



Tropical Update



12:00 PM EDT

Wednesday, September 11, 2024

Hurricane Francine to Bring Peripheral Impacts to the Florida Panhandle Later Today into Thursday

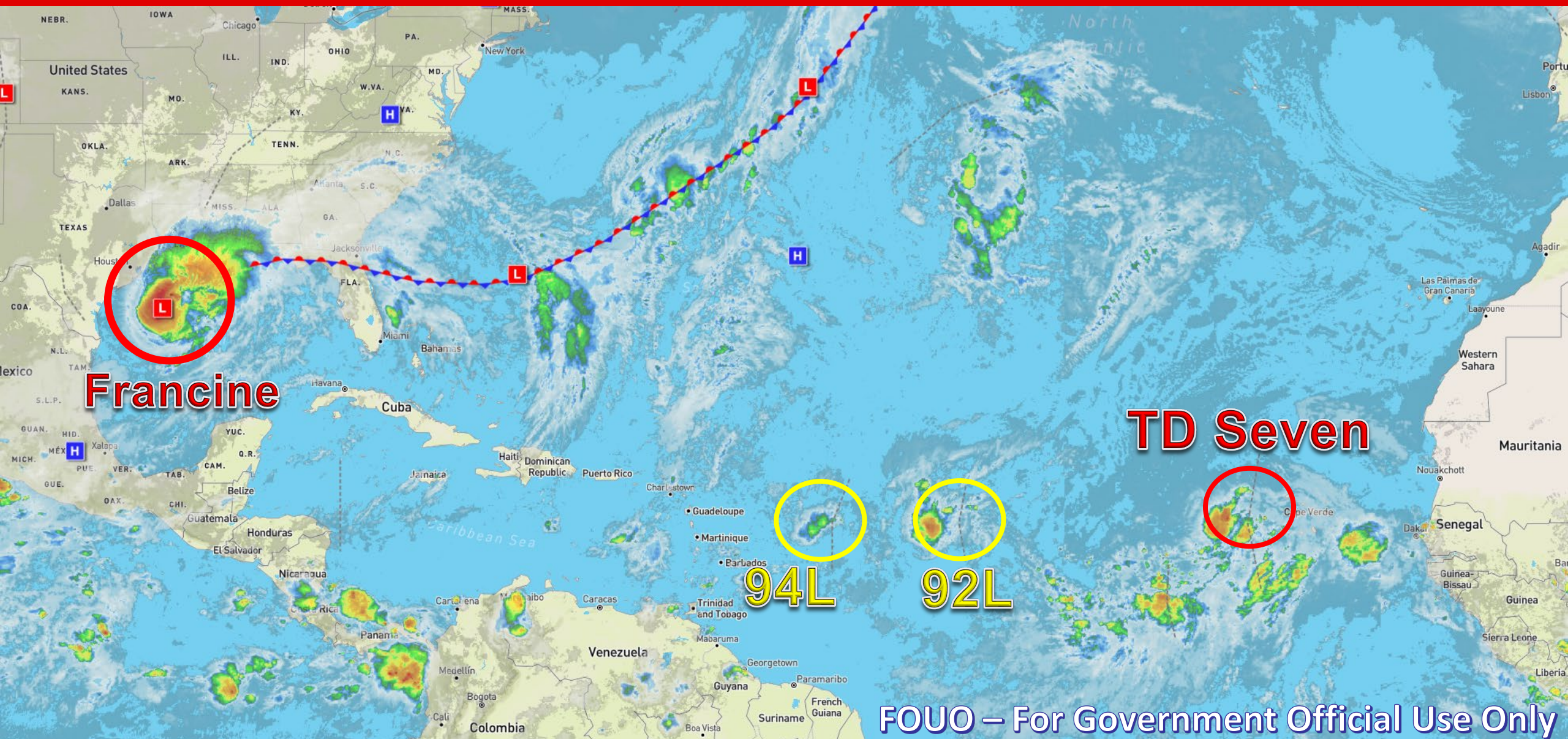
**Tropical Depression Seven Forms Just East of the Cabo Verde Islands
Monitoring Additional Areas for Tropical Development, All Carry a Low
(20-30%) Chance of Formation**

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



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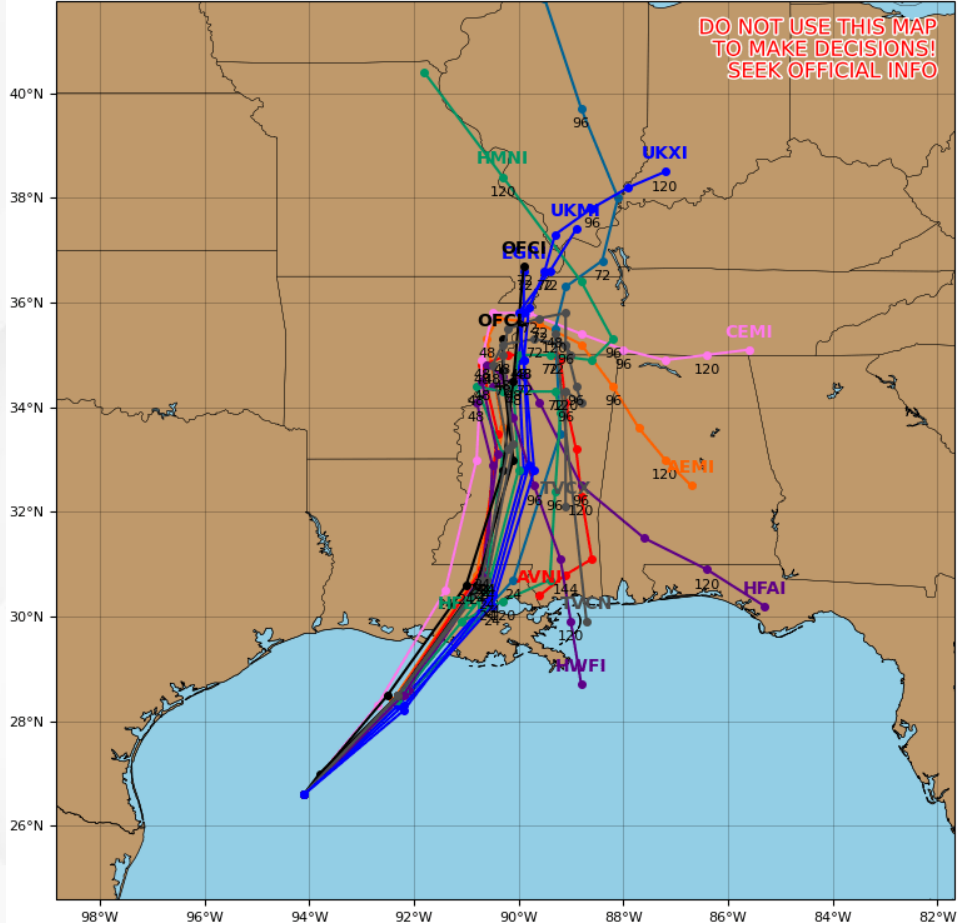
Model Forecasts – Next 5 Days

Hurricane Francine

Hurricane FRANCINE Model Track Guidance

Initialized at 06z Sep 11 2024

Levi Cowan - tropicaltidbits.com



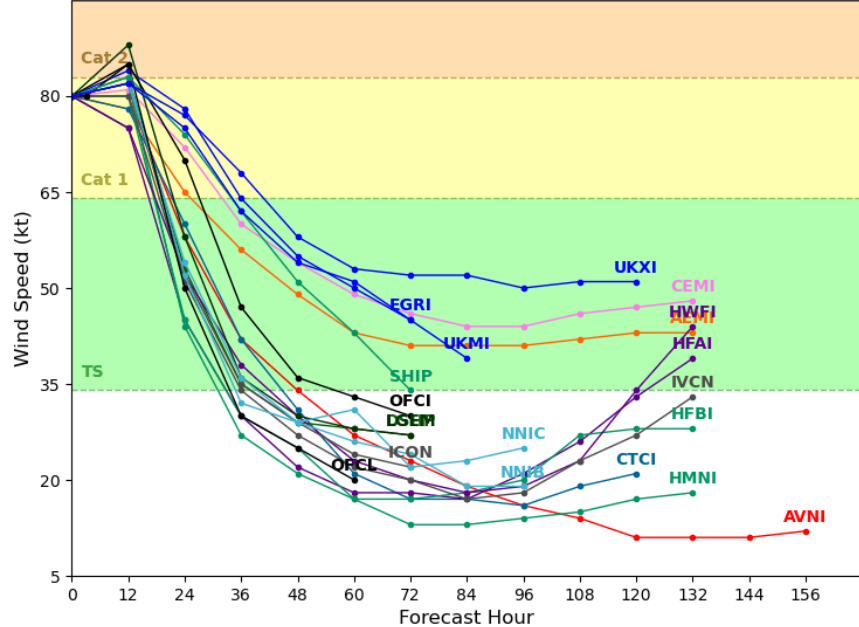
Francine is now moving to the northeastward at a faster forward speed than seen yesterday. Computer forecast models remain in good agreement for the next 24 to 36 hours as a mid- to upper-level disturbance over Texas will allow for a continued northeastward motion at a faster forward speed. After landfall, Francine should gradually turn more northward between the upper-level disturbance to the west and the mid-level high pressure system to the east.

Computer forecast models are in good agreement that the window for Francine to strengthen is about 5-10 hours prior to encountering more hostile wind shear near the Louisiana coastline and drier air from the mid- to upper-level disturbance over Texas. The structure of the system could allow for some additional short-term strengthening this morning over the very warm Gulf waters. Francine should reach peak intensity prior to landfall, and rapid weakening is expected following the system moving onshore.

Hurricane FRANCINE Model Intensity Guidance

Initialized at 06z Sep 11 2024

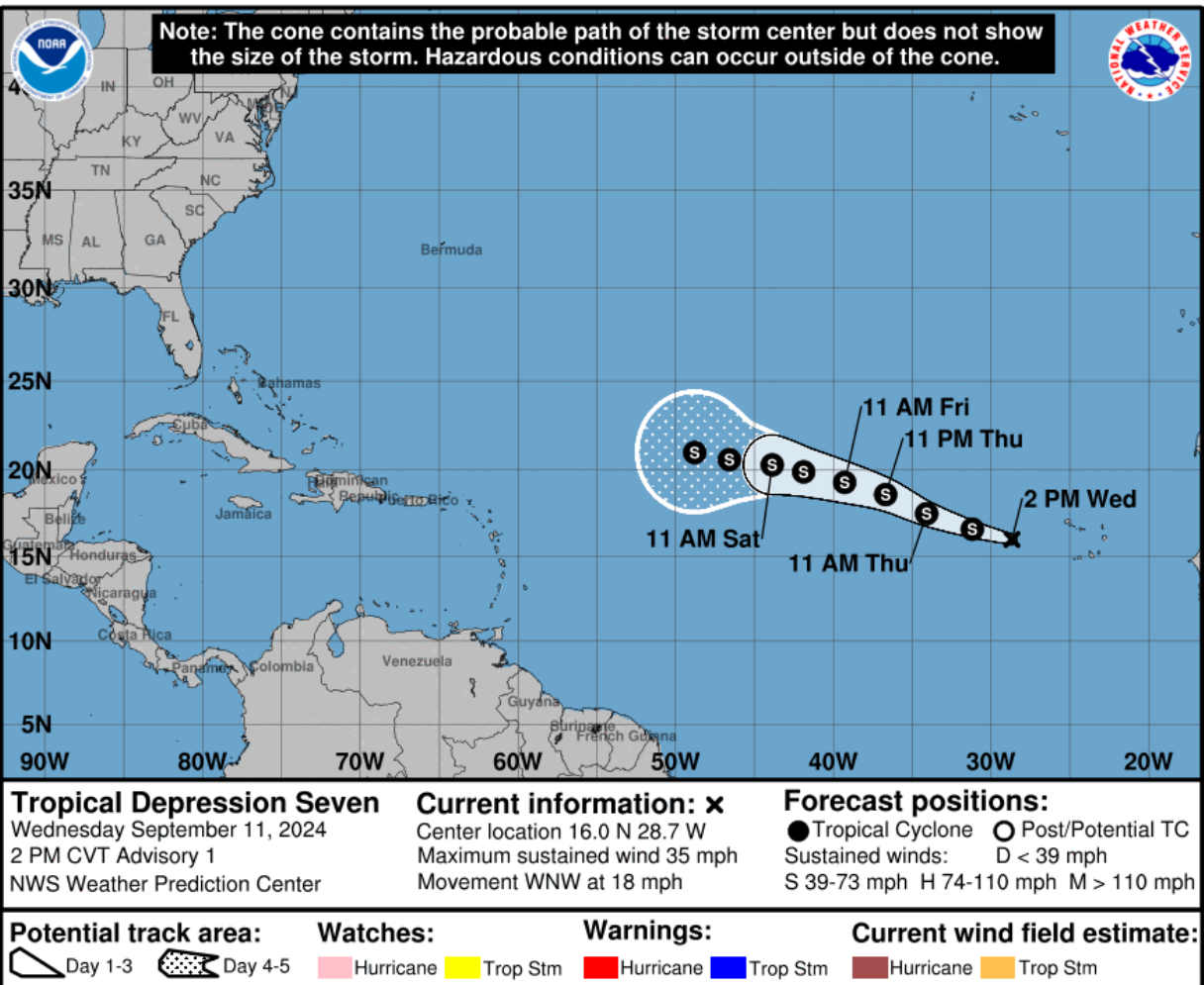
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Tropical Depression Seven

From the National Hurricane Center (NHC)

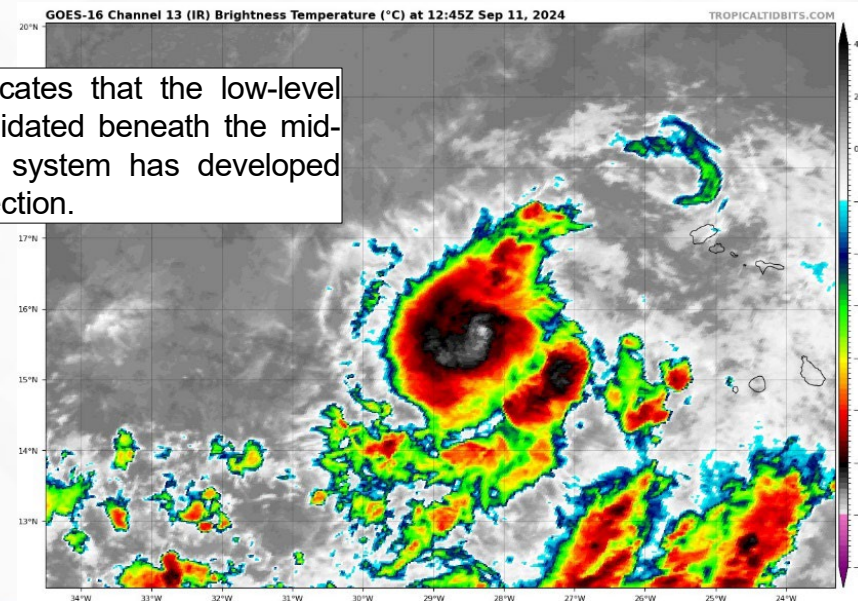


- **Location:** 310 miles west of Cabo Verde Islands
- **Maximum Sustained Winds:** 35 mph
- **Current Movement:** WNW at 18 mph
- **FL Watches & Warnings:** None

A west to west-northwest motion at a slower forward speed is anticipated over the next few days. Some strengthening is forecast during the next 48 hours, and the depression could become a tropical storm tonight or on Thursday.

This system poses no direct threat to Florida at this time.

Satellite imagery indicates that the low-level circulation has consolidated beneath the mid-level center and the system has developed organized deep convection.



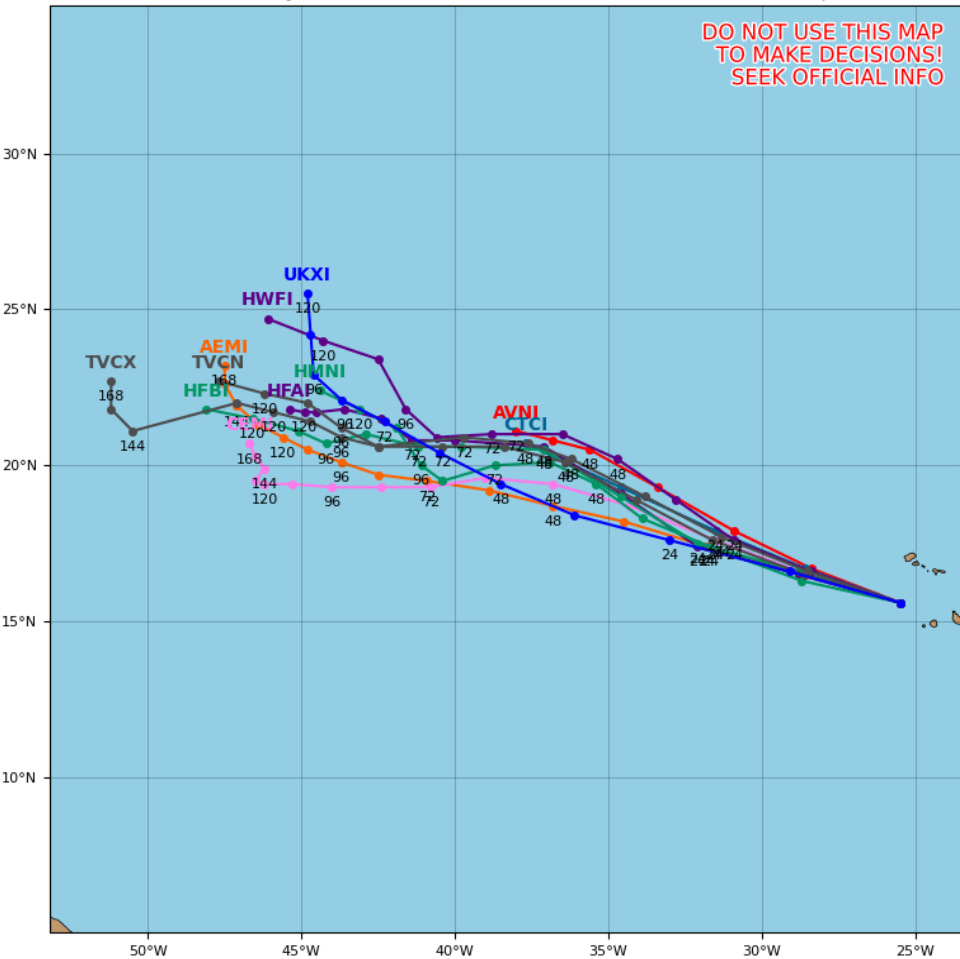


Model Forecasts – Next 5 Days

Tropical Depression Seven

Invest 93L Model Track Guidance

Initialized at 06z Sep 11 2024 Levi Cowan - tropicaltidbits.com

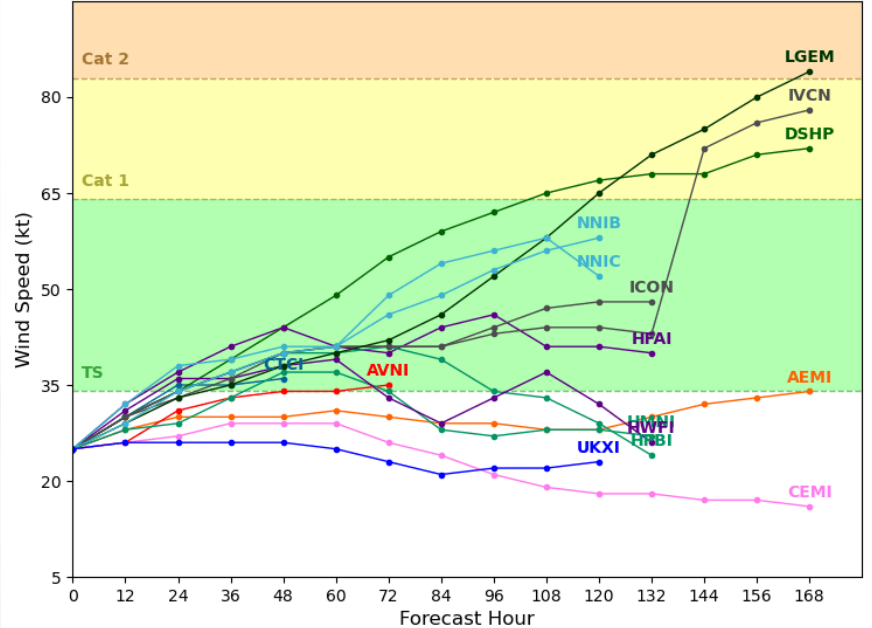


Computer models are in good agreement that Tropical Depression Seven should continue to move to the west or west-northwest around a subtropical area of high pressure north of the Azores over the next 24-72 hours. Uncertainty grows thereafter as the system slows down and becomes caught between a pair of upper-level high pressure centers (one over the Azores and another north of the Lesser Antilles).

There is agreement among computer models that Tropical Depression Seven will see some gradual intensification over the next 24-48 hours. Increasing upper-level winds and drier conditions ahead of the system may begin to limit strengthening thereafter; however, models show disagreements on how these factors will impact the system. Updates to the forecast can be expected.

Invest 93L Model Intensity Guidance

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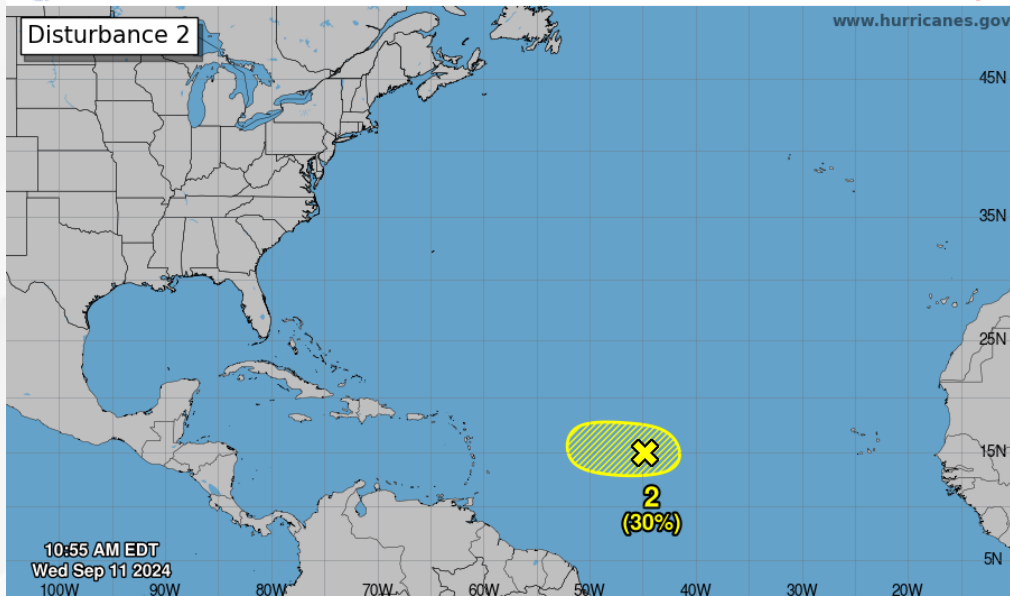
Tropical Weather Outlook

Invest 92L – Central Tropical Atlantic ([LINK](#))

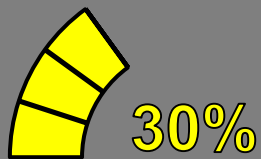


Seven-Day Graphical Tropical Weather Outlook

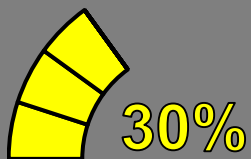
National Hurricane Center Miami, Florida



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



48 Hour Formation



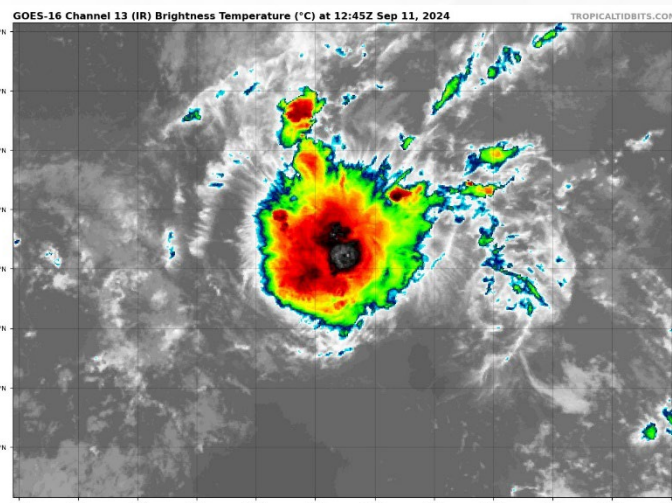
7 Day Formation

An elongated area of low pressure located over the central tropical Atlantic continues to produce disorganized shower and thunderstorm activity. Environmental conditions appear marginally conducive for some slight development during the next day or two while the system moves westward at 5-10 mph over the central tropical Atlantic. The disturbance is expected to reach an area of stronger upper-level winds on Thursday, likely ending its chances for development.

This system poses no threat to Florida, at this time.

* Formation chance through 48 hours...**low...30%.**

* Formation chance through 7 days...**low...30%.**

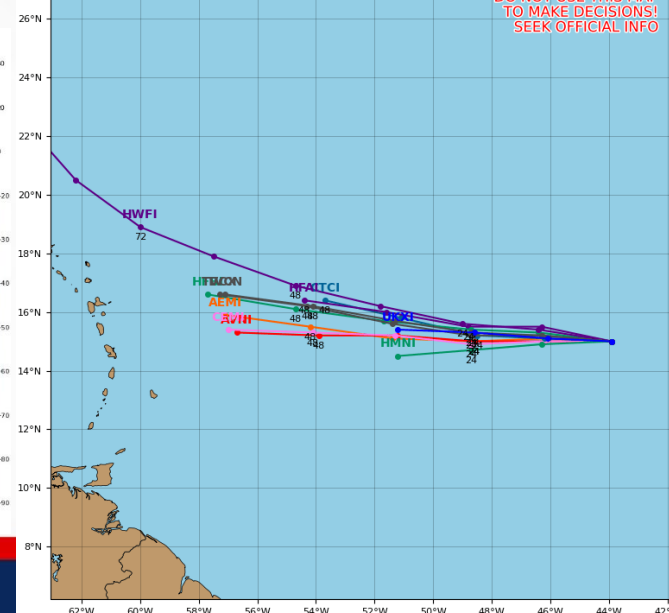


Invest 92L Model Track Guidance

Initialized at 06z Sep 11 2024

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DO NOT USE THIS MAP
TO MAKE DECISIONS!
SEEK OFFICIAL INFO





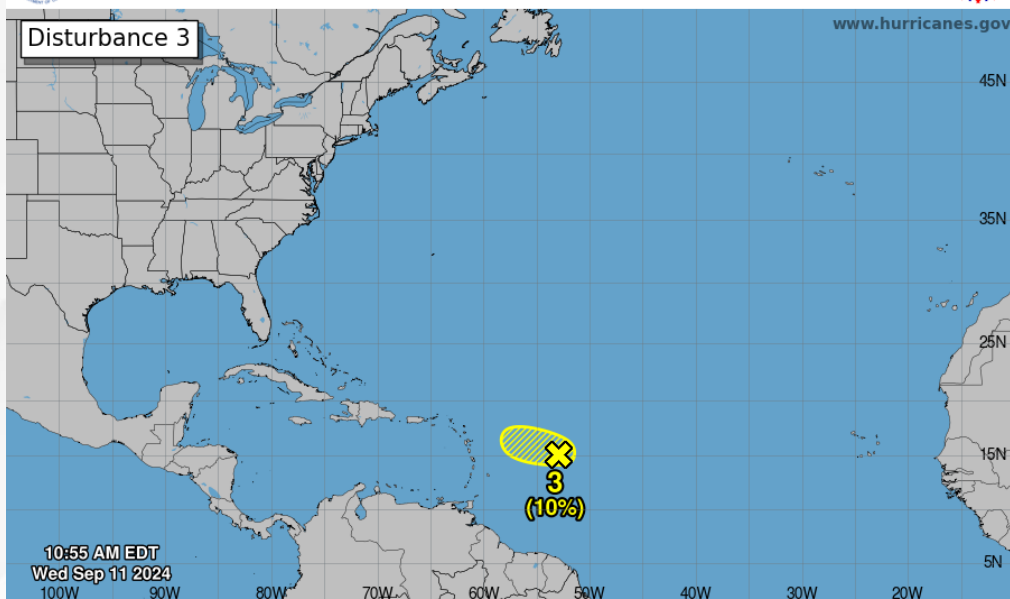
Tropical Weather Outlook

Invest 94L – East of the Leeward Islands ([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

10%

48 Hour Formation

10%

7 Day Formation

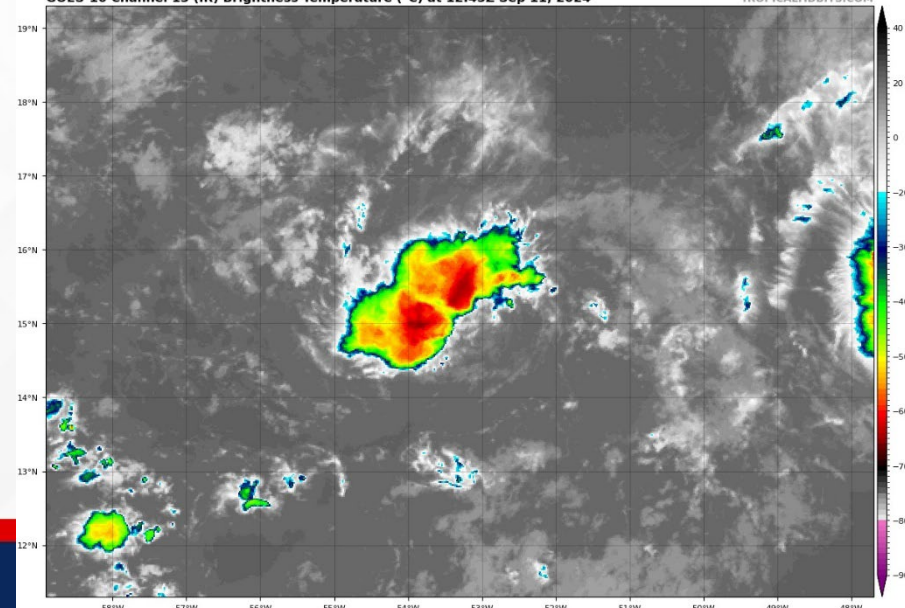
A small but well-defined area of low pressure located several hundred miles to the east of the Leeward Islands is producing an area of disorganized showers and thunderstorms. The proximity of dry air near the system is expected to limit additional development over the next couple of days before environmental conditions become even less conducive by this weekend as it moves slowly west-northwestward.

This system poses no threat to Florida, at this time.

* Formation chance through 48 hours...**low...10%**

* Formation chance through 7 days...**low...10%**

GOES-16 Channel 13 (IR) Brightness Temperature (°C) at 12:45Z Sep 11, 2024

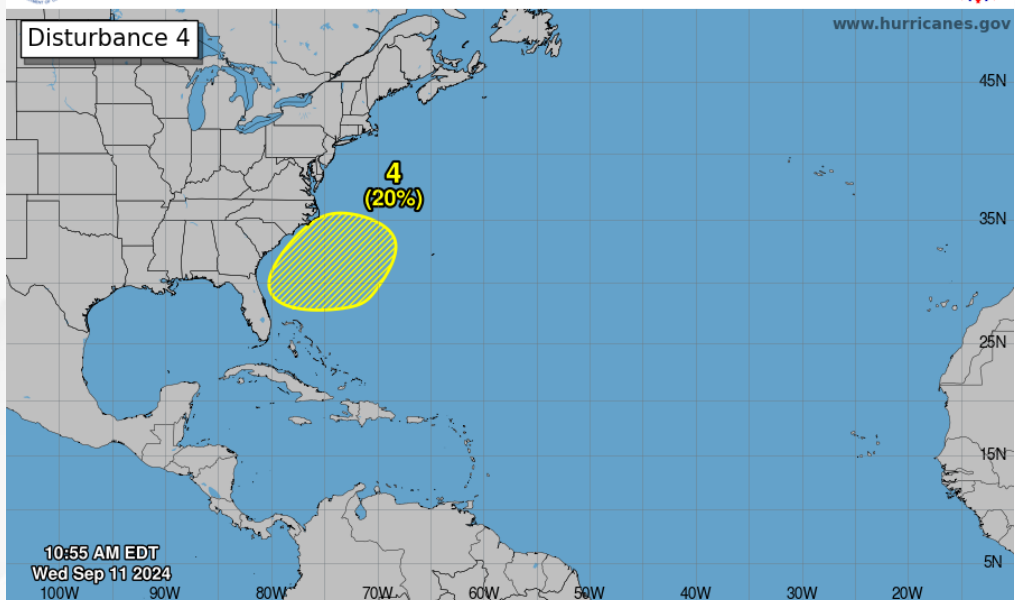




Tropical Weather Outlook

Disturbance 4 – Offshore the Southeastern U.S. Over the Western Atlantic ([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

Near 0%

48 Hour Formation

20%

7 Day Formation

In a few days, a non-tropical area of low pressure could form along a residual frontal boundary a few hundred miles off the southeastern U.S. coastline. Thereafter, some subtropical or tropical development is possible during the early part of next week as the system meanders over the Gulf Stream or drifts slowly northward.

This system poses no direct threat to Florida over the next 5-7 days at least.

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

* Formation chance through 7 days...low...20%.



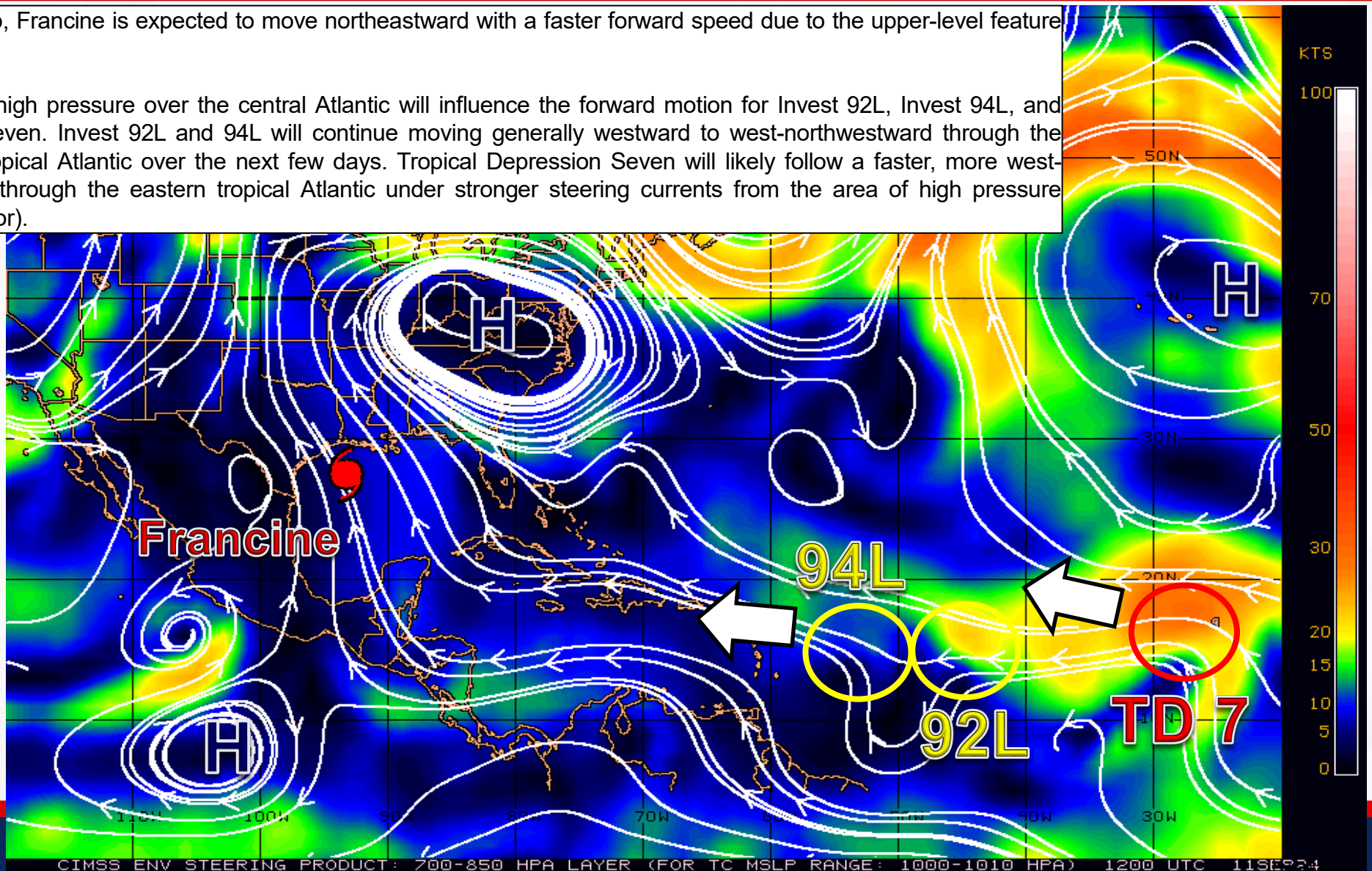
Steering Currents

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.

Over the next day or so, Francine is expected to move northeastward with a faster forward speed due to the upper-level feature over Texas.

The dominant area of high pressure over the central Atlantic will influence the forward motion for Invest 92L, Invest 94L, and Tropical Depression Seven. Invest 92L and 94L will continue moving generally westward to west-northwestward through the central and western tropical Atlantic over the next few days. Tropical Depression Seven will likely follow a faster, more west-northwestward motion through the eastern tropical Atlantic under stronger steering currents from the area of high pressure (denoted by orange color).



Fast Moving Storm

Fast Moving Storm

Typical Moving Storm

Slow Moving Storm



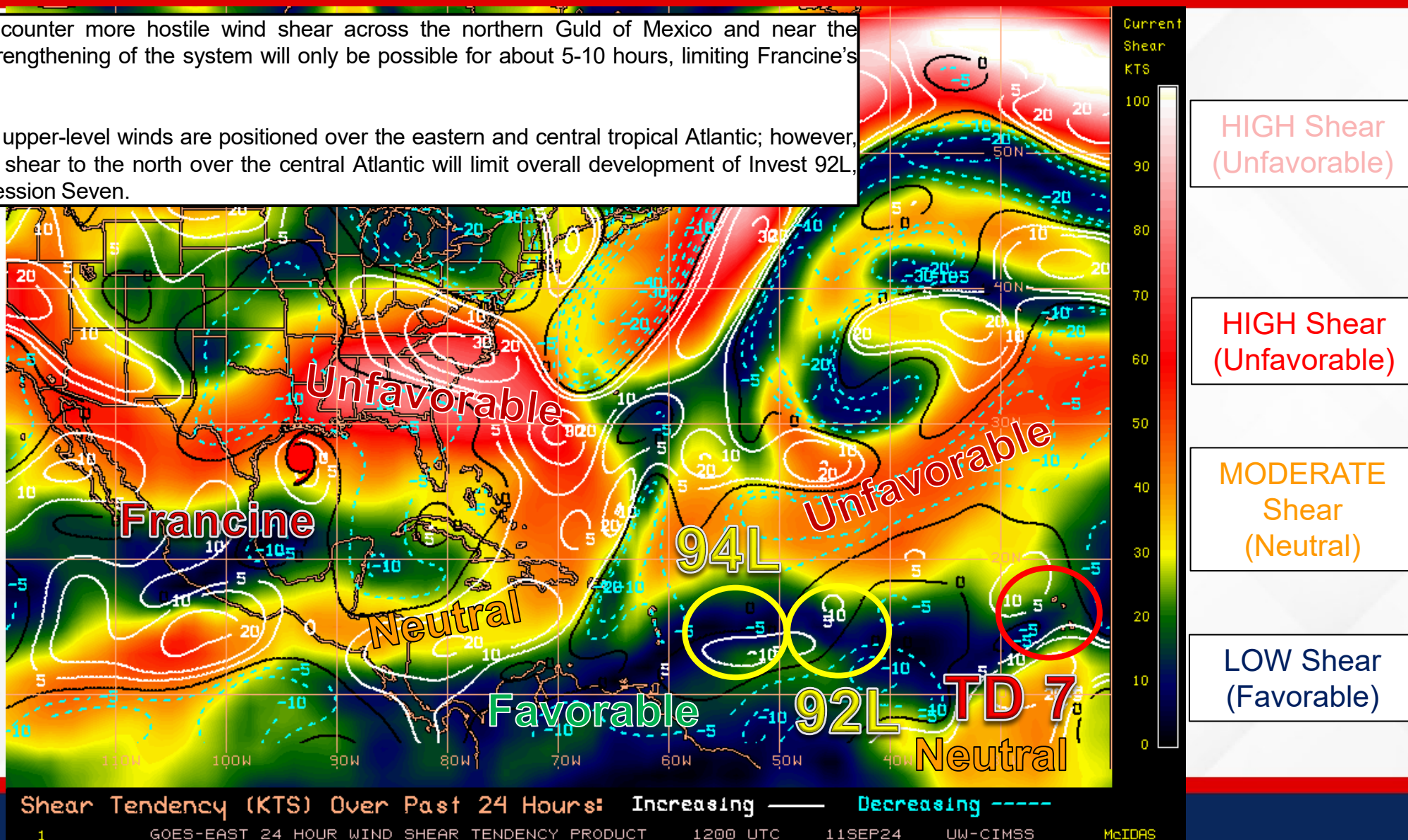
Wind Shear

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 Francine beginning to encounter more hostile wind shear across the northern Gulf of Mexico and near the Louisiana coastline, further strengthening of the system will only be possible for about 5-10 hours, limiting Francine's strengthening near landfall.

Generally favorable to neutral upper-level winds are positioned over the eastern and central tropical Atlantic; however, interactions will stronger wind shear to the north over the central Atlantic will limit overall development of Invest 92L, Invest 94L, and Tropical Depression Seven.





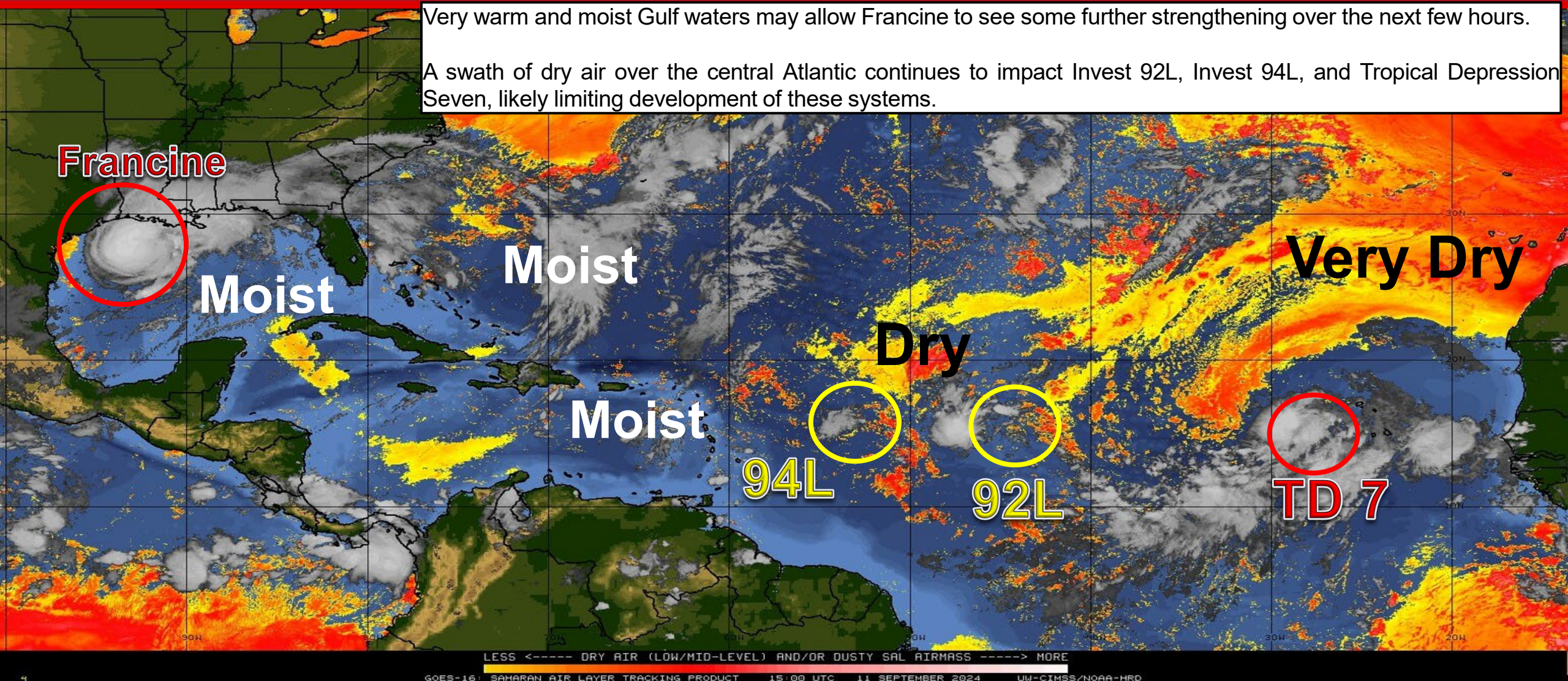
Dry Air & Saharan Dust

Is the environment favorable for the system?

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

Very warm and moist Gulf waters may allow Francine to see some further strengthening over the next few hours.

A swath of dry air over the central Atlantic continues to impact Invest 92L, Invest 94L, and Tropical Depression Seven, likely limiting development of these systems.





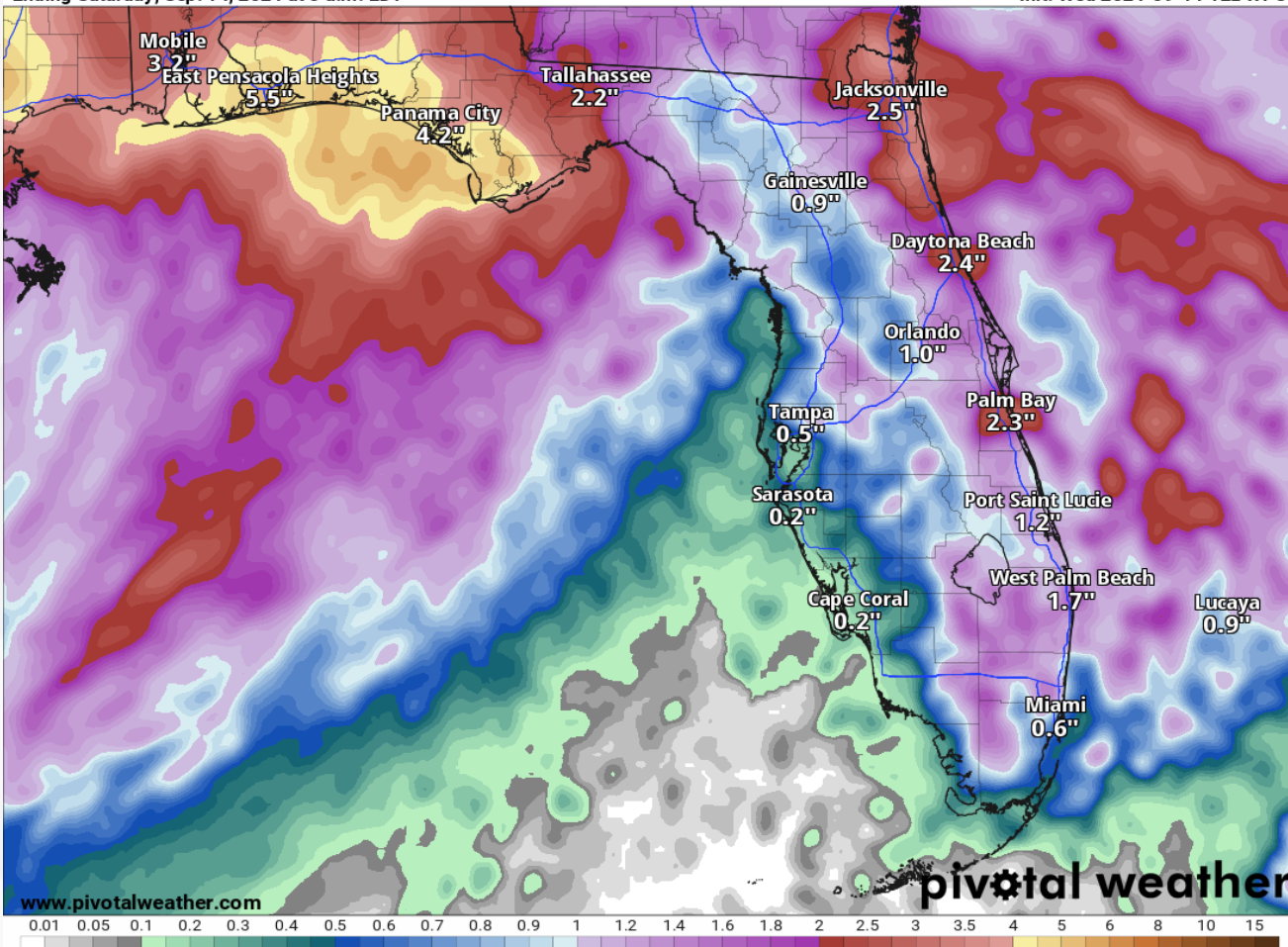
Rainfall Totals – Next 3 Days

From the Weather Prediction Center (WPC)

72-Hour Precipitation (in)

Ending Saturday, Sep. 14, 2024 at 8 a.m. EDT

Init: Wed 2024-09-11 12z WPC



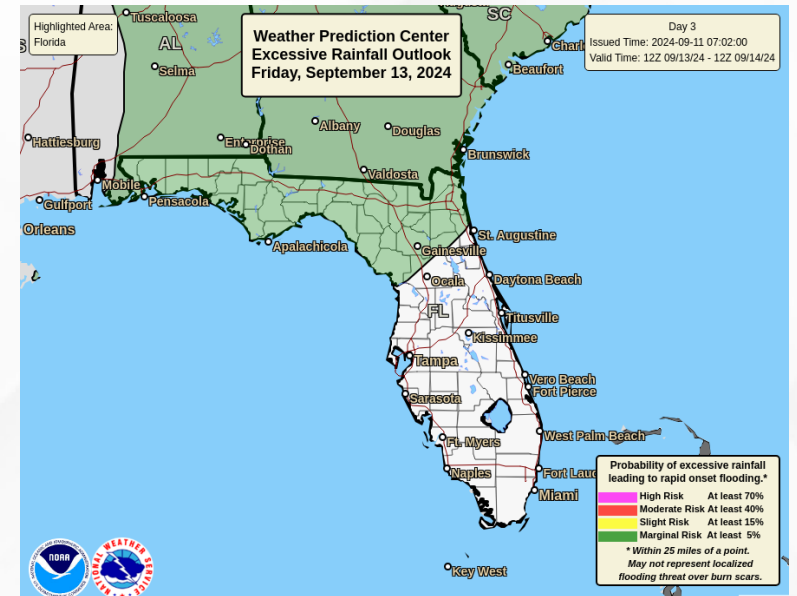
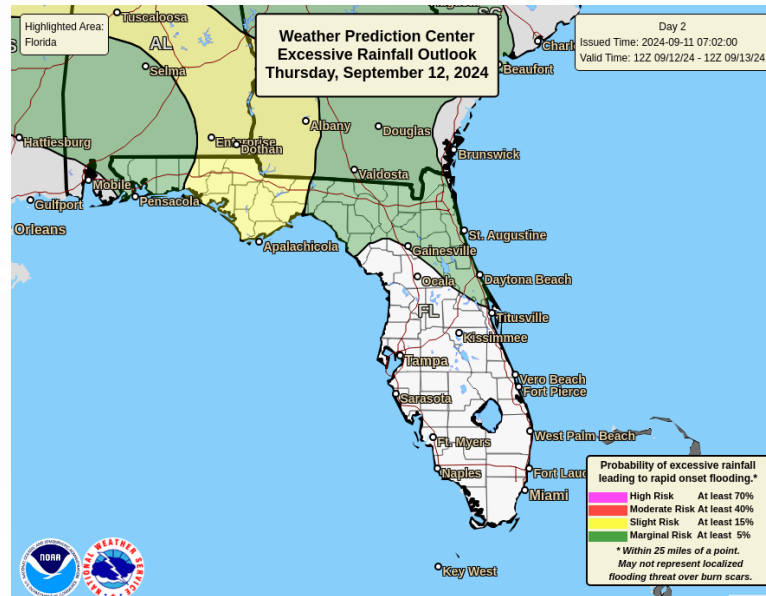
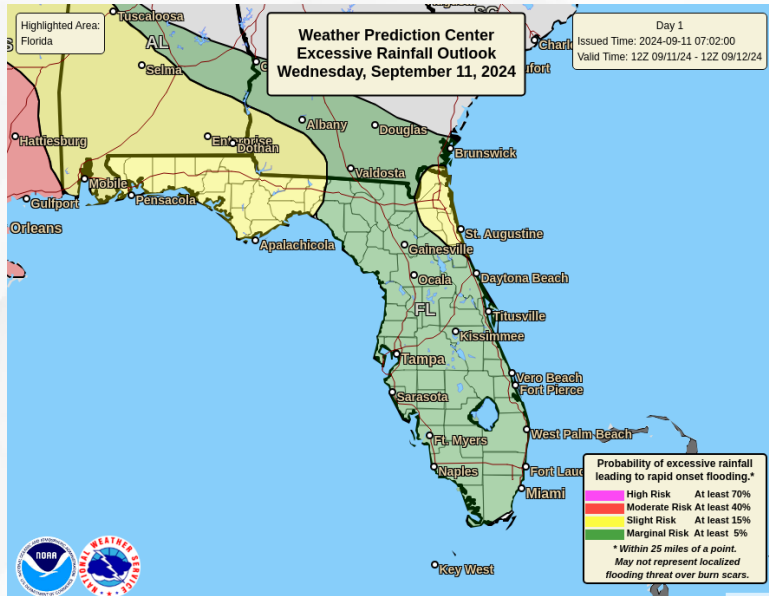
Locally heavy rain remains a concern for much of the Sunshine State over the next couple of days, due to a stalled frontal boundary over the northeastern Gulf of Mexico. The heavy rainfall risk is highly dependent on the track of Francine and the placement of a warm front that is forecast to lift north into the Florida Panhandle this afternoon into tonight. The warm front will be the focal point for the heavier rain.

Forecast rainfall totals of 3-5" are currently highest along the Emerald Coast and just offshore the western Forgotten Coast. Locally higher amounts of 6-8" cannot be ruled out, especially for locations that experience multiple rounds of heavy rain and thunderstorm activity from Francine's outer rainbands. *Trends radar and computer forecast models on today and Thursday will be closely monitored for localized flash flooding threats.*



Flash Flood Risk – Next 3 Days

From the Weather Prediction Center (WPC)



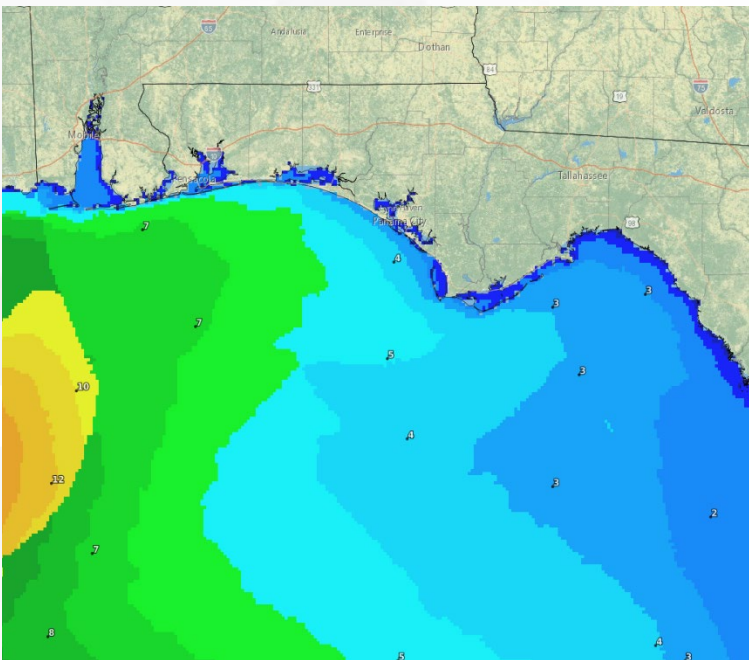
The Weather Prediction Center (WPC) is outlooking a **Slight Risk (level 1 of 4) for Flash Flooding** along Florida Panhandle Northeast Florida today and along central portions of the Florida Panhandle Thursday, with a **Marginal Risk (level 1 of 4)** extending through the Peninsula today and across North Florida Thursday. Rainfall directly tied to Francine is not an easy forecast as the system will likely be transitioning to an extratropical system. The increase in forward speed, the potential of drier air wrapping into its inner core near/after landfall, and the dry antecedent conditions preceding Francine's landfall all impact the amount of rainfall this system will be capable of producing. Along the Florida Panhandle, the heavy rainfall risk is not only highly dependent on the eventual track of Francine, but also the placement of a warm front forecast to lift north into the Florida Panhandle this afternoon and tonight.

Regardless, on the eastern side of any tropical system can see instances of isolated to scattered **flash flooding**, especially along the urban I-10 corridor and Panhandle coastline. We continue to monitor trends within the computer model guidance regarding an outer rain band extending from the center of Francine; any outer rainbands could bring repeated rounds of locally heavy rainfall to the same locations and lead to a quicker onset to **flooding and ponding water**. **Flood Watches** are in effect along portions of the Florida Panhandle and Northeast Coast.

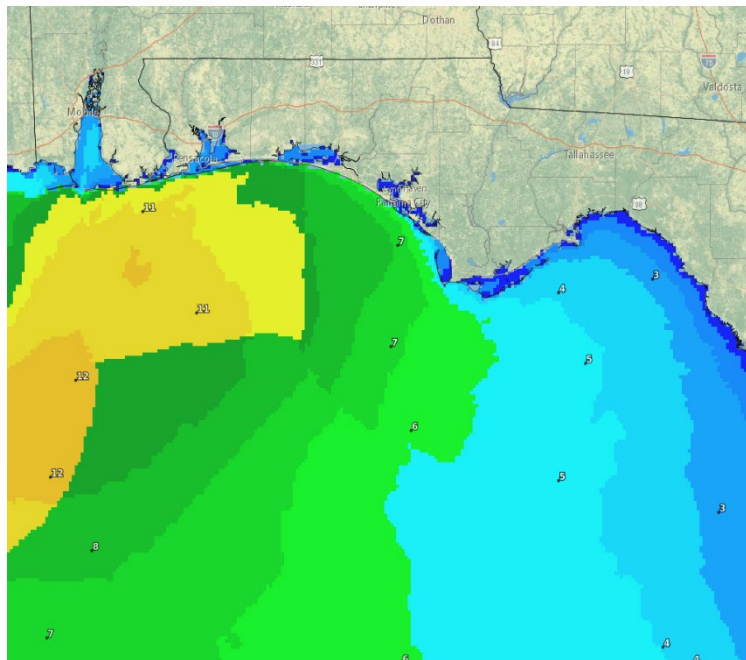


Forecast Wave Heights

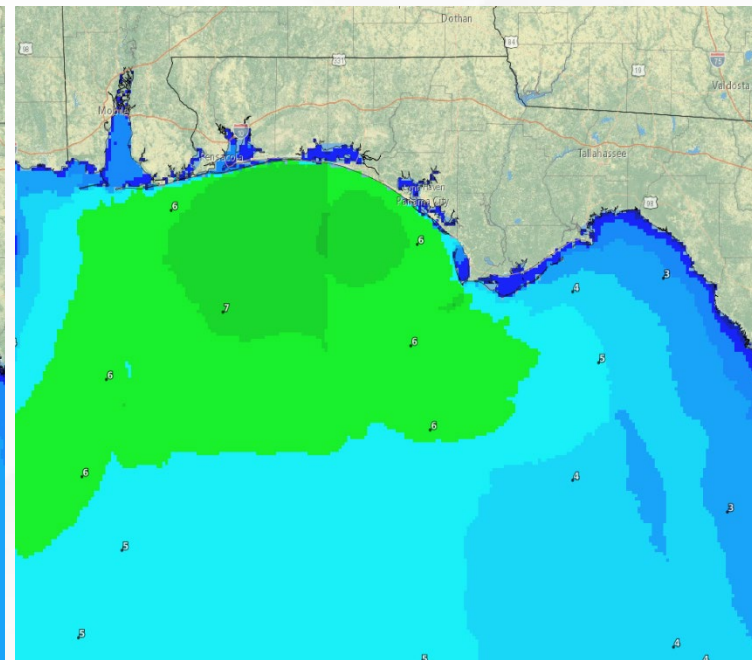
From the National Weather Service (NWS)



This Evening



Thursday Morning



Thursday Evening

Swells associated with Francine will arrive to the northern Gulf Coast today and will increase the threat for dangerous beach and marine conditions along the Florida Panhandle coastline. **High Surf Warnings** are in effect along the western Emerald Coast as **wave heights** are forecast to reach **4-7'** this evening and **7-10'** by Thursday morning. **Isolated higher breakers up to 11'** cannot be ruled along far western portions of the Emerald Coast Thursday morning. **High Surf Advisories** extend along eastern portions of the Emerald Coast to Apalachicola as swells will gradually overspread eastward along the coast tonight into Thursday, creating **large breaking waves of 5-8'**. The combination of onshore winds and elevated surf may lead to instances of **minor coastal flooding** and **coastal erosion** along the Florida Panhandle, especially at or near times of high tide. Coastal Flood Advisories are in effect along the entire Emerald Coast. Isolated pockets of **moderate coastal flooding** cannot be ruled out along the far western Florida Panhandle, for locations closer to Mobile Bay.



Rip Current Risk

From the National Weather Service (NWS)

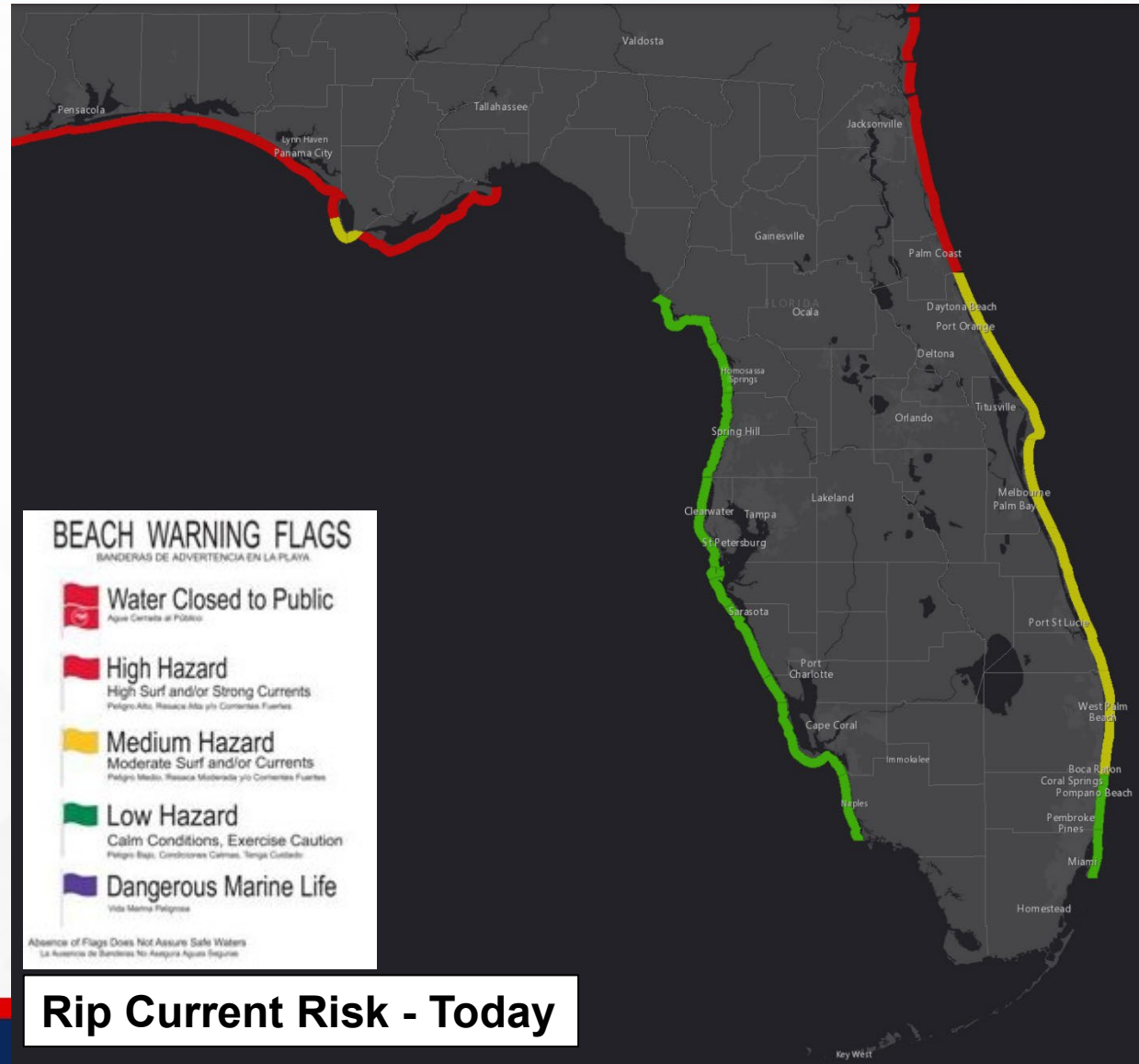
Regardless of Francine's evolution, hazardous coastal and marine conditions can be expected along the Florida Panhandle.

Widespread **high rip current risk** conditions can be expected along the Florida Panhandle today through Saturday as Francine moves onshore the northern Gulf Coast. Breezy southerly to southwesterly flow will likely maintain dangerous beach conditions into the weekend.

Forecast Rip Current Risk & Marine Hazards

Florida Panhandle

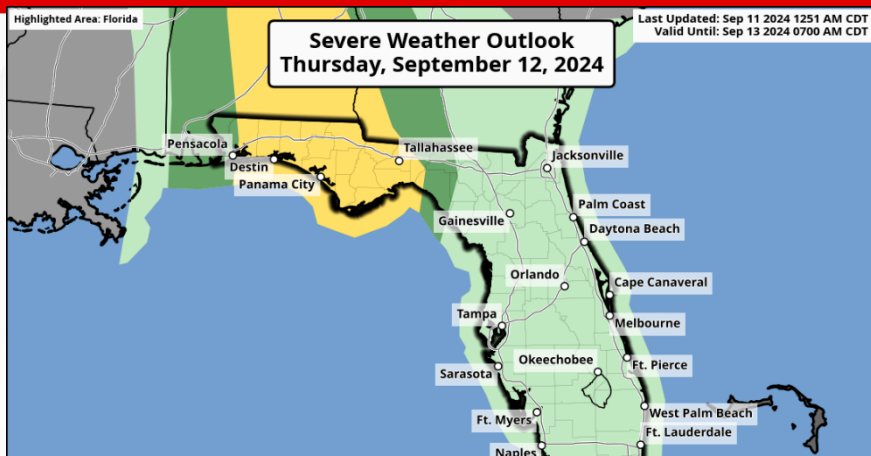
	Today	Thu	Fri	Sat	Sun
Rip Current					
Marine Hazard					





Severe Weather Outlook – Tonight & Thursday

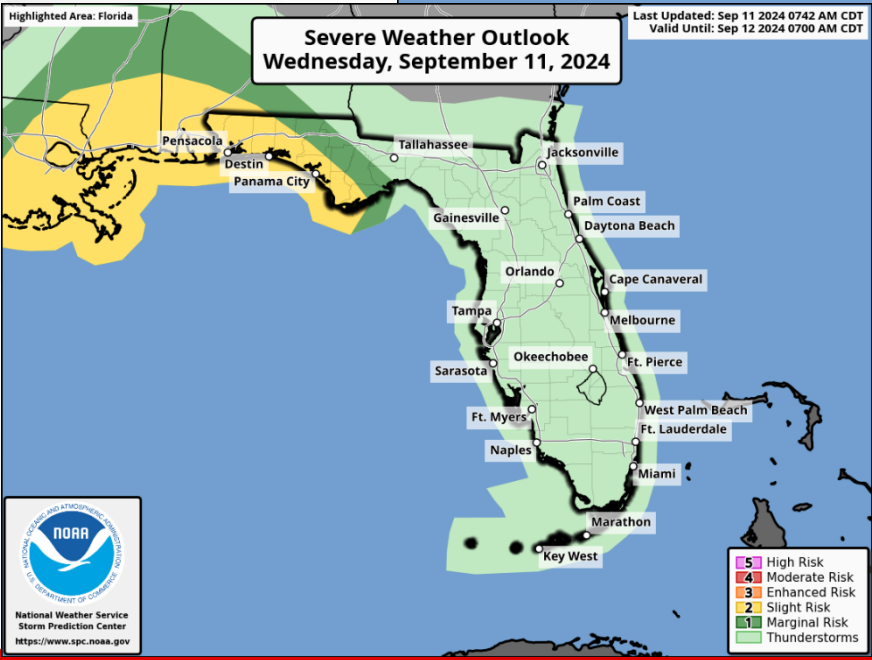
From the Storm Prediction Center (SPC)



The environment gradually becomes more favorable for tropical tornadoes late this afternoon into tonight across the Florida Panhandle as a warm front is forecast to lift north from the Gulf of Mexico while Francine makes landfall in Louisiana. The Storm Prediction Center (SPC) is outlooking a **Slight Risk (level 2 of 5) for Severe Weather** across portions of the Western Panhandle and eastern Emerald Coast, with a **Marginal Risk (level 1 of 5)** extending across the rest of the Panhandle into the western Big Bend.

With Francine moving northward through the Lower to Middle Mississippi Valley on Thursday, conditions remain supportive for isolated tropical tornadoes. There is a **Slight Risk for Severe Weather** much of the Florida Panhandle with a **Marginal Risk** extending across the eastern Big Bend, east of the Capital City, and along the far western Panhandle.

There remains some uncertainty regarding the extent and location of the tornado threat at this time and changes to the forecast can be expected over the next 12-24 hours. *Tornado Watches will be issued tonight and Thursday as conditions warrant.*





Summary

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Hurricane Francine:

- As of 11:00 AM EDT, Francine is located about 150 miles southwest of Morgan City, Louisiana and is moving northeastward at 13 mph.
- A faster northeastward motion is expected today, and Francine is anticipated to make landfall in Louisiana this afternoon or evening.
- After landfall, the center is expected to move northward across Mississippi on Thursday and Thursday night.
- Reports from Air Force Reserve and Hurricane Hunter aircraft indicate maximum sustained winds are near 90 mph (Category 1); little change in strength is expected before landfall.
- Francine is expected to weaken quickly after it moves inland.
- *While Francine is forecast to make landfall in Louisiana, the system will bring dangerous beach and marine conditions such as elevated ocean swells and dangerous rip currents, isolated to scattered instances of flash flooding, and tropical tornadoes to the Florida Panhandle later today into Thursday.*

Tropical Depression Seven:

- As of 11:00 AM EDT, Tropical Depression Seven has formed in the eastern Atlantic and is located about 310 miles west of the Cabo Verde Islands, moving west-northwestward at 18 mph.
- A west to west-northwest motion at a slower forward speed is anticipated over the next few days.
- Maximum sustained winds are near 35 mph, and some strengthening is forecast during the next 48 hours.
- The depression could become a tropical storm tonight or on Thursday.
- *This system poses no direct threat to Florida, at this time.*

Central Tropical Atlantic (Invest 92L):

- An elongated area of low pressure located over the central tropical Atlantic continues to produce disorganized shower and thunderstorm activity.
- Environmental conditions appear marginally conducive for some slight development during the next day or two while the system moves westward at 5-10 mph over the central tropical Atlantic.
- The disturbance is expected to reach an area of stronger upper-level winds on Thursday, likely ending its chances for development.
- The National Hurricane Center (NHC) is outlooking a **low (30%) chance of development** over the next 48 hours and 7 days.
- *This system poses no threat to Florida, at this time.*

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



Summary

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East of the Leeward Islands (Invest 94L):

- A small but well-defined area of low pressure located several hundred miles to the east of the Leeward Islands is producing an area of disorganized showers and thunderstorms.
- The proximity of dry air near the system is expected to limit additional development over the next couple of days before environmental conditions become even less conducive by this weekend as it moves slowly west-northwestward.
- The National Hurricane Center (NHC) is outlooking a **low (10%) chance of development** over the next 48 hours and 7 days.
- *This system poses no threat to Florida, at this time.*

Offshore the Southeastern U.S. Over the Western Atlantic:

- In a few days, a non-tropical area of low pressure could form along a residual frontal boundary a few hundred miles off the southeastern U.S. coastline.
- Thereafter, some subtropical or tropical development is possible during the early part of next week as the system meanders over the Gulf Stream or drifts slowly northward.
- The National Hurricane Center (NHC) is outlooking a **low (near 0%) chance of development** over the next 48 hours and a **low (20%) chance of development** over the next 7 days.
- *This system poses no direct threat to Florida over the next 5-7 days at least.*

Florida Outlook:

- Locally heavy rain remains a concern for much of the Sunshine State over the next couple of days, due to a stalled frontal boundary over the northeastern Gulf of Mexico.
 - The heavy rainfall risk is highly dependent on the track of Francine and the placement of a warm front that is forecast to lift north into the Florida Panhandle this afternoon into tonight. The warm front will be the focal point for the heavier rain.
 - There is a **Slight Risk (level 1 of 4) for Flash Flooding** along the Florida Panhandle and Northeast Florida today and along central portions of the Florida Panhandle Thursday, with a **Marginal Risk (level 1 of 4)** extending through the Peninsula today and across North Florida Thursday
 - Regardless of the exact evolution of Francine at landfall, the eastern side of any tropical system can see instances of isolated to scattered flash flooding especially within any outer rainbands that bring repeated rounds of locally heavy rainfall to the same area.
- The environment gradually becomes more favorable for tropical tornadoes late this afternoon into tonight across the Florida Panhandle as a warm front is forecast to lift north from the Gulf of Mexico while Francine makes landfall in Louisiana.

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



Summary

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Florida Outlook Continued:

- The Storm Prediction Center (SPC) is outlooking a **Slight Risk (level 2 of 5) for Severe Weather** across portions of the western Panhandle and eastern Emerald Coast, with a **Marginal Risk (level 1 of 5)** extending across the northeastern Panhandle and into the western Big Bend.
- With Francine moving northward through the Lower to Middle Mississippi Valley on Thursday, conditions remain supportive for isolated tropical tornadoes. There is a **Slight Risk for Severe Weather** much of the Florida Panhandle with a **Marginal Risk** extending across the eastern Big Bend, east of the Capital City, and along the far western Panhandle.
- There remains some uncertainty regarding the extent and location of the tornado threat at this time and changes to the forecast can be expected over the next 12-24 hours. *Tornado Watches will be issued tonight and Thursday as conditions warrant.*
- Swells associated with Francine will begin to arrive along the northern Gulf Coast today and into Thursday, yielding dangerous beach and marine conditions along the Florida Panhandle coastline.
 - **High Surf Warnings** are in effect along the western Emerald Coast as wave heights are forecast to reach 4-7' this evening and **7-10'** by Thursday morning; **Isolated higher breakers up to 11'** cannot be ruled along far western portions of the Emerald Coast Thursday morning.
 - **High Surf Advisories** extend along eastern portions of the Emerald Coast to Apalachicola as swells will gradually overspread eastward along the coast tonight into Thursday, creating large breaking waves of **5-8'**.
 - The combination of onshore winds and elevated surf may lead to instances of **minor coastal flooding** and **coastal erosion** along the Florida Panhandle, especially at or near times of high tide; **Coastal Flood Advisories** are in effect along the entire Emerald Coast.
 - Isolated pockets of **moderate coastal flooding** cannot be ruled out along the far western Florida Panhandle, for locations closer to Mobile Bay.
 - A moderate to high risk of rip currents along all Florida Panhandle beaches today will give way to widespread **high rip current risk conditions** Wednesday through Saturday as Francine moves onshore the northern Gulf Coast. Breezy southerly to southwesterly flow will likely maintain dangerous beach conditions into the weekend.
- Hot and humid conditions to continue along the Peninsula this afternoon; **Heat Advisories** are in effect for South Florida and the Keys this afternoon for **heat indices of 105 to 110-degrees**.
- *The next names on the list are Gordon (GOR-duhn) and Helene (heh-LEEN).*

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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