, followed by a gradual turn to the northwest is forecast by Wednesday. Kirk is likely to become a hurricane by tomorrow and could become a major hurricane by midweek.

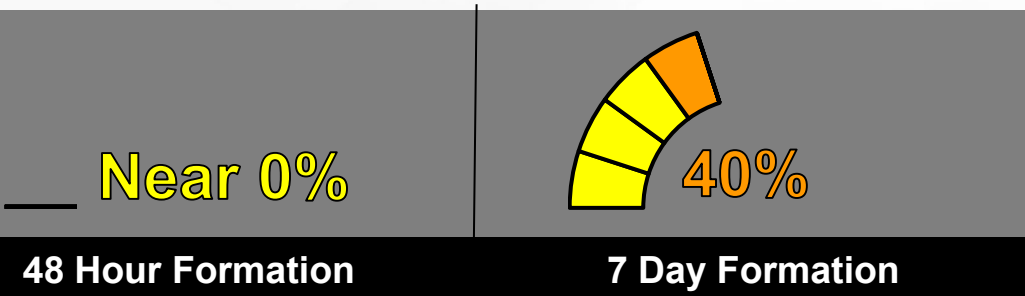
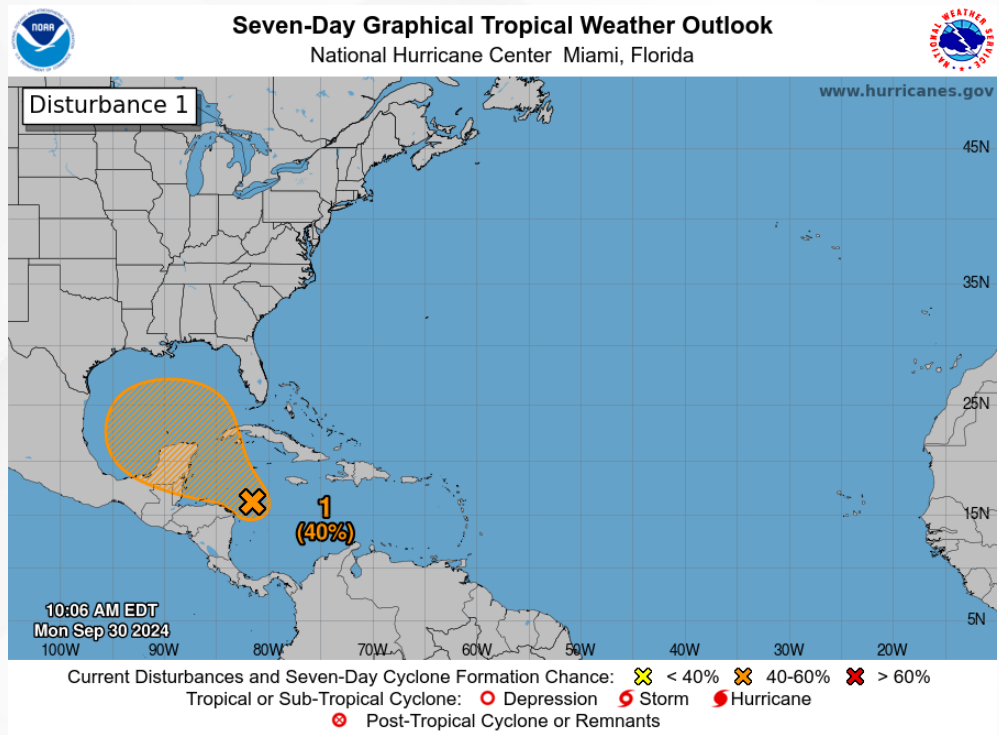
Kirk poses no direct threat to Florida at this time.





Tropical Weather Outlook

Disturbance 1 – Western Caribbean Sea & Gulf of Mexico



A large and disorganized area of low pressure located over the western and southwestern Caribbean Sea is producing some shower and thunderstorm activity. Environmental conditions could become conducive for gradual development, and a tropical depression could form in a few days while the system is over the southern Gulf of Mexico or northwestern Caribbean Sea. While interests in the northwestern Caribbean Sea and along the U.S. Gulf Coast should continue to monitor the progress of this system, the timetable for potential development has shifted later toward late week or this weekend.

This system poses no direct threat to Florida in the next 5-7 days, but trends with its development/organization and within the computer forecast models will be closely monitored.

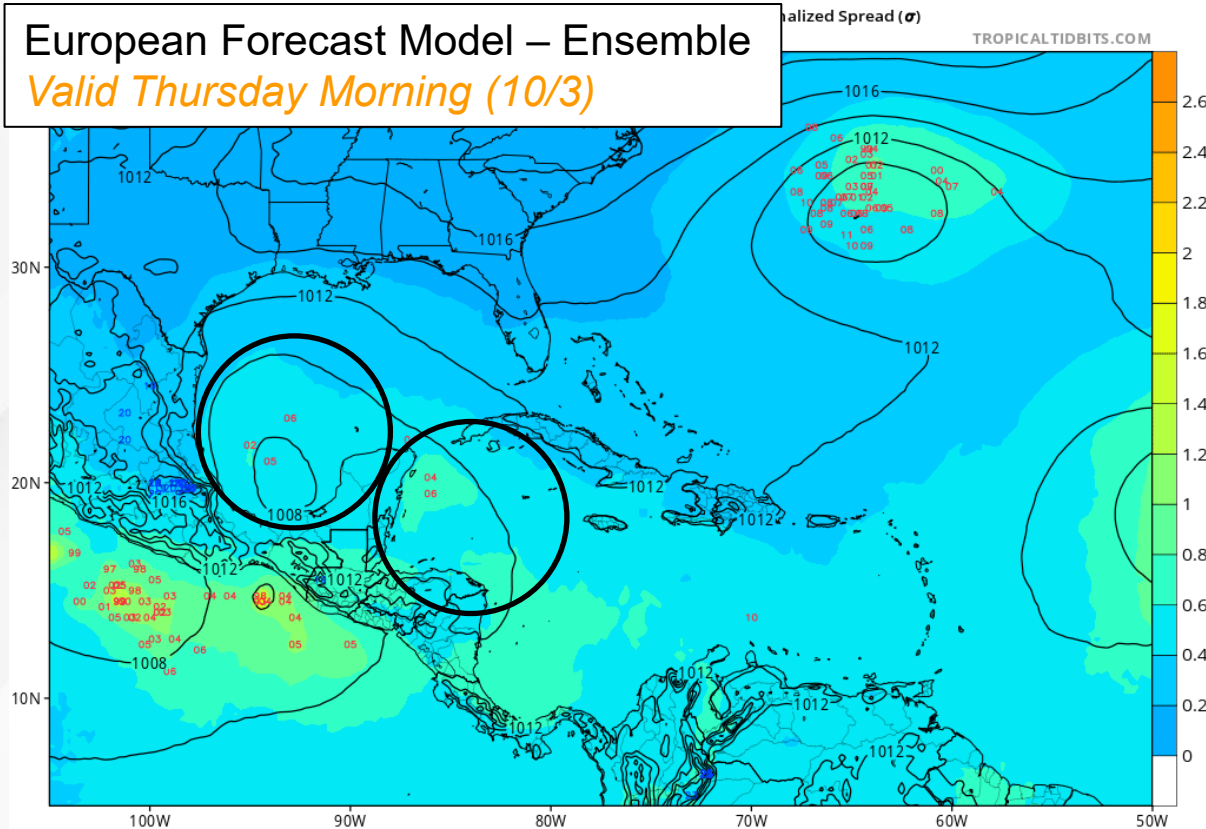
Chance of development through 48 hours... **low...near 0%**
Chance of development through 7 days... **medium...40%**



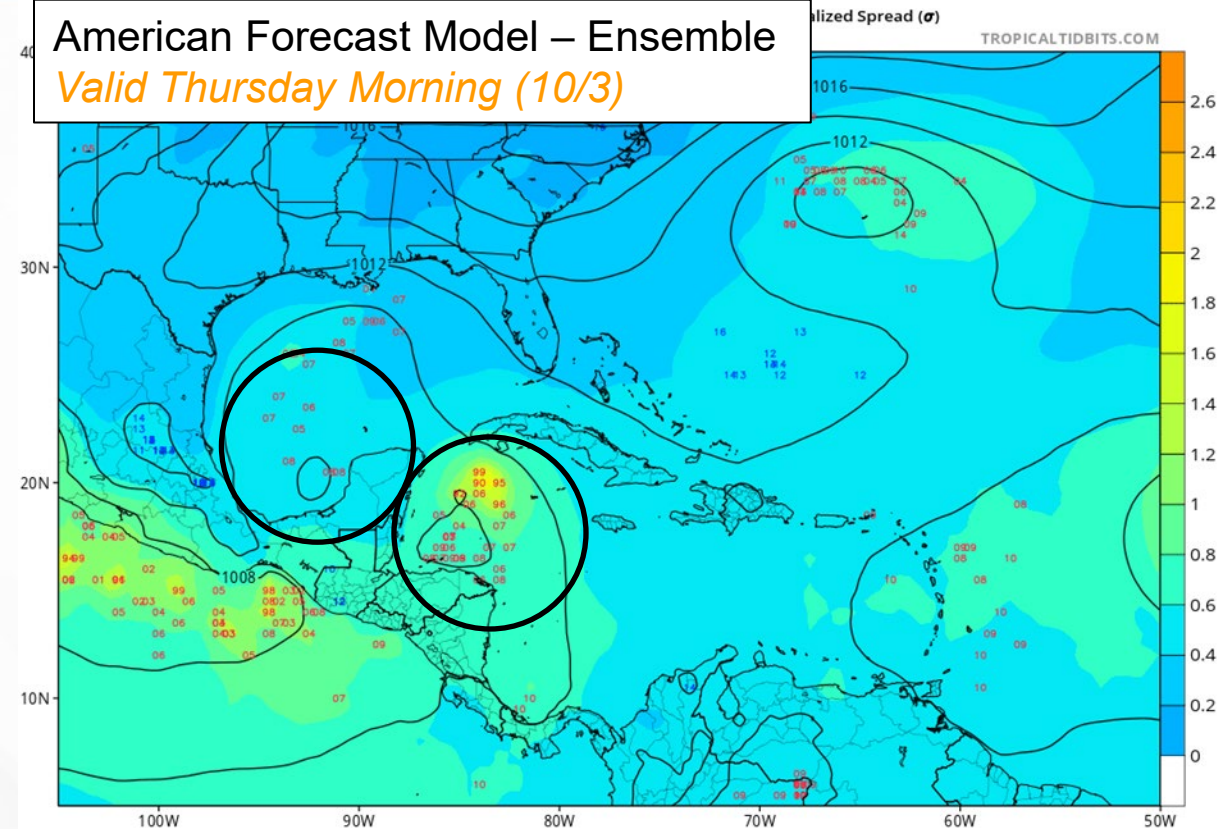
Ensemble Forecast Computer Models

Disturbance 1 – Western Caribbean Sea & Gulf of Mexico

European Forecast Model – Ensemble
Valid Thursday Morning (10/3)



American Forecast Model – Ensemble
Valid Thursday Morning (10/3)



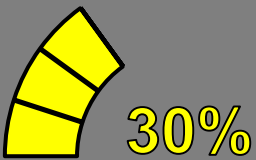
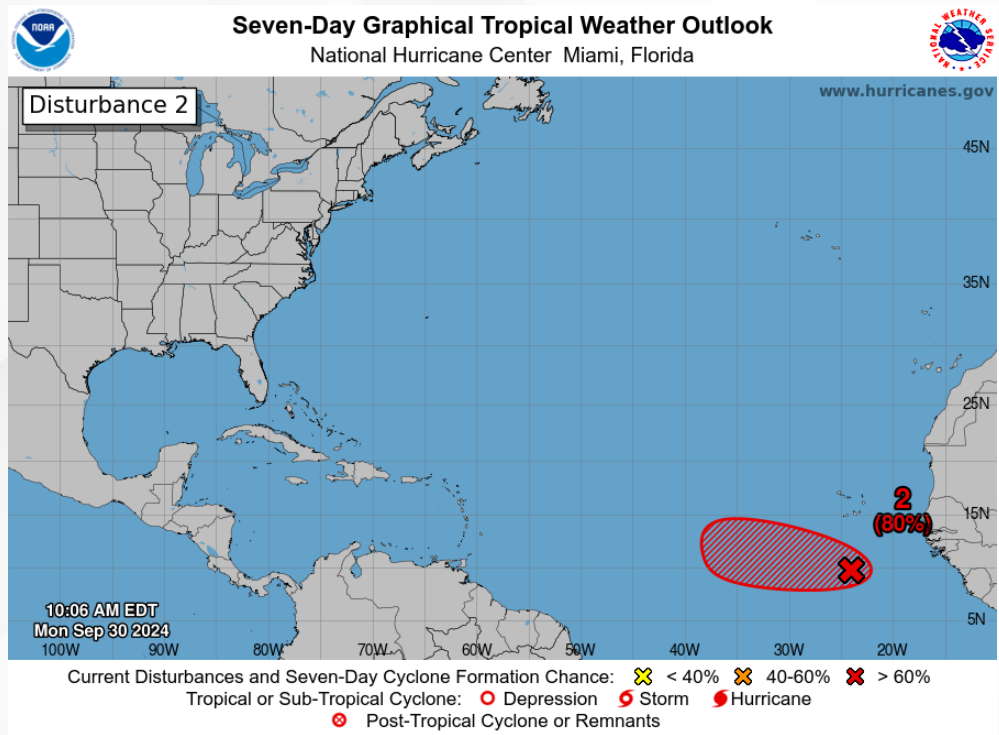
There is a **wide range of possibilities** in the eventual path and timeline of the western Caribbean low pressure next week, with little to no agreement across the forecast computer models – large changes and shifts in the model guidance can be expected, as well as which area of low pressure becomes the more dominant feature.

- Computer forecast models have been hinting at showers and thunderstorms becoming increasingly organized near Central America as well as the southwestern Gulf of Mexico early next week.
- There is a decent signal that a more concentrated area of low pressure could form over the western Caribbean Sea or southwestern Gulf of Mexico later this week into the weekend; however, much development or uptick in organization will likely be slow at first through into the midweek timeframe.
- There remains considerable disagreement across forecast computer model ensembles, so **it is important to not only look at one-run model solutions** as large shifts in the computer models can be expected in the coming days until a more defined system forms.

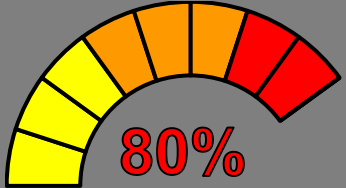


Tropical Weather Outlook

Disturbance 2 – Eastern Tropical Atlantic Wave



48 Hour Formation



7 Day Formation

Showers and thunderstorms have increased in association with a tropical wave located a few hundred miles south of the Cabo Verde Islands. Upper-level winds are forecast to become more conducive for gradual development, and a tropical depression is likely to form in a few days while it moves slowly westward over the eastern tropical Atlantic.

This system poses no direct threat to Florida over the next 10 days, at least.

Chance of development through 48 hours...**low...30%**
Chance of development through 7 days...**high...80%**



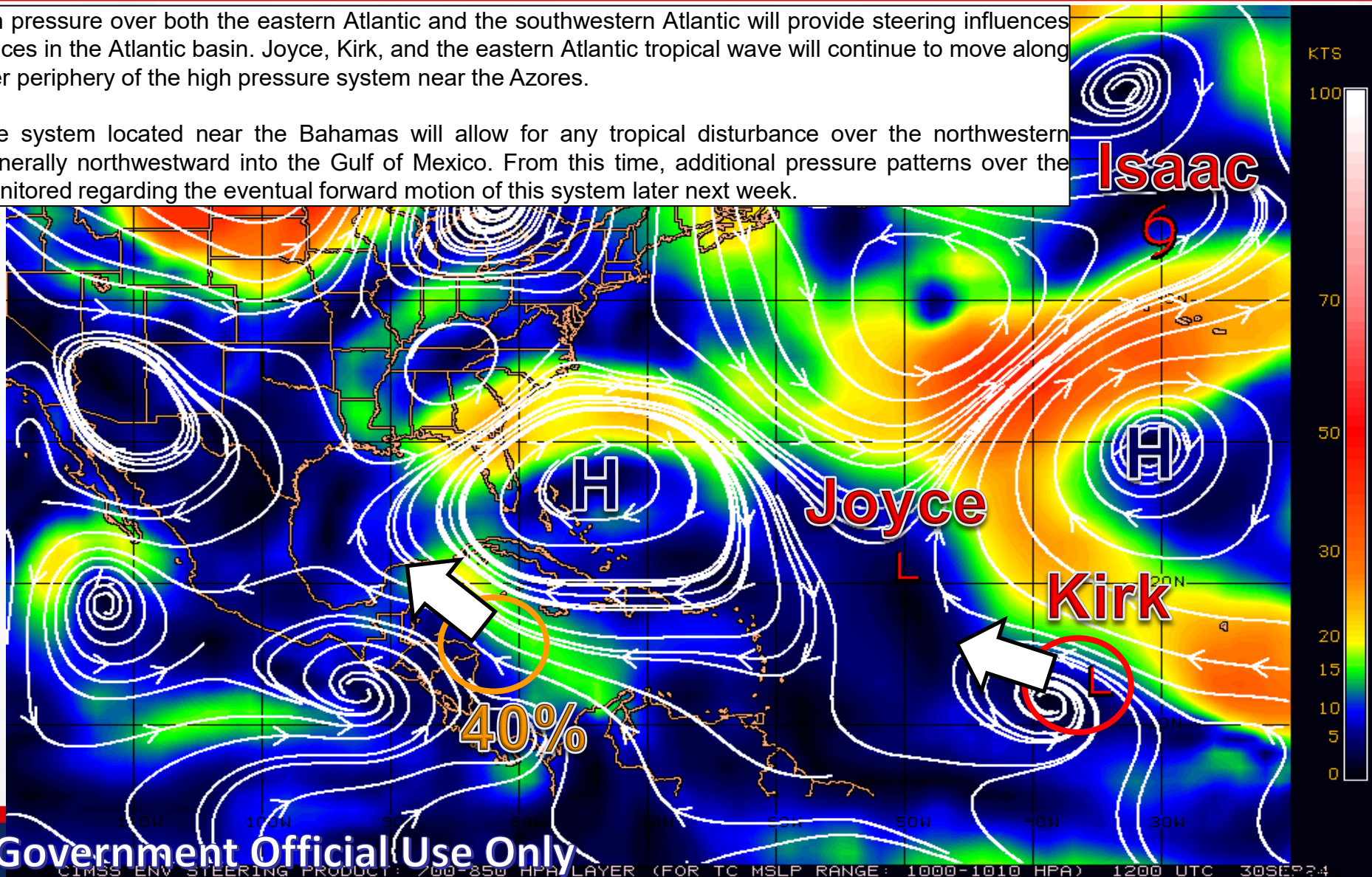
Steering Currents

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.

Dominant areas of high pressure over both the eastern Atlantic and the southwestern Atlantic will provide steering influences for all tropical disturbances in the Atlantic basin. Joyce, Kirk, and the eastern Atlantic tropical wave will continue to move along the southern and wester periphery of the high pressure system near the Azores.

A strong high pressure system located near the Bahamas will allow for any tropical disturbance over the northwestern Caribbean to move generally northwestward into the Gulf of Mexico. From this time, additional pressure patterns over the U.S. will need to be monitored regarding the eventual forward motion of this system later next week.



Fast Moving Storm

Fast Moving Storm

Typical Moving Storm

Slow Moving Storm



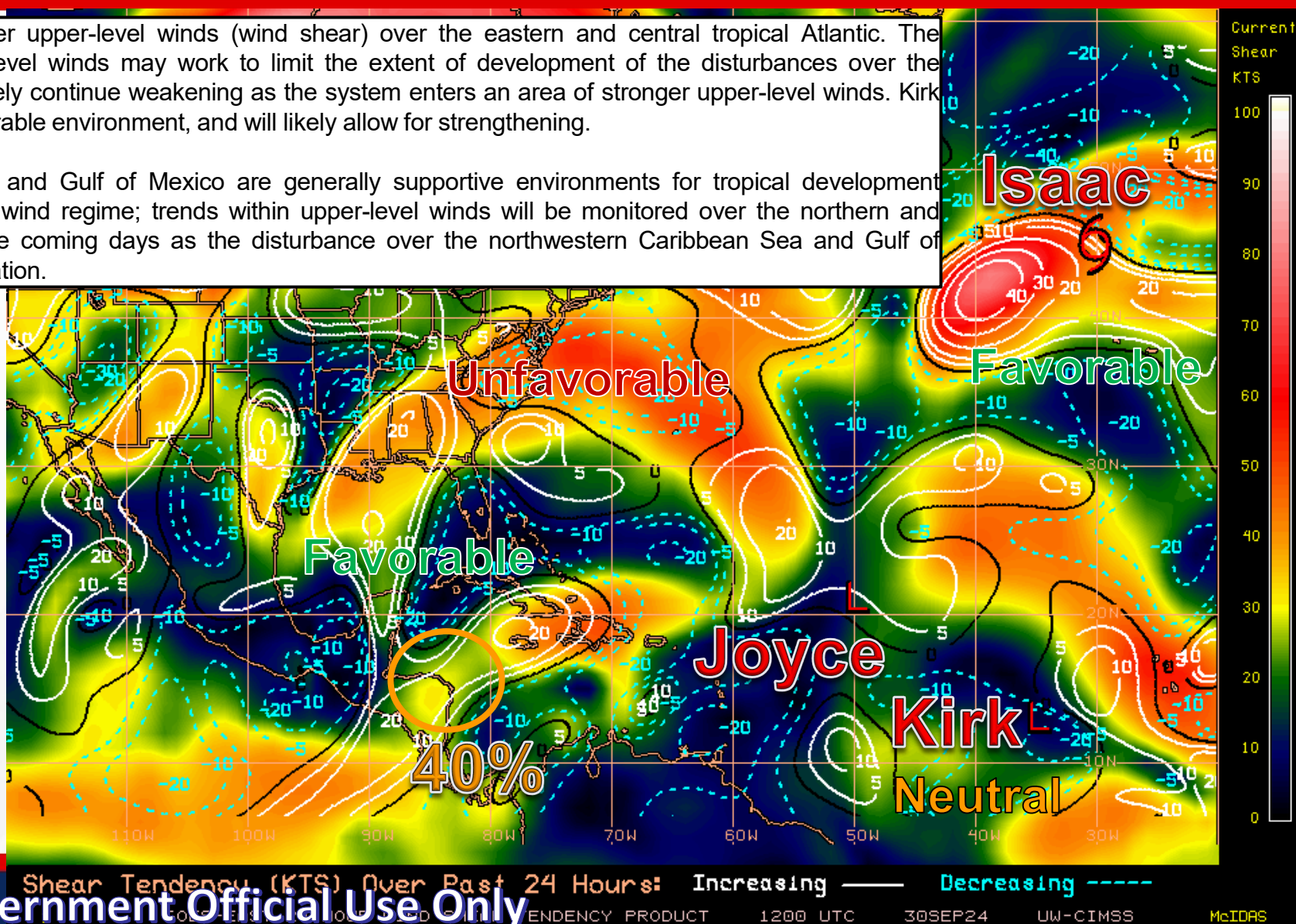
Wind Shear

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).

There are pockets of stronger upper-level winds (wind shear) over the eastern and central tropical Atlantic. The presence of stronger upper-level winds may work to limit the extent of development of the disturbances over the eastern Atlantic. Joyce will likely continue weakening as the system enters an area of stronger upper-level winds. Kirk will remain within a more favorable environment, and will likely allow for strengthening.

The western Caribbean Sea and Gulf of Mexico are generally supportive environments for tropical development featuring a weak upper-level wind regime; trends within upper-level winds will be monitored over the northern and western Gulf of Mexico in the coming days as the disturbance over the northwestern Caribbean Sea and Gulf of Mexico works toward organization.



HIGH Shear
(Unfavorable)

HIGH Shear
(Unfavorable)

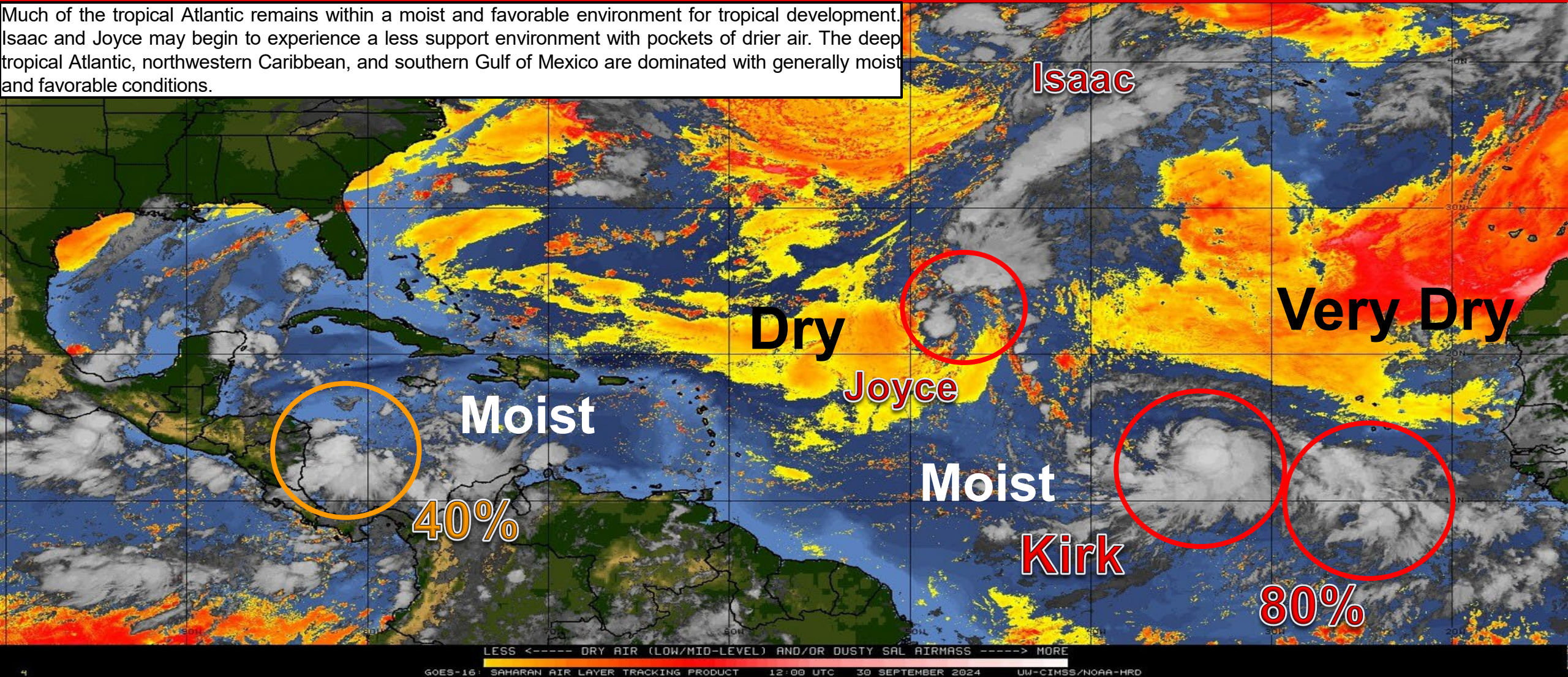
MODERATE
Shear
(Neutral)

LOW Shear
(Favorable)



Is the environment favorable for the system?

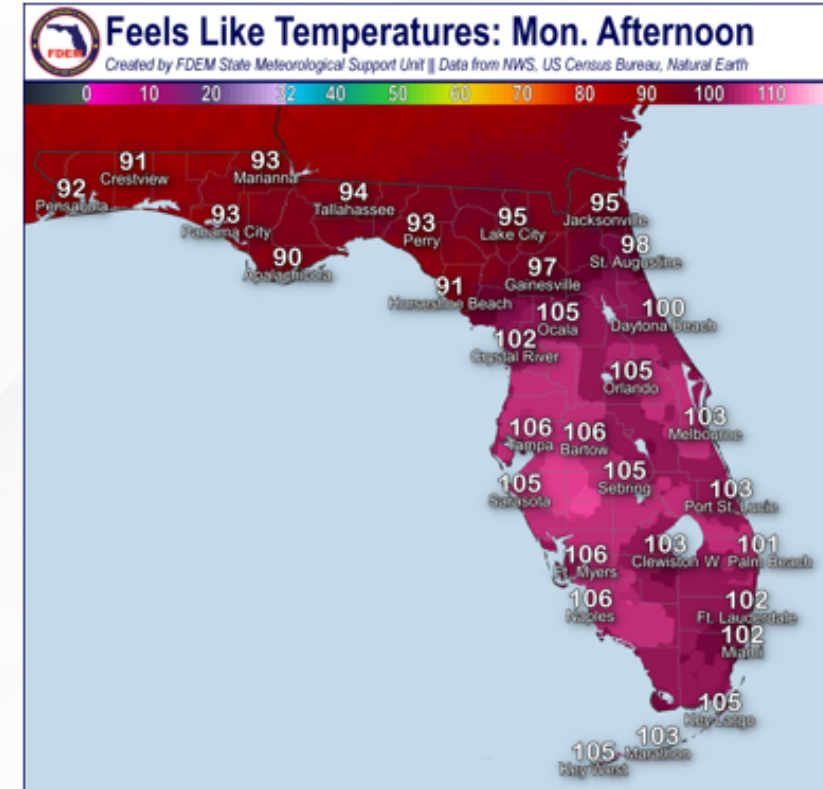
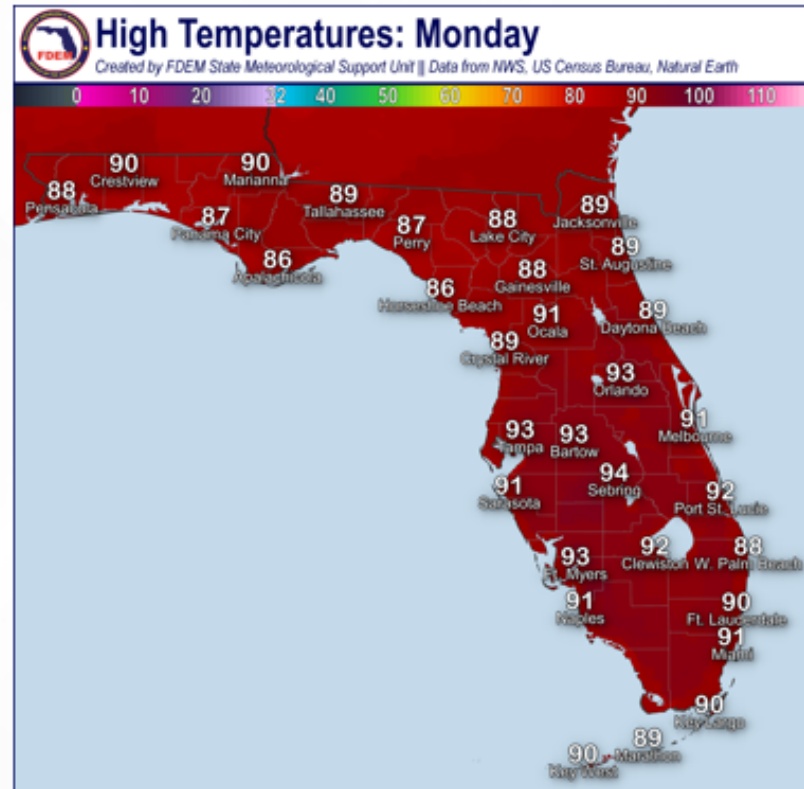
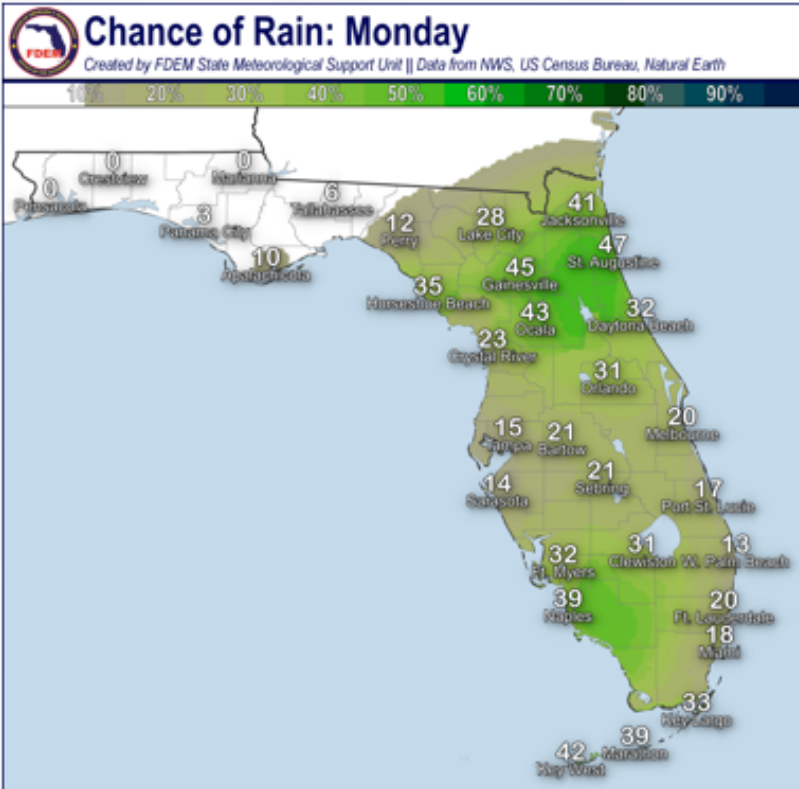
Much of the tropical Atlantic remains within a moist and favorable environment for tropical development. Isaac and Joyce may begin to experience a less support environment with pockets of drier air. The deep tropical Atlantic, northwestern Caribbean, and southern Gulf of Mexico are dominated with generally moist and favorable conditions.





Recovery Weather - Monday

Rain Chances, High Temperature & Feels-Like Temperature





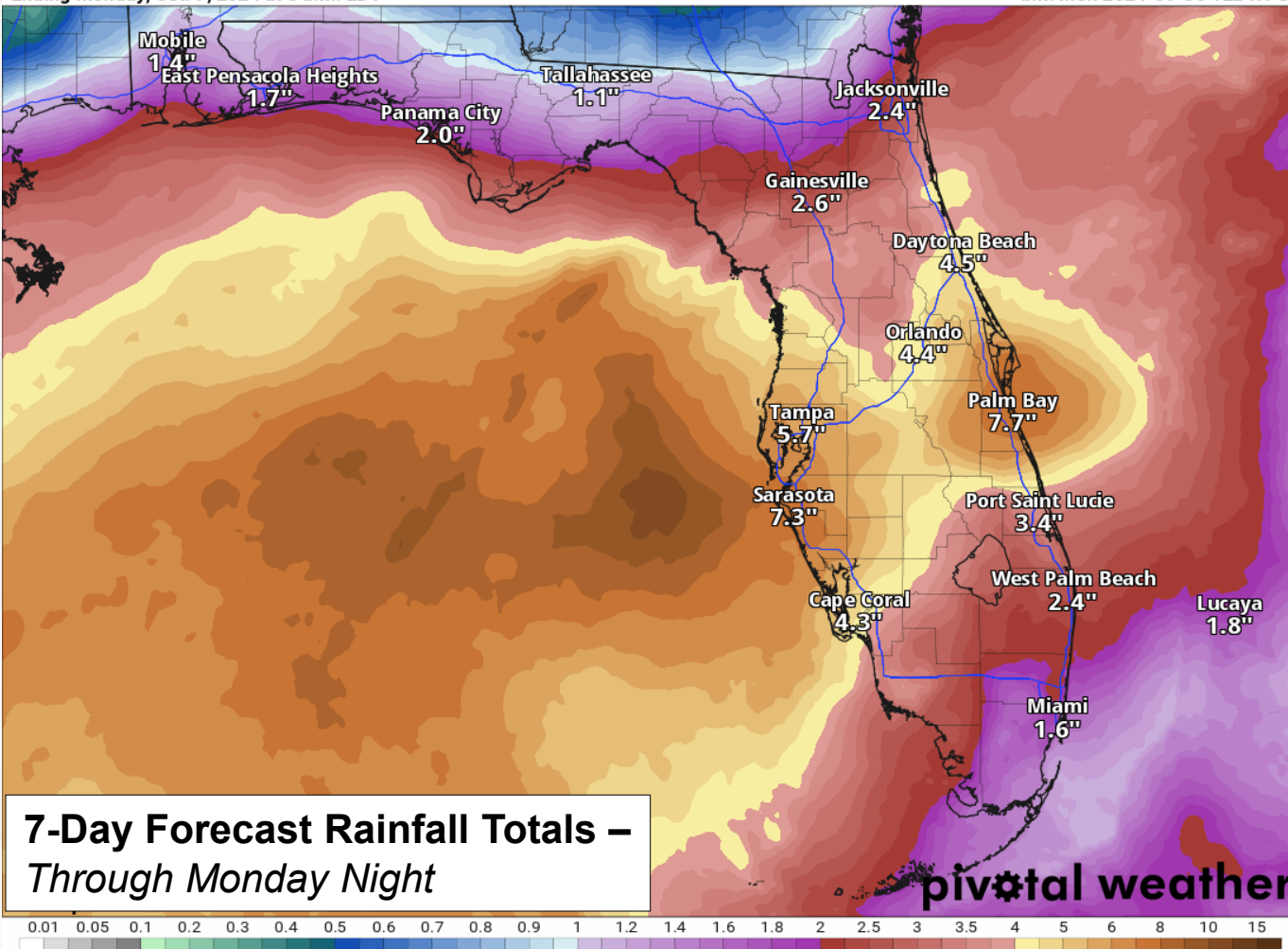
Rainfall Totals – Next 7 Days

From the Weather Prediction Center (WPC)

7-Day Precipitation (in)

Ending Monday, Oct. 7, 2024 at 8 a.m. EDT

Init: Mon 2024-09-30 12z WPC

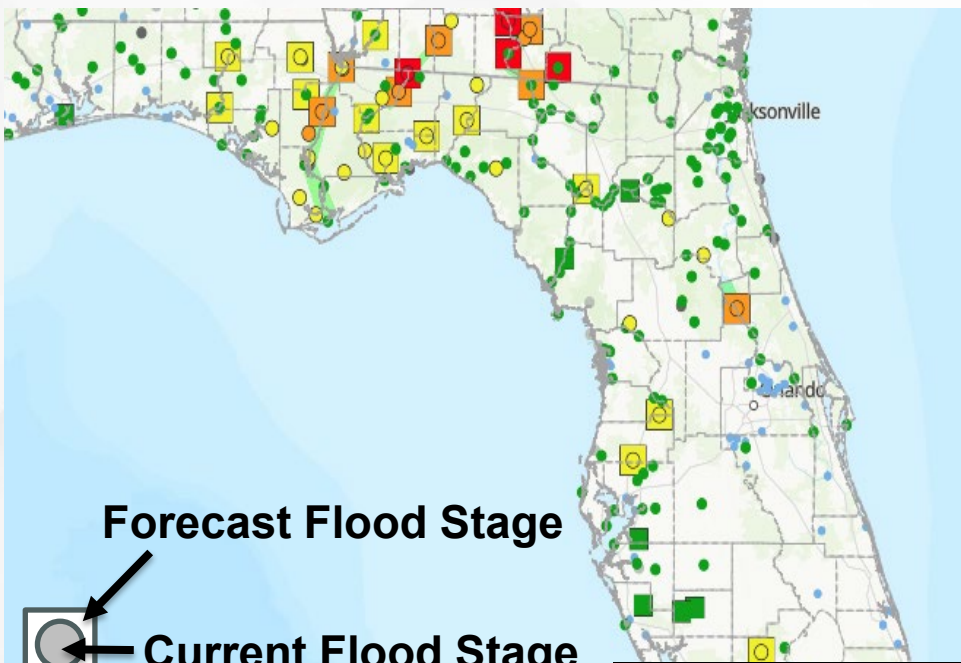


- Scattered showers and thunderstorms are forecast to continue across much of Florida Peninsula through the week, with more concentrated rainfall totals arriving this weekend and early next week as we monitor potential development in the northwestern Caribbean and Gulf of Mexico.
- Rainfall totals will be highly dependent upon the evolution of the next tropical disturbance over the northwestern Caribbean and Gulf of Mexico, with most of this activity not beginning until later this week and early next week.
- Widespread rainfall totals near 1-3" can be expected statewide, with locally higher amounts of 4-6" along the I-4 corridor.
 - Heaviest rainfall of 6-8", with locally higher amounts eclipsing 8-12" cannot be ruled out; however, the exact placement of these more significant totals will continue to be modified depending on the tropical disturbance's organization and track.
 - **Please continue to stay tuned for the latest computer forecast model guidance and trends in the subsequent days.**



Current & Forecast River Conditions

From the National Weather Service



A **River Flood Warning** remain in effect along the [St. Johns River at Astor](#) as water levels very slowly decline but remain within **minor flood stage**.

Numerous **River Flood Warnings** have also been issued across the eastern Florida Panhandle and Big Bend as elevated water levels continue in the wake of Helene. The [Ochlockonee River near Concord \(CR-12\)](#) is notably experiencing **moderate flooding** while several locations between the Ochlockonee, Apalachicola, and Withlacoochee basins continue to run in **minor flood stage**.

Additional rises in water level will be possible along the Withlacoochee and Ochlockonee Rivers as excess heavy rainfall discharge through the basin from the Georgia headwaters; elsewhere, limited rainfall totals over the next few days will help water levels gradually level off and recede through the week. For more details, please visit the [River Forecast Center](#).

River Gauge	County(ies) Affected	Current Level	Crest Level	Record Level	Status	Crest Date	Warning Expires
Apalachicola River at Woodruff Dam	Calhoun, Gadsden, Jackson, Liberty	Action: 62.78 ft	Minor: 63.50 ft	76.30 ft	Rising	1-Oct	0213 CDT 4-Oct
Apalachicola River near Blountstown	Calhoun, Franklin, Gulf, Liberty	Minor: 20.42 ft	Minor: 21.00 ft	28.60 ft	Rising	2-Oct	Until Further Notice
Ochlockonee River near Concord (CR-12)	Gadsden, Leon	Moderate: 39.80 ft	Moderate: 39.80 ft	45.70 ft	Cresting	30-Sep	Until Further Notice
Ochlockonee River near Havana (US-27)	Gadsden, Leon	Minor: 27.45 ft	Minor: 28.20 ft	35.10 ft	Rising	1-Oct	Until Further Notice
Withlacoochee River near Pinetta	Hamilton, Madison	Action: 58.77 ft	Minor: 77.50 ft	87.80 ft	Rising	4-Oct	No Warning Issued
St. Johns River at Astor	Volusia, Lake	Minor: 2.46 ft	Minor: 2.70 ft	4.70 ft	Falling	Crested	Until Further Notice



Summary

FOUO – For Government Official Use Only

Post-Tropical Cyclone Isaac:

- As of 11:00 AM EDT, Isaac becomes a post-tropical cyclone located 480 miles north-northwest of the Azores.
- Maximum sustained winds are near 60 mph, and gradual weakening is forecast over the next several days.
- *Isaac poses no threat to Florida, and this is the final advisory issued by the National Hurricane Center (NHC) on this system.*

Tropical Depression Joyce:

- As of 11:00 AM EDT, Joyce is located 940 miles east-northeast of the northern Leeward Islands and is moving northward at 2 mph.
- Maximum sustained winds are near 35 mph, and Joyce is forecast to become a remnant area of low pressure soon.
- *Joyce poses no threat to Florida.*

Tropical Storm Kirk:

- As of 11:00 AM EDT, Kirk is located about 740 miles west-southwest of the Cabo Verde Islands, and is moving westward at 12 mph.
- A general westward to west-northwestward motion is expected to continue through Tuesday, followed by a turn toward the northwest by Wednesday.
- Maximum sustained winds are near 50 mph, and Kirk is likely to become a hurricane by tomorrow and could strengthen further into a major hurricane by midweek.
- *Kirk poses no direct threat to Florida at this time.*

Western Caribbean Sea and Gulf of Mexico:

- A large and disorganized area of low pressure located over the western and southwestern Caribbean Sea is producing some shower and thunderstorm activity.
- Environmental conditions could become conducive for gradual development, and a tropical depression could form in a few days while the system is over the southern Gulf of Mexico or northwestern Caribbean Sea.
- While interests in the northwestern Caribbean Sea and along the U.S. Gulf Coast should continue to monitor the progress of this system, the timetable for potential development has shifted later toward late week or this weekend.
- *This system poses no direct threat to Florida in the next 5-7 days, but trends with its development/organization and within the computer forecast models will be closely monitored.*
- The NHC is outlooking a **low (near 0%) chance of development** over the next 48 hours, and a **medium (40%) chance of development** over the next 7 days.

Eastern Atlantic Tropical Wave:

- Showers and thunderstorms have increased in association with a tropical wave located a few hundred miles south of the Cabo Verde Islands.
- Upper-level winds are forecast to become more conducive for gradual development, and a tropical depression is likely to form in a few days while it moves slowly westward over the eastern tropical Atlantic.
- *This system poses no direct threat to Florida over the next 10 days, at least.* The NHC is outlooking a **high (80%) chance of development** over the next 7 days.

The next names on the list are Leslie (LEHZ-lee) and Milton (MIL-ton).

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



Summary

FOUO – For Government Official Use Only

Florida Outlook:

- Scattered showers and thunderstorms can be expected across much of Central Florida and into southern portions of the Northern Peninsula with the sea breezes this afternoon and evening thanks to high pressure building in from the Atlantic and deep moisture remaining over portions of the state.
- Locally heavy downpours along urban and low-lying/poor drainage areas and over saturated grounds may give way to localized instances of flooding.
 - Coastal and low-lying areas along Florida's Gulf Coast will remain vulnerable to additional rounds of rainfall thanks to recent and lingering flooding and saturated grounds.
- **Heat Advisories** have been raised for portions of South Florida and the Keys as heat indices likely approach or reach advisory criteria (100 to 110-degrees).
- Numerous **River Flood Warnings** have also been issued across the eastern Florida Panhandle and Big Bend as elevated water levels continue in the wake of Helene.
 - The Ochlockonee River near Concord (CR-12) is notably experiencing moderate flooding while several locations between the Ochlockonee, Apalachicola, and Withlacoochee basins continue to run in minor flood stage.
 - Additional rises in water level will be possible along the Withlacoochee and Ochlockonee Rivers as excess heavy rainfall discharge through the basin from the Georgia headwaters; elsewhere, limited rainfall totals over the next few days will help water levels gradually level off and recede through the week.
- Rainfall totals in the 7-day timeframe will be highly dependent upon the evolution of the next tropical disturbance over the northwestern Caribbean and Gulf of Mexico, with most of this activity not beginning until later this week and early next week.
 - Current computer forecast model guidance shows widespread rainfall totals near 1-3" can be expected statewide, with locally higher amounts of 4-6" along the I-4 corridor.
 - Heaviest rainfall of 6-8", with locally higher amounts eclipsing 8-12" cannot be ruled out; however, the exact placement of these more significant totals will continue to be modified depending on the tropical disturbance's organization and track.
 - **Please continue to stay tuned for the latest computer forecast model guidance and trends in the subsequent days.**

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



Tropical Update

FOUO – For Government Official Use Only



Created by:

Caitlyn Gillespie, Deputy State Meteorologist

Caitlyn.Gillespie@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>